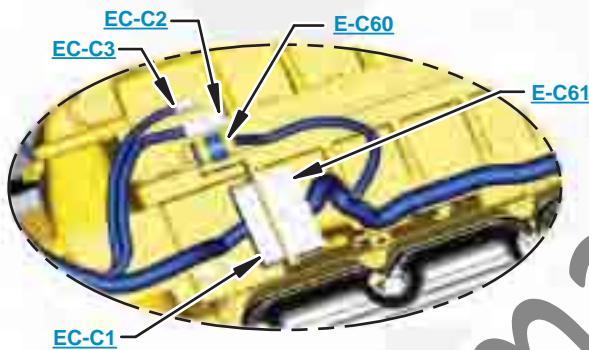




This document is best viewed at a screen resolution of 1024 X 768.

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

320D, 322D, 323D, 324D, 325D, 329D, 330D, 336D₂ and 340D₂ Excavator Electrical System

320D:
KGF1-UP
MCH1-UP
FAL1-UP
WBN1-UP
PHX1-UP

322D:
JJG1-UP
DFP1-UP
CJX1-UP

323D:
RAC1-UP
SDC1-UP
WGC1-UP
CYD1-UP
SED1-UP
YSD1-UP

324D:
EJC1-UP
SYM1-UP

325D:
GPB1-UP
PKE1-UP
KDG1-UP
A3R1-UP
SCR1-UP

329D:
MNB1-UP
BFC1-UP
JHJ1-UP
WDK1-UP
SCY1-UP

330D:
GGE1-UP
B6H1-UP
JLP1-UP
MWP1-UP
RAS1-UP

336D₂:
JLG1-UP
BYM1-UP
DKW1-UP
SBZ1-UP

336D₂:
WDC1-UP
YCF1-UP
XBH1-UP
ZCT1-UP
TLY1-UP

340D₂:
HHK1-UP

Accugrade

COMPONENT LOCATION



Component	Schematic Location	Machine Location
Box - Junction	A-7	1
Display - CD700	D-1	2
Fuse - Accugrade #2	E-3	3
Fuse - Accugrade #3	E-3	3
Light Bar - Back / Forth	E-1	4
Light Bar - Right / Left	E-1	4
Light Bar - Up / Down	E-1	4
Module - Power	D-7	5
Radio - GPS	E-7	6
Receiver - GPS (LH)	A-3	7
Receiver - GPS (RH)	B-3	8
Resistor - Can 1	B-6	9
Resistor - Can 1	C-4	10
Sensor - Body Tilt	C-7	5
Sensor - Boom	C-7	11
Sensor - Bucket	A-7	12
Sensor - Stick	B-7	13

Machine locations are repeated for components located close together.

CONNECTOR LOCATION



Connector Number	Schematic Location	Machine Location
CONN 1	E-6	9
CONN 2	B-6	14
CONN 3	E-4	10
CONN 4	E-3	9
CONN 5	E-3	9
CONN 6	B-5	15
CONN 7	B-5	15
CONN 8	B-3	15
CONN 9	D-3	16
CONN 10	D-3	16
CONN 11	C-3	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.

WIRE DESCRIPTION



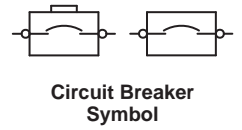
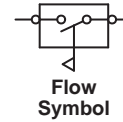
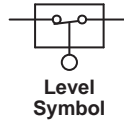
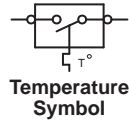
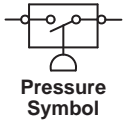
Wire Number	Wire Color	Description
Power Circuits		
A101	RD	Power Module
184	BU	Battery +
Ground Circuits		
200	BK	Main Chassis
Control Circuits		
252	BK	Display Data Link +
262	BK	Display Data Link -
E752	YL	Lightbar RS-232 TX 1
E753	WH	Lightbar RS-232 RX 1
K960	PK	Can 0 +
K961	GN	Can 0 -
L856	YL	Can 1 +
L857	GN	Can 1 -
L870	YL	Power Module (Awake)
L871	BU	Power Module (Awake Return)
L872	BU	Power Module (Power 1)
L873	GY	Power Module (Power 2)
N957	PK	RS-232 TXD 0
N958	PK	RS-232 TXD 2
N960	OR	RS-232 RXD 0
N961	OR	RS-232 RXD 2
N967	GY	RS-232 CTS 0
N976	PU	RS-232 RTS 1
T744	WH	RS-232 SGND 0 / 1 / 2
T745	YL	Sensor Ground

HARNESS and WIRE

Electrical Schematic Symbols



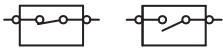
Symbols



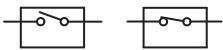
Symbols and Definitions



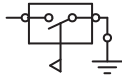
Fuse: A component in an electrical circuit that will open the circuit if too much current flows through it.



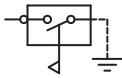
Switch (Normally Open): A switch that will close at a specified point (temp, press, etc.). The circle indicates that the component has screw terminals and a wire can be disconnected from it.



