













# Wireless Transparent Trailer® System for RAM 1500 (2009-2018) & Heavy Duty (2010-Current)

## TRNS-2170



Recommended Tools				Difficulty Level
 Wrench	 Wire Strippers	 Wire Cutters	 Electrical Tape	
 Screw Driver	 Panel Removal Tool	 Zip Ties	 Socket Set	<b>Install Time</b>
Questions? Call the Brandmotion technical support line at (734) 619-1250 or <a href="#">CLICK HERE</a>				 <b>1hr 30m - 2hr</b>

## Kit Contents

### Recommended Tools

### Components for installing the *TRNS-2170*



### Kit Contents:

1x Video Mirror & Power Harness

1x Wireless Camera & Receiver

1x 5M 4Pin Extension Cable

1x 3rd Brake Light Bezel & Camera

1x Pre-Wired Adapter Mounting Plate

1x Universal Mounting Plate



Scan this QR Code for unboxing and installation video!

## Installation of the Transparent Trailer® Mirror

### Part 1

### Attaching the Transparent Trailer® Mirror to the Windshield

1. Remove the old mirror from the mount on the windshield as per manufacturer's directions. Be sure to use the proper removal tool if required.
2. Install new mirror onto the D-tab and tighten with a Phillips screwdriver.



### **CAUTION**

Take care not to overtighten. Overtightening could result in a damaged windshield.

### Part 2

### Powering the Transparent Trailer® Mirror

1. Connect the power harness to the plug on the mirror. Route the harness across the top of the headliner, along the windshield, down the A-pillar, and to the desired location in the kick panel. (diagrams for specific model years on page 4)
2. Ensure that the harness will not be pinched when trim panels are replaced.



## Installation of the Transparent Trailer® Mirror

### Part 2

### Powering the Transparent Trailer® Mirror

1. For 2009-2012 RAM 1500, connect to auxiliary power outlet. Route the harness across the top of the headliner, along the windshield, down the pillar, and to the center of the dash. For Constant power, tap into the white 3-pin plug at pin 1. Wire is dark blue with pink.
2. For 2013-2017 RAM 1500, the trailer pack connector is at the steering column. For constant power, tap into the Grey 10-pin plug at pin 10. Wire is pink with green. Works for 2500 and 3500 diesel or non-diesel.

#### 2009-2012 RAM 1500



#### 2013-2017 RAM 1500

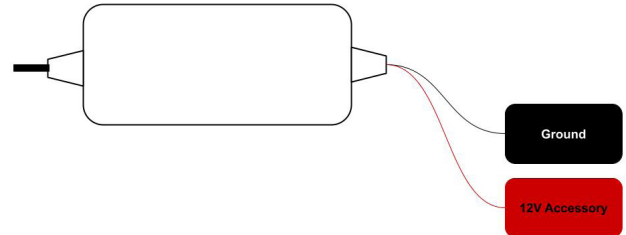


## Installation of the Transparent Trailer® Mirror

### Part 3

#### Wiring the Transparent Trailer® Mirror

1. Connect the RED wire from the mirror harness to 12-volt accessory power.
2. Connect the BLACK wire to solid ground. Chassis ground in the kick panel is recommended.



### Part 4

#### Function test of the Transparent Trailer® Mirror

1. Connect the bezel camera directly to AV1 on the mirror harness.
2. Test the mirror and camera by turning on the ignition power. You should be able to see the view from the rear camera after the mirror powers up. Note: If the mirror displays a blue screen push the button at the bottom to switch channels.



## Disassembly

### Part 1

### Removing the 3rd Brake Light

1. Use a Phillips screwdriver to remove the four screws on either side of the brake light.
2. Pull the brake light out from the cab. Be careful not to damage the foam gasket around the opening.
3. Disconnect the power connector from the light.



## Running Wires

### Part 1

### Video Connector

1. Connect the additional 5m 4Pin Extension Cable to the Mirror power harness AV1
2. Run the 5m 4Pin Extension Cable through the headliner toward the brake light.
3. Pull the extension cable through the brake light opening to the outside of the cab.
4. Connect the 5m 4Pin Extension Cable to the Bezel Camera. Make sure to line up the arrows on the connectors.

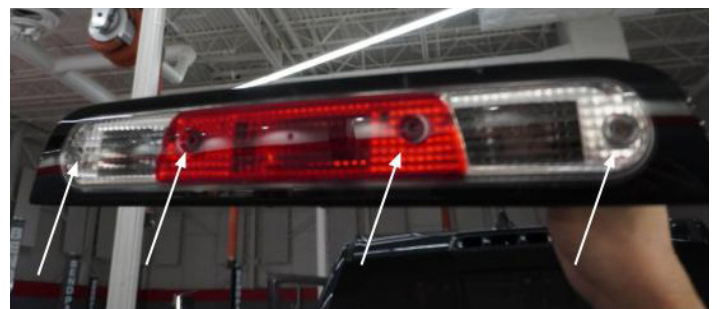


## Assembly

### Part 1

### Assembling the Bezel

1. Attach the thick foam gasket to the back side of the bezel or the light. Whichever piece does not have a foam gasket from the factory. Note: The cable for the camera must go through the channel of the bezel before the foam is put overtop
2. Put the foam side of the bezel against the vehicle.
3. Plug the brake light back into the cab plug
4. Put the screws through the hole of the light and insert the light into the bezel.
5. Use the screws that are showing through the bezel to line up with the screw holes of the vehicle. ( Be careful not to scratch the vehicle.)
6. Screw the assembly back together with the factory screws.





