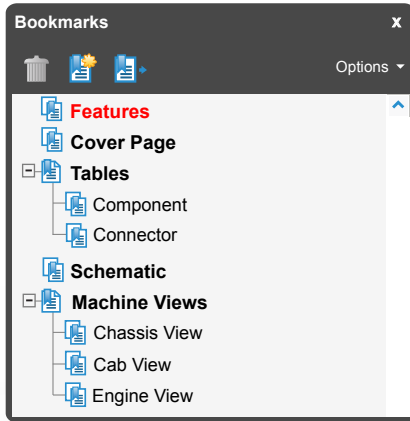


INTERACTIVE SCHEMATIC



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.***

To set your screen resolution do the following:

RIGHT CLICK on the **DESKTOP**.

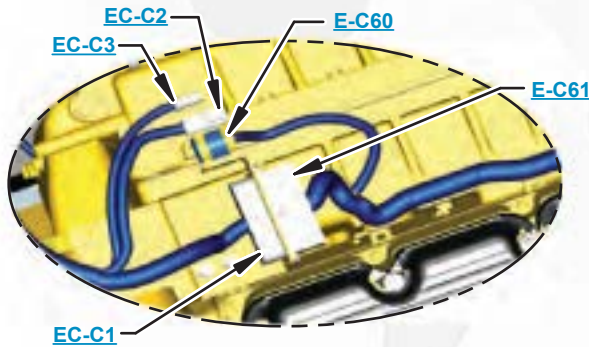
Select **PROPERTIES**.

CLICK the **SETTINGS TAB**.

MOVE THE SLIDER under **SCREEN RESOLUTION** until it shows **1024 X 768**.

CLICK OK to apply the resolution.

**Due to different monitor sizes and PDF reader preferences there may be some variance in linked schematic locations*



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



[Click here to save a copy of this interactive schematic to your desktop](#)

VIEW ALL CALLOUTS

When only one callout is showing on a machine view, clicking on 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”
	Search	“CTRL” / “SHIFT” / “F”

