



Sound Devices Astral Outpost

User Guide v8.40

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Introduction

The Astral Outpost is a remote NexLink-antenna box. NexLink is Sound Devices' proprietary protocol for long-distance remote control of Astral transmitters. This game-changing system allows remote control of all parameters on the transmitters – and has a distance far exceeding the RF audio link. Since NexLink operates at 2.4 GHz, its antennas cannot be remote-mounted more than a few inches due to cable loss – until now. With the Astral Outpost, the NexLink antennas can be located near the action, along with the UHF audio antennas. The remote mounting is simple, using either Cat-6 Ethernet cable or even fiber optic Ethernet.

You can use up to eight Astral Outpost units at the same time, together with the Astral ARX16 or ARX32's built-in NexLink antennas, to create a NexLink antenna network. This setup provides robust coverage across large and complex environments.

Key Features

- Powered by PoE or USB-C 15W power supply
- Cat-6 (Ethercon connector) or Optical Ethernet (via SFP module)
- Rugged, rain-resistant chassis
- Dual ¼", 3/8", 5/8" mounting hole blocks
- Pair with Astral ARX16 or ARX32 via the Astral Outpost's USB-C port. Supplied with USB-A to USB-C pairing cable.
- Supports NexLink antenna networks with multiple Astral Outposts
- Customize an Astral Outpost's name for easy identification e.g. Stage 1, Stage 2 etc.
- Monitor Astral Outpost connection status directly from Astral ARX32.
- Recessed reset button for resetting to factory defaults
- Rear panel LED for indicating power, ID'ing from Astral ARX16 or RX32, and firmware update progress
- Firmware updates via ethernet or USB-A thumbdrive.



The Astral Outpost must be powered from either a PoE or USB-C 15W power supply.

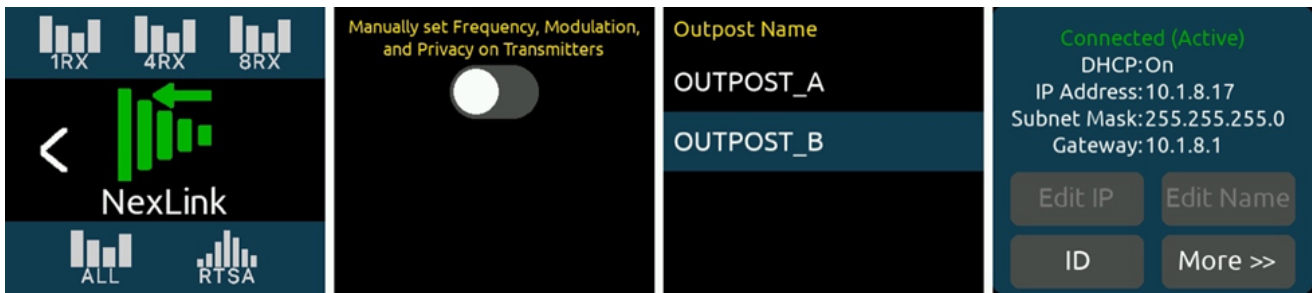
The rear panel Power LED illuminates as follows: Solid blue = starting up; Solid green = powered on; Flashing blue = Receiving NexLink ID command; Alternating red, green, blue = updating firmware; Flashing red = failed update.

ESD: The Outpost's ethernet connection may be interrupted in an environment with ESD phenomenon when powered by a PoE supply. In such an event, it is recommended to restart the connection manually.

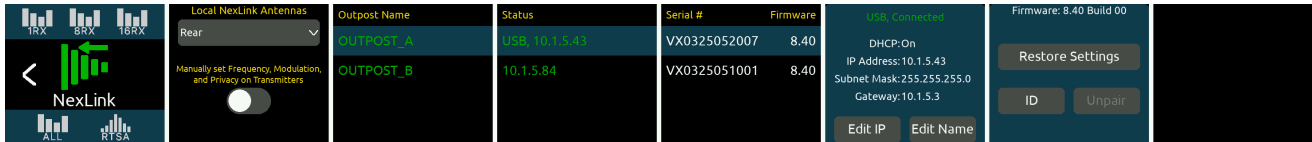
Pairing an Astral Outpost - NexLink Menu on ARX16 or ARX32

Up to eight Outposts, together with local NexLink antennas, form a NexLink network where all nodes simultaneously transmit and receive data. The first device to successfully receive a message acts upon it. All 'active' Outposts automatically join the network without any user interaction. To prevent an Outpost from being part of the network, remove its ethernet connection or power it down. When multiple Outposts are in use, the RX View NexLink signal strength meters display the highest value.

