Newland

NQuire 200

Customer Information Terminal

User Manual

Version 1.0

NQuire 200 User Manual

Limited Warranty: Under all circumstances this manual should be read attentively, before installing and/or using the product. In no event shall Newland be liable for any direct, indirect, special, consequential or incidental damages arising out of the use or inability to use this documentation or product, even if advised of the possibility of such damages. In particular, Newland shall not be liable for any hardware, software, or data that is stored or used with the product, including the cost of repairing, replacing or recovering the above. Newland reserves the right to change parts of the device at any time without preceding or direct announcement to the client. Newland reserves the right to revise this manual, and to make changes in the contents without obligation to notify any person or entity of the revision or change. A serial number appears on the product. Make sure that this official registration number has not been removed. It should be used whenever servicing by Newland or an authorised Newland dealer is necessary.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to EN55022, and with the limits for a class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the user's manual, may cause harmful interference to radio communications. Operation of the equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Any unauthorised changes or modifications to this equipment could void the user's authority to operate this equipment. The NQuire is in conformity with the CE standards. Please note that a Newland CE-marked power supply unit should be used to conform to these standards.

Radio and/or television interference: Operation of this equipment in a residential area can cause interference with radio or television reception. This can be determined by turning the equipment off and on. The user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orientate the receiving antenna
- Relocate the devices with respect to the receiver
- Move the device away from the receiver
- Plug the device into a different outlet in order to have the device and receiver on different branch circuits.

If necessary, the user should consult the manufacturer, an authorised Newland dealer or experienced radio/television technician for additional suggestions.

Content

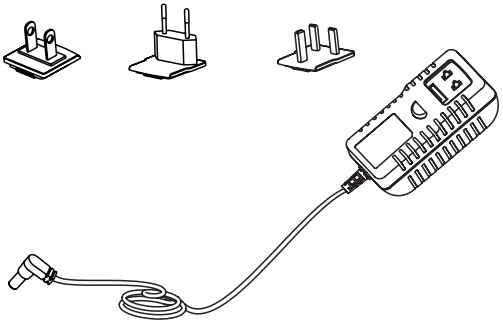
Content

Unpack

When you unpack the NQuire, the following hardware should be available to you:

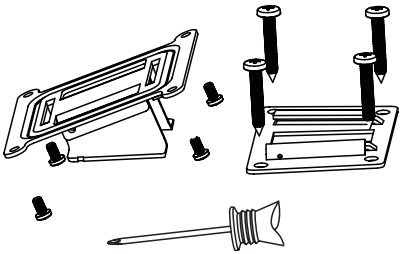
- NQuire 200 main unit

- Power Adapter

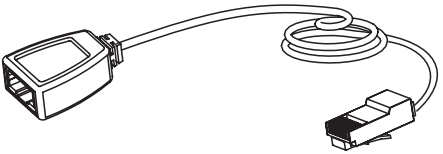


- RJ/USB Cable (for external USB devices)

- VESA 75 mount, screws and screwdriver



- Rigid Ethernet connector cable (optional use)



Declaration of Conformity

Declaration of Conformity

Newland Europe B.V.
Nijverheidsweg 1-d-e
Druten, The Netherlands
Tel: +31 487 5888 99
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Hereby declares under our sole responsibility that the product:

Product : NQuire200 series Customer Information Terminal
Model Number : NQuire200
Product View

Will comply with the following product specifications:

Laser/LED Safety: EN60825-1(1994) and IEC 60825-1(1993)

Electrical Safety : EN60950

EMC : EN55022 (2006) Radio disturbance characteristic
EN55024(1998) Immunity characteristics
EN61000-3-2(2006) Limits for harmonic current emissions
EN61000-3-3(1995) Limitation of voltage fluctuations and flicker
EN61000-4-2(1995) Electrostatic discharge immunity
EN61000-4-3(2006) Radiated, radio-frequency, electromagnetic field immunity
EN61000-4-4(2004) Electrical fast transient/burst immunity
EN61000-4-5(2006) Surge immunity
EN61000-4-6(1996) Immunity to conducted disturbances, induced by radio-frequency fields
EN61000-4-8(1993) Power frequency magnetic field immunity
EN61000-4-11(2004) Voltage dips, short interruptions and voltage variations immunity

Means of Conformity:

Please note that a CE-Marked power supply unit should be used to conform to the product specifications stated above.

Peter H. Sliedrecht
CEO Newland Europe B.V.
2009-07-10

Tips and Cautions

The following tips and cautions are used in this manual:

» TOOL, facilitates the use of the manual

» ATTENTION, be aware & read through

» TIPS, E.g., to help understand the product better

» EXAMPLE, to clarify a situation

Introduction of the NQuire 200

» The NQuire 200 customer information terminal is designed to read/scan, inform and interact with your customer. It is excellent for communicating prices, product information and loyalty points.

» This small and attractive information terminal reads multiple data carriers; from 1D EAN/UPC barcodes to complex 2D barcodes of mobile phone displays. It is even possible to equip the NQuire 200 with a RFID reader.

» The NQuire 200 complies with standard VESA 75 brackets enabling easy mounting on shelves and walls. Furthermore, it is possible to add USB peripherals to expand this solution with a printer, a hand held scanner for scanning large objects, a magnetic stripe reader and more.

» The NQuire 200 supports various networking options: 10/100Mbps Ethernet, WiFi 802.11b/g, GPRS and Power-over-Ethernet so it can be easily integrated into your existing wireless or wired LAN.

