

Integrated PowerStationTM Reference Schematics

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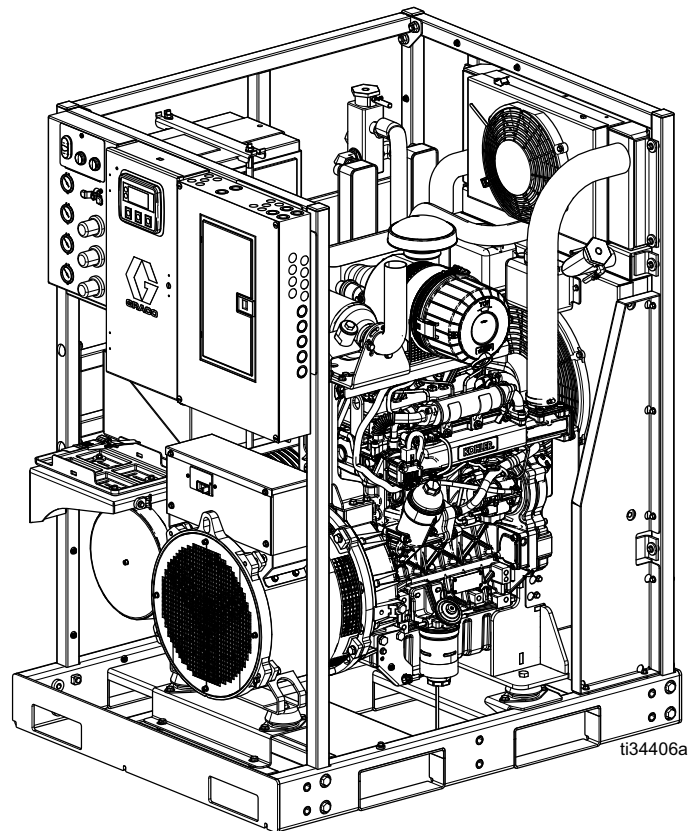
For use with ReactorTM 2 E-30, E-XP2, H-30, and H-XP2 proportioners only. For professional use only.

See page 3 for model and package information.



Important Safety Instructions

Read all warnings and instructions your Reactor operation and repair manuals before using the equipment. Save all instructions.



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Related Manuals

Manual in English	Description
3A6335	Integrated PowerStation - Operation Manual
3A6486	Integrated PowerStation - Repair and Parts Manual
333023	Reactor 2 E-30 and E-XP2 Proportioning Systems - Operation Manuals
334945	Reactor 2 Hydraulic Proportioning Systems - Operation Manual
3A1932	Control Valve Kits - Instruction Manual
309550	Fusion AP Spray Gun - Operation Manual

Supplied Manuals

Manual Description	Compatible with IPS Model
Kohler® Diesel KDI Owner Manual	All models
Mecc Alte® Self-Regulating Alternators Series NPE	All models
Hydrovane® Compressor HV04 (20 cfm)	979201
Hydrovane® Compressor HR07 (35 cfm)	979202
Hankison® Air Dryer HIT20	979201
Hankison® Air Dryer HIT35	979202

NOTE: See company websites for replacement component manuals.

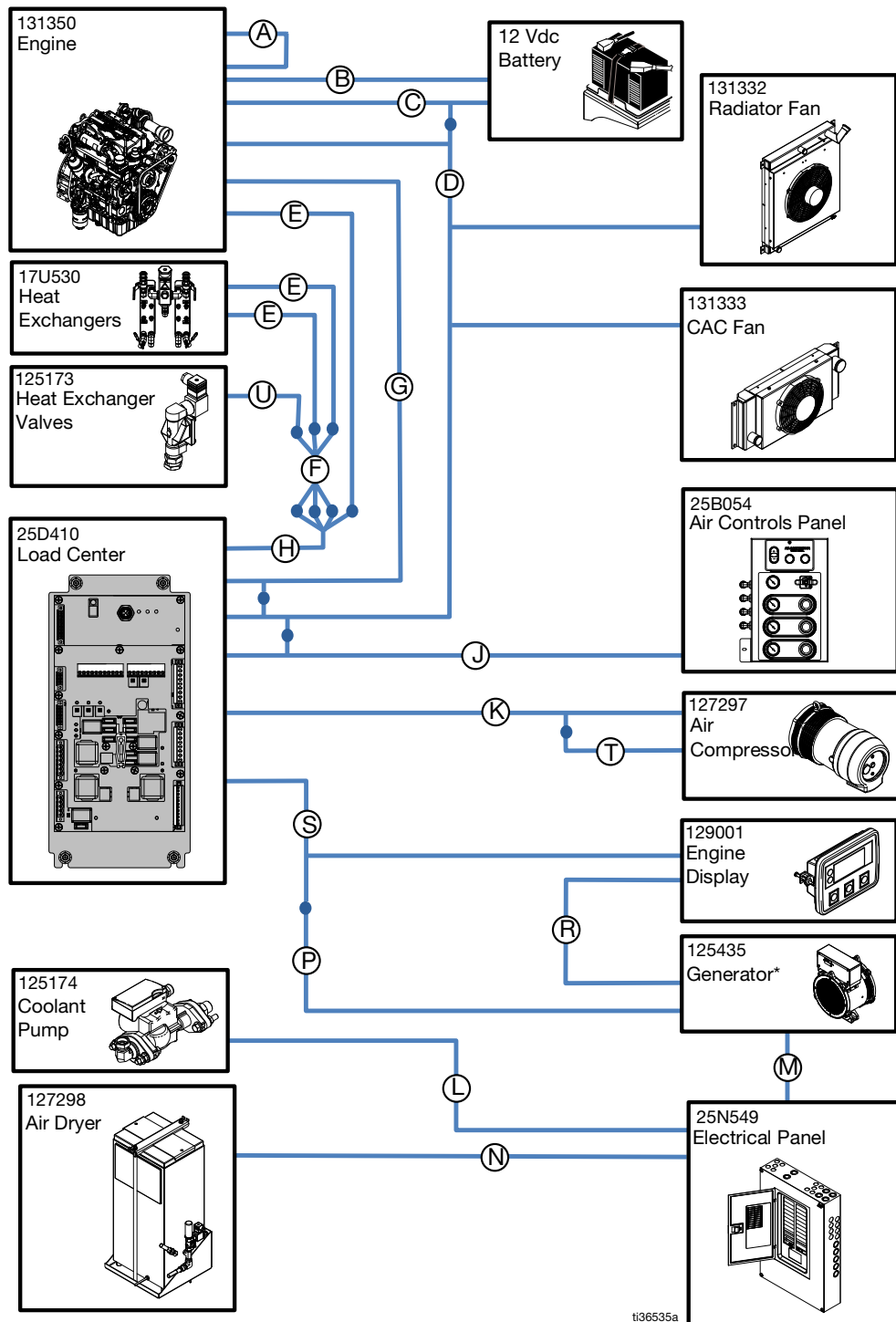
Models

Integrated PowerStation (IPS)

Model	979200	979201	979202
Description	Integrated PowerStation, Tier 4 Final, no air	Integrated PowerStation, Tier 4 Final, 20 cfm	Integrated PowerStation, Tier 4 Final, 35 cfm
Engine	Kohler, KDI1903TCR, 33.6 kWm (continuous)		
Alternator	Mecc Alte, 240 Vac, 1-phase, 60 Hz, 22 kVA		
Auxiliary Power (at 60 Hz)	9.1 kVA (38 A at 240 Vac)*	8.6 kVA (36 A at 240 Vac)*	
Compressor	Not included	Hydrovane, HV04, 20 cfm	Hydrovane, HR07, 35 cfm
Air Dryer	Not included	Hankison, HIT20, 22 cfm	Hankison, HIT35, 35 cfm
Air Controls	Not included		

Block Diagrams

System Block Diagrams



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NOTES:

Dots depict connections between two harnesses

*Generator contains 17X602 and 17X603

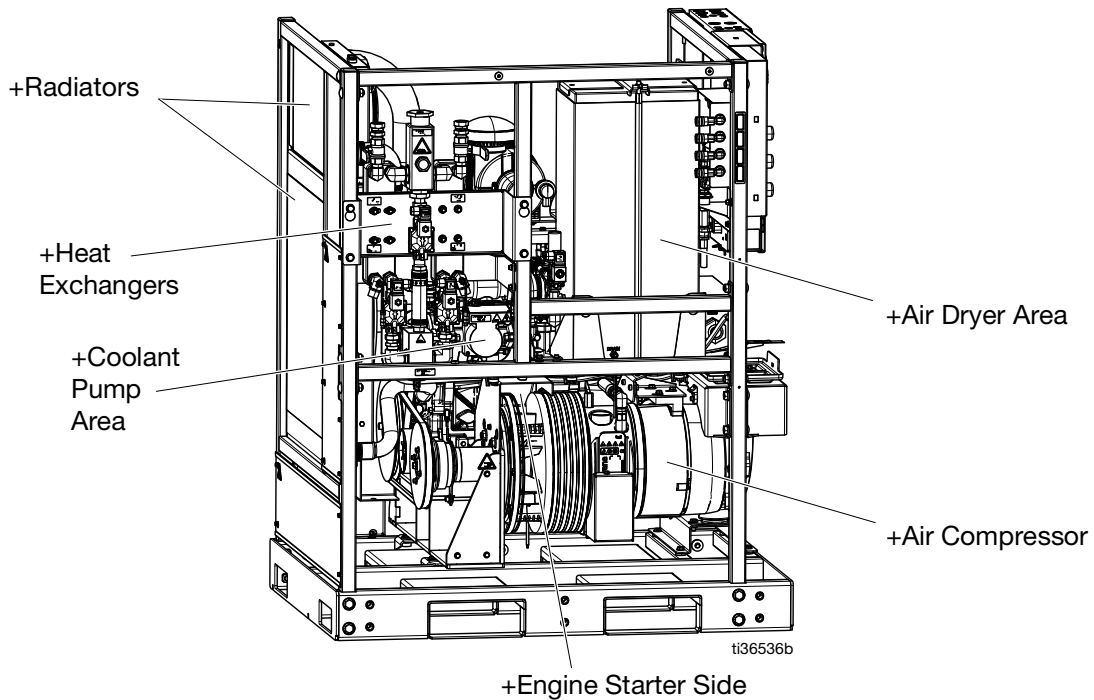
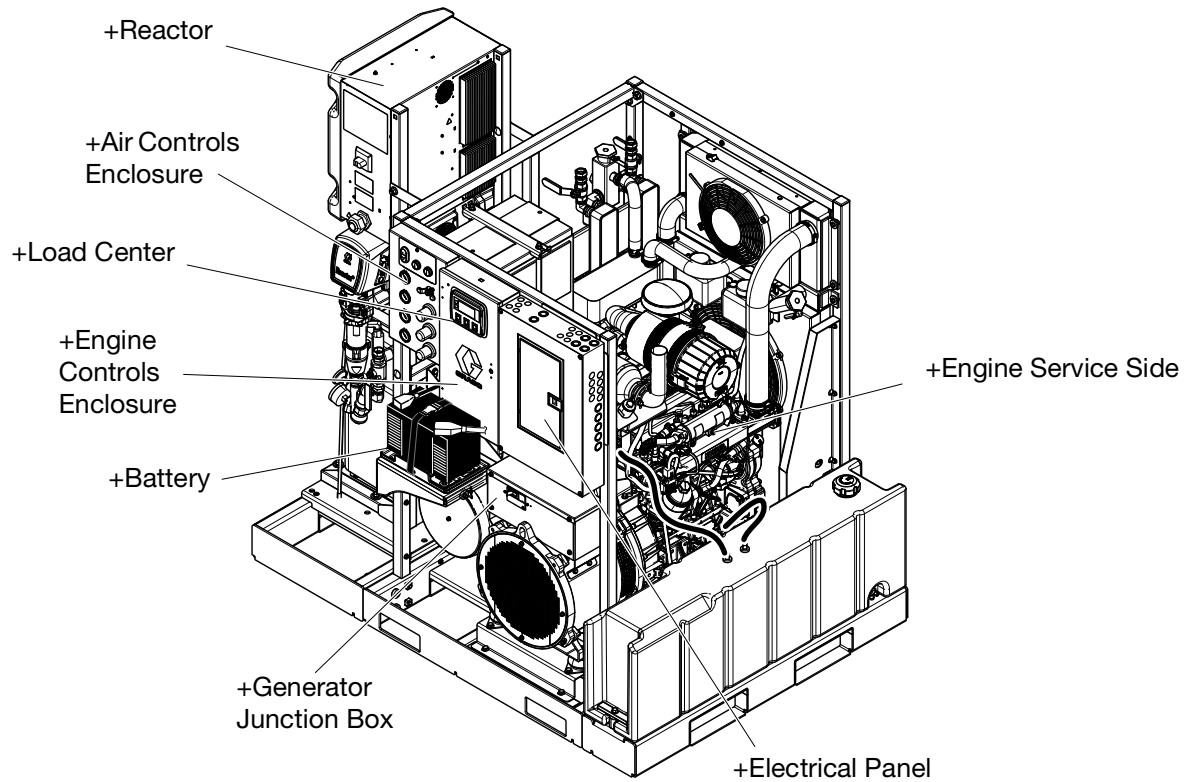
Harness Identification

Refer to the illustration on the previous page.

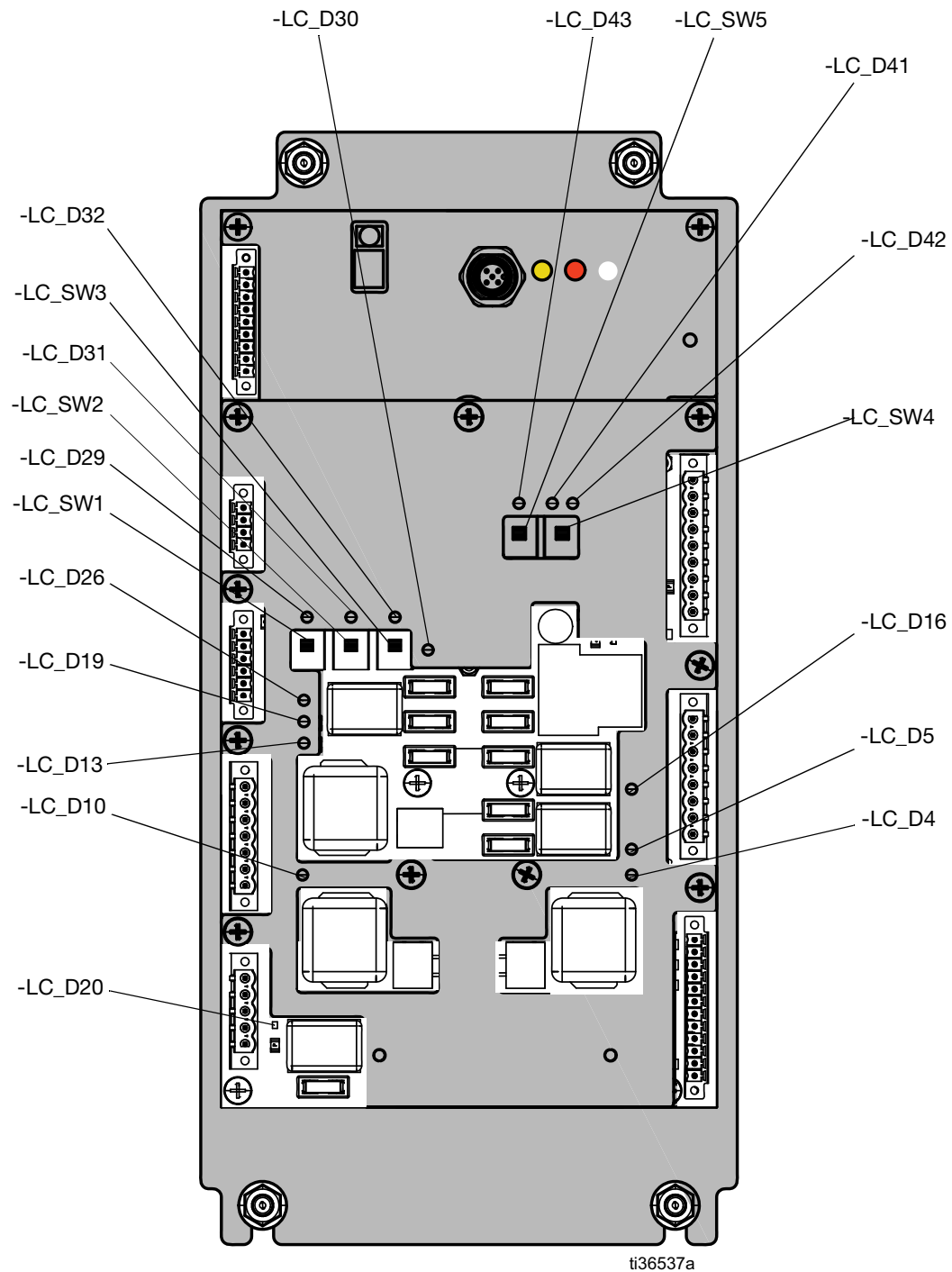
ID	Graco Part Number	Description
M	17X570	Main 240 V power cable
L	17X571	Circulation pump power cable
N	17X572	Air Dryer power cable
P	17X573	Circuit breaker position check harness
C	17X574	Battery cable (positive)
B	17X575	Battery cable (negative)
G	17X576	Engine control interface harness
D	17X577	Engine sensor and load harness
S	17X578	Engine display harness
H	17X579	Heat exchanger base harness
U	17X580	Heat exchanger valve fan-out harness
K	17X581	Air compressor harness
J	17X582	Air controls harness
T	17X590	Air compressor oil level sensor
R	17X597	240 V voltage sense harness
F	17X598	Heat exchanger relocation harness (optional)
-	17X602	Circuit breaker feed wire (black)
-	17X603	Circuit breaker feed wire (red)
A	131839	Alternator to starter charging cable (Kohler provided)

