



GENERAL

The Beta 57 is a premium quality supercardioid, dynamic microphone, ideal for musical instrument applications. A superefficient magnetic circuit design utilizing a neodymium magnet provides maximum output voltage for improved signal-to-noise ratio in recording and sound reinforcement applications. Unlike many other supercardioid microphones, the Beta 57 retains a true supercardioid (unidirectional) pickup pattern throughout its frequency range.

The Beta 57 smooth wide frequency response is optimized for musical instrument recording and sound reinforcement applications. Additionally, many sound engineers prefer the Beta 57 as an alternative to traditional microphones for vocal applications. And the uniform supercardioid pattern greatly reduces off-axis coloration, increases separation between adjacent sources, and reduces feedback.

Several new Beta 57 features combine to reduce unwanted noises. The built-in humbucking coil reduces hum pickup in strong fields. Moreover, a newly designed electro-pneumatic shock mount effectively minimizes mechanically transmitted stand and handling noise. The microphone's uniquely handsome and rugged grille is precisely machined from extra-strong and dent-resistant steel for extended life and durability.

High output, low electromagnetic hum pickup, and uniform supercardioid pickup pattern work together in synergy to optimize performance of the Beta 57.

Microphone features:

- Wide and smooth frequency response adds extra clarity and naturalness to microphone pickup
- High efficiency magnetic circuit using neodymium-iron-boron magnet increases output, maximizes signal-to-noise ratio with any amplifier
- Supercardioid pattern remains uniform and symmetrical throughout the microphone's frequency range to reduce off-axis coloration and feedback, while improving separation from other sound sources
- Improved pop protection compared to other instrument microphones
- Unique and stylish grille of extra-rugged chrome-plated steel
- Humbucking coil permits use even in strong hum fields produced by lighting and power equipment
- Advanced electro-pneumatic shock mount design effectively minimizes transmission of handling or stand noise
- Extremely rugged and durable
- Admirable performance in the studio or on stage
- Legendary Shure reliability for years of trouble-free performance

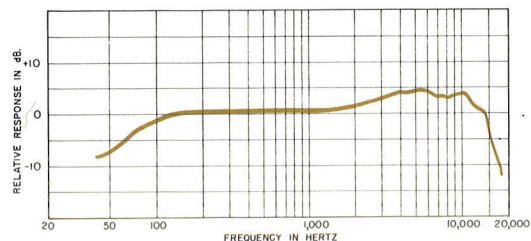
MODEL BETA 57 SUPERCARDIOID DYNAMIC MICROPHONE



SPECIFICATIONS

Type
Dynamic

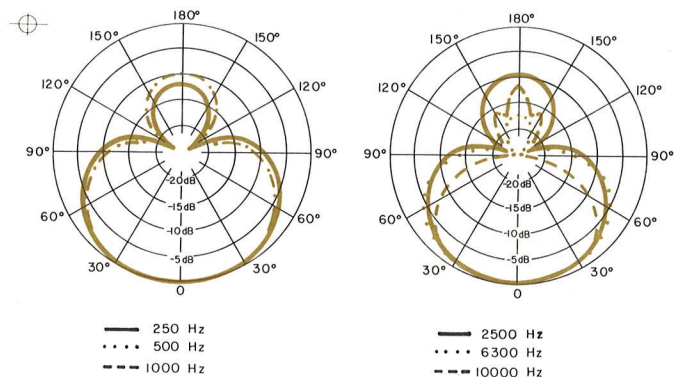
Frequency Response
50 to 16,000 Hz (see Figure 1)



TYPICAL FREQUENCY RESPONSE
FIGURE 1

Polar Pattern

Supercardioid, rotationally symmetrical about microphone axis, uniform with frequency (see Figure 2)



TYPICAL POLAR PATTERNS
FIGURE 2

SHURE
MODEL BETA 57
SUPERCARDIOID DYNAMIC MICROPHONE

222 HARTREY AVENUE, EVANSTON, ILLINOIS 60202-3696 U.S.A.

Impedance

Microphone rating impedance is 150 ohms (290 ohms actual) for connection to microphone inputs rated at 75 to 300 ohms

Output Level (at 1,000 Hz)

