

RESISTOR AND SOLENOID SPECIFICATIONS		
Component	Part No.	Resistance (Ohms) *
Resistor - Blower Motor Speed	6C-1950	Overall 2.0 ± 1, Tap 1.0 ± .05
Resistor - Starter/Diagnostic Conn	6T-2217	150±7.5
Solenoid - Air Conditioner Clutch	102-0347	14.4 ± 0.6
Solenoids - Dual Tilt	6T-8208	24.9
Solenoid - Ripper Pin Puller	9G-9988	24.9
Solenoid - Start Aid	7N-7259	6

*At room temperature.

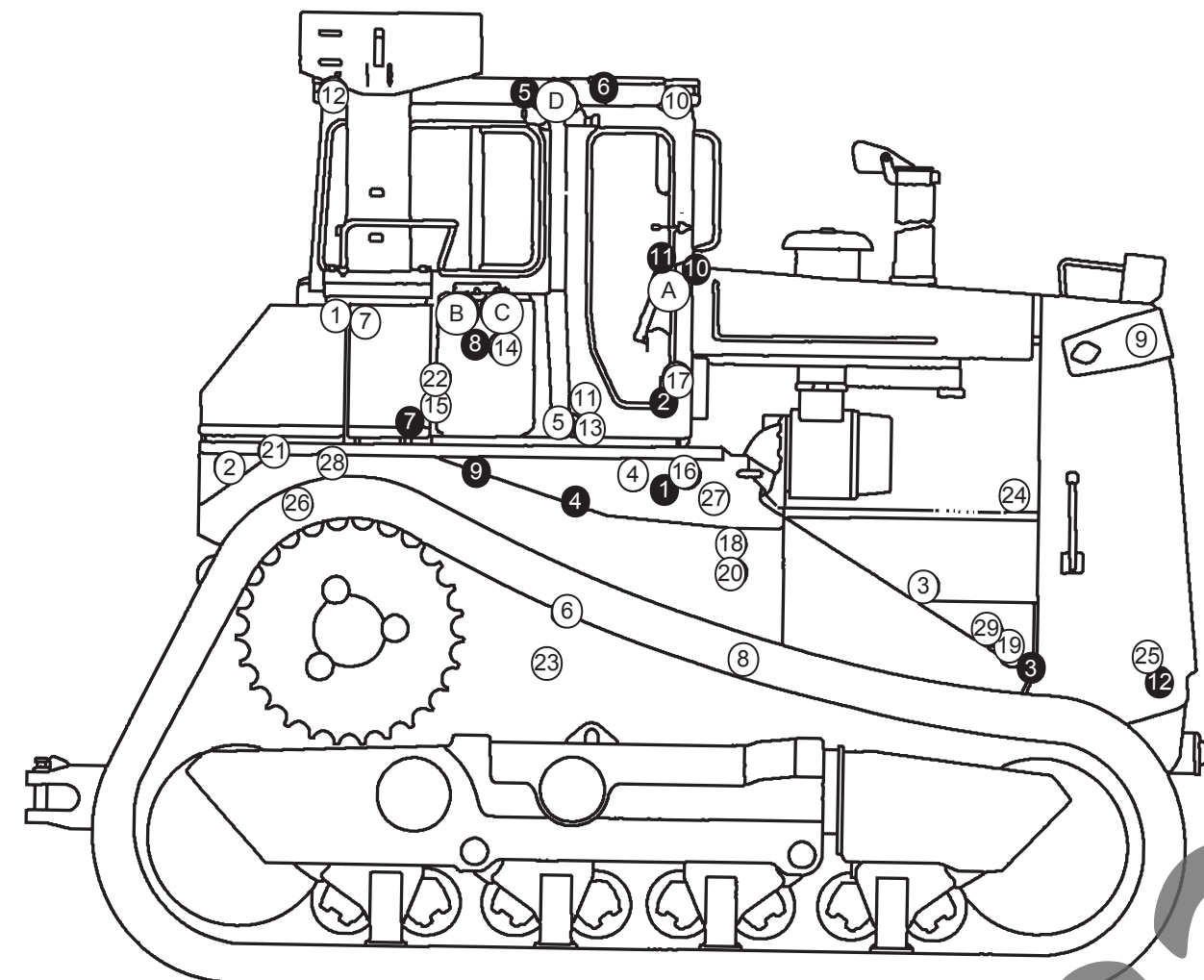
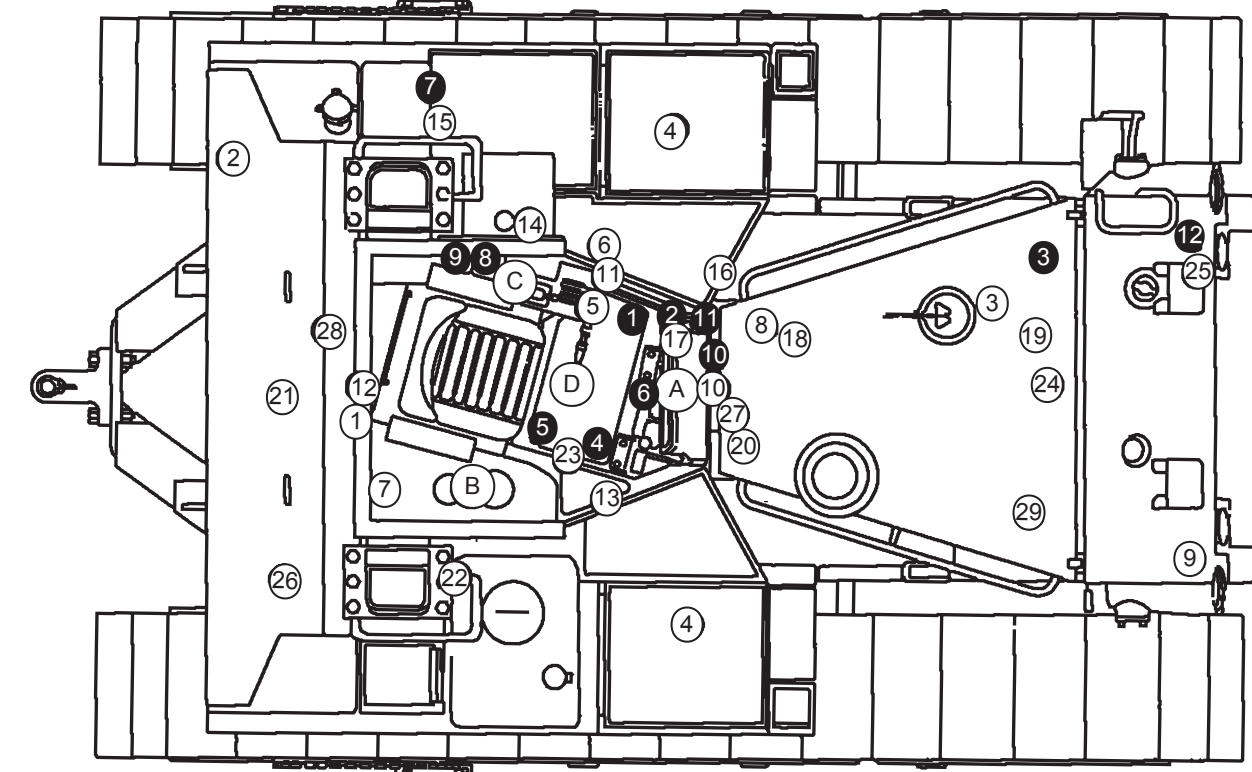
MODULE IDENTIFIER (MID)	
MID No.	MODULE
0026	Computerized Monitoring System(CMS)

