

SHURE**MICROPHONES AND ELECTRONIC COMPONENTS**

EVANSTON PHONE DA 8-9000 • CHICAGO PHONE SH 3-1600

DATA SHEET**MODEL "525"
STUDIO MICROPHONE****OMNI-DIRECTIONAL DYNAMIC
Multi-Impedance****Specifications**

Response Frequency Characteristic: From 40 to 15,000 c.p.s. uniformity insured to plus or minus 2½ db. It is especially designed to meet the exacting requirements of TV, radio broadcasting and all studio applications.

Polar Pattern: Omni-directional.

1000 C.P.S. Response**Model 525 "L" Position**

Open Circuit Voltage Level.....	— 88	db*
Power Level into 50 ohm.....	— 61	db**
RETMA Microphone Rating		
GM (Sensitivity).....	—153	db***

Model 525 "M" Position

Open Circuit Voltage Level.....	— 83	db*
Power Level into 150 ohms.....	— 61	db**
RETMA Microphone Rating		
GM (Sensitivity).....	—154	db***

Model 525 "H" Position

Open Circuit Voltage Level.....	— 81	db*
Power Level into 250 ohms.....	— 61	db**
RETMA Microphone Rating		
GM (Sensitivity).....	—152	db***

(*) 0 db = 1 Volt Per Microbar.

(**) 0 db = 1 Milliwatt with 10 Microbar.

(***) RETMA Standard SE-105, August 1949.

Rated Impedances: Model 525 is equipped with a multi-impedance switch furnishing a choice of three impedances—"L" (50 ohms); "M" (150 ohms); "H" (250 ohms).

Cable: 20 foot (6.1m) Broadcast 2-conductor shielded cable with Cannon XL-3-11 connector attached.

Swivel Adapter: Model 525 may be used with the Model A25 swivel adapter which is furnished with the microphone. It has a self-adjusting "positive action" lifetime swivel which permits the microphone to be tilted thru 90° from vertical to horizontal.

Dimensions: See Fig. C.

Finish: Non-reflecting "Baked Bronze" and Beige case.



Stand Thread: The Model A25 swivel adapter has a $\frac{5}{8}$ "-27 thread. Adapters for $\frac{1}{2}$ " pipe thread or $\frac{5}{8}$ "-24 thread are available upon request at no extra charge.

Weight: Net weight $\frac{1}{2}$ lb. (226.8g), Packaged weight $3\frac{1}{4}$ lb. (1474g)

Code Word: RUDED.

General: The Model "525" Studio Microphone is a slender moving-coil dynamic microphone, custom-built to provide high fidelity reproduction of voice and music and features an omni-directional pattern. The microphone has complete versatility and reliability for indoor and outdoor use and may be used in the following manner.

1. Mounted in swivel adapter on a conventional floor or desk stand.
2. Quick disengage feature permits the microphone to be removed from the swivel adapter for use as a hand, audience participation, interviewer microphone, etc.
3. Equipped with adjustable lavalier cord and belt clip, the microphone may be used as a wearable unit by lecturers, broadcast announcers, etc.
4. Readily accessible impedance switch permits quick change.

The extended, smooth, frequency response and the attending faithful reproduction are largely due to a newly designed diaphragm attached to a sensitive coil suspended in a magnetic structure. The use of high efficiency magnetic materials and specially designed magnetic circuits has made it possible to develop this small microphone and still achieve maximum operating efficiency.

The microphone is ruggedly built to withstand hard usage and is unaffected by temperature and humidity variations. The 20-foot (6.1m) broadcast quality, shielded, two-conductor cable is supplied with a Cannon microphone plug

The "525" meets the most exacting requirements for maximum quality and minimum size. The Model A25 adjustable swivel adapter is supplied with the microphone and permits the microphone to be tilted through 90° from vertical to horizontal, making it simple to aim the microphone at the source of sound.

An adjustable lavalier cord and a belt clip assembly are supplied which facilitate the use of the microphone by public speakers and lecturers; teachers and instructors; demonstrators; and all similar applications where freedom of both hands is necessary. The lavalier cord clips easily on the microphone, can be readily fastened around the wearer's neck, and quickly removed.

Applications: The Model "525" Studio Microphone meets all requirements of broadcast, television, recording and all types of studio work because the frequency response is controlled within close tolerances. It is, also, ideal for highest-quality public address, both indoors and outdoors. The microphone may be used for either a single performer, a dialogue, a group, an orchestra — practically all individual and group applications.

Installation: The Model "525", when used with the swivel adapter, has a standard $\frac{5}{8}$ "-27 thread and may be mounted on any conventional desk, banquet or floor

stand. Stand coupler adapters are available at no charge for $\frac{1}{2}$ " pipe thread or $\frac{5}{8}$ "-24 thread. (Write Shure Brothers, Inc.) To avoid A.C. hum induction when long lines are used, care should be taken that the cable does not parallel A.C. power lines for long distances.

