Rowtrac™ 370 / 420 / 470 / 500
Steiger® 370 / 420 / 470 / 500 / 540 / 580 / 620
Quadtrac® 470 / 500 / 540 / 580 / 620
Tier 4B (final)
Tractor

PIN ZEF300001 and above

SERVICE MANUAL

Part number 47680525
1st edition English
March 2014

CASE IH AGRICULTURE

MidWestTech | Case Rowtrac, Steiger, Quadtrac 370, 420, 470, 500, 540, 580, 620 Tier 4B Tractor Service Manual | Publication 47680525

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Shaft assemblies - Assemble - Counter (third) shaft - PS6 transmission

Quadtrac 540 NA model [ZEF300001 -]	NA
Quadtrac 540 NA scraper model [ZEF300001 -]	NA
Quadtrac 580 NA model [ZEF300001 -]	NA
Quadtrac 580 NA scraper model [ZEF300001 -]	NA
Quadtrac 620 NA model [ZEF300001 -]	NA
Steiger 500 NA heavy duty wheeled [ZEF300001 -]	NA
Steiger 500 NA wheeled scraper [ZEF300001 -]	NA
Steiger 500 QT NA model [ZEF300001 -]	NA
Steiger 500 QT NA scraper model [ZEF300001 -]	NA
Steiger 540 NA heavy duty wheeled [ZEF300001 -]	NA
Steiger 540 NA wheeled scraper [ZEF300001 -]	NA
Steiger 580 NA heavy duty wheeled [ZEF300001 -]	NA
Steiger 580 NA wheeled scraper [ZEF300001 -]	NA
Steiger 620 NA heavy duty wheeled [ZEF300001 -]	NA
Steiger 620 NA wheeled scraper [ZEF300001 -]	NA

NOTICE: *Bearings must be heated in a bearing oven to a maximum temperature of* ***110 °C (230 °F)****.*

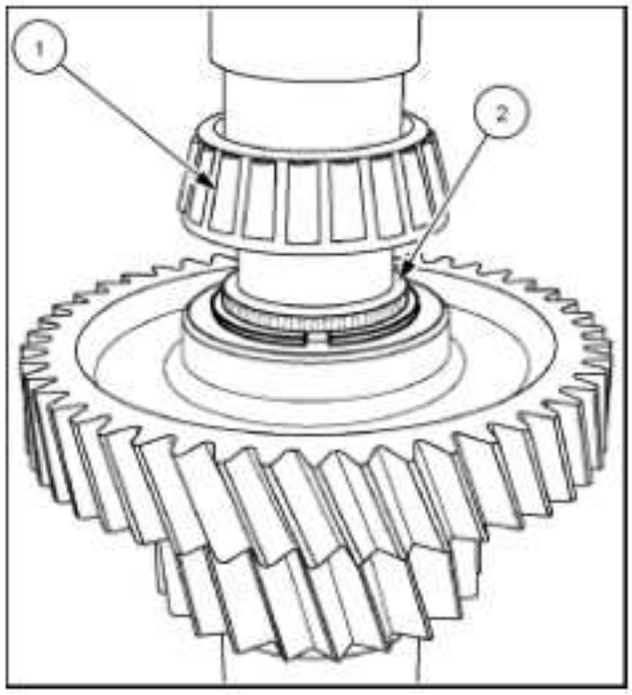
DO NOT use a torch or open flame to heat the bearings.

DO NOT heat the bearings above ***110 °C (230 °F)****.*

DO NOT leave the bearings heated for more than one hour.

1. Heat the front bearing cone (1) and drop onto the shaft until it is firmly against the top of the splines (2).

NOTICE: *Do not force the bearings onto the shaft.*



RCPH19FWD001BAC 1

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Connector X-9025 NEF - Exhaust flap

CONNECTOR X-9025 NEF - Exhaust flap			
PIN NUMBER	**WIRE NUMBER**	**CIRCUIT REFERENCE**	**ELECTRICAL SCHEMATIC FRAME**
1	EN-049	Supply	**Wire harnesses - Electrical schematic frame 04 - Engine - Controller Area Network (CAN) (55.100)**
2	EN-050	Ground	
3	-	-	
4	EN-047A	CAN Low	**Wire harnesses - Electrical schematic frame 04 - Engine - Controller Area Network (CAN) (55.100)**
5	EN-048	CAN High	

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4108-Rear remote no.1 - float position not reached

NOTE: *When the cause of the error code has been rectified, clear the error code and test the system for normal operation.*

Possible failure modes:

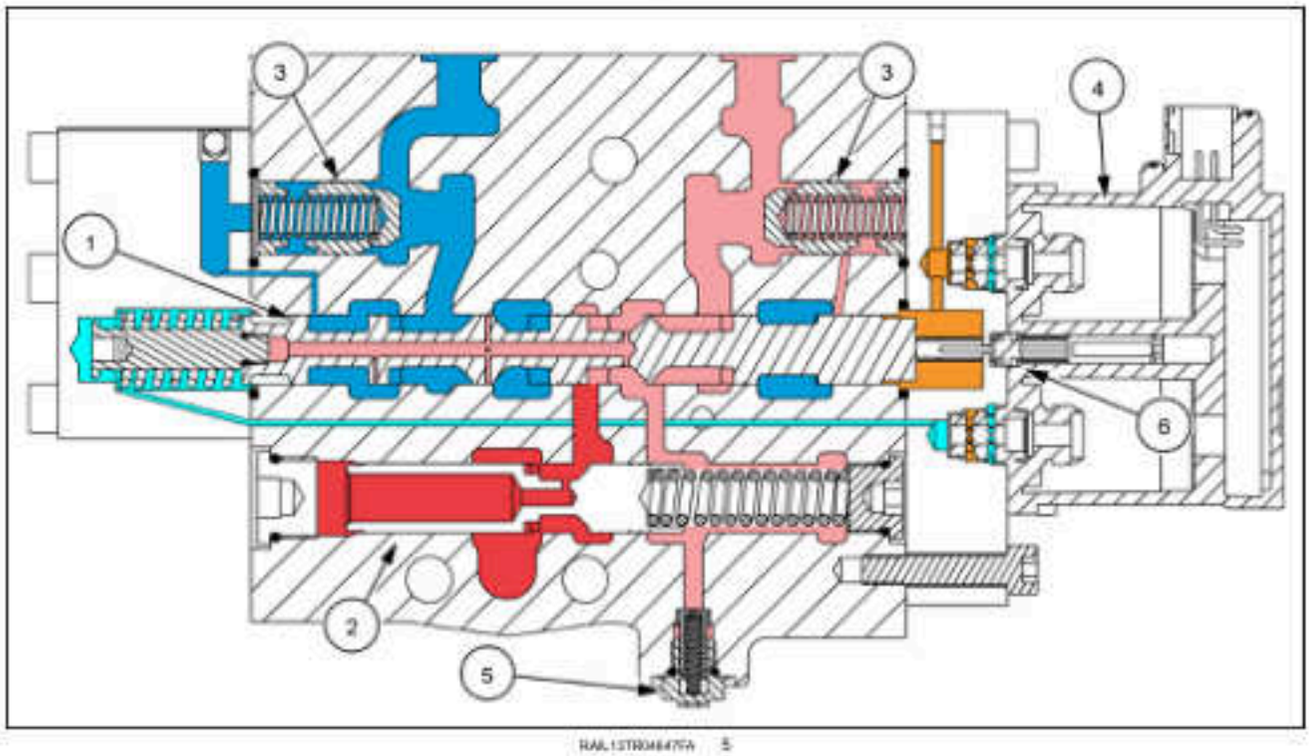
1. Incorrect regulated hydraulic pressure
2. Faulty electro hydraulic remote (EHR) pilot head

