



# MASTER INSTALLATION GUIDE



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# CARPLAY

## TOOLS REQUIRED:

1. Retrofit kit compatible with your BMW F/G/E chassis
2. Trim removal tools
3. Screwdrivers (Phillips and flat-head)
4. Torx screwdrivers
5. Socket set
6. Wire strippers and crimpers
7. Electrical tape
8. Heat shrink tubing
9. Coding software (e.g., BimmerCode, Carly)
10. Laptop with compatible software and OBD-II cable
11. Diagnostic tool (e.g., OBD-II scanner)



## STEP 1: PREPARATION

1. Park your BMW in a well-lit and spacious area.
2. Ensure the ignition is turned off and the keys are removed.
3. Open the hood and disconnect the negative terminal of the battery to prevent electrical accidents.

## STEP 3: REMOVE STEREO UNIT

1. Unscrew the screws securing the stereo unit in place using the appropriate screwdrivers or sockets.
2. Carefully pull out the stereo unit and disconnect the wiring harnesses and antenna cables attached to the back.
3. Set the stereo unit aside safely.

## STEP 5: CONNECT TO INFOTAINMENT SYSTEM

1. Connect the wiring harnesses from the retrofit kit to the corresponding ports on the back of the infotainment screen.
2. Ensure the connections are secure and properly seated to avoid any connectivity issues.

## STEP 2: REMOVE TRIMS

1. Use trim removal tools to carefully pry off the trim panels surrounding the stereo unit and infotainment screen.
2. Be gentle to avoid damaging the panels or clips. Set the trims aside safely.

## STEP 4: INSTALL RETROFIT KIT

1. Follow the manufacturer's instructions to install the retrofit kit. This usually involves connecting the wiring harnesses included in the kit to the existing connectors in your BMW.
2. Ensure all connections are secure and properly insulated using electrical tape or heat shrink tubing.
3. Mount any additional components included in the kit in the designated locations within the dashboard.

## STEP 6: REINSTALL STEREO UNIT AND TRIMS

1. Reconnect the wiring harnesses and antenna cables to the back of the stereo unit.
2. Carefully slide the stereo unit back into place in the dashboard until it clicks securely. Screw in the screws to secure the stereo unit in place.
3. Snap the trim panels back into place around the stereo unit and infotainment screen.



# STEPS CONT.



## STEP 7: RECONNECT BATTERY

1. Reconnect the negative terminal of the battery and tighten it securely.
2. Close the hood.

## STEP 9: TESTING

1. Start your BMW and ensure the infotainment system powers on correctly.
2. Connect your smartphone via USB cable and test the functionality of Apple CarPlay and Android Auto.
3. Verify that all features and applications work as expected.

## STEP 8: CODING

1. Use your laptop and coding software (e.g., BimmerCode, Carly) along with an OBD-II cable to code your BMW's infotainment system to enable Apple CarPlay and Android Auto.
2. Follow the instructions provided by the coding software to access the necessary coding options and make the required changes.
3. Once the coding is complete, disconnect the OBD-II cable from your BMW.

## STEP 10: FINAL CHECKS

1. Double-check all connections and ensure everything is securely in place.
2. Test all infotainment system functions to ensure they are working correctly.
3. Take your BMW for a test drive to ensure Apple CarPlay and Android Auto work seamlessly while driving.



**AFTER**

**BEFORE**





# SPOILER

## TOOLS REQUIRED:

1. Automotive Trunk Spoiler
2. Isopropyl alcohol or a similar cleaning agent
3. Microfiber cloth
4. 3M Adhesion promoter (if not included with the spoiler)
5. Automotive-grade double-sided tape
6. Masking tape
7. Heat gun or hairdryer
8. Screwdriver or drill (depending on the mounting method)
9. Mounting hardware (if required)



## STEP 1: PREPARATION

1. Park your BMW in a well-lit and spacious area.
2. Ensure the ignition is turned off and the keys are removed.
3. Open the hood and disconnect the negative terminal of the battery to prevent electrical accidents.

