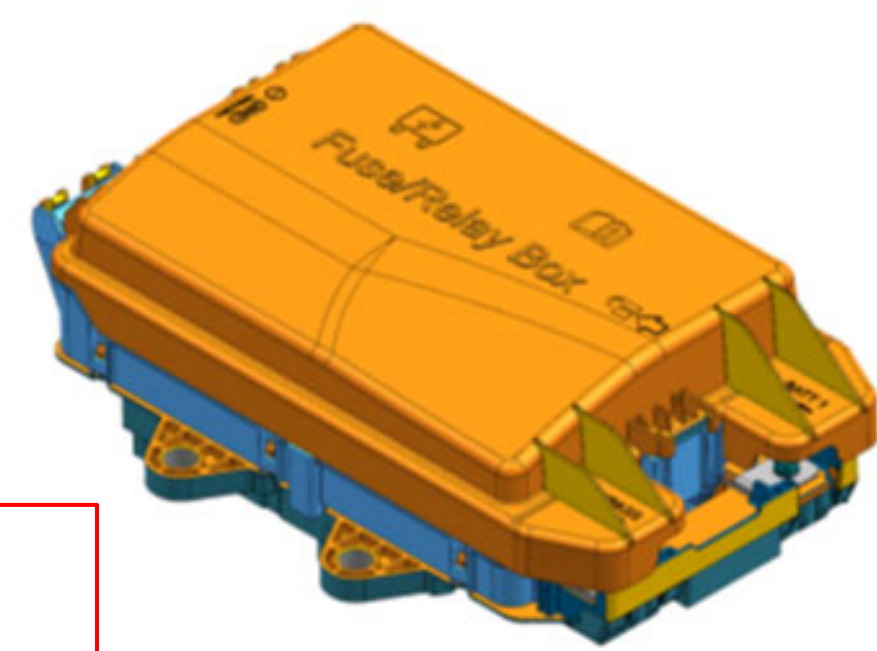




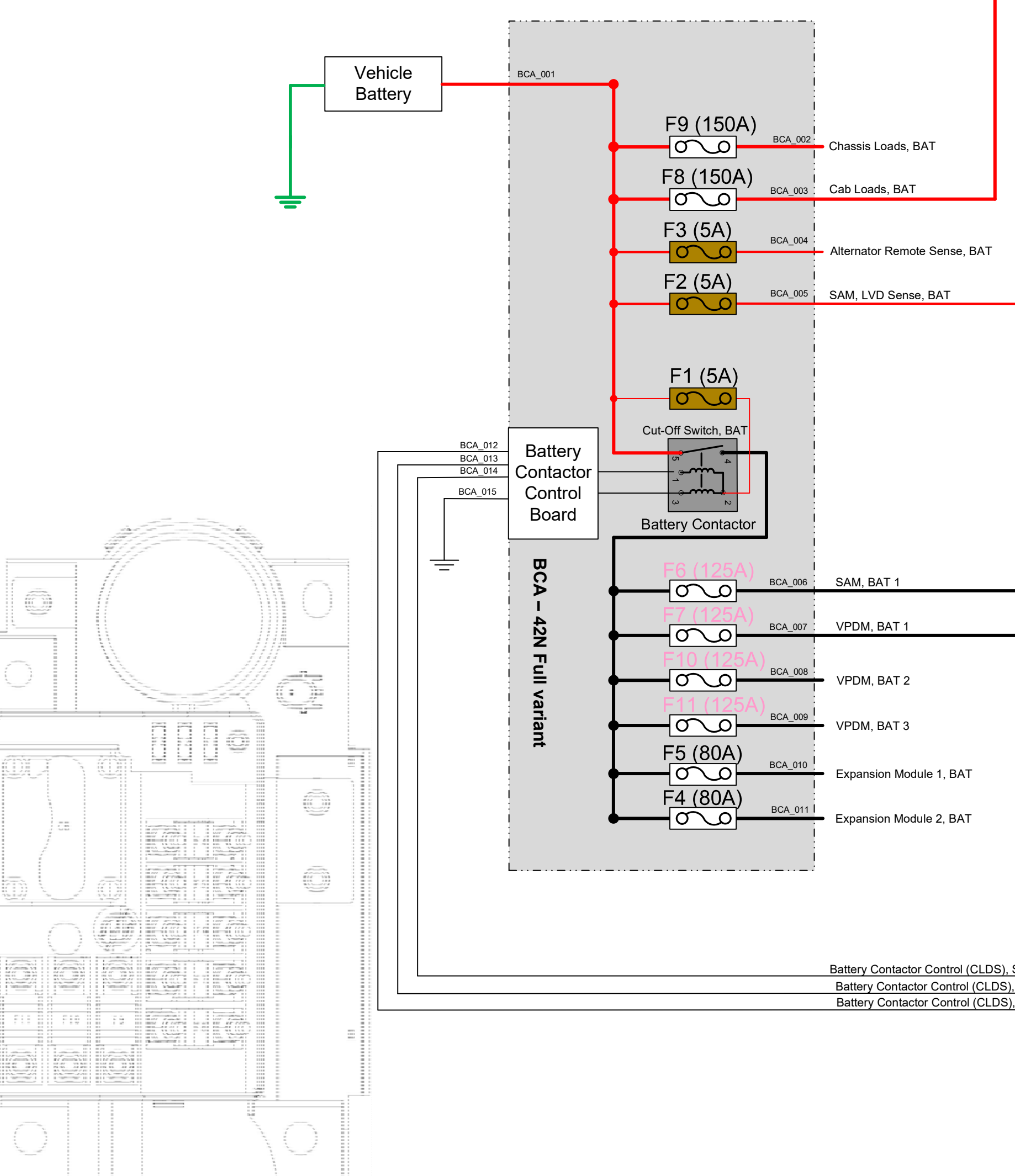
INTERIOR VPDM STI-542



