4 WHEEL DRIVE ACTUATOR REMOVAL AND INSTILLATION NOTES FOR GM / GMC (1988 – 1997) C & K SERIES TRUCKS. EXCLUDING 1988 – 1993 TRUCKS OVER 8500# GVWR

NOTE: You will need a basic understanding of electrical circuits to successfully install these components. Consult your vehicles shop manual for specific instillation procedures.

SERVICE PROCEDURE

1. Remove the front differential carrier shield, if equipped.

2. If necessary, clean the axle housing in the area around the existing actuator. Disconnect the actuator's electrical connection at the front axle housing.

3. Remove the front axle actuator by unthreading the actuator from the axle housing.

4. Install the spacer from the wiring kit into the axle tube with the flat side seated against the shift fork.

5. Install the actuator motor and tighten until the shoulder of the actuator seats against the axle tube.

IMPORTANT: If binding occurs before the actuator is seated,
Remove the actuator and reseat the spacer by pushing on the spacer with a screwdriver. Then reinstall the actuator.

ON K3 MODELS WITH THE CAST IRON AXLE TUBE, THERE MAY BE A CASTING BURR WHICH MAY CONTACT THE EDGE OF THE ACTUATOR. THIS SHOULD NOT CREATE A CONCERN AND THE ACTUATOR SHOULD SEAT AGAINST THE AXLE TUBE. IF THIS CONTACT REMAINS A CONCERN, USE A DIE GRINDER IN ORDER TO REMOVE THE BURR.

6. Connect the service harness connector to the actuator and connect the 2-pin connector to the mating connector at the axle. FOR 1994 TO CURRENT MODELS, in the case of a complete axle replacement, REFER TO Fig 1.

7. Route the wiring harness along the existing harness on the right side of the vehicle. Route CIRCUIT 241 (BROWN) over the top and to the left of the transmission. Secure the harness using plastic ties.

8. FOR 1995-97 INTERIM VEHICLES, locate the 4-wire connector (C120) on the left side of the transmission. Splice the BROWN wire of the actuator harness into cavity D of CIRCUIT 241 (BROWN) on the engine side of connector C120. Follow the splicing procedure described in section 8A (electrical diagnosis repair procedures) of the applicable service manual.

IMPORTANT: The new axle actuator requires only 1 splice.

FOR 1993 AND PRIOR VEHICLES
Splice into CIRCUIT 50 (BROWN) between connector C152 and GT101 (fig 2 ,3, 4).

FOR 1994 VEHICLES
Splice into CIRCUIT 50 (BROWN) between connector C152 and P101 (fig 5 ,6).

FOR 1995-97 VEHICLES
Splice into CIRCUIT 241 (BROWN) between connectors C120 and C100 (fig 7).

NOTE: Connections must be watertight in order to prevent water from entering the circuit and causing damage to the Components.

9. On K3 models, install the delay relay, included as part of the wiring harness kit, at the engine side of the bulkhead, adjacent to the existing relay. Mount the new relay with self-drilling fastener. Route and secure the relay wire harness behind the right oxygen sensor heat shield.

10. Verify system operation. when shifting the transfer case, you should hear the actuator motor operate.

IMPORTANT: This relay incorporates a 5 second delay for the front axle to engage in order to allow the transfer case synchronizer to energize.

11. Do the following steps in order to install jumper harness

1. Locate the axle actuator 5-pin connector on the service actuator wiring harness and remove the TPA.

2. Remove and discard the cavity plug from cavity A.

3. Install CKT 1695 lead (BLK/WHT) from the jumper harness that has the cable seal and terminal into axle actuator connector cavity A.