## STEP 3: TEST FIT

1. Before applying any adhesive, hold the spoiler up to the trunk lid to ensure proper alignment and fitment.
2. Make any necessary adjustments to ensure the spoiler sits flush and aligns with the contours of the trunk lid.

## STEP 5: APPLY DOUBLE-SIDED TAPE

1. Peel back a small portion of the backing from the automotive-grade double-sided tape.
2. Carefully apply the tape along the edges of the spoiler's mounting surface, ensuring complete coverage.
3. Continue applying the tape until the entire mounting surface is covered.

## STEP 2: CLEAN THE SURFACE

1. Use isopropyl alcohol or a similar cleaning agent to thoroughly clean the surface where the spoiler will be installed. This will remove any dirt, wax, or grease that could interfere with adhesion.
2. Wipe the cleaned area with a microfiber cloth and allow it to dry completely.

## STEP 4: APPLY ADHESION PROMOTER (IF NECESSARY)

1. If the spoiler did not come with an adhesion promoter, apply a thin, even coat to the mounting area following the manufacturer's instructions.
2. Allow the adhesion promoter to dry according to the recommended time.

## STEP 6: ALIGN AND INSTALL

1. With the double-sided tape applied, carefully align the spoiler with the mounting location on your BMW F82 trunk lid.
2. Once properly aligned, firmly press the spoiler onto the surface to secure it in place.
3. Apply even pressure along the entire length of the spoiler to ensure proper adhesion.



# STEPS CONT.



## STEP 7: SECURE THE SPOILER

1. If your spoiler requires additional securing, such as with screws or bolts, follow the manufacturer's instructions to install them.
2. Use a screwdriver or drill to tighten the screws or bolts securely, but be careful not to over-tighten and damage the spoiler or the trunk lid.

## STEP 9: CLEANUP

1. Remove any excess adhesive or tape residue from the surface of the spoiler and your BMW F82 trunk lid using a clean cloth and a suitable adhesive remover.
2. Clean the area around the spoiler to remove any fingerprints or smudges.

## STEP 8: FINAL CHECKS

1. Carefully inspect the installed spoiler to ensure it is securely attached and properly aligned.
2. Use a heat gun or hairdryer to gently heat the edges of the spoiler, which helps activate the adhesive and ensure a strong bond.
3. Allow the adhesive to cure completely according to the manufacturer's instructions before driving the vehicle.

## STEP 10: ENJOY

1. With the spoiler properly installed, take a step back and admire the enhanced appearance of your BMW F82.
2. Enjoy the improved aerodynamics and added style that the spoiler provides while driving your vehicle.



**BEFORE**



**AFTER**



# FRONT LIP

## TOOLS REQUIRED:

1. Front lip Splitter
2. Isopropyl alcohol or similar cleaning agent
3. Microfiber cloth
4. 3M Adhesion promoter (if not included with the front lip)
5. Automotive-grade double-sided tape
6. Masking tape
7. Screwdriver or drill (depending on the mounting method)
8. Mounting hardware (if required)



## STEP 1: PREPARATION

1. Ensure the area where you'll be working is well-ventilated and free from any obstacles.
2. Gather all your tools and materials before you start the installation process.

## STEP 3: CLEAN THE SURFACE

1. Before removing any adhesive backing, hold the front lip up to the front bumper to check the fitment. Ensure that it aligns properly with the contours of the bumper and that there are no gaps or misalignments.
2. This is also a good time to make any adjustments necessary to ensure a perfect fit.

## STEP 5: APPLY DOUBLE-SIDED TAPE

1. Start by peeling back a small portion of the backing from the double-sided tape, exposing the adhesive.
2. Carefully apply the tape along the edges of the front lip's mounting surface. Ensure that you apply enough tape to provide a secure bond but avoid overlapping or leaving gaps.
3. Take your time during this step to ensure that the tape is applied evenly and securely.

## STEP 2: TEST FIT

1. Hold the front lip up to the front bumper to check alignment and fitment.
2. Make any necessary adjustments to ensure proper alignment.
3. Trim or modify the front lip if needed for a perfect fit.

