IDM Corded / Bluetooth Hand-held Scanners
General Remarks

Further information on the IDM corded Hand-held scanners can be found on the internet on the IDM product page at www.mysick.com

- Detailed technical data in the online data sheet
- Overview of accessories
- Configuration software IDM Set Up Tool
- EC Declaration of Conformity
- Identification solutions product catalog
- Product information Hand-held scanners

Print out this manual
If you want to print out this manual please ensure that the original size is remained and the print out is of good quality. Otherwise the configuration codes contained in this manual may be distorted and cannot be scanned anymore.

Regulatory

EN61000-3-2/ EN61000-3-3, EN60950-1, EN61000-6-3, EN61000-6-2

Part 15B, Part 15C

CNS13438, CNS14336

AS/NZS CISPR 22:2009 Class B

LP0002

LED Eye Safety IEC62471 Exempt group

Laser Eye Safety IEC60825-1 Class 1

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Identification & Measuring, Reute Plant
Nimburger Strasse 11
79276 Reute
Germany

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1 Relevant for IDM Corded Hand-held scanners with power supply.
2 At the presence of high frequency interference in the frequency range of 15 MHz to 50 MHz there may be performance restrictions.
3 Relevant for IDM Corded Hand-held scanners
4 Relevant for IDM Bluetooth Hand-held scanners
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1 Getting familiar with your IDM Hand-held scanner

The IDM family includes 1D scanners with linear imagers and 2D scanners with area imagers. There are Bluetooth and corded versions available. Furthermore there are different models for variant target applications. IDMx2x and IDMx4x can be used for general purpose applications whereas IDMx6x is designed for industrial environments.

### IDM Corded Scanners

<table>
<thead>
<tr>
<th>IDM120 Series</th>
<th>IDM140 Series</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="IDM120 Series" /></td>
<td><img src="image2" alt="IDM140 Series" /></td>
</tr>
<tr>
<td>1. Power Indicator</td>
<td>1. Power Indicator</td>
</tr>
<tr>
<td>2. Status Indicator</td>
<td>2. Status Indicator</td>
</tr>
<tr>
<td>3. Trigger</td>
<td>3. Trigger</td>
</tr>
<tr>
<td>4. Scan Window</td>
<td>4. Scan Window</td>
</tr>
<tr>
<td>5. Beeper</td>
<td>5. Beeper</td>
</tr>
<tr>
<td>6. Cable Release Hole</td>
<td>6. Cable Release Hole</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IDM160/260 Series</th>
<th>IDM240 Series</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image3" alt="IDM160/260 Series" /></td>
<td><img src="image4" alt="IDM240 Series" /></td>
</tr>
<tr>
<td>1. Link Indicator</td>
<td>1. Battery Cavity</td>
</tr>
<tr>
<td>2. Status Indicator</td>
<td>2. End Cap</td>
</tr>
<tr>
<td>3. Beeper</td>
<td>3. Tether Plate</td>
</tr>
<tr>
<td>4. Scan Window</td>
<td>4. Lanyard catch</td>
</tr>
<tr>
<td>5. Trigger</td>
<td>5. Retaining Screw</td>
</tr>
<tr>
<td>6. Cable Release Hole</td>
<td>6. Link Indicator</td>
</tr>
<tr>
<td>7. Tether Plate</td>
<td>7. Battery Cavity</td>
</tr>
<tr>
<td>8. Lanyard Catch</td>
<td>8. End Cap</td>
</tr>
<tr>
<td>9. Retaining Screw</td>
<td>9. Tether Plate</td>
</tr>
<tr>
<td>10. Lanyard catch</td>
<td>10. Retaining Screw</td>
</tr>
</tbody>
</table>

### IDM Bluetooth Scanners

<table>
<thead>
<tr>
<th>IDM140 BT Series</th>
<th>IDM241 Series</th>
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<tbody>
<tr>
<td><img src="image5" alt="IDM140 BT Series" /></td>
<td><img src="image6" alt="IDM241 Series" /></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>IDM160 BT Series</th>
<th>IDM261 Series</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image7" alt="IDM160 BT Series" /></td>
<td><img src="image8" alt="IDM261 Series" /></td>
</tr>
</tbody>
</table>

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## IDM Bluetooth Cradles

<table>
<thead>
<tr>
<th>IDM140 BT/ IDM241 Smart Cradle</th>
<th>IDMx4x Charging Cradle</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Diagram" /></td>
<td><img src="image2.png" alt="Diagram" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IDM160 BT/ IDM261 Smart Cradle</th>
<th>IDMx6x Charging Cradle</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image3.png" alt="Diagram" /></td>
<td><img src="image4.png" alt="Diagram" /></td>
</tr>
</tbody>
</table>

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Power Indicator</td>
<td>1</td>
<td>Power Indicator</td>
</tr>
<tr>
<td>2</td>
<td>Status Indicators</td>
<td>2</td>
<td>Status Indicators</td>
</tr>
<tr>
<td>3</td>
<td>Paging/ reset button</td>
<td>3</td>
<td>Paging/ reset button</td>
</tr>
<tr>
<td>4</td>
<td>USB Bus Power Switch</td>
<td>4</td>
<td>USB Bus Power Switch</td>
</tr>
<tr>
<td>5</td>
<td>Host interface port</td>
<td>5</td>
<td>Host interface port</td>
</tr>
<tr>
<td>6</td>
<td>DC Power Jack</td>
<td>6</td>
<td>DC Power Jack</td>
</tr>
<tr>
<td>7</td>
<td>Reserved</td>
<td>7</td>
<td>Reserved</td>
</tr>
</tbody>
</table>
1.1 Connectivity

To connect the scanner, plug the cable into the interface port of the scanner and connect it to the host. To remove the cable, straighten one end of a paper clip and insert it into the cable release hole to pull out the cable. For IDM160/260 series you need to push down the bracket of the enclosure clip and pull out the cable.

For IDM Bluetooth scanners the cable needs to be connected to the smart cradles. The cable inlet is on the bottom side of the cradles.

Ensure that the cable is pushed all the way into the RJ inlet of the base cradle to secure the data transmission to the host.

1.1.1 Standard Interfaces (RS-232, USB, PS/2)

IDM scanners support USB¹, PS/2(DOS/V) Keyboard Wedge and RS-232 Serial interfaces.

- **USB HID (Human Interface Device):** The scanner works as a generic USB Keyboard.
- **USB COM:** The scanner works as a RS-232 serial device. Please note that you have to install the USB COM Port driver (available on www.mysick.com) before use.

¹ USB is not suitable for use in industrial environments. Therefore, at cable installation it is important to ensure that there are no close sources of interference.
Operating Instructions

IDM corded & IDM Bluetooth

Depending on the Scanner model different cables are available.

<table>
<thead>
<tr>
<th></th>
<th>IDM120, IDMx40, IDM Bluetooth</th>
<th>IDM160, IDM260</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>USB</strong></td>
<td>straight 1.8 m</td>
<td>6036728</td>
</tr>
<tr>
<td></td>
<td>spiral 3.8 m</td>
<td>6045195</td>
</tr>
<tr>
<td><strong>RS-232</strong></td>
<td>straight 1.8 m</td>
<td>6041540</td>
</tr>
<tr>
<td></td>
<td>spiral 3.8 m</td>
<td>6045196</td>
</tr>
<tr>
<td><strong>PS/2</strong></td>
<td>straight 2.0 m</td>
<td>6036726</td>
</tr>
<tr>
<td></td>
<td>spiral 3.8 m</td>
<td>6045194</td>
</tr>
<tr>
<td><strong>Power Supply</strong></td>
<td>needed for operation with RS-232 cables¹, Bluetooth and Wifi</td>
<td>6036722</td>
</tr>
</tbody>
</table>

1.1.2 Industrial fieldbus

The IDM Hand-held scanners can be connected to industrial fieldbuses (such as PROFIBUS, PROFINET, Ethernet TCP/IP, DeviceNet, etc.) via SICK connection modules and an adapter cable. The adapter cable includes a voltage converter from DC 24 to 5 V for the voltage supply of the hand-held scanner, eliminating the need of a separate power supply.

1 If you want to use this cable for USB Com Port Mode, it is recommended to use an additional USB hub between cable and PC. The USB hub will boost the communication signal and secure the communication.

2 If there is no power on Pin 9.

For more information on necessary components and order numbers please contact your local SICK sales representative.
## 1.2 Technical Specifications

### 1.2.1 IDM Corded Hand-held Scanners

<table>
<thead>
<tr>
<th>Type</th>
<th>IDM120</th>
<th>IDM140</th>
<th>IDM160</th>
<th>IDM240</th>
<th>IDM260</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field of application</td>
<td>General Purpose</td>
<td>General Purpose</td>
<td>Industrial</td>
<td>General Purpose</td>
<td>Industrial</td>
</tr>
<tr>
<td>Enclosure rating</td>
<td>IP 41</td>
<td>IP 41</td>
<td>IP 65</td>
<td>IP 41</td>
<td>IP 65</td>
</tr>
<tr>
<td>Supported code types</td>
<td>1D, Stacked¹</td>
<td>1D, Stacked, 2D</td>
<td></td>
<td>1D, Stacked, 2D, DPM²</td>
<td></td>
</tr>
<tr>
<td>Code resolution</td>
<td>≥0.102 mm¹⁾</td>
<td>≥0.076 mm¹⁾</td>
<td></td>
<td>SR model: ≥0.08 mm¹⁾, ≥0.18 mm²⁾</td>
<td>HD model: ≥0.08 mm¹⁾, ≥0.13 mm²⁾</td>
</tr>
<tr>
<td>Reading distance (at code resolution)</td>
<td>0 mm ... 250 mm (0.33 mm)¹⁾</td>
<td>50 mm ... 600 mm (0.5 mm)¹⁾</td>
<td>50 mm ... 800 mm (0.5 mm)¹⁾</td>
<td>SR model: 30 mm ... 155 mm (0.25 mm)²⁾</td>
<td>HD model: 35 mm ... 90 mm (0.13 mm)²⁾</td>
</tr>
<tr>
<td>Interfaces</td>
<td>USB (Keyboard Wedge &amp; Com Port Emulation), RS-232 TTL, PS/2 (Ethernet TCP/IP, PROFINET, PROFIBUS, DeviceNet)³</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optical indicators</td>
<td>1 LED (good read)</td>
<td>2 LEDs (operational status, good read)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vibration</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Acoustic indicators</td>
<td>Beeper, disengageable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Voltage</td>
<td>5 V DC (+/- 5%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current consumption (Operating)</td>
<td>Typical 170 mA</td>
<td>Typical 180 mA</td>
<td>180 mA (Vibrator disabled)</td>
<td>230 mA (Vibrator enable)</td>
<td>Typical 285 mA (Vibrator disabled)</td>
</tr>
<tr>
<td>Current consumption (Standby)</td>
<td>Typical 75 mA</td>
<td>Typical 80 mA</td>
<td>Typical 90 mA</td>
<td>Typical 160 mA</td>
<td>Max. 150 mA</td>
</tr>
<tr>
<td>Light source</td>
<td>LED: visible red light (630 nm)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laser aimer</td>
<td>No</td>
<td></td>
<td>Yes (Laser Class 1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambient operating temperature</td>
<td>0 °C ... 50 °C</td>
<td>-20 °C ... 50 °C</td>
<td>-10 °C ... 50 °C</td>
<td>-20 °C ... 50 °C</td>
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</tr>
<tr>
<td>Storage temperature</td>
<td>-20 °C ... 60 °C</td>
<td>-40 °C ... 70 °C</td>
<td>-30 °C ... 70 °C</td>
<td>-40 °C ... 70 °C</td>
<td></td>
</tr>
</tbody>
</table>

¹⁾ Valid for Code 39, ²⁾ Valid for Data Matrix

¹ Depending on scanner version (PDF version is necessary).
² Depending on scanner version (DPM version is necessary).
³ Optional via external SICK connection modules.
### 1.2.2 IDM Bluetooth Hand-held Scanners

<table>
<thead>
<tr>
<th>Type</th>
<th>IDM140 BT</th>
<th>IDM160 BT</th>
<th>IDM241 BT</th>
<th>IDM261 BT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field of application</td>
<td>General Purpose</td>
<td>Industrial</td>
<td>General Purpose</td>
<td>Industrial</td>
</tr>
<tr>
<td>Enclosure rating</td>
<td>IP 41</td>
<td>IP 65</td>
<td>IP 41</td>
<td>IP 65</td>
</tr>
<tr>
<td>Supported code types</td>
<td>1D, Stacked¹</td>
<td>1D, Stacked¹</td>
<td>1D, Stacked, 2D</td>
<td>1D, Stacked, 2D, DPM²</td>
</tr>
<tr>
<td>Code resolution</td>
<td>≥0.076 mm¹</td>
<td>≥0.076 mm¹</td>
<td>SR model: ≥0.08 mm¹, ≥0.18 mm²</td>
<td>HD model: ≥0.08 mm¹, ≥0.13 mm²</td>
</tr>
<tr>
<td>Reading distance (at code resolution)</td>
<td>50 mm ... 600 mm (0.5 mm)¹</td>
<td>50 mm ... 800 mm (0.5 mm)¹</td>
<td>SR model: 30 mm ... 155 mm (0.25 mm)²</td>
<td>HD model: 35 mm ... 90 mm (0.13 mm)²</td>
</tr>
<tr>
<td>Interfaces</td>
<td>USB (Keyboard Wedge &amp; Com Port Emulation), RS-232 TTL, PS/2 Ethernet TCP/IP, PROFINET, PROFIBUS, DeviceNet³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bluetooth Protocol</td>
<td>Bluetooth v 2.1 EDR, 2.4 ... 2.4835 GHz</td>
<td>Bluetooth v 4.0, 2.402 ... 2.4830 GHz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bluetooth operating range</td>
<td>Up to 100 m (free view), Batch function for expansion of the wireless radius</td>
<td>Up to 100 m (free view), Batch function for expansion of the wireless radius</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optical indicators</td>
<td>2 LEDs (good read, charge of battery, radio connection status)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vibration</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Acoustic indicators</td>
<td>Beeper, disengageable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Voltage</td>
<td>5 V DC (+/- 5%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current consumption (Operating)</td>
<td>180 mA</td>
<td>230 mA (Vibrator enabled)</td>
<td>300 mA</td>
<td>330 mA (Vibrator enabled)</td>
</tr>
<tr>
<td>Current consumption (Standby)</td>
<td>80 mA</td>
<td>90 mA</td>
<td>180 mA</td>
<td>180 mA</td>
</tr>
<tr>
<td>Light source</td>
<td>LED: visible red light (630 nm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laser aimer</td>
<td>No</td>
<td>Yes (Laser Class 1)</td>
<td>No</td>
<td>Yes (Laser Class 1)</td>
</tr>
<tr>
<td>Ambient operating temperature</td>
<td>0 °C ... 50 °C</td>
<td>-20 °C ... 50 °C</td>
<td>-10 °C ... 50 °C</td>
<td>-10 °C ... 50 °C</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-40 °C ... 70 °C</td>
<td>-30 °C ... 70 °C</td>
<td>-40 °C ... 70 °C</td>
<td>-40 °C ... 70 °C</td>
</tr>
</tbody>
</table>

1¹ Valid for Code 39, ²² Valid for Data Matrix

For detailed technical specifications, see the Online Data Sheet on the product site on the web (www.mysick.com/en).

¹ Depending on scanner version (PDF version is necessary).
² Depending on scanner version (DPM version is necessary).
³ Optional via external SICK connection modules.
2 IDM Bluetooth Scanners

2.1 Preparation before using

2.1.1 Battery installation

1. Ensure the battery contacts of the battery pack are facing the charging contacts inside the battery cavity.
2. Slide the battery pack into the battery cavity until hearing a click sound before locking it with the end cap. The scanner will give 4 beeps when the battery pack is installed properly if the battery pack still has power.
3. Secure the end cap with the screw provided.

You can use the overlapping battery label to pull out the battery if needed.

2.1.2 Charging the battery

1. Choose an appropriate plug for your country and slide it into the power adapter cavity until it is locked. Then plug the AC power plug into the AC wall socket.
2. Plug the DC power cord of the power supply unit into the DC Jack of the cradle. The smart cradle emits the power-on beeps and the central (IDMx4x)/ upper (IDMx6x) power indicator gives one blue blink. If you use the charging cradle, the central (IDMx4x)/ upper (IDMx6x) power indicator turns steady blue.
3. Place the scanner on the cradle. The status indicator of scanner will turn steady red if the battery is not fully charged. When the battery is fully charged, the status indicator of the scanner turns steady green.

Please note the important battery information on the next page!
Important information: Please charge the new battery pack for **8 hours** prior to the first use. Ensure that you are using a battery with enough capacity. Otherwise the scanner might lose its radio connection. As soon as the scanner gives warning messages (one red blink and one beep at a regular interval) the scanner needs to be recharged. If the scanner gives 8 red blinks and 8 beeps, the battery power is extremely low. In that case the battery needs to be recharged immediately! If the scanner is not placed into the charging cradle right the way, the scanner turns off automatically. Due to an internal protection circuit there will now be measured 0 V on the outside contacts of the battery. If the battery is not recharged immediately, a further discharge takes place even though the scanner is turned off. Due to the internal chemical processes of lithium ion batteries, this will then result in an irreversible destruction of the battery.

### 2.1.3 Placing the scanner into the cradle

Ensure that the scanner is placed properly into the respective smart or charging cradle. If the unit is not placed correctly into the cradle, the charging might not start.

**IDMx41:** Insert the scanner vertically

**IDMx61:** Insert the back of the scanner first. Afterwards push the scanner head down.

The correct placement into the cradle can be verified by the charging LED on the scanner. (See also chapter 2.1.5 on page 14)

### 2.1.4 USB Bus power

- If USB 3.0 is available in your host device, both battery charging and regular operation can be supported by the USB Bus Power without using external power supply.
- If you want to use this feature, set the USB bus power switch to “ON”. Then connect the cradle and host device via an USB cable.
- If only USB 2.0 is available in your host device the external power supply is necessary as a power source, because the power supplied from USB 2.0 is not enough to support both battery charging and regular operation simultaneously.
## 2.1.5 Indications

![Diagram of IDM Bluetooth Scanners]

### IDM Bluetooth Scanners

<table>
<thead>
<tr>
<th>Description</th>
<th>Link indicator</th>
<th>Beeper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio connection</td>
<td>1 blue blink per 2.5 sec.</td>
<td>Off</td>
</tr>
<tr>
<td>Radio disconnection</td>
<td>3 blue blinks per 2 sec.</td>
<td>Off</td>
</tr>
<tr>
<td>During connection</td>
<td>Quick blue blinks</td>
<td>Short clicks</td>
</tr>
<tr>
<td>Radio connection built</td>
<td>1 blue blink per 2.5 sec.</td>
<td>4 beeps in ascending tone</td>
</tr>
<tr>
<td>Radio connection lost</td>
<td>3 blue blinks per 2 sec.</td>
<td>4 beeps in descending tone</td>
</tr>
<tr>
<td>Data Transmission</td>
<td>Quick blue blink</td>
<td>Short clicks</td>
</tr>
<tr>
<td><strong>Status Indicator</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under charging (on cradle)</td>
<td>Steady red</td>
<td>Off</td>
</tr>
<tr>
<td>Fully charged (on cradle)</td>
<td>Steady green</td>
<td>Off</td>
</tr>
<tr>
<td>Under batch scanning</td>
<td>1 green blink per 2.5 sec.</td>
<td>Off</td>
</tr>
<tr>
<td>Pair failure</td>
<td>Steady red</td>
<td>2 Di-do Di-do beeps</td>
</tr>
<tr>
<td>Out of memory</td>
<td>2 red blinks</td>
<td>2 long beeps</td>
</tr>
<tr>
<td>Battery power low</td>
<td>1 red blink at regular interval</td>
<td>1 beep at regular interval</td>
</tr>
<tr>
<td>Battery power extremely low</td>
<td>8 red blinks</td>
<td>8 beeps</td>
</tr>
<tr>
<td>Good read</td>
<td>1 green blink</td>
<td>1 good read beep</td>
</tr>
<tr>
<td>Under Configuration</td>
<td>Steady red</td>
<td>Off</td>
</tr>
<tr>
<td>Uninstall state</td>
<td>Alternative red and green blinks</td>
<td>Off</td>
</tr>
<tr>
<td>Upgrade state</td>
<td>Steady red</td>
<td>Short click</td>
</tr>
<tr>
<td>Time out warning</td>
<td>Off</td>
<td>3 long beeps</td>
</tr>
<tr>
<td>Paged by smart cradle</td>
<td>Off</td>
<td>6 page beeps</td>
</tr>
<tr>
<td>Sleep state / Battery no power</td>
<td>Off</td>
<td>Off</td>
</tr>
<tr>
<td>Power Off</td>
<td>Off</td>
<td>Off</td>
</tr>
</tbody>
</table>
### IDM Smart Cradle

<table>
<thead>
<tr>
<th>Description</th>
<th>Indicators</th>
<th>Beeper</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Power Status</td>
<td></td>
</tr>
<tr>
<td>Power on</td>
<td>1 blue blink</td>
<td>Off</td>
</tr>
<tr>
<td>Smart Cradle Upgrade State</td>
<td>Off</td>
<td>Steady red</td>
</tr>
<tr>
<td>Uninstall state</td>
<td>Off</td>
<td>Alternative red-green blinks</td>
</tr>
<tr>
<td>PICO Mode</td>
<td>Radio Connected</td>
<td>Steady blue</td>
</tr>
<tr>
<td></td>
<td>Radio Disconnected</td>
<td>Off</td>
</tr>
<tr>
<td>PAIR Mode</td>
<td>Radio Connected</td>
<td>Steady blue</td>
</tr>
<tr>
<td></td>
<td>Radio Disconnected</td>
<td>Off</td>
</tr>
<tr>
<td>Smart cradle paged by scanner</td>
<td>PICO Mode</td>
<td>Steady blue</td>
</tr>
<tr>
<td></td>
<td>PAIR Mode</td>
<td>Steady blue</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Power Indicator</th>
<th>Beeper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power on</td>
<td>Steady blue</td>
<td>Off</td>
</tr>
</tbody>
</table>

#### 2.2 Paging Function

The paging function helps to locate the paired smart cradle or scanner. If you would like to page the paired smart cradle, you can scan the “Paging” command.

