



**Integration  
Reference  
Installation Guide**

**BMW**

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IR-BMW42W  
IR-BMW42INT

# 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 Integration Reference 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)

# Components

## Component System

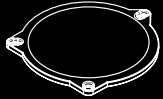
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x2  
Midwoofer



x2  
Connecting Cable



x2  
Gasket



x2  
Adapter 1  
(already mounted)



x2  
Adapter 2



x2  
Adapter 3



x2  
Tweeter



x2  
Mounting bracket



x2  
Cable Splitter



x2  
Woofer crossover



x2  
Tweeter crossover

## Integra System

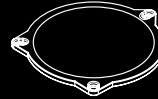
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x2  
Coax



x2  
Connecting Cable



x2  
Gasket



x2  
Adapter 1  
(already mounted)



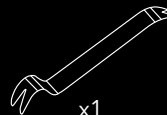
x2  
Adapter 2



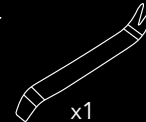
x2  
Adapter 3

## Installation tools

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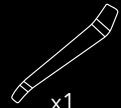
x1



x1



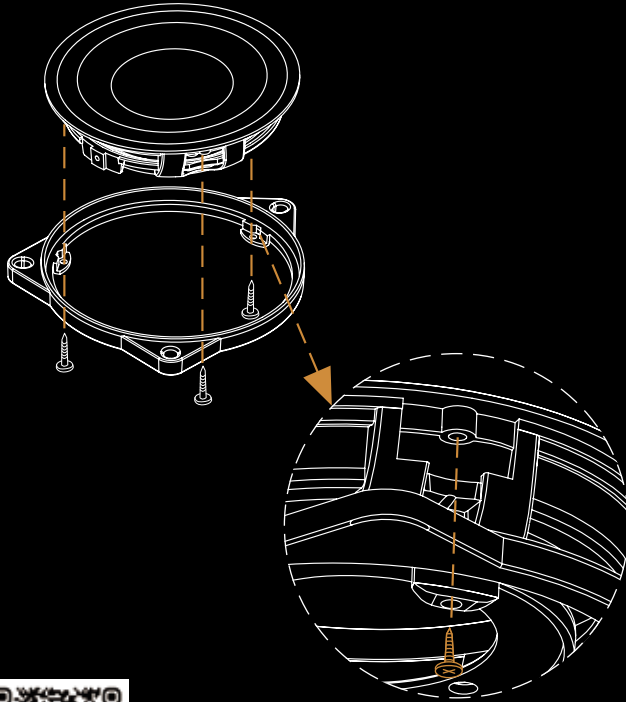
x1



x1

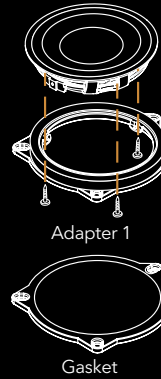
# Component Midwoofer and Coax Adapter Assembly

