

1. CONNECTING TERMINAL

This chapter describes how to setup connection with an Newland NQuire300 terminal.

First the correct IP-addresses have to be set in the NQuire300.

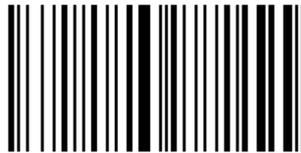
For correct operation the NQuire300 has to be set on a fixed IP-address and the IP-address of the server controlling the Nquire300 has to be set.

1.1. SET NQUIRE ON DHCP

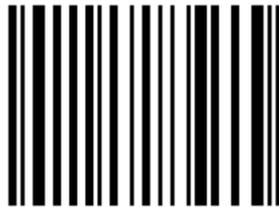
The NQuire300 runs on Android KitKat. The easiest way to setup a network connection is to do this in the Android interface on the terminal.

First we will set the NQuire300 to get an automatic IP- address by DHCP. This allows us to connect with the build-in website to do further settings. A network connection can either be made using the Ethernet connection or WiFi.

Scan the barcodes below from top to bottom to go to the Android desktop:



Enter Setup



Return to Desktop

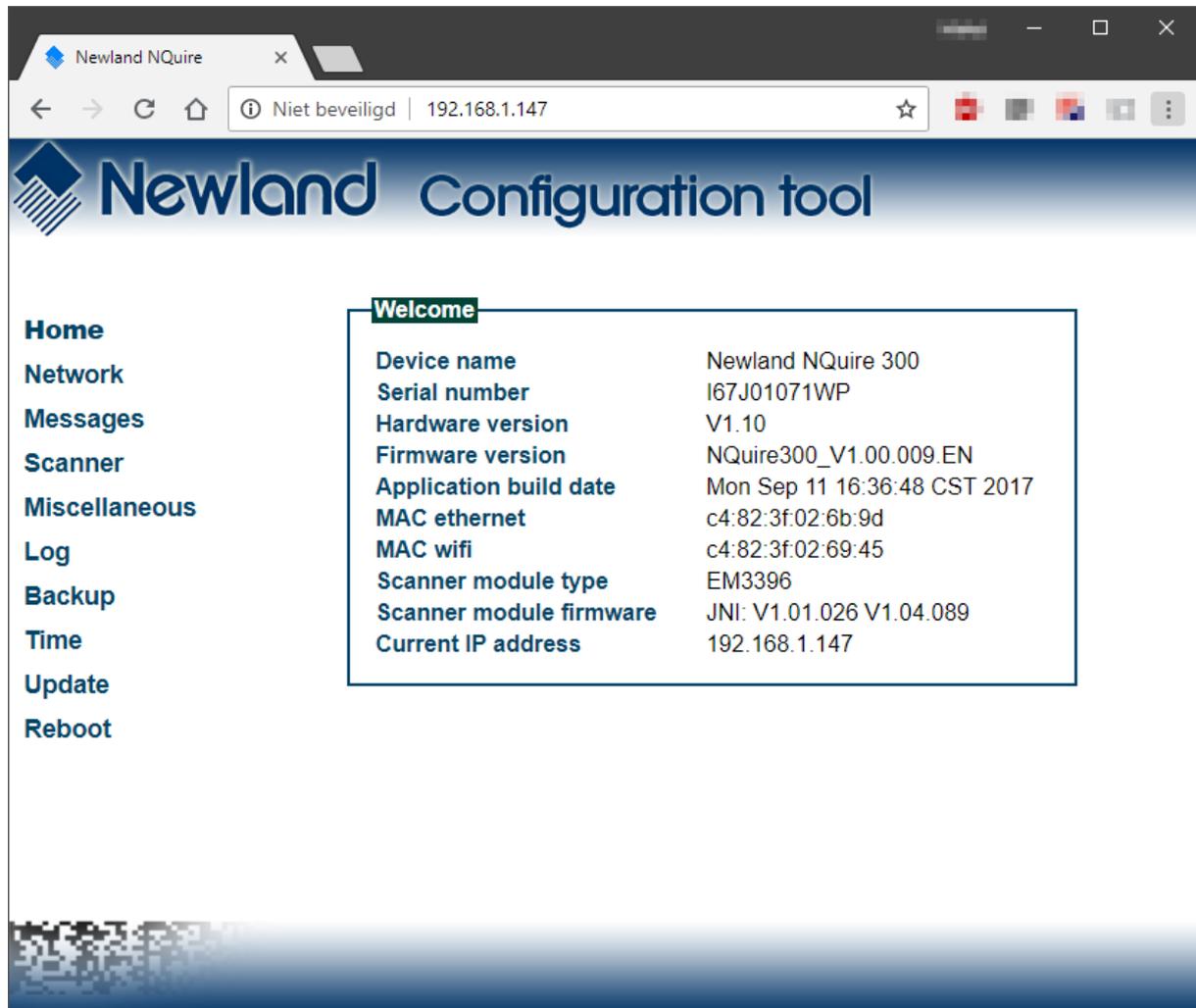
Now the Android desktop is shown. Configure a network setting using the Android settings (either Ethernet or WiFi).

