#### INSTALLATION INSTRUCTIONS



# **OEM Lip Mount Camera with Harness** (Kit part number 9002-8701)

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

#### **Items Included in the Kit:**

Bubble bag containing:

Camera with Harness

Chassis Harness

Zip lock bag containing:

2 Rubber Well Nuts

2 Bolts

Zip lock bag containing:

These Instructions

Self-adhesive Template

#### **Tools & Supplies Required:**

Phillips Screwdriver

Center Punch

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 Ties or Electrical Tape

Wire Crimper

Ground Eyelet (Recommended)

Rust Inhibitor (Recommended)

Soldering Iron (Recommended)

Solder (Recommended) or T-taps

Plastic Trim Removal Tool

Vehicle service manual (If needed)

#### **Safety Precautions:**

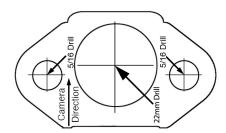
- Work in a well ventilated area that is clear of obstructions.
- Secure vehicle with tire chucks in both front and rear of tires.
- Turn vehicle accessories OFF and ensure ignition key is in OFF position.
- Wear safety goggles and snug fitting clothes.
- Use tools only for their intended purpose and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



**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.

#### INSTALLATION INSTRUCTIONS

**Step 8:** Determine location of vehicle Ignition power and Ground. Using a vehicle specific service guide/wiring diagram and a multi-meter or computer-safe test light, locate which side of the vehicle contains the wires into which you will connect Chassis Harness wiring (see chart below).

**Chassis Harness Connection Chart** 

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

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

**Step 9:** Splice the red and green Chassis Harness leads into the corresponding vehicle wires and the black wire to chassis ground. (**Note:** Soldering recommended or T-taps as optional connection method). **RECOMMENDED:** Attach an eyelet to the black ground wire.

**Step 10:** Route Camera Harness towards the side of the vehicle that supplies power.





**Step 11:** 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).



#### **Pinout Reference Chart**

| PIN<br># | FUNCTION  | CAMERA<br>HARNESS<br>COLOR | CHASSIS<br>HARNESS<br>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                         |

**Step 12:** 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).



#### INSTALLATION INSTRUCTIONS

**Step 14:** Secure Camera Harness to existing vehicle wiring. This will minimize chance of binding or otherwise damaging the harness. **RECOMMENDED:** Wire Ties or Electrical Tape.



**Step 15:** (if required): Install aftermarket video display or mirror per manufacturer's instructions.

**Step 16:** Connect Chassis Harness to the female RCA jack of your aftermarket video display or mirror.

**Step 17:** 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.

**Step 18:** Secure Chassis Harness. If necessary, coil excess harness and secure. Attach harness to existing vehicle wiring where possible.

(**RECOMMENDED:** Wire Ties or Electrical Tape.)

**Step 19:** Adjust camera aim. With the aid of an assistant, move camera to desired view. Use a Phillips screwdriver to fully tighten the bolts that hold the camera in place.

**Step 20:** Reassemble vehicle. Follow your disassembly steps in reverse order, taking care not to bind the harness wiring when reinstalling.