



Hybrid Installation Guide

Hybrid

42, 52, 53, 62, 63

Hybrid Integra

42, 52, 62

Components

MW4mkII, MW5mkII,
MW6mkII, MT300,
CDM700, MXR240.4,
MXR250.4i, MXR300.4

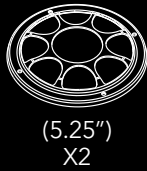
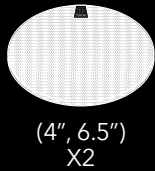
Dear Customer,

Thank you for choosing Morel for your car audio speaker solution. Morel prides itself on engineering and producing the best high-fidelity speaker systems. We hope you enjoy your Hybrid speakers for years to come. If you have any questions, please contact your Morel dealer or Morel support at www.morelhifi.com

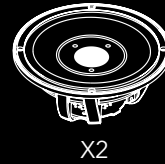


Hybrid Components

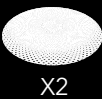
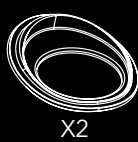
Hybrid 4", 5.25", 6.5" Woofer



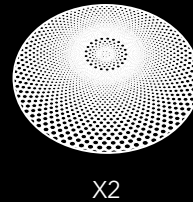
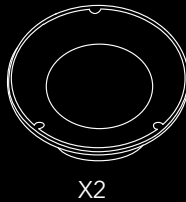
Hybrid 4", 5.25", 6.5" Integra



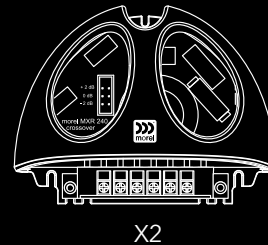
MT300 Tweeter



CDM700 Midrange



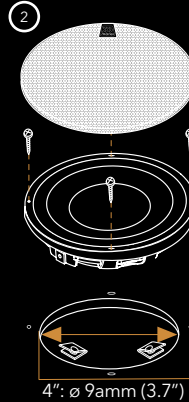
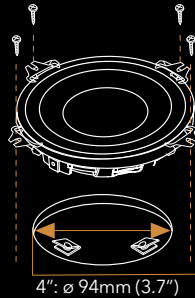
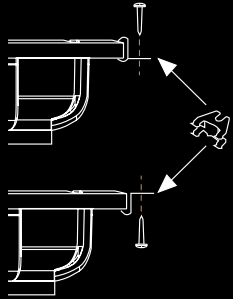
MXR240.4/250.4i/300.4



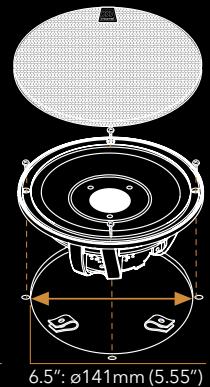
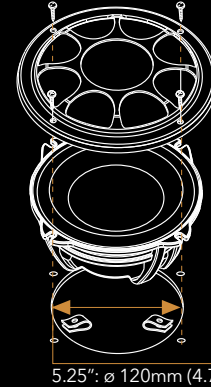
Hybrid Woofer/Integra, Tweeter, Crossover mounting

Unit 4"

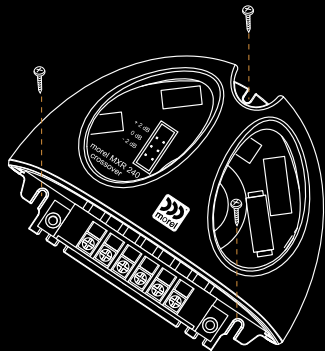
- 1 Use the screw clips in any combination, with or without plastic frame. These clips can be used either way up or down depending on the installation requirement.



