

STARKEY

PRODUCTS

2013-2014 Ford Mustang GT-Style Fog Light Kit

<u>Parts List:</u>	<u>Quantity:</u>	<u>Tool List:</u>
Fog light (Left & Right)	2	• Flat head & Phillips screwdriver
Upper grille with surround	1	• Ratchet & Socket set OR
Lower grille	1	• Adjustable Wrench
Wiring harness	1	• Small knife
Ford OEM Switch	1	
PB-3505 Parts Bag	1	

Thank you for purchasing one of our products. Please familiarize yourself with the parts included as well as the instructions before attempting installation. Please seek the help of a certified technician if you feel unable to complete the installation safely and properly. Failure to read and follow the instructions below may result in personal injury or damage to property. Starkey Products, Inc. and our retailers assume no liability for failures to comply with guidelines and warnings outlined in this instruction manual.

Removing the bumper:

Removing the bumper is necessary. Although it may sound daunting, it is actually quite simple. Driving the vehicle onto ramps or raising the front end of the car will greatly ease installation. Before beginning the steps below, turn off the car, remove key, and engage the emergency brake.

1. Removing the splash/ rock guard is the first step to removing the bumper. The splash guard has 17 screws holding it in place. Use a ratchet & 8mm socket OR Phillips screwdriver to remove the 6 screws closest to the front (nose) of the car. Use a 7mm socket to remove the remaining 11 screws. After the 17 screws are removed splash guard can be detached by pulling back/ down gently. Set aside 17 screws and splash guard for re-attachment later. See picture 1.
2. After removing the splash guard, unplug the turn signal indicator lamps. These are disconnected by squeezing the clip where the wires enter the connector.
3. Remove the exterior temperature sensor. It can be completely removed from the lower grille by pulling it off. It is attached with ribbed push pins. The push pins will resist being removed so you have to use some force to pull it off.



Black splash guard should be removed. It is held by 17 screws.



Remove black panel shown. Save 8 retaining pins for re-install later.



Pry up on center part of pin first. Then pry out entire retainer pin.

4. Open hood of car and make sure hood is held open securely.
5. Disconnect negative (black) battery cable from the car battery. This is done by loosening the bolt located on the side of the battery cable terminal with an 8mm socket or wrench. You may let the cable hang off to the side. Make sure the cable has been disconnected! This is important!
6. Remove the black panel which covers the radiator/grill (shown in picture 2). The panel is attached by 8 plastic pins. The pins are removed by prying up on center part and then prying up on the body of the pin. See picture 3. Save pins and black panel for re-installation later.
7. Remove the 4 bolts (8mm) and 4 push-pin screws located on the lip of the bumper below the panel you just removed. See picture 4. Sometimes the screws don't retract and you may have to pry up with a flat-head screwdriver as you turn the screw.
8. Remove the 3 bolts (7mm) that attach the bumper to the wheel well on each side of the car. Set aside for re-install later. See picture 5.
9. Now that all the hardware has been removed, the bumper is ready to come off. This isn't very difficult, but it is helpful to have an extra set of hands. Start on one side of the bumper. Pull the edge of the bumper away from the fender as shown in picture 6. There are three clips that will dis-engage when you begin to pull. There will be a loud 'pop' sound – this is normal. Repeat on opposite side of car.
10. Slowly and very carefully begin to pull the bumper off. The best place to hold the bumper is at the nose as you move backward. If you encounter a lot of resistance, check to make sure all hardware has been removed. Sometimes the side skirts of the bumper get caught on the wheel well and you may need to pull them back slightly as you step back.



Remove 4 bolts (8mm) and 4 push-pin Phillips screws.



Remove 3 bolts on driver and passenger side wheel well.



Pull the edge of bumper away from fender. You will hear a 'pop'.

Installing upper/lower grille and fog lights:

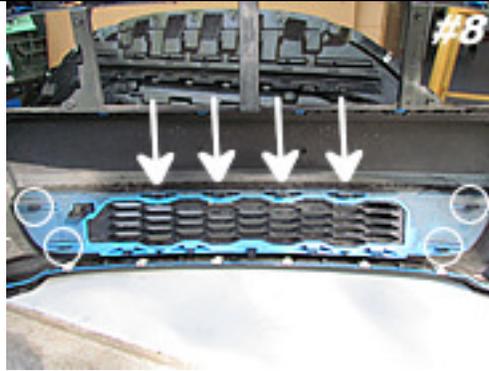
1. After the bumper is removed, you may notice that a piece of black Styrofoam that either stayed attached to the car or came off with the bumper. If the piece came off, that is no problem. It is held on loosely by 4 long ribbed push pins. Sometimes they will remain on the car when the bumper is removed. If the black Styrofoam came off, simply re-attach it with the 4 ribbed push pins. See picture 7 below.