COMPONENT IDENTIFIER (CID) LIST	
CID	Component
COMPUTERIZED MONITORING SYSTEM (CMS)	
096	Fuel Level Sensor
100	Engine Oil Pressure Sensor
110	Engine Coolant Temperature Sensor
169	Electrical System Voltage
177	Power Train Oil Temperature Sensor
248	CAT Data Link
270	Harness Code
271	Action Alarm
324	Action Lamp
600	Hydraulic Oil Temperature Sensor
601	Brake Air Pressure Sensor
627	Parking Brake Switch

CID list applies to Engine and Motor Controls.

OFF MACHINE SWITCH SPECIFICATIONS				
Part No.	Function	Actuate	Deactuate	Contact
SE-6043	AC High/Low Pressure	450 to 2400 ± 140 kPa (65 to 350 ± 20 psi)	0 to 450 kPa MAX (0 to 65 psi MAX)	Closed
		greater than 2400 ± 140 kPa (greater than 350 ± 20 psi)	-	Open
3W-5641	Backup Alarm	12.7 to 20.3 mm (1/2 to 3/4 in)	205 ± 50 to 0 kPa (30 to 7.0 psi)	Normally Open
		14.7 to 20.6 mm (5/8 to 13/16 in)	-	Normally Closed
8N-1693	Coolant Temperature (Start Aid)	37.8 ± 2.3°C (100 ± 5.0°F)	26.7°C MIN (80°F MIN)	Normally Closed
		51.7 ± 2.3°C (125 ± 5°F)	43.3°C MIN (110°F MIN)	Normally Open
9G-3341	Power Train Oil Temperature (CMS)	362 ± 29 mm (45.0 mm ID point)	303 mm MIN (1.1 OZ MIN)	Normally Open
9X-3040	Engine Coolant Flow (CMS)	11.3 ± 1.02 (1.8 ± 0.10 ID point)	-	Normally Open
9G-7781	Power Train Filter Pressure (CMS)	210 ± 70 kPa (30 ± 10 psi)	-	Normally Open

Related Service Manuals		
Title	Form Number	
Computerized Monitoring System (CMS)	SENRS247	
Starting And Charging Systems	SENRS247	
Starting motor, 50-MT Series	SENRS360	



