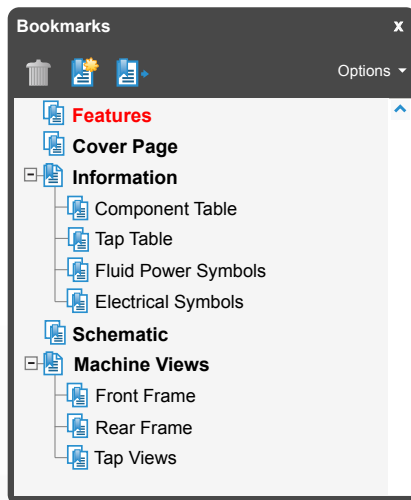


INTERACTIVE SCHEMATIC



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**.

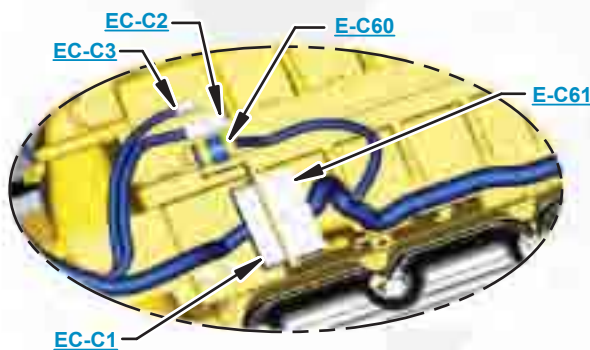
Select **PROPERTIES**.

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

966G and 972G Series II Wheel Loaders Electrical System

966G:	972G:
AXJ1-1374	AXN1-336
AXL1-276	AWP1-276
ANZ1-540	AXP1-167

Volume 1 of 2: Chassis Wiring (Pilot Hydraulics and HMU Steering)
Volume 1 of 2: Cab Wiring (Pilot Hydraulics and HMU Steering)

COMPONENT LOCATION

Volume 1 of 2 - CHASSIS WIRING (PILOT HYDRAULICS AND HMU STEERING)



Component	Schematic Location	Machine Location	Component	Schematic Location	Machine Location
Alarm -Backup	B-18	2	Sensor -Oil Pressure	F-15	8
Alternator	I-16	3	Sensor -Tilt Position	L-10	21
Arc Suppressor	I-14	4	Sensor -Trans. Lube Oil Temperature	F-12	7
Batteries	K-14	5	Sensor -Trans. Output Speed (Leading)	G-13	18
Breaker -ADEM Engine Control	B-14	4	Sensor -Trans. Output Speed (Trailing)	H-13	18
Breaker -Alternator	B-14	4	Sensor -Trans. Oil Temp	H-13	18
Breaker -Hood	C-14	4	Sensor -Turbo Inlet Pressure	F-13	14
Breaker -Main	B-13	4	Solenoid -A/C Clutch	I-14	3
Breaker -Running Lamp	C-14	4	Solenoid -Aux Lift Prop	I-11	19
Breaker -Unswitched Bus (Cab)	C-14	4	Solenoid -Aux Lower Prop	I-11	19
Control -ADEM III	D-9	6	Solenoids -Cylinder Head (1 -6)	H-17, H-16	22
Control -Hood Raise / Lower	C-12	4	Solenoid -Dump Prop	I-10	19
Control -Product Link	A-6	7	Solenoid -Ether Injection	G-10	23
Motor -Actuator	B-15	2	Solenoid -Lift Prop	I-10	19
Motor -Fuel Priming Pump	J-15	8	Solenoid -Lower Prop	I-11	19
Motor -Secondary Steer	K-14	9	Solenoid -On / Off Pilot	I-10	19
Motor -Starter	J-12	10	Solenoids -Quick Coupler	G-7	19
Motors -Washers	G-9	11	Solenoid -Rack Back Prop	I-10	19
Relay -Back Up Alarm	K-18	12	Solenoids -Trans. Clutch	H-14	18
Relay -Ether Injection	B-12	4	Solenoid Valves -Ride Control	J-11	19
Relay -Main	A-12, A-14	4	Solenoid -Variable Speed Fan	G-12	15
Relay -Secondary Steering	K-14	4	Switch -A/C Refrigerant	I-14	3
Relay -Secondary Steering Intermediate	L-15	9	Switch -Brake Oil Pressure	G-10	24
Relay -Start	A-14	4	Switch -Disconnect	K-13	25
Sender -Fuel Level	C-16	13	Switch -Front Axle Temperature	H-10	26
Sender -Torque Converter Oil Temp	C-8	8	Switch -Fuel Priming Pump	I-15	8
Sensor -Atmospheric Pressure	F-15	14	Switch -Ground Level Shutdown	A-15	27
Sensor -Cam Shaft Speed Timing	E-15	15	Switch -Hood Actuator	B-15	27
Sensor -Coolant Temperature	F-15	8	Switch -Hydraulic Filter Bypass Pressure	G-10	24
Sensor -Crank Shaft Speed Timing	D-16	16	Switch -Hydraulic Oil Level	G-9	17
Sensor -Fuel Pressure	F-16	8	Switch -Lift Kickout Proximity	L-9	28
Sensor -Fuel Temperature	E-15	8	Switch -Park Brake Pressure	G-10	24
Sensor -Hydraulic Oil Temperature	G-9	17	Switch -Primary Steer	F-10	9
Sensor - Input Speed	H-13	18	Switch -Rear Axle Temp	C-7	29
Sensor - Inlet Manifold Pressure	E-15	14	Switch -Secondary Steering	F-10	9
Sensor - Intake Manifold Air Temp	F-15	8	Switch -Tilt Kickout Proximity	L-11	30
Sensor -Lift Cylinder Head End Pressure	H-11, I-10	19	Switch -Trans Filter Bypass	G-10	24
Sensor -Lift Position	L-9	20			

Machine locations are repeated for components located close together.