After network is setup remember the IP Address the device has been assigned.

1.2. CONNECT WITH CONFIGURATION WEBSITE

Now start a web browser (Chrome, Ms Internet Explorer, Firefox, etc) and type in the address bar the IP-address of the NQuire300 terminal.

The configuration website of the NQuire300 terminal is shown.



1.3. CONFIGURING NETWORK

In the configuration website we can now set the settings for network and the address of the server controlling the NQuire. You can setup a WiFi connection or an Ethernet connection.

For stable operation a wired Ethernet connection is preferred.

The screenshot displays the 'Newland Configuration tool' interface. On the left is a navigation menu with options: Home, Network (highlighted with a red box and a red circle containing the number 1), Messages, Scanner, Miscellaneous, Log, Backup, Time, Update, and Reboot. The main content area is divided into two sections: 'Wifi' and 'Ethernet'. The 'Wifi' section is enclosed in a blue border and contains the following fields: ESSID (TELE2-E676DD), Wireless key type (WPA or WPA2), Wireless key (with a 'Show/Hide' button), Use DHCP (radio buttons for No and Yes), IP address (192.168.1.147), Netmask (255.255.55.240), Gateway (192.168.1.1), Nameserver 1 (192.168.1.1), and Nameserver 2 (192.168.1.1). A red box highlights the 'Use DHCP', 'IP address', 'Netmask', 'Gateway', 'Nameserver 1', and 'Nameserver 2' fields, with a red circle containing the number 2 next to the 'Apply settings' button. The 'Ethernet' section is also enclosed in a blue border and contains: Use DHCP (radio buttons for No and Yes), IP address (10.20.1.60), and Netmask (255.255.255.0).

WiFi Settings

The screenshot shows the 'Newland Configuration tool' interface. On the left is a navigation menu with options: Home, Network (highlighted with a red box and a red circle containing the number 1), Messages, Scanner, Miscellaneous, Log, Backup, Time, Update, and Reboot. The main content area is divided into two sections. The top section is titled 'Ethernet' and contains the following settings: 'Use DHCP' with radio buttons for 'No' (selected) and 'Yes'; 'IP address' set to '10.20.1.60'; 'Netmask' set to '255.255.255.0'; 'Gateway' set to '10.20.1.254'; 'Nameserver 1' set to '10.20.1.250'; and 'Nameserver 2' set to '10.20.1.250'. A red box highlights the 'Use DHCP' section and the 'Apply settings' button, with a red circle containing the number 2 next to the button. The bottom section is titled 'NQuire protocol settings' and contains: 'Mode' set to 'server' (dropdown menu); 'UDP port' set to '9000'; 'TCP port' set to '9101'; and 'Remote IP address' set to '192.168.1.107'. An 'Apply settings' button is located at the bottom of this section.