4. Reinstall the TPA on the 5-pin connector.

5. Install the service actuator harness 5-pin connector into the axle actuator.

6. Connect jumper harness 2x2 connector into the existing vehicle 4wd mating connector

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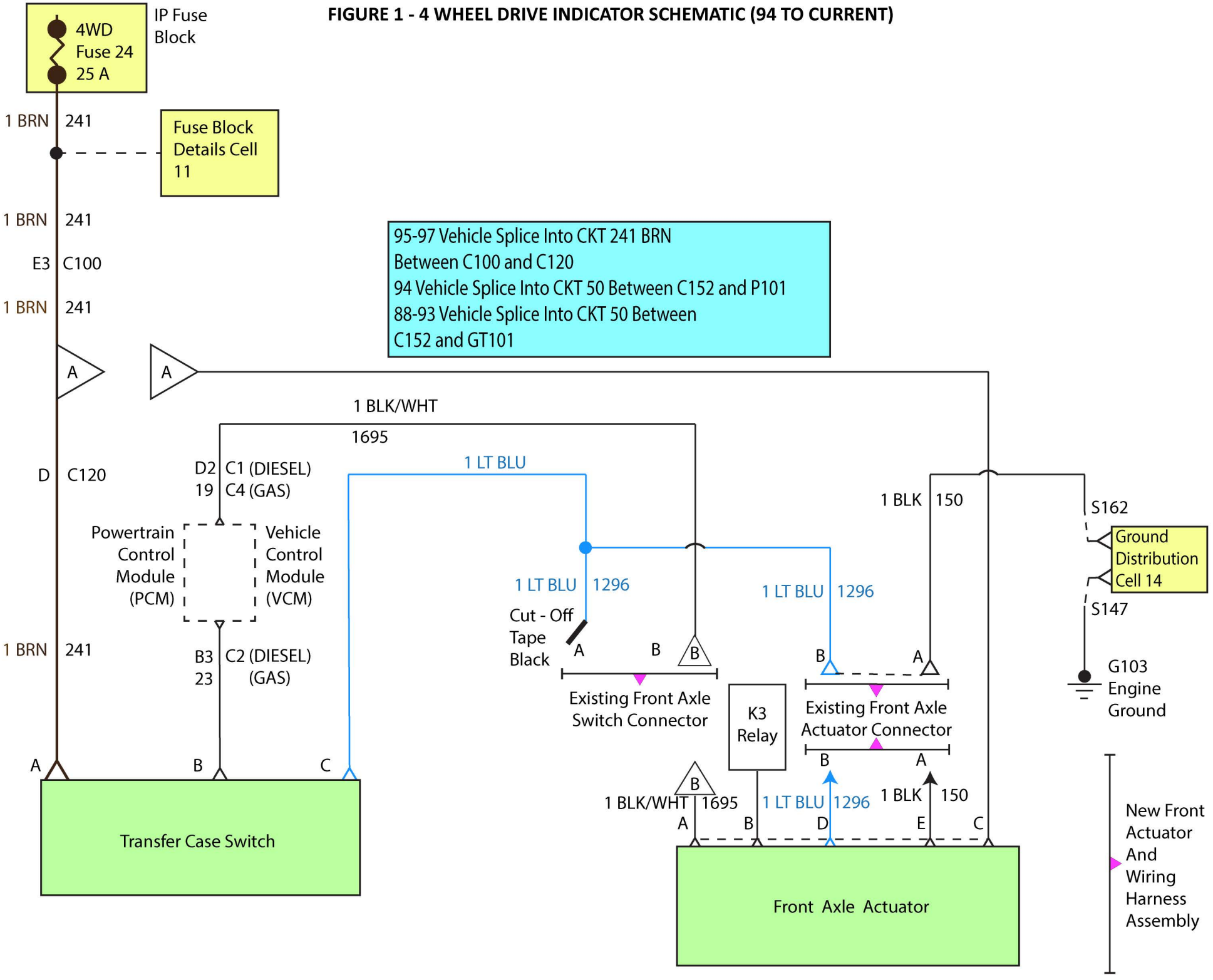
7. Strap the jumper harness and the service harness to the tab on the axle tube.

