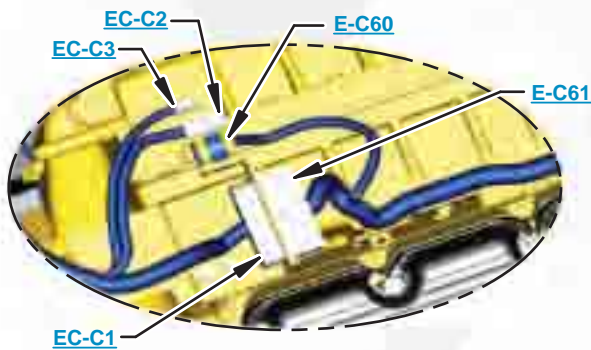


***This document is best viewed at a screen resolution of 1024 X 768.***

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 quickly navigate to points of interest

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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"



# Schematic

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## **320D, 322D, 323D, 324D, 325D, 329D, 330D, 336D<sub>2</sub> and 340D<sub>2</sub> Excavator Electrical System**

---

<b>320D:</b> KGF1-UP MCH1-UP FAL1-UP WBN1-UP PHX1-UP	<b>322D:</b> JJG1-UP DFP1-UP CJX1-UP	<b>323D:</b> RAC1-UP SDC1-UP WGC1-UP CYD1-UP SED1-UP YSD1-UP JLG1-UP	<b>324D:</b> EJC1-UP SYM1-UP	<b>325D:</b> GPB1-UP PKE1-UP KDG1-UP A3R1-UP SCR1-UP
<b>329D:</b> MNB1-UP BFC1-UP JHJ1-UP WDK1-UP SCY1-UP	<b>330D:</b> GGE1-UP B6H1-UP JLP1-UP MWP1-UP RAS1-UP	<b>336D<sub>2</sub>:</b> BYM1-UP DKW1-UP SBZ1-UP	<b>340D<sub>2</sub>:</b> HHK1-UP	

# COMPONENT LOCATION



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

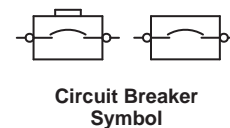
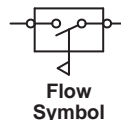
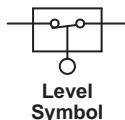
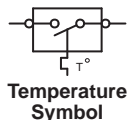
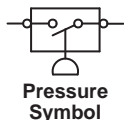
Machine locations are repeated for components located close together.

Connector Number	Schematic Location	Machine Location
CONN 1	<a href="#">E-6</a>	<a href="#">9</a>
CONN 2	<a href="#">B-6</a>	<a href="#">14</a>
CONN 3	<a href="#">E-4</a>	<a href="#">10</a>
CONN 4	<a href="#">E-3</a>	<a href="#">9</a>
CONN 5	<a href="#">E-3</a>	<a href="#">9</a>
CONN 6	<a href="#">B-5</a>	<a href="#">15</a>
CONN 7	<a href="#">B-5</a>	<a href="#">15</a>
CONN 8	<a href="#">B-3</a>	<a href="#">15</a>
CONN 9	<a href="#">D-3</a>	<a href="#">16</a>
CONN 10	<a href="#">D-3</a>	<a href="#">16</a>
CONN 11	<a href="#">C-3</a>	<a href="#">16</a>

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 Number	Wire Color	Description
<b>Power Circuits</b>		
A101	RD	Power Module
184	BU	Battery +
<b>Ground Circuits</b>		
200	BK	Main Chassis
<b>Control Circuits</b>		
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

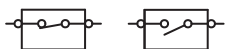
## Symbols



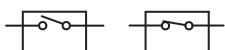
## Symbols and Definitions



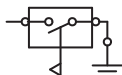
**Fuse:** A component in an electrical circuit that will open the circuit if too much current flows through it.



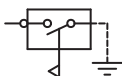
**Switch (Normally Open):** A switch that will close at a specified point (temp, press, etc.). The circle indicates that the component has screw terminals and a wire can be disconnected from it.



**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.



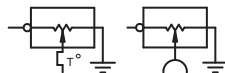
**Ground (Wired):** This indicates that the component is connected to a grounded wire. The grounded wire is fastened to the machine.