A = Operator Compartment - Dash Console

B = Operator Compartment - Overhead Console

C = Operator Compartment - Relay / Fuse Panel

D = Operator Compartment - Implement Pod

COMPONENT LOCATION

Volume 2 of 2 - CAB WIRING (PILOT HYDRAULICS AND HMU STEERING)



Component	Schematic Location	Machine Location	Component	Schematic Location	Machine Location
Alarm -Action	E-12	C	Sensor -Left Hand Brake Pedal	G-1	43
Arc Suppressor	D-12	C	Sensor -Throttle Position	E-1	43
Assembly -Handle Fnr Downshift	G-8	D	Solenoid -Auxillary	G-8	D
Breaker -HVAC	A-12	C	Solenoid - Float	F-8	D
Breaker -Seat	A-12	C	Solenoid -Lift Positioner	G-8	D
Compressor -Seat	H-9	37	Solenoid -Tilt Positioner	G-8	D
Control -Dimmer	D-12	C	Switch -A/C Selector	D-7	B
Control -EMS III	C-9	B	Switch -Auto / Manual Select	D-5	B
Control -Machine Security System	E-13	C	Switch -Beacon	H-2	A
Control -Payload Control System	B-9	38	Switch -Blower	D-7	B
Control - Transmission	I-10	39	Switch -Bucket / Fork Select	C-4	B
Converter -Voltage (10A)	E-12	C	Switch -Dimmer	G-1	A
Converter -Voltage (20A)	F-12	C	Switch -Ether Injection	E-3	A
Flasher -24V	D-12	C	Switch -Down Shift	G-8	D
Fuse Block	A-12	C	Switch -EMS Mode Select	C-7	B
Gauge -Quad	I-1	A	Switch -Forward Horn	G-2	A
Ground -Cab 1	C-10	C	Switch -Forward Horn 2	F-8	D
Ground -Cab 2	B-10	C	Switch -Fourth Function Select	F-6	D
Ground -Cab 4	K-10	40	Switch -Front Intermittent Wiper/Washer	D-6	B
Ground -Dash	I-4	A	Switch -Grapple Enable	F-6	D
Ground -Engine End Frame	K-10	40	Switch -Hazzard Lamp	I-2	A
Ground -Upper Cab	A-2	41	Switch -Implement Detent Override Limit	F-8	D
Indicator -Center Dash	J-1	A	Switch -Key Start	F-3	A
Indicator -Left Hand Panel	J-1	A	Switch -Kickout On/Off	C-4	B
Indicator -Right Hand Panel	I-1	A	Switch -Neutralizer Override	B-4	B
Keypad -Payload Control System	B-9	38	Switch -Quick Coupler	C-2	B
Lighter -Cigar	H-2	43	Switch -Rear Wiper/Washer	D-5	B
Motor -Blend Door Actuator	J-8	42	Switch -Ride Control	B-4	B
Motor -Blower	J-8	42	Switch -Running Lamp	J-2	A
Motor - Front Wiper	H-1	A	Switch -Secondary Steering Test	B-3	B
Motor -Rear Wiper	I-7	C	Switch -Start Aid	F-3	A
Outlet -12V Accessory	E-3	43	Switch -Stop Lamp	G-1	43
Relay -Forward Cab Floodlamp	C-13	C	Switch -Temperature Select	D-6	B
Relay -Forward Horn	C-12	C	Switch -Transmission Gear Selector	G-2	A
Relay -Implement Start Interlock	C-12	C	Switch -Turn Signal	G-2	A
Relay -Rear Floodlamp	C-12	C	Switch -Variable Shift Control	D-4	B
Resistor -Blower Motor Speed	J-8	42	Tachometer/ Speedometer	I-1	A
Resistor 1	J-7	42	Thermostat	J-8	42
Resistor 2	J-7	42			

Machine locations are repeated for components located close together.