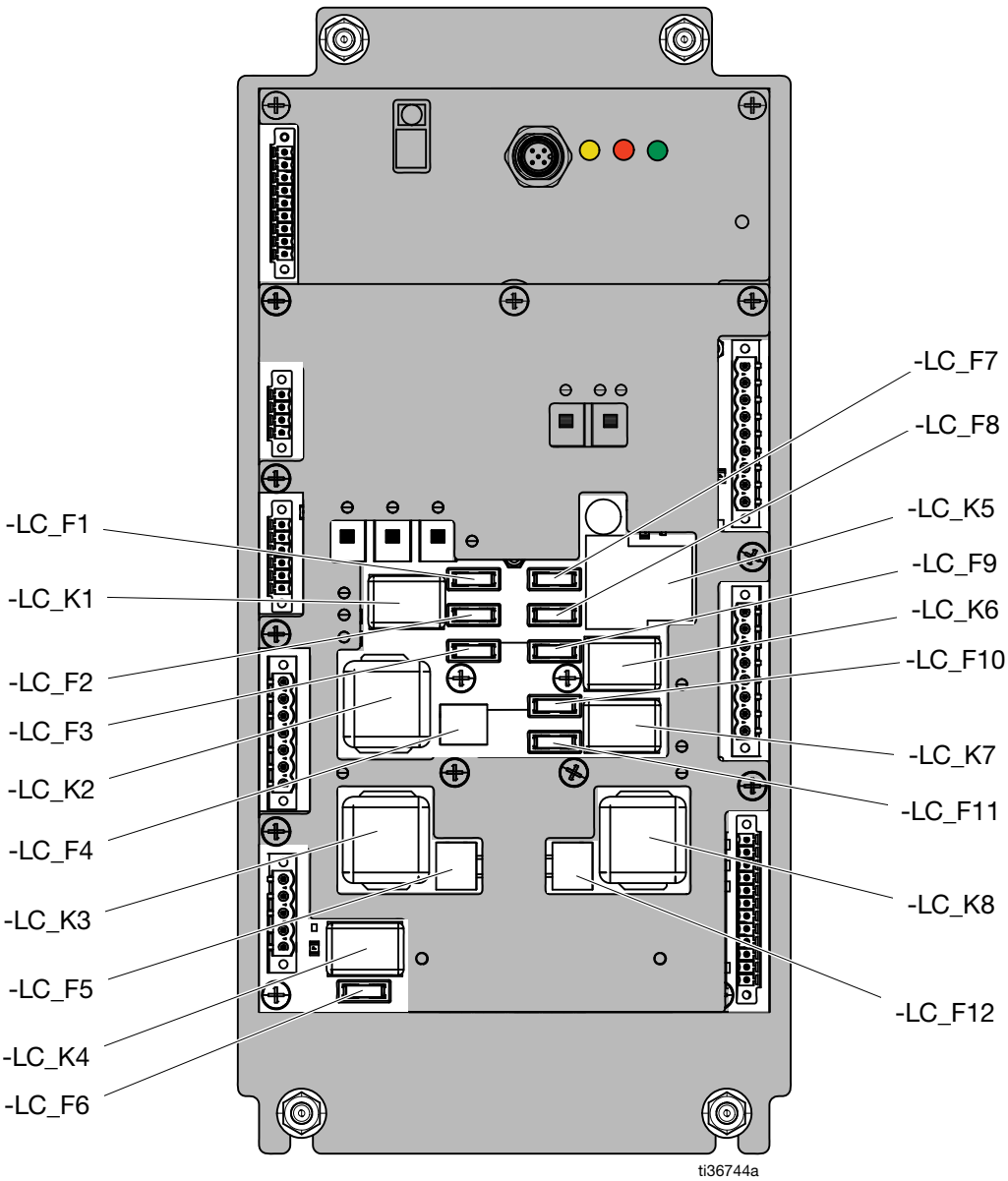
Component Locations

System Component Locations

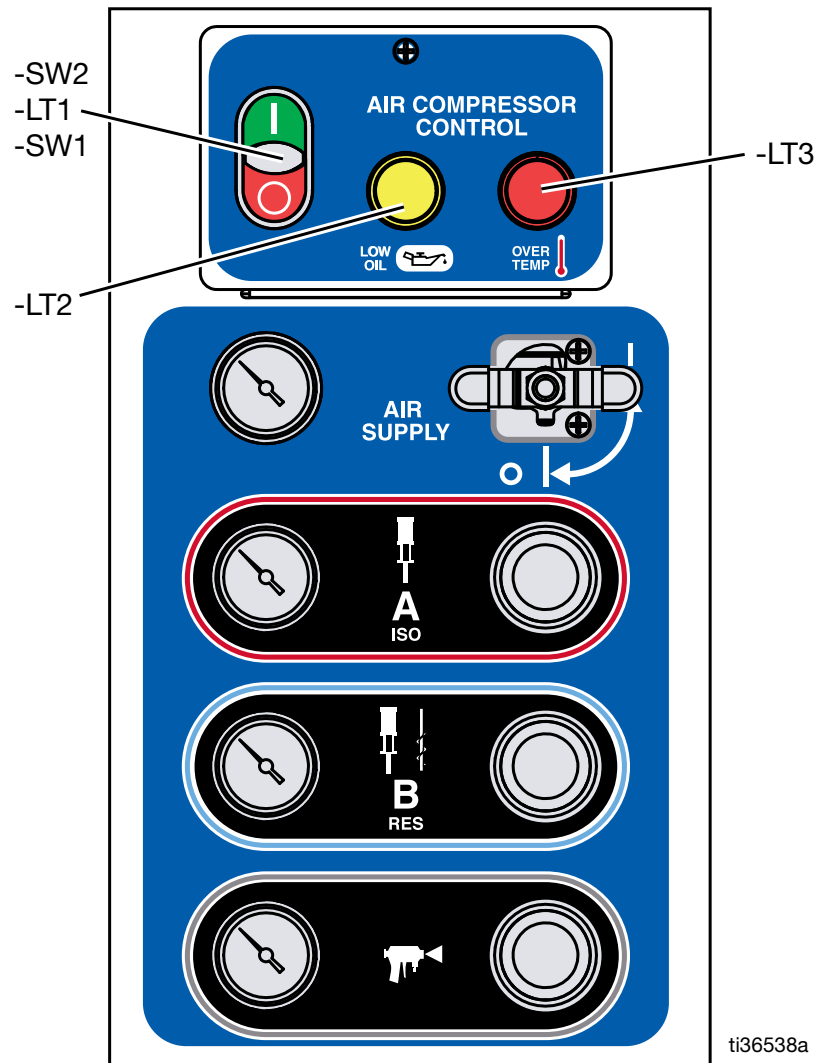


Load Center Component Locations





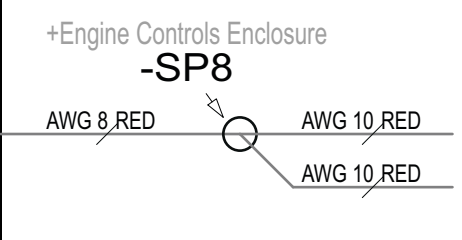
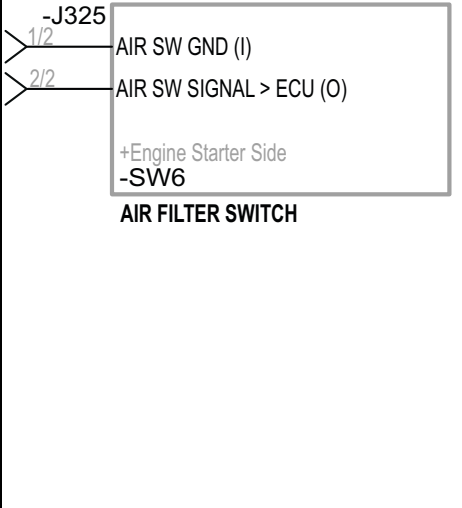
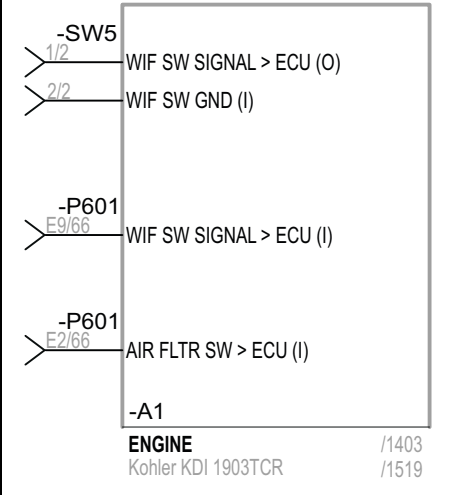
Air Controls Panel Component Locations

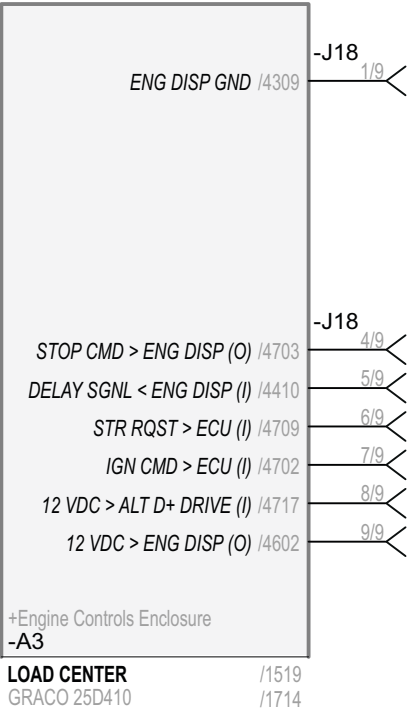
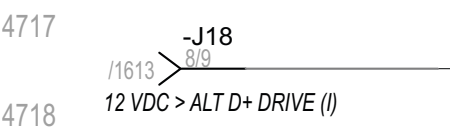


Schematic Symbols and Acronym Key

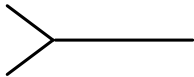
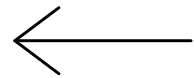
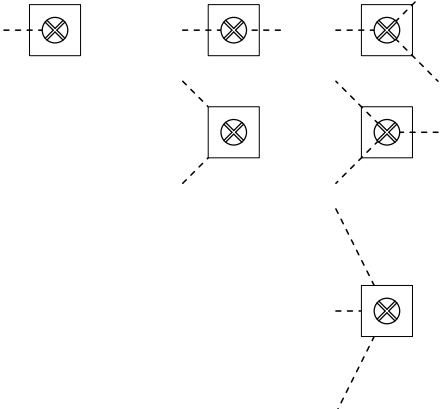
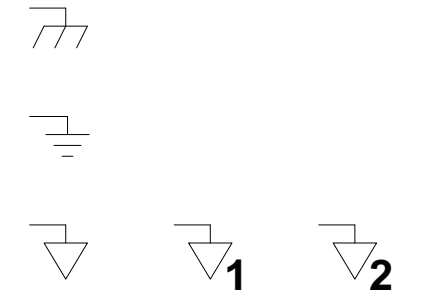
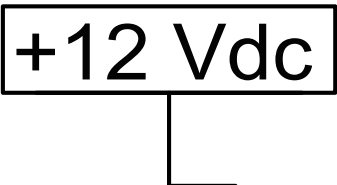
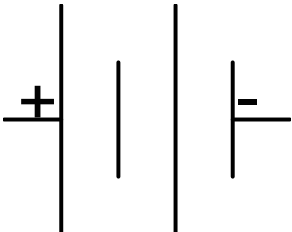
Schematic Symbol Examples

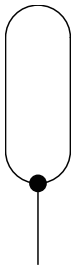
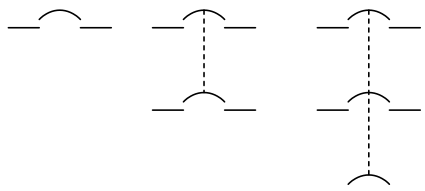
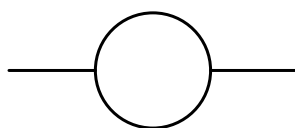
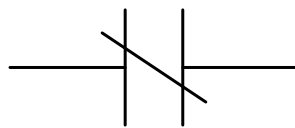
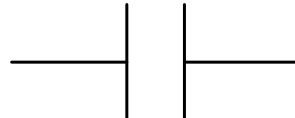
Symbol Examples	Description
Connector Pin Symbols:	
	- Example shows female pin (left) of one connector mated to a male pin (right) of another connector. - Text prefixed with a dash (-) is the unique designator for the related component or connector. - Text prefixed with a plus (+) identifies a component or connector's physical location in the system.
	- The first example shows "3/6" label on each pin symbol. This identifies the pin number (3) and total number of pins (6) in the connector. - The second example shows a connector with pins named with letters instead of number (Pin D of 9 total pins).
Circuit Cross References:	
	- An example cross reference symbol is shown that allows breaking a circuit across multiple pages or rows on a page. - Text prefixed by forward slash (/) identifies where the circuit continues on another row or page. The example shows a circuit that continues on page "12", row "02".
	- The column of numbers on the left of each schematic page identifies schematic "ladder rung" locations. The first two digits indicate the schematic page. The second two digits indicate the row on the referenced page. The example above lists the matching cross reference "/1202" to this example symbol located on ladder rung 1202. - The label "+Battery-P209:1" in this example indicates the next component this circuit connects to beyond the cross-reference symbol, describing physical location ("Battery"), component designator ("-P209"), and pin number ("1").
Wiring Detail:	
	- Wires are electrically connected when a dot is located where lines connect. - Wires are not connected when they cross at right angles with no dot.
	Example shows two wires terminated into a single pin.

