

Jeep Wrangler JK Quad-camera with DVR System SMTV-2421

Items Included in the Kit

Underhood power/video harness
Winch mount with attached camera
2 Underhood power/video harness
2 Front bumper mount with attached camera
2 Mounting bracket
4 Allen screws for mounting bracket.
1 Bottle of Z-tech
3 Camera cut out templates
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
7" DVR Monitor
4GB SD Card
Monitor Power Harness

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

**Please read so you do not VOID the
warranty:**

**If the camera harness is run through the center on the
camera bracket, it will cut the camera harness. This will
void the warranty on the camera.**

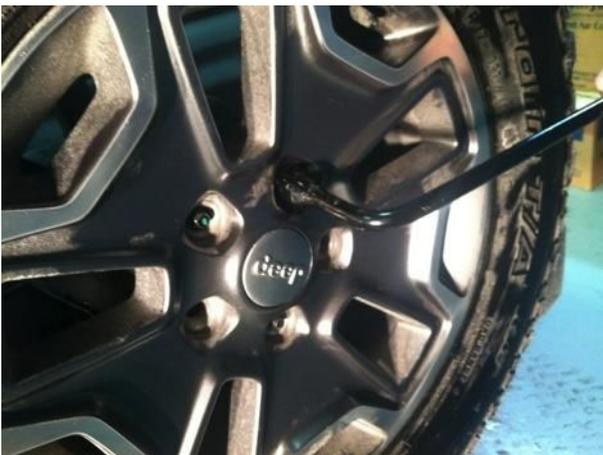
INSTALLATION INSTRUCTIONS



NOTE: We strive to provide accurate and up-to-date installation instructions. For the latest full color instructions, as well as an installation video, please visit www.brandmotion.com

Install Camera

Step 1: Loosen lug nuts to remove spare tire.



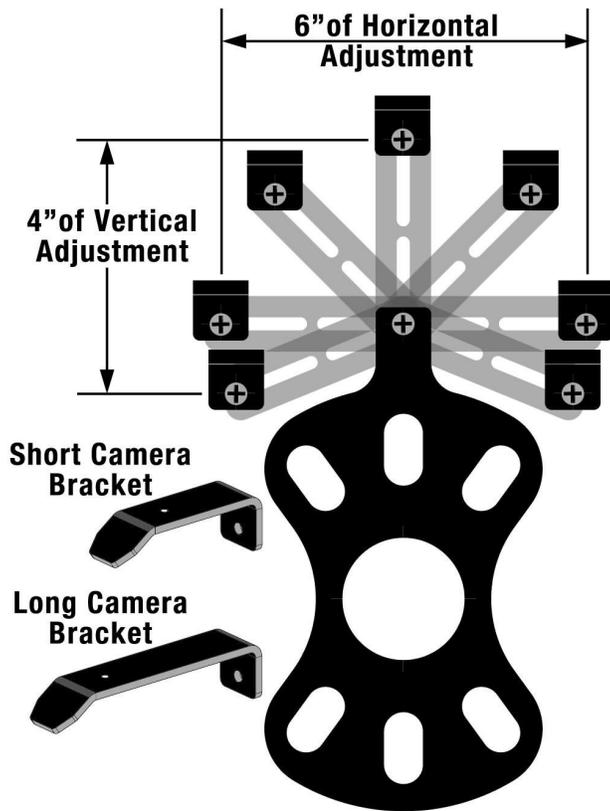
Step 2: Slide Camera on studs placing harness end inside of tire carrier. **Do not run harness through the camera bracket opening.**

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



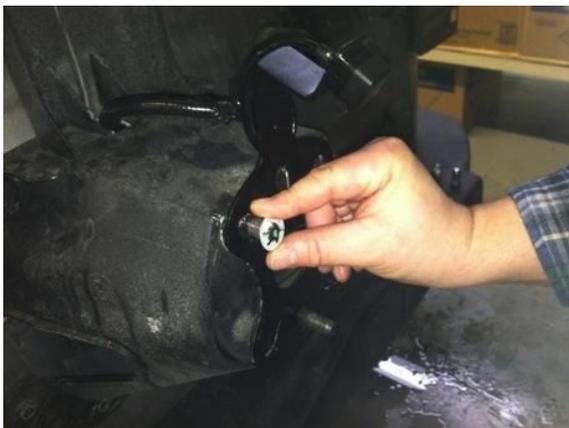
INSTALLATION INSTRUCTIONS

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.

