

Note

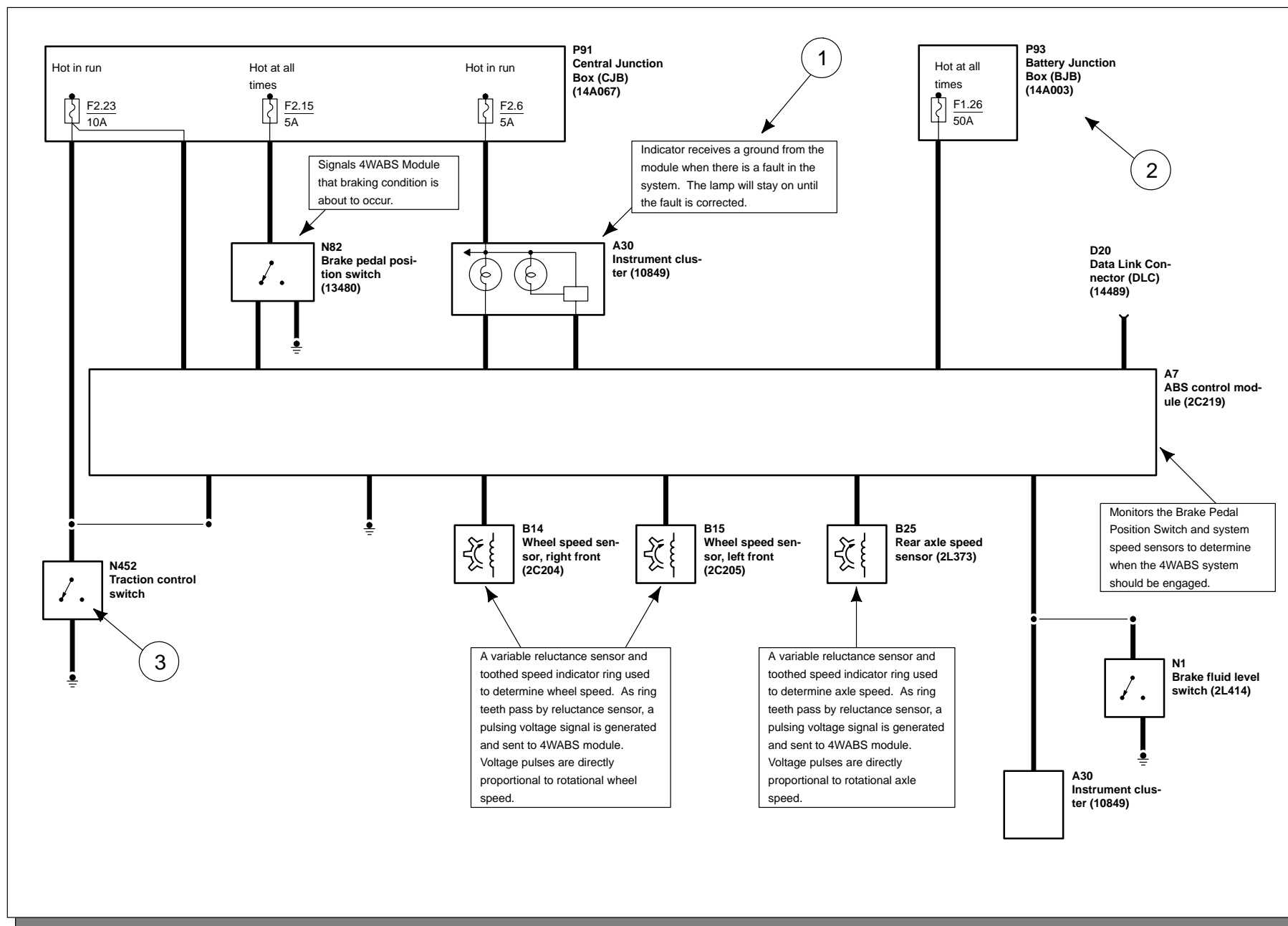
All wiring connections between components are shown exactly as they exist in the vehicles. It is important to realize, however, that no attempt has been made on the schematic to represent components and wiring as they physically appear on the vehicle. For example, a 4-foot length of wire is treated no differently in a schematic from one which is only a few inches long. Furthermore, to aid in understanding electrical (electronic) operation, wiring inside complicated components has been simplified.

Complete Circuit Operation

Each circuit is shown completely and independently in one cell. Other components which are connected to the circuit may not be shown unless they influence the circuit operation.

System Overview

Each major vehicle system includes a complete system overview prior to each set of schematic pages. It is important to realize that this is only a high level overview of the complete system connectivity. It includes component operational information (1), component name and base part number (2), and basic component internals (3). It does not include specific circuit information, connector or pin numbers, splices or grounds. That information is found on the schematic pages.



Current Flow (1)

Each cell normally starts with the component that powers the circuit such as a fuse or the ignition switch. Current flow is shown from the power source at the top of the page to ground at the bottom of the page. In order to concentrate on the essential parts, power supply and ground connections are sometimes simplified by a dashed line in the schematics. A full representation of the power supply of a fuse or the power distribution from a fuse to various components is given in cell 13 “Power Distribution”. Full representation of the ground connections are shown in cell 10 “Grounds”.

Switch Positions (2)

Within the schematic, all switches, sensors and relays are shown “at rest” (as if the Ignition Switch were OFF).

Splices (3)

A dashed line indicates that the splice is not shown completely. A reference is given to the page where the splice appears in full. It is also listed in the Index.

Component Referencing (4)

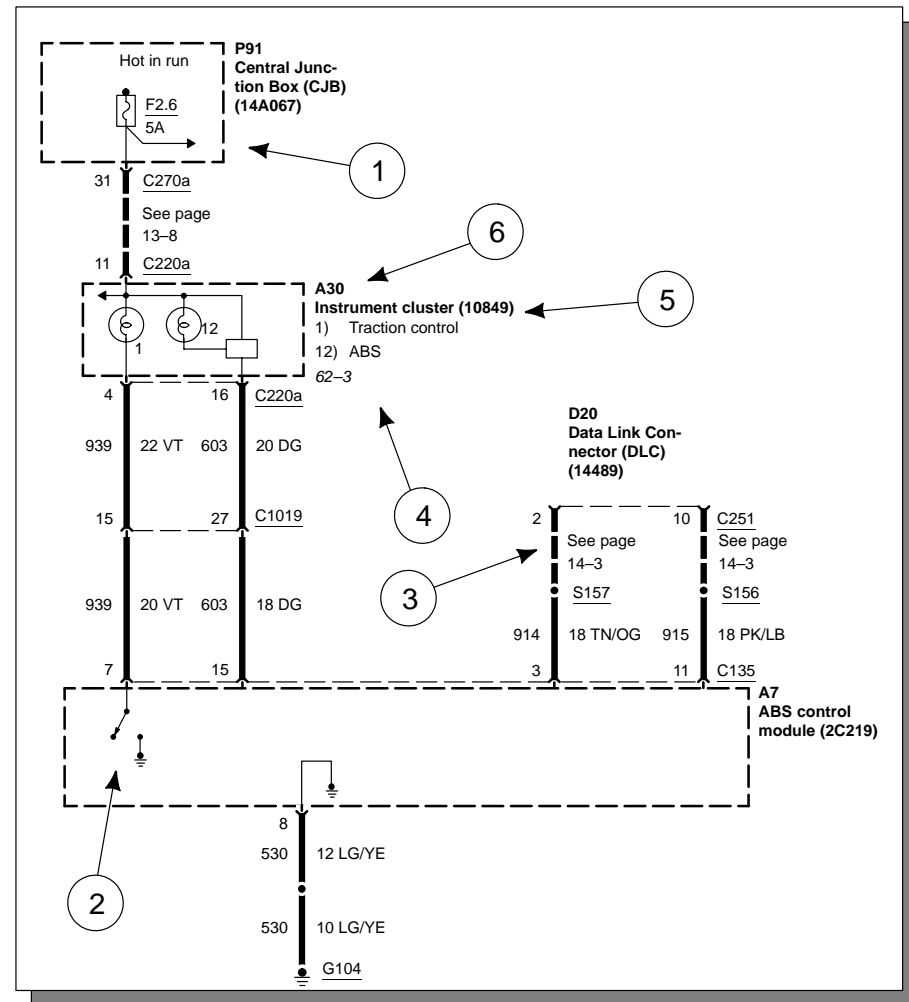
Each component on a schematic has a reference to the component location view for that component. It is located to the right of each component.

Component Names, Notes and Base Part Numbers (5)

Component names are placed on the right hand side of each component. Any notes that describe switch positions or operating conditions follow the name. Descriptions of the internals of the component are also included here. The page where the component appears in full is listed in the Index. The base part number for a component is listed in parentheses next to or under a component. These part numbers will appear any place the component name appears in the publication.

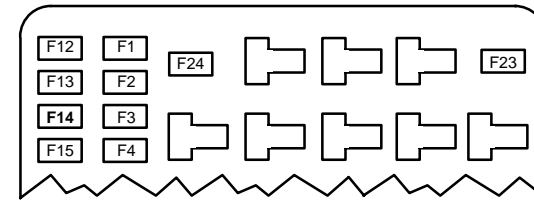
Component Identification Numbers (6)

Each component on each schematic has a component identification number located to the upper right hand side of the component. By finding this number in the Component Location Chart, the Component Location View for that component can easily be found.



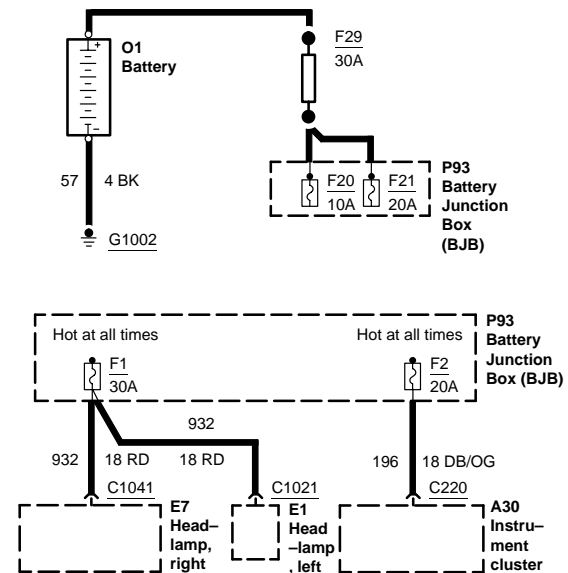
Fuse and Relay Information

Cell 11 “Fuse and Relay Information” contains a view of the fuse-/relay box in which all fuses and relays are identified.



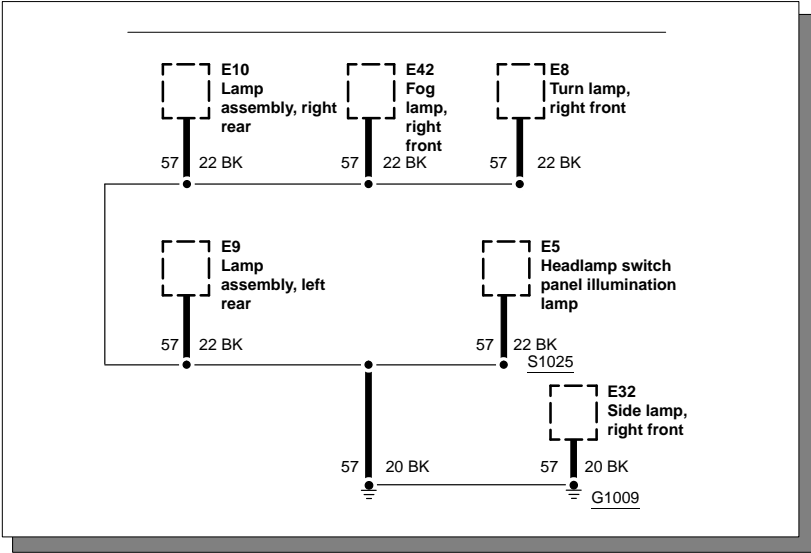
Power Distribution

Cell 13 “Power Distribution” shows the current feed circuit. The current path is shown from the battery to the ignition switch and to all fuses. It also shows the circuits protected by each fuse. The circuit is traced from the fuse to the component. All details (wires, splices, connectors) between the fuse and the first component are shown.



Ground Distribution

Cell 10 “Grounds” contains the schematics that show the complete details for each ground connection or main ground splice. This is useful in diagnosing a problem affecting several components at once (poor ground connection or ground splice). All details (wires, splices, connectors) between the ground point and the components are shown. These ground connection details are shown here in order to keep the individual cell schematics as uncluttered as possible.



Component and Connector Information

Cell 152 “Component Location Charts” helps the user find where the various items depicted on the schematic can physically be found on the vehicle. A brief written description of the location is given, along with a reference to the component location views.

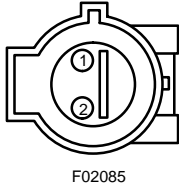
Cell 151 “Component Location Views” show the components and their connecting wires as they can be found on the vehicle.

Cell 150 “Connector Views” show the views of the pins and/or cavities of all connectors. The pin and cavity sides are shown separately as if the connector were disconnected. The color of the connector housing is indicated next to the connector number when available. The harness causal number is located above the connector view and below the connector number. The circuit function charts are located below each connector. The wiring harness designations are listed in cell 152 “Component Location Charts”.

C150

12A581

B15
Wheel speed sensor, left front (2C205)

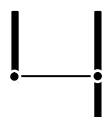


Pin	Circuit	Circuit Function
1	522 (TN/BK)	Wheel speed sensor, left front (2C205) –
2	521 (TN/OG)	Wheel speed sensor, left front (2C205) +

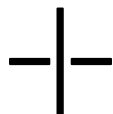
WARNINGS

- *Always wear safety glasses for eye protection.*
- *Use safety stands whenever a procedure requires being under a vehicle.*
- *Be sure that the **Ignition Switch** is always in the OFF position, unless otherwise required by the procedure.*
- *Set the parking brake when working on any vehicle. An automatic transmission should be in PARK. A manual transmission should be in NEUTRAL.*
- *Operate the engine only in a well-ventilated area to avoid danger of carbon monoxide.*
- *Keep away from moving parts, especially the fan and belts, when the engine is running.*
- *To prevent serious burns, avoid contact with hot metal parts such as the radiator, exhaust manifold, tail pipe, catalytic converter and muffler.*
- *Do not allow flame or sparks near the battery. Gases are always present in and around the battery cell. An explosion could occur.*
- *Do not smoke when working on a vehicle.*
- *To avoid injury, always remove rings, watches, loose hanging jewelry and avoid wearing loose clothing.*

4-1 Symbols



Distributed splice



Crossed wiring without connection



Splice



Removable connection



Ground



Connector



Female connector



Male connector



Entire component



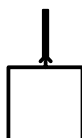
Part of a component



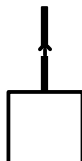
Component case directly attached to metal part of vehicle (ground)



Component with screw terminals



Connector attached to component



Connector attached to component lead (pigtail)



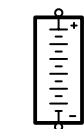
Resistor or heating element



Potentiometer (pressure or temperature)



Potentiometer (outside influence)



Battery



Fuse



Circuit breaker



Heating element, Conductor loop



Ignition coil assembly



Buzzer



Antenna



Solenoid controlled valve
or clutch solenoid



Air bag sliding contact
(14A664)



Permanent magnet,
one-speed-motor



Light emitting diode
(LED)



Diode, current flows in
direction of arrow



Permanent magnet,
two-speed-motor



Capacitor



Transistor



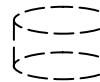
Rotational sensor



Variable capacitor



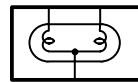
Lamp



Shield



Piezoelectric sensor



Bifilament lamp



Signal horn or speaker



Coil

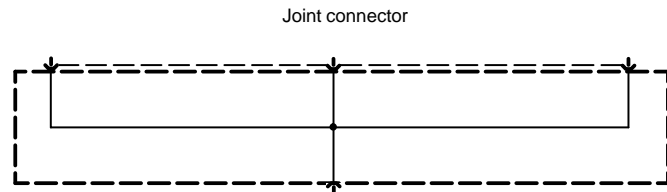


Gauges

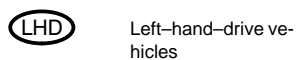
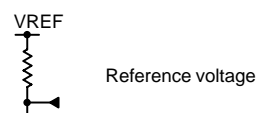
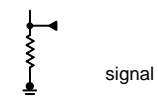


Fusible link

4-3 Symbols



Wire colors	
BK	Black
BN	Brown
BU	Blue
DB	Dark blue
DG	Dark green
GN	Green
GY	Gray
LB	Light blue
LG	Light-green
NA	Natural
OG	Orange
PK	Pink
RD	Red
SR	Silver
TN	Tan
VT	Violet
WH	White
YE	Yellow



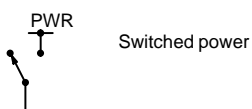
VBATT Battery voltage

VPWR Switched or module voltage

SCP + Standard Corporate Protocol (SCP) data +

SCP - Standard Corporate Protocol (SCP) data -

ISO Data bus ISO 9141 (K-line)

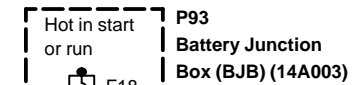
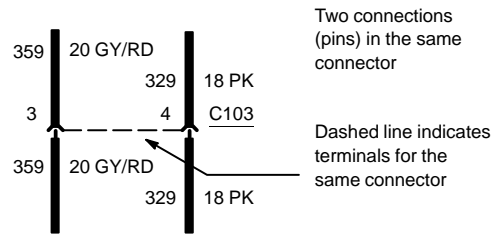


Country code

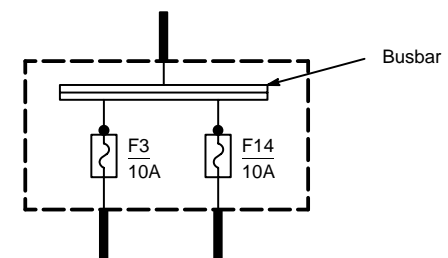
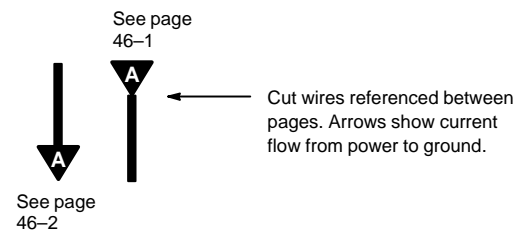
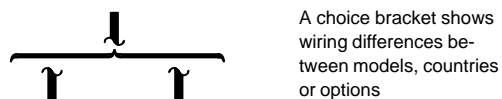
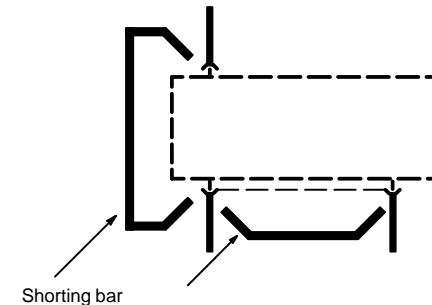
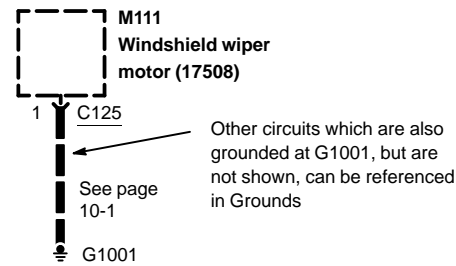
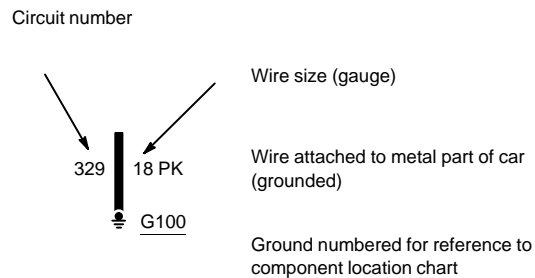
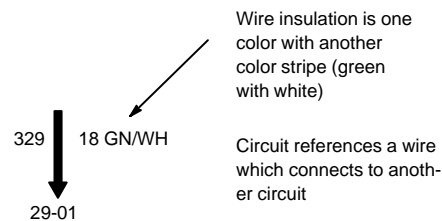
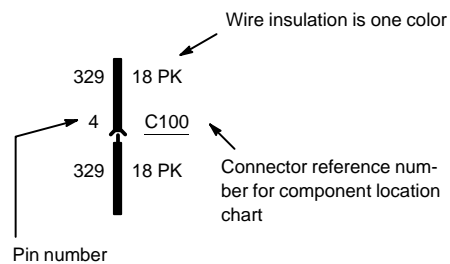
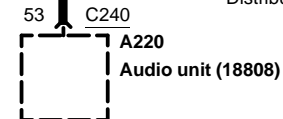


A thick dashed line represents 2 or more wires

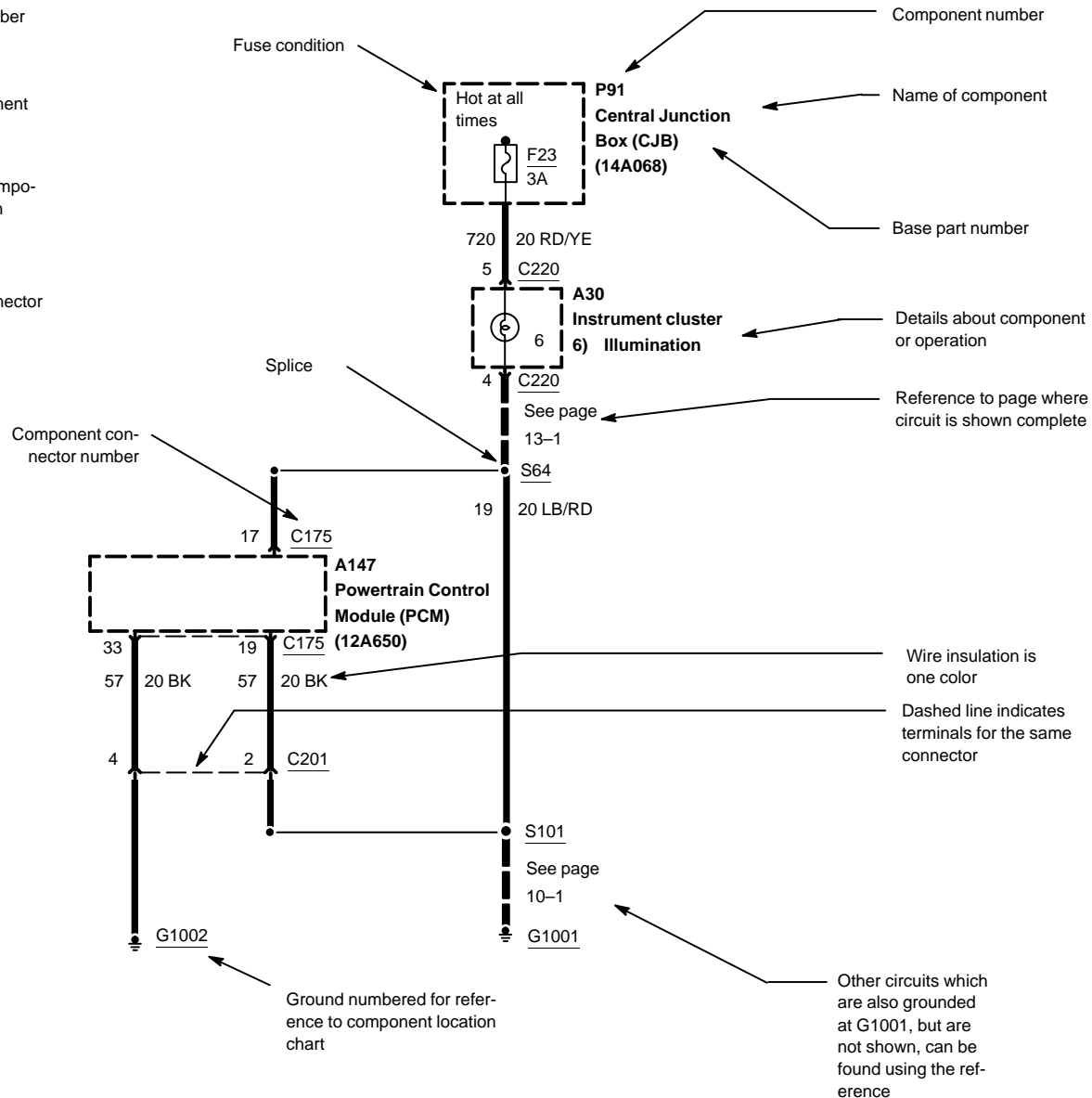
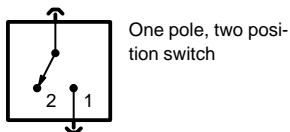
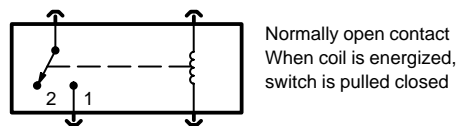
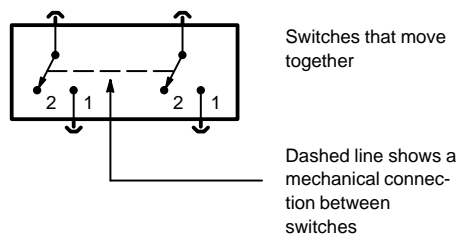
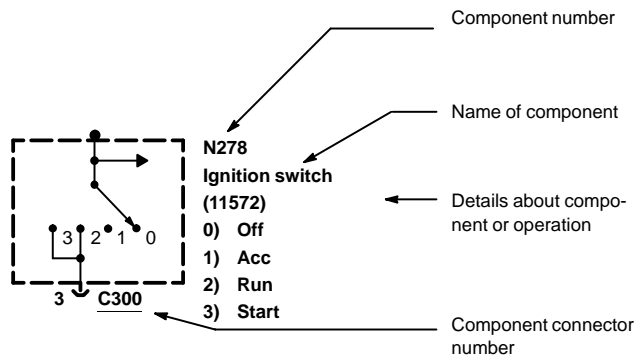
A thin dashed line represents a continuation



Other circuits which share fuse 18, but are not shown, can be referenced in Power Distribution



4-5 Symbols



Troubleshooting wiring harness and connector hidden concerns

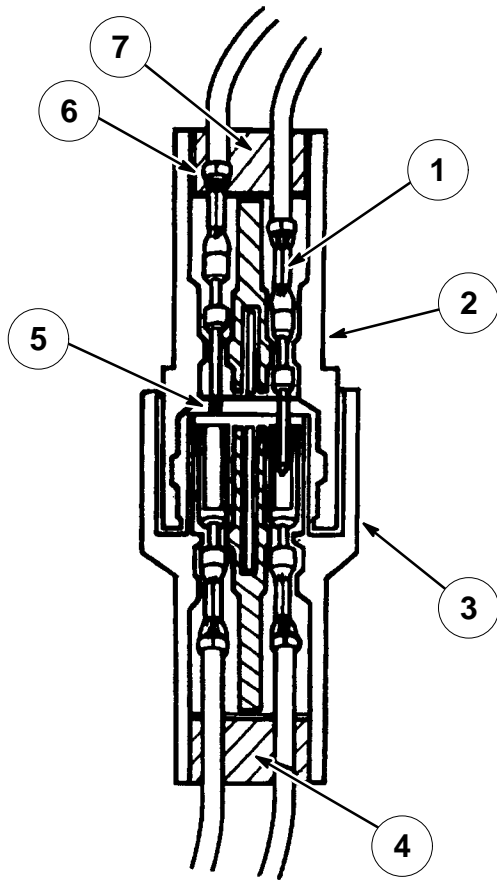
The following illustrations are known examples of wiring harness, splices and connectors that will create intermittent electrical concerns. The concerns are hidden and can only be discovered by a physical evaluation as shown in each illustration.

NOTE: Several components, such as the PCM, utilize gold plated terminals in their connections to the wiring harness. If those terminals need to be replaced, they must be replaced with a gold plated terminal.

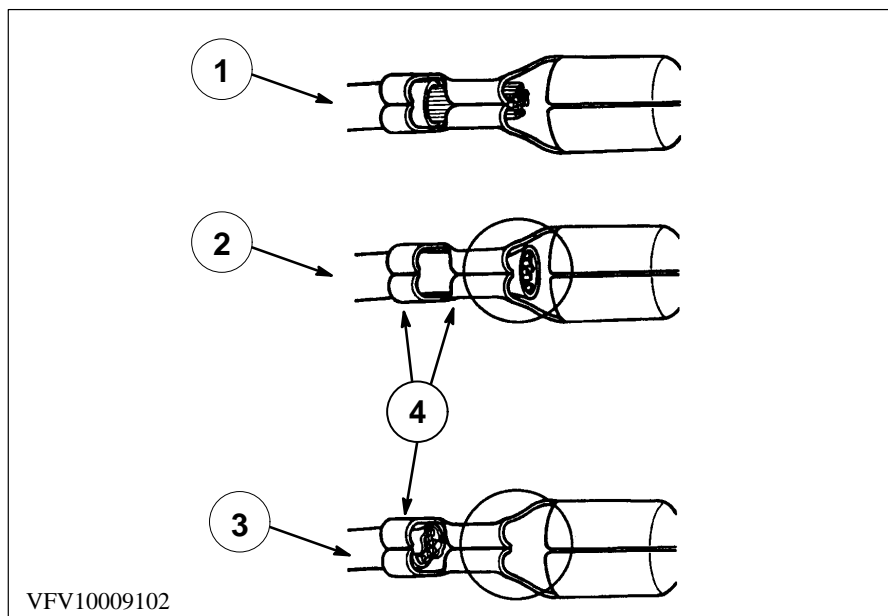
Terminal not properly seated

- 1 = Locked terminal
- 2 = Male half
- 3 = Female half
- 4 = Seal
- 5 = Intermittent contact
- 6 = Unlocked terminal (Hidden by wire seal)
- 7 = Seal

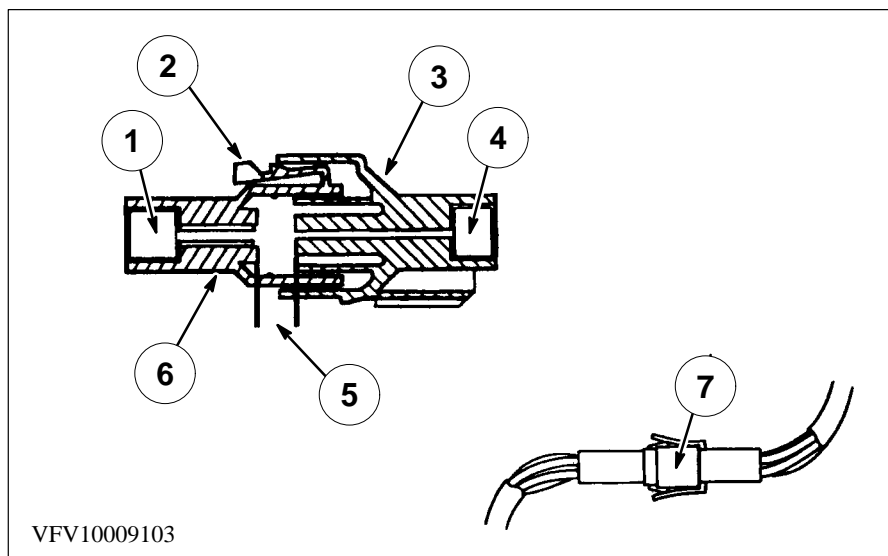
Check for unlocked terminals by pulling each wire at the end of the connector.



VFV10009101

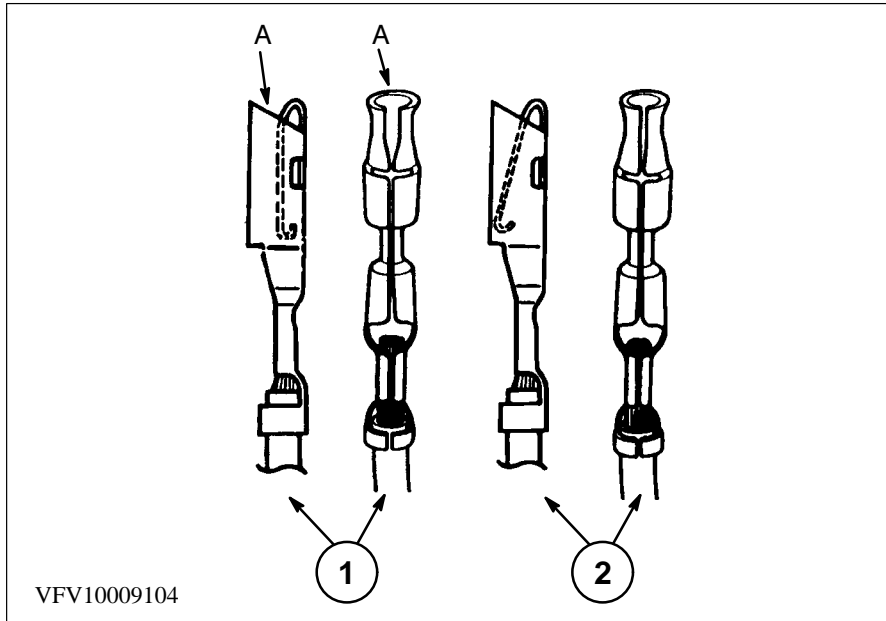
**Defective insulation stripping**

- 1 = Proper crimp
- 2 = Insulation not removed
- 3 = Wire strands missing
- 4 = Intermittent signals through pierced insulation

**Partially mated connectors**

- 1 = Seal
- 2 = Displaced tab
- 3 = Female half
- 4 = Seal
- 5 = Intermittent contact
- 6 = Male half
- 7 = Intermittent contact

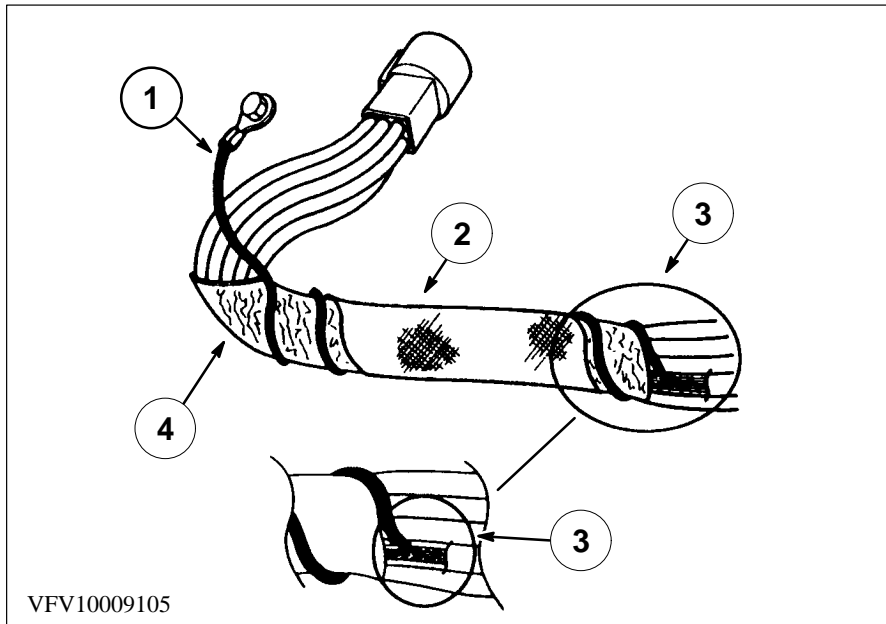
Lock may be displaced into an unlocked position; pull on the connector to verify the lock.



Deformed (enlarged) female terminals

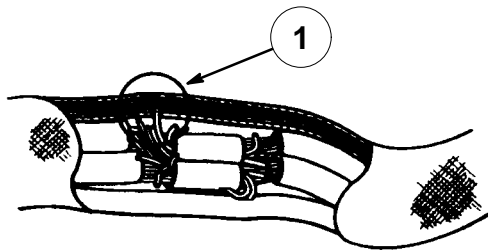
- 1 = Enlarged
- 2 = Normal

Any probe entering the terminal may enlarge the contact spring opening creating an intermittent signal. Insert the correct mating terminal (Location A) from the service kit and feel for a loose fit.



Electrical short inside the harness

- 1 = Solder coated wire to ground
- 2 = Harness protective tape
- 3 = Intermittent short
Solder coated wire pierced through the insulation of another circuit
- 4 = Grounding foil

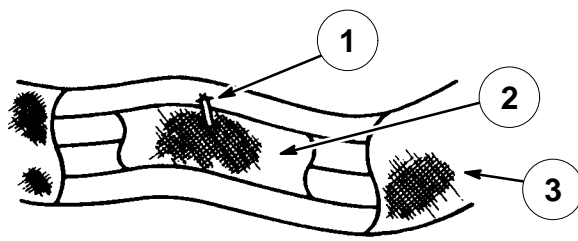


VFV10009106

Electrical short within the harness

Splice tape removed

1 = Intermittent short



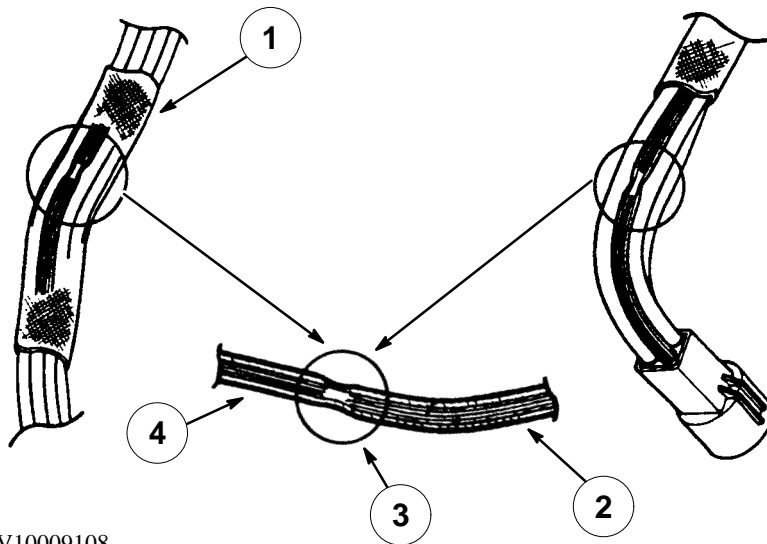
VFV10009107

Splice covered

1 = Wire strand

2 = Splice tape

3 = Harness tape



VFV10009108

Broken wire strands in harness

1 = Wiring harness tape

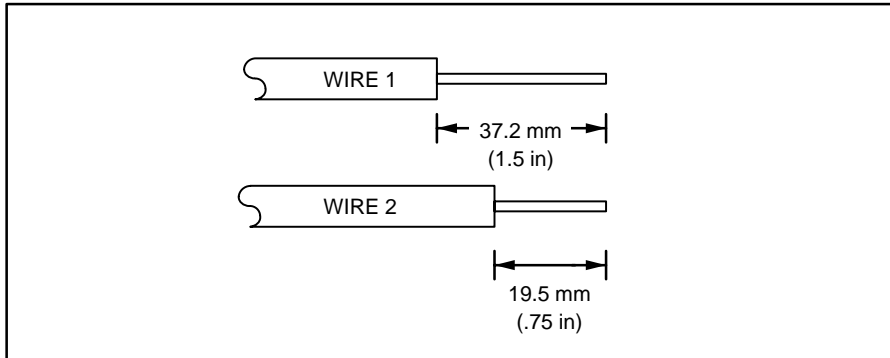
2 = Wiring strand

3 = Broken strands intermittent signal

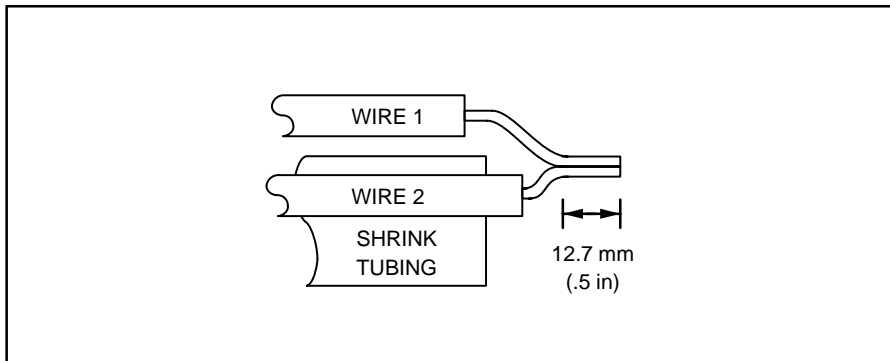
4 = Circuit insulation

Remove the tape and flex/feel each circuit for a reduction in diameter at break.

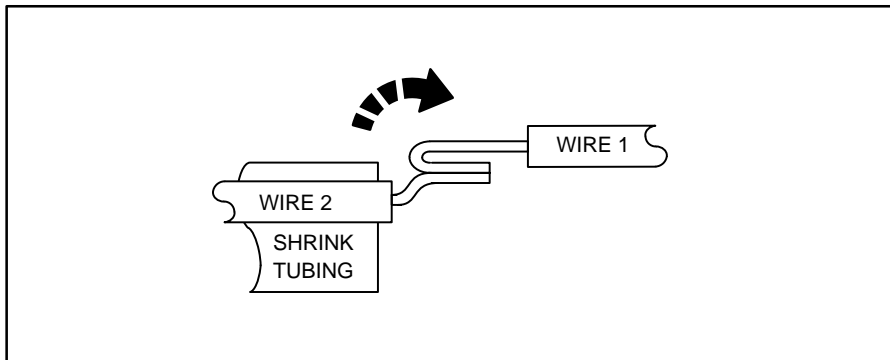
Recommended splicing method



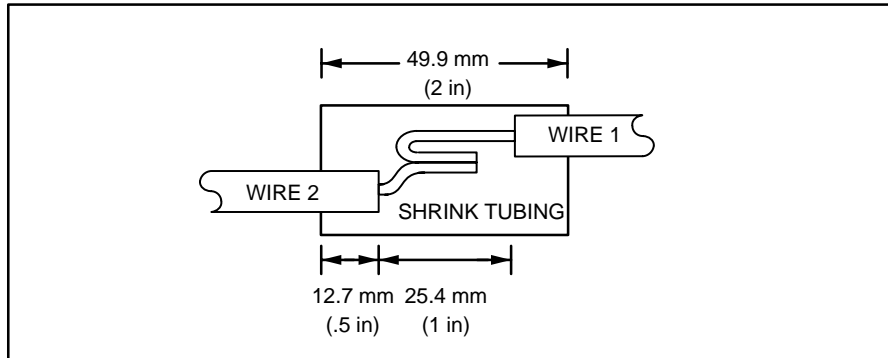
1. Disconnect battery ground cable.
2. Strip wires to appropriate length.



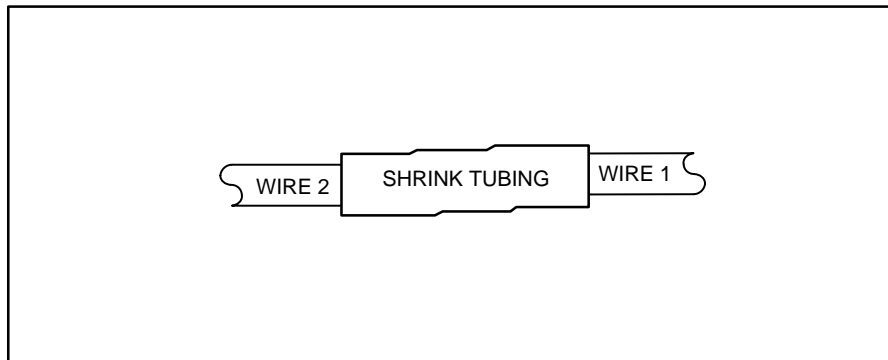
3. Install heat shrink tubing.
4. Twist wires together.
5. Solder wires together.
NOTE: Use rosin core mildly-activated (RMA) solder. Do not use acid core solder.



6. Bend Wire 1 back in a straight line.
NOTE: Wait for solder to cool before moving wires.

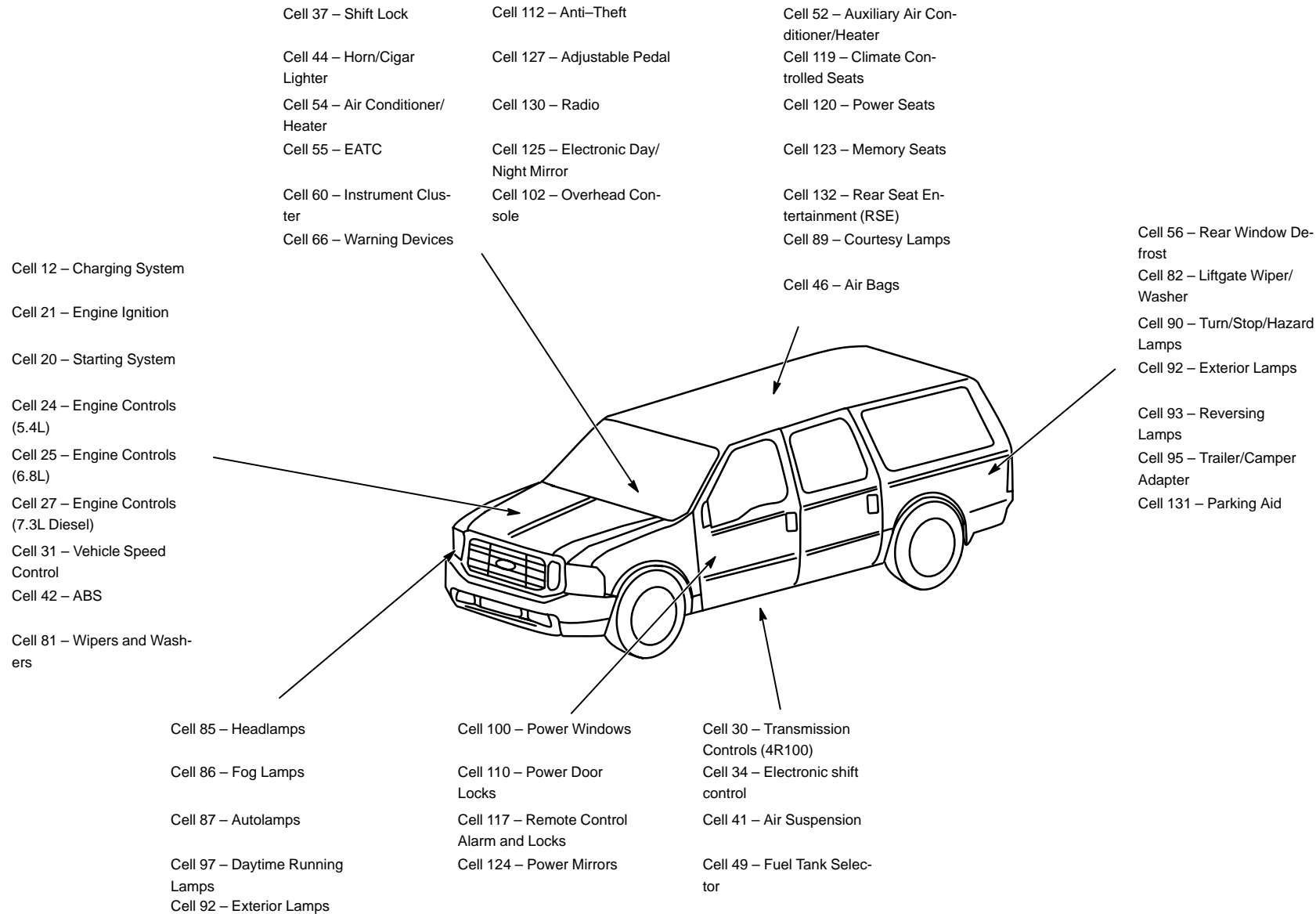


7. Evenly position heat shrink tubing over wire repair.
NOTE: Overlap tubing on both wires.

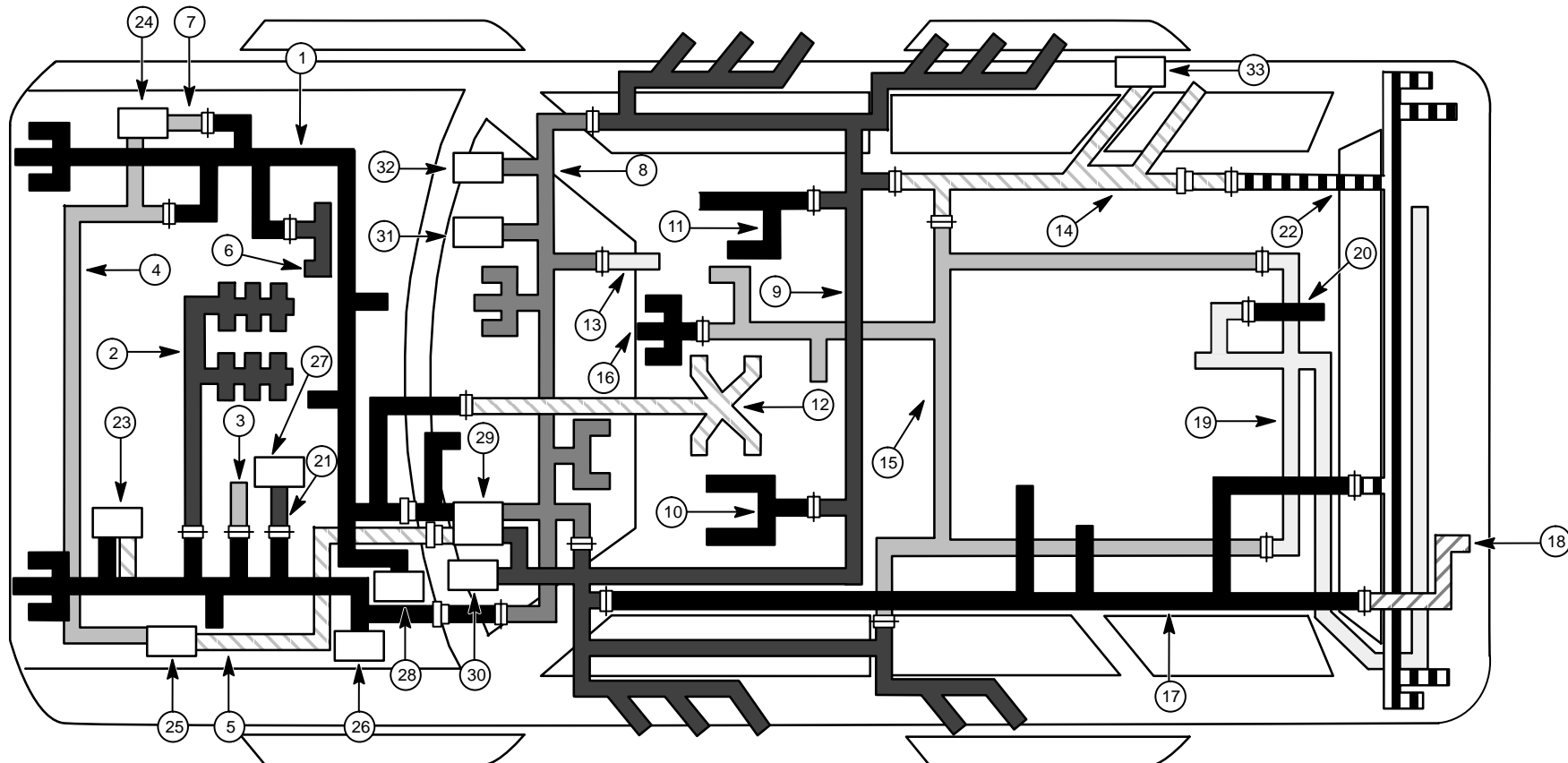


8. Use heat gun to heat the repaired area until adhesive flows out of both ends of heat shrink tubing.
9. Reconnect battery ground cable.

8-1 Systems Overview



Excursion



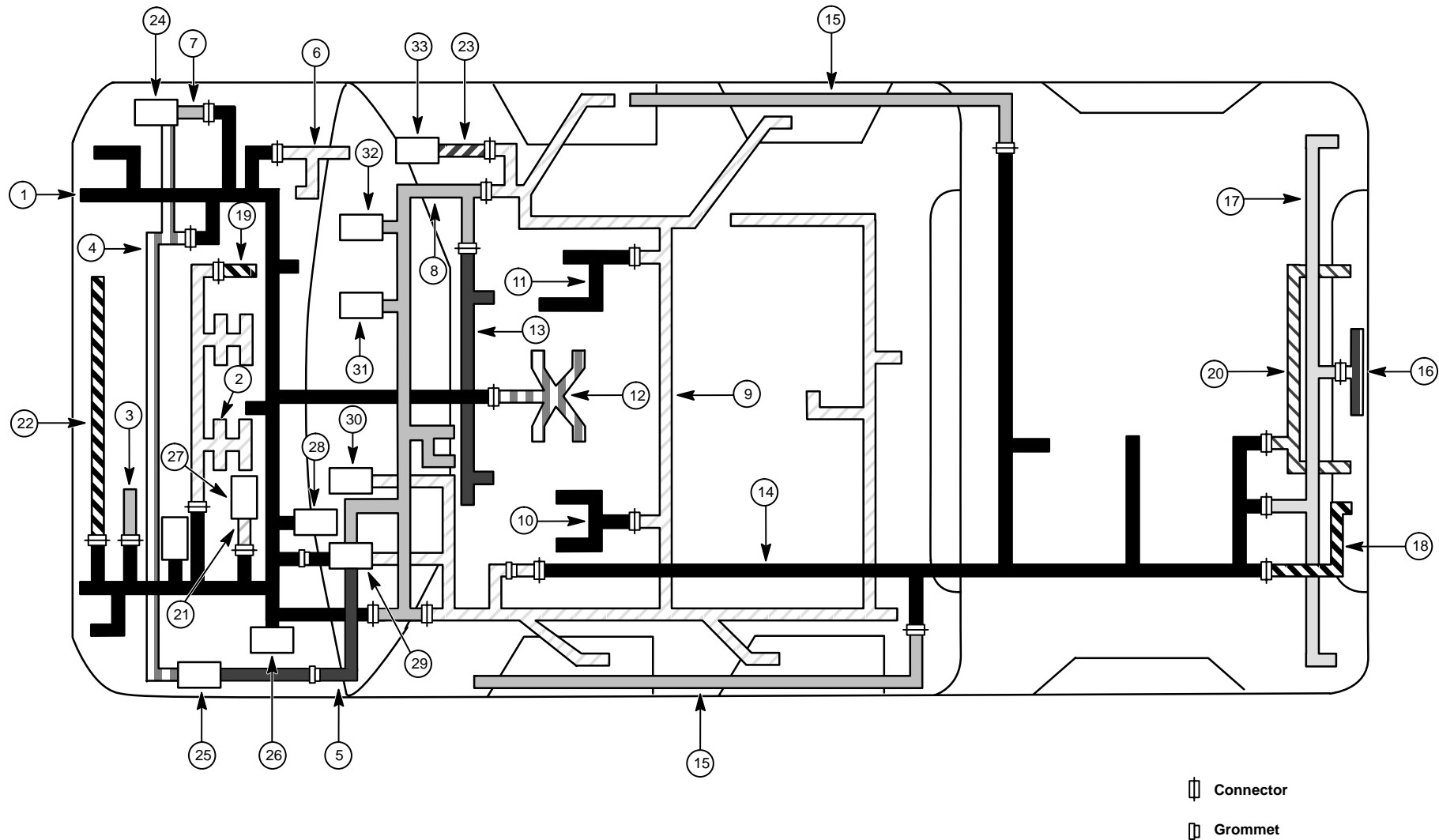
Excursion

Item	Part Number	Description
1	12A581	Wiring harness – Engine control sensor
2	12B637	Wiring harness – Engine control sensor and fuel charge
3	12A690	Wiring harness – Engine Control
4	14B060	Wiring harness – Starter motor relay and battery ground
5	14300	Wiring harness – Battery output
6	14305	Wiring harness – Alternator to battery
7	14B060	Wiring harness – Starter motor relay and battery ground
8	14401	Main wiring harness
9	14A005	Wiring harness – Body Main
10	14A699	Wiring harness – Seat regulator – with memory
	14B084	Wiring harness – Seat regulator – without memory
11	14B084	Wiring harness – Seat regulator
12	15525	Wiring harness – Powertrain Transmission Control Systems
13	14B079	Wiring harness – Center console
14	14A504	Wiring harness – Body Main
15	14335	Wiring harness – Interior illumination
16	14334	Wiring harness – Interior lamps

Item	Part Number	Description
17	14405	Wiring harness – Tail lamps
18	13A576	Wiring harness – Trailer lamp feed
19	14086	Wiring harness – Door warning switch
20	13A625	Wiring harness – High mounted stoplamp
21	13K027	Wiring harness – DTRL kit
22	13A409	Wiring harness – Tail lamps
23	–	ABS control module (2C219)
24	–	Battery (10655)
25	–	Battery II
26	–	Auxiliary relay box 1
27	–	Auxiliary relay box 2
28	–	Powertrain Control Module (PCM) (12A650)
29	–	Central Junction Box (CJB) (14A068)
30	–	Vehicle Security Module (VSM)
31	–	Electronic Automatic Temperature Control (EATC) module (19980)
22	–	Four-wheel drive control module
33	–	Parking Aid Module (PAM) (15K866)

9-3 Wiring Harness Overview

Pickup

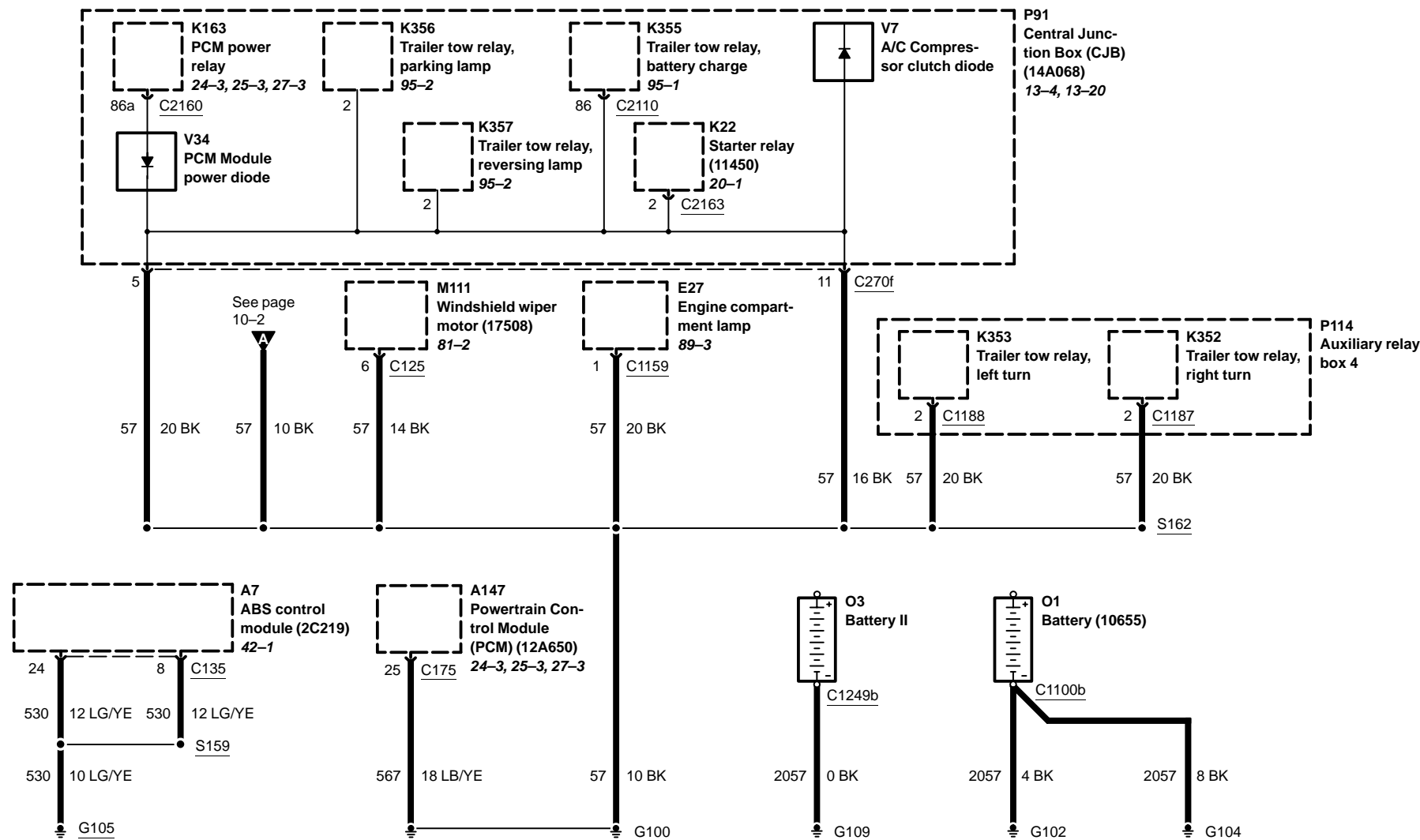


Pickup

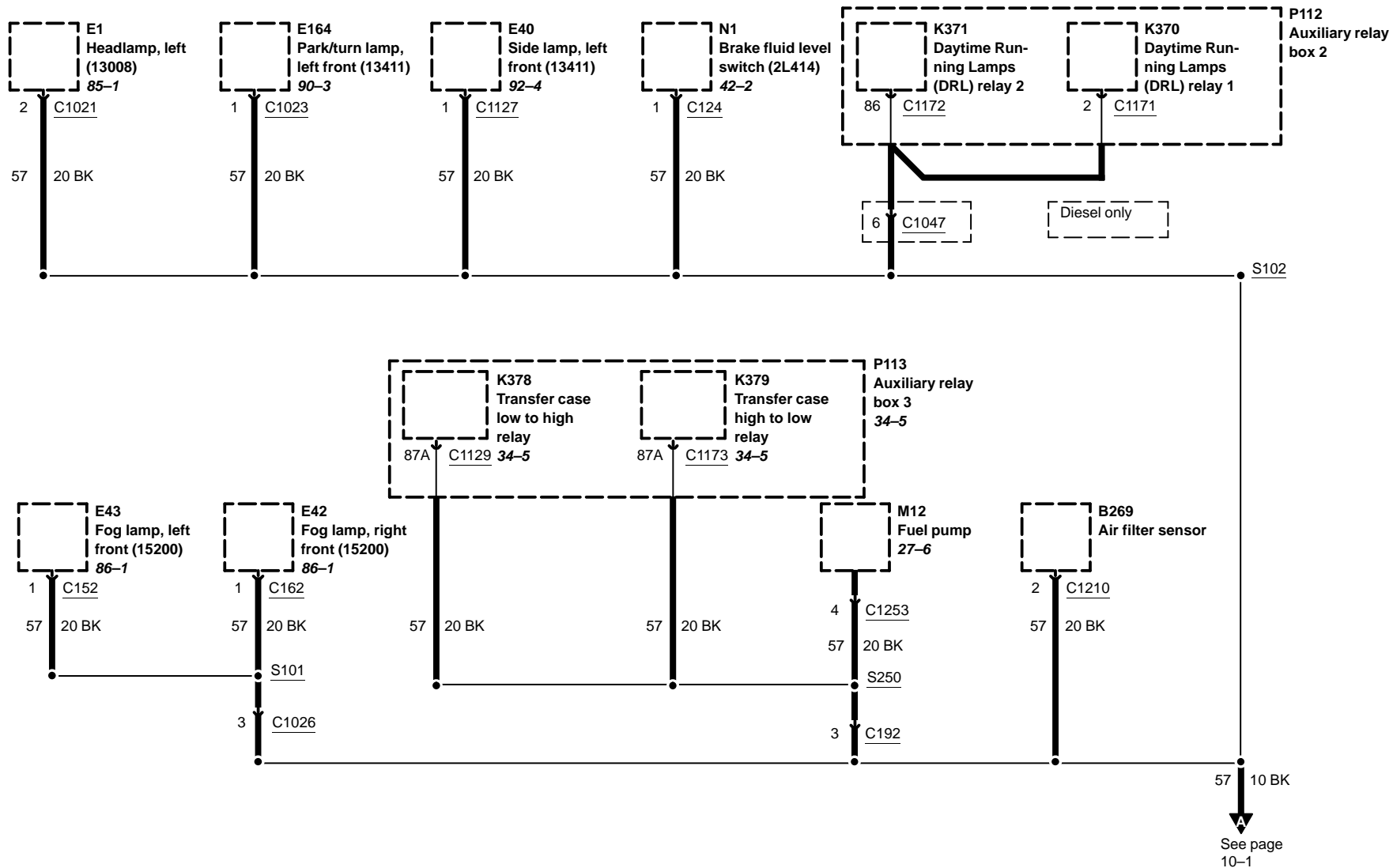
Item	Part Number	Description
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5	14300	Wiring harness – Battery output
6	14305	Wiring harness – Alternator/Rectifier system
7	14B060	Wiring harness – Starter motor relay and battery ground
8	14401	Main wiring harness
9	14A005	Wiring harness – Body Main
10	14B084	Wiring harness – Seat regulator
11	14B084	Wiring harness – Seat regulator
12	15525	Wiring harness – Powertrain Transmission Control Systems
13	17C712	Wiring harness – Rear view inside mirror
	15A404	Wiring harness – Marker lamp to switch
14	14405	Wiring harness – Tail lamps
15	19F504	Wiring harness – running board lamps
16	13412	Wiring harness – Rear license plate lamp

Item	Part Number	Description
17	13A409	Wiring harness – Tail lamps
18	13A576	Wiring harness – Trailer lamp feed
19	14B102	Wiring harness – Cylinder head sensor jumper
20	14N139	Wiring harness – Parking/Reversing Aid
21	13K027	Wiring harness – DTRL kit
22	15A211	Wiring harness – Fog lamp jumper
23	15K867	Wiring harness – Parking aid sensor, front
24	–	Battery (10655)
25	–	Battery II
26	–	Auxiliary relay box 1
27	–	Auxiliary relay box 2
28	–	Powertrain Control Module (PCM) (12A650)
29	–	Central Junction Box (CJB) (14A068)
30	–	Vehicle Security Module (VSM)
31	–	Electronic Automatic Temperature Control (EATC) module (19980)
22	–	Four-wheel drive control module
33	–	Parking Aid Module (PAM) (15K866)