Unit 5.25", 6.5"

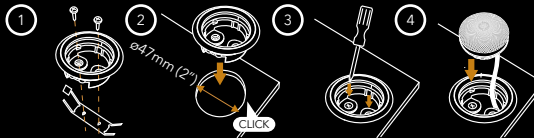


Crossover mounting

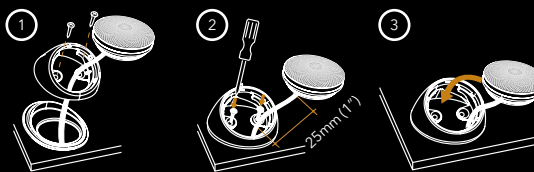


MT300 Tweeter

Flush Mount

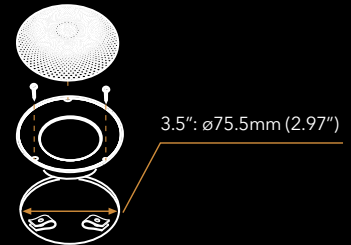


Surface Mount



CDM700 Midrange

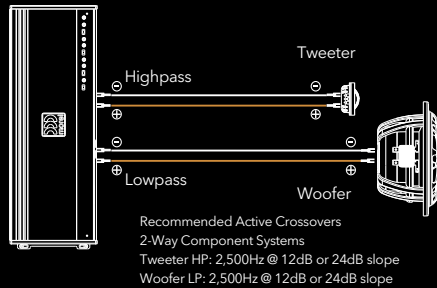
Use the screw clips in any combination, with or without the plastic frame. These clips can be used either way up or down depending on installation requirements.



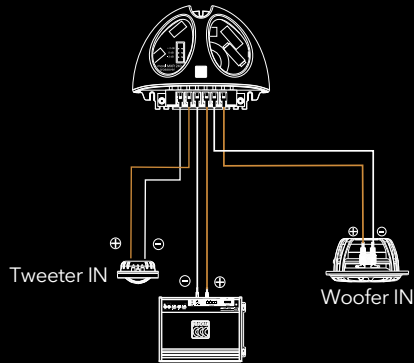
2-WAY System

2-WAY System Wiring

ACTIVE SET UP

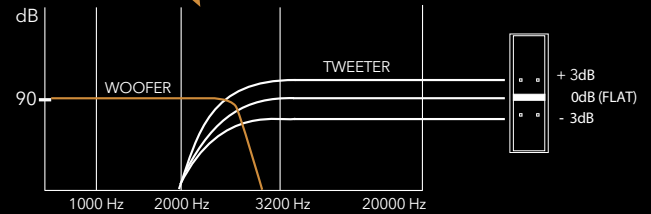
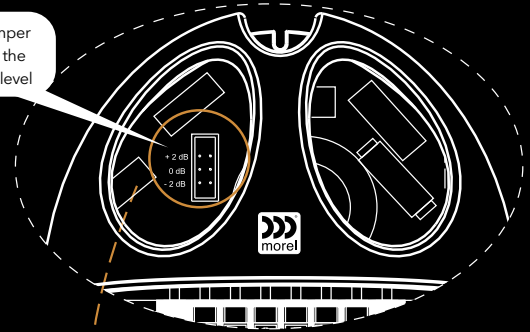


PASSIVE SET UP



2-WAY System Alignment

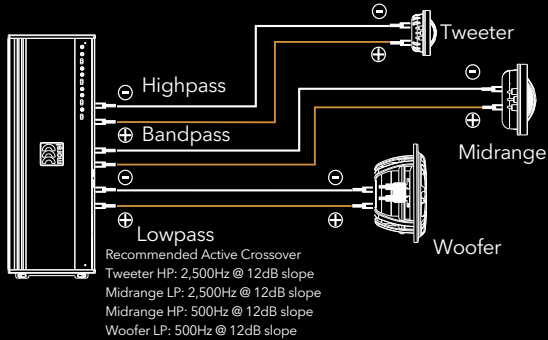
Use the red jumper to determinate the tweeter +/- dB level



