



# PHOENIX GOLD



## Subwoofer Manual

Models: MX12D2, MX12D4  
MX10D2, MX10D4

### Features

- 11mm of Linear Excursion
- Dual 2 Ohm or 4 Ohm Voice Coil models
- 12" or 10" versions
- High Excursion CAE/CAD Motor Design
- KlaraForm Vented Kapton Former technology reduces distortion by reducing heat and resistance
- Glass Fiber Reinforced Cone for Increased Low End
- Phoeniroll Surround Technology promotes linear motion
- Torriform Voice Coil Technology: Effectively dissipates heat and minimizes distortion
- Nickel Plated 12 Gauge Speaker Terminal
- Optimized for Sealed Enclosures
- Powder Coated Anti-Resonant Steel Basket

## Specifications

T/S Parameter	MX10D2	MX10D4	MX12D2	MX12D4
Impedance (Ohm)	Dual 2 Ohm	Dual 4 Ohm	Dual 2 Ohm	Dual 4 Ohm
Znom (Ohm)	2.0 x 2	3.6 x 2	2.0 x 2	3.6 x 2
Revc (Ohm)	1	1.8	1	1.8
FS (Hz)	50.9	51.6	38	40.7
Sd (SqM)	0.034	0.034	0.051	0.051
BL (TM)	6.02	7.9	5.96	8.24
Qms	4.105	3.27	3.514	3.3
Qes	1.085	1.09	1.049	1.217
Qts	0.858	0.819	0.808	0.889
Vas (L)	13.54	15.23	41.68	35.097
Cms (uM/N)	79.45	81.37	112.5	94.76
Mms (gms)	123.228	116.8	155.88	161.46
SPL (dB)	84	85	85	85
Voice Coil Diameter	2in - 50mm	2in - 50mm	2in - 50mm	2in - 50mm
RMS Power Handling	300 watts	300 watts	300 watts	300 watts
PEAK Power Handling	600 watts	600 watts	600 watts	600 watts
Xmax (Linear)	11mm	11mm	11mm	11mm
Driver Displacement (cf)	0.037	0.037	0.040	0.040
Overall Diameter	10.35in - 263mm	10.35in - 263mm	12.5in - 318mm	12.5in - 318mm
Mounting Diameter	9.25in - 234mm	9.25in - 234mm	11.10in - 282mm	11.10in - 282mm
Mounting Depth	3.63in - 92mm	3.63 in - 92mm	4.10in - 104mm	4.10in / 104mm

## Enclosure Recommendations

SEALED	MX10D2	MX10D4	MX12D2	MX12D4
Rock / Punchy Bass (cu. Ft.)	0.5	0.5	0.5	0.5
Neutral / Good All Around	0.75	0.75	0.75	0.75
Hip Hop / Low Bass / (cu. Ft.)	1.0	1.0	1.0	1.0

Enclosure recommendations already include driver and / or port displacement.

# Enclosure Examples

### Sealed Enclosure / 0.5cu.ft

**MX10**                      **MX12**  
 Qtc = 0.825              Qtc = 0.991  
 F3 = 59.9 Hz              F3 = 55.77 Hz

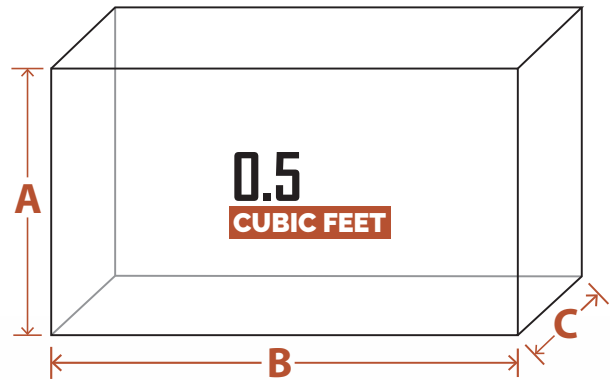
Detail	Size	Quantity
Top/Bottom	5.5" x 21.35"	2
Front/Rear	11.5" x 19.85"	2
Left/Right	5.5" x 11.5"	2

