

PREMIUM PWM304

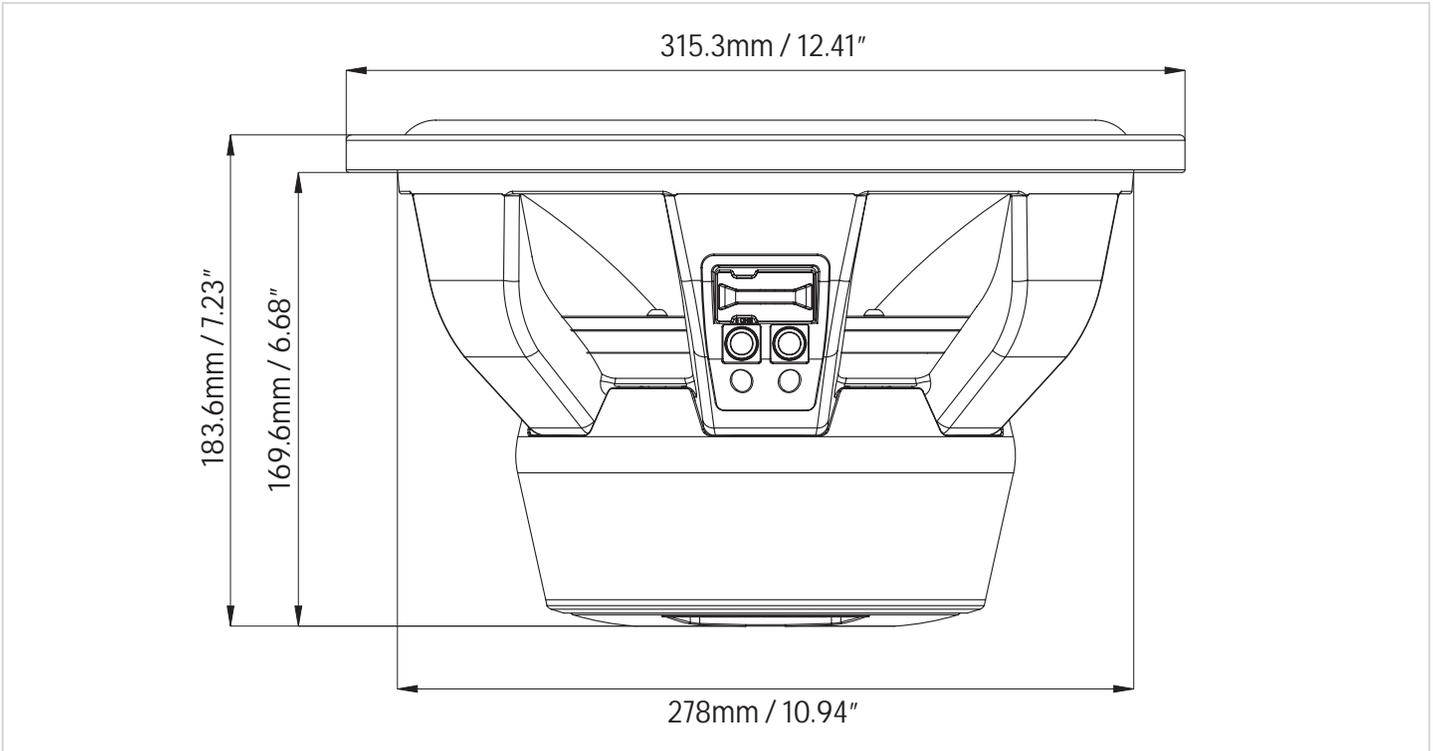
Thank you for choosing the MB Quart PREMIUM subwoofer for your car audio sound system. With proper installation, you are on the path to experiencing your music in a way you only imagined possible. Here at MB Quart, we call this "Sound In Every Detail."

The PREMIUM series subwoofers have been designed for the audiophile looking for tonal balance and incredible output from their woofer. The PREMIUM series subwoofers feature the following:

- Carbon Fiber Cone & Dustcap
- UV Resistant Butyl Rubber Surround
- 2.5" High Temp Voice Coil
- Red Nomex Spider
- Quick Change Impedance Terminal
- Deep Drawn Stamp Steel Basket
- Heat-Dispersing Vented Pole Plate
- Anti-Resonant Magnet Cover



PWM304



TECHNICAL DATA

Power Rating: 500-1000 W
 Impedance: DVC 4 ohms
 Sensitivity: 84 dB (1W/1m)
 Frequency Response: 30-250 Hz

COMPRISING:

1 woofer 30.48 cm / 12"