C74634P1

MACHINE HARNESS AND COMPONENT LOCATIONS

Schematic

D9N Tractor Electrical System

6XJ1-UP

Wire Description				
Wire Number	Wire Color	Description	Description	
Power Distribution Circuits				
101	RD	BAT	443 YL POWER TRAIN TEMP GAGE	
102	BU	HD LMP	447 PK FUEL LEVEL GAGE	
103	YL	AUX CKT	450 YL TACH SENDER (+)	
105	BR	KEY START SW	A401 YL ELECTRICAL SYSTEM NO.1 VOLTAGE	
106	WH	AUX CKT	Accessory Circuits	
107	WH	ENG SHUT - DOWN	500 BR WIPER - FRONT (PARK)	
108	GN	AUX CKT	501 GN WIPER - FRONT (LO)	
109	OR	ALT OUTPUT (+) TERM.	502 OR WIPER - FRONT (HI)	
112	PU	MAIN POWER RELAY OUTPUT	503 BR WIPER - REAR (PARK)	
113	OR	OPR MON PANEL B+ SWITCHED	504 YL WIPER - REAR (LO)	
114	GN	WARNING HORN (FORWARD)	505 BU WIPER - REAR (HI)	
116	BR	AUX CKT	506 PU WASHER - FRONT	
121	YL	BACKUP ALARM TO LAMP	507 WH WASHER - REAR	
124	GN	A/C	508 PU RADIO SPEAKER - LEFT	
125	OR	AUX CKT	509 WH RADIO SPEAKER - LEFT (COMMON)	
174	PK	AUX CKT	511 BR RADIO SPEAKER - RIGHT	
177	OR	MAIN BKR	512 GN RADIO SPEAKER - RIGHT (COMMON)	
184	BU	AUX CKT	513 OR A/C COMPRESSOR/REFRIGERANT PRESS. SW	
186	WH	AUX CKT	515 GY BLOWER MOTOR (HI)	
Ground Circuits				
209	BK	MAIN CHASSIS	516 GN BLOWER MOTOR (MEDIUM)	
201	BK	OPR MON PANEL CMS	517 BU BLOWER MOTOR (LO)	
203	BK	CHASSIS DIAGNOSTIC	521 YL A/C SW TO REFRIGERANT SW	
207	BK	STARTER DIAGNOSTIC	522 WH A/C CLUTCH TO THERMOSTAT SW	
290	BK	SERVICE	523 BR WIPER - LEFT (PARK)	
291	BK	CLEAR	524 BU WIPER - LEFT (LO)	
Basic Machine Circuits				
301	BU	STARTER NO.1 SOL	525 GY WIPER - LEFT (HI)	
302	OR	STARTER NO.1 RESISTOR TO DIAGNOSTIC	526 YL WIPER - RIGHT (PARK)	
304	WH	STARTER RELAY NO.1 OUTPUT	527 GN WIPER - RIGHT (LO)	
306	GN	STARTER RELAY COIL TO NEUT START SW OR KEY SW	529 WH WASHER LEFT	
307	OR	KEY SW TO NEUT START SW	530 OR WASHER RIGHT	
308	YL	MAIN POWER RELAY COIL	553 YL PITCH SOL TO TRIGGER SW - DUAL TILT	
310	YL	START AID SW TO START AID SOL	554 PK MOMENTARY SW TO SINGLE TILT SOL - DUAL TILT	
311	WH	START AID SOL TO TEMP SW	592 BU DC/DC CONVERTER POWER OUTPUT	
321	BR	BCKP ALARM LAMP TRAVEL ALARM	AS13 PK DC/DC CONVERTER MEMORY OUTPUT	
322	GY	WARNING HORN (FORWARD)	Lighting Circuits	
Monitoring Circuits				
403	GN	ALTERNATOR (R) TERM.	600 BR DASH LAMP BASIC	
405	GY	OPR MON OIL PRESS. (LO SETTING)	608 GN FLOOD LAMP - REAR	
410	WH	OPR MON ACTION ALARM	609 YL FLOOD LAMP - SIDE	
411	PK	OPR MON MASTER ACTION LAMP	610 OR HEAD LAMP BASIC	
412	BU	OPR MON COOLANT FLOW	633 BU ATTACH LIGHTING CKT	
426	BR	OPR MON POWER TRAIN OIL FIL TER	643 GN DISPLAY INTENSITY UP	
441	OR	ENG COOLANT TEMP GAGE	644 OR BRIGHTNESS ADJUST	
442	GY	HYD SYSTEM TEMP GAGE	Control Circuits	
			779 WH COUPLER ENGAGE SOL	
			780 PU COUPLER DISENGAGE SOL	

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FAILURE MODE IDENTIFIER (FMI) LIST	
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.