On the Astral ARX16 or ARX32, tap the NexLink Menu Icon in the Main Menu to access NexLink settings and the paired Outpost List.



ARX16 NexLink Menu



Before using an Astral Outpost, it must be paired and configured with the Astral ARX16 or ARX32 by connecting its USB-C port to the Astral ARX16's rear USB-A or ARX32's rear USB-A or front USB-C port.

- Connect the Astral Outpost via its USB-C port directly to the Astral ARX16 or ARX32's USB-A port or ARX32's USB-C port, not via a USB hub. The Astral ARX16 or ARX32 automatically pairs to the Astral Outpost and displays it in the list.
- The Astral Outpost's default name is 'Astral Outpost-MMMMMM' where MMMMMM are the last 6 digits of the MAC address. Its name can be changed by tapping the Edit Name button which is ungrayed when connected via its USB-C port to either Astral ARX16 or ARX32 USB port.
- Connect the Outpost to the Astral ARX16 or ARX32 control network via ethernet or fiber.
- By default, the Astral Outpost's DHCP is enabled. When enabled, the Astral Outpost is automatically assigned an IP address by a connected DHCP server.
- The IP settings can be configured by tapping the Edit IP button which is ungrayed when connected via the Outpost's USB-C to Astral ARX16 USB-A port or ARX32 USB-A or USB-C port.

Edit IP, Edit Name, and Restore Settings can only be selected when the Outpost is connected via its USB-C port to the Astral ARX16's USB-A port or either ARX32 USB port.

ARX32: Local NexLink Antennas

Determine whether the Astral ARX32's front or rear pair of antennas are used for NexLink communication.

Note that only the Astral ARX16 or ARX32's local 2.4 GHz antennas, not the Astral Outpost's antennas, are used when wirelessly pairing, performing wireless firmware updates or pairing to Astral Remote. Both local Astral ARX16 or ARX32 and Astral Outpost antennas are used to wake up transmitters that have been off for more than 4 hours.

Manually Set Frequency, Modulation, and Privacy on Transmitters

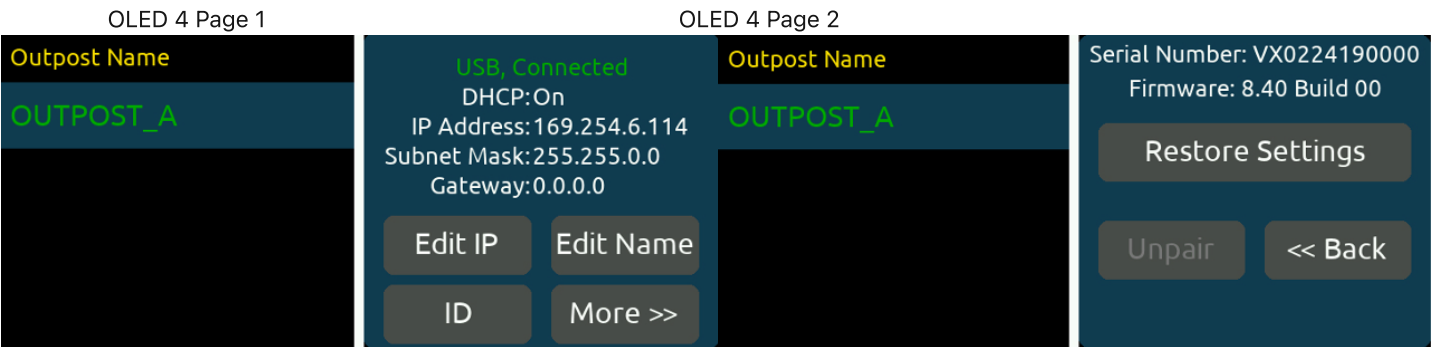
Determines whether Astral transmitter frequency, modulation, and privacy settings are automatically or manually sent from the Astral ARX16 or ARX32 to the Astral transmitter over NexLink. When the toggle switch is disabled, these settings are automatically sent from Astral ARX16 or ARX32 to the transmitters. When the toggle switch is enabled, it is necessary to manually set frequency, modulation, and privacy on both the Astral ARX16 and ARX32 and transmitters.