Solution:

1. Check for other EHR error code(s).
   A. Make a note of the error code(s), clear the error code(s) and test the system for normal operation.
   B. If the fault is still present, continue to step **2**
2. Check the regulated hydraulic pressure. The regulated hydraulic pressure can be checked at the park brake diagnostic coupler (park brake off), for further information refer to hydraulic testing in service manual.
   A. If the pressure is incorrect, repair or replace component(s) as required.
   B. If the pressure is okay, download the correct level of software and configure the EHR valve. If the fault reoccurs, remove, replace, and configure the EHR valve pilot head.

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4. Extend solenoid	11. Pilot supply (regulated)
5. Retract solenoid	12. Return/tank
6. Spool position sensor	13. Retract port
7. Signal to compensator	14. Extend port



RAIL1STR04447FA 5

PFC pump pressure	Return to tank pressure
Remote valve operating pressure	Trapped oil
Pilot pressure	Pilot return pressure
1. Main valve spool	4. Extend/retract solenoid valve assembly with microprocessor (pilot head)
2. Flow control spool	5. Signal check
3. Lock check	6. Spool position sensor

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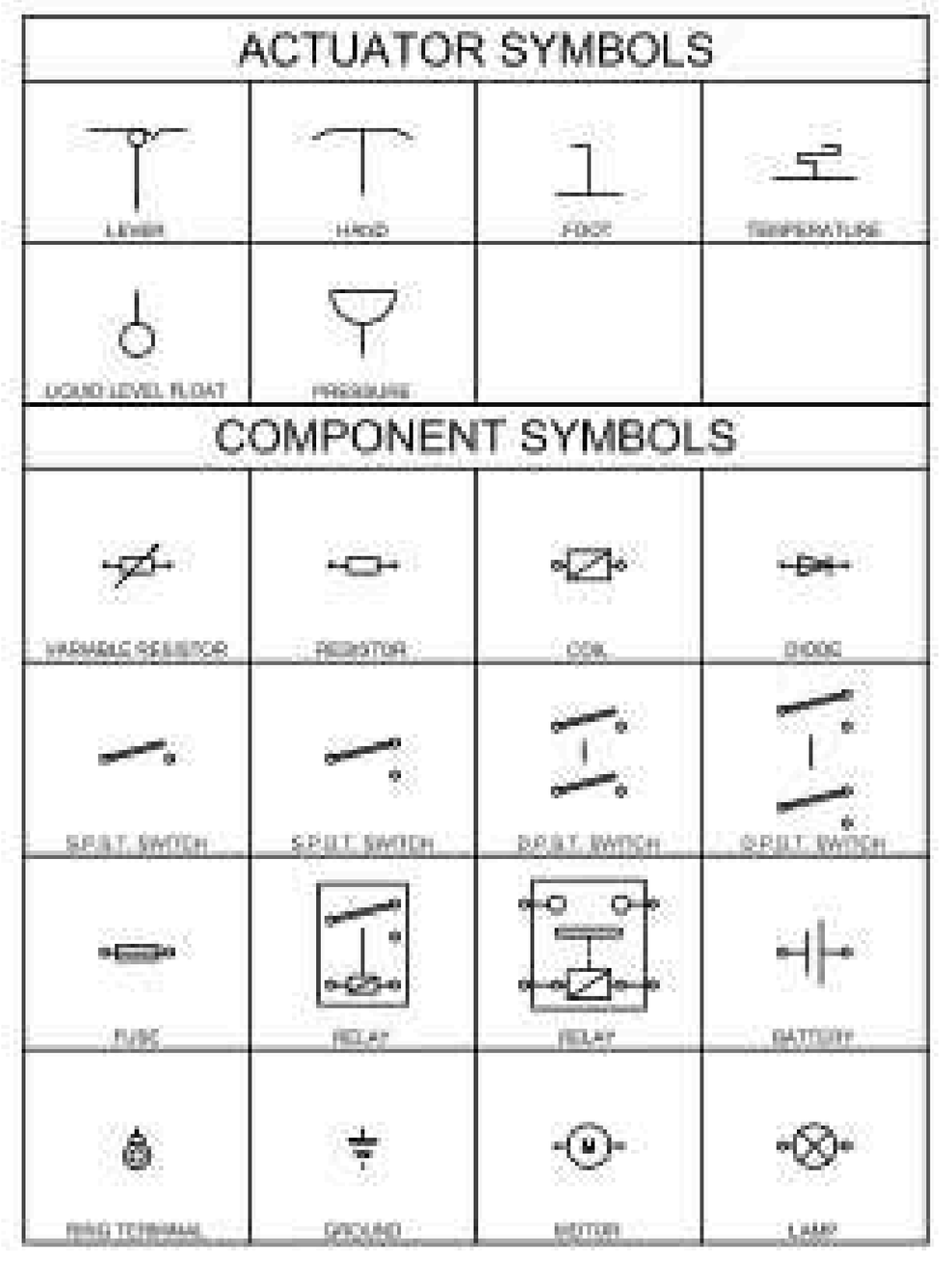
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10	BLANK SHEET
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90	CAN DATA BUS - VEHICLE BUS 2
91	CAN DATA BUS - VEHICLE BUS 2
92	CAN DATA BUS - IMPLEMENT BUS
93	CAN DATA BUS - ENGINE BUS
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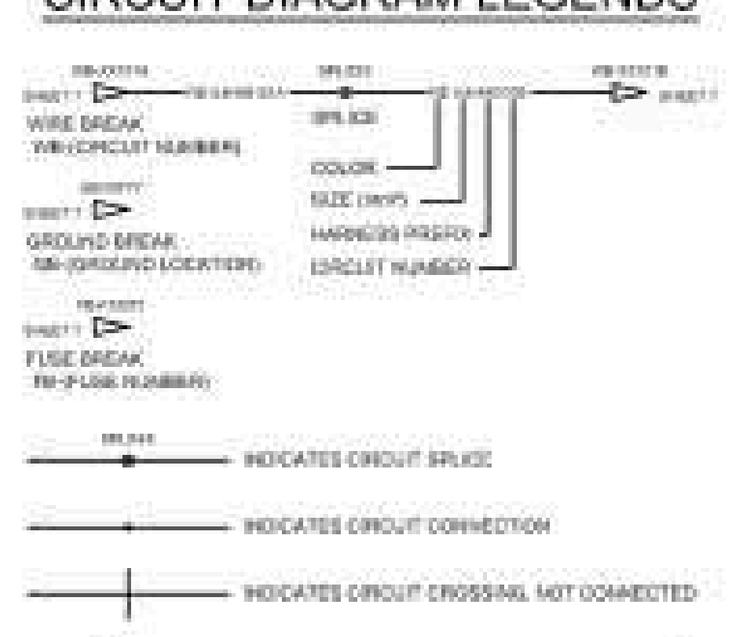
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ACTUATOR SYMBOLS

