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instrumentation and software for research

AVERSIVE STIMULATOR/SCRAMBLER MODULE

ENV-414

USER'S MANUAL

DOC-051
Rev. 2.2

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CHAPTER 1 | INTRODUCTION

The ENV-414 is a modular aversive stimulator/scrambler. Output shock current is adjustable in two ranges, from 0 to 1 mA or 0 to 5 mA, using a two position 'Range' switch and a ten-turn potentiometer (current adjust knob).

Figure 1 – ENV-414 Front Panel

Controls

Manual Operate Switch

This spring loaded switch, when in its default position, allows the aversive stimulator to be enabled by a MED control signal. When this switch is held in the **Manual Operate** position, an internal operate signal enables the aversive stimulator. In either mode the green LED will come on, indicating that the high voltage circuitry is enabled.

Dummy Load In/Out Switch

This switch is used to place an internal "dummy load" resistor in series with the aversive stimulator output. When the dummy load is switched to the **In** position, the aversive stimulator output is routed from the grid floor output connector to the internal dummy load resistor. The OUTPUT CURRENT meter on the front panel of the ENV-414 (see Figure 1) will display the approximate output current of the shocker. The output current may be adjusted using the Output Current Adjust knob.

Output Current Adjust

This ten-turn locking knob varies the output current to the grid floor.

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Output Current Meter

When the "Dummy Load" switch is in the **Out** position, the meter displays three dashed lines indicating the shocker is in normal operation mode. When the "Dummy Load" switch is set to the **In** position, the meter displays the approximate current through the internal dummy load.

Range Switch

The range switch allows the user to select an output current range of 0 to1 mA or 0 to 5 mA.

Grid Output Connector

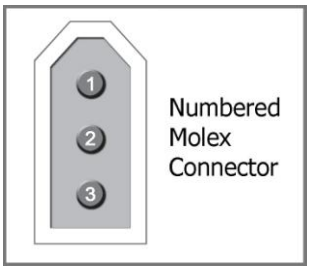
The 9-pin "Grid Output" connector connects the ENV-414 Aversive Stimulator/Scrambler output to the grid rod board.

MED Control Connector

This input connector is used to connect the ENV-414 Aversive Stimulator/Scramber to a MED 28 volt output control line. Pin 1 of the connector is not used, the MED "operate" signal goes to Pin 2 and the connector needs +28 volts at Pin 3. The MED "operate" signal is a 28-volt ground connection. The pin out of the "MED Control" connector is as follows.

Figure 2 – MED Control Connector

Molex Pin #	Function	Wire Color
1	Not Used	
2	Operate (28V GND)	White
3	+28 Volts	Red



50K Dummy Load V-out Jacks

These .080" pin jacks allow the user to measure the voltage across the internal 50K-Ohm dummy load resistor. The 'Dummy Load' switch must be switched to the 'In' position.

APPENDIX A | CONTACT INFORMATION

Please contact MED Associates, Inc. for information regarding any of our products.

Visit our website at www.med-associates.com for contact information.

For technical questions, email support@med-associates.com.

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