FIGURE 1 - 4 WHEEL DRIVE INDICATOR SCHEMATIC (94 TO CURRENT)



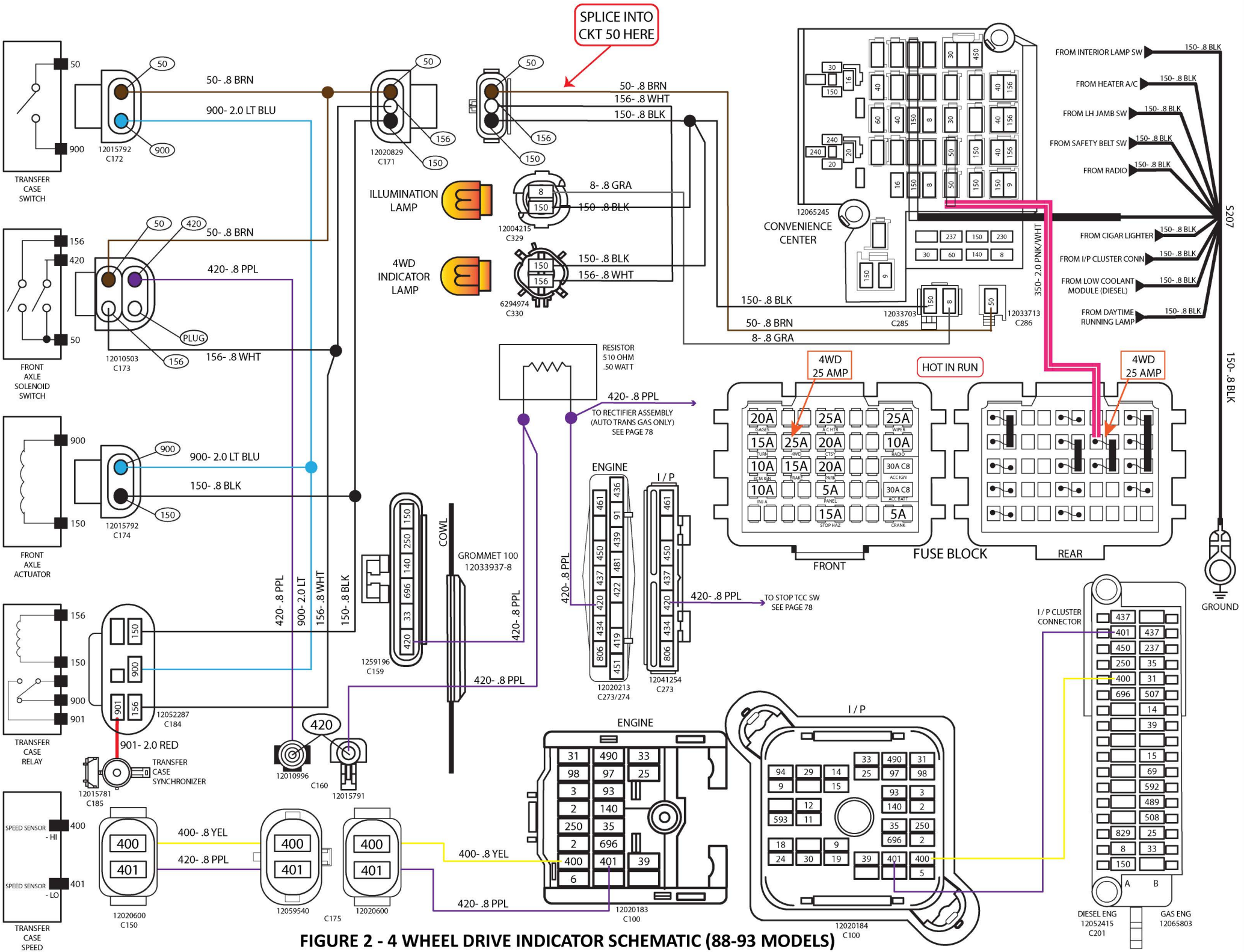


FIGURE 2 - 4 WHEEL DRIVE INDICATOR SCHEMATIC (88-93 MODELS)

FIGURE 3 - 4 WHEEL DRIVE INDICATOR SCHEMATIC (93 4L60E MODELS)