COMPONENT SYMBOLS



CIRCUIT DIAGRAM LEGENDS



COLOR ABBREVIATIONS

ABBR.	DESCRIPTION
BK	BLACK
BL	BLUE
BR	BROWN
GN	GREEN
GY	GRAY
LB	LIGHT BLUE
LG	LIGHT GREEN
OR	ORANGE
PK	PINK
RD	RED
TN	TAN
VT	VIOLET
WH	WHITE
YE	YELLOW

HARNESS PREFIX DEFINITIONS

PREFIX	DESCRIPTION
BA	BACKUP ALARM
BC	BEACON LAMPS
BE	BATTERY EQUALIZER
CM	CAB MAIN
CR	CAB ROOF
DA	DISPLAY ADAPTER
DL	DIFF LOCK- REAR AXLE
DF	FRONT DASH
EA	ARMREST ELECTRIC ADJUST
EN	ENGINE
FF	FRONT FRAME
FM	FRONT MARKER LAMPS
GB	ANTENNA SUB ROOF
GC	AUTOGUIDANCE CAB
GR	ANTENNA CAB ROOF
GS	AUTOGUIDANCE CHASSIS
HC	TPH CAB
HS	TPH CHASSIS
HY	HYDRAULIC SUB ASSEMBLY
IC	ISO 11783 CAB
IP	ISO 11783 POWER
IS	ISO 11783 CHASSIS
LH	HOOD LAMPS
LT	TAIL LAMP ADAPTER
PT	PTO
RF	REAR FRAME
RM	REAR MARKER LAMPS
RT	7 WAY TRAILER ADAPTER
SB	SCR BUNDLE
SC	SCR CHASSIS
SD	SCR DEF QUALITY SENSOR
SE	SCR EXHAUST
SP	DIFF LOCK, STEERING PRESSURE SENSOR
TE	TELEMATICS
TM	TRANSMISSION
VE	ELECTRONIC HYDRAULIC REMOTE VALVES
WB	WASHER BOTTLE
WF	FRONT LOWER WIPERS

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FUSE TABLE

FUSE NUMBER	DESCRIPTION	RATING (AMPS)	SHEET NUMBER
F-001	HAZARD/TURN FLASHER MODULE	20	11
F-002	IGNITION CIRCUIT	15	11
F-003	ICU CONTROLLER	10	11
F-004	TCU CONTROLLER - MAIN	10	11
F-005	COLOR DISPLAY	10	11
F-006	ROAD/HAZARD SWITCH	15	11
F-007	TELEMATICS INTERFACE	3	11
F-008	ARMREST - ACM CONTROLLER	10	11
F-009	RADIO	5	11
F-010	HORN	15	11
F-011	AUX POWER OUTLETS 1,2,3	20	12
F-012	OPEN	—	12
F-013	OPEN	—	12
F-014	OPEN	—	12
F-015	CIGAR LIGHTER 1	15	12
F-016	CIGAR LIGHTER 2	15	12
F-017	CIGAR LIGHTER 3	15	12
F-018	CIGAR LIGHTER 4 & 5	15	12
F-019	EST DIAGNOSTIC PORTS	5	12
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F-021	HVAC MODULE BLOWER	30	13
F-022	OPEN	—	13
F-023	OPEN	—	13
F-024	OPEN	—	13
F-025	OPEN	—	13
F-026	OPEN	—	13
F-027	ENGINE - ECM CONTROLLER	10	14
F-028	PRPSTART CIRCUIT	5	14
F-029	BEACON LAMPS	15	14
F-030	SEAT HEIGHT COMPRESSOR/ARMREST ADJUST	15	14
F-031	7 OF 7 WAY TRAILER - POWER	30	14
F-032	BATTERY EQUALIZER	5	14
F-033	HAZARD/TURN FLASHER MODULE	5	14
F-034	WORK LAMPS INTERLOCK	15	14
F-035	BRAKE LAMPS	15	14
F-036	FUEL PRIMER PUMP	15	14
F-037	RADIO	15	15
F-038	BUSINESS BAND RADIO	15	15
F-039	REAR WIPER	20	15
F-040	FRONT LOWER WIPER	20	15
F-041	OPEN	—	15
F-042	FRONT INTERMITTENT WIPER	20	15
F-043	CAB PRESSURIZATION BLOWER	15	15
F-044	AUX POWER OUTLETS 1,2,3	20	15
F-045	SEAT HEATER	15	15
F-046	OPEN	—	15
F-047	TCU CONTROLLER - MAIN	5	16
F-048	TCU CONTROLLER - FUNCTION	10	16
F-049	TCU CONTROLLER - FUNCTION	10	16
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FUSE TABLE

