ADVANCE ADAPTERS
SINCE NINETEEN SEVENTY ONE

P.O. Box 247, 4320 Aerotech Center Way
Paso Robles, CA 93447
Telephone: (800) 350-2223 Fax: (805) 238-4201
 Page Rev. Date: 01-30-18

P/N: 300378A

LOW RANGE SWITCH ATLAS UNITS 8-14 AND NEWER

KIT CONSISTS OF:

No.	Qty	Part No.	Description
1.	1	300364	LOW RANGE SWITCH
2.	2	300378-C1	MALE PLUG
3.	1	300378-F1	FEMALE PLUG
4.	6	300378-1	CABLE SEALS
5.	2	300378-2	FEMALE TERMINAL
6.	4	300378-3	MALE TERMINAL
7	1	42R800-B	62 OHM RESISTOR

Items that need to be purchased from electronics store for Jeep JK,TJ & LJ
(1) 1100 Ohm Resistors (**Needed on JK Rubicon Jeeps and all 2012 and newer JK's**)
(18") 16 gauge wire

Items that need to be purchased from electronics store for Power Wagons and Dodge Truck (NP271)
(1) 100 Ohm Resistor
(1) 10 Ohm Resistor
(18") 16 gauge wire

Note:
This kit will not light the 4WD dash light in high range. It will work on the Jeep JK's, however, Kit 300377 is a control module that keeps all the stock Jeep functions as well as the dash light in 4WD high. The 300377 is the most recommended kit for the Jeep JK's.

TJ Rubicon, JK Jeeps &Power Wagons with a NP271 (Low Range Switch):

This kit is a quick fix for the Jeep TJ Rubicon's, JK's & Power Wagons. This kit tells the computer system that the vehicle is in low ratio, disabling the ESP on JK's and enabling the locker option on the TJ Rubicons & Power Wagons.

In essence the Low-range switch tells the computer what mode the transfer case is in. To operate the needed functions on these vehicles, we find the need for only one of the normal four possible mode positions, and that is the "Low-Range" mode. This mode allows the factory lockers (and electric sway bar if equipped) to work on the Rubicon series TJ, JKs & Power Wagons. The other necessity is the ESP (ELECTRONIC STABILITY PROGRAM) in the JK series of Jeeps. By installing the Low-Range switch in the JK's it will automatically turn the ESP to its lowest setting possible. Allowing front digs in low range, tire slippage without engine hesitation or braking feedback. It will also change the fly-by-wire throttle sensitivity to take away the side affects that usually consist of jerky throttle response that occurs as a result of running low range without the Low-Range switch hooked up.

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How it will work:
The requirement for these vehicles in low range is the Ohm's of resistance. By utilizing a couple parts from an electronics store, you can make the Jeep work like stock, without any major changes or computer system re-configuration.

PROCEDURE:
Step 1: Soldering the new 62 Ohms resistance (Fig. 001). On The Dodge NP271 the two resistors will need to equal 110 Ohms. Also solder the 1100 Ohms (Needed on JK Rubicon Jeeps and all 2012 and newer JK's) withresistor between the two 16 gauge wires. See diagram page 3.

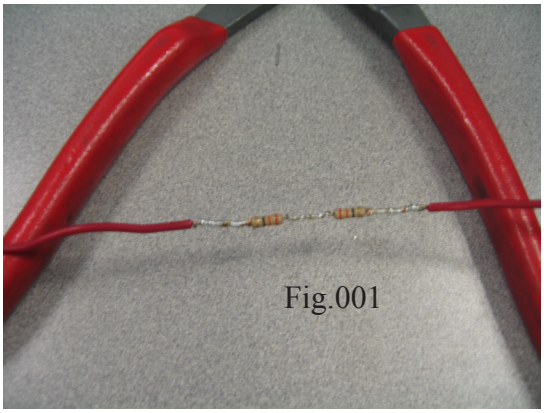
Fig.001

Step 2: You will want to use a marine grade heat shrink tubing or at the least standard heat shrink filled with silicone. Working your way from the center out with your heat source, shrink the tubing down around the resistors. (Fig 002) Now install new ends (Preferably the AA Weather resistant style included with p/n 300378-C1 & 300378-F1) as per steps 3 through 7.

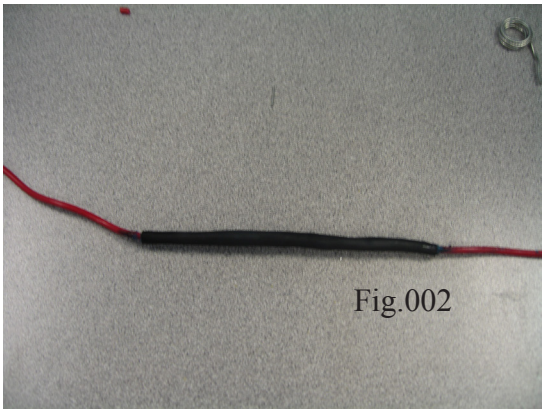
Fig.002

Step 3: Strip wire insulation back enough to slide it into the metal contacts.