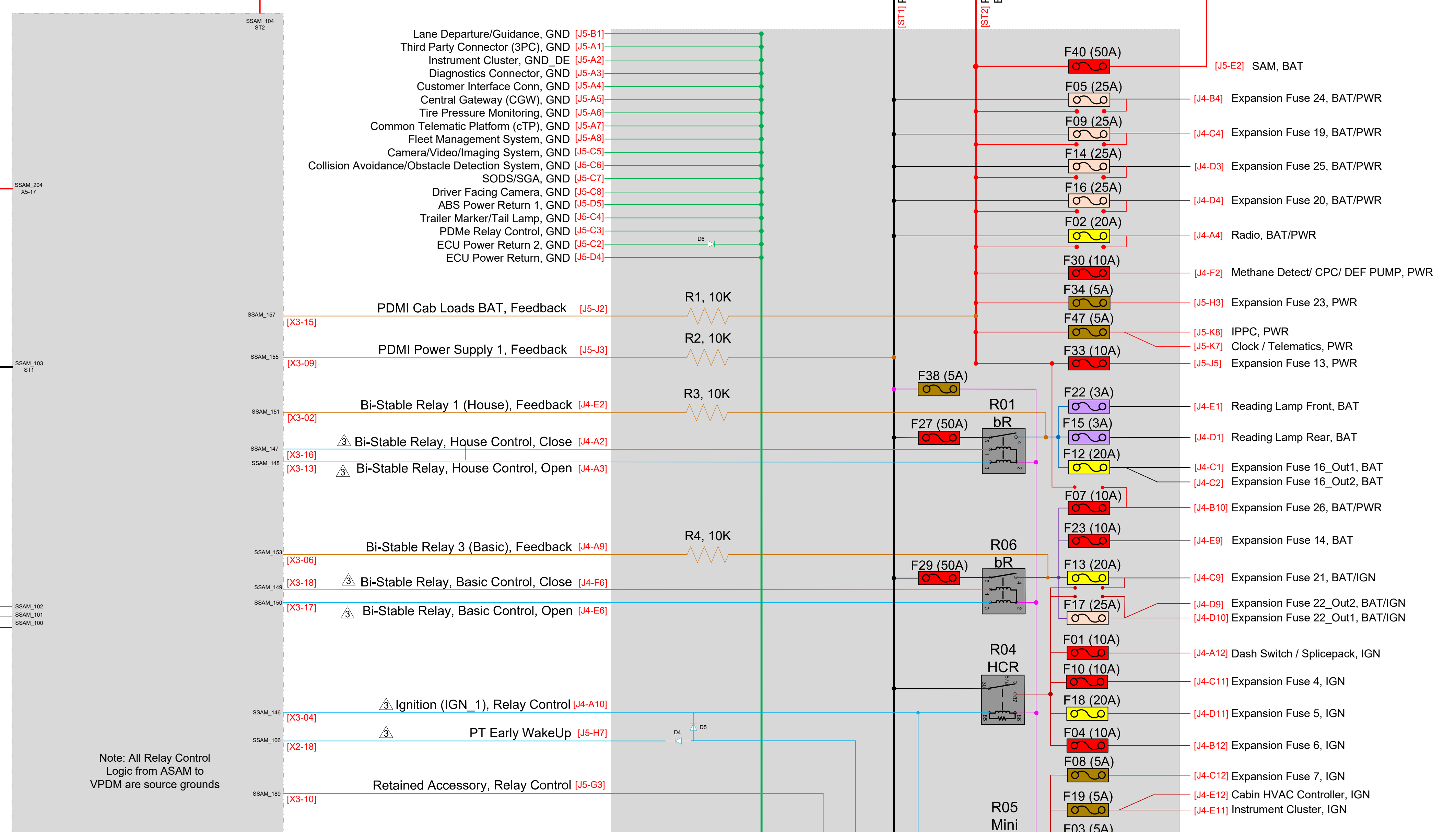
* For all Keep alive circuits, ECU must adhere to Iq < 300microA.

