

**UNIDIRECTIONAL SUPERCARDIOID RIBBON ELEMENT**

**GENERAL**

The Model 330 UNI-RON® is a compact and rugged unidirectional ribbon microphone combining wide range response and a supercardioid directional pattern. The microphone has been acoustically designed to suppress rear sound and provide a wide front pickup pattern. This polar pattern is somewhat more directional than the conventional cardioid, providing excellent control of unwanted surrounding noise and reverberation. The performance characteristics are ideal for studio use in broadcasting and recording and for critical sound reinforcement applications.

**Microphone Features:**

- Unusually effective supercardioid pickup characteristic minimizes effects of studio acoustics and background noise
- Warm, smooth sound from wide frequency response range. Well suited to both voice and music
- Built-in shock mount for quiet operation
- Rugged mechanical design and internal ribbon protection for reliable performance under rigorous operating conditions
- Instant switchable choice of three low impedances

**ARCHITECTS' SPECIFICATIONS**

The microphone shall be the Shure Model 330 or equivalent. The microphone shall be a moving ribbon type with a frequency response of 30 to 15,000 Hertz. The unit shall have a supercardioid polar characteristic. The cancellation at the sides shall be approximately 7 dB, and the cancellation at the rear shall be 5 to 13 dB. The microphone shall be a multiple-low-impedance unit with rated impedances of 50, 150, and 250 ohms for connection to microphone inputs rated at 19 to 300 ohms. The microphone output shall be:

- 50 ohms ..... -59.0 dB
  - 150 and 250 ohms ..... -58.5 dB
- (0 dB = 1 milliwatt per 10 microbars)

The microphone shall be equipped with a built-in three-position impedance switch for instant choice of three low impedances. The microphone shall be provided with a swivel and shock mount assembly with an internal rubber vibration-isolator. The swivel shall be adjustable through 55° forward and 70° backward and shall be suitable for mounting on a stand having a 5/8"-27 thread. The microphone shall also be provided with a detachable 6.1m (20 ft) two-conductor shielded cable with a professional three-socket audio connector\* at the microphone end.

The overall dimensions of the microphone shall be 185 mm (7-9/32 in.) in length, 34.9 mm (1-3/8 in.) in width, and 52.4 mm (2-1/16 in.) in depth.

\*Designed to mate with Cannon XL Series, Switchcraft A3 (Q.G.) Series or equivalent connector

**IMPEDANCE SELECTION AND CONNECTIONS**

The Model 330 may be connected in any of its three low-impedance positions (as selected by the switch on



the front of the swivel assembly) directly to any low-impedance amplifier input. The low-impedance connection is recommended where long cable lengths are required or under conditions of severe hum disturbance. The permissible cable length is practically unlimited since neither response nor level is appreciably affected. Shure Model A95 Series Line Matching Transformers are available for use in those cases where a low-impedance microphone line is desirable but the associated amplifier has a high-impedance input. These transformers provide a proper impedance match between a 19 to 300 ohm microphone line and a high-impedance input and are available with various input and output connectors.

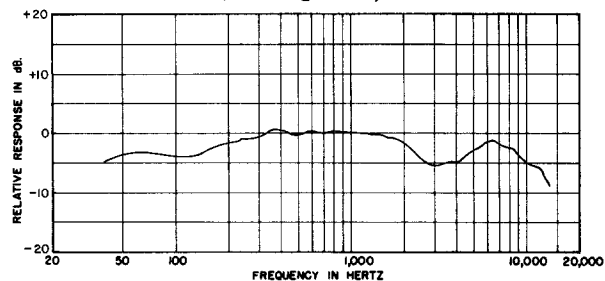
**SPECIFICATIONS**

**Type**

Ribbon

**Frequency Response**

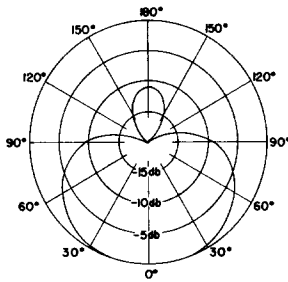
30 to 15,000 Hz (see Figure 1)



