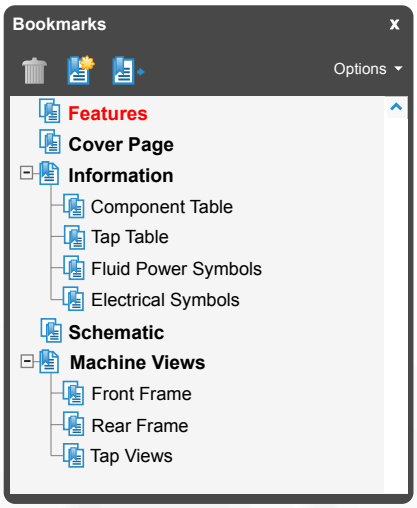
INTERACTIVE SCHEMATIC



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

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

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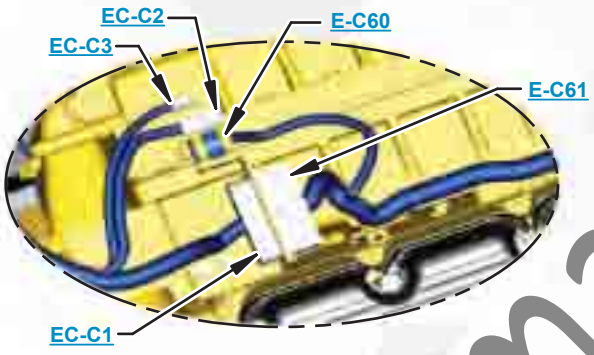

Click on any text that is BLUE and underlined. These are hyperlinks that can be used to navigate the schematic and machine views.

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"

CATERPILLAR®

KENR8383-05
January 2014

Schematic

797F Off-Highway Truck Electrical System

LAJ1-230
WSP1-UP

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

Printed in U.S.A.

COMPONENT LOCATION
Volume 1 of 3 - CAB

Component	Schematic Location	Machine Location
Actuator (Water Valve)	B-12	1
Air Cleaner GP	A-13	2
Alarm GP - Action	D-1	3
Bar - Bus (Switched)	G-5	4
Bar - Bus (Unswitched)	F-5	5
Button AS - Horn	A-3	6
Circuit Breaker AS - Brake Retract Motor	G-3	7
Circuit Breaker AS - High Speed Blower	G-3	8
Circuit Breaker GP - Headlamps	G-3	9
Connector GP - Electronic	A-4	10
Control - Caterpillar Advisor	C-1	11
Control - VIMS Application	E-2	12
Control - VIMS Main	C-2	13
Control GP - Acceleration	A-3	14
Control GP - Brake	D-15	15
Control GP - Chassis	J-15	16
Control GP - Smarttruck	G-2	17
Control GP - Transmission	G-15	18
Control GP - Transmission and Hoist	A-6	19
Converter - Electrical (24v to 12v)	F-3	20
Drive AS - Window LH	F-9	21
Drive AS - Window RH	F-9	22
Fan & Motor AS - AC, Heater	C-13	23
Flasher AS - Turn Signal/Hazard	F-3	24
Ground - Access Door	C-12	25
Ground - Brake Control	D-15	26
Ground - Cab 1	H-12	27
Ground - Cab 2	F-12	28
Ground - Cab 3	F-12	29
Ground - Cab 4	F-12	30
Ground - Chassis Control	J-15	31
Ground - Dash	J-2	32
Ground - Relay Panel	J-8	33
Ground - Transmission Control	G-15	34
Ground - VIMS	B-8	35
Handle GP - Transmission	B-6	36
Junction Block	G-3	37
Module AS - Intermittent Wipers	F-3	38
Module GP - OHT Display	E-1	39
Module GP - Work Area Visual System (Rear View)	B-4	40
Monitor GP - Payload ATCH	B-13	41
Motor GP - Window Wiper	I-1	42
Panel AS - HVAC	G-1	43
Pump AS - Washer	B-13	44
Radio GP - Product Link 121SR	A-10	45
Relay - Horn	H-5	46
Relay AS - Variable Speed	G-3	47
Relay AS - AC Clutch	G-5	48
Relay AS - Air Cleaner	F-6	49
Relay AS - Autolube	G-6	50
Relay AS - Backup Alarm	G-5	51
Relay AS - Fast Wiper	I-5	52
Relay AS - Front Camera	F-5	53
Relay AS - Fuel Priming Pump	F-6	54
Relay AS - Headlamp	G-6	55
Relay AS - Heated Mirrors 1	F-3	56
Relay AS - Heated Mirrors 2	F-3	57
Relay AS - High Speed	H-3	58
Relay AS - Idle SD Timer	G-6	59
Relay AS - Power Window LH 1	A-11	60
Relay AS - Power Window LH 2	A-11	61
Relay AS - Power Window RH 1	A-11	62
Relay AS - Power Window RH 2	A-11	63
Relay AS - Prelube	F-6	64
Relay AS - Rear Camera	G-5	65
Relay AS - Secondary Steering	F-6	66
Relay AS - Slow Wiper	I-5	67
Relay AS - Start Int	G-5	68
Relay AS - Start Lock Lamp	F-5	69
Relay AS - Stop Lamp	H-6	70
Relay AS - Transmission Lamp	H-6	71
Relay AS - VIMS Blue	F-6	72
Relay AS - VIMS Green	H-5	73
Relay AS - VIMS Red	H-5	74
Relay AS - Washer	J-3	75
Relay AS - Wiper	F-5	76
Resistor - Blower	B-13	77
Resistor AS - Can E 1	E-1	78
Resistor AS - Can E 2	E-1	79
Resistor AS - Devicenet Can A 1	A-2	80
Resistor AS - Devicenet Can A 2	A-2	81
Resistor AS - Devicenet Can B	A-2	82
Resistor AS - LH Turn	E-1	83
Resistor AS - RH Turn	D-1	84
Resistor AS - VIMS Application 1	B-2	85
Resistor AS - VIMS Application 2	B-2	86
Resistor AS - VIMS Application 3	B-2	87
Resistor AS - VIMS Application 4	B-2	88
Sensor GP - AC Temperature	B-13	89
Sensor GP - AC Temperature (Louver)	B-13	90
Sensor GP - Brake Pedal	A-3	91
Sensor GP - Position (Hoist)	B-6	92
Sensor GP - Position (Transmission)	A-6	93
Socket - Auxiliary Power (12v) 1	E-5	94
Socket - Auxiliary Power (12v) 2	J-1	95
Switch AS - Air Conditioner	F-1	96
Switch AS - Auto Retarder (On/off)	C-6	97
Switch AS - Brake Retarder	A-3	98
Switch AS - Camera	C-6	99
Switch AS - Dimmer	I-1	100
Switch AS - Dome Lamp (LH)	C-5	101
Switch AS - Dome Lamp (RH)	B-5	102
Switch AS - Engine Idle	C-5	103
Switch AS - Fog Light	J-1	104
Switch AS - Hazard 1	C-5	105
Switch AS - Hazard 2	C-5	106
Switch AS - Headlight	D-1	107
Switch AS - Heated Mirror	I-1	108
Switch AS - Limit (Door LH)	D-7	109
Switch AS - Limit (Door RH)	D-7	110
Switch AS - Parking Brake Retract	D-5	111
Switch AS - Power Window (LH)	B-6	112
Switch AS - Power Window (RH)	B-6	113
Switch AS - Retarder Control	C-6	114
Switch AS - Stairway Access Lights	D-1	115
Switch AS - Start (Key)	C-1	116
Switch AS - Throttle Lock	A-6	117
Switch AS - Traction Control Select	D-5	118
Switch AS - Turn Signal	A-3	119
Switch GP - Main Relay	G-3	120
Thermostat (HVAC)	B-12	121

Always check Component part Numbers with Parts Manual for your specific machine.

COMPONENT LOCATION
Volume 2 of 3 - CHASSIS, Page 1 of 2

Component	Schematic Location	Machine Location
Alarm -Backup	B-15	122
Alarm -Stairway	I-9	123
Alternator	E-11	Vol3
Battery 1	G-10	124
Battery 2	G-10	125
Block -Junction (MCM)	F-11	131
Block -Junction 2	F-11	132
Circuit Breaker -Ladder	H-9	139
Circuit Breaker -Main	F-10	137
Circuit Breaker -Stairway Pump 1	H-10	138
Diode -Wiggins Lamp 1	G-6	126
Diode -Wiggins Lamp 2	G-6	127
Diode -Wiggins Lamp 3	G-6	128
Diode -Wiggins Lamp 4	G-6	129
Dryer -System Air 1	F-4	150
Dryer -System Air 2	F-4	130
Ground -Brake Retract	D-10	151
Ground -Chassis	E-8	152
Ground -Ladder/Chassis	H-9	159
Ground -Prelubrication Chassis	G-9	160
Ground -Stairway/Chassis	H-9	162
Mirror -Heated (Ladder)	B-5	165
Mirror -Heated LH	G-4	164
Mirror -Heated RH	B-5	166
Monitor -Payload RH (ATCH)	C-5	167
Motor -Brake Retract	D-10	168
Motor -Prelube	G-9	172
Motor -Stairway Pump	H-9	169
Receptacle -Aux Start	F-9	174
Relay -Power Access Stairway	I-11	176
Relay -Prelube Power (ATCH)	G-9	175
Resistor -BK 1	H-4	177
Resistor -Thermostat	G-5	171
Sensor - Pressure (Parking Brake Accumulator)	D-11	291
Sensor - Pressure (Parking Brake LH Rear)	E-11	272
Sensor - Pressure (Parking Brake RH Rear)	E-11	273
Sensor - Pressure (Service Brake Accumulator)	C-11	191
Sensor - Speed (Transmission Output, Intermediate)	F-14	203
Sensor - Temperature (Torque Converter Outlet Oil)	I-16	217
Sensor - Temperature (Transmission Lube Oil)	H-13	216
Sensor -Level (Fuel)	E-10	179
Sensor -Level (Jacket Water Cool)	H-4	180
Sensor -Position (Steering Angle)	D-6	181
Sensor -Position (Truck Body)	B-15	182
Sensor -Pressure (Air Inlet 1)	H-6	183
Sensor -Pressure (Air Inlet 2)	H-6	184
Sensor -Pressure (Air Inlet 3)	F-6	185
Sensor -Pressure (Air Inlet 4)	F-6	186
Sensor -Pressure (Automatic Lubrication)	B-15	188
Sensor -Pressure (Brake Pump)	D-11	189
Sensor -Pressure (Differential Lube Oil)	G-15	190
Sensor -Pressure (Steering Accumulator)	D-6	197
Sensor -Pressure (Strut) (LH Front)	J-7	192

Component	Schematic Location	Machine Location
Sensor -Temperature (Steering Oil)	D-13	215
Soleniod - Brake Accumulator Bleed	D-11	274
Soleniod - Brake Oil Diverter	D-11	275
Soleniod - Brake Pilot Unloader	D-11	276
Solenoid - RAX Drive Pump Oil Diverter	H-15	290
Solenoid - Steering Pump	B-10	278
Solenoid -AETA 4-way	D-11	195
Solenoid -AETA Prop	C-11	219
Solenoid -Air Start	G-4	257
Solenoid -Arc Control	C-11	196
Solenoid -Autolube Actuation	I-6	258
Solenoid -Drive (Brake Oil Cool Pump)	B-11	218
Solenoid -Drive (Radiator Pump)	B-11	220
Solenoid -Drive (RAX Diverter Control Valve)	H-15	231
Solenoid -Front Brake Arc	C-11	259
Solenoid -Hoist (Head End CT)	D-13	232
Solenoid -Hoist (Head End PC)	E-13	194
Solenoid -Hoist (Pilot System)	E-13	237
Solenoid -Hoist (Rod End CT)	E-13	240
Solenoid -Hoist (Rod End PC)	E-13	241
Solenoid -Hoist Pump Bypass 1	E-13	194
Solenoid -Hoist Pump Bypass 2	E-13	224
Solenoid -Horn	H-4	256
Solenoid -Parking Brake	C-11	239
Solenoid -RAX Cooling Fan Motor (ATCH)	B-15	260
Solenoid -Stairway	I-9	221
Solenoid -Start Aid 1	D-7	266
Solenoid -Start Aid 2	D-7	267
Solenoid -Start Aid 3	D-7	268
Solenoid -Steering Accumulator Bleed	D-6	264
Solenoid -Torque Converter Lockup	I-15	222
Solenoid -Transmission Clutch 1	G-14	223
Solenoid -Transmission Clutch 2	G-14	223
Solenoid -Transmission Clutch 3	G-14	223
Solenoid -Transmission Clutch 4	G-14	223
Solenoid -Transmission Clutch 5	F-14	223
Solenoid -Transmission Clutch 6	F-14	223
Solenoid -Transmission Clutch 7	F-14	223
Switch - Pressure (Service Brake)	D-11	277
Switch - Pressure (TCI Filter Bypass)	I-15	198
Switch -Brake Cool Actuation Filter (LH)	F-4	286
Switch -Brake Cool Actuation Filter (RH)	C-7	225
Switch -Disconnect	F-5	227
Switch -Engine Flood Lamp	E-4	228
Switch -Fan Drive Oil Filter	F-7	251
Switch -Final Drive Filter	G-15	243
Switch -Grease	G-6	244
Switch -Ground Shutdown	E-4	230
Switch -Hoist Screen 1	B-10	249
Switch -Hoist Screen 2	B-10	250
Switch -Level (Cold Hydraulic Oil)	C-13	242
Switch -Level (Hot Hydraulic Oil)	C-13	245
Switch -Level (Jacket Water Full)	H-4	246

COMPONENT LOCATION
Volume 2 of 3 - CHASSIS, Page 2 of 2

Component	Schematic Location	Machine Location
Sensor -Pressure (Strut) (RH Front)	C-7	193
Sensor -Pressure (Strut) (RH Rear)	B-15	200
Sensor -Pressure (System Air)	F-4	187
Sensor -Pressure (Transmission Lube Oil)	H-13	173
Sensor -Speed (Brake Cooling Pump)	D-14	201
Sensor -Speed (Cool Fan)	H-4	202
Sensor -Speed (Engine)	I-16	178
Sensor -Speed (Transmission Output 1)	F-16	203
Sensor -Speed (Transmission Output 2)	F-16	203
Sensor -Speed (Transmission Output)	I-16	206
Sensor -Speed (Wheel)(LH Rear)	F-16	203
Sensor -Speed (Wheel)(RH Rear)	F-16	203
Sensor -Temperature (Ambient)	H-4	209
Sensor -Temperature (Brake Oil) (LH Front)	F-4	210
Sensor -Temperature (Brake Oil) (LH Rear)	H-16	211
Sensor -Temperature (Brake Oil) (RH Front)	D-7	212
Sensor -Temperature (Brake Oil) (RH Rear)	H-16	213
Sensor -Temperature (Differential Oil 1)	G-15	214

Component	Schematic Location	Machine Location
Switch -Level (Wiggins -Steering Oil)	C-13	271
Switch -Power Access Stairway	I-9	234
Switch -Pressure (Brake Oil Filter)	E-10	261
Switch -Pressure (Case Drain Filter 1)	D-13	252
Switch -Pressure (Case Drain Filter 2)	C-7	262
Switch -Pressure (Final Drive)	G-15	248
Switch -Stairway 2	J-9	236
Switch -Stairway Lamp 1	D-4	234
Switch -Stairway Lamp 2	E-4	235
Switch -Start Lock A	D-4	229
Switch -Torque Converter Screen Bypass	I-15	253
Switch -Transmission Charge Filter	G-13	270
Switch -Transmission Lock	E-4	237
Switch -Transmission Oil Level	I-15	263
Switch -Transmission Oil Level (Cold)	H-16	254
Switch -Transmission Oil Level (Hot)	H-16	255
Switch-Bypass (Differential Lube Filter)	G-15	226
Valve -Solenoid (Air Dryer)	F-4	265

COMPONENT LOCATION
Volume 3 of 3 - ENGINE

Component	Schematic Location	Machine Location
Alternator	D-6	268
Connector -Bulkhead	E-7	274
Connector -EIC	F-8	CONN 27
Control GP -Engine	F-1	270
Ground -Main Chassis	E-7	271
Module -HPCR Power	B-7	272
Motor -Fuel Priming Pump	B-6	273
Relay -Prelube	E-6	307
Resistor AS -Can Data Link (Global)	B-1	275
Resistor AS -Can Data Link (Local)	B-1	276
Resistor AS -Engine Can Data Link	B-7	277
Sensor GP -Pressure (Air Intake Manifold #2)	B-7	278
Sensor GP -Pressure (Air Intake Manifold)	E-6	279
Sensor GP -Pressure (Atmospheric)	B-1	280
Sensor GP -Pressure (Crankcase)	B-8	281
Sensor GP -Pressure (Engine Block Coolant Inlet)	B-6	283
Sensor GP -Pressure (Engine Oil Block Inlet)	B-8	310
Sensor GP -Pressure (Engine Oil Filter Inlet)	B-8	284
Sensor GP -Pressure (Fuel Transfer Filtered)	A-7	286
Sensor GP -Pressure (Fuel Transfer Pump Inlet)	A-7	287
Sensor GP -Pressure (HPCR Rail)	E-6	285
Sensor GP -Pressure (Transfer Pump)	A-8	288
Sensor GP -Speed (Primary, Timing, Camshaft)	B-8	289
Sensor GP -Speed (Secondary, Timing, Camshaft)	E-7	290
Sensor GP -Speed (Timing, Crankshaft)	B-8	291
Sensor GP -Temperature (Air Inlet Manifold #2)	B-7	292
Sensor GP -Temperature (Engine Block Coolant Outlet)	B-6	294
Sensor GP -Temperature (Engine Block Oil Inlet)	B-8	295
Sensor GP -Temperature (Engine Coolant Pump Outlet)	E-6	296
Sensor GP -Temperature (Fuel)	A-8	297
Sensor GP -Temperature (HPCR Rail)	B-6	298
Sensor GP -Temperature (Intake Manifold)	E-6	293
Sensor GP -Temperature (Turbo Inlet, LH Rear)	B-7	331

Component	Schematic Location	Machine Location
Sensor GP -Temperature (Turbo Inlet, RH Front)	E-7	300
Sensor GP -Temperature (Turbo Inlet, RH Rear)	B-8	332
Sensor GP -Temperature (Turbocharger Inlet, LH Front)	E-6	299
Solenoid -A/C Compressor and Clutch	B-6	269
Solenoid -Injector -Cylinder #1	C-6	311
Solenoid -Injector -Cylinder #10	F-6	320
Solenoid -Injector -Cylinder #11	C-7	321
Solenoid -Injector -Cylinder #12	F-6	322
Solenoid -Injector -Cylinder #13	C-7	323
Solenoid -Injector -Cylinder #14	F-7	324
Solenoid -Injector -Cylinder #15	C-7	325
Solenoid -Injector -Cylinder #16	F-7	326
Solenoid -Injector -Cylinder #17	C-7	327
Solenoid -Injector -Cylinder #18	F-7	328
Solenoid -Injector -Cylinder #19	C-8	329
Solenoid -Injector -Cylinder #2	F-6	312
Solenoid -Injector -Cylinder #20	F-7	330
Solenoid -Injector -Cylinder #3	C-6	313
Solenoid -Injector -Cylinder #4	F-6	314
Solenoid -Injector -Cylinder #5	C-7	315
Solenoid -Injector -Cylinder #6	F-6	316
Solenoid -Injector -Cylinder #7	C-7	317
Solenoid -Injector -Cylinder #8	F-6	318
Solenoid -Injector -Cylinder #9	C-7	319
Solenoid -Oil Renewal	B-8	310
Suppressor -Arc (A/C)	B-6	301
Switch AS -Pressure (Refrigerant)	B-6	303
Switch AS -Pressure (Refrigerant, Hi Lo)	B-6	304
Switch AS -Remote Shutdown	B-6	302
Switch GP -Fuel Priming Pump	A-7	308
Switch GP -Liquid Level (Low Oil)	D-6	305
Switch GP -Liquid Level (Oil Fill)	D-7	306
Valve -Fuel Control	B-7	309

CONNECTOR LOCATION
Volume 1 of 3 - CAB

Connector Number	Schematic Location
CONN 1	H-16
CONN 2	G-16
CONN 3	F-16
CONN 4	E-16
CONN 5	D-16
CONN 6	H-12
CONN 7	F-12
CONN 8	E-12
CONN 9	C-12, B-8
CONN 10	C-12
CONN 11	B-12
CONN 12	H-11
CONN 13	I-8
CONN 14	I-8
CONN 15	H-8
CONN 16	F-8
CONN 17	D-8
CONN 18	C-8
CONN 19	B-8
CONN 20	E-6
CONN 21	E-5
CONN 22	C-1

CONNECTOR LOCATION
Volume 2 of 3 - CHASSIS

Connector Number	Schematic Location
CONN 1	I-2
CONN 2	H-2
CONN 3	F-2
CONN 4	E-2
CONN 5	C-3
CONN 23	G-15
CONN 24	I-14
CONN 25	I-14
CONN 26	C-15
CONN 27	I-13
CONN 28	G-14
CONN 29	F-13
CONN 30	D-12
CONN 31	C-15
CONN 32	B-13
CONN 33	J-12
CONN 34	I-12
CONN 35	G-12
CONN 36	F-12
CONN 37	C-9
CONN 38	D-9
CONN 39	B-9
CONN 40	B-9
CONN 41	E-9
CONN 42	I-11, D-6
CONN 43	J-10
CONN 44	I-10
CONN 45	I-8
CONN 46	E-8
CONN 47	B-7
CONN 48	E-8
CONN 49	C-7
CONN 50	C-6
CONN 51	A-7
CONN 52	B-6
CONN 53	C-6
CONN 54	F-6
CONN 55	F-6
CONN 56	H-6
CONN 57	F-5
CONN 58	H-6
CONN 59	I-5
CONN 60	G-5
CONN 61	I-5
CONN 62	H-5
CONN 63	H-6
CONN 64	E-6
CONN 65	E-4
CONN 66	F-5
CONN 67	F-5
CONN 68	F-8
CONN 69	F-8
CONN 70	G-8
CONN 71	G-16

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

Connector Number	Schematic Location
CONN 27	F-8
CONN 69	E-6
CONN 70	E-6
CONN 71	B-7
CONN 72	C-7
CONN 73	E-7
CONN 74	B-7
CONN 75	E-7
CONN 76	E-7
CONN 77	E-6
CONN 78	C-5
CONN 79	E-5

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.

