

## CL™-2

### Two-Way Cluster-Style Sound Reinforcement System

#### SPECIFICATIONS:

**Enclosure:**  
CL™-2

**Frequency Response, 1 Meter on Axis,  
Swept Sine Averaged Across Operating  
Bandwidth in Anechoic Environment:**  
90 Hz-16 kHz +/- 3 dB

**Low Frequency Limit (-3 dB point):**  
90 Hz

**Usable Low Frequency Limit (-10 dB point):**  
64 Hz

**Power Handling:**  
150 watts continuous (20 volts RMS)  
300 watts program

**Sound Pressure Level, 1 Watt at 1 Meter,  
Swept Sine Input in Anechoic Environment:**  
100 dB

**Maximum Sound Pressure Level:**  
121 dB

**Radiation Angle Measured at -6 dB Point of  
Polar Response, Swept Sine Input:**

Horizontal Plane:	Vertical Plane:
<b>250-500 Hz</b> 125° +/- 25°	<b>250-500 Hz</b> 140° +/- 20°
<b>500-10,000 Hz</b> 80° +/- 30°	<b>500-10,000 Hz</b> 85° +/- 40°
<b>10,000-16,000 Hz</b> 100° +/- 10°	<b>10,000-16,000 Hz</b> 45° +/- 50°

**Directivity Factor Q, 500 Hz —16,000 Hz  
Median:**  
7.6 (+5.6, -3.0)

**Directivity Index Di, 500—16,000 Hz Median:**  
8.8 dB (+2.4 dB, -2.5 dB)

#### Transducer Complement:

Six 6" heavy-duty speakers, and a 22A™  
compression driver loaded onto a CH™-3  
90° H x 45° V constant directivity horn

**Box Tuning Frequency (F<sub>box</sub>):**  
74 Hz

**Crossover Frequency:**  
1200 Hz

**Crossover Type:**  
Passive

**Crossover Slope:**  
6 dB/octave low pass  
12 dB/octave high pass

**Impedance (Nominal):**  
8 ohms

**Impedance (Minimum):**  
6.3 ohms low frequency

**Input Connections:**  
Two full range ¼" female connectors in  
parallel, one biamp high ¼" female  
connector and one biamp low ¼" female  
connector

**Enclosure Materials and Finish:**  
High density 7 ply ¾" plywood covered  
with premium 34 Oz. Tolex® vinyl

**Mounting:**  
SA-1 stand adaptor

**Dimensions:**  
23¼" (59.1 cm) W x 21½" (54.6 cm) H x  
14¼" (37.5 cm) D

**Net Weight:**  
58 lbs. (26.4 kg)

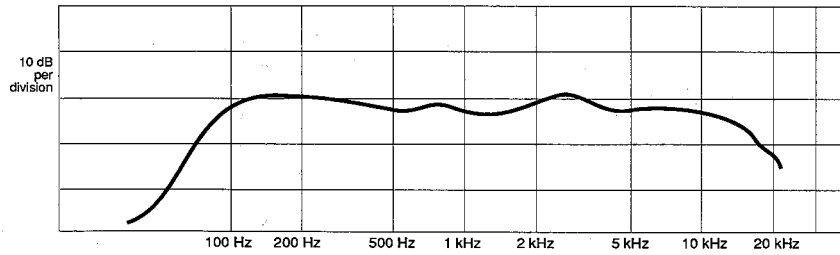
#### DESCRIPTION

The CL™ -2 is a full-range, two-way cluster-style system designed for flexibility of use. Portable sound reinforcement, public address or permanent installation are just a few of the varied applications. The cabinet is constructed of heavy-duty ¾" material, covered with durable 34 oz. Tolex® vinyl capped with steel corners. Capable of being stand-mounted, these tough cabinets come equipped with recessed handles. This two-way system is comprised of six 6" heavy-duty woofers, and a 22A™ compression driver loaded onto a CH™-3 constant directivity horn. The frequency spectrum is divided by a two-way passive crossover, allowing the drivers to function optimally and giving the system a smooth frequency response from 90 Hz to 16 kHz. Two ¼" female switching jacks for full-range use, and one ¼" female switching jack for full-range use, and one ¼" female switching jack each, high & low, for biamp use are supplied as input connections.