Note: If frequency, modulation, and privacy settings do not match between the Astral ARX16 or ARX32 and transmitters, audio is not received.

Astral Outpost List

ARX16

On the ARX16, OLED 3 lists paired Astral Outposts in alphanumeric order. OLED 4 has two pages. Toggle between them by tapping 'More...'



OLED 4 Page 1

- **Status:** Displays the Astral Outpost’s USB and network connection status
 - Connected (Active): Green. Network connected; Outpost is active.
 - ---: Network not connected.
 - USB: USB-C connected to Astral ARX16 USB-A port. USB must be connected to edit the Outpost settings. When Outpost’s USB-C is connected to Astral ARX16, ‘USB’ is displayed before the network connection status.
- **Network Information:**
 - DHCP status

- IP address
- Subnet Mask
- Gateway
- **Edit IP:** The IP settings can be configured by tapping the Edit IP button which is only ungrayed when connected via the Outpost's USB-C to the Astral ARX16 USB-A port.
- **Edit Name:** With USB-C connected to Astral ARX16, tap Edit Name to edit the Outpost's name.
- **ID:** Tap to identify an Astral Outpost when multiple Astral Outposts are paired, powered and connected to the Astral ARX16's control network. Tapping the ID button will flash the selected Astral Outpost's rear panel power LED, blue.
- **More >>:** Tap to select page 2.

OLED 4 Page 2

- **Serial Number:** The Astral Outpost's serial number.
- **Firmware:** The Astral Outpost's firmware version.
- **Restore Settings:** Tap the button to return the selected Astral Outpost's name and IP address to factory defaults. Default IP Address, Subnet Mask, and Gateway are all set to 0.0.0.0. Default Name is 'Astral Outpost-MMMMMMM' (where MMMMMM= the last 6-digits of the Outpost's MAC address). The Astral Outpost must be connected to Astral ARX16 via USB-C for the Restore Settings button to be ungrayed.
- **Unpair:** Tap Unpair to remove the selected Astral Outpost from the list and Astral ARX16's cache of known, configured Astral Outposts. Note: It is not possible to unpair when the Outpost's USB-C port is connected to the Astral ARX16 USB-A port.

ARX32

On the ARX32, OLEDs 3-8 list paired Astral Outposts in alphanumeric order. The list displays the Astral Outpost's Name, Connection Status, Serial Number and Firmware version. A maximum of eight Outposts can be added to the list.

- **Astral Outpost Name:** The user-editable name of the Astral Outpost.
- **Status:** Displays the Astral Outpost's USB connection status, network connection status, and IP address.
 - IP address text = Green: Outpost is active.
 - IP address text = Gray: Outpost is paired but not connected via ethernet.
 - When Outpost's USB-C is connected to Astral ARX32, 'USB' is displayed before the IP address.
- **Serial #:** The Astral Outpost's serial number.

- **Firmware:** The Astral Outpost's current firmware version.

Editing Name and IP settings for an Existing Astral Outpost

Select an Astral Outpost in the Outpost list. This displays the current Name and IP address, Subnet Mask, and Gateway for the selected Astral Outpost in OLED 6. By default, DHCP is enabled. To edit the selected Astral Outpost's IP settings and name, ensure the Outpost is connected via USB-C to either Astral ARX32 USB port then tap Edit IP and Edit Name respectively.

Identifying an Astral Outpost

Use the ID button in OLED 7 to identify an Astral Outpost. When multiple Astral Outposts are paired, powered and connected to the Astral ARX16 or Astral ARX32, select the specific Astral Outpost in the list and tap the ID button. The ID button toggles the rear panel power LED to a blue flashing state.

