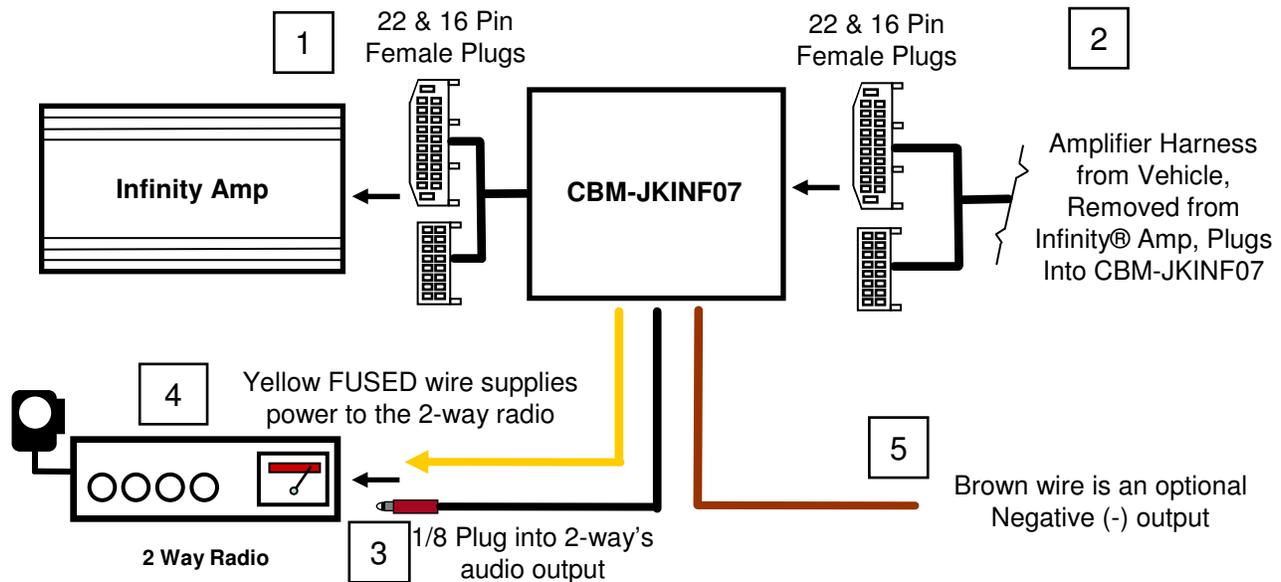


# CBM-JKINF07 is a Stereo Mute & Speaker Switch for the 2007-2016 Jeep® JK with Infinity® Alpine Sound System



## Hear 2-Way Radio Voice Through Factory Jeep Speakers

**CBM-JKINF07 (CBM)** is an automatic, stereo muting and speaker switching device that allows seamless interaction between the factory Jeep® Infinity® sound system and CB, or other radio receiving device, equipped with an 1/8" mono, audio output jack.

**Placement of CBM** is between the Infinity® amplifier and the vehicle's amplifier harness.

**When audio is present** with volume set at a normal listening level on the 2-way radio, or when the 2-way radio is transmitting, the **CBM** automatically mutes the stereo and switches the 2-way radio voice to the stereo system's two front speaker. The stereo will remain muted for three seconds after the last voice message is received, and then returns to normal stereo play.

### Installation and Wiring

Start by unplugging the 22 & 16 pin female plug from the Infinity® amplifier. The amplifier is located under the dash on the driver's side, just below and left of the steering column on 2007 to '11 JK, and just below and *far* left of the steering column against the upper kick panel on 2012 to '14.

(1) **Plug** the 22 & 16 pin, female plugs from the **CBM** into the Infinity® amplifier.

(2) **Plug** the 22 & 16 pin, female plugs from the vehicle's amplifier harness into the **CBM**.

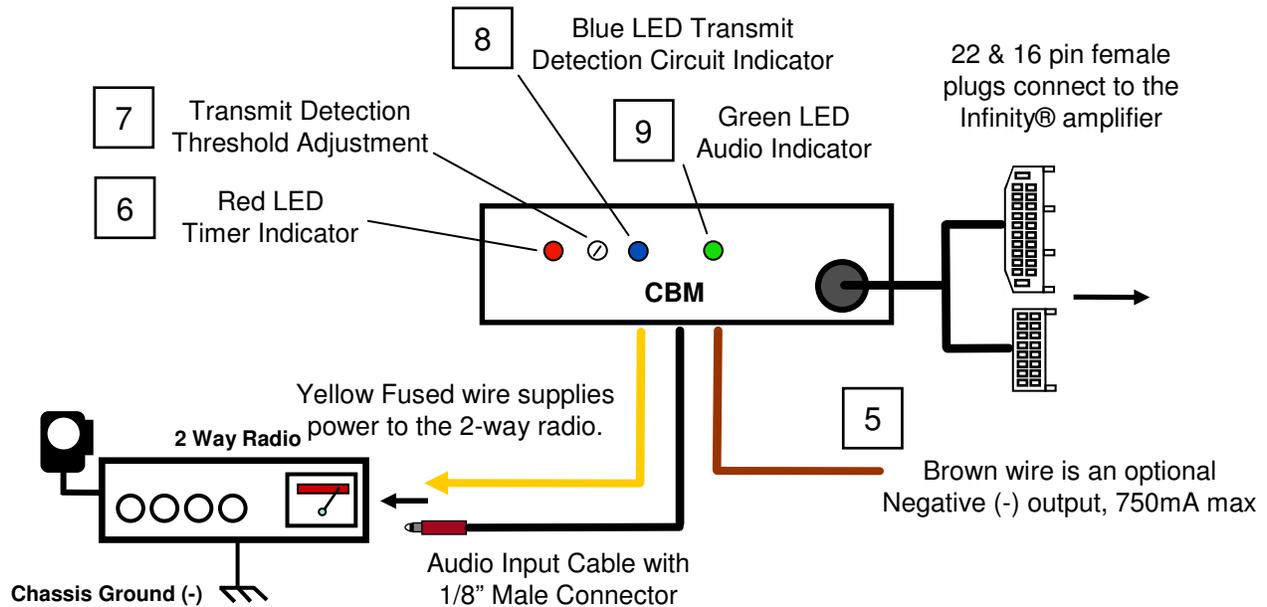
(3) **Plug** the 1/8", male connector from the **CBM** into the 2-way radio's, scanner's or GPS's 1/8", audio output jack.