**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.



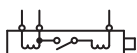
**Sender:** A component that is used with a temperature or pressure gauge. The sender measures the temperature or pressure. Its resistance changes to give an indication to the gauge of the temperature or pressure.



**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.

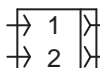
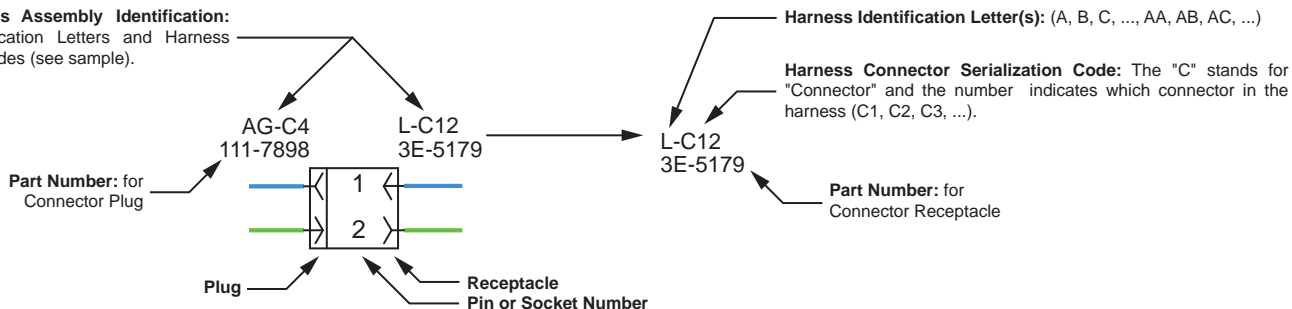


**Magnetic Latch Solenoid:** A magnetic latch solenoid is an electrical component that is activated by electricity and held latched by a permanent magnet. It has two coils (latch and unlatch) that make electromagnet when current flows through them. It also has an internal switch that places the latch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

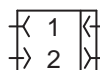
## Harness and Wire Symbols

### Wire, Cable, or Harness Assembly Identification:

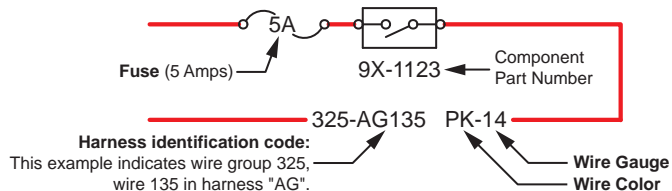
Includes Harness Identification Letters and Harness Connector Serialization Codes (see sample).

