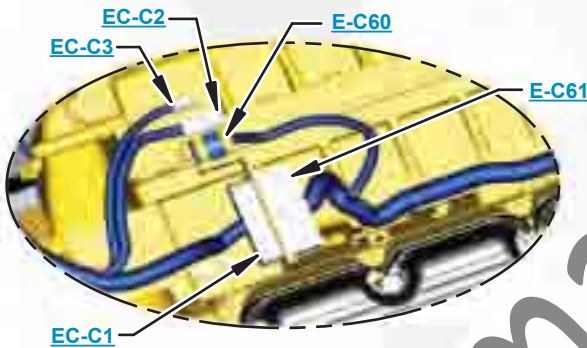


This document is best viewed at a screen resolution of 1024 X 768.

To set your screen resolution do the following:
RIGHT CLICK on the **DESKTOP**.
 Select **PROPERTIES**.
CLICK the **SETTINGS TAB**.
MOVE THE SLIDER under **SCREEN RESOLUTION** until it shows **1024 X 768**.
CLICK OK to apply the resolution.

The Bookmarks panel will allow you to quickly navigate to points of interest.



Click on any text that is BLUE and underlined. These are hyperlinks that can be used to navigate the schematic and machine views.

VIEW ALL CALLOUTS

When only one callout is showing on a machine view this button will make all of the callouts visible. This button is located in the top right corner of every machine view page.

HOTKEYS (Keyboard Shortcuts)		
	FUNCTION	KEYS
	Zoom In	"CTRL" / "+"
	Zoom Out	"CTRL" / "-"
	Fit to Page	"CTRL" / "0" (zero)
	Hand Tool	"SPACEBAR" (hold down)
	Find	"CTRL" / "F"



Schematic

770G and 772G Off-Highway Truck Electrical System

770G:
RMD1-UP
ECM174-UP
ECX1-UP

772G:
RMH1-UP
LTS268-UP
LTX1-UP

Volume 1 of 2: Cab With VIMS Wiring
Volume 2 of 2: Chassis and Engine Wiring

COMPONENT LOCATION

Volume 1 of 2 - CAB WITH VIMS WIRING



Component	Schematic Location	Machine Location	Component	Schematic Location	Machine Location
Alarm - Action	E-4	1	Resistor - RH Turn	G-1	30
Block AS - Fuse	G-5	2	Sensor - Louver Temp	E-4	31
Block AS - Fuse 2	I-5	3	Sensor - Recirc Filter Temp	I-14	32
Breaker - HVAC	H-6	4	Sensor - Secondary Brake Pedal	D-4	33
Control GP - Brake	E-14	5	Sensor - Service Brake Position	E-4	34
Control GP - Chassis	H-14	6	Sensor - Throttle	D-4	35
Control GP - Display Cluster	H-1	7	Switch - A/C	C-2	36
Control GP - Messenger	F-1	8	Switch - Arc On / Off	D-2	37
Control GP - Monitor	E-1	9	Switch - Backlight Dimmer	I-2	38
Control GP - Shifter	C-5	10	Switch - Column	G-1	39
Control GP - Vims	G-9	11	Switch - Compression Brake	H-1	40
Converter - 24v / 12v	I-9	12	Switch - Economy Mode	G-3	41
Flasher 24v	G-5	13	Switch - Egress Lamp	F-2	42
Ground - Cab	A-13	14	Switch - Evap Freeze Probe	I-14	43
Ground - Cab 2	A-13	15	Switch - Front Brake	E-2	44
Ground - Dash	E-3	16	Switch - Hazard	D-2	45
Ground - Rear Cab	F-7	17	Switch - Headlamp	I-2	46
Lever AS - Retarder	G-1	18	Switch - Heated Mirror	H-3	47
Module AS - Wiper Delay	G-5	19	Switch - Horn	H-1	48
Monitor - Rear Vision	B-4	20	Switch - Key Start	F-1	49
Monitor - Tire	E-9	21	Switch - Regeneration	H-3	50
Motor - Blower	I-14	22	Switch - RH Console Lamp	F-3	51
Motor - Precleaner	E-4	23	Switch - Secondary Steering Test	I-3	52
Motor - Window Lift	I-7	24	Switch - TCS Test	H-3	53
Motor - Wiper	F-1	25	Switch - Throttle Lock	C-5	54
Relay - Main Power	E-5	26	Switch - Window Lift	D-5	55
Resistor - Blower	I-14	27	Switch - Work Light	G-3	56
Resistor - CAN	H-5	28	Valve AS - Water	I-13	57
Resistor - LH Turn	E-1	29			

