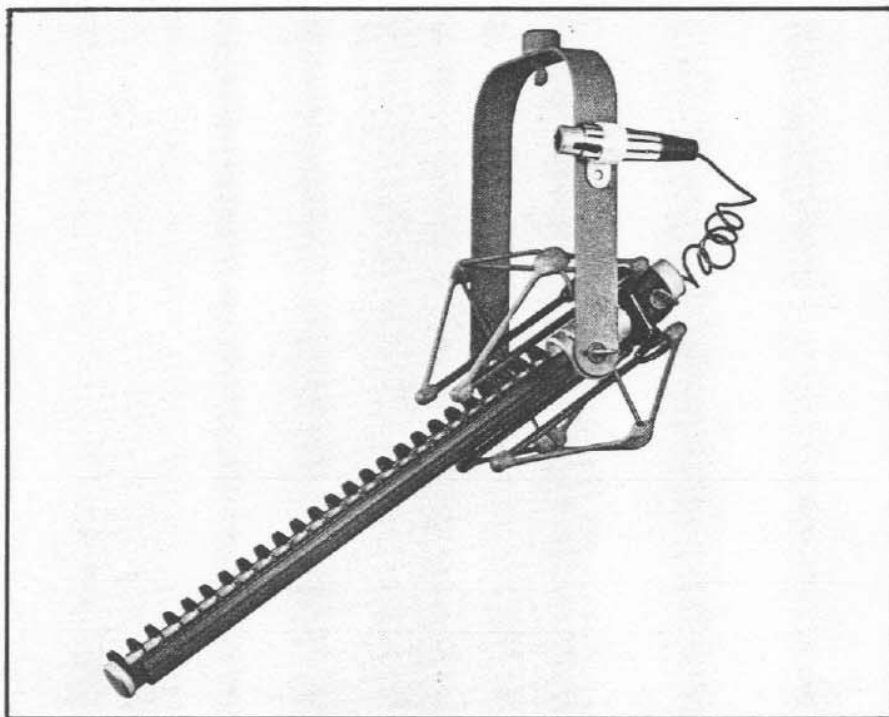




Electro-Voice®
a gulton company

Model CL42S Condenser Shotgun System

SPECIFICATIONS

Element:
Condenser (electret)

Frequency Response:
-8 dB at 100 Hz
-5 dB at 200 Hz
500 Hz to 12 kHz $\pm 2\frac{1}{2}$ dB
(See Figure 2)

Polar Pattern:
See Figure 3

Impedance:
250 ohms (nominal)

Output Level:
-33 dB
(0 dB = 1 mW/10 dynes/cm²)

EIA Sensitivity Rating:
-125 dB

Maximum SPL:
129 dB
(1% THD @ 1 kHz open circuit)

S/N Ratio:
78 dB "A" weighted

Dynamic Range:
115 dB

Operating Voltage:
AB or Phantom mode
(See SE15B Engineering Data Sheet)

Materials,

- Microphone case:**
Steel
- Head:**
Steel & Lexan
- Shockmount:**
Steel & Neoprene
- Windscreen:**
Acoustifoam™

Finish:
Fawn beige micomatte

Dimensions:
416.7 mm (16.4") long
26.8 mm (1.06") largest diameter

Weight,

- Microphone only:**
263 g (9.3 oz)
- System:**
578 g (20.4 oz)
- Connector:**
Switchcraft A3M

DESCRIPTION & APPLICATIONS

The Cardiline® CL42S Condenser Shotgun Microphone represents a breakthrough in state-of-the-art highly directional microphones using a combination of characteristics of hypercardioid and distributed front opening designs. The hypercardioid action gives the microphone very uniform and directional characteristics up to 1,000 Hz, where the distributed front opening takes over for the balance of the range to which it responds, providing directional characteristics illustrated in Figure 3. A new approach allows for much more uniform directionality of frequency.

The newly designed CL42S offers wide range response, better control of the polar characteristics, high output level, and an impressive directivity index. These features make possible a working distance which is two, three, or four times that of conventional directional microphones.

Special considerations are made to achieve the lowest possible directivity index at all frequencies (highest possible directionality). Indeed, the directivity index even down to 100 Hz approaches the theoretical. Maximum attenuation

of off-axis energy occurs to the sides of the microphone where such rejection is often most useful.

