



SR

PROFESSIONAL
SOUND
REINFORCEMENT
EQUIPMENT



THE PROVEN PROFESSIONAL PERFORMERS

audio consoles
mixers
electronic crossover
power amplifiers
speaker systems
custom accessories

Now! A line of sound reinforcement components and accessories designed solely for professional use—the Shure SR line of Professional Sound Reinforcement Equipment! Every component in the line was designed in cooperation with leading sound specialists who are expert in every type of commercial, institutional, auditorium, and stadium application. These components meet the highest performance and operational standards, with notable versatility, great ruggedness, and maximum compatibility with associated professional equipment. They are infinitely expandable.

The SR equipment was painstakingly developed over a four-year period—and every component was exhaustively tested in no-compromise sound reinforcement installations. As a result, these components are field-proven in performance and reliability. (All SR components are solid-state and are protected against damage from open-circuit or short-circuit conditions.)

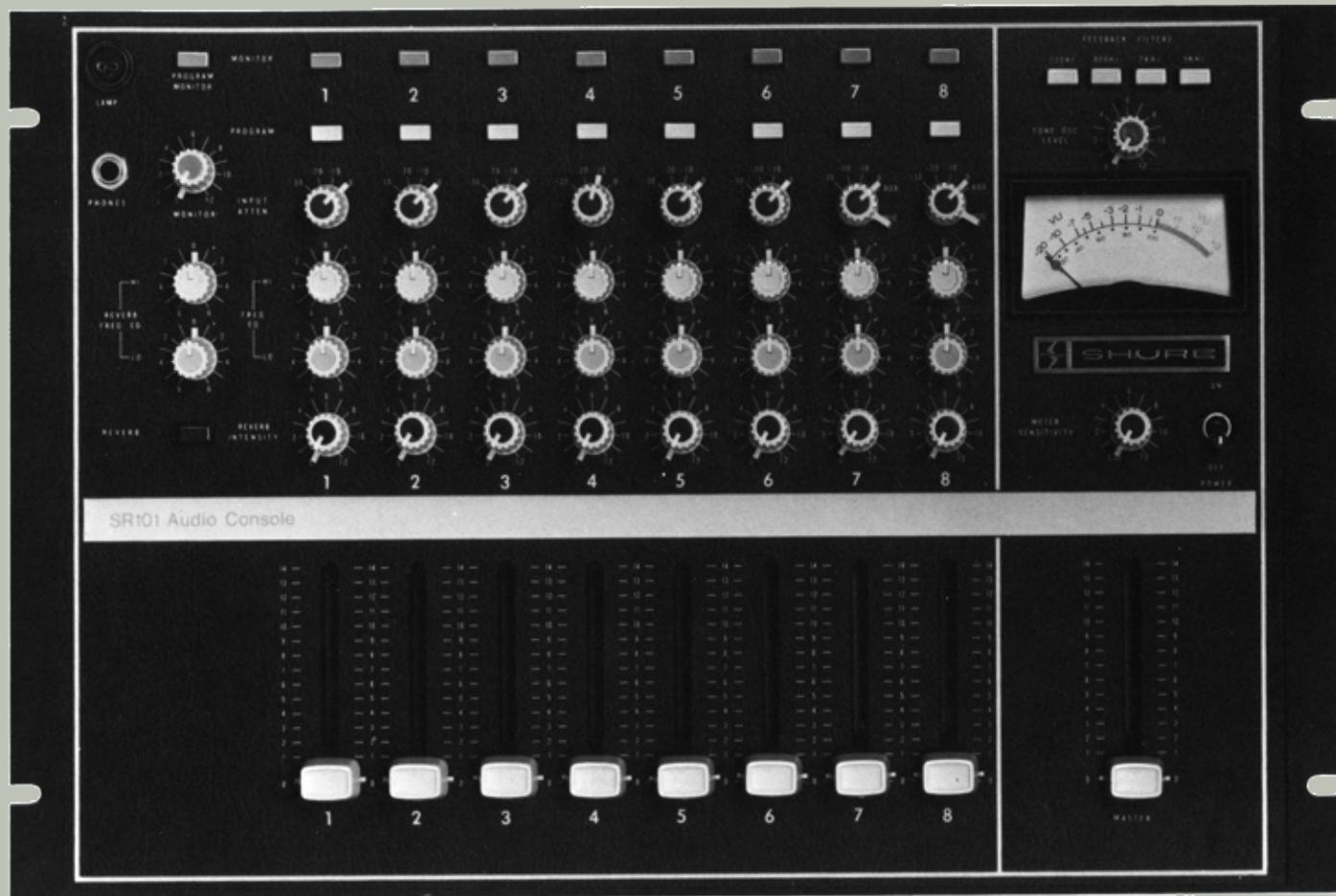
The SR component group includes audio consoles, mixers, power amplifiers (available in two speaker-coupling configurations), an electronic crossover, an extended range speaker, a portable speaker column, an all-weather speaker column with permanent mounts, and an array of custom accessories.