Material Thickness: 0.75 in

**External Dimensions**

A = 13 in  
 B = 21.35 in  
 C = 5.5 in

Vb = 0.5 cu.ft  
 V(total) = 0.53 cu.ft



### Sealed Enclosure / 0.75cu.ft

**MX10**                      **MX12**  
 Qtc = 0.779              Qtc = 0.905  
 F3 = 57.79 Hz              F3 = 51.06 Hz

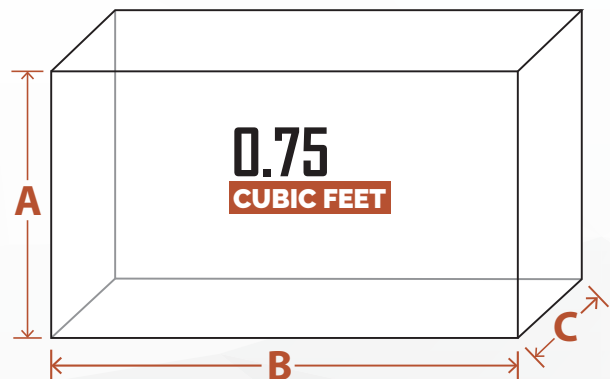
Detail	Size	Quantity
Top/Bottom	5.5" x 31.55"	2
Front/Rear	11.5" x 30.05"	2
Left/Right	5.5" x 11.5"	2

Material Thickness: 0.75 in

**External Dimensions**

A = 13 in  
 B = 31.55 in  
 C = 5.5 in

Vb = 0.75 cu.ft  
 V(total) = 0.80 cu.ft



### Sealed Enclosure / 1.0cu.ft

**MX10**                      **MX12**  
 Qtc = 0.753              Qtc = 0.852  
 F3 = 56.85 Hz              F3 = 48.65 Hz

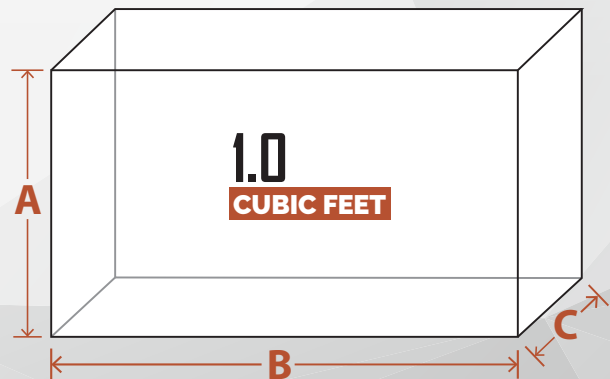
Detail	Size	Quantity
Top/Bottom	5.5" x 40.14"	2
Front/Rear	11.5" x 38.64"	2
Left/Right	5.5" x 11.5"	2