![Paging QR Code](https://example.com/paging_qr_code)

If you would like to page the paired scanner, you can press the paging/rest button of the smart cradle no longer than 5 seconds.

#### 2.3 Radio Link Mode

The IDM Bluetooth scanners provide several radio link modes to communicate with the host device. When the Bluetooth-enabled host device is not available, the scanner can work with the smart cradle in PAIR mode (peer-to-peer connection) or PICO mode (multiple connections) to provide a plug-and-play cordless migration of your existing non-Bluetooth devices. Moreover, you are able to use the scanner to work with Bluetooth-enabled host devices via SPP mode or HID mode. When the radio link is disconnected, the scanner is capable of reconnecting the radio link automatically when it returns into the Bluetooth radio range area. Please note...
that this feature is not available in SPP slave mode. If you would like to change the radio link mode, please scan the "Uninstall" command to reset the scanner to the uninstall state.

2.3.1 PAIR Mode

In PAIR mode, one smart cradle will work with one scanner. The smart cradle does not only provide the Bluetooth radio link with the scanner, but also offers the legacy cabled interfaces to the host device, including USB HID, USB COM, PS/2(DOS/V) Keyboard Wedge and RS-232 serial.

Use IDM Hand-held scanner in PAIR Mode:
1. Ensure the battery is fully charged. Refer to the section of “2.1.2 Charging the battery” for details.
2. Choose the interface cable, plug it into the smart cradle and connect it to the host device. (Refer to chapter “1.1 Connectivity” for details.)
3. Turn on the power of your host device.
4. Note that if the scanner is shipped together with a smart cradle, they are pre-paired already. You will see the link indicator of the scanner shows 1 blue blink per 2.5 seconds and the central (IDMx41)/upper (IDMx61) power indicator of the smart cradle turns steady blue. If the scanner and smart cradle just give alternative red and green blinks ("Uninstall" state), please follow step 5 to establish the connection between scanner and smart cradle.
5. Scan the “PAIR mode” command. The status indicator of the scanner will turn steady red immediately.

Place the scanner into the smart cradle. You will hear one short beep to indicate the activation of the pairing process. The scanner will emit continuous short clicks and the link indicator of the scanner will flash blue quickly during the pairing process. When you hear 4 beeps in ascending tone, the pairing process is completed. You will see that the link indicator of the scanner gives 1 blue blink per 2.5 seconds and the central (IDMx41)/upper (IDMx61) power indicator of the smart cradle turns steady blue. If the scanner pairing process failed or if the scanner is not placed into the smart cradle within 20 seconds, you will hear 2 “Di-do Di-do” beeps indicating that the pairing process was not successful. The scanner will return to the uninstall state automatically.
6. Scan the corresponding host interface quick set command (chapter 5.7) to complete the installation.

The default host interface of the smart cradle is preset to USB HID. If you want to set the host interface to USB COM you need to install the USB COM Port driver (available on www.mysick.com) before using.

2.3.2 PICO Mode

In PICO mode up to 7 scanners can be connected to one smart cradle. If you would like to un-pair all scanners paired with the smart cradle, please press and hold the paging/reset button of the smart cradle for more than 5 seconds. If you just want to un-pair part of the paired scanners, please take those paired scanners and scan the “Uninstall” command.
Use IDM Hand-held scanner in PICO Mode:

1. Ensure the battery is fully charged. You may refer to the section of “2.1.2 Charging the battery” for details.

2. Choose the interface cable, plug it into the smart cradle and connect it to the host device. (Refer to chapter “1.1 Connectivity” for details.

3. Turn on the power of your host device.

4. Ensure the side (IDMx41)/ lower (IDMx61) status indicators of the smart cradle shows alternative red and green blinks (“Uninstall” state). If the smart cradle is paired with other scanners press and hold the paging/ rest button for more than 5 seconds to un-pair all paired scanners. This way the smart cradle will return to uninstall state automatically.

5. Prepare the scanners you would like to pair with the smart cradle. Ensure that the status indicator of each scanner gives alternative red and green blinks (“Uninstall state”). If the scanner is no in the “Uninstall state”, scan the “Uninstall” command to un-pair the scanner, then scan the “PICO Mode” command. The status indicator of the scanner will turn to steady red.

Place the scanner into the smart cradle. You will hear one short beep to indicate the activation of the pairing process. The scanner will emit continuous short clicks and the link indicator of the scanner will flash blue quickly during the pairing process. When you hear 4 beeps in ascending tone, the pairing process is completed. You will see that the link indicator of the scanner shows 1 blue blink per 2.5 seconds. The central (IDMx41)/ upper (IDMx61) power indicator of the smart cradle turns steady blue and the side (IDMx41)/ lower (IDMx61) status indicators turn steady green.

If the scanner pairing process failed or if the scanner is not placed into the smart cradle within 20 seconds, you will hear 2 “Di-do Di-do” beeps to warn the failure of pairing. The scanner will return to the uninstall state automatically.

6. Scan the corresponding host interface quick set command to complete the installation.

7. Repeat the same procedure to pair other scanners (up to seven scanners in total) with the smart cradle.

For the user’s convenience, the smart cradle will automatically assign an ID number to each scanner. Scan the “System Information” command to check the assigned ID number of each scanner.

Clone Function

For the user’s convenience, the clone function will help you to clone the host interface related parameters (please refer to the following table for details) from one of the paired scanners to the rest of the paired scanners under PICO mode. You can use one of the paired scanners to set the host interface related parameters first and then scan the “Save Configuration” command. Afterwards, please take the other paired scanners to scan the “Clone” command one by one to clone the host interface related parameters.
For using the Clone function, the paired scanners need to stay connected. The host interface related parameters can’t be cloned to the paired scanner in disconnected status.

The below host interface related parameters will be impacted by the cloning function:

<table>
<thead>
<tr>
<th>Data Transmission Parameter</th>
<th>Field Delimiter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Data Transmission Format</td>
</tr>
<tr>
<td>Host Interface Control</td>
<td>Host interface Selection</td>
</tr>
<tr>
<td>Keyboard Interface Control</td>
<td>Keyboard Layout</td>
</tr>
<tr>
<td></td>
<td>Intermessage Delay</td>
</tr>
<tr>
<td></td>
<td>Interfunction Delay</td>
</tr>
<tr>
<td></td>
<td>Intercharacter Delay</td>
</tr>
<tr>
<td>Serial Interface Control</td>
<td>Handshaking Protocol</td>
</tr>
<tr>
<td></td>
<td>Intermessage Delay</td>
</tr>
<tr>
<td></td>
<td>Interfunction Delay</td>
</tr>
<tr>
<td></td>
<td>Intercharacter Delay</td>
</tr>
<tr>
<td></td>
<td>Baud Rate</td>
</tr>
<tr>
<td></td>
<td>Data Frame</td>
</tr>
<tr>
<td></td>
<td>Time Out Control</td>
</tr>
<tr>
<td>Wand Emulation Control</td>
<td>Output Polarity</td>
</tr>
<tr>
<td></td>
<td>Initial Signal State</td>
</tr>
<tr>
<td></td>
<td>Margin Time</td>
</tr>
<tr>
<td></td>
<td>Module Time</td>
</tr>
<tr>
<td></td>
<td>Narrow/Wide Ratio</td>
</tr>
<tr>
<td></td>
<td>Code39 Emulation</td>
</tr>
</tbody>
</table>

2.3.3 HID Mode

Through the HID service, the scanner can work as a Bluetooth Keyboard. In this mode, the scanner will be discoverable by the radio connection request issued by the remote host device. In some cases, you may be requested to enter the Passkey (PIN) to establish the Bluetooth connection for security purpose.
Operating Instructions
Radio Link Mode

IDM corded & IDM Bluetooth

Use IDM Hand-held scanner in HID Mode:

1. Ensure the battery is fully charged. You may refer to the section of “2.1.2 Charging the battery” for details.
2. Power on the scanner within radio range.
3. Ensure the status indicator of the scanner gives alternative red and green blinks (“Uninstall” state). If the scanner is not in uninstall state scan the “Uninstall” command first.

4. If your remote host is equipped with the latest Bluetooth drivers or if it is an iOS or Android device we recommend to use “HID Mode” for quick pairing. If necessary you may use “HID Mode with Passkey” to establish a more secure connection. If you experience problems in “HID Mode” try “HID Legacy Mode” instead.

5. Once you scan one of the above commands the link indicator of the scanner will give 3 blue blinks per 2 seconds during the searching process. You have to execute the Bluetooth Discovery procedure to find available Bluetooth devices. Select “IDMxxx”.
6. If you use “HID Mode” go to step 9.
7. If you use “HID Mode with Passkey” you will be requested to enter the passkey (PIN) on the remote host. Please enter the passkey (PIN) accordingly by scanning the “Option Codes” on page 120 and then scan “FIN (Finish)” to end the passkey entry. Continue with step 9.
8. If you scan “HID Legacy Mode” the passkey (PIN) may be requested. Please enter “00000000” (default setting). You will see “Keyboard on IDMxxx”. Double-click this HID service to establish the connection between the scanner and the remote host device.
9. The scanner will emit 4 beeps in ascending tone to indicate the radio is connected. At the same time, the link indicator of the scanner will give 1 blue blink per 2.5 seconds to indicate the scanner is in radio-connected state. Please note that if the scanner failed to connect to the host device within 30 seconds, the link indicator will give 3 blue blinks per 2 seconds. But the scanner is still continuing to discover the host device for another 30 seconds before going to sleep mode. In the interim, you still can scan “Uninstall” command to revert the scanner to uninstall state. If the scanner goes to sleep mode, you need to press the trigger to wake up the scanner to continue the installation.

The above procedures are based on popular Windows environment. However, the installation procedure may vary depending on different remote host devices, operating systems and the Bluetooth drivers.
While using HID mode be aware of potential error in the data transmission when radio link quality is poor. You are suggested to use the scanner under the communication coverage at all times.

2.3.4 SSP Master/Slave Mode

Through the standard SPP service, the scanner can work as a Bluetooth Serial Device. In SPP Master Mode, the scanner initiates the radio connection request to the remote slave device. In SPP slave mode, the scanner will be discoverable by the radio connection request issued by the remote host device.

Establish SSP Master Connection

1. Ensure the battery is fully charged. Open the folder “Hardware” located in Bluetooth Advanced Setting of the remote host device to check its device MAC address. Then prepare a 12-character Code 128 barcode of the remote host device MAC address, or follow the step 4 to input MAC address by scanning 12 option codes.

2. Ensure a virtual COM port is available in your remote host for connecting the scanner. If not, please open the folder “Local Services” located in Bluetooth Advanced Setting. Click the “Add Serial Services” to add one more Bluetooth COM port.

3. Power on the scanner within radio coverage and ensure the status indicator of the scanner gives alternative red and green blinks ("Uninstall" state). If the scanner is not in uninstall state, please scan the “Uninstall” command first, and then scan the “SPP Master Mode” command. The status indicator of the scanner will turn steady red immediately.

4. Scan a 12-character MAC address barcode, or scan 12 option codes and “FIN” command to confirm your inputs. The scanner will emit continuous short clicks and the link indicator of the scanner will flash blue quickly during the radio connecting process. If the PIN Code or Passkey is requested, please enter “00000000” (default setting).

5. The scanner will emit 4 beeps in ascending tone to indicate the radio is connected. At the same time, the link indicator of the scanner will give 1 blue blink per 2.5 seconds to indicate the scanner is in radio-connected state. Please note that if the scanner failed to connect to the host device within 30 seconds, the link indicator will give 3 blue blinks per 2 seconds. But the scanner is still continuing to discover the host device for another 30 seconds before go to sleep. In the interim, you still can scan the “Uninstall” command to revert the scanner to uninstall state. If the scanner is already in sleep mode, you just need to press the trigger to wake up the scanner to continue the installation.

The above procedures are based on popular Windows environment. However, the installation procedure may vary depending on different remote host devices, operating systems and the Bluetooth drivers.
Establish SSP Slave Connection

1. Ensure the battery is fully charged and a virtual COM port is available in your remote host for connecting the scanner. If not, please open the folder “Client Applications” located in Bluetooth Advanced Setting. Click the “Add COM Port” to add one more Bluetooth COM port.

2. Power on the scanner within radio coverage and ensure the status indicator of scanner gives alternative red and green blinks (in “Uninstall” state). If the scanner is not in uninstall state, please scan the “Uninstall” command first. Then scan the “SPP Slave Mode” command, and the link indicator of scanner will give 3 blue blinks per 2 seconds during searching process.

3. Execute the Bluetooth Discovery procedure to find all available Bluetooth device list in your remote host. You will see “IDMxxx” is shown in the list if the scanner is successfully discovered.

4. Double click the “IDMxxx” on the discovered Bluetooth devices. If the PIN Code or Passkey is requested for security connection, please enter “00000000” (default setting). You will see “Serial Port on IDMxxx”. Please double click this SPP service to establish the connection between scanner and remote host device.

5. The scanner will emit 4 beeps in ascending tone to indicate the radio is connected. At the same time, the link indicator of the scanner will give 1 blue blink per 2.5 seconds to indicate the scanner is in radio-connected state. Please note that if the scanner is not connected to the host device within 1 minute after scanning the “SPP Slave Mode” command, the scanner will go to sleep mode automatically. You can just press the trigger to wake up the scanner to continue the installation.

The above procedures are based on popular Windows environment. However, the installation procedure may vary depending on different remote host devices, operating systems and the Bluetooth drivers.

2.4 Out-of-Range Scanning

When the radio connection is established between scanner and remote host device, the scanner will transmit each scanned code content right after scanning the barcode. However, the scanner is preset not to scan any barcode data when it loses the radio connection with the remote host device.

If you enable the Out-of-Range scanning function, the scanner can continue scanning barcode data while it is out of radio coverage. All scanned data will be temporarily stored in the memory buffer until radio link resumed.

If the scanner is out of radio coverage, you will hear 4 beeps in descending tone to indicate the loss of radio connection. The link indicator of the scanner will give 3 blue blinks per 2 seconds. Once the scanner is back
to radio coverage, you will hear 4 beeps in ascending tone to indicate the radio connection is rebuilt and the scanner will give 1 blue blink per 2.5 seconds. At the same time, all stored scanned data will be transmitted automatically right after the radio link is resumed.

2.5 Presentation Scanning

The Presentation Scanning is designed for hand-free applications. If the “Presentation Scanning Auto-sense” function is enabled, the scanner is capable of automatically switching to presentation mode as soon as you place the scanner onto the Presentation Stand or into Smart Cradle.

2.6 Sleep Mode & Power Off

The scanner is preset to enter “Sleep Mode” if the scanner is not used after time-out duration. When the scanner is under sleep mode, it is preset to enter “Power Off” automatically if it will not be waked up after time-out duration.

If you want your scanner to enter “Sleep Mode” or “Power Off” immediately, please scan the “Sleep Mode” or “Power Off” command. The scanner can be waked up by pressing the trigger button.

2.7 Batch Scanning (Inventory Mode)

With the help of the Batch Scanning function, the scanner is capable of storing the barcode data of up to 100,000 EAN-13 barcodes. This functionality is often used for inventory applications.

Once you scan the “Enter Batch Scanning” command to activate this function, all scanned barcode data will be stored into the memory storage and the status indicator of scanner will give green blink at regular interval during batch scanning. You can scan and store the barcode data till the memory storage is full. If the storage is full, you will hear 2 long beeps and the status indicator will give 2 red blinks to indicate out of storage. To terminate the batch scanning, please scan the “Exit Batch Scanning” command.
2.7.1 Quantity feature

The scanner supports quantity feature when it enters batch scanning. When you use quantity feature, the quantity information and scanned barcode data will be stored into the memory storage together. You can enter the quantity information from 1 to 9999 by scanning the following quantity commands right after you scanned the barcode data.

- Quantity 0
- Quantity 1
- Quantity 2
- Quantity 3
- Quantity 4
- Quantity 5
- Quantity 6
- Quantity 7
- Quantity 8
- Quantity 9

2.7.2 Data output format

There are three ways to output the stored barcode data and quantity information. The preset output format is to transmit stored data as many times as the quantity indicates. But you still can set the scanner to output stored barcode data together with quantity information in two fields, and a preset delimiter (",") will be output in between. To fulfill different application requirements, both the delimiter and the output sequence can be changed.

- As many times as the quantity indicates
- <Field delimiter><Quantity><Scanned data>
- <Scanned data><Field delimiter><Quantity>
2.7.3 Transmit stored data

The scanner is preset to transmit all the stored data by scanning the “Transmit Stored Data” command. During the transmission, the scanner will emit continuous short clicks and the link indicator will blink blue. Then the scanner will give two short beeps after data transmission is completed.

You are still able to set the scanner to transmit the stored data by placing the scanner onto the cradle as well.

2.7.4 Delete data

If a wrong barcode was scanned, the “Delete Last Scanned Data” command is helpful to recover mistakes. By scanning the “Delete Last Scanned Data” command, the last stored data can be deleted.

The scanner is preset to keep all the stored data until you scan the “Clear All Stored Data” command. However you are also able to change the setting to “Auto Delete Stored Data after transmission”. (Refer to chapter 3.10.3)
3 Configuration via Barcodes

3.1 Programming Commands

The IDM scanner bar code commands are specially designed proprietary bar code labels which allow you to set the IDM Scanner’s internal programming parameters. There are System Command, Family Code and Option Code for programming purpose. Each programmable family and bar code command label is listed on the same page with major system commands. The detailed explanations and special programming flowchart are printed on facing or following pages. The Option Codes and System Commands can be found in the appendix on page 116 and 118.

3.1.1 System Command

The System Command is the highest level bar code command which directs the IDM Scanner to perform immediate operations, such as entering programming mode (PROGRAM), exiting programming mode (EXIT), listing system information (SYSLIST), recovering to factory preset configurations (M_DEFAULT) and so on. Please note that all system commands will take a few seconds to complete the operations. User must wait for the completion beeps before scanning another bar code.

3.1.2 Family Code

The Family Code is scanned to select the user desired programming family. IDM Scanner has already provided more than one hundred programming families to meet any specific requirements.

3.1.3 Option Code

The Option Codes is a set of bar code commands represented by “0–9”, “A–F” and finishing selection (FIN). For most setting, you must select at least one option code following the family code selection to set the desired parameter for the selected programming family. The Option Codes can be found on page 116.

3.2 Programming Procedures

As you scan the bar code command to select the desired parameters, information about the final selected parameters represented by the bar code commands are stored in the Hand-held scanner’s internal Flash Memory ASIC or non-volatile memory. If you turn off the unit, the Flash Memory ASIC or non-volatile memory retains all programming options. You don’t need to re-program the IDM Scanner if you want to keep the existing configurations in the next power on.

The programming procedures of the IDM Scanner are designed as simple as possible for ease of setting. Most programming families take the “Single Scan Selection” programming procedure. But several programming families have more complex and flexible programmable options, and you must take “Multiple Scan Selection”, “Cycling Scan Selection” or “Dual Level Selection” to complete their programming procedures. Each kind of programming procedure is listed in the following pages for your reference. Please give careful attention to become familiar with each programming procedure.
If the programming family must take “Multiple Scan Selection”, “Cycling Scan Selection”, or “Dual Level Selection” procedures, the family of the programming menu will be marked with the matched representing symbol of Programming Category (P.C.) listed in the following table.

<table>
<thead>
<tr>
<th>Conventions</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Factory default value</td>
</tr>
<tr>
<td>P.C.</td>
<td>Programming category</td>
</tr>
<tr>
<td>SS</td>
<td>Single scan selection</td>
</tr>
<tr>
<td>MS</td>
<td>Multiple scan selection</td>
</tr>
<tr>
<td>CS</td>
<td>Cycling scan selection</td>
</tr>
<tr>
<td>DS</td>
<td>Dual level scan selection</td>
</tr>
<tr>
<td></td>
<td>Necessary option code</td>
</tr>
<tr>
<td>[ ]</td>
<td>Selectable option code</td>
</tr>
</tbody>
</table>

3.2.1 Program & End

Scan „PROGRAM“

The scanner will enter programming mode and inhibit all non-programming functions.

