

S72 DMX to Analogue Demultiplexer

Operations Manual



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Introduction

The Strand Lighting S72 72 Channel DMX to Analogue Converter is designed for use in conjunction with any control console with a standard DMX 512 output, with a requirement to interface with devices that can only accept analogue control signals. The S72 can interface to dimmers or other devices that will accept a 0 to +/- 10, 12 or 15VDC control signal.

Specification

Power Requirements

Voltage: 230Volts AC +/- 10%, Frequency: ~50 Hz.

Single phase + Neutral + Earth

Power consumption: 0.5A (fused)

Power cable: 1.5mm H03VVF cable with Plug

S72 must be earthed for safety in use.

Inputs

DMX – USITT DMX512(1990) multiplexed digital signal, via 5-pin XLR connector.

MIDI – 72 notes MIDI signal, via 5-pin DIN connector.

Outputs

Analogue output selectable between +/- 10V, +/- 12V or +/- 15V, via 3 x 25 pin sub “D” type connectors.

Electrical Standards

Conforms to IEC65, EN60065, BS415/IEC60950, EN60950 safety standard.

EMC Standards

Conforms to EN50081-1/EN55022, EN50082-1/EN61000-4-2 EMC requirement.

Physical Dimensions (Unpacked)

Height: 42mm

Width: 483mm

Depth: 125mm

Weight: 2.3Kg

Environment (operating)

Temperature: 0°C – 37°C

Relative humidity: 0% - 90%

Condensation level: Zero

S72 is only suitable for use in a dry, internal environment.

Housing

Sheet Steel body coated with blue epoxy power paint.

Mounting

19” rack mountable/ 1U height

Installation

Warning

**Hazardous voltages are used in S72 Demultiplexer. Ensure that the mains supply is isolated before opening the equipment for installation or servicing.
The equipment should be installed and serviced only by suitably qualified personnel.**

The S72 is designed for free standing or rack mount installation in a standard 19" (600mm) equipment rack.

In order to enhance the reliability of the equipment, it is recommended that it is operated within the following environmental limits:

Temperature: 15°C – 25°C
Relative Humidity: 60% - 80%
Condensation level: Zero

Main Power input connections

S72 Demultiplexer requires a nominal mains input at 230V 50Hz AC. This supply should be single phase only, separate Neutral and Earth conductors are required.

Warning

S72 Demultiplexer must be Earthed for safety in operation.

All cables and protection equipment must be selected and installed in accordance with locally prevailing electrical regulations.

Rack Mounting

The S72 is designed for rack mounting. Care should be taken to mount the unit securely in an equipment rack designed to hold equipment of this type.

DMX input/output

The DMX 512 input will accept a multiplexed digital control signal which conforms to USITT specification DMX512 (1990). Details of this specification are available from USITT on request.

The control input is via a five-pin male XLR type connector. Pin connections are shown in figure 1. A five-pin female XLR connector is also fitted (figure 2) to allow DMX signal pass through, allowing the DMX signal to be fed through to other devices allowing a series of S72 demultiplexers to be connected together in a "daisy chain" fashion.



Figure 1

1 – Screen (GND)
2 – DMX –
3 – DMX +
4,5 – Not used



Figure 2

MIDI Input/Output

The MIDI input will accept a multiplexed digital MIDI control signal. The control input is via a five-pin DIN type connector. Pin connections are shown in figure 3. Another five-pin DIN connector is also fitted for signal pass through, allowing the MIDI signal to be fed through to other devices.

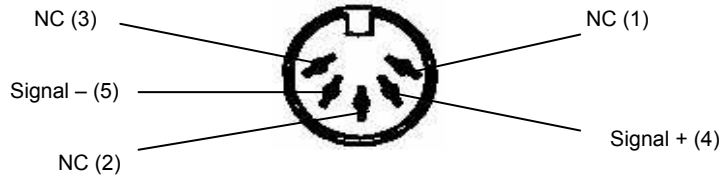


Figure 3

Analogue Output

The demultiplexed control signals are outputted via 3 x Sub "D" type connectors, pin connections are shown in figure 4. Each connector provides up to 24 independent analogue controls. The analogue output voltage and polarity can be set via the dipswitches situated on the back panel. Details are shown on figure 5.

