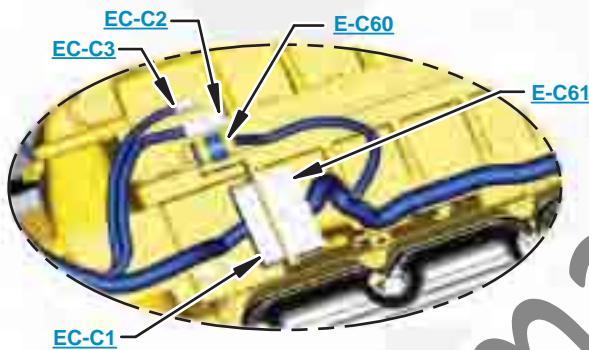




This document is best viewed at a screen resolution of 1024 X 768.

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

777G Off-Highway Truck Electrical System

GT71-UP
TNM1-UP
T4Y1-UP

SchematicCat.com

Volume 1 of 3: Cab Wiring
Volume 2 of 3: Chassis Wiring
Volume 3 of 3: Engine Wiring

COMPONENT LOCATION

Volume 1 of 3 - CAB WIRING



Component	Schematic Location	Machine Location	Component	Schematic Location	Machine Location
Actuator - Water Valve	L-18	1	Motor - Window Lift	J-9	29
Alarm - Action	F-4	2	Motor - Wiper	G-2	30
Control - Advisor	F-1	3	Radio - Product Link	G-10	31
Control - Brake	F-18	4	Receiver - Tire Pressure	G-9	32
Control - Chassis	J-18	5	Relay - Main	F-6	33
Control - CIODS Display	E-13	6	Relay - Power Window 1	J-7	34
Control - HVAC Blower Speed	K-17	7	Relay - Power Window 2	J-7	35
Control - VIMS App	L-11	8	Resistor - CAN 1 (C2)	G-2	36
Control - VIMS Main	K-11	9	Resistor - CAN IP 1	H-2	37
Converter - 24V / 12V	E-11	10	Resistor - CAN IP 2	G-12	38
Converter - 20A	L-11	11	Resistor - LH Turn	J-2	39
Display Cluster	J-2	12	Resistor - RH Turn	L-2	40
Flasher	L-6	13	Retarder Lever	H-2	41
Fuse/Relay Block - Rear Terminal	K-6	14	Sensor - Evaporation Freeze Probe Temperature	L-18	42
Relay - LH High Beam	K-6		Sensor - Louver Temperature	F-4	43
Relay - LH Low Beam	K-6		Sensor - Reduculation Filter Temperature	G-4	44
Relay - RH High Beam	K-6		Sensor - Secondary Brake Pedal	E-4	45
Relay - RH Low Beam	K-6		Sensor - Service Brake Position	F-4	46
Relay - Work Lamps	K-6		Sensor - Throttle	E-4	47
Fuse/Relay Block - Switched / Unswitched Power	F-6	15	Shifter	B-7	48
Breaker - Power Window	F-6		Switch - A/C	D-2	49
Relay - A/C	G-6		Switch - ARC On/Off	D-2	50
Relay - Auto Lube	H-6		Switch - Backlight Adjust	K-2	51
Relay - Backup Light	G-6		Switch - Cab Egress Lamp	G-2	52
Relay - CIODS Work Light	H-6		Switch - Column	H-2	53
Relay - Heated Mirror	H-6		Switch - Compression Brake	K-2	54
Relay - INT Wiper	H-6		Switch - Door	K-9	55
Relay - Lower Wiper Park Disable	H-6		Switch - Economy Mode	H-3	56
Relay - Stop Lamps	G-6		Switch - Front Brake	E-2	57
Ground - Cab 1	A-17	16	Switch - Hazard	E-2	58
Ground - Cab 2	A-17	17	Switch - Headlamp	K-2	59
Ground - Cab 3	H-9	18	Switch - Heated Mirror	J-3	60
Ground - Cab 4	G-9	19	Switch - Horn	J-2	61
Ground - Cab 5	H-9	20	Switch - Key	H-2	62
Ground - Dash	F-4	21	Switch - RH Console Lamp	G-3	63
HVAC Panel	D-2	22	Switch - Secondary Steer Test	J-3	64
Module - Wiper Delay	L-6	23	Switch - TCS Test	J-3	65
Monitor - WAVS	A-4	24	Switch - Throttle Lock	D-6	66
Motor - Air Cleaner	F-4	25	Switch - Window Lift	D-6	67
Motor - Blower	L-18	26	Switch - Work Light	H-3	68
Motor - Seat	K-9	27	Switcher - WAVS	A-6	69
Motor - Washer	L-17	28	Thru Post - 3	F-13	70

COMPONENT LOCATION

Volume 2 of 3 - CHASSIS WIRING



Component	Schematic Location	Machine Location	Component	Schematic Location	Machine Location
Alarm - Backup	I-16	71	Sensor - RH Turbo Inlet Pressure	A-12	134
Alternator	H-8	72	Sensor - Right Front TPMS	B-12	135
Batteries - 1-4	E-3	73	Sensor - Right Rear TPMS	B-16	136
Breaker - Alt	E-1	74	Sensor - Service Brake Accumulator Pressure	I-16	137
Breaker - Eng Cont	E-1	75	Sensor - Steer Cylinder Position LH	H-16	138
Breaker - Main	E-1	76	Sensor - Steer Oil Level Add	B-12	139
Bussbar	E-1	77	Sensor - Steer Oil Level Full	B-12	140
Bussbar - Alt	F-1	78	Sensor - Steer Oil Level Low	B-12	141
Bussbar - Aux Recept Neg	E-2	79	Sensor - TC Oil Temp	E-7	142
Bussbar - Aux Recept Pos	F-1	80	Sensor - TCS Wheel Speed LH Rear	F-15	143
Bussbar - Disc	E-2	81	Sensor - TCS Wheel Speed RH Rear	F-15	144
Control Gp - Engine	G-6	82	Sensor - Water in Fuel	E-14	145
Diode - AC	E-7	83	Sensor - XMSN In SP	E-15	146
Display - LH Payload	I-1	84	Sensor - XMSN INT Speed	D-15	147
Display - RH Payload	A-3	85	Sensor - XMSN Out SP 1	E-15	148
Ground	G-9	86	Sensor - XMSN Out SP 2	F-15	149
Ground - 3	G-9	87	Sensor - XMSN TC Oil Level Add	F-7	150
Ground - Chassis	D-5	88	Sensor - XMSN TC Oil Level Full	F-7	151
Ground - Frame	E-5	89	Sensor - XMSN TC Oil Level Low	F-7	152
Ground - Frame 1	E-4	90	Sensor - XMSN Temp	E-15	153
Ground - Frame 2	E-2	91	Solenoid - A/C Clutch	E-7	154
Ground - Frame 3	H-8	92	Solenoid - Autolube	F-16	155
Horn - Hi Tone	G-1	93	Solenoid - Axle Cooling On / Off	H-16	156
Horn - Lo Tone	G-1	94	Solenoid - Brake LH RR CTL	F-16	157
Keypad	H-1	95	Solenoid - Brake Pressure RR CTL	E-16	158
Lug - Isolation 1	E-2	96	Solenoid - Brake RT RR CTL	E-16	159
Motor - Autolube	G-16	97	Solenoid - Clutch ECPC Lockup	E-7	160
Motor - Secondday Steering	E-5	98	Solenoid - Ether Aid	C-5	161
Motor - Starter LH	F-4	99	Solenoid - Fan	J-16	162
Motor - Starter RH	F-3	100	Solenoid - Front Brake Pressure Control	G-5	163
Pump - Fuel Priming	A-14	101	Solenoid - Hoise Lower	J-16	164
Radar - LR Left Side	J-1	102	Solenoid - Hoist Raise	J-16	165
Receptacle - Jumpstart	E-2	103	Solenoid - ORS	D-7	166
Relay - Fuel Priming	E-1	104	Solenoid - Park Brake	F-16	167
Relay - ORS Level	A-16	105	Solenoid - Service Brake Accumulator Bleed	F-16	168
Relay - Secondary Steering	E-5	106	Solenoid - Steer System Disable	B-14	169
Relay - Starter LH	F-4	107	Solenoid - XMSN 1	E-15	170
Relay - Starter RH	F-3	108	Solenoid - XMSN 2	E-15	171
Resistor	G-6	109	Solenoid - XMSN 3	E-15	172
Resistor - Can A Term	E-1	110	Solenoid - XMSN 4	D-15	173
Resistor - Can B Machine Term	H-2	111	Solenoid - XMSN 5	D-15	174
Resistor - Terminal B1	J-1	112	Solenoid - XMSN 6	D-15	175
Resistor - Terminal B2	I-16	113	Solenoid - XMSN 7	D-15	176
Sensor - Air Inlet Temp	A-12	114	Switch - AC Lo	E-7	177
Sensor - Ambient Air Temp	C-8	115	Switch - Autolube Level	G-16	178
Sensor - Autolube Pressure	G-16	116	Switch - Axle Cooling Filter Bypass	G-15	179
Sensor - Brake Oil Temp Left Rear	G-15	117	Switch - Body Up	H-16	180
Sensor - Brake Oil Temp LH Front	G-16	118	Switch - Brake Filter Bypass	J-16	181
Sensor - Brake Oil Temp Right Front	B-12	119	Switch - Crank Lockout	D-1	182
Sensor - Brake Oil Temp Right Rear	G-15	120	Switch - Diff Oil Level 1	G-15	183
Sensor - Coolant Level Full	D-8	121	Switch - Diff Oil Level 2	F-15	184
Sensor - Coolant Level Low 1	D-8	122	Switch - Disconnect	E-2	185
Sensor - Coolant Level Low 2	D-8	123	Switch - Egress Light Chas	H-2	186
Sensor - Diff Oil Temp Rax	F-15	124	Switch - Ground Level Shutdown	H-2	187
Sensor - Engine Speed Timing	G-6	125	Switch - Machine lockout	D-1	188
Sensor - Fuel Level	J-16	126	Switch - ORS Level High	A-16	189
Sensor - Hydraulic Oil Level Add	H-16	127	Switch - ORS Level Low	B-16	190
Sensor - Hydraulic Oil Level Full	H-16	128	Switch - Park Brake Pressure	F-16	191
Sensor - Hydraulic Oil Level Low	H-16	129	Switch - Pressure AC Hi / Lo	E-7	192
Sensor - Left Front TPMS	G-5	130	Switch - Secondary Steer Pressure	B-14	193
Sensor - Left Rear TPMS	E-16	131	Switch - TC Filter Bypass	J-16	194
Sensor - LH Turbo Inlet Pressure	A-12	132	Switch - XMSN Filter Bypass	J-16	195
Sensor - Primary Steer Pressure	B-14	133	Thru Post	I-12	196

