

# SG-595 STUDENT TRAINER INTERFACE

## USERS MANUAL



**DOC-157**  
**Rev. 1.0**

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## **INTRODUCTION**

The SG-595 Student Trainer is designed to be used with any MED Associates operant chamber. Connecting the SG-595 Student Trainer to the operant chamber using the instructions below will allow the user to manually operate outputs such as pellet feeders, grain hoppers, stimulus lights and retractable response levers. The Student Trainer was developed to be a low cost alternative to the MED-PC interface, yet it still provides the experience of shaping a research subject. Students can gain a cursory understanding of the fundamentals of animal learning and behavior using the Student Trainer.

## WIRING INSTRUCTIONS

The SG-595 operates on 115VAC, 60 Hz power. Connect the female 25-pin cable on the SG-595 (Figure 1) to the male 25-pin connector on the SG-215D3 (Figure 2) to supply 28 volts and I/O signals to the devices on the operant chamber. Once this connection is made, power up the SG-595, it is now functional. Refer to Figure 3 to determine where the devices in the operant chamber are connected.

Figure 1 – SG-595 Student Trainer

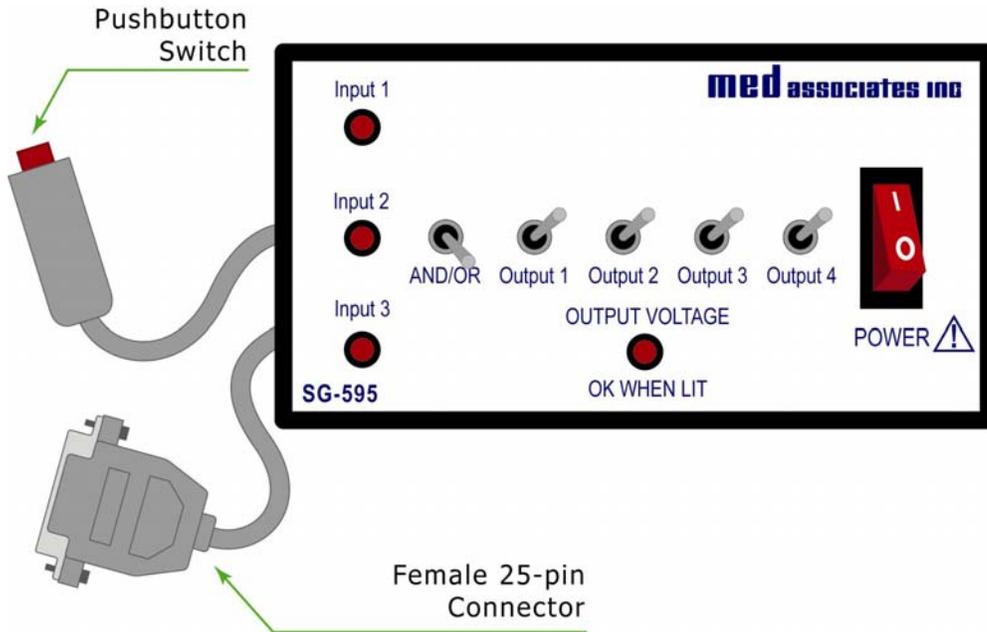


Figure 2 – SG-215D3 Connection Panel

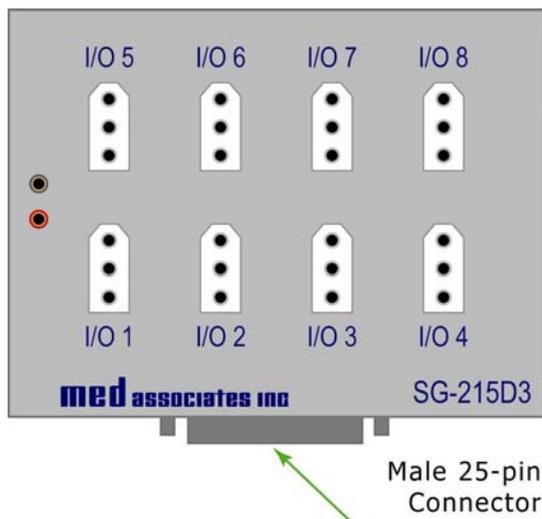
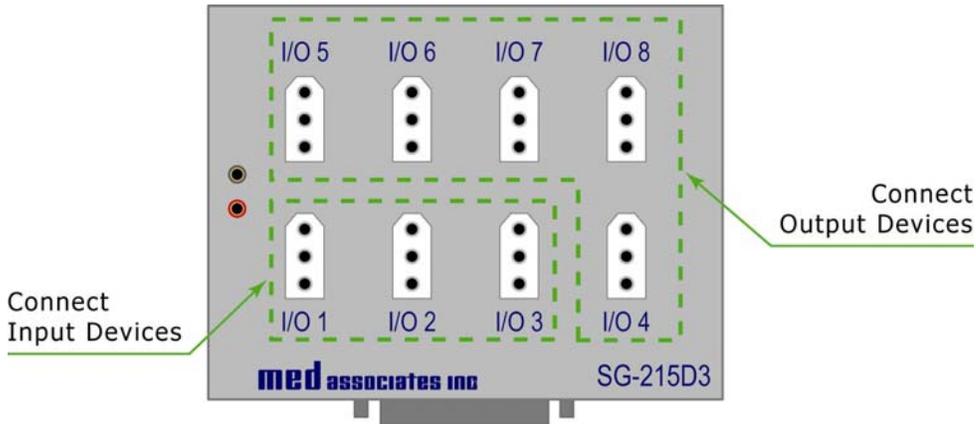


Figure 3 – SG-215D3 Input and Output Device Connections



## OPERATION

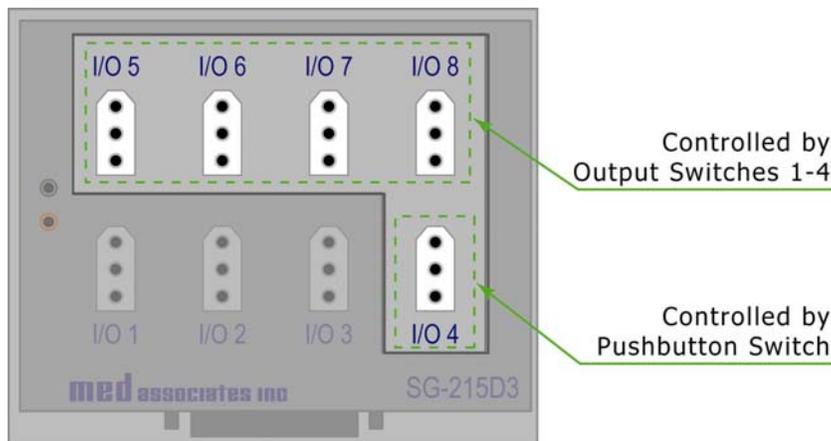
