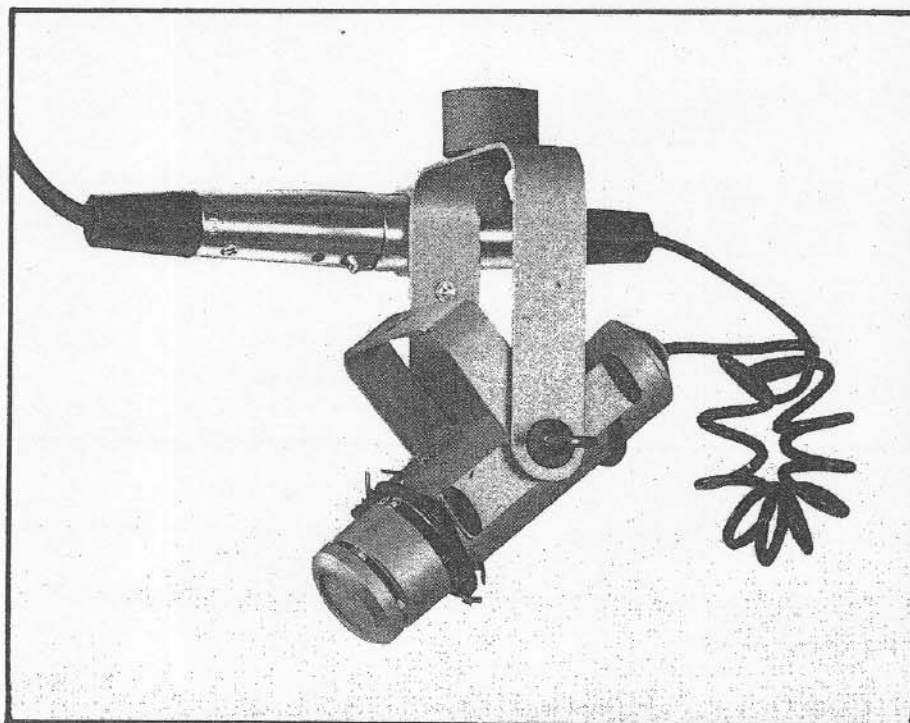




Electro-Voice®
a gulton company

Model CH15S Condenser Hypercardioid System

SPECIFICATIONS

Element:

Condenser (electret)

Frequency Response:

-10 dB at 70 Hz

-6 dB at 100 Hz

150 Hz to 13.5 kHz ± 3 dB

(See Figure 2)

Polar Pattern:

(See Figure 3)

Impedance:

150 ohms

Output Level:

-38 dB Ref

(0 dB = 1 mW/10 dynes/cm²)

EIA Sensitivity Rating:

-130 dB

Maximum SPL:

136 dB SPL

(1% THD @ 1 kHz open circuit)

S/N Ratio:

78 dB "A" weighted

Dynamic Range:

120 dB

Operating Voltage:

AB or Phantom mode

(See SE15A Engineering Data Sheet)

Materials,

Microphone Case:

Steel

Microphone element:

Steel

Shock Mount:

Steel & Neoprene

Windscreen:

Acoustifoam™

Finish:

Fawn beige micomatte

Dimensions:

99 mm (3.9") long

26.8 mm (1.06") largest diameter

Weight,

Microphone only:

161 g (5.7 oz)

System (w/case):

290 g (10.2 oz)

Connector:

Switchcraft A3M

DESCRIPTION AND APPLICATIONS

The Model CH15S Condenser Hypercardioid Microphone is a breakthrough in hypercardioid microphone design.

The CH15S microphone maintains an uncommonly uniform hypercardioid pattern throughout its entire operating frequency range (See Fig. 3). This near-theoretical to theoretical hypercardioid performance throughout the frequency range coupled to the very short length of the entire unit make it extremely versatile in numerous applications.

The CH15S offers wide response, precise control of polar characteristics, high output level, and an extremely impressive directivity index. The extremely uniform directivity (with frequency) gives the microphone near ideal rejection (off-axis sound has nearly identical response with on-axis sound, but is heavily attenuated).

Special considerations are made to achieve the highest directionality at even the lowest frequencies. Maximum attenuation occurs at 120 degrees off-axis where such rejection is often most useful.