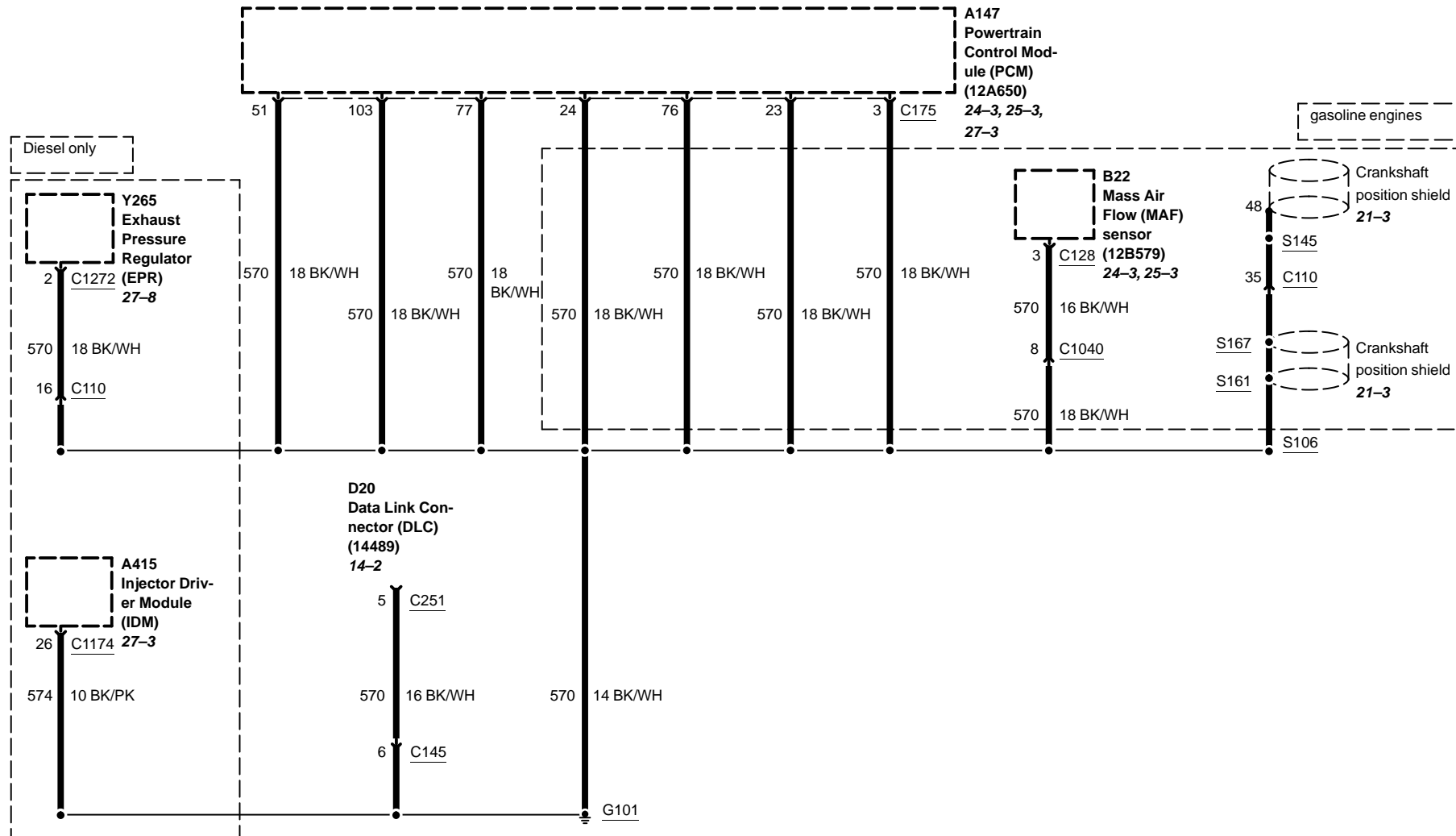
Excursion, G100, G102, G104, G105



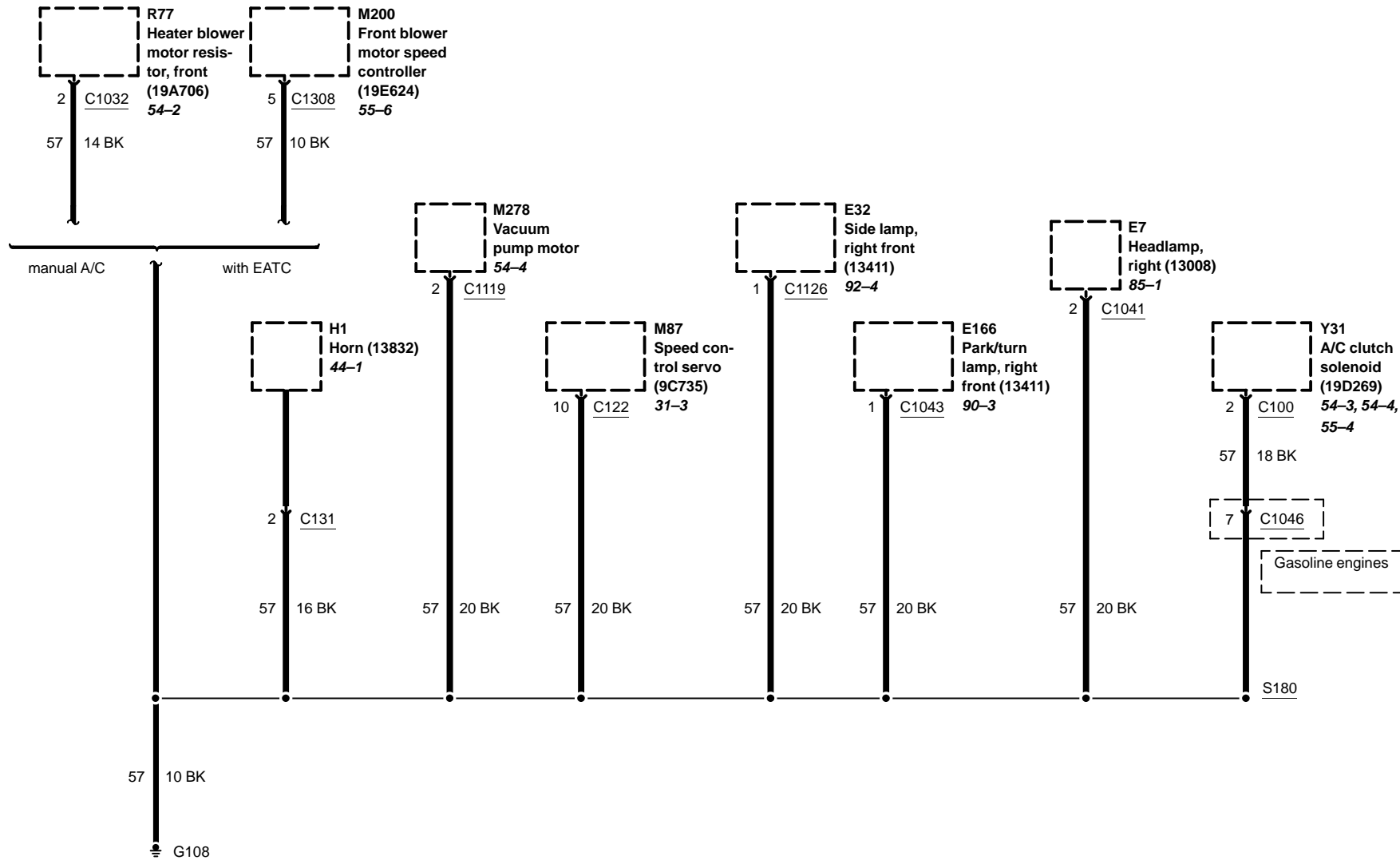
Excursion

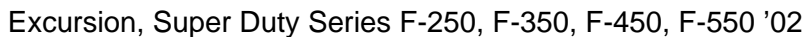


Excursion, G101

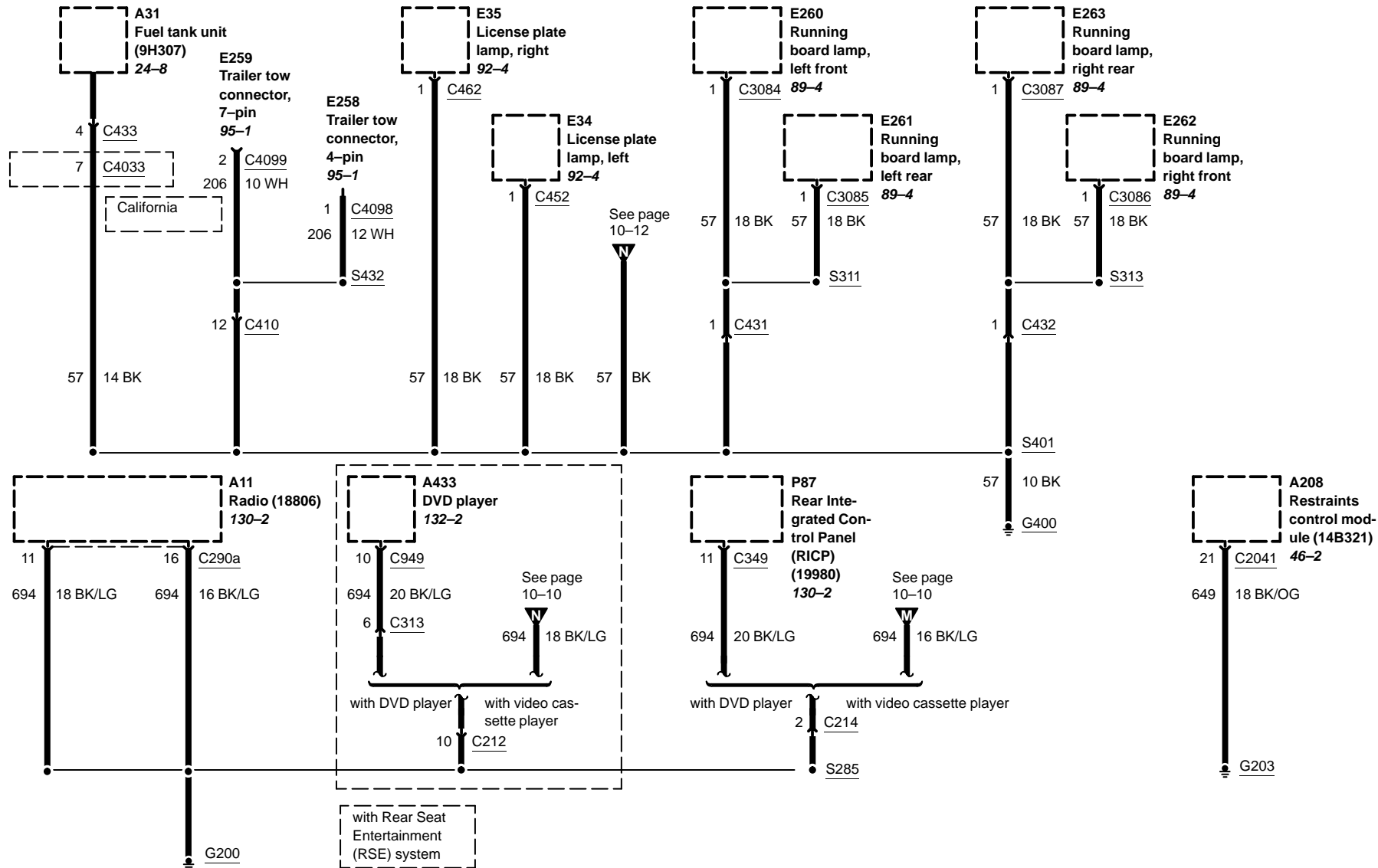


Excursion, G108

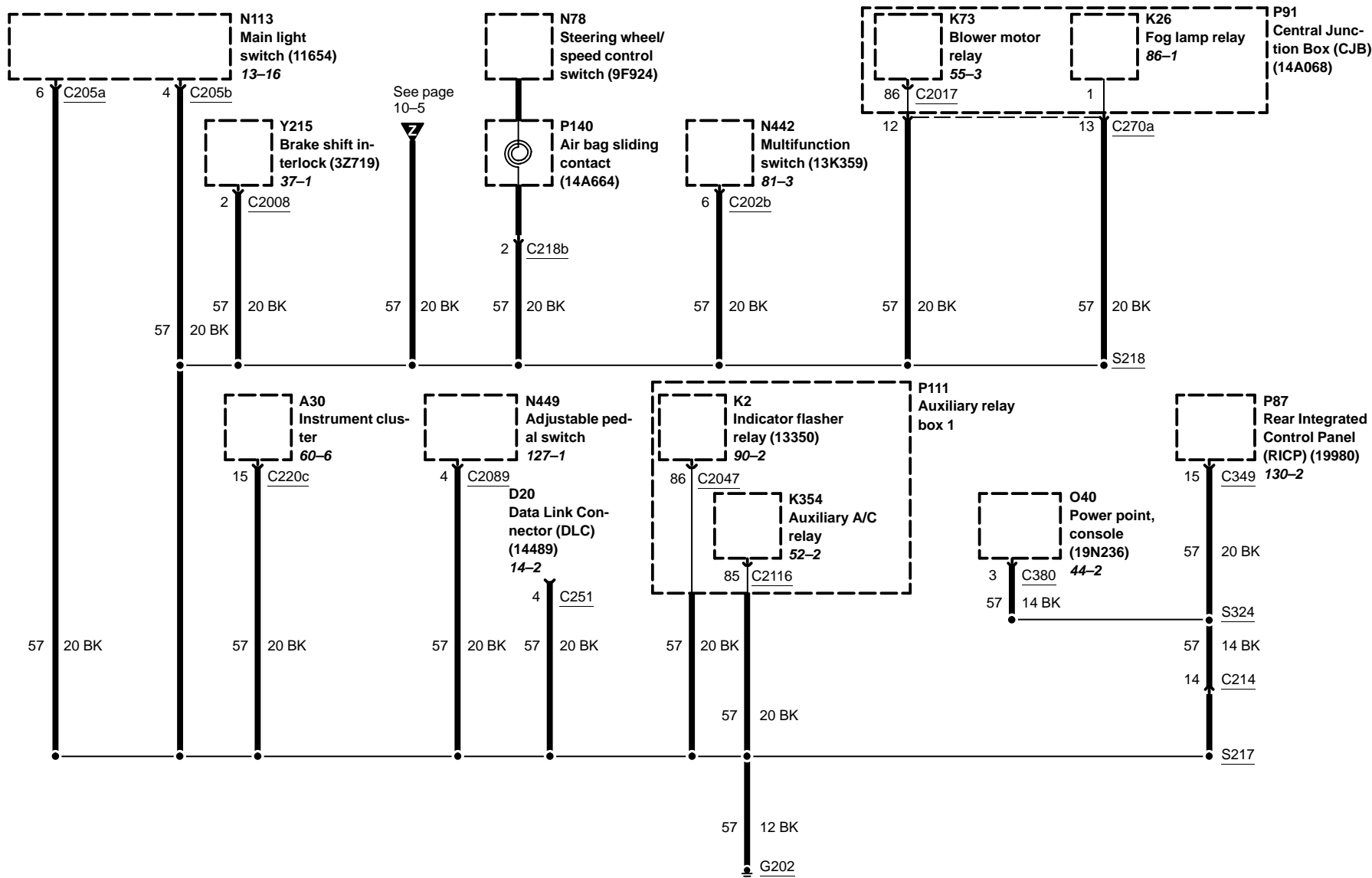




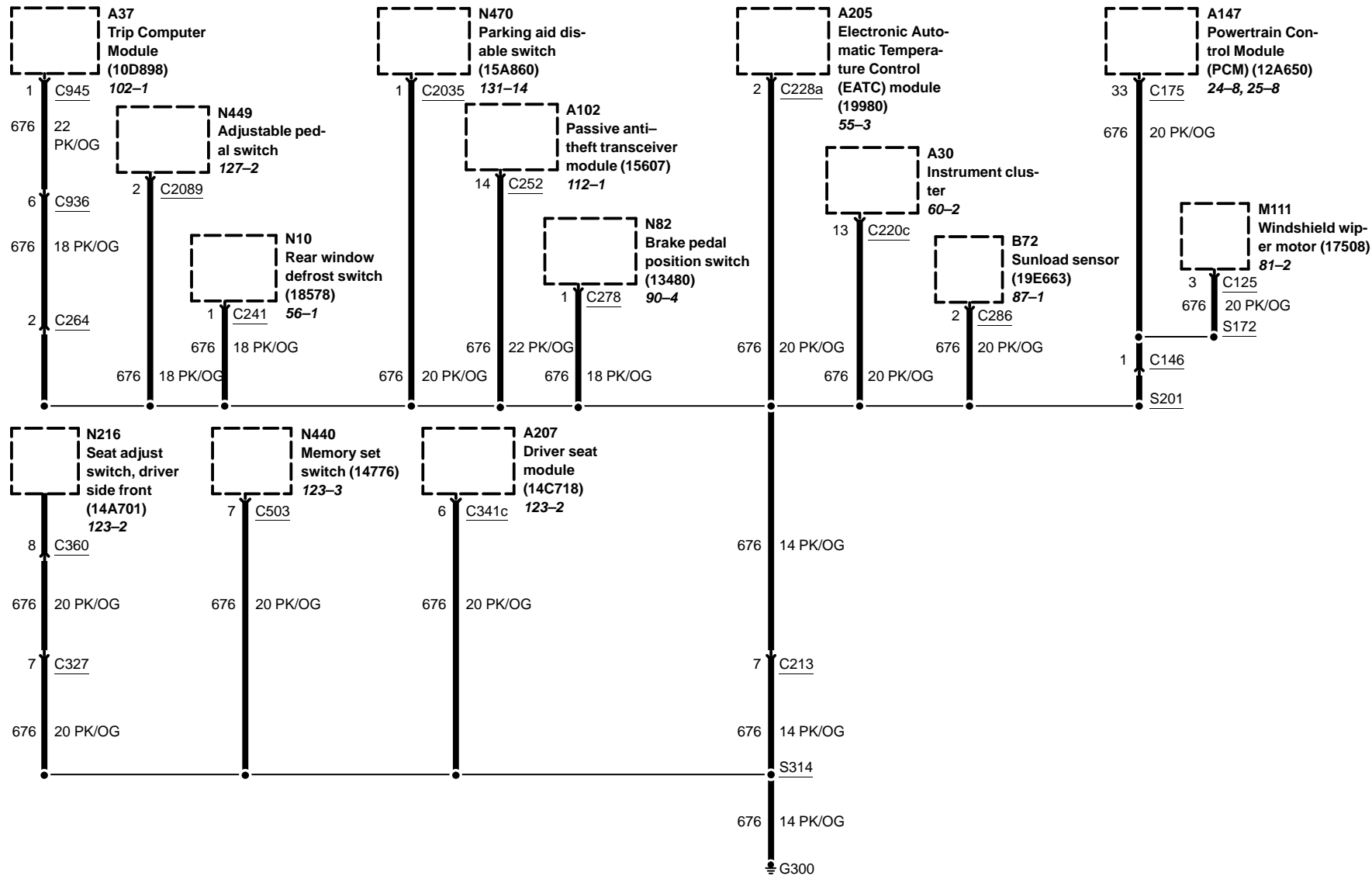
Excursion, G200, G203, G400



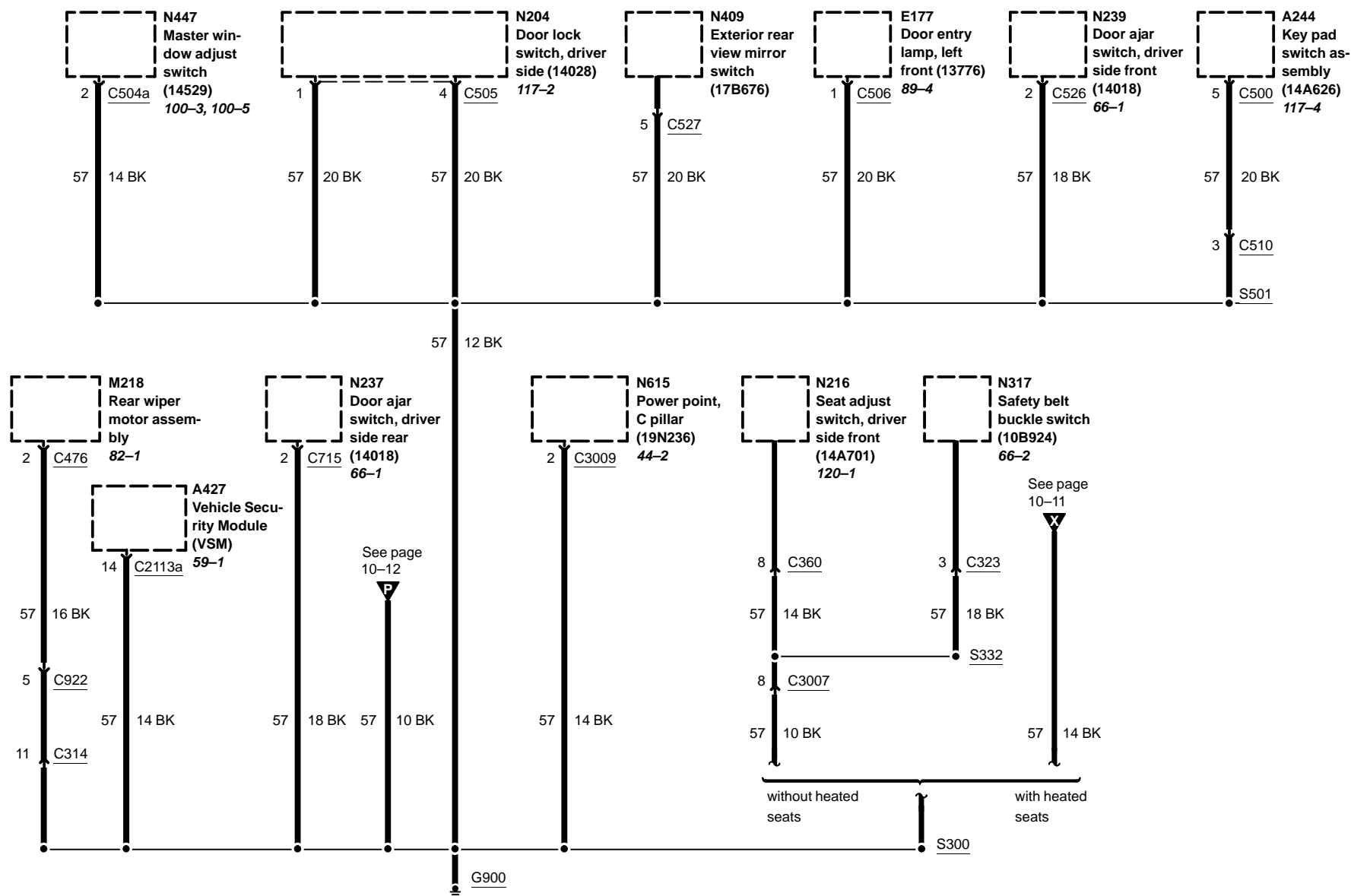
Excursion, G202



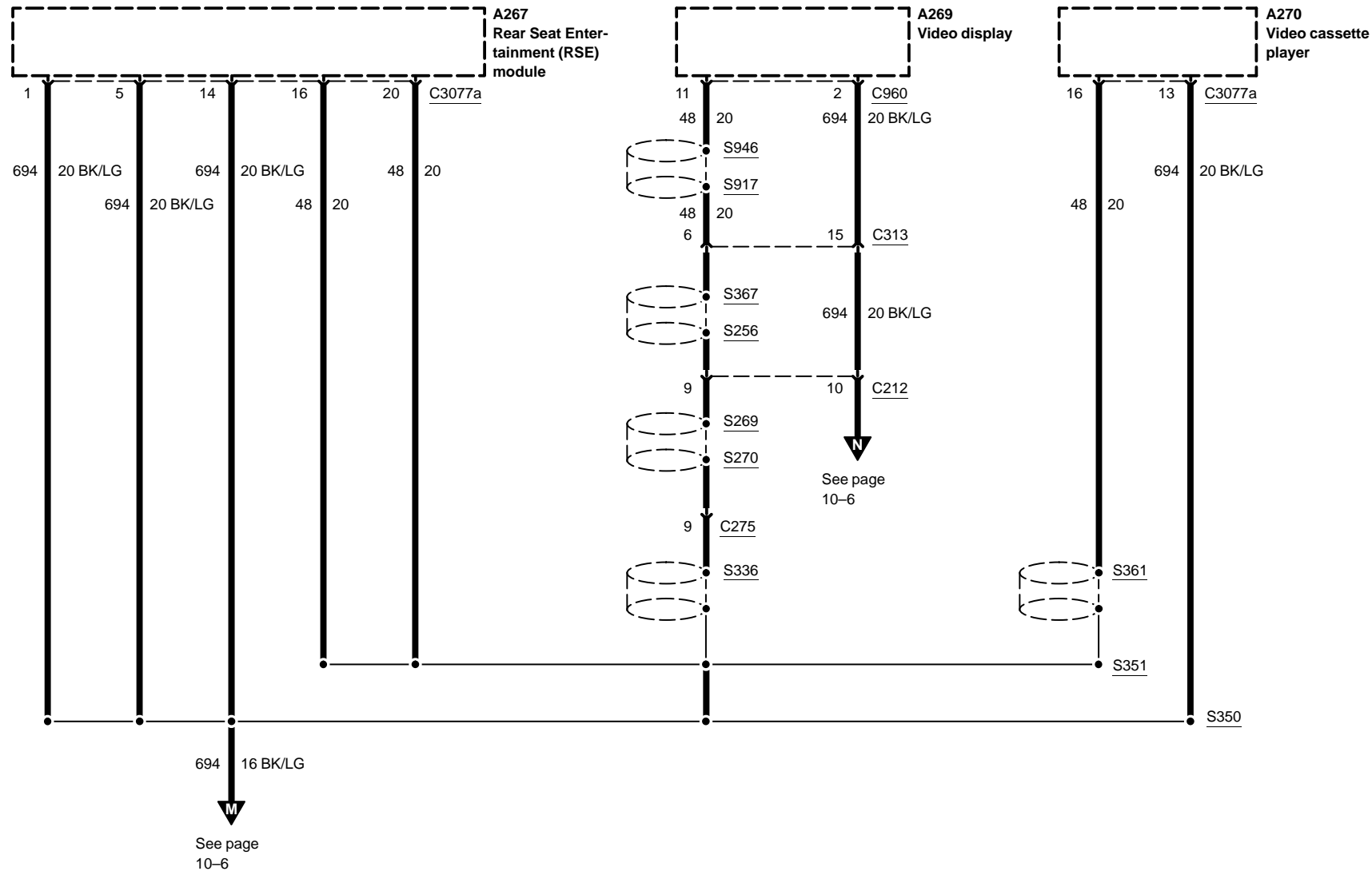
Excursion, G300



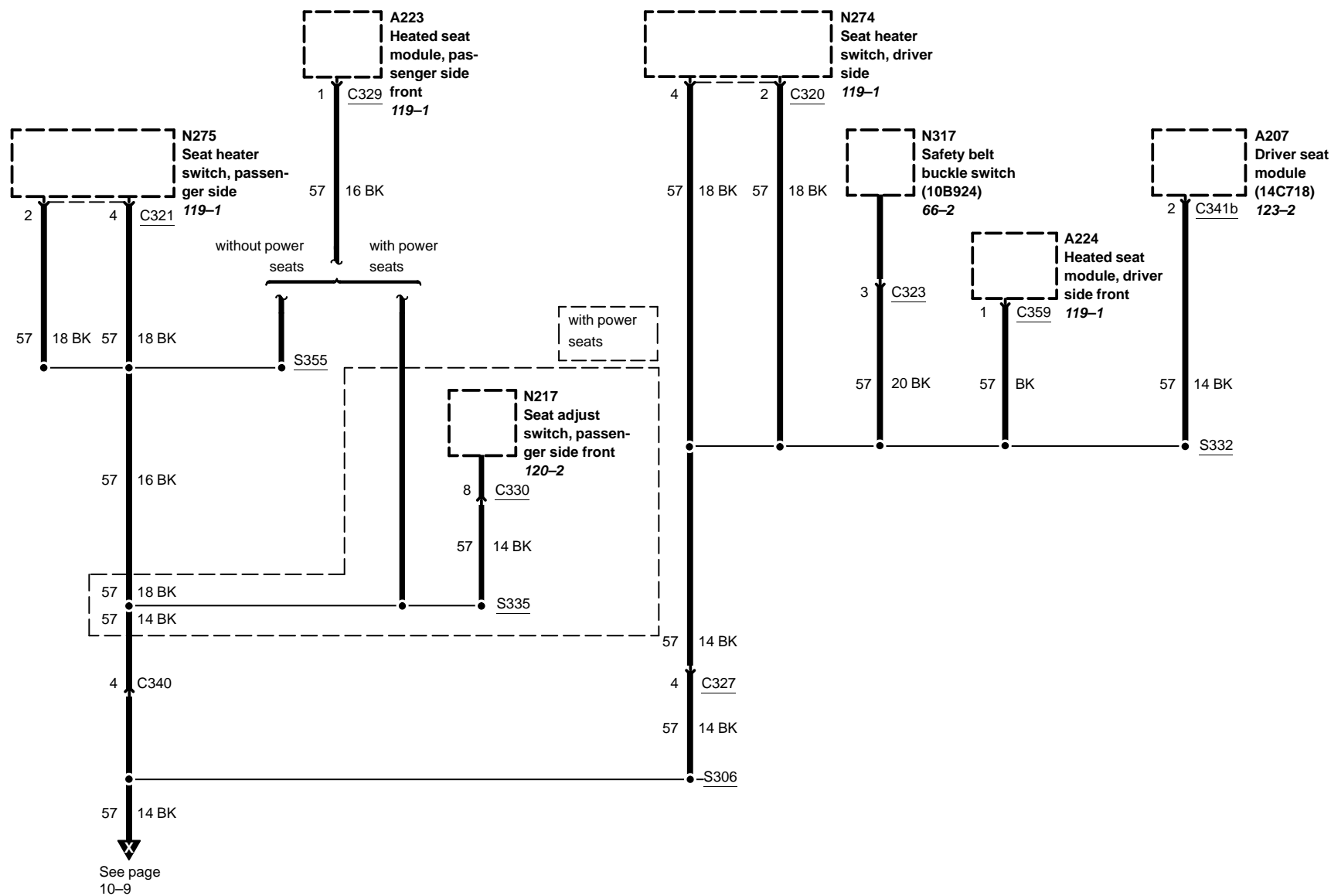
Excursion, G900



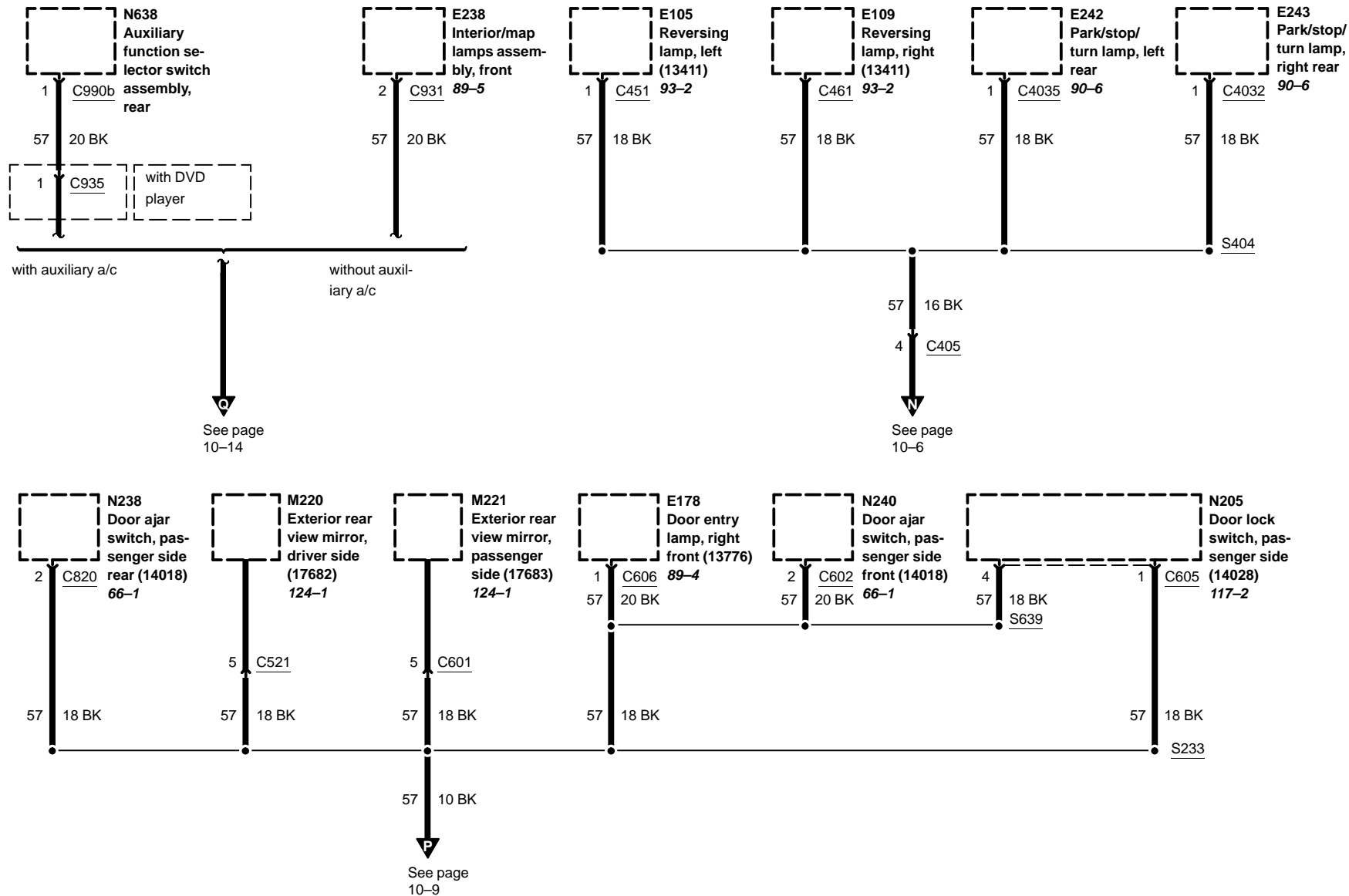
Excursion, with video cassette player



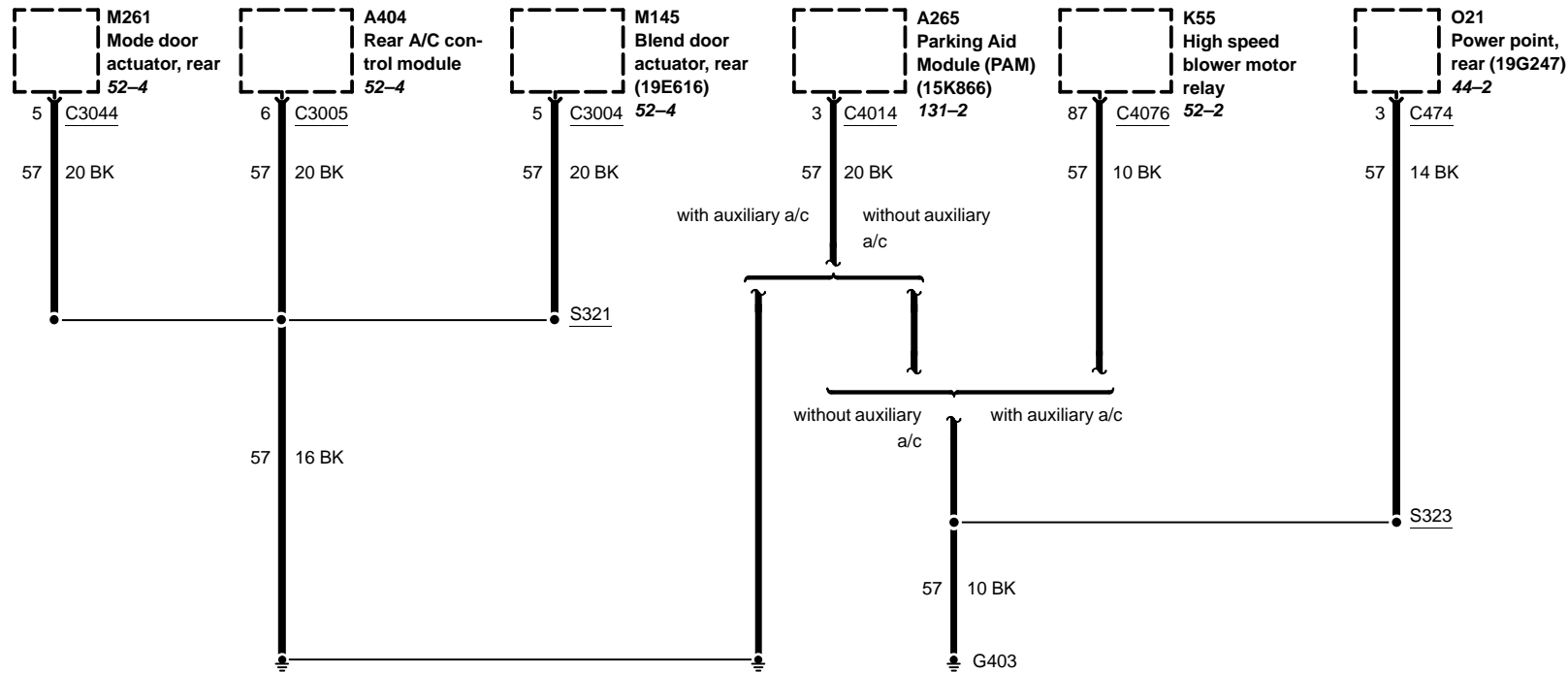
Excursion, Super Duty Series F-250, F-350, F-450, F-550 '02



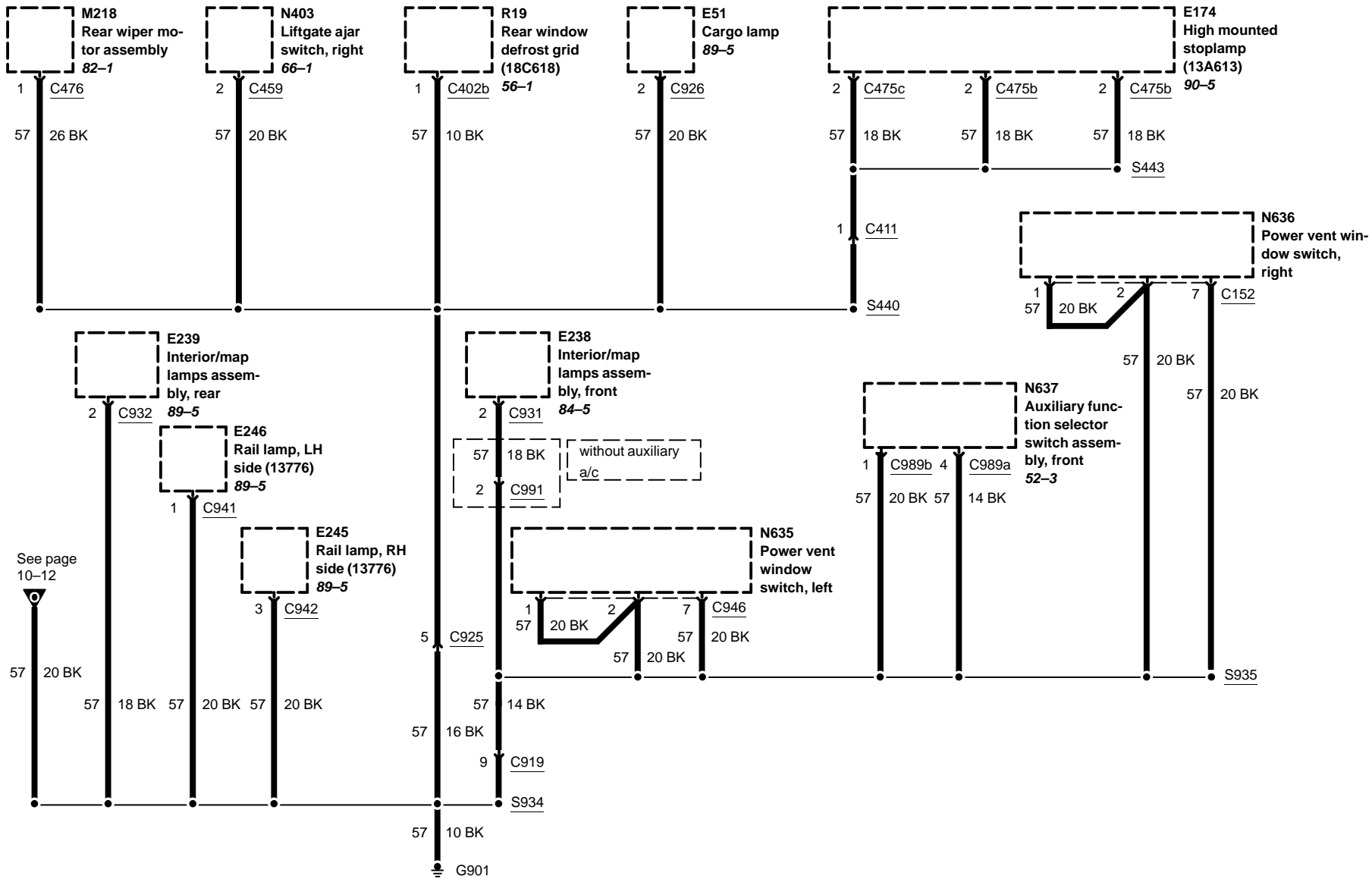
Excursion



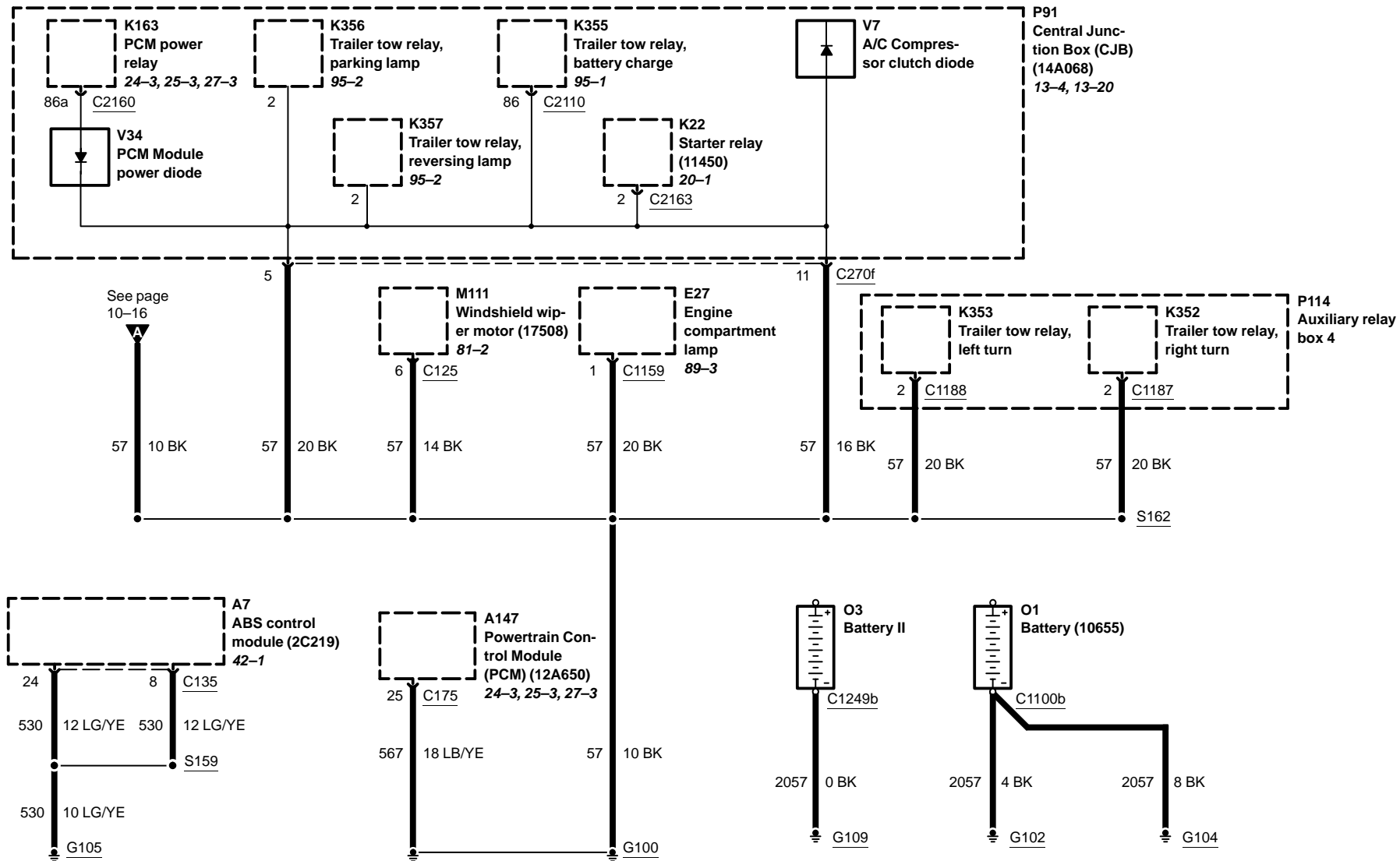
Excursion



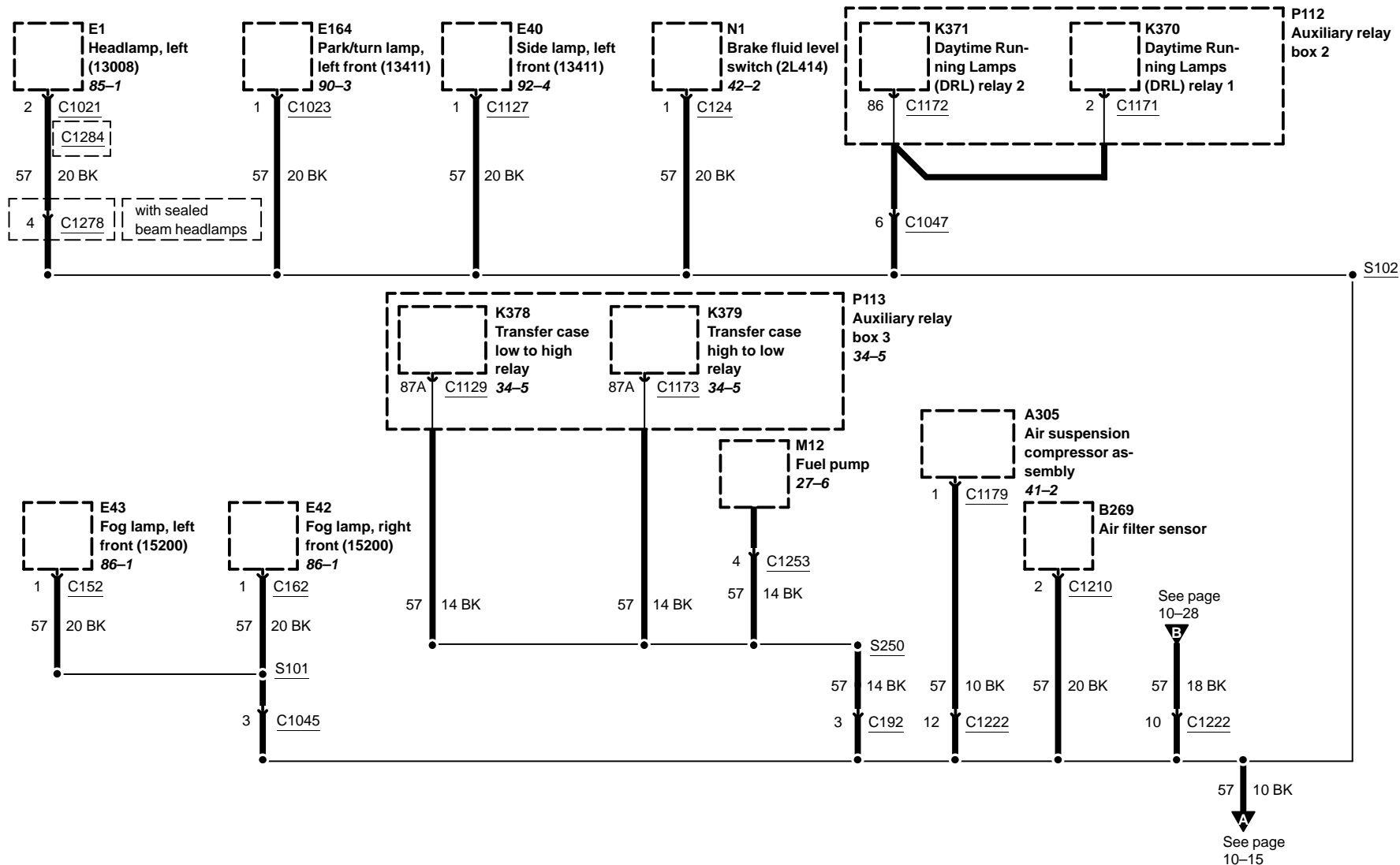
Excursion



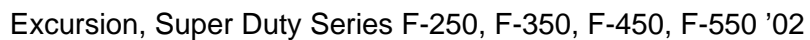
Pickup, G100, G102, G104, G105



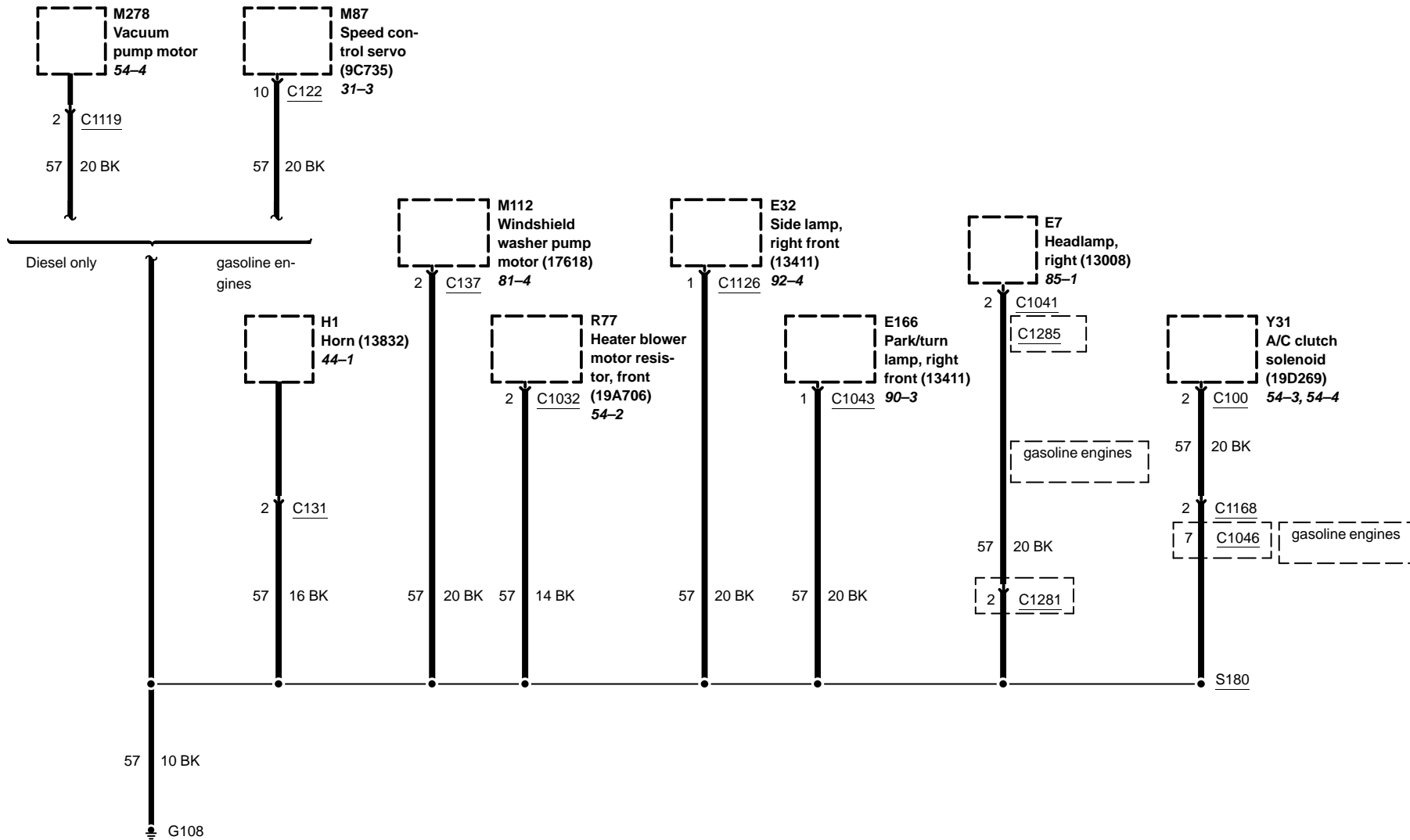
Pickup



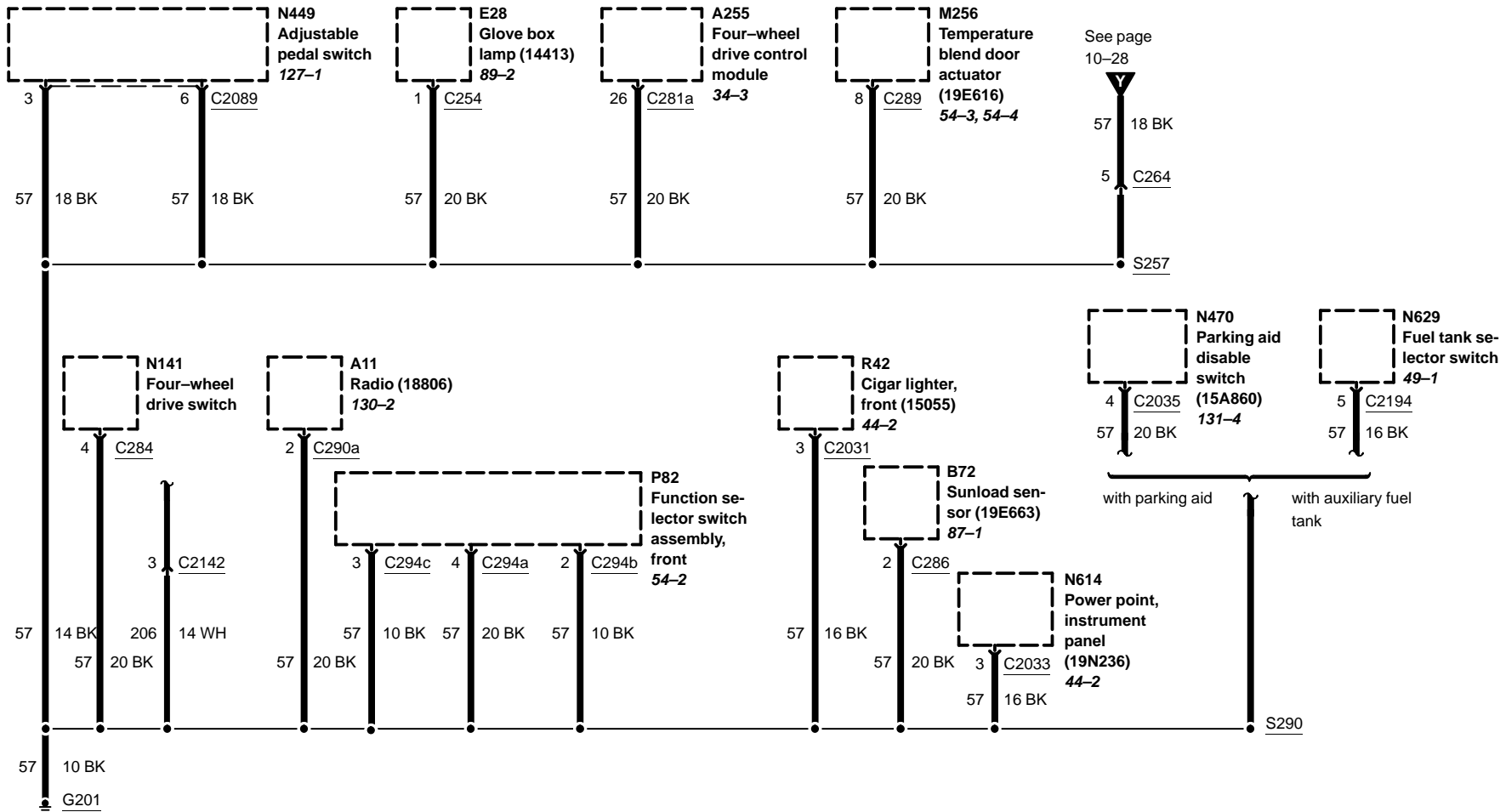
Pickup, G101



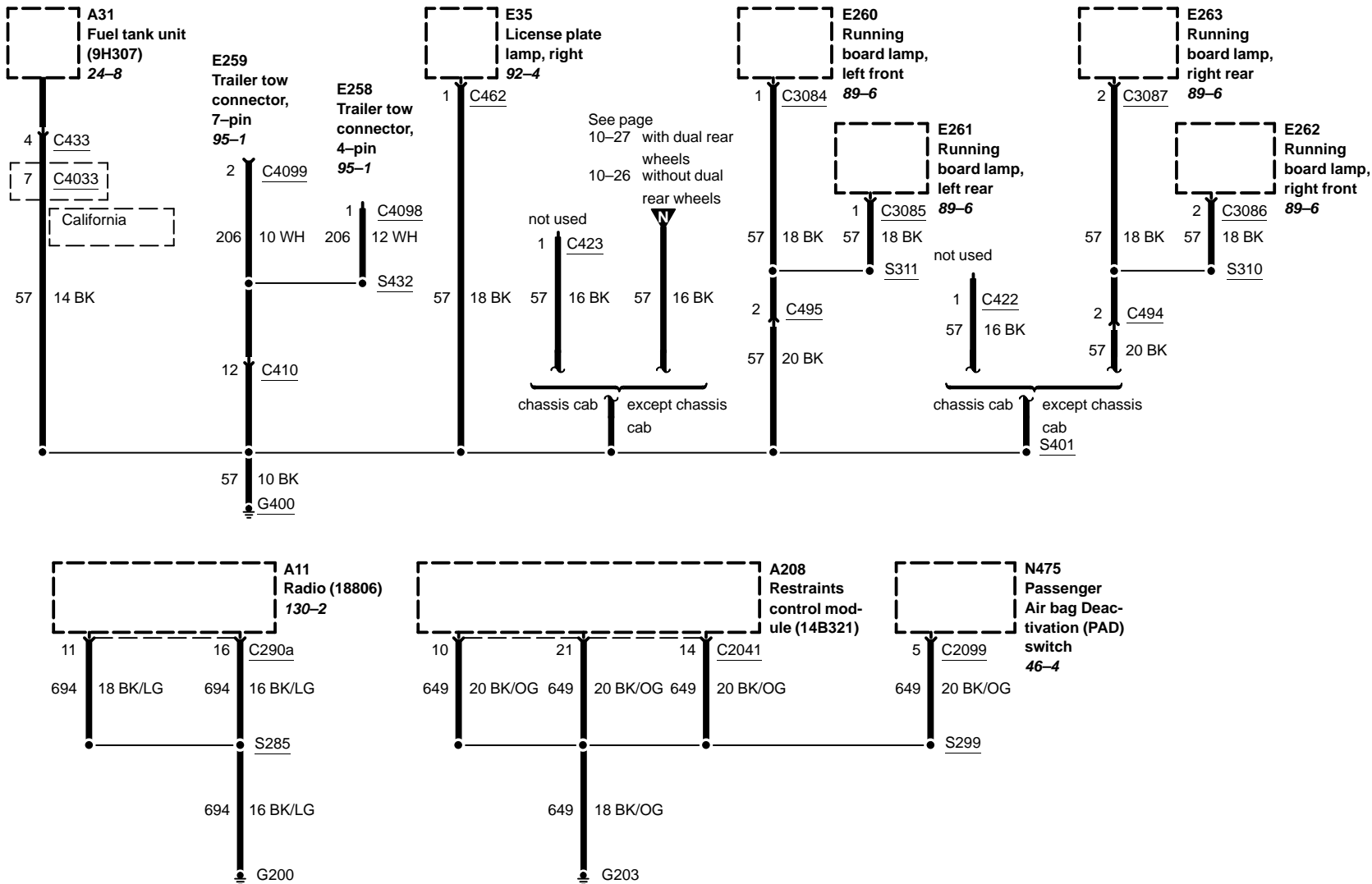
Pickup, G108

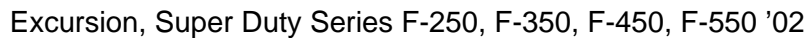


Pickup, G201

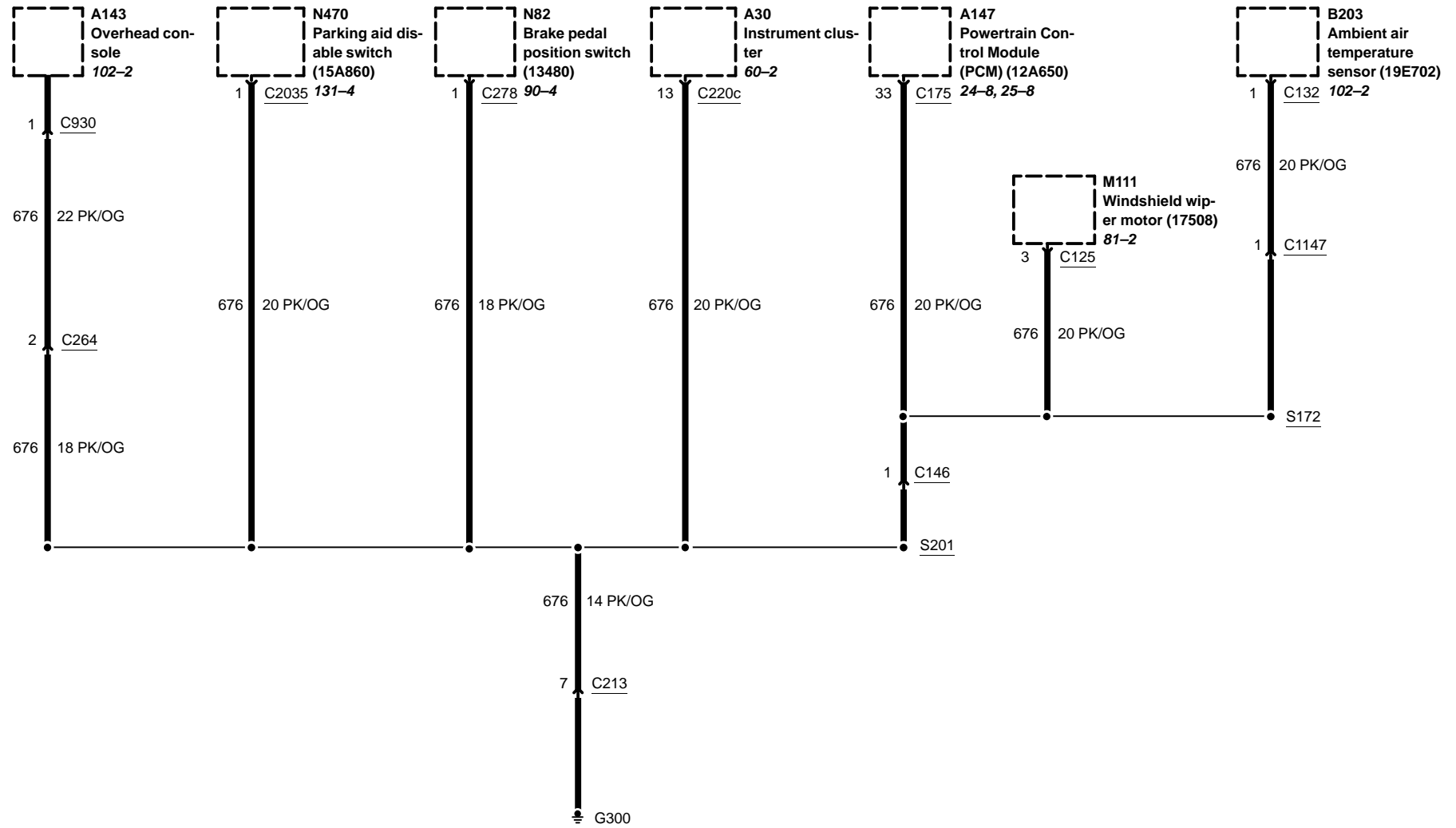


Pickup, G200, G202, G203, G400

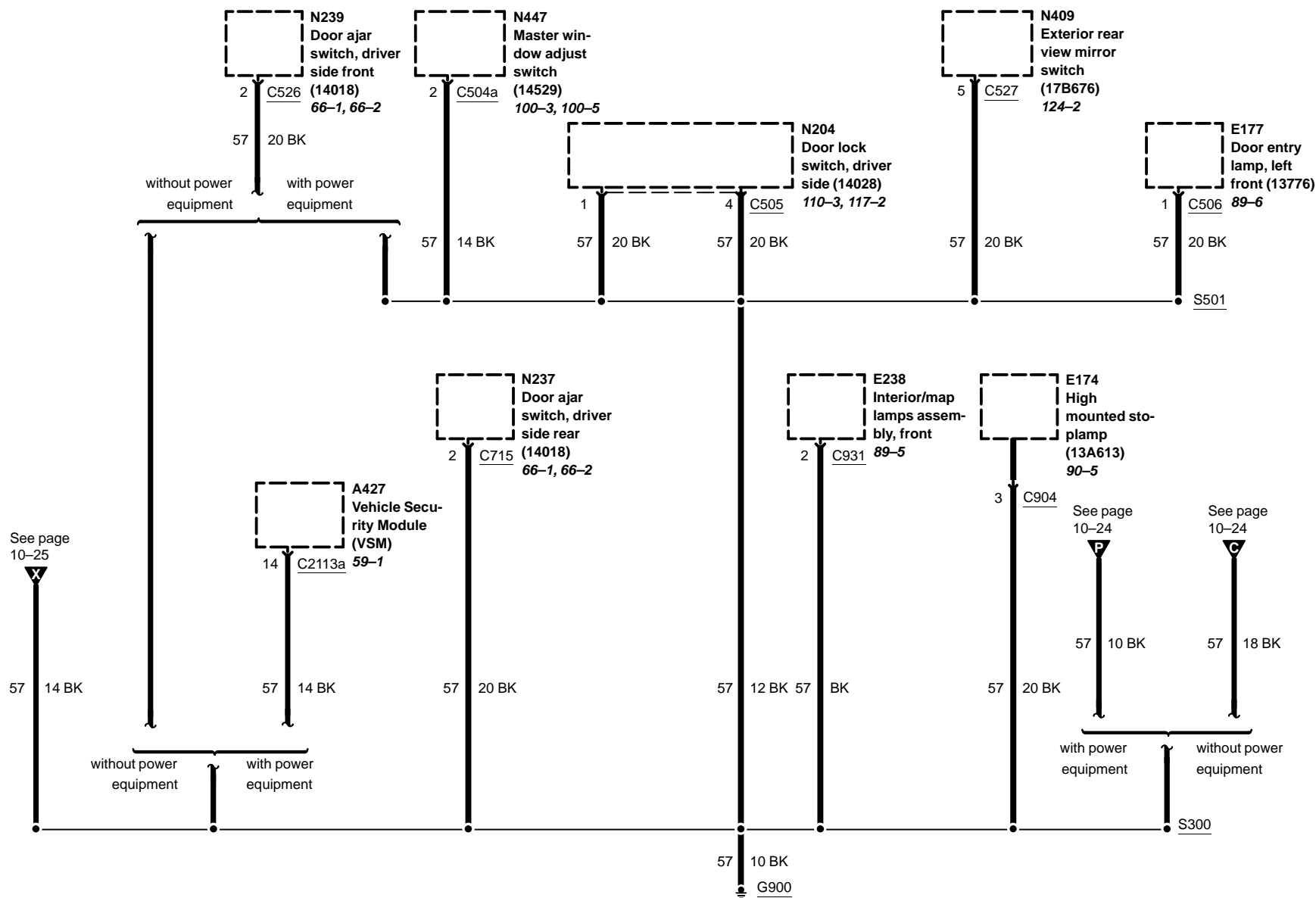




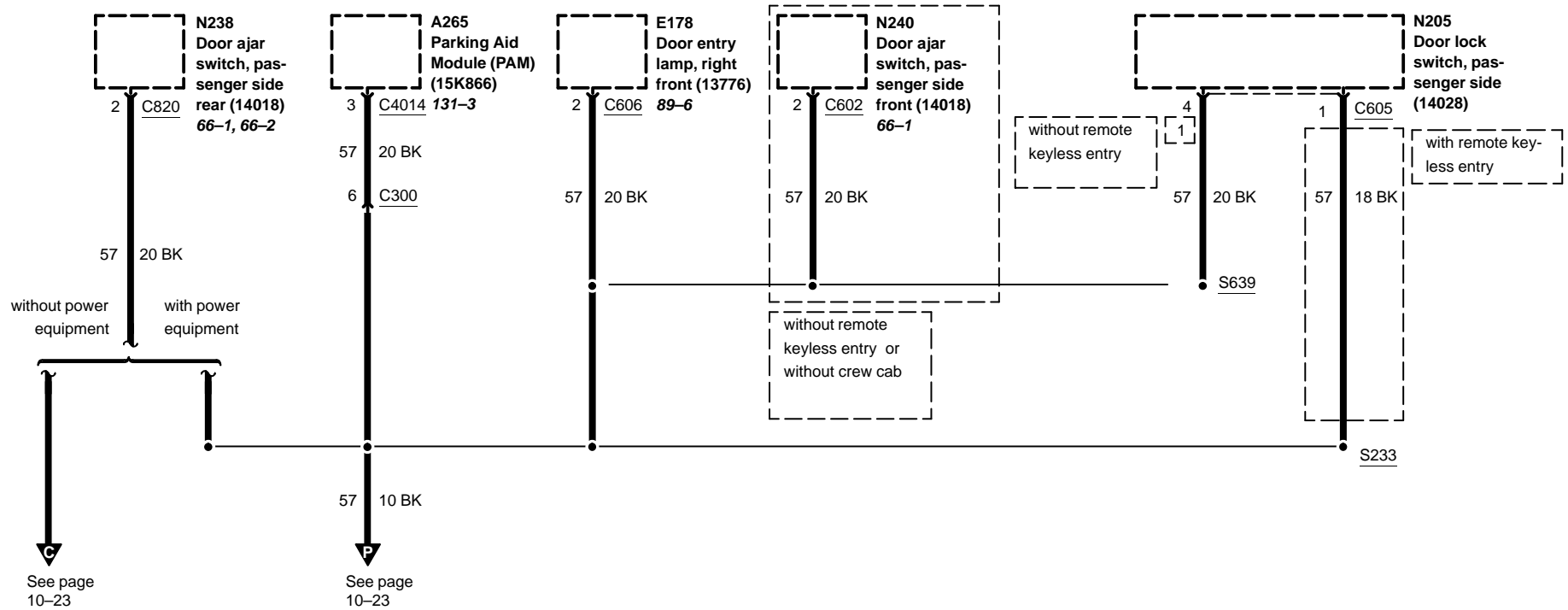
Pickup, G300



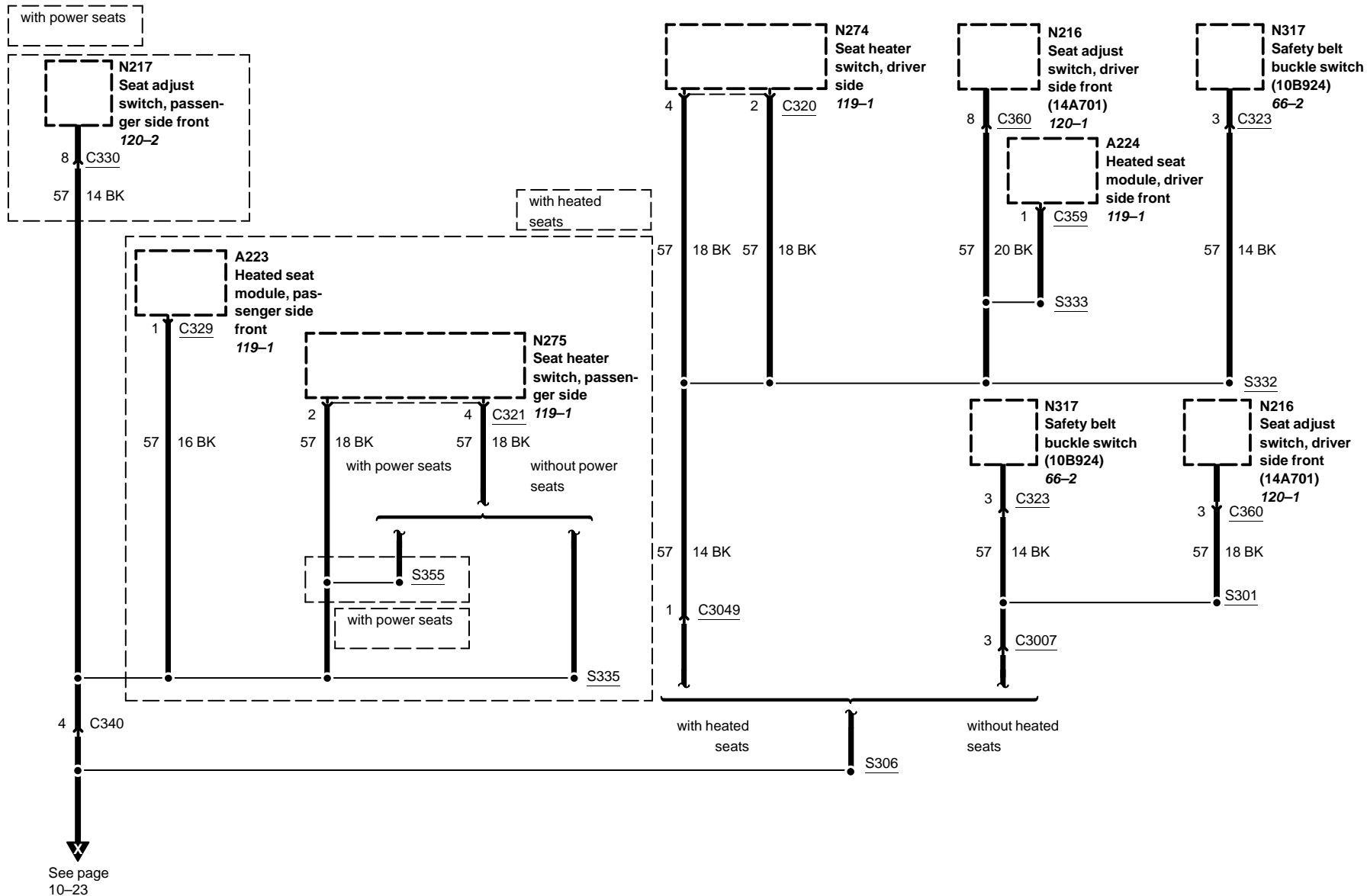
Pickup, G900



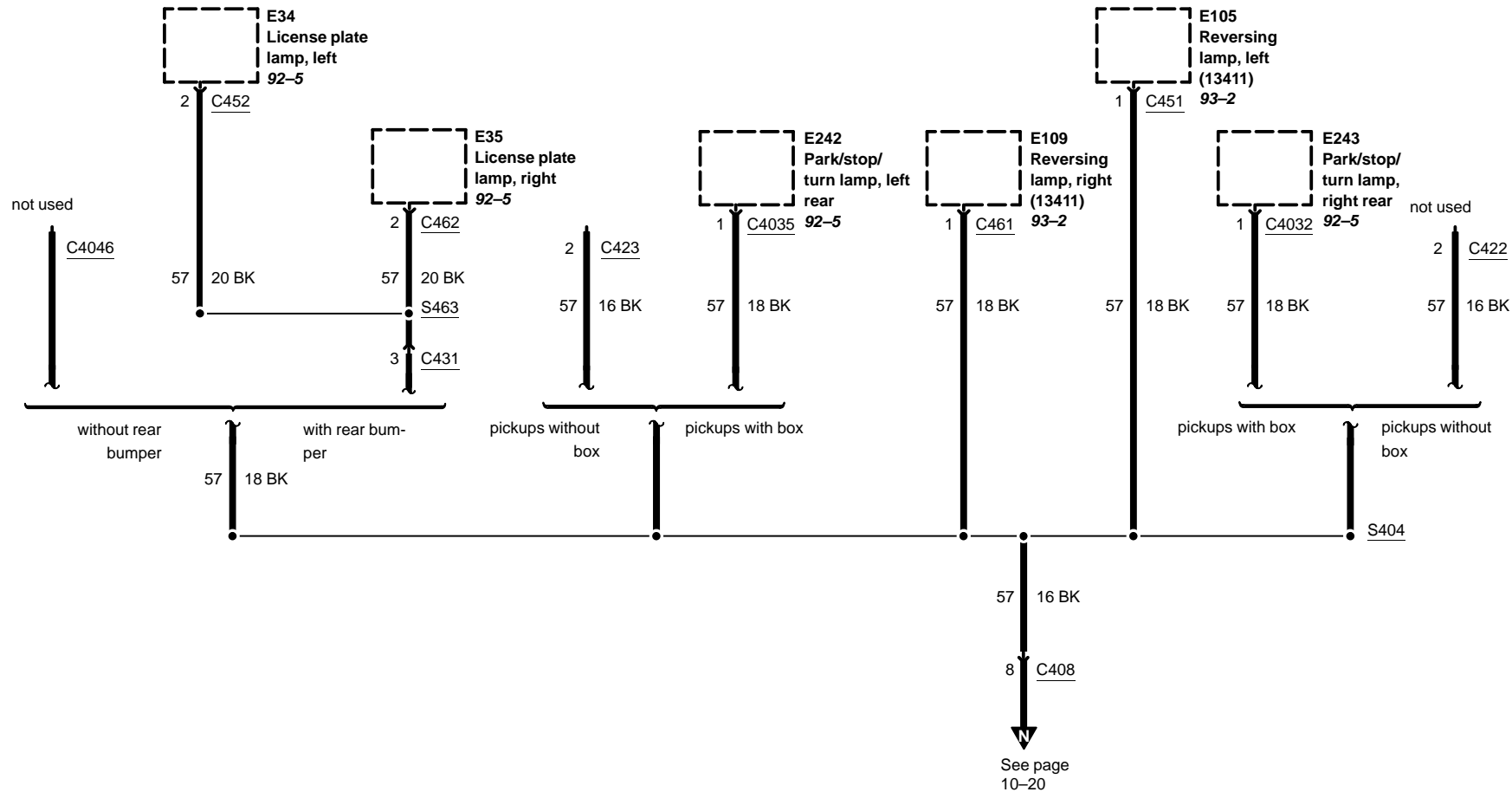
Pickup



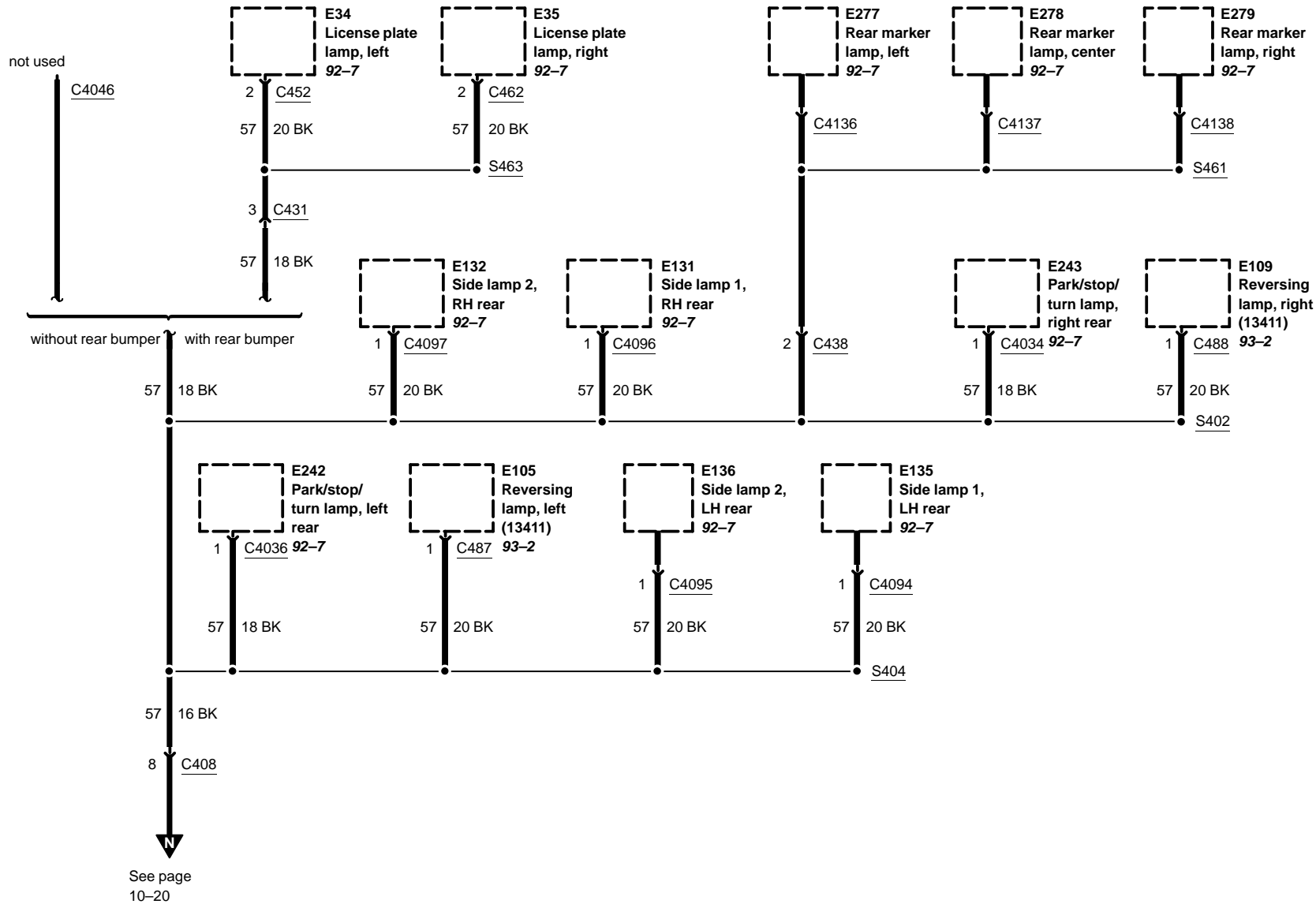
Pickup



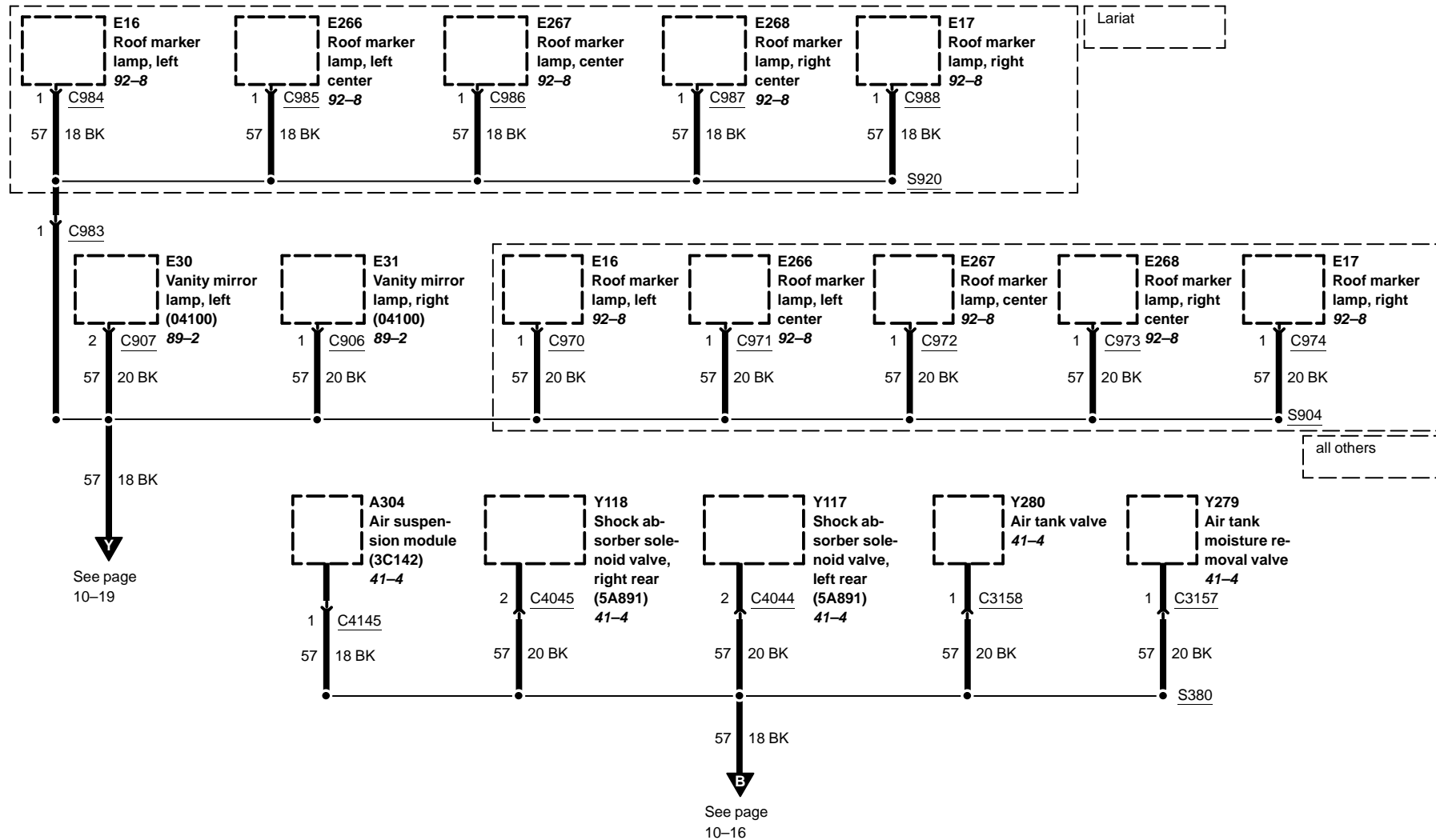
Pickup, without dual rear wheels



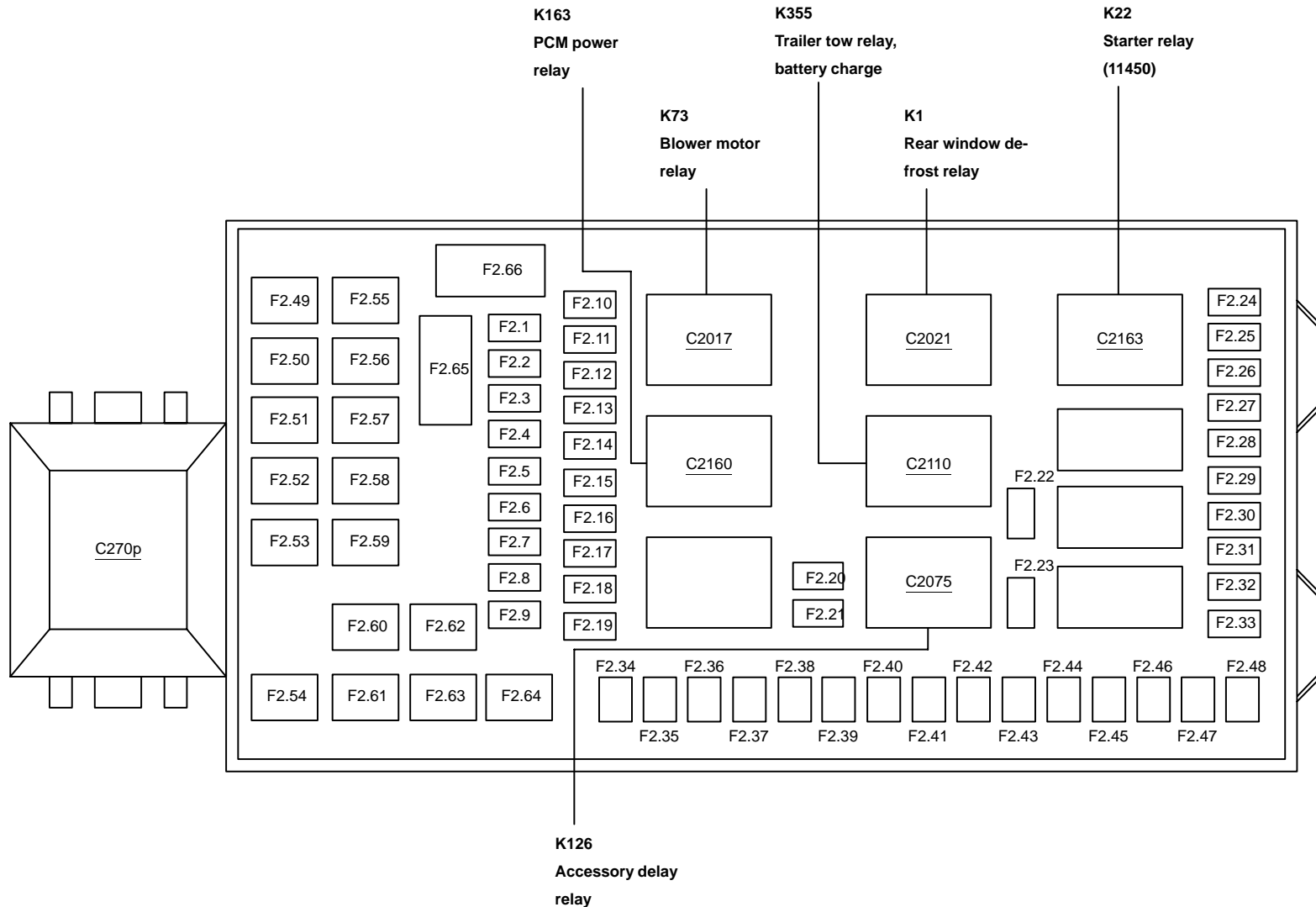
Pickup



Pickup



Central Junction Box (CJB) (14A068)



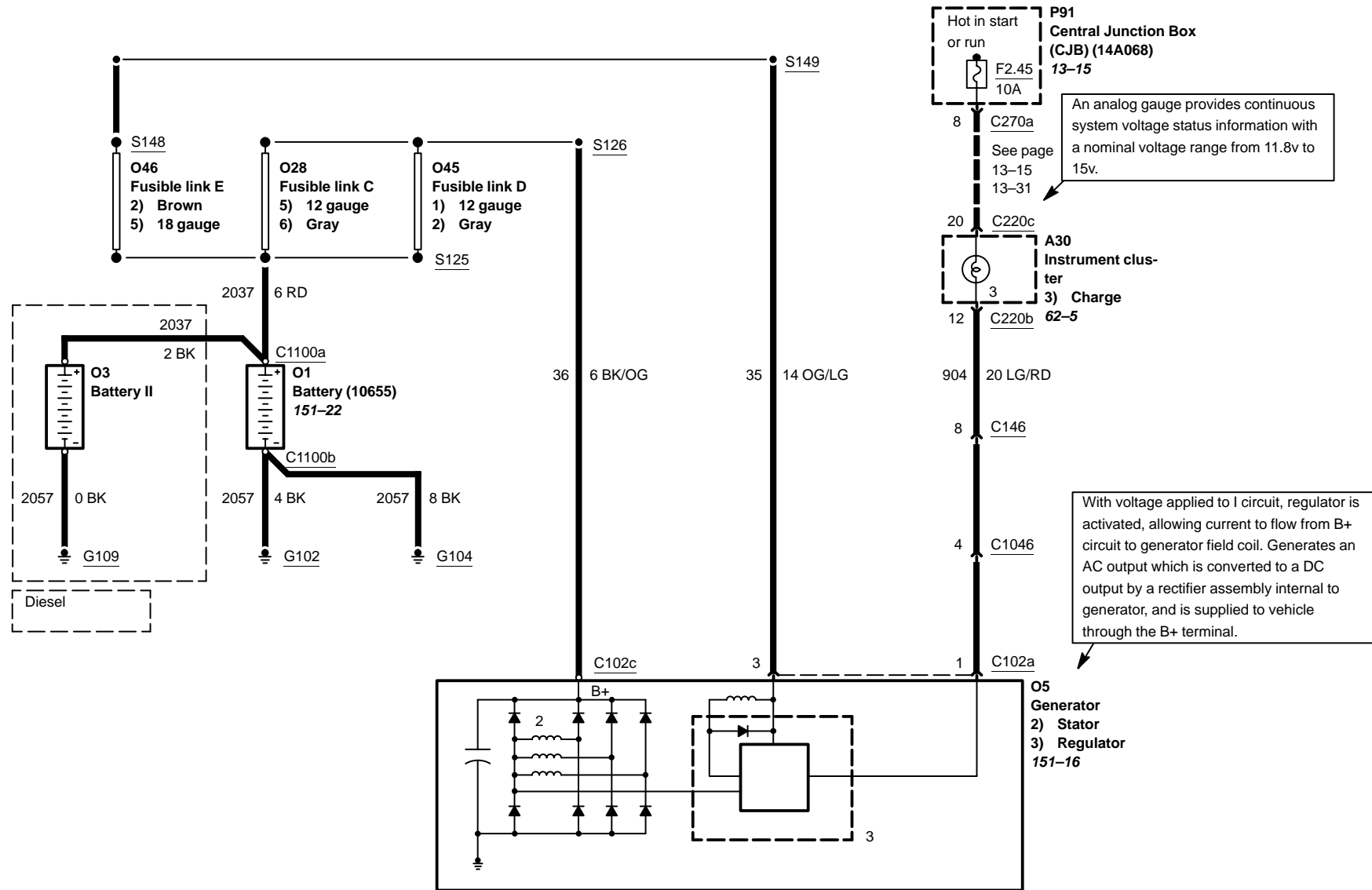
Fuse	Amps	Circuits protected
F2.1	15A	adjustable pedal
F2.2	20A	Power point, console (19N236)
F2.3	20A	Power point, C pillar (19N236)
F2.4	20A	Power point, instrument panel (19N236)
F2.5	20A	Power point, rear (19G247)
F2.6	20A	Turn signal relay, Trailer tow
F2.7	30A	Headlamps, High Beam/Flash-to-Pass
F2.8	–	not used
F2.9	20A	Power mirrors
F2.10	10A	A/C clutch relay
F2.11	20A	Radio (18806)
F2.12	20A	Cigar lighter, front (15055), Data Link Connector (DLC) (14489)
F2.13	10A	Seat adjust switch, driver side front (14A701), Exterior rear view mirror switch (17B676)
F2.14	15A	Rear Integrated Control Panel (RICP) (19980)
F2.15	10A	Driver seat module (14C718)
F2.16	15A	DVD player, Rear Integrated Control Panel (RICP) (19980), Rear Seat Entertainment (RSE) module
F2.17	15A	Exterior lamps, Trailer tow relay, parking lamp
F2.18	20A	Brake pedal position switch (13480), Indicator flasher relay (13350)
F2.19	5A	Vehicle Security Module (VSM)
F2.20	25A	not used
F2.21	25A	Liftgate wiper
F2.22	20A	Fuel injectors, Powertrain Control Module (PCM) (12A650)
F2.23	20A	Heated oxygen sensors (HO2S), A/C clutch relay, Vapor management valve, Automatic transmission module (7G422), EVAP canister vent control solenoid
F2.24	15A	Air Suspension
F2.25	10A	ABS control module (2C219)
F2.26	10A	Air bags

Fuse	Amps	Circuits protected
F2.27	15A	Auxiliary Climate Control, Heated seats, Vacuum pump motor, speed control, Overhead console, Brake shift interlock (3Z719), Electronic Shift On the Fly (ESOF) solenoid, Digital Transmission Range (DTR) sensor (7F293)
F2.28	10A	Climate Control System
F2.29	10A	Customer access 1
F2.30	15A	Headlamps, High Beam/Flash-to-Pass
F2.31	15A	Shift Lock
F2.32	5A	Radio (18806)
F2.33	15A	Wiper/washer
F2.34	10A	Brake pedal position switch (13480), Passive anti-theft transceiver module (15607), Electronic Automatic Temperature Control (EATC) module (19980), Four-wheel drive control module, Brake pressure switch (2B264)
F2.35	10A	Instrument cluster, Interior lamps
F2.36	10A	Powertrain Control Module (PCM) (12A650)
F2.37	15A	Horn
F2.38	20A	Trailer tow
F2.39	–	not used
F2.40	20A	Fuel pump
F2.41	10A	Instrument cluster, Interior lamps
F2.42	15A	Accessory delay, Radio (18806), Power Door Locks
F2.43	10A	fog lamps
F2.44	15A	Anti-theft
F2.45	10A	Passive anti-theft transceiver, Overdrive cancel switch (7G550), Passive anti-theft transceiver module (15607), Accelerator pedal position sensor, Four-wheel drive control module, Instrument cluster – Excursion
		Clutch pedal position switch, Auxiliary Powertrain Control Module (APCM), Accelerator pedal position sensor, Overdrive cancel switch (7G550), Four-wheel drive control module, Instrument cluster – Pickup
F2.46	10A	Headlamp, left (13008), Low beam
F2.47	10A	Headlamp, right (13008), Low beam
F2.48	10A	Rear wiper motor assembly

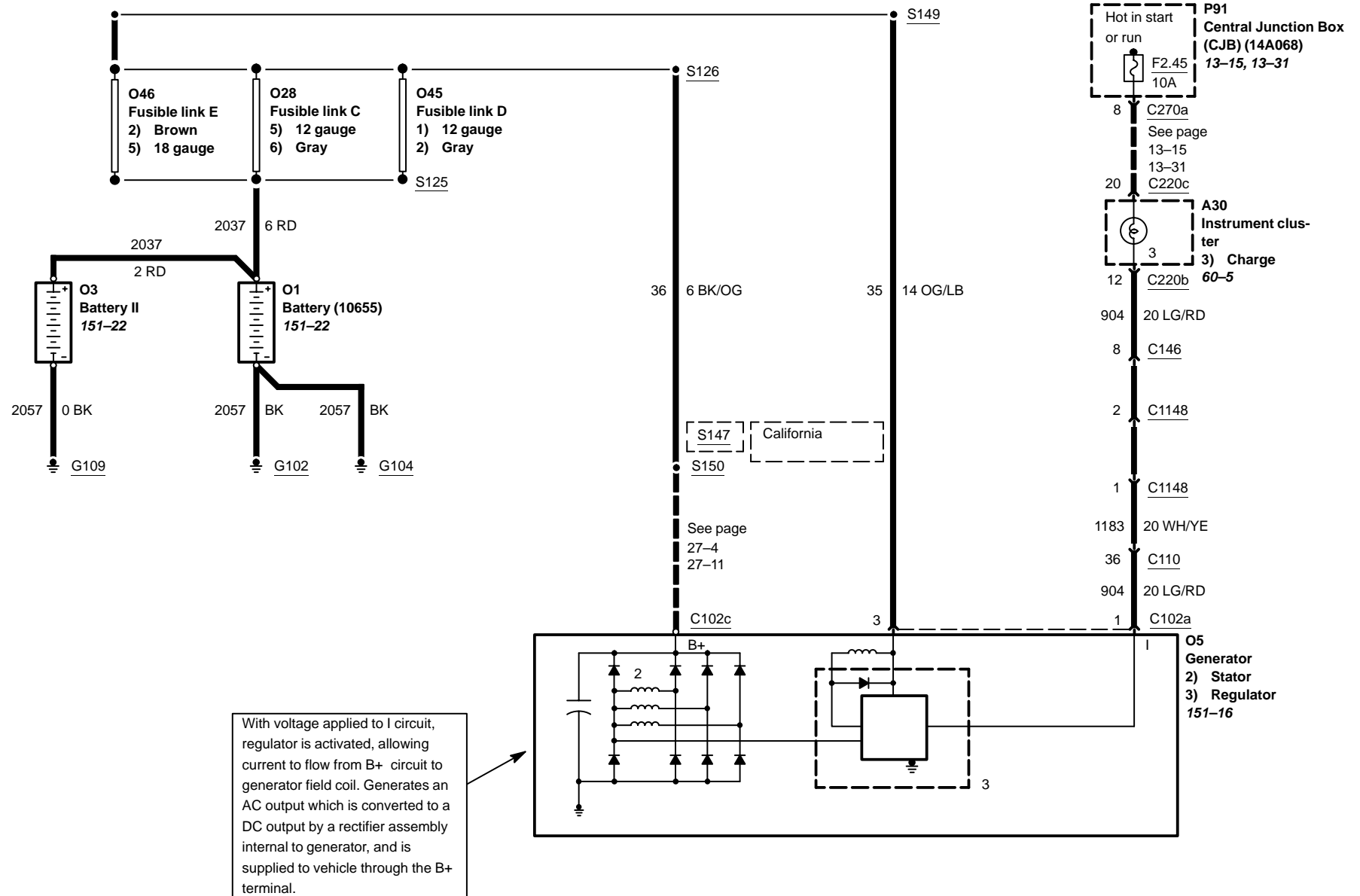
11 -3 Fuse and Relay Information

Fuse	Amps	Circuits protected
F2.49	30A	Electric trailer brakes
F2.50	30A	Vehicle Security Module (VSM), Power Door Locks
F2.51	50A	Ignition switch (11572), Run/Start power circuit
F2.52	40A	Rear window defrost
F2.53	30A	Injector Driver Module (IDM)
F2.54	30A	Windshield wiper motor (17508)
F2.55	40A	Heater blower motor (19805), Auxiliary A/C relay
F2.56	40A	Auxiliary Climate Control
F2.57	30A	Console Panel
F2.58	50A	Ignition switch (11572), Run power circuit
F2.59	30A	Transfer case low to high relay, Transfer case high to low relay
F2.60	30A	Driver seat module (14C718) (with memory), Seat adjust switch, driver side front (14A701) (without memory)
F2.61	30A	Starter motor (11002)
F2.62	30A	Seat adjust switch, passenger side front
F2.63	40A	Trailer tow
F2.64	30A	Ignition switch (11572), Run/Start power circuit
F2.65	30A c.b.	Accessory delay, Power windows
F2.66	60A	ABS control module (2C219)

