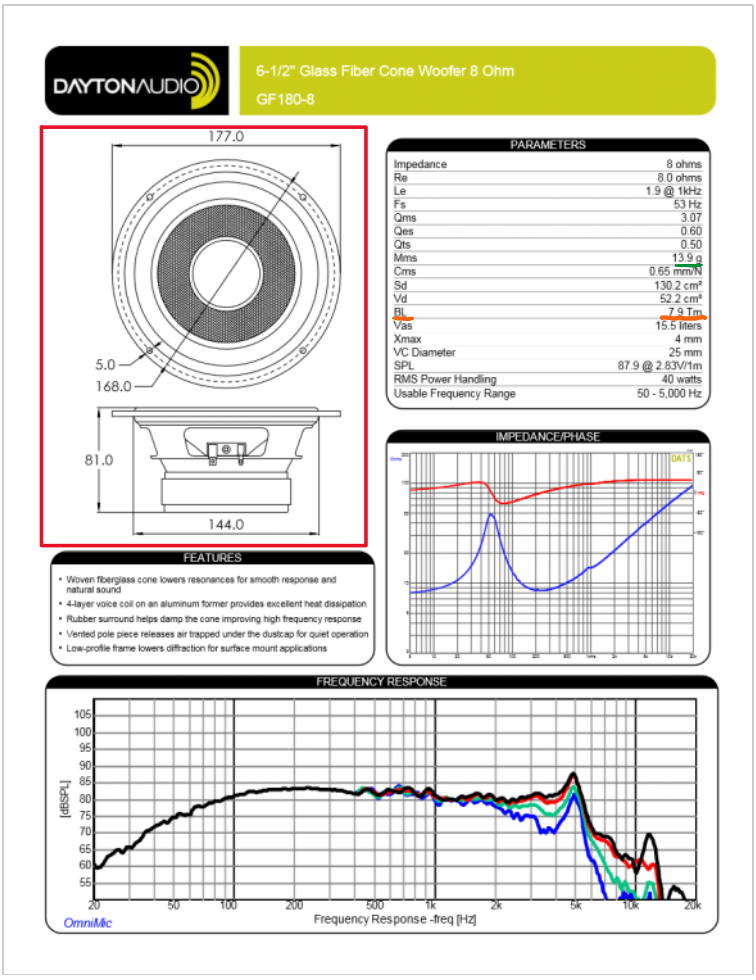
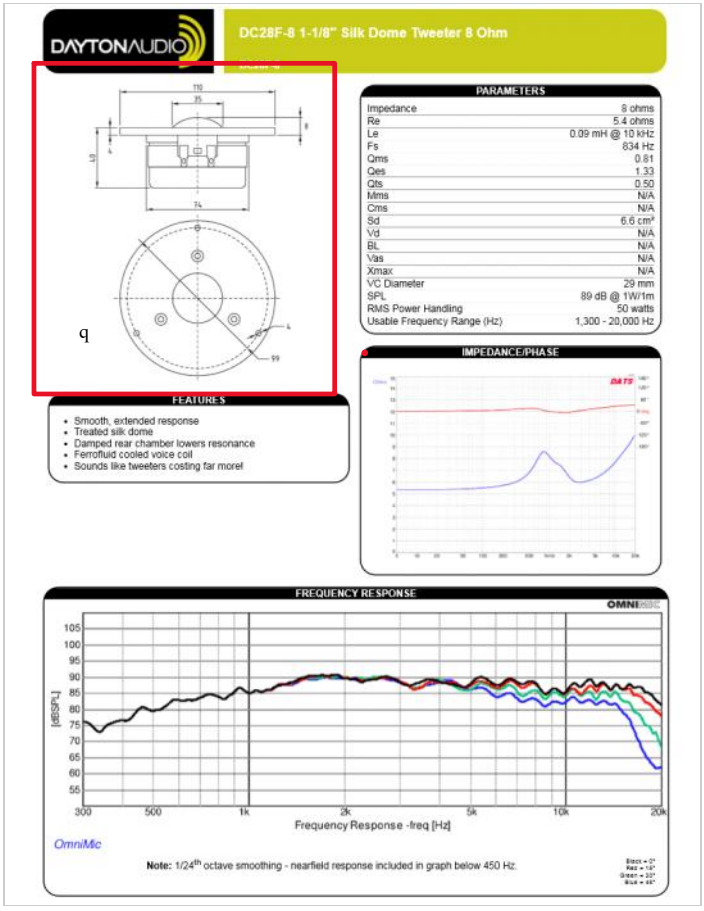
Driver +tweeter info