CID / MID / FMI
Volume 1 of 3 - CAB, Page 1 of 3

Component Identifiers (CID[1]) Module Identifier (MID[2])	
Advisor Display Module (MID No. 053)	
CID	**Component**
0168	Electrical System Voltage
0271	Action Alarm
0145	12 Volt DC Power Supply
0820	Keypad Data Link
0821	Display Power Supply
0822	LCD Back Light Power Supply
Transmission Control (MID No. 081)	
CID	**Component**
CID 0041	Sensor (Supply Voltage)
CID 0168	Electrical System Voltage
CID 0177	Sensor (Transmission Oil Temperature)
CID 0190	Speed Sensor (Engine)
CID 0533	Brake Control
CID 0585	Speed Sensor (No. 1) (Transmission Output)
CID 0590	Engine Control Module
CID 0669	Speed Sensor (Transmission Input)
CID 0673	Speed Sensor (No. 2) (Transmission Output)
CID 0709	Modulating Valve (Lockup Clutch)
CID 0718	Transmission System
CID 0800	VIMS Main Module
CID 0826	Temperature Sensor (Torque Converter Oil)
CID 0967	Machine Application
CID 1273	Chassis Control
CID 1326	ECM Location Code
CID 1401	Solenoid Valve (Forward High) (Transmission)
CID 1402	Solenoid Valve (Forward Low) (Transmission)
CID 1403	Solenoid Valve (Reverse) (Transmission)
CID 1404	Solenoid Valve (Speed Clutch 2) (Transmission)
CID 1405	Solenoid Valve (Speed Clutch 3) (Transmission)
CID 1406	Solenoid Valve (Speed Clutch 1) (Transmission)
CID 1428	Requested Gear Command
CID 1674	Solenoid Return (No. 1)
CID 1675	Solenoid Return (No. 2)
CID 1676	Solenoid Return (No. 3)
CID 1960	Ignition Key Reader
CID 2448	Graphical Display

VIMS Main Control (MID No. 161)	
CID	**Component**
0248	Cat Data Link
0296	Transmission Control
0533	Brake Control
0590	Engine Control
0768	RS-485 Data Link
0800	VIMS Main Control
0890	Telemetry Data Link

Chassis Control (MID No. 087)	
CID	**Component**
CID 0041	8 VDC Sensor Power Supply
CID 0075	Steering Oil Temperature Sensor
CID 0096	Fuel Level Sensor
CID 0144	Backup Alarm Relay
CID 0168	Electrical System Voltage
CID 0296	Transmission Control
CID 0378	Machine Autolube
CID 0379	Autolube Pressure Sensor
CID 0429	Steering Pump Oil Pressure Sensor
CID 0444	Starter Motor Relay
CID 0533	Brake ECM
CID 0590	Engine ECM
CID 0702	Shift Lever
CID 0724	Hoist Raise Solenoid
CID 0725	Hoist Lower Solenoid
CID 0773	Hoist Lever Sensor
CID 0800	VIMS™ Main
CID 0849	System Air Pressure Sensor
CID 0967	Machine Application
CID 1175	Body Position Sensor
CID 1326	ECM Location Code
CID 1428	Requested Gear Command
CID 1494	Steering Accumulator Oil Pressure Sensor
CID 1960	Ignition Key Reader
CID 2249	Steering Accumulator Bleed
CID 2250	Brake Accumulator Bleed
CID 2448	Graphical Display
CID 2851	Idle Shutdown Timer

Component Identifiers (CID[1]) Module Identifier (MID[2])	
VIMS Application Control (MID No. 162)	
CID	**Component**
0248	Cat Data Link
0296	Transmission Control
0533	Brake Control
0590	Engine Control
0768	RS-485 Data Link
0800	VIMS Main Control
0838	Left Front Strut Pressure Sensor
0839	Right Front Strut Pressure Sensor
0840	Left Rear Strut Pressure Sensor
0841	Right Rear Strut Pressure Sensor
1089	VIMS Application Control
1273	Chassis Control
2448	Graphical Display

[1] The CID is a diagnostic code that indicates which circuit is faulty.

[2] The MID is a diagnostic code that indicates which electronic control module diagnosed the fault.

Brake Control (MID No. 116)	
CID	**Component**
CID 0041	8 Volt DC Supply
CID 0168	Electrical System Voltage
CID 0190	Engine Speed Sensor
CID 0291	Engine Cooling Fan Solenoid
CID 0296	Transmission Control
CID 0544	Engine Cooling Fan Speed Sensor
CID 0590	Engine Control Module
CID 0607	Left Rear Wheel Speed Sensor
CID 0608	Right Rear Wheel Speed Sensor
CID 0681	Parking Brake Solenoid
CID 0689	Left Brake Solenoid
CID 0690	Right Brake Solenoid
CID 0713	Auto Retarder ON/OFF Switch
CID 0719	TCS Proportional Solenoid
CID 0742	Service Brake Lamp/Relay
CID 0766	Differential (Axle) Lube Pressure Sensor
CID 0779	Cab Air Temperature Sensor
CID 0796	Differential (Axle) High Speed Fan Solenoid
CID 0800	VIMS Main
CID 0835	Differential (Axle) Oil Temperature
CID 0852	Brake Oil Temperature Sensor (Right Front)
CID 0853	Brake Oil Temperature Sensor (Left Front)
CID 0854	Brake Oil Temperature Sensor (Right Rear)
CID 0855	Brake Oil Temperature Sensor (Left Rear)
CID 0967	Machine Application
CID 1225	Park Brake Oil Pressure (LR)
CID 1226	Park Brake Oil Pressure (RR)
CID 1227	Retarder Lever (Switch)
CID 1229	Brake Cooling Pump Speed Sensor
CID 1230	Brake Cooling Pump Drive Solenoid
CID 1232	Final Drive Oil Bypass Solenoid
CID 1273	Chassis Control Module
CID 1326	ECM Location Code
CID 1437	Rear Axle Pump Drive Oil Divert Solenoid
CID 1607	Front ARC Control Solenoid
CID 1608	Rear ARC Control Solenoid
CID 1961	Service Brake Accumulator Pressure Sensor
CID 1962	Brake Pump Pressure Sensor
CID 1963	Brake Pump Unloader Solenoid
CID 2448	Graphical Display Module
CID 2659	Cab Air Temperature Control Switch
CID 2661	Cab Air Temperature Control
CID 2663	Cab Ventilation Duct Temperature Sensor
CID 2683	Secondary Brake Pedal Position Sensor
CID 2813	Secondary Brake Accumulator Pressure Sensor

Event Codes Advisor Display Module	
Event Code	**Condition**
E0103	Module Internal Over Temperature
E0642	Display Button Stuck

Event Codes Transmission Control	
Event Code	**Condition**
E0047	"Abuse Shift" Warning
E0049	"Coasting in Neutral" Warning
E0084	"Machine Overspeed" Warning
E0108	Upshift The Machine To Prevent Engine Overspeed
E0113	High Transmission Oil Pressure
E0153	High Speed Directional Shift
E0155	High Torque Converter Oil Temperature
E0330	Transmission Output Speed Mismatch
E0531	Low Transmission Oil Level
E0762	Machine Driven with a Cold Transmission
E0765	Transmission Charge Filter Plugged
E0766	Torque Converter Filter Plugged
E0877	High Transmission Oil Temperature

Event Codes Chassis Control	
Event Code	**Condition**
E0085	Engine shutdown overridden
E0119	Low fuel level
E0179	Alternator not charging
E0334	Low auto lube pressure
E0521	Auto lube pressure after cycle
E0541	Low steering accumulator pressure
E0542	Low steering pump pressure
E0595	Case drain hydraulic oil filter plugged
E0617	Machine lockout active
E0620	Starter lockout active
E0621	Body up
E0627	Parking brake applied in motion
E0663	Body up while moving
E0664	Low differential oil level
E0665	Hydraulic hoist screen filter plugged
E0680	Ladder down while gear not in neutral
E0875	Low system voltage
E0876	High system voltage
E2141	Low steering oil level
E2142	High steering oil temperature

Event Codes VIMS Main Control	
Event Code	**Condition**
E0558	VIMS Snapshot Stored
E0559	Event List Memory Low
E1087	VIMS Trend Memory Low
E1088	VIMS Trend Memory Full
E1189	File System Memory
E2139	VIMS Snapshot Memory Full

Event Codes VIMS Application Module	
Event Code	**Condition**
E0237	Machine Overloaded
E0689	High Front Tire Temperature
E0690	High Rear Tire Temperature
E0691	Speed Limited - High Tire Temperature
E0697	Negative High Peak Frame Bias
E0698	Positive High Peak Frame Rack
E0699	Negative High Peak Frame Rack
E0700	Negative High Peak Frame Pitch
E0777	Positive High Peak Frame Bias
E0779	Positive High Peak Frame Pitch
E1189	File System Memory
E2079	Left Front Suspension Cylinder Pressure Low
E2080	Right Front Suspension Cylinder Pressure Low
E2081	Left Rear Suspension Cylinder Pressure Low
E2082	Right Rear Suspension Cylinder Pressure Low
E2083	Payload Memory
E2126	Machine Overloaded

Failure Mode Identifiers (FMI)[1]	
FMI No.	**Failure Description**
0	Data valid but above normal operational range.
1	Data valid but below normal operational range.
2	Data erratic, intermittent, or incorrect.
3	Voltage above normal or shorted high.
4	Voltage below normal or shorted low.
5	Current below normal or open circuit.
6	Current above normal or grounded circuit.
7	Mechanical system not responding properly.
8	Abnormal frequency, pulse width, or period.
9	Abnormal update.
10	Abnormal rate of change.
11	Failure mode not identifiable.
12	Bad device or component.
13	Out of calibration.
14	Parameter failures.
15	Parameter failures.
16	Parameter not available.
17	Module not responding.
18	Sensor supply fault.
19	Condition not met.
20	Parameter failures.

[1]The FMI is a diagnostic code that indicates what type of failure has occurred.

CID / MID / FMI
Volume 3 of 3 - ENGINE

Component Identifiers (CID[1]) Module Identifier (MID[2]) Engine Control (MID No. 36)	
CID	**Component**
0001	Cylinder #1 Injector
0002	Cylinder #2 Injector
0003	Cylinder #3 Injector
0004	Cylinder #4 Injector
0005	Cylinder #5 Injector
0006	Cylinder #6 Injector
0007	Cylinder #7 Injector
0008	Cylinder #8 Injector
0009	Cylinder #9 Injector
0010	Cylinder #10 Injector
0011	Cylinder #11 Injector
0012	Cylinder #12 Injector
0013	Cylinder #13 Injector
0014	Cylinder #14 Injector
0015	Cylinder #15 Injector
0016	Cylinder #16 Injector
0018	Fuel Control Valve
0041	8 Volt DC Supply
0091	Throttle Position Sensor
0095	Fuel Filter Differential Pressure Sensor
0099	Engine Oil Filter Differential Pressure Sensor
0100	Engine Oil Pressure Sensor
0101	Crankcase Air Pressure Sensor
0110	Engine Coolant Temperature Sensor
0168	Electrical System Voltage
0171	Ambient Air Temperature Sensor
0172	Intake Manifold Air Temperature Sensor
0174	Fuel Temperature Sensor
0175	Engine Oil Temperature Sensor
0190	Engine Speed Sensor
0247	SAE J1939 Data Link
0253	Personality Module
0262	5 Volt Sensor DC Power Supply
0267	Remote Shutdown Input
0268	Programmed Parameter Fault
0274	Atmospheric Pressure Sensor
0289	Fuel Pressure Sensor
0296	Transmission Control
0338	Engine Pre-Lube Pump Relay
0342	Secondary Engine Speed Sensor
0460	Fuel Pressure Sensor
0533	Brake Control
0542	Engine Oil Pressure Sensor
0569	Oil Renewal Solenoid
1273	Chassis Control Module
1491	Right Turbo Turbine Inlet Temperature Sensor
1492	Left Turbo Turbine Inlet Temperature Sensor
1627	Fuel Pump Relay
1785	Intake Manifold Pressure Sensor
1796	Intake Manifold #2 Air Temperature Sensor
1797	Fuel Rail Pressure Sensor
1834	Ignition Key Switch
2131	5 Volt Sensor DC Power Supply #2
2247	Fuel Transfer Pump Inlet Pressure Sensor
2302	Engine Coolant Pump Outlet Pressure Sensor
2323	Fuel Rail Temperature Sensor
2348	SAE J1939 Data Link #2
2349	Engine Coolant Pump Outlet Temperature Sensor
2417	Start Aid Injection Control Solenoid
2493	Cylinder #17 Injector
2494	Cylinder #18 Injector
2495	Cylinder #19 Injector
2496	Cylinder #20 Injector
2710	Engine Tertiary Speed Sensor
2738	Turbocharger #1 Compressor Inlet Pressure Sensor
2739	Turbocharger #2 Compressor Inlet Pressure Sensor
2740	Turbocharger #3 Compressor Inlet Pressure Sensor
2741	Turbocharger #4 Compressor Inlet Pressure Sensor
2854	Coolant Temperature Control Module
3031	Intake Manifold #2 Pressure Sensor

[1] The CID is a diagnostic code that indicates which circuit is faulty.

[2] The MID is a diagnostic code that indicates which electronic control module diagnosed the fault.

Event Codes Engine Control	
Event Code	**Condition**
E0072	Oil Level Low Mark
E0096	High Fuel Pressure Troubleshooting, "Fuel Pr
E0098	Engine Pre-lube Override The keyswitch has b
E0099	Engine Oil Filter Restriction Warning Troubl
E0101	High Crankcase Pressure Warning Troubleshoot
E0197	High Engine Oil Temperature Troubleshooting,
E0197	High Engine Oil Temperature
E0197	High Engine Oil Temperature
E0198	Low Fuel Pressure
E0199	Low Coolant Temperature
E0232	High Fuel/Water Separator Water Level
E0233	Low Engine Pre-lube Pressure
E0245	High Right Turbo Turbine Inlet Temperature
E0246	High Left Turbo Turbine Inlet Temperature
E0265	User Defined Shutdown
E0278	High Exhaust Differential Temperature
E0360	Low Engine Oil Pressure
E0361	High Engine Coolant Temperature
E0362	Engine Overspeed
E0390	Fuel Filter Restriction
E0396	High Fuel Rail Pressure
E0398	Low Fuel Rail Pressure
E0539	High Intake Manifold Air Temperature
E0583	High Air Inlet #1 Differential Pressure
E0584	High Air Inlet #2 Differential Pressure
E0585	High Air Inlet #3 Differential Pressure
E0586	High Air Inlet #4 Differential Pressure
E0678	Ground Level Shutdown
E0770	High Fuel Rail Temperature
E1044	High Intake Manifold Pressure
E1106	High Fuel Rail Pump Flow
E2089	Oil Renewal System Cannot Operate
E2112	Low Engine Coolant Pressure
E2143	Low Engine Coolant Level
E2172	Low Fuel Transfer Pump Inlet Pressure

Failure Mode Identifiers (FMI)[1]	
FMI No.	**Failure Description**
0	Data valid but above normal operational range.
1	Data valid but below normal operational range.
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3	Voltage above normal or shorted high.
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5	Current below normal or open circuit.
6	Current above normal or grounded circuit.
7	Mechanical system not responding properly.
8	Abnormal frequency, pulse width, or period.
9	Abnormal update.
10	Abnormal rate of change.
11	Failure mode not identifiable.
12	Bad device or component.
13	Out of calibration.
14	Parameter failures.
15	Parameter failures.
16	Parameter not available.
17	Module not responding.
18	Sensor supply fault.
19	Condition not met.
20	Parameter failures.

[1]The FMI is a diagnostic code that indicates what type of failure has occurred.

SPECIFICATIONS AND RELATED MANUALS
Volume 1 of 3 - CAB

Resistor Specifications			
Part No.	**Component Description**		**Resistance (Ohms)[1]**
125-9740	Resistor	Blower	A TO C 2 ± 0.1 B TO C 1 ± 0.05 C TO D .36 ± 0.018
134-2540	Resistor	CAN A Data Link CAN B Data Link CAN E Data Link VIMS Application	120 ± 12
286-9022	Resistor	LH/RH Turn	300 ± 15

[1] At room temperature unless otherwise noted.