The CH15S hypercardioid system comes complete. Included in the package are

not only the microphone, but the excellent 304 miniature shock mount and the versatile foam-lined utility storage case. The Model 315A windscreen is also included.

APPLICATION NOTES

The CH15S is shipped assembled in its own shock mount. The utility case is designed to house the microphone with the shock mount attached (or disassembled). There is room in the storage case to include several other heads for the condenser system.

The electronics portion of the CH15S (SE15A) uses a small coil cord as an integral part of the unit. **NOTE: In order for maximum shock isolation, the special coil cord supplied must be used.**

The coil cord is designed to reduce shock transference from the shock mount bail to the microphone through the cable. One end of the cord is "hard-wired" into the rear of the electronics. The other end uses a Switchcraft A3M connector. The A3M connector may be held on the shock mount bail with the special white cable clamp. Regular microphone cable may be run from that point. For special applications the small coil cord may be removed from the electronics and a small connector installed in its place. (See SE15A Engineering Data Sheet).

The CH15S may be used in its shock mount attached to a fish pole, a boom head, or mounted to a floor stand. The shock mount design takes into consideration the necessity for rapid movement of the microphone by maintaining good balance and a proper center of gravity.

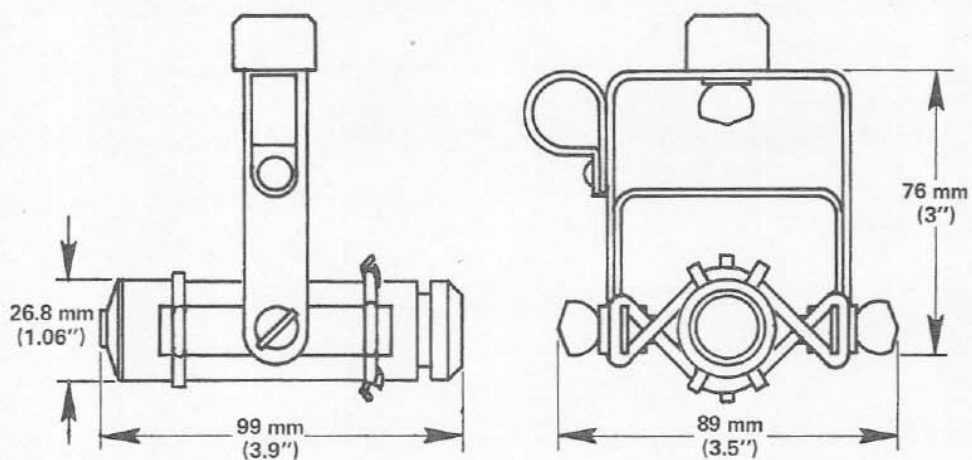


FIGURE 1 — Dimensions

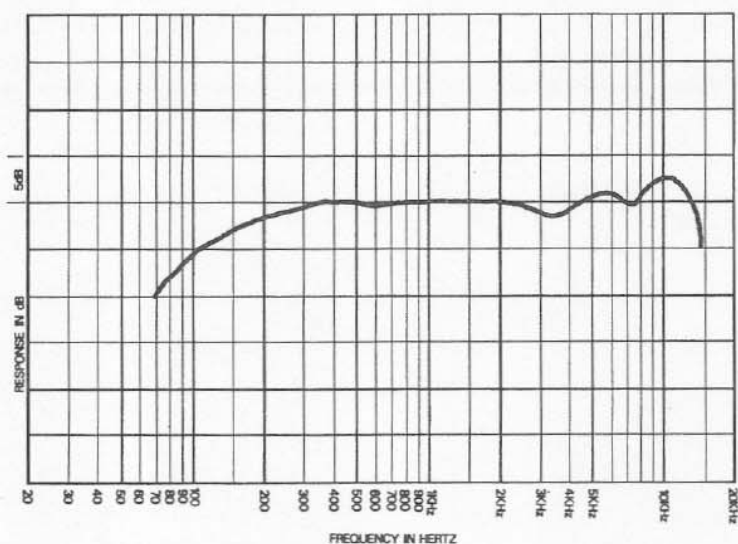


FIGURE 2 — Frequency Response

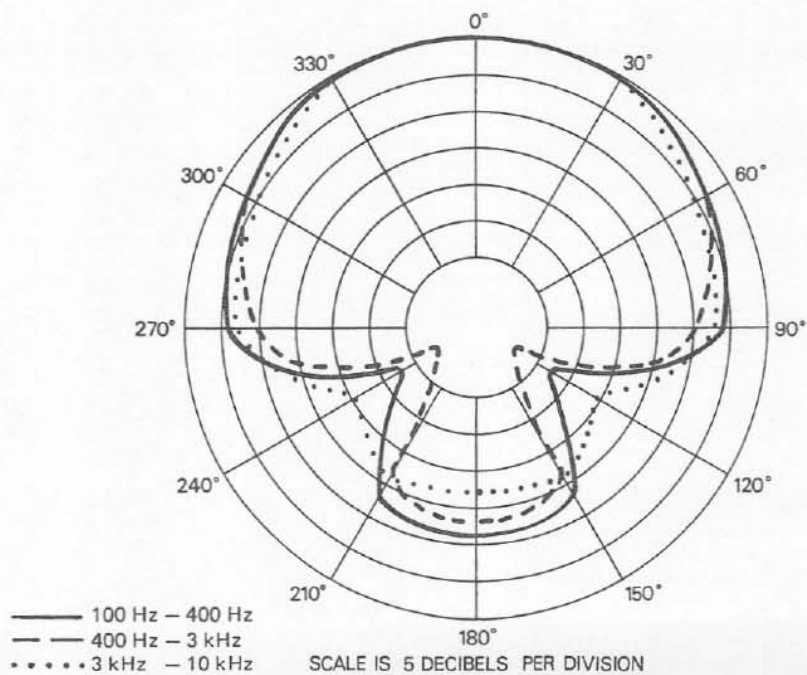
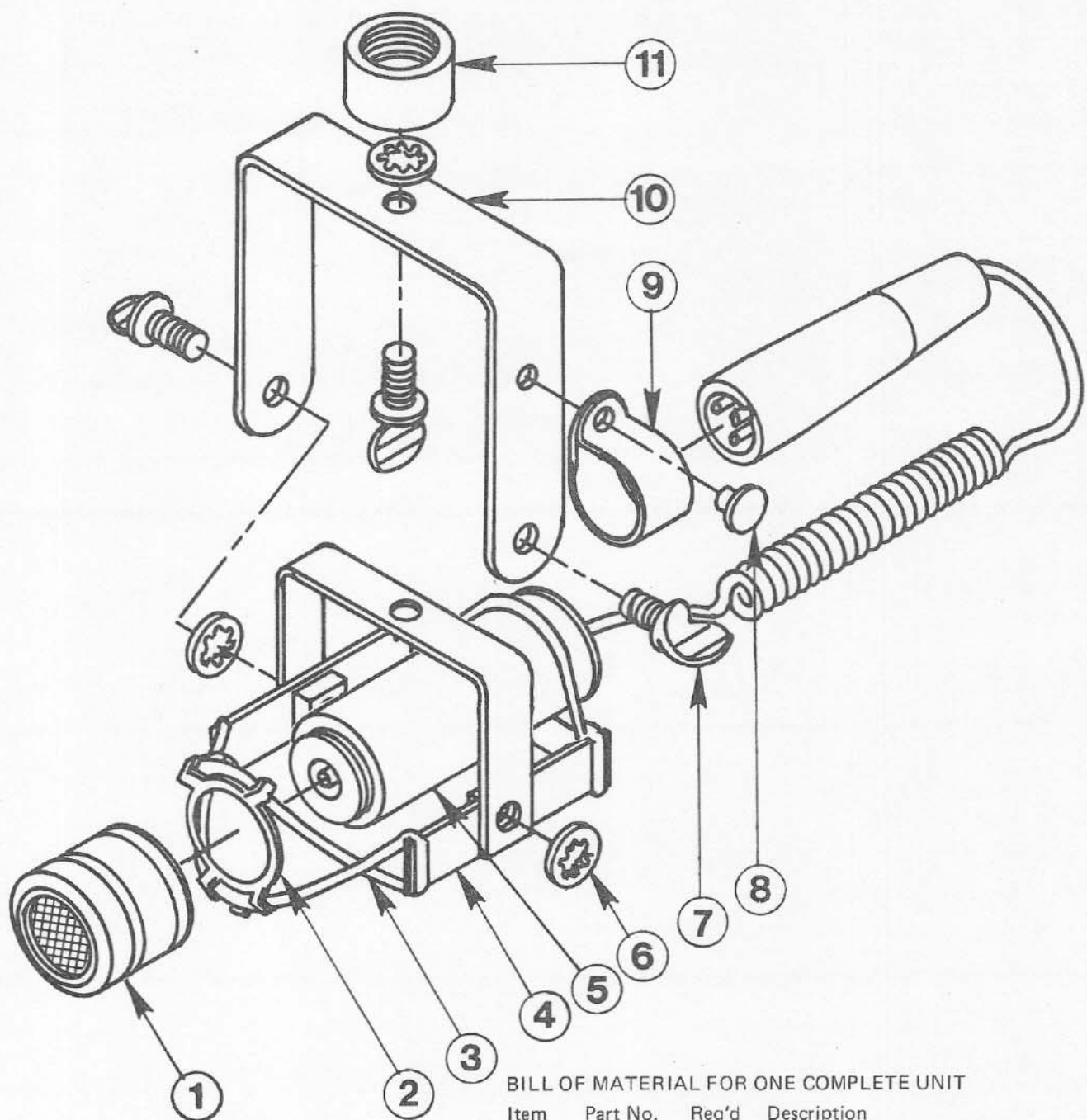