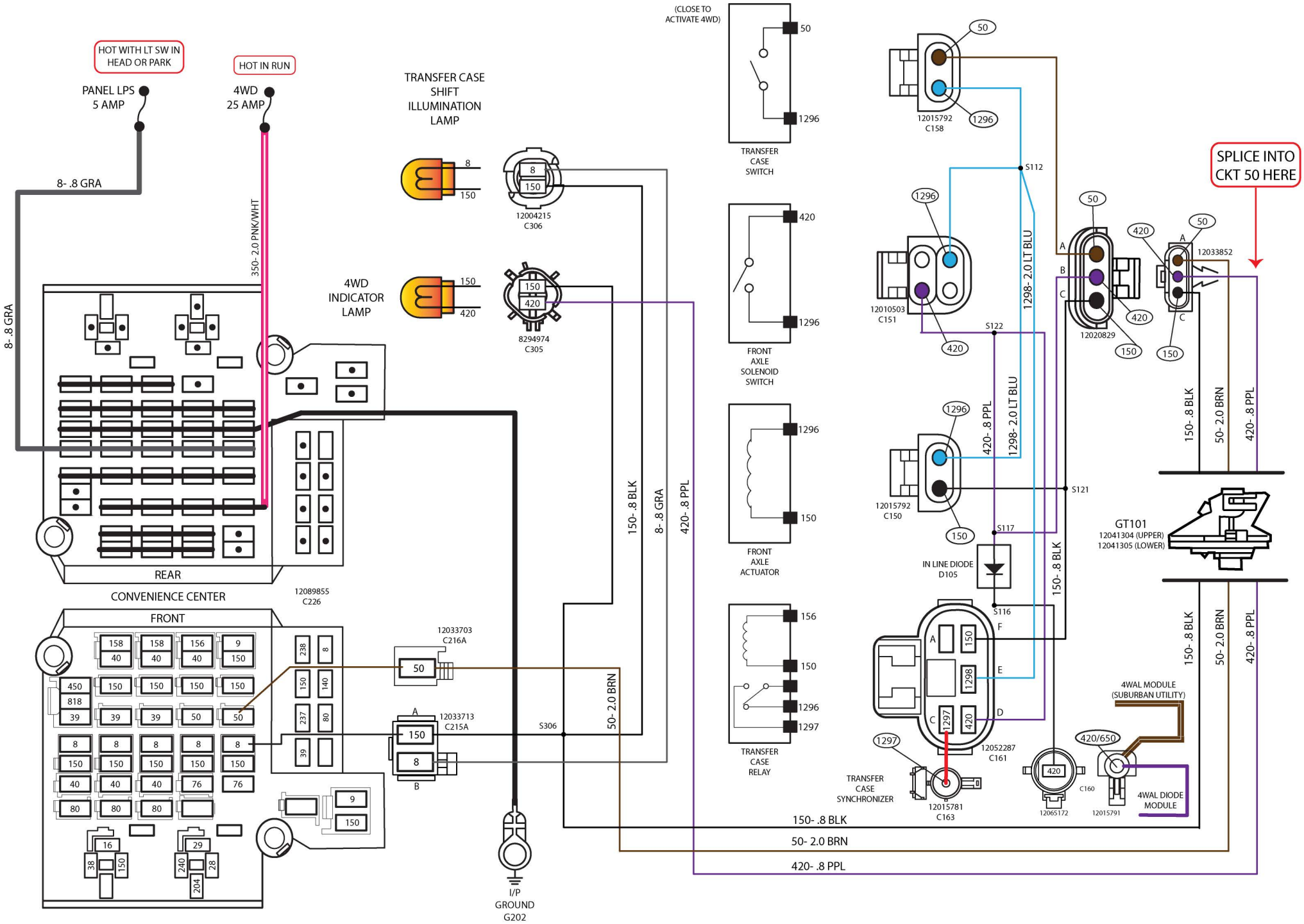
