

OEM Lip Mount Camera with Harness and OnStar Mirror for GM Vehicles with 10-pin Mirror Connector (Kit part number 9002-8723)

**Please read thoroughly before starting installation
and check that kit contents are complete.**

Items Included in the Kit:

- Bubble bag containing:
 - Camera with Mount
- Mirror
- Mirror Harness
- Chassis Harness
- Zip lock bag containing:
 - 12 Zip Ties
 - 2 Rubber Well Nuts
 - 2 Bolts
 - 2 sets of T-taps
- Zip lock bag containing:
 - These Instructions
 - Self-adhesive Template

Tools & Supplies Needed:

- Phillips Screwdriver
- 5/16" Drill Bits
- 7/8" or 22mm Center Hole Saw
- Power Drill
- Deburring Tool or Round File
- Multi-meter or computer safe test light
- Wire Crimper
- Rust Inhibitor (Recommended)
- Soldering Iron (Recommended)
- Solder (Recommended)
- Plastic Trim Removal Tool

Safety Precautions:

- Work in a well ventilated area that is clear of obstructions.
- Secure vehicle with tire chucks in both front and rear of tires.
- Turn vehicle accessories OFF and ensure ignition key is in OFF position.
- Wear safety goggles and snug fitting clothes.
- Use tools only for their intended purpose and which are in good repair.
- Only perform this task if confidence, skill, and physical ability permit.

**NOTE: We strive to provide accurate and up-to-date installation instructions.
For the latest full color instructions, please visit www.brandmotion.com**

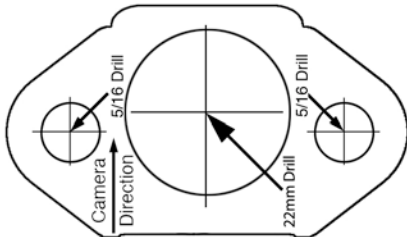
Step 1: Place Camera Mount in desired position to confirm fitment. (**IMPORTANT:** Some states prohibit items blocking the vehicle license plate; check local authorities to confirm legal status for your specific application).



Note: the rear trim of several GM vehicles such as the Chevy Equinox and Cadillac CTS have slight depressions (indicated by the arrow below) where factory installed rear view cameras are mounted. These positions are ideal camera locations.



Step 2: Peel adhesive backing from supplied Camera Mount Template and apply to the desired location making sure that the camera direction is correct.



NOTE: If self-adhesive Template is missing or damaged, cut out the image above and affix with Masking Tape.

Step 3: Use a Center Punch to mark the centers of the required three holes. NOTE: If your vehicle has a liftgate panel/trunk trim cover, it must be removed.



Step 4: Drill two 5/16" holes for the camera mounting bolts and one 7/8" hole for the camera harness. Use a Deburring Tool or Round File to smooth edges.

INSTALLATION INSTRUCTIONS

Step 5 (if necessary): Using a 5/8" drill bit, drill an opening in the trunk or liftgate for the head of the Camera Harness to pass through. Insert Camera Harness head through hole so that the gray connector end of the Camera Harness is inside the trunk or liftgate. (**RECOMMENDED:** Protect Camera Harness with a rubber grommet or by applying a small amount of silicone caulk to the area that comes into contact with the edges of the hole. Additional recommendation: If drilling through sheet metal, apply a Corrosion Inhibitor.).

Step 6: Mount the Camera using the supplied hardware. Insert the two Rubber Well Nuts into the outer 5/16" camera mount holes.

Step 7: Thread the two supplied bolts through the Camera Mount and into the Well Nuts using a Phillips Screwdriver but do not tighten the Bolts all the way down just yet.

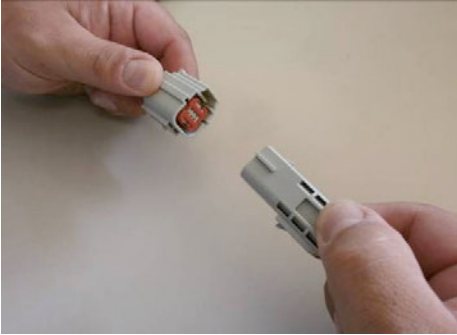
Step 8: Determine location of vehicle power and reverse from the chart on Pages 6 & 7.

Step 9: Route Camera Harness towards the side of the vehicle that supplies power. It may be necessary to remove sill plates, pillar covers, seat bottoms, side panels, etc. In some cases even the seatbelt bolts at the bottom of the pillars must be removed.



CAUTION: Any bolts removed for safety devices must be retightened to manufacturer's specified torque specifications). Use a plastic trim removal tool to avoid damage to trim pieces.

Step 10: Connect Camera Harness to supplied Chassis Harness.



