

User Manual

Variable Gain Amplifier • Model 1805



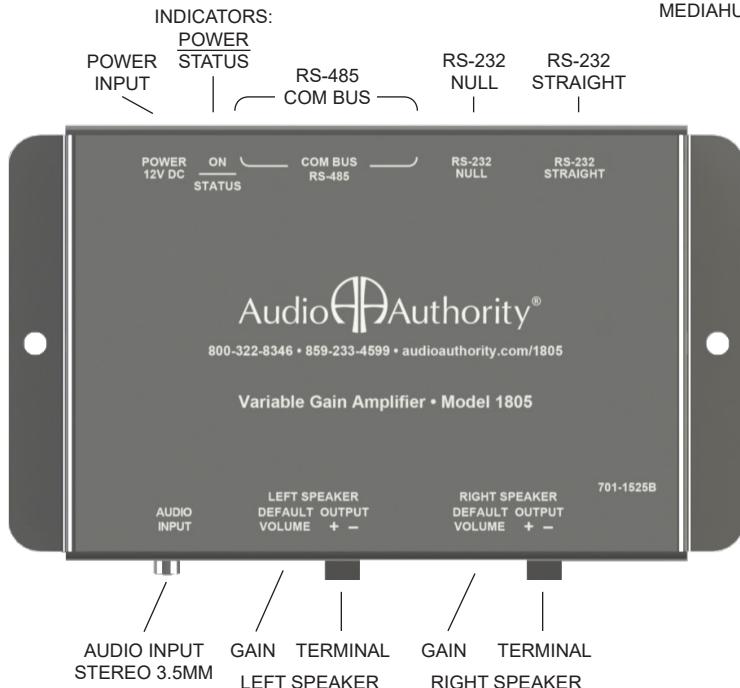
Audio  Authority®

Introduction

The Audio Authority® Model 1805 is a compact amplifier designed to provide amplification for speakers in retail demonstrations. Volume may be controlled via RS-232 or RS-485 using custom control devices such as a touch screen or capacitive touch panel. Gain may be set per channel. For best results use a commercial grade media player such as the Model AH4 AudioHub or MH3-S5 MediaHub.



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MEDIAHUBS

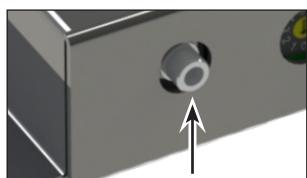


Features

- 12V power provides up to 10.5 watts per channel power output and 24V power provides up to 50 watts per channel power output
- Volume may be controlled by RS-232 or RS-485
- Gain adjustment per channel
- Small footprint for easy placement in displays and fixtures

Audio Input

Connect a stereo analog audio source to the 3.5mm stereo Audio Input jack. If the source has volume control, raise the volume controls to the point of distortion, then adjust it down to the maximum level.



3.5MM AUDIO JACK

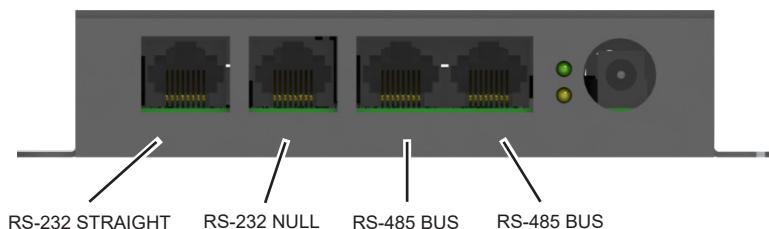
RS-232 Ports

The RS-232 ports receive and pass-thru communications to other serial devices at 9600 Baud rate. A variety of RJ-45 serial cable adapters are available from Audio Authority. Serial commands shown in table below.

| Volume Up | Volume Down | Discreet Volume Commands |
|-----------|-------------|---------------------------|
| [VOL+] | [VOL-] | [VOL=0] Min [VOL=128] Max |

RS-485 Bus

The RS-485 communication pathway is for use with custom applications such as TouchSelect control panels and BrightSign® media players.

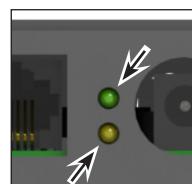


Power

Model 1805 can be used with either a 12V or 24V power supply. Connect the power supply (included) to the jack marked Power Input.

Indicators

The green Power LED provides visual indication of the amplifier's on/off state. The yellow Status LED indicates when the input is over-driven or when the speaker outputs have a short.



How to Set the Model 1805 Amplifier Gain Controls

- Raise the source volume controls (if present) to maximum.
- Turn the 1805 gain dials (*left and right channels*) to 1 and start the audio source playing.
- Select a speaker position, and raise the 1805 gain dials to the point of distortion, then reduce to the desired maximum level. Check all of the connected speakers for distortion, readjust 1805 gain levels if necessary.



Power Specifications

Measurements with an 8 ohm load, both channels driven:

| Power Supply | Peak Power per channel | Power per Channel, 1% THD+N | Power per Channel, 10% THD+N |
|------------------|------------------------|-----------------------------|------------------------------|
| PN:571-043 (12V) | 20W | 8.5W | 10.5W |
| PN:571-074 (24V) | 50W | 30.7W | 37.7W |

Frequency response at 8.5W per channel: +/- 1.452 dB 20Hz-20kHz

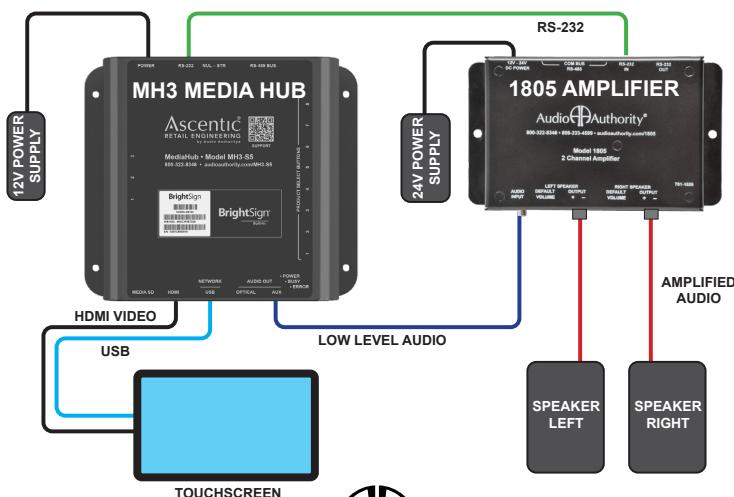
Frequency response at 30.7W per channel: +/- 0.736db 20Hz-20kHz

Installation

- Attach the amplifier to a flat surface with the screws provided.
- Allow adequate ventilation for amplifier.
- Connect speaker terminals securely.
- Connect 3.5mm stereo cable from source.
- Connect power supply to AC power, then to the power port.

Example System

Two speakers accompany a video presentation on the touchscreen interface. Volume is adjustable between customized limits. Power supply may not be shared with the 12V media player when using 24 volts to power.



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