Nitrous Outlet Stand Alone Do-It-Yourself (DIY) Dual Bottle Upgrade Wiring Harness Installation Instructions

PART NUMBER: 12-11500-DB



The Nitrous Outlet Stand Alone Dual Bottle Upgrade is needed to upgrade a Nitrous Outlet Vehicle-Specific, Plug and Play, or DIY Harness to utilize dual bottle heaters and dual remote bottle openers.

This harness comes complete with color coded wiring diagrams, step by step installation instructions, Deutsch connector, remote opener Y terminal connector, heat shrink, expandable sleeving, and a 40/60 amp relay.

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NITROUS OUTLET



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INSTALLATION INSTRUCTIONS

The Nitrous Outlet Stand Alone Dual Bottle Upgrade is needed to upgrade a Nitrous Outlet Vehicle-Specific, Plug and Play, or DIY Harness to utilize dual bottle heaters and dual remote bottle openers. If you need assistance with this wiring harness, call our Tech Help Line at (254) 848-4300.

Tools Needed for Installation:

Hot Knife

Heat Gun

• Wire Cutters

• Wire Crimping Tool • Circuit Test Light

Additional Materials Needed for Installation:

Electrical Tape

• Ring Terminals

*These are the basic tools required for installation of this harness. Your vehicle may require additional tools. *



Relay Installation

• Once your second bottle with an opener, heater and nitrous pressure sensor are installed, open the hood and disconnect the battery by removing the cables from the negative and positive terminals.



• This harness is designed for the relay to mount under the hood, close to the existing harness fuse panel for positive and negative connections.



Routing the Harness

• Route the 10ga red and black wires from the relay to your existing fuse panel. We recommend that you use a power source that is protected with a minimum 30A fuse for the power wire. Make certain when installing the harness it is free from any extreme heat sources or moving parts that can damage the harness.

*NOTE - If you are adding this upgrade to a harness manufactured before 4-01-2022, you may need to upgrade the fuse panel from a 6 way panel to a 10 way panel.



Nitrous Bottle Location - Bottle heater, bottle pressure switch - 3 wire lead



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 Route the wires to your bottle location and secure them in place. It is recommended to follow your existing harness for easier routing and any possible firewall penetrations.

**NOTE - Do not cut any length of harness wiring at this time.



• The bottle heater wires will terminate at the heater and the bottle pressure switch connected at the bottle valve. Make sure when mounting a harness lead that you are properly securing it so it is avoiding any extreme heat or any moving parts that can damage the harness.



Disclaimer -

The sleeving steps are generic instructions that apply to all harness installations. Wire colors will vary.

Once the routing and securing the harness in its permanent location you will need to mark the
point of branch off with a piece of electrical tape. 1-1 ½ times around the harness is all that is
necessary.



You do not have to fully remove the harness from the vehicle for sleeving. You can leave the
relay mounted and remove the only the wiring if desired. With the harness out of the vehicle,
stretch it to full length.



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 \bullet Start at the harness branches coming from the relay and every 16-18 inches, wrap electrical tape 1-1 ½ times around the harness.



• Continue doing this for the length of the harness until you have reached the end of each lead.



• At the end of each lead, use a piece of tape to tightly group the wire ends so that the sleeving will easily slide over.



• To cut a specific length of sleeving, begin at the relay and measure up to the branch. Make sure to add 6 to 8 inches to the measured length due to the fact that the sleeving will shorten as it expands over the harness.



• Cut all sections of sleeving with a hot knife. This will melt the fibers of the sleeving together so that is does not unravel while installing it on the harness.

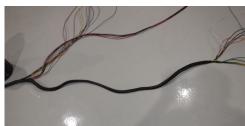


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• Feed the section of sleeving from the component end of the harness toward the relay. The best procedure for this is to feed all the sleeving onto the end of the harness. It will look like a compressed spring on the harness.



• Slide the sleeving to the measured section of the harness. Evenly distribute the sleeving along this section of the harness in both directions until it has fully expanded.