COMPONENT LOCATION

Volume 3 of 3 - ENGINE WIRING



Component	Schematic Location	Machine Location	Component	Schematic Location	Machine Location
Control - Engine	E-6	197	Sensor - Fuel Temperature	C-3	206
Sensor - Barometric Pressure	D-4	198	Sensor - Intake Manifold Pressure LH	E-5	207
Sensor - Cam Speed	D-4	199	Sensor - Intake Manifold Pressure RH	D-4	208
Sensor - Coolant Temperature	D-5	200	Sensor - Intake Manifold Temperature LH	E-5	209
Sensor - Crank Speed	D-5	201	Sensor - Intake Manifold Temperature RH	D-4	210
Sensor - Engine Oil Pressure	D-5	202	Sensor - Low Engine Oil Level Running	E-5	211
Sensor - Exhaust Temperature LH	D-5	203	Sensor - Low Engine Oil Level Safe To Start	E-5	212
Sensor - Exhaust Temperature RH	C-4	204	Solenoids - Brake 1 - 12	E-3	213
Sensor - Fuel Pressure Delta	C-3	205	Solenoids - Injector 1 - 12	E-3	214

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CONNECTOR LOCATION

Volume 1 of 3 - CAB



Connector Number		Schematic Location
CONN 1		L-16
CONN 2		L-16
CONN 3	User Defined Shutdown	A-15
CONN 4	Cab Service Port	G-13
CONN 5	MineStar 3rd Party Atch.	A-14
CONN 6		F-13
CONN 7		E-13
CONN 8		C-13
CONN 9		A-13
CONN 10		E-11
CONN 11		E-9
CONN 12	Service Conn	J-6

CONNECTOR LOCATION

Volume 2 of 3 - CHASSIS WIRING



Connector Number	Schematic Location
CONN 13	E-16
CONN 14	D-16
CONN 15	C-16
CONN 16	B-16
CONN 17	B-16
CONN 18	J-14
CONN 19	F-14
CONN 20	G-13
CONN 21	E-13
CONN 22	D-13
CONN 23	H-12
CONN 24	F-12
CONN 25	E-12
CONN 26	D-12
CONN 27	C-12
CONN 28	A-11
CONN 29	F-9
CONN 30	E-9
CONN 31	E-9
CONN 32	D-9
CONN 33	D-9
CONN 34	G-7
CONN 35	G-7
CONN 36	E-6
CONN 37	C-6
CONN 38	C-6
CONN 39	B-6
CONN 40	B-6
CONN 41	J-5
CONN 42	H-5
CONN 43	H-5
CONN 44	A-5
CONN 45	H-4
CONN 46	H-4
CONN 47	J-3
CONN 48	J-3
CONN 49	I-3
CONN 50	G-3
CONN 51	J-2
CONN 52	I-2
CONN 53	H-2
CONN 54	D-1
CONN 55	C-1

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 3 of 3 - ENGINE WIRING



Connector Number	Schematic Location
CONN 56	D-5
CONN 57	C-4
CONN 58	E-4
CONN 59	E-4

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SPECIFICATIONS AND RELATED MANUALS

Volume 1 of 3 - CAB WIRING



Resistor, Sender and Solenoid Specifications		
Part No.	Component Description	Resistance (Ohms) ¹
134-2540	Resistor: CAN IP 1 CAN IP 2 CAN A	120 ± 10%
256-6454	Sensor: Louver Temperature Recirculation Filter Temperature	-40°C = 33.65k 25°C = 1k 50°C = 18.6
286-9022	Resistor: LH Turn RH Turn	300 ± 5%
308-2525	Sensor: Evap Freeze Probe	-40°C = 33.65k 25°C = 1k 120°C = 39

¹ At room temperature unless otherwise noted.

Related Electrical Service Manuals	
Title	Form Number
Control: Advisor	KENR9938
Control: Braking	KENR9961
Control: Chassis	KENR9960
Control: Engine	KENR9790
Control: VIMS Main / Ap	KENR8744

SPECIFICATIONS AND RELATED MANUALS

Volume 2 of 3 - CHASSIS WIRING



Off-Machine Switch Specification				
Part No.	Function	Actuate	Deactuate	Contact Position
149-6371	A/C Low Pressure	103.4 ± 13.8 kPa (15 ± 2 psi)	34.5 ± 7 kPa (5 ± 1 psi)	Normally Open
160-2609	Park Brake Pressure	1724 kPa MAX (250 psi MAX)	1325 ± 170 kPa (192 ± 24.6 psi)	Contact A - C = N.C. below Deactuation Pressure Contact A - B = N.O. below Deactuation Pressure
341-6644	Transmission Filter Bypass	448 ± 55 kPa (65 ± 8 psi)	–	Normally Closed
9X-4455	Secondary Steering Pressure	2100 kPa MAX (304.5 psi MAX)	1650 ± 100 kPa (239.3 ± 14.5 psi)	Contact A - C = N.C. below Deactuation Pressure Contact A - B = N.O. below Deactuation Pressure

Resistor, Sender and Solenoid Specifications		
Part No.	Component Description	Resistance (Ohms) ¹
134-2540	Resistor: CAN	120 ± 10%
320-1291	Solenoid: A/C Clutch	17.6 ± 0.6
293-6585	Solenoid: Front Brake	5 ± 0.3
239-1134	Solenoid: Start Aid	20
240-7193	Resistor: Alternator	500 ± 5%
244-3114	Solenoid: Lock Up Clutch	8.7 ± 0.4
250-6148	Solenoid: Service Brake Accumulation Bleed	33.8
258-8987	Solenoid: Transmission 1 - 7	8.7 ± 0.4
263-1394	Solenoid: Steering System Disable	33.8
362-6151	Solenoid: Rear Brake Pressure Control	26.96 ± 1.35
312-8629	Solenoid: Parking Brake Left Rear Brake Control Right Rear Brake Control	5.0 ± 0.3
326-5212	Solenoid: Hoist Lower Hoist Raise	5.0 ± 0.3
339-7551	Solenoid: Rockford Fan	2.2 ± 0.2

¹ At room temperature unless otherwise noted.

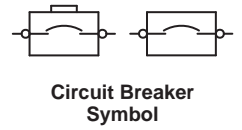
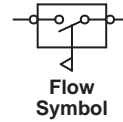
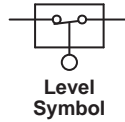
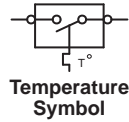
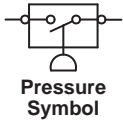
Related Electrical Service Manuals	
Title	Form Number
Alternator:	SENR3685
Starting Motor 1: Delco 50 MT	SENR3860
Starting Motor 2: Delco 50 MT	SENR3860

HARNESS and WIRE

Electrical Schematic Symbols



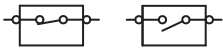
Symbols



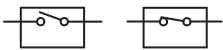
Symbols and Definitions



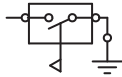
Fuse: A component in an electrical circuit that will open the circuit if too much current flows through it.



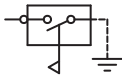
Switch (Normally Open): A switch that will close at a specified point (temp, press, etc.). The circle indicates that the component has screw terminals and a wire can be disconnected from it.



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.



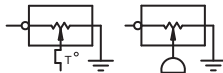
Ground (Wired): This indicates that the component is connected to a grounded wire. The grounded wire is fastened to the machine.



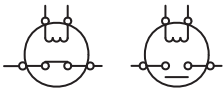
Ground (Case): This indicates that the component does not have a wire connected to ground. It is grounded by being fastened to the machine.



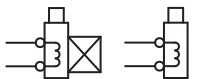
Reed Switch: A switch whose contacts are controlled by a magnet. A magnet closes the contacts of a normally open reed switch; it opens the contacts of a normally closed reed switch.



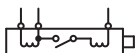
Sender: A component that is used with a temperature or pressure gauge. The sender measures the temperature or pressure. Its resistance changes to give an indication to the gauge of the temperature or pressure.



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.



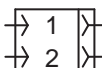
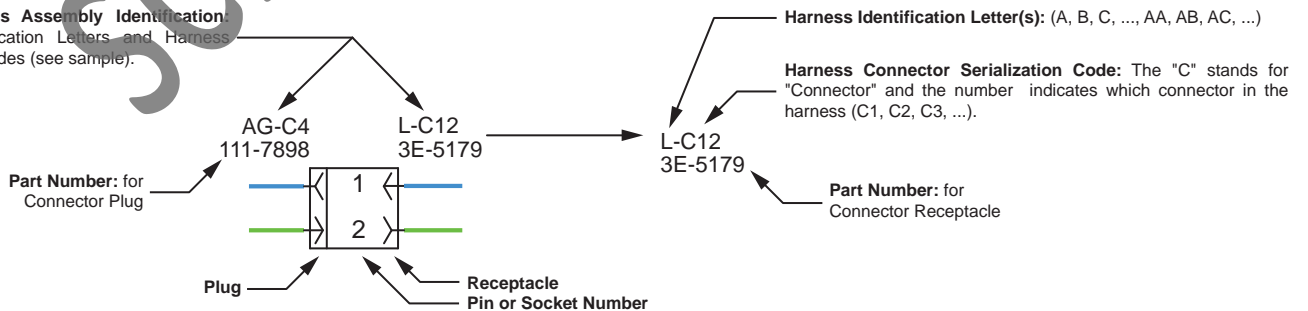
Solenoid: A solenoid is an electrical component that is activated by electricity. It has a coil that makes an electromagnet when current flows through it. The electromagnet can open or close a valve or move a piece of metal that can do work.



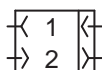
Magnetic Latch Solenoid: A magnetic latch solenoid is an electrical component that is activated by electricity and held latched by a permanent magnet. It has two coils (latch and unlatch) that make electromagnet when current flows through them. It also has an internal switch that places the latch coil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

Harness and Wire Symbols

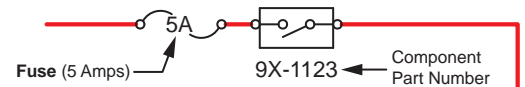
Wire, Cable, or Harness Assembly Identification: Includes Harness Identification Letters and Harness Connector Serialization Codes (see sample).