FUSE NUMBER	DESCRIPTION	RATING (AMPS)	SHEET NUMBER
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F-052	COLOR DISPLAY	15	16
F-053	ISO/TECU INTERFACE	15	16
F-054	TCU CONTROLLER - FUNCTION	15	16
F-055	TCU CONTROLLER - FUNCTION	15	16
F-056	TCU CONTROLLER - FUNCTION	15	16
F-057	HVAC CONTROL MODULE	5	17
F-058	RADAR	5	17
F-059	ICU CONTROLLER	15	17
F-060	ARMREST - ACM CONTROLLER	15	17
F-061	FNRP LEVER	15	17
F-062	AUTOGUIDANCE/STEERING INTERFACE	15	17
F-063	ELECTRONIC HYDRAULIC REMOTES 1-8	15	17
F-064	DIPPING SWITCH	15	17
F-065	GPS ANTENNA	15	17
F-066	TELEMATICS INTERFACE	5	17
F-067	MID HOOD WORK LAMPS	20	18
F-068	FRONT ROOF 360 LAMPS	20	18
F-069	REAR ROOF 360 LAMPS	25	18
F-070	INNER ROOF LAMPS	25	18
F-071	OUTER ROOF LAMPS	25	18
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F-073	INNER REAR FENDER LAMPS	20	19
F-074	OUTER REAR FENDER LAMPS	25	19
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F-079	OUTER HOOD WORK LAMPS	25	19
F-080	CENTER HOOD WORK LAMPS	25	19
F-081	LEFT HIGH BEAM LAMP	15	19
F-082	RIGHT HIGH BEAM LAMP	15	19
F-083	EU WORK LAMPS (IF EQUIPPED)	25	20
F-084	OPEN	—	20
F-085	OPEN	—	20
F-086	OPEN	—	20
F-087	OPEN	—	20
F-088	OPEN	—	20
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F-205	ENGINE - AUXILIARY	15	22
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F-208	OPEN	—	—
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F-210	N/A	N/A	N/A

