Southern Performance Systems

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Wiring Notes for LS 58x with 6L80/90E Harness

Battery @ Starter – To full time 12 volt supply (positive battery post on starter)

Pink (Ignition) Wire – Connect to switched 12 volt supply. (Hot wire when key is in On, Run, or Crank position.

Gray (Fuel Pump) Wire – Connect to fuel pump (+) terminal. From fuel pump relay; computer controls the on/off.

Lt. Blue Wire – Brake switch/Torque converter lockup - To brake light wire at brake switch. 12 Volts when brakes are applied. Note: When using LED brake light bulbs, a 5 terminal relay must be installed. See LED Brake Light Relay Instructions for details.

White (Tach) Wire – Tach signal for electronic tachometer. Can be ignored if not needed.

Yellow (Speedo) Wire – Speed signal for electronic speedometer. Can be ignored if not needed.

Orange/White (AC Comp) Wire – A/C Compressor Clutch. To Freon switch or dash control. Ignore if not needed. Note: Not present on all harnesses.

Pink & Dark Green (Primary Fan) Wires – Primary cooling fan relay control. Used for PCM control of fan relay. Pink (12 volts key on) to relay terminal “85”; Dark Green (ECM ground control) to terminal “86”. Note: If using a stand-alone temp sensor to control fans then you will not need to hookup these wires.

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Fuses:
#1 – Battery (Orange) --- #2 – Injection and Ignition (Pink)
#3 – O2 Sensors (Brown) --- #4 – Fuel Pump (Pink)

Connectors:
Tap Shift – Used to control current gear of transmission. Must have compatible Tap shift switch box or Floor mounted shifter. A 8L90 reverse light/tap shift CAN relay is required for tap shift to work with 8L90E transmission.