

# INSTALLATION INSTRUCTIONS

## Rear Vision System – Aftermarket Display 2009-Current Dodge Ram (Kit part number 1009-6503)

### **Kit Contents:**

- Chassis Harness with RCA
- Endgate Handle with Camera
- 1 bag containing:
  - Wire Ties (Qty: 17)
  - Bottle of ZTech (in a white bottle)
  - Plug for Non-Locking Endgates (Optional)
- 1 bag containing:
  - Template (along with directions for these instructions)

### **Tools Required:**

- Socket Wrench
- 8mm Socket
- T30 Torx Bit
- Flat Head Pocket Screwdrivers
- Drill Motor
- Drill Bits
- 1-3/16" Hole cutter
- Pushpin removal tool
- Deburring Tool
- Center Punch

# INSTALLATION INSTRUCTIONS

1. Remove the front driver's side kick panel/sill plate by lifting it at the rear and working your way forward with your hands. (Figure 1)

**Figure 1**



2. Remove the rear drivers-side sill plate by lifting it at the front and working your way back with your hands. (Figure 2)

**Figure 2**



3. Lift the driver's side rear seat to expose the under seat storage compartment. Pull three pushpins out of the driver's side rear seat storage compartment using a pushpin removal tool (Figure 3). Pull back the carpeting and remove the body floor plug, then clean off excess caulking on the floor to ensure the supplied chassis harness grommet will seat properly. (Figure 4)

**Figure 3**



**Figure 4**



4. Insert the rear connector of the supplied chassis harness into the hole in the floor pan of the under seat storage compartment. (Figure 5)

# INSTALLATION INSTRUCTIONS

**Figure 5**



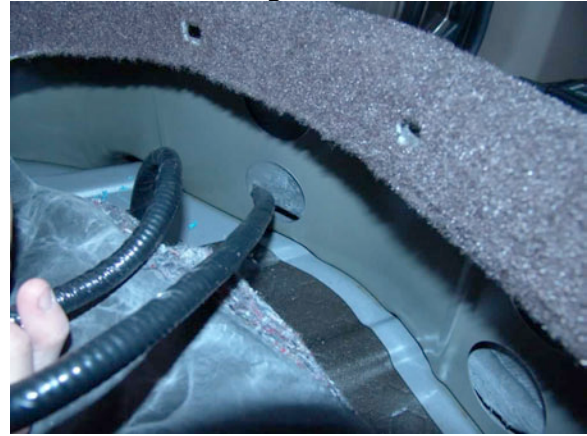
5. Seat the grommet affixed to the supplied chassis harness in the hole in the floor pan of the under seat storage compartment by firmly pressing it with your fingers. (Figure 6)

**Figure 6**



6. Route the front connector of the supplied chassis harness through the seat riser reinforcement hole. (Figure 7)

**Figure 7**



7. Reinstall carpet and reinstall three pushpins that were removed earlier.
8. Route the supplied chassis harness around the B-Pillar trim by lifting up on the trim and feeding the wiring harness through to the front. Continue to route the chassis harness along the driver's side front door opening sill area. (Figures 8 & 9) **Note:** This will be a tight fit, as the supplied chassis wiring harness will run next to the truck's existing wiring harness.

**Figure 8**



# INSTALLATION INSTRUCTIONS

**Figure 9**



9. Reinstall rear sill plate by pressing it back into place with your hands.
10. Remove drivers-side kick panel insulation pad retainers using a pushpin removal tool. Route the supplied chassis harness behind the insulation (between insulation and metal frame) then reinstall the insulation). (Figure 10)

**Figure 10**

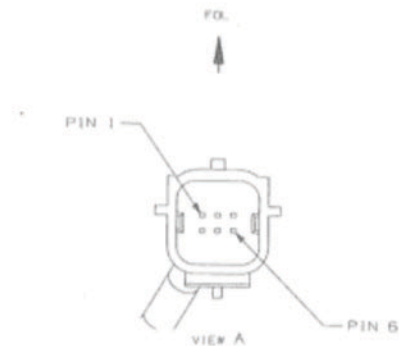


11. Reinstall the front kick panel/sill plate by pressing it back into place with your hands.
12. If needed, install aftermarket display/ Navigation display as per instructions.
13. Connect the male RCA from the chassis harness to the camera IN on the aftermarket display/ Navigation display.
14. Connect the remainder of the leads from the chassis harness as per Chart A on vehicle wiring.