SR ON TOUR...ON STAGE...IN THE PARK

Shure SR sound equipment has proven its wide-range performance versatility on Opryland U.S.A.'s 32-day tour of Russia (top left); in the mammoth Arie Crown Theatre of the McCormick Place convention center (top right, center right); and at the acoustically demanding Chicago Grant Park Bandshell (bottom).

SR101 SERIES 2 & SR101-2E AUDIO CONSOLES



The consoles in the Shure SR group are the Model SR101 Series 2. They are rack-mountable, eight-channel mixer/preamplifiers that afford exceptional system versatility, complete, accurate controls, and flawless performance. They may be custom-installed in a desk or console or in an accessory case (A101A). The SR101 Series 2 Audio Consoles also provide an output for connection to one or more Shure SR110 Professional Monitor Mixers to provide independent monitor mix, or stereo capability. The SR101 Series 2 Audio Consoles measure 311 mm (12 1/4") high x 483 mm (19") wide x 162 mm (6 5/8") deep, and weigh 10 kg (22 lb.).

POWER REQUIREMENTS

SR101 Series 2—90 to 125 Vac, 50/60 Hz.
SR101-2E—90 to 125 Vac, 180 to 250 Vac, 50/60 Hz, detachable power (mains) cable.

INPUT CAPABILITIES

- Accepts up to eight low impedance microphones, each with individual controls for volume, reverberation, high- and low-frequency equalization, and input attenuation.
- Switchable inputs on Channels Seven and Eight also accept auxiliary high-level signals or high impedance microphones.

OUTPUT CAPABILITIES

- Provides simultaneous program and monitor outputs, each controlled by its own master volume control. Additional switches allow the operator to route input signals in any combination to either output.
- Program output has a 600-ohm, balanced, line level output and a low impedance, balanced, microphone level output.
- Monitor output has a 600-ohm, unbalanced, line level output and an eight-ohm output for mono or stereo headphones.

- Dual "link" jacks facilitate connection to an additional audio console, mixer, or such external equipment as compressors, limiters, or equalizers.
- Accessory monitor output for connection to one or more SR110 Professional Monitor Mixers to provide separate monitor mixes for stage monitoring (fold-back), multi-channel tape recording, or stereo broadcasting.

CONTROLS AND METER

- Master and individual channel volume controls are linear-motion feedback-type that raise clipping level and reduce circuit noise as volume is decreased.
- Master reverb in-out control activates reverb circuitry while holding individual channel volume intensities constant regardless of the reverb intensity settings.
- Individual attenuators for each channel, each capable of decreasing gain in 10 dB steps from 0 to -30 dB.
- Four anti-feedback switches, operating notch filters at the center frequencies of 130 Hz, 800 Hz, 2 kHz, and 5 kHz, attenuate output in these frequency ranges to provide added feedback control.
- Ballistically correct, lighted VU meter with adjustable sensitivity indicates program output level.
- 1 kHz tone oscillator enables the operator to calibrate all equipment in the system. The oscillator has its own volume control so that input channel settings are not disturbed during testing.

