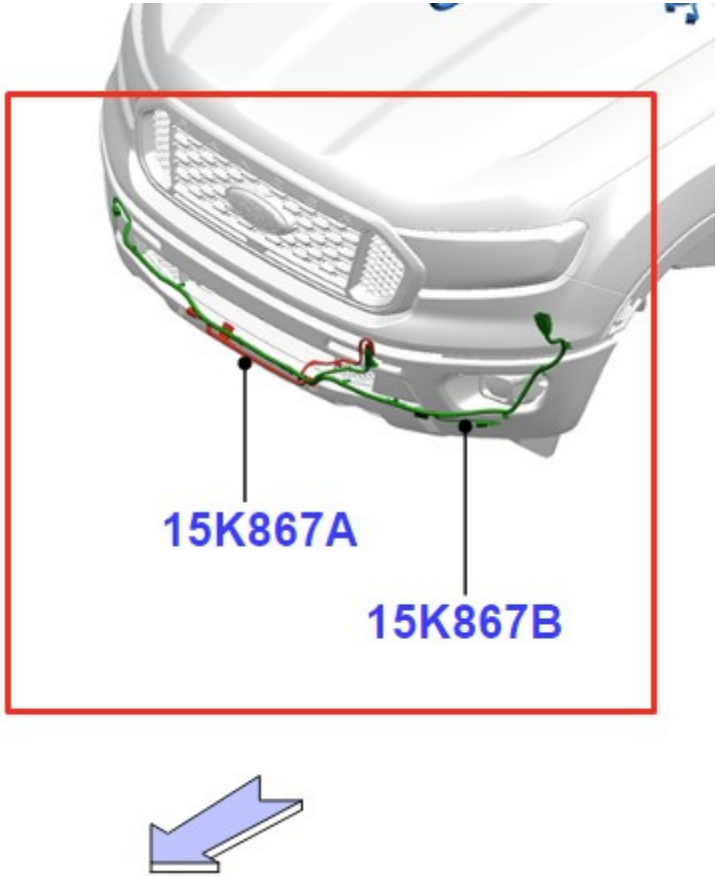
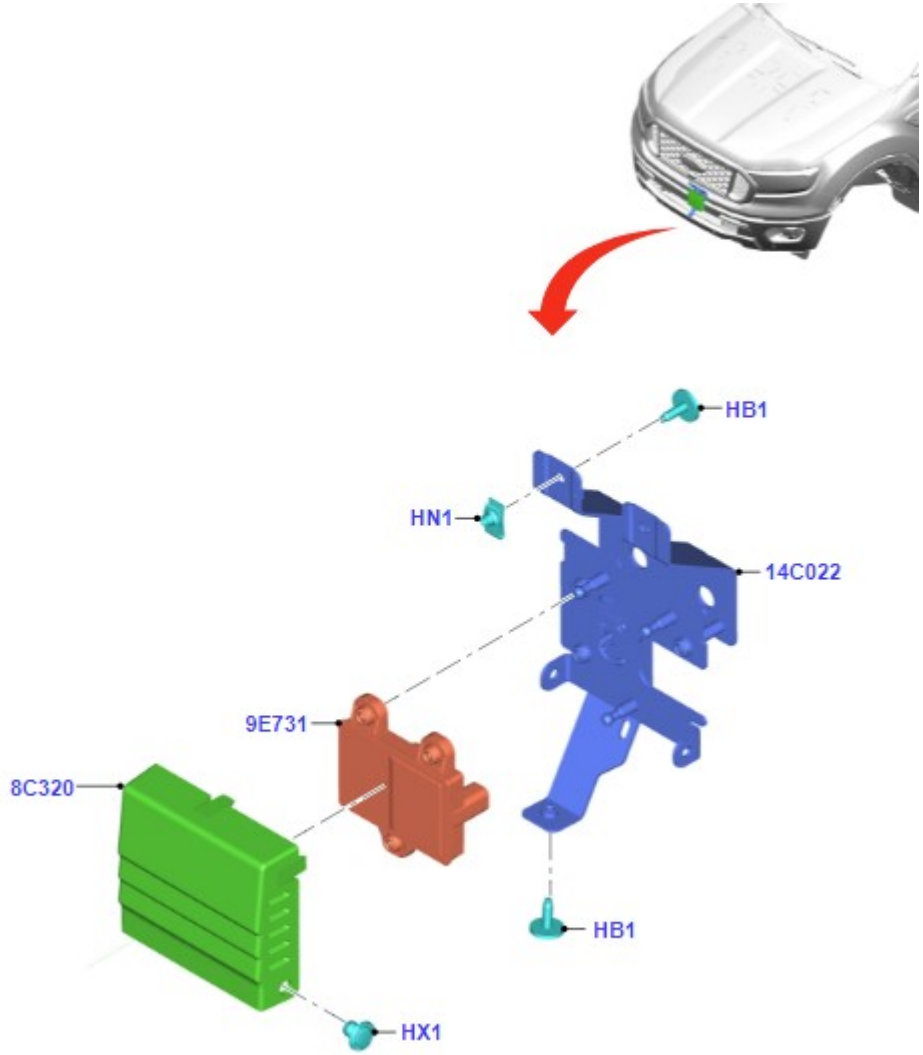
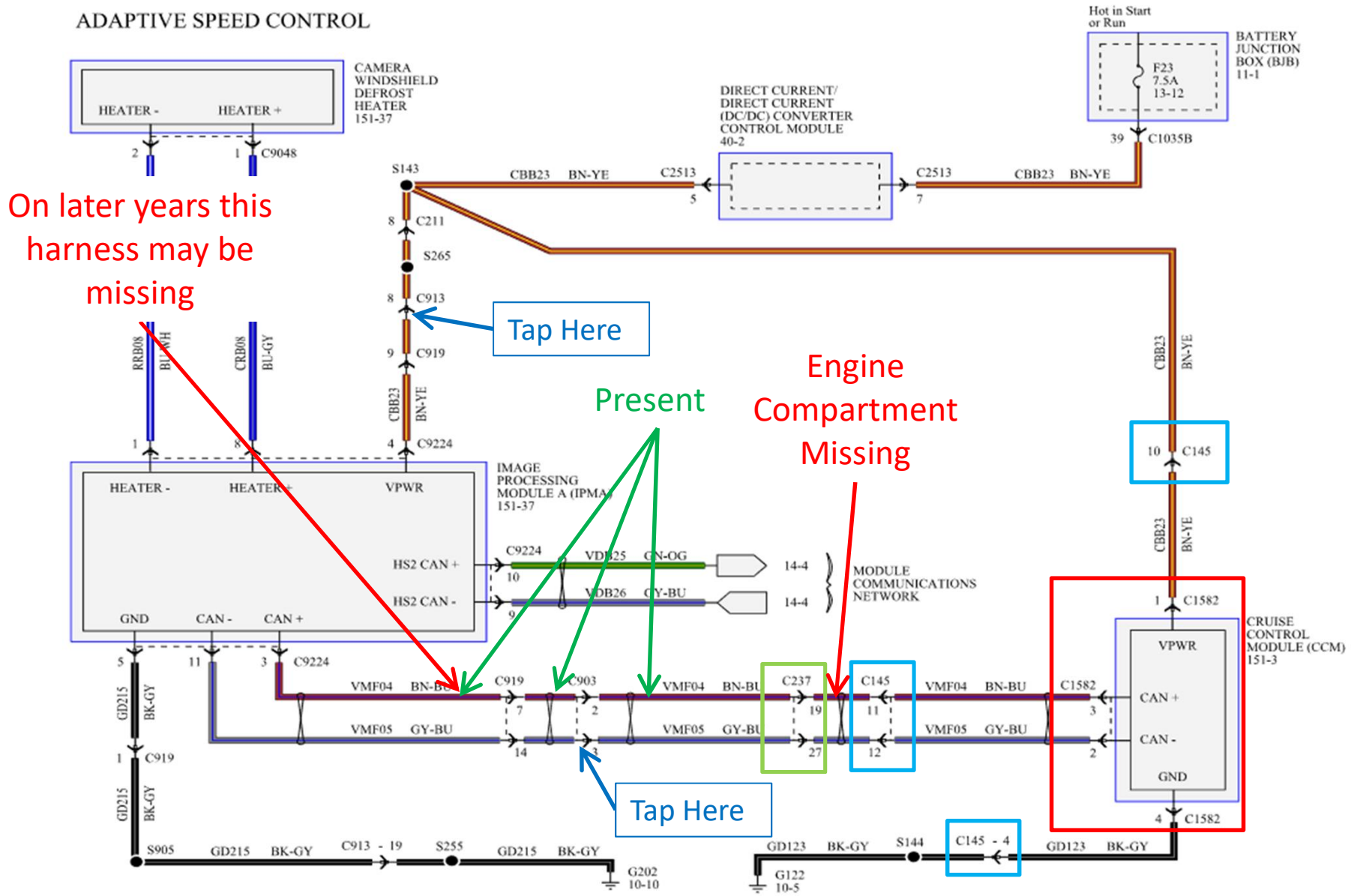
Adding Adaptive Cruise