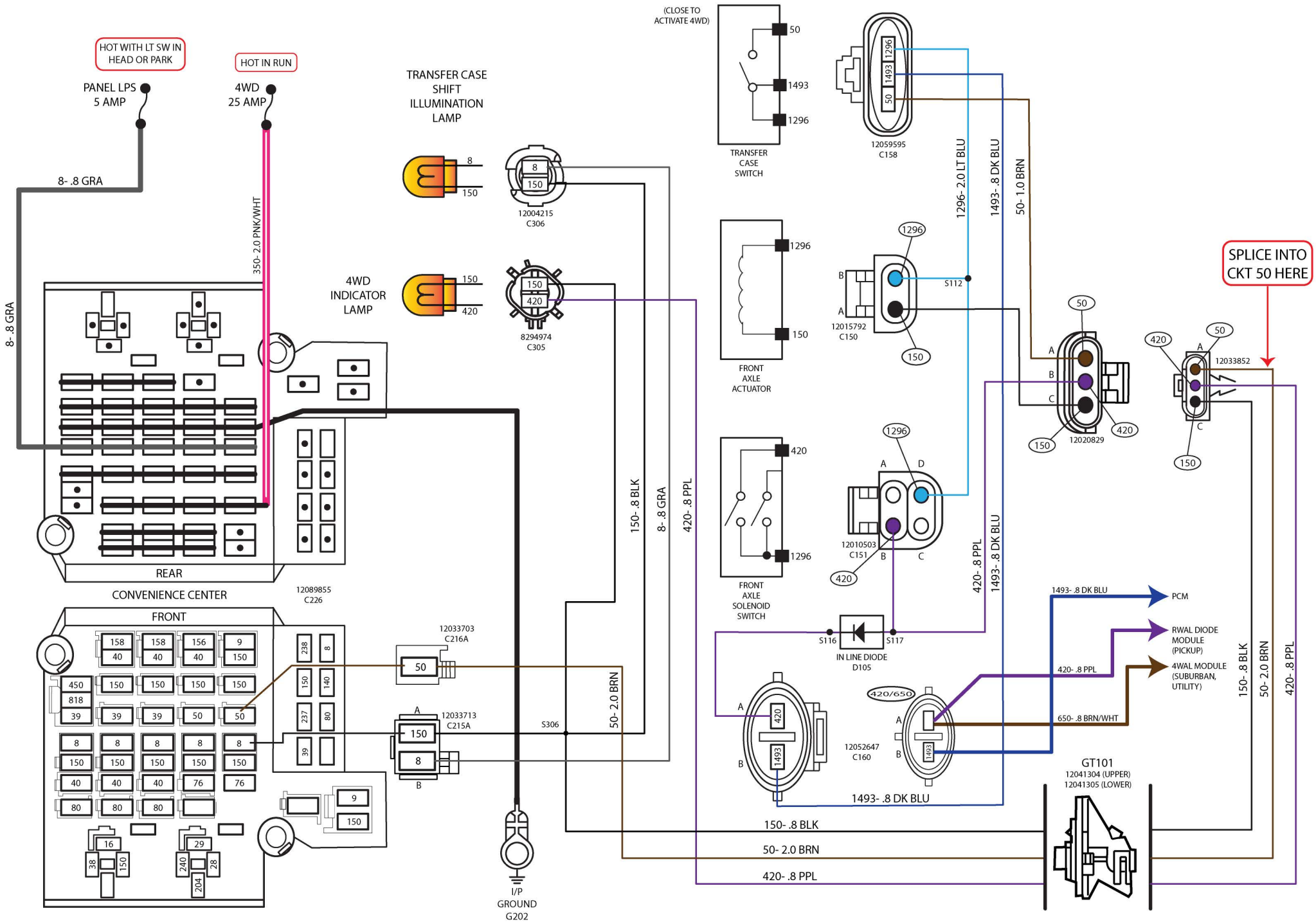


