SEN06521-02

Shop Manual

BULLDOZER

D155AXi-8

SERIAL NUMBERS 100040 and up

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FAILURE CODE [CA249] Ambient Air Temp Sensor High Error

Action level	Failure code	Failure	Ambient Air Temp Sensor High Error (Engine controller system)
L01	CA249		
Detail of failure	High voltage occurs in signal circuit of ambient temperature sensor.		
Action of controller	• Operates substituting the ambient temperature with the intake temperature. (If there are any abnormalities in the intake air temperature sensor, operates with the ambient temperature set to the default value (25 °C)) • Advances to Inducement strategy. (EU Specification)		
Phenomenon on machine	• AdBlue/DEF line stops thawing. • The NOx emission increases because the AdBlue/DEF injection becomes improper, or the AdBlue/DEF line cannot be thawed at low temperature. • Engine power deration according to inducement strategy. (EU Specification)		
Related information	• This failure code is displayed when ambient temperature sensor connector is disconnected. • After repairing, check if the failure code is cleared by the following procedure. Procedure: Turn starting switch to ON position.		

No.	Cause	Procedure, measuring location, criteria and remarks			
1	Defective wiring harness connector	1. See descriptions of wiring harness and connectors in "c: Electrical equipment" in "CHECKS BEFORE TROUBLESHOOTING" of "RELATED INFORMATION ON TROUBLESHOOTING", and check it. 2. Turn starting switch to ON position.			
		If this failure code is cleared, the wiring harness connector is defective.			
2	Defective ambient temperature sensor	1. Turn starting switch to OFF position. 2. Disconnect connector P65, and connect T-adapter to male side. **REMARK** If a resistance value of the ambient temperature sensor ranges from 280 Ω to 382 kΩ, the ambient temperature sensor is considered to be normal.			
		Resistance	Between P65 (male) (A) and (B)	-40 °C	291 to 382 kΩ
				-20 °C	85 to 109 kΩ
				0 °C	29 to 36 kΩ
				30 °C	7.3 to 8.8 kΩ
				60 °C	2.3 to 2.7 kΩ
				90 °C	860 to 970 Ω
				130 °C	280 to 320 Ω

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<table>
<tr><th>No.</th><th>Cause</th><th colspan="3">Procedure, measuring location, criteria and remarks</th></tr>
<tr><td rowspan="2">5</td><td rowspan="2">Hot short circuit in wiring harness (contact with 24 V circuit)</td><td colspan="3">1. Turn starting switch to OFF position.
2. Disconnect connector UHR1, and connect T-adapter to female side.
3. Turn starting switch to ON position (with connector UHR1 disconnected).</td></tr>
<tr><td>Voltage</td><td>Between UHR1 (female) (9) and (12)</td><td>Approximately 5 V</td></tr>
<tr><td rowspan="2">6</td><td rowspan="2">Defective AdBlue/DEF line heater</td><td colspan="3">1. Turn starting switch to OFF position.
2. Disconnect connector URH2, and connect T-adapter to male side.</td></tr>
<tr><td>Resistance</td><td>Between URH2 (male) (1) and (2)</td><td>5 to 40 Ω</td></tr>
<tr><td rowspan="2">7</td><td rowspan="2">Open circuit or short circuit in wiring harness (line heater relay output side)</td><td colspan="3">1. Turn starting switch to OFF position.
2. Disconnect connector UHR1 and connect T-adapter to female side.
REMARK
Resistance is possessed by above-mentioned AdBlue/DEF line heater.</td></tr>
<tr><td>Resistance</td><td>Between UHR1 (female) (4) and (12)</td><td>5 to 40 Ω</td></tr>
<tr><td>8</td><td>Defective engine controller</td><td colspan="3">If no failure is found by above checks, engine controller is defective. (Since this is an internal defect, troubleshooting cannot be performed.)</td></tr>
</table>

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FAILURE CODE [DKSHKB] Right lift Stroke sensor A:Hot Short

Action level	Failure code	Failure	Right lift Stroke sensor A:Hot Short (Work equipment controller system)
L01	DKSHKB		
Detail of failure	Input voltage from stroke reset sensor A phase for R.H. blade lift cylinder is 4.5 V or more.		
Action of controller	Automatic control of blade is inhibited.		
Phenomenon on machine	• Automatic control of blade is turned OFF. • Automatic control of blade does not turn ON even when auto/manual switch is pressed.		
Related information	• After completion of repair, check if the failure code is cleared by the following procedure. Procedure: Turn the starting switch to ON position. • "Cylinder Stroke Reading Abnormal" is displayed in "Slope control key" of control box. • Device name of "R.H. blade lift cylinder stroke sensor" is displayed on the machine monitor with failure code. It is described as "Stroke and reset sensor for R.H. blade lift cylinder" in the table of troubleshooting and other chapter.		