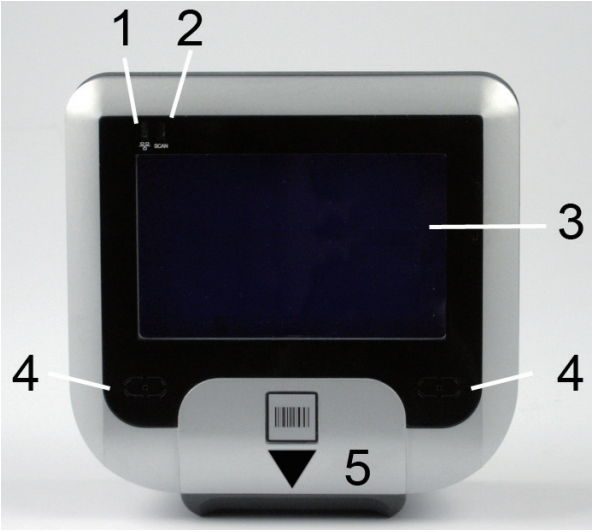
» The NQuire 200 can be used for various applications such as price checking, product information inquiries, access control, mobile barcode/coupon/ticket validations and more...

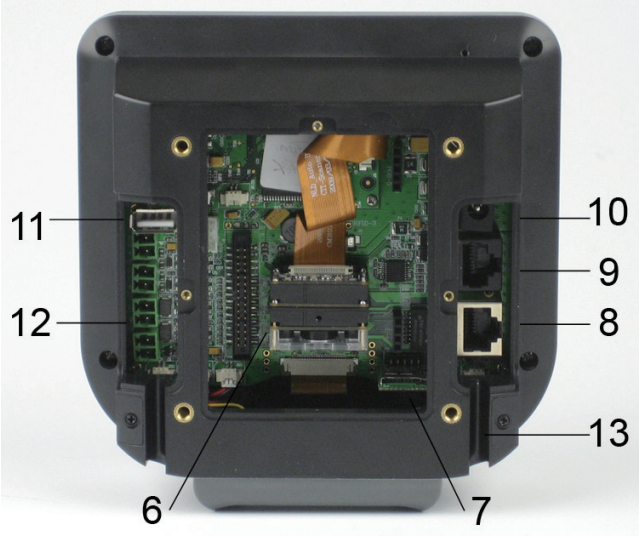
Specifications

Specifications

Specification		NQuire 201	NQuire 202
CPU		32-bit ARM9 CPU	
Memory		SDRAM: 32 MB	
		Flash: 8 MB	
		Support Mini SD up to 2GB	
Display		Blue-White 240*128 pixels graphical LCD (90mm x 55mm)	
Interface		10/100 Mbps Ethernet + WiFi OR PoE OR GPRS	
Optional	WiFI	IEEE 802.11b/g, 2.4GHz, DSSS,14dBm, WEP 64/128, WPA	
	GPRS	GSM 850 / 900 / 1800 / 1900 MHz, 85.4Kbps(Max)	
	RFID	Mifare(ISO 14443A), TI(ISO 15693), EM(125K)	
External	RJ USB	USB Host	
ports	GPIO	Free programmable GPIO (2 in - 2 out)	
Reading Modes		CCD	Imager
Symbologies			PDF417,QR Code, Data Matrix, Aztec, Vericode, Chinese-Sensible Code
		Code128,EAN-13,EAN-8,Code39,UPC-A,UPC-E, Codabar, Interleaved 2 of 5,China post 25,ISBN/ISSN,Code93, GS1 Databar	
Precision		≥4 mil	≥3 mil
Power	Power Consumption	up to 12W, depending on configuration	
	Adapter	12DC, 2000mA	
	P-o-E	Power-over-Ethernet IEEE 802.3af (Optional)	
Environment	Operate Temperature	0 °C ~ + 50 °C	
	Storage Temperature	-20 °C ~ + 55 °C	
	Operate Humidity	5% - 90% (no condensation)	
	Storage Humidity	5% - 95% (no condensation)	
Weight		440g	
Dimensions		140 mm(H) * 140 mm (W)* 60 mm(D)	
Operation System		Linux Kernel 2.6.25	
Certifications		CE, FCC	

Product Outline





1.Network indicator	2.Good scan indicator	3.LCD display
4.Beeper speaker	5.”Where to scan” arrow	6.Barcode scanner
7.Mini SD card Slot	8.Ethernet port	9.RJ USB / Debug port
10.Power jack	11.USB host (no function)	12.GPIO connectors
13.Cable run		

1. General Device Operation

How it works

The NQuire 200 is a terminal which receives its input via either:

- a 1D CCD barcode scanner (NQuire 201).

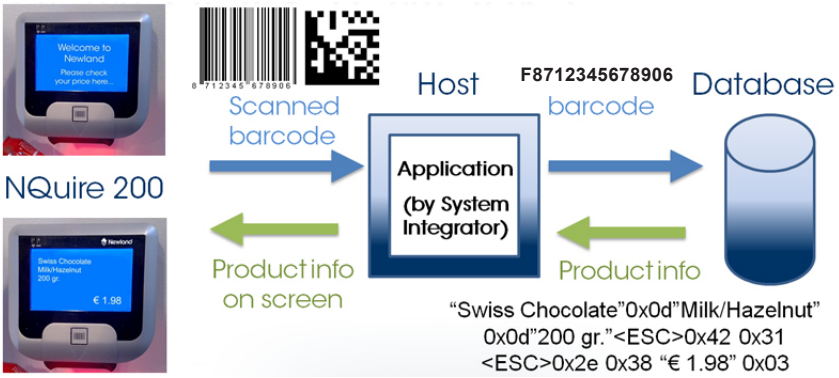
- a 2D CMOS barcode scanner (NQuire 202).

- optional RFID reader (on NQuire 201 or 202).

When the input is received, it is sent to the application software which runs on a remote PC/server elsewhere. The application program will send the appropiate display information back to the NQuire 200.

By default, the NQuire 200 sends its input according to the information in the barcode with code identifier and with [CR]. The code ID's can be disabled in the web configuration tool.