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

INSTALLATION INSTRUCTIONS



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.



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.



NOTE: This camera has parklines or non parklines

Grid line options: Default setting is to display grid lines. To remove the grid line display, connect the two green wires near the end of the camera harness.



Green and white wires on the camera harness.

Wench Camera Instructions

Mounting camera ABOVE the fairlead:

1. Remove the fairlead from your front winch assembly and/or bumper.
2. Position the front camera bracket so that its mounting holes line up with the mounting holes on your fairlead. With the camera over the top of the fairlead.
3. Before the bolts go back into the fairlead and camera mounting plate, apply Z-tech to the bolts holes and anywhere on the back or side if any adjustments get made. (Later in install instructions.)
4. Reattach the fairlead and front camera bracket to your front winch assembly and/or bumper with the camera on top of fairlead.
5. 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.
6. 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.
7. Route the camera harness into the vehicle's interior through the factory grommet in the firewall on the driver's side.
8. Route the harness to the location of where the display will be.
9. Connect the RED wire to 12 accessory power. Make sure to use a Digital MultiMeter to test for power.
10. Connect the BLACK wire to a good clean ground.
11. Plug the RCA end to the video display.

Mounting camera BELOW the fairlead:

1. Lay camera face down on a bench or table with something to protect the camera face. Remove the (4) 3mm Allen bolts on the side of the camera mount.
2. Pull the bracket off the mount and rotate 180° and insert the Allen bolts back in, do not tighten all the way until installed and adjusted.
3. On the inside on the camera mount, loosen the (2) 2.5mm Allen screws to turn the front camera 180°. (There is a sticker inside the camera housing, on top of the camera. The sticker marks the top/up side of the camera.)

INSTALLATION INSTRUCTIONS



4. Tighten the (2) Allen screws back tight. Apply Z-tech to the back of the camera where the Allen screws are and on the insides on the camera housing.
5. Remove the fairlead from your front winch assembly and/or bumper.
6. Position the front camera bracket so that its mounting holes line up with the mounting holes on your fairlead with the camera over the top of the fairlead.
7. Before the bolts go back into the fairlead and camera mounting plate, apply Z-tech to the bolts holes and anywhere on the back or side if any adjustments get made. (Later in install instructions.)
8. Reattach the fairlead and front camera bracket to your front winch assembly and/or bumper with the camera on top of fairlead.
9. 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.

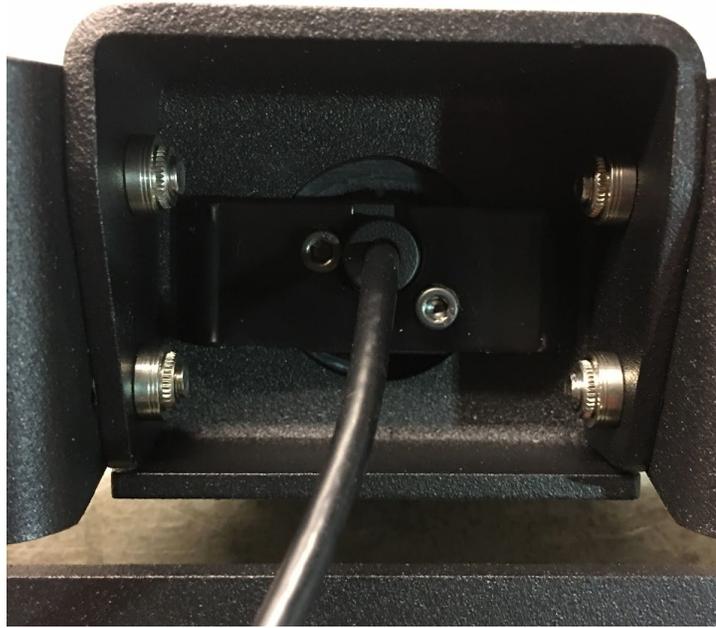
Route the harness away from any moving parts so the harness will not get cut. Enter the underhood area and secure to the harness running along the driver's side fender with zip ties.

10. Route the camera harness into the vehicle's interior through the factory grommet in the firewall on the driver's side.
11. Route the harness to the location of where the display will be.
12. Power and ground connections will be made after the monitor is installed

Mounting Camera WITHOUT Fairlead

1. Remove the camera from the fairlead bracket. Remove the 2 small allen bolts from the back of the camera. The small rectangular plate will come out of the back of the bracket and the camera will come right out.