Related Electrical Service Manuals	
Title	**Form Number**
Cross Reference for Electrical Connectors:	REHS0970
Advisor Display Module:	KENR9022
Transmission Control:	KENR8394
Chassis Control:	KENR8396
Brake Control:	KENR8395
VIMS Main Control:	KENR9023
VIMS Application Module:	KENR9023

SPECIFICATIONS AND RELATED MANUALS
Volume 2 of 3 - CHASSIS

Off-Machine Switch Specification				
Part No.	**Function**	**Actuate**	**Deactuate**	**Contact Position**
128-5091	Service Brake Pressure	551 kPa MAX (79.9 Psi MAX)	344 ± 20 kPa (49.9 ± 2.9 Psi)	Normally Closed
156-1382	Transmission Charge Filter Pressure Brake Actuation Filter Pressure	276 ± 28 kPa (40.02 ± 4.06 Psi)	179 kPa MIN (25.96 Psi MIN)	Normally Open
227-6744	Brake Oil Filter Pressure Torque Converter Inlet Filter Bypass Switch	293 ± 35 kPa 42.49 ± 5.08 Psi)	179 kPa MIN (25.96 Psi MIN)	Normally Open

Resistor and Solenoid Specifications			
Part No.	**Component Description**		**Resistance (Ohms)[1]**
3E-8575	Solenoid	Traction Control System	24.9 ± 0.4
149-2610	Solenoid	Steering	32.6 ± 1.6
185-0008	Solenoid	Air Horn	71.9 ± 2
226-9622	Solenoid	Transmission Clutches 1-6 Torque Converter Lockup	8.7 ± 0.4
286-9022	Resistor	Radiator	300 ± 15

[1] At room temperature unless otherwise noted.

Related Electrical Service Manuals	
Title	**Form Number**
Cross Reference for Electrical Connectors:	REHS0970
Starting Motor 1: 276-8900	SENR3860
Starting Motor 2: 276-8901	SENR3860

Resistor Specifications			
Part No.	**Component Description**		**Resistance (Ohms)[1]**
174-3016	Resistor	Engine CAN Data Link CAN A Data Link	120 ± 12

[1] At room temperature unless otherwise noted.

Off-Machine Switch Specification					
Part No.	**Function**		**Actuate**	**Deactuate**	**Contact Position**
114-5333	AC Pressure	Low	275 kPa[1] (40 psi)	170 ± 55 kPa (25 ± 8 psi)	1-3 Normally Open
		High	2800 ± 140 kPa (406 ± 20.3 psi)	1750 ± 200 kPa (254 ± 29 psi)	2-3 Normally Closed
149-6371	AC Low Side Pressure		103.4 ± 13.8 kPa (14.9 ± 2 psi)	34.5 ± 7 kPa (5 ± 1 psi)	Normally Open

[1] With increasing pressure the closed condition can be maintained up to 2800 kPa (405 psi), with decreasing pressure the closed condition can be maintained down to 170 kPa (25 psi).

[2] Contact position at the contacts of the harness connector.

Related Electrical Service Manuals	
Title	**Form Number**
Cross Reference for Electrical Connectors:	REHS0970
Engine Control:	KENR5398

WIRE DESCRIPTION
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Wire Number	Wire Color	Description
Power Circuits		
102	BU	HEADLAMPS
103	YL	CAB POWER
104	YL	INVERTER CABINET 1
105	BR	IGNITION FUSE
106	WH	INVERTER CABINET 2
108	BU	ADVISOR
110	GN	INVERTER CABINET 3
112	PU	MAIN POWER RLY OUTPUT
113	OR	SWITCHED POWER
114	GN	WARNING HORN (FORWARD)
115	PK	FOG LIGHTS FUSE
116	BR	INVERTER CABINET 4
117	YL	LADDER LAMP FUSE
118	GY	CB RADIO FUSE
119	PK	WIPER FUSE
121	YL	BACK ALARM TO LAMP
122	BU	AIR (24VDC SWITCHED) FUSE
123	WH	12V POWER PORT
124	GN	A/C
125	OR	PRELUBE FUSE
126	PK	XMSN CTRL
127	OR	PRODUCT LINK RADIO
131	BR	12V CONVERTER
132	PK	AETA CTRL
136	GN	SUPPL STER
139	OR	BRAKE RETRACT FUSE
140	BU	BLOWER FUSE
141	PK	FRONT CAMERA LIGHTS
147	PU	BUDDY SEAT 1
148	WH	BUDDY SEAT 2
149	PU	SERVICE LAMP FUSE
150	OR	24VDC ENGINE UNSWITCH
151	GN	24VDC ENGINE UNSWITCH
152	BU	THERMOSTAT
154	WH	AEFR HIGH VOLTAGE
156	YL	AEFR LOW VOLTAGE
157	YL	ENTERTAINMENT RADIO
159	BU	AIR CLEANER
160	PU	HEATED MIRROR
161	PK	HEATED MIRROR 2
163	WH	COMM RADIO FUSE
170	YL	VIMS ECM POWER
173	YL	CHASSIS CTRL
174	PK	12V POWER PORT 2
176	OR	BRAKE CTRL
177	OR	MAIN BRKR
179	BU	CIGAR LIGHTER
185	YL	LH POWER WINDOWS
186	WH	RH POWER WINDOWS
Ground Circuits		
200	BK	CHASSIS GROUND
205	BK	INSTR
212	BK	GROUND
251	BK	VIMS GROUND
Basic Machine Circuits		
301	BU	START

Wire Number	Wire Color	Description
Control Circuits Continued		
C473	GN	DIFF LUBE PRESSURE
C484	YL	DIFF LUBE FILTER SW
C506	WH	RELAY - HIGH
C510	WH	A/C RELAY COIL
C539	YL	A/C CONTROL - SWITCH INPUT 1
C540	GY	A/C CONTROL - SWITCH INPUT 2
C542	GN	HEATED MIRROR POWER
C548	PK	A/C POWER TO CONTROL (12V)
C552	WH	CAB TEMPERATURE SENSOR
C568	WH	BLOWER MOTOR (MAX)
C572	YL	SWITCH TO RELAY COIL
C592	WH	DIODE TO BLADE RELAY
C597	BU	RIGHT POWER WINDOW UP
C598	OR	RIGHT POWER WNDOW DOWN
C989	PU	XMSN OIL LEVEL SWITCH
E453	WH	CASE DRAIN FLTR SW - INT
E456	WH	AUTOLUBE PRESS SNSR
E554	PK	A/C COMPRESSOR CLUTCH
E558	YL	AIR OUTLET TEMP SENSOR
E566	PU	BRAKE PUMP PRESS SNSR
E569	WH	SERV BRAKE ACCUM PRESS SNSR
E709	WH	VIMS SERVICE LAMP - BLUE
E716	GY	ENGINE RETARDER LOW
E717	GN	ENGINE RETARDER HIGH
E824	BN	STEERING POSITION SENSOR
E900	WH	XMSN SPEED SNSR 1 +
E901	GN	XMSN SPEED SNSR 1 -
E902	PU	XMSN INTERMEDIATE SPEED +
E903	YL	XMSN INTERMEDIATE SPEED -
E906	OR	XMSN SPEED SNSR 2 +
E907	GY	XMSN SPEED SNSR 2 -
E908	BR	XMSN SPEED SENSOR (-)
E909	WH	XMSN SPEED SENSOR (+)
F418	GN	RS232 PORT 2 TRANSMIT
F419	YL	RS232 PORT 2 RECEIVE
F433	PU	RIGHT FRONT BRAKE TEMP SNSR
F467	PK	VIMS RED RELAY
F468	GN	VIMS GREEN RELAY
F469	BU	VIMS BLUE RELAY
F502	YL	SECND BRAKE ACCUM PRESS SNSR
F503	WH	LH HEATED MIRROR
F504	YL	RH HEATED MIRROR
F790	BR	SERVICE BRAKE PEDAL
F792	WH	FRONT BRAKE ARC SOL
F877	WH	SWITCH TO RELAY 1
F878	BR	SWITCH TO RELAY 2
F879	PK	SWITCH TO RELAY 3
F918	WH	BED RAISE SOL
F919	GY	BED LOWER SOL
G428	BU	XMSN LUBE OIL PRESSURE
G439	YL	STEER OIL LEVEL SW
G460	GN	TRANSMISSION TEMPERATURE
G467	PK	START LOCK LAMP
G736	PK	RAX COOL FAN SOL
G745	PK	BRAKE PEDAL SENSOR
G797	BU	SW TO RELAY COIL

WIRE DESCRIPTION
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Wire Number	Wire Color	Description
307	OR	KEY SW TO NEUTRAL START SW
308	YL	IGNITION ON
320	OR	HORN RELAY COIL TO SW
321	BR	BACKUP ALRM LAMP TRVL ALRM
322	GY	HORN
326	PU	KEY SW 'C' TERM.
332	BU	SHUTDWN SW TO SHUTDWN CTRL
337	WH	PRELUBE PB SW TO PRELUBE TIMER
362	PU	ENGINE SHUTDOWN SIGNAL A
393	BR	DIMMER RELAY COIL
		Monitoring Circuits
403	GN	ALTERNATOR R-TERMINAL
410	WH	OPR MON FAULT ALARM
426	BR	XMSN CHARGE FILTER SW
428	OR	XMSN LUBE OIL TEMP
429	YL	RH REAR BRAKE OIL TEMP
447	PK	FUEL LEVEL SNSR
450	YL	ENGINE SPEED SENSOR (-)
451	BR	ENGINE SPEED SENSOR (+)
481	GN	TORQUE CONV OUTLET TEMP
		Accessory Circuits
500	BR	WIPER - FRONT (PARK)
501	GN	WIPER - FRONT (LOW)
502	OR	WIPER - FRONT (HI)
506	PU	WASHER - FRONT
508	PU	RADIO SPEAKER - L
509	WH	RADIO SPEAKER - L (COMMOM)
511	BR	RADIO SPEAKER - R
512	GN	RADIO SPEAKER - R (COMMON)
515	GY	BLOWER MOTOR (HI)
516	GN	BLOWER MOTOR (MED)
517	BU	BLOWER MTR (LOW)
519	PK	THERMO/REFRIGERANT PRESS SW
520	WH	OPER A/C SW TO THERMOSTAT
522	WH	A/C CLUTCH
537	GN	TURN SIGNAL SW TO FLASHER
567	WH	A/C SW JUMPER
576	PK	WIPER - AUXILIARY (LOW)
577	PU	WIPER - AUXILIARY (HIGH)
578	BU	WASHER - AUXILIARY
590	GY	WIPER SW TO INTER MODULE
591	WH	INT MODULE TO WIPER MOTOR
592	BU	DC/DC CONV POWER OUTPUT
		Lighting Circuits
602	WH	DOME LAMP
604	OR	STOPLAMP
605	YL	LEFT TURN
606	GY	RIGHT TURN
607	PK	LADDER LAMP
610	OR	HEAD LAMP BASIC
611	PU	HI BEAM
612	GY	RUNNING LAMP
614	PU	PARK LAMP
619	GN	LO BEAM
622	PU	LADDER LAMP SW1
623	BU	LADDER LAMP SW2
630	GY	FRONT REVERSE LAMP

Wire Number	Wire Color	Description
G798	PU	SW TO RELAY COIL
G807	BU	THROTTLE POSITION SENSOR
G936	GN	PORT 3 RS232 TRANSMIT
G937	GY	PORT 3 RS232 GROUND
G938	OR	PORT 3 RS232 RECEIVE
H428	GY	BRAKE OIL PRESS - LEFT REAR
H429	BU	BRAKE OIL PRESS - RIGHT REAR
H453	GY	TRANSMISSION LOCK LAMP
H774	OR	BREAKER TO RADIO
H801	PU	XMSN SOLENOID RET
H802	GY	XMSN SOLENOID RET
H803	BU	XMSN SOLENOID RET
H847	GN	CLAMP ARM IN
H861	PU	SOL RET 1 - CHASSIS
H862	GY	SOL RET 2 - CHASSIS
H867	YL	ON/OFF DRIVER RETURN (1-8)
H868	WH	SOL RET 3 - CHASSIS
J725	GN	STARTER LOCK
J764	BR	SWITCH/SENSOR RETURN #1
J765	BU	CHASSIS SW RET - BRAKE
J766	PU	SWITCH/SENSOR RETURN #3
J767	GY	XMSN SW RET
J802	OR	FINAL DRIVE PRESS SW
J803	BR	COOLING FAN SPEED SENSOR (-)
J804	WH	COOLING FAN SPEED SENSOR (+)
J805	YL	BRAKE OIL FLTR SWS
J806	GY	FINAL DRIVE FILTER SW
J807	BK	SOL RET - BRAKE
J808	BK	SOL RET - BRAKE
J810	PU	LEFT BRAKE COOLING FILTER SW
J812	PK	FAN DRIVE FILTER SWITCH
J815	BK	PROP DRIVER RET(11-12) - BRAKE
J816	GN	RADIATOR PUMP DRIVE SOL
J817	WH	BRAKE OIL COOL PUMP SOL
J818	OR	PUMP SHAFT SPEED SNSR(+)
J819	BR	PUMP SHAFT SPEED SNSR (-)
J822	WH	HOIST POSITION SENSOR
J824	GY	HOIST HEAD END CT SOL
J825	PU	HOIST HEAD END PC SOL
J826	PK	HOIST PILOT SYS SOL
J827	GN	HOIST ROD END CT SOL
J828	BU	HOIST ROD END PC SOL
J829	OR	HOIST PUMP BYPASS SOL 1
J830	BR	HOIST PUMP BYPASS SOL 2
J842	BK	8V RETURN - ENGINE
J845	PU	FINAL DRIVE BYPASS SOL
J849	WH	VIMS SENSOR RETURN
J878	YL	SWITCH/SENSOR RETURN #5
J879	GN	SENSOR RET - CHASSIS ECM
J881	YL	XMSN CONTROL STATE
J882	BR	CAB CONTROL STATE
K742	OR	TOP GEAR SWITCH (UP)
K743	GY	TOP GEAR SWITCH (DOWN)
K878	WH	RAX DRIVE PUMP OIL DIV SOL
K889	OR	RS232 PORT2 TRANSMIT
K890	PK	RS232 PORT2 RECEIVE
K900	YL	J1939 DATA LINK +

WIRE DESCRIPTION
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Wire Number	Wire Color	Description
631	GY	FOG LAMP
633	BU	LAMPS - ATTACHMENT
635	BU	PAYLOAD RED LAMP
636	GN	PAYLOAD GREEN LAMP
650	OR	FLOOD LAMPS - REAR #2
651	PK	WAVS LAMP
655	GN	DOME LAMP 3-WAY JUMPER
656	GY	DOME LAMP 3-EAY JUMPER
692	YL	FLASHER BKR TO FLASHER
		Control Circuits
700	PK	AETA TEST SW
705	PK	LOCKUP CLUCTCH SOLENOID
706	BR	SERVICE BRAKE PRESS SW
727	GN	SECONDARY STEERING MAG SW
751	GN	XMSN CLUTCH SOL 1
752	YL	XMSN CLUTCH SOL 2
754	BU	XMSN CLUTCH SOL 3
755	OR	XMSN CLUTCH SOL 4
769	BU	LH WHEEL SPEED
770	GN	RH WHEEL SPEED
773	GY	AETA PROPN SOL
774	YL	AETA 4-WAY SOL
775	BR	AETA 4-WAY SOL
777	PU	BRAKE RELEASE MOTOR
799	WH	10V POWER - BRAKE
801	PK	AUTOLUBE
858	GY	RIGHT FRONT STRUT PRESS
859	YL	LEFT FRONT STRUT PRESS
860	PK	RREAR STRUT PRESS SNSR
861	PU	LREAR STRUT PRESS SNSR
875	BU	PAYLOAD RECEIVE
892	BR	CAT DATA LINK (-)
893	GN	CAT DATA LINK (+)
900	PU	XMSN CLUTCH SOL 5
901	WH	XMSN CLUTCH SOL 6
902	BR	XMSN CLUTCH SOL 7
958	YL	RELAY LOGIC
987	WH	BRAKE OIL DIVERTER SOL
A252	BK	ECM GROUND
A253	BK	VIMS SER MOD #3
A254	BK	AUTOMATIC RETARDER CTRL
A274	BK	POWER NEG
A451	WH	STEER OIL TEMP SNSR
A491	WH	T/C INLET FILTER BYPASS SW
A492	OR	HOIST SCREEN SW 1
A493	YL	T/C SCREEN BYPASS SW
A513	PK	DC/DC CONV MEMORY OUTPUT
A515	BR	HVAC BLOWER MOTOR #2 (HIGH)
A524	BR	TEMP POTENTIOMETER POS 2
A526	PK	ELECTRONIC WATER VALVE ACT
A557	WH	PRECLEANER BLOWER +B
A575	BU	RELAY COIL - MOTOR
A589	OR	POWER WINDOW UP
A590	BU	POWER WINDOW DOWN
A700	OR	8VDC POWER - BRAKE
A789	PK	SERVICE BRAKE INHIBIT
A893	OR	FUEL SW TO FUEL PUMP
A958	WH	PARK BRAKE SOL
C241	BK	INSTRUMENT GND - XMSN
C242	BK	8V RETURN - CHASSIS
C243	BK	8VDC RETURN - BRAKE
C428	GN	RIGHT BRAKE COOL FILTER SWITCH
C429	GY	XMSN LUBE OIL PRESS
C450	YL	STEER ACCUMULATOR PRESS SNSR
C462	PK	STEER PUMP PRESSURE SENSOR
C466	YL	LEFT BRAKE TEMP SENSOR
C467	BU	LH REAR BRAKE OIL TEMP

Wire Number	Wire Color	Description
K953	GY	CONTROL TO MAIN BACKUP SW
K985	BR	AUTO RETARD ON SW
K986	PK	AUTO RETARD OFF SW
K988	WH	ARC CONT VALVE
K990	GN	J1939 DATA LINK -
K992	PU	AUTO/MANUAL RETARD SW
M914	WH	AIR SYSTEM PRESSURE SENSOR
M996	PK	HOIST LEVER POSITION
M997	PU	SHIFT LEVER POSITION
N816	PK	10 BASE TRANSMIT+
N818	OR	10 BASE TRANSMITN825
N957	PK	RECEIVE - PORT #1
N960	OR	TRANSMIT - PORT #1
N970	YL	DATA READY - PORT #1
N973	BR	CARRIER DETECT - PORT 1
N976	PU	REQUEST SEND - PORT 1
OR 8	V S	UPPLY - ENGINE
P910	BR	SUPP STEER TEST SW INPUT
P989	GN	START RELAY CTRL OUT
P997	BR	SOL RET - BRAKE ECM
P998	GN	GATEWAY 10BASE-T RECEIVE (-)
R735	YL	BRAKE PILOT UNLOADER SOL
R816	PK	AUTOLUBE CAB CONTROL
R920	BR	GATEWAY RS485 TRANSMIT - A
R921	YL	GATEWAY RS485 TRANSMIT - B
R939	WH	GATEWAY - RS485 RECEIVE - A
R940	BU	GATEWAY - RS485 RECEIVE - B
R969	GY	GATEWAY - RS485 SHIELD
R982	YL	DASH LAMP DRIVER (-)
R988	PK	TRANSMISSION LOCK
R990	WH	GATEWAY 10BASE-T TRANSMIT (+)
R991	OR	GATEWAY 10BASE-T TRANSMIT (-)
R992	YL	GATEWAY 10BASE-T RECEIVE (+)
T749	YL	SEC STEERING PRESSURE SWITCH
T788	GN	FUEL PRIMING PUMP
T800	OR	8V SUPPLY - CHASSIS
T964	OR	PL RS-232 TRANSMIT
T965	GN	PL RS-232 RECEIVE
T966	BK	PL RS-232 GROUND
T971	OR	ENGINE DIGITAL RET
U738	PU	SEC STEERING REQUEST SIGNAL
U771	PK	BRAKE ACCUM BLEED SOL
U772	YL	STEERING BLEED SOLENOID
U773	PK	WAVS CONTROL 1
U774	PK	WAVS CONTROL 2
U775	BK	WAVS CONTROL 3
X743	GY	POWERTRAIN OIL LEVEL
X755	WH	STEER PUMP SOL
X800	OR	8VDC SUPPLY - XMSN
Y792	PK	ENGINE CAN DATALINK +
Y793	YL	ENGINE CAN DATALINK -
Y797	YL	J1939 DATA LINK 2 (+)
Y798	GN	J1939 DATA LINK 2 (-)
Y956	OR	PRIMARY CAN DATA LINK +
Y956	OR	PRIMARY CAN DATA LINK +
Y956	OR	PRIMARY CAN DATA LINK +
Y956	OR	PRIMARY CAN DATA LINK +
Y957	GN	PRIMARY CAN DATA LINK -
Y957	GN	PRIMARY CAN DATA LINK -
Y957	GN	PRIMARY CAN DATA LINK -
Y957	GN	PRIMARY CAN DATA LINK -
Y958	YL	CAN 1 SHIELD
Y958	YL	CAN 1 SHIELD
Y958	YL	CAN 1 SHIELD
Y958	YL	CAN 1 SHIELD
Y987	BR	THROTTLE BACKUP SWITCH
Y995	GY	PRELUBE RELAY

