

INSTALLING THE 7400-5708M SHOW DMX VERO NET TRANSCEIVER

Installation

Install the SHoW DMX Vero Net Transceiver in a suitable location, following the instructions below. When selecting a mounting location, note that for best results the antennas in your system must be within sight of each other.

Warning

To avoid electric shock, do not energize any circuits before all internal and external electrical and mechanical clearances are checked to assure that all assembled equipment functions safely and properly.

Important use notes

This unit must be used with voltages below 600V

This unit must be installed in accordance with the National Electrical Code, ANSI/NFPA 70, where the ambient temperature does not exceed 40°C (104°F) maximum.

Grounding

This enclosure has been provided with a ground bond jumper for ground connection between the back box and the cover. This jumper must be installed as shown in the drawing below, using the provided hardware.

Mounting Bracket

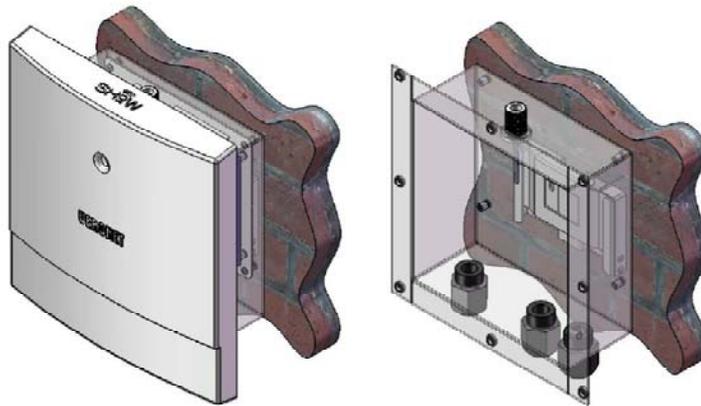
The provided mounting Bracket Base can be mounted on a surface or a vertical pipe. For surface mounting, the Bracket base is provided with slots and holes suitable for #10 / M4 screws or similar fasteners.

Surface Mounting

Mount the Mounting Bracket Base in the desired location using four x #10 / M4 screws (by others, as above).



Slide the mating Mounting Bracket (attached to the Unit) into the Mounting Bracket Base until the locking clip engages, and install the provided 8-18 x .500" SS Thread Forming Torx Button Head Security Screw, in the hole on the left side of the Bracket assembly.



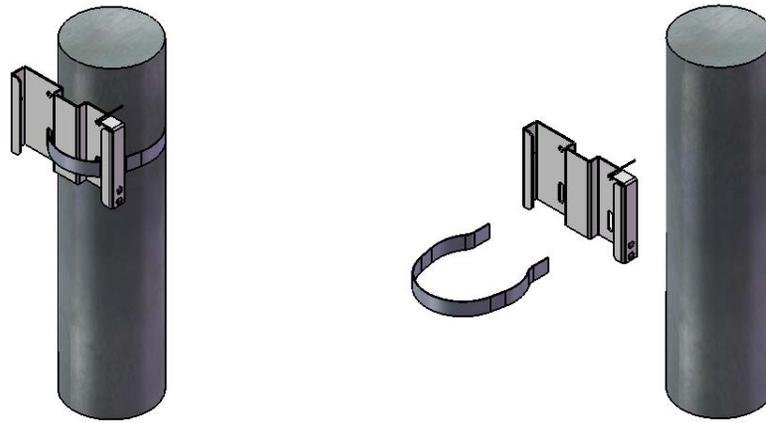
Mounting Orientation

The 7400-5708M SHoW DMX Vero Net Transceiver must be mounted exclusively in an upright mounting position with the cable entries on the bottom and antenna connector on the top as shown in the drawing above.

Pipe Mounting

The SHoW DMX Vero can also be mounted on a pipe.