Material Thickness: 0.75 in

**External Dimensions**

A = 13 in  
 B = 40.14 in  
 C = 5.5 in

Vb = 1.0 cu.ft  
 V(total) = 1.035 cu.ft



# Sealed Slanted Enclosure / 0.5cu.ft

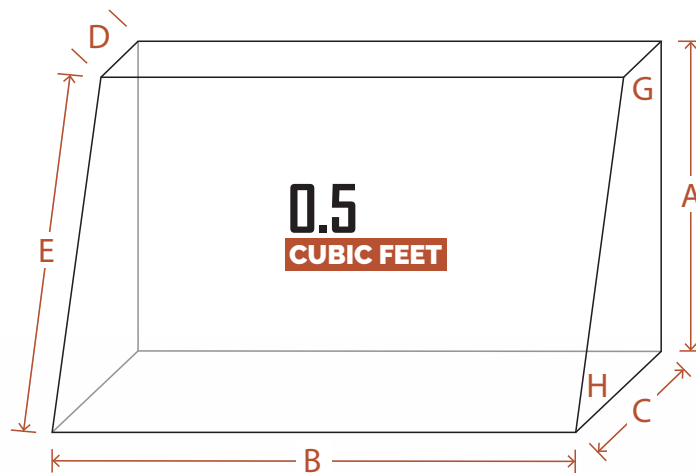
## Properties/Parameters

$V_b = 0.5 \text{ cu.ft} / V(\text{total}) = 0.53 \text{ cu.ft}$

<b>MX10</b>	<b>MX12</b>
$Q_{tc} = 0.825$	$Q_{tc} = 0.991$
$F_3 = 59.9 \text{ Hz}$	$F_3 = 55.77 \text{ Hz}$

### External Dimensions

A = 14 in	Angles
B = 19.84 in	G = 102.1°
C = 7 in	H = 77.91°
D = 4 in	
E = 14.32 in	



### Enclosure Details:

Material Thickness: 0.75 in

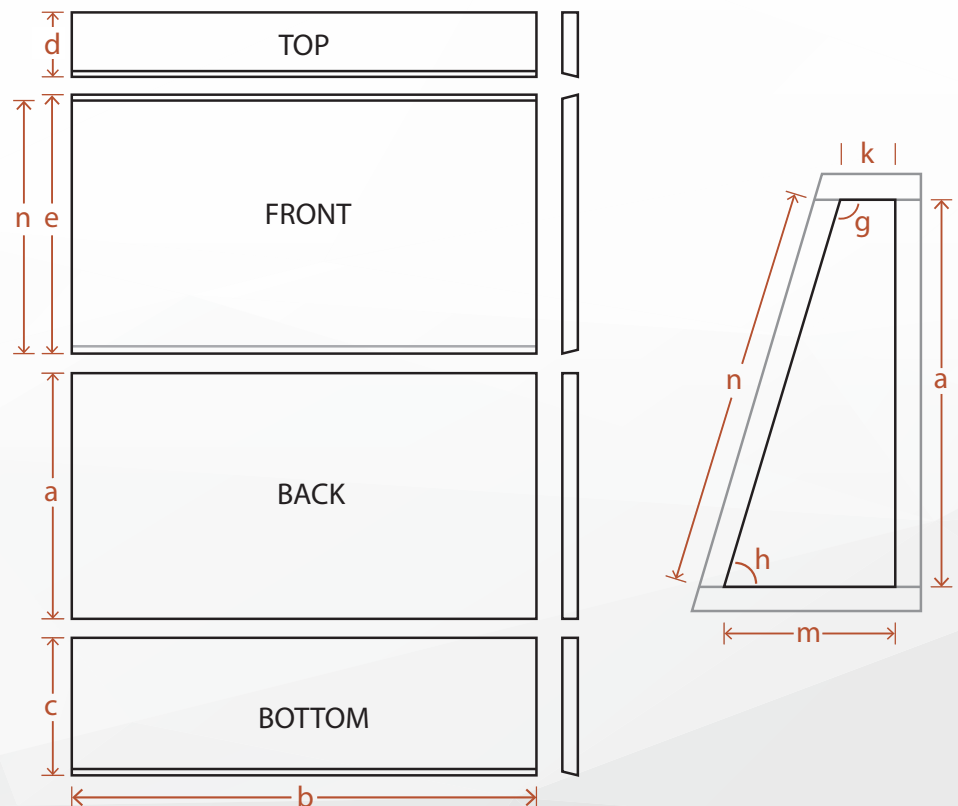
Top:  
 height (d) = 4.161 in  
 width (b) = 19.84 in  
 cut angle (front edge only) = 12.09°

Front:  
 total height (e) = 12.94 in  
 exposed surface height (n) = 12.78 in  
 width (b) = 19.84 in  
 top/bottom cut angles = ± 12.09°