## STEP 4: APPLY ADHESION PROMOTER

1. Adhesion promoter is especially important if you're installing the front lip on a surface that is not traditionally conducive to adhesion, such as unpainted plastic.
2. Follow the manufacturer's instructions carefully when applying the adhesion promoter. Typically, you'll need to apply it in a thin, even coat and allow it to dry completely before proceeding.

## STEP 6: ALIGN AND INSTALL

1. With the double-sided tape in place, carefully align the front lip with the mounting location on your BMW's front bumper.
2. Once you're satisfied with the alignment, firmly press down on the front lip to secure it in place. Apply even pressure along the entire length of the lip to ensure a strong bond with the bumper.
3. If necessary, use masking tape to temporarily hold the front lip in place while you work on securing it.



# STEPS CONT.



## STEP 7: SECURE THE FRONT LIP

1. Depending on the design of your front lip and the manufacturer's instructions, you may need to secure it further with screws, bolts, or clips.
2. If screws or bolts are required, use a screwdriver or drill to carefully drive them through the pre-drilled holes in the front lip and into the bumper. Be cautious not to overtighten, as this could damage the lip or bumper.

## STEP 9: CLEANUP

1. Remove any excess adhesive or tape residue from the surface of the front lip using a clean cloth and a suitable adhesive remover.
2. Clean the area around the front lip to remove any fingerprints or smudges.

## STEP 8: FINAL CHECKS

1. Once the front lip is securely installed, step back and inspect it from various angles to ensure it is properly aligned and flush with the bumper.
2. Use a clean cloth and adhesive remover to carefully clean up any excess adhesive or tape residue from the surface of the front lip and the bumper.



**BEFORE**



**AFTER**



# DIFFUSER

## TOOLS REQUIRED:

1. Automotive rear diffuser
2. Isopropyl alcohol or similar cleaning agent
3. Microfiber cloth
4. 3M Adhesion promoter (if not included with the diffuser)
5. Automotive-grade double-sided tape
6. Masking tape
7. Screwdriver or drill (depending on the mounting method)
8. Mounting hardware (if required)



## STEP 1: PREPARATION

1. Park the vehicle on a flat surface and engage the parking brake for stability.
2. Ensure you have all the necessary tools and materials handy.

## STEP 3: NEW DIFFUSER INSPECTION

1. Unbox the new carbon fiber diffuser and inspect it for any damage or defects.
2. Ensure that the diffuser kit includes all necessary hardware for installation.
3. If any defects are found, contact the manufacturer or retailer for assistance.

## STEP 5: MARKING MOUNTING POINTS

1. Use masking tape to mark the precise locations where the diffuser will be mounted on both the diffuser itself and the bumper.
2. Measure and mark multiple points to ensure accurate alignment during installation.

## STEP 2: REMOVE OLD DIFFUSER

1. Use the appropriate tools to carefully remove the existing diffuser, such as unscrewing bolts or unclipping clips.
2. Keep track of any hardware removed, as you may need it for the new diffuser.

## STEP 4: TEST FITMENT

1. Carefully position the new carbon fiber diffuser against the rear bumper.
2. Ensure that it aligns properly with the bumper contours and any pre-existing mounting points.
3. Check for any gaps or misalignments that may need adjustment before installation.

## STEP 6: DRILLING (IF NEEDED)

1. If the new diffuser requires additional mounting holes, carefully measure and mark their locations on the bumper.
2. Use an appropriate drill bit size for the mounting hardware provided with the diffuser kit.
3. Drill slowly and steadily to prevent damage to the bumper or underlying components.



# STEPS CONT.



## STEP 7: ATTACHMENT

1. Align the carbon fiber diffuser with the marked mounting points on the bumper.
2. Begin attaching the diffuser using the provided hardware, such as screws or bolts.
3. Start by loosely attaching the hardware to allow for adjustments during final alignment.

## STEP 9: CLEANUP

1. Remove any masking tape used for marking mounting points.
2. Use a clean cloth and mild detergent to wipe down the installation area and remove any fingerprints or dirt.
3. Take care not to scratch the newly installed diffuser during cleanup.

## STEP 8: ALIGNMENT & TIGHTENING

1. Double-check the alignment of the diffuser with the bumper and surrounding body panels.
2. Make any necessary adjustments to ensure a flush and symmetrical fit.
3. Gradually tighten the mounting hardware, alternating between attachment points to ensure even pressure distribution.