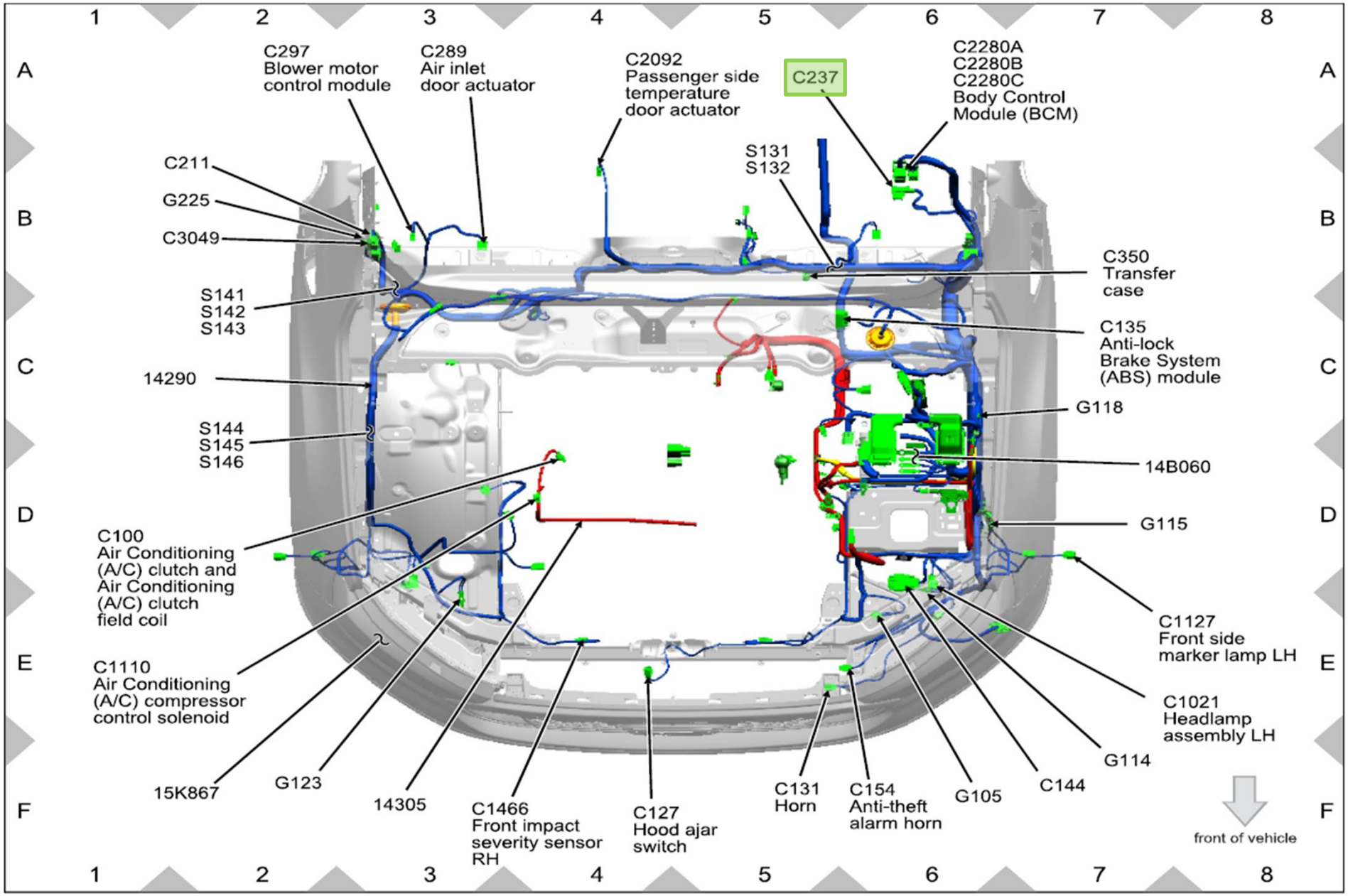
CCM Module and Wiring Installation

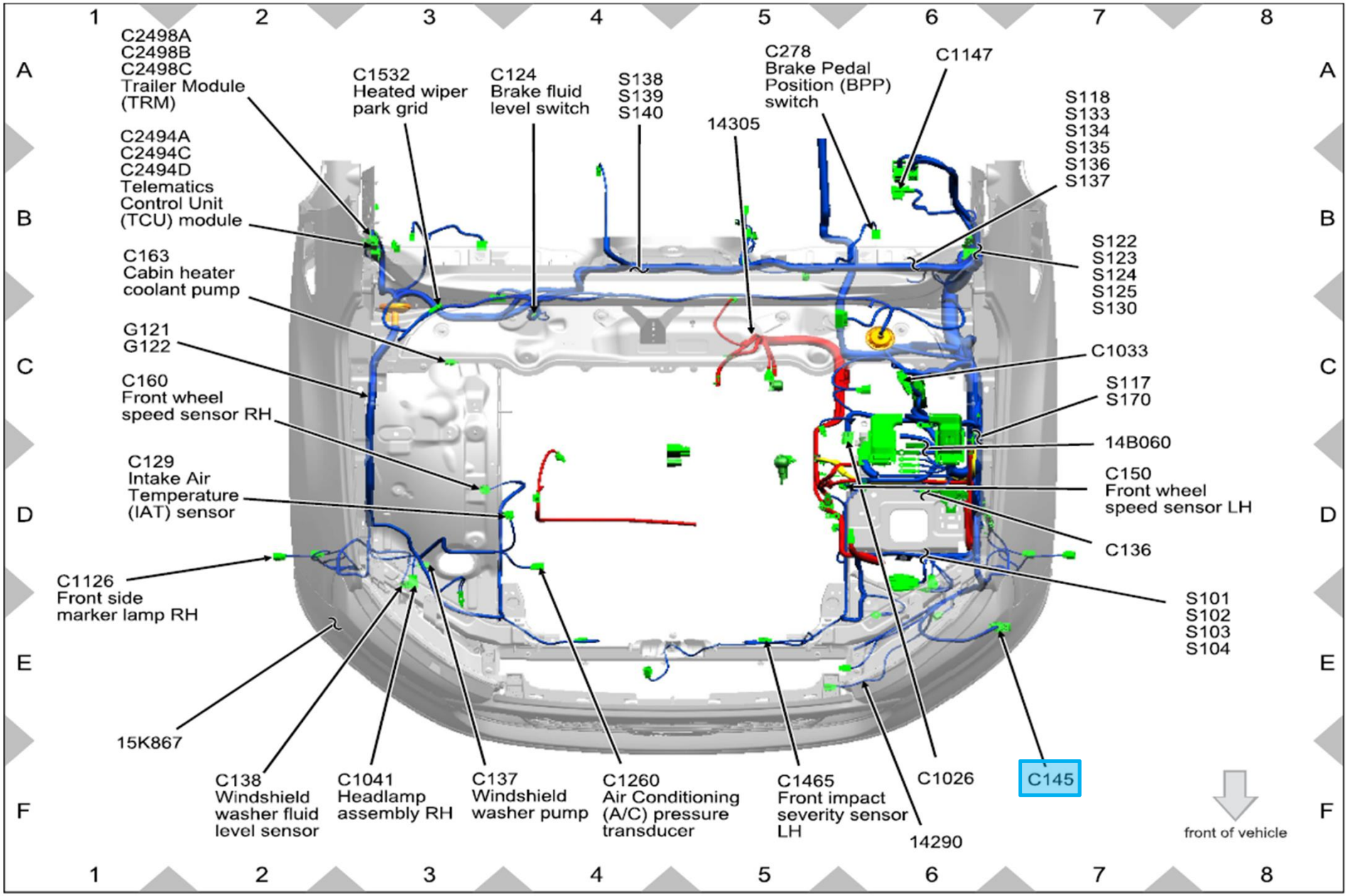
CCM Module, Mount and Harness

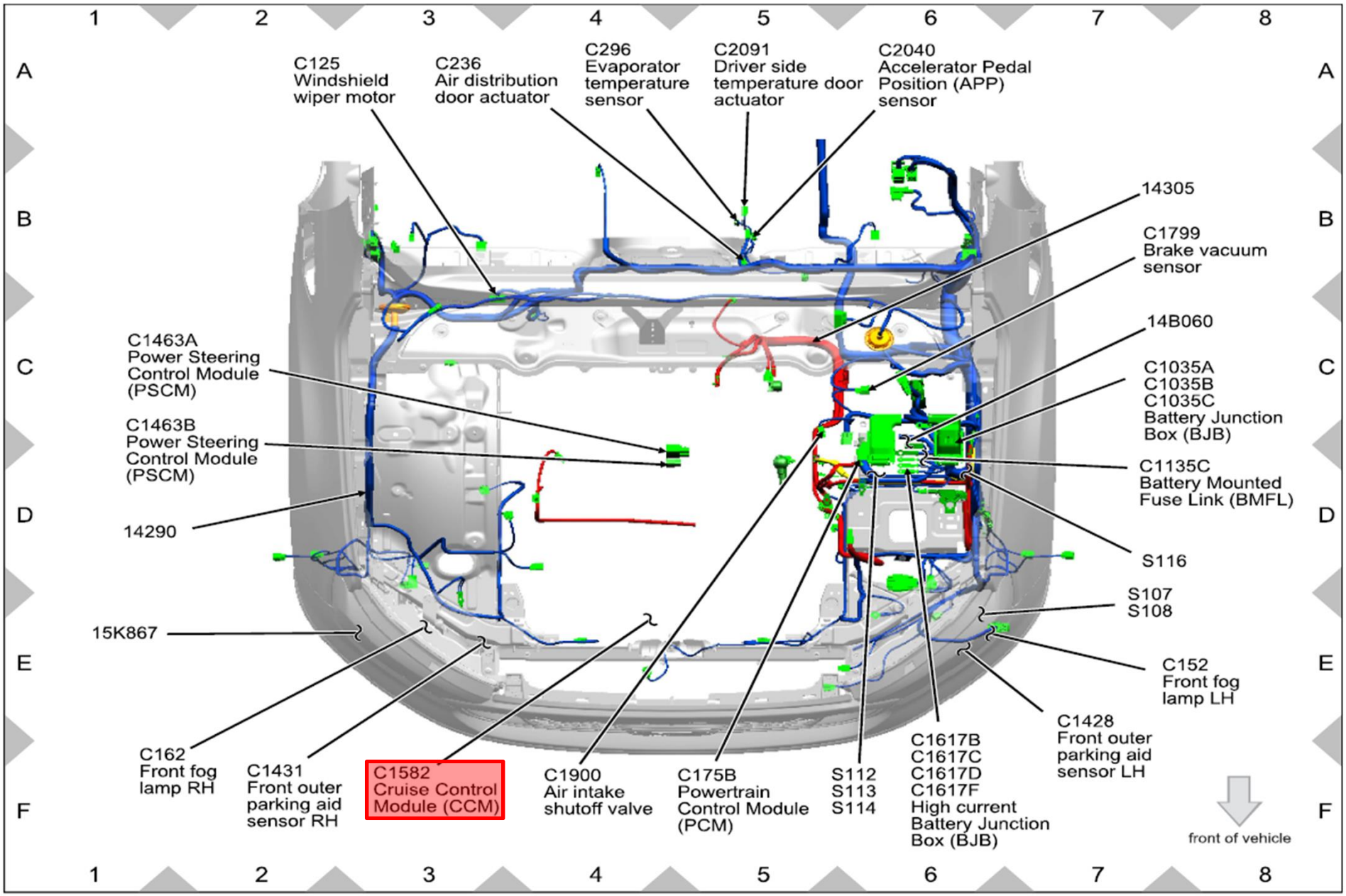





ADAPTIVE SPEED CONTROL
On later years this harness may be missing
Tap Here
Present
Engine Compartment Missing
Tap Here
CAMERA WINDSHIELD DEFROST HEATER 151-37
HEATER -
HEATER +
C9048
DIRECT CURRENT/ DIRECT CURRENT (DC/DC) CONVERTER CONTROL MODULE 40-2
Hot in Start or Run
BATTERY JUNCTION BOX (BJB) 11-1
F23 7.5A 13-12
C1035B
S143
CBB23 BN-YE
C2513
C211
S265
C913
C919
RRB08 BU-WH
CRB08 BU-GY
C9224
IMAGE PROCESSING MODULE A (IPMA) 151-37
VPWR
HS2 CAN +
HS2 CAN -
GND
CAN -
CAN +
VDB25 GN-OG
VDB26 GY-BU
MODULE COMMUNICATIONS NETWORK
C145
C1582
CRUISE CONTROL MODULE (CCM) 151-3
VMF04 BN-BU
VMF05 GY-BU
C903
C237
GD215 BK-GY
S905
C913 - 19
S255
G202 10-10
G122 10-5
S144
C145 - 4
GD123 BK-GY

