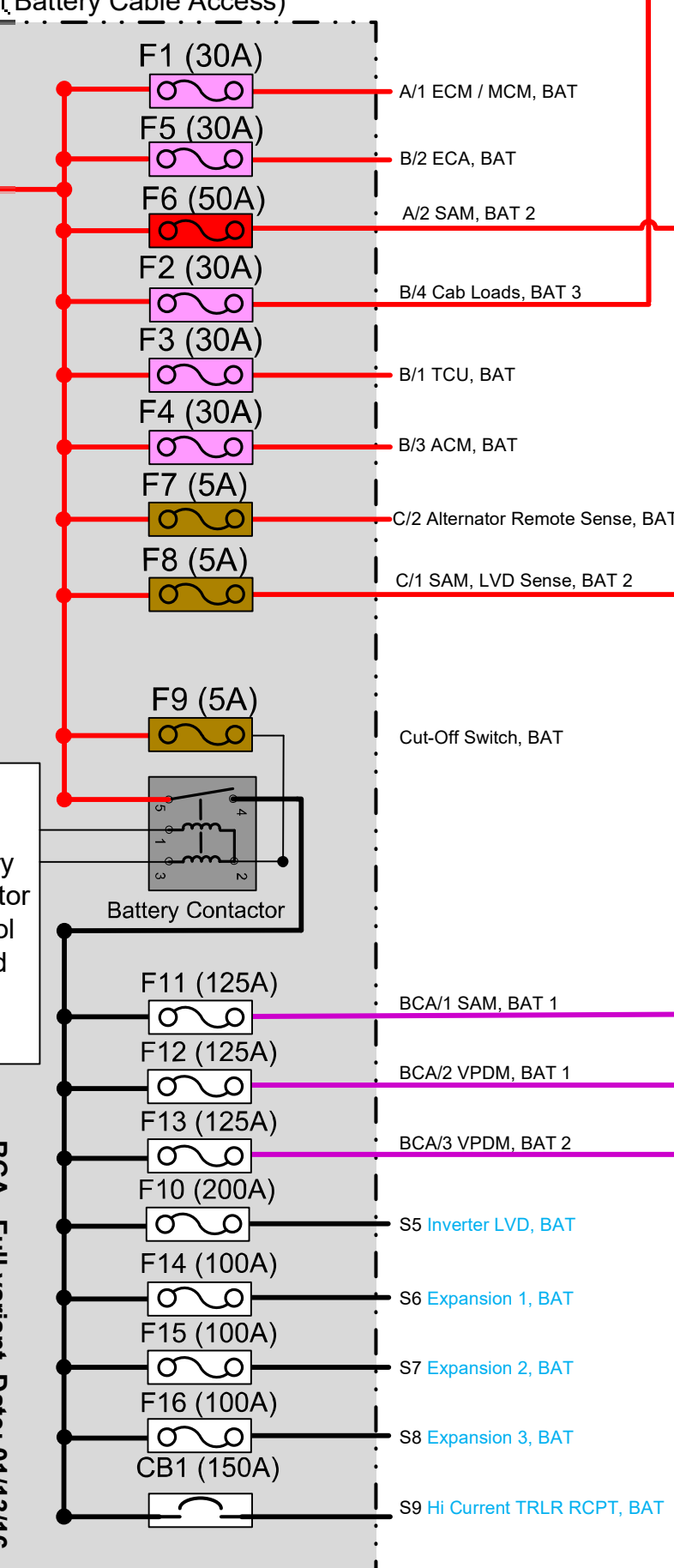
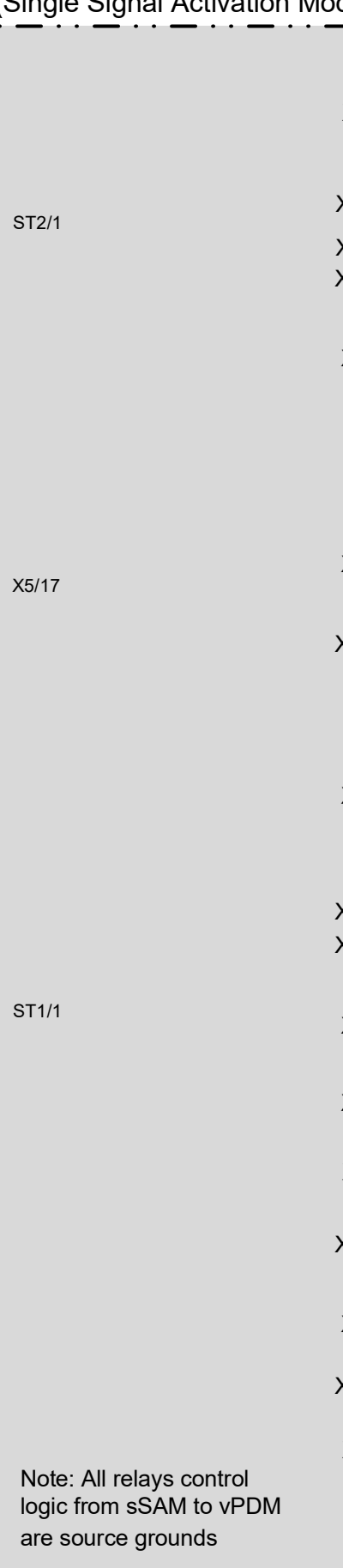