BCA

ASAM



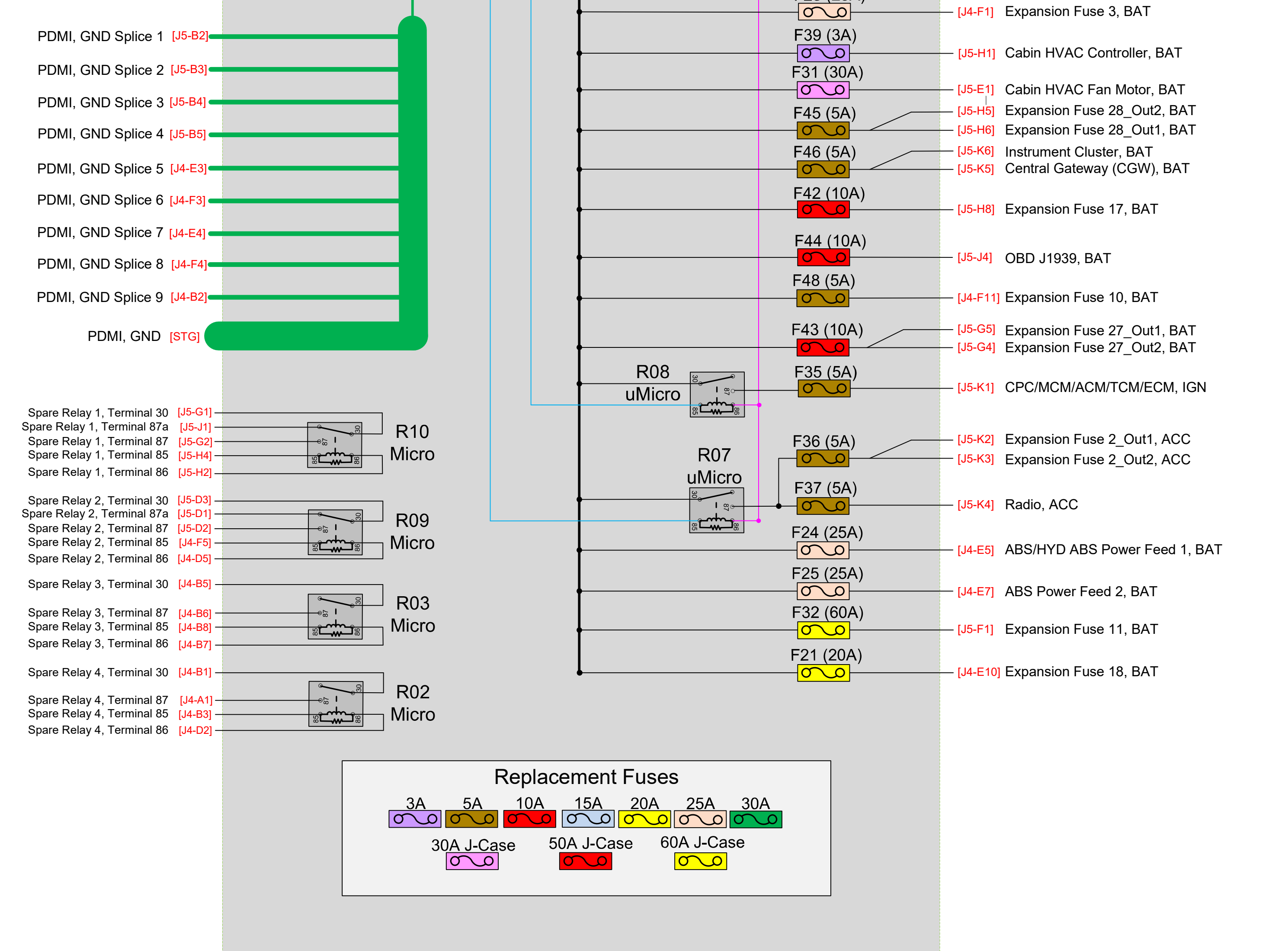