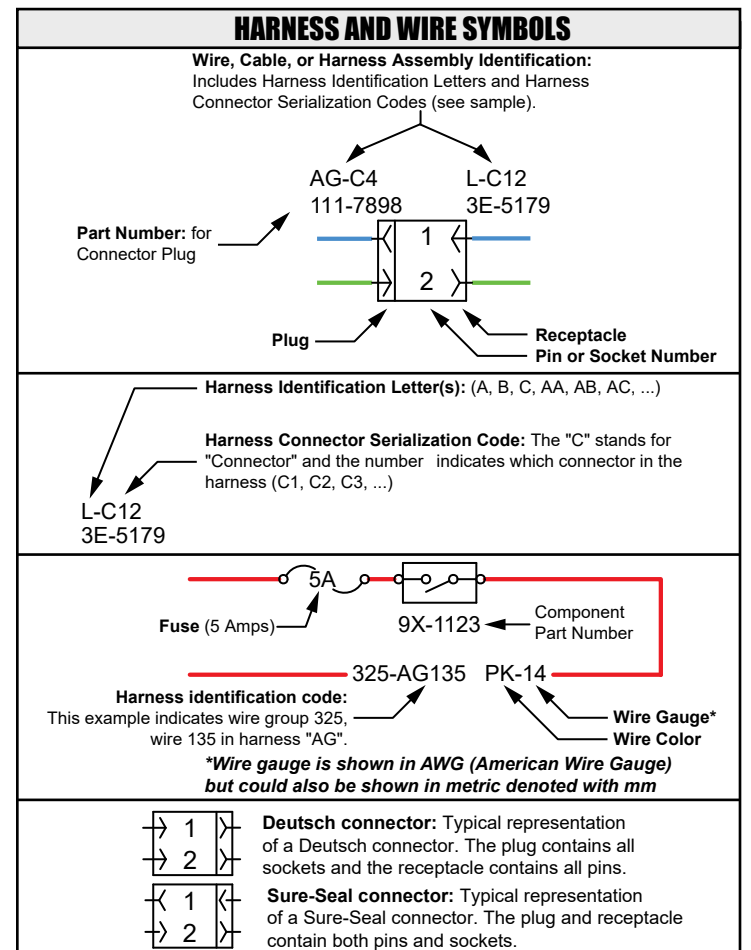
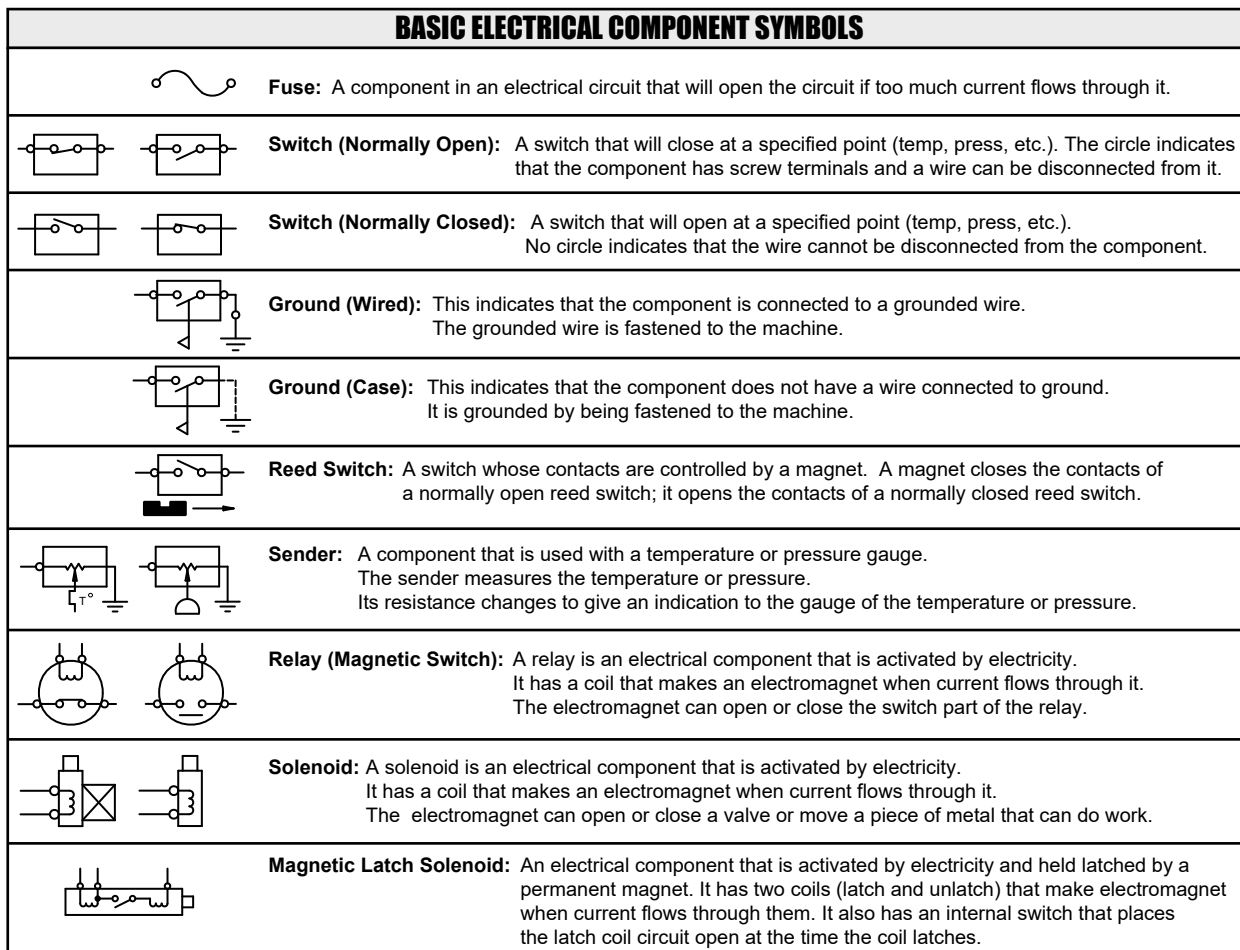
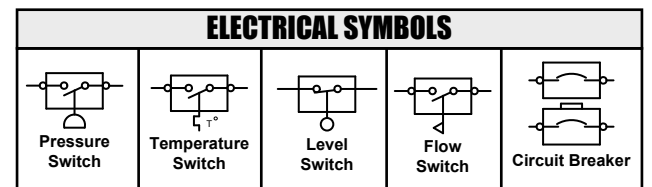
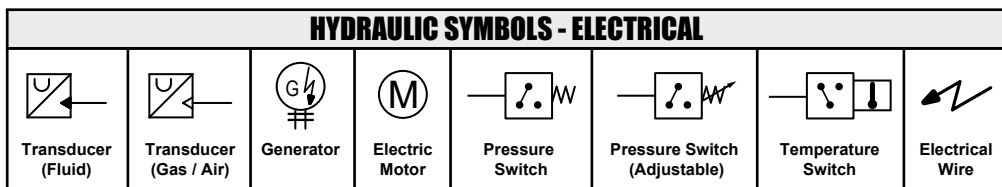
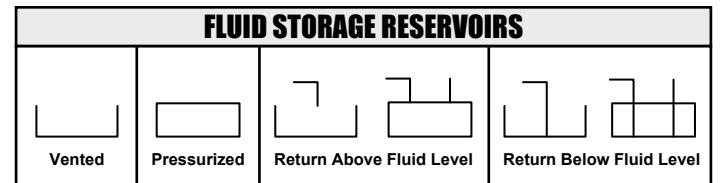
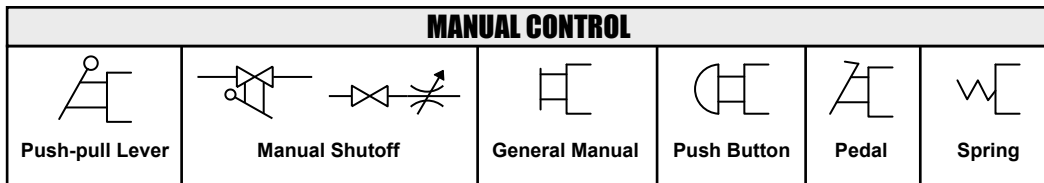
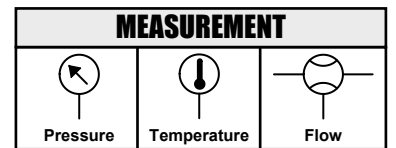
