

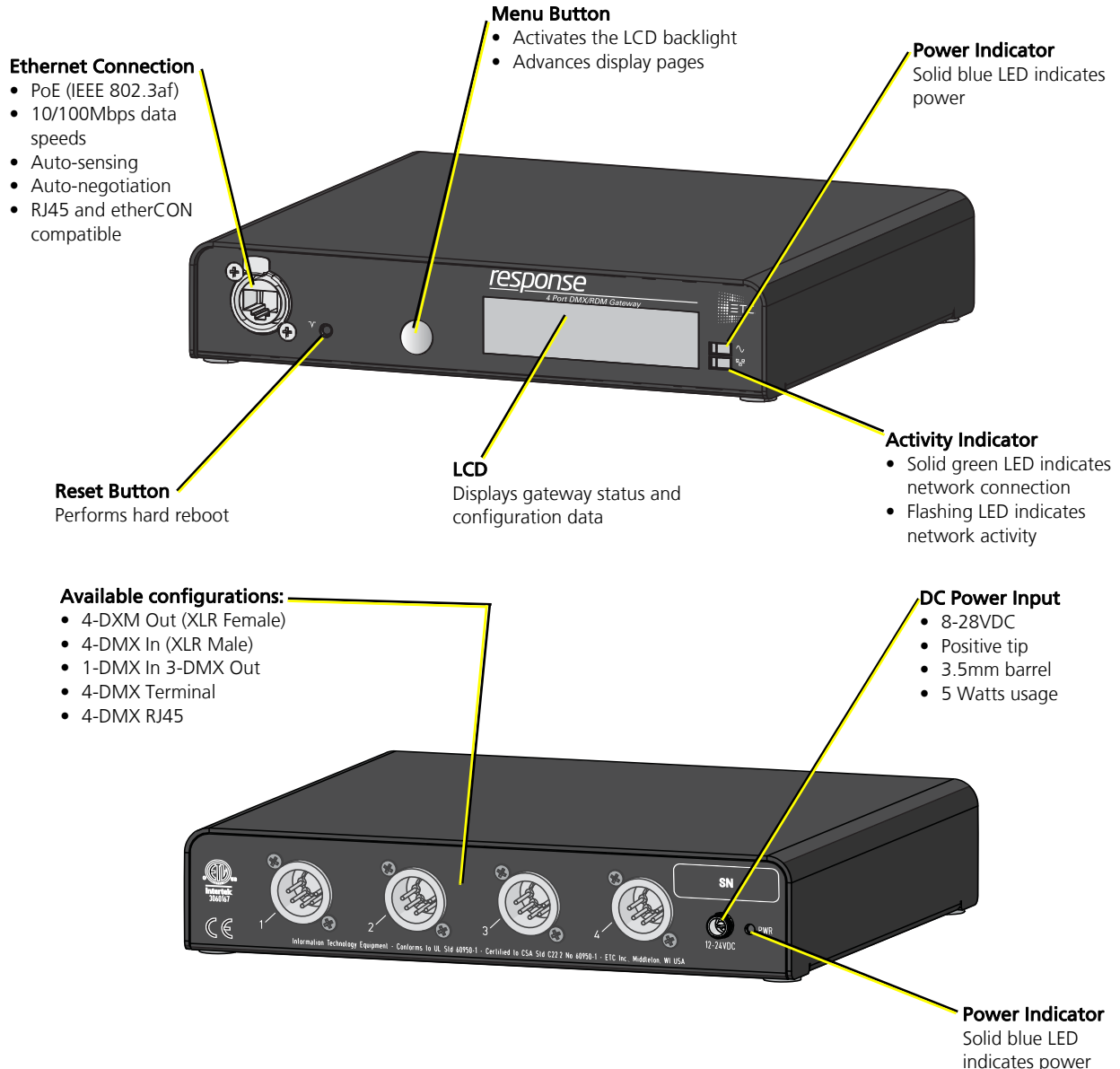
# ETC Setup Guide

## Response Four-Port DMX/RDM Gateway

### Overview

This Setup Guide will guide you through the setup of the Response Four-Port DMX/RDM Gateway (version 7.x software and later) including hardware, electrical and data connections. Software configuration of your gateway is covered separately and relates specifically to the software versions that may be running in the gateways.