Barcode	Identifier		Barcode	Identifier
EAN-8	FF		Codabar	%
EAN-13	F		Code 93	c
Code128	#		MSI Plessey	m
EAN128	P		PDF417	r
IF 2/5	i		QR Code	s
Code39	*		Aztec	z
GS1 Databar	R		DataMatrix	u

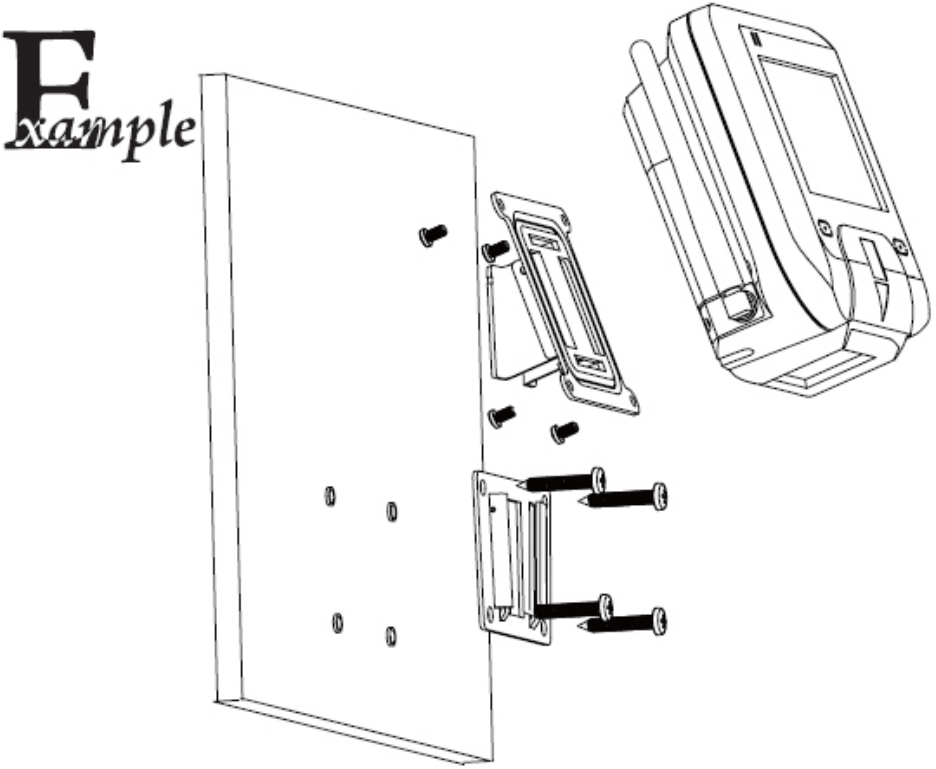


2. Installation

2.1 Mounting

The NQuire 200 comes standard with a VESA mount. Please follow the following instructions for mounting:

1. Determine the mounting location.
2. Choose a convenient scanning hight for your user environment.
3. Secure the mounting plate on a wall, countertop or shelve.
4. Secure the adjustable VESA plate on the back cover of the NQuire 200 using the 4 screws and screw inserts.
5. After having connected the appropiate cabling (See chapter 2.2 and 2.3), you can slide the NQuire into the mounting plate.



2.2 Power Supply

Please select, based on the model you have, between the following power supply options:

1. Newland power supply.
2. Power-over-Ethernet.

In case of the power supply:

1. Remove the right cover on the back of the NQuire 200.
2. Click the appropiate adapter on the Power Supply and plug it in (see page 5).
3. Lead the cable trough the cable run for appropiate routing (see page 5).
4. Wired ethernet: Connect the Ethernet cable to the Ethernet port (see page 5), close the cover and fix it with the screw. **NOTE:** When using a rigid Ethernet connector (unable to close cover), the "Rigid Ethernet cable" must be used as described on page 1 to connect to the NQuire, lead it through the cable run, close the cover and connect your ethernet cable to the connector on this cable.
5. Wireless ethernet: Close the cover and fix it with the screw.

In case of using Power-over-Ethernet:

1. Remove the right cover on the back of the NQuire 200.
2. Connect the Ethernet cable to the Ethernet port (see page 6).
3. Lead the cable trough the cable run for appropiate routing (see page 6).
4. Close the cover and fix it with the screw. **NOTE:** When using a rigid Ethernet connector (unable to close cover), the "Rigid Ethernet cable" must be used as described on page 1 to connect to the NQuire, lead it through the cable run, close the cover and connect your ethernet cable to the connector on this cable.
5. Connect the other end of the Ethernet cable into a PoE module or a Powered Switch (NOT supplied by Newland). The NQuire supports **both** the Mid-span and End-span Power-over-Ethernet protocol.
6. Connect DC power to either the third party PoE module or Powered Switch.

Do not use the power supply in conjunction with an active PoE solution. This can cause damage to the NQuire.

2.3 Connections

There are 5 physical connectors on the NQuire 200:

1. Power connector:

   - It has a positive center and the outer tab is ground.

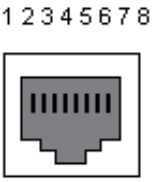
   - It is compatible with 100 ~240V ~50/60Hz, 12V.

2. RJ USB / Debug connector: In conjuction with the delivered RJ to USB cable (see page 1), this can be used to connect external devices such as a hand held scanner, a keypad or magnetic stripe card reader. Debug mode for Newland internal use.

When your user environment asks for scanning large objects, you can connect a Newland HR100 or HR200 hand held scanner to the RJ/USB cable. See chapter 5 for details.

3. Ethernet connector:

PIN	Description
1	Tx+
2	Tx-
3	Rx+
4	Not Used / PoE
5	Not Used / PoE
6	Rx-
7	Not Used / PoE
8	Not Used / PoE



4. GPIO connectors (General Purpose Input/Output interface):

   - Two in (2 pin each).

