Extron

NAV E 101 DTP • Setup Guide

This guide provides instructions for an experienced installer to install the Extron NAV E 101 DTP streaming encoder and to make all connections. The Extron NAV encoder and one or more compatible decoders form an AV distribution and switching matrix on a managed 1G IP network.
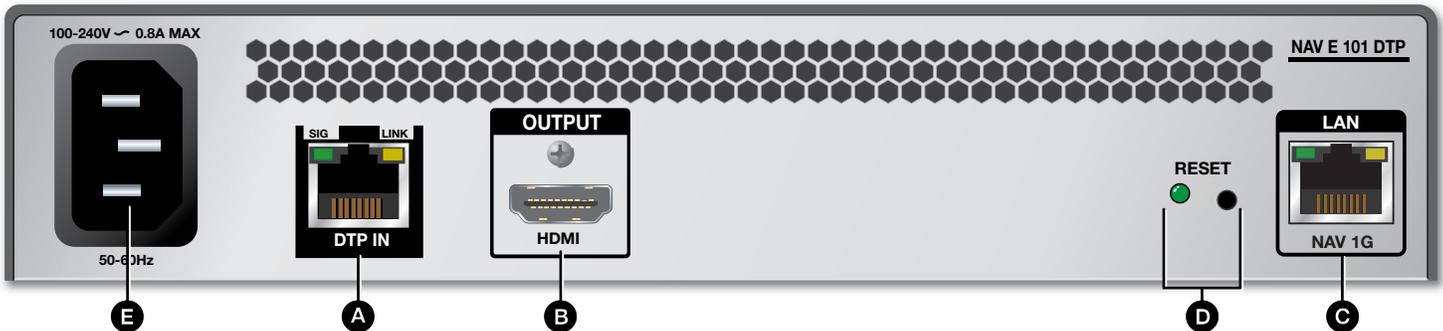
> **NOTE:** For more information on any subject in this guide, see the *NAV E 101 DTP User Guide*, available at **www.extron.com**.

Installation

Step 1 — Mounting

Turn off or disconnect all equipment power sources and mount the NAV E 101 DTP as required.

Step 2 — Rear Panel Connections

Figure 1. **NAV E 101 DTP Rear Panel Features**

A **DTP input port** — Plug a compatible Extron DTP signal into this RJ-45 port using a TP cable. See **TP connectors** on page 5 to wire the connectors.

> **ATTENTION:**
> - Do not connect this port to a computer data or telecommunications network.
> - Ne connectez pas ces port à des données informatiques ou à un réseau de télécommunications.

> **NOTE:** The encoder can supply power to the connected DTP transmitter, such as a DTP 330 Tx, via power over DTP.

B **HDMI Output port** — Connect a display to this female HDMI connector for local loop-through monitoring of the source signal. See **LockIt® Lacing Bracket** on page 5 to securely fasten the HDMI connectors to the encoder.

C **NAV 1G port** — Connect to an Ethernet LAN on which one or more decoders also reside for streaming and control.

D **Reset button** — This button initiates three modes of reset. See the *NAV E 101 DTP User Guide*, available at **www.extron.com**, for details.

E **Power connector** — Plug the encoder into a grounded AC source.