**Chart A**

Color	Polarity	Purpose	Connect to
Green	+	Reverse	Reverse lamp trigger
Pink	+	Ignition	Ignition Controlled power
Black	-	Ground	Chassis
White	-	Shield	Chassis
RCA	AC	Video Out	Monitor

**CHART B (REFERENCE ONLY)  
Camera and Chassis Harness Pinout**

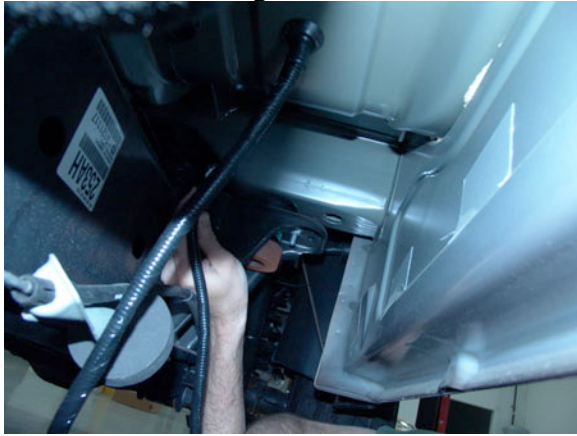


PIN NO	NAME	CAMERA HARNESS COLOR	CHASSIS HARNESS COLOR
1	Video Signal	Yellow	Gray/Dark Blue
2	Shield	White	White
3	Backup Lamp	Blue	Green
4	Video Ground	Brown	Gray/Orange
5	Power Ground	Black	Black
6	Ignition	Red	Pink

15. Route the chassis harness behind the rear cab mount and out to the inside of the vehicle. Wire tie the chassis harness in between the cab and bed mount using one wire tie. (Figure 11)

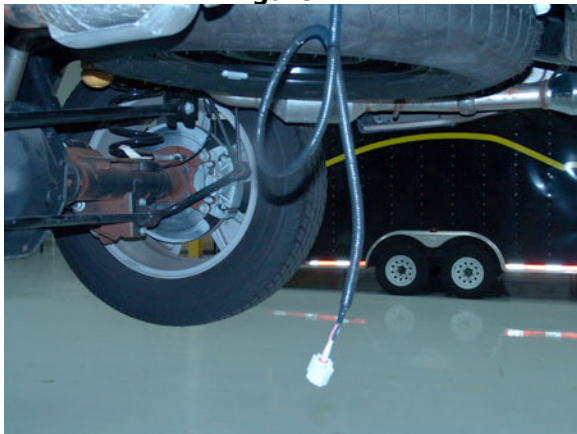
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**Figure 11**



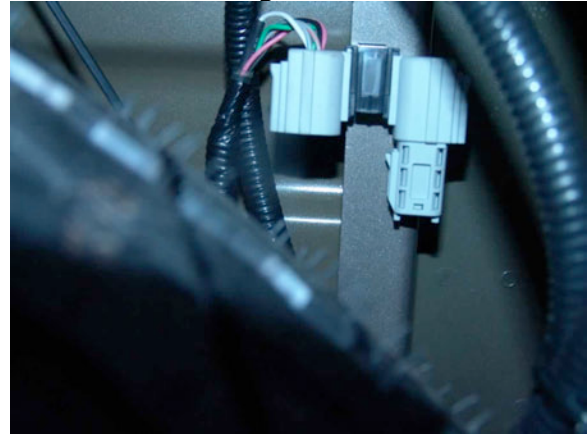
16. The supplied chassis harness continues on to follow the existing wiring harness along the inside edge of the frame rail. Wire tie the supplied chassis harness to the existing wiring harness using nine wire ties.
17. Once the chassis wiring harness has been routed to the back of the bed, coil and wire tie any excess length on the harness. (Figure 12)

**Figure 12**



18. Use the retention clip on the bridge connector at the end of the chassis wiring harness to attach the connector to the frame rail of the bed. Tuck the coil of excess harness above the spare tire. (Figure 13)

**Figure 13**



19. Set up a work area for the endgate after removal. This area should be well protected so the endgate paint does not receive any damage.
20. Unhook both endgate support straps by inserting a flat head pocket screwdriver between the locking tab and strap mount. Lift the locking tab away from the strap mount with the screwdriver while sliding the endgate strap upwards. The endgate strap hanger can now be removed from the mount. (Figure 14)

