

## OPERATING MANUAL AND SERVICE INSTRUCTIONS

The Shure Model VA301-S Speaker Column has been designed as a monitor to provide localized on-stage coverage for the performing vocalist. When used in conjunction with the Shure VOCAL MASTER<sup>®</sup> VA300 or VA302 Series Consoles or POWER MASTER<sup>®</sup> PM300 Series Amplifiers, the Model VA301-S provides high quality localized sound coverage.

An integral volume control is incorporated in the VA301-S to allow on-stage use at as high a sound pressure level as possible without feedback. A rear-ported enclosure is utilized which contributes to the directional characteristics of the speaker column and is critical in reduction of feedback.

The VA301-S employs two 8 in. loudspeakers and one 10 in. loudspeaker. Total cone area of the VA301-S is 1,155 square cm (179 sq. in.). Nominal impedance of the VA301-S Speaker Column is 32 ohms when the volume control is set at "10" (fully clockwise). Reduction of volume control setting reduces the overall volume and increases the impedance of the speaker system. At a setting of "0" there is no output from the Speaker Column. It is important to set the speaker volume control at "10" when the VA301-S is the only speaker connected to an amplifier, then use the amplifier volume control to adjust the volume of the speaker.

A 15.2m (50 ft), heavy duty cable is supplied with each VA301-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 VA301-S Speaker cable to one of the unused phone jacks on the rear of one of the other speakers.

The Shure VA300 or VA302 Series Consoles and the PM300 series Amplifiers are designed to deliver full rated power (100W) to an 8-ohm load. Each VA300-S Speaker Column (two supplied with each VA300, or VA302 series VOCAL MASTER System) has a nominal impedance of 16 ohms. The table below indicates the load impedance for a number of VA300-S and VA301-S speaker combinations. 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 thermal shutoff of the amplifier may result.

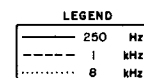
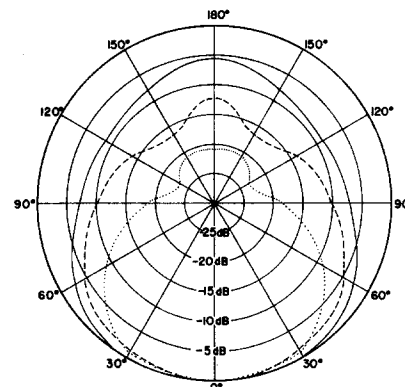
The following list shows the resultant impedance loads obtained from a variety of speaker combinations.

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

Any of the above combinations of speakers will provide loads suitable for use with the VA300, VA302 Series Consoles or PM300 Series Amplifiers.

## SPECIFICATIONS MODEL VA301-S SPEAKER COLUMN

<b>Power Rating:</b>	50 watts
<b>Impedance:</b>	32 ohms (Volume Control at "10")
<b>Frequency Response:</b>	50 to 10,000 Hz
<b>Horizontal Distribution:</b>	See Figure 1—Polar Response
<b>Vertical Distribution:</b>	60°
<b>Dimensions:</b>	914 mm (36 in.) high × 400 mm (15¾ in.) wide × 222 mm (8¾ in.) deep
<b>Weight:</b>	18.8 kg (41½ lbs) including cable
<b>Construction and Finish:</b>	19 mm (¾ in) wood construction, gray vinyl covering, black grille, anodized aluminum hardware
<b>Supplied Accessories:</b>	15.2m (50 ft), No. 18 gauge, 2-conductor rubber-jacketed cable with locking phone plugs attached
<b>Optional Accessories:</b>	A3S-S Speaker Stand A31PC-S Protective Cover A50-XC 15.2m (50 ft) Extension Cable

