

DESCRIPTION

The Electro-Voice TL606Q low frequency loudspeaker system is a vented-box (bass-reflex) design with gross internal volume of 12.8 cu. ft. The system has been designed for use with four of the Electro-Voice EVM-15L 15 inch loudspeakers. The usable frequency range of the TL606Q is roughly 36 to 600 Hz. The efficiency of the TL606Q is 18% (half-space load, 80 to 800 Hz, 8 ohm nominal impedance) and as a result will generate outputs of 72 acoustic watts at the rated input of 400 watts.

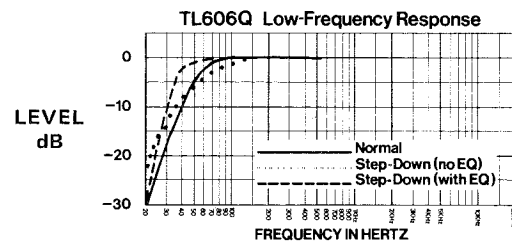
The design provides a selection of two different low frequency response curves by the optional use of a removable port cover. In the normal configuration (port cover off) the response is flat down to the lowest possible frequency. In the step-down configuration (port cover on) the response exhibits a sloping gradual low frequency rolloff but with about a one-half octave extension of low end response. The step down mode of operation is intended to be used with simple before-the-power-amp equalization to flatten the response (only 6 dB maximum boost required). For equalizer details request a copy of E-V Pro Sound Facts No. 1.

The following table lists the box resonance frequency (f_B), the 3 dB down frequency (f_3) and the usable lower limit frequency (f_{LL}) for both configurations.

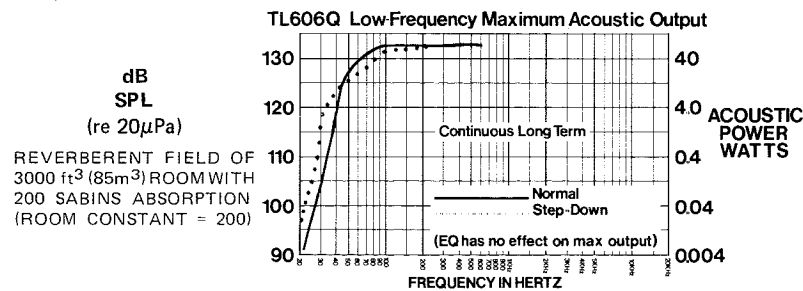
FREQUENCY	NORMAL	STEPDOWN
f_B	53 Hz	40 Hz
f_3	55 Hz	73 Hz
f_3 (with EQ)	—	38 Hz
f_{LL}^*	42 Hz	36 Hz

*The system can generate 8 acoustic watts or more down to f_{LL} .

The following graph shows the system's power output low frequency response in both the normal and step-down modes.

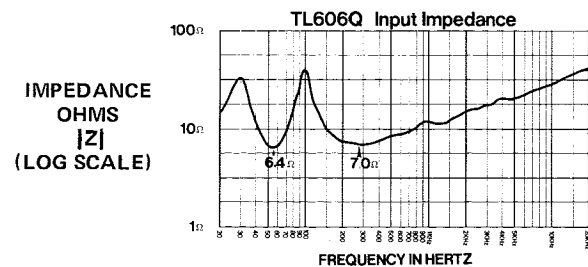


The curve which follows shows the system's low frequency maximum acoustic power output versus frequency. The maximum output is limited by either (1) the thermal power handling capacity of the speaker, or (2) the speaker's maximum linear cone excursion capabilities, whichever occurs first.

