

OEM Recessed Lip Camera with Harness and Auto Dimming Mirror (Kit part number 9002-8721)

**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 Nuts
2 Bolts
2 Sets of T-taps
Orange & White Exterior Dimming Wires
(If needed)
Zip lock bag containing:
These Instructions
Self-adhesive Template

Tools & Supplies Required:

Phillips Screwdriver
T20 Torx Driver
Center Punch
5/16" Drill Bits
7/8" or 22mm Center Hole Saw
Power Drill
Roto Tool
File
Multi-meter or computer safe test light
Wire Ties or Electrical Tape
Wire Crimper
Ground Eyelet (Recommended)
Soldering Iron
Solder (Recommended)
Plastic trim removal tool
Rubber Grommet or Silicone Caulk (Recommended)
Vehicle service manual (If needed)

Additional Parts That May Be Needed (see Application Guide. Parts separately):

5000-VWAB Volkswagen mirror mount adapter
5000-CAMLOCK Honda/ Subaru mirror mount adapter

Safety Precautions:

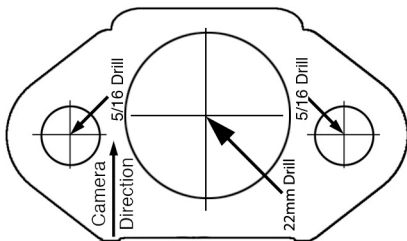
- Work in well ventilated area that is clear of obstructions.
- Secure vehicle with tire chucks in both front and rear of tires.
- Turn vehicle accessories OFF and ensure ignition key is in OFF position.
- Wear safety goggles and snug fitting clothes.
- Use tools only for their intended purpose and which 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, as well as an installation video, 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).



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.

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: Remove vehicle mirror.

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

Step 9: 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).

IMPORTANT: 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).

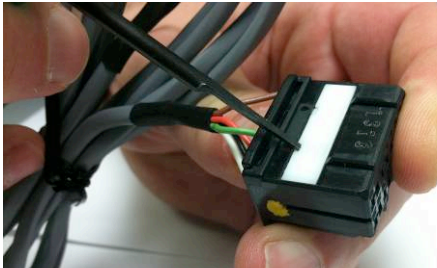
Step 10: Determine location of vehicle Ignition power and Ground. Using a vehicle specific service guide/wiring diagram and a Digital Multi-Meter or Computer-Safe Test Light, locate which side of the vehicle contains the wires into which you will connect Mirror Harness wiring (see chart below).

CAUTION:

Once correct wires have been identified, turn Ignition key OFF and DO NOT TURN key back ON until the install has been completed (Step 25).

(Follow Steps 15-17 only if your vehicle is equipped with Exterior Auto Dimming Mirrors. Otherwise, proceed to Step 18).

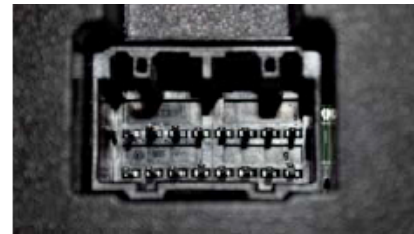
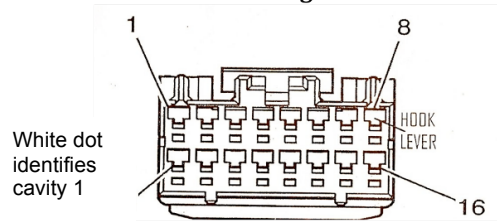
Step 11: Located on the bottom side of the 16-pin mirror connector is a rectangular white bar called a Terminal Position Assurance (TPA) tab. Use Delphi Terminal Tool 12094429 or a Small Flatblade Watch Repair Screwdriver to release the TPA as shown. The TPA will only lift about 1/10th of an inch.



Step 12: Insert supplied **Orange** lead into 16-pin connector cavity 5 and **White** lead into 16-pin connector cavity 16 until they click into place. If they do not seat initially, use Delphi Terminal Tool 12094429 or a small flatblade watch repair screwdriver to press the terminals fully into the connector. Next, press down on the TPA to lock the terminals.