## STEP 10: INSPECTION

1. Thoroughly inspect the installed carbon fiber diffuser for any signs of misalignment, gaps, or loose hardware.
2. Test the stability of the diffuser by gently pressing on various points to ensure it is securely attached.
3. Address any issues immediately before proceeding.



**AFTER**

**BEFORE**





# SIDE SKIRT

## TOOLS REQUIRED:

1. Screwdriver set
2. Wrench set
3. Drill
4. Masking tape
5. Measuring tape
6. Clean cloth
7. Mild detergent
8. Socket set
9. Level
10. Torque wrench
11. Work gloves:
12. Allen keys (hex keys)
13. Step ladder or stool:n.
14. Stud finder reinforcement points



## STEP 1: PREPARATION

1. Park the vehicle on a flat surface and engage the parking brake for stability.
2. Gather all the necessary tools and material required for the installation, including the carbon fiber side skirt kit, mounting hardware, screwdriver or wrench set, masking tape, measuring tape, and possibly a drill with appropriate drill bits.

## STEP 3: NEW SIDE SKIRT INSPECTIOIN

1. Unbox the new carbon fiber side skirt and visually inspect it for any imperfections or damage.
2. Check that all components and hardware required for installation are included in the kit.
3. If any defects are found, contact the manufacturer or retailer for assistance.

## STEP 5: MARKING MOUNTING POINTS

1. Use masking tape to mark the precise locations where the side skirt will be mounted on both the skirt itself and the vehicle's side panel.
2. Measure and mark multiple points to ensure accurate alignment during installation.

## STEP 2: OLD DIFFUSER REMOVAL

1. Use the appropriate tools to carefully remove the existing side skirt, such as unscrewing bolts or unclipping clips.
2. Keep track of any hardware removed, as you may need it for the new side skirt.

## STEP 4: TEST FITMENT

1. Carefully position the new carbon fiber side skirt against the vehicle's side panel.
2. Ensure that it aligns properly with the body contours and any pre-existing mounting points.
3. Check for any gaps or misalignments that may need adjustment before installation.

## STEP 6: DRILLING (IF NEEDED)

1. If the new side skirt requires additional mounting holes, carefully measure and mark their locations on the vehicle's side panel.
2. Use an appropriate drill bit size for the mounting hardware provided with the side skirt kit.
3. Drill slowly and steadily to prevent damage to the side panel or underlying components.



# STEPS CONT.



## STEP 7: ATTACHMENT

1. Align the carbon fiber side skirt with the marked mounting points on the vehicle's side panel.
2. Begin attaching the side skirt using the provided hardware, such as screws or bolts.
3. Start by loosely attaching the hardware to allow for adjustments during final alignment.

## STEP 9: CLEANUP

1. Remove any masking tape used for marking mounting points.
2. Use a clean cloth and mild detergent to wipe down the installation area and remove any fingerprints or dirt.
3. Take care not to scratch the newly installed side skirt during cleanup.

## STEP 8: ALIGNMENT & TIGHTENING

1. Double-check the alignment of the side skirt with the vehicle's side panel and surrounding body panels.
2. Make any necessary adjustments to ensure a flush and symmetrical fit.
3. Gradually tighten the mounting hardware, alternating between attachment points to ensure even pressure distribution.

## STEP 10: FINAL INSPECTION

1. Thoroughly inspect the installed carbon fiber side skirt for any signs of misalignment, gaps, or loose hardware.
2. Test the stability of the side skirt by gently pressing on various points to ensure it is securely attached.
3. Address any issues immediately before proceeding.