Connector Location							
Connector	Machine Location	Harness And/OR Components	Schematic Location	Connector	Machine Location	Harness And/OR Components	Schematic Location
40 Contacts	1	D-8E-2955 Operator Monitor (CMS)	E-8	1	B-8E-1399 Fuel Level Sensor	E-8	A
24 Contacts	1	A-8E-1397	E-5	2	B-8E-1399 Fuel Level Sensor	E-8	A
	2	D-8E-2955	F-5	3	U-9H-7012 Sensor - Engine Oil Pressure	C-3	18
20 Contacts	1	B-8E-1399	F-5	4	Sensor - Engine Speed	C-4	20
	2	D-8E-2955	B-5	5	Sensor - Fuel Pressure	D-11	21
10 Contacts	1	C-8E-1398	B-5	6	Sensor - Hydraulic Oil Temperature	B-10	22
	2	D-8E-2955	F-7	7	Solenoid - C Clutch	C-1	24
8 Contacts	1	A-8E-1397	E-3	8	Solenoid - Dual Tilt	F-2	25
	2	D-8E-2955	A-10	9	Solenoid - Ripper Pin Puller	B-12	26
7 Contacts	1	C-8E-1398	F-7	10	Dual Tilt Solenoid	F-2	25
	2	D-8E-2955	C-10	11	PP-3E-7879 Service Mode Plug	F-7	7
6 Contacts	1	P-9U-9046	A-10	12	A-8E-1397	F-2	F-2
	2	Q-9U-9046	C-10	13	PP-3E-7879	F-2	F-2
6 Contacts	1	R-9U-9048	B-6	14	Switch - Backup Alarm	E-11	C
	2	S-9U-9048	F-11	15	Switch - Blower	E-11	C
6 Contacts	1	C-8E-1398	A-10	16	Switch - Coolant Flow	B-3	29
	2	N-8E-5337	D-11	17	Switch - Coolant Temp (Start Aid)	D-3	18
6 Contacts	1	K-106-8693	F-12	18	Switch - Dimmer	C-7	A
	2	N-8E-5337	F-11	19	Switch - Disconnect	F-4	16
6 Contacts	1	P-9U-9046	B-9	20	Switch - Dual Tilt	D-10	B
	2	Q-9U-9046	B-9	21	Switch - Head Lamp	C-7	A
6 Contacts	1	R-9U-9048	E-10	22	Switch - Horn	C-11	B
	2	S-9U-9048	E-10	23	Switch - Key Start	B-7	A
6 Contacts	1	T-9U-9048	A-9	24	Switch - Neutral/Start	F-10	C
	2	U-9U-9048	A-9	25	Switch - Power Train Filter Bypass Temp	E-12	28
6 Contacts	1	V-9U-9048	A-9	26	Switch - Rear Flood Lamp	C-7	A
	2	W-9U-9048	A-9	27	Switch - Ripper Pin Puller	C-11	B
6 Contacts	1	X-9U-9048	A-9	28	Switch - Side Flood Lamp	C-7	A
	2	Y-9U-9048	A-9	29	Switch - Start Aid	B-7	A
6 Contacts	1	Z-9U-9048	A-9	30	Switch - Thermostat	F-10	A
	2	AA-9U-9048	A-9	31	Switch - Power Train Filter Pressure	F-12	28
6 Contacts	1	AB-9U-9048	A-9	32	Switches - Wiper	C-11, C-12	D
	2	AC-9U-9048	A-9	33	Resistor - Blower Motor Speed	F-11	14
6 Contacts	1	AD-9U-9048	A-9	34	Resistor - Starter to Diagnostic Conn.	F-4	8
	2	AE-9U-9048	A-9	35	Relays - Auxiliary Start	F-4	16

