# Omni-directional 2D barcode scanner Manual

# Imaging Bar Code Scanner Technical Specifications

## Operational

| | |
|---|---|
| **Light Source** | Visible Red LED 625 nm ± 6.5 nm |
| **Visual Indicators** | Blue = ready to scan; White = good read; Yellow = automatic scanning |
| **Host System Interfaces** | USB, RS232, Keyboard Wedge, IBM 46xx (RS485) |

## Mechanical

| | |
|---|---|
| **Dimensions (LxWxH)** | (With Stand)1300MMX98MMX128MM; (Host)125MMX86MMX85MM |
| **Weight** | (With Stand)510G; (Host)310G |

## Electrical

| | |
|---|---|
| **Input Voltage** | 5VDC |
| **Operating Power (typical)** | 2W（400mA@5V) |
| **DC Transformers** | Class2:5VDC@2A |
| **LED Class** | Class1;IEC60825-1 EN60825-1 |
| **EMC** | FCC Part15,IEC60825-1,EN55022 Class B |

## Environmental

| | |
|---|---|
| **Operating Temperature** | 0°C~45°C |
| **Storage Temperature** | -40°C ~ 60°C |
| **Humidity** | 0% to 95% relative humidity, non-condensing |
| **Drop** | Designed to withstand 1.5 m (5´) drops |
| **Environmental Sealing** | Sealed to resist airborne particulate contaminants |
| **Light Levels** | 100,000 Lux (9,290 foot-candles) |

## Scan Performance

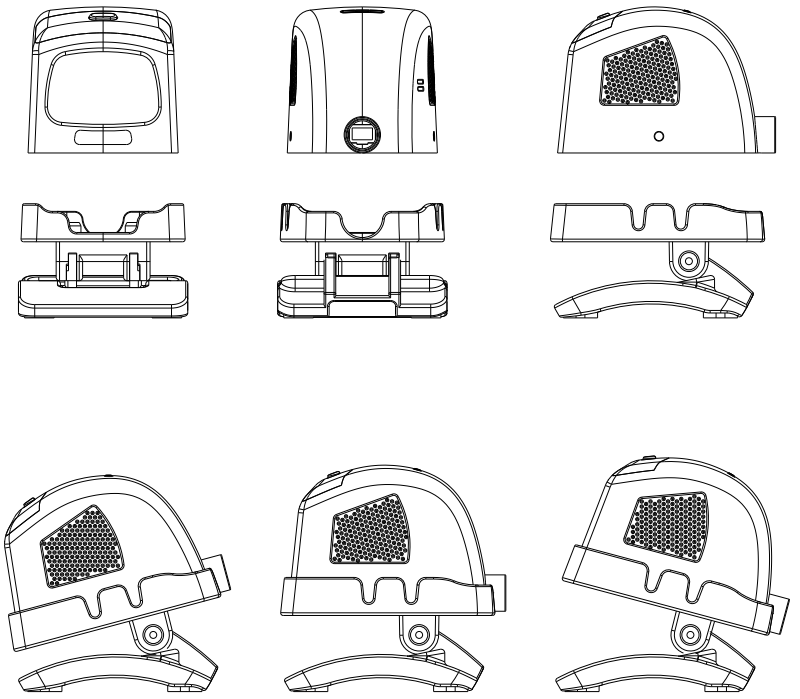
| | |
|---|---|
| **Scan Pattern** | Area Image (1280 x 512 pixel array) |
| **Motion Tolerance** | 47 cm/s (18 in/s) for 13 mil UPC at optimal focus |
| **Scan Angle** | Horizontal: 50 |
| **Print Contrast** | 20% minimum reflectance difference |
| **Pitch, Skew** | 75°, 75° |

**Decode Capability**

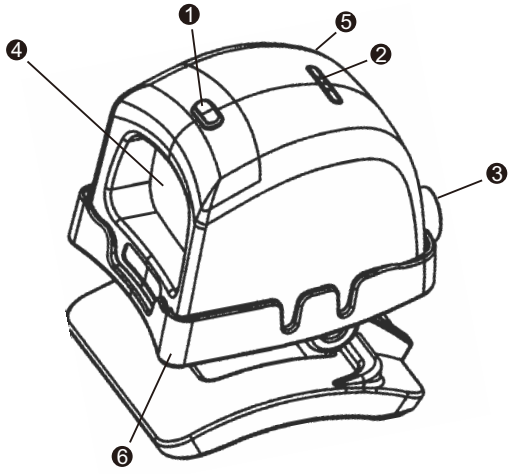
1D:Code39, Code93, Code128, UPC/EAN/JAN, Code2 of 5, Code11, Codebar,MSI Plessey, GS1 DataBar, Telepen, Trioptic *PDF: PDF417, MicroPDF417 *2D:QR Code, Micro QR Code, Data Matrix, Aztec Code, Maxicode, Codeblock, Composite Code, POSTNET, PLANET, UPC, Intelligent Mail, Canada Post, Australia Post, Japanese Post, Royal Mail RM4SCC, KIX Code *OCR: OCR-A, OCR-B, E-13B MICR