The following steps will explain how to remove the upper and lower grille. Take your time during this part of the installation.

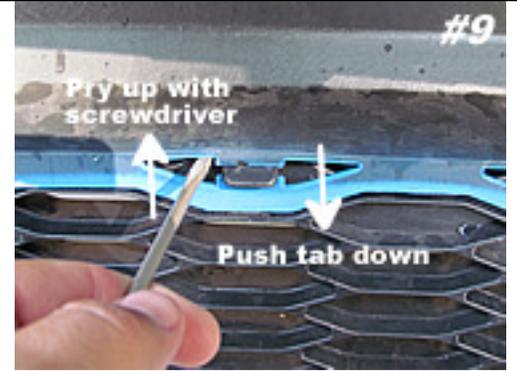
2. First we will remove the lower grille. It is held on by a number of locking tabs. The 2 on each side and the 4 on top are the ones that primarily secure the grille. Starting from one side, dis-engage each black tab one at a time. The top row of tabs should be pushed down to unlock, and the bottom row of tabs should be pushed up to unlock. Sometimes it can be helpful to pry up against the body colored plastic in the opposite direction you depress the tab. See picture 8 and 9.



Re-attach black Styrofoam piece with 4 ribbed push pins before continuing.



Start on one side releasing tabs as you go. Depress tabs to un-lock them.



Top row of tabs shown. Pry up with screwdriver while pushing tab down.

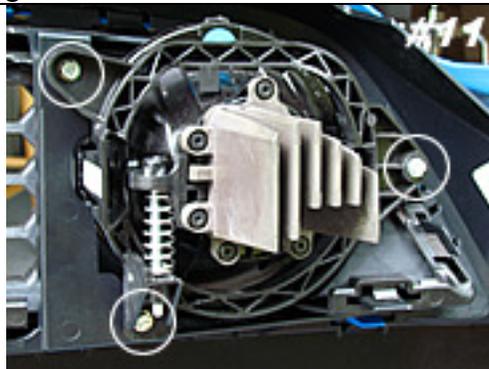
3. After removing the lower grille, install new GT-Style lower grille. It should snap into place with little force. Be sure that all tabs line up and lock into place securely.

Now we will remove the upper grille. Take a close look at the way it integrates into the bumper. The V6, Boss, and GT grille are actually made up of three pieces – grille, grille surround (chrome on V6, gloss black on Boss and GT), and grille retainer. The grille retainer will remain on the bumper and does not need to be removed. We will be removing the actual grille and surround and replacing it with the GT grille/ surround.

4. It is only necessary to unlock the 5 chrome tabs (black on Boss) on the top of the grille, and 5 chrome tabs on the bottom of the grille. Ignore the body colored tabs. See picture 10. Start on one side of the grille and as you unlock the tabs, push the grille outward so that it doesn't snap back into place. Be gentle during this process. Remember - the grille retainer tabs you are prying up on will be holding your new grille in place, so you want to take care not to break them.
5. Install new GT upper grille and surround included with kit. Make sure that all of the tabs lock into place and grille is secure.
6. Attach each fog lamp. Each lamp is attached with 3 screws. Use 5/16 socket or flat head screwdriver to tighten each screw. See picture 11.
7. You are done with the installation of the grille! Re-install bumper. It is very helpful to get assistance when re-aligning bumper with fenders. Be sure you re-attach all bolts and screws tightly. DO NOT re-install splash guard or radiator cover, this will be completed later.
8. Plug turn signals back into wiring on each side. Also re-attach temperature sensor – simply push the ribbed push pins into the new bracket molded into the lower grille.
9. DO NOT re-install splash guard or radiator cover. Those will be re-installed later.



Top row of tabs shown. Pry up with screwdriver while pushing tab down.



3 screws hold on each fog lamp. Use 5/16 socket or flat head to tighten.



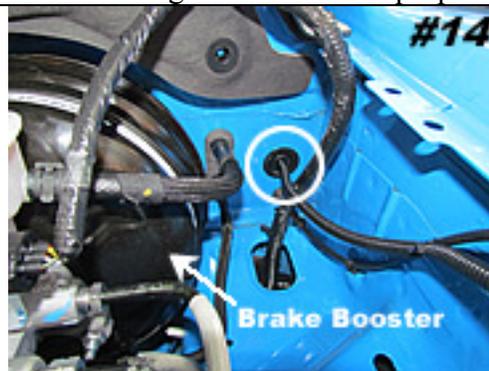
Be sure that the bolt is re-attached tightly enough that it will not loosen.

