Newland
SCANNING MADE SIMPLE

FR80
Desktop Barcode Scanner
Quick Start

V1.0

## FR80 Scanner

The NLS-FR80 barcode scanner (hereinafter referred to as "the FR80" or "the scanner"), armed with the Newland patented UIMG®, a computerized image recognition system, blends image recognition algorithm & manufacturing, which significantly simplifies application design and delivers superior performance and solid reliability.

The FR80 supports all mainstream 1D and standard 2D. It can read barcodes on commodities and mobile phones, featuring excellent scanning performance and easy installation.
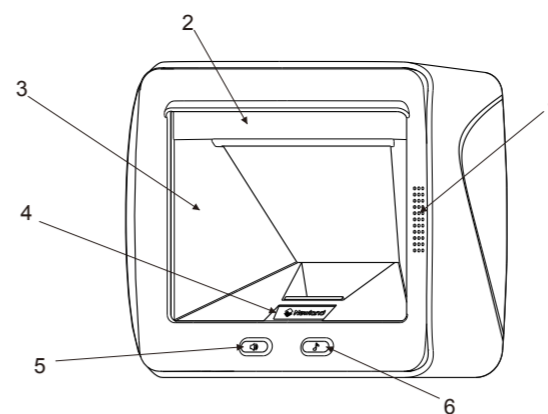
The scanner must be connected to a host device in actual application, such as PC, POS or any intelligent terminal with USB or RS-232 port, using a USB or RS-232 cable.
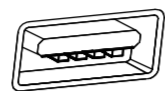
USB port on the host device
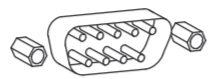
RS-232 port on the host device

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FR80 Scanner

1. Sound hole, the sound is emitted from the hole;

2. Illumination LED for supplementary lighting, not to look at the illumination LED directly for a long time;

3. Scan Window, the barcode shown in the scan window will be decoded;

4. Status indicator, used to indicate the working status;

5. Volume key, used to adjust the volume of good read beep (default: low, medium and high levels);

6. Sound effect key, used to select sound effects of good read beep (default: five options);
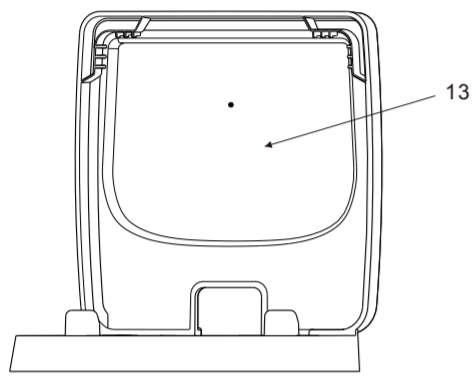
2

FR80 Scanner
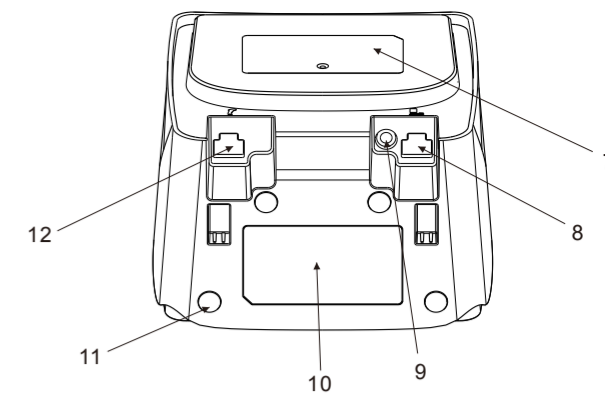
7. Position of logo, where the logo is pasted;

