# Anytronics Ltd : 8 Channel DMX to 10V Interface Installation Guide

The Anytronics DMX to analogue interface is designed to accept up to 8 channels of data via the DMX input from a specified start address, and to present this data as an equivalent analogue voltage on the output screw terminals for connection to equipment requiring 0-10V or 1-10V control inputs.

## Output mappings

With option DIL switch 2 off, this unit will decode 8 DMX addresses (starting from the DMX start address which is set on the bcd switches).

With option DIL switch 2 on, only 4 addresses are decoded and these are output on outputs 1-4, 5-8 to increase fan out capability.

## Output options

The unit can be factory configured for a variety of output options :-

0-10V control output for dimming packs etc

0-10V diode protected output for wired OR connection (HTP) with other control signals

1-10V control output for fluorescent or LED ballasts
(so that DMX dimming control starts from DMX level 0, not 30)

1-10V diode protected output for wired OR connection (LTP) with other control signals into fluorescent or LED ballasts

Each of the above options is available (factory fitted) with a 5V output range if required. The nominal output capability is 20mA/channel, but different limiting pull up and pull down output currents will apply according to the output configuration selected, number of active channels, power supply in use, etc.

## Minimum Level setting

The minimum output voltage on the 1-10V system is set by the preset potentiometer on the far right of the PCB and is easily adjustable in the range 0-2.5V to suit the characteristics of the ballasts in use. If required, (factory fitted option), this lowest voltage may be set in the range 0-2.5V by the data from the 9th or 5th decoded DMX address on the PCB (for 8 or 4 channel decoding respectively).

## DMX features

Can use the DMX receiver on a mother board in a dimming pack, or an on board DMX receiver chip. This DMX input is fully protected to DMX-512A.

The DMX start address is set on the three bcd address switches. This setting is completely independent of the DMX address setting in any host equipment. The presence of valid DMX data at and above the DMX start address is indicated by a yellow data LED on the unit.

A DMX address setting of zero will disable the card and clear the outputs to the minimum level set on the potentiometer (or to the level which was last input at 9th or 5th address).

DMX address settings in the range 1-512 will decode data starting from this set address.

DMX address settings between 512 and 799 will set start address 512.

Addresses in the range 801-808 will bring outputs 1-8 respectively half on.

Addresses in the range 901-908 will bring outputs 1-8 respectively full on.

A DMX address of 950 will bring all channels full on.

DMX Failure modes

In the event that DMX data is disconnected from the interface unit, the data LED will be extinguished and the action at the outputs is defined by option DIL switches 3 and 4……

Hold

With both switches off, the last DMX input levels received for each channel will be held in memory and at the output indefinitely as a voltage to the screw terminals. Note that this data may be corrupted or cleared if the DMX address or address mappings are changed, and when the unit is powered down.

Fade to zero

With option DIL switch 3 set to on, and DIL switch 4 off, when valid DMX data is not present at the card, the outputs will fade to the minimum level set on the potentiometer (or last input on 9th or 5th decoded DMX address).

Fade to scene

With both option DIL switches 3 and 4 set to on, when DMX input is removed from the unit, the outputs will fade to levels set in a previously recorded DMX scene. If the minimum level is being set by the 9th or 5th DMX address, this minimum value will also be part of the saved scene.

It is advisable to select the appropriate output mapping before saving this set scene and to maintain the same mapping afterwards.

To save the default DMX scene for the outputs to fade to, a valid DMX address must be set, and a valid (and preferably static) DMX scene input to the unit (the data LED must be on). The action of switching DIL switch 4 to on, whilst DIL switch 3 is already on will save the DMX levels from the currently set DMX address. Any subsequent changes of set DMX start address will not affect this feature, the outputs will fade to the saved scene when the DMX input is removed.

Changing the saved scene

If DIL switch 4 is switched on again whilst DIL switch 3 is already on and the card is receiving valid DMX data at the set address, (ie data LED on) the current output values will overwrite the previously saved scene, and the default scene may be over-written many times in this way.