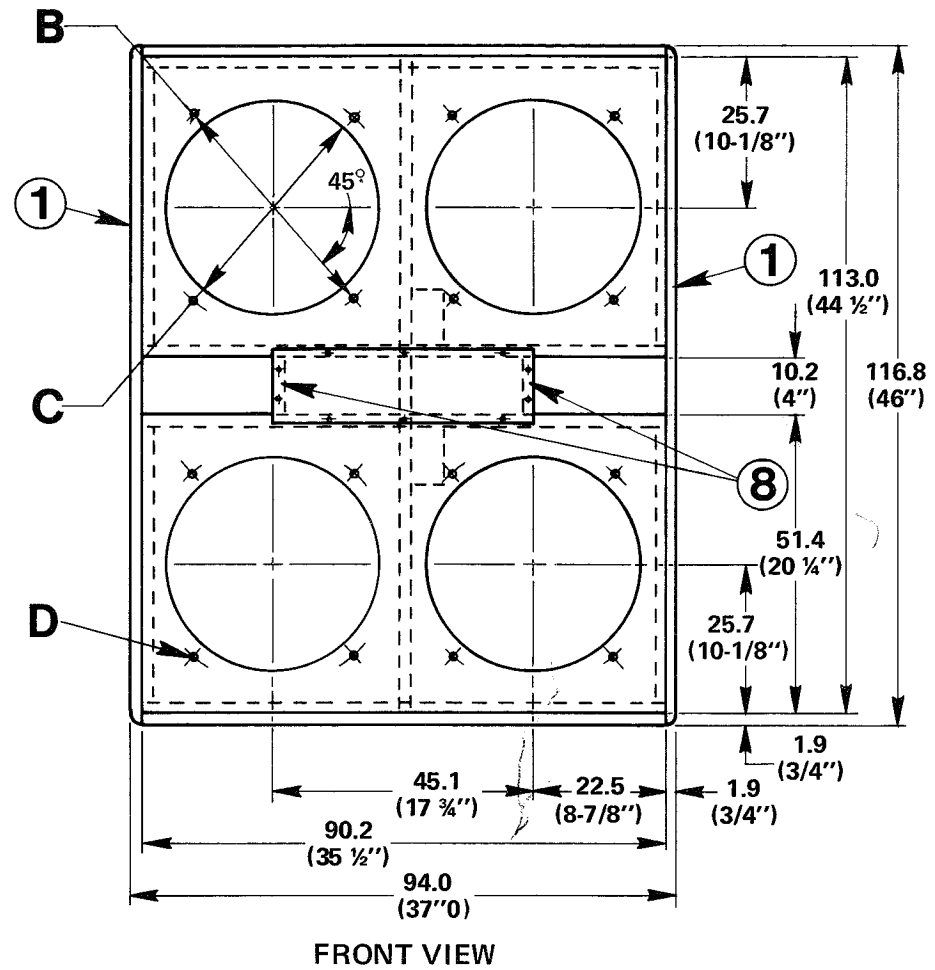
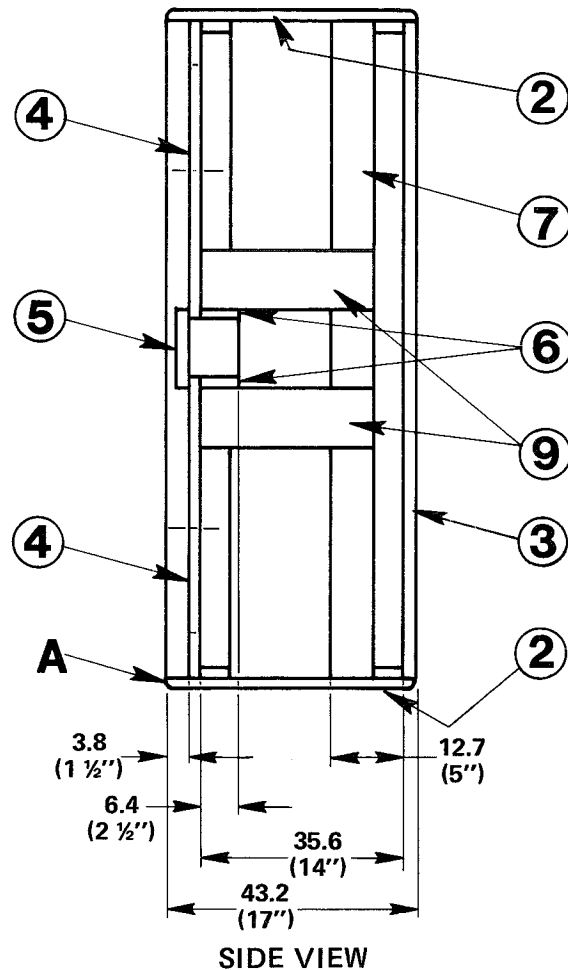


Note that some 2 to 3 dB of maximum output in the 60 to 90 Hz range is sacrificed when the step-down mode is used.

The TL606Q input impedance versus frequency is shown in the following graph (normal mode).