8. Main RJ45 port, to connect the host with the cable;

9. DC port, to connect the adapter for the FR80;

10. Position of label, where the label is pasted;

11. Position of pad, where four rubber pads are pasted;

12. Secondary RJ45 port, to connect the scanner with the cable;

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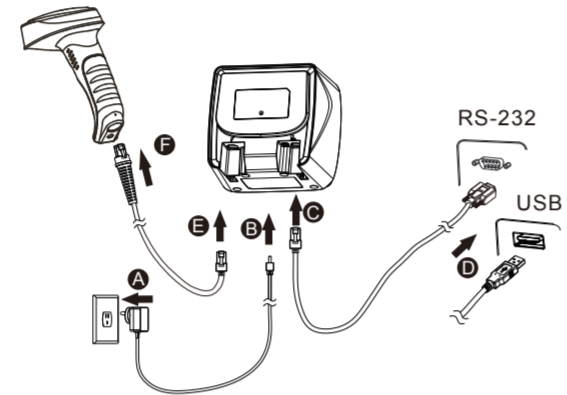## FR80 Scanner

13. Fixed seat, used to fix the scanner on the desktop.

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Installation

Power on
1. For the FR80 with the adapter, connect the adapter first and power on the FR80 according to step A and step B in Figure 4. Then connect the data cable (USB data cable or RS-232 data cable) according to step C and step D. Finally connect the handheld barcode scanner if needed, following step E and step F. The power-on duration is about 4 seconds.

2. For the FR80 without the adapter, handheld barcode scanner access is not available. It supports power supply via the USB port according to step C and step D. The power-on duration is about 10 seconds.

3. It is not allowed to connect the non-standard and damaged adapter and forbid conducting step B without step A.

4. If you do not hear the power-on beep after powering the device on for more than 30 seconds, it means that the power supply is insufficient and the device will emit an alarm.

RS-232
USB

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Installation

Power off
1. For the FR80 with the adapter, disconnect the data cable (USB data cable or RS-232 data cable) firstly, then unplug the adapter and finally pull out the handheld barcode scanner.

2. For the FR80 without the adapter, directly disconnect the data cable.wer supply is insufficient and the device will emit an alarm.

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Status Indicator

Blue LED on: initialization or configuration process.

Green LED on: It indicates successful decode.

Cyan LED on: configuration is successful.

Purple LED on: configuration error.

Yellow LED on: The decoding is successful but an alarm is emitted due to data transmission failure. Please check if the data cable connection is loose.

Red LED on: An alarm occurs because of barcode scanning module malfunction. Please contact technical support.

Red LED flashes: An alarm for low input voltage. For the FR80 with the adapter, please check whether power supply of the adapter is normal. For the FR80 without the adapter, it may be because of insufficient power supply of the USB interface.

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Barcode Scanning
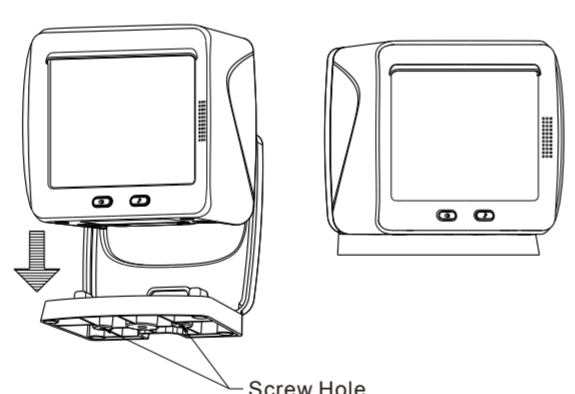
1. Make sure that the scanner, the data cable, the host and power supply are properly connected and powered on normally.

2. Place the barcode in the field of view as shown in Figure 5 and aim it at the scan window. The illumination LED will be activated, the red illumination area will appear and the decoding process will begin.

3. When the good read beep sounds and the green LED is on, it indicates the decoding is successful. The scanner will transmit the decoded data to the host.

