

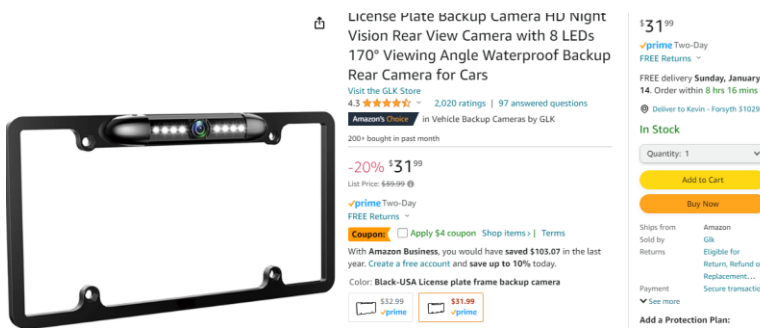
Installing a Backup Camera to a Jaguar XJ8

1st Step - Adding a Backup Camera

Disclaimer: Follow these instructions at your own risk. I am not responsible for injury to you or your vehicle.

There are many good posts for the backup camera installation on the Jaguar forums so I used the information and compiled the following instructions for my year and model. I do not remember all the member postings that I obtained content from, except those by members: rayalbers, jackra_1, guylaurent, and MEC.

1. The camera I used was the one recommended on the Jaguar Forum with the license plate frame. I am not certain I would use it again for my 2005 Vanden Plas because after installation, it did not allow access to the key slot to unlock the trunk when the battery is dead. I had to remove the camera frame to unlock the trunk. Below is the camera I used with the link.



https://www.amazon.com/dp/B07KH4ZQC4?ref=ppx_yo2ov_dt_b_product_details&th=1

2. Instead, I would use what member, MEC, suggested and get one like that shown in the below picture. MEC's post was also where I saw the way to bring the wire into the trunk.



3. To get the wires from the camera into the trunk lid I removed the right side license plate light cover by squeezing the tabs on both sides (MEC used the left side shown above) and used a soldering iron to burn a slot for the wire as shown below. Just make it big enough for the wire and not the camera plugs. You will then need to drill behind the lens into the plastic and sheet metal to get the large power and video plugs through the opening.



4. To run the wire to the camera from the NavRGB device I had to remove the trunk lid panel, but when using the clip tool I broke off most of the plastic clips. If you break any of the clips make certain you push their stems through the hole so the new clips can be pushed in. You can use the following link to purchase new clips from Amazon that fit the holes in the metal. The below picture of the panel shows the indentations for the clips. You will also need to disconnect the light socket from the panel and take the handle off the emergency opening cable before taking the panel off all the way.



https://www.amazon.com/gp/product/B0040CZ3TM/ref=ppx_yo_dt_b_search_asin_title?ie=UTF8&psc=1



5. You will need to pull the panel down that is under the rubber seal to run the wire to the following rubber wire loom on the right side of the trunk lid.



6. Remove the rubber loom after disconnecting both plugs and run the camera wires inside the loom. It is a little tight getting both camera power and video wires through the loom, but they do pull through with some dish soap added. Initially, I used a 1/4" rigid plastic hose to get a path through the loom and then pulled a string through to tie onto the camera wires to pull them through the loom. Just make certain you pull the wires through the right end.



7. Once the camera is installed and the wiring is routed, I zip tied the wiring to the existing car's wires in the trunk lid. Now replace the panel by attaching the emergency cable as you put the trunk panel back in place. Do not forget to plug in the courtesy light plug on the panel too.

2nd Step – Installing the NavRGB Converter from NavTool

Disclaimer: Follow these instructions at your own risk. I am not responsible for injury to you or your vehicle.

I tried the PAC RGB converter for my 2005 Jaguar XJ8 Vanden Plas without success, so I purchased the NavRGB converter from NavTool that worked out well for the camera interface.

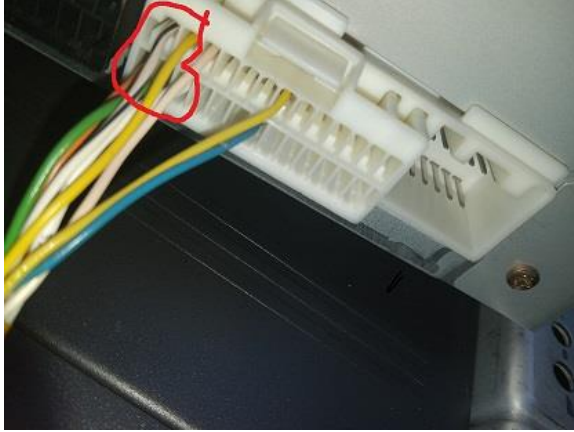


I found many references in the Jaguar Forum for displaying the backup camera image on the car's navigation screen. I used the following steps for the installation.