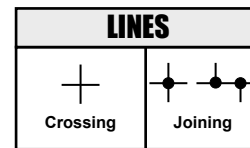
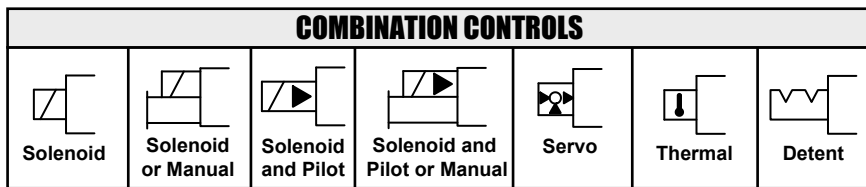
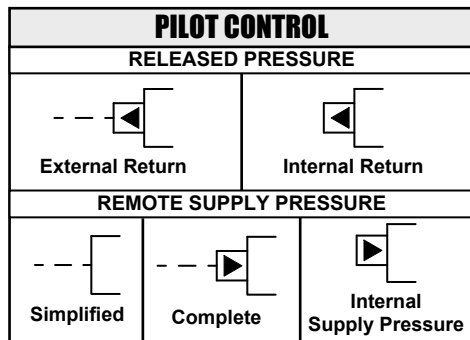
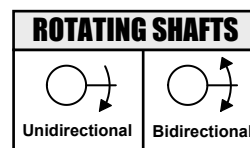
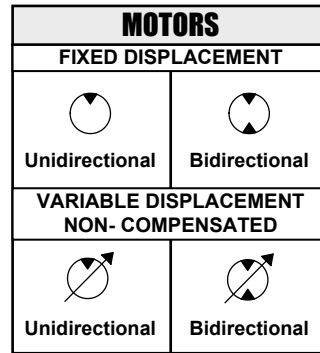
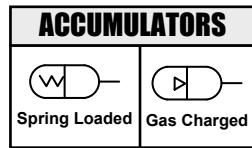
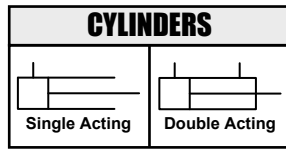
