

# MASSIVE<sup>®</sup>

***Ultra High Quality Sub-Woofer***

***TW10***  
***TW12***  
***TW15***

**Massive Audio, Inc.**  
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Ver.1

®

## Introduction:

### **Congratulations!**

And thank you for purchasing a “Massive Audio” Ultra High Quality (TW) Series Subwoofer for your car audio system. You now own a subwoofer of uncompromising design and engineering incorporating the latest advances in motorstructure, voice coil geometric winding and cone structure. This handcrafted subwoofer is designed to deliver the demands of serious “SQ” sound quality. You will soon discover that

TW Series subwoofers display a fine balance between high quality, performance and reliability; all proven qualities of “Massive Audio” products.

“Massive Audio” subwoofers are the result of American Craftsmanship using only the highest quality components and quality control standards. In order to provide you with many years of listening pleasure, we recommend you to have your new subwoofer installed by an Authorized “Massive Audio Dealer.” This will ensure the proper installation of your product, and will also increase the length of your warranty to **TWO YEARS**.

*(Please see the warranty section for more details.)*

Please take a moment to thoroughly read this manual to ensure that you get the maximum benefit from this new addition to your car audio system. When installed properly, this unit will provide years of trouble-free performance.

Should your subwoofer ever need service or replacement due to theft, please record the following information, which will help protect your investment.

Model #: \_\_\_\_\_

Dealer’s Name: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

Installation Shop and Date: \_\_\_\_\_



TW SERIES

## **DESIGN FEATURES**

### **Custom tolled steel basket with heavy powder coating:**

Heavy gauge stamped steel basket, to minimize vibration.

Heavy powder coating to dampen the basket, to minimize vibration and ringing noises.

### **Y40 High flux Ferrite magnets:**

These high energy Y40 magnets will assure sufficient magnetic force needed for high SPL output.

### **Chrome Plated top and bottom plates:**

For enhance cosmetics and to help to help protect the metal from corrosion.

### **Poly Cotton Damper:**

Poly-Cotton Damper W/ Woven Round Tinsel Lead Wire for a more linear diaphragm motion.

### **V Cone:**

Ultra light V cone with custom window cut-outs.

For fast accurate and high quality sound reproduction.

### **1" tall roll santoprene surround:**

Custom santoprene surround for maximum excursion and sound quality bass reproduction.

### **Reinforced Aluminum Former:**

Dual 4 Ohm, 2.5" 4 layer voice coil with 50mm winding length on a reinforced aluminum former.

### **Ventilation plate:**

Molded ABS plate with chrome finish to insure noise free ventilation

### **High X-max:**

24 mm peak to peak x-max to insure high SPL sound reproduction

**1000 Watts max 500Watts RMS**

## **CAUTION!**

**Recommended power range per sub-woofer is 200W - 500W RMS. Exceeding this power range may increase the likelihood of driver failure. Subwoofers operated above the recommended power are not covered under warranty.**

## **CAUTION!**

### **Pre-install preparation**

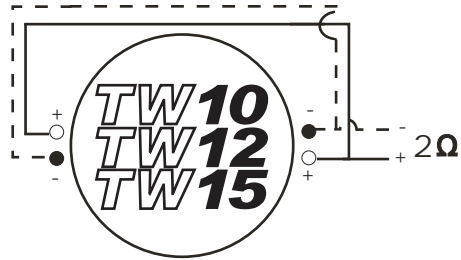
This subwoofer has to play at a low frequency, Mid-volume signal for at least 2 hours to loosen the suspension.

This is a requirement to get the best performance from this sub-woofer.