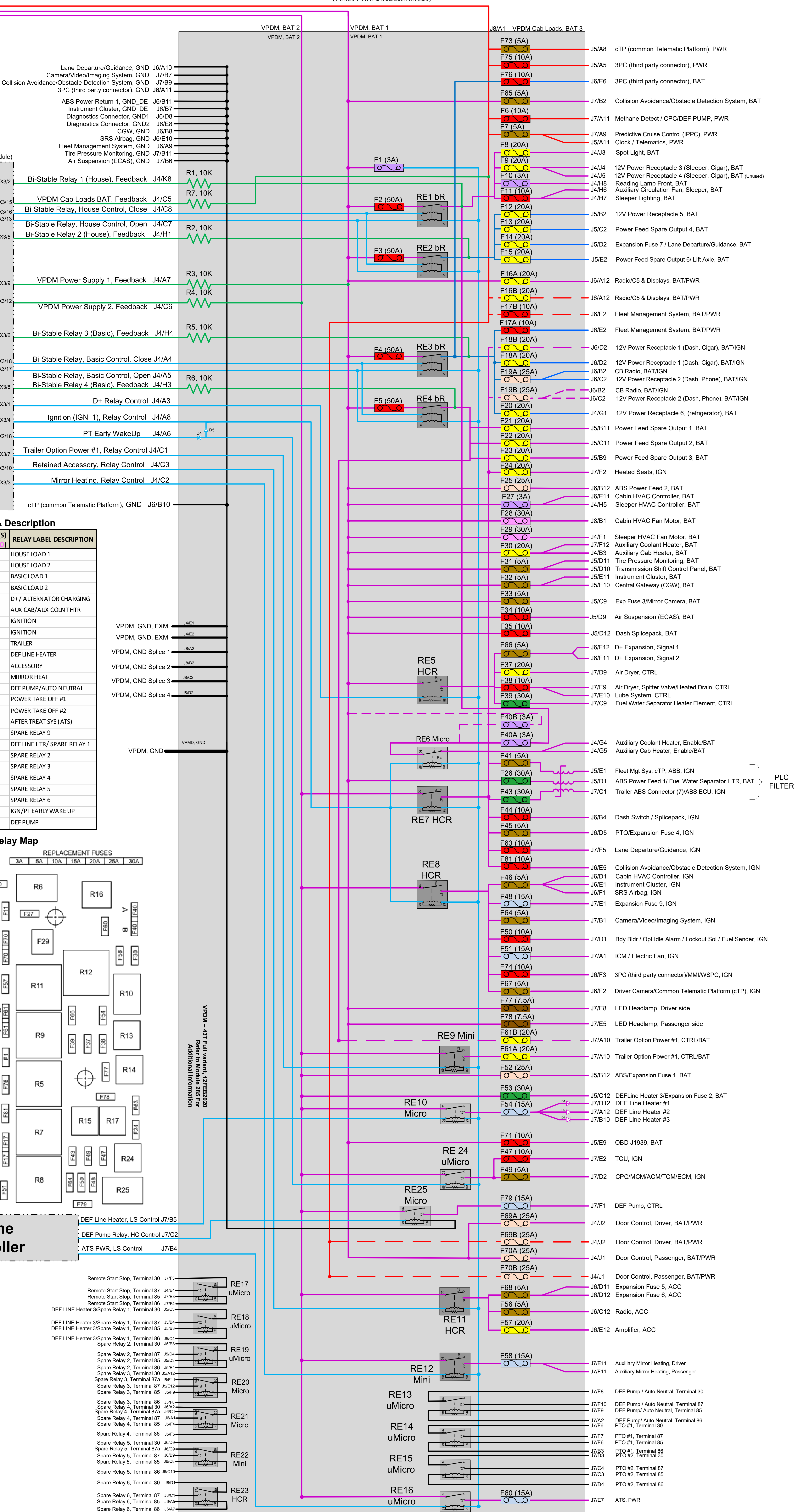
BCA (Battery Cable Access)