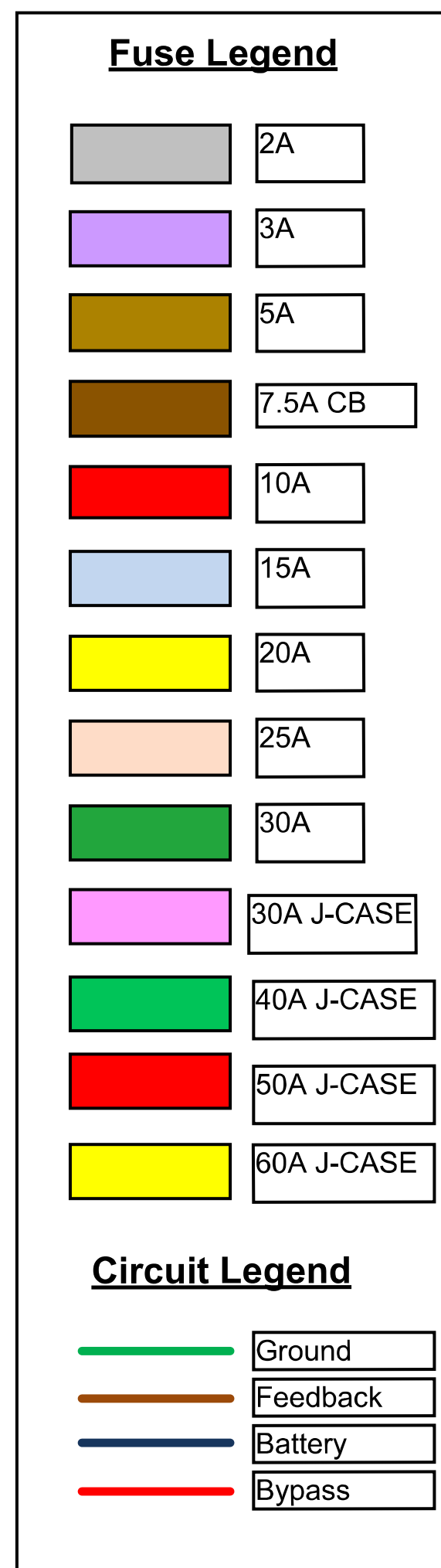
BCA (Battery Cable Access) Fuse Positions



