



SNP Speed Innovations

22RE Adapter Harness Kit Installation Instructions

#SNP-2218-551

[#SNP-550-A]

Do Not Call LCE for Tech Support!
Do Not Call Haltech for Tech Support!

Tech support is available for installation questions and for online support in regards to no start or calibration issues. Online remote tech support will need to be scheduled. Please call (928) 854-1320 Mon-Fri 8 A.M. to 5 P.M. Arizona time.

Remote Tuning is available for an added fee and will need to be scheduled in advance. A Windows based laptop and an active wireless internet connection will be required. To use remote access support you will need to download "ANYDESK". This is a free service and can be found at. WWW.ANYDESK.COM

Online remote tuning available by appointment only, contact us for more information.

We also have an installation video on YouTube
<https://youtu.be/tTHOei9ZxNM>

For tech support or tuning questions please contact Gabe Salazar at
SNP Speed Innovations
Phone: (928) 854-1320
Email: tunedbygabe@gmail.com

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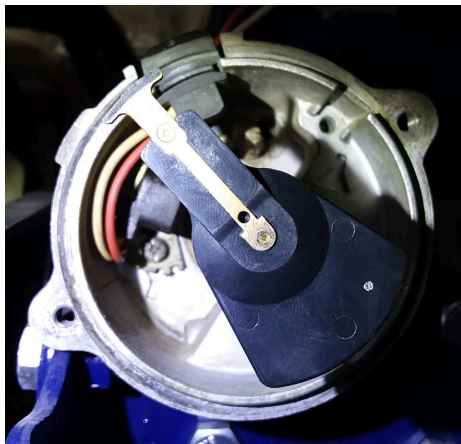
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Product Installation

Ensure the vehicle is in park/neutral, set the emergency brake, and disconnect the negative cable from the battery

1. **Distributor setup:** Locate the number 1 spark plug tower on your distributor cap, then mark the center of the cap and distributor housing. Remove the distributor cap, but NOT the rotor. Using a 19mm, or a ¾ SAE socket, on a 1/2" drive ratchet, rotate the engine clockwise until the TDC mark on the balancer is aligned with the 0 on the timing tag above the balancer. Finally check the rotors alignment to the distributor housing and verify that it is pointing in the area of the mark you made previously. Loosen the distributor lock down bolt and turn the distributor until the rotor lines up exactly like the picture supplied below. If not, you may have to take the distributor out and move it one tooth.



2. **Distributor wiring:** Route the distributor wiring branch along the intake, and around the front to the distributor. This helps ensure the spark plug wires do not interfere with the distributor's signal.

NOTE: Do not use the original distributor wiring, no matter the year, that goes to the factory ignitor as this is not needed any more. This can be looped and zip tied securely to the power steering bracket.

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3. **ATS Installation:** Remove the cold start injector, along with its feed line, from the intake manifold and fuel rail. Install the supplied Air Temp Sensor(ATS) to the supplied mounting plate. The threads are tapered, so you will have to thread the ATS into the plate to confirm which side gets mounted. After the ATS has been threaded in, spread a very thin layer of silicone along the bottom of the plate, then proceed to install the plate to the plenum and tighten the sensor.
 - a. **Cold Start Injector feed block off:** Take the supplied M8x12x1.00 bolt with your stock crush washer, and install the bolt and washer into the fuel rail where the cold start injector feed line originally was
4. **Sub Harness routing:** Now, take the supplied "Sub" harness and, from the engine side of the firewall, run it through the factory wiring grommet (you may have to cut the bottom of the grommet for it to fit) and feed into the cab area for the ECU. Now run the harness between the intake manifold and valve cover, then plug in the connectors labeled "ATS" and "DIST". Make sure to keep the harness away from anything that could melt or damage the harness in any way.
5. **Mounting the ECU:** You can now go inside the vehicle to remove the right kick panel, and remove the factory ECU. Mount the new ECU to the supplied mounting plate and mount the plate in place of the old factory ECU.
6. **MAP Sensor Hose:** Once the ECU is plugged in, connect the supplied plastic hose into the plenum side of the intake manifold, NOT in the throttle body (for supercharger applications, attach below the super charger), then connect the other end onto the ECU. With the hose connected, the ECU will read the manifold pressure, so there will no longer be any need for the stock MAF.
7. **Fuel pump relay wiring:** Remove the RIGHT speaker grill just above the right kick panel along with the speaker. Locate and remove the fuel pump (Open Circuit) relay. Locate the green/yellow wire and at about 3" from the plug strip a 1/2" section of insulation and splice/solder the Black/yellow wire supplied from the sub-harness making sure to tape or heat shrink the splice. Imagine on the next page.

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Wideband Control Module

Weld the supplied O2 sensor bung into the exhaust, ensuring the sensor is mounted in the 9-3 o'clock range just past the collector flange. If a turbo has been installed on your vehicle, mount the bung on the downpipe just before the bottom bend. The sensor may also be threaded into a factory O2 sensor bung if one is available.

Using the supplied cables and hardware in the box, locate a suitable mounting spot for the module itself with clear access to the connectors. Velcro strips are suitable for mounting. Using the cable labeled as #HT-130025, attach the ECU to the wideband module. Find a suitable location to route your O2 sensor wiring from the inside of the cab to the exhaust mounting location. Keep wiring clear of any heat, moving parts from pinching and/or chaffing points to prevent premature failure.

Wiring connector label abbreviations

ATS- Air Temp Sensor
CTS- Coolant temperature sensor
DIST- Distributor
I/O- inputs/outputs

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Finish work

Reconnect the battery. Download the latest Haltech **NSP** software and install it on a **Windows** based laptop. Google, MAC, and Android operating systems will NOT work. You can find the current software at WWW.HALTECH.COM/DOWNLOADS. Open the Haltech software. Once the NSP software is open, use the communication cable supplied in the kit, connect the ECU to your laptop. Turn the key on and you should see the ECU "Power" LED indicator is on. Press F5 and your computer will connect to the ECU. This ECU is preloaded with a base start up tune that is tailored to your harness and system set up based on the information provided to us when the order was placed, but check that your injector size is correct in the software. You can do this after you have connected to the ECU by looking to the far left of your screen at the ECU Navigator menu and scrolling down to "Injection system". Once you locate it, doubleclick on it, then proceed to doubleclick the "Stage 1" tab, and then click on "Flow". The size of the injector is crucial to the tune, make sure this is accurate!

Next, in main set up-Engine-Ignition you will see at the bottom "Lock Mode" make sure it's always on and the firing angle is set to 8 degrees.

Start your engine and with your timing light set your timing to 8 degrees by moving the distributor.

When timing is confirmed go back to "Lock mode" and set to "disable"

Now you can begin tuning or call SNP Speed Innovations for online tuning (fees apply)