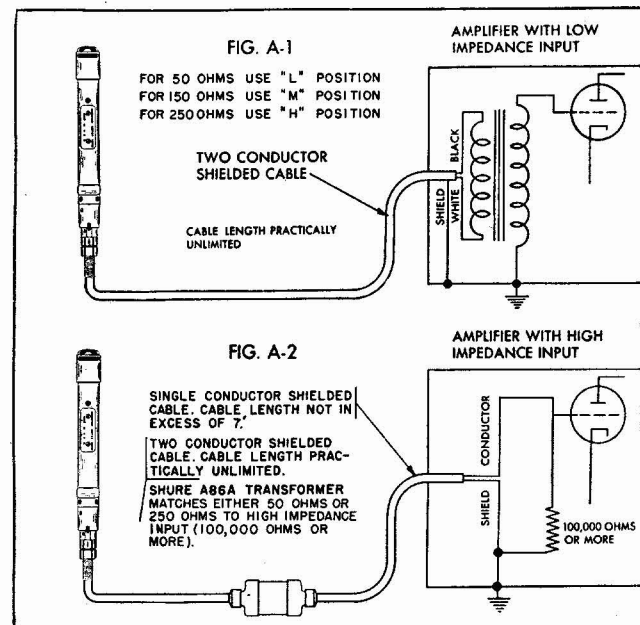


FIG. A

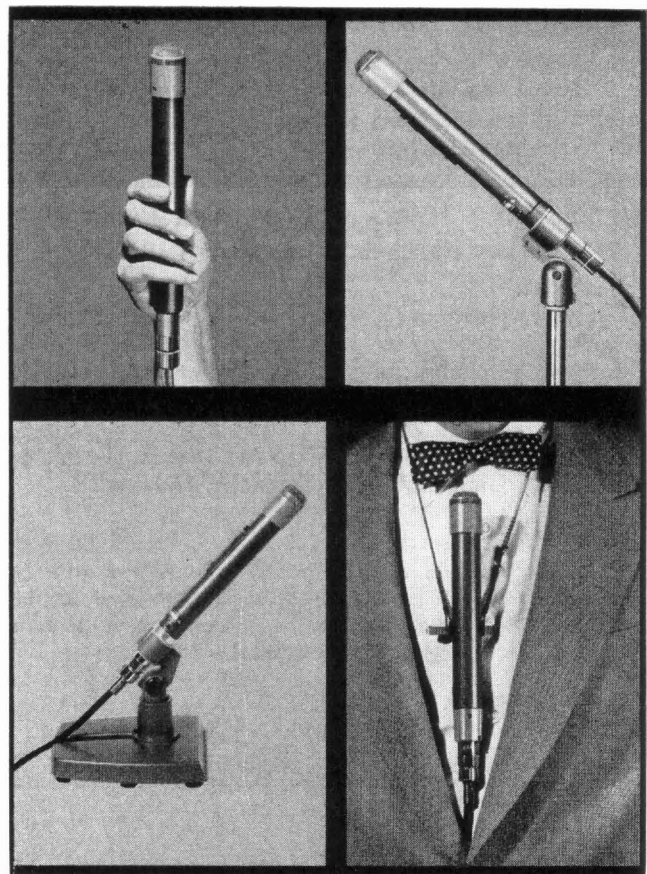


FIG. B

Connections: The Model "525" Microphone is a multi-impedance microphone. It may be connected directly to a 50 ohm line, a 150 ohm line, or a 250 ohm line. Selection of these impedances is accomplished by removing the impedance-switch cover-plate on the microphone and changing the position of the switch. The switch positions are marked "L" for low impedance (50 ohms) and "M" for medium impedance (150 ohms) and "H" for 250 ohms.

The microphone plug is the Cannon XL-3-11 plug. The cable shield is connected to the No. 1 pin; the black conductor is connected to the No. 2 pin; and the white conductor is connected to the No. 3 pin (See Fig. D).

The No. 1 pin of the microphone receptacle is connected to the microphone case. Pins No. 2 and No. 3 are connected to the internal elements and the microphone may be used with a balanced line. The Model "525" may be connected directly to a standard low or medium impedance input amplifier (Fig. A-1).

If additional lengths of cable are required (and to achieve maximum freedom from hum disturbances and internal cable noises) use broadcast quality two conductor shielded cable (such as supplied with the microphone). In this case, the shield of the cable must be connected to Pin No. 1 of the microphone plug. The two "hot" conductors should be connected to Pins No. 2 and No. 3. The permissible cable length is practically unlimited, since neither response nor level is appreciably affected.