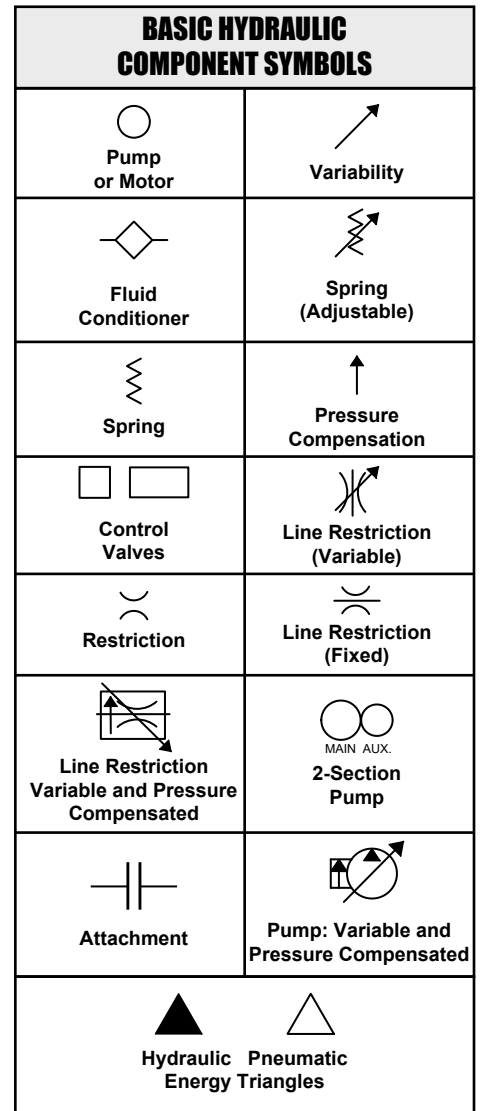
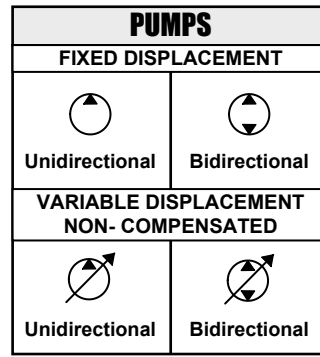
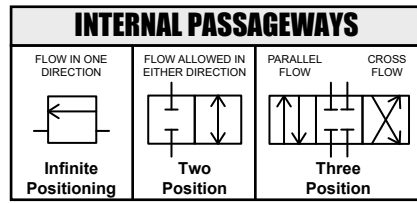
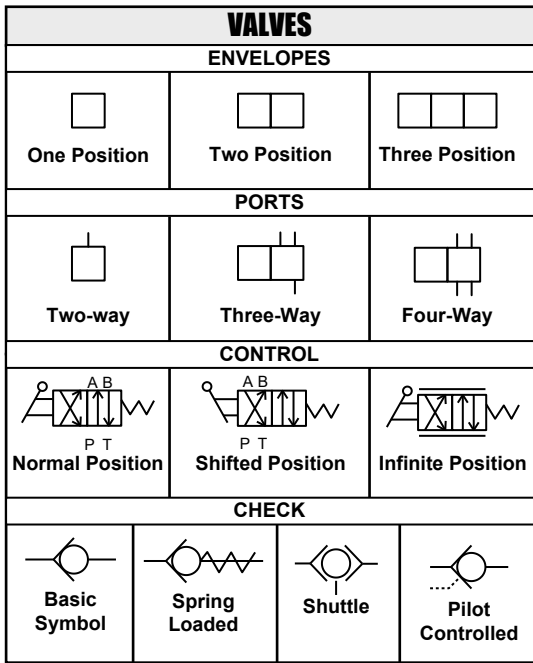
ELECTRICAL SYMBOLS				
Pressure Switch	Temperature Switch	Level Switch	Flow Switch	Circuit Breaker