A = Operator Compartment - Dash Console

B = Operator Compartment - Overhead Console

C = Operator Compartment - Relay / Fuse Panel

D = Operator Compartment - Implement Pod

CONNECTOR LOCATION

Volume 1 of 2 - CHASSIS WIRING (PILOT HYDRAULICS AND HMU STEERING)



Connector Number	Schematic Location	Machine Location
CONN 1	I-17	12
CONN 2	G-15	22
CONN 3	F-15	8
CONN 4 Timing / Calibration Probe	E-15	8
CONN 5	D-15	16
CONN 6	I-14	8
CONN 7 Aux. Start Receptacle	J-14	1
CONN 8	L-13	9
CONN 9	A-12	4
CONN 10	C-10	6
CONN 11	H-10, I-8	19
CONN 12	J-9	19
CONN 13	J-9	20
CONN 14	H-3, J-3, J-9, L-3	20
CONN 15	H-3, J-9	20
CONN 16	H-3, K-9	34
CONN 17	K-9, I-3	34
CONN 18	K-9, I-3	34
CONN 19	L-8, L-10	34
CONN 20	I-5, K-7, L-5	33
CONN 21	G-7	31
CONN 22	C-8	36
CONN 23	B-5	32
CONN 24	H-9	35
CONN 25	K-1	34
CONN 26	J-2	34
CONN 28	G-2	32
CONN 29	G-2	32
CONN 30	F-2	32
CONN 31	E-2	32
CONN 32	D-2	32

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 - CAB WIRING (PILOT HYDRAULICS AND HMU STEERING)



Connector Number	Schematic Location	Machine Location
CONN 28	J-14	32
CONN 29	I-14	32
CONN 30	I-14	32
CONN 31	G-14	32
CONN 32	F-14	32
CONN 33	F-12	C
CONN 34	E-12	C
CONN 35 Service Mode Plug	D-12	C
CONN 36	F-7, F-9	D
CONN 37	G-7, G-9	D
CONN 38 Customer Data Connection	B-8	B
CONN 39	B-7	D
CONN 40	J-7	42
CONN 41	E-3	A
CONN 42	F-3	A
CONN 43	G-3	A
CONN 44 Service Tool Connector	E-2	A
CONN 45	F-1	43
CONN 46	G-1	43

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.

Component Identifiers (CID ¹) Module Identifier (MID ²)	
ADEM III ECM (MID No. 036)	
CID	Component
0001	Fuel Injector Solenoid #1
0002	Fuel Injector Solenoid #2
0003	Fuel Injector Solenoid #3
0004	Fuel Injector Solenoid #4
0005	Fuel Injector Solenoid #5
0006	Fuel Injector Solenoid #6
0041	ECM 8V DC Supply
0091	Throttle Sensor
0094	Fuel Pressure Sensor
0100	Oil Pressure Sensor
0110	Engine Coolant Temperature Sensor
0168	Electrical Power Supply
0172	Inlet Air Temperature Sensor
0174	Fuel Temperature Sensor
0253	Personality Module mismatch
0254	ADEM III ECM
0261	Engine Speed Sensor
0262	5 Volt Sensor Supply
0267	Engine Shutdown Switch
0268	Check Programmable Parameters
0273	Turbo Outlet Pressure Sensor
0274	Atmospheric Pressure Sensor
0291	Engine Cooling Fan Solenoid
0296	Transmission ECM
0320	Crankshaft Position Sensor
0342	Camshaft Position Sensor
0545	Start Aid Relay
0562	Caterpillar Monitoring System
0617	Air Inlet Heater Relay
1582	Trans Lube Oil Temperature Sensor
1589	Turbo Inlet Air Pressure Sensor
Product Link ECM (MID No. 122)	
CID	Component
0168	Electrical Power Supply
0254	Electronic Control Module (Product Link)
0269	Sensor Power Supply
1251	Alternator R-Terminal Signal

¹ The CID is a diagnostic code that indicates which component is faulty.

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

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.

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

Event Codes For ADEM III ECM	
Event Code	Condition
E015	High Engine Coolant Temperature Derate
E017	High Engine Coolant Temperature Warning
E025	High Inlet Air Temperature Derate
E027	High Inlet Air Temperature Warning
E039	Low Engine Oil Pressure Derate
E095	Fuel Filter Restriction Warning
E096	High Fuel Pressure
E100	Low Engine Oil Pressure Warning
E190	Engine Overspeed Warning



Component Identifiers (CID ¹) Module Identifier (MID ²)	
Caterpillar Monitoring System (MID No. 030)	
CID	Component
0096	Fuel Level Sender
0100	Engine Oil Pressure Sensor
0110	Engine Coolant Temperature Sensor
0177	Torque Converter Oil Temperature Sensor
0248	Data Link
0263	Sensor Power Supply
0271	Action Alarm
0324	Action Lamp
0427	Temp Sensor (Front Axle Oil)
0428	Temp Sensor (Rear Axle Oil)
0600	Hydraulic Oil Temperature Sensor
0819	Display Data Link
0821	Display Power Supply
0826	Temp Sensor (Torque Converter Oil)
0830	Brake Oil Temperature Sensor
Payload Control System (MID No. 074)	
CID	Component
0168	Electrical System Voltage
0254	Payload Electronic Control Module
0350	Lift Linkage Position Sensor
0364	Head End Lift Cylinder Pressure Sensor
0769	Rod End Lift Cylinder Pressure Sensor
0817	Internal Backup Battery
0820	Keypad Data Link