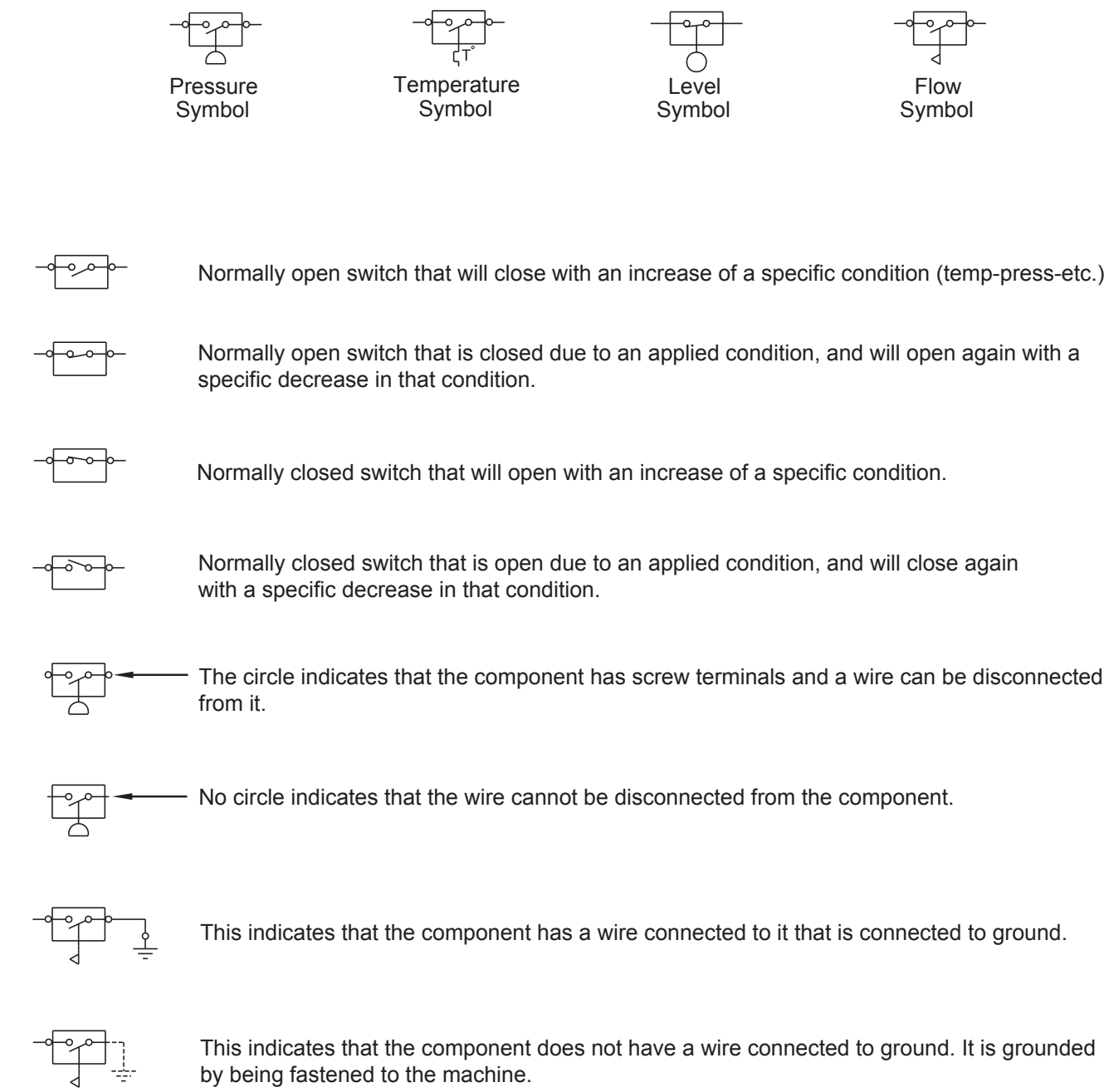
Machine Locations Are Repeated For Components Located Close Together
* Connector is Located At The Component

Component Location					
Component	Schematic Location	Machine Location	Component	Schematic Location	Machine Location
Alarm - Action	C-12	1	Resistor - System Voltage (CMS)	E-8	A
Alarm - Backup	E-12	2	Sensor - Coolant Temp	C-3	18
Alternator	C-1	3	Sensor - Engine Oil Pressure	C-3	19
Batteries	A-4, F-4, F-5	4	Sensor - Engine Speed	C-4	20
Breaker - Alternator	D-4	5	Sensor - Fuel Pressure	D-11	21
Breaker - Auxiliary	B-9	6	Sensor - Hydraulic Oil Temperature	B-10	22
Breaker - Blower	B-9	7	Solenoid - C Clutch	A-6	23
Breaker - Key	B-9	8	Solenoid - Dual Tilt	C-1	24
Breaker - Lamp	B-9	9	Solenoid - Ripper Pin Puller	B-12	26
Breaker - Main	D-4	10	Solenoid - Start Aid	C-4	27
Breaker - Power Outlet	B-9	11	Switch - A/C Refrigerant Pressure	D-1	24
Bus Bar - Positive	F-4	12	Switch - Accessory	C-7	A
Converter - Voltage	F-12	13	Switch - Backup Alarm	E-11	C
Fuses	C-1	14	Switch - Blower	E-11	C
Grounds - Flood Lamp	F-4	15	Switch - Coolant Flow	B-3	29
Grounds - Forward	D-1	16	Switch - Coolant Temp (Start Aid)	D-3	18
Horns - Forward	D-1	17	Switch - Dimmer	C-7	A
Lamp - Action	B-9	18	Switch - Disconnect	F-4	16
Main - Service (Hour)	A-9	19	Switch - Dual Tilt	D-10	B
Monitor - Operator (CMS)	E-9	20	Switch - Head Lamp	C-7	A
Motor - Front Wiper	B-9	21	Switch - Horn	C-11	B
Motor - Rear Wiper	E-10	22	Switch - Key Start	B-7	A
Motor - Right Wiper	E-11	23	Switch - Neutral/Start	F-10	C
Motor - Blower	F-10, F-12	24	Switch - Power Train Filter Bypass Temp	E-12	28
Motor - Steering	F-3	25	Switch - Rear Flood Lamp	C-7	A
Motors - Windshield Washer	F-12	26	Switch - Ripper Pin Puller	C-11	B
Radio	A-6, B-6	D	Switch - Side Flood Lamp	C-7	A
Relays - Auxiliary Start	F-4	16	Switch - Start Aid	B-7	A
Relay - Main	D-4	17	Switch - Thermostat	F-10	A
Relays - Start	D-4	17	Switch - Power Train Filter Pressure	F-12	28
Resistor - Blower Motor Speed	F-11	14	Switches - Wiper	C-11, C-12	D
Resistor - Starter to Diagnostic Conn.	F-4	8			

