



**PCW/10/12/15**

**SUBWOOFERS**

**OWNER'S MANUAL AND  
INSTALLATION GUIDE**

**SOUNDSTREAM<sup>®</sup>**  
T E C H N O L O G I E S



# Picasso Woofers

Congratulations on your purchase of one of the finest woofers available for your vehicle today.

Picasso Woofers are nothing short of engineering genius.

Shock Wave technology bridges the gap between sound quality and SPL. Our engineers have increased the cone area while extending the X-max (vertical movement) to achieve maximum Shock Wave.

Own a glimpse of the future. Own Picasso.

Please take a few moments to fill out the warranty card and review this manual before installing this woofer for proper connections and box sizes.

## Design Features

### PCW-10

10" High Performance Subwoofer  
Stainless Steel Stamped Basket  
UDV Cooling Technology  
Low Resonance Woven Carbon Fiber Cone  
Black Progressive Roll Conex Spider  
C-Lock Rubber Gasket  
Hi-Arc High Excursion Surround  
Dual 4-ohm Voice Coil  
2" BAEISV Hybrid Voice Coil Former  
Woven Tinsel Leads  
Vented & Extended Pole Piece  
Low Carbon Top & Bottom Plate  
Rubber Magnet Cover  
50 oz. Magnet  
300 watts RMS Power Handling

### PCW-12

12" High Performance Subwoofer  
Stainless Steel Stamped Basket  
UDV Cooling Technology  
Low Resonance Woven Carbon Fiber Cone  
Black Progressive Roll Conex Spider  
C-Lock Rubber Gasket  
Hi-Arc High Excursion Surround  
Dual 4-ohm Voice Coil  
2" BAEISV Hybrid Voice Coil Form  
Woven Tinsel Leads  
Vented & Extended Pole Piece  
Low Carbon Top & Bottom Plate  
Rubber Magnet Cover  
50 oz. Magnet  
350 watts RMS Power Handling

### PCW-15

15" High Performance Subwoofer  
Stainless Steel Stamped Basket  
UDV Cooling Technology  
Low Resonance Woven Carbon Fiber Cone  
Black Conex Progressive Roll Spider  
C-Lock Rubber Gasket  
Hi-Arc High Excursion Surround  
Dual 4-ohm Voice Coil  
2.5" BAEISV Hybrid Voice Coil Former  
Woven Tinsel Leads  
Vented & Extended Pole Piece  
Low Carbon Top & Bottom Plate  
Rubber Magnet Cover  
60 oz. Magnet  
400 watts RMS Power Handling

## Building the Enclosure

- Determine the dimensions of your enclosure.
- Be certain the box dimensions that you have designed will fit in the location you have chosen in your vehicle. Sometimes making a cardboard box with the same outside dimensions is helpful.
- It is recommended to use  $\frac{3}{4}$  or 1 inch thick MDF (medium density fiberboard) for your box.
- Use a “T” square to verify precise right angle cuts before you assemble the box.
- Use high quality wood glue and screws to assemble the box to guarantee an airtight box that will not come apart due to excess vibration and pressure.
- It is recommended for high fidelity, sealed enclosures to stuff the interior of the box about 50 - 75% fiberglass insulation or Dacron fiberfill for increased sound damping and woofer performance.
- For ported enclosures, it is recommended to staple 1” thick fiberglass insulation to the interior walls of your box.
- Use slide on connectors for spade style connectors or bare wire for push and screw terminals. Do not solder the wires to the factory connectors as this may cause damage to the voice coil or tinsel lead and may void your warranty.

## Parameters

<b>Spec/Model</b>	<b>PCW-10</b>	<b>PCW-12</b>	<b>PCW-15</b>
Max (watts)	600	700	800
RMS (watts)	300	350	400
Mag. Wgt. (oz)	50	50	60
V.C. Size (in.)	2.0	2.0	2.5
V.C. Imp	4 $\Omega$ x2	4 $\Omega$ x2	4 $\Omega$ x2
Fs (Hz)	36.08	32.87	30.62
Vas (Cu. Ft.)	0.806	1.839	3.588
Qms	4.887	4.963	5.544
Qes	0.628	0.733	0.722
Qts	0.557	0.638	0.639
Xmax (in.)	0.413	0.413	0.315
SPL (dB)	87	89	91
Primary Enclosure Style	Sealed	Sealed	Sealed

