

THE DMX-4

Light Dimmer

The **DMX-4** is a fully featured 4 channel light dimmer pack designed for use with lighting consoles that provide a DMX-512 digital control protocol.

The **DMX-4** Decodes USITT DMX-512/1990 protocol to a bank of 4 channels with the start channel (channel 1 on the DMX-4) being selected by an easy to read three digit push-wheel switch.

The **DMX-4** is rated for a total load of 2.4 kW.
The total load per channel MUST NOT EXCEED 1.2 kW.

The **DMX-4** will, “Last Hold” if DMX control signal is lost.
Should the DMX cable become disconnected or the control console stop transmitting, The DMX-4 will continue to output the last received information until switched off.
When reconnected to a working DMX-512 source, the outputs will be updated.
If mains power to the DMX-4 is interrupted, all outputs will be off when turned on again. Placing an internal jumper may disable the “Last Hold” feature. When the jumper is in place the outputs will reset to zero approximately one second after loss of DMX signal.

NOTE: The **DMX-4** must be disconnected from the power supply (plug removed) before removing cover. The internal controls should always be adjusted with the power supply disconnected and only reconnect the supply once the cover has been replaced.
There are dangerous high voltages inside the unit.

The **DMX-4** incorporates a Test and stand-alone mode, which allows the outputs to be controlled without any DMX-512 input. No DMX control is necessary, but a control signal may be left connected. To Test a particular channel set the “Start Address” switch to 6CL where C is the channel to be controlled and L is the test level. If C is set to 9 all channels will be controlled together. For example: to set channel 2 to 50%, set “Start Address” switch to 625. To set all channels to 90% set “Start Address” switch to 699. Note that the maximum level that can be set in the test mode is 90%. Stand alone mode includes 3 different chases with variable speed and intensity and 9 programmable scenes (programmable from a PC with the appropriate interface hardware using any terminal program). The 10 programmable scenes are selected with the “Start Address” switch by selecting 600 to 609. The 3 chases are selected with the “Start Address” switch by selecting 700 to 999. To run a chase sequence select 700 for Flash chase, 800 for Fade chase or 900 for inverse Fade chase. The second or 10's digit controls the speed and the third or 1's digit controls the level.

The **DMX-4** has one iron powder toroidal choke, which give excellent EMI (Interference) suppression. The dimming curve follows the Square Law giving true power response and very smooth operation over the full range.

The case is styled in strong steel, finished in black powdercoat with a white printed control panel. Lips on the front and rear of the case protect the connectors from damage during transportation and use.

SETUP AND CONNECTIONS

The **DMX-4** is generally placed as close as practical to the lights it is controlling. The control cable should be designed for data communication. Cables designed for this purpose may be called "RS-422" or "RS-485" cables or "Shielded Twisted Pair" or "Low Capacitance Data Cable". Microphone cable is not designed for this purpose and should not be used for control runs of over 50 meters. A Male 5 pin "XLR" type connector specified in the DMX-512 standard is used for the control input. A Female feed-through connector is fitted to loop the incoming DMX-512 signal on to other devices. There is no isolation between the input and output DMX-512 connectors. The control input is isolated from all internal circuitry and mains earth. This eliminates the possibility of ground loops and provides added protection for the console against dimmer failure.

TERMINATION

The single most common cause of DMX-512 problems is failure to terminate the end of the control run with a termination resistor. If the **DMX-4** is the final device on the control run, its feed through connector should be terminated with a 120 ohm resistor between pins 2 and 3.

CONTROLS & CONNECTIONS

DMX Input & Output

XLR 5 pin plug and socket. Accepts industry standard USITT DMX-512/1990 protocol. Incoming DMX-512 data frames are checked for framing errors, invalid Start Codes and noise. All specifications meet or exceed DMX-512 requirements.

DMX IN Led

LED will be lit when receiving valid DMX-512 data frames.

Run Led

LED will flash when the **DMX-4** is powered up and running correctly.

Offset Code Switches

Used to select a bank of 4 control channels with the start channel being selected with these switches. Valid settings 001 to 512. Selecting 000 will set all outputs to off. Selecting 601 to 699 to test outputs, all other settings will set all outputs to off.

Outputs

The unit is equipped with four 10 Amp output sockets on the rear of the unit.

SPECIFICATIONS

Input

Power: 230VAC 50Hz 15Amp
Connector: Tapon plug, 1.8 m flex
Output: 1.2kW Max / Per Channel
Total Load: 2.4kW
Connectors: PDL 570S
Fuse: 15 Amp

Controls

Power switch: PDL 580M16N
Code Switches: Hartmann Code Switch

Dimensions

Height: 75 mm
Width: 285 mm
Depth: 230 mm

The **DMX-4** is manufactured In Napier, New Zealand by Lockyer Electronics.
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