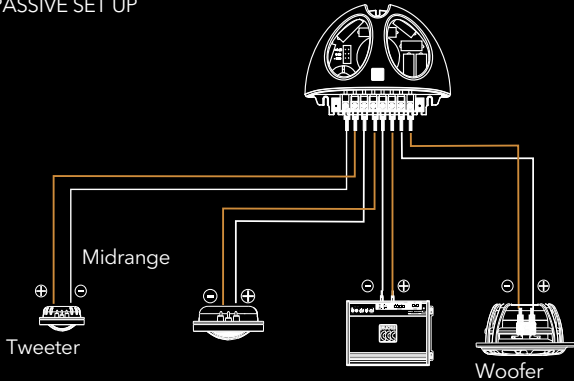
3-WAY System

3-WAY System Wiring

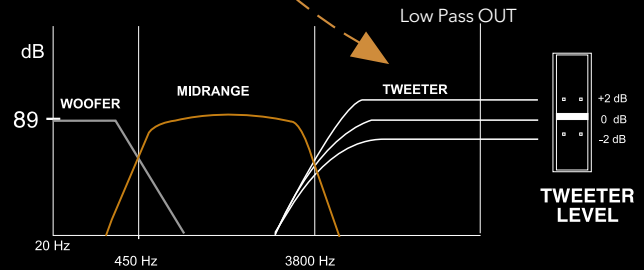
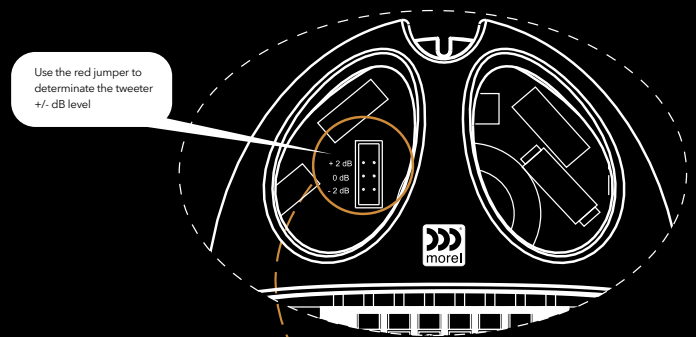
ACTIVE SET UP (Outputs must be filtered)



PASSIVE SET UP



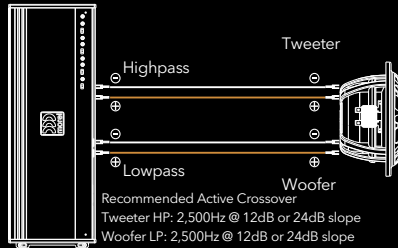
3-WAY System Alignment



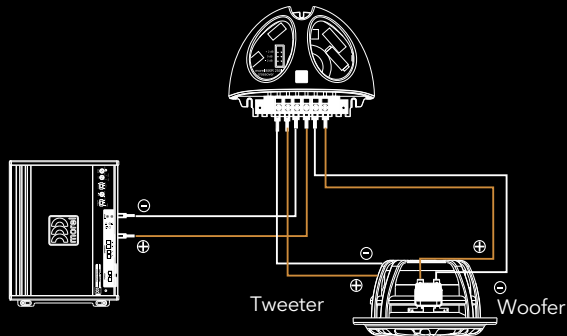
Integra System

Hybrid Integra System Wiring

ACTIVE SET UP

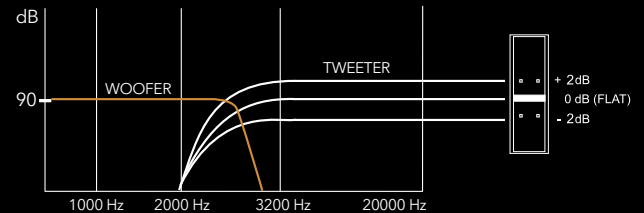
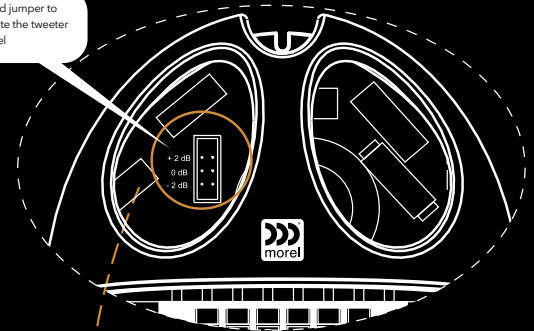