1. Remove the spare tire cover panel from the trunk by removing the two torx screws next to the tie down loops in the back.
2. Remove the clips that hold the left side panel of the trunk and remove the panel. Be careful with the rubber trunk seal holding the top of the panel.
3. Once the panel is removed, unscrew the four bolts holding down the Navigation Controller bracket. There are two bolts on the bracket near the left taillight, another one on the opposite side, and one on the back wall.



4. Once the bolts are removed, take the bracket and lift it a little, and then lay the total assembly face down so you can see the cable plugs. You may need to place something under it so it does not hang over onto the spare tire. Be careful not to pull on the wires.
5. You will need to disconnect the below wiring plug from the Navigation Controller and leave a few inches from the plug and cut the following five wires so you can wire the NavRGB between the Navigation Controller and front Navigation Screen.



White/Black (Pin 1 Sync Signal)
Yellow (Pin 2 Green Signal)
Orange (Pin 14 Red Signal)
Green (Pin 15 Blue Signal)
White (Pin 16)

6. Next, on the NavRGB supplied wiring harness look at the (6 pin) black plug and cut the red and black wires from the plug shown below. Take the black wire you cut and ground it to the car's chassis. You can use one of the Navigation Controller bracket bolts for a chassis ground or other bolts tied to the steel chassis.



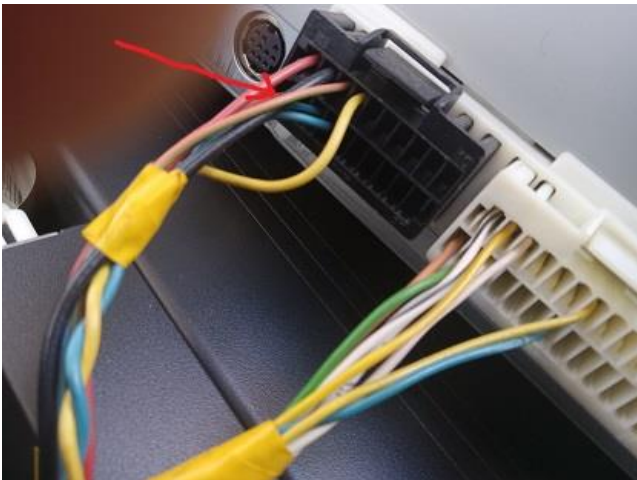
Cut the red and black wires for the power and ground input to the NavRGB.

7. While working with the NavRGB harness, you will need to plug in the supplied 10 wire pigtail into the plug as shown.



Plug the pigtail into this plug.

8. Next, take the red wire you cut previously from the NavRGB harness along with a new red wire for the relay power. You will need to splice both wires into the red accessory wire going into pin 11 of the black plug of the Navigation Controller (shown in the picture below). The referenced black plug is to the left of the large white plug you worked with previously. See below for where the accessory power wire is located. The splice will be a four way so you can use two wiretaps or cut and tie all four wires together. If using the join method, cut the accessory wire about two inches from the plug so you have room to work. Alternatively, you can use two wire taps without cutting the source wire.