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



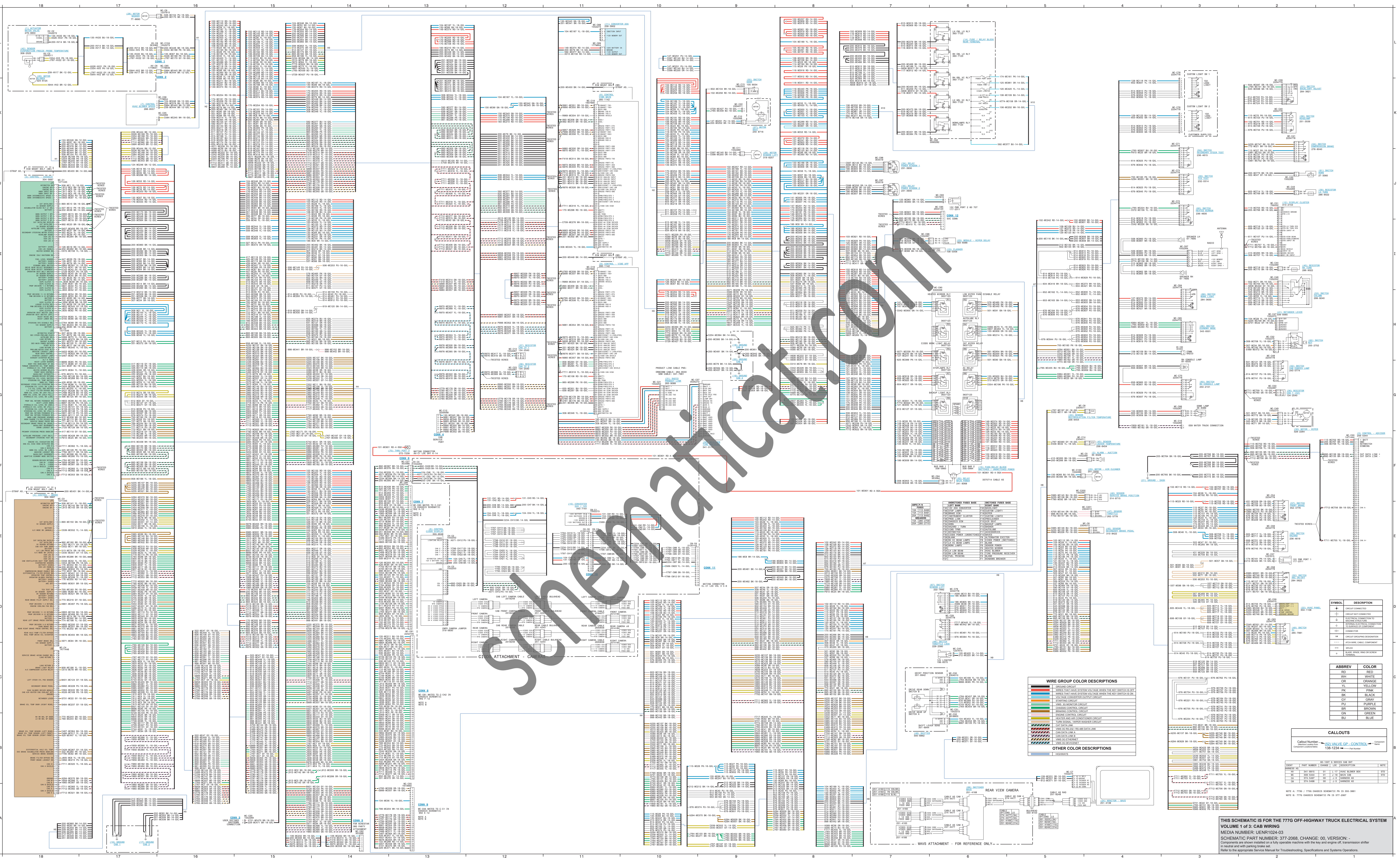
Sure-Seal connector: Typical representation of a Sure-Seal connector. The plug and receptacle contain both pins and sockets.



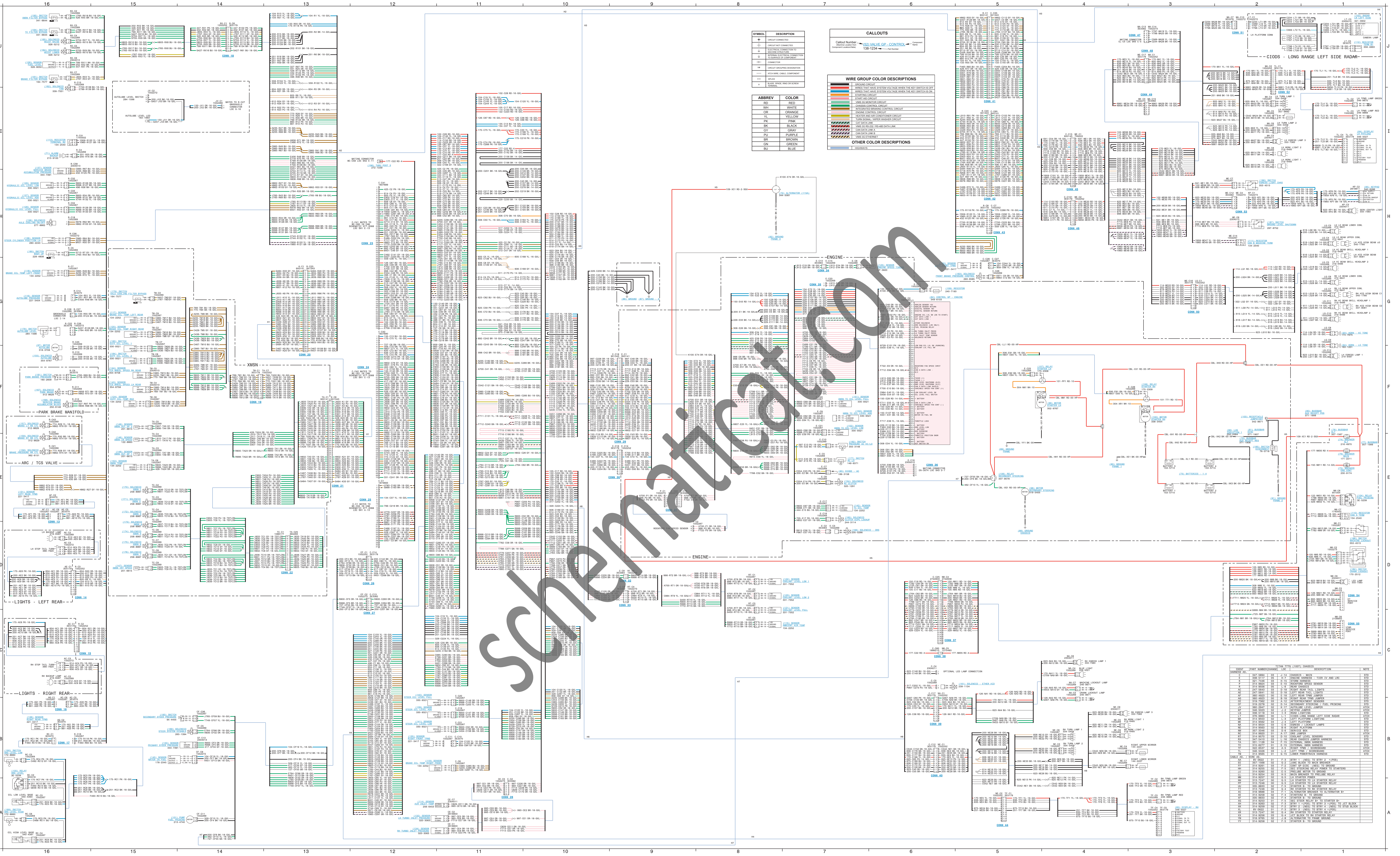
Harness identification code: This example indicates wire group 325, wire 135 in harness "AG".

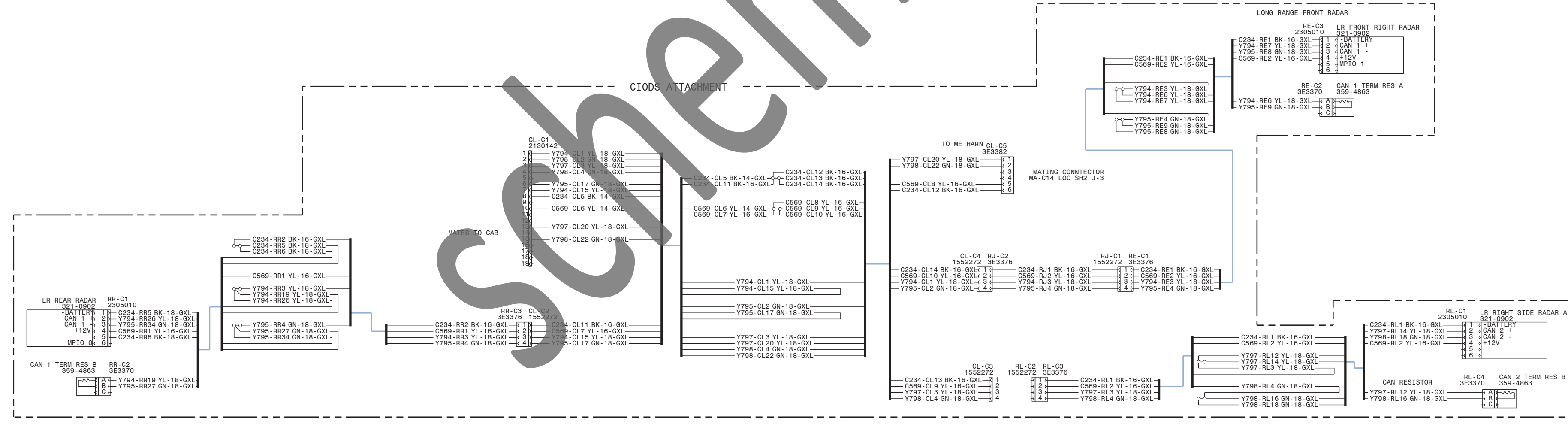
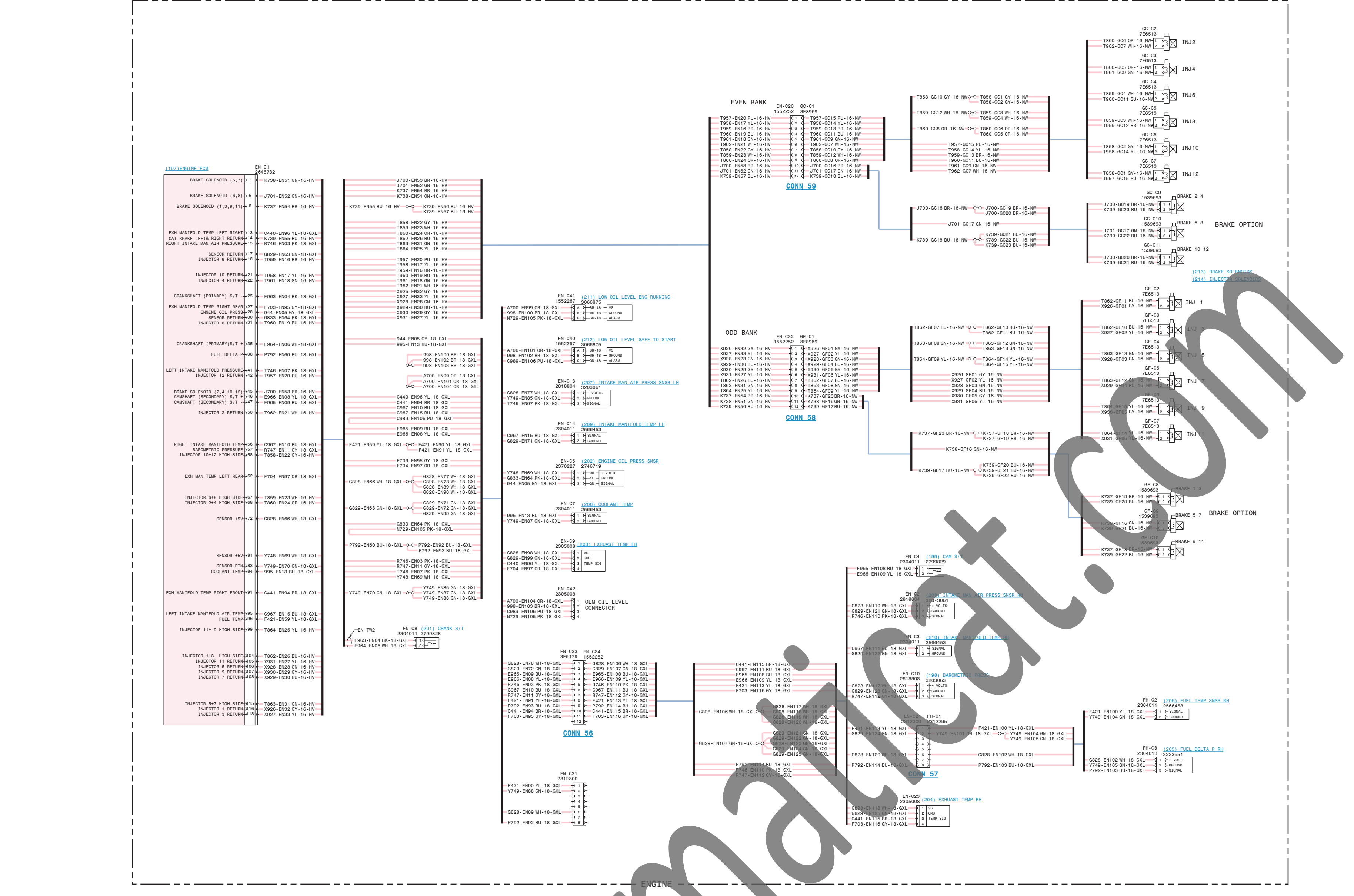
Wire Gauge