FIGURE 4 - 4 WHEEL DRIVE INDICATOR SCHEMATIC (93 4L80E MODELS)



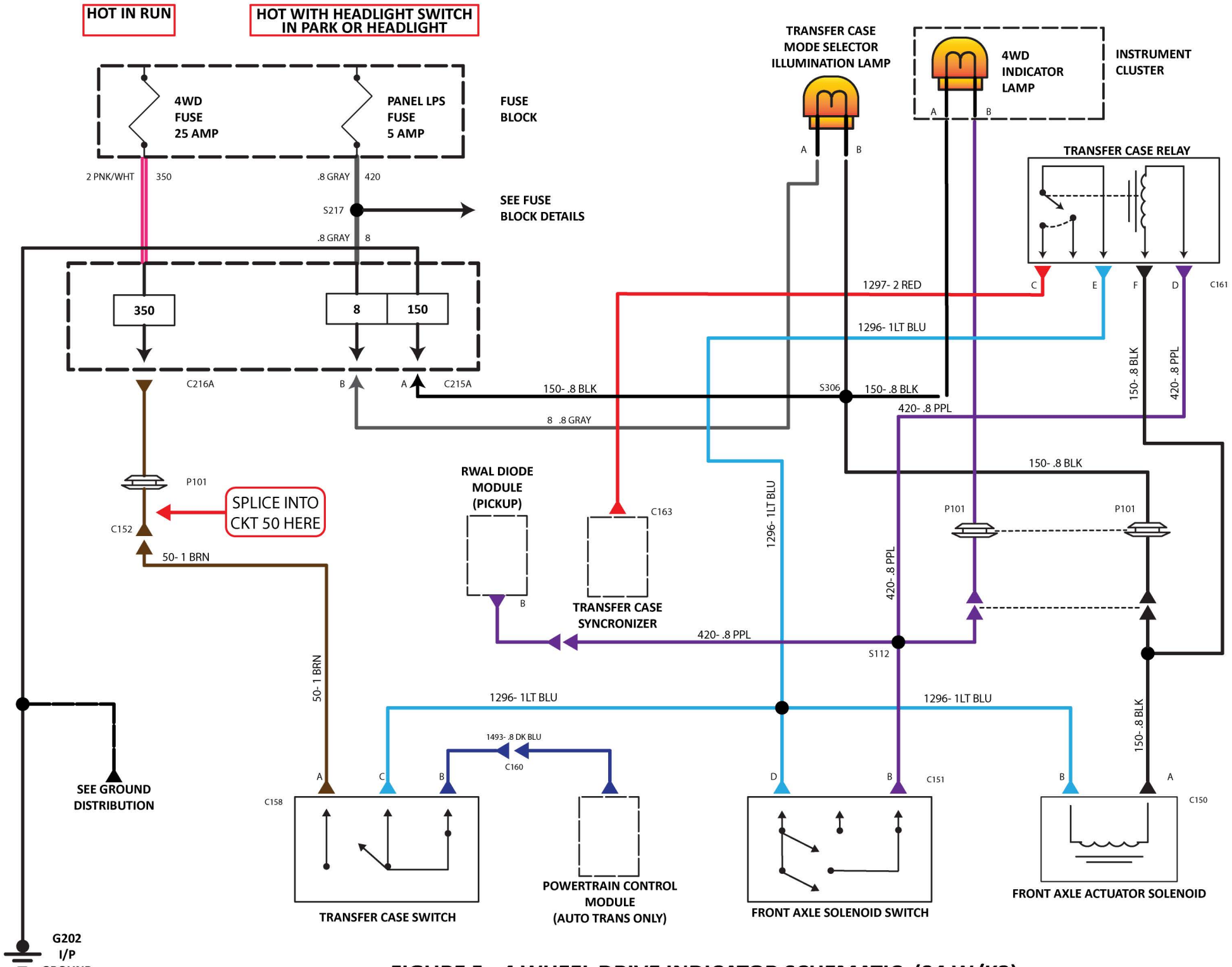


FIGURE 5 - 4 WHEEL DRIVE INDICATOR SCHEMATIC (94 W/K3)

