

### Overview

The IT-SP8R is an ultra-compact 8 Port RJ45 DMX Splitter designed for use in installations wired with RJ45 terminated Category 5 (CAT5) cabling.

The DMX Splitter is designed to create multiple independent branches of a DMX signal and/or to extend the usable distance of each branch. Each of the splitter's 8 output ports generates an independently protected DMX signal that can travel up to 1,800 feet (550 meters).

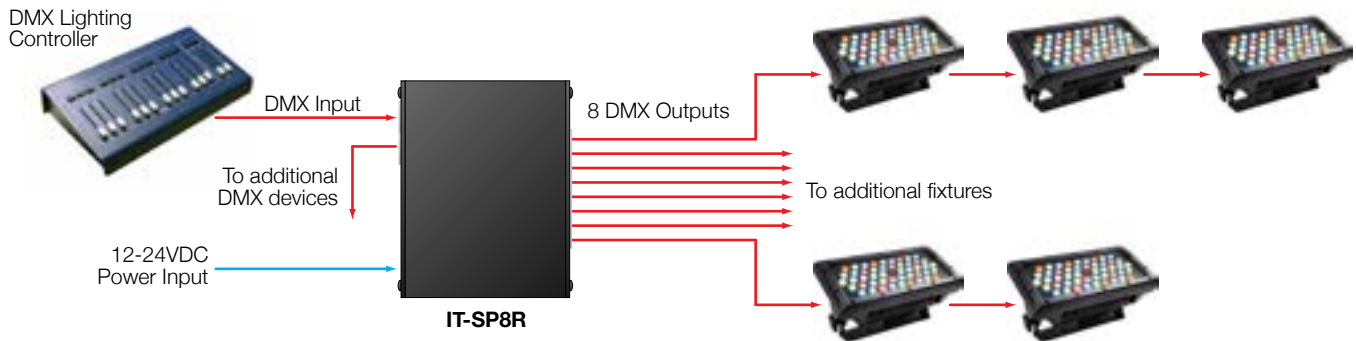
The IT-SP8R includes a DMX Pass-Thru port for cascading DMX to multiple splitters and provides a built-in DMX Termination switch. Also included is a Polarity Inversion switch which allows the IT-SP8R to easily convert between DMX512 standard wiring and the reversed wiring used by Color Kinetics® devices.



### Features

- Rugged anodized aluminum housing
- 8 Independently protected output ports
- RJ45 Ports for each DMX connection
- DMX Input and DMX Pass-Thru Ports for daisy-chaining multiple splitters
- Transient Voltage Supression (TVS) and Self-Resetting Poly-Switch Fuses for each port
- DMX signal range up to 1,800 feet (550 meters) from each output port
- Compatibility with DMX512 and Color Kinetics® devices
- User-selectable polarity inversion for converting between standard DMX and Color Kinetics® wiring schemes
- User-selectable input line termination switch
- Optional mounting bracket kits for panel, DIN Rail, or truss mounting.
- Ultra-compact design provides 8 DMX ports in just 14in<sup>2</sup> (95cm<sup>2</sup>)

### Typical Connection



## Configuration

The IT-SP8R has two user-selectable configuration switches:

### Termination

DMX standards recommend proper termination of the last device in a DMX chain. The DMX Termination Switch should be “On” if the IT-SP8D is the last DMX device on the input DMX network.

### Polarity

Two common wiring schemes are used for DMX data over CAT5 cabling: the ANSI Standard for DMX512 and an alternate scheme used by Color Kinetics®. The IT-SP8R features a switch designed to invert the polarity of the data from the Input port to the 8 Output ports. The Polarity Switch would be set to “Normal” if DMX wiring or CK wiring is used on both the inputs and the outputs. The Polarity Switch would be set to “Invert” if the wiring on the input side of the IT-SP8R is the opposite of the outputs (i.e. DMX-to-CK or CK-to-DMX).

## CAT5 DMX Wiring

The following chart shows the standard DMX512 usage for each conductor on a CAT5 cable. The chart also lists the wiring for Color Kinetics® with the corresponding internal connections made by the IT-SP8R.

| RJ45 Pinout | CAT5 Conductor | DMX Function (Standard) | Color Kinetics Function | IT-SP8R Connection |
|-------------|----------------|-------------------------|-------------------------|--------------------|
| 1           | White/Orange   | Data +                  | Data -                  | Data + [See Note]  |
| 2           | Orange         | Data -                  | Data +                  | Data - [See Note]  |
| 3           | White/Green    | -                       | Data Common             | Data Common        |
| 4           | Blue           | -                       | -                       | -                  |
| 5           | White/Blue     | -                       | -                       | -                  |
| 6           | Green          | -                       | -                       | -                  |
| 7           | White/Brown    | Data Common             | -                       | Data Common        |
| 8           | Brown          | Data Common             | -                       | Data Common        |

**Note:** When the Polarity switch is set to “Normal”, the Data +/- signals are passed to the output ports unchanged. When the Polarity switch is set to “Invert”, the Data +/- signals are reversed when passed to the output ports of the splitter, effectively converting standard DMX wiring to Color Kinetics® wiring or vice-versa.

## Specifications

| Feature       | Detail                | Description                        |
|---------------|-----------------------|------------------------------------|
| Power         | Input                 | 6-30VDC, 2W (2.1 mm DC Input Jack) |
| Physical      | Width                 | 4.29" (109 mm)                     |
|               | Length                | 3.43" (87 mm)                      |
|               | Height                | 1.78" (45 mm)                      |
|               | Weight                | 10.6 oz. (300 g)                   |
| Environmental | Operating Temperature | -40° to 158° F (-40° to 70° C)     |
|               | Storage Temperature   | -40° to 176° F (-40° to 80° C)     |
|               | Humidity              | 5 to 95%, non-condensing           |
|               | Altitude              | 10,000 feet maximum                |

## Ordering

### DMX Splitter

|              |   |
|--------------|---|
| IT-SP8R      | 8 Port RJ45 DMX Splitter (includes North American power supply) |
| IT-SP8R-AUST | 8 Port RJ45 DMX Splitter (includes Australian power supply)     |
| IT-SP8R-EURO | 8 Port RJ45 DMX Splitter (includes UK/European power supply)    |

### Optional Accessories

|           |                         |
|-----------|-------------------------|
| AX-BR-HMK | Horizontal Mounting Kit |
| AX-BR-HDK | Horizontal DIN Rail Kit |
| AX-BR-VMK | Vertical Mounting Kit   |
| AX-BR-VDK | Vertical DIN Rail Kit   |

## Photos



Front



Rear