FUSE TABLE

FUSE NUMBER	DESCRIPTION	RATING (AMPS)	SHEET NUMBER
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F-213	24V SECONDARY STEERING PUMP COIL	10	22, 23
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K-003	ACCESSORY RELAY	21
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K-007	WORK LAMPS INTERLOCK RELAY	50
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K-016	INTERIOR LIGHTING RELAY	65
K-017	OUTER WORK LAMPS RELAY	51
K-018	REAR FENDER & IMPLEMENT LIGHTING RELAY	51
K-019	HIGH BEAM LAMPS RELAY	49
K-020	CAB PRESSURIZATION BLOWER RELAY	73
K-021	BRAKE LAMPS RELAY	21
K-022	NEUTRAL RELAY	49
K-023	FUEL PRIMER PUMP RELAY	42
K-024	EU WORK LAMPS RELAY (IF EQUIPPED)	51
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K-027	OPEN	—
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K-203	ENGINE - STARTER RELAY	22
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A-005	CAB POWER DISTRIBUTION MODULE #5	16
A-006	CAB POWER DISTRIBUTION MODULE #6	17
A-008	CAB POWER DISTRIBUTION MODULE #8	18
A-010	CAB POWER DISTRIBUTION MODULE #10	19
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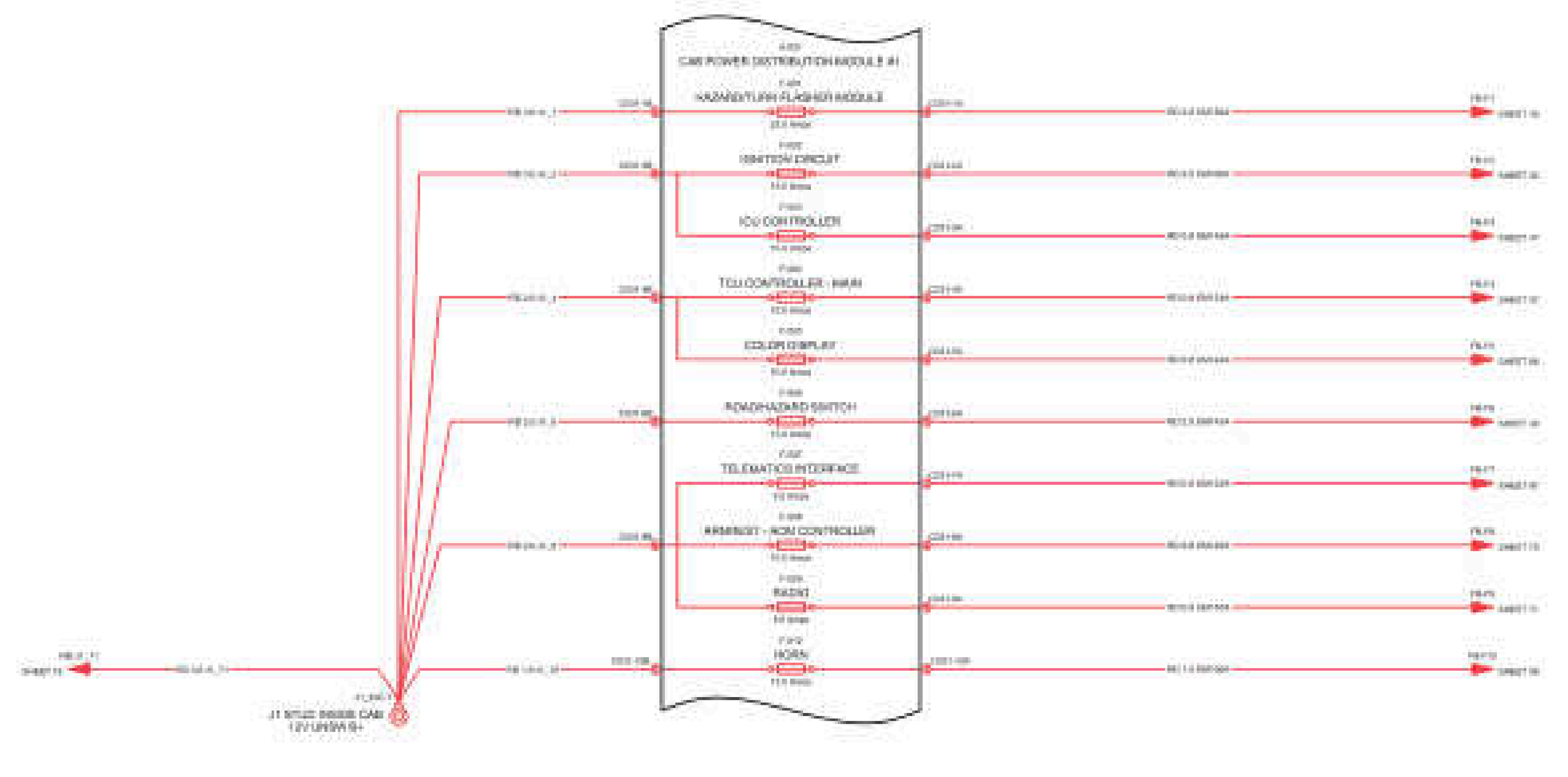
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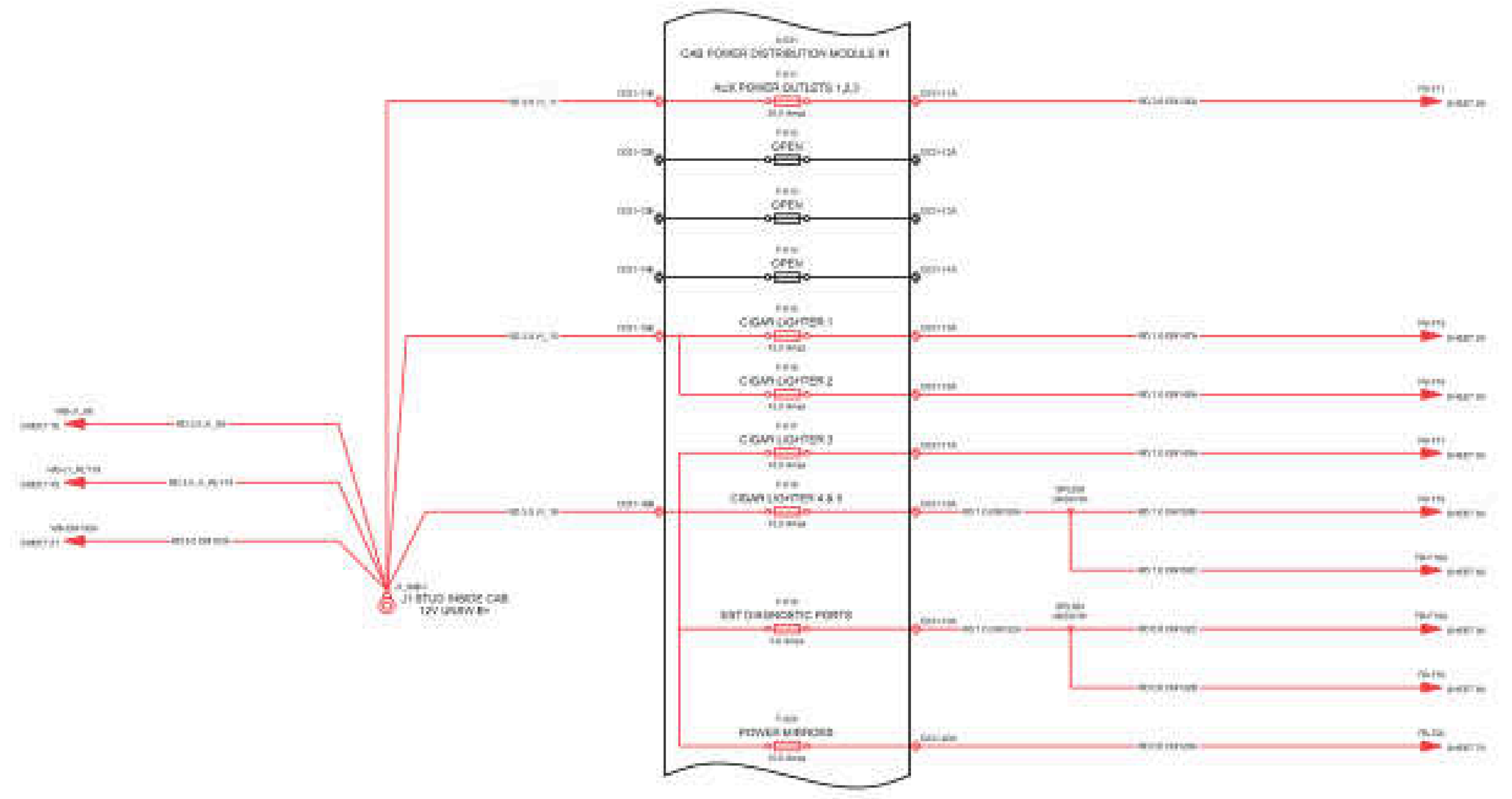
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SHEETS 8, 9 AND 10 ARE BLANK