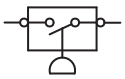
WIRE DESCRIPTION
Volume 3 of 3 - ENGINE

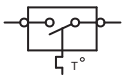
Wire Number	Wire Color	Description
		Power Circuits
109	RD	ALT OUTPUT (+) TERM.
124	GN	HVAC CONTROL POWER
140	BU	AUX CKT
150	RD	ECM BATTERY (+) UNSWITCHED
151	GN	HPCR SUCTION THROTTLE VALVE+
		Ground Circuits
200	BK	MAIN CHASSIS
229	BK	BAT (-)
		Basic Machine Circuits
308	YL	ECM KEYSWITCH INPUT
337	WH	PRELUBE RELAY TO PRELUBE MAG SW
362	PU	ECM E-STOP 1
		Monitoring Circuits
403	GN	ALTERNATOR (R+) TERM.
		Accessory Circuits
519	PK	HVAC CONTROL RETURN
522	WH	A/C CLUTCH
597	PU	A/C HI PRESS COUTOUT SW TO LOW PRESS SW
		Lighting Circuits
674	BU	ENGINE OIL FAST FILL SW
		Control Circuits
892	BR	CAT DATA LINK (-)
893	GN	CAT DATA LINK (+)
994	GY	OIL PRESSURE (FILTERED)
A893	OR	EFPP RELAY TO EFPP
C453	YL	AMBIENT TEMP
C468	BU	ENGINE OIL FAST FILL SW
C822	YL	INTAKE MANIFOLD #2 PRESS
C989	PU	ENGINE OIL LEVEL LOW
E402	YL	ENG COOLANT BLOCK INLET PRESS
E418	BU	CRANKCASE PRESSURE
E452	WH	ENG COOLANT LEVEL DISCRETE
E554	PK	A/C CLUTCH TO GROUND
E726	PK	FUEL PRIMING PUMP SW
E747	BK	ATMOSPHERIC PRESS
E908	BR	ECPC TRANS INPUT SPD +
E909	WH	ECPC TRANS INPUT SPD -
E963	BK	ENGINE SPEED/TIMING
E964	WH	ENGINE SPEED/TIMING A+
E965	BU	ENGINE SPEED/TIMING
E966	YL	ENGINE SPEED/TIMING B+
F706	PU	OIL RENEWAL SISTEM RELAY
F715	PU	REMOTE SHUTDOWN (NO)
F716	WH	REMOTE SHUTDOWN (NC)
F725	WH	FUEL PRESS
F762	GY	ECM TO START AID SOLENOID
G807	BU	ECM THROTTLE ACTUATOR
G846	YL	ADEM III ENGINE OIL TEMPERATURE
H451	GN	WATER IN FUEL SENSOR
H456	PU	INTAKE MANIFOLD AIR TEMP
J842	BK	ECM DIGITAL RETURN +8V
J843	BK	ANALOG SENSOR RETURN +5V
N747	YL	OIL FILTER PRESSURE
N748	GY	RIGHT EXHAUST TEMPERATURE
N749	GY	LEFT EXHAUST TEMPERATURE
R740	YL	INTAKE MANIFOLD #2 AIR TEMP

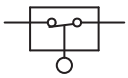
Wire Number	Wire Color	Description
R744	PK	ENGINE COOLANT PUMP OUTLET TEMP
R753	BR	ENGINE COOLANT BLOCK OUTLET TEMP
R772	BR	COMPRESSOR INLET AIR PRESSURE # 3
R773	GN	COMPRESSOR INLET AIR PRESSURE # 4
R778	PK	INTAKE MANIFOLD PRESS
R779	YL	COMPRESSOR INLET AIR PRESSURE # 1
R780	BU	COMPRESSOR INLET AIR PRESSURE # 2
R800	OR	ECM +8V DIGITAL SENSOR POWER
R997	OR	+5V ANALOG SENSOR SUPPLY
T788	GN	ECM TO EFPP RELAY
T816	GY	FUEL_TRANSFER_TEMP
T917	RD	INJECTOR BANK 4 HIGH SIDE 1
T922	RD	INJECTOR BANK 4 HIGH SIDE 2
T924	BK	INJECTOR BANK 4 LOW SIDE 1 # 1
T925	BK	INJECTOR BANK 4 LOW SIDE 1 # 2
T927	BK	INJECTOR BANK 4 LOW SIDE 2 # 1
T928	BK	INJECTOR BANK 4 LOW SIDE 2 # 2
T971	OR	ECM DIGITAL OUTPUT RETURN
X870	RD	INJECTOR BANK 1 HIGH SIDE 1
X871	RD	INJECTOR BANK 1 HIGH SIDE 2
X873	BK	INJECTOR BANK 1 LOW SIDE 1 # 1
X874	BK	INJECTOR BANK 1 LOW SIDE 1 # 2
X876	BK	INJECTOR BANK 1 LOW SIDE 2 # 1
X877	BK	INJECTOR BANK 1 LOW SIDE 2 # 2
X879	RD	INJECTOR BANK 2 HIGH SIDE 1
X880	RD	INJECTOR BANK 2 HIGH SIDE 2
X882	BK	INJECTOR BANK 2 LOW SIDE 1 # 1
X883	BK	INJECTOR BANK 2 LOW SIDE 1 # 2
X885	BK	INJECTOR BANK 2 LOW SIDE 2 # 1
X886	BK	INJECTOR BANK 2 LOW SIDE 2 # 2
X888	RD	INJECTOR BANK 3 HIGH SIDE 1
X889	RD	INJECTOR BANK 3 HIGH SIDE 2
X891	BK	INJECTOR BANK 3 LOW SIDE 1 # 1
X892	BK	INJECTOR BANK 3 LOW SIDE 1 # 2
X894	BK	INJECTOR BANK 3 LOW SIDE 2 # 1
X895	BK	INJECTOR BANK 3 LOW SIDE 2 # 2
Y946	BU	FUEL RAIL PRESSURE SIGNAL

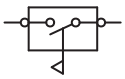
HARNESS and WIRE
Electrical Schematic Symbols

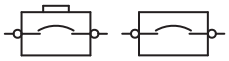
Symbols


Pressure Symbol


Temperature Symbol

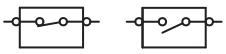

Level Symbol

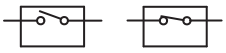

Flow Symbol

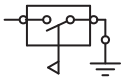

Circuit Breaker Symbol

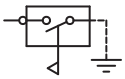
Symbols and Definitions

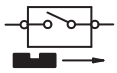

Fuse: A component in an electrical circuit that will open the circuit if too much current flows through it.

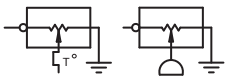

Switch (Normally Open): A switch that will close at a specified point (temp, press, etc.). The circle indicates that the component has screw terminals and a wire can be disconnected from it.

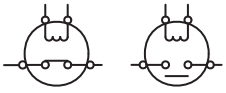

Switch (Normally Closed): A switch that will open at a specified point (temp, press, etc.). No circle indicates that the wire cannot be disconnected from the component.

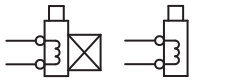

Ground (Wired): This indicates that the component is connected to a grounded wire. The grounded wire is fastened to the machine.

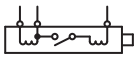

Ground (Case): This indicates that the component does not have a wire connected to ground. It is grounded by being fastened to the machine.


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.

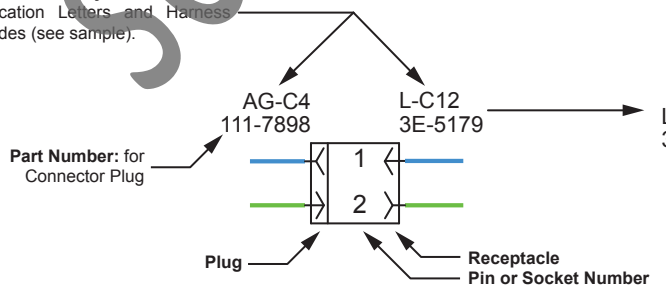

Relay (Magnetic Switch): A relay is an electrical component that is activated by electricity. It has a coil that makes an electromagnet when current flows through it. The electromagnet can open or close the switch part of the relay.

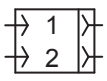

Solenoid: A solenoid is an electrical component that is activated by electricity. It has a coil that makes an electromagnet when current flows through it. The electromagnet can open or close a valve or move a piece of metal that can do work.


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.

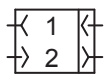
Harness and Wire Symbols

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

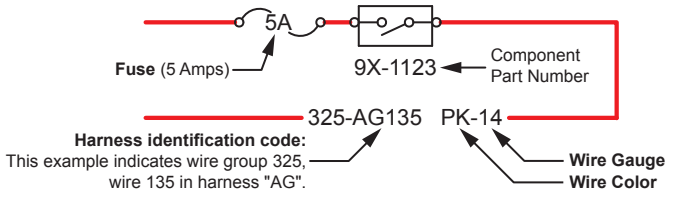




Deutsch connector: Typical representation of a Deutsch connector. The plug contains all sockets and the receptacle contains all pins.



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



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

SYMBOL	DESCRIPTION
+	CIRCUIT CONNECTED
+	CIRCUIT NOT CONNECTED
⏚	ELECTRICAL CONNECTION TO CHASSIS GROUND
⏚	INTERNAL ELECTRICAL CONNECTION TO CHASSIS OF COMPONENT
⟨0⟩	CONNECTOR
⟨0⟩	CIRCUIT GROUPING DESIGNATION
⟨0⟩	KICH WIRE, CABLE, COMPONENT
⟨0⟩	SPLICE
⟨0⟩	BLADE, SPADE, RING OR SCREW TERMINAL

WIRE GROUP COLOR DESCRIPTIONS

- GROUND CIRCUIT
- BATTERY VOLTAGE, SYSTEM VOLTAGE WHEN THE KEY SWITCH IS OFF
- SWITCHED VOLTAGE, SYSTEM VOLTAGE WHEN THE KEY SWITCH IS ON
- VOLTAGE CONVERTER OUTPUT CIRCUIT
- STARTING CIRCUIT
- STARTING AID CIRCUIT
- TRANSMISSION CONTROL CIRCUIT
- VIMS MAIN CIRCUIT
- VIMS SECONDARY CIRCUIT
- CHASSIS CIRCUIT
- BRAKING CONTROL CIRCUIT
- ENGINE CONTROL CIRCUIT
- HEATER AND AIR CONDITIONER CIRCUIT
- TURN SIGNAL / WIPER WASHER CIRCUIT
- CAN DATA LINK
- CAN DATA LINK 0
- DEVICENET CAN A
- DEVICENET CAN B

OTHER COLOR DESCRIPTIONS

- HIGHWAYS

RELAY PANEL

FUSE BLOCK 1

FUSE BLOCK 2

FUSE BLOCK 3

FUSE BLOCK 4

FUSE BLOCK 5

FUSE BLOCK 6

HEADLINER

CENTER CONSOLE

REAR VIEW CAMERA

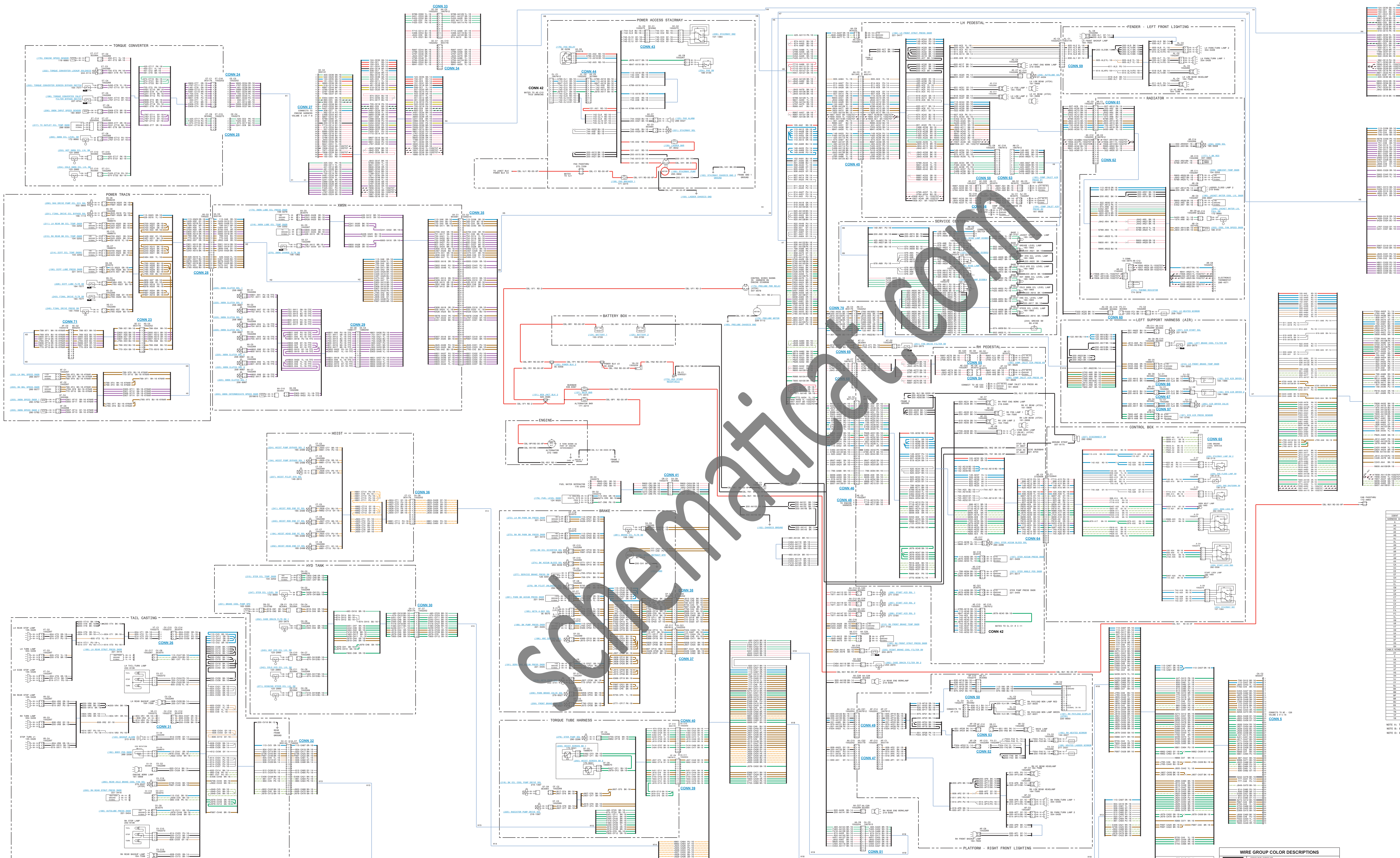
DASH

CAB REAR

BLOWER

DEVICE	PART NUMBER	CHANGE	LOC	DESCRIPTION
HARNESS NO.				
CB	312-3943	00	C-12	BLOWER
FA	288-3782	00	B-12	THERMOSTAT
HC	527-4696	01	D-12 TO H-12	MOTOR CAB
HD	555-3974	01	B-8	FRONT
WL	538-3379	01	F-8	HEADLINER
WR	527-9648	01	D-3	DASH
X	538-3378	02	C-9 TO J-9	BRACKET-FUSE PANEL
XA	554-1656	01	C-12 TO H-12	ACCESS DOOR
CABLE NO.				
AA	309-2944	01	D-3	
AB	554-1901	01	D-3	
AE	554-1902	01	D-3	

THIS SCHEMATIC IS FOR THE 797F OFF-HIGHWAY TRUCK ELECTRICAL SYSTEM
VOLUME 1 of 3: CAB
MEDIA NUMBER: KENR8383-05
SCHEMATIC PART NUMBER: 289-6290, CHANGE: 02, 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.
Refer to the Parts Manual using a specific serial number prefix in SIS before ordering parts from this schematic.