# Features

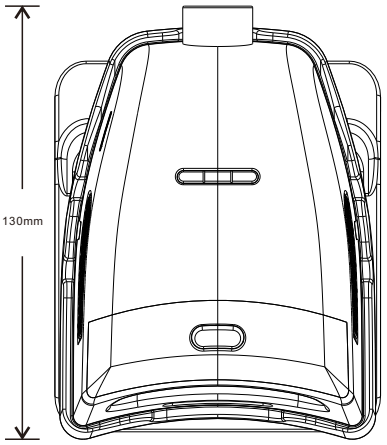
- **TotalFreedom™:**
  Expands scanner functionality by allowing image processing, decoding and formatting plug-ins to be loaded directly to the scanner instead of the host system
- **Omnidirectional Scanning:**
  Eliminates need to orientatescanner to bar code
- **Mobile Phone Reading:**
  Excels at scanning coupons and tickets directly from the screen of a mobile device
- **CodeSelect™:**
  Scans up to 7 bar codes in a single flash and outputs data in any predetermined order
- **Flexible Licensing Solution:**
  Meets diverse scanning requirements by offering models with limited decoding capabilities—purchase decoding licenses to enable additional functionality as the need arises
- **Motion Tolerance:**
  Offers aggressive scanning of bar codes passing by the window in presentation mode

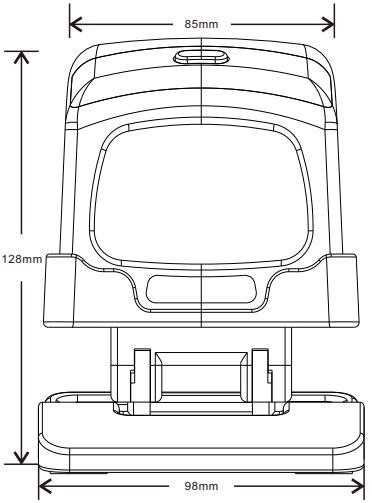


# Mechanical




| | | | |
|---|---|---|---|
| 1 | manual switch | 4 | Scan Window |
| 2 | LED Light LED light | 5 | Speaker |
| 3 | 10-Pin Female Soket | 6 | Stand |



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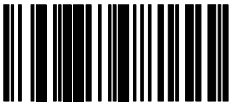
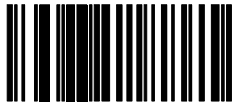
## Presentation and Trigger Modes

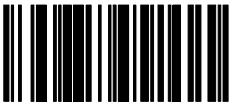
Presentation Mode
Out-of-Stand



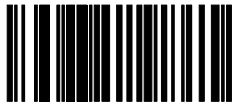
Presentation Mode
In-Stand



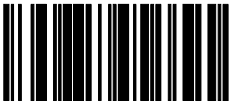
Multi-Try Trigger Mode
Out-of-Stand



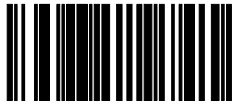
Multi-Try Trigger Mode
In-Stand



Continuous Trigger Mode
Out-of-Stand

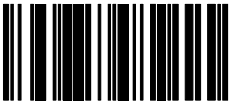


Continuous Trigger Mode
In-Stand

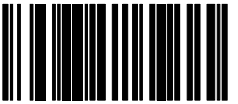


## Presentation and Trigger Modes

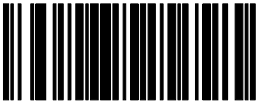
Single Trigger Mode
Out-of-Stand



Single Trigger Mode
In-Stand

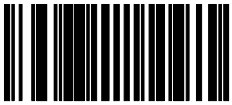


Set In-Stand Mode to Match
Out-of Stand Mode

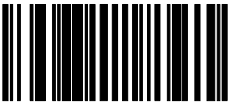


## Omnidirectional and/or Linear Scanner Modes

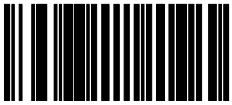
Enable Linear Only
in Trigger Operations