PASSIVE SET UP



Hybrid Integra System Alignment

Use the red jumper to determinate the tweeter +/- dB level



Specifications

| DRIVER UNIT | HYBRID MW4mkII | HYBRID MW5mkII | HYBRID MW6mkII | HYBRID INTEGRA 42 | HYBRID INTEGRA 52 | HYBRID INTEGRA 62 |
|---|--------------------|---------------------|--------------------|--------------------------|--------------------------|-----------------------|
| Nominal Impedance (Ohms) | 4 | 4 | 4 | 4 | 4 | 4 |
| Power Handling Wrms | 100 | 120 | 140 | 80 | 90 | 100 |
| Max. Trans.Pwr Handling Wrms | 300 | 500 | 600 | 250 | 250 | 300 |
| Sensitivity (2.83V/1M) | 89 dB | 90dB | 91 dB | 89dB | 90dB | 91dB |
| Frequency Response Hz | 50-4200 | 45-3000 | 35-3000 | 80-5000 | 70-3800 | 65-3300 |
| Resonant Freq. Fs Hz | 82 | 56 | 45 | 92 | 82 | 75 |
| Voice Coil Diameter mm (inch) | 54 (2.1) | 54 (2.1) | 54 (2.1) | 54 (2.10) | 54 (2.1) | 54 (2.1) |
| Voice Coil Height mm (inch) | 10.50 (0.41) | 10.50 (0.41) | 11 (0.47) | - | - | 12 |
| Voice Coil Type/ Former | Aluminum | Aluminum | Aluminum | Aluminum | Aluminum | Aluminum |
| Voice Coil Wire | Hexatech™ aluminum | Hexatech™ aluminum | Hexatech™ aluminum | Hexatech™ aluminum | Hexatech™ aluminum | Hexatech™ aluminum |
| DC Resistance (Ohms) | 3.2 | 3 | 3 | 3 | 3.3 | 3.3 |
| Voice Coil Induct. @1 kHz (mH) | 0.21 | 0.21 | 0.22 | 0.17 | 0.26 | 0.31 |
| Magnet System | Hybrid rear vented | Hybrid rear vented | Hybrid rear vented | Neodymium | Neodymium | Neodymium |
| HE-Magnetic Gap Height mm (inch) | 4 (0.16) | 4 (0.16) | 4 (0.16) | 4 (0.16) | 5 (0.20) | 5 (0.20) |
| B-Flux Density (T,M.) | 0.83 | 0.83 | 0.83 | 0.9 | 0.9 | 0.85 |
| BL Product/BXL | 4.16 | 4.2 | 4.2 | 3.97 | 5.16 | 4.65 |
| Max. Linear Ex./Xmax mm (inch) | 7±3.5 (0.28±0.14) | 7±3.5 (0.28 ± 0.14) | 7±3.5 (0.28±0.14) | 4±2 (0.16±0.08) | 5.50±2.75 (0.22±0.11) | 7±3.5 (0.28±0.14) |
| Suspension Compliance CMS - mm/N | 0.57 | 0.78 | 1.1 | 0.66 | 0.6 | 0.42 |
| Electrical Q Factor QES | 0.63 | 0.59 | 0.56 | 0.45 | 0.39 | 0.67 |
| QTS | 0.46 | 0.45 | 0.44 | 0.36 | 0.32 | 0.54 |
| CMS | 1.74 | 1.8 | 2.08 | 1.72 | 1.85 | 2.86 |
| Mech.Resistance RMS - Ohm/meter | 1.98 | 1.96 | 1.5 | 1.44 | 1.7 | 1.52 |
| Moving Mass MMS - gr/ ounce | 6.8 | 9.9 | 11 | 4.4 | 6.11 | 8.12 |
| Equiv. Can Air Load VAS - L (cu.ft) | 3.17 (0.11) | 8.87 (0.31) | 21 (0.74) | 1.40 (0.04) | 2.72 (0.37) | 3.80 (0.13) |
| Effective Piston Area SD sq.cm (sq. inch) | 64 (9.92) | 90 (13.95) | 119 (18.45) | 39 (6.04) | 57 (8.83) | 80 (37.8) |
| Cone Type | One-piece formed | One-piece formed | One-piece formed | Formed Paper | Formed Paper | Formed Paper |
| Cone Material | DPC | DPC | DPC | Composite cellular fiber | Composite cellular fiber | Composite cell. fiber |
| Unit Diameter mm (inch) | 109 (4.3) | 135 (5.25) | 165 (6.50) | 109 (4.3) | 135 (5.25) | 165 (6.5) |
| Mounting Depth mm (inch) | 28.5 (1.12) | 60 (2.36) | 61 (2.40) | 30 (1.2) | 60 (2.36) | 61 (2.40) |
| Mounting Cutout mm (inch) | 93 (3.6) | 120 (4.72) | 141 (5.55) | 93 (3.6) | 120 (4.72) | 141 (5.55) |
| Net Weight Kg (lb) | 0.53 (1.1716) | 0.60 (1.32) | 0.60 (1.32) | 0.50 (1.10) | 0.60 (1.32) | 0.75 (1.65) |