INSTALLATION INSTRUCTIONS



2. Keep the small rectangular piece and two allen bolts
3. Determine desired mounting location and follow same steps from Rockcrawler camera installation instructions.

CAMERA ADJUSTMENT:

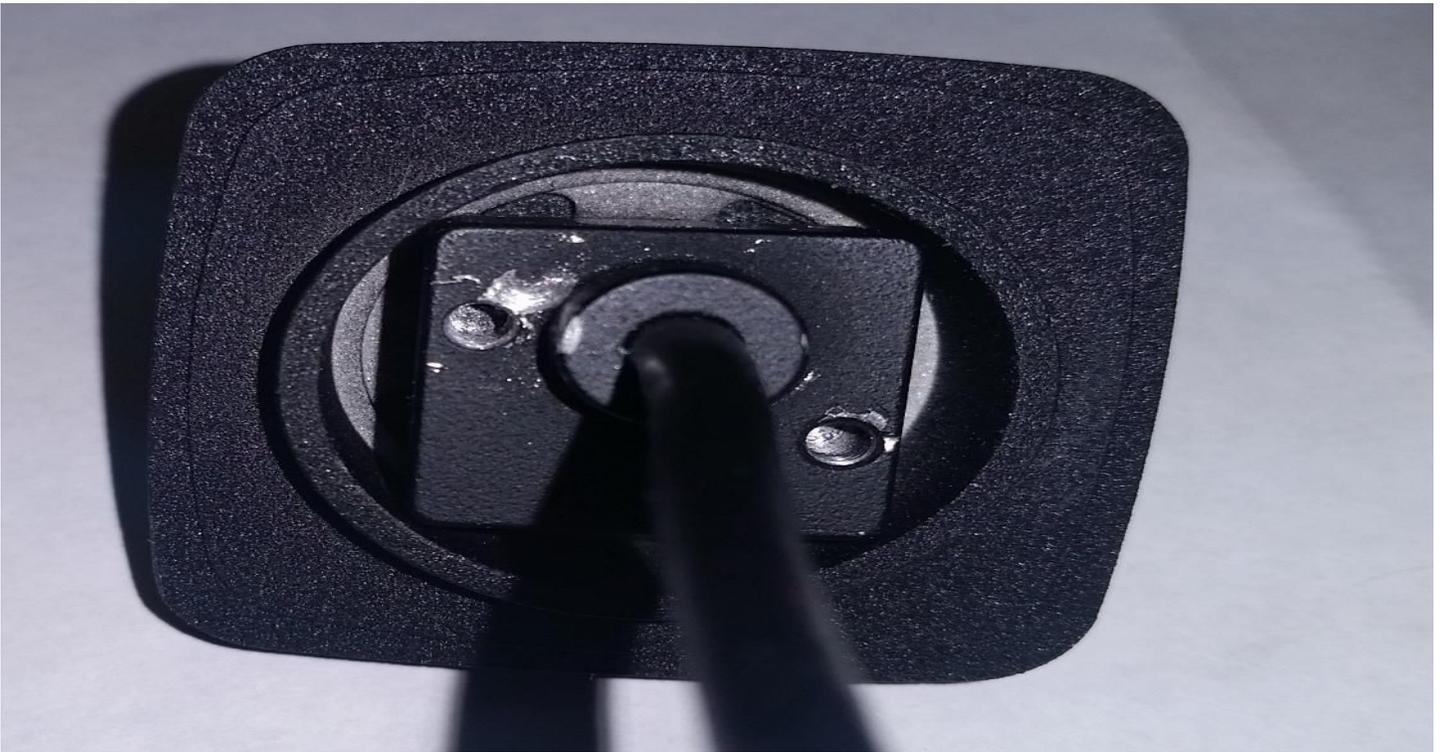
1. To adjust the camera angle up and down, loosen the (4) 3mm Allen bolts on the side of the camera mount to the bracket.
2. There is 40° of angle up and down.
3. As the camera angle changes, check the display to see if is the correct viewing area.
4. Adjust the angle up or down and retighten the (4) Allen bolts.

Rock Crawler Camera Installation

Do not cut any holes until you find a placement that fits your needs!!

1. Determine the best location for the camera to be mounted to the vehicle. **It is recommended that the harnesses for the cameras be run to the location where connections will be made to the display so that you can determine the best location for the cameras. Then follow the mounting instructions.**
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.)

