

A.G. *BLOCK* LTD.

**SUPPLIERS TO TRAINING ESTABLISHMENTS
& TECHNICAL COLLEGES**

FORD ZETEC 1.8

Serial No: 1900

ENGINE TRAINING RIG

**Church Road, Kessingland, Lowestoft, Suffolk, England, NR33 7TQ.
Tel: +44(0)1502 740293, +44(0)1502 741894, Fax: +44(0)1502 742003, Mobile: +44(0)7802 356721.
www.agblock.co.uk www.engine rigs.co.uk E-mail: agblockkessingland@hotmail.com**

BEFORE "START - UP" :-

Check:-

- 1) The Coolant Level in Reservoir is correct.
- 2) All Hose connections for leakage etc.
- 3) That all electrical connections are in place and secure.
- 4) That there is sufficient Fuel in the Tank.
- 5) That the Oil Level in Sump is correct.
- 6) That all Guards are in position and secure.
- 7) That the Exhaust Pipe vents to external atmosphere.
- 8) That the Battery is fully charged **, with connections secure and clean.
(* it is essential that the battery being used is maintained in good condition, with a full charge at all times to ensure efficient operation of the engine and its electronic system)
- 9) That all Fault Switches are in the "OFF" position.
- 10) That the Inertia Switch (if fitted), is depressed into the "closed circuit" position.

"START - UP" PROCEDURE:-

- 1) Switch "ON" Battery Isolator Switch (positioned local to battery).
- 2) Put Throttle Lever into the "IDLE" position.
- 3) Switch on the Ignition and wait for Glow-Plug light to disappear (if applicable) .
- 4) Turn Key to "START" the engine.

The engine is now operational for training purposes.

IMPORTANT NOTE:-

In some cases the Ignition Key (and spare Key) supplied with in particular engines have been coded accordingly with the electronic system installed.

The coded electronic chips located in the Keys must not be removed, changed or tampered with. To do so will result in the failure of the engine electronic system.

Cautionary Notes (Electronic Control Unit):-

- 1) Never disconnect any connection the ignition switched "On".**
- 2) Never flash wires to "earth/ground" to check for a live supply.**
- 3) Do not open circuit HT Leads – use correct HT Lead spark plug adapter. (Where applicable)**
- 4) Avoid "shorting" components connected to the ECU.**
- 5) Avoid using battery chargers to operate the board.**
- 6) Never probe with bulb test lamps.**
- 7) Avoid spreading the ECU connectors when testing.**
- 8) Do not expose the ECU to extreme high temperatures.**
- 9) Keep water away from ECU sensors and actuators.**
- 10) Never instigate an OHMS test with the ECU connected.**
- 11) Only substitute the ECU when all other components have been tested and passed.**

FORD ZETEC 1.6
(1900)

FUSE LIST:

Midi Fuses:

Main 12v supply 60 amp

Fuse List:

1	Diode (Power Hold)	
2	Battery - Ignition.	30 amp
3	Battery - ECU, Instrument panel, Data link.	20 amp
4	Battery - Alternator.	3 amp
5	Battery - Power Hold, Fuel Pump.	20amp
6	Accessories - Instrument Panel, Illumination.	10 amp
7	Ignition - Instrument Panel. Oxygen sensor.	10 amp
8	radiator Fan.	30 amp

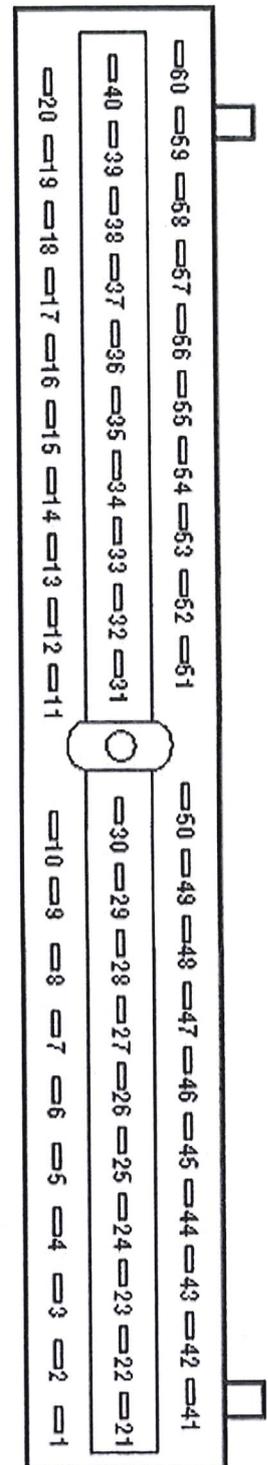
RELAYS:

(Left to Right)