Gasoline engines

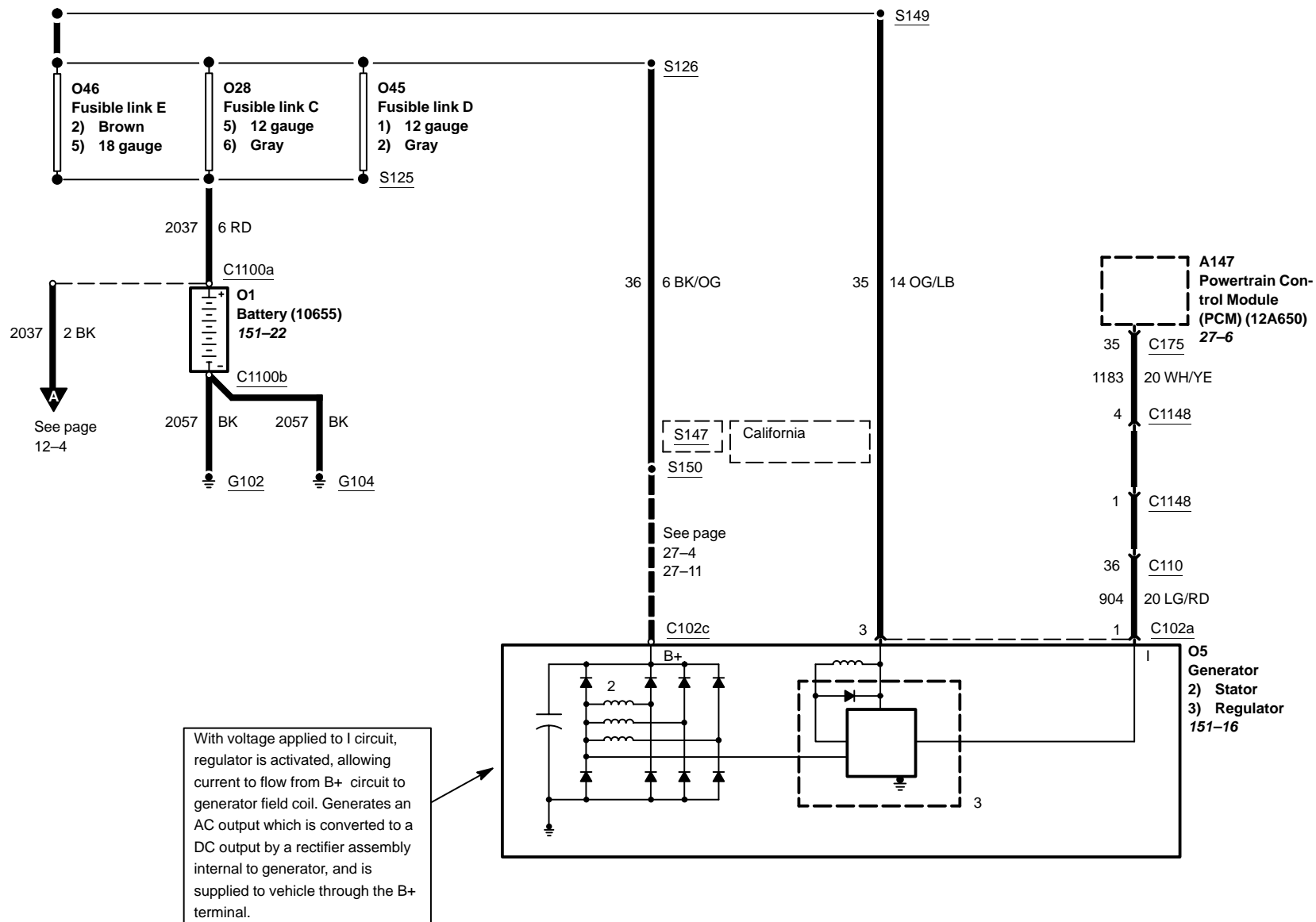


Diesel with single generator

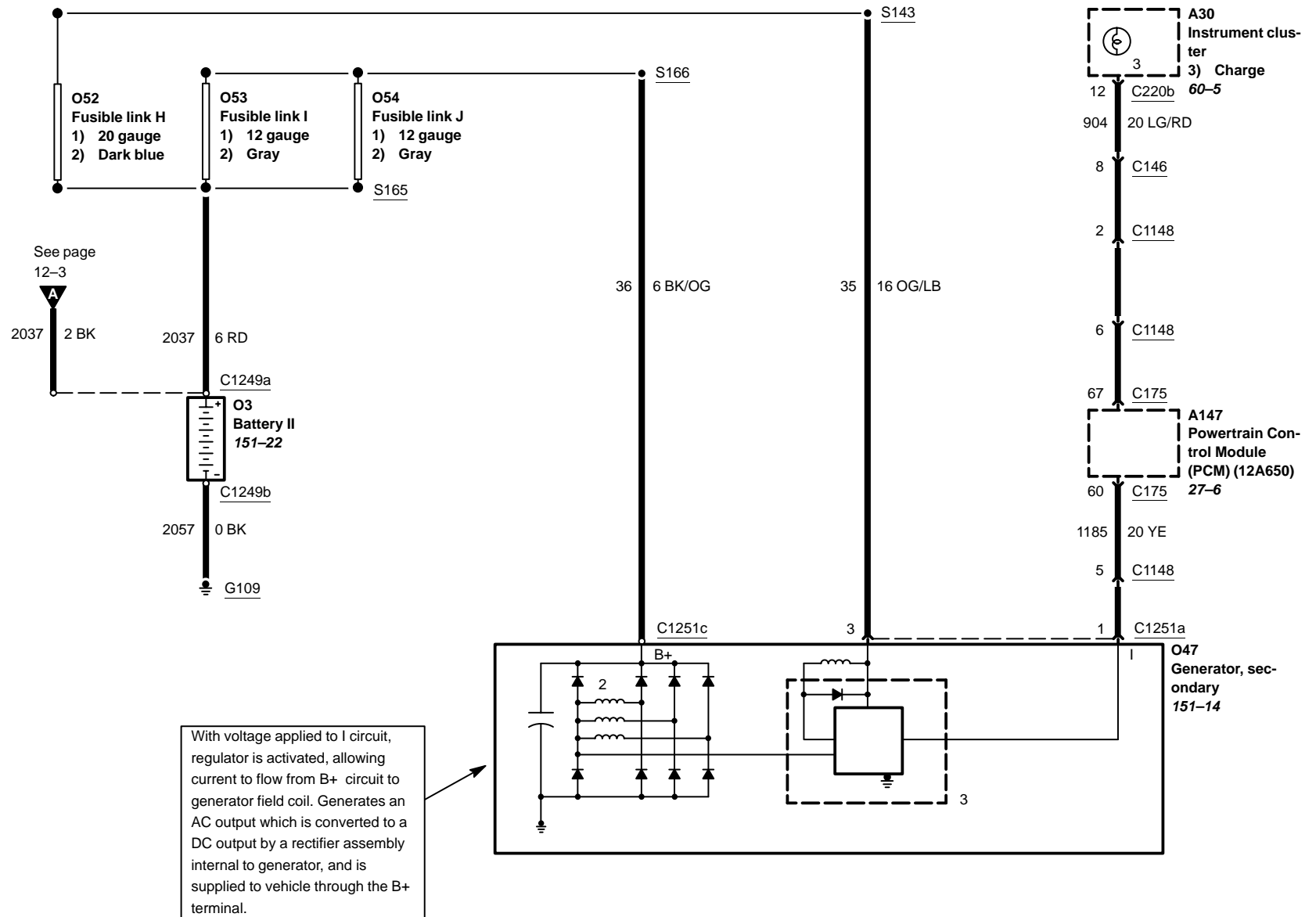


12-3 Charging System

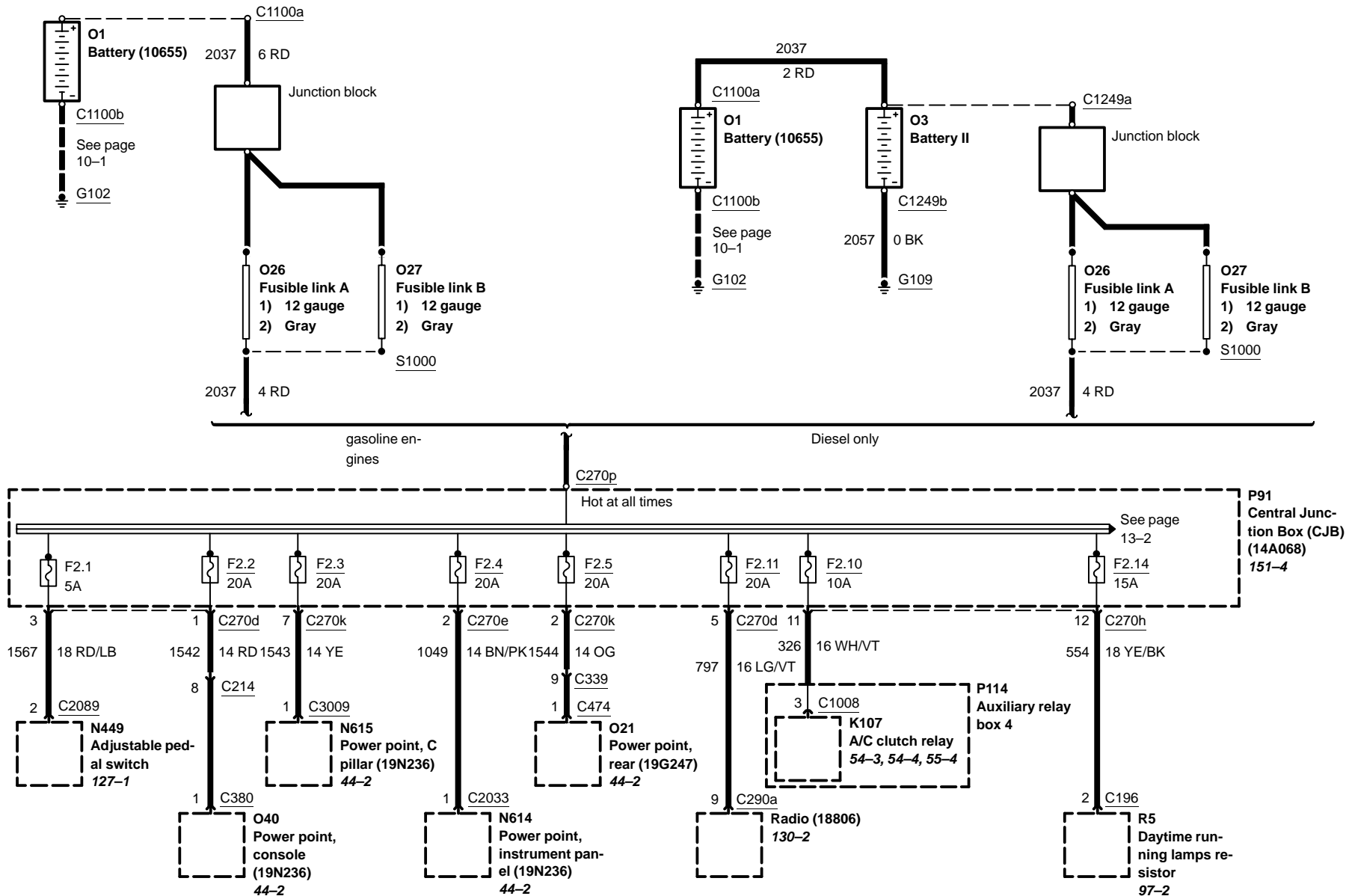
Dual generators



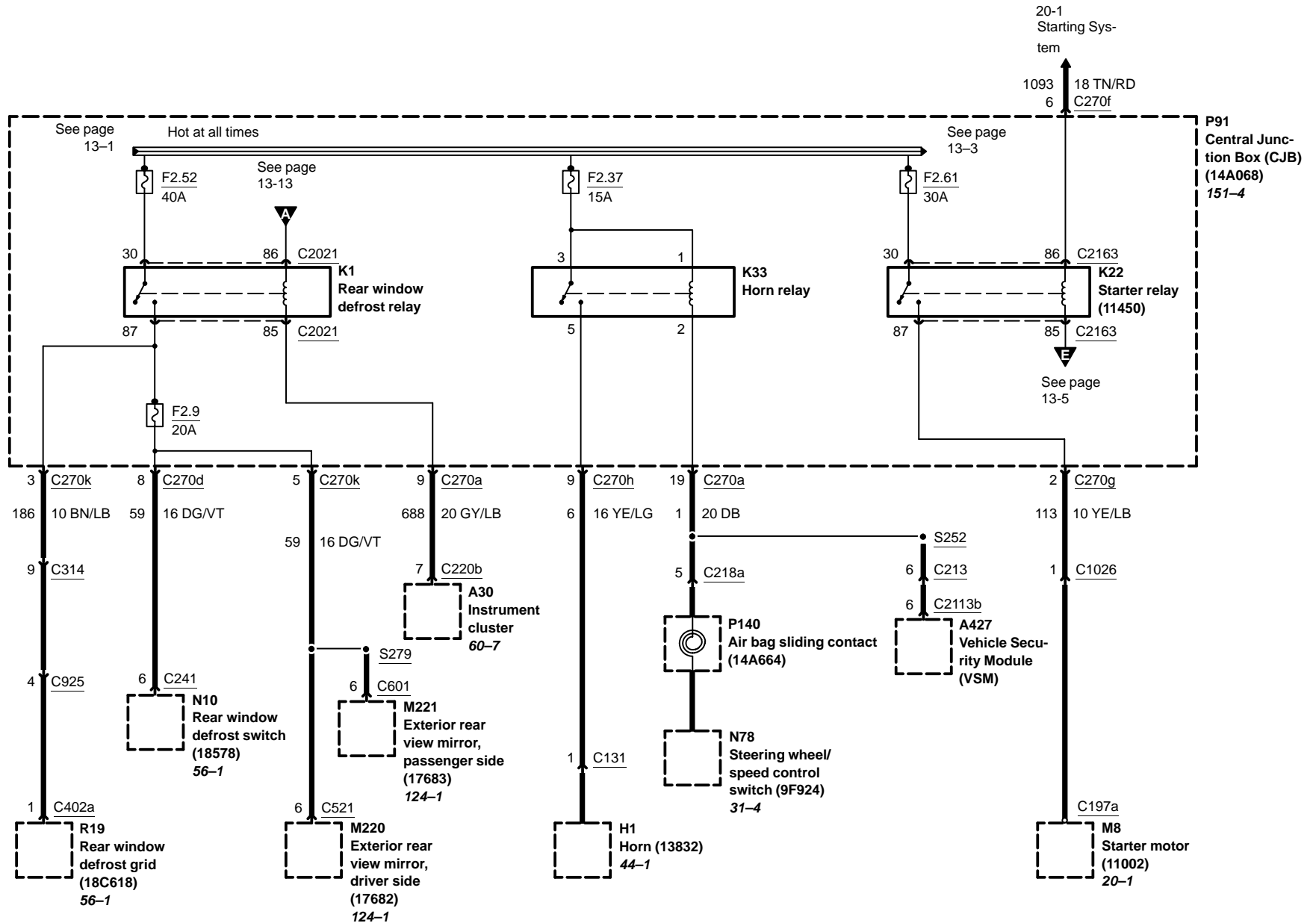
Dual generators



Excursion, F2.1, F2.2, F2.3, F2.4, F2.5, F2.10, F2.11, F2.14

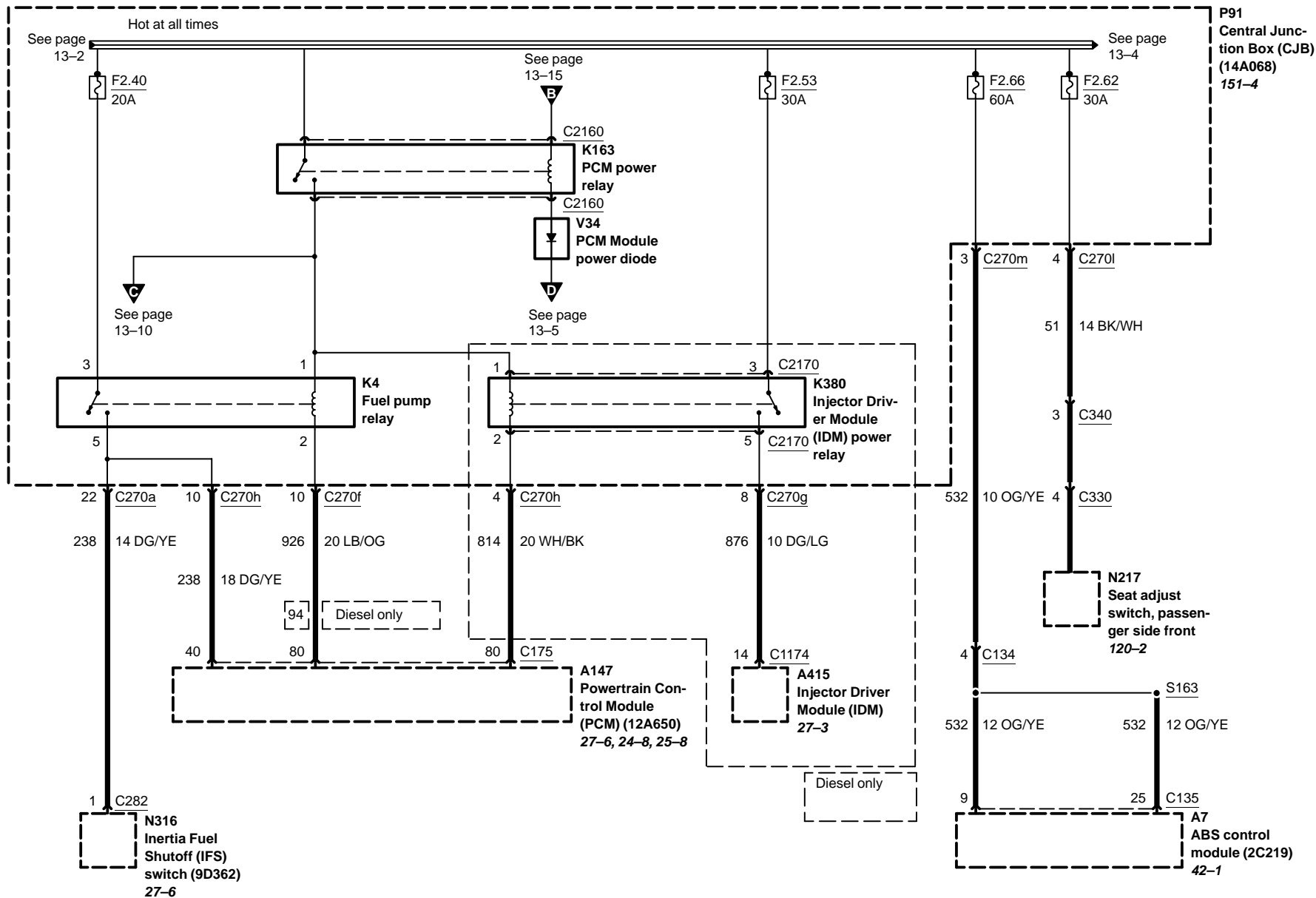


Excursion, F2.9, F2.37, F2.52, F2.61

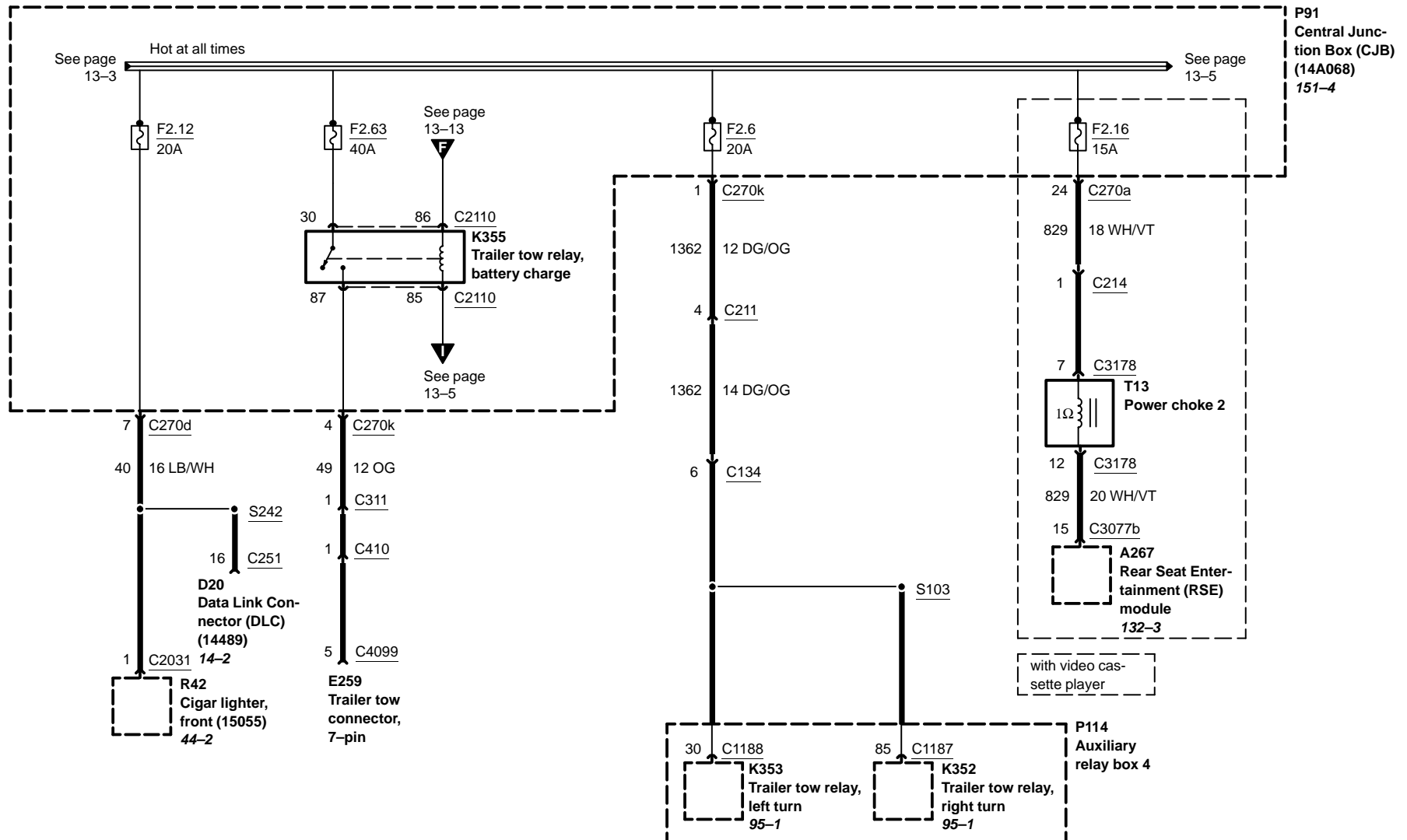


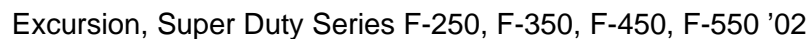
13-3 Power Distribution

Excursion, F2.40, F2.53, F2.65, F2.66

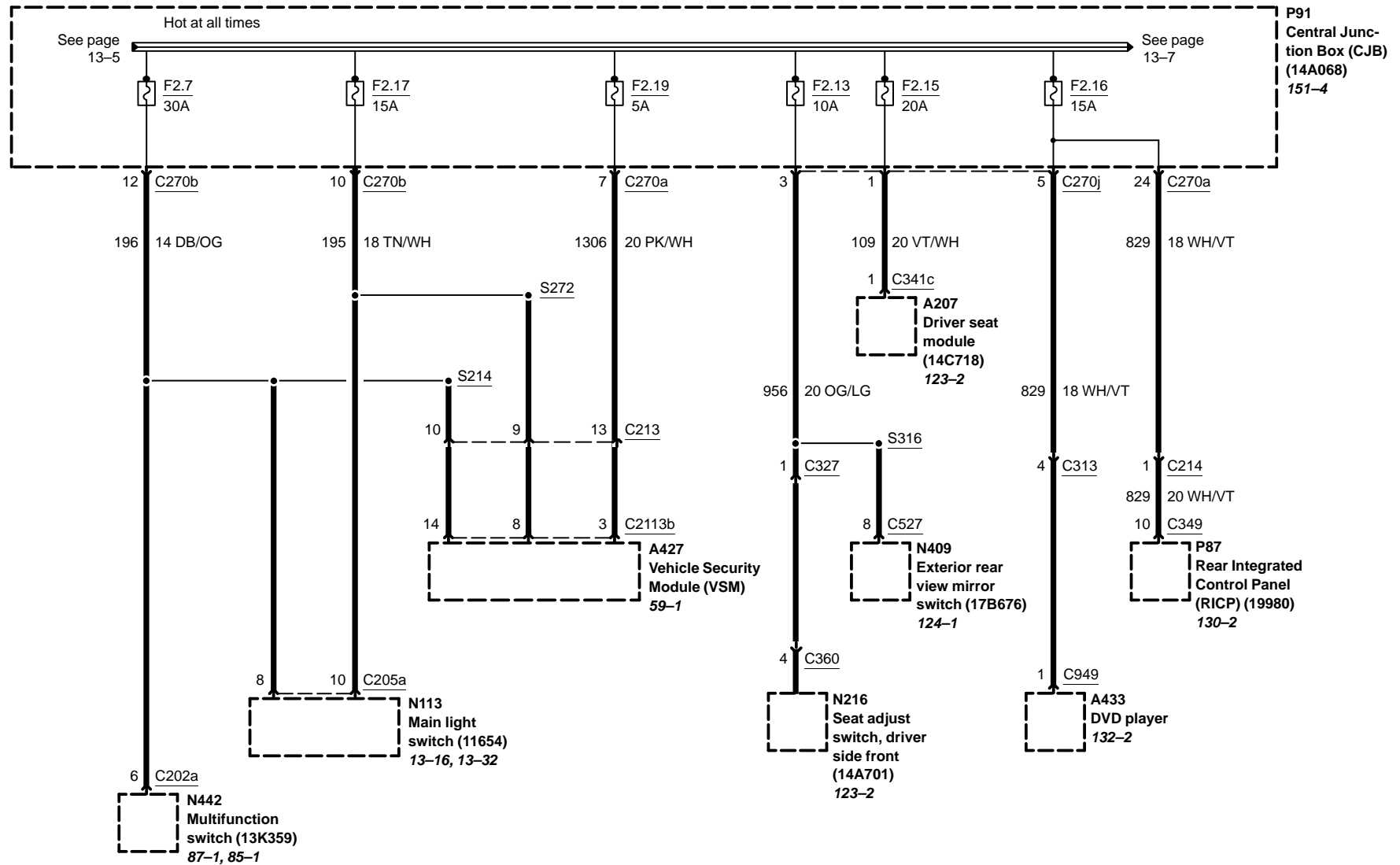


Excursion, F2.6, F2.12, F2.16, F2.63

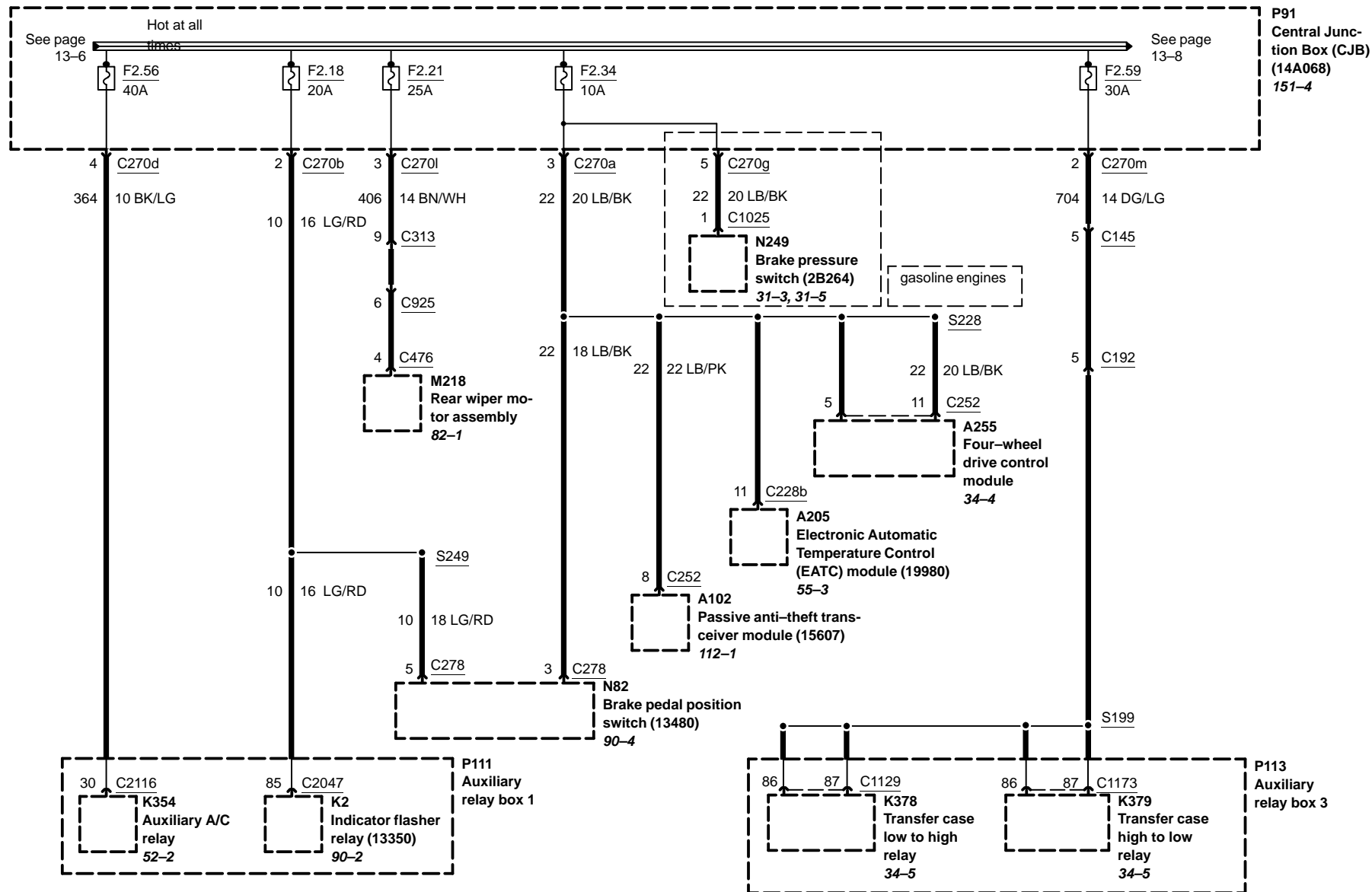




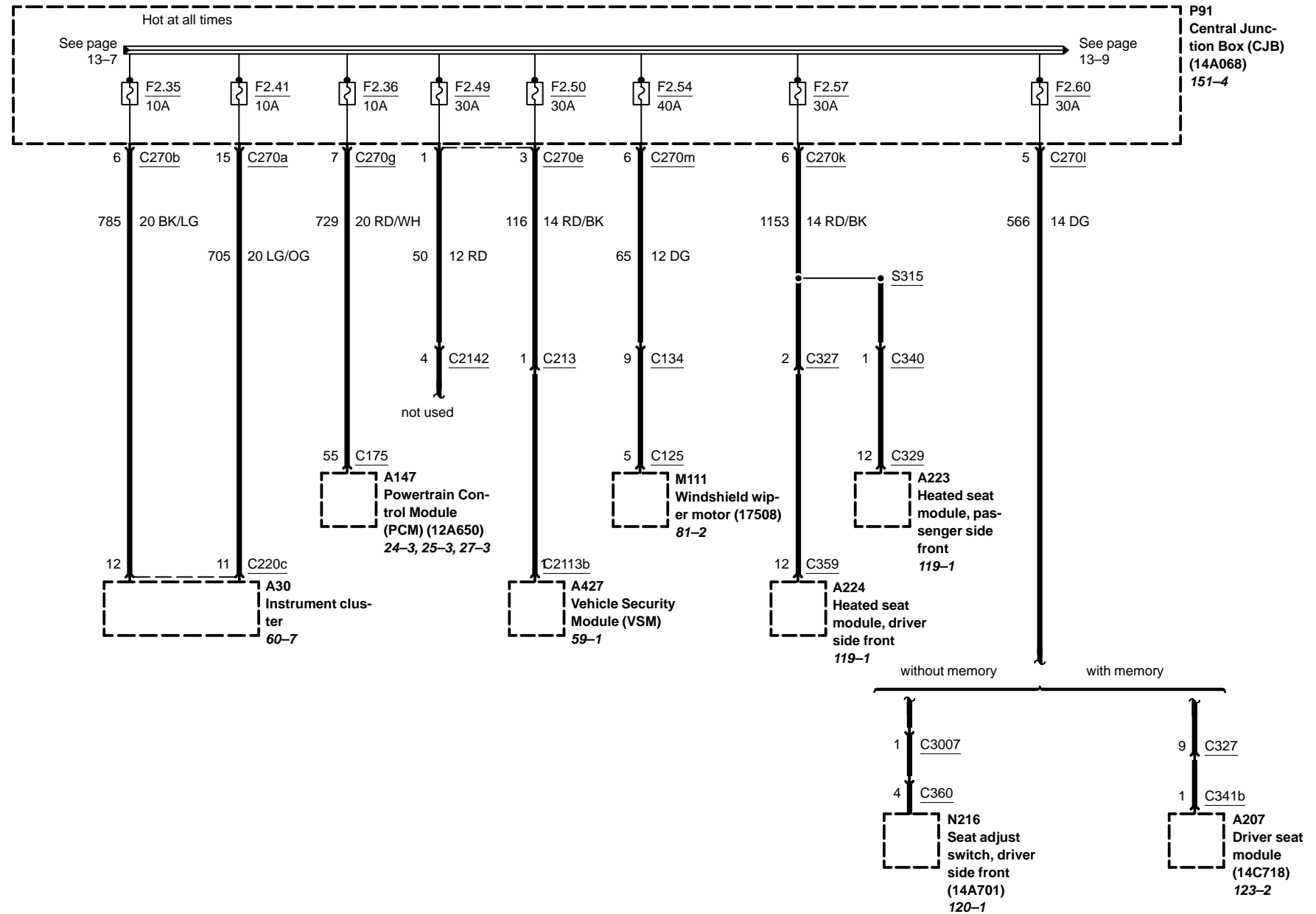
Excursion, F2.7, F2.13, F2.15, F2.16, F2.17, F2.19



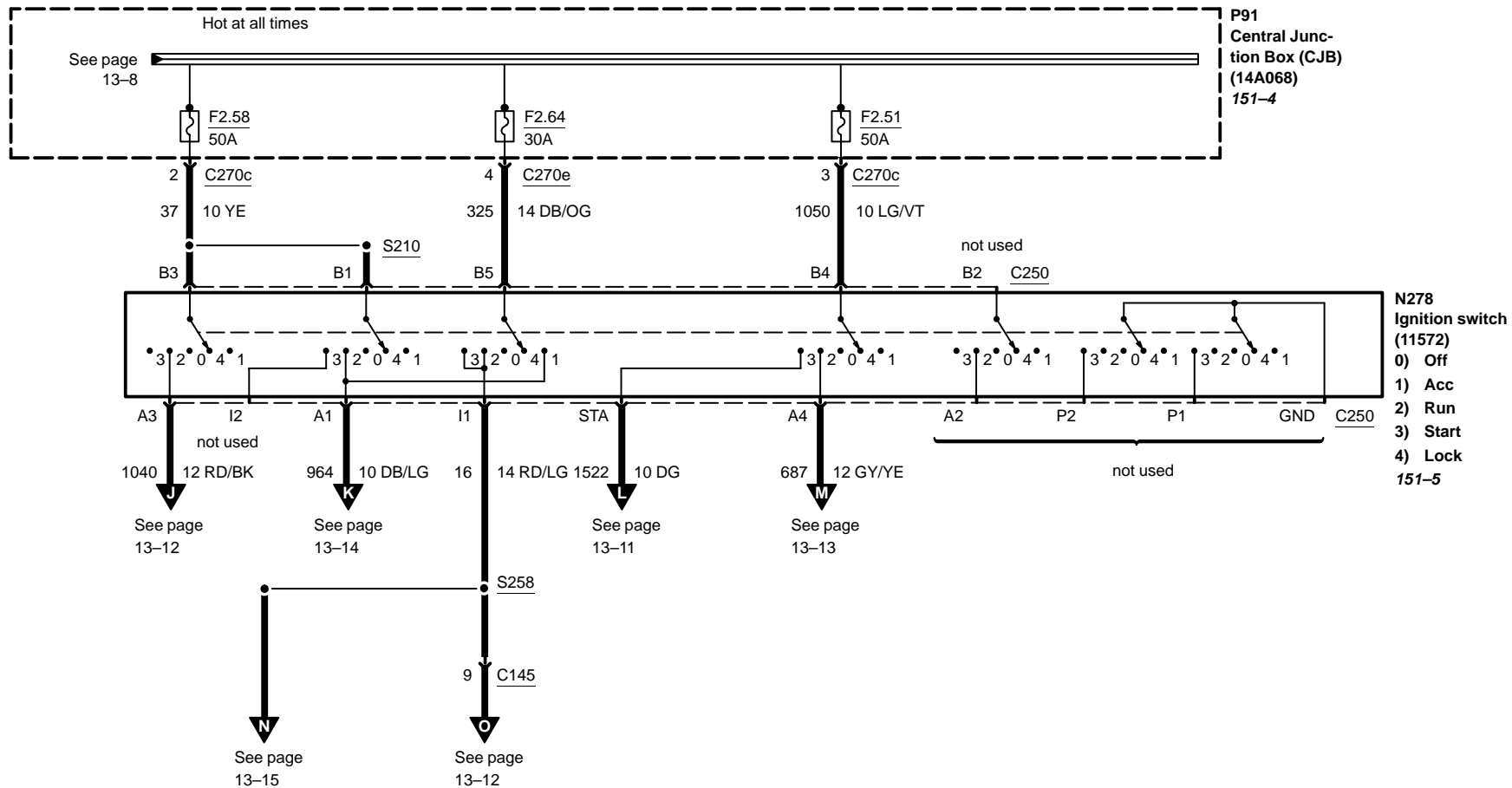
Excursion, F2.18, F2.21, F2.34, F2.56, F2.59



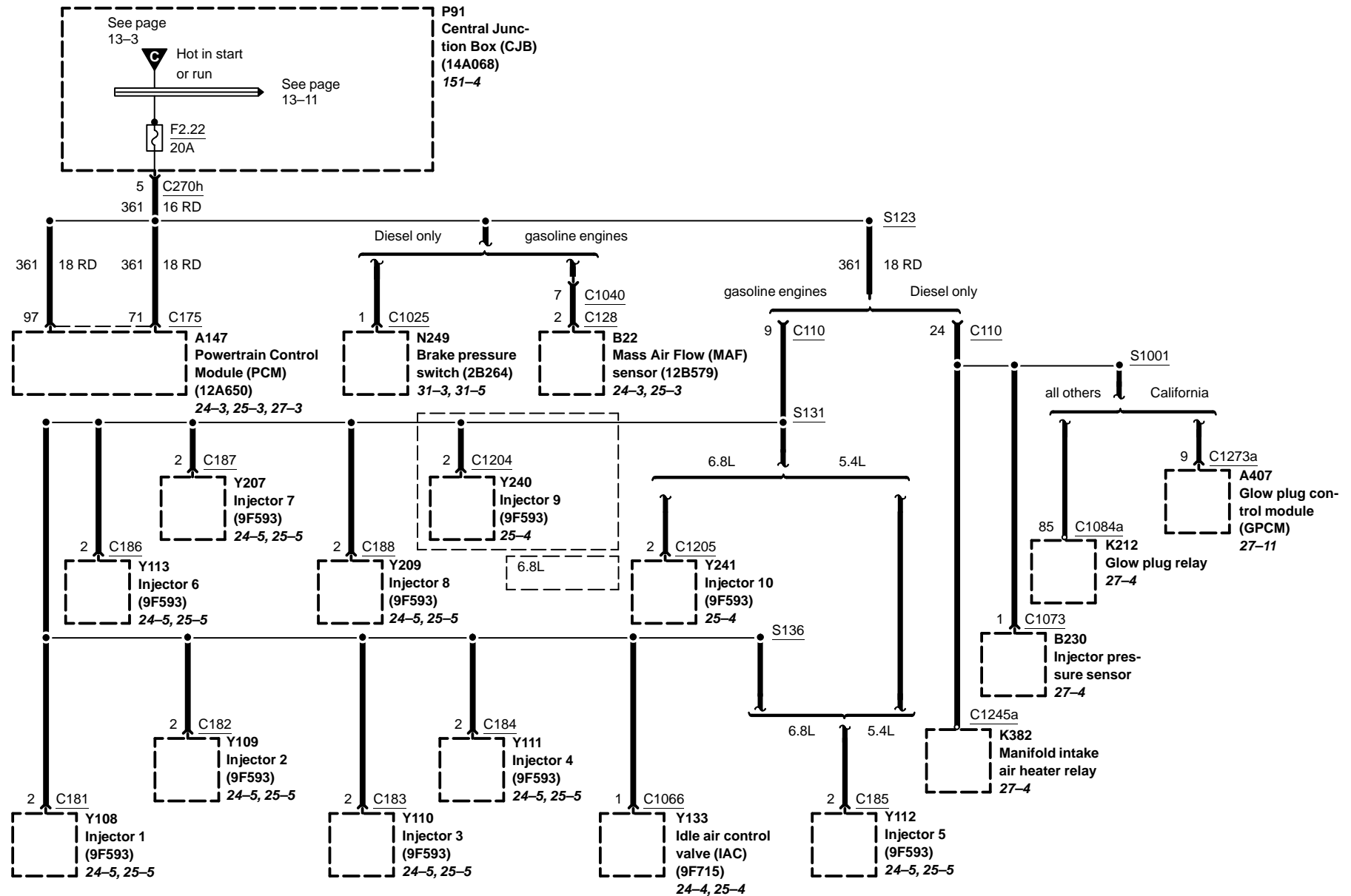
Excursion, F2.35, F2.36, F2.41, F2.49, F2.50, F2.54, F2.57, F2.60



