



**SHURE BROTHERS**  
INCORPORATED

Microphones and Acoustic Devices  
225 WEST HURON STREET :: CHICAGO 10, ILLINOIS  
PHONE DElaware 7-4550 :: CABLE: SHUREMICRO

# DATA SHEET

DATE: DATE: DECEMBER, 1948

SUBJECT: Model 52C High-Impedance  
Controlled Reluctance Micro-  
phone.

## MODEL 52C

### High-Level, High-Impedance Controlled Reluctance Microphone

**General:** Model 52C is a pressure operated microphone using the balanced armature, controlled reluctance principle. The microphone has high impedance and a high output level, smooth response, and a semi-directional pickup characteristic.

The case is streamlined for improved acoustical performance and modern appearance.

Each microphone is provided with a 15 ft. single conductor rubber jacketed shielded cable.

**Applications:** The Model 52C is suitable for public address, recording, call systems, radio telephone equipment, and similar applications. Because of its high output level, Model 52C microphone may be used with all standard public address amplifiers.

The microphone is unusually rugged and is practically immune to severe moisture and temperature conditions.

**Connections:** The microphone may be used with any public address amplifier or other amplifier with an input impedance of 100,000 ohms or more.

The inner or "hot" conductor of the cable should be connected to the grid of the first tube in the amplifier across a load resistance of 100,000 ohms or more. The shield should be connected to the chassis or amplifier ground. Cable lengths longer than 25 feet will be accompanied by some loss of high frequency response.

In certain amplifiers, the grid bias is obtained by having a grid leak between grid and cathode. When such amplifiers are used with any controlled reluctance or dynamic-type microphone, it may be desirable to include a coupling condenser between the microphone and the input grid. The condenser should be .01 mfd. or larger.

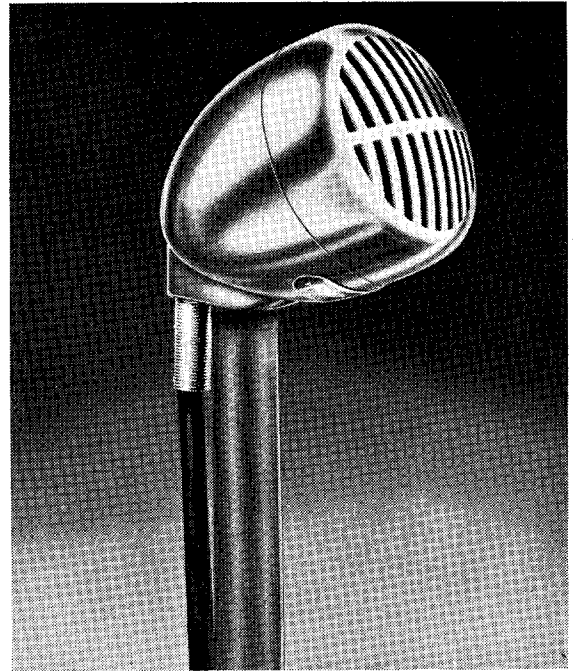
**Installation:** The Model 52C has the standard  $\frac{5}{8}$ "-27 thread and may be mounted on any Shure desk or floor stand.

**Operation:** No special precautions beyond ordinary care are necessary in the operation of the Model 52C Microphone. It will operate satisfactorily under ordinary conditions in hot and cold climates. To retain the full strength of the permanent magnet and to maintain alignment of structure, dropping or other severe mechanical shocks should be avoided.

### SPECIFICATIONS

**Voltage Sensitivity:**  $\approx$ 2.5 db below 1 volt per dyne per sq. cm. when loaded with 100,000 ohms or more. This is equivalent to 2.3 millivolts r.m.s. per dyne per sq. cm. across 100,000 ohms or more.

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### SPECIFICATIONS, Continued

MODEL 52C	
Diameter of Case.....	2 $\frac{1}{2}$ "
Length Overall .....	3 $\frac{1}{4}$ "
Finish .....	SATIN CHROME
Net Weight (with 15' cable).....	1 $\frac{1}{8}$ lb.
Shipping Weight .....	2 lb.
Code Word (including 15' cable).....	RUZAR

**Recommended Load Impedance:** 100,000 ohms or more.

**Guarantee:** Each microphone is guaranteed to be free from electrical and mechanical defects for a period of one year from date of shipment from the factory, provided all instructions are complied with fully. In case of damage, return the microphone to the factory for repairs. Our guarantee is voided if the microphone case is opened.

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