INSTALLATION INSTRUCTIONS



INSTALLATION INSTRUCTIONS

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. Repeat mounting for the second camera. (One can be placed at each far end of the front bumper.)
10. Route the camera harness into the vehicle's interior through the factory grommet in the firewall on the driver's side.
11. Route the harness to the location of where the display will be.
12. Connect the RED wires from cameras to 12v accessory power. Make sure to use a Digital MultiMeter to test for power.
13. Connect the BLACK wires from cameras to a good clean ground.
14. Plug the RCA end to the video display.
15. Check the viewing area on the display. If it's correct, then tighten the (2) 2.5mm Allen screws.
16. Apply Z-tech inside the mount on the Allen screws and bracket.

Monitor Mounting/Use Instructions

Vehicle Wiring: When wiring the kit on some applications there might not be access to some of the trigger wires. (Left, Right turn signals, Reverse, etc.) When trigger wires are not available use toggle switch to trigger input. Trigger wires are only needed for auto switching inputs. Can Manual switch video inputs on monitor.

Monitor Mounting: Remove the factory rear view mirror. Using the D-tab adaptor included in the kit, mount the monitor on the adaptor before mounting on the windshield. You will need to loosen the six screws, pictured below, in order to fit the square nuts in the mounting slot.



INSTALLATION INSTRUCTIONS

SUTV Kit Wiring

Red ACC Power

Black Ground

Trigger 1 Video 1

Trigger 2 Video 2

Trigger 3 Video 3

Trigger 4 Video 4



REQUIRED VIDEO SETTING CHANGE: In order to properly use the supplied cameras, the system must be changed from PAL to NTSC. Follow these steps to make the change.

1. Insert a 2032 sized battery into the included remote. (Not included in kit)
2. Press the ENT key in the center to bring up the login menu