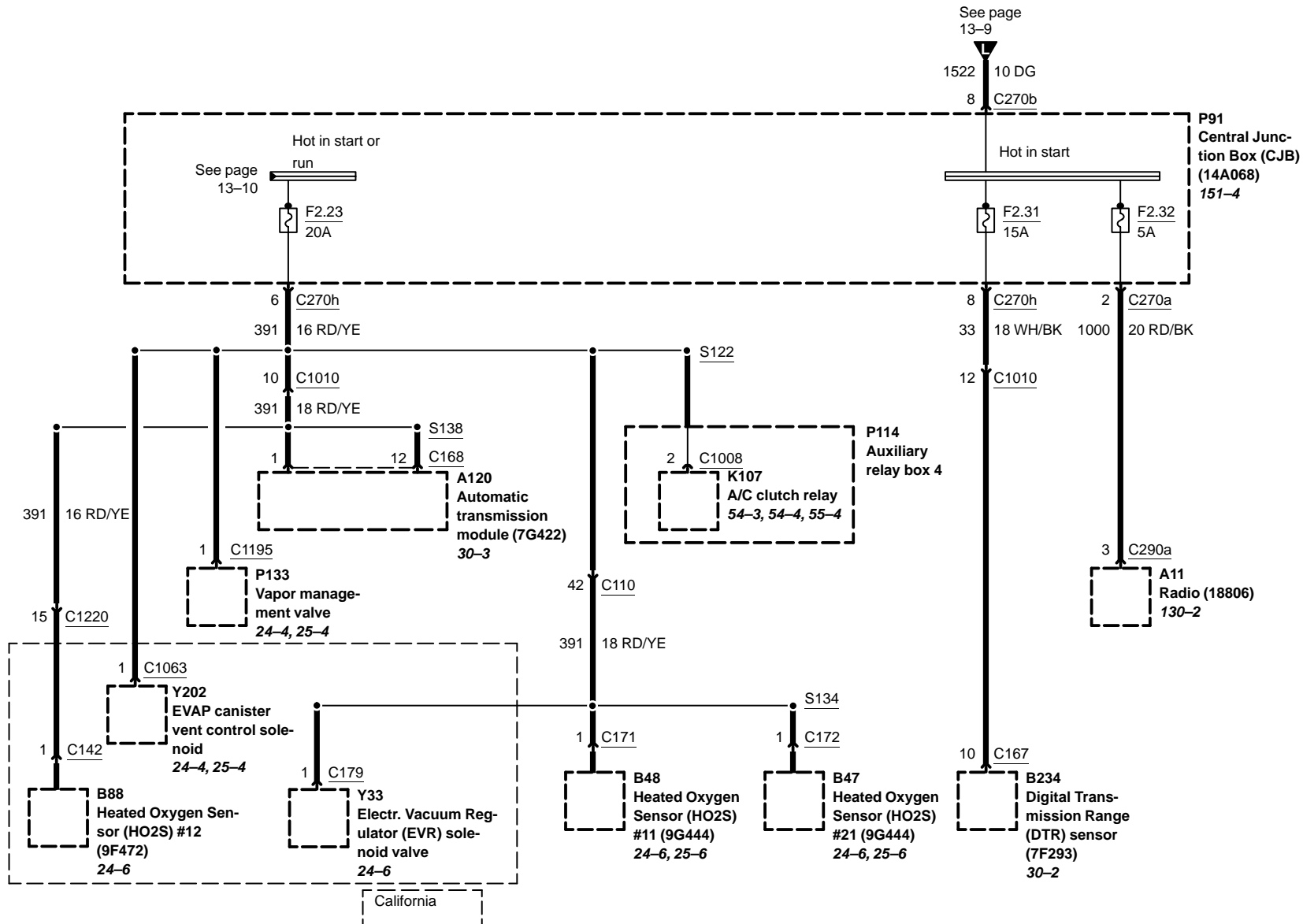
Excursion, F2.51, F2.58, F2.64



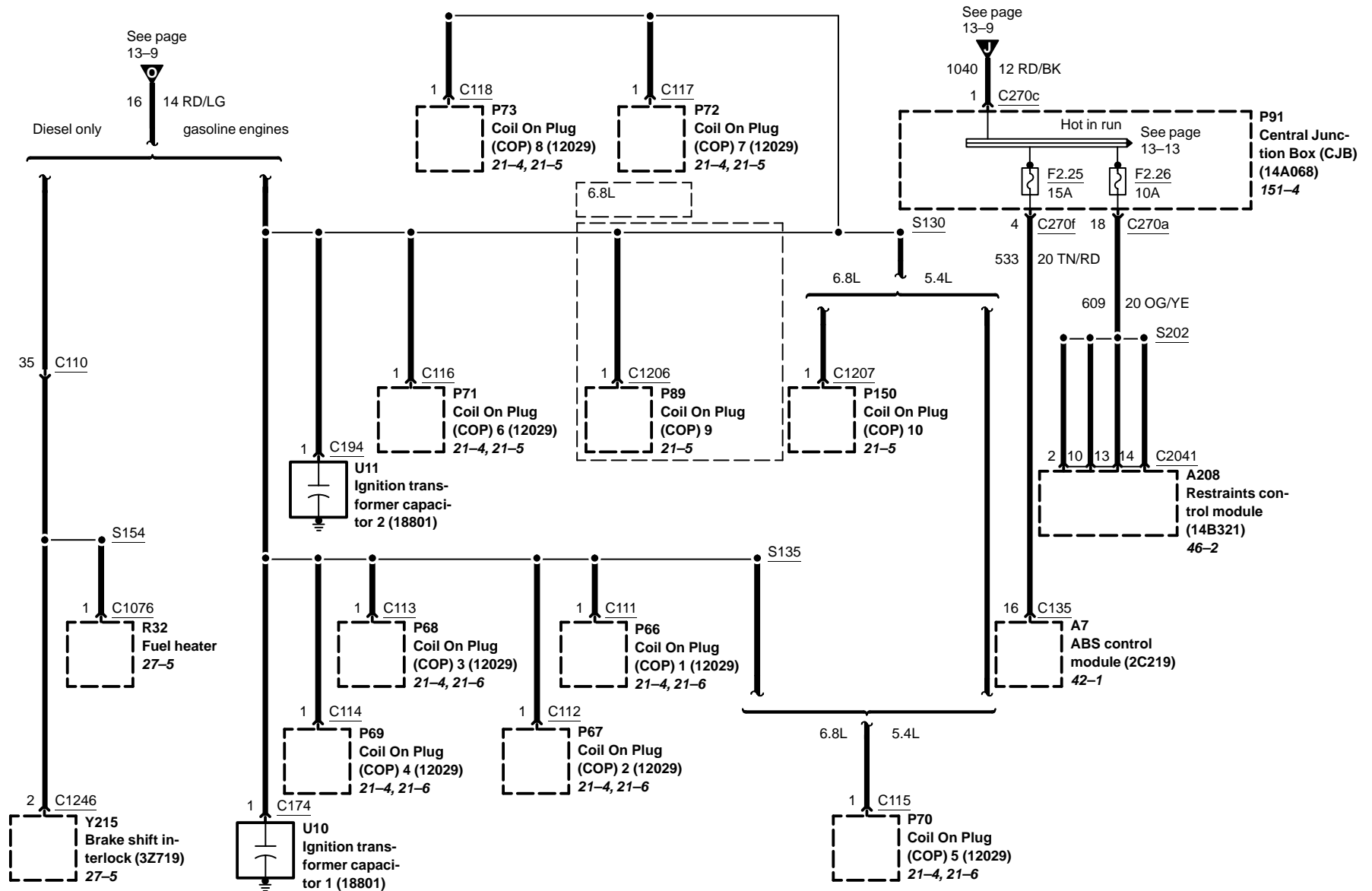
Excursion, F2.22



Excursion, F2.23, F2.31, F2.32

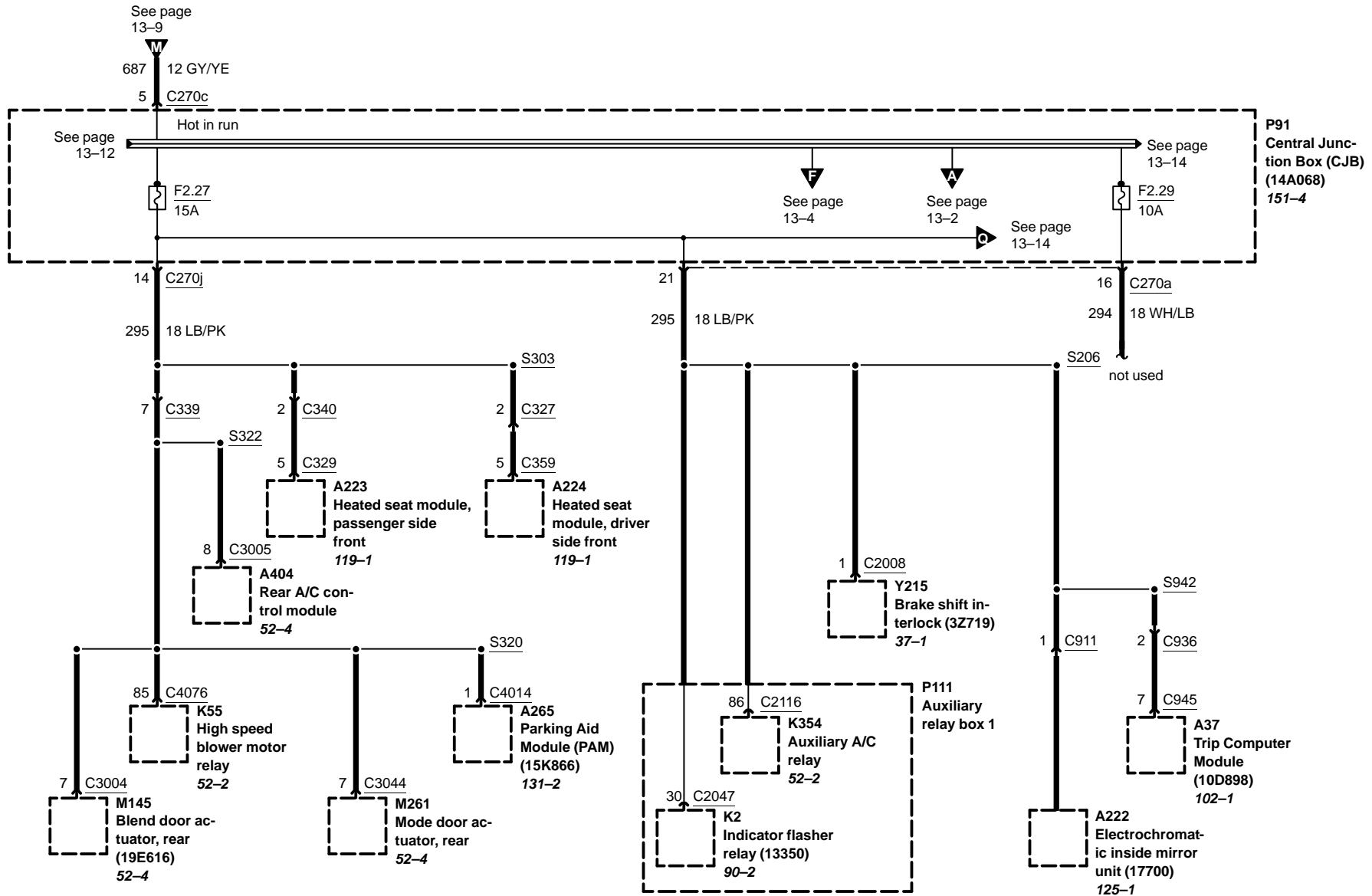


Excursion, F2.25, F2.26

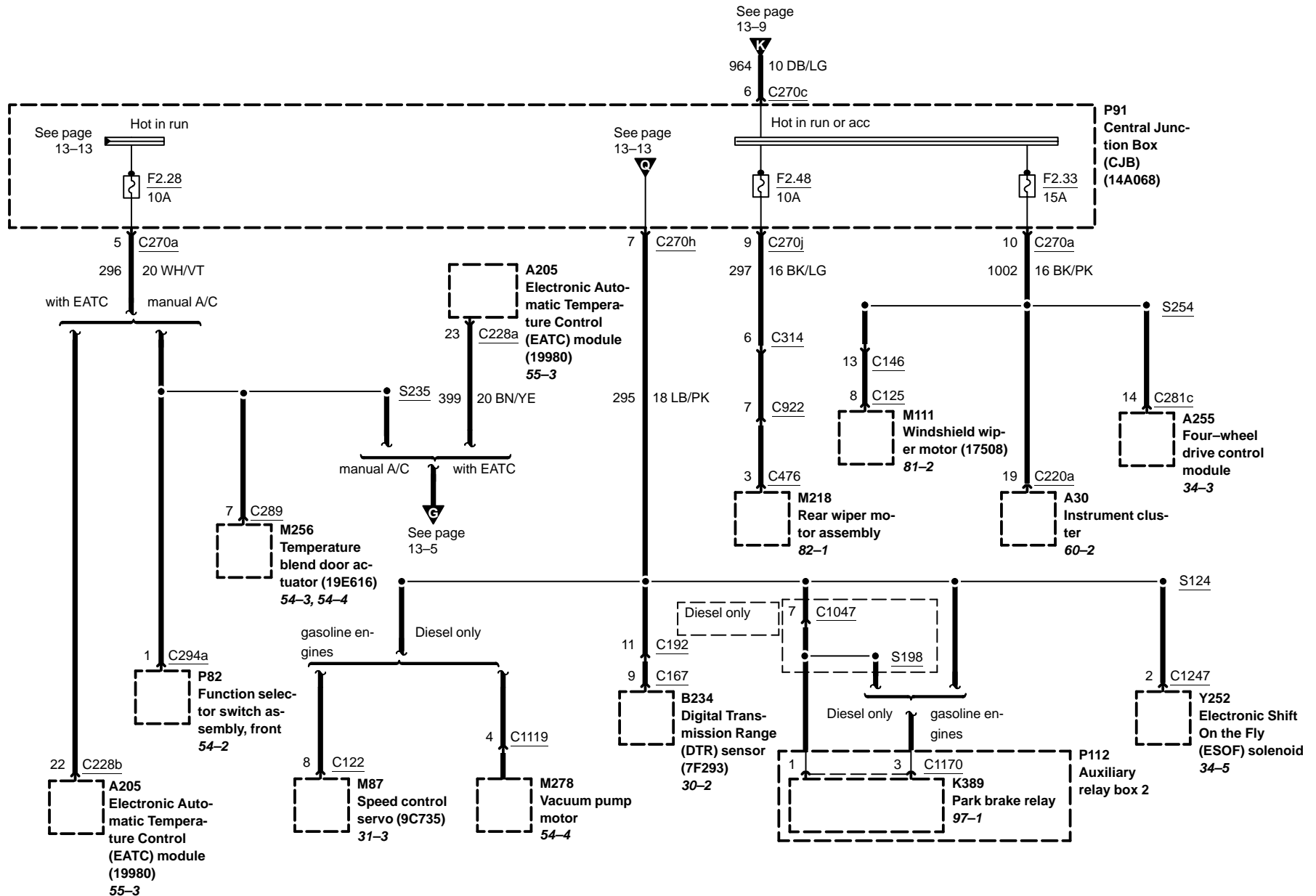


13-13 Power Distribution

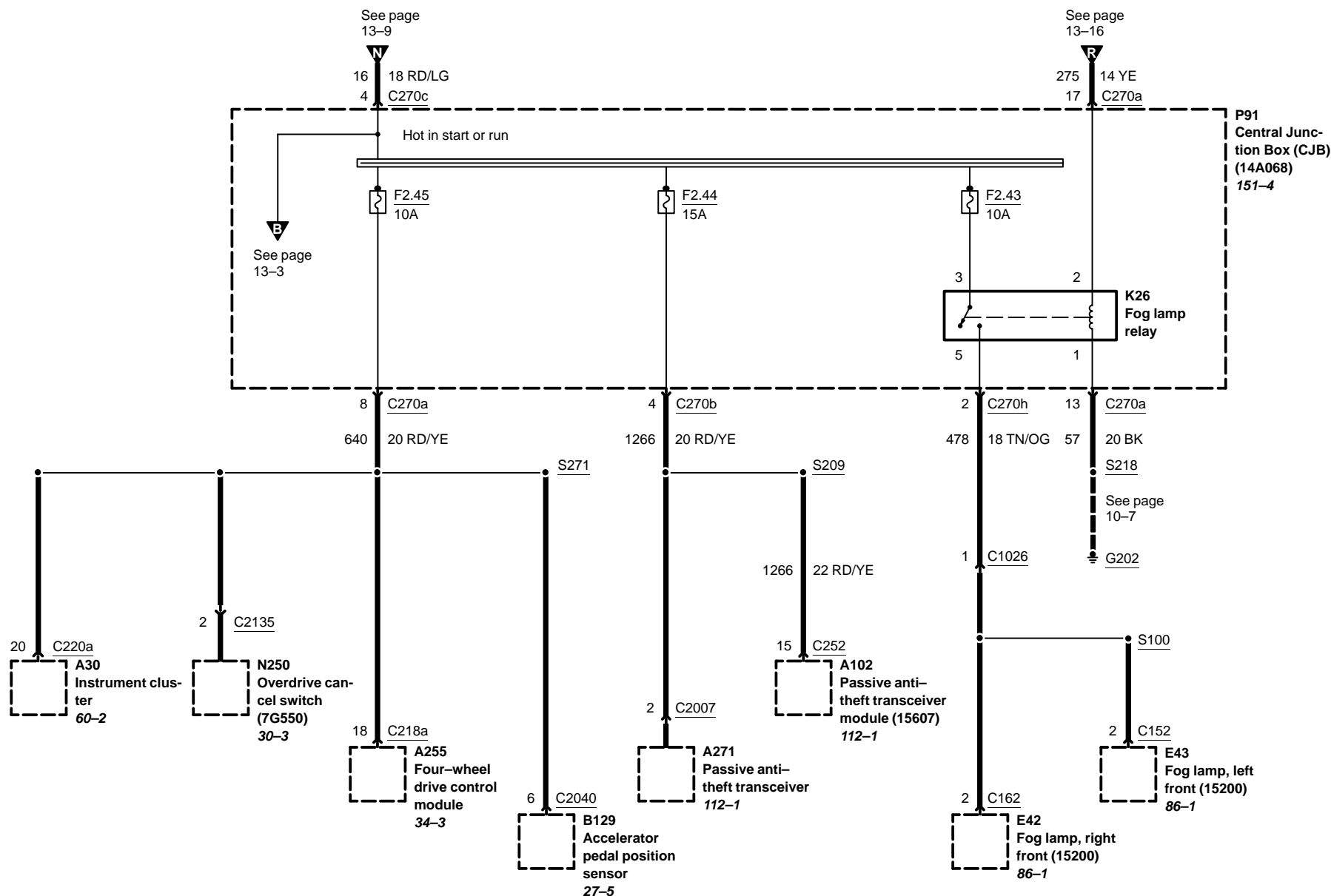
Excursion, F2.27, F2.29



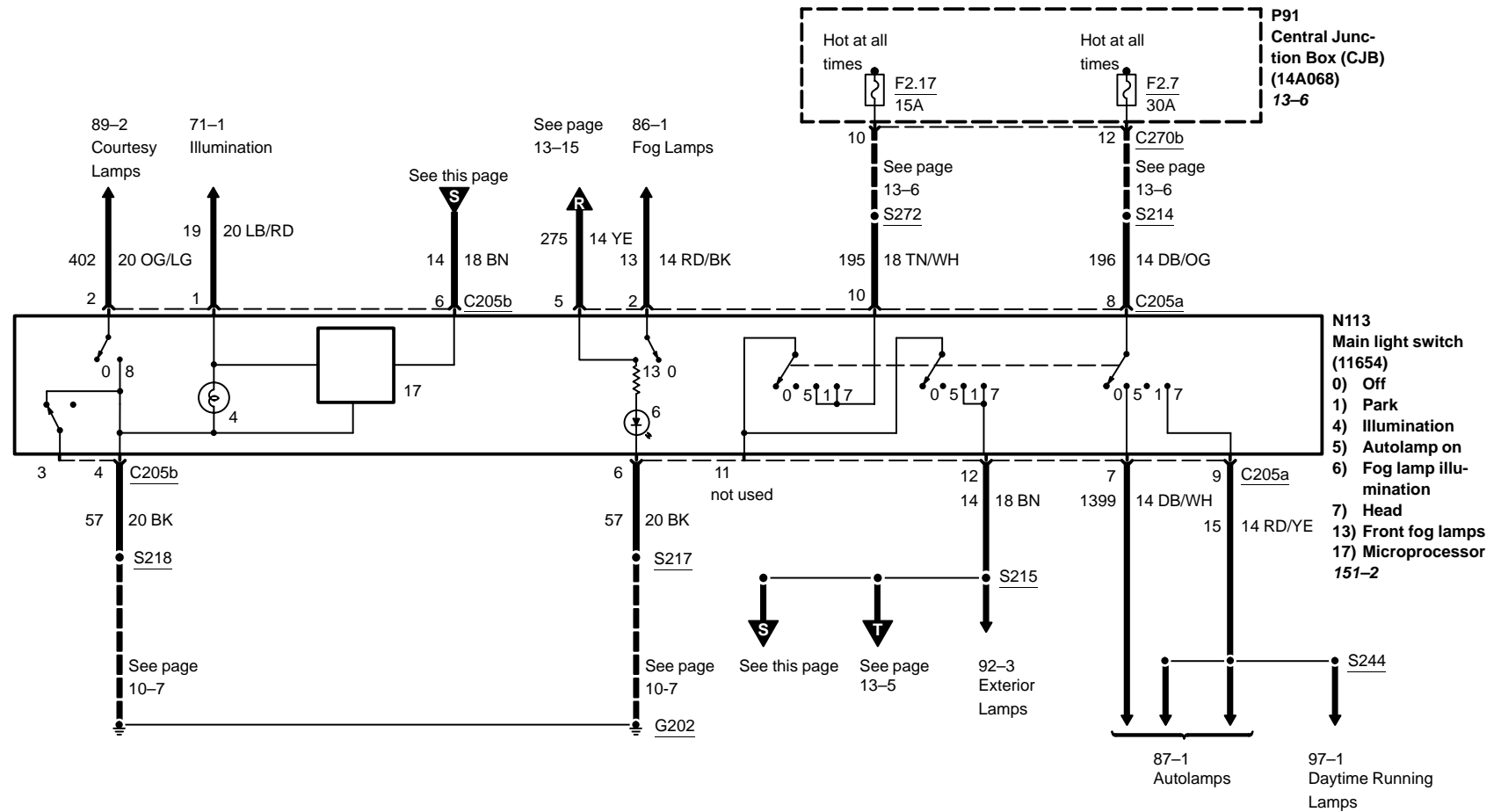
Excursion, F2.28, F2.33, F2.48



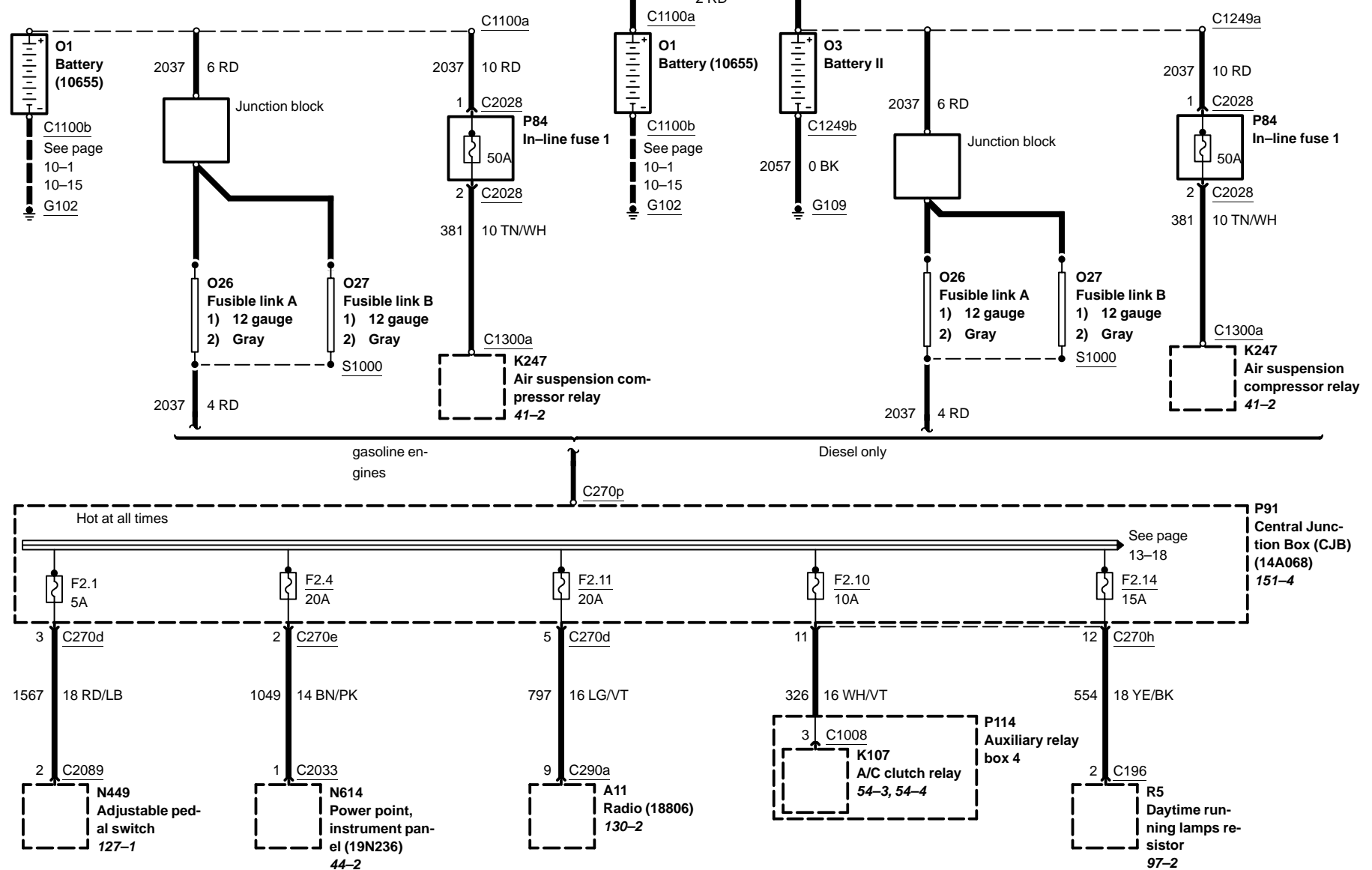
Excursion, F2.43, F2.44, F2.45



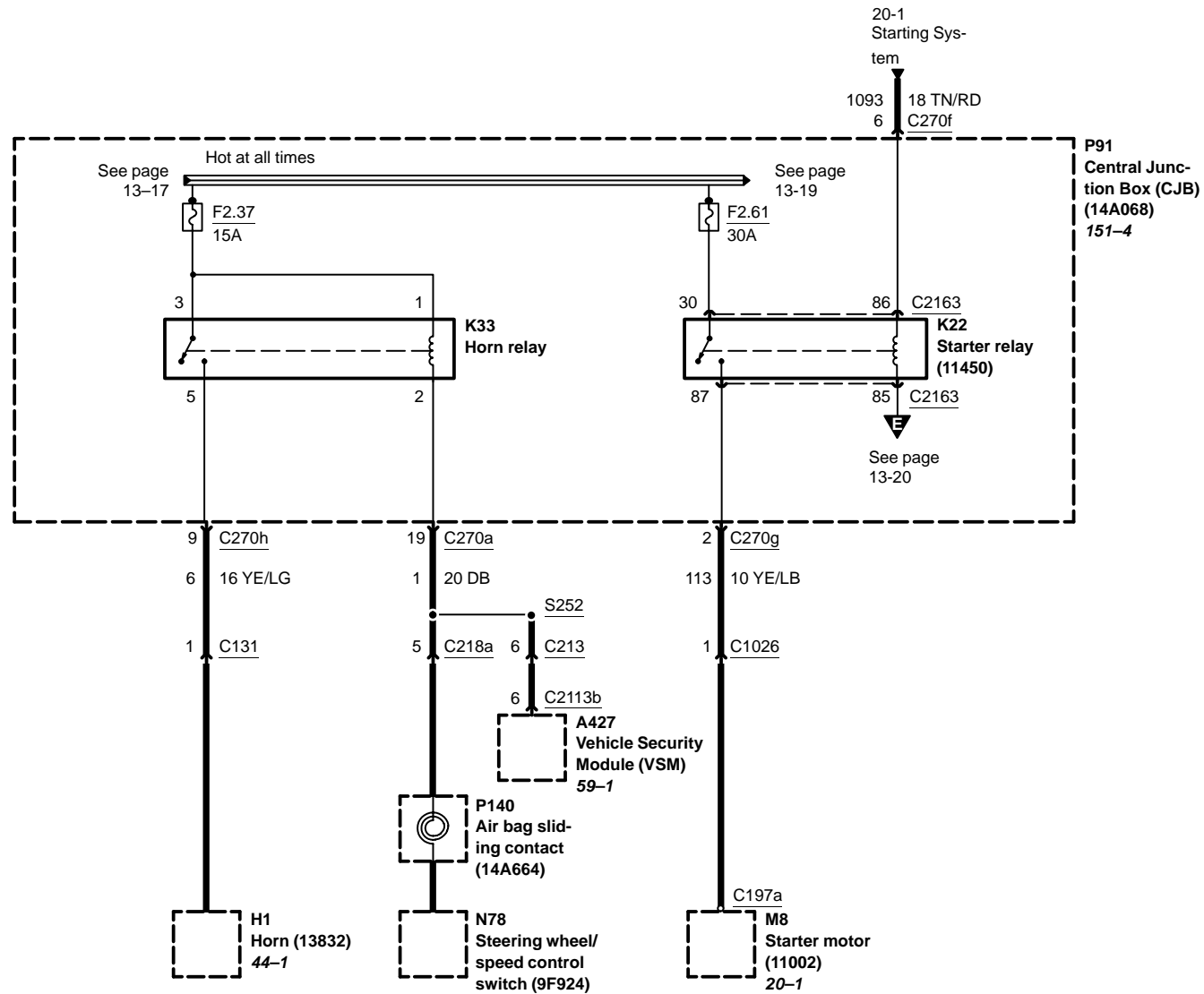
Excursion, F2.7, F2.17



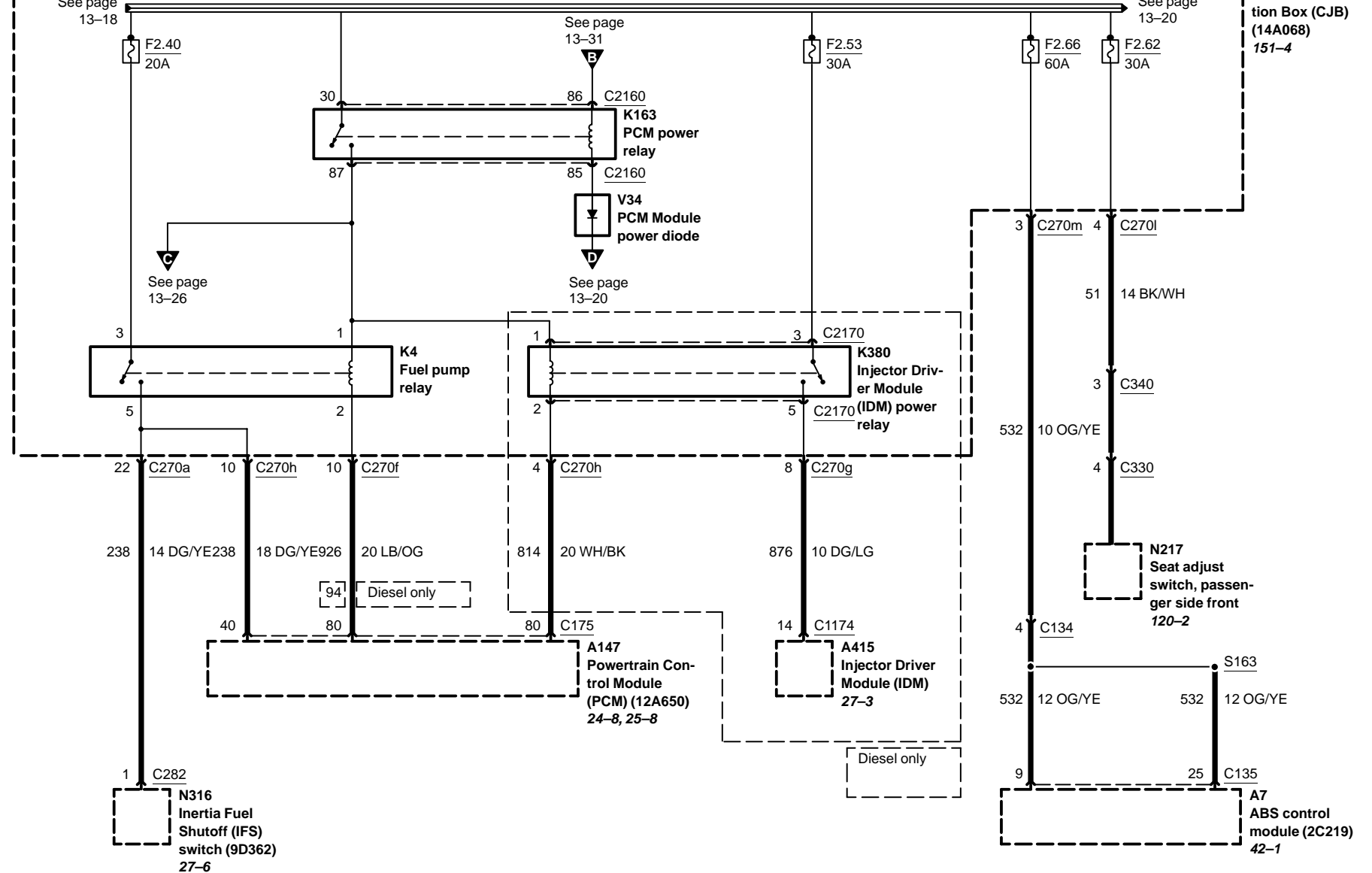
2037



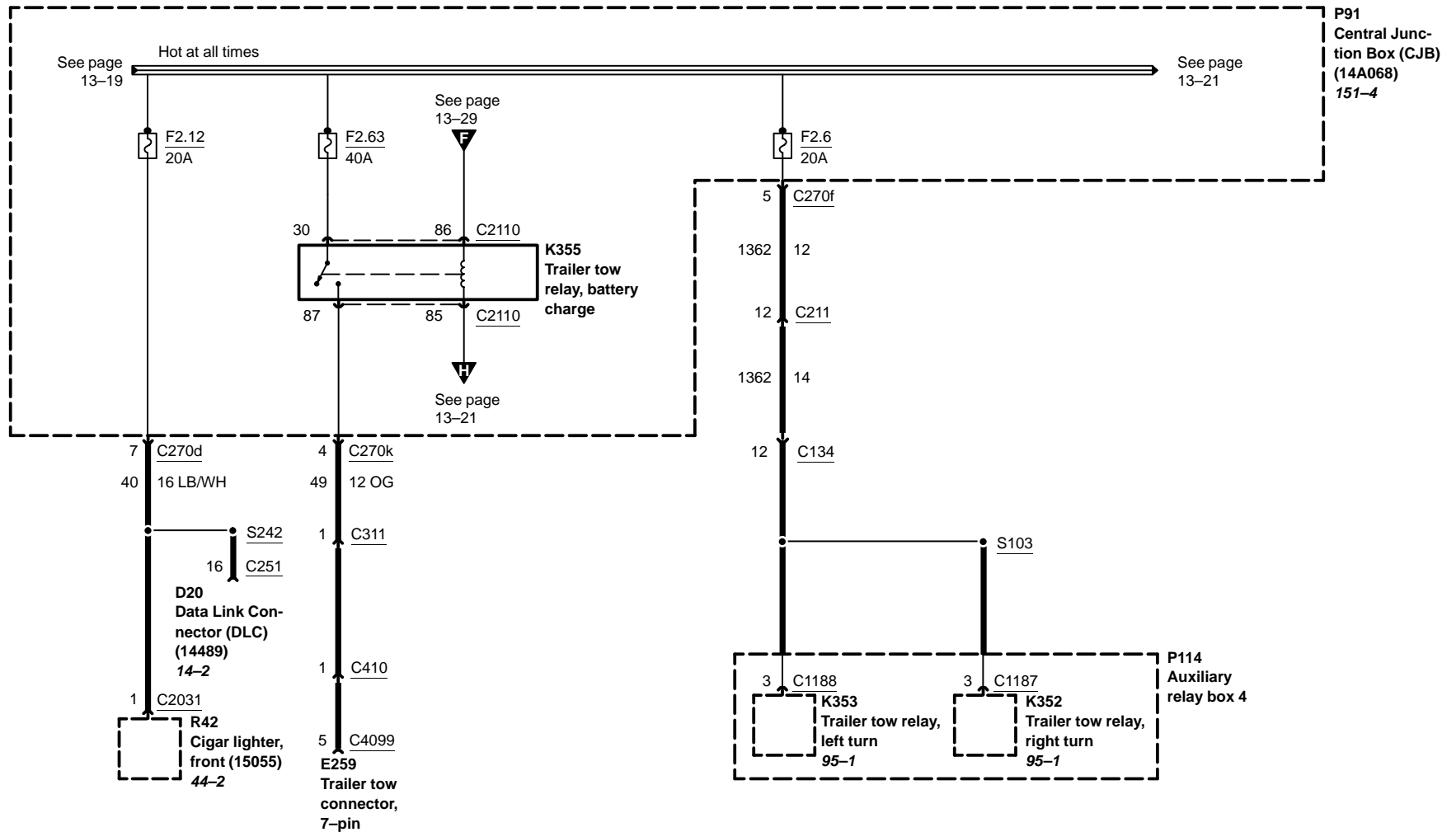
Pickup, F2.37, F2.61



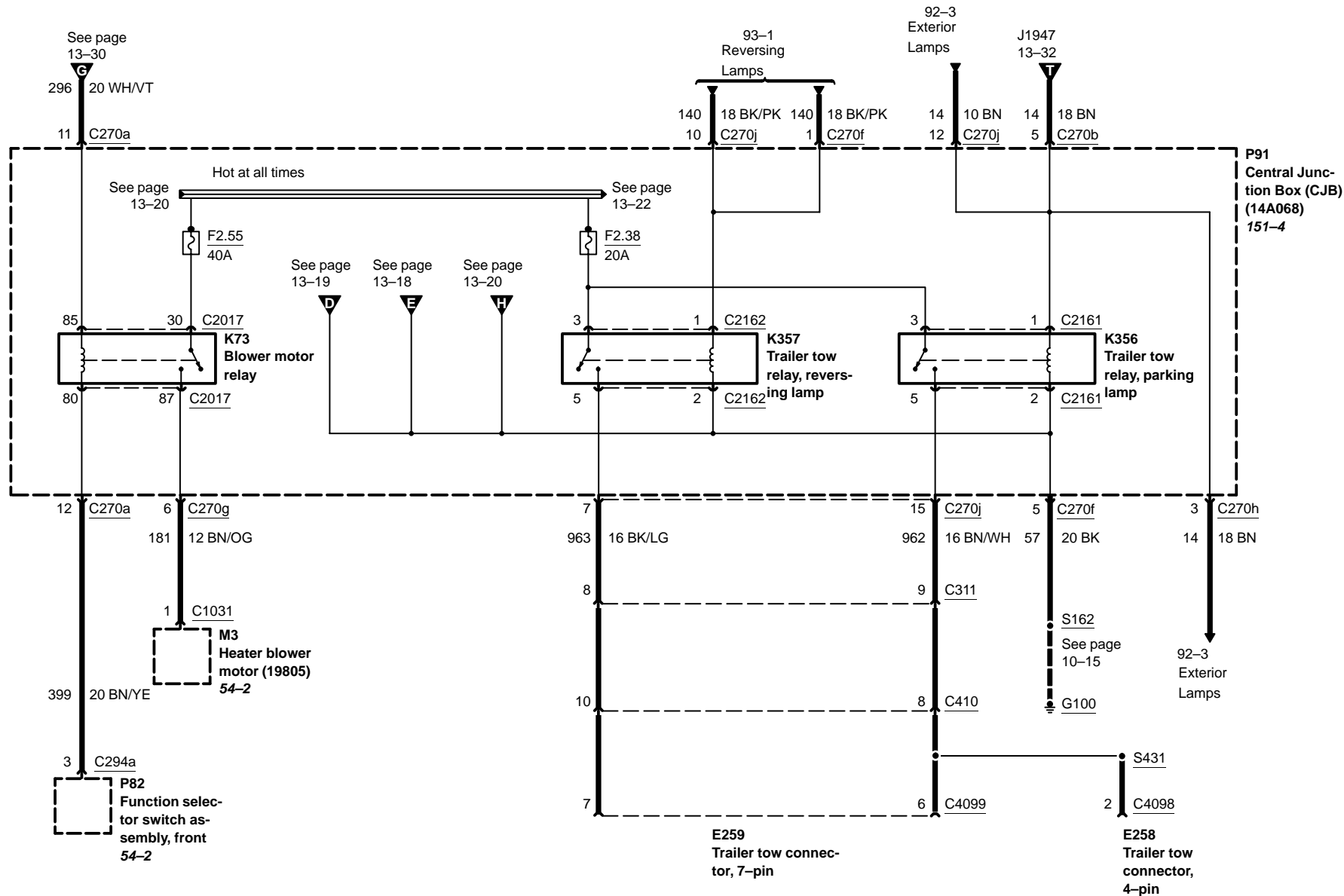
Hot at all times



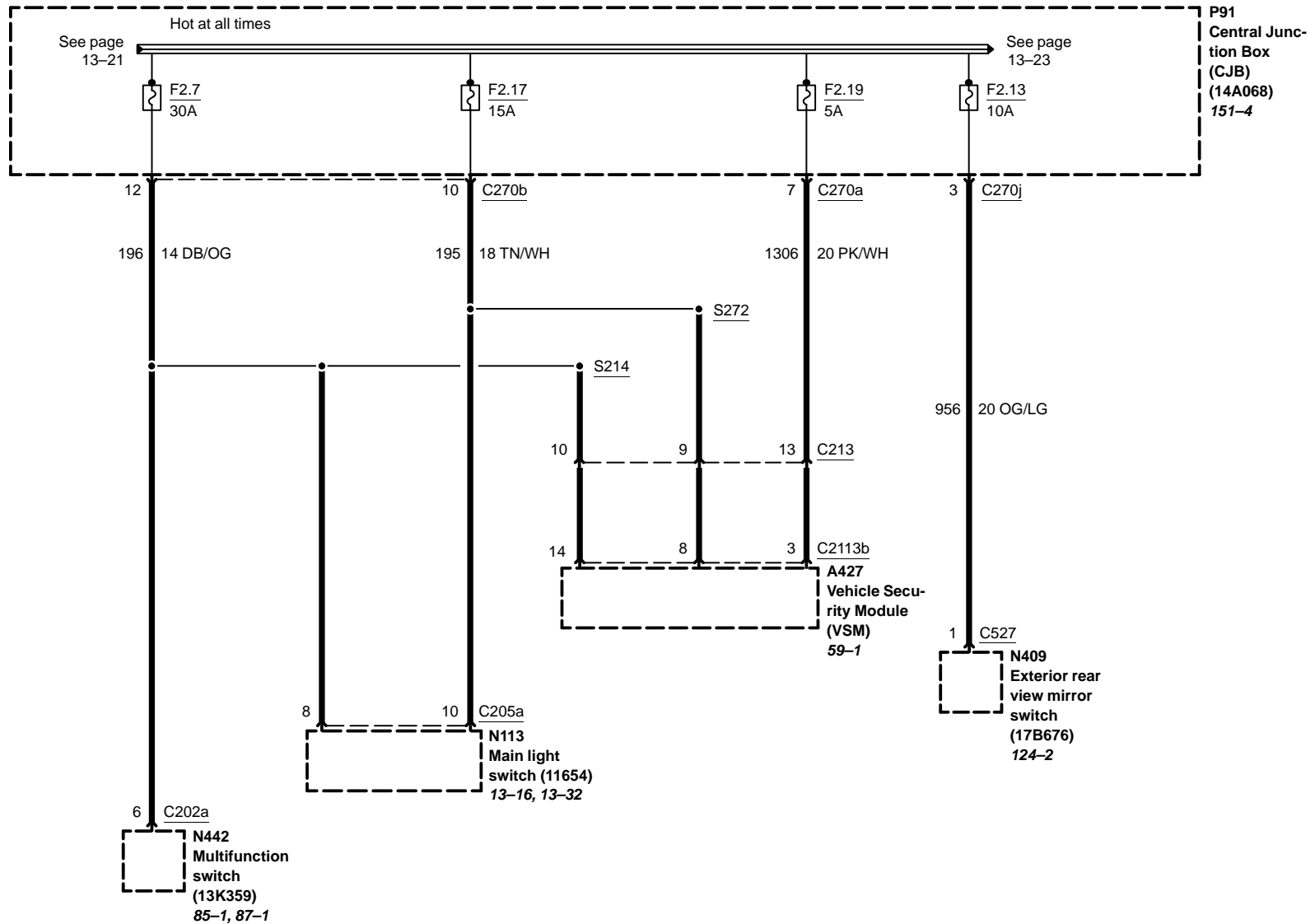
Pickup, F2.6, F2.12, F2.63



Pickup, F2.38, F2.55

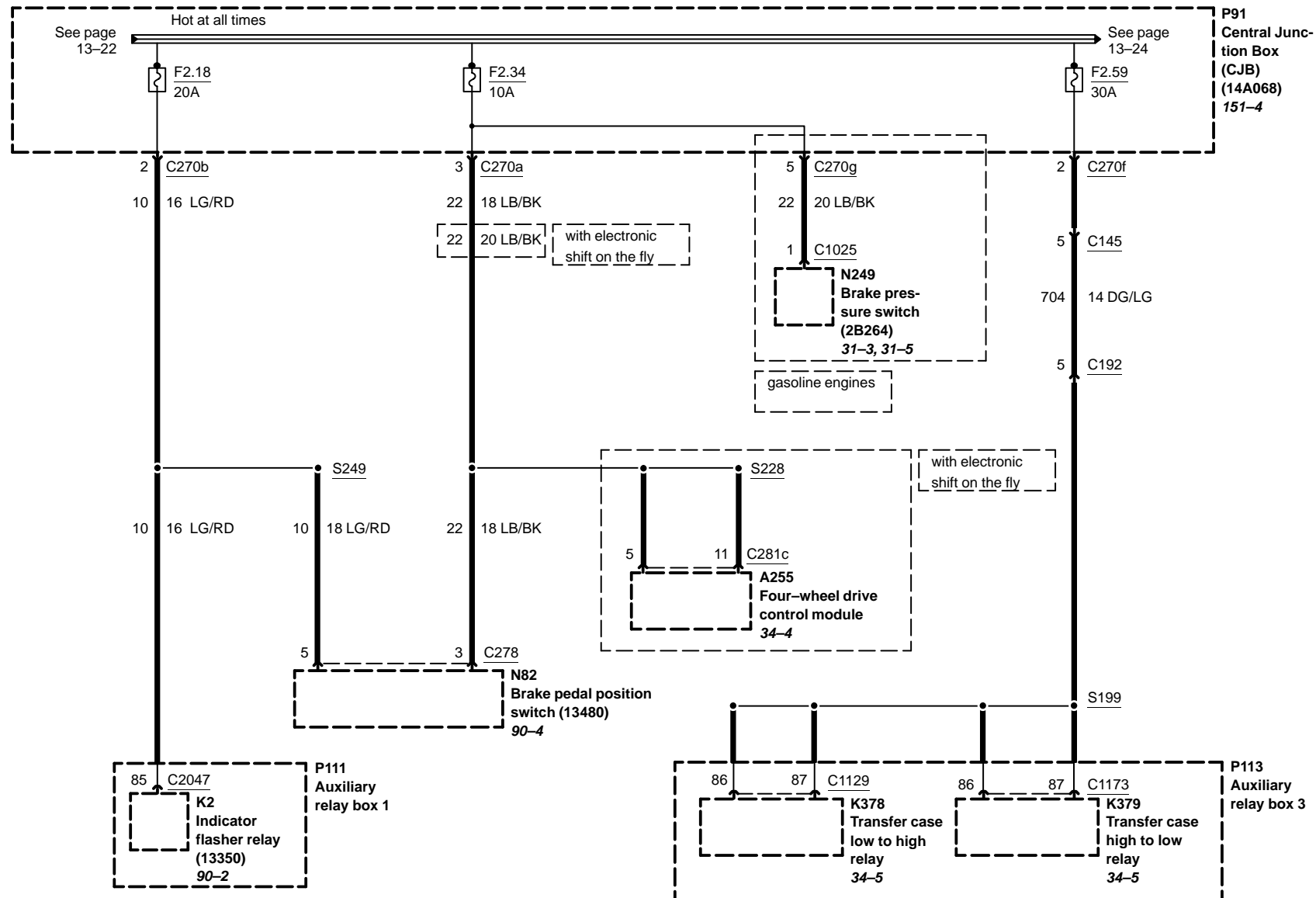


Pickup, F2.7, F2.13, F2.17, F2.19

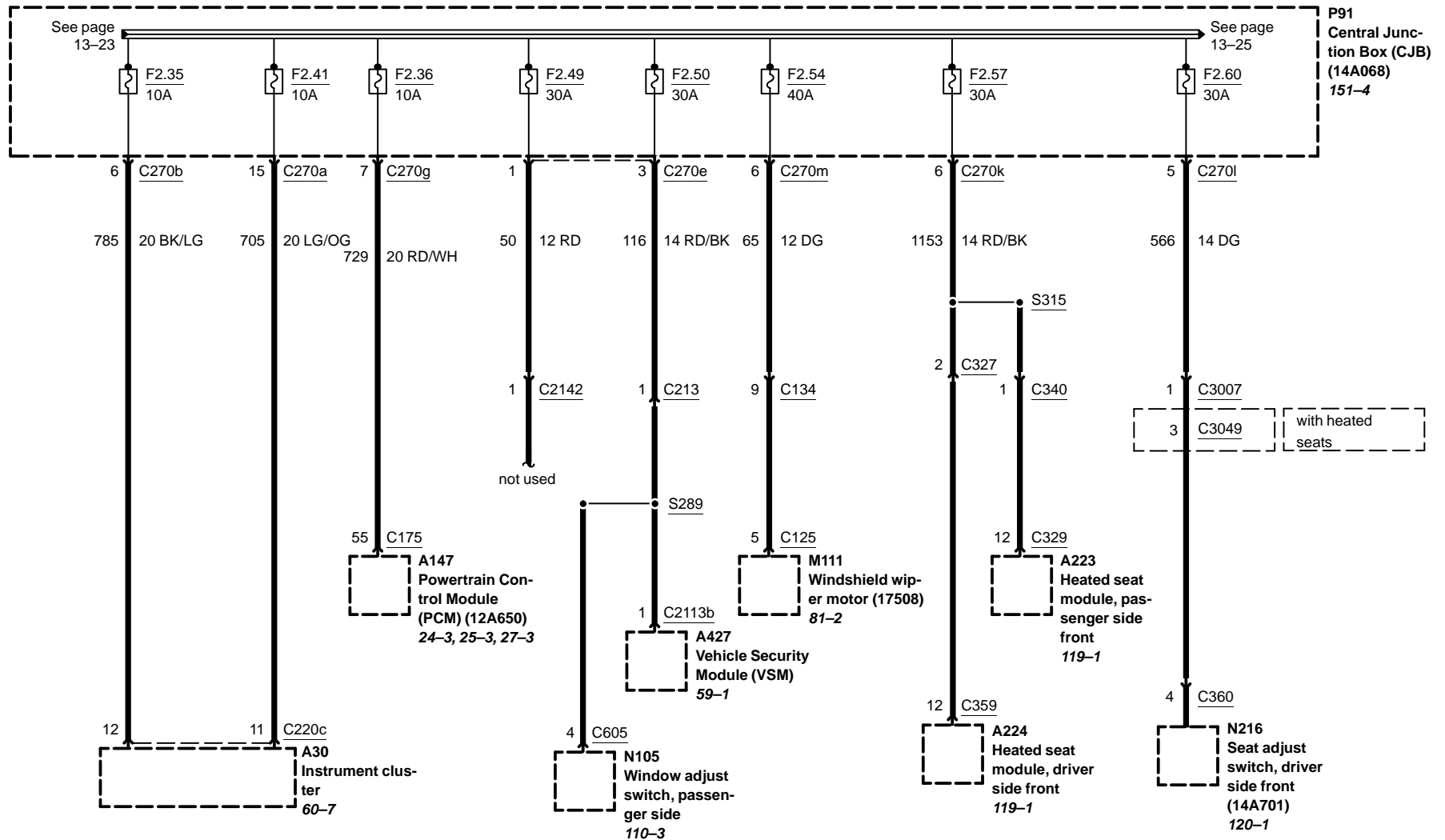


13-23 Power Distribution

Pickup, F2.18, F2.34, F2.59

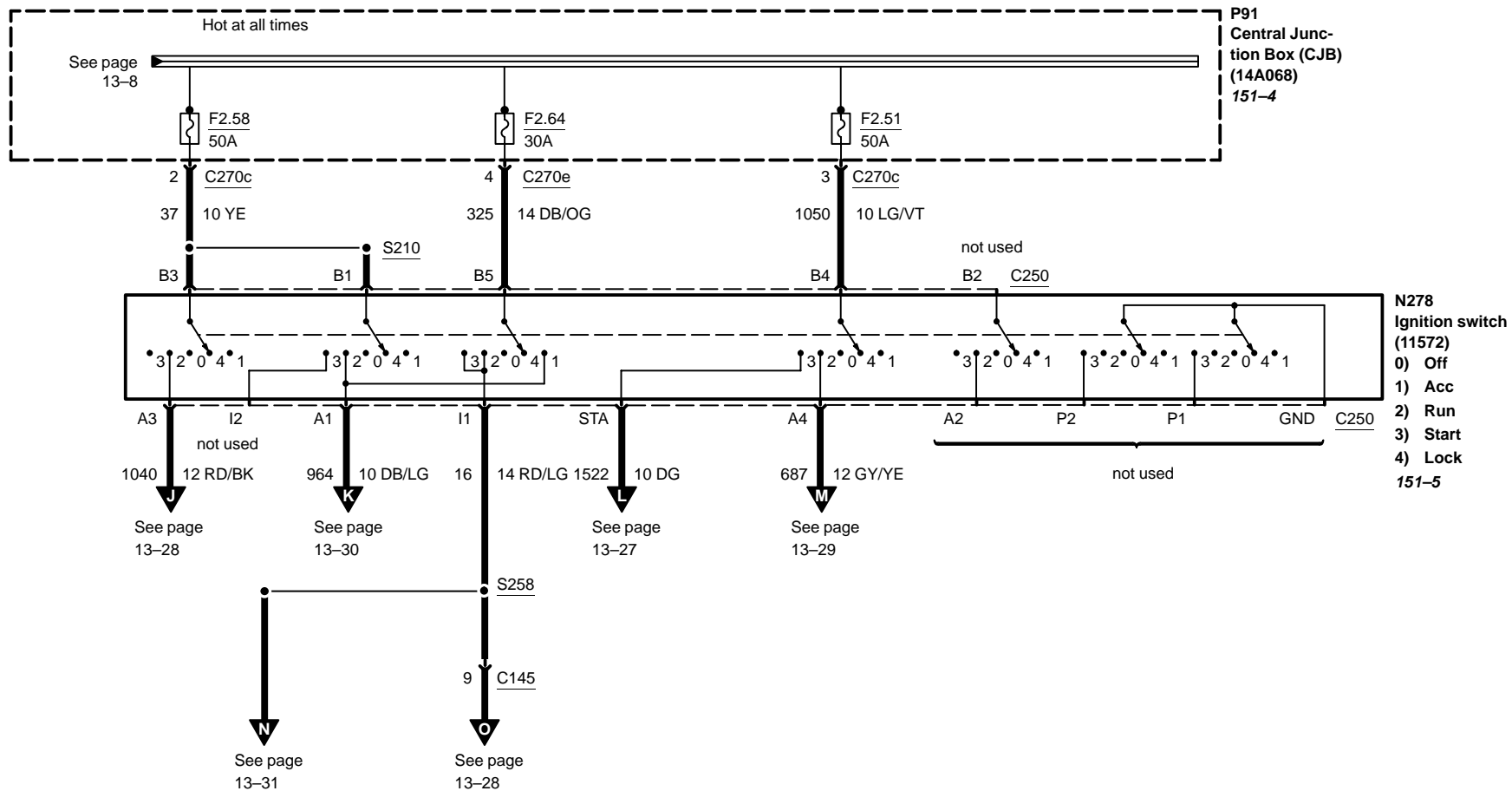


Pickup, F2.35, F2.36, F2.41, F2.49, F2.50, F2.54, F2.57, F2.60

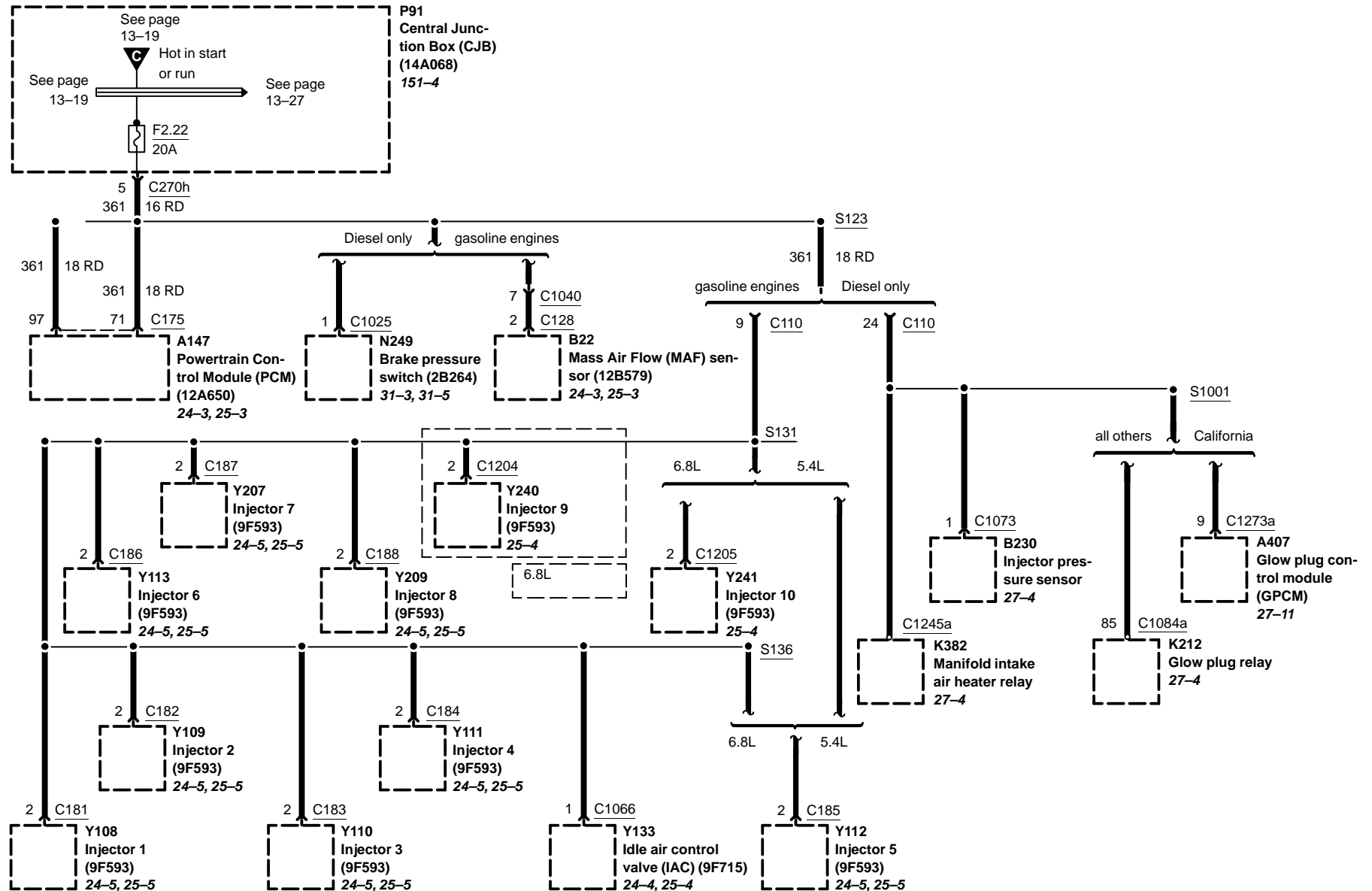


13-25 Power Distribution

Pickup, F2.51, F2.58, F2.64

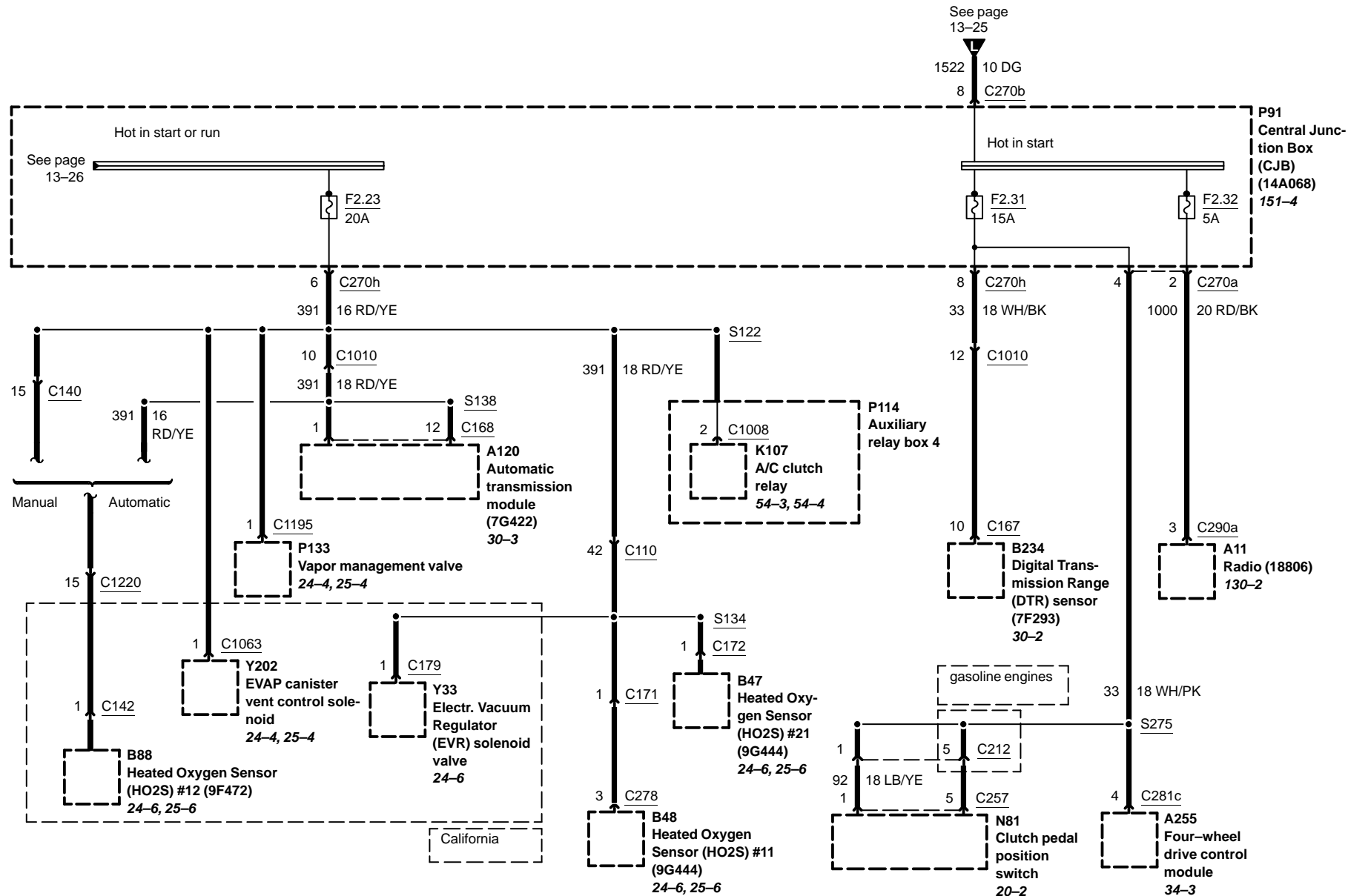


Pickup, F2.22

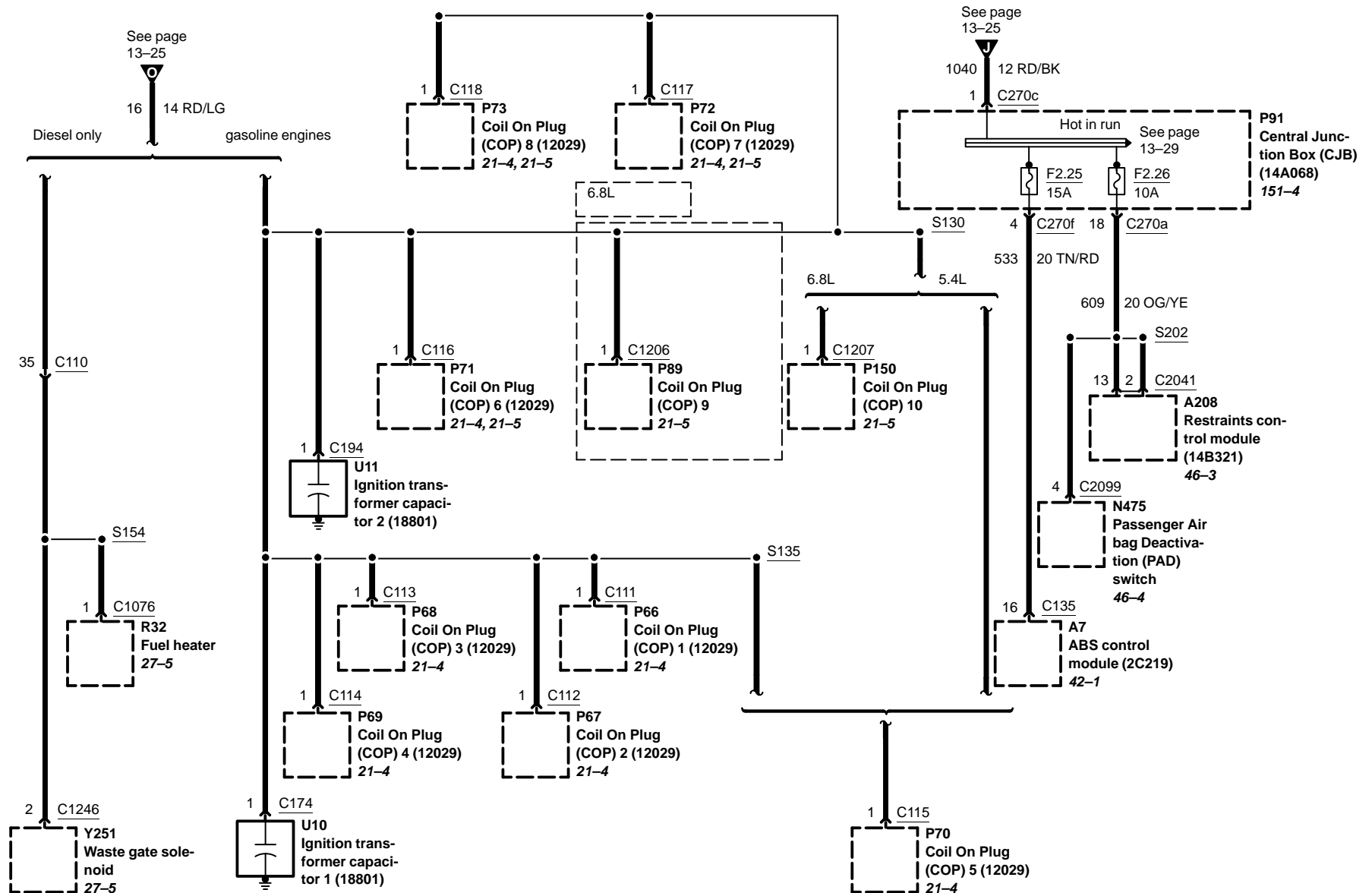


13-27 Power Distribution

Pickup, F2.23, F2.31, F2.32

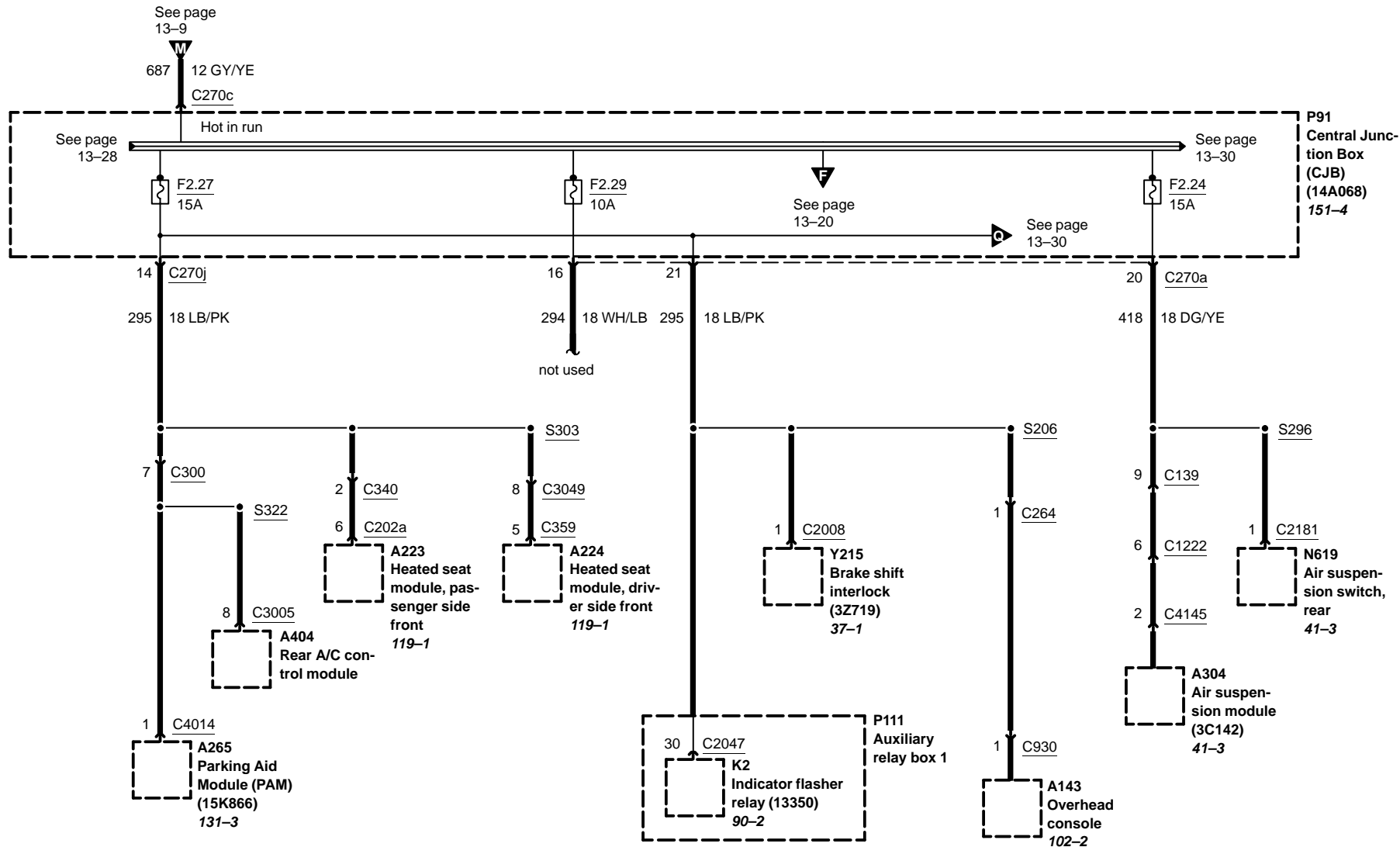


Pickup, F2.25, F2.26

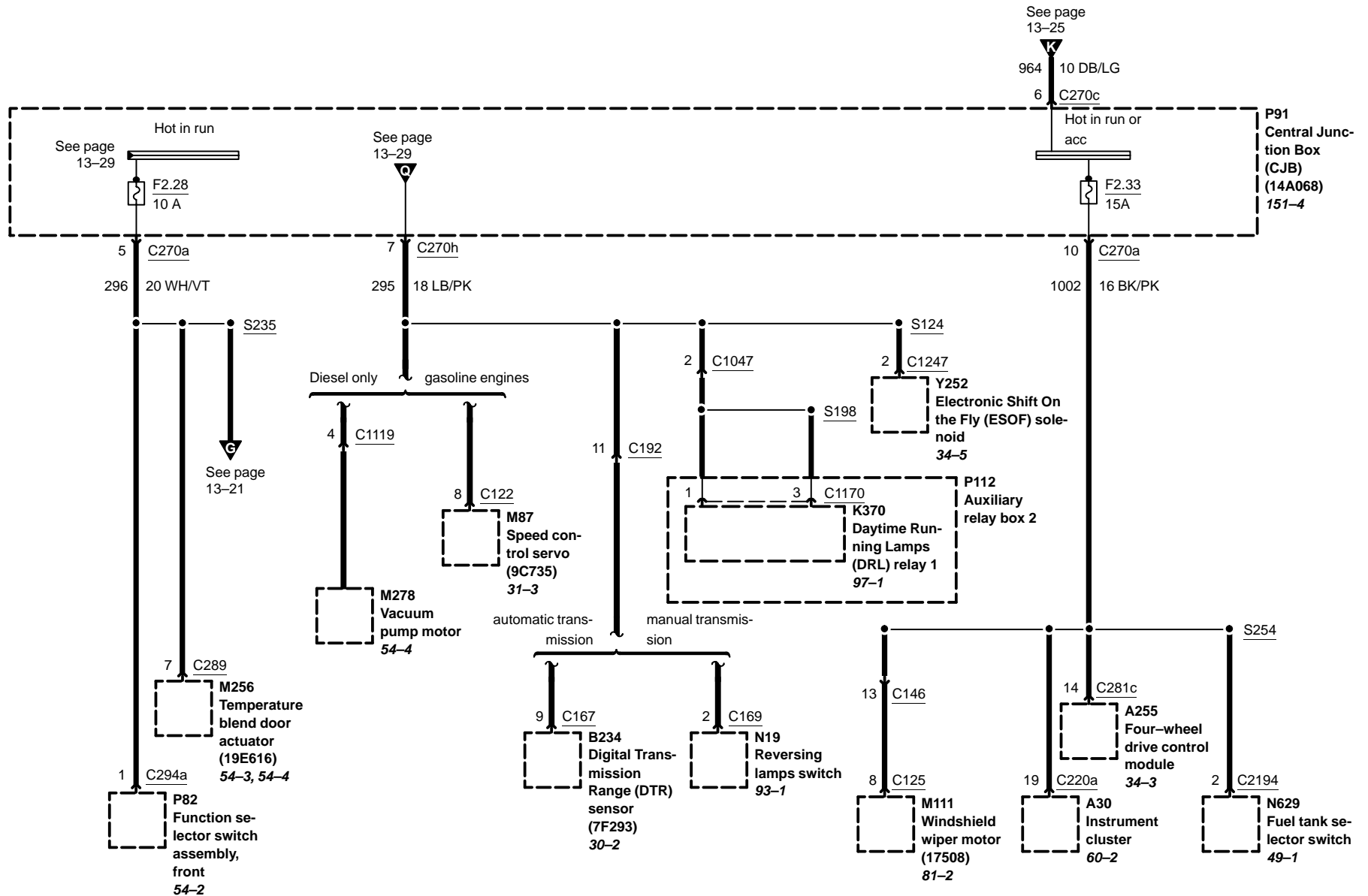


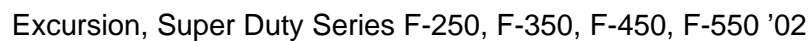
13-29 Power Distribution

Pickup, F2.27, F2.29

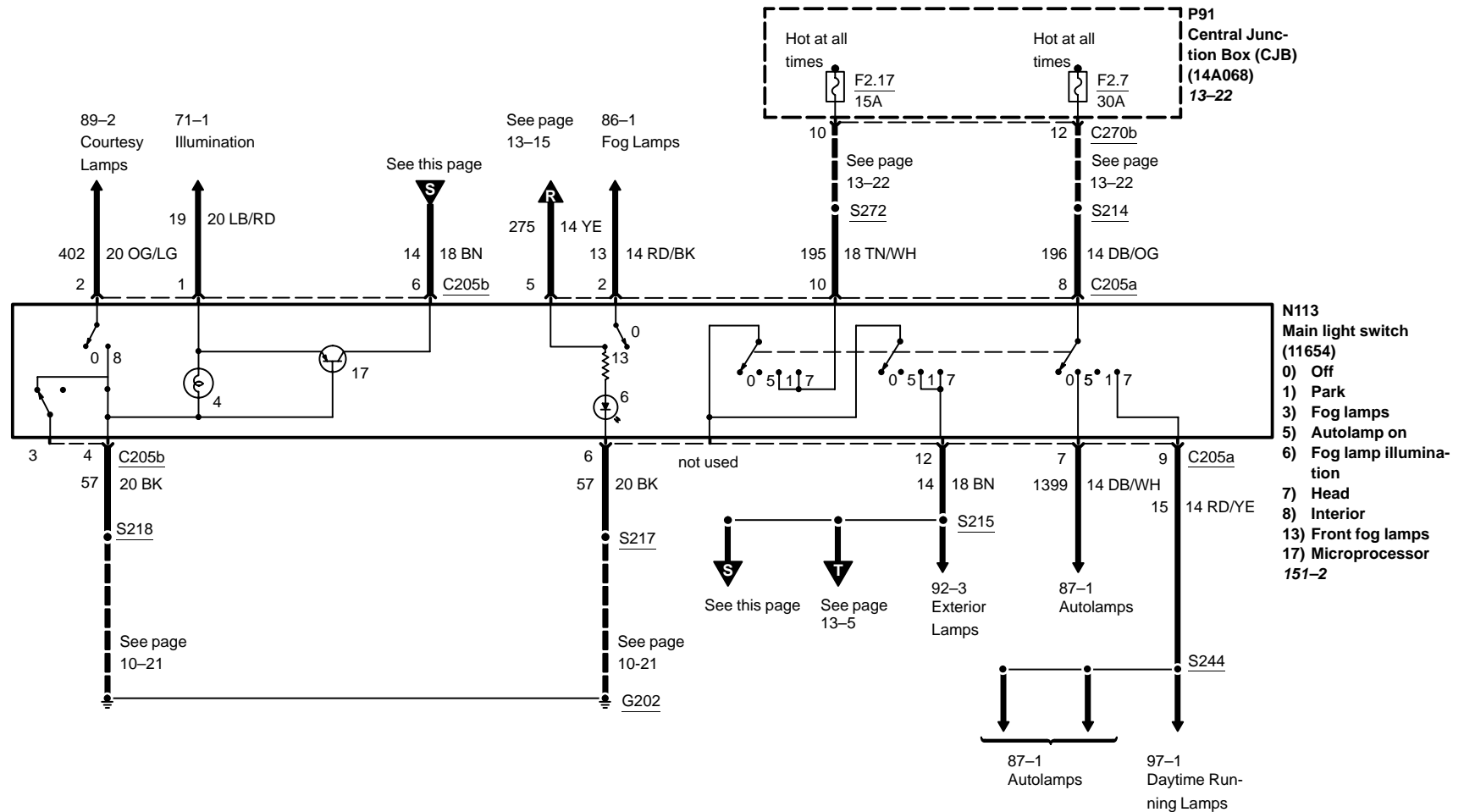


Pickup, F2.28, F2.33, F2.49

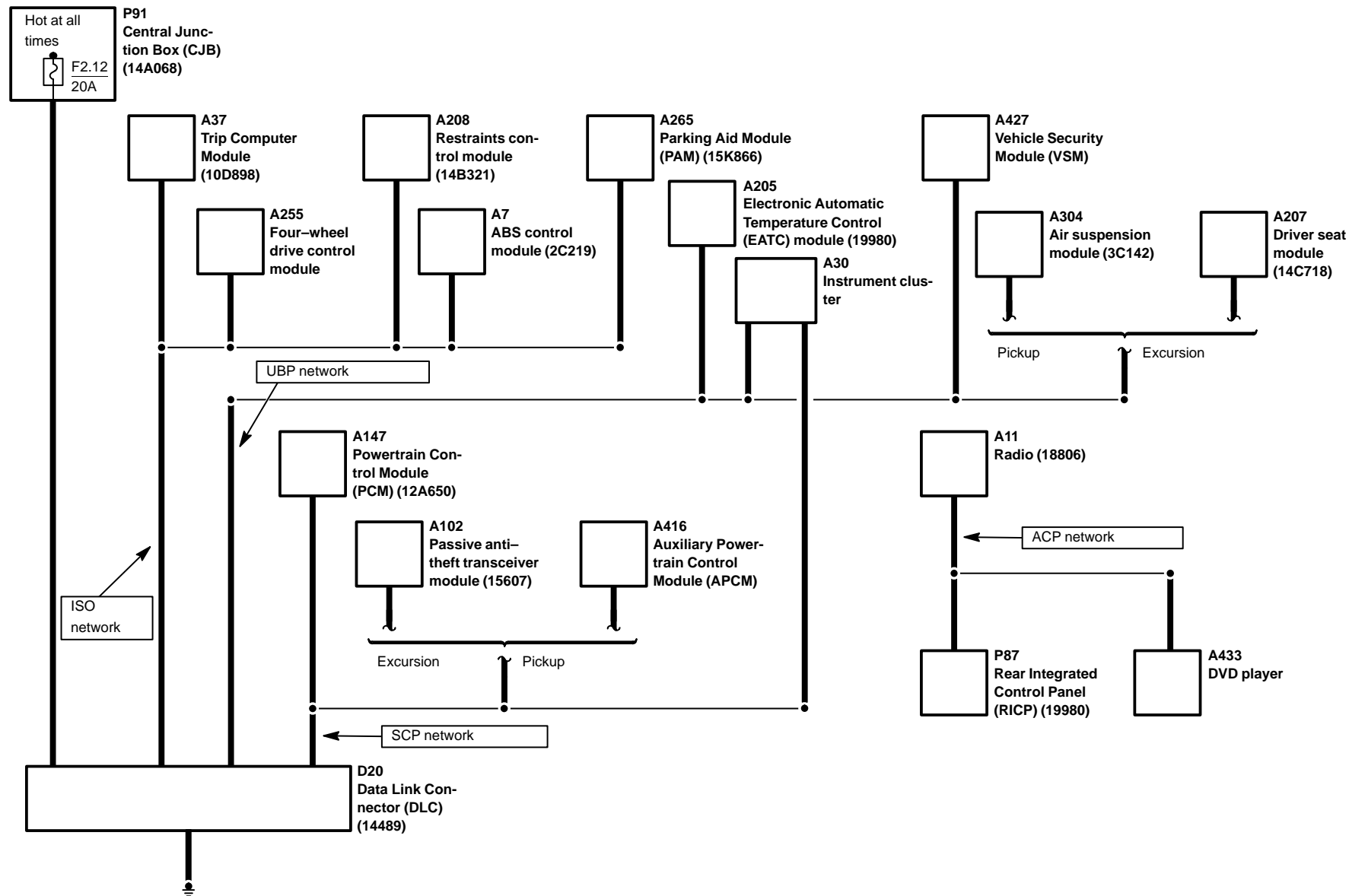




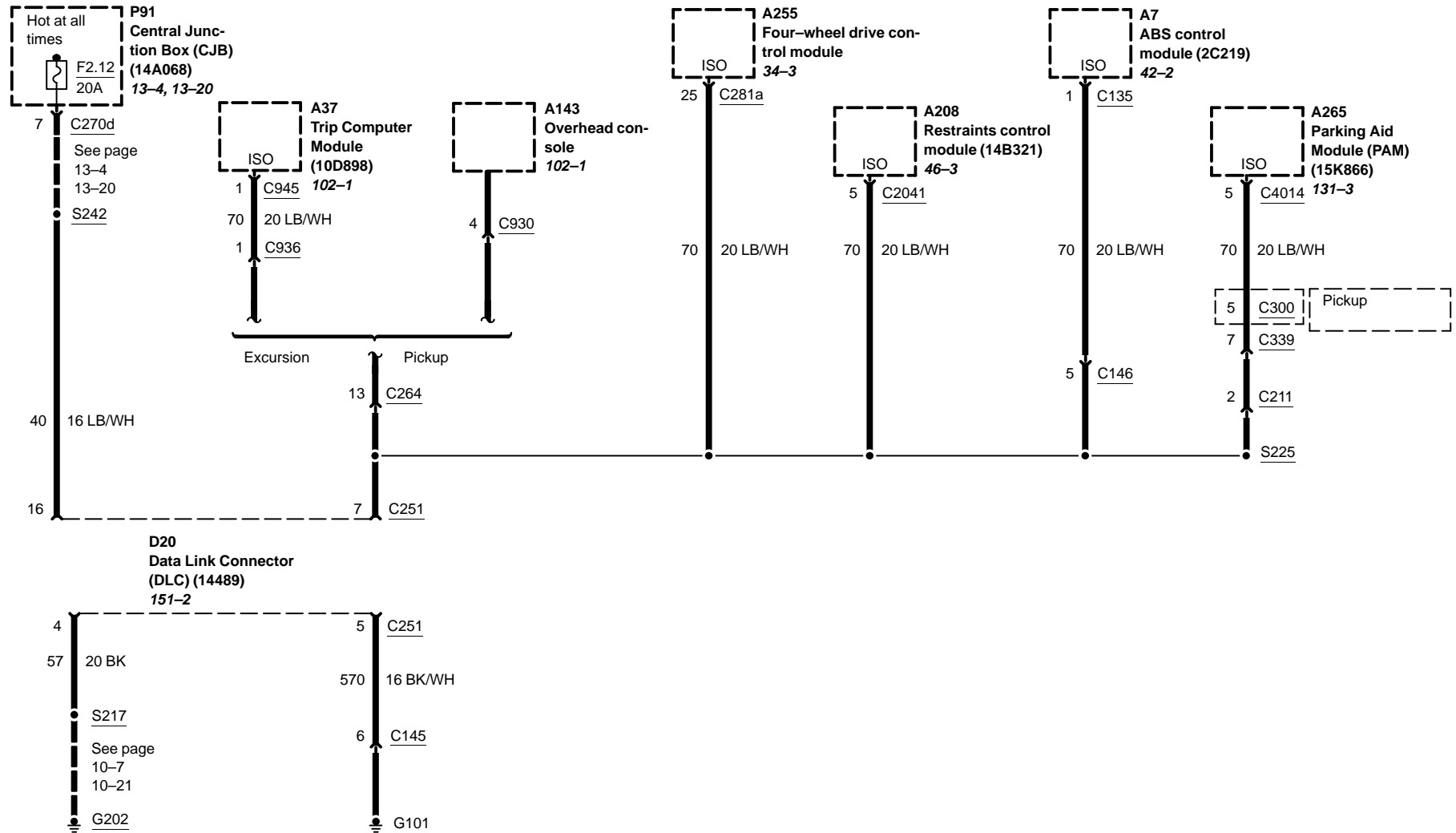
Pickup, F2.7, F2.17



System overview

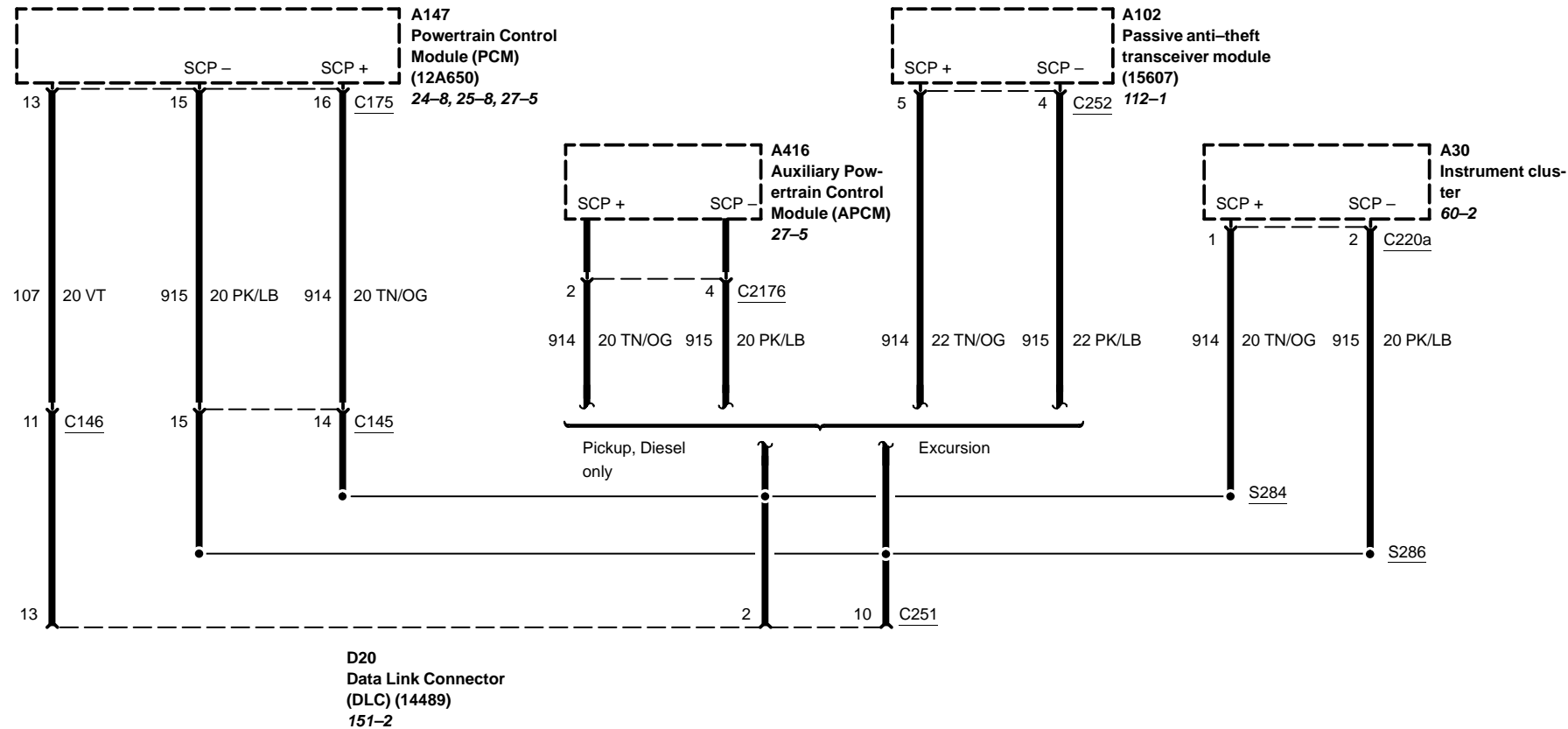


ISO Bus

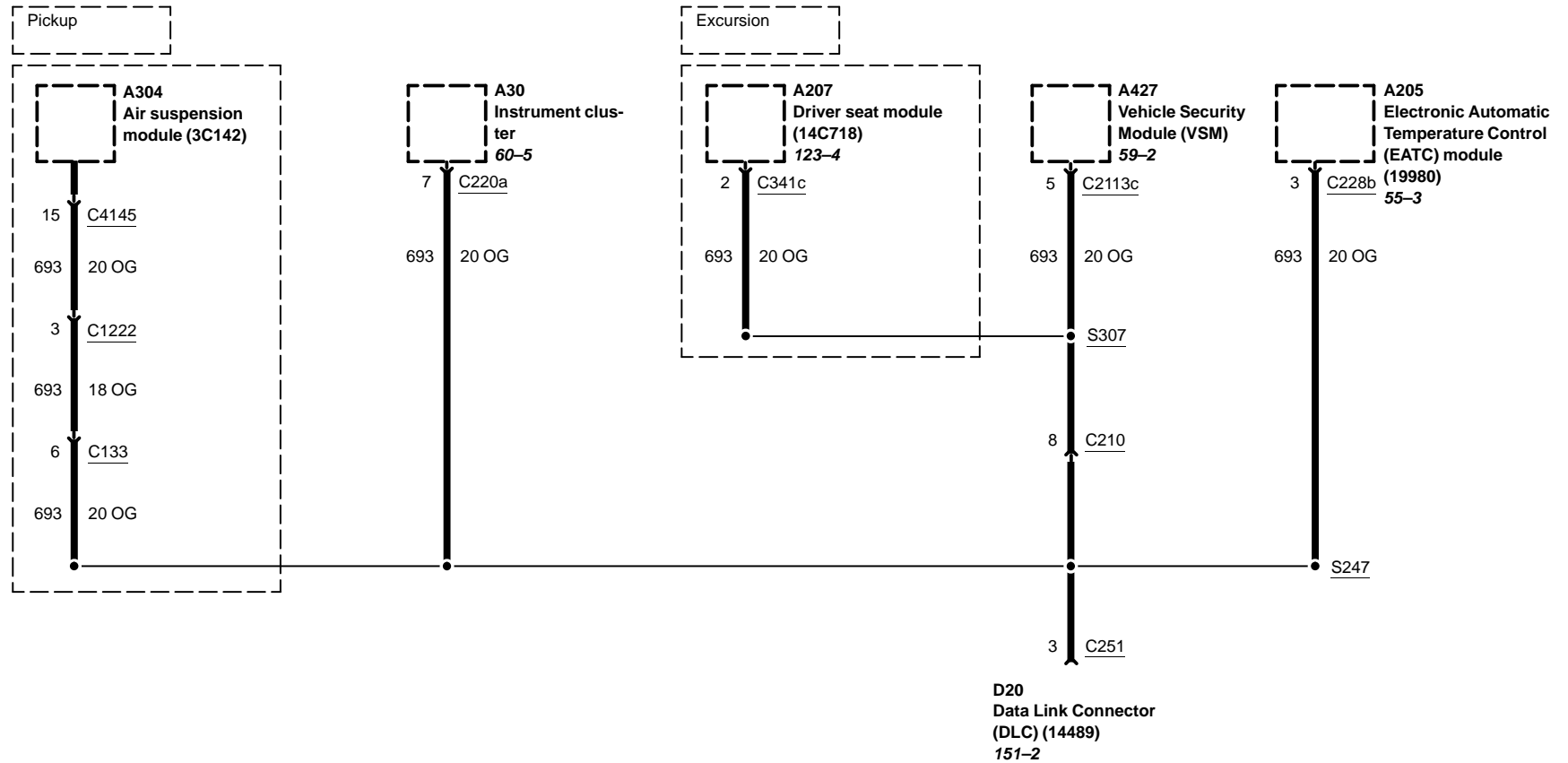


14-3 Module Communications Network

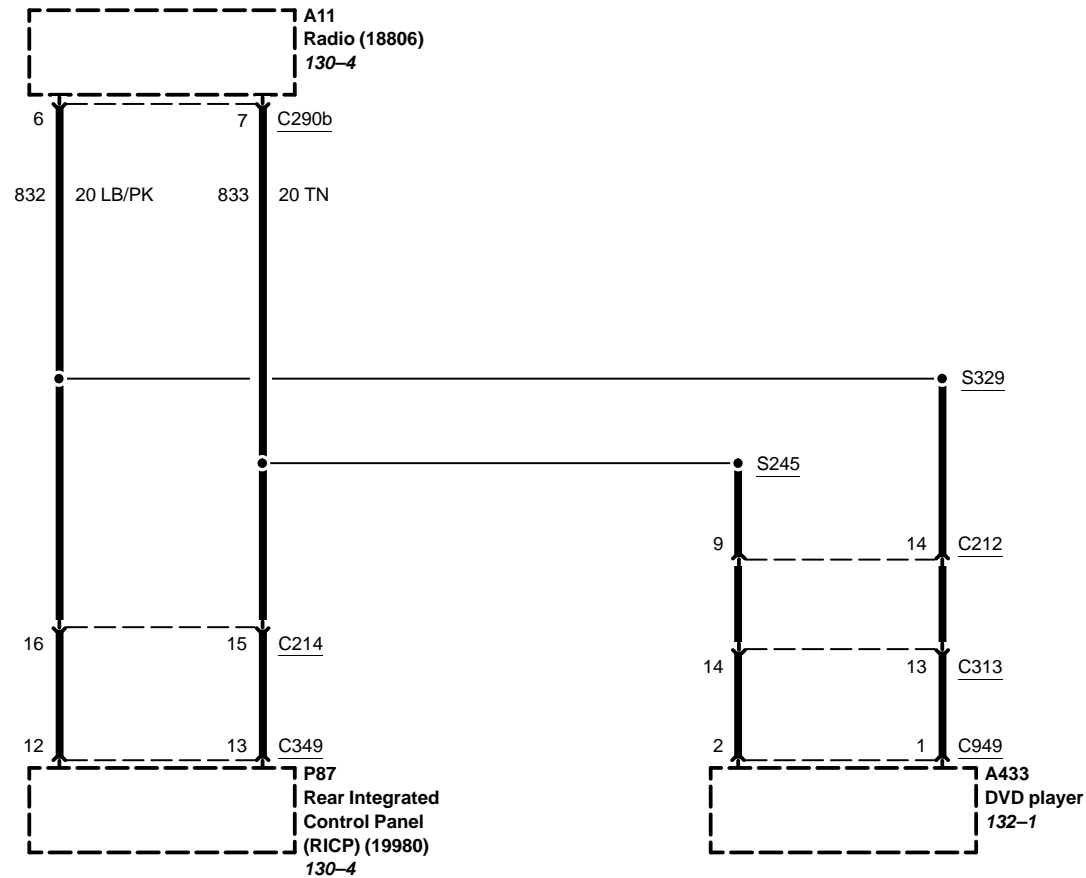
SCP Bus

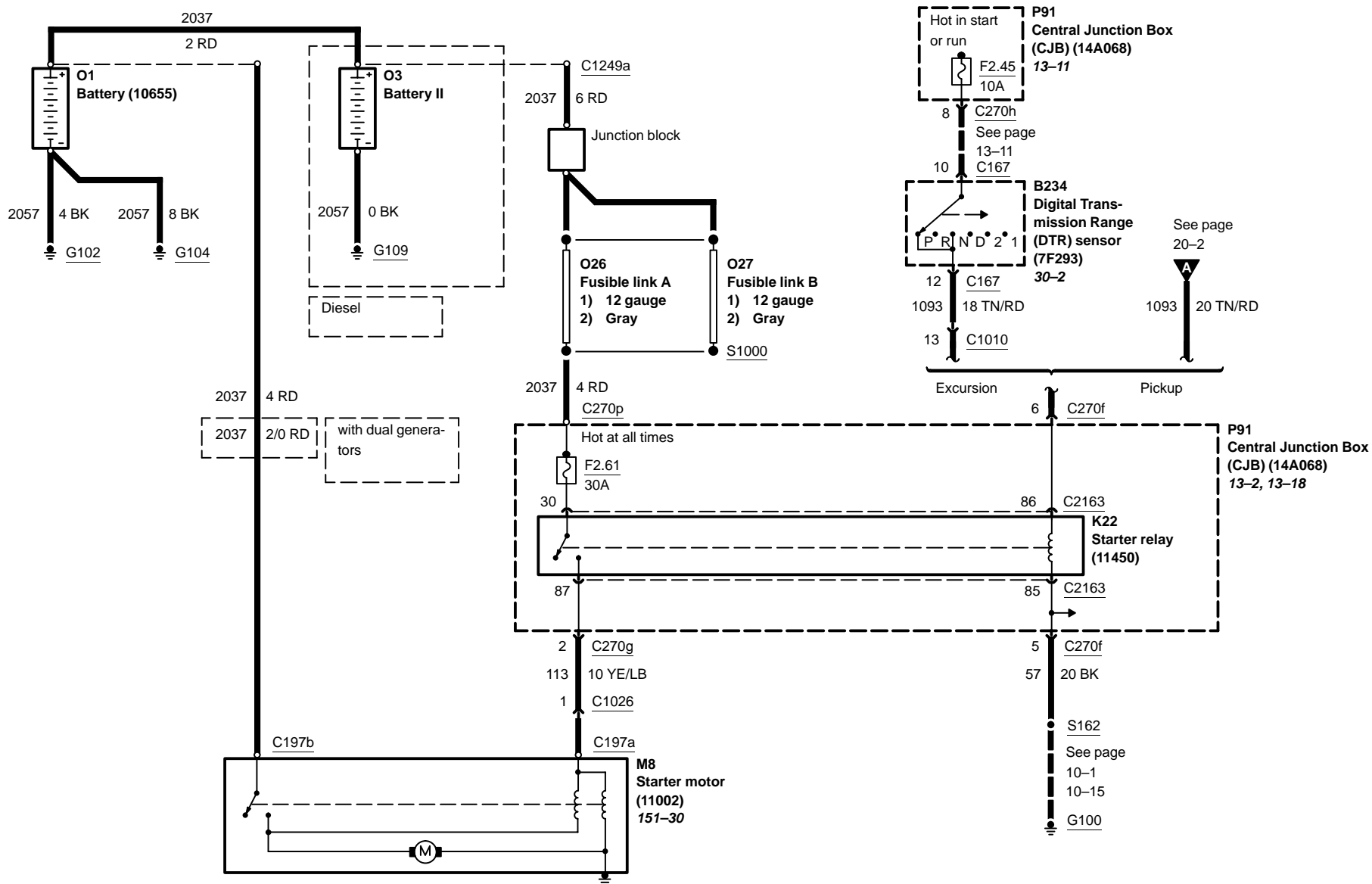


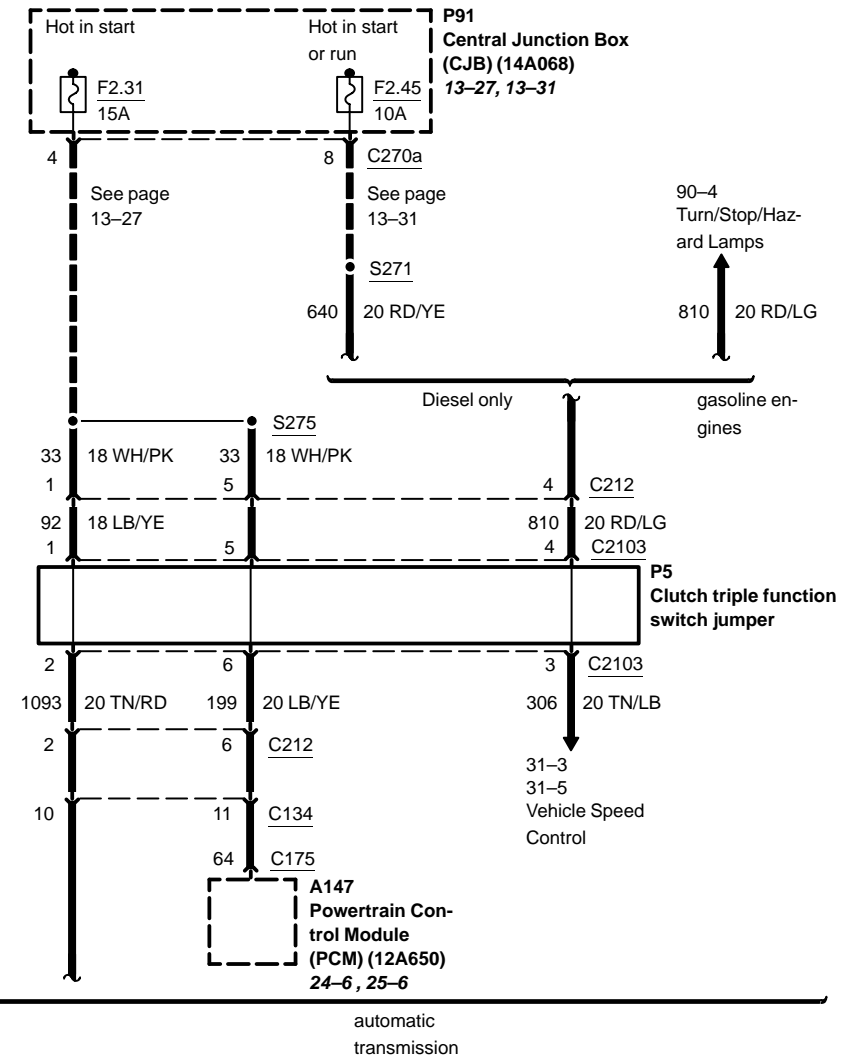
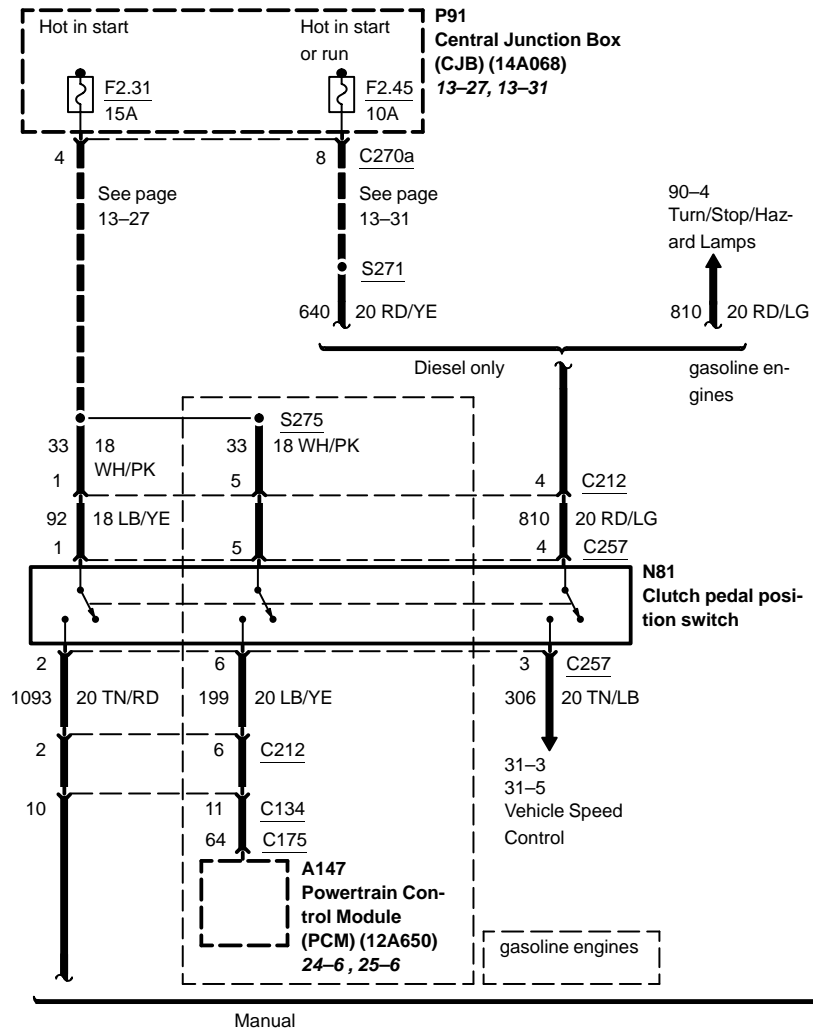
UBP Bus