sSAM (Single Signal Activation Module)



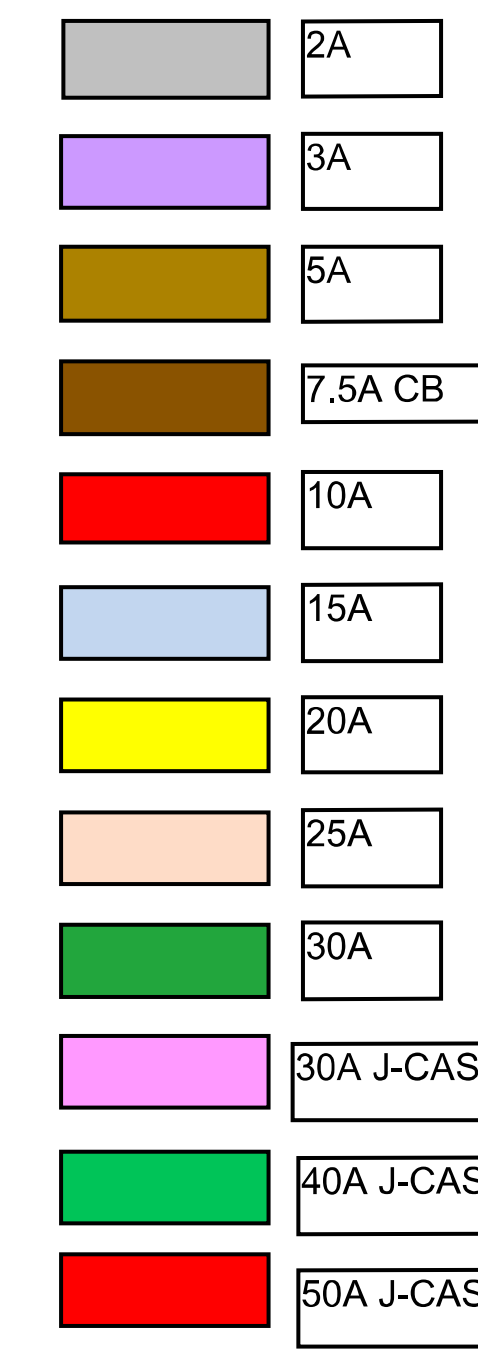
VPDM (Vehicle Power Distribution Module)