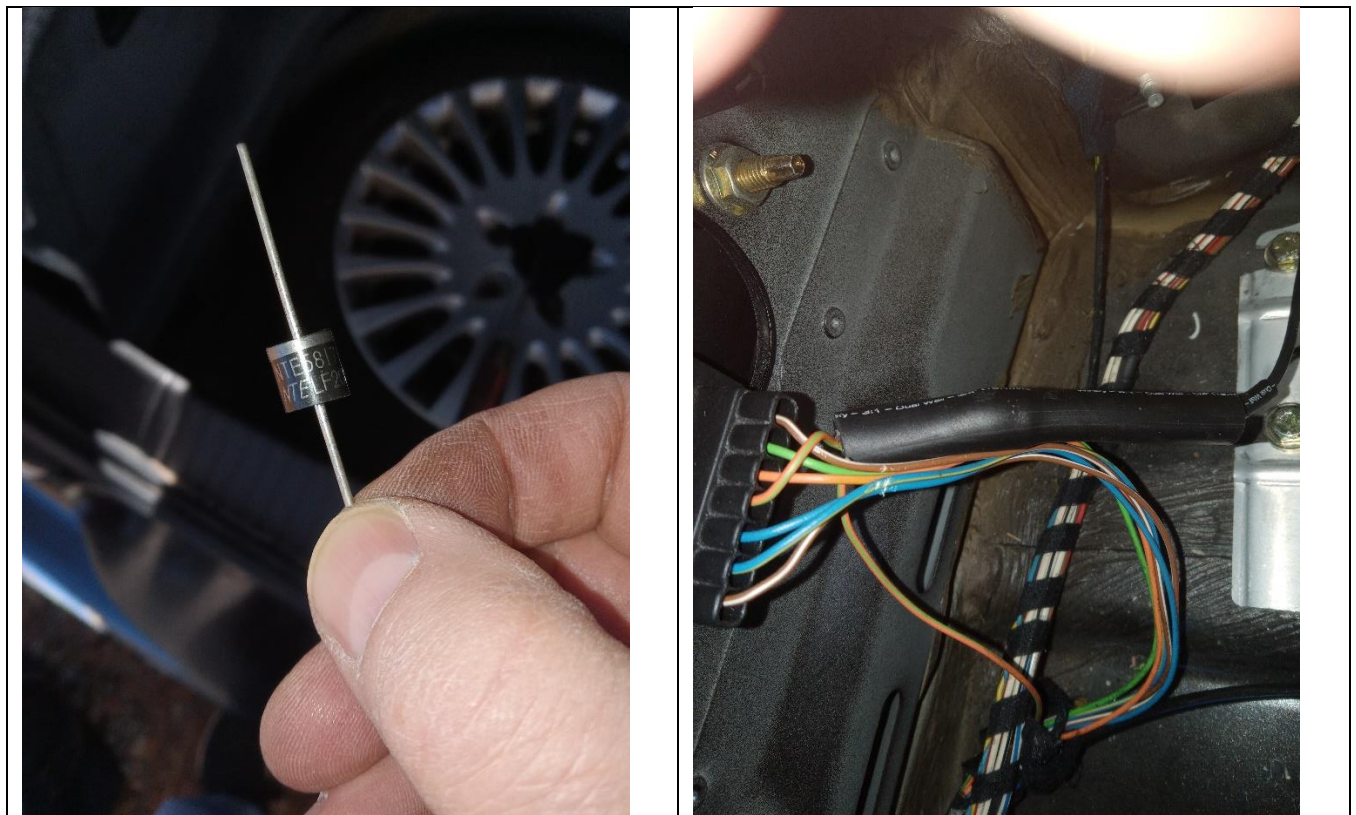
9. The pigtail you previously plugged into the wiring harness has 10 loose wires that you will connect to the Navigation Controller, NavRGB, and Navigation Screen wires. I used spade connectors on all the wire connections so I could move the wires around in case the connections turned out to be wrong. The below table shows how I connected all the pigtail wires.

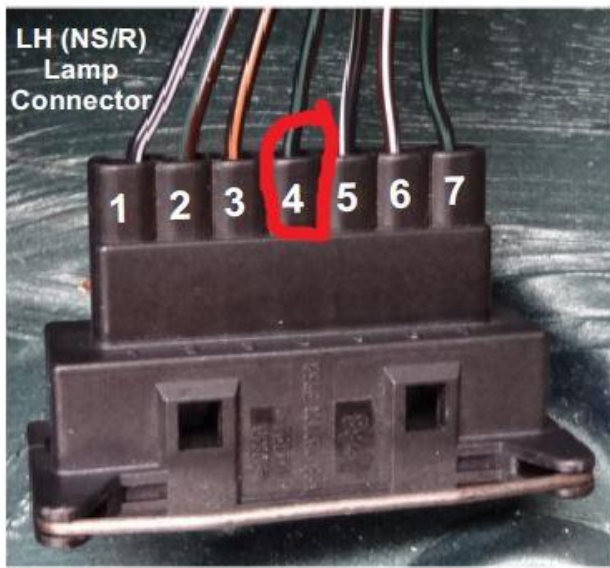
Jaguar to NavTool's NavRGB Wiring		
NavRGB Cable Color Wires	Nav Controller Plug Wires	Screen Wires
Brown	White/Black (Pin 1 Sync Signal)	
Black		White/Black
Green	Yellow (Pin 2 Green Signal)	
Blue		Yellow
Yellow	Orange (Pin 14 Red Signal)	
Red		Orange
Orange	Green (Pin 15 Blue Signal)	
Purple		Green
1st Gray	White (Pin 16)	
2nd Gray		White

10. To deal with a problem with the Jaguar's positive ground backup light circuit, I put a relay in place and configured it to be triggered by a ground connection and not a positive connection.

