

XTBA SMART MERGE4:2

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OPERATION

XTBA Smart Merge will merge up to four DMX512 inputs to two DMX512 outputs. In addition the input DMX on each input channel may be movLED relative to the output DMX via the input BCD switches. Any input channels that are movLED beyond the 512 channel limit will be outputtLED via output two. Each level from the four inputs is comparLED and the highest channel level will be outputtLED either through output one or output two dependant on the BCD front panel switch settings.

Data LEDs

When valid DMX512 data is being received on an input channel the green LED above that input connector will be lit. If the data is not DMX512 or invalid, the green input ILED will not light.

The TX1/TX2 LEDs will be lit if valid DMX is being received and the BCD address switches send the received DMX to the appropriate output. For example if all the four inputs are set to 001 and there is valid data on any of the four inputs there is no useful data being transmittLED on output two so the TX2 LED will not be lit. Similarly if the four address switches are set to 513 and there is valid data on any of the four inputs there is no useful data on output one so the TX1 LED will not be lit and the TX2 LED will be.

There are two exceptions (aren't there always) to the TX LED functions detailed above. If any of the address switches are set to 000 the unit will set a default address of 001 and both TX1 and TX2 ILEDs will be lit. The input data LED will flash slowly. If the Merge 4:2 is set to hold last frame (see below) the relevant TX output and LED will be active even if data has been lost.

Addressing

By use if the three code switches on the front panel it is possible to move the start address of any of the inputs. This will prove to be most useful when two or more control systems need to be joined together e.g. a lighting control and a moving light control.

If the lighting control for example has 250 channels, by setting the address on the front panel to 251 channel one/input two will appear at 251 on the merged DMX output. Any overlapping channels will be treatLED as highest takes precedent e.g. the highest value will be outputted. Offset channels over the 512 output 1 limit (e.g. 512) will be outputted to DMX 2.

Offset Calculation

If the Smart Merge 4:2 is being used for channel shifting the offset can be calculated by subtracting the offset number from 512 and adding 2 to the result. e.g. if the offset switches are set for 413, then $512 - 413 = 99$, add two = 101. Therefor channel one on DMX OUT 2 will be controlled from channel 101 on DMX IN.

or

To get the required offset setting to output a channel onto DMX OUT 2, take the channel number required and subtract from 512 and then add 2. e.g. We need channel 101 on DMX IN to appear as channel one on DMX OUT 2. $512 - 101 = 411$ plus 2 = 413. So the offset address should be set for 413.

The channel address can be any where between 1 and 999. It is therefor possible to use the Merge 4:2 as two independent merges. If two inputs are set to 001 and two inputs are set for 513 then the result of the 001 inputs will appear on output one and the result of 513 inputs will appear on output two.

Setting / Clearing Hold Last Frame

Any or all of the four inputs can be set to hold last frame (HLF) on data loss. With the unit turned off setting the BCD switches to 999 and then turning the unit on will set that input to HLF. The HLF setting is stored into non volatile memory. Inputs set to HLF are indicated by the data LED flashing twice on power up.

To clear an inputs HLF setting set the inputs BCD switches to 000 and power up.

POWER SUPPLY

The mains input to the transformer is via a 2A a/s fuse and the transformer may be switchLED to 120 volt operation via on board switch. A spare fuse is provided in the input connector block on the rack unit.

19" RACK MOUNTING

The XTBA Smart Merge 4:2 is provided with a pair of 'ears' for fitting into a 19" rack frame. The ears are fitted to the unit by removing the two screws on either side at the front of the unit. The stick on rubber feet (used when the unit is free standing) will need to be removed from the underside of the unit.

Technical Specifications 19" Rack, Front or Rear connectors

| | |
|-------------------|---|
| Dimensions | 230/270mm inc. front handles x 430mm x 40mm |
| Weight | 4.0 Kg |
| Power | 190/250V AC Nominal 2A 240V AC |
| Data | DMX512 1986/1990 |
| Pin Configuration | Pin 1 Common, Pin 2 minus data, Pin 3 plus data. Pins 4 and 5 are not connected. |

General Information

This product may only be used for controlling dimmers and moving lights. It must not be used in DMX512 applications for stage machinery or pyrotechnics. Using the product out of these specifications will remove all responsibility from the supplier.

CE Declaration of conformity

XTBA declares that the following equipment meets the requirements of the EMC Directive 89/366/EEC.



WEE/FC2753ZS