Scan „END“

The scanner will exit programming mode, and store all parameters in Flash Memory ASIC or non-volatile memory, then issue the completion beeping.

Please note that the IDM Scanner will take 3-4 seconds to store parameters in internal Flash Memory ASIC or non-volatile memory after you scan the “END”. Please don’t turn off the power before the completion beeping. It may destroy all configured parameters.
### 3.2.2 System List & Master Default

**Scan „SYSLIST“**

The scanner will list the product information and revision number to host via selected host interface, then issue the completion beeping.

**Scan „M_DEFAULT“**

The scanner will list the product information and revision number to host via selected host interface, then issue the completion beeping.

### 3.2.3 Single Scan

**Scan „PROGRAM“**

Enter Programming mode.

**Scan one of family codes**

Select the desired programming family.

**Scan one of option codes**

Select one option code for the desired parameter.

**Repeat selection**

Do you want to select another programming family?

**Scan „END“**

Exit programming mode.
3.2.4 Multiple Scan

Enter Programming mode.

Scan “PROGRAM”

Scan one of family codes

Scan one or several option codes

Repeat selection

Yes

Do you want to select another programming family?

No

Scan “END”

Select the desired programming family.

Select one or several option codes for the desired parameters.
If it’s necessary scan „FIN“ to terminate the option code selection.

Exit programming mode.
3.2.5 Cycling Scan

1. Enter Programming mode.
2. Scan "PROGRAM".
3. Scan one of family codes.
4. Select the desired programming family.
5. Scan one or several option codes.
6. Select one or several option codes for the desired parameters as "Single" or "Multiple" scan selection.
7. Scan "FIN".
8. Finish cycling selection. (If necessary)
9. Repeat selection.
10. Do you want to select another programming family?
11. Yes
12. No
13. Scan "END".
14. Exit programming mode.
3.2.6 Dual Level Scan

Enter Programming mode.

1. Select the desired programming family.
2. Select several option codes for the desired parameters.
   1. Select one or several option codes for the desired parameters.
   2. If it’s necessary scan “FIN” to terminate the option code selection.

Do you want to select another programming family?

Exit programming mode.
3.3 Host Interface Selection

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host Interface Selection</td>
<td>MS</td>
<td>IBM PS/2 25-30 series keyboard wedge interface</td>
<td>02</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>Standard/TTL RS-232 peer-to-peer serial</td>
<td>06</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>Wand Emulation</td>
<td>08</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>USB Com Port Emulation</td>
<td>09</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>PS/2 (DOS/V) direct link (keyboard replacement)</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>PS/2 (DOS/V) keyboard wedge turbo mode</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>PS/2 (DOS/V) keyboard wedge standard mode</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>Laser emulation</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>USB HID standard mode</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>USB HID turbo mode</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>USB HID Legacy</td>
<td>20</td>
</tr>
</tbody>
</table>

IDM2xx series doesn’t support Wand emulation, Laser emulation and USB HID Legacy
3.4 Keyboard Interface Control

3.4.1 Keyboard Layout (Language)

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keyboard Layout</td>
<td>SS</td>
<td>USA (QWERTY)</td>
<td>00</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>France (AZERTY)</td>
<td>01</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Germany (QWERTZ)</td>
<td>02</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>United Kingdom (QWERTY)</td>
<td>03</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Canadian French (QWERTY)</td>
<td>04</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Spain (Spanish, QWERTY)</td>
<td>05</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Sweden/Finnland (QWERTY)</td>
<td>06</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Portugal (QWERTY)</td>
<td>07</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Norway (QWERTY)</td>
<td>08</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Spain (Latin America, QWERTY)</td>
<td>09</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Italy (QWERTY)</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Netherlands (QWERTY)</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Denmark (QWERTY)</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Belgium (AZERTY)</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Switzerland-Germany (QWERTZ)</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Iceland (QWERTY)</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Japan (DOS/V)</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Czech (QWERTY)</td>
<td>17</td>
</tr>
</tbody>
</table>

Please refer to the ASCII/HEX Table listed in the Appendix to determine the HEX codes for characters, symbols, and functions to be used as preamble or postamble.

To set preamble or postamble as function key output, you must enable the “Function Key Emulation” feature first.

Keyboard Interface Message String:

<table>
<thead>
<tr>
<th>Preamble</th>
<th>Data Length</th>
<th>Prefix Symbol ID</th>
<th>Scanned Data</th>
<th>Suffix Symbol ID</th>
<th>Postamble</th>
<th>Record Suffix</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-15 characters</td>
<td>2-4 digits</td>
<td>1 or 3 characters</td>
<td>Variable length</td>
<td>1 or 3 characters</td>
<td>1-15 characters</td>
<td>1 character</td>
</tr>
</tbody>
</table>
3.4.2 Suffix, Preamble, Postamble, FNC1 Transmit, Caps Lock

### Program

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record Suffix</td>
<td>SS</td>
<td>None</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>RETURN</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>TAB</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>SPACE</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>ENTER (Numeric Key Pad)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>User defined character (1 character)</td>
<td>5, (00-7F)</td>
</tr>
<tr>
<td>Preamble</td>
<td>SS</td>
<td>None</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>1-15 characters</td>
<td>[00-7F], FIN</td>
</tr>
<tr>
<td>Postamble</td>
<td>SS</td>
<td>None</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>1-15 characters</td>
<td>[00-7F], FIN</td>
</tr>
<tr>
<td>FNC1 Symbol Char. Transmit</td>
<td>SS</td>
<td>Disable</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable</td>
<td>1</td>
</tr>
<tr>
<td>Caps Lock Control</td>
<td>SS</td>
<td>“Caps Lock Off” State</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>“Caps Lock On” State</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Auto Detect (PC/AT, PS/2, Keyboard Replacement and DOS/V Machines only)</td>
<td>2</td>
</tr>
<tr>
<td>Caps Lock Release Control</td>
<td>SS</td>
<td>“Caps Lock On, Caps Off” State</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>“Caps Lock On, Shift Off”</td>
<td>1</td>
</tr>
</tbody>
</table>

**FNC1 Symbol Character. Transmit**

When this function is enabled and the FNC1 is contained in the scanned data, the scanner transmits the FNC1 to the host. When the scanner interface is set to keyboard, the scanned code is converted to corresponding key function before it is transmitted.

The function of “Caps Lock Control” and “Key Pad Emulation” are only available for IBM PC/AT, PS/VP, PS/2 series personal computers and compatible machines. While selecting the other host interfaces, these selections don’t perform the above functions.
Please check the actual Caps Lock state in use while software application is running. If the Caps Lock state is off, select “Caps Lock Off” state, and then the Hand-held scanner will perform normal data transmission. If the Caps Lock state is on, select “Caps Lock On” state. If “Auto Detect” is selected, the Hand-held scanner will perform special transmission handshaking without changing the status of Caps Lock switch.

### 3.4.3 Delay Settings

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermessage Delay</td>
<td>SS</td>
<td>None ◆</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>01-99 (x5) msec.</td>
<td>(2 digits)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.</td>
<td></td>
</tr>
<tr>
<td>Intercharacter Delay</td>
<td>SS</td>
<td>None ◆</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>01-99 (x5) msec.</td>
<td>(2 digits)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.</td>
<td></td>
</tr>
<tr>
<td>Interfunction Delay</td>
<td>SS</td>
<td>None ◆</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>01-99 (x5) msec.</td>
<td>(2 digits)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.</td>
<td></td>
</tr>
</tbody>
</table>

**Intermessage Delay**: is a time delay between messages outputted by the Hand-held scanner. Increasing this delay will help host applications to process the incoming data on time.

**Intercharacter Delay**: is a time delay between data characters outputted by the Hand-held scanner. These two parameters are used to synchronize data communication when: 1) the data transmission speed is too fast, characters may be skipped; 2) multitasking operation system or host computers in a network may slow down the keyboard handling; 3) various notebook or desktop PC systems require different timing parameter settings. It is recommended to always add one extra unit as safety margin when adjusting these two parameters.

**Interfunction Delay**: is a time delay of between transmission and reception of each segment of the message string.

Intermessage, Intercharacter and Interfunction Delay are not available for IDM Bluetooth scanners working in SPP or HID mode.
### Function Key & Key Pad Emulation, Upper/Lower Case

#### Family Code Selection

<table>
<thead>
<tr>
<th>Function Key Emulation</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS Enable ASCII 00-31 code as keyboard function code output</td>
<td>SS</td>
<td>Ctrl-Output</td>
<td>0</td>
</tr>
<tr>
<td>Refer to Appendix – Keyboard Function Code Table for details.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Key Pad Emulation</td>
<td>SS</td>
<td>Disable key pad emulation</td>
<td>0</td>
</tr>
<tr>
<td>SS Enable numeric output as key pad (Num Lock On) output</td>
<td>SS</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Upper/Lower Case</td>
<td>SS</td>
<td>Normal case (neglect the upper/lower case control)</td>
<td>0</td>
</tr>
<tr>
<td>SS Inverse case (change all characters output to inverse case)</td>
<td>SS</td>
<td>Upper case (force all characters output as upper case)</td>
<td>2</td>
</tr>
<tr>
<td>SS Lower case (force all characters output as lower case)</td>
<td>SS</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>
3.5 Serial Interface Control

3.5.1 Suffix, Preamble, Postamble

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>STX/ETX Control</td>
<td>SS</td>
<td>Disable STX/ETX transmission ◆</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable STX/ETX transmission</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STX/ETX are two characters used to indicate the starting and ending of the total data frame transmitted via serial interface.</td>
<td></td>
</tr>
<tr>
<td>Record Suffix</td>
<td>SS</td>
<td>None</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>CR (0DH) ◆</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>LF (0AH)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>CRLF (0D0AH)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>TAB (09H)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>SPACE (20H)</td>
<td>5</td>
</tr>
<tr>
<td>Preamble</td>
<td>SS</td>
<td>None ◆</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>1-15 characters</td>
<td>[00-7F], FIN</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maximum 15-character input; scan &quot;FIN&quot; to terminate this selection.</td>
<td></td>
</tr>
<tr>
<td>Postamble</td>
<td>SS</td>
<td>None ◆</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>1-15 characters</td>
<td>[00-7F], FIN</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maximum 15-character input; scan &quot;FIN&quot; to terminate this selection.</td>
<td></td>
</tr>
<tr>
<td>FNC1 Symbol Char. Transmit</td>
<td>SS</td>
<td>Disable</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable ◆</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>When this function is enabled and the FNC1 is contained in scanned data, the scanner transmits the FNC1 to the host. A chart of the FNC1 is provided in the Appendix – Keyboard Function Code Table. When the scanner interface is set to keyboard, the scanned code is converted to corresponding key function before it is transmitted.</td>
<td></td>
</tr>
</tbody>
</table>

Serial Interface Message String (RS-232, USB COM)

<table>
<thead>
<tr>
<th>STX</th>
<th>Preamble</th>
<th>Data Length</th>
<th>Prefix Symbol ID</th>
<th>Scanned Data</th>
<th>Suffix Symbol ID</th>
<th>Postamble</th>
<th>ETX</th>
<th>Record Suffix</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 character</td>
<td>1-15 characters</td>
<td>2-4 digits</td>
<td>1 or 3 characters</td>
<td>Variable length</td>
<td>1 or 3 characters</td>
<td>1-15 characters</td>
<td>1 character</td>
<td>1 character</td>
</tr>
</tbody>
</table>
3.5.2 Delay Settings

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermessage Delay</td>
<td>SS</td>
<td>None</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>01-99 (x5) msec.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.</td>
<td></td>
</tr>
<tr>
<td>Intercharacter Delay</td>
<td>SS</td>
<td>None</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>01-99 (x5) msec.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.</td>
<td></td>
</tr>
<tr>
<td>Interfunction Delay</td>
<td>SS</td>
<td>None</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>01-99 (x5) msec.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.</td>
<td></td>
</tr>
</tbody>
</table>

**Intermessage Delay**: is a time delay between messages outputted by the Hand-held scanner. Increasing this delay will help host applications to process the incoming data on time.

**Intercharacter Delay**: is a time delay between data characters outputted by the Hand-held scanner. These two parameters are used to synchronize data communication when: 1) the data transmission speed is too fast, characters may be skipped; 2) multitasking operation system or host computers in a network may slow down the keyboard handling; 3) various notebook or desktop PC systems require different timing parameter settings. It is recommended to always add one extra unit as safety margin when adjusting these two parameters.

**Interfunction Delay**: is a time delay of between transmission and reception of each segment of the message string.

 располагают промежутки времени между сообщениями, а также между символами данных, которые выдает Hand-held scanner. Эти параметры используются для синхронизации данных при передаче информации: 1) скорость передачи данных слишком высока, некоторые символы могут быть пропущены; 2) рабочая операционная система или компьютеры в сети могут замедлить обработку данных с клавиатуры; 3) различные ноутбуки или рабочие станции PC требуют различных настроек параметров синхронизации. Рекомендуется добавлять дополнительную единицу в качестве запасного маневра при настройке этих параметров.

**Interfunction Delay**: is a time delay of between transmission and reception of each segment of the message string.

Приложение 3.5.2: Установка промежутков времени между сообщениями, а также между символами данных, которые выдает Hand-held scanner. Эти параметры используются для синхронизации данных при передаче информации: 1) скорость передачи данных слишком высока, некоторые символы могут быть пропущены; 2) рабочая операционная система или компьютеры в сети могут замедлить обработку данных с клавиатуры; 3) различные ноутбуки или рабочие станции PC требуют различных настроек параметров синхронизации. Рекомендуется добавлять дополнительную единицу в качестве запасного маневра при настройке этих параметров.

Intermessage Delay: is a time delay between messages outputted by the Hand-held scanner. Increasing this delay will help host applications to process the incoming data on time.

Intercharacter Delay: is a time delay between data characters outputted by the Hand-held scanner. These two parameters are used to synchronize data communication when: 1) the data transmission speed is too fast, characters may be skipped; 2) multitasking operation system or host computers in a network may slow down the keyboard handling; 3) various notebook or desktop PC systems require different timing parameter settings. It is recommended to always add one extra unit as safety margin when adjusting these two parameters.

Interfunction Delay: is a time delay of between transmission and reception of each segment of the message string.
3.5.3 Handshaking Protocol, ACK/NAK

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handshaking Protocol</td>
<td>SS</td>
<td>None (free running mode)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>RTS/CTS (hardware handshaking)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>ACK/NAK (software handshaking)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Xon/Xoff (software handshaking)</td>
<td>3</td>
</tr>
<tr>
<td>NAK Retry Count</td>
<td>SS</td>
<td>3 times</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>000-255 times</td>
<td>(3 digits)</td>
</tr>
<tr>
<td>ACK Indication</td>
<td>SS</td>
<td>Disable ACK Time-out Indication</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable ACK Time-out Indication</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable ACK Indication</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable ACK Indication</td>
<td>3</td>
</tr>
</tbody>
</table>

- USB COM doesn’t support RTS/CTS handshaking protocol.
- When the **RTS/CTS Hardware Handshaking** option is selected, the RTS (request to send) and CTS (clear to send) signals will be issued before normal data communication. This option is very helpful to ensure the reliability of data communication.
- When the **ACK/NAK Software Handshaking** option is selected, the Hand-held scanner waits for an ACK (acknowledge) or NAK (not acknowledge) from the host computer after each data transmission. If the NAK is received, the Hand-held scanner will re-send the data until receiving ACK. (This function is not available for IDM Bluetooth Scanners in PICO or HID Mode.)

**NAK Retry Count**

After transmitting data, the scanner expects a NAK response from the host up to the preset “Serial Response Time-out”. If the scanner doesn’t get a response, the scanner will issue an error indication and discard the data. When a NAK is received, the scanner transmits the same data again and waits for either an ACK or NAK. The scanner issues an error indication and discards the data under following two conditions:

1. After preset NAK retry counts is received within the preset serial response time-out.
2. If the preset time-out is up but the preset NAK retry counts haven’t come to the end.

The default retry counts are three times. If you program “0 times”, the scanner will not resend the data to the host when the scanner receives a NAK. The scanner will discard the data. If you program “255 times”, the scanner can receive unlimited NAKs from the host within the pre-set serial response time-out.

This function is not available for batch mode. When you enable this function in on-line mode, the out-of-range function will be disabled automatically.
Operating Instructions

IDM corded & IDM Bluetooth

ACK Indication
Disable: There’s neither LED nor beeping indication for this setting.
Enable: There’s a specific LED and beeping indication for this setting.

3.5.4 Response Time-out, Baud Rate

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serial Response Time-out</td>
<td>SS</td>
<td>None</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>200 mseconds</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>500 mseconds</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>800 mseconds</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>1 second</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>2 seconds</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>3 seconds</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>4 seconds</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>5 seconds</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>8 seconds</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>10 seconds</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>15 seconds</td>
<td>B</td>
</tr>
<tr>
<td>Baud Rate (BPS)</td>
<td>SS</td>
<td>38.4K BPS</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>19.2K BPS</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>9600 BPS</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>4800 BPS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>2400 BPS</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>1200 BPS</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>57.6K BPS</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>115.2K BPS</td>
<td>9</td>
</tr>
</tbody>
</table>

The Serial Response Time-out is a pre-defined delay time for the Hand-held scanner to wait for handshaking, acknowledgment or non-acknowledgment from the host computer.
### 3.5.5 Data Frame

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Frame</td>
<td>SS</td>
<td>8, None, 1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>8, Odd, 1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>8, Even, 1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>8, None, 2</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>7, Odd, 1</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>7, Even, 1</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>7, Space, 1</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>7, Mark, 1</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>7, None, 2</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>7, Odd, 2</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>7, Even, 2</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>7, Space, 2</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>7, Mark, 2</td>
<td>E</td>
</tr>
</tbody>
</table>
3.6 Wand/ Laser Emulation Control (IDM1xx series)

3.6.1 Output Polarity, Signal State, Margin/ Module Time

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output Polarity</td>
<td>SS</td>
<td>High level (5Vdc) on Bar (low level on Space)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Low level (0Vdc) on Bar (high level on Space)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Determine the output voltage level for both bar and space.</td>
<td></td>
</tr>
<tr>
<td>Initial Signal State</td>
<td>SS</td>
<td>High Level (5Vdc)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Low Level (0Vdc)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Determine the initial state of output voltage level.</td>
<td></td>
</tr>
<tr>
<td>Margin Time</td>
<td>SS</td>
<td>10 msec.</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>15 msec.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>20 msec.</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>25 msec.</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>30 msec.</td>
<td>4</td>
</tr>
<tr>
<td>Module Time</td>
<td>SS</td>
<td>Extremely short</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Short</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Medium</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Long</td>
<td>3</td>
</tr>
<tr>
<td>Narrow/ Wide ratio</td>
<td>SS</td>
<td>1:2</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>1:2.5</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>1:3</td>
<td>2</td>
</tr>
<tr>
<td>Code 39/ Code 128 Emulation</td>
<td>SS</td>
<td>Disable standard Code 39 emulation</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable standard Code 39 skip emulation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable standard Code 39 replace emulation</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable Full ASCII Code 39 emulation</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable Code 128 emulation</td>
<td>4</td>
</tr>
</tbody>
</table>

**Code 39 Skip**

When this option is selected, all scanned data will be translated as Standard Code 39 wand/laser emulation output. If any lower case characters are read, they will be translated to upper case characters. Any other characters that are not available in Code 39 symbology set will be skipped.

**Code 39 Replace**

Any character not normally available in the standard Code 39 symbology set will be translated as Space.
## 3.7 Symbology Reading Control

### 3.7.1 User Defined Symbol ID

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>1&lt;sup&gt;st&lt;/sup&gt; Option Code</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt; Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbol ID 1 character</td>
<td>DS</td>
<td>Code 128 (default=B)</td>
<td>00</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GS1-128 (default=C)</td>
<td>01</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>UPC-A (default=A)</td>
<td>02</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EAN-13 (default=F)</td>
<td>03</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Codabar/NW-7 (default=D)</td>
<td>04</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Code 39/Code 32 (default=G)</td>
<td>05</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Code 93 (default=H)</td>
<td>06</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Standard/Industrial 2 of 5 (default=I)</td>
<td>07</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Interleaved 2 of 5 (default=J)</td>
<td>08</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Matrix 2 of 5 (default=K)</td>
<td>09</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>China Postal Code (default=L)</td>
<td>10</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>German Postal Code (default=M)</td>
<td>11</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IATA (default=O)</td>
<td>12</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Code 11 (default=P)</td>
<td>13</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MSI/Plessey (default=R)</td>
<td>14</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>UK/Plessey (default=S)</td>
<td>15</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Telepen (default=T)</td>
<td>16</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GS1 DataBar (default=X)</td>
<td>17</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>UPC-E (default=E)</td>
<td>18</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EAN-8 (default=N)</td>
<td>19</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Trioptic Code 39 (default=W)</td>
<td>20</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>UCC Coupon Extended Code (default=Z)</td>
<td>21</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PDF417/Micro PDF417 (default=V)</td>
<td>22</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Codablock F (default=Y)</td>
<td>23</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Code 16K (default=Q)</td>
<td>24</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Code 49 (default=U)</td>
<td>25</td>
<td>(1 character)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Korea Post Code (default=a)</td>
<td>26</td>
<td>(1 character)</td>
</tr>
</tbody>
</table>
### Symbology Reading Control

#### Family Code Selection

<table>
<thead>
<tr>
<th>Symbol ID 1 character</th>
<th>Option Code</th>
<th>2nd Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbol ID 1 character</td>
<td>DS</td>
<td>QR &amp; Micro QR Code (default=b)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Data Matrix (default=c)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Australian Post (default=g)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>British Post (default=h)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Intelligent Mail (USPS 4CB/One Code) (default=j)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Japan Post (default=k)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Netherlands KIX Post (default=l)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>US Planet (default=m)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>US Postnet (default=o)</td>
</tr>
</tbody>
</table>

#### Symbology ID Transmission

<table>
<thead>
<tr>
<th>Symbology ID Transmission</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disable symbology ID transmission</td>
<td>0</td>
</tr>
<tr>
<td>Enable prefix SICK symbology ID transmission</td>
<td>1</td>
</tr>
<tr>
<td>Enable suffix SICK symbology ID transmission</td>
<td>2</td>
</tr>
<tr>
<td>Enable both prefix and suffix SICK symbology ID transmission</td>
<td>3</td>
</tr>
<tr>
<td>Enable prefix AIM symbology ID transmission</td>
<td>4</td>
</tr>
<tr>
<td>Enable suffix AIM symbology ID transmission</td>
<td>5</td>
</tr>
<tr>
<td>Enable both prefix and suffix AIM symbology ID transmission</td>
<td>6</td>
</tr>
</tbody>
</table>
### 3.7.3 Readable Bar Codes

If your application is known, you may select those known symbologies only to increase the reading speed and decrease the possibility of reading error. Furthermore, adding the “Symbology ID” into the transmitted data is also helpful to identify the specific symbology.