TYPICAL FREQUENCY RESPONSE  
**FIGURE 1**

**Polar Pattern**

Supercardioid (unidirectional) see Figure 2



TYPICAL DIRECTIONAL PATTERN  
**FIGURE 2**

**Impedance**

Multiple low. Choice of 50 ohms (73 ohms actual) 150 ohms (230 ohms actual), and 250 ohms (365 ohms actual) for connection to microphone inputs rated at 19 to 300 ohms

**Output Level (at 1,000 Hz)**

	50	150	250
Open Circuit Voltage*	-84.5 dB (.059 mV)	-79.0 dB (.111 mV)	-77.0 dB (.141 mV)
Power Level**	-59.0 dB	-58.5 dB	-58.5 dB

\*0 dB = 1 volt per microbar  
\*\*0 dB = 1 milliwatt with 10 microbars

**Switch**

Built-in, slotted, rotary type impedance selection switch

**Cable**

6.1m (20 ft) two-conductor shielded, detachable, with professional audio connector\* on microphone end

\*Designed to mate with Cannon XL Series, Switchcraft A3 (Q.G.) Series or equivalent connector

**Swivel and Shock Mount Assembly**

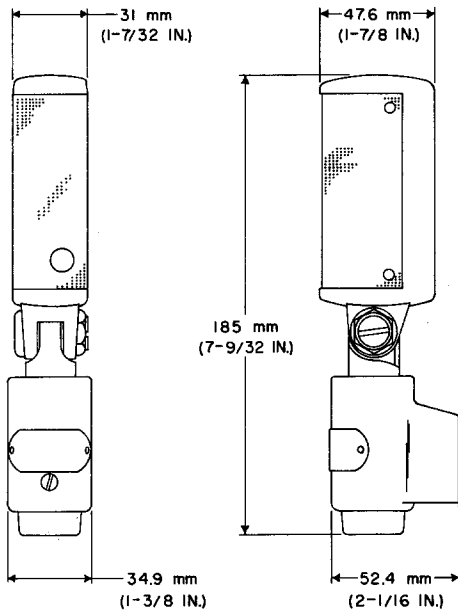
Positive action swivel, permits tilting head through 55° forward and 70° backward, shock mounted with internal rubber vibration-isolator, suitable for mounting on stand with 5/8"-27 thread

**Case**

Chrome finished die casting

**Dimensions**

See Figure 3



OVERALL DIMENSIONS  
**FIGURE 3**

**Net Weight (less cable)**

681g (1½ lbs)

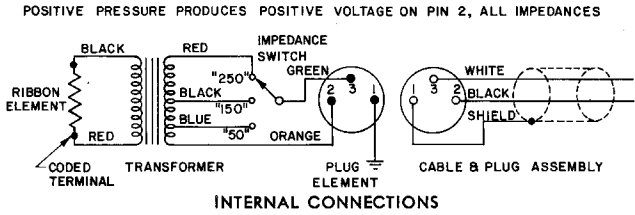
**Packaged Weight**

1476g (3¼ lbs)

**PHASING**

To test two microphones and/or their cables for proper phasing, connect them to an amplifier and talk or sing into them while holding them three or four inches apart. The sound from the speakers should be the same when talking into either microphone or directly between them if they are in phase with each other. If the sound drops drastically, or if a dead spot is found when talking between the two microphones, one of them or its cable (low impedance only) is out of phase. All cables and microphones should be tested in this manner to insure that they are in phase with each other.

To change the phase of a low-impedance microphone cable, either use a Shure A15PR Phase Reverser or interchange the wires connected to pins 2 and 3 of the connector. To change the phase of a microphone, the microphone cartridge leads must be interchanged (see Figure 4). This should be performed by your dealer, the Shure Factory Service Department, or other qualified service personnel.



INTERNAL CONNECTIONS  
**FIGURE 4**

**REPLACEMENT PARTS**

Cartridge .....	R32
Cable .....	C65
Case Assembly .....	RK100C
Plug Element .....	RK105P
Cable Connector .....	RK120P

**OPTIONAL ACCESSORIES**

Line Matching Transformer .....	A95 Series
Quick Disconnect Adapter .....	A45
Desk Stand .....	S33B, S37A or S40A

**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.