For configuration, refer to the Net3 Concert Online Help System.



Corporate Headquarters ■ Middleton, WI, USA ■ Tel +608 831 4116 ■ Service: (Americas) [service@etcconnect.com](mailto:service@etcconnect.com)

London, UK ■ Tel +44 (0)20 8896 1000 ■ Service: (UK) [service@etcurope.com](mailto:service@etcurope.com)

Rome, IT ■ Tel +39 (06) 32 111 683 ■ Service: (UK) [service@etcurope.com](mailto:service@etcurope.com)

Holzkirchen, DE ■ Tel +49 (80 24) 47 00-0 ■ Service: (DE) [techserv-hoki@etcconnect.com](mailto:techserv-hoki@etcconnect.com)

Hong Kong ■ Tel +852 2799 1220 ■ Service: (Asia) [service@etcasia.com](mailto:service@etcasia.com)

Web: [etcconnect.com](http://etcconnect.com) ■ © 2016 Electronic Theatre Controls, Inc.

Product information and specifications subject to change. ETC intends this document to be provided in its entirety.

4267M2230 ■ Rev A ■ Released 2016-12

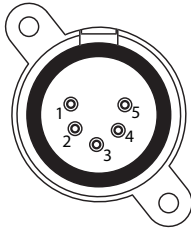
# ETC Setup Guide

## Four-Port DMX/RDM Gateway

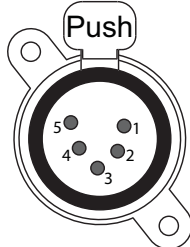
---

### Gateway Connection Options

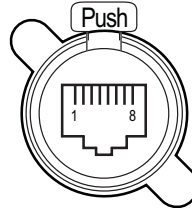
There are four different connection options available for use in the Four-Port gateway: DMX Out (5-pin female), DMX In (5-pin male), DMX RJ45 (input or output) or DMX Terminal Strip (8-pin terminal for input or output).



**DMX In**  
(XLR 5-pin male)



**DMX Out**  
(XLR 5-pin female)



**DMX RJ45**  
(RJ45 female)



**Terminal Strip**  
(8-pin male)

The terminal strip variant comes with ETC's standard DMX termination preparation kit (part number 4100A012) which includes instructions and all parts required for installation. If you are connecting to Category 5 wire for DMX, request the DMX termination preparation kit with IDC connectors from ETC (part number 4100A1013).

The DMX RJ45 variant can use a standard Cat 5 cable to transmit DMX512 to other devices utilizing the same connector.

This gateway is available in five configuration options:

- Four DMX Out Ports
- Four DMX In Ports
- Four DMX RJ45 Ports
- Four DMX Terminal Strip Ports
- Three DMX In Ports and One DMX Out Port



**Note:** *The DMX RJ45 port does not function as an Ethernet network port.*

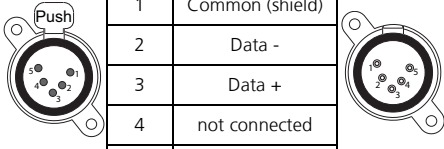
---

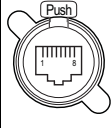
# ETC Setup Guide


## Four-Port DMX/RDM Gateway

### Basics and Pin-Outs

The Response Four-Port DMX/RDM Gateway sends and receives DMX512 control signals. This unit contains four DMX ports in one of the configuration options listed in the [Gateway Connection Options](#) section. DMX cables must be acceptable for DMX data transmission (not microphone cable) and connections should follow the standard pinouts per the charts below. The optional secondary data pair is not used by the Four-Port gateway.

