

PART NUMBER: 12-10113-WRR

INSTALLATION INSTRUCTIONS

This Nitrous Outlet vehicle specific wiring harness is designed specifically for the 2016-2019 Cadillac CTS-V. If you need any assistance during installation or if you have questions about this plate system, call our Tech Help Line at (254) 848-4300.

• 7mm Socket

Tools Needed for Installation:

- 10mm Deep Socket
- 10mm Wrench • 1-1/4" Hole Saw
- T-15 Torx bit • T-45 Torx bit • Flat Head Screwdriver

• 13mm Socket

 Body Tool • 4mm Allen Wrench

• 5/16" Socket

- 6" Extension • Drill
- Ratchet
 - 8mm Wrench • 7/32" Drill Bit
 - 1" Hole Saw

*These are the tools required for installation of this kit on a stock vehicle. If your vehicle has aftermarket parts, other tools may be required. *



- Step 1 Battery Disconnection
- Slide the passenger side front seat backward.

• Open the trunk of your vehicle.



• Remove the battery cover.



• Using a 10mm socket, loosen the nut and remove the negative battery terminal.

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PART NUMBER: 12-10113-WRR

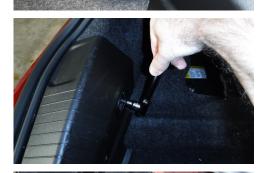
INSTALLATION INSTRUCTIONS

Step 2 – Vehicle Disassembly

• Remove the floor/spare tire cover.

• Using a body tool, remove the plastic screw covers located in the center of each cargo D-ring, mounted to the plastic panel at the rear of the trunk.

• Using T45 Torx bit, remove the 2 panel bolts holding the plastic panel at the rear of the trunk.



- Pull the bottom of the panel forward then pull up to remove it from the vehicle.

• Using a body tool, remove the push pins holding the trunk roof panel.

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INSTALLATION INSTRUCTIONS

• Unplug the trunk light and remove the trunk panel from the vehicle.

• Using a body tool, remove the push pins holding in the driver side trunk panel.

- Remove the panel from the vehicle.



• Using a body tool, remove the push pins holding in the pasenger side trunk panel.

• Remove the panel from the vehicle.

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INSTALLATION INSTRUCTIONS



- Check under the area you are drilling to ensure it is clear of any electrical or fuel system com ponents. If it is clear, drill a 1-1/4" hole, in the front driver side of the trunk just behind the rear seat bulkhead. Make sure the hole is to the driver side of the last strengthening rib on that side of the trunk.
- Remove the front passenger side door sill trim by pulling it from the retaining clips.



• Using the body tool, pry the trim panel on the passenger side from the center console then pull it from the retaining clips.



• Using the body tool, pry the trim panel on the driver side of the center console then pull it from the retaining clips.



• Using the body tool, pry the rear control panel away from the console.

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INSTALLATION INSTRUCTIONS

• Disconnect the 2 electrical connectors on the back of the panel.



- Lift the rear of the console and place a section of 2x4 underneath. This is to create a gap between the bottom of the console storage compartment and the air conditioning ducting feeding the rear air vents.

- In the console storage compartment, drill a 1" hole in the passenger side rear corner.



• Roll back the front passenger side carpet in the footwell.

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PART NUMBER: 12-10113-WRR

INSTALLATION INSTRUCTIONS



- You will need to lift the vehicle off the ground to remove the under-car panels. It is recommended to use an automotive lift. For the do-it-yourself install, use a floor jack with a jack puck. Using a 10mm socket and T-15 Torx, remove the small plastic rear passenger side under car panel.
- Using 13mm and 10mm sockets, remove the rear chassis brace.





- Using a 10mm socket, remove the passenger side under car panel that runs the length of the floorboard.
- Drill a 1-1/4" hole, in the passenger side front floorboard on the angled part of the seat pan toward the driveshaft. The hole needs to be centered top to bottom and from the curve in the front of the pan to the sealed body seam. Reference the picture for the correct location.

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PART NUMBER: 12-10113-WRR

INSTALLATION INSTRUCTIONS

If you have purchased a ProMax Harness and will be connecting the Vehicle Speed Sensor follow the next 8 steps only.

• Remove the passenger side front wheel.



- Using a T-15 Torx bit and 7mm socket, remove the passenger side front fender liner.







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PART NUMBER: 12-10113-WRR

INSTALLATION INSTRUCTIONS



• In the front passenger side fender well, use a body tool to remove the wiring harness clip off of the body brace.

• Using a 10mm socket and 10mm wrench, remove the body brace.



• Using a body tool, remove the intercooler shroud.



• Using a 10mm socket, remove the intercooler mounting bolts.

• Behind the intercooler, use a body tool to release it from the front ductwork. The intercooler will not come out of the vehicle. Make sure to support it as to not put unnecessary pressure on the coolant lines.

