



Wiring Notes Gen 5 LT with Automatic Transmission (FP Relay Setup)

BATT. @ STARTER – To full time 12 volt supply (positive battery post on starter, etc.)

PINK/BLACK – To switched 12 volt supply. Hot in key on, run, **and** crank. Ignition switch, etc.

GRAY- To fuel pump (+) terminal. From fuel pump relay; computer controls the on/off.

WHITE – Tach signal for electric tachometer. Ignore if not needed.

LT. BLUE – Brake switch/Torque Converter Lockup– Wire must be hooked up to cold side of brake switch where it sees +12V when brakes are depressed.

Note: If using LED brake light bulbs a 5-terminal relay must be installed, [see instructions online](#). This wire is looking for GROUND when brakes are released and an open circuit when brakes are applied.

DK. GREEN- Primary cooling fan for factory GM cooling fans, **not commonly used**. *Dakota Digital PAC 2800 BT is most commonly used to control the fans or your own thermostat that's wire independent of the computer.*

LT. GREEN - 12V to reverse light bulbs. (Optional output on some systems).

Gauge Notice: The best solution for gauges (speed, tach, water temp, oil pressure, etc.) for Gen V applications is using a gauge cluster designed to read information from the serial data stream (CANbus, OBD2 port).

FUSES: #1- Battery (Orange) #2- Injection and Ignition (Pink) #3-O2 heaters (Brown) #4– Fuel pump (Pink)

Connectors

TAP SHIFT - Used in conjunction with [Tap Shift Switch Box](#) or [Floor Mounted Shifter](#). Enables you to control forward drive gears of transmission. Our [8L90 reverse light/tap shift CAN relay](#) is required for tap shift to work with the 8L90 transmission.

GEAR INDICATOR - Displays current gear of transmission (P, R, N, 1-6 or 8). Available [here](#).

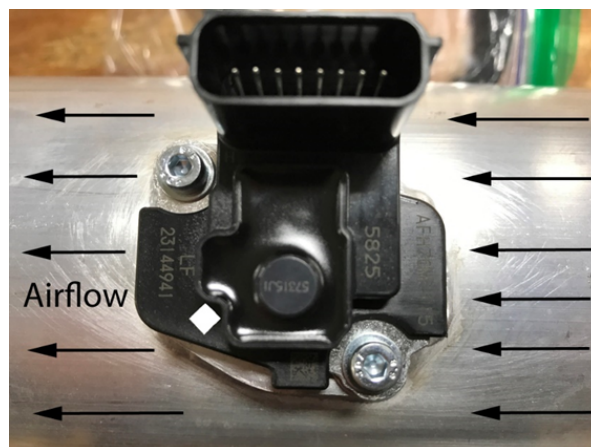
Proper Grounding Tips

Proper Grounding: Proper grounding is critical for the correct operation of your Speartech engine control system. Failure to properly ground the system can result in anything from a no start condition, to erratic operation, to ECM/wiring harness damage. Vehicles vary in how they are grounded but you must ensure the negative battery cable, engine block, chassis/frame of vehicle, and wiring harness are all properly connected together at the ground level. Do NOT connect any ground cables to the rocker covers as these are usually isolated on LS/LT engines. The engine block and/or cylinder heads are the best places to attach ground connections. Make sure all connections are clean and tight. We have seen instances of improperly grounded systems that have resulted in all ground current going through the wiring harness and ECM, damaging both parts beyond repair. Failures like this are NOT covered under warranty!

Gen 5 LT MAF Sensor & Tube Placement

Make sure the side of the MAF sensor with the box/diamond on it is situated closest to the throttle body. Please refer to this photo for reference. LT 6.2 MAFs work best in a 4" diameter tube.

L83 engines work best with a 3.5" diameter tube.





Gen 5 Fuel Pressure Info

With Gen 5 setups using the "fuel pump relay setup," set your adjustable fuel pressure regulator to 72 psi.

You will need a fuel pump that has a 340 LPH or higher flow rate.