Wiring in engine bay:

1. Locate the fuse box. It is located behind the passenger side head light. Open the access cover.
2. Connect the **orange** wire to the positive (+12 volt) power cable entering the fuse box shown in picture 12 above. A 10mm socket or wrench can be used to remove the bolt holding the +12v power supply cable. A ring terminal is located at end of the **orange** wire which will slide over the post. Re-attach bolt tightly. While tightening be careful not to allow your wrench or ratchet to come in contact with any other metal object such as the car body.
3. Use a 10mm socket or wrench to attach the **black** ground cable ring terminal to the bolt shown in picture 13. Re-attach the bolt so the ring terminal makes proper contact and the bolt is tight.



Attach ring terminal to bolt circled above. Firmly re-tighten the bolt.



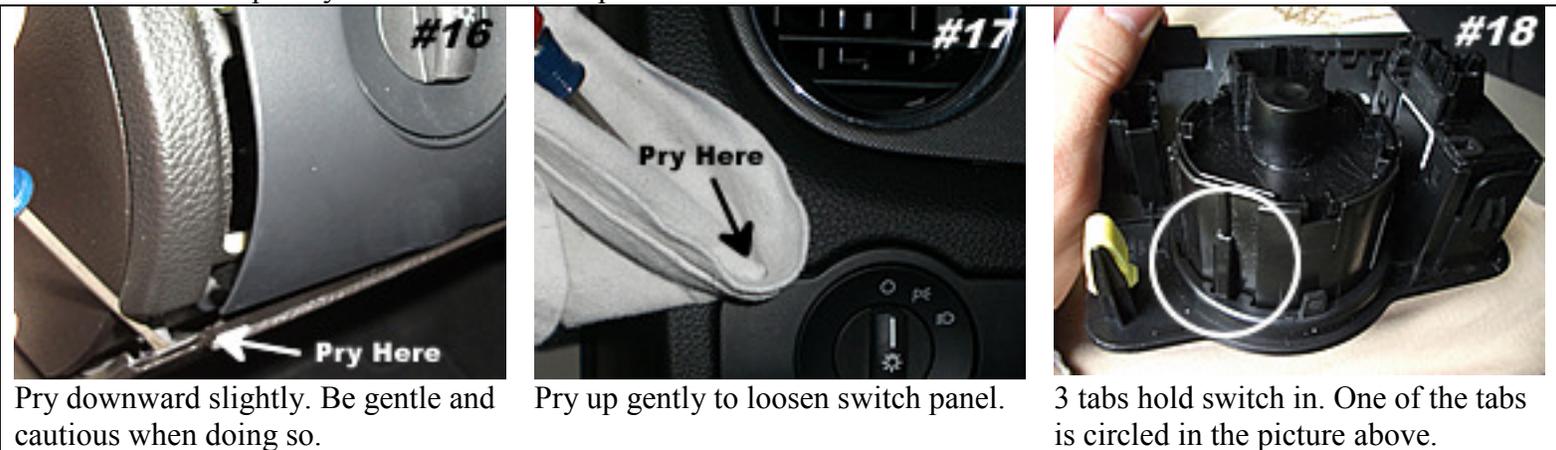
Cut small "X" in grommet and route wiring through the hole.



Cut small "X" in boot and route wiring through the hole.