• Using electrical tape, tightly anchor each end using no more than 1 ½ rounds.



• Secure the taped ends of the sleeving to the harness with heat shrink. The heat shrink should cover the tape and a couple inches on both sides of the tape ring.

**NOTE - Do not hold the heat gun too close to the sleeving, this will cause it to melt and expose the wiring. Use extra precaution with the heat gun and being aware of wires and leads that can be damaged.



Using heat shrink, cover the breakout or the branch off to ensure you have no exposed wires.
 This length will need to cover the end of the sleeving on the first section of wires to the start of the sleeving on the next section of the harness.



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 After you have completed sleeving and heat shrink for the harness, reinstall it in its permanent mounting place.



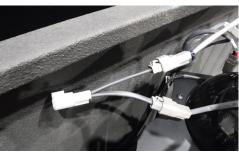
Component Connection

Determine how much wire you need from the harness lead to the designated component.
 Some components will have wire leads, such as the switch panel. Either the harness or component leads can be cut to length before the actual installation of the pins, connectors, or solder.

**NOTE - Connector assembly instructions are on pages 6 & 7 at the end of these instructions.



• Connect the heating element for the second bottle.



• Connect the provided Y connector to the bottle openers.



• Connect bottle opener wires from the existing harness to the Y connector.



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 Add the nitrous pressure switch wire from the DIY harness to the connector on the non-powered wire on the pressure switch of your system.

**NOTE - To determine which wire is non-powered, disconnect the pressure switch leads, connect circuit test light, turn on ARM and HEATER switch.

Final Checkover

Refer to the connectivity charts to ensure the proper pin location in each connector and the color and gauge size of each wire being connected.



Double check all connections that you completed by giving a slight tug on both ends of the
connection after the heat shrink is complete or the pins and connectors have been installed.
The goal on installing the harness is to complete this process with a clean and secure
attachment of all wiring connections, making sure they are not subject to damage due to heat
or moving parts.



 Once your bottle heater, bottle pressure switch wires are connected and secured, reconnect the battery.

CONCLUSION

You have finished the installation of the DIY harness.

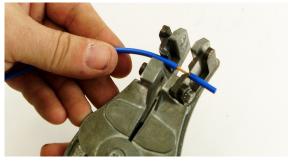
Deutsch Connector Assembly Instructions



INSTALLATION INSTRUCTIONS

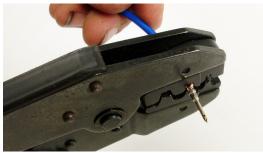
Deutsch Connector Assembly:

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.

Wire Quick Disconnect Assembly Instructions



INSTALLATION INSTRUCTIONS

Quick Disconnect Assembly:

To assemble terminal ends you can use a standard wire crimper/cutter, or if done cautiously, this can be done with a pair of needle nose pliers.



Step 1:

Slide a piece of heat shrink on to the connecting wire.



Step 2:

Strip about 3/8" off the end of the connecting wire.



Step 3:

Using a crimp tool or needle nose pliers, crimp the connector on to the end of the connecting wire.



Step 4:

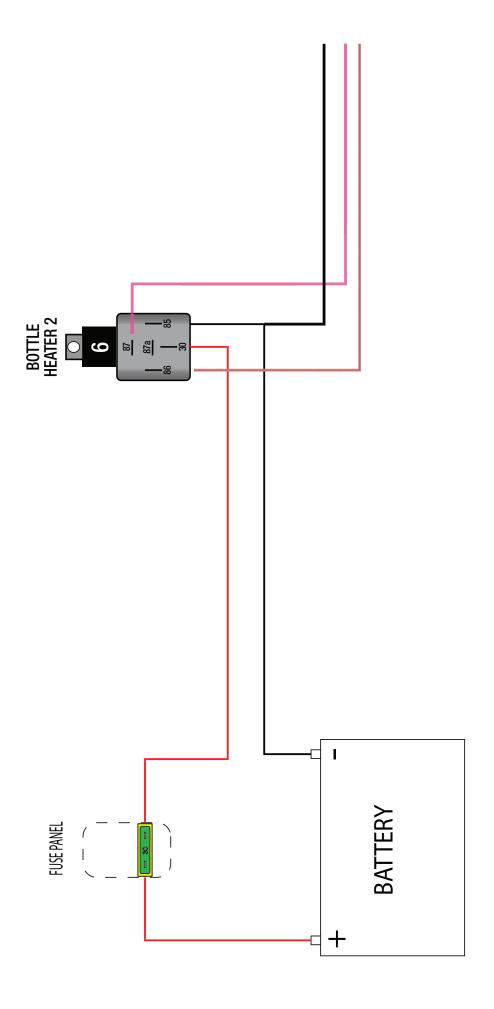
Once you are sure you have a good crimp slide the piece of heat shrink over the crimped end of the connector and seal it with a heat gun.

