



2D Barcode Scanner

USER'S GUIDE

Content

Getting to Start

| | |
|--------------------------------------|----|
| Specification | 01 |
| Distance of Field | 02 |
| ON, OFF, IDLE, RESTART | 04 |
| Connect Scanner to the Host..... | 05 |
| Removal of Communication Cable | 06 |

Reading

| | |
|----------------------|----|
| Hand-held Mode..... | 07 |
| Hands-Free Mode..... | 08 |

Programming Code

| | |
|------------------------------------|----|
| Query | 09 |
| Factory Default..... | 10 |
| Reading Mode..... | 11 |
| RS232 Programming..... | 12 |
| USB Programming..... | 15 |
| USB HID-KBW Programming..... | 16 |
| Beeper | 19 |
| Line Feed and Carriage Return..... | 20 |
| 1D Symbols..... | 22 |
| 2D Symbols..... | 26 |

Appendix

| | |
|------------------------------|----|
| A. Testing Codes | 28 |
| B. Digit Code and Save | 29 |
| C. Troubleshooting | 30 |

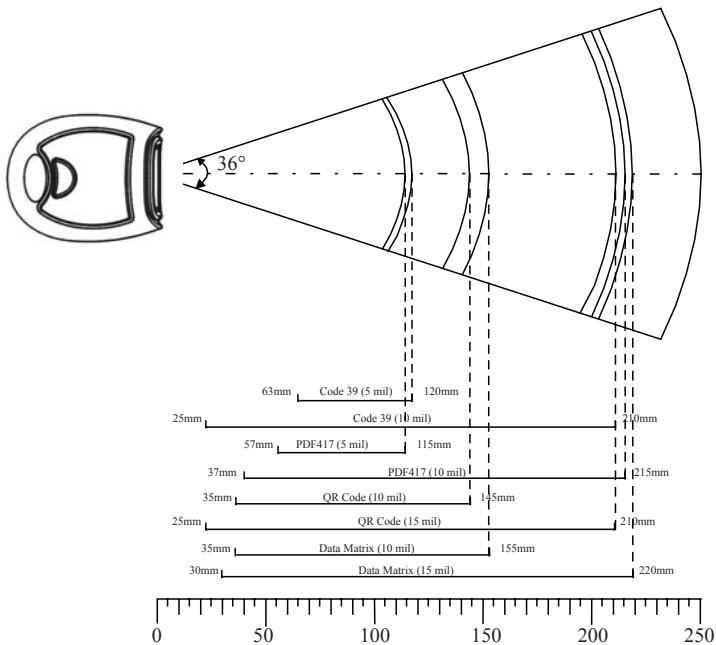
Getting to Start

Specification

| Performance | | |
|------------------------------------|--|--|
| Image Sensor | CMOS | |
| Resolving | 752 * 480 | |
| Interface | RS232 / HID-KBW / UDP / USB COM Port Emulation / HID-POS | |
| Symbologies | 2D | PDF417, QR Code(Model 1/2), DataMatrix (ECC200, ECC000, 050, 080,100,140), Aztec, Maxicode, etc. |
| | 1D | Code128, EAN-13, EAN-8, Code39, UPC-A, UPC-E, Codabar, China post 25,Interleaved 2 of 5, ISBN, Code 93, GS1 Databar, Code 11,etc |
| Precision | ≥ 5mil | |
| Light Source | LED(630 nm ± 10 nm) | |
| Light Intensity | 300 LUX (130 mm) | |
| Depth of Scan Field | 30 mm ~ 445 mm | |
| Print Contrast Signal | ≥30% | |
| Roll | 360° | |
| Pitch | 45° | |
| Yaw | 45° | |
| Illumination | 0 ~ 100,000 LUX | |
| Mechanical/ Electrical | | |
| Power Consumption | 1.65 W | |
| Voltage | DC 5 V | |
| Current | Max | 330 mA |
| | Oper. | 290 mA |
| | Idle | 200 mA |
| Weight | 235g | |
| Environment | | |
| Operate Temperature | -5° C - +45° C | |
| Storage Temperature | -40° C - +60° C | |
| Humidity | 5% - 95% (non-condensing) | |
| Certificates | | |
| FCC Part15 Class B, CE EMC Class B | | |

Getting to Start

Distance of Field



Getting to Start

ON, OFF, IDLE, RESTART

Power On

Connect Scanner and Host. One click the "Trigger". Scanner powers on and in "Idle" (ready to use) state (factory default).

Power Off

There are 4 ways to "Power OFF":

- » Remove Cable Off scanner ;
- » Remove Power Adapter Off RS232 Cable;
- » Remove USB Cable Off the Host;
- » Remove PS/2 cable off the Host or power adaptor off.

IDLE

When scanner is NOT reading, it is in "IDLE mode".

No reading attempt within a timeout, the Imager switch to IDLE mode automatically.

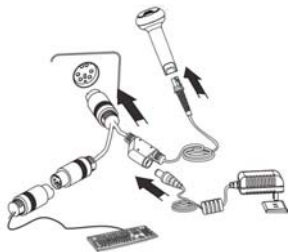
RESTART

If Scanner halted and does not respond to operations, please "Restart" by "Power OFF", and then "Power ON".

Getting to Start

Connect Scanner to the Host

Connecting with PS/2 Cable



- 1、 Insert PS/2 cable (RJ 45 male DIN) into Scanner cable slot;
- 2、 Insert PS/2 cable (PS/2 male DIN) into Host PS/2 female slot;
- 3、 If necessary, connect PS/2 cable and the power adapter;
- 4、 If necessary, keyboard can connect to female slot on the PS/2 cable.