Back:  
 height (a) = 12.5 in  
 width (b) = 19.84 in

Bottom:  
 height (c) = 7 in  
 width (b) = 19.84 in  
 cut angle (front edge only) = 12.09°

Sides (2):  
 top depth (k) = 2.644 in  
 height (a) = 12.5 in  
 bottom depth (m) = 5.322 in  
 front length (n) = 12.78 in  
 Angle g = 102.1°, Angle h = 77.91°



## Sealed Slanted Enclosure / 0.75cu.ft

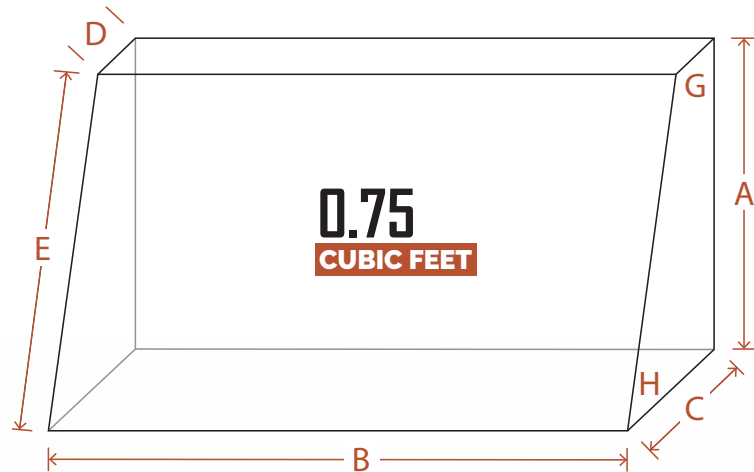
### Properties/Parameters

$V_b = 0.75 \text{ cu.ft} / V(\text{total}) = 0.80 \text{ cu.ft}$

<b>MX10</b>	<b>MX12</b>
$Q_{tc} = 0.779$	$Q_{tc} = 0.905$
$F_3 = 57.79 \text{ Hz}$	$F_3 = 51.06 \text{ Hz}$

#### External Dimensions

A = 14 in	Angles
B = 29.27 in	G = 102.1°
C = 7 in	H = 77.91°
D = 4 in	
E = 14.32 in	



#### Enclosure Details

Material Thickness: 0.75 in

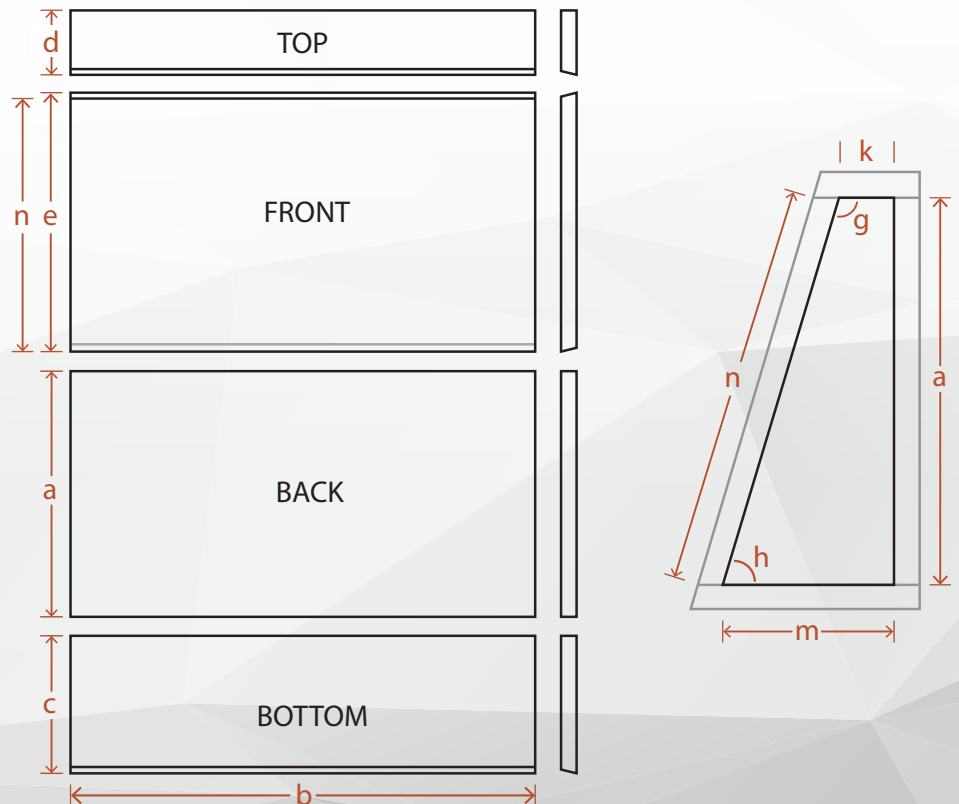
Top:  
 height (d) = 4.161 in  
 width (b) = 29.27 in  
 cut angle (front edge only) = 12.09°