OPTIONAL ACCESSORIES

- The SR101 Series 2 may be used with the following custom-designed accessories: The SR110 Professional Monitor Mixer (see Page Four), the A101B Panel Lamp (see Back Page), and the Model A101A Carrying Case (see Back Page).

NOTE: The Model SR101 Series 2 offers similar features to the original SR101 plus the facilities for attaching one or more SR110 Professional Monitor Mixers (See Page Four).

SR109 PROFESSIONAL MIXER

The Shure SR109 Professional Mixer Series is a solid-state, eight-channel microphone mixer-preamplifier that enables the operator to mix as many as eight microphones with individual control over volume, and high- and low-frequency equalization. An adjustable peak limiter with LED (light emitting diode) indicator prevents output overload and a peak-responding LED indicates output clipping level. It also contains an output for connection to one or more Shure SR110 Professional Monitor Mixers to provide an independent monitor mix, or stereo capability.

The regulated power supply is designed to operate over a wide range of AC line voltages (90 to 125 volts, 180 to 250 volts), permitting the use of extremely long AC extension cables without performance degradation. Accessory equipment drawing up to 500 watts may be connected to the rear-panel switched AC receptacle.

Designed for standard 19-inch rack mounts, the SR109 mixer measures 133 mm (5 1/4") high x 483 mm (19") wide x 232 mm (9 1/8") deep, and weighs 7.7 kg (17 lb.).

POWER REQUIREMENTS

SR109—90 to 125 Vac, 50/60 Hz.

*SR109-2E—90 to 125 Vac, 180 to 250 Vac, 50/60 Hz, detachable power (mains) cable.

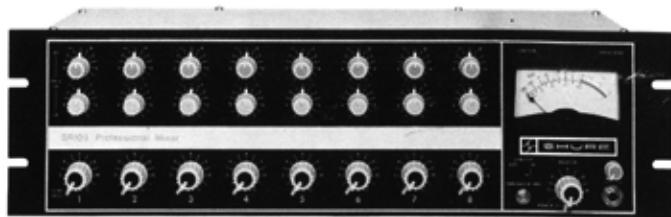
INPUT CAPABILITIES

- Each input channel has independent high- and low-frequency equalization controls.
- Each channel has a switchable 15 dB input attenuator.
- Rear panel MIC or LINE switches allow Channels Seven and Eight to also accept line-level or auxiliary high-level signals.

OUTPUT CAPABILITIES

- The program output circuit has a 600-ohm balanced line level output with less than 1% distortion, a minimum clipping level of +19 dBm, and a low-

* Available in August, 1976.



impedance, balanced, microphone-level output at a level 50 dB below the line level output.

- Dual "link" jacks in the program circuit for external compressors, equalizers, additional mixers, or consoles.
- Provides a phase switch to reverse the phase of both the line and microphone level outputs.
- Equipped with a transformer-coupled eight-ohm output for mono or stereo headphones.
- The Accessory Monitor Output connector provides output connections to one or more SR110 Professional Monitor Mixers to provide separate monitor mixes for stage monitoring (foldback), multi-channel tape recording or stereo broadcasting.

CONTROLS AND METER

- Master and individual channel volume controls are feedback-type which raise clipping level and reduce circuit noise as volume is decreased.
- The program channel has a rotary-motion master level control and a ballistically correct, illuminated VU meter with a 0, +4, +8, dBm VU meter range switch.
- Provides a level control for headphones.
- Built-in 1 kHz tone oscillator for calibration of all equipment in a system.
- Provides a peak-responding adjustable threshold limiter with an in-out switch and an indicator lamp that flashes when the limiter is in operation. (When the limiter is not activated, an overload lamp indicates when the output clipping level is exceeded.)

SR110 PROFESSIONAL MONITOR MIXER

The Shure Model SR110 Professional Monitor Mixer Series is a rack-mountable, eight-input, single output, line level mixer designed as an accessory for the Model SR101 Series 2 Audio Consoles or the Model SR109 Professional Mixer. It can be used when a separate stage monitor (foldback) mix is needed in a sound reinforcement system. Several SR110's can also be used in making multi-track recordings or stereo and quadraphonic broadcasts (use two for stereo, four for four-channel, etc.) or as a mixdown panel associated with a sound reinforcement system.

