DIY Stage 1 & 2 Wiring Harness

PART NUMBERS: Stage 1 - 12-11500-S1
Stage 2 - 12-11500-S2

INSTALLATION INSTRUCTIONS

This Nitrous Outlet DIY Wiring Harness is designed to simplify the wiring process associated with nitrous system installs. If you need assistance with this wiring harness, call our Tech Help Line at (254) 848-4300.

Tools Needed for Installation:

• 5/16" Socket • Drill • 3/4" Hole Saw • 7/8" Hole Saw • Center Punch • Marker • Hot Knife • Heat Gun • Wire Crimping Tool

Additional Materials Needed for Installation:

• Electrical Tape

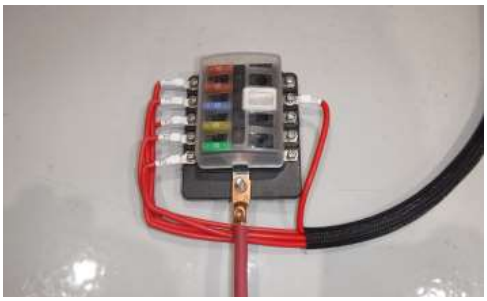
*These are the basic tools required for installation of this harness. Your vehicle may require additional tools. *

Relay Center and Fuse Panel Installation

• Determine the mounting location in the vehicle for the PDA (Power Distribution Assembly). The PDA can be mounted in the engine bay, in the rear of the vehicle or in the interior of the vehicle. To prevent damage to the harness make sure the mounting location is clear of any moving parts or extreme heat.

• Before mounting the PDA determine the location of the main power and grounding source. There is a section of black 6 ga wire leading out of the PDA that will need to be connected to a known good ground.

• Using the supplied 10' long coil of red 6 gauge wire, determine the routing path and length to the wiring harness fuse box power point stud. Cut the wire to length and crimp on the supplied 6 gauge wire end.



IMPORTANT: All appropriate safety equipment (gloves, tools etc.) must be used during the installation of this product(s).
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PART NUMBERS: Stage 1 - 12-11500-S1
Stage 2 - 12-11500-S2

INSTALLATION INSTRUCTIONS

- We recommend connecting the main power supply wire and the main ground wire directly to the positive and negative post on the battery. However connecting to the power point junction box and a known good ground point in the engine bay will be ok.

NOTE - Do not connect the harness to the power or grounding source until the full harness installation is complete.

- Mount the PDA using the supplied #10-16 x 3/4 long self-tapping screws.

Routing the Harness

The Harness is separated into 3 main leads traveling from the PDA. These leads are labeled to there specific destinations.

Interior - Includes switch panel, nitrous controller, keyed hot, & transbrake/two step.

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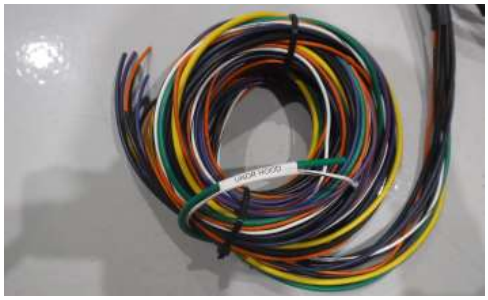
PART NUMBERS: Stage 1 - 12-11500-S1
Stage 2 - 12-11500-S2

INSTALLATION INSTRUCTIONS

Nitrous Bottle Location - Bottle heater, heater pressure switch, & (Stage 2 only - remote bottle opener).



Engine Bay - Nitrous system solenoids, purge solenoid, fuel pressure safety switch, throttle position sensor (TPS), tachometer signal, timing retard outputs, & (Stage 2 - dedicated fuel system).

NOTE - Before routing the harness determine the connector location of the dedicated fuel system, tachometer signal, throttle position sensor, and the fuel pressure safety switch. The WOT switch may be mounted under the accelerator pedal. If these wires need routed to a different location other than the engine bay now would be the time to do so.

- Route the individual wires in each section to its connection point and secure them in place.