Step 4: Slide rubber grommet onto wire before crimping. (Fig 003) The round non ribbed side of the rubber grommet needs to face the newly stripped wire.

Step 5: Slide the metal contact back on crimping it down, leave the two large prongs sticking out. (Fig 003 again)

Step 6: Solder the crimped section.

Step 7: Slide the rubber grommet into the 2 large prongs, when crimping the connector make sure to also crimp the rubber grommet in with them. (Fig 004)

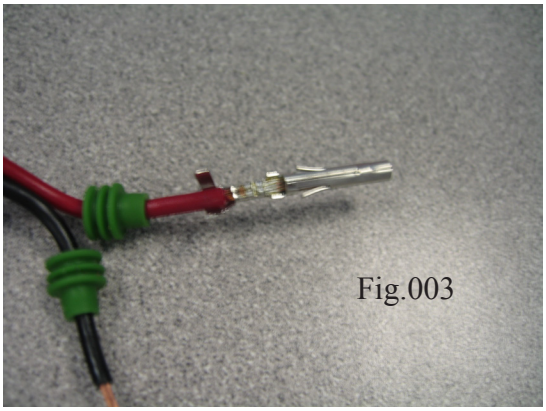
Fig.003

SPECIAL NOTE: The components packaged in this kit have been assembled and machined for specific type of conversions. Modifications to any of the components will void any possible warranty or return privileges. If you do not fully understand modifications or changes that will be required to complete your conversion, we strongly recommend that you contact our sales department for more information. This instruction sheet is only to be used for the assembly of Advance Adapter components. We recommend that a service manual pertaining to your vehicle be obtained for specific torque values, wiring diagrams and other related equipment. These manuals are normally available at automotive dealerships and parts stores.

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At the one end of the wiring you will need a male plug (p/n 300378-C1) to fit into the Atlas low range switch, a female plug (300378-F1) will be necessary for the opposite end and another male plug (p/n 300378-C1) to replace the factory end on the wiring loom.

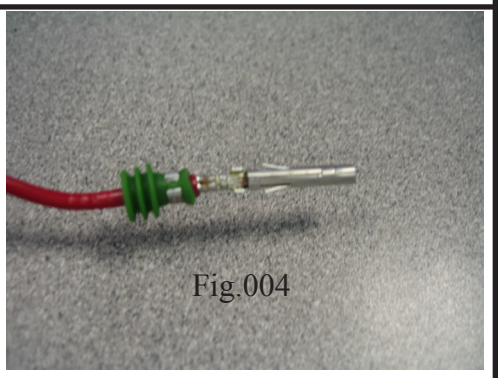


Fig.004

It should look like something close to this depiction when ready to be installed (note the low range switch plugged into the end of the harness ready to be threaded into the Rear shift rail side of the Atlas, making sure to remove the white plastic washer from the Atlas): (Fig 005)

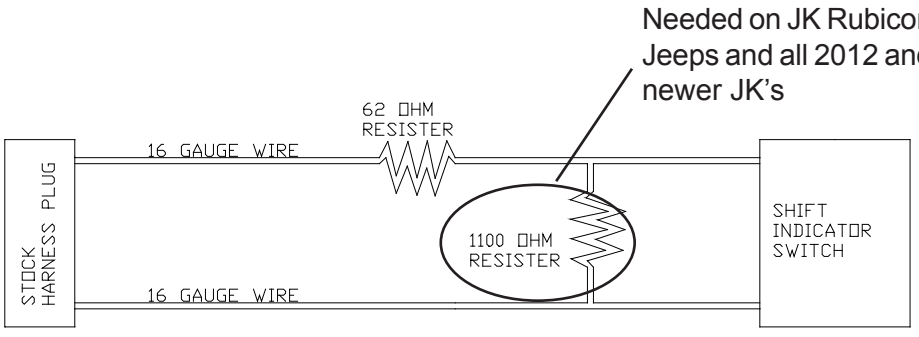

Fig.005

You will now need to cut off the factory wiring loom low range end. Follow steps #3 - #7 again, installing the new male end.

Plug your new Low-Range Resistor pig tail in. you should now be able to put the rear shifter in “N” neutral or “L” Low and the factory dash cluster will show “4WD” and on JKs the traction control light will illuminate. (Fig 006)

If you are running an Atlas 4 speed the same still applies with a few exceptions: If you only use 2.72 (planetary) it will not see low range which will not allow lockers, electric sway bar disconnect or automatic ESP disabling.


Fig.006



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