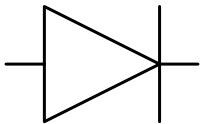
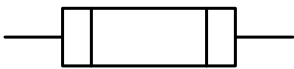
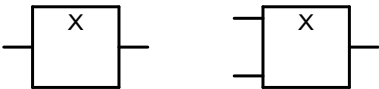
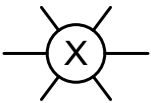
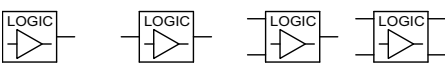
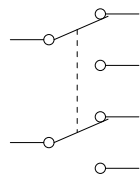
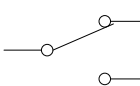
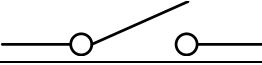
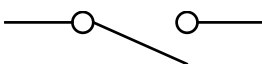
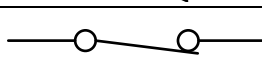
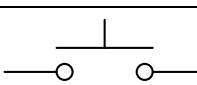
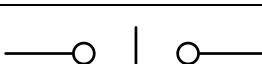
Symbol Examples	Description
Wiring Detail: 	
Standard Block Components: 	- Multiple wires electrically connected using a splice component are shown in the example. The splice has a designator (“-SP8”) and a physical location (“+Engine Controls Enclosure”) shown. - Standard block components are depicted by a <u>block with a white background</u>. - The example block shows an integral connector (-J325) with a circuit descriptions listed for each connected pin. For example, “AIR SW SIGNAL > ECU (O)”. - Abbreviations may be used in the description and are listed elsewhere in this manual. Common abbreviations are (all with respect to the labeled connector): - “I” for an input circuit - “O” for an output circuit - “IO” for a bidirectional circuit - Similar to pin symbols, the block is labeled with a physical location (prefixed “+”) and a component designator (prefixed “-”) with the addition of a description (“Coolant Valve A”).
	- Due to page size constraints, all the functionality related to a block may not fit on a single schematic page. The <u>split-block allows the functionality of a block component to be spread over multiple pages and organized functionally with other related circuit components</u>. This example shows a split-block, denoted by a block with a thin lower border. One or more cross references (prefixed “/”) below the block symbol point toward other segments of this split-block at other locations in the schematics. - Additionally to aid in organizing schematics by functionality, note that the example shown is only depicting two particular pins of connector -P601, pin “E9” and “E2”. Other pins of -P601 are placed on related split-blocks elsewhere in the schematics.

Symbol Examples	Description
Hierarchical Block Components:	
	• Hierarchical blocks allow viewing the <u>circuitry or functionality inside a component</u>. The example shown is the “outer” level of the hierarchy. See example below for the “inner” level of the hierarchy for connector -J18 pin 8, located on ladder rung 4717. • Hierarchical block components are depicted by a <u>block with a gray background</u>. The example shown also happens to be a split-block (discussed above). • Integral connectors are shown with a circuit cross reference (prefixed “/”, just inside the block next to each pin) pointing to another schematic page that shows the functionality <u>inside</u> the component.
	• This example pin symbol depicts an “inner” level hierarchical-block connector, cross-referenced from the hierarchical block example above. • The symbol is a special case of a standard pin symbol, additionally showing a circuit description (below or next to the symbol) and a cross reference (prefixed “/”) pointing to the “outer” level hierarchical-block connector pin.

Component Symbols

Symbol Examples	Description
Connections:	
	Female contact or connector housing
	Male contact or connector housing
	Various ways to depict one, two, or three wires terminated on a screw, stud, or "cage clamp" (e.g., circuit breaker or terminal block).
	Incoming and outgoing cross reference symbol. Circuit continues off sheet at another location in the schematics.
Grounds and Voltage Sources:	
	Examples of ground ("earth" or "return") symbols.
	Example reference to a voltage source feeding a circuit. A note may be placed above the source, designating a particular instance of the voltage within the circuit (e.g., "FUSED", "UNFUSED", etc.)
	Example battery voltage source.

Symbol Examples	Description
Cable and Harness Details:	
	Cable shield symbol
<i>Twisted Pair</i> 	Symbol shows that encompassed wires are a twisted pair.
	Splice symbol. Wires that connect to this symbol are physically spliced.
Circuit Breakers and Relays:	
	Single pole, two-pole, and three-pole circuit breaker
	Relay Coil (controlling part)
	Normally Closed ("NC") Relay contact (switching part)
	Normally Open ("NO") relay contact (switching part)

Symbol Examples	Description
Miscellaneous Components:	
	Diode
	Fuse
	Multi-port device or circuit. Used flexibly in schematics to summarize circuits for simplicity of schematics. Symbol is marked with circuit purpose (e.g., “DELAY”, or “VREG”).
	Indicator Lamp or LED
	Logic block. Used to denote software or hardware logic for simplification of schematics. If used, these blocks are described in detail in the “Troubleshooting Information” section of this manual.
	Resistor
Switches:	
	Double Pole, Double Throw (DPDT) relay or switch.
	Single Pole, Double Throw (SPDT) relay or switch.
	Normally Closed (NC) switch.
	Normally Closed (NC) switch held open.
	Normally Open (NO) switch.
	Normally Open (NO) switch held closed.
	Normally Open (NO) momentary switch
	Normally Closed (NC) momentary switch

System Acronyms and Abbreviations

Symbol Examples	Description
<	From
>	To
A	Amperes
AC	Air Compressor
ALT	Alternator
AWG	American Wiring Gauge
B+	Engine Charge Alternator Main Battery Feed Terminal
CAC	Charge Air Cooler
CAN	Controller Area Network
CMD	Command
CTRL	Control
D+	Engine Charge Alternator Field Excitation Terminal
DIAG	Diagnostics
DPF	Diesel Particulate Filter
ECU	Engine Control Unit
EGR	Exhaust Gas Recirculation
ENG	Engine
FLTR	Filter
GND	Ground or Earth (Electrical) Heater
HTR	Heater
HX	Heat Exchanger
I	Input Circuit
IGN	Ignition
LC	Load Center (Graco 25D410)
LVL	Level
N.C.	Normally Closed
O	Output Circuit
OT	Over Temperature
PWR	Power
RAD	Radiator
REF	Reference
REGEN	Regeneration (Stage V)
RLY	Relay
RQST	Request
SOL	Solenoid
SPG	Single Point Ground
STR	Starter
VDC	Volts, Direct Current
VLV	Valve
VREG	Voltage Regulator
WIF	Water-in-Fuel (Sensor)

Color Abbreviations

Color	Wire Color Abbreviation	Lamp/Indicator Abbreviation
Amber	—	A
Black	BLK	K
Blue	BLU	B
Brown	BRN	—
Green	GRN	G
Gray	GRY	—
Light Blue	LT-BLU	B
Orange	ORG	O
Pink	PNK	—
Red	RED	R
Tan or Beige	TAN	—
Violet	VIO	V
White	WHT	W
Yellow	YEL	Y

Standard Designator Prefixes

Prefix	Description
A	Assembly (separable or inseparable)
AH	Harness Assembly
AP	Printed Circuit Board Assembly
B	Motor
BT	Battery
C	Capacitor
CB	Circuit Breaker
D	Diode or Light Emitting Diode (LED) - see also "LT"
E	Cable Termination Individual Termination Stud (electrical termination point) Screw (electrical termination point) Wiring Tie Point Miscellaneous Electrical Part
F	Fuse
G	Generator
GND	Ground
H	Hardware (common fasteners, etc.)
HB	Terminal Boot, Terminal Insulator
HS	Heat Shrink
HT	Tape (adhesive, friction, electrical, etc.)
HR	Heater, Heating Resistor
J	Jack (connector with female housing, not relates to contact gender) Receptacle (connector, stationary portion) Stationary Spade Terminal (e.g. on a PCB)
K	Contactor Relay
L	Coil Electrical Solenoid Inductor
LB	Label
LT	Indicator Light, Lamp, LED
M	Meter
P	Plug (connector with male housing, not related to contact gender) Plug (connector, movable portion) Ring Terminal Fork Terminal Spade Terminal
PS	Power Supply
Q	Semiconductor devices (all but diodes, see "D")

Prefix	Description
R	Resistor Potentiometer
RE	Receiver
RT	Resistance Thermometer (RTD or Resistance Temperature Detector) Thermistor
SH	Shield (in shielded wire)
SL	Seal (wire seal for connector)
SP	Splice
SW	Switch Disconnect Switch Transducer or Sensor with Digital or Switch-like Output)
T	Transformer
TB	Terminal Block Terminal Strip
TC	Thermocouple
TP	Test Point
TR	Transmitter
TW	Twisted Pair (wire)
U	Integrated Circuit Package Logic Control Block or Functional “Black Box”
VR	Over-Voltage Absorber Voltage Regulator
W	Wire Cable Conductor Coax Cable Bus Bar
WP	Wire Protection Corrugated Tube Split Corrugated Tube Woven Wrap
WT	Wiring Tie-Point (Support Point, Tie-Off Location, etc) Cable Tie Mounting Device
X	Socket or Holder Connector Terminal Pin
XF	Fuse Holder

System Schematics

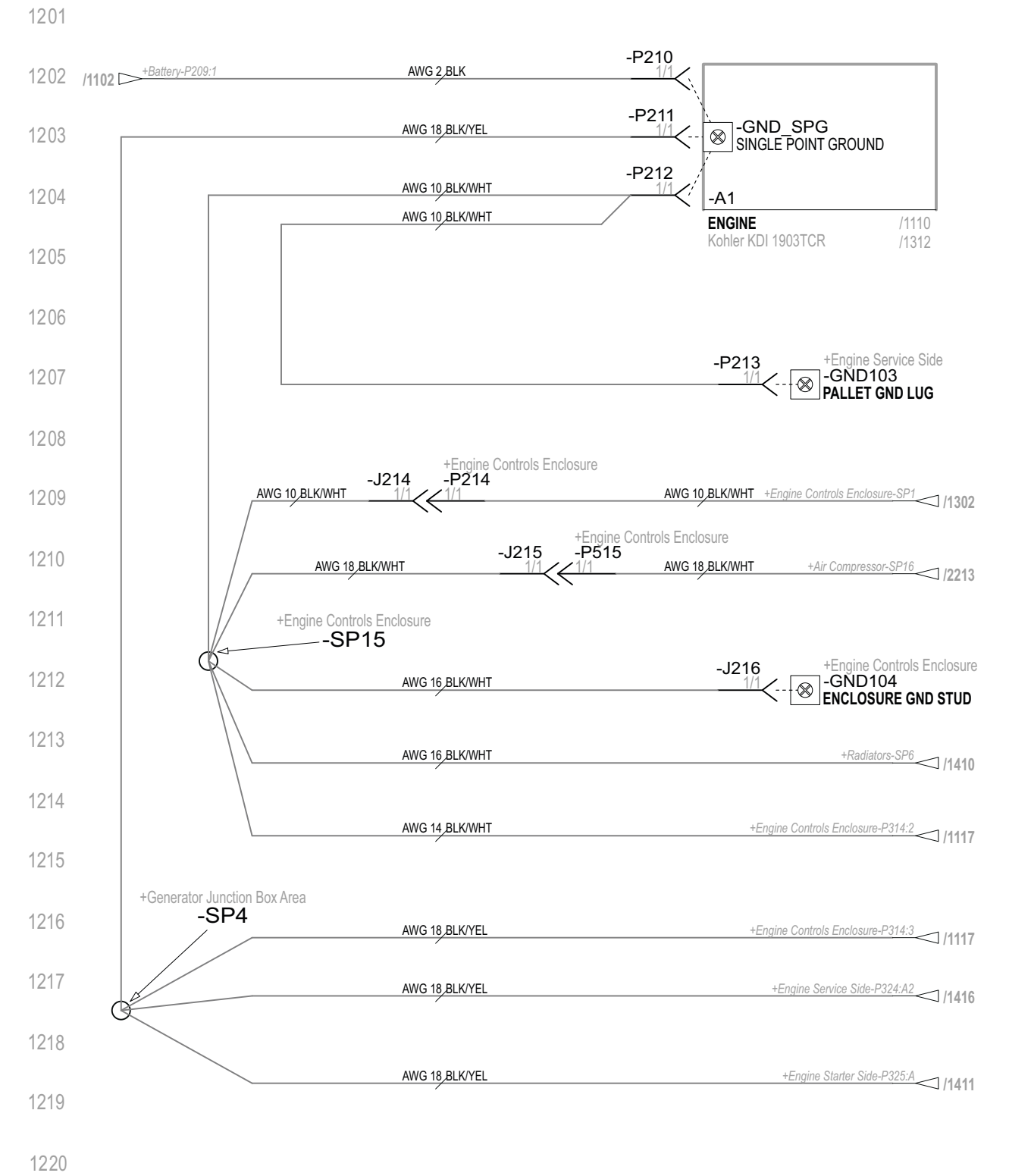
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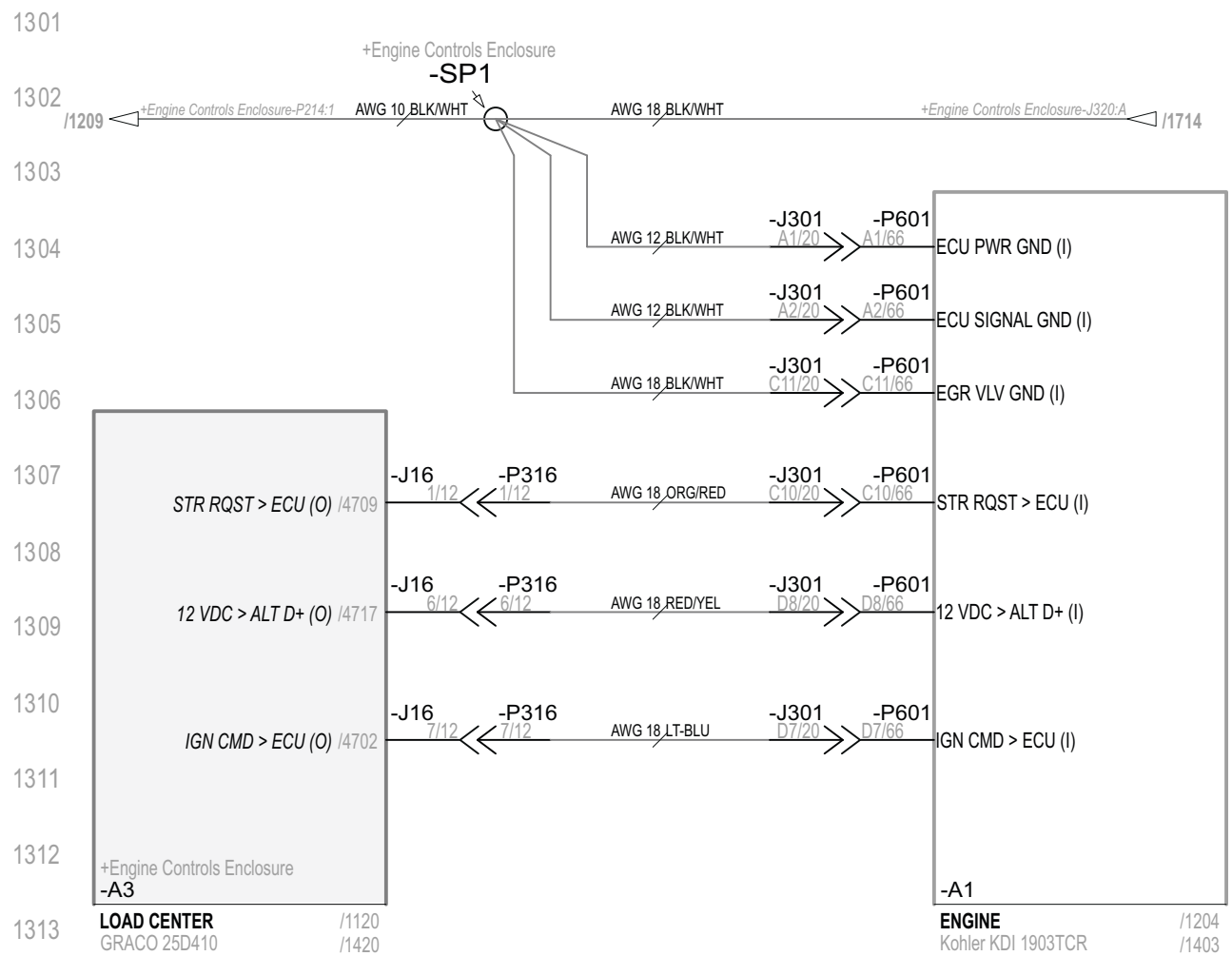