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

- In the event that the harness needs to route through a drilled hole in the firewall use the supplied grommets to protect the wires from being damaged.

NOTE - There are 2 grommet sizes included with your DIY harness. One requires a 7/8" panel hole. Two that require a 3/4" panel hole.

DIY Stage 1 & 2 Wiring Harness

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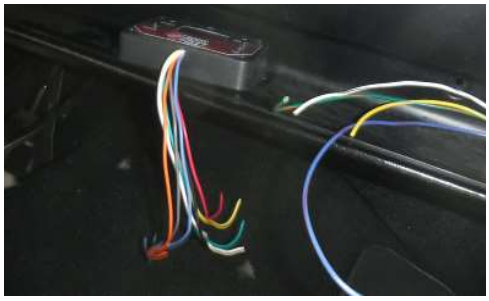
Stage 2 - 12-11500-S2

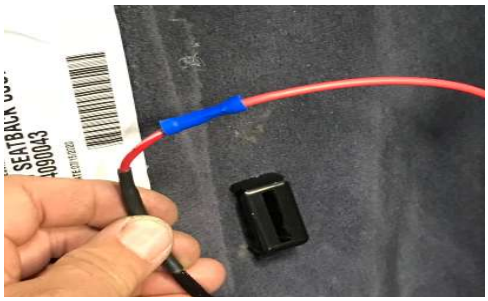
INSTALLATION INSTRUCTIONS



- The wires in each section of the harness will have several component leads that terminate in different destinations. 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.

Independent Wire Connections

- Your wiring harness, comes with 3 separate rolls of colored wire. These wires can be routed and loomed individually or loomed into the main harness.



- The red/white 14 ga wire will be used to connect the keyed hot power source for each switch on the switch panel. This connection is specific to each vehicle. In most cases a fuse tap with the appropriate amperage can be used and connected in your vehicle's fuse box. For recommended connection location for your specific vehicle please visit the Nitrous Outlet website Technical Support tab for our Pin-Out Reference Charts.

NOTE - We recommend you solder the connections and protect them with the provided glue shrink.

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WWW.NITROUSOUTLET.COM/INSTALLATION-GUIDES

DIY Stage 1 & 2 Wiring Harness

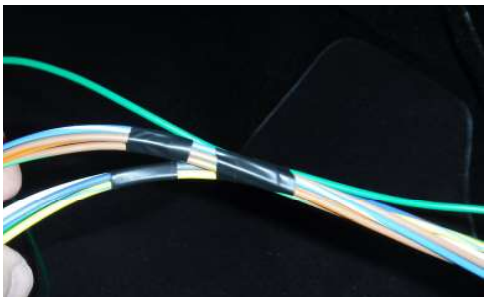
PART NUMBERS: Stage 1 - 12-11500-S1
Stage 2 - 12-11500-S2

INSTALLATION INSTRUCTIONS

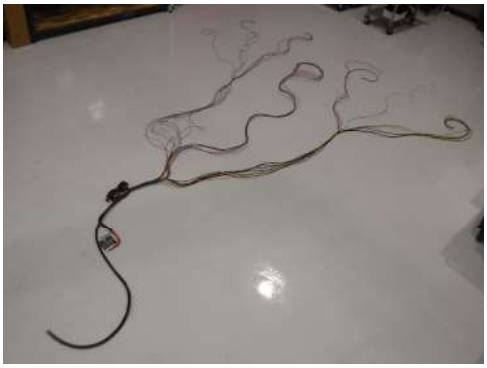
- The solid red 16ga wire is for applications using a wide-open throttle switch instead of a TPS signal.This will connect power to the wide-open throttle switch. This wire can connect to the red/white 12v keyed hot wire or connect to a fuse tap in the fuse box.

NOTE - We recommend you solder the connections and protect them with the provided glue shrink.

- The solid orange 16ga wire is to supply activation power from the nitrous systems arming switch to the WinMax controller. The end of the wire with the connector pin installed will push into the WinMax controller connector. The opposite end of the wire will need to be cut to length, crimp terminal installed, and connected to the output on the arming switch.



