

Overview

This quick start guide provides instructions and diagrams describing how to quickly connect and configure the SOL8SDR-H2 device to join a Mesh network.

Note: If configuring as a SOL-TX or SOL-RX, please refer to the relevant user guides.

Supporting software applications and detailed user guides can be downloaded from DTC's WatchDox facility. Please contact the DTC support team:

- **Phone US:** +1 571 563 7077
- **Phone UK:** +44 1489 884 550
- **Email US:** us.technical.support@domotactical.com (no restricted content)
- **Email ROW:** uk.technical.support@domotactical.com (no restricted content)

Connections

The minimum connections required for an SDR-H2 to join a Mesh network are power and antennas. An Ethernet connection to a PC is required for initial configuration.

IMPORTANT: Batteries will be shipped with minimal charge to comply with safety regulations. It is essential to charge the batteries before operation.

Bring the contact terminals of the battery and SOL8SDR-H2 together firmly, as illustrated below.

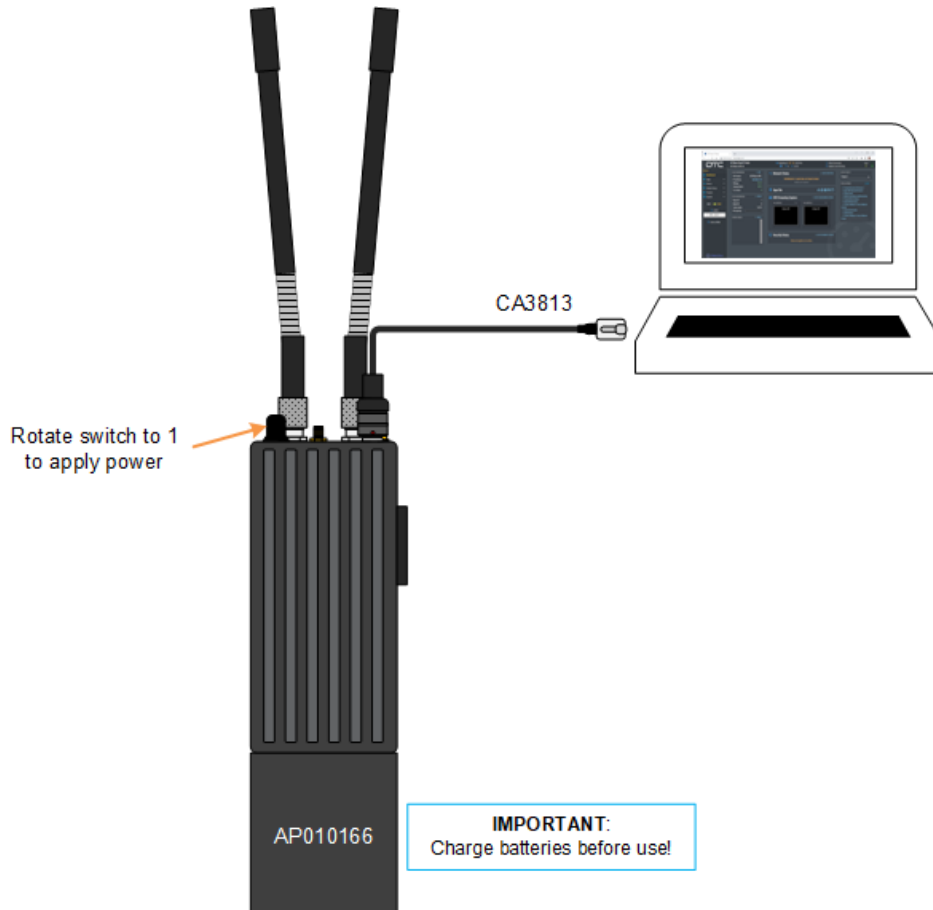
Secure by rotating the body of the SOL8SDR-H2 in a clockwise direction and/or the body of the battery in an anti-clockwise (counter-clockwise) direction until the battery is locked into position.



Depending on how the SDR-H2 is to be deployed, a GPS antenna, video source, audio headset, or serial data connections may be attached for additional functionality. Please refer to the user guide for details.

Note: A full list of cable options can be found in the datasheet or user guide.

Power is applied by turning the power/config switch to position 1.