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Readable Symbology</td>
<td></td>
<td>Auto</td>
<td>00</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Code 128 *</td>
<td>01</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>GS1-128</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>UPC-A</td>
<td>02</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>UPC-E *</td>
<td>03</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>EAN-13 *</td>
<td>04</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>EAN-8 *</td>
<td>05</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>Codabar/NW-7 *</td>
<td>06</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>Code 39 *</td>
<td>07</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>Trioptic Code 39</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>Standard/Industrial 2 of 5</td>
<td>08</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>Matrix 2 of 5</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>Interleaved 2 of 5 *</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>China Postal Code</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>Germany Postal Code</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>Code 93 *</td>
<td>09</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>Code 11</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>MSI/Plessey</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>UK/Plessey</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>Telepen</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>GS1 DataBar (RSS-14) *</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>IATA</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>Coupon Code</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>PDF417 * /Micro PDF417</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>Codablock F</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>Code 16K</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>Code 49</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>Korea Post Code</td>
<td>21</td>
</tr>
</tbody>
</table>

Remember to scan “FIN” after you terminate this section (Cycling Scan).

If you choose “Auto” (Single Scan) you don’t need to scan “FIN”.

![ PROGRAM F_DEFAULT ]
### Symbology Reading Control

#### IDM corded & IDM Bluetooth

**Operating Instructions**

**PROGRAM**

![](barcode.png)

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Readable Symbology</td>
<td>CS</td>
<td>QR Code */ Micro QR Code *</td>
<td>A0</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>Data Matrix *</td>
<td>A1</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>Aztec Code *</td>
<td>A3</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>Australian Post</td>
<td>B0</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>British Post</td>
<td>B1</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>Intelligent Mail barcode</td>
<td>B3</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>Japanese Post</td>
<td>B4</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>KIX Post</td>
<td>B5</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>Planet Code</td>
<td>B6</td>
</tr>
<tr>
<td></td>
<td>CS</td>
<td>Postnet</td>
<td>B8</td>
</tr>
</tbody>
</table>

Above symbologies marked with * are enabled as default. When you select “Auto”, the scanner only reads those symbologies marked with *. When you set the minimum and maximum length of each symbology, please note the data length of the scanned bar code doesn’t include start/stop characters.
### 3.7.4 Code 39/Code 32

#### FAMILY CODE SELECTION

<table>
<thead>
<tr>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disable Code 39</td>
<td>0</td>
</tr>
<tr>
<td>Enable Code 39</td>
<td>1</td>
</tr>
<tr>
<td>Select Standard Code 39 as primary format</td>
<td>2</td>
</tr>
<tr>
<td>Select Full ASCII Code 39 as primary format</td>
<td>3</td>
</tr>
<tr>
<td>Select Code 32 (PARAF, Italian Pharmaceutical) as primary format</td>
<td>4</td>
</tr>
<tr>
<td>Disable start/stop symbol transmission</td>
<td>5</td>
</tr>
<tr>
<td>Enable start/stop symbol transmission</td>
<td>6</td>
</tr>
<tr>
<td>Disable Code 32 leading A transmission</td>
<td>7</td>
</tr>
<tr>
<td>Enable Code 32 leading A transmission</td>
<td>8</td>
</tr>
<tr>
<td>Disable MOD 43 check digit verification</td>
<td>9</td>
</tr>
<tr>
<td>Enable MOD 43 check digit verification</td>
<td>A</td>
</tr>
<tr>
<td>Disable check digit transmission</td>
<td>B</td>
</tr>
<tr>
<td>Enable check digit transmission</td>
<td>C</td>
</tr>
<tr>
<td>Disable Code 39 buffering</td>
<td>D</td>
</tr>
<tr>
<td>Enable Code 39 buffering</td>
<td>E</td>
</tr>
</tbody>
</table>

#### TRIOPTIC CODE SELECTION

<table>
<thead>
<tr>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disable Trioptic Code 39</td>
<td>0</td>
</tr>
<tr>
<td>Enable Trioptic Code 39</td>
<td>1</td>
</tr>
</tbody>
</table>

#### CODE 39 MIN. LENGTH

<table>
<thead>
<tr>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default (01)</td>
<td>FIN</td>
</tr>
<tr>
<td>MS 01-98</td>
<td>(2 digits)</td>
</tr>
</tbody>
</table>

Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.

#### CODE 39 MAX. LENGTH

<table>
<thead>
<tr>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default (98)</td>
<td>FIN</td>
</tr>
<tr>
<td>MS 01-98</td>
<td>(2 digits)</td>
</tr>
</tbody>
</table>

Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.

Trioptic Code 39 and Code 39 Full ASCII cannot be enabled simultaneously.
3.7.5 Code 39

The scanner offers four levels of decode security for Code 39 bar codes:

- **Level 0**: If you are experiencing misread of poorly-printed or serious out-of-spec. bar codes in level 1 please select level 0.
- **Level 1**: If you are experiencing misread of poorly-printed or out-of-spec. bar codes in level 2, please select level 1.
- **Level 2**: This is the default setting which allows the scanner to operate fastest, while providing sufficient security in decoding “in-spec” Code 39 bar codes.
- **Level 3**: If you failed to read poorly-printed or out-of-spec. bar codes in level 2, please select level 3. This is the most aggressive setting and may increase the misread.

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code 39 Security Level</td>
<td>SS</td>
<td>Level 0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 3</td>
<td>3</td>
</tr>
</tbody>
</table>
### 3.7.6 Codabar/ NW-7

#### PROGRAM

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Codabar Settings</strong></td>
<td>SS</td>
<td>Disable Codabar</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable Codabar ♦</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Select Codabar standard format ♦</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Select Codabar ABC format</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Select Codabar CLSI format</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Select Codabar CX format</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable start/stop symbol transmission ♦</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable ABCD/ABCD start/stop symbol transmission</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable abcd/abcd start/stop symbol transmission</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable ABCD/TN*E start/stop symbol transmission</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable abcd/tn*e start/stop symbol transmission</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable check digit verification ♦</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable check digit verification</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable check digit transmission ♦</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable check digit transmission</td>
<td>E</td>
</tr>
</tbody>
</table>

#### Codabar Check Digit Settings

<table>
<thead>
<tr>
<th><strong>Codabar Check Digit Settings</strong></th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS</td>
<td>Modulus 16 ♦</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>Modulus 10/weight 3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>Modulus 11</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>Modulus 10/weight 2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>7 check DR</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>Weight Modulus 11</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>Runes (Modulus 10/weight 2)</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

#### Codabar Min. Length

<table>
<thead>
<tr>
<th><strong>Codabar Min. Length</strong></th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS</td>
<td>Default (04) ♦</td>
<td>FIN (2 digits)</td>
<td></td>
</tr>
<tr>
<td>MS</td>
<td>01-98</td>
<td>(2 digits)</td>
<td></td>
</tr>
</tbody>
</table>

Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.

#### Codabar Max. Length

<table>
<thead>
<tr>
<th><strong>Codabar Max. Length</strong></th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS</td>
<td>Default (98) ♦</td>
<td>FIN (2 digits)</td>
<td></td>
</tr>
<tr>
<td>MS</td>
<td>01-98</td>
<td>(2 digits)</td>
<td></td>
</tr>
</tbody>
</table>

Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.
3.7.7 UPC-A / UPC-E

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPC-A Family Settings</td>
<td>SS</td>
<td>Disable UPC-A</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable UPC-A</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable UPC-E</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable UPC-E</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable UPC-E expansion</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable UPC-E expansion</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable UPC standardization</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable UPC standardization</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable UPC numeric system</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable UPC numeric system</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable UPC-A check digit transmission</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable UPC-A check digit transmission</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable UPC-E check digit transmission</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable UPC-E check digit transmission</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable UPC &quot;leading 1&quot; portion</td>
<td>E</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable UPC &quot;leading 1&quot; portion</td>
<td>F</td>
</tr>
</tbody>
</table>

When enable UPC-E expansion, the UPC-E decoded data will be converted to UPC-A format and affected by related settings, such as UPC standardization, UPC numeric system and UPC-A check digit transmission.

**UPC-E & EAN-8 Expansion:** Expand the 8-digit UPC-E and 8-digit ENA-8 to 12-digit UPC-A and 13-digit EAN-13.

**UPC-A Standardization:** Expand the 12-digit UPC-A to 13-digit EAN-13 with 1 zero insertion.

**UPC Lead 1 Numeric System:** To read UPC leading with the 1 numeric system, you must enable this option.

<table>
<thead>
<tr>
<th>WPC Selection (UPC/EAN/CAN)</th>
<th>Basic Length</th>
<th>Disable Check Digit</th>
<th>Disable Numeric System</th>
<th>With 2-digit Addendum</th>
<th>With 5-digit Addendum</th>
<th>Enable Standardization</th>
<th>Enable Expansion</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPC-A</td>
<td>12</td>
<td>- 1</td>
<td>- 1</td>
<td>+ 2</td>
<td>+ 5</td>
<td>+ 1</td>
<td>0</td>
</tr>
<tr>
<td>UPC-E</td>
<td>8</td>
<td>- 1</td>
<td>- 1</td>
<td>+ 2</td>
<td>+ 5</td>
<td>+ 1</td>
<td>+ 4</td>
</tr>
<tr>
<td>EAN-13</td>
<td>13</td>
<td>- 1</td>
<td>NC</td>
<td>+ 2</td>
<td>+ 5</td>
<td>NC</td>
<td>0</td>
</tr>
<tr>
<td>EAN-8</td>
<td>8</td>
<td>- 1</td>
<td>NC</td>
<td>+ 2</td>
<td>+ 5</td>
<td>NC</td>
<td>+ 5</td>
</tr>
</tbody>
</table>
### PROGRAM F_DEFAULT

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPC Supplement Settings</td>
<td>SS</td>
<td>Select UPC without supplement digits ◆</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Select UPC with only 2 supplement digits</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Select UPC with only 5 supplement digits</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Select UPC with 2/5 supplement digits</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable force supplement digits output ◆</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable force supplement digits output</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>UPC Family Addenda Separator Off ◆</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>UPC Family Addenda Separator On</td>
<td>7</td>
</tr>
<tr>
<td>UPC/ EAN Security Level</td>
<td>SS</td>
<td>Level 0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 1 ◆</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 3 ◆</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 5</td>
<td>5</td>
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<td></td>
<td>SS</td>
<td>Level 6</td>
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<tr>
<td></td>
<td>SS</td>
<td>Level 7</td>
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<td></td>
<td>SS</td>
<td>Level 8</td>
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<td></td>
<td>SS</td>
<td>Level 9</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 10 A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 11 B</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 12 C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 13 D</td>
<td></td>
</tr>
</tbody>
</table>

### UPC/EAN Security Level

The scanner offers three levels of decode security for UPC/EAN bar codes:

- **Level 0**: If you are experiencing misread of poorly-printed or out-of-spec. bar codes, especially in characters 1, 2, 7, and 8 in level 1, please select level 0. Selection of this security level may significantly impair the decoding ability of the scanner.

- **Level 1**: This is the default setting which allows the scanner to operate fastest, while providing sufficient security in decoding “in-spec” UPC/EAN bar codes.
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- **Level 2**: If you are experiencing misread of poorly-printed, soiled or damage bar codes in level 1, please select level 2. This is the most aggressive setting and may increase the misread.

**Supplement Scan Voting**
The Supplement Scan Voting is the number of times the same UPC/EAN with 2/5 supplement digits has to be decoded before it is transmitted. It is helpful when decoding a mix of UPC/EAN symbols with and without supplement digits. This function is effective when you select UPC/EAN with only 2 supplement digits, UPC/EAN with only 5 supplement digits or UPC/EAN with 2/5 supplement digits. The default value is Level 3. When you select a higher level, it may impact the reading speed on poorly-printed, low contrast or damaged barcode labels.
### 3.7.8 EAN Code

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAN Settings</td>
<td>SS</td>
<td>Disable EAN-13</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable EAN-13</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable EAN-8</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable EAN-8</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable EAN-8 expansion</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable EAN-8 expansion</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable EAN-13 check digit transmission</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable EAN-13 check digit transmission</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable EAN-8 check digit transmission</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable EAN-8 check digit transmission</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable ISBN/ISSN Conversion reading check</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable ISBN/ISSN Conversion reading check</td>
<td>B</td>
</tr>
<tr>
<td>EAN Supplement Settings</td>
<td>SS</td>
<td>Select EAN without supplement digits</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Select EAN with only 2 supplement digits</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Select EAN with only 5 supplement digits</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Select EAN with 2/5 supplement digits</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable force supplement digits output</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable force supplement digits output</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>EAN Addenda Separator Off</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>EAN Addenda Separator On</td>
<td>7</td>
</tr>
<tr>
<td>Supplement Scan Vorting</td>
<td>SS</td>
<td>None</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 6</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 7</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 8</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 9</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 10</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 11</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 12</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 13</td>
<td>D</td>
</tr>
</tbody>
</table>
Supplement Scan Voting
The Supplement Scan Voting is the number of times the same UPC/EAN with 2/5 supplement digits has to be decoded before it is transmitted. It is helpful when decoding a mix of UPC/EAN symbols with and without supplement digits. This function is effective when you select UPC/EAN with only 2 supplement digits, UPC/EAN with only 5 supplement digits or UPC/EAN with 2/5 supplement digits. The default value is Level 3. When you select a higher level, it may impact the reading speed on poorly-printed, low contrast or damaged barcode labels.

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAN Supplement Control</td>
<td>SS</td>
<td>Disable all specific prefix supplement digital output</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable all specific prefix supplement digital output</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable 491 Supplement Digit Output</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable 978/979 Supplement Digit Output</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable 977 Supplement Digit Output</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable 378/379 Supplement Digit Output</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable 414/419 Supplement Digit Output</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable 434/439 Supplement Digit Output</td>
<td>7</td>
</tr>
<tr>
<td>UPC/ EAN Security Level</td>
<td>SS</td>
<td>Level 0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 2</td>
<td>2</td>
</tr>
</tbody>
</table>

EAN Supplement Control
If you select EAN with only 2 or 5 or 2/5 supplement digits and enable 491 prefix supplement digit output, the scanner will transmit EAN with 2, or 5 or 2/5 supplement digits bar codes starting with 491 prefix. The EAN without supplement digit will not be transmitted.

If you select EAN with only 2 or 5 or 2/5 supplement digits and enable the other except 491 prefix supplement digit output, the scanner will transmit EAN with 2, or 5, or 2/5 supplement digits bar codes starting with specific prefix. The EAN without supplement digit will be transmitted.
UPC/EAN Security Level

The scanner offers three levels of decode security for UPC/EAN bar codes:

- **Level 0:** If you are experiencing misread of poorly-printed or out-of-spec. bar codes, especially in characters 1, 2, 7, and 8 in level 1, please select level 0. Selection of this security level may significantly impair the decoding ability of the scanner.

- **Level 1:** This is the default setting which allows the scanner to operate fastest, while providing sufficient security in decoding “in-spec” UPC/EAN bar codes.

- **Level 2:** If you are experiencing misread of poorly-printed, soiled or damage bar codes in level 1, please select level 2. This is the most aggressive setting and may increase the misread.

3.7.9 UCC Coupon Extended Code

When UCC coupon extended code function is enabled, scanner decodes UPC-A barcodes starting with digit “5”, EAN-13 barcodes starting with digit “99” and GS1-128 Coupon Codes. UPC-A, EAN-13 and EAN-128 must be enabled to scan all types of Coupon Codes.
3.7.10 IATA & Interleaved 2 of 5

### Program

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IATA Settings</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>Disable IATA ◆</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>Enable IATA</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>Select 15-digit fixed length IATA checking ◆</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>Select variable length IATA</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>Disable check digit verification ◆</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>Enable check digit automatic verification</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>Enable S/N checking digit verification only</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>Enable CPN checking digit verification only</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>Enable CPN, Airline and S/N check digit verification</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>Disable check digit transmission ◆</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>Enable check digit transmission</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>Disable start/stop symbol transmission ◆</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>Enable start/stop symbol transmission</td>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Interleaved 2 of 5 Settings</strong></th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS</td>
<td>Disable Interleaved 2 of 5</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>Enable Interleaved 2 of 5 ◆</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>Select Interleaved 2 of 5 as primary format ◆</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>Select German Postal Code as primary format</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>No check character ◆</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>Validate USS check digit</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>Validate OPCC check digit</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>Disable check digit transmission ◆</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>SS</td>
<td>Enable check digit transmission</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>
3.7.11 Code 25 Family

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code 25 Settings</td>
<td>SS</td>
<td>Disable Standard/Industrial 2 of 5</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable Standard/Industrial 2 of 5</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable Matrix 2 of 5</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable Matrix 2 of 5</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable China Postal Code</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable China Postal Code</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable check digit verification</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable check digit verification</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable check digit transmission</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable check digit transmission</td>
<td>9</td>
</tr>
</tbody>
</table>

**Code 25 Family Min. Length**

<table>
<thead>
<tr>
<th></th>
<th>SS</th>
<th>Default (04)</th>
<th>FIN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MS</td>
<td>01-98</td>
<td>(2 digits)</td>
</tr>
</tbody>
</table>

Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.

**Code 25 Family Max. Length**

<table>
<thead>
<tr>
<th></th>
<th>SS</th>
<th>Default (98)</th>
<th>FIN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MS</td>
<td>01-98</td>
<td>(2 digits)</td>
</tr>
</tbody>
</table>

Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.

For Code25 setting, we recommend you to select only one type of Code 25 or set the maximum/minimum bar code length. To decode all types of Code 25 or to variable length of Code 25 will increase the possibility of reading error.
### 3.7.12 Code 11 & Code 93

#### Family Code Selection

<table>
<thead>
<tr>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disable Code 11</td>
<td>0</td>
</tr>
<tr>
<td>Enable Code 11</td>
<td>1</td>
</tr>
<tr>
<td>Disable check digit verification</td>
<td>2</td>
</tr>
<tr>
<td>Select 1-check digit verification</td>
<td>3</td>
</tr>
<tr>
<td>Select 2-check digit verification</td>
<td>4</td>
</tr>
<tr>
<td>Disable check digit transmission</td>
<td>5</td>
</tr>
<tr>
<td>Enable check digit transmission</td>
<td>6</td>
</tr>
</tbody>
</table>

#### Code 11 Settings

<table>
<thead>
<tr>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS</td>
<td>Disable Code 11</td>
<td>0</td>
</tr>
<tr>
<td>SS</td>
<td>Enable Code 11</td>
<td>1</td>
</tr>
<tr>
<td>SS</td>
<td>Disable check digit verification</td>
<td>2</td>
</tr>
<tr>
<td>SS</td>
<td>Select 1-check digit verification</td>
<td>3</td>
</tr>
<tr>
<td>SS</td>
<td>Select 2-check digit verification</td>
<td>4</td>
</tr>
<tr>
<td>SS</td>
<td>Disable check digit transmission</td>
<td>5</td>
</tr>
<tr>
<td>SS</td>
<td>Enable check digit transmission</td>
<td>6</td>
</tr>
</tbody>
</table>

#### Code 11 Min. Length

<table>
<thead>
<tr>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS</td>
<td>Default (04)</td>
<td>FIN</td>
</tr>
<tr>
<td>MS</td>
<td>01-98</td>
<td>(2 digits)</td>
</tr>
</tbody>
</table>

Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.

#### Code 11 Max. Length

<table>
<thead>
<tr>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS</td>
<td>Default (98)</td>
<td>FIN</td>
</tr>
<tr>
<td>MS</td>
<td>01-98</td>
<td>(2 digits)</td>
</tr>
</tbody>
</table>

Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.