Wire Color



THIS SCHEMATIC IS FOR THE 777G OFF-HIGHWAY TRUCK ELECTRICAL SYSTEM
VOLUME 1 of 3: CAB WIRING
 MEDIA NUMBER: UENR1024-03
 SCHEMATIC PART NUMBER: 377-2068. CHANGE: 00, VERSION: -
 Components are shown installed on a fully operator 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.





SYMBOL	DESCRIPTION
+	CIRCUIT CONNECTED
+	CIRCUIT NOT CONNECTED
+	ELECTRICAL CONNECTION TO MACHINE STRUCTURE
+	INTERNAL ELECTRICAL CONNECTION TO SURFACE OF COMPONENT
- >	CONNECTOR
≡	CIRCUIT GROUPING DESIGNATION
---	ATCH WIRE CABLE COMPONENT
o	SPICE
o	BLADE, BRIDE, RING OR SCREW TERMINAL

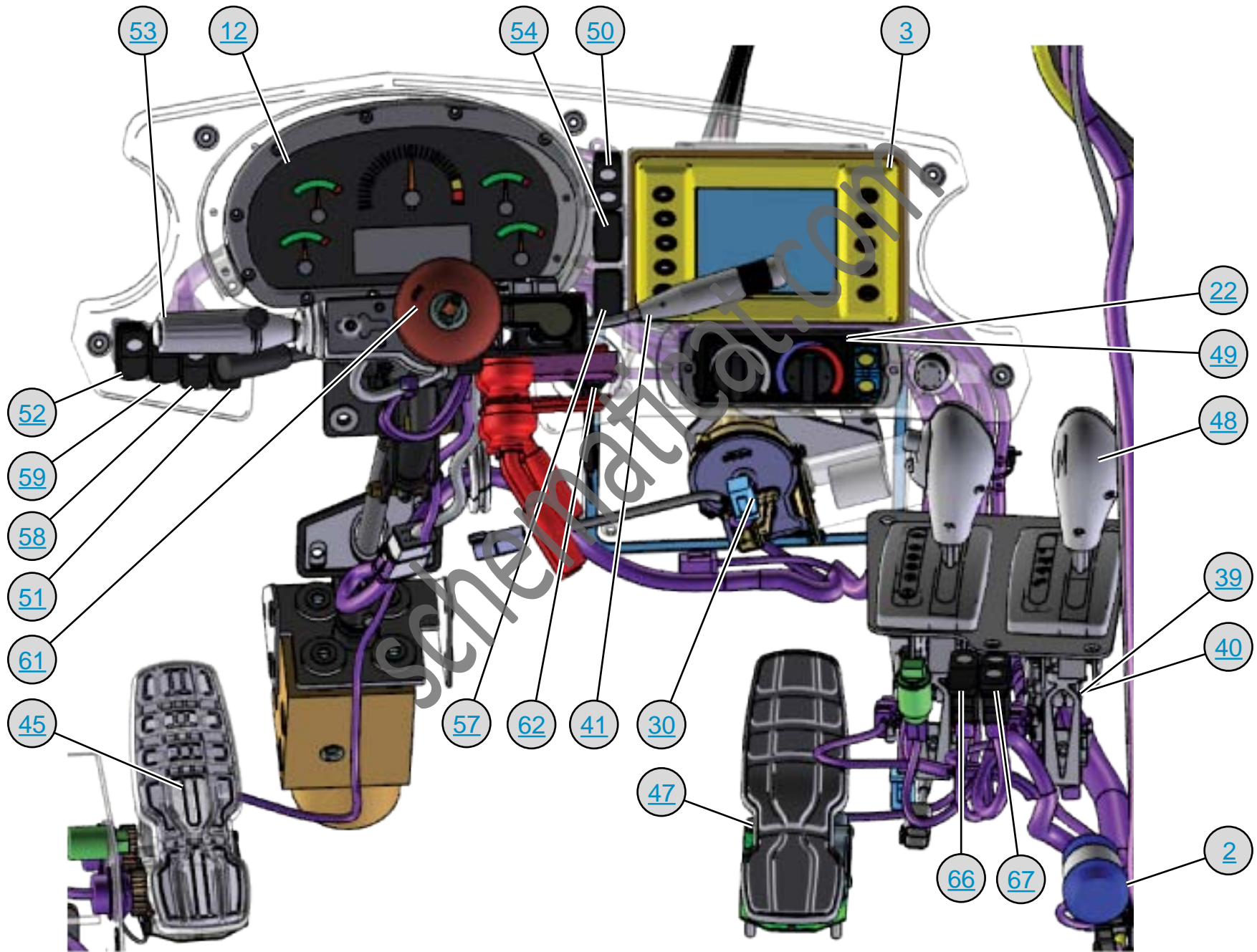
ABBREV	COLOR
RD	RED
WH	WHITE
OR	ORANGE
YL	YELLOW
PK	PINK
BK	BLACK
GY	GRAY
PU	PURPLE
BR	BROWN
GN	GREEN
BU	BLUE

CALLOUTS	
Callout Number	321 VALVE GP - CONTROL
Machine Location	138-1234
Component Name	
Part Number	

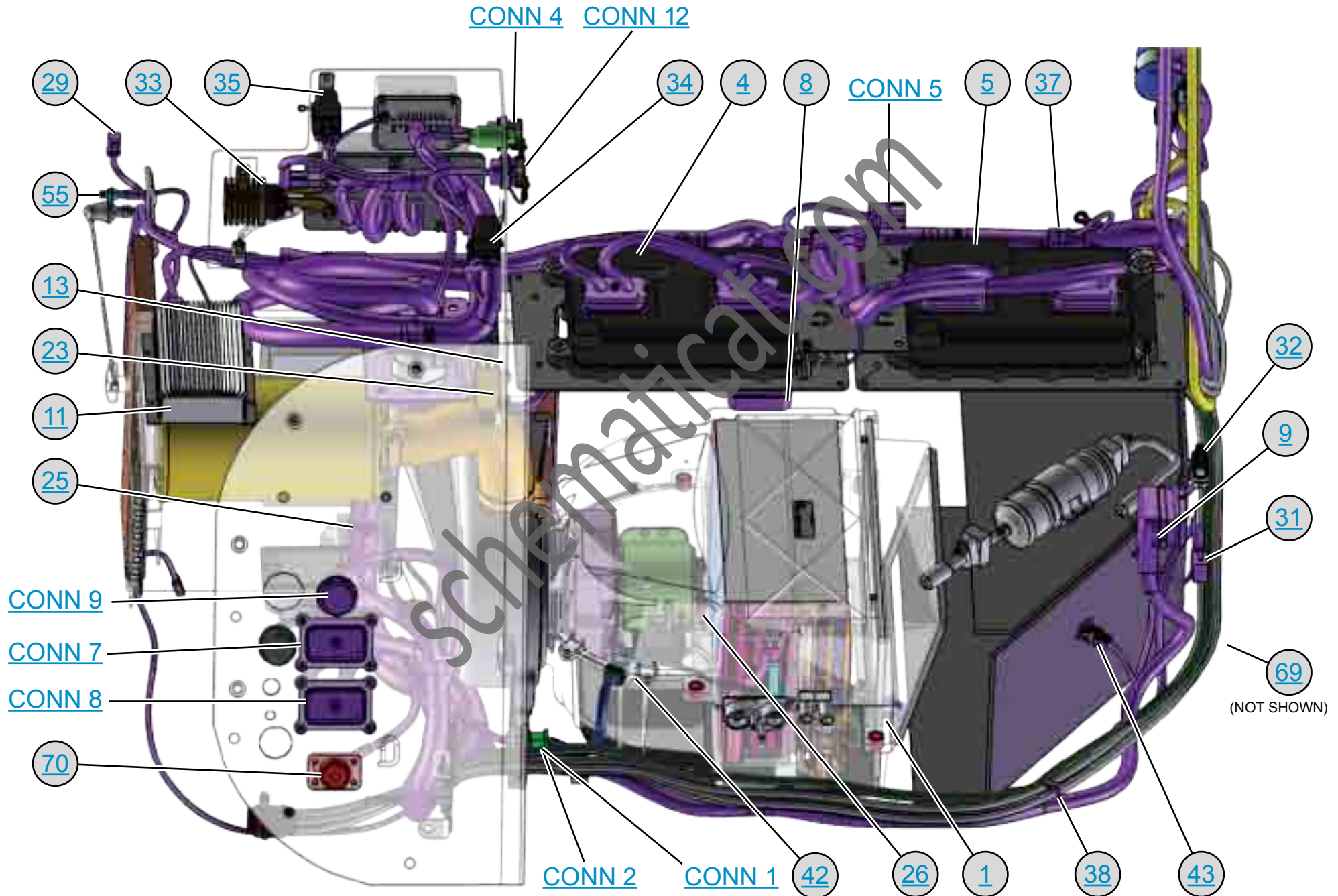
C27/C32 MACHINE BUILDS (SCHEMATIC 335-6067 CHG 00)			
DESIGNATION	DESCRIPTION	PART NUMBER	CHG
PH	RIGHT FUEL HARNESS	335-3787	03
FJ	LEFT FUEL HARNESS	335-3788	00
EN	LH EXTERNAL ENGINE HARNESS	337-1936	00
ER	RH EXTERNAL ENGINE HARNESS	337-1937	00
GC/EP	INTERNAL ENGINE HARNESS W/O BRAKES	337-1937	00
GC/GP	INTERNAL ENGINE HARNESS W/BRAKES	337-1937	00
CL	MAIN HARNESS CL	371-1386	00
CS	FRONT HARNESS	376-9961	00
RJ	JUMPER	376-9962	00
RL	RIGHT HAND PLATFORM	376-9964	00
RR	LEFT HAND PLATFORM	376-9963	00