## Adjustment

### Part 1

### Adjusting the Bezel Camera

1. If you need to change the camera's pitch, gently bend the bracket until it reaches the desired view angle.



## Installation of Wireless Camera Receiver

### Part 1

### Connecting & Mounting the Wireless Camera Receiver

1. Connect the receiver to AV2 on the Mirror power harness.
2. Find a place in the kick panel or high trim on the dash of the truck to mount the receiver. Note: If you desire to use multiple cameras with the same receiver it is suggested to place the receiver in the glove box or somewhere easily accessible.



## Camera Mounting & Power

Identify if your trailer is pre-wired for a wireless camera i.e Furion. If so, use the adapter mounting plate and power adapter (Section A). If not, use the universal mount and power harness (Section B).

### Section A

### Per-Wire Camera Power Connections and Mounting

1. Locate the per-wire housing mounted to the rear of the trailer.
2. Remove the 4 tiny Phillips screws holding the square cover plate on. Discard the cover plate, but **Keep the screws for a later step.**
3. Inside the housing, there should be a 3.5mm connector. Plug in the supplied power adaptor and tape connection.
4. Attach the adaptor mounting bracket to the back of the camera supplied in the kit to the back of the camera by using the 4 small black Phillips screws supplied in the kit.
5. Plug the power connection of the camera into the power adaptor connected in step 3. Tape the connector.
6. Push all the extra wire slack into the hole that is in the housing where the power wire is coming from.
7. Attach the antenna to the camera.
8. Aline the mounting plate to the 4 holes in the housing. Attach the mounting plate with the 4 screws removed in step 2. Be careful not to over-tighten the screws.
9. Test the camera with the monitor by turning on the parking light of the vehicle to supply power to the camera.
10. If the camera does not show on any channel follow the instructions for connecting additional cameras.

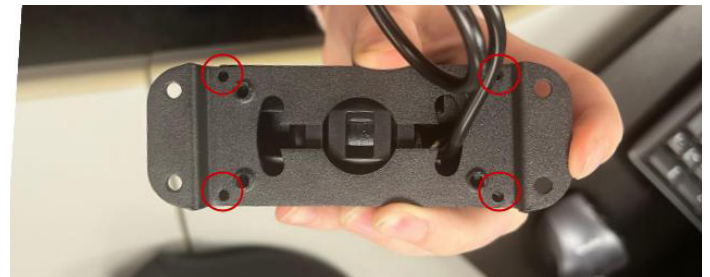
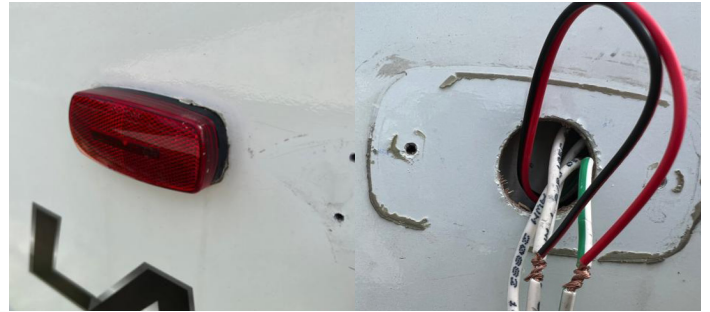


## Camera Mounting & Power

### Section B

### Universal Camera Power Connection and Mounting

1. Remove the rear center top marker light so the wiring is exposed.
2. Splice the power harness into the power & ground wires that are connected to the light.
3. Feel inside the hole where the light power wires are coming through to find out where the "stud" of the trailer wall is to see where you can drill a hole to run the power connector of the harness through for the camera. (If the stud is next to the power wire hole, drill a ½ inch hole under the center maker light. If the stud is under the power wire hole, drill a ½ inch hole next to the center light between the center and right side marker light.
4. Run the connector or the camera power harness through the hole just drilled.
5. Reinstall the light that was removed in step 1. Make sure the base plate of the light is sealed to the trailer wall to prevent water from entering.
6. Connect the universal mounting plate to the back of the camera by using the 4 small black Phillips screws.



## Camera Mounting & Power

### Section B

### Universal Camera Power Connection and Mounting Cont.

1. Connect the power harness to the camera. Tape the connector to make sure it does not come unplugged.
2. Push all the extra wire slack into the drilled hole, until the camera bracket touches the trailer. Mark the 4 holes to drill for mounting.
3. Pull the camera away from the trailer and drill the 4 \_\_\_\_inch holes.
4. Push the wires back in the hole and seal them with silicone. Mount the camera with 4 Phillips screws that were just drilled.
5. Attach the antenna to the camera.
6. Test the camera with the monitor by turning on the parking light of the vehicle to supply power to the camera.
7. If the camera does not show on any channel follow the instructions for connecting additional cameras.



## Pairing a New/Additional Camera

### Part 1

### Pairing a New/Additional Camera

1. Follow steps from either Section A: Per-Wire Camera Power Connections and Mounting or Section B: Universal Camera Power Connection and Mounting to connect the new camera.
2. Disconnect power to the wireless camera but keep the mirror on. You have 45 seconds from when the camera turns on to connect.
3. Power the wireless camera, press & hold the button on the receiver until the Mirror shows "pairing"