

MK-520W3 User Manual

Bluetooth Barcode Scanner



Table of Contents

1. IMPORTANT NOTICE	1
1-1. FCC COMPLIANCE	2
1-2. CONFORMITY WITH TECHNICAL REGULATIONS FOR SPECIFIED RADIO EQUIPMENT IN JAPAN	2
1-3. NATIONAL COMMUNICATION COMMISSION	2
1-4. ROHS COMPLIANCE	3
1-5. SAFETY PRECAUTION	3
2. INTRODUCTION	5
2-1. PRODUCT FEATURES	6
2-2. PRODUCT SPECIFICATION	6
2-3. PACKAGE INFORMATION	7
2-4. SUPPORTED SYMBOLOGY	8
2-5. PRODUCT OVERVIEW	9
2-6. MANUAL LAYOUT	10
2-7. PAGE LAYOUT	11
3. KNOWING YOUR SCANNER	14
3-1. CONFIGURATION FLOWCHART	15
3-2. LED & BEEPER INDICATIONS	16
3-3. LEVERAGE YOUR SCANNER WITH BUTTON TRIGGERS	17
3-3.1. SCAN ACTION	18
3-3.2. MODE SWITCH	18
3-3.3. TURN ON/OFF CHARGE	18
3-3.4. DELETION OF ONE SINGLE DATA	18
3-3.5. DELETION OF ALL TRANSMITTED DATA	19
3-3.6. TRANSMISSION OF SAVED BARCODE	19
3-3.7. PAIRING WITH BLUETOOTH DEVICES	19
4. QUICK START	20
4-1. CONFIGURATION FLOWCHART	21
4-2. SET UP YOUR SCANNER	21
4-2-1. OPERATION MODE	21

Table of Contents

4-2-2.	OUTPUT INTERFACE IN CABLE MODE	22
4-3.	BASIC SCANNER OPERATIONS	22
4-3-1.	MODE SWITCH	22
4-3-2.	TRANSMIT ALL BARCODE DATA	23
4-3-3.	CLEAR ALL SAVED BARCODE DATA	23
4-3-4.	CLEAR ONE DINGLEBARCODE DATA	23
4-3-5.	AUTO-DELETE ALL TRANSMITTED DATA	24
4-3-6.	ATTEMPT FIRMWARE UPDATE	24
4-4.	HOW TO MAKE YOUR SCANNER WORK WITH BLUETOOTH DONGLE A-302	24
4-4-1.	PAIR WITH BLUETOOTH DONGLE A-302	24
4-4-2.	DISABLE PAIRING FUNCTION	25
4-4-3.	TYPE OF BLUETOOTH CONNECTION	25
5.	ESTABLISH A BLUETOOTH CONNECTION	26
5-1.	BLUETOOTH CONNECTION REFERENCE CHART	27
5-2.	SET UP YOUR OWN BLUETOOTH CONNECTION	28
5-2-1.	SLAVE CONNECTION MODE	28
5-2-2.	MASTER CONNECTION MODE	36
5-2-3.	HID CONNECTION MODE	44
5-2-4.	IOS CONNECTION MODE	51
5-2-5.	BLUETOOTH DONGLE A303 CONNECTION MODE	57
5-2-6.	BLUETOOTH DONGLE A302 CONNECTION MODE	65
6.	GENERAL CONFIGURATION	72
6-1.	HOST INTERFACE	73
6-1-1.	RESTORE THE SETTING	73
6-1-2.	RESTORE THE SYMBOLOGY SETTING	73
6-1-3.	RETRIEVE FIRMWARE INFORMATION	73
6-1-4.	ABORT THE CONFIGURATION	73
6-1-5.	UPDATE FIRMWARE	73
6-1-6.	ENABLE/DISABLE AUTOMATIC BATTERY CHARGER	74
6-1-7.	BLUETOOTH PAIRING	74
6-2.	SYSTEM CONTROL	74
6-2-1.	AVAILABLE OPERATION MODES	74
6-2-2.	SET DATE FORMAT	75
6-2-3.	SET TIME FORMAT	76

Table of Contents

6-2-4.	SET CHARGE RATE	76
6-2-5.	SET THE WORKFLOW OF OPERATION MODES SWITCH	76
6-2-6.	ENABLE/DISABLE BUZZER	77
6-2-7.	SET THE WARNING BUZZER VOLUME	77
6-2-8.	ENABLE/DISABLE VIBRATOR	77
6-2-9.	ENABLE/DISABLE VIBRATOR FOR CONFIGURATION MODE	78
6-2-10.	ENABLE/DISABLE HEADER	78
6-2-11.	ENABLE/DISABLE SERIAL NUMBER INFO IN THE HEADER	78
6-2-12.	ENABLE/DISABLE DATE AND TIME INFO IN THE HEADER	79
6-2-13.	ENABLE/DISABLE RECORD COUNT INFO IN THE HEADER	79
6-2-14.	ENABLE/DISABLE FOOTER	79
6-2-15.	ENABLE/DISABLE SERIAL NUMBER INFO IN THE FOOTER	80
6-2-16.	ENABLE/DISABLE DATE AND TIME INFO IN THE FOOTER	80
6-2-17.	ENABLE/DISABLE RECORD COUNT INFO IN THE FOOTER	80
6-2-18.	SET DATE & TIME	80
6-2-19.	SET LIGHT BRIGHTNESS	81
6-2-20.	SET DATE SEPARATOR	82
6-2-21.	SET TIME SEPARATOR	83
6-2-22.	SET TIME-OUT PERIOD FOR CONFIGURATION MODE	84
6-2-23.	SET TIME-OUT PERIOD FOR DECODING ADD-ON CODES	84
6-2-24.	SET COUNT OF BARCODE VERIFICATION	85
6-2-25.	SET SCAN INTERVAL IN CONTINUOUS SCAN MODE	86
6-2-26.	SET HEADER INFORMATION	86
6-2-27.	SET FOOTER INFORMATION	87
6-3.	SCANNER COMMANDS	88
6-3-1.	SET <DLE> ESCAPE CHARACTER	88
6-3-2.	SET <CMD> ESCAPE CHARACTER	89
6-3-3.	SET <BAR> ESCAPE CHARACTER	90
6-3-4.	SET <STX> ESCAPE CHARACTER	91
6-3-5.	SET <ETX> ESCAPE CHARACTER	92
7.	SETTING UP YOUR OPERATION MODES	93
7-1.	OUTPUT STRING STRUCTURE	94
7-2.	CABLE MODE	95
7-2-1.	OUTPUT INTERFACE OPTIONS	95
7-2-1-1.	Set Data Transfer Rate for SPP	95
7-2-1-2.	Set Length of Stop Bit for SPP	95

Table of Contents

7-2-1-3.	Set Parity Check for SPP _____	96
7-2-1-4.	Set Communication Protocol for SPP _____	96
7-2-1-5.	Enable/Disable <STX> and <ETX> Escape Characters for SPP _____	97
7-2-1-6.	Enable/Disable <BAR> and <CMD> Escape Characters for SPP _____	97
7-2-1-7.	Enable/Disable Command Mode for SPP _____	97
7-2-1-8.	Set Baud Rate for SPP _____	98
7-2-1-9.	Set Transfer Count for Time Delay for SPP _____	99
7-2-1-10.	Set Time Delay for a Digit for SPP _____	100
7-2-1-11.	Set Time Delay for a Record for SPP _____	101
7-2-1-12.	Set Time Delay for a Specified Digit for SPP _____	102
7-2-1-13.	Set Timeout for SPP _____	103
7-2-1-14.	Set Retransmission Count for SPP _____	104
7-2-1-15.	Set ACK Timeout for SPP _____	105
7-2-1-16.	Set Caps Lock setting for HID _____	105
7-2-1-17.	Enable/Disable Num Lock for HID _____	106
7-2-1-18.	Enable/Disable Caps Lock Emulation _____	107
7-2-1-19.	Set IMEs for HID _____	107
7-2-1-20.	Set Transfer Count for Time Delay for HID _____	108
7-2-1-21.	Set Time Delay for a Digit for HID _____	109
7-2-1-22.	Set Time Delay for a Record for HID _____	110
7-2-1-23.	Set Time Delay for a Specified Digit for SPP _____	111
7-2-1-24.	Set Timeout for SPP _____	112
7-2-2.	<i>SCANNER OPTIONS</i> _____	113
7-2-2-1.	Set Scan Mode _____	113
7-2-2-2.	Set Output Interface _____	113
7-2-2-3.	Set Small Trigger Functionality _____	114
7-2-2-4.	Set Composite Triggers Functionality _____	114
7-2-2-5.	Set Good Read Buzzer Volume _____	115
7-2-2-6.	Set Warning Buzzer Volume _____	115
7-2-2-7.	Set Normal Event Buzzer Volume _____	116
7-2-2-8.	Enable/Disable Battery Charge _____	116
7-2-2-9.	Enable/Disable Good Read Vibrator _____	116
7-2-2-10.	Enable/Disable Warning Vibrator _____	117
7-2-2-11.	Enable/Disable Normal Event Vibrator _____	117
7-2-2-12.	Enable/Disable Good Read Buzzer _____	117
7-2-2-13.	Enable/Disable Warning Buzzer _____	118
7-2-2-14.	Enable/Disable Normal Event Buzzer _____	118
7-2-2-15.	Set Good Read Buzzer Frequency _____	118

Table of Contents

7-2-2-16.	Set Good Read Buzzer Duration _____	119
7-2-2-17.	Set Good Read Vibrator Duration _____	120
7-2-2-18.	Set Activation Duration _____	121
7-2-2-19.	Set Idle Duration _____	122
7-2-2-20.	Set Standby Duration _____	123
7-2-3.	<i>OUTPUT EDITING OPTIONS</i> _____	124
7-2-3-1.	Enable/Disable Preamble Code _____	124
7-2-3-2.	Enable/Disable Postamble Code _____	124
7-2-3-3.	Enable/Disable Prefix Code _____	125
7-2-3-4.	Enable/Disable Suffix Code _____	125
7-2-3-5.	Enable/Disable Code ID _____	125
7-2-3-6.	Set Position of Code ID _____	126
7-2-3-7.	Enable/Disable Barcode Length Info _____	126
7-2-3-8.	Enable/Disable Symbolology Name _____	126
7-2-3-9.	Enable/Disable Control Code Info _____	127
7-2-3-10.	Enable/Disable Delimiter _____	127
7-2-3-11.	Set Timestamps Positioning _____	127
7-2-3-12.	Enable/Disable Date Information _____	128
7-2-3-13.	Enable/Disable Time Information _____	128
7-2-3-14.	Enable/Disable Barcode Verification _____	128
7-2-3-15.	Reject Same _____	128
7-2-3-16.	Set Type of Case Conversion _____	129
7-2-3-17.	Set Delimiter Between Time/Date Stamps and Barcode Data _____	129
7-2-3-18.	Set Delimiter Between Time and Date Stamps _____	130
7-2-3-19.	Set Preamble Code _____	131
7-2-3-20.	Set Postamble Code _____	132
7-2-3-21.	Set Prefix Code _____	133
7-2-3-22.	Set Suffix Code _____	134
7-3.	<i>MEMORY MODE</i> _____	135
7-3-1.	<i>SCANNER OPTIONS</i> _____	135
7-3-1-1.	Set Scan Mode _____	135
7-3-1-2.	Set Output Interface _____	136
7-3-1-3.	Set Small Trigger Functionality _____	136
7-3-1-4.	Set Composite Triggers Functionality _____	137
7-3-1-5.	Enable/Disable Battery Charge _____	137
7-3-1-6.	Set Good Read Buzzer Volume _____	137
7-3-1-7.	Set Warning Buzzer Volume _____	138
7-3-1-8.	Set Normal Event Buzzer Volume _____	138

Table of Contents

7-3-1-9.	Enable/Disable Good Read Vibrator	139
7-3-1-10.	Enable/Disable Warning Vibrator	139
7-3-1-11.	Enable/Disable Normal Event Vibrator	139
7-3-1-12.	Enable/Disable Good Read Buzzer	140
7-3-1-13.	Enable/Disable Warning Buzzer	140
7-3-1-14.	Enable/Disable Normal Event Buzzer	140
7-3-1-15.	Set Data Transmission Unit	141
7-3-1-16.	Deletion of Transmitted Data	141
7-3-1-17.	Enable/Disable Header Info	141
7-3-1-18.	Enable/Disable Footer Info	142
7-3-1-19.	Set Good Read Buzzer Frequency	142
7-3-1-20.	Set Good Read Buzzer Duration	142
7-3-1-21.	Set Good Read Vibrator Duration	143
7-3-1-22.	Set Activation Duration	144
7-3-1-23.	Set Idle Duration	145
7-3-1-24.	Set Standby Duration	146
7-3-2.	<i>OUTPUT EDITING OPTIONS</i>	147
7-3-2-1.	Enable/Disable Preamble Code	147
7-3-2-2.	Enable/Disable Postamble Code	147
7-3-2-3.	Enable/Disable Prefix Code	148
7-3-2-4.	Enable/Disable Suffix Code	148
7-3-2-5.	Enable/Disable Code ID	148
7-3-2-6.	Set Position of Code ID	149
7-3-2-7.	Enable/Disable Barcode Length Info	149
7-3-2-8.	Enable/Disable Symbology Name	149
7-3-2-9.	Enable/Disable Control Code Info	150
7-3-2-10.	Enable/Disable Delimiter	150
7-3-2-11.	Set Timestamps Positioning	150
7-3-2-12.	Enable/Disable Date Information	151
7-3-2-13.	Enable/Disable Time Information	151
7-3-2-14.	Reject Same	151
7-3-2-15.	Enable/Disable Barcode Verification	152
7-3-2-16.	Set Type of Case Conversion	152
7-3-2-17.	Set Delimiter Between Date/Time Stamps and Barcode Data	153
7-3-2-18.	Set Delimiter Between Date and Time Stamps	153
7-3-2-19.	Set Preamble Code	154
7-3-2-20.	Set Postamble Code	155
7-3-2-21.	Set Prefix Code	156

Table of Contents

7-3-2-22.	Set Suffix Code _____	156
7-4.	BLUETOOTH MODE _____	158
7-4-1.	OUTPUT INTERFACE OPTIONS _____	158
7-4-1-1.	Set Communication Protocol for SPP _____	158
7-4-1-2.	Enable/Disable <STX> and <ETX> Escape Characters for SPP _____	159
7-4-1-3.	Enable/Disable <BAR> and <CMD> Escape Characters for SPP _____	159
7-4-1-4.	Enable/Disable Command Mode for SPP _____	159
7-4-1-5.	Set Transfer Count for Time Delay for SPP _____	160
7-4-1-6.	Set Time Delay for a Digit for SPP _____	161
7-4-1-7.	Set Time Delay for a Record for SPP _____	162
7-4-1-8.	Set Time Delay for a Specified Digit for SPP _____	163
7-4-1-9.	Set Timeout for SPP _____	164
7-4-1-10.	Set Retransmission Count for SPP _____	165
7-4-1-11.	Set ACK timeout for SPP _____	166
7-4-1-12.	Set Caps Lock setting for HID _____	166
7-4-1-13.	Enable/Disable Num Lock for HID _____	167
7-4-1-14.	Set IMEs for HID _____	168
7-4-1-15.	Set Transfer Count for Time Delay for HID _____	169
7-4-1-16.	Set Time Delay for a Digit for HID _____	169
7-4-1-17.	Set Time Delay for a Record for HID _____	170
7-4-1-18.	Set Time Delay for a Specified Digit for SPP _____	171
7-4-1-19.	Set Timeout for SPP _____	172
7-4-1-20.	Set PIN Code _____	173
7-4-1-21.	Set Bluetooth Address _____	174
7-4-1-22.	Set Machine Name _____	175
7-4-1-23.	Set Bluetooth address for Dongle A302/A303 _____	176
7-4-1-24.	Set Machine Name for Dongle A302/A303 _____	177
7-4-2.	SCANNER OPTIONS _____	178
7-4-2-1.	Set Scan Mode _____	178
7-4-2-2.	Set Output Interface _____	179
7-4-2-3.	Set Small Trigger Functionality _____	179
7-4-2-4.	Set Composite Triggers Functionality _____	180
7-4-2-5.	Enable/Disable Battery Charge _____	180
7-4-2-6.	Set Good Read Buzzer Volume _____	180
7-4-2-7.	Set Warning Buzzer Volume _____	181
7-4-2-8.	Set Normal Event Buzzer Volume _____	181
7-4-2-9.	Enable/Disable Good Read Vibrator _____	182
7-4-2-10.	Enable/Disable Warning Vibrator _____	182

Table of Contents

7-4-2-11.	Enable/Disable Normal Event Vibrator	182
7-4-2-12.	Enable/Disable Good Read Buzzer	183
7-4-2-13.	Enable/Disable Warning Buzzer	183
7-4-2-14.	Enable/Disable Mode Buzzer	183
7-4-2-15.	Set Pairing Timeout	184
7-4-2-16.	Set Good Read Buzzer Frequency	184
7-4-2-17.	Set Good Read Buzzer Duration	185
7-4-2-18.	Set Good Read Vibrator Duration	186
7-4-2-19.	Set Activation Duration	187
7-4-2-20.	Set Idle Duration	187
7-4-2-21.	Set Standby Duration	188
7-4-3.	<i>OUTPUT EDITING OPTIONS</i>	189
7-4-3-1.	Enable/Disable Preamble Code	189
7-4-3-2.	Enable/Disable Postamble Code	189
7-4-3-3.	Enable/Disable Prefix Code	190
7-4-3-4.	Enable/Disable Suffix Code	190
7-4-3-5.	Enable/Disable Code ID	190
7-4-3-6.	Set Position of Code ID	191
7-4-3-7.	Enable/Disable Barcode Length Info	191
7-4-3-8.	Enable/Disable Symbology Name	191
7-4-3-9.	Enable/Disable Control Code Info	192
7-4-3-10.	Enable/Disable Delimiter	192
7-4-3-11.	Set Timestamps Positioning	192
7-4-3-12.	Enable/Disable Date Information	193
7-4-3-13.	Enable/Disable Time Information	193
7-4-3-14.	Reject Same	193
7-4-3-15.	Enable/Disable Barcode Verification	193
7-4-3-16.	Set Type of Case Conversion	194
7-4-3-17.	Set Delimiter Between Date/Time Stamps and Barcode Data	194
7-4-3-18.	Set Delimiter Between Date and Time Stamps	195
7-4-3-19.	Set Preamble Code	196
7-4-3-20.	Set Postamble Code	196
7-4-3-21.	Set Prefix Code	197
7-4-3-22.	Set Suffix Code	198
8.	SYMBOLGY CONFIGURATION	199
8-1.	DEFAULT SETTING	200

Table of Contents

8-2. UPC-A	201
8-2-1. ENABLE/DISABLE UPC-A	201
8-2-2. ENABLE/DISABLE ADD-ON CODE	201
8-2-3. SET TYPE OF ADD-ON CODE	201
8-2-4. TRANSMIT CHECK DIGIT	202
8-2-5. TRUNCATE LEADING ZEROS	202
8-2-6. REMOVE LEADING CHARACTERS	203
8-2-7. REMOVING TRAILING CHARACTERS	203
8-2-8. SET POSITION FOR INSERTING CUSTOM INFO	204
8-2-9. SET MESSAGE CONTENT TO INSERT	205
8-2-10. SET CODE ID FOR UPC-A	205
8-3. UPC-E	207
8-3-1. ENABLE/DISABLE UPC-E	207
8-3-2. ENABLE/DISABLE ADD-ON CODE	207
8-3-3. SET TYPE OF ADD-ON CODE	207
8-3-4. CONVERT UPC-E TO UPC-A	208
8-3-5. TRANSMIT CHECK DIGIT	208
8-3-6. TRUNCATE LEADING ZEROS	209
8-3-7. REMOVE LEADING CHARACTERS	209
8-3-8. REMOVE TRAILING CHARACTERS	210
8-3-9. SET POSITION FOR INSERTING CUSTOM INFO	210
8-3-10. SET MESSAGE CONTENT TO INSERT	211
8-3-11. SET CODE ID FOR UPC-E	212
8-3-12. SET SUB CODE ID FOR UPC-E	213
8-4. EAN-13	214
8-4-1. ENABLE/DISABLE EAN-13	214
8-4-2. ENABLE/DISABLE ADD-ON CODE	214
8-4-3. SET TYPE OF ADD-ON CODE	214
8-4-4. CONVERT EAN-13 TO ISBN/ISSN	215
8-4-5. TRANSMIT CHECK DIGIT	215
8-4-6. TRUNCATE LEADING ZEROS	215
8-4-7. REMOVE LEADING CHARACTERS	216
8-4-8. REMOVE TRAILING CHARACTERS	217
8-4-9. SET POSITION FOR INSERTING CUSTOM INFO	217
8-4-10. SET MESSAGE CONTENT TO INSERT	218
8-4-11. SET CODE ID FOR EAN-13	219
8-4-12. SET SUB CODE ID FOR EAN-13	219
8-5. EAN-8	221

Table of Contents

8-5-1.	ENABLE/DISABLE EAN-8	221
8-5-2.	ENABLE/DISABLE ADD-ON CODE	221
8-5-3.	SET TYPE OF ADD-ON CODE	221
8-5-4.	CONVERT EAN-8 TO EAN-13	222
8-5-5.	TRANSMIT CHECK DIGIT	222
8-5-6.	TRUNCATE LEADING ZEROS	222
8-5-7.	REMOVE LEADING CHARATERS	223
8-5-8.	REMOVE TRAILING CHARACTERS	224
8-5-9.	SET POSITION FOR INSERTING CUSTOM INFO	225
8-5-10.	SET MESSAGE CONTENT TO INSERT	226
8-5-11.	SET CODE ID FOR EAN-8	227
8-5-12.	SET SUB CODE ID FOR EAN-8	228
8-6.	CODE-39	229
8-6-1.	ENABLE/DISABLE CODE-39	229
8-6-2.	SET TYPE OF CODE-39	229
8-6-3.	SET FORMAT OF CODE-39	229
8-6-4.	TRANSMIT START/STOP DELIMITERS	230
8-6-5.	CONFIGURE CHECKSUM TYPE	230
8-6-6.	TRANSMIT CHECK DIGIT	230
8-6-7.	TRUNCATE LEADING ZEROS	231
8-6-8.	SET MINIMUM/MAXIMUM CODE LENGTH	231
8-6-9.	REMOVE LEADING CHARACTERS	233
8-6-10.	REMOVE TRAILING CHARACTERS	233
8-6-11.	SET POSITION FOR INSERTING CUSTOM INFO	234
8-6-12.	SET MESSAGE CONTENT TO INSERT	235
8-6-13.	SET CODE ID FOR CODE-39	235
8-6-14.	SET SUB CODE ID FOR CODE-39	236
8-7.	INTERLEAVED 2 OF 5	237
8-7-1.	ENABLE/DISABLE INTERLEAVED 2 OF 5	237
8-7-2.	CONFIGURE CHECKSUM TYPE	237
8-7-3.	TRANSMIT CHECK DIGIT	237
8-7-4.	TRUNCATE LEADING ZEROS	238
8-7-5.	SET MINIMUM/MAXIMUM CODE LENGTH	238
8-7-6.	REMOVE LEADING CHARACTERS	240
8-7-7.	REMOVE TRAILING CHARACTERS	240
8-7-8.	SET POSITION FOR INSERTING CUSTOM INFO	241
8-7-9.	SET CONTENT MESSAGE TO INSERT	242
8-7-10.	SET CODE ID FOR INTERLEAVED 2 OF 5	242

Table of Contents

8-8. INDUSTRIAL 2 OF 5	244
8-8-1. ENABLE/DISABLE INDUSTRIAL 2 OF 5	244
8-8-2. CONFIGURE CHECKSUM TYPE	244
8-8-3. TRANSMIT CHECK DIGIT	244
8-8-4. TRUNCATE LEADING ZEROS	244
8-8-5. SET MINIMUM/MAXIMUM CODE LENGTH	245
8-8-6. REMOVE LEADING CHARACTERS	246
8-8-7. REMOVE TRAILING CHARACTERS	247
8-8-8. SET POSITION FOR INSERTING CUSTOM INFO	247
8-8-9. SET MESSAGE CONTENT TO INSERT	248
8-8-10. SET CODE ID FOR INDUSTRIAL 2 OF 5	249
8-9. MATRIX 2 OF 5	250
8-9-1. ENABLE/DISABLE MATRIX 2 OF 5	250
8-9-2. TRUNCATE LEADING ZEROS	250
8-9-3. TRANSMIT CHECK DIGIT	250
8-9-4. CONFIGURE CHECKSUM TYPE	250
8-9-5. SET MINIMUM/MAXIMUM CODE LENGTH	251
8-9-6. REMOVE LEADING CHARACTERS	252
8-9-7. REMOVE TRAILING CHARACTERS	253
8-9-8. SET POSITION FOR INSERTING CUSTOM INFO	253
8-9-9. SET MESSAGE CONTENT TO INSERT	254
8-9-10. SET CODE ID FOR MATRIX 2 OF 5	255
8-10. CODABAR/NW7	256
8-10-1. ENABLE/DISABLE CODABAR/NW7	256
8-10-2. CONFIGURE THE START/STOP PATTERN	256
8-10-3. ENABLE/DISABLE SYMMETRICAL START/STOP PATTERN	256
8-10-4. TRANSMIT START/STOP CHARACTERS	257
8-10-5. CONFIGURE CHECKSUM TYPE	257
8-10-6. TRANSMIT CHECK DIGIT	257
8-10-7. TRUNCATE LEADING ZEROS	258
8-10-8. SET MINIMUM/MAXIMUM CODE LENGTH	258
8-10-9. REMOVE LEADING CHARACTERS	259
8-10-10. REMOVE TRAILING CHARACTERS	260
8-10-11. SET POSITION FOR INSERTING CUSTOM INFO	261
8-10-12. SET MESSAGE CONTENT TO INSERT	261
8-10-13. SET CODE ID FOR CODABAR	262
8-11. CODE-128	263
8-11-1. ENABLE/DISABLE CODE-128	263

Table of Contents

8-11-2. SET FORMAT OF CODE-128	263
8-11-3. CONFIGURE CHECKSUM TYPE	263
8-11-4. TRANSMIT CHECK DIGIT	264
8-11-5. TRUNCATE LEADING ZEROS	264
8-11-6. SET APPLICATION ID SEPARATOR FOR UCC-128/GS1-128	264
8-11-7. SET MINIMUM/MAXIMUM CODE LENGTH	265
8-11-8. REMOVE LEADING CHARACTERS	266
8-11-9. REMOVE TRAILING CHARACTERS	267
8-11-10. SET POSITION FOR INSERTING CUSTOM INFO	268
8-11-11. SET MESSAGE CONTENT TO INSERT	268
8-11-12. SET CODE ID FOR CODE-128	269
8-11-13. SET SUB CODE ID FOR CODE-128	270
8-12. CODE-93	271
8-12-1. ENABLE/DISABLE CODE-93	271
8-12-2. CONFIGURE CHECKSUM TYPE	271
8-12-3. TRANSMIT CHECK DIGIT	271
8-12-4. TRUNCATE LEADING ZEROS	272
8-12-5. SET MINIMUM/MAXIMUM CODE LENGTH	272
8-12-6. REMOVE LEADING CHARACTERS	273
8-12-7. REMOVE TRAILING CHARACTERS	274
8-12-8. SET POSITION FOR INSERTING CUSTOM INFO	275
8-12-9. SET MESSAGE CONTENT TO INSERT	275
8-12-10. SET CODE ID FOR CODE-93	276
8-13. CODE-11	277
8-13-1. ENABLE/DISABLE CODE-11	277
8-13-2. CONFIGURE CHECKSUM TYPE	277
8-13-3. TRANSMIT CHECK DIGIT	277
8-13-4. TRUNCATE LEADING ZEROS	278
8-13-5. SET MINIMUM/MAXIMUM CODE LENGTH	278
8-13-6. REMOVE LEADING CHARACTERS	280
8-13-7. REMOVE TRAILING CHARACTERS	280
8-13-8. SET POSITION FOR INSERTING CUSTOM INFO	281
8-13-9. SET MESSAGE CONTENT TO INSERT	282
8-13-10. SET CODE ID FOR CODE-11	282
8-14. MSI	284
8-14-1. ENABLE/DISABLE MSI	284
8-14-2. CONFIGURE CHECKSUM TYPE	284
8-14-3. TRANSMIT CHECK DIGIT	284

Table of Contents

8-14-4. TRUNCATE LEADING ZEROS	285
8-14-5. SET MINIMUM/MAXIMUM CODE LENGTH	285
8-14-6. REMOVE LEADING CHARACTERS	286
8-14-7. REMOVE TRAILING CHARACTERS	287
8-14-8. SET POSITION FOR INSERTING CUSTOM INFO	288
8-14-9. SET MESSAGE CONTENT TO INSERT	289
8-14-10. SET CODE ID FOR MSI	289
8-15. PLESSEY	291
8-15-1. ENABLE/DISABLE PLESSEY	291
8-15-2. CONFIGURE CHECKSUM TYPE	291
8-15-3. TRANSMIT CHECK DIGIT	291
8-15-4. TRUNCATE LEADING ZEROS	291
8-15-5. SET MINIMUM/MAXIMUM CODE LENGTH	292
8-15-6. REMOVE LEADING CHARACTERS	293
8-15-7. REMOVE TRAILING CHARACTERS	294
8-15-8. SET POSITION FOR INSERTING CUSTOM INFO	294
8-15-9. SET MESSAGE CONTENT TO INSERT	295
8-15-10. SET CODE ID FOR PLESSEY	296
8-16. TELEPEN	297
8-16-1. ENABLE/DISABLE TELEPEN	297
8-16-2. SET FORAMT OF TELEPEN	297
8-16-3. CONFIGURE CHECKSUM TYPE	297
8-16-4. TRANSMIT CHECK DIGIT	298
8-16-5. TRUNCATE LEADING ZEROS	298
8-16-6. SET MINIMUN/MAXIMUM CODE LENGTH	299
8-16-7. REMOVE LEADING CHARACTERS	300
8-16-8. REMOVE TRAILING CHARACTERS	301
8-16-9. SET POSITION FOR INSERTING CUSTOM INFO	301
8-16-10. SET MESSAGE CONTENT TO INSERT	302
8-16-11. SET CODE ID FOR TELEPEN	303
8-17. GS1 DATABAR OMNIDIRECTIONAL (RSS-14)	304
8-17-1. ENABLE/DISABLE RSS-14	304
8-17-2. TRANSMIT APPLICATION ID	304
8-17-3. TRANSMIT SYBOLOGY ID	304
8-17-4. TRANSMIT CHECK DIGIT	304
8-17-5. TRUNCATE LEADING ZEROS	305
8-17-6. REMOVE LEADING CHARACTERS	305
8-17-7. REMOVE TRAILING CHARACTERS	306

Table of Contents

8-17-8. SET POSITION FOR INSERTING CUSTOM INFO	306
8-17-9. SET MESSAGE CONTENT TO INSERT	307
8-17-10. SET CODE ID FOR RSS-14	308
8-18. GS1 DATABAR LIMITED(RSS LIMITED)	309
8-18-1. ENABLE/DISABLE RSS LIMITED	309
8-18-2. TRANSMIT APPLICATION ID	309
8-18-3. TRANSMIT SYMBOLOGY ID	309
8-18-4. TRANSMIT CHECK DIGIT	309
8-18-5. TRUNCATE LEADING ZEROS	310
8-18-6. REMOVE LEADING CHARACTERS	310
8-18-7. REMOVE TRAILING CHARACTERS	311
8-18-8. SET POSITION FOR INSERTING CUSTOM INFO	311
8-18-9. SET MESSAGE CONTENT TO INSERT	312
8-18-10. SET CODE ID FOR RSS LIMITED	313
8-19. GS1 DATABAR STACKED(RSS-14 STACKED)	314
8-19-1. ENABLE/DISABLE RSS-14 STACKED	314
8-19-2. TRANSMIT APPLICATION ID	314
8-19-3. TRANSMIT SYMBOLOGY ID	314
8-19-4. TRANSMIT CHECK DIGIT	315
8-19-5. TRUNCATE LEADING ZEROS	315
8-19-6. REMOVE LEADING CHARACTERS	315
8-19-7. REMOVE TRAILING CHARACTERS	316
8-19-8. SET POSITION FOR INSERTING CUSTOM INFO	317
8-19-9. SET MESSAGE CONTENT TO INSERT	317
8-19-10. SET CODE ID FOR RSS-14 STACKED	318
8-20. GS1 DATABAR EXPANDED(RSS EXPANDED)	319
8-20-1. ENABLE/DISABLE RSS EXPANDED	319
8-20-2. TRANSMIT APPLICATION ID	319
8-20-3. TRANSMIT SYMBOLOGY ID	319
8-20-4. TRANSMIT CHECK DIGIT	319
8-20-5. TRUNCATE LEADING ZEROS	320
8-20-6. REMOVE LEADING CHARACTERS	320
8-20-7. REMOVE TRAILING CHARACTERS	321
8-20-8. SET POSITION FOR INSERTING CUSTOM INFO	321
8-20-9. SET MESSAGE CONTENT TO INSERT	322
8-20-10. SET CODE ID FOR RSS EXPANDED	323
8-21. GS1 DATABAR EXPANDED STACKED(RSS EXPANDED STACKED)	324
8-21-1. ENABLE/DISABLE RSS EXPANDED STACKED	324

Table of Contents

8-21-2. TRANSMIT APPLICATION ID	324
8-21-3. TRANSMIT SYMBOLOGY ID	324
8-21-4. TRANSMIT CHECK DIGIT	324
8-21-5. TRUNCATE LEADING ZEROS	325
8-21-6. REMOVE LEADING CHARACTERS	325
8-21-7. REMOVE TRAILING CHARACTERS	326
8-21-8. SET POSITION FOR INSERTING CUSTOM INFO	327
8-21-9. SET MESSAGE CONTENT TO INSERT	327
8-21-10. SET CODE ID FOR RSS EXPANDED STACKED	328
APPENDIX A	329
DECIMAL/ HEXADECIMAL TABLE	329
ASCII CODE TABLE	330
APPENDIX B	331
TEST CHART	331

1. Important Notice

In compliance with a number of International standards as well as regulations, MK-520W3 is a highly qualified product at the technical and safety level. In this chapter enumerates the list of regulations which MK-520W3 complies with for your reference.

1-1. FCC Compliance

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

1-2. Conformity with Technical Regulations for specified radio equipment in Japan

Certificate Number: 204WW81000100



1-3. National Communication Commission

NCC Registration Number: NCC-RCB-05

Qualified serials number on device:

Enter



2

End





CCAF10LP1530T2

1-4. RoHS Compliance

The RoHS directive mandates that producers of electrical or electronic equipment sold into Europe must minimize or eliminate the following materials from their design, as they are considered health risks:

1. Lead
2. Mercury
3. Cadmium
4. Hexavalent Chromium
5. Polybrominated biphenyls (PBB)
6. Polybrominated biphenyl ethers (PBDE)

Committed to the environment, Albasca Technology makes the necessary changes to our products in order to comply with RoHS directive. This involves the process of converting the non-compliant components (for instance, electronics, Pc Boards, etc.) of our products into the compliant ones. We also improve the assembly processes to ensure the full compliance with RoHS directive. The measures that we take in conformity with RoHS directive would never cause any change in the product appearance, nor do they decrease functionality of the product. Most importantly, our product still provides reliable and excellent product performance as we promise.

1-5. Safety Precaution

- Do not stare directly at light beams.
- Do not directly touch the scanner window for reading performance might decrease if the window is dirty or scratched.
- Do not disassemble or modify the internal components from the scanner.
- Do not expose the scanner to any flammable source.
- Do not overcharge the battery.

Lithium-Ion polymer Battery

- The Lithium-ion polymer battery energy density is less than 400 Wh/L. Therefore, PSE certification does not require in this product.

Important Notices

1

- The first, initial charge will take up four hours to fully charge your battery.
- Battery Life time
Memory Mode: Approximately 18000 scans (5 sec/per scan)
Bluetooth Mode: Approximately 15000 scans (5 sec/per scan)
- Do not assemble or disassemble the battery without technical support.
- Do not use unspecified power adaptor to charge the battery.
- During the charging process, if red color LED indicator keeps flashing rapidly, terminate the charging, and return the scanner to authorized dealers.
- Once battery leakage or abnormal odor occurs, terminate the current operation, and return the scanner to authorized dealers.
- Once batteries leak, avoid contact with skins or eyes. To clean up the battery leakage, rinse the affected parts with fresh water, and consult the doctor immediately.

Enter



4

End



2. Introduction

Using this introductory chapter you will grasp physical aspects of MK-520W3 with regard to the product appearance and specification. On top of it, the sections for Manual/Page layout will enable you to locate the topics of your interest through the manual more efficiently.

2-1. Product Features

MK-520W3, an enhanced version of its formerly known CM-500, remains the simple and functional design, and preserves its connection diversity using Bluetooth Technology. Furthermore, it expands configuration settings to the level users are given much flexibility to well personalize the barcode scanner according their needs. From its lightweight product design through operational usability to functional versatility, the scanner of three-in-one multi-functionality is definitely a select scanner to enhance your working efficiency as we have long committed ourselves to.

2-2. Product Specification

Model NO.		MK-520W3 Wireless Series
Microprocessor		32 bits CPU
Main Battery Operation Times		8000 scans in Bluetooth Mode (5 sec/ per scan)
Memory Storage		4MB
Supported Barcode		Code 39, INT 25, Industrial 2 of 5, Matrix 2 of 5, Codabar(NW7), Code-93, code-128, EAN-128, JAN/EAN/UPC and fully RSS code(GS1 Databar)
Optical Resolution		752(H)x480(V) pixels, 256 gray levels
Minimum PCS Value		0.45
Scan Engine	CCD Type	630nm Red LED Lamp, Linear CCD Image Sensor Scan rate: 100 scan/sec Scan Distance: 50mm~250mm
	Laser Type	Visible Laser Diode 650nm 10 (25°C) Scan rate: 100 scan/sec Scan Distance: 50mm~350mm
Main Battery		Built-in Rechargeable Li-Polymer battery (3.7V,1100mAH) and charge via USB port
Wireless Communication		2.4 Ghz Bluetooth Class I
Keys		2 keys
LED indicator		3 color LED: red, green, blue
Beep Indicator		Configurable to turn off/on
Weight		CCD: 75g/ Laser: 85g
Dimension		89(L)x 40(W) x 17.5(H)mm
Environment Humidity		10% - 90%RH

Model NO.	MK-520W3 Wireless Series
Working Temperature	-10°C ~40°C
Power Consumption	CCD: 90mA / Laser: 60mA
Certification	FCC / CE/ RoHS approved, VCCI, Telec

2-3. Package Information

The contents of the package may vary depending on your order. While some primary devices avail the users of their fundamental functionality, some optional items are also available for your purchase to maximize efficiency of our product.

