## SPEARTECH FUEL INJECTION SYSTEMS, INC.

3574 E. State Rd. 236 Anderson, IN 46017 PH (765) 378-4908

## Wiring Notes LS-58X / Manual with Electronic Throttle Control (ETC)

**ORANGE (12awg)** – To full time 12-volt supply. Provides power to ECM, ALDL, and fuel pump relay.

**PINK (12awg)** – To switched 12-volt supply. Hot in key on, run, and crank. Ignition switch, etc.

GRAY (14awg)- To fuel pump (+) terminal. From fuel pump relay; computer controls the on/off.

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

YELLOW – Speed signal for electric speedometer. Ignore if not needed.

BROWN & LT. GREEN - Backup light wires from switch located in transmission. (optional) Brown wire to 12-volts,

Lt. Green wire to back-up lamps.

DK. GREEN – Primary cooling fan relay control. Used for PCM control of fan. (Ground trigger)

Note: This wire must be installed to a relay to control the fans; see diagram online for fan hook-up or follow fan/radiator manufacturer's instructions.

DK. BLUE – Secondary cooling fan relay control. Used for PCM control of the fan. (Ground trigger) Note: This wire must be installed to a relay to control the fans; see diagram online for fan hook-up or follow fan/radiator manufacturer's instructions.

ORANGE/WHITE— A/C compressor clutch. To freon switch or dash control. Ignore if not needed. Note: The computer does **NOT** control A/C during a swap. This wire is a convenience wire to provide you a connector for the GM clutch only. Vintage Air's trinary switch is used for fan control when A/C is engaged.

**FUSES:** #1- Fuel Pump #2- Battery #3-O2 heaters #4- Ignition/Injection (Orange) (Brown) (Pink)

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## **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!

Make sure you install the MAF tube with the arrow on the MAF sensor pointing towards the throttle body!