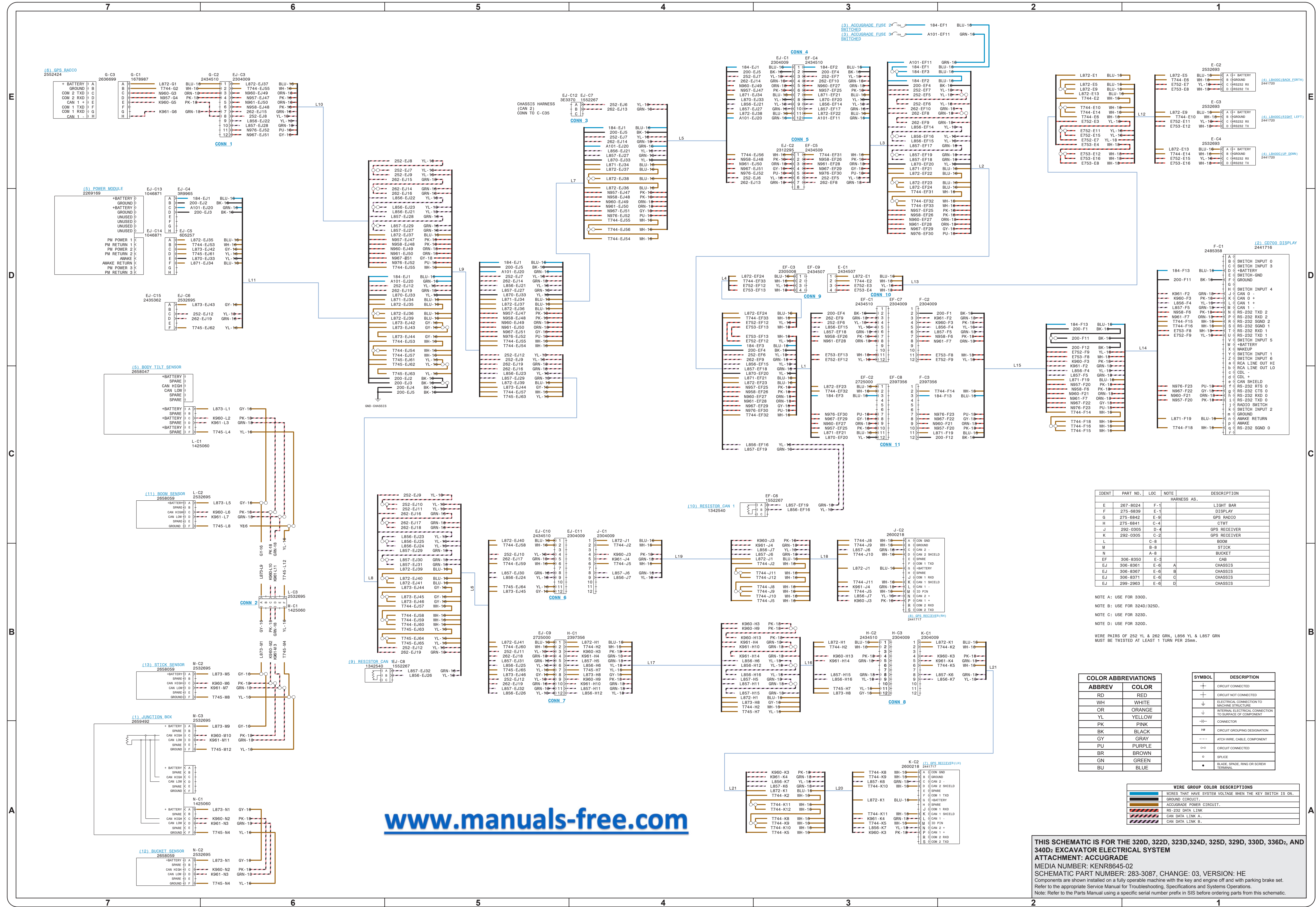


**Deutsch connector:** Typical representation of a Deutsch connector. The plug contains all sockets and the receptacle contains all pins.



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





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 323D.  
 NOTE D: USE FOR 320D.

WIRE PAIRS OF 252 YL & 262 GRN, L856 YL & L857 GRN MUST BE TIED AT LEAST 1 TURN PER 20cm.

ABBREV	COLOR	SYMBOL	DESCRIPTION
+		+	CIRCUIT CONNECTED
RD	RED	-	CIRCUIT NOT CONNECTED
WH	WHITE	⊥	ELECTRICAL CONNECTION TO MACHINE STRUCTURE
OR	ORANGE	⊥	INTERNAL ELECTRICAL CONNECTION TO SURFACE OF COMPONENT
YL	YELLOW	— —	CONNECTOR
PK	PINK	HP	CIRCUIT GROUPING DESIGNATION
BK	BLACK	---	ATCH WIRE, CABLE, COMPONENT
GY	GRAY	○	CIRCUIT CONNECTED
PU	PURPLE	○	CIRCUIT CONNECTED
BR	BROWN	○	SPURCE
GN	GREEN	○	SPURCE
BLU	BLUE	○	SPURCE

WIRE GROUP	DESCRIPTION
(Solid line)	WIRE GROUPS THAT HAVE SYSTEM VOLTAGE WHEN THE KEY SWITCH IS ON.
(Dashed line)	GROUND CIRCUIT
(Dotted line)	ACCURGRADE POWER CIRCUIT.
(Line with diagonal stripes)	RS-232 DATA LINK
(Line with horizontal stripes)	CAN DATA LINK A.
(Line with vertical stripes)	CAN DATA LINK B.
(Line with cross-hatch)	CAN DATA LINK C.

**THIS SCHEMATIC IS FOR THE 320D, 322D, 323D, 324D, 325D, 329D, 330D, 336D<sub>2</sub>, AND 340D<sub>2</sub> 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.