COMPONENT LOCATION

Volume 2 of 2 - CHASSIS AND ENGINE WIRING



Component	Schematic Location	Machine Location	Component	Schematic Location	Machine Location
Alarm - Backup	D-11	58	Sensor - TC Oil Temp 40T	B-12	117
Alternator	F-1	59	Sensor - TC Oil Temp 50T	C-12	118
Arc Suppressor	G-1	60	Sensor - Turbo Inlet 1	B-3	119
Batteries - Cold Start	E-1	61	Sensor - Water In Fuel	J-4	120
Battery - 12v 1	E-1	62	Sensor - XMSN In Speed 50T	D-12	121
Battery - 12v 2	E-1	63	Sensor - XMSN Out Speed 1 40T	B-12	122
Breaker - Alternator 1	D-3	64	Sensor - XMSN Out Speed 1 50T	C-12	123
Breaker - Alternator 2	E-3	65	Sensor - XMSN Out Speed 2 40T	B-12	124
Breaker - Engine ECM 1	D-3	66	Sensor - XMSN Out Speed 2 50T	D-12	125
Breaker - Engine ECM 2	E-3	67	Sensor - XMSN Speed 40T	A-14	126
Breaker - Main Power 1	D-3	68	Sensor - XMSN Speed 50T	C-12	127
Breaker - Main Power 2	E-3	69	Sensor - XMSN TC Oil Level Low 40T	B-12	128
Control GP - Disconnect	E-1	70	Sensor - XMSN TC Oil Level Low 50T	B-12	129
Control GP - Engine	J-7	71	Sensor - XMSN Temp 40T	B-12	130
Ground - Chassis	B-6	72	Sensor - XMSN Temp 50T	C-12	131
Ground - Chassis 2	H-9	73	Solenoid - A/C Clutch	G-1	132
Ground - Chassis 3	E-6	74	Solenoid - Autolube	I-12	133
Ground - Disconnect	E-1	75	Solenoid - Brake - 1-3	J-3	134
Ground - Frame	E-2	76	Solenoid - Cooling Fan	B-10	135
Horn - High Tone	F-3	77	Solenoid - ECPC Lockup 40T	A-14	136
Horn - Low Tone	A-4	78	Solenoid - ECPC Lockup 50T	D-12	137
Motor - Sec Steering	D-2	79	Solenoid - Front Brake	I-12	138
Motor - Starter	E-2	80	Solenoid - Hoist Lower	I-13	139
Motor - Washer	F-3	81	Solenoid - Hoist Raise	I-13	140
Pump GP - Fuel Priming	H-4	82	Solenoid - Injectors 1-6	J-3	141
Relay - Fuel Priming	C-2	83	Solenoid - Left Rear Brake	E-11	142
Relay - Sec Steering	E-2	84	Solenoid - Park Brake	E-11	143
Relay - Start	F-2	85	Solenoid - Rear Brake Pressure	E-11	144
Resistor - Can A	C-2	86	Solenoid - Right Rear Brake	E-11	145
Sender - Fuel Level	J-11	87	Solenoid - Service Brake Accum Bleed	E-11	146
Sensor - Air Inlet Temp	B-5	88	Solenoid - Start Aid	I-12	147
Sensor - Ambient Air Temp	D-5	89	Solenoid - Steer System Disable	D-8	148
Sensor - Barometric Pressure	D-5	90	Solenoid - XMSN 1 40T	B-14	149
Sensor - Brake Oil Temp	D-12	91	Solenoid - XMSN 1 50T	D-14	150
Sensor - Cam Speed	J-4	92	Solenoid - XMSN 2 40T	B-14	151
Sensor - Converter Output Speed 40T	A-14	93	Solenoid - XMSN 2 50T	C-14	152
Sensor - Coolant Level Low	C-5	94	Solenoid - XMSN 3 40T	B-14	153
Sensor - Coolant Temp	I-5	95	Solenoid - XMSN 3 50T	C-14	154
Sensor - Crank Speed	J-4	96	Solenoid - XMSN 4 40T	B-14	155
Sensor - Diff Oil Level 1	F-12	97	Solenoid - XMSN 4 50T	C-14	156
Sensor - Diff Oil Level 2	F-12	98	Solenoid - XMSN 5 40T	B-14	157
Sensor - Engine Oil Pressure	I-5	99	Solenoid - XMSN 5 50T	C-14	158
Sensor - Engine Speed Timing	I-2	100	Solenoid - XMSN 6 40T	B-14	159
Sensor - Fan Speed	B-4	101	Solenoid - XMSN 6 50T	C-14	160
Sensor - Fuel Pressure	I-4	102	Solenoid - XMSN 7 40T	B-14	161
Sensor - Fuel Temp	I-4	103	Solenoid - XMSN 7 50T	C-14	162
Sensor - HYD Oil Level	F-8	104	Switch - A/C Hi-Lo	G-1	163
Sensor - Intake Air Pressure	I-5	105	Switch - A/C Low	G-1	164
Sensor - Intake Manifold Air Temp	I-5	106	Switch - Body Up	E-11	165
Sensor - Left Front TPMS	H-13	107	Switch - Brake Filter Bypass	I-12	166
Sensor - Left Hand Steering Cyl Position	H-13	108	Switch - Crank Lockout	B-2	167
Sensor - Left Rear TPMS	E-14	109	Switch - Egress Light	E-3	168
Sensor - LH Wheel Speed	F-12	110	Switch - Ground Level Shutdown	D-3	169
Sensor - Primary Steer Pressure	D-8	111	Switch - Ground Level Shutdown 2	E-3	170
Sensor - RF TPMS	G-12	112	Switch - Machine Lockout	C-2	171
Sensor - RH Wheel Speed	F-12	113	Switch - Park Brake Pressure	C-10	172
Sensor - Right Rear TPMS	D-14	114	Switch - Priming Pump	I-4	173
Sensor - Service Brake Accum Pressure	I-12	115	Switch - Sec Steering Pressure	D-8	174
Sensor - Steer Oil Level	F-8	116	Switch - XMSN Filter Bypass	I-13	175

CONNECTOR LOCATION

Volume 1 of 2 - CAB WITH VIMS WIRING



Connector Number	Schematic Location
CONN 1	I-13
CONN 2	D-9
CONN 3	C-9
CONN 4	B-9
CONN 5	H-5
CONN 6	H-5
CONN 7	F-2
CONN 8	E-2

The connectors shown in this chart are for harness to harness connectors. Connectors that join a harness to a component are generally located at or near the component. See the Component Location Chart.

CONNECTOR LOCATION

Volume 2 of 2 - CHASSIS AND ENGINE WIRING



Connector Number	Schematic Location	Connector Number	Schematic Location
CONN 2	C-6	CONN 31	F-8
CONN 3	I-9	CONN 32	F-8
CONN 4	F-6	CONN 33	H-7, J-5
CONN 9	D-14	CONN 34	H-7, J-5
CONN 10	E-14	CONN 35	I-5
CONN 11	J-13	CONN 36	H-5
CONN 12	H-13	CONN 37	G-5
CONN 13	B-12	CONN 38	F-5
CONN 14	C-12	CONN 39	F-5
CONN 15	D-12	CONN 40	D-5, E-4, D-4
CONN 16	E-12	CONN 41	D-5, E-4, D-4
CONN 17	H-12	CONN 42	D-5
CONN 18	J-11	CONN 43	D-5
CONN 19	G-11	CONN 44	C-5
CONN 20	G-11	CONN 45	C-5
CONN 21	F-11	CONN 46	C-5
CONN 22	F-11	CONN 47	B-5
CONN 23	B-10, C-10	CONN 48	B-5
CONN 24	D-9	CONN 49	B-5
CONN 25	H-9	CONN 50	B-5
CONN 26	I-9	CONN 51	J-4
CONN 27	G-9	CONN 52	B-2
CONN 28	G-9	CONN 53	C-2
CONN 29	C-8	CONN 54	G-2, H-5
CONN 30	C-8		

The connectors shown in this chart are for harness to harness connectors. Connectors that join a harness to a component are generally located at or near the component. See the Component Location Chart.