#### Code 39 Settings

<table>
<thead>
<tr>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disable Code 39</td>
<td>0</td>
</tr>
<tr>
<td>Enable Code 39</td>
<td>1</td>
</tr>
<tr>
<td>Disable check digit transmission</td>
<td>2</td>
</tr>
<tr>
<td>Enable check digit transmission</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Code 39 Min. Length

<table>
<thead>
<tr>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS</td>
<td>Default (01)</td>
<td>FIN</td>
</tr>
<tr>
<td>MS</td>
<td>01-98</td>
<td>(2 digits)</td>
</tr>
</tbody>
</table>

Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.

#### Code 39 Max. Length

<table>
<thead>
<tr>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS</td>
<td>Default (98)</td>
<td>FIN</td>
</tr>
<tr>
<td>MS</td>
<td>01-98</td>
<td>(2 digits)</td>
</tr>
</tbody>
</table>

Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.
### 3.7.13 MSI/ Plessey

#### MSI/ Plessey Settings

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSI/ Plessey Settings</td>
<td>SS</td>
<td>Disable MSI/Plessey</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable MSI/Plessey</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Select MOD 10 check digit</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Select MOD 10-10 check digit</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Select MOD 11-10 check digit</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable check digit transmission</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable check digit transmission</td>
<td>6</td>
</tr>
</tbody>
</table>

#### MSI/ Plessey Min. Length

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSI/ Plessey Min. Length</td>
<td>SS</td>
<td>Default (04)</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>01-98</td>
<td>(2 digits)</td>
</tr>
</tbody>
</table>

Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.

#### MSI/ Plessey Max. Length

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSI/ Plessey Max. Length</td>
<td>SS</td>
<td>Default (98)</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>01-98</td>
<td>(2 digits)</td>
</tr>
</tbody>
</table>

Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.
3.7.14 Code 128

### Code 128 Security Level
The scanner offers two levels of decode security for Code128 bar codes:

- **Level 0**: If you are experiencing misread of poor-printed or out-of-spec. bar codes in level 1, please select level 0.
- **Level 1**: This is the default setting which allows the scanner to operate fastest, while providing sufficient security in decoding "in-spec." Code 128 bar codes.

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code 128 Settings</td>
<td>SS</td>
<td>Disable Code 128</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable Code 128 🟢</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>ISBT Concatenation Off 🟢</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>ISBT Concatenation On</td>
<td>3</td>
</tr>
<tr>
<td>Code 128 Min. Length</td>
<td>SS</td>
<td>Default (01) 🟢</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>01-98</td>
<td>(2 digits)</td>
</tr>
</tbody>
</table>

Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.

| Code 128 Max. Length  | SS    | Default (98) 🟢    | FIN         |
|                       | MS    | 01-98               | (2 digits)  |

Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.

| Code 128 Security Level | SS    | Level 0             | 0           |
|                        | SS    | Level 1 🟢           | 1           |
3.7.15 GS1-128

### PROGRAM

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>GS1-128 Family Setting</td>
<td>SS</td>
<td>Disable GS1-128 special function ◆</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable GS1-128 special function</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable First FNC1 transmission ◆</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable First FNC1 convert to “]C1” and transmission</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable Application Identifier output ◆</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable Application Identifier output</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable Application Identifier output with additional “()”</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable “DD=00” transmission when AI data field contains the date</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable “DD=00” transmission when AI data field contains the date</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable a dot insert in the decimal point position ◆</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable a dot inset in the decimal point position</td>
<td>A</td>
</tr>
<tr>
<td>GS1-128 Min. Length</td>
<td>SS</td>
<td>Default (01) ◆</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>01-Maximum</td>
<td>(2 digits)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.</td>
<td></td>
</tr>
<tr>
<td>GS1-128 Max. Length</td>
<td>SS</td>
<td>Default (98) ◆</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>98-Minimum</td>
<td>(2 digits)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.</td>
<td></td>
</tr>
<tr>
<td>GS1-128 Edition Mode</td>
<td>SS</td>
<td>None ◆</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>1 – 10 Application Identifier (AIs) and Prefix, Suffix input</td>
<td>[AI table][1],[GS1-128 ASCII table][2],[FIN]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Please scan the AI barcodes and ASCII barcodes in your desired output sequence.</td>
<td></td>
</tr>
<tr>
<td>GS1-128 Edition Mode</td>
<td>SS</td>
<td>If the application identifier set in edition mode is not found, only the Header Terminator Separator is output ◆</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>If the application identifier set in edition mode is not found, the Header Terminator Separator is not output.</td>
<td>1</td>
</tr>
</tbody>
</table>

If option 1 is chosen, the following settings can be applied:

| Output Control | if the application identifier set in edition mode is not found, only the Header Terminator Separator is output ◆ | 0 |
|               | if the application identifier set in edition mode is not found, the Header Terminator Separator is not output. | 1 |
|               | If data was completely un-match, do not output original data | 2 |
|               | If data was completely un-match, output original data ◆ | 3 |

---

1 For the Application Identifier (AI) table see chapter 5.6 on page 103
2 For the GS1-128 ASCII table see chapter 5.5 on page 100
**Symbology Reading Control**

**IDM corded & IDM Bluetooth**

---

### PROGRAM

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GS1-128 Element String</strong></td>
<td>SS None ◆</td>
<td>FIN</td>
</tr>
<tr>
<td><strong>Separator</strong></td>
<td>SS User defined character (1~2 characters)</td>
<td>[GS1-128 ASCII Table]¹, [FIN]</td>
</tr>
<tr>
<td><strong>GS1-128 Data Separator</strong></td>
<td>SS None ◆</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS User defined character (1~2 characters)</td>
<td>[GS1-128 ASCII Table]¹, [FIN]</td>
</tr>
<tr>
<td><strong>GS1-128 FNC1 since the second transmission setting</strong></td>
<td>SS None ◆</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>MS GS (1DH)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MS User defined character (1~2 characters)</td>
<td>2, [GS1-128 ASCII Table]¹, [FIN]</td>
</tr>
<tr>
<td><strong>GS1-128 Error Output Setting</strong></td>
<td>SS Anything doesn’t output the error when Code 128 is converted into GS1-128 ◆</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS When Code 128 makes an error converting into GS1-128, it outputs as Code 128</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>When the decode is not done as GS1-128</td>
<td></td>
</tr>
<tr>
<td><strong>GS1 DataBar Output Control</strong></td>
<td>SS Disable GS1 DataBar (RSS-14) output application identifier with additional “()” ◆</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS Enable GS1 DataBar (RSS-14) output application identifier with additional “()”</td>
<td>1</td>
</tr>
<tr>
<td><strong>Record Suffix</strong></td>
<td>SS None ◆</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS RETURN</td>
<td>5, [GS1-128 ASCII: 94]¹, [FIN]</td>
</tr>
<tr>
<td></td>
<td>SS TAB</td>
<td>5, [GS1-128 ASCII: 8C]¹, [FIN]</td>
</tr>
<tr>
<td></td>
<td>SS SPACE</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS User defined character (1 character)</td>
<td>5, [GS1-128 ASCII Table]¹, [FIN]</td>
</tr>
</tbody>
</table>

---

GS1-128 special function list

Scanning this barcode shows the GS1-128 special function settings.

---

¹ For the GS1-128 ASCII table see chapter 5.5 on page 100

---

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### 3.7.16 UK/ Plessey

#### PROGRAM

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK/ Plessey Settings</td>
<td>SS</td>
<td>Disable UK/Plessey ◆</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable UK/Plessey</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Select UK/Plessey Standard Format ◆</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Select UK/Plessey CLSI Format</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable Convert X to A-F ◆</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable Convert X to A-F</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable check digit transmission ◆</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable check digit transmission</td>
<td>7</td>
</tr>
<tr>
<td>UK/ Plessey Min. Length</td>
<td>SS</td>
<td>Default (04) ◆</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>01-98</td>
<td>(2 digits)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.</td>
<td></td>
</tr>
<tr>
<td>UK/ Plessey Max. Length</td>
<td>SS</td>
<td>Default (98) ◆</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>01-98</td>
<td>(2 digits)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.</td>
<td></td>
</tr>
</tbody>
</table>
### 3.7.17 Telepen

**Program**

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telepen Settings</td>
<td>SS</td>
<td>Disable Telepen</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable Telepen</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Select Telepen Numeric mode</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Select Telepen Full ASCII mode</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable check digit transmission</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable check digit transmission</td>
<td>5</td>
</tr>
</tbody>
</table>

**Telepen Settings SS**

Telepen Settings SS Disable Telepen

**Telepen Min. Length**

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SS</td>
<td>Default (04)</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>01 - 98</td>
<td>(2 digits)</td>
</tr>
</tbody>
</table>

Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.

**Telepen Max. Length**

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SS</td>
<td>Default (98)</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>01 - 98</td>
<td>(2 digits)</td>
</tr>
</tbody>
</table>

Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.
### 3.7.18 GS1 DataBar

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>GS1 DataBar Settings</td>
<td></td>
<td>Disable GS1 DataBar (RSS-14)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable GS1 DataBar (RSS-14)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable GS1 DataBar Limited</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable GS1 DataBar Limited</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable GS1 DataBar Expanded</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable GS1 DataBar Expanded</td>
<td>5</td>
</tr>
<tr>
<td>GS1 DataBar Min. Length</td>
<td>SS</td>
<td>Default (04)</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>01-74</td>
<td>(2 digits)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Only available for Expanded GS1 DataBar.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scan 2 digits from the option code chart</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>in the Appendix; then the scanner will</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>terminate this selection automatically.</td>
<td></td>
</tr>
<tr>
<td>GS1 DataBar Max. Length</td>
<td>SS</td>
<td>Default (74)</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>01-74</td>
<td>(2 digits)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Only available for Expanded GS1 DataBar.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scan 2 digits from the option code chart</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>in the Appendix; then the scanner will</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>terminate this selection automatically.</td>
<td></td>
</tr>
</tbody>
</table>
### 3.7.19 Composite Codes, Codablock F, PDF417, Micro PDF417

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Composite Codes</td>
<td>SS</td>
<td>Disable composite codes</td>
<td>0</td>
</tr>
<tr>
<td>Settings</td>
<td>SS</td>
<td>Enable composite codes</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>UPC Composite Mode: UPC never linked</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>UPC Composite Mode: UPC always linked</td>
<td>3</td>
</tr>
</tbody>
</table>

If “UPC Composite Mode: UPC never linked” is selected, UPC barcodes are transmitted whether Micro PDF417 symbol is detected or not.

If “UPC Composite Mode: UPC always linked” is selected, UPC barcodes are only transmitted when the Micro PDF417 is detected.

| Codablock F Settings  | SS   | Disable | 0           |
|                       | SS   | Enable  | 1           |

| PDF417/ Micro PDF417  Settings | SS   | Disable PDF417 | 0           |
|                             | SS   | Enable PDF417 | 1           |
|                             | SS   | Disable MicroPDF417 | 2           |
|                             | SS   | Enable MicroPDF417 | 3           |
### 3.7.20 Code 16K & Code 49

#### PROGRAM

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code 16K Settings</td>
<td>SS</td>
<td>Disable Code 16K</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable Code 16K</td>
<td>1</td>
</tr>
<tr>
<td>Code 16K Min. Length</td>
<td>SS</td>
<td>Default (01)</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>001-160</td>
<td>(3 digits)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scan 3 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.</td>
<td></td>
</tr>
<tr>
<td>Code 16K Max. Length</td>
<td>SS</td>
<td>Default (160)</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>001-160</td>
<td>(3 digits)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scan 3 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.</td>
<td></td>
</tr>
<tr>
<td>Code 49 Settings</td>
<td>SS</td>
<td>Disable Code 49</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable Code 49</td>
<td>1</td>
</tr>
<tr>
<td>Code 49 Min. Length</td>
<td>SS</td>
<td>Default (01)</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>01-81</td>
<td>(2 digits)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.</td>
<td></td>
</tr>
<tr>
<td>Code 49 Max. Length</td>
<td>SS</td>
<td>Default (81)</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>01-81</td>
<td>(2 digits)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scan 2 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.</td>
<td></td>
</tr>
</tbody>
</table>
### 3.7.21 QR Code

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>QR Code Settings</td>
<td>SS</td>
<td>Disable QR Code</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable QR Code</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable MicroQR Code</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable MicroQR Code</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable QR Code Append</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable QR Code Append</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable QR Code Inverse Reading</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable QR Code Inverse Reading</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Auto detect QR Code Inverse Reading</td>
<td>8</td>
</tr>
</tbody>
</table>

| QR Code Min. Length   | SS      | Default (0001)                       | FIN         |
|                       | MS      | 0001-7089                            | (4 digits)  |
|                       |         | Scan 4 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically. |

| QR Code Max. Length   | SS      | Default (7089)                       | FIN         |
|                       | MS      | 0001-7089                            | (4 digits)  |
|                       |         | Scan 4 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically. |
### 3.7.22 Data Matrix

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Matrix Settings</td>
<td>SS</td>
<td>Disable Data Matrix</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable Data Matrix</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable Data Matrix Inverse Reading</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable Data Matrix Inverse Reading</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Auto Detect Data Matrix Inverse Reading</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable Data Matrix Mirror Images</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable Data Matrix Mirror Images</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Auto Detect Data Matrix Mirror Images</td>
<td>9</td>
</tr>
<tr>
<td>Data Matrix Min. Length</td>
<td>SS</td>
<td>Default (0001)</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>0001-3116</td>
<td>(4 digits)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scan 4 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.</td>
<td></td>
</tr>
<tr>
<td>Data Matrix Max. Length</td>
<td>SS</td>
<td>Default (3116)</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>0001-3116</td>
<td>(4 digits)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scan 4 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.</td>
<td></td>
</tr>
</tbody>
</table>
### 3.7.23 Aztec Code

#### PROGRAM

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aztec Code Settings</strong></td>
<td>SS</td>
<td>Disable Aztec Code</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable Aztec Code</td>
<td>1</td>
</tr>
<tr>
<td><strong>Aztec Code Min. Length</strong></td>
<td>SS</td>
<td>Default (0001)</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>0001-3832</td>
<td>(4 digits)</td>
</tr>
<tr>
<td>Scan 4 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aztec Code Max. Length</strong></td>
<td>SS</td>
<td>Default (3832)</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>0001-3832</td>
<td>(4 digits)</td>
</tr>
<tr>
<td>Scan 4 digits from the option code chart in the Appendix; then the scanner will terminate this selection automatically.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 3.7.24 Australian Post, US Planet, US Postnet, British Post, Japan Post

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian Post Settings</td>
<td>SS</td>
<td>Disable Australian Post</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable Australian Post</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Raw format Output</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Numeric Encoding Output (N Encoding Table)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Alphanumeric Encoding Output (C Encoding Table)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Auto-discriminate Output (Combination C &amp; N Encoding Table)</td>
<td>5</td>
</tr>
<tr>
<td>US Planet Settings</td>
<td>SS</td>
<td>Disable US Planet</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable US Planet</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable Check Digit Transmission</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable Check Digit Transmission</td>
<td>3</td>
</tr>
<tr>
<td>US Postnet Settings</td>
<td>SS</td>
<td>Disable US Postnet</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable US Postnet</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable Check Digit Transmission</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable Check Digit Transmission</td>
<td>3</td>
</tr>
<tr>
<td>British Post Settings</td>
<td>SS</td>
<td>Disable British Post</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable British Post</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable Check Digit Transmission</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable Check Digit Transmission</td>
<td>3</td>
</tr>
<tr>
<td>Japan Post Settings</td>
<td>SS</td>
<td>Disable Japan Post</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable Japan Post</td>
<td>1</td>
</tr>
</tbody>
</table>

**Australian Post Setting**
Auto-discriminate output option increases the risk of misread because the encoded data format does not specify the encoding table used for encoding.
### 3.7.25 Netherland KIX Code, Intelligent Mail & Korea Post Code

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Netherlands KIX Code Settings</td>
<td>SS</td>
<td>Disable Netherlands KIX Code ◆</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable Netherlands KIX Code</td>
<td>1</td>
</tr>
<tr>
<td>Intelligent Mail Settings</td>
<td>SS</td>
<td>Disable Intelligent Mail ◆</td>
<td>0</td>
</tr>
<tr>
<td>(USPS 4CB/ One Code)</td>
<td>SS</td>
<td>Enable Intelligent Mail</td>
<td>1</td>
</tr>
<tr>
<td>Korea Post Code Settings</td>
<td>SS</td>
<td>Disable Korea Post Code ◆</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable Korea Post Code</td>
<td>1</td>
</tr>
</tbody>
</table>

*Length fixed in 6 characters.*
3.7.26 DPM Code

If you own a DPM model (IDMxxx-x2xx) you can enable or disable the DPM code reading functionality by scanning one of the following barcode commands.

Enable DPM functionality

Disable DPM functionality

In order to verify if the DPM functionality is enabled, please scan the following barcode. If you can read this barcode, the DPM functionality is enabled.

Test1

IDM Corded scanners: if you scan “factory default” and afterwards disconnect the scanner from your host device, the DPM functionality will be disabled automatically.
IDM Bluetooth scanners: if you take out the battery the DPM functionality will be disabled automatically.
If you disable the DPM functionality the performance of reading printed 1D and 2D codes will be improved.
3.8 Operation Mode

3.8.1 Corded scanners (IDMxx0 series)

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1D scanner (IDM1x0)</td>
<td>2D scanner (IDM2x0)</td>
</tr>
<tr>
<td>Operation Mode</td>
<td>Low Power mode (Low power triggering)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Trigger mode (External triggering)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Presentation mode (Auto detection)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Alternative mode (Periodic power off)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Flash mode</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Force mode (Continued power on)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Toggle mode (Repeat reading)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Diagnostic mode (Test reading)</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Level mode (Auto power off)</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Multiple Read Mode</td>
<td>-</td>
</tr>
</tbody>
</table>

**Low Power Mode (Low Power Triggering)**
The scanner goes into idle state after scanning the barcode. You must press the trigger to wake up the scanner for operation. It is very helpful for mobile data collection and applications, which are concerned with power saving.

**Trigger Mode (External Triggering)**
The scanner goes into standby state after scanning the barcode. You must press the trigger to turn on the light source of the scanner before scanning the barcode.

**Presentation Mode (Auto Detection)**
Presentation mode uses ambient light to detect the barcodes. The light source is off until the scanner detects an image which is similar to a barcode. Then the light source turns on automatically to read the barcode. If the light level in the room is not high enough, Presentation Mode may not work properly. You can choose different level of “Presentation Sensitivity” to meet your application’s requirements. (Please refer to the setting of “Presentation Sensitivity” on page 79.)

**Alternative Mode (Periodic Power Off)**
The scanner keeps the light source of the scanner turned on till the pre-defined light source on time is up. After the scanner turns off the light source, you must press the trigger to turn on the light source again. After each good read, the timer counter of “Light Source on Time” is reset. For you do not have to press the trigger frequently it is very convenient for multiple scanning.
Flash Mode (Pulse Driven Reading)

The scanner flashes the light source of the scanner without using the trigger. If the scanner detects an image which is similar to a barcode, the scanner forces on the light source automatically and scans the barcode. Flash Duty Cycle adjustment can change the frequency of the blinking.

Force Mode (Continued Power On)

The light source of the scanner is forced on for continued operation without pressing the trigger button. This mode is convenient for high speed bar code reading.

Toggle Mode (Repeat Reading)

The toggle mode is very similar to the Alternative Mode but without the pre-defined light source on time concern. You must press the trigger to turn on the light source of the scanner to scan. The scanner keeps the light source turned on until you press the trigger again.

Diagnostic Mode (Test Reading)

This operation mode is specifically designed for diagnostic purposes. When this operation mode is selected, the light source of the scanner is force on without regard for other programmable parameters, such as reread delay, redundancy, and so forth.

Level Mode (Auto Power Off)

When this operation mode is selected, the scanner continues to turn on the light source of the scanner before a good read or pre-defined “Light Source on Time”. If the scanner decodes a barcode successfully, it turns off the light source immediately. After the scanner turns off the light source, you must press the trigger to turn on the light source again. If there is no scanning operation performed during the pre-defined light source on time, the scanner enters the idle state after the pre-defined light source on time is up.

3.8.2 Bluetooth scanners (IDMxx1 series)

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation Mode</td>
<td>SS</td>
<td>Trigger mode</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Presentation mode</td>
<td>2</td>
</tr>
</tbody>
</table>
## 3.9 Operation Control

### 3.9.1 Buzzer, Power On LED, Good read indicator, Vibrator Control

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buzzer Tone Adjust</td>
<td>SS</td>
<td>Buzzer tone – mute</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Buzzer tone – low</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Buzzer tone – medium</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Buzzer tone – high</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Buzzer tone - extremely high</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Power-on beep</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>No power-on beep</td>
<td>6</td>
</tr>
<tr>
<td>Power On Indicator</td>
<td>SS</td>
<td>Disable (LED off)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>LED steady on</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>LED flash</td>
<td>2</td>
</tr>
<tr>
<td>Good Read Indicator</td>
<td>SS</td>
<td>Disable</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable</td>
<td>1</td>
</tr>
<tr>
<td>Vibrator Control</td>
<td>SS</td>
<td>Disable</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable</td>
<td>1</td>
</tr>
</tbody>
</table>

IDM120 series doesn’t support this function.