# Wiring Configuration

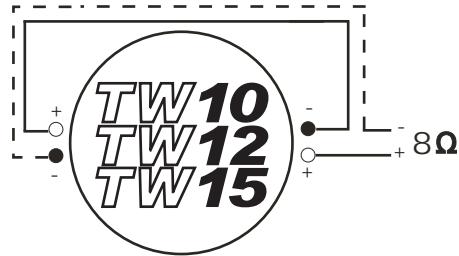
## Mono 2 $\Omega$

*Recommended for  
SPL applications*

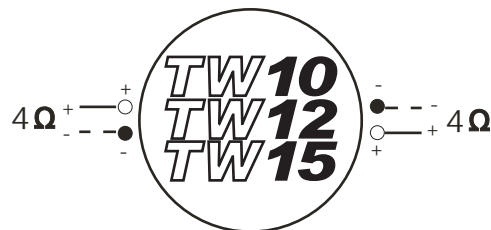


## Mono 8 $\Omega$

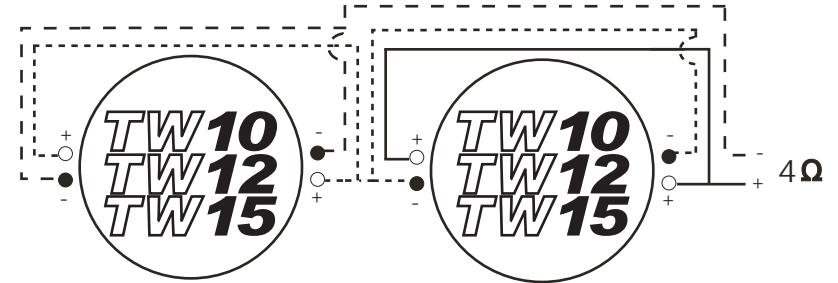
*Recommended for SQ  
(sound quality) applications*



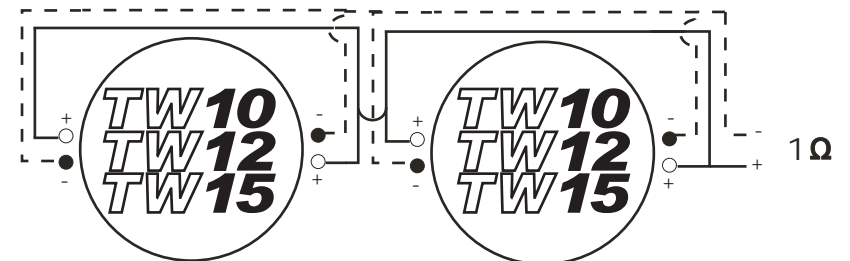
## Dual 4 $\Omega$



## Two Subs 4 $\Omega$



## Two Subs 1 $\Omega$



# Transducer Parameter

## TW10

Configurations	Parallel 2Ω		Series 8Ω
NomZ	2	Ohm	8
Sd	0.01318	sqM	0.01318
Revc	1.5	Ohm	6
Levc	1	mH	1
BL	10.2	TxM	19
Vas	18	Liter	18
Cms	125	uM/N	125
Mms	167	Grams	167
Fo	34.8	Hz	34.8
Qms	5		5
Qes	0.529		0.586
Qts	0.478		0.525
no	0.138	%	0.125
SPL@1W	83.6	dB	83.16
SPL@2.83V	90.88	dB	84.41
Xmax/Over Hang	10	mm	10
Xmech/Suspension	24.5	mm	24.5
Watt@RMS	500	Watts	500
Watt@PEAK	1000	Watts	1000

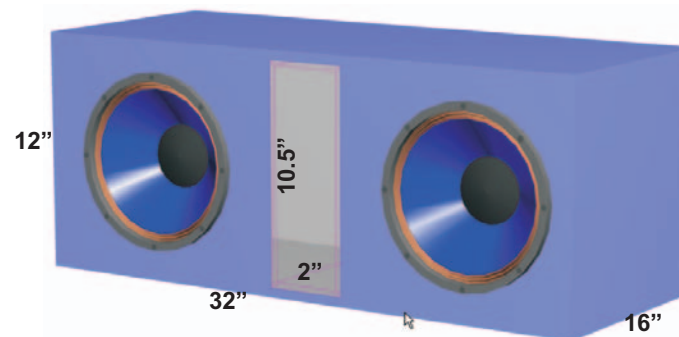
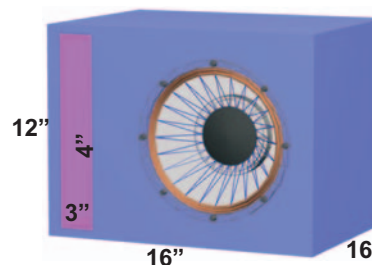
Displacement	0.05 Ft3
Frame Diameter	10.50"
Mounting Hole Diameter	9.50"
Mounting Depth	5.50"
Overall Depth	6.25"

- \*Poly-fill 80% of the volume in order to achieve a flatter frequency response. (less boomy).
- \*Box dimensions are external using a 3/4" baffle.
- \*Approximate adjusting point for the subsonic filter, it should be adjusted until it is audible.
- \*For less air turbulence, round off inside and outside port edges and fill in the corner to avoid sharp angles.
- \*Placing the port in the center of the box will further brace the enclosure.
- \*circular ports are calculated to fit the same enclosure as slotted port.