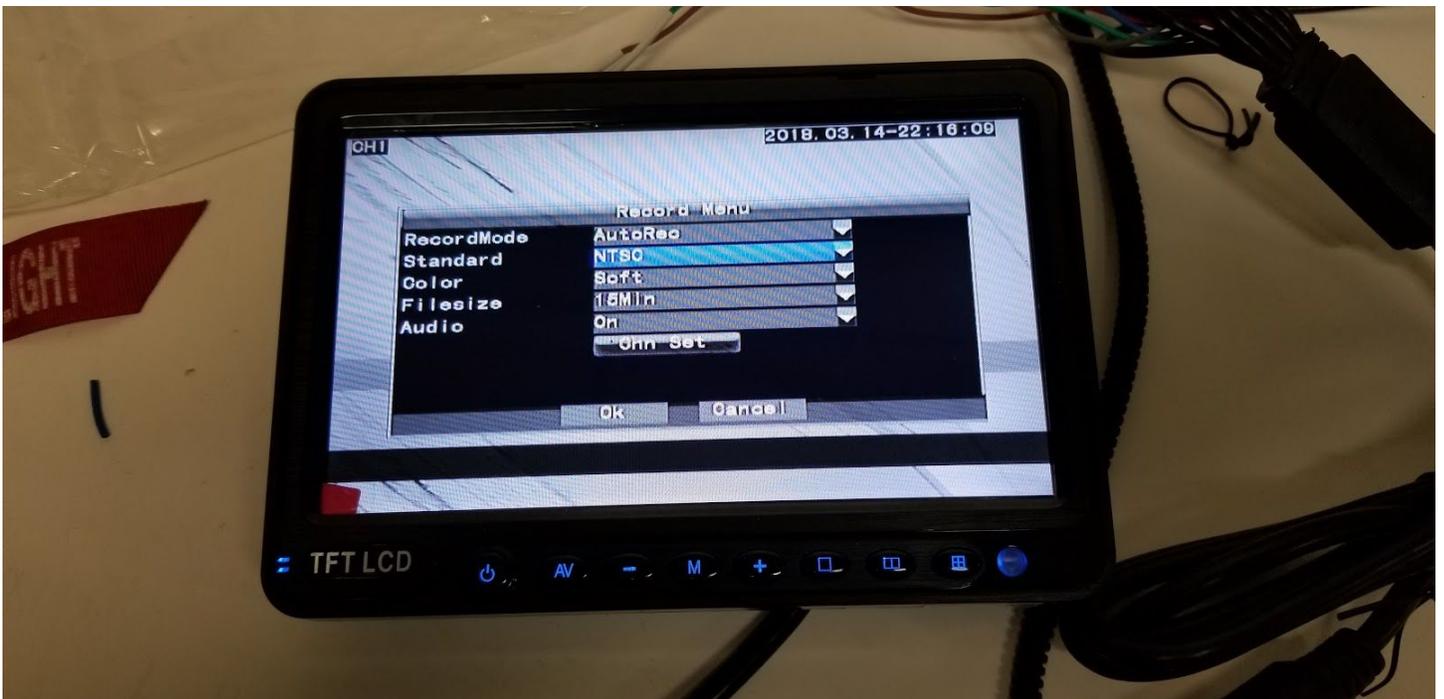
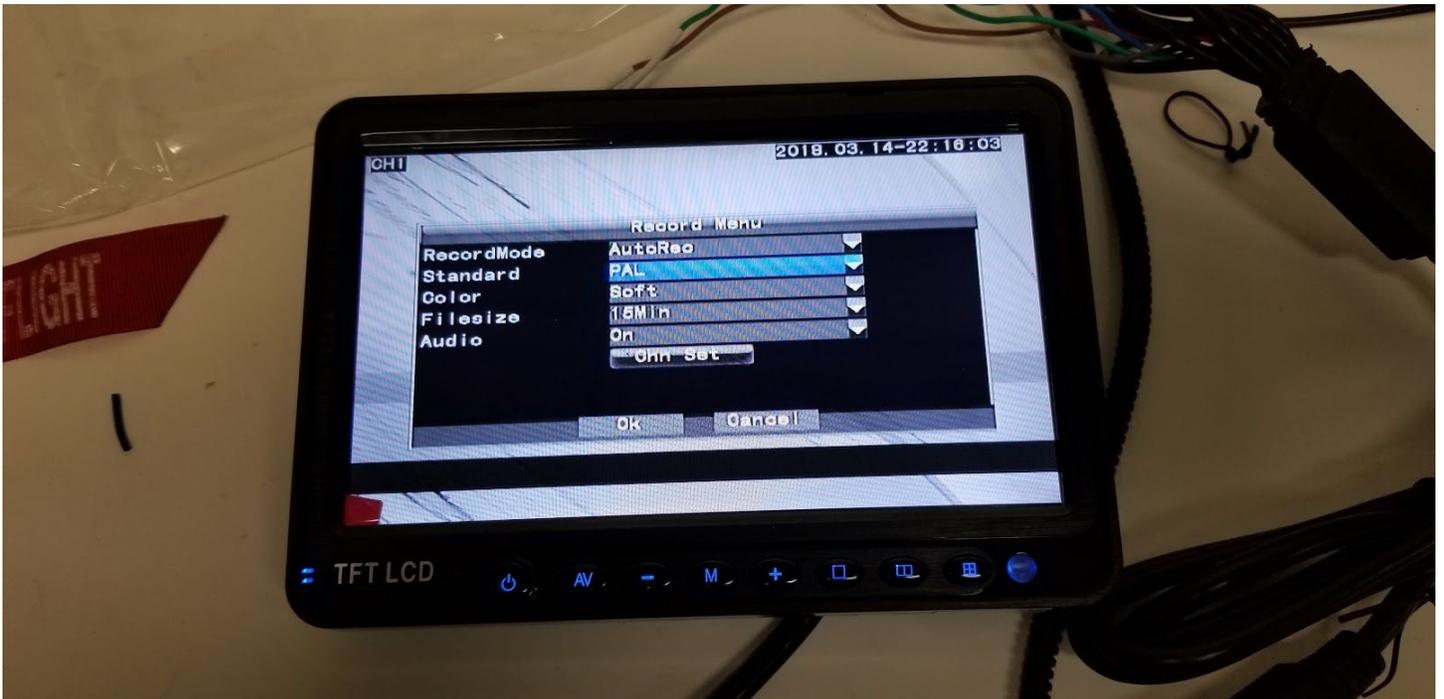


3. Do not enter a password, and click OK
4. Select Record Set, and press ENT



5. Select PAL and change to NTSC

INSTALLATION INSTRUCTIONS



6. Select OK to confirm.
7. Press EXIT to close menus.

VIDEO PLAYER FIX: If you are unable to view your .avi movie of the recording, please download this player. It will play the recordings no matter how long or short it is. <http://www.videolan.org/vlc/>