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PART NUMBER: 12-10113-WRR

INSTALLATION INSTRUCTIONS

• Behind the intercooler, unplug the TCM.

- Open the hood and remove the plastic cover on the supercharger by pulling upward and releasing it from the mounting studs. After the nitrous system installation, this cover will no longer fit in the vehicle.
- Remove the weather stripping on the radiator cover panel by sliding it off the retaining clips.



- Using a flathead screwdriver, remove the radiator cover panel by releasing the pins on each side, then pulling it from the retaining clips.

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PART NUMBER: 12-10113-WRR

INSTALLATION INSTRUCTIONS

• Remove the covers over the fuse box and fuse distribution block.

• Using a 10mm socket, remove the nuts connecting fuse distribution block to the fuse box.

- Using a 10mm socket, remove the fuse distribution block mounting nut.



• Use the handles to remove the fuse panel from the fuse box.



• Using a flathead screwdriver, disconnect the 5 fuse connectors from the fuse box.

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PART NUMBER: 12-10113-WRR

INSTALLATION INSTRUCTIONS

- Using a body tool, release the fuse connectors from the clips holding them to the side of the fuse box.

• Using a 10mm socket and extension, remove the nut connecting fuse box to the strut tower.



• Using a 10mm socket and extension, remove the nut connecting fuse box to the fender.



• Using a 10mm wrench, remove the nuts connecting fuse box to the top of the fender.



• Under the hood, on the passenger side of the car, in front of the strut tower is the fuse box. Underneath that are the ECM connectors. Unplug the X1, X2, and X3 connectors.

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PART NUMBER: 12-10113-WRR

INSTALLATION INSTRUCTIONS



Step 3 – Harness Installation

- Place the harness in the trunk. Take the fuse panel and route it to the driver side of the vehicle, behind the antenna to the area above the trunk fuse panel. Without interfering with the antenna cable or trunk lid hinge, place the fuse panel on the trunk sidewall and align the mounting holes on either side of the strengthening rib. Mark the 4 mounting holes then drill the marked holes with a 7/32" drill bit. Using a 4mm Allen wrench an 8mm wrench, mount the fuse panel with the provided M5-.8 hardware.
- Align the relay bracket on the rear seat bulkhead in the upper left corner. The right side of the bracket will align with a body edge on the roof of the trunk.

- Using the provided #10-16 x 3/4" long self-tapping screws and a 5/16" socket, mount the relay bracket to the rear seat bulkhead.





- Route the wires for the bottle heater, bottle opener, and nitrous pressure sensor to the back of the bottle mount. Use the installation guide in the back of these instructions to put the connectors on your bottle heater, bottle opener, and nitrous pressure sensor. After the connectors are installed, plug them in to the leads of the wiring harness.
- Route the dedicated tank harness along the top of the rear seat bulkhead. Using 2 of the provided 1/4" P-clamps, #10-16 x 1/2" long self-tapping screws, and a 5/16" socket, secure the harness to the bulkhead. (Rear seat back removed for clarity, not necessary.)

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PART NUMBER: 12-10113-WRR

INSTALLATION INSTRUCTIONS



• Continue routing the dedicated tank harness along the upper passenger side of the trunk. Using 2 of the provided 1/4" P-clamps, #10-16 x 1/2" long self-tapping screws, and a 5/16" socket, secure the harness to the passenger side trunk wall. (Rear seat back removed for clarity, not necessary.)



Route the wires for the dedicated fuel system down to the dedicated fuel tank. Use the
installation guide in the back of these instructions to put the connector on your fuel pump
wires. After the connector is installed, plug them it into the connector on the wiring harness.



• Route the wiring harness through the drilled hole in the trunk floor. Once the harness is completely through the hole, slide the 1-1/4" grommet into place to protect the harness. The grommet is on the harness.



• Route the wiring harness along the bottom of the body and over the differential toward the passenger side of the car. There is a brake line along the bottom of the car. Using tie-wraps, fasten the harness to the 2 tabs holding that brake line.

• Route the wiring harness to the channel on the passenger side of the vehicle between the fuel tank and chassis.

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INSTALLATION INSTRUCTIONS



- Route the wiring harness under the passenger side floorboard. Using 2 of the provided 1" P-clamps, M6-1.0 nute, and 10mm socket, secure the wiring harness on the existing studs on the bottom side of the passenger floorboard. These P-clamps will sercure in place when the under car panel is reinstalled on the vehicle. As the harness runs toward the front of the vehicle, use 2 of the provided 1" P-clamps, #10-16 x 1/2" long self-tapping screws, and a 5/16" socket, to secure the wiring harness to the body channel next to the driveshaft.
- Install a provided 1-1/4" grommet in the drilled hole in the passenger floorboard. Route the controller and switch panel portion of the wiring harness through it.



