



# Getting Started with the TIP100 Remote Transceiver Interface

Using the TIP100 Remote Transceiver Interface a Codan NGT Transceiver can be operated remotely through a network connection.

This guide walks you through the main steps of setting up and configuring your system. Further information is available through the User Guide available for download from:

<http://www.through-ip.com/downloads>

## Check your package contents

- TIP100 interface unit.
- this Getting Started guide.
- DC Power Adapter with a selection of mains plug adaptors.
- TIP100 to NGT Handset interface cable  
-or-  
TIP100 to NGT Transceiver interface cable.

## Other equipment you need

- Codan NGT series HF transceiver with a NGT handset and a separate loudspeaker.
- A second TIP100 Remote Transceiver Interface unit (one will be configured for use with the NGT Transceiver and one will be configured for use with the NGT Handset).
- Ethernet network.
- Ethernet network interface cable.
- A computer with web browser (e.g. Firefox, Internet Explorer) connected to the same network as your TIP100 interface unit.

# Initial network set-up

Before you begin, make sure you have all the appropriate cables for your set-up and that you have a working NGT Transceiver system.

Start the system set-up with the TIP100 interface unit that is going to be connected to the NGT transceiver. The TIP100 that is going to be used with the NGT handset is set-up last.

Ensure that you have the speaker that comes with your transceiver available for this set-up.

## Step 1: Connect a network cable

Plug a standard (straight) network cable into the network port (**LAN**) of the TIP100 interface unit and the other end into your network hub or network switch.

## Step 2: Connecting the interface cable

When setting up the transceiver interface, connect a "TIP100 to NGT Transceiver" interface cable to your TIP100 interface unit to the socket marked **TRANSCIVER**. Connect the handset and speaker plugs from the interface cable to the corresponding sockets on the transceiver interface cable or transceiver Junction Box.

When setting up the handset interface, connect a "TIP100 to NGT Handset" interface cable to your TIP100 interface unit to the socket marked **TRANSCIVER**. Connect the NGT handset plug to the corresponding socket on the interface cable.

## Step 3: Connecting a loudspeaker

Connect the loudspeaker that comes with your transceiver to the speaker socket on the interface cable that you connected to the TIP100 interface unit.

## Step 4: Connect the power supply

Fit the DC power adaptor with a plug that is appropriate for your local electrical outlet.

Plug the round DC power plug of the power supply module into the socket marked **PWR** on the TIP100 interface unit.

Plug the power supply into an appropriate electrical outlet and switch on the outlet if required.

## Step 5: Network start-up

The TIP100 interface unit will now start and search for an IP address to use on the network. When an address is found, a voice announcement of the address can be heard over the loudspeaker.

For example: 192.168.0.12 (Voice: one nine two dot one six ...)

Write this IP address down as you will need this address to further configure the TIP100 interface unit. If you missed the announcement, you can press the reset button on the front panel and listen to the announcement again.

## Step 6: Browse to the TIP100 configuration web page

Using the address from the voice announcement, open a new browser window on your computer and type the address in the address bar of your browser and press Enter.

Your browser will now open the default **Status** page of the TIP100 interface unit.

# Configuring the TIP100

After you have opened the **Status** page of the TIP100 interface unit in your browser, click on the **Setup** menu tab to configure the TIP100 application mode and the network settings:

## Step 7: Configuring the Application

On the **Setup** page, select from:

- **Codan NGT Handset Interface**
- **Codan NGT Transceiver Interface**

from the **Application** selection box.

## Step 8: Configuring the Network Settings

The default configuration of the TIP100 interface unit is to connect to the Ethernet network and automatically obtain an address to use on the network.

For the TIP100 attached to the transceiver, it is necessary that the TIP100 has an IP address that remains constant (i.e. it is *static*). This can be done by configuring the network parameters under **NETWORK SETTINGS**. For alternative methods of configuring a *static* IP address, consult your network administrator. Additional configuration of network gateways or routers in your network may be required if you want to make the TIP100 accessible through a VPN connection or the Internet.

The TIP100 attached to the handset does **not** require a *static* IP and can generally be left to obtain a network address automatically when this is available on your network.

To confirm the Application and Network Settings click on the **Apply** button at the bottom of the screen. The unit will now restart and configure the new settings.

**Note:** if you manually configured the network parameters (i.e. a *static* IP) and changed the IP address, you will need to change the IP address in the browser to access the TIP100 interface unit status and configuration pages again.

## Configuring for the NGT Transceiver

When the TIP100 interface unit is connected to a NGT Transceiver, no further configuration is required and the speaker that was used to hear the voice announcements can be removed.

By default the TIP100 listens on port **5500** for incoming connections and uses **TCP** to establish the data connections required. The port number used can be observed at the top of the screen on the web page for the TIP100. Note the port number, as it is needed for the configuration of the TIP100 interface unit that is connected to the NGT Handset.

Depending on your network set-up, the indicated port number and two subsequent port numbers (e.g. the default ports 5500, 5501 and 5502) may need to be configured in network gateways and routers for both **UDP** and **TCP** type traffic for the TIP100 units to successfully establish a connection.

Refer to the User Guide for further information on changing the port number.

## Configuring for the NGT Handset

When the TIP100 interface unit is connected to a NGT Handset, the unit needs to be configured so it can connect to the network address and base port of the TIP100 interface unit that is connected to the NGT Transceiver.

### Step 9: Configuring the Network Link

1. Open a browser to the TIP100 interface unit that it is connected to the NGT Handset.
2. Navigate to **Setup**.
3. Check if the Application is set to "Codan NGT Handset Interface".
4. Navigate to **Handset**.
5. Enter the IP address or the domain name of the TIP100 interface unit that is connected to the transceiver.
6. Check if the port number shown next to **Network Base Port** is the same as the port number configured as configured on the TIP100 interface unit with the NGT Transceiver.
7. Click **Apply** button at the bottom of the screen.

The TIP100 unit will now restart and will attempt to connect to the transceiver. The progress of this can be observed from the TIP100 **Status** page in your browser.

Once configured and powered, the TIP100 configured for the NGT Handset initiates the link to the TIP100 that is connected to the transceiver.

# Transceiver operation

Once the link is established, the operation of the TIP100 interface unit is fully transparent and the NGT Handset operates as if it is directly connected to the transceiver.

This includes powering the transceiver **On** and **Off**, adjusting the volume and accessing the same transceiver functionality you would be able to use when the NGT Handset was directly connected to the transceiver.

For best results, you may need to adjust the following configuration settings in the NGT:

- **Key Repeat Rate** 0.5s or more
- **Key Hold Time** 1.0s or more

Refer to your NGT documentation on adjusting these settings.

## More Information

More information about other configuration options are in the on-screen help and in the User Guide that can be downloaded from

<http://www.through-ip.com/downloads>

## TIP100 Updates

From time to time we release updates for the TIP100 software. They can be downloaded from:

<http://www.through-ip.com/downloads>

The updates can be applied using the '**Update**' web pages of the TIP100. The help pages of the **Update** menu have detailed instructions.

## Technical Support

For support with your TIP100, contact Through IP via email on the following address:

**email: [support@through-ip.com](mailto:support@through-ip.com)**

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