

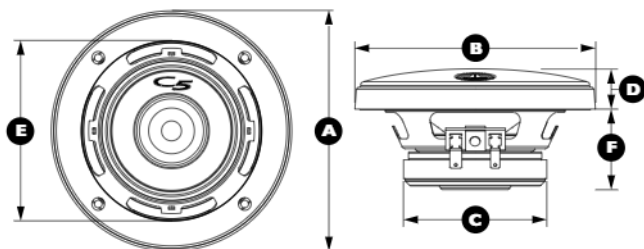


## OWNER'S MANUAL

***C5-400cm***  
S I N G L E

4-inch (100 mm) Component Midrange

## C5-400cm-Single



Physical Dimensions	
Frame Outer Diameter (A)	3.94 in. / 100 mm
Grille Tray Outer Diameter (B)	4.76 in. / 121 mm
Magnet Outer Diameter (C)	2.83 in. / 72 mm
Frontal Grille Protrusion (D)	0.83 in. / 21 mm
Mounting Hole Diameter (E)	3.625 in. / 92 mm
Mounting Depth (F)	1.62 in. / 41 mm

### Included Components and Parts:

- One C5-400cm-Single 4.0 inch (100 mm) Midrange
- One Metal Midrange Grille with ABS Grille Tray
- One ABS Frame Adaptor
- One ABS Flush-Mount Ring
- One Self-Adhesive JL Audio Nameplate for Grille
- Butyl Adhesive Putty for Midrange Grille
- Four 4 mm x 30 mm Sheet Metal Screws
- Four 4 mm Mounting Clips
- Four 3 mm x 30 mm Sheet Metal Screws
- Four 3 mm Mounting Clips
- One 6.4 mm Female Crimpable Connector
- One 4.7 mm Female Crimpable Connector

### Specifications:

Speaker Type: Component Midrange  
 Nominal Diameter: 4 inch (100 mm)  
 Design Bandwidth: 200 Hz - 7 kHz  
 Nominal Impedance (Znom): 4 ohms  
 Continuous Power Handling: 75W (RMS)  
 Recommended Amplifier Power: 25-150W (RMS)  
 Net Weight: 0.98 lbs. (0.44 kg)  
 Driver Rear Displacement: 0.0024 ft<sup>3</sup> (0.068 L)  
 Min. Recommended Sealed Enclosure: 0.074 ft<sup>3</sup> (2.1 L)

### Parameters:

Voice Coil Resistance (Re): 3.230 ohms  
 Free Air Resonance (Fs): 108.5 Hz  
 Reference Efficiency (no): 0.258%  
 Efficiency @ 1W/1m: 86.4 dB SPL  
 Sensitivity @ 2.83V/1m: 89.4 dB SPL  
 Electrical "Q" (Qes): 0.812  
 Mechanical "Q" (Qms): 4.837  
 Total Speaker "Q" (Qts): 0.812  
 Equivalent Compliance (Vas): 0.060 ft<sup>3</sup> (1.706 L)  
 Moving Mass (Mms): 5.432 g  
 Mechanical Compliance (Cms): 0.000396 m/N  
 Magnetic Strength (BL): 3.87 N/A  
 Effective Piston Area (Sd): 8.55 sq.in. (0.0055 sq. m)  
 One-Way Linear Excursion (Xmax): 1.2 mm

### Design Bandwidth:

With 48 dB/octave filters: 200 Hz - 7 kHz  
 With 24 dB/octave filters: 300 Hz - 7 kHz  
 With 12 dB/octave filters: 400 Hz - 7 kHz

### Crossover Setting Guidelines: 3-Way Speaker Systems

#### C5-650cw-Single Woofer

Low-Pass: 24 dB/octave Linkwitz-Riley @ 300 Hz  
 Level Offset: -1.0 dB

#### C5-400cm-Single Midrange

High-Pass: 12 dB/octave Linkwitz-Riley @ 550 Hz  
 Low-Pass: 12 dB/octave Linkwitz-Riley @ 7000 Hz  
 Level Offset: 0 dB

#### C5-075ct-Single Tweeter

High-Pass: 24 dB/octave Linkwitz-Riley @ 7000 Hz  
 Level Offset: -0.5 dB

#### C5-570cw-Single Woofer

Low-Pass: 24 dB/octave Linkwitz-Riley @ 300 Hz  
 Level Offset: -2.5 dB

#### C5-400cm-Single Midrange

High-Pass: 12 dB/octave Linkwitz-Riley @ 550 Hz  
 Low-Pass: 12 dB/octave Linkwitz-Riley @ 7000 Hz  
 Level Offset: 0 dB

