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MICROPHONES AND ELECTRONIC COMPONENTS

AREA CODE 312/866-2200 • CABLE: SHUREMICRO  
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**DATA  
SHEET**

*Vocal Master*<sup>®</sup>  
MODEL VA300-S  
SPEAKER COLUMN

## OPERATING MANUAL AND SERVICE INSTRUCTIONS

The Shure Model VA300-S Speaker Column has been designed to be used in conjunction with the Shure VOCAL MASTER<sup>®</sup> Control Consoles or POWER MASTER<sup>®</sup> Booster Amplifier. Used in this manner, the VA300-S Speaker Column will provide an outstanding vocal reproduction system. Correct frequency range, distortion-free reproduction and enough sound power to penetrate large audience areas are features which contribute to its outstanding performance.

The VA300-S employs two special 10-inch speakers and four special 8-inch speakers—a total speaker cone area of 2,310 cm<sup>2</sup> (358 in<sup>2</sup>) per column. The VA300-S Speaker Column delivers virtually uniform penetrating power over a 140° angle in the horizontal plane and a 65° angle in the vertical plane. The rear-ported enclosure of the VA300-S contributes to its highly directional pattern, which is critical in achieving maximum audience penetration and reduction of feedback.

When the VA300-S Speaker Columns are used on stage, the speakers should be placed at the sides of the stage and as far forward as possible. With this setup, the entire stage area will be relatively free from acoustic feedback; also the illusion of sound coming from the center of the stage will be quite good except for the first few forward rows of seats.

The VA300-S Speaker Column may be used on its side, though this reduces the horizontal coverage and the penetrating power. In a low ceiling, small, intimate room such as a night club, horizontal mounting at or near the ceiling level may be very successful. (It is not recommended that the VA300-S Speaker Column be used on its side in larger rooms.) An alternate solution for this type of small room is to use VA301-S Monitor Speakers.

Fifteen meters (50 ft) of heavy duty cable is supplied with each VA300-S Speaker Column. The end of the cable with the straight plug and locking ring connects to the amplifier; the end with the right angle plug connects and locks to the Speaker Column. The cable can be stored in the cable-well at the base of each column. Connect the cable from either of the phone jacks on the back of the amplifier. If both of the speaker jacks on the amplifier are being used for other speakers, then connect the speakers in cascade—that is, connect the VA300-S Speaker cable to one of the unused phone jacks on the rear of one of the other speakers.

The Shure VOCAL MASTER and POWER MASTER amplifiers are designed to deliver full rated power (100W) to an 8 ohm load. It is recommended that VA300-S Speaker Columns be used in pairs, each column having a nominal impedance of 16 ohms, which provides an impedance of 8 ohms when two are used. Speaker loads of less than 5.3 ohms should not be used with these amplifiers. No damage to the speakers or amplifier will occur but loss of power and thermal shutoff of the amplifier may result.

The following list shows the resultant impedance loads obtained from a variety of speaker combinations.

QUANTITY and SPEAKER MODEL		IMPEDANCE OHMS (NOMINAL)
1	VA300-S	16
2	VA300-S	8
3	VA300-S	5.3
1	VA301-S*	32
2	VA301-S*	16
3	VA301-S*	10.6
4	VA301-S*	8
5	VA301-S*	6.4
6	VA301-S*	5.3
1	VA300-S and 1 VA301-S*	10.6
1	VA300-S and 2 VA301-S*	8
1	VA300-S and 3 VA301-S*	6.4
1	VA300-S and 4 VA301-S*	5.3
2	VA300-S and 1 VA301-S*	6.4
2	VA300-S and 2 VA301-S*	5.3

Any of the above combinations of speakers will provide loads suitable for use with the Shure VOCAL MASTER or POWER MASTER Amplifiers.

\*The Shure VA301-S Speaker Column is intended primarily for use as an "on-stage monitor." While this speaker meets all of the criteria for an excellent vocal system speaker, its area of coverage is more localized than that of the VA300-S. An integral volume control on the VA301-S permits its use on-stage as a monitor at the highest possible sound level without feedback.

### GUARANTEE

This Shure product is guaranteed in normal use to be free from electrical and mechanical defects for a period of one year from date of purchase. Please retain proof of purchase date. This guarantee includes all parts and labor. This guarantee is in lieu of any and all other guarantees or warranties, express or implied, and there shall be no recovery for any consequential or incidental damages.

### SHIPPING INSTRUCTIONS

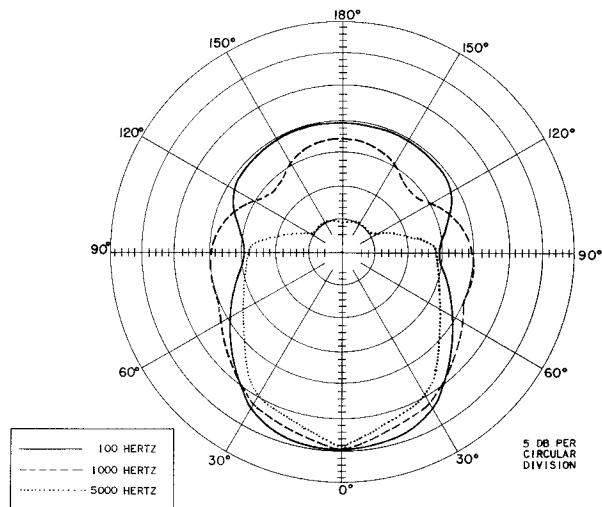
Carefully repack the unit and return it prepaid to:

Shure Brothers Incorporated  
Attention: Service Department  
1501 West Shure Drive  
Arlington Heights, Illinois 60004

If outside the United States, return the unit to your dealer or Authorized Shure Service Center for repair. The unit will be returned to you prepaid.