Inside the package contain the following items:

- MK-520W3 Barcode Scanner
- Barcode Scanner Neck Strap
- USB Cable
- Solution CD
- USB Power Supply (Optional)

Browse Solution CD to locate the following how-to references for troubleshooting problems in using MK-520W3:

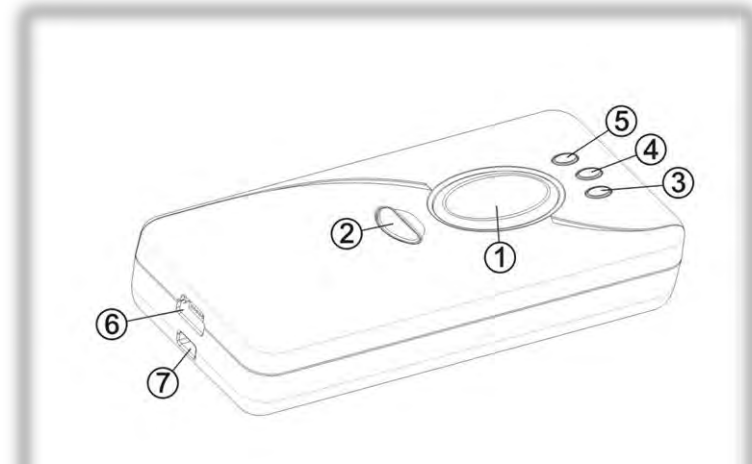
- Quick Start
- User Manual
- ISP Driver for Windows OS
- Utility Program

2-4. Supported Symbology

Symbology	Enabled/Disabled
UPC-A	Enabled
UPC-E	Enabled
EAN-13	Enabled
EAN-8	Enabled
Code-39	Enabled
Interleaved 2 of 5	Disabled
Industrial 2 of 5	Disabled
Matrix 2 of 5	Disabled
Codabar/NW7	Enabled
Code-128	Enabled
Code-93	Disabled
Code-11	Disabled
BarMsi	Disabled
BartPlessey	Disabled
Telepen	Disabled
BarRss14	Disabled
BarRSSLimit	Disabled
BarRSSStk	Disabled
BarRSSExp	Disabled
BarRSSExpStk	Disabled
UPC-A	Enabled
UPC-E	Enabled
EAN-13	Enabled
EAN-8	Enabled
Code-39	Enabled
Interleaved 2 of 5	Disabled
Industrial 2 of 5	Disabled
Matrix 2 of 5	Disabled
Codabar/NW7	Enabled
Code-128	Enabled
Code-93	Disabled



2-5. Product Overview



- ① Press down **Scan Button** to decode or store the barcode.
- ② Press down **Small Trigger** to perform versatile supplementary functions. For instance, pressing the key will lead to erasing barcode data which have been previously decoded in Memory Mode; it also works to pair the scanner with the Bluetooth devices in Bluetooth Mode.
- ③ **Power Indicator** indicates the charge status. When the battery is running low, red LED light will be on to show a poor charge level. Once the charging process is completed, red LED will flash slowly to show a full battery charge.
- ④ **Good Read Indicator** indicates whether the barcode is successfully decoded. Green LED shows a successful decoding attempt.
- ⑤ **Mode Indicator** indicates the current operation mode. Blue LED stands for Bluetooth mode, green LED for Cable mode, and orange LED for Memory mode.
- ⑥ **Strap Hole**
- ⑦ Secure the interface cable into **USB Host** in an attempt to transmit data or to charge the battery.
- ⑧ Replace the battery in the **Battery Compartment**.



2-6. Manual Layout

Chapter 1 Important Notices enumerates the list of rules and regulations which CM2D-600 conforms to as a qualified product.

Chapter 2 Introduction provides Product Specification, Product Information, Product Overview, and Manual /Page Layout.

Chapter 3 Knowing your Scanner introduces Configuration Flowchart, LED/Beeper Indication, and some basic operations with trigger buttons.

Chapter 4 Quick Start provides quick references to have you familiar with MK-520W3 within a short time frame.

Chapter 5 Establish a Bluetooth Connection provides instructions on how to pair MK-520W3 with different sorts of Bluetooth devices.

Chapter 6 Editing General Setting provides related setup barcodes for configuring general settings.

Chapter 7 Setting up your Operation Modes provides related setup barcodes for configuring three operation modes.

Chapter 8 Configuring Symbology provides related setup barcodes for symbology configurations.

Appendix A provides Decimal/Hexadecimal Table and ASCII Code Table for setting up special setup barcodes.

Appendix B provides sample barcodes which you can use for testing.

2-7. Page Layout

Chapter Title

Chapter Number

Section Title

Subsection Title

7-3. Memory Mode

7-3-1. Scanner Options

7-3-1-1. Set Scan Mode

7-3-1-2. Set Good Read Buzzer Frequency

Procedure

Enter

End

1

2

3

4

5

6

7

8

9

10

11

2

Setting up your Operation Modes

7

7-3. Memory Mode

7-3-1. Scanner Options

A selection of scanner options, from setting button functions to adjusting the buzzer volume and vibrator, is offered to personalize the device to suit your usage habits.

7-3-1-1. Set Scan Mode

Scan Mode refers to how the scanner reacts to the scanned barcode. If **Good Read On** is activated, LED light will stay on when Scan button is pressed down, and turn off when Scan button is released or a barcode is decoded. However, with **Good Read Off** settings, LED will remain lit for a specified period of time after Scan button is pressed. In this case, LED will turn off only when the barcode is successfully decoded or the timeout period expires. Please scan the appropriate label to determine your preferred scan mode.

GoodReadOn B8080

GoodReadOff B8081

7-3-1-2. Set Good Read Buzzer Frequency

Please follow the below steps to specify the buzzer frequency when a barcode is decoded successfully.

BzGoodRdFreq B95E0

(Length: 1 digit / Range: 0-255/ Unit: 100Hz)

Procedure

(1) Scan **Enter** barcode.

(2) Scan **BzGoodRdFreq** barcode to configure Good Read buzzer frequency.

(3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal values barcodes representing the desired value in the range of 0 to 255. For instance, to set Good Read buzzer frequency to 10000 Hz, scan **1**, **0**, and then **0** to assign the specified decimal value "100".

(4) Scan **SET** barcode to complete the variable-binding operation.

(5) Scan **End** barcode to complete the configuration.

Enter

End

Page Number

5

Function Title framed with the oval shape in deep sky blue generally gives the brief description regarding the relevant functions. However, it might also work to define regular setup barcodes which are scattered from Chapter 6 to Chapter 8. Configuring this type of barcode normally requires simply one-time scan to either turn on/off its functionality or to specify a predefined value, which is rather straightforward.

6

Function Title framed with the oval shape in dark blue is to define special setup barcodes. Configuring special setup barcode usually demands more than one scan to complete relevant configurations.

7

Based on Code-39, the list of setup barcodes throughout the manual will be structured as shown in below figures:

For regular setup barcodes



For special setup barcodes



The concept of **Reference Range** aims to help you efficiently configure the setup barcode with the suggested value in the range. In the example, you are advised that the value is supposed to be one digit in length, to fall on the range from 0 to 255 and will be measured in

8

In following **Configuration Steps**, you will get the clear idea of how to set up these special barcodes.

9

Enter label, arranged in the bottom of every page, is one of the frequently-used barcodes when it comes to conducting your barcode-scanning activities. To ensure a valid configuration, please be advised that you always read **ENTER** barcode first before proceeding with other setup barcodes.

10

Like Enter label, **End barcode** is labeled as another frequently-used barcode. It is mandatory to scan End barcode at the end to validate your configuration. You can easily locate it at the bottom of every page.

Enter



13

End

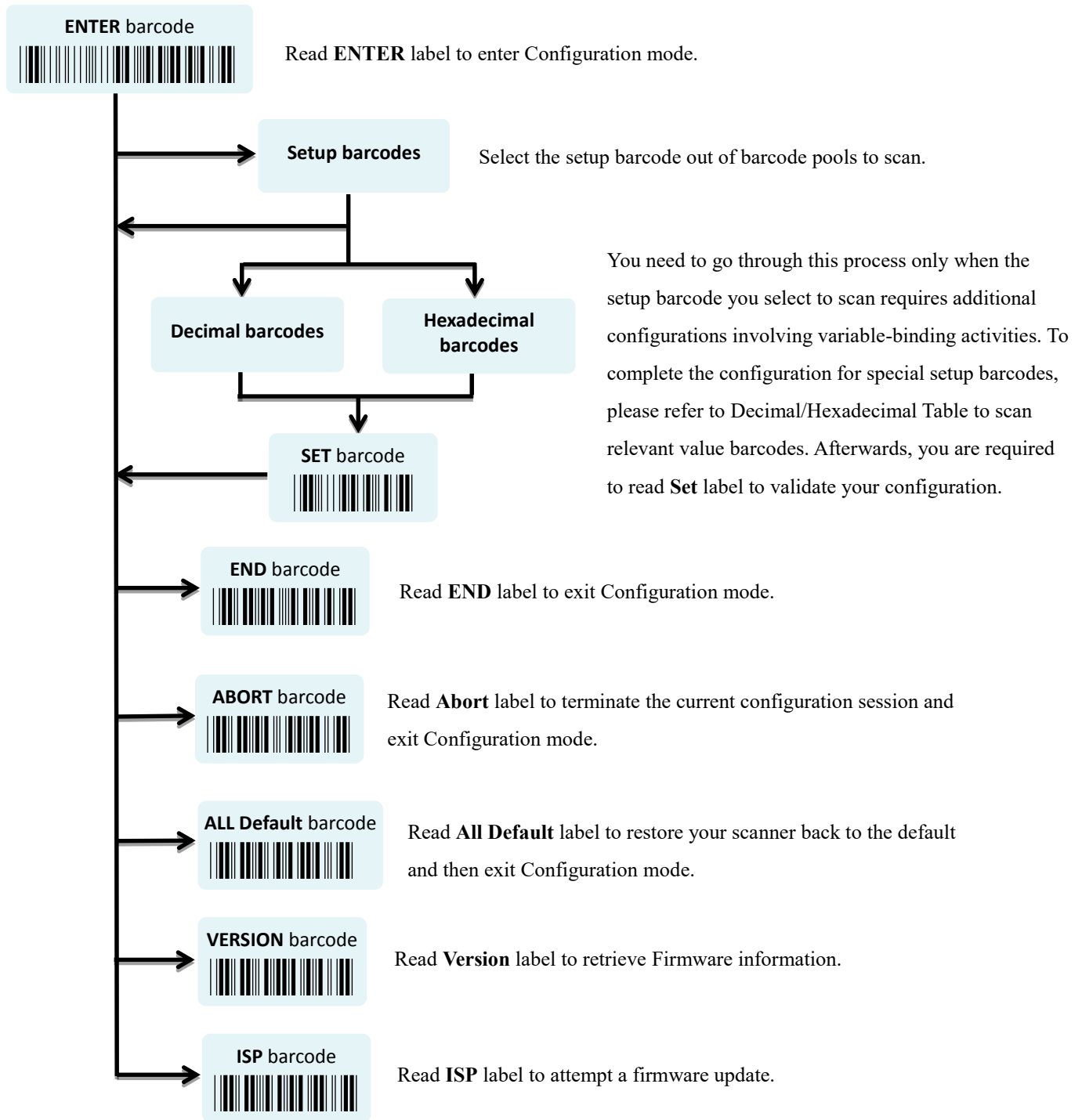


3. Knowing your Scanner

Through this informational chapter you will be exposed to a variety of helpful knowledge regarding MK-520W3, from LED/beeper indications to the functionality of button triggers, before you start with the scanner. Not only will it assist you in correctly and efficiently using MK-520W3 but also help to use your time and efforts more wisely. It is encouraged to go back to this chapter for a quick reference whenever you encounter difficulties in operating the machine.

3-1. Configuration Flowchart

The below figure illustrates the sequences of scan events leading up to a positive scan result. The improper operation will not only waste your efforts but also likely produce the disappointing result which might be mistakenly viewed as a product defect. Please be advised to refer to the flowchart whenever you attempt a scan.



3-2. LED & Beeper indications

LED and Beeper signals both serve to deliver visual or acoustic messages regarding the status of the ongoing operation. Either color changes or sound pitches and melodies will suffice to indicate a scan result as advance notification. Please refer to the below chart to use LED and Beeper indications for your benefit while working on the device.

Functions	Beeper Sequence	LED indication
Power on the scanner		
Successfully decode a barcode		Green LED flashes once
Successfully scan a regular setup barcode	high-low tone	
Successfully scan a special setup barcode	High-low-high-low notes	
Successful enter configuration mode	A set of five ascending notes	Red, green, and then blue LEDs keep flashing slowly and alternatively
Successfully enter firmware update process	After One high tone emit five quick short notes followed by a pause and then two notes.	Red and green LEDs keep flashing slowly and alternatively
Complete scanner configuration	A melody from high notes to low ones	
Switch to data-transmission mode	One high note followed by two low short notes	The orange LED keeps flashing rapidly.
Successful attempt to transmit all the data	One long beeping note sings first, and then a short note sounds after data is transmitted.	
Charging Attempt		A solid red LED indicates the ongoing charge process. Once the charging is completed, the red LED will start flashing slowly as a full battery charge indication.
Unknown Failure		Red LED flashes once as a warning.
Timeout for configuration mode	Two ascending notes and then three descending notes	



Functions	Beeper Sequence	LED indication
<u>Cable Mode</u>		
Switch to Cable mode	A melody composed of three ascending notes, another two ascending notes and one comparatively high note	Green LED keeps flashing steadily
Turn off automatic charge	Two descending short notes	
Turn on automatic charge	Three high-pitched notes	
<u>Memory Mode</u>		
Switch to Memory mode	Three ascending notes followed by a comparatively high note	Orange LED keeps flashing steadily
Successful attempt to erase all saved barcodes	Three high-pitched long sounds	
Successfully attempt to delete one single data	One note followed by two shorter sounds.	
<u>Bluetooth Mode</u>		
Switch to Bluetooth mode	Three same low notes followed by one high note	Blue LED keeps flashing steadily
Successful Bluetooth pairing	Two consecutive notes	A solid Blue LED will indicate a successful attempt.
Terminate Bluetooth connection	Three descending notes	
Unsuccessful Bluetooth pairing	Three high-pitched beeping sounds	

3-3. Leverage your Scanner with Button Triggers

Two supplementary button triggers, Scan Button and Small Trigger, are to provide fundamental functionality from reading a barcode to deleting a scanned record, but, more importantly, giving them a press sometimes enables you to save the efforts in conducting complex barcode-scanning practices. Although button triggers, due to their limits, would never suffice to cover all the major and minor tasks which setup barcodes always do, skillfully using these two buttons still serves the basic needs yet in a more convenient way. In the following section will demonstrate how to execute specific operations via either a push of single button or a trigger of the button combination.



3-3.1. Scan Action

To decode a barcode, you may simply give a gentle push of **Scan Button** to achieve the attempt.

3-3.2. Mode Switch

Please follow below steps to switch among operation modes.

Procedure

- (1) Hold **Scan Button** till LED light turns a solid color.
- (2) Release **Scan Button**.
- (3) The color of steadily flashing LED individually indicates the current operation mode: **green stands for Cable mode, orange for Memory mode, and blue for Bluetooth mode.**

3-3.3. Turn on/off Charge

Please follow the below steps to turn on or off the automatic charge.

Procedure

- (1) Switch to **Cable mode**.
- (2) Hold **Small Trigger** to trigger off a rapidly blinking green LED light.
- (3) While LED light is rapidly flashing, press down **Scan Button without releasing Small Trigger**.
- (4) Release both **Scan Button** and **Small Trigger**.

3-3.4. Deletion of One Single Data

Please follow the below steps to delete a specified barcode.

Procedure

- (1) Switch to **Memory Mode**.
- (2) Push **Small trigger** while aiming your scanner at the barcode you want to delete.
- (3) Release **Small Trigger**.



3-3.5. Deletion of All Transmitted Data

Please follow the below steps to delete all the saved barcode.

Procedure

- (1) Switch to **Memory mode**.
- (2) Hold **Small Trigger** to trigger off a rapidly blinking orange LED light.
- (3) While LED light is rapidly flashing, press down **Scan Button without releasing Small Trigger**.
- (4) Release both **Scan Button** and **Small Trigger**.

3-3.6. Transmission of Saved Barcode

Please follow the below steps to transmit the saved barcode in the memory.

Procedure

- (1) Hold **Small Trigger** till LED light turns solid color.
- (2) Release **Small Trigger** to enter data transmission mode. The rapidly blinking orange LED indicates the scanner is ready for data transmission.
- (3) Press down **Scan Button** to transmit all the saved barcode data.

3-3.7. Pairing with Bluetooth Devices

Please follow the below steps to pair the scanner with other Bluetooth devices.

Procedure

- (1) Switch to **Bluetooth mode**.
- (2) Hold **Small Trigger** to trigger off a rapidly blinking LED light.
- (3) While LED light is rapidly flashing, press down **Scan Button without releasing Small Trigger**.
- (4) Release both **Scan Button** and **Small Trigger**.



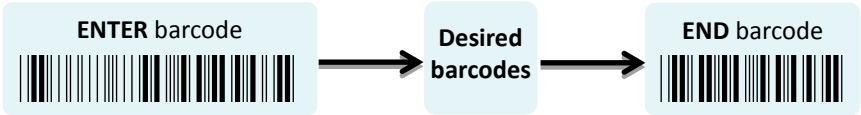
4. Quick Start

Through straightforward instructions provided in this chapter, you will shortly familize with fudamental operations of the scanner, and further know how to exploit the device in your tasks, instead of painstakingly researching into the whole manul. This how-to guide will focus more on general topics than specific or advanced subjects. If you are looking for the latter, please refer to other chapters for some detailed explanation.



4-1. Configuration Flowchart

Please make sure you always start a scan sequence with **ENTER** barcode and end with **END** barcode as a successful attempt. Both labels can also be located on the bottom of each page.



4-2. Set up your Scanner

4-2-1. Operation Mode

We offer a selection of mode combinations, including 2in1 and 3in1 functions, for your convenience to improve efficiency at work. Before reading the below barcodes, please scan Enter label first to ensure a successful configuration.

Cable A40C0



Memory A40C1



Cable+Mem A40C2



Bluetooth A40C3



Cable+BT A40C4



Mem+BT A40C5



Cable+Mem+BT A40C6



Enter



21

End



4-2-2. Output Interface in Cable Mode

After scanning Enter barcode, specify which output interface the device works with in Cable mode.



4-3. Basic Scanner Operations

You can perform most of below basic operations by either scanning the barcode sequences or using the button triggers.

4-3-1. Mode Switch

Button Trigger

Keep holding Scan Button till the LED light turns from a rapidly blinking color into a solid color. After a release of Scan Button, you, by observing the LED light colors, can learn which operation mode your scanner is switched to.

Scan Sequence

After reading **ENTER** label, scan the below appropriate barcode to switch to the desired operation mode.



4-3-2. Transmit All Barcode Data

Button Trigger

1. Secure the interface cable to both the barcode reader and the Host PC. Open the preferred word processing software to receive the scanned data.
2. After holding Small Trigger long enough to trigger off a solid LED light, release Small Trigger.
3. While the orange LED starts flashing rapidly, press Scan Button once again to transmit all barcode data.

Scan Sequence

Scan **Data Memory Tx** barcode after reading **Enter** label.

Data Memory Tx ZMTX



4-3-3. Clear All Saved Barcode Data

Button Trigger

1. Configure the scanner to be in Memory mode.
2. While holding Small Trigger till orange LED starts blinking rapidly, press down Scan Button.
3. Release Scan Button and Small Trigger.

Scan Sequence

First read **Enter** label, and then scan the following barcode:

Data Memory Clear ZFCA



4-3-4. Clear One DingleBarcode Data

Button Trigger

1. Configure the scanner to be in Memory mode.
2. Press down Small Trigger and scan the barcode you want to remove from the flash memory.



4-3-5. Auto-delete All Transmitted Data

You may program the scanner by scanning **Enable** label to auto delete the barcode data that was just transmitted after reading **Enter** barcode.

**4-3-6. Attempt Firmware Update**

Please read **Enter** label first, and then scan **ISP** barcode before applying relative scanner firmware updates.

**4-4. How to Make your Scanner Work with Bluetooth Dongle A-302****4-4-1. Pair with Bluetooth Dongle A-302**

1. Make sure the Bluetooth dongle is well secured into the USB port of the Host PC.
2. Scan **ENTER** barcode.
3. Scan **To BT Mode** barcode to enter Bluetooth mode.



4. Press down either Scan Button or Small Trigger to establish Bluetooth connection. A solid Blue LED indicates a successful attempt.
5. Open the referred word processing software to receive the scanned barcode data.



4-4-2. Disable Pairing Function

Once a Bluetooth connection is established, **Disable** the pairing function, after scanning **Enter** barcode, to avoid the incident of mistakenly repeating the pairing process.

Disable C4280



Pair C4281



4-4-3. Type of Bluetooth Connection

The type of Bluetooth connection varies according to the Bluetooth device you attempt to pair the scanner with. Whenever you need to establish a Bluetooth connection, specify this information out of six alternatives provided.

SPP Slave C41D1



SPP Master C41D2



HID C41D3



iOS C41D4



A303 C41D5



A302 C41D6



5. Establish a Bluetooth Connection

MK-520W3 fetures handy scanner operations via Bluetooth technology by offering great flexibility in the Bluetooth connection types, which enables you to connect your scanner with assorted wilreless Bluetooth devices. This chapter is thus to provide explanatory instructions on how to establish a Bluetooth connection between MK-520W3 with other Bluetooth devices.

Establish a Bluetooth Connection

5

5-1. Bluetooth Connection Reference Chart

Before you gear up for a Bluetooth connection, it is significant to figure out the type of wireless Bluetooth devices which the scanner is connected with since the associated procedures considerably vary with the device types. The below reference chart, as a precaution, shows the relation between available connection modes and their individual potential users to ensure a good start for a successful Bluetooth connection.

Connection Mode	Potential Users
Slave	Those who intend to connect the scanner with third-party or built-in dongles and receive data via a terminal application For Slave connection mode, the scanner remains inactive and waits for connection request.
Master	Those who intend to connect the scanner with third-party or built-in dongles and receive data via a terminal application For Master connection mode, the scanner will take an active role in the pairing process, meaning it will actively search for available Bluetooth devices to establish a Bluetooth connection.
HID	Those who intend to connect the scanner with third-party or built-in dongles and receive data via the available word-processing applications, such Microsoft word, Notepad and so on.
iOS	Those who intend to receive data via iOS products, such as iPhone and iPad.
A-303 Dongle	Those who intend to establish a connection with Bluetooth dongle A-303.
A-302 Dongle	Those who intend to establish a connection with Bluetooth dongle A-302.



5-2. Set up your Own Bluetooth Connection

As far as configurations of Bluetooth connection are concerned, this section aims to exemplify how you are able to establish a Bluetooth connection between MK-520W3 and Bluetooth devices in hands via step-by-step instructions.

5-2-1. Slave Connection Mode

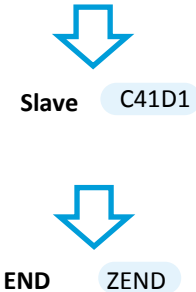
Step 1

Configure the scanner either using the utility program or scanning programming barcodes programming. By means of **the utility program** provided, you need not worry about the incorrect barcode sequence which possibly leads to the unexpected and wrong result. However, another alternative, **scanning programming barcodes**, is still offered if you pursue a more efficient configuration of the device. In case that you would rather not take time to figure out how to exploit the utility program, directly scanning the sequence of **programming barcodes** will work for you.

Scanning Programming Barcodes

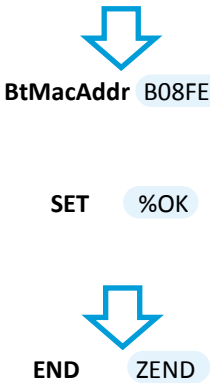
1-1. Configure **Output Interface** of the scanner to be **Slave** by scanning the sequence of barcodes as the below illustration shows.

ENTER /\$%ENTR



1-2. Configure **Mac Address** information to be the specified value “000000000000” by scanning the sequence of barcodes as the below illustration shows.

ENTER /\$%ENTR

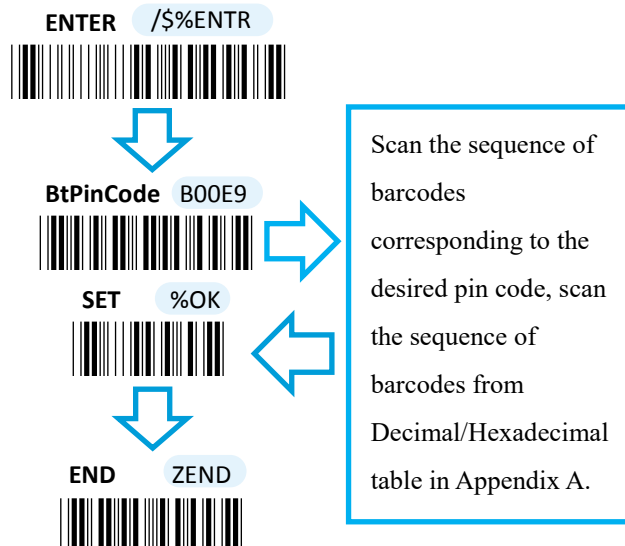


Scan the sequence of barcodes corresponding to “000000000000” from Decimal/Hexadecimal table in Appendix A.

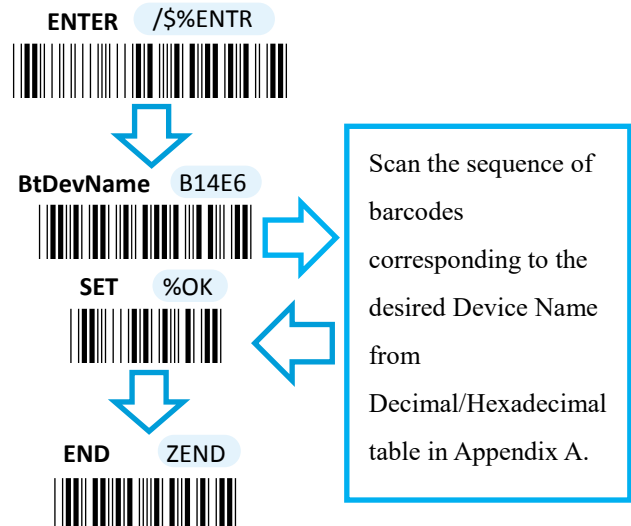
Establish a Bluetooth Connection

5

- 1-3.** Configure **Pin Code** by scanning the sequence of barcodes as the below illustration shows.

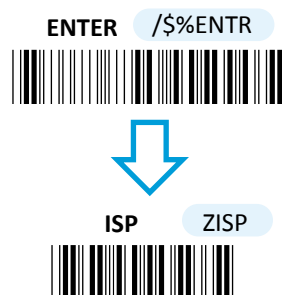


- 1-4.** Configure **Device Name** by scanning the sequence of barcodes as the below illustration shows.

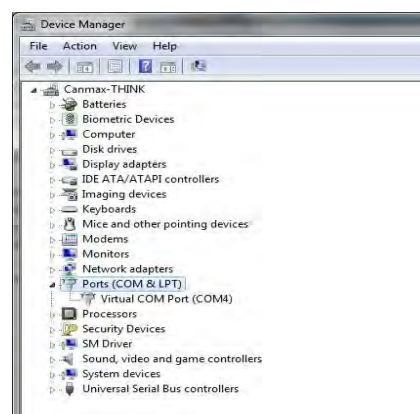


Using Utility Program

- 1-1.** Please have your scanner connected to Host PC using USB cable.
- 1-2.** To create a virtual COM port for the utility to access your scanner, Read **Enter** label > scan **ISP** barcode. The scanner will emit one long sound and six short, rapid sounds followed by two short, slow sounds as a successful attempt.



- 1-3.** Go to **Control Panel> Device Manager**. The created virtual COM port would be found in **Ports (COM & LPT)** group. In the example, COM4 is used as the virtual COM port.



Enter



29

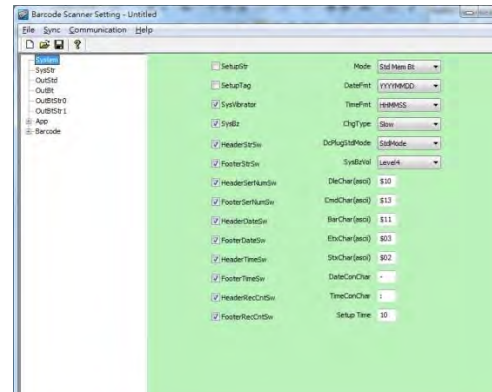
End



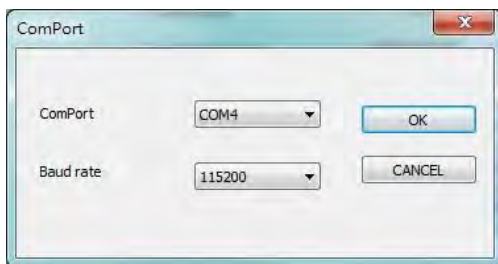
Establish a Bluetooth Connection

5

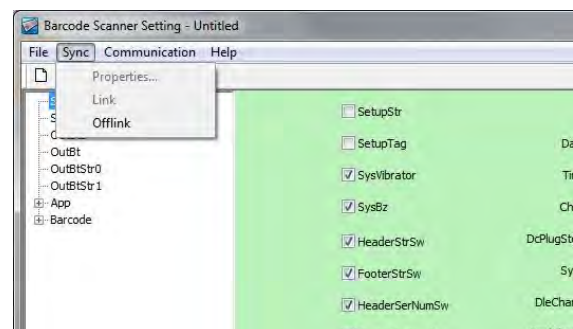
1-4. Invoke the utility program located in Product CD.



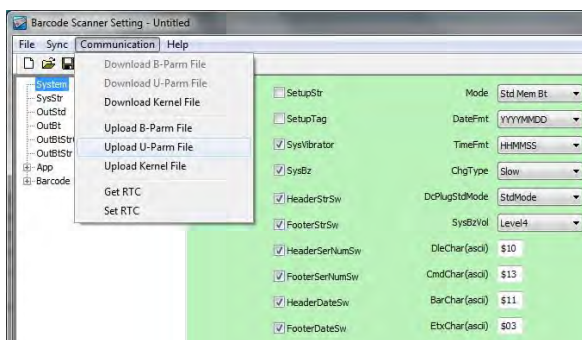
1-5. Select **Sync> Property**. In **ComPort** pop-up dialogue box, configure **ComPort** properly according to the virtual COM port created in step 3 and leave Baud rate with its default. In the example, configure it with COM4.



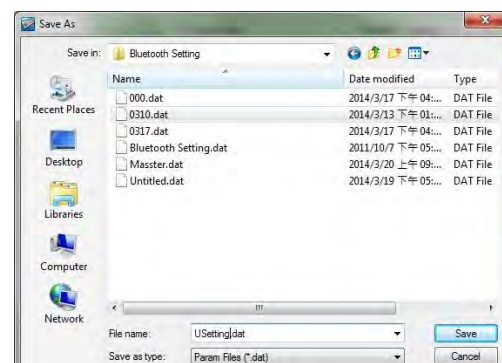
1-6. Select **Sync> Link** to link the scanner with the utility program. Once the link is successfully established, Link/Property options in Sync menu will be greyed out and the status bar will show associated information.



1-7. Before configuring your scanner, you need to upload the scanner status first to ensure the current setting will not be overwritten. In doing so, Select **Communication> Upload U-ParM File**.



1-8. As a **Save as** dialogue box pops up, specify the file name and click **Save** button.



Enter



30

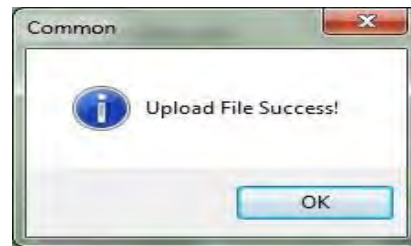
End



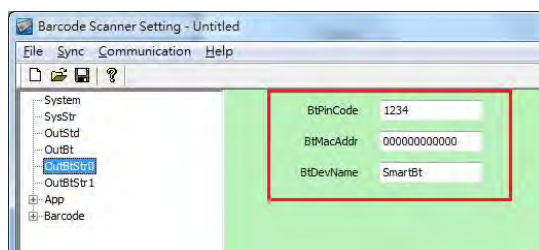
Establish a Bluetooth Connection

5

1-9. After the upload process is done, a message box will appear to indicate whether the operation is done successfully.



1-10. Click on **OutBtStr0** item of the tree view in the left panel. Afterwards, Configure **BtPinCode** and **BtDevName** according to your reference, but leave **BtMacAddr** with the default value, **000000000000**



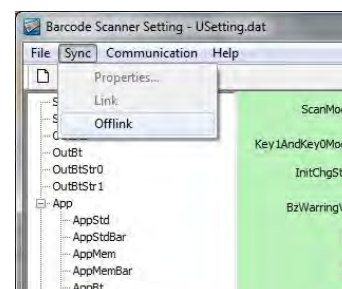
1-11. In the tree view, select **App>AppBt**. In the right panel, Select **Slave** in the **OutType** combo box. Then, click **Save** icon on the toolbar to save your settings.



1-12. Select **Communication>Download U-Parm** file to apply the customized settings to the scanner.



1-13. Select **Sync> Offlink** to complete the configuration.



Establish a Bluetooth Connection

5

Step 2

Pair the scanner with third-party Bluetooth dongle.

2-1. Please have your scanner switch to Bluetooth mode. Choose one of two alternatives listed below to help you achieve the attempt.

- When the current mode indicator does not flash blue, please **hold Scan Button long enough to have LED light turn a solid color. Then, after a release of Scan Button, you can tell which operation mode it switches to by observing LED color.** Repeat the steps printed in bold if blue LED does not blink after releasing the Scan Button.

- Scan the below barcode.



2-2. Pair your scanner with third-party Bluetooth dongle by either of two options suggested below.

- After holding small trigger till blue LED starts blinking rapidly, press down Scan Button without releasing Small Trigger. Then releasing Scan button and Small trigger at the same time will initiate the pairing process.

- Scan the below barcode.



IMPORTANT: Please properly perform **Step 2-1 and 2-2** to ensure the dongle is able to detect the scanner at any time. While following the below steps to proceed with the configuration, please make sure that scanner always stays in Bluetooth mode and awaits a Bluetooth connection by an indication of a steadily flashing blue light. If the scanner is being put into sleep, press down either Scan Button or Small Trigger once to wake up the scanner.

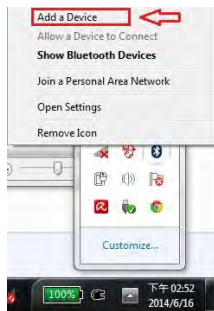


Establish a Bluetooth Connection

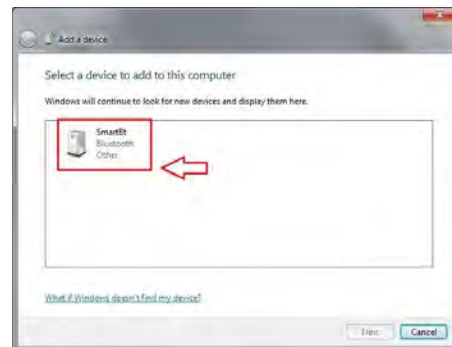
5

2-3. Secure third-party dongle into Host PC and confirm the scanner stays active in Bluetooth mode.

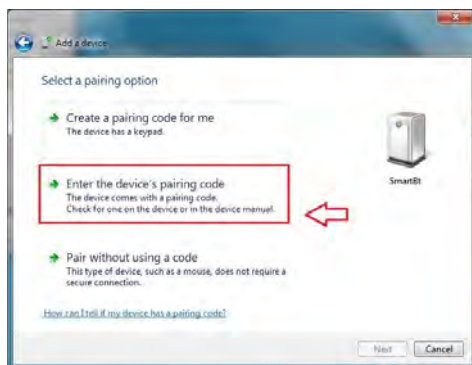
2-4. Right-click on Bluetooth icon on the taskbar and select **Add a Device** in the pop-up submenu.



2-5. In the list box of **Add a Device** dialogue box will display all the available Bluetooth devices after a search. Select the device with the name which you specify for the scanner while using the utility application to program it. In this example, click on **SmartBt** item. Then, hit **Next** button.



2-6. Select **Enter the device's pairing code** and then hit **Next** button.



2-7. For verification, enter the valid passcode in Passcode field. In this example, input the passcode, **1234**.



Enter



33

End



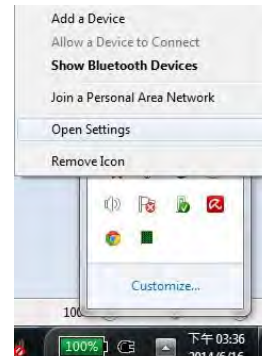
Establish a Bluetooth Connection

5

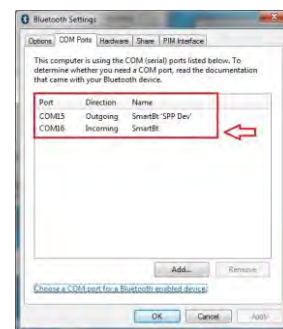
2-8. A message will appear to indicate the dongle and the scanner have been paired successfully. Press down **Close** button to close **Add a device** dialogue box.



2-9. Right-click on Bluetooth icon on the taskbar and then select **Open Settings** to look up the created outgoing COM port info.



2-10. In the **Bluetooth Setting** dialogue box, click on **COM ports** tab. From the list box of **COM Ports** tab, you are able to retrieve the outgoing COM ports information. Close dialogue box by hitting **OK** button. In this example, the outgoing COM port is set to COM15.



Establish a Bluetooth Connection

5

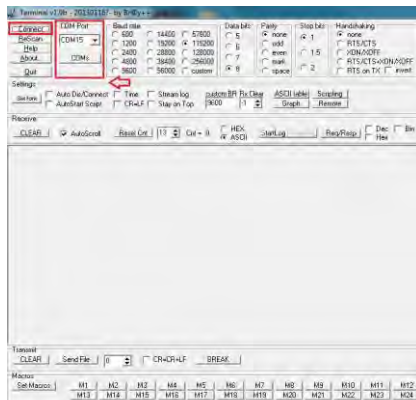
Step 3

Configure the terminal software.

3-1. Launch the existing terminal emulation program. We will demonstrate the case with a free terminal emulation application, Terminal.

3-2. Properly set **COM Port** value according to information you obtain in **Step 2-10**, and then hit **Connect** button to ensure the terminal application is connected. In this example, select COM15 from the combo box.

3-3. After a few seconds, the scanner will emit a short, rapid note along with a solid blue LED to indicate a successful Bluetooth connection. Now, you are able to receive barcode data via terminal software.



