

Alarm LED Status

The red alarm LED on the front panel provides a guide to the status of the appliance:

Alarm LED On: GNSS No Lock, No NTP Synchronisation
Alarm LED Off: GNSS Lock OK, NTP Synchronisation

Troubleshooting

PC Browser Cannot Connect to the NTP Server:

Check that the host PC's IP address is in the same network segment/domain as the NTP server.

No Signal Lock Obtained:

1. Check the GNSS status web page – if multiple satellites are visible with a high SNR (>25), leave the device for a longer period to obtain a signal lock.
2. Check antenna position. Check antenna cabling and connectors for visible damage.

Signal Lock Obtained, but NTP Clients Cannot Synchronise:

It can take as long as 30 minutes for NTP to synchronise after a signal lock is obtained. Wait for 30 minutes and try again.



CAUTION:

Before installing and configuring any TimeTools NTP server appliance, please read the full product documentation and safety instructions carefully. Full product documentation can be found at: <https://TimeToolsLtd.com/manuals/>

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Quick Start Guide

TA-Series NTP Servers

Models Covered: **TA110, TA210, TA310, TA610**

Default IP Addresses: **DHCP**
Default Secondary IP Addresses: **192.168.3.222**

Full product documentation can be found at:
<https://TimeToolsLtd.com/manuals/>

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Installation

TimeTools TA-Series NTP server should only be installed indoors. Locate the device safely in a rack, on a shelf, or in a cupboard. The device should not be supported by the attached cables.

Antenna Installation

Ideally, the GNSS antenna should be positioned in a location where the top of the antenna has a clear view of the sky. If required, longer cable lengths can be obtained from TimeTools.

Connect the antenna coax cable and antenna to the TNC connector labelled 'Antenna' at the rear of the appliance. Ensure that the TNC connector is fully engaged.


Networking

Connect a RJ-45 Ethernet cable to the female RJ-45 connector on the rear of the appliance, labelled LAN, and then to a hub or switch on your network.

Alternatively, the NTP server can be connected, peer-to-peer, directly to a host PC Ethernet network port using a RJ-45 Ethernet cable for configuration purposes.

Configuration

Before configuring the NTP server, you will need to acquire the following basic configuration information: IP address, Net mask, Gateway, Domain name servers or confirm availability of a network DHCP server for dynamic networking configuration.



IMPORTANT:

When first installing the TA-Series NTP Server on your network, ensure that no other device conflicts with the default IP address of the appliance.

Default IP Address: DHCP
Default Secondary IP Address: 192.168.3.222

Ethernet Port (LAN)

Connect a PC to the same network segment as the NTP server. By default, the TA-Series is configured as a **DHCP** client, with a secondary IP address of **192.168.3.222**.

Power

AC (mains) powered models (TA210, TA310, TA610) should only be powered using the supplied mains cable. Apply power by inserting the supplied mains cable into the IEC inlet at the rear of the appliance and into an appropriate AC power source.

DC powered models (TA110) should only be powered using the supplied 5V DC power

adapter. Apply power by plugging the power adapter into the appliance DC IN connector and into an appropriate AC power source.

Configuring the NTP Server Network Settings For Your Network.

Open a browser such as Internet Explorer or Chrome on a host PC on the same network segment as the appliance and type the appliances IP address into the address bar.

At the password prompt enter the default password 'admin', the main status page will be displayed.


To Change the devices IP address, click the 'Network' button at the bottom of the web page. Enter the IP address, network mask, gateway and any other network options you may require and click 'Save'.

In order for the settings to take effect, the device must be restarted. Click 'Local', then 'Restart' and 'OK' to restart the device.

GNSS Operation

At first power-up, if the antenna has been properly located (see GNSS Installation Guide for full antenna installation instructions), the receiver module will search for satellites.

It can take up to 15 minutes to obtain a satellite lock and a further 10 minutes to synchronise NTP.



INFORMATION:

After power up, it can take as long as 15 minutes for the receiver to obtain a satellite lock, longer if the antenna has an obscured view of the sky.