Attach the Mounting Bracket Base to a pipe using a stainless steel hose clamp as shown:



Slide the mating Mounting Bracket (attached to the Unit) into the Mounting Bracket Base until the locking clip engages, and install the retaining screw.

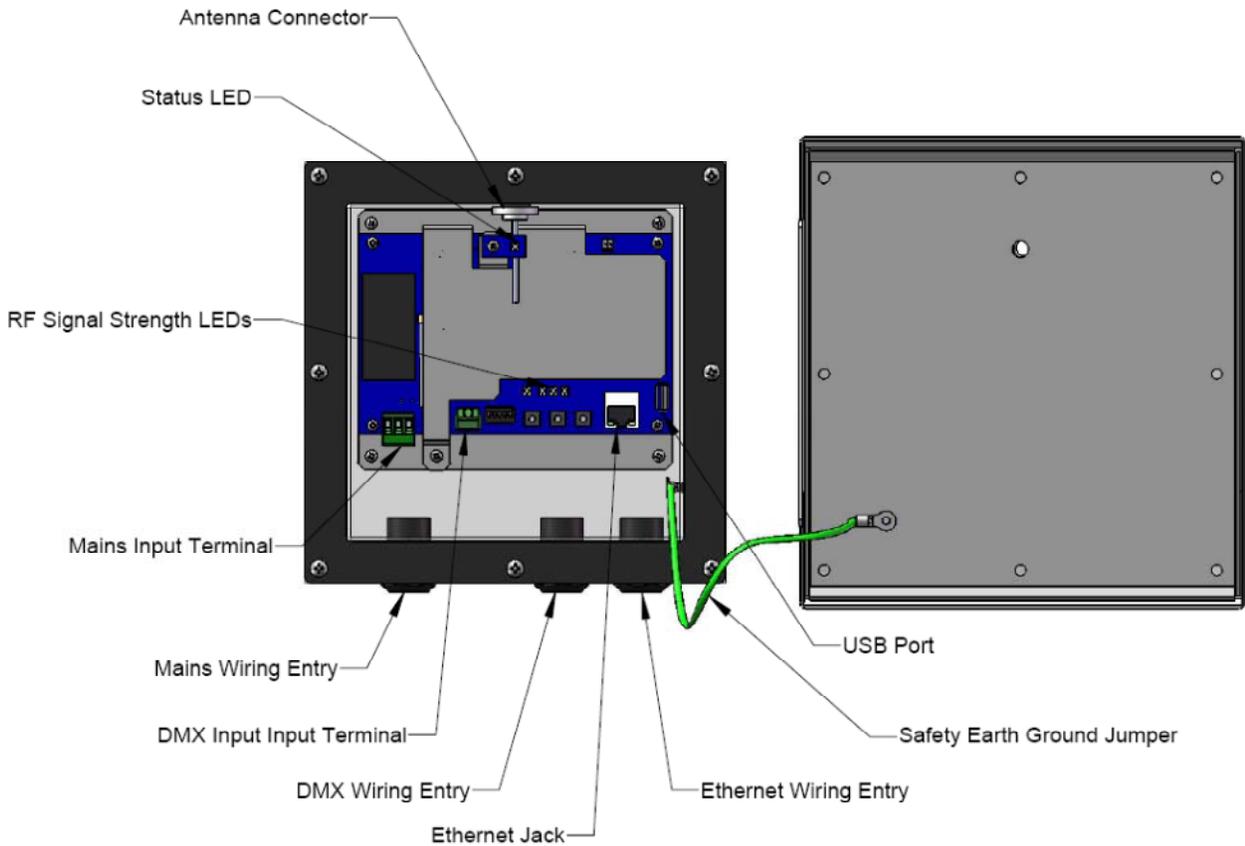
Cable or Conduit Entry

The unit enclosure is provided with ½" NPT entry holes fitted with liquid-tight cable grips for use with outdoor use cables (by installer) for power, DMX, and Ethernet connection.