For use with high impedance amplifiers, Shure Model A86A Cable-Type Transformer is available for coupling the low impedance line to the amplifier input as shown in Fig. A-2. The double winding primary of the Shure Model A86A Cable-Type Transformer permits coupling a 50 ohm line or a 250 ohm line to the high impedance input.

The shield, chassis or amplifier ground should be securely connected to a water pipe or similar ground to prevent shock hazard during operation of amplifying system.

When used with amplifiers using the grid leak type of bias at the input tube, it may be desirable to use .01 mfd. condenser between the microphone and the input grid circuit.

Operation: No special precaution beyond ordinary care is necessary in the operation of the Model "525" Microphone. It will operate efficiently and dependably under all ordinary conditions in hot and cold climates. To retain the full strength of the highly efficient permanent magnet and to maintain alignment of the structure, dropping or other severe mechanical shocks should be avoided.

The swivel adapter fits conventional floor stands, desk stands, and the Shure S33 Desk Stand. The microphone may be easily and instantly removed from this adapter for use as a hand microphone simply by pulling the microphone out of the adapter. Additional versatility in the use of the microphone is obtained by using the lavalier cord in applications where freedom of both hands is necessary. Fig. B illustrates use of these accessories.

Guarantee: Each microphone is guaranteed to be free from electrical and mechanical defects for a period of one year from date of shipment from 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 is subjected to accident or abuse or if the case is opened.

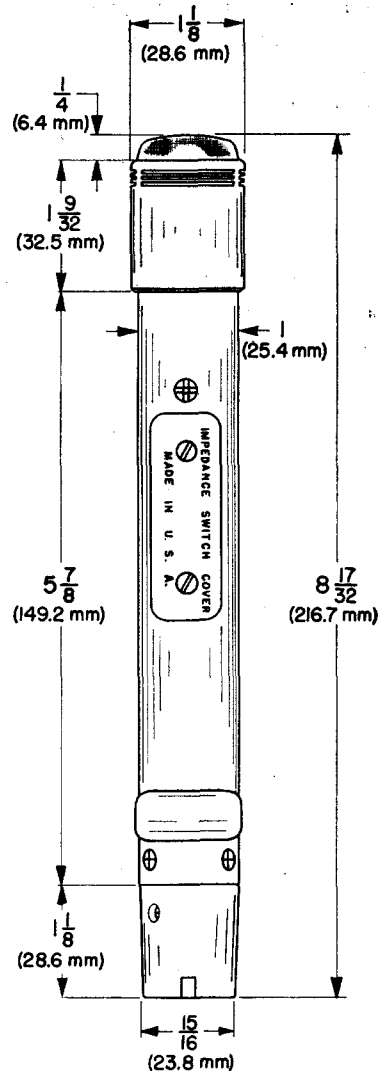


FIG. C

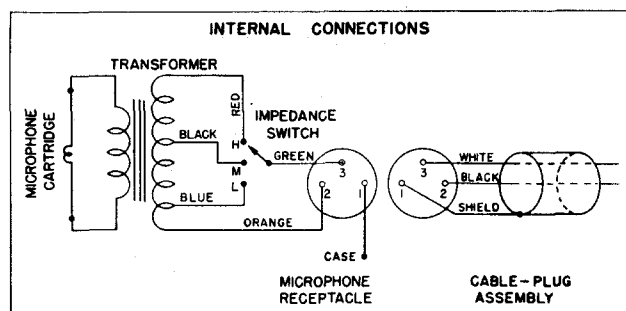


FIG. D

MODEL 525

Architect's Specifications

The microphone shall be a moving coil type microphone with a frequency range of 40 to 15,000 c.p.s. This unit shall have an omni-directional horizontal polar characteristic. The microphone shall be equipped with a three-position impedance change switch for adjusting the microphone impedance to 50 ohms, 150 ohms, or 250 ohms. The microphone rating G_M (sensitivity) at 1000 c.p.s. shall be within ± 2 db of the following levels.

"L" Position of switch.....—153 db

"M" Position of switch.....—154 db

"H" Position of switch.....—152 db

RETMA Standard SE-105 August 1949.

The microphone shall be provided with a swivel adapter adjustable through 90° from vertical to horizontal, a lavalier cord, a belt clip, and a detachable Cannon cable connector capable of connecting to a two-conductor shielded cable.

The microphone swivel adapter will mount on a stand having $\frac{5}{8}$ "-27 thread. The overall dimensions shall be $8\frac{17}{32}$ (216.7mm) $\pm \frac{1}{4}$ (6.4mm) inches in length, and 1 (25.4mm) $\pm \frac{1}{8}$ (3.2mm) inches in diameter.

SHURE

The Mark of Quality