4. The optimal scanning distance is about 7cm away from the scan window.

48.5°

38.3°

Field of View

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Installation of Optional Base
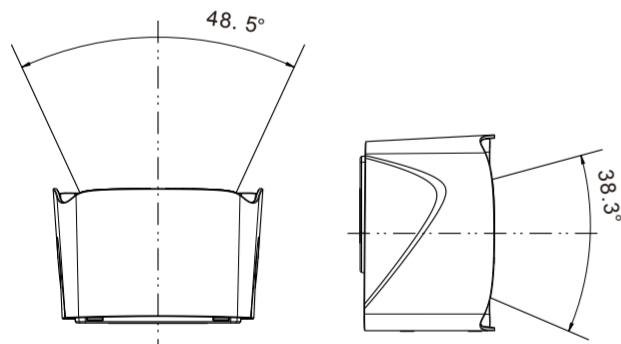
Please fix the base on the desktop through screw holes, and then install the FR80 as shown in Figure 6 if necessary.

Screw Hole

Installation of Base

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General parameter setting process

1.Enter Setup and Exit Setup

@SETUPE1
Enter Setup

@SETUPE0
** Exit Setup

2.Factory Defaults

@FACDEF
Restore All Factory Defaults

3.USB Interface Conversion

@INTERF8
USB CDC

@INTERF3
**USB-KBW

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General parameter setting process

4.Terminating Character Suffix

@TSUENA0
Disable Terminating Character Suffix

@TSUENA1
** Enable Terminating Character Suffix

5.Set Terminating Character Suffix

@TSUSET
Set Terminating Character Suffix

@TSUSET0D
** Set Terminating Character to CR (0x0D)

@TSUSET0D0A
Set Terminating Character to CRLF (0x0D,0x0A)

6.Query Product Information

@QRYSYS
Query Product Information

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External Handheld Barcode Scanner Access

1. After the handheld barcode scanner is connected, set serial communication interface as RS-232 interface and communication parameters (including 9600 baud rate, 8 data bits, 1 stop bit and no parity bit and turn on AIMID. Scan batch barcodes or 1D barcodes below to operate the function.

2. Decide whether to enable Good Read Beep and Good Read LED according to actual needs after the FR80 successfully sends received data from the handheld barcode scanner to the host.

Scan batch barcodes below to connect 2D handheld barcode scanner to the FR80:

@SETUPE1
Enter Setup

@BATCHB
Enable Batch Barcode

@232BAD3;232PAR0;232STP0;232DAT0;AIDENA1;
Batch Barcode

@SETUPE0
Exit Setup

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External Handheld Barcode Scanner Access

Scan 1D barcodes below to connect 1D handheld barcode scanner to the FR80:

@SETUPE1
Enter Setup

@232BAD3
9600 (Baud Rate)

@232PAR0
No Parity (RS-232)

@232STP0
1 Stop Bit (RS-232)

@232DAT0
8 Data Bits (RS-232)

@AIDENA1
Enable AIM ID Prefix

@SETUPE0
Exit Setup

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External Handheld Barcode Scanner Access

Scanning barcodes below can turn off Good Read LED and Good Read Beep that indicate successful decode:

@SETUPE1
Enter Setup

@GRBEEN0
Good Read LED & Beep Off

@SETUPE0
Exit Setup

Scanning barcodes below can turn on Good Read LED and Good Read Beep that indicate successful decode:

@SETUPE1
Enter Setup

@GRBEEN1
Good Read LED & Beep On

@SETUPE0
Exit Setup

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FCC/CE

Radio Frequency Interference Requirements
Radio Transmitters (Part 15)

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:
(1)This device may not cause harmful interference.
(2)this device must accept any interference received,

Including interference that may cause undesired operation.
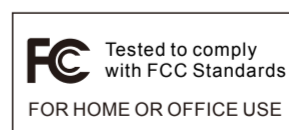
FC Tested to comply with FCC Standards
FOR HOME OR OFFICE USE

Marking and European Economic Area (EEA)
Statement of Compliance

Newland hereby declares that this device is in compliance with applicable Directives, 2014/30/EU.