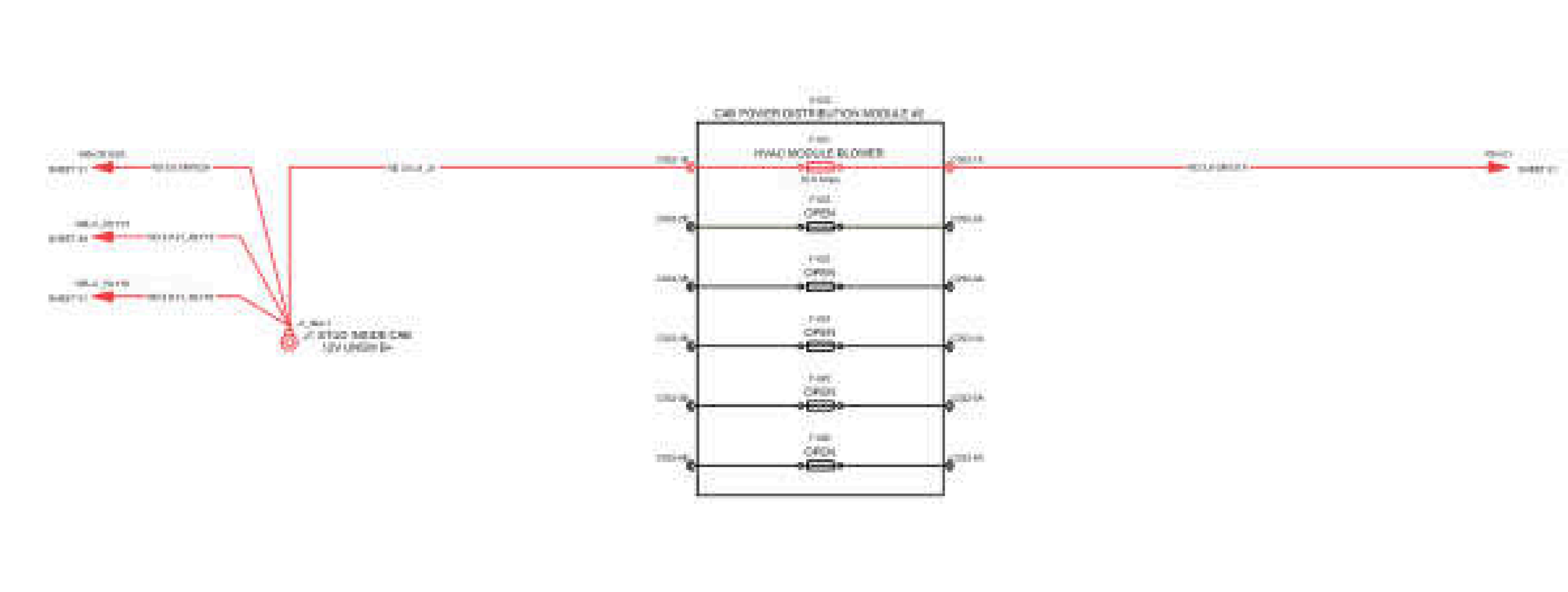
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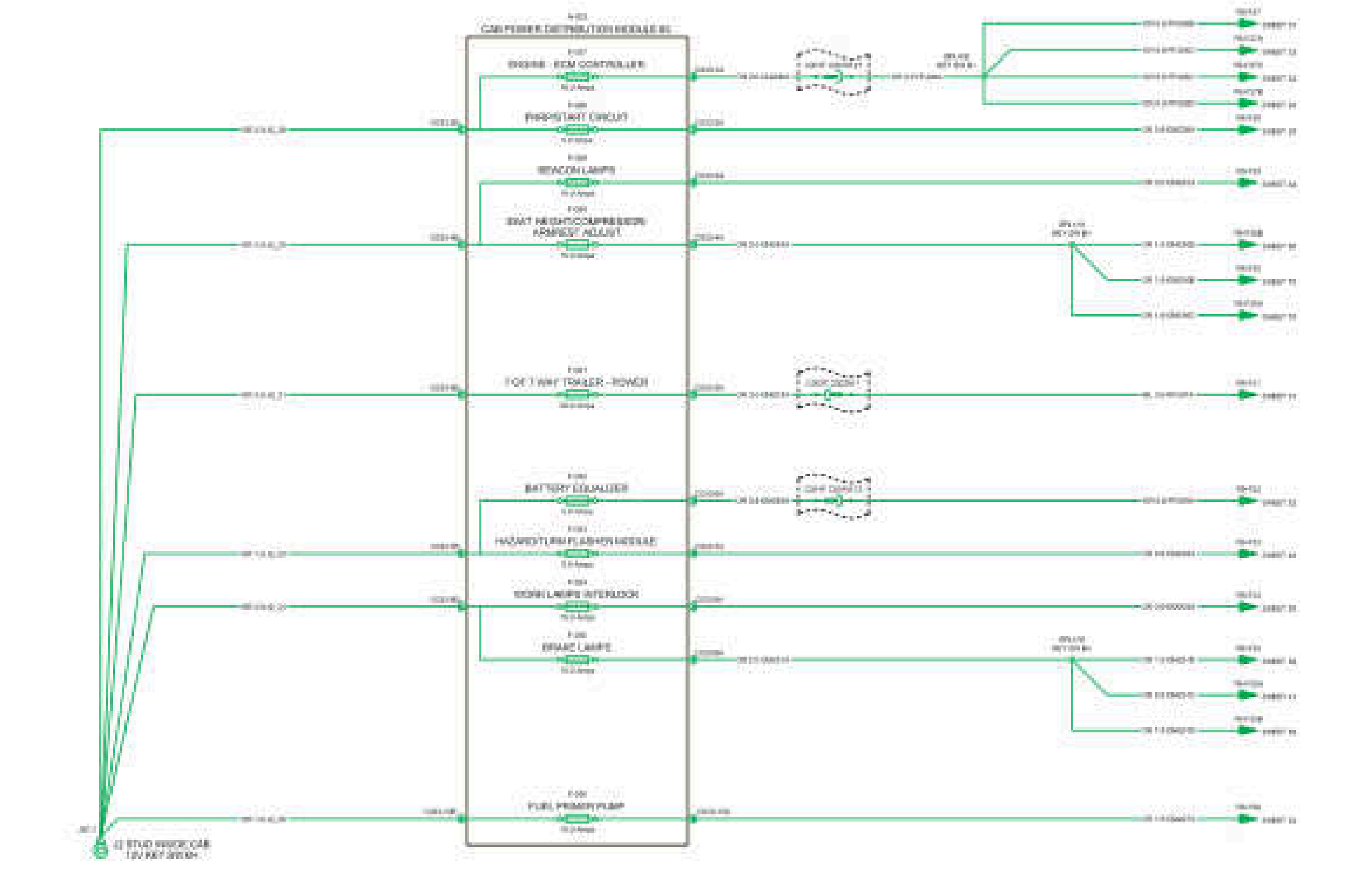
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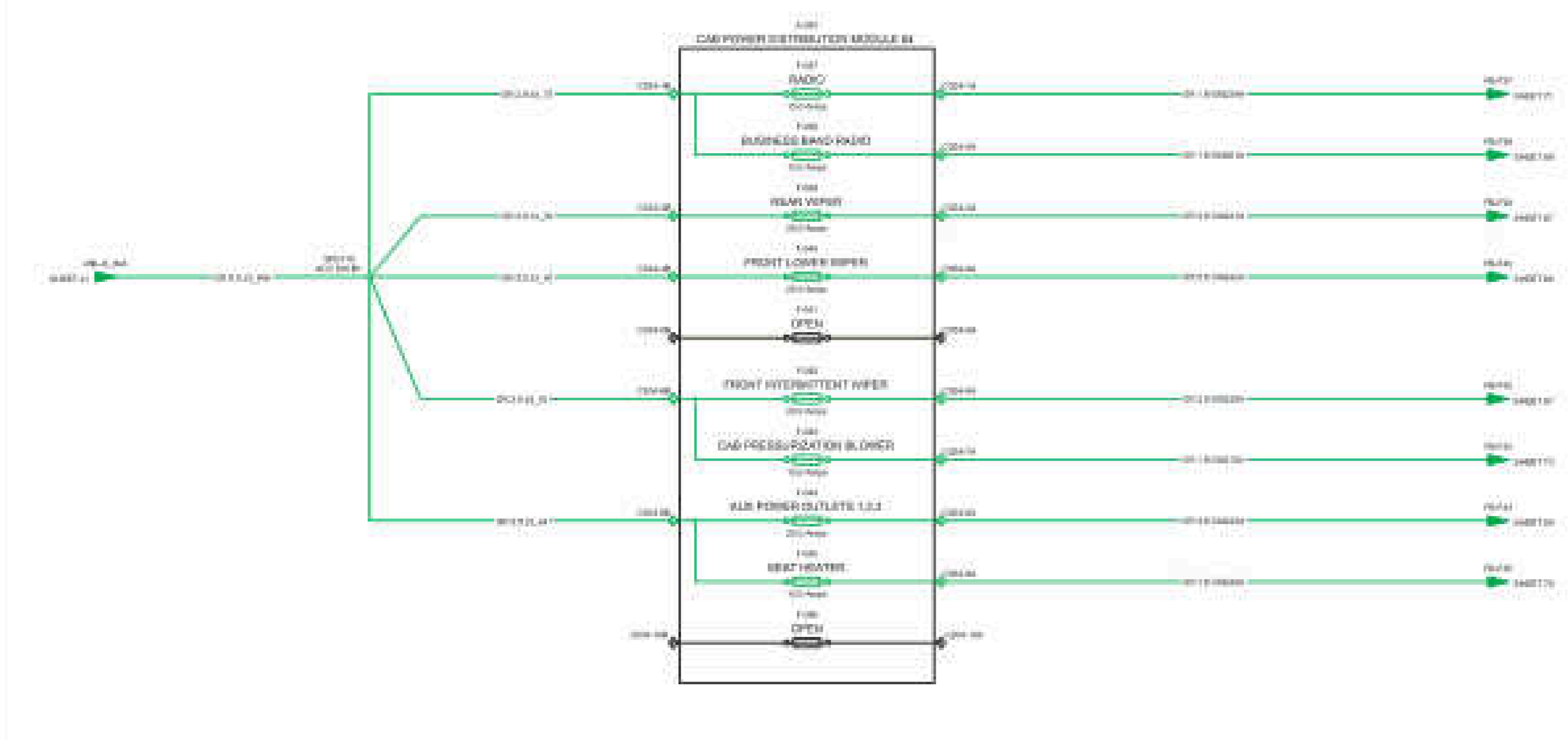
