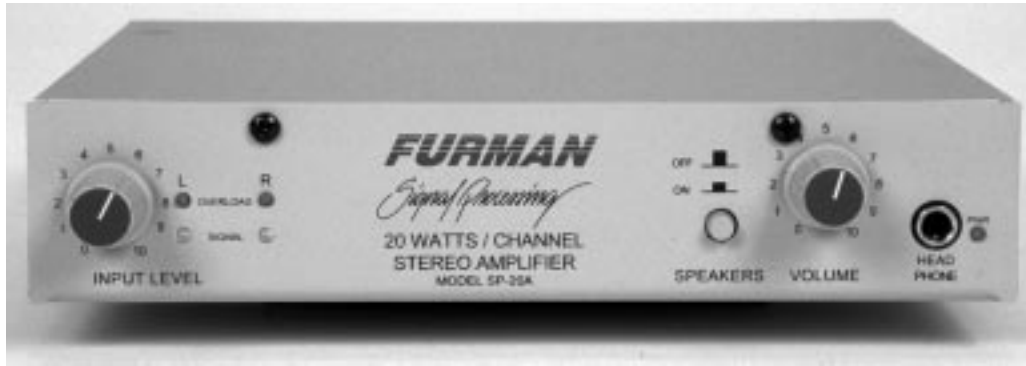


STEREO POWER AMPLIFIER



MODEL SP-20A

FEATURES

- 20 watts per channel in stereo mode
- Toroidal transformer for ultra-quiet performance
- May be bridged for 40 watt mono operation (requires load of 8 or more ohms)
- Front panel headphone jack with volume control
- Ideal for small speakers or headphone system
- Speaker on-off switch
- Overload and signal-present LED's for each channel
- Power-on indicator
- Ground lift switch
- Provision for remotely located headphone volume controls

DESCRIPTION

The **SP-20A Stereo Power Amplifier** is a unique and economical 20 watt per channel stereo amplifier. Its toroidal transformer delivers ultra-quiet performance, making it ideal for recording studio applications. The SP-20A may be operated in any of three modes as selected by a rear-panel switch: normal stereo, two channel mono, or single channel (bridged) mono. The latter mode allows a power output of 40 watts provided the load is 8 or more ohms.

The SP-20A is housed in a compact, half rack chassis, allowing it to be mounted either alone or side by side with other SP-20A's in a 19" rack. Mounting kits are available from Furman.

The SP-20A's small size makes it ideal for modular use in large commercial installations with multiple small speakers. Its power capacity is also just right for driving the small "cube" reference speakers used in most recording studios as a comparison with the main control room monitors — it can power them without overpowering them.

The SP-20A's output is available through either of two connectors: standard banana jack binding posts for speakers,

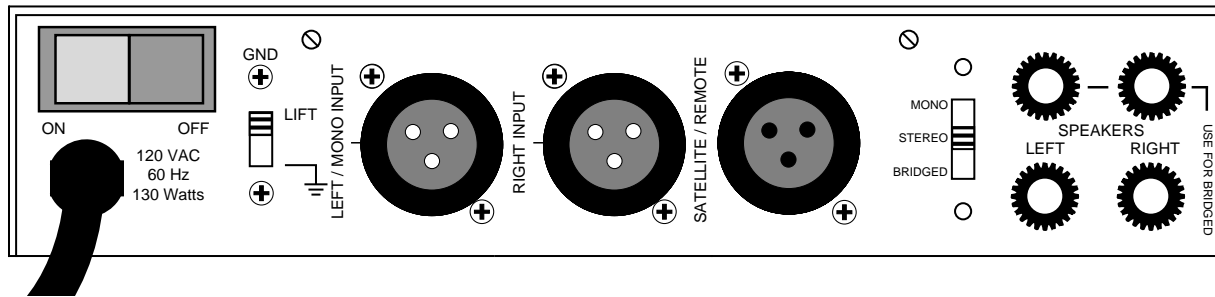
or through a male XLR connector. The latter allows the unit to become a headphone driver, linking any number of Furman HR-2 Headphone Remote Stations together via standard microphone cables. Each HR-2 station conveniently clips to a mic stand and provides individual volume controls for two sets of headphones. When used for overdubbing or rehearsal, this setup provides plenty of loudness in any kind of headphones (even older low-impedance models), and allows each musician to set his or her own comfortable volume level. When the overdubbing is complete and the musicians remove their headphones, the SP-20A can also power the tape playback speakers through the banana jacks. The output — headphone chain or speakers — is selected by pressing a front panel pushbutton. An additional headset may be plugged directly into the SP-20A's front panel. A volume control is provided for it.

