



## **Virtus Nano Carbon Installation Guide**

### **Virtus Nano Carbon**

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62,63

### **Virtus Nano Carbon Integra**

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### **Components**

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MM2, MW6, MXR200.4,  
MXR130, MXR250.4i  
MT120N

# 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 Virtus Nano Carbon speakers for years to come. If you have any questions, please contact your Morel dealer or Morel support at: [www.morelhifi.com](http://www.morelhifi.com)



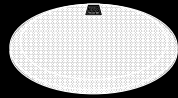
# Virtus Nano Carbon

## 6.5" Woofer / Integra

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X2



X2



X8



X8

## MT120N Tweeter (in 2-WAY / 3-WAY)

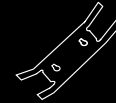
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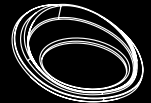
X2



X2



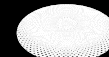
X2



X2



X4



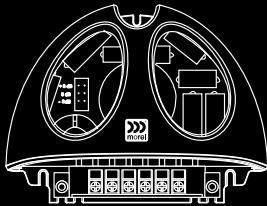
X2



X2

## MXR 200.4/250.4i Crossover

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X2



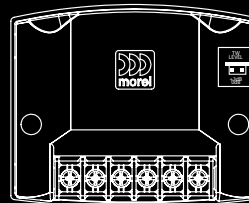
X6



X6