SPECIFICATIONS AND RELATED MANUALS

Volume 1 of 2 - CAB WITH VIMS WIRING



Related Electrical Service Manuals	
Title	Form Number
Cross Reference for Electrical Connectors:	BEHS0970
Cahssis Control:	UENR1125
Brake Control:	UENR1136

Resistor, Sender and Solenoid Specifications		
Part No.	Component Description	Resistance (Ohms) ¹
134-2540	Resistor Can	120 ± 12
257-5029	Resistor Blower	1-2: 1.3 2-3: 0.8 3-4: 0.4
286-9022	Resistor LH Turn RH Turn	300 ± 15

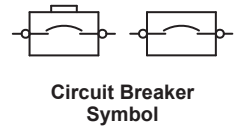
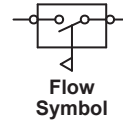
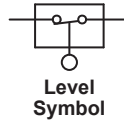
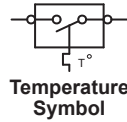
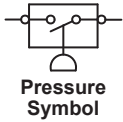
¹ At room temperature unless otherwise noted.

HARNESS and WIRE

Electrical Schematic Symbols



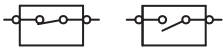
Symbols



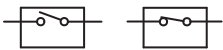
Symbols and Definitions



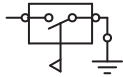
Fuse: A component in an electrical circuit that will open the circuit if too much current flows through it.



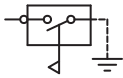
Switch (Normally Open): A switch that will close at a specified point (temp, press, etc.). The circle indicates that the component has screw terminals and a wire can be disconnected from it.



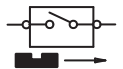
Switch (Normally Closed): A switch that will open at a specified point (temp, press, etc.). No circle indicates that the wire cannot be disconnected from the component.



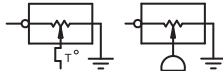
Ground (Wired): This indicates that the component is connected to a grounded wire. The grounded wire is fastened to the machine.



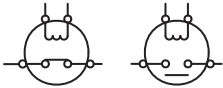
Ground (Case): This indicates that the component does not have a wire connected to ground. It is grounded by being fastened to the machine.



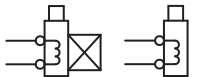
Reed Switch: A switch whose contacts are controlled by a magnet. A magnet closes the contacts of a normally open reed switch; it opens the contacts of a normally closed reed switch.



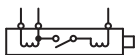
Sender: A component that is used with a temperature or pressure gauge. The sender measures the temperature or pressure. Its resistance changes to give an indication to the gauge of the temperature or pressure.



Relay (Magnetic Switch): A relay is an electrical component that is activated by electricity. It has a coil that makes an electromagnet when current flows through it. The electromagnet can open or close the switch part of the relay.



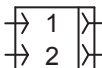
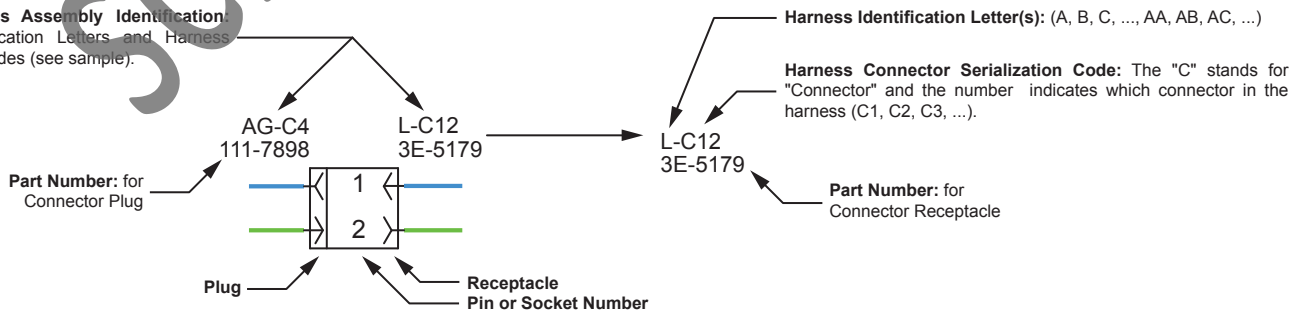
Solenoid: A solenoid is an electrical component that is activated by electricity. It has a coil that makes an electromagnet when current flows through it. The electromagnet can open or close a valve or move a piece of metal that can do work.



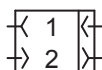
Magnetic Latch Solenoid: A magnetic latch solenoid is an electrical component that is activated by electricity and held latched by a permanent magnet. It has two coils (latch and unlatch) that make electromagnet when current flows through them. It also has an internal switch that places the latch coil circuit open at the time the coil latches.

Harness and Wire Symbols

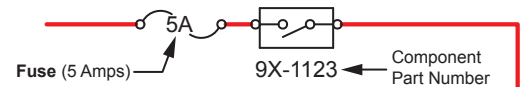
Wire, Cable, or Harness Assembly Identification: Includes Harness Identification Letters and Harness Connector Serialization Codes (see sample).