Excursion, Super Duty Series F-250, F-350, F-450, F-550 '02

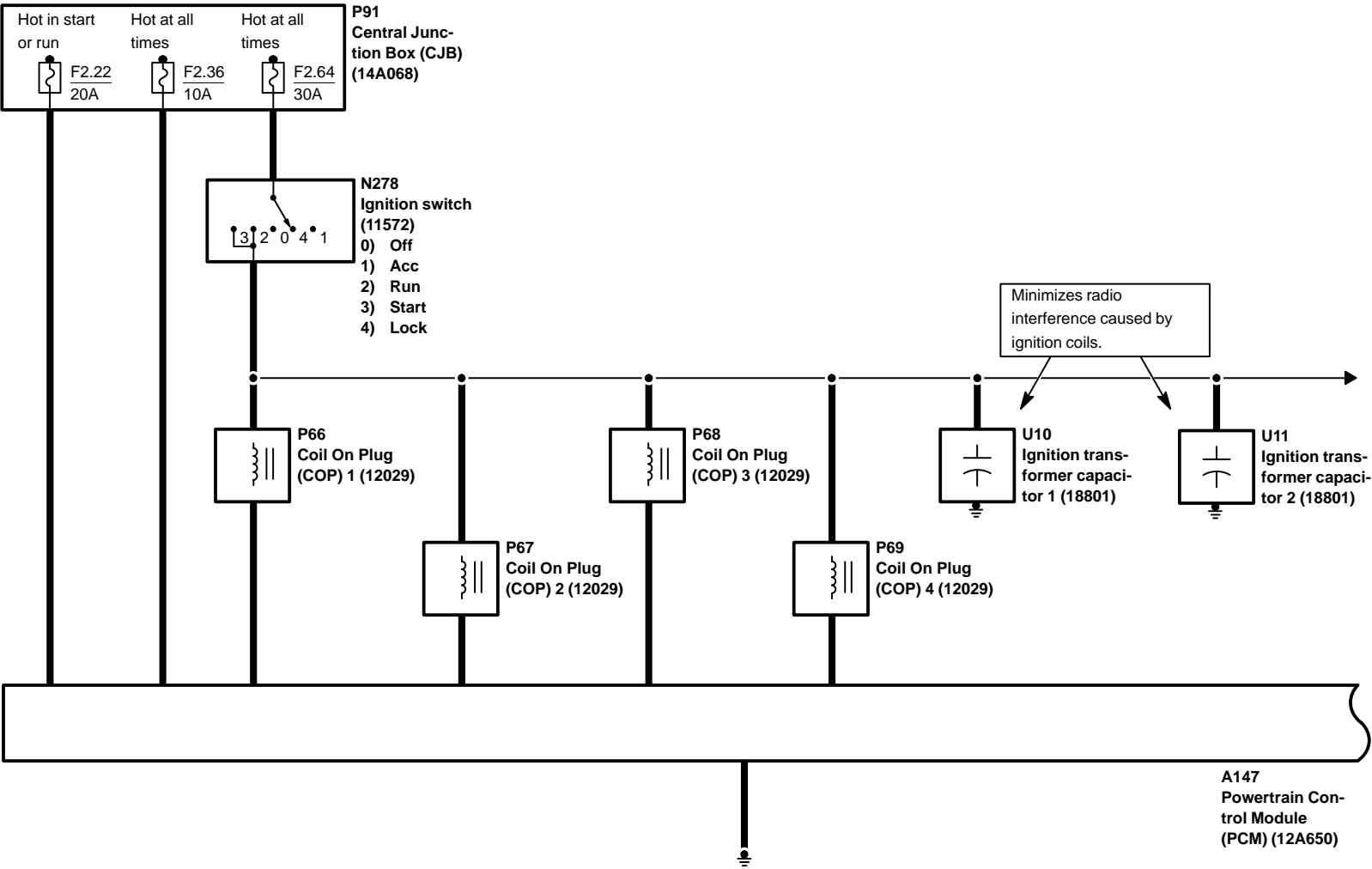




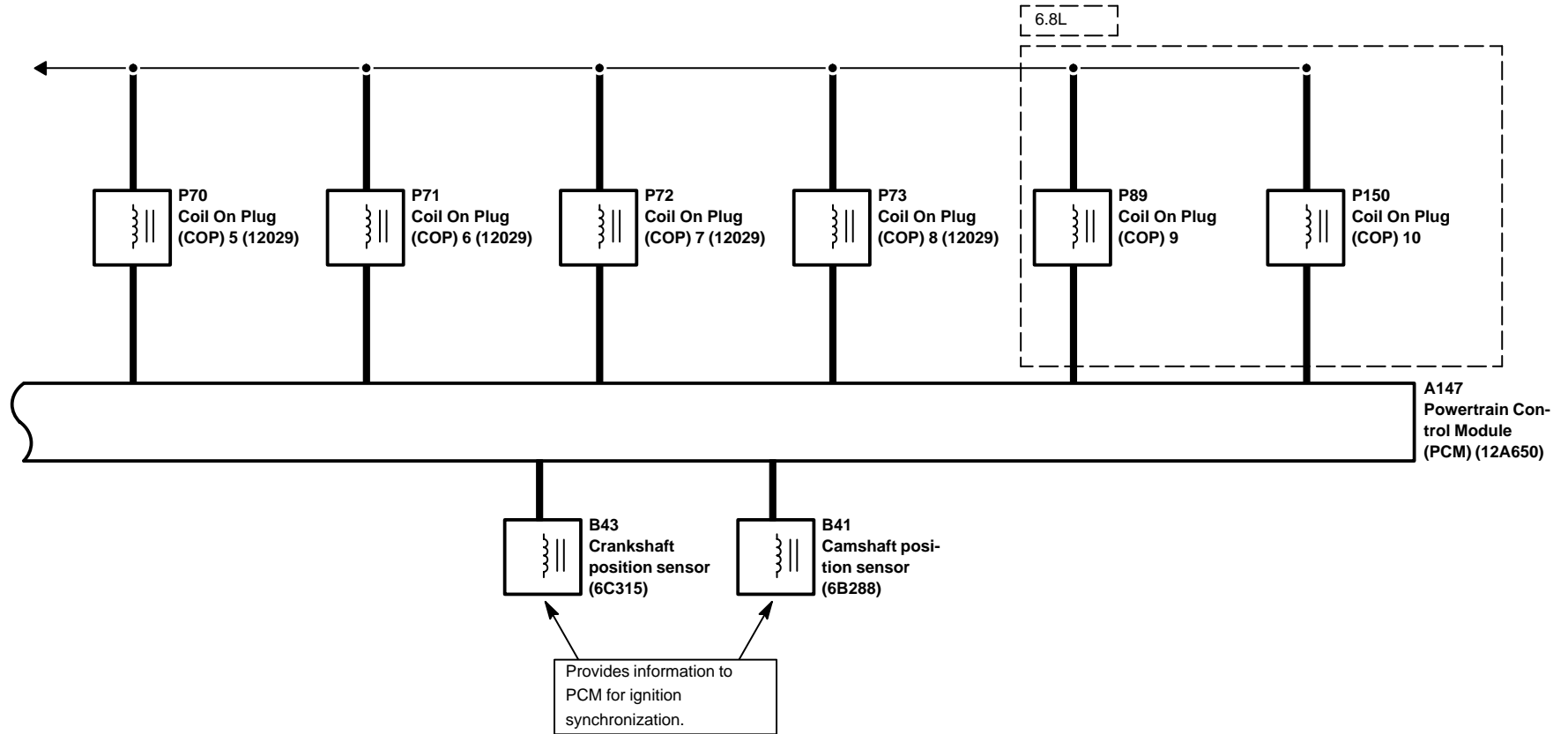


See page 20-1

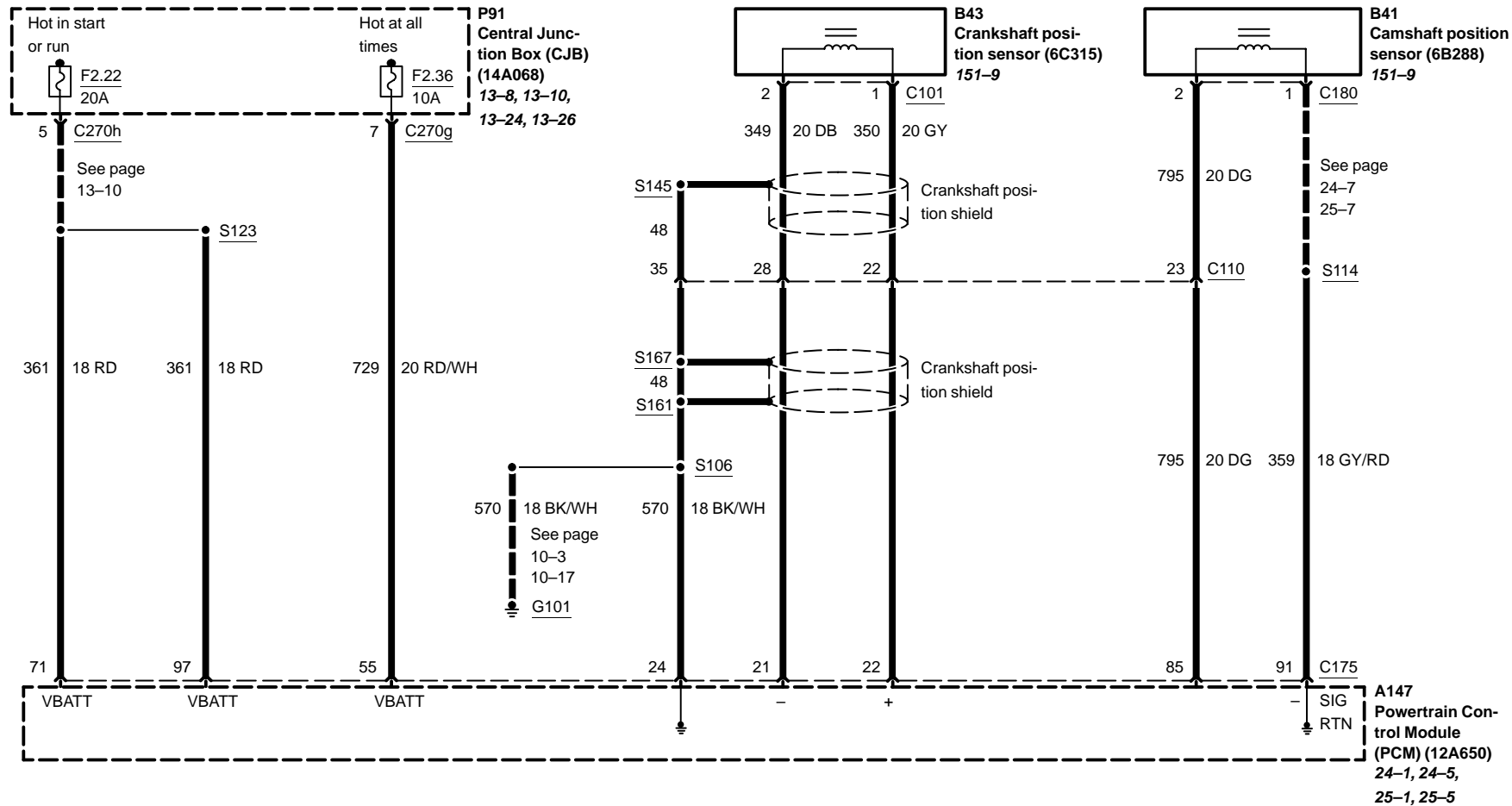
System overview



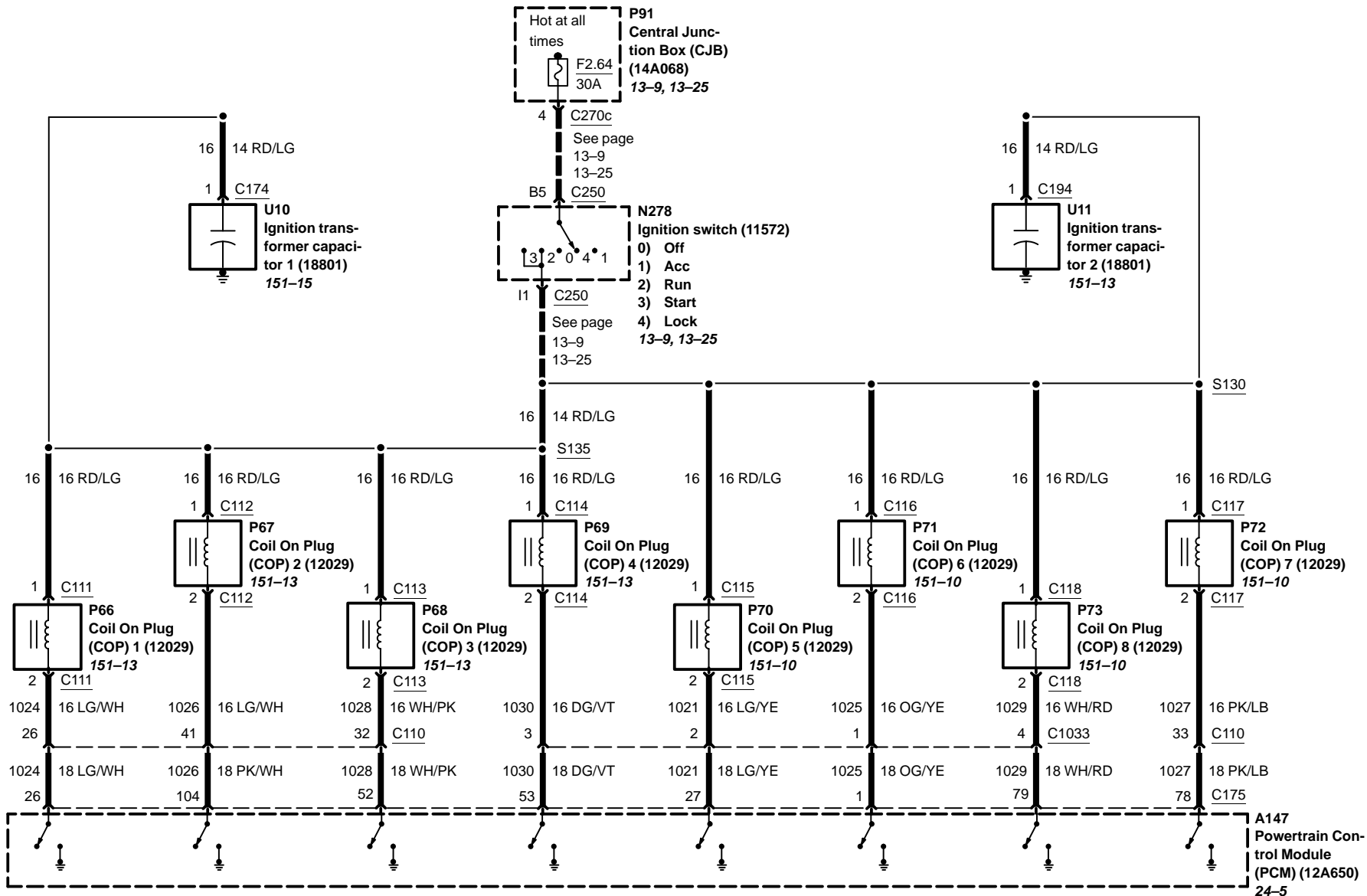
System overview



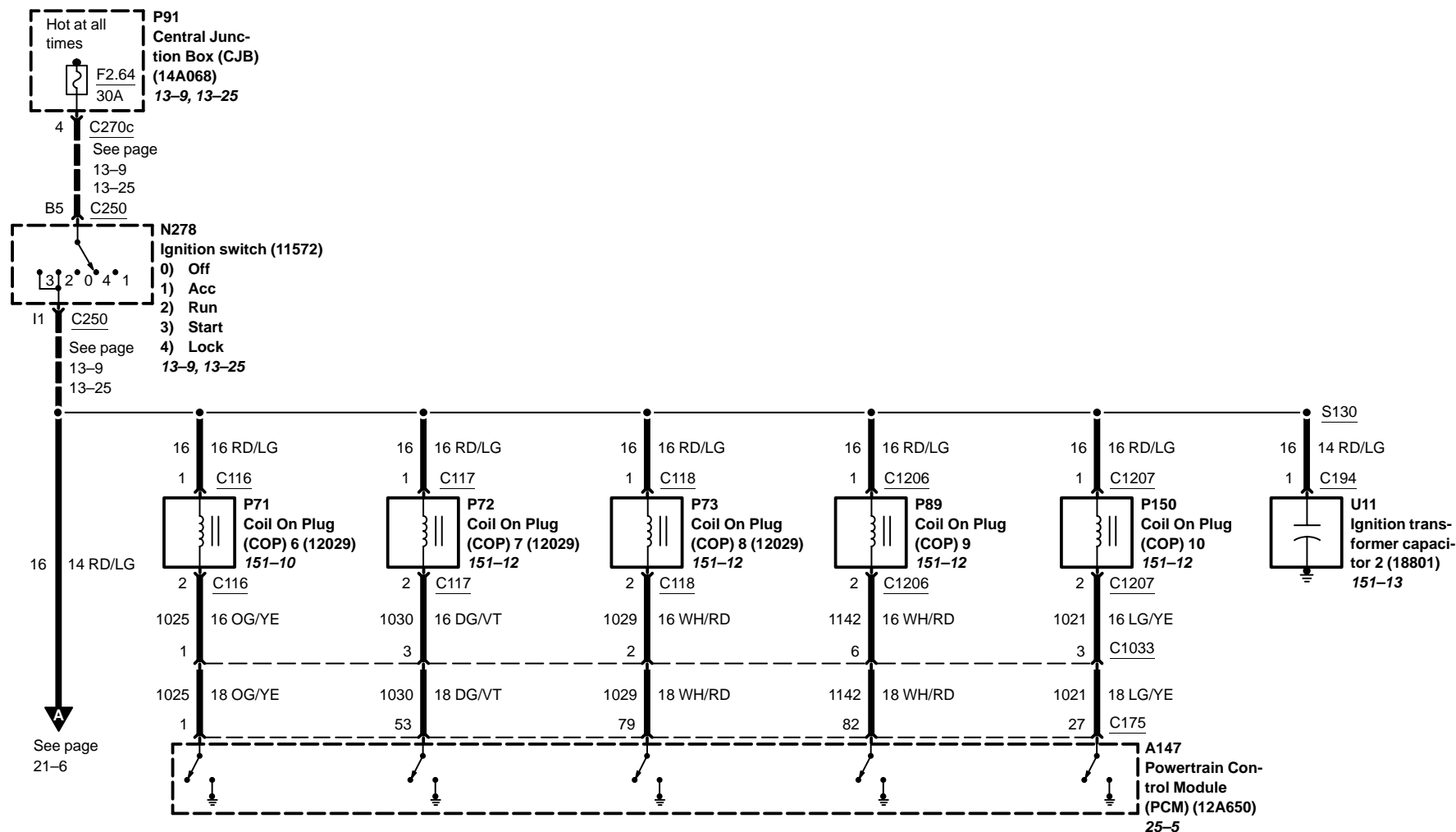
21-3 Engine Ignition



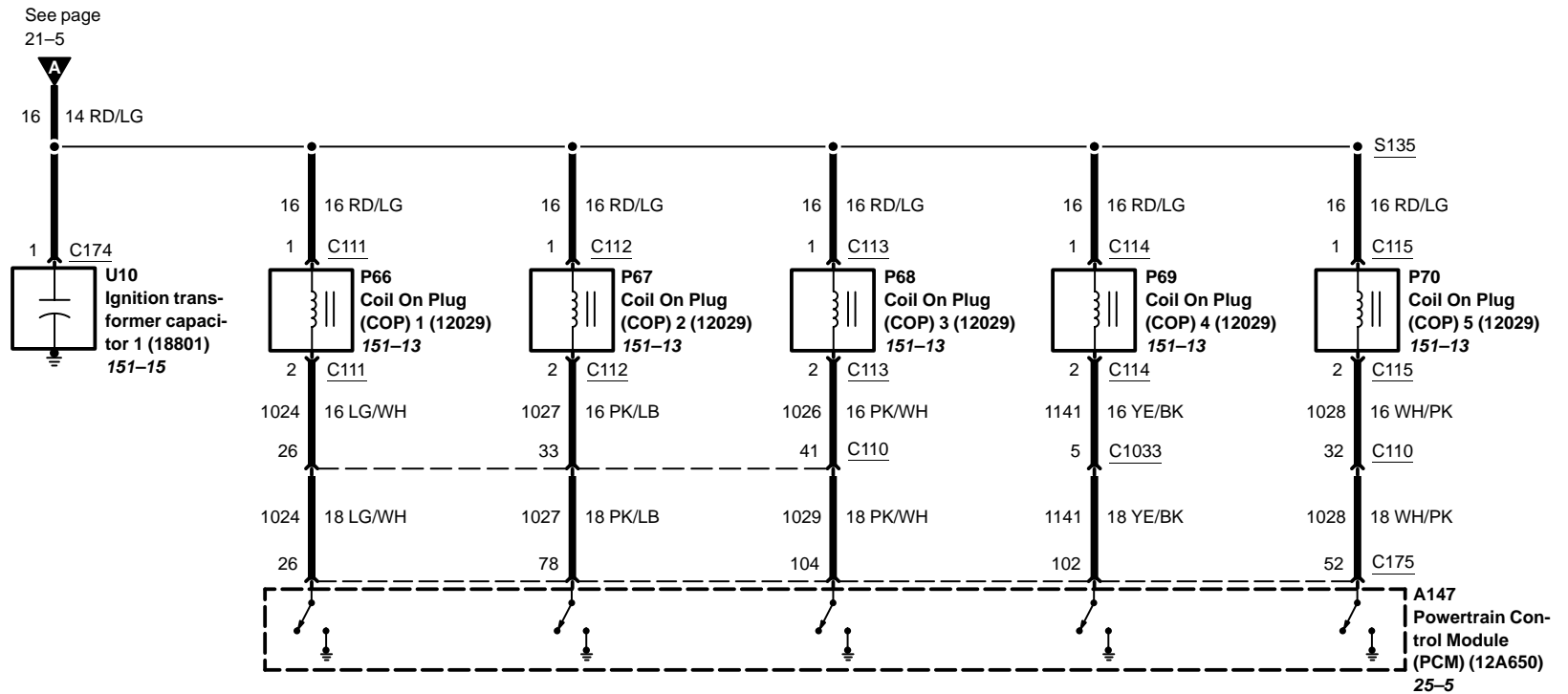
5.4L



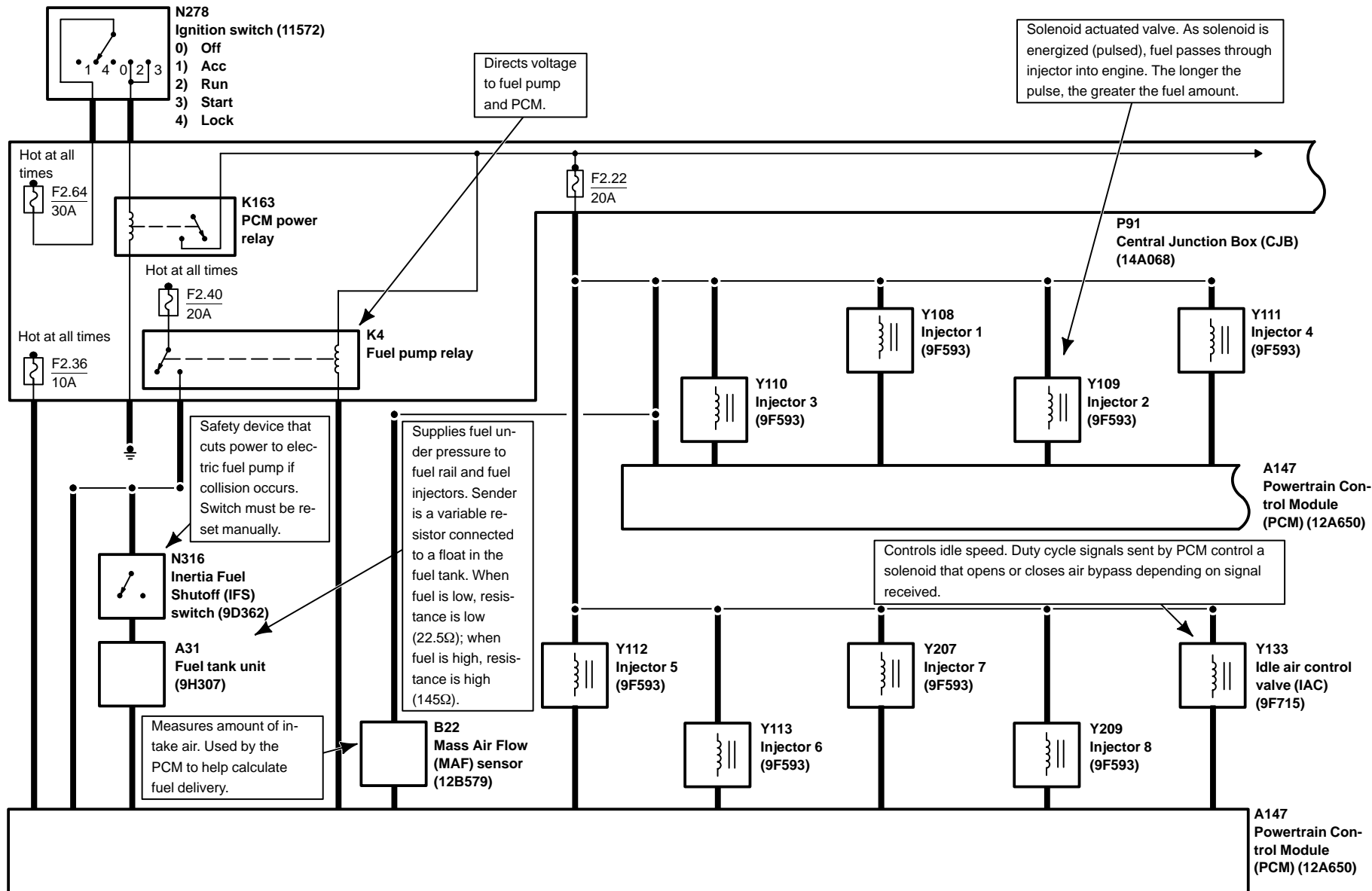
6.8L



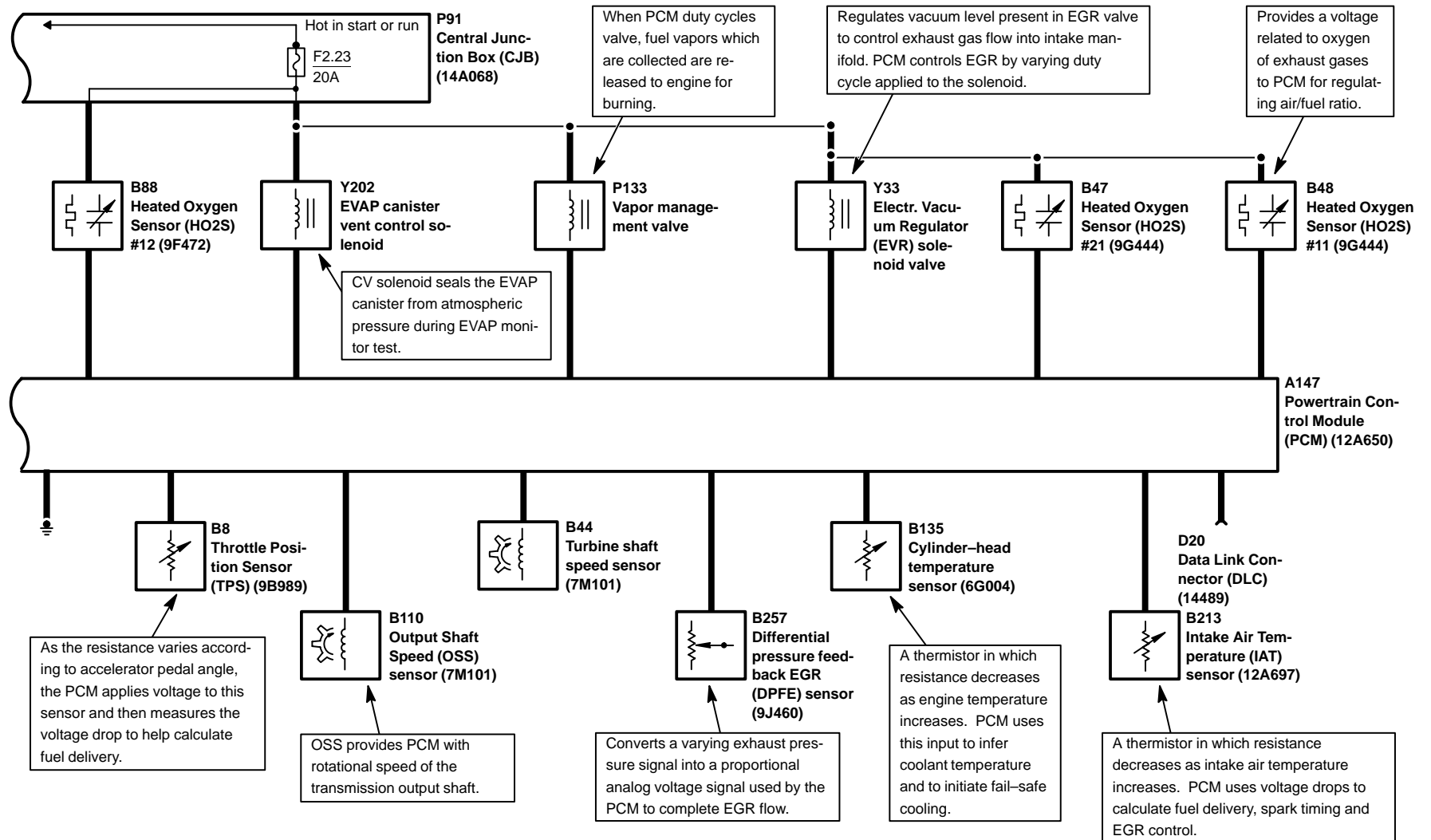
6.8L



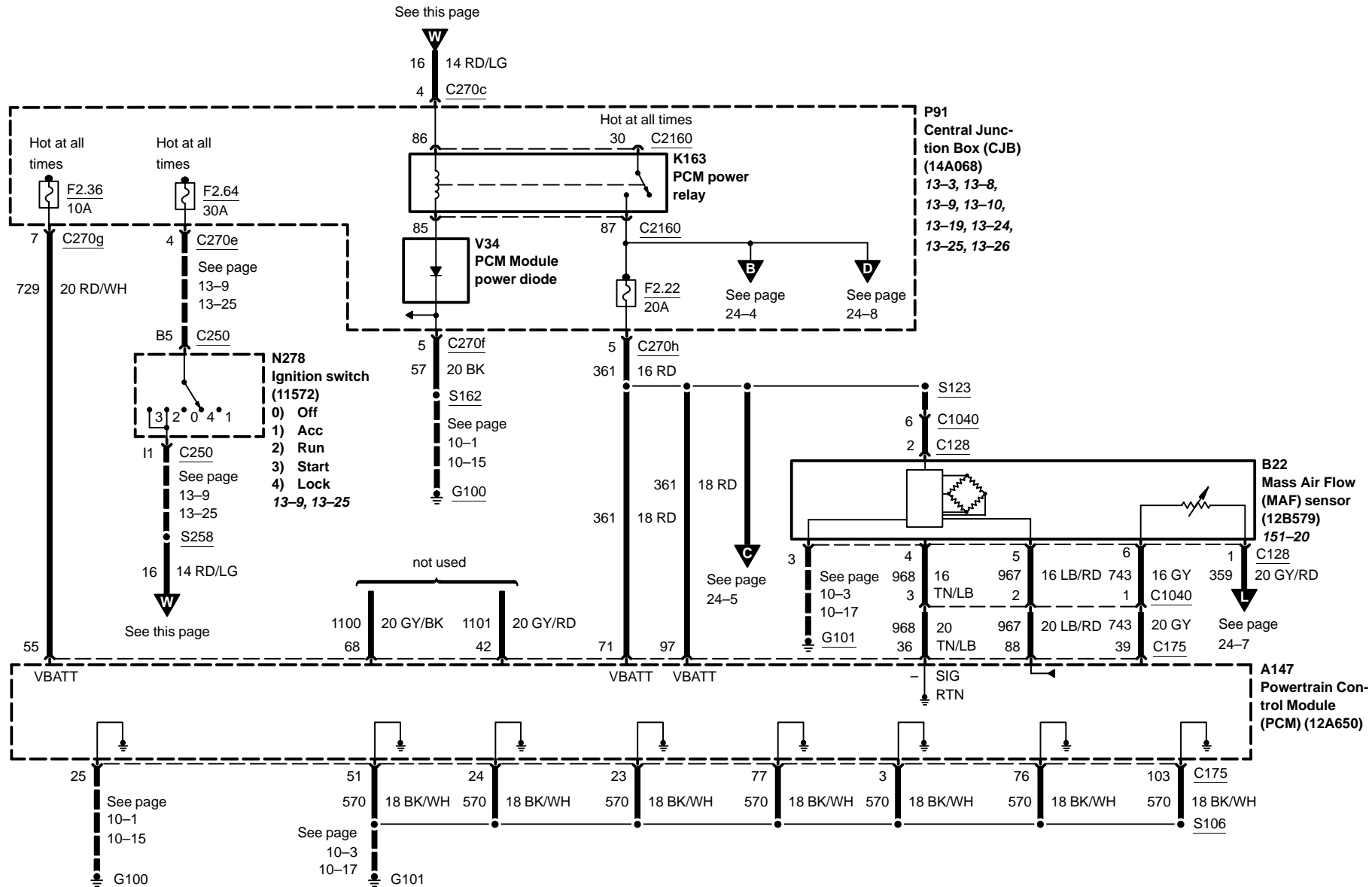
5.4L, System overview



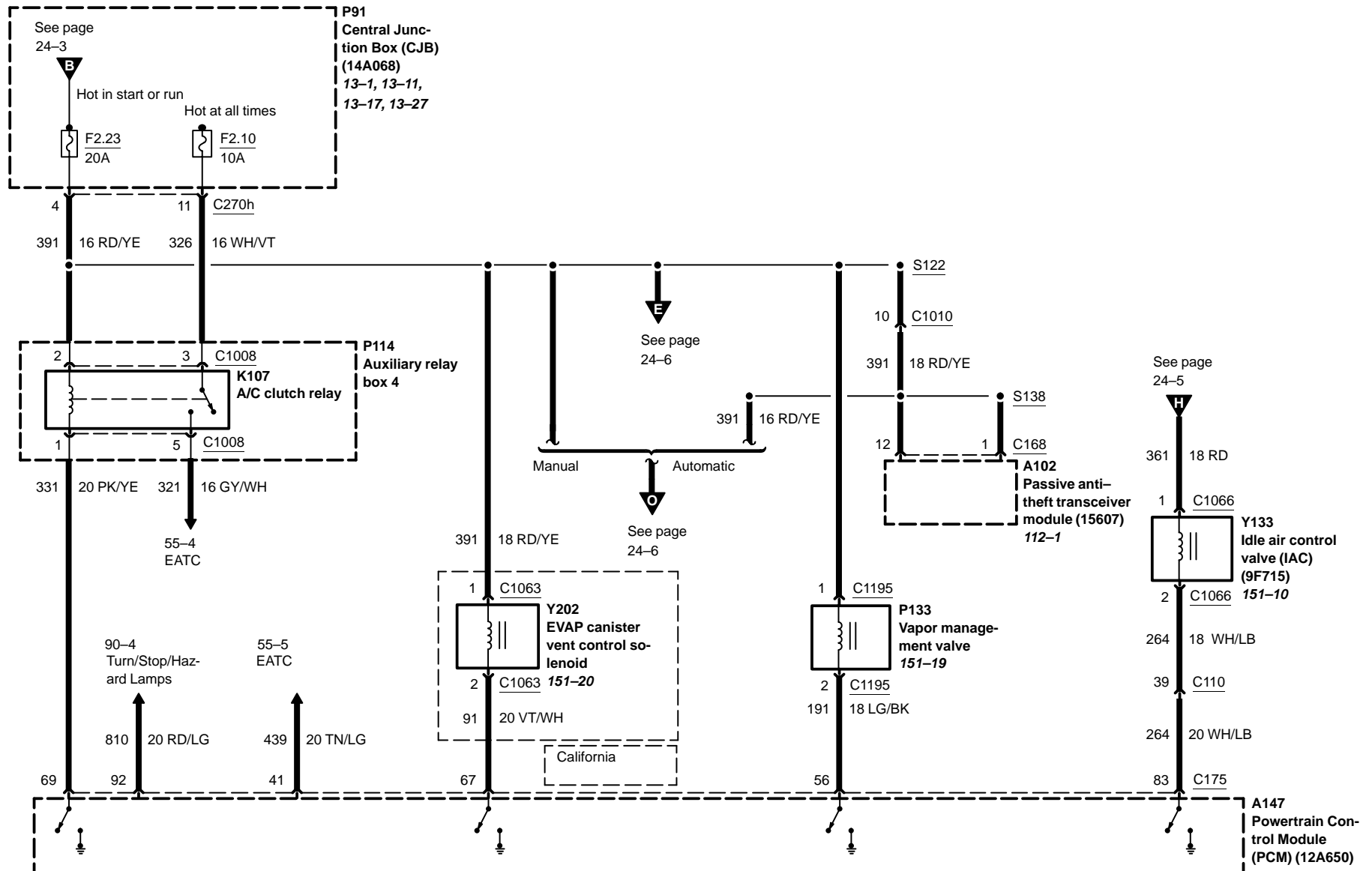
5.4L, System overview



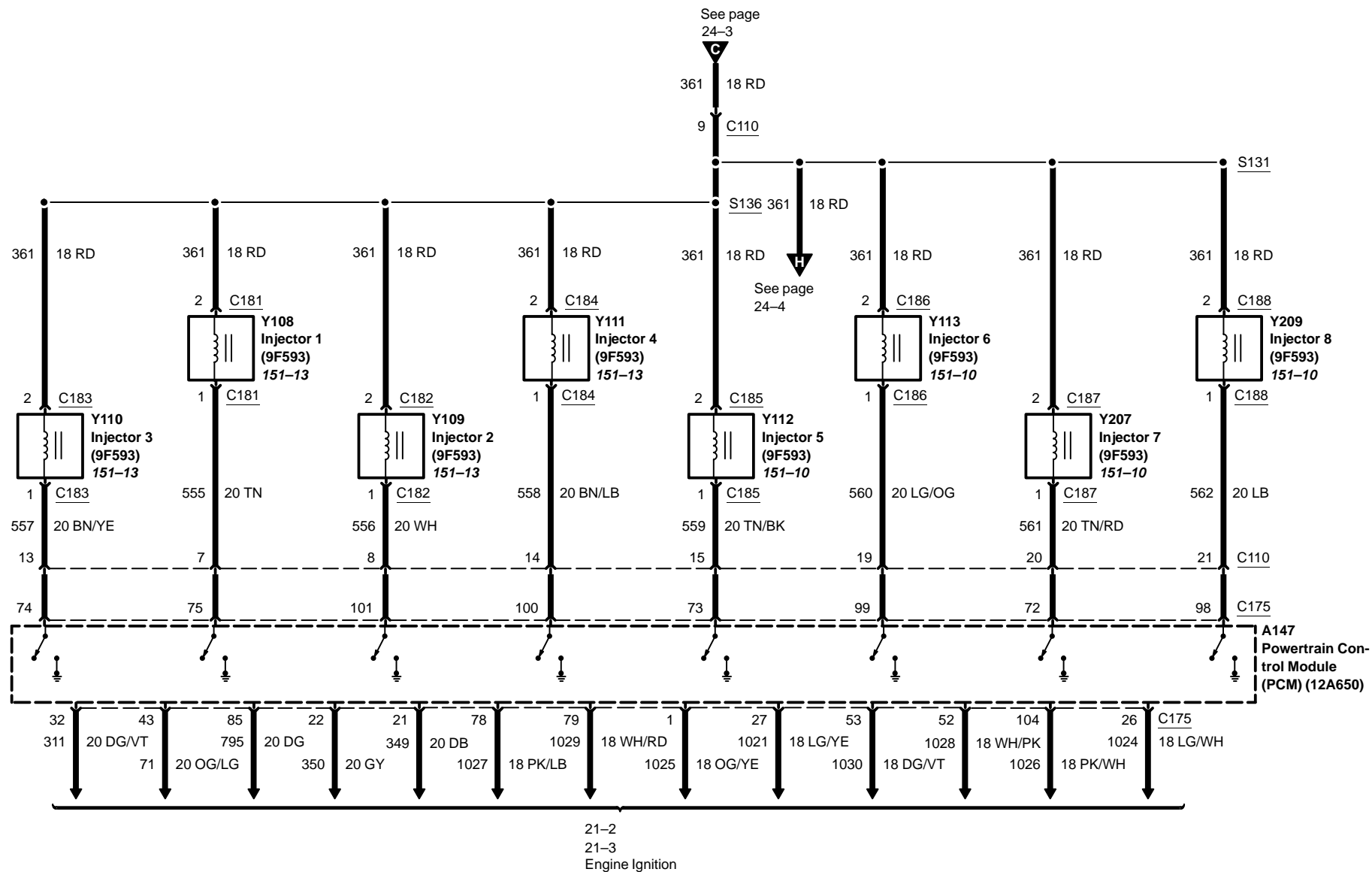
5.4L



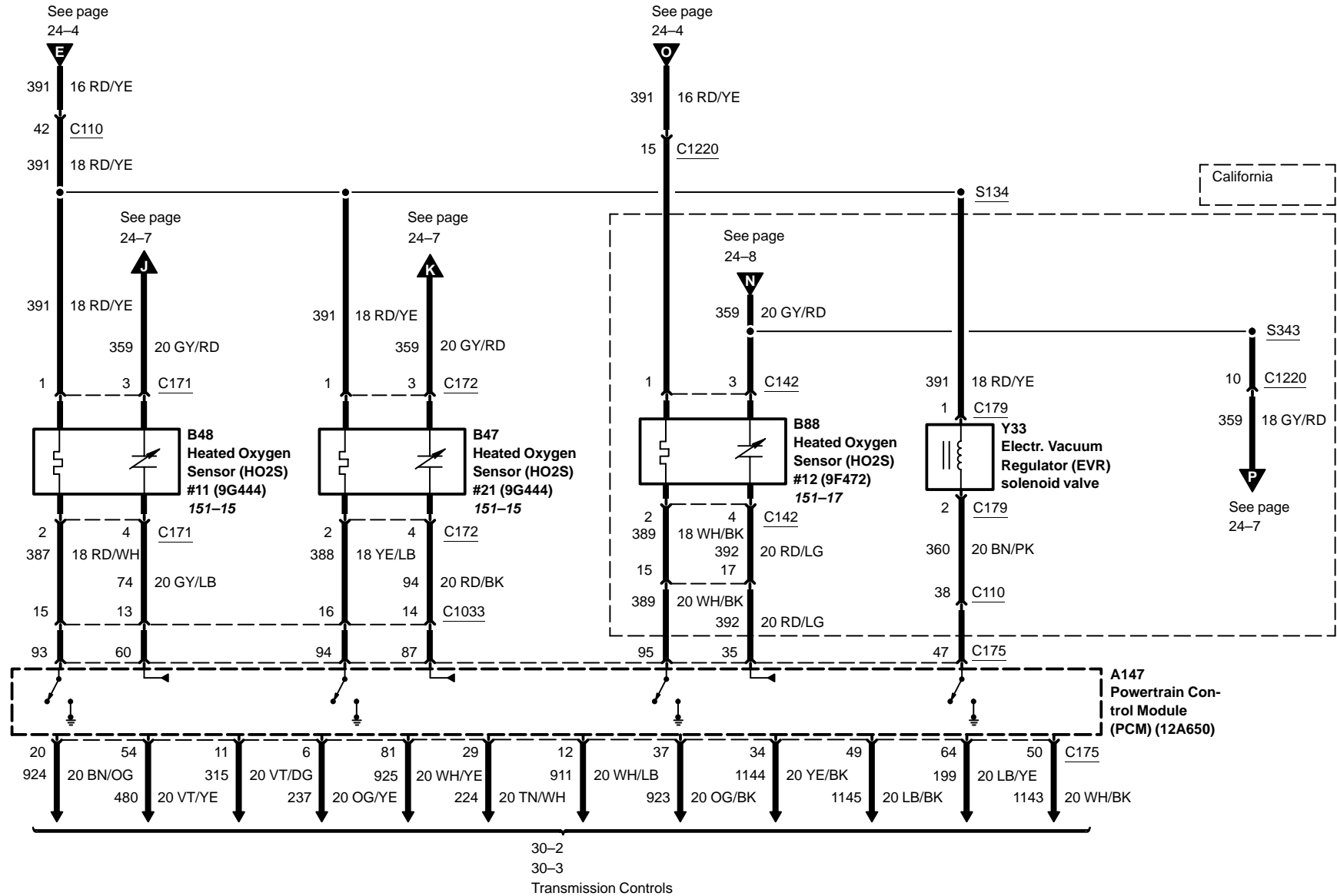
5.4L



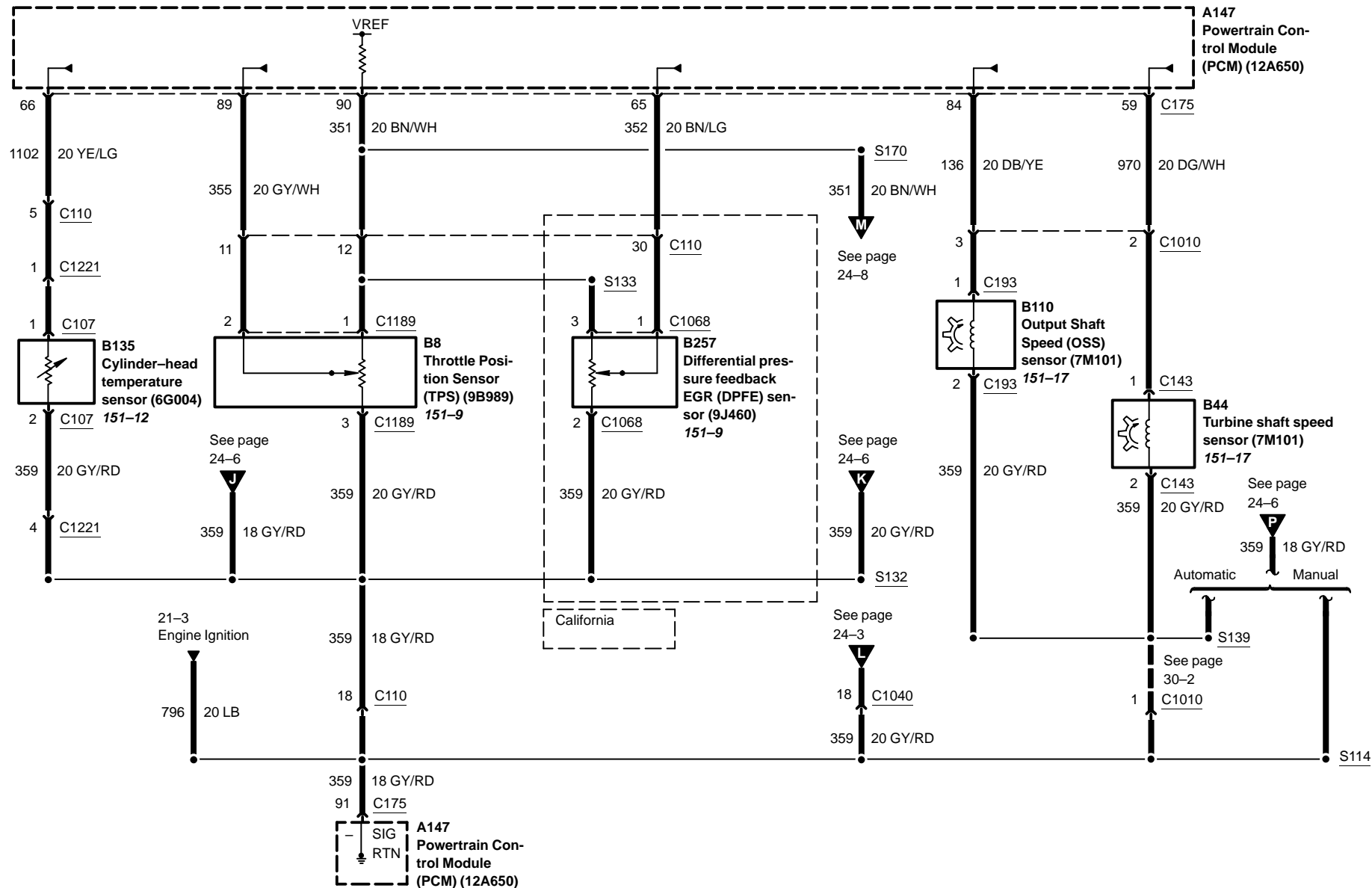
5.4L



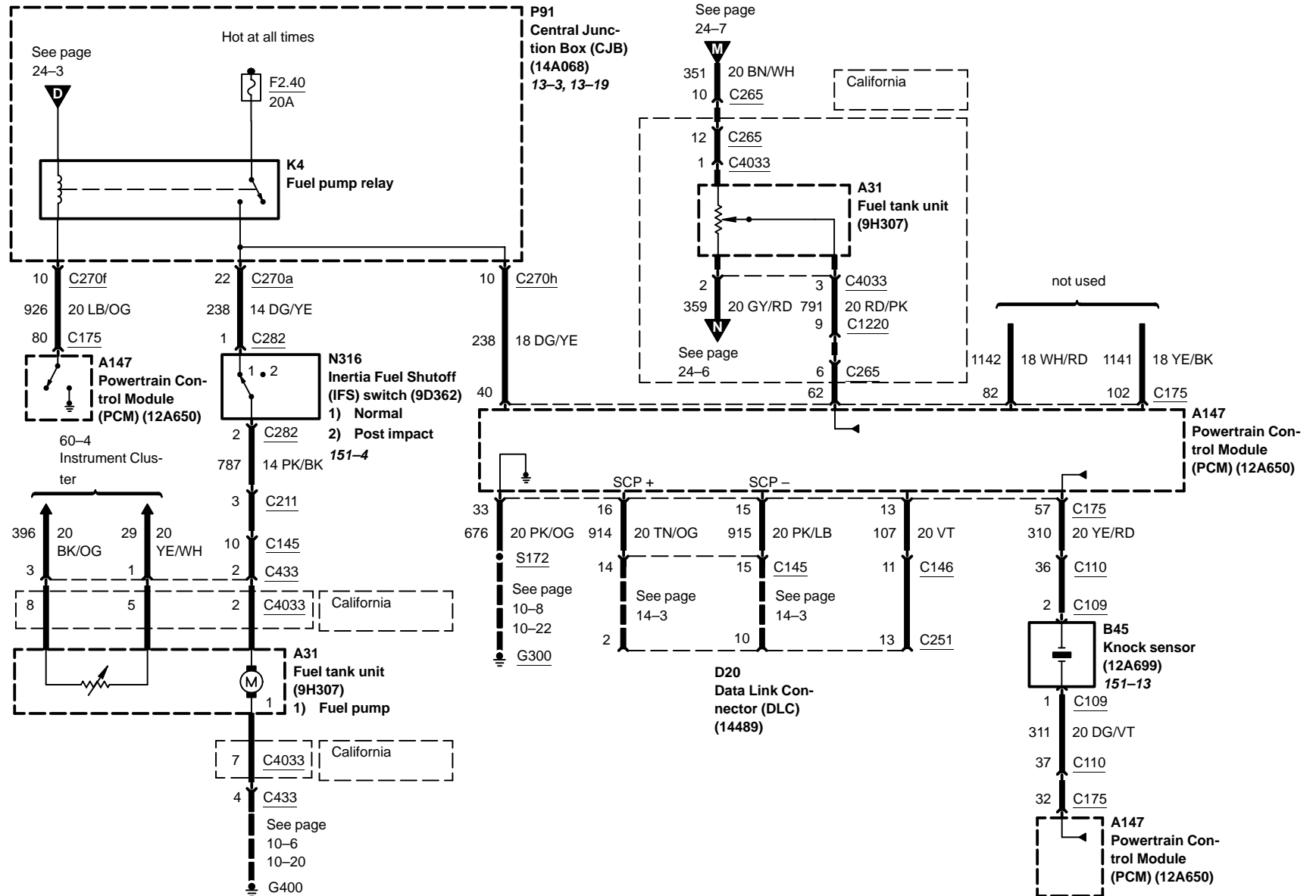
5.4L



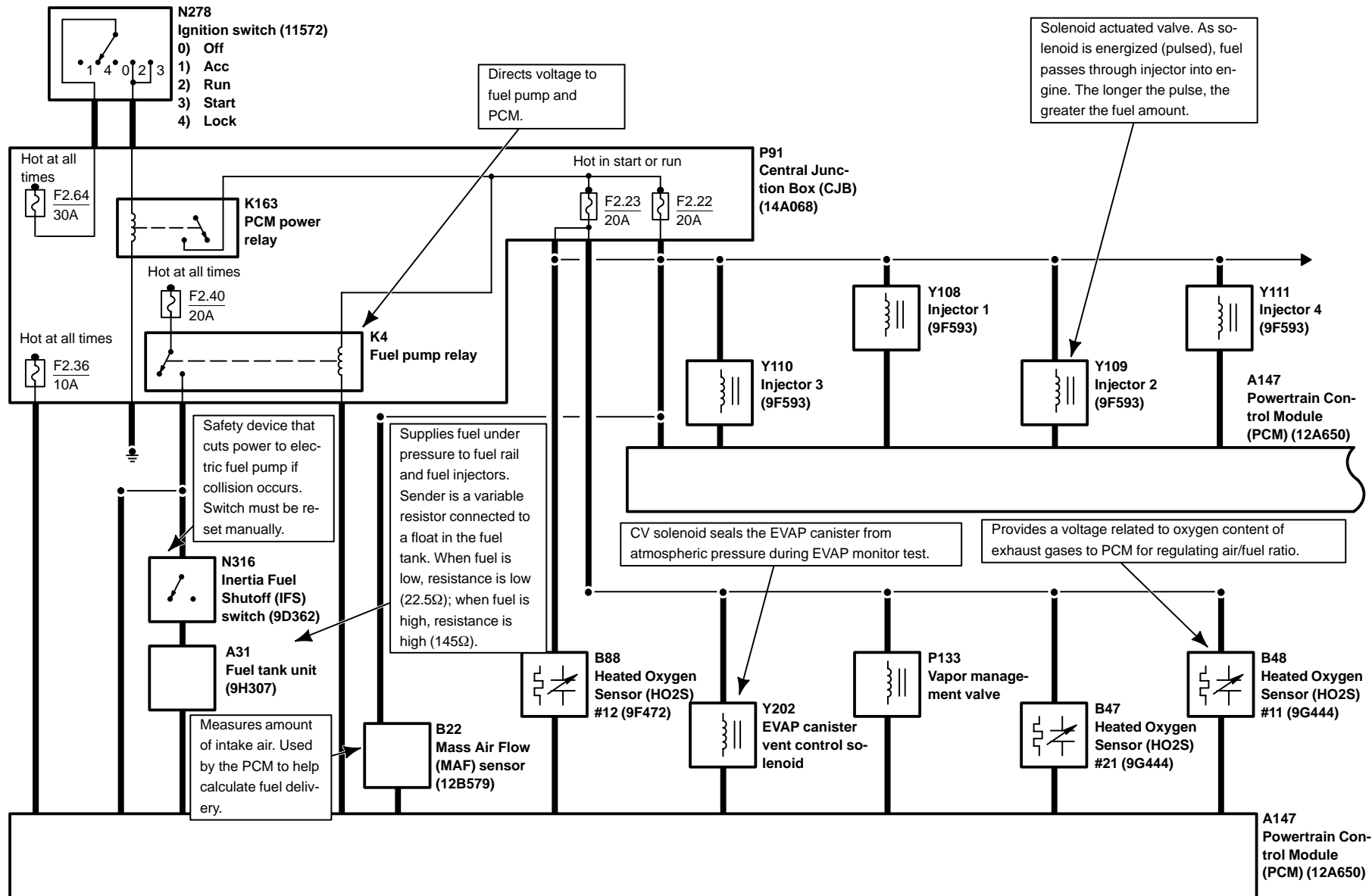
5.4L



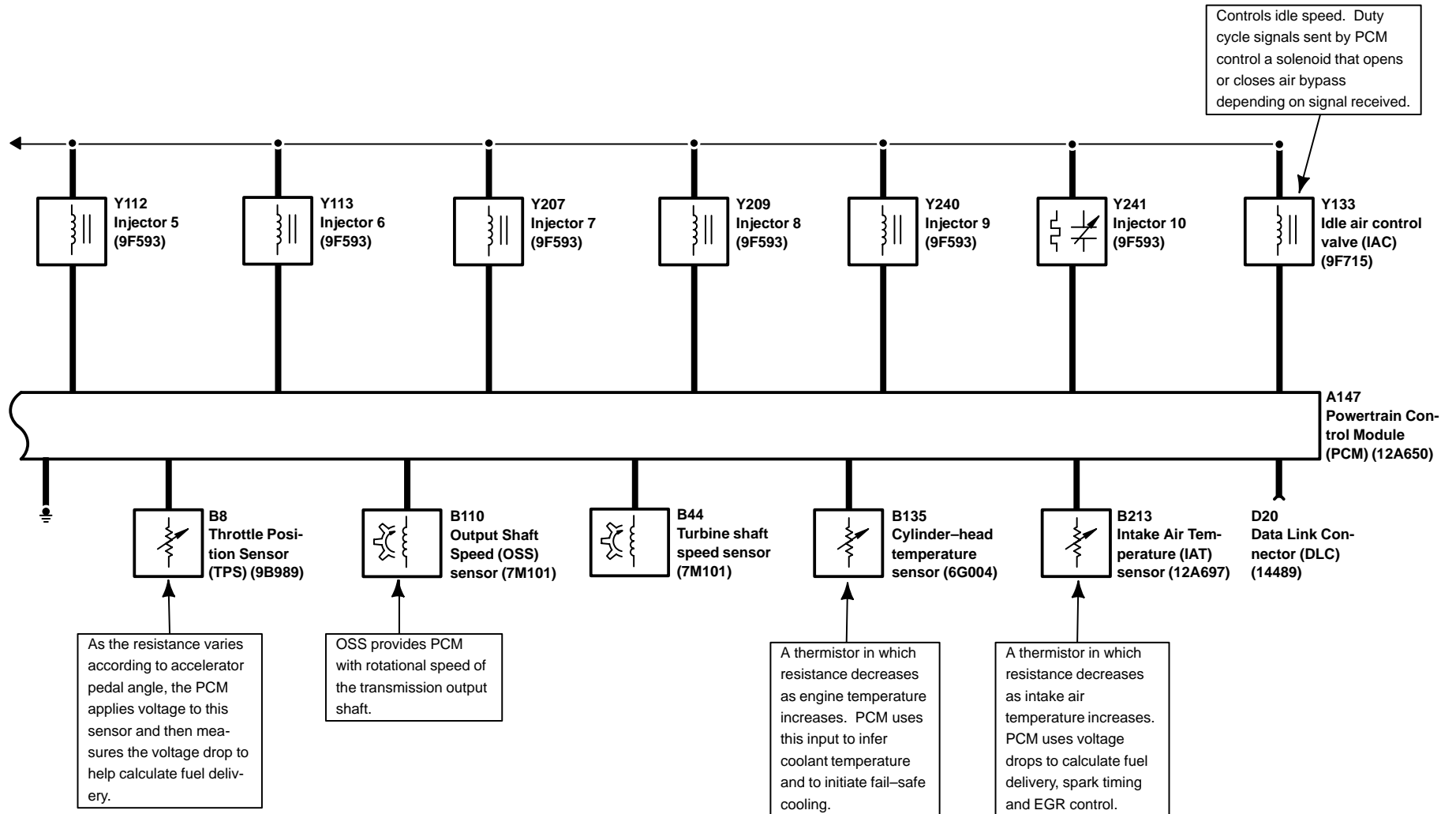
5.4L



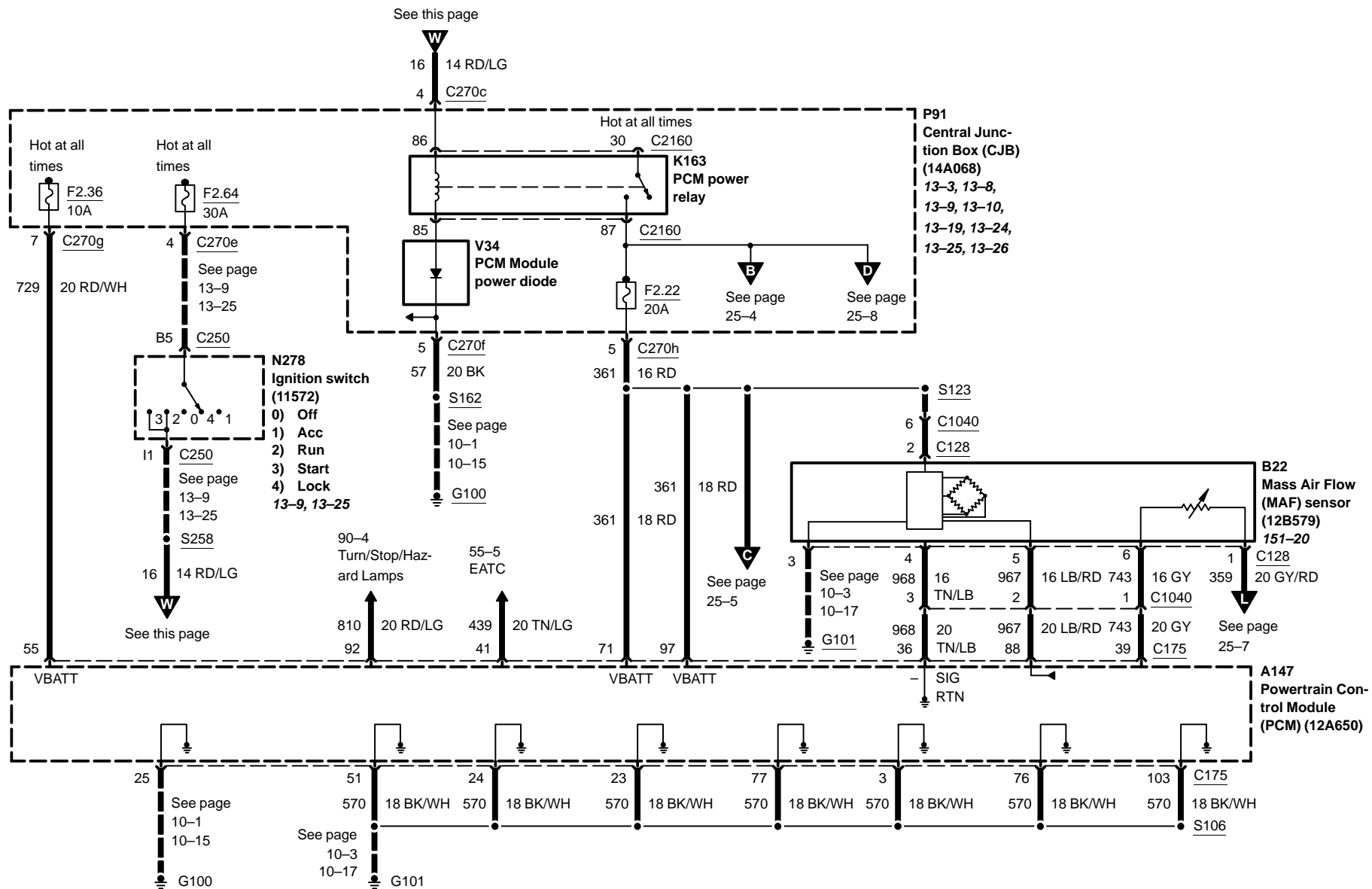
6.8L, System overview



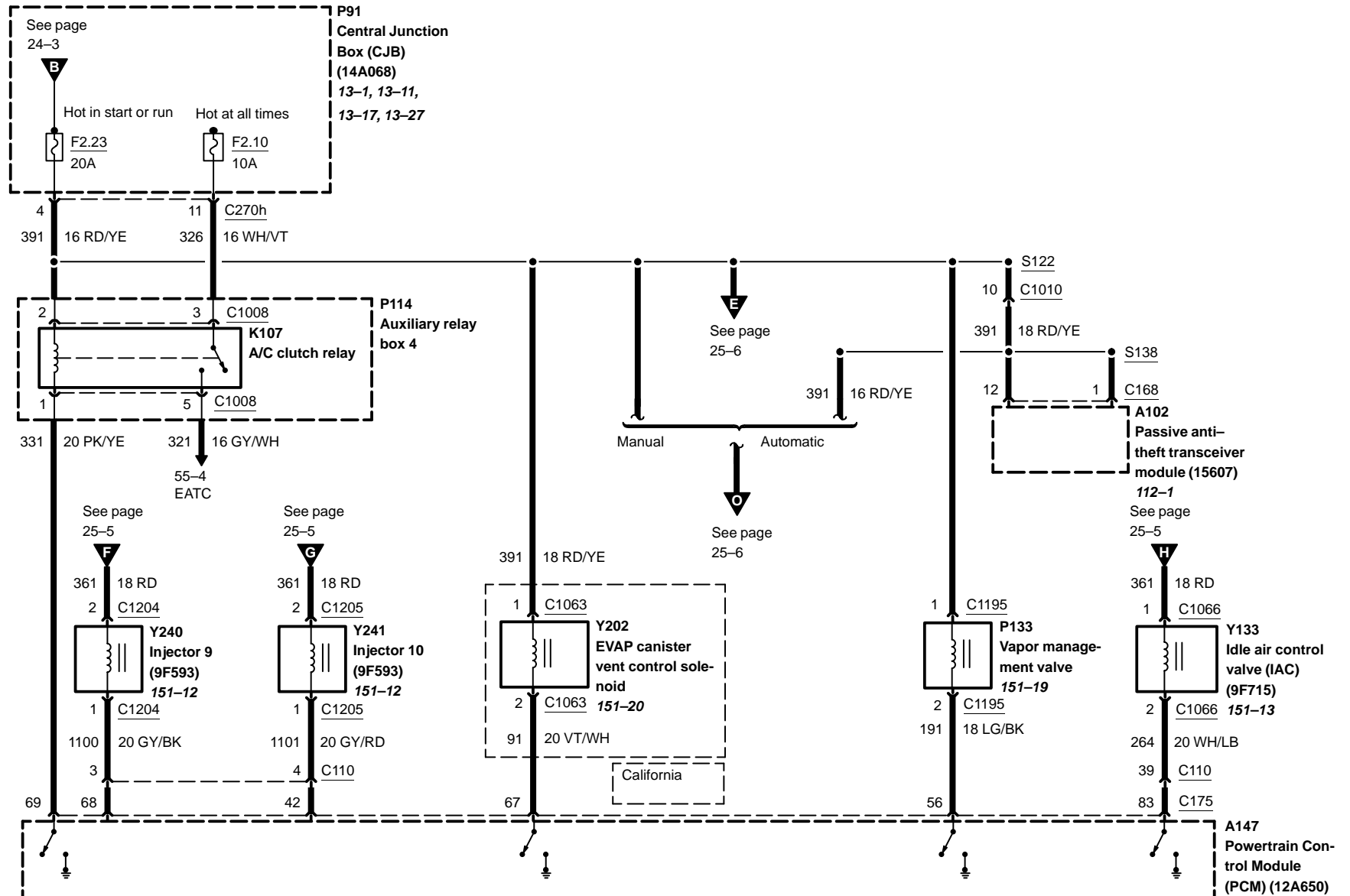
6.8L, System overview



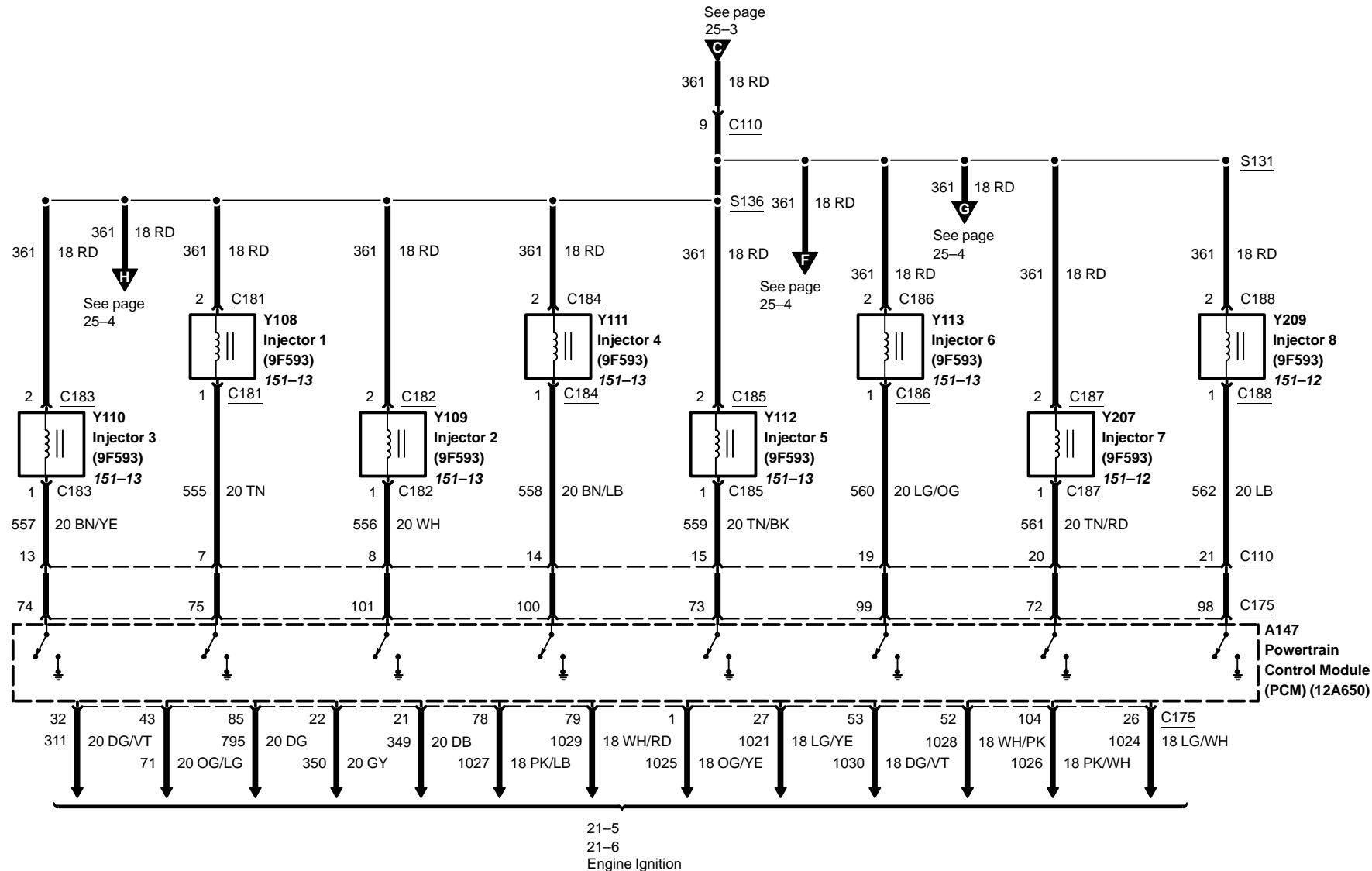
6.8L



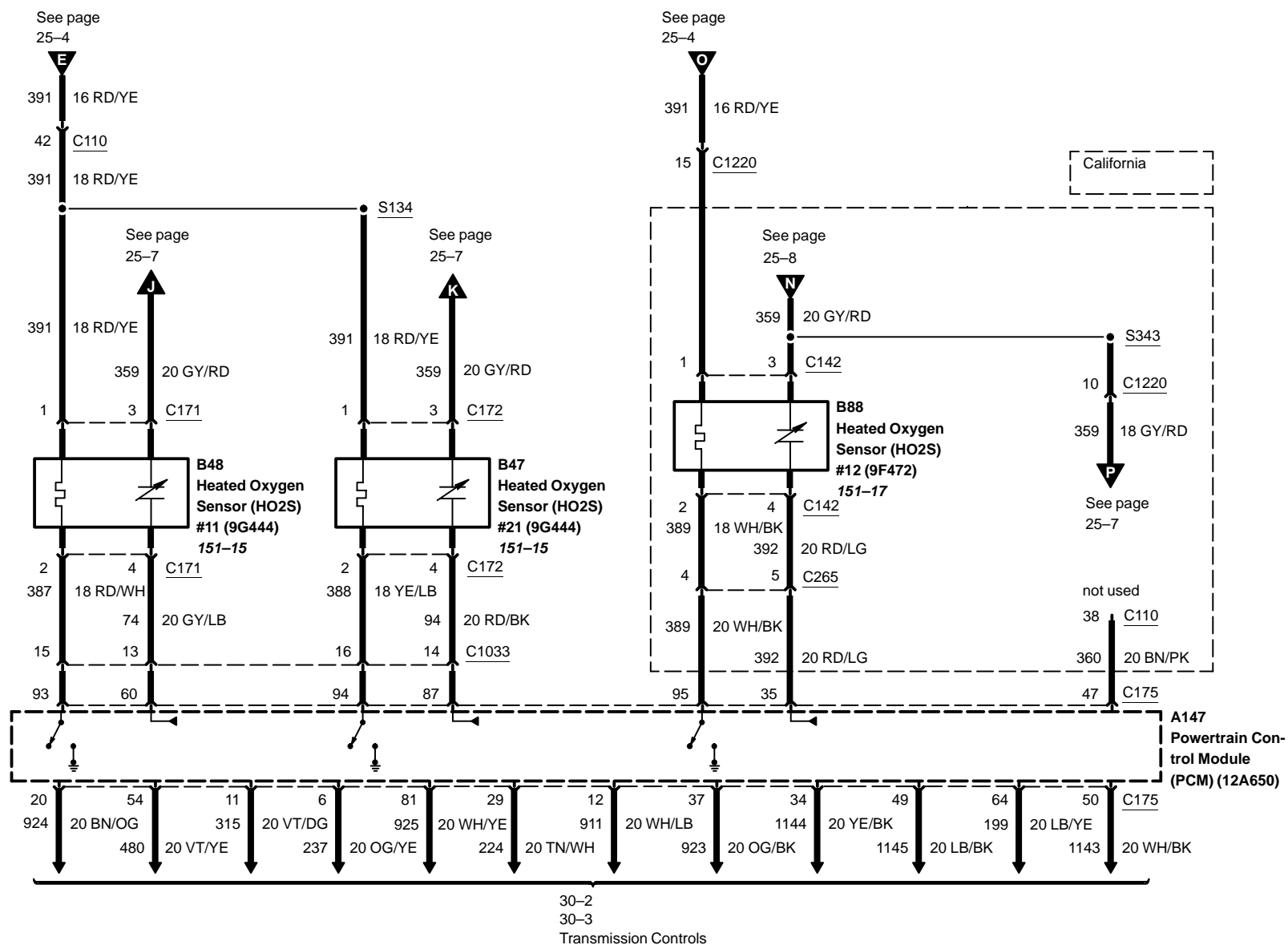
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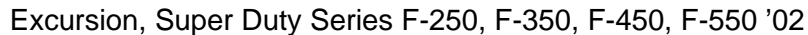


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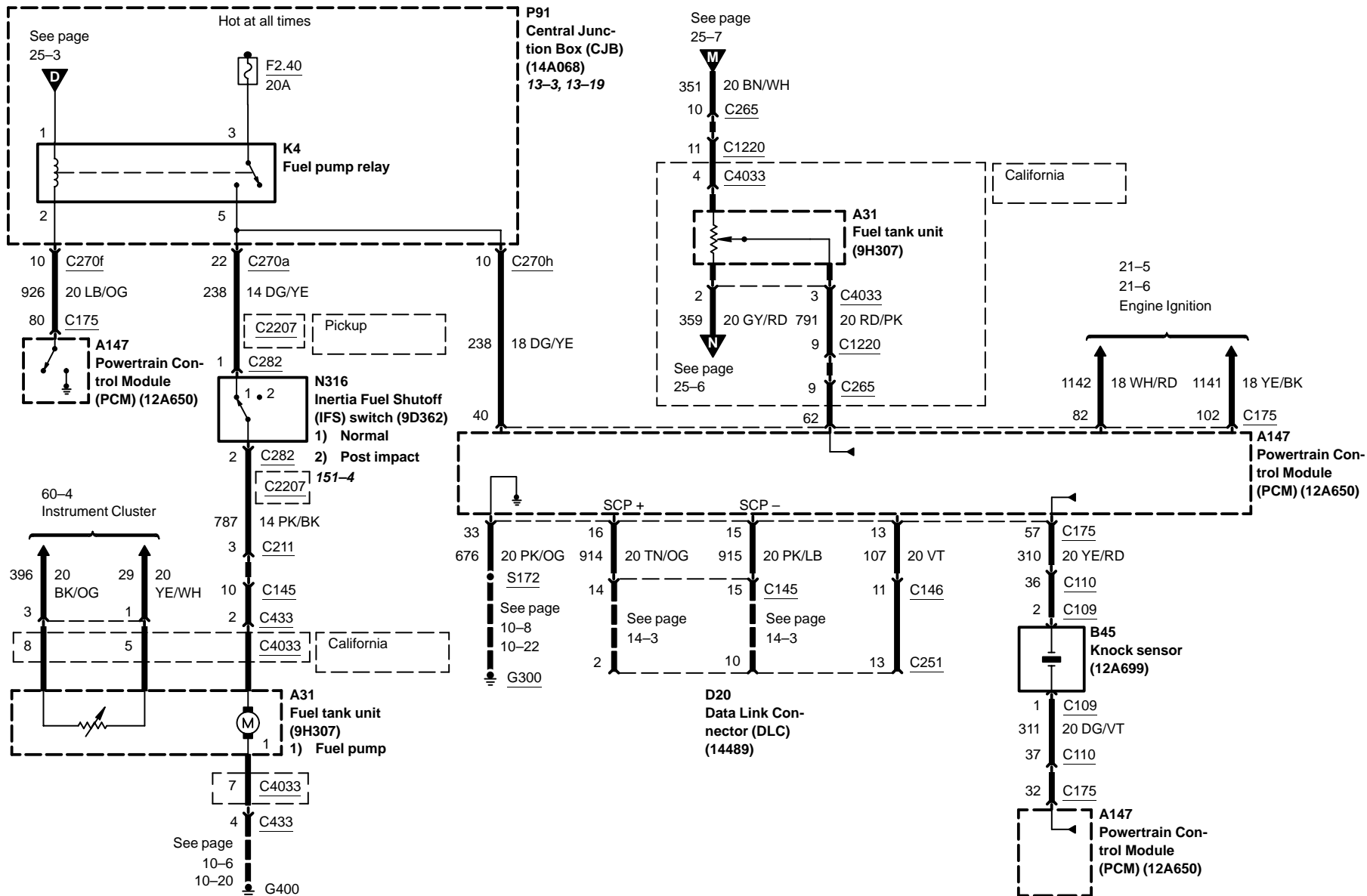