The optimal location for this junction may occur at the top of the liftgate or the inner edge of the trunk. (**Note:** Most vehicles have existing wires passing through this area; use this route if at all possible).



Step 11: Route Chassis Harness forward. It may be necessary to remove sill plates, pillar covers, seat bases, side panels, etc. using a Plastic Trim Removal Tool. In some cases, seatbelt bolts must be removed. (**CAUTION:** Any bolts removed for safety devices must be retightened to manufacturer's torque specifications).

Step 12: Secure Camera Harness to existing vehicle wiring with supplied Wire Ties. This will minimize chance of binding or otherwise damaging the harness.



INSTALLATION INSTRUCTIONS

Step 13: Remove vehicle mirror. Unplug the 10-pin connector from the rear of the vehicle's mirror, use a T20 Torx bit to loosen the screw securing the mirror, and slide the mirror off the windshield mounting tab.

CAUTION: Removing the mirror can cause damage to the windshield.

NOTE: Some vehicles have Mirror Mounting Covers (the 2012 Equinox is shown below). Refer to our application guide for affected vehicles. If equipped, remove the cover with a plastic trim tool. If the vehicle has a center portion, remove it.



Next, using a Roto Tool remove the striped area of the center cover as shown below. The reworked cover is on the right.



Step 14: Attach supplied Mirror to the windshield using a T20 Torx Driver. This mirror has a Wedge/D-tab style mounting base. Please check our compatibility chart to make sure it is compatible with your vehicle (adapters are available for specific applications separately).

CAUTION: Torque for the mirror screw that attaches to the windshield tab is 1.8 Nm (16 lb-in) and cannot exceed 2.2 Nm (19.5 lb-in).

Step 15: Plug the 16-pin connector of the supplied Mirror Harness into the supplied Mirror.

Step 16: Route the 6-pin connector end of the Mirror Harness along with the green, red, and black wires under the headliner.

Step 17: Route the Mirror Harness down the inside of the A-pillar trim closest to the ignition and reverse locations for the vehicle.

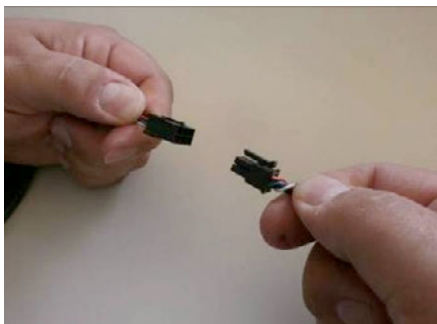
Step 18 It may not be necessary for you to use the Green and Red supplied wires below; most GM vehicles already have these locations populated. If wires already exist in these locations, test the leads using a multimeter for the correct signal).

If the wires do not exist, splice the red and green wire leads to the wires listed for the vehicle on Pages 6 & 7. (Soldering recommended or T-taps as optional connection method):

- Red** - Ignition controlled power 12v+ when key is turned ON and 14.4v or better when vehicle is running.
- Green** - Connect to Reverse + power (backup lamp).

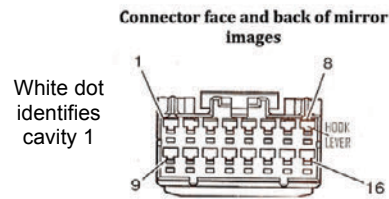
Step 19: Attach **eyelet of black** chassis ground wire of the supplied Mirror Harness to an existing body bolt.

Step 20: Connect the 6-pin connector of the supplied Mirror Harness to the supplied Chassis Harness.



INSTALLATION INSTRUCTIONS

Step 21: Connect the 10-pin connector on the supplied Mirror Harness to the vehicle's 10-pin connector. Tuck any excess harness beneath the headliner taking care not to bind the wires.



Mirror Harness Pinouts			
6-PIN Pin # WIRE COLOR	10-PIN Pin # WIRE COLOR	16-PIN Pin # WIRE COLOR	FUNCTION
		1 n/a	n/a
		2 n/a	n/a
		3 n/a	n/a
		4 n/a	n/a
	9 - Gray	5 - Gray	Exterior Auto Dimming (+)
1 - White		6 - White	Video +
4 - Brown		7 - Brown	Video -
5 - Black	5 - Black	8 - Black	Ground
3 - Green	1 - Green	9 - Green	Reverse Signal 12V+
		10 n/a	n/a
	3 - Purple	11 - Purple	Onstar Keypad Signal
	4 - Blue	12 - Blue	Onstar Keypad Supply Voltage
6 - Red	2 - Pink	13 - Pink	Ignition Controlled 12V+
	6 - Yellow	14 - Yellow	Onstar Keypad Green LED Signal
	7 - Orange	15 - Orange	Onstar Keypad Red LED Signal
	8 - Red	16 - Red	Exterior Auto Dimming (-)
2 - Blue			Shield

Step 22: Test the system. Inspect that all connections are proper and secure. Clear all loose items removed from the area around the vehicle and turn ignition key ON to test system. Once reverse gear is engaged the camera image should appear on the mirror.