TECHNISCHE DATEN

Belastbarkeit: 500-1000 W
 Impedanz: DVC 4 ohms
 Empfindlichkeit: 84 dB (1W/1m)
 Übertragungsbereich: 30-250 Hz

BESTÜCKUNG:

1 woofer 30.48 cm / 12"

CARACTÉRISTIQUES TECHNIQUES

Puissance: 500-1000 W
 Impédance: DVC 4 ohms
 Rendement: 84 dB (1W/1m)
 Bande passante: 30-250 Hz

EQUIPEMENT:

1 woofer 30.48 cm / 12"

DATOS TÉCNICOS

Carga admisible: 500-1000 W
 Impedancia: DVC 4 ohms
 Potencia de servicio: 84 dB (1W/1m)
 Campo de transmisión: 30-250 Hz

EQUIPAMIENTO:

1 woofer 30.48 cm / 12"

DATI TECNICI

Potenza: 500-1000 W
 Impedenza: DVC 4 ohms
 Sensibilità: 84 dB (1W/1m)
 Risposta in frequenza: 30-250 Hz

DOTAZIONE:

1 woofer 30.48 cm / 12"

Технические Данные

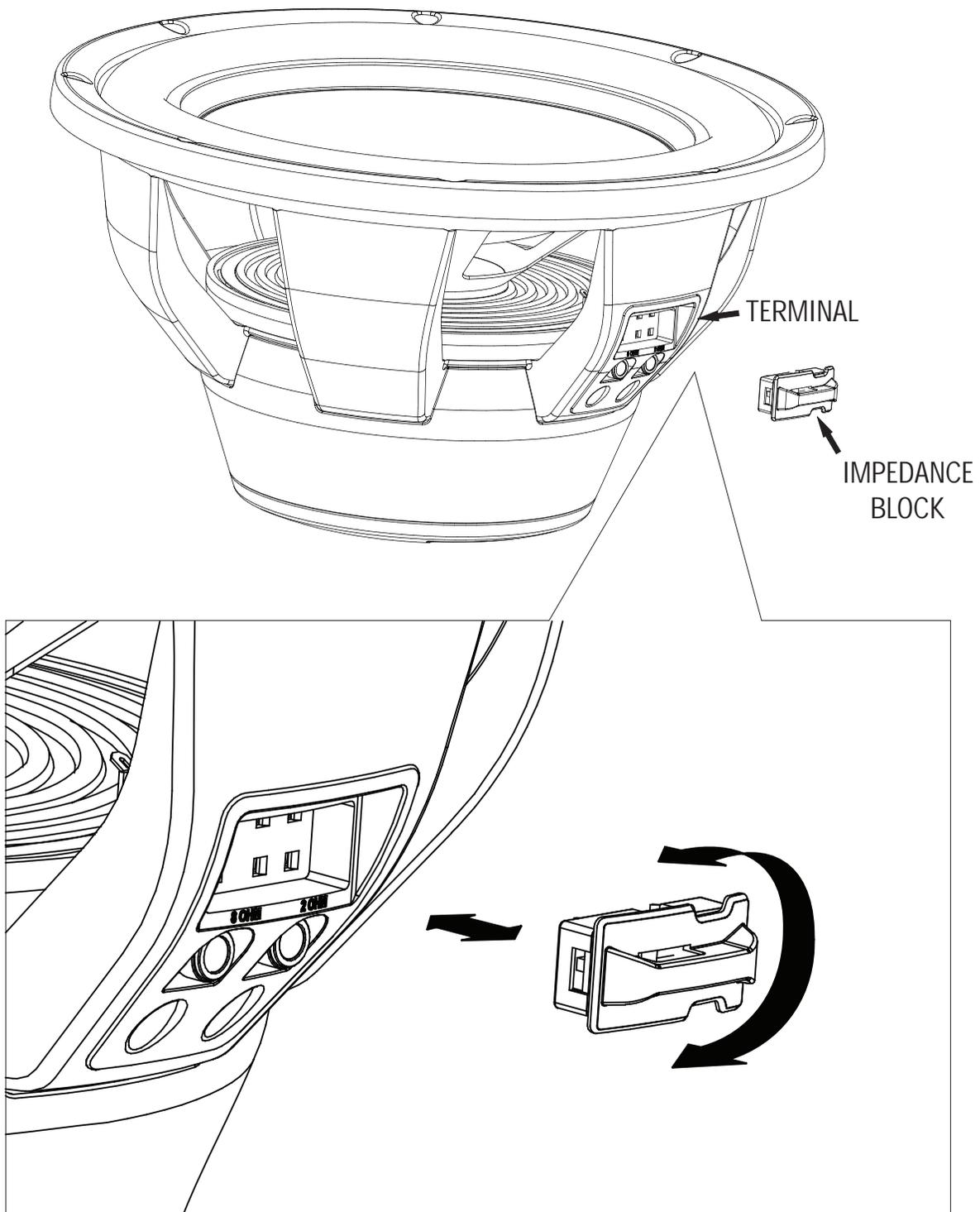
Нагрузочная способность: 500-1000 Вт
 Импеданс: DVC 4 ом
 Рабочая мощность: 84 дБ (1Вт/1м)
 Диапазон передачи: 30-250 Гц

