XTBA SMART MERGE 2:2 DIN Rail

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Unit 2 The Old Curatage
The Street Caston NR17 1DD
☎44 (0) 208 882 0100
email dmx@xtba.co.uk www.xtba.co.uk

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Introduction: Smart merge 2:1 DIN Rail

This is the same as our rack mounted Smart Merge 2, just packaged in a DIN rail case.

The XTBA Smart Merge 2DIN Rail will combine two DMX512 input signals to two DMX512 outputs. Each dimmer channel from the two input signals is compared and the higher channel level will be outputted. The second DMX inputs start address may be altered by setting the offset address on the three front panel code switches. In addition the unit can be set for either or both inputs to hold the last frame received in the event of data loss.

The two DMX512 signals to be merged are connected to inputs one and two. The outputs are connected to DMX512 out 1 and 2, and to the equipment to be controlled. Input one effectively will pass the DMX data straight through the unit. Input two allows for the second input start address to be moved relative to input one.

When power is applied to the unit the green SYSTEM OK LED will be lit. The DMX data leds will blink on/off if hold last frame is set (see Hold Last Frame settings). When valid DMX512 data is being received the input channel green LED will light.

By use if the three code switches on the front panel it is possible to move the start address of input two. This will prove to be most useful when two 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 treated 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 OUT 2.

OFFSET CALCULATION
If the Smart Merge2 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 minus 412 = 99, add two = 101. Therefor channel one on DMX OUT 2 will be controlled from channel 101 on DMX IN 2.
or
To get the required offset setting to output a channel onto DMXOUT 2, take the channel number required and subtract from 512 and then add 2. e.g. We need channel 101 on DMXIN 2 to appear as channel one on DMXOUT 2. 512 minus 101 = 411 plus 2 = 413. So the offset address should be set for 413.

SETTING/CLEARING HOLD LAST FRAME

The unit can be set to hold the last valid data frame received on either or both inputs as follows:
With the unit turned off set the three offset switches as follows and then power up the unit.

999 Enable hold last frame on both inputs
907 Enable hold last frame on input one
908 Enable hold last frame on input two
000 Clear hold last frame – unit default

Following the power up the setting will be stored in non volatile memory. The offset error led will flash as the unit now has an invalid setting, so change the offset switches to the desired number.

On normal power up inputs with hold last frame set will blink on/off just to let you know.

OFFSET ERROR

The Offset Error led will be lit if channels are potentially being lost from the system e.g. if the off set switches are set above 513. Thus if input two has 512 channels and the offset is more than 513 channels will be lost.

POWER SUPPLY

The mains input to the transformer is via a PCB mounted 2A a/s fuse. An Earth terminal is provided as a loop through. The unit does not need its own earth.

Technical Specifications

Protocol	DMX512 1990 / DMX512 1986
Maximum Update Rate:	44 updates/s
DMX Out	Break 100us, MAB 10us.

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

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