

# 9002-9618 Installation Instructions (Slimline Auto Dimming Twist-off Mount Video Display Mirror)

**IMPORTANT:** Check kit contents and read instructions before installing. For the latest full color instructions please visit **www.brandmotion.com**.

**Kit contents:** Slimline Auto Dimming Mirror with 3.5" Video Display

Mirror Harness These instructions

# **Mirror Removal & Mounting**

- 1. Remove the existing vehicle mirror by twisting it approximately 30 degrees.
- 2. Carefully twist on the supplied Mirror approximately 30 degrees until it clicks into place.
- 3. Connect supplied Mirror Harness to supplied Mirror.

## **Mirror Wiring**

 Brandmotion provides Red (Ignition), Green (Reverse), and Black (Ground) wires at both the mirror connector end and the RCA end of the supplied Mirror Harness. The three wires at the mirror connector end are included because some vehicles have Ignition and Reverse signals as well as Ground available at the existing rear view mirror harness making it possible to splice into the existing vehicle harness.

If this is not the case for your vehicle, use the three wires at the RCA connector end to connect to vehicle Ignition and Reverse signals and Ground. Typical locations are behind the driver or passenger side kick panel or under dash.

Mirror & Mirror Harness Pinouts		
MIRROR HARNESS WIRE COLOR	MIRROR WIRE COLOR	FUNCTION
White	Purple	Video (+)
Pin 1	Pin 1	Connects to RCA
Brown	White	Video (–)
Pin 2	Pin 2	Connects to RCA
Red	Red/Blue	Ignition Controlled
Pin 6	Pin 6	12v (+)
Green	Orange	Reverse (+)
Pin 7	Pin 7	(backup lamps)
Black Pin 8	Black Pin 8	Ground

- 2. Use a multimeter to test for vehicle Igniton (+) and Reverse (+) signals. Set parking brake, start vehicle, and have an assistant shift into Reverse while you test for Ignition and Reverse signals.
- 3. Route Mirror Harness beneath headliner and down the A-pillar closest to the Ignition and Reverse signal locations.
- 4. Splice Mirror Harness wires to the following required connections:
  - Red Ignition controlled power 12v+ when key is ON
  - **Green -** Connect to Reverse (+) power (backup lamps)
  - **Black -** Chassis ground. A ground bolt is commonly found in the front kick panel area with other wires attached; in some cases you may need to supply a new screw.
- 5. Connect female RCA plug on supplied Mirror Harness to male camera RCA.



## **Camera requirements**

The camera signal must be strong enough for the mirror to detect signal when reverse is engaged. We recommend that the camera be connected to mirror prior to installation to confirm compatiblity. Best results are on cameras that have a 0.8- 1.6v DC coming out of video composite lead (commonly a yellow RCA jack). Depending on camera output, it may require reverse to be supplied by a 12v switched ignition rather than reverse feed. To test this use a multimeter set to DC and connect the (-) lead to the camera RCA shield and the (+) lead to the camera RCA tip with the camera powered ON.

## Powering up the camera

The mirror stays ON for over 1 second when reverse is disengaged, and if the camera is connected to the reverse tail lamp then the screen will flash Blue. If the camera does not power up instantly when the vehicle is shifted into reverse, the screen will not detect the camera and will not display an image. For these reasons we recommend that the camera be connected to Ignition (+).

#### **Test Mirror**

Set parking brake, start vehicle, and shift into Reverse. If image appears in the LCD display, all connections have been made properly.

## **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 back side of the mirror. (Note: once Reverse is disengaged the mirror will go back to normal operation and will turn ON next time reverse is engaged).

## **NOTE 1: Mirror Voltage Requirements**

The supplied Mirror must see a voltage of 12.5v DC or better on the Reverse trigger lead. In the event that the signal is too low the signal quality may be affected drastically when the vehicle is running. ATTENTION: This step is required on 2013 and newer Ram vehicles.

To correct low Reverse signal power, the voltage must be raised using a Single Pull Dual Throw Relay.

## **Relay Wiring:**

- 30 To mirror Reverse trigger (Green lead)
- 85 Chassis Ground
- 86 Reverse trigger from vehicle (reverse lamp)
- 87 High current Ignition controlled power lead +
- 87a Not used

Connect the rest of the Mirror Harness wires as instructed above.

### **NOTE 2: For Ford vehicles only**

If the vehicle has a separate display on the IP for the compass and it displays "——" after the OE mirror is removed, further steps are necessary in order for it to function again. You must supply two 9' 20-gauge wires (recommended: one red and one yellow). Splice the wires to the location from which you removed the vehicle's mirror connector and splice their opposite ends to the vehicle's mirror connector that will be relocated along with the mirror circuit board. For more details, refer to Section 6 of Brandmotion Kit #1008-9520 instructions at **www.brandmotion.com**