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**FREQUENCY RESPONSE**

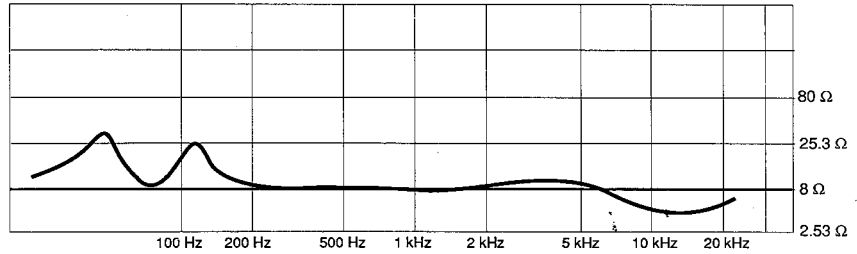
The frequency response of the CL-2 is measured in an anechoic environment at a distance of 1 meter while using a 2.82 volt logarithmically swept sine input. This measurement is useful in determining the accuracy in which the enclosure reproduces the input signal. The combination of the six 6" woofer arrays blended with the CH-3 loaded 22A compression driver results in a flat desirable response as shown in figure 1.



**Figure 1. FREQUENCY RESPONSE**

**DIRECTIVITY**

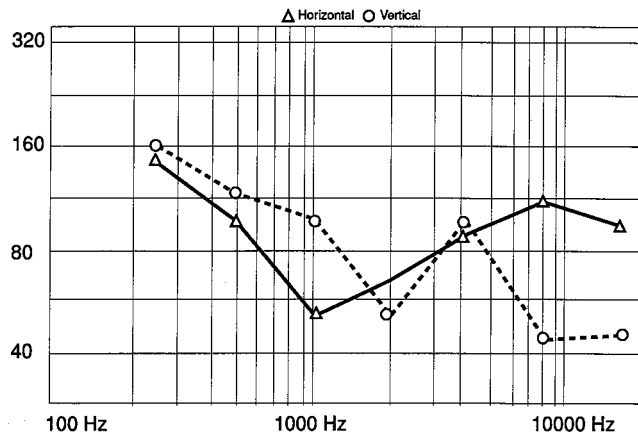
Beamwidth and directivity factors are derived from the -6 dB points from the polar plots (see figure 3) which are measured in a whole space anechoic environment. These are specifications which provide a reference to the coverage characteristics of the enclosure. These parameters provide insight for proper enclosure placement and installation in the chosen environment. The blending of the CL-2 components exhibit a desirable beamwidth and directivity factor (figures 4 and 5) suitable for all high level sound reinforcement applications.



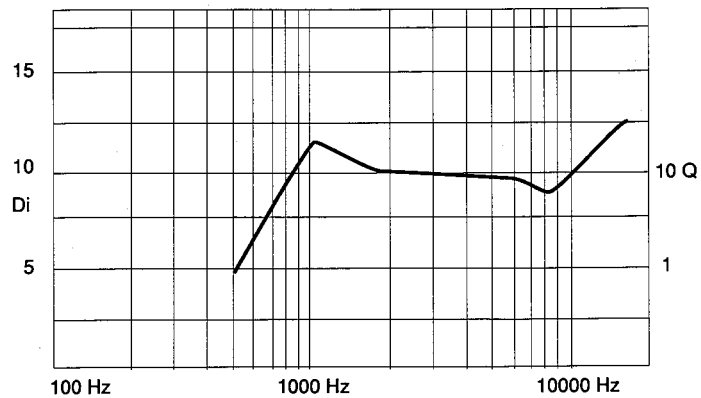
**Figure 2. IMPEDANCE**

**POWER HANDLING**

There are many different approaches to power handling ratings, the most common being EIA standard RS-426A. The derived shape of this test spectrum was an attempt to simulate the spectral content of contemporary music. Although it does resemble contemporary music, EIA-RS-426A does not contain the same levels of very low frequency material found in live music situations. Very high levels of low frequency material produce distortion and, ultimately, device failure. The presence of the low frequency material will therefore yield lower device ratings than produced by EIA standard RS-426A. Although the Peavey ratings are lower than those produced by the EIA test spectrum, they are far more reliable and will have a direct correlation to real world situations.



