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# Model VSi60

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## Muting Provisions

The VSi60 has several provisions to help protect against misuse of the exceptional dynamic range and wide bandwidth that it offers. It is not subject to damage itself, but some speakers are more limited in their ability to withstand signal extremes. These provisions, both manual and automatic, are designed not to interfere with the listening experience, while giving reasonable protection against warm-up surges and power line interruptions. However, for absolute protection of associated equipment some operator understanding and responsibility are required.

Initial "settling" time of all circuit parameters within the VSi60 requires approximately 5 to 10 minutes. The automatic muting circuitry timer is adjusted for about 30 seconds. (This is because recurrent interruption "settling" time is much less. You would not want to wait for 5 to 10 minutes each time such an interruption occurred.)

The Mute/Operate switch allows manual disabling of the VSi60 inputs during the switching of equipment. Use of this switch will minimize stress on your VSi60 and other components. It is also highly recommended that manual muting be employed during turn-off for maximum protection.

The automatic muting operates as follows:

1. The automatic muting always disables all inputs and overrides any manual settings. (The "Operate" position of the manual Mute switch is functional only when the unit is not in the automatic mute mode.)

Note: Power supply regulation of the VSi60 is effective down to 100VAC (120V units) without serious sonic degradation.

2. The automatic muting of the VSi60 is designed to be effective only against power line interruptions and power line failures. It will not mute against subsonic signal transmissions from your input source. ***Proper fusing of speakers is essential to protect against excessive audio signal levels.***

## Servicing

Because of its careful design and exacting standards of manufacture, your VSi60 amplifier should normally require only minimal service to maintain its high level of performance.

**CAUTION:** The VSi60 integrated 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.

The vacuum tubes in your VSi60 should not need to be changed for approximately 2000 hours of use. Replacement vacuum tubes should be of equivalent quality and are available 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.(CST)

## Output Tube Bias Adjustment

As shipped from the factory, the output "bias" adjustments are set for a nominal 60mA per 6550 tube. Under these idle conditions the tubes are each dissipating approximately 25 watts of their 48 watt rating (42 watt plate, 6 watt screen). This point of operation provides "enriched" Class AB<sub>1</sub>, and will satisfy the most critical listener.

For best results, operate and adjust the VSi60 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 VSi60. Adjust the "bias" for an average voltage reading of 60mVDC (.060 Volt DC) between test jacks, four places.

## 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.