1200 - Engine 12 VDC Grounding



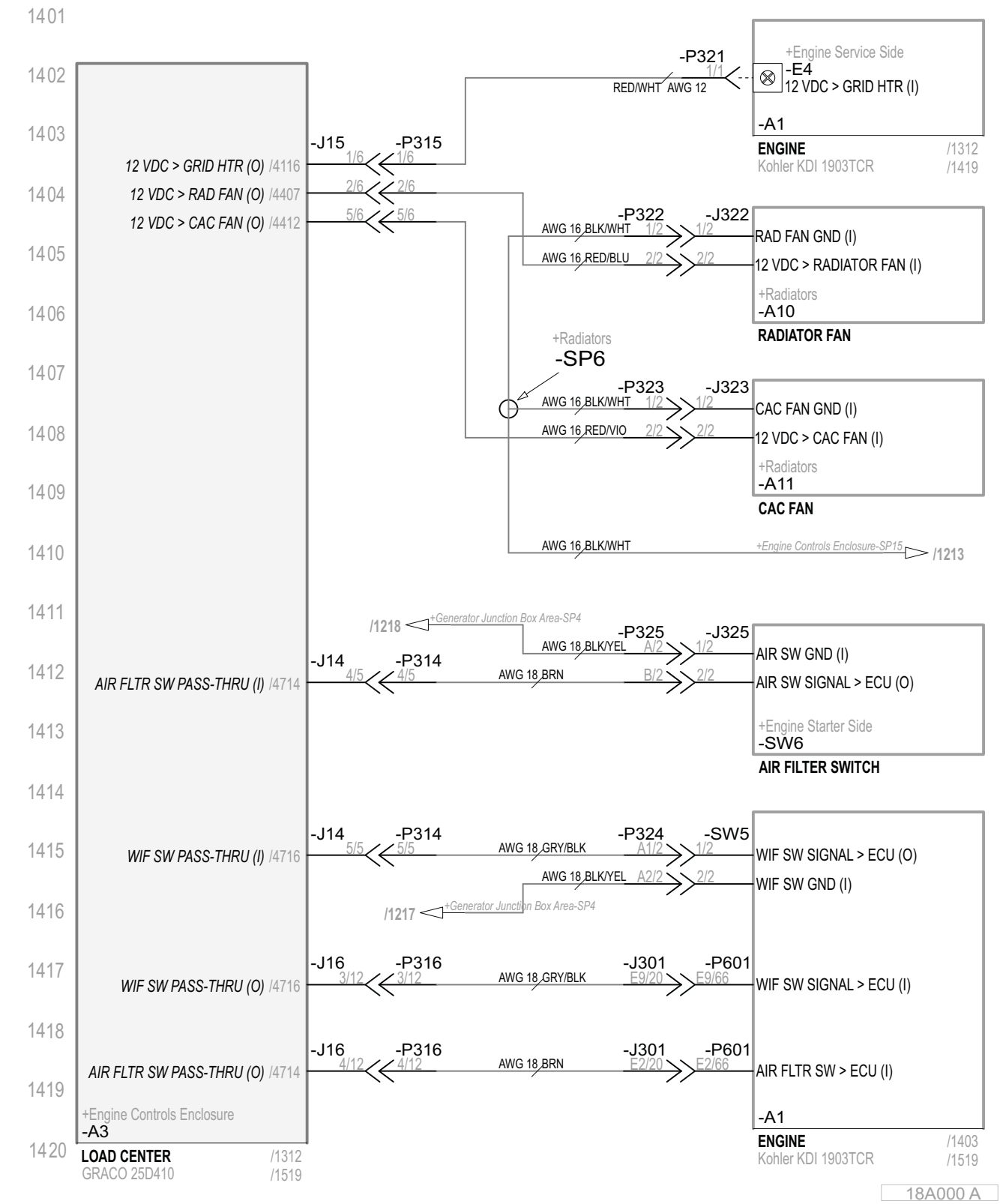
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1300 - Engine 12 VDC Grounding and Miscellaneous

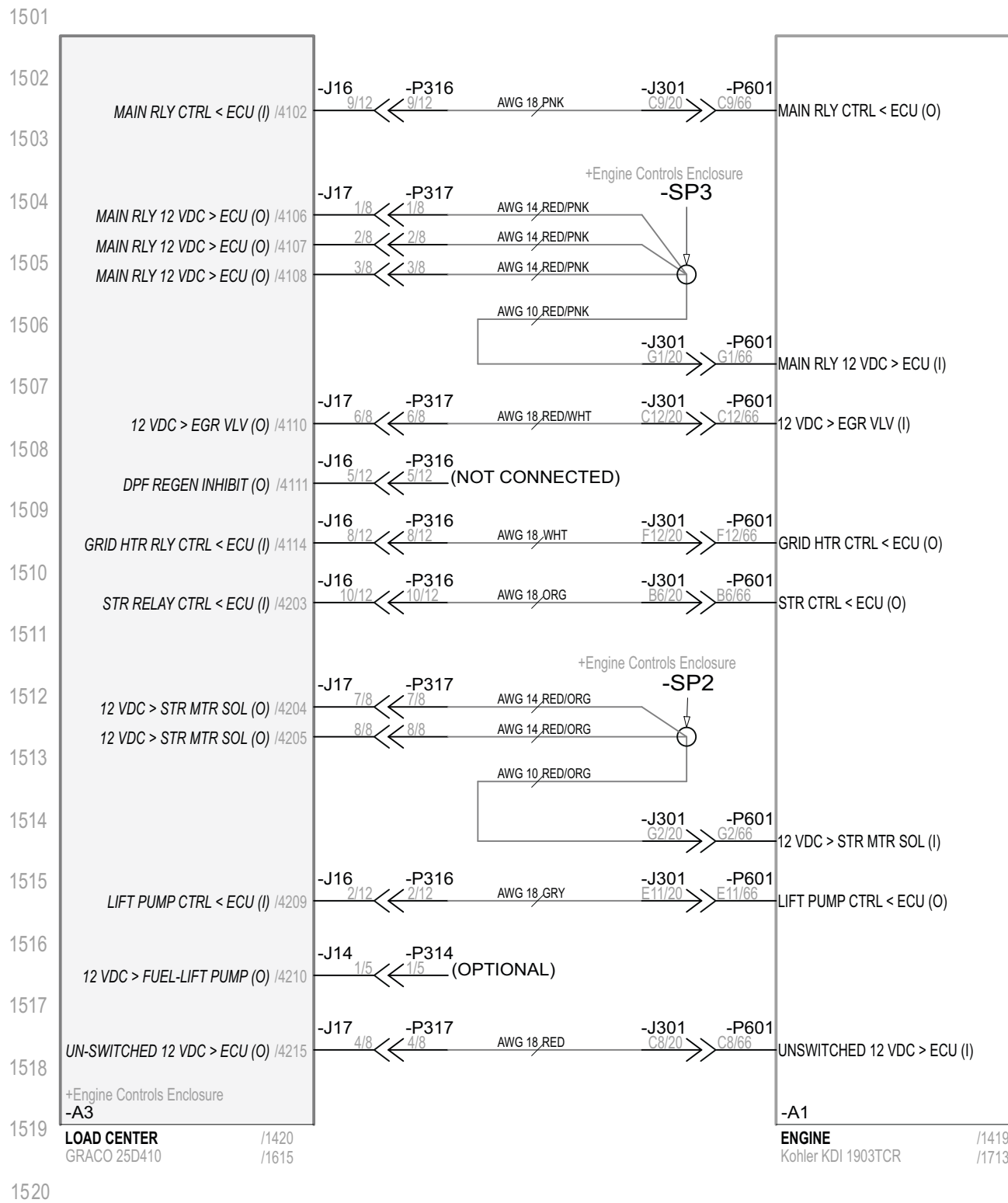


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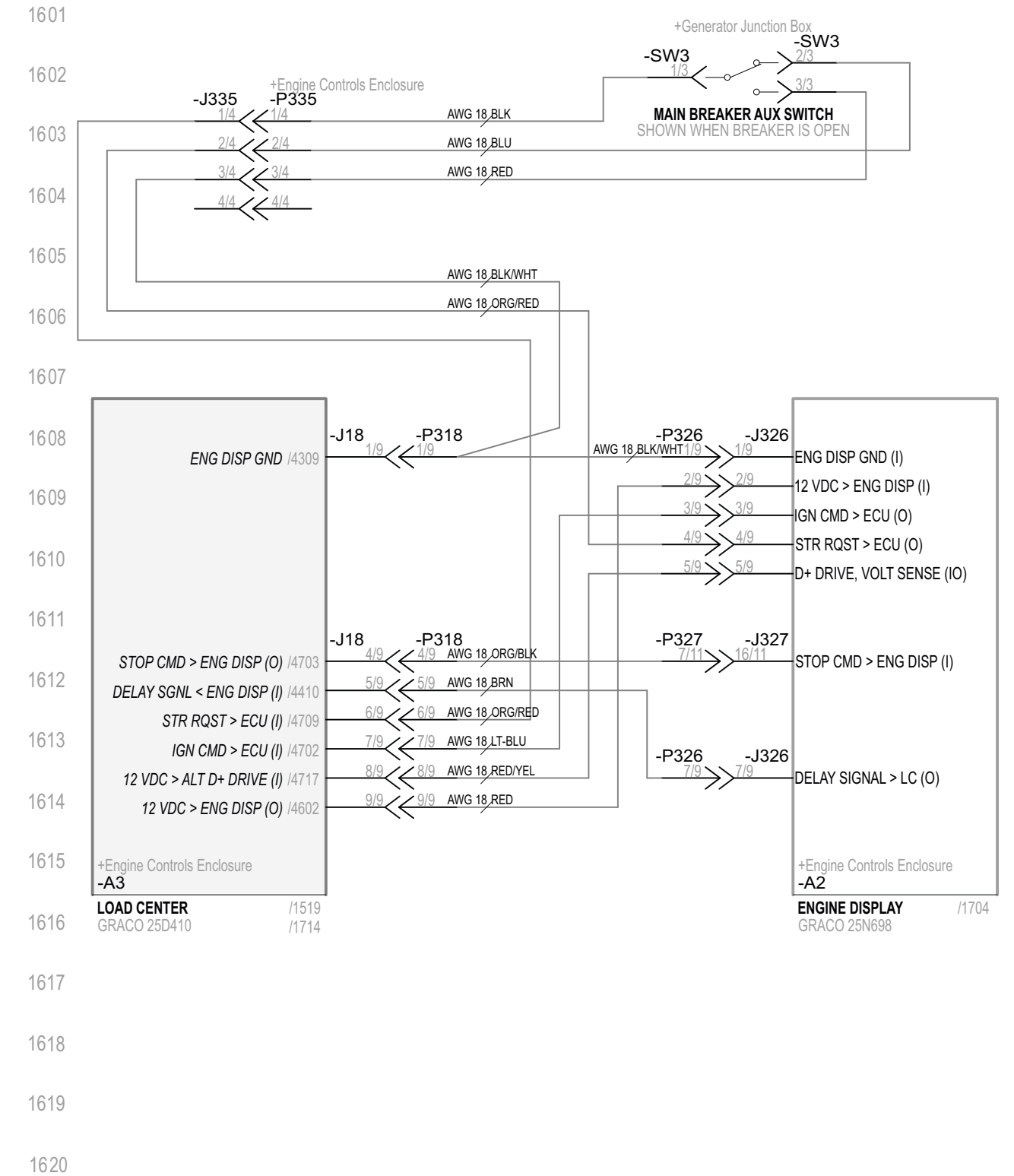
1400 - Engine Grid Heater, Fans, and Sensors



