Virtus Nano Carbon Installation Guide

Virtus Nano Carbon

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Virtus Nano Carbon Integra

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Components

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

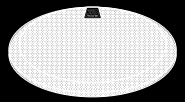
Dear Customer,

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

Virtus Nano Carbon

4", 6.5" Woofer / Integra

X2



X2

X8

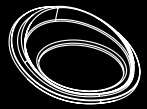
X8

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

X2

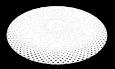
X2

X2



X2

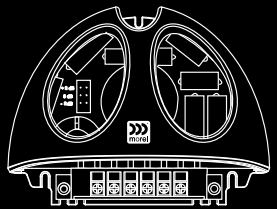
X4



X2

X2

MXR 200.4/250.4i Crossover

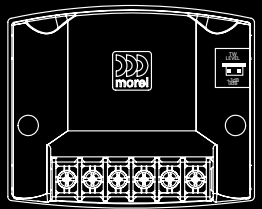


X2

X6

X6

MXR 130 Crossover



X2

X4

MM2 Midrange

X2

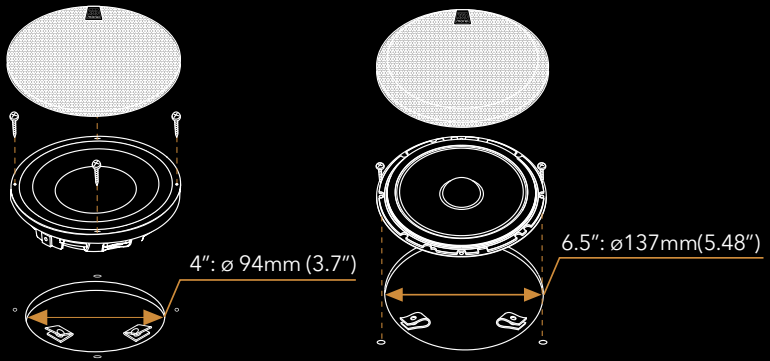
X2

X8