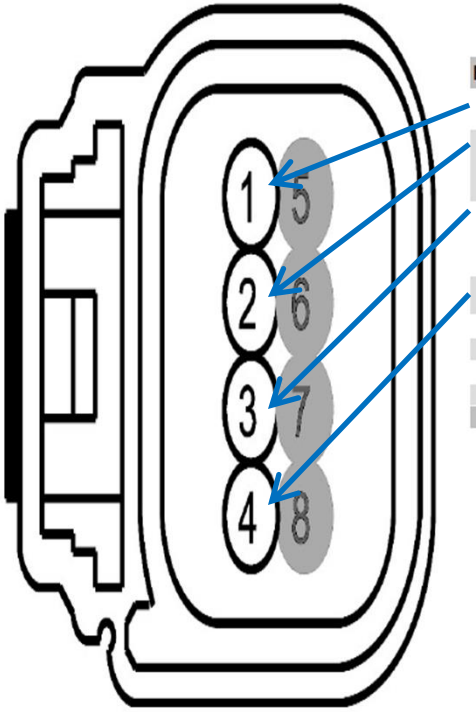

C297
Blower motor control module
C289
Air inlet door actuator
C2092
Passenger side temperature door actuator
C237
C2280A
C2280B
C2280C
Body Control Module (BCM)
C211
G225
C3049
S131
S132
C350
Transfer case
S141
S142
S143
C135
Anti-lock Brake System (ABS) module
14290
G118
S144
S145
S146
14B060
G115
C100
Air Conditioning (A/C) clutch and Air Conditioning (A/C) clutch field coil
C1127
Front side marker lamp LH
C1110
Air Conditioning (A/C) compressor control solenoid
C1021
Headlamp assembly LH
G114
15K867
G123
14305
C1466
Front impact severity sensor RH
C127
Hood ajar switch
C131
Horn
C154
Anti-theft alarm horn
G105
C144
front of vehicle


C2498A
C2498B
C2498C
Trailer Module
(TRM)
C2494A
C2494C
C2494D
Telematics
Control Unit
(TCU) module
C163
Cabin heater
coolant pump
G121
G122
C160
Front wheel
speed sensor RH
C129
Intake Air
Temperature
(IAT) sensor
C1126
Front side
marker lamp RH
15K867
C138
Windshield
washer fluid
level sensor
C1041
Headlamp
assembly RH
C137
Windshield
washer pump
C1260
Air Conditioning
(A/C) pressure
transducer
C1532
Heated wiper
park grid
C124
Brake fluid
level switch
S138
S139
S140
14305
C278
Brake Pedal
Position (BPP)
switch
C1147
S118
S133
S134
S135
S136
S137
S122
S123
S124
S125
S130
C1033
S117
S170
14B060
C150
Front wheel
speed sensor LH
C136
S101
S102
S103
S104
C1465
Front impact
severity sensor
LH
14290
C1026
C145
front of vehicle


C125
Windshield wiper motor
C236
Air distribution door actuator
C296
Evaporator temperature sensor
C2091
Driver side temperature door actuator
C2040
Accelerator Pedal Position (APP) sensor
14305
C1799
Brake vacuum sensor
14B060
C1035A
C1035B
C1035C
Battery Junction Box (BJB)
C1135C
Battery Mounted Fuse Link (BMFL)
S116
S107
S108
C152
Front fog lamp LH
C1428
Front outer parking aid sensor LH
C1617B
C1617C
C1617D
C1617F
High current Battery Junction Box (BJB)
S112
S113
S114
C175B
Powertrain Control Module (PCM)
C1900
Air intake shutoff valve
C1582
Cruise Control Module (CCM)
C1431
Front outer parking aid sensor RH
C162
Front fog lamp RH
15K867
14290
C1463B
Power Steering Control Module (PSCM)
C1463A
Power Steering Control Module (PSCM)
front of vehicle

C1582 CCM Connector

Connector: C1582	Description	Color	Harness	Base Part #	Service Pigtail
	CRUISE CONTROL MODULE (CCM)	BK	15K867	part# N/A	See Below



Check for Terminal Part Numbers

Pin	Circuit	Gauge	Circuit Function	Qualifier
1	CBB23 (BN-YE)	18	FUSE - 23 OR CIRCUIT BREAKER	
2	VMF05 (GY-BU)	20	CTRL MOD. - FORWARD SENSING # FORWARD LOOKING RADAR CAN BUS LOW	
3	VMF04 (BN-BU)	20	CTRL MOD. - FORWARD SENSING # FORWARD LOOKING RADAR CAN BUS HIGH	
4	GD123 (BK-GY)	20	GROUND - FENDER FRONT RIGHT	
5	*	*	Not Used	
6	*	*	Not Used	
7	*	*	Not Used	
8	*	*	Not Used	

You MUST have this Connector to make the harness

Details HERE

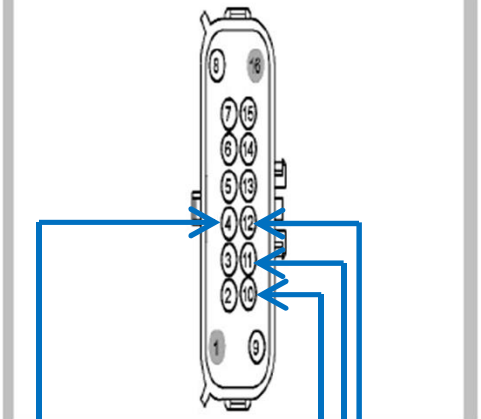
This can be sourced thru Amazon or DigiKey

If you go DigiKey HERE is the connector assy instructions

C145 Bumper Harness

Inline C145	Description	Color	Base Part #	Service Pigtail
	INLINE			See Below

MALE
Harness 15K867

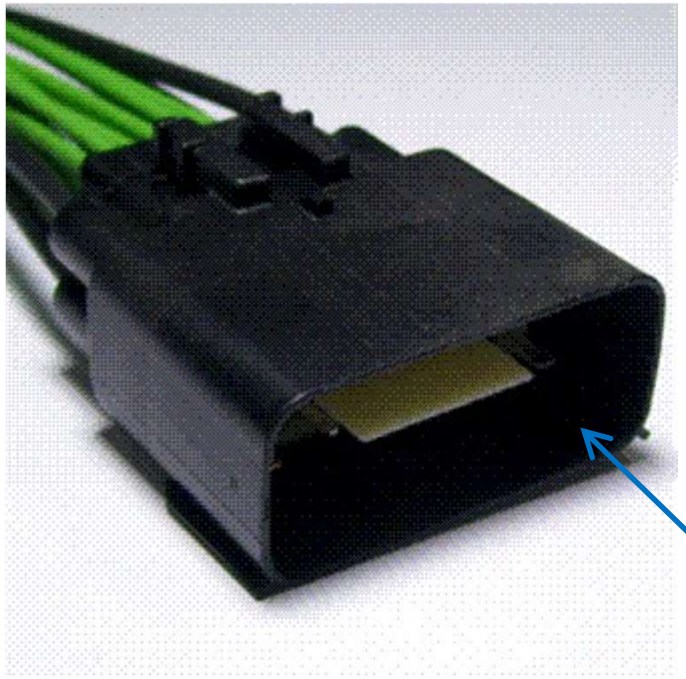


FEMALE
Harness 14290

Check for Terminal Part Numbers

Pin	Circuit	Gauge	Qualifier
1	*	*	
2	LMP06 (VT-GY)	20	
3	VMP11 (BU-GN)	20	
4	GD123 (BK-GY)	20	
5	VMP10 (WH-BU)	20	
6	VMP12 (BU-GY)	20	
7	VMP13 (BU-OG)	20	
8	GD121 (BK-YE)	18	
9	GD123 (BK-GY)	18	
10	CBB23 (BN-YE)	18	
11	VMF04 (BN-BU)	20	
12	VMF05 (GY-BU)	20	
13	RMP06 (YE-OG)	20	
14	CLF29 (BN)	16	
15	CLF34 (YE-OG)	16	
16	*	*	