1500 - Engine and Load Center Control Interfacing

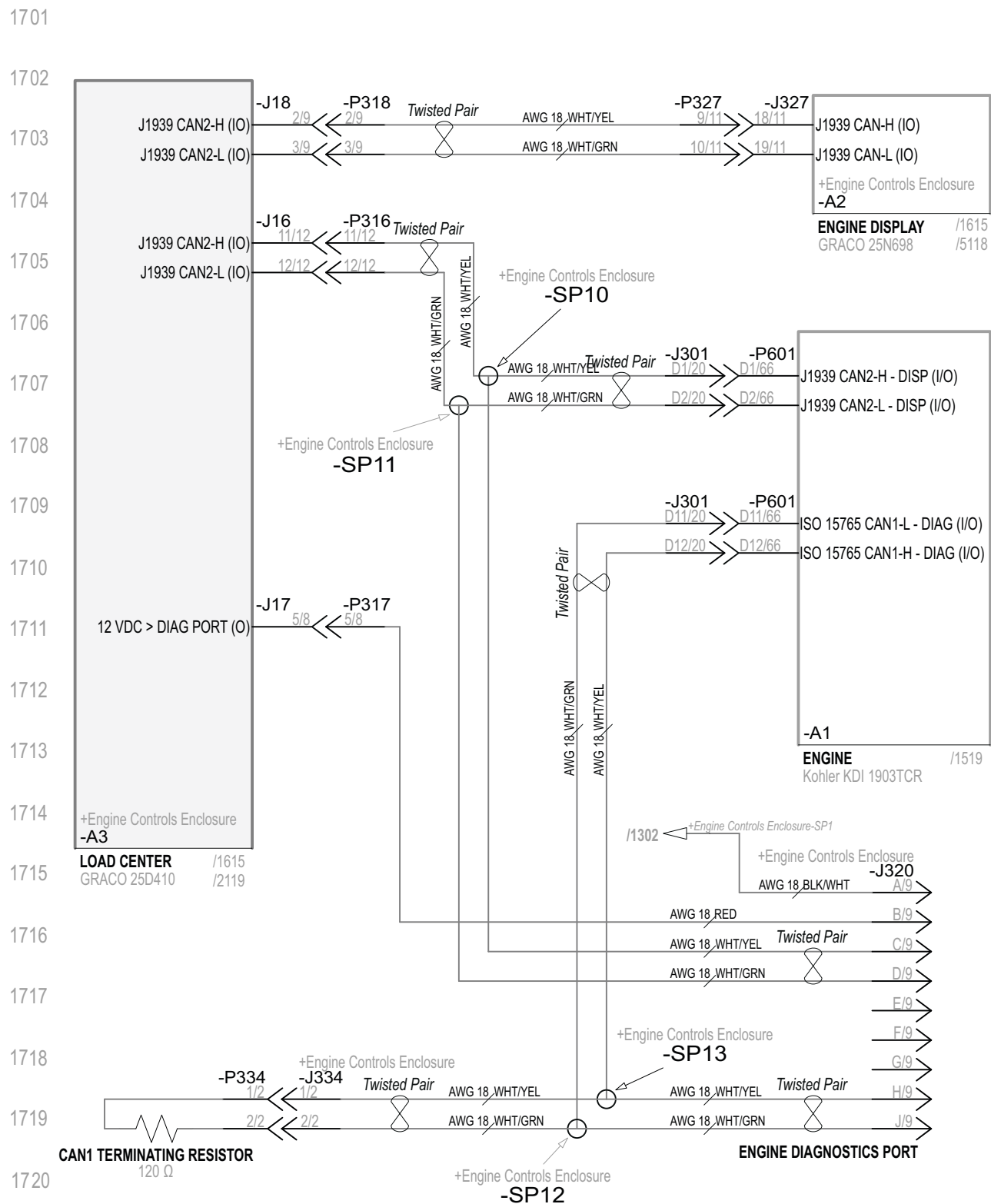


1600 - Engine Display



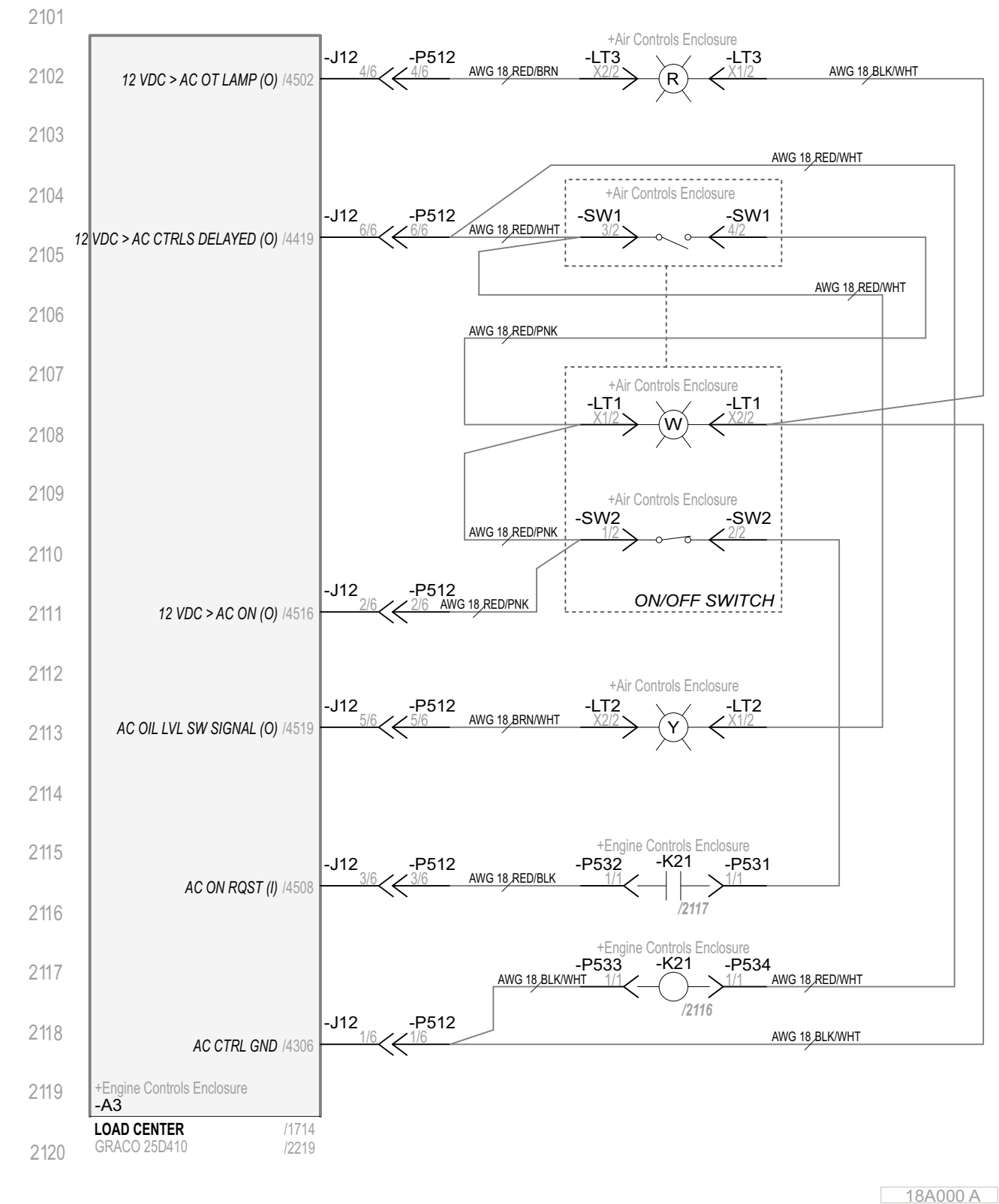
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1700 - Engine CAN (J1939)

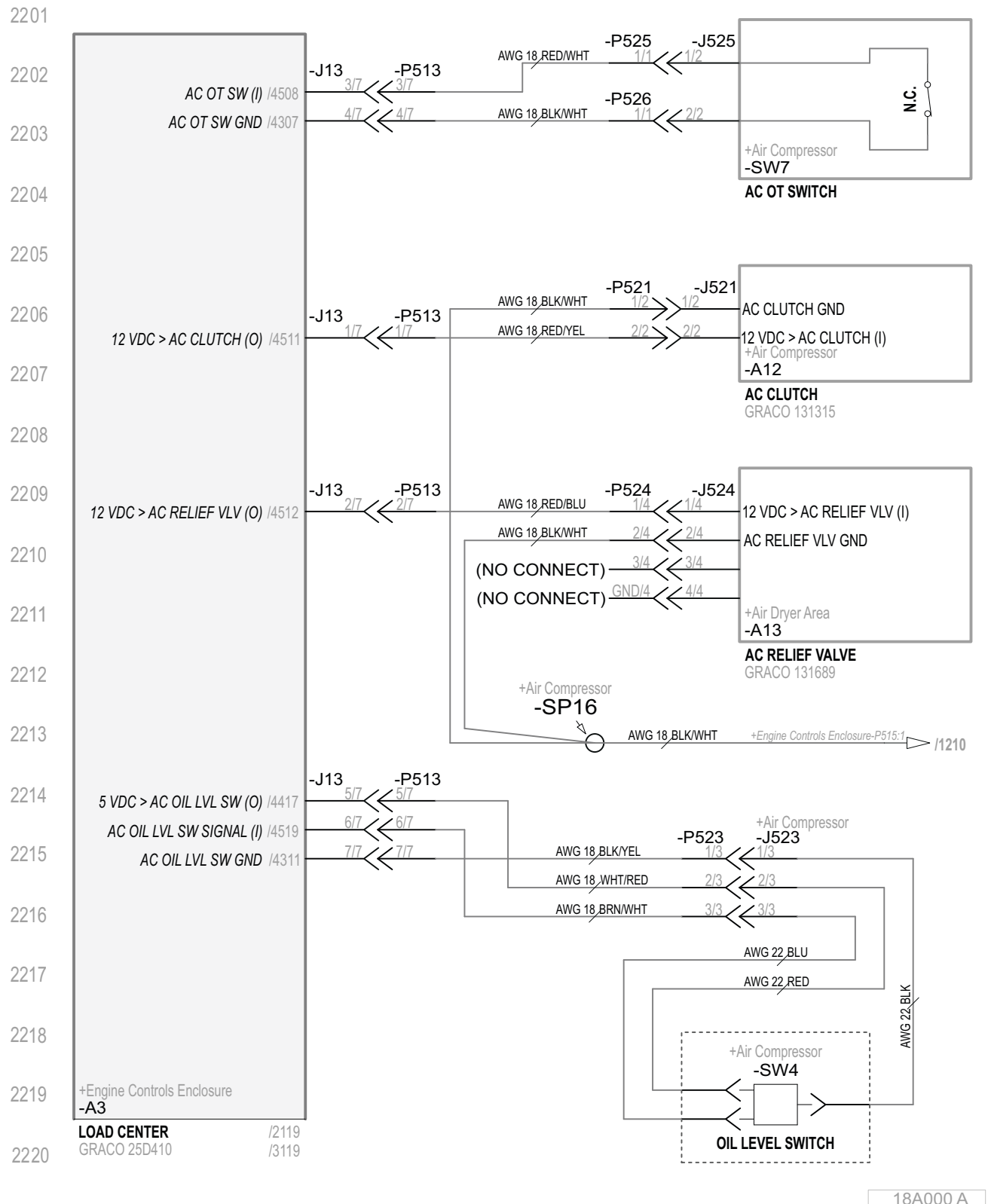


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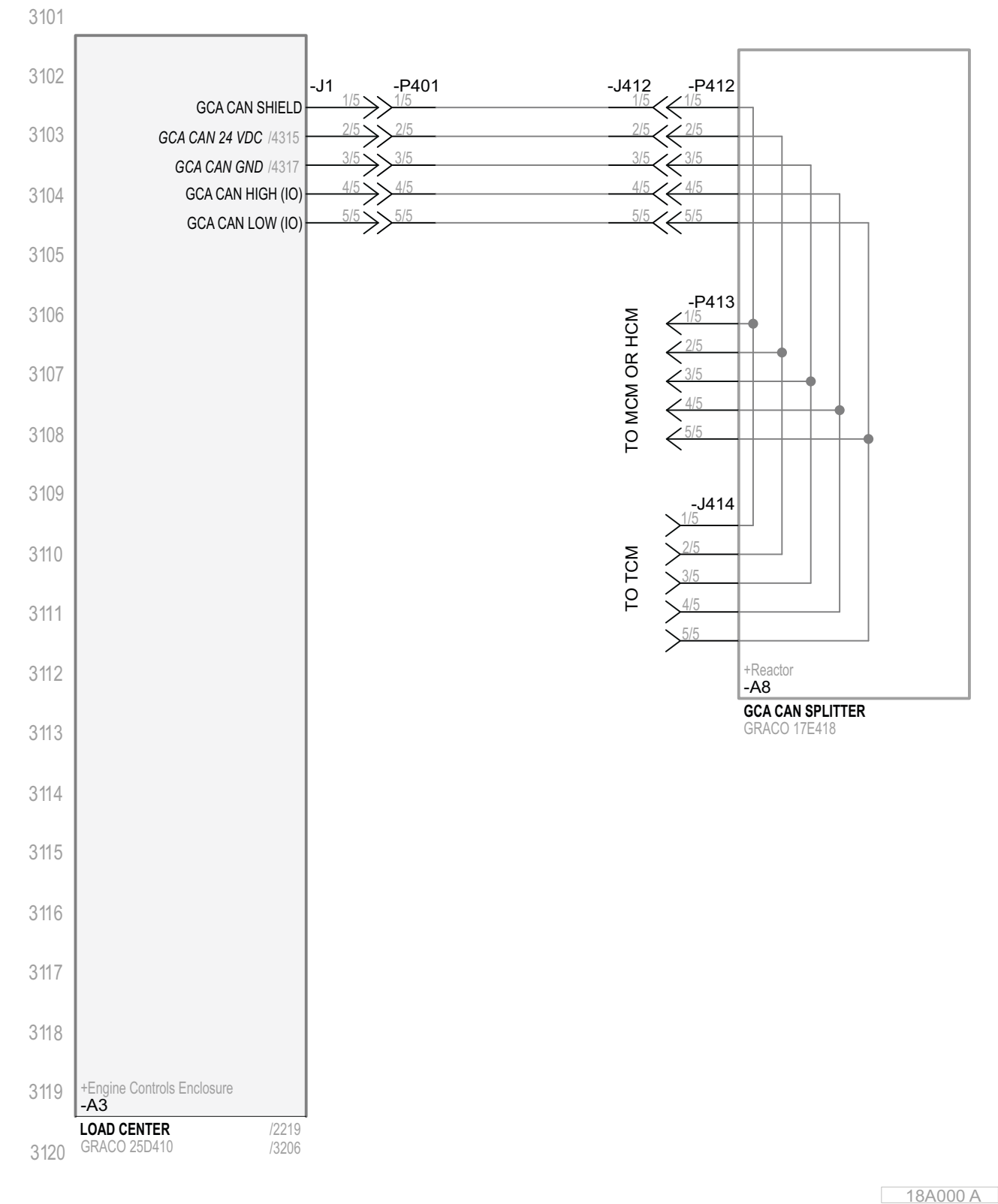
2100 - Air Compressor Control Panel