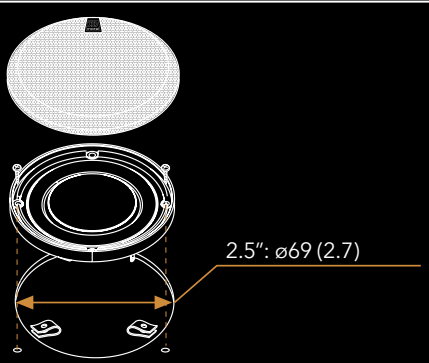
X8

Midrange, Woofer and Tweeter mounting

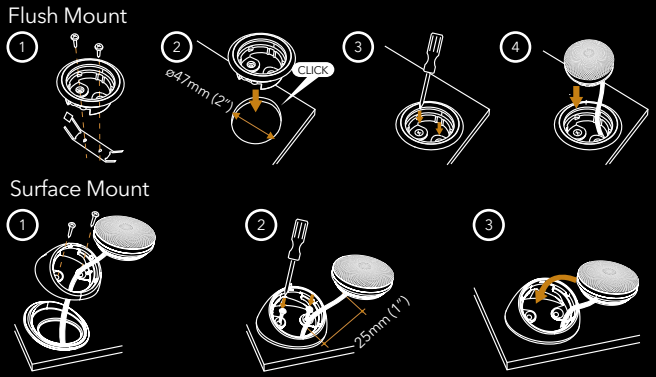
4", 6.5" Woofer / Integra



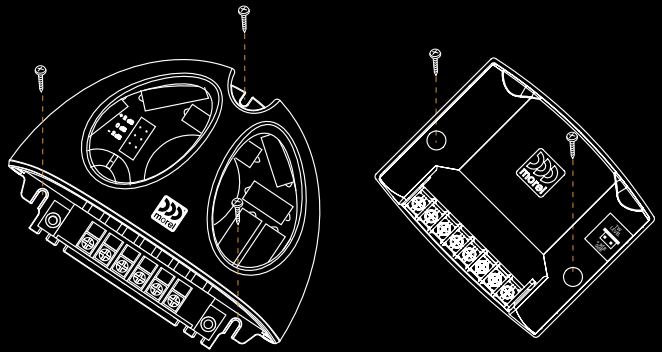
MM2



MT120N



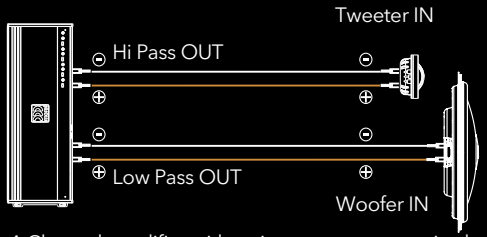
Crossover mounting



Tweeter, Crossover Mounting

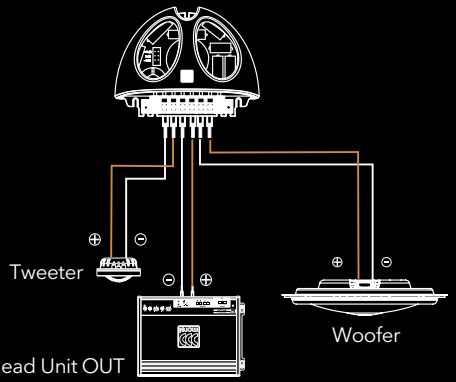
2-WAY System Wiring

ACTIVE SET UP (Outputs must be filtered)

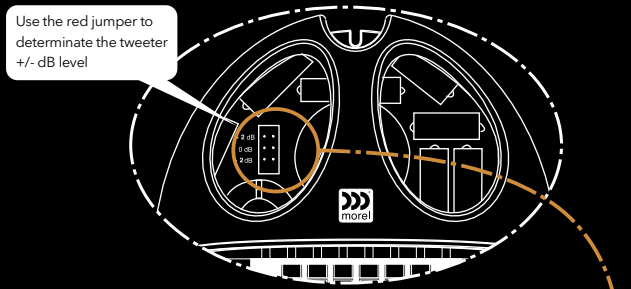


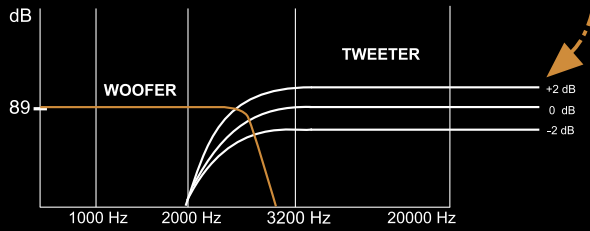
4-Channel amplifier with active crossovers required
Tweeter HP: 2,500Hz @ 12dB or 24dB slope
Woofer LP: 2,500Hz @ 12dB or 24dB slope

PASSIVE SET UP



2-WAY System Alignment

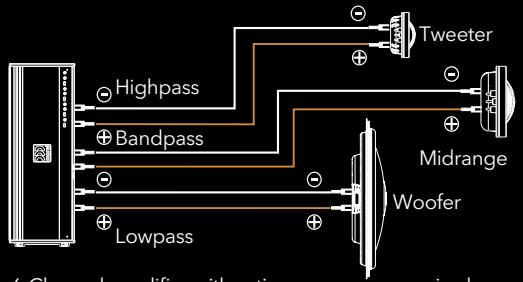




Crossover

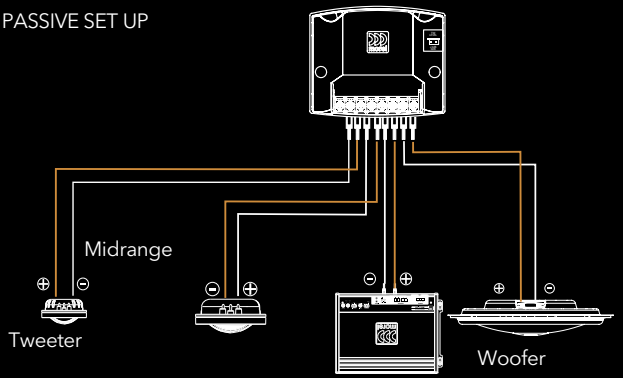
3-WAY System Wiring

ACTIVE SET UP (Outputs must be filtered)