Ethernet settings

For correct operation the NQuire300 has to be set on a fixed IP-address. This address has to be a free address within the network the NQuire300 will be connected to.

1. Click on **Network** in the menu
2. Turn off **DHCP**
3. Specify the IP address
4. Set the other network settings line Gateway and DNS
5. Click on the button **Apply Settings** to apply the settings

Newland Configuration tool

Home
Network
Messages
Scanner
Miscellaneous
Log
Backup
Time
Update
Reboot

Ethernet

Use DHCP No Yes

IP address 192.168.1.200

Netmask 255.255.255.0

Gateway 192.168.1.1

Nameserver 1 8.8.8.8

Nameserver 2 8.8.4.4

Apply settings

NQquire protocol settings

Mode TCP server

UDP port 9000

TCP port 9101

Remote IP address 192.168.1.100

Apply settings

By default the NQquire terminals will be connected using TCP.

1. Scroll down to the section **NQquire protocol settings**
2. Set the Mode to **TCP Server**
3. Leave all other setting unchanged
4. Click on **Apply Settings** to apply the settings

When using UDP, the IP-address of the server controlling the Nquire300 has to be set. This the IP-address of the pc where the *TimeTracking Server Software* is installed and running.

1. Scroll down to the section **NQquire protocol settings**
2. Set the Mode to **UDP**
3. Specify the IP-address in the field **Remote IP address**
4. Leave all other setting unchanged
5. Click on **Apply Settings** to apply the settings
6. The IP-address of the server controlling the Nquire300 has to be set. This the IP-address of the pc where the *TimeTracking Server Software* is installed and running.

