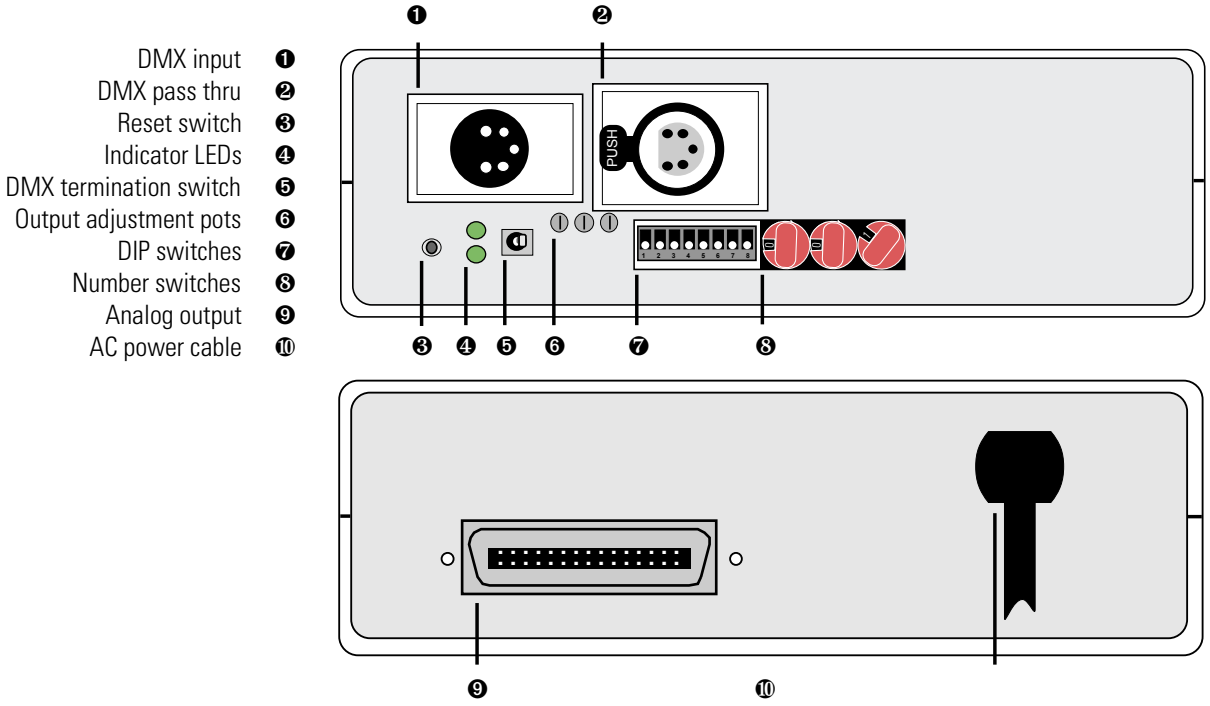
response 32 OUT
USER MANUAL

Response 32 OUT network interface allows you to convert 32 DMX512 dimmer signals from digital to analog. The compact interface box features an optically isolated DMX link and a 200 hertz output update rate.

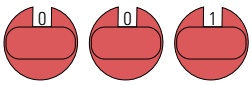
This manual provides information on all *Response 32 OUT* controls, connectors and indicators.



To use *Response 32 OUT*, follow these steps:

1. Plug power cable into a 120 VAC outlet.
2. Insert DMX512 input cable into male 5-pin input connector. If necessary, insert DMX512 output cable into female 5-pin pass thru connector.
3. Set number switches to starting analog dimmer output number (see page 2).
4. If *Response 32 OUT* is the last device in the data link, set DMX512 terminator switch **on** (right).
5. Insert 36-pin analog dimmer cable in analog output connector.
6. See following pages for filter and output adjustment pot settings.

Entering starting analog dimmer address



The rotary number switches allow you to set the dimmer number for the first analog output. The remaining 31 analog outputs are consecutively numbered from that number.

Set the rotary number switches to a starting number between 1 and 512. *Response 32 OUT* reads numbers over 512 as a starting address of 1. You do not have to press the reset switch when resetting the starting address.

Performing diagnostic tests

Six diagnostic tests are provided on the *Response 32 OUT*. The first two digits entered on the number switches specify the test, and the third digit determines the rate at which it runs. To run a test, follow these steps:

1. Enter the two-digit test number on the left and center rotary number switches. See below for test numbers and descriptions.

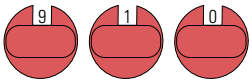
2. Enter a rate number on the right number switch.

   For each test, the third digit determines the rate at which the test runs. When the third digit is set at 0, the test does not run; when the third digit is set at 1, test runs at its minimum rate, at 9 it runs at its maximum rate.

3. Press the Reset switch to start the test.

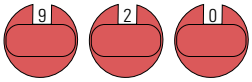
4. To stop the test, enter a valid three-digit starting dimmer number (001- 512) on the number switches and press the Reset switch.

Chase



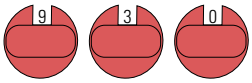
The **Chase** test flashes each of the 32 analog dimmers to full intensity in a chase sequence. Set first two number switches to 91.