**BEFORE**

**AFTER**





# STEERING WHEEL

## TOOLS REQUIRED:

1. New steering wheel (compatible with your BMW model)
2. Torx screwdriver set
3. Socket wrench set
4. Trim removal tools
5. Optionally, a steering wheel puller tool (if required)



## STEP 1: PREPARATION

1. Park the car on a flat surface and engage the parking brake to ensure it doesn't move while you work.
2. Open the hood and locate the battery.
3. Disconnect the negative terminal of the battery using a wrench or socket. This is crucial to prevent accidental airbag deployment.
4. Wait at least 15 minutes

## STEP 3: DISCONNECT ELECTRICAL CONNECTORS

1. Locate all additional connectors behind the steering wheel. These may be for the horn, cruise control, or audio controls.
2. Press the release tabs on the connectors and carefully pull them apart. Some connectors may have locking mechanisms or clips that need to be undone first.

## STEP 5: REMOVE THE STEERING WHEEL

1. Gently pull the steering wheel off the column. If it is stuck, a steering wheel puller tool can be used.
2. Attach the puller tool to the steering wheel according to the tool's instructions and gradually tighten it to pull the wheel off.
3. Remove the wheel carefully, taking note of any additional wiring or components that may need to be transferred to the new wheel.

## STEP 2: REMOVE AIRBAG UNIT

1. Locate the airbag screws on the back of the steering wheel, typically secured with Torx screws.
2. Use a Torx screwdriver to remove these screws. Be careful not to strip them.
3. Gently pull the airbag unit out from the steering wheel. It will still be connected by electrical connectors.
4. Disconnect the connectors by pressing the tabs and pulling them out carefully.

## STEP 4: REMOVE STEERING WHEEL BOLT

1. Use a socket set to remove the central bolt securing the steering wheel to the column. This bolt is usually quite tight.
2. Hold the steering wheel steady while you loosen the bolt to prevent it from turning.
3. Mark the position of the steering wheel relative to the column with a marker or tape to ensure proper alignment of the new wheel.

## STEP 6: PREPARE NEW STEERING WHEEL

1. Inspect the new steering wheel to ensure it has all the necessary features and fittings.
2. Transfer components such as the wiring harness, buttons, and any other attachments from the old wheel to the new one if they are not already present.
3. Ensure compatibility of the new steering wheel with your vehicle's systems.



## STEP 7: ALIGN AND ATTACH NEW STEERING WHEEL

1. Align the new steering wheel with the marks you made on the steering column to ensure it is centered.
2. Slide the steering wheel onto the column carefully, ensuring it fits snugly and aligns correctly with the spline..

## STEP 9: RECONNECT ELECTRICAL CONNECTORS AND AIRBAG

1. Reconnect all electrical connectors to the new steering wheel. Ensure each connector clicks into place and is secure.
2. Reconnect the airbag unit by plugging in its connectors.
3. Position the airbag unit back into the steering wheel hub.
4. Secure the airbag with the retaining screws, tightening them to the specified torque if applicable.

## STEP 8: SECURE THE NEW STEERING WHEEL

1. Insert the central bolt and hand-tighten it initially to ensure the steering wheel is properly seated.
2. Use a torque wrench to tighten the bolt to the specific torque setting mentioned in your vehicle's service manual. Over-tightening can damage the bolt or steering column, while under-tightening can make the wheel loose.

## STEP 10: RECONNECT BATTERY AND TEST

1. Reconnect the negative terminal of the battery.
2. Tighten the terminal securely to ensure a good electrical connection.
3. Turn on the ignition and check that the airbag warning light goes off. If the light stays on or flashes, there may be an issue with the airbag connection.
4. Test the horn to ensure it functions correctly. Check all steering wheel controls



**AFTER**

**BEFORE**





# MIRROR CAP

## TOOLS REQUIRED:

1. New carbon fiber mirror caps
2. Trim removal tools (plastic pry tools)
3. Flathead screwdriver
4. Phillips screwdriver (if necessary)
5. T20 Torx screwdriver (if necessary)
6. Microfiber cloth
7. Adhesive remover (if needed)
8. Isopropyl alcohol



## STEP 1: PREPARATION

1. Park your car on a flat, stable surface and engage the parking brake to ensure it remains stationary while you work.
2. Turn off the engine and remove the key from the ignition.
3. Lay out all the necessary tools and materials where they are easily accessible.