Pin	Circuit	Gauge	Qualifier
1	*	*	
2	LMP06 (VT-GY)	20	
3	VMP11 (BU-GN)	20	
4	GD123 (BK-GY)	20	
5	VMP10 (WH-BU)	20	
6	VMP12 (BU-GY)	20	
7	VMP13 (BU-OG)	20	
8	GD121 (BK-YE)	18	
9	GD123 (BK-GY)	18	
10	CBB23 (BN-YE)	18	
11	VMF04 (BN-BU)	20	
12	VMF05 (GY-BU)	20	
13	RMP06 (YE-OG)	20	
14	CLF29 (BN)	16	
15	CLF34 (YE-OG)	16	
16	*	*	



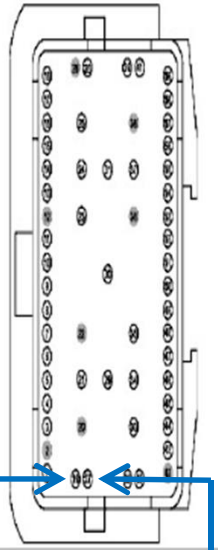
1

This is a dead-end as the wires are not present from the bumper to the cab

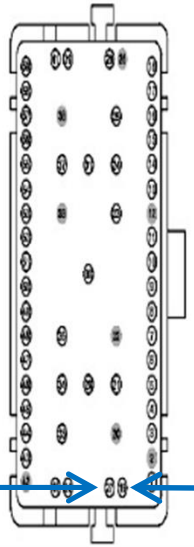
C237 Firewall Connector

Inline C237	Description	Color	Base Part #	Service Pigtail
	INLINE	BK		Not Available

MALE
Harness 14401



FEMALE
Harness 14290

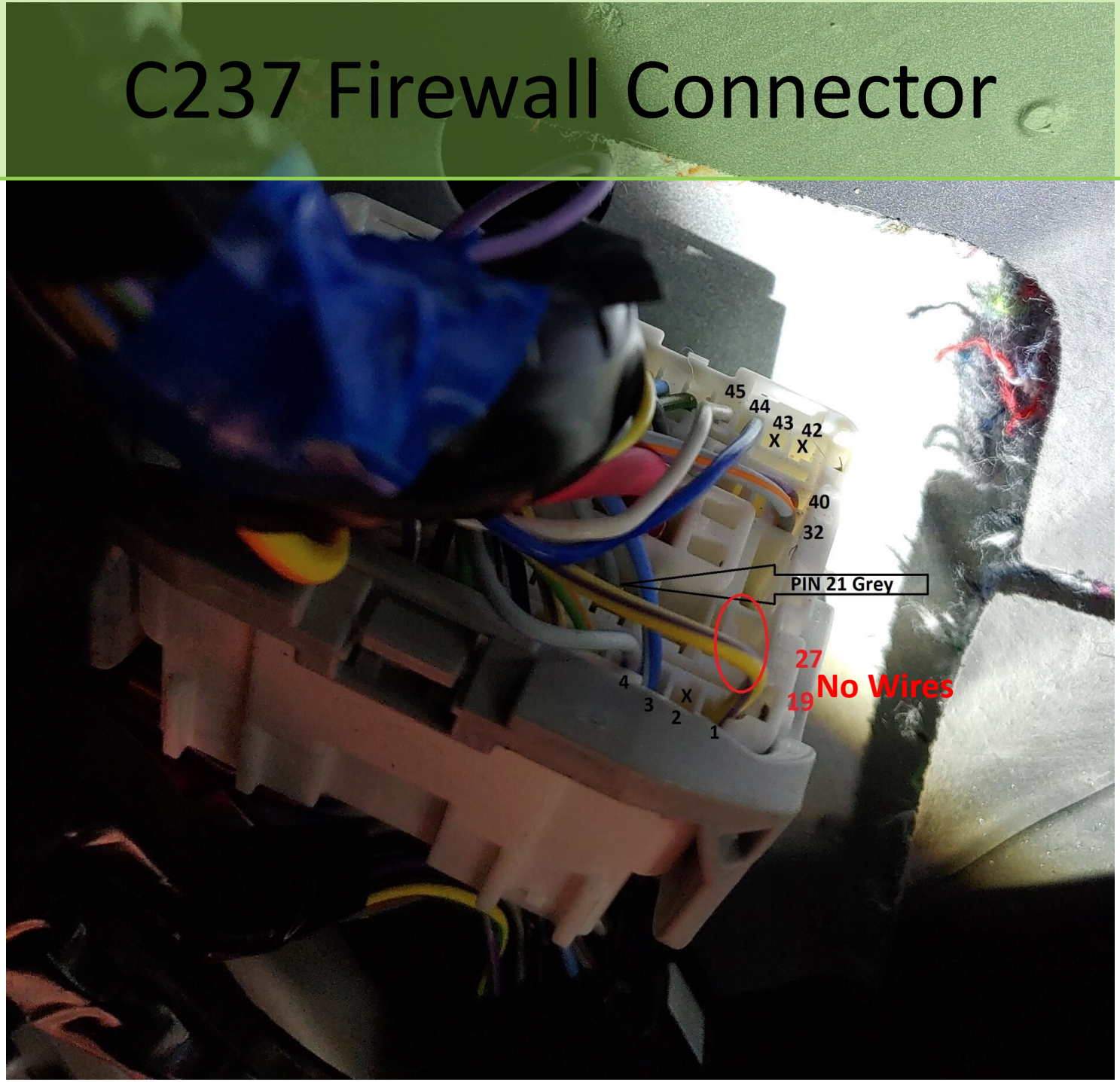


Check for Terminal Part Numbers

Pin	Circuit	Gauge	Qualifier
19	VMF04 (BN-BU)	22	
20	*	*	
21	CRD17 (GY)	20	
22	*	*	
23	SBB65 (RD)	14	
24	SBB80 (VT-RD)	14	
25	CDC35 (BU-WH)	20	
26	*	*	
27	VMF05 (GY-BU)	22	
28	CRB02 (BU-BN)	22	