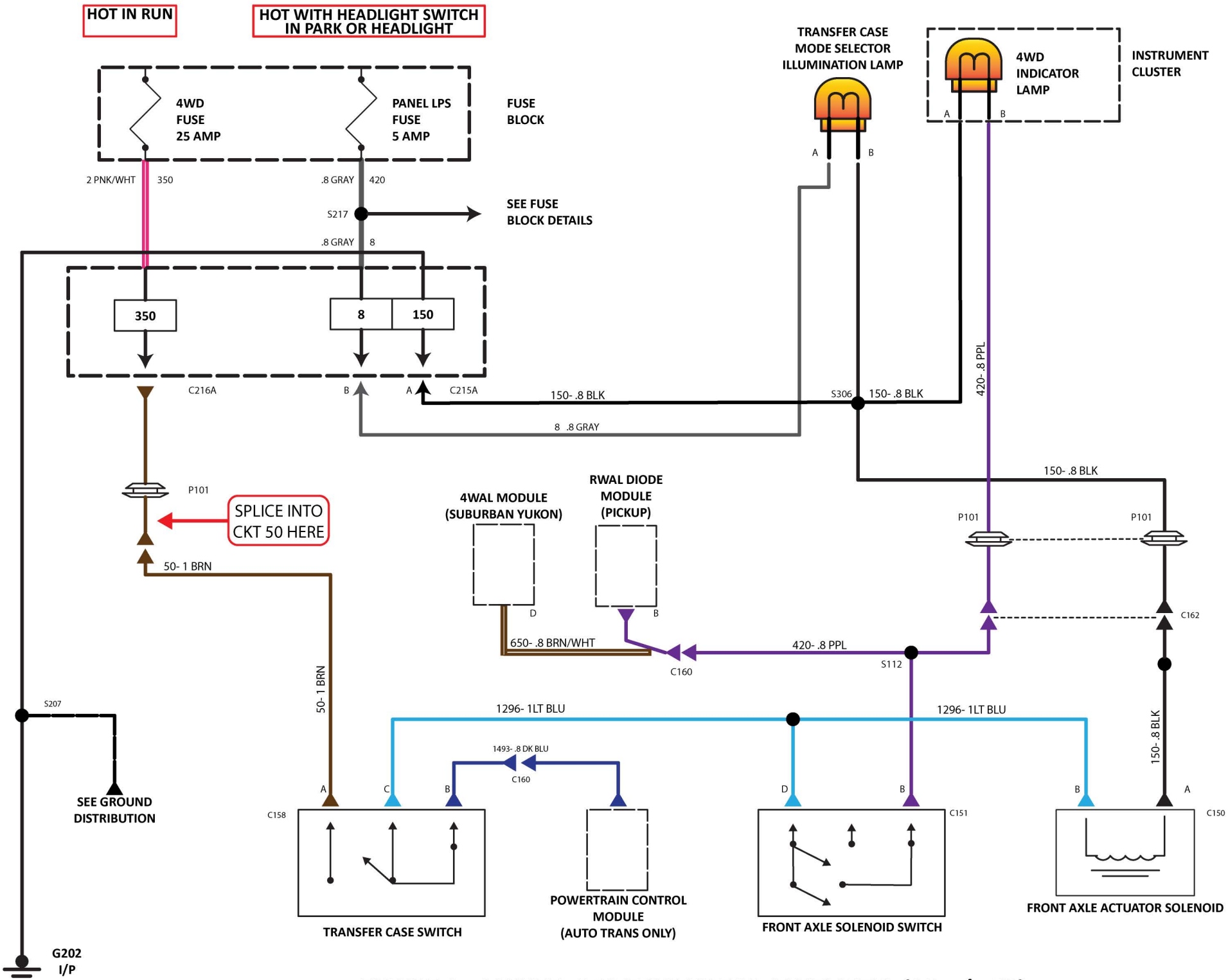


FIGURE 6 - 4 WHEEL DRIVE INDICATOR SCHEMATIC (94 w/o K3)