FIGURE 3 — Polar Response



BILL OF MATERIAL FOR ONE COMPLETE UNIT

Item	Part No.	Req'd	Description
1		1	CH15E Head
2	70298	1	Stabilizing Collar
3	28257	2	"O" ring, rubber
4	88796	1	Shock mount bracket SIA
5		1	SE15A Electronics
6	78597	3	Ring, centering
7	20743	3	Bolt, wing, 1/4-20 x 1/2
8	20251	1	Rivet, .187 Dia. x .187 lg.
9	20250	1	Clamp, cable, plastic, Richco #N-12B
10	70301	1	Bail, shock mount
11	B2473	1	Stud

FIGURE 4 — Assembly Exploded View

The extremely small size of the entire CH15S package coupled with its truly uniform directionality makes it a truly versatile tool in a surprisingly wide choice of situations. Of particular consideration should be applications where the microphone is to be used on a boom or fish pole in a low set where keeping shadows out of the shot is very difficult. Because of its directional uniformity, the CH15S has surprising "reach."

ASSEMBLY NOTES

Should you wish to remove or replace any of the parts of the microphone or shock mount, follow the instructions, referring to Figure 5.

First, place the stabilizing collar over the threaded end of the SE15A electronics. Secure it in place by screwing the CH15E head down onto the electronics. The head and the electronics will effectively "pinch" the stabilizing collar and hold it in place.

Select one end of the 304 shock mount to be the "back end" (either end will serve as the back end). Now insert the Switchcraft A3M connector on the back of the SE15A into the back of the shock mount from the outside going in. Pull the coiled cable on the SE15A through, along with about 1-1/2 inches of the SE15A (Figure 5A). Now rotate the SE15A 180° down and around so that the head and stabilizing collar are now ready to insert in the front shock cords of the 304.

Put a twist in the front shock cords as shown in Figure 1 and then insert the head through the opening up to the stabilizing collar. Fit the shock cord into the stabilizing collar. (Figure 5B).

The microphone is now inserted into the 304 and you are ready for action.

Parts for the CH15S may be ordered by referring to the description and part number above. Write to Electro-Voice, Inc., Service Department, 600 Cecil Street, Buchanan, Michigan 49107.

ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The microphone shall be a directional condenser type utilizing the hyper-cardioid principle. With frequency response of 70 Hz to 13.5 kHz. From the sides, above 100 Hz, the microphone shall exceed cancellation of 24 dB.

The condenser type microphone element is screwed onto the dual-powerable electronics. Impedance shall be 150 ohms. Line shall be balanced to ground and phased. The output level shall be -40 dB ref (0 dB = 1 mW/10 dynes/cm²). The microphone shall have a maximum length of 99 mm (3.9") with a maximum diameter of 26.8 mm (1.06"), including the windscreen and without cable. Finish shall be fawn beige micromatte. The microphone shall have a built-in coil cord and connector. The Electro-Voice CH15S is specified.