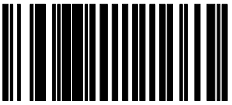
Disable Linear Only
in Trigger Operations



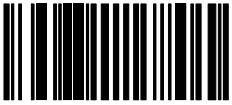
Enable 1D Linear Only
in Trigger Operations



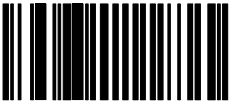
Disable 1D Linear Only
in Trigger Operations



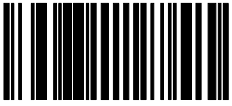
Enable Linear Only
in Presentation Operations



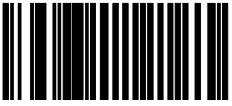
Disable Linear Only
in Presentation Operations



Enable 1D Linear Only
in Presentation Operations

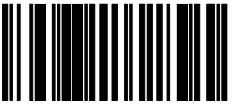


Disable 1D Linear Only
in Presentation Operations



## Linear Illumination Aiming

Enable Aiming in Trigger Operations



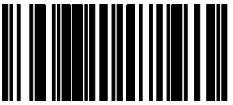
Disable Aiming in Trigger Operations

Enable Aiming in Presentation Operations

Disable Aiming in Presentation Operations

## Data Output

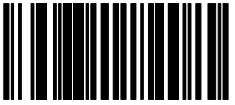
Enable Data Output



Disable Data Output

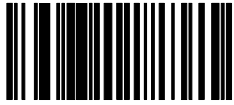
## Same Symbol Timeouts

Retain Same Symbol Timeout on Trigger



The same-symbol timeout is not restarted when the trigger is pulled.

Reset Same Symbol Timeout on Trigger

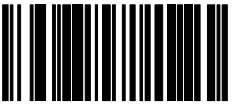


The same-symbol timeout is restarted when the trigger is pulled.

## Data Matrix

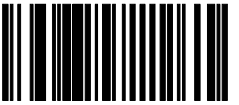
Enable Normal
Color Data Matrix Decoding