Enter



35

End



Establish a Bluetooth Connection

5

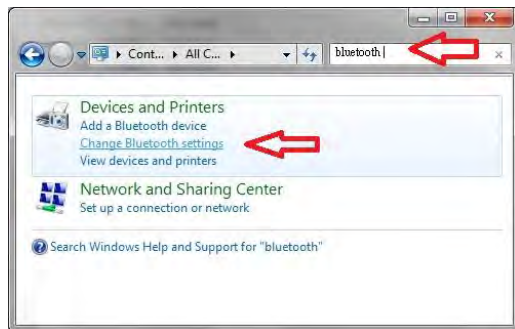
5-2-2. Master Connection Mode

Step 1

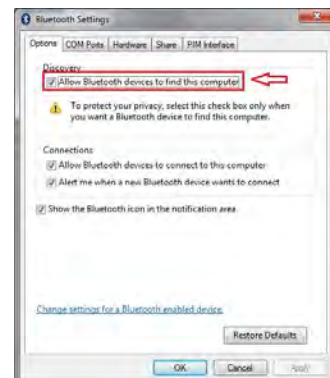
Configure Bluetooth settings, look up for the MAC address of your Bluetooth dongle, and create an incoming port.

1-1. Secure third-party Bluetooth dongle into Host PC.

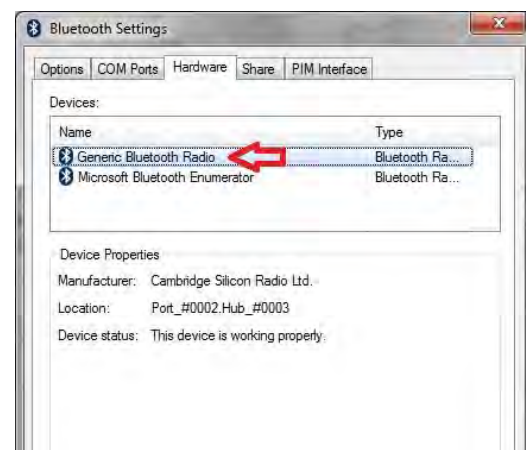
1-2. In **Control Panel**, type **Bluetooth** in search box. In the list of search results, click on **Change Bluetooth Settings** item.



1-3. In **Bluetooth Settings**, click on **Options** tab to check **Allow Bluetooth devices to find this computer** option.



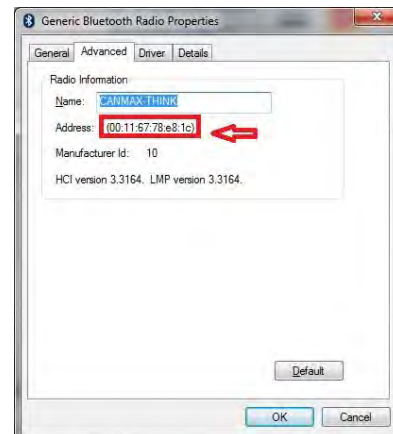
1-4. Switching to **Hardware** tab in the **Bluetooth Settings**, d-click on **Generic Bluetooth Radio** item in the **Device** list box.



Establish a Bluetooth Connection

5

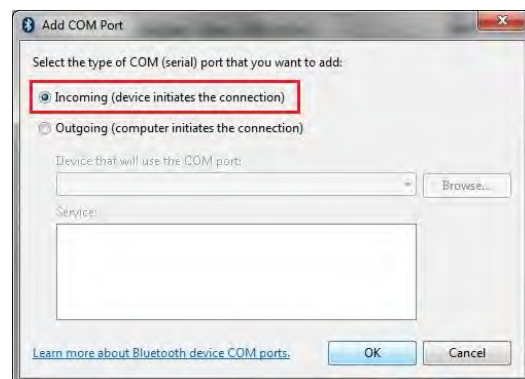
- 1-5.** In **Generic Bluetooth Radio Properties**, retrieve MAC address of the plugged-in Bluetooth dongle, which is illustrated in the below figure and marked with red frame. Please write down the info for configuring your scanner later on. In this example, Mac address info is **00116778E81C**. Click **OK** button to return to **Bluetooth Settings**.



- 1-6.** Click on **COM Ports** tab to add an incoming port. In **COM Ports** tab, hit **Add** button to invoke **Add COM Port** dialogue box.



- 1-7.** In **Add COM Port** dialogue box, select **Incoming (device initiates the connection)** option and then hit **OK** button to initiate the process.



- 1-8.** Once the incoming port is successfully generated, the list box in **COM Ports** tab will show associated information regarding the incoming port. In the example, the created incoming port is set to **COM14**. Press down **OK** button to close **Bluetooth Settings** dialogue box.



Enter



37

End



Establish a Bluetooth Connection

5

Step 2

Configure the existing terminal application.

2-1. Run the terminal software. In the example, we will demonstrate the case with the free terminal emulation application, Terminal.

2-2. Correctly configure **COM Port** with the value matching the generated incoming COM port, and then press down **Connect** button to ensure the terminal application is connected. Keep the application running in the background.

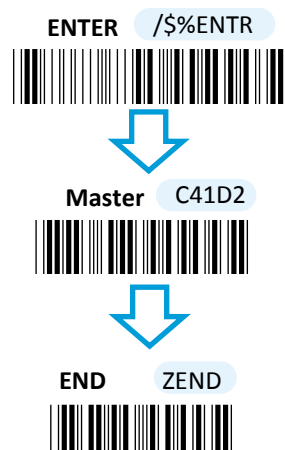


Step 3

Configure your scanner either using the utility program or scanning programming barcodes. Two alternatives take different approaches to serve the same purpose. Select **utility program** to set up the device if you incline to avoid from dealing with lengthy and problematic barcode sequences which constantly end up nullifying your efforts. For those who prefer a straightforward solution, it is suggested to scan the sequence of **programming barcodes** to have your device programmed before use.

Scanning Program Barcodes

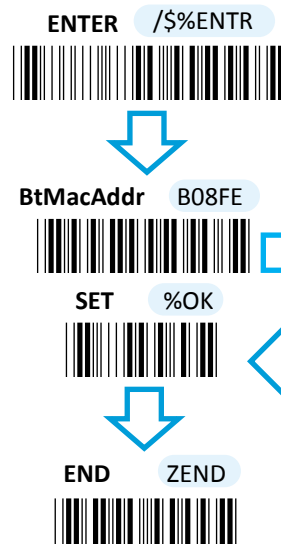
3-1. Configure **Output Interface** of the scanner to be **Master** by scanning the sequence of barcodes as the below illustration shows.



Enter



3-2. Configure **Mac Address** by scanning the sequence of barcodes as the below illustration shows.



38

End

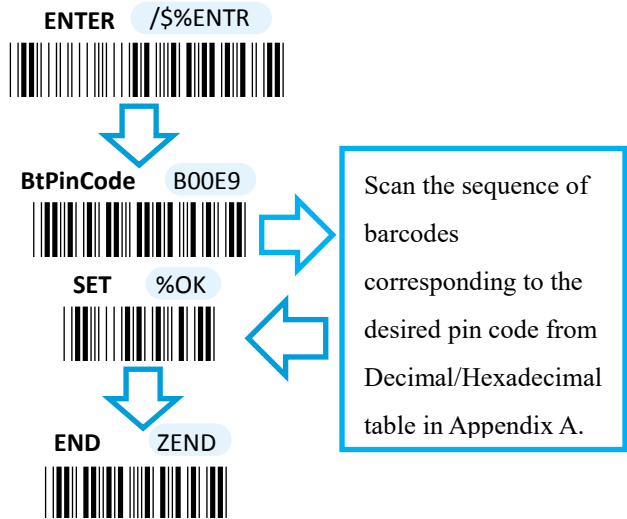


Scan the sequence of barcodes corresponding to the actual MAC address of the dongle from Decimal/Hexadecimal table in Appendix A.

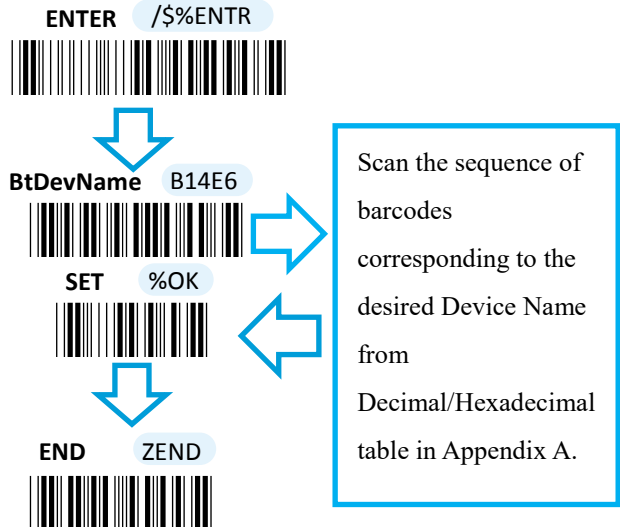
Establish a Bluetooth Connection

5

3-3. Configure **Pin Code** by scanning the sequence of barcodes as the below illustration shows.



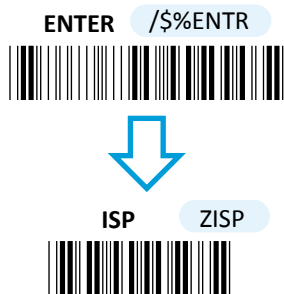
3-4. Configure **Device Name** by scanning the sequence of barcodes as the below illustration shows.



Using Utility Program

3-1. Please have your scanner connected to Host PC using USB cable.

3-2. To create a virtual COM port for the utility to access your scanner, Read **Enter** label > scan **ISP** barcode. The scanner will emit one long sound and six short, rapid sounds followed by two short, slow sounds as a successful attempt.



3-3. Go to **Control Panel > Device Manager**. The created virtual COM port would be found in **Ports (COM & LPT)** group. In the example, COM4 is used as the virtual COM port.



Enter



39

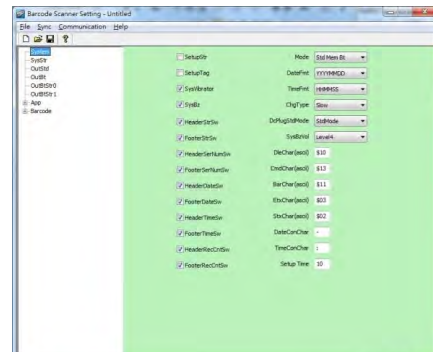
End



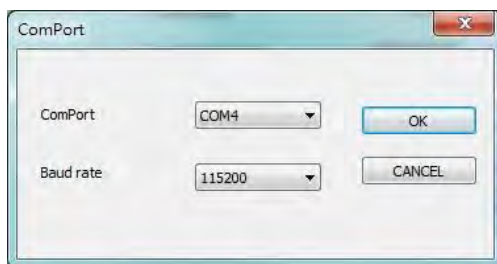
Establish a Bluetooth Connection

5

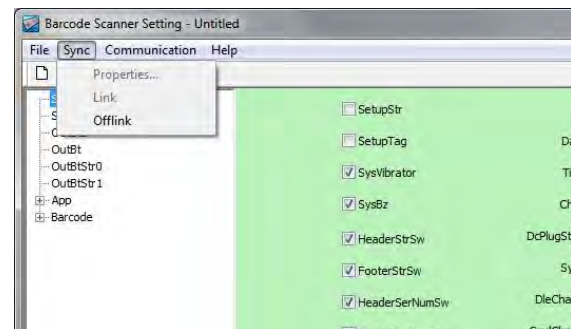
- 3-4. Invoke the utility program located in Product CD.



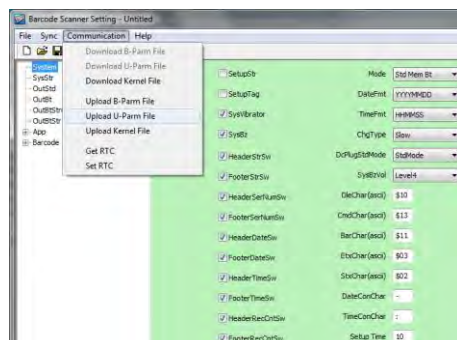
- 3-5. Select **Sync> Property**. In **ComPort** pop-up dialogue box, configure **ComPort** properly according to the virtual COM port created in **Step 3** and leave Baud rate with its default. In the example, configure it with COM4.



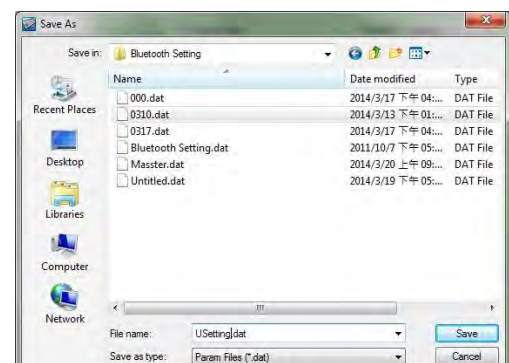
- 3-6. Select **Sync>Link** to link the scanner with the utility program. Once the link is successfully established, **Link/Property** options in Sync menu will be greyed out and the status bar will show associated information.



- 3-7. Before configuring your scanner, you need to upload the scanner status first to ensure the current setting will not be overwritten. In doing so, Select **Communication> Upload U-Parm File**.



- 3-8. As a **Save as** dialogue box pops up, specify the file name and click **Save** button.



Enter



40

End



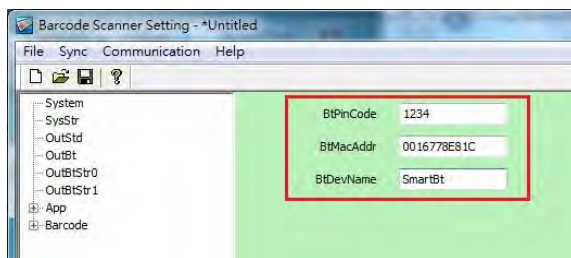
Establish a Bluetooth Connection

5

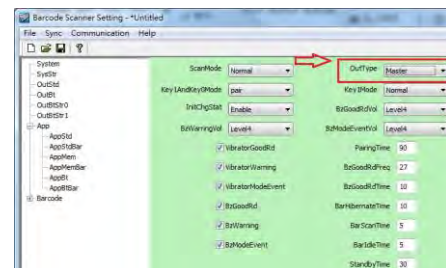
3-9. After the upload process is done, a message box will appear to indicate whether the operation is done successfully.



3-10. Click on **OutBtStr0** item of the tree view in the left panel. Afterwards, Configure **BtPinCode** and **BtDevName** according to your reference, but associate **BtMacAddr** with MAC address information of the Bluetooth device which you look up in the computer.



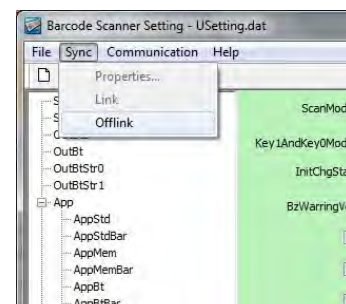
3-11. In the tree view, select **App>AppBt**. In the right panel, select **Master** in the **OutType** combo box. Then, click **Save** icon on the toolbar to save your settings.



3-12. Select **Communication>Download U-Parm** file to apply the customized settings to the scanner



3-13. Select **Sync> Offlink** to complete the configuration.



Enter



41

End



Establish a Bluetooth Connection

5

Step 4

Initiate the process to pair the scanner with third-party Bluetooth dongle.

4-1. Please switch to Bluetooth mode. Choose one of two alternatives listed below to help you achieve the attempt.

➤ When the current mode indicator does not flash blue, please **hold Scan Button long enough to have LED light turn a solid color. Then, after a release of Scan Button, you can tell which operation mode it switches to by observing LED color.** Repeat the steps printed in bold if blue LED does not blink after releasing the Scan Button.

➤ Scan the below barcode.




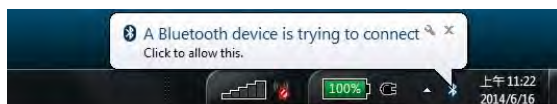
4-2. Pair your scanner with third-party Bluetooth dongle by either of two options suggested below.

➤ After holding small trigger till blue LED starts blinking rapidly, press down Scan Button without releasing Small Trigger. Then releasing Scan button and Small trigger at the same time will initiate the pairing process.

➤ Scan the below barcode.



4-3. When Bluetooth device is detected, Bluetooth icon  will appear on the taskbar with a pop-up message saying “a Bluetooth device is trying to connect”. You have to timely click on the message to accordingly have **Add a device** dialogue box prompted before proceeding with the configuration.



4-4. In **Add a device** dialogue box, correctly enter the pairing code in Passcode field. Then, hit **Next** button to check the result.



Enter



44

End



Establish a Bluetooth Connection

5

- 4-5. The appropriate message will pop up to indicate a success when the valid passcode is properly entered. If the passcode verification fails due to the timeout, please repeat the steps from **Step 4-2 to 4-4.**



- 4-6. Once Bluetooth connection is established successfully, switch back to the terminal application to start receiving barcode data.



Enter



43

End



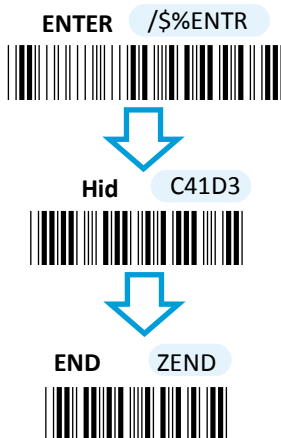
5-2-3. HID Connection Mode

Step 1

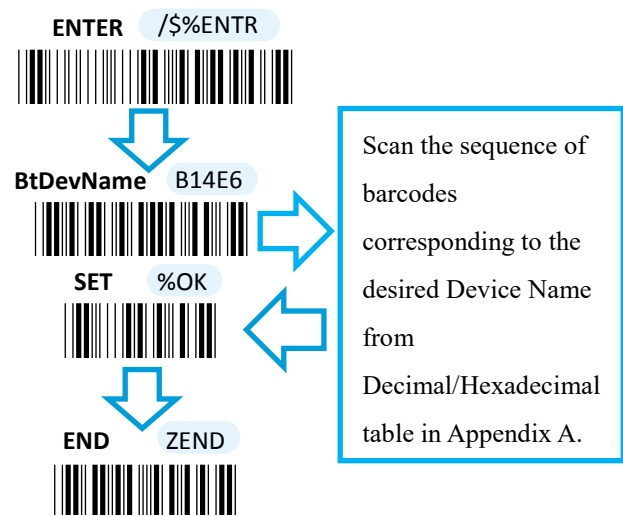
Configure your scanner either using the utility program or scanning programming barcodes. The convenience of **using utility program** will save you trouble scanning the sequence of barcode which demands great caution and high accuracy to work out the configuration. However, you may alternatively choose to **scan programming barcodes** to set up your scanner if you desire a time-saving configuration rather than a research into sophistication of utility program before using it. Considering all pros and cons mentioned above, please choose the one which works best for you.

Scanning Programming Barcodes

1-1. Configure **Output Interface** of the scanner to be **HID** by scanning the sequence of barcodes as the below illustration shows.



1-2. Configure **Device Name** by scanning the sequence of barcodes as the below illustration shows.

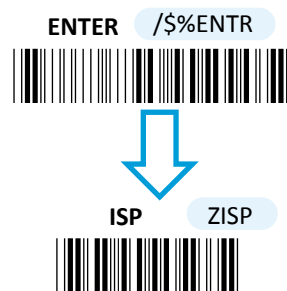


Establish a Bluetooth Connection

5

Using Utility Program

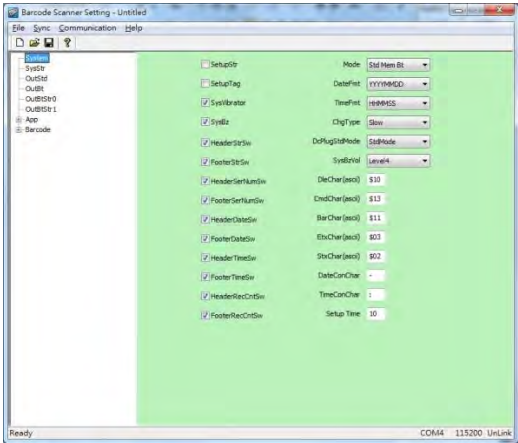
- 1-1. Please have your scanner connected to Host PC using USB cable.
- 1-2. To create a virtual COM port for the utility to access your scanner, Read **Enter** label > scan **ISP** barcode. The scanner will emit one long sound and six short, rapid sounds followed by two short, slow sounds as a successful attempt.



- 1-3. Go to **Control Panel> Device Manager**. The created virtual COM port would be found in **Ports (COM & LPT)** group. In the example, COM4 is used as the virtual COM port.



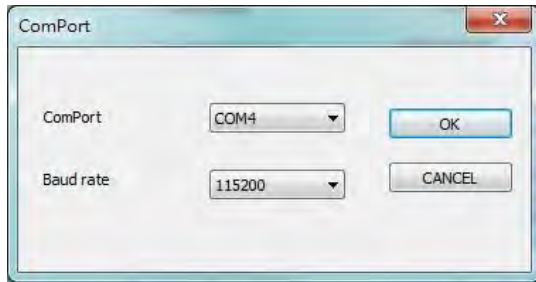
- 1-4. Invoke the utility program located in Product CD.



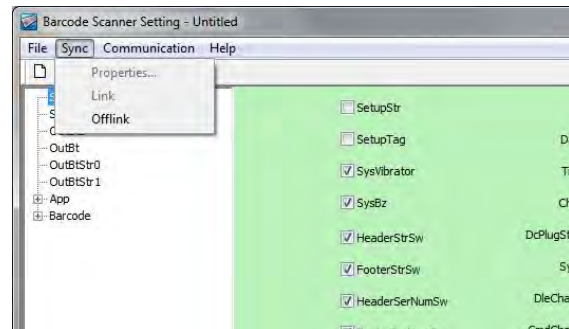
Establish a Bluetooth Connection

5

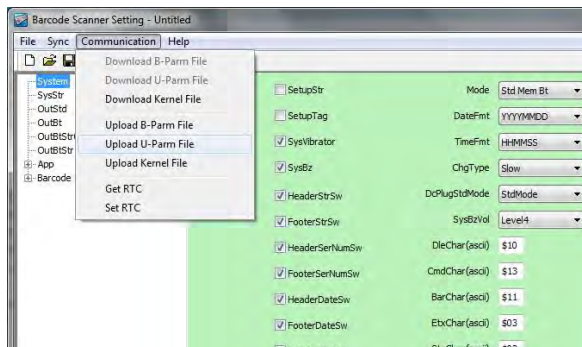
1-5. Select **Sync> Property**. In ComPort pop-up dialogue box, configure ComPort properly according to the virtual COM port created in **Step 3** and leave Baud rate with its default. In the example, configure it with COM4.



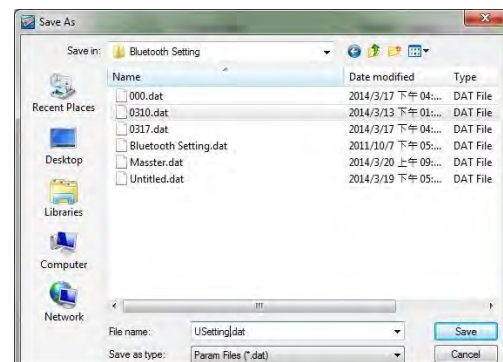
1-6. Select **Sync> Link** to link the scanner with the utility program. Once the link is successfully established, Link/Property options in Sync menu will be greyed out and the status bar will show associated information.



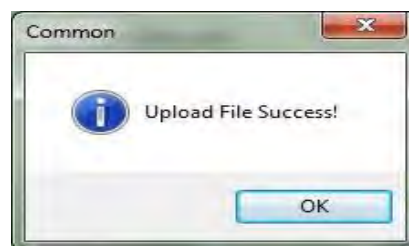
1-7. Before configuring your scanner, you need to upload the scanner status first to ensure the current setting will not be overwritten. In doing so, Select **Communication> Upload U-ParM File**.



1-8. As a **Save as** dialogue box pops up, specify the file name and click **Save** button.



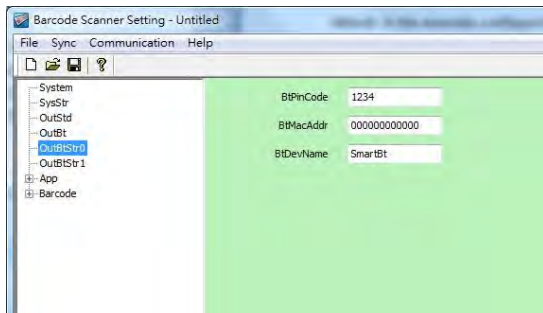
1-9. After the upload process is done, a message box will appear to indicate whether the operation is done successfully.



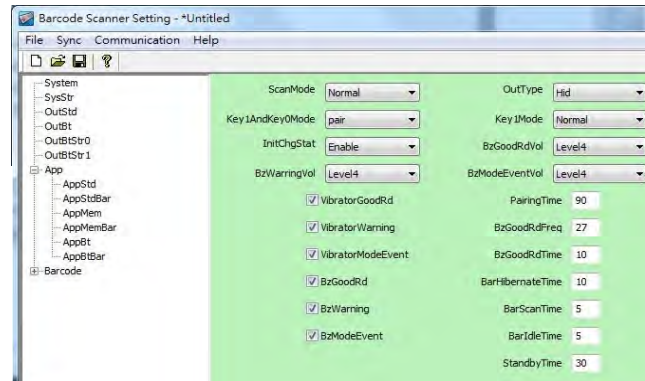
Establish a Bluetooth Connection

5

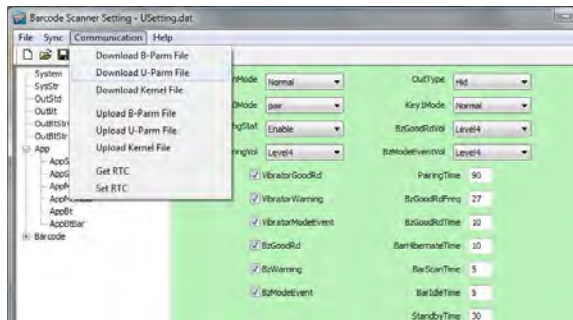
1-10. Click on **OutBtStr0** item of the tree view in the left panel. Afterwards, Configure **BtPinCode** and **BtDevName** according to your reference, but associate **BtMacAddr** with MAC address information of the Bluetooth device which you look up in the computer.



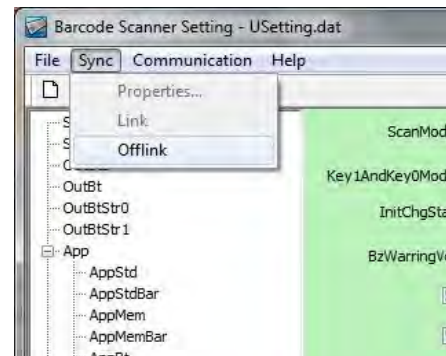
1-11. In the tree view, select **App>AppBt**. In the right panel, Select **HID** in the **OutType** combo box. Click Save icon on the toolbar to save your settings.



1-12. Select **Communication>Download U-Parm file** to apply the customized settings to the scanner.



1-13. Select **Sync> Offlink** to complete the configuration.



Enter



47

End



Establish a Bluetooth Connection

5

Step 2

Pair the scanner with third-party Bluetooth dongle.

2-1. Please have your scanner switch to Bluetooth mode. Choose one of two alternatives listed below to help you achieve the attempt.

- When the current mode indicator does not flash blue, please **hold Scan Button long enough to have LED light turn a solid color. Then, after a release of Scan Button, you can tell which operation mode it switches to by observing LED color.** Repeat the steps printed in bold if blue LED does not blink after releasing the Scan Button.

- Scan the below barcode.



2-2. Pair your scanner with third-party Bluetooth dongle by either of two options suggested below.

- After holding small trigger till blue LED starts blinking rapidly, press down Scan Button without releasing Small Trigger. Then releasing Scan button and Small trigger at the same time will initiate the pairing process.

- Scan the below barcode.




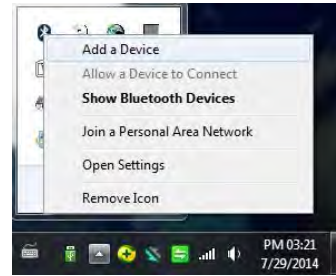
IMPORTANT: Please properly perform **Step 2-1** and **2-2** to ensure the dongle is able to detect the scanner at any time. While following the below steps to proceed with the configuration, please make sure that scanner always stays in Bluetooth mode and awaits a Bluetooth connection by an indication of a steadily flashing blue light. If the scanner is being put into sleep, press down either Scan Button or Small Trigger once to wake up the scanner.



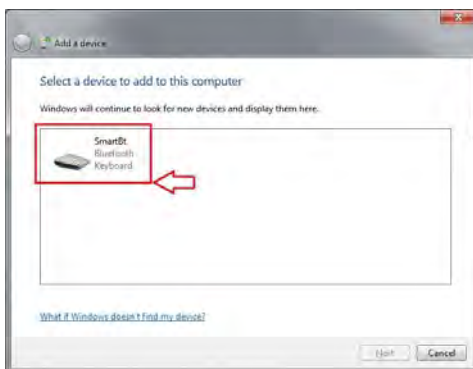
Establish a Bluetooth Connection

5

- 2-3.** When Bluetooth device is detected, R-click on Bluetooth icon  on the task bar, and select **Add a Device** in the pop-up submenu.



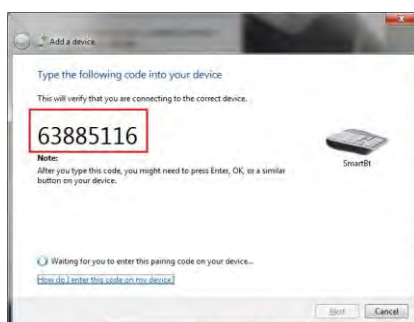
- 2-4.** In **Add a Device** dialogue box, the list box will display all the available Bluetooth devices after a search. Select the device with the name which you specify for the scanner. In this example, click on **SmartBt** item. Then, hit **Next** button.



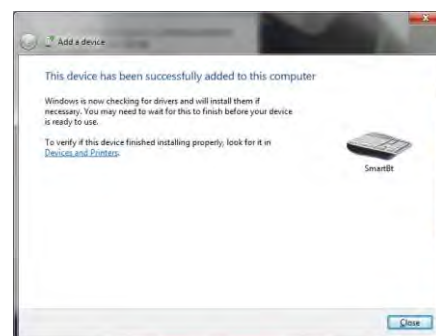
- 2-5.** If the similar dialogue box appears as the below figure suggests (depending upon Bluetooth settings in your computer, the mentioned dialogue box may not show up), select **Create a pairing code for me** and then hit **Next** button. If not, skip to next step.



- 2-6.** Refer to Decimal/Hexadecimal table in Appendix A to accurately scan the sequence of barcodes which matches to the generated code shown in the dialogue box for pin code verification. In this example, please scan **6,3,8,8,5,1,1**, and **6**.



- 2-7.** A message will appear to indicate the dongle and the scanner have been paired successfully. Press down **Close** button to close **Add a device** dialogue box.



Enter



49

End

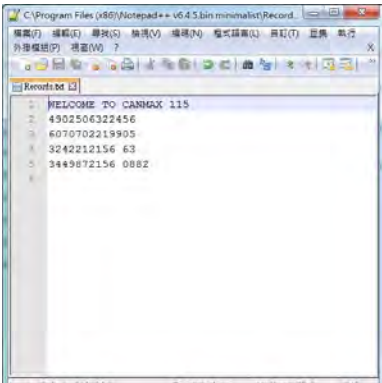


Establish a Bluetooth Connection

5

Step 3

Launch the existing text editing application to receive barcode data.



Enter



50

End



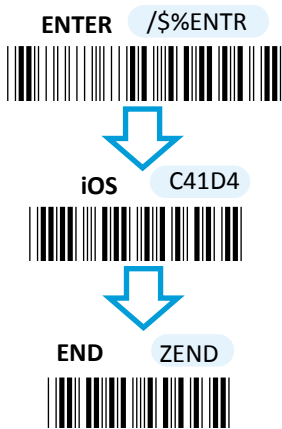
5-2-4. iOS Connection Mode

Step 1

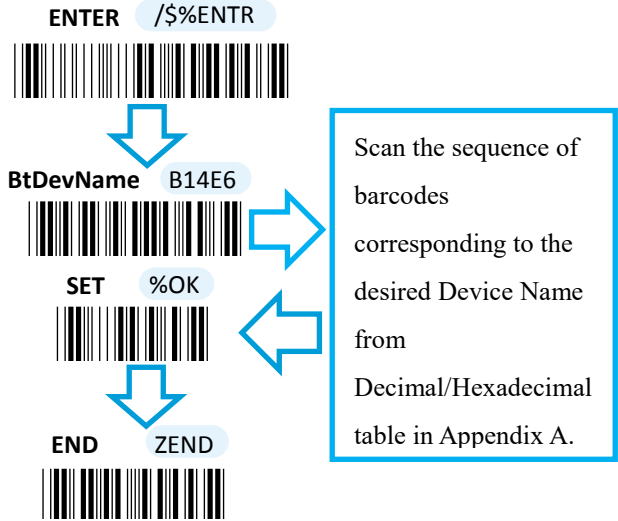
Configure your scanner either using the utility program or scanning programming barcodes. The primary advantage of **using the utility program** is to prevent the invalid configuration which frequently happens due to the incorrect and reckless scanning sequence. However, it requires extra pre-configuration procedures before the utility program can be executed properly. On the other hand, the use of **barcode programming sequence** will lead to a rapid and efficient configuration for your scanner instead of taking time to dig into the seemingly confusing application. Considering all pros and cons mentioned above, choose the one which fits for your situation.

Scanning Programming Barcodes

1-1. Configure **Output Interface** of the scanner to be **iOS** by scanning the sequence of barcodes as the below illustration shows.



1-2. Configure **Device Name** by scanning the sequence of barcodes as the below figure show. By default, Device name is set to "SmartBt."

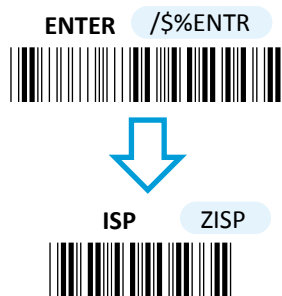


Establish a Bluetooth Connection

5

Using Utility Program

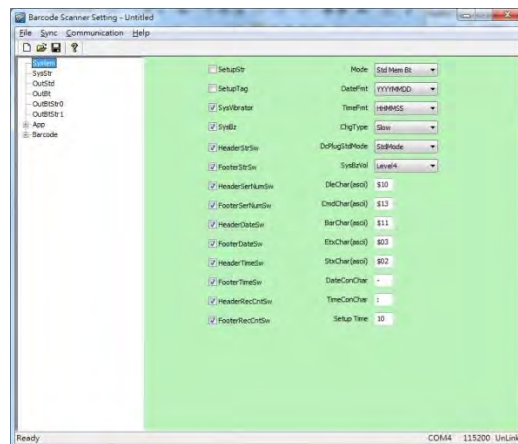
- 1-1. Please have your scanner connected to Host PC using USB cable.
- 1-2. To create a virtual COM port for the utility to access your scanner, Read **Enter** label > scan **ISP** barcode. The scanner will emit one long sound and six short, rapid sounds followed by two short, slow sounds as a successful attempt.



- 1-3. Go to **Control Panel> Device Manager**. The created virtual COM port would be found in **Ports (COM & LPT)** group. In the example, COM3 is used as the virtual COM port.



- 1-4. Invoke the utility program located in Product CD.



Enter



52

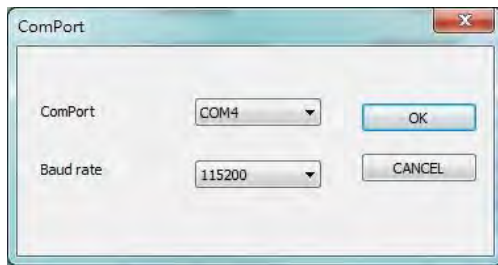
End



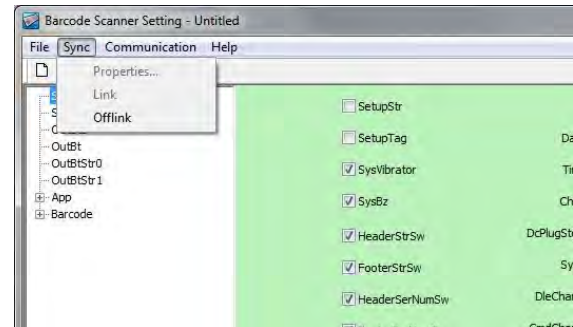
Establish a Bluetooth Connection

5

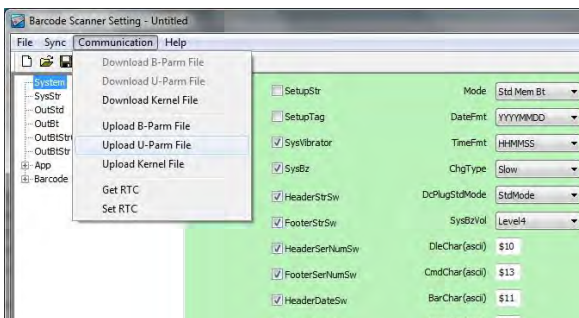
- 1-5.** Select **Sync>Property**. In **ComPort** pop-up dialogue box, configure **ComPort** properly according to the virtual COM port created in **Step 3** and leave Baud rate with its default. In the example, configure it with COM4.



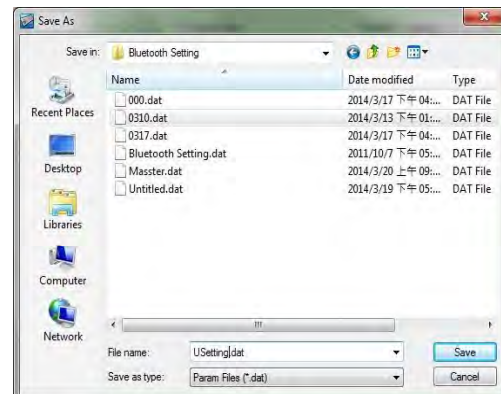
- 1-6.** Select **Sync>Link** to link the scanner with the utility program. Once the link is successfully established, **Link/Property** options in Sync menu will be greyed out and the status bar will show associated information.



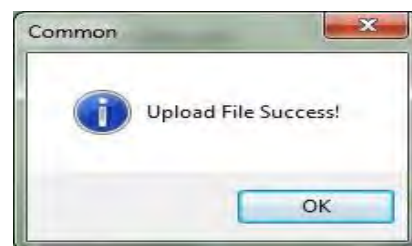
- 1-7.** Before configuring your scanner, you need to upload the scanner status first to ensure the current setting will not be overwritten. In doing so, Select **Communication>Upload U-Parm File**.



- 1-8.** As a **Save as** dialogue box pops up, specify the file name and click **Save** button.



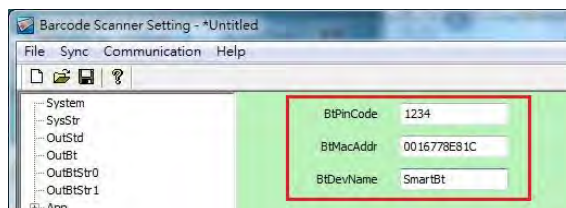
- 1-9.** After the upload process is done, a message box will appear to indicate whether the operation is done successfully.