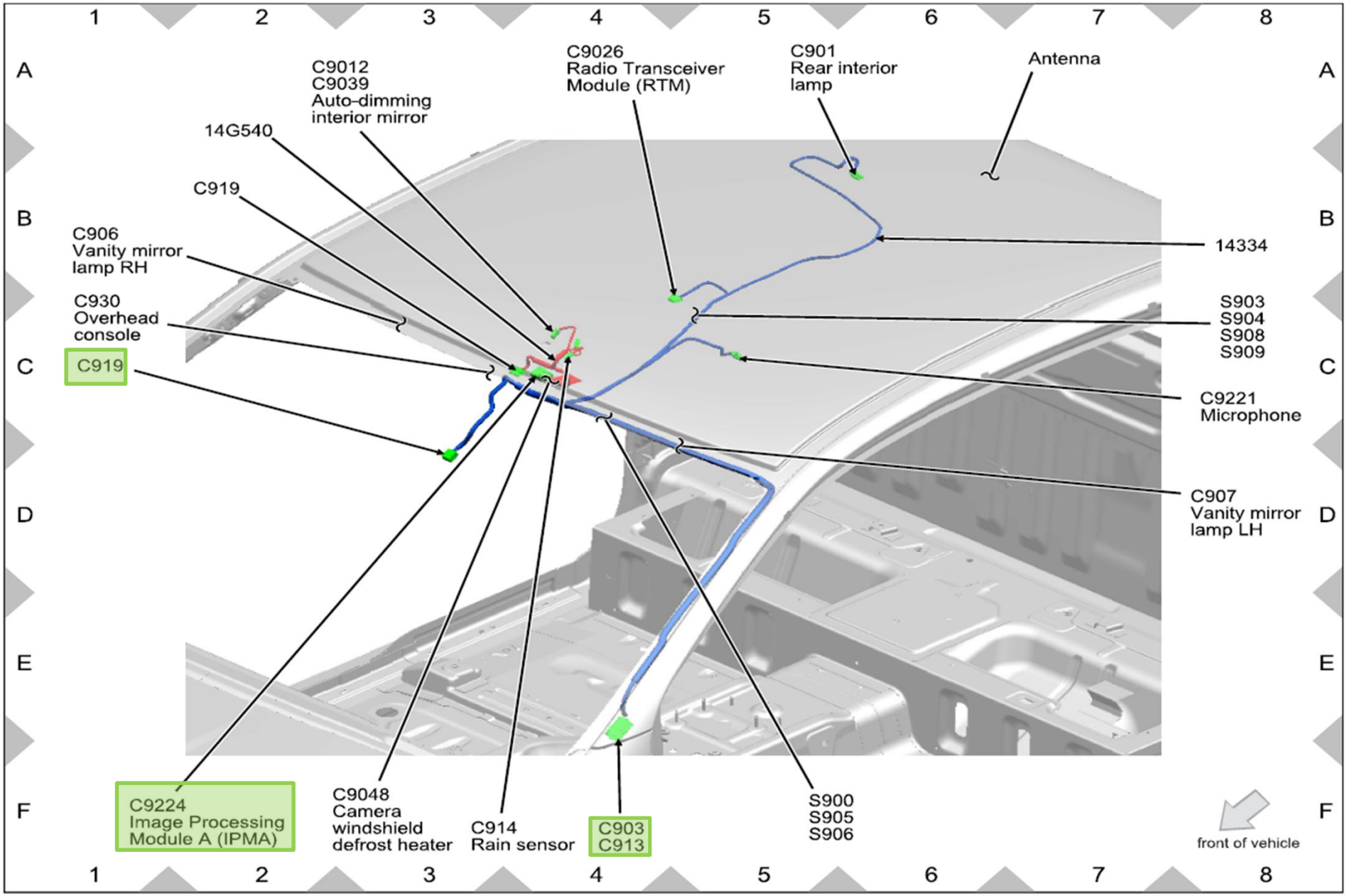
Pin	Circuit	Gauge	Qualifier
19	VMF04 (BN-BU)	20	
20	*	*	
21	CRD17 (GY)	20	
22	*	*	
23	SBB65 (RD)	14	
24	SBB80 (VT-RD)	14	
25	CDC35 (BU-WH)	20	
26	*	*	
27	VMF05 (GY-BU)	20	
28	CRB02 (BU-BN)	20	

C237 Firewall Connector



Tap location for CCM Hook up

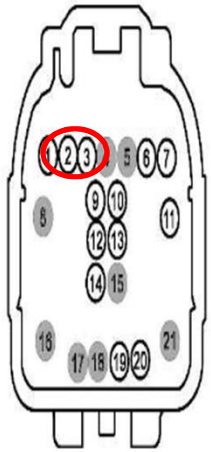
- You will need to make and run a harness from the CCM to the A-Pillar
- A Gnd point can be picked up in the engine compartment
- Can Bus and power will tap at the A-Pillar into C903 and C913


C9012
C9039
Auto-dimming
interior mirror
C9026
Radio Transceiver
Module (RTM)
C901
Rear interior
lamp
Antenna
14G540
C919
C906
Vanity mirror
lamp RH
14334
C930
Overhead
console
S903
S904
S908
S909
C919
C9221
Microphone
C907
Vanity mirror
lamp LH
C9224
Image Processing
Module A (IPMA)
C9048
Camera
windshield
defrost heater
C914
Rain sensor
C903
C913
S900
S905
S906
front of vehicle

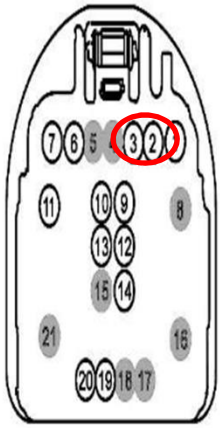
C903 Can Bus Connection

Inline C903	Description	Color	Base Part #	Service Pigtail
	INLINE			See Below

MALE
Harness 14334



FEMALE
Harness 14401



Check for Terminal Part Numbers

Pin	Circuit	Gauge	Qualifier
1	VLN04 (VT-GY)	22	
2	VMF04 (BN-BU)	22	
3	VMF05 (GY-BU)	22	
4	*	*	
5	*	*	
6	VMM23 (GY-BN)	22	

Pin	Circuit	Gauge	Qualifier
1	VLN04 (VT-GY)	22	
2	VMF04 (BN-BU)	22	
3	VMF05 (GY-BU)	22	
4	*	*	
5	*	*	
6	VME99 (VT-OG)	22	

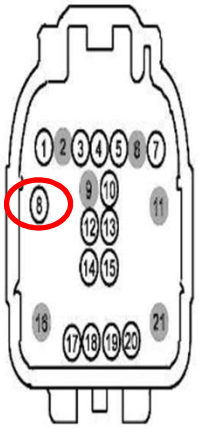
Locate the wires (Brown-Blue and Grey-Blue) and either solder or use Posi-Taps to make the connection
DO NOT USE AUTO TAPS