The recommended torque for these cable grips is as follows:

Locking Nut	40-45 inch pounds
Sealing Nut	50-55 inch pounds

If outdoor use conduit is used instead, it is recommended that the conduit be sealed after installation to prevent moisture entry, including free air exchange, in order to minimize the chance of condensation buildup.



Mains Wire Installation and Termination

Install the mains cable or conduit in the entry provided as shown in the drawing below. A liquid tight cable grip is provided for use with suitable outdoor rated cable with diameter range of .170"/4,3mm - .450"/11,4mm.

When cable is used, strip outer jacket 6.0"/150mm.

The mains connection is a 3 pos. plug/socket type terminal block which may be disconnected for ease of assembly. Strip insulation from individual conductors .25"/7mm and terminate in the provided screw terminal socket (see illustration above) Mains terminations are as shown and are marked on the unit.

DMX512 Wire Termination

The SHoW DMX Vero Net Transceiver is provided with a PCBA mount terminal block for DMX connection (see illustration above). DMX Input / Output connections are as shown and are marked on the unit.

Ethernet Cable entry

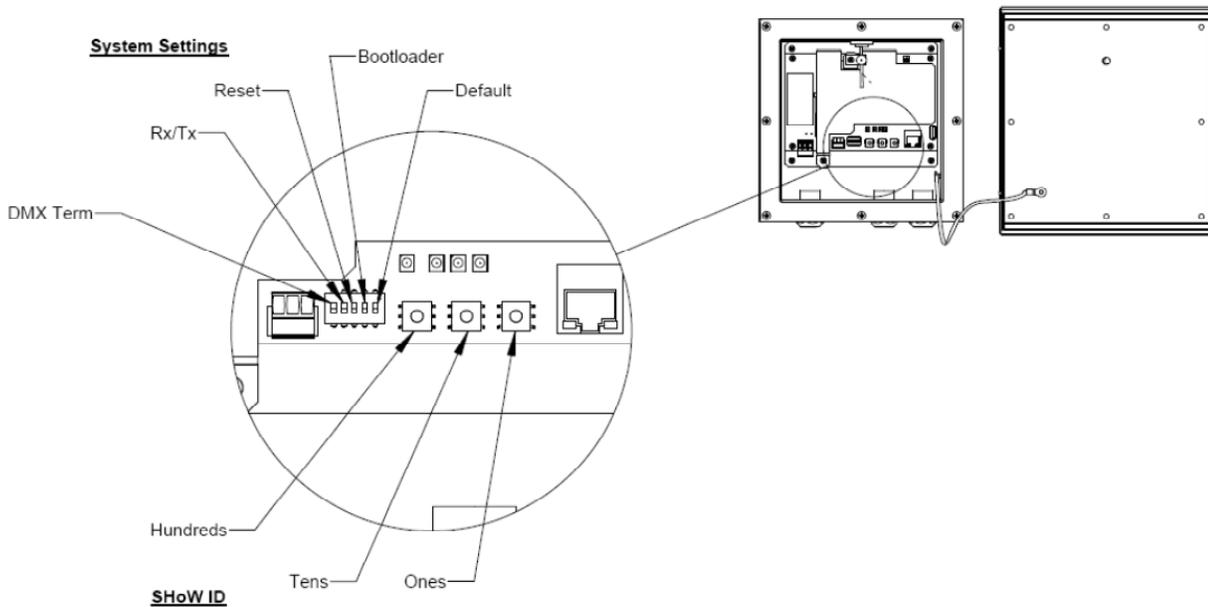
The unit is provided with an RJ45 Ethernet Jack for Ethernet connection. Install the Ethernet cable using the entry provided. An RJ45 Ethernet Plug must be installed on the Ethernet cable after the cable is pulled into the box, using the standard TIA-EIA T568B pin out.

