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. 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 a schematic, all switches, sensors and relays are shown "at rest" (ignition switch OFF).

Splices (3)

Splices directly connecting to the power distribution are best represented on the power distribution schematic in cell 13 "Power Distribution." Splices connected to grounds can be seen completely in cell 10 "Grounds." For all other splices, a reference is given to each off page where that particular splice can be best viewed.

Component Referencing (4)

Components on a schematic have a reference to a component location view or the page where it is shown completely. The reference is located to the right of each component.

Component Names (5)

Component names are placed on the right hand side of each component when possible. Descriptions of the internals of the component are also included when available. The page where the component appears in full is listed in the Index. The base part number for a component is listed in cell 150 "Connector Views."

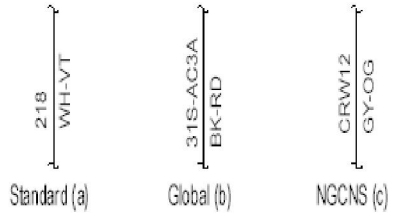
Internal Name and Function Identification Numbers (6)

Some components on each page have internal symbols with an identification number located within it. You can identify the internal symbol or function by finding the corresponding number under the component name.

Circuit Numbering and Wire Identification (7)

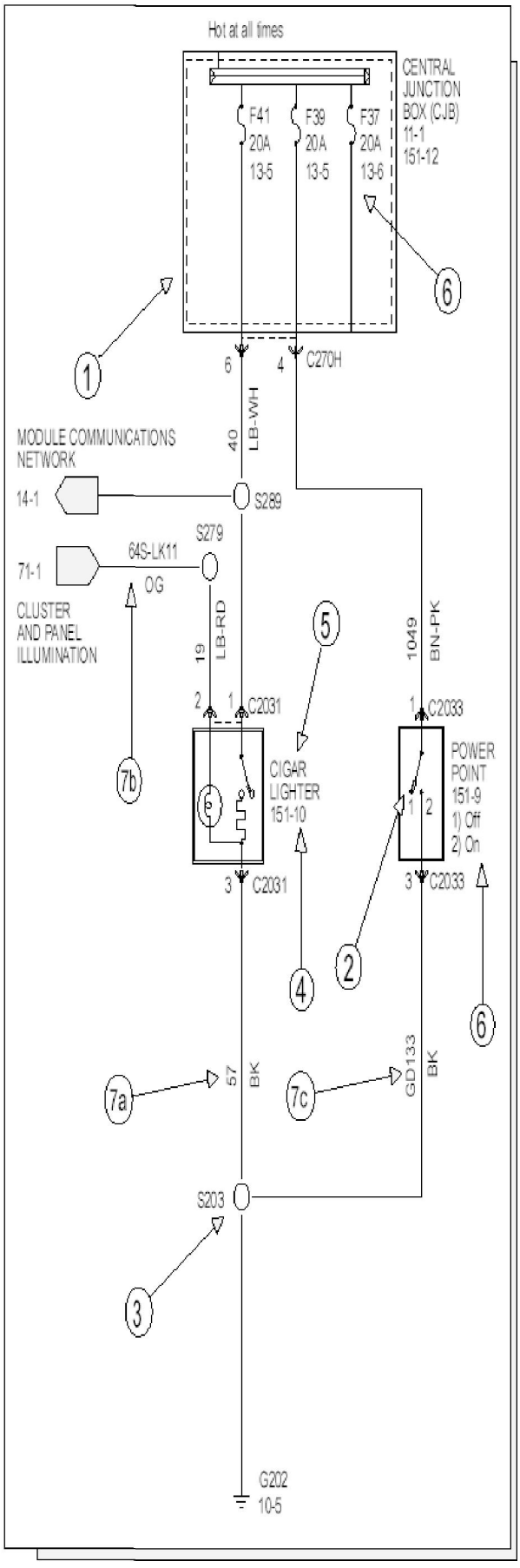
Ford Motor Company uses three different circuit numbering conventions: Standard Circuit Numbering System, Global Circuit Numbering System, and New Global Circuit Numbering System (NGCNS). With each, the circuit number (which identifies a specific circuit function) is followed by the wire color.

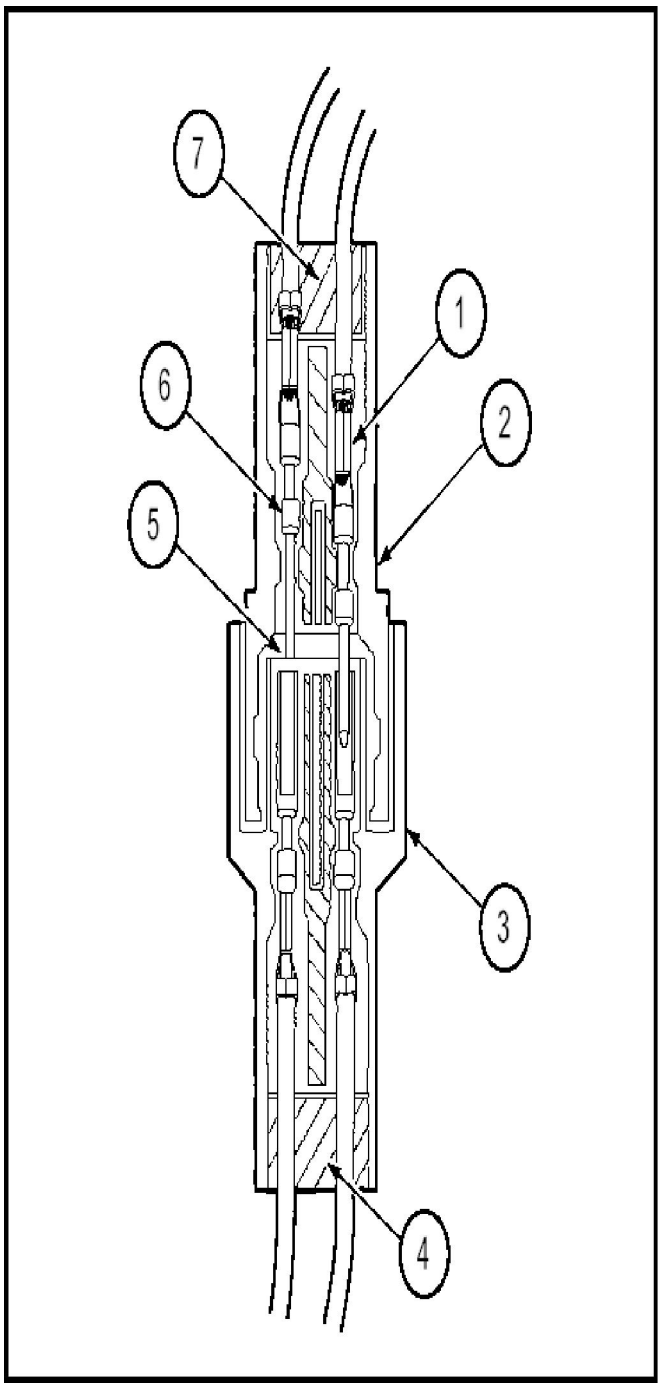
Examples:



NOTE: Refer to cell 150 "Connector Views" for circuit functions.

The wire identification consists of a basic color and possibly a stripe, and is determined directly from the wire's circuit number. In the schematics, the wire colors are indicated next to the wires. The colors are abbreviated using the international norm IEC 757. The abbreviations are listed in cell 4 "Symbols."





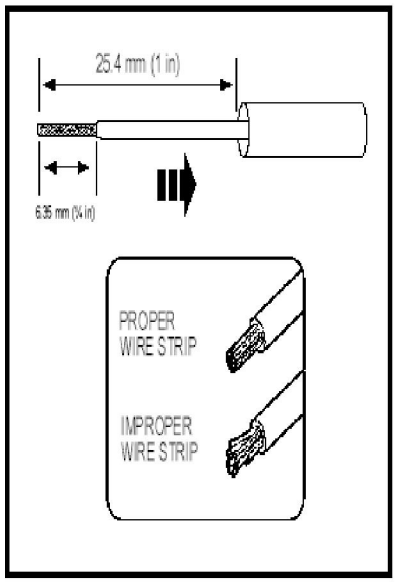
Terminal not properly seated

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.