• Route the controller wires into the glove box. Using the WinMax or ProMax connection instructions, connect the wiring harness to the controller.



Route the switch panel wiring along passenger side floorboard and to the center console. Tuck
the harness inside the top of the passenger side carpet, behind the dashboard support, and to
the drilled hole in the center console.

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PART NUMBER: 12-10113-WRR

INSTALLATION INSTRUCTIONS



• Route the wires for the switch panel to the back side of the panel and connect them per the harness diagram.

• Install a provided 1-1/2" grommet in the body crossmember hole closest to the driveshaft. Route the remaining portion of the wiring harness through it.



• Install a provided 1-1/2" grommet in the body crossmember hole on the fender well side. Pull the wiring harness through it.



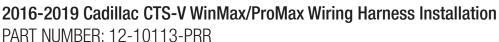
• Route the harness along the rear of the inner fender well and up into the engine bay behind the strut tower. Use a provided 1" P-clamp, #10-16 x 1/2" long self-tapping screw, and a 5/16" socket, to secure the harness to the triangle gusset.



• Route the wires for the solenoids up along the firewall and across the passenger side valve cover to the front of the engine. Use the installation guide in the back of these instructions to put the connectors on your solenoids. After the connectors are installed, plug them in to the leads of the wiring harness. There will be separate leads labeled 'Nitrous', 'Fuel', and 'Purge'.

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PART NUMBER: 12-10113-WRR

INSTALLATION INSTRUCTIONS

For ProMax:

• Plug in the fuel pressure sensor.

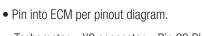
For WinMax:

• Remove the jumper wire on the terminal ends of the fuel pressure safety switch wires then plug in the fuel pressure safety switch.

***Note:* If you are not using a fuel pressure safety switch, leave the jumper wire connecting the terminals for the switch.

- If using a timing retard controller, connect the retard output to the controller.





Tachometer – X3 connector – Pin 30 Blue and Violet TPS – X1 connector – Pin 15 Yellow and White

ProMax only:

MAP – X2 connector – Pin 43 Green and White

- Steps to use when working with ECM and Sensor connection points.
 - 1. Locate the proper wire.
 - 2. Isolate wires from harness
 - 3. Cut wires
 - 4. Slide heat shrink over wire
 - 5. Soldier wires.
 - 6. Slide heat shrink down and melt

ProMax only:

• Pin into TCM per pinout diagram.

VSS – TCM – Pin 14 OSS Signal

Starting point for VSS settings - Hall Effect 4000 PPM

Million Str

• For the 12v Source, locate the trunk fuse panel. Connect the fuse tap to position F6 - BCM 4.

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Step 4 – Final Check Over

• Reinstall the fuse box and fuse distribution block replace the covers.

• Connect the harness power wire to the positive battery terminal.



• Reconnect the negative battery cable, include the wiring harness ground wire.



• Verify that all the input and outputs to your accessories are operating correctly per the component instructions.



Step 5 – Final Assembly

• Replace the radiator cover and weatherstripping.

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INSTALLATION INSTRUCTIONS

• Replace the intercooler, shroud, and body brace.



• Reinstall the passenger side fender liners and wheels.





• Reinstall the rear passenger side under car panel.



• Reinstall the passenger side under car panel.

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• Reinstall the rear chassis brace.



• Position the passenger carpet back in place.



• Reinstall the front door sill trim.



• Remove the 2x4 supporting the center console.

• Reinstall the center console.

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PART NUMBER: 12-10113-WRR

INSTALLATION INSTRUCTIONS



• Reinstall the rear control panel, making sure to reconnect the 2 electrical plugs.



• Reinstall the driver side console panel.



Reinstall the passenger side console panel.



• Reinstall the passenger side trunk panel.

• Reinstall the driver side trunk panel.

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• Reinstall the trunk roof. Make sure to plug in the trunk light.



• Reinstall the rear trunk panel and cargo hold-down loops.



• Reinstall the trunk floor.



• Reinstall the battery cover.

CONCLUSION

With all components mounted and electrical connections completed, you have now completed this portion of your nitrous system installation.

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Deutsch Connector Assembly Instructions

INSTALLATION INSTRUCTIONS

Deutsch Connector Assembly:

To assemble Deutsch terminal ends you can use a special crimper, or if done cautiously, this can be done with a pair of needle nose pliers.



Step 1:

Strip the end of the wire you want to place the connector on about 3/8".

Step 2:

Using a crimp tool or needle nose pliers, crimp the connector down. First the smaller crimp and then the larger crimp, make sure the weather pack seal gets crimped with the larger side.

Step 3:

Once your sure you have a good crimp slide the pins into the connector housing being sure to match the wires correctly on each side. Push the pin in the housing until you feel a positive click and the wire cannot be pulled back out of the connector.

Step 4:

Install the provided pin retainer lock in the connector body. It simply snaps in to place.

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