
Model VS110

Remote Turn-on Connections

The VS110 has a built-in 12VDC remote turn-on/off circuit for operation by a master control system in a home theater or large audio system. Use a 3.5mm (.140") diameter mono mini plug to connect to the +12V IN jack on the rear of the VS110. Two identical paralleled jacks are provided to allow chaining connections to control two or more VS110s or other equipment.

The +12V IN jack should be connected to the +12VDC output of the master control system, using a continuous +12VDC signal at 12mA per VS110 for the duration of amplifier on-time. Do not use a momentary or data pulse control signal.

The front power rocker switch on the VS110 must be off to use the remote turn-on. The front power rocker switch may still be used when the remote turn-on is connected, but the remote will not turn the VS110 off if the front power rocker switch is left on. The front power rocker switch will not turn the VS110 off if the remote system is on.

The +12VDC remote jacks have polarity protection, so they will not operate if a -12VDC signal is accidentally connected, or if the control wires are reversed. The 12V remote relay in the VS110 has click suppression to protect circuits in the master control system.

Operating Procedure

1. Make sure you have read and complied with the INSTALLATION AND CONNECTION instructions prior to attempting operation.
2. Make sure your VS110 is properly connected to a high-current power receptacle via the attached power cord (see AC POWER CONNECTIONS).
3. Your preamplifier should be "on" and muted and/or set at minimum gain.
4. Turn the Power switch from "Off" to "On." The green power LED indicator should glow immediately. Note: If the power indicator LED fails to light, turn the Power switch to "Off" and check the appropriate fuse for possible failure. An extra fuse for A. C. power is included with your VS110.
5. Your VS110 should now operate satisfactorily. However, a full stabilization or warm-up time of approximately one hour is recommended for best sonic performance.

Servicing

Because of its careful design and exacting standards of manufacture, your VS110 amplifier should normally require only minimal service to maintain its high level of performance.

CAUTION: The VS110 amplifier contains sufficient levels of voltage and current to be *lethal*. Do not tamper with a component or part inside the unit. Even with the power turned off, a charge remains in the energy storage capacitors for some time. Refer any needed service to your authorized Audio Research dealer or other qualified technician.

Replacement vacuum tubes may be obtained through your authorized retailer or directly from Audio Research Customer Service. For best performance, the 6550 output tubes should be matched pairs.

Additional questions regarding the operation, maintenance or servicing of your amplifier may be referred to Audio Research Customer Service at (763)-577-9700.

Output Tube Bias Adjustment

As shipped from the factory, the output "bias" adjustments are set for a nominal 65mA per 6550 tube. Under these idle conditions the tubes are each dissipating approximately 27 watts of their 48 watt rating (42 watt plate, 6 watt screen). This point of operation provides "enriched" Class AB₁, and will satisfy the most critical listener.

For best results, operate and adjust the VS110 at 120VAC. Adjustment must be made under zero-signal conditions after at least 15-20 minutes of uninterrupted stabilization time.

A digital voltmeter capable of accurate measurements with 0.1mVDC resolution is preferred for accurate adjustment (must have 3 1/2 digit display). Use the plastic alignment tool provided to make the adjustment. The measurement points are banana test jacks at the rear of the VS110. Adjust the "bias" for an average voltage reading of 65mVDC (.065 Volt DC) between test jacks.

Cleaning

To maintain the new appearance of this unit, occasionally wipe the front panel and top cover with a soft, damp (not wet) cloth to remove dust. A mild, non-alkaline soap solution or dilute isopropyl alcohol may be used to remove fingerprints or similar smudges. Cleaners containing abrasives should *not* be used as they will damage the anodized finish of the front panel. A small, soft paint brush is effective in removing dust from bevels, the recessed nameplate and other features of the front panel.