Heavy Duty IP Telephones/Stations
Getting Started Guide

The information in this document pertains to the following STENTOFON Heavy Duty IP Telephones/Stations:

1008072100 – Full Keypad
1008072101 – Full Keypad, Headset
1008072120 – No Keys

1008072200 – Door, Full Keypad
1008072220 – Door, No Keys

1 Installation

The table below is an overview of the main connectors involved when installing the Heavy Duty IP Telephone/Station.

ⓘ *To access these connectors the frontplate must be removed.*

| LAN (P1)	10/100 Mbps RJ45 port for LAN (uplink) connection. Supports PoE (802.3af). Draws power from either spare line or signal line.
AUX (P2)	10/100 Mbps RJ45 ports for auxiliary equipment such as PC and IP camera.
Input/Output	Pluggable screw terminal
Local Power	Pluggable screw terminal, 17-27 VDC Idle 4W, max. 8W

1.1 Power Supply

The Heavy Duty IP Telephone supports Power over Ethernet (PoE, IEEE 802.3 a-f) where power can be drawn from either the spare line or signal line. If PoE is not available, the telephone can be connected to a local 24 VDC power supply.

1.2 Connections

There are four connectors on the IP telephone/station PCB: P1-P4.

- **P1** : RJ45 LAN port is for connecting to the network and the AlphaCom server/exchange.
- **P2 :** RJ45 AUX port is for connecting to auxiliary equipment such as a PC.
- **P3 :** 6-pin plug-on screw terminal for external connections.
  Pin 1/2: Connection of external 8 ohm loudspeaker (optional).
  Pin 3/4: Internal NO relay contact for additional call indication, etc.
  Pin 5/6: Connect 24VDC for unit if PoE is not used
- **P4** : 6-pin plug-on screw terminal for internal connections.
  Pin 1/4: Input for PTT from headset and restoring Factory Default Setting.
  Pin 2/4: Call button no. 2 or logical input (optional).
  Pin 3/4: Connected to hook-switch (reed-switch)
  Pin 5/6: Station LED for call and message info. (Pin 6 is positive.)
- **TP1/2 :** Audio output to handset speaker (0 dB, 600 ohm balanced).
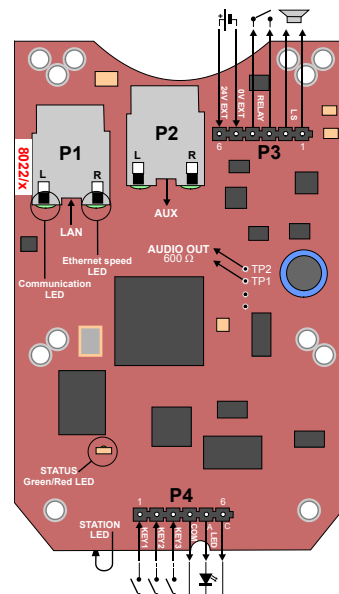
2 Station Configuration

A web browser is used for the configuration of the Heavy Duty IP Telephone.

For basic configuration, there are essentially three parameters to set:

- AlphaCom IP address
- Station directory number
- Station IP address

2.1 Web Interface

The Heavy Duty IP Telephone features an embedded web server, which allows users to log in via a standard web browser. At commissioning, the IP telephone needs to be configured to enable it to subscribe to an AlphaCom server/exchange. To do this, your PC and the IP telephone have to be connected together via a PoE switch using network cables:

- Connect the PC to the PoE switch
- Connect the LAN port on the IP station to the PoE switch

The factory default IP address of the telephone is **169.254.1.100**. In order for your PC to communicate with the telephone it is necessary to change its **Internet Protocol Properties** to use an IP address that is in the same range as 169.254.1.100, e.g. 169.254.1.1 with subnet mask 255.255.0.0.

After the IP properties have been changed, access the telephone by logging into the web interface using a standard web browser:

1. Open a web browser
2. In the browser's address bar, type the default IP address **169.254.1.100** and press the ENTER key
   - The telephone login page will be displayed.

To log into the telephone:

1. Click **Login**
2. Enter the default User name: **admin**
3. Enter the default password: **alphaadmin**

The **Station Information** page will now be displayed, showing the IP telephone configuration.

2.2 Main Settings

- Click **Station Main** > **Main Settings** to access the page for configuring station mode and IP parameters.

Registration Settings

- Enter the IP address of the AlphaCom in which the IP telephone is to be a subscriber in the **AlphaCom IP-address** field.
- Enter the directory number of the telephone in the **Directory Number** field.
- If a directory number is not entered, the telephone will register with its MAC address. The MAC address is found on the Station Info page and needs to be entered into the AlphaPro programming tool.