IDENT	PART NUMBER	CHANGE	SHEET	LOC	DESCRIPTION	NOTE
HARNESS AS.						
A	339-1120	01	1	F-5	CONTROL BOX	STD
AA	277-5278	05	1	G-1	HORSE COLLAR	STD
AC	277-5279	04	1	K-7	LH PEDASTAL	STD
AE	277-5280	03	1	H-8	RH PEDASTAL	STD
AG	277-7045	04	1	J-6	AIR INLET PRESSURE	STD
AJ	305-9237	02	1	J-6	AIR INLET PRESSURE	STD
AL	278-5566	03	1	L-5	LH FENDER	STD
AN	278-5567	04	1	H-4	AIR SYSTEM	ATCH
AP	277-8276	03	1	B-7	RH PLATFORM	STD
AR	278-5585	06	1	K-5	RADIATOR	STD
AT	338-2870	00	1	H-8	FAN DRIVE FILTER SWITCH	STD
AW	281-0046	03	1	J-6	SERVICE CENTER	ATCH
AX	340-8701	00	1	L-10	PAS COMPONENTS(INTERNAL)	ATCH
CA	349-7012	00	1	C-3	REAR CHASSIS	STD
CC	349-0749	00	1	C-3	PAS UPPER STAIRWAY	ATCH
CE	279-0488	03	1	K15	ENGINE INTERCONNECT	STD
CF	279-0478	03	1	B-10	TORQUE TUBE/RH CHASSIS	STD
CH	277-9649	02	1	D-14	HYDRAULIC TANK	STD
CJ	166-4341	01	1	G-4	SYS AIR DRYER	ATCH
CL	320-6223	00	1	K-11	PAS EXTERNAL	ATCH
CM	290-7291	00	1	D-15	BRAKE PUMP COOL SPD SNSR	ATCH
CP	349-7914	00	1	D-10	BRAKE PLATE	STD
CR	322-6562	01	1	F-10	FUEL TANK	STD
CT	293-3665	01	1	F-14	HOIST VALVE	STD
CV	349-7011	00	1	B-15	TAIL CASTING	STD
CX	278-7735	03	1	J-1	XMSN/RR CHASSIS	STD
ET	281-0081	04	1	K-17	TORQUE CONVERTER	STD
FA	279-5007	02	1	D-6	RH HEATED MIRROR	ATCH
FC	277-7050	03	1	I-4	LH HEATED MIRROR	ATCH
VL	277-7067	01	1	C-6	PAYLOAD LAMP	ATCH
VM	277-7066	01	1	C-6	PAYLOAD MONITOR	ATCH
VR	341-0132	00	1	C-17	RH BODY LAMP	ATCH
VT	341-0131	00	1	D-17	LH BODY LAMP	ATCH
VW	291-5636	02	1	B-6	WAVS LAMP	ATCH
XA	277-5291	02	1	I-13	XMSN INPUTS	STD
XE	277-3326	01	1	H-17	DIFF SPD INTERCONNECT	STD
XF	277-3324	03	1	H-18	TOS SENSORS	STD
XG	277-3325	04	1	I-16	POWERTRAIN	STD
XH	282-9106	01	1	H-15	XMSN OUTPUTS	STD
CABLE/WIRE AS.						
AY	294-7749	00	1	K-10	PAS MOTOR SOLENOID TO PAS MOTOR NEG	ATCH
C	342-5812	00	1	J-11	PAS BULKHEAD TO PAS MOTOR BRKR	ATCH
VA	341-5895	00	1	K-9	PAS ENCLOSURE TO GROUND	ATCH
VC	340-7167	00	1	H-9	PRLUB RELAY TO PRELUB MOTOR	ATCH
VE	340-7166	00	1	H-9	PRLUB MOTOR TO GROUND	ATCH
VF	340-7168	00	1	H-10	BRKR JCT BLK TO PRLUB RELAY	ATCH
VG	340-8702	00	1	J-10	PAS MOTOR TO GROUND	ATCH
VH	N/A	N/A	1	J-10	PAS MOTOR SOLENOID TO PAS MOTOR POS	ATCH
VJ	344-0478	00	1	I-12	CHRG JCT BLK TO PAS BULKHEAD	ATCH
VY	340-8703	00	1	J-10	PAS MOTOR BRKR TO PAS MOTOR SOLENOID	ATCH
WJ	339-7806	00	1	F-6	DISC SW TO GROUND	STD
WK	339-3222	00	1	H-10	NEG BTRY TO CONT BOX BUS BAR	ATCH
WM	291-8360	01	1	H-11	NEG BTRY 1 TO POS BTRY 2	ATCH
WP	345-9848	00	1	F-11	ALT TO ALT BRKR	STD
WR	341-9461	00	1	H-11	POS BTRY TO BTRY JCT BLK	ATCH
WU	342-6504	00	1	G-10	MAIN BRKR TO CAB INTFC	STD
WX	330-0139	01	1	F-12	ALT TO ENGINE GROUND	STD
XL	320-6624	00	1	H-10	ENGINE TO GROUND	STD
YN	339-3221	00	1	H-12	CHARGE RECEPTACLE TO CONT BOX BUS BAR	STD
YP	339-3220	00	1	G-11	POS BTRY JCT BLK TO CHRG JCT BLK	ATCH
YR	339-3225	00	1	G-11	BTRY JCT BLK TO BRKR JCT BLK	ATCH

NOTE A: TO ENGINE SCHEMATIC 2734032
NOTE B: ENGINE ELECTRIC-START OPTION
NOTE D: ENGINE AIR-START OPTION

SYMBOL	DESCRIPTION
(filled dot on crossing)	CIRCUIT CONNECTED
(crossing)	CIRCUIT NOT CONNECTED
(ground)	ELECTRICAL CONNECTION TO MACHINE STRUCTURE
(dotted ground)	INTERNAL ELECTRICAL CONNECTION TO SURFACE OF COMPONENT
→)—	CONNECTOR
H#	CIRCUIT GROUPING DESIGNATION
– – –	ATCH WIRE, CABLE, COMPONENT
○–○	SPLICE
○	BLADE, SPADE, RING OR SCREW TERMINAL

COLOR ABBREVIATIONS

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

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
- STARTING CIRCUIT
- STARTING AID CIRCUIT
- TRANSMISSION CONTROL CIRCUIT
- MONITOR CIRCUIT
- CHASSIS CIRCUIT
- BRAKING CONTROL CIRCUIT
- ENGINE CONTROL CIRCUIT
- HEATER AND AIR CONDITIONER CIRCUIT
- HOIST CONTROL CIRCUIT
- VIMS APPLICATION CIRCUIT
- CAT DATA LINK
- CAN DATA LINK

OTHER COLOR DESCRIPTIONS

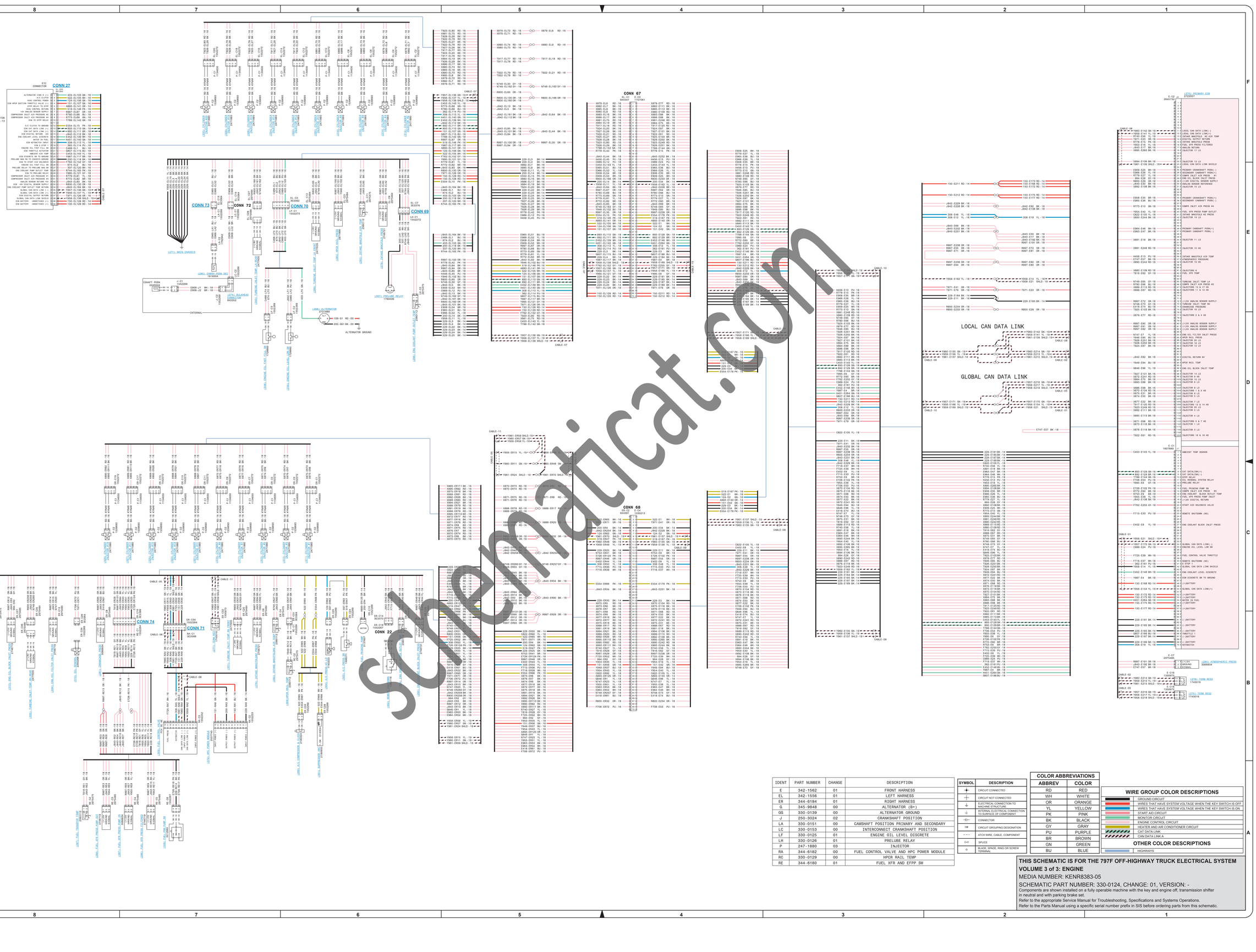
- HIGHWAYS

THIS SCHEMATIC IS FOR THE 797F OFF-HIGHWAY TRUCK ELECTRICAL SYSTEM
VOLUME 2 of 3: CHASSIS

MEDIA NUMBER: KENR8383-05

SCHEMATIC PART NUMBER: 298-7215, CHANGE: 02, 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.
Refer to the Parts Manual using a specific serial number prefix in SIS before ordering parts from this schematic.



IDENT	PART NUMBER	CHANGE	DESCRIPTION
E	342-1562	01	FRONT HARNESS
EL	342-1556	01	LEFT HARNESS
ER	344-6184	01	RIGHT HARNESS
G	345-9848	00	ALTERNATOR (B+)
GG	330-0139	00	ALTERNATOR GROUND
J	250-3024	02	CRANKSHAFT POSITION
LA	330-0151	00	CAMSHAFT POSITION PRIMARY AND SECONDARY
LC	330-0153	00	INTERCONNECT CRANKSHAFT POSITION
LF	330-0125	01	ENGINE OIL LEVEL DISCRETE
LH	330-0126	01	PRELUBE RELAY
P	247-1880	03	INJECTOR
RA	344-6182	00	FUEL CONTROL VALVE AND HPC POWER MODULE
RC	330-0129	00	HPCR RAIL TEMP
RE	344-6180	01	FUEL XFR AND EFPP SW

SYMBOL	DESCRIPTION
⏚	CIRCUIT CONNECTED
⏚	CIRCUIT NOT CONNECTED
⏚	ELECTRICAL CONNECTION TO MACHINE STRUCTURE
⏚	INTERNAL ELECTRICAL CONNECTION TO SURFACE OF COMPONENT
⊸⊷	CONNECTOR
1#	CIRCUIT GROUPING DESIGNATION
- - -	ATOH WIRE, CABLE, COMPONENT
○-○	SPLICE
○	BLADE, SPADE, RING OR SCREW TERMINAL

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

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
- START AID CIRCUIT
- MONITOR CIRCUIT
- ENGINE CONTROL CIRCUIT
- HEATER AND AIR CONDITIONER CIRCUIT
- CAT DATA LINK
- CAN DATA LINK A

OTHER COLOR DESCRIPTIONS

- HIGHWAYS

THIS SCHEMATIC IS FOR THE 797F OFF-HIGHWAY TRUCK ELECTRICAL SYSTEM VOLUME 3 of 3: ENGINE

MEDIA NUMBER: KENR8383-05

SCHEMATIC PART NUMBER: 330-0124, CHANGE: 01, VERSION: -

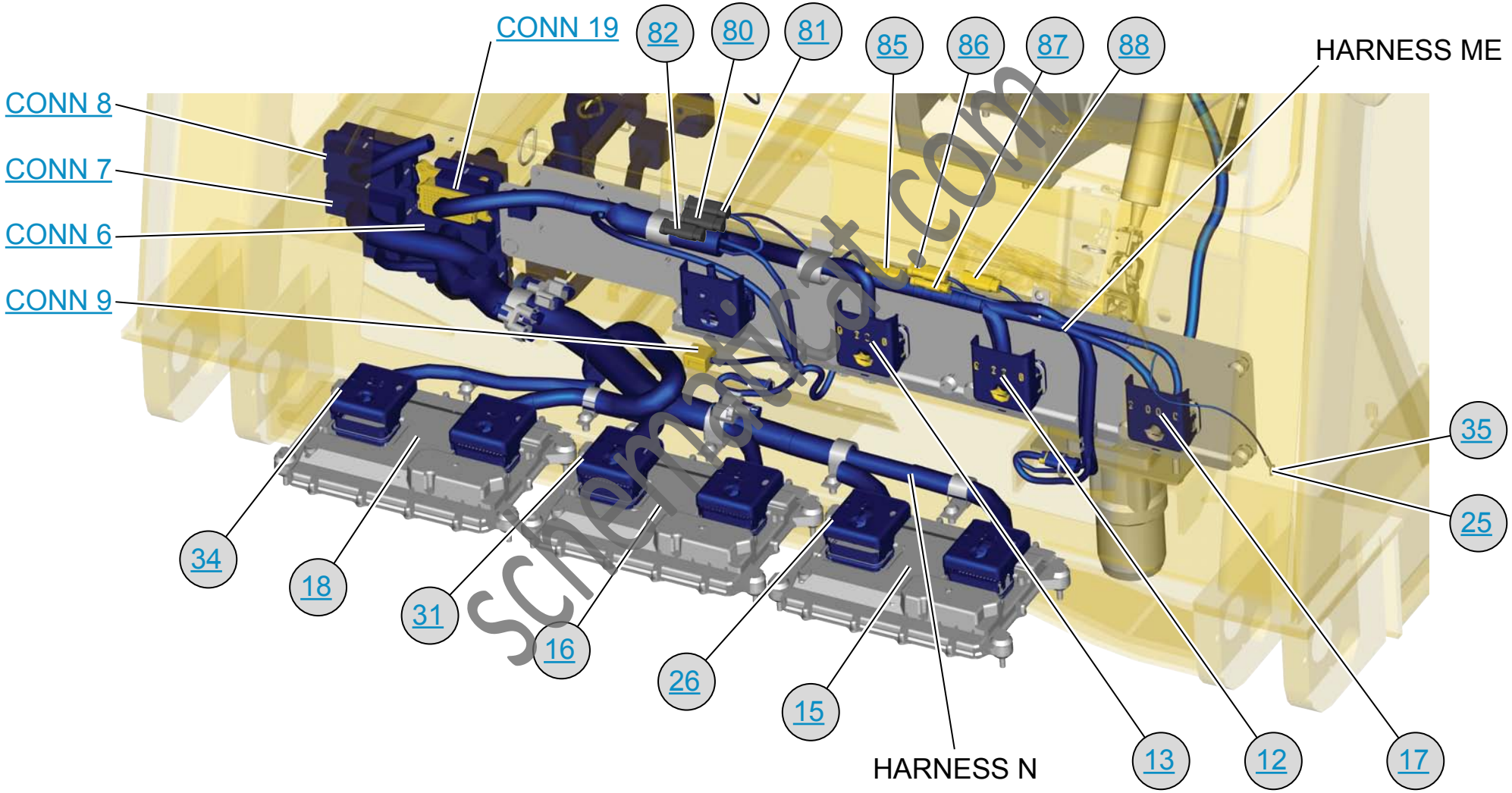
Components are shown installed on a fully operable machine with the key and engine off, transmission shifter in neutral and with parking brake set.

Refer to the appropriate Service Manual for Troubleshooting, Specifications and Systems Operations.

Refer to the Parts Manual using a specific serial number prefix in SIS before ordering parts from this schematic.