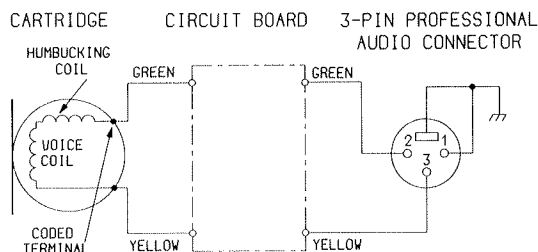
Open Circuit Voltage -71.5 dB*
 (0.27 mv)
 Power Level -52.0 dB**
 *0 dB = 1 volt/microbar
 **0 dB = 1 milliwatt/10 microbar

Hum Pickup (typical)

14 dB equivalent SPL per millioersted

Phasing

Positive pressure on diaphragm produces positive voltage on pin 2 with respect to pin 3 (see Figure 3)



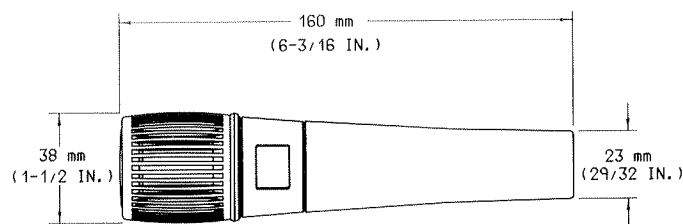
INTERNAL CONNECTIONS
FIGURE 3

Case

Silver blue enamel painted die casting and chrome-plated steel grille

Dimensions

See Figure 4



OVERALL DIMENSIONS
FIGURE 4

Swivel Adapter

Slip in positive-action, adjustable from 0 to 90°, with standard 5/8"-27 thread

Net Weight

260 grams (9.2 oz)

FURNISHED ACCESSORIES

Swivel Adapter A25B
 Protective Bag 26A15

OPTIONAL ACCESSORIES

Windscreen A58WS
 Desk Stand S37A, S39A
 Isolation Mount A55M, A55HM
 Dual Mount A25M
 Cable (7.6 m (25 ft)) C25F

REPLACEMENT PARTS

Cartridge R155
 Screen and Grille Assembly RK157G
 Case Assembly (includes pc board and plug) . . . RK276C
 Plug Assembly 90A1984

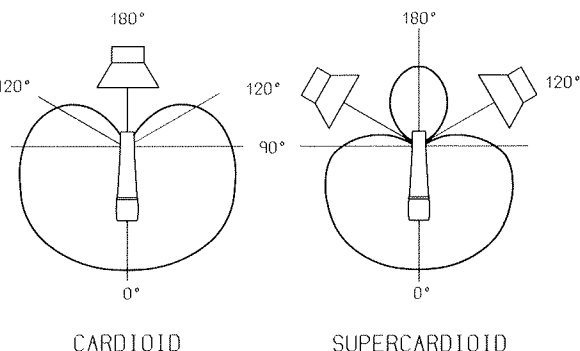
PROXIMITY EFFECT

When unidirectional microphones are used close to the sound source, there is an increase in low-frequency (bass) output. The increase, called proximity effect, is typically from 6 to 10 dB at 100 Hz when the microphone is at a distance of about 6 mm (1/4 in.) from the source compared to a microphone at 0.6 m (24 in.) from the source. This emphasis can be used by instrumentalists to provide a flat or boosted bass output without tone controls, merely by changing the distance between source and microphone. It can also increase "warmth" and give a fuller quality to the voice.

Without some low-frequency attenuation, a directional microphone would sound quite "boomy" when used in a typical closeup position. The Shure Beta 57 is designed with an optimum rolloff of bass response that provides control at low frequencies yet still allows proximity effect to be used advantageously when desired. Careful listening in practice sessions will allow each performer to determine the most advantageous working distance and use of proximity effect for each individual application.

STAGE MONITOR SPEAKERS AND THE SUPERCARDIOID MICROPHONE

Maximum unwanted-sound rejection for a true supercardioid microphone occurs at approximately 120° off-axis from the front of the microphone. This differs from the 180° maximum rejection for the more common cardioid microphone. Thus, for maximum feedback rejection when using a supercardioid microphone, the best location for the stage monitor is at about a 60° angle to the rear of the microphone rather than directly behind it. (See Figure 5.) Always check out the stage setup before a performance to ensure that placement of microphone and monitors is optimum for the particular polar pattern of the microphone.



PREFERRED STAGE MONITOR LOCATIONS FOR
 CARDIOID AND SUPERCARDIOID MICROPHONES
FIGURE 5