Transmission Control (MID No. 081)	
CID	Component
0041	+8 Volts Sensor Supply
0070	Parking Brake Switch
0149	Ride Control Solenoid 2
0168	Electrical System Voltage
0177	Transmission Oil Temperature Sensor
0190	Engine Speed Sensor
0270	Cat Monitor System Harness Code
0363	Ride Control Solenoid 1
0367	Ride Control Switch
0368	Transmission Auto/Manual Switch
0444	Start Relay
0562	Cat Monitoring System
0585	Transmission Output Speed Sensor 1
0621	Downshift Switch
0622	Upshift Switch
0623	Directional Switch
0631	Transmission Clutch 1 Solenoid
0632	Transmission Clutch 2 Solenoid
0633	Transmission Clutch 3 Solenoid
0634	Transmission Clutch 4 Solenoid
0635	Transmission Clutch 5 Solenoid
0636	Transmission Clutch 6 Solenoid
0638	Starter Solenoid
0668	Transmission Shift Lever
0672	Torque Converter Output Speed Sensor
0673	Speed Sensor (Transmission Output 2)
0793	Pressure Switch (Primary Steering)
0794	Pressure Switch (Secondary Steering)
0795	Secondary Steering Intermediate Relay
1327	Position Sensor (Left Brake Pedal)
1521	Part-Throttle Autoshift Selector Switch

¹ The CID is a diagnostic code that indicates which component is faulty.

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

SPECIFICATIONS AND RELATED MANULAS

Volume 1 of 2 - CHASSIS WIRING (PILOT HYDRAULICS AND HMU STEERING)

Page 1 of 2



Resistor, Sender and Solenoid Specifications		
Part No.	Component Description	Resistance (Ohms) ¹
138-2924	Dump Prop Lower Prop Solenoid: Aux Lower Prop Rackback Prop Lift Prop Aux Lift Prop	7.75 ± 1.0
147-5399	Solenoids: Transmission Clutch	8.15 ± 0.6
148-2350	Solenoid: Variable Speed Fan	5.0 ± 0.3
152-6761	Solenoid: On / Off Pilot	32.6 ± 1.6
152-8340	Solenoids: Ride Control	32.6 ± 1.6
163-0872	Solenoid: A/C Clutch	17.6 ± 0.6
175-3088	Sender: Torque Converter Oil Temperature	560 to 716 @ 54°C (130°F) 72 to 82 @ 110°C (230°F)
220-8214	Sender: Fuel Level	Full: 28 - 33 Empty: 240 - 250
3E-6332	Solenoid: Start Aid	6
3E-8575	Solenoid: Quick Coupler	24.9 ± 0.4

¹ At room temperature unless otherwise noted.

Off Machine Switch Specification				
Part No.	Function	Actuate	Deactuate	Contact Position
114-5333	A/C (High / Low) Pressure	275 to 1750 kPa ¹ (39.9 to 253.8 psi)	- -	Normally Open ²
155-8999	Rear Axle Temperature Front Axle Temperature	125 ± 3.0°C (257 ± 37.4°F)	117°C Min (242.6°F Min)	Normally Closed
174-4312	Park Brake Pressure	8270 kPa MAX (1200 psi MAX)	6890 ± 345 kPa (1000 ± 50 Psi)	A-B, Normally Open A-C, Normally Closed
175-3244	Brake Oil Pressure	10700 kPa MAX (1500 psi MAX)	8960 ± 537 kPa (1300 ± 79 Psi)	A-B, Normally Open A-C, Normally Closed
3E-6450	Primary Steering Pressure Secondary Steering Pressure	1200 kPa MAX (174.0 psi MAX)	700 ± 100 kPa (102 ± 14.5 Psi)	A-B Normally Open A-C, Normally Closed
7X-8549	Hydraulic Filter Bypass Pressure	110.3 - 137.9 kPa ³ (16 - 20 psi)	86.2 - 103.4 kPa ³ (12.5 - 15)	Normally Open

¹ A hysteresis band exists: 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 (25psi).

² Contact position at the contacts of the harness connector.

³ Specifications represent a differential pressure measurement.

Theft Deterrent Module (MID No. 124)	
CID	Component
0168	Voltage Above Normal
0248	Cat Data Link Error
0817	Real Time Clock Not Running
1391	MSS Output Driver #1
1392	MSS Output Driver #2

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.

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

SPECIFICATIONS AND RELATED MANUALS

Volume 1 of 2 - CHASSIS WIRING (PILOT HYDRAULICS AND HMU STEERING)

Page 2 of 2



Related Electrical Service Manuals

Related Electrical Service Manuals		
Title		Form Number
Alternator:	185-5294	SENR4130
Electric Starting Motor:	165-4619	SENR3581
Consist:	(Delco 42MT type 400)	
ADEM III ECM		RENR1285
Product Link System		SEBU7351

SPECIFICATIONS AND RELATED MANUALS

Volume 2 of 2 - CAB WIRING (PILOT HYDRAULICS AND HMU STEERING)

Page 1 of 2



Resistor, Sender and Solenoid Specifications		
Part No.	Component Description	Resistance (Ohms) ¹
9G-1950	Resistor: Blower Motor Speed	Overall: 2.0 ± 0.1 Tap: $1.0 \pm .05$
152-6480	Auxillary Solenoids: Tilt Positioner Lift Positioner Float	85.3 ± 5.0

¹ At room temperature unless otherwise noted.