Оснащение:

1 woofer 30.48 cm / 12"

Subject to technical changes · Technische Änderungen vorbehalten · Sous réserve de modifications techniques · Ci si riservano modifiche tecniche
 Reservados los cambios técnicos · Производитель оставит за собой право на технические изменения

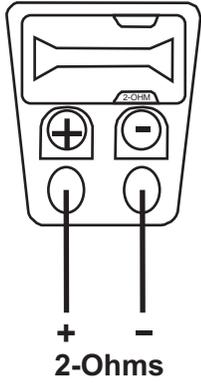
QUICK CHANGE IMPEDANCE FEATURE



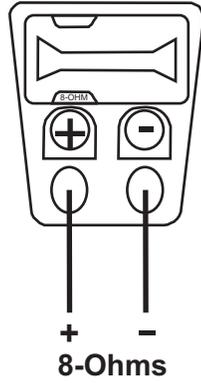
The 4-0hm dual voice coils are wired in Series when the block is inserted with 8-0hm showing and in Parallel when 2-0hm is showing on the Terminal label. As shown in the diagram above, changing the configuration is quick and easy. Firmly grasp the lip of the block and pull from the terminal. Rotate 180 degrees and re-insert. Please review page 4 for detailed wiring configurations.

DVC 4-0hm Coil Wiring

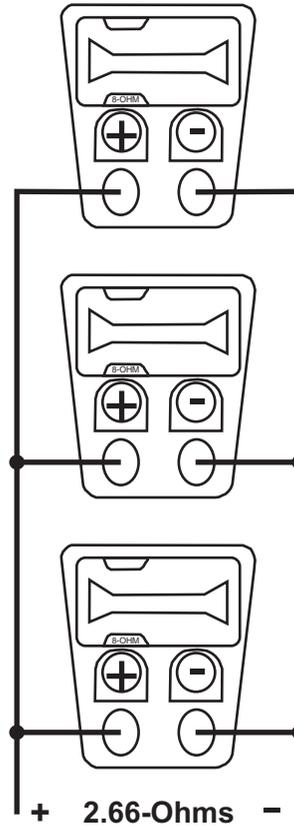
PARALLEL COILS



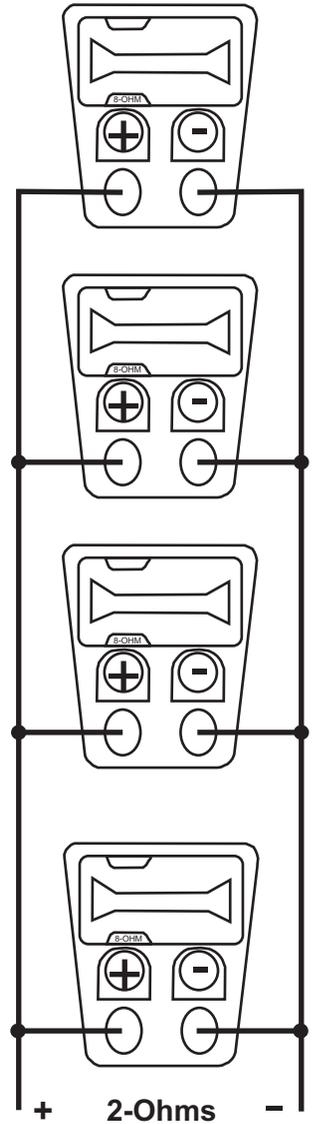
SERIES COILS



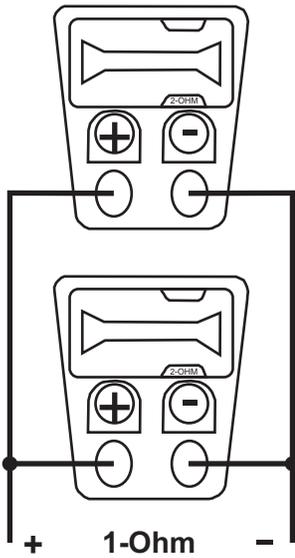
**SERIES COILS /
PARALLEL SUBS**



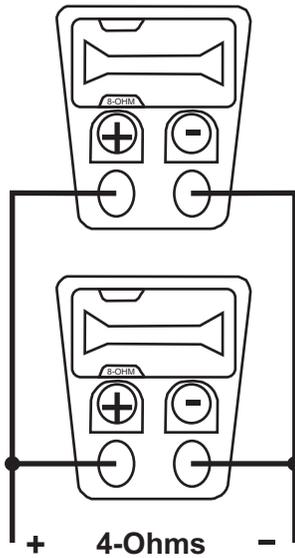
**SERIES COILS /
PARALLEL SUBS**



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**SERIES COILS /
PARALLEL SUBS**