DMX 512 Pinout for 5-pin XLR Connectors			
Female (output)	Pin#	Use	Male (input)
	1	Common (shield)	
	2	Data -	
	3	Data +	
	4	not connected	
	5	not connected	

DMX512 Pinout for RJ45 Connectors			
Female	Pin#	Use	Wire Color
	1	Data 1 +	White/Orange
	2	Data 1 -	Orange
	3	not used	White/Green
	4	not used	Blue
	5	not used	White/Blue
	6	not used	Green
	7	Signal Common	White/Brown
	8	Signal Common	Brown

DMX512 Pinout for Terminal Strip Connector			
Female	Pin#	Use	Wire Color
	1	Common (shield)	Clear/Shield
	2	Data -	Black
	3	Data +	Red
	4	unused	
	5	unused	
	6	unused	
	7	unused	
	8	unused	

### DMX Termination

The DMX network supports up to 32 devices connected to each DMX line. Termination is required for all DMX networks and belongs at the source (beginning) of a DMX network line and at the last device physically connected in the line. A termination switch is located internally for each input/output and can be configured for DMX termination (IN), No termination (OFF) or RDM termination (OUT). By default, the DMX termination switch is set to the RDM termination (OUT) position. If you need to change the termination setting, contact ETC technical services.

# ETC Setup Guide

## Four-Port DMX/RDM Gateway

---

### RDM Basics

The software supports Remote Device Management (RDM) protocol. By default, RDM discovery is not enabled on the Four-Port gateway. To enable RDM on the gateway, use ETC's Net3 Concert software. Please see the Concert online help files for more information on activating RDM on your gateways. You can also press and hold the Menu button on the "Discovery Off #0" menu item for the desired port.

### About RDM

Remote Device Management (RDM) is a protocol enhancement to DMX512 that allows bidirectional communication between a lighting system controller and attached RDM-compliant responder devices over a standard DMX line. This protocol allows configuration, status monitoring, and management of these devices.

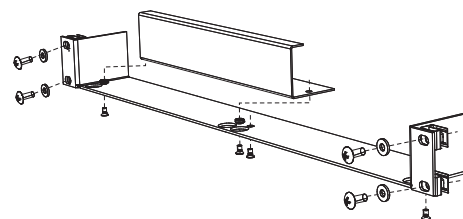
An RDM Controller is the device that initiates communication with one or more RDM Responder devices. Examples of responders are RDM-enabled edge devices such as color scrollers, dimmers, moving lights, and LED fixtures. RDM supports 32 RDM devices per-port, just like DMX. Compliant DMX512 and DMX512-A devices (non-RDM devices) are fully functional when RDM is present. RDM was developed by ESTA Technical Standards and can also be referenced as ANSI E1.20.

### Optional Accessories

The following accessories are available for use with the four-port gateway.

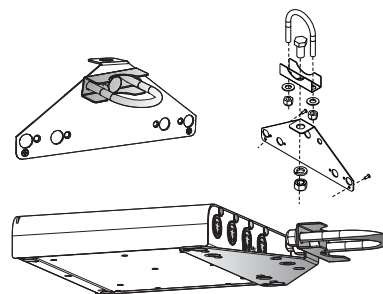
#### *Rack Mount Kit*

**4260K1001:** The Gateway Rack Mount kit is capable of holding up to two Four-Port gateways for mounting into a standard 19" rack enclosure. If you only need to mount one unit, a blanking plate is provided with the kit. This blanking plate can be installed on either side of the rack mount bracket.



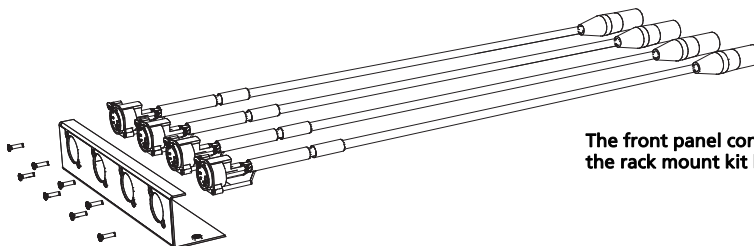
#### *Hanging Hardware Kit*

**4260K1005:** The Hanging Hardware kit allows pipe mounting of a gateway in a variety of orientations. You can vary the way the U-bolt (or c-clamp) attaches to the bracket and the way the bracket mounts to the gateway. The bracket attaches to any edge on the bottom of your gateway.



#### *DMX Front Panel Kits*

**4260K1002 - DMX out:** This kit provides front panel access to the DMX connectors on a DMX/RDM Four-Port Gateway when installed in an equipment rack. You must use these kits in combination with one Response Four-Port DMX/RDM Gateway and a Rack Mount Kit (4260K1001), not included.