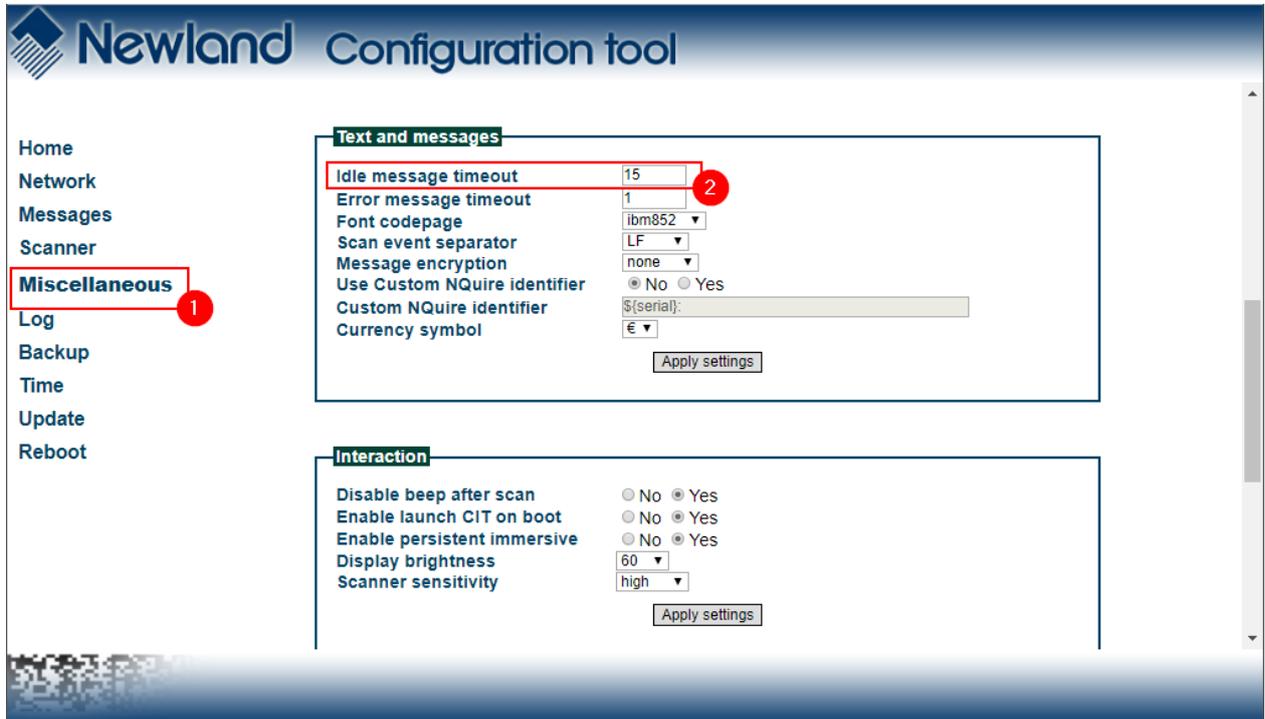
2. DEFAULT SETTINGS NQUIRE TERMINAL

For correct operation the following defaults settings have to be set.

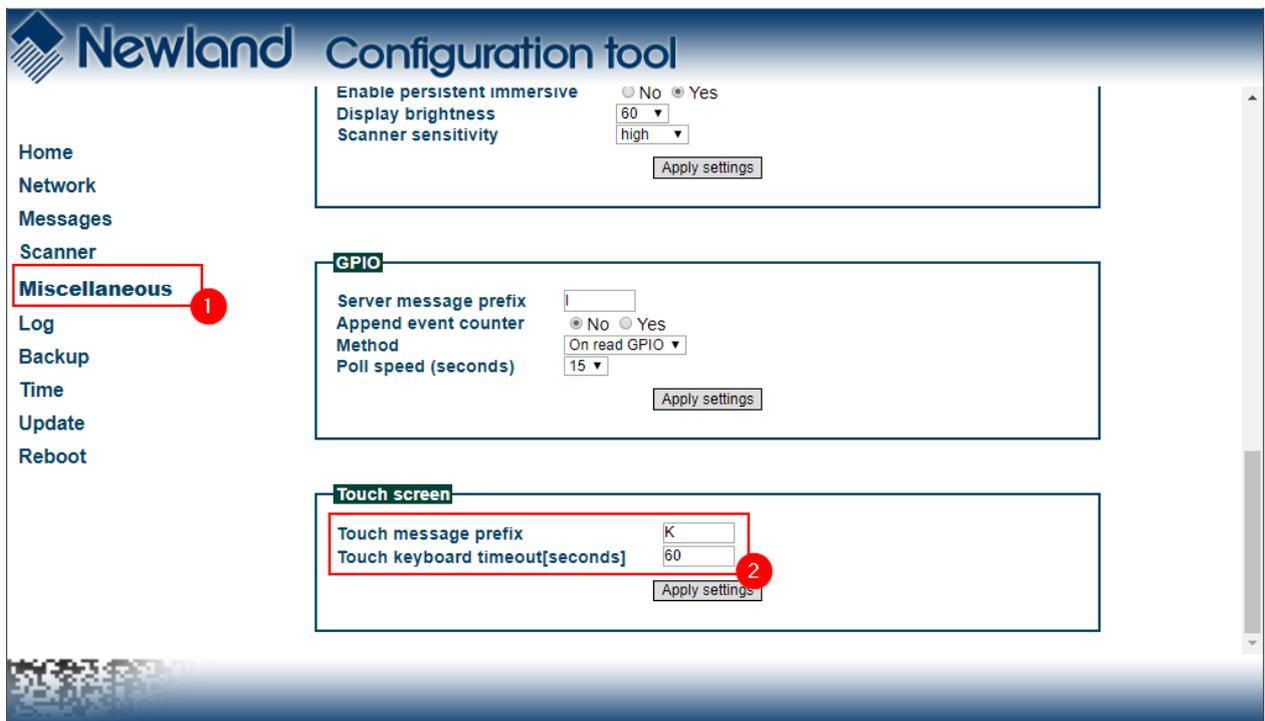
2.1. MISCELLANEOUS

Both **Idle message timeout** and **Touch keyboard timeout** should have higher values then the value set for **PoolingInterval** (default = 10) in the settings of the MatrixProject TerminalTracking.