Off Machine Switch Specification				
Part No.	Function	Actuate	Deactuate	Contact Position ¹
3E-5464	Temperature Switch	$-1.1 \pm 0.8^{\circ}\text{C}$ ($30 \pm 1.4^{\circ}\text{F}$)	$2.2 \pm 0.8^{\circ}\text{C}$ ($36 \pm 1.4^{\circ}\text{F}$)	Normally Closed

¹ Contact position at the contacts of the harness connector.

Monitoring System Service Modes	
Service Mode	Number
Operator Mode Sequence	0
Harness Code	1
Numeric Readout	2
Service	3
Digital Tattletale	4
Units	5
Charging System Display	6

SPECIFICATIONS AND RELATED MANUALS
Volume 2 of 2 - CAB WIRING (PILOT
HYDRAULICS AND HMU STEERING)
Page 2 of 2



Monitoring System Operator Modes	
Operator Mode	Number
Service Meter	1
Tachometer	2
Engine Oil Pressure	3
Odometer - Machine Travel Distance	4
Scrolling (Diagnostic)	5

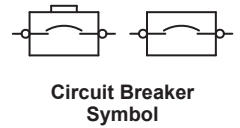
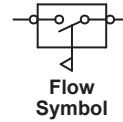
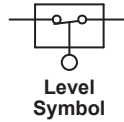
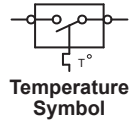
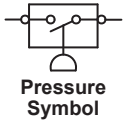
Related Electrical Service Manuals	
Title	Form Number
Caterpillar Monitoring System	SENR1394
Machine Security System	RENR2462
Payload Control System	SENR6614
Transmission Control System	RENR2105

HARNESS and WIRE

Electrical Schematic Symbols



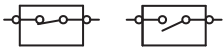
Symbols



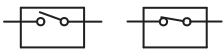
Symbols and Definitions



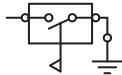
Fuse: A component in an electrical circuit that will open the circuit if too much current flows through it.



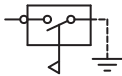
Switch (Normally Open): A switch that will close at a specified point (temp, press, etc.). The circle indicates that the component has screw terminals and a wire can be disconnected from it.



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.



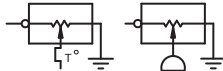
Ground (Wired): This indicates that the component is connected to a grounded wire. The grounded wire is fastened to the machine.



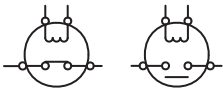
Ground (Case): This indicates that the component does not have a wire connected to ground. It is grounded by being fastened to the machine.



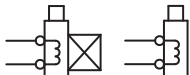
Reed Switch: A switch whose contacts are controlled by a magnet. A magnet closes the contacts of a normally open reed switch; it opens the contacts of a normally closed reed switch.



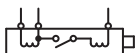
Sender: A component that is used with a temperature or pressure gauge. The sender measures the temperature or pressure. Its resistance changes to give an indication to the gauge of the temperature or pressure.



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.



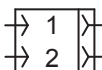
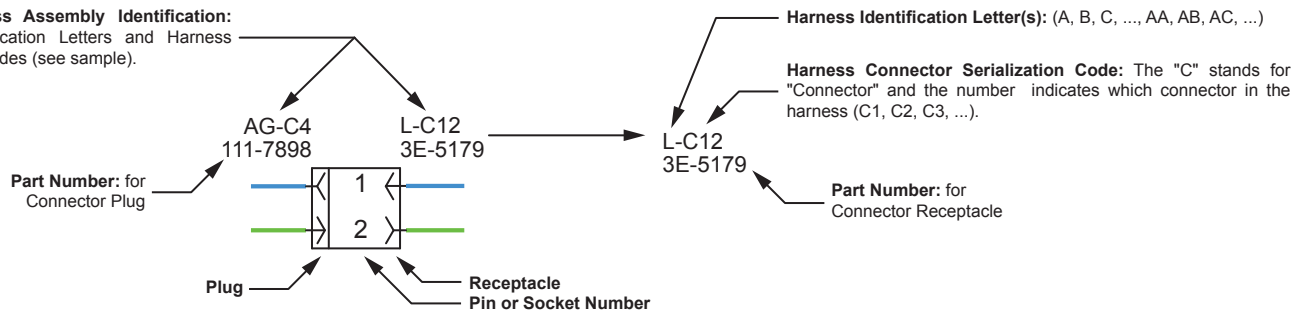
Solenoid: A solenoid is an electrical component that is activated by electricity. It has a coil that makes an electromagnet when current flows through it. The electromagnet can open or close a valve or move a piece of metal that can do work.



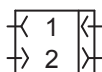
Magnetic Latch Solenoid: A magnetic latch solenoid is an electrical component that is activated by electricity and held latched by a permanent magnet. It has two coils (latch and unlatch) that make electromagnet when current flows through them. It also has an internal switch that places the latch coil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

Harness and Wire Symbols

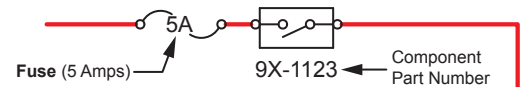
Wire, Cable, or Harness Assembly Identification:
Includes Harness Identification Letters and Harness Connector Serialization Codes (see sample).