APPLICATION NOTES

The CL42S is shipped assembled in its own shock mount. The carrying case is designed to house the microphone with the shock mount attached (or disassembled). There are storage compartments in the foam of the carrying case designed to increase the versatility of the case by allowing storage of the handle for the CL42S, several other heads for the condenser system, and other related accessories which the user may feel to be important.

The electronics portion of the CL42S (SE15B) 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 "hardwired" into the rear of the CL42S. 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 coil cord may be removed from the electronics and a small connector installed in its place. (See SE15B Engineering Data Sheet).

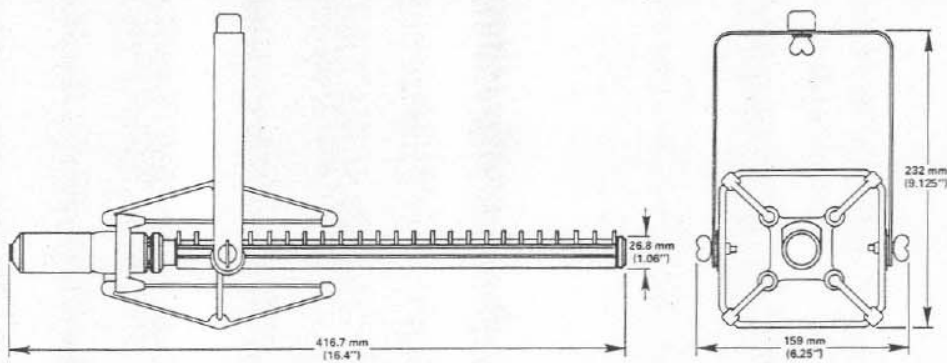


FIGURE 1 – Dimensions

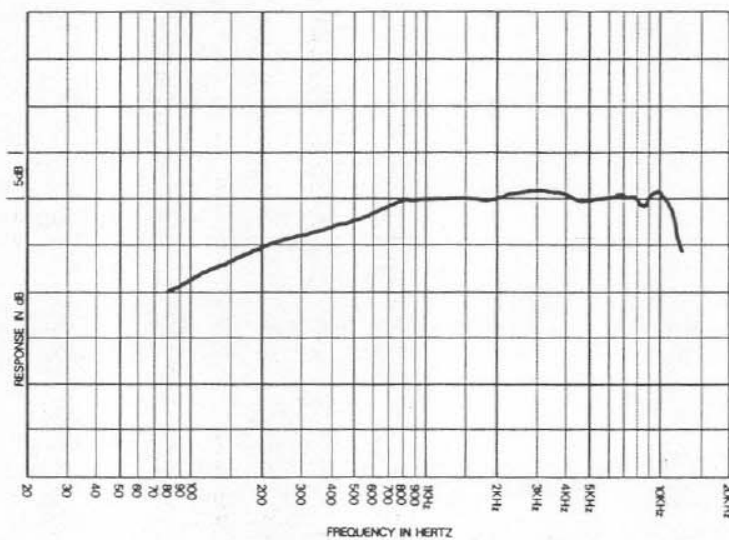


FIGURE 2 – Frequency Response

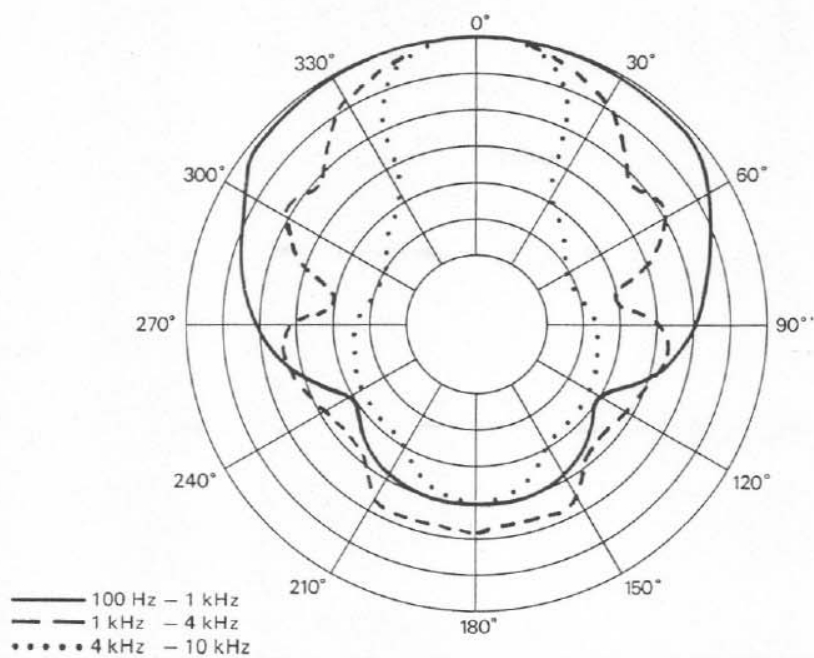


FIGURE 3 – Polar Response

SCALE IS 5 DECIBELS PER DIVISION

BILL OF MATERIAL FOR ONE COMPLETE UNIT

Item	Part No.	Req'd	Description
1		1	343 Windscreen
2		1	CL42E Head
3	70334	4	Cord, suspension
4	A66051	4	Tubing, 3-13/16" lg.
5	20050	2	Nut, 1/4-20
6	75558	1	Ring, shock mount
7	38309	2	Washer, friction
8	A86322	1	Suspension bracket SIA
9	20743	4	Bolt, wing, 1/4-20 x 1/2
10		1	SE15A Electronics
11	20255	1	Rivet .186 dia. x .219 lg. 3/8" dia. head
12	20250	1	Clamp, cable, plastic
13	C76842	1	Bail
14	B2473	1	Stud