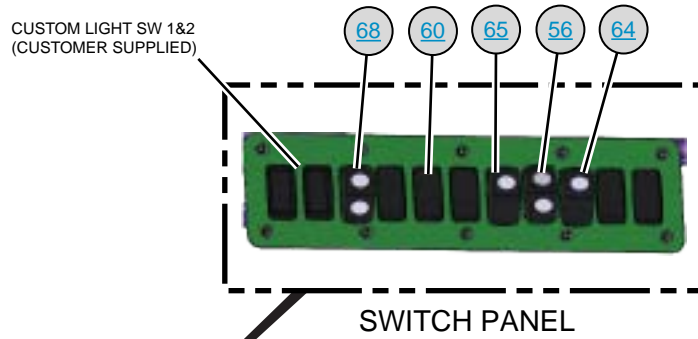
THIS SCHEMATIC IS FOR THE 777G OFF-HIGHWAY TRUCK ELECTRICAL SYSTEM VOLUME 3 of 3: ENGINE WIRING
MEDIA NUMBER: UENR1024-03
SCHEMATIC PART NUMBER: 335-6067, CHANGE: 00, VERSION: -
Components are shown installed on a fully operable machine with the key and engine off, transmission shifter in neutral and with parking brake set.
Refer to the appropriate Service Manual for Troubleshooting, Specifications and Systems Operations.

CAB FRONT

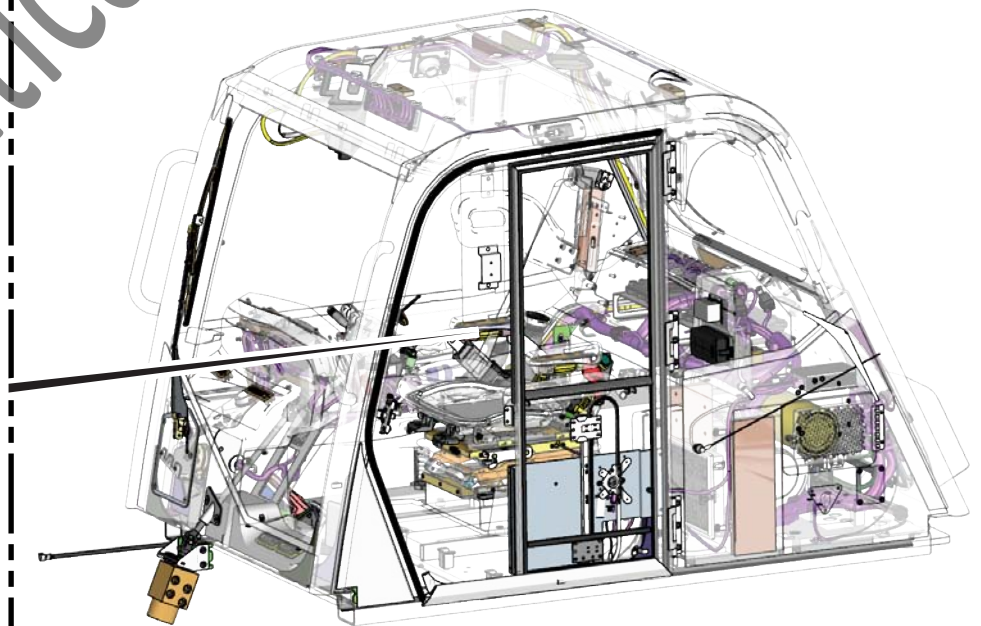
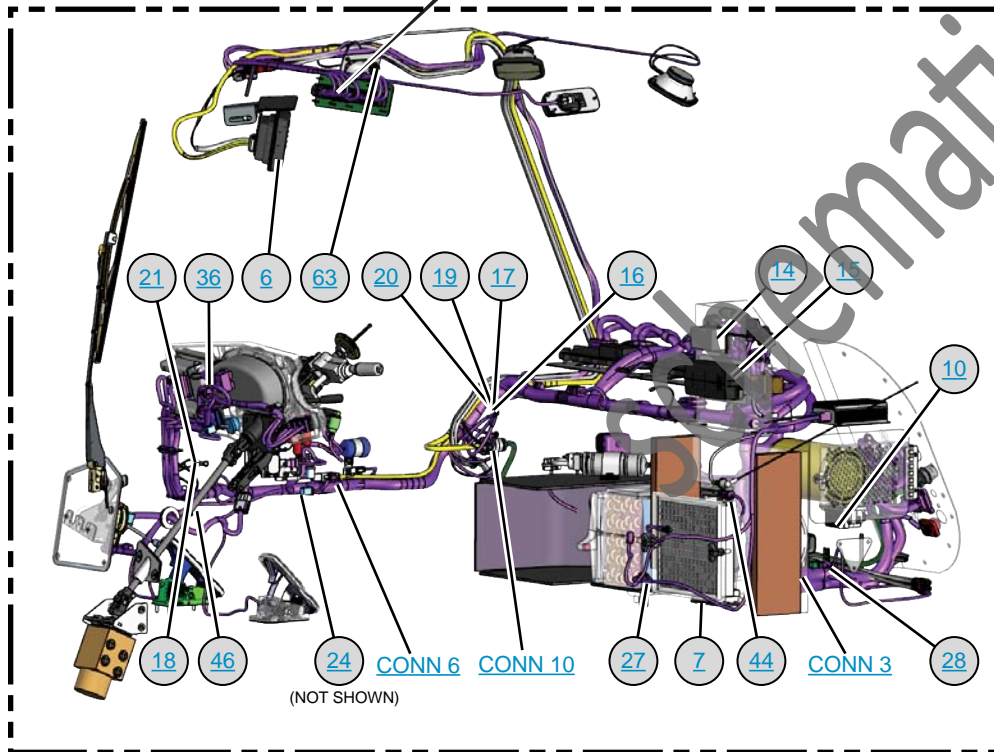