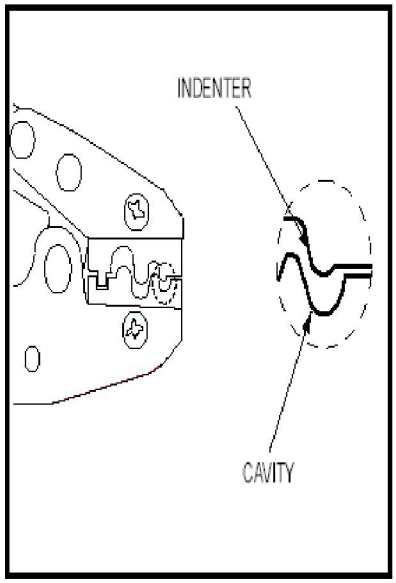
Recommended splicing method - Crimp (For 8-22 AWG / 0.35-8.26mm Diameter Wire to Like Wire Diameter)

Note: Cut and splice one circuit at a time noting the original wire to connector pin locations.
This will avoid miss-connections.



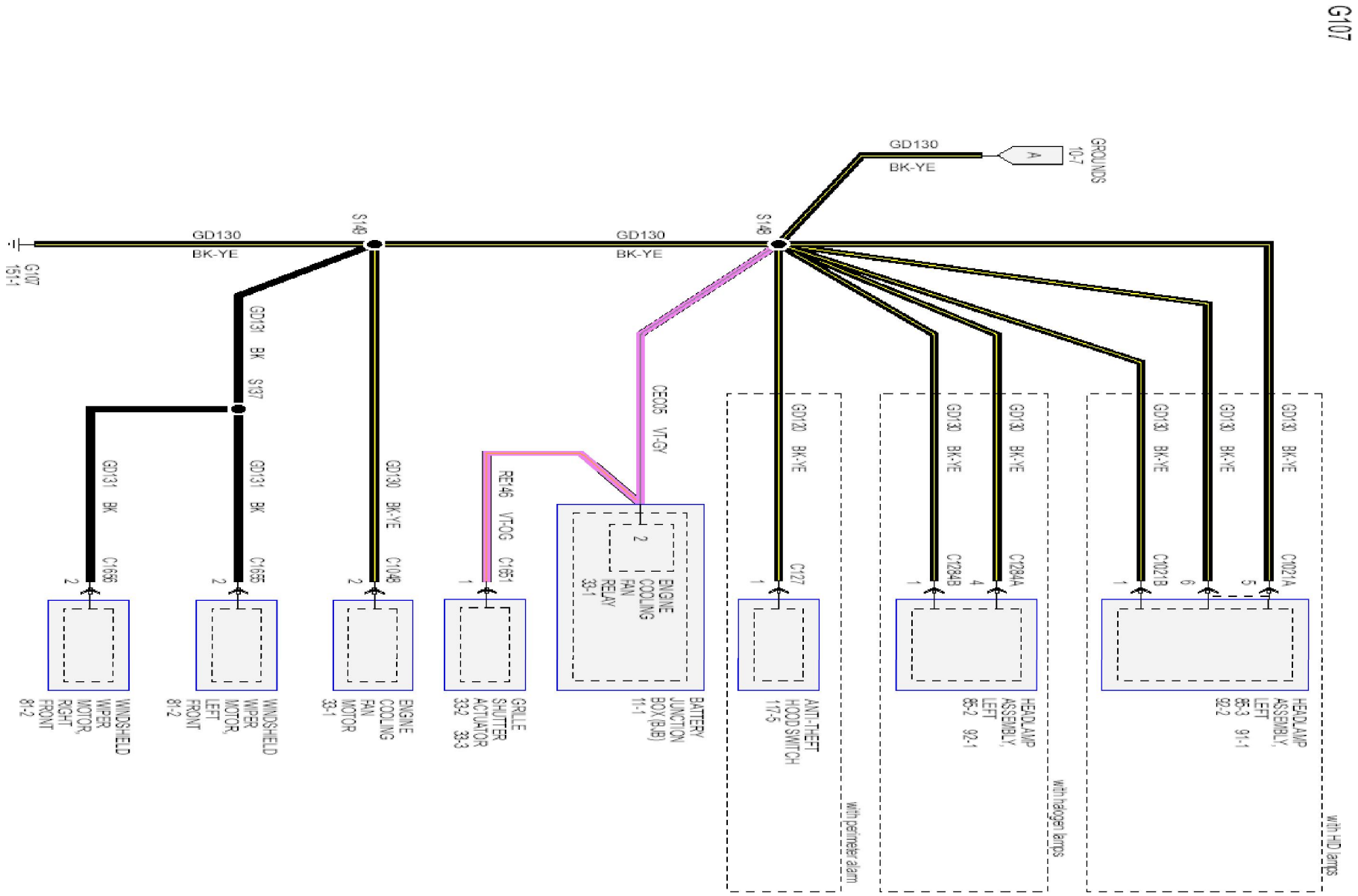
1. Disconnect battery ground cable.
2. Strip 6.35mm (1/4 in) of insulation from each wire end, taking care not to nick or cut wire strands.
3. Install heat shrink tubing.

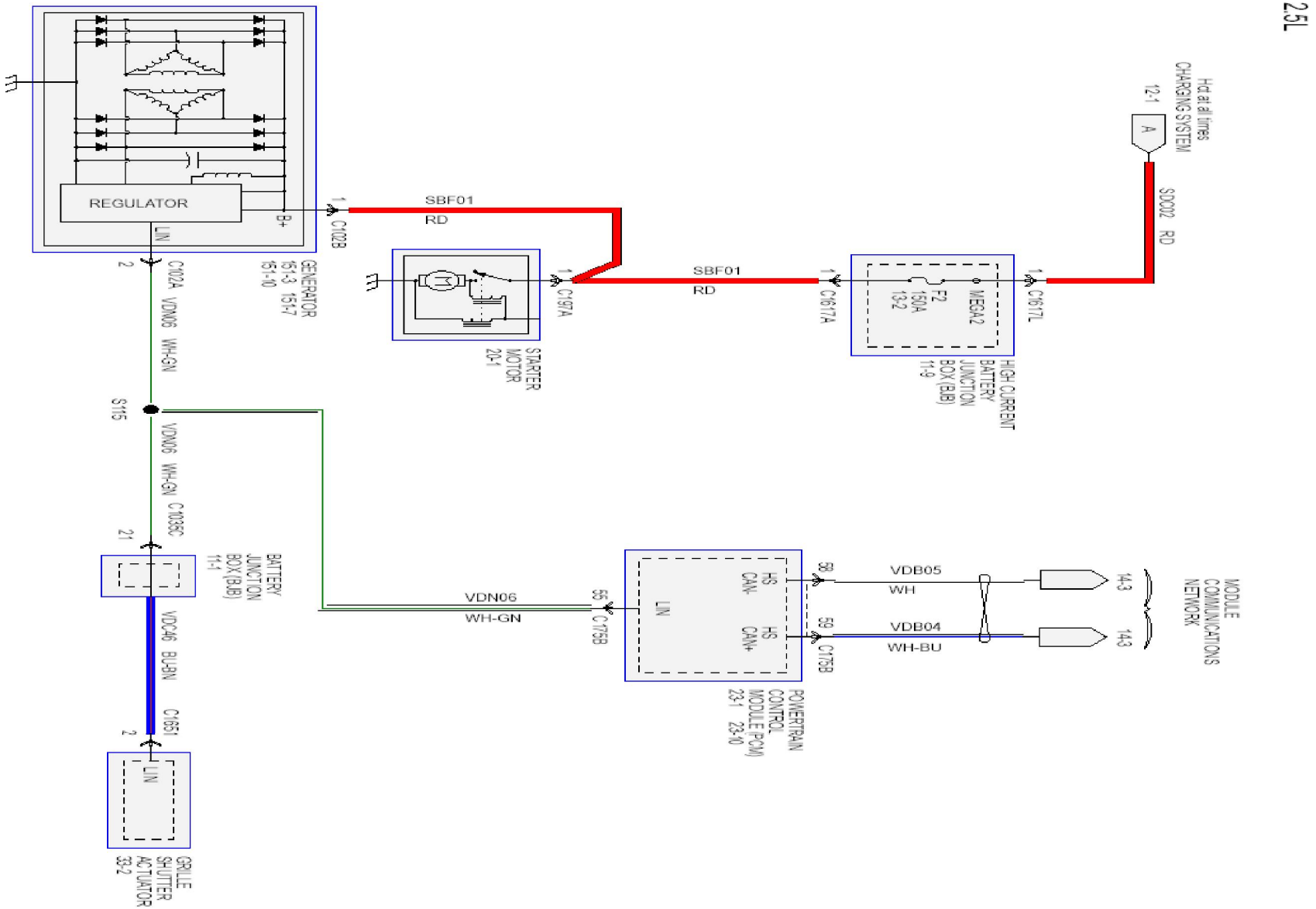
NOTE: Use Motorcraft heat shrinkable tubes:
Part # WT-56869 for 8 AWG
Part # WT-56816 for 10-12 AWG
Part # WT-56815 for 14-16 AWG
Part # WT-56814 for 18-22 AWG