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



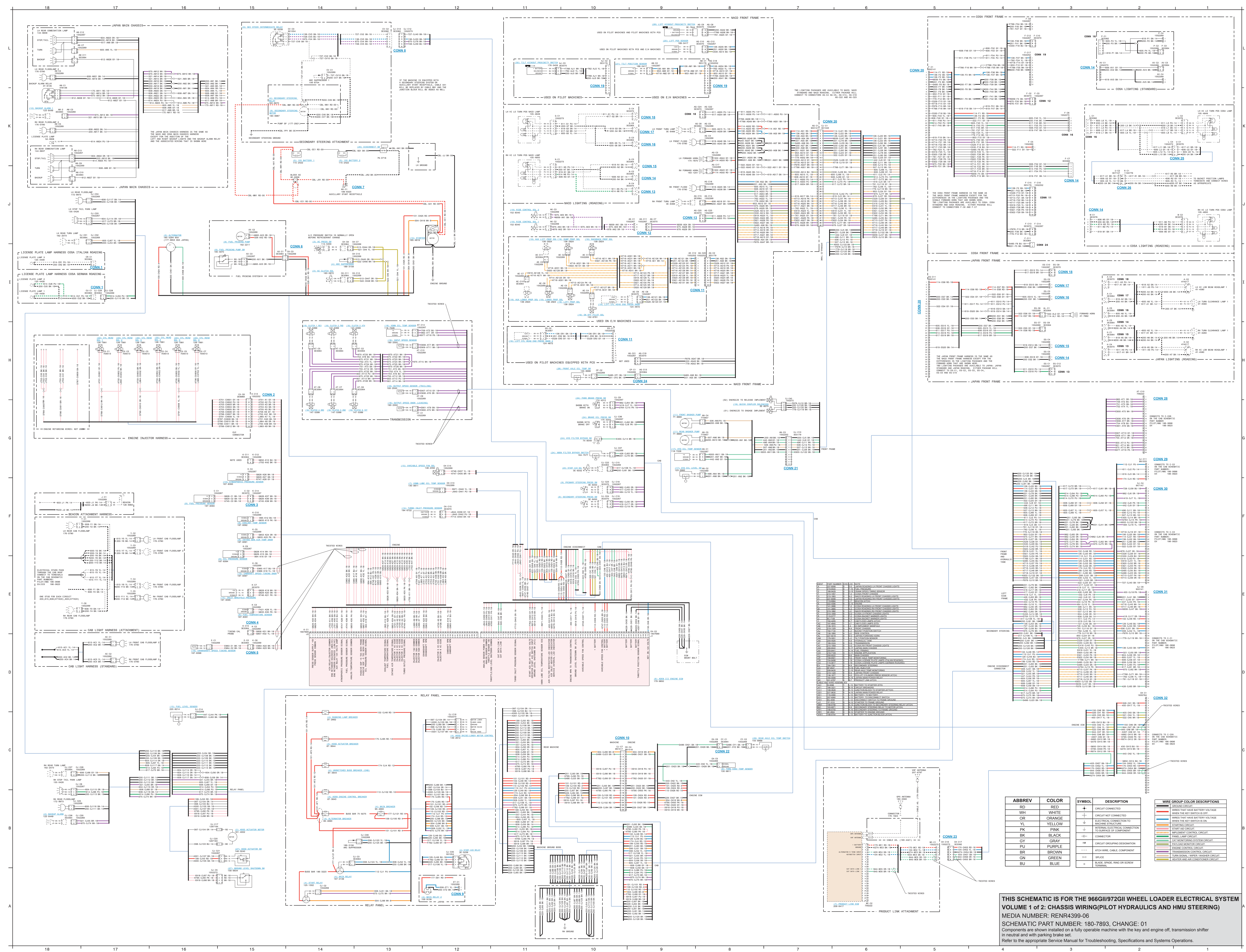
Sure-Seal connector: Typical representation of a Sure-Seal connector. The plug and receptacle contain both pins and sockets.