## Specification

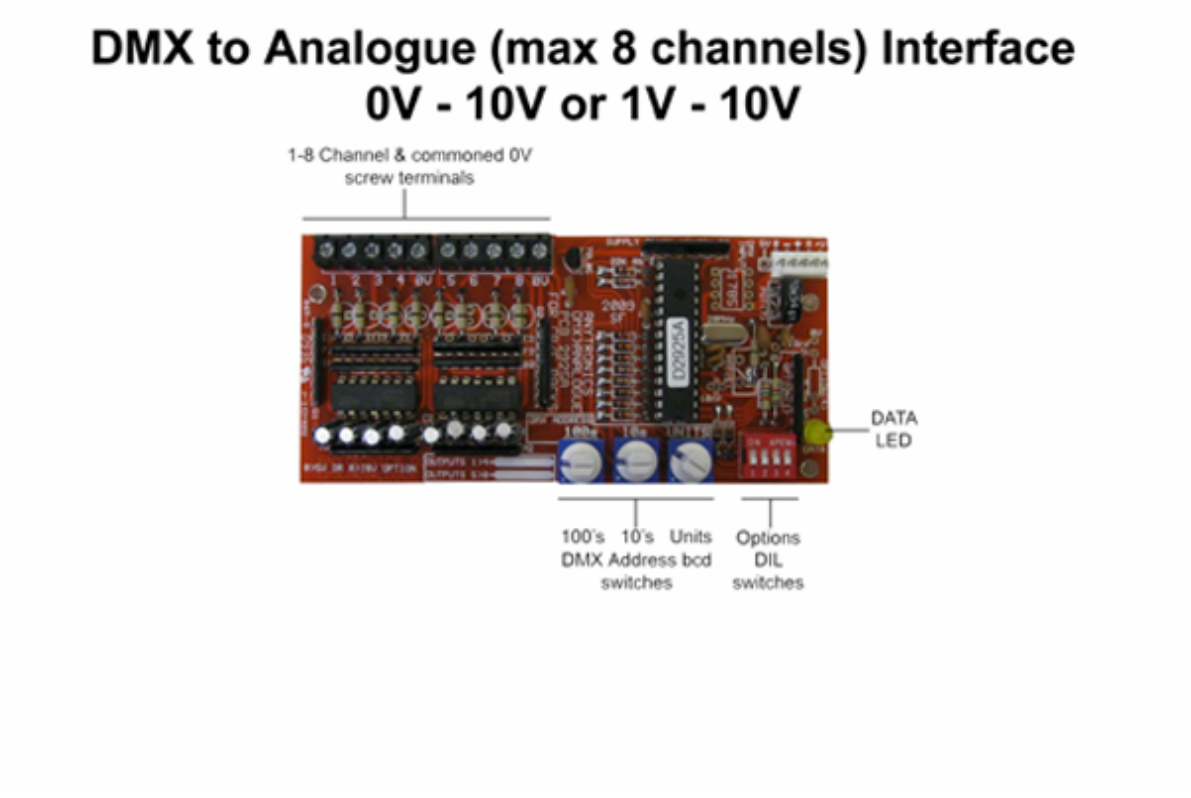
**Supply :** Fits inside Anytronics CB or F pack and uses integral supplies,
[Or can be powered from single 15-25V dc supply]

**Inputs :** DMX input from host pack motherboard,
[or via on board DMX-512A protected input]

**Outputs :** 8 screw terminal outputs as two groups of four with 0V reference
Output drive is nominally 20mA in either direction.
With the wired OR diode options, this current will be unipolar.
The output risetime is 200ms.

**Controls :** Three BCD coded rotary address switches set the DMX start address.
0-2.5V minimum level control potentiometer.
Option select DIL switches set mappings and DMX fail features.

**Indicators :** Yellow data LED

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