   - Two out (2 pin each).

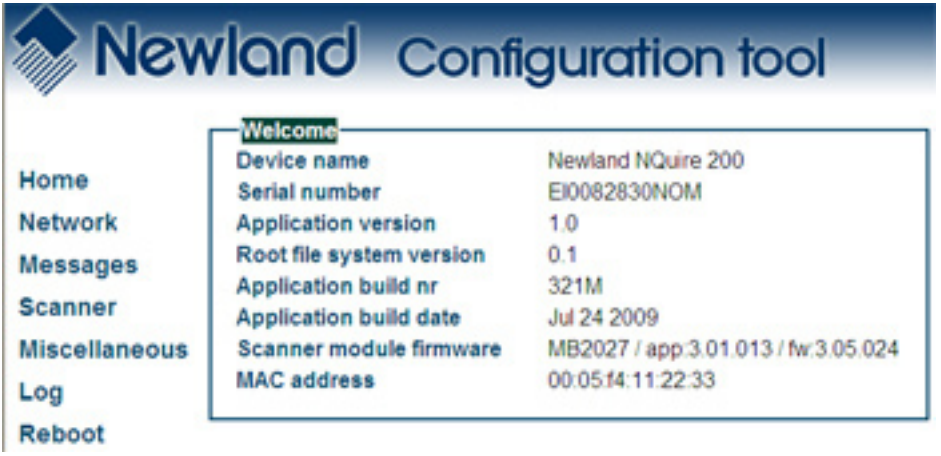
   Please read Chapter 5.3 for connector details and connection possibilities.

3. Configuration

3.1 General

The NQuire 200 uses a internal webserver for configuration. This eliminates Operating System restrictions. You can access the configuration tool by following this process:

1. Open/Start your web browser.
2. Enter the NQuire IP address in the address bar (default 192.168.1.200).
3. The following screen opens:



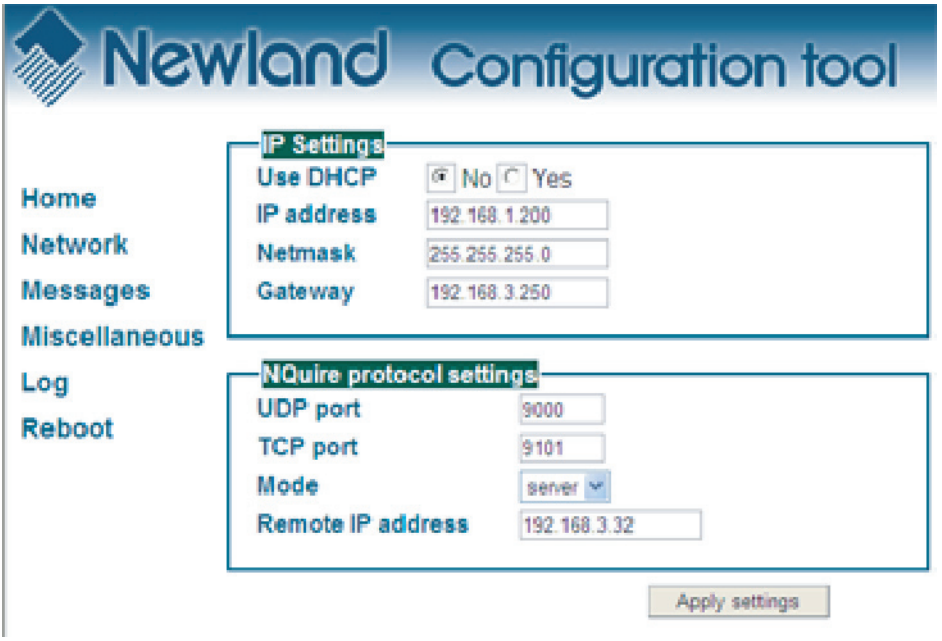
4. In the event of an error screen, please try to "ping" the device:
   - Make sure your PC is in the same IP range as the NQuire, for instance 192.168.1.198.
   - Type ping 192.168.1.200 in your "command prompt" (MS Windows: cmd.exe).
   - If this is not succesful, please double check the IP address and physical Ethernet connection.

TIPS

All configuration settings are saved in the "cit.conf" file which can be accessed through any FTP program (e.g. FileZilla). This allows you to save your configuration locally and duplicate/upload it to other NQuire units. Please be aware that you will have to change the IP settings per individual device!

3.2 Network settings

When you are using an Ethernet/PoE NQuire and you click on "Network" in the Configuration tool, the following screen opens:

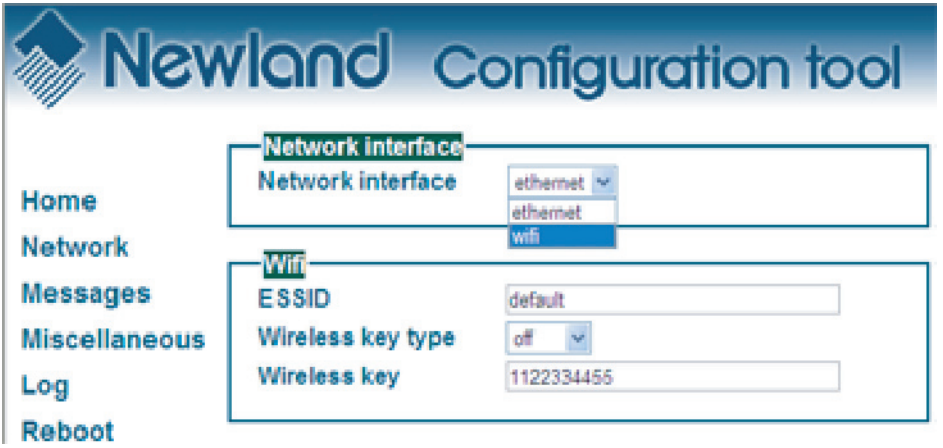


1. IP settings: Use of DHCP (automatic assignment of IP-address to NQuire 200) or not (NQuire has fixed IP-address). In a DHCP-request the NQuire vendor ID is: NQuire200
2. NQuire protocol settings: Define UDP/TCP port and remote IP address.