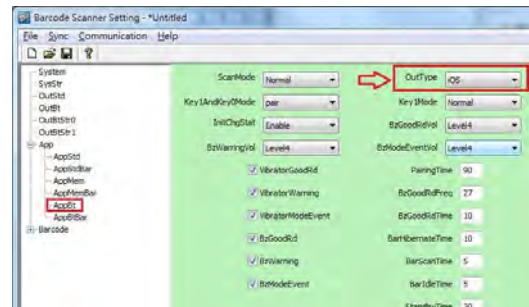
Establish a Bluetooth Connection

5

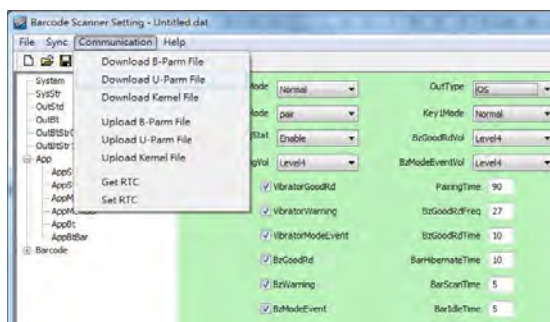
1-10. Click on **OutBtStr0** item of the tree view in the left panel. Afterwards, Configure **BtPinCode** and **BtDevName** according to your reference, but associate **BtMacAddr** with MAC address information of the Bluetooth device which you look up in the computer.



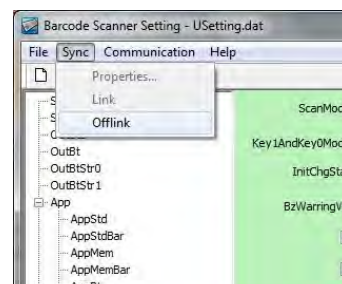
1-11. In the tree view, select **App>AppBt**. In the right panel, select **iOS** in the **OutType** combo box. Then, click **Save** icon on the toolbar to save your settings.



1-12. Select **Communication>Download U-Parm** file to apply the customized settings to the scanner.



1-13. Select **Sync> Offlink** to complete the configuration.



Establish a Bluetooth Connection

5

Step 2

Initiate the process to pair the scanner with third-party Bluetooth dongle.

2-1. Please switch to Bluetooth mode. Choose one of two alternatives listed below to help you achieve the attempt.

- When the current mode indicator does not flash blue, please **hold Scan Button long enough to have LED light turn a solid color. Then, after a release of Scan Button, you can tell which operation mode it switches to by observing LED color.** Repeat the steps printed in bold if blue LED does not blink after releasing the Scan Button.

- Scan the below barcode.



2-2. Pair your scanner with third-party Bluetooth dongle by either of two options suggested below.

- After holding small trigger till blue LED starts blinking rapidly, press down Scan Button without releasing Small Trigger. Then releasing Scan button and Small trigger at the same time will initiate the pairing process.

- Scan the below barcode.



IMPORTANT: In order to pair the scanner with iPad, please make sure that scanner always stays in Bluetooth mode and awaits a Bluetooth connection by an indication of a steadily flashing blue light. If the scanner is being put into sleep, press down Scan Button or Small Trigger to wake up the scanner; or, repeat **Step 2-2** when the timeout period expires.



Establish a Bluetooth Connection

5

Step 3

Configure your Apple products. In this example, we will demonstrate the case with iPad.

- 3-1.** Activate your iPad. Tap **Setting**, go to **General**> **Bluetooth**, and then turn on **Bluetooth** settings.



- 3-2.** From the list of available Bluetooth devices in range, Click on the device which you intend to pair iPad with.



- 3-3.** According to pop-up message, correctly scan the passcode for verification. In this example, please read the sequence of decimal barcodes, 3-5-7-9. Repeat this step till it succeeds.



- 3-4.** Once iPad successfully pairs with the scanner, press Home button to return to Home page. Then, tap **Notes** to receive barcode data.



Enter



56

End



Establish a Bluetooth Connection

5

5-2-5. Bluetooth Dongle A303 Connection Mode

Bluetooth Dongle A303 is a specialized Bluetooth peripheral device adapted for use of MK-520W3 via HID or SPP interface in attempt to leverage Bluetooth technology. An optional purchase of Bluetooth dongle A303 could prevent you from going through the complicated configuration since it is well programmed beforehand with all the necessary Bluetooth settings before the delivery. Accordingly, performing Bluetooth operations out of MK-520W3 for the very first time simply demands a press of button to recover the Bluetooth connection unless the scanner is re-programmed to pair with third-party dongle or other Bluetooth devices previously. In case that you possibly adopt a different approach to establish a Bluetooth connection for whatever reasons, the step-by-step instruction is still provided so that you are able to make MK-520W3 work with Bluetooth dongle A303

Work with Dongle A303 for the First Time Use

Step 1

Secure the Bluetooth dongle A303 into Host PC.

Step 2

Scan the sequence of barcodes listed below to switch the scanner to Bluetooth operation mode.

ENTER /\$%ENTR



To BT Mode ZTOB

Step 3

Press down either Scan Button or Small Trigger to recover Bluetooth connection. A solid blue LED indicates a successful attempt.

Establish a Bluetooth Connection

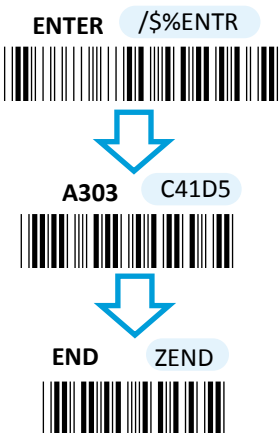
How to Re-Configure your Scanner to Work with Dongle A303

Step 1

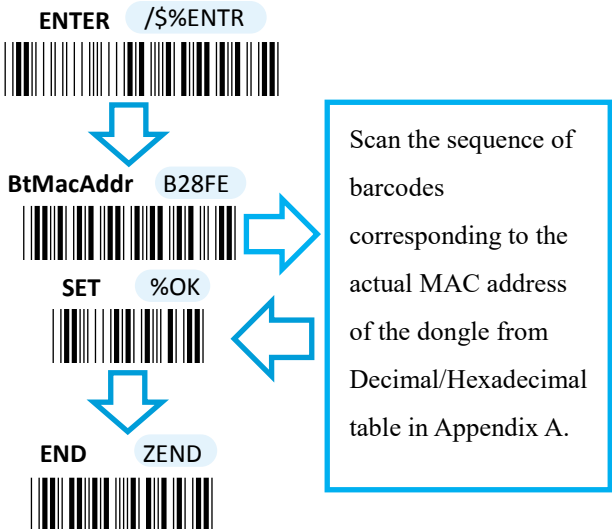
Configure your scanner either using the utility program or scanning programming barcodes. The approach of **utility program** will help you accurately program your device with no need to go through the sequence of barcode scans which occasionally produces erroneous results due to the lack of cares. As another alternative, **scanning programming barcodes** would work better if you rather adopt a more time-saving approach than allocate time or other resources to familiarize with the utility program.

Scanning Programming Barcodes

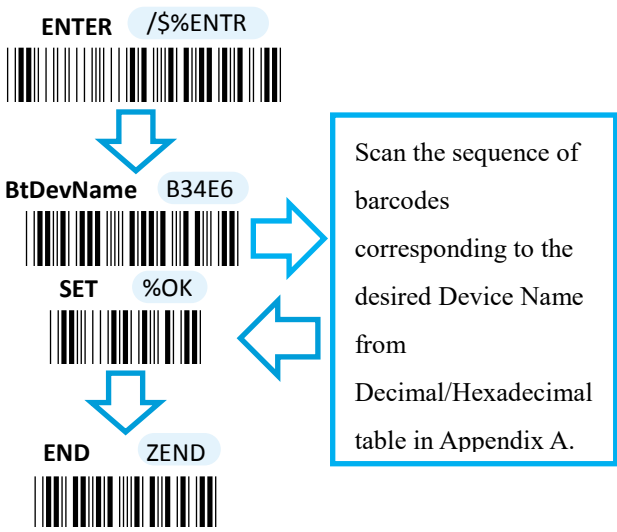
1-1. Configure **Output Interface** of the scanner to be **A303** by scanning the sequence of barcodes as the illustration on the right side shows.



1-2. Retrieve Mac Address info on the side of Bluetooth dongle A303, and then configure **Mac Address** by scanning the sequence of barcodes as the below illustration shows.



1-3. Configure **Device Name** by scanning the sequence of barcodes as the below illustration shows.

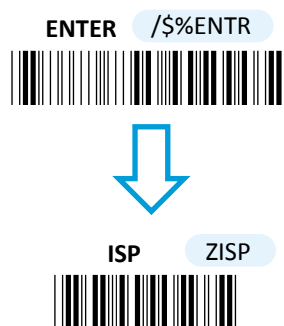


Establish a Bluetooth Connection

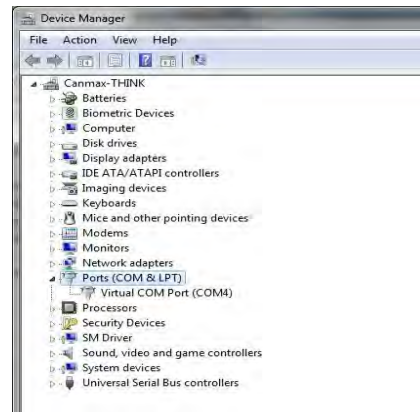
5

Using Utility Program

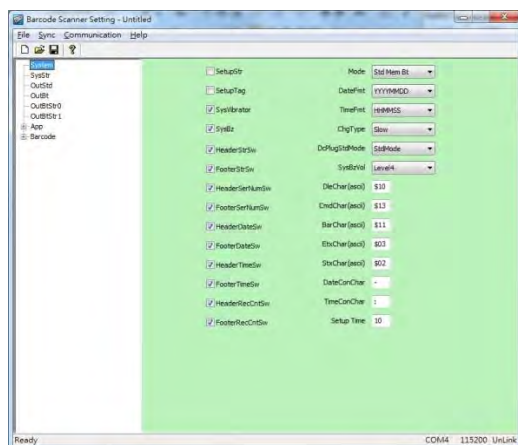
- 1-1. Please have your scanner connected to Host PC using USB cable.
- 1-2. To create a virtual COM port for the utility to access your scanner, Read **Enter** label > scan **ISP** barcode. The scanner will emit one long sound and six short, rapid sounds followed by two short, slow sounds as a successful attempt.



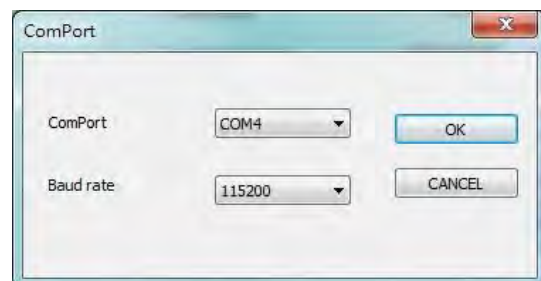
- 1-3. Go to **Control Panel> Device Manager**. The created virtual COM port would be found in **Ports (COM & LPT)** group. In the example, COM3 is used as the virtual COM port.



- 1-4. Invoke the utility program located in Product CD.



- 1-5. Select **Sync> Property**. In ComPort pop-up dialogue box, configure ComPort properly according to the virtual COM port created in **Step 3** and leave Baud rate with its default. In the example, configure it with COM4.



Enter



59

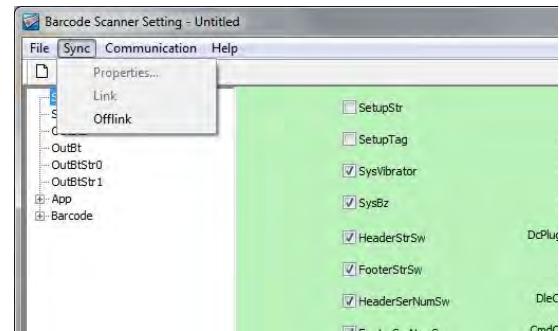
End



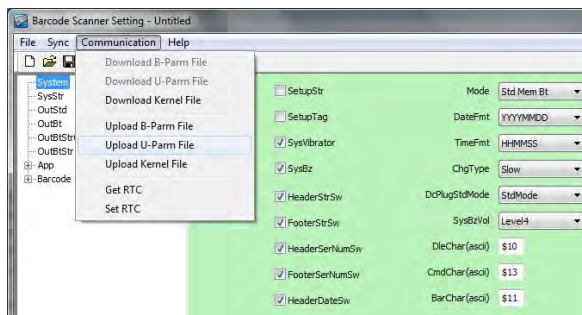
Establish a Bluetooth Connection

5

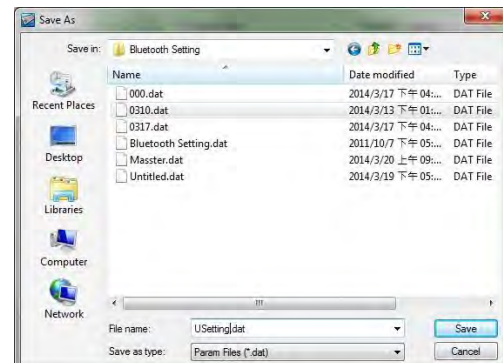
- 1-6.** Select **Sync> Link** to link the scanner with the utility program. Once the link is successfully established, Link/Property options in Sync menu will be greyed out and the status bar will show associated information.



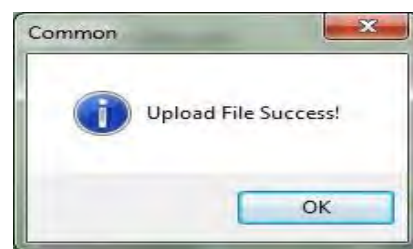
- 1-7.** Before configuring your scanner, you need to upload the scanner status first to ensure the current setting will not be overwritten. In doing so, Select **Communication> Upload U-Parm File**.



- 1-8.** As a **Save as** dialogue box pops up, specify the file name and click **Save** button.



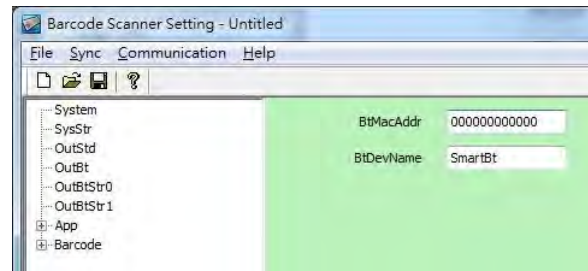
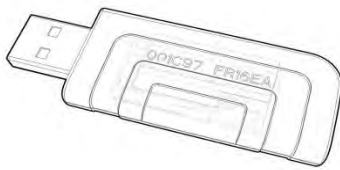
- 1-9.** After the upload process is done, a message box will appear to indicate whether the operation is done successfully.



Establish a Bluetooth Connection

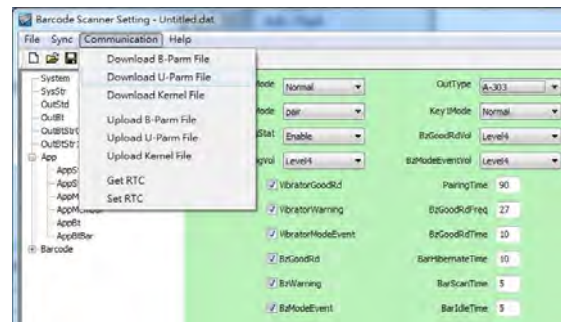
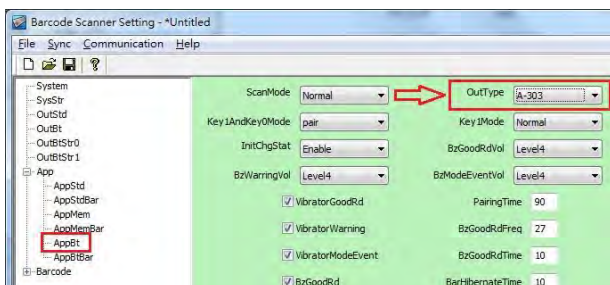
5

- 1-10.** Click on **OutBtStr1** item of the tree view in the left panel. Afterwards, Configure **BtDevName** according to your reference, but associate **BtMacAddr** with MAC address information which is clearly marked on the side of Bluetooth dongle A303. In this example, the MAC address is **001C97FR16EA**.

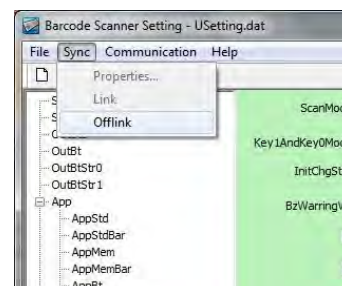


- 1-11.** In the tree view, select **App>AppBt**. In the right panel, select **A303** in the **OutType** combo box. Click Save icon on the toolbar to save your settings.

- 1-12.** Select **Communication>Download U-Parm** file to apply the customized settings to the scanner.



- 1-13.** Select **Sync> Offlink** to complete the configuration.



Establish a Bluetooth Connection

5

Step 2

Pair the scanner with third-party Bluetooth dongle.

- 2-1.** Please have your scanner switch to Bluetooth mode. Choose one of two alternatives listed below to help you achieve the attempt.

Using Button Triggers

- When the current mode indicator does not flash blue, please **hold Scan Button long enough to have LED light turn a solid color. Then, after a release of Scan Button, you can tell which operation mode it switches to by observing LED color.** Repeat the steps printed in bold if blue LED does not blink after releasing the Scan Button.

Scanning Programming Barcodes

- Scan the below barcode.



- 2-2.** Pair your scanner with third-party Bluetooth dongle by either of two options suggested below.

Using Button Triggers

- After holding small trigger till blue LED starts blinking rapidly, press down Scan Button without releasing Small Trigger. Then releasing Scan button and Small trigger at the same time will initiate the pairing process.

Scanning Programming Barcodes

- Scan the below barcode.



Establish a Bluetooth Connection

5

Step 3

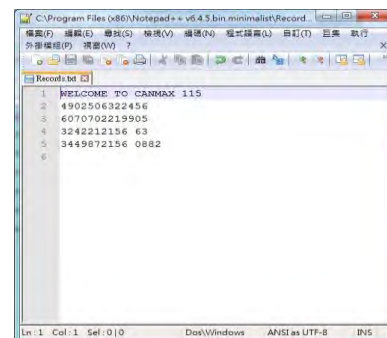
Properly scan the sequence of barcodes to determine the output interface via which the scanner interacts with other devices. To configure output interface, there are two interface options, HID interface and Virtual COM interface, for you to select from.

HID Interface

3-1. Scan the below barcodes to activate HID interface.

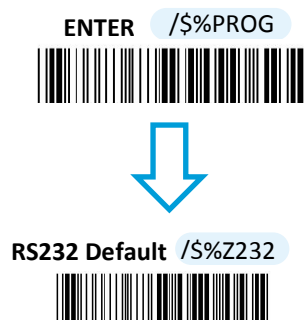


3-2. Launch the existing text editing software to receive barcode data.

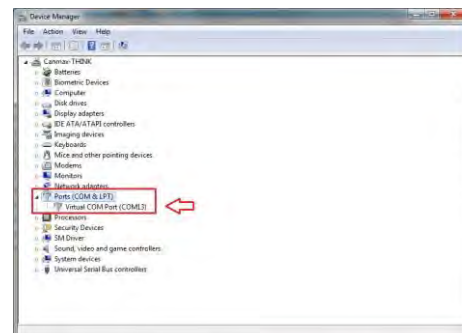


Virtual COM Interface

3-1. Scan the below barcodes to activate Virtual COM interface.



3-2. Go to **Control Panel> Device Manager**. The created virtual COM port would be found in **Ports (COM & LPT)** group. In the example, COM13 is used as the virtual COM port.



Enter



63

End



Establish a Bluetooth Connection

5

3-3. Run the terminal software. In the example, we will demonstrate the case with a free terminal emulation application, Terminal.

3-4. Correctly configure **COM Port** with the value matching the generated virtual COM port, and then press down **Connect** button to ensure the terminal application is connected.



3-5. Now you are able to receive barcode data via terminal software.



Enter



64

End



Establish a Bluetooth Connection

5

5-2-6. Bluetooth Dongle A302 Connection Mode

Bluetooth Dongle A302 is a specialized Bluetooth peripheral device adapted for use of MK-520W3 via HID interface in attempt to leverage Bluetooth technology. An optional purchase of Bluetooth dongle A302 could prevent you from going through the complicated configuration since it is well programmed beforehand with all the necessary Bluetooth settings before the delivery. Accordingly, performing Bluetooth operations out of MK-520W3 for the very first time simply demands a press of button to recover the Bluetooth connection which is earlier configured unless the scanner is re-programmed to pair with third-party dongle or other Bluetooth devices. In case that you possibly adopt a different approach to establish a Bluetooth connection for whatever reasons, the step-by-step instruction is still provided so that you are able to make MK-520W3 work with Bluetooth dongle A302 again.

Work with Dongle A302 for the First Time Use

Step 1

Secure the Bluetooth dongle A302 into Host PC.

Step 2

Scan the sequence of barcodes listed below to switch the scanner to Bluetooth operation mode.

ENTER /\$%ENTR



To BT Mode ZTOB

Step 3

Press down either Scan Button or Small Trigger to recover Bluetooth connection. A solid blue LED indicates a successful attempt.

Establish a Bluetooth Connection

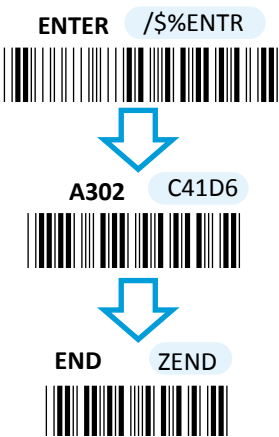
How to Re-Configure your Scanner to Work with Dongle A302

Step 1

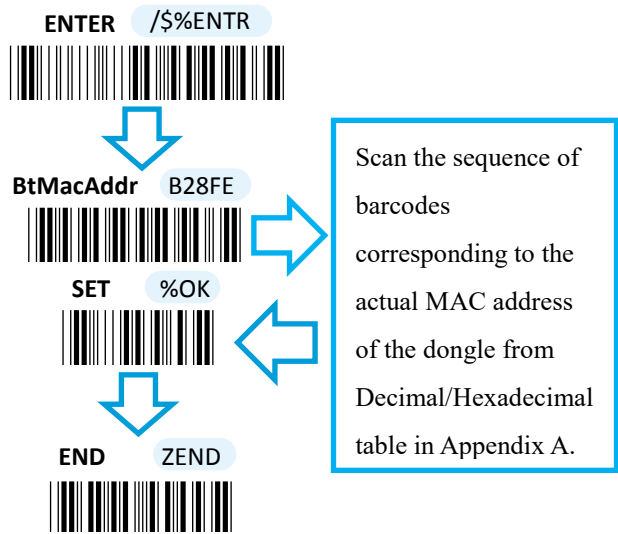
Configure your scanner either using the utility program or scanning programming barcodes. Select **utility program** to set up scanner when you expect to reduce the mistakes caused by incautious manual operation on barcode sequences. As a substitute, **scanning programming barcodes** alternatively provides a more efficient and straightforward method for programming your device, compared to the complicated approach of using utility program.

Scanning Programming Barcodes

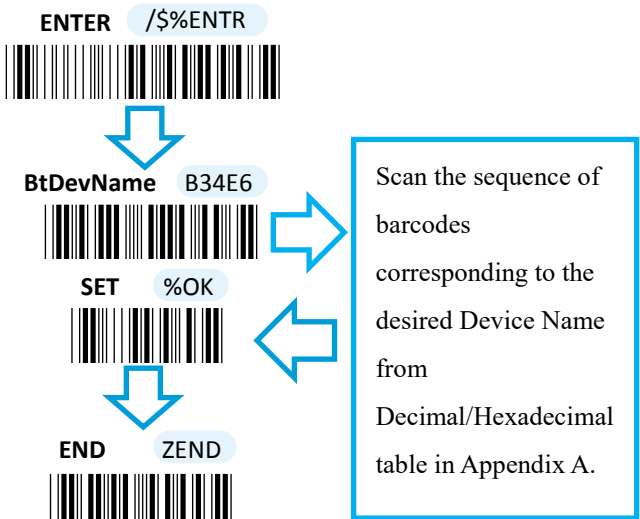
1-1. Configure **OutputInterface** of the scanner to be **A302** by scanning the sequence of barcodes as the illustration on the right side shows.



1-2. Retrieve Mac Address info on the side of Bluetooth dongle A302, and then configure **Mac Address** by scanning the sequence of barcodes as the below illustration shows.



1-3. Configure **Device Name** by scanning the sequence of barcodes as the below illustration shows.

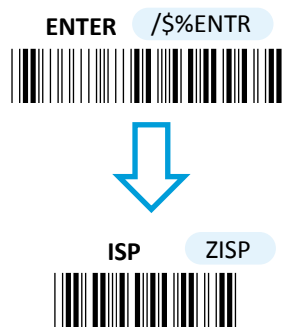


Establish a Bluetooth Connection

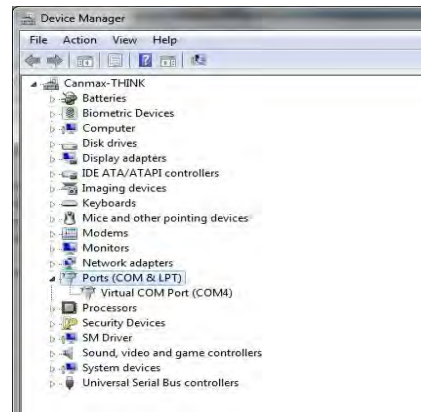
5

Using Utility Program

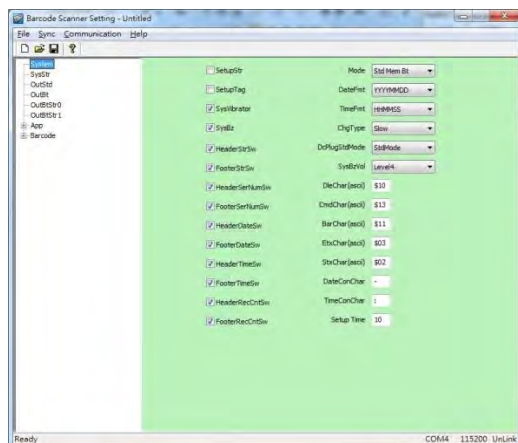
- 1-1. Please have your scanner connected to Host PC using USB cable.
- 1-2. To create a virtual COM port for the utility to access your scanner, Read **Enter** label > scan **ISP** barcode. The scanner will emit one long sound and six short, rapid sounds followed by two short, slow sounds as a successful attempt.



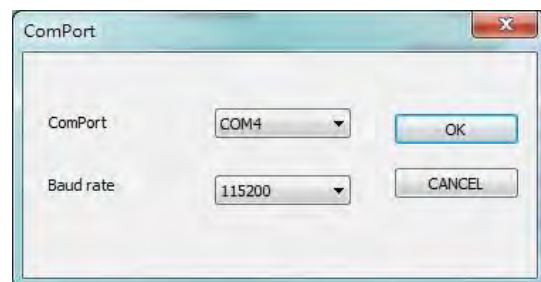
- 1-3. Go to **Control Panel> Device Manager**. The created virtual COM port would be found in **Ports (COM & LPT)** group. In the example, COM3 is used as the virtual COM port.



- 1-4. Invoke the utility program located in Product CD.



- 1-5. Select **Sync> Property**. In ComPort pop-up dialogue box, configure ComPort properly according to the virtual COM port created in **Step 3** and leave Baud rate with its default. In the example, configure it with COM4.



Enter



67

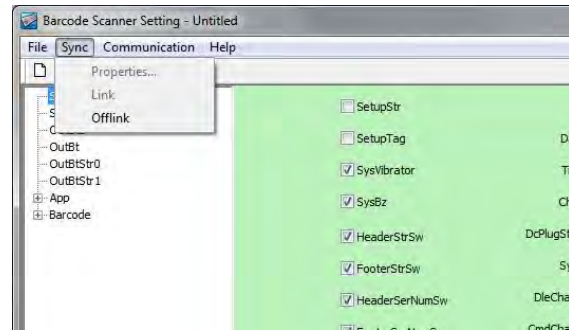
End



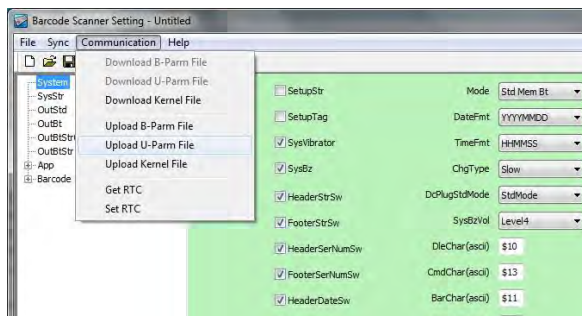
Establish a Bluetooth Connection

5

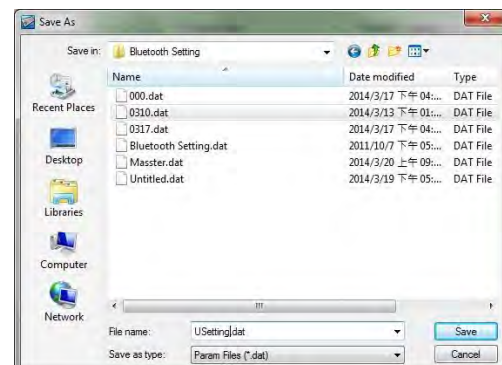
- 1-6.** Select **Sync> Link** to link the scanner with the utility program. Once the link is successfully established, Link/Property options in Sync menu will be greyed out and the status bar will show associated information.



- 1-7.** Before configuring your scanner, you need to upload the scanner status first to ensure the current setting will not be overwritten. In doing so, Select **Communication> Upload U-Parm File**.



- 1-8.** As a **Save as** dialogue box pops up, specify the file name and click **Save** button.



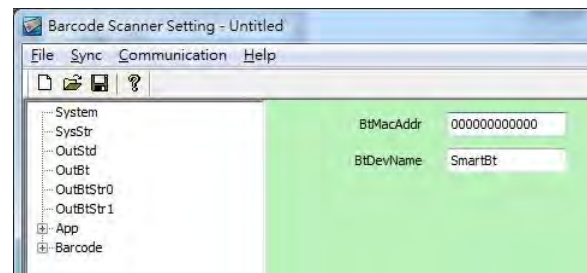
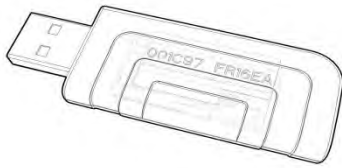
- 1-9.** After the upload process is done, a message box will appear to indicate whether the operation is done successfully.



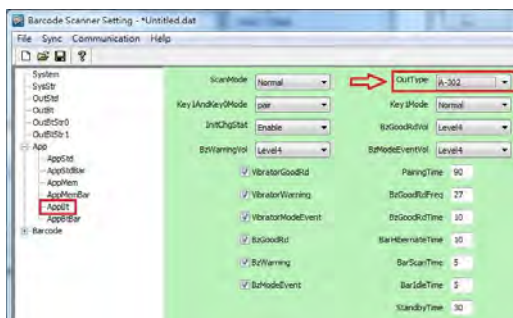
Establish a Bluetooth Connection

5

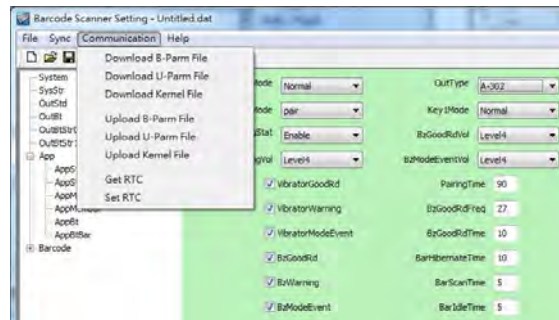
1-10. Click on **OutBtStr1** item of the tree view in the left panel. Afterwards, Configure **BtDevName** according to your reference, but associate **BtMacAddr** with MAC address information which is clearly marked on the side of Bluetooth dongle A303. In this example, the MAC address is **001C97FR16EA**.



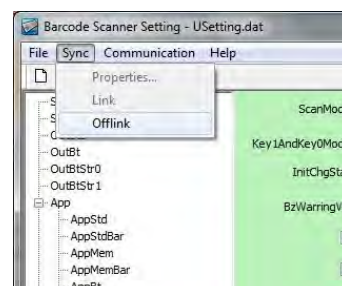
1-11. In the tree view, select **App>AppBt**. In the right panel, select **A302** in the **OutType** combo box. Click Save icon on the toolbar to save your settings.



1-12. Select **Communication>Download U-Parm file** to apply the customized settings to the scanner.



1-13. Select **Sync> Offlink** to complete the configuration.



Establish a Bluetooth Connection

5

Step 2

Pair the scanner with third-party Bluetooth dongle.

- 2-1.** Please have your scanner switch to Bluetooth mode. Choose one of two alternatives listed below to help you achieve the attempt.

Using Button Triggers

- When the current mode indicator does not flash blue, please **hold Scan Button long enough to have LED light turn a solid color. Then, after a release of Scan Button, you can tell which operation mode it switches to by observing LED color.** Repeat the steps printed in bold if blue LED does not blink after releasing the Scan Button.

Scanning Programming Barcodes

- Scan the below barcode.



- 2-2.** Pair your scanner with third-party Bluetooth dongle by either of two options suggested below.

Using Button Triggers

- After holding small trigger till blue LED starts blinking rapidly, press down Scan Button without releasing Small Trigger. Then releasing Scan button and Small trigger at the same time will initiate the pairing process.

Scanning Programming Barcodes

- Scan the below barcode.

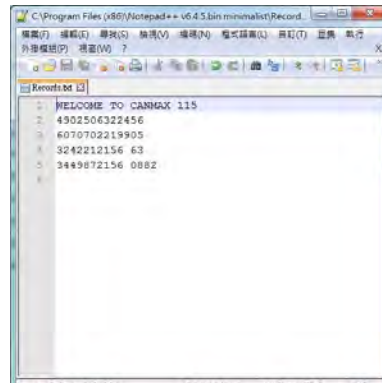


Establish a Bluetooth Connection

5

Step 3

Launch the existing text editing application to receive barcode data.



Enter



71

End



6. General Configuration

This chapter will provide setup barcodes regarding the general settings, and elaborate how these configurations are going to take effect in terms of the scanner operation.



6-1. Host Interface

6-1-1. Restore the Setting

Scan the below barcode to restore the device back to the default settings, but to leave interface-related configurations unchanged.



6-1-2. Restore the Symbology Setting

Scan the below barcode to restore the symbologies to the default settings.



6-1-3. Retrieve Firmware Information

Scan the below barcode to retrieve firmware information, including engine version, firmware version, and Bluetooth module version.



6-1-4. Abort the Configuration

Scan the below barcode to terminate the current operation and exit the configuration mode.



6-1-5. Update Firmware

This setup barcode allows you to attempt a firmware update via the utility program. After securing the interface into the scanner and the PC USB port, scan the below barcode to create a virtual COM port which avails the utility of the access of the device.



6-1-6. Enable/Disable Automatic Battery Charger

By default, the device will automatically initiate the charging process to ensure a sufficient battery level after connected with the interface cable. Scan the barcode to enable or disable automatic battery charger. If the automatic battery charger is disabled, scan the barcode to turn it on; Conversely, scan the barcode to turn off the automatic charger when the function is enabled.

Charge On/Off ZCHG



6-1-7. Bluetooth Pairing

Scan the barcode to initiate the Bluetooth pairing process.

BtPairing ZPAR



6-2. System Control

6-2-1. Available Operation Modes

Taking into account the diversity of the business activities, three operation modes are provided to improve efficiency at work. The list of setup barcodes below shows varied selections of mode combinations, including 2in1 and 3in1 functions, for you to choose from. Scan the appropriate barcode to determine availability of operation modes.

Cable A40C0



Memory A40C1



Cable+Mem A40C2



Bluetooth A40C3



Enter



74

End



Cable+BT A40C4



Mem+BT A40C5



Cable+Mem+BT A40C6



6-2-2. Set Date Format

Scan the appropriate barcode to specify the date format.

YYYYMMDD A42C0



MMDDYYYY A42C1



DDMMYYYY A42C2



YYMMDD A42C3



MMDDYY A42C4



DDMMYY A42C5



Enter



75

End



6-2-3. Set Time Format

Scan the appropriate barcode to specify the time format.

HHMMSS A42A0



HHMM A42A1



MMSS A42A2



6-2-4. Set Charge Rate

Scan the appropriate barcode to specify the charge rate.

Slow A4300



Quick A4301



6-2-5. Set the Workflow of Operation Modes Switch

This parameter specifies how the device switches among different operation modes. With **StdMode** setting, the operation mode will compulsorily switch to Cable mode when the device is connected with a cable. At the moment, the scanner is not able to switch to other modes unless the cable is unplugged from the scanner. Without the cable plugged in, the device will switch back to the previous operation mode, and Cable mode becomes unavailable. Conversely, if you wish the operation mode would remain the same or demand full availability of three operation modes, no matter whether the cable is plugged in or not, then scan **Disable** label to achieve the attempt.

Disable A4320



StdMode A4321



Enter



76

End



6-2-6. Enable/Disable Buzzer

The warning buzzer emits a sound when a warning occurs. Scan the appropriate barcode to disable or enable the buzzer.

Disable A4540



Enable A4541



6-2-7. Set the Warning Buzzer Volume

Scan the appropriate barcode to specify the volume of the warning buzzer. The higher level indicates the louder sound.

Level1 A4580



Level2 A4581



Level3 A4582



Level4 A4583



6-2-8. Enable/Disable Vibrator

Vibrator functions as the warning buzzer yet sends a warning signal by vibration. Scan the appropriate barcode to disable or enable the warning vibrator.

Disable A4550



Enable A4551



6-2-9. Enable/Disable Vibrator for Configuration Mode

This special vibrator will send a vibration signal as a warning indicator when configuration mode is initiated by a scan on **Enter** label. Scan the appropriate barcode to have the feature disabled or enabled.

Disable A4570



Enable A4571



6-2-10. Enable/Disable Header

Headers refer to additional information, including serial number, date, time and so on, which precedes the decoded message while saved barcodes are transmitted in Memory mode. Scan the appropriate barcode to determine whether or not to send out the header information as part of transmitted data.

Disable A4600



Enable A4601



6-2-11. Enable/Disable Serial Number Info in the Header

Scan the appropriate barcode to determine whether or not to send out serial number information as part of header information.

Disable A4610



Enable A4611



6-2-12. Enable/Disable Date and Time Info in the Header

Scan the appropriate barcode to determine whether or not to send out date information as part of header information.

Disable A4620



Enable A4621



6-2-13. Enable/Disable Record Count Info in the Header

Record count information refers to the total number of scanned barcodes. Read the appropriate barcode to determine whether or not to send out the record count as part of header information.

Disable A4630



Enable A4631



6-2-14. Enable/Disable Footer

Footers refer to additional information which is appended to the decoded message while saved barcodes are transmitted in Memory mode. Scan the appropriate barcode to determine whether or not to send out the footer information as part of transmitted data.

