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Models 565D and 565SD User Guide

UNIDIRECTIONAL DYNAMIC MICROPHONES

MODEL 565D-LC

MODEL 565SD-LC

GENERAL

The UNISPHERE® I Models and 565SD are dual-impedance unidirectional dynamic microphones shipped connected for low-impedance operation. The microphones have a strong, wire-mesh spherical front grille that contains a very effective filter designed to provide excellent protection from wind and "pop" (explosive breath sounds). Either unit provides wide range reproduction of music and voice—can be effectively used outdoors and indoors.

The UNISPHERE I is ideal for use by professional entertainers in high-quality theater-stage sound systems and recording, as well as in critical public address systems such as those used in political conventions and legislatures, convention halls, hotels, public auditoriums, stadiums, cathedrals, and churches.

The UNISPHERE I features an exceptionally uniform pickup pattern—provides an effective solution to feedback problems in reverberant locations, permits best utilization of space in small studios, facilitates orchestral placement, and provides practically complete exclusion of unwanted noises.

Model 565D is designed for applications where a switch is not required. Model 565SD is equipped with a magnetic reed On-Off switch.

VARIATIONS

Model 565SD-CN: Supplied with cable, professional three-pin audio connector on equipment end of cable. (See Specifications for details on cable.)

Model 565SD-LC: Same as Model 565SD-CN, except supplied without cable.

Model 565D-LC: Supplied without switch or cable.

Microphone Features:

- Wire-mesh screen and built-in filter provides protection from wind and "pop" (explosive breath sounds). Enables singers and speakers to perform close to the microphone
- Unusually effective cardioid pickup pattern reduces feedback (annoying loudspeaker "squeals") and prevents echoing (boominess) that sometimes occurs in partially filled halls. Can also be used closer to loudspeakers than usual without creating feedback problems
- Excellent reproduction of voice and music
- Shock-mounted cartridge for quiet operation
- Quick, neat, solderless impedance selection
- Built-in long-life magnetic reed On-Off switch (565SD)
- Rugged professional three-pin audio connector on the microphone
- Strong, detachable cable especially selected for effective shielding from hum pickup (565SD-CN)
- Versatility—for use in the hand or on a stand—indoors or outdoors
- Available in three versions: without switch or cable (565D-LC), with switch and three-pin professional audio connector on equipment end of cable (565SD-CN), and with switch but without cable (565SD-LC)

27A2747 (QH)

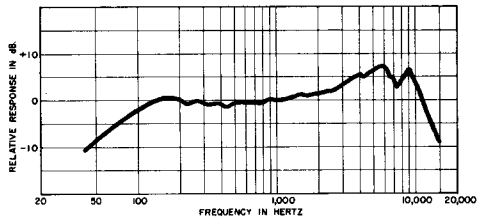
CE

Printed in U.S.A.

SPECIFICATIONS

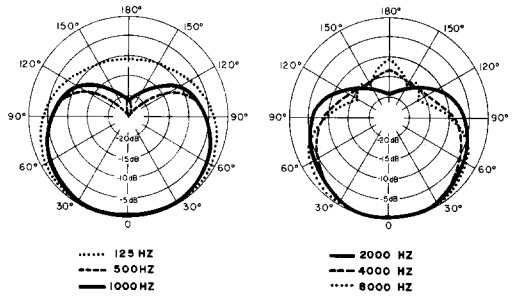
Type
Dynamic

Frequency Response
50 to 15,000 Hz (see Figure 1)



TYPICAL FREQUENCY RESPONSE
FIGURE 1

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



TYPICAL POLAR PATTERNS
FIGURE 2

Impedance
Dual. Microphone rating impedance is 150 ohms (250 ohms actual) for connection to microphone inputs rated at 19 to 300 ohms and "High" for connection to high-impedance microphone inputs.

Wired for low impedance as supplied. To change impedance, see sections on Impedance Selection and Connections.

Output Level (at 1,000 Hz)

	"L"	"H"
Open Circuit Voltage*	−76.0 dB (0.16 mV)	−54.0 dB (2.0 mV)
Power Level**	−56.0 dB	

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

Phasing
Positive pressure on diaphragm produces positive voltage on pin 2 in low impedance and on pin 1 in high impedance (with respect to pin 3). See Figure 5.

Switch
565SD: Built-in magnetic reed On-Off switch with lockplate. To lock switch in On position, remove screw on lockplate and turn lockplate 180°. Reassemble and tighten screw.