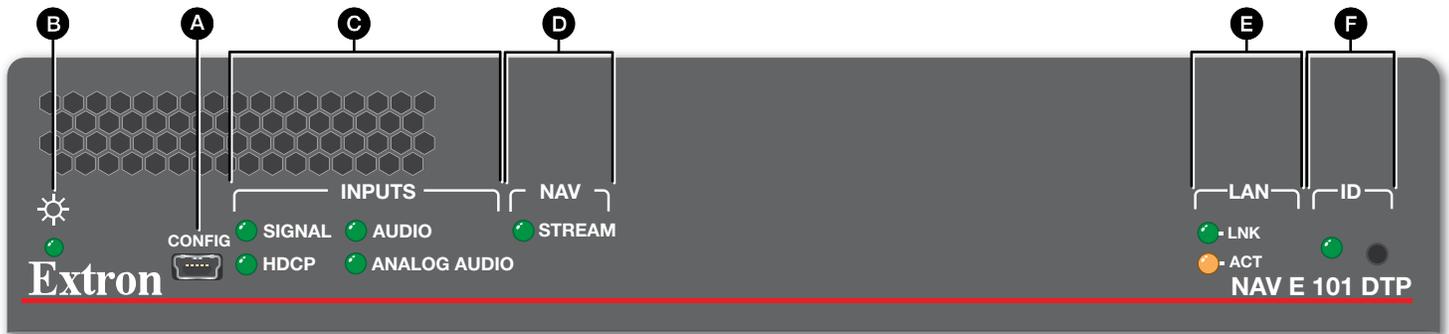## Step 3 — Front Panel Configuration Port Connection

Figure 2. NAV E 101 DTP Front Panel Features

Ⓐ **Configuration port** — Plug a PC or other controlling device into the NAV E 101 DTP via this front panel mini-USB connector for configuration of the encoder. The port uses IP over USB technology; the IP address is always 203.0.113.22 and **CANNOT** be changed. The Config port is also discoverable via Toolbelt (see the *NAV E 101 DTP User Guide*; the guide and Toolbelt are available for download at **www.extron.com**).

Indicators

Ⓑ **Power LED** — Indicates power and startup status.

- **Blinking** — The unit is receiving power and is booting up.
- **Lit steadily** — The unit is receiving power and is operational.

Ⓒ **Input LEDs** — Indicates status of the signal input.

- **Signal LED** — The encoder is receiving a DTP input.
- **HDCP LED** — The DTP signal is HDCP encrypted.
- **HDMI Audio LED** — The embedded digital audio input is selected.
- **Analog Audio LED** — The analog audio input is selected.

Ⓓ **NAV Stream LED** — Indicates the output status of A/V stream.

- **Lit steadily** – The encoder is actively streaming a NAV output consisting of video, audio, or both to one or more NAV decoders.
- **Blinking** – The encoder is actively streaming a NAV output, but network errors are present.

Ⓔ **LAN LEDs** — Indicates status of the network connection.

- **Link LED** — Lit steadily indicates that a network link is established. Blinking indicates a link speed less than 1G.
- **Act LED** — Blinking indicates network traffic. The blink rate corresponds to activity.

Ⓕ **ID button and LED** — The recessed ID button identifies the encoder to the NAVigator and decoder when pressed. The LED blinks when the encoder is in pairing mode (see **Pairing devices via front panel** on page 5 for details).

Operation

Power

When the encoder is powered up, via the included external power supply and the power connector (see Ⓔ on page 1), the encoder runs a series of self-tests that blink the front panel Power LED and all other indicators. The encoder then boots the NAV operating system. It can take approximately 45 seconds for self-test and system startup to complete. When the process is complete, the Power LED lights steadily.

NOTE: The encoder is **NOT** operational until the boot process is complete (the Power LED is lit steadily).

System Operation

The encoder can be configured and controlled using embedded web pages or Extron Toolbelt (see the *NAV E 101 DTP User Guide* available at **www.extron.com** and the Toolbelt Help file).

NOTE: The "Connection via web pages," **Connection settings** (see page 4), and **Pairing devices via front panel** procedures (see page 5) may **NOT** be necessary if your system includes a NAVigator System Manager.

Connection via web pages

Connection to the encoder and its embedded web pages can be made via either the front panel Configuration (USB) port (using IP over USB technology) (see figure 2, **Ⓐ** on page 2) or the rear panel NAV 1G port (see figure 1, **Ⓒ** on page 1).

Access the encoder using HTML pages as follows:

1. Start a web browser.

NOTES:
- Suggested browsers to fully support the NAV system are: Google Chrome™, Mozilla™ Firefox™, and Microsoft Edge™.
- The network must be properly configured for multicasting (IGMP). Failure to do so may result in degraded performance.