Approved Fuse/CB Type & Description

FU/CB POS	FU/CB TYPE	RATING (Amps)	Standard (S) Optional (O)	FUSE LABEL DESCRIPTION
F01	FU	3A	S	VPDM RELAY COIL, BAT1
F02	JCASE	50A	S	HOUSE LOAD 1, BAT1
F03	JCASE	50A	S	HOUSE LOAD 2, BAT1
F04	JCASE	50A	S	BASIC LOAD 1, BAT1
F05	JCASE	50A	S	BASIC LOAD 2, BAT1
F06	FU	10A	S	METHANE DETECT/CP/DEF/PUMP, PWR
F07	FU	5A	S	IPPC/CLOCK/TELEMATICS, PWR
F08	FU,T2,T3	10/20A	O	SPOT LAMP, BAT1
F09	FU,T2,T3	20A	S	12V PWR RCPT 3&4S/PR, BAT1
F10	FU,T2,T3	3A/5A	S	READING LAMP FRONT, BAT1
F11	FU,T2,T3	10A	O	SLEEPER LAMP/ALX CRG FAN, BAT1
F12	FU,T2,T3	20A	S	12V PWR RCPT 5 SLPR, BAT1
F13	FU,T2,T3	10/20A	O	PWR FEED OUTPUT 4, BAT1
F14	FU,T2,T3	10A	O	EXP. FUSE 7/LANE DEP/GUIDANCE, BAT1
F15	FU,T2,T3	20A	O	PWR FEED OUTPUT 6/LIFT AXLE, BAT1
F16A/B	FU	20A	S	RADIO/CONNECT-5, BAT1/PWR
F17A/B	FU,T2,T3	10A	O	FLEET MGT SYS, BAT1/PWR
F18A/B	FU,T2	20A	S	12V PWR RCPT 1,DASH/O/GAR, BAT1/IGN
F19A/B	FU,T2	25A	S	CB/RAD/12V PWR RCPT 2,DASH, BAT1/IGN
F20	FU,T2,T3	20A	O	12V PWR RCPT 6, FRIG, BAT1
F21	FU,T2,T3	10/20A	O	PWR FEED OUTPUT 1, BAT1
F22	FU,T2,T3	10/20A	O	PWR FEED OUTPUT 2, BAT1
F23	FU,T2,T3	10/20A	O	PWR FEED OUTPUT 3, BAT1
F24	FU	20A	O	HEATED SEAT, IGN
F25	FU,T2,T3	25A	S	ABS POWER FEED 2, BAT1
F26/F26A	FU,T2,T3	30A	S	ABS POWER FEED 1/ FUEL WATER SEP HTR, BAT1
F27	FU	3A	S	FCU/ACU HVAC CTRLR, BAT1
F28	JCASE	30A	S	CAB HVAC FAN MOTOR, BAT1
F29	JCASE	30A	S	SLEEPER HVAC FAN MOTOR, BAT1
F30	FU,T2,T3	20A	S	AUX CAB/ALX COUNT HTR, BAT1
F31	FU	5A	O	TIRE PRESS/FRANS SHFT CTRL, BAT1
F32	FU	5A	O	ICG/INST CLUSTER, BAT1
F33	FU,T2,T3	5A	O	EXP FUSE 3/ARRIOR CAMERA, BAT1
F34	FU,T2,T3	10A	O	AIR SUSPENSION (ECAS), BAT1
F35	FU,T2,T3	10A	O	DASH SPICEPACK, BAT1
F37	FU,T2,T3	20A	S	AIR DRYER CONTROL, D+