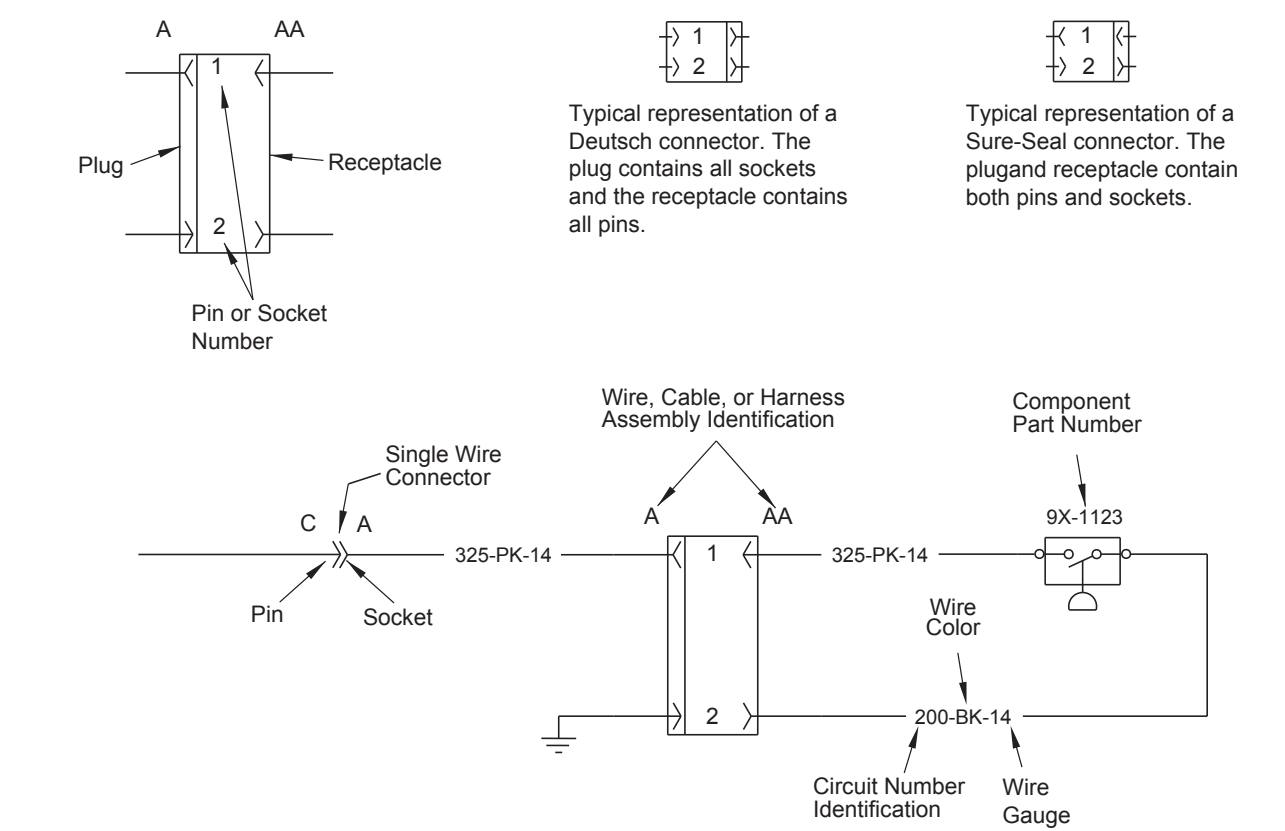
Machine locations are repeated for components located close together.

- A = Components located in the dash.
- B = Components located in the right console area.
- C = Components located in the left console area.
- D = Components located in the headliner.