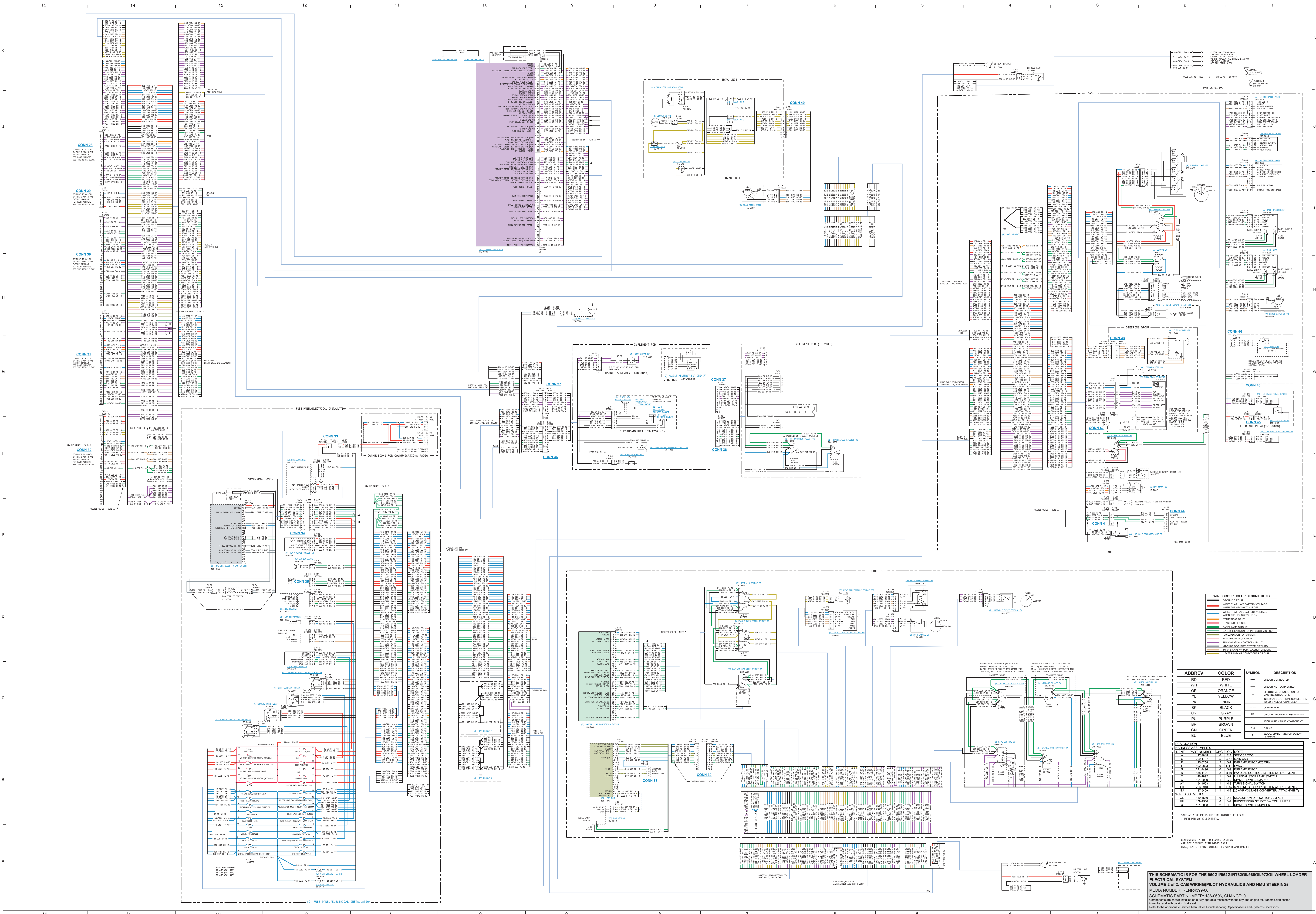


Harness identification code:
This example indicates wire group 325, wire 135 in harness "AG".