Only available for industrial series (IDMx6x).
### 3.9.2 Dollar Sign, Redundancy, 1D Code Inverse Reading

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dollar Sign Control</td>
<td>SS</td>
<td>Dollar sign output as “$” ✶</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Dollar sign output as “¥”</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Dollar sign output as “€”</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Dollar sign output as “£”</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Dollar sign output as “¢”</td>
<td>4</td>
</tr>
<tr>
<td>Redundancy</td>
<td>SS</td>
<td>None</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 1 ✶</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 5</td>
<td>5</td>
</tr>
</tbody>
</table>

The Redundancy is the number of times the same barcode has to be decoded before it is transmitted. (To prevent potential misreading.)

<table>
<thead>
<tr>
<th>1D Barcode Inverse Reading</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SS</td>
<td>Disable ✶</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable</td>
<td>1</td>
</tr>
</tbody>
</table>
3.9.3 Reread Delay, Good Read Delay Control

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reread Delay (Double Scan Verification)</td>
<td>SS</td>
<td>Disable</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Immediate time out</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Short time out</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Medium time out</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Long time out</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Force verification</td>
<td>5</td>
</tr>
<tr>
<td>Good Read Delay</td>
<td>SS</td>
<td>None</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>200 msec.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>500 msec.</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>1 sec.</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>1.5 sec.</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>2 sec.</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>3 sec.</td>
<td>6</td>
</tr>
</tbody>
</table>

**The Reread Delay (Double Scan Verification)**

This function is designed to inhibit the Hand-held scanner from reading the same bar code label twice in pre-defined short duration. Force Verification will not allow the reading of the same bar code twice.

IDM1x0: The Reread Delay function is only available when using the Hands-free stand.

IDM2x0: The Reread Delay function is only available in Multiple Read mode or when using the Hands-free stand.

**Good Read Delay**

This Good Read Delay is the minimum amount of time before the Hand-held scanner can read another barcode.
3.9.4 Light Source On Time, Hands Free Time-out

### PROGRAM

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light Source On Time</td>
<td>SS</td>
<td>Short (◆ for IDM corded)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Medium</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Long (◆ for IDM Bluetooth)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Extremely long</td>
<td>3</td>
</tr>
<tr>
<td>Hands-free Time Out</td>
<td>SS</td>
<td>Short◆</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Medium</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Long</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Extremely long</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable</td>
<td>4</td>
</tr>
<tr>
<td>Good Read Duration</td>
<td>SS</td>
<td>Short◆</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Medium</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Long</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Extremely long</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Extremely short</td>
<td>4</td>
</tr>
<tr>
<td>Time Delay to Low Power Mode</td>
<td>SS</td>
<td>1 sec.</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>3 sec.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>5 sec.</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>7 sec.</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>9 sec.</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Immediate◆</td>
<td>5</td>
</tr>
</tbody>
</table>

**Light Source On Time**
This function is a pre-defined light source time out counter for Alternative Mode, Presentation Mode and Level Mode. The scanner keeps the light source on till the pre-defined light source on time is up.

**Hands-free Time Out**
The Presentation Mode, Force Mode and Flash Mode are referred to as “Hands-free” mode. The Hands-free mode will be automatically changed to manual trigger mode when you press the trigger. You can remain the scanner in manual trigger mode by setting the Hands Free Time-Out. Once the time-out duration is up (if there isn’t any trigger operation), the imager will revert to the original hands free mode.

**Time Delay to Low Power Mode**
This function sets the time for the scanner to enter low power mode after any scanning activity. For corded scanners this setting is only available if the scanner is in low power mode.
3.9.5  Presentation Auto-Sense, Sensitivity

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation Auto-sense</td>
<td>SS</td>
<td>Disable</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable</td>
<td>1</td>
</tr>
<tr>
<td>Presentation Sensitivity</td>
<td>SS</td>
<td>Level 1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 3</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 4</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 5</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 6</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Level 7</td>
<td>6</td>
</tr>
</tbody>
</table>

**Presentation Auto sense**

When enabling the Presentation Auto-sense, the scanner can switch automatically from hand-held to hands-free scanning when working with the Hands-free stand or cradle.

**Presentation Sensitivity**

The presentation sensitivity is used to configure the sensitivity level when the scanner is set as presentation mode. The higher level means higher sensitivity for detecting the barcode.
3.9.6 Presentation Control, Scan Rate, Flash Duty

### PROGRAM

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>1D Corded (IDM1x0)</th>
<th>2D Corded (IDM2x0)</th>
<th>1D BT (IDM1x1)</th>
<th>2D BT (IDM2x1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation Control</td>
<td>SS</td>
<td>Presentation mode</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Flash mode</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Force mode</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

| Scan Rate Control     | SS   | Dynamic             | 0                   | -                 | 0              | -              |

| Flash Duty Cycle       | SS   | 1/2 duty cycle      | 0                   | -                 | -              | -              |
|                       | SS   | 2/3 duty cycle      | 1                   | -                 | -              | -              |
|                       | SS   | 3/4 duty cycle      | 2                   | -                 | -              | -              |
|                       | SS   | 4/5 duty cycle      | 3                   | -                 | -              | -              |

### Presentation Control
When the scanner is placed on the Hands-free stand, the scanner will be switched from hand-held scanning to hands-free scanning automatically. Three hands-free scanning modes are available. You are recommended to use flash mode or force mode while under insufficient ambient light.

### Scan Rate Control
The scanner will have better motion tolerance when you select “Fixed” scan rate. It’s suitable for applications which need higher motion tolerance on the move. But this may impact to the reading distance.

### Flash Duty Cycle
The Flash Duty Cycle is designed to control the flashing frequency of the light source.
3.9.7 Illumination Control, Presentation Background Lighting

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1D Corded (IDM1x0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2D Corded (IDM2x0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1D BT (IDM1x1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2D BT (IDM2x1)</td>
<td></td>
</tr>
<tr>
<td>Illumination Control</td>
<td>SS</td>
<td>Disable</td>
<td>- 0 - 0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable</td>
<td>- 1 - 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not available for presentation, force and diagnostic mode</td>
<td></td>
</tr>
<tr>
<td>Presentation</td>
<td>SS</td>
<td>LEDs Off</td>
<td>- 0 - 0</td>
</tr>
<tr>
<td>Background Lighting</td>
<td>SS</td>
<td>LEDs On</td>
<td>- 1 - 1</td>
</tr>
</tbody>
</table>

Presentation Background Lighting Control: You can enable or disable presentation background lighting of the scanner according to the ambient light condition in presentation mode. When the ambient light is dim or dark, you can enable this function to turn on the scanner’s LED illumination at a dim level. This is helpful to detect the motion of scene.
3.9.8  Aiming, Delay Aiming Time-out, Decode Aiming

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>1D Corded (IDM1x0)</th>
<th>2D Corded (IDM2x0)</th>
<th>1D BT (IDM1x1)</th>
<th>2D BT (IDM2x1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aiming Control</td>
<td>SS</td>
<td>Regular Aiming (◆ for IDM BT)</td>
<td>-</td>
<td>0</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Intelligent Aiming (◆ for IDM corded)</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Delay Aiming Control</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Delay Aiming Time-out Control</td>
<td>SS</td>
<td>200 ms</td>
<td>-</td>
<td>0</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>400 ms ◆</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>800 ms</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>1 sec</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>1.5 secs.</td>
<td>-</td>
<td>4</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>2 secs.</td>
<td>-</td>
<td>5</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>3 secs.</td>
<td>-</td>
<td>6</td>
<td>-</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>4 secs.</td>
<td>-</td>
<td>7</td>
<td>-</td>
<td>7</td>
</tr>
<tr>
<td>Decode Aiming Control</td>
<td>SS</td>
<td>Disable in Hand-Held mode</td>
<td>-</td>
<td>0</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable in Hand-Held mode ◆</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable in Hands-Free mode</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable in Hands-Free mode ◆</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>3</td>
</tr>
</tbody>
</table>

Aiming Control
The Aiming Control is only available for trigger mode. In Intelligent Aiming, the aiming light is turned on when the scanner is lifted. A trigger pull activates decoding process. After 2 seconds of inactivity, the aiming light will be shut off. Delay Aiming Control allows a delay time for the operator to aim the scanner before the image is taken. During the delay time, the aiming light will be on, but the LED illumination won’t be turned on until the delay time is up.

Delay Aiming Time-out Control
The Delay Aiming Time-out Control is only available for trigger mode. You can use Delay Aiming Time-out Control to set the delay time.

Decode Aiming Control
For IDM260, this function is not supported in Hands-Free mode.

Hand-Held mode: Low power, Trigger, Alternative, Toggle, Level & Multiple read mode
Hands-Free mode: Presentation mode, Force mode, Diagnostic mode
3.9.9 Center Alignment, Unique Barcode Reporting

Center Alignment
When this function is enabled, the scanner only decodes barcode(s) around the aiming line.

Unique Barcode Reporting
When this function is enabled, the scanner only outputs unique barcodes when the trigger is pressed. This function is workable when Multiple Read mode is selected.

Hand-Held mode: Low power mode, Trigger mode, Alternative mode, Toggle mode, Level mode, Multiple read mode

Hands-Free mode: Presentation mode, Force mode, Diagnostic mode

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>1D Corded (IDM1x0)</th>
<th>2D Corded (IDM2x0)</th>
<th>1D BT (IDM1x1)</th>
<th>2D BT (IDM2x1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center Alignment</td>
<td>SS</td>
<td>Disable in Hand-Held mode</td>
<td>-</td>
<td>0</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable in Hand-Held mode</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Disable in Hands-Free mode</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable in Hands-Free mode</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Unique Barcode</td>
<td>SS</td>
<td>Disable</td>
<td>-</td>
<td>0</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>Reporting</td>
<td>SS</td>
<td>Enable</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
</tbody>
</table>
### 3.9.10 1D Barcode Reading Direction

**PROGRAM**

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>1D Corded (IDM1x0)</th>
<th>2D Corded (IDM2x0)</th>
<th>1D BT (IDM1x1)</th>
<th>2D BT (IDM2x1)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1D Barcode Forward-reading Indication</strong></td>
<td>SS</td>
<td>None ◆</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>“S”</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>User defined character (1 character)</td>
<td>2, [00-7F]</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>1D Barcode Backward-reading Indication</strong></td>
<td>SS</td>
<td>None ◆</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>“X”</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>User defined character (1 character)</td>
<td>2, [00-7F]</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>1D Barcode Direction Indication Transmission</strong></td>
<td>SS</td>
<td>Disable ◆</td>
<td>0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable prefix direction mark transmission</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable suffix direction mark transmission</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable both prefix and suffix direction mark transmission</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
3.10 Bluetooth Operation Control (IDM Bluetooth series)

3.10.1 Out-of-range Scanning, Link Supervision Time-Out, Beeping Control

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Out-of-range Scanning</td>
<td>SS</td>
<td>Disable</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable</td>
<td>1</td>
</tr>
<tr>
<td>Link Supervision Time-out</td>
<td>SS</td>
<td>1 sec</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>3 secs</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>5 secs</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>7 secs</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>9 secs</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beeping Control</td>
<td>SS</td>
<td>Radio connected/ disconnected Beep On</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Radio connected/ disconnected Beep Off</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Battery Power Low Beep On</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Battery Power Low Beep Off</td>
<td>3</td>
</tr>
</tbody>
</table>

Out-of-range Scanning
When radio link is built between the scanner and remote host device, the scanner will transmit each scanned data right after scanning the barcode data. The scanner is preset to not scan any barcode data when it loses the radio connection. You can enable the Out-of-range Scanning function to continue scanning barcode data into the internal memory buffer until radio link resumed.

Link Supervision Time-out
This is a pre-defined radio link supervision timeout setting. The scanner will supervise the radio link status every preset seconds.
3.10.2 Sleep Time-out, Power Off Time-out

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleep Time-out of connected state</td>
<td>SS 6 (x5) minutes ◆</td>
<td>FIN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MS 0-99 (x5) minutes</td>
<td>(2 digits)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>If you don’t want the scanner to enter sleep mode, please set time-out to “0”.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleep Time-out of disconnected state</td>
<td>SS 1 minute ◆</td>
<td>FIN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MS 0-99 minutes</td>
<td>(2 digits)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>If you don’t want the scanner to enter sleep mode, please set time-out to “0”.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Off Time-Out</td>
<td>SS 6 (x5) minutes ◆</td>
<td>FIN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MS 0-12 minutes</td>
<td>(2 digits)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>If you don’t want the scanner to enter power off mode, please set time-out to “0”.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sleep Time-out control
The sleep time-out control can be set under radio connection or disconnection state. If the scanner is not used within the preset time-out duration, it will automatically enter “Sleep Mode” for power saving purpose. You can disable this function by setting the time-out duration to “0”.

Power off Time-out control
When the scanner is under sleep mode, it is preset to enter “Power Off” automatically if it is not woken up after time-out duration. If you would like to wake up the scanner press the trigger button. Meanwhile you can disable this function by setting the time-out duration to “0”.

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### 3.10.3 Bluetooth Batch Scanning

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Batch Scanning Link Control</td>
<td>SS</td>
<td>Radio disable</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Radio enable ◆</td>
<td>1</td>
</tr>
<tr>
<td>Stored Data Transmission</td>
<td>SS</td>
<td>Either on cradle or by scanning barcode</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>On cradle</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Scan barcode ◆</td>
<td>2</td>
</tr>
<tr>
<td>Delete Stored Data after Transmission</td>
<td>SS</td>
<td>Disable ◆</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable</td>
<td>1</td>
</tr>
<tr>
<td>Field Delimiter</td>
<td>SS</td>
<td>None</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>. ◆</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>SPACE</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>.</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>User define</td>
<td>5, [00-7F]</td>
</tr>
<tr>
<td>Batch Data Quantity Output Format</td>
<td>SS</td>
<td>As many times as the quantity indicates ◆</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>&lt;Quantity&gt;&lt;Field Delimiter&gt;&lt;Scanned Data&gt;</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>&lt;Scanned Data&gt;&lt;Field Delimiter&gt;&lt;Quantity&gt;</td>
<td>2</td>
</tr>
<tr>
<td>Data Transmission Format</td>
<td>SS</td>
<td>Disable (scanned data only) ◆</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Leading with MAC address (MAC address &amp; scanned data)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Leading with ID No. (Scanner ID &amp; scanned data)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Only available for RS-232, USB HID and USB COM interface in PAIR &amp; PICO mode.</td>
<td></td>
</tr>
</tbody>
</table>

**Batch Scanning Link Control**

It’s a predefined radio option to control the radio-on or radio-off status under batch scanning operation. Please note that if “Radio disable” is selected, the radio link will be disconnected once you enter batch scanning. The radio link will be resumed when you transmit the stored data or exit batch scanning.
**Stored Data Transmission**
It’s a predefined approach when you want to transmit the scanned data under batch scanning operation. You can transmit the scanned data by placing the scanner onto the cradle or scanning “Transmit Stored Data” command (refer to chapter 2.7.3) or by either one of both methods.

**Delete Stored Data after Transmission**
This function is disabled in the factory default setting. The scanner will keep all stored data after transmission until you scan the “Clear all Stored Data” command (refer to chapter 2.7.4). If you enable this function all stored data will automatically be deleted after transmission.

**Field Delimiter**
This function is used to separate the specific information and the scanned data into two fields. You can choose the delimiter format.

**Batch Data Quantity Output Format**
If you want to input the quantity information of the scanned barcode data, you can enter the quantity from 1 to 9999 by scanning the quantity barcodes right after scanning the barcode data. The quantity information will be stored into the memory storage together with the barcode data. There are three ways to output the stored barcode data and quantity information. (Also refer to chapter 2.7.1)

**Data Transmission Format**
In PICO mode up to seven scanners can be connected to one smart cradle. The Data Transmission Format helps to identify the source of the transmitted data. Example format: <MAC address><Field delimiter><Data> or <ID><Field delimiter><Data>.
3.10.4 Bluetooth Device name, Security Settings

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bluetooth Device Name</td>
<td>SS</td>
<td>Default device name ◆</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>User defined</td>
<td>[00-7F], FIN</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IDM1xx: 1-16 characters</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>IDM2xx: 1-32 characters</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The default device name is: IDMxxx</td>
<td></td>
</tr>
<tr>
<td>Bluetooth PIN Code</td>
<td>SS</td>
<td>Default Bluetooth PIN Code ◆</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>User defined (1-8 numbers)</td>
<td>[30-39], FIN</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The default PIN code is: 00000000</td>
<td></td>
</tr>
<tr>
<td>Bluetooth Authentication</td>
<td>SS</td>
<td>Disable</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable ◆</td>
<td>1</td>
</tr>
</tbody>
</table>

**Bluetooth Authentication**

You can enable or disable the Bluetooth Authentication between the scanner and remote host device. If this function is enabled, when the scanner wants to connect itself and sends the data to the host device, the host device has to return a link key shared between the scanner and the host device.
3.10.5  HID Link Quality, Power Saving Mode

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>HID Link Quality Setting</td>
<td>SS</td>
<td>Disable</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable</td>
<td>1</td>
</tr>
<tr>
<td>Bluetooth Power Saving Mode</td>
<td>SS</td>
<td>Disable</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable</td>
<td>1</td>
</tr>
</tbody>
</table>

**HID Link Quality Setting**
While using the HID radio link mode, some errors may occur during the data transmission when the radio link is disconnected. You can enable this function to prevent such errors.

**Bluetooth Power Saving Mode**
The Bluetooth scanner will enter low power consumption mode when you enable this function.
3.11 Batch Reading (IDM2xx series)

**Batch Reading**

When this function is enabled, you can scan multiple barcodes one by one continuously upon one trigger event. The scanner reports a good read beep and indication only if all bar codes set by the “Batch Reading Rule” are read. Otherwise, the scanner reports an error beep and indication. The scanned data will be transmitted according to the preset sequence which is defined in “Batch Reading Rule” regardless the scanned order of those barcodes.

![Batch Reading function is only available for 2D Hand-held scanners (IDM2xx series).](image)

Batch Reading function is only available in Trigger Mode.
Batch Reading is not available when Multiple Read Mode or Center Alignment is turned on.

**Batch Reading Rule**

To set the Batch Reading rule:
1. Scan the PROGRAM code.
2. Scan the Batch Reading Family Code.
3. Use the Option Codes to define the preset Batch Reading rule.
4. Scan the FIN symbol.
5. Scan the END symbol to save your Batch Reading rule.

Scan the ABORT and END code to exit without saving any Batch Reading rule setting.
When you scan “None”, the preset Batch Reading Rule will be deleted.

**Batch Reading Rule Syntax**

The Syntax is: 
\[ n \] \[ Element 1 \] FF \[ Element 2 \] FF \[ Element 3 \] FF ... \[ Element n \] FF

Where \( n \) is the number of elements in the overall rule. The number of elements is limited to 16. 

**FF** indicates the end of one element.

The Element structure is: 
\[ SICK ID Hex value \] \[ Code length \] \[ Character match(es) \]

**[SICK ID Hex value]**
- Length: 2 byte

You can find the SICK ID hex value in the Symbology ID Table in the appendix on page 105.
Locate the Hex value for the symbology and scan the 2 digit hex values from the Option Codes. 99 is the universal number, indicating all symbologies.

[Code length]
- Length: 4 byte
Specify what length of data output will be acceptable for this symbology. When you calculate the length, you must consider the whole data string which includes the programmed Preamble, Postamble, Scanned Data Length, Prefix/Suffix Symbol ID or AIM ID. Scan the four digit data length from the Option Code. 40 is entered as 0040; 9999 is a universal number, indicating all lengths.

[Character match]
- Length: 2-8 byte
You can refer to HEX/ASCII Reference Table to find the Hex value that represents the character(s) you want to match. Use the Option Codes to scan the alphanumeric combination that represents the ASCII characters. You can match up to 4 characters which are counted from the start character of the whole Data String. Note: When setting the matched character(s), you must match the content of the whole Data String, including the programmed Preamble, Postamble, Scanned Data Length, Prefix/Suffix Symbol ID or AIM ID. FF is the universal character, indicating all characters.

Batch Reading Rule Example
In this example, you are scanning Code 39, Code 128, and Code 93 bar codes, but you would like to output the data in following sequence: Code 128 - Code 39 - Code 93

You would set up the Batch Reading rule with the following command line:

[PROGRAM] [Batch Reading] [0301999941FF0799994243FF09999945464748FF] [FIN] [END]

The breakdown of the command line is shown below:

- The number of elements in the overall rule
- Code identifier of Code 128
- Code length that must match for Code 128, 9999 = all lengths
- Start character match for Code 128, 41h = “A”
- End of first code
- Code identifier of Code 39
- Code length that must match for Code 39, 9999 = all lengths
- Start character that must match for Code 39, 42h = “B”, 43h = “C”
- End of second code
- Code identifier of Code 93
- Code length that must match for Code 93, 9999 = all lengths
45464748  Start character match for Code 93, 45h = “E”, 46h = “F”, 47h = “G”, 48h = “H”
FF      End of third code

To program the previous example using specific lengths, you would have to count the programmed Preamble, Postamble, Scanned Data Length, Prefix/Suffix Symbol ID or AIM ID if you had defined as part of the length. If you enable the Suffix Symbol ID of symbology, you would add one character to the previous example’s length.