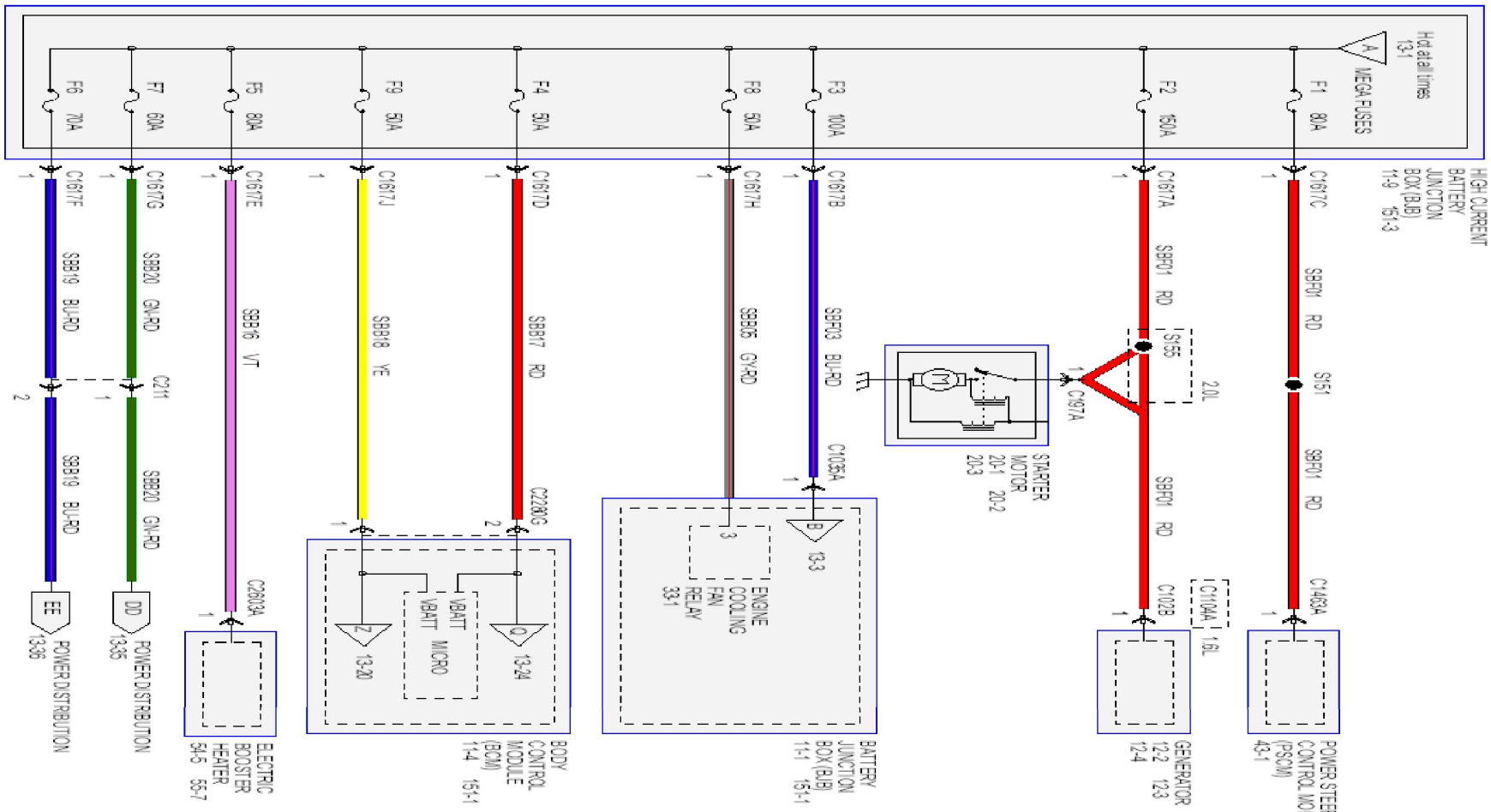
4. Select appropriate wire splice for the wires to be spliced.
5. Identify the appropriate crimping chamber on the Rotunda NAIAT-R5903 Pro-Crimper by matching the wire size on the dies with the wire size stamped on the butt splice.

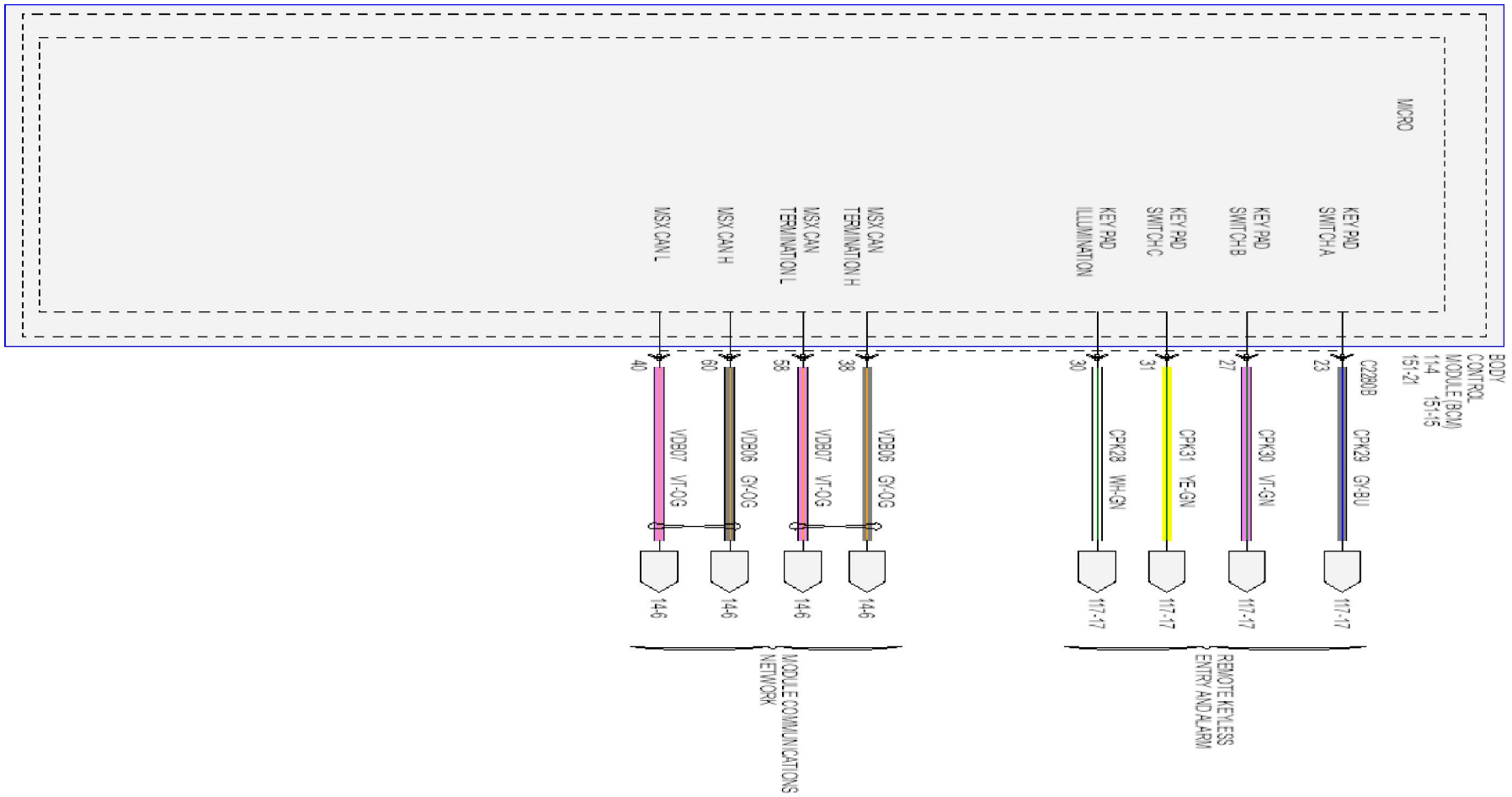
NOTE: Rotunda NAIAT-R5903 Pro-Crimper is the only tool that can be used with these splices.

