

SPECIFICATIONS

Frequency Response:

300-4,000 Hz ± 5 dB (see Figure 2)

Power Handling:

8 hours, 6-dB crest factor:

60 watts

(500- to 5,000-Hz pink noise)

Impedance,

Nominal:

8 ohms

Minimum, on Cobreflex Horns,

Above 500 Hz:

7.5 ohms (2,000 Hz)

Sound Pressure Level at 1 Meter,

1 Watt Input Average, Pink Noise

Band-Limited from 500 to 5,000 Hz:

see Table I

Voice-Coil Diameter:

5.08 cm (2.0 in.)

Magnet Weight:

0.48 kg (1.06 lb)

Magnet Material:

Strontium ferrite

Flux Density:

1.17 Tesla

Construction:

Rugged diecast housing with weatherproof finish for outdoor use

Mechanical Connection of Driver:

1 $\frac{3}{8}$ "-18 thread, 1/2" long allows the ID60 to be mounted on any University Sound horn.

Dimensions,

Diameter: 14.3 cm (5.6 in.)

Height: 16.2 cm (6.4 in.)

Net Weight:

ID60C-8: 2.7 kg (5.9 lb)

ID60CT: 3.4 kg (7.4 lb)

Shipping Weight:

ID60C-8: 2.9 kg (6.3 lb)

ID30CT: 3.6 kg (7.9 lb)

Recommended Horns:

Cobreflex IIB, Cobreflex III,

PH, 2WP, SMH, SH



DESCRIPTION

The University Sound ID60C-8 and ID60CT are heavy-duty compression drivers for use in high-power public address installations.

The drivers employ rugged phenolic diaphragms, 2-inch diameter voice coils and "rim centered" ferrite magnet structures for long life and reliability under extreme operating conditions.

A hinged cyclac rear housing for easy access and connection to a sound system, via a BX conduit connector, is provided together with a plug-in, field replaceable diaphragm assembly.

The transformer model (ID60CT) includes connections for 25-V and 70-V distributed systems and a screwdriver-operated power-tap select switch.

The exterior is finished in durable, weatherproof paint, and all metal parts have been tropicalized for resistance to high humidity and fungus.

Ideal for both indoor and outdoor applications, these drivers are well suited for any installation requiring rugged, high-power performance.

INSTALLATION

Remove the plastic cap from the threaded throat of the driver and screw the driver into the horn until firmly seated.

Install the horn/driver assembly in intended location, referring to the instructions provided with the horn.

Loosen the captive screw in the center of the plastic cover at the rear of the driver, and open the hinged cover to expose wiring. Note the O-ring in the annular housing groove.

Loosen the gland nut in the side of the driver housing enough to admit the loudspeaker wire/cable. Alternately, a 1/2-inch conduit fitting can be substituted for the gland nut. However, the sealing washer must be retained.

For the ID60CT, connect the loudspeaker wires to the "com" terminal and the appropriate line terminal (25 V or 70 V). For the ID60C-8, connect to the "com" and "8-ohm" terminals.

Tighten the gland nut securely and check that the O-ring is positioned correctly before closing the clear plastic cover.

TRANSFORMER MODEL (ID60CT)

A transformer and power-selector switch are installed in the base of the housing. Color coding for the transformer is listed in Table II. Transformer wiring with respect to Table II is illustrated by Figure 5. Wiring for the switch and transformer assembly is illustrated by Figure 6.

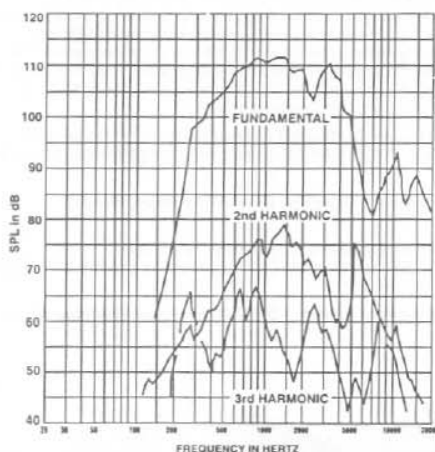


FIGURE 1—Distortion Response—
Cobreflex III Horn

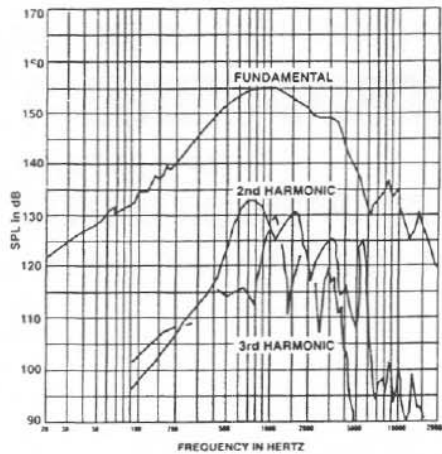


FIGURE 2—Distortion Response—Plane Wave Tube (1 watt/1 meter)