Interconnections between the SR110 and the SR101 Series 2 or the SR109 are made through a single multi-pin connector and cable permanently attached to the SR110. The SR110 also contains a matching Female multi-pin connector for stacking additional SR110's. Up to eight SR110's may be stacked and connected to a single SR101 Series 2 Audio Console or SR109 Professional Mixer. A mix bus allows two SR110's to be interconnected, providing 16 inputs when connected to two SR101 Series 2 Consoles or two SR109 Mixers.

Designed for standard 19-inch rack mounts, the SR110 Monitor Mixer measures 44.5 mm (1 3/4") high x 483 mm (19") wide x 232 mm (9 1/8") deep, and weighs 3.9 kg (8 lb., 8 oz.).

POWER REQUIREMENTS

SR110—108 to 125 Vac, 50/60 Hz.

*SR110-2E—108 to 125 Vac, 210 to 250 Vac, 50/60 Hz, detachable power (mains) cable.

INPUT CAPABILITIES

- All input connections are made via a single multi-pin connector on a two-foot cable plugged into an SR101 Series 2 Console or SR109 Professional Mixer.

* Available in August, 1976.



OUTPUT CAPABILITIES

- Provides a 600-ohm balanced line level output with one three-pin Male professional audio connector and two standard 1/4-inch three-circuit phone jacks, connected in parallel.

CONTROLS

- The front panel contains eight rotary volume controls for channel gain and a combination rotary master volume control/power-off switch.
- Also provides output selector slide switch to select between monitor mix and program mix, a headphone jack, and power indicator lamp.

OPTIONAL ACCESSORIES

- One SR110 may be mounted with an SR109 in the Shure A105A Carrying Case (See Below), or two SR110's may be mounted in the Shure A30A Carrying Case. (See Back Page.)



SR 105 & SR105C-E6 POWER AMPLIFIERS

The Shure SR105 amplifiers are high-quality, high-power, rack-mountable amplifiers designed for use with the SR101 Audio Consoles, the SR109 Professional Mixer, and most other associated equipment used in professional sound reinforcement systems. The SR105's are available in three models: The Model SR105A, which provides both direct speaker output and transformer-coupled, constant-voltage 70-volt output; the Model SR105B, which permits direct speaker coupling only; and the Model SR105C-E6 which combines the capabilities of the SR105A, plus provides 100-volt output capability and operates at six line voltages from 100 to 240 Vac. The units measure 178 mm (7") high x 483 mm (19") wide x 270 mm (10 1/8") deep. The SR105A weighs 15.66 kg (34 1/2 lb.); the SR105B weighs 12.23 kg (27 lb.); and the SR105C-E6 weighs 15.66 kg (34 1/2 lb.).

Each SR105 amplifier is capable of delivering 200 watts continuous (rms) to a four-ohm load and may be interconnected with additional units to provide the greater sound power required by especially large coverage requirements. Harmonic and intermodulation distortion are low and frequency response is flat from 20 to 20,000 Hz, ± 1.5 dB.

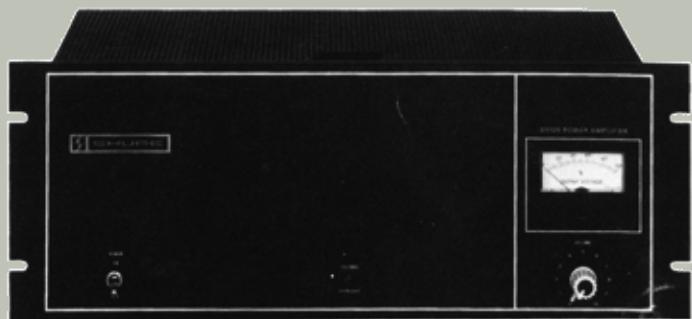
The SR105A and SR105C-E6 are capable of delivering 150 watts continuous (rms) to constant-voltage speaker lines with a frequency response that is flat from 50 to 15,000 Hz, ± 2 dB.