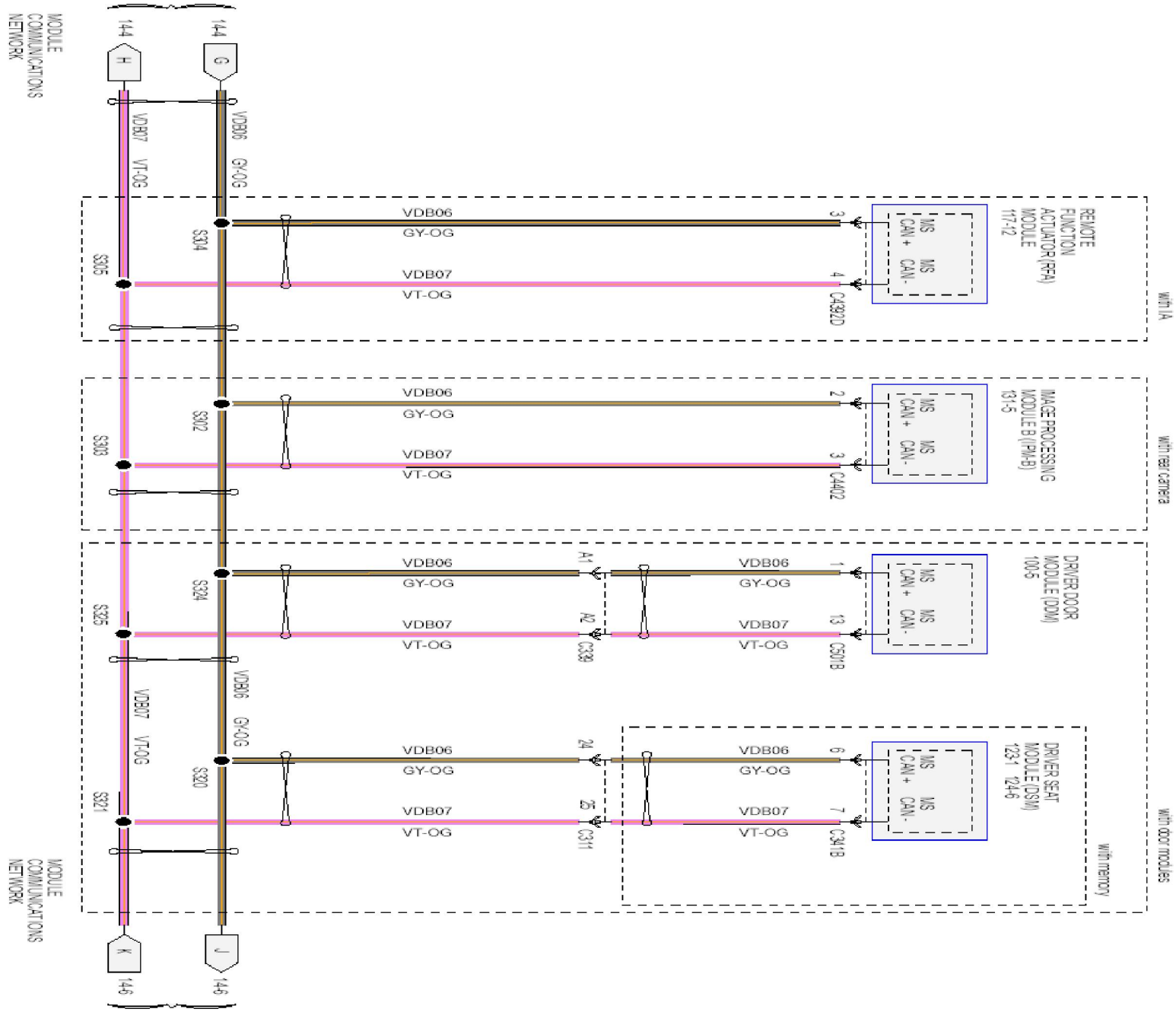

G107
GROUNDS
10-7
A
GD130
BK-YE
S149
G107
151-1
GD131 BK S137
GD131 BK C1636
2
WINDSHIELD WIPER MOTOR, RIGHT FRONT
81-2
GD131 BK C1635
2
WINDSHIELD WIPER MOTOR, LEFT FRONT
81-2
GD130 BK-YE C1048
2
ENGINE COOLING FAN MOTOR
33-1
RE146 VT-OG C1651
1
GRILLE SHUTTER ACTUATOR
33-2 33-3
CE005 VT-GY
2
ENGINE COOLING FAN RELAY
33-1
BATTERY JUNCTION BOX (BJB)
11-1
GD120 BK-YE C127
1
ANTI-THEFT HOOD SWITCH
117-5
with perimeter alarm
GD133 BK-YE C1284A
4
GD133 BK-YE C1284B
1
HEADLAMP ASSEMBLY, LEFT
85-2 92-1
with halogen lamps
GD133 BK-YE C1021B
1
GD133 BK-YE C1021A
5
6
HEADLAMP ASSEMBLY, LEFT
85-3 91-1
92-2
with HID lamps