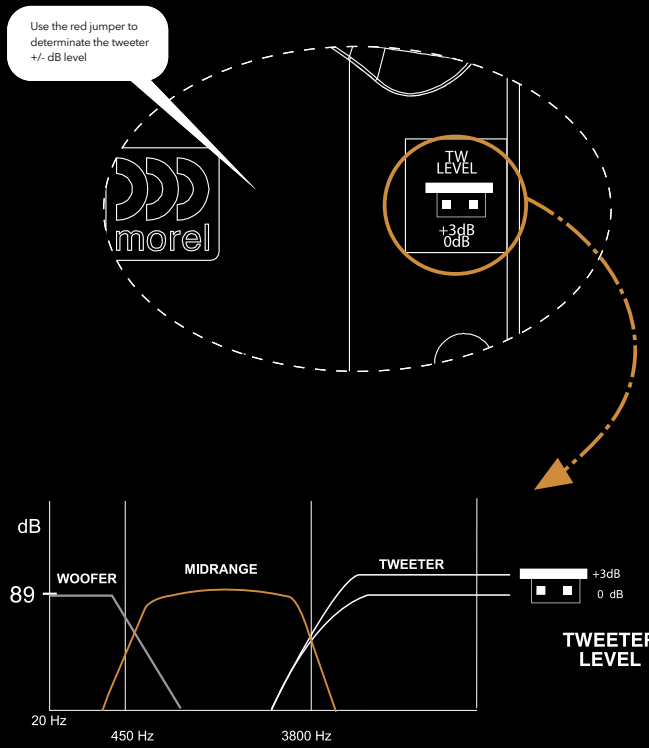


6-Channel amplifier with active crossovers required
3-Way Component Systems
Tweeter HP: 2,500Hz @ 12dB slope
Midrange LP: 2,500Hz @ 12dB slope
Midrange HP: 500Hz @ 12dB slope
Woofer LP: 500Hz @ 12dB slope

PASSIVE SET UP



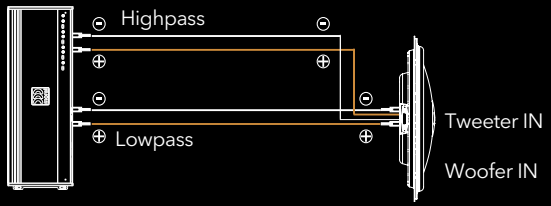
3-WAY System Alignment



Crossover

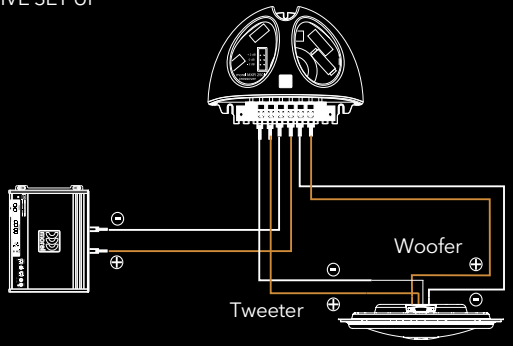
Integra System wiring

ACTIVE SET UP

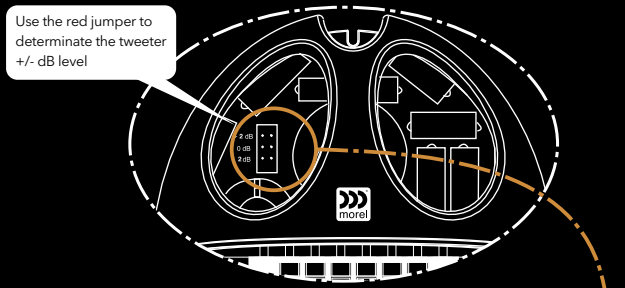


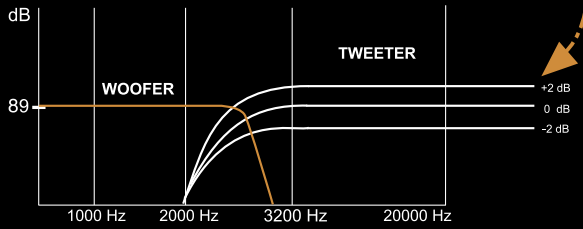
4-Channel amplifier with active crossovers required
Tweeter HP: 2,500Hz @ 12dB slope
Woofer LP: 2,500Hz @ 12dB slope