The SR105 amplifiers are completely protected against short or open circuit loads and can operate at ambient temperatures up to 43° C (110° F) without derating.

POWER REQUIREMENTS

SR105A and SR105B—120 Vac, 50/60 Hz.

SR105C-E6—100, 120, 140, 200, 220, or 240 Vac, 50/60 Hz, detachable power (mains) cable.



INPUT CAPABILITIES

- Accepts line level or auxiliary level signals through a professional three-pin balanced bridging input connector and dual, unbalanced, paralleled phone jacks for compatibility with all Shure audio control components and virtually all professional consoles.

OUTPUT CAPABILITIES

- Provides four direct-coupled output jacks for connection to speaker systems and a two-screw terminal strip for additional direct speaker connections.
- The SR105A, with balanced 70-volt output provision, delivers 150 watts rms output to 70-volt distributed speaker systems. Model SR105C-E6 is the same as SR105A plus balanced 100-volt output capability (selectable taps).

CONTROLS AND METER

- All SR105 units incorporate a power On-Off switch and a volume control.
- Accurate, front-panel output voltage meter indicates output voltage as a percentage of 100% maximum voltage.
- Thermal overload indicator lamp is provided to indicate if thermal cycling has occurred due to improper ventilation or operation.

OPTIONAL ACCESSORIES

- The SR105A, SR105B, and SR105C-E6 may be used with the Model A105A Carrying Case. (See Back Page.)

SR 106 & SR106-2E ELECTRONIC CROSSES



The Shure SR106 Electronic Crossover Series is a rack-mountable, unity gain, selectable-frequency dividing network designed for use with two- or three-way speaker systems, such as the Shure SR108 Extended Range Speaker System, in high-quality sound systems. The SR106 crossovers separate the output of an audio console or mixer-preamplifier into two frequency bands for distribution to separate power amplifiers for biampification applications. In this manner, the advantages of lower distortion, increased high-frequency power, wider dynamic range, and maximum efficiency are obtained.

The SR106's provide switch-selected crossover frequencies of 500 Hz, 800 Hz, and 2,600 Hz. Each SR106 can be used to provide two output frequency bands or, with a second SR106, three output frequency bands with each output routed to a separate power amplifier (triamplification).

The SR106's are supplied with rack-mounting screws for mounting in standard 19" audio equipment racks or in optional carrying cases, such as the A105A Case. (See Back Page.)

Each SR106 measures 44.4 mm (1 3/4") high x 483 mm (19") wide x 216 mm (8 1/2") deep, and weighs 3 kg (6 lb., 8 oz.).

POWER REQUIREMENTS

SR106—108 to 125 Vac, 50/60 Hz.

SR106-2E—108 to 125 Vac, 210 to 250 Vac, 50/60 Hz, detachable power (mains) cable.

INPUT CAPABILITIES

- Balanced bridging input accepts balanced line level or unbalanced signals through parallel three-pin Female professional audio and three-circuit 1/4-inch phone jack connectors.

OUTPUT CAPABILITIES

- Outputs are +18 dBm, 600-ohm, balanced, line level with greater than 100 dB signal-to-noise ratio.
- Provides parallel three-pin Male professional audio and three-circuit phone jack connectors for high- and low-frequency line level output.