For each setting you want to change and save, click the "Apply settings" button after each change and in each box.

3.3 Wireless settings

When you have a Ethernet/WiFi NQuire, two extra boxes appears in the "Network" screen as shown below:



1. Network interface: You can choose between either wired or wireless Ethernet.
2. ESSID: Please type the ESSID name of your wireless router in this box.
3. Wireless key type: You can choose between three security levels:
   - None: No encryption key is needed, the NQuire is, via your wireless router, available to all WiFi enabled devices.
   - WEP: Entry-level encryption with a wireless key to limit network access.
   - WPA / WPA2: High-end encryption with a wireless key to limit network access.

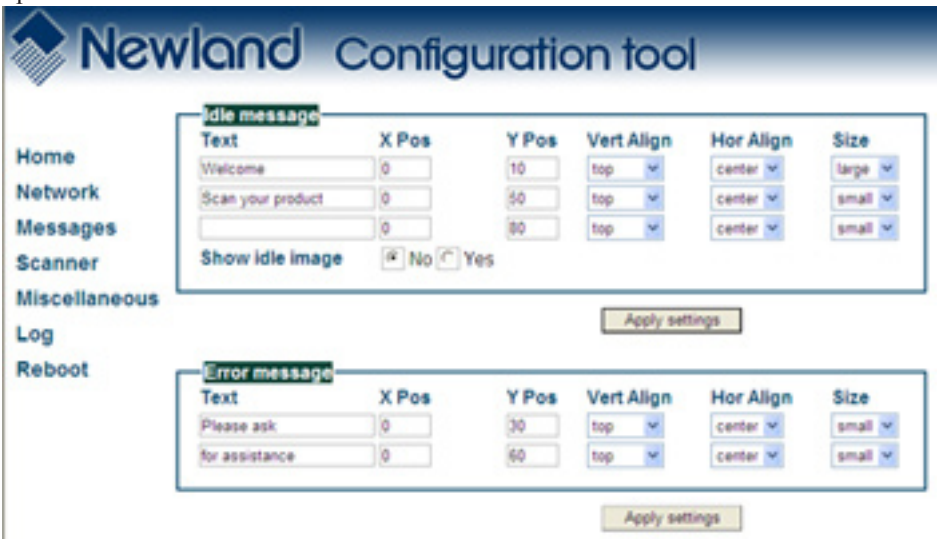
It is strongly advised to use a wireless key to avoid third parties to intrude your network. Please ask your administrator what network security level is available in your user environment.

4. Wireless key: Type the key which is going to be used to encrypt wireless data communication.

For each setting you want to change and save, click the "Apply settings" button after each change.

3.4 Idle screen settings

When you click on "Messages" in the Configuration tool, the following screen opens:



1. Idle message: You can type (on three lines) the text which is displayed on the screen at moments nothing is scanned:
   - X Pos / Y Pos: define the X-and Y positions per pixel on the screen.
   - Vert Align / Hor Align: Vertical and horizontal alignment options which have system default X -and Y screen positions.
   - Size: Choose between system default large -and small size text.
   - Idle image: Instead of or as a background picture in addition to the idle messages you can upload a **static** .gif picture file (2-colour black&white, **inverted** (black background/white drawing), max 240 x 128 pixels, max 100K size, non-interlaced) **through any FTP program**. The file name must be renamed to "**welcome.gif**" before uploading. When uploaded, you can enable it in this screen.

2. Error message: You can type (on two lines) the text which is displayed on the screen when the NQuire receives a timeout from the network (NQuire not connected / offline). Timeout settings can be changed at "Miscellaneous".

For each setting you want to change and save, click the "Apply settings" button after each change and in each box.

3.5 Scanner settings

When you click on "Scanner" in the Configuration tool, the following screen opens:

1. Barcodes:
   - The NQuire reads, by default, only 1D codes. You can select it to read 2D codes as well (only available for NQuire 202 models).
   - The barcode identifiers (as described on page 6) can be enabled or disabled.

2. **Scanning modes Imager (202 model):**

   - *Red Illumination LEDs*
   - Blinking (default)
   - Always ON
   - Always OFF (can result in decreased scanning performance in case of insufficient ambient light)
   - *Blinking Sensitivity* (how reactive the blinking sensor is when there is a object in its field of view)
   - Low (default)
   - Medium
   - High
   - *Green Aiming LEDs*
   - Blinking (default)
   - Always ON
   - Sensor mode (LEDs will be activated when product is in its field of view)

   Scanning modes CCD (201 model):

   - Always ON
   - Blinking
   - Sensor Mode (default)

3.6 Miscellaneous settings

When you click on "Miscellaneous" in the Configuration tool, the following screen opens:

Miscellaneous settings

1. Device name: You can type a random name which you will use to for your own administration.

2. Authentication: You can choose whether or not you want a password protection to access the NQuire configuration tool via a username and password.

3. Text and messages:
   - Idle message timeout: the period of time before the idle message is displayed again after a scan in seconds.
   - Error message timeout: the period of time the NQuire device waits for a response from the host pc/server in seconds. When this timeout is exceeded, the error message will be displayed for 5 seconds.
   - Font codeset: Choose either UTF-8 (universal fontset which supports most used language fonts) **or** one of the following codepages:

Codepage	Description
852	“Multilingual” West European Latin-1
866	Cyrillic DOS codepage
874	Thai
1250	Central and East European Latin
1251	Cyrillic
1252	West European Latin-2
1254	Turkish
1257	Baltic

4. Interaction:
   - Decide on the level of contrast of the display dependant on the user environment and display reading angle.
   - Choose between different types of beeper tones and volumes dependant on the user environment.