- 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.



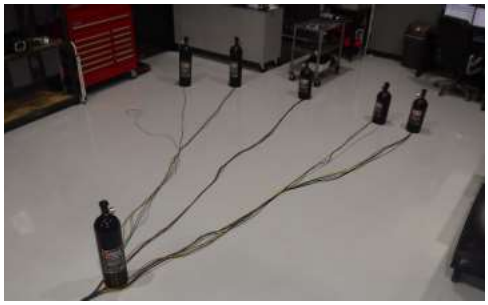
- After all branch outs have been taped, remove the harness from the mounting locations to begin the sleeving process.

DIY Stage 1 & 2 Wiring Harness

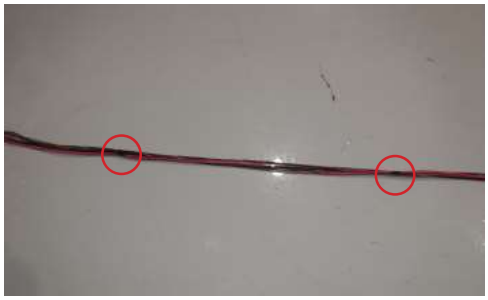
PART NUMBERS: Stage 1 - 12-11500-S1
Stage 2 - 12-11500-S2

INSTALLATION INSTRUCTIONS

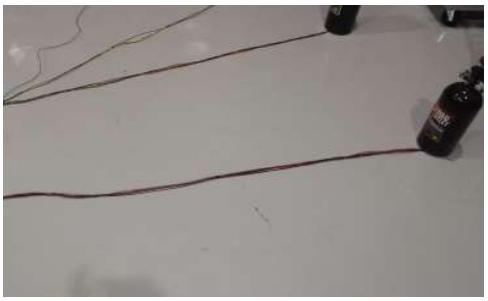
• You do not have to fully remove the harness from the vehicle for sleeving. You can leave the PDA mounted and remove the 3 main branches if desired.



• With the harness out of the vehicle, stretch it to full length.



• Start at the harness branches coming from the PDA 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.

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DIY Stage 1 & 2 Wiring Harness

PART NUMBERS: Stage 1 - 12-11500-S1
Stage 2 - 12-11500-S2

INSTALLATION INSTRUCTIONS

• 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 with one of the harness branches closest to the PDA and measure up to the next 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.

• Feed the section of sleeving from the component end of the harness toward the PDA. 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.

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DIY Stage 1 & 2 Wiring Harness

PART NUMBERS: Stage 1 - 12-11500-S1
Stage 2 - 12-11500-S2

INSTALLATION INSTRUCTIONS

- 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.

- Repeat this process until you reach each component destination of the harness.

- 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.

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

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DIY Stage 1 & 2 Wiring Harness

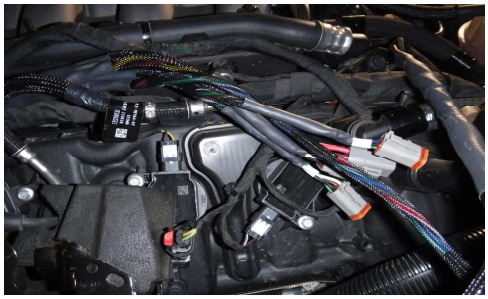
PART NUMBERS: Stage 1 - 12-11500-S1
Stage 2 - 12-11500-S2

INSTALLATION INSTRUCTIONS

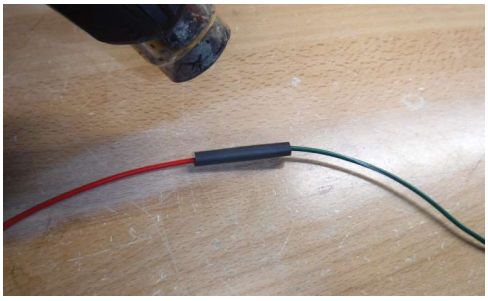
Component Connection

• 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 or dedicated system fuel pump. 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 11 & 12 at the end of these instructions.**



• Try to put the connection in an accessible location in case you need to replace or repair the component.