PASSIVE SET UP



Integra System aligment





Specifications

VIRTUS NANO CARBON	MW4	MW6	INTEGRA 4	INTEGRA 6
Nominal Impendance (ohm)	4	4	4	4
Power Handling Wrms	90	100	80	100
Max. Trans. Pwr Handling Wrms	300	300	300	300
Sensitivity (2.83 V/1M)	88dB	88dB	87dB	87dB
Frequency response Hz	80-9200	50-5500	90-3800	50-5500
Resonance Freq. Fs Hz	95	68	105	73
Voice Coil Diameter mm (inch)	54 (2.16)	54 (2.16)	54 (2.16)	54(2.16)
Voice Coil Height mm (inch)	9 (0.35)	9.5 (0.4)	7.5 (0.3)	7.5 (0.3)
Voice Coil Type/Former	Aluminium	Aluminium	Aluminium	Aluminium
Voice Coil Wire	Hexatech™ Aluminium	Hexatech™ Aluminium	Hexatech™ Aluminium	Hexatech™ aluminium
DC Resistance (ohm)	3	3	3	3
Voice Coil Induct. @1 kHz (mH)	0.12	0.17	0.11	0.17
Magnet System	Neodymium Vented	Neodymium Vented	Neodymium Vented	Neodymium Vented
HE-Magnetic Gap Height mm (inch)	4 (0.16)	4 (0.16)	4 (0.16)	4 (0.16)
BL Product/BXL	4.68	3.85	3.87	4.18
Max. Linear Ex./Xmax mm (inch)	±3mm (0.12)	±3mm (0.12)	±1.75mm (0.07)	±3mm (0.12)
Electrical Q Factor QES	0.7	0.97	0.775	0.97
QTS	0.6	0.65	0.615	0.73
QMS	4.01	3.57	2.98	3.4
Moving Mass MMS - gr/os	8.57 (0.3)	14 (0.49)	5.84 (0.2)	11.8 (0.41)
Equiv. Can Air Load VAS - L (cu.ft³)	1.48 (0.05)	11 (0.38)	0.7 (0.02)	7.5 (0.26)
Effective Piston Area SD sq.cm (sq.inch)	57(8.8)	139(21.545)	35.5(5.5)	116 (17.98)
Cone Type	Carbon Cone	Carbon Cone	Carbon Cone	Carbon Cone
Cone Material	Carbon + Foam Core	Carbon + Foam Core	Carbon + Foam Core	Carbon + Foam Core
Unit Diameter mm(inch)	109 (4.3)	167 (6.5)	109 (4.3)	167 (6.5)
Mounting Depth mm (inch)	17(0.7)	17(0.7)	17(0.7)	17 (0.7)
Mounting Cutout	93 (3.6)	137(5.48)	93 (3.6)	137 (5.48)
Net Weight gr	376	450	383	470

MIDRANGE / TWEETER	MM2	INTEGRA	MT120N
Nominal Impendance (ohm)	4	4	8
Power Handling Wrms	60	90	80
Max. Trans. Pwr Handling Wrms (10ms)	100	180	250
Sensitivity (2.83 V/1M) dB	83	90.5	90
Frequency Response Hz	200-5000	1800-20000	1800-22000
FS Hz	145	1000	1200
Voice Coil Diameter mm (inch)	20 (0.78)	28 (1.125)	28 (1.125)
Voice Coil Former	Kapton	Copper	Aluminium
Voice Coil Wire	Copper	Neodymium	Copper
DC Resistance ohm	3.2	5.2	5.2
Magnet System	Double Magnet Neodymium	Neodymium	Neodymium
Dome Type	Aluminium Formed Dome	AcuflexTM ahand coated soft dome	Acuflex™ hand coated soft dome
Dome Material	Aluminium Anodized	Silk	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)

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 specificstions are subject to alteration without prior notice

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