BASIC HYDRAULIC COMPONENT SYMBOLS	
Pump or Motor	Variability
Fluid Conditioner	Spring (Adjustable)

[Click here to view the Schematic Symbols and Definitions page](#)



SCHEMATIC SYMBOLS AND DEFINITIONS





Schematic

140K and 160K Motor Grader AccuGrade Ready Option (ARO) Electrical System

JPA1-UP
SZL1-UP
SZM1-UP
JBP1-UP

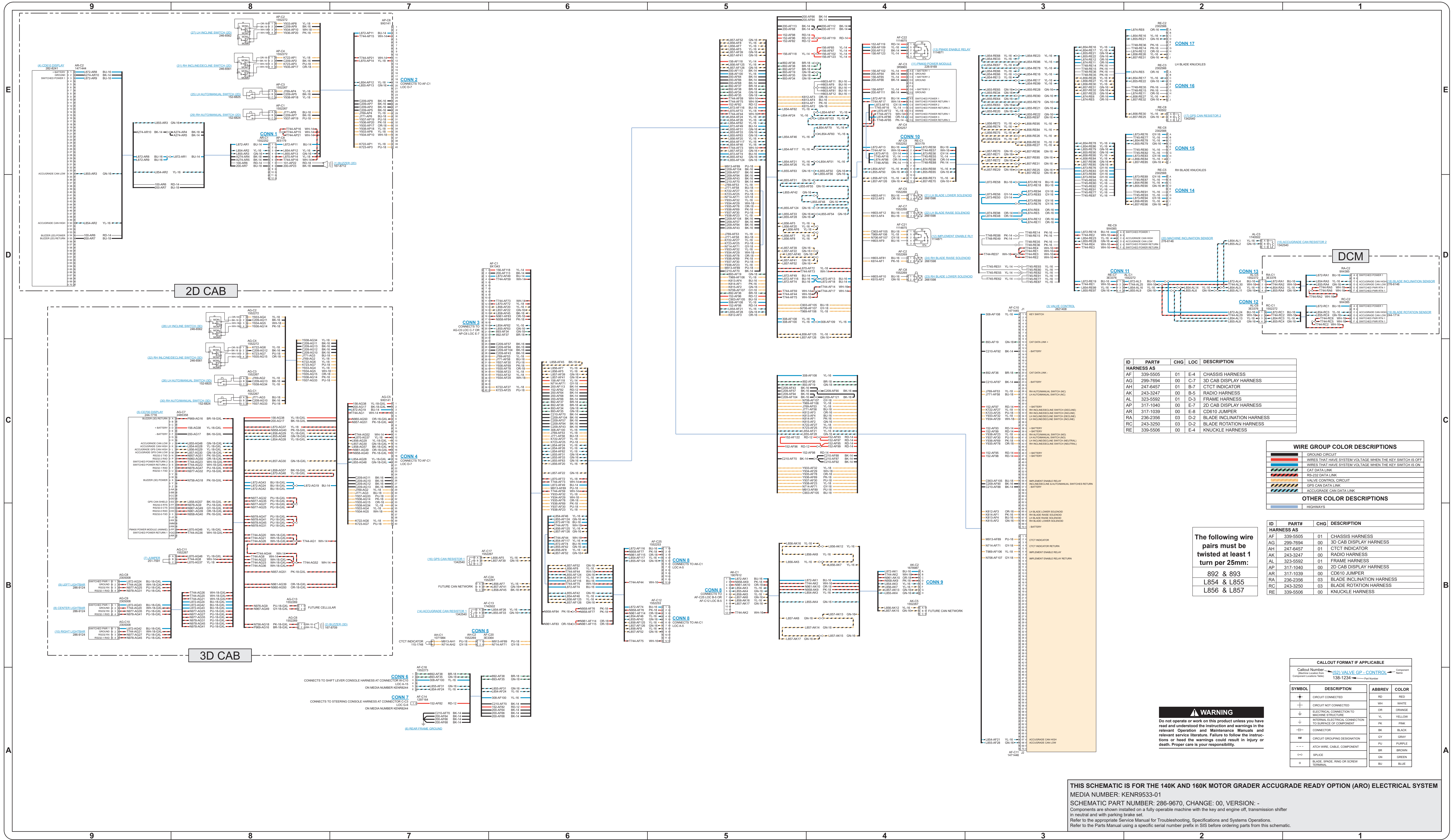
COMPONENT LOCATION



Component	Schematic Location	Machine Location
Buzzer (2D)	E-8	1
Buzzer (3D)	B-8	2
Control - Valve	D-3	3
Display - CD610	E-9	4
Display - CD700	C-9	5
Ground - Rear Frame	A-7	6
Jumper	B-9	7
Lightbar - Center	B-9	8
Lightbar- Left	B-9	9
Lightbar- Right	B-9	10
Power Module - PM400	E-4	11
Relay - Implement Enable	D-4	12
Relay - PM400 Enable	E-4	13
Resistor - AccuGrade CAN 1	B-7	14
Resistor - AccuGrade CAN 2	D-2	15
Resistor - GPS CAN 1	B-7	16
Resistor - GPS CAN 2	E-2	17
Sensor - Blade Inclination	D-1	18
Sensor - Blade Rotation	D-1	19
Sensor - Machine Inclination	D-2	20
Solenoid - LH Blade Lower	D-4	21
Solenoid - LH Blade Raise	D-4	22
Solenoid - RH Blade Lower	D-4	23
Solenoid - RH Blade Raise	D-4	24
Switch - LH Auto/Manual (2D)	E-8	25
Switch - LH Auto/Manual (3D)	C-8	26
Switch - LH Incline (2D)	E-8	27
Switch - LH Incline (3D)	D-8	28
Switch - RH Auto/Manual (2D)	E-8	29
Switch - RH Auto/Manual (3D)	C-8	30
Switch - RH Incline/Decline (2D)	E-8	31
Switch - RH Incline/Decline (3D)	C-8	32

Connector Number	Schematic Location
CONN 1	E-8
CONN 2	E-7
CONN 3	D-7
CONN 4	C-7
CONN 5	B-7
CONN 6	A-7
CONN 7	A-7
CONN 8	B-5
CONN 9	B-4
CONN 10	E-4
CONN 11	D-3
CONN 12	D-2
CONN 13	D-2
CONN 14	D-2
CONN 15	E-2
CONN 16	E-2
CONN 17	E-2

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.