5. LOG:
   Displays the log-file which can be used service purposes.

6. REBOOT:
   You can reboot normally or reboot to set the NQuire back to factory defaults.

For each setting you want to change and save, click the "Apply settings" button after each change and in each box.

4. How to scan

4.1 Introduction

The NQuire 200 is a terminal which receives its input via either:

- a 1D CCD barcode scanner (NQuire 201).

- a 2D CMOS barcode scanner (NQuire 202).

- optional RFID reader (on NQuire 201 or 202).

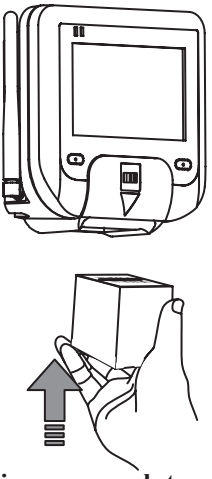
Each input device requires a different approach in scanning movement and orientation.

Please check Appendix C for example codes of the different 1D and 2D barcodes.

4.2 How to scan 1D with NQuire 201

The NQuire 201 is only able to read 1D barcodes and optionally RFID. A single line CCD scan engine reads 1D codes via a horizontal red line.

Optimal reading orientation

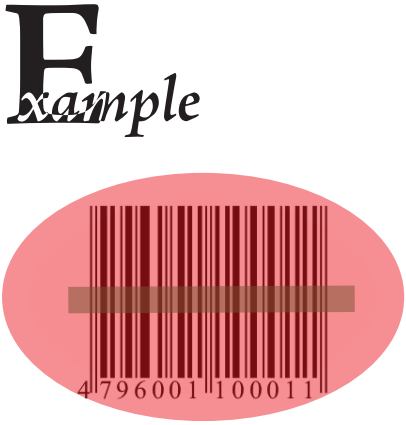


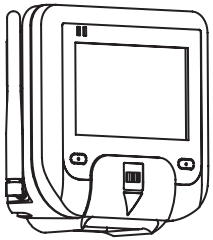
Optimal reading approach to scanner

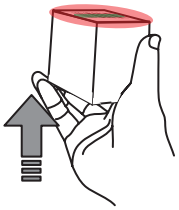
The optimal reading distrance from the scanner screen lies between 5 and 15 centimeters.

4.3 How to scan 1D/2D with NQure 202

The NQuire 202 is able to read 1D and 2D barcodes and optionally RFID. A omnidirectional imager reads 1D and 2D codes via red leds and a green line.







Reading orientation can be 360°

Optimal reading approach to scanner

The optimal reading distrance from the scanner screen lies between 5 and 15 centimeters.

4.4 How to scan RFID

The NQuire 201 and 202 can be equipped with a RFID as well. The most common use is for access control applications. A small sticker with a "RFID label" just below the LCD screen indicates the place to scan your RFID tags/cards.

Example

RFID label

TIPS

The optimal reading distance from the RFID scanner label is between 0 and 10 centimeters.

5. Connecting external devices

5.1 HR100 Scanner

A Newland HR100 can be attached to the RJ USB/Debug port (see page 5) via the RJ/USB cable (See page 1) in case of scanning large objects. **NOTE:** The "normal" USB port on the NQuire has no definition as per this manual date and cannot be used. This port will be defined in the future.

When attaching a HR100 which is in factory default settings, please scan the programming codes in Appendix C with the HR100 in order for proper communication with the NQuire.

5.2 HR200 scanner

A Newland HR200 can be attached to the RJ USB/Debug port (see page 5) via the RJ/USB cable (See page 1) in case of scanning large objects. **NOTE:** The "normal" USB port on the NQuire has no definition as per this manual date and cannot be used. This port will be defined in the future.

When attaching a HR200 which is in factory default settings, please scan the following programming codes with the HR200 in order for proper communication with the NQuire. The sequence is: Code Programming ON ⇨ Allow read batch Code ⇨ Read DataMatrix batch Code ⇨ Code Programming OFF

Code Programming ON

Allow Batch Code

Batch Code HR200

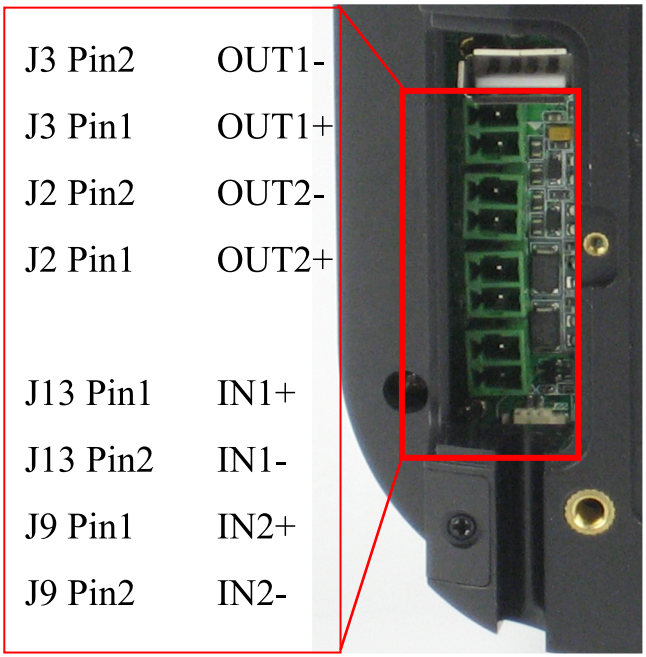
Code Programming OFF

The optimal reading distrance of the HR100 and HR200 scanners is around 10 cm.