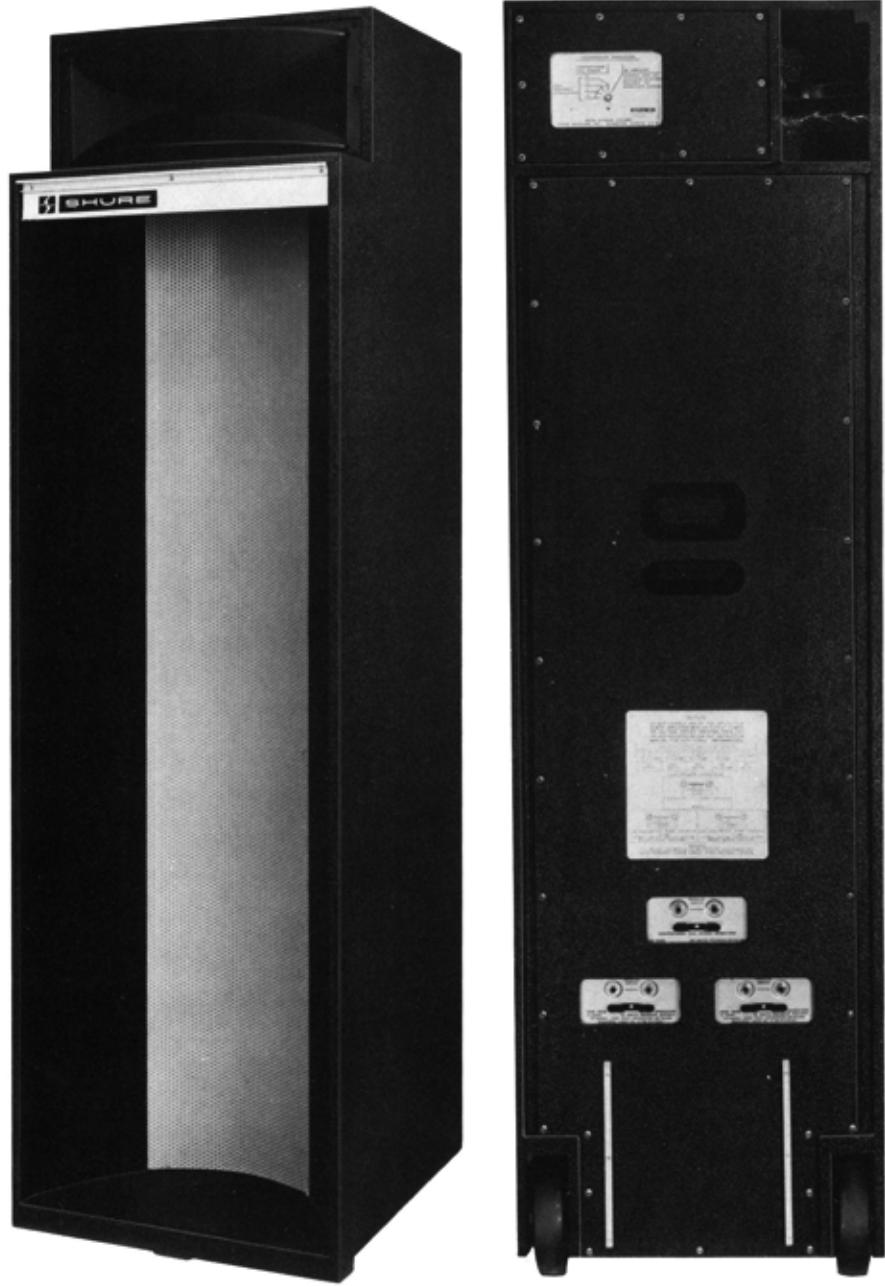
CONTROLS

- The SR106 Electronic Crossover incorporates a power On-Off switch and indicator lamp.
- A three-position Crossover Frequency switch selects crossover frequencies of 500, 800, or 2,600 Hz.

OPTIONAL ACCESSORIES

- May be used with Model A30A or A105A Carrying Case. (See Back Page.)

SR 108 EXTENDED RANGE SPEAKER SYSTEM



The Shure SR108 is an extended range, two-way speaker system designed for high sound-pressure-level reproduction of wide frequency range program material in sound reinforcement applications. The speaker system utilizes six eight-inch cone-type speakers with a total speaker cone area of 1097 cm² (170 in²) and four high frequency drivers. The SR108's pressure sensitivity has an EIA rating of 54 dB at 9.2 m (30 feet) from 1 milliwatt (equivalent to 102 dB at 1.2 m (4 feet) with a 1-watt input).

The sound power distribution is nominally uniform over a 140° angle in the horizontal plane and a 90° angle in the vertical plane. The speaker system's bass reflex design provides extreme low-frequency enhancement, with low-frequency speakers column-mounted in a horn-loaded, front-ported enclosure. The four high-frequency drivers are coupled to a single radial horn.