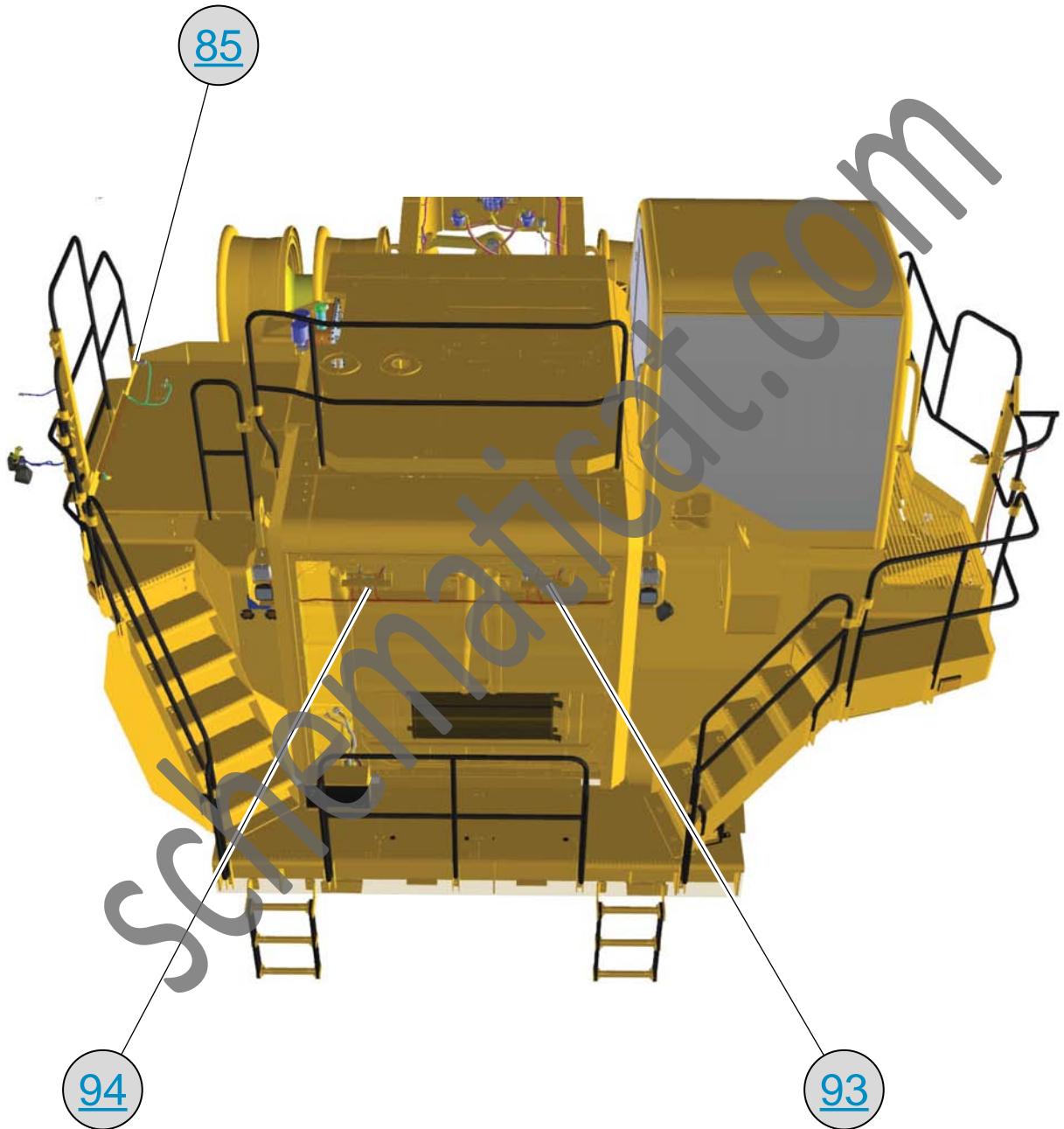
CAB REAR

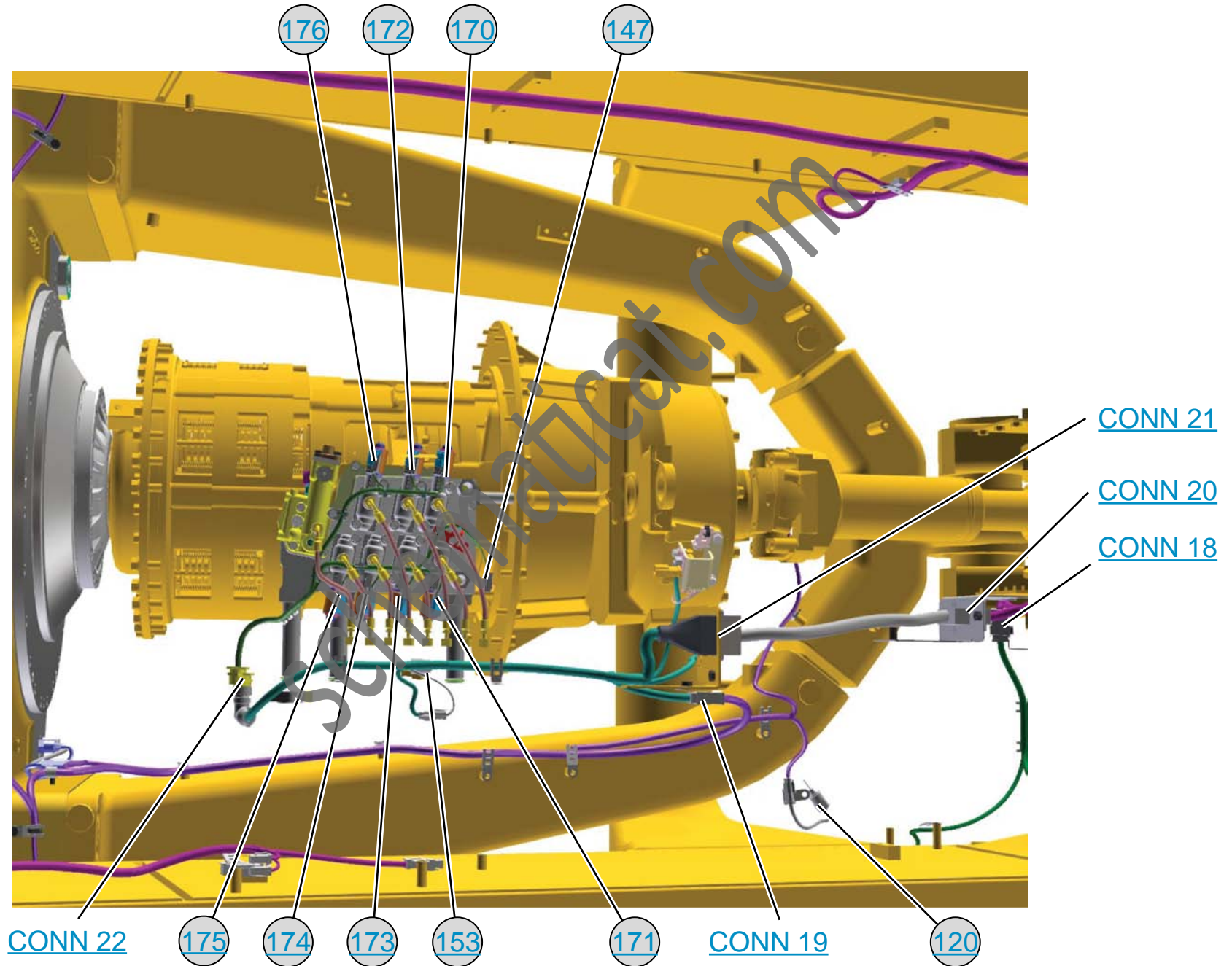


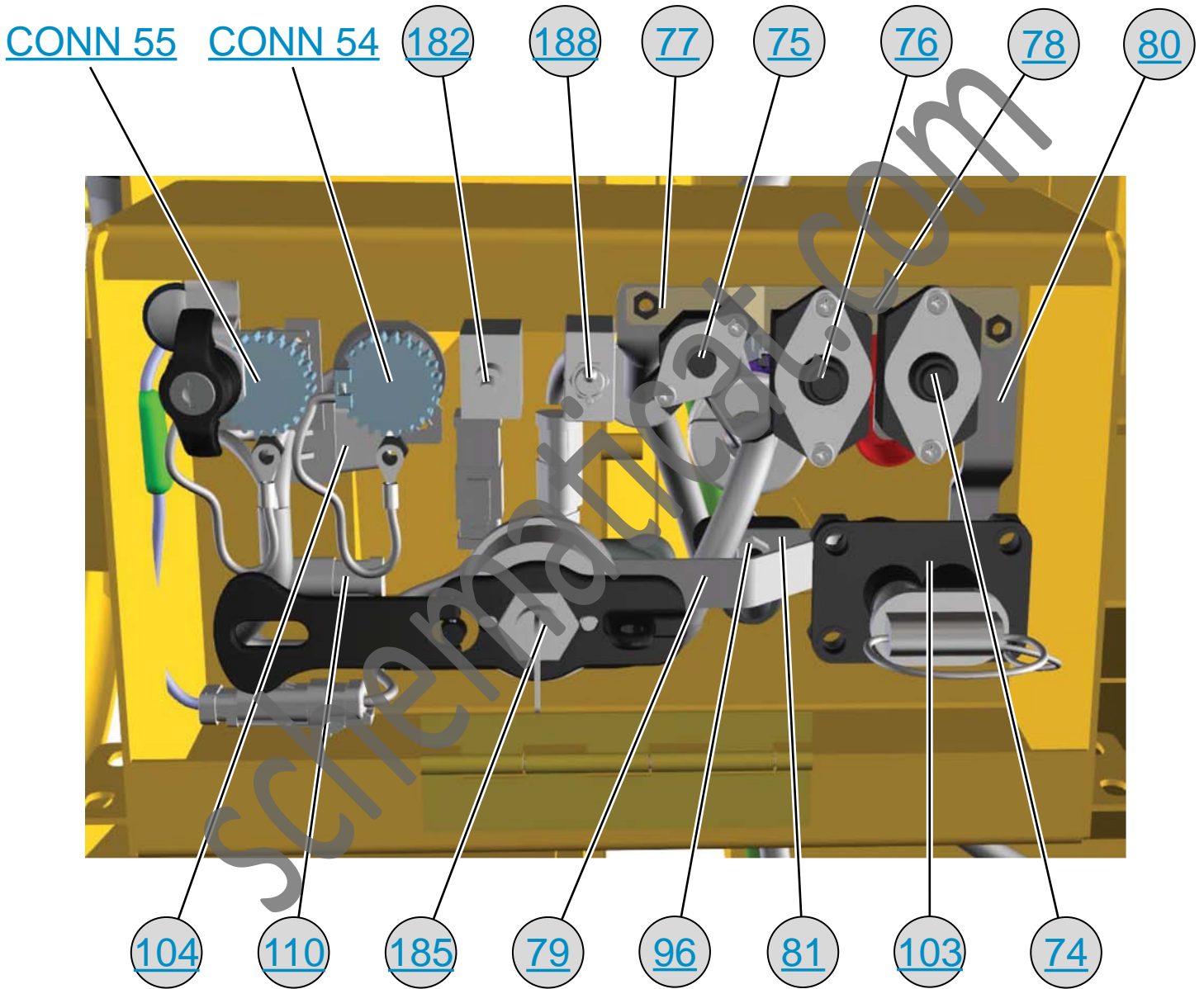


CAB WIRING