## STEP 3: REMOVE OLD MIRROR CAP (IF NEEDED)

1. Carefully insert a plastic trim removal tool between the mirror glass and the housing.
2. Gently pry the glass away from the housing, working your way around the edges. Be cautious to avoid applying excessive force that could crack or shatter the glass.
3. If your mirror glass is heated or has electrical connections, carefully disconnect the wires.

## STEP 5: DETACH OLD MIRROR CAP

1. Use a plastic trim removal tool to gently pry around the edges of the old mirror cap.
2. Gradually detach the cap from the mirror housing, working your way around to avoid breaking any clips.
3. If there are any clips holding the cap, release them carefully to avoid damaging the mirror housing.

## STEP 2: POSITION THE MIRROR

1. Use the mirror adjustment controls to tilt the mirror glass as far inward as possible. This will give you more room to work around the edges of the mirror cap.

## STEP 4: REMOVE SCREWS

1. Some BMW models have screws securing the mirror cap. Check around the edges of the mirror cap for any visible screws.
2. Use a Phillips or T20 Torx screwdriver to remove these screws. Keep the screws in a safe place as you may need them for the new cap.

## STEP 6: CLEAN THE SURFACE

1. Use a microfiber cloth and isopropyl alcohol to thoroughly clean the surface of the mirror housing.
2. Ensure all dirt, adhesive residue, or any other contaminants are removed to provide a clean surface for the new mirror cap to adhere to.



# STEPS CONT.



## STEP 7: FIT NEW MIRROR CAP

1. Align the new carbon fiber mirror cap with the mirror housing.
2. Press the cap into place, ensuring all clips or tabs snap securely into the housing.
3. Make sure the cap fits flush and is securely attached without any gaps.

## STEP 8: REATTACH THE SCREWS

1. If your BMW model had screws securing the mirror cap, reinsert and tighten them using the appropriate screwdriver.
2. Ensure the screws are tightened securely but do not over-tighten to avoid damaging the new cap.

## STEP 9: REINSTALL MIRROR GLASS

1. If you removed the mirror glass, reconnect any electrical wires for heated or electronically controlled mirrors.
2. Align the mirror glass with the motor housing.
3. Gently press the mirror glass back into place until you hear it snap securely.
4. Test the mirror adjustment controls to ensure the glass moves correctly.

## STEP 10: FINAL CHECK AND CLEAN

1. Ensure the new mirror cap is securely attached and properly aligned.
2. Adjust the mirror glass to verify it moves freely and the new cap does not obstruct its movement.
3. Wipe down the new mirror caps with a microfiber cloth to remove any fingerprints or smudges.
4. Inspect both mirror caps to ensure they are firmly attached and look symmetrical.



**AFTER**

**BEFORE**





# CSL DRL MODULE

## TOOLS REQUIRED:

1. CSL DRL module
2. Socket set
3. Torx screwdrivers
4. Flathead screwdriver
5. Trim removal tools (plastic pry tools)
6. Electrical tape
7. Wire connectors or crimping tools
8. Microfiber cloth
9. Gloves and safety glasses



## STEP 1: PREPARATION

1. Park on a flat surface
2. Engage the parking brake
3. Turn off the engine and remove the key
4. Open the hood:

## STEP 3: REMOVE FRONT BUMPER (IF NEEDED)

1. Identify attachment points
2. Use a socket set and Torx screwdrivers to remove the screws and bolts. Keep track of where each fastener goes.
3. Carefully detach the bumper by gently pulling the bumper away from the vehicle, being mindful of any clips or connectors that might still be attached.

## STEP 5: LOCATE DRL WIRES

1. Identify the DRL wires in the headlight assembly. Refer to your vehicle's wiring diagram if necessary.
2. DRL wires can vary in color depending on the BMW model, but they are often white, gray, or yellow.

## STEP 2: DISCONNECT THE BATTERY

1. Use trim removal tools to carefully pry off the trim panels surrounding the stereo unit and infotainment screen.
2. Be gentle to avoid damaging the panels or clips. Set the trims aside safely.

## STEP 4: REMOVE THE HEADLIGHT ASSEMBLY

1. Locate the screws securing the headlight assembly: These are typically Torx screws.
2. Remove the screws using a Torx screwdriver.
3. Disconnect electrical connectors: Gently unplug any connectors attached to the back of the headlight.
4. Carefully remove the headlight assembly from the vehicle.