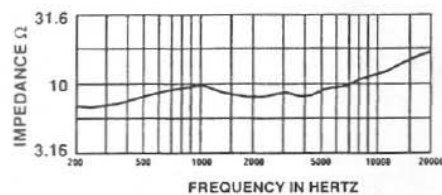


FIGURE 3—Impedance Response—1-Inch Plane Wave Tube

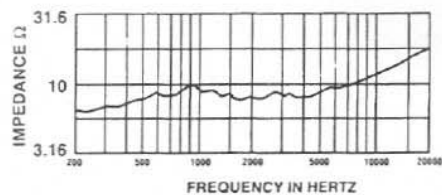


FIGURE 4—Impedance Response—Cobreflex III Horn

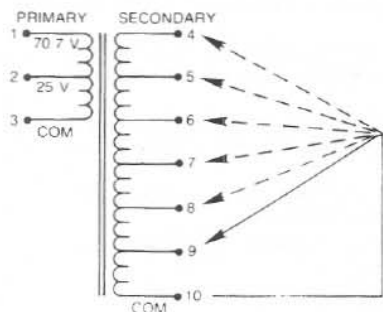


FIGURE 5—Transformer Wiring

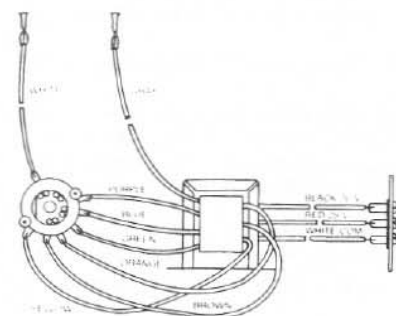


FIGURE 6—Wiring Diagram of Transformer and Switch Assembly for Model ID60CT

Horn	SPL for 1 W/1 m
Cobreflex IIB	107 dB
Cobreflex III	107 dB
PH	108 dB
2WP	103 dB
SMH	109 dB
SH	106 dB

TABLE I—
Sound Pressure Level
for ID60 with
Various Horns

Lead No.	Wire Color	ID60CT Function
Primary	Black	70.7-V speaker system
	Red	25-V speaker system
	White	Common for spkr system
Secondary	Purple	60-watt power tap
	Blue	30-watt power tap
	Green	15-watt power tap
	Orange	7.5-watt power tap
	Brown	3.75-watt power tap
	Yellow	1.88-watt power tap
	Gray	Common for transformer

TABLE II—Line Transformer

Power	70-Volt Lines		25-Volt Lines	
	Impedance	Capacitance	Impedance	Capacitance
60 W	83Ω	10 mf	10Ω	80 mf
30 W	166Ω	5 mf	21Ω	40 mf
15 W	333Ω	2 mf	42Ω	20 mf
7.5 W	667Ω	1 mf	83Ω	10 mf
3.75 W	1,300Ω	0.5 mf	166Ω	5 mf
1.88 W	2,700Ω	0.2 mf	333Ω	2 mf

TABLE III — Series Protection Capacitors for 200 Hz and Below

LOW-FREQUENCY DRIVER PROTECTION

When frequencies below the low-frequency cut-off for the horn assembly are fed to the driver, excessive current may be drawn by the driver. For protection of driver, amplifier, and transformer (if driver with built-in transformer is used), capacitor(s) in series with driver, or transformer primary are recommended. Table III indicates recommended values. The values shown are for 200 Hz. Values for other frequencies can be determined by using the formula:

$$C = C_{200} \times \frac{200}{f} \quad \text{where } C_{200} = \text{Values shown in Table III; } f = \text{New Frequency}$$

For drivers without transformers: 8-ohm driver, 25 V – 100 mf

ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The loudspeaker(s) shall be of the compression-driver type utilizing a rugged phenolic diaphragm and a high-temperature rated, 2-in. diameter voice coil.

The loudspeaker(s) shall exhibit essentially flat power response from 300 to 4,000 Hz with a smoothly rolled-off response beyond. Their sensitivity, when mounted on a University Sound PH horn, will be 108 dB (1 W/1 m) with a 500- to 5,000-Hz pink-noise signal applied.

The loudspeaker(s) shall be capable of handling a 60-watt, 500- to 5,000-Hz pink-noise signal with a 6-dB crest factor for a period of 8 hours.

The loudspeaker(s) shall have a diameter of 14.3 cm (5.6 in.) and a depth of 16.2 cm (6.4 in.). They shall have a 2.41 cm (0.95 in.) throat opening with a 1³/₈-18 thread for mounting.

The loudspeaker shall be the University Sound ID60CT, which includes a 70-V/25-V line-matching transformer (see Table II) and weighs no more than 3.4 kg (7.4 lb), and the University Sound ID60C-8, which has a nominal impedance of 8 ohms and weighs no more than 2.7 kg (5.9 lb).

WARRANTY (LIMITED) —

University Sound Speakers and Speaker Systems (excluding active electronics) are guaranteed for five years from date of original purchase against malfunction due to defects in workmanship and materials. If such malfunction occurs, unit will be repaired or replaced (at our option) without charge for materials or labor if delivered prepaid to University Sound. Unit will be returned prepaid. Warranty does not extend to finish, appearance items, burned coils, or malfunction due to abuse or operation under other than specified conditions, including cone and/or coil damage resulting from improperly designed enclosures, nor does it extend to incidental or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you. Repair by other than University Sound will void this guarantee. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

For warranty repair and service information on University Sound products, contact: University Sound, 10500 West Reno, Oklahoma City, Oklahoma 73128 (405/324-5311 or 800/444-9516); Attention: Customer Service Department.

For technical assistance, contact the Technical Services Representative at University Sound.

Repair locations:

Speaker products including LR Line radiators, PI Series speakers, CDP848AT, CDP850T, Musicaster100, FC100, Interface Series, MC Series, SP Series, and TK60: University Sound, 600 Cecil Street, Buchanan, MI 49107; Attention: Service Department.

All other paging speakers and speaker products: University Sound, 10500 West Reno, Oklahoma City, OK 73128; Attention: Service Department.

Specifications subject to change without notice.



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