**Figure 14**



21. Open the endgate about ten degrees and lift the right side of the endgate off of the pin. Then slide the endgate to the right to remove, being careful not to damage the paint. **Note:** The endgate removal and installation will take two people to perform.
22. Remove the handle access panel on the inside of the endgate using a T30 Torx driver. (Figure 15)

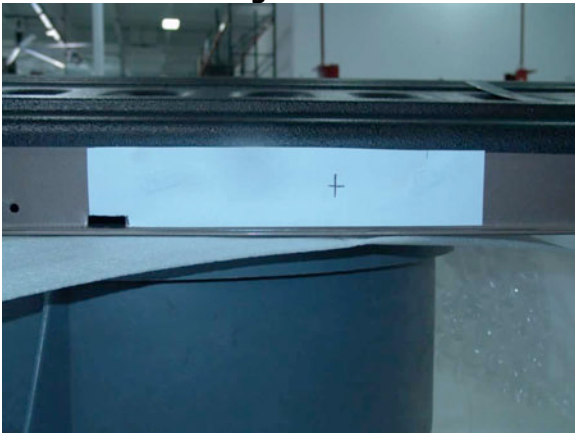
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**Figure 15**



23. Apply the supplied template to the endgate. An existing small rectangular hole in the center of the endgate will match up with the left side of the template. Center punch the endgate at the "X" on the template, then remove the template from the endgate. (Figure 16)

**Figure 16**



24. Drill a starter hole at the center punch mark. Then use a hole cutter to cut a 1-3/16" hole in the endgate. (Figures 17 & 18). Clean the rough edges using a deburring tool.

**Figure 17**



**Figure 18**



25. Remove lock rod retainers by unclipping the red tabs with your fingers (Figure 19). Remove the nuts attaching the handle to the endgate using a 8mm socket, and then remove the handle from the endgate. (Figure 20)

**Figure 19**



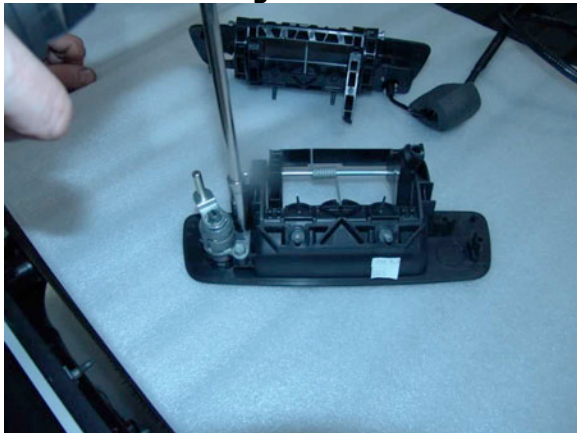
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**Figure 20**



26. If equipped, remove the lock cylinder from existing handle and remount the cylinder in the supplied handle using a 8mm socket. (Figures 21, 22 and 23) **Note:** If the existing handle is not equipped with a lock, install the provided plastic plug into the lock opening.

**Figure 21**



**Figure 22**



**Figure 23**



27. Route the camera connector and wiring harness through the endgate and install the supplied handle using a 8mm socket and the existing hardware. (Figure 24)

**Figure 24**



28. Reinstall the handle bolts.  
29. Reinstall the linkage rods and close the red tabs around them using your fingers. (Figure 25)

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**Figure 25**



30. Route the supplied camera harness through the pass-through hole in the inner brace of the endgate. (Figure 26)

**Figure 26**



31. Route the wiring harness through the 1-3/16" hole that was cut using the supplied template. (Figure 27)

**Figure 27**



32. Apply corrosion protection (ZTech) to 1-3/16" hole that was cut using the supplied template. (Figure 28)

**Figure 28**



33. Seat the grommet affixed to the camera harness into the 1-3/16" hole by firmly pressing it with your fingers. (Figure 29)

**Figure 29**



34. Reinstall the handle access panel on the inside of the endgate using a T30 Torx driver and the existing hardware.
35. Feed the wiring harness through the rectangular hole in the back of the truck bed. (Figure 30)



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**Figure 30**



36. Reinstall the endgate by lifting it into place, rotating it down about ten degrees and sliding it to the left.
37. Reinstall both endgate straps by placing the large opening of the endgate strap hangers over the endgate strap mounts and pulling down.
38. Plug the camera wiring harness connector into the chassis wiring harness connector. (Figure 31)

**Figure 31**



39. Start the vehicle and put it into reverse in order to check that all connections were made properly. If all of the connections are correct you will see an image displayed on your aftermarket display.