#### C5-075ct-Single Tweeter

High-Pass: 24 dB/octave Linkwitz-Riley @ 7000 Hz  
 Level Offset: -0.5 dB

### Crossover Setting Guidelines: 2-Way Speaker Systems

#### C5-650cw-Single Woofer

Low-Pass: 24 dB/octave Linkwitz-Riley @ 5500 Hz  
 Level Offset: 0 dB

#### C5-075ct-Single Tweeter

High-Pass: 24 dB/octave Linkwitz-Riley @ 5500 Hz  
 Level Offset: -1.0 dB

#### C5-570cw-Single Woofer

Low-Pass: 24 dB/octave Linkwitz-Riley @ 5000 Hz  
 Level Offset: -1.0 dB

#### C5-075ct-Single Tweeter

High-Pass: 24 dB/octave Linkwitz-Riley @ 5000 Hz  
 Level Offset: -1.0 dB

**Please note:** These are recommended starting points for tuning. In-vehicle measurements should be made to optimize the crossover for speaker placement and vehicle acoustics. Because of vehicle acoustics, the use of equalization will be required to achieve flat frequency response characteristics. Individual results may vary.

## INTRODUCTION

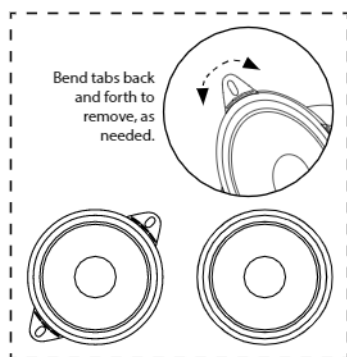
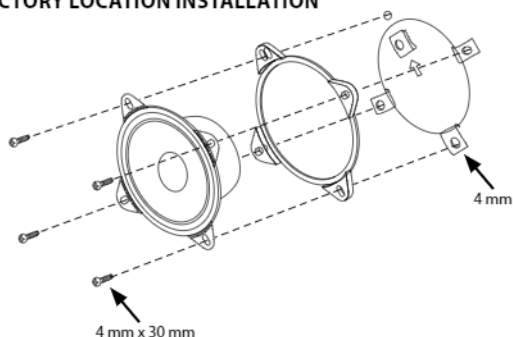
The C5-400cm-Single is a component midrange designed to operate in a 3-way system, with a woofer and tweeter.

Passive crossover networks are not included with C5-Single drivers, as they are designed for active systems. Actively configured systems allow all filtering and/or equalization to be configured prior to reaching the amplifier, thus avoiding the technical compromises of passive crossover networks.

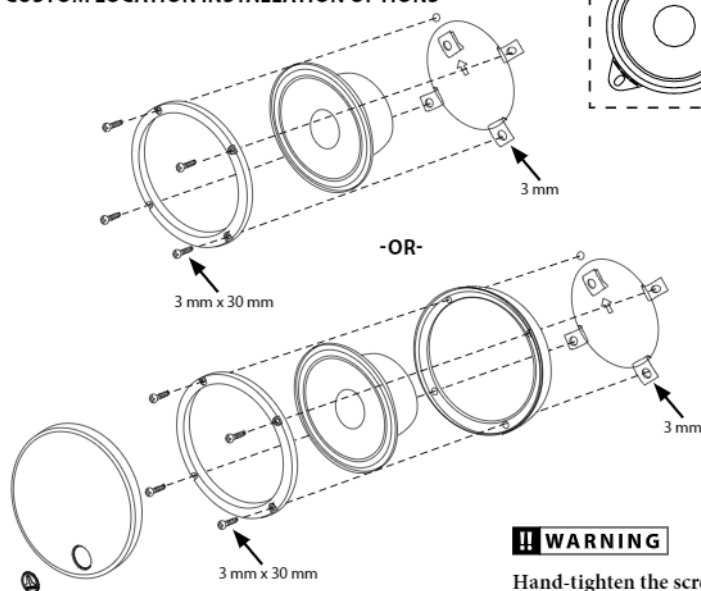
For optimum performance, we strongly recommend the use of a high-quality DSP and a dedicated amplifier channel. Precise setup of equalization, delay and crossover filters will ensure optimal in-vehicle performance.

Should you have any questions regarding the instructions in this manual, please contact your authorized JL Audio dealer for assistance, or contact the JL Audio Technical Support Department.

## FACTORY LOCATION INSTALLATION



## CUSTOM LOCATION INSTALLATION OPTIONS



### !! WARNING

Hand-tighten the screws evenly in a criss-cross pattern to avoid bending the speaker frame or stripping the mounting clips.