PREMIUM SERIES SUBWOOFERS		
ELECTRICAL	PWM304	
WIRING	SERIES	
NomZ	8.64	Ohm
Sd	0.0513	sqM
Revc	7.2	Ohm
BL	18.73	TxM
Vas	59.911	Liters
Cms	161.8	uM/N
Mms	212.1	Grams
Fo	27.25	Hz
Qms	3.252	
Qes	0.746	
Qts	0.606	
no	0.157	%
SPL@1W	84	dB
SPL@2.83W	84.55	dB
Xmax/Over Hang	14.5	mm
Xmech/Suspension	35.5	mm
RMS	500	Watts
PEAK	1000	Watts
CLOSED BOX DESIGNS (SEALED)		
Standard Tight Bass-Small Box		
Box Volume	1.25	Cubic Feet
Qtc	0.968	
F3	36	Hz
VENTED BOX DESIGNS (ROUND PORT)		
Standard Tight Bass-Small Box		
Box Volume	1.5	Cubic Feet
Fb	45	Hz
Round Port Size	4	Inches
Port Length	9.5	Inches
F3	36	Hz
Optimal Sound Quality-Flat Response		
Box Volume	2.5	Cubic Feet
Fb	43	Hz
Slot Port Size (Inches)	12.5 x 2.5	Inches
Port Length (Inches)	28	Inches
F3	34	Hz
FEATURES ARE SUBJECT TO CHANGE WITHOUT NOTICE		
NOTE: All above box volumes are internal values and already include subwoofer and port displacement.		
Volume listed represents the volume of an empty box using 3/4" MDF.		
The F3 value represents the -3db cut off of the sub/enclosure combination in Hz.		

SUBWOOFER INSTALLATION DIRECTIONS

Enclosure Materials

Typically, 5/8" or 3/4" MDF (Medium Density Fiber Board) is best for most applications. 3/4" MDF is recommended.

Enclosure Build Materials

Connecting joints need to be glued and screwed to ensure no air escapes and joints do not separate under high pressure. Mitered and rabbit joints also help to ensure the enclosure joints are secure.

Bracing

Internal bracing is also recommended to prevent flexing and to strengthen the enclosure.

Note: The volume taken up by the bracing should be added to the total enclosure interior volume.

There are two common bracing methods.

1. Corner Bracing: These help prevent the connection joints from separating under heavy vibration and air pressure.

Use 1" x 1" MDF at all interior joints

2. Diagonal Bracing: These internal braces connect the top side to the bottom side as well front side to back side. This prevents the wood from bowing or pushing outwards.

Use 1" x 2" with 1" surface contact that is glued and screwed.

Glossary of Terms

- Q The energy losses of relative damping (ratio of stored to dissipated energy or ratio of reactive to resistive energy).
- F_s Free air resonance of driver in Hz.
- Q_{ms} Mechanical Q.
- V_{as} Volume of air equivalent to driver from the rest position.
- C_{ms} Mechanical compliance of a loud speaker piston.
- M_{ms} Moving mass of total loud speaker piston assembly.
- X_{max} The maximum linear excursion of a loud speaker.
- S_d Surface area of the cone.
- D_{ia} The piston diameter of a loud speaker.
- Q_{es} Electrical Q of a system.
- R_e DC resistance.
- L_e VC inductance.
- P_e Maximum input power.
- Q_{ts} Total Q of the system.
- Sens Sensitivity. An efficiency measurement in dB's.
- V_c Volume of a closed or sealed enclosure
- V_b Volume of a vented enclosure.
- F_c The resonant frequency of a closed or sealed system
- F_b The resonant frequency of a vented system
- F₃ The half-power (-3dB) frequency of a loud speaker enclosure
- Q_{tc} The Q of a loud speaker at F_c in a closed box, considering both it's electrical and mechanical resistance.
- Q_L The Q of a vented box, resulting from all box losses.
- D_V Diameter of vent.
- L_V Length of vent.
- H Height.
- W Width.
- D Depth