## MXR 130 Crossover

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X2



X4

## MM2 Midrange

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X2



X2



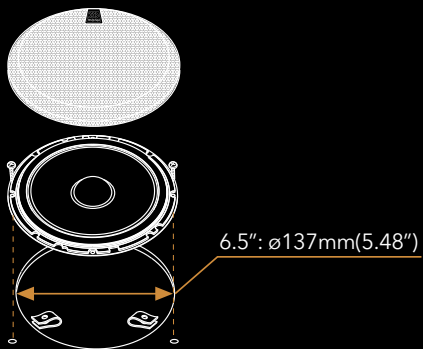
X8



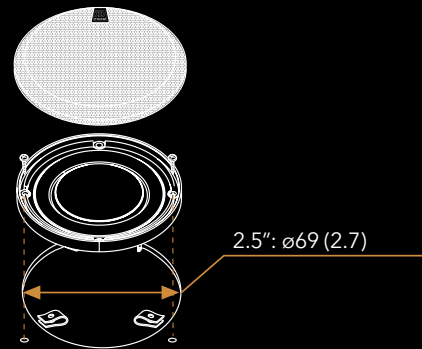
X8

# Midrange, Woofer and Tweeter mounting

## 6.5" Woofer / Integra

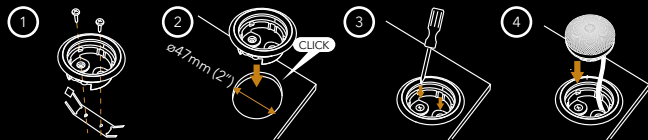


## MM2

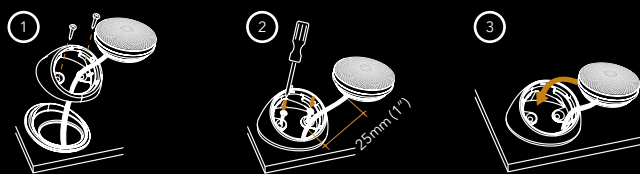


## MT120N

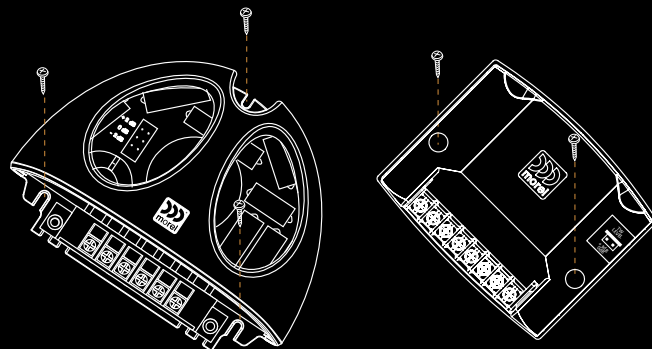
### Flush Mount



### Surface Mount



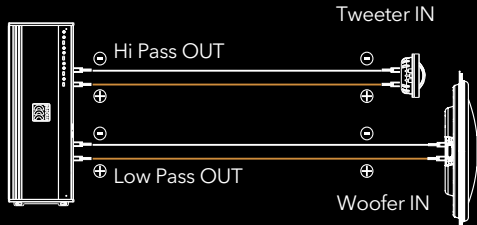
## Crossover mounting



# Tweeter, Crossover Mounting

## 2-WAY System Wiring

ACTIVE SET UP (Outputs must be filtered)



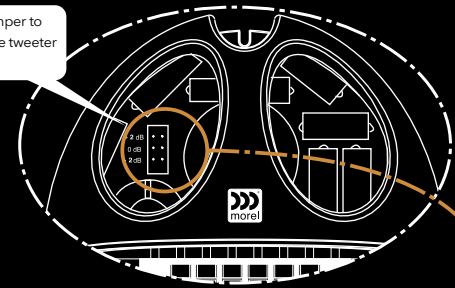
4-Channel amplifier with active crossovers required

Tweeter HP: 2,500Hz @ 12dB or 24dB slope

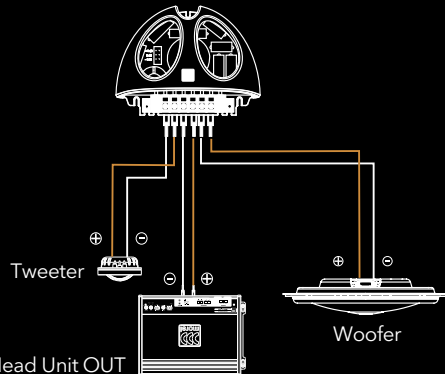
Woofers LP: 2,500Hz @ 12dB or 24dB slope

## 2-WAY System Alignment

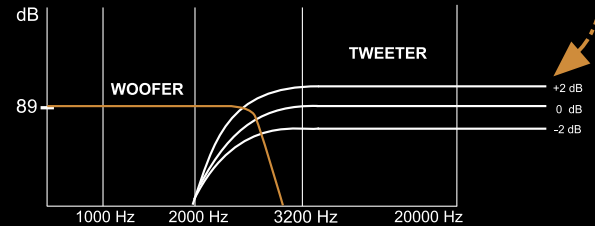
Use the red jumper to determine the tweeter +/- dB level



PASSIVE SET UP



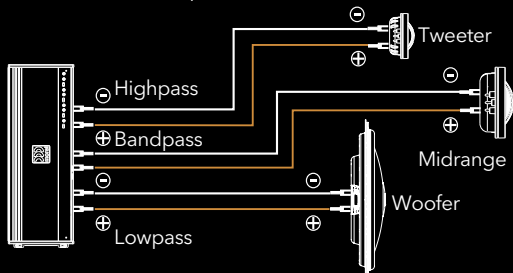
Amplifier OUT / Head Unit OUT



# Crossover

## 3-WAY System Wiring

ACTIVE SET UP (Outputs must be filtered)