Note: All Relay Control Logic from ASAM to VPDM are source grounds

FU/CB POS	FU/CB TYPE	MAX RATING (Amp)	Standard(S) Optional(O)	Label Description
F01	FU,T2,T3	10A	S	DASH SWITCH/SPLICEPACK, IGN
F02A/B	FU	20A	O	RADIO, BAT/PWR
F03	FU,T2,T3	5A	O	EXPANSION FUSE 1, IGN
F04	FU	10A	O	EXPANSION FUSE 6, IGN
F05A/B	FU	25A	O	EXPANSION FUSE 24, BAT/PWR
F06	FU	5A	O	EXPANSION FUSE 8, IGN
F07A/B	FU,T2,T3	10A	O	EXPANSION FUSE 26, BAT/PWR
F08	FU	5A	O	EXPANSION FUSE 7, IGN
F09A/B	FU	25A	O	EXPANSION FUSE 19, BAT/PWR
F10	FU	10A	O	EXPANSION FUSE 4, IGN
F11	FU	10A	O	EXPANSION FUSE 15, IGN
F12	FU,T2,T3	20A	O	EXPANSION FUSE 16, BAT
F13A/B	FU,T2,T3	20A	O	EXPANSION FUSE 21, BAT/IGN
F14A/B	FU	25A	O	EXPANSION FUSE 25, BAT/PWR
F15	FU,T2,T3	3A	S	READING LAMP REAR, BAT
F16A/B	FU	25A	O	EXPANSION FUSE 7, IGN
F17A/B	FU,T2,T3	25A	O	EXPANSION FUSE 22, BAT/IGN
F18	FU	20A	O	EXPANSION FUSE 5, IGN
F19	FU	5A	S	INST CLSTR/SRS/CAB HVAC CTRLR, IGN
F20	FU,T2,T3	5A	O	EXPANSION FUSE 12, IGN
F21	FU,T2,T3	20A	O	EXPANSION FUSE 18, BAT
F22	FU,T2,T3	3A	S	READING LAMP FRONT, BAT
F23	FU	10A	O	EXPANSION FUSE 14, BAT
F24	FU,T2,T3	25A	S	ABS/HYD ABS POWER FEED 1, BAT
F25	FU,T2,T3	25A	S	ABS POWER FEED 2, BAT
F26	FU,T2,T3	30A	S	TRAILER ABS CONN (7) & ABS PLC, IGN
F27	JCASE	50A	S	HOUSE LOAD 1, BAT
F28	FU,T2,T3	25A	O	EXPANSION FUSE 3, BAT
F29	JCASE	50A	S	BASIC LOAD 1, BAT
F30	FU	10A	S	METHANE DET/CPC/DEF PUMP, PWR
F31	JCASE	30A	S	CAB HVAC FAN MOTOR, BAT
F32	JCASE	60A	O	EXPANSION FUSE 11, BAT
F33	FU,T2,T3	10A	O	EXPANSION FUSE 13, PWR
F34	FU,T2,T3	5A	O	EXPANSION FUSE 23, PWR
F35	FU,T2,T3	5A	S	CPC / MCM / ACM / TCM / ECM, IGN
F36	FU,T2,T3	5A	O	EXPANSION FUSE 2, ACC
F37	FU	5A	S	RADIO, ACC
F38	FU	5A	S	PDMI, RELAY COIL, BAT 1
F39	FU	3A	S	FCU/ACU HVAC CTRLR, BAT
F40	JCASE	50	S	SAM, BAT
F41	JCASE	30A	O	EXPANSION FUSE 9, BAT
F42	FU,T2,T3	10A	O	EXPANSION FUSE 17, BAT
F43	FU,T2,T3	10A	O	EXPANSION FUSE 27, BAT
F44	FU,T2,T3	10A	S	OBD J1939, BAT
F45	FU	5A	O	EXPANSION FUSE 28, BAT
F46	FU	5A	S	CGW/INST CLUSTER, BAT
F47	FU	5A	S	IPPC/CLOCK/TELEMATICS, PWR
F48	FU	5A	O	EXPANSION FUSE 10, BAT

RELAY POS	RELAY TYPE	Standard(S) Optional(O)	Label Description
R01	Bi-Stable	S	HOUSE LOAD 1
R02	Micro	O	SPARE RELAY 4
R03	Micro	O	SPARE RELAY 3
R04	HCR	S	IGNITION 1
R05	Mini	S	IGNITION 2
R06	Bi-Stable	S	BASIC LOAD 1
R07	U-Micro	S	ACCESSORY
R08	U-Micro	S	IGN/PT EARLY WAKE UP
R09	Micro	O	SPARE RELAY 2
R10	Micro	O	SPARE RELAY 1



Key Position Legend

PWR => Keep Alive Powered
 BAT => Powered During Key-Off
 IGN => Powered During Key-On/Crank
 ACC => Powered During Key-On
 GND => See 28G GND Architecture