## Assembly Overview

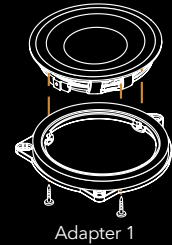


Scan for vehicle-specific compatibility information

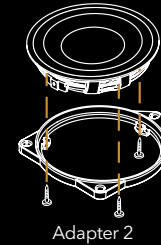
## Configuration A



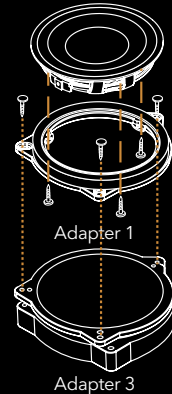
## Configuration B



## Configuration C



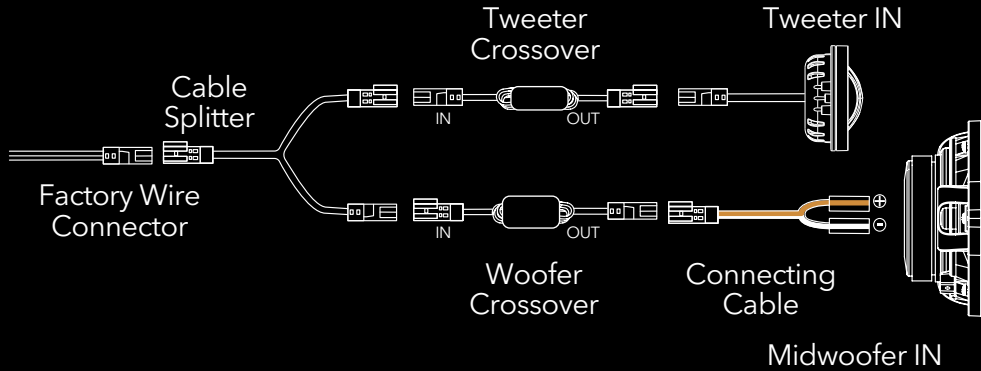
## Configuration D



# Speaker Connection

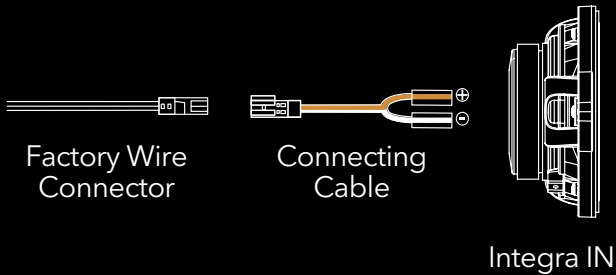
## IR-BMW42 Component System

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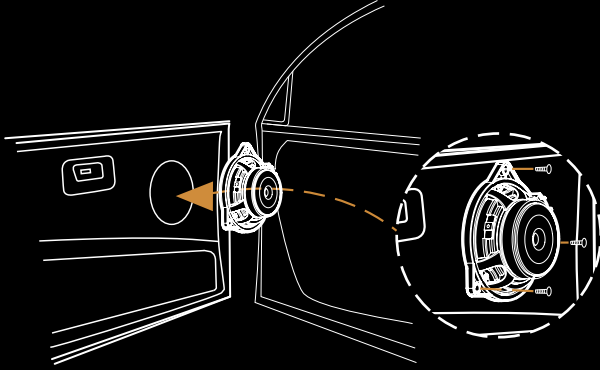
## IR-BMW42INT Integra System

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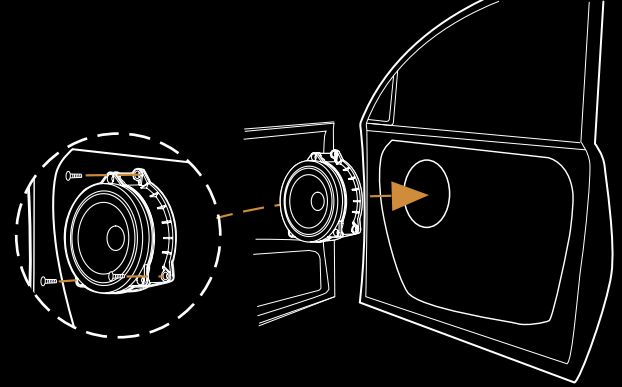


# Woofers, Integra and Tweeter Installation

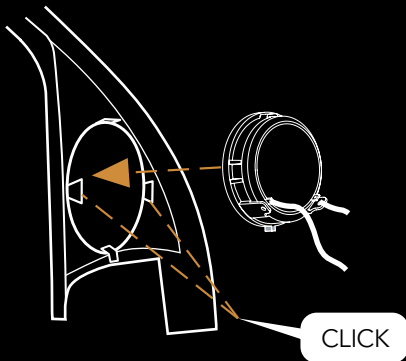
## 4" Woofer and Integra - Trim Installation



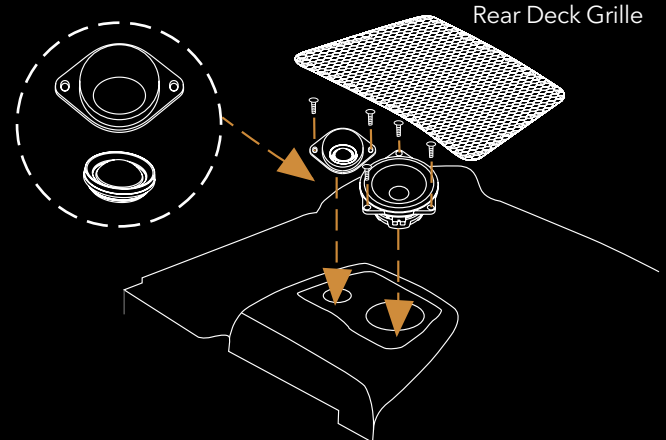
## 4" Woofer and Integra - Door Installation