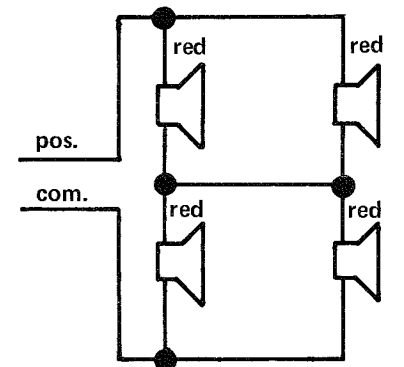
TL606Q
BUILDERS PLANS
(4) EVM-15L,
12.8 cu ft BASS BOX



Electro-Voice®
Buchanan, Michigan 49107

ILLUSTRATION NOTES:

- A 1.0 R (3/8") on all 12 edges
- B 42.4 (16-11/16") B.C. Typ. 4 places
- C 35.7 (14-1/6") dia. thru Typ. 4 places
- D #1/4-20 Long prong tee nut, inserted from backside, (16 places) equally spaced



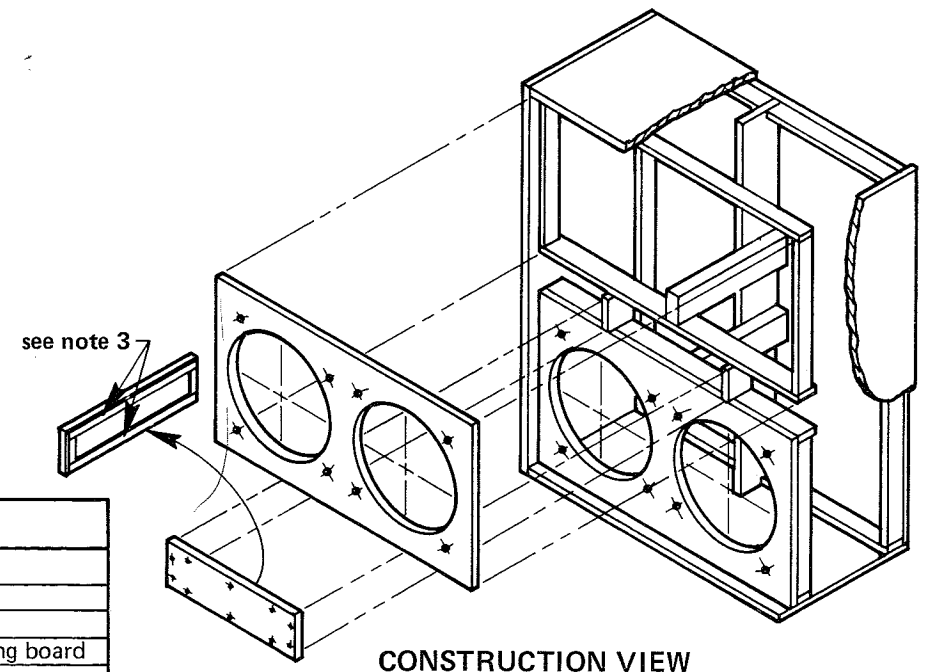
WIRING DIAGRAM

CONSTRUCTION NOTES:

1. All joints should be securely glued and nailed (or stapled).
2. All joints must be airtight. Seal questionable joints with silicon based caulking compound.
3. Use 1/2" wide weather stripping tape around port cover (item 5) for airtight seal.
4. Speaker must be mounted from front of cabinet. Each speaker may be secured by using the SMH-1 mounting kit or 8 each 10-32 x 1 1/2" bolts and teenuts on 14-9/16 inch B.C.
5. Handles, trunk corners, and furniture glides or casters may be added at builders option.
6. Input connector should be selected by builder and mounted on rear.
7. Grille not shown.
8. Parts listed and dimensioned in chart below must conform to dimensions on drawing for proper cabinet tuning.
9. The builder may select material and dimensional fit for parts not listed in chart.
10. Line top, bottom, both sides, and back with 3" fiberglass insulation. Insulation must not block port opening on inside of cabinet.

PARTS LIST - TL606Q

ITEM	MATERIAL	SIZE	QTY.	REMARKS
1		43.2 (17") x 116.8 (46")	2	Sides
2		43.2 (17") x 90.2 (35-1/2")	2	Top and bottom
3	1.9 (3/4") PLYWOOD OR PARTICLE BOARD	90.2 (35-1/2") x 113.0 (44-1/2")	1	Back
4		51.4 (20-1/4") x 90.2 (35-1/2")	2	Speaker mounting board
5		13.3 (5-1/4") x 45.1 (17-3/4")	1	Port cover
6		6.4 (2-1/2") x 90.2 (35-1/2")	2	Port top and bottom
7		12.7 (5") x 113.0 (44-1/2")	1	Back panel cleat
8	1.9 (3/4") x 8.3 (3-1/4") Fir	10.2 (4")	2	Port Divider
9	5.1 (2") x 10.2 (4") Fir	35.6 (14")	2	Brace



CONSTRUCTION VIEW