## STEP 6: CONNECT THE CSL DRL MODULE

1. Strip a small section of insulation off the DRL wires.
2. Connect the module wires using wire connectors or crimping tools.
3. Insulate the connections with electrical tape.



# STEPS CONT.



## STEP 7: MOUNT THE CSL DRL MODULE

1. Find a suitable, dry location to mount the module within the headlight assembly area.
2. Secure the module with screws, adhesive pads, or zip ties.

## STEP 9: REATTACH THE FRONT BUMPER (IF REMOVED)

1. Align the bumper with the mounting points on the vehicle.
2. Reattach any clips or connectors and secure with screws and bolts.

## STEP 8: REINSTALL THE HEADLIGHT ASSEMBLY

1. Reconnect the electrical connectors to the back of the headlight assembly.
2. Reposition the headlight assembly and secure it with screws.

## STEP 10: RECONNECT BATTERY AND TEST

1. Reconnect the negative battery terminal.
2. Start the car and test the CSL DRL module to ensure it functions correctly.
3. Verify that the DRLs turn on and off as expected and there are no error messages on the dashboard.



## BEFORE



## AFTER



# TAILLIGHTS

## TOOLS REQUIRED:

1. New taillights
2. Socket set (commonly 8mm or 10mm sockets)
3. Torx screwdrivers (T20 or T25, depending on model)
4. Flathead screwdriver
5. Trim removal tools (plastic pry tools)
6. Microfiber cloth
7. Gloves and safety glasses



## STEP 1: PREPARATION

1. **Park on a flat surface:** Ensure the vehicle is stable.
2. **Engage the parking brake:** This prevents the car from moving.
3. **Turn off the engine and remove the key:** Ensure the car is off to avoid any electrical issues.
4. **Open the trunk:** This gives you access to the taillight assemblies.

## STEP 3: REMOVE INTERIOR TRUNK PANELS

1. **Identify the trunk panels:** These panels cover the area behind the taillights.
2. **Use a flathead screwdriver or trim removal tool**
3. **Gently pry off the panels without damaging the clips or the panels themselves.**
4. **Remove the panels:** Set them aside in a safe place to avoid damage.

## STEP 5: DISCONNECT THE ELECTRICAL CONNECTOR

1. **Locate the electrical connector on the back of the taillight:** This is where the taillight connects to the vehicle's electrical system.
2. **Press the release tab and gently pull the connector apart:** Be careful not to damage the wires or the connector. Sometimes, a small flathead screwdriver can help release the tab.

## STEP 2: DISCONNECT THE BATTERY

1. **Locate the battery:** Typically in the trunk or engine bay.
2. **Disconnect the negative terminal:** Use a wrench to loosen the nut on the negative terminal (-) and remove the cable. This step is crucial to avoid any electrical issues or shocks while working on the taillights.

## STEP 4: REMOVE TAILLIGHT MOUNTING BOLTS:

1. **Locate the bolts securing the taillight assembly:** Typically accessible from inside the trunk.
2. **Use the appropriate socket and ratchet:** Commonly, 8mm or 10mm sockets are needed. Unscrew all the mounting bolts.
3. **Keep the bolts safe:** You will need them to secure the new taillights.

## STEP 6: REMOVE THE OLD TAILLIGHT

1. **Gently pull the taillight assembly away from the vehicle:** It may be held in place by clips or seals, so you might need to wiggle it slightly.
2. **Clean the mounting area:** Use a microfiber cloth to wipe away any dirt or debris from the area where the new taillight will be installed.



# STEPS CONT.



## STEP 7: CONNECT THE NEW TAILLIGHT

1. **Align the new taillight assembly with the mounting holes:** Ensure it fits correctly.
2. **Reconnect the electrical connector:** Make sure it clicks securely into place.
3. **Check the alignment:** Ensure the taillight sits flush with the body of the vehicle.