Monday, November 4, 2024 1:37 PM





Product Details

Brand	Dayton Audio
Model	GF180-8
Part Number	295-418
UPC	848791007927
Unit of Measure	Each
Weight	3.6

Product Specifications

Nominal Diameter	6-1/2"
Power Handling (RMS)	40 Watts
Power Handling (MAX)	80 Watts
Impedance	8Ω
Frequency Response	50 to 5,000Hz
Sensitivity	87.9dB 2.83V/1m
Voice Coil Diameter	1"

Thiele-Small Parameters

Resonant Frequency (Fs)	53Hz
DC Resistance (Re)	8Ω
Voice Coil Inductance (Le)	1.9mH
Mechanical Q (Qms)	3.07
Electromagnetic Q (Qes)	0.6
Total Q (Qts)	0.5
Compliance Equivalent Volume (Vas)	0.55ft³
Mechanical Compliance of Suspension (Cms)	0.65mm/N
BL Product (BL)	7.9T-m
Diaphragm Mass Inc. Airload (Mms)	13.9g
Maximum Linear Excursion (Xmax)	4mm
Surface Area of Cone (Sd)	130.2cm²

Materials of Construction

Cone Material	Fiberglass
Surround Material	Rubber
Voice Coil Wire Material	Copper
Voice Coil Former	Aluminum
Basket / Frame Material	Steel
Magnet Material	Ferrite

Mounting Information

Overall Outside Diameter	7"
Baffle Cutout Diameter	5.67"
Depth	3.19"
# Mounting Holes	4

Parts Express Staff Recommended Enclosure Volume

Sealed Volume	0.4ft³
Sealed F3	85Hz
Vented Volume	0.9ft³
Vented F3	40Hz

Product Details

Brand	Dayton Audio
Model	DC28F-8
Part Number	275-070
UPC	844632014130
Unit of Measure	Each
Weight	1

Product Specifications

Cone / Dome Diameter	1.125"
Cutout Diameter	2.91
Tweeter Type	Soft Dome
Power Handling (RMS)	50 Watts
Impedance	8Ω
Frequency Response	1,300 to 20,000Hz
Sensitivity	89dB 2.83V/1m

Thiele-Small Parameters

Resonant Frequency (Fs)	834Hz
DC Resistance (Re)	5.4Ω
Voice Coil Inductance (Le)	0.09mH
Mechanical Q (Qms)	0.81
Electromagnetic Q (Qes)	1.33
Total Q (Qts)	0.5

Mounting Information

Overall Outside Diameter	4.33"
Depth	1.53"

Loudspeaker cookbook

P65- assuming $Q_L = 7$

$Q_{ts} = 0.50$

$f_3 = 40\ Hz$

$Q_{ts} = 0.5$

$h = 1.0$

$\alpha = 0.8622$

$\frac{f_3}{f_s} = 0.9137$

$f_B = H \cdot f_s$

$f_s = 43.78\ Hz$

$V_B = 0.9\ ft^3 \rightarrow 1555.2\ in^3$

$V_d = 52.2 cm^3 \rightarrow 5.22\ E\text{-}5\ m^3$

PVC pipe used in house plumbing is virtually the best, easiest to fabricate, and most readily available material for constructing speaker vents. It comes in a number of useful diameters (½, ¾, 1, 1.5, 2, 3, and 4") and can be easily cut for tuning. While you can construct rectangular vents out of wood, changing vent length for tuning is time-consuming. For that reason, we will discuss only tube-type vents.

For a tubular vent flush-mounted on a speaker baffle, calculate the length by:

$$L_v = \frac{1.463 \times 10^7 R^2}{f_B^2 V_B} - 1.463R$$

where: L_v = length in inches
f_B = tuning frequency in Hz
V_B = box volume in cubic inches
R = radius of the vent in inches

(1) $d_v \geq 39.37 \left(\frac{411.25 V_d}{\sqrt{f_B}}\right)^{1/2}$

where:

$d_v \geq$ minimum diameter of vent in inches
f_B = tuning frequency in Hz
V_d = cone displacement volume in cubic meters

As a general guideline[1] Small offers a somewhat more conservative formula (for the same units as above):

2. $d_v \geq 39.37 (f_B V_d)^{1/2}$

For a 10" woofer in a box tuned to 33.5Hz, the minimum vent diameter would be 3.57" in the first case, and 2.45" in the second. Since these figures are approximations, the formulas suggest a 3-4" port would be adequate. However,

Length vent $= \frac{1.463 \cdot 10^7 R^2}{f_B^2 V_B} - 1.463R$

$2R \geq 39.37 (f_B V_d)^{1/2}$

Diameter = 2 in?