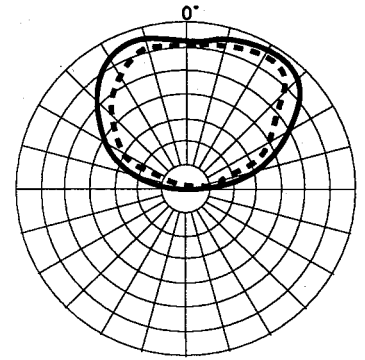
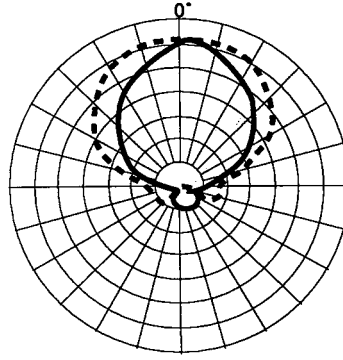
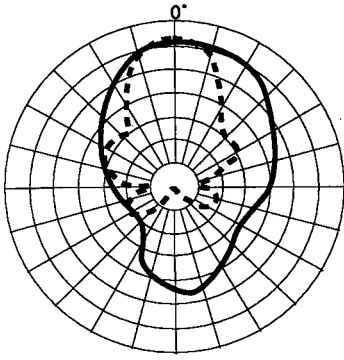
**Figure 4. BEAMWIDTH VS. FREQUENCY**



**Figure 5. DIRECTIVITY**

5 dB per Division

**HORIZONTAL**



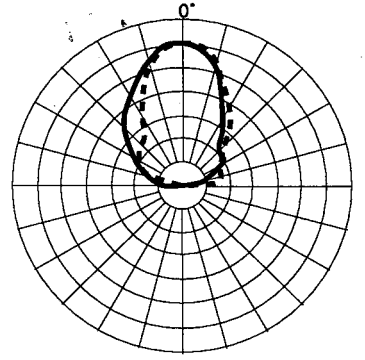
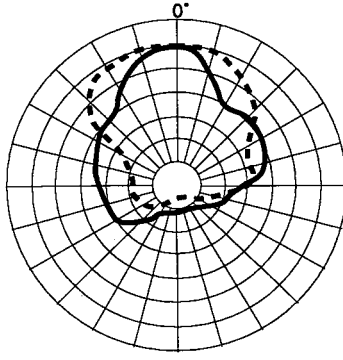
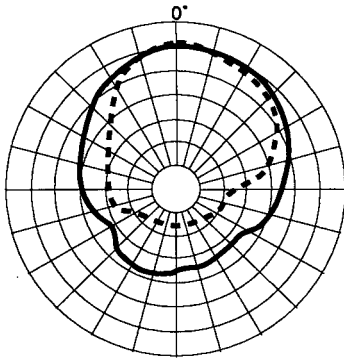
— 500 Hz  
 - - - 1 kHz

— 2 kHz  
 - - - 4 kHz

— 8 kHz  
 - - - 16 kHz

5 dB per Division

**VERTICAL**




**Figure 3. POLAR PATTERNS**

**CL-2™**  
**CLUSTER**  
**Precision Transducer**  
 A Product of Peavey Electronics Corp.  
 Meridian, Mississippi U.S.A.

**MAX POWER: 300W RMS (Program)**  
**150W RMS (34.6V RMS Cont.)**

**IMPEDANCE: 8 OHMS**  
**CROSSOVER: 1200 Hz**

**CAUTION**  
 THIS SPEAKER SYSTEM CAN PERMANENTLY DAMAGE HEARING!  
 USE EXTREME CARE SETTING MAXIMUM LOUDNESS!

**NORMAL**                      **BI-AMP**  
  
**FULL RANGE**                      **HI**                      **LOW**

**REAR PANEL DETAIL**

## **ARCHITECTURAL & ENGINEERING SPECIFICATIONS**

The loudspeaker system shall have an operating Bandwidth of 90 Hz to 16 kHz. The output level shall be 100 dB when measured at a distance of one meter with an input of one watt. The nominal impedance shall be 8 ohms. The continuous power handling shall be 150 watts, maximum program power of 300 watts, with a minimum amplifier headroom of 3 dB. The nominal radiation geometry shall be 90 degrees in the horizontal plane and 45 in the vertical plane. The outside dimensions shall be 23¼ inches wide by 21½ inches high by 14¾ inches deep. The weight shall be 58 lbs. The loudspeaker system shall be a Peavey Model CL™-2.

### **ONE YEAR LIMITED WARRANTY --**

Note: For details, refer to the warranty statement. Copies of this statement may be obtained by contacting Peavey Electronics Corporation, P. O. Box 2898, Meridian, Mississippi 39302-2898.



**Features and specifications subject to change without notice.**