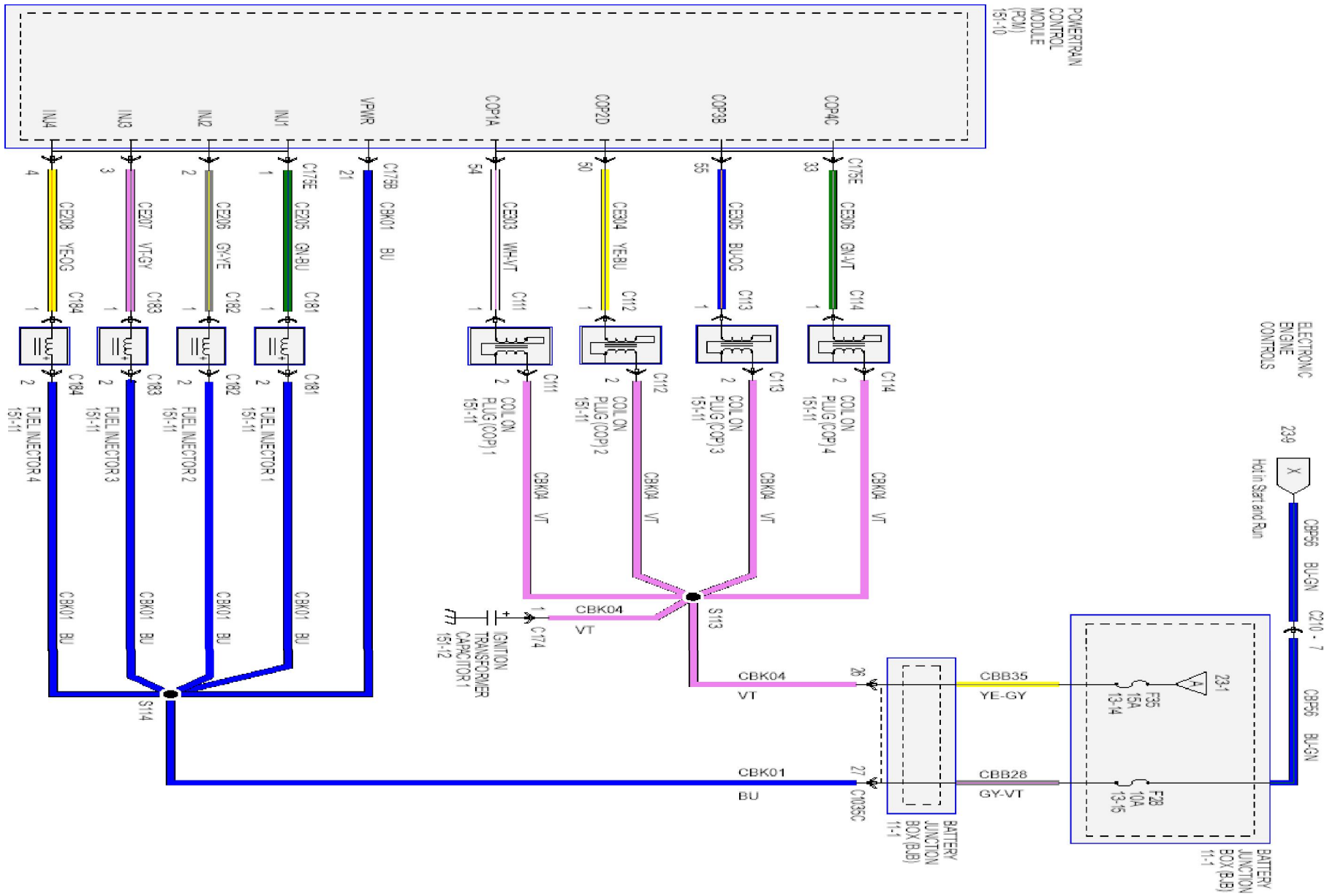

2.5L
Hot at all times
CHARGING SYSTEM
12-1
A
SD002 RD
REGULATOR
B+
LIN
C102B
SBF01
RD
GENERATOR
151-3 151-7
151-10
C102A
VDN06 WH-GN
2
STARTER
MOTOR
20-1
C197A
SBF01
RD
C161TA
MEGA2
F2
150A
13-2
C161TL
HIGH CURRENT
BATTERY
JUNCTION
BOX (BJB)
11-9
MODULE
COMMUNICATIONS
NETWORK
14-3
143
VDB05
WH
VDB04
WH-BU
58
59
C175B
HS
CAN-
HS
CAN+
LIN
POWERTRAIN
CONTROL
MODULE PCM)
23-1 23-10
VDN06
WH-GN
55
C175B
S115
VDN06 WH-GN C1035C
21
BATTERY
JUNCTION
BOX (BJB)
11-1
VDG46 BU-BN
C1651
2
LIN
GRILLE
SHUTTER
ACTUATOR
33-2