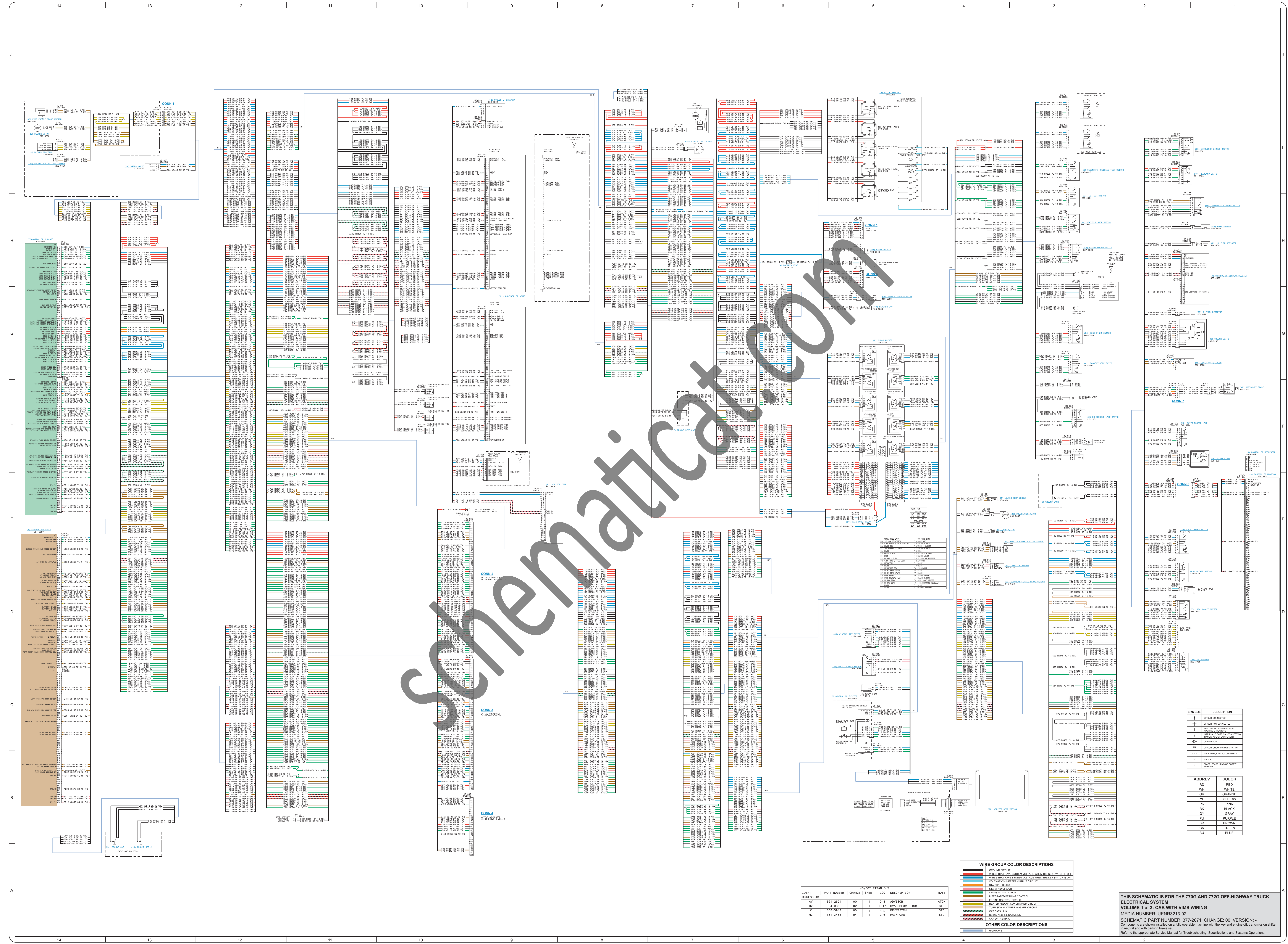
Deutsch connector: Typical representation of a Deutsch connector. The plug contains all sockets and the receptacle contains all pins.



Sure-Seal connector: Typical representation of a Sure-Seal connector. The plug and receptacle contain both pins and sockets.



Harness identification code: This example indicates wire group 325, wire 135 in harness "AG".



WIRE GROUP COLOR DESCRIPTIONS

- GROUND CIRCUIT
- WIRES THAT HAVE SYSTEM VOLTAGE WHEN THE KEY SWITCH IS OFF
- WIRES THAT HAVE SYSTEM VOLTAGE WHEN THE KEY SWITCH IS ON
- LOW VOLTAGE CIRCUIT
- GROUND CIRCUIT
- UNIDENTIFIED WIRING CONTROL
- ENGINE CONTROL CIRCUIT
- HEATER AND AIR CONDITIONER CIRCUIT
- LIGHTS, SIGNAL, HORN, BATTERY CHARGER
- FUEL SYSTEM
- PULSE / RS-485 DATA
- OTHER COLOR DESCRIPTIONS
- SIGNALS

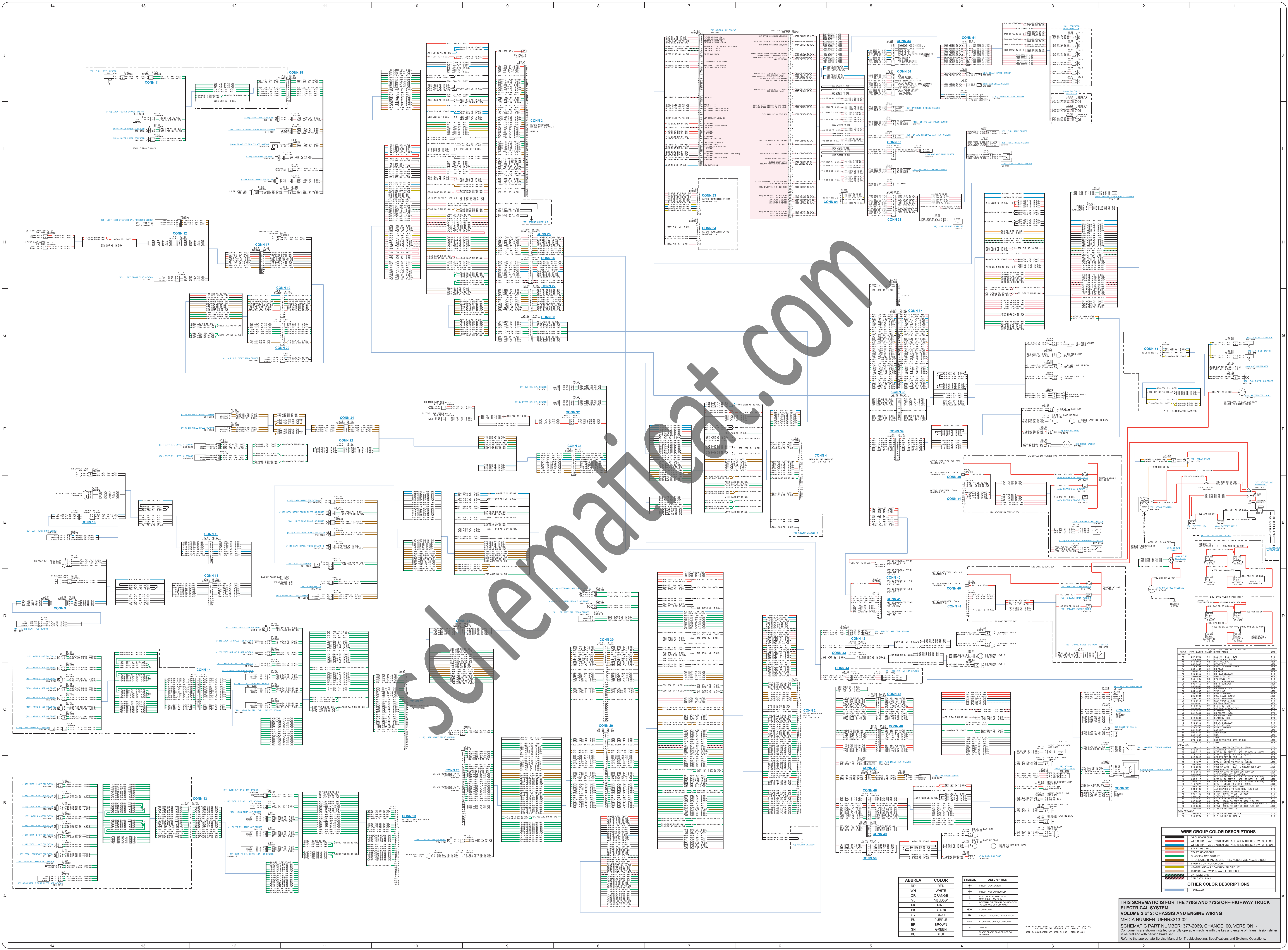
IDENT	PART NUMBER	CHANGE	SHEET	LOC	DESCRIPTION	NOTE
HAVERS AS						
RV	361-2524	00	1	D-3	ADVISOR	ATG
RV	324-0852	02	1	L-17	W/AC BLOWER BOX	STG
R	340-2948	00	1	H-2	RESISTOR	STG
WC	531-5483	04	1	G-6	BRAIN CAB	STG