## Tweeter - Front Installation



## Tweeter - Rear Deck Installation



# Specifications

	MIDWOOFER	INTEGRA
Nominal Impedance (ohm)	4	4
Power Handling Wrms	100	80
Max. Trans. Pwr Handling Wrms	300	250
Sensitivity (2.83 V/1M) dB	92	90
Frequency response Hz	50-4200	80-20,000
Resonant Freq. Fs Hz	82	92
Voice Coil Diameter mm (inch)	54 (2.1)	54 (2.1)
DC Resistance (ohm)	2.8	3
Magnet System	Neodymium	Neodymium
HE-Magnetic Gap Height mm (inch)	4 (0.16)	4 (0.16)
B-Flux Density (T)	0.95	1
BL Product/BXL	5.1	4.3
Suspension Compliance CMS - mm/N	0.5	0.5
Electrical Q Factor QES	0.36	0.5
QTS	0.3	0.4
QMS	2.12	2.47
Mech. Resistance RMS- N * S / M	1.68	1.3
Moving Mass MMS - gr/ounce	6.4(0.22)	5.2(0.18)
Equiv. Can Air Load VAS - L (cu.ft)	2.2(0.07)	0.7 (0.02)
Effective Piston Area SD sq.cm (sq.inch)	55.4(8.58)	31.6 (4.9)
Cone Material	DPC	Composite cellular fiber
Unit Diameter mm(inch)	96.7 (3.8)	96.7 (3.8)
Net Wight Kg (lb)	0.35 (0.77)	0.37 (0.81)

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

	TWEETER	IR-BMW42
Nominal Impedance (ohm)		4
Power Handling Wrms		100
Max. Trans. Pwr Handling Wrms (10ms)		200
Sensitivity (2.83 V/1M) dB		91.5
Frequency Response Hz		1600-20000
FS Hz		900
Voice Coil Diameter mm (inch)		28 (1.1)
Voice Coil Wire		Aluminium
Magnet System		Neodymium Vented
Mounting Depth mm (inch)		20 (0.8)

CROSSOVERS	TWEETER	MIDWOOFER
Crossover Point	2700Hz/12dB (highpass)	2700Hz/12dB (lowpass)

**Wishing you many years of sound enjoyment!**



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[www.morelhifi.com](http://www.morelhifi.com)



Scan for vehicle-specific  
compatibility information



# INTEGRATION REFERENCE IR-BMW4INT



As part of the Reference level, the IR-BMW4INT point source system for BMW takes sound performance to new levels. Music lovers will be consumed by the level of tonal purity, detail and ease of listening.

Featuring DirectFit, the unique 4-inch (100mm) chassis design with supplied mounting brackets and factory wire connections allow the IR-BMW4INT to fit modern BMW models without the need for modification.

The IR-BMW4INT is based on Morel's highly regarded Hybrid Integra speaker series. Each 4-inch point source uses 2.1" (51mm) voice coil and powerful hybrid EVC motor design, offering exceptional power handling and unmatched cone control. The concentrically mounted hi-res tweeter uses Morel's proprietary 1.1" (28mm) Acuflex silk dome and dual neodymium magnet motor. This culminates into a plug-and-play speaker system that simply has no equal.

## Key advantages

- DirectFit design for easy installation
- No need for any modification
- Designed for amplifier and DSP upgrade
- Optimized for BMW to deliver ultimate HiFi quality sound
- Plug and Play wire connection
- High power handling and low distortion
- All mounting hardware is included for ALL BMW models
- Installation tools included

## Specifications

Configuration	Integra
Woofer Size	4" (100mm)
Tweeter	1.1" (28 mm)
Nominal Impedance (ohm)	4
Nom. Power Handling (Wrms)	80
Max Power Handling (W)	250
Sensitivity (2.83 V/1M) dB	90
Frequency Response (Hz)	80-25,000



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