## STEP 9: REATTACH INTERIOR TRUNK PANELS

1. **Align the bumper with the mounting points on the vehicle.**
2. **Reattach any clips or connectors and secure with screws and bolts.**

## STEP 8: SECURE THE NEW TAILLIGHT

1. **Reinsert the mounting bolts:** Use the socket and ratchet to tighten the bolts. Do not overtighten as this could crack the taillight housing.
2. **Double-check the alignment:** Ensure the taillight is properly aligned and secure.

## STEP 10: RECONNECT BATTERY AND TEST

1. **Reconnect the negative battery terminal:** Attach the cable to the negative terminal (-) and tighten the nut with a wrench.
2. **Close the trunk:** Ensure it is properly latched.
3. **Test the new taillights:** Turn on the car and check all functions of the taillights.
4. **Verify proper operation:** Make sure there are no warning lights or error messages on the dashboard and that all lights function correctly.



**AFTER**

**BEFORE**





# EXHAUST TIPS

## TOOLS REQUIRED:

1. New exhaust tips
2. Socket set or wrench set
3. Flathead screwdriver
4. Penetrating oil (optional, for rusty bolts)
5. Gloves and safety glasses
6. Microfiber cloth
7. Jack and jack stands (if necessary)



## STEP 1: PREPARATION

1. **Park on a flat, stable surface:** Ensure the car is stable and won't move during the installation.
2. **Engage the parking brake:** Prevents the car from rolling.
3. **Turn off the engine and allow the exhaust system to cool:** Exhaust pipes can be extremely hot, so wait until they are cool to the touch to avoid burns.

## STEP 3: INSPECT THE CURRENT EXHAUST TIPS

1. **Check attachment method:** Look at how the existing tips are attached to the exhaust pipe. They could be clamped, bolted, or welded.
2. **Assess condition:** Take note of any rust or damage that might complicate removal.

## STEP 5: APPLY PENETRATING OIL (IF NEEDED)

1. **Use penetrating oil:** Spray on rusty or stuck bolts. Let it sit for a few minutes to penetrate and loosen the rust.
2. **Reattempt bolt removal:** After the oil has soaked in, try removing the bolts again with a socket set or wrench.

## STEP 2: LIFT THE VEHICLE (IF NECESSARY)

1. **Jack up the car if exhaust tips are difficult to access:** Use a jack to lift the rear of the vehicle.
2. **Place the car securely on jack stands:** Position the jack stands under sturdy parts of the frame. Never rely solely on a jack to hold the car up.

## STEP 4: LOOSEN AND REMOVE OLD EXHAUST TIPS

1. **For clamped tips:** Use a socket set or wrench to loosen the bolts on the clamp. Penetrating oil can help loosen stubborn bolts.
2. **For bolted tips:** Remove the bolts using the appropriate socket or wrench. Keep the bolts in case you need them for the new tips.
3. **For welded tips:** Cutting tools will be required.

## STEP 6: REMOVE OLD EXHAUST TIPS

1. **Twist and pull the tips off:** Gently twist and pull the old tips. Wiggling them back and forth can help loosen them if they're stuck.
2. **Inspect the exhaust pipe ends:** Check for any damage or rust that may need to be addressed before installing new tips.



# STEPS CONT.



## STEP 7: CLEAN THE EXHAUST PIPE

1. Use a microfiber cloth: Wipe the end of the exhaust pipe to remove any dirt, debris, or rust.
2. Ensure a smooth surface: A clean pipe end ensures a snug fit for the new exhaust tips.

## STEP 8: INSTALL NEW EXHAUST TIPS

1. Slide the new tips onto the exhaust pipe: Ensure they are properly aligned and fit snugly.
2. Secure with clamps or bolts

## STEP 9: CHECK ALIGNMENT AND CLEARANCE

1. Visually inspect the alignment: Make sure the tips are straight and evenly spaced.
2. Ensure adequate clearance: Check that the tips are not touching the bumper or any other components to prevent rattling or heat damage.

## STEP 10: LOWER THE VEHICLE AND TEST

1. Carefully lower the car
2. Start the engine: Check for any unusual noises, vibrations, or leaks from the exhaust tips.
3. Verify proper installation: Ensure the new exhaust tips are securely in place and functioning correctly.



**BEFORE**

**AFTER**