SYMBOL	DESCRIPTION
[Symbol]	GROUND CONNECTED
[Symbol]	GROUND NOT CONNECTED
[Symbol]	ELECTRICAL CONNECTION TO
[Symbol]	MECHANICAL CONNECTION TO
[Symbol]	MECHANICAL CONNECTION TO
[Symbol]	GROUND
[Symbol]	GROUND THROUGH BATTERY
[Symbol]	GROUNDED BATTERY COMPONENT
[Symbol]	BATTERY
[Symbol]	BATTERY

ABBREV	COLOR
RD	RED
WH	WHITE
OR	ORANGE
YL	YELLOW
PK	PINK
BLK	BLACK
GY	GRAY
PLU	PURPLE
EB	BROWN
GN	GREEN
BLU	BLUE

THIS SCHEMATIC IS FOR THE 770G AND 772G OFF-HIGHWAY TRUCK
 ELECTRICAL SYSTEM
 VOLUME 1 of 2: CAB WITH VIMS WIRING
 MEDIA NUMBER: UENR3213-02
 SCHEMATIC PART NUMBER: 377-2071, CHANGE: 00, VERSION:
 Components are shown installed on a fully operating machine with the key and engine off, transmission either
 in neutral and with parking brake set.
 Refer to the appropriate Service Manual for Troubleshooting, Specifications and Systems Operations.

SchematicsCat.com



ABBREV	COLOR	SYMBOL	DESCRIPTION
WHT	WHITE	+	CIRCUIT NOT CONNECTED
OR	ORANGE	+	ELECTRICAL CONNECTIVITY TO COMPONENT
PK	PINK	+	WATER PUMP
BLK	BLACK	+	GROUND
GRY	GRAY	+	CIRCUIT IDENTIFICATION
PU	PURPLE	+	200VW-200VW COMPONENT
BRN	BROWN	+	STOP
GRN	GREEN	+	STOP
BLU	BLUE	+	STOP

WIRE GROUP COLOR DESCRIPTIONS	
[Red line]	GROUND CIRCUIT
[Orange line]	WIRES THAT HAVE SYSTEM VOLTAGE WHEN THE KEY SWITCH IS OFF
[Yellow line]	STARTING CIRCUIT
[Green line]	STARTING CIRCUIT
[Blue line]	DIAGNOSIS AND CIRCUIT
[Purple line]	RESISTANCE-BRAKING CONTROL, LAGGORAGE - CABS CIRCUIT
[Brown line]	ENGINE CONTROL CIRCUIT
[Black line]	HEATER AND AIR CONDITIONER CIRCUIT
[Pink line]	WATER PUMP - WATER WASHER CIRCUIT
[Gray line]	WATER PUMP - WATER WASHER CIRCUIT
[Light Blue line]	WATER PUMP - WATER WASHER CIRCUIT

OTHER COLOR DESCRIPTIONS	
[Light Blue line]	120VAC

THIS SCHEMATIC IS FOR THE 770G AND 772G OFF-HIGHWAY TRUCK
ELECTRICAL SYSTEM
VOLUME 2 of 2: CHASSIS AND ENGINE WIRING
MEDIA NUMBER: UENR3213-02
SCHEMATIC PART NUMBER: 377-2069, CHANGE: 00, VERSION: 1
Components are shown installed on a fully operational machine with the key and engine off. Transmission shift in neutral and with parking brake set.
Refer to the appropriate Service Manual for Troubleshooting, Specifications and Systems Operations.

