

PR-15/DPL12 Combination Subwoofer System Design



The PR-15/DPL12 Combination Subwoofer System Design uses a single PR-15 passive radiator and a single DPL12 driver, in a 75 liter net box. The box is stuffed with 3 pounds of polyfill, and 700 grams of added mass to reach a 17.5 Hz tuning frequency. The resulting response will yield anechoic response to 20 Hz, and typical in-room response to 16 Hz.

The design uses a standard 18" cube cabinet. The top and bottom are completely outset. The front and back are inset with reference to the top and bottom, and outset with reference to the sides. The sides are completely inset. A single brace is used to stiffen the sides and top (bracing is not designed in to the rear, to allow easy placement and use with a variety of amplifiers).

The PR-15 is mounted on the front of the cabinet, and is centered on the front.

The DPL12 is mounted downfiring on the bottom of the cabinet, and is centered on the bottom.

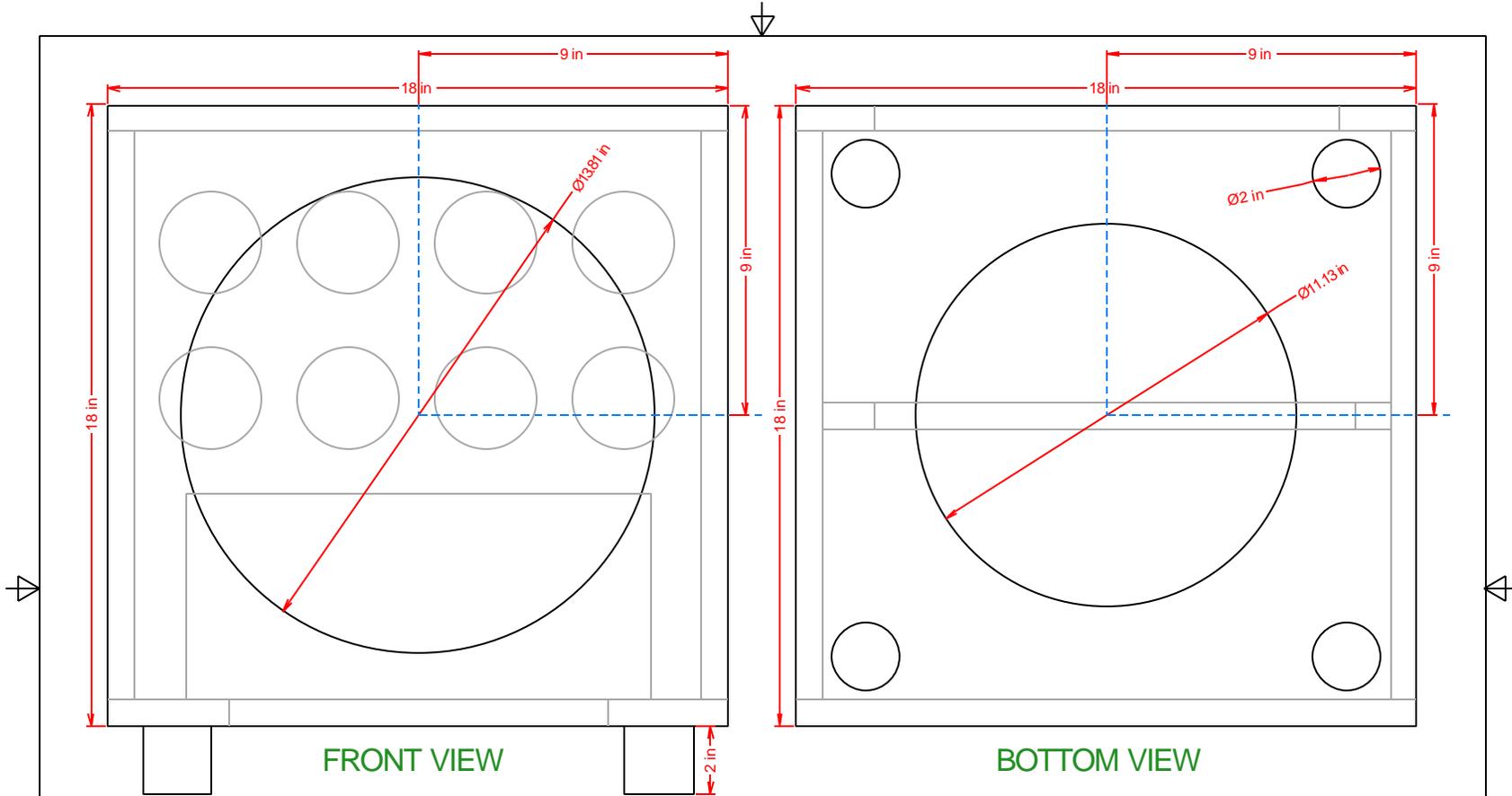
Legs are 2" tall, 2" diameter doweling or equivalent. The 2" height should be considered a minimum; taller legs are acceptable, but shorter legs should be avoided.

Use of 3/4" thick stock is recommended. A good quality void-free plywood (marine grade plywood, Baltic birch, or other equivalents) is recommended with MDF and particleboard being acceptable second choices.