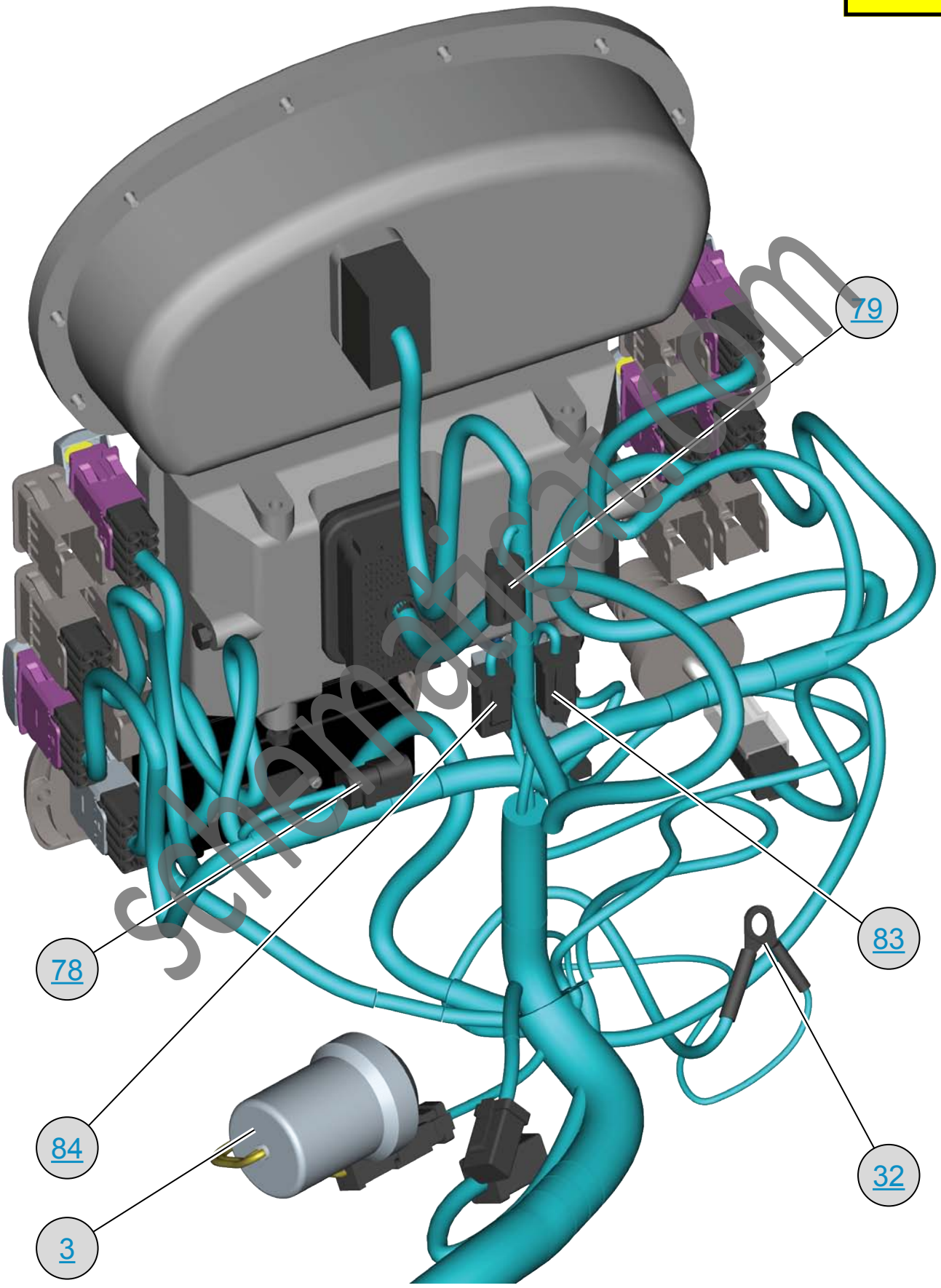
CAB ACCESS DOOR

VIEW ALL CALLOUTS



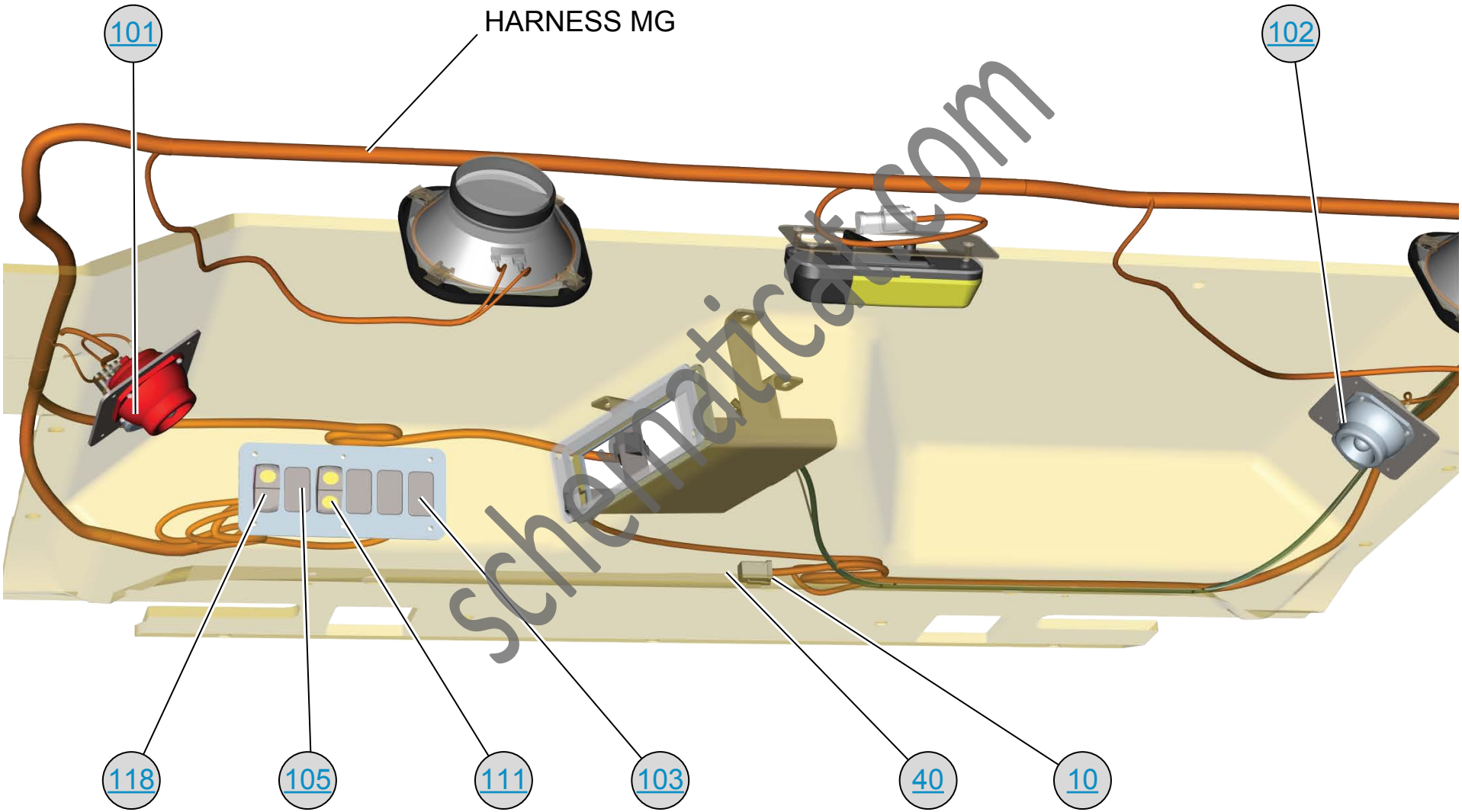
DASH INTERIOR

VIEW ALL CALLOUTS

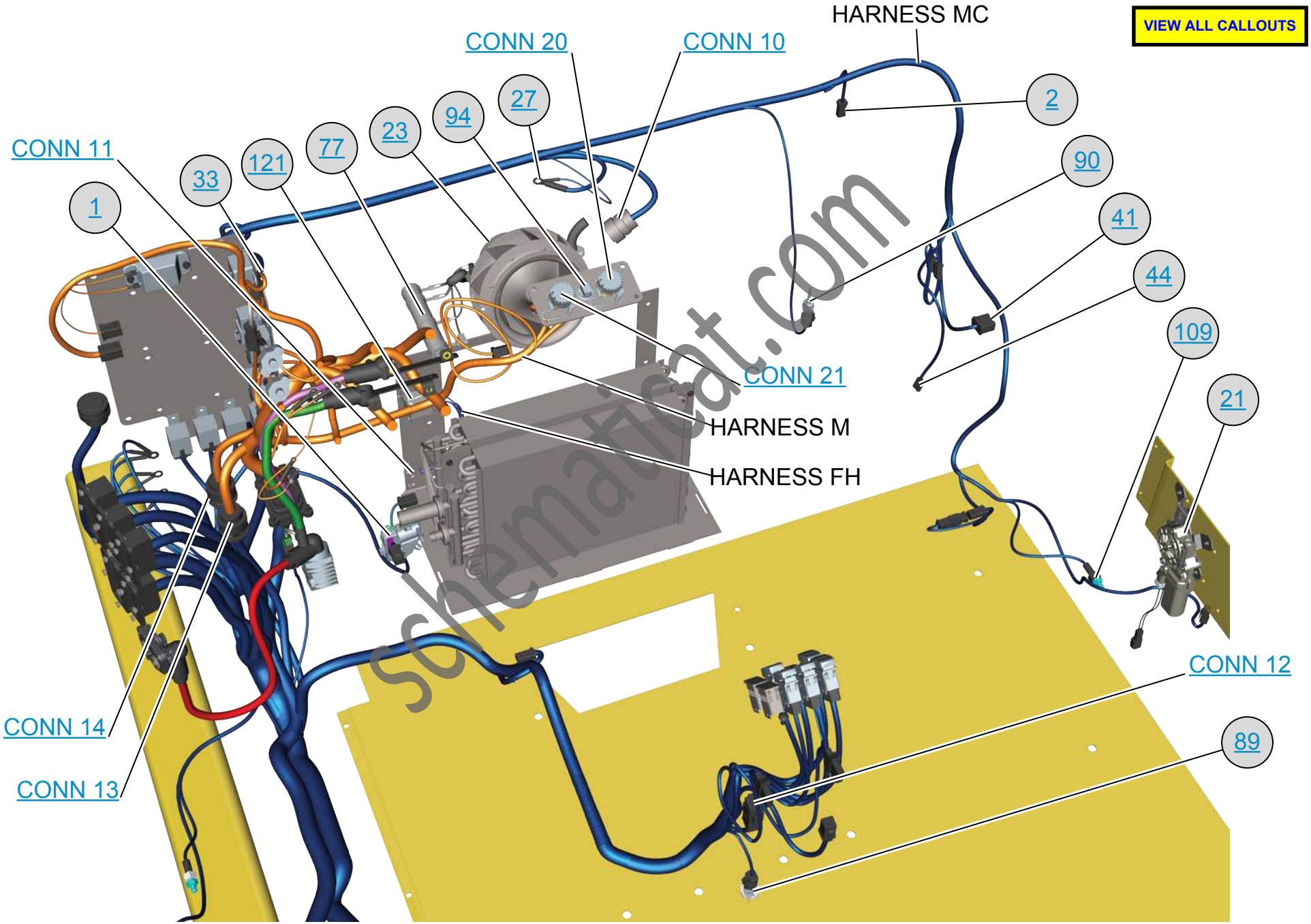


HEADLINER

VIEW ALL CALLOUTS

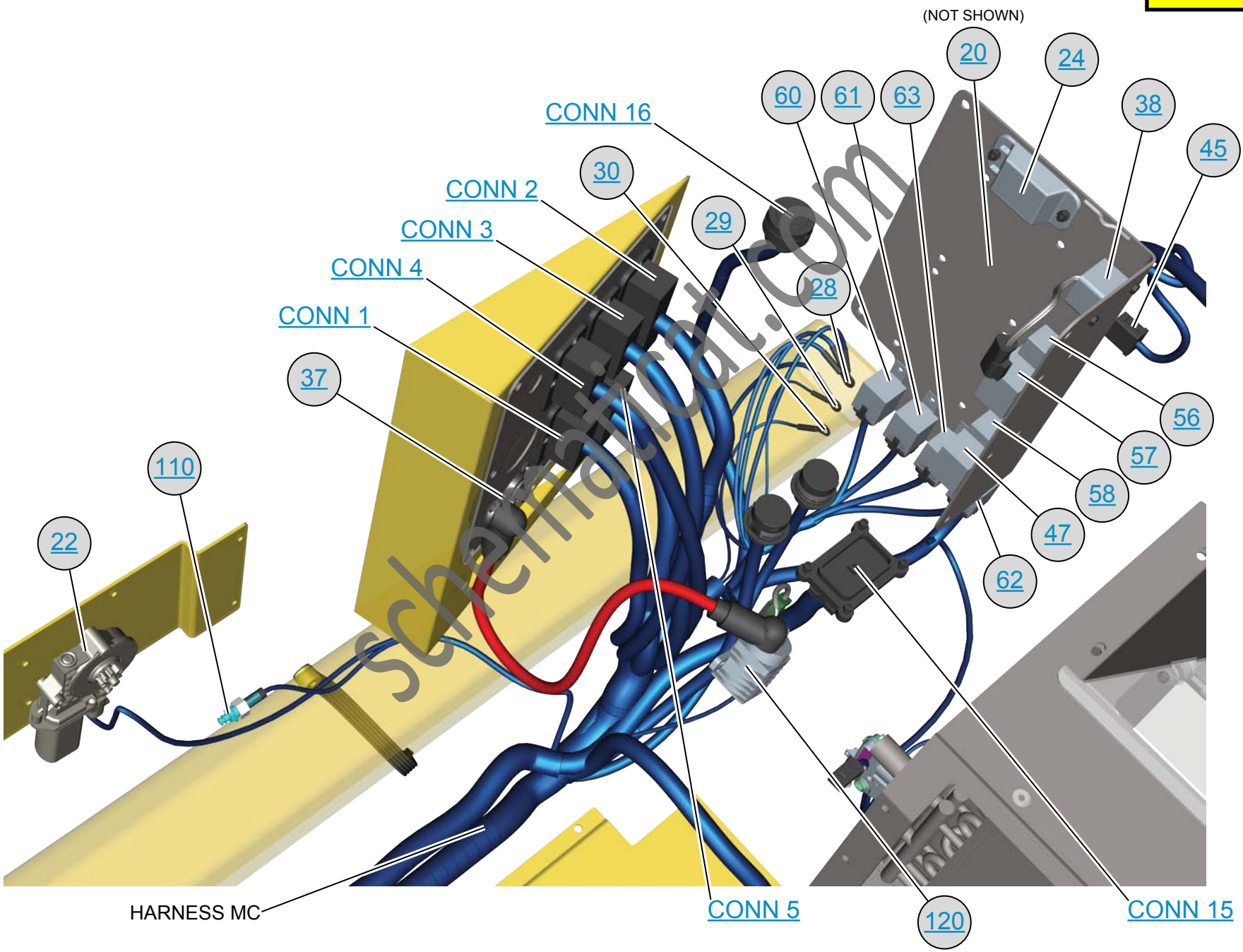


REAR CAB (FUSE PANEL REMOVED)