### Input Devices

The three LED's on the front panel of the SG-595 (Input 1 – 3) are used to indicate responses from input devices, such as a lever presses by the animal. Inputs 1 – 3 connect to I/O 1-3 on the SG-215D3, respectively. Refer to Figure 3.

### Output Devices

The pushbutton switch and the four Output toggle switches on the SG-595 are used to turn on the output devices, such as lights and feeders. The Output switches can be toggled up for a continuous on state or down for a momentary on pulse. The pushbutton switch controls the activation of the first output (device connected to I/O 4 on the SG-215D3). Output switches 1 – 4 on the SG-595 control the output devices connected to I/O 5 – 8 on the SG-215D3, refer to Figure 3.

Figure 4 – Output Controls



## AND/OR Switch

The **AND/OR** program mode switch is used in connection with Input 1 and the first output (the device connected to I/O 4 on the SG-215D3).

In **OR** mode (switch up) the user may activate the first output (e.g. reward device) with the pushbutton switch, or the animal can activate the first output by activating Input 1 (e.g. lever press).

In **AND** mode (switch down), both the pushbutton switch and Input 1 (e.g. lever press) must be activated in order to activate the first output (e.g. reward device).

*Table 1 – AND/OR Switch Conditions to Activate the First Output*

	OR Mode		AND Mode
Pushbutton Switch	1	0	1
1st Input Device	0	1	1

1 = Activated    0 = Deactivated