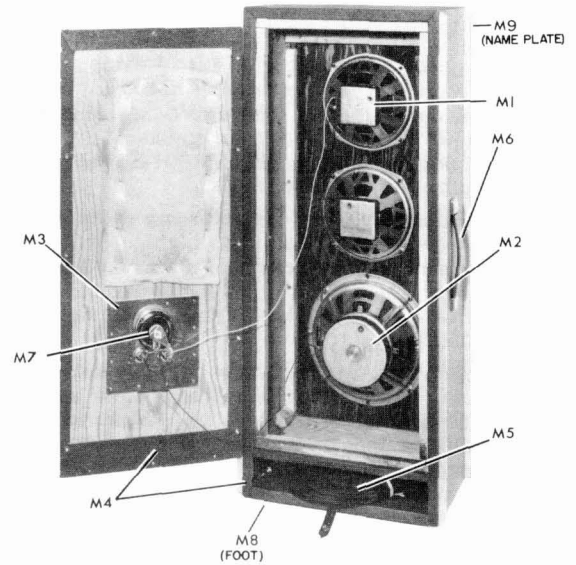


**HORIZONTAL POLAR RESPONSE**  
 Figure 1

## SERVICE INSTRUCTIONS

### REPLACEMENT PARTS LIST FOR VA301-S SPEAKER COLUMN

ITEM	SHURE REPLACEMENT PART KIT NO.	REPLACEMENT KIT CONSISTS OF:		
		QTY.	SHURE PART NO.	DESCRIPTION
M1	RKC29	1	80A207	8-inch Loudspeaker
M2	RKC56	1	80A208	10-inch Loudspeaker
M3	—	—	90A1536	Rear Panel Assembly (Including Rheostat)
M4	RKC75	1	94B521	Column Cabinet (Including Handle)
M5	RKC4	1	90A1373	Cable and Plug Assembly*
M6	RKC32	1	95A436	Retractable Handle
M7	RKC76	1	45Z39	Rheostat, 300 ohms
M8	RKC39	4	65A1001A	Foot
M9	—	—	39A279	Name Plate
—	—	—	31A1340	Knob



\*Recommended Replacement Cable Connectors (Not available from factory; Switchcraft Part Nos. given):  
 Straight Locking Plug: No. 282; Right Angle Locking Plug: No. 228; Locking Extension Jack (for Extension Cable Assembly): No. 123.

#### SPEAKER SERVICING

1. Unplug cables from speaker jacks.
2. Remove back of cabinet.
3. Apply 60 Hz, 1 to 10 volts, to each of the three 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.
4. Using an ohmmeter, measure resistance of the voice-coil of each loudspeaker individually. The 10-inch speaker should measure between 12 and 16 ohms. Each 8-inch speaker should measure between 5 and 8 ohms. A reading outside these limits indicates possible failure.
5. Install back of cabinet tightly.

#### GUARANTEE

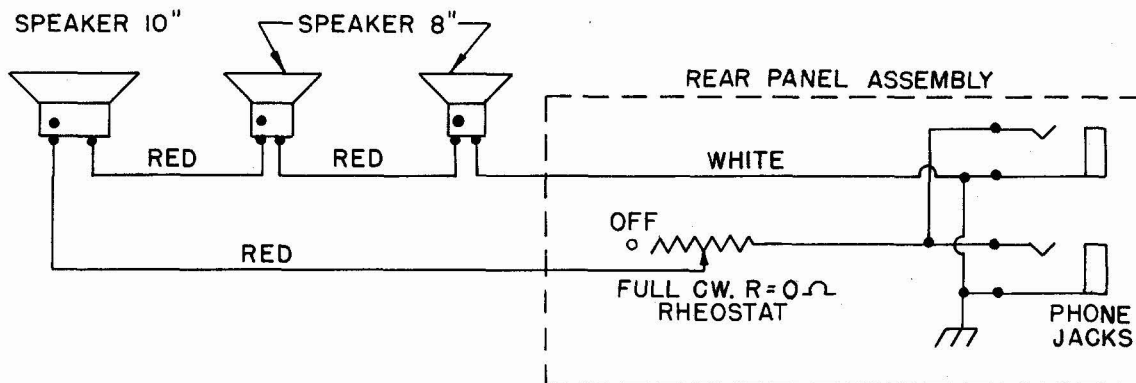
This Shure product is guaranteed in normal use to be free from electrical and mechanical defects for a period of one year from date of purchase. Please retain proof of purchase date. This guarantee includes all parts and labor. This guarantee is in lieu of any and all other guarantees or warranties, 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.



**CIRCUIT DIAGRAM**