Fade All



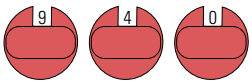
The **Fade All** test simultaneously fades all analog dimmers to full intensity, and then back down to zero intensity. Set first two number switches to 92.

Fade Chase



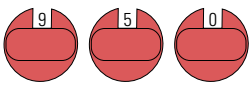
The **Fade Chase** test fades each of the 32 analog dimmers to full intensity and then fades them back to zero intensity in a chase sequence. Set first two number switches to 93.

Selected Output to Full



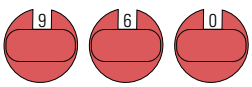
The **Selected Output to Full** test sets a selected analog dimmer output to full intensity and holds it there. Set first two number switches to 94, and press Reset. Then enter analog dimmer number (001- 032).

All to Percent



The **All to Percent** test sets all analog dimmer outputs to an intensity percentage you set and holds them there. Set first two numbers to 95, and press Reset. Then enter any three-digit percentage between 000 and 100 on the number switches.

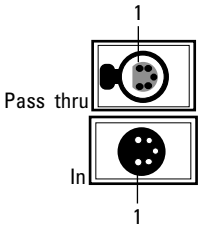
All to DMX Level



The **All to DMX Level** test sets all analog dimmer outputs to an intensity level you set and holds them there. DMX level changes the output scale from 0 - 100 (percent output intensity) to 0-255 (DMX512 data format). Set the first two numbers to 96, and press Reset. Then enter a DMX intensity level between 000 and 255 on the number switches.

DMX pinout

1 - Common
2 - Data (-)
3 - Data (+)
4 - No connection
5 - No connection



DMX connectors

Response 32 OUT has two XLR 5-pin, DMX512 connectors, a male connector for digital input and a female connector for digital pass thru. The pass thru port allows you to pass the DMX512 signal through the *Response 32 OUT* to other digital interface or dimming equipment.

Reset switch

Pressing the Reset switch forces the microprocessor to reread DIP switch and number switch settings.

You must press the Reset switch to activate DIP switch setting changes and to start and stop diagnostic tests. You do not have to press the Reset switch when you change the starting analog dimmer number (unless you are also ending a diagnostic test).

Indicator LEDs

Top LED continuous	Receiving valid data
Top LED blinking	Receiving invalid or no data
Bottom LED continuous	Receiving power

DMX512 termination switch

Set the termination switch in the **On** (right) position if the *Response 32 OUT* is the last device in the DMX512 data stream. If you are sending the DMX512 data stream to another interface or dimming device, set the termination switch to the **Off** (left) position.

Analog output adjustment pots

Analog output adjustment potentiometers (pots) adjust minimum and maximum analog output levels. When shipped from the factory, the minimum analog output level is set to 0 volts; the maximum analog output level is set to 10 volts. The right pot is not used on *Response 32 OUT*.

Minimum analog output level

The left pot adjusts the minimum analog output level from 0 to 3 volts. Voltage meter readings are required to accurately adjust the output levels.

Turn pot clockwise to increase minimum analog output level or counterclockwise to decrease the minimum analog output level. Twenty full turns are required to cover the full range of minimum output levels.

Maximum analog output level

The center pot adjusts the maximum analog output level from 5 to 12 volts. Voltage meter readings are required to accurately adjust the output levels.

Turn pot clockwise to increase maximum analog output level or counterclockwise to decrease the maximum analog output level. Twenty full turns are required to cover the full range of maximum output levels.

DIP switch settings

DIP switch settings enable and disable optical isolation and select analog output filters. See below for DIP switch settings; set all unused DIP switches in the down position.

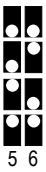
Enable/disable optical isolation

Optical isolation creates a physical break between the *Response 32 OUT* and the DMX link to help prevent accidental high voltage potentials from damaging other equipment on the DMX link. See chart for DIP switch settings to enable and disable optical isolation.

	Switch 1
Optical isolation enabled	Up
Optical isolation disabled	Down

Analog output filters

Output filters moderate fluctuating input signals. Filters slow lamp response to control adjustments; experiment with filters to determine the minimum filter needed. Set DIP switches five and six as shown below to select filter.

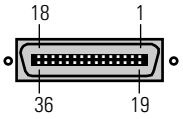


	Switch 5	**Switch 6**
No filter	Down	Down
Small filter	Down	Up
Medium filter	Up	Down
Large filter	Up	Up

Analog connector

Analog pinout

Pins 1-32 - Dimmers 1-32
Pins 33-36 - Common



The analog connector is a Centronics-type, 36-pin female connector that outputs 32 analog signals. Each analog output can drive 5ma. The minimum voltage can be adjusted from 0 to 3 volts. The maximum voltage can be adjusted from 5 to 12 volts. See the section on analog output adjustment pots for adjustment information.

AC power

The *Response 32 OUT* has an operating range of 90 to 140 volts with optimal performance at 110 volts. It has an internal type GMA-1/2 fuse. Disconnect power before replacing fuse.

Specifications

Dimensions	2.25 x 6 x 7 inches
Weight	3 pounds
Processing speed	200 hertz

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