Disable A4700



Enable A4701



6-2-15. Enable/Disable Serial Number Info in the Footer

Scan the appropriate barcode to determine whether or not to send out serial number information as part of footer information.

Disable A4710



Enable A4711



6-2-16. Enable/Disable Date and Time Info in the Footer

Scan the appropriate barcode to determine whether or not to send out date information as part of footer information.

Disable A4720



Enable A4721



6-2-17. Enable/Disable Record Count Info in the Footer

Record count information refers to the total number of scanned barcodes. Read the appropriate barcode to determine whether or not to send out the record count as part of footer information.

Disable A4730



Enable A4731



6-2-18. Set Date & Time

Scan the below barcode to set up date and time on the scanner. While associating the parameter with the preferred value, please pay attention to the time and date format you specify separately in **Section 6-2-2** and **Section 6-2-3** and then arrange related scan

Enter



80

End



Editing General Settings

6

sequences in the correct format to work out the configuration.

Set Date & Time ZCLK



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Set Date & Time** barcode to set time and date on the device.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan compound hexadecimal value barcodes representing the desired date and time. For instance, to configure date to be “2014/09/09” and time to “14:13:26”, scan **1,4,0,9,0,9,1,4,1,3,2** and then **6** to assign the specified hexadecimal value “140909141326”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

6-2-19. Set Light Brightness

This feature allows you to adjust brightness of the light emitted from the scanner. Please follow the below procedures to configure light brightness.

LampLv1 A4EE0



(Range: 1-10)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **LampLv1** barcode to configure date separator.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value ranged from 1 to 10. For instance, to set the level of brightness to be 5, scan **5** to assign the specified decimal value “5”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



81

End



6-2-20. Set Date Separator

Date separator refers to the specified character which is used to format date data by dividing into different elements of years, months, and days. A customized date format with date separator will greatly increase readability.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **DateConChar** barcode to configure date separator.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to use “:” character to break down Date information, scan **3** first and then **A** to assign the specified hexadecimal value “3A”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



6-2-21. Set Time Separator

Time separator refers to the specified character which is used to format time data by dividing into different elements of hours, minutes, and seconds. A customized time format with time separator will greatly increase readability.

TimeConChar A57E2



(Length: 1 digit)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TimeConChar** barcode to configure time separator.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to use “:” character to break down Time information, scan **3** first and then **A** to assign the specified hexadecimal value “3A”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



6-2-22. Set Time-out Period for Configuration Mode

The timeout period mentioned here refers to the length of time the device is allowed to remain idle ever since **ENTER** barcode is scanned to initiate Configuration mode. Once the time-out session expires, the scanner will automatically exit Configuration mode. This parameter allows you to configure the timeout limit which works best for you.

SetupTime A5FE0



(Length: 1 digit / Range: 0-255/ Unit: 1000ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **SetupTime** barcode to configure the length of the timeout session.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired decimal value in the range of 0 to 255. For instance, to set timeout period to 1 second, then scan **1** to assign the specified decimal value “1”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

6-2-23. Set Time-out Period for Decoding Add-on Codes

This feature refers to the amount of time allocated to decode the extra add-on code for UPC-A, UPC-E, EAN-13 and EAN-8 symbologies. Within the specified time frame, the supplementary symbol will be decoded and then transmitted as part of the output data if identified in the scanned barcode. To ensure the parameter functions normally, you have to properly enable the add-on symbol in WPC barcodes at the same time to have it recognizable during the decoding process.



Editing General Settings

6

BarWaitAddonCnt A58E0



(Length: 1 digit / Range: 0-255)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BarWaitAddonCnt** barcode to configure the length of the timeout session.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired decimal value in the range of 0 to 255. For instance, to set timeout period to 1 second, then scan **1** to assign the specified decimal value “1”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

6-2-24. Set Count of Barcode Verification

There are some occasions in which you will have to compromise on scanning speed in exchange for scanning accuracy. The parameter allows you to specify the number of times the barcode verification process will be executed before the decoded scanned data is transmitted. The barcode will be identified as a valid one when the same decoded result is always returned every time. As mentioned earlier, it likely takes longer to decode a barcode with higher accuracy. For your reference, to ensure the authentication is performed at the specified count of execution, it is necessary to enable **DblConFirmSw** parameter for each operation mode at the same time.

BarDblConfirmCnt A59E0



(Length: 1 digit / Range: 1-10)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BarDblConfirmCnt** barcode to configure the length of the timeout session.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired decimal value in the range of 0 to 255. For instance, to set timeout period to 1 second, then scan **1** to assign the specified decimal value “1”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



85

End



6-2-25. Set Scan Interval in Continuous Scan Mode

This feature allows you to specify the time interval between two consecutive scans of the same barcode. However, to have the configurable parameter take effect, you are required to set Scan Mode to be **Continue**, which enables scan light to stay on for a specified period of time to continuously scan plenty of barcodes without interruption.

BarGoodRdTime A5AE0



(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BarGoodRdTime** barcode to configure the length of the timeout session.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired decimal value in the range of 0 to 255. For instance, to set timeout period to 0.1 second, scan **1** first and then **0** to assign the specified decimal value “10”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

6-2-26. Set Header Information

Header information refers to additional messages preceding to data output while the scanned barcodes are sent out in Memory mode. This special parameter allows you to customize your own custom header to add clarity of transmitted data.

Header A70E6



(Length: 12 digits)

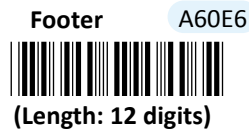


Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Header** barcode to configure the length of the timeout session.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 12 characters in length. For instance, to place the employee name "Mark" in the header section, scan **4, D, 6, 1, 7, 2, 6** followed by **B** to assign the specified hexadecimal value "4D61726B".
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

6-2-27. Set Footer Information

Footer information refers to additional messages which are appended to data output while the scanned barcodes are sent out in Memory mode. This special parameter allows you to customize your own custom footer to add clarity of transmitted data.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Footer** barcode to configure the length of the timeout session.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 12 characters in length. For instance, to place the employee name "Mark" in the footer section, scan **4, D, 6, 1, 7, 2, 6** followed by **B** to assign the specified hexadecimal value "4D61726B".
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



6-3. Scanner Commands

To perform certain special tasks, you sometimes will use Command Prompt commands to communicate with the device instead of having your scanner read a sequence of setup barcodes listed in the manual. In the case like this, you possibly need to rely on escape characters, no matter predefined or customized, to notify the decoder of the additional interpretation on the text following prefixed escape characters. The below configurable parameters allow you to define your own escape characters while you work with a terminal program to send out command strings to the scanner.

6-3-1. Set <DLE> Escape Character

The parameter serves to avoid the reserved characters from being interpreted using their originally defined meanings. The special characters thus will be treated as the normal ones once preceded with DLE escape character. Associate the user-defined parameter with the value of the reserved character you intend to escape to complete the configuration.

DleChar A51E2

 (Length: 1 digit)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **DleChar** barcode to configure <DLE> escape character.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to demand a special interpretation for the string following <DLE> escape character “#”, scan **2** first and then **3** to assign the specified hexadecimal value “23”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



6-3-2. Set <CMD> Escape Character

In most cases, this parameter is used to specify the position where the command options are retrieved to execute the modified operations for the specified command line, especially when you are working with a terminal program to send commands to the scanner. Once <CMD> escape character is well defined, please properly append the desired and valid command options to the escape character to achieve the attempt.

CmdTypeChar A52E2

(Length: 1 digit)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **CmdTypeChar** barcode to configure <CMD> escape character.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to demand a special interpretation for the string following <CMD> escape character “~”, scan **7** first and then **E** to assign the specified hexadecimal value “7E”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



6-3-3. Set <BAR> Escape Character

<BAR> escape character is used to specify the position where the barcode is. According to the configuration, the decoder will treat the characters following the parameter value as barcode data to further perform relevant process.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BarTypeChar** barcode to configure <BAR> escape character.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to demand a special interpretation for the string following <BAR> escape character "&", scan **2** first and then **6** to assign the specified hexadecimal value "26".
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



6-3-4. Set <STX> Escape Character

In general, a valid command string is required to begin with a start delimiter which precedes the command code to denote the start of a command string. By associating this user-defined parameter with the desired control codes, you are able to create your own custom start digit.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **StxChar** barcode to configure <STX> escape character.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to demand a special interpretation for the string following <STX> escape character “%”, scan **2** first and then **5** to assign the specified hexadecimal value “25”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



6-3-5. Set <ETX> Escape Character

In general, a valid command string is required to end with a stop delimiter which is appended to the command code to denote the end of a command string. By associating this user-defined parameter with the desired control codes, you are able to create your own custom end digit.

EtxChar A54E2

(Length: 1 digit)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **EtxChar** barcode to configure <ETX> escape character.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to demand a special interpretation for the string following <ETX> escape character “^”, scan **5** first and then **E** to assign the specified hexadecimal value “5E”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



7. Setting up your Operation Modes

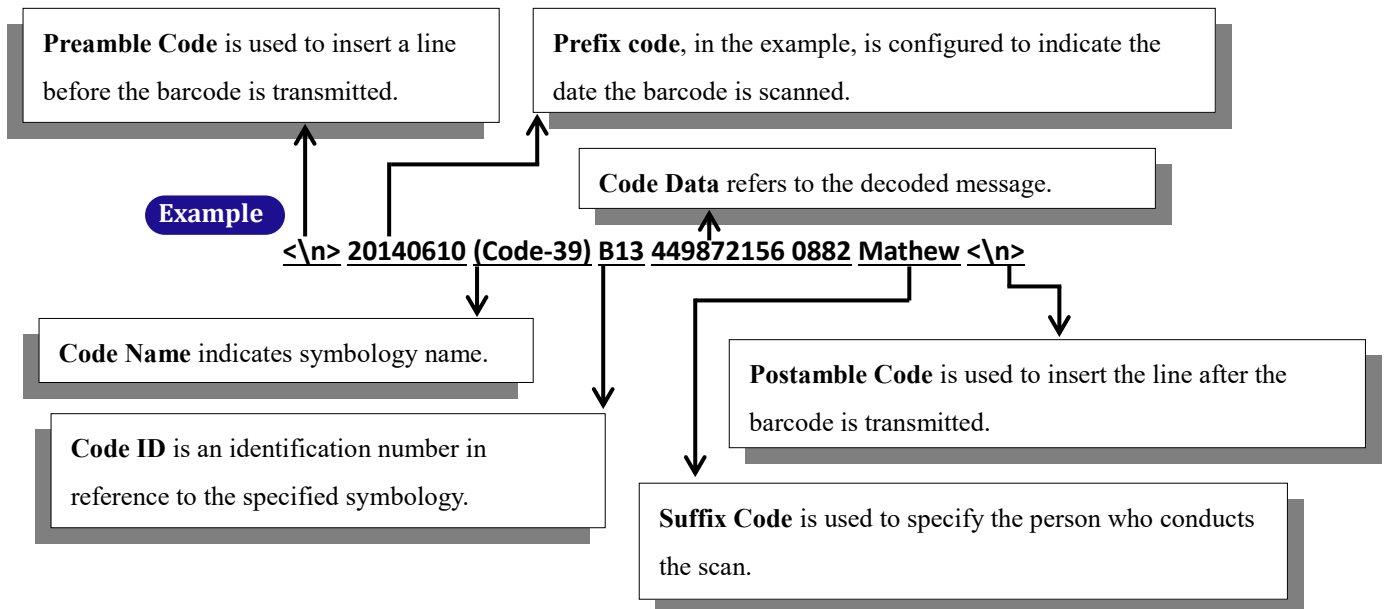
In view of individuality of each operation mode, this chapter presents the relevant parameters which you can configure depending on your usage habits in different modes, in the hope that you always get comfortable operating MK-520W3.

Besides, the features used to edit output data are also included in this chapter. Before being exposed to the great details about their configurations, you are suggested to first get a glimpse of the fundamental constituents of a complete output string. Knowing its structure assuredly helps you to structure the scanned data in a highly readable form.

7-1. Output String Structure

On the whole, a complete output string is composed of a couple of data fields, starting with **Preamble code** followed in order by **Prefix Code**, **Code Name**, **Code Data**, and **Suffix Code**, ending with **Postamble Code**. Except for **Code Data** filed as an indispensable and non-configurable part of output data, the rest are optional transmit elements which you can define on your terms. The relevant configuration on the output formatting parameters will be elaborated in order throughout this chapter.

Take an output string, `<\n>20140610(Code-39)B13 449872156 0882 Mathew <\n>`, as an example. In general, it can be broken down into several data fields as the below illustration shows:



Output String Structure						
Preamble Code	Prefix Code	Code Name	Code ID	Code Data	Suffix Code	Postamble Code
<\n>	20140610	(Code-39)	B13	449872156 0882	Mathew	<\n>



7-2. Cable Mode

Please be advised the following parameters in this section simply work for the associated operations in Cable mode. Make sure that you appropriately conduct the operations using Cable mode.

7-2-1. Output Interface Options

In terms of output interface options, it is more about technical configuration regarding how you want barcode data to be transmitted between devices in Cable mode before scanned barcode is further processed. Properly configure your scanner according to the realistic situation will lead to satisfactory data transmission performance.

7-2-1-1. Set Data Transfer Rate for SPP

Data transfer rate, measured in bits per second, refers to speed of digital data travelled among devices. Scan the appropriate barcode to specify data transfer rate for SPP if the associated operations are performed using RS-232 or USB COM interfaces.

7 Bits AA020



8 Bits AA021



7-2-1-2. Set Length of Stop Bit for SPP

Stop bit follows after the end of data in transit as to signal the end of transmitted data. Scan the appropriate barcode to specify the length of stop bit for SPP if the associated operations are performed using RS-232 or USB COM interfaces.

1 Bit AA030



2 Bits AA031



Setting up your Operation Modes

7

7-2-1-3. Set Parity Check for SPP

Parity checking employs parity bits to detect whether an error occurs or not during data transmission. Out of six variants scan the appropriate barcode to specify the type of parity bits for SPP if the associated operations are performed using RS-232 or USB COM interfaces.

None AA0D0



Even AA0D1



Odd AA0D2



Space AA0D3



Mark AA0D4



7-2-1-4. Set Communication Protocol for SPP

Scan the appropriate barcode to specify the communication protocol for SPP if the associated operations are performed using RS-232 or USB COM interfaces.

None AA1C0



0x06/0x15 AA1C1



Ack/Nak AA1C2



Enter



96

End



Setting up your Operation Modes

7

7-2-1-5. Enable/Disable <STX> and <ETX> Escape Characters for SPP

Scan the appropriate barcode to enable or disable <STX> and <ETX> escape characters for SPP if the associated operations are performed using RS-232 or USB COM interfaces. Regarding the more detailed configuration on escape characters, please refer to **Scanner Commands** which is located in the section 6-3 of Chapter 6.

None AA1A0



STX/ETX AA1A1



7-2-1-6. Enable/Disable <BAR> and <CMD> Escape Characters for SPP

Scan the appropriate barcode to enable or disable <BAR> and <CMD> escape characters for SPP if the associated operations are performed using RS-232 or USB COM interfaces. Regarding the more detailed configuration on escape characters, please refer to **Scanner Commands** which is located in the section 6-3 of Chapter 6.

Disable AA160



Enable AA161



7-2-1-7. Enable/Disable Command Mode for SPP

Scan the appropriate barcode to enable or disable Command mode for SPP if the associated operations are performed using RS-232 or USB COM interfaces.

Disable AA170



Enable AA171



Setting up your Operation Modes



7-2-1-8. Set Baud Rate for SPP

Baud Rate refers to the amount of data per second can be transmitted. Scan the appropriate barcode to specify the desired baud rate of data transmission for SPP if the associated operations are performed using RS-232 or USB COM interfaces.

300Bps AA2C0



600Bps AA2C1



1200Bps AA2C2



2400Bps AA2C3



4800Bps AA2C4



9600Bps AA2C5



19200Bps AA2C6



38400Bps AA2C7



57600Bps AA2C8



115200Bps AA2C9



230400Bps AA2CA



Enter



98

End



Setting up your Operation Modes

7

460800Bps AA2CB



512000Bps AA2CC



7-2-1-9. Set Transfer Count for Time Delay for SPP

This parameter allows you to specify the number of digits which has to be transmitted to initiate a time delay referring to an intentional deferment of data transmission. Please follow the below steps to set the transfer count for time delay for SPP if the associated operations are performed using the RS-232 or USB COM interfaces.

StdSppTxCharGapCnt AADE0



(Length: 1 digit / Range: 0-255)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **StdSppTxCharGapCnt** barcode to configure the transfer count for time delay for SPP.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to initiate time delay after every five digits are transmitted, then scan **5** to assign the specified decimal value “5”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



99

End



Setting up your Operation Modes



7-2-1-10. Set Time Delay for a Digit for SPP

This parameter refers to the amount of elapsed time to delay transmitting a digit. Please follow the below steps to set time-delay variable for a digit for SPP if the associated operations are performed using the RS-232 or USB COM interfaces.

StdSppTxCharGapTime AAEE0



(Length: 1 digit / Range: 0-255/ Unit: 1ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **StdSppTxCharGapTime** barcode to configure delay time for a digit for SPP.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to defer transmitting a digit for 0.2 seconds, scan **2**, **0**, and then **0** to assign the specified decimal value “200”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



100

End



7-2-1-11. Set Time Delay for a Record for SPP

This parameter refers to the amount of elapsed time to delay transmitting a record. Please follow the below steps to set time-delay variable for a record for SPP if the associated operations are performed using RS-232 or USB COM interfaces.

StdSppTxGapTime AAFE0



(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **StdSppTxGapTime** barcode to configure delay time for a record for SPP.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to defer transmitting a record for 0.2 seconds, scan **2** first and then **0** to assign the specified decimal value “20”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



7-2-1-12. Set Time Delay for a Specified Digit for SPP

This parameter refers to the amount of elapsed time to delay transmitting a specified character. Please follow the below steps to set time-delay variable for a specified digit for SPP if the associated operations are performed using RS-232 or USB COM interfaces.

StdSppTxExtTime AABE0



(Length: 1 digit / Range: 0-255/ Unit: 1000ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **StdSppTxExtTime** barcode to configure delay time for a specified digit for SPP.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal values barcodes representing the desired value in the range of 0 to 255. For instance, to defer transmitting a specified digit for 1 second, scan **1** to assign the specified decimal value “1”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



7-2-1-13. Set Timeout for SPP

Timeout is initiated when the device keeps waiting for an event to occur and thus remains idle for a period of time during the data transmission. This parameter allows you to specify the amount of time to elapse before timeout is officially triggered. Please follow the below steps to configure the timeout period for SPP if the associated operations are performed using RS-232 or USB COM interfaces.

StdSppTxOtTime **AACE0**



(Length: 1 digit / Range: 0-255/ Unit: 1000ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **StdSppTxOtTime** barcode to configure timeout parameter for SPP.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal values barcodes representing the desired value in the range of 0 to 255. For instance, to set the timeout period to 1 second, then scan **1** to assign the specified decimal value “1”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



7-2-1-14. Set Retransmission Count for SPP

To avoid data transmission loss, messages sometimes have to be resent due to a failure to receive ACK signal. This parameter allows you to configure the number of attempting retransmission for SPP if the associated operations are performed using RS-232 or USB COM interfaces.

StdSppTxAckCnt AA9E0



(Length: 1 digit / Range: 0-255)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **StdSppTxAckCnt** barcode to configure timeout parameter for SPP.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set retransmission count to 1, then scan **1** to assign the specified decimal value “1”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



Setting up your Operation Modes



7-2-1-15. Set ACK Timeout for SPP

ACK timeout refers to the allotted time to elapse for the receipt of ACK signal before timeout is initiated. This parameter allows you to specify the amount of time allocated for ACK timeout for SPP if the associated operations are performed using RS-232 or USB COM interfaces.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **StdSppTxAckTime** barcode to configure ACK timeout for SPP.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal values barcodes representing the desired value in the range of 0 to 255. For instance, to set ACK timeout to be 1, then scan **1** to assign the specified decimal value “1”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

7-2-1-16. Set Caps Lock setting for HID

This parameter provides the alternative to emulate Caps Lock which is a lock key to change the letter case of the typed alphabets. Read either **Caps Lock On** or **Caps Lock off** label to initiate the inversion of the letter case. However, in this case, the status of Caps Lock on your physical keyboard should be also taken into account. As to the mutual interaction between Caps lock key on the keyboard and the capital settings, please refer to the below chart to achieve the attempt. Alternatively, scan **Alt+Keyoad** label to determine the letter case of typed alphabets by keystroke combinations of Alt + ASCII code , regardless of the status of Caps Lock key. **Auto** label is to transmit the barcode data without inverting its case.



Setting up your Operation Modes



Scanner Options \ Cap Locks Status	Caps Lock On	Caps Lock Off
	Caps Lock On	Caps Lock Off
Caps Lock On	ABCdef	abcDEF
Caps Lock Off	abcDEF	ABCdef
Alt+Keypad	ABCdef	ABCdef



7-2-1-17. Enable/Disable Num Lock for HID

Scan the appropriate barcode to enable or disable Num Lock if the associated operations are performed using USB HID interface. When **AlphaPad** is enabled, regardless of the status of Num Lock key on your keyboard, the numeric symbols contained in the barcode data will be genuinely interpreted. On the other hand, scan **Num Lock** label to substitute arrow keys and Del, PgUp, PgDown keys for corresponding numeric keys to have effects on the decoded message when Num Lock is turned off.



Setting up your Operation Modes

7

7-2-1-18. Enable/Disable Caps Lock Emulation

Scan the appropriate barcode to determine whether or not to use Shift keystroke to emulate Caps lock key if the associated operations are performed using USB HID interface.

Disable AB070



Enable AB071



7-2-1-19. Set IMEs for HID

IME is a program which allows users to input different sets of characters derived from different languages. Scan the appropriate barcode to specify active Input Method Editors, if the associated operations are performed using USB HID interface.

EN AB1C0



UK AB1C1



JP AB1C2



FR AB1C3



GR AB1C4



IT AB1C5



SP AB1C6



Enter



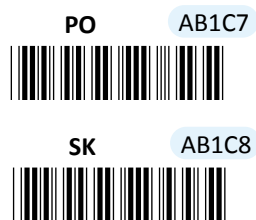
107

End



Setting up your Operation Modes

7



7-2-1-20. Set Transfer Count for Time Delay for HID

This parameter allows you to specify the number of digits which has to be transmitted to initiate a time delay referring to an intentional deferment of data transmission. Please follow the below steps to set the transfer count for time delay if the associated operations are performed using USB HID interface.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **StdHidTxCharGapCnt** barcode to configure the transfer count for time delay for HID.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to initiate a timeout after 10 digits are transmitted, scan **1** first and then **0** to assign the specified decimal value "10".
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



108

End



7-2-1-21. Set Time Delay for a Digit for HID

This parameter refers to the amount of elapsed time to delay transmitting a digit. Please follow the below steps to set time delay for transmitting a digit if the associated operations are performed using USB HID interface.

StdHidTxCharGapTime ABEE0



(Length: 1 digit / Range: 0-255/ Unit: 1ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **StdHidTxCharGapTime** barcode to configure delay time for a digit for HID.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to defer transmitting a digit for 0.2 seconds, scan **2**, **0** and then **0** to assign the specified decimal value “200”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



7-2-1-22. Set Time Delay for a Record for HID

This parameter refers to the amount of elapsed time to delay transmitting a record. Please follow the below steps to set time delay for transmitting a record if the associated operations are performed using USB HID interface.

StdHidTxGapTime ABFE0



(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **StdHidTxGapTime** barcode to configure delay time for a record for HID.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value representing the desired value in the range of 0 to 255. For instance, to defer transmitting a digit for 0.2 seconds, scan **2** first and then **0** to assign the specified decimal value “20”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



110

End



Setting up your Operation Modes



7-2-1-23. Set Time Delay for a Specified Digit for SPP

This parameter refers to the amount of elapsed time to delay transmitting a specified character. Please follow the below steps to set time delay for transmitting a specified digit if the associated operations are performed using RS-232 or USB COM interfaces.

StdHidTxExtTime **ABBE0**



(Length: 1 digit / Range: 0-255/ Unit: 1000ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **StdHidTxExtTime** barcode to configure delay time for a specified digit for HID.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to defer transmitting a digit for 1 second, then scan **1** to assign the specified decimal value "1".
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



111

End



7-2-1-24. Set Timeout for SPP

Timeout is initiated when the device keeps waiting for an event to occur and thus remains idle for a period of time during the data transmission. This parameter allows you to specify the amount of time to elapse before timeout is officially triggered. Please follow the below steps to configure the timeout period if the associated operations are performed using USB HID interface.

StdHidTxOtTime **ABCE0**



(Length: 1 digit / Range: 2-255/ Unit: 1000ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **StdHidTxOtTime** barcode to configure timeout parameter for HID.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set the timeout period to be 3 seconds, then scan **3** to assign the specified decimal value “3”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



Setting up your Operation Modes



7-2-2. Scanner Options

A selection of scanner options, from setting button functions to adjusting the buzzer volume and vibrator, is offered to personalize the device to suit your usage habits.

7-2-2-1. Set Scan Mode

Scan Mode refers to how the scanner reacts to the scanned barcode. By default, Scan Mode is set to be **Momentary**. In this case, LED light will stay on as long as Scan button is pressed down, and automatically turn off once Scan Button is released or a barcode is scanned. However, with **Good Read Off** settings, LED will remain lit for a specified period of time with a release of the pressed Scan Button, and afterwards dim only when the barcode is successfully decoded or the timeout period expires. In **Continue** Scan Mode, the device will continuously send out light till the cable is unplugged, after Scan Button is pressed down and then released. Scan **Toogle** label if you intend to gain more flexibility in when to read a barcode. A press on Scan Button will lead in switching on the light whereas either a successful decoding of a barcode or giving it another press correspondingly switches off the light. Please scan the appropriate label to determine your preferred scan mode.

GoodReadOff B8080



Momentary B8081



Continue B8082



Toogle B8083



7-2-2-2. Set Output Interface

Please scan the appropriate barcode to specify the output interface.

USBHid B81D1



Enter



113

End



Setting up your Operation Modes



USBSpp B81D2



Spp B81D3



7-2-2-3. Set Small Trigger Functionality

Small Trigger is designed to perform various supplementary operations, from initiating battery charge to switching to data transmission mode, according to the length of time the button has been pressed. To facilitate the associated operations with Small Trigger, this parameter is available to specify the degree of Small Trigger's functionality. Scan **Disable** label to specify Small Trigger will not provide any additional function. On the other hand, when **Mem Tx** is enabled, the device is able to switch to data transmission mode by keeping holding Small Trigger long enough to trigger off a solid green LED light.

Disable B8290



Mem Tx B8292



7-2-2-4. Set Composite Triggers Functionality

Some supplementary functions are necessarily executed by using composite triggers though Scan Button primarily serves to scan barcodes and Small Trigger to initiate data transmission. In Cable mode, battery charge is an extra function which can be initiated by pressing Small Trigger and Scan Button in a specified sequence described below: while holding Small Trigger till the green LED light starts flashing rapidly, press down Scan Button at the same time and then release both buttons. Scan the appropriate label to enable or disable functionality of battery charge.

Disable B8280



ChgSw B8281



Enter



114

End



Setting up your Operation Modes



7-2-2-5. Set Good Read Buzzer Volume

Scan the appropriate barcode to specify the volume of Good Read Buzzer when a barcode is decoded successfully. The higher level indicates the louder sound.

Level1 B8480



Level2 B8481



Level3 B8482



Level4 B8483



7-2-2-6. Set Warning Buzzer Volume

Scan the appropriate barcode to specify the volume of Warning Buzzer when an error occurs. The higher level indicates the louder sound.

Level1 B8490



Level2 B8491



Level3 B8492



Level4 B8493



Enter



115

End



Setting up your Operation Modes



7-2-2-7. Set Normal Event Buzzer Volume

Scan the appropriate barcode to specify the volume of Normal Event Buzzer when certain operations, such as switching operation modes, entering data transmission mode, and battery charge, are initiated by using Scan Button or Small Trigger so that LED indicator accordingly changes its blinking frequency or color. The higher level indicates the louder sound.

Level1 B84A0



Level2 B84A1



Level3 B84A2



Level4 B84A3



7-2-2-8. Enable/Disable Battery Charge

Scan the appropriate barcode to determine whether to initiate battery charge whenever the device is well connected to host PC using an interface cable and switched to Bluetooth mode.

Disable B8300



Enable B8301



7-2-2-9. Enable/Disable Good Read Vibrator

Scan the appropriate barcode to enable or disable Good Read Vibrator when a barcode is successfully decoded.

Disable B8600



Enter



116

End



Setting up your Operation Modes

7

Enable B8601



7-2-2-10. Enable/Disable Warning Vibrator

Scan the appropriate barcode to enable or disable Warning Vibrator when an error occurs.

Disable B8610



Enable B8611



7-2-2-11. Enable/Disable Normal Event Vibrator

Normal Event Vibrator is used to give a vibration signal whenever certain operations, such as switching operation modes, entering data transmission mode, and battery charge, are initiated by using Scan Button or Small Trigger so that LED indicator accordingly changes its blinking frequency or color. Scan the appropriate barcode to enable or disable Normal Event Vibrator.

Disable B8620



Enable B8621



7-2-2-12. Enable/Disable Good Read Buzzer

Scan the appropriate barcode to enable or disable Good Read Buzzer when a barcode is successfully decoded.

Disable B8500



Enable B8501



Enter



117

End



Setting up your Operation Modes



7-2-2-13. Enable/Disable Warning Buzzer

Scan the appropriate barcode to enable or disable Warning Buzzer when an error occurs.

Disable B8510



Enable B8511



7-2-2-14. Enable/Disable Normal Event Buzzer

Normal Event Buzzer is used to give an acoustic signal whenever certain operations, such as switching operation modes, entering data transmission mode, and battery charge, are initiated by using Scan Button or Small Trigger so that LED indicator accordingly changes its blinking frequency or color. Scan the appropriate barcode to enable or disable Normal Event Buzzer.

Disable B8520



Enable B8521



7-2-2-15. Set Good Read Buzzer Frequency

Please follow the below steps to specify Good Read Buzzer frequency when a barcode is decoded successfully.

BzGoodRdFreq B98E0



(Length: 1 digit / Range: 0-255/ Unit: 100 Hz)

Enter



118

End



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BzGoodRdFreq** barcode to configure Good Read buzzer frequency.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set Good Read buzzer frequency to 10000 Hz, scan **1, 0** and then **0** to assign the specified decimal value “100”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

7-2-2-16. Set Good Read Buzzer Duration

Please follow the below steps to specify the length of time the device keeps emitting a sound when a barcode is decoded successfully.

BzGoodRdTime B99E0



(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BzGoodRdTime** barcode to configure Good Read Buzzer duration.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set Good Read buzzer duration for 0.2 seconds, scan **2** first and then **0** to assign the specified decimal value “20”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



Setting up your Operation Modes

7

7-2-2-17. Set Good Read Vibrator Duration

Please follow the below steps to specify the length of time the device stays in a state of vibration when a barcode is decoded successfully.

VibratorGoodRdTime B9AE0



(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **VibratorGoodRdTime** barcode to configure Good Read Vibrator duration.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set Good Read buzzer duration for 0.2 seconds, scan **2** first and then **0** to assign the specified decimal value “20”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



120

End



Setting up your Operation Modes

7

7-2-2-18. Set Activation Duration

In general, after Scan Button is pressed down, LED light will emit a stream of light for a scan attempt. This parameter is thus used to specify activation duration which indicates the amount of time LED light will stays on after Scan Button is held.

BarScanTime B9DE0



(Length: 1 digit / Range: 5-255/ Unit: 1000ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BarScanTime** barcode to configure activation duration.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 5 to 255. For instance, to set activation duration to be 7 seconds, then scan 7 to assign the specified decimal value “7”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



121

End



7-2-2-19. Set Idle Duration

The device will switch to power-saving mode after remaining idle for a while. This parameter is thus used to specify the length of time allocated for the scanner to elapse before power-saving mode is initiated.

BarIdleTime B9EE0



(Length: 1 digit / Range: 0-255/ Unit: 1000ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BarIdleTime** barcode to configure idle duration.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set idle duration to be 3 seconds, the scan **3** to assign the specified decimal value “3”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



Setting up your Operation Modes



7-2-2-20. Set Standby Duration

After lengthy idleness, the device will first be put into standby state in which the machine is still able to react to the emergent request yet running in lower power consumption. This parameter refers to the amount of time allocated for the device to stay in standby before being totally shut down.

StandbyTime B9FE0



(Length: 1 digit / Range: 30-255/ Unit: 1000ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **StandbyTime** barcode to configure idle duration.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 30 to 255. For instance, to set Standby duration to be 30 seconds, scan **3** first and then **0** to assign the specified decimal value “30”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



123

End



7-2-3. Output Editing Options

The parameters fallen into this category focus on functionality relevant to output editing in Cable mode. With these available editing settings, you can arrange plentiful scanned barcode in your own style, and accordingly results in a subtle output layout which will benefit yourself from locating barcode data more efficiently.

7-2-3-1. Enable/Disable Preamble Code

Preamble Code refers to a sequence of characters which precedes both the Prefix Code and barcode data during data transmission. Scan the appropriate barcode to enable or disable Preamble Code.

Disable BA000



Enable BA001



7-2-3-2. Enable/Disable Postamble Code

Postamble Code refers to a sequence of characters which appends to both barcode data and Suffix Code during data transmission. Scan the appropriate barcode to enable or disable Postamble Code.

Disable BA010



Enable BA011



Setting up your Operation Modes



7-2-3-3. Enable/Disable Prefix Code

Prefix Code is a sequence of characters interposed between Preamble Code and barcode data during data transmission. Scan the appropriate barcode to enable or disable Prefix Code.

Disable BA020



Enable BA021



7-2-3-4. Enable/Disable Suffix Code

Suffix Code is a sequence of characters interposed between barcode data and Postamble Code during data transmission. Scan the appropriate barcode to enable or disable Suffix Code.

Disable BA030



Enable BA031



7-2-3-5. Enable/Disable Code ID

Code ID, a user-defined identification characters for symbologies, normally precedes Barcode Data field during data transmission when the associated parameter is enabled. Scan the appropriate barcode to enable or disable Code ID.

Disable BA040



Enable BA041



Setting up your Operation Modes



7-2-3-6. Set Position of Code ID

Scan the appropriate barcode to specify the position of Code ID you prefer to display as a part of transmitted data. Scan **Before** label to prefix Code ID to barcode data whereas read **After** label to append Code ID to barcode data.

Before BA050



After BA051



7-2-3-7. Enable/Disable Barcode Length Info

Scan the appropriate barcode to determine whether or not to send out length information of scanned barcode as part of transmitted data. If the feature is **Enabled**, length info will be prefixed to decoded barcode.

Disable BA060



Enable BA061



7-2-3-8. Enable/Disable Symbology Name

Scan the appropriate barcode to determine whether or not to transmit symbology name information which is normally prefixed to decoded barcode as part of transmitted data.

Disable BA070



Enable BA071



Enter



126

End



Setting up your Operation Modes



7-2-3-9. Enable/Disable Control Code Info

Scan the appropriate barcode to determine whether or not to transmit control code info along with the decoded message if the scanned barcode contains the special ASCII code.

Disable BA100



Enable BA101



7-2-3-10. Enable/Disable Delimiter

Scan the appropriate barcode to determine whether or not to interpose the delimiter parameter between the decoded message and timestamps.

Disable BA110



Enable BA111



7-2-3-11. Set Timestamps Positioning

Scan the appropriate barcode to specify the position of timestamps, to the left or the right of decoded message, when output data contains timestamp information. Scan **Before** label to position timestamps on the left side of the barcode, and read **After** label to append timestamps to the barcode.

Before BA120



After BA121



Setting up your Operation Modes



7-2-3-12. Enable/Disable Date Information

Scan the appropriate barcode to determine whether or not to transmit date information along with the decoded message.

Disable BA130



Enable BA131



7-2-3-13. Enable/Disable Time Information

Scan the appropriate barcode to determine whether or not to transmit time information along with the decoded message.

Disable BA140



Enable BA141



7-2-3-14. Enable/Disable Barcode Verification

Scan the appropriate barcode to enable or disable barcode verification mechanism which allows the decoder to decode the scanned data repetitively for better accuracy. By default, when the feature is enabled, the device will verify the barcode one more time. To specify the particular number of times for executing barcode verification, please refer to **Section 6-2-23 in Chapter 6** to further configure **BarDblConfirmCnt** parameter.

Disable BA210



Enable BA211



7-2-3-15. Reject Same

Scan the appropriate label to configure your scanner not to decode the barcode which is

Enter



128

End



Setting up your Operation Modes

7

exactly the same to your previous scans. Scan **Enable** label to avoid possibility of consecutively reading the same barcode twice by accident. Otherwise, by default the scanner will decode barcodes without leaving out those unqualified barcodes.

Disable BA200



Enable BA201



7-2-3-16. Set Type of Case Conversion

This parameter allows you to initiate letter case conversion which treats the decoded message as a whole and converts it between upper case and lower case according to the setting. Scan the appropriate the label to specify the type of case conversion.

None BA380



Inverse BA381



Lower BA382



Upper BA383



7-2-3-17. Set Delimiter Between Time/Date Stamps and Barcode Data

Delimiter refers to a specified character or a set of characters used to divide lengthy transit data into a group of data. By associating the parameter with the valid value, the specified delimiter will be interposed between timestamps and the decoded message to have transmitted data better formatted. However, to make sure this parameter functions properly, please refer to **Section 7-2-3-10** to enable the relevant delimiter parameter as well.

Enter



129

End



Setting up your Operation Modes

7

DelimiterChar BABE2



(Length: 1 digit)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **DelimiterChar** barcode to configure the delimiter.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to use “;” character to break down the output string, scan **3** first and then **B** to assign the specified hexadecimal value “3B”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

7-2-3-18. Set Delimiter Between Time and Date Stamps

Delimiter refers to a specified character or a set of characters used to divide lengthy transit data into a group of data. By associating the parameter with the valid value, the specified delimiter will be interposed between timestamps and the decoded message to have transmitted data better formatted. However, to make sure this parameter functions properly, please refer to **Section 7-2-3-12** and **Section 7-2-3-13** to enable time and date stamps as well.

Enter



130

End



Setting up your Operation Modes

7

DateTimeSpareChar BAAE2



(Length: 1 digit)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **DateTimeSpareChar** barcode to configure the delimiter.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to use “;” character to break down the output string, scan **3** first and then **B** to assign the specified hexadecimal value “3B”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

7-2-3-19. Set Preamble Code

In the process of transmitting data, Preamble Code normally precedes both Prefix Code and barcode data as a user-defined string to format the output data. Although Preamble Code and Prefix Code work similarly to structure the transmitted message, functionality they individually intend to perform differs. Basically, Preamble Code is designed to arrange a layout using line terminators, such as carriage return, line fee, line separator, paragraph separator and so on. Therefore, it is suggested to associate this configurable parameter with equivalent ASCII code value for line terminators whenever you possibly use preamble code in the hope of organizing the transmitted message. Please follow the below steps to configure Preamble code.