6.8L

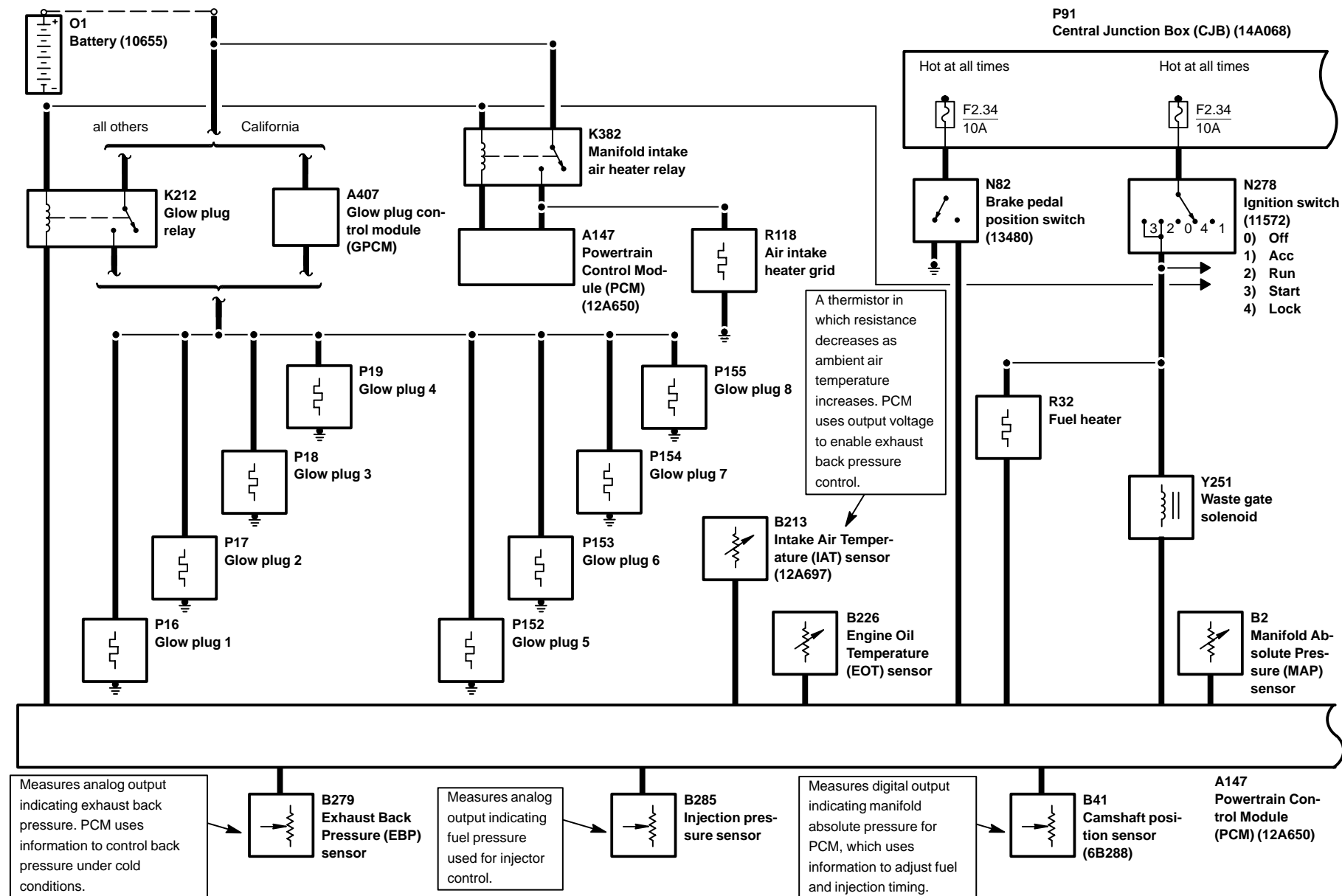




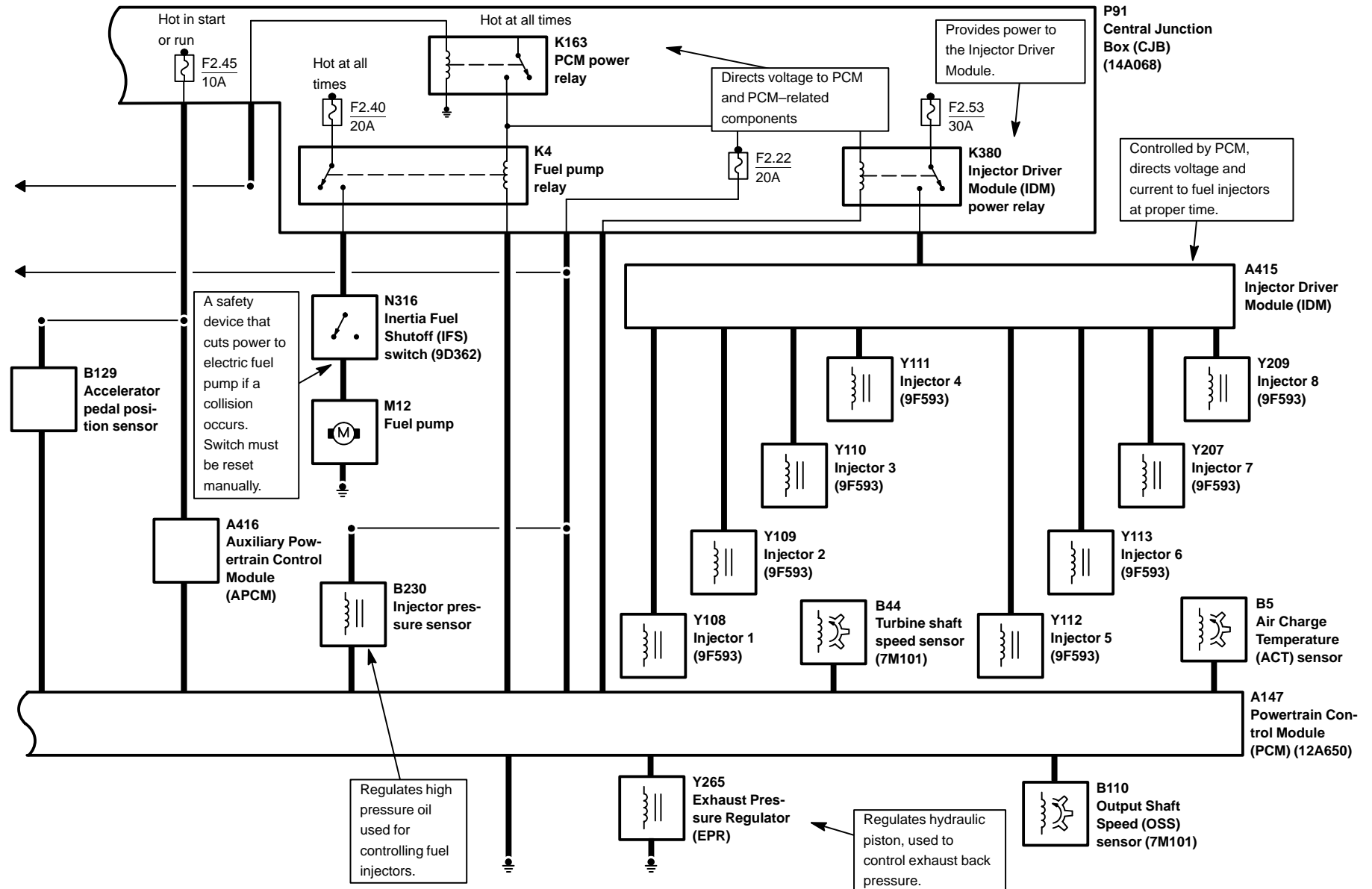
6.8L



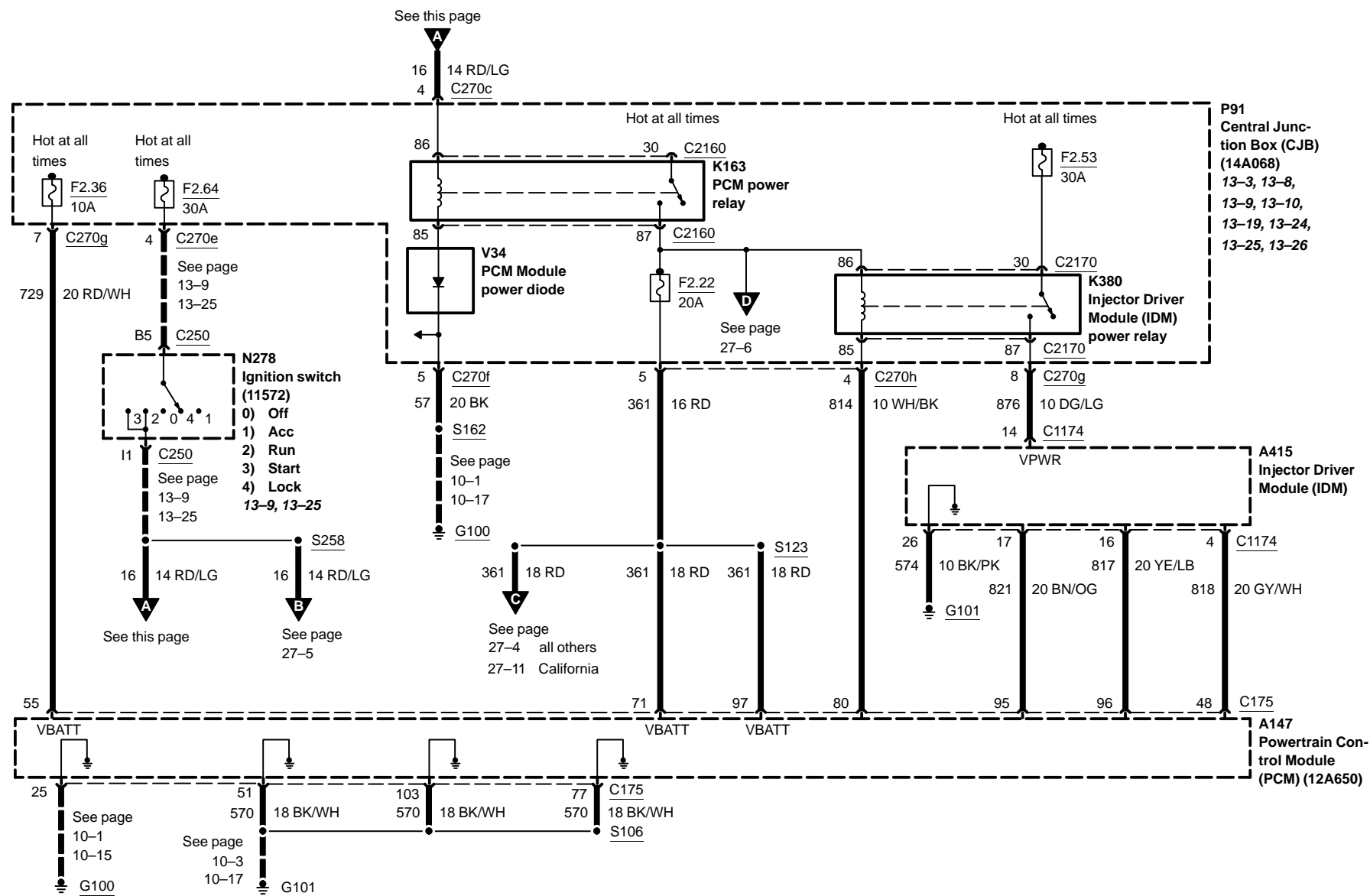
7.3L Diesel, System overview



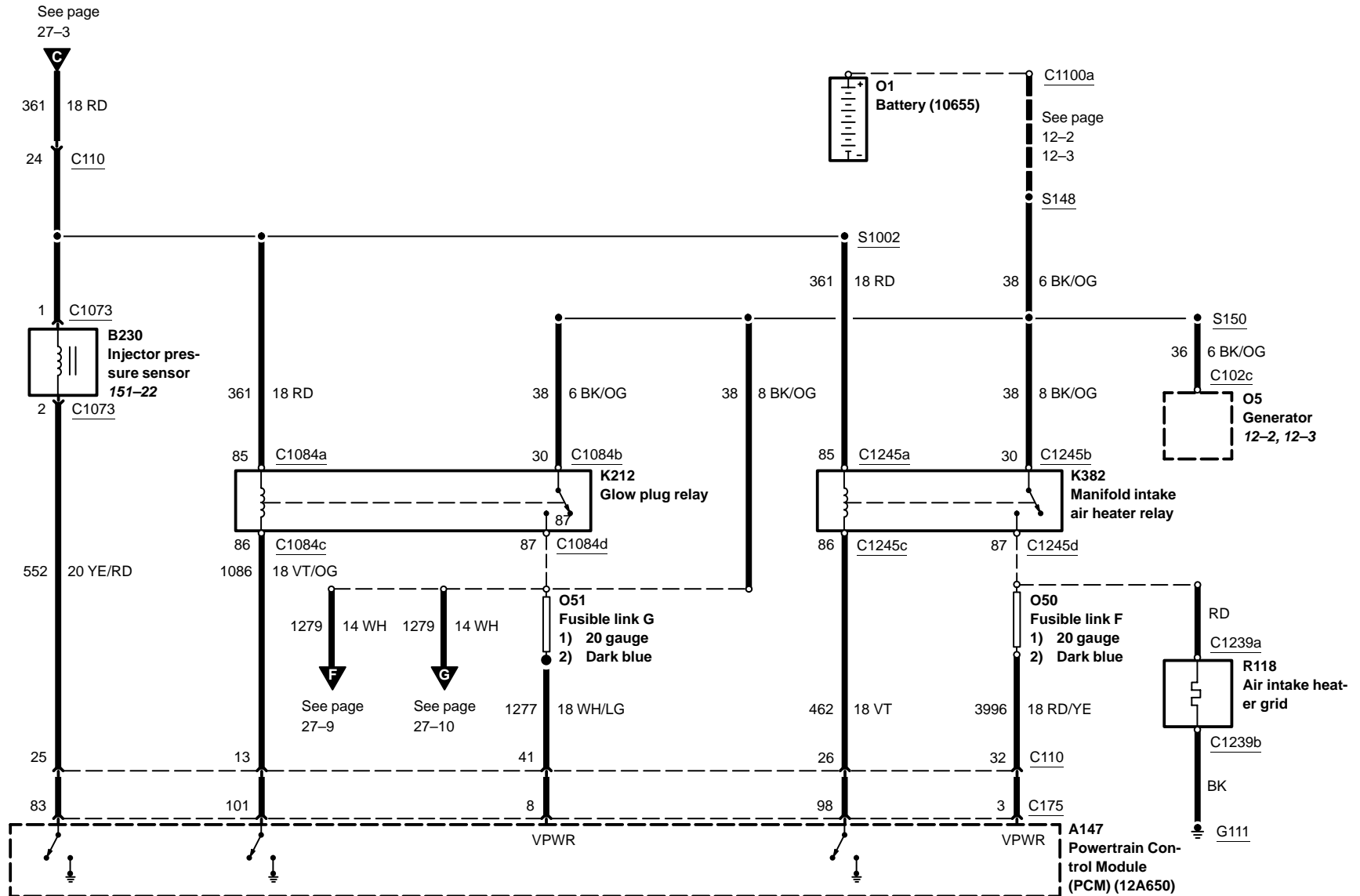
7.3L Diesel, System overview



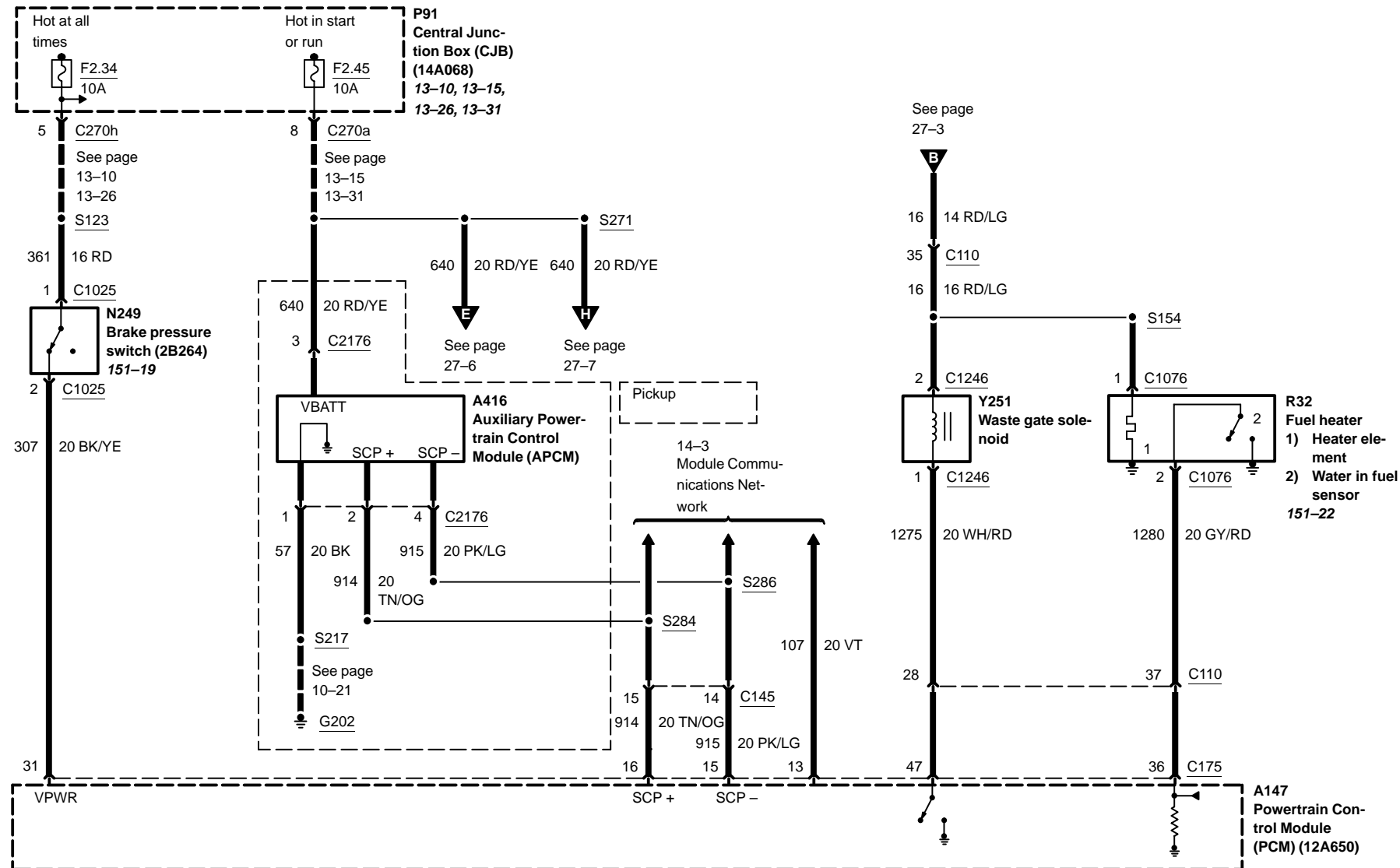
7.3L Diesel



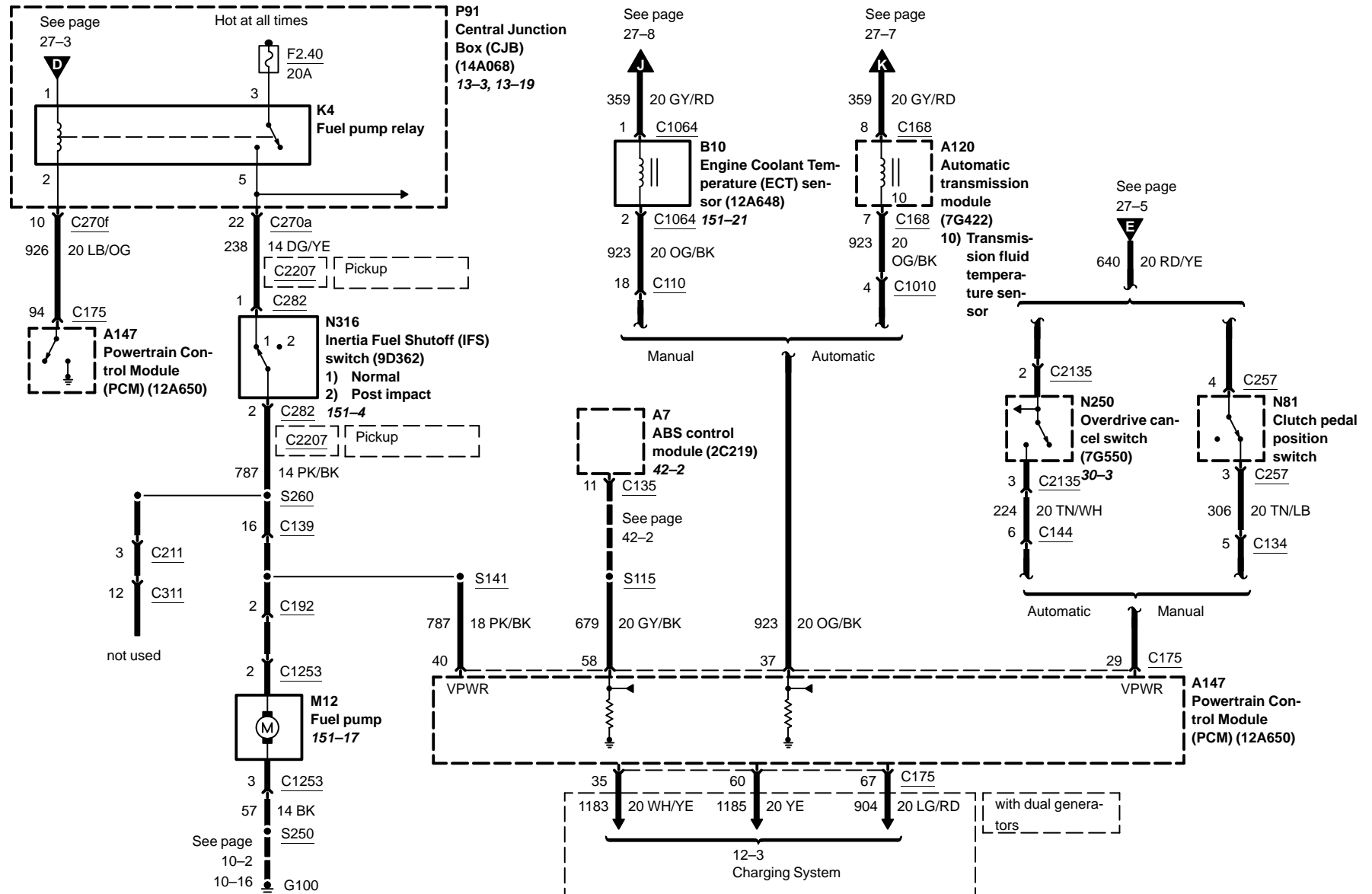
7.3L Diesel



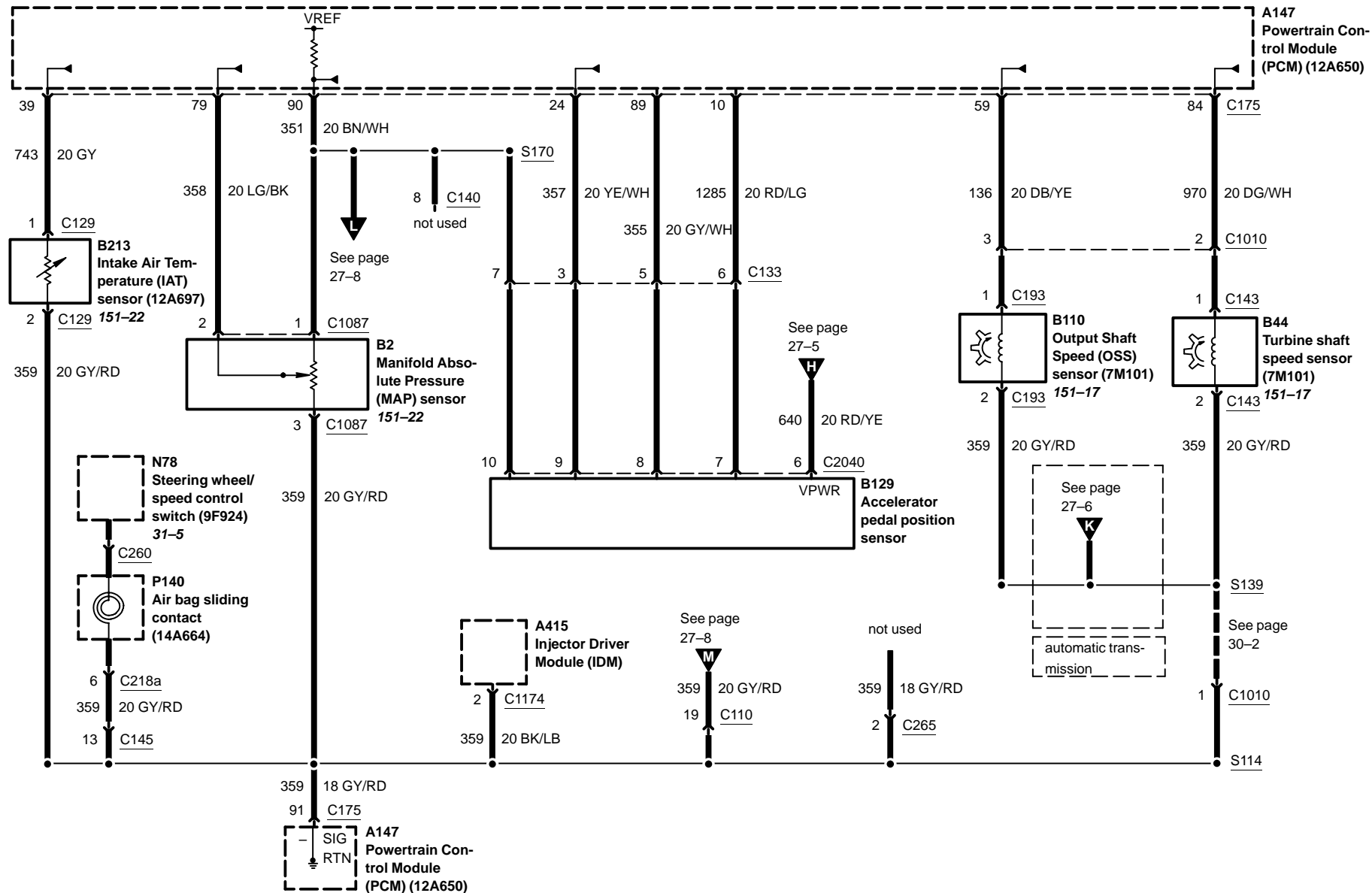
7.3L Diesel



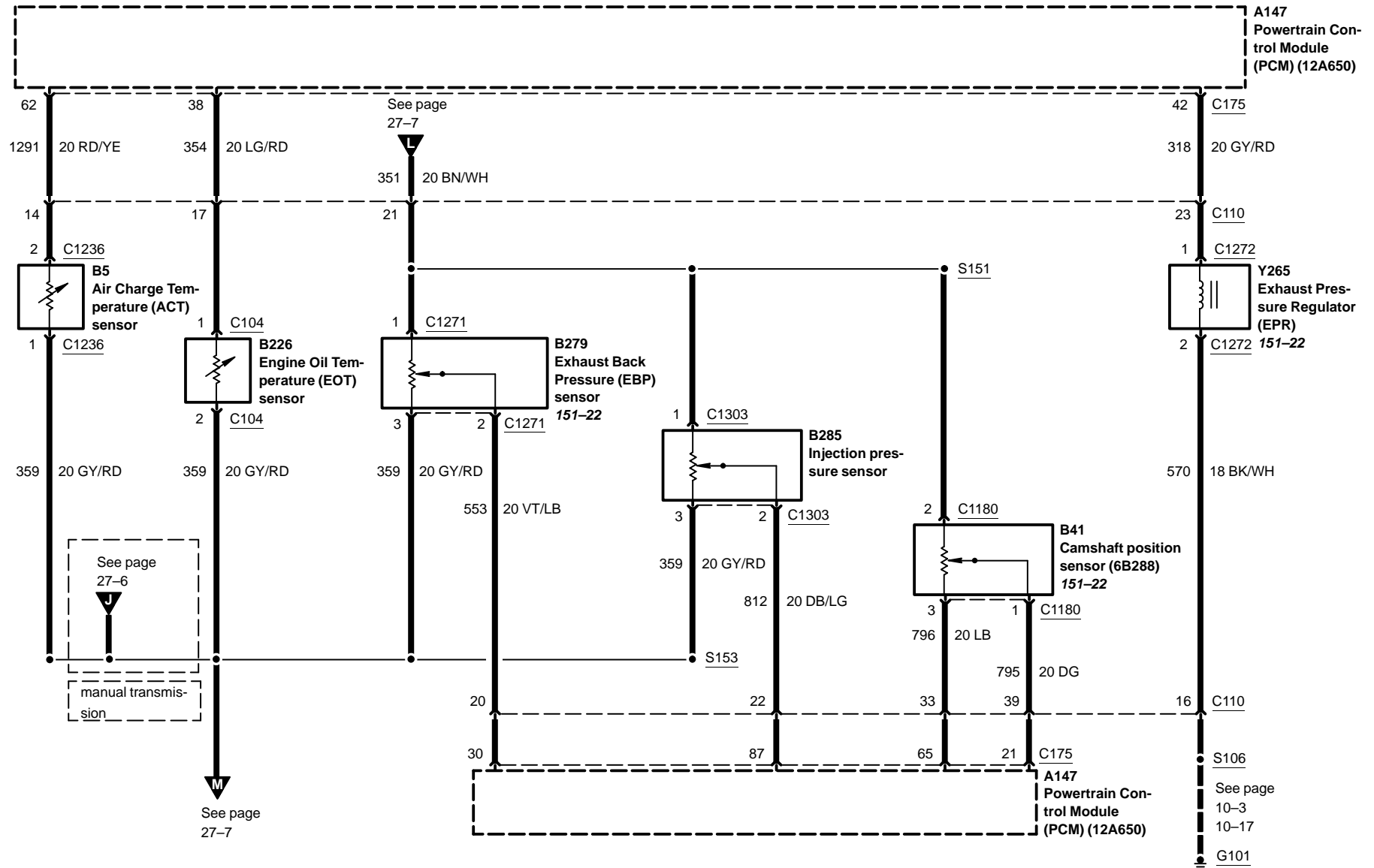
7.3L Diesel



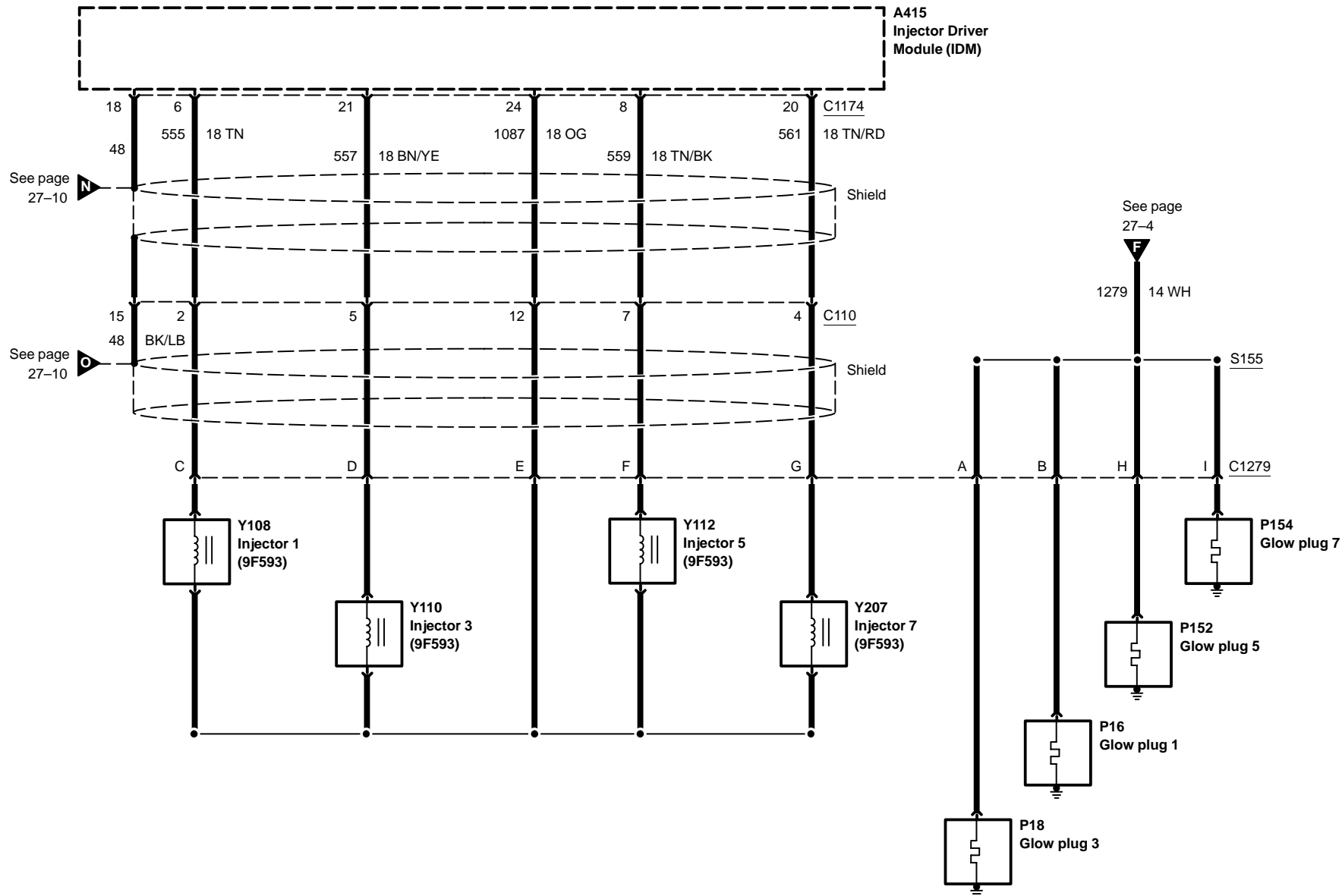
7.3L Diesel



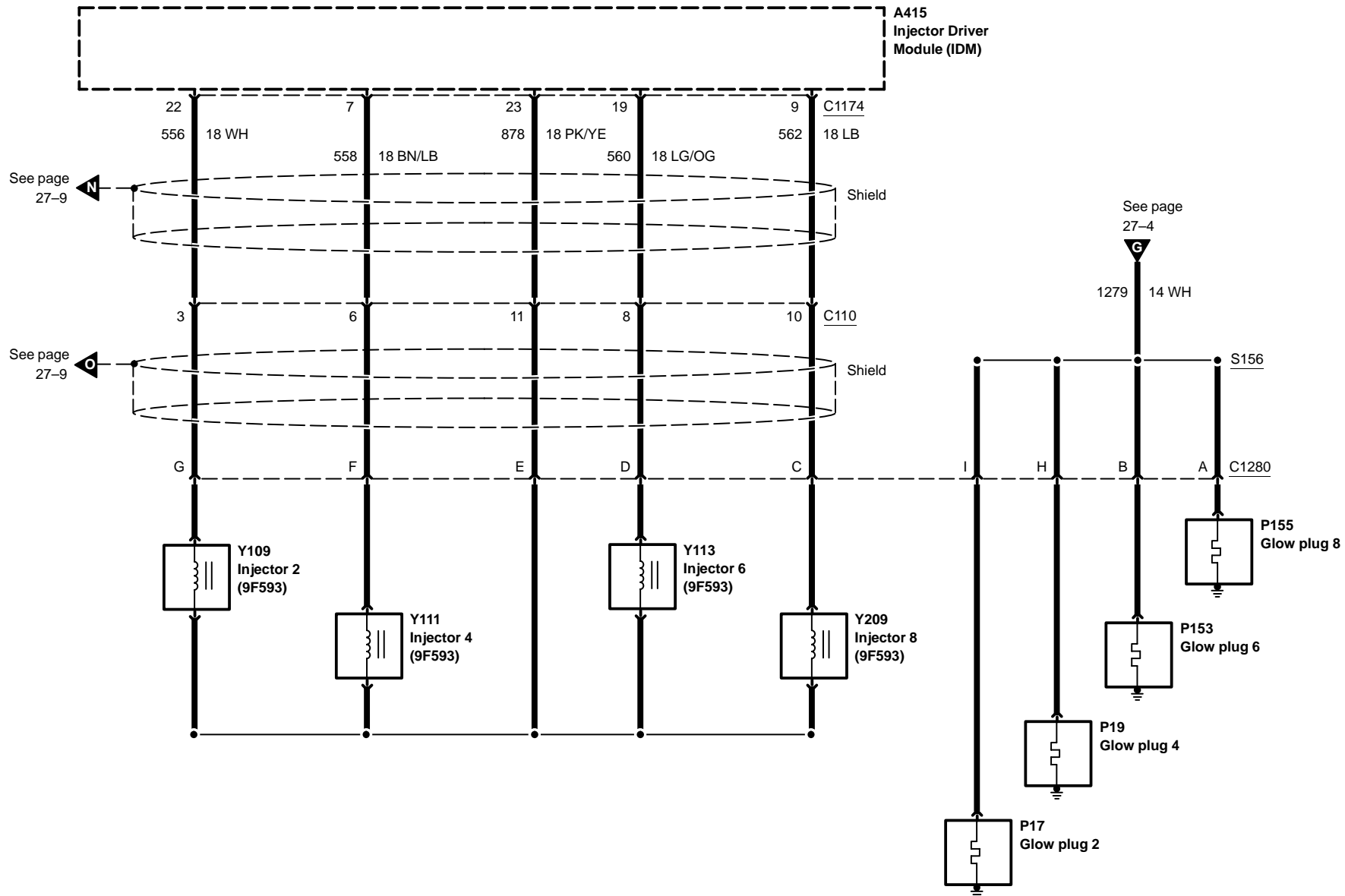
7.3L Diesel



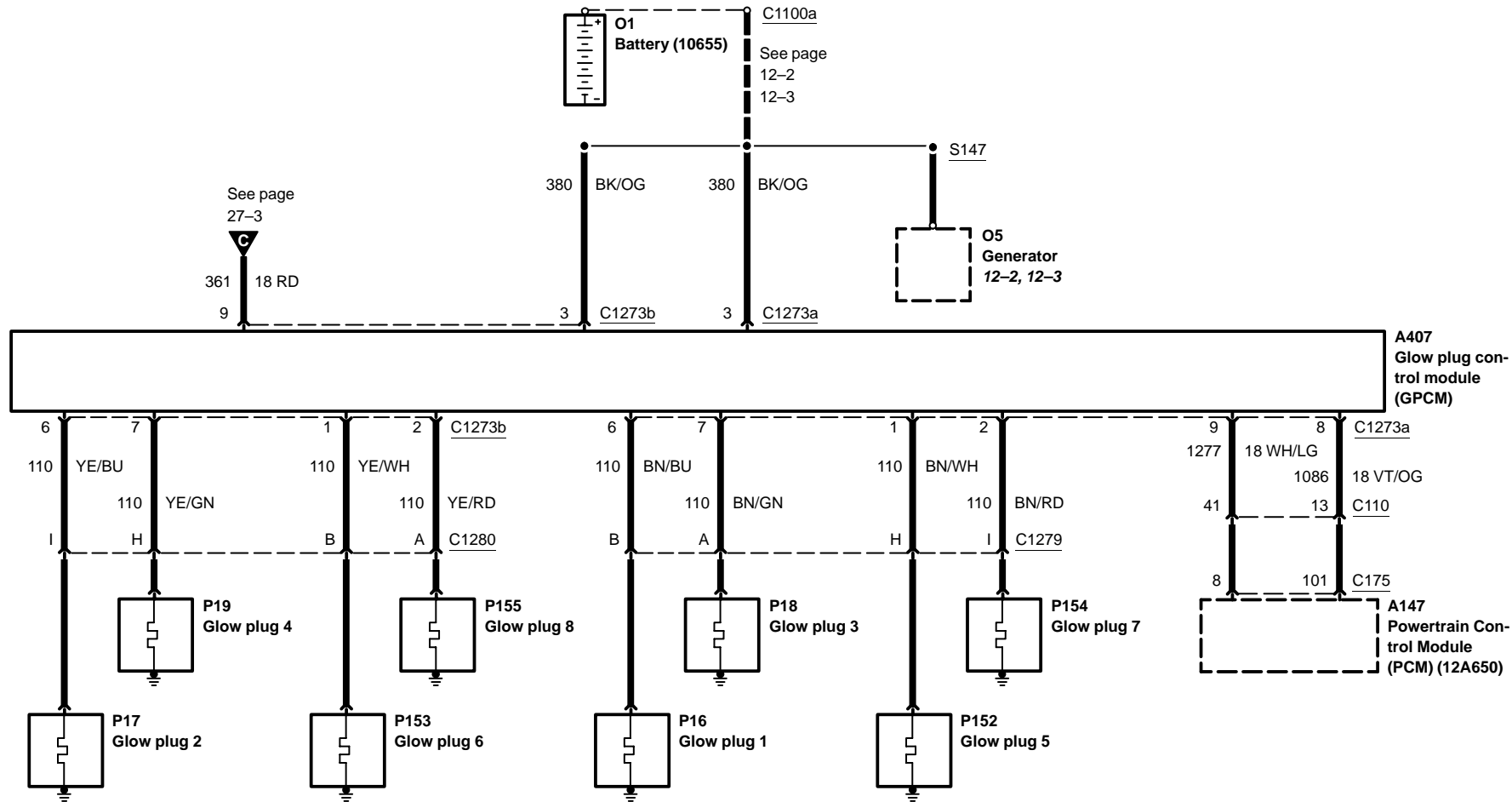
7.3L Diesel



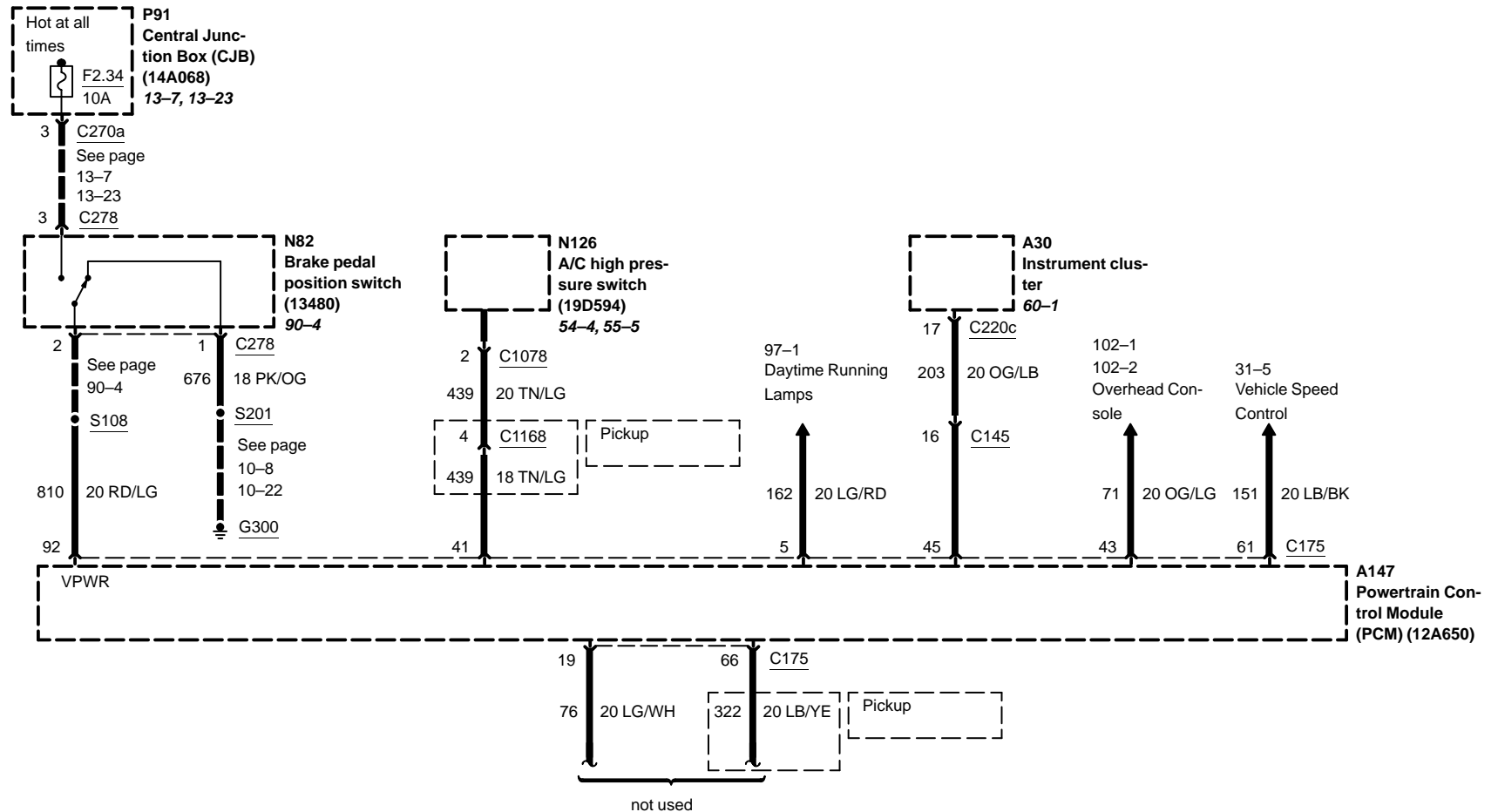
7.3L Diesel



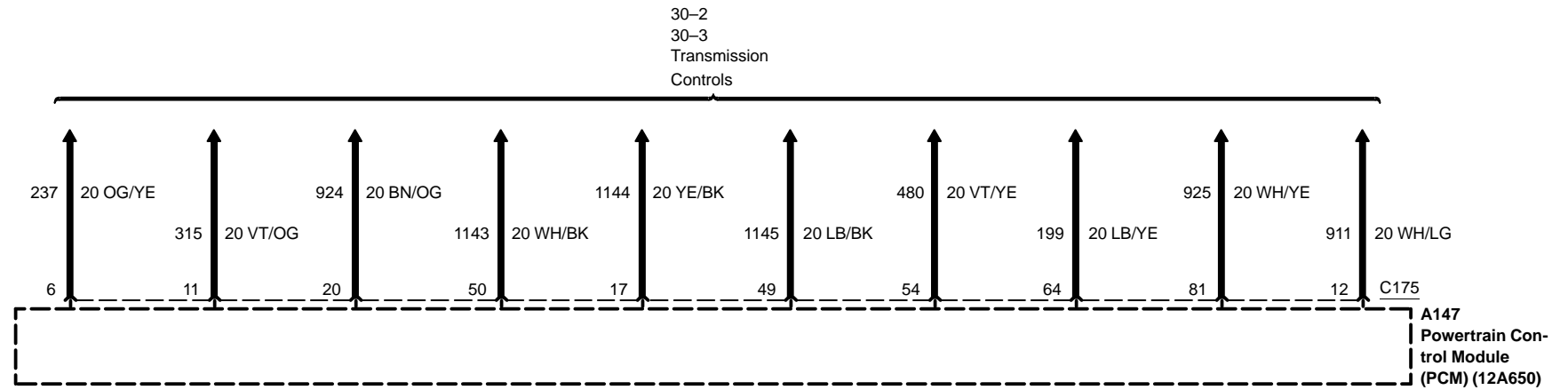
7.3L Diesel, California



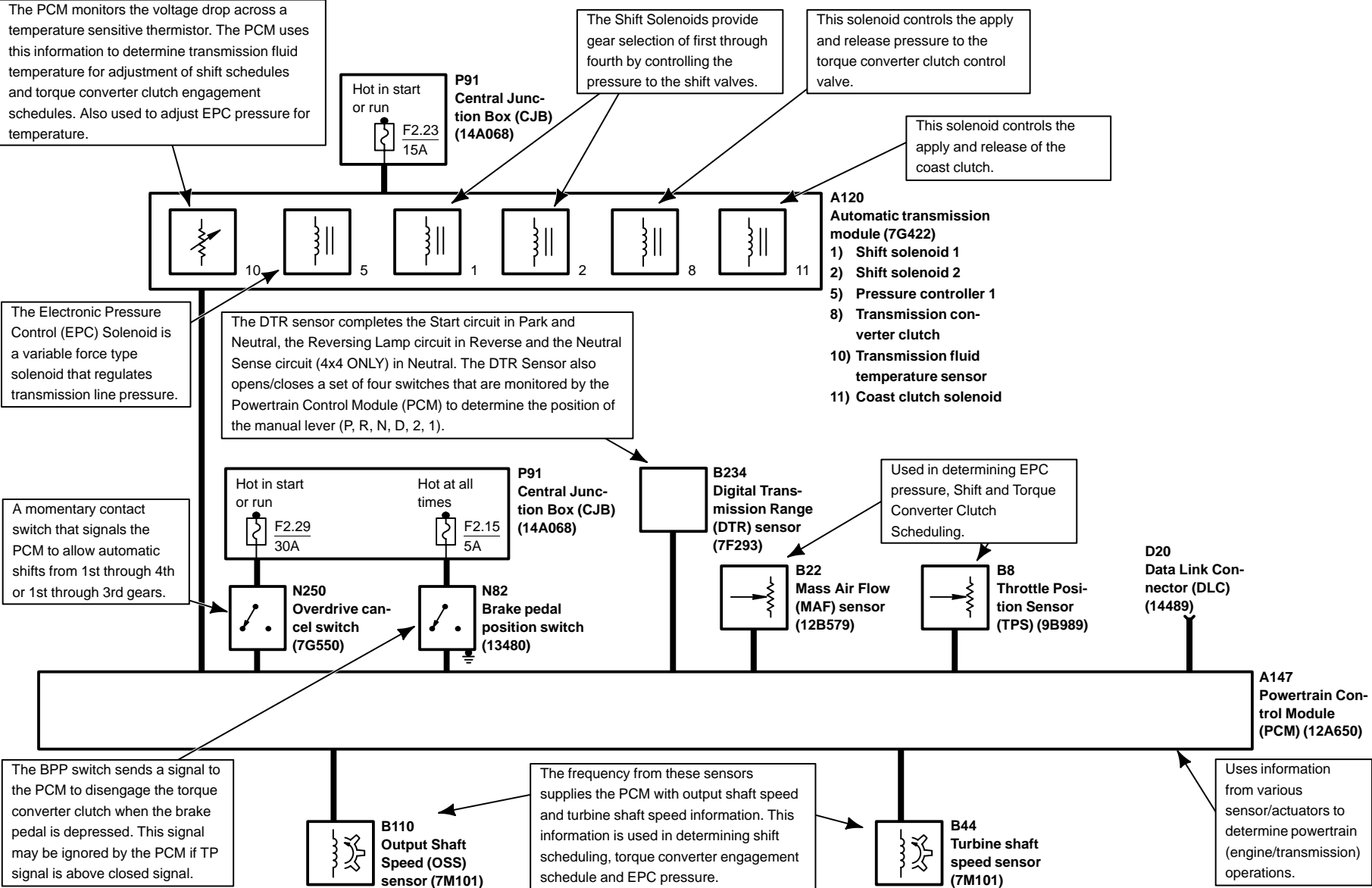
7.3L Diesel

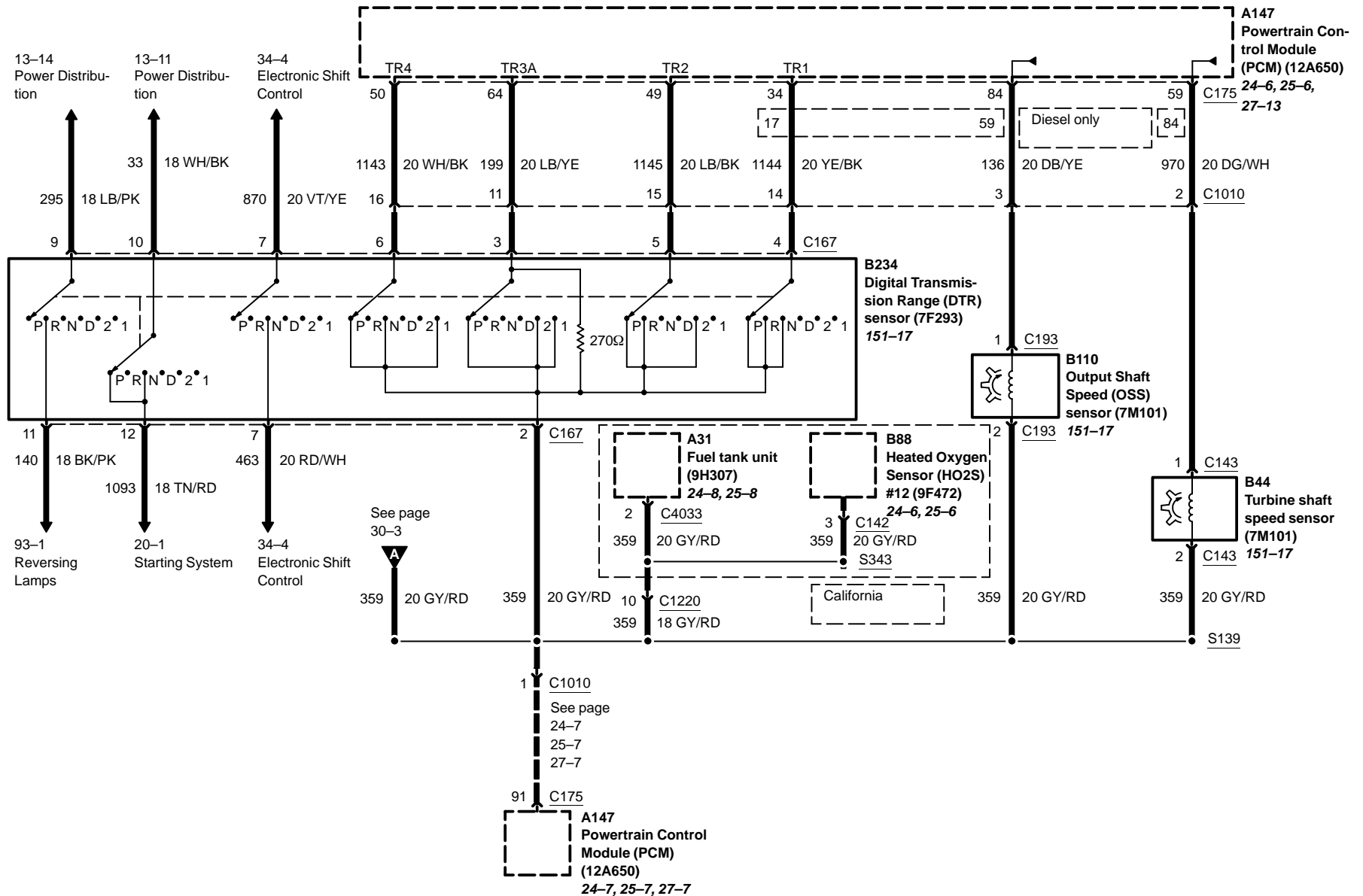


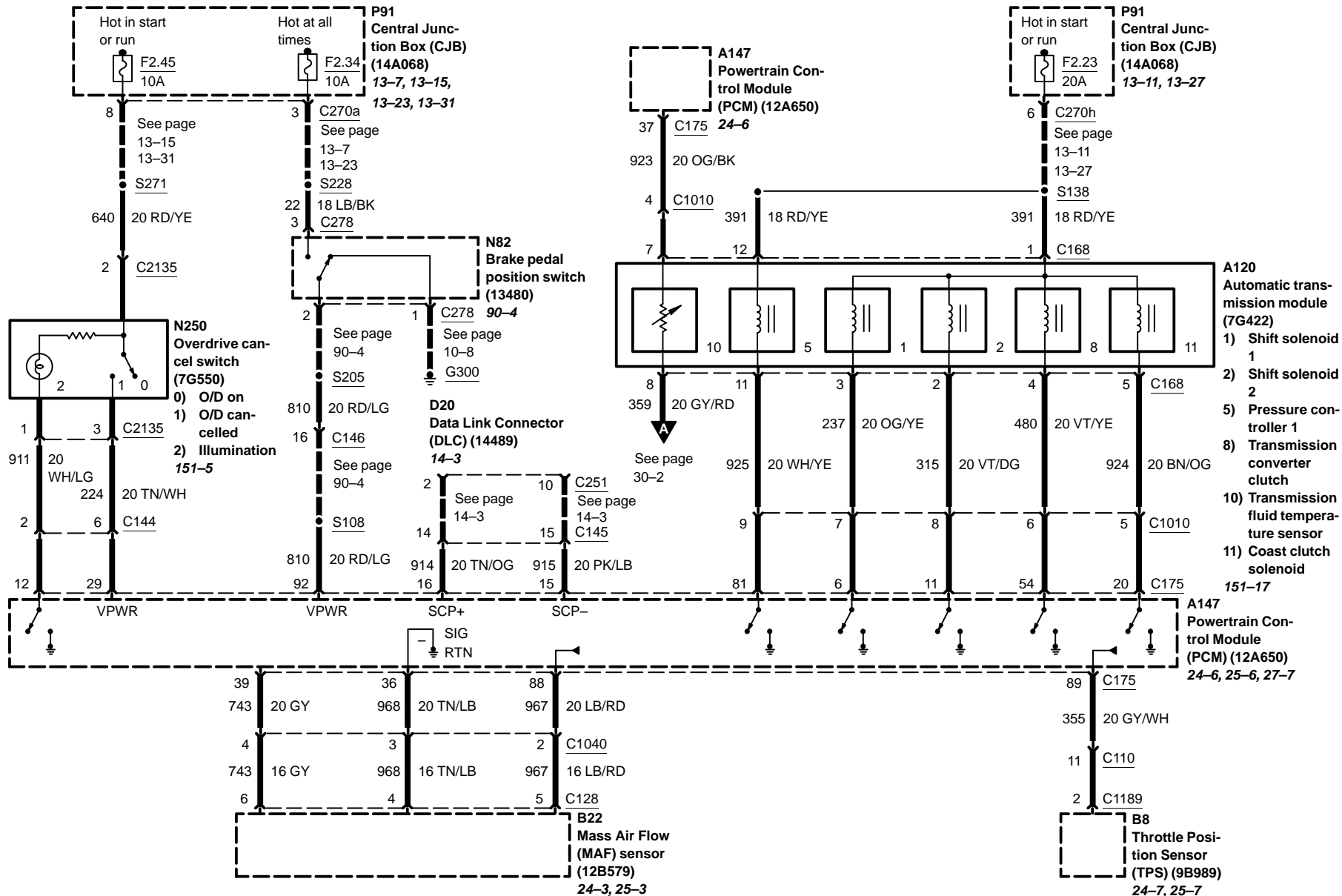
7.3L Diesel, automatic transmission



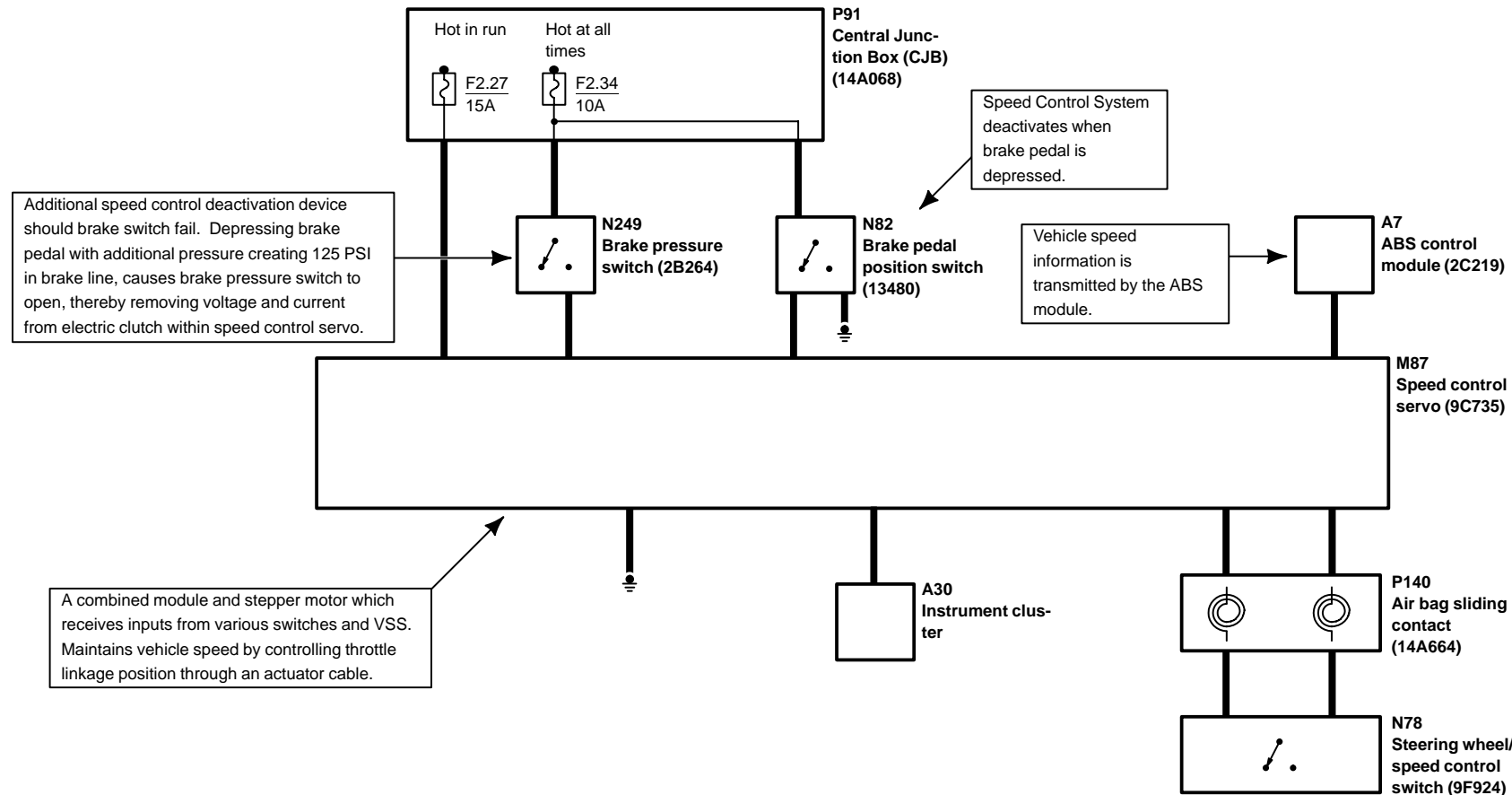
System overview



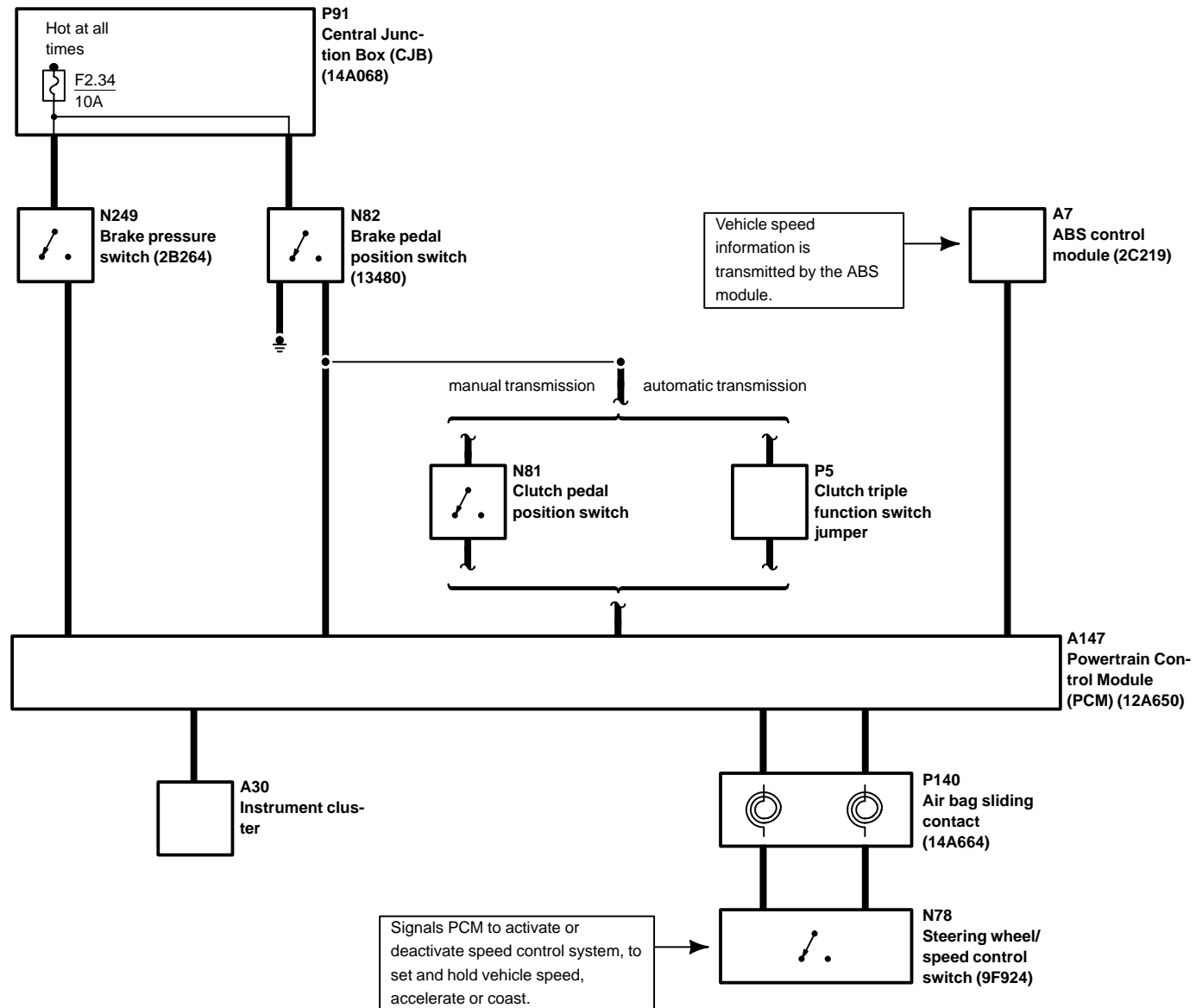




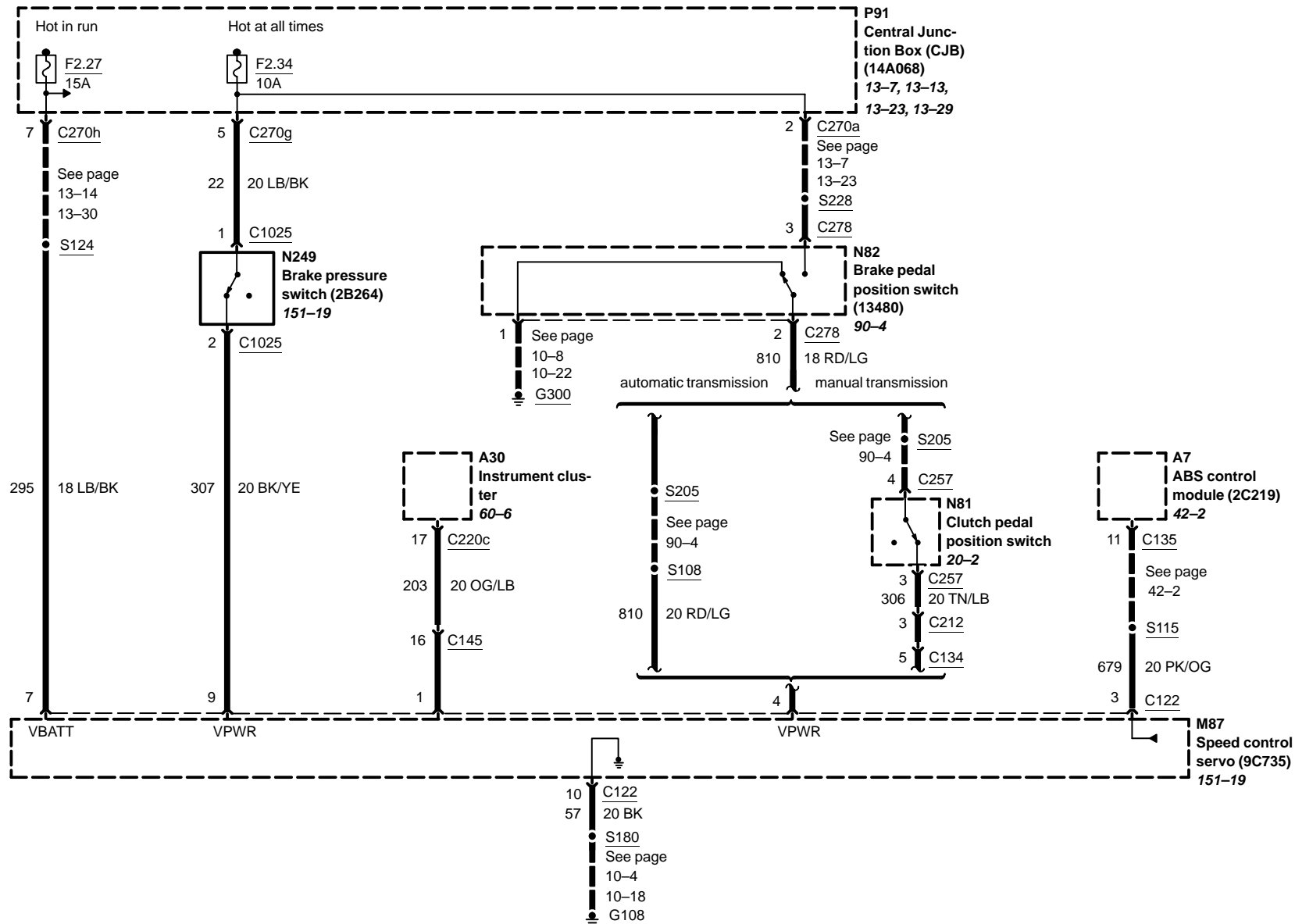
System overview, gasoline engines



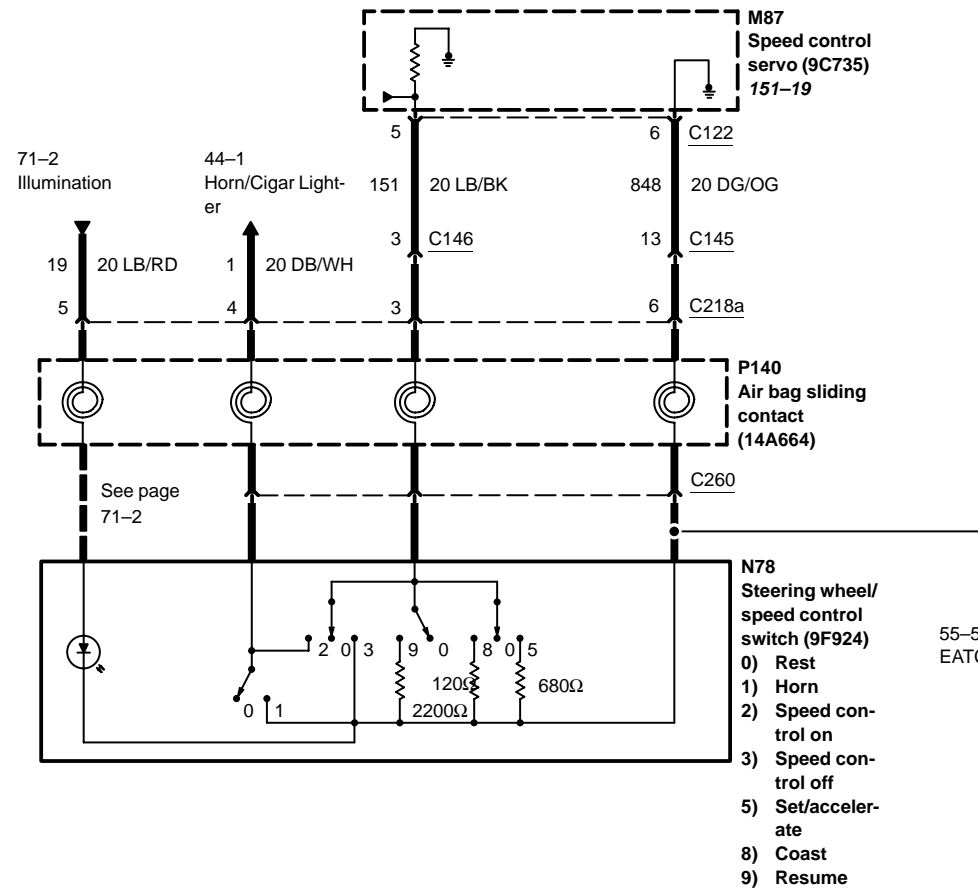
System overview, Diesel only



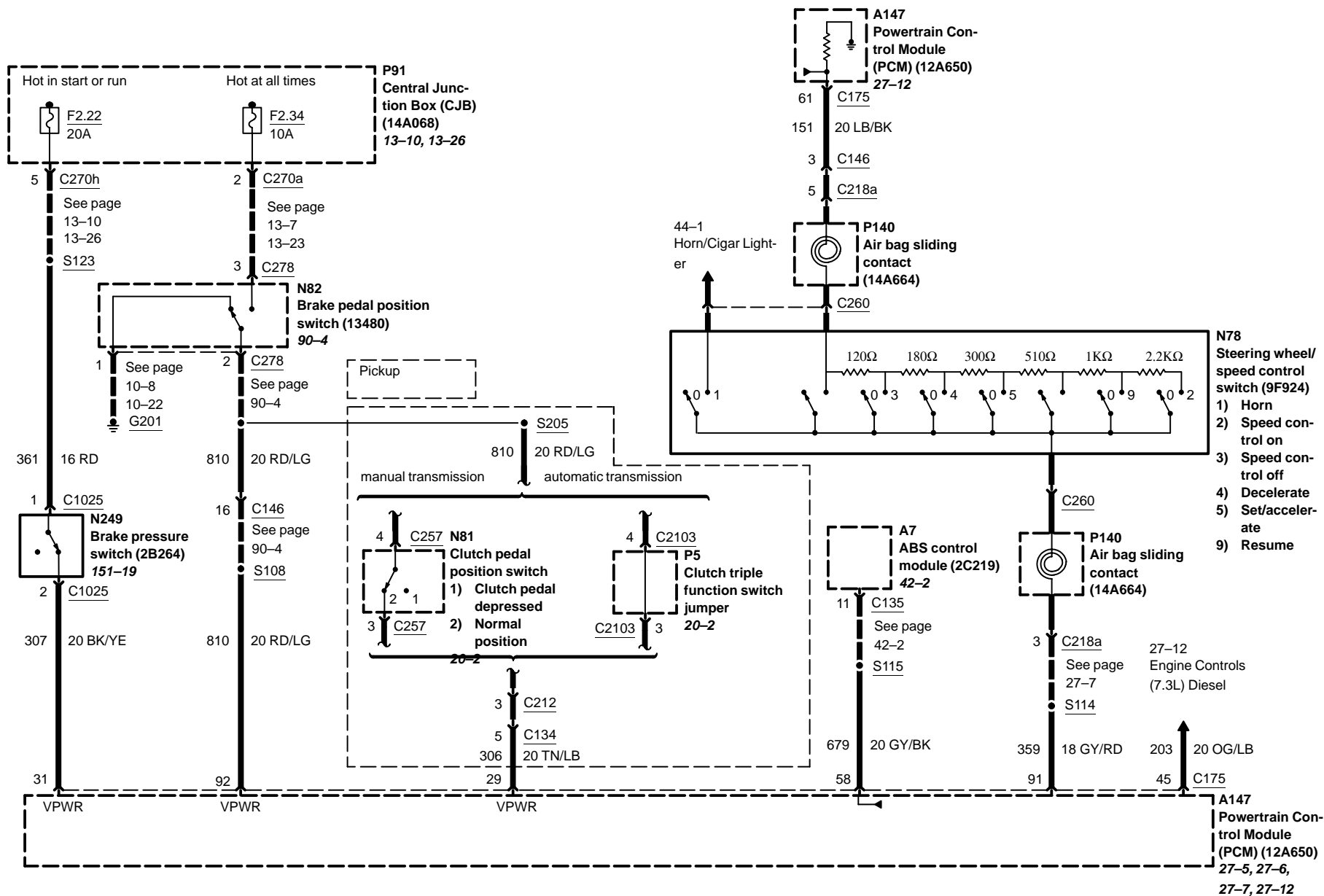
gasoline engines



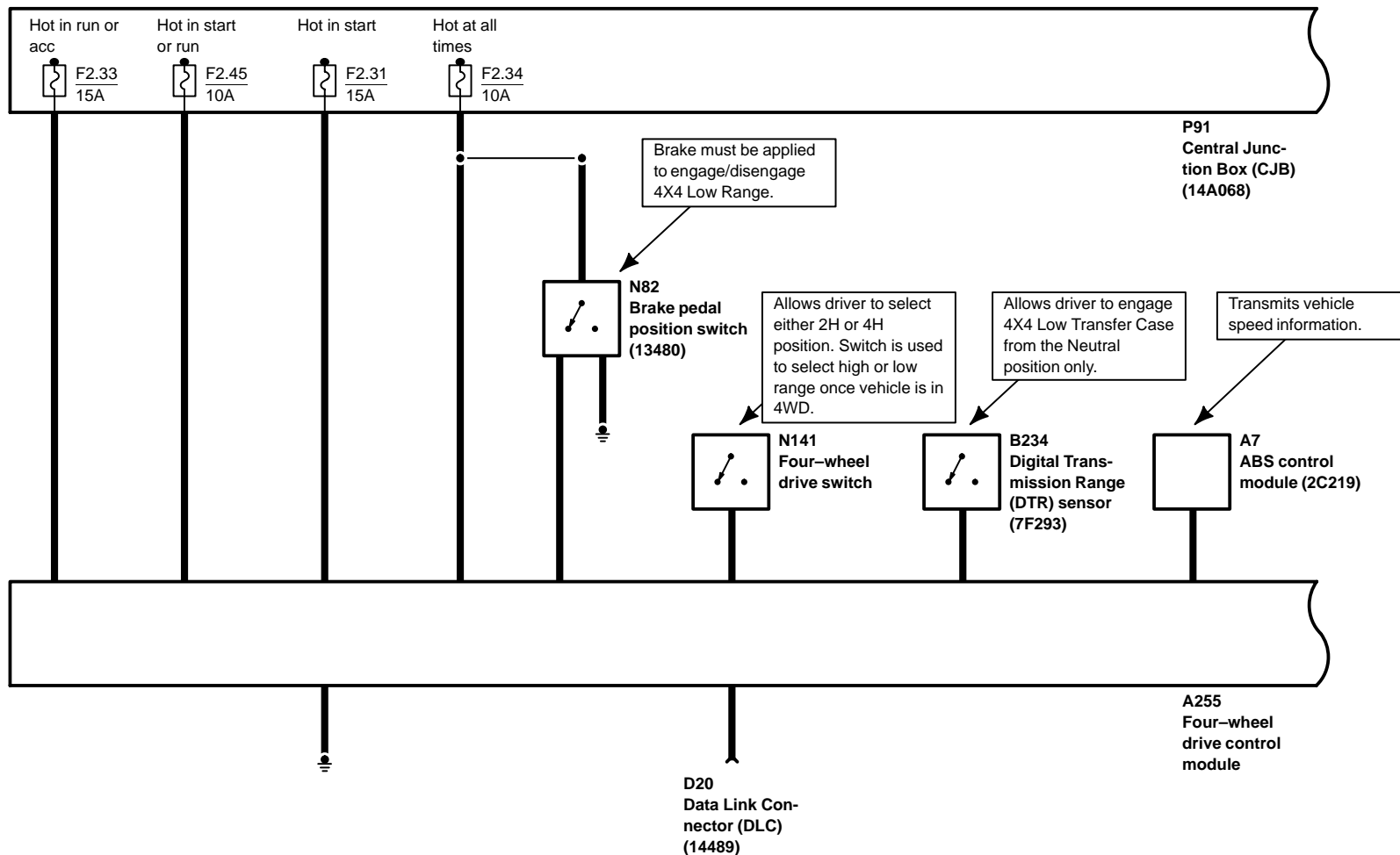
gasoline engines



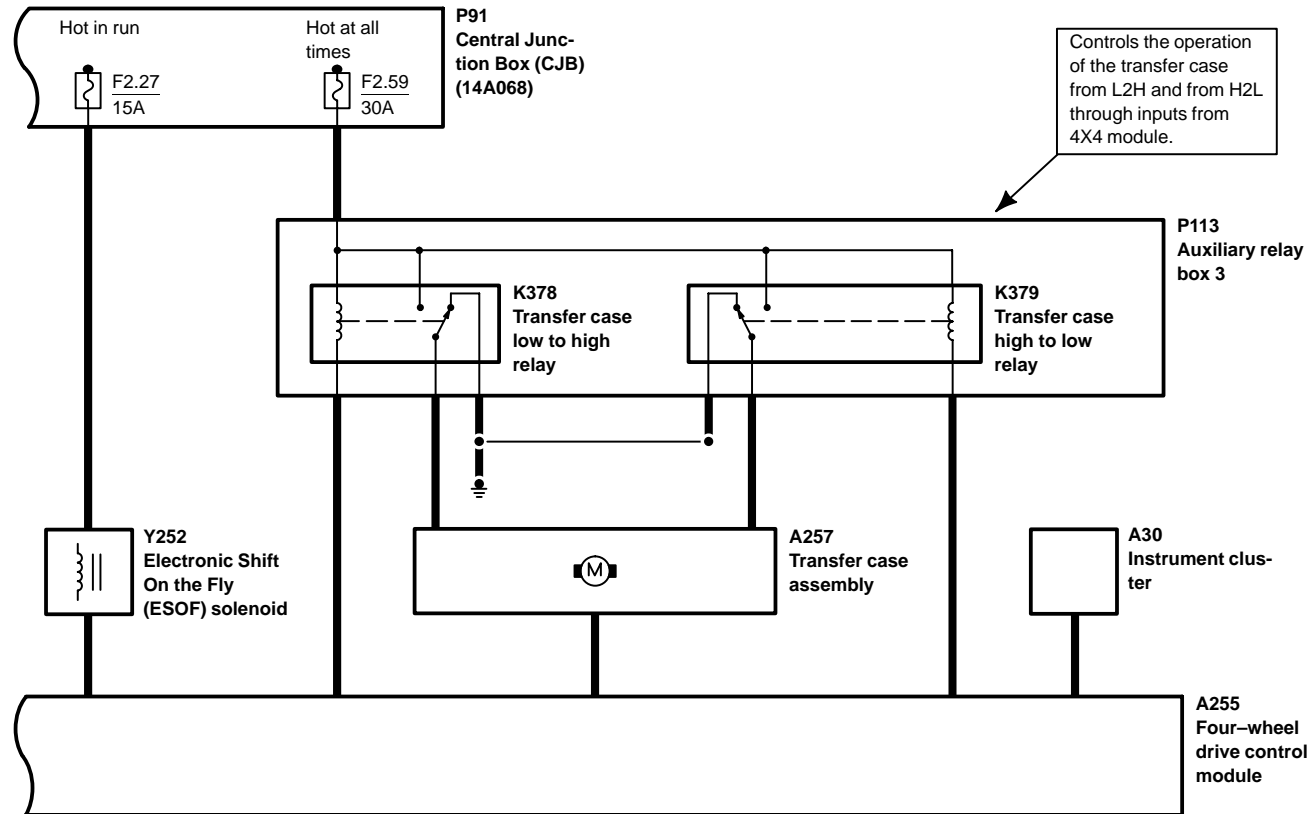
Diesel only

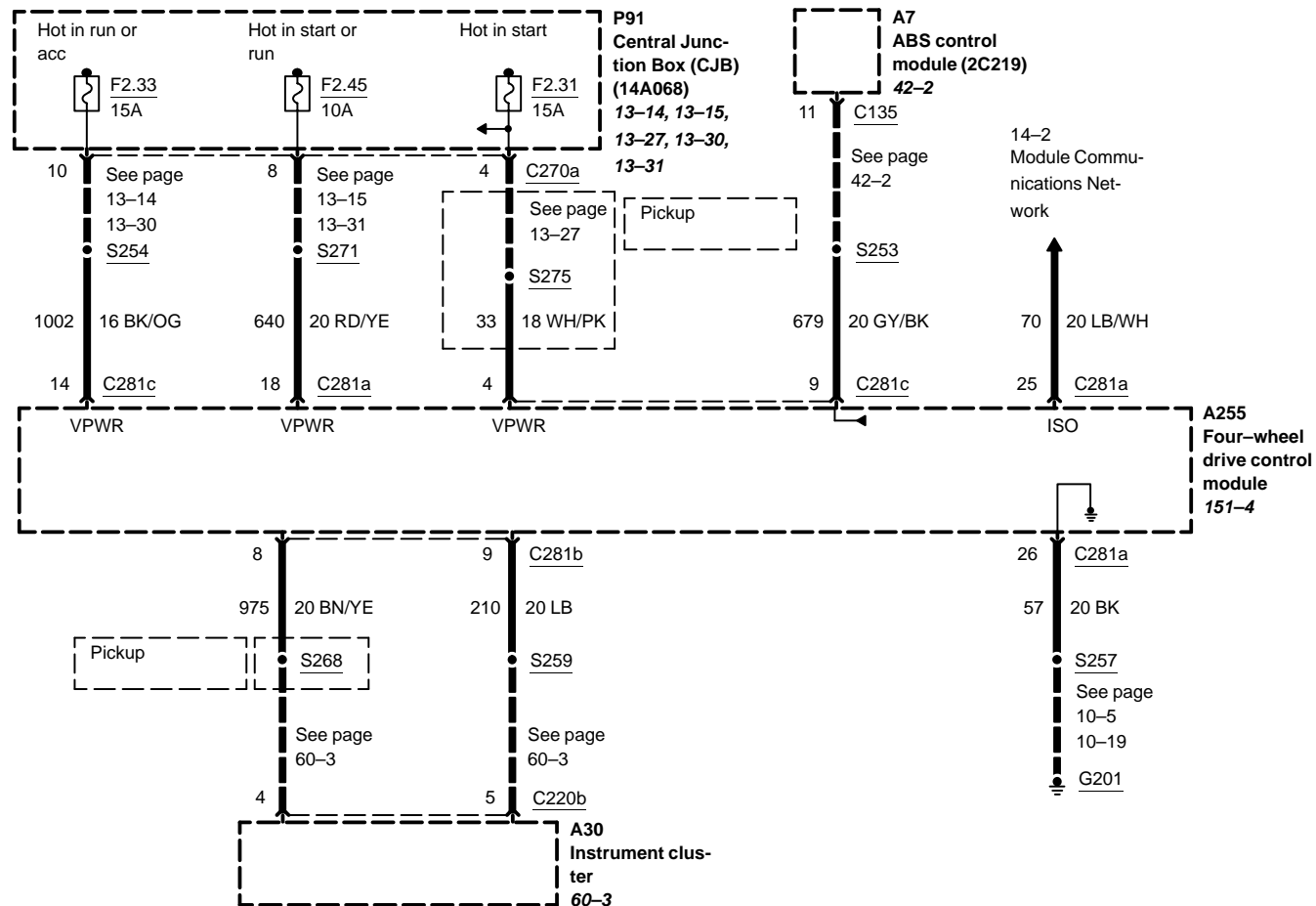


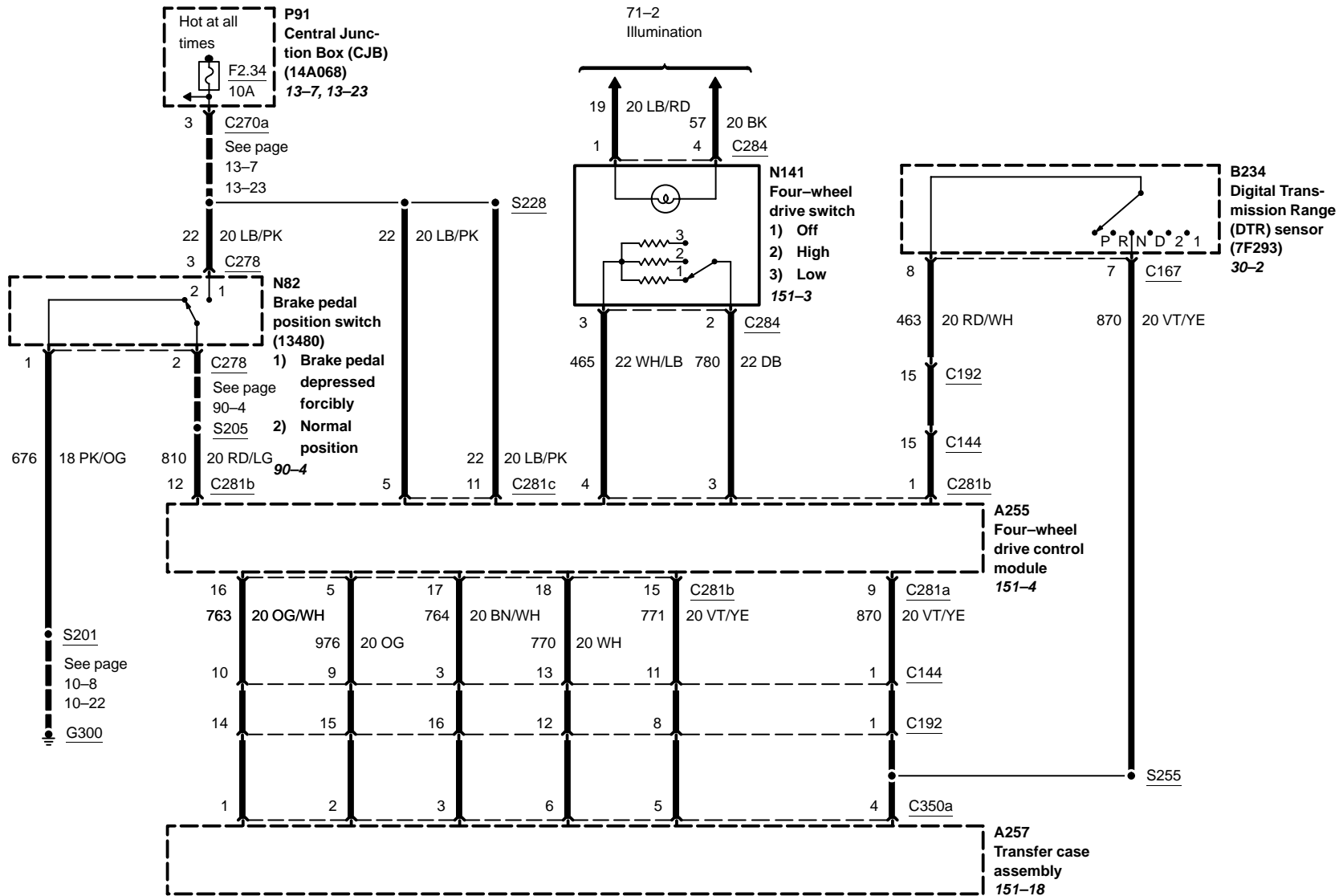
System overview

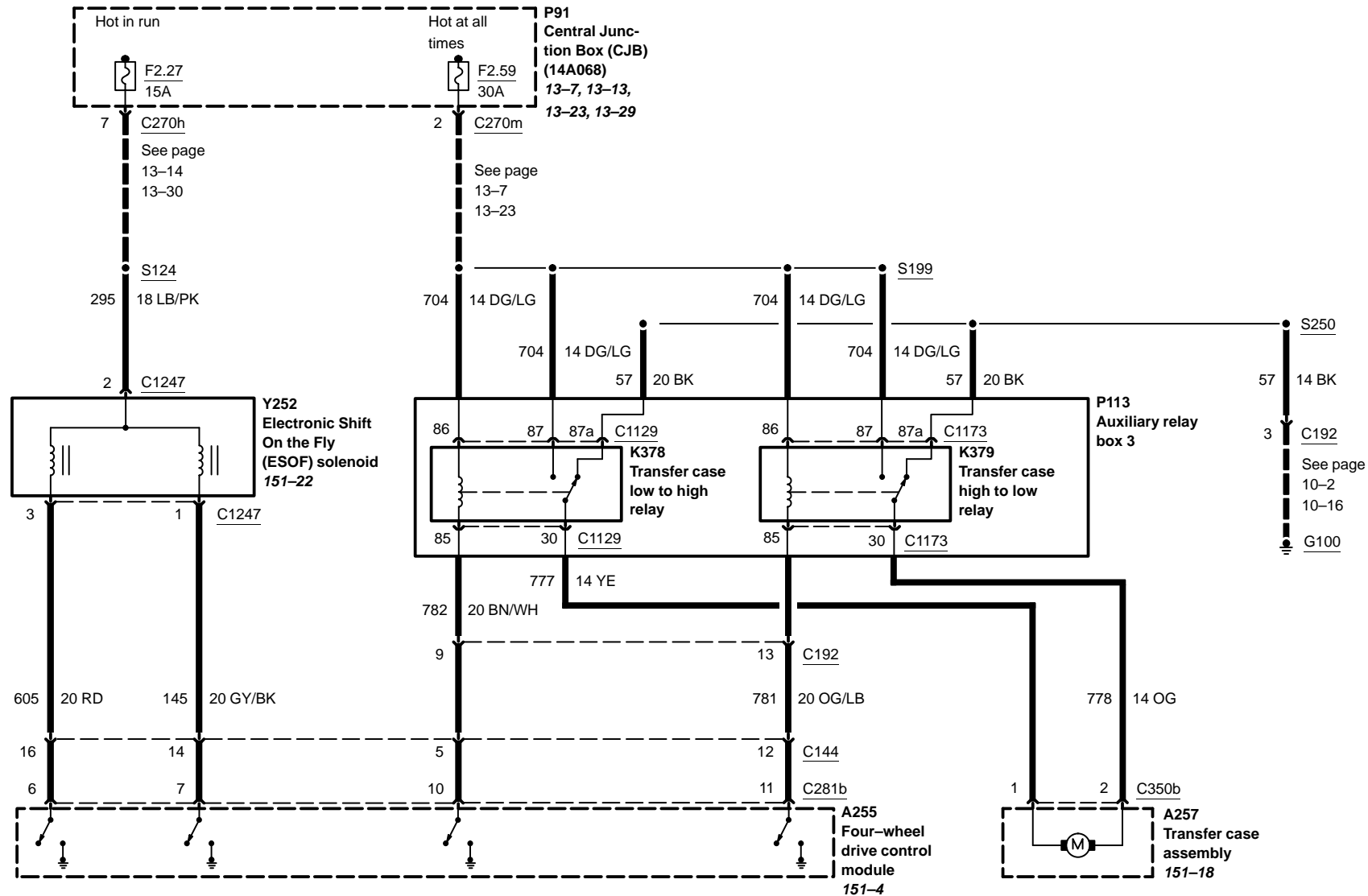


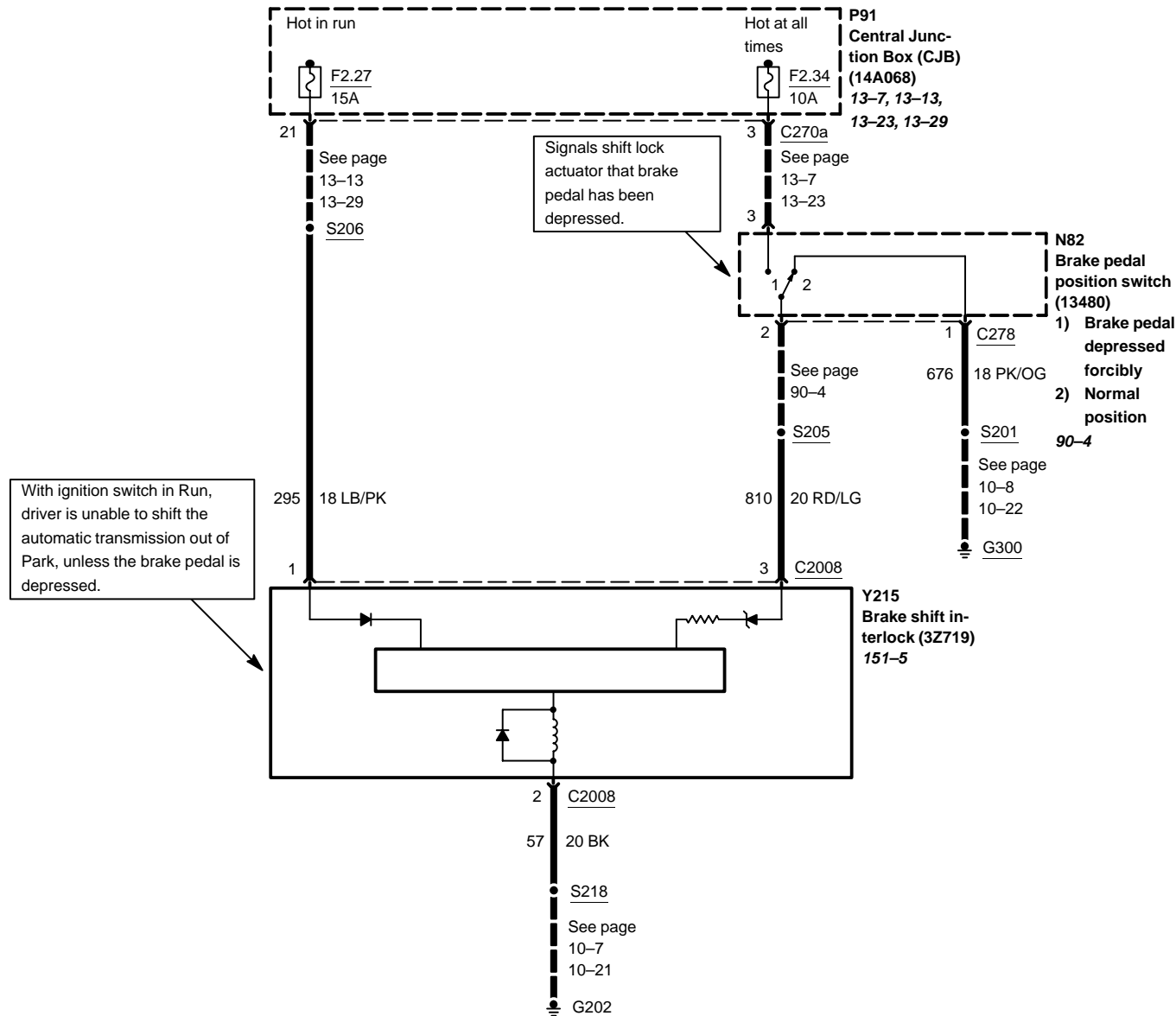
System overview



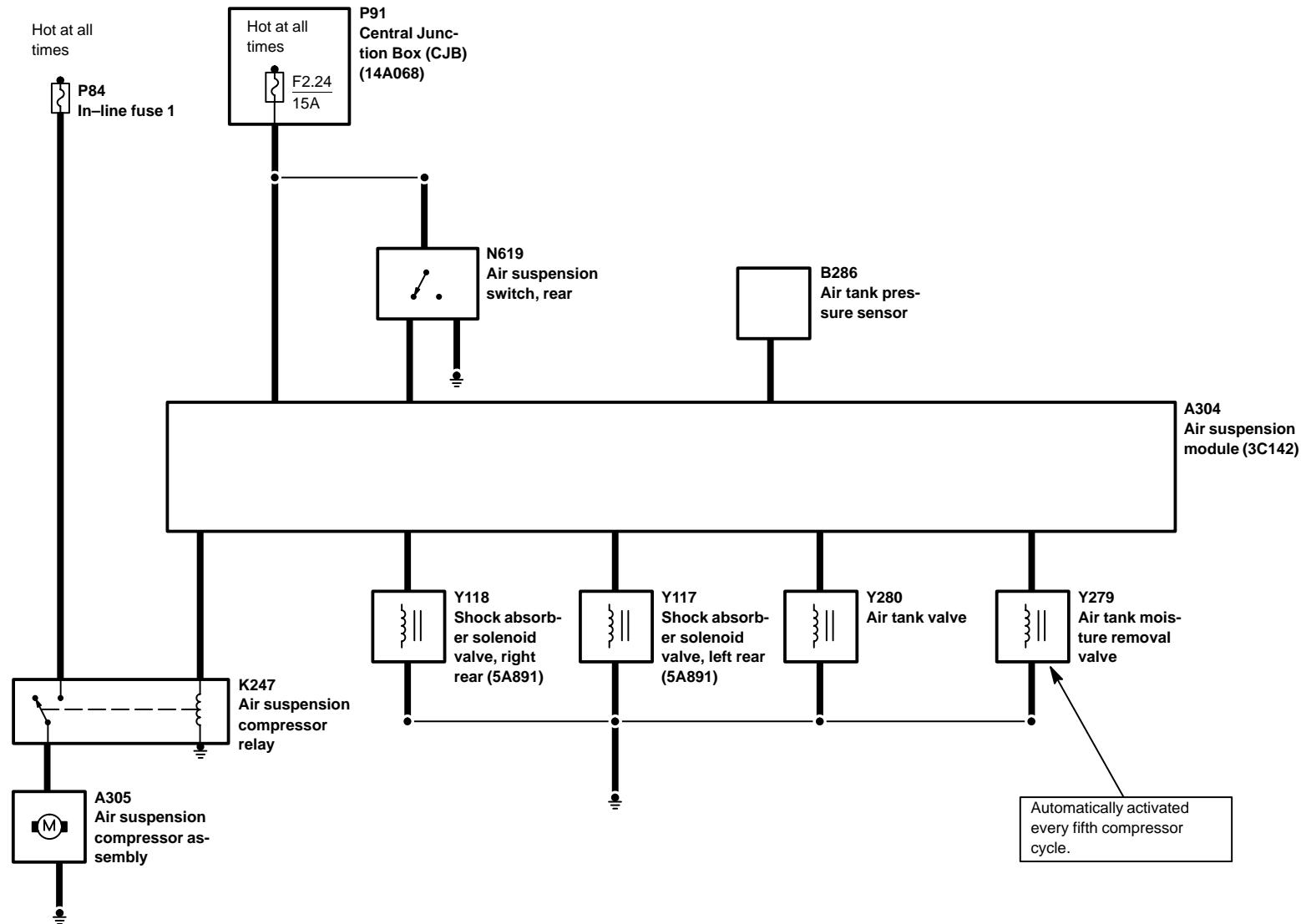




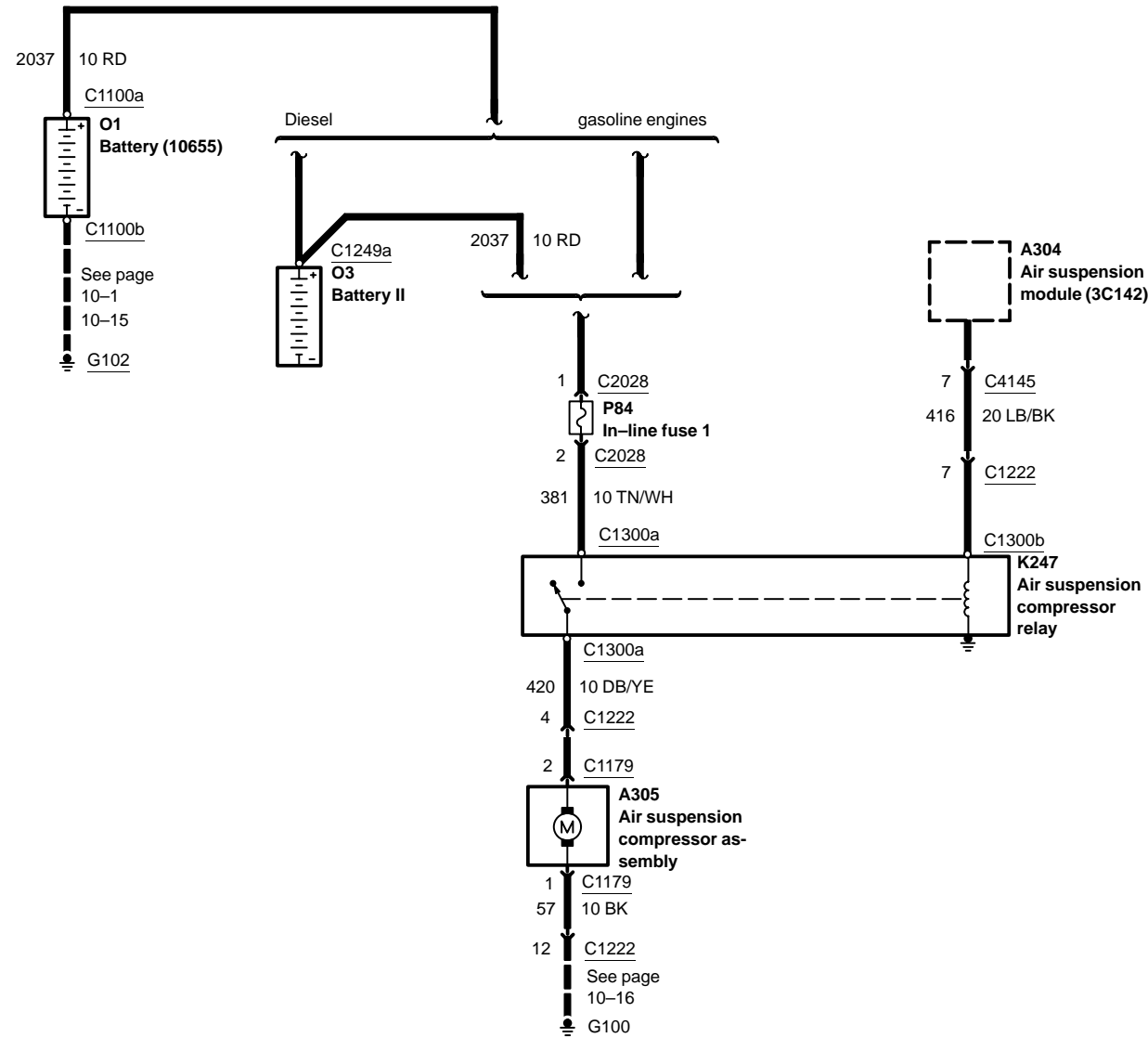




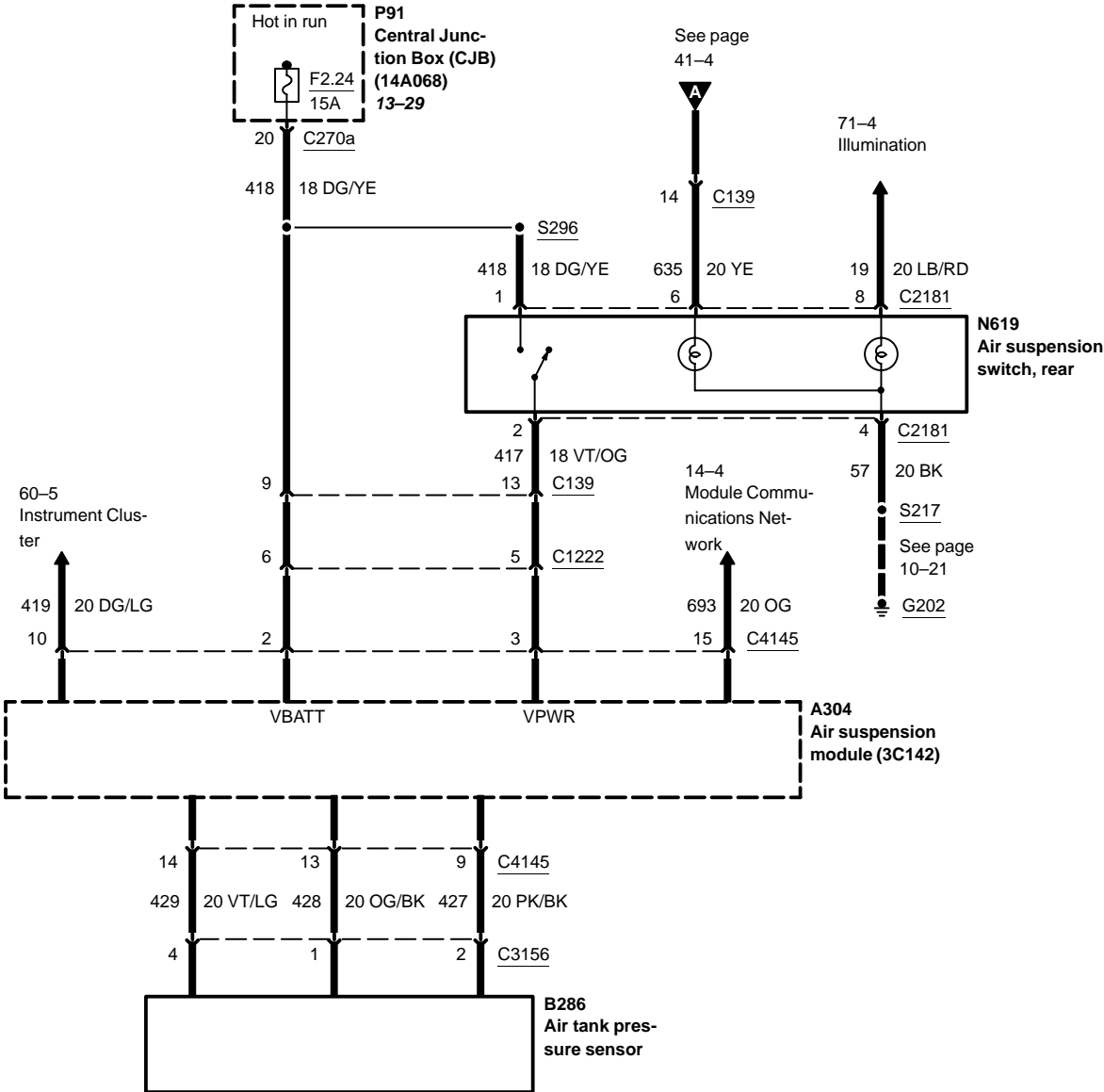
System overview, Pickup



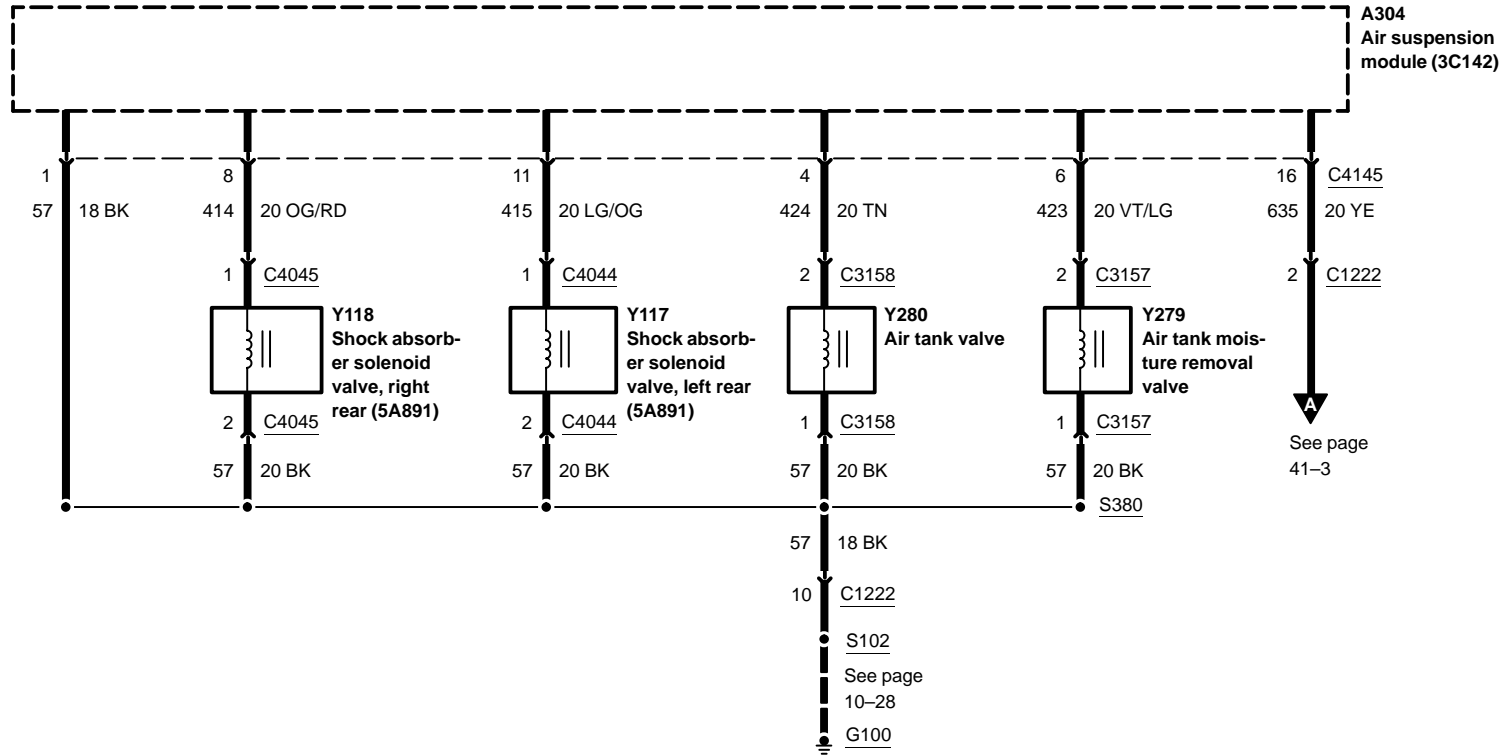
Pickup

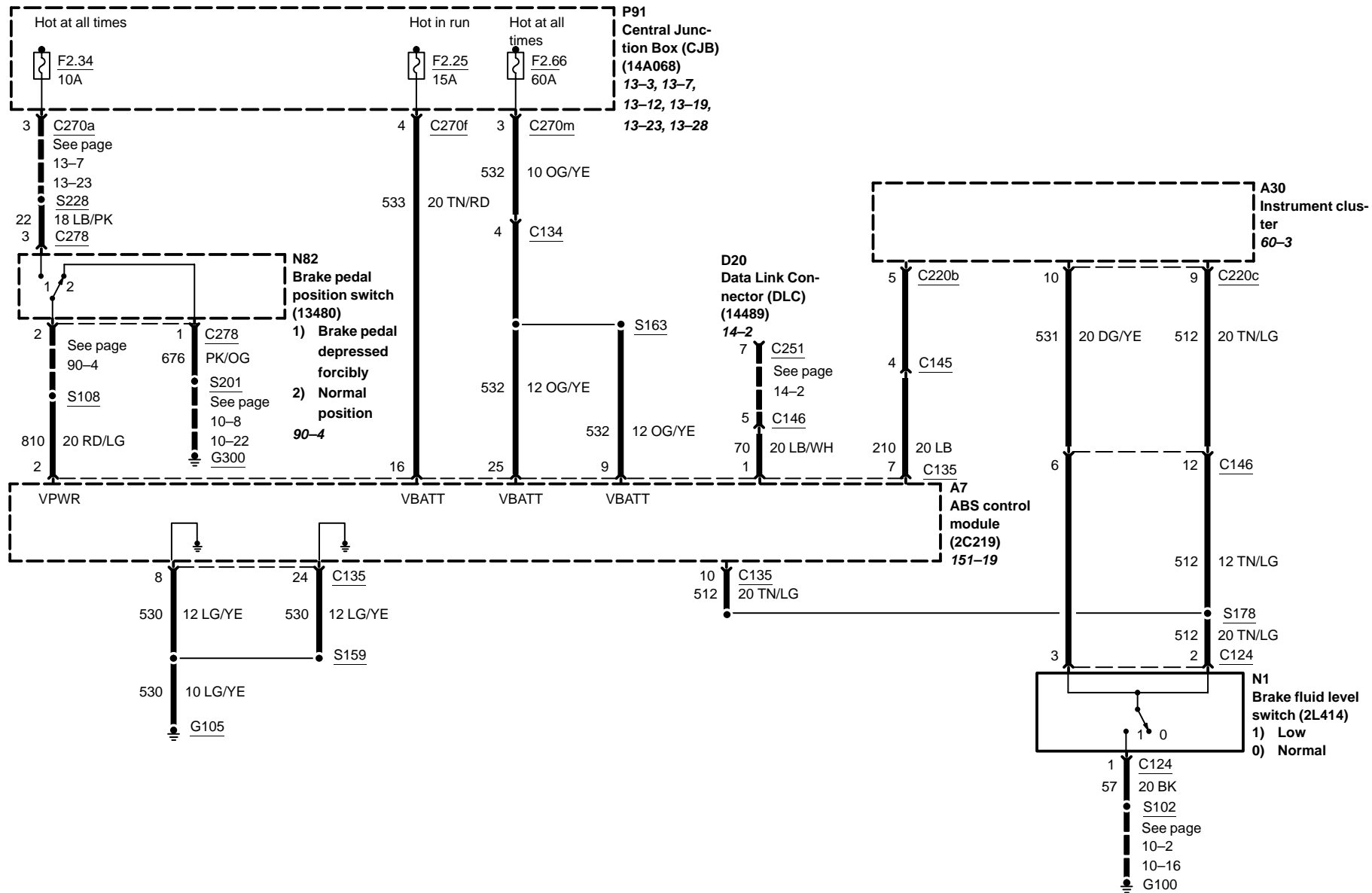


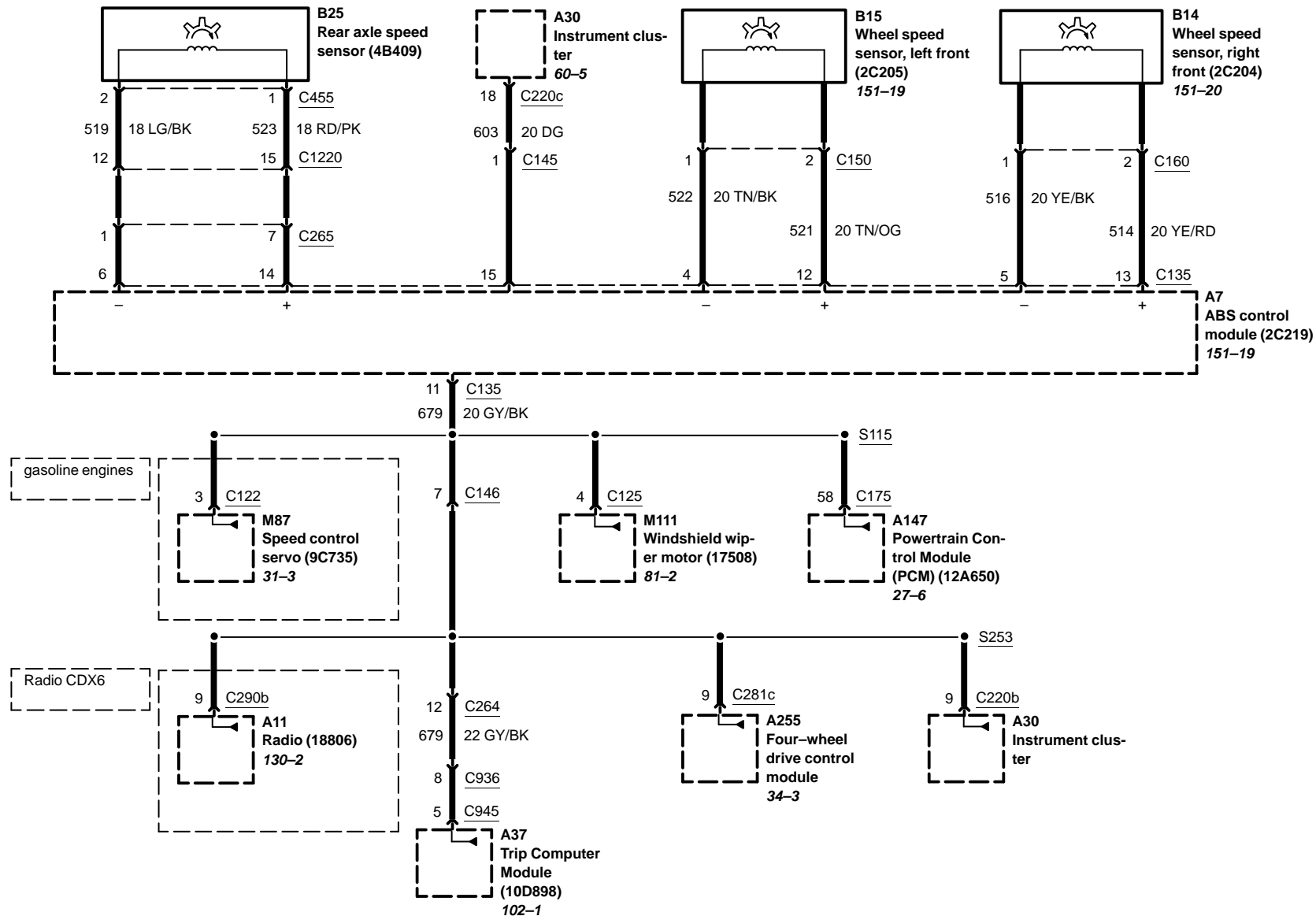
Pickup



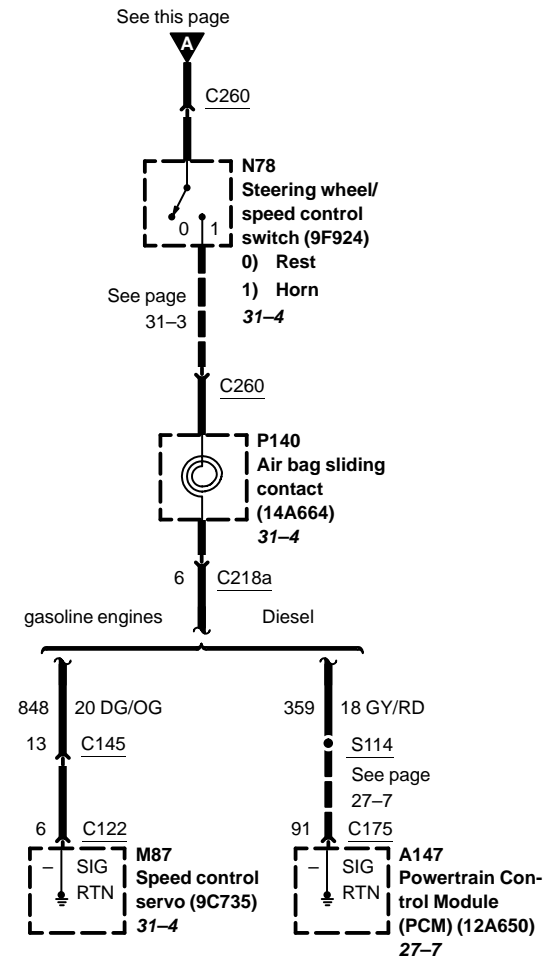
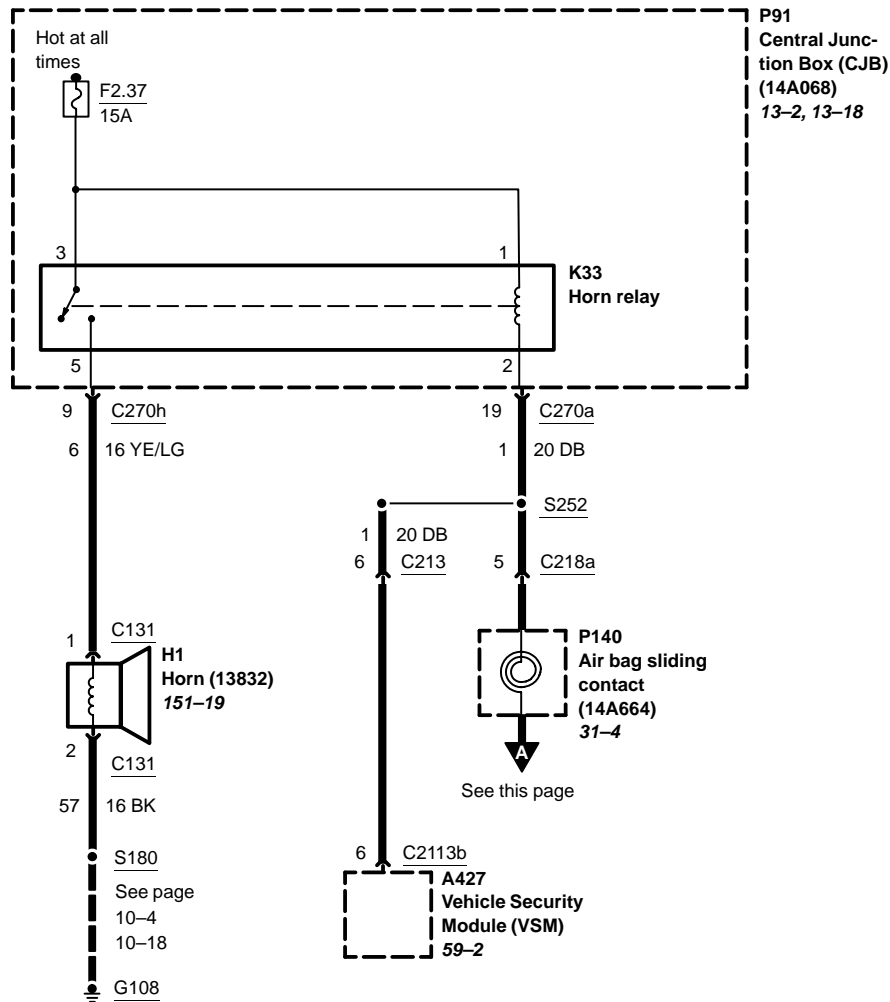
Pickup