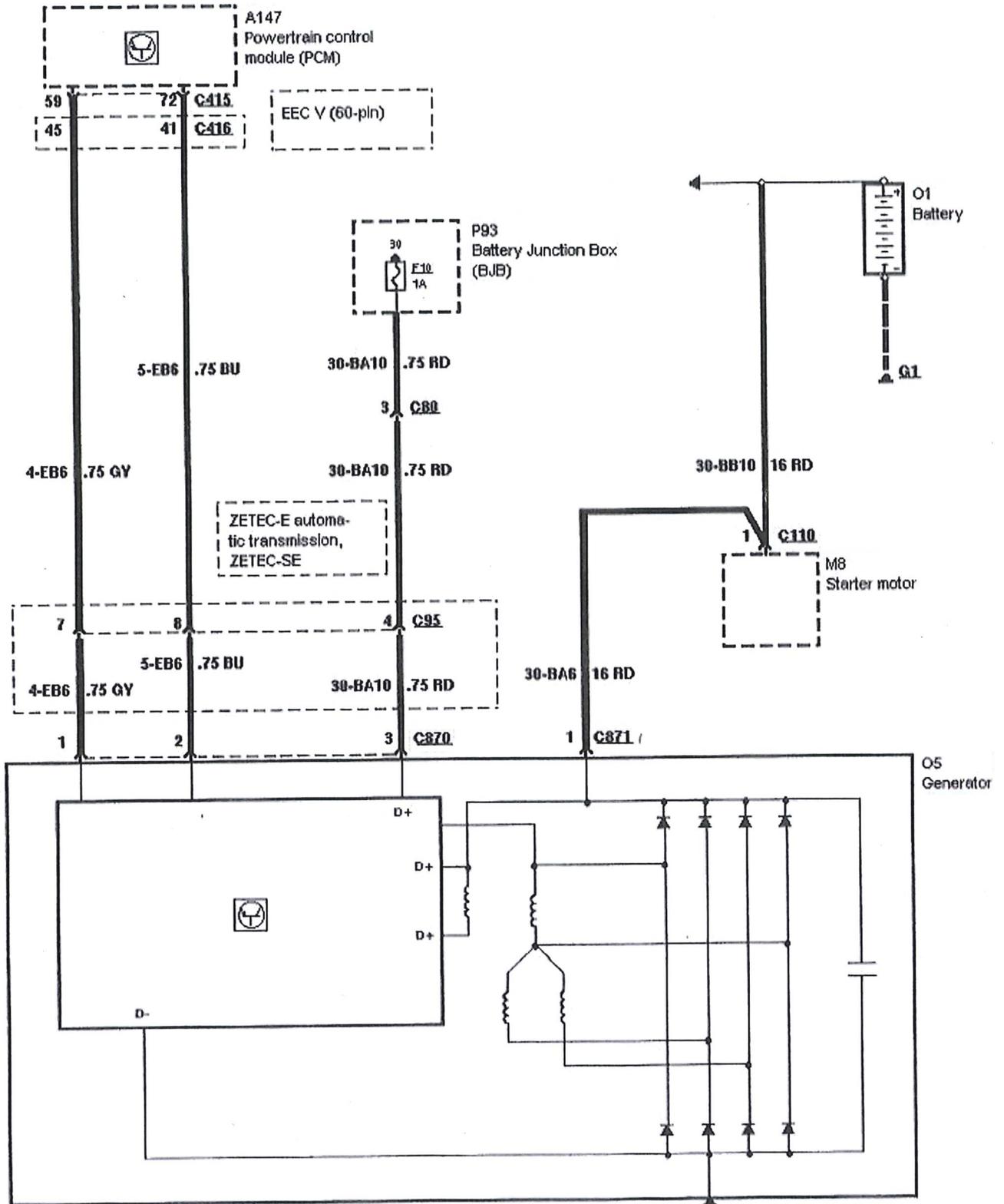
- 1 Power Hold Relay
- 2 Fuel Pump Relay
- 3 Cooling Fan Relay
- 4 Start Relay

- K143 AC compressor clutch relay
- S338 AC refrigerant dual pressure switch
- S152 AC refrigerant high pressure switch
- G1 Alternator
- A1 Audio unit
- 31 Battery -
- 30 Battery +
- B132 Camshaft position (CMP) sensor
- E23 Clock
- S258 Clutch pedal position (CPP) switch
- B54 Crankshaft position (CKP) sensor
- A15 Cruise control module
- B172 Cylinder head temperature (CHT) sensor
- X1 Data link connector (DLC)
- A35 Engine control module (ECM)
- K46 Engine control relay
- K12 Engine coolant blower motor relay
- H63 Engine malfunction indicator lamp (MIL)
- Y104 Evaporative emission (EVAP) canister purge valve
- M12 Fuel pump
- K20 Fuel pump relay
- F Fuse
- B72 Heated oxygen sensor (HO2S)
- Y99 Idle air control (IAC) valve
- K76 Ignition auxiliary circuits relay
- T1 Ignition coil
- 15 Ignition switch - ignition ON
- A162 Immobilizer control module
- S39 Inertia fuel shut-off (IFS) switch
- Y3 Injector
- A5 Instrument panel