ID	PART#	CHG	LOC	DESCRIPTION
AF	339-5505	01	E-4	CHASSIS HARNESS
AG	299-7694	00	C-7	3D CAB DISPLAY HARNESS
AH	247-6457	01	B-7	CTCT INDICATOR
AK	243-3247	00	B-5	RADIO HARNESS
AL	323-5592	01	D-3	FRAME HARNESS
AP	317-1040	00	E-7	2D CAB DISPLAY HARNESS
AR	317-1039	00	E-8	CD610 JUMPER
RA	236-2356	03	D-2	BLADE INCLINATION HARNESS
RC	243-3250	03	D-2	BLADE ROTATION HARNESS
RE	339-5506	00	E-4	KNUCKLE HARNESS

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
	CAT DATA LINK
	RS-232 DATA LINK
	VALVE CONTROL CIRCUIT
	GPS CAN DATA LINK
	ACCUGRADE CAN DATA LINK

ID	PART#	CHG	DESCRIPTION
AF	339-5505	01	CHASSIS HARNESS
AG	299-7694	00	3D CAB DISPLAY HARNESS
AH	247-6457	01	CTCT INDICATOR
AK	243-3247	00	RADIO HARNESS
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AP	317-1040	00	2D CAB DISPLAY HARNESS
AR	317-1039	00	CD610 JUMPER
RA	236-2356	03	BLADE INCLINATION HARNESS
RC	243-3250	03	BLADE ROTATION HARNESS
RE	339-5506	00	KNUCKLE HARNESS

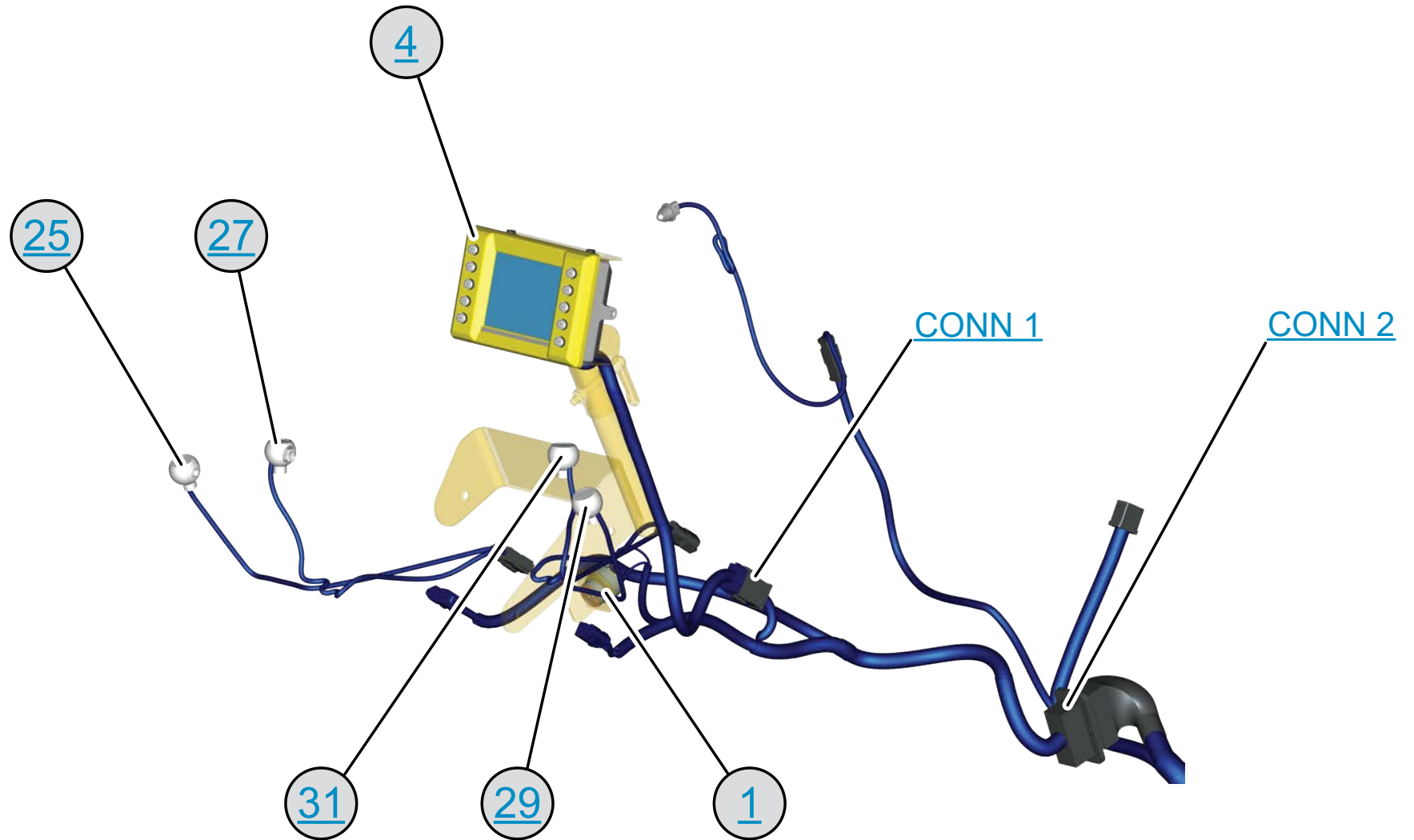
The following wire pairs must be twisted at least 1 turn per 25mm:
 L854 & L855
 L856 & L857