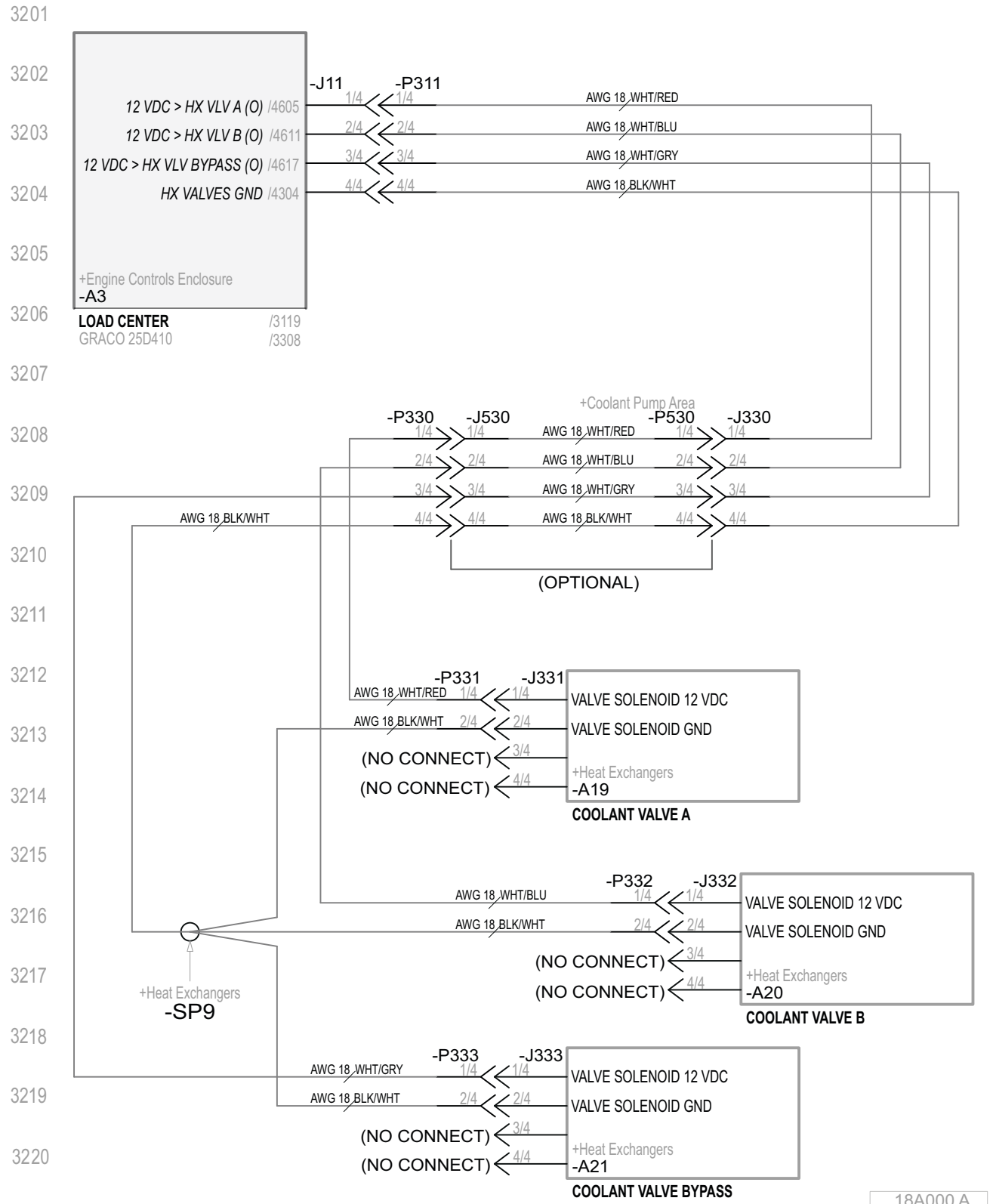
2200 - Air Compressor Loads and Sensors



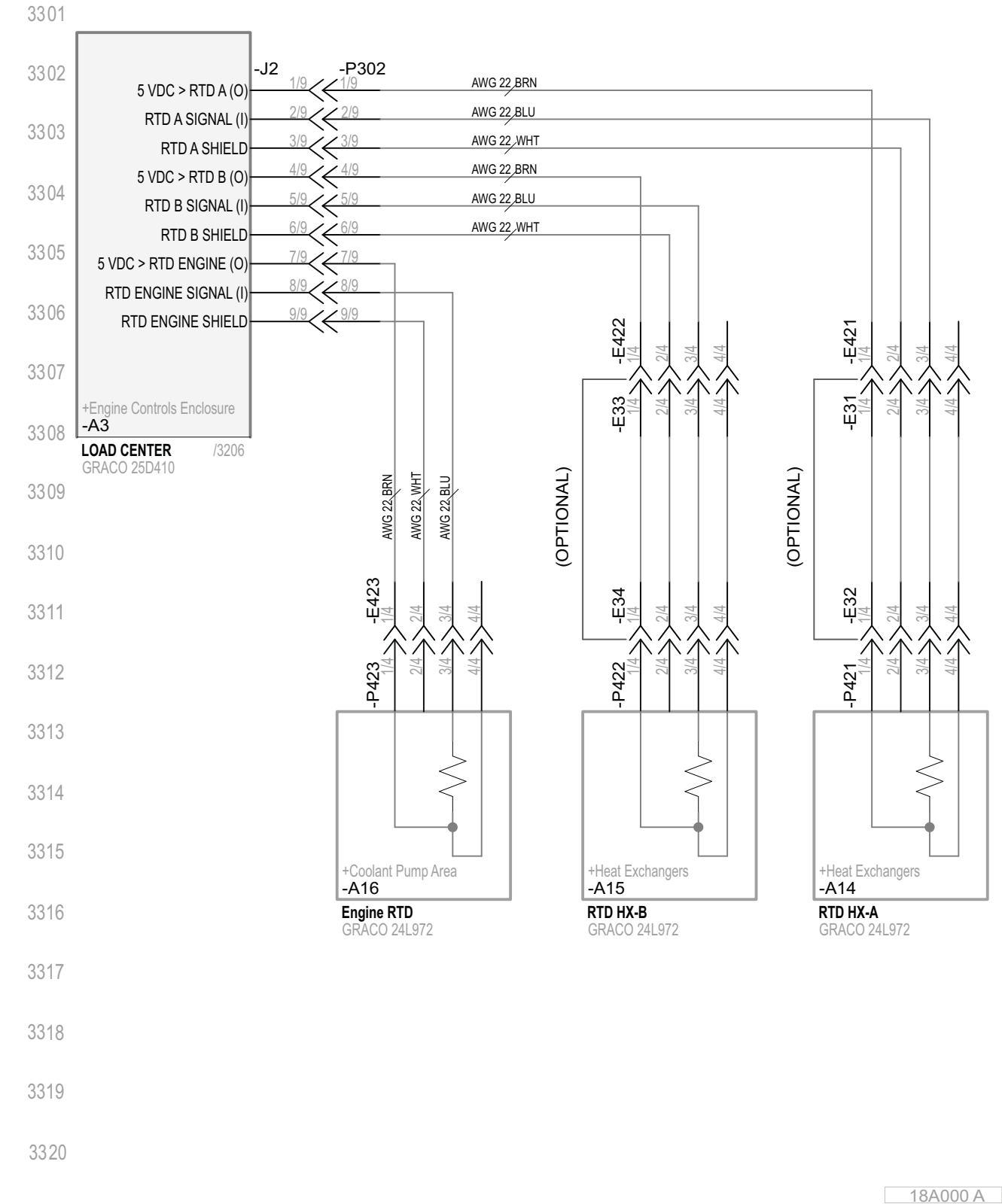
3100 - GCA CAN Communication/Power



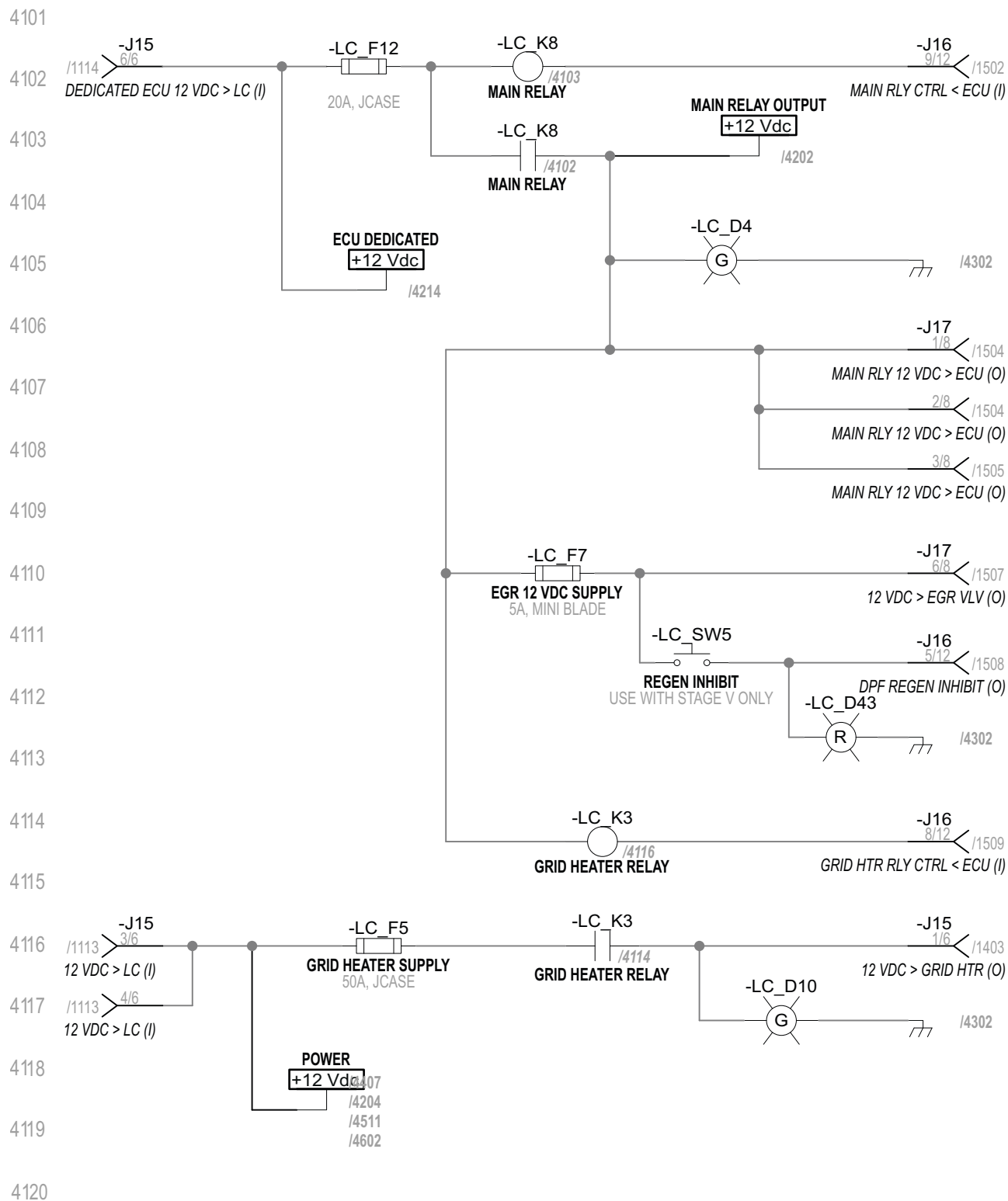
3200 - GCA Heat Exchanger Valves



3300 - GCA Temperature Measurement

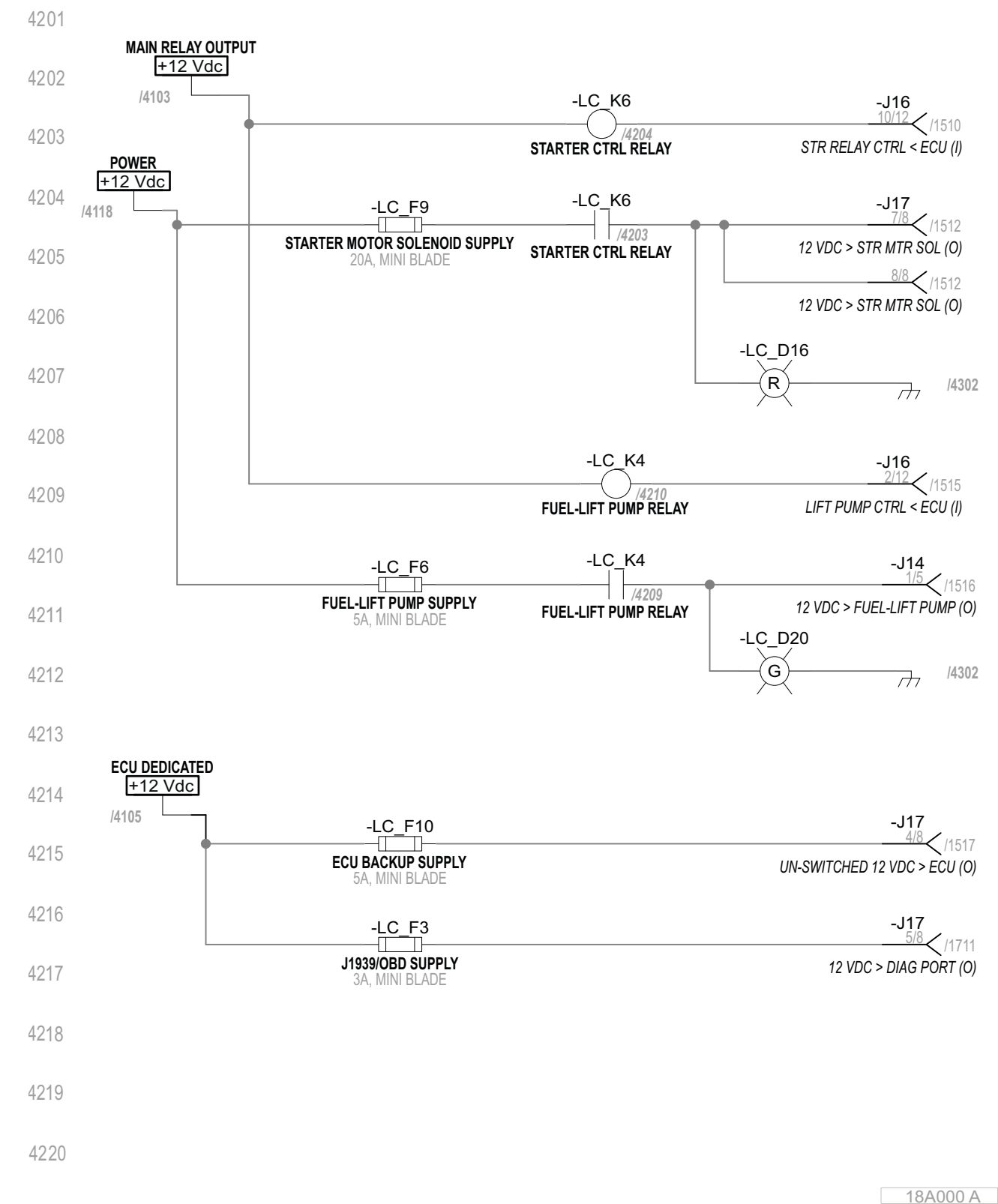


4100 - Load Center Circuitry: Power Inputs

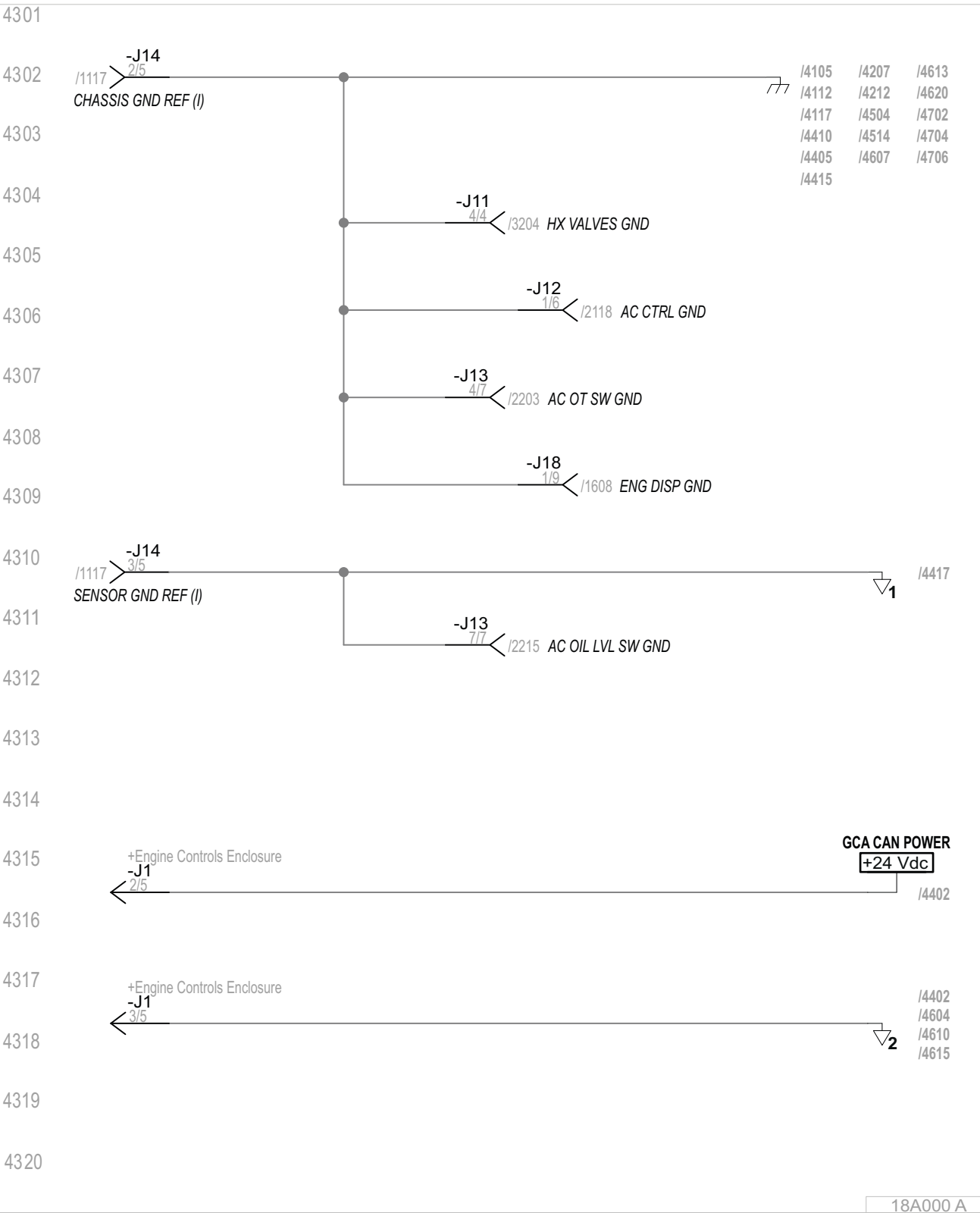


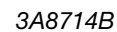
18A000 A

4200 - Load Center Circuitry: Starter, Lift Pump, etc.