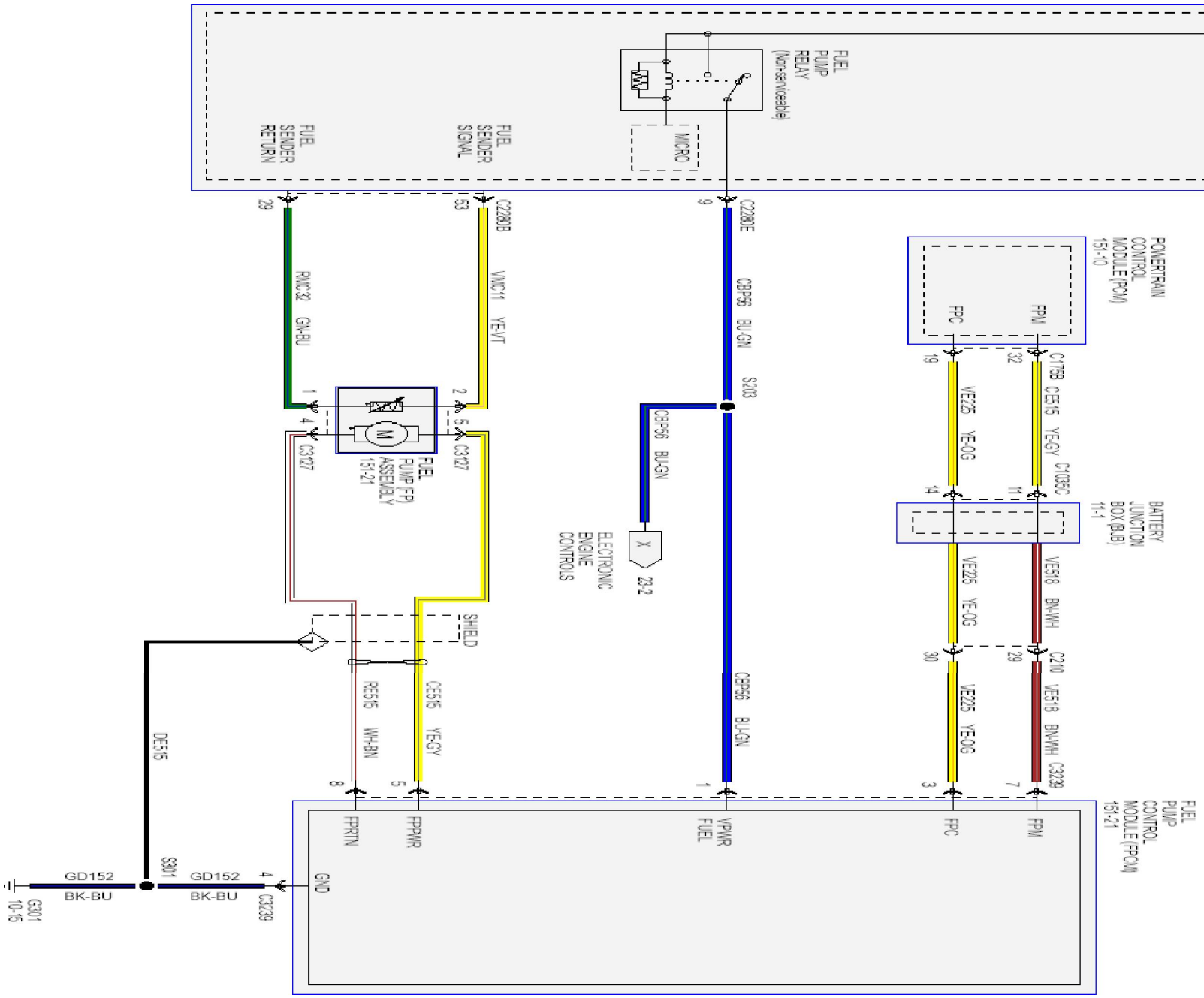
MEGA FUSES

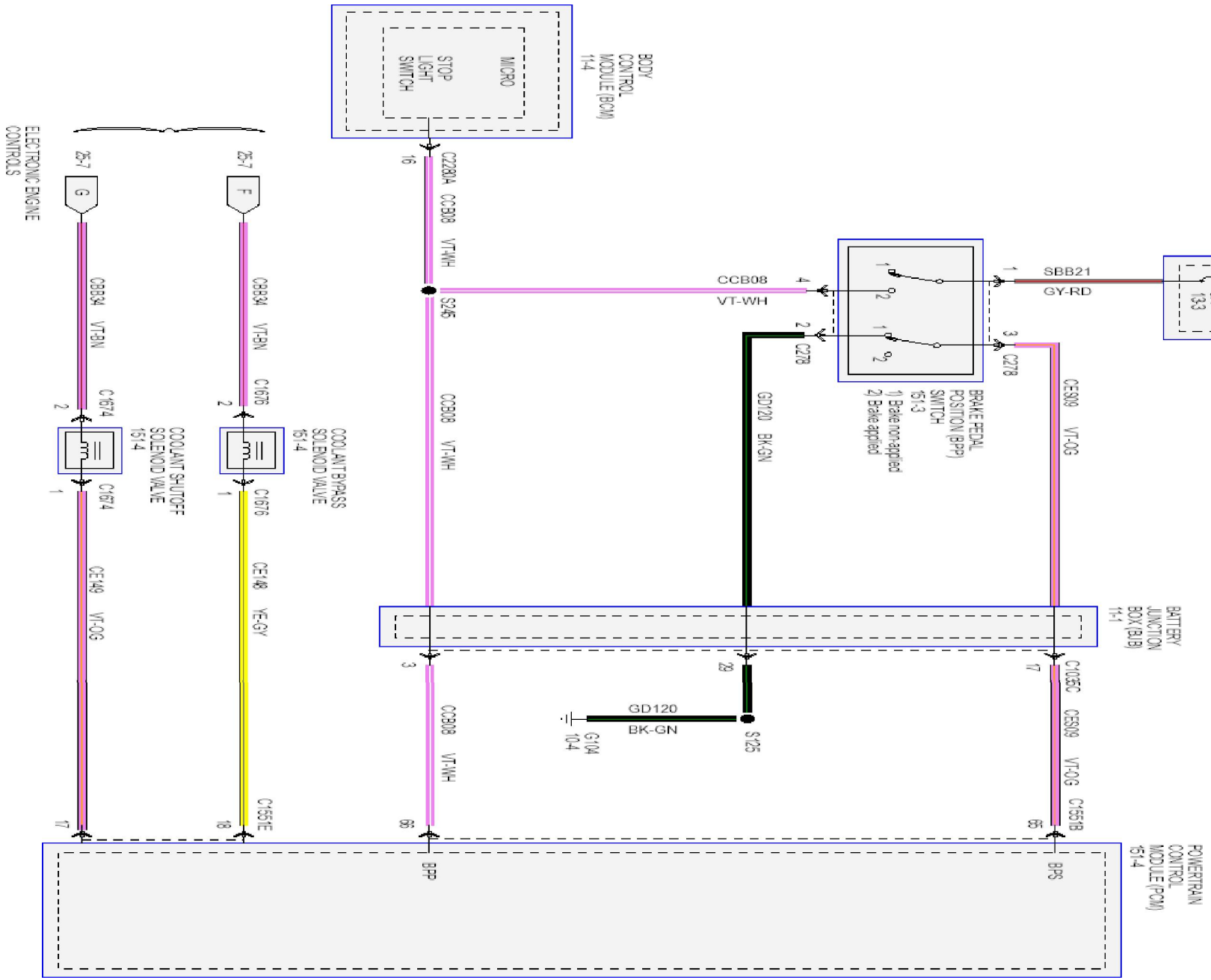

MEGA FUSES
Hot at all times
13-1
HIGH CURRENT BATTERY JUNCTION BOX (BJB)
11-9 151-3
F1 80A
F2 150A
F3 100A
F4 50A
F5 80A
F6 70A
F7 60A
F9 50A
F8 50A
C1617C
C1617A
C1617B
C1617D
C1617E
C1617F
C1617G
C1617J
C1617H
SBF01 RD
SBB17 RD
SBB16 VT
SBB19 BU-RD
SBB20 GN-RD
SBB18 YE
SBB05 GY-RD
SBF03 BU-RD
S155
S151
C1463A
POWER STEERING CONTROL MODULE (PSCM)
43-1
2.0L
1.6L
C110AA
C102B
GENERATOR
12-2 12-3
12-4
C197A
STARTER MOTOR
20-1 20-2
20-3
C1035A
BATTERY JUNCTION BOX (BJB)
11-1 151-1
ENGINE COOLING FAN RELAY
33-1
C220BG
BODY CONTROL MODULE (BCM)
11-4 151-1
VBATT MICRO
VBATT
13-24
13-20
13-3
C2803A
ELECTRIC BOOSTER HEATER
54-5 55-7
C211
POWER DISTRIBUTION
13-35
POWER DISTRIBUTION
13-36
EE
DD

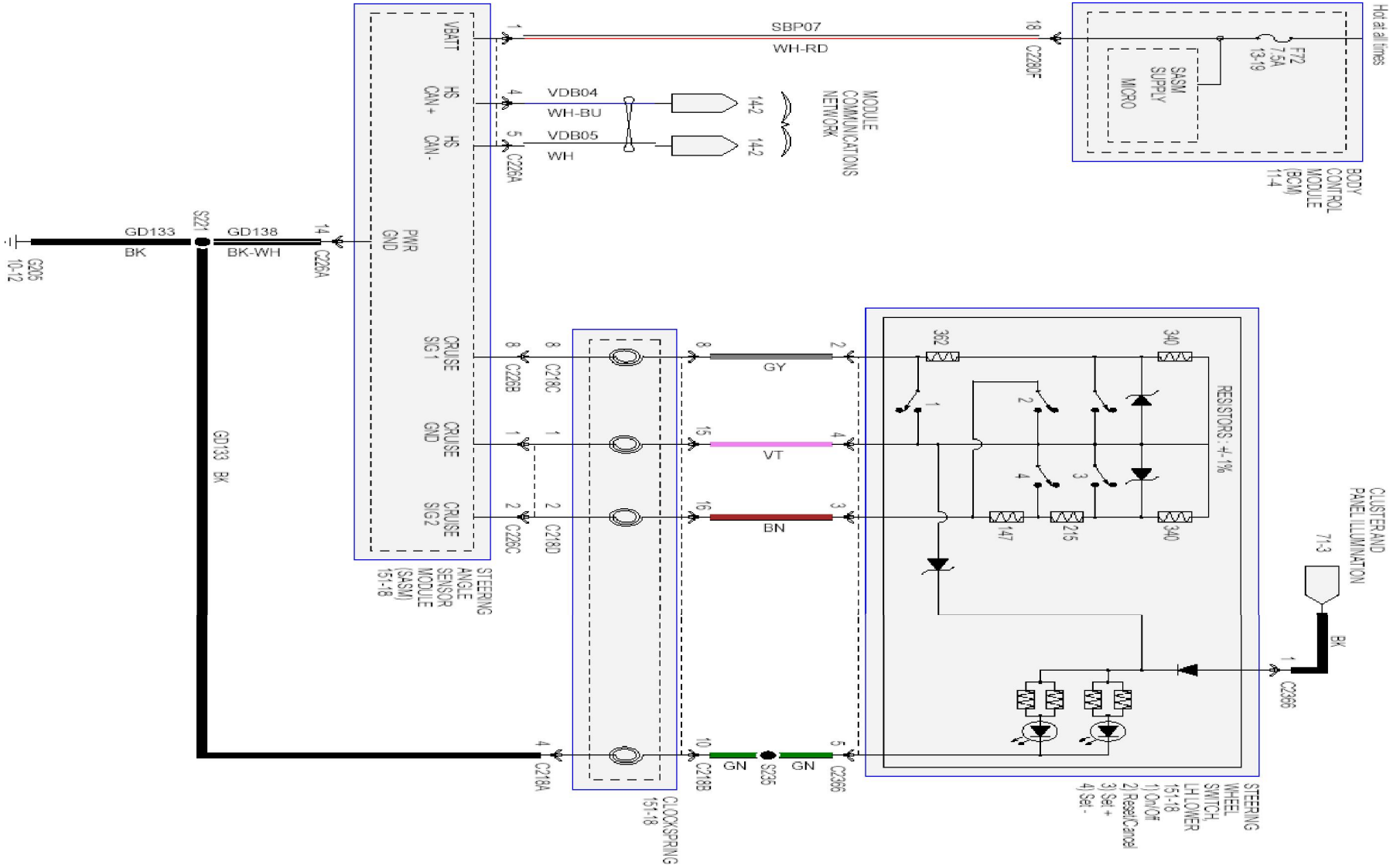

BODY CONTROL MODULE (BCM)
114 151-15
151-21
MICRO
KEY PAD SWITCH A
KEY PAD SWITCH B
KEY PAD SWITCH C
KEY PAD ILLUMINATION
MSX CAN TERMINATION H
MSX CAN TERMINATION L
MSX CAN H
MSX CAN L
23
27
31
30
38
58
60
40
C228GB
CPK29 GY-BU
CPK30 VT-GN
CPK31 YE-GN
CPK28 WH-GN
VDB06 GY-OG
VDB07 VT-OG
VDB06 GY-OG
VDB07 VT-OG
117-17
117-17
117-17
117-17
14-6
14-6
14-6
14-6
REMOTE KEYLESS ENTRY AND ALARM
MODULE COMMUNICATIONS NETWORK