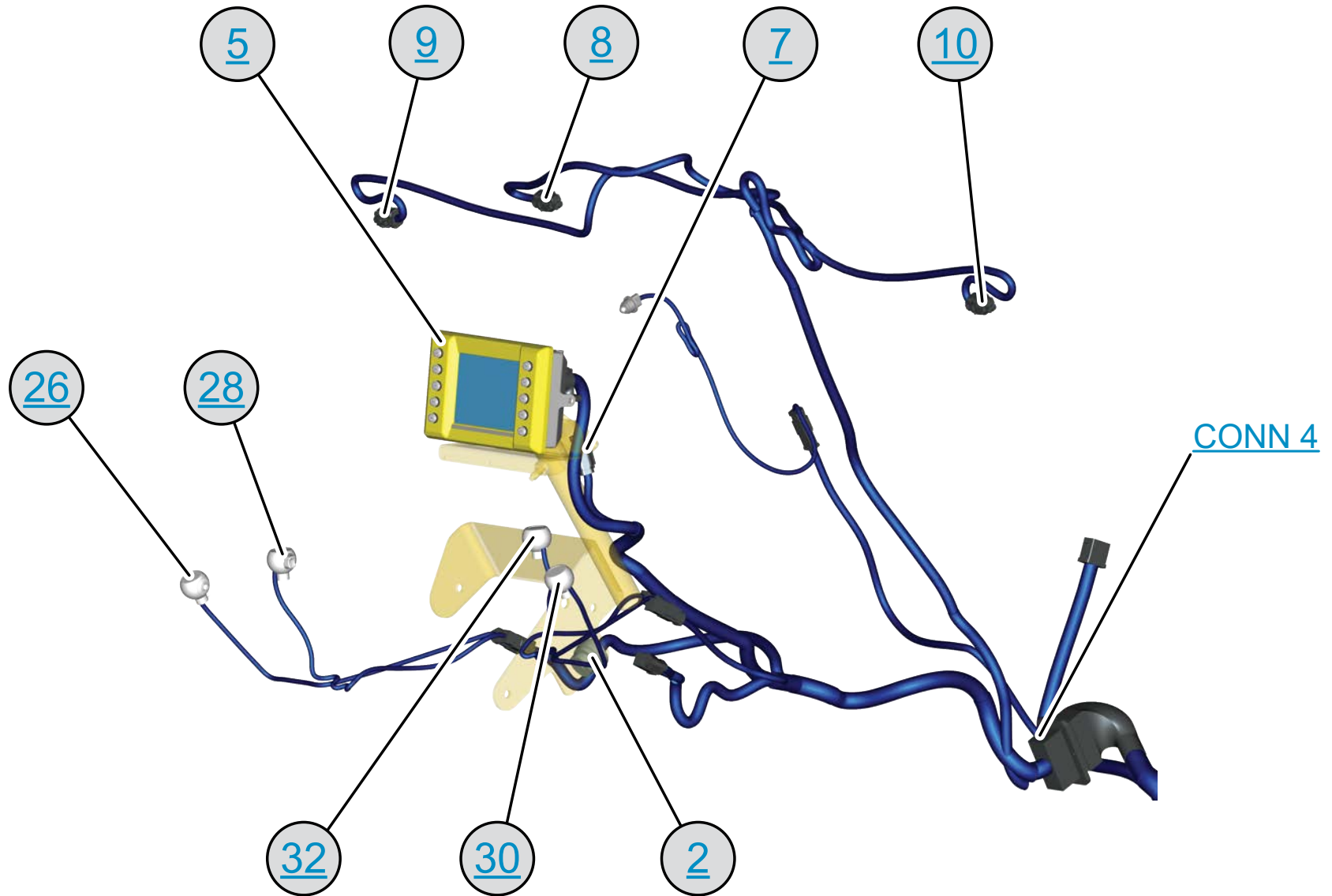
CALLOUT FORMAT IF APPLICABLE	
Callout Number	138-1234
Component Location	138-1234

SYMBOL	DESCRIPTION	ABBREV	COLOR
	CIRCUIT CONNECTED	WH	WHITE
	CIRCUIT NOT CONNECTED	OR	ORANGE
	ELECTRICAL CONNECTOR TO MACHINE STRUCTURE	YL	YELLOW
	INTERNAL ELECTRICAL CONNECTOR TO SUBPART OF COMPONENT	PK	PINK
	SUBPART	BK	BLACK
	CIRCUIT GROUPING DESIGNATION	GY	GRAY
	ATTACH WIRE CABLE COMPONENT	BR	BROWN
	SPLICE	GN	GREEN
	BLADE BLADE RING OR SCREW TERMINAL	BU	BLUE