WARRANTY (Limited) —

Electro-Voice Professional Broadcast, Recording, and Sound Reinforcement Microphones are guaranteed unconditionally against malfunction from any cause for a period of two years from date of original purchase. Also, these microphones are guaranteed without time limit against malfunction in the acoustic system due to defects in workmanship and materials. (Any active electronics incorporated in a microphone is guaranteed for three years from date of original purchase against such malfunction.) If such malfunction occurs, microphone will be repaired or replaced (at our option) without charge for materials or labor if delivered prepaid to the proper Electro-Voice service facility. Unit will be returned prepaid. Warranty does not cover finish, appearance items, cables, cable connectors, or switches. Defect guarantee does not cover malfunction due to abuse or operation at other than specified conditions. Repair by other than Electro-Voice or its authorized service agencies will void this guarantee. For repair information and service locations, please write: Service Department, Electro-Voice, Inc., 600 Cecil Street, Buchanan, Michigan 49107 (Phone 616/695-6831) or 7473 Avenue 304, Visalia, CA 93277 (209/625-1330,-1). Electro-Voice also maintains complete facilities for non-warranty service of E-V products. Specifications subject to change without notice.

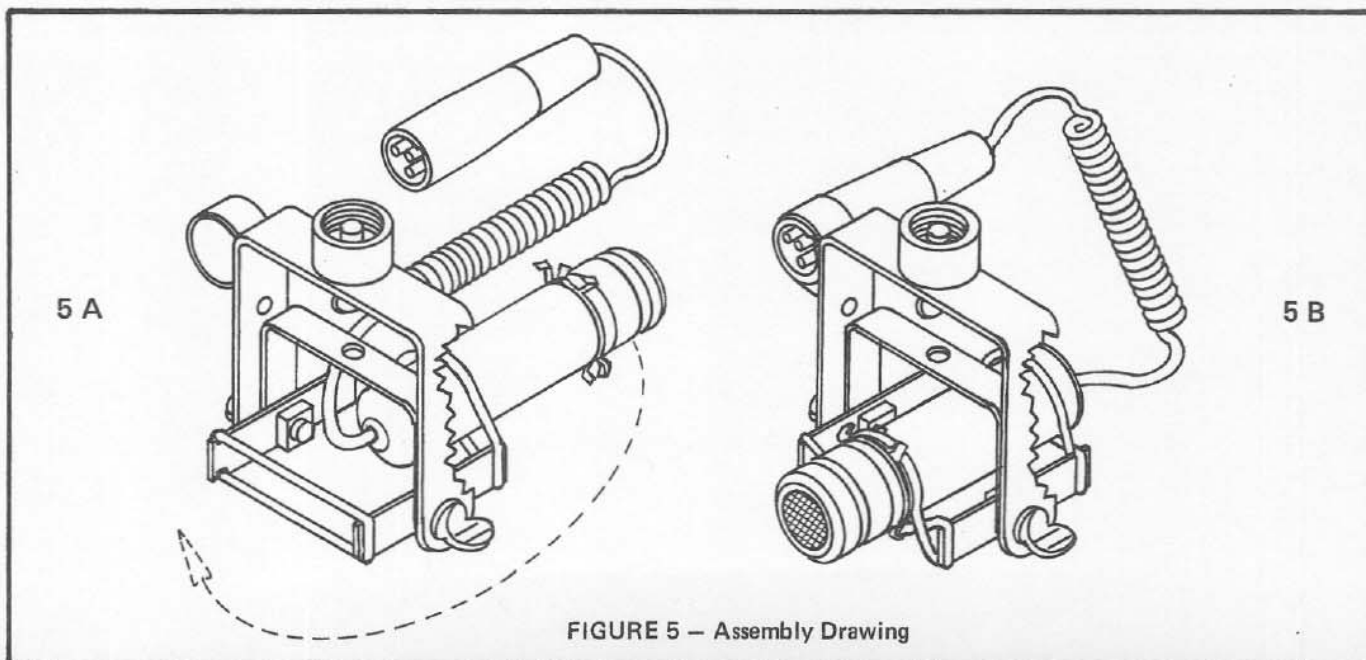


FIGURE 5 — Assembly Drawing