(4) **YELLOW FUSED WIRE** of the **CBM-JKINF07** is a battery output lead +12DC volt 15 amp. It is the main feed for the 2-way radio power. Connect the 2-way radio power lead **ONLY** to the **YELLOW FUSED LEAD NOT TO THE BATTERY** this allows the **CBM-JKINF07** to detect when the 2-way is transmitting. Before connecting the Yellow wire to the 2-way radio be sure that the power switch for the 2-way radio is in the off position, the antenna is connected and the ground supply wire for the 2-way radio is connected to the vehicle's chassis ground. Now connect the Yellow wire originating from the **CBM** to the two-way radio's (+12) volt power wire. Current flow is from the **CBM-JKINF07** to the 2-way radio and now ready to be monitored.

If you **DO NOT** want the stereo to mute when the 2-way radio is transmitting, then do not connect the 2-way radio to the yellow wire. However, you will need to power the 2-way radio from a different circuit in the vehicle. **NOTE: If the yellow hot wire is not to be used, then it is necessary to cap it off to prevent a short. The installation is now complete and ready to be tested. Proceed to "Testing Basic Functions" below.**

(5) **BROWN WIRE** Not used most installations is an optional muting output for some aftermarket stereos. This wire will latch to ground (-) when an audio signal from the 2-way radio detected or when the 2-way radio is transmitting, and unlatch 3 seconds after the last voice message has been received. To change the polarity of this wire to a positive (+) output or to increase its current carrying capability use a Bosch type SPDT relay that can be found at most auto parts retailers. **NOTE: The output, current rating of the Brown wire is 750mA.**

## Installation and Wiring Instruction Continued



- (6) **Red LED:** This is an indicator for the mute timer. When this LED is lit, the mute timer is active and the stereo will be in the mute state. The Brown Wire (5) will also be latched to ground (-) whenever the Red LED is on.
- (7) **Transmit Detection Threshold Adjustment:** The rotary control in this location is used to adjust the sensitivity of the transmit detection circuit. Turning the control counter-clockwise will make the detection circuit more sensitive with a clockwise rotation being less sensitive.
- (8) **Blue LED:** This indicator shows when the connected 2-way radio is transmitting. It is also used as a visual aid when adjusting the transmit detection circuit's threshold. When the **CBM** is properly adjusted this LED will light when the 2-way radio is transmitting.
- (9) **Green LED:** This LED is an indicator for the audio detection circuit. When an audio signal is present on the audio input cable this LED will light. This LED will light with a minimum of 300mV of audio from the 2-way radio's external speaker output jack.

### Testing Basic Functions

**With the power, ground, audio input cable (see #10 above) and antenna connected to the 2-way radio turn the 2-Way Radio on.** Locate an active channel on the 2-way radio, turn up the volume to a normal listening level through the Jeep's dash speakers and increase the squelch until only the voice messages can be heard and not the background noise. The Green LED, see #9 above, and Red LED, see #6 above, should light-up when a voice message breaks squelch. The Green LED will shut-off when there is radio silence between voice messages. The Red LED will turn-off after 3 seconds of radio silence indicating that the mute timer has timed-out.

Now turn the vehicle's key to the accessory or on position and turn-on the stereo to a normal level. When a voice message is received by the 2-way radio, the Red LED will light-up, the stereo will mute and the voice message will be heard over the stereo's front speakers. The stereo will return to normal play 3 seconds after the last voice message has ended.

### Adjusting the Transmit Detection Threshold or Trap-Set of the CBM

Located on the front panel of the **CBM** between the Blue and Red LEDs is an access hole, see #7 above. Just inside this opening is an adjustable control for the transmit detection circuit or trap-set. Turning the control counter-clockwise will make the detection circuit more sensitive with clockwise being less sensitive.

Without pressing the microphone's push-to talk (PTT) key insert a small, flat-blade screw driver into the trap-set control. From a full, left-turn setting the Blue LED, see #8 above, will be lit. Slowly turn the control to the right (clockwise) until the Blue LED just goes out, then stop. This adjusts the trap-set, and only needs to be done once during the installation. It would only need to be re-set if a new transceiver is installed.

When the microphone's push-to talk (PTT) key is pressed to transmit the Blue LED should light-up along with the Red LED, and if playing, the Jeep Infinity sound system should mute. The Blue LED will shut-off when the PTT key is released. The stereo will remain muted for 3 seconds after release of the PTT key. The stereo will resume normal play after the Red LED shuts-off.

**Installation Note:** While routing wires in your vehicle, be sure to avoid dash components that are sharp or those that move, such as the brake pedal or steering components. Wire insulation can become damaged and an electrical short could result. Neatness counts, so secure loose connections and tie all wires up when finished.