**NOTE - Do not hold the heat gun too close to the sleeving, this will cause it to melt and expose the wiring. Use extra precaution with the heat gun and being aware of wires and leads that can be damaged.



12-11500-DB DO-IT-YOURSELF DUAL BOTTLE UPGRADE WIRING DIAGRAM





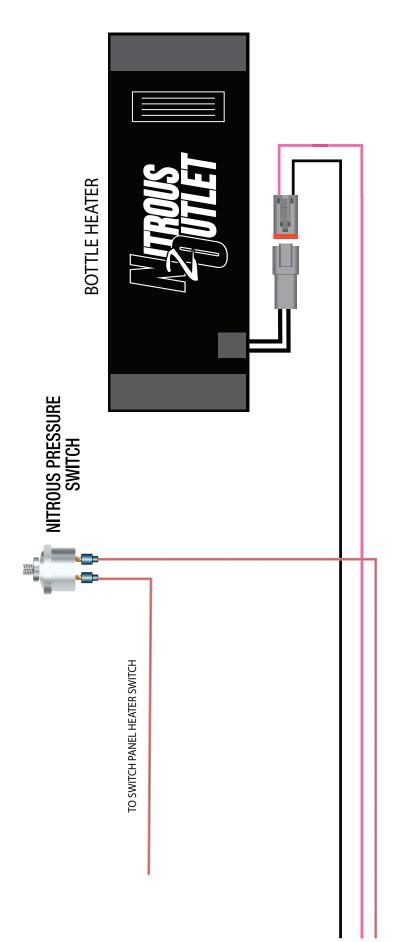
IMPORTANT: All appropriate safety equipment (gloves, tools etc.) must be used during the installation of this product(s). Nitro Dave's LLC accepts NO responsibility for injuries resulting in the installation of any product(s). Nitrous oxide is for off-road use only.

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12-11500-DB DO-IT-YOURSELF DUAL BOTTLE UPGRADE WIRING DIAGRAM **WIRE IDENTIFICATION CHART**



BATTERY CONNECTION BEFORE RELAY

CONNECT TO BATTERY GROUND CONNECT TO FUSE PANEL 10 GA BLACK 10 GA RED

BOTTLE LOCATION CONNECTION

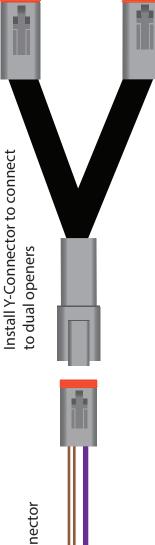
CONNECT TO BOTTLE HEATER CONNECT TO BOTTLE HEATER CONNECT TO N.P.S.S. 16 GA TAN/PINK 10 GA BLACK 10 GA PINK



12-11500-DB DO-IT-YOURSELF DUAL BOTTLE UPGRADE WIRING DIAGRAM **BOTTLE OPENER "Y" CONNECTOR**



Existing harness and connector





12-11500-DB DO-IT-YOURSELF DUAL BOTTLE UPGRADE WIRING DIAGRAM PINOUT AND CONNECTION CHART