CAB FRONT VIEW



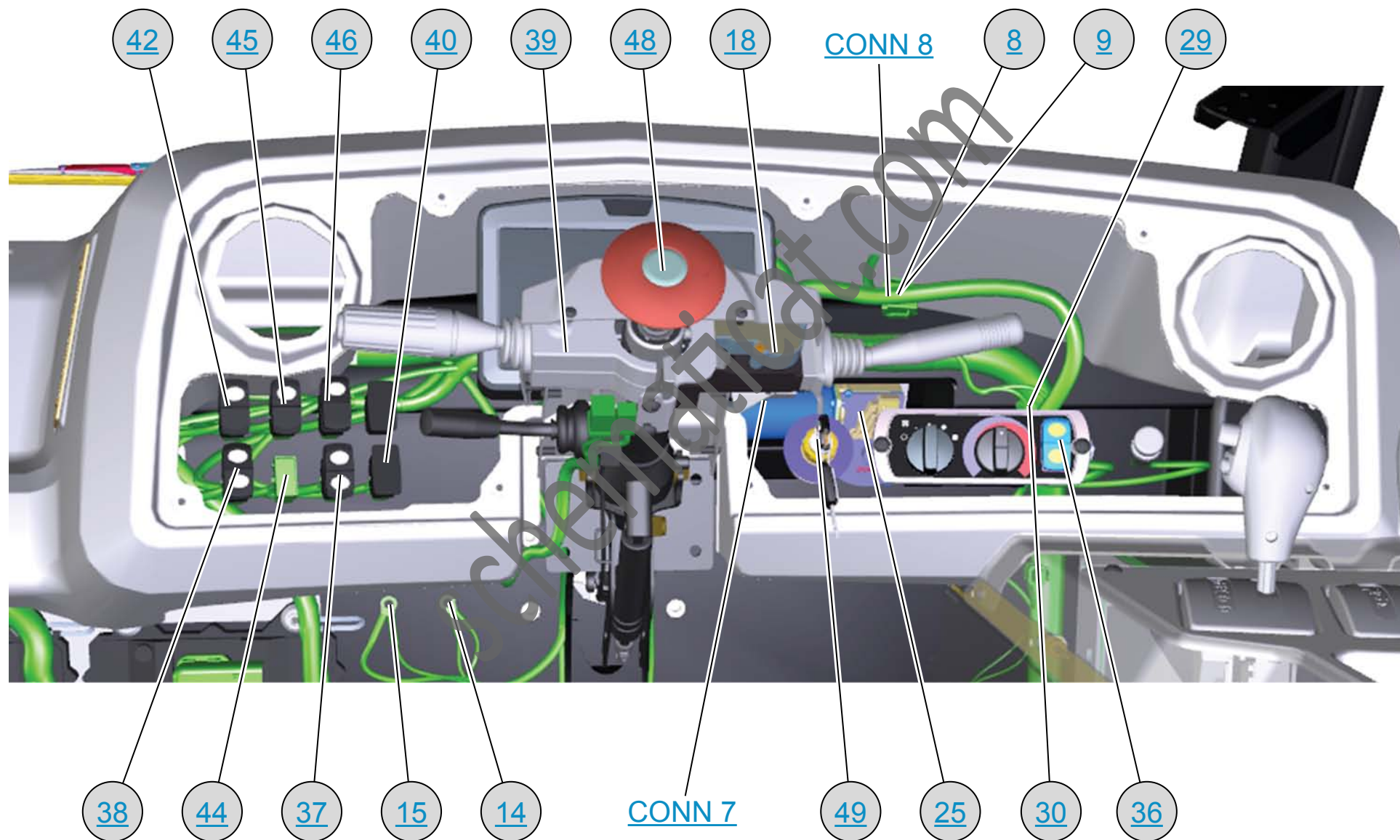
CONN 4

CONN 3

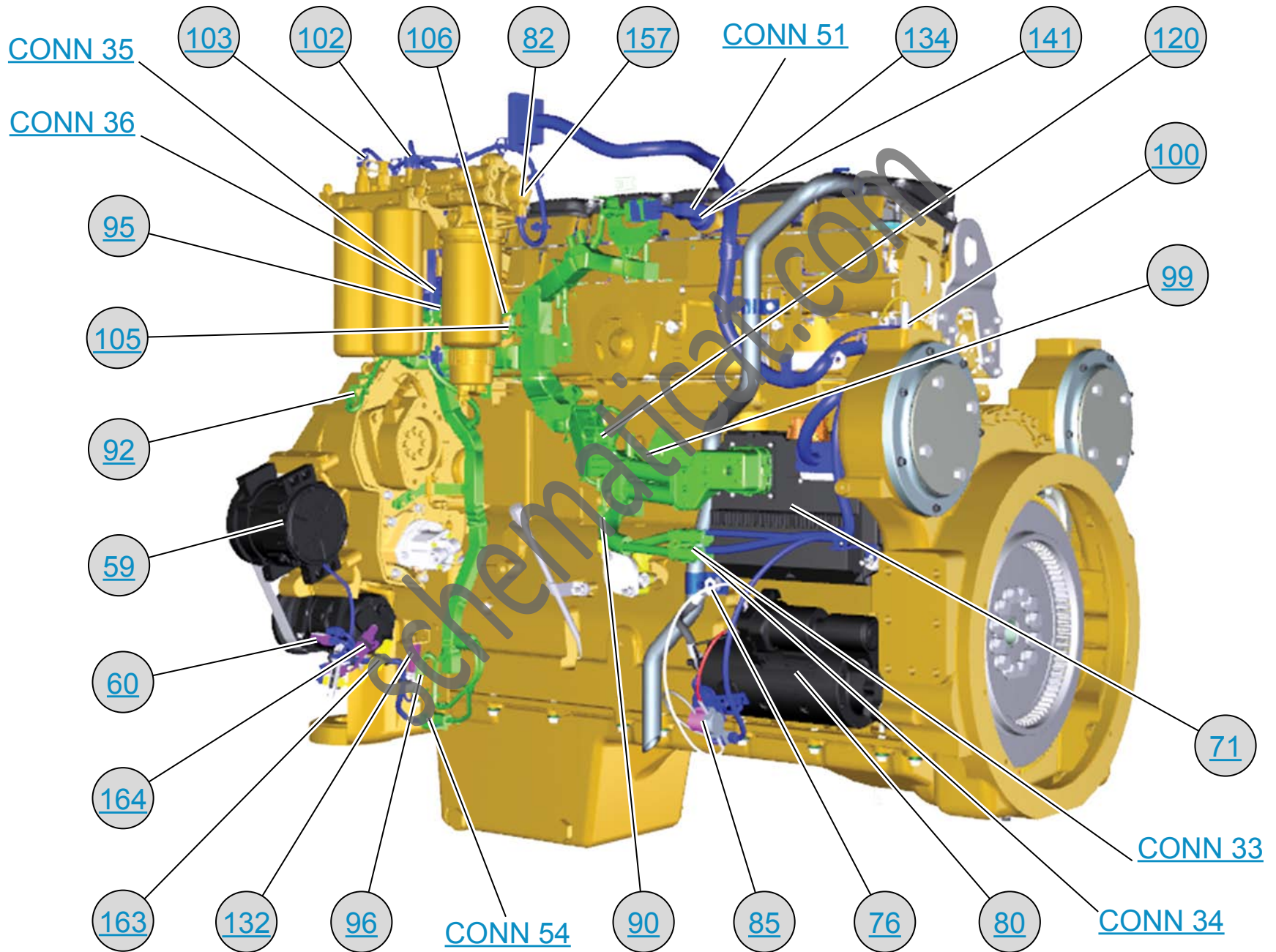