Enable Inverse
Color Data Matrix Decoding

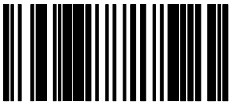


Enable Normal **and** Inverse
Color Data Matrix Decoding

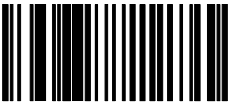
Disable
Data Matrix Decoder



Enable Rectangular
Data Matrix Symbol
Decoding

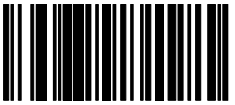


Disable Rectangular
Data Matrix Symbol
Decoding



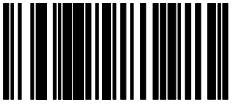
## QR Code

Enable Normal Video QR Code

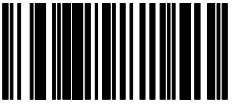


Enable Inverse Video QR Code

Enable Normal **and** Inverse QR Code

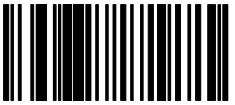


Disable QR Code



## MaxiCode

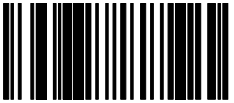
Enable MaxiCode



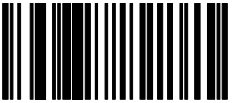
Disable MaxiCode

## Aztec

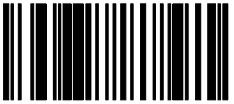
Enable Normal
Video Aztec Decoding



Disable Normal
Video Aztec Decoding



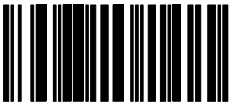
Enable Inverse
Video Aztec Decoding



Disable Inverse
Video Aztec Decoding

## Postal

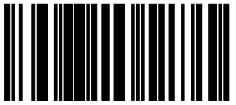
Enable
Australia Post



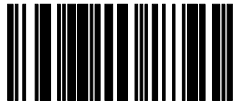
Disable
Australia Post

## Postal

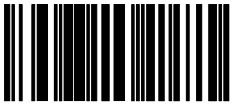
Enable Japan Post



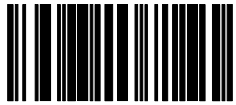
Disable Japan Post



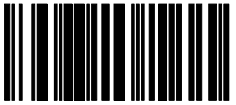
Enable KIX Code



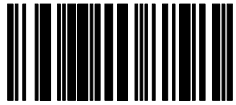
Disable KIX Code



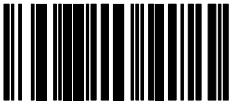
Enable
PLANET Code



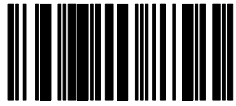
Disable
PLANET Code



Enable
POSTNET Code

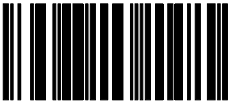


Disable
POSTNET Post

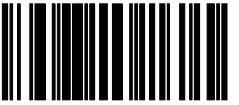


## Postal

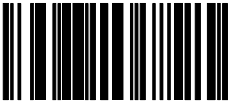
Enable B & B'
Fielded POSTNET



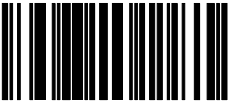
Disable B & B'
Fielded POSTNET



Enable
UPU Decoding



Disable
UPU Decoding

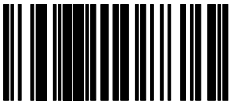


Enable
Royal Mail 4 Code

Disable
Royal Mail 4 Code

## Software Handshaking

Enable
]V Handshaking

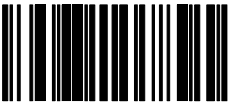


An “]V” response from the host indicates reception of scanner data.

Disable
]V Handshaking

## Additional Interfaces

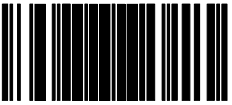
Enable Beeper
ON/OFF Commands



Enables beeper on/off commands with internal USB and IBM interfaces.

Disable Beeper
ON/OFF Commands

3rd Generation
IBM 46xx Defaults



For this feature to function properly, scan IBM Reserved Code #2 after scanning the 3rd Generation IBM 46xx Default bar code.

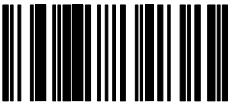
IBM Reserved Code #2

Scan IBM Reserve bar code above after scanning the 3rd Generation IBM 46xx Default bar code.

## Additional Interfaces

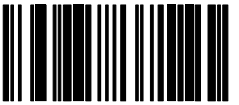
### IBM 46xx-SIOC RS485 Interface

Send 30H for Last Block
Label Identifier 4680



For PDF
codes only.

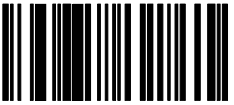
Send 00 for Last Block
Label Identifier 4680



For PDF
codes only.

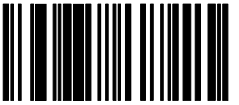
### IBM-OEM USB Interface

Send 30H for Last Block
Label Identifier USB



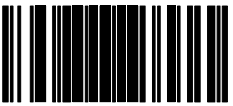
For PDF
codes only.

Send 00 for Last Block
Label Identifier USB



For PDF
codes only.

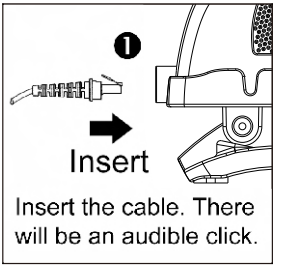
Full Speed USB
Keyboard Interface

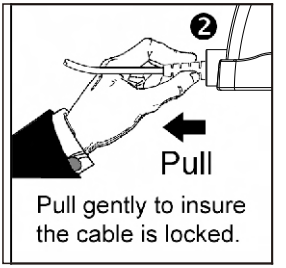


## THE POWERLINK CABLE

### CONNECTING

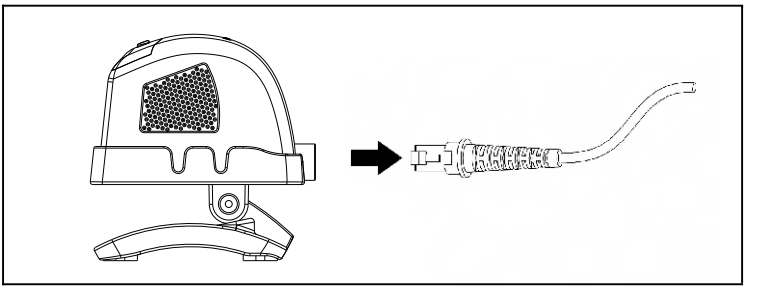
Important: If the PowerLink cable is not fully 'latched' the unit can power intermittently.