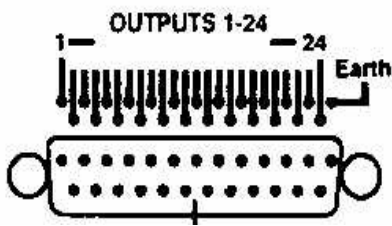


Figure 4

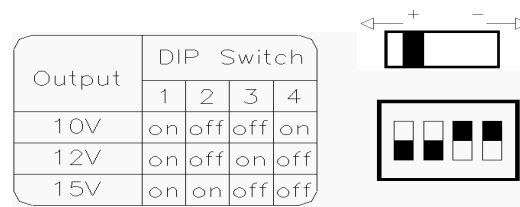
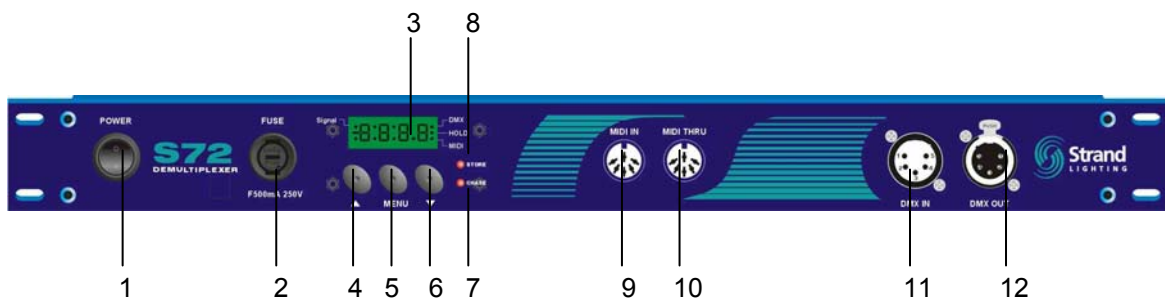


Figure 5

Front Panel Layout



- 1 – Main Switch
- 2 – Fuse (500mA, 250V 5x20mm)
- 3 – 4 x 7 Segment display
- 4 – ▲ Key to scroll up
- 5 – Menu Key for setting
- 6 – ▼ Key to scroll down

- 7 – Chase key to run chase
- 8 – Store Key to record/store scene
- 9 – MIDI input socket
- 10 – MIDI through socket
- 11 – DMX input socket
- 12 – DMX output socket

Operation

Set Up

After turning the power on, press the Menu key for 3 seconds to enter into set up mode. Press the ▲/▼ keys to select DMX or MIDI mode (the corresponding LED will start flashing), press the Menu key to confirm selection.

DMX Mode – when in DMX set up mode, press the ▲/▼ keys to select the DMX start address (A001 – A512). Note that holding the ▲/▼ keys will scroll numbers. Press Menu again to confirm your selection. When a DMX signal is present, the 72 DMX channels starting from the selected start address will be converted to Analogue output.

MIDI Mode – when in MIDI set up mode, press ▲/▼ keys to select the MIDI Channel number (CH01 – CH16). Note that holding the ▲/▼ keys will scroll numbers. Press Menu again to confirm your selection. When MIDI signals are present, the MIDI signals from NOTE number 22-93 (72 NOTES) of the selected channel will be converted to Analogue output.

After confirming the DMX or MIDI address, the LED display will show the hold mode selection (the corresponding LED will start flashing), press the ▲/▼ keys to switch between on and off. Press the Menu key to confirm the selection. If Hold mode is turned on, the Demultiplexer will hold the last levels when a DMX or MIDI input fails.

After setting the hold function, the display will switch to the chase speed set up menu, press the ▲/▼ keys to change the chase speed through the range of SP01 – SP99 representing 0.1 thru 9.9 seconds. Note that holding the ▲/▼ keys will scroll numbers. Press Menu again to confirm your selection. When the chase function is activated, the speed of the chase will be at this setting.

After the chase speed setting, the set up display will switch to the chase end channel set up mode, press the ▲/▼ keys to select the chase end Channel (C 01 – C 72). Note that holding the ▲/▼ keys will scroll numbers. Press Menu again to confirm your selection. When the chase function is activated, the chase will start looping between Channel 01 and the selected end channel.

After the end chase channel is selected, the system will exit the set up mode and return to standard display (display will stop flashing) showing the DMX start address (DMX mode) or the MIDI channel (MIDI mode).

When in set up mode, if no change is required, press Menu to scroll through each until it returns to the standard display.

Chase

Pressing the Chase key will activate the chase function (CHAS will show). The S72 will perform a chase between Channel 01 to the selected end channel and the defined chase speed. Press Menu key or Chase key again to exit from the chase function.

Backup Scene

The S72 can store and replay a backup scene. When a DMX signal is present, press the Store key for 5 seconds until “good” appears on the display. The last incoming levels are now stored. The stored scene can be playback by pressing the Store key (stor will display). Press the Menu key or the Store key again to exit from scene playback.

Note: In set up mode, the store function will be disabled.

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