



SSSQUID SECONDARY AIR PUMP (SAP) AND SECONDARY EGO SENSOR EMULATOR INSTALLATION - V0.2

SSSQUID.COM

| INFO@SSSQUID.COM

| P/N: 06-005-02

Tools required:

- Flat-head screwdriver
- Phillip's-head screwdriver
- Any other applicable tools to remove and install your particular intake system
- Soldering iron (may be necessary)
- Wire stripper (may be necessary)
- Terminal crimper (may be necessary)

Time required: 45+ minutes

Difficulty: 4/10

Vehicle Application:

- M42, M43, M44, M50, M52, M54, M60, M62, M72, N40, N42, N46, S50, S52, S54, S62
- *And any other vehicle factory-equipped with a secondary air pump and secondary EGO (O2) sensor.*

Installation:

1. Cut the following wires on the engine harness:
 - Front EGO sensor output (signal wire from EGO to ECU)
 - Rear EGO sensor output
 - Secondary air pump power supply (positive)
2. Match the wire configuration from the following wiring diagram, using your preferred method of connection (soldering, butt connectors, crimping)
 - In the case of a complete rear EGO sensor delete, connect the front EGO sensor signal wire to both the front and rear EGO input (to SAP SIM).
 - If retaining the rear EGO, connect the rear EGO sensor signal wire to the rear EGO input (to SAP SIM).

RED	SAP POWER SUPPLY
BROWN	CHASSIS GROUND
GREEN	REAR EGO OUTPUT (TO ECU)
BLUE	REAR EGO INPUT (FROM SENSOR)
ORANGE	FRONT EGO OUTPUT (TO ECU)
YELLOW	FRONT EGO INPUT (FROM SENSOR)

3. This is all most users will need to do!
4. In the case that the SAP CEL remains, verify the voltage on the rear EGO sensor output (from SAP SIM to ECU) during SAP activation is 0.20 volt. If it is not, fine adjustments can be made by removing the rubber cap on the case lid, and then using a flat-head screwdriver to move the exposed knob until 0.20 volt is achieved. A constant 12 volt source can be applied to the red (positive) and brown (ground) wires to help test.

FAQ

- **Is it necessary to connect the front EGO sensor to this kit?**
 - Yes, during normal operation the ECU looks to match the signal from the front and rear EGO sensors. In order to do this, the front EGO signal is necessary.
- **Can I delete the rear EGO sensor?**
 - Absolutely, this kit simulates both the SAP control and SEGO control.
 - In the case of a complete rear EGO sensor delete, connect the front EGO sensor signal wire to both the front and rear EGO input (to SAP SIM).
- **Where should I install this item?**
 - It can be installed in your preferred location, but it is recommended to be installed close to the ECU.
- **Why does the LED turn off after a while?**
 - The LED is only illuminated during SAP simulation, but EGO sensor simulation remains constant.

Terminology

EGO (sensor)	Exhaust Gas Oxygen (sensor)
O2 (sensor)	Oxygen (sensor; AKA "EGO sensor")
SAP	Secondary Air Pump
ECU	Engine/Electronic Control Unit

For any other questions, please contact us on our website, or by emailing INFO@SSSQUID.COM