The uniform response is peak-free from 40 Hz to 15,000 Hz when driven by a constant-voltage amplifier and radiating into an acoustical half-space.

INPUT CAPABILITIES

- Can be operated with amplifiers capable of delivering up to 200 watts to 16 ohms in the single amplifier mode of operation.

- Can be operated with amplifiers capable of delivering up to 200 watts to 16 ohms (low frequency section) and 100 watts to 16 ohms (high frequency section) in the biamped mode of operation.
- Inputs consist of three pairs of parallel-wired phone jacks for (1) conventional full-range operation, (2) low-frequency biamped operation, and (3) high-frequency biamped operation.

CONTROLS

- Rear-panel Loudspeaker Operation switch provides four high-frequency level positions of -4, -2, 0 and +2 dB for conventional full-range operation and a BIAMP position for biamped operation.

The SR108 Speaker Cabinet is ruggedly constructed of wood measuring 15.9 mm (5/8"). It is covered with a tough, scratch resistant, moisture-proof vinyl fabric, has rear-panel rails and handle, two wheels and a cable storage compartment. The radial horn is made of high-density, structural urethane foam. A plug-in 15.2 m (50-foot) speaker cable is included. The SR108 measures 1730 mm high, 495 mm wide, and 517 mm deep (68 1/8" x 19 1/2" x 20 3/8") and weighs 64.5 kg (142 lb), including speaker cable. Operating temperature range is from -7°C to 43°C (20°F to 110°F), with storage temperatures from -29°C to 71°C (-20°F to 160°F).



SR 102 & SR 103 SPEAKER COLUMNS

The Shure Models SR102 and SR103 Speaker Columns were developed especially for use with high-power amplifiers such as the Shure Model SR105 in system installations requiring very high quality sound reproduction. Both models offer wide frequency response (100 to 15,000 Hz), very low distortion, and exceptional Penetrating Power.

- Both models are 16 ohms, and are rated at 100 watts maximum program material.
- Two 10-inch and four 8-inch heavy-duty speakers, along with twin high-frequency speakers that function as both dome radiators and acoustic horn radiators, are used in both models.
- Both models employ an enclosure with a specially tuned rear port that heightens Penetrating Power by producing a highly directional characteristic (dispersion is 140° horizontally, 65° vertically).
- Both models produce optimum auditorium penetration, with maximum feedback reduction.
- Both the SR102 and the SR103 may be used with either direct (4 to 16 ohms) or constant-voltage (25 or 70 volts) amplifier outputs without matching transformers.

MODEL SR102:

The SR102 is a portable speaker column, and is intended primarily for temporary installations. It measures 1522 mm (59 $\frac{1}{8}$ ") high x 354 mm (13 $\frac{1}{8}$ ") wide x 241 mm (9 $\frac{1}{2}$ ") deep, and weighs 32.62 kg (72 lb). Its enclosure is fitted with anodized solid aluminum siderails for protection, and with a strong retractile handle for ease in transportation. The enclosure is covered with a tough, scratch-resistant, moisture-proof vinyl fabric. Connections are made through a six-screw terminal strip, or through twin, parallel-wired phone jacks. A 15.2 m (50-foot) rubber-jacketed connecting cable with locking phone plugs is supplied.

MODEL SR103:

The SR103 is intended for permanent installations, and may be used outdoors for extended periods without adverse effects. All electrical components, hardware and enclosed surfaces have been designed for maximum resistance to adverse weather conditions. Adhesives used are moisture-resistant, and all trim and fastening hardware are highly corrosion-resistant. Drain holes are provided to minimize moisture accumulation. Connections are made through a six-screw terminal strip. It measures 1513 mm (59 $\frac{1}{8}$ ") high x 352 mm (13 $\frac{7}{8}$ ") wide x 240 mm (9 $\frac{7}{8}$ ") deep, and weighs 31.8 kg (70 lb). Designed for use with Model A103A Wall-Mount Speaker Bracket (See Back Page).