Connecting with USB Cable

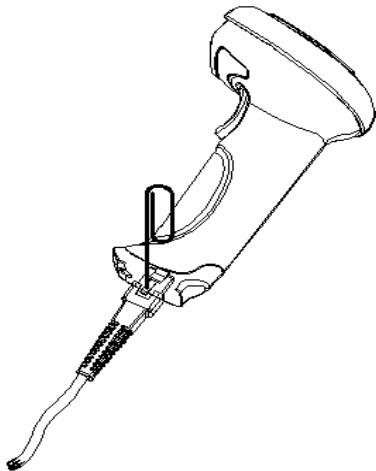


- 1、 Insert USB Cable (RJ45 male head) into Scanner cable slot;
- 2、 Insert USB Cable (USB male head) into Host' s (female) USB connector.

Connecting with RS232 Cable



- 1、 Insert RS232 cable (RJ45 male head) into Scanner cable slot;
- 2、 Insert RS232 cable (RS232 male head) into Host' s (female) RS232 connector;
- 3、 Connect RS232 cable and the power adapter.



A Pin that fit the Scanner “dismount hole” is needed. A paper clip could be ideal. Stretch one end of the paper clip to fit the “Dismount Hole”. Follow the steps:

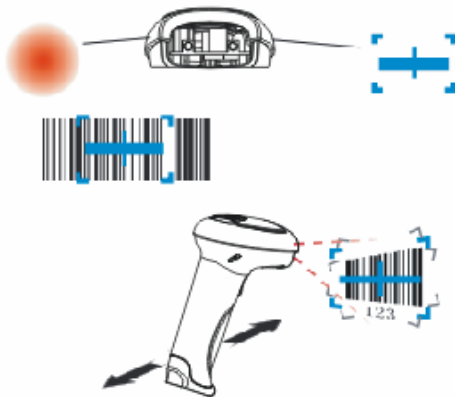
- 1、 For RS232 and PS/2 connections, unplug the power adaptor.
- 2、 Insert the Pin into “Dismount Hole” and keep some pressure.
- 3、 Pull out the cable gently.
- 4、 Pull out the Pin after the cable is removed.
- 5、 Unplug the connector from the Host.

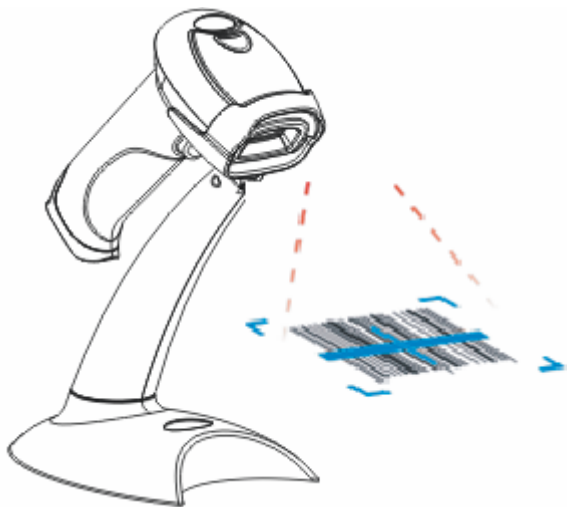
Reading

Hand-held Mode

- 1、 Ensure Scanner, cables, and the Host are connected, then turn the unit Power ON
- 2、 Press & hold Trigger. Illumination LED and Aiming LED cast an Illumination Pattern (red light) and an Aiming Pattern (blue light);
- 3、 Keep Illumination Pattern in the center of a bar code. Zoom in and zoom out to allocate the Optimum Reading Stance.
- 4、 On a successful reading, there' ll be a beep sound, illumination & aiming patterns die out. The scanner then transmits barcode message to the Host.

NOTE: Experiences tell a certain range of distances has higher successful reading rate. This range is the Optimum Reading Stance.





- 1、 Select reading mode “sensor mode” or “continuous mode” when working in hands-free mode.
- 2、 Adjust the stand height for the optimum reading stance.

Programming Code

Query

“Send Product Info” , the engine sends product information to the Host immediately. “Send Sys Info when Power ON” , the engine sends product information through RS232(only) to the Host after Power ON.



Send Product Info



Send Sys Info when Power ON



Do not Send Product Info when Power ON
(Factory Default)

Code Programming ON



Code Programming OFF



The system information is provided as follows:

| Title | Remarks |
|----------------|---|
| Firmware Ver | Device Firmware Version |
| Build Time | Device Firmware Version Establishing Time |
| Device ID | Device Type |
| App Ver | Device Application Version |
| uIMG Ver | Device uIMG Version |
| Date | Device Manufacture Date |
| S/N | Device serial number |
| ESN | User-defined device serial number |
| Manufacture ID | Device Name |
| Interface | 1 types of communication interfaces: TTL232 or RS232, baud rate, parity check, data bits, stop bit |
| 1D | Indicate that reading 1D is allowed. |
| 2D | Indicate that reading 2D is allowed. |
| Scan Mode | 1. Manual Scan 2. Auto Scan 3. Continuous Scan |

Appendix

A. Testing Codes

CODE128



059183979215

UCC/EAN-128



059183979215

UPC-E



0 123456

UPC-A



0 09876 54321

Interleaved 2of 5



022183979216

CODE39



123456

DataMatrix



QR Code



PDF417