Step 23: Secure Chassis Harness and Mirror Harness with supplied Zip Ties. If necessary, coil excess harness wire and secure with zip ties. Attach to existing vehicle wiring where possible.

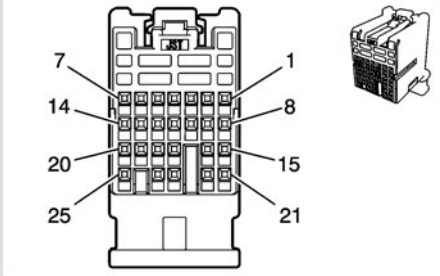
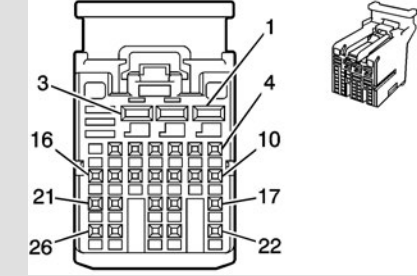
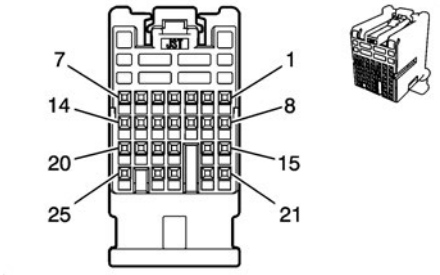
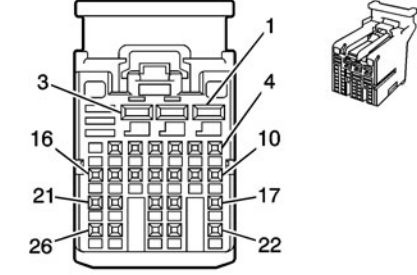
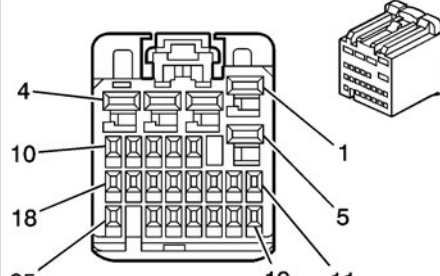
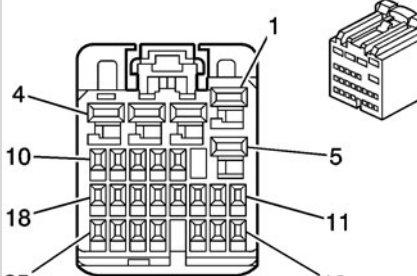
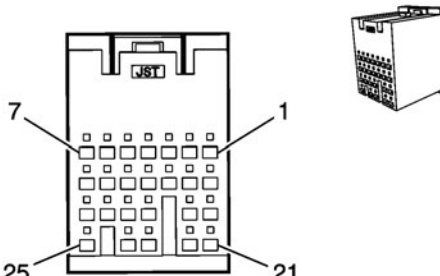
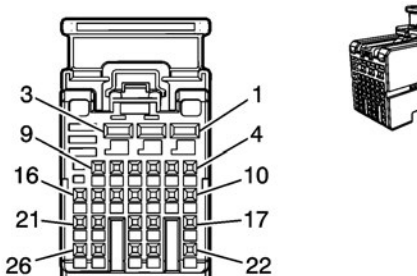
Step 24: Adjust camera aim. With the aid of an assistant, move camera to desired view, and tighten the screws that hold the camera in place.

Step 25: Reassemble vehicle. Follow your disassembly steps in reverse order, taking care not to bind the harness wiring when reinstalling trim.