## TW 10 Ported box for one Sub

BOX DIMENSIONS			SLOTTED PORT			CIRCULAR PORT	
H	W	D	Hp	Wp	Lp	Dp	Lp
12"	16"	16"	4"	3"	12"	4"	12"

VOLUME	TUNNING	FREQUENCY	POWER	SUBSONICS	INPEDENCE
1.28 ft3	44.79 Hz	22 Hz - 250 Hz	40-500W	28 Hz	2 or 8 Ohms



## TW 10 Ported box for Two Subs

BOX DIMENSIONS			SLOTTED PORT			CIRCULAR PORT	
H	W	D	Hp	Wp	Lp	Dp	Lp
12"	32"	16"	10.5"	2"	11"	2 x 4"	11"

VOLUME	TUNNING	FREQUENCY	POWER	SUBSONICS	INPEDENCE
2.32 ft3	45.79 Hz	22 Hz - 250 Hz	100-1000	28 Hz	1 or 4 Ohms

# Transducer Parameter

## TW12

Configurations	Parallel 2Ω		Sereis 8Ω
NomZ	2	Ohm	8
Sd	0.05047	sqM	0.05047
Revc	1.5	Ohm	6
Levc	1	mH	1
BL	10.2	TxM	19
Vas	45	Liter	45
Cms	125	uM/N	125
Mms	186	Grams	186
Fo	33	Hz	33
Qms	5		5
Qes	0.56		0.608
Qts	0.5		0.542
no	0.33	%	0.24
SPL@1W	86.4	dB	86
SPL@2.83V	93.7	dB	87.25
Xmax/Over Hang	10	mm	10
Xmech/Suspension	24.5	mm	24.5
Watt@RMS	500	Watts	500
Watt@PEAK	1000	Watts	1000

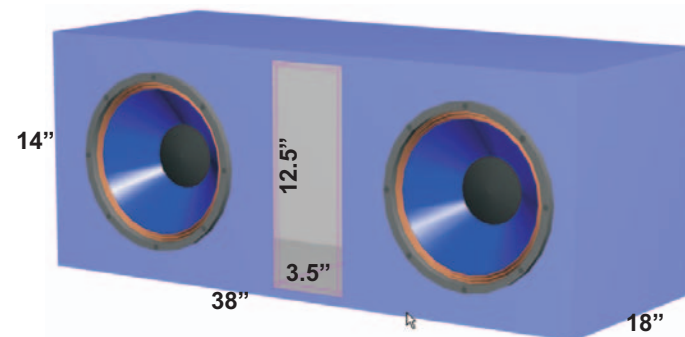
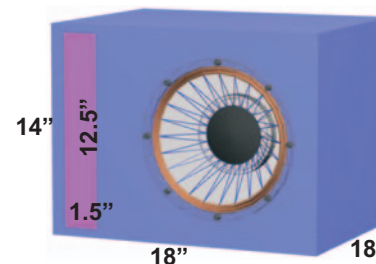
Displacement	0.065 Ft3
Frame Diameter	12.25"
Mounting Hole Diameter	11.50"
Mounting Depth	5.75"
Overall Depth	6.50"

- \*Poly-fill 80% of the volume in order to achieve a falter frequency response. (less boomy).
- \*Box dimensions are external using a 3/4" baffle.
- \*Approximate adjusting point for the subsonic filter, it should be adjusted until it is audible.
- \*For less air turbulence, round off inside and outside port edges and fill in the corner to avoid sharp angles.
- \*Placing the port in the center of the box will further brace the enclosure.
- \*circular ports are calculated to fit the same enclosure as slotted port.

## TW 12 Ported box for one Sub

BOX DIMENSIONS			SLOTTED PORT			CIRCULAR PORT	
H	W	D	Hp	Wp	Lp	Dp	Lp
14"	18"	18"	12.5"	1.5"	12"	4"	6"

VOLUME	TUNNING	FREQUENCY	POWER	SUBSONICS	INPEDENCE
1.97 ft3	44.98 Hz	20 Hz - 250 Hz	40-500W	26 Hz	2 or 8 Ohms



## TW 12 Ported box for Two Subs

BOX DIMENSIONS			SLOTTED PORT			CIRCULAR PORT	
H	W	D	Hp	Wp	Lp	Dp	Lp
14"	38"	18"	12.5"	3.5"	11"	4 x 4"	14

VOLUME	TUNNING	FREQUENCY	POWER	SUBSONICS	INPEDENCE
4.36	44.78 Hz	20 Hz - 250 Hz	100-1000	26 Hz	1 or 4 Ohms

TW12

# Transducer Parameter

TW15

Configurations	Parrellel 2Ω		Series 8Ω
NomZ	2	Ohm	8
Sd	0.08118	sqM	0.08118
Revc	1.5	Ohm	6
Levc	1	mH	1
BL	10.2	TxM	19
Vas	117	Liter	117
Cms	125	uM/N	125
Mms	230	Grams	230
Fo	29.7	Hz	29.7
Qms	5		5
Qes	0.6		0.622
Qts	0.536		0.553
no	0.492	%	0.475
SPL@1W	89	dB	88.97
SPL@2.83V	96.4	dB	90.22
Xmax/Over Hang	10	mm	10
Xmech/Suspension	24.5	mm	24.5
Watt@RMS	500	Watts	500
Watt@PEAK	1000	Watts	1000