6-Channel amplifier with active crossovers required

3-Way Component Systems

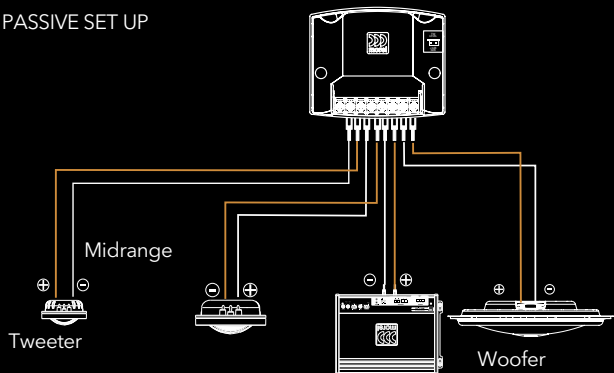
Tweeter HP: 2,500Hz @ 12dB slope

Midrange LP: 2,500Hz @ 12dB slope

Midrange HP: 500Hz @ 12dB slope

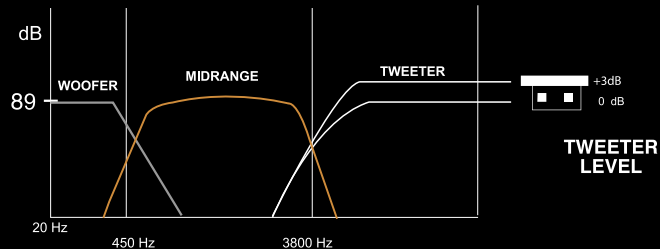
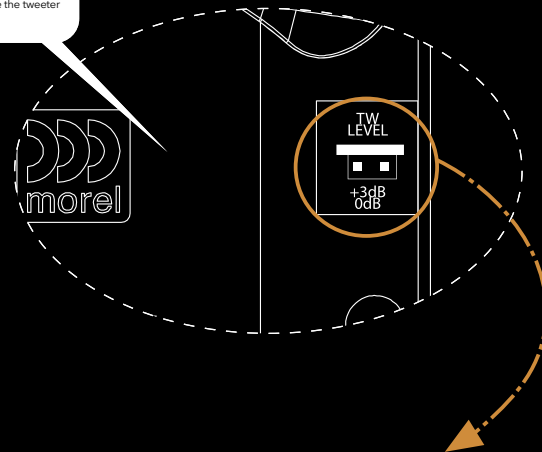
Woofer LP: 500Hz @ 12dB slope

PASSIVE SET UP



## 3-WAY System Alignment

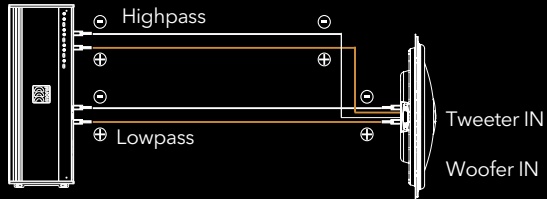
Use the red jumper to determinate the tweeter +/- dB level



# Crossover

## Integra System wiring

### ACTIVE SET UP

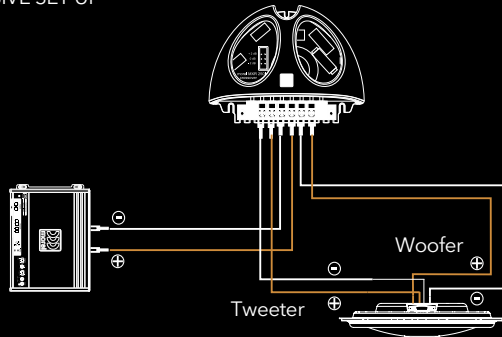


4-Channel amplifier with active crossovers required

Tweeter HP: 2,500Hz @ 12dB slope

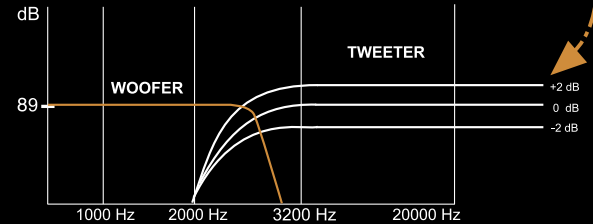
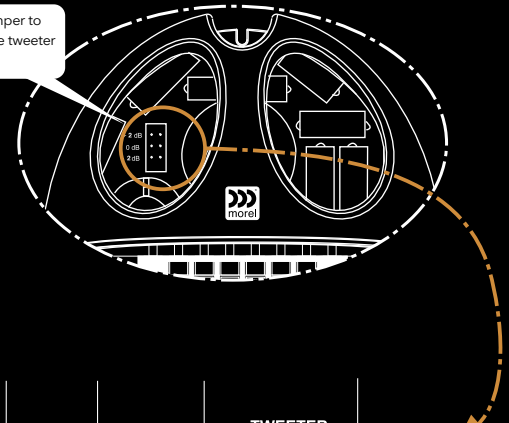
Woofer LP: 2,500Hz @ 12dB slope