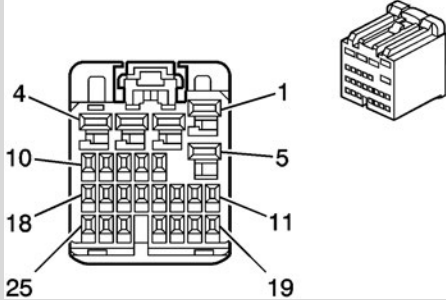
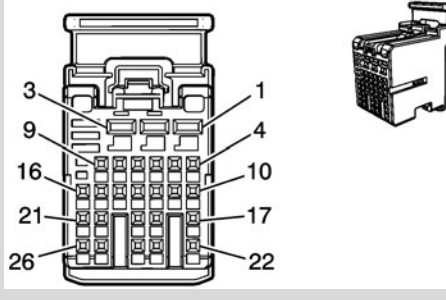
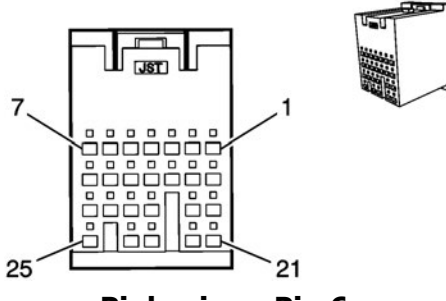
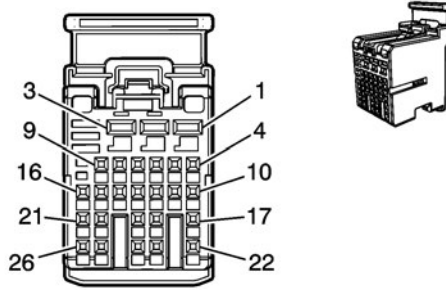
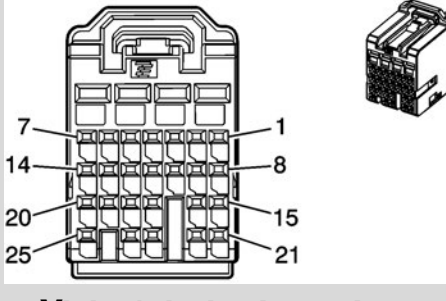
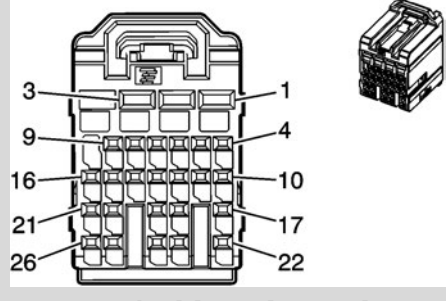
OPERATING INSTRUCTIONS

Temporary Monitor Manual Shut Down. If while in reverse you require to turn OFF the camera monitor, simply press and release the POWER button on the mirror. (NOTE: once reverse is disengaged the mirror will go back to normal operation and will turn ON next time reverse is engaged).

Ignition & Reverse Locations and Wire Colors

VEHICLE	LOCATION	IGNITION CONNECTOR WIRE COLOR & PIN	REVERSE CONNECTOR WIRE COLOR & PIN
<p>Buick Verano Chevrolet Cruze</p>	<p>Below console front</p>	<p>BCM X3 – Light Green</p>  <p>Violet/Black wire – Pin 6</p>	<p>BCM X7 – Gray</p>  <p>Green/White wire – Pin 3</p>
<p>Buick Lacrosse Buick Regal 2013 Chevrolet Malibu</p>	<p>Driver side IP under dash, left of steering wheel</p>	<p>BCM X3 – Light Green</p>  <p>Violet/Black wire – Pin 6</p>	<p>BCM X7 – Gray</p>  <p>Green/White wire – Pin 3</p>
<p>Cadillac CTS</p>	<p>Driver side under dash, above accelerator pedal</p>	<p>BCM X4 – Black</p>  <p>Pink wire – Pin 21</p>	<p>BCM X6 – Pink</p>  <p>Light Green wire – Pin 2</p>
<p>Cadillac SRX</p>	<p>Driver side IP under dash, left of steering wheel</p>	<p>BCM X3 – Light Green</p>  <p>Pink wire – Pin 6</p>	<p>BCM X7 – Gray</p>  <p>Lt. Green/White wire – Pin 3</p>

Ignition & Reverse Locations and Wire Colors continued

VEHICLE	LOCATION	IGNITION CONNECTOR WIRE COLOR & PIN	REVERSE CONNECTOR WIRE COLOR & PIN
Chevrolet Camaro	Driver side IP under dash, left of steering wheel	<p>BCM X3 – Light Green</p>  <p>Pink wire – Pin 6</p>	<p>BCM X7 – Gray</p>  <p>Light Green wire – Pin 3</p>
Chevrolet Equinox	Driver side IP below steering wheel	<p>BCM X3 – Light Green</p>  <p>Pink wire – Pin 6</p>	<p>BCM X7 – Gray</p>  <p>Light Green wire – Pin 3</p>
2012 – 2013 Chevrolet Sonic	Driver side below IP under dash, left of steering wheel	<p>BCM X3 – Green</p>  <p>Violet/Black wire – Pin 6</p>	<p>BCM X7 – Gray</p>  <p>Green/White wire – Pin 3</p>