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.



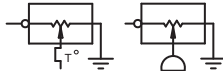
Ground (Wired): This indicates that the component is connected to a grounded wire. The grounded wire is fastened to the machine.



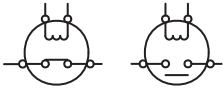
Ground (Case): This indicates that the component does not have a wire connected to ground. It is grounded by being fastened to the machine.



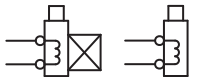
Reed Switch: A switch whose contacts are controlled by a magnet. A magnet closes the contacts of a normally open reed switch; it opens the contacts of a normally closed reed switch.



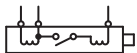
Sender: A component that is used with a temperature or pressure gauge. The sender measures the temperature or pressure. Its resistance changes to give an indication to the gauge of the temperature or pressure.



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.



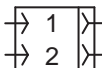
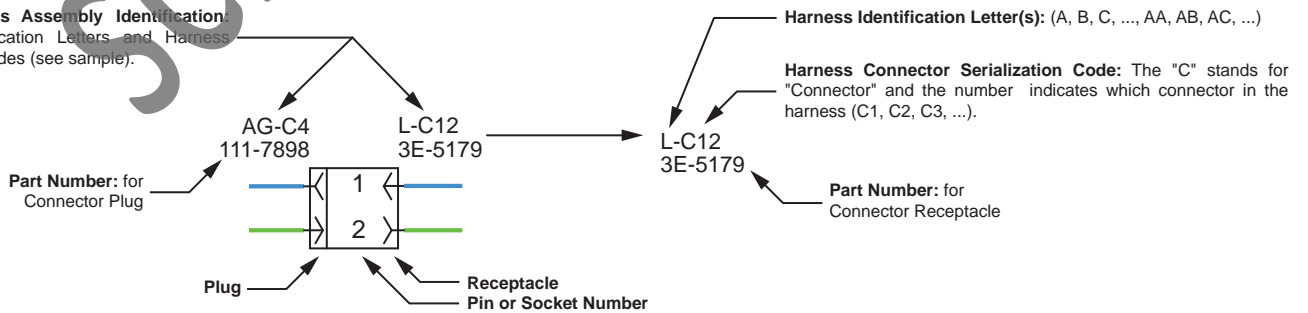
Solenoid: A solenoid is an electrical component that is activated by electricity. It has a coil that makes an electromagnet when current flows through it. The electromagnet can open or close a valve or move a piece of metal that can do work.



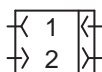
Magnetic Latch Solenoid: A magnetic latch solenoid is an electrical component that is activated by electricity and held latched by a permanent magnet. It has two coils (latch and unlatch) that make electromagnet when current flows through them. It also has an internal switch that places the latch coil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

Harness and Wire Symbols

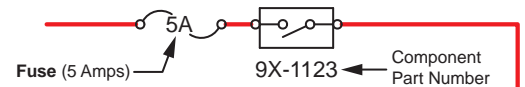
Wire, Cable, or Harness Assembly Identification: Includes Harness Identification Letters and Harness Connector Serialization Codes (see sample).



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.