Panel sizes are as follows:

- 2 quantity 18" square (top and bottom)
- 3 quantity 16.5" square (sides and brace)
- 2 quantity 18" wide by 16.5" high (front and back)

The front panel has a 13 7/8" diameter hole for mounting the PR15. The bottom panel has a 11 1/16" diameter hole for the driver. The brace has a 13 1/2" by 6" cutout for driver clearance, and is perforated with eight 3" diameter holes.



CONSTRUCTION NOTES

CABINET IS 18" CUBE, EXTERNAL
 DPL12 DOWNFIRING, CENTERED ON BOTTOM
 PR15 FORWARD FIRING, CENTERED ON FRONT
 LEGS ARE 2" DIAMETER, 2" LONG DOWELS
 SINGLE BRACE FROM SIDE TO SIDE
 STOCK USED IS 3/4" THICK MATERIAL

LEGEND:

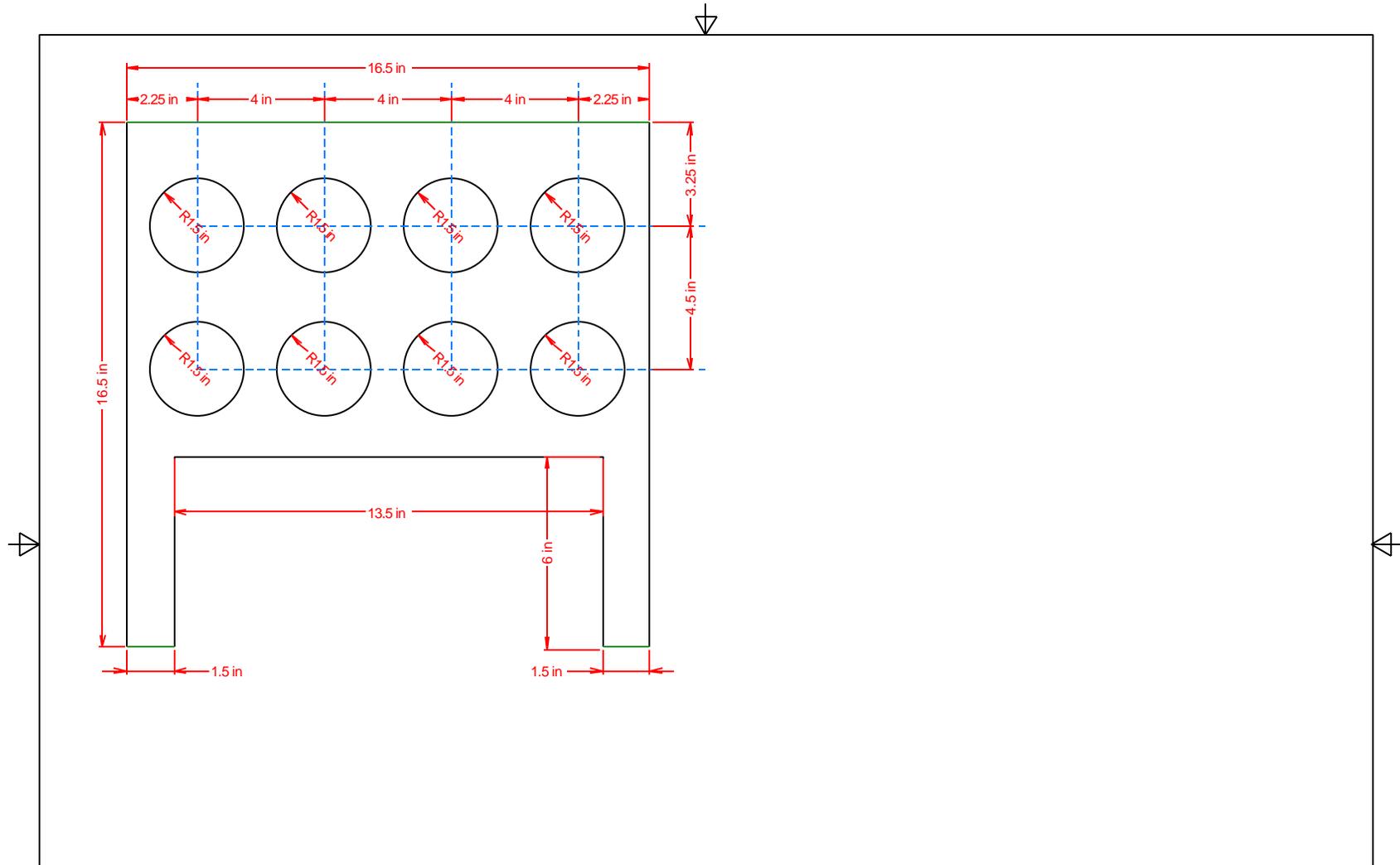
Black solid lines are viewable edges
 Grey lines are normally hidden from view
 Red lines are for dimensions
 Blue lines are for construction/reference
 Green lines are text/labels

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TITLE

DPL12/PR15 Sub

SIZE A	CAGE CODE N/A	DWG NO 3300-0316	REV -
SCALE N/A	DRAWN BY DCW	SHEET 1 of 2	



CONSTRUCTION NOTES

FRONT/REAR PANELS ARE 16.5"H x 18"W
 TOP/BOTTOM PANELS ARE 18" SQUARE
 SIDE PANELS ARE 16.5" SQUARE
 BRACE OVERALL IS 16.5" SQUARE
 PERF BRACE WITH 3" DIAMETER HOLES

LEGEND:
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