F38	FU,T2,T3	10A	O	W/BE/AIR DRYER/SPIT W/INTD DRAIN CTRL, D+
F40A/B	FU	3A	O	FUEL WATER SEP HTR ELEMENT CTRL, D+
F41	FU,T2,T3	5A	O	AUX CAB/ALX COUNT HTR, ENABLE/BAT1
F43	FU,T2,T3	30A	S	FLEET MGT SYS / ABS / COMTEL PLATF, IGN
F44	FU,T2,T3	10A	S	TRAILER ABS CONN (7) & ABS ECU, IGN
F45	FU,T2,T3	5A	O	DASH SWITCH/SPICEPACK, IGN
F46	FU,T2,T3	5A	O	PTO/EXPANSION FUSE 4, IGN
F47	FU	5A	S	INST CLR/SRS/CAB HVAC CTRLR, IGN
F48	FU,T2	10A	O	TRANS CTRL UNIT (TCU), IGN
F49	FU	15A	O	EXPANSION FUSE 9, IGN
F50	FU	15A	O	CP/ MCM/ ACM/ TCM/ ECM, IGN
F51	FU	10A	O	BDY/BLDR/ALM/ALX/OUT/SOL/FL SNDR, IGN
F52	FU	15A	O	IGN/ELECTRIC FAN, IGN
F53	FU,T2,T3	25A	S	ABS / EXPANSION FUSE 1, BAT2
F54	FU,T2,T3	30A	O	DEF HTR 3/EXPANSION FUSE 2, BAT2
F55	FU,T2,T3	30A	S	DEF LINE HEATER #1/R2/R3 CTRL
F56	FU	5A	S	RADIO, ACC
F57	FU,T2,T3	20A	O	AMPLIFIER, ACC
F58	FU,T2,T3	15A	O	AUX MR HEAT, DRIVER/PASS CTRL
F60	FU,T2,T3	15A	S	AFTER TREATMENT SYS (ATS) CTRL
F61A/B	FU,T2,T3	20A	O	TRAILER OPTION POWER #1, CTRL/BAT2
F63	FU	10A	O	LANE DEPARTURE/ GUIDANCE, IGN
F64	FU	5A	O	CAMERA/VIDEO/IMAGING SYS, IGN
F65	FU	5A	S	COLLAVOID/OBSTACLE DET SYS, BAT1
F66	FU,T2,T3	5A	O	D+ EXPANSION, SIGNAL 1 & 2
F67	FU	5A	O	DRIVER CAMERA / COM TELEMATIC PLATF, IGN
F68	FU,T2,T3	5A	O	EXPANSION FUSE 5/6, ACC
F69A/B	FU	25A	S	DOOR CONTROL, DRIVER, BAT1/PWR
F70A/B	FU	25A	S	DOOR CONTROL, PASS, BAT1/PWR
F71	FU,T2	10A	S	OB0 1939, BAT1
F73	FU,T2,T3	5A	O	COM TELEMATIC PLATF (CTP), PWR
F74	FU	10A	O	THIRD PARTY CONN / WSPC / MM, IGN
F75	FU,T2,T3	10A	O	THIRD PARTY CONN (3PC), PWR
F76	FU	10A	O	THIRD PARTY CONN (3PC), BAT1
F77	T2	7.5A	S	LED HEADLAMP DRIVER, BAT1
F78	T2	7.5A	S	LED HEADLAMP PASSENGER, BAT1
F79	FU	15A	O	DEF PUMP CTRL
F81	FU	10A	S	COLLAVOID/OBSTACLE DET SYS, IGN