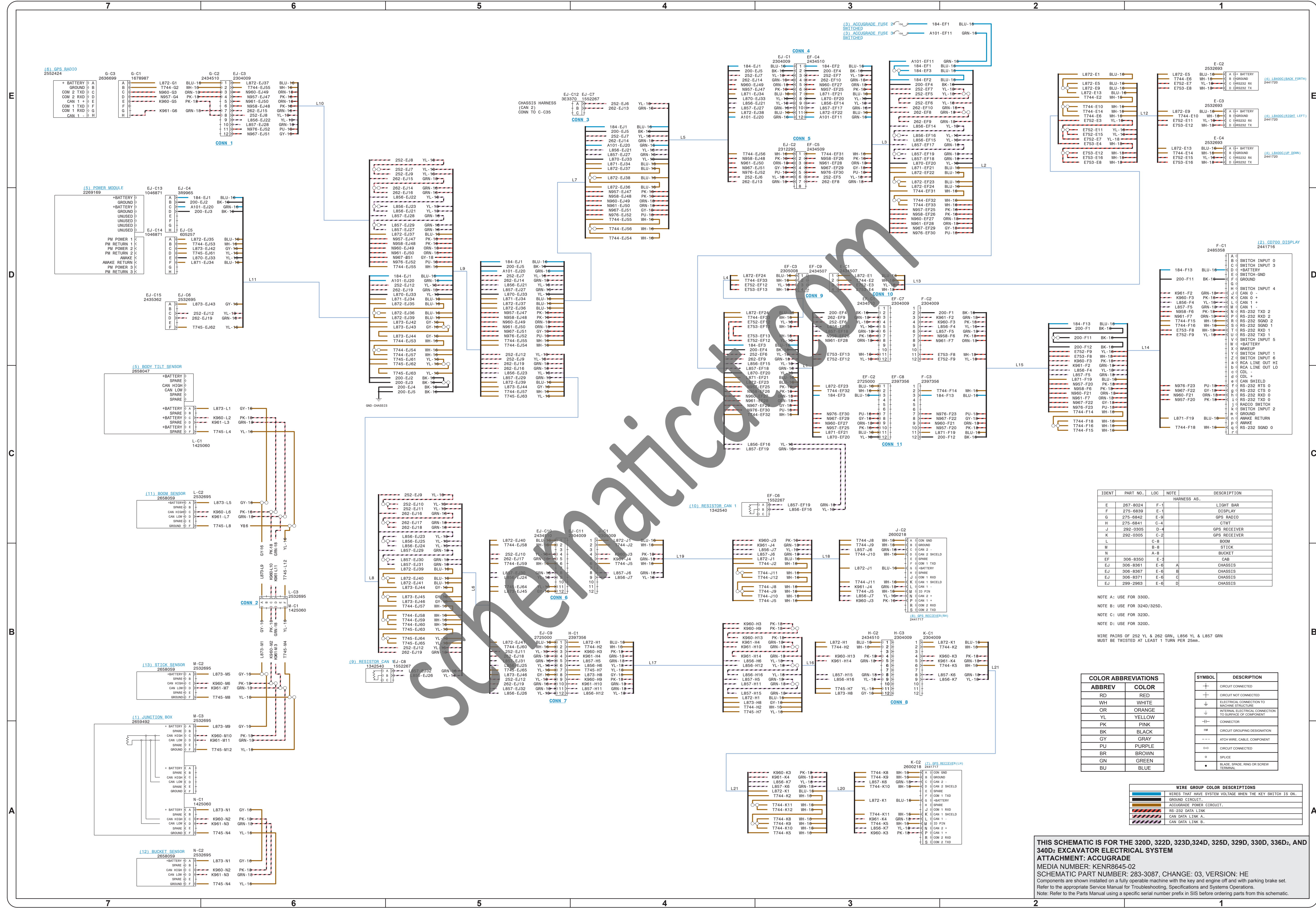
Harness identification code: This example indicates wire group 325, wire 135 in harness "AG".

325-AG135

PK-14

Wire Gauge

Wire Color



IDENT	PART NO.	LOC	NOTE	DESCRIPTION
E	267-8024	F-1		HARNESS AS.
F	275-6639	E-1		DISPLAY
G	275-6842	E-9		GPS RADIO
H	275-6841	C-4		CTWT
J	292-0305	D-4		GPS RECEIVER
K	292-0305	C-2		GPS RECEIVER
L		C-8		BOOM
M		B-8		STICK
N		A-8		BUCKET
EF	306-8350	E-3		CAB
EJ	306-8361	E-6	A	CHASSIS
EJ	306-8367	E-6	B	CHASSIS
EJ	306-8371	E-6	C	CHASSIS
EJ	299-2963	E-6	D	CHASSIS

NOTE A: USE FOR 330D.
 NOTE B: USE FOR 324D/325D.
 NOTE C: USE FOR 320D.
 NOTE D: USE FOR 322D.

WIRE PAIRS OF 252 YL & 262 GRN, L856 YL & L857 GRN MUST BE TWISTED AT LEAST 1 TURN PER 2CM.

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

SYMBOL	DESCRIPTION
+	CIRCUIT CONNECTED
-	CIRCUIT NOT CONNECTED
⊥	ELECTRICAL CONNECTION TO MACHINE STRUCTURE
⊥	INTERNAL ELECTRICAL CONNECTION TO SURFACE OF COMPONENT
— —	CONNECTOR
HP	CIRCUIT GROUPING DESIGNATION
---	ATCH WIRE, CABLE, COMPONENT
○	CIRCUIT CONNECTED
○	SPURCE
•	BLACK, SPARE, RING OR SCREW TERMINAL

WIRE GROUP	COLOR DESCRIPTIONS
WIRE GROUP	WIRE GROUPS THAT HAVE SYSTEM VOLTAGE WHEN THE KEY SWITCH IS ON.
GROUND CIRCUIT	GROUND CIRCUIT
ACCURGRADE POWER CIRCUIT	ACCURGRADE POWER CIRCUIT
RS-232 DATA LINK	RS-232 DATA LINK
CAN DATA LINK A	CAN DATA LINK A
CAN DATA LINK B	CAN DATA LINK B
CAN DATA LINK C	CAN DATA LINK C

THIS SCHEMATIC IS FOR THE 320D, 322D, 323D, 324D, 325D, 329D, 330D, 336D₂, AND 340D₂ EXCAVATOR ELECTRICAL SYSTEM ATTACHMENT: ACCURGRADE
 MEDIA NUMBER: KENR8645-02
 SCHEMATIC PART NUMBER: 283-3087, CHANGE: 03, VERSION: HE
 Components are shown installed on a fully operable machine with the key and engine off and with parking brake set. Refer to the appropriate Service Manual for Troubleshooting, Specifications and Systems Operations.
 Note: Refer to the Parts Manual using a specific serial number prefix in SIS before ordering parts from this schematic.

MACHINE COMPONENT AND CONNECTOR LOCATIONS