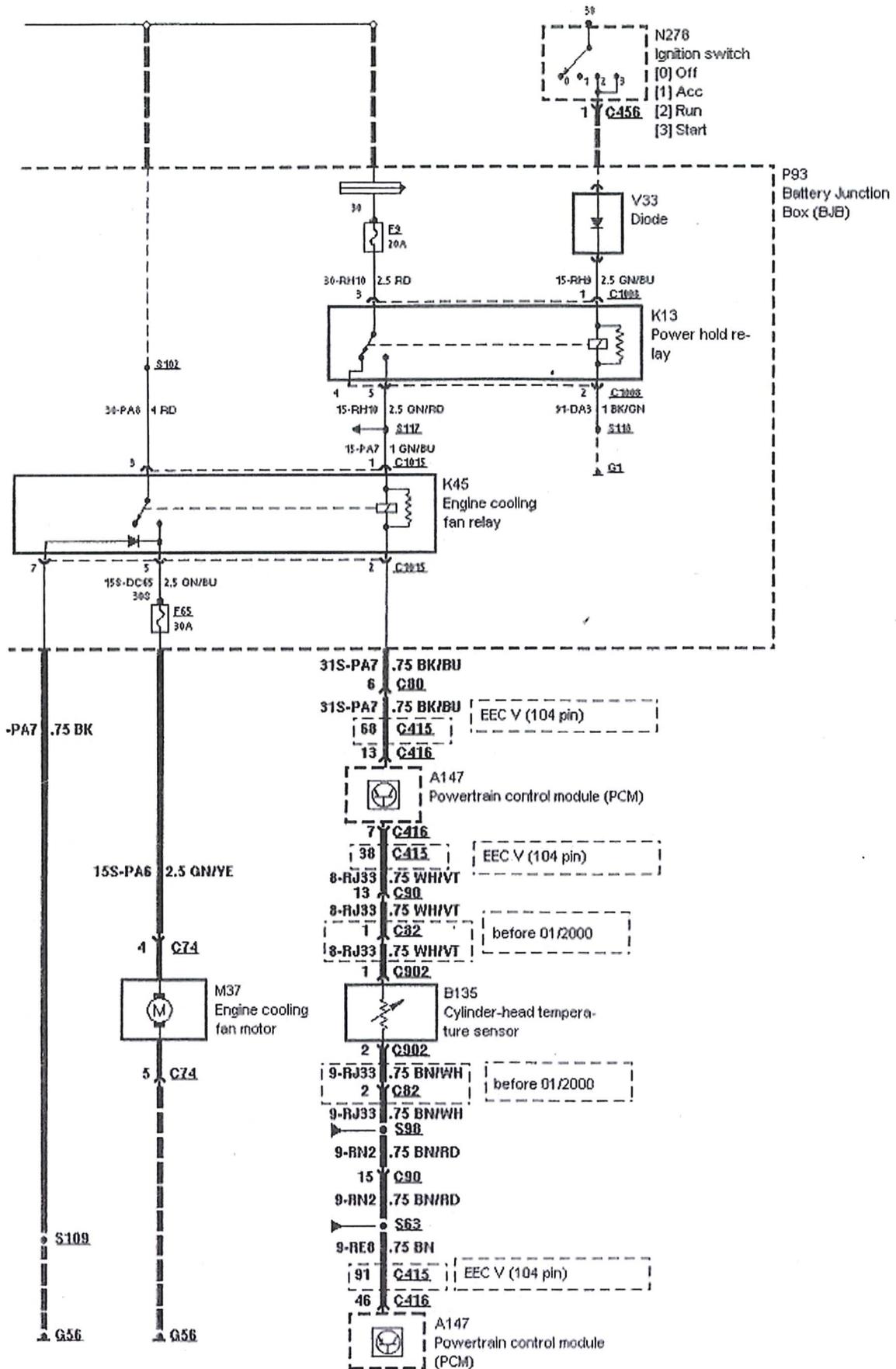
- B25 Intake air temperature (IAT) sensor
- B69 Knock sensor (KS)
- B30 Mass air flow (MAF) sensor
- S231 Power steering pressure (PSP) switch
- K4 Starter motor relay
- C3 Suppressor
- B147 Throttle position (TP) sensor
- A19 Trip computer
- B33 Vehicle speed sensor (VSS)