### PASSIVE SET UP



## Integra System alignment

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



# Specifications

VIRTUS NANO CARBON	MW6	INTEGRA WOOFER
Nominal Impedance (ohm)	4	4
Power Handling Wrms	100	100
Max. Trans. Pwr Handling Wrms	300	300
Sensitivity (2.83 V/1M)	88dB	87dB
Frequency response Hz	50-5500	50-5500
Resonance Freq. Fs Hz	68	73
Voice Coil Diameter mm (inch)	54 (2.16)	54(2.16)
Voice Coil Height mm (inch)	9.5 (0.4)	9.5 (0.4)
Voice Coil Type/Formor	Aluminium	Aluminium
Voice Coil Wire	Hexatech™ Aluminium	Hexatech™ aluminium
DC Resistance (ohm)	3	3
Voice Coil Induct. @1 kHz (mH)	0.17	0.17
Magnet System	Neodymium Vented	Neodymium Vented
HE-Magnetic Gap Height mm (inch)	4 (0.16)	4 (0.16)
BL Product/BXL	3.85	4.18
Max. Linear Ex./Xmax mm (inch)	±3mm (0.12)	±3mm (0.12)
Electrical Q Factor QES	0.97	0.97
QTS	0.65	0.73
QMS	1.98	3.4
Moving Mass MMS - gr/os	14 (0.49)	11.8 (0.41)
Equiv. Can Air Load VAS - L (cu.ft*)	11 (0.38)	7.5 (0.26)
Effective Piston Area SD sq.cm (sq.inch)	139(21.545)	116 (17.98)
Cone Type	Carbon Cone	Carbon Cone
Cone Material	Carbon + Foam Core	Carbon + Foam Core
Unit Diameter mm (inch)	167 (6.5)	167 (6.5)
Mounting Depth mm (inch)	17(0.7)	17 (0.7)
Mounting Cutout	137(5.48)	137 (5.48)
Net Weight gr	450	470

CROSSOVERS	MXR200.4	MXR130	MXR250.4i
Crossover Point	2200Hz/12dB/6dB	W: 800Hz/12dB M: 800Hz/6dB 5000Hz/6dB T: 5000Hz/6dB	2200Hz/12dB
Crossover Controls	Tweeter +/- 2dB	Tweeter 0/+2dB	Tweeter +/- 2dB
Wiring Options	N/A	N/A	N/A

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

MIDRANGE / TWEETER	MM2	MT120
Nominal Impedance (ohm)	4	8
Power Handling Wrms	60	80
Max. Trans. Pwr Handling Wrms (10ms)	100	250
Sensitivity (2.83 V/1M) dB	83	90
Frequency Response Hz	200-5000	1800-22000
FS Hz	145	1200
Voice Coil Diameter mm (inch)	20 (0.78)	28 (1.125)
Voice Coil Former	Kapton	Aluminium
Voice Coil Wire	Copper	Copper
DC Resistance ohm	3.2	5.2
Magnet System	Double Magnet Neodymium	Neodymium
Dome Type	Aluminium Formed Dome	Acuflex™ hand coated soft dome
Dome Material	Aluminium Anodized	Silk
Unit Diameter mm (inch)	76.7 (3)	43.00 (1.69)
Mounting Depth mm (inch)	9.3 (0.37)	13.2 (0.52)
Mounting Cutout	69 (2.7)	47.00 (2)
Net Weight gr	70	0.07 (0.15)

TWEETER	INTEGRA TWEETER
Nominal Impedance (ohm)	6
Power Handling Wrms	130
Max. Trans. Pwr Handling Wrms (10ms)	350
Sensitivity (2.83 V/1M) dB	88
Frequency Response Hz	1600-25000
FS Hz	900
Voice Coil Diameter mm (inch)	28 (1.125)
Voice Coil Former	Underhung
Voice Coil Wire	Hexatech™ aluminium
DC Resistance ohm	5.2
Magnet System	Neodymium
Dome Type	Acuflex™ hand coated soft dome
Dome Material	Silk



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