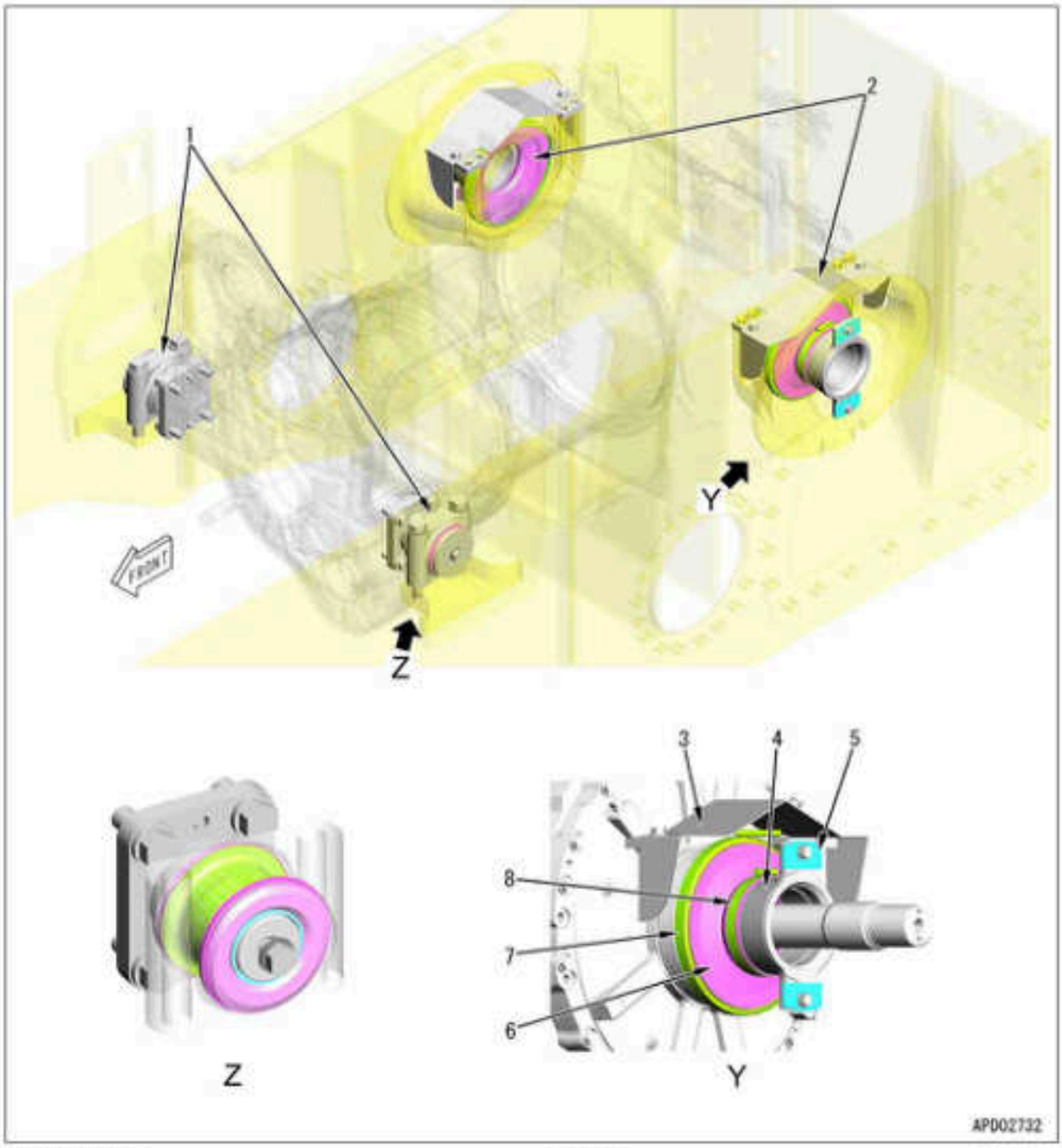
No.	Cause	Procedure, measuring location, criteria and remarks		
1	Defective 5 V sensor power supply system	If failure code [DB97KK] is also displayed, perform troubleshooting for that failure code first.		
2	Defective stroke reset sensor A phase for R.H. blade lift cylinder (internal open circuit) or hot short circuit in wiring harness	1. Turn the starting switch to OFF position 2. Disconnect connector CY42. 3. Turn the starting switch to ON position.		
		If failure code [DKSHKB] is cleared, stroke reset sensor for blade R.H. lift cylinder is defective. (If this failure code is still displayed, wiring harness or work equipment controller is defective.) **REMARK** Since connector CY42 is disconnected, many failure codes appear. Ignore failure codes other than [DKSHKB].		
3	Hot short circuit in wiring harness	1. Turn the starting switch to OFF position 2. Disconnect connectors WECN1, WECN2 and CY42, and connect T-adapters to each female side.		
		Voltage	Between CY42 (female) (1) and (4) or ground	Max. 1 V
4	Short circuit in wiring harness	1. Turn the starting switch to OFF position 2. Disconnect connectors WECN1, WECN2 and CY42 and connect T-adapter to female side of WECN1, WECN2.		
		Continuity	Between WECN2 (female) (16) and each pin other than (16).	No continuity (No sound is heard.)
			Between WECN2 (female) (16) and each pin of WECN1 (female)	No continuity (No sound is heard.)

