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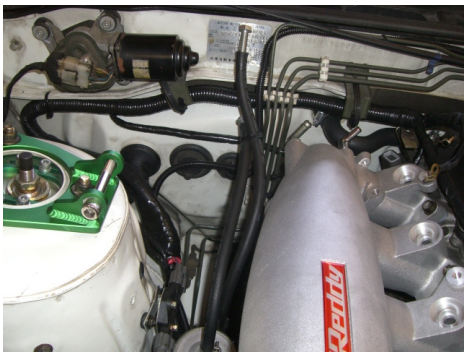
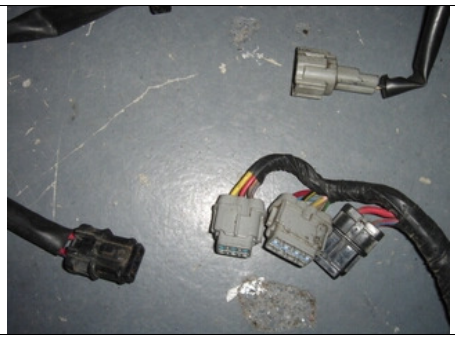
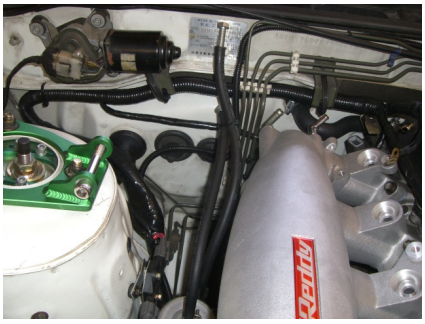
S13 SR20DET to S14 240sx Version 2 - Engine Harness Installation instructions

Thank you for purchasing the Wiring Specialties pre-made wiring harness. Please read these instructions carefully before attempting the installation. Version 2 harness includes the universal MAFS connection setup.

This S13 RS20DET Engine harness is designed to work with all S14 240sx chassis from 1995 through 1998. You will find a number of duplicate connectors located on the harness to accommodate for different manufacturing years of the chassis and engine configuration. In most cases, unused connectors should be removed.

DO NOT CONNECT THE ECU OR THE INTERIOR INTERFACE CONNECTOR UNTIL ALL ENGINE CONNECTORS HAVE BEEN INSTALLED AND UNNECESSARY CONNECTORS REMOVED

NOTE! We will begin by connecting all the engine components first then proceed to the interior of the car to connect the ECU and the interface connectors. ABS CUSTOMERS – Please see step #3A for details. ***Step1 (Feeding the harness in)*** Feed the harness through the firewall with the ECU and the interior interface plugs leading the way. Once through the firewall, align the main wiring branch to point to 2 o'clock (towards the center of the windshield). This will ensure the needed connectors will reach the engine.	
Step 2 (Wipers) Connect the wiper motor plug (White for 95/96 models and Grey for 97/98 models). REMOVE the unused connector by cutting the clip off and taping up the exposed wires	
Step 2 (Wiper Amplifier & Cruise Control) Make sure to connect the Wiper Amplifier (black or brown box mounted on the inside of the fender, next to the wiper motor) to the black 8-pin connector in the picture. The 4-pin grey connector is used for Cruise Control available on the SE/LE 240sx models. Just plug it into the CC module. For ABS users, please make sure to use the connector shown in this picture and not the **Grey ABS** connector, as they will interchange.	

Step 3 (Ignitor Chip) Connect the ignitor chip into the two designated OEM connectors (5-wire and 4-wire with Red/Color wires). The ignitor chip should be bolted down to the shock tower on the USDM passenger side of the car, away from heat.	
****** Step 3A (ABS Wiring Installation)*** ABS wiring has 5 connectors in the engine bay. They can only plug in to their respective sensors. The small 2-wire grey connector is for the right front wheel speed sensor located by the fuse box, on the strut tower. All connectors should reach the ABS unit comfortably. Please secure ABS branch wiring to the ABS module mounting bracket with OEM clips or electrical zip-ties.	
Step 4 (Main Harness routing) Route the Main engine harness branch along the firewall, underneath the firewall lip, towards the engine.	
Step 5 (Oxygen Sensor and Coilpacks) Connect the oxygen sensor by routing the extended O2 wiring along the firewall, past the engine and to the sensor. Please secure the O2 wiring to the brake lines by zip-ties to avoid burning the wires. Then, connect the Coilpack interface connector (Grey 6-pin) to the Coilpack sub-harness on the engine.	
Step 6 (Injectors) Connect the Injector clips to their respective injectors. Each connector should only reach the correct injector for proper installation.	
Step 7 (Idle Air, Engine Grounds and Knock Sensor) Connect the knock sensor (2-pin) and the Idle Air (4-pin) connectors to the OEM SR20DET sub-harness (not provided with this kit) mounted to the intake manifold. Then, secure the 2 engine grounds to the back side of the intake manifold and make sure the ground coils make a tight connection.	

Step 8 (Throttle Body and Engine Temp)

Now proceed to connect the Throttle Position Sensor (TPS) connector.
NOTE! You will notice 2 connectors for the TPS. The 6-pin connector (taped) is for an Automatic throttle body and the 3-pin is for a 5-speed unit. Connect the proper one to the throttle body (Auto TPS will work with a 5-speed setup as well) and REMOVE the unused connector by cutting the clip off and taping up the exposed wires.

Step 8 (CAS)

Now the Cam Angle Sensor (CAS Grey 4-pin) connector can be installed. Route the MAFS and CAS wiring along the front of the engine and connect to the sensor.

Step 10 (MAFS)

Proceed to install the Mass Airflow Sensor (MAFS) connector to the sensor just past the front of the engine.

NOTE: There are 3 connectors supplied with the harness; The Z32, SOHC 240sx and the OEM S13 SR20DET connectors are provided. Choose the one to be used with your swap and install onto the harness with the quick-connect clip.

MAFS Signal wire – RED
MAFS Ground - GREEN
Power – Black/Yellow

Step 11 (back in the car)

At this point, we should be done with all the wiring in the engine bay. Back in the passenger foot-well we find the Interface plug (white with black cover), the EGI relay and the ECU plug (White).

The EGI Relay is already connected and does not need any attention.

BEFORE CONNECTING THE ECU OR THE INTERFACE PLUGS, MAKE SURE ALL UNUSED CONNECTORS HAVE BEEN REMOVED FROM THE HARNESS

Connect the Interface plug to the chassis by lifting the retaining clip and inserting the plug into the chassis connector. Once in, lower the retaining clip over the harness connector. Connect the ECU and tighten the mounting bolt lightly.

WE ARE DONE!