You would set up the Batch Reading rule with the following command line:

[PROGRAM] [Batch Reading] [0301001141FF070011FF09001345464748FF] [FIN] [END]

The breakdown of the command line is shown below:

03  The number of elements in the overall rule
01  Code identifier of Code 128
0011 Code length that must match for Code 128
      A-Code 128 sample length (10) plus Suffix Symbol ID (1) = 11
41  Start character match for Code 128, 41h = “A”
FF  End of first code
07  Code identifier of Code 39
0011 Code length that must match for Code 39
      BC-CODE 39 sample length (10) plus Suffix Symbol ID (1) = 11
FF  Universal matched character indicating all characters. Also indicates end of second
code.
09  Code identifier of Code 93
0013 Code length that must match for Code 93
      EFGH-CODE 93 sample length (12) plus Suffix Symbol ID (1) = 13
45464748 Start character match for Code 93, 45h = “E”, 46h = “F”, 47h = “G”, 48h = “H”
FF  End of third code

If the [Character match(es)] is set to “FF”, the following “FF” which indicates the end of the code does
not have to be set.

<table>
<thead>
<tr>
<th>STX (RS-232/USB Com interface)</th>
<th>Preamble</th>
<th>Scanned Data Length</th>
<th>Prefix Symbol ID or Prefix AIM Symbol ID</th>
<th>Scanned Data modified by DataWizard</th>
<th>Suffix Symbol ID or Suffix AIM Symbol ID</th>
<th>Postamble</th>
<th>ETX (RS-232/USB Com interface)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 character</td>
<td>1-15 characters</td>
<td>2-4 digits</td>
<td>1 or 3 characters</td>
<td>Variable length</td>
<td>1 or 3 characters</td>
<td>1-15 characters</td>
<td>1 character</td>
</tr>
</tbody>
</table>
3.12 Condensed Data Wizard

DataWizard is a data editing system provided specially for the IDM hand-held scanners. Through DataWizard, you can process the scanned data prior the transmission in many ways as: Insert, Delete, Match, Verify, Replace, Reorganize, and Repeat Transmission. It will help you to arrange the transmission of scanned data to any specific format without software modification. For further configuration options please use the IDM Set Up Tool. Through the IDM Set Up Tool, all settings and configurations can be done on-screen on Windows 2000 / XP / 7. A Condensed Version DataWizard is provided by each IDM series. Through this menu, the condensed DataWizard can be utilized via bar code menu readings with ease. All “Character” input should be referred to the ASCII/HEX Table listed in the Appendix (page 107) to find the matched HEX value.

3.12.1 Preamble, Postamble, Data Length, Symbol ID Transmission

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preamble</td>
<td>SS</td>
<td>None ◆</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>1-15 characters</td>
<td>[00-7F], FIN</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maximum 15-character input; scan “FIN” to terminate this selection.</td>
<td></td>
</tr>
<tr>
<td>Postamble</td>
<td>SS</td>
<td>None ◆</td>
<td>FIN</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>1-15 characters</td>
<td>[00-7F], FIN</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maximum 15-character input; scan “FIN” to terminate this selection.</td>
<td></td>
</tr>
<tr>
<td>Data Length Transmission</td>
<td>SS</td>
<td>Disable ◆</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable 2-4 digits data length transmission</td>
<td>1</td>
</tr>
<tr>
<td>Symbology ID Transmission</td>
<td>SS</td>
<td>Disable symbology ID transmission ◆</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable prefix symbology ID transmission</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable suffix symbology ID transmission</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable both prefix and suffix symbology ID transmission</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable prefix AIM symbology ID transmission</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable suffix AIM symbology ID transmission</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>SS</td>
<td>Enable both prefix and suffix AIM symbology ID transmission</td>
<td>6</td>
</tr>
</tbody>
</table>

The IDM Set Up Tool can be downloaded on www.mysick.com.
3.12.2 Data Formatter

The Data Formatter is used to edit the scanned raw data prior to transmitting the data to the host computers or terminals. It allows you to select desired barcode symbologies for formatter control and provides Multiple Position Insertion and Multiple Character Insertion (max three characters) in the identified position.

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>1st Option Code</th>
<th>2nd Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formatter Control</td>
<td>SS</td>
<td>Disable ◆</td>
<td>FIN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>Select one barcode symbology (2 digits)</td>
<td>Automatic termination</td>
<td></td>
</tr>
<tr>
<td>MS</td>
<td></td>
<td>Select all barcode symbologies</td>
<td>00</td>
<td>Automatic termination</td>
</tr>
<tr>
<td>1st insertion</td>
<td>SS</td>
<td>Disable ◆</td>
<td>FIN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DS</td>
<td>Enable</td>
<td>Position: (2 digits)</td>
<td>[1-3 characters]; FIN</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Define position (refer to chapter 3.12.7)</td>
<td>max. 3 characters can be inserted</td>
</tr>
<tr>
<td>2nd insertion</td>
<td>SS</td>
<td>Disable ◆</td>
<td>FIN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DS</td>
<td>Enable</td>
<td>Position: (2 digits)</td>
<td>[1-3 characters]; FIN</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Define position (refer to chapter 3.12.7)</td>
<td>max. 3 characters can be inserted</td>
</tr>
<tr>
<td>3rd insertion</td>
<td>SS</td>
<td>Disable ◆</td>
<td>FIN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DS</td>
<td>Enable</td>
<td>Position: (2 digits)</td>
<td>[1-3 characters]; FIN</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Define position (refer to chapter 3.12.7)</td>
<td>max. 3 characters can be inserted</td>
</tr>
<tr>
<td>4th insertion</td>
<td>SS</td>
<td>Disable ◆</td>
<td>FIN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DS</td>
<td>Enable</td>
<td>Position: (2 digits)</td>
<td>[1-3 characters]; FIN</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Define position (refer to chapter 3.12.7)</td>
<td>max. 3 characters can be inserted</td>
</tr>
</tbody>
</table>

While the Data Formatter is enabled, it arranges only scanned data without Preamble, Postamble, STX, ETX, Data Length, Prefix/Suffix Symbology ID or Record Suffix. All of the above programmable parameters perform the same function depending on your setting.

Regarding the “Bar Code Selection” and “Position Calculation” of data formatter, please refer to page 99 and 100 for details. All “Character” input should be referred to the ASCII/HEX Table listed in the Appendix (page 107) to find matched HEX value.
3.12.3 Data Verifier

The Data Verifier is used to provide advanced verification for error-free scanning and to work as an Embedded Data Transmitting Filter. All data must conform to the Identified Barcode Symbologies, Identified Data Length, and one to three Identified Characters in the checking position. Otherwise, the Hand-held scanner will not transmit the data to the host computers or terminals, but will instead issue 3 long beeps for verification error and skip the scanned data. The Data Verifier checks only scanned data without Preamble, Postamble, STX, ETX, Data Length, Prefix/Suffix Symbology ID or Record Suffix. Regarding the “Bar Code Selection” and “Position Calculation” of Data Verifier, please refer to page 99 and 100 for details. All “Character” input should be referred to the ASCII/HEX Table listed in the Appendix (page 107) to find matched HEX value.

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>1st Option Code</th>
<th>2nd Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verifier Control</td>
<td>SS</td>
<td>Disable</td>
<td>FIN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>Select one barcode symbology</td>
<td>(2 digits)</td>
<td>Automatic termination</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>Select all barcode symbologies</td>
<td>00</td>
<td>Automatic termination</td>
</tr>
<tr>
<td>Identified Data Length</td>
<td>SS</td>
<td>Disable</td>
<td>FIN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DS</td>
<td>Enable</td>
<td>(2 digits)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Determine the identified data length for verification.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st identified character</td>
<td>SS</td>
<td>Disable</td>
<td>FIN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DS</td>
<td>Enable</td>
<td>Position: (2 digits)</td>
<td>[00-7F]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Define position (refer to chapter 3.12.7)</td>
<td></td>
<td>1 character</td>
</tr>
<tr>
<td>2nd identified character</td>
<td>SS</td>
<td>Disable</td>
<td>FIN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DS</td>
<td>Enable</td>
<td>Position: (2 digits)</td>
<td>[00-7F]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Define position (refer to chapter 3.12.7)</td>
<td></td>
<td>1 character</td>
</tr>
<tr>
<td>3rd identified character</td>
<td>SS</td>
<td>Disable</td>
<td>FIN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DS</td>
<td>Enable</td>
<td>Position: (2 digits)</td>
<td>[00-7F]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Define position (refer to chapter 3.12.7)</td>
<td></td>
<td>1 character</td>
</tr>
</tbody>
</table>
3.12.4 Data Replacer

The Data Replacer is used to edit the scanned raw data prior to transmitting the data to the host computers or terminals. It allows you to select desired barcode symbologies for replacer control, and provides Multiple Position Replacement in the identified position.

All data must conform to the Identified Bar Code Symbologies, and one to three Identified Characters in the identified position. While the Data Replacer is enabled, it arranges only scanned data without Preamble, Postamble, STX, ETX, Data Length, Prefix/Suffix Symbology ID or Record Suffix.

Regarding the “Bar Code Selection” and “Position Calculation” of Data Replacer, please refer to page 99 and 100 for details. All “Character” input should be referred to the ASCII/HEX Table listed in the Appendix (page 107) to find matched HEX value.

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>1st Option Code</th>
<th>2nd Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SS</td>
<td>Disable</td>
<td>FIN</td>
<td></td>
</tr>
<tr>
<td>Replacer Control</td>
<td>MS</td>
<td>Select one barcode symbology</td>
<td>(2 digits)</td>
<td>Automatic termination</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>Select all barcode symbologies</td>
<td>00</td>
<td>Automatic termination</td>
</tr>
<tr>
<td>1st Replacement</td>
<td>SS</td>
<td>Disable</td>
<td>FIN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DS</td>
<td>Enable</td>
<td>Position: (2 digits)</td>
<td>[00-7F]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Define position (refer to chapter 3.12.7)</td>
<td>1 character</td>
</tr>
<tr>
<td>2nd Replacement</td>
<td>SS</td>
<td>Disable</td>
<td>FIN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DS</td>
<td>Enable</td>
<td>Position: (2 digits)</td>
<td>[00-7F]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Define position (refer to chapter 3.12.7)</td>
<td>1 character</td>
</tr>
<tr>
<td>3rd Replacement</td>
<td>SS</td>
<td>Disable</td>
<td>FIN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DS</td>
<td>Enable</td>
<td>Position: (2 digits)</td>
<td>[00-7F]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Define position (refer to chapter 3.12.7)</td>
<td>1 character</td>
</tr>
</tbody>
</table>
3.12.5 Data Organizer

The Data Organizer is used to edit the scanned raw data prior to transmitting the data to the host computers or terminals. It allows you to select desired barcode symbologies for organizer control and provides maximum two identified positions to send the data forward or backward. It also allows you to control the transmitted data including or excluding the data of identification position. Please refer to the application example listed in page 100 for details. While the Data Organizer is enabled, it arranges only scanned data without Preamble, Postamble, STX, ETX, Data Length, Prefix/Suffix Symbology ID or Record Suffix. Regarding the “Bar Code Selection” and “Position Calculation” of Data Organizer, please refer to page 99 and 100 for details. All “Character” input should be referred to the ASCII/HEX Table listed in the Appendix (page 107) to find matched HEX value.

<table>
<thead>
<tr>
<th>Family Code Selection</th>
<th>P.C.</th>
<th>Parameter Selection</th>
<th>1\textsuperscript{st} Option Code</th>
<th>2\textsuperscript{nd} Option Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizer Control</td>
<td>SS</td>
<td>Disable ◆</td>
<td>FIN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>Select one barcode symbology</td>
<td>(2 digits)</td>
<td>Automatic termination</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>Select all barcode symbologies</td>
<td>00</td>
<td>Automatic termination</td>
</tr>
<tr>
<td>1st Organization</td>
<td>SS</td>
<td>Disable ◆</td>
<td>FIN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DS</td>
<td>Enable</td>
<td>Position: (2 digits)</td>
<td>0 (Forward) ◆</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 (Backward)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Define position (refer to chapter 3.12.7)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Define direction</td>
</tr>
<tr>
<td>2nd Organization</td>
<td>SS</td>
<td>Disable ◆</td>
<td>FIN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DS</td>
<td>Enable</td>
<td>Position: (2 digits)</td>
<td>0 (Forward) ◆</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 (Backward)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Define position (refer to chapter 3.12.7)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Define direction</td>
</tr>
<tr>
<td>Include/Exclude Control</td>
<td>SS</td>
<td>Transmitted data excluded the data of identified position ◆</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DS</td>
<td>Transmitted data included the data of identified position</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
### 3.12.6 Select Barcode Symbology

You can select one or all types of barcode symbologies to use Condensed DataWizard for advanced transmission arrangement. If you scan “00” to select all types, the Hand-held scanner will arrange all incoming data to meet your pre-defined format. If you want to select only one type of barcode, please select one of the option codes listed below.

<table>
<thead>
<tr>
<th>1D Barcode Symbology</th>
<th>Code 128</th>
<th>01</th>
<th>EAN-8 with 5 supplement</th>
<th>45</th>
<th>UK/ Plessey</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>GS1-128</td>
<td>31</td>
<td></td>
<td>Codabar/ NW-7</td>
<td>06</td>
<td>Telepen</td>
<td>13</td>
</tr>
<tr>
<td>UPC-A</td>
<td>02</td>
<td></td>
<td>Code 39</td>
<td>07</td>
<td>GS1 DataBar</td>
<td>14</td>
</tr>
<tr>
<td>UPC-A with 2 supplement</td>
<td>32</td>
<td></td>
<td>Code 32</td>
<td>37</td>
<td>IATA</td>
<td>15</td>
</tr>
<tr>
<td>UPC-A with 5 supplement</td>
<td>42</td>
<td></td>
<td>Trioptic Code 39</td>
<td>47</td>
<td>Coupon Code</td>
<td>16</td>
</tr>
<tr>
<td>UPC-E</td>
<td>03</td>
<td></td>
<td>Matrix 2 of 5</td>
<td>38</td>
<td>PDF417/ Micro PDF417</td>
<td>17</td>
</tr>
<tr>
<td>UPC-E with 2 supplement</td>
<td>33</td>
<td></td>
<td>Interleaved 2 of 5</td>
<td>48</td>
<td>Codablock F</td>
<td>18</td>
</tr>
<tr>
<td>UPC-E with 5 supplement</td>
<td>43</td>
<td></td>
<td>China Postal Code</td>
<td>58</td>
<td>Code 16K</td>
<td>19</td>
</tr>
<tr>
<td>EAN-13</td>
<td>04</td>
<td></td>
<td>German Postal Code</td>
<td>68</td>
<td>Code 49</td>
<td>20</td>
</tr>
<tr>
<td>EAN-13 with 2 supplement</td>
<td>34</td>
<td></td>
<td>Standard/ Industrial 2 of 5</td>
<td>08</td>
<td>GS1 DataBar Limited</td>
<td>22</td>
</tr>
<tr>
<td>EAN-13 with 5 supplement</td>
<td>44</td>
<td></td>
<td>Code 93</td>
<td>09</td>
<td>GS1 DataBar Expanded</td>
<td>23</td>
</tr>
<tr>
<td>EAN-8</td>
<td>05</td>
<td></td>
<td>Code 11</td>
<td>10</td>
<td>Composite Codes</td>
<td>24</td>
</tr>
<tr>
<td>EAN-8 with 2 supplement</td>
<td>35</td>
<td></td>
<td>MSI/ Plessey</td>
<td>11</td>
<td>Micro PDF417</td>
<td>25</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2D Barcode Symbology</th>
<th>QR Code</th>
<th>A0</th>
<th>Maxi Code</th>
<th>A2</th>
<th>GS1 Data Matrix</th>
<th>A5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro QR Code</td>
<td>A0</td>
<td></td>
<td>Aztec Code</td>
<td>A3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Matrix</td>
<td>A1</td>
<td></td>
<td>Chinese Sensible Code</td>
<td>A4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Postal Codes</th>
<th>Korea Post Code</th>
<th>21</th>
<th>Intelligent Mail barcode</th>
<th>B3</th>
<th>Planet Post</th>
<th>B6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian Post</td>
<td>B0</td>
<td></td>
<td>Japanese Post</td>
<td>B4</td>
<td>Postnet</td>
<td>B8</td>
</tr>
<tr>
<td>British Post</td>
<td>B1</td>
<td></td>
<td>KIX Post</td>
<td>B5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.12.7 Position Calculation

Data Formatter
If there is a 5-character input data string, refer to the following table to calculate the actual position for insertion:

<table>
<thead>
<tr>
<th></th>
<th>X</th>
<th></th>
<th></th>
<th>X</th>
<th></th>
<th></th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>01</td>
<td>02</td>
<td>03</td>
<td>04</td>
<td>05</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data Verifier, Data Replacer, Data Organizer
If there is an 11-character data string, please refer to the following table to calculate the actual position for identification.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>01</td>
<td>02</td>
<td>03</td>
<td>04</td>
<td>05</td>
<td>06</td>
<td>07</td>
<td>08</td>
<td>09</td>
<td>10</td>
</tr>
</tbody>
</table>

3.12.8 Application Example
If your bar code label is a 16-digit Interleaved 2 of 5 which includes the information of 6-digit date code, 6-digit serial number and 4-digit unit price, you want the Hand-held scanner to do the following for you without software modification:

- Apply only Interleaved 2 of 5 to the condensed DataWizard.
- Check bar code is actually with 16-digit length.
- Allow bar code output whose date code is leading with “9”.
- Three outputs with “TAB” suffix.
- The date code output should skip “9” and replaced it by “A”.
- The serial number output should be led with “SN”.
- The unit price output should be skipped the first 2 digits.
- Test Bar Code: 9 8 1 0 2 5 1 2 3 4 5 6 9 8 7 6

Programming Procedure

Data Verifier
- Scan “Program” to enter the programming mode.
- Scan “Verifier Control” and set the barcode symbology to “48” (Interleaved 2 of 5).
- Scan “Identified Data Length” and set the length to “16”.
- Scan “1st Identified Character” and set the identified position to “00”, then set the identified character to “39” (Hex Code of 9).
Operating Instructions

IDM corded & IDM Bluetooth

Condensed Data Wizard

Data Formatter

- Scan “Formatter Control” and set the barcode symbology to “48”.
- Scan “1st Insertion” and set the identified position to “06”, then inserted characters to “09” (Hex Code of TAB), “53” (Hex Code of S), “4E” (Hex Code of N).
- Scan “2nd Insertion” and set the identified position to “12”, then inserted character to “09”. At the end, you must scan “FIN” (Finish) code to terminate this selection.
- Scan “3rd Insertion” and set the identified position to “16”, then inserted character to “09”. At the end, you must scan “FIN” (Finish) code to terminate this selection.

Data Replacer

- Scan “Replacer Control” and set the barcode symbology to “48”.
- Scan “1st Replacement” and set the identified position to “00”, then replaced character to “41” (Hex Code of A).

Data Organizer

- Scan “Organizer Control” and set the barcode symbology to “48”.
- Scan “1st Organization” and set the identified position to “16”, then set the data transmission to “0” (forward).
- Scan “2nd Organization” and set the identified position to “17”, then set the data transmission to “1” (backward).
- Scan “END” (Exit) to terminate the programming.

Important notice

The Condensed DataWizard will follow the preset working flow as below:
Verifier → Formatter → Replacer → Organizer
Therefore when you set the identified position in the Data organizer, you must consider the inserted data which you already set via Data Formatter.
4   IDM Set Up Tool

The IDM Set Up Tool is a Windows based configuration software for IDM scanners. The IDM Set Up Software is available free of charge on www.mysick.com.

4.1  Configuration via IDM Set Up Tool

The following steps describe how to configure an IDM Scanner via the IDM Set Up Tool.

4.1.1  IDM Corded Scanners

1. Connect the scanner to the PC via RS-232 or USB Com¹.
2. Start the IDM Set Up Tool Software.
3. Scan the IDM Set Up Tool (Host Link) Code:

   ![IDM Set Up Tool (Host Link)]

4. You can either:

   - upload the current configuration from the scanner: or
   - open a new configuration:

5. Do your settings via the IDM Set Up Tool.
6. By clicking on the “Apply”-button the download section opens. Scan the IDM Set Up (Host Link) Code again and choose the correct Com Port.
7. Click on the download button to start the download. Your settings will be downloaded to the scanner. After a successful download you can close the IDM Set Up Tool.

4.1.2  IDM Bluetooth Scanners

1. Make sure, that the Scanner is paired with the base station (pair mode).
2. The interface has to be set to RS232 or USB COM. You can test the communication with any terminal program. After testing close the terminal program so that the com port is free again.
3. Scan the Uninstall Code. Then scan the IDM Set Up (Host Link) Code and place the scanner right the way into its base cradle.
4. Start the IDM Set Up Tool Software and click on “Upload”.
5. Choose the right Communication Port (COM Port). Afterwards click on the Upload button. The software will connect to the scanner and the Configuration Window opens.
6. Do your settings.
7. By clicking on the Apply button the download section opens. It’s important that you scan the IDM Set Up (Host Link) code again and place the scanner back inside the base cradle.
8. Click on the download button to start the download. After a successful download you can close the IDM Set Up Tool.
9. To re-connect scanner and base station, scan the “pair mode”- code and place the scanner in the base station.