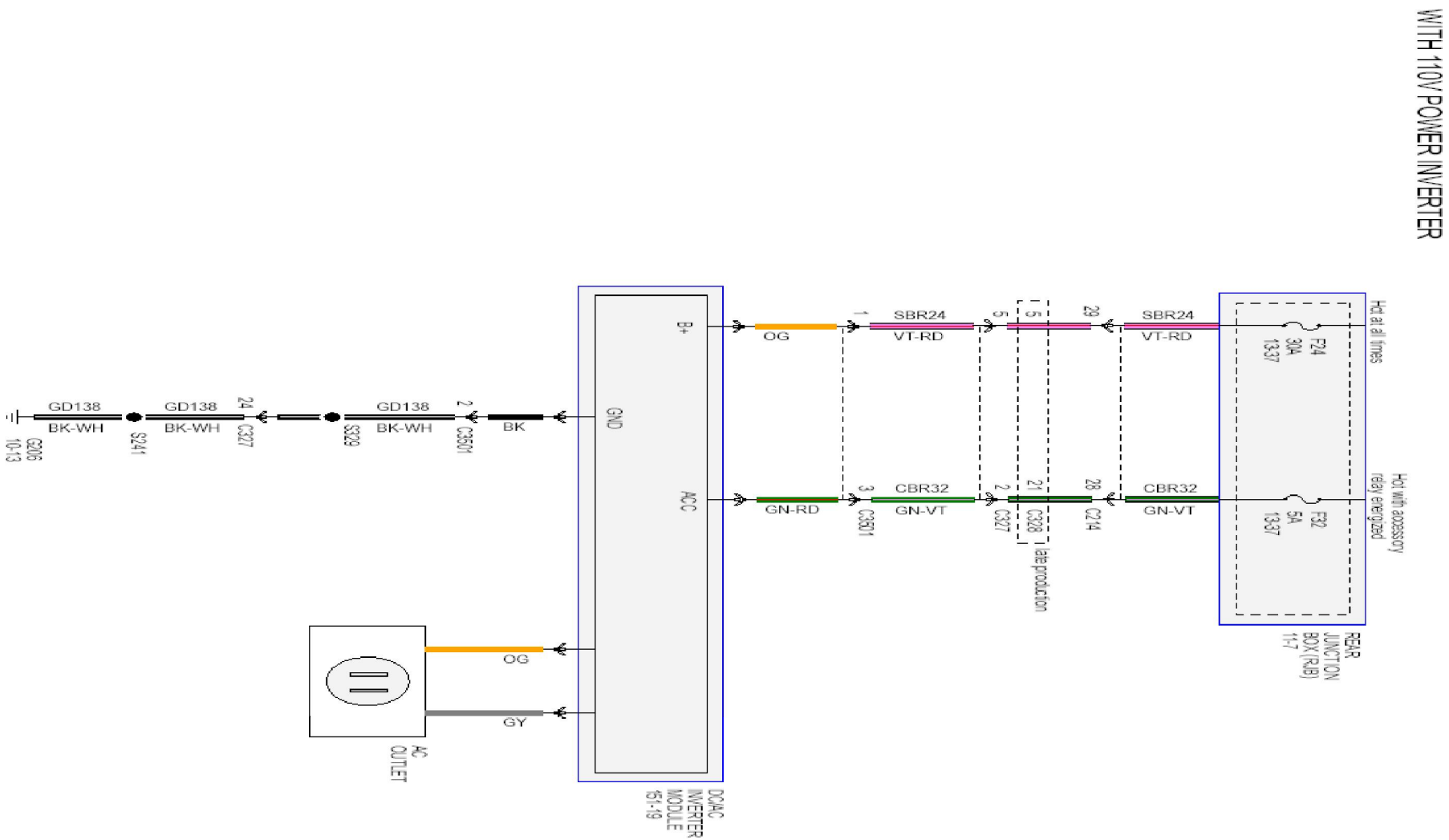

MODULE COMMUNICATIONS NETWORK
14-4
H
G
VDB07 VT-OG
VDB06 GY-OG
S305
S304
S303
S302
S325
S324
S321
S320
K
J
14-6
VDB06
GY-OG
VDB07
VT-OG
C4382D
C4402
C339
C501B
C311
C341B
A1
A2
24
25
REMOTE FUNCTION ACTUATOR (RFA) MODULE 117-12
IMAGE PROCESSING MODULE B (IPM-B) 131-5
DRIVER DOOR MODULE (DDM) 100-5
DRIVER SEAT MODULE (DSM) 123-1 124-6
MS CAN+
MS CAN-
with IA
with rear camera
with door modules
with memory

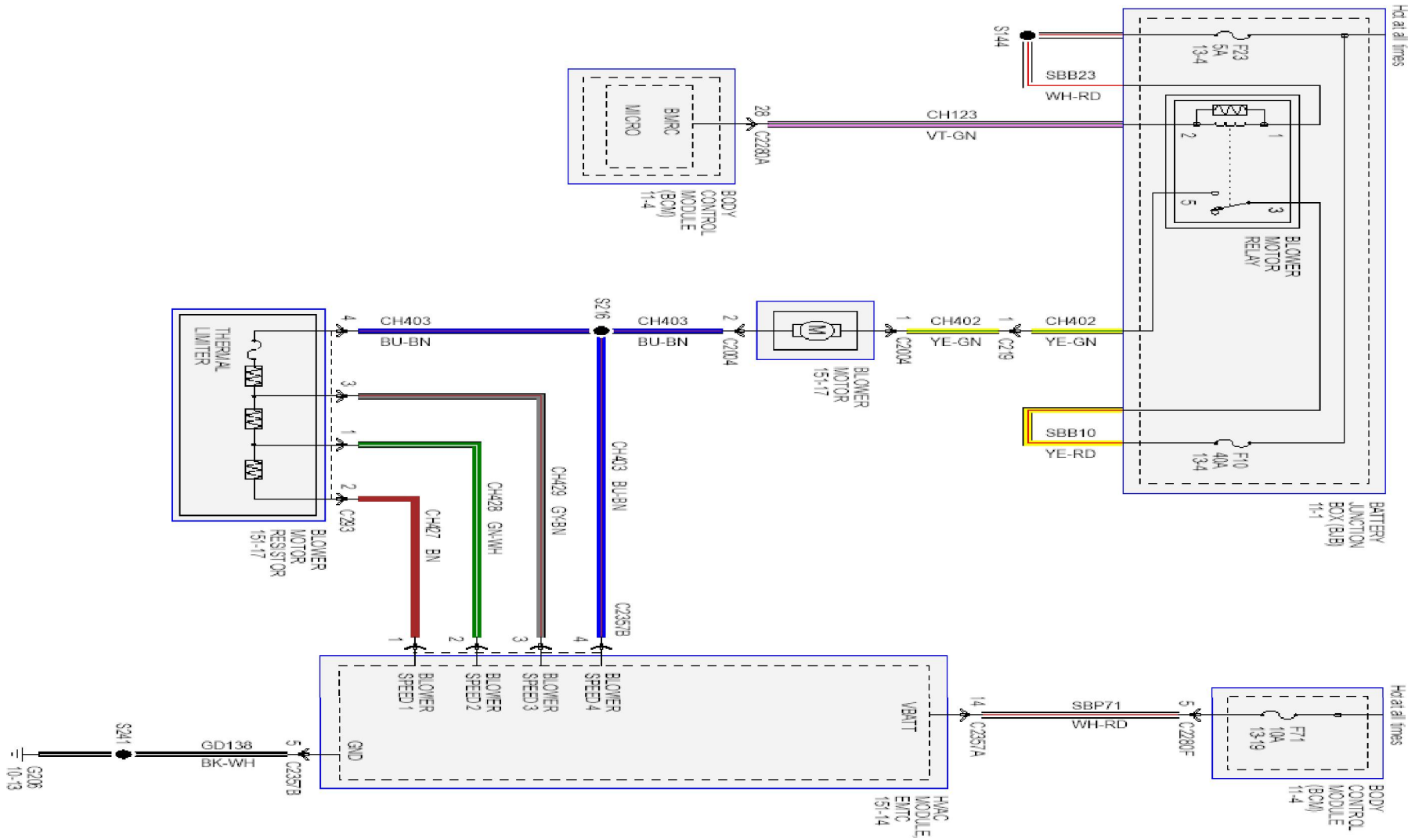

POWERTRAIN CONTROL MODULE (PCM) 151-10
COP4C
COP3B
COP2D
COP1A
VPWR
INJ1
INJ2
INJ3
INJ4
C175E
C175B
CE936 GN-VT
CE935 BU-OG
CE934 YE-BU
CE933 WH-VT
CE205 GN-BU
CE206 GY-YE
CE207 VT-GY
CE208 YE-OG
CBK01 BU
C114
C113
C112
C111
C181
C182
C183
C184
COIL ON PLUG (COP) 4 151-11
COIL ON PLUG (COP) 3 151-11
COIL ON PLUG (COP) 2 151-11
COIL ON PLUG (COP) 1 151-11
FUEL INJECTOR 1 151-11
FUEL INJECTOR 2 151-11
FUEL INJECTOR 3 151-11
FUEL INJECTOR 4 151-11
CBK04 VT
S113
C174
IGNITION TRANSFORMER CAPACITOR 1 151-12
S114
CBK04
VT
CBK01
BU
26
27
C1035C
BATTERY JUNCTION BOX (BJB) 11-1
CBB35
YE-GY
CBB28
GY-VT
F35 15A 13-14
F28 10A 13-15
23-1
ELECTRONIC ENGINE CONTROLS
239
Hot in Start and Run
CBP56 BU-GN
C210 - 7
CBP56 BU-GN
BATTERY JUNCTION BOX (BJB) 11-1