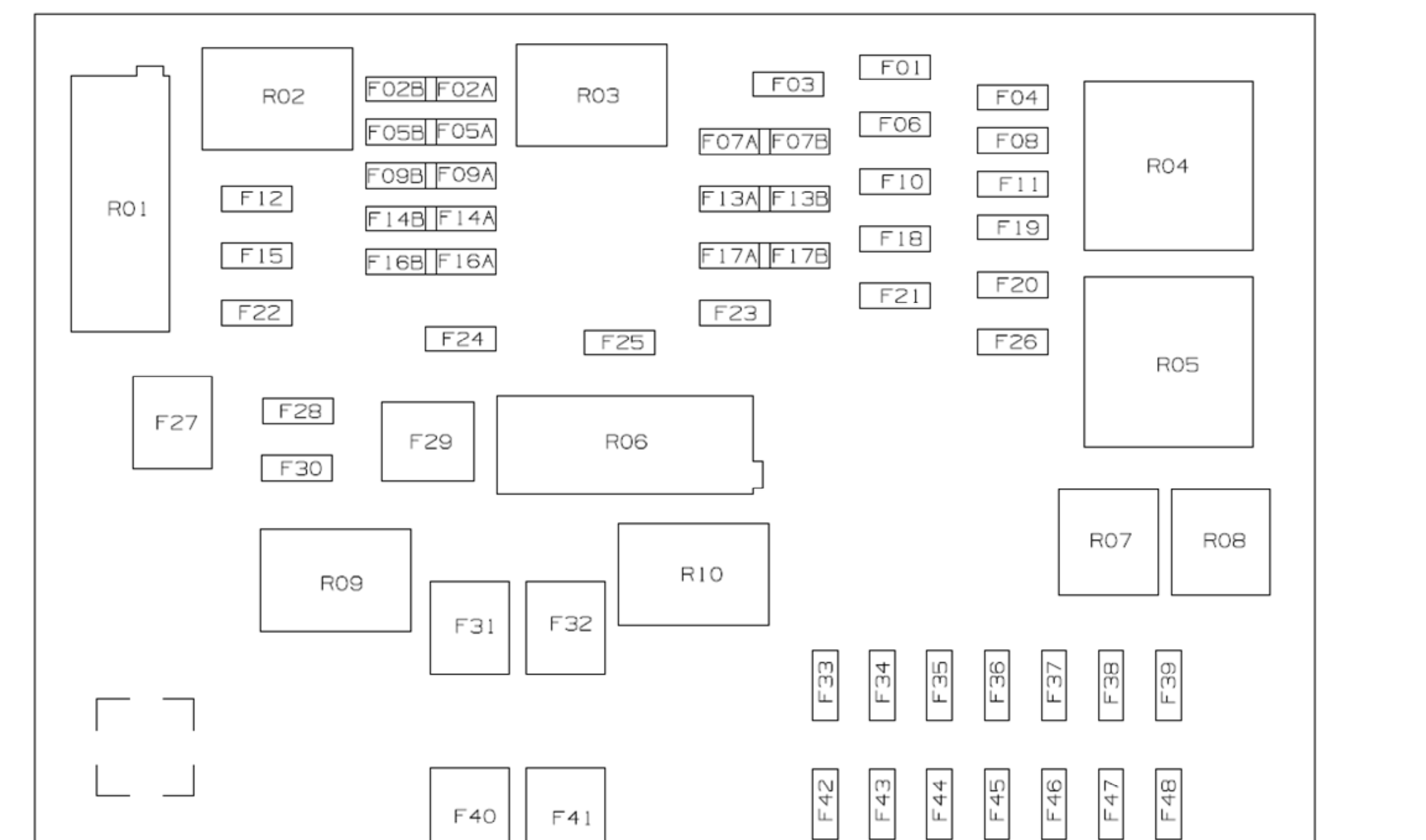
Relay Legend

bR => Bi-stable Relay
 HCR => High Current Relay
 Mini => ISO Mini Relay
 Micro => ISO Micro Relay
 uMicro => ISO Ultra Micro Relay

Spare Relay Trace Sizing

uMicro => 20A
 Micro => 30A
 Mini => 50A
 HCR => 80A
 Control => 5A for all relays

NOTE: Bistable relays magnetically latch in either the open or closed state with a pulse from the SAM as battery charge levels are reached. SAM will check the state of the relay on ignition transition. The ignition switch should be cycled after replacing a bistable relay.



VPDM Layout