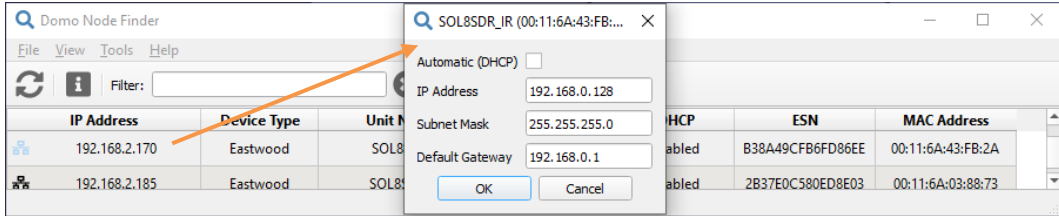


Initial Communications

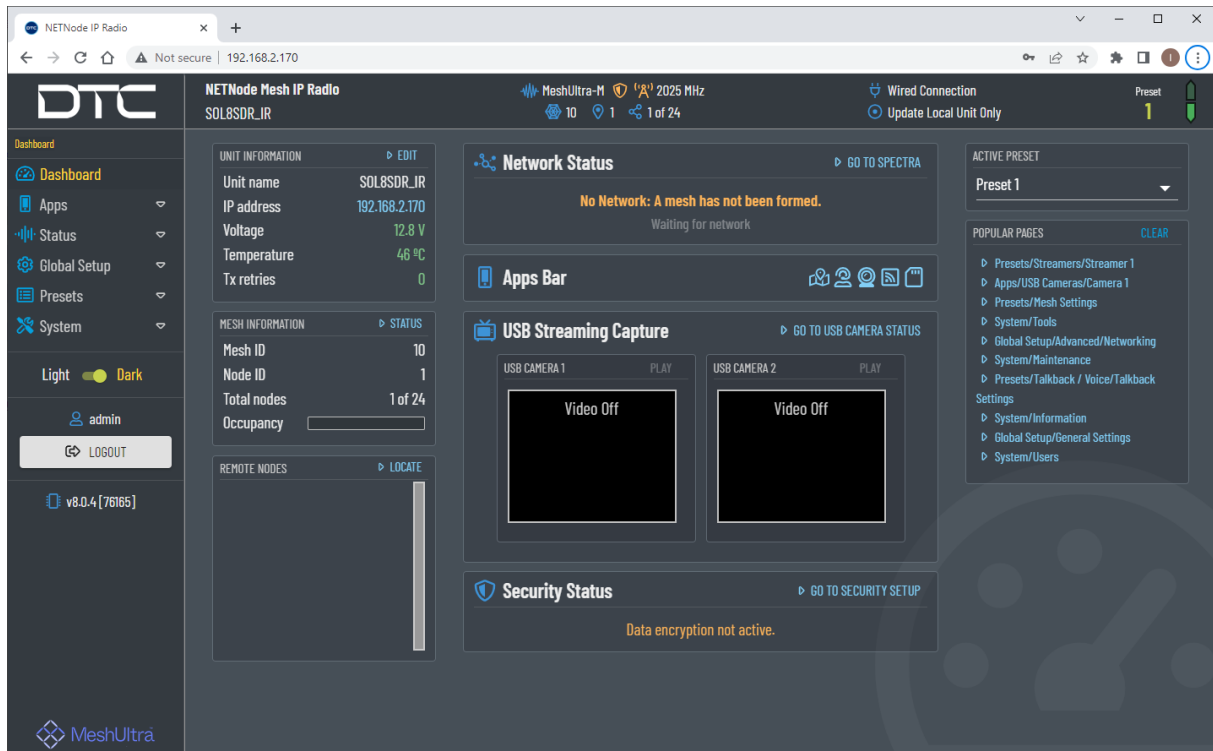
DTC's **Node Finder** application can be used to identify all DTC device Ethernet IP addresses connected on a network.

The default setting requires the device to be connected by Ethernet to a DHCP server which will automatically allocate an IP address. If a DHCP server is not available or the SDR is connected directly to a PC, the SDR and PC IPv4 address will need to be configured to be on the same subnet.

Right-click the SDR on Node Finder to reconfigure the IP settings as needed.



When the SDR IP address has been established, open a web browser, and enter it in the address bar. On authentication, leave the Username blank and enter the Password as **Eastwood**.



Basic Mesh Setup

Mesh settings must be configured to join a network. In the web user interface **Presets>Mesh Settings** page, the settings highlighted below must be the same for all nodes in a network except the **Node Id** which should be unique. These settings will depend on operational requirements.

The screenshot displays the DTC web user interface for the 'Mesh Settings' page. The interface is divided into several sections:

- Header:** Shows 'NETNode Mesh IP Radio', 'SOL8SDR_IR', 'MeshUltra-M', '2025 MHz', 'Wired Connection', and 'Update Local Unit Only'.
- Left Sidebar:** Contains navigation options like Dashboard, Apps, Status, Global Setup, Presets, Mesh Settings (highlighted), Unit Settings, Talkback / Voice, Security, Streamers, Data, Advanced, and System.
- Main Content Area:**
 - MESH SETTINGS:** A table with the following values:

Operating mode	MeshUltra-M
Mesh Id	10
Node Id	1
Operating range	50km
Advanced Settings	No
 - TRANSMITTER:** A table with the following values:

Enable transmitter	Yes
Frequency	2025 MHz
Channel bandwidth	2.5 MHz
Output attenuation	0 dB
RF output port	A + B
PA linearity	High
Interference avoidance	Off
 - P2MP SETTINGS:** A table with the following values:

P2MP mode	Off
Half bandwidth	None
Power control	No
Control level	65 -dBm
- Bottom:** Includes a 'COPY PRESET 1' button and a breadcrumb trail: 'GENERAL SETTINGS > UNIT SETTINGS > TALKBACK SETTINGS > TALKBACK GROUPS > SECURITY'.

When the SDR has been configured, the Ethernet connection to the PC can remain if it is to be the control node for the Mesh network, otherwise, disconnect to prevent network looping.