PreambleChar BACE3



(Length: 2 digits)

Enter



131

End



Setting up your Operation Modes

7

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **PreambleChar** barcode to configure Preamble Code.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set preamble code to be <CR><LF>, scan **0, D, 0**, and then **A** to assign the specified hexadecimal value "0D0A".
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

7-2-3-20. Set Postamble Code

In the process of transmitting data, Postamble Code is appended to both the suffix code and barcode data as a user-defined string to format the output data. However, Postamble Code not simply works like Suffix Code to better format the transmitted messages, but, to precisely describe it, expects to emulate line terminators to break transmission line. Consequently, it is strongly suggested to associate this configurable parameter with equivalent ASCII code value for line terminators. Please follow the below steps to configure Postamble Code.

PostambleChar BAEE3



(Length: 2 digits)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **PostambleChar** barcode to configure Postamble Code.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set postamble code to be <CR><LF>, scan **0, D, 0**, and then **A** to assign the specified hexadecimal value "0D0A".
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



132

End



7-2-3-21. Set Prefix Code

In the process of transmitting data, Prefix Code is normally interposed between Preamble Code and barcode data as a user-defined string to format the output data. It seems that Preamble Code and Prefix Code both provide exactly the same formatting function, but in fact they work slightly differently in terms of their functionality. Unlike Preamble Code which intends to function as line terminators to appropriately break line in data transit, Prefix Code is more inclined to clarify the difference among lines by binding with any type of characters which is only identifiable for you to achieve the attempt. Please follow the below steps to configure Prefix Code.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **PrefixChar** barcode to configure Prefix Code.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 8 characters in length. For instance, to set prefix code to be "ABCD", scan **4, 1, 4, 2, 4, 3, 4**, and then **4** to assign the specified hexadecimal value "41424344".
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



Setting up your Operation Modes



7-2-3-22. Set Suffix Code

In the process of transmitting data, Suffix Code is normally interposed between barcode data and Postamble Code as a user-defined string to format the output data. By binding this configurable parameter with parameter value which is identifiable for you to achieve the attempt, Suffix Code is meant to identify the difference among lines, whereas functionality of Postamble Code is to arrange the data format by breaking the transmission line. Please follow the below steps to configure Suffix Code.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **SuffixChar** barcode to configure Suffix Code.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 8 characters in length. For instance, to set suffix code to be "EFGH", scan **4, 5, 4, 6, 4, 7, 4**, and then **8** to assign the specified hexadecimal value "45464748".
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



134

End



Setting up your Operation Modes



7-3. Memory Mode

Please be advised the following parameters in this section simply works for the associated operations in Memory mode. Make sure that you appropriately conduct the operations using Memory mode.

7-3-1. Scanner Options

A selection of scanner options, from setting button functions to adjusting the buzzer volume and vibrator, is offered to personalize the device to suit your usage habits.

7-3-1-1. Set Scan Mode

Scan Mode refers to how the scanner reacts to the scanned barcode. By default, Scan Mode is set to be **Momentary**. In this case, LED light will stay on as long as Scan button is pressed down, and automatically turn off once Scan Button is released or a barcode is scanned. However, with **Good Read Off** settings, LED will remain lit for a specified period of time with a release of the pressed Scan Button, and afterwards dim only when the barcode is successfully decoded or the timeout period expires. In **Continue** Scan Mode, the device will continuously send out light till the cable is unplugged, after Scan Button is pressed down and then released. Scan **Toogle** label if you intend to gain more flexibility in when to read a barcode. A press on Scan Button will lead in switching on the light whereas either a successful decoding of a barcode or giving it another press correspondingly switches off the light. Please scan the appropriate label to determine your preferred scan mode.

GoodReadOff BE080



Momentary BE081



Continue BE082



Toogle BE083



Enter



135

End



Setting up your Operation Modes



7-3-1-2. Set Output Interface

Please scan the appropriate barcode to specify the output interface.



7-3-1-3. Set Small Trigger Functionality

Small Trigger is designed to perform various supplementary operations, from deleting single scanned data charge to switching to data transmission mode, according to the length of time the button has been pressed. To facilitate the associated operations with Small Trigger, this parameter is available to specify the degree of Small Trigger's functionality. Scan **Disable** label to specify Small Trigger will not provide any additional function. On the other hand, when **Mem Tx** is enabled, the device is able to switch to data transmission mode by keeping holding Small Trigger long enough to trigger off a solid orange LED light. By default, Small Trigger is set for maximum functionality without limit.



Enter



136

End



Setting up your Operation Modes



7-3-1-4. Set Composite Triggers Functionality

Some supplementary functions are necessarily executed by using composite triggers though Scan Button primarily serves to scan barcodes, and Small Trigger to initiate data transmission. In Memory mode, all the scanned barcode data will be deleted by pressing small trigger and Scan button in a specified sequence described below: while holding the smaller till the orange LED light starts flashing rapidly, press down Scan button at the same time and then release both buttons. Scan the appropriate label to enable or disable functionality of file deletion.



7-3-1-5. Enable/Disable Battery Charge

Scan the appropriate barcode to determine whether to initiate battery charge whenever the device is well connected to host PC using an interface cable and switched to Memory mode.



7-3-1-6. Set Good Read Buzzer Volume

Scan the appropriate barcode to specify the volume of Good Read Buzzer when a barcode is decoded successfully. The higher level indicates the louder sound.



Setting up your Operation Modes



7-3-1-7. Set Warning Buzzer Volume

Scan the appropriate barcode to specify the volume of Warning Buzzer when an error occurs. The higher level indicates the louder sound.



7-3-1-8. Set Normal Event Buzzer Volume

Scan the appropriate barcode to specify the volume of Normal Event Buzzer when certain operations, such as switching operation modes, entering data transmission mode, and deleting all saved barcodes, are initiated by using Scan Button or Small Trigger so that LED indicator accordingly changes its blinking frequency or color. The higher level indicates the louder sound.

Enter



138

End



Setting up your Operation Modes



7-3-1-9. Enable/Disable Good Read Vibrator

Scan the appropriate barcode to enable or disable Good Read Vibrator when a barcode is successfully decoded.



7-3-1-10. Enable/Disable Warning Vibrator

Scan the appropriate barcode to enable or disable Warning Vibrator when an error occurs.



7-3-1-11. Enable/Disable Normal Event Vibrator

Normal Event Vibrator is used to give a vibration signal whenever certain operations, such as switching operation modes, entering data transmission mode, and deleting all saved barcodes, are initiated by using Scan Button or Small Trigger so that LED indicator accordingly changes its blinking frequency or color. Scan the appropriate barcode to



Setting up your Operation Modes



enable or disable Normal Event Vibrator.

Disable BE620



Enable BE621



7-3-1-12. Enable/Disable Good Read Buzzer

Scan the appropriate barcode to enable or disable Good Read Buzzer when a barcode is successfully decoded.

Disable BE500



Enable BE501



7-3-1-13. Enable/Disable Warning Buzzer

Scan the appropriate barcode to enable or disable Warning Buzzer when an error occurs.

Disable BE510



Enable BE511



7-3-1-14. Enable/Disable Normal Event Buzzer

Normal Event Buzzer is used to give an acoustic signal whenever certain operations, such as switching operation modes, entering data transmission mode, and deleting all saved barcodes, are initiated by using Scan Button or Small Trigger so that LED indicator accordingly changes its blinking frequency or color. Scan the appropriate barcode to enable or disable Normal Mode Buzzer.

Disable BE520



Enable BE521



Enter



140

End



Setting up your Operation Modes

7

7-3-1-15. Set Data Transmission Unit

Scan the appropriate barcode to specify data transmission unit which will determine how the scanned barcodes will be sent out from the barcode reader in data transit. By default, barcode data will be transmitted in batches; alternatively, scan **1By1** label to transmit single barcode data at a time by giving Scan Button a press.

Normal

BE7C0



1By1

BE7C1



7-3-1-16. Deletion of Transmitted Data

Scan the appropriate barcode to determine whether to delete saved barcode data in memory after data transmission is completed.

Disable

BE7A0



Enable

BE7A1



7-3-1-17. Enable/Disable Header Info

Scan the appropriate barcode to determine whether or not to transmit header information as part of transmitted data in Memory mode.

Disable

BE760



Enable

BE761



Enter



141

End



Setting up your Operation Modes



7-3-1-18. Enable/Disable Footer Info

Scan the appropriate barcode to determine whether or not to transmit footer information as part of transmitted data in Memory mode.

Disable BE770



Enable BE771



7-3-1-19. Set Good Read Buzzer Frequency

Please follow the below steps to specify the buzzer frequency when a barcode is decoded successfully.

BzGoodRdFreq BF8E0



(Length: 1 digit / Range: 0-255/ Unit: 100Hz)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BzGoodRdFreq** barcode to configure Good Read buzzer frequency.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal values barcodes representing the desired value in the range of 0 to 255. For instance, to set Good Read buzzer frequency to 10000 Hz, scan **1**, **0**, and then **0** to assign the specified decimal value “100”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

7-3-1-20. Set Good Read Buzzer Duration

Please follow the below steps to specify buzzer duration when a barcode is decoded successfully.

BzGoodRdTime BF9E0



(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Enter



142

End



Setting up your Operation Modes

7

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BzGoodRdTime** barcode to configure Good Read buzzer duration.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set Good Read buzzer duration for 0.2 seconds, scan **2** first and then **0** to assign the specified decimal value “20”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

7-3-1-21. Set Good Read Vibrator Duration

Please follow the below steps to specify the length of time the device stays in a state of vibration when a barcode is decoded successfully.

VibratorGoodRdTime BFAEO



(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **VibratorGoodRdTime** barcode to configure Good Read Vibrator duration.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set Good Read buzzer duration for 0.2 seconds, scan **2** first and then **0** to assign the specified decimal value “20”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



143

End



Setting up your Operation Modes



7-3-1-22. Set Activation Duration

In general, after Scan Button is pressed down, LED light will emit a stream of light for a scan attempt. This parameter is thus used to specify activation duration which indicates the amount of time LED light will stays on after Scan button is held.

BarScanTime

BFDE0



(Length: 1 digit / Range: 5-255/ Unit: 1000ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BarScanTime** barcode to configure activation duration.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal values barcode representing the desired value in the range of 0 to 255. For instance, to set activation duration to be 2 seconds, then scan **2** to assign the specified decimal value “2”.
the decimal value “2” by having the barcode scans sequenced as follows: **2**.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



144

End



Setting up your Operation Modes

7

7-3-1-23. Set Idle Duration

The device will switch to power-saving mode after remaining idle for a while. This parameter is thus used to specify the length of time allocated for the scanner to elapse before power-saving mode is initiated.

BarIdleTime BFEE0



(Length: 1 digit / Range: 0-255/ Unit: 1000ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BarIdleTime** barcode to configure idle duration.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set idle duration to be 3 seconds, then scan **3** to assign the specified decimal value “3”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



145

End



7-3-1-24. Set Standby Duration

After lengthy idleness, the device will first be put into standby state in which the machine is still able to react to the emergent request yet running in lower power consumption. This parameter refers to the amount of time allocated for the device to stay in standby before being totally shut down.

StandbyTime BFFE0



(Length: 1 digit / Range: 30-255/ Unit: 1000ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **StandbyTime** barcode to configure idle duration.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 30 to 255. For instance, to set Standby duration to be 30 seconds, scan **3** first and then **0** to assign the specified decimal value “30”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



7-3-2. Output Editing Options

The parameters fallen into this category focus on functionality relevant to output editing in Memory mode. With these available editing settings, you can arrange plentiful scanned barcode in your own style, and accordingly results in a subtle output layout which will benefit yourself from locating barcode data more efficiently.

7-3-2-1. Enable/Disable Preamble Code

Preamble Code refers to a sequence of characters which precedes both Prefix Code and barcode data during data transmission. Scan the appropriate barcode to enable or disable Preamble Code.

Disable C0000



Enable C0001



7-3-2-2. Enable/Disable Postamble Code

Postamble Code refers to a sequence of characters which appends to both barcode data and Suffix Code during data transmission. Scan the appropriate barcode to enable or disable Postamble Code.

Disable C0010



Enable C0011



Setting up your Operation Modes



7-3-2-3. Enable/Disable Prefix Code

Prefix Code is a sequence of characters interposed between Preamble Code and barcode data during data transmission. Scan the appropriate barcode to enable or disable Prefix Code.



7-3-2-4. Enable/Disable Suffix Code

Suffix Code is a sequence of characters interposed between barcode data and Postamble Code during data transmission. Scan the appropriate barcode to enable or disable Suffix Code.



7-3-2-5. Enable/Disable Code ID

Code ID, a user-defined identification characters for symbologies, normally precedes Barcode Data field during data transmission when the associated parameter is enabled. Scan the appropriate barcode to enable or disable Code ID.



Setting up your Operation Modes



7-3-2-6. Set Position of Code ID

Scan the appropriate barcode to specify the position of Code ID you prefer to display as a part of transmitted data. Scan **Before** label to prefix Code ID to barcode data whereas read **After** label to append Code ID to barcode data.



7-3-2-7. Enable/Disable Barcode Length Info

Scan the appropriate barcode to determine whether or not to send out length information of scanned barcode as part of transmitted data. If the feature is **Enabled**, length info will be prefixed to decoded barcode.



7-3-2-8. Enable/Disable Symbology Name

Scan the appropriate barcode to determine whether or not to transmit symbology name information which is normally prefixed to decoded barcode as part of transmitted data.



Setting up your Operation Modes



7-3-2-9. Enable/Disable Control Code Info

Scan the appropriate barcode to determine whether or not to transmit control code info along with the decoded message if the scanned barcode contains the special ASCII code.

Disable C0100



Enable C0101



7-3-2-10. Enable/Disable Delimiter

Scan the appropriate barcode to determine whether or not to interpose the delimiter parameter between the decoded message and timestamps.

Disable C0110



Enable C0111



7-3-2-11. Set Timestamps Positioning

Scan the appropriate barcode to specify the position of timestamps, to the left or the right of decoded message, when output data contains timestamp information. Scan **Before** label to position timestamps on the left side of the barcode, and read **After** label to append timestamps to the barcode.

Before C0120



After C0121



Enter



150

End



Setting up your Operation Modes



7-3-2-12. Enable/Disable Date Information

Scan the appropriate barcode to determine whether or not to transmit date information along with the decoded message.



7-3-2-13. Enable/Disable Time Information

Scan the appropriate barcode to determine whether or not to transmit time information along with the decoded message.



7-3-2-14. Reject Same

Scan the appropriate label to configure your scanner not to decode the barcode which is exactly the same to your previous scan. Scan **Enable** label to avoid possibility of consecutively reading the same barcode twice by accident. Otherwise, by default the scanner will decode barcodes without leaving out those unqualified barcodes.



7-3-2-15. Enable/Disable Barcode Verification

Scan the appropriate barcode to enable or disable barcode verification mechanism which allows the decoder to decode the scanned data repetitively for better accuracy. By default, when the feature is enabled, the device will verify the barcode one more time. To specify the particular number of times for executing barcode verification, please refer to **Section 6-2-23** in **Chapter 6** to further configure **BarDblConfirmCnt** parameter.

Disable C0210



Enable C0211



7-3-2-16. Set Type of Case Conversion

This parameter allows you to initiate letter case conversion which treats the decoded message as a whole and converts it between upper case and lower case according to the setting. Scan the appropriate the label to specify the type of case conversion.

None C0380



Inverse C0381



Lower C0382



Upper C0383



Setting up your Operation Modes



7-3-2-17. Set Delimiter Between Date/Time Stamps and Barcode Data

Delimiter refers to a specified character or a set of characters used to divide lengthy transit data into a group of data. By associating the parameter with the valid value, the specified delimiter will be interposed between timestamps and the decoded message to have transmitted data better formatted. However, to make sure this parameter functions properly, please refer to **Section 7-3-2-10** to enable the relevant delimiter parameter as well.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **DelimiterChar** barcode to configure the delimiter.
- (3) Please refer to ASCII Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to use “;” character to break down the output string, scan **3** first and then **B** to assign the specified hexadecimal value “3B”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

7-3-2-18. Set Delimiter Between Date and Time Stamps

Delimiter refers to a specified character or a set of characters used to divide lengthy transit data into a group of data. By associating the parameter with the valid value, the specified delimiter will be interposed between date and time stamps to have transmitted data better formatted. However, to make sure this parameter functions properly, please refer to **Section 7-3-2-12** and **Section 7-3-2-13** to enable time and date stamps as well.



Enter



153

End



Setting up your Operation Modes

7

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **DateTimeSpareChar** barcode to configure the delimiter.
- (3) Please refer to ASCII Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to use “;” character to break down the output string, scan **3** first and then **B** to assign the specified hexadecimal value “3B”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

7-3-2-19. Set Preamble Code

In the process of transmitting data, Preamble Code normally precedes both Prefix Code and barcode data as a user-defined string to format the output data. Although Preamble Code and Prefix Code work similarly to structure the transmitted message, functionality they individually intend to perform differs. Basically, Preamble Code is designed to arrange a layout using line terminators, such as carriage return, line fee, line separator, paragraph separator and so on. Therefore, it is suggested to associate this configurable parameter with equivalent ASCII code value for line terminators whenever you possibly use Preamble Code in the hope of organizing the transmitted message. Please follow the below steps to configure Preamble Code.

PreambleChar COCE3



(Length: 2 digits)

Enter



154

End



Setting up your Operation Modes

7

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **PreambleChar** barcode to configure Preamble Code.
- (3) Please refer to ASCII Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set preamble code to be <CR><LF>, scan **0, D, 0** and then **A** to assign the specified hexadecimal value “0D0A”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

7-3-2-20. Set Postamble Code

In the process of transmitting data, Postamble Code is appended to both Suffix Code and barcode data as a user-defined string to format the output data. However, Postamble Code not simply works like Suffix Code to better format the transmitted messages, but, to precisely describe it, expects to emulate line terminators to break transmission line. Consequently, it is strongly suggested to associate this configurable parameter with equivalent ASCII code value for line terminators. Please follow the below steps to configure Postamble Code.

PostambleChar C0EE3



(Length: 2 digits)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **PostambleChar** barcode to configure Postamble Code.
- (3) Please refer to ASCII Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set postamble code to be <CR><LF>, scan **0, D, 0** and then **A** to assign the specified hexadecimal value “0D0A”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



155

End



7-3-2-21. Set Prefix Code

In the process of transmitting data, Prefix Code is normally interposed between Preamble Code and barcode data as a user-defined string to format the output data. It seems that Preamble Code and Prefix Code both provide exactly the same formatting function, but in fact they work slightly differently in terms of their functionality. Unlike Preamble Code which intends to function as line terminators to appropriately break line in data transit, Prefix Code is more inclined to clarify the difference among lines by binding with any type of characters which is only identifiable for you to achieve the attempt. Please follow the below steps to configure Prefix Code.



Procedure

- (1) Scan Enter barcode.
- (2) Scan **PrefixChar** barcode to configure Prefix Code.
- (3) Please refer to ASCII Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 8 characters in length. For instance, to set prefix code to be "ABCD", scan **4, 1, 4, 2, 4, 3, 4**, and then **4** to assign the specified hexadecimal value "41424344".
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

7-3-2-22. Set Suffix Code

In the process of transmitting data, Suffix Code is normally interposed between barcode data and Postamble Code as a user-defined string to format the output data. By binding this configurable parameter with parameter value which is identifiable for you to achieve the attempt, Suffix Code is meant to identify the difference among lines, whereas functionality of Postamble Code is to arrange the data format by breaking the transmission line. Please follow the below steps to configure Suffix Code.



Setting up your Operation Modes

7

SuffixChar C18E5



(Length: 8 digits)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **SuffixChar** barcode to configure Suffix Code.
- (3) Please refer to ASCII Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 8 characters in length. For instance, to set suffix code to be “EFGH”, scan **4, 5, 4, 6, 4, 7, 4**, and then **8** to assign the specified hexadecimal value "45464748".
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



157

End



7-4. Bluetooth Mode

Please be advised the following parameters in this section simply works for the associated operations in Bluetooth mode. Make sure that you appropriately conduct the operations using Bluetooth mode.

7-4-1. Output Interface Options

In terms of output interface options, it is more about technical configuration regarding how you want barcode data to be transmitted between devices in Bluetooth mode before scanned barcode is further processed. Properly configure your scanner according to the realistic situation will lead to satisfactory data transmission performance.

7-4-1-1. Set Communication Protocol for SPP

Scan the appropriate barcode to specify the communication protocol for SPP if the associated operations are performed using RS-232 or USB COM interfaces.



Setting up your Operation Modes

7

7-4-1-2. Enable/Disable <STX> and <ETX> Escape Characters for SPP

Scan the appropriate barcode to enable or disable <STX> and <ETX> escape characters for SPP if the associated operations are performed using RS-232 or USB COM interfaces. Regarding the more detailed configuration on escape characters, please refer to **Scanner Commands** which is located in the section 6-3 of Chapter 6.

None AE1A0



STX/ETX AE1A1



7-4-1-3. Enable/Disable <BAR> and <CMD> Escape Characters for SPP

Scan the appropriate barcode to enable or disable <BAR> and <CMD> escape characters for SPP if the associated operations are performed using RS-232 or USB COM interfaces. Regarding the more detailed configuration on escape characters, please refer to **Scanner Commands** which is located in the section 6-3 of Chapter 6.

Disable AE150



Enable AE151



7-4-1-4. Enable/Disable Command Mode for SPP

Scan the appropriate barcode to enable or disable Command mode for SPP if the associated operations are performed using RS-232 or USB COM interfaces.

Disable AE170



Enable AE171



Setting up your Operation Modes



7-4-1-5. Set Transfer Count for Time Delay for SPP

This parameter allows you to specify the number of digits which has to be transmitted to initiate a time delay referring to an intentional deferment of data transmission. Please follow the below steps to set the transfer count for time delay if the associated operations are performed using RS-232 or USB COM interfaces.

BtSppTxCharGapCnt AEDE0



(Length: 1 digit / Range: 0-255)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BtSppTxCharGapCnt** barcode to configure the transfer count for time delay for SPP.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to initiate time delay after every five digits are transmitted, then scan **5** to assign the specified decimal value “5”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



160

End



Setting up your Operation Modes



7-4-1-6. Set Time Delay for a Digit for SPP

This parameter refers to the amount of elapsed time to delay transmitting a digit. Please follow the below steps to set time delay for transmitting a digit if the associated operations are performed using RS-232 or USB COM interfaces.

BtSppTxCharGapTime AEEE0



(Length: 1 digit / Range: 0-255/ Unit: 1ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BtSppTxCharGapTime** barcode to configure delay time for a digit for SPP.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to defer transmitting a digit for 0.2 seconds, scan **2**, **0**, and then **0** to assign the specified decimal value “200”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



161

End



7-4-1-7. Set Time Delay for a Record for SPP

This parameter refers to the amount of elapsed time to delay transmitting a record. Please follow the below steps to set time delay for transmitting a record if the associated operations are performed using RS-232 or USB COM interfaces.

BtSppTxGapTime AEFE0



(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BtSppTxGapTime** barcode to configure delay time for a record for SPP.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to defer transmitting a record for 0.2 seconds, scan **2** first and then **0** to assign the specified decimal value "20".
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



Setting up your Operation Modes



7-4-1-8. Set Time Delay for a Specified Digit for SPP

This parameter refers to the amount of elapsed time to delay transmitting a specified character. Please follow the below steps to set time delay for transmitting a specified digit if the associated operations are performed using RS-232 or USB COM interfaces.

BtSppExtTime **AEBE0**



(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BtSppExtTime** barcode to configure delay time for a specified digit for SPP.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to defer transmitting a specified digit for 1 second, scan **1** to assign the specified decimal value “100”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



163

End



7-4-1-9. Set Timeout for SPP

Timeout is initiated when the device keeps waiting for an event to occur and thus remains idle for a period of time during the data transmission. This parameter allows you to specify the amount of time to elapse before timeout is officially triggered. Please follow the below steps to configure the timeout period if the associated operations are performed using RS-232 or USB COM interfaces.

BtSppTxOtTime AECE0



(Length: 1 digit / Range: 2-255/ Unit: 1000ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BtSppTxOtTime** barcode to configure timeout parameter for SPP.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 2 to 255. For instance, to set timeout period to 2 seconds, then scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



7-4-1-10. Set Retransmission Count for SPP

To avoid data transmission loss, messages sometimes have to be resent due to a failure to receive ACK signal. This parameter allows you to configure the number of attempting retransmission if the associated operations are performed using RS-232 or USB COM interfaces.

BtSppTxAckCnt

AE9E0



(Length: 1 digit / Range: 0-255/ Unit: 1000ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BtSppTxAckCnt** barcode to configure timeout parameter for SPP.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set retransmission count to 1, then scan **1** to assign the specified decimal value "1".
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



165

End



Setting up your Operation Modes



7-4-1-11. Set ACK timeout for SPP

ACK timeout refers to the allotted time to elapse for the receipt of ACK signal before timeout is initiated. This parameter allows you to specify the amount of time allocated for ACK timeout if the associated operations are performed using RS-232 or USB COM interfaces.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BtSppTxAckTime** barcode to configure ACK timeout for SPP.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal values barcodes representing the desired value in the range of 2 to 255. For instance, to set ACK timeout to be 3 seconds, then scan **3** to assign the specified decimal value “3”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

7-4-1-12. Set Caps Lock setting for HID

This parameter provides the alternative to emulate Caps Lock which is a lock key to change the letter case of the typed alphabets. Read either **Caps Lock On** or **Caps Lock off** label to initiate the inversion of the letter case. However, in this case, the status of Caps Lock on your physical keyboard should be also taken into account. As to the mutual interaction between Caps lock key on the keyboard and the capital settings, please refer to the below chart to achieve the attempt. However, in addition to the two options mentioned earlier, there are one more alternatives for you to choose from as well: Scan **Alt+Keyoad** label to determine the letter case of typed alphabets by keystroke combinations of **Alt + ASCII code**, regardless of the status of Caps Lock key.



Setting up your Operation Modes



Scanner Options \ Cap Locks Status		
	Caps Lock On	Caps Lock Off
Caps Lock On	ABCdef	abcDEF
Caps Lock Off	abcDEF	ABCdef
Alt+Keypad	ABCdef	ABCdef

Caps Lock Off AF0A1



Caps Lock On AF0A2



Alt+Keypad AF0A3



7-4-1-13. Enable/Disable Num Lock for HID

Scan the appropriate barcode to enable or disable Num Lock if the associated operations are performed using USB HID interface. When **AlphaPad** is enabled, regardless of the status of Num Lock key on your keyboard, the numeric symbols contained in the barcode data will be genuinely interpreted. On the other hand, scan **Num Lock** label to substitute arrow keys and Del, PgUp, PgDown keys for corresponding numeric keys to have effects on the decoded message when Num Lock is turned off.

AlphaPad AF060



NumPad AF061



Setting up your Operation Modes



7-4-1-14. Set IMEs for HID

IME is a program which allows users to input different sets of characters derived from different languages. Scan the appropriate barcode to specify active Input Method Editors if the associated operations are performed using USB HID interfaces.



Setting up your Operation Modes



7-4-1-15. Set Transfer Count for Time Delay for HID

This parameter allows you to specify the number of digits which has to be transmitted to initiate a time delay referring to an intentional deferment of data transmission. Please follow the below steps to set the transfer count for time delay if the associated operations are performed using USB HID interface.

BtHidTxCharGapCnt AFDE0



(Length: 1 digit/ Range: 0-255)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BtHidTxCharGapCnt** barcode to configure the transfer count for time delay for HID.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcode s representing the desired value in the range of 0 to 255. For instance, to initiate a timeout after 10 digits are transmitted, scan **1** first and then **0** to assign the specified decimal value “10”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

7-4-1-16. Set Time Delay for a Digit for HID

This parameter refers to the amount of elapsed time to delay transmitting a digit. Please follow the below steps to set time delay for transmitting a digit for HID if the associated operations are performed using USB HID interface.

BtHidTxCharGapTime AFEE0



(Length: 1 digit / Range: 0-255/ Unit: 1ms)

Enter



169

End



Setting up your Operation Modes

7

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BtHidTxCharGapTime** barcode to configure delay time for a digit for HID.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to defer transmitting a digit for 0.2 seconds, scan **2**, **0** and then **0** to assign the specified decimal value “200”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

7-4-1-17. Set Time Delay for a Record for HID

This parameter refers to the amount of elapsed time to delay transmitting a record. Please follow the below steps to set time delay for transmitting a record if the associated operations are performed using USB HID interfaces.

BtHidTxGapTime AFFE0



(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BtHidTxGapTime** barcode to configure delay time for a record for HID.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to defer transmitting a digit for 0.2 seconds, scan **2** first and then **0** to assign the specified decimal value “20”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



170

End



7-4-1-18. Set Time Delay for a Specified Digit for SPP

This parameter refers to the amount of elapsed time to delay transmitting a specified character. Please follow the below steps to set time delay for transmitting a specified digit if the associated operations are performed using RS-232 or USB COM interfaces.

BtHidTxExtTime **AFBE0**



(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BtHidTxExtTime** barcode to configure delay time for a specified digit for HID.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to defer transmitting a digit for 1 second, then scan **1** to assign the specified decimal value "10".
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



7-4-1-19. Set Timeout for SPP

Timeout is initiated when the device keeps waiting for an event to occur and thus remains idle for a period of time during the data transmission. This parameter allows you to specify the amount of time to elapse before timeout is officially triggered. Please follow the below steps to configure the timeout period for HID if the associated operations are performed using RS-232 or USB COM interfaces.

BtHidTxOtTime

AFCE0



(Length: 1 digit / Range: 2-255/ Unit: 1000ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BtHidTxOtTime** barcode to configure timeout parameter for HID.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 2 to 255. For instance, to set the timeout period to be 3 seconds, then scan **3** to assign the specified decimal value “3”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



7-4-1-20. Set PIN Code

Pin Code information is required to establish a Bluetooth connection. During the pairing process, you may be asked to enter Pin code for the verification to ensure the identity, and then granted the permission to access the device as a successful verification result. Please follow the below steps to configure Pin Code info.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BtBtPinCode** barcode to configure Pincode parameter.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan desired decimal value barcodes representing the desired number which contains at most 8 digits. For instance, to set PIN code to be “1234”, scan **1**, **2**, **3**, and then **4** to assign the specified decimal value “1234”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



7-4-1-21. Set Bluetooth Address

Mac Address information is required for the scanner to locate the Bluetooth devices, except for Bluetooth dongle A302/A303, for establishment of a Bluetooth connection. Please associate this parameter with the Bluetooth address of the Bluetooth device.

BtMacAddr B08FE



(Length: 12 digits; 0-F)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BtMacAddr** barcode to configure Mac Address.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 12 characters in length. For instance, to set Bluetooth Address to be “001C97FE16EC”, scan **0, 0, 1, C, 9, 7, F, E, 1, 6, E** and then **C** to assign the specified hexadecimal value “001C97FE16EC”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



Setting up your Operation Modes



7-4-1-22. Set Machine Name

Machine Name refers to the name of the scanner and serves as an identification name for other Bluetooth devices, except for Bluetooth dongle A302/A303, to initiate the pairing process. Scan the below barcode to specify the preferred machine name for the scanner.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BtDevName** barcode to configure the machine name.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 12 characters in length. For instance, to set the device name to be “BT Scanner”, scan **5, 2, 5, 4, 2, 0, 5, 3, 6, 3, 6, 1, 6, E, 6, E, 6, 5, 7** and then **2** to assign the specified hexadecimal value “5254205363616E6E6572”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



175

End



Setting up your Operation Modes



7-4-1-23. Set Bluetooth address for Dongle A302/A303

Mac Address information is required for the scanner to locate Bluetooth dongle A302/303 for establishment of a Bluetooth connection. Please associate this parameter with the Bluetooth address of the Bluetooth device.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BtMacAddr** barcode to configure Mac Address.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 12 characters in length. For instance, to set Bluetooth Address to be “001C97FE16EC”, scan **0, 0, 1, C, 9, 7, F, E, 1, 6, E** and then **C** to assign the specified hexadecimal value “001C97FE16EC”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



176

End



Setting up your Operation Modes



7-4-1-24. Set Machine Name for Dongle A302/A303

Machine Name refers to the name of scanner and serves as an identification name especially for Bluetooth dongle A302/303 to initiate the pairing process. Scan the below barcode to specify the preferred machine name for the scanner.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BtDevName** barcode to configure the machine name.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 12 characters in length. For instance, to set the device name to be “BT Scanner”, scan **5, 2, 5, 4, 2, 0, 5, 3, 6, 3, 6, 1, 6, E, 6, E, 6, 5, 7** and then **2** to assign the specified hexadecimal value “5254205363616E6E6572”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



177

End



7-4-2. Scanner Options

A selection of scanner options, from setting button functions to adjusting the buzzer volume and vibrator, is offered to personalize the device to suit your usage habits.

7-4-2-1. Set Scan Mode

Scan Mode refers to how the scanner reacts to the scanned barcode. By default, Scan Mode is set to be **Momentary**. In this case, LED light will stay on as long as Scan button is pressed down, and automatically turn off once Scan Button is released or a barcode is scanned. However, with **Good Read Off** settings, LED will remain lit for a specified period of time with a release of the pressed Scan Button, and afterwards dim only when the barcode is successfully decoded or the timeout period expires. In **Continue** Scan Mode, the device will continuously send out light till the cable is unplugged, after Scan Button is pressed down and then released. Scan **Toogle** label if you intend to gain more flexibility in when to read a barcode. A press on Scan Button will lead in switching on the light whereas either a successful decoding of a barcode or giving it another press correspondingly switches off the light. Please scan the appropriate label to determine your preferred scan mode.

GoodReadOff C4080



Momentary C4081



Continue C4082



Toogle C4083



7-4-2-2. Set Output Interface

Please scan the appropriate barcode to specify the output interface which is used to establish a Bluetooth connection.

Slave C41D1



Master C41D2



Hid C41D3



iOS C41D4



A303 C41D5



A302 C41D6



7-4-2-3. Set Small Trigger Functionality

Small Trigger is designed to perform various supplementary operations, from initiating battery charge to switching to data transmission mode, according to the length of time the button has been pressed. To facilitate the associated operations with Small Trigger, this parameter is available to specify the degree of Small Trigger's functionality. Scan **Disable** label to specify Small Trigger will not provide any additional function. On the other hand, when **Mem Tx** is enabled, the device is able to switch to data transmission mode by keeping holding Small Trigger long enough to trigger off a solid blue LED light. By default, Small Trigger is set for maximum functionality without limit.

Disable C4290



Setting up your Operation Modes



Mem Tx C4292



Normal C4293



7-4-2-4. Set Composite Triggers Functionality

Some supplementary functions are necessarily executed by using composite triggers though Scan Button primarily serves to scan barcodes, and Small Trigger to initiate data transmission. In Bluetooth mode, Bluetooth pairing is an extra function which can be initiated by pressing Small Trigger and Scan Button in a specified sequence described below: while holding Small Trigger till the blue LED light starts flashing rapidly, press down Scan Button at the same time and then release both buttons. Scan the appropriate label to enable or disable pairing functionality.

Disable C4280



Pair C4281



7-4-2-5. Enable/Disable Battery Charge

Scan the appropriate barcode to determine whether to initiate battery charge whenever the device is well secured into host PC using an interface cable and switched to Bluetooth mode.

Disable C4300



Enable C4301



7-4-2-6. Set Good Read Buzzer Volume

Scan the appropriate barcode to specify the volume of Good Read Buzzer when a barcode is decoded successfully. The higher level indicates the louder sound.

Enter



180

End



Setting up your Operation Modes



7-4-2-7. Set Warning Buzzer Volume

Scan the appropriate barcode to specify the volume of Warning Buzzer when an error occurs. The higher level indicates the louder sound.



7-4-2-8. Set Normal Event Buzzer Volume

Scan the appropriate barcode to specify the volume of Normal Event Buzzer when certain operations, such as switching operation modes, entering data transmission mode, and initiating Bluetooth pairing, are initiated by using Scan Button or Small Trigger so that LED indicator accordingly changes its blinking frequency or color. The higher level indicates the louder sound.

Enter



181

End



Setting up your Operation Modes

7

Level1 C44A0



Level2 C44A1



Level3 C44A2



Level4 C44A3



7-4-2-9. Enable/Disable Good Read Vibrator

Scan the appropriate barcode to enable or disable Good Read Vibrator when a barcode is successfully decoded.

Disable C4600



Enable C4601



7-4-2-10. Enable/Disable Warning Vibrator

Scan the appropriate barcode to enable or disable Warning Vibrator when an error occurs.

Disable C4610



Enable C4611



7-4-2-11. Enable/Disable Normal Event Vibrator

Normal Event Vibrator is used to give a vibration signal whenever certain operations, such as switching operation modes, entering data transmission mode, and initiating Bluetooth pairing, are initiated by using Scan Button or Small Trigger so that LED indicator accordingly changes its blinking frequency or color. Scan the appropriate barcode to enable or disable Normal Event Vibrator.

Enter



182

End



Setting up your Operation Modes



Disable C4620



Enable C4621



7-4-2-12. Enable/Disable Good Read Buzzer

Scan the appropriate barcode to enable or disable Good Read Buzzer when a barcode is successfully decoded.

Disable C4500



Enable C4501



7-4-2-13. Enable/Disable Warning Buzzer

Scan the appropriate barcode to enable or disable Warning Buzzer when an error occurs.

Disable C4510



Enable C4511



7-4-2-14. Enable/Disable Mode Buzzer

Normal Event Buzzer is used to give an acoustic signal whenever certain operations, such as switching operation modes, entering data transmission mode, and initiating Bluetooth pairing, are initiated by using Scan Button or Small Trigger so that LED indicator accordingly changes its blinking frequency or color. Scan the appropriate barcode to enable or disable Normal Event Buzzer.

Enter



183

End



Setting up your Operation Modes



Disable C4520



Enable C4521



7-4-2-15. Set Pairing Timeout

Pairing Timeout refers to an amount of time allocated to the scanner for pairing with other Bluetooth devices. When timeout period expires yet the Bluetooth connection is not established, the pairing process will terminate due to the failed attempt. Please follow the below steps to configure pairing timeout.

PairingTime C57E0



(Length: 1 digit / Range: 0-255/ Unit: 1000ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **PairingTime** barcode to configure Pairing Timeout.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set pairing timeout to be 20 seconds, scan **2** first and then **0** to assign the specified decimal value "20".
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

7-4-2-16. Set Good Read Buzzer Frequency

Please follow the below steps to specify the buzzer frequency when a barcode is decoded successfully.

BzGoodRdFreq C58E0



(Length: 1 digit / Range: 0-255/ Unit: 100Hz)

Enter



184

End



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BzGoodRdFreq** barcode to configure Good Read buzzer frequency.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set Good Read buzzer frequency to 10000 Hz, scan **1, 0** and then **0** to assign the specified decimal value “100”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

7-4-2-17. Set Good Read Buzzer Duration

Please follow the below steps to specify buzzer duration when a barcode is decoded successfully.