Identifying Astral Outposts in RF Mirror Mode

Upon enabling RF Mirror Mode on an Astral ARX32, select Local or Primary to identify Astral Outposts connected to the primary or currently mirrored Astral ARX32.



Unpairing an Astral Outpost

Tap Unpair in OLED 7 to remove the selected Astral Outpost from the list and Astral ARX32's cache of known, configured Astral Outposts. Unpair is granted out when USB is connected.

Restore Settings

Tap the button to return the selected Astral Outpost's name and IP address to factory defaults. Default IP Address, Subnet Mask, and Gateway are all set to 0.0.0.0. Default Name is 'Astral Outpost-MMMMMMM' (where MMMMMM= the last 6-digits of the Outpost's MAC address). The Astral Outpost must be connected to Astral ARX32 via USB-C for the Restore Settings button to be available.

Updating Astral Outpost Firmware

Ensure Astral Outpost firmware is up to date and compatible with the installed Astral ARX16 or ARX32 firmware. On the ARX32, if the firmware needs updating, NexLink Menu > OLED 6 flashes an update message in red.

Via USB Thumb Drive

- Download the latest .prg update file from the Sound Devices website.
- Copy the .prg file to the root of the Astral ARX16 or ARX32 formatted USB thumb drive.
- Power the Astral Outpost via >15 W PoE or USB-C source.
- Insert the thumb drive into the Astral Outpost's USB-A port. The Astral Outpost automatically detects the .prg file and starts updating. During the update process, the Astral Outpost's rear panel power LED flashes alternating red, green, and blue. Once the update has been completed successfully, the rear panel power LED changes to solid blue and the .prg file is automatically erased from the thumbdrive. If the update fails, the power LED flashes red.

Via Ethernet from Astral ARX16 or ARX32

- Download the latest .prg update file from the Sound Devices website.
- Copy the .prg file to the root of the Astral ARX16 or ARX32 formatted USB thumb drive.
- Insert the thumb drive into the Astral ARX16 USB-A port or ARX32 USB-C or USB-A port.
- Ensure Astral Outpost is connected via Ethernet to the Astral ARX16 or ARX32 and powered on.
- Go to the Astral ARX16 or Astral ARX32's front System button, tap More, select Firmware Update, choose the Astral Outpost from the Device list, then select Start Update in OLED 4.
- The Astral ARX32 sends the firmware to the Astral Outpost over Ethernet. During the update process, the Status column displays the firmware update progress, and the Astral Outpost's rear panel power LED alternately flashes red, green and blue. Once the update has been completed successfully, the rear panel power LED changes to solid green and the .prg file is automatically erased from the thumbdrive. If the update fails, the power LED flashes red.

Astral Outpost Specifications

Network Connections

- 1x RJ45 port and 1x SFP port: For NexLink control connection to Astral ARX32 and Astral Outpost firmware updates

NexLink Protocol

- 2.4 GHz, proprietary frequency-hopping backlink control of transmitters over long distance

Connections

- 2x SMA-F ports for connecting 2.4 GHz SMA-M antennas

USB Type

- USB-A: 5V, 1.5A output; supports USB thumb drive (formatted FAT32) for firmware updates only.
- USB-C: 5V, 3A (15W) for pairing with Astral ARX32 and/or powering

Powering

- PoE+ In (15W)
- USB-C: 5V, 3A (15W)

Environmental Operating Temperature Range

- -10 to 40 C; 14 to 104 F

Dimensions (H x W x D)

- 3.2 cm x 16 cm x 13.2 cm; 1.26 in x 6.3 in x 5.2 in

Weight

- 0.66 kg (unpackaged)
- 1.45 lbs. (unpackaged)

Astral Outpost Safety Information

Class A:

Warning: Operation of this equipment in a residential environment could cause radio interference.

Class A FCC Statement:

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the

equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Class A ISED Statement:

CAN ICES-003(A) / NMB-003(A)

ESD:

The Outpost's ethernet connection may be interrupted in an environment with ESD phenomenon when powered by a PoE supply. In such an event, it is recommended to restart the connection manually.