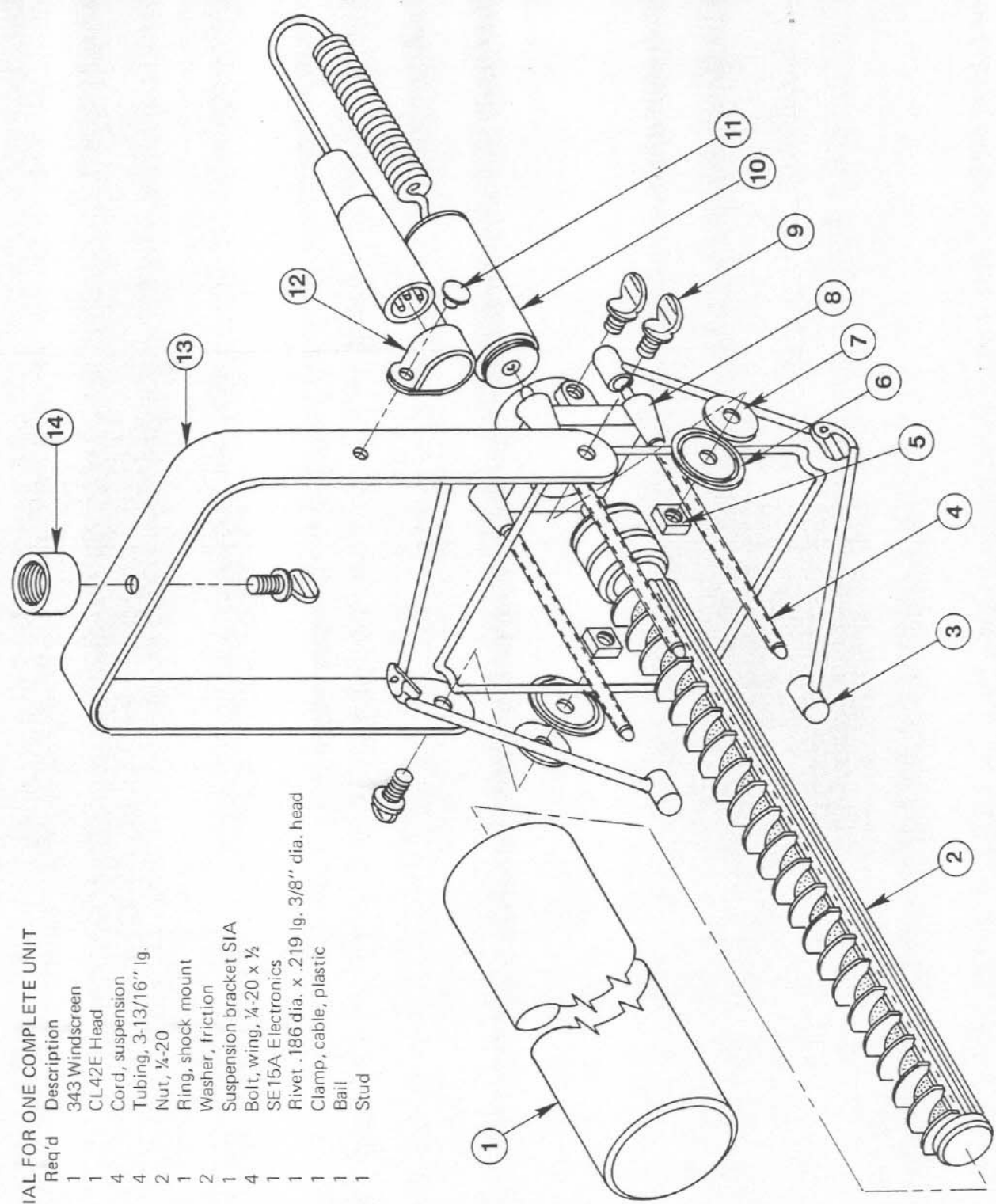


FIGURE 4 — Assembly Exploded View

The CL42S may be used in its shock mount attached to a fishpole, a boom head, or mounted to a floor stand. Shock mount design takes into consideration the necessity for rapid movement of the microphone by maintaining a good balance and proper center of gravity.

The CL42S may also be used hand-held. For this purpose, a handle is supplied in the accessory compartment of the carrying case. The shock mount bail is removed from the shock isolation cage (by means of the two wing screws) and the handle may then be screwed into either of the holes vacated by the wind screw. (See Figure 5)

THE SHOTGUN SYSTEM

The CL42S shotgun system comes complete. Included in the package are not only the microphone, but an excellent shock mount, handle for hand-held use, and windscreen. All of this is packaged in a well-designed extremely sturdy foam-lined utility case.

The 309 shock mount uses special suspensory ligaments to give proper shock isolation in most all applications.

The handle supplied for hand-held applications is attached quickly. It is ideal for news gathering or other quick start on-the-move applications. (See Figure 5)

The Model 343 windscreen is very effective at reducing wind noises even outdoors.

IMPORTANT ASSEMBLY & DISASSEMBLY

When screwing and unscrewing the head (CL42E) from the electronics (SE15B) **DO NOT GRASP THE MICROPHONE BY THE SNOOT (TUBE).**