5.3 GPIO Device

The NQuire 200 supports interfacing with a GPIO device such as an entry/exit gate, door lock or LED lamp via, for instance, a potential free contact such as a static relay.

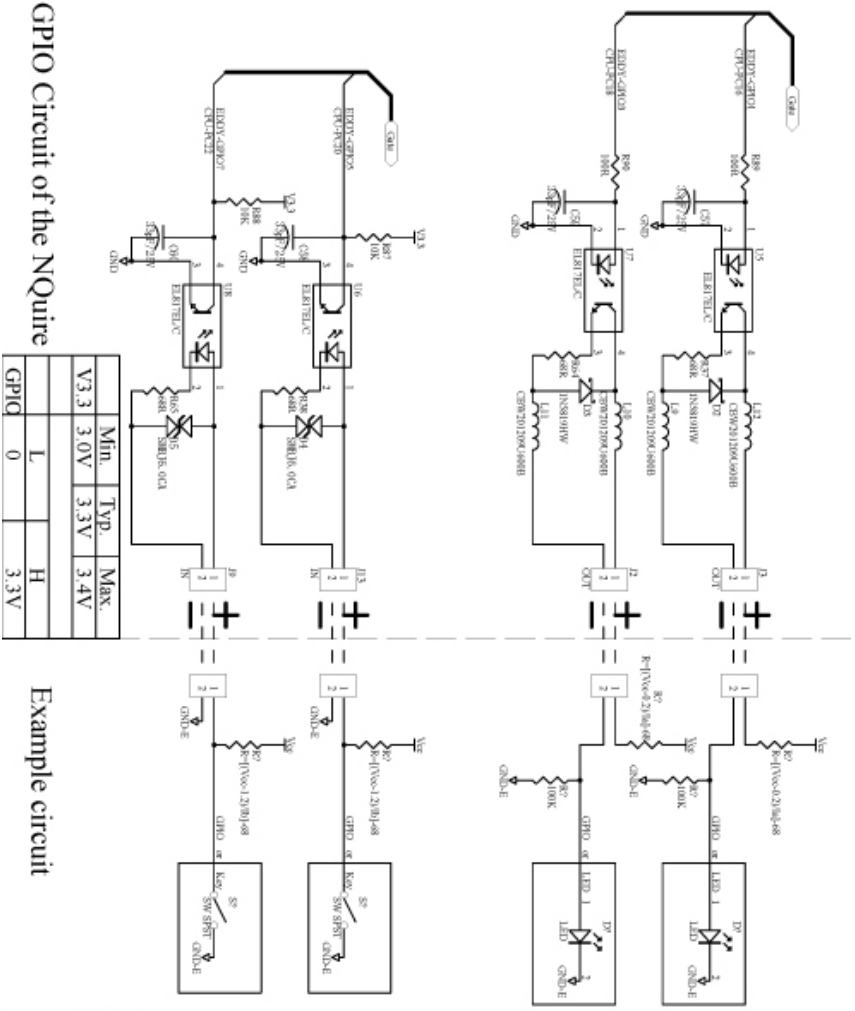
The pin definitions of the GPIO ports are as follows:



Please note that only the GPO (out) ports have been predefined by the NQuire's application (see ESC table in Appendix B). The GPI (in) ports have too many variables to set a standard. For your custom solution using the GPI ports, please contact us for assistance.

GPIO device

Please find below an example of how a GPO integration could look like:



	Min.	Typ.	Max.
Vcc	3.3V	—	36V
Ia	5mA	20mA	50mA
Ib	5mA	20mA	50mA

Example

Appendices

A. NQuire programming codes (simplified hardcopy / part of the configuration tool)

Programming ON

Tools

Programming OFF

Beeper settings

No Beeper

Beeper Volume 1

Beeper Volume 2

Beeper Volume 3

Beeper Volume 4

Beeper Volume 5

Beeper Tone 1

Beeper Tone 2

Beeper Tone 3

NQuire programming codes

Programming ON

Tools

Programming OFF

LCD display settings

Contrast level 1

Contrast level 2

Contrast level 3

Contrast level 4

Reboot

Reboot

Back to Factory Default & Reboot

Configuration

On screen configuration overview

B. NQuire control

Introduction

The NQuire 200 is controlled by means of ESC commands in order to configure:
- Cursor control.
- Clear display.
- Text alignment.

Text

The NQuire uses proportional font widths. This means a "m" is physically wider than a "i". Consequently, you can not exactly measure how many characters fit on one line. When a line is "too long", some characters will not fit on the screen and will not be shown. Twenty characters per line can be shown on average.

ASCII values from 20 - 255 which are not part of a command are normally displayed on the screen.

The following commands control the position and control of text:
- Carriage return (go to next line): ESC 0x0d
- Linefeed (go to start position next line): ESC 0x0a
- Set cursor (for predefined cursor postions): ESC 0x2c
- Set pixel position (placing the cusror on any position): ESC 0x2C
- Align text (easy alignment, such as center of screen, right of screen): ESC 0x2e

The complete command set table is on page 26.

NQuire command set table

ESC	HEX	DEC	CHAR	Action	Parameters	
ESC	24 or 25	36 or 37	$ or %	Clear Display and move the cursor to the top left position		
ESC	27	39	‘	Set cursor position [1]	<POS> 0x30-0x3F	<LINE> 0x30-0x34
ESC	2C	44	,	Set current pixel position on display [2]	<POS> 0x30-0xAF	<LINE> 0x30-0X6F
ESC	2E	46	.	Align a string of text [3]	<ALIGN> 0x30-0x3E	<DATA> “...”[0x03]
ESC	42	66	B	Select font set Normal: 0x30 Large: 0x31	<FONTSET> 0x30-0x31	
ESC	5A	90	Z	Reboot		
ESC	5B	91	[	Enable/Disable scanning	<MODE> Disbale:0x30 Enable:0x31	
ESC	5E	94	ˆ	Generate default beep		
ESC	7E	126	~	GP-Out on/off	<PORT> Out1:0x30 Out2:0x31	<STATE> Off:0x30 On:0x31

[1] The actual pixel position is dependant on the selected font set:
- Every x-position is a multiple of 8 pixels.
- Every y-position is dependant on selected font set; height of 24 or 32 pixels.
- POS: 0-15 (0x30 - 0x3F).
- LINE: 0-4 (0x30 - 0x34).