## Recommended box sizes

<b>PCW-10</b>	<b>High Output</b>	<b>Sound Quality</b>
Optimum Enclosure Type	Sealed	Sealed
Enclosure Size Net (w/o driver displacement)	0.5 cubic feet	.75 cubic feet
Enclosure Size Gross (w/o driver displacement)	0.56 cubic feet	8 cubic feet
Enclosure QTC	0.854	0.707
F3 (3dB down point)	51 Hz	51 Hz
Recommended Damping	None	Loose Fill
Driver Displacement	0.056	0.056
Recommended Box Dimensions (using .75" material)	L 17.5" x H 11.5" x W 7.5"	L 19.5" x H 12.5" x W 8.25"

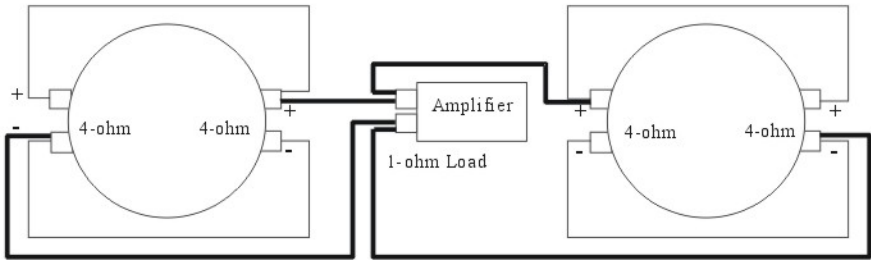
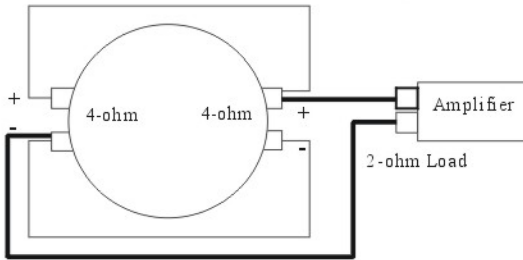
<b>PCW-12</b>	<b>High Output</b>	<b>Sound Quality</b>
Optimum Enclosure Type	Sealed	Sealed
Enclosure Size Net (w/o driver displacement)	1.25 cubic feet	3.0 cubic feet
Enclosure Size Gross (w/o driver displacement)	1.34 cubic feet	3.13 cubic feet
Enclosure QTC	0.946	0.708
F3 (3dB down point)	43 Hz	41 Hz
Recommended Damping	None	Loose Fill
Driver Displacement	0.09	0.09
Recommended Box Dimensions (using .75" material)	L 17" x H 13.75" x W 13.75"	L 29.75" x H 19.0" x W 12.25"

<b>PCW-15</b>	<b>High Output</b>	<b>Sound Quality</b>
Optimum Enclosure Type	Sealed	Sealed
Enclosure Size Net (w/o driver displacement)	2.0 cubic feet	3.5 cubic feet
Enclosure Size Gross (w/o driver displacement)	2.2 cubic feet	3.7 cubic feet
Enclosure QTC	1.0	0.777
F3 (3dB down point)	42 Hz	40 Hz
Recommended Damping	None	Loose Fill
Driver Displacement	0.209	0.209
Recommended Box Dimensions (using .75" material)	L 16.75" x H 16.75" x W 18.0"	L 31.5" x H 20.0" x W 13.0"

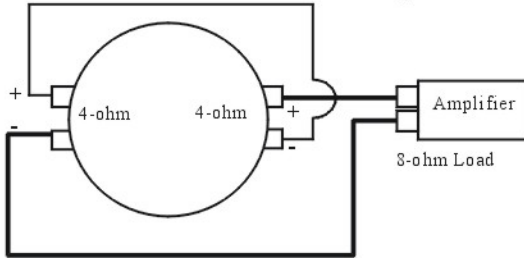
## Recommended wiring

The following page will give you a few different options to match the impedance of the woofers to the impedance capability of the amplifier. Please look and follow the diagrams closely to insure maximum woofer performance.

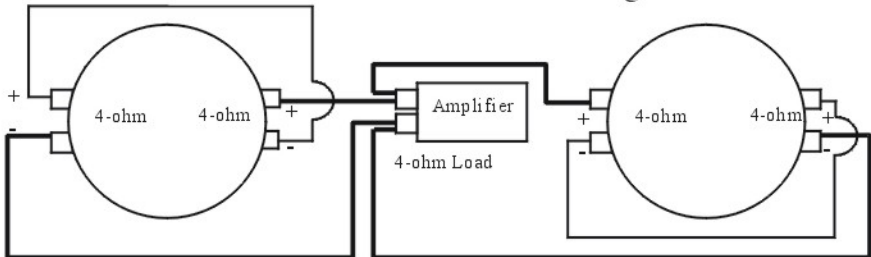
### Parallel voice coil configuration



### Series voice coil configuration



### Series/Parallel voice coil configuration





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