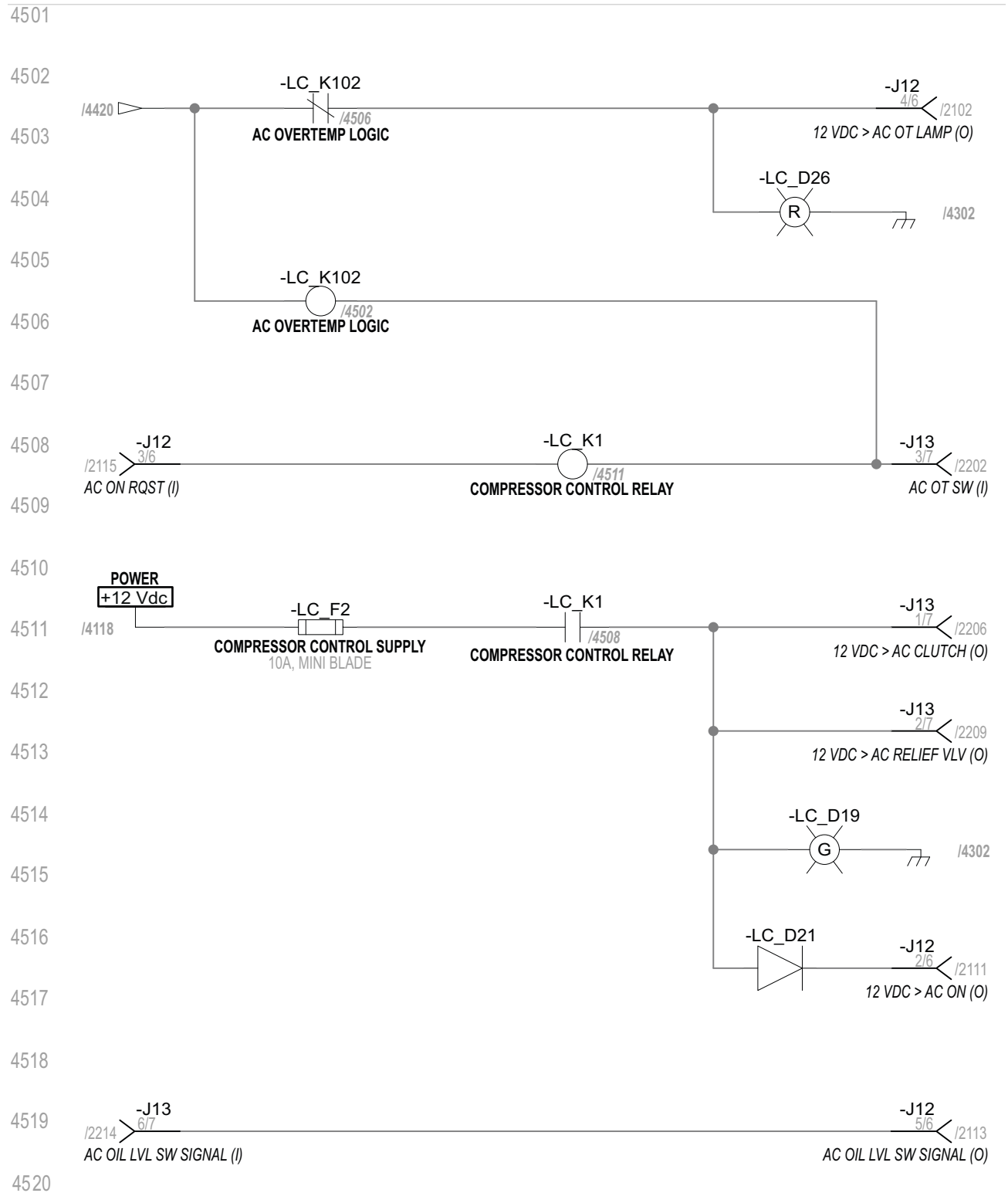


4300 - Load Center Circuitry: Grounding



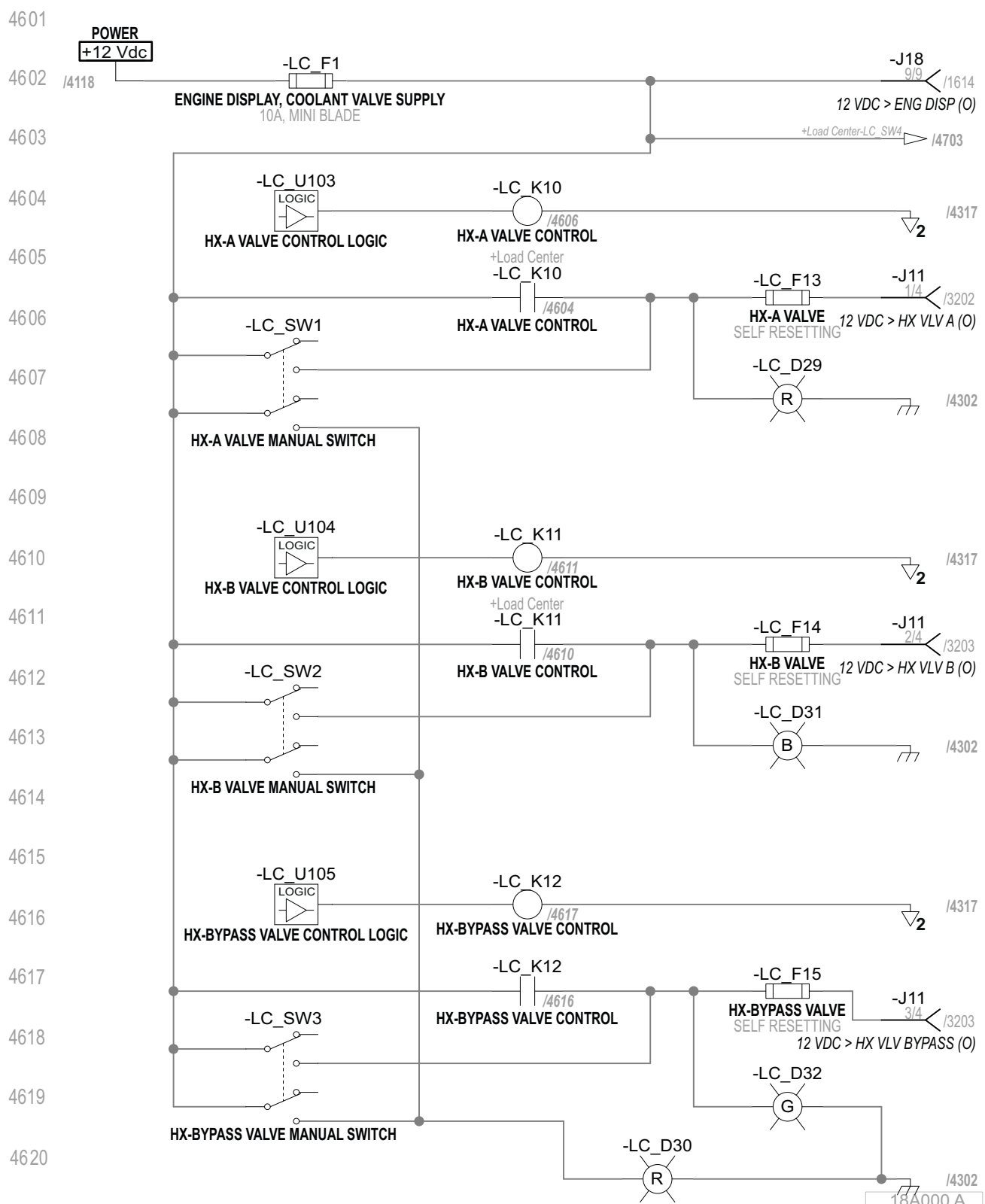


4500 - Load Center Circuitry: Air Compressor Control

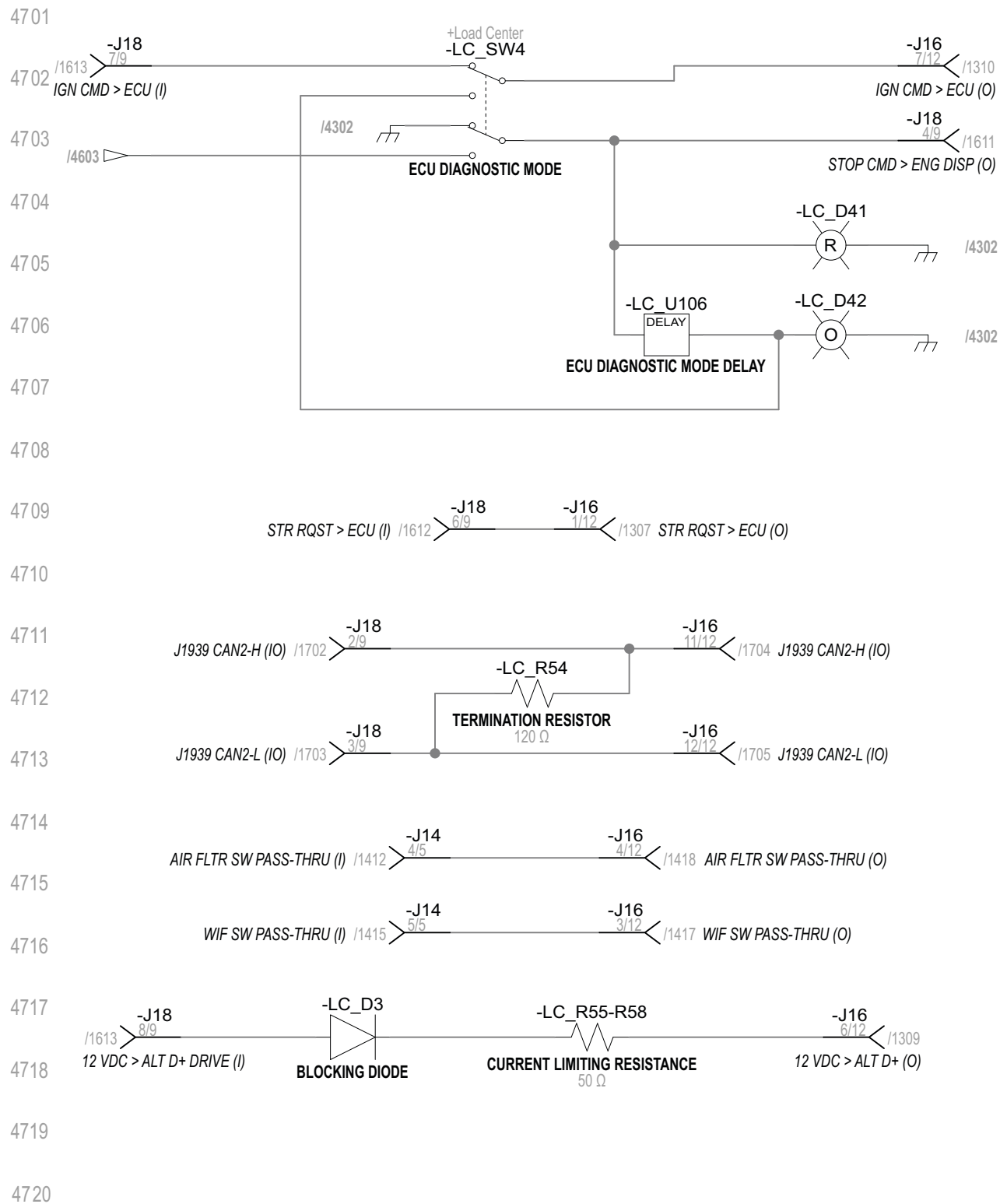


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4600 - Load Center Circuitry: Engine Display Power, Heat Exchanger Control

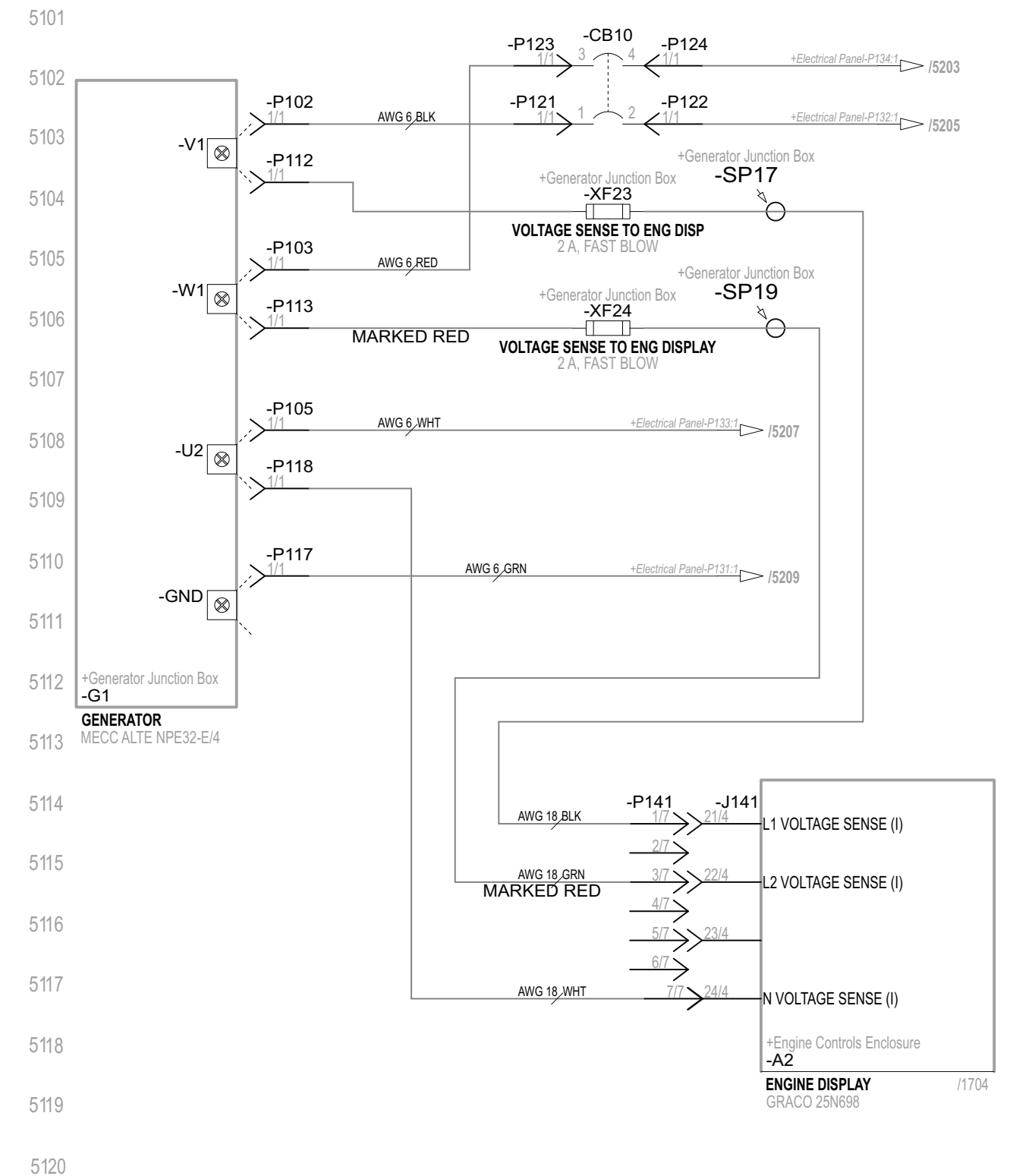


4700 - Load Center Circuitry: Diagnostic Switch, Pass-Throughs



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5100 - Line Voltage Generator Output and Monitoring



5200 - Line Voltage Electrical Panel and Loads

5201

5202

5203 /5101 +Generator Junction Box-P124:1 AWG 6_RED

5204

5205 /5102 +Generator Junction Box-P122:1 AWG 6_BLK

5206

5207 /5107 +Generator Junction Box-P105:1 AWG 6_WHT

5208

5209 /5110 +Generator Junction Box-P117:1 AWG 6_GRN

5210

5211

5212

5213

5214

5215

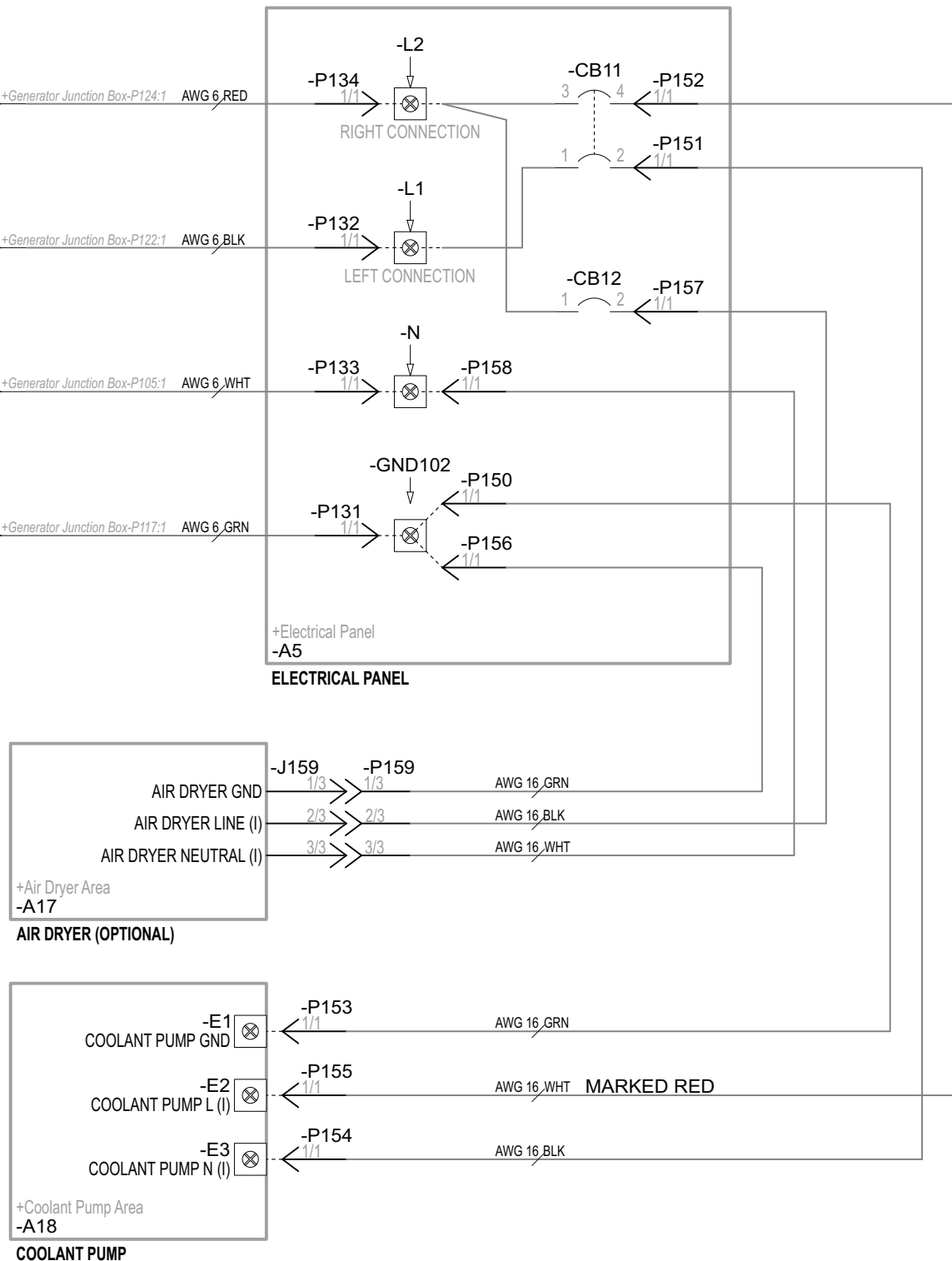
5216

5217

5218

5219

5220



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Troubleshooting Information

Block Descriptions for Troubleshooting

The following blocks are shown in the schematics. Descriptions can assist in troubleshooting related circuitry.