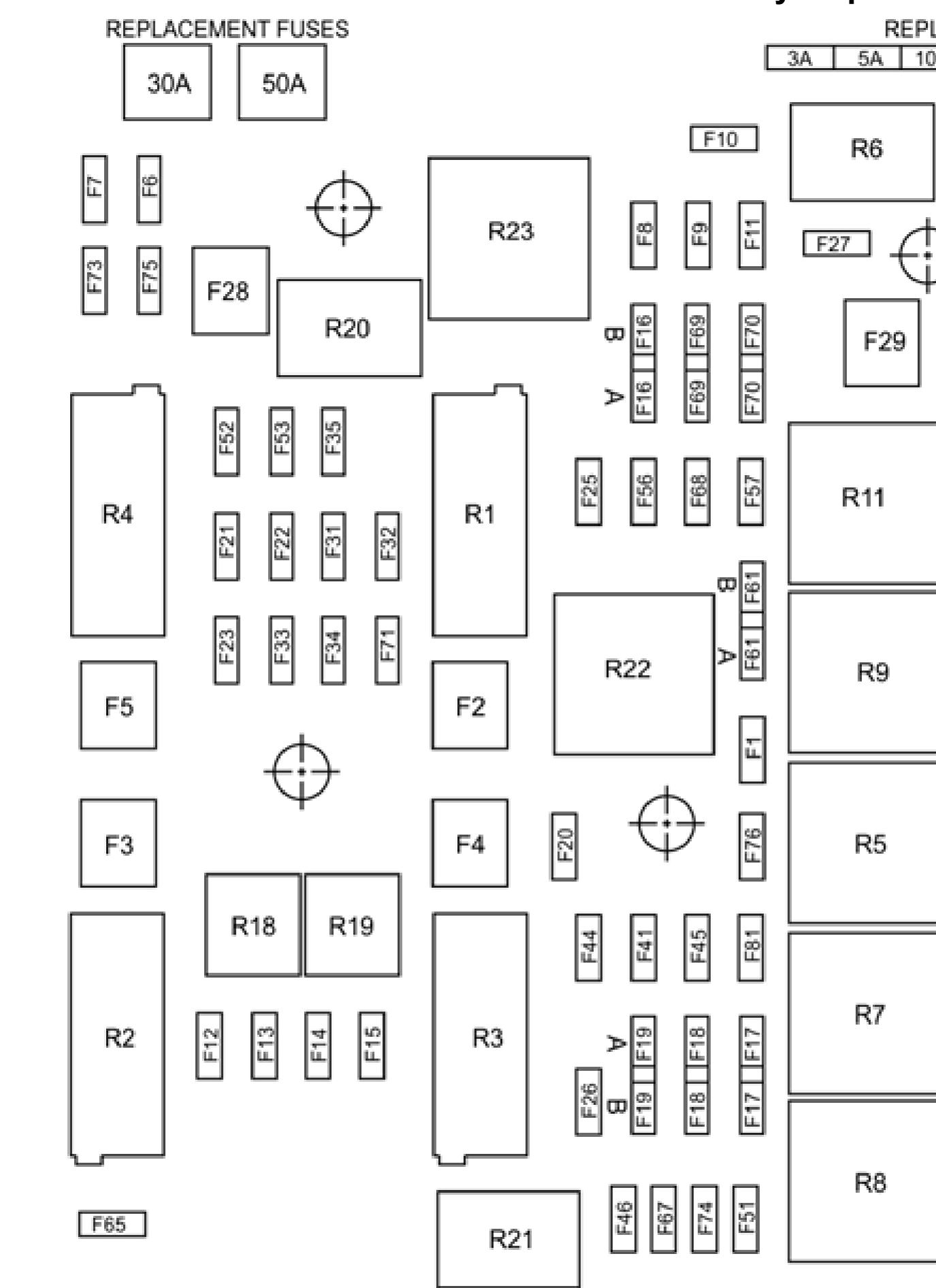
Fuse Legend



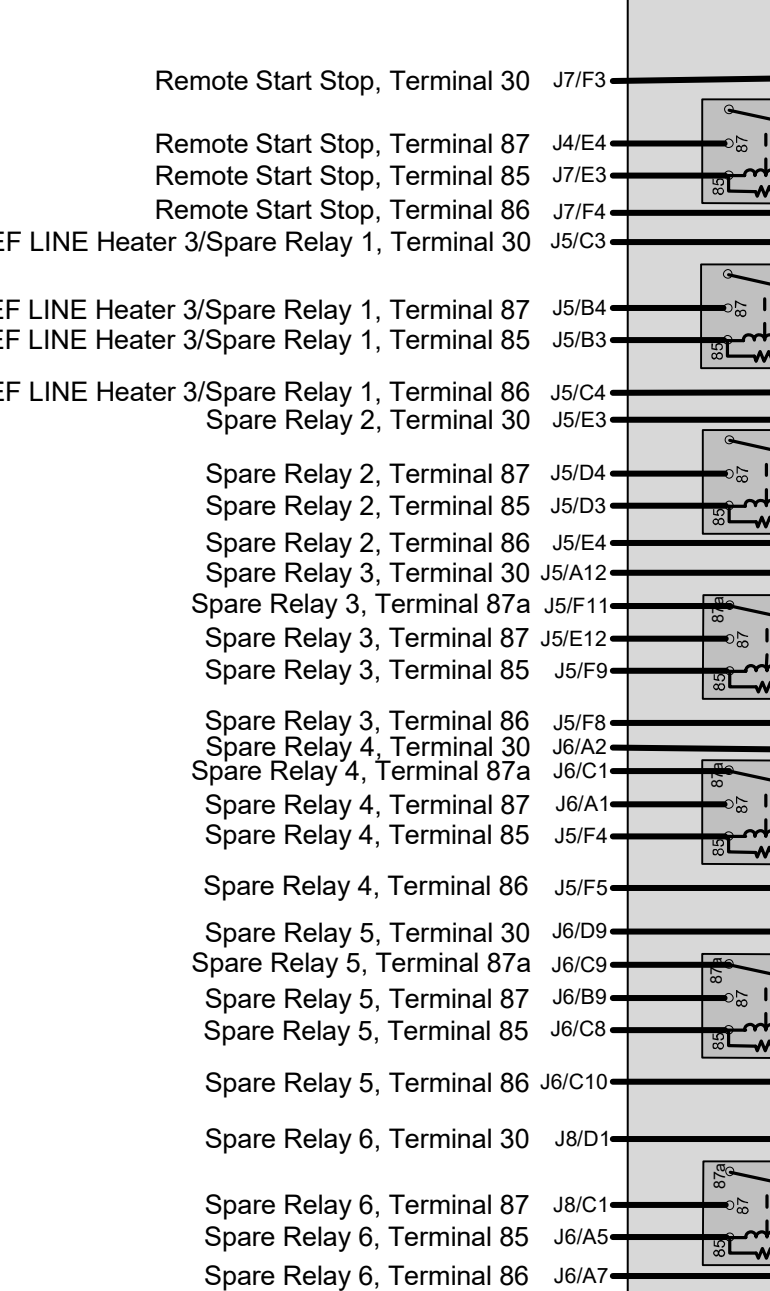
Relay Type & Description

RELAY POS	RELAY TYPE	Standard (S) Optional (O)	RELAY LABEL DESCRIPTION
RE1	Bi-Stable	S	HOUSELOAD 1
RE2	Bi-Stable	S	HOUSELOAD 2
RE3	Bi-Stable	S	BASIC LOAD 1
RE4	Bi-Stable	S	BASIC LOAD 2
RE5	HCR	S	D+ / ALTERNATOR CHARGING
RE6	Micro	O	AUX CAB/ALX COUNT HTR
RE7	HCR	S	IGNITION
RE8	HCR	S	IGNITION
RE9	Mini	O	TRAILER
RE10	Micro	S	DEF LINE HEATER
RE11	HCR	S	ACCESSORY
RE12	Mini	O	MIRROR HEAT
RE13	U-Micro	O	DEF PUMP/AUTO NEUTRAL
RE14	U-Micro	O	POWER TAKE OFF #1
RE15	U-Micro	O	POWER TAKE OFF #2
RE16	U-Micro	S	AFTER TREAT SYS (ATS)
RE17	U-Micro	O	SPARE RELAY 9
RE18	U-Micro	O	DEF LINE HTR/ SPARE RELAY 1
RE19	U-Micro	O	SPARE RELAY 2
RE20	micro	O	SPARE RELAY 3
RE21	micro	O	SPARE RELAY 4
RE22	mini	O	SPARE RELAY 5
RE23	HCR	O	SPARE RELAY 6
RE24	U-Micro	S	IGN/PT EARLY WAKE UP
RE25	Micro	O	DEF PUMP

Fuse/CB and Relay Map



Engine Controller



Key Position Legend

- PWR => 24 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

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

NOTE BR: 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.