



## **Sensus Installation Guide**

### **Sensus**

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62, 63

### **Components**

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MS6, MS3, TS1,  
MXR230S, MXR133S



## **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 Sensus 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)

# Sensus

## WS6 Woofer

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X2



X8



X8

## TS1 Tweeter

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X2



X2



X2



X4



X2



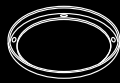
X2

## MS3 Midrange (Sensus 63 only)

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X2



X2



X2



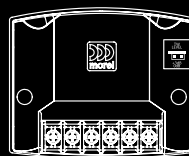
X8



X8

## MXR230S / MXR133S Crossover

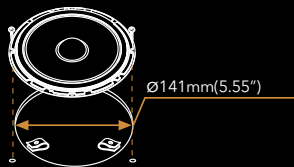
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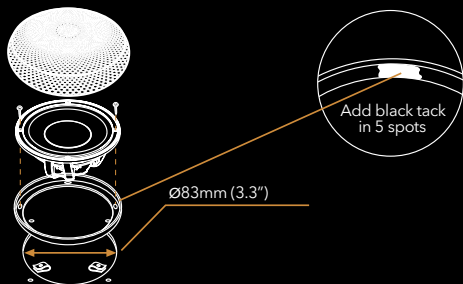
X2

# Midrange, Woofer and Tweeter mounting

WS6 Woofer

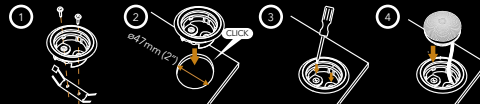


MS3 Midrange



TS1 Tweeter

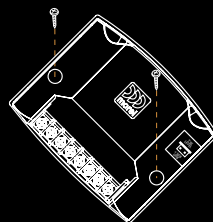
Flush Mount



Surface Mount



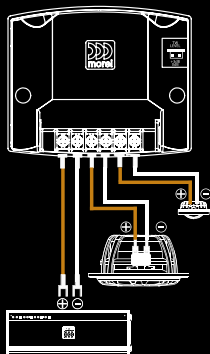
MXR230S / MXR133S Crossover



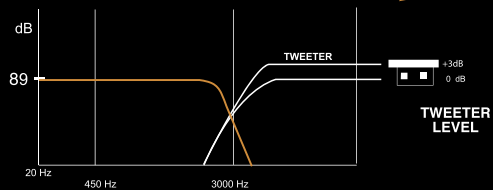
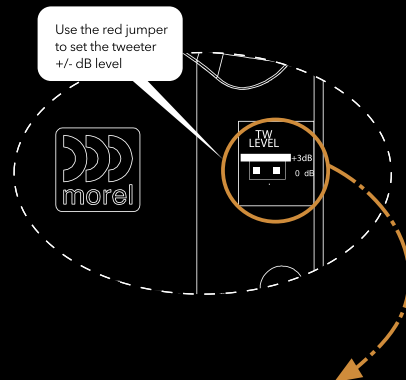
# Crossover Connections

## 2-WAY System Crossover

- 1 Standard wire connection with bridged jumpers



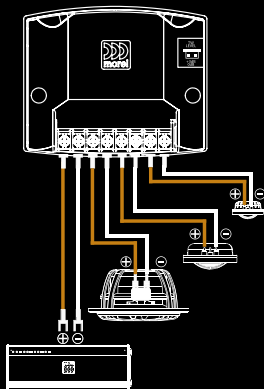
## 2-WAY System Alignment



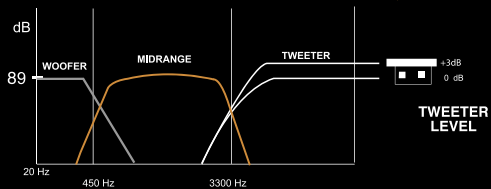
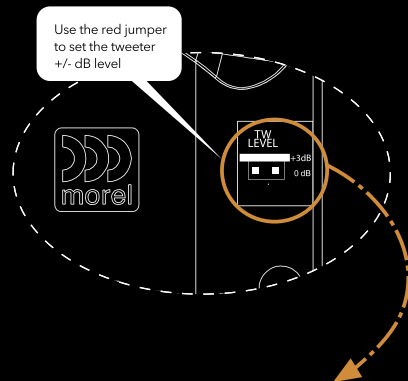
# Crossover Connections

## 3-WAY System Crossover

- 1 Standard wire connection with bridged jumpers



## 3-WAY System Alignment



# Specifications

SENSUS	WS6
Nominal Impedance (ohm)	4
Power Handling Wrms	120
Max. Trans. Pwr Handling Wrms	300
Sensitivity (2.83 V/1M)	88dB
Frequency response Hz	40-4000
Resonance Freq. Fs Hz	55
Voice Coil Diameter mm (inch)	33 (1.29)
Voice Coil Height mm (inch)	12 (0.47)
Voice Coil Type/Former	Aluminum
Voice Coil Wire	Copper
DC Resistance (ohm)	3.2
Magnet System	Ferrite
HE-Magnetic Gap Height mm (inch)	5 (0.19)
BL Product/BXL	5.4
Max. Linear Ex./Xmax mm (inch)	±3.5mm (0.13)
Electrical Q Factor QES	0.7
QTS	0.6
QMS	4.01
Moving Mass MMS - gr/os	15 (0.53)
Equip. Can Air Load VAS - L (cu.ft)	9 (0.31)
Effective Piston Area SD sq.cm (sq.inch)	116.9 (2.619505)
Cone Type	One-piece formed
Cone Material	Polypropylene
Unit Diameter mm (inch)	165 (6.5)
Mounting Depth mm (inch)	61 (2.4)
Mounting Cutout	141 (5.55)
Net Weight Kg (lb)	1.26 (2.77)

MIDRANGE / TWEETER	MS3	TS1
Nominal Impedance (ohm)	4	4
Power Handling Wrms	100	100
Max. Trans. Pwr Handling Wrms (10ms)	300	250
Sensitivity (2.83 V/1M) dB	85	89
Frequency Response Hz	120-6000	1600-25000
FS Hz	95	1100
Voice Coil Diameter mm (inch)	25 (0.98)	28 (1.125)
Voice Coil Former	Fiberless	Aluminum
Voice Coil Wire	Copper	Copper
DC Resistance ohm	3.3	3.7
Magnet System	Hybrid	Double Magnet Neodymium
Cone/Dome Type	One-piece formed	Soft dome
Cone/Dome Material	Polypropylene	Silk
Unit Diameter mm (inch)	100 (3.90)	43.00 (1.69)
Mounting Depth mm (inch)	38 (1.50)	13.2 (0.52)
Mounting Cutout	83 (3.3)	47.00 (2)
Net Weight Kg (lb)	0.44 (0.97)	0.07 (0.15)

CROSSOVERS	MXR2305	MXR1335
Crossover Point	W: 3000Hz/12dB T: 3000Hz/12dB	W: 600Hz/12dB M: 600Hz/12dB T: 3300Hz/12dB T: 3300Hz/12dB
Crossover Controls	Tweeter 0/+3dB	Tweeter 0/+3dB

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

## Reccomended Active Configuration

### Sensus 62:

#### Reccomended Active Crossover

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

### Sensus 63:

#### Reccomended Active Crossover

Tweeter HP: 2,500Hz @ 12dB slope  
Midrange LP: 2,500Hz @ 12dB slope  
Midrange HP: 300Hz @ 12dB  
Woofer LP: 300Hz @ 12dB



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