The correct procedure is to grasp the electronics with one hand and then grasp the metal part of the head directly adjacent to the electronics with the fingertips and unscrew gently. *Be careful not to twist the tube!*

Parts for the CL42S 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 & ENGINEERS SPECIFICATIONS

The microphone shall be a highly directional condenser type with combination hypercardioid and distributed front opening principles, and with a frequency response of from 100 Hz to 12 kHz. From the sides, above 200 Hz, the microphone shall exceed cancellation of 28 dB.

The condenser type microphone element is screwed onto the dual-powerable electronics. Impedance shall be 250 ohms (nominal). Line shall be balanced to ground and phased.

The output level shall be -33 dB ref (0 dB = 1 mW/10 dynes/cm²). The microphone shall have a maximum length of 416.7 mm (16.4") with a maximum diameter of 26.8 mm (1.06"), including the windscreen and without cable. The finish shall be fawn beige micomatte. The microphone shall have a built-in coil cord and connector, similar or

equivalent to the Model A3M, which will mate with any connector equivalent to the Switchcraft A3F. The Electro-Voice Model CL42S 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 Electro-Voice West, 8234 Doe Ave., 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.

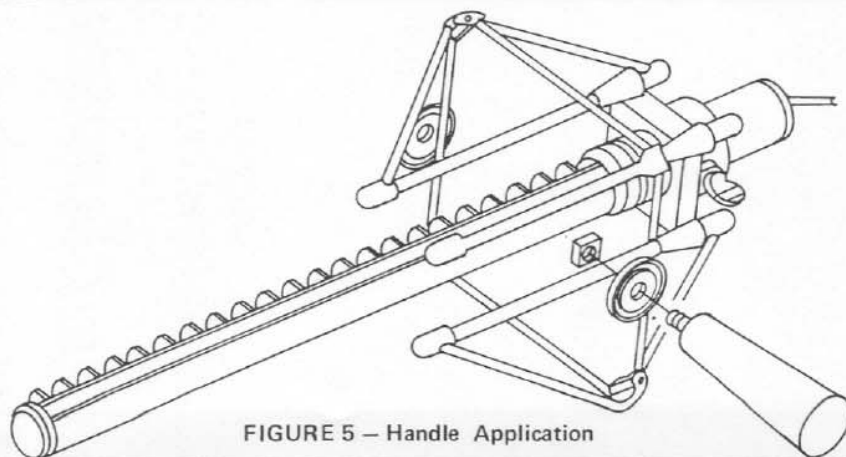


FIGURE 5 — Handle Application