DOUG FLEENOR DESIGN

# Model: DMX DECELERATOR II
# Operations Manual


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## Product Description

The DMX DECELERATOR II is a DMX512 isolator and re-timing device. It can receive any signal within the DMX512 specification and it can accept some signals outside of the specification. The DMX DECELERATOR II produces a DMX output signal with "relaxed" timing characteristics which are required by some DMX receiving devices. In addition, a bypass mode is offered. While this mode is selected, the timing of the input signal is copied to the output. The input remains isolated from the output.

## Environmental

Operating temperature: 0-40º C (32-104° F)
Operating humidity: 10-90% non-condensing
Indoor use only

## Electrical Ratings

Input: 100 - 240 VAC, 50 - 60Hz, 0.5A

## Control Cable

Standard 5 pin XLR cables should be used to connect DMX512 signals to the connectors on the back panel of the DMX DECELERATOR II. A male input is provided and a female output is provided. The input is internally terminated.

Pins 4, and 5 of the 5 pin XLR connectors are not used by the DMX DECELERATOR II. They are not connected internally.

## Setting the Speed Switch

The recessed front panel switch is used to select the timing characteristics of the output signal. The available settings have timing characteristics as shown below. The output speed setting is held in non-volatile memory. The most recent setting is recalled at power up.

| Output setting | Break time | MAB time | Inter-byte time | Update rate |
|---|---|---|---|---|
| BYPASS | Copied from input | Copied from input | Copied from input | Copied from input |
| SLOW | 272 µs | 120 µs | 52 µs | 20.5 Hz |
| MEDIUM | 220 µs | 86 µs | 16 µs | 30.3 Hz |
| FAST | 200 µs | 36 µs | 4 µs | 40.1 Hz |
| STRAND* | 228 µs | 33 µs | 4 µs | 31 Hz |

* Strand timing is set using an internal jumper. See jumper settings below. Strand timing adds an extra 7 millisecond mark-before-break idle time. This mode is only needed when attempting to send DMX to an input on some Strand Ethernet nodes.

## LED Indicators

The LED indicators on the front of the DMX DECELERATOR II have the following functions:

| LED label | Function |
|---|---|
| SIGNAL | On when DMX input is present. It is off when DMX is not present and the HOLD LAST LOOK feature is disabled (default). It flashes when no DMX is present and the HOLD LAST LOOK feature is active. |
| MIMIC | Tracks the current level of slot 1 for troubleshooting purposes |
| BYPASS | Output timing is identical to the timing of the input signal |
| SLOW | Slow output timing is selected (see table above for specifics) |
| MEDIUM | Medium output timing is selected (see table above for specifics) |
| FAST | Fast output timing is selected (see table above for specifics) |
| POWER | On when power is on |

## Jumper Settings

Internal jumpers can be removed to change the behavior of the DMX DECELERATOR II's output. To access the jumpers, remove the 4 screws which hold the front panel in place. With the screws removed, the front panel can be removed and the top cover panel can be slid out giving access to the jumpers on the circuit board. The jumpers have functions as shown in the table below.

| Jumper | Installed function (default) | Removed function |
|---|---|---|
| JP1 | No output on loss of DMX input | Hold last look on loss of DMX input |
| JP2 | Disable driver on loss of DMX | Leave driver enabled on loss of DMX |
| JP3 | Use front panel selection timing | Set output for Strand timing |
| JP4 | Send last look if JP1 is removed | Send zeros on loss of DMX if JP1 is removed |
| JP5 | Enable output normally | Stop sending DMX if all incoming levels are zero |

## Limited Manufacturer's Warranty

Products manufactured by Doug Fleenor Design (DFD) carry a five-year parts and labor warranty against manufacturing defects. It is the customer's responsibility to return the product to DFD at the customer's expense. If covered under warranty, DFD will repair the unit and pay for return ground shipping. If a trip is necessary to the customer's site to solve a problem, the expenses of the trip must be paid by the customer.

This warranty covers manufacturing defects. It does not cover damage due to abuse, misuse, negligence, accident, alteration, or repair by other than by Doug Fleenor Design.

Most non-warranty repairs are made for a fixed $50.00 fee, plus shipping.

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