Important is to set the **Idle message timeout** to **15**.



For correct working of the Touch Keyboard set the following setting:



2.2. SCANNER

For correct operation of the build-in Barcode scanner or an external scanner:

The screenshot shows the 'Barcode' configuration page in the Newland Configuration tool. The left sidebar contains a menu with 'Scanner' highlighted and marked with a red circle '1'. The main content area is titled 'Barcodes' and contains several sections:

- Output mode:** A dropdown menu set to 'Output via API'.
- Scan Mode:** A dropdown menu set to 'Normal mode'.
- Encoding:** A dropdown menu set to 'UTF-8'.
- Add a line feed:** Radio buttons for 'No' (selected) and 'Yes'.
- Enable barcode ID:** Radio buttons for 'No' (selected) and 'Yes'.

Below these are two columns of symbologies:

- Symbologies Enable:** A list of symbologies with radio buttons for 'No' or 'Yes'. 'Code 39' is highlighted with a red circle '2'.
- Barcode ID:** A list of symbologies with corresponding character assignments in a table. 'Code 39' is highlighted with a red circle '3'.

At the bottom, there are 'Apply settings' and 'Default ID' buttons.

For correct operation of the build-in Mifare RFID/NFC scanner:

The screenshot shows the 'Mifare scanner' configuration page in the Newland Configuration tool. The left sidebar contains a menu with 'Scanner' highlighted and marked with a red circle '1'. The main content area is titled 'Mifare scanner' and contains several sections:

- Interleaved 2 of 5:** Radio buttons for 'No' and 'Yes' (selected).
- Rfid message prefix:** Text input field containing 'MF'.
- Access key A:** Text input field containing 'FFFFFFFF'.
- Sectors to read:** Text input field.
- Cardnum formatting:** Dropdown menu set to 'hexadecimal'.
- Send card number only:** Radio buttons for 'No' and 'Yes' (selected).
- Sector data format:** Dropdown menu set to 'base 64'.
- Sector data separator:** Dropdown menu set to 'none'.
- Suppress scan beep:** Radio buttons for 'No' and 'Yes' (selected).
- Access violation:** Text input field containing 'Card access\ndenied'.
- Incomplete scan:** Text input field containing 'Wait for beep\nwhen scanning'.
- Write error message:** Text input field containing 'Transaction failed!\n\nThis is logged.'

At the bottom, there is an 'Apply settings' button.

3. SETUP HR100 SCANNER

A Newland HR100 scanner can be attached to the external USB port.

See the Newland NQuire300 user manual for configuring a NLS-HR100 scanner.

Configuring NLS-HR100

Use the barcode scanner to scan the barcodes below row by row, starting with the top left **Enter Setup** barcode, going from left to right, and ending with the **Exit Setup** barcode.



Enter Setup



Restore All Factory Defaults



Enter Setup



USB COM Port Emulation



Enable AIM ID Prefix



Disable Terminating Character Suffix



Exit Setup

4. SETUP HR15 SCANNER

A Newland HR15 scanner can be attached to the external USB port.

See the Newland NQuire300 user manual for configuring a NLS-HR15 scanner.

Configuring NLS-HR15 (Corded)

Use the barcode scanner to scan the barcodes below row by row, starting with the top left **Enter Setup** barcode, going from left to right, and ending with the **Exit Setup** barcode.



Enter Setup



Restore All Factory Defaults



Enter Setup



USB COM Port Emulation



Enable AIM ID Prefix



Disable Terminating Character Suffix



Exit Setup

For a correct working of the external scanner the settings for the external scanner have to be set according the image below:

