



Shure Brothers Incorporated
 222 Hartrey Avenue
 Evanston IL 60202-3696 U.S.A.

Model BETA 58A[®] User Guide



MODEL BETA 58A[®] SUPERCARDIOID DYNAMIC VOCAL MICROPHONE

GENERAL

The Shure BETA 58A is a high output supercardioid dynamic vocal microphone designed for professional sound reinforcement and project studio recording. It maintains a true supercardioid pattern throughout its frequency range. This insures high gain before feedback, maximum isolation from other sound sources, and minimum off-axis tone coloration. The BETA 58A has a shaped frequency response that is ideal for close-up vocals. The superb performance of this microphone is not affected by rough handling because of its rugged construction, proven shock mount system, and hardened steel mesh grille. Typical applications for the BETA 58A include lead vocals, backup vocals and speech.

FEATURES:

- Frequency response tailored for vocals, with brightened midrange and bass rolloff to control proximity effect
- Uniform supercardioid pattern for high gain before feedback and superior rejection of off-axis sound
- Neodymium magnet for high signal-to-noise output
- Hardened steel mesh grille that resists wear and abuse
- Advanced pneumatic shock mount system that minimizes transmission of mechanical noise and vibration
- Minimally affected by varying load impedance
- Legendary Shure quality and reliability

APPLICATION AND PLACEMENT

The BETA 58A is designed for close-up vocals, and can be hand held or mounted on a stand. Some of the most common applications and placement techniques are listed in the fol-

lowing table. Keep in mind that microphone technique is largely a matter of personal taste—there is no one “correct” microphone position.

SUGGESTED MICROPHONE PLACEMENT	TONE QUALITY
Lips less than 6 inches (15 cm) away or touching the windscreen, on axis to microphone.	Robust sound, emphasized bass, maximum isolation from other sources.
6 inches to 2 feet (15 to 60 cm) away from mouth, just above nose height.	Natural sound, reduced bass.
8 inches to 2 feet (20 to 60 cm) away from mouth, slightly off to one side.	Natural sound, reduced bass and minimal “s” sounds.
3 to 6 feet (90 cm to 1.8 m) away.	Thinner, distant sound; noticeable levels of ambient noise.

GENERAL RULES FOR MICROPHONE USE

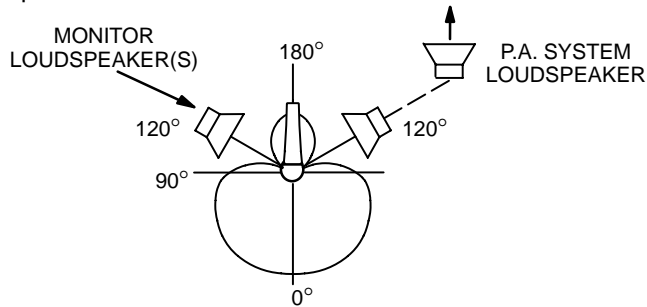
1. Aim the microphone toward the desired sound source and away from unwanted sources. Since supercardioid microphones such as the BETA 58A have narrow pickup patterns and can pick up sounds from the rear, this may not be obvious or intuitive. Refer to Figure 1.
2. Place the microphone as close as practical to the desired sound source. Refer to the table above.
3. Work close to the microphone for extra bass response.
4. Use only one microphone to pick up one sound source.
5. Keep the distance between microphones at least three times the distance from each source to its microphone.
6. Use the fewest number of microphones as is practical.
7. Place microphones as far as possible from reflective surfaces.
8. Add a windscreen when using the microphone outdoors.
9. Avoid excessive handling to minimize pickup of mechanical noise and vibration.
10. Do not cover any part of the grille with your hand.

PROXIMITY EFFECT

Unidirectional microphones such as the BETA 58A progressively boost bass frequencies by 6 to 10 dB at 100 Hz when the microphone is at a distance of about 6 mm (1/4 in.) from the sound source. This phenomenon, known as proximity effect, can be used to create a warmer, more powerful sound. To prevent explosive low frequency sound during close-up use, the BETA 58A bass response gradually rolls off. This provides greater control and helps the user take advantage of proximity effect.

STAGE MONITOR & P.A. LOUDSPEAKER PLACEMENT

For maximum rejection of unwanted sound, place the stage monitor(s) or P.A. system loudspeaker at a 60° angle from the rear of the BETA 58A, *not* directly behind it (see Figure 1). Always check out the stage setup before a performance to ensure that microphone and monitor placement is optimum.



RECOMMENDED LOUDSPEAKER LOCATIONS
FIGURE 1

SPECIFICATIONS

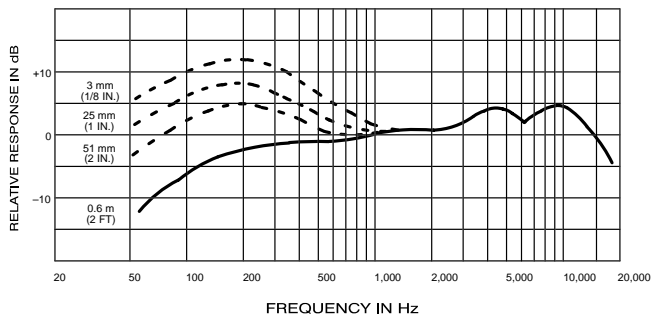
Type

Dynamic (moving coil)

Frequency Response

50 to 16,000 Hz (see Figure 1)

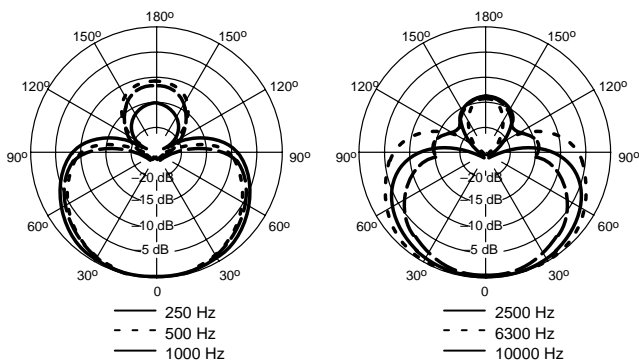
NOTE: The curve below shows on-axis response at a distance of 2 feet from a uniform sound source. Your response may vary, depending on microphone position.



TYPICAL FREQUENCY RESPONSE
FIGURE 2

Polar Pattern

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



TYPICAL POLAR PATTERNS
FIGURE 3

Output Level (at 1,000 Hz)

Open Circuit Voltage: -51.5 dBV/Pa^* (0.27 mV)

*1 Pa = 94 dB SPL

Impedance

Rated impedance is 150Ω (290Ω actual) for connection to microphone inputs rated low Z

Phasing

Positive pressure on diaphragm produces positive voltage on pin 2 with respect to pin 3

Case

Silver blue enamel-painted die cast metal with hardened, matte-finished, spherical steel mesh grille

Adjustable, Stand Adapter

Slip-in microphone mounting, unbreakable, adjustable through 180° with standard 5/8"-27 thread, black finish

Net Weight

278 grams (9.92 oz)

Certification

Conforms to European Union directives, eligible to bear CE marking; meets European Union EMC Immunity Requirements (EN 50 082-1, 1992)

FURNISHED ACCESSORIES

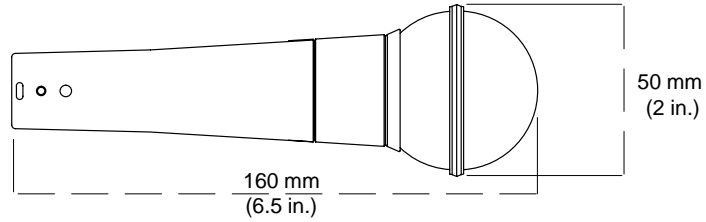
Adjustable Stand Adapter A25D
5/8" to 3/8" (Euro) Thread Adapter 95A2050
Storage Bag 26A21

OPTIONAL ACCESSORIES

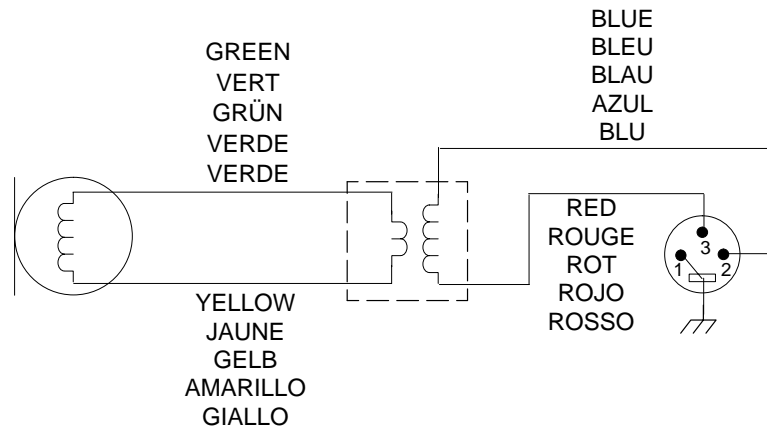
Windscreen A58WS Series (8 colors available)
Isolation Mount A55M, A55HM
7.6 m (25 ft) Cable C25E, C25F

REPLACEMENT PARTS

Cartridge R176
Grille Assembly RK265G
Plug (Connector) Assembly 90F1984



**OVERALL DIMENSIONS
DIMENSIONS HORS TOUT
GESAMTABMESSUNGEN
DIMENSIONES TOTALES
DIMENSIONI TOTALI**



**INTERNAL CONNECTIONS
CONNEXIONES INTERNES
INTERNE SCHALTUNGEN
CONEXIONES INTERNAS
COLLEGIAMENTI INTERNI**