CUSTOM-DESIGNED SR ACCESSORIES



Model A101B Panel Lamp

A small, low-intensity light unit to illuminate the SR101 Series Audio Console controls in dimly lit areas. Attaches quickly to front panel with screw-down connector and draws its power from the console. Flexible neck affords variable positioning.



Model A102A 70-Volt Transformer

A high-efficiency, weatherproof, low-loss autotransformer that mounts easily on the back of a speaker enclosure to provide wattage taps of 50, 25, 12, and 6 watts in 70-volt distributed systems and impedance taps of 8 and 16 ohms to accommodate a wide variety of speakers. Five-screw 70-volt terminal strip and three-screw impedance terminal strip.



Model A102B 100-Volt Transformer

A weatherproof, low-loss, 100-volt line matching autotransformer for connecting 8 and 16 ohm speakers to 100-volt speaker lines. Provides power taps for 50, 25, 12, and 6 watts and impedance taps of 8 and 16 ohms.

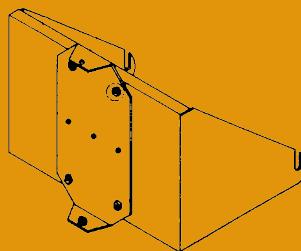
Model A101A Carrying Case

Designed to give complete portability to the SR101 Audio Console. Tough, weather-resistant outer covering and solidly attached carrying handle. Rear panel removes to provide a padded operator armrest. Contains space for carrying A101B Panel Lamp and operator cue sheets. The A101A measures 370 mm (14 1/2") high x 518 mm (20 3/8") wide x 256 mm (10 1/8") deep overall.



Model A103A Wall-Mount Speaker Bracket

A strong wall bracket designed expressly for permanent mounting of the SR103 Speaker Column on almost any vertical surface. Allows the installer to aim the speaker for optimum audience coverage. Tilts as much as 19° left or right; and 18° up-tilt or 12° down-tilt, then locks in selected position.



Model A105A Carrying Case

A sturdy, weather-resistant case designed for easy transportation of the SR105 Power Amplifiers. Front-and-back hinged removable panels permit access to front and back of unit for operation. May also be used to create a portable, "custom" stack of several smaller audio control components (such as the Shure SR106 Electronic Crossover, SR110

Professional Monitor Mixer, SR109 Professional Mixer, M67 Mixer, or M610 Feedback Controller with appropriate rack panel kits). The A105A measures 533 mm (21") high x 232 mm (9 5/16") wide x 311 mm (12 1/4") deep overall. Provides 178 mm (7") of rack-mounting space for units up to 210 mm (8 1/4") depth below the mounting surface. Weighs 6 kg (13 1/2 lb.).

Model A30A Carrying Case

Similar to A105A above with 3 1/2" (89 mm) of rack-mounting. For one or two SR106's, SR110's, or other similar equipment up to 260 mm (10 1/4") depth below the mounting surface. (Not shown.)



Model A3S-T Speaker Tilt Stand

A tubular steel stand that provides added stability for SR102 Portable Speaker Column and permits an upward tilt of 30°.

Model A50XC

15.2 m (50-ft.) speaker Extension Cable. (Not shown.)

FOR CREATIVE IDEAS IN SOUND ENGINEERING...

SR SOUND IDEAS booklet #AL519 shows layouts for both portable and permanent installations – from a simple system to a jumbo auditorium sound system.

SR APPLICATIONS BROCHURE #AL525 takes you behind the scenes of Las Vegas show palaces, amusement parks, outdoor concerts, conventions, and even a 32-day musical tour of Russia for ingenious solutions to actual sound reinforcement problems.

PROFESSIONAL PRODUCTS CATALOG #AL312 offers the same Shure quality found in SR components for microphones, circuitry, and accessories for broadcasting, motion pictures, and professional sound reinforcement applications.

Architects' specification sheets contain further detailed information and specifications on individual Shure SR products. Please specify SR model number(s) when ordering these sheets.

Ask your Shure dealer, or write to us for your free copies.



SHURE

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