CONN 2

CAB REAR VIEW

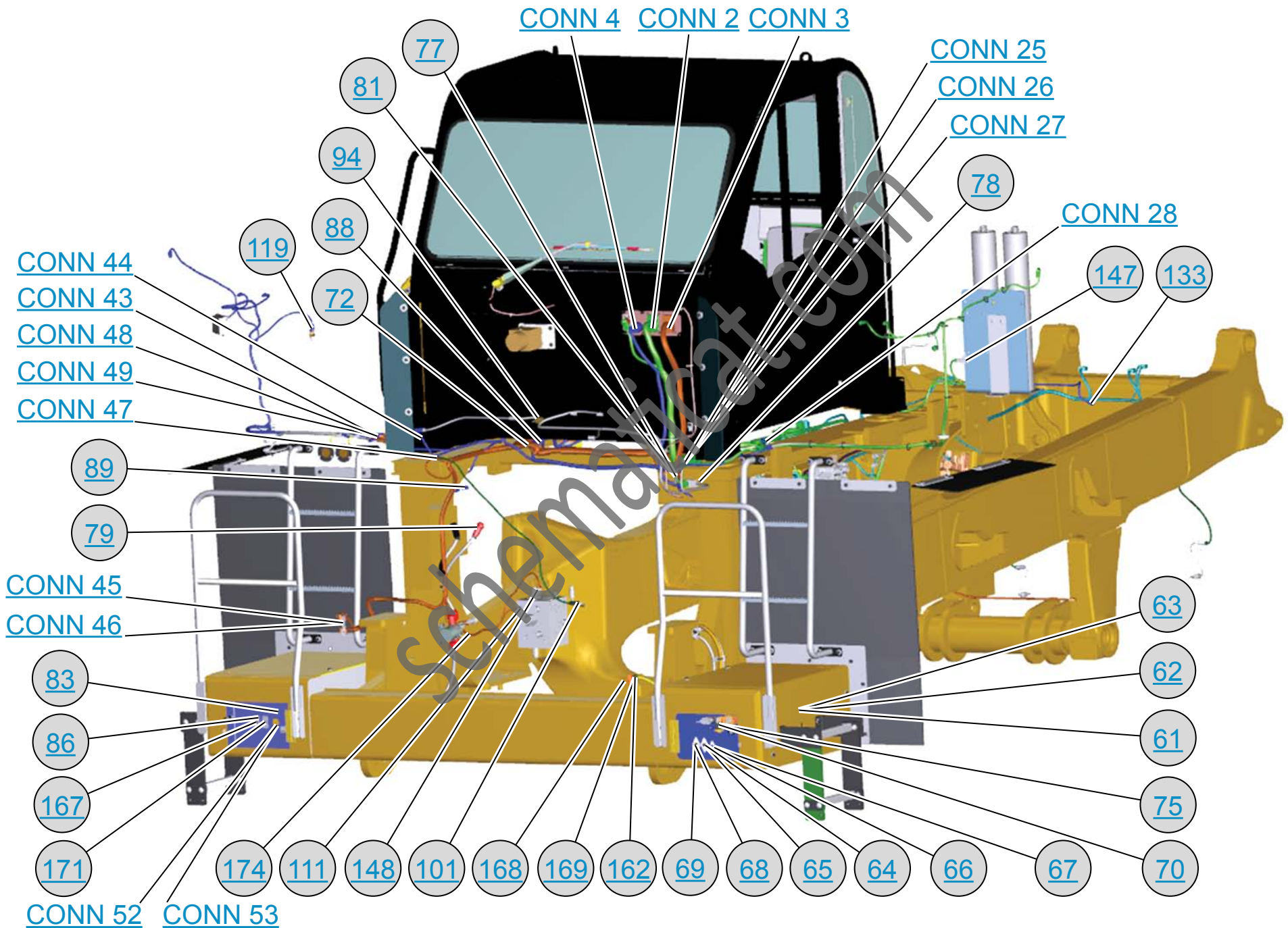


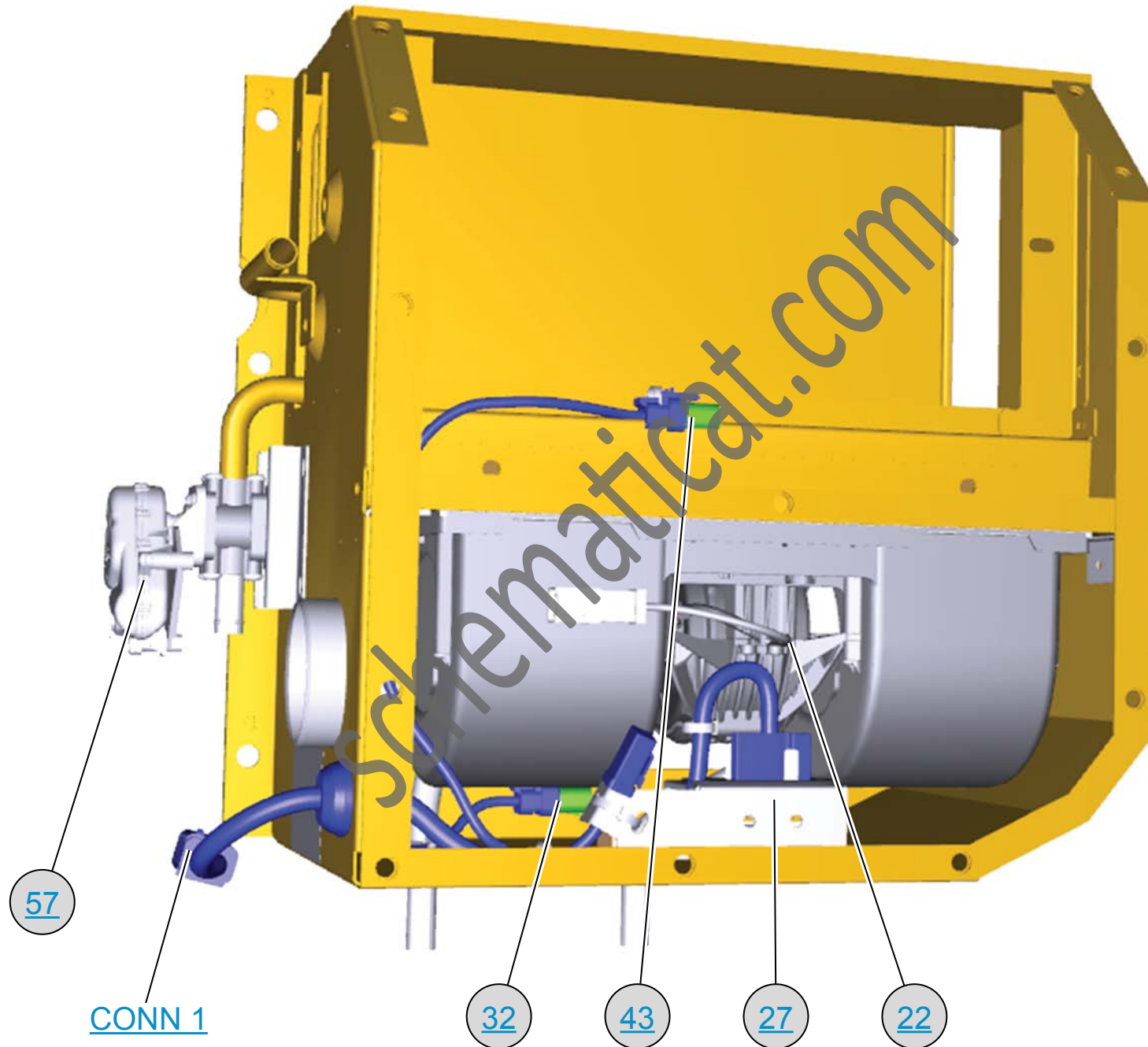