Prefix	Description
-LC_U101	Radiator Override Control Logic When the Reactor is powered on, this block will attempt to maximize the heat stored in the engine's coolant. When engine coolant reaches a fixed higher temperature setpoint, the block will connect its input to ground, allowing current to flow through it. When the engine coolant reaches a fixed lower temperature setpoint, the block will disconnect its input from ground, not allowing current to flow through it. When the Reactor is powered off, this logic block does not operate and thus will not pass current to ground.
-LC_U103 -LC_U104	Heat Exchanger A (or B) Valve Control Logic These blocks are controlled by the Reactor A and B temperature setpoints. When more heat is required to meet the temperature setpoint, the block outputs 12 VDC.
-LC_U105	Heat Exchanger Bypass Valve Control Logic This block outputs 12 VDC only when both -LC_U103 and -LC_U104 are both off (not outputting 12 VDC).
-LC_U106	ECU Diagnostic Mode Delay This block operates as a simple delay. Once 12 VDC is applied to the input of the block, the block outputs 12 VDC ten (or more) seconds later.
-SW4	Air Compressor Oil Level Switch Switch output is pulled to electrical ground when oil is detected (wet). Switch output "floats" to 12 VDC (not connected to ground) when oil is absent (dry).
-SW7	Air Compressor Over Temperature Switch Switch is normally closed. Switch opens when high temperature is detected.

Cross Reference Between Connector Designator and Graco Part Number

Designator	Physical Location	Part of
-E31	+Heat Exchangers	17X598
-E32	+Heat Exchangers	17X598
-E33	+Heat Exchangers	17X598
-E34	+Heat Exchangers	17X598
-E421	+Heat Exchangers	17X579
-E422	+Heat Exchangers	17X579
-E423	+Coolant Pump Area	17X579
-J159	+Air Controls Enclosure	(Air Dryer)
-J214	+Engine Controls Enclosure	17X577
-J215	+Engine Controls Enclosure	17X577
-J216	+Engine Controls Enclosure	17X577
-J301	+Engine Controls Enclosure	17X576
-J320	+Engine Controls Enclosure	17X577
-J322	+Radiators	(RADIATOR FAN)
-J323	+Radiators	(CAC FAN)
-J325	+Engine Starter Side	(AIR SWITCH)
-J326	+Engine Controls Enclosure	(ENGINE DISPLAY)
-J327	+Engine Controls Enclosure	(ENGINE DISPLAY)
-J330	+Coolant Pump Area	17X579
-J331	+Heat Exchangers	(COOLANT VALVE A)
-J332	+Heat Exchangers	(COOLANT VALVE B)
-J333	+Heat Exchangers	(COOLANT VALVE BYPASS)
-J334	+Engine Controls Enclosure	17X576
-J335	+Engine Controls Enclosure	17X578
-J412	+Reactor	(CAN CABLE FROM LC2 TO SPLITTER)
-J414	+Reactor	(CAN SPLITTER)
-J521	+Air Compressor	(AIR COMP CLUTCH)
-J523	+Air Compressor	17X590
-J524	+Air Dryer Area	(RELIEF VALVE)
-J525	+Air Compressor	(AIR COMP OT SWITCH)
-J530	+Heat Exchangers	17X598
-K21	+Engine Controls Enclosure	17X582
-LC_*	+Load Center	25D410*
-LT1	+Air Controls Enclosure	17X582
-LT2	+Air Controls Enclosure	17X582
-LT3	+Air Controls Enclosure	17X582
-P102	+Generator Junction Box	17X602
-P103	+Generator Junction Box	17X603

Designator	Physical Location	Part of
-P105	+Generator Junction Box	17X570
-P112	+Generator Junction Box	17X597
-P113	+Generator Junction Box	17X597
-P117	+Generator Junction Box	17X570
-P118	+Generator Junction Box	17X597
-P121	+Generator Junction Box	17X602
-P122	+Generator Junction Box	17X570
-P123	+Generator Junction Box	17X603
-P124	+Generator Junction Box	17X570
-P131	+Electrical Panel	17X570
-P132	+Electrical Panel	17X570
-P133	+Electrical Panel	17X570
-P134	+Electrical Panel	17X570
-P141	+Engine Controls Enclosure	17X597
-P150	+Electrical Panel	17X571
-P151	+Electrical Panel	17X571
-P152	+Electrical Panel	17X571
-P153	+Coolant Pump Area	17X571
-P154	+Coolant Pump Area	17X571
-P155	+Coolant Pump Area	17X571
-P156	+Electrical Panel	17X572
-P157	+Electrical Panel	17X572
-P158	+Electrical Panel	17X572
-P159	+Air Dryer Area	17X572
-P201	+Battery	17X574
-P202	+Battery	17X574
-P203	+Engine Starter Side	17X574
-P204	+Battery	17X577
-P205	+Battery	17X577
-P206	+Battery	17X577
-P207	+Battery	17X577
-P208	+Battery	17X577
-P209	+Battery	17X575
-P210	+Engine Service Side	17X575
-P211	+Engine Service Side	17X577
-P212	+Engine Service Side	17X577
-P213	+Engine Service Side	17X577
-P214	+Engine Controls Enclosure	17X576
-P302	+Engine Controls Enclosure	17X579
-P311	+Engine Controls Enclosure	17X579

Designator	Physical Location	Part of
-P314	+Engine Controls Enclosure	17X577
-P315	+Engine Controls Enclosure	17X576
-P316	+Engine Controls Enclosure	17X576
-P317	+Engine Controls Enclosure	17X578
-P318	+Engine Controls Enclosure	17X577
-P321	+Engine Service Side	17X577
-P322	+Radiators	17X577
-P323	+Radiators	17X577
-P324	+Engine Service Side	17X577
-P325	+Engine Starter Side	17X577
-P326	+Engine Controls Enclosure	17X578
-P327	+Engine Controls Enclosure	17X578
-P330	+Coolant Pump Area	17X580
-P331	+Heat Exchangers	17X580
-P332	+Heat Exchangers	17X580
-P333	+Heat Exchangers	17X580
-P334	+Engine Controls Enclosure	17X576
-P335	+Engine Controls Enclosure	17X573
-P401	+Engine Controls Enclosure	(CAN CABLE FROM LC2 TO SPLITTER)
-P412	+Reactor	(CAN SPLITTER)
-P413	+Reactor	(CAN SPLITTER)
-P421	+Heat Exchangers	(RTD A)
-P422	+Heat Exchangers	(RTD B)
-P423	+Coolant Pump Area	(RTD BYPASS)
-P512	+Engine Controls Enclosure	17X582
-P513	+Engine Controls Enclosure	17X581
-P515	+Engine Controls Enclosure	17X581
-P521	+Air Compressor	17X581
-P523	+Air Compressor	17X581
-P524	+Air Dryer Area	17X581
-P525	+Air Compressor	17X581
-P526	+Air Compressor	17X581
-P530	+Coolant Pump Area	17X598
-P531	+Engine Controls Enclosure	17X582
-P532	+Engine Controls Enclosure	17X582
-P533	+Engine Controls Enclosure	17X582
-P534	+Engine Controls Enclosure	17X582
-P601	+Engine Controls Enclosure	(ENGINE)
-P602-Kohler	+Engine Starter Side	131839
-P603-Kohler	+Engine Starter Side	131839
-SP1	+Engine Controls Enclosure	17X576

Designator	Physical Location	Part of
-SP2	+Engine Controls Enclosure	17X576
-SP4	+Generator Junction Box Area	17X577
-SP6	+Radiators	17X577
-SP8	+Engine Controls Enclosure	17X577
-SP9	+Heat Exchangers	17X580
-SP10	+Engine Controls Enclosure	17X576
-SP11	+Engine Controls Enclosure	17X576
-SP12	+Engine Controls Enclosure	17X576
-SP13	+Engine Controls Enclosure	17X576
-SP15	+Engine Controls Enclosure	17X577
-SP16	+Air Compressor	17X581
-SP17	+Generator Junction Box	17X597
-SP19	+Generator Junction Box	17X597
-SW1	+Air Controls Enclosure	17X582
-SW2	+Air Controls Enclosure	17X582
-SW3	+Generator Junction Box	17X573
-SW4	+Air Compressor	17X590
-SW5	+Engine Service Side	(ENGINE)
-SW6	+Engine Starter Side	(AIR FILTER SWITCH)
-SW7	+Air Compressor	(AIR COMP OT SWITCH)
-XF1	+Battery	17X577
-XF2	+Battery	17X577
-XF23	+Generator Junction Box	17X597
-XF24	+Generator Junction Box	17X597

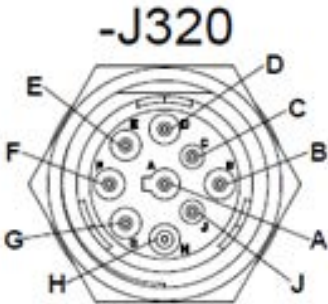
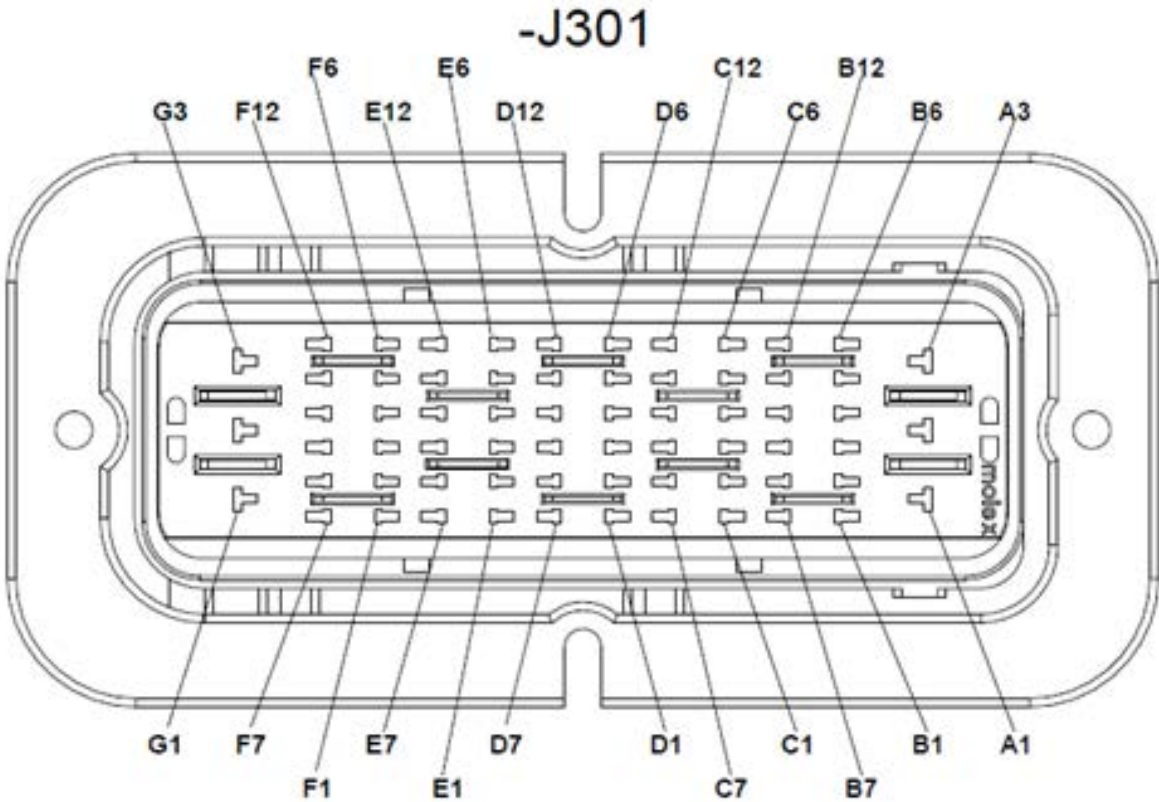
*Anything starting with “-LC__” is located in the Load Center (25D410).

Repair Parts Listing

Designator	Description	Part Number	Orderable Kit Number
-XF2	40 Amp MIDI Fuse	17X594	25N689
-XF1	80 Amp MIDI Fuse	17X595	
-LC_F12	20 Amp JCASE Fuse	131589	25N688
-LC_F4	40 Amp JCASE Fuse	131592	
-LC_F5	50 Amp JCASE Fuse	131593	
-LC_F3	3 Amp MINI Blade Fuse	131580	
-LC_F6 -LC_F7 -LC_F8 -LC_F10	5 Amp MINI Blade Fuse	131582	
-LC_F1 -LC_F2	10 Amp MINI Blade Fuse	131584	
-LC_F9 -LC_F11	20 Amp MINI Blade Fuse	131586	
-LC_K1 -LC_K4 -LC_K6 -LC_K7	30 Amp Relay	131578	25N687
-LC_K2 -LC_K3 -LC_K8	70 Amp Relay	131577	
-K21	Panel Mount Relay	131697	
-LT1 -LT2	Indicator Lamp LED	131600	— — — — —
-LT3	Indicator Lamp LED	130295	17V478
-SW1	NO Switch Contact Block	130292	17V479
-SW2	NC Switch Contact Block	130293	17V477
-CB10	2 Pole, 90A Circuit Breaker, Aux Switch Harness Assembly	17X596, 17X573	25N697
-XF23 -XF24	.25 in. x 1.25 in. Ceramic Body Fuse – 2 A, 250 V Fast Acting	16N974	24M723
-CB11	2 Pole, 10 A QO Circuit Breaker	131553	Square D QO210 or 131553
-CB12	1 Pole, 15 A QO Circuit Breaker	131546	Square D QO115 or 131546
(none)	Engine Charge Alternator to Starter Cable	131839	131839

Connector Pins-Outs

Select connectors listed. For additional information, please contact Graco Technical Assistance.



Notes

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For the latest information about Graco products, visit www.graco.com.

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