Be sure to keep the polarity correct from the CCM

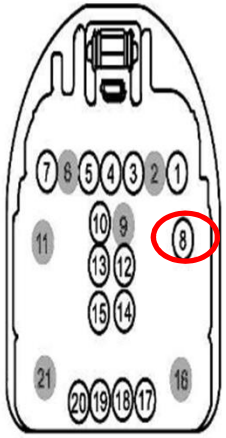
C913 Power Connection

Inline C913	Description	Color	Base Part #	Service Pigtail
	INLINE			See Below

MALE
Harness 14334



FEMALE
Harness 14401



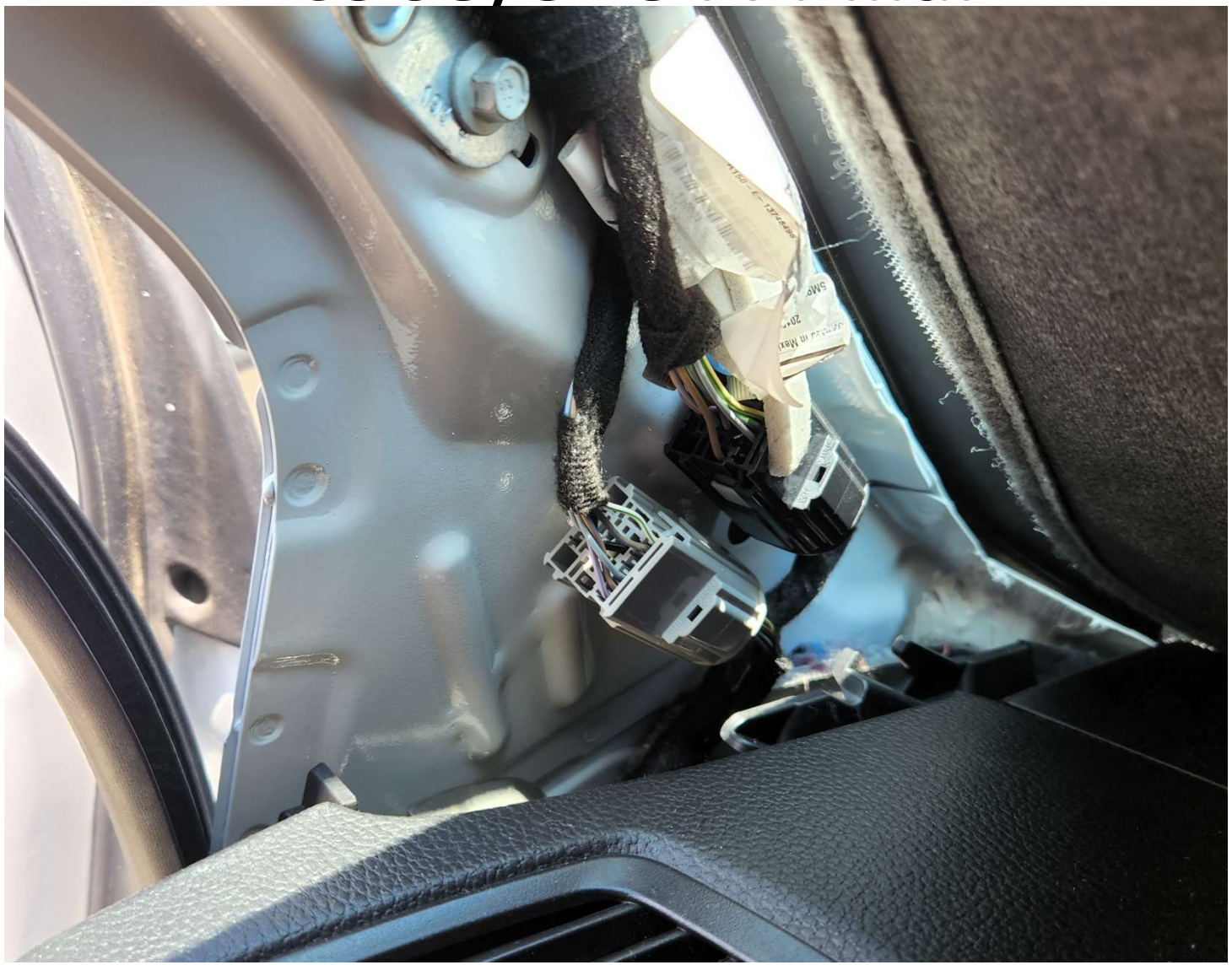
Check for Terminal Part Numbers

Pin	Circuit	Gauge	Qualifier
1	CRW13 (GN)	18	
2	*	*	
3	VLN33 (GY-VT)	22	
4	CBP32 (GN-VT)	20	
5	CLN09 (YE-GN)	20	
6	*	*	
7	CBP36 (BU-BN)	20	
8	CBB23 (BN-YE)	18	
9	*	*	
10	VPL56 (BU-GY)	22	

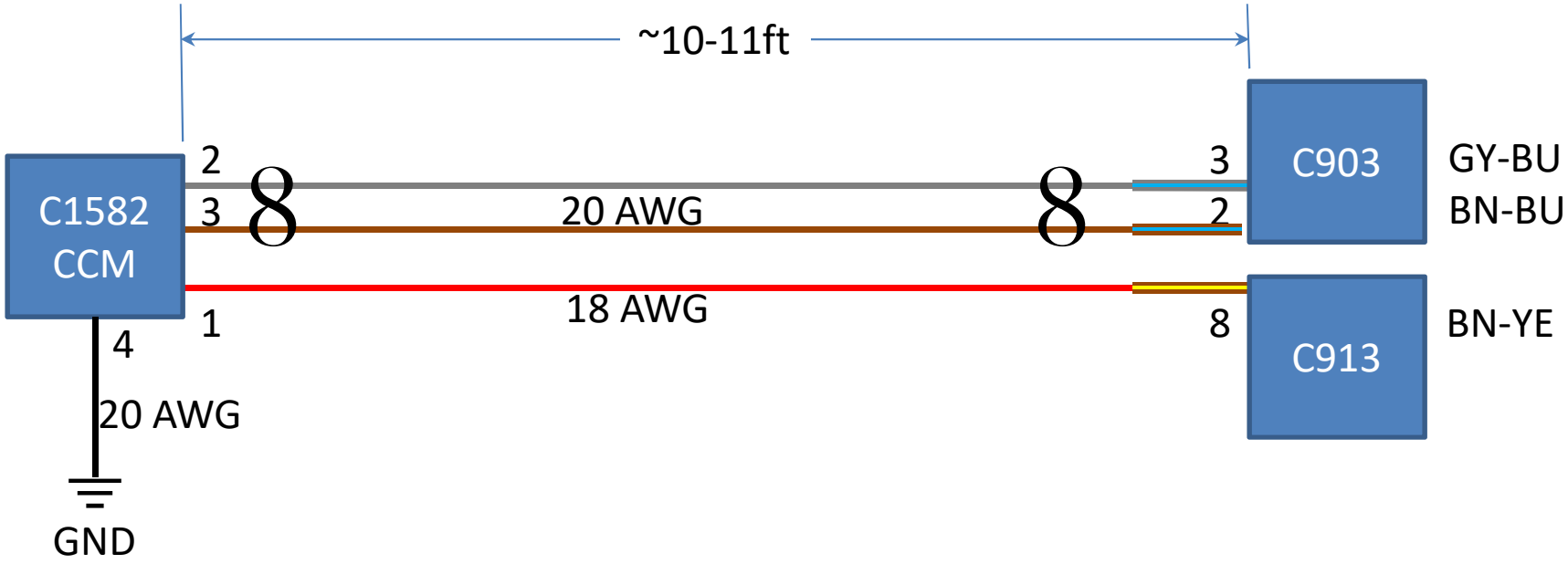
Pin	Circuit	Gauge	Qualifier
1	CRW13 (GN)	18	
2	*	*	
3	VLN33 (GY-VT)	22	
4	CBP32 (GN-VT)	20	
5	CLN09 (YE-GN)	20	
6	*	*	
7	CBP36 (BU-BN)	20	
8	CBB23 (BN-YE)	18	
9	*	*	
10	VPL56 (BU-GY)	22	

Locate the Brown-Yellow wire and either solder or use Posi-Taps to make the connection
DO NOT USE AUTO TAPS

C903/913 A-Pillar



CCM Harness



- Start by making a twisted pair fro your Can Bus. This can be easily done with a tie point and a drill
- Use your favorite wire loom and run the harness from the CCM thru the firewall up to the A-pillar. Its easiest to go thru the fire wall were the main harness does using tools of your choice.