INSTALLATION INSTRUCTIONS

Connector face and back of mirror images



Mirror Harness Pinout

PIN	WIRE COLOR	FUNCTION
1 - 4	N/A	N/A
*5	Orange	Exterior Auto Dimming (+)
6	White	Video +
7	Brown	Video -
8	Black	Ground
9	Green	Reverse Signal 12V+
10 - 12	N/A	N/A
13	Red	Ignition Controlled 12V+
14 - 15	N/A	N/A
*16	White	Exterior Auto Dimming (-)

Step 13: Follow the appropriate supplied charts to splice the Orange & White leads to wires in your existing vehicle mirror harness:

Wire Color	Ford Mirror Connector			
	7 Pin	10 Pin	16 Pin	Function
Orange	Cavity 4	Cavity 8	Cavity 11	Mirror Feed +
White	Cavity 5	Cavity 7	Cavity 15	Mirror Feed -

Wire Color	Dodge Mirror Connector	
	16 Pin	Function
Orange	Cavity 11	Mirror Feed +
White	Cavity 15	Mirror Feed -

For vehicles not listed, use a Digital Multimeter to identify the wires in the existing vehicle mirror harness that feed the Exterior Auto-Dimming Mirrors. Splice supplied **Orange** lead to Auto-Dimming (+) and **White** lead to Auto-Dimming (-).

Step 14: Plug the black 16-pin connector into the rear of the mirror.

Step 15: Route supplied Mirror Harness under the headliner and down the A-pillar nearest vehicle power and reverse signal.

Step 16: Splice the **red** and **green** Mirror Harness leads into the corresponding vehicle wires and the **black** wire to chassis ground. (**Note:** Soldering recommended or use supplied T-taps as optional connection method). **RECOMMENDED:** Attach an eyelet to the **black** ground wire.

Red - Ignition controlled power 12v+ when key is turned ON and 14.4v or better when vehicle is running.

Black - Chassis ground.

Green - Connect to Reverse + signal (backup lamp).

Note: If installing in a Ford vehicle with a separate compass display on the instrument panel and it displays "--" after the OE mirror is removed, you must follow online steps in Section 6 of 1008-9520 instructions posted at www.Brandmotion.com in order for it to function again.

Mirror Harness Connection Chart

Wire Color	Polarity	Function	Description	Location note
Red	12v +	Ignition controlled power	This lead displays 12 volt + when the key is in the RUN position	Commonly found on main Ignition harness.
Black	(-)	Ground	Chassis ground	A ground bolt is commonly found in the front kick panel area.
Green	12v +	Reverse trigger (Backup Lights)	This lead is activated when the vehicle is engaged into Reverse	Commonly found in front kick panel area on harness coming from rear of vehicle.*

*If Reverse cannot be located, connect the both the Red and Green wires to Ignition power.

Step 17: Route Camera Harness towards the side of the vehicle that supplies power.



Step 18: 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 19: Route Chassis Harness forward. 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.

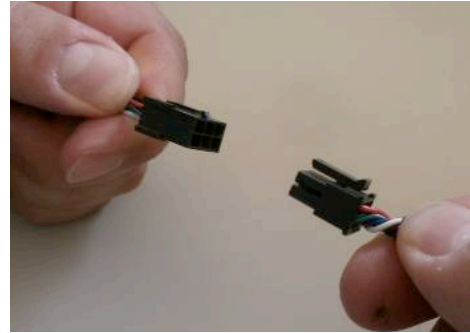


Step 20: Secure Camera Harness to existing vehicle wiring using supplied Wire Ties. This will minimize chance of binding or otherwise damaging the harness



INSTALLATION INSTRUCTIONS

Step 21: Connect Chassis Harness to supplied Mirror Harness.



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 Bolts 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.

Pinout Reference Chart

PIN #	FUNCTION	CAMERA HARNESS COLOR	CHASSIS HARNESS COLOR
1	Video (+)	Yellow	White
2	Shield	White	Blue
3	Reverse	Brown	Green
4	Video (-)	Grey	Brown
5	Ground	Black	Black
6	Ignition	Red	Red

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).