Wire Gauge

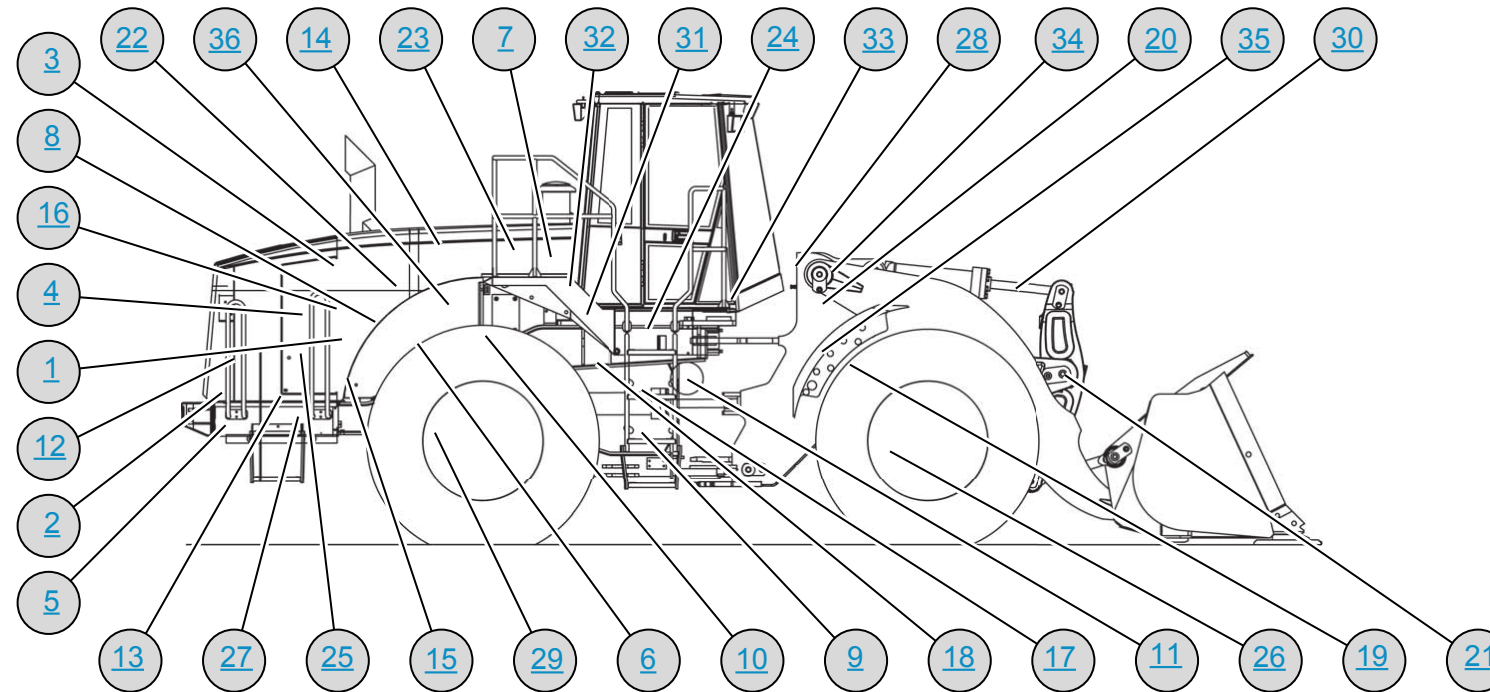
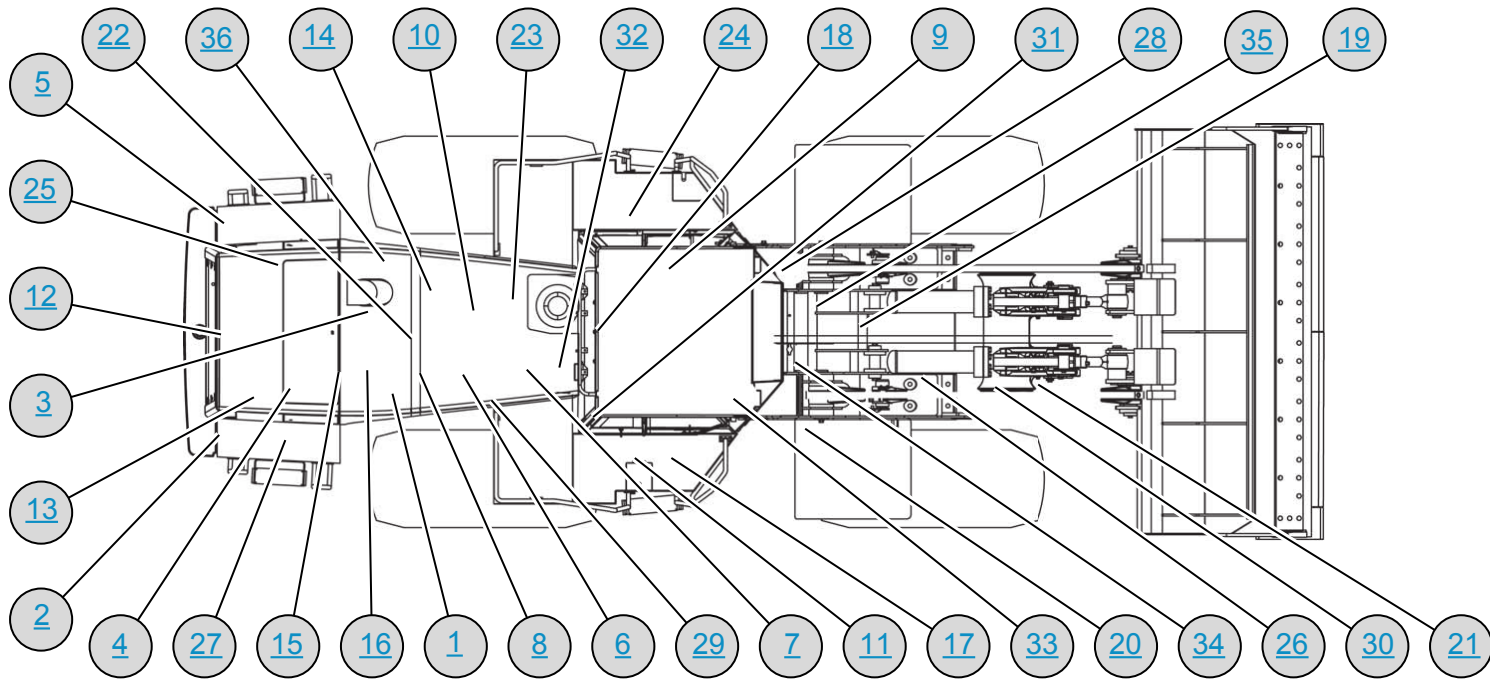
Wire Color





THIS SCHEMATIC IS FOR THE 9500/9620/9660/9720 WHEEL LOADER
ELECTRICAL SYSTEM
VOLUME 3 of 3: CAB WIRING/PLD HYDRAULICS AND HMD STEERING
MEDIA NUMBER: RENR4399-06
SCHEMATIC PART NUMBER: 186-0696, CHANGE: 01
Components are shown installed and fully connected. The top and right of the schematic are in neutral and with parking brake set.
Refer to the appropriate Service Manual for Troubleshooting, Specifications and System Operations.

MACHINE HARNESS CONNECTOR AND COMPONENT LOCATIONS



MACHINE HARNESS CONNECTOR AND COMPONENT LOCATIONS