2. Enter the IP address of the encoder in the browser **Address** field.

NOTE:
- **Default settings:**

| Port	DHCP	IP address	Subnet mask
Config (USB)*		203.0.113.22	
NAV 1G (RJ-45)†	On		

    * **For the Config port**, the address for IP over USB **CANNOT** be changed.
    † **If the unit does not receive a DHCP address**, a self-assigned Link Local Address, is assigned in the range 169.254.*X.X*.

3. Press the keyboard <**Enter**> key. The browser displays a privacy error message (see figure 3 for an example in the Chrome browser).
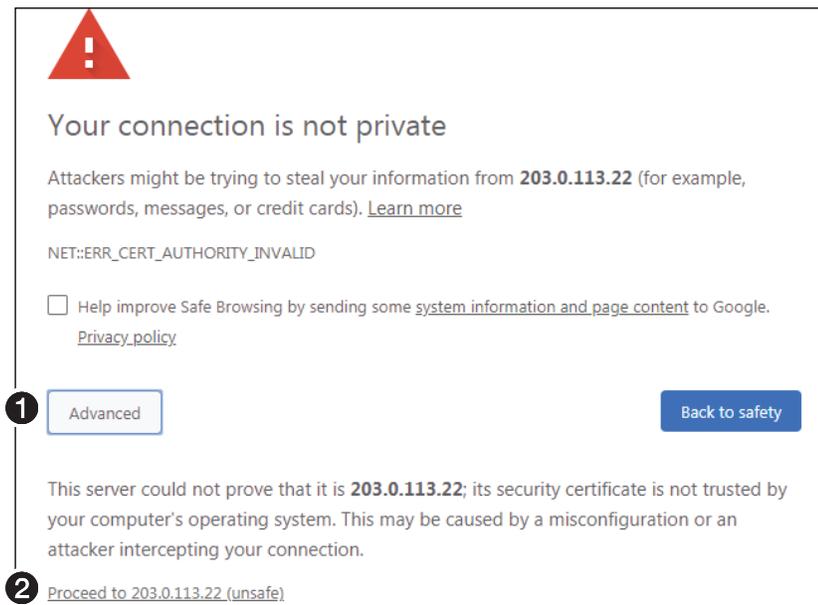
Figure 3. Privacy Error Message (in Chrome Browser)
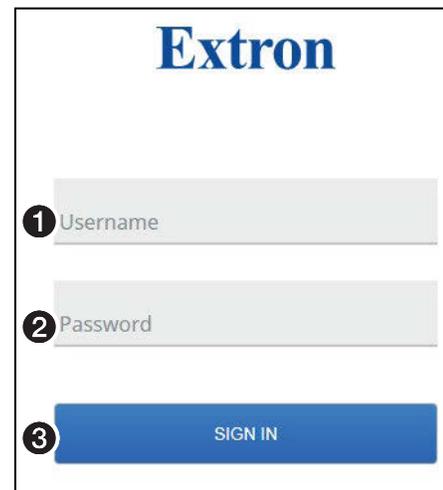
Figure 4. Login Dialog Box

4. Click **Advanced** (see figure 3, **❶**). The button changes to **Hide Advanced** and explanatory text and a link appear below the button.

5. Click **Proceed to <*IP address*> (unsafe)** (**❷**). The browser opens to the Login dialog box (see figure 4).

6. Enter the **Username** (see figure 4, **❶**) and **Password** (**❷**) and click **Sign In** (**❸**). The browser opens to the home page of the embedded encoded web pages (see **figure 5** on page 4).