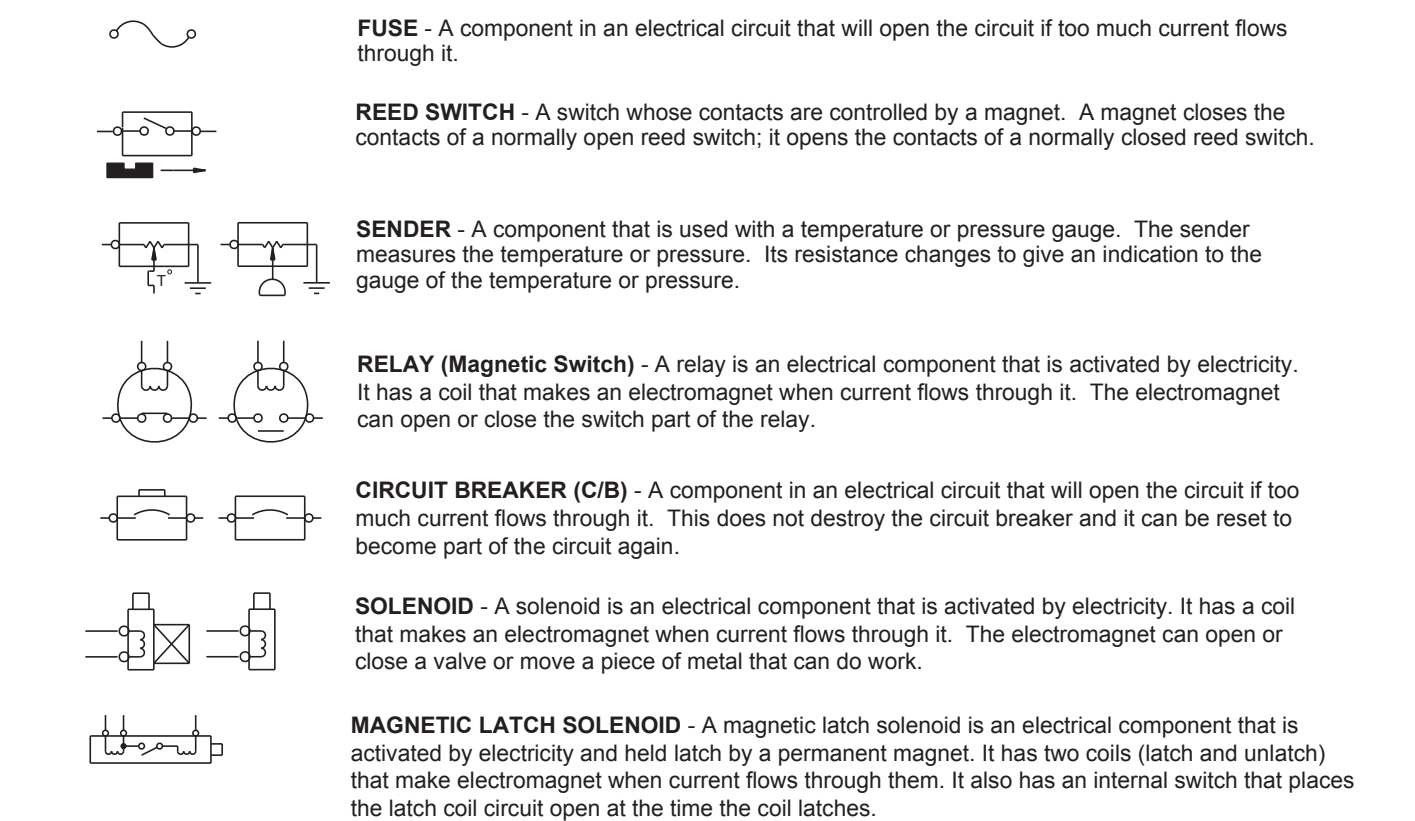
Electrical Schematic Symbols And Definitions