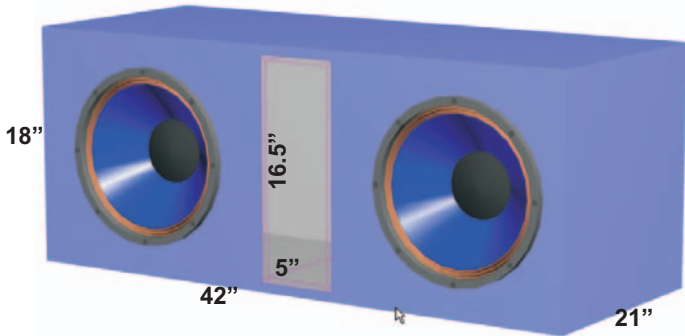
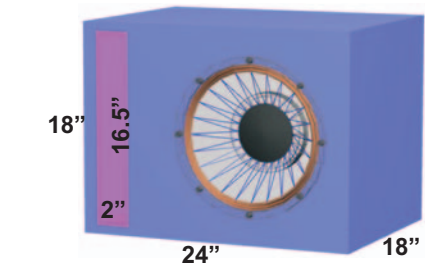
Displacement	0.067 Ft3
Frame Diameter	15.25"
Mounting Hole Diameter	14.25"
Mounting Depth	6.75"
Overall Depth	7.50"

- \*Poly-fill 80% of the volume in order to achieve a falter frequency response. (less boomy).
- \*Box dimensions are external using a 3/4" baffle.
- \*Approximate adjusting point for the subsonic filter, it should be adjusted until it is audible.
- \*For less air turbulence, round off inside and outside port edges and fill in the corner to avoid sharp angles.
- \*Placing the port in the center of the box will further brace the enclosure.
- \*circular ports are calculated to fit the same enclosure as slotted port.

## TW 15 Ported box for one Sub

BOX DIMENSIONS			SLOTTED PORT			CIRCULAR PORT	
H	W	D	Hp	Wp	Lp	Dp	Lp
18"	24"	18"	16.5"	2"	12"	2 x 4"	9"

VOLUME	TUNNING	FREQUENCY	POWER	SUBSONICS	INPEDENCE
3.54 ft3	39 Hz	18 Hz - 250 Hz	40-500W	24 Hz	2 or 8 Ohms



TW15

## TW 15 Ported box for Two Subs

BOX DIMENSIONS			SLOTTED PORT			CIRCULAR PORT	
H	W	D	Hp	Wp	Lp	Dp	Lp
18"	42"	21"	16.5"	5"	14"	6 x 4"	12.5"

VOLUME	TUNNING	FREQUENCY	POWER	SUBSONICS	INPEDENCE
7.54 ft3	39.7 Hz	18 Hz - 250 Hz	100-1000	24 Hz	1 or 4 Ohms



## WARRANTY

- Massive Audio, Inc. warrants all manufactured subwoofer products to be free from defect in material and workmanship for a period not to exceed **TWO YEARS\*** from the date of purchase when installed by an authorized “Massive Audio” dealer. Units that are not installed by an authorized “Massive Audio” dealer maintain a warranty not to exceed 90 days from the original purchase date by the original purchaser.
- **Products that displays abuse such as burnt Voice Coils may require purchase of a new recone kit.**
- “Massive Audio” obligations under this warranty are limited to repairing or replacing, at its own sole option, any such defective products. This warranty does not apply to equipment that has been damaged by accident, negligence, or misapplication or has been altered or modified in anyway. This warranty applies only to the original purchaser who must have properly registered the product within 30 days of purchase.

*Except as provided herein, Massive Audio, Inc. makes no warranties or representations, express or implied, including any warranty implied by law, whether for merchantability or fitness for a particular purpose and shall be effective only for the period that this express warranty is effective. SEE THE WARRANTY REGISTRATION CARD TO ADDITIONAL INFORMATION.*