BzGoodRdTime C59E0



(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BzGoodRdTime** barcode to configure Good Read buzzer duration.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set Good Read buzzer duration for 0.2 seconds, scan **2** first and then **0** to assign the specified decimal value “20”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



185

End



Setting up your Operation Modes

7

7-4-2-18. Set Good Read Vibrator Duration

Please follow the below steps to specify the length of time the device stays in a state of vibration when a barcode is decoded successfully.

VibratorGoodRdTime C5AE0



(Length: 1 digit / Range: 0-255/ Unit: 10ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **VibratorGoodRdTime** barcode to configure Good Read Vibrator duration.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set Good Read buzzer duration for 0.2 seconds, scan **2** first and then **0** to assign the specified decimal value “20”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



186

End



Setting up your Operation Modes

7

7-4-2-19. Set Activation Duration

In general, after Scan button is pressed down, LED light will emit a stream of light for a scan attempt. This parameter is thus used to specify activation duration which indicates the amount of time LED light will stays on after Scan button is held.

BarScanTime C5DE0



(Length: 1 digit / Range: 5-255/ Unit: 1000ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BarScanTime** barcode to configure activation duration.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal values barcodes representing the desired value in the range of 5 to 255. For instance, to set activation duration to be 10 seconds, scan **1** first and then **0** to assign the specified decimal value “10”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

7-4-2-20. Set Idle Duration

The device will switch to power-saving mode after remaining idle for a while. This parameter is thus used to specify the length of time allocated for the scanner to elapse before power-saving mode is initiated.

BarIdleTime C5EE0



(Length: 1 digit / Range: 0-255/ Unit: 1000ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **BarIdleTime** barcode to configure idle duration.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 0 to 255. For instance, to set idle duration to be 3 seconds, the scan **3** to assign the specified decimal value “3”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



187

End



7-4-2-21. Set Standby Duration

After lengthy idleness, the device will first be put into standby state in which the machine is still able to react to the emergent request yet running in lower power consumption. This parameter refers to the amount of time allocated for the device to stay in standby before being totally shut down.

StandbyTime C5FE0



(Length: 1 digit / Range: 10-255/ Unit: 1000ms)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **StandbyTime** barcode to configure idle duration.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired value in the range of 10 to 255. For instance, to set Standby duration to be 30 seconds, scan **3** first and then **0** to assign the specified decimal value “30”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



7-4-3. Output Editing Options

The parameters fallen into this category focus on functionality relevant to output editing in Bluetooth mode. With these available editing settings, you can arrange plentiful scanned barcode in your own style and accordingly results in a subtle output layout which will benefit users from locating barcode data more efficiently.

7-4-3-1. Enable/Disable Preamble Code

Preamble Code refers to a sequence of characters which precedes both Prefix Code and barcode data during data transmission. Scan the appropriate barcode to enable or disable Preamble Code.

Disable C6000



Enable C6001



7-4-3-2. Enable/Disable Postamble Code

Postamble Code refers to a sequence of characters which appends to both barcode data and Suffix Code during data transmission. Scan the appropriate barcode to enable or disable Postamble Code.

Disable C6010



Enable C6011



Setting up your Operation Modes



7-4-3-3. Enable/Disable Prefix Code

Prefix Code is a sequence of characters interposed between Preamble Code and barcode data during data transmission. Scan the appropriate barcode to enable or disable Prefix Code.

Disable C0020



Enable C0021



7-4-3-4. Enable/Disable Suffix Code

Suffix Code is a sequence of characters interposed between barcode data and Postamble Code during data transmission. Scan the appropriate barcode to enable or disable Suffix Code.

Disable C6030



Enable C0031



7-4-3-5. Enable/Disable Code ID

Code ID, a user-defined identification characters for symbologies, normally precedes Barcode Data field during data transmission when the associated parameter is enabled. Scan the appropriate barcode to enable or disable Code ID.

Disable C6040



Enable C6041



Setting up your Operation Modes



7-4-3-6. Set Position of Code ID

Scan the appropriate barcode to specify the position of Code ID you prefer to display as a part of transmitted data. Scan **Before** label to prefix Code ID to barcode data whereas read **After** label to append Code ID to barcode data.

Before C6050



After C6051



7-4-3-7. Enable/Disable Barcode Length Info

Scan the appropriate barcode to determine whether or not to send out length information of scanned barcode as part of transmitted data. If the feature is **Enabled**, length info will be prefixed to decoded barcode.

Disable C6060



Enable C6061



7-4-3-8. Enable/Disable Symbology Name

Scan the appropriate barcode to determine whether or not to transmit symbology name information which is normally prefixed to decoded barcode as part of transmitted data.

Disable C6070



Enable C6071



Setting up your Operation Modes



7-4-3-9. Enable/Disable Control Code Info

Scan the appropriate barcode to determine whether or not to transmit control code info along with the decoded message if the scanned barcode contains the special ASCII code.

Disable C6100



Enable C6101



7-4-3-10. Enable/Disable Delimiter

Scan the appropriate barcode to determine whether or not to interpose the delimiter parameter between the decoded message and timestamps.

Disable C6110



Enable C6111



7-4-3-11. Set Timestamps Positioning

Scan the appropriate barcode to specify the position of timestamps, to the left or the right of decoded message, when output data contains timestamp information. Scan **Before** label to position timestamps on the left side of the barcode, and read **After** label to append timestamps to the barcode.

Before C6120



After C6121



Setting up your Operation Modes

7

7-4-3-12. Enable/Disable Date Information

Scan the appropriate barcode to determine whether or not to transmit date information along with the decoded message.

Disable C6130



Enable C6131



7-4-3-13. Enable/Disable Time Information

Scan the appropriate barcode to determine whether or not to transmit time information along with the decoded message.

Disable C6140



Enable C6141



7-4-3-14. Reject Same

Scan the appropriate label to configure your scanner not to decode the barcode which is exactly the same to your previous scan. Scan **Enable** label to avoid possibility of consecutively reading the same barcode twice by accident. Otherwise, by default the scanner will decode barcodes without leaving out those unqualified barcodes.

Disable C6200



Enable C6201



7-4-3-15. Enable/Disable Barcode Verification

Scan the appropriate barcode to enable or disable barcode verification mechanism which allows the decoder to decode the scanned data repetitively for better accuracy. By default,

Enter



193

End



Setting up your Operation Modes



when the feature is enabled, the device will verify the barcode one more time. To specify the particular number of times for executing barcode verification, please refer to **Section 6-2-23** in **Chapter 6** to further configure **BarDblConfirmCnt** parameter.

Disable C6210



Enable C6211



7-4-3-16. Set Type of Case Conversion

This parameter allows you to initiate letter case conversion which treats the decoded message as a whole and converts it between upper case and lower case according to the setting. Scan the appropriate the label to specify the type of case conversion.

None C6380



Inverse C6381



Lower C6382



Upper C6383



7-4-3-17. Set Delimiter Between Date/Time Stamps and Barcode Data

Delimiter refers to a specified character or a set of characters used to divide lengthy transit data into a group of data. By associating the parameter with the valid value, the specified delimiter will be interposed between timestamps and the decoded message to have transmitted data better formatted. However, to make sure this parameter functions properly, please refer to **Section 7-4-3-10** to enable the relevant delimiter parameter as well.

Enter



194

End



Setting up your Operation Modes

7

DelimiterChar C6BE2



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **DelimiterChar** barcode to configure the delimiter.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to use “;” character to break down the output string, scan **3** first and then **B** to assign the specified hexadecimal value “3B”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

7-4-3-18. Set Delimiter Between Date and Time Stamps

Delimiter refers to a specified character or a set of characters used to divide lengthy transit data into a group of data. By associating the parameter with the valid value, the specified delimiter will be interposed between date and time stamps to have transmitted data better formatted. However, to make sure this parameter functions properly, please refer to **Section 7-4-3-12** and **Section 7-4-3-13** to enable date and time stamps as well.

DateTimeSpareChar C6AE2



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **DateTimeSpareChar** barcode to configure the delimiter.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to use “;” character to break down the output string, scan **3** first and then **B** to assign the specified hexadecimal value “3B”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



195

End



7-4-3-19. Set Preamble Code

In the process of transmitting data, Preamble Code normally precedes both Prefix Code and barcode data as a user-defined string to format the output data. Although Preamble Code and Prefix Code work similarly to structure the transmitted message, functionality they individually intend to perform differs. Basically, Preamble Code is designed to arrange a layout using line terminators, such as carriage return, line fee, line separator, paragraph separator and so on. Therefore, it is suggested to associate this configurable parameter with equivalent ASCII code value for line terminators whenever you possibly use preamble code in the hope of organizing the transmitted message. Please follow the below steps to configure Preamble Code.

PreambleChar C6CE3

(Length: 2 digits)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **PreambleChar** barcode to configure Preamble Code.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired the desired string which has to be at most 2 characters in length. For instance, to set preamble code to be <CR><LF>, scan **0, D, 0**, and then **A** to assign the specified hexadecimal value “0D0A”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

7-4-3-20. Set Postamble Code

In the process of transmitting data, Postamble Code is appended to both Suffix Code and barcode data as a user-defined string to format the output data. However, Postamble Code not simply works like Suffix Code to better format the transmitted messages, but, to precisely describe it, expects to emulate line terminators to break transmission line. Consequently, it is strongly suggested to associate this configurable parameter with equivalent ASCII code value for line terminators. Please follow the below steps to configure Postamble Code.



Setting up your Operation Modes



PostambleChar C6EE3



(Length: 2 digits)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **PostambleChar** barcode to configure Postamble Code.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired the desired string which has to be at most 2 characters in length. For instance, to set postamble code to be <CR><LF>, scan **0**, **D**, **0**, and then **A** to assign the specified hexadecimal value “0D0A”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

7-4-3-21. Set Prefix Code

In the process of transmitting data, Prefix Code is normally interposed between Preamble Code and barcode data as a user-defined string to format the output data. It seems that Preamble Code and Prefix Code both provide exactly the same formatting function, but in fact they work slight differently in terms of their functionality. Unlike Preamble Code which intends to function as line terminators to appropriately break line in data transit, Prefix Code is more inclined to clarify the difference among lines by binding with any type of characters which is only identifiable for you to achieve the attempt. Please follow the below steps to configure Prefix Code.

PrefixChar C70E5



(Length: 8 digits)

Enter



197

End



Setting up your Operation Modes

7

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **PrefixChar** barcode to configure Prefix Code.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired the desired string which has to be at most 8 characters in length. For instance, to set prefix code to be "ABCD", scan **4, 1, 4, 2, 4, 3, 4**, and then **4** to assign the specified hexadecimal value "41424344".
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

7-4-3-22. Set Suffix Code

In the process of transmitting data, Suffix Code is normally interposed between barcode data and Postamble Code as a user-defined string to format the output data. By binding this configurable parameter with parameter value which is identifiable for you to achieve the attempt, Suffix Code is meant to identify the difference among lines, whereas functionality of Postamble Code is to arrange the data format by breaking the transmission line. Please follow the below steps to configure Suffix Code.

SuffixChar C78E5



(Length: 8 digits)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **SuffixChar** barcode to configure Suffix Code.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired the desired string which has to be at most 8 characters in length. For instance, to set suffix code to be "EFGH", scan **4, 5, 4, 6, 4, 7, 4**, and then **8** to assign the specified hexadecimal value "45464748".
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



198

End



8. Symbolology Configuration

This chapter is to present the supported symbol options, and to further illustrate how to work out the relevant symbolology configurations. Before attempting every scan sequence, please refer to the configuration chart illustrated in Chapter 3 to ensure you do follow the correct procedures for setting up your scanner.



8-1. Default Setting

Symbology	Enable/Disable	Code ID
UPC-A	Enabled	A
UPC-E	Enabled	E
EAN-13	Enabled	F
EAN-8	Enabled	FF
Code-39	Enabled	M
Interleaved 2 of 5	Disabled	I
Industrial 2 of 5	Disabled	J
Matrix 2 of 5	Disabled	G
Codabar/NW7	Enabled	N
Code-128	Enabled	K
Code-93	Disabled	L
Code-11	Disabled	O
BarMsi	Disabled	P
BartPlessey	Disabled	R
Telepen	Disabled	S
BarRss14	Disabled	T
BarRSsLimit	Disabled	U
BarRSSStk	Disabled	V
BarRSSExp	Disabled	W
BarRSSExpStk	Disabled	X



8-2. UPC-A

8-2-1. Enable/Disable UPC-A

Scan the appropriate barcode to determine whether or not to enable UPC-A



8-2-2. Enable/Disable Add-On Code

Scan the appropriate barcode to determine whether or not to enable an Add-on code.



8-2-3. Set Type of Add-On Code

An add-on code is a special symbol used to carry extra messages as a supplement to the barcode itself. The variations of an Add-on code for UPC-A symbology provided here primarily vary in its own length. **Addon 2** refers to tow-digit add-on code whereas **Addon 5** to five-digit add-on code. Or, you can select **Addon 2+5** to allow the scanner to decode either two-digit or five-digit add-ons. Please scan the appropriate barcode to specify the type of Add-on code.

To have the selected type take effect, please do **enable** Add-on code parameter in **Section 8-2-2** at same time. Furthermore, you may refer to **Section 6-2-22** in **Chapter 6** to further configure the length of time for decoding Add-on codes.



None D0190



Addon 2 D0191



Addon 5 D0192



Addon 2+5 D0193



8-2-4. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable D0070



Enable D0071



8-2-5. Truncate Leading Zeros

Scan **Enable** label to shrink the barcode message by getting rid of leading zeros.

Disable D0060

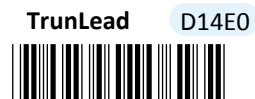


Enable D0061



8-2-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of UPC-A barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.



(Length: 1 digit / Range: 0-255)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
- (3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every UPC-A symbol, then scan **3** to assign the specified decimal value "3".
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-2-7. Removing Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of UPC-A barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:



(Length: 1 digit / Range: 0-255)

Enter



203

End



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every UPC-A symbol, then scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-2-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned future take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-2-9** which further demonstrates how to define what contains in inserted information. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.




Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configurations, if necessary.
- (6) Scan **End** barcode to complete the configuration.



8-2-9. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-2-8**, the custom info will be accordingly inserted in the specific position. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos**.

Ins0PosChar D18E3

 (Length: 2 digits)

Ins1PosChar D1AE3

 (Length: 2 digits)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0PosChar** barcode to specify the message content.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4**, **1**, **4**, and then **2** to assign the specified hexadecimal value “4142”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configurations, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-2-10. Set Code ID for UPC-A

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for UPC-A.

ID D1CE3

 (Length: 2 digits)



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **ID** barcode to tailor Code ID for UPC-A to your needs.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “Au”, scan **4**, **1**, **7**, and then **5** to assign the specified hexadecimal value “4175”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



206

End



8-3. UPC-E

8-3-1. Enable/Disable UPC-E

Scan the appropriate barcode to determine whether or not to enable UPC-E.

Disable D2000



Enable D2001



8-3-2. Enable/Disable Add-On Code

Scan the appropriate barcode to determine whether or not to enable an Add-on code.

Disable D2010



Enable D2011



8-3-3. Set Type of Add-On Code

An add-on code is a special symbol used to carry extra messages as a supplement to the barcode itself. The variations of an Add-on code for UPC-E symbology provided here primarily vary in its own length. **Addon 2** refers to tow-digit add-on code whereas **Addon 5** to five-digit add-on code. Or, you can select **Addon 2+5** to allow the scanner to deuce either two-digit or five-digit add-ons. Please scan the appropriate barcode to specify the type of Add-on code.

To have the selected type take effect, please do **enable** Add-on code parameter in **Section 8-2-2** at same time. Furthermore, you may refer to **Section 6-2-22** in **Chapter 6** to further configure the length of time for decoding Add-on codes.



None D2190



Addon 2 D2191



Addon 5 D2192



Addon 2+5 D2193



8-3-4. Convert UPC-E to UPC-A

Enable this feature to convert 8-digit UPC-E code into 13-digit UPC-A barcodes by following encoding rules to supplement zeros characters

Disable D2020



Enable D2021



8-3-5. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable D2070



Enable D2071



8-3-6. Truncate Leading Zeros

Scan **Enable** label to shrink the barcode message by getting rid of leading zeros.



8-3-7. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of UPC-E barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
- (3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every UPC-E symbol, then scan **3** to assign the specified decimal value “3”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



8-3-8. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of UPC-E barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every UPC-E symbol, then scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-3-9. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned future take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-2-10** which further demonstrates how to define what contains in inserted information. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-3-10. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-3-9**, the custom info will be accordingly inserted in the specific position. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos**.

Ins0PosChar D38E3



(Length: 2 digits)

Ins1PosChar D3AE3



(Length: 2 digits)

Enter



211

End

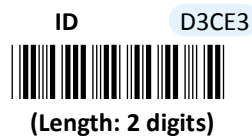


Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0PosChar** barcode to specify the message content.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4**, **1**, **4**, and then **2** to assign the specified hexadecimal value “4142”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-3-11. Set Code ID for UPC-E

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for UPC-A.



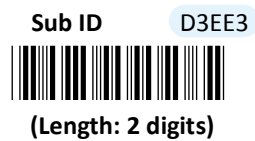
Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **ID** barcode to tailor Code ID for UPC-E to your needs.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “Au”, scan **4**, **1**, **7**, and then **5** to assign the specified hexadecimal value “4175”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



8-3-12. Set Sub Code ID for UPC-E

A user-defined Sub Code ID functions as an identity for some specific types of symbologies to verify whether or not its exclusive feature is enabled. In the case of UPC-E, this parameter is used to identify those altered UPC-E barcodes which are adapted in compliance with UPC-A encoding standards. When the conversion function in **Section 8-3-4** is enabled, the device will send out Sub Code ID rather than the original Code ID as part of transmitted data.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Sub ID** barcode to tailor Code ID for UPC-E to your needs.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “Au”, scan **4**, **1**, **7**, and then **5** to assign the specified hexadecimal value “4175”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



8-4. EAN-13

8-4-1. Enable/Disable EAN-13

Scan the appropriate barcode to determine whether or not to enable EAN-13.

Disable D4000



Enable D4001



8-4-2. Enable/Disable Add-On Code

Scan the appropriate barcode to determine whether or not to enable an Add-on code.

Disable D4010



Enable D4011



8-4-3. Set Type of Add-On Code

An add-on code is a special symbol used to carry extra messages as a supplement to the barcode itself. The variations of an Add-on code for EAN-13 symbology provided here primarily vary in its own length. **Addon 2** refers to two-digit add-on code whereas **Addon 5** to five-digit add-on code. Or, you can select **Addon 2+5** to allow the scanner to decode either two-digit or five-digit add-ons. Please scan the appropriate barcode to specify the type of Add-on code.

To have the selected type take effect, please do **enable** Add-on code parameter in **Section 8-4-2** at same time. Furthermore, you may refer to **Section 6-2-22** in **Chapter 6** to further configure the length of time for decoding Add-on codes.



None D4190



Addon 2 D4191



Addon 5 D4192



Addon 2+5 D4193



8-4-4. Convert EAN-13 to ISBN/ISSN

Scan the appropriate barcode to determine whether or not to convert EAN-13 barcodes to ISBN/ISSN symbols.

Disable D4020



Enable D4021



8-4-5. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable D4070



Enable D4071



8-4-6. Truncate Leading Zeros

Scan **Enable** label to shrink the barcode message by getting rid of leading zeros.

Enter



215

End





8-4-7. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of EAN-13 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
- (3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every EAN-13 symbol, then scan **3** to assign the specified decimal value “3”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



8-4-8. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of EAN-13 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every EAN-13 symbol, then scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-4-9. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned future take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-4-10** which further demonstrates how to define what contains in inserted information. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-4-10. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-4-9**, the custom info will be accordingly inserted in the specific position. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos**.

Ins0PosChar D58E3



(Length: 2 digits)

Ins1PosChar D5AE3



(Length: 2 digits)

Enter



218

End

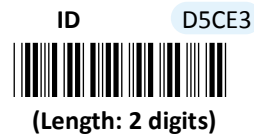


Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0PosChar** barcode to specify the message content.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4**, **1**, **4**, and then **2** to assign the specified hexadecimal value “4142”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-4-11. Set Code ID for EAN-13

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for EAN-13.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **ID** barcode to tailor Code ID for EAN-13 to your needs.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “Au”, scan **4**, **1**, **7**, and then **5** to assign the specified hexadecimal value “4175”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-4-12. Set Sub Code ID for EAN-13

A user-defined Sub Code ID functions as an identity for some specific types of symbolologies to verify whether or not its exclusive feature is enabled. In the case of EAN-13, Sub ID will appear only when symbology conversion from EAN-13 to ISBN/ISSN as indicated in

Enter



219

End



Configuring Symbology

8

Section 8-4-4 is enabled. Please ensure the described parameter is enabled if Sub Code ID is expected to function effectively.

Sub ID

D5EE3



(Length: 2 digits)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Sub ID** barcode to tailor Code ID for EAN-13 to your needs.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “Au”, scan **4**, **1**, **7**, and then **5** to assign the specified hexadecimal value “4175”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



220

End



8-5. EAN-8

8-5-1. Enable/Disable EAN-8

Scan the appropriate barcode to determine whether or not to enable EAN-8.

Disable

D6000



Enable

D6001



8-5-2. Enable/Disable Add-On Code

Scan the appropriate barcode to determine whether or not to enable an Add-on code.

Disable

D6010



Enable

D6011



8-5-3. Set Type of Add-On Code

An add-on code is a special symbol used to carry extra messages as a supplement to the barcode itself. The variations of an Add-on code for EAN-8 symbology provided here primarily vary in its own length. **Addon 2** refers to tow-digit add-on code whereas **Addon 5** to five-digit add-on code. Or, you can select **Addon 2+5** to allow the scanner to deuce either two-digit or five-digit add-ons. Please scan the appropriate barcode to specify the type of Add-on code.

To have the selected type take effect, please do **enable** Add-on code parameter in **Section 8-5-2** at same time. Furthermore, you may refer to **Section 6-2-22** in **Chapter 6** to further configure the length of time for decoding Add-on codes.

Enter



221

End



Configuring Symbology

8

None D6190



Addon 2 D6191



Addon 5 D6192



Addon 2+5 D6193



8-5-4. Convert EAN-8 to EAN-13

Enable this feature to convert 8-digit EAN-8 codes into 13-digit EAN-13 barcodes by following encoding rules to supplement zeros characters

Disable D6020



Enable D6021



8-5-5. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable D6070



Enable D6071



8-5-6. Truncate Leading Zeros

Scan **Enable** label to shrink the barcode message by getting rid of leading zeros.

Enter



222

End





8-5-7. Remove Leading Charaters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of EAN-8 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
- (3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every EAN-8 symbol, then scan **3** to assign the specified decimal value “3”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



8-5-8. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of EAN-8 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every EAN-8 symbol, then scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



8-5-9. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned future take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-5-10** which further demonstrates how to define what contains in inserted information. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.




Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.



8-5-10. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-5-9**, the custom info will be accordingly inserted in the specific position. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos**.

Ins0PosChar D78E3

(Length: 2 digits)

Ins1PosChar D7AE3

(Length: 2 digits)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0PosChar** barcode to specify the message content.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4**, **1**, **4**, and then **2** to assign the specified hexadecimal value “4142”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.



8-5-11. Set Code ID for EAN-8

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for EAN-8.



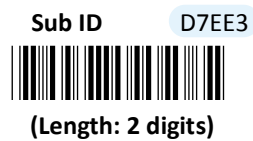
Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **ID** barcode to tailor Code ID for EAN-8 to your needs.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “Au”, scan **4**, **1**, **7**, and then **5** to assign the specified hexadecimal value “4175”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



8-5-12. Set Sub Code ID for EAN-8

A user-defined Sub Code ID functions as an identity for some specific types of symbologies to verify whether or not its exclusive feature is enabled. In the case of EAN-8, to transmit Sub Code ID as part of output data the particular functionality has to be enabled that compulsorily converts EAN-8 symbols to EAN-13. While setting up Sub Code ID for EAN-8, please also properly initiate the symbology conversion in Section 8-5-4 to have Sub Code ID come into effect.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Sub ID** barcode to tailor Code ID for EAN-8 to your needs.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “Au”, scan **4**, **1**, **7**, and then **5** to assign the specified hexadecimal value “4175”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



8-6. Code-39

8-6-1. Enable/Disable Code-39

Scan the appropriate barcode to determine whether or not to enable CodaBar.

Disable D8000



Enable D8001



8-6-2. Set Type of Code-39

This feature allows you to determine whether to enable Code-39 Extended which particularly supports the encoding of certain special prefixed symbols, such as “/”, “%”, “\$” and “+”, in addition to the standard Code-39 character set. By default, the decoder is configured to read Code-39 Standard symbology. Otherwise, scan **Full ASCII** to support Code-39 Extended as an alternative.

Standard D8190



Full ASCII D8191



8-6-3. Set Format of Code-39

Three options are available to determine the format of Code-39: **Code-32**, as a variant of Code-39 symbology, generally applies similar Code39 character sets and encoding rules, but limits its own encoding character set to numerals (0-9) along with capital letters by filtering out the vowel symbols. **Code-32 with ‘A’**, based on the Code-39 encoding rules, will have “A” character prefixed to the barcode itself as an optional transmitted digit. By default, **None** is set to apply **Code-39** format.



None D81A0



Code-32 D81A1



Code-32 with 'A' D81A2



8-6-4. Transmit Start/Stop Delimiters

Code-39 symbology contains asterisk characters as delimiters. Scan the appropriate barcode to determine whether to transmit the start and the end symbols of code-39 barcodes.

Disable D8030



Enable D8031



8-6-5. Configure Checksum Type

Checksum type determines the checksum algorithm which serves to detect if an error occurs during the decoding process. Scan the appropriate barcode to examine whether or not the barcode contains the check digit and to further apply the related error detection mechanism to the scanned data.

Disable D8180



Enable D8181



8-6-6. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.



Disable D8070



Enable D8071



8-6-7. Truncate Leading Zeros

Scan **Enable** label to shrink the barcode message by getting rid of leading zeros.

Disable D8060



Enable D8061



8-6-8. Set Minimum/Maximum Code Length

MinLength and **MaxLength** parameters are used to define the minimum and maximum code length for Code39 symbology, which enables to personalize the resulting decoded barcodes by beforehand filtering out the barcodes which fall out of range. However, depending on the value associated with two configurable parameters, the interaction between the minimum and the maximum directly determines how the scanned data will be treated. Please refer to the below chart for more detailed information.

Enter



231

End



Condition	Descriptions
MaxLength > MinLength > 0	The barcode of which the length has to fall within the range from MinLength to MaxLength will be decoded.
MinLength > 0 and MaxLength is undefined	The barcode will be decoded only when its length is no less than MinLength .
MaxLength > 0 and MinLength is undefined	The length of the decoded barcode has to be no more than MaxLength .
MinLength = Max Length > 0	The barcode with the fixed length of MinLength or MaxLength will be decoded.
MinLength > MaxLength > 0	The barcode will be decoded on the condition that its length is equal to either MinLength or MaxLength .
MinLength < 0 and MaxLength < 0	No code length limit is enforced.

MinLength D92E0

 (Length: 1 digit/ Range: 0-255)

MaxLength D93E0

 (Length: 1 digit/ Range: 0-255)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **MinLength** barcode to set the minimum code length if necessary. Otherwise, skip Steps (2)-(4)
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to set its code length to be 2, scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **MaxLength** barcode and then repeat Steps (3)-(4) to set the maximum code length, if necessary.
- (6) Scan **End** barcode to complete the configuration.



8-6-9. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of Code-39 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.



(Length: 1 digit / Range: 0-255)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
- (3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every Code-39 symbol, then scan **3** to assign the specified decimal value "3".
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-6-10. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of Code-39 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:



(Length: 1 digit / Range: 0-255)

Enter



233

End



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every Code-39 symbol, then scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-6-11. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned future take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-6-13** which further demonstrates how to define what contains in inserted information. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

Enter



234

End



8-6-12. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-6-12**, the custom info will be accordingly inserted in the specific position. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos**.

Ins0PosChar D98E3



(Length: 2 digits)

Ins1PosChar D9AE3



(Length: 2 digits)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0PosChar** barcode to specify the message content.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4**, **1**, **4**, and then **2** to assign the specified hexadecimal value “4142”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-6-13. Set Code ID for Code-39

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for Code-39.

ID D9CE3



(Length: 2 digits)

Enter



235

End



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **ID** barcode to tailor Code ID for EAN-8 to your needs.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “Au”, scan **4**, **1**, **7**, and then **5** to assign the specified hexadecimal value “4175”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-6-14. Set Sub Code ID for Code-39

A user-defined Sub Code ID functions as an identity for some specific types of symbologies to verify whether or not its exclusive feature is enabled. In the case of Code-39, it is necessary to configure Code-39 Type to be **Full ASCII** and Code-39 Format to be either **Code-32** or **Code-32 with ‘A’** if Sub Code ID is expected to be part of transmitted data. While Sub Code ID for Code-39 is configured well, please also properly setting up the related features in **Section 8-6-2** and **8-6-3** to have the configurable parameter come into effect.

Sub ID D9EE3



(Length: 2 digits)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Sub ID** barcode to tailor Code ID for Code-39 to your needs.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “Au”, scan **4**, **1**, **7**, and then **5** to assign the specified hexadecimal value “4175”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



8-7. Interleaved 2 of 5

8-7-1. Enable/Disable Interleaved 2 of 5

Scan the appropriate barcode to determine whether or not to enable Interleaved 2 of 5.

Disable DE000



Enable DE001



8-7-2. Configure Checksum Type

Checksum type determines the checksum algorithm which serves to detect if an error occurs during the decoding process. Scan the appropriate barcode to examine whether or not the barcode contains the check digit and to further apply the related error detection mechanism to the scanned data.

Disable DE180



Enable DE181



8-7-3. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable DE070



Enable DE071



8-7-4. Truncate Leading Zeros

Scan **Enable** label to shrink the barcode message by getting rid of leading zeros.



8-7-5. Set Minimum/Maximum Code Length

MinLength and **MaxLength** parameters are used to define the minimum and maximum code length for Interleaved 2 of 5 symbology, which enables to personalize the resulting decoded barcodes by beforehand filtering out the barcodes which fall out of range. However, depending on the value associated with two configurable parameters, the interaction between the minimum and the maximum directly determines how the scanned data will be treated. Please refer to the below chart for more detailed information.



Condition	Descriptions
MaxLength > MinLength > 0	The barcode of which the length has to fall within the range from MinLength to MaxLength will be decoded.
MinLength > 0 and MaxLength is undefined	The barcode will be decoded only when its length is no less than MinLength .
MaxLength > 0 and MinLength is undefined	The length of the decoded barcode has to be no more than MaxLength .
MinLength = Max Length > 0	The barcode with the fixed length of MinLength or MaxLength will be decoded.
MinLength > MaxLength > 0	The barcode will be decoded on the condition that its length is equal to either MinLength or MaxLength .
MinLength < 0 and MaxLength < 0	No code length limit is enforced.

MinLength DF2E0

 (Length: 1 digit/ Range: 0-255)

MaxLength DF3E0

 (Length: 1 digit/ Range: 0-255)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **MinLength** barcode to set the minimum code length if necessary. Otherwise, skip Steps (2)-(4)
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to set its code length to be 2, scan **2** to assign the specified decimal value "2".
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **MaxLength** barcode and then repeat Steps (3)-(4) to set the maximum code length, if necessary.
- (6) Scan **End** barcode to complete the configuration.



8-7-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of Interleaved 2 of 5 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
- (3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every Interleaved 2 of 5 symbol, then scan **3** to assign the specified decimal value “3”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-7-7. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of Interleaved 2 of 5 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every Interleaved 2 of 5 symbol, then scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-7-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned future take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-7-10** which further demonstrates how to define what contains in inserted information. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

Enter



241

End



8-7-9. Set Content Message to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-7-9**, the custom info will be accordingly inserted in the specific position. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos**.

Ins0PosChar DF8E3



(Length: 2 digits)

Ins1PosChar DFAE3



(Length: 2 digits)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0PosChar** barcode to specify the message content.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4**, **1**, **4**, and then **2** to assign the specified hexadecimal value “4142”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-7-10. Set Code ID for Interleaved 2 of 5

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for Interleaved 2 of 5.

ID DFCE3



(Length: 2 digits)

Enter



242

End



Configuring Symbology

8

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **ID** barcode to tailor Code ID for Interleaved 2 of 5 to your needs.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “Au”, scan **4**, **1**, **7**, and then **5** to assign the specified hexadecimal value “4175”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



243

End



8-8. Industrial 2 of 5

8-8-1. Enable/Disable Industrial 2 of 5

Scan the appropriate barcode to determine whether or not to enable Industrial 2 of 5.

Disable E0000



Enable E0001



8-8-2. Configure Checksum Type

Checksum type determines the checksum algorithm which serves to detect if an error occurs during the decoding process. Scan the appropriate barcode to examine whether or not the barcode contains the check digit and to further apply the related error detection mechanism to the scanned data.

Disable E0180



Enable E0181



8-8-3. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable E0070



Enable E0071



8-8-4. Truncate Leading Zeros

Scan **Enable** label to shrink the barcode message by getting rid of leading zeros.

Enter



244

End



Configuring Symbolology

8

Disable

E0060



Enable

E0061



8-8-5. Set Minimum/Maximum Code Length

MinLength and **MaxLength** parameters are used to define the minimum and maximum code length for Industrial 2 of 5 symbology, which enables to personalize the resulting decoded barcodes by beforehand filtering out the barcodes which fall out of range. However, depending on the value associated with two configurable parameters, the interaction between the minimum and the maximum directly determines how the scanned data will be treated. Please refer to the below chart for more detailed information.

Condition	Descriptions
MaxLength > MinLength > 0	The barcode of which the length has to fall within the range from MinLength to MaxLength will be decoded.
MinLength > 0 and MaxLength is undefined	The barcode will be decoded only when its length is no less than MinLength .
MaxLength > 0 and MinLength is undefined	The length of the decoded barcode has to be no more than MaxLength .
MinLength = Max Length > 0	The barcode with the fixed length of MinLength or MaxLength will be decoded.
MinLength > MaxLength > 0	The barcode will be decoded on the condition that its length is equal to either MinLength or MaxLength .
MinLength < 0 and MaxLength < 0	No code length limit is enforced.

MinLength

E12E0



(Length: 1 digit/ Range: 0-255)

MaxLength

E13E0



(Length: 1 digit/ Range: 0-255)

Enter



245

End



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **MinLength** barcode to set the minimum code length if necessary. Otherwise, skip Steps (2)-(4)
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to set its code length to be 2, scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **MaxLength** barcode and then repeat Steps (3)-(4) to set the maximum code length, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-8-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of Industrial 2 of 5 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.



(Length: 1 digit / Range: 0-255)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
- (3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every Industrial 2 of 5 symbol, then scan **3** to assign the specified decimal value “3”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



246

End



8-8-7. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of Industrial 2 of 5 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every Industrial 2 of 5 symbol, then scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-8-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned future take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-8-10** which further demonstrates how to define what contains in inserted information. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-8-9. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-8-9**, the custom info will be accordingly inserted in the specific position. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos**.

Ins0PosChar E18E3



(Length: 2 digits)

Ins1PosChar E1AE3



(Length: 2 digits)

Enter



248

End



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0PosChar** barcode to specify the message content.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4**, **1**, **4**, and then **2** to assign the specified hexadecimal value “4142”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-8-10. Set Code ID for Industrial 2 of 5

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for Industrial 2 of 5.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **ID** barcode to tailor Code ID for Industrial 2 of 5 to your needs.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 2 characters in length. For instance, to set its Code ID to be “11”, scan **3**, **1**, **3**, and then **1** to assign the specified hexadecimal value “3131”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



8-9. Matrix 2 of 5

8-9-1. Enable/Disable Matrix 2 of 5

Scan the appropriate barcode to determine whether or not to enable Matrix 2 of 5.

Disable E2000



Enable E2001



8-9-2. Truncate Leading Zeros

Scan the appropriate barcode to determine whether or not to shrink the barcode message by getting rid of leading zeros.

Disable E2060



Enable E2061



8-9-3. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable E2070



Enable E2071



8-9-4. Configure Checksum Type

Checksum type determines the checksum algorithm which serves to detect if an error occurs during the decoding process. Scan the appropriate barcode to examine whether or not the barcode contains the check digit and to further apply the related error detection mechanism

Enter



250

End



Configuring Symbolology

8

to the scanned data.

Disable

E2180



Enable

E2181



8-9-5. Set Minimum/Maximum Code Length

MinLength and **MaxLength** parameters are used to define the minimum and maximum code length for Matrix 2 of 5 symbology, which enables to personalize the resulting decoded barcodes by beforehand filtering out the barcodes which fall out of range. However, depending on the value associated with two configurable parameters, the interaction between the minimum and the maximum directly determines how the scanned data will be treated. Please refer to the below chart for more detailed information.

Condition	Descriptions
MaxLength > MinLength > 0	The barcode of which the length has to fall within the range from MinLength to MaxLength will be decoded.
MinLength > 0 and MaxLength is undefined	The barcode will be decoded only when its length is no less than MinLength .
MaxLength > 0 and MinLength is undefined	The length of the decoded barcode has to be no more than MaxLength .
MinLength = Max Length > 0	The barcode with the fixed length of MinLength or MaxLength will be decoded.
MinLength > MaxLength > 0	The barcode will be decoded on the condition that its length is equal to either MinLength or MaxLength .
MinLength < 0 and MaxLength < 0	No code length limit is enforced.

MinLength

E32E0



(Length: 1 digit/ Range: 0-255)

MaxLength

E33E0



(Length: 1 digit/ Range: 0-255)

Enter



251

End



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **MinLength** barcode to set the minimum code length if necessary. Otherwise, skip Steps (2)-(4)
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to set its code length to be 2, scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **MaxLength** barcode and then repeat Steps (3)-(4) to set the maximum code length, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-9-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of Matrix 2 of 5 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead E34E0



(Length: 1 digit / Range: 0-255)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
- (3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every Matrix 2 of 5 symbol, then scan **3** to assign the specified decimal value “3”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



252

End



8-9-7. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of Matrix 2 of 5 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every Matrix 2 of 5 symbol, then scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-9-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned future take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-9-10** which further demonstrates how to define what contains in inserted information. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.



253



Configuring Symbology

8

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-9-9. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-9-9**, the custom info will be accordingly inserted in the specific position. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos**.

Ins0PosChar E38E3



(Length: 2 digits)

Ins1PosChar E3AE3



(Length: 2 digits)

Enter



254

End



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0PosChar** barcode to specify the message content.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4**, **1**, **4**, and then **2** to assign the specified hexadecimal value “4142”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-9-10. Set Code ID for Matrix 2 of 5

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for Matrix 2 of 5.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **ID** barcode to tailor Code ID for Matrix 2 of 5 to your needs.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “39”, scan **3**, **3**, **3**, and then **9** to assign the specified hexadecimal value “3339”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



8-10. Codabar/NW7

8-10-1. Enable/Disable Codabar/NW7

Scan the appropriate barcode to determine whether or not to enable Codabar/NW7.