| TWEETER / MIDRANGE | MT300 | INTEGRA | CDM700 |
|--|--------------------------------|------------|-----------------------|
| Nominal Impedance (Ohm) | 6 | 4 | 8 |
| Power Handling (W/Rms) | 130 | 90 | 100 |
| Max. Transient Power Handling W (10ms) | 350 | 180 | 300 |
| Sensitivity (2.83V/1M) dB | 93 | 90.5 | 90 |
| Frequency Response Hz | 1600-25000 | 1800-20000 | 600-6000 |
| FS Hz | 1200 | 1000 | 480 |
| Voice Coil Diameter mm (inch) | 28 (1.125) | 25 (1) | 54 (2.125) |
| Voice Coil Former | Aluminum | Copper | Aluminum |
| Voice Coil Wire | Hexatech™ Aluminum | Neodymium | Hexatech™ Aluminum |
| DC Resistance Ohm | 5.2 | | 3.5 |
| Magnet System | Double Magnet Neodymium | | Neodymium Rear Vented |
| Dome Type | Acuflex™ Hand Coated Soft Dome | | Coated Soft Dome |
| Dome Material | Silk | | Silk |
| Unit Diameter mm (inch) | 43.00 (1.69) | | 88.00 (3.50) |
| Mounting Depth mm (inch) | 13.20 (0.52) | | 21.00 (0.83) |
| Mounting Cutout mm (inch) | 47.00 (2.00) | | 75.50 (2.97) |
| Net Weight Kg(lb) | 0.067 (0.134) | | 0.25 (0.55) |

| CROSSOVER | MXR240.4 | MXR250.4i | MXR300.4 |
|--------------------|--------------------------------------|----------------|---|
| Crossover Point | W: 2200Hz / 18dB T: 2200Hz / 12dB | 2200Hz / 12dB | W: 500Hz / 12dB M:18dB/ 2200Hz/ 12dB T: 2200Hz / 12dB |
| Crossover Controls | Tweeter+/- 3dB | Tweeter+/- 2dB | Tweeter+/- 2dB |
| Wiring Options | N/A | N/A | N/A |

* Morel operates a policy of continuous product design improvement, consequently specifications are subject to alteration without prior notice.



Morel, Ness Ziona, 70400 Israel.
Tel: +972-8-9301161
Fax: +972-8-9301312
E-mail: info@morelhifi.com

Morel America, Chandler, AZ, USA
Toll free number: 1-877-667-3511
Fax: 1-718-721-1560
E-mail: info@morelamerica.com

www.morelhifi.com