Hot at all times
F56
20A
13-21
BODY CONTROL MODULE (BCM)
11-4
FUEL PUMP RELAY (Non-serviceable)
MICRO
FUEL SENDER RETURN
FUEL SENDER SIGNAL
29
53
9
C220BB
C220BE
RMC32 GN-BU
VMC11 YE-VT
CBP56 BU-GN
S203
POWERTRAIN CONTROL MODULE (PCM)
15I-10
FPC
FPM
19
32
C175B
C1835C
CE515 YE-GY
VE225 YE-OG
14
11
BATTERY JUNCTION BOX (BJB)
11-1
VE518 BN-WH
C210
C3239
30
29
3
7
1
2
4
5
C3127
FUEL PUMP (FP) ASSEMBLY
15I-21
CBP56 BU-GN
X
23-2
ELECTRONIC ENGINE CONTROLS
SHIELD
RE515 WH-BN
CE515 YE-GY
8
6
FPRTN
FPPWR
VPWR FUEL
FUEL PUMP CONTROL MODULE (FPCM)
15I-21
D515
S301
GD152
BK-BU
GD152
BK-BU
4
GND
C3239
G301
10-15

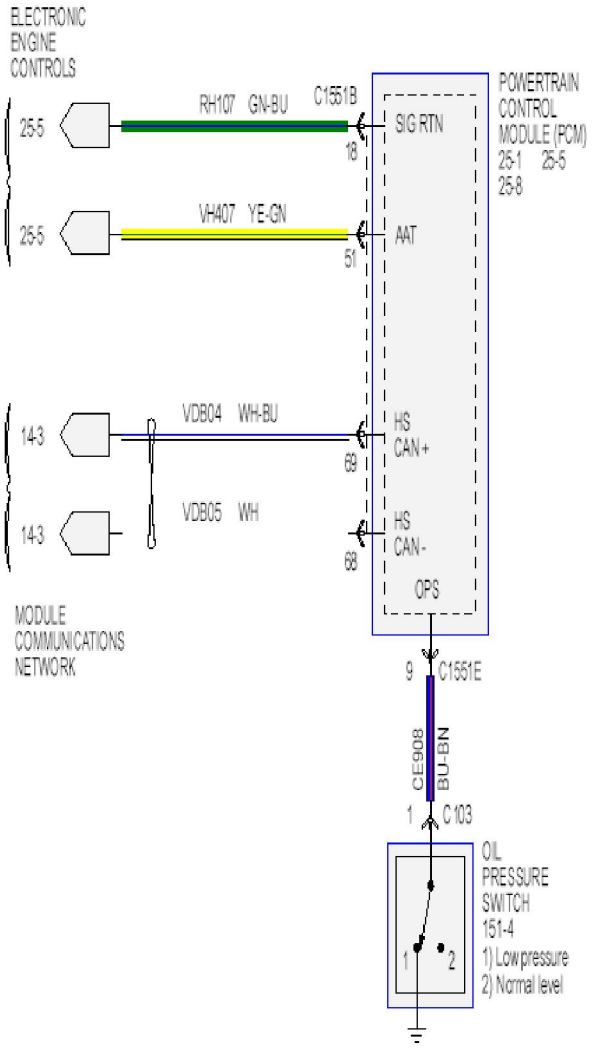

Hot at all times
BATTERY JUNCTION BOX (BJB) 11-1
F21 5A 133
SBB21 GY-RD
BRAKE PEDAL POSITION (BPP) SWITCH 151-3
1) Brake non-applied
2) Brake applied
CCB08 VT-WH
C278
CE309 VT-OG
BODY CONTROL MODULE (BCM) 11-4
MICRO
STOP LIGHT SWITCH
C220A
CCB08 VT-WH
S245
GD120 BK-GN
S125
GD120 BK-GN
G104 10-4
BATTERY JUNCTION BOX (BJB) 11-1
C103C
CE309 VT-OG
C155B
POWERTRAIN CONTROL MODULE (PCM) 151-4
BPS
BPP
ELECTRONIC ENGINE CONTROLS
25-7
G
F
CBB34 VT-BN
C1674
C1675
COOLANT BYPASS SOLENOID VALVE 151-4
COOLANT SHUTOFF SOLENOID VALVE 151-4
CE148 YE-GY
CE149 VT-OG
C155E


Hot at all times
F72
7.5A
13-19
SASM
SUPPLY
MICRO
BODY
CONTROL
MODULE
(BCM)
11-4
SBP07
WH-RD
C226F
18
1
VDB04
WH-BU
VDB05
WH
14-2
14-2
MODULE
COMMUNICATIONS
NETWORK
4
5
C226A
VBATT
HS
CAN+
HS
CAN-
PWR
GND
CRUISE
SIG1
CRUISE
GND
CRUISE
SIG2
14
C226A
GD138
BK-WH
GD133
BK
S221
G205
10-12
GD133 BK
8
C226B
1
C226C
2
C226D
8
C218C
1
2
STEERING
ANGLE
SENSOR
MODULE
(SASM)
15-18
GY
VT
BN
8
15
16
2
4
3
CLOCKSPRING
15-18
C218B
10
C218A
4
GN
S235
GN
5
C2366
RESISTORS: +/-1%
362
340
147
215
340
1
2
3
4
STEERING
WHEEL
SWITCH,
LH LOWER
15-18
1) On/Off
2) Resel/Cancel
3) Set +
4) Set -
CLUSTER AND
PANEL ILLUMINATION
71-3
BK
1
C2366


WITH 110V POWER INVERTER
Hot at all times
Hot with accessory relay energized
F24
30A
1337
F32
5A
1337
REAR JUNCTION BOX (RJB) 11-7
SBR24
VT-RD
SBR24
VT-RD
CBR32
GN-VT
CBR32
GN-VT
OG
GN-RD
1
5
5
29
3
2
21
28
C3501
C327
C328
C214
late production
B+
GND
ACC
DC/AC INVERTER MODULE 15-19
OG
GY
AC OUTLET
BK
2
C3501
GD138
BK-WH
S329
GD138
BK-WH
24
C327
GD138
BK-WH
S241
G206
10-13


Hot at all times
S144
F23
5A
13-4
SBB23
WH-RD
CH123
VT-GN
BMRC
MICRO
28
C220A
BODY CONTROL MODULE (BCM)
11-4
BLOWER MOTOR RELAY
BATTERY JUNCTION BOX (BJB)
11-1
F10
40A
13-4
SBB10
YE-RD
S216
CH403
BU-BN
CH402
YE-GN
C2004
C219
BLOWER MOTOR
15-17
THERMAL LIMITER
BLOWER MOTOR RESISTOR
15-17
C263
CH427 BN
CH428 GN-WH
CH429 GY-BN
CH403 BU-BN
C2357B
BLOWER SPEED1
BLOWER SPEED2
BLOWER SPEED3
BLOWER SPEED4
VBATT
GND
HVAC MODULE EMTC
15-14
C2357A
SBP71
WH-RD
C220F
F71
10A
13-19
BODY CONTROL MODULE (BCM)
11-4
S241
GD136
BK-WH
G206
10-13

1.6L


ELECTRONIC ENGINE CONTROLS
25-5
RH107 GN-BU
C1551B
18
SIG RTN
POWERTRAIN CONTROL MODULE (PCM)
25-1 25-5
25-8
25-5
VH407 YE-GN
51
AAT
14-3
VDB04 WH-BU
69
HS CAN +
14-3
VDB05 WH
68
HS CAN -
OPS
MODULE COMMUNICATIONS NETWORK
9
C1551E
CE908
BU-BN
1
C103
OIL PRESSURE SWITCH
151-4
1) Low pressure
2) Normal level
1
2