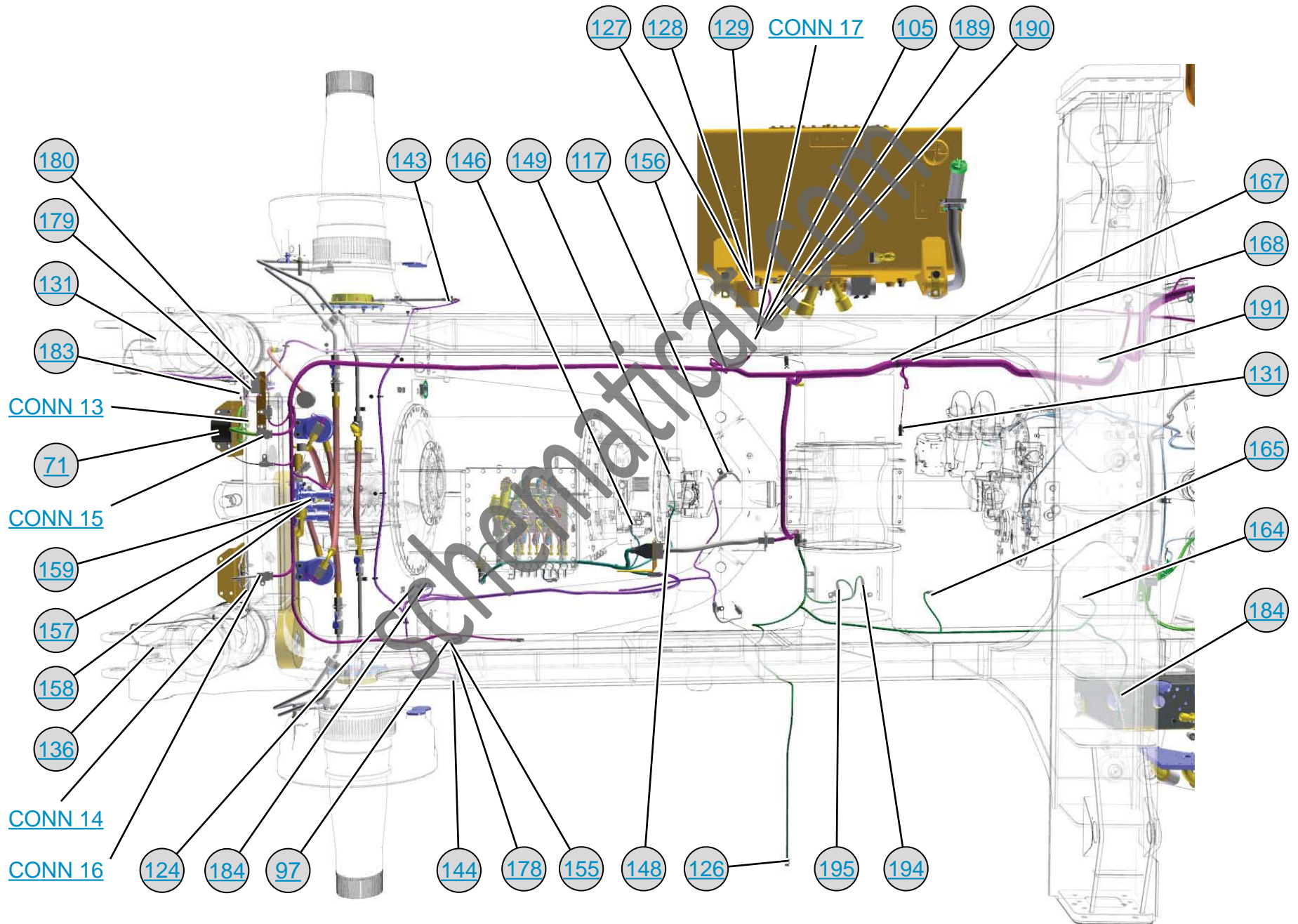




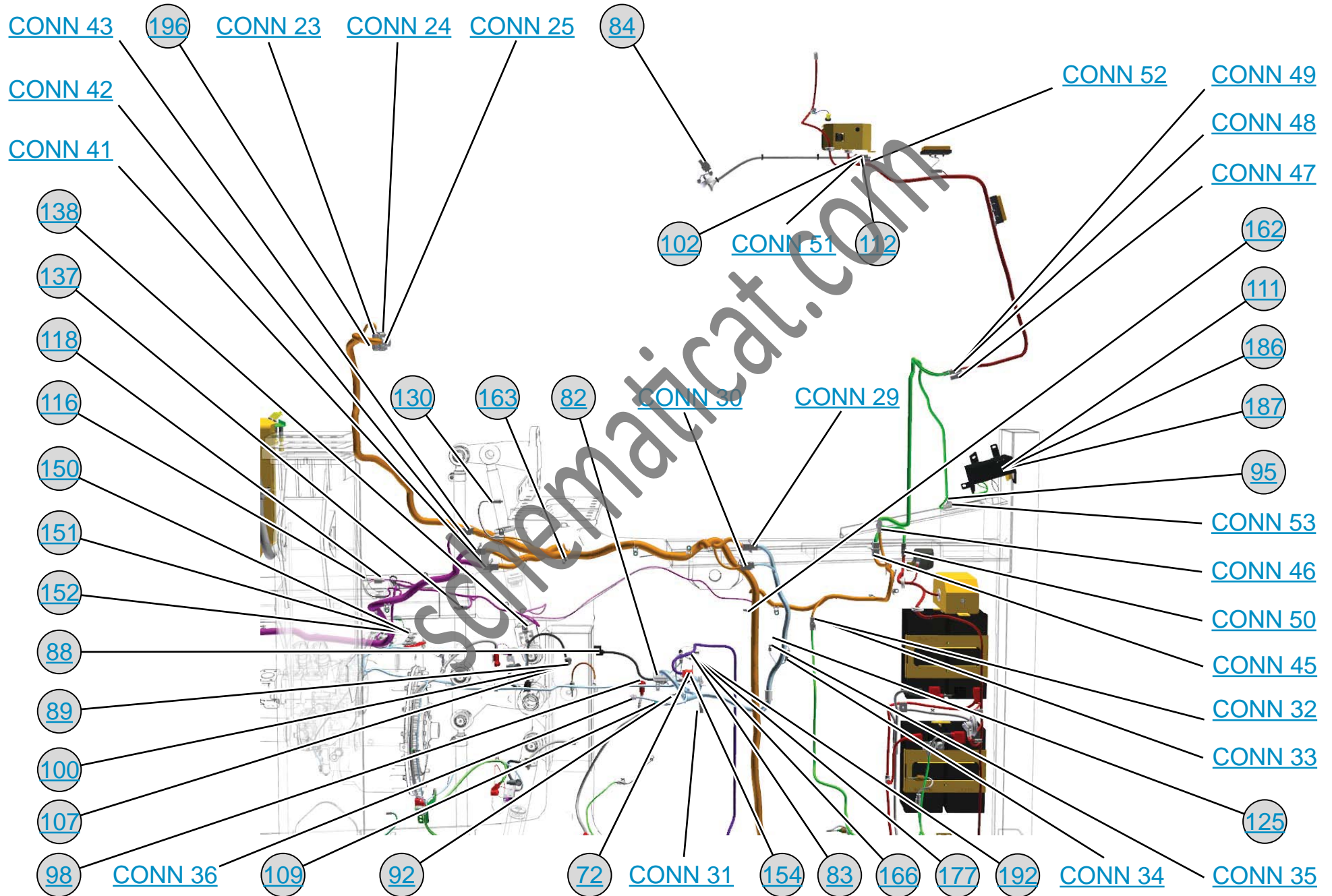




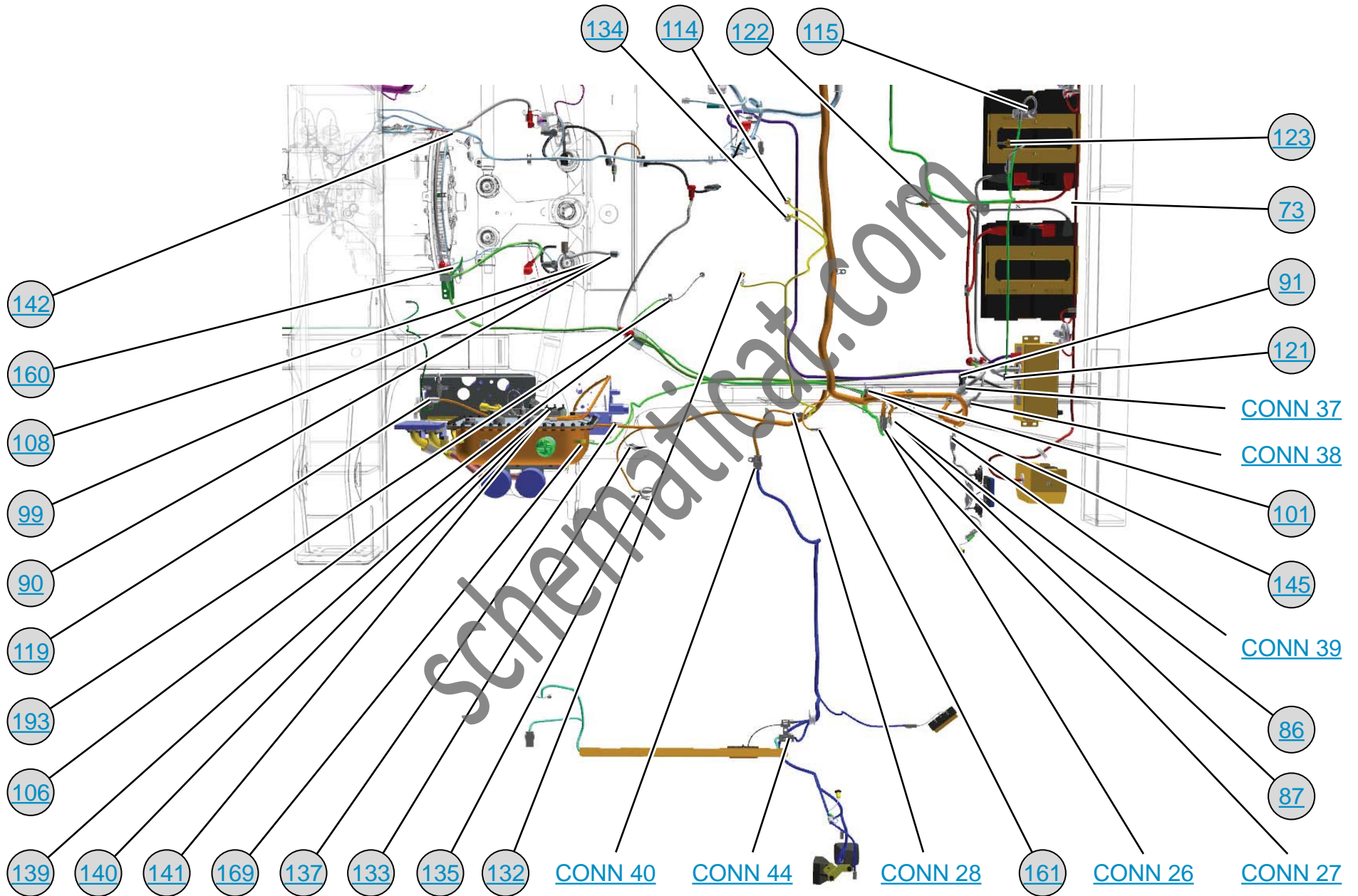
TOP VIEW (REAR)