The SP-20A has a convenient input level control on the left side of the front panel. A pair of yellow LED's — one for each channel — light up whenever signal is present (threshold -28 dBu). Another pair of red LED's show an overload condition in either channel. The SP-20A is fully protected against thermal overload, and it can withstand a short circuit on any or all outputs for an indefinite time without damage.

OPTIONS

- **Model SP-20AB:** Provides balanced inputs with XLR connectors in place of 1/4" phone inputs.
- **Rack Mounting Kits:** Adaptor kits for mounting one SP-20A centered in a 19" rack (HRKIT-1), or two SP-20A's side by side in a 19" rack (HRKIT-2).
- **Accessory: Model HR-2 Headphone Remote Station:** An inexpensive, compact, unobtrusive box that attaches to a mike stand or belt, providing two headphone jacks, each with its own volume control. Any number of HR-2 stations may be daisy-chained to an SP-20A using standard microphone cables. Comes with snap-on, snap-off mike stand clamp. (See picture on other side.)

SP-20AB Rear View



Architects and Engineers Specifications

The Stereo Power Amplifier shall mount in a standard 19" rack, and shall occupy no more than half of one rack unit (1 3/4") of rack space. It shall conform to the HR specification, allowing it to be mounted side by side with other HR units. It shall be of stereo design but shall be capable of being bridged for mono operation. There shall be LED indicators for Signal Present and Overload conditions in each stereo channel. A headphone output shall be provided and have its own volume control. Provision shall be made for extending the number of headphones accommodated by means of accessory Remote Stations, which shall connect to the unit in daisy-chain fashion using standard microphone cords.

Connections to speakers shall be via dual banana/binding post terminals. An XLR connector shall be provided for connection to Remote Stations. Power output shall be at least 20 watts per channel, into either 4 or 8 ohms, from 20 Hz to 20 KHz. Distortion shall be .01% THD or less at full rated power at 1KHz, and not more than .05% from 20 Hz to 20 KHz. The noise level shall be at least 99 dB below full rated output. The unit shall be protected against thermal overload, and shall be able to withstand a short circuit on either or both outputs for an indefinite time without damage. A switch shall be provided to select mono (left input routed to both channels), normal stereo, or bridged (left input drives a single load of 8 or more ohms to at least 40 watts) operation. The unit shall be internally fused, and shall have a Ground Lift switch capable of isolating the signal ground from the chassis. There shall also be an on/off switch with a power-on indicator. Inputs shall be equipped with 1/4" phone jacks, and XLR balanced inputs shall be optionally available. Versions shall be available for 120 VAC, 60 Hz or 230 VAC, 50/60 Hz power.

The unit shall be the Furman SP-20A Stereo Power Amplifier.



HR-2 Headphone Remote Box

Three Year Warranty

The Furman SP-20A is protected by a three year limited warranty covering defects in materials and workmanship.

AVAILABLE FROM:

SP-20A SPECIFICATIONS

OUTPUTS:	Power:	20 watts per channel, stereo, into either 4 ohms or 8 ohms, or 40 watts mono into 8 ohms, 20 Hz to 20 KHz.
	Connectors:	Speakers: 5-way binding posts (accommodates dual banana plugs, spade lugs, bare wires, etc.) Remote Headphone: XLR.
INPUTS:	Input Impedance:	20K ohms.
	Sensitivity:	-1.9 dBu (625 mV) required for full output into 8 ohms.
	Connectors:	SP-20A, 1/4" phone, unbalanced; SP-20AB, XLR, balanced.
GENERAL:	Distortion:	.01% THD at full rated power at 1 KHz; .05% THD 20 Hz to 20 KHz.
	Dynamic Range:	Greater than 99 dB
	Frequency Response:	+0, -1 dB from 20 Hz to 20 KHz, 1 watt output.
	Dynamic Headroom:	2 dB, stereo, measured with 10 ms toneburst at 1 KHz, 1% duty cycle.
	Damping Factor:	120 at 1KHz.
	Slew Rate:	20 V/μ Sec.
	Power Requirement:	120 VAC, 60 Hz, 130 watts
	Mechanical:	Dimensions: 1.75" H x 8.45" W x 8.25" D. Weight: 6 lbs (2.7 kg).
NOTE:		0 dBu equals .775 Vrms.