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POWER TRAIN MOUNT

STRUCTURE OF POWER TRAIN MOUNT

General view



1: Front mount
2: Rear mount
3: Cover
4: Cage
5: Plate
6: Seal
7: Coupling
8: Clamp

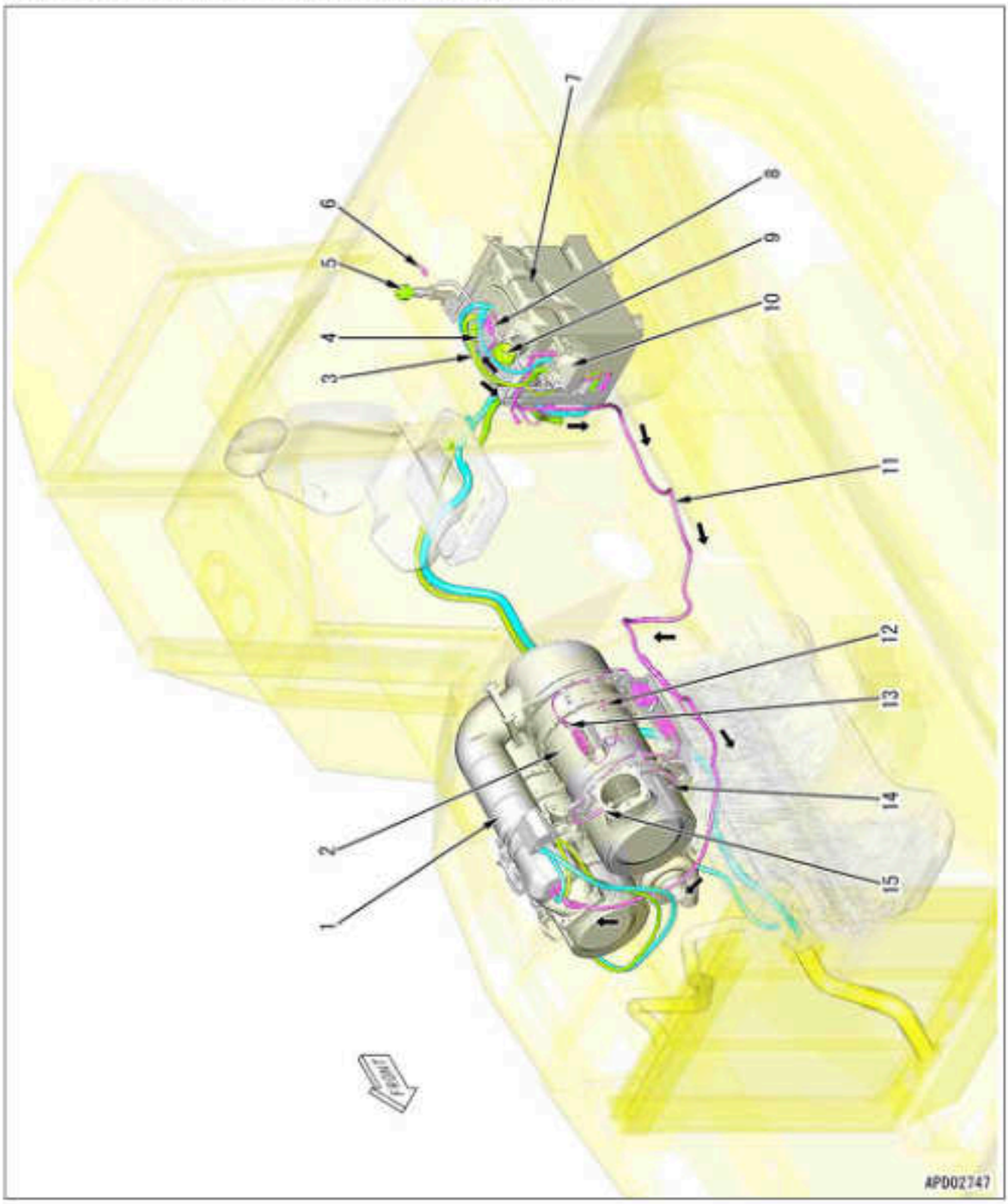
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UREA SCR SYSTEM

SCR

Abbreviation for Selective Catalytic Reduction

LAYOUT DRAWING OF UREA SCR SYSTEM