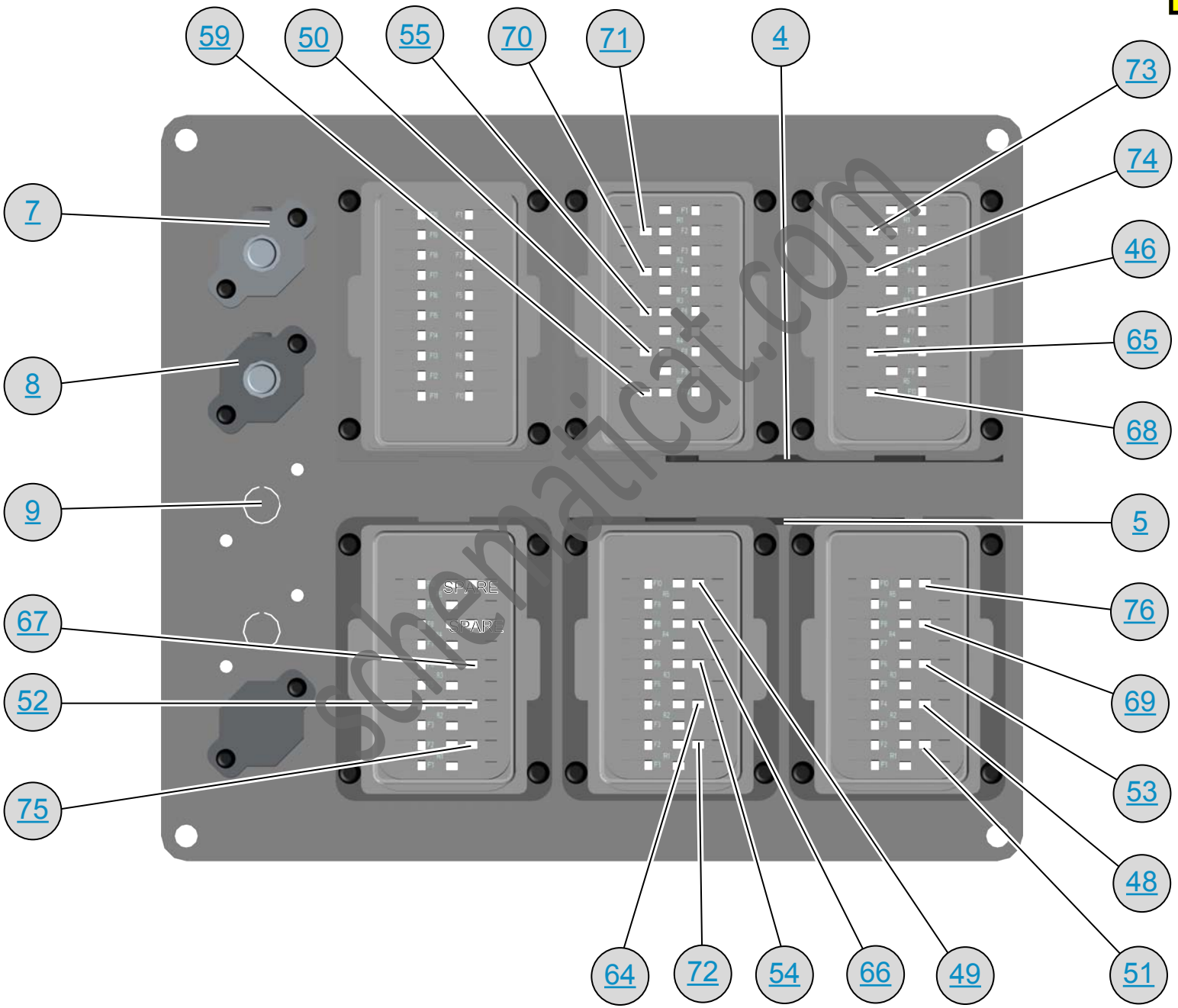
REAR RIGHT CAB

VIEW ALL CALLOUTS



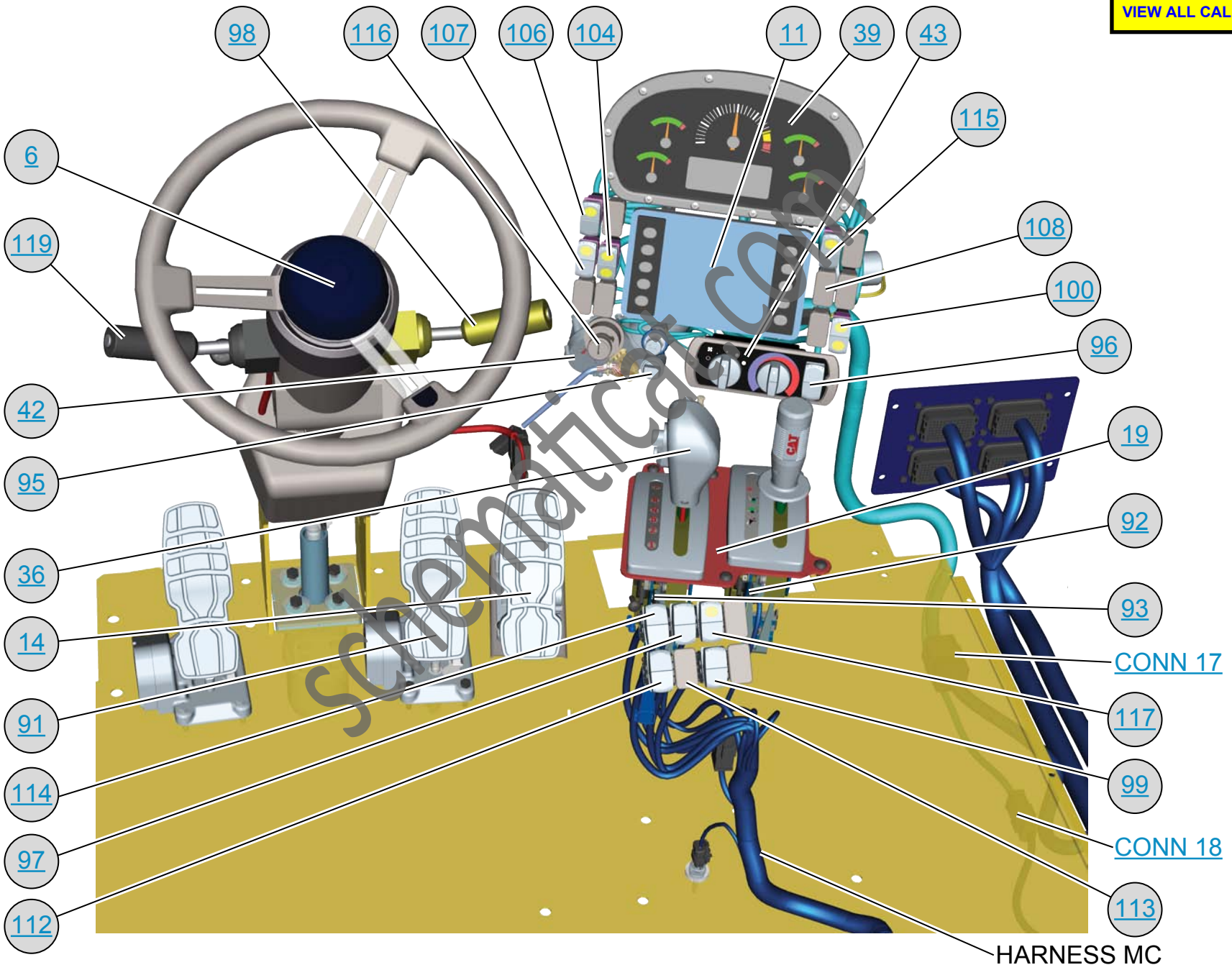
RELAY PANEL

VIEW ALL CALLOUTS



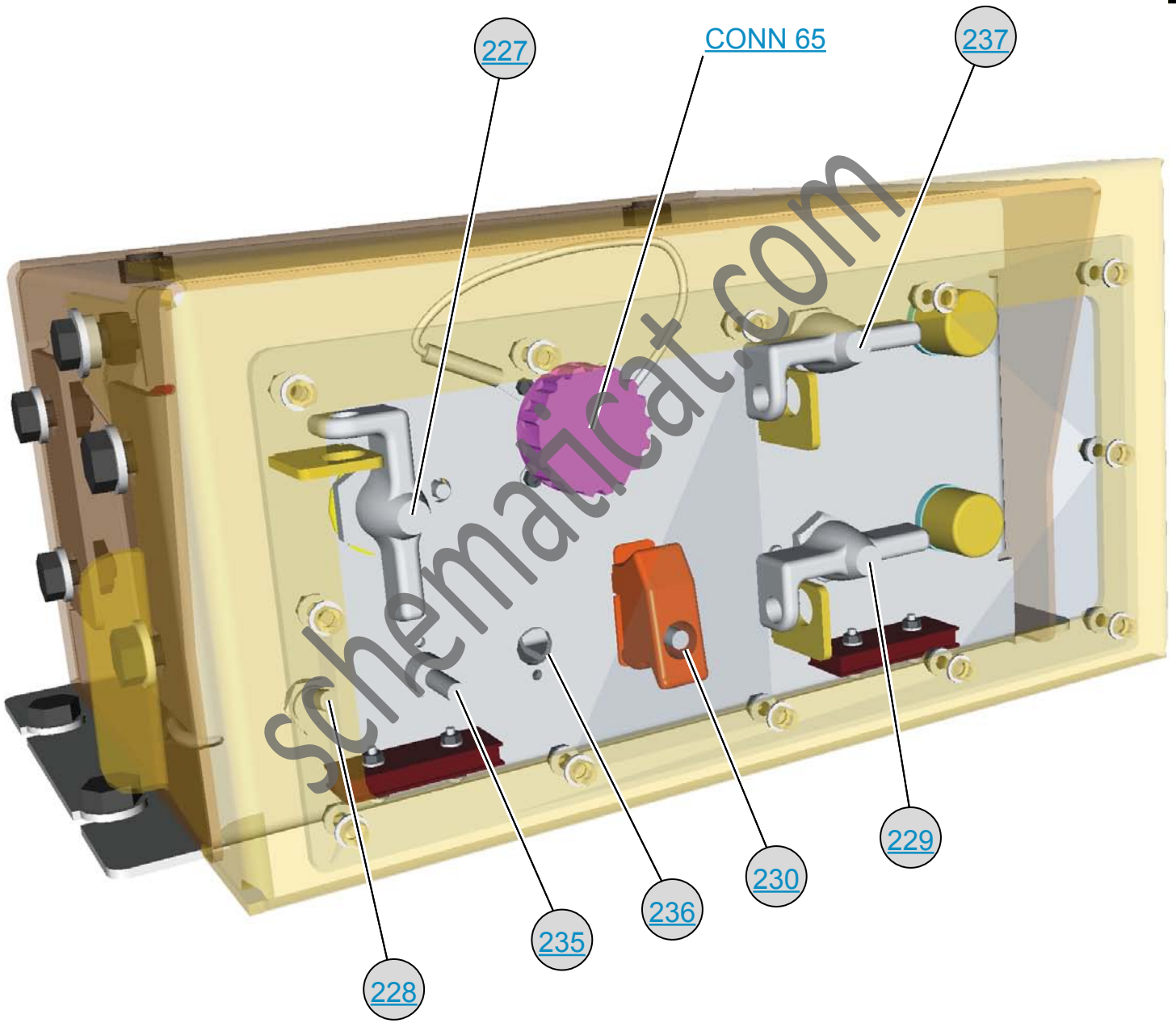
OPERATOR STATION

VIEW ALL CALLOUTS



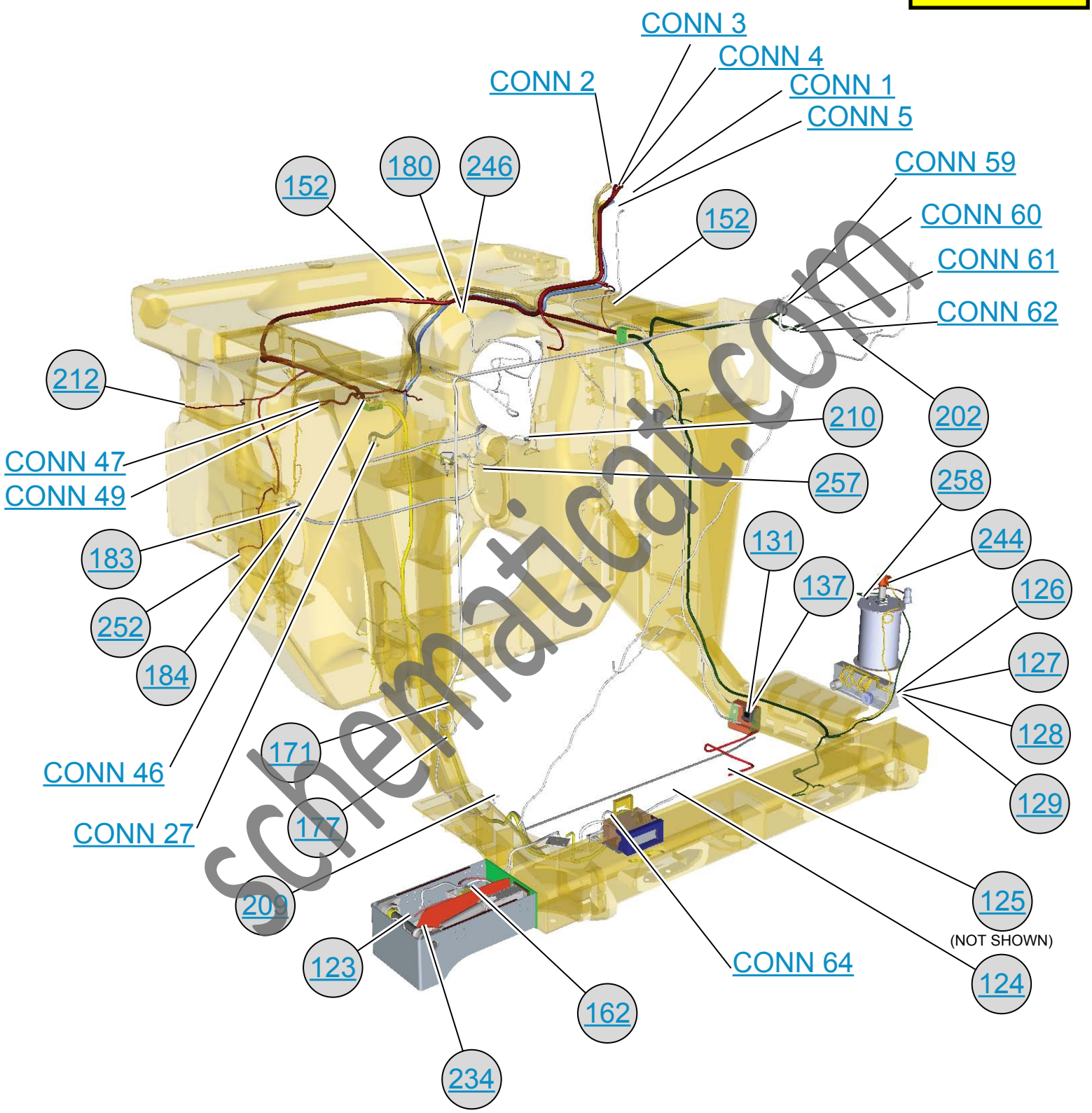
CONTROL BOX

VIEW ALL CALLOUTS



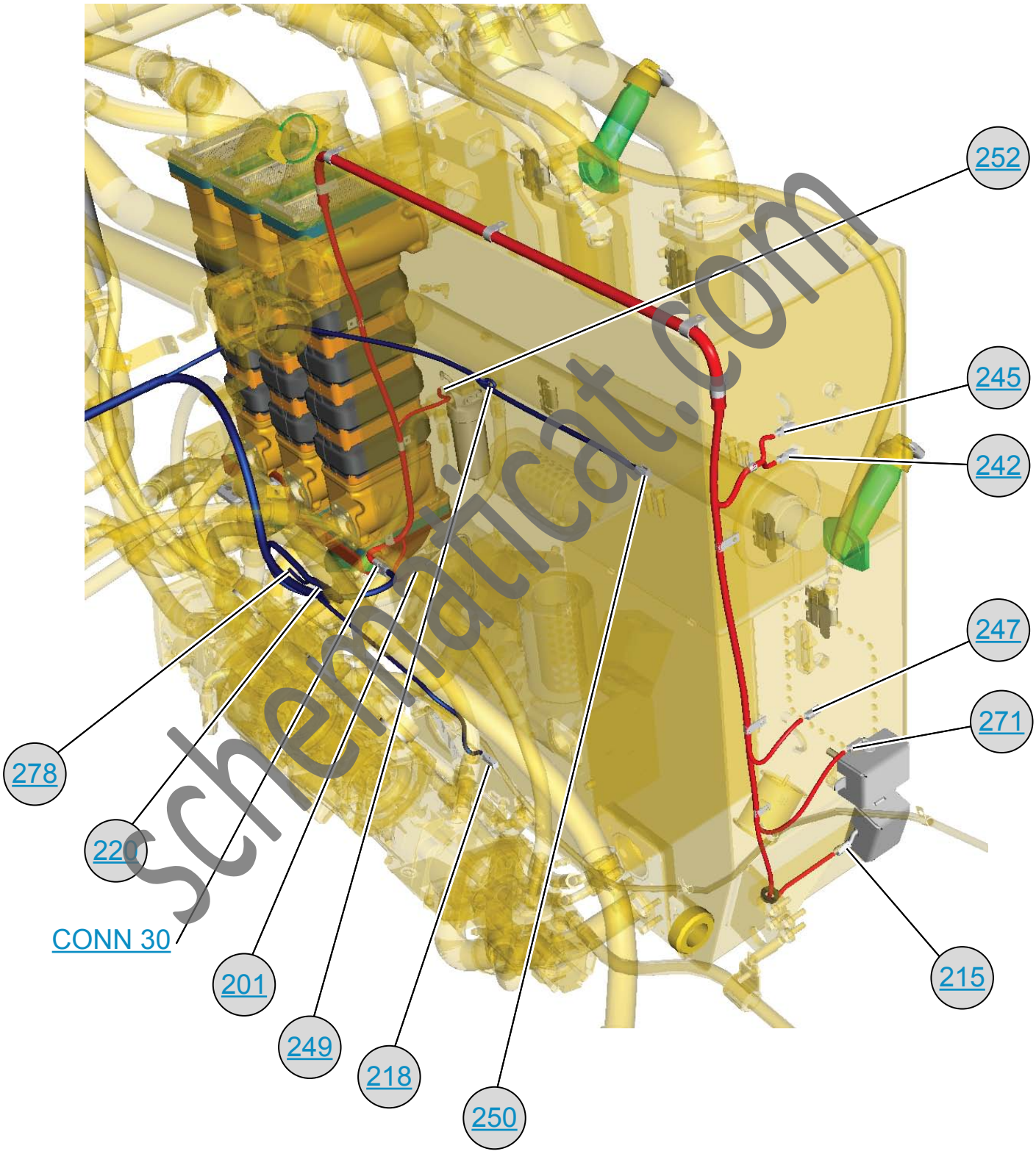
FRONT FRAME

VIEW ALL CALLOUTS



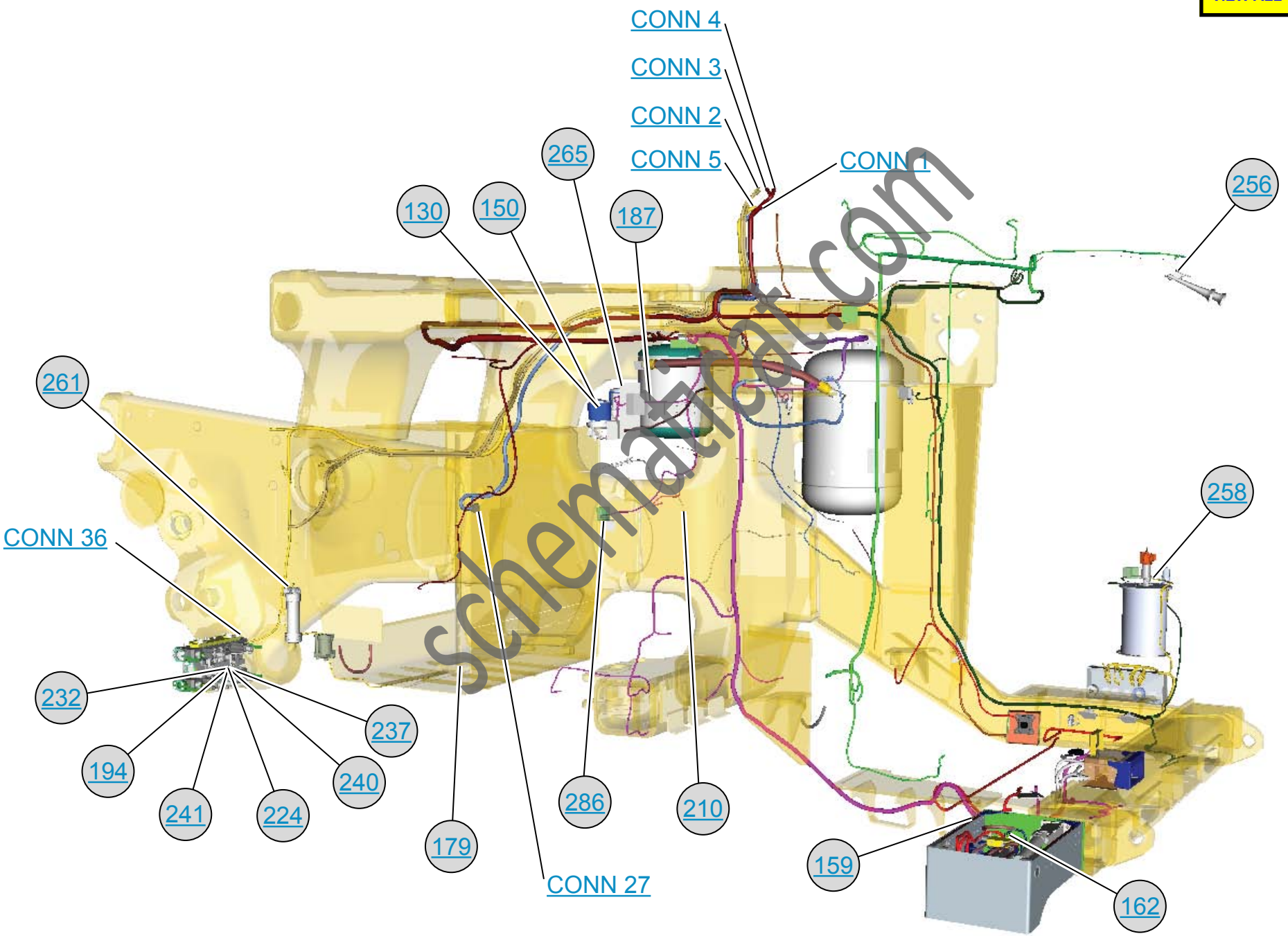
HYDRAULIC TANK

VIEW ALL CALLOUTS



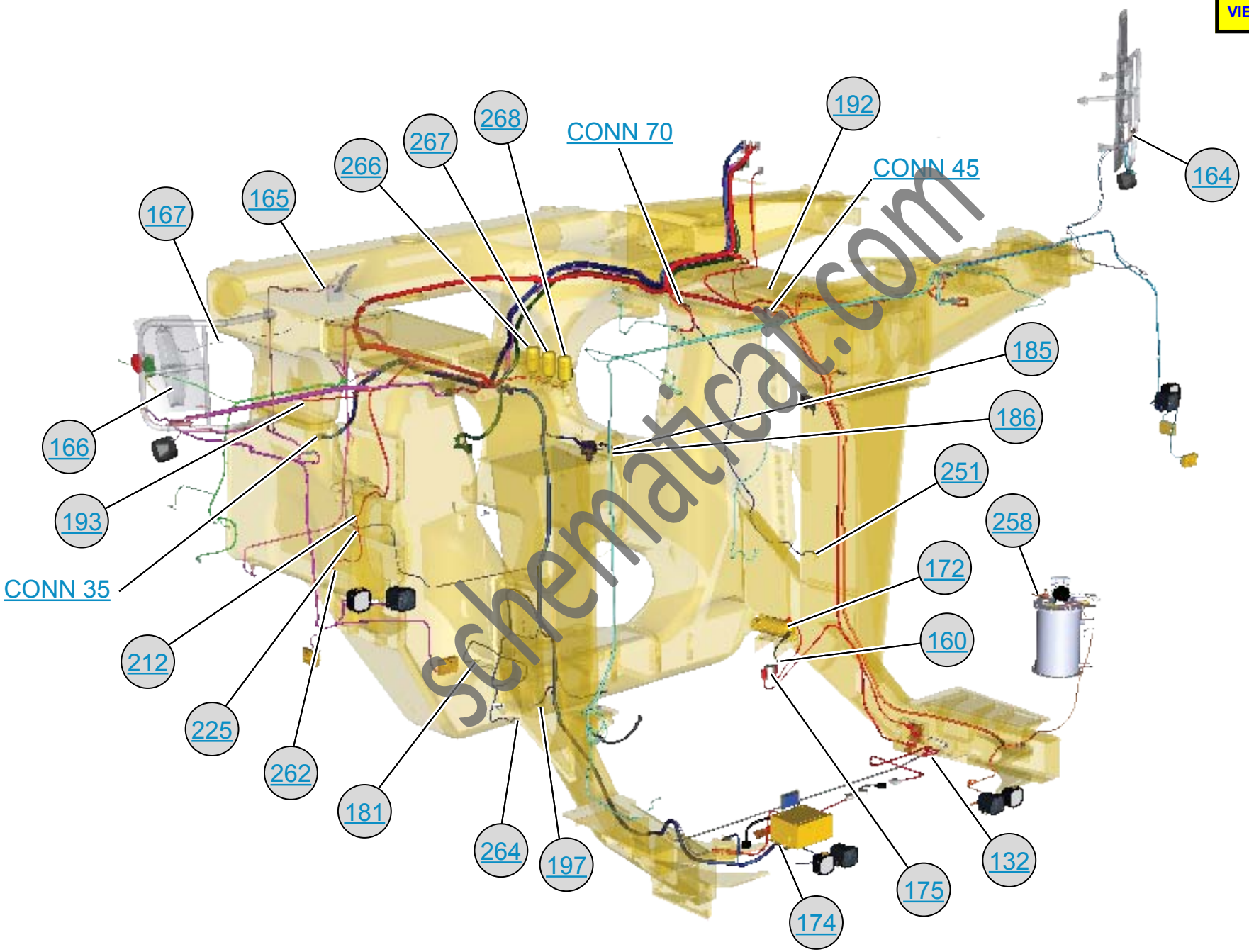
LEFT PEDESTAL