NOTES:
- The default Username is admin.
- The factory configured passwords for all accounts on this device have been set to the device serial number. If the password is reset, the encoder defaults to the default password, which is extron.
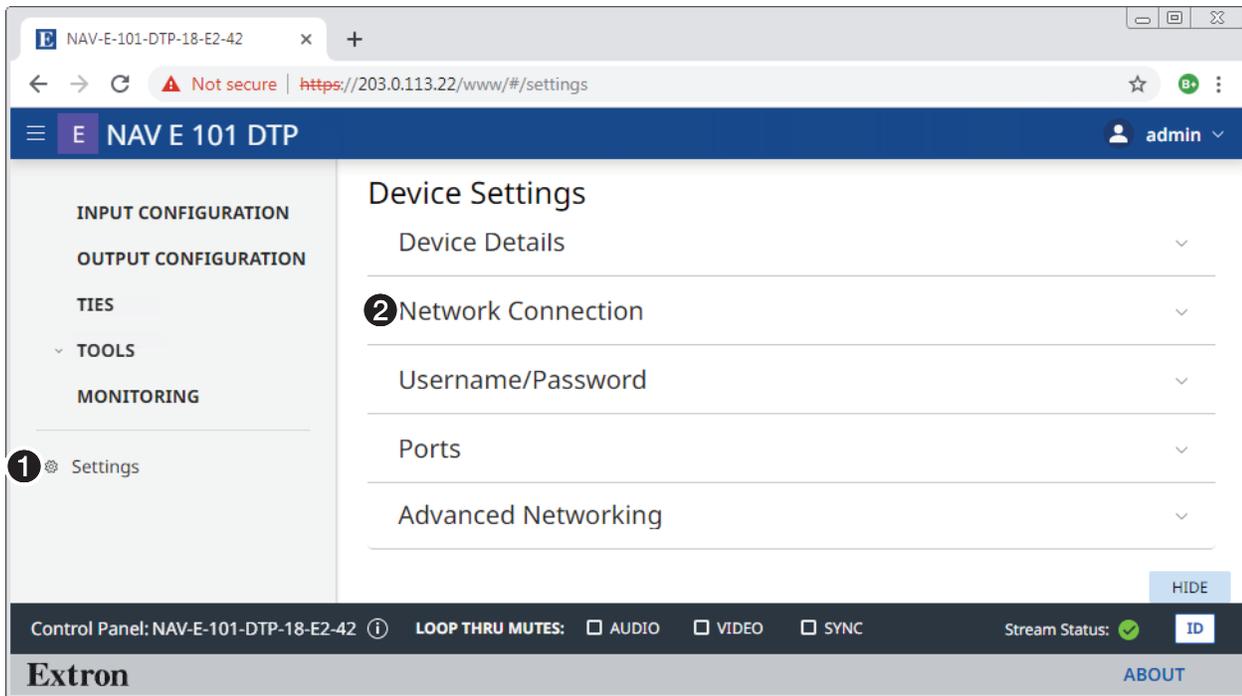- Usernames and passwords are case sensitive.

Figure 5. Home Page

> **NOTE:** Detailed descriptions of communication, configuration, and monitoring are provided in the *NAV E 101 DTP User Guide*, available at **www.extron.com**.

Connection settings

View and change connection settings as follows:

1. On the home page, click `Settings` (see figure 5, ❶) and then `Network Connection` (❷). The `Network Connection` pane opens (see figure 6), showing protected views of the network connection settings.

   > **NOTE:** Editing of connection settings is disabled when the device is assigned to an Extron NAVigator System Manager.

2. **To change the settings**, click `Edit` (see figure 6, ❶). The `Edit` button changes to `Save`.