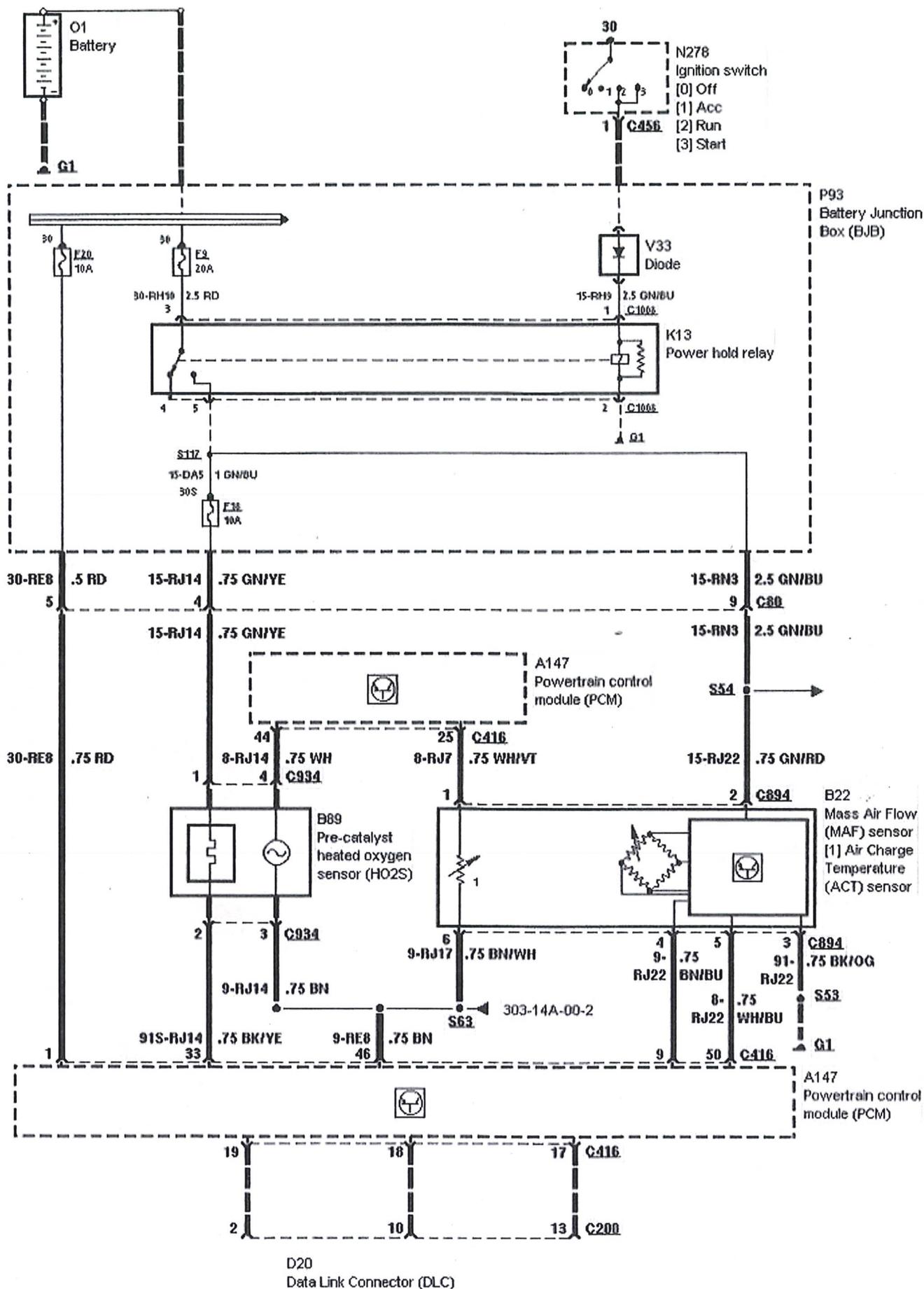
ENGINE GENERATOR & REGULATOR:



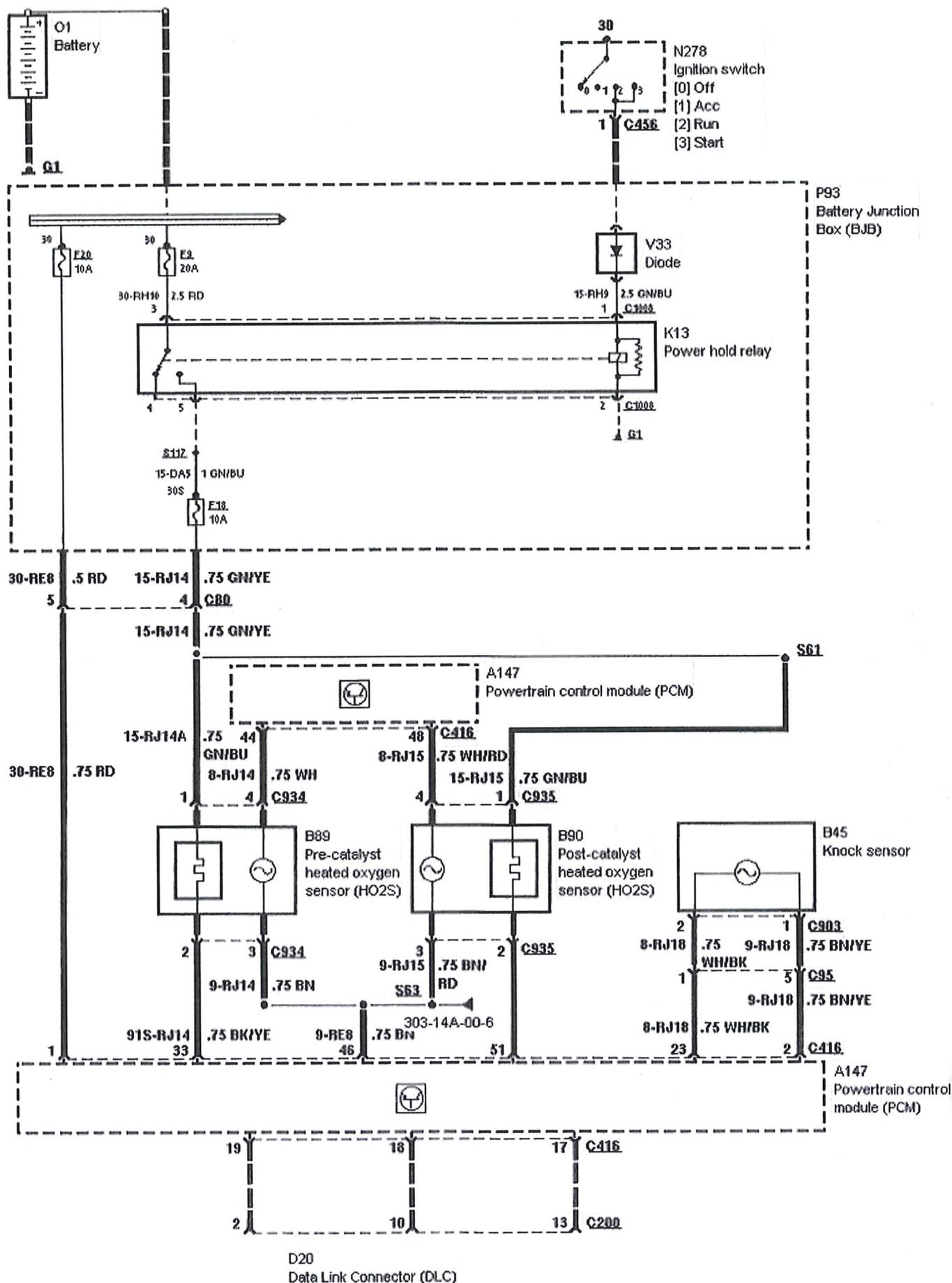
COOLING SYSTEM:



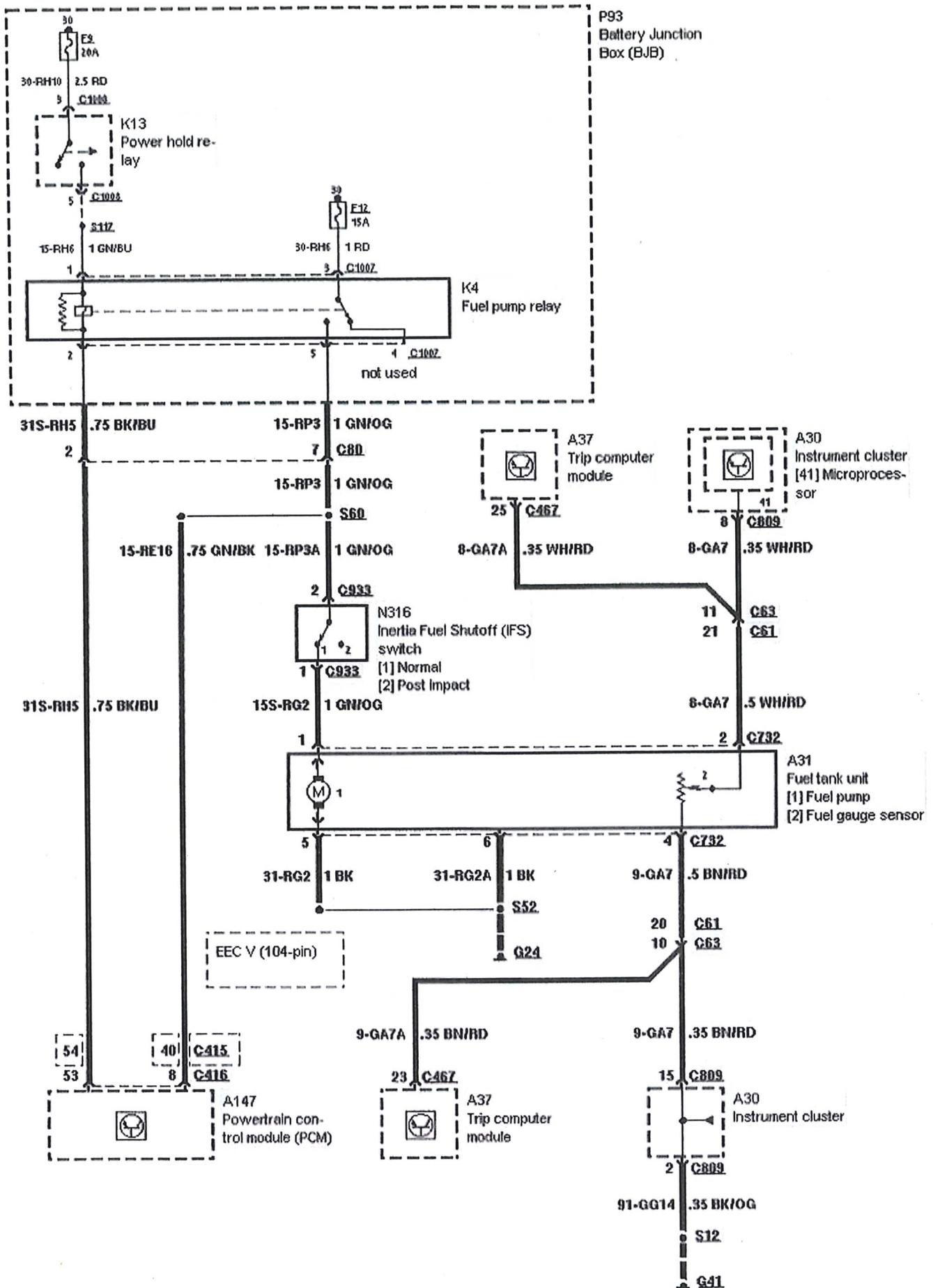
ENGINE CONTROL:



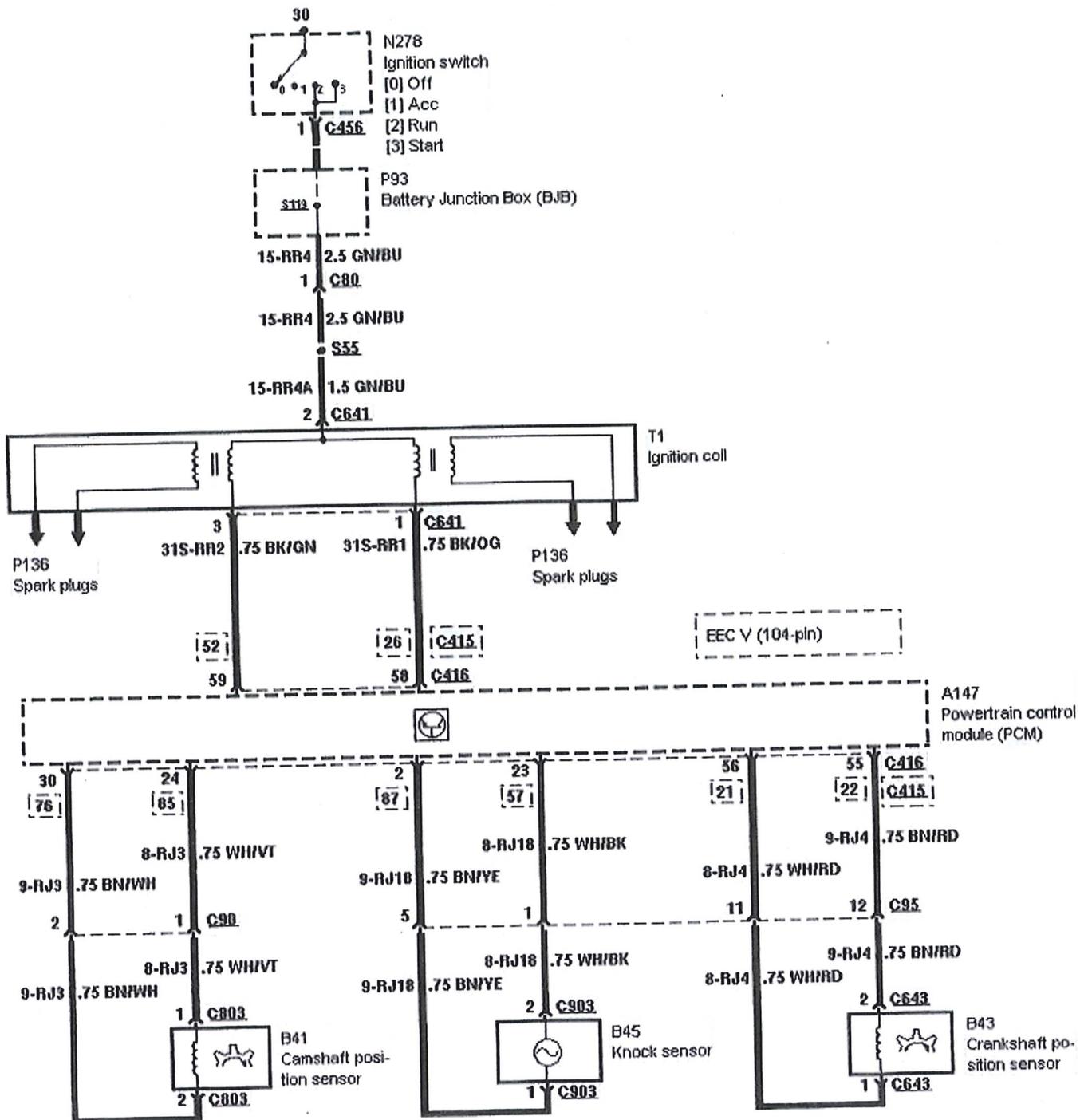
ENGINE CONTROL CONT:



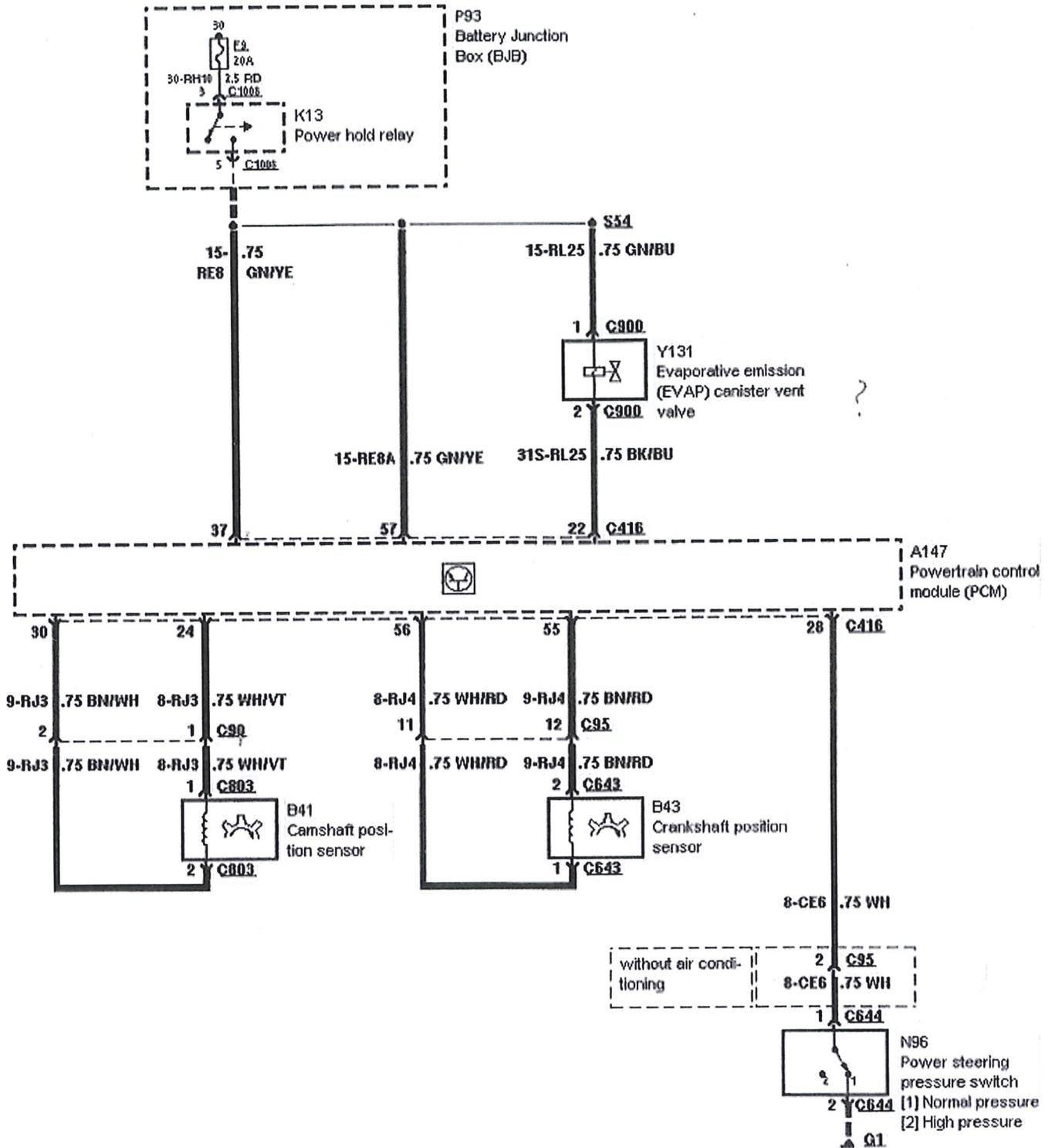
ENGINE CONTROL CONT:



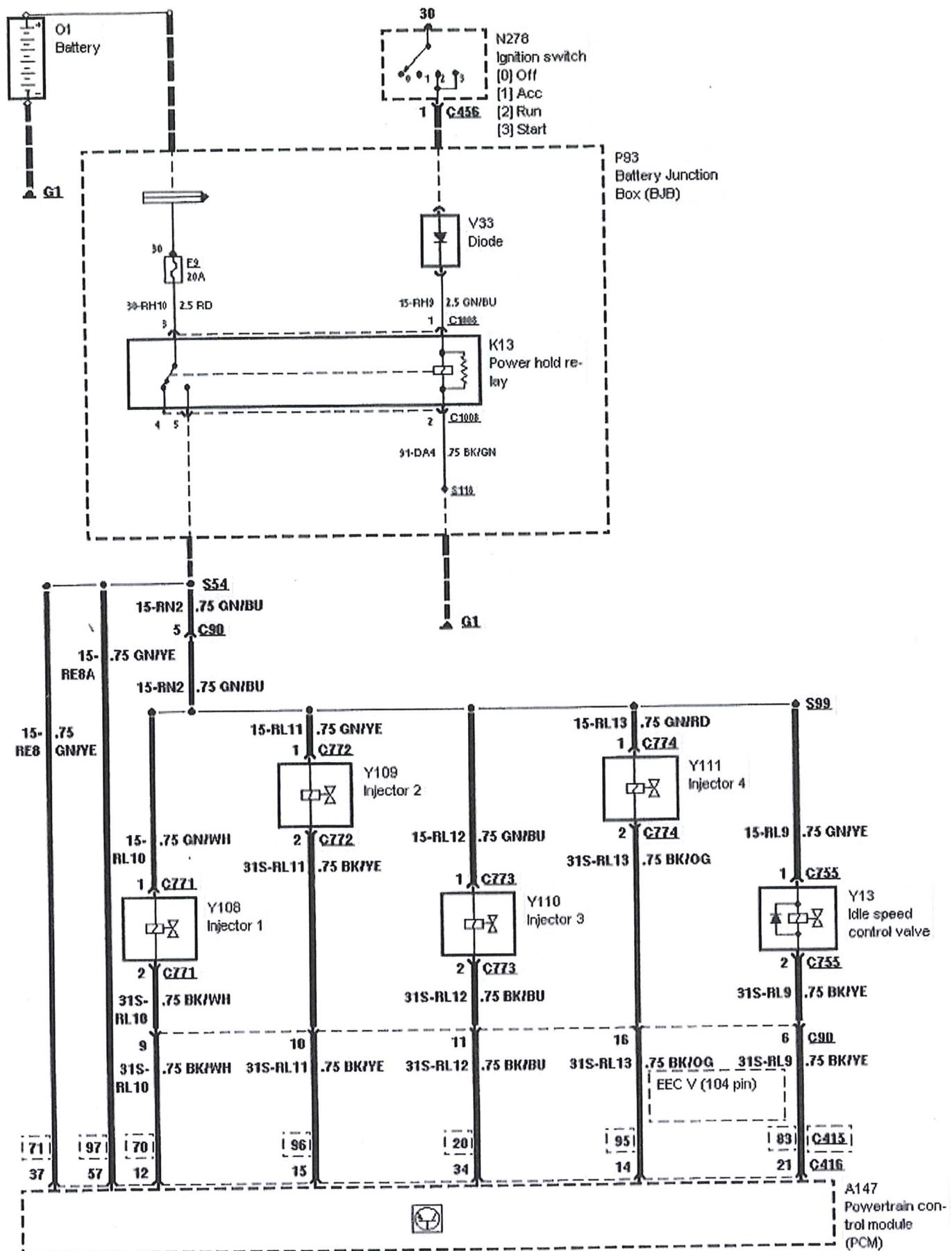
ENGINE CONTROL CONT:



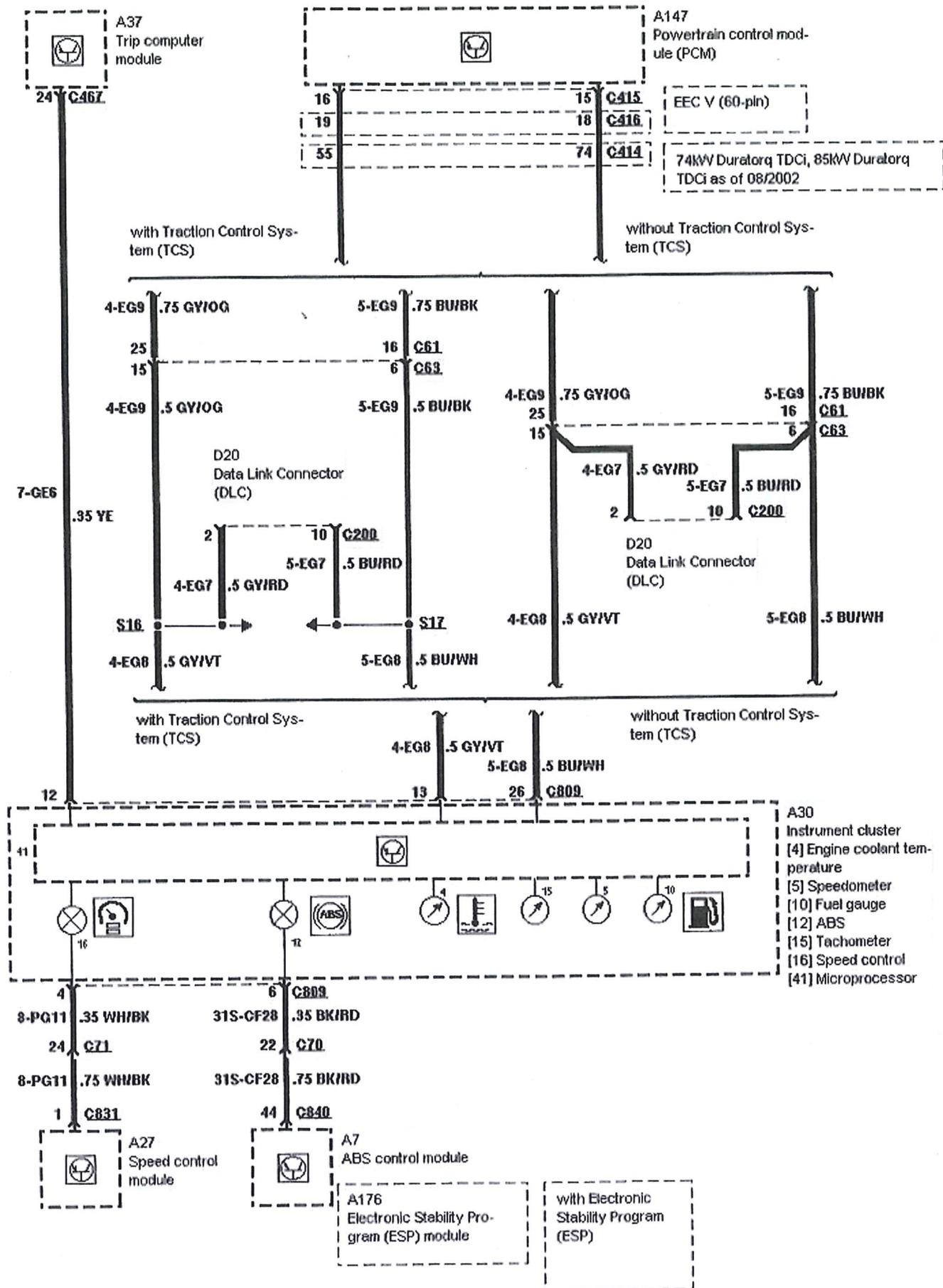
ENGINE CONTROL CONT:



ENGINE CONTROL CONT:



INSTRUMENT CLUSTER:



INSTRUMENT CLUSTER CONT:

