

Jeep Wrangler JK 2 Front and Rear Camera System SMTV-2211

Items Included in the Kit

Camera
Chassis Harness
Power Harness
Zip lock bag with 15 Wire Ties & 3 Push Nuts
Camera Extension Bracket
22-pin white connector w/ video RCA
9002-2782 v2 interface module
USB cable (for updates)
Power Plug & Play T-harness
AV harness
Underhood power/video harness
1 Bottle of Z-tech
templates for front camera

Required Tools & Supplies

T15 & T20 Torx Bits
7mm & 10mm Sockets
Phillips Screwdriver
3/8" Wrench or Socket Drive
Plastic Trim Removal Tool
Soldering Iron, Solder, & Heat Shrink Tubing
(RECOMMENDED)
Electrical Tape
1 3/8 " Hole Saw



INSTALLATION INSTRUCTIONS

Rear View Camera Install

Install Camera

Step 1: Loosen lug nuts to remove spare tire.

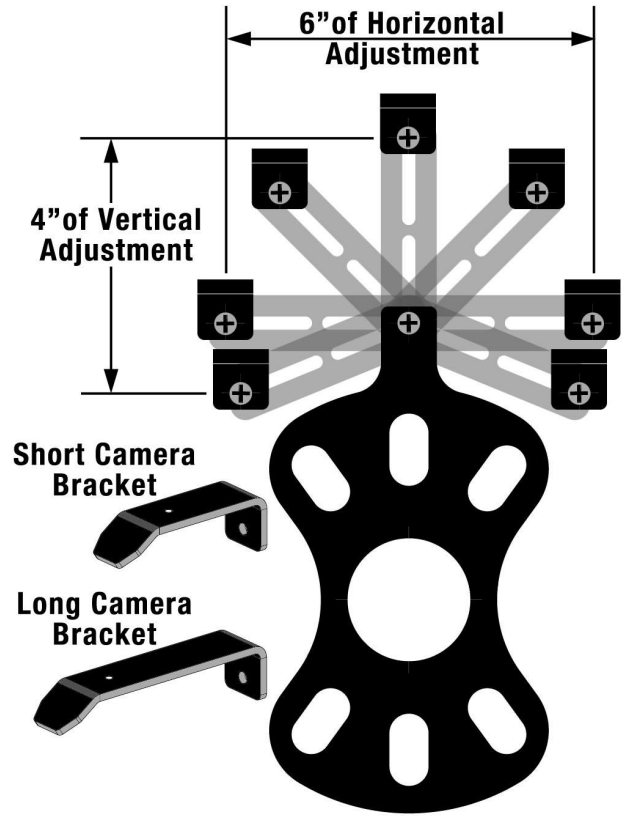


Step 2: Slide Camera on studs placing harness end inside of tire carrier.

Step 3: Adjust Camera head to fit your specific wheel. Bracket is shipped in factory wheel configuration.



Adjustment Bracket for Camera Clearance using Phillips Screwdriver and 3/8" Wrench or Socket Drive



Note: Short Bracket has been designed for Factory offset wheels. Use the Long Bracket for wheels with larger offsets.

Step 4: Remove spare tire and slide (3) supplied Push Nuts on the studs.



Step 5: Reinstall spare tire.

INSTALLATION INSTRUCTIONS

Install Chassis Harness

Step 6: Insert connector from Camera connector through the rear gate vent behind tire carrier.



Step 7: Using a plastic trim removal tool, remove interior panels on inside of rear gate.



Step 8: Pull harness through the rear gate openings.



Step 10: Use supplied Wire Ties to secure Chassis Harness to existing harness.



Step 11: Use supplied Wire Ties to secure Chassis Harness to fabric factory wire cover. CAUTION: Leave enough slack to allow gate to open fully.



Step 12: Use a T20 Torx bit to remove subwoofer box.



INSTALLATION INSTRUCTIONS

Step 13: Using a plastic trim removal tool, pry off rear seat belt closeout.



Step 14: Using a plastic trim removal tool, remove rear access panel to expose 10mm bolt, and remove bolt.



Step 15: Pull out subwoofer box slightly to gain access to run Chassis Harness along existing harness

Step 16: Pull back carpet and continue running Chassis Harness forward.



Step 17: Run Chassis Harness under B-pillar cover to passenger door sill. Use a plastic trim removal tool to remove the (2) plastic push pins and remove passenger sill plate/kick panel.



Step 18: Remove rubber bin insert from top of dash.



Step 19: Remove 7mm bolt .



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Step 20: Using a plastic trim removal tool, remove window switch panel.



Step 21: Disconnect harness from window switches.



Step 22: Remove 7mm bolt.



Step 23: Remove driver knee bolster cover.



Step 24: Remove (2) 7mm bolts on both sides of the steering column.



Step 25: Remove center stack/cluster surround.

Step 26: Remove glove box for access and run Chassis Harness toward center of dash.



Rockcrawler Installation

1. Determine the best location for the camera to be mounted to the vehicle.
2. Use the template to see if there is clearance to mount the camera flat to the bumper. (Located on the last page of these instructions.)
3. Make the center hole and drill a 1 $\frac{3}{8}$ " hole to mount the camera.
4. Apply Z-tech to the exposed metal that was just drilled. (It is advised to paint the bare metal where the hole was just drilled.)
5. Insert the camera mount into the hole with the camera top-side up. (The top/up of the camera has a white sticker on the camera inside the mount.)



6. From the back side of the camera mount attach the mounting bracket with the (2) 2.5mm Allen screws. Do not tighten the screws all the way until the view can be checked.
7. Plug in the water proof camera connector into the power harness. Make sure the connector is going the proper way and that it plugs in all the way.
8. Route the harness away from any moving parts so the harness will not get cut. Enter the underhood area and secure to the harness running along the driver's side fender with zip ties.
9. Route the camera harness into the vehicle's

INSTALLATION INSTRUCTIONS

interior through the factory grommet in the firewall on the driver's side.

10. Route the harness to the back of the radio where the display interface will be.

Connecting Power Harness

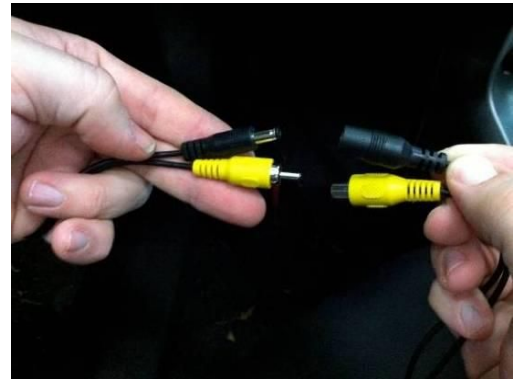
Using a plastic trim removal tool, remove HVAC panel.



Splice Red power wire from front and rear camera harnesses to Blue/Red wire on back of power point and Splice Black Ground to Black/White wire.
RECOMMENDED: Use solder and cover with heat shrink tubing or use T-taps as an alternate connection method.



Connect Chassis Harness to Power Harness of rear camera.



Leave the RCA from the chassis harness where the interface will later be installed

Interface Installation

9002-2782 v2 pin out:

Pin #	Description	Color
1	12v (+) Constant Power	Yellow
2	INPUT 1 (<i>Disables VIM on RHB when 12v applied</i>)*	Red
3	INPUT 2 (<i>not used</i>)	Blue
4	INPUT 3 (<i>Force REAR camera</i>)	Pink
5	RX (<i>not used</i>)	Gray
6	Relay 1 (common) Video OUT to Radio	Yellow
7	RCA Common Shield	-Shield-
8	CAN HI (Radio side)	Pink/Black
9	CAN HI (Car side)	Blue/Black
10	Ground (-)	Black
11	OUTPUT 1 (<i>ACC Out @ 1amp</i>)	White/Red
12	OUTPUT 2 (<i>Forced Cam 12v out @ 1 amp</i>)	White/Blue
13	OUTPUT 3 (<i>12v out when VES AUX2 is selected</i>)	White/Purple
14	TX (<i>not used</i>)	White/Brown
15	Relay 1 (normally open) Video IN	White
16	Relay 1 (normally closed) Rev Cam IN	Red
17	CAN LO (Radio side)	Pink
18	CAN LO (Car side)	Blue

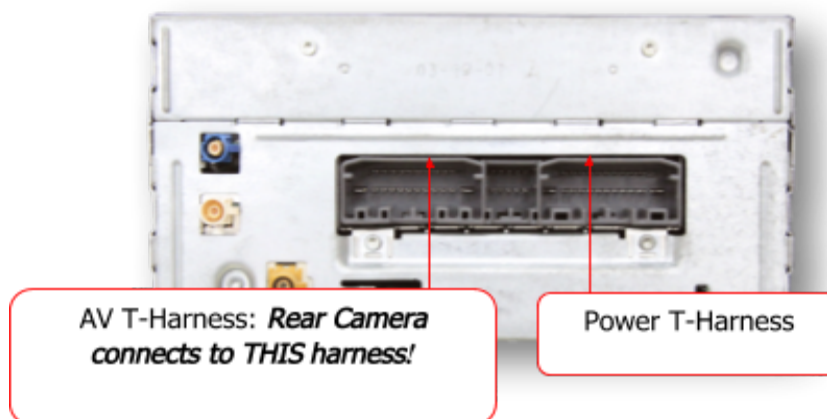


Wire Side View

**RHB radios ONLY, and requires alternate file to be flashed (download software from website ALLGIG product page)*

9002-2782 v2 INSTALLATION (VIM ONLY):

1. Remove the radio from the dash and set to the side.
2. Plug the module T- Harness into the main power harness. (If the vehicle has an external UConnect or iPod module, make sure that the external module is plugged into the radio first, then the T-Harness.)
3. Plug in the black module and find a location to solidly mount behind the dash.



INSTALLATION INSTRUCTIONS

9002-2782 v2 INSTALLATION (camera/video input):

Rear Camera Installation: *

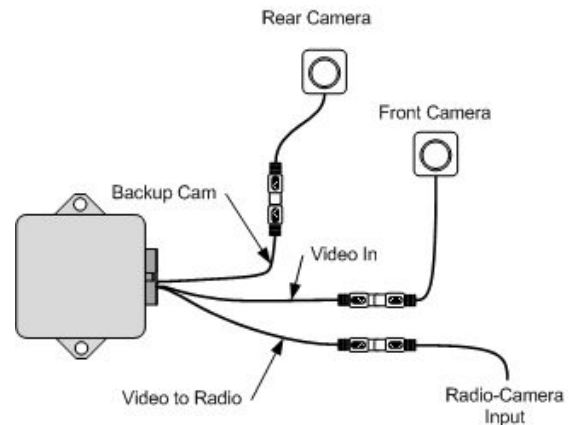
1. The RCA from the rear camera plugs into the female RCA of the 9002-2782 v2 module harness labeled "BACKUP CAM".

Front Camera connection:**

1. Once the front camera is mounted connect the video to the female RCA labeled "Video In" on the 9002-2782 v2 module.

Interface Connection to Radio

1. The **male** RCA from the 9002-2782 v2 module connects to the "CAMERA INPUT" of the AV harness.
2. Reinstall the radio. Before putting the vehicle together, verify the operation of the unit.



9002-2782 v2 OPERATION:

Force camera mode

Forced camera will work in multiple ways, depending on hardware installed and programming of the module. To force the camera, press the radio power button 2 times in 1 second. (RBZ & RHB radios require a second pause between presses)

Backup camera only- Whenever the vehicle is in reverse, the screen will switch to the backup camera input. If forced camera is desired, as to see behind the vehicle when driving (viewing of rear traffic or a trailer in tow), press the radio power button twice.

Backup camera with Front view (second) camera- When both front and rear cameras are installed and programmed, the radio will cycle through the 2 cameras in the following sequence: radio, rear view camera, radio, front view camera, radio...

- Start with radio on, regardless of source.
- Press radio power 2 times to force rear view camera.
- Press radio power 2 more times to return to radio.
- Press radio power 2 times again to force front camera.
- Press radio power 2 times once more to return to radio.

If forced front camera is active and the vehicle is placed into reverse, the rear camera will be displayed, then the front camera image will return when shifted out of reverse. The screen will stay in this state until the power button is pressed 2 times or the key has been cycled.

*Note – The current audio source will not change when forced camera is activated.