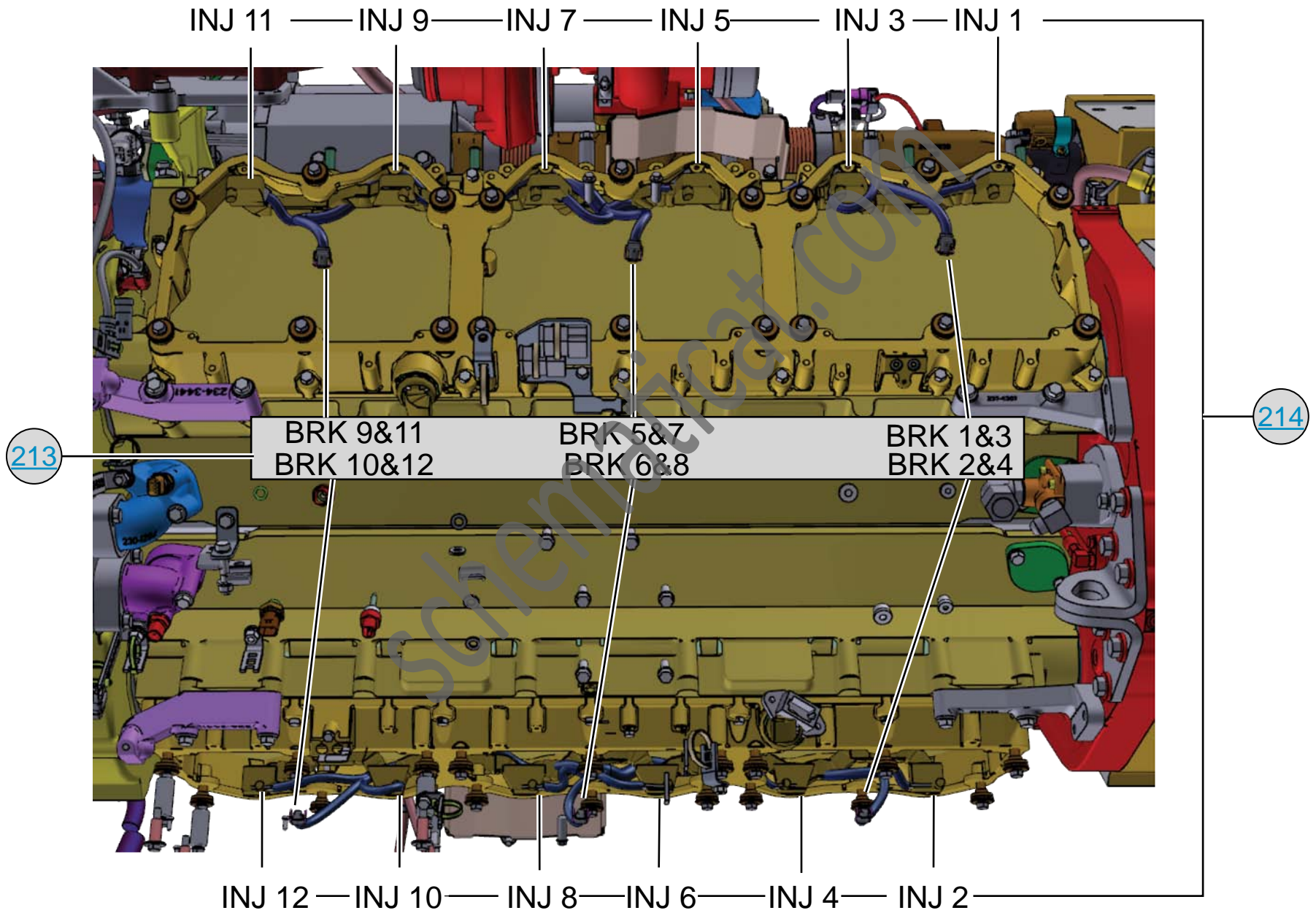
TOP VIEW (LEFT FRONT)



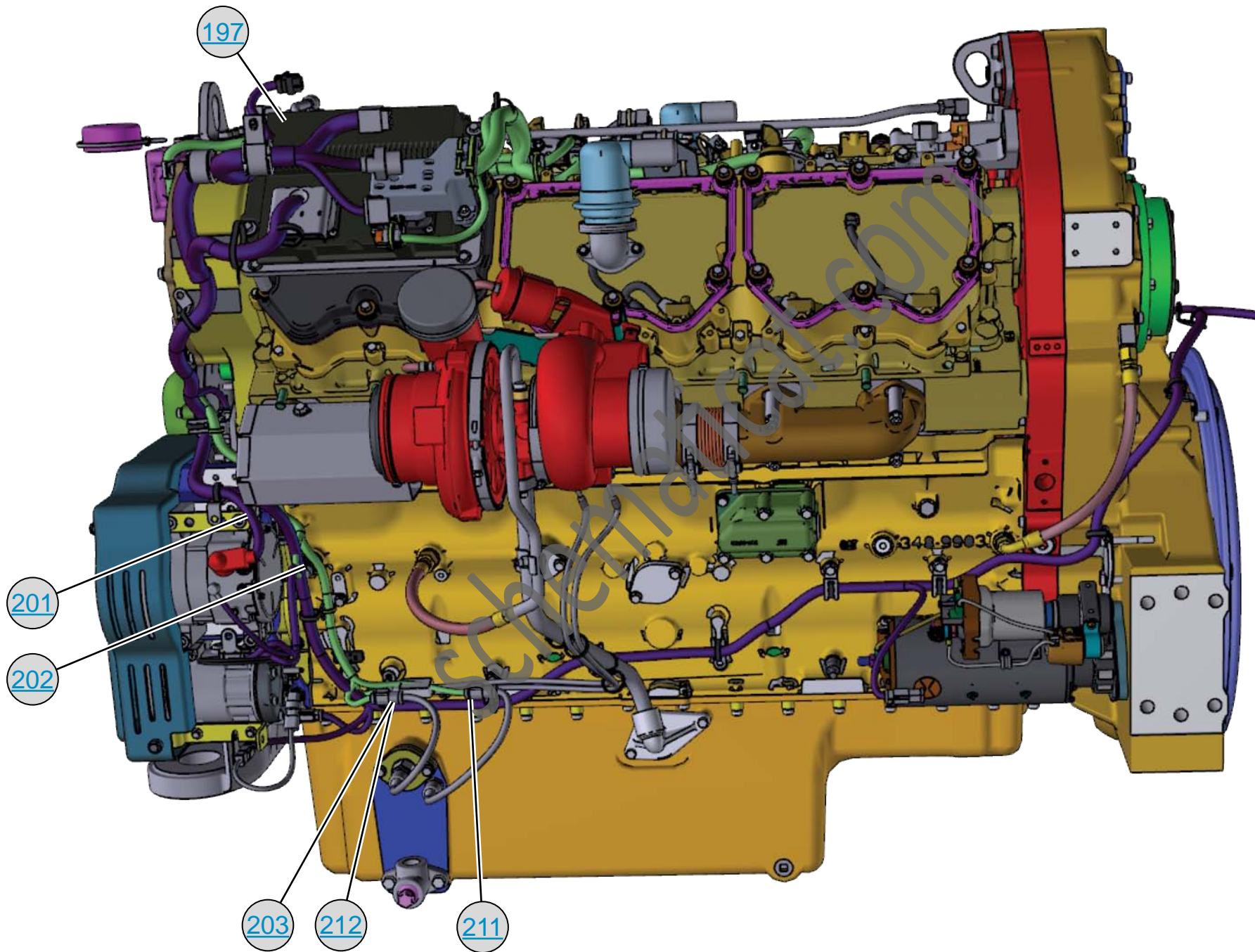
TOP VIEW (RIGHT FRONT)



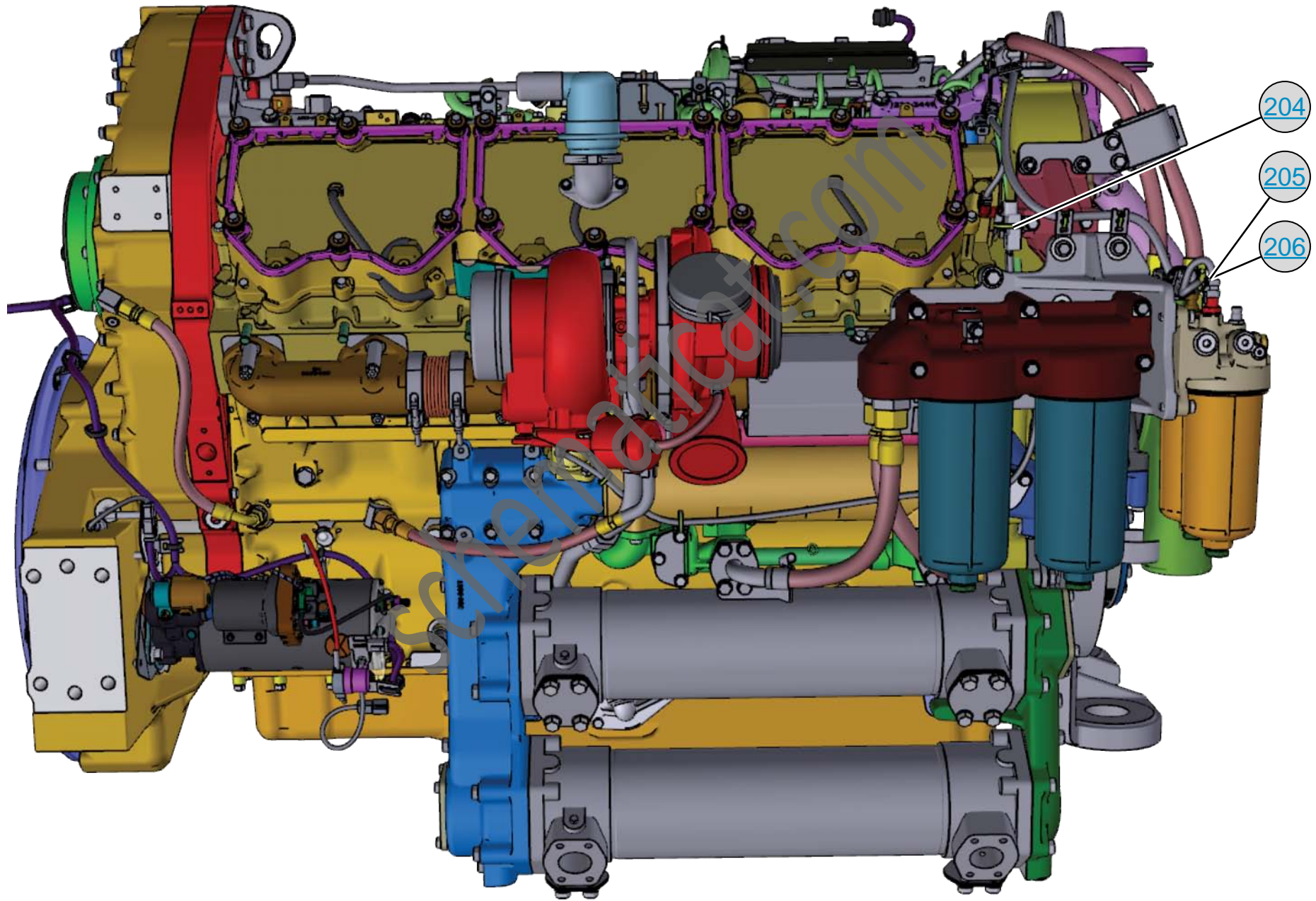
ENGINE INJECTOR / BRAKE VIEW



ENGINE LEFT SIDE VIEW



ENGINE RIGHT SIDE VIEW



ENGINE TOP SIDE VIEW