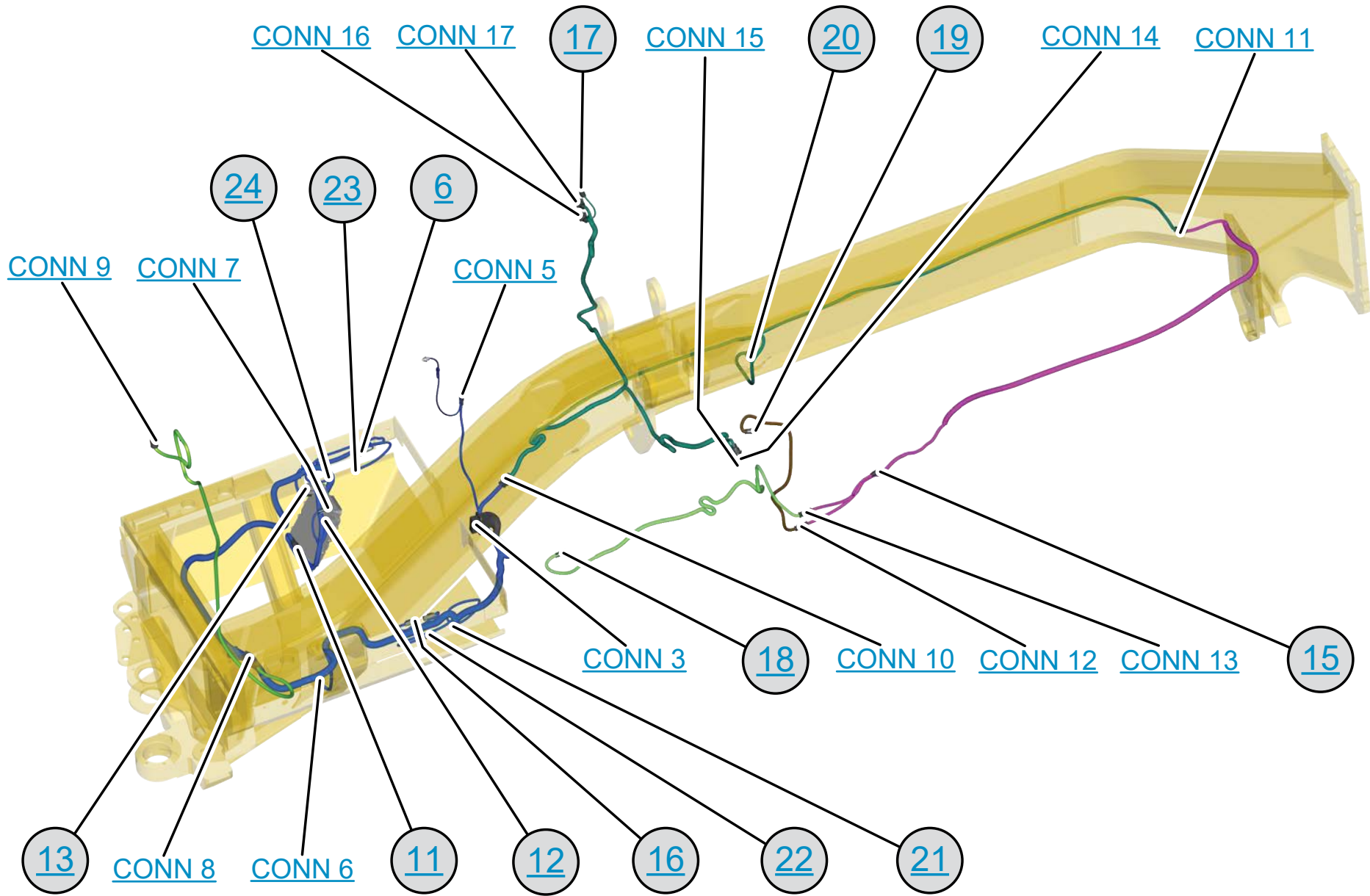
THIS SCHEMATIC IS FOR THE 140K AND 160K MOTOR GRADER ACCUGRADE READY OPTION (ARO) ELECTRICAL SYSTEM
 MEDIA NUMBER: KENR9533-01
 SCHEMATIC PART NUMBER: 286-9670, CHANGE: 00, VERSION: -
 Components are shown installed on a fully operable machine with the key and engine off, transmission shifter in neutral 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.

WARNING
 Do not operate or work on this product unless you have read and understood the instruction and warnings in the relevant Operation and Maintenance Manuals and relevant service literature. Failure to follow the instructions or heed the warnings could result in injury or death. Proper care is your responsibility.





COMPONENT LOCATIONS



VALVE CONTROL FRONT VIEW