3. Click in the desired field (❷) and edit it as desired.

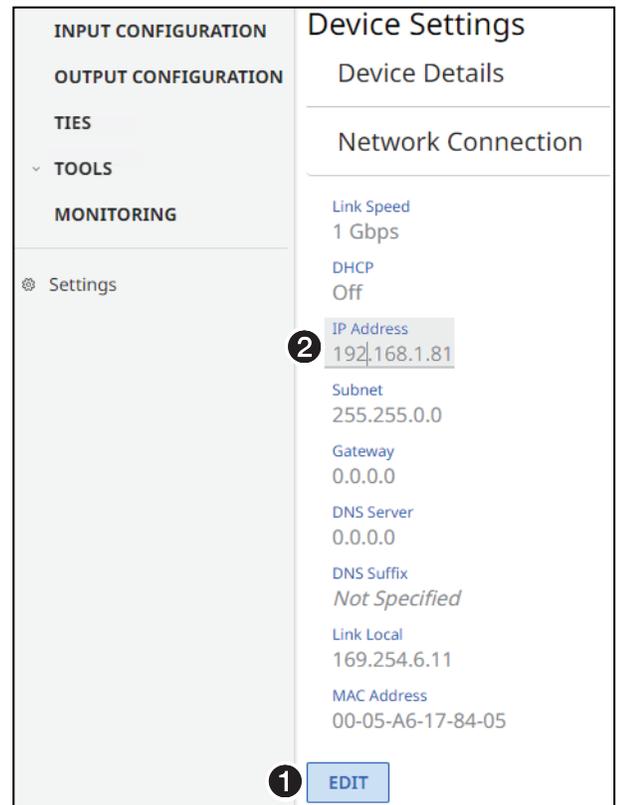4. Repeat step 3 as necessary for other values.

5. Click `Save`.

Figure 6. Network Connection Pane

Pairing devices via front panel

Pair devices from the front panel as follows:

1. Use a Tweeker or other small screwdriver to press and **hold** the <u>encoder</u> front panel **ID** button for approximately 3 seconds, until the ID LED blinks. The encoder enters pairing mode, which allows decoders to receive AV streams from encoders.

2. One at a time, use a Tweeker or other small screwdriver to press and **hold** the <u>decoder</u> front panel **ID** button for approximately 3 seconds, until the ID LED blinks. The decoder is now paired to the encoder.

3. Repeat step 2 for each decoder.

4. Use a Tweeker or other small screwdriver to press and <u>release</u> the <u>encoder</u> front panel **ID** button. The encoder exits pairing mode.

5. Repeat steps 1 through 4 to pair decoders to other encoders.

After all devices are connected, powered on, and paired, the system is fully operational.

System operation with a NAVigator

The Extron NAVigator is a system manager that easily configures and controls the NAV System. The NAVigator can supports a 16 endpoint system by default, but a LinkLicense can upgrade the NAVigator capabilities to support up to 240 endpoints.

See the *NAVigator User Guide*, available at **www.extron.com** for details.

Connection Details

LockIt Lacing Bracket

1. Plug the HDMI cable into the panel connection (see ❶, at right).

2. Loosen the HDMI connection mounting screw from the panel enough to allow the LockIt lacing bracket to be placed over it (❷). The screw does not have to be removed.

3. Place the LockIt lacing bracket on the screw and against the HDMI connector (❸), then tighten the screw to secure the bracket.

> **ATTENTION:**
> - Do not overtighten the HDMI connector mounting screw. The shield it fastens to is very thin and can easily be stripped.
> - Ne serrez pas trop la vis de montage du connecteur HDMI. Le blindage auquel elle est attachée est très fin et peut facilement être dénudé.
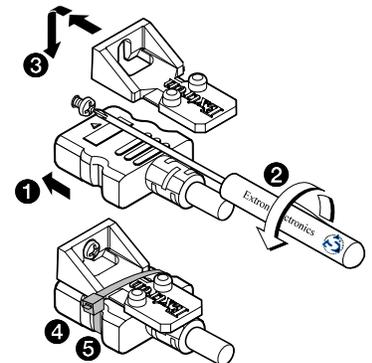
4. Loosely place the included tie wrap around the HDMI connector and the LockIt lacing bracket (❹).

5. While holding the connector securely against the lacing bracket, use pliers to tighten the tie wrap, then remove any excess length (❺).

TP connectors

Pins:
12345678

Pin	TIA/EIA T568B Wire color
1	White-orange
2	Orange
3	White-green
4	Blue
5	White-blue
6	Green
7	White-brown
8	Brown

TP Wires