ENGINE



FRONT VIEW

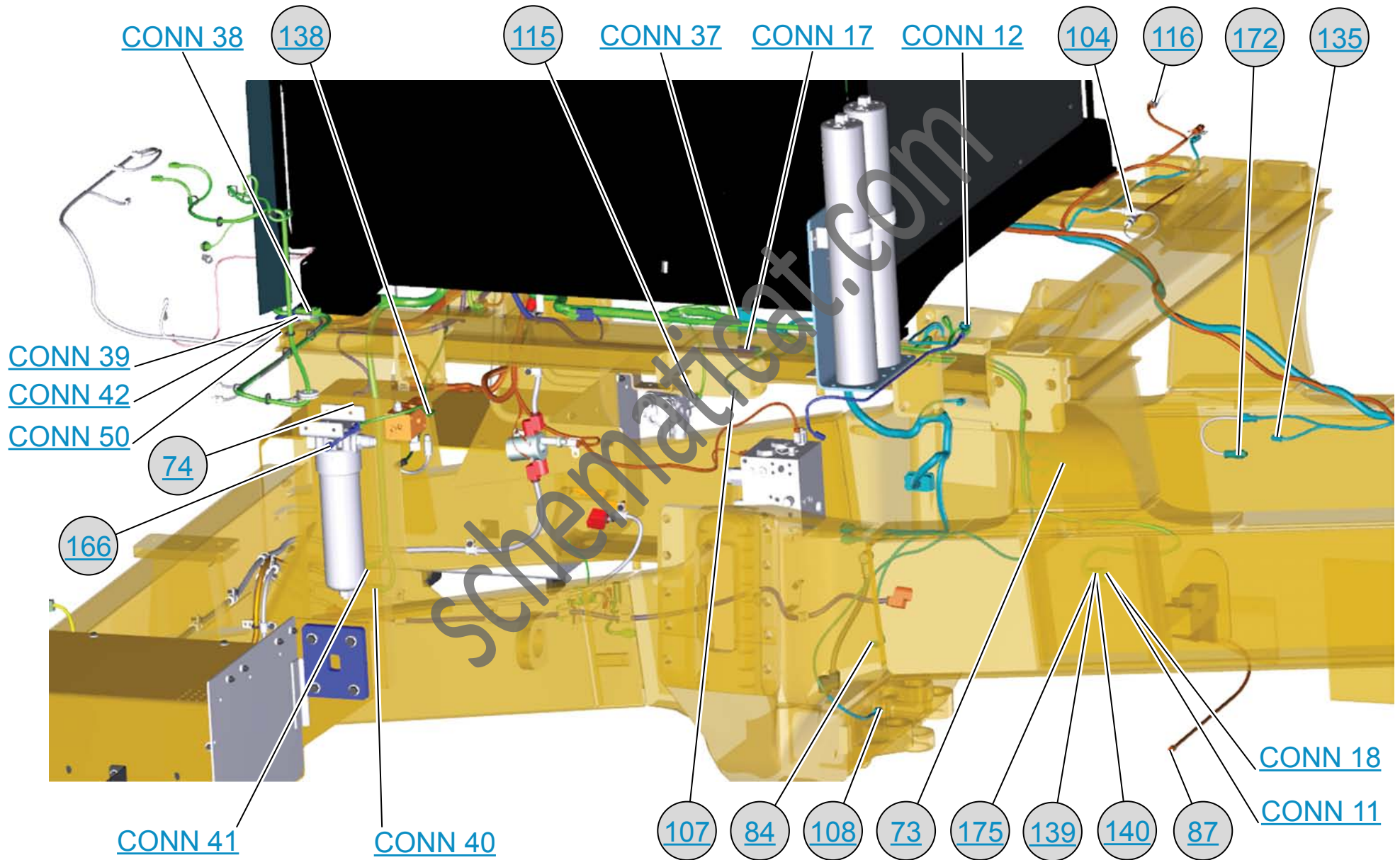




INSIDE CAB VIEW



LEFT FRONT



REAR FRAME

