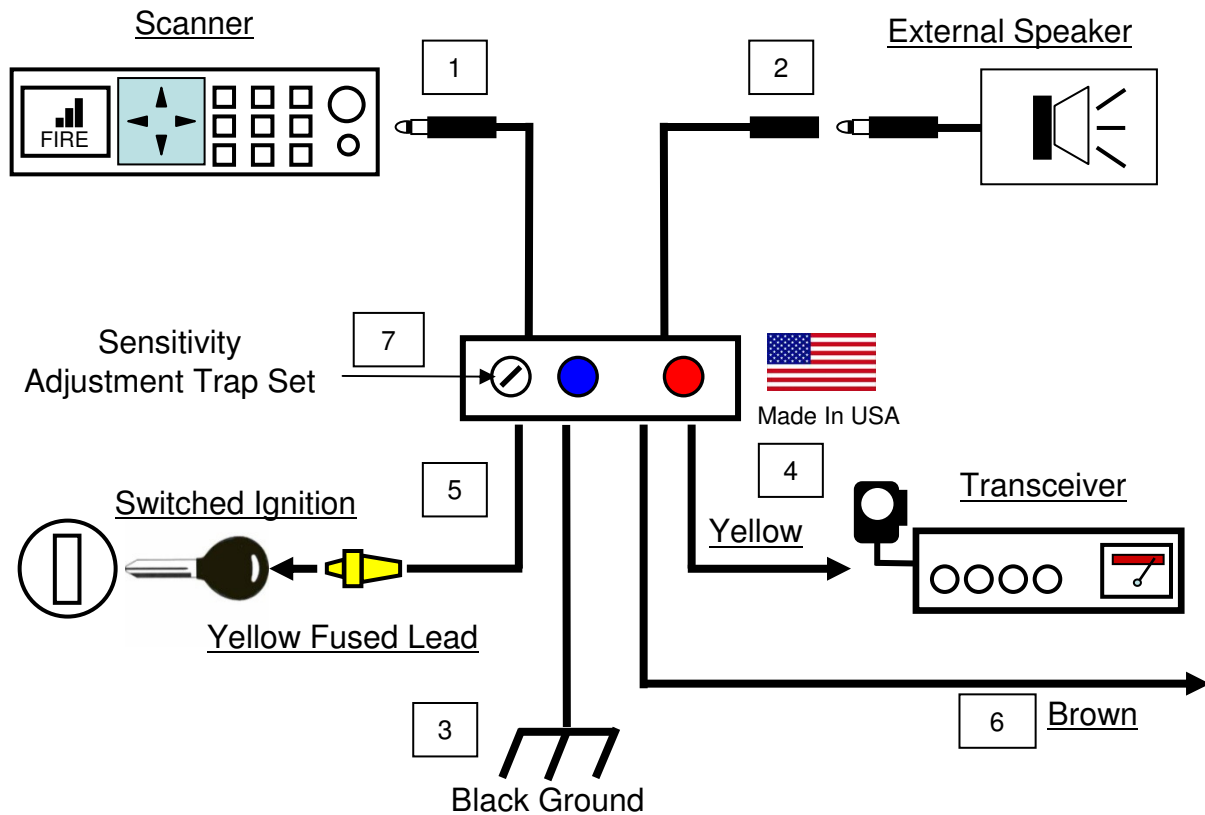


External Speaker Mute (ESM) Is a Two-Way Radio Transmit Sensing External *Scanner* Speaker Muting System

Eliminates the scanners background audio from being retransmitted by the First Responder, Ham, CB or other two-way radio, or having to reach over to turn the volume down on the scanner when transmitting.



The ESM is an inline current sensing device that detects the current flow change (that is set by the trap set) through the main power lead feeding the two way radio, when a two-way radio transmits. When the (PTT) push to talk switch is pressed (keyed and held) to transmit, an over current draw (set by the trap set) is detected by the **ESM** causing the scanners external speaker to mute. The scanners external speaker remains mute for an additional three seconds after the transmit key has been released.

The Yellow lead connecting a (12volt+) power source to the two way radio power input is a pass through. Using a proprietary current sensing magnetic circuit makes it load free and with no load resistor there is no (power) voltage or current loss for the two way radio.

The **ESM** Wiring and Set-Up Instructions

- (1) **Connect** the male 3.5mm plug from the **ESM** into the scanners external speaker output jack.
- (2) **Connect** the female 3.5mm jack from the **ESM** to the external speaker.
- (3) **Black** lead wire is negative ground, attach to a clean metal surface with screw or bolt.
- (4) **Yellow** lead wire (**non fused**) connect to two way radio power input only. Do not connect the two way radio to any other power source as this yellow power lead is a pass through and polarized.
- (5) **Yellow (Fused 15 amp lead wire)** connect to positive 12volt switched source. This lead is polarized.
- (6) **Brown** lead wire is not used in all installations (optional user defined) sinks (negative) to ground when **ESM** mutes. Connects to other **ESM** as a daisy chain in multiple two way radio installs.
- (7) **Trap Set Adjustment:** Located on the front panel of the **ESM** next to the Blue LED 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 will be lit and the scanner mute. Slowly turn the control to the right (clockwise) until the Blue LED just goes out, then stop. This adjustment on the trap-set, 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 will light-up along with the Red LED, and the scanner speaker will mute. The Blue LED will shut-off when the PTT key is released. The scanners speaker will remain mute and the Red LED will be lit for an additional three seconds after release of the PTT key.