• In some cases, you may not be using a connector, but simply attaching the two wires. When you are mating the two wires together, we recommend you solder the connections and protect them with the provided glue shrink.

• A detailed color wire identification and connection chart and full color diagram have been provided with the harness to ensure proper connections. Follow these steps and chart to complete all component connections.

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Stage 2 - 12-11500-S2

INSTALLATION INSTRUCTIONS

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.

- Connect the red 6ga wire to the positive battery terminal or positive voltage supply.

- Connect the black 6ga wire leading out of the PDA to the negative battery terminal or a known good ground.

- Once the installation steps have been completed, test the harness for functionality. Before connecting the nitrous feed line, flip the ARM switch to the on position. The red LED light should illuminate. Next, press the PURGE button. The purge solenoid should make a clicking sound. When the WOT switch is actuated, the nitrous solenoid should make a clicking sound. Flip the HEATER switch to the on position, the bottle heater should begin to get warm. After connecting the nitrous feed line, toggle the OPENER switch, the bottle opener should open and close the bottle valve.

CONCLUSION

You have finished the installation of the DIY harness.

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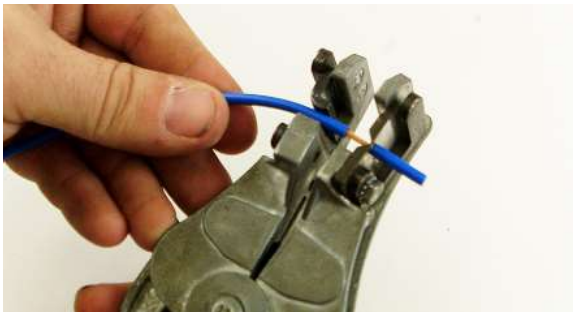
Deutsch Connector Assembly Instructions

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:

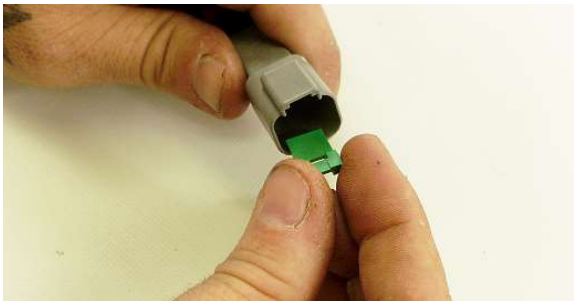
Strip the end of the wire you want to place the connector on about 3/8".

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.

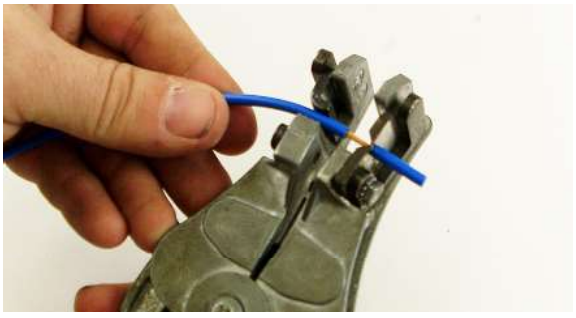
Wire Quick Disconnect Assembly Instructions

INSTALLATION INSTRUCTIONS

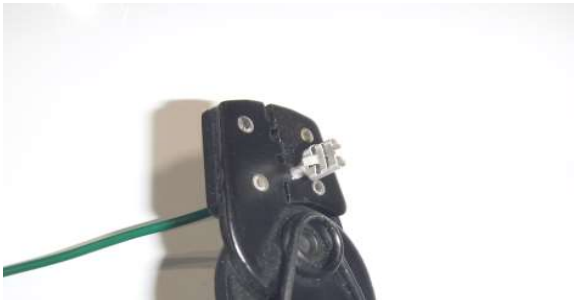
Quick Disconnect Assembly:

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 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.