IP Settings

- **DHCP** – Select this option if the IP telephone shall receive IP Settings from a DHCP server.
- **Static IP** – Select this option if the IP telephone shall use a static IP address. Enter the **IP address**, **Subnet mask** and **Gateway**.
- Click **Save** followed by **Apply**.

2.3 Keyboard Configuration

On IP Heavy Duty telephones with full keypad, the keyboard configuration needs to be set. Log in to the unit via a web browser:

1. Click the **Advanced Configuration** tab
2. Click **Keyboard** from the left-menu
3. Select **Keyboard Type 3** from the drop-down box
4. Click **Save Keyboard Config**

2.4 External loudspeaker (optional)

An external 8 ohm loudspeaker must be connected if ringing signal and announcements are to be received. The loudspeaker is connected to pins 1 and 2 (LS) on connector P3. To disable audio in the external speaker when the handset is lifted, the following configuration must be made. Log in to the unit via a web browser:

1. Click the **Advanced Configuration** tab
2. Click **Audio** from the left-menu
3. Under **Audio Settings** check the **Override Amplifier** box

3 AlphaPro Configuration

3.1 Hook-switch

The handset hook-switch is connected between Key3 and Common on terminal block P4 on the station PCB. To ensure proper functionality of the handset, the following AlphaPro programming must be done. After navigating to **Exchange & System** > **Events**, insert an event for reporting On-hook/Off-hook, depending on the status of **Key3** on the PCB. The settings for the event should be:
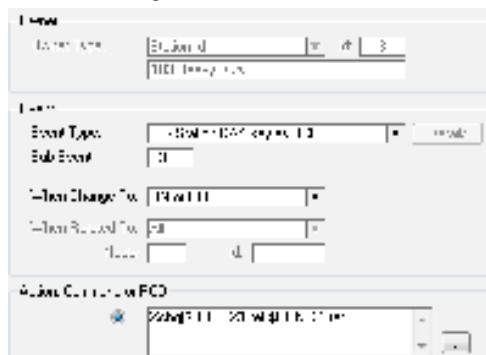
- Action string: %chg($HOFF %1.ref,$HON %1.ref)

3.2 Hotline Additional Configuration

For hotline stations, additional configuration must be done to make the station automatically make a call to a predefined number when the handset is lifted. The programming in AlphaPro is as follows:

1. Select **Users & Stations** and navigate to the relevant station number
2. Select the **Station Type** tab
3. Check the box **Hotline Call (DAK7-DAK8)**
4. Click **OK**
5. While still on the same station, click the **DAK** button

6. On **DAK7**, enter **IXXX**
- XXX is the directory number of the target station for the call.
7. Click **OK**

3.3 Headset Additional Configuration

If a headset is connected, the push button on the headset box can be used as a PTT button (M-key). The button must be connected to the **Key1** input on the PCB. If station number 103 uses input 1 (Sub Event 1), configure with the following settings:

- Action string: **$%chg(M,MREL) L%1.dir**

ⓘ *It should be noted that an IP station is full duplex to begin with and thus pressing the M-key is superfluous. If Push-To-Talk function is required for e.g. in simplex conference, such an event has to be programmed.*

4 Troubleshooting / Indication LEDs

Status LEDs (on PCB)

- **Flashing: 2 red + 1 green**
- Station has no connection to AlphaCom server/exchange
- **Flashing: 1 red + 2 green**
- Station connected but NOT registered in AlphaCom server/exchange
- **Flashing: 3 green**
- Station connected and registered in AlphaCom server/exchange

LAN LEDs (on LAN and AUX RJ45 ports)

- **Left LED**:
  - Steady light: Ethernet connection OK
  - Flashing: Ethernet traffic
  - No light: No Ethernet connection
- **Right LED**:
  - Lighted: 100 Mbit Ethernet connection
  - No light: 10 Mbit Ethernet connection

Restoring Factory Settings

The unit can be set to use either Static IP or DHCP. On the rear side of the PCB there is a red status LED. You won't be able to see the actual LED, but you can see the red light from it. Pay attention to this LED during the restore procedure:
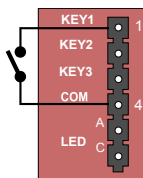
1. Connect a push button (KEY1) between pins 1 and 4 on the P4 connector.
2. While pressing the button, power up the unit and keep the button pressed.
3. Release the button **after exactly 2 flashes** of the LED.
4. Let the LED flash for **exactly 2 more times** (Static IP) or **exactly 4 more times** (DHCP), then press the button again.
5. Keep the button pressed until the LED **flashes fast 2 times** (Static IP) or **flashes fast 4 times** (DHCP) indicating a successful reset.
6. Release the button and the unit will restart with the factory default settings.

Factory default values

Station IP address: **169.254.1.100** or **DHCP**
AlphaCom IP address: **169.254.1.5**
Username: **admin**
Password: **alphaadmin**