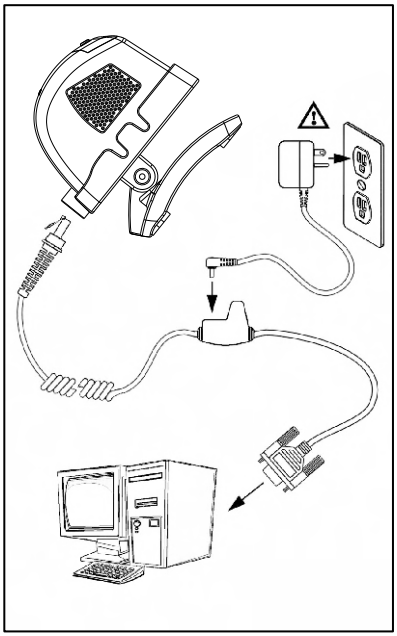

### DISCONNECTING

Before removing the cable from the scanner, Metrologic recommends that the power on the host system is off and the power supply has been disconnected from the PowerLink cable.



1. Locate the small 'pin-hole' on the handle of the unit near the cable.
2. Bend an ordinary paperclip into the shape shown above.
3. Insert the paperclip (or other small metallic pin) into the small 'pin-hole'.
4. You will here a faint 'click'. Pull gently on the strain-relief of the PowerLink cable to remove the cable from the unit.

## RS232：

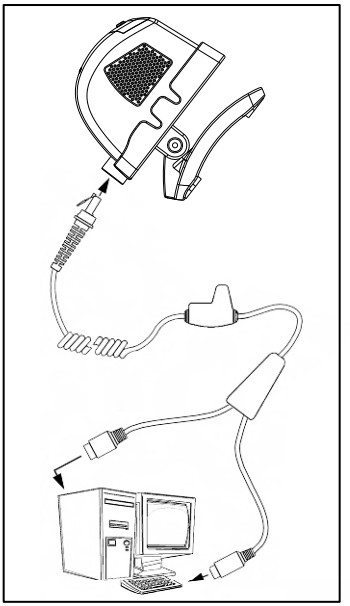


1. Turn off the host device.
2. Plug the male 10-pin RJ45 end of the PowerLink cable into the 10-pin socket on the Focus. You will hear a ‘click’ when the connection is made.
3. Connect the 9-pin D-type connector of the communication cable to the proper COM port of the host device.
4. Plug the power supply into the power jack on the PowerLink cable.

> Check the AC input requirements of the power supply to make sure the voltage matches the AC outlet. The outlet must be located near the equipment and be easily accessible.

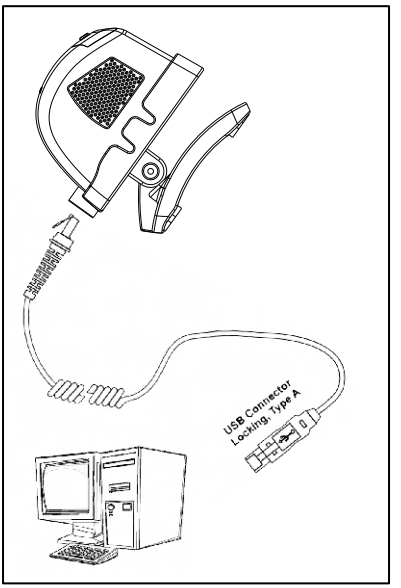
5. Connect AC power to the transformer.
6. If will start to initialize. All LE Ds (yellow, white, and blue) will light for approximately 2 seconds then start to alternately flash. When the scanner has finished initializing the LEDs will stop flashing and the unit will beep 3 times indicating that the scanner is ready for use.

## Keyboard:



1. Turn off the host device.
2. Plug the 10-pin RJ45 male end of the PowerLink cable into 10-pin socket on the Focus. You will hear a 'click' when the connection is made.
3. Disconnect the keyboard from the host device.
4. Connect the "Y" ends of the communication cable to the keyboard and keyboard port on the host device. If necessary use the male/female adapter cable supplied with the scanner for proper connections.
5. Plug the external power supply (*required*) into the power jack on the PowerLink cable.
6. If will start to initialize. All LEDs (yellow, white, and blue) will light for approximately 2 seconds then start to alternately flash. When the scanner has finished initializing the LEDs will stop flashing and the unit will beep 3 times indicating that the scanner is ready for use.
7. Turn on the host device.

## Integrated USB:




1. Turn off the host device.
2. Plug the male 10-pin RJ45 end of the USB cable into the 10-pin socket on the Focus. You will hear a 'click' when the connection is made.
3. Plug the USB type A end of the USB cable into the host's USB port.
4. Turn on the host device.
5. If will start to initialize. All LEDs (yellow, white, and blue) will light for approximately 2 seconds then start to alternately flash. When the scanner has finished initializing the LEDs will stop flashing and the unit will beep 3 times indicating that the scanner is ready for use.

Feb 2013

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