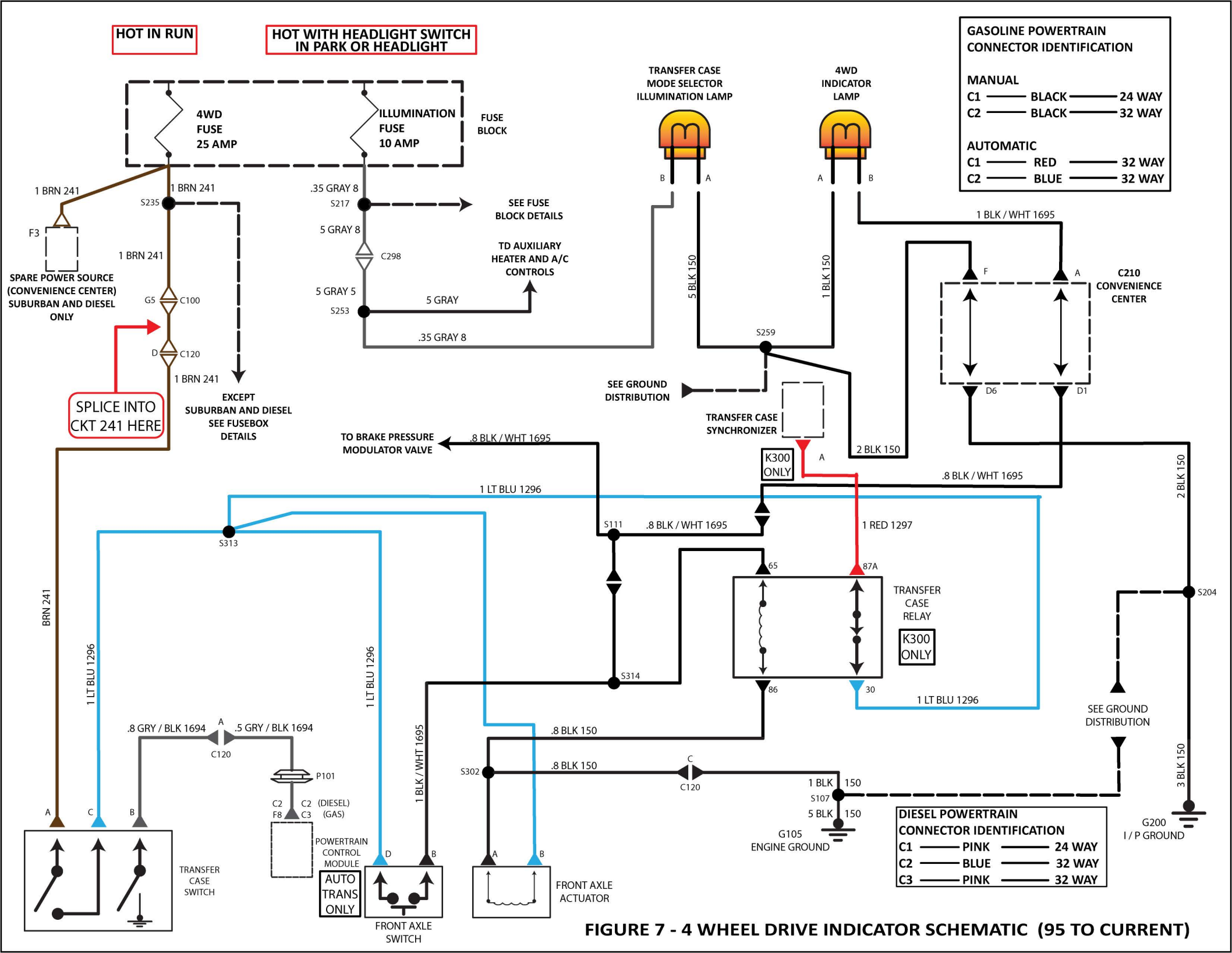


FIGURE 7 - 4 WHEEL DRIVE INDICATOR SCHEMATIC (95 TO CURRENT)