The front panel connector bracket replaces the rack mount kit blanking plate.

# ETC Setup Guide

## Four-Port DMX/RDM Gateway

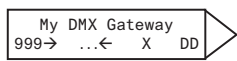
### Power Up Using DC Power

When using an external power supply, the gateway must be connected to a network before being powered. Using PoE and DC power simultaneously is not supported.

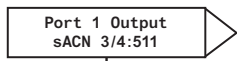
### Menu Structure

The DMX/RDM Four-Port gateway has a single-button interface. Pressing the [Menu] button repeatedly cycles through the menu, displaying mostly informational data. On certain menu items you are prompted to press and hold the [Menu] button for a period of five seconds to change a state or switch between operating modes. The menu structure is displayed below for your convenience.

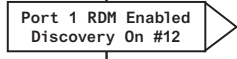
#### v7.0.x Menu



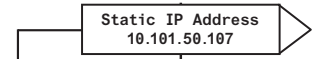
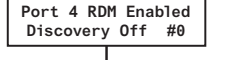
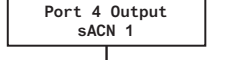
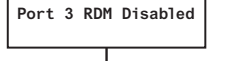
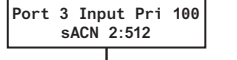
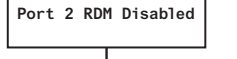
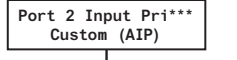
- DMX universe numbers up to 999 are displayed on the front panel. Universes that are higher than 999, or flexibly patched outputs, are indicated by "...". (you must go to the port screen to see full details).
- The unit displays either the "gateway name" or the "IP Address" as well as each port and its port status.
- Port Status includes:
  - arrow directed toward the number indicates an input (999<-)
  - arrow directed away from the number indicates an output (999->)
  - an X indicates the universe port is disabled, no universe number is shown (X)
  - a dimmer doubled port displays only "DD" (you must go to the port screen to see full details)
  - when a port is set to download mode, "DNLD" displays.
  - AIP inputs are indicated as "AIP"
  - a port will blink on the display when it does not have DMX connected (input) or has no valid source data (outputs).



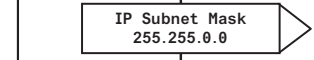
- displays the port priority mode (either "Output", "Input Pri \*\*\*\*", where \*\*\*\* indicates the port is set with per-address priority, or "Input Pri 100" (where 100 is the priority value for that port). Displays either "Input" or "Output".
- displays the patch information formatted as "universe", "universe/address", "universe/address:length", "universe:length" or "Custom (AIP)".



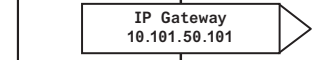
- displays the port RDM status (either "Enabled" or "Disabled"). Can be enabled or disabled at the gateway only if the port is set to "Output" mode by holding the [Menu] button for 5 seconds.
- displays discovery status (either "Fast", "On", or "Off").



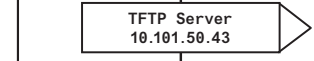
- displays either "Static" or "Dynamic" IP Address.
- displays the current IP address of the gateway.



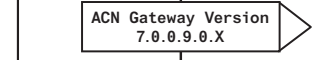
- displays the current Subnet Mask of the gateway.



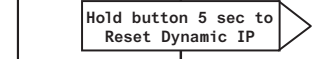
- displays the current IP address for a network router (or the gateway's own IP address).



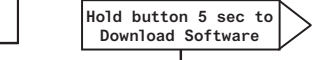
- displays the current Trivial File Transfer Protocol (TFTP) server IP address for the gateway. The TFTP server is typically an ETC console or computer running Gateway Configuration Editor (GCE) software.



- displays the version number of the software currently running on this device.



- if the IP mode is set to Static, "Switch to Dynamic IP" displays. If the IP mode is Dynamic, "Reset Dynamic IP" displays. Resetting the Dynamic IP erases the current IP from memory and requests an IP from the DHCP address service after reboot.



- software is retrieved from the current TFTP update server .



- restoring defaults will cause the gateway to reset all settings to the factory defaults.