[2] This allows a text to be displayed anywhere on the screen. A character will only be dsiplayed if it fully fits on the screen.
- POS: 0-127 (0x30) - oxAF).
- LINE: 0-63 (0x30 - 0x6F).

[3] Display a text, using current used font set, on a calculated position on the screen:

<ALIGN>	Action
0x30	Left top
0x31	Center top
0x32	Right top
0x33	Left center
0x34	Center
0x35	Right center
0x36	Left bottom
0x37	Center bottom
0x38	Right bottom

<ALIGN>	Action
0x39	Left, using current y-coordinate
0x3A	Center, using current y-coordinate
0x3B	Right, using current y-coordinate
0x3C	Top, using current x-coordinate
0x3D	Center, using current x-coordinate
0x3E	Bottom, using current x-coorinate

<DATA> field has a maximum length of 25 characters. If less characters are used, please use 0x03 (ETX) as last character.

Example screens

Here are some example on how to generate different screens on the NQuire 200:

Example

Command	Action
<ESC> 0x42 0x30	Normal font size
<ESC> 0x25	Clear screen, cursor top left
“Cheese”	Text on screen
0x0d	Carriage return
“500 gr.”	Text on screen
<ESC> 0x42 0x31	Large font size
<ESC> 0x2e 0x38 “€ 5.69” 0x03	Align right bottom and text on screen

Example

Command	Action
<ESC> 0x42 0x31	Large font size
<ESC> 0x24	Clear screen, cursor top left
<ESC> 0x2e 0x31 “Special offer!” 0x03	Align center top and text on screen
<ESC> 0x42 0x30	Normal font size
<ESC> 0x2e 0x34 “6-pack water 0.5L” 0x03	Align center and text on screen
<ESC> 0x42 0x31	Large font size
<ESC> 0x2e 0x37 “€ 0.99” 0x03	Align center bottom and text on screen

<ESC> should be sent as the hexadecimal value 1B
Notation of, for example, 0x25 means hexadecimal value 25.

C. HR100 programming

Scan the below barcodes starting with the top left "Code Programming ON" and working from left to right, ending with "Code programming OFF".

Code Programming ON

*Load All Factory Default

Code Programming ON

Program Stop Suffix

0

D

0

A

Save

Code Programming ON

Enable Stop Suffix

Code ID Setting EAN128

4

A

Code ID Setting EAN8

6

4

Code ID Setting UPC-E

6

3

Code ID Setting Interleaved 2/5

6

5

Code Programming ON

Allow Code ID Prefix

Code Programming OFF

D. Testing Codes

Code128

123456

UCC/EAN-128

123456

UPC-E

0 123456

UPC-A

0 09876 54321

Interleaved 2 of 5

123456

Code 39

123456

PDF 417

QR Code

Aztec

Data Matrix

E. Maintenance

Keeping the NQuire dust-free

To keep the inside of the NQuire dust-free and at its peak performance, please always screw the back covers back onto the backhousing.

Wired Ethernet: When you are using a rigid Ethernet connector (unable to close back cover), the "Rigid Ethernet cable", as described on page 1, must be used to connect to the NQuire, lead it through the cable run, close the back cover and connect your ethernet cable to the connector on this cable.

USB devices: The RJ/USB cable, as described on page 1, must be used to connect to the RJ USB/Debug port (see page 5), lead it through the cable run, close the back cover and connect your usb cable to the connector on this cable.

Cleaning

Occasional clean the scanner window to remove dust, dirt and fingerprints. Cleaning can be performed during operation with a non-abrasive glass spray cleaner and a soft lint-free cloth.

Clean the housing and display screen every now and then. Take care:
- Use a mild glass spray cleaner;
- Spray the cleaner on a soft, lint-free cloth;
- Wipe the NQuire clean.

The display screen and bottom scanner screen are scratch-sensitive, please clean carefully!

The NQuire should **NOT** be cleaned with cleaners containing:
- Aromatic hydrocarbons.
- Chloride.
- Acids, oxydizing agents.
- Abrasives.
- Other aggressive cleaners.

F. Troubleshooting

Problem	Possible Cause	Possible Solution(s)
NQuire does not turn on	No power to the NQuire	**AC outlet power** - Connect the approved power supply to an AC power source and to the NQuire power connector. See page 6. **Power-over-Ethernet** - Connect Ethernet cable to NQuire Ethernet port. - Connect other end of Ethernet cable to Power-Over-Ethernet (POE) device. - Connect POE device power supply to an AC outlet. - Perform continuity check on the Ethernet cable.
NQuire does not respond to polls/pings from the host computer	No communication between NQuire and the host.	Check cables to the NQuire. Ensure the NQuire IP-address is the address the host is polling/pinging. Check communication parameters.
NQuire does not send data to host computer	NQuire is not connected to the host.	Check all cabling to host computer.
No Wireless communication with NQuire 20xRW	Incorrect WiFi settings	Please scan the "back to factory default" barcode on page 24, connect a physical Ethernet cable and try configuring again.
Parameter changes made using Web Configuration Tool were not retained after the NQuire was re-booted	Parameter changes were not saved.	For each setting you want to change and save, click the "Apply setings" button after each change and in each box
The NQuire 202 does not read 2D barcodes	Default settings are not changed in Web Configuration tool	See chapter 3.5 how to set the internal scanner to 2D barcodes as well.

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