# SPECIFICATIONS

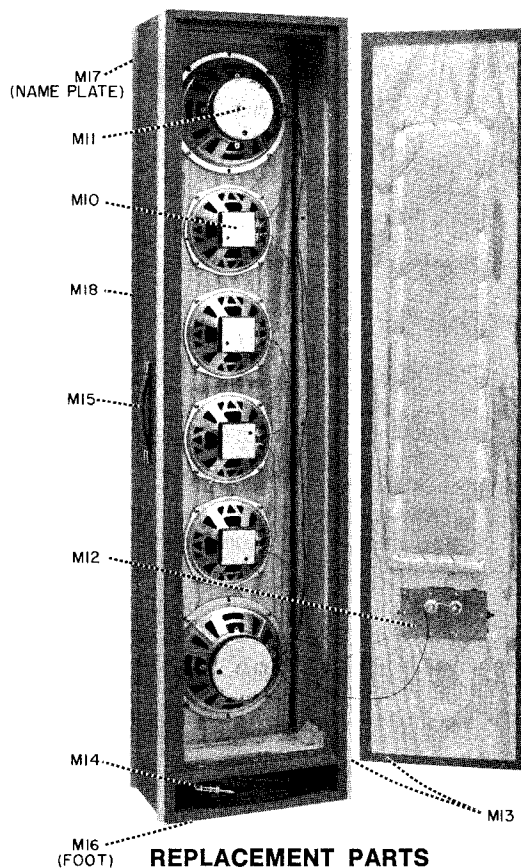
- Power Rating:** 100 watts  
**Impedance:** 16 ohms  
**Frequency Response:** 50 to 10,000 Hertz  
**Horizontal Distribution:** 140° (See Polar Response)  
**Vertical Distribution:** 65°  
**Dimensions:** 1594 mm H x 400 mm W x 222 mm D (62¾" x 15¾" x 8¾")  
**Weight:** 31.8 kg (70 lb) (including cable)  
**Construction and Finish:** 19 mm (¾") wood construction, gray vinyl covering, black grille, anodized aluminum hardware.  
**Supplied Accessories:** 50-foot, No. 18 gauge, 2-conductor rubber-jacketed cable with locking phone plugs attached.\*  
**Optional Accessories:** A3S-S Speaker Stand  
 A3S-T Speaker Tilt Stand  
 A3PC-S Protective Cover  
 A50XC 50-ft. Extension Cable\*



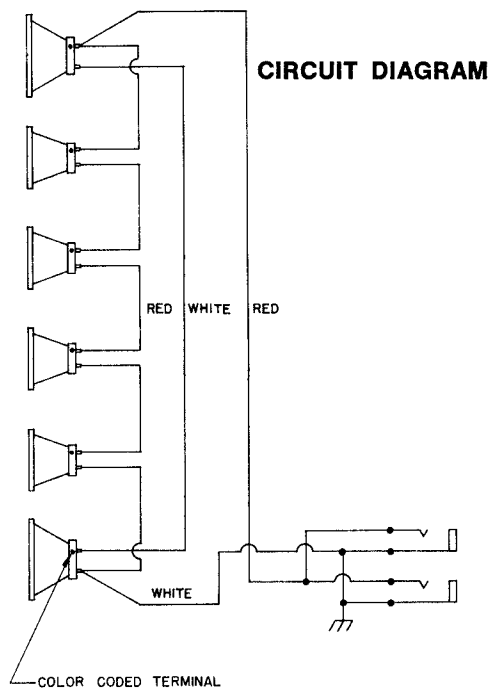
**POLAR RESPONSE**

### VA300-S SPEAKER SERVICING:

1. Unplug cables from speaker jacks.
2. Using an ohmmeter, measure the resistance of the speaker column. The resistance should be between 12 and 16 ohms. A reading outside these limits indicates possible failure.
3. Remove back of cabinet.
4. Disconnect one end of the white lead connected between the two 10-inch loudspeakers.
5. Using an ohmmeter, measure resistance of the voice-coil of each loudspeaker individually. Each 10-inch speaker should measure between 12 and 16 ohms. Each 8-inch speaker should measure between 5 and 8 ohms. Readings outside of these limits indicate possible failure.
6. Apply 60 Hz, 1 to 10 volts, to each of the six speakers individually. Any buzzes or rattles indicate possible failure. The speakers should all sound generally alike with a slight difference between the 8-inch and 10-inch loudspeakers.
7. Reconnect lead disconnected in Step 4. Install back of cabinet tightly.



**REPLACEMENT PARTS**



**CIRCUIT DIAGRAM**

ITEM	REPL. KIT NO.	REPLACEMENT KIT CONSISTS OF		
		QTY.	PART NO.	DESCRIPTION
M10	RKC29	1	80A207	8-inch Loudspeaker
M11	RKC56	1	80A208	10-inch Loudspeaker
M12	—	—	90A1375	Rear Panel Assembly
M13	—	—	90A1605	Column Cabinet
M14	RKC4	1	90A1373	Cable and Plug Assembly*
M15	RKC32	1	95A436	Handle Assembly
M16	RKC39	4	65A1001A	Bumper (Plastic Foot)
M17	—	—	39A279	Nameplate
M18	—	—	48A20	Side Rail

\*Recommended replacement cable connectors (not available from factory; Switchcraft part numbers given): Straight Locking Plug: No. 282; Right Angle Locking Plug: No. 228; Locking Extension Jack (for Extension Cable Assembly): No. 123.