VIEW ALL CALLOUTS



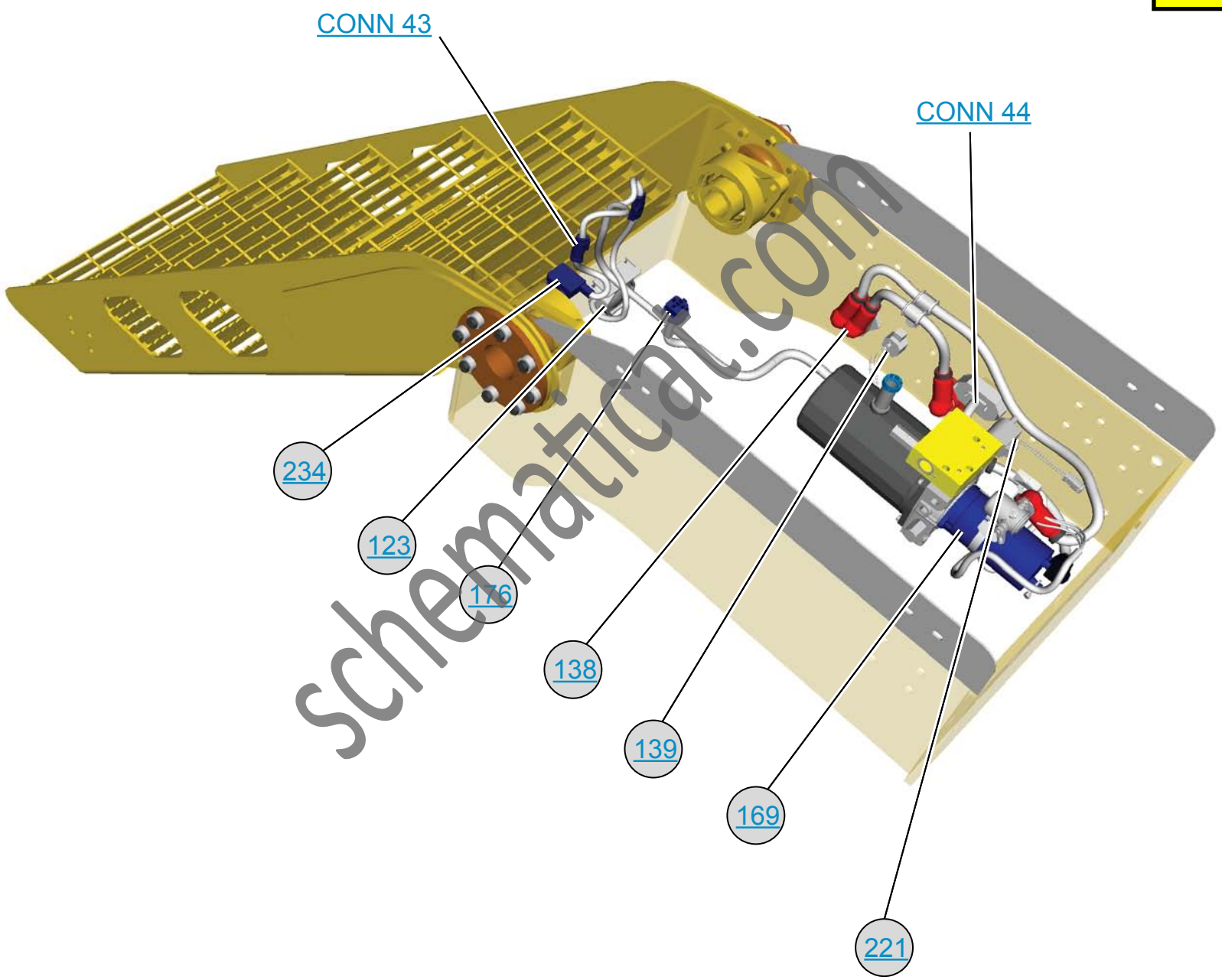
RIGHT PEDESTAL

VIEW ALL CALLOUTS



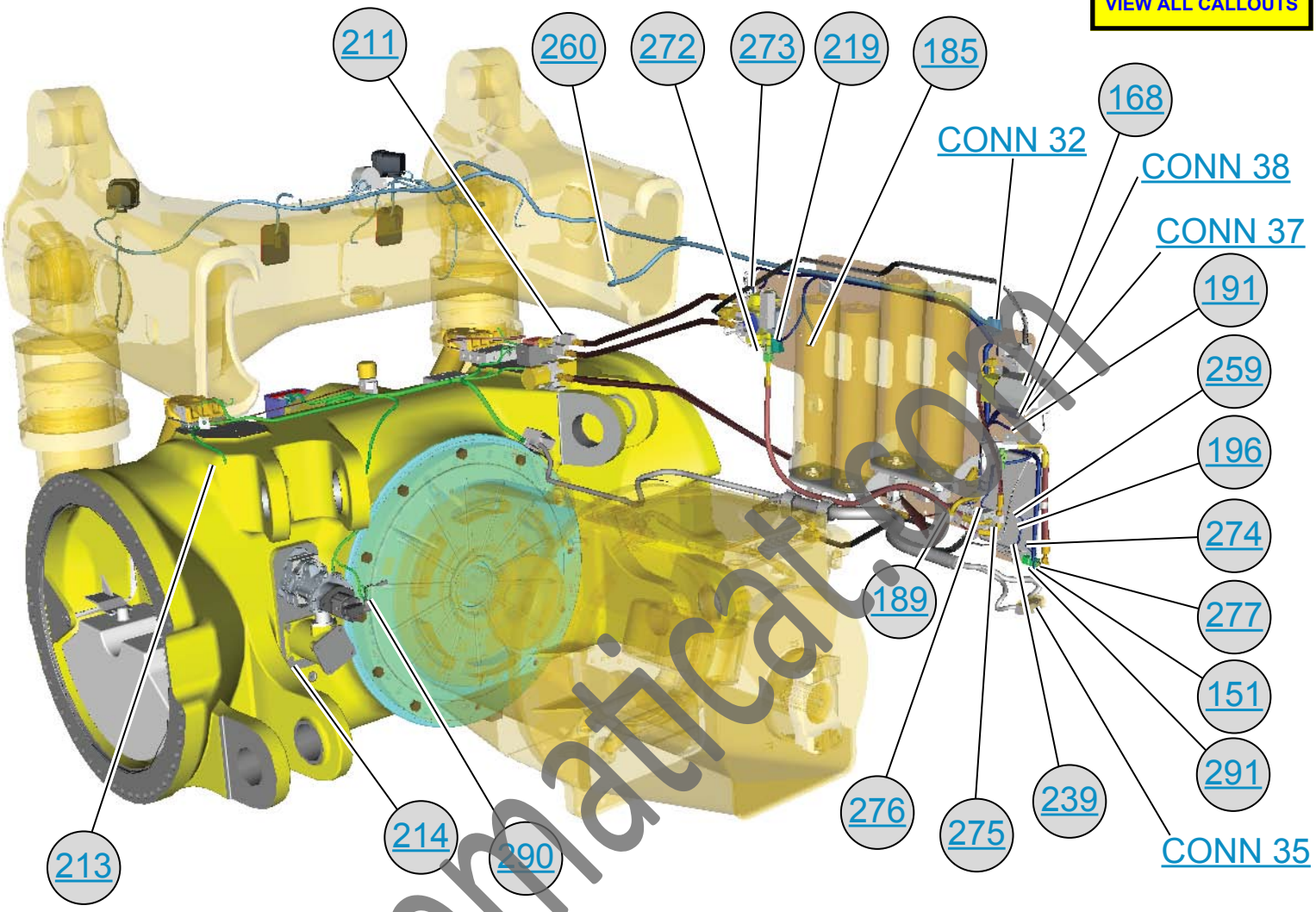
STAIRWAY

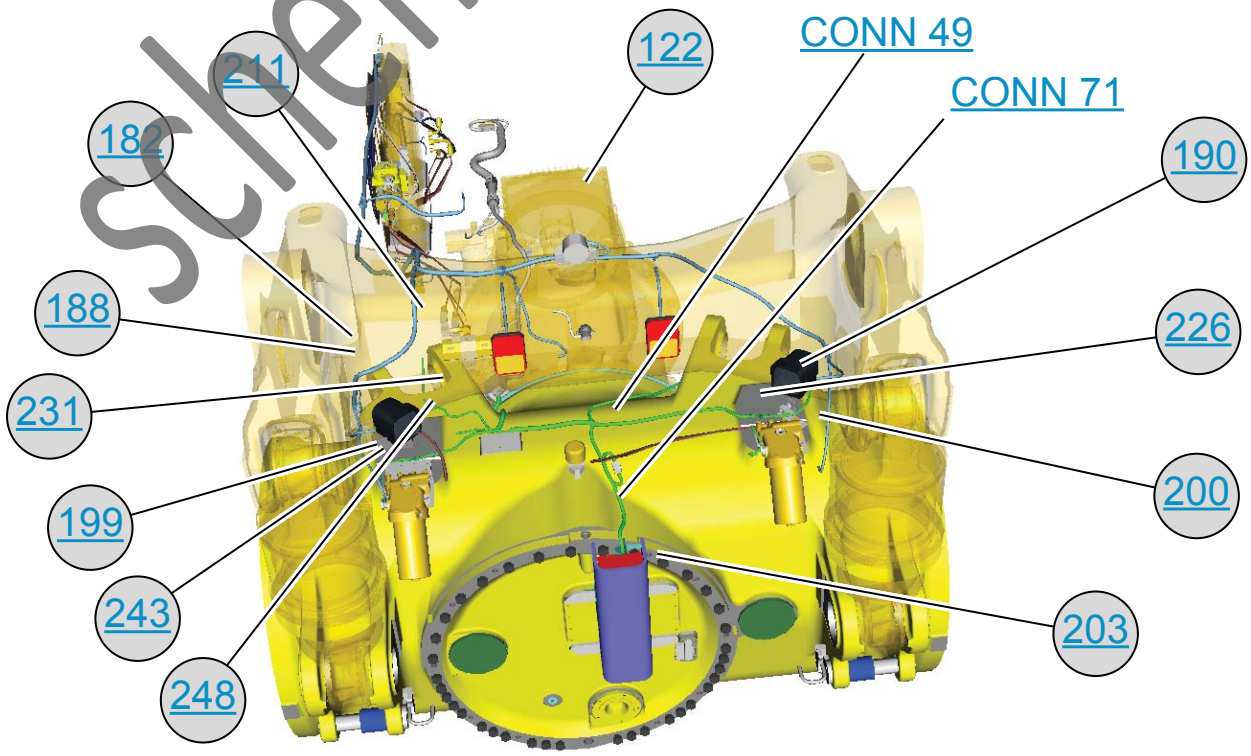
VIEW ALL CALLOUTS



TAIL CASTING

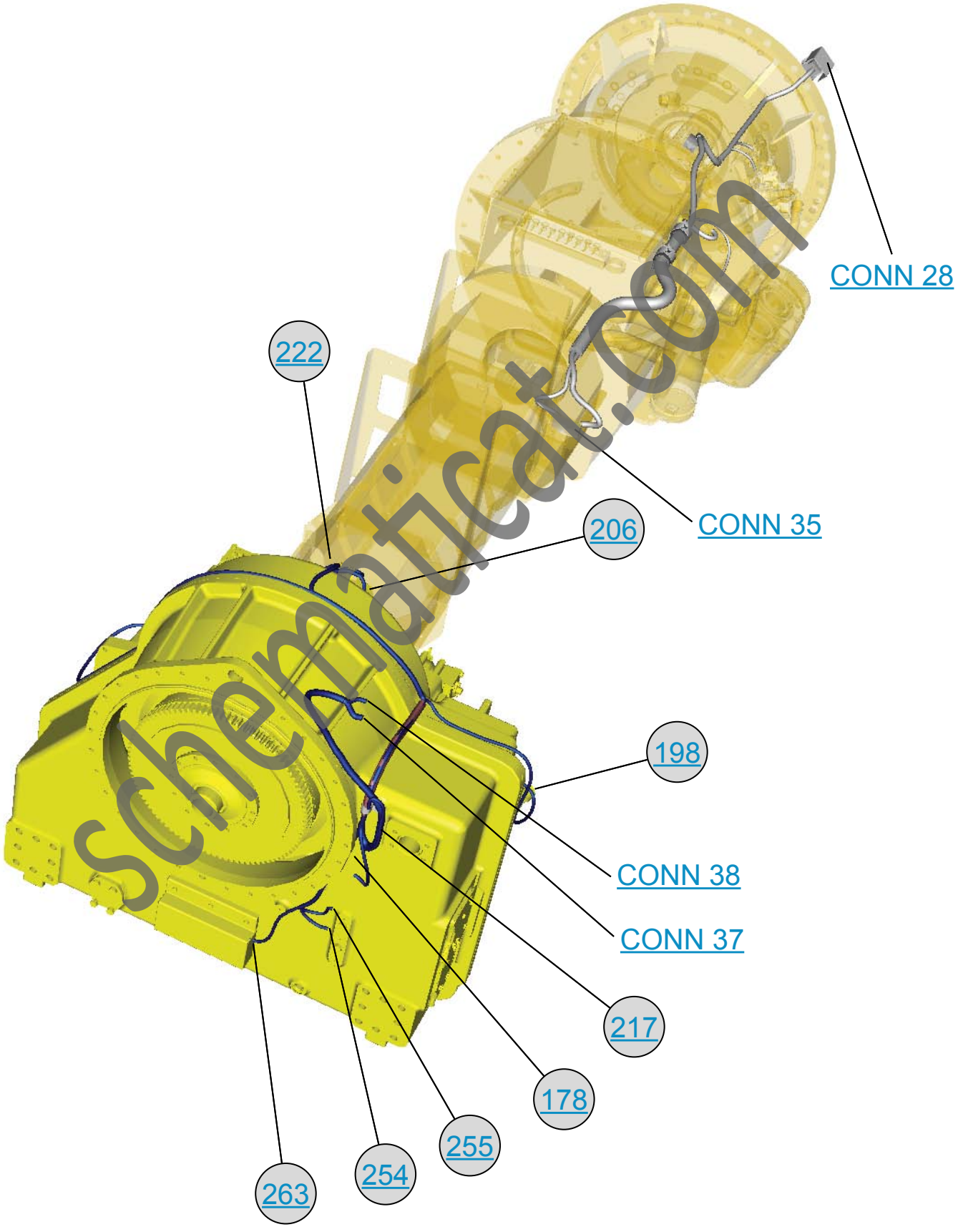
VIEW ALL CALLOUTS





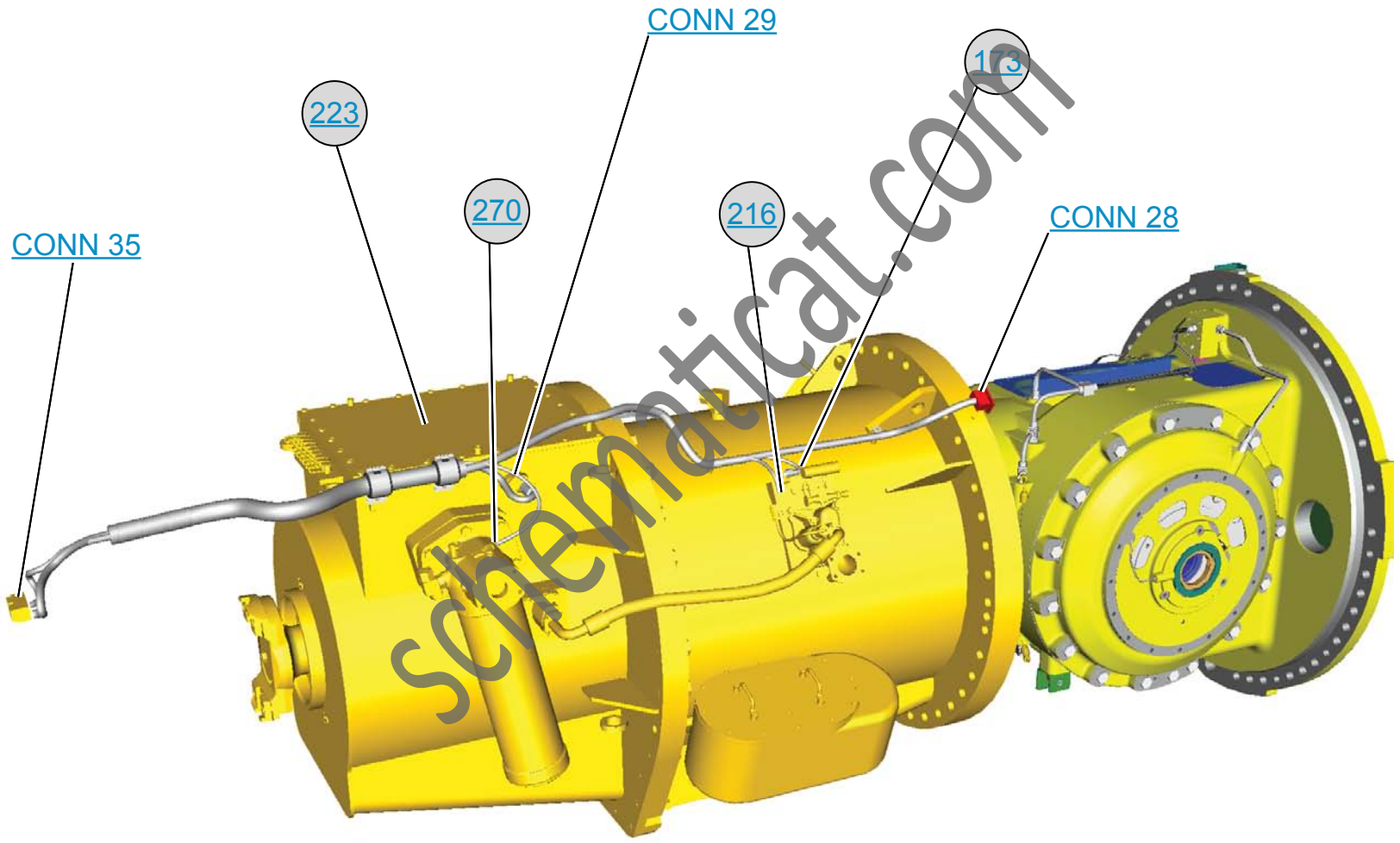
TORQUE CONVERTER

VIEW ALL CALLOUTS



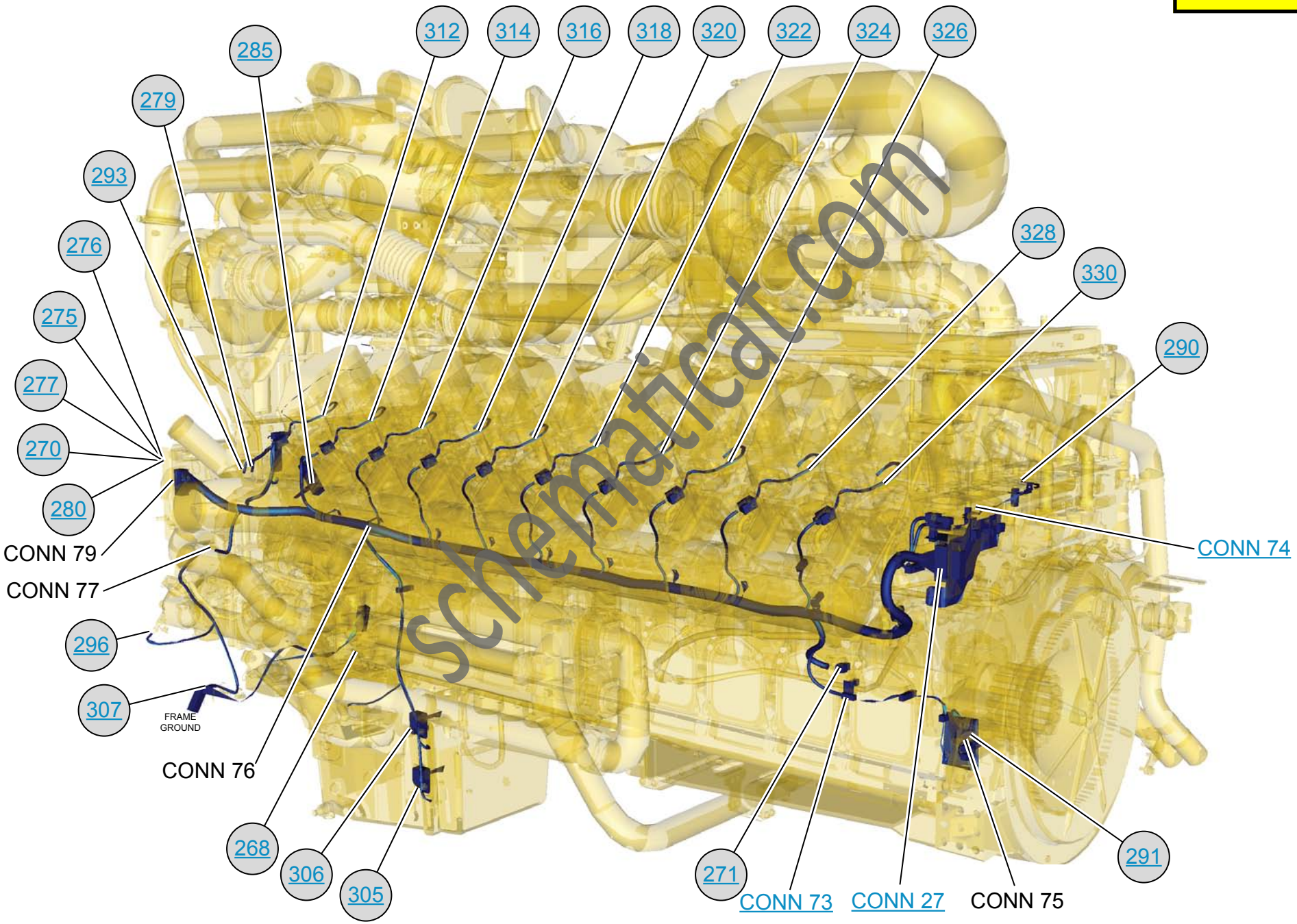
TRANSMISSION

VIEW ALL CALLOUTS



LEFT ENGINE

VIEW ALL CALLOUTS



RIGHT ENGINE

VIEW ALL CALLOUTS