You will use the green and black wire below to trigger the backup camera. This wire has 12 volt power until the car is put into reverse. Then it changes personality to a ground wire. I found that tapping into this wire to trigger the relay caused my battery to drain overnight. To correct the battery drain issue I put a common 10-amp diode (between the backup light wire and the relay. Make certain you put the banded end of the diode (NTE5817HC) toward the backup light connection and then connect a new wire on the other end of the diode so it can be connected to pin 85 of the relay as the trigger.

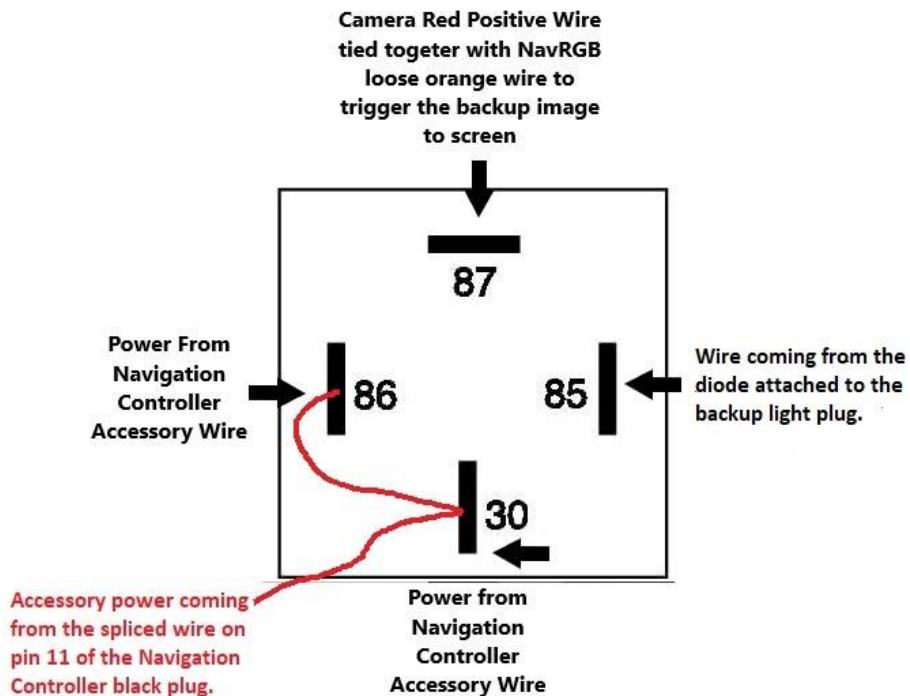
<https://www.amazon.com/NTE-Electronics-NTE5817HC-Plastic-Rectifier/dp/B007Z7P7B8>





11. I used the following relay I purchased from Amazon, but you should be able to use any standard 12 Volt 30 amp relay. Take the other end of the wire you tapped into for the accessory power on the Navigation Controller and plug into the relay pin number 30 and looped to pin 86. That way both of these pins have power whenever the car is turned on. The relay wiring is shown below after the Amazon link.

https://www.amazon.com/gp/product/B004Z0WGZS/ref=ppx_yo_dt_b_search_asin_title?ie=UTF8&psc=1



12. The black ground wire from the camera should be grounded to the chassis. The round RCA male wire from the camera should now be plugged into the RCA female connector of the NavRGB wire harness, tagged as rear camera.
13. There are a lot of extra RCA and other wires not needed. Just bundle the rest of the cables up with a zip tie. I also used a zip tie to relieve any pressure from the hanging wires on the back of the Navigation Controller.
14. With everything now connected, reconnect the ground wire on the battery and start the car. Make certain the Jaguar logo and menu screen works. Place the car into reverse and see if the camera image shows. Put the car in Drive and see if the Navigation menu returns. If everything is working, it is time to put the Navigation bracket assembly gently back into place and make certain no wires are pinched behind the bracket.
15. Mount the NavRGB device and relay with Velcro or zip ties so they do not move.



16. Put the Navigation Controller assembly bracket bolts back in and tighten them (do not over tighten). There should be four bolts. Do not forget the one on the sidewall.
17. Replace the trunk side panel cover and put the trunk spare tire cover panel back in place with the two torx screws next to the tie down loops.
18. All done. Praise God for guiding you through these steps successfully.