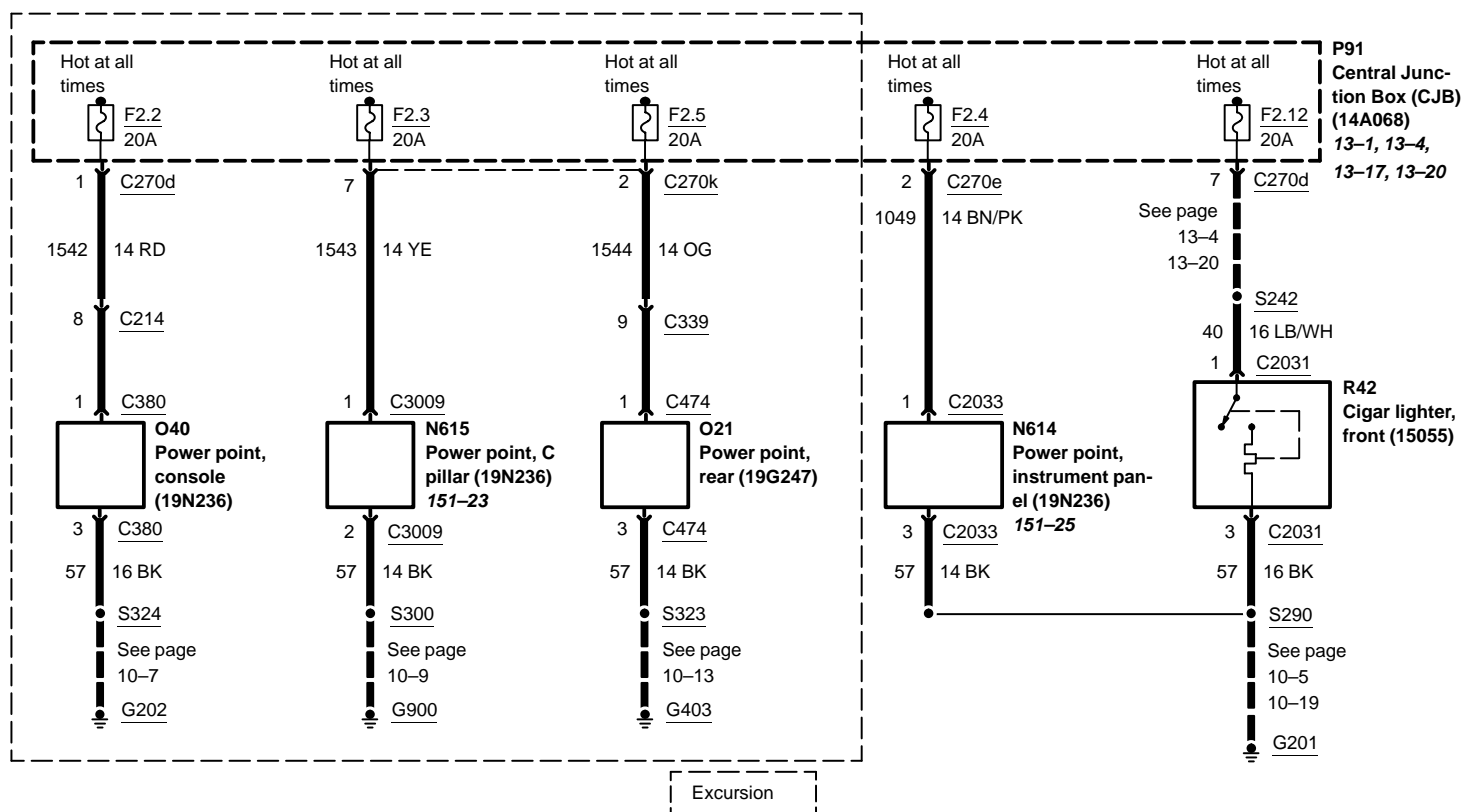




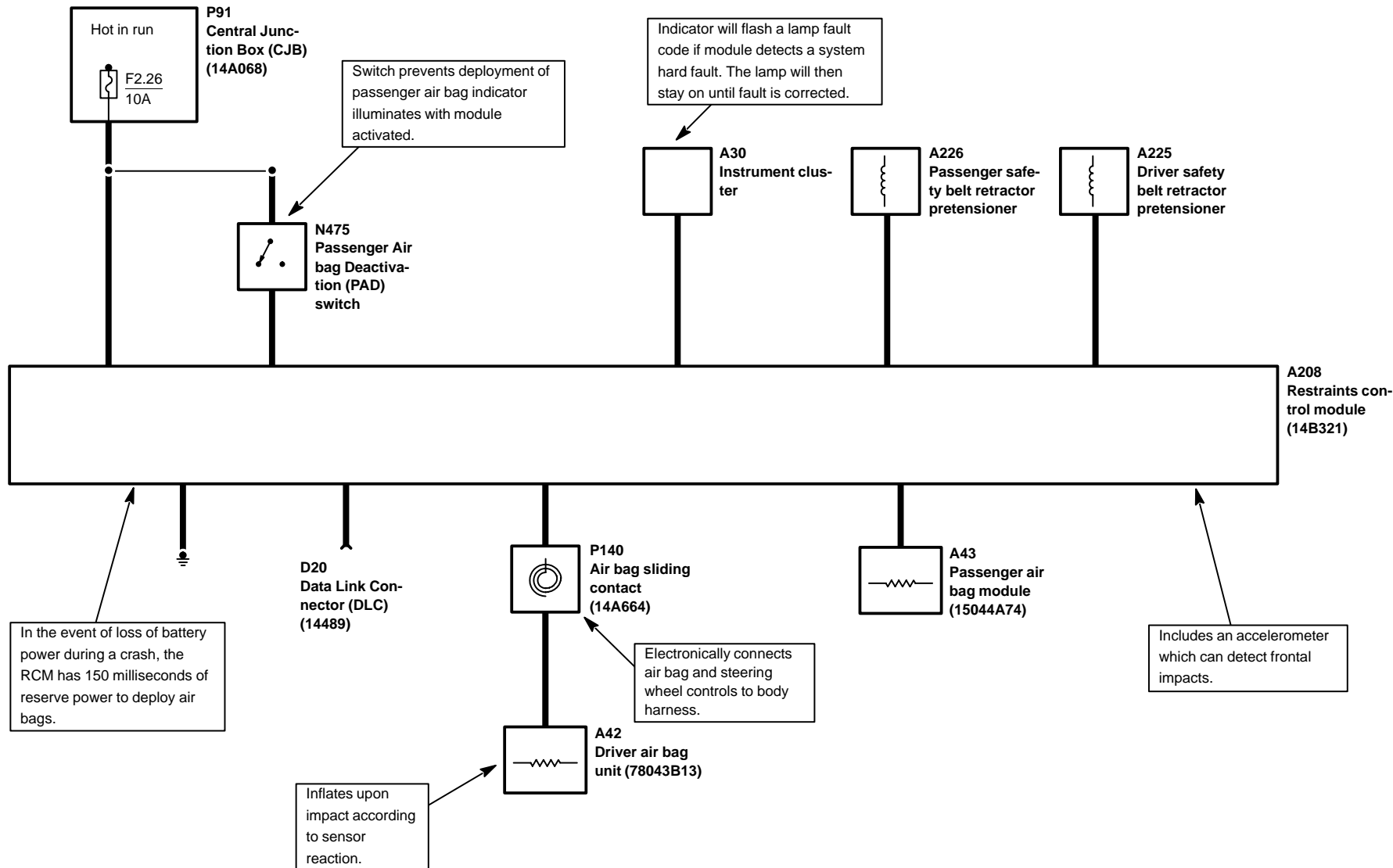


44-1 Horn/Cigar Lighter

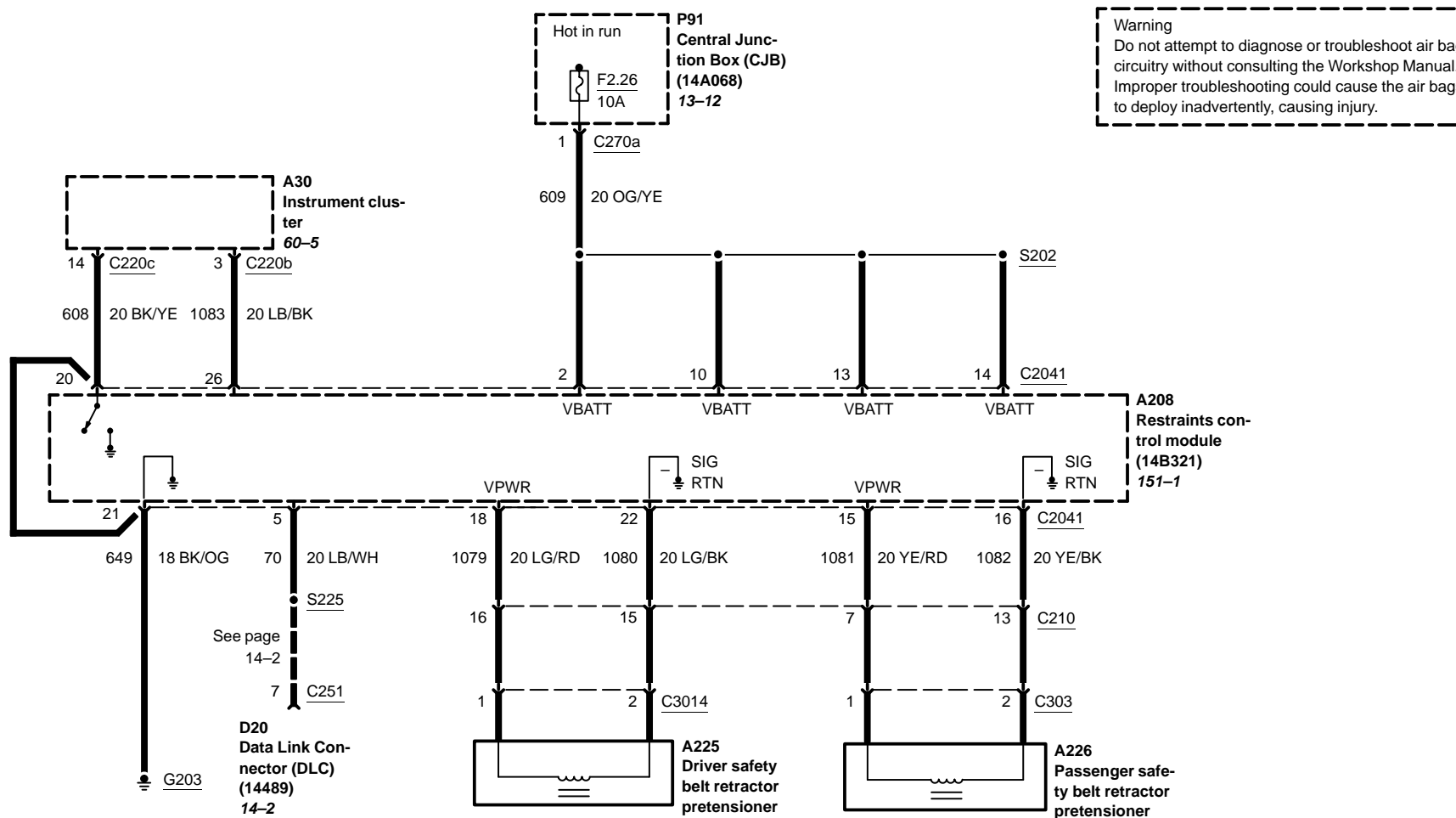




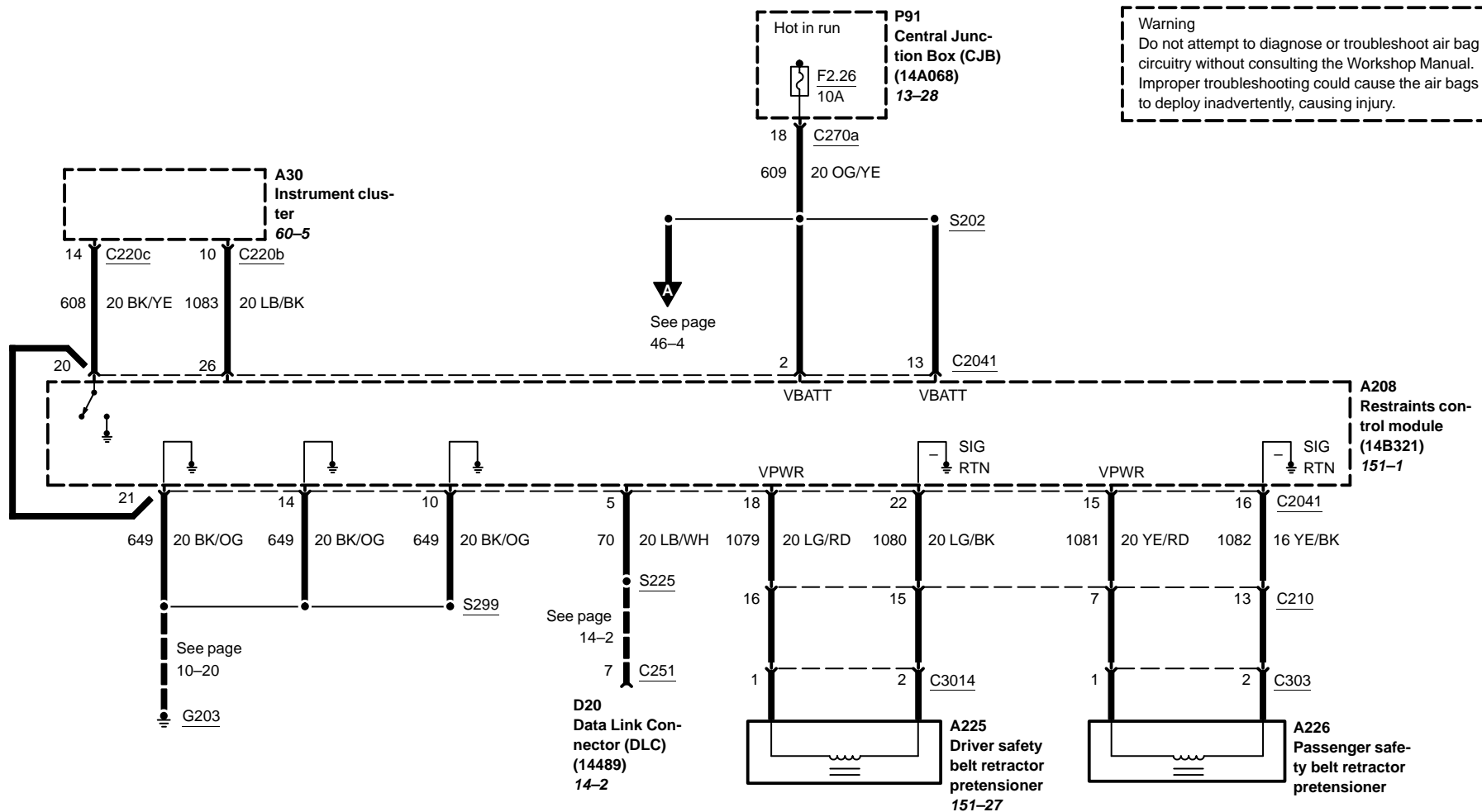
System overview

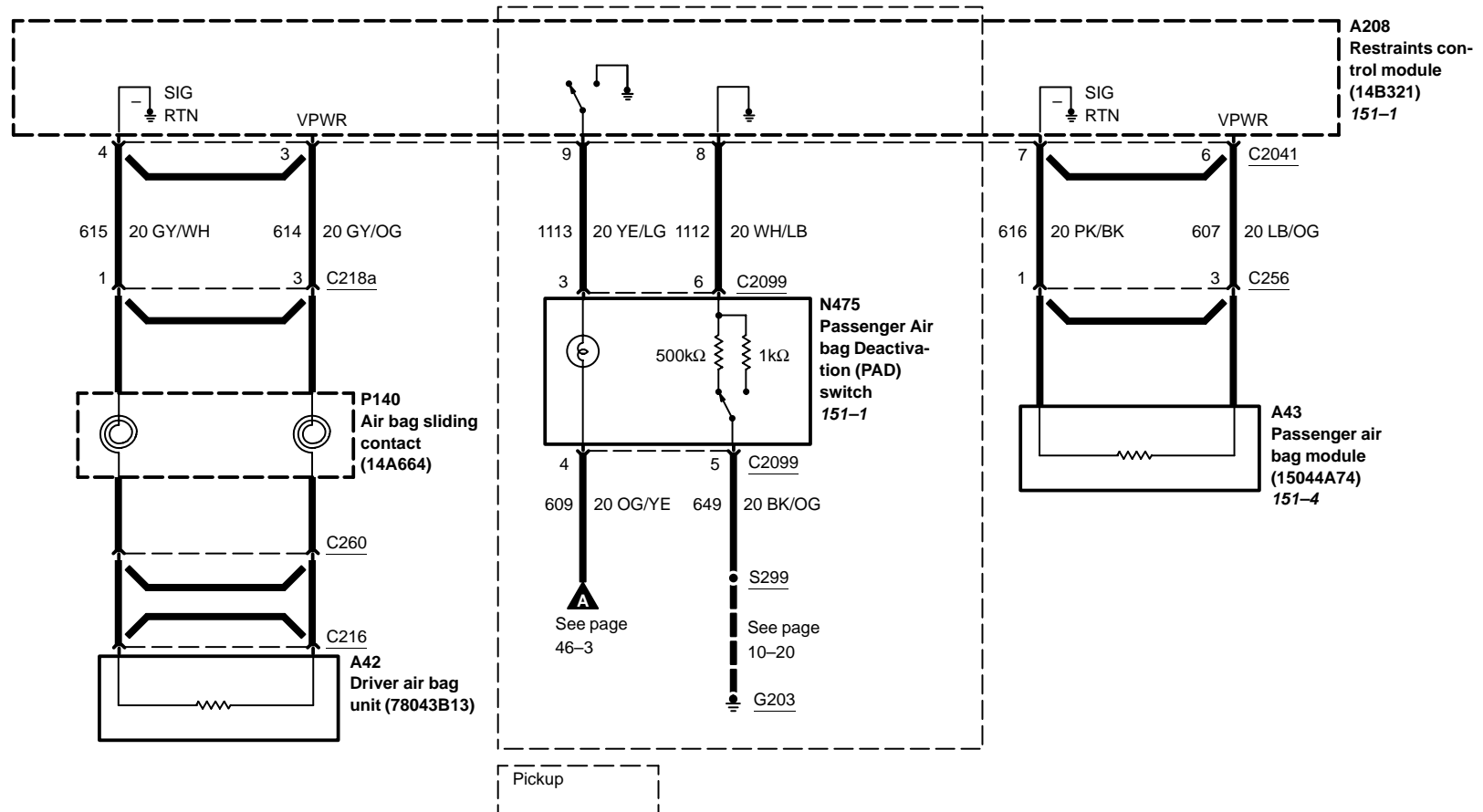


Excursion

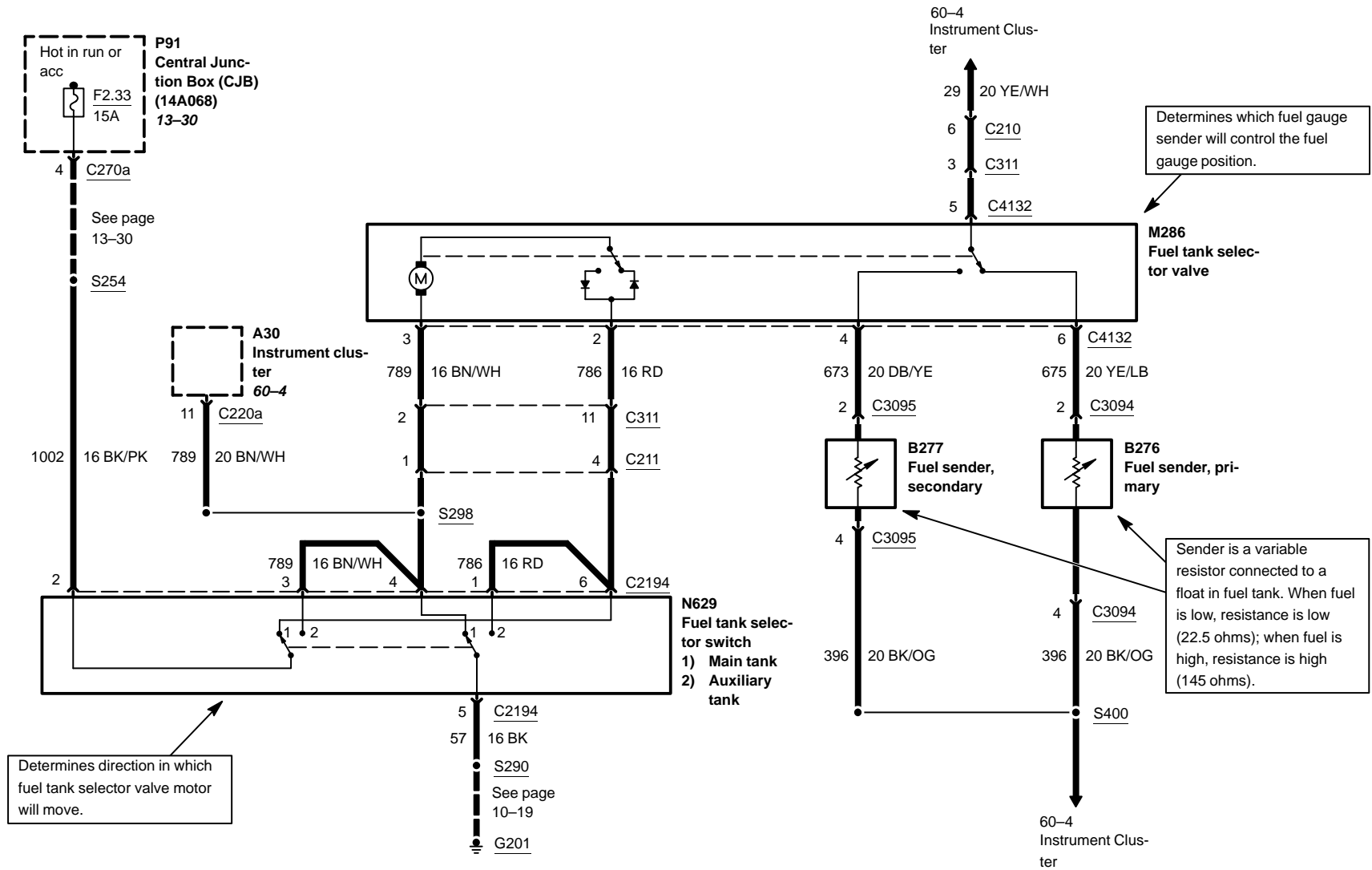


Pickup

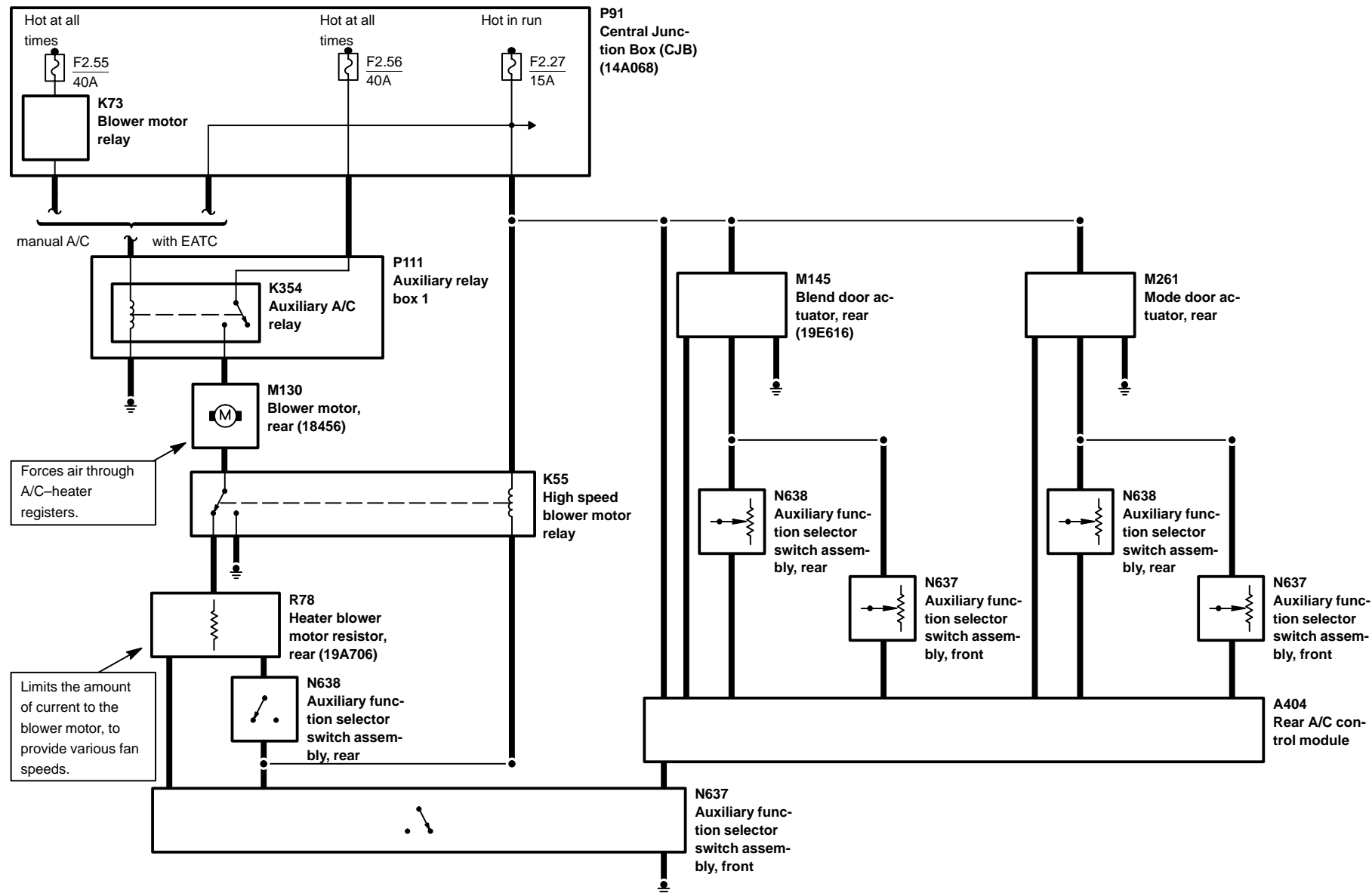


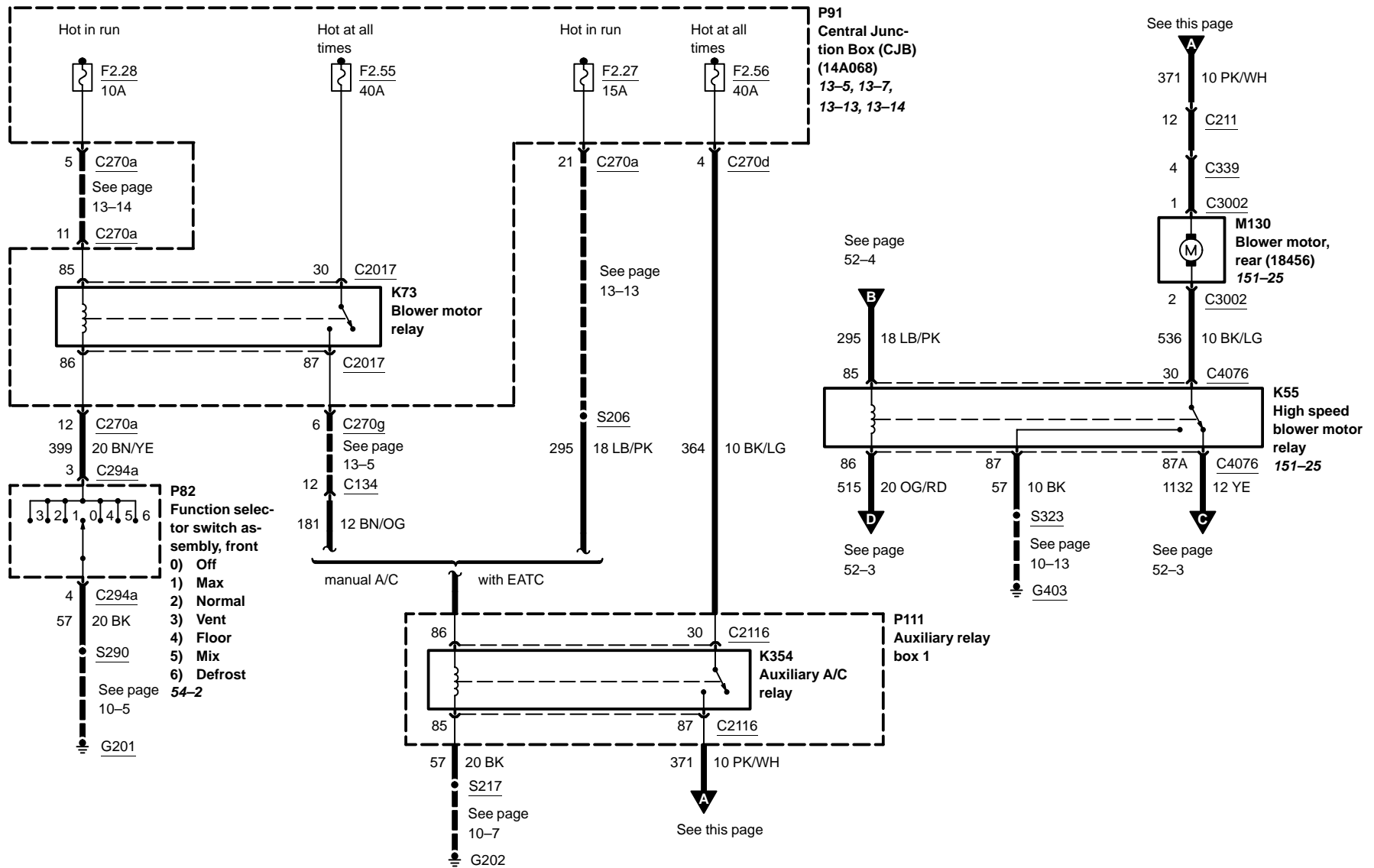


Pickup, Diesel only

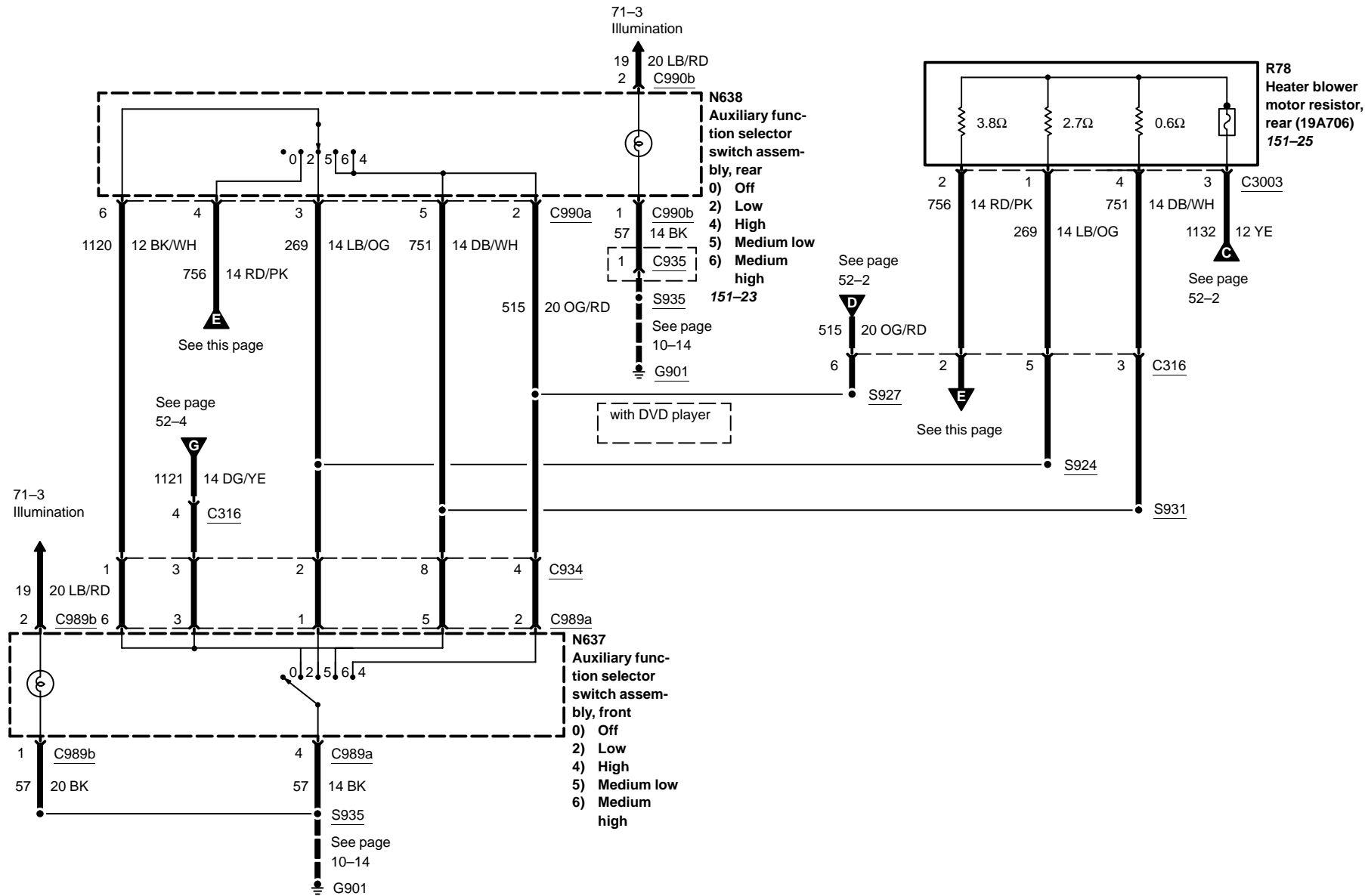


System overview

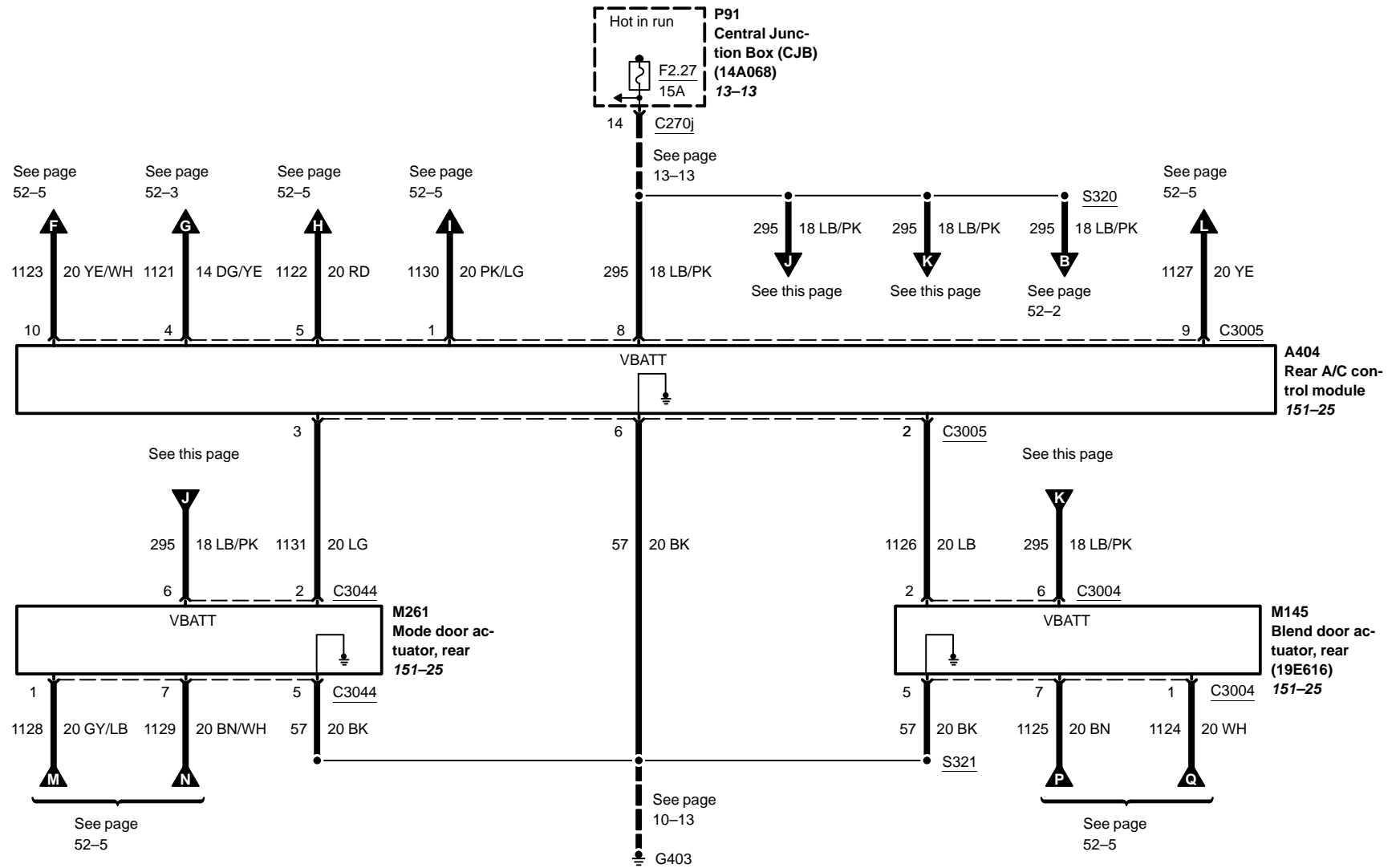




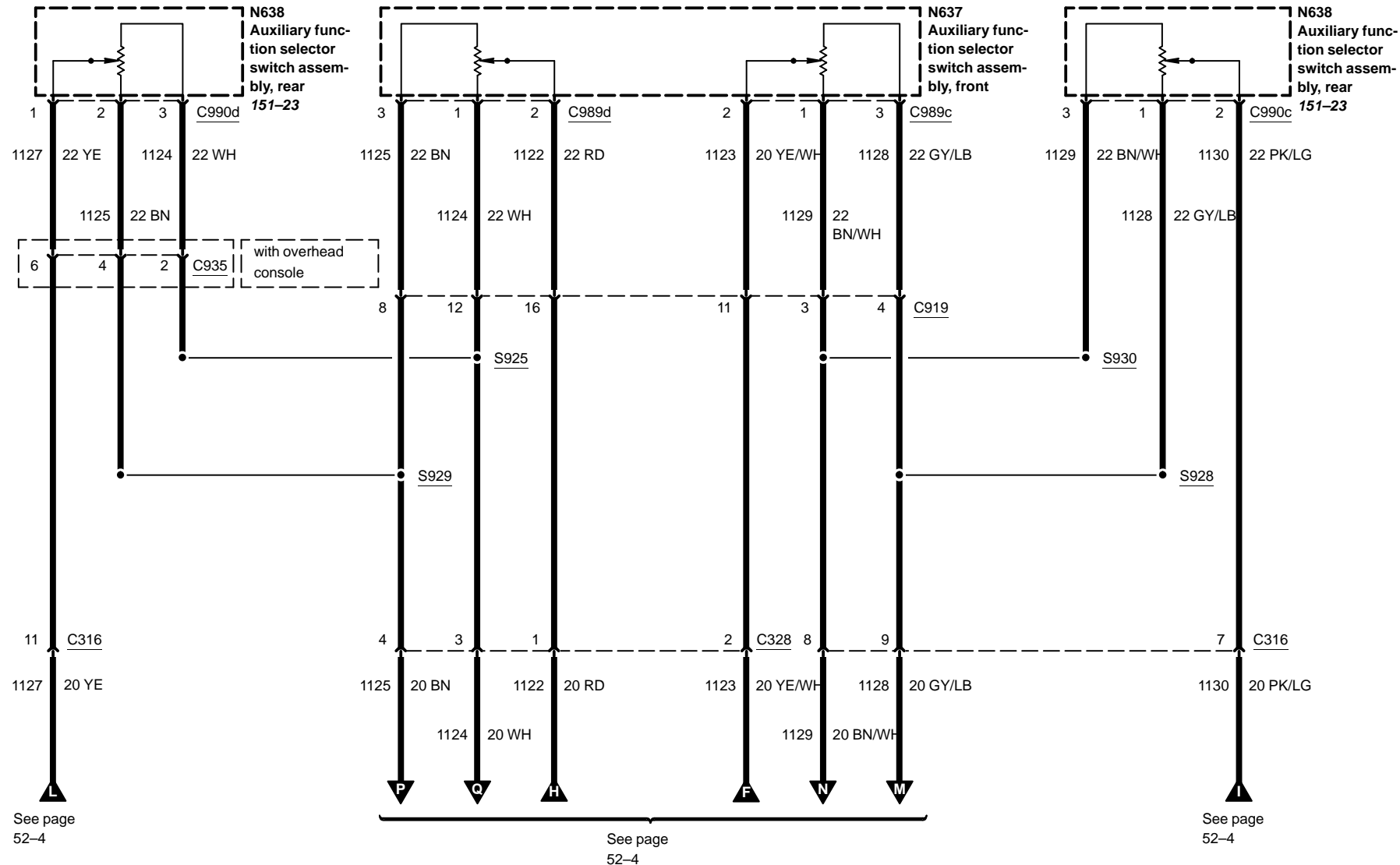
Excursion



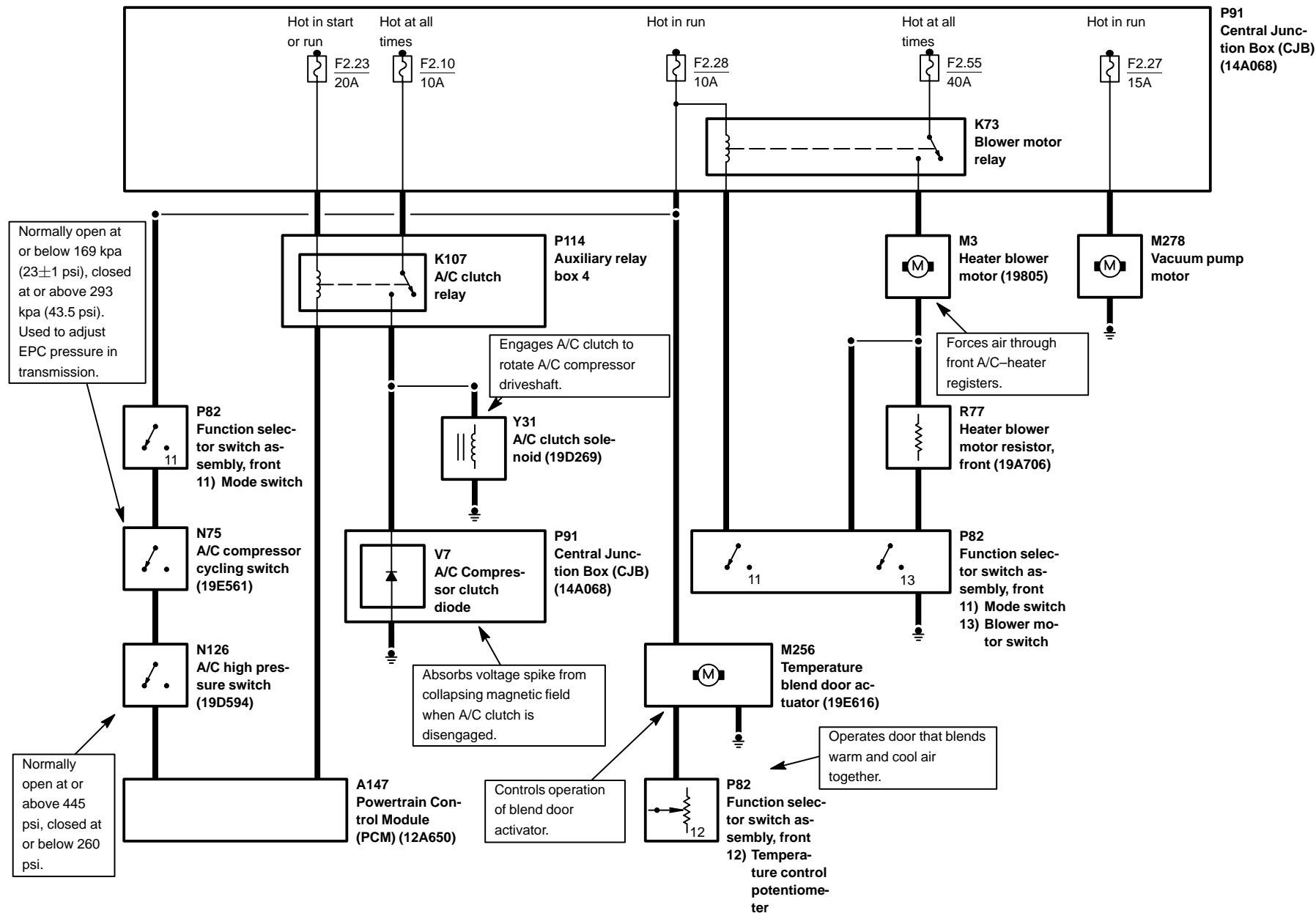
Excursion

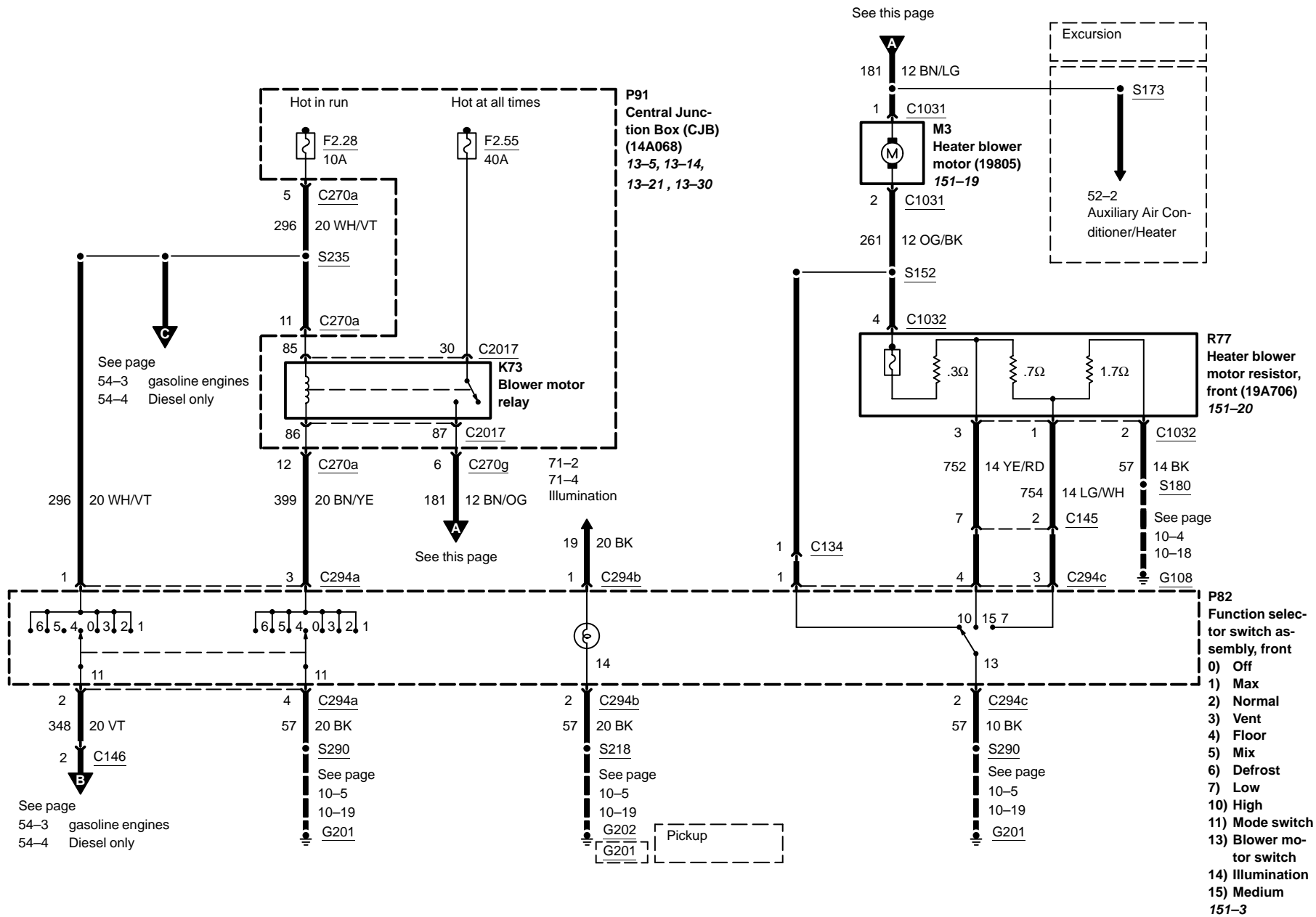


Excursion

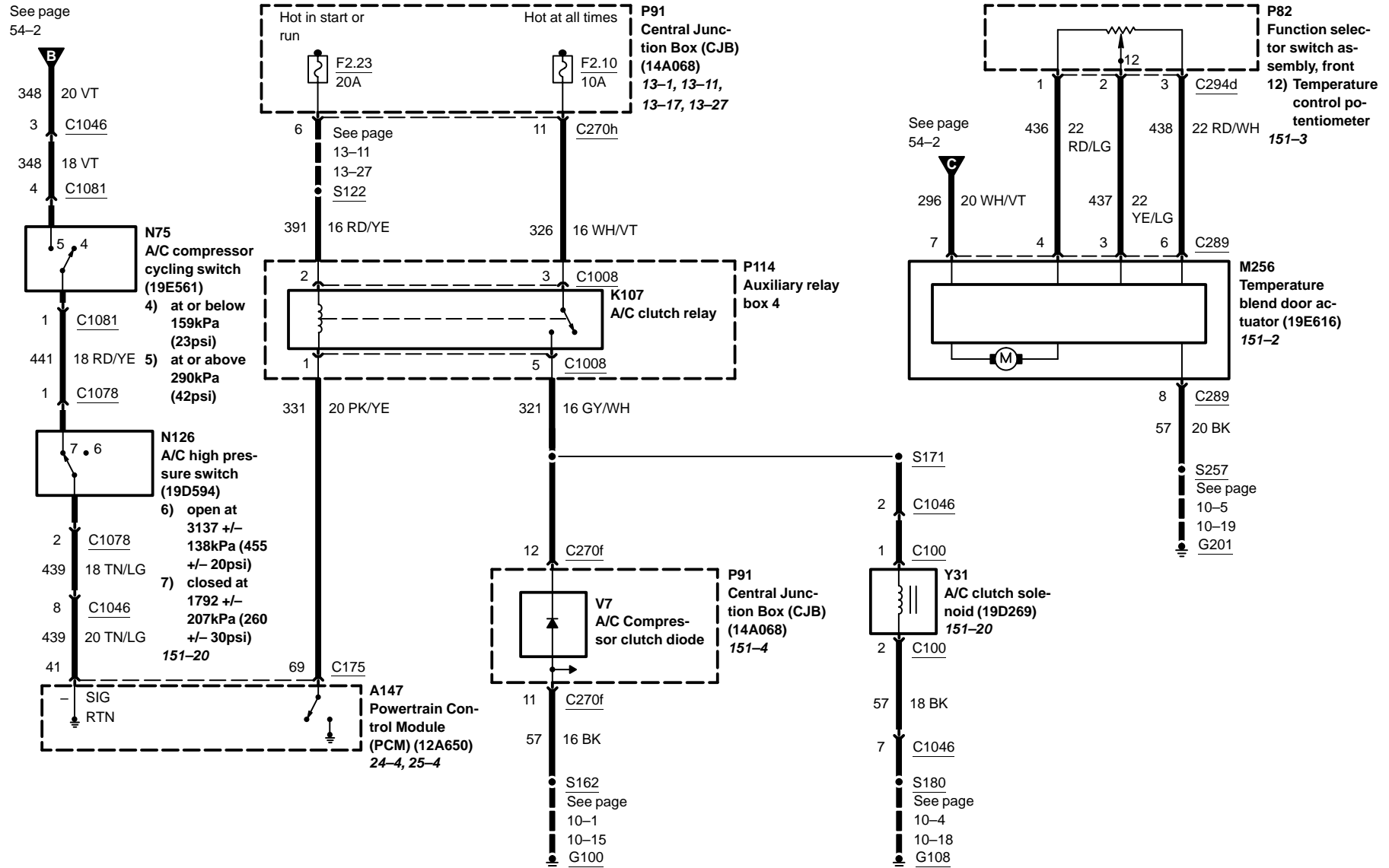


System overview

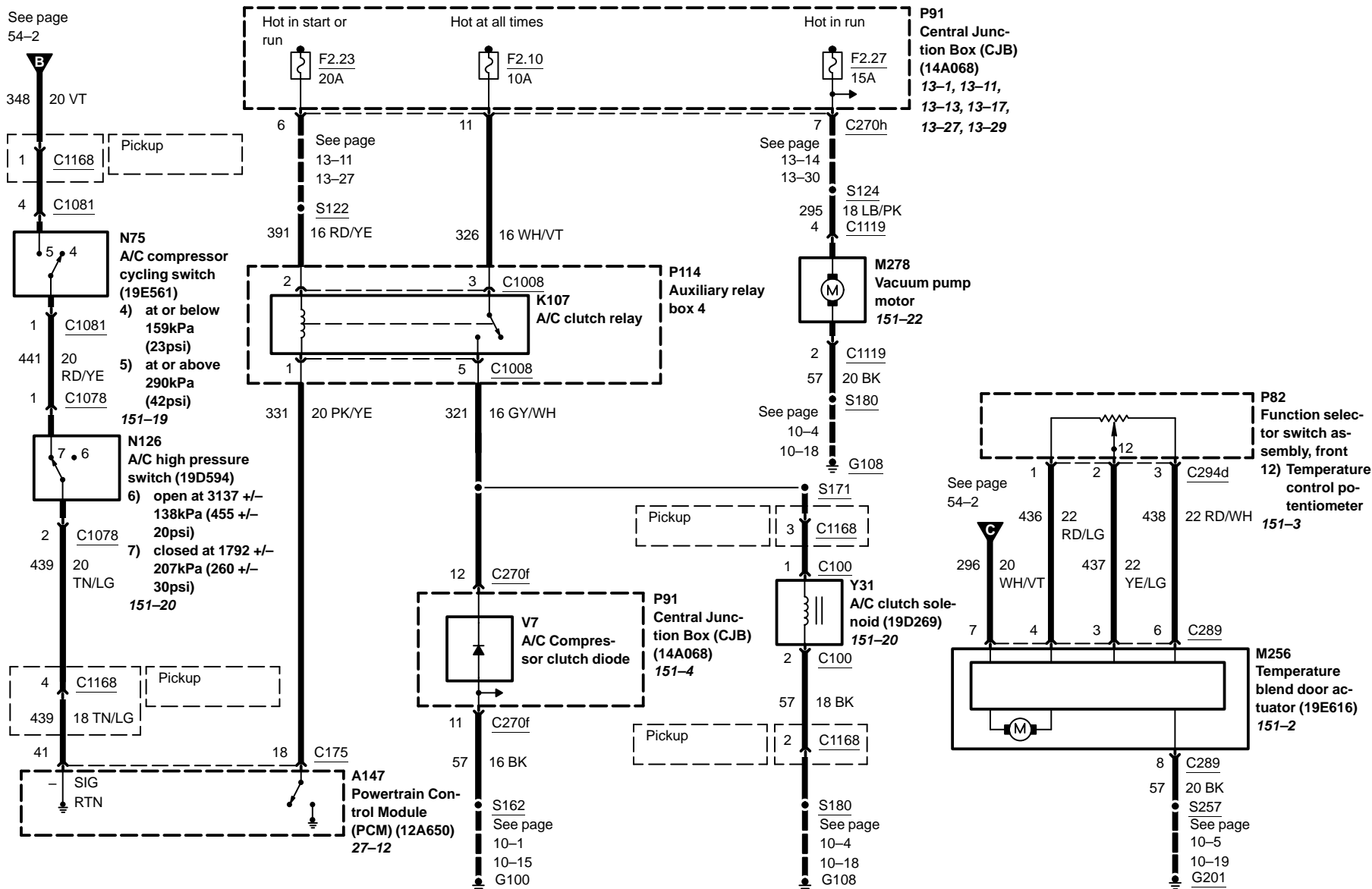




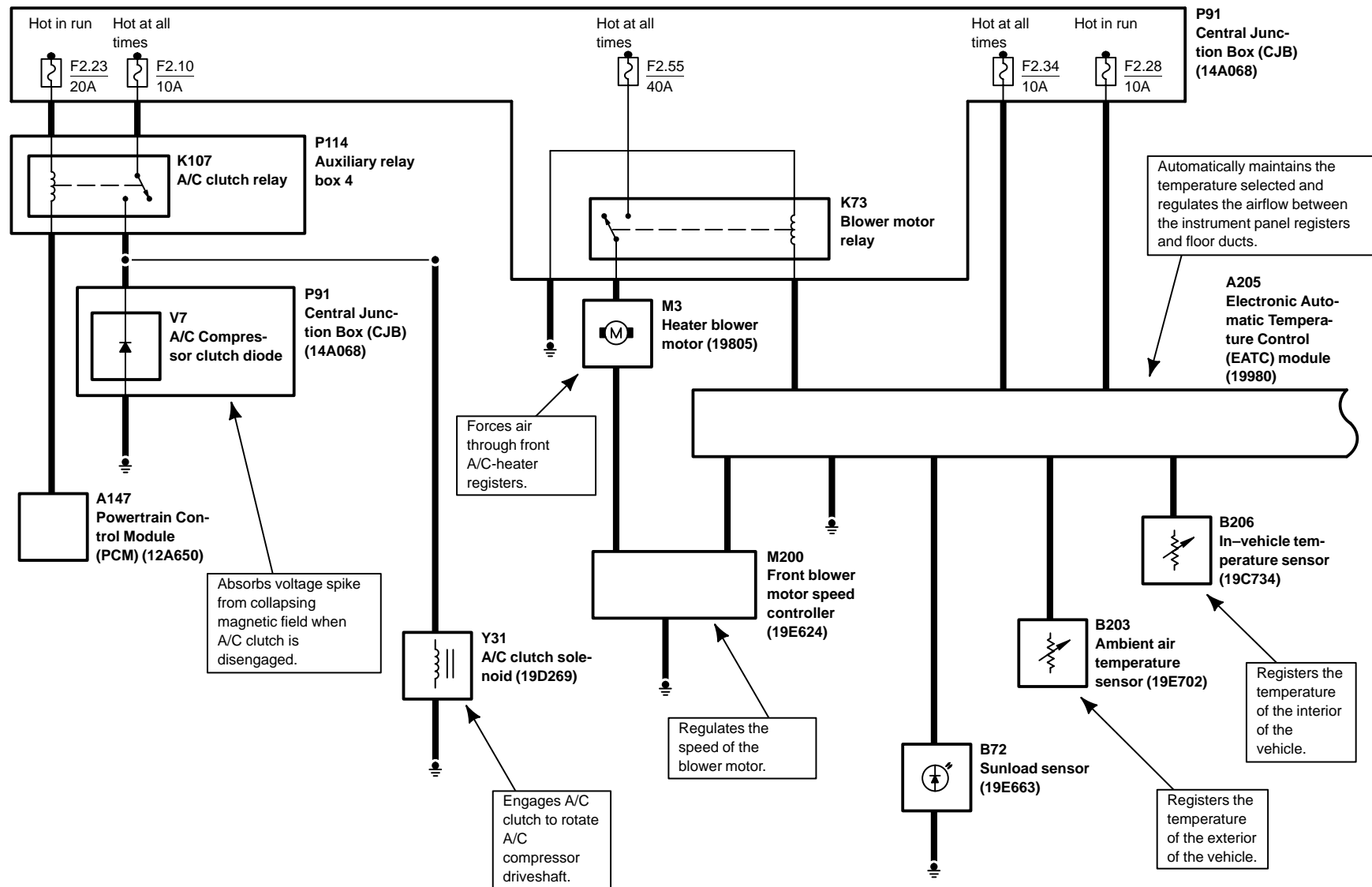
gasoline engines



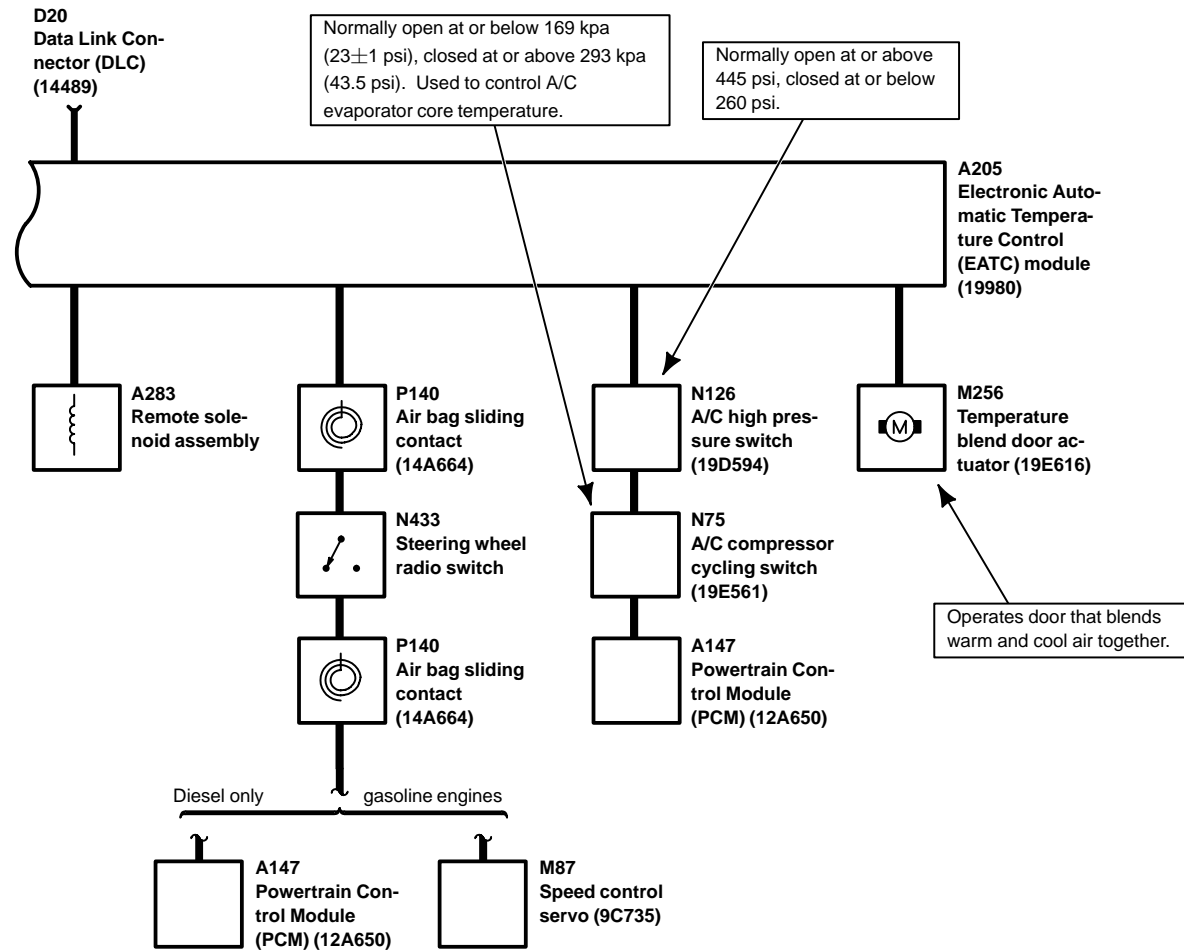
Diesel only

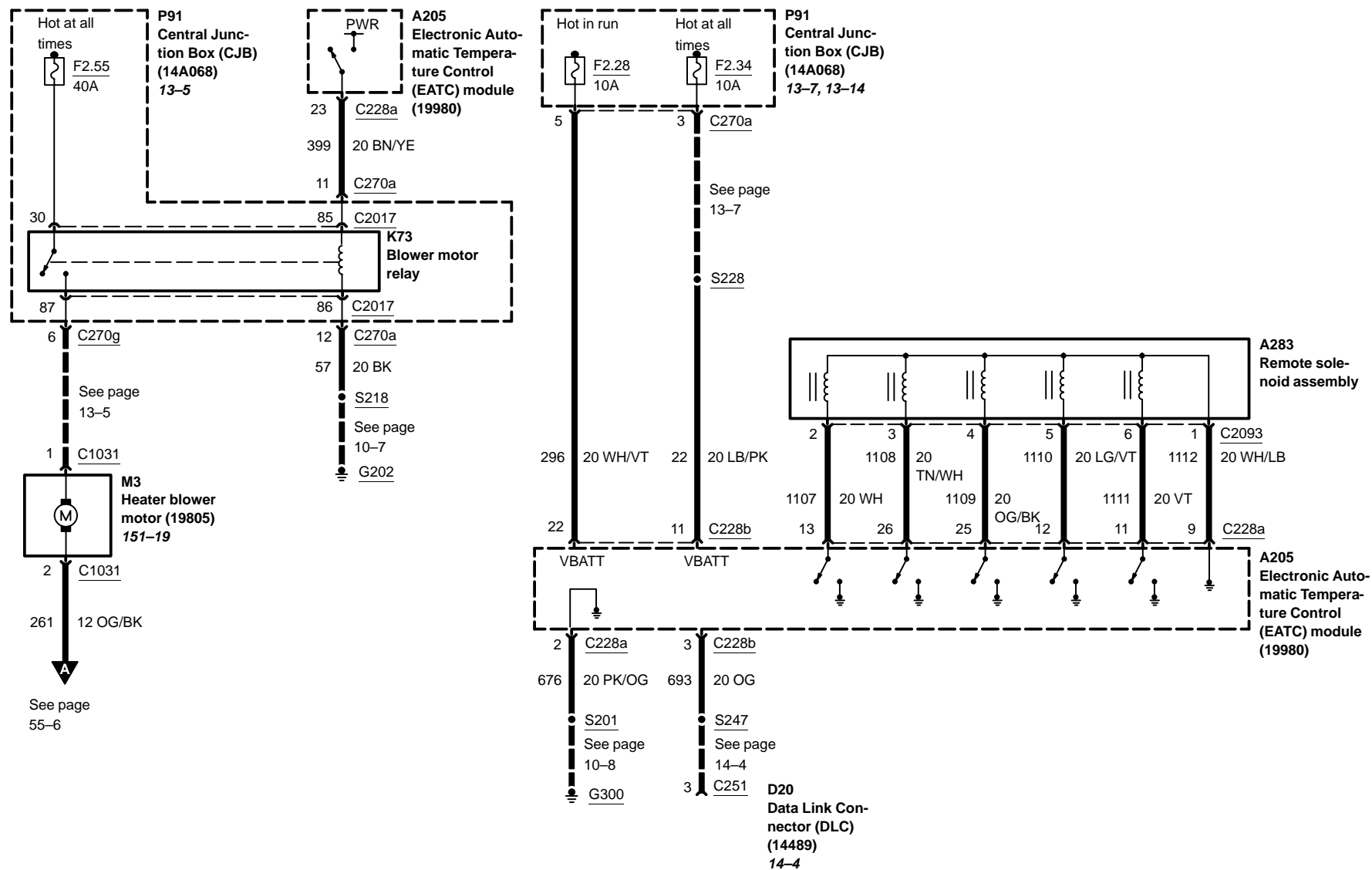


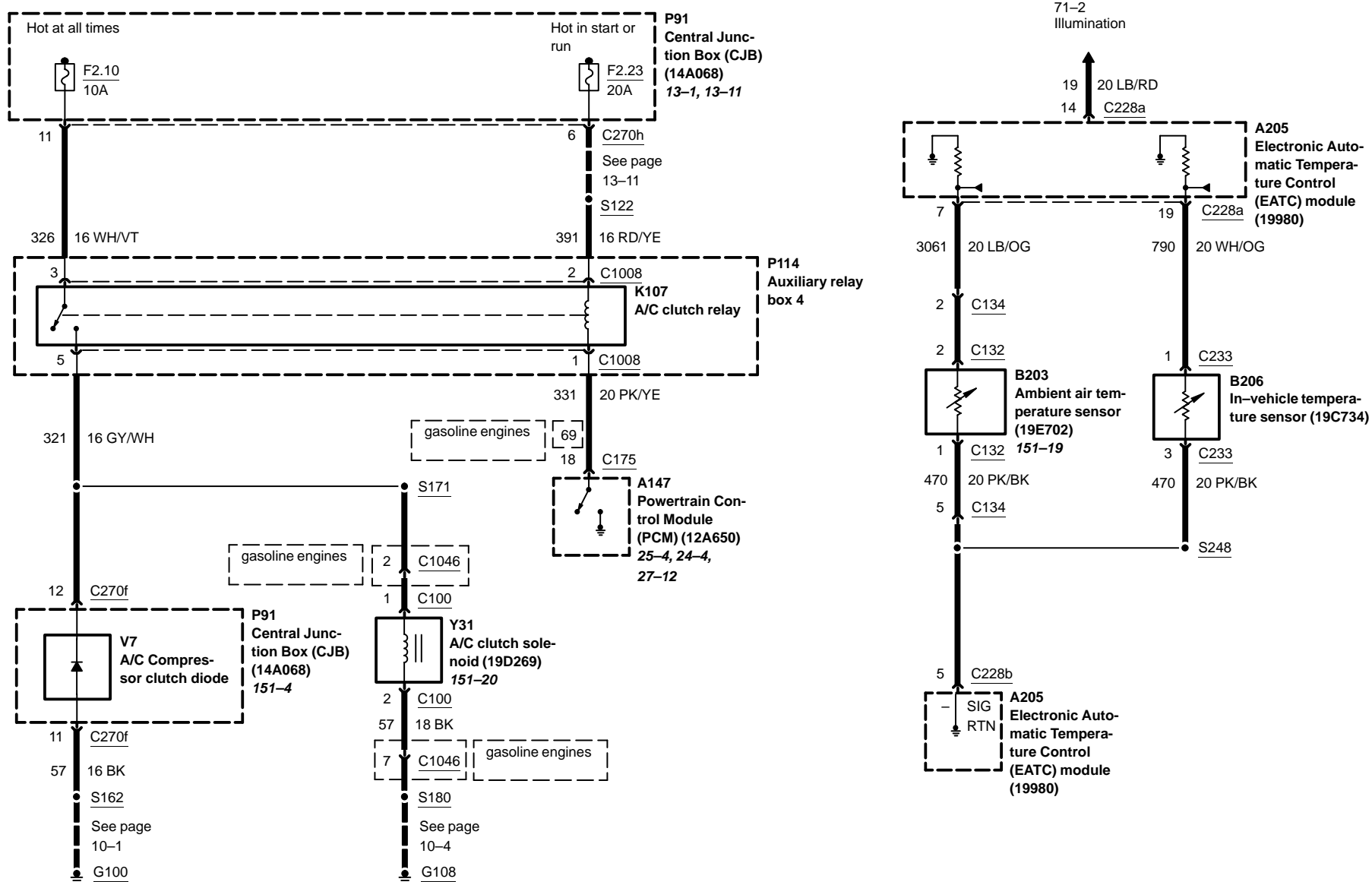
System overview