Installing the Cover

The 7400-5707M SHoW DMX Vero Net Transceiver has a two part cover, with the outer plastic cover connected to the inner metal cover with a hinge. Install the metal inner cover using the eight provided 6- 32 x .375" SS Truss Head Machine Screws. Hand install these screws until the screw threads are fully engaged with the mating PEM Nut, then tighten to 4 inch pounds.

The outer cover is then closed and secured with the provided 8-18 x .500" SS Thread Forming Torx Button Head Security Screw, installed in the provided hole on the left side of the cover assembly.

THE 7400-5708 SHOW DMX VERO NET TRANSCEIVER SETTINGS



Configuration

You can configure the Vero Net Transceiver's basic operating settings using the System Settings switches shown in the detail above.

Configuration switches:

P5, DMX Term: DMX512 termination On or Off. Turn On for end-of-line DMX512 connection.

P4, Rx/Tx: Receiver (Rx) On, or Transmitter (Tx) Off. Selects Receiver or Transmitter operation

P3, Reset: On or Off. Switch On to Reset

P2 Bootloader: On or Off. Sets the unit to Bootloader mode to upload and install Host and radio firmware upgrades from a connected USB Memory device.

P1 Default: On or Off. To restore the system to factory default settings:

1. Set P1 Default to On
2. Wait for PCBA LED to blink rapidly
3. Switch P1 to Off

QUICK SETUP

For a basic 7400-5708M SHoW DMX Vero Net System you will need one 7400-5708M SHoW DMX Vero Net Transceiver for use as a transmitter and at least one Vero Net Transceiver for use as a receiver.

1. Install the Vero Net units as shown in the installation instructions, including all DMX and power connections. Locate the units so the antennas are within sight of each other (if you are using directional or other special use antennas, consult the Manual and SHoW DMX Neo Installation and Application Guide for installation details). Leave the covers open so you have access to the System Settings controls and internal LEDs.
2. All Vero Net units are shipped configured as receivers. Configure the Vero Net unit you are using as a transmitter by setting P4 to the Transmitter (Tx) position (switch OFF).
3. Confirm the Vero Net(s) you are using as a receiver(s) are correctly set with P4 set to the Receiver (Rx) position (switch ON).
4. Verify that all Vero Net units in the system are set to the same SHoW ID. The SHoW DMX Vero Net Transceiver is preset at the factory with SHoW ID 201 for Adaptive Spread Spectrum Frequency Hopping and Neo Low Latency broadcast mode (this SHoW ID matches 5702 SHoW DMX SHoW Baby).
5. Power up the system and apply DMX512 control to the transmitter.
6. Check that the Data present LEDs on all units are lit and solid.
7. Confirm the In Range LED on all receivers is lit.

8. Check the Received Signal Strength LEDs - at least two should be lit.
9. Confirm DMX is being output as wired DMX512 by the receivers.

SHoW ID

New Maximum Bandwidth Technology™ allows SHoW DMX to change from Frequency Hopping to Wide Band Digital Modulation, which allows it to narrow its output to smaller areas of the 2.4GHz spectrum, such as Wi-Fi channel 14 where (in the U.S.) no Wi-Fi broadcast takes place. This allows SHoW DMX to avoid all Wi-Fi interference in an otherwise saturated spectrum. No other wireless DMX system can make this claim. This is accomplished simply by selecting a SHoW ID on the user interface or via RDM.

SHoW DMX Neo system uses SHoW IDs as a quick way to set RF configuration options. Each SHoW ID represents a combination of one of 16 hopping patterns and one of four bandwidth settings. 7400-5708M Vero Transceiver supports SHoW DMX Classic, Neo and Neo Adaptive SHoW IDs.

The Transmitter and Receiver SHoW IDs must match for the units to communicate.

See the 7400-5708 SHoW DMX Vero Net Users Manual for more details about other system setting options. The Users Manual and the SHoW DMX Neo Installation and Application Guide can be downloaded from the City Theatrical website: www.citytheatrical.com.