Disable DC000



Enable DC001



8-10-2. Configure the Start/Stop Pattern

This feature allows you to specify the format of the 4-digit start/stop characters as part of the decoded Codabar symbol. Scan **ABCD/ABCD** label to output decoded message with its configured start and stop characters of 'ABCD'. As a substitute, you may also send out codes in other alternative forms: to transmit **abcd** as both start and stop symbols, to add **ABCD** and **TN*E** individually to the start and the end of transmitted Codabar data, or to use **abcd** and **tn*e** instead. Scan the appropriate barcode to specify which patterns you prefer to program the device.

ABCD/ABCE DC1A0



abcd/abcd DC1A1



ABCD / TN *E DC1A2



abcd/tn*e DC1A3



8-10-3. Enable/Disable Symmetrical Start/Stop Pattern

Scan **Enable** label to decode a Codabar barcode which contains identical start and end characters.

Enter



256

End



Disable DC020



Enable DC021



8-10-4. Transmit Start/Stop Characters

Scan the appropriate barcode to determine whether or not to transmit the start and stop digits as part of output data.

Disable DC030



Enable DC031



8-10-5. Configure Checksum Type

Checksum type determines the checksum algorithm which serves to detect if an error occurs during the decoding process. Scan the appropriate barcode to examine whether or not the barcode contains the check digit and to further apply the related error detection mechanism to the scanned data.

Disable DC180



Enable DC181



8-10-6. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable DC070



Enable DC071



Enter



257

End



8-10-7. Truncate Leading Zeros

Scan the appropriate barcode to determine whether or not to shrink the barcode message by getting rid of leading zeros.



8-10-8. Set Minimum/Maximum Code Length

MinLength and **MaxLength** parameters are used to define the minimum and maximum code length for Codabar symbology, which enables to personalize the resulting decoded barcodes by beforehand filtering out the barcodes which fall out of range. However, depending on the value associated with two configurable parameters, the interaction between the minimum and the maximum directly determines how the scanned data will be treated. Please refer to the below chart for more detailed information.

Condition	Descriptions
MaxLength > MinLength > 0	The barcode of which the length has to fall within the range from MinLength to MaxLength will be decoded.
MinLength > 0 and MaxLength is undefined	The barcode will be decoded only when its length is no less than MinLength .
MaxLength > 0 and MinLength is undefined	The length of the decoded barcode has to be no more than MaxLength .
MinLength = MaxLength > 0	The barcode with the fixed length of MinLength or MaxLength will be decoded.
MinLength > MaxLength > 0	The barcode will be decoded on the condition that its length is equal to either MinLength or MaxLength .
MinLength < 0 and MaxLength < 0	No code length limit is enforced.



Configuring Symbology

8

MinLength DD2E0

(Length: 1 digit/ Range: 0-255)

MaxLength DD3E0

(Length: 1 digit/ Range: 0-255)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **MinLength** barcode to set the minimum code length if necessary. Otherwise, skip Steps (2)-(4)
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to set its code length to be 2, scan 2 to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **MaxLength** barcode and then repeat Steps (3)-(4) to set the maximum code length, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-10-9. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of Codabar barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead DD4E0

(Length: 1 digit / Range: 0-255)

Enter



259

End



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
- (3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every Codabar symbol, then scan **3** to assign the specified decimal value “3”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-10-10. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of Codabar barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every Codabar symbol, then scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



8-10-11. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned future take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-9-10** which further demonstrates how to define what contains in inserted information. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-10-12. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-9-9**, the custom info will be accordingly inserted in the specific position. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1Pos** will be added in the position of **Ins1Pos**.

Enter



261

End



Ins0PosChar DD8E3



(Length: 2 digits)

Ins1PosChar DDAE3



(Length: 2 digits)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0PosChar** barcode to specify the message content.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4**, **1**, **4**, and then **2** to assign the specified hexadecimal value “4142”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-10-13. Set Code ID for Codabar

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for Codabar.

ID DDCE3



(Length: 2 digits)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **ID** barcode to tailor Code ID for Codabar to your needs.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “39”, scan **3**, **3**, **3**, and then **9** to assign the specified hexadecimal value “3339”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



262

End



8-11. Code-128

8-11-1. Enable/Disable Code-128

Scan the appropriate barcode to determine whether or not to enable Code-128.

Disable DA000



Enable DA001



8-11-2. Set Format of Code-128

GS1-128 along with its formerly-named symbology UCC-128 are both viewed as the variant forms of Code-128 yet with their individual structure to denote the supplementary information. Scan **GS1-128** label to specify GS1-128 as the barcode format whereas read **UCC-128** to rearrange barcode data according the structure of UCC-128. By default, the standard **Code-128** format is used to decode message.

Standard DA1A0



UCC-128 DA1A1



GS1-128 DA1A2



8-11-3. Configure Checksum Type

Checksum type determines the checksum algorithm which serves to detect if an error occurs during the decoding process. Scan the appropriate barcode to examine whether or not the barcode contains the check digit and to further apply the related error detection mechanism to the scanned data.



Configuring Symbology

8

Disable DA180



Enable DA181



8-11-4. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable DA070



Enable DA071



8-11-5. Truncate Leading Zeros

Scan the appropriate barcode to determine whether or not to shrink the barcode message by getting rid of leading zeros.

Disable DA060



Enable DA061



8-11-6. Set Application ID Separator for UCC-128/GS1-128

According to the encoding rules of UCC-128/GS1-128, the special existence of Application Identifier is used to identify the type of the supplementary info which is appended to the identifier itself. This feature primarily allows you to configure the preferred character to enclose application identifiers to further separate the application identifier from the appended message for better readability. However, the presentation of these configurable enclosed marks might slightly differ depending on which barcode format you specify in **Section 8-11-2**.

ConChar DB1E2



(Length: 1 digit)

Enter



264

End



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **ConChar** barcode to set application identifier separator for UCC-128/GS1-128.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be 1 character in length. For instance, to use “-” to break down a Code 128 symbol into several units, scan **2** first, and then **D** to assign the specified hexadecimal value “2D”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-11-7. Set Minimum/Maximum Code Length

MinLength and **MaxLength** parameters are used to define the minimum and maximum code length for Code-128 symbology, which enables to personalize the resulting decoded barcodes by beforehand filtering out the barcodes which fall out of range. However, depending on the value associated with two configurable parameters, the interaction between the minimum and the maximum directly determines how the scanned data will be treated. Please refer to the below chart for more detailed information.

Condition	Descriptions
MaxLength > MinLength > 0	The barcode of which the length has to fall within the range from MinLength to MaxLength will be decoded.
MinLength > 0 and MaxLength is undefined	The barcode will be decoded only when its length is no less than MinLength .
MaxLength > 0 and MinLength is undefined	The length of the decoded barcode has to be no more than MaxLength .
MinLength = Max Length > 0	The barcode with the fixed length of MinLength or MaxLength will be decoded.
MinLength > MaxLength > 0	The barcode will be decoded on the condition that its length is equal to either MinLength or MaxLength .
MinLength < 0 and MaxLength < 0	No code length limit is enforced.





Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **MinLength** barcode to set the minimum code length if necessary. Otherwise, skip Steps (2)-(4)
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to set its code length to be 2, scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **MaxLength** barcode and then repeat Steps (3)-(4) to set the maximum code length, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-11-8. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of Codabar barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
- (3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every Code-128 symbol, then scan **3** to assign the specified decimal value “3”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-11-9. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of Codabar barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every Code-128 symbol, then scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



8-11-10. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned future take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-11-11** which further demonstrates how to define what contains in inserted information. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-11-11. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-11-10**, the custom info will be accordingly inserted in the specific position. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1Pos** will be added in the position of **Ins1Pos**.

Enter



268

End



Ins0PosChar DB8E3



(Length: 2 digits)

Ins1PosChar DBAE3



(Length: 2 digits)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0PosChar** barcode to specify the message content.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4**, **1**, **4**, and then **2** to assign the specified hexadecimal value “4142”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-11-12. Set Code ID for Code-128

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for Codabar.

ID DBCE3



(Length: 2 digits)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **ID** barcode to tailor Code ID for Code-128 to your needs.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “39”, scan **3**, **3**, **3**, and then **9** to assign the specified hexadecimal value “3339”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



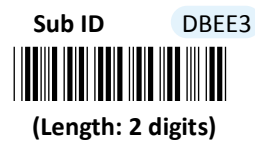
269

End



8-11-13. Set Sub Code ID for Code-128

A user-defined Sub Code ID functions as an identity for some specific types of symbologies to verify whether or not its exclusive feature is enabled. In the case of Code-128, to specify the barcode format to be either **UCC-128** or **GS-128** is prerequisite for the configurable Sub Code ID to be present as part of transmitted data. Please refer to **Section 8-11-2** for the related configuration to make Sub Code ID take effect.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Sub ID** barcode to tailor Sub Code ID for Code-128 to your needs.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “Au”, scan **4**, **1**, **7**, and then **5** to assign the specified hexadecimal value “4175”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



8-12. Code-93

8-12-1. Enable/Disable Code-93

Scan the appropriate barcode to determine whether or not to enable Code-93.

Disable E4000



Enable E4001



8-12-2. Configure Checksum Type

Checksum type determines the checksum algorithm which serves to detect if an error occurs during the decoding process. Scan the appropriate barcode to examine whether or not the barcode contains the check digit and to further apply the related error detection mechanism to the scanned data. By default, two check digits contained in Code-93 symbol will be used to enhance decoding accuracy. As an option, you might either scan **One** barcode to have only one check character for error detection or read **Disable** label to skip the process.

Disable E4180



One E4181



Two E4182



8-12-3. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable E4070



Enable E4071



8-12-4. Truncate Leading Zeros

Scan the appropriate barcode to determine whether or not to shrink the barcode message by getting rid of leading zeros.

Disable E4060



Enable E4061



8-12-5. Set Minimum/Maximum Code Length

MinLength and **MaxLength** parameters are used to define the minimum and maximum code length for Code-93 symbology, which enables to personalize the resulting decoded barcodes by beforehand filtering out the barcodes which fall out of range. However, depending on the value associated with two configurable parameters, the interaction between the minimum and the maximum directly determines how the scanned data will be treated. Please refer to the below chart for more detailed information.

Condition	Descriptions
MaxLength > MinLength > 0	The barcode of which the length has to fall within the range from MinLength to MaxLength will be decoded.
MinLength > 0 and MaxLength is undefined	The barcode will be decoded only when its length is no less than MinLength .
MaxLength > 0 and MinLength is undefined	The length of the decoded barcode has to be no more than MaxLength .
MinLength = Max Length > 0	The barcode with the fixed length of MinLength or MaxLength will be decoded.
MinLength > MaxLength > 0	The barcode will be decoded on the condition that its length is equal to either MinLength or MaxLength .
MinLength < 0 and MaxLength < 0	No code length limit is enforced.

Enter



272

End



Configuring Symbology

8



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **MinLength** barcode to set the minimum code length if necessary. Otherwise, skip Steps (2)-(4)
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to set its code length to be 2, scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **MaxLength** barcode and then repeat Steps (3)-(4) to set the maximum code length, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-12-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of Code-93 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.



273



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
- (3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every Code-93 symbol, then scan **3** to assign the specified decimal value “3”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-12-7. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of Code-93 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every Code-93 symbol, then scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



8-12-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned feature take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-12-9** which further demonstrates how to define what contains in inserted information. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-12-9. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-12-8**, the custom info will be accordingly inserted in the specific position. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1Pos** will be added in the position of **Ins1Pos**.

Enter



275

End



Configuring Symbology

8

Ins0PosChar E58E3



(Length: 2 digits)

Ins1PosChar E5AE3



(Length: 2 digits)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0PosChar** barcode to specify the message content.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4**, **1**, **4**, and then **2** to assign the specified hexadecimal value “4142”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-12-10. Set Code ID for Code-93

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for Code-93.

ID E5CE3



(Length: 2 digits)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **ID** barcode to tailor Code ID for Code-93 to your needs.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “DM”, scan **4**, **4**, **4**, and then **D** to assign the specified hexadecimal value “444D”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



276

End



8-13. Code-11

8-13-1. Enable/Disable Code-11

Scan the appropriate barcode to determine whether or not to enable Code-11.

Disable E6000



Enable E6001



8-13-2. Configure Checksum Type

Checksum type determines the checksum algorithm which serves to detect if an error occurs during the decoding process. Scan the appropriate barcode to examine whether or not the barcode contains the check digit and to further apply the related error detection mechanism to the scanned data. By default, two check digits contained in Code-11 symbol will be used to enhance decoding accuracy if the length of decoded message is great than 10 digits. As an option, you might either scan **One** barcode to have only one check character for error detection for the barcodes of which the length is less than 10 digits or read **Disable** label to skip the process.

Disable E6180



One E6181



Two E6182



8-13-3. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Enter



277

End



Disable E6070



Enable E6071



8-13-4. Truncate Leading Zeros

Scan the appropriate barcode to determine whether or not to shrink the barcode message by getting rid of leading zeros.

Disable E6060



Enable E6061



8-13-5. Set Minimum/Maximum Code Length

MinLength and **MaxLength** parameters are used to define the minimum and maximum code length for Code-11 symbology, which enables to personalize the resulting decoded barcodes by beforehand filtering out the barcodes which fall out of range. However, depending on the value associated with two configurable parameters, the interaction between the minimum and the maximum directly determines how the scanned data will be treated. Please refer to the below chart for more detailed information.

Enter



278

End



Condition	Descriptions
MaxLength > MinLength > 0	The barcode of which the length has to fall within the range from MinLength to MaxLength will be decoded.
MinLength > 0 and MaxLength is undefined	The barcode will be decoded only when its length is no less than MinLength .
MaxLength > 0 and MinLength is undefined	The length of the decoded barcode has to be no more than MaxLength .
MinLength = Max Length > 0	The barcode with the fixed length of MinLength or MaxLength will be decoded.
MinLength > MaxLength > 0	The barcode will be decoded on the condition that its length is equal to either MinLength or MaxLength .
MinLength < 0 and MaxLength < 0	No code length limit is enforced.

MinLength E72E0

 (Length: 1 digit/ Range: 0-255)

MaxLength E73E0

 (Length: 1 digit/ Range: 0-255)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **MinLength** barcode to set the minimum code length if necessary. Otherwise, skip Steps (2)-(4)
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to set its code length to be 2, scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **MaxLength** barcode and then repeat Steps (3)-(4) to set the maximum code length, if necessary.
- (6) Scan **End** barcode to complete the configuration.

Enter



279

End



8-13-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of Code-11 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead E74E0



(Length: 1 digit / Range: 0-255)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
- (3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every Code-11 symbol, then scan **3** to assign the specified decimal value “3”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-13-7. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of Code-11 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:

TrunEnd E75E0



(Length: 1 digit / Range: 0-255)

Enter



280

End



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every Code-11 symbol, then scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-13-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned future take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-13-9** which further demonstrates how to define what contains in inserted information. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

Enter



281

End



8-13-9. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-13-8**, the custom info will be accordingly inserted in the specific position. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos**.

Ins0PosChar E78E3

 (Length: 2 digits)

Ins1PosChar E7AE3

 (Length: 2 digits)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0PosChar** barcode to specify the message content.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4**, **1**, **4**, and then **2** to assign the specified hexadecimal value “4142”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-13-10. Set Code ID for Code-11

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for Code-11.

ID E7CE3

 (Length: 2 digits)

Enter


282

End


Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **ID** barcode to tailor Code ID for Code-11 to your needs.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “NP”, scan **4**, **1**, **5**, and then **0** to assign the specified hexadecimal value “4150”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



283

End



8-14. MSI

8-14-1. Enable/Disable MSI

Scan the appropriate barcode to determine whether or not to enable MSI.

Disable E8000



Enable E8001



8-14-2. Configure Checksum Type

Checksum type determines the checksum algorithm which serves to detect if an error occurs during the decoding process. Out of four error detection mechanism which MSI symbology provides, scan the appropriate barcode to examine whether or not the barcode contains the check digit and to further apply the related error detection mechanism to the scanned data.

Disable E8180



Mod 10 E8181



Mod 10/10 E8182



Mode 11/10 E8183



8-14-3. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable E8070



Enter



284

End



Enable E8071



8-14-4. Truncate Leading Zeros

Scan the appropriate barcode to determine whether or not to shrink the barcode message by getting rid of leading zeros.

Disable E8060



Enable E8061



8-14-5. Set Minimum/Maximum Code Length

MinLength and **MaxLength** parameters are used to define the minimum and maximum code length for MSI symbology, which enables to personalize the resulting decoded barcodes by beforehand filtering out the barcodes which fall out of range. However, depending on the value associated with two configurable parameters, the interaction between the minimum and the maximum directly determines how the scanned data will be treated. Please refer to the below chart for more detailed information.

Enter



285

End



Configuring Symbology

8

Condition	Descriptions
MaxLength > MinLength > 0	The barcode of which the length has to fall within the range from MinLength to MaxLength will be decoded.
MinLength > 0 and MaxLength is undefined	The barcode will be decoded only when its length is no less than MinLength .
MaxLength > 0 and MinLength is undefined	The length of the decoded barcode has to be no more than MaxLength .
MinLength = Max Length > 0	The barcode with the fixed length of MinLength or MaxLength will be decoded.
MinLength > MaxLength > 0	The barcode will be decoded on the condition that its length is equal to either MinLength or MaxLength .
MinLength < 0 and MaxLength < 0	No code length limit is enforced.

MinLength E92E0

 (Length: 1 digit/ Range: 0-255)

MaxLength E93E0

 (Length: 1 digit/ Range: 0-255)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **MinLength** barcode to set the minimum code length if necessary. Otherwise, skip Steps (2)-(4)
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to set its code length to be 2, scan **2** to assign the specified decimal value "2".
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **MaxLength** barcode and then repeat Steps (3)-(4) to set the maximum code length, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-14-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend

Enter



286

End



Configuring Symbology

8

to remove forwards from the start of MSI barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead E94E0



(Length: 1 digit / Range: 0-255)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
- (3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every MSI symbol, then scan **3** to assign the specified decimal value “3”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-14-7. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of MSI barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:

TrunEnd E95E0



(Length: 1 digit / Range: 0-255)

Enter



287

End



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every MSI symbol, then scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-14-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned future take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-14-9** which further demonstrates how to define what contains in inserted information. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

Enter



288

End



8-14-9. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-14-8**, the custom info will be accordingly inserted in the specific position. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos**.

Ins0PosChar E98E3

 (Length: 2 digits)

Ins1PosChar E9AE3

 (Length: 2 digits)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0PosChar** barcode to specify the message content.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4**, **1**, **4**, and then **2** to assign the specified hexadecimal value “4142”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-14-10. Set Code ID for MSI

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for MSI.

ID E9CE3

 (Length: 2 digits)

Enter


289

End


Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **ID** barcode to tailor Code ID for MSI to your needs.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “UA”, scan **5, 5, 4**, and then **1** to assign the specified hexadecimal value “5541”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



290

End



8-15. Plessey

8-15-1. Enable/Disable Plessey

Scan the appropriate barcode to determine whether or not to enable Plessey.

Disable EA000



Enable EA001



8-15-2. Configure Checksum Type

Checksum type determines the checksum algorithm which serves to detect if an error occurs during the decoding process. Scan the appropriate barcode to examine whether or not the barcode contains the check digit and to further apply the related error detection mechanism to the scanned data.

Disable EA180



Enable EA181



8-15-3. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable EA070



Enable EA071



8-15-4. Truncate Leading Zeros

Scan the appropriate barcode to determine whether or not to shrink the barcode message

Enter



291

End



Configuring Symbolology

8

by getting rid of leading zeros.

Disable

EA060



Enable

EA061



8-15-5. Set Minimum/Maximum Code Length

MinLength and **MaxLength** parameters are used to define the minimum and maximum code length for Plessey symbology, which enables to personalize the resulting decoded barcodes by beforehand filtering out the barcodes which fall out of range. However, depending on the value associated with two configurable parameters, the interaction between the minimum and the maximum directly determines how the scanned data will be treated. Please refer to the below chart for more detailed information.

Condition	Descriptions
MaxLength > MinLength > 0	The barcode of which the length has to fall within the range from MinLength to MaxLength will be decoded.
MinLength > 0 and MaxLength is undefined	The barcode will be decoded only when its length is no less than MinLength .
MaxLength > 0 and MinLength is undefined	The length of the decoded barcode has to be no more than MaxLength .
MinLength = Max Length > 0	The barcode with the fixed length of MinLength or MaxLength will be decoded.
MinLength > MaxLength > 0	The barcode will be decoded on the condition that its length is equal to either MinLength or MaxLength .
MinLength < 0 and MaxLength < 0	No code length limit is enforced.

MinLength

EB2E0



(Length: 1 digit/ Range: 0-255)

MaxLength

EB3E0



(Length: 1 digit/ Range: 0-255)

Enter



292

End



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **MinLength** barcode to set the minimum code length if necessary. Otherwise, skip Steps (2)-(4)
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to set its code length to be 2, scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **MaxLength** barcode and then repeat Steps (3)-(4) to set the maximum code length, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-15-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of Plessey barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead EB4E0



(Length: 1 digit / Range: 0-255)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
- (3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every Plessey symbol, then scan **3** to assign the specified decimal value “3”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



293

End



8-15-7. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of Plessey barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every Plessey symbol, then scan 2 to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-15-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned future take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-15-9** which further demonstrates how to define what contains in inserted information. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-15-9. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-15-8**, the custom info will be accordingly inserted in the specific position. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos**.

Ins0PosChar EB8E3



(Length: 2 digits)

Ins1PosChar EBAE3



(Length: 2 digits)

Enter



295

End



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0PosChar** barcode to specify the message content.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4**, **1**, **4**, and then **2** to assign the specified hexadecimal value “4142”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-15-10. Set Code ID for Plessey

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for Plessey.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **ID** barcode to tailor Code ID for Plessey to your needs, if necessary.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “AB”, scan **4**, **1**, **4**, and then **2** to assign the specified hexadecimal value “4142”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



8-16. Telepen

8-16-1. Enable/Disable Telepen

Scan the appropriate barcode to determine whether or not to enable Telepen.

Disable EC000



Enable EC001



8-16-2. Set Format of Telepen

Scan the appropriate barcode to determine the encoding system you prefer to decode Telepen barcodes. **Auto** format will automatically initiate the code switch from ASCII to Numeric or vice versa depending on the presence or absence of ASCII DLE character.

Numeric EC190



ASCII EC191



Auto EC192



8-16-3. Configure Checksum Type

Checksum type determines the checksum algorithm which serves to detect if an error occurs during the decoding process. Scan the appropriate barcode to examine whether or not the barcode contains the check digit and to further apply the related error detection mechanism to the scanned data.



Disable EC180



Enable EC181



8-16-4. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable EC070



Enable EC071



8-16-5. Truncate Leading Zeros

Scan the appropriate barcode to determine whether or not to shrink the barcode message by getting rid of leading zeros.

Disable EC060



Enable EC061



8-16-6. Set Minimun/Maximum Code Length

MinLength and **MaxLength** parameters are used to define the minimum and maximum code length for Telepen symbology, which enables to personalize the resulting decoded barcodes by beforehand filtering out the barcodes which fall out of range. However, depending on the value associated with two configurable parameters, the interaction between the minimum and the maximum directly determines how the scanned data will be treated. Please refer to the below chart for more detailed information.

Condition	Descriptions
MaxLength > MinLength > 0	The barcode of which the length has to fall within the range from MinLength to MaxLength will be decoded.
MinLength > 0 and MaxLength is undefined	The barcode will be decoded only when its length is no less than MinLength .
MaxLength > 0 and MinLength is undefined	The length of the decoded barcode has to be no more than MaxLength .
MinLength = Max Length > 0	The barcode with the fixed length of MinLength or MaxLength will be decoded.
MinLength > MaxLength > 0	The barcode will be decoded on the condition that its length is equal to either MinLength or MaxLength .
MinLength < 0 and MaxLength < 0	No code length limit is enforced.

MinLength ED2E0

 (Length: 1 digit/ Range: 0-255)

MaxLength ED3E0

 (Length: 1 digit/ Range: 0-255)



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **MinLength** barcode to set the minimum code length if necessary. Otherwise, skip Steps (2)-(4)
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to set its code length to be 2, scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **MaxLength** barcode and then repeat Steps (3)-(4) to set the maximum code length, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-16-7. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of Telepen barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead ED4E0



(Length: 1 digit / Range: 0-255)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
- (3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every Telepen symbol, then scan **3** to assign the specified decimal value “3”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



300

End



8-16-8. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of Telepen barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every Telepen symbol, then scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-16-9. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned future take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-16-10** which further demonstrates how to define what contains in inserted information. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.



Enter



301

End



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-16-10. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-16-9**, the custom info will be accordingly inserted in the specific position. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos**.

Ins0PosChar ED8E3



(Length: 2 digits)

Ins1PosChar ED8E3



(Length: 2 digits)

Enter



302

End



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0PosChar** barcode to specify the message content.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4**, **1**, **4**, and then **2** to assign the specified hexadecimal value “4142”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-16-11. Set Code ID for Telepen

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for Telepen.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **ID** barcode to tailor Code ID for Telepen to your needs, if necessary.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “Om”, scan **4**, **F**, **6**, and then **D** to assign the specified hexadecimal value “4F6D”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



8-17. GS1 Databar Omnidirectional (RSS-14)

8-17-1. Enable/Disable RSS-14

Scan the appropriate barcode to determine whether or not to enable RSS-14.

Disable EE000



Enable EE001



8-17-2. Transmit Application ID

Scan the appropriate barcode to determine whether or not to transmit Application ID, **01**.

Disable EE040



Enable EE041



8-17-3. Transmit Symbology ID

Scan the appropriate barcode to determine whether or not to transmit Symbology ID, **Je0**.

Disable EE050



Enable EE051



8-17-4. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Enter



304

End



Disable EE070



Enable EE071



8-17-5. Truncate Leading Zeros

Scan the appropriate barcode to determine whether or not to shrink the barcode message by getting rid of leading zeros.

Disable EE060



Enable EE061



8-17-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of RSS-14 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead EF4E0



(Length: 1 digit / Range: 0-255)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
- (3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every RSS-14 symbol, then scan **3** to assign the specified decimal value “3”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



305

End



8-17-7. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of RSS-14 barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every RSS-14 symbol, then scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-17-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned future take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-17-9** which further demonstrates how to define what contains in inserted information. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-17-9. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-17-8**, the custom info will be accordingly inserted in the specific position. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos**.

Ins0PosChar EF8E3



(Length: 2 digits)

Ins1PosChar EFAE3



(Length: 2 digits)

Enter



307

End



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0PosChar** barcode to specify the message content.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4**, **1**, **4**, and then **2** to assign the specified hexadecimal value “4142”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-17-10. Set Code ID for RSS-14

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for RSS-14.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **ID** barcode to tailor Code ID for RSS-14 to your needs.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “IM”, scan **4**, **9**, **4**, and then **D** to assign the specified hexadecimal value “494D”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



8-18. GS1 Databar Limited(RSS Limited)

8-18-1. Enable/Disable RSS Limited

Scan the appropriate barcode to determine whether or not to enable RSS Limited.

Disable F0000



Enable F0001



8-18-2. Transmit Application ID

Scan the appropriate barcode to determine whether or not to transmit Application ID, **01**.

Disable F0040



Enable F0041



8-18-3. Transmit Symbology ID

Scan the appropriate barcode to determine whether or not to transmit Symbology ID, **Je0**.

Disable F0050



Enable F0051



8-18-4. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable F0070



Enter



309

End



Enable F0071



8-18-5. Truncate Leading Zeros

Scan the appropriate barcode to determine whether or not to shrink the barcode message by getting rid of leading zeros.

Disable F0060



Enable F0061



8-18-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of RSS Limited barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead F14E0



(Length: 1 digit / Range: 0-255)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
- (3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every RSS Limited symbol, then scan **3** to assign the specified decimal value “3”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



310

End



8-18-7. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of RSS Limited barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of RSS Limited symbol, then scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-18-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned future take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-18-9** which further demonstrates how to define what contains in inserted information. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.



Enter



311

End



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-18-9. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-18-8**, the custom info will be accordingly inserted in the specific position. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos**.

Ins0PosChar F18E3

(Length: 2 digits)

Ins1PosChar F1AE3

(Length: 2 digits)

Enter



312

End



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0PosChar** barcode to specify the message content.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4**, **1**, **4**, and then **2** to assign the specified hexadecimal value “4142”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-18-10. Set Code ID for RSS Limited

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for RSS Limited.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **ID** barcode to tailor Code ID for RSS Limited to your needs.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “IM”, scan **4**, **9**, **4**, and then **D** to assign the specified hexadecimal value “494D”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



8-19. GS1 Databar Stacked(RSS-14 Stacked)

8-19-1. Enable/Disable RSS-14 Stacked

Scan the appropriate barcode to determine whether or not to enable RSS-14 Stacked.

Disable F2000



Enable F2001



8-19-2. Transmit Application ID

Scan the appropriate barcode to determine whether or not to transmit Application ID, **01**.

Disable F2040



Enable F2041



8-19-3. Transmit Symbology ID

Scan the appropriate barcode to determine whether or not to transmit Symbology ID, **Je0**.

Disable F2050



Enable F2051



8-19-4. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Disable F2070



Enable F2071



8-19-5. Truncate Leading Zeros

Scan the appropriate barcode to determine whether or not to shrink the barcode message by getting rid of leading zeros.

Disable F2060



Enable F2061



8-19-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of RSS-14 Stacked barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead F34E0



(Length: 1 digit / Range: 0-255)

Enter



315

End



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
- (3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every RSS-14 Stacked symbol, then scan **3** to assign the specified decimal value “3”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-19-7. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of RSS-14 Stacked barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every RSS-14 Stacked symbol, then scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



8-19-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned future take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-19-9** which further demonstrates how to define what contains in inserted information. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-19-9. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-19-8**, the custom info will be accordingly inserted in the specific position. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1Pos** will be added in the position of **Ins1Pos**.

Enter



317

End



Configuring Symbology

8

Ins0PosChar F38E3



(Length: 2 digits)

Ins1PosChar F3AE3



(Length: 2 digits)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0PosChar** barcode to specify the message content.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4**, **1**, **4**, and then **2** to assign the specified hexadecimal value “4142”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-19-10. Set Code ID for RSS-14 Stacked

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for RSS-14 Stacked.

ID F3CE3



(Length: 2 digits)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan ID barcode to tailor Code ID for RSS-14 Stacked to your needs.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “25”, scan **3**, **2**, **3**, and then **5** to assign the specified hexadecimal value “3235”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



318

End



8-20. GS1 Databar Expanded(RSS Expanded)

8-20-1. Enable/Disable RSS Expanded

Scan the appropriate barcode to determine whether or not to enable RSS Expanded.

Disable F4000



Enable F4001



8-20-2. Transmit Application ID

Scan the appropriate barcode to determine whether or not to transmit Application ID, **01**.

Disable F4040



Enable F4041



8-20-3. Transmit Symbology ID

Scan the appropriate barcode to determine whether or not to transmit Symbology ID, **Je0**.

Disable F4050



Enable F4051



8-20-4. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.



Disable F4070



Enable F4071



8-20-5. Truncate Leading Zeros

Scan the appropriate barcode to determine whether or not to shrink the barcode message by getting rid of leading zeros.

Disable F4060



Enable F4061



8-20-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of RSS Expanded barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead F54E0



(Length: 1 digit / Range: 0-255)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
- (3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every RSS Expanded symbol, then scan **3** to assign the specified decimal value “3”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



320

End



8-20-7. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of RSS Expanded barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every RSS Expanded symbol, then scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-20-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned future take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-20-9** which further demonstrates how to define what contains in inserted information. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.



321



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-20-9. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-20-8**, the custom info will be accordingly inserted in the specific position. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1PosChar** will be added in the position of **Ins1Pos**.

Ins0PosChar F58E3



(Length: 2 digits)

Ins1PosChar F5AE3



(Length: 2 digits)

Enter



322

End



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0PosChar** barcode to specify the message content.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4**, **1**, **4**, and then **2** to assign the specified hexadecimal value “4142”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-20-10. Set Code ID for RSS Expanded

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for RSS Expanded.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **ID** barcode to tailor Code ID for RSS Expanded to your needs.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “JP”, scan **4**, **A**, **5**, and then **0** to assign the specified hexadecimal value “4A50”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



323

End



8-21. GS1 Databar Expanded Stacked(RSS Expanded Stacked)

8-21-1. Enable/Disable RSS Expanded Stacked

Scan the appropriate barcode to determine whether or not to enable RSS Expanded Stacked.

Disable F6000



Enable F6001



8-21-2. Transmit Application ID

Scan the appropriate barcode to determine whether or not to transmit Application ID, **01**.

Disable F6040



Enable F6041



8-21-3. Transmit Symbology ID

Scan the appropriate barcode to determine whether or not to transmit Symbology ID, **Je0**.

Disable F6050



Enable F6051



8-21-4. Transmit Check Digit

Scan the appropriate barcode to determine whether to transmit the check digit.

Enter



324

End



Disable F6070



Enable F6071



8-21-5. Truncate Leading Zeros

Scan the appropriate barcode to determine whether or not to shrink the barcode message by getting rid of leading zeros.

Disable F6060



Enable F6061



8-21-6. Remove Leading Characters

Truncate Lead parameter allows you to specify the number of characters which you intend to remove forwards from the start of RSS Expanded Stacked barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration.

TrunLead F74E0



(Length: 1 digit / Range: 0-255)

Enter



325

End



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunLead** barcode to specify the number of characters to delete forwards from the start of the decoded data.
- (3) Please refer to Decimal/Hexadecimal table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove first three digits out of every RSS Expanded Stacked symbol, then scan **3** to assign the specified decimal value “3”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

8-21-7. Remove Trailing Characters

TrunEnd parameter allows you to specify the number of characters which you intend to remove backwards from the end of RSS Expanded Stacked barcode. In doing so, you are able to format the decoded message beforehand by taking out the necessary barcode parts and preserve the desired segments for your benefit. Follow the below procedure to complete the configuration:



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **TrunEnd** barcode to specify the number of characters to delete backwards from the end of the decoded data.
- (3) Please refer to Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to remove the last two digits out of every RSS Expanded Stacked symbol, then scan **2** to assign the specified decimal value “2”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.



8-21-8. Set Position for Inserting Custom Info

Ins0Pos and **Ins1Pos** parameters allow you to specify the specific position within a barcode to insert your own custom message as to better format barcode data. However, to have the mentioned future take effect, the group of parameters in this section necessarily pairs up with that in **Section 8-21-9** which further demonstrates how to define what contains in inserted information. Please be advised that **Ins0Pos** has to work with **Ins0PosChar** and **Ins1Pos** with **Ins1PosChar**.



Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0Pos** barcode to specify the position where you intend to add extra message.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan decimal value barcodes representing the desired number in the range of 0 to 255. For instance, to insert the custom info at the first position of the barcode, scan **0** to assign the specified decimal value “0”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1Pos** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-21-9. Set Message Content to Insert

Ins0PosChar and **Ins1PosChar** parameters allow you to define your own custom message used to organize scanned data in a better format. With reference to the parameter value which you associate with the set of parameters in **Section 8-21-8**, the custom info will be accordingly inserted in the specific position. That is, **Ins0Pos** refers to the position where **Ins0PosChar** will be inserted whereas **Ins1Pos** will be added in the position of **Ins1Pos**.

Enter



327

End



Ins0PosChar F78E3



(Length: 2 digits)

Ins1PosChar F7AE3



(Length: 2 digits)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **Ins0PosChar** barcode to specify the message content.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its content to be “AB”, scan **4, 1, 4**, and then **2** to assign the specified hexadecimal value “4142”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **Ins1PosChar** barcode first and then repeat Step (3)-(4) to complete the similar configuration, if necessary.
- (6) Scan **End** barcode to complete the configuration.

8-21-10. Set Code ID for RSS Expanded Stacked

A user-defined Code ID functions as an identity for a specific barcode type to be differentiated from others. It is especially helpful while you are dealing with more than one type of barcodes at the same time. Scan the barcode below to customize your own Code ID for RSS Expanded Stacked.

ID F7CE3



(Length: 2 digits)

Procedure

- (1) Scan **Enter** barcode.
- (2) Scan **ID** barcode to tailor Code ID for RSS Expanded Stacked to your needs.
- (3) Please refer to ASCII Code Table and Decimal/Hexadecimal Table in the appendix to scan hexadecimal value barcodes representing the desired string which has to be at most 2 characters in length. For instance, to set its Code ID to be “25”, scan **3, 2, 3**, and then **5** to assign the specified hexadecimal value “3235”.
- (4) Scan **SET** barcode to complete the variable-binding operation.
- (5) Scan **End** barcode to complete the configuration.

Enter



328

End





Appendix A

Decimal/ Hexadecimal Table

0 %00

1 %01

2 %02

3 %03

4 %04

5 %05

6 %06

7 %07

8 %08

9 %09

A %0A

B %0B

C %0C

D %0D

E %0E

F %0F

Validate your configurations

SET %OK

Enter

End

ASCII Code Table

	H	0(*)	1(*)	0	1	2	3	4	5	6	7
L											
0	Null			NUL	DLE	SP	0	@	P	`	p
1	Up	F1		SOH	DC1	!	1	A	Q	a	q
2	Down	F2		STX	DC2	"	2	B	R	b	r
3	Left	F3		ETX	DC3	#	3	C	S	c	s
4	Right	F4		EOT	DC4	\$	4	D	T	d	t
5	PgUp	F5		ENQ	NAK	%	5	E	U	e	u
6	PgDn	F6		ACK	SYN	&	6	F	V	f	v
7		F7		BEL	ETB	'	7	G	W	g	w
8	Bs	F8		BS	CAN	(8	H	X	h	x
9	Tab	F9		HT	EM)	9	I	Y	i	y
A		F10		LF	SUM	*	:	J	Z	j	z
B	Home	Esc		VT	ESC	+	;	K	I	k	{
C	End	F11		FF	FS	,	<	L	\	l	
D	Enter	F12		CR	GS	-	=	M	l	m	}
E	Insert	Ctrl+		SO	RS	.	>	N	^	n	~
F	Delete	Alt+		SI	US	/	?	O	-	o	DEL

Note: (*) for keyboard wedge only.



Appendix B

Test Chart

UPC-A



000012345670

EAN-13 with Add-on 5



9789572216675 00420
(ISBN: 9572216678)

Code-39



* C O D E 3 9 T + E + S + T *
(Full ASCII Code: *CODE39 Test*)

Interleaved 2 of 5



1 2 3 4 5 6 7 8 9 0 5

Code-93



C O D E 9 3 T E S T Y d

Enter



331

End



Code-128**Codabar/NW7****MSI/Plessey****CODE-11****UK/Plessey****Telepen**