Stock Bracket Install

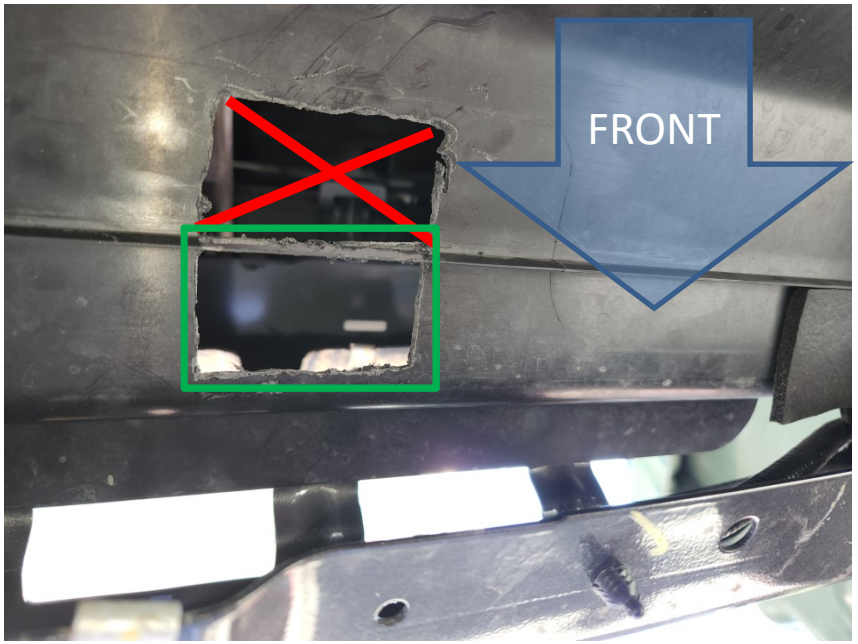
- The following slides detail how to add the stock bracket.
- For the relocation style bracket follow the mfgs directions

Stock Bracket Install

- Remove Lower Bumper Valance

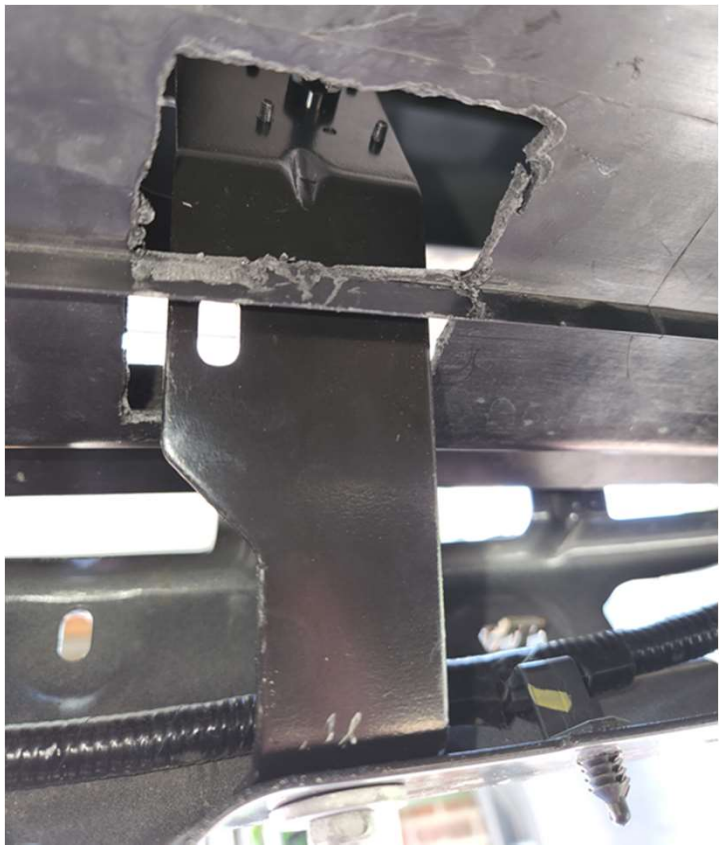
Stock Bracket Install

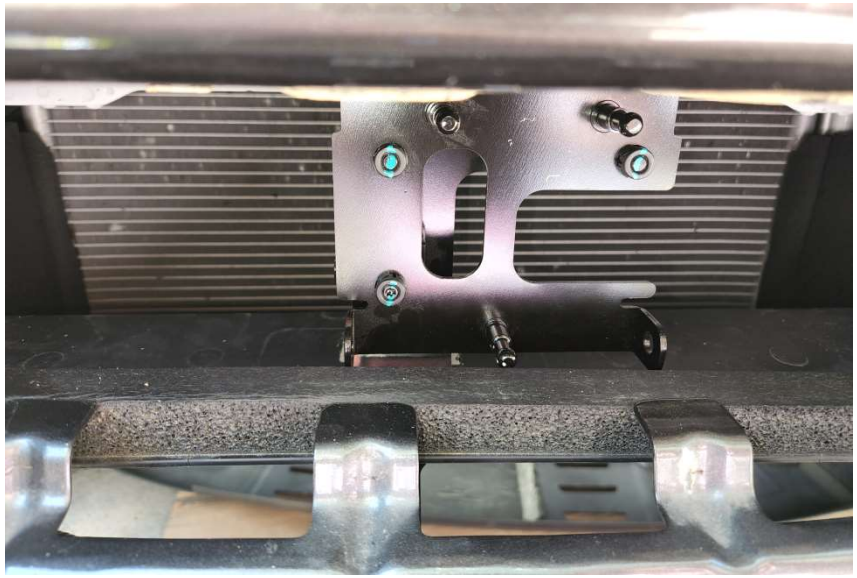
- Cut a hole in the plastic air baffle
  - In front of the rib!



Stock Bracket Install

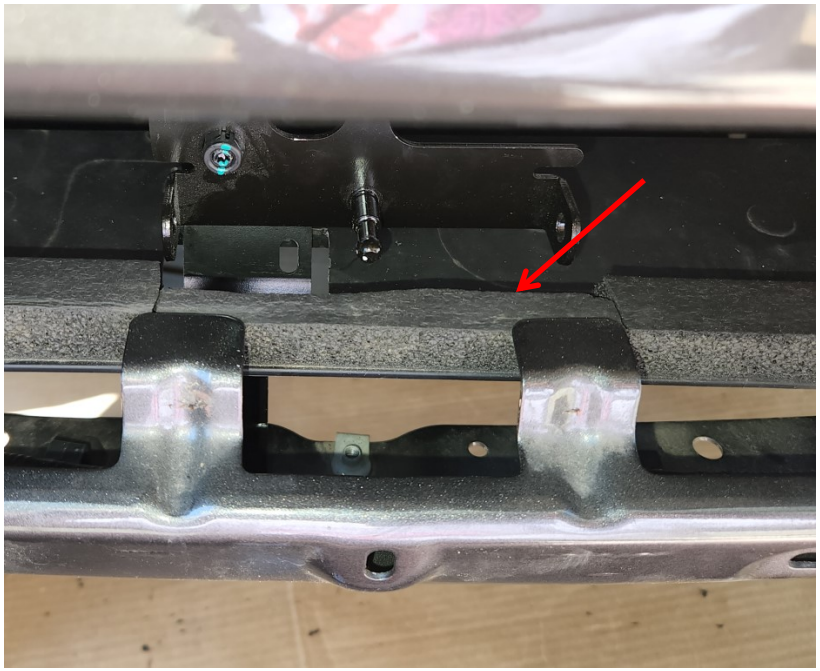
- Installed





Stock Bracket Install

- Cut foam gasket
  - Not sure this is required
- Install the CCM and preform the level prodcedure



Stock Bracket Install

- Complete

Stock Bracket Install

- Complete

Harness Routing

- Run Harness down to the existing harness running along the inside of the bumper
- Then up by the battery and on to the Firewall

Harness Routing

- Route thru the same location as the main harness – penetrating the outer portion away from the main harness
- This tool works GREAT
- Form here route straight up to the A-pillar

Harness Routing

- An issue was discovered where the can bus wires are not present by the IPMA on later model years (my 2019 had them).
- There is a short harness between the IPMA and connector C919. Jumpers can be run or take a trip to a junk yard