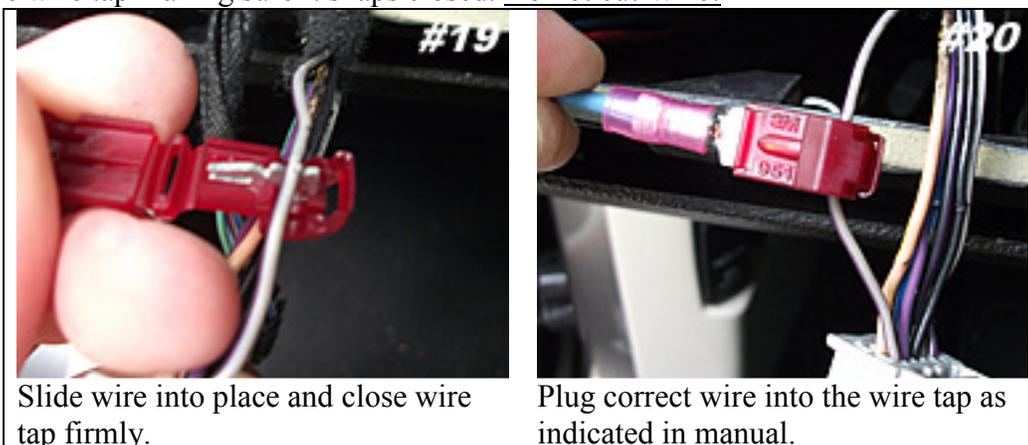
4. Route the wiring for the fog lights and switch over the radiator along the frame of the car. The best way to do this is follow the existing bundle of wiring.
5. Route the wiring for each light down to the fog light locations. Route wiring for the passenger compartment (red/blue/black wire bundle) along the driver's side fender towards passenger compartment.
6. Plug the fog light connectors into the fog lights. You may find it easier to do this from under the bumper reaching up.
7. If you are installing this kit on a V6 Mustang, follow step 8. If you are installing this kit on a Boss 302, skip to step 10.
8. V6 Mustangs - Locate the circular black grommet on the driver's side firewall about 4 inches to the right of the brake booster. See picture 14 above. Carefully use a razor or knife to cut an "X" in the grommet.
9. Gently push red/blue/black wiring through the firewall into the passenger compartment. Now skip to 'Installing switch in passenger compartment' section below.
10. Boss 302 - Open the drivers' side door and locate black rubber boot to the left of the pedals. Carefully pull to remove from the firewall. It is stiff so a screw driver may help pry the edge up. See picture 15. This is where we want to route the red/blue/black wire bundle into the passenger compartment.
11. The easiest way to do so is to route the wiring down past the sound enhancement tube (black tube which runs from the air intake to the firewall) toward the ground. Follow the existing bundle of wiring. It will be easiest to unbolt the sound enhancement tube so that you can move it a few inches out of the way. Tip: Shine a flash light through the hole in the passenger compartment – this will assist you in feeding the wires down to the proper location from the engine bay.
12. While inside the passenger compartment, pull the red/blue/black wire bundle through the firewall.

13. Carefully use a razor or knife to cut an 'X' in the rubber boot. Then gently feed the wiring through the 'X' cut in the boot.
14. Re-install rubber boot in the firewall by pushing it back into the hole firmly. Make sure it seals completely so that no leaks are possible.



Installing switch in passenger compartment:

1. Use a flat head screw driver to gently pry downward about ½ inch on the dash panel located below the switch panel. This will help allow switch removal. See picture 16. You will notice that at the bottom left corner of the switch panel there is a two inch long tab with a screw and clip at the end. The screw will need to be removed with a 7mm socket or adjustable wrench. Save for re-attachment later.
2. Using a flat head screw driver wrapped in a rag, carefully pry up on the switch panel from the top left corner. See picture 17 above.
3. Unplug the head light switch panel and remove from vehicle.
4. The head light switch is removed from the switch panel by depressing three tabs around the base of the switch. The switch will then come out of the switch panel. See picture 18.
5. Install the new switch into the switch panel. It should snap into place with very little force. Make sure it is in the correct orientation for it to snap into place (should be right-side up).
6. Felt electrical tape is wrapped around the bundle of wires that plugs into the switch. Carefully un-wrap tape several inches so you have better access to individual wires.
7. Using one of the supplied red wire taps, slide the **Gray** wire with **Purple** stripe (Pin #5) onto the wire tap. See picture 19 below. The wire should sit in the middle of the two teeth. Squeeze down on the wire tap making sure it snaps closed. Do not cut Wire!

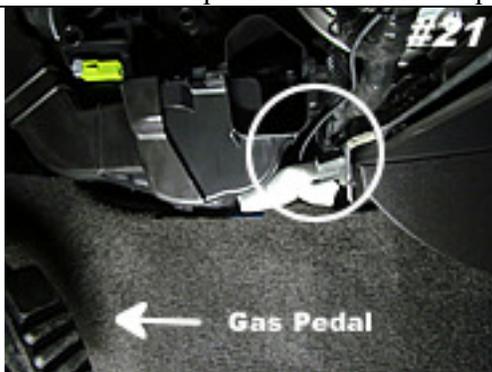


8. Plug the **blue** wire from the fog light wiring into the back of the wire tap connected to the Gray wire with Purple stripe. See picture 20 above.
9. Using the second red wire tap, repeat the process by sliding the **Brown** wire with **Yellow** stripe (Pin #10) onto the wire tap and closing the wire tap.
10. Plug the **red** wire from the fog light wiring harness into the back of the wire tap connected to the Tan wire with Yellow stripe.
11. Plug head lamp switch wiring into your new OEM head lamp switch.
12. Re-install the head lamp switch panel into the dash.

Final wiring in passenger compartment:

The long black wire that you routed through the firewall earlier must now be routed over the center console to the passenger side of the vehicle.