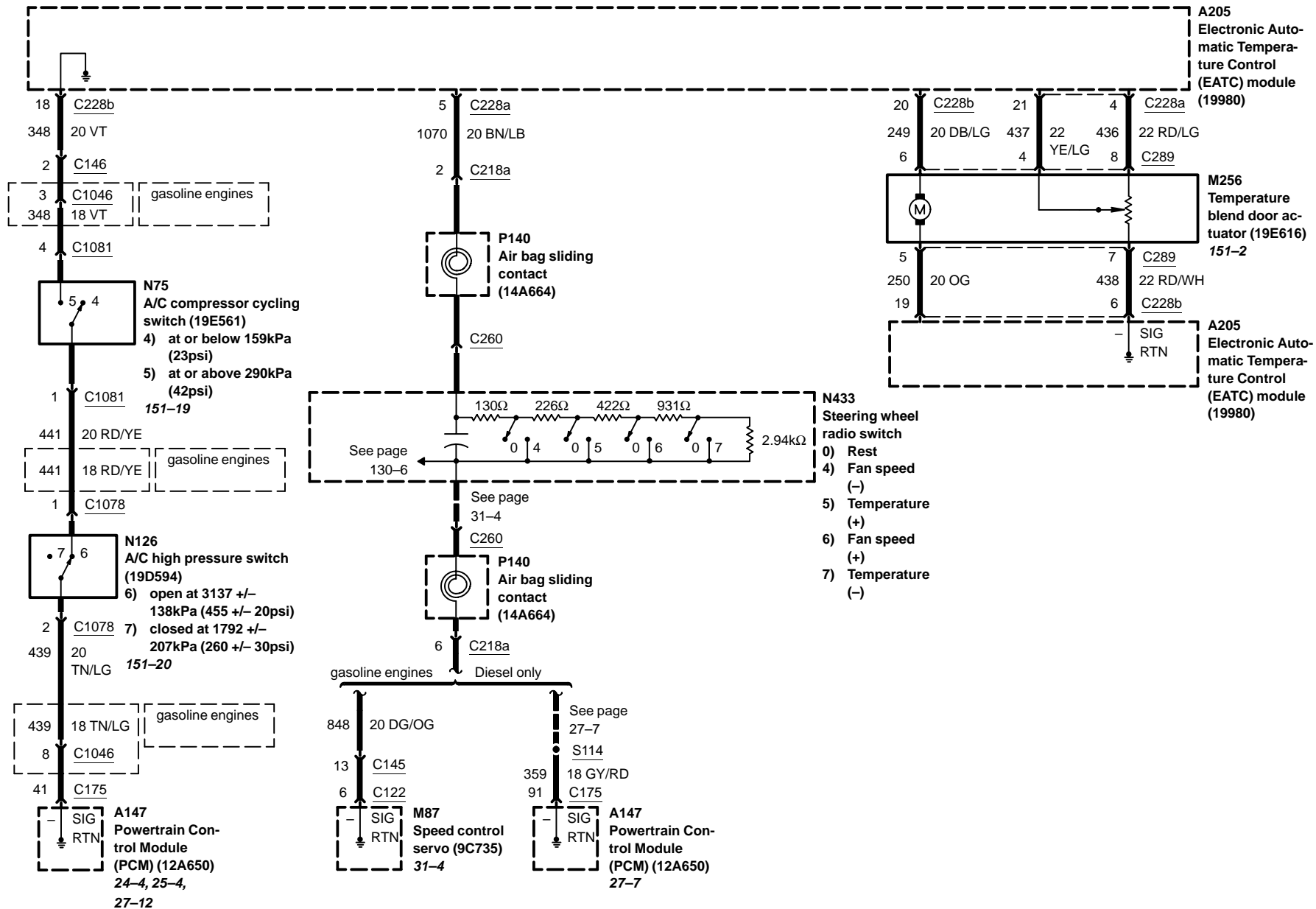


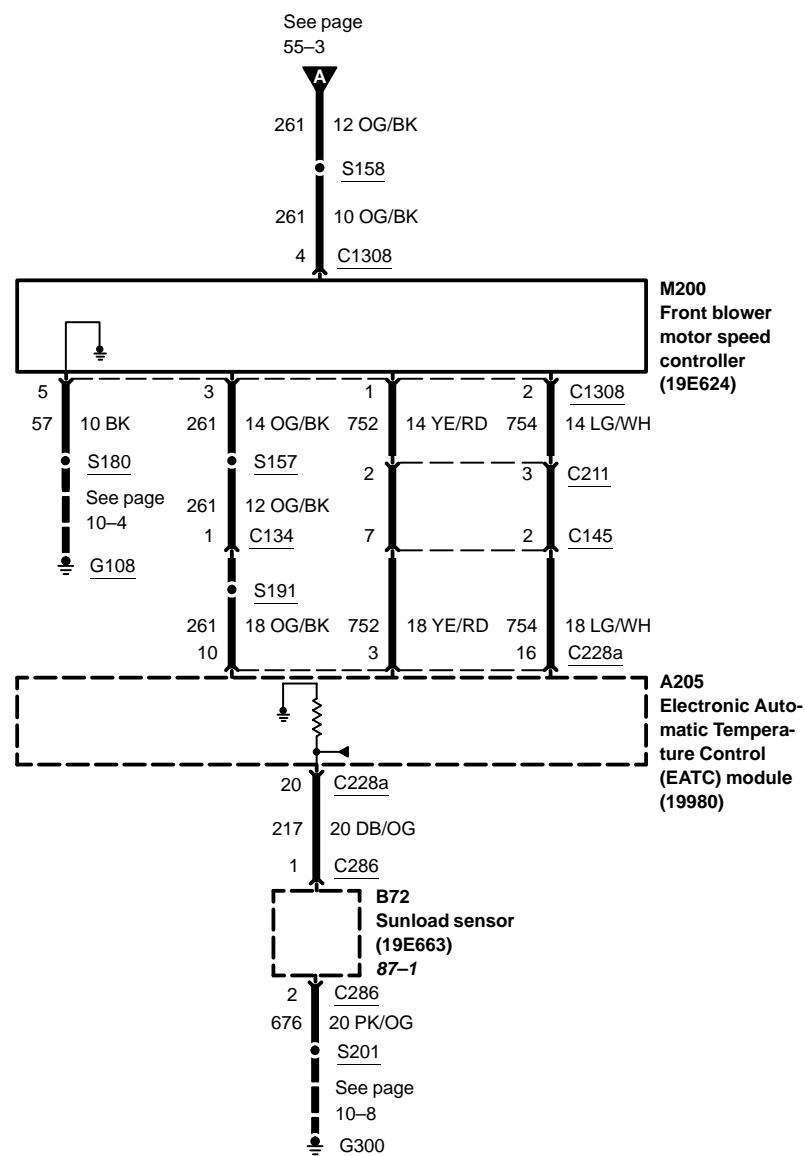
System overview



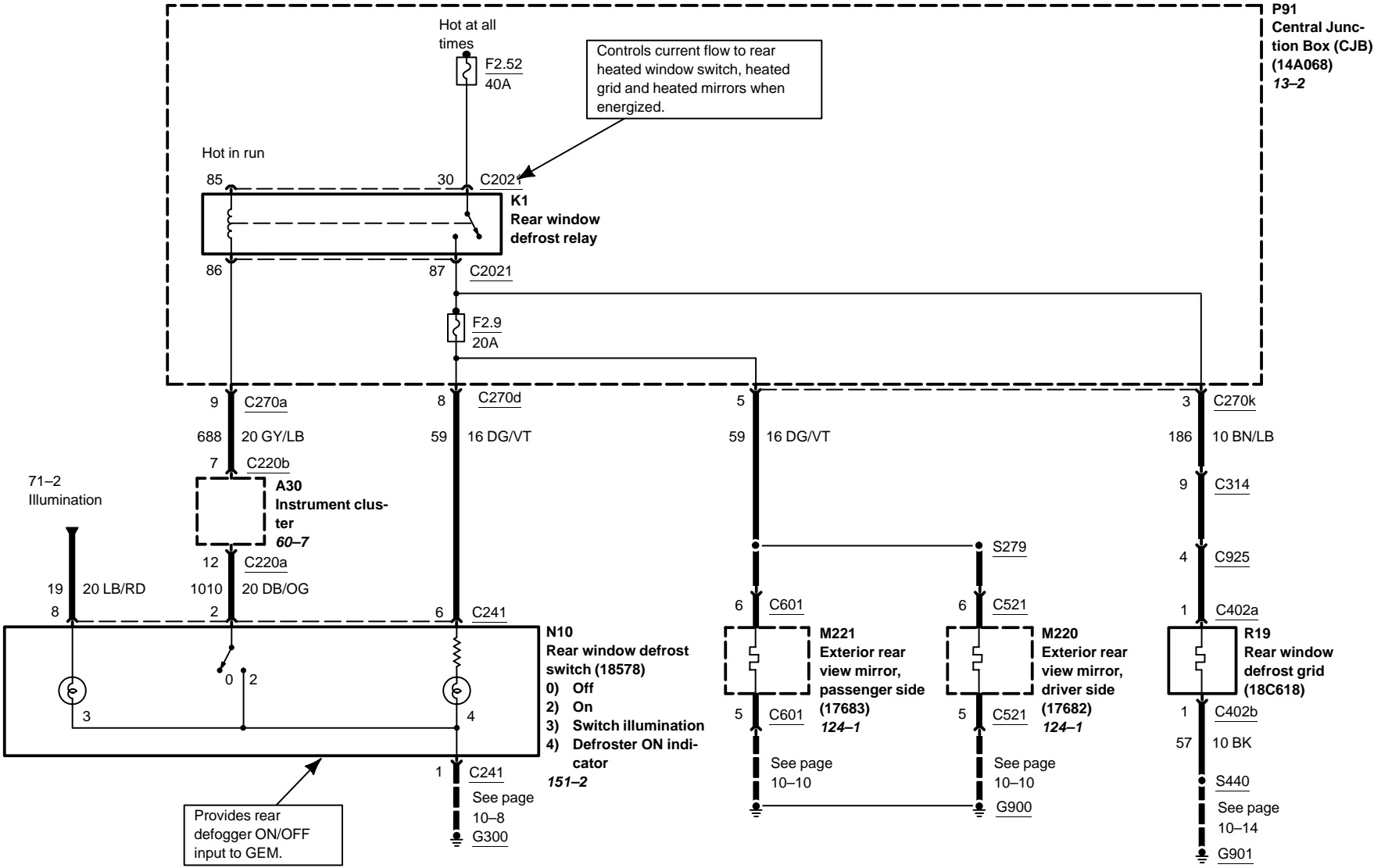


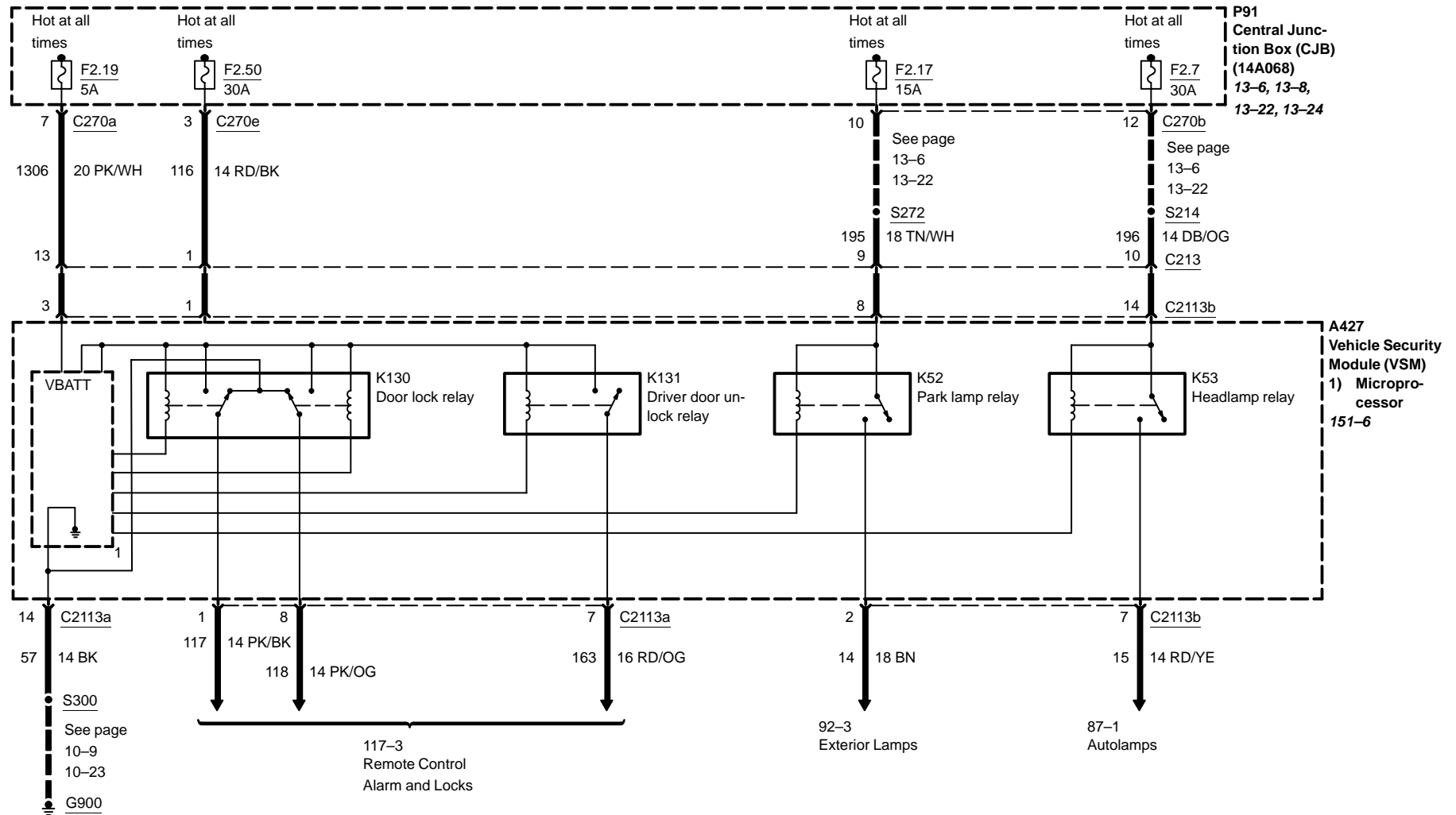


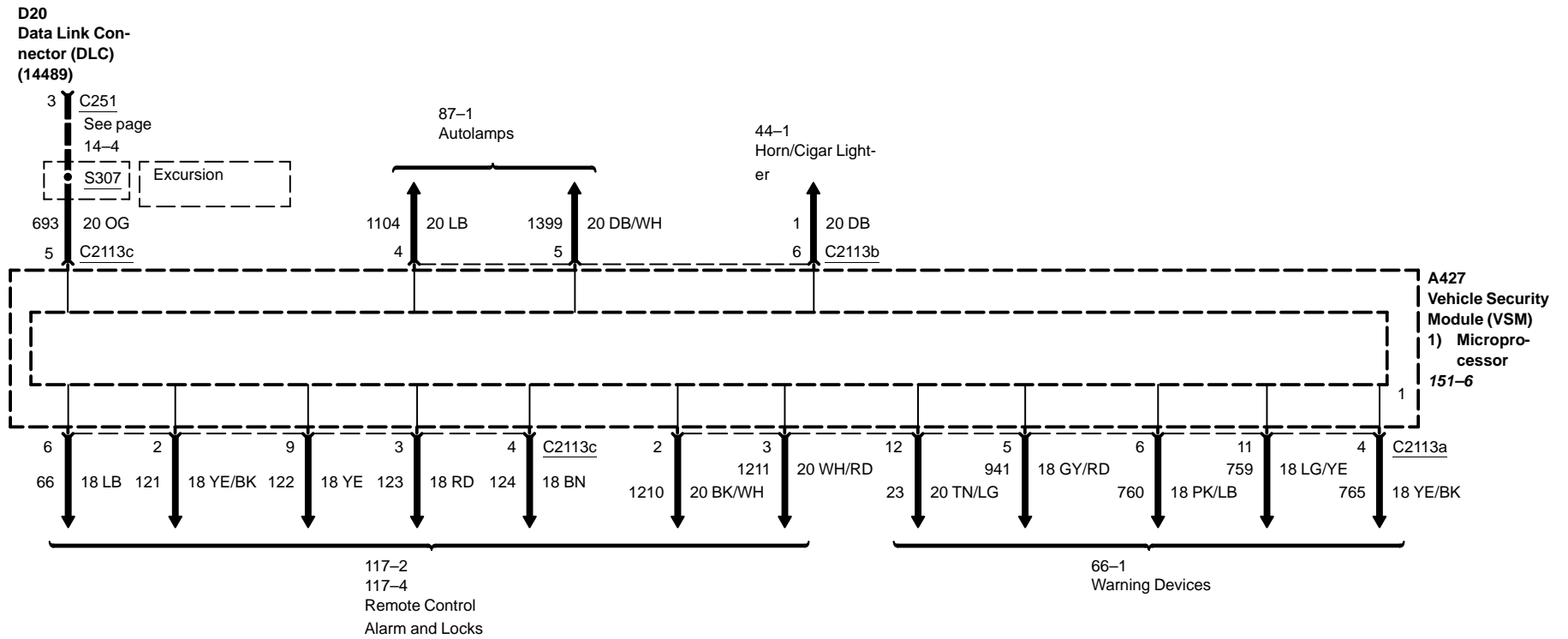




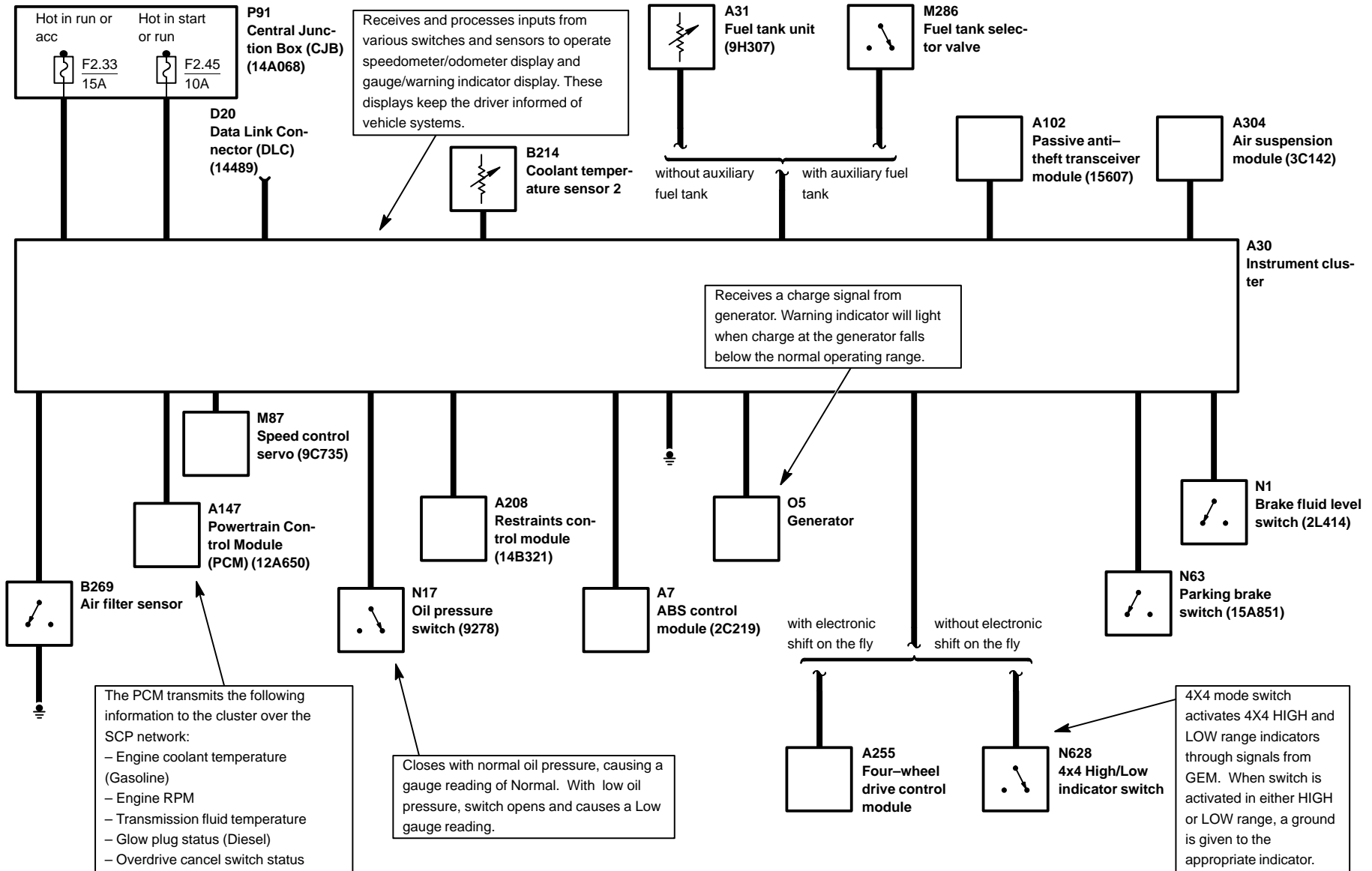
Excursion

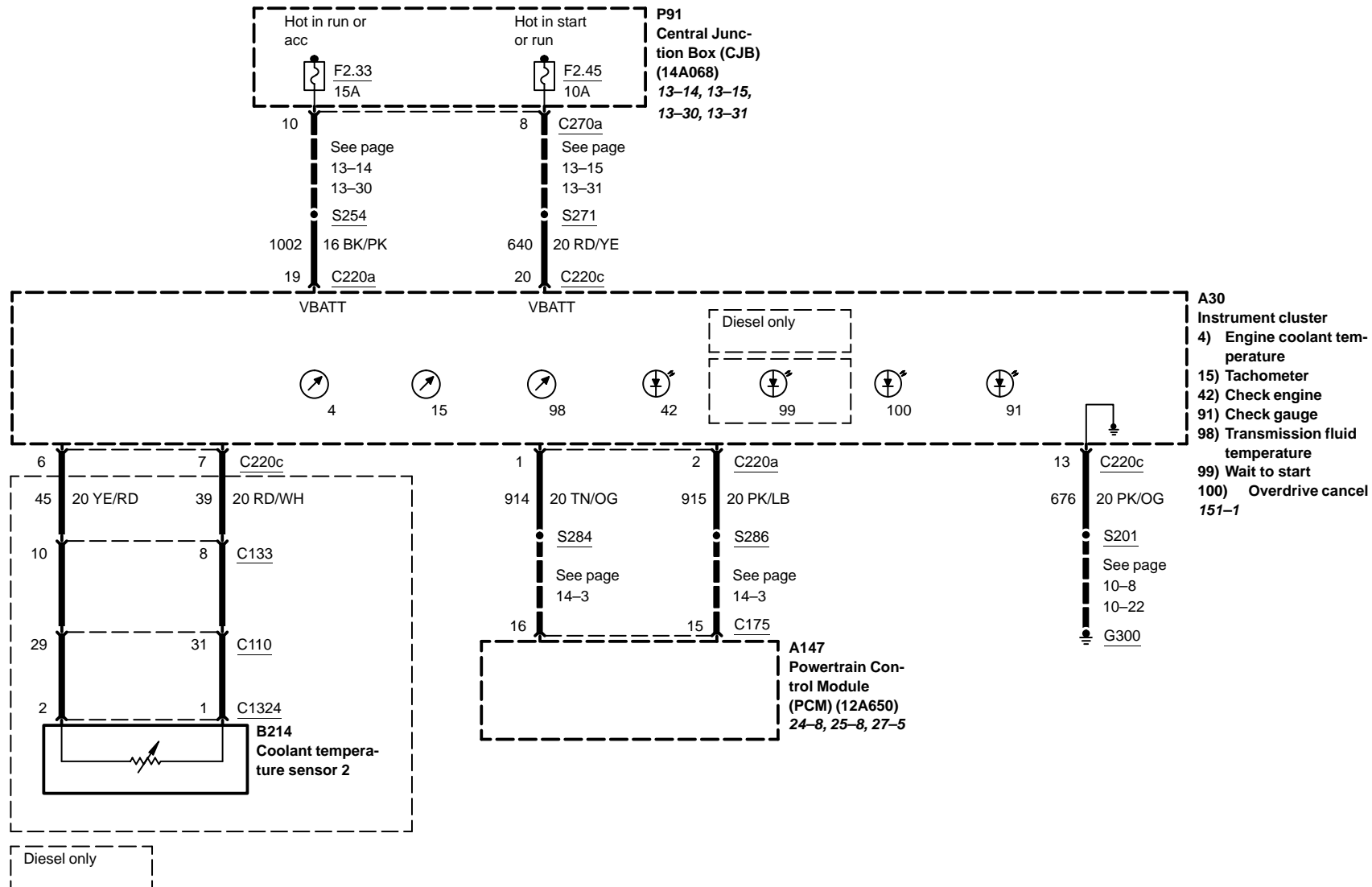


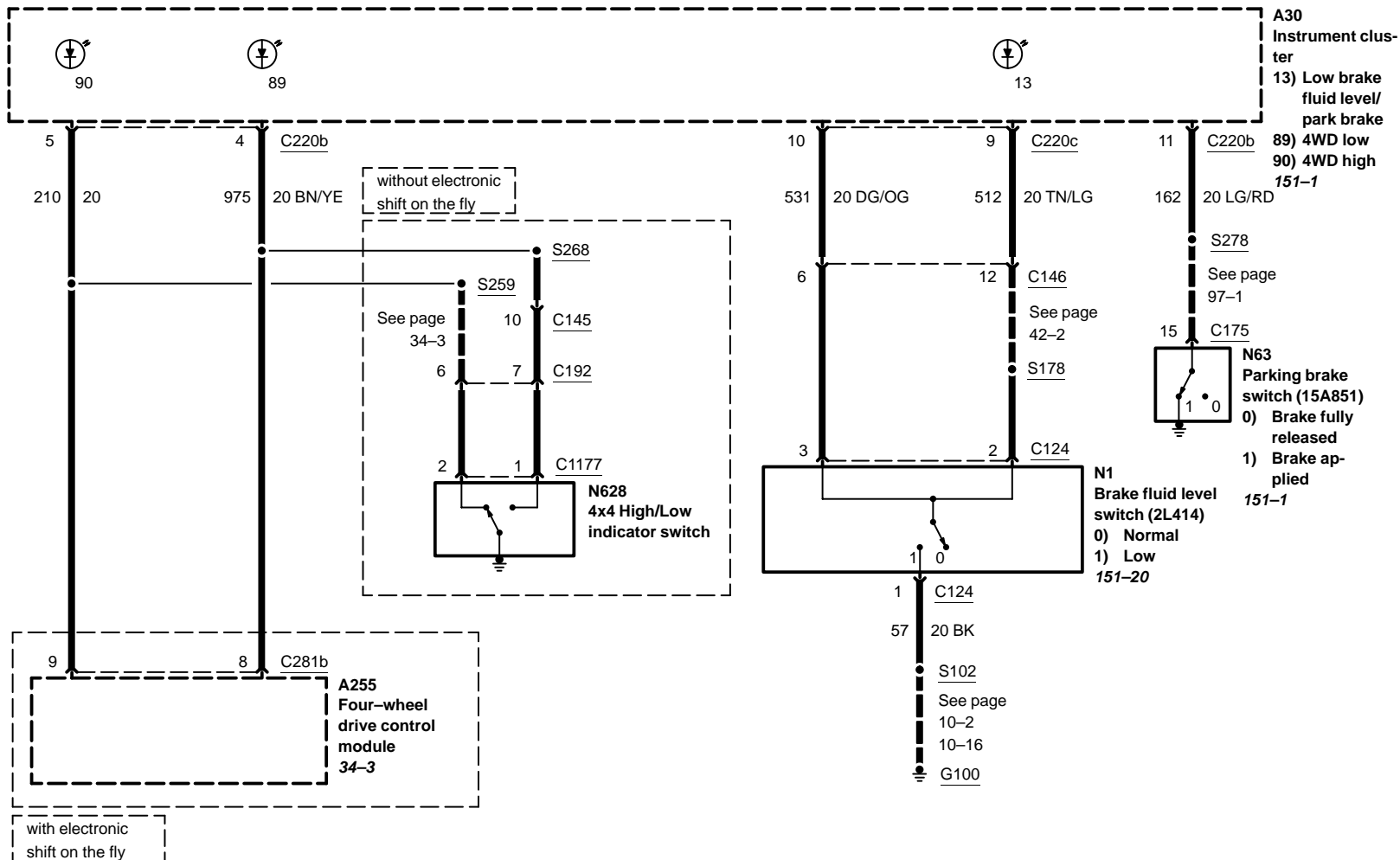


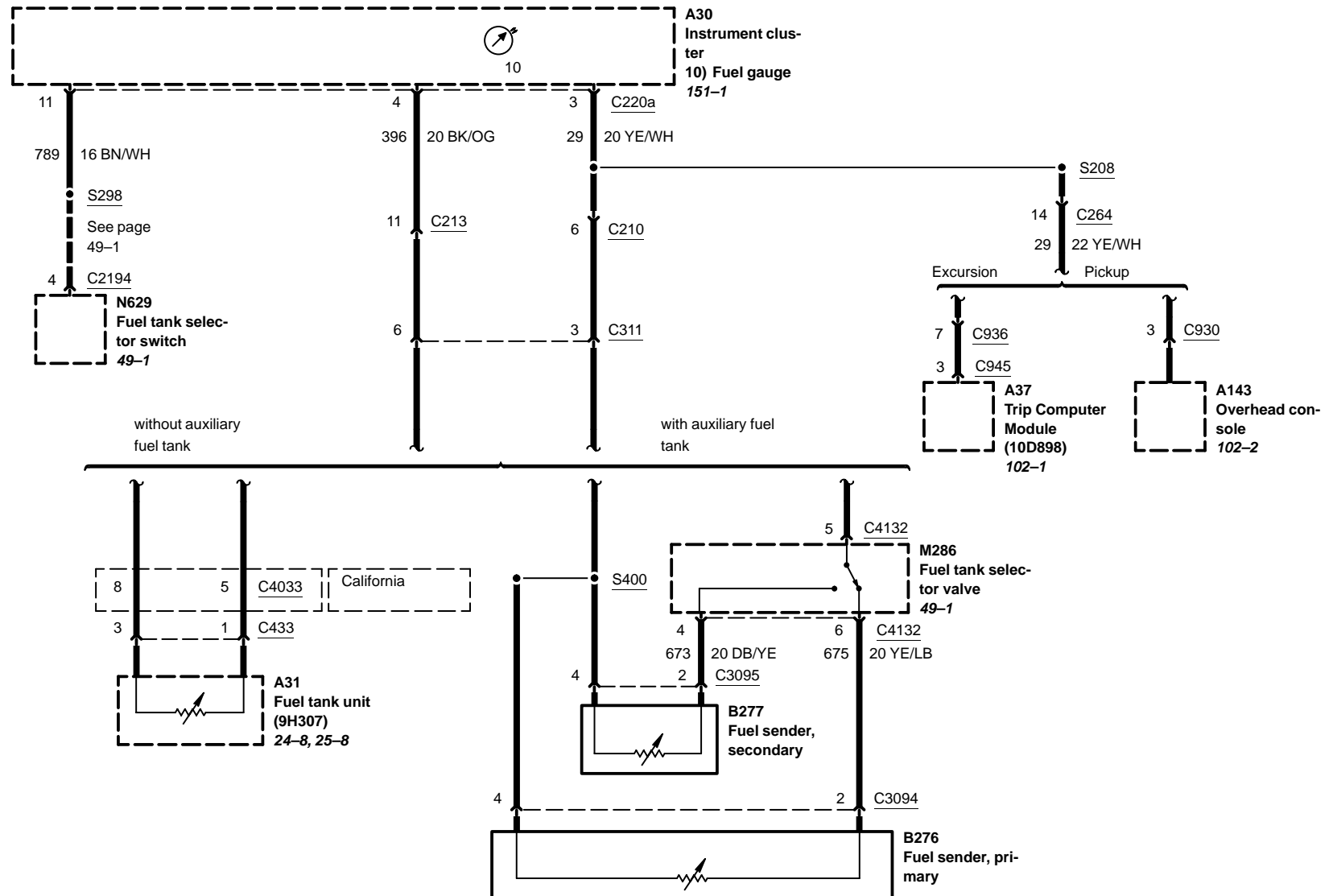


System overview

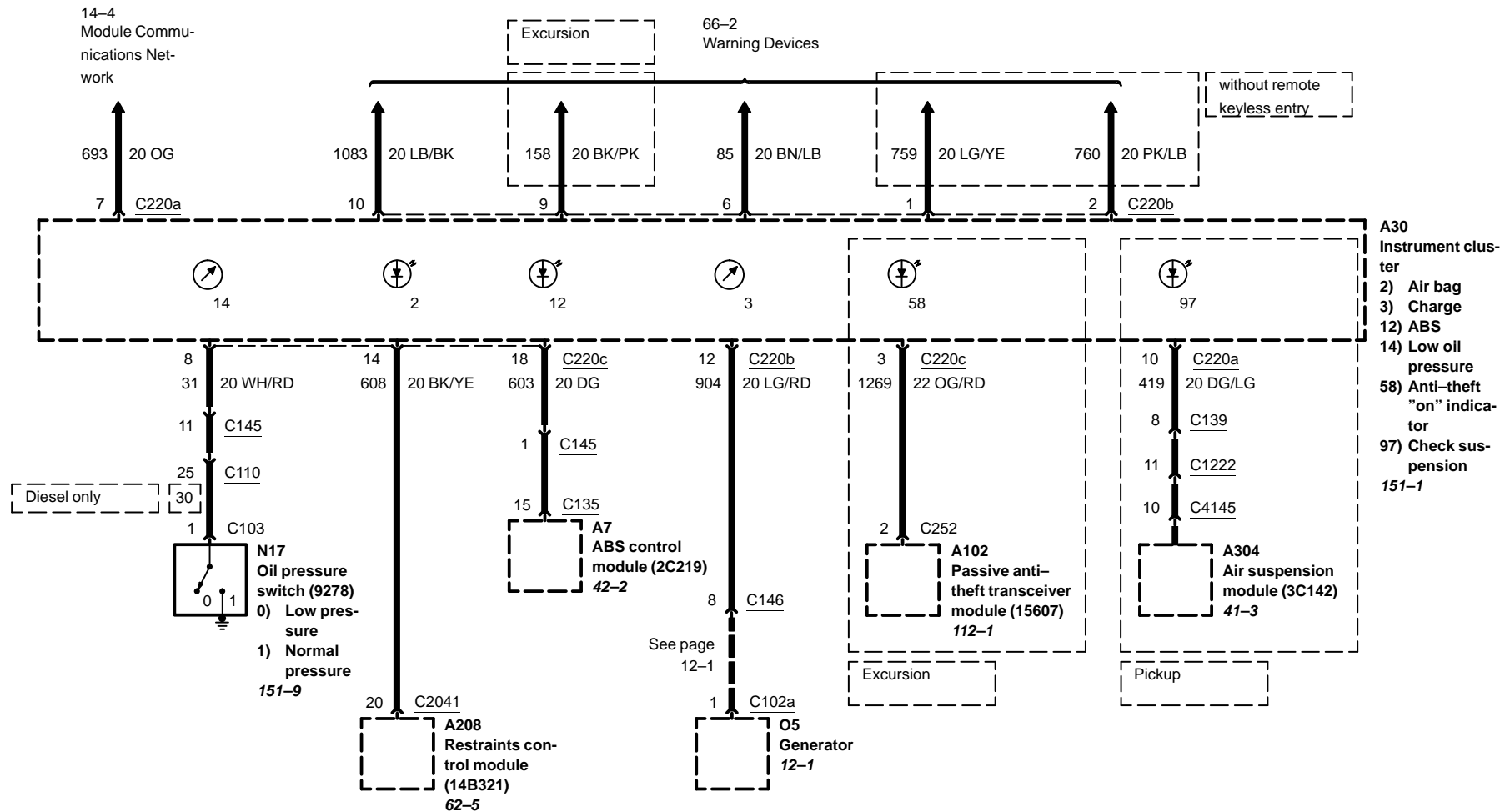


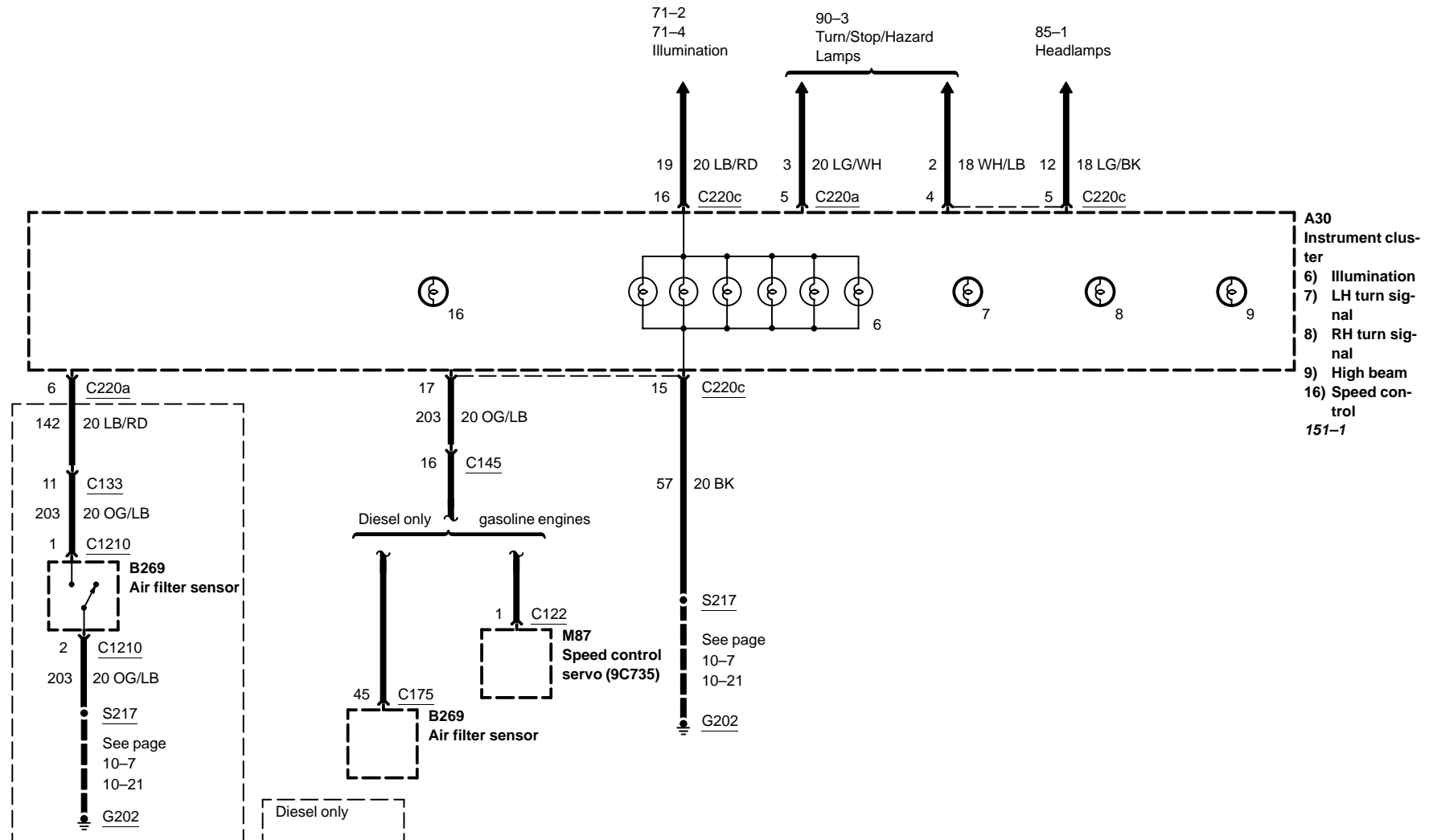


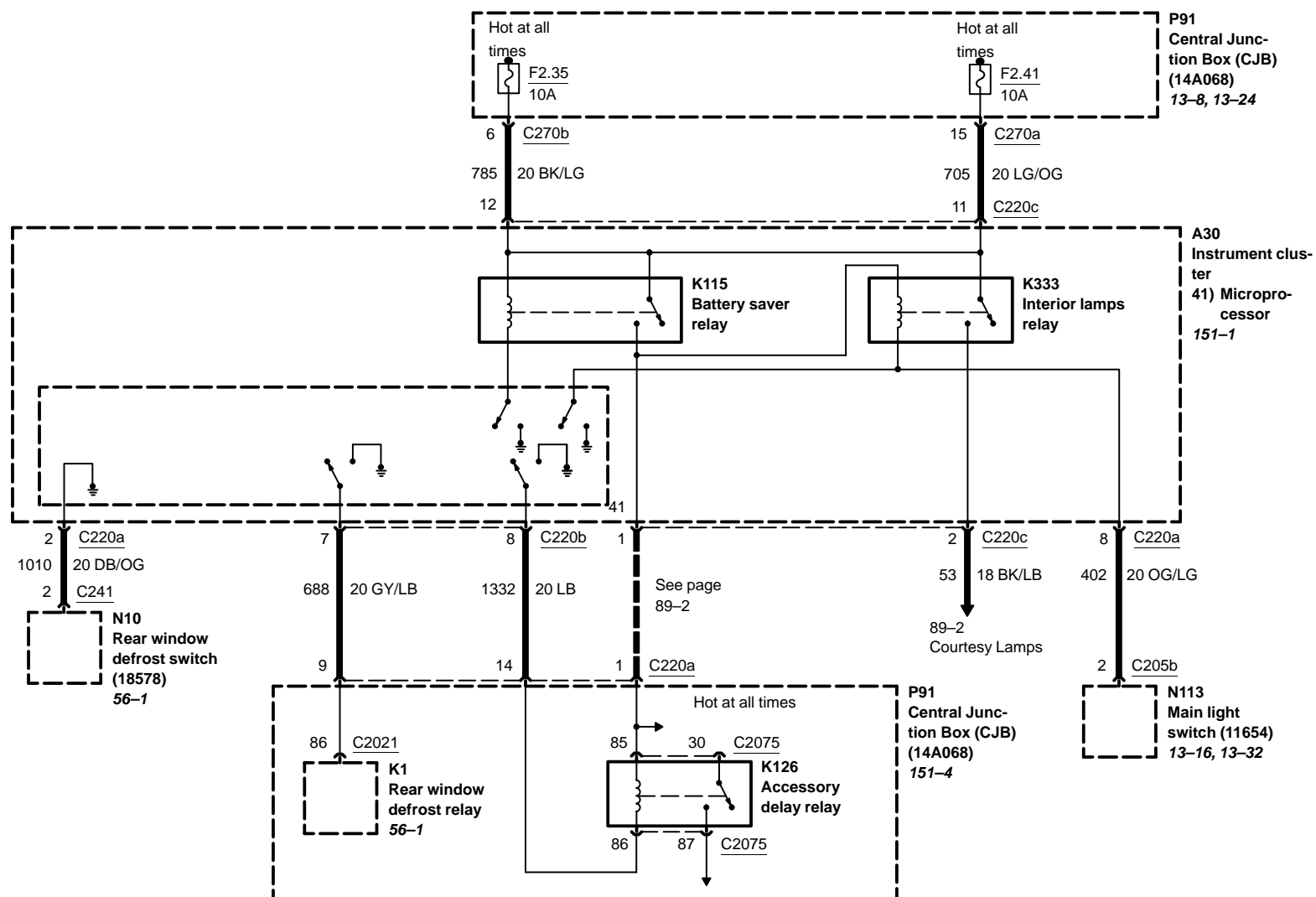




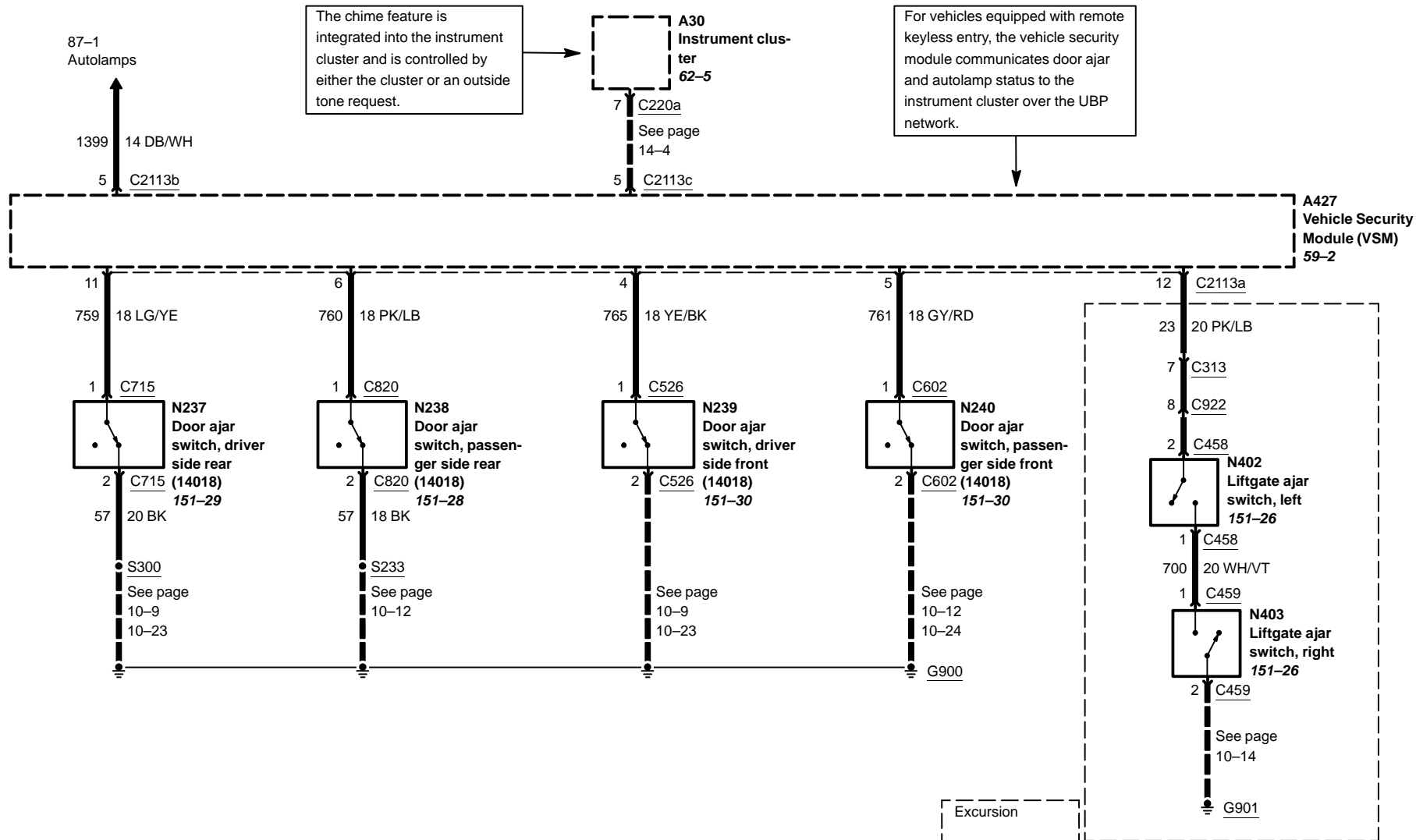
60-5 Instrument Cluster

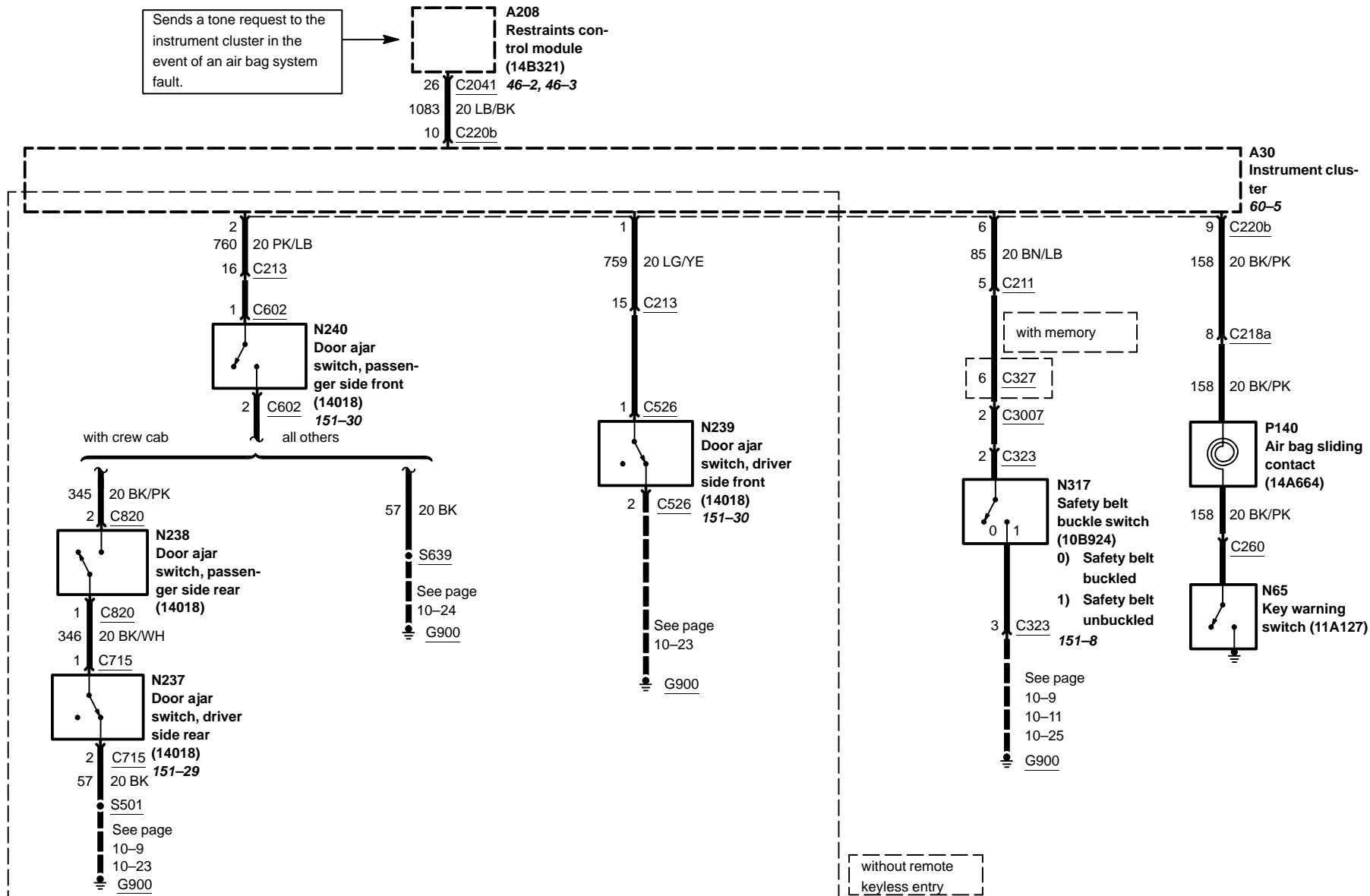


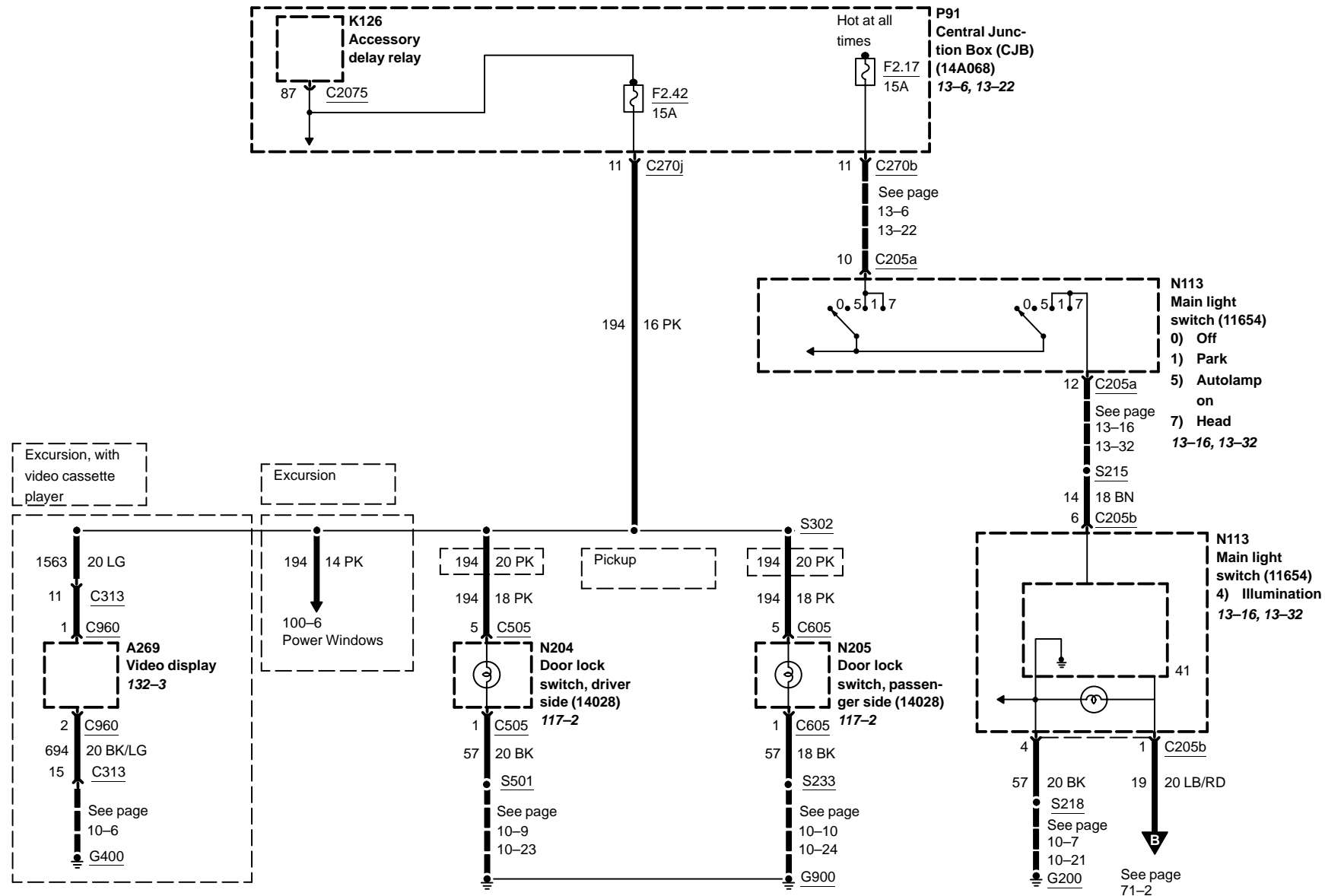




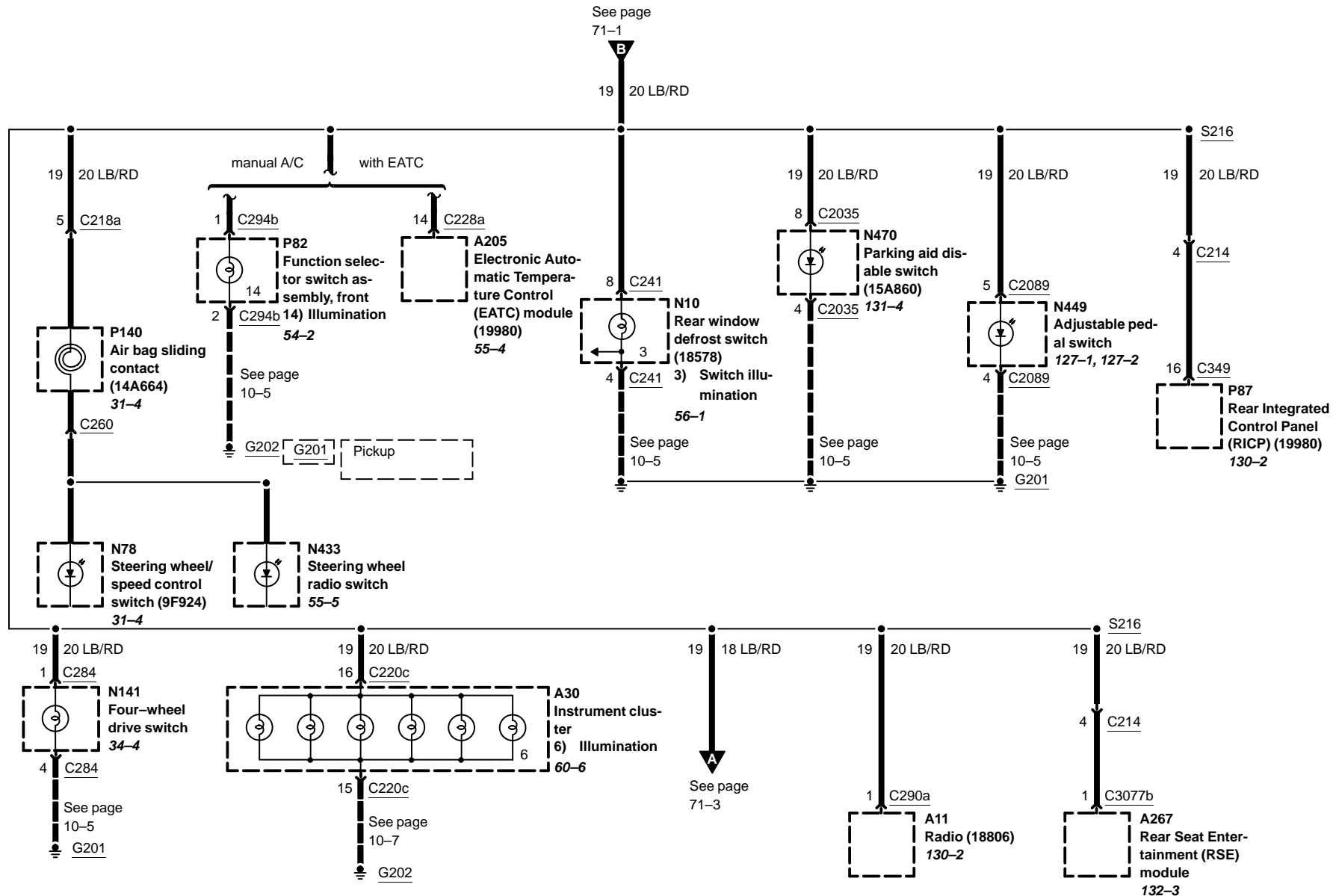
66-1 Warning Devices



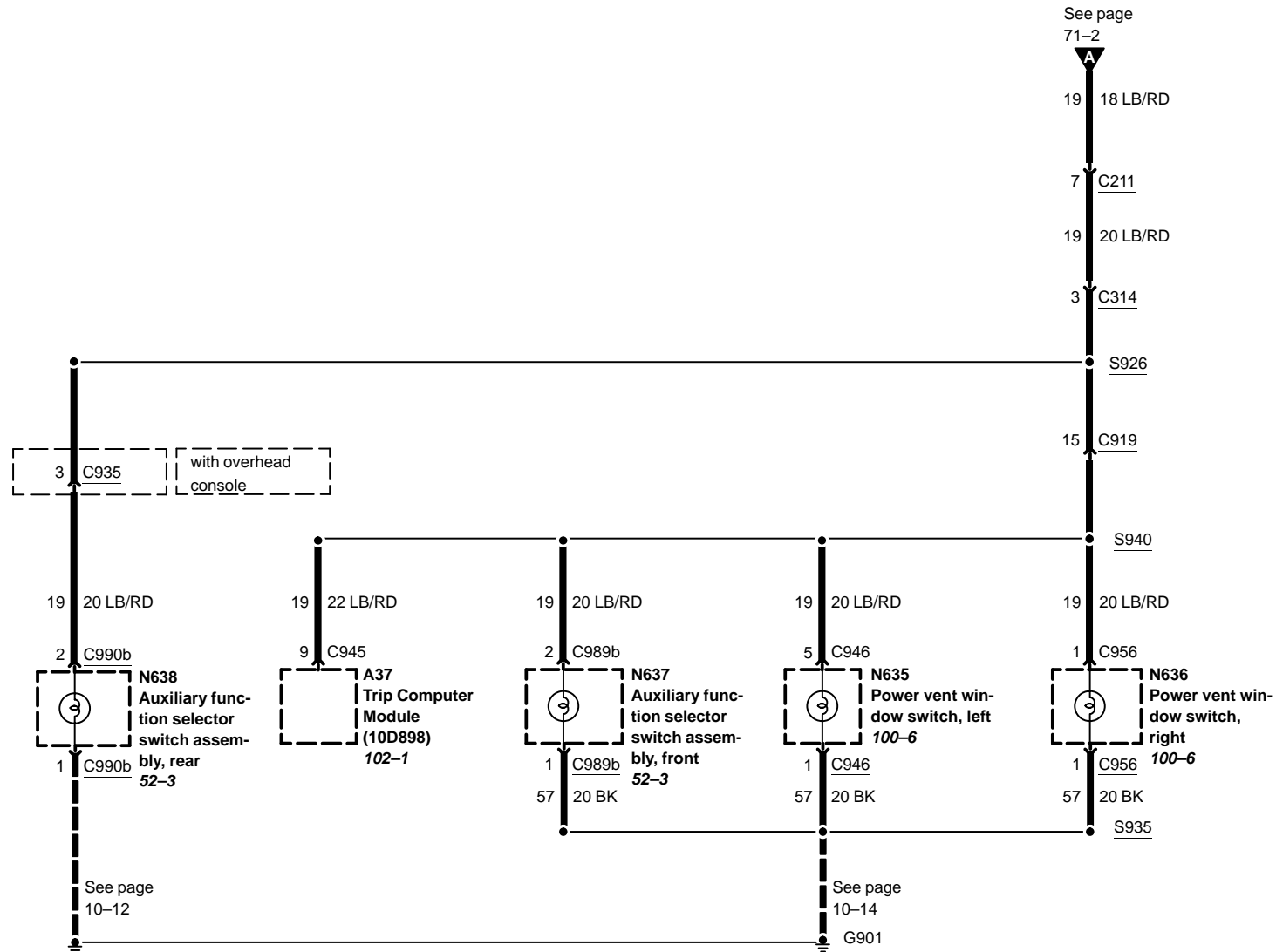




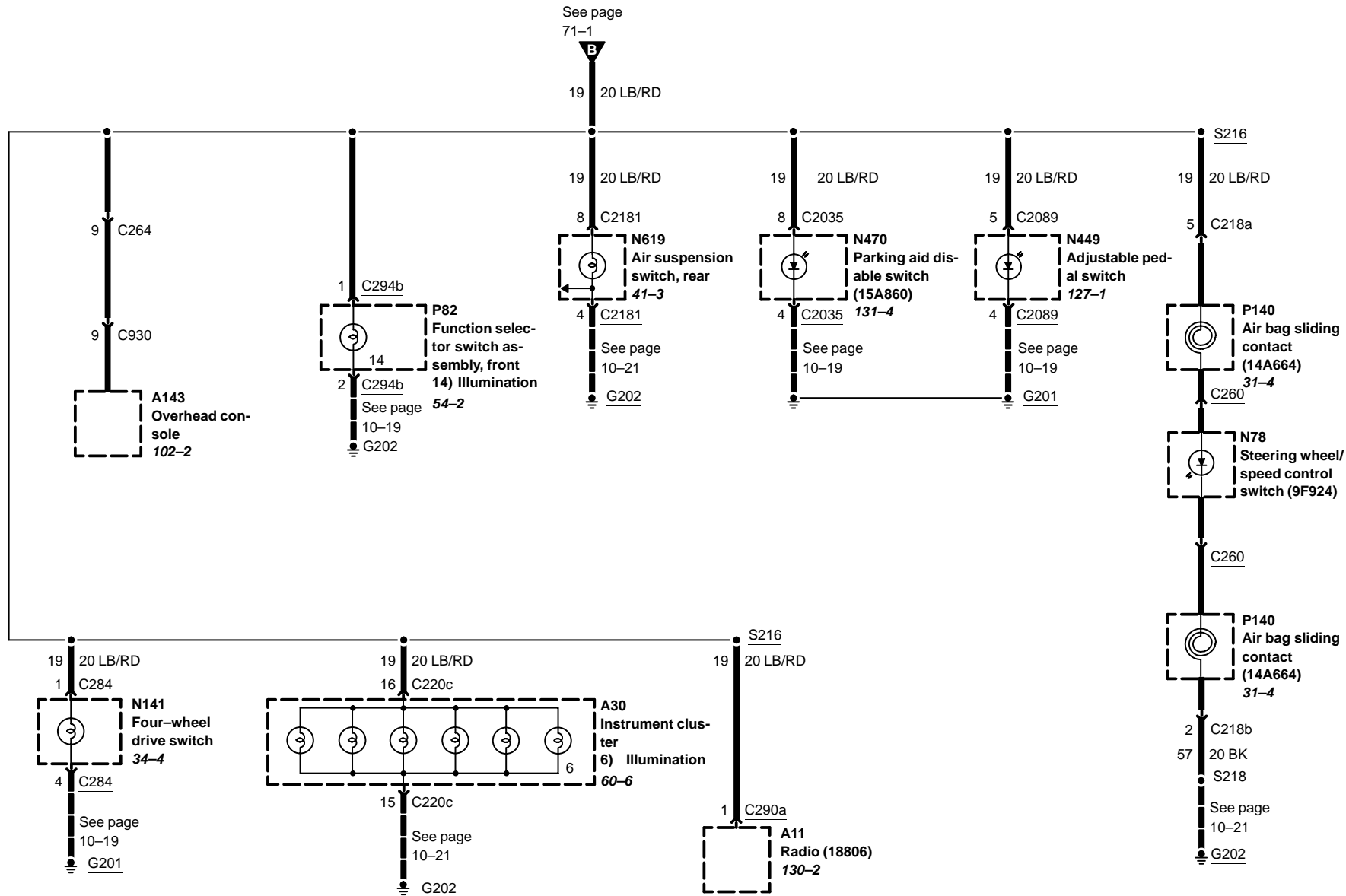
Excursion



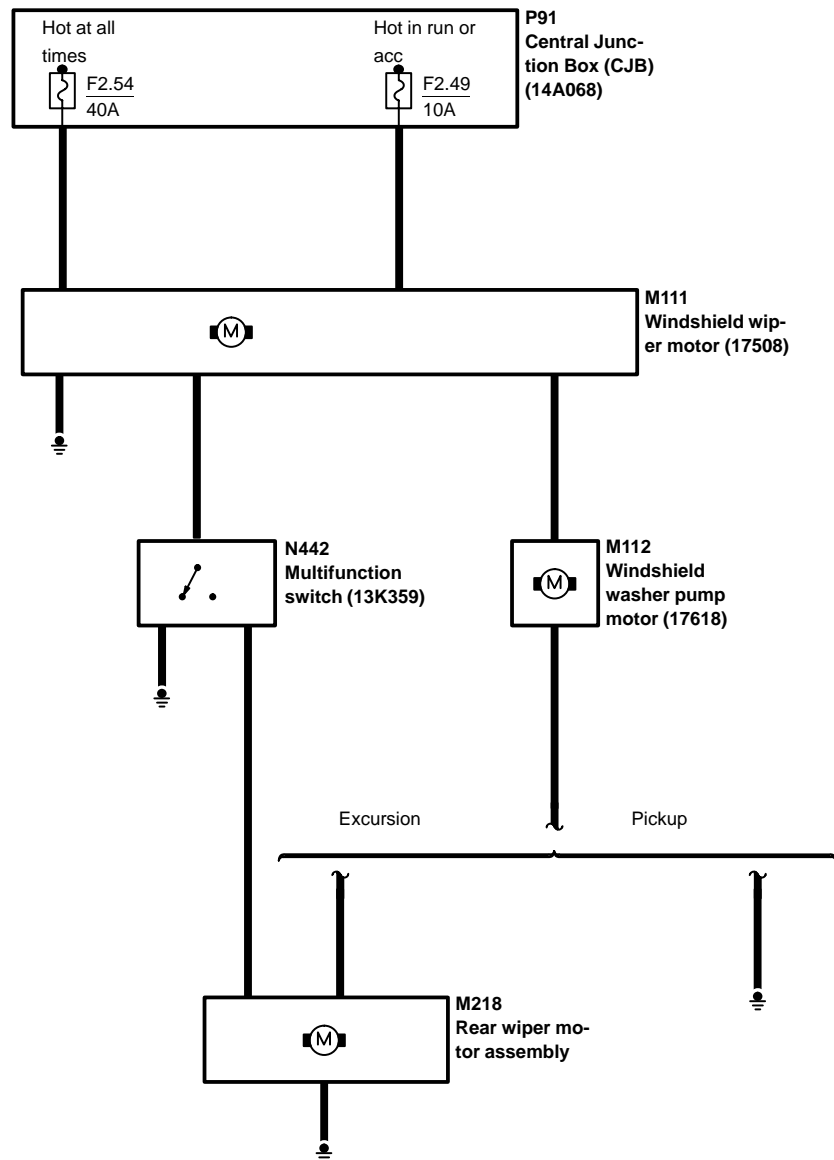
Excursion

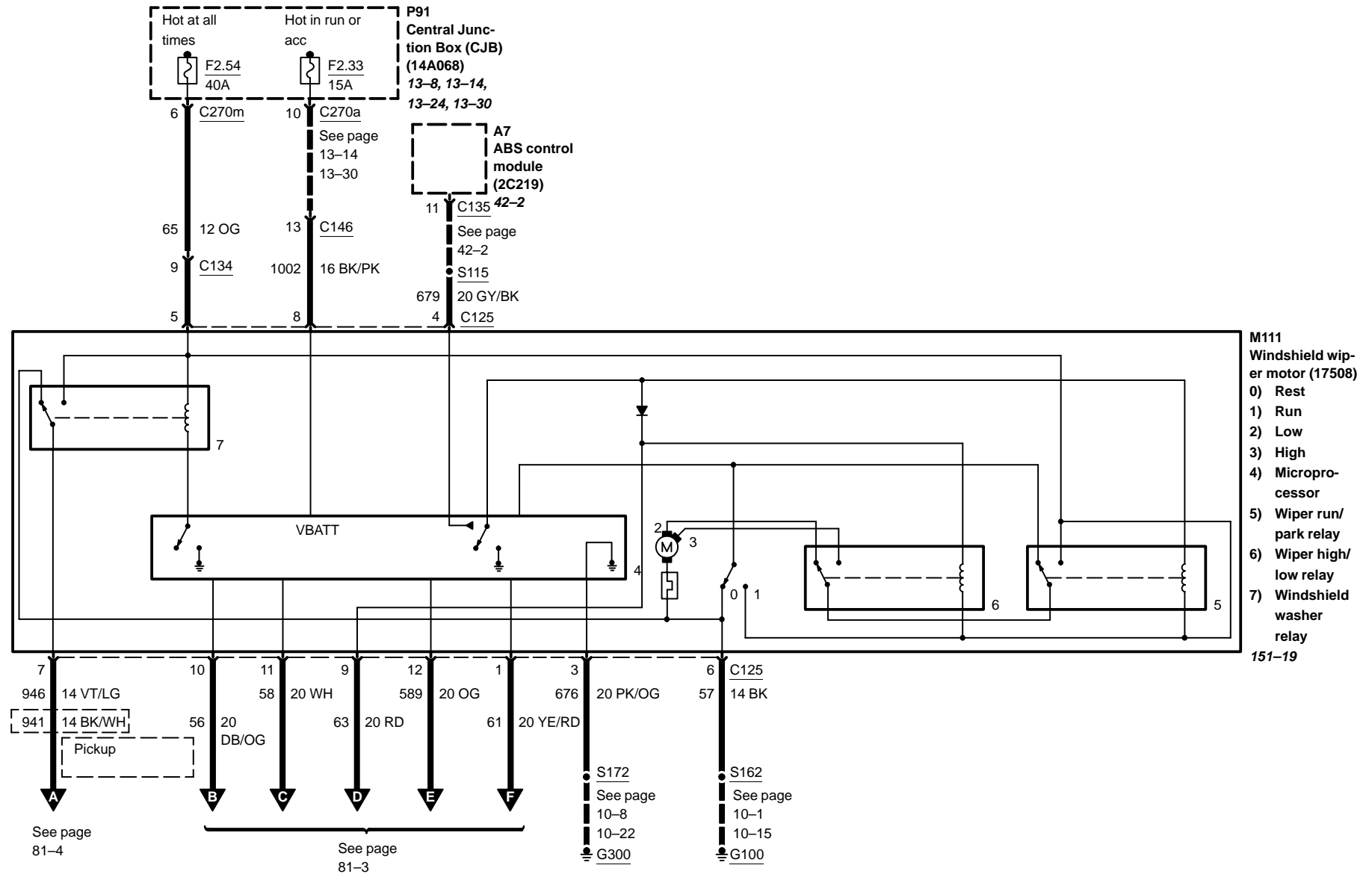


Pickup



System overview





81-3 Wipers and Washers