Front:  
 total height (e) = 12.94 in  
 exposed surface height (n) = 12.78 in  
 width (b) = 29.27 in  
 top/bottom cut angles = ± 12.09°

Back:  
 height (a) = 12.5 in  
 width (b) = 29.27 in

Bottom:  
 height (c) = 7 in  
 width (b) = 29.27 in  
 cut angle (front edge only) = 12.09°

Sides (2):  
 top depth (k) = 2.644 in  
 height (a) = 12.5 in  
 bottom depth (m) = 5.322 in  
 front length (n) = 12.78 in  
 Angle g = 102.1°, Angle h = 77.91°



# Sealed Slanted Enclosure / 1.0cu.ft

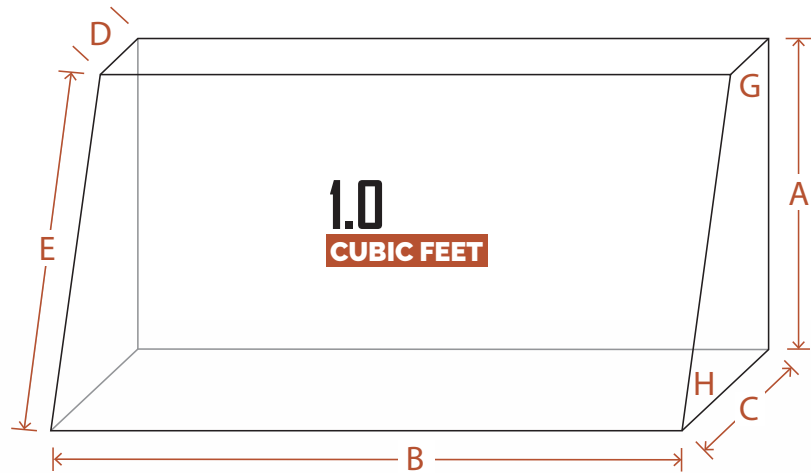
## Properties/Parameters

$V_b = 1.0 \text{ cu.ft} / V(\text{total}) = 1.035 \text{ cu.ft}$

<b>MX10</b>	<b>MX12</b>
$Q_{tc} = 0.753$	$Q_{tc} = 0.852$
$F_3 = 56.85 \text{ Hz}$	$F_3 = 48.65 \text{ Hz}$

### External Dimensions

A = 14 in	Angles
B = 37.01 in	G = 102.1°
C = 7 in	H = 77.91°
D = 4 in	
E = 14.32 in	



### Enclosure Details:

Material Thickness: 0.75 in

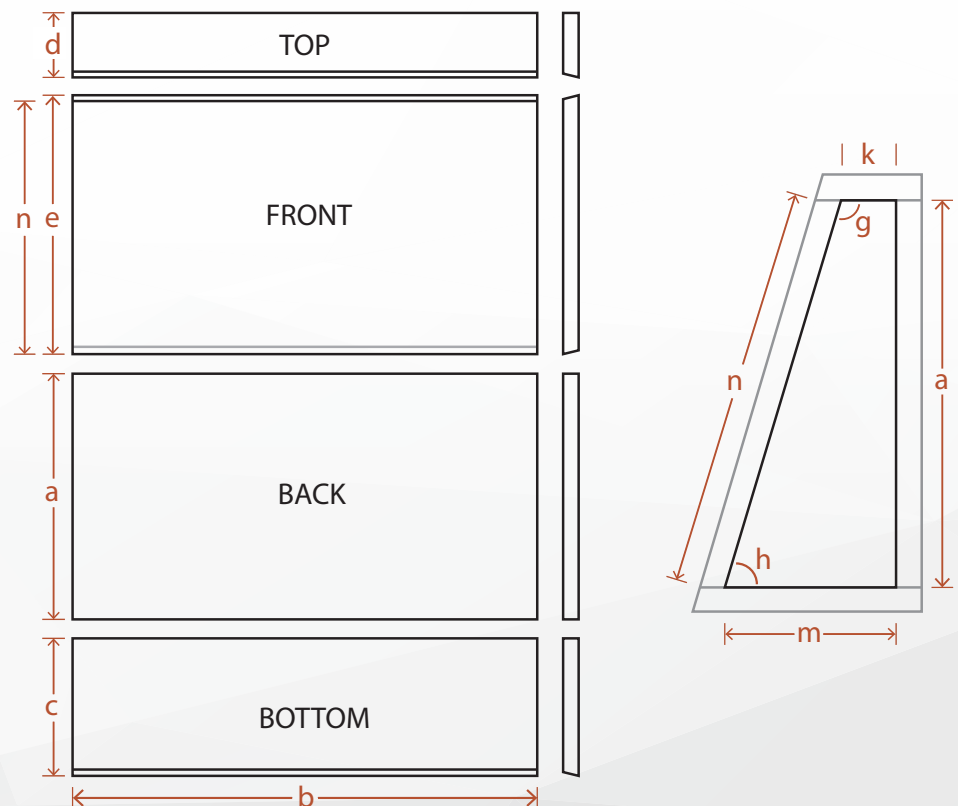
Top:  
 height (d) = 4.161 in  
 width (b) = 37.01 in  
 cut angle (front edge only) = 12.09°

Front:  
 total height (e) = 12.94 in  
 exposed surface height (n) = 12.78 in  
 width (b) = 37.01 in  
 top/bottom cut angles = ± 12.09°

Back:  
 height (a) = 12.5 in  
 width (b) = 37.01 in

Bottom:  
 height (c) = 7 in  
 width (b) = 37.01 in  
 cut angle (front edge only) = 12.09°

Sides (2):  
 top depth (k) = 2.644 in  
 height (a) = 12.5 in  
 bottom depth (m) = 5.322 in  
 front length (n) = 12.78 in  
 Angle g = 102.1°, Angle h = 77.91°



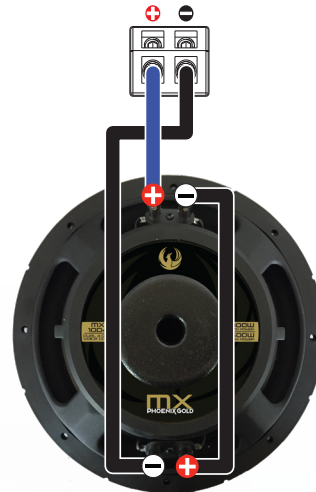
# Speaker Wiring Diagrams

## SINGLE SUBWOOFER SYSTEM WIRED IN PARALLEL



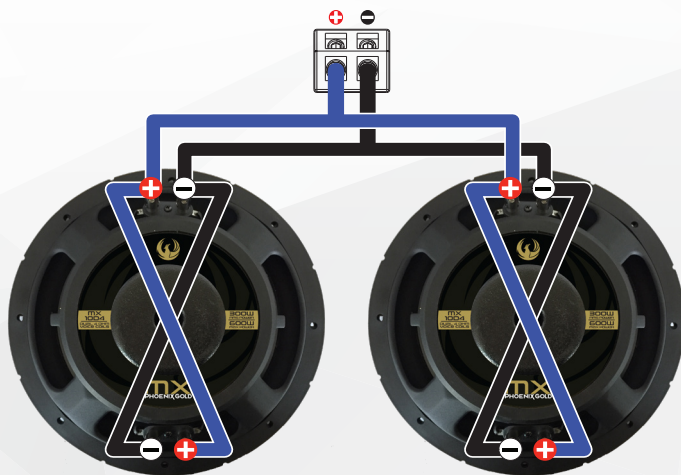
MX12D2 / MX10D2 = 1 OHM  
MX12D4 / MX10D4 = 2 OHM

## SINGLE SUBWOOFER SYSTEM WIRED IN SERIES



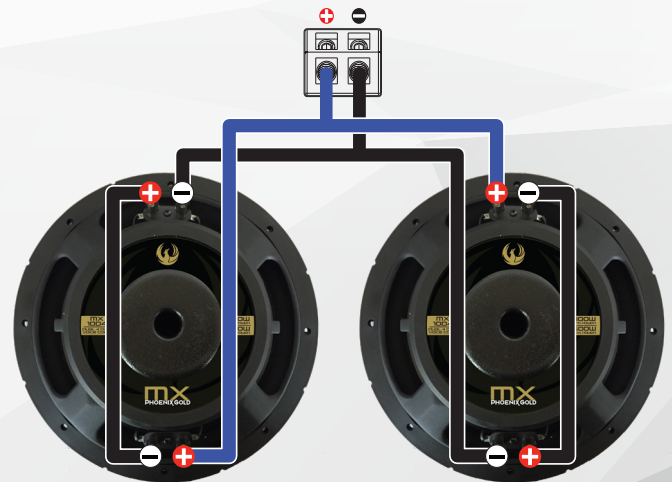
MX12D2 / MX10D2 = 4 OHM  
MX12D4 / MX10D4 = 8 OHM

## DUAL SUBWOOFER SYSTEM WIRED IN PARALLEL



MX12D2 / MX10D2 = 1/2 OHM  
MX12D4 / MX10D4 = 1 OHM

## DUAL SUBWOOFER SYSTEM WIRED IN SERIES-PARALLEL



MX12D2 / MX10D2 = 2 OHM  
MX12D4 / MX10D4 = 4 OHM

**Phoenix Gold Product Warranty****LIMITED WARRANTY ON SUBWOOFERS**

Phoenix Gold warrants this product to be free of defects in materials and workmanship for a period of one (1) years from the original date of purchase. This warranty is not transferable and applies only to the original purchaser from an authorized Phoenix Gold dealer in the United States of America only. Should service be necessary under this warranty for any reason due to manufacturing defect or malfunction, Phoenix Gold will (at its discretion), repair or replace the defective product with new or remanufactured product at no charge. Damage caused by the following is not covered under warranty: accident, misuse, abuse, burnt voice coils, used as door stops ,salad bowls or hats, product modification or neglect, failure to follow installation instructions, unauthorized repair attempts, misrepresentations by the seller. This warranty does not cover incidental or consequential damages and does not cover the cost of removing or reinstalling the unit(s). Cosmetic damage due to accident or normal wear and tear is not covered under warranty.

**INTERNATIONAL WARRANTIES:**

Products purchased outside the United States of America are covered only by that country's Authorized Phoenix Gold reseller and not by Phoenix Gold. Consumers needing service or warranty information for these products must contact that country's reseller for information.