¹ Make sure that the USB Com Port driver is installed
4.2 Firmware Upgrade via IDM Set Up Tool

The following chapters describe how to do a firmware upgrade via the IDM Set Up Tool.

4.2.1 IDM Corded Scanner

1. Connect the scanner to the PC via RS-232 or USB Com Port.
2. Open the IDM Set Up Tool.
3. Click on “Upgrade”.
4. In the tree menu find the location of the scanner firmware.
5. Select the new firmware and click “OK”.
6. Scan the IDM Set Up (Host Link) codes:

   ![IDM Set Up Tool (Host Link) code]

7. Choose the right Com Port.
8. Press “Upgrade”.
9. The screen will dim and the firmware will begin uploading to the base station. You will hear some beeps while the process takes place. (Do not interrupt the upgrading process.)
10. After a successful firmware upgrade click on “Abort”.

4.2.2 IDM Bluetooth Scanner

1. Connect the smart cradle with your PC.
2. Scan the “Uninstall” command:

   ![Uninstall code]

3. Scan the IDM Set Up Tool (Host Link) code:

   ![IDM Set Up Tool (Host Link) code]

4. Place the scanner immediately into the smart cradle.
5. Open the IDM Set Up Tool.
6. Click on “Upgrade”.
7. Choose the correct firmware and click on “OK”.
8. Choose the right Communication Port (COM Port) and click on “Upgrade”.
9. Wait until the firmware upgrade was completed successfully:

   Completed!
4.2.3 IDM Bluetooth Cradle

1. Make sure that Scanner and the smart cradle are in “uninstall” state.
2. Connect the Cradle via an USB cable to your PC.
3. Make sure the USB 3.0 Bus Power Switch on the underside of the cradle is in the OFF position.
4. Remove the power cable from the cradle.
5. Press the Paging/Reset Button on the cradle and keep it pressed while you plug in the power cable.
6. Wait until the Status LED on the cradle starts blinking green before you release the Paging/Reset Button.
   This step in the process automatically places the cradle in USB COM Emulation mode.
7. Do not place the scanner back into the cradle.
8. Open the IDM Set Up Tool.
9. Click on “Upgrade” → The open file box will open.
10. In the tree menu find the location of the cradle firmware.
11. Choose the Smart Cradle firmware and click “OK”.
12. Choose the correct Com Port and click on “Upgrade”.
13. The screen will dim and the firmware will begin uploading to the base station. You will hear some beeps while the process takes place. (Do not interrupt the upgrading process.)
14. After a successful firmware upgrade click on “Abort”.
15. Once you have finished upgrading the scanner, scan the “Pair Mode” code and place the scanner back into the cradle to reconnect the scanner to the base:

![Pair Mode QR Code]
## 5 Appendix

### 5.1 Symbology ID Table (1D Codes)

Each AIM Code Identifier contains the three-character string \[cm\] where:
- \[\] = Flag Character;
- \[c\] = Code Character;
- \[m\] = Modifier Character

<table>
<thead>
<tr>
<th>Code Family</th>
<th>Primary Format</th>
<th>SICK ID</th>
<th>AIM ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPC</td>
<td>UPC-A</td>
<td>2</td>
<td>A</td>
</tr>
<tr>
<td>UPC</td>
<td>UPC-A with 2 supple.</td>
<td>32</td>
<td>N</td>
</tr>
<tr>
<td>UPC</td>
<td>UPC-A with 5 supple.</td>
<td>42</td>
<td>S</td>
</tr>
<tr>
<td>UPC</td>
<td>UPC-E</td>
<td>3</td>
<td>E</td>
</tr>
<tr>
<td>UPC</td>
<td>UPC-E with 2 supple.</td>
<td>33</td>
<td>A</td>
</tr>
<tr>
<td>UPC</td>
<td>UPC-E with 5 supple.</td>
<td>43</td>
<td>I</td>
</tr>
</tbody>
</table>

Example: A UPC-A bar code 012345678950 with 2 supplement 12 is transmitted as \[E0012345678950\]E112

<table>
<thead>
<tr>
<th>Code Family</th>
<th>Primary Format</th>
<th>SICK ID</th>
<th>AIM ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code 128</td>
<td>Code 128</td>
<td>01</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>GS1-128</td>
<td>31</td>
<td>C</td>
</tr>
<tr>
<td>Codabar</td>
<td>Codabar/NW-7</td>
<td>06</td>
<td>D</td>
</tr>
</tbody>
</table>

| Code 25     | Standard/Industrial 2 of 5 | 08 | I      | S  0 |
|             | Matrix 2 of 5           | 38 | K      | X  0 |
|             | Interleaved 2 of 5      | 48 | J      | I  m |
|             | China Postal Code       | 58 | L      | X  0 |
|             | German Postal Code      | 68 | M      | I  M |
| IATA        | IATA                | 15 | O      | R  M |

Example: An EAN/JAN-8 barcode 49123562 with 5 supplements 12345 is transmitted as \[E49123562\]E212345

<table>
<thead>
<tr>
<th>Code Family</th>
<th>Primary Format</th>
<th>SICK ID</th>
<th>AIM ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code 39</td>
<td>Code 39</td>
<td>09</td>
<td>H</td>
</tr>
<tr>
<td>Code 11</td>
<td>Code 11</td>
<td>10</td>
<td>P</td>
</tr>
<tr>
<td>MSI/ Plessey</td>
<td>MSI/ Plessey</td>
<td>11</td>
<td>R</td>
</tr>
<tr>
<td>UK/ Plessey</td>
<td>UK/ Plessey</td>
<td>12</td>
<td>S</td>
</tr>
<tr>
<td>Telepen</td>
<td>Telepen</td>
<td>13</td>
<td>T</td>
</tr>
<tr>
<td>GS1 Databar</td>
<td>GS1 Databar</td>
<td>14</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>GS1 Databar Limited</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GS1 Databar Expanded</td>
<td>23</td>
<td></td>
</tr>
</tbody>
</table>

Example: An EAN/JAN-8 barcode 49123562 with 5 supplements 12345 is transmitted as \[E49123562\]E212345

<table>
<thead>
<tr>
<th>Code Family</th>
<th>Primary Format</th>
<th>SICK ID</th>
<th>AIM ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code 39</td>
<td>Code 39 Trioptic</td>
<td>47</td>
<td>W</td>
</tr>
<tr>
<td>Code 32</td>
<td>Code 32</td>
<td>37</td>
<td>G</td>
</tr>
<tr>
<td>Code 49</td>
<td>Code 49</td>
<td>20</td>
<td>U</td>
</tr>
<tr>
<td>PDF417</td>
<td>PDF417</td>
<td>17</td>
<td>V</td>
</tr>
<tr>
<td>Codablock</td>
<td>Codablock</td>
<td>18</td>
<td>Y</td>
</tr>
<tr>
<td>Korea Post</td>
<td>Korea Post Code</td>
<td>21</td>
<td>a</td>
</tr>
</tbody>
</table>

Remark: Above examples are given for the transmission of AIM ID.
### 5.2 Symbology ID Table (2D and Post Codes)

<table>
<thead>
<tr>
<th>Code Family</th>
<th>Primary Format</th>
<th>SICK ID</th>
<th>AIM ID</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Hex Value</td>
<td>Char.</td>
</tr>
<tr>
<td>QR Code</td>
<td>QR Code</td>
<td>A0 b</td>
<td>Q</td>
</tr>
<tr>
<td>Micro QR Code</td>
<td>Micro QR Code</td>
<td>A1 c</td>
<td>d</td>
</tr>
<tr>
<td>Data Matrix</td>
<td>Data Matrix</td>
<td>A5 e</td>
<td>z</td>
</tr>
<tr>
<td>Aztec Code</td>
<td>Aztec Code</td>
<td>A3</td>
<td></td>
</tr>
<tr>
<td>Australian Post</td>
<td>Australian Post</td>
<td>B0 g</td>
<td>X</td>
</tr>
<tr>
<td>British Post</td>
<td>British Post</td>
<td>B1 h</td>
<td></td>
</tr>
<tr>
<td>Intelligent Mail Barcode</td>
<td>Intelligent Mail Barcode</td>
<td>B3 j</td>
<td></td>
</tr>
<tr>
<td>Japanese Post</td>
<td>Japanese Post</td>
<td>B4 k</td>
<td></td>
</tr>
<tr>
<td>KIX Post</td>
<td>KIX Post</td>
<td>B5 l</td>
<td></td>
</tr>
<tr>
<td>Planet Code</td>
<td>Planet Code</td>
<td>B6 m</td>
<td></td>
</tr>
<tr>
<td>Postnet</td>
<td>Postnet</td>
<td>B8 o</td>
<td></td>
</tr>
</tbody>
</table>

### 5.3 Keyboard Function Code Table

<table>
<thead>
<tr>
<th>No.</th>
<th>ANSI</th>
<th>ASCII</th>
<th>Key Function</th>
<th>Ctrl Output</th>
<th>No.</th>
<th>ANSI</th>
<th>ASCII</th>
<th>Key Function</th>
<th>Ctrl Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>NUL</td>
<td>00H</td>
<td>RESERVED</td>
<td>Ctrl + @</td>
<td>16</td>
<td>DLE</td>
<td>10H</td>
<td>F7</td>
<td>Ctrl + P</td>
</tr>
<tr>
<td>01</td>
<td>SOH</td>
<td>01H</td>
<td>CTRL (Left)</td>
<td>Ctrl + A</td>
<td>17</td>
<td>DC1</td>
<td>11H</td>
<td>F8</td>
<td>Ctrl + Q</td>
</tr>
<tr>
<td>02</td>
<td>STX</td>
<td>02H</td>
<td>ALT (Left)</td>
<td>Ctrl + B</td>
<td>18</td>
<td>DC2</td>
<td>12H</td>
<td>F9</td>
<td>Ctrl + R</td>
</tr>
<tr>
<td>03</td>
<td>ETX</td>
<td>03H</td>
<td>SHIFT</td>
<td>Ctrl + C</td>
<td>19</td>
<td>DC3</td>
<td>13H</td>
<td>F10</td>
<td>Ctrl + S</td>
</tr>
<tr>
<td>04</td>
<td>EOT</td>
<td>04H</td>
<td>CAPS LOCK</td>
<td>Ctrl + D</td>
<td>20</td>
<td>DC4</td>
<td>14H</td>
<td>F11</td>
<td>Ctrl + T</td>
</tr>
<tr>
<td>05</td>
<td>ENQ</td>
<td>05H</td>
<td>NUM LOCK</td>
<td>Ctrl + E</td>
<td>21</td>
<td>NAK</td>
<td>15H</td>
<td>F12</td>
<td>Ctrl + U</td>
</tr>
<tr>
<td>06</td>
<td>ACK</td>
<td>06H</td>
<td>ESC</td>
<td>Ctrl + F</td>
<td>22</td>
<td>SYN</td>
<td>16H</td>
<td>INS (Insert)</td>
<td>Ctrl + V</td>
</tr>
<tr>
<td>07</td>
<td>BEL</td>
<td>07H</td>
<td>F1</td>
<td>Ctrl + G</td>
<td>23</td>
<td>ETB</td>
<td>17H</td>
<td>DEL (Delete)</td>
<td>Ctrl + W</td>
</tr>
<tr>
<td>08</td>
<td>BS</td>
<td>08H</td>
<td>BACK SPACE</td>
<td>Ctrl + H</td>
<td>24</td>
<td>CAN</td>
<td>18H</td>
<td>HOME (Edit)</td>
<td>Ctrl + X</td>
</tr>
<tr>
<td>09</td>
<td>HT</td>
<td>09H</td>
<td>TAB</td>
<td>Ctrl + I</td>
<td>25</td>
<td>EM</td>
<td>19H</td>
<td>END (Edit)</td>
<td>Ctrl + Y</td>
</tr>
<tr>
<td>10</td>
<td>LF</td>
<td>0AH</td>
<td>F2</td>
<td>Ctrl + J</td>
<td>26</td>
<td>SUB</td>
<td>1AH</td>
<td>PAGE UP (Edit)</td>
<td>Ctrl + Z</td>
</tr>
<tr>
<td>11</td>
<td>VT</td>
<td>0BH</td>
<td>F3</td>
<td>Ctrl + K</td>
<td>27</td>
<td>ESC</td>
<td>1BH</td>
<td>PAGE DOWN (Edit)</td>
<td>Ctrl + [</td>
</tr>
<tr>
<td>12</td>
<td>FF</td>
<td>0CH</td>
<td>F4</td>
<td>Ctrl + L</td>
<td>28</td>
<td>FS</td>
<td>1CH</td>
<td>UP (Edit)</td>
<td>Ctrl + \</td>
</tr>
<tr>
<td>13</td>
<td>CR</td>
<td>0DH</td>
<td>ENTER (CR)</td>
<td>Ctrl + M</td>
<td>29</td>
<td>GS</td>
<td>1DH</td>
<td>DOWN (Edit)</td>
<td>Ctrl + ]</td>
</tr>
<tr>
<td>14</td>
<td>SO</td>
<td>0EH</td>
<td>F5</td>
<td>Ctrl + N</td>
<td>30</td>
<td>RS</td>
<td>1EH</td>
<td>LEFT (Edit)</td>
<td>Ctrl + 6</td>
</tr>
<tr>
<td>15</td>
<td>SI</td>
<td>0FH</td>
<td>F6</td>
<td>Ctrl + O</td>
<td>31</td>
<td>US</td>
<td>1FH</td>
<td>RIGHT (Edit)</td>
<td>see note ()</td>
</tr>
</tbody>
</table>

1) To emulate the keyboard function key input for user definable parameters, the user must configure actual content using the Reserved ASCII 00 – 31 characters and also enable the “Function Key Emulation”. Otherwise, the Ctrl output will be done by the scanner. Please refer to the above Keyboard Function Code Table which is for IBM PC/XT/AT, PS/2, PS/VP, COMPAQ PC, HP Vectra PC, Notebook PC, APPLE and PowerMac, and WYSE PC Enhanced or fully compatible machines. The last character in the Ctrl output column varies for different countries.
5.4 ASCII Input Shortcut (Reference Table)

To configure the user definable parameters of the Hand-held scanner via the programming menu, the scanner will ask you to scan your desired ASCII value in HEX form. You have to refer to the “HEX/ASCII Table” for details.

<table>
<thead>
<tr>
<th>Country (refer to Keyboard Layout) &amp; Character</th>
</tr>
</thead>
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<td>Sweden - UK - France -</td>
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### Example:
ASCII “A” → HEX “41”; ASCII “a” → HEX “61.”

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<td>O</td>
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Example: If you want the scanned data output leading with a Dollar Sign, you have to set the “Preamble” to “$”. The configuration procedure is listed below for reference.

- Scan the system command – PROGRAM listed on page 33 and 36 to enter programming mode.
- Scan family code – PREAMBLE to select this family.
- Refer to the Hex/ASCII Table, you will find the HEX value of “$” is 24.
- Scan the option code – 2 listed on page 116.
- Scan the option code – 4 listed on page 116.
- Scan the system command – FIN (Finish) to terminate Preamble setting.
- Scan the system command – End to exit the programming mode for normal operation.
## 5.5 GS1-128 ASCII Table

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## Operating Instructions

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</table>
### GS1-128 ASCII Table

| 62 | b | b |  | 79 | y | y |
| 63 | c | c |  | 7A | z | z |
| 64 | d | d |  | 7B | { | } |
| 65 | e | e |  | 7C | | |
| 66 | f | f |  | 7D | } | } |
| 67 | g | g |  | 7E | ~ | ~ |
| 68 | h | h |  | 7F | DEL | Ctrl + Backspace |
| 69 | i | i |  | 80 | N/A | F1 |
| 6A | j | j |  | 81 | N/A | F2 |
| 6B | k | k |  | 82 | N/A | F3 |
| 6C | l | l |  | 83 | N/A | F4 |
| 84 | N/A | F5 |  | 91 | N/A | ←(Left Arrow) |
| 85 | N/A | F6 |  | 92 | N/A | PageUp |
| 86 | N/A | F7 |  | 93 | N/A | PageDown |
| 87 | N/A | F8 |  | 94 | N/A | Enter |
| 88 | N/A | F9 |  | 95 | N/A | Delete |
| 89 | N/A | F10 |  | 96 | N/A | Insert |
| 8A | N/A | F11 |  | 97 | N/A | Home |
| 8B | N/A | F12 |  | 98 | N/A | End |
| 8C | N/A | Tab |  | 99 | N/A | BackSpace |
| 8D | N/A | Esc |  | 9A | N/A | Shift + |
| 8E | N/A | ↓(Down Arrow) |  | 9B | N/A | Ctrl + |
| 8F | N/A | ↑(Up Arrow) |  | 9C | N/A | Alt + |
| 90 | N/A | ~(Right Arrow) |  |  |  |  |

"Shift +", "Ctrl +" and "Alt +": Read the direct input menu barcode twice when you output only Shift, Ctrl and Alt.
## 5.6 Application Identifier Table

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<th>FNC1 at Data Terminal</th>
<th>FNC1 Required</th>
<th>CMD Barcode</th>
<th>Application Identifier</th>
<th>FNC1 at Data Terminal</th>
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Data field length = 2L+1 Example 231, it is 2×1+1=3

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| 241                    | Indispensability      | (FNC1)        |             | 324D                   | Unnecessary           |               |             |
| 250                    | Indispensability      | (FNC1)        |             | 325D                   | Unnecessary           |               |             |
| 326D                   | Unnecessary           |               |             | 347D                   | Unnecessary           |               |             |
| 327D                   | Unnecessary           |               |             | 348D                   | Unnecessary           |               |             |
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5.7 Host Interface Quick Set

USB HID Standard Mode ◆

PS/2 (DOS/V) KBW Standard Mode

RS-232 Serial

USB Com Port Emulation
(additional driver needed, available on www.sick.com)

PS/2 (DOS/V) KBW Turbo Mode

USB HID Turbo Mode

PS/2 (DOS/V) Keyboard Replacement

For IDM Bluetooth scanners the above host interface quick commands are only available when working with a smart cradle.
5.8 Operation Mode Quick Set

5.8.1 1D Corded Scanners (IDM1x0 series)

- Low Power (Low Power Trigger)
- Force (Continued power on)
- Alternative (Periodic Power off)
- Trigger (External Triggering) ♠
- Toggle (Repeat reading)
- Flash (Pulse driven reading)
- Presentation (Auto Sensing)
- Diagnostic (Test reading)
- Level (Auto power off)
5.8.2  2D Corded Scanners (IDM2x0 series)

- Low Power (Low Power Trigger)
- Force (Continued power on)
- Alternative (Periodic Power off)
- Trigger (External Triggering) ♦
- Toggle (Repeat reading)
- Level (Auto power off)
- Presentation (Auto Sensing)
- Diagnostic (Test reading)
- Multiple Read

5.8.3  Bluetooth Scanners

- Trigger Mode
- Presentation Mode
5.9 Link Mode Quick Set

The Link Mode commands are only relevant for IDM Bluetooth scanners.

- PAIR Mode
- PICO Mode
- Uninstall
- SSP Master
- SSP Slave
- HID Mode
- HID Legacy Mode
- HID Mode with Passkey
5.10 System Commands

- PROGRAM (Enter Programming Mode)
- System Information List (SYSLIST)
- Safe User Default
- FIN (Finish)
- IDM Set Up Tool (Host Link)
- User Default
- END (Exit Programming Mode)
- Master Default
- Factory Default

**Factory Default:** After scanning “Factory Default” command, all parameters will be returned to factory default value. In addition, for IDM Bluetooth scanners the radio link will be disconnected and the scanner will revert to uninstall state.

**Master Default:** After scanning “Master Default” command, the scanner will remain the pre-set parameters of Host Interface Selection, Keyboard Interface Control (except Record Suffix; Preamble; Postamble), Serial Interface Control (except Record Suffix; Preamble; Postamble) and Wand/Laser Emulation Control. The rest of the parameters will be returned to default value. (For IDM Bluetooth scanners the Bluetooth device name, Bluetooth PIN Code and Out-of-Range Scanning parameters will also be remained. The radio link will be kept on.)

**User Default:** After scanning “Save User Default” command, all current parameters will be stored to the flash memory. Once you change the parameter and would like to return to previous setting, please scan “User Default”.

Additional System Commands for IDM Bluetooth Scanners

- Sleep
- Save Configuration
- Power Off
- Paging
- Clone
5.11 Option Codes

0

5

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6

2

7

3

8

4

9

5

F

Abort

FIN (Finish)

END (Exit)
IDM corded & IDM Bluetooth
Australia
Phone +61 3 9457 0600
1800 33 48 02 – tollfree
E-Mail sales@sick.com.au
Belgium/Luxembourg
Phone +32 (0)2 466 55 66
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Brasil
Phone +55 11 3215-4900
E-Mail marketing@sick.com.br
Canada
Phone +1 905 771 14 44
E-Mail information@sick.com
Česká republika
Phone +420 2 57 91 18 50
E-Mail sick@sick.cz
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Danmark
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1 (800) 325-7425 – tollfree
E-Mail info@sickusa.com

More representatives and agencies at www.sick.com