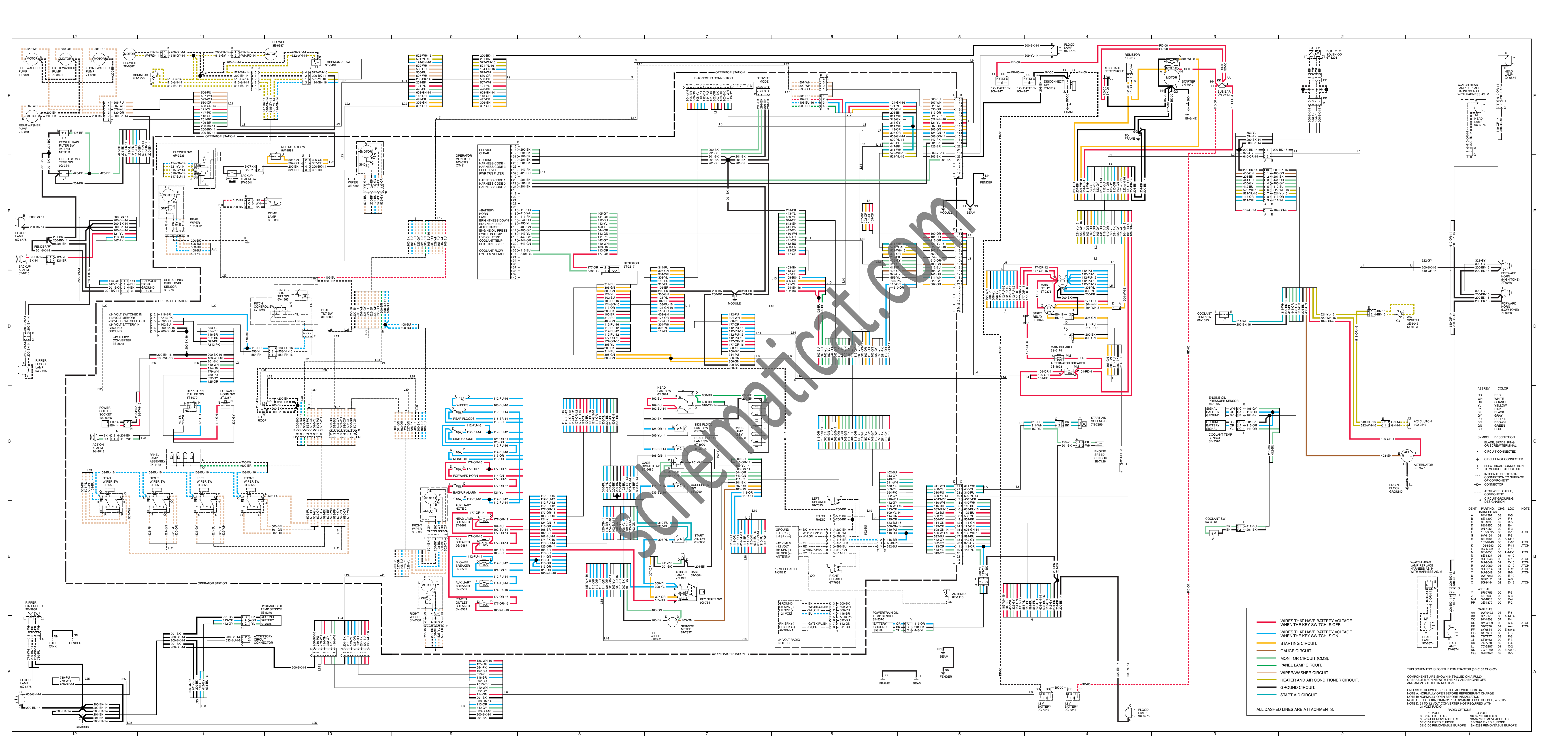


Harness And Wire Electrical Schematic Symbols



Electrical Schematic Symbols And Definitions





- WIRES THAT HAVE BATTERY VOLTAGE WHEN THE KEY SWITCH IS OFF.
 - WIRES THAT HAVE BATTERY VOLTAGE STARTING CIRCUIT.
 - GAUGE CIRCUIT.
 - MONITOR CIRCUIT (CMS).
 - PANEL LAMP CIRCUIT.
 - WIPER/WASHER CIRCUIT.
 - GROUND CIRCUIT.
 - START AID CIRCUIT.
- ALL DASHED LINES ARE ATTACHMENTS.

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

IDENT	PART NO.	CHG	LOC	NOTE
A	BE-1307	03	E-6	
B	BE-1399	07	F-6	
C	BE-1398	07	B-4	
D	BE-1451	02	E-3	
E	BE-1505	02	E-3	
F	BE-1568	03	F-1	
G	6V-8164	03	F-3	
H	BE-1568	03	F-1	
I	10D-2058	01	F-10	ATCH
J	10D-2058	01	F-10	ATCH
K	90-6259	02	E-12	ATCH
L	90-6259	02	E-12	ATCH
M	90-6259	02	E-12	ATCH
N	BE-6337	06	A-10	
O	BE-6337	06	A-10	
P	BE-6337	06	A-10	
Q	90-6048	01	C-10	ATCH
R	90-6048	01	C-10	ATCH
S	90-6048	01	F-12	ATCH
T	90-6048	04	B-4	
U	90-7012	02	E-10	
V	90-7012	02	E-10	
X	90-9494	02	D-12	ATCH
Y	SR-7755	00	F-3	
Z	4E-6930	00	D-4	
AA	3A-4833	00	D-4	
AB	3E-7879	00	F-2	

THIS SCHEMATIC IS FOR THE JOHN TRACTOR (6E-1333 CHG 02)
 COMPONENTS ARE SHOWN INSTALLED ON A FULLY OPERABLE MACHINE WITH THE KEY AND ENGINE OFF.
 AND MAIN SWITCHER IN NEUTRAL.
 UNLESS OTHERWISE SPECIFIED ALL WIRE IS 18 GA
 NOTE: A. NORMALLY OPEN BEFORE REFRIGERANT CHARGE
 NOTE: B. NORMALLY OPEN BEFORE INSTALLATION
 NOTE: C. FUSES (10A, 3A, 20A, 15A, 5A) ARE FUSE HOLDERS. 4K-9122
 NOTE: D. 24 VOLT 12 VOLT CONVERTER NOT REQUIRED WITH 24 VOLT RADIO
 RADIO OPTIONS
 18 VOLT
 3E-7142 FIXED U.S.
 3E-7141 REMOVABLE U.S.
 3E-6107 FIXED EUROPE
 3E-6106 REMOVABLE EUROPE
 24 VOLT
 9K-6775 FIXED U.S.
 9K-6774 REMOVABLE U.S.
 3E-7860 FIXED EUROPE
 3E-7859 REMOVABLE EUROPE