Length = 3.45

$D_1 \geq 2.24$ in

$D_2 \geq 1.88$ in

∴ Diameter 2 in

$L_v = 3.45$ in

must be min 3" from back wall

If D=2.5 → $L_v = 5.84$ ∴ box needs to be at least 9 inches deep

Cookbook later recommends 3" dia ports.

Speaker Cabinet Port Tube 2-1/2" ID Adjustable

Parts Express Part # **260-386**

1-3/8 in. ID | 2 in. ID | **2-1/2 in.** | 4-5/16 in.

Perfect for fine tuning bass alignment. Made of impact resistant black plastic. 8-5/8".

See all items in Speaker Port Tubes

^^^Diameter of cutout is supposedly 2.8". If I had to guess, flange diameter is likely 3.5"? Not 100% sure till I receive the parts.


Power
Pairing
Bluetooth
Volume
On
Off
Gain
LPF
HPF
Aux Input

Included in the kit is everything you need for a seamless installation. You will find a DC coax 2.1 x 5.5 mm power jack, a rocker switch, standoffs, four potentiometers, a pairing switch, gasket tape, and mounting screws. The best part is that these components plug directly into the board, eliminating the need for any soldering. Installation has never been easier!

To make the process even more convenient, the panel comes with predrilled holes and silk screen white labels, allowing you to identify the location and function of each component with ease. No more guesswork or confusion!

Furthermore, the kit includes a scratch on transfer sheet for three blank control options, giving you the freedom to customize your project according to your preferences. Additionally, black plastic buttons are provided to cover any unused holes, ensuring a clean and professional appearance.

The standoffs included in the kit serve as a sturdy support system, holding the panel and the KABD board firmly together for one-piece mounting. This ensures that your project stays securely in place, even during heavy use.

To complete the installation, gasket tape and screws are included to securely mount the panel to your project. This ensures that the panel stays firmly in place, while also providing a neat and finished look.

With the KABD-PMV4 Panel Mount Kit, you can take your Dayton Audio KABD sound projects to the next level. Give them a professional finish and enjoy the satisfaction of a job well done. So why wait? Get your kit today and transform your project into something truly remarkable!

Included Components:

Parts	Description	Specification	Qty
Panel	Black metal	4.75" H x 3.76" W x 0.09" D (120 x 95 x 2.3 mm) with screw hole spacing 4.37" and 3.39" (111 x 86 mm) apart for mounting	1
Screws	Black for front of standoff	M3 x 6 mm	4
Screws	Silver for rear of standoff	M3 x 6 mm	4
Standoffs	Silver	M3 x 60 mm	4
Screws	Black wood screws for mounting	M3 x 16 mm	8
LEDs	Red and blue with metal socket and cables	5 mm with 20" (500 mm) leads	2
Potentiometer	Volume control, knob, and cable	10K ohm with 20" (500 mm) leads	4
Push button switch	Push button and cable for Bluetooth pairing	SPST momentary N.O. with 20" (500 mm) leads	1
Stereo phone jack	Aux input and cable	3-conductor 3.5 mm with 20" (500 mm) leads	1
DC coax jack	DC input and cable	2.1 x 5.5 mm with 20" (500 mm) leads	1
Rocker Switch	On-off switch and cable	SPST with 20" (500 mm) leads	1
Gasket tape	Gasket tape for underneath the outer diameter of the panel	4.61" L x 0.39" W (117 x 10 mm)	2
Gasket tape	Gasket tape for underneath the outer diameter of the panel	3.47" L x 0.39" W (88 x 10 mm)	2
Wrench	Wrench for LED mounts	10 mm	1
Allen wrench	Driver for screws	2.5 x 55 x 18 mm	1

Feet 0.88" Dia x 0.31" H

Designed to work with #8 screws

INSPIRATIONS:


polk


ELAC

Don't plan on
Using grilles for
This one