1. A small gap exists where you can route the black wire through. It sits behind the air vent near the drivers feet. Follow the existing bundle of wiring. If you are having trouble getting it to pass through, taping the wire to a clothes hanger or similar object may help you pass the wire through. See picture 21.
2. After you have reached the foot well on the passenger side, locate the interior fuse box. It is located behind the passenger side kick panel directly in front of the door. If you have trouble finding it, refer to your vehicles user manual for the specific location.
3. Remove the access cover. After removing the cover, there may be a piece of black felt paper taped to the box. Simply fold the felt paper up so you can access all of the connectors located on the fuse box.
4. Locate the C2280B connector on the fuse box. If you are looking at it directly, it is the connector located at the top left of the fuse box. It is a 52-pin connector with a total of 29 wires coming out of it. It is black in color with a gray bar across it vertically. Be sure you have located the proper connector. See picture 22 & 23 below. Be very gentle with all wiring.
5. Using a red wire tap, slide the **White** wire (Pin #13) onto the wire tap and close the wire tap. Be sure you have located the solid white wire. There are several other wires that are similar in color.
6. Plug the **black** wire from the fog light wiring harness into the back of the wire tap connected to the White wire.
7. Use the supplied zip ties to secure all wiring under the dash. Be sure the wiring will not affect operation of the brake pedal. Failure to secure the wiring under the dash could cause an accident.



Pass black wire through the center console to passenger side kick panel.



Connect to white wire on connector shown above using a wire tap.



Another view of the proper connector after connecting harness to white wire

Final Installation:

1. Re-connect the negative battery cable to the car battery. Remember to re-tighten the bolt.
2. Double check everything to make sure it was connected properly. Now insert the key and turn it to the "ON" position. Test the switch to make sure the lights turn ON and OFF. The fog lights are activated by pulling the knob outward. If the lights do not power on, visit the trouble shooting section below. Otherwise proceed to the next step.
3. Using the supplied zip ties, secure the kits wiring in the engine bay and passenger compartment. Be sure to securely zip tie any components that may rattle.
4. Be sure you secure all wiring under the dash and near the pedals. Failure to do so could cause damage to the fog light wiring harness or cause an accident.
5. Adjust the lights. This will require a Philips screwdriver. Starkey Products adjusts the lamps from the factory but you may adjust them if you feel it is necessary. This is best done at night or in a garage where there is less light. Turn the lights on and position the car about 15 feet from the wall. On each fog light the screw can be turned left or right to adjust up and down. Adjust the lights so that the individual light patterns are level on the wall.
6. Re-install the radiator cover and splash guard.
7. Re-install fuse box access cover which is located on the passenger side kick panel.
8. Enjoy your new fog lights! The fog lights are activated by pulling the knob outward while the switch is in the running lamps, head lamps, or auto headlamps position. You may operate the fog lights as daytime running lights by turning them on while in the auto headlamps position. Your fog lights will turn off automatically when the key is removed from the vehicle.

Trouble shooting guide:

Fog lights won't turn on –

- Check to make sure you connected wire taps to the correct wires outlined in the “Installing switch in passenger compartment” section above. This is the MOST common mistake made during installation. There are many similar color wires so be sure you tapped into the proper wires.
- Check to make sure your ignition key is in the “ON” position. You can be sure it is in the correct position by starting the engine.
- Check to make sure you connected your wire tap to the proper wire/ connector near the passenger side fuse box.
- Check the ground cable you connected under the “Wiring in engine bay” section. Make sure that it is making proper contact and that the bolt is tightened.
- Check the ring terminal you connected to the side of the fuse box to +12v power. Make sure that it is making proper contact and that the bolt is tightened.
- Check the blue fuse installed in the fuse holder (small black box located on orange wire). Make sure it is plugged in completely and has not been blown (On a blown fuse the filament in the middle of the two posts has been broken).

Fog light indicator light (on switch panel) doesn't come on when I turn the fog lights on –

- Check to make sure you installed the wire tap on the proper wire as indicated above. Also make sure the wire tap cover is closed completely.
- Check to make sure the tan fuse installed in the second fuse holder (connected to red wires) is installed properly and has not been blown (On a blown fuse the filament in the middle of the two posts has been broken).

When I turn the car on or the fog lights on and off I hear a “click” in the engine bay –

- This is normal. The relays click when the lights turn on and off.

If you are still having trouble with your product, please contact us for technical assistance. Tech support is available via phone Monday through Friday 9am-5pm. Email tech support is available during regular business hours as well as weekends, holidays, and evenings.

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Limited Warranty:

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