

# SHURE®

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## Model 515SD User Guide

### GENERAL

The Model 515SD UNIDYNE® Microphone is a dual-impedance, cardioid (unidirectional) dynamic type that provides excellent reproduction of voice and music. This microphone is highly suited for speech or music pickup in schools, churches, and meeting rooms, and for sound reinforcement, broadcast, or recording of small musical groups. Its unidirectional polar pattern greatly reduces feedback problems, permitting operation closer than usual to loudspeakers without the annoying squeal or howl caused by feedback.

The microphone is equipped with a combination On/Off and Impedance-Selection switch with a lockplate preventing inadvertent switching to the undesired impedance. A slip-in swivel adapter is supplied for the convenience of either handheld or stand-mounted use. The microphone is supplied without a cable, packaged as Model 515SD-LC.

#### Microphone Features:

- Wide frequency response designed for faithful, intelligible, and natural pickup of voice or music
- Symmetrical cardioid pickup pattern minimizes feedback
- Rolled-off low-frequency response reduces proximity effect (response rise from microphones used closeup)
- Shock-mounted cartridge for quiet operation, low stand or handling noise
- Combination On/Off and Impedance-Selection switch, with provision for locking out undesired impedance and locking switch On
- Slip-in swivel adapter for easy positioning and for simple handheld or stand-mounted use
- Three-pin professional audio connector, the industry standard, for maximum interchangeability of cables
- Field serviceable, and backed by the Shure guarantee

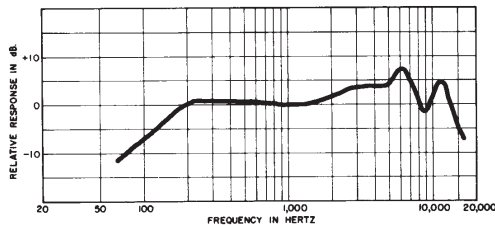
### SPECIFICATIONS

#### Type

Dynamic

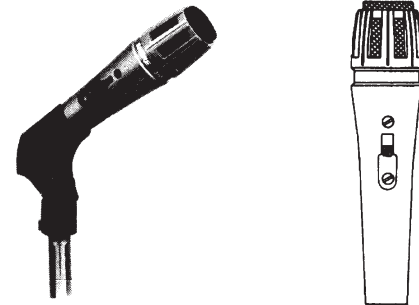
#### Frequency Response

80 to 13,000 Hz (see Figure 1)



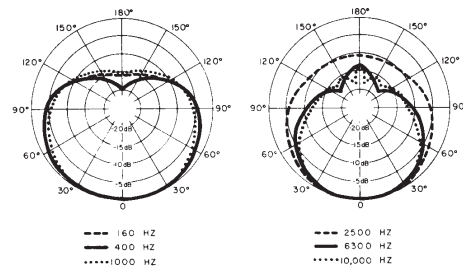
TYPICAL FREQUENCY RESPONSE  
FIGURE 1

### MODEL 515SD UNIDIRECTIONAL DYNAMIC MICROPHONE



#### Polar Pattern

Cardioid (unidirectional)—uniform with frequency, symmetrical about axis (see Figure 2)



TYPICAL POLAR PATTERNS  
FIGURE 2

#### Impedance

LO Z: Microphone rating impedance is 150 ohms (170 ohms actual) for connection to microphone inputs rated at 75 to 300 ohms

HI Z: Microphone impedance is "High" for connection to high-impedance microphone inputs

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

	LO Z	HI Z
Open Circuit Voltage* . . . . .	-82.5 dB (0.074 mV)	-59.0 dB (1.1 mV)
Power Level** . . . . .	-61.0 dB	

\*0 dB = 1V/ $\mu$ bar

\*\*0 dB = 1 mW/10  $\mu$ bar

#### Phasing

Positive pressure on the diaphragm produces positive voltage:

- on pin 2 with respect to pin 3 — LO Z;
- on pin 1 with respect to pin 3 — HI Z

#### Switch

Built-in On/Off, Impedance-Selection switch with lockplate to lock out undesired impedance, and option to lock switch On

#### Connector

Three-pin professional (XLR) type

#### Cartridge Shock Mount

Internal rubber vibration-isolator

## Swivel Adapter

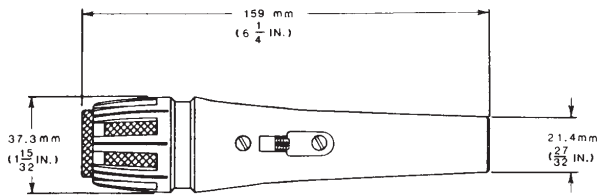
Positive action, adjustable through 90° from vertical to horizontal, slip-out removal for handheld use, suitable for mounting on stand with 5/8"-27 thread

## Case

Platinum beige enamel die casting with platinum beige ARMO-DUR® grille and stainless steel screen

## Dimensions

See Figure 3



OVERALL DIMENSIONS  
FIGURE 3

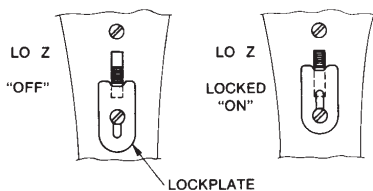
## Net Weight

256 grams (9 oz)

## IMPEDANCE SELECTION AND SWITCH LOCKING

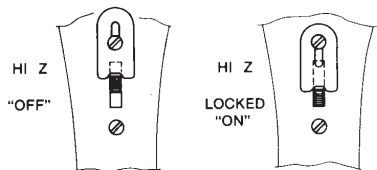
The microphone is shipped with the switch locked in the low-impedance (LO Z) position.

- A. To lock the switch "On" in low impedance,
1. Loosen the screw holding the lockplate.
  2. Move the switch button to "On."
  3. Slide the lockplate up until the notch butts against the button.
  4. Tighten the screw.



LOW-IMPEDANCE LOCKPLATE POSITIONS  
FIGURE 4

- B. To change the switch to the high-impedance (HI Z) position,
1. Remove the screw holding the lockplate.
  2. Move the switch to the "Off" (Center) position.
  3. Remove the lockplate and replace the screw.
  4. Remove the screw at the top of the switch.



HIGH-IMPEDANCE LOCKPLATE POSITIONS  
FIGURE 5

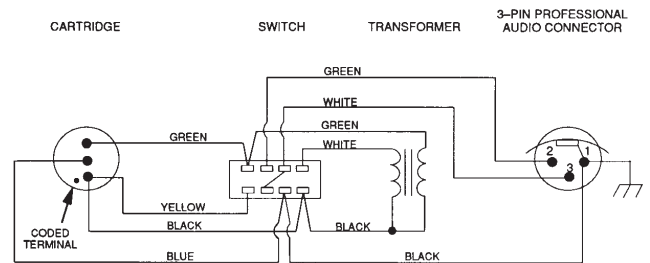
5. Place the lockplate in position\* with the notch toward the switchbutton.
6. Replace and tighten the screw.

\*The lockplate has two positions, just as in low-impedance above: either locked in high impedance, or locked "On" in high impedance.

## PHASING

To test two microphones 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, the microphones are out of phase. All microphones should be tested in this manner to insure that they are in phase with each other.

To change the phase of a balanced low-impedance microphone, interchange the cable conductor leads at one end of the cable. To change the phase in the microphone, the microphone cartridge leads must be interchanged (see Figure 6). This should be performed by your dealer, the Shure Factory Service Department, or other qualified service personnel.



INTERNAL CONNECTIONS  
FIGURE 6

## FURNISHED ACCESSORY

Swivel Adapter..... A25C

## OPTIONAL ACCESSORIES

Line Matching Transformer ..... A95 Series  
 Windscreen ..... A1WS  
 Dual Mount ..... A26M  
 Desk Stand ..... S37A  
 Vibration-Isolation Stand ..... S39A  
 Cable: 4.6m (15 ft) or 6.1m (20 ft)  
 1-conductor with phone plug  
 (High Impedance) ..... C15A, C20B  
 7.6m (25 ft) 2-conductor  
 with 3-pin professional audio connectors  
 (Low Impedance) ..... C25J, C25F

## REPLACEMENT PARTS

Cartridge ..... R15  
 Screen and Grille Assembly ..... RK254G  
 For additional service or parts information, please contact Shure's Service Department at 1-800-516-2525. Outside the United States, please contact your authorized Shure Service Center.