Cartridge Shock Mount
Internal rubber vibration-isolator

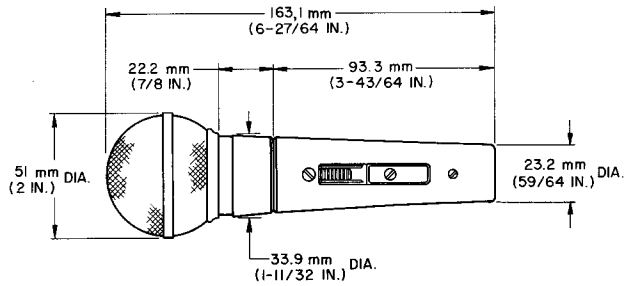
Cable
565SD-CN: 6.1m (20 ft) two-conductor shielded, rubber-jacketed, detachable, with professional three-pin audio connectors* on microphone and equipment ends

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

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

Case
Chrome-plated die casting with steel mesh grille

Dimensions
See Figure 3



OVERALL DIMENSIONS
FIGURE 3

Net Weight (less cable)
298 grams (10½ oz)

Packaged Weight
565SD-CN: 1106 grams (2 lb, 7 oz)
565D-LC and 565SD-LC: 620 grams (1 lb 6 oz)

Certification
Conforms to European Union directives, eligible to bear CE marking; meets European Union EMC Immunity Requirements (EN 50 082–1, 1992); RF radiated (IEC 801–3); ESD (IEC 801–2); EFT (IEC 801–4).

IMPEDANCE SELECTION

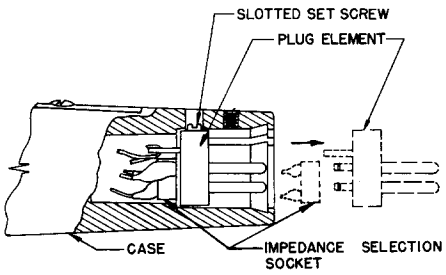
The microphones are shipped connected for low-impedance operation. To change to high impedance (see Figures 4 and 5), proceed as follows:

1. Remove plug element at receptacle end of microphone by turning slotted setscrew in (counterclockwise) and carefully withdrawing plug element from case.

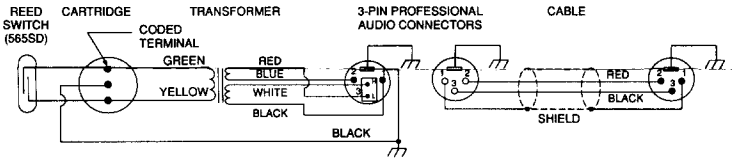
2. Disconnect 2-terminal impedance selection socket from rear of plug element.

3. Reconnect 2-terminal impedance selection socket in reverse position so that pin 3 of plug element is inserted in socket terminal "H".

4. Reassemble plug element into microphone and seat setscrew securely by turning out (clockwise).



IMPEDANCE SELECTION – RECEPTACLE END OF MICROPHONE
FIGURE 4



INTERNAL CONNECTIONS
FIGURE 5

CONNECTIONS

When using the microphone in low impedance, the cable conductors from connector pins 2 and 3 are the audio signal carriers. Connect the shield to amplifier or chassis ground.

When using the microphone in high impedance, the cable conductor from pin 3 and the shield are the audio signal carriers. Connect the conductor from pin 3 to the "hot" amplifier input; connect the shield to amplifier or chassis ground. The unused lead attached to pin 2 should be insulated before attaching a connector to a cable.

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, either the microphones or their cables (low impedance only) are 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 A15PRS 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.

FURNISHED ACCESSORY

Swivel Adapter A25B

OPTIONAL ACCESSORIES

Line Matching Transformer ..... A95 Series
Desk Stand S37A, S39A
Isolation Mount A55HM, A55M
Dual Mount A26M
Windscreen ..... A58WS Series

REPLACEMENT PARTS

	565D-LC	565SD-LC	565SD-CN
Cartridge	R65	R65	R65
Cable	–	–	C20H
Screen and Grille	RS65	RS65	RS65
Plug Element	RK169P	RK169P	RK169P

ARCHITECTS' SPECIFICATIONS

The microphone shall be a moving coil (dynamic) type with a frequency response of 50 to 15,000 Hz. The unit shall have a cardioid polar characteristic. The cancellation at the sides shall be approximately 6 dB, and the cancellation at the rear shall be 15 to 20 dB. The microphone shall be dual impedance with a rated impedance of 150 ohms for connection to microphone inputs rated at 19 to 300 ohms and "High" for connection to high-impedance microphone inputs. Impedance change shall be solderless at the microphone connector.

The microphone output shall be:

Low Impedance ..... –56.0 dB
(0 dB = 1 milliwatt per 10 microbars)

High Impedance ..... –54.0 dB
(0 dB = 1 volt per microbar)

The microphone shall have a three-pin professional audio connector*. Models 565SD-CN and 565SD-LC shall be equipped with a magnetic reed On-Off switch.

The microphone shall be provided with a swivel adapter, adjustable through 90° from vertical to horizontal, and suitable for mounting on a stand having a 5/8"-27 thread.

The overall dimensions of the microphone shall be 162 mm (6-23/64 in.) in length and 51 mm (2 in.) in diameter.

The microphone shall be the Shure Model 565D-LC, 565SD-CN, 565SD-LC or equivalent.

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