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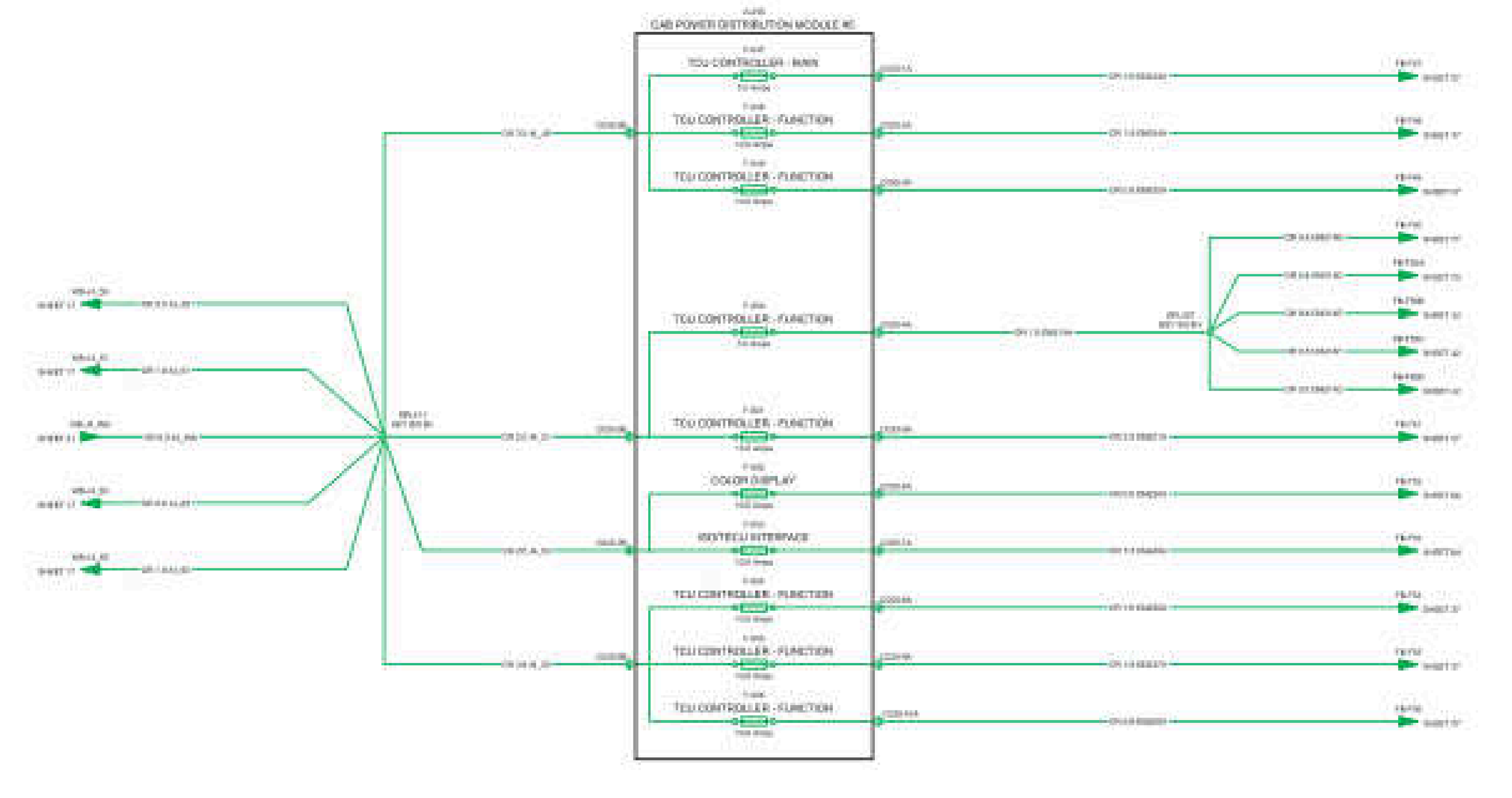
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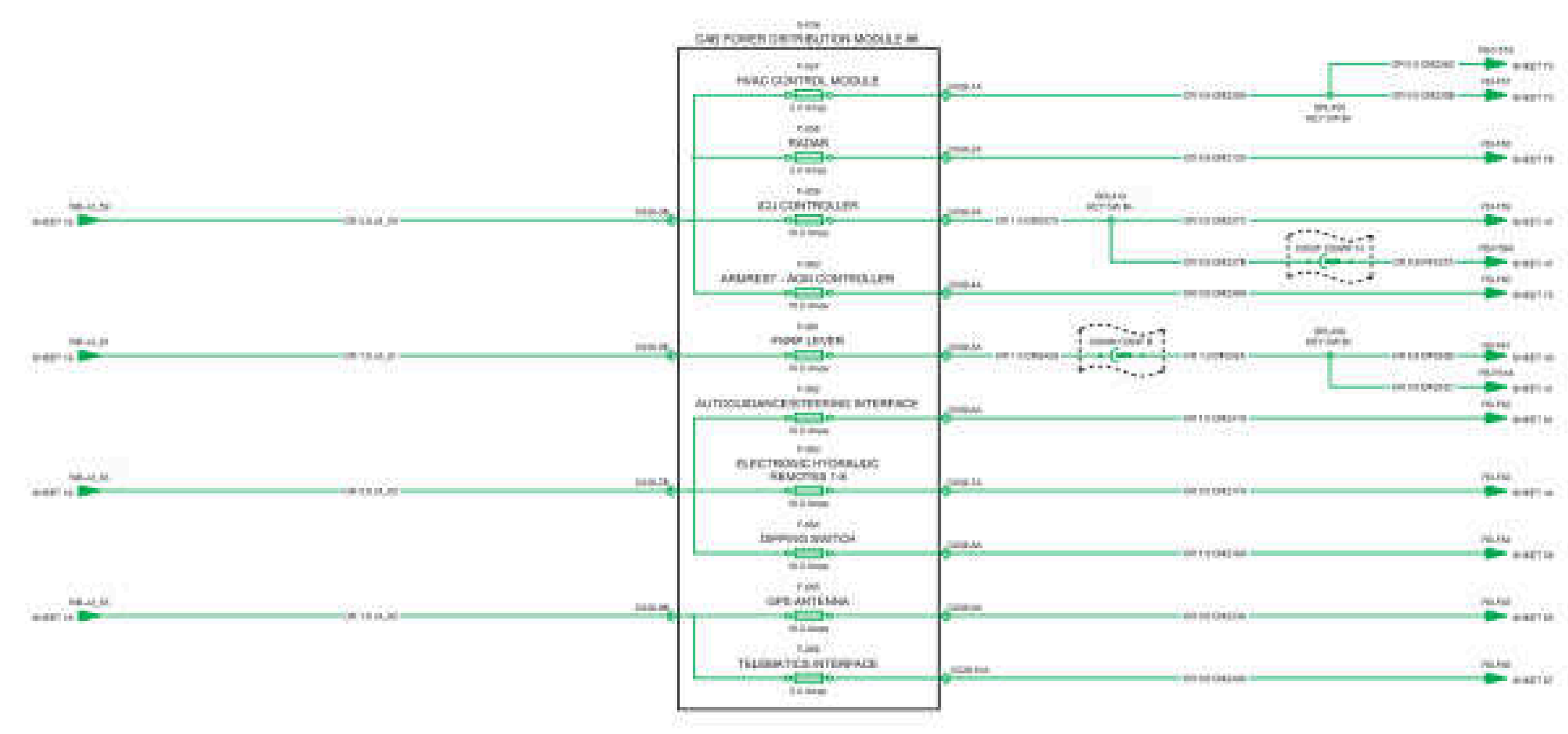
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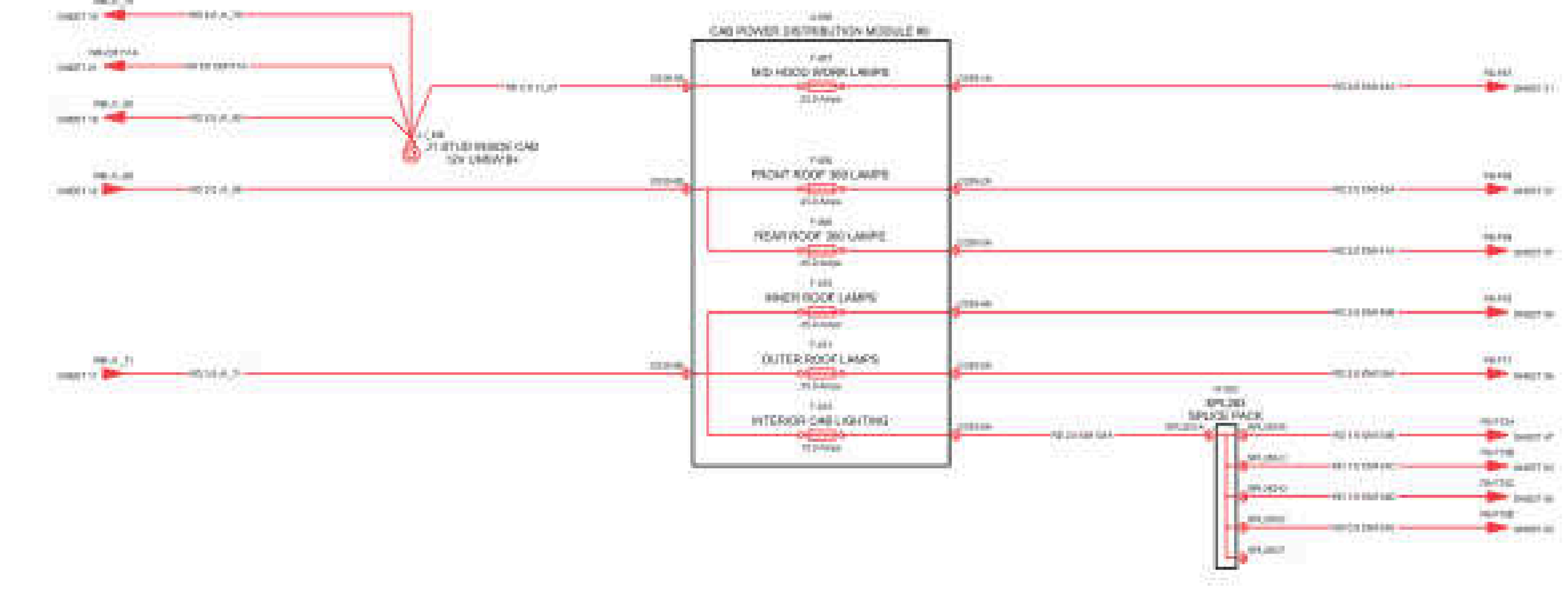
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LEGEND

INDICATES CONSTANT POWER	(red)
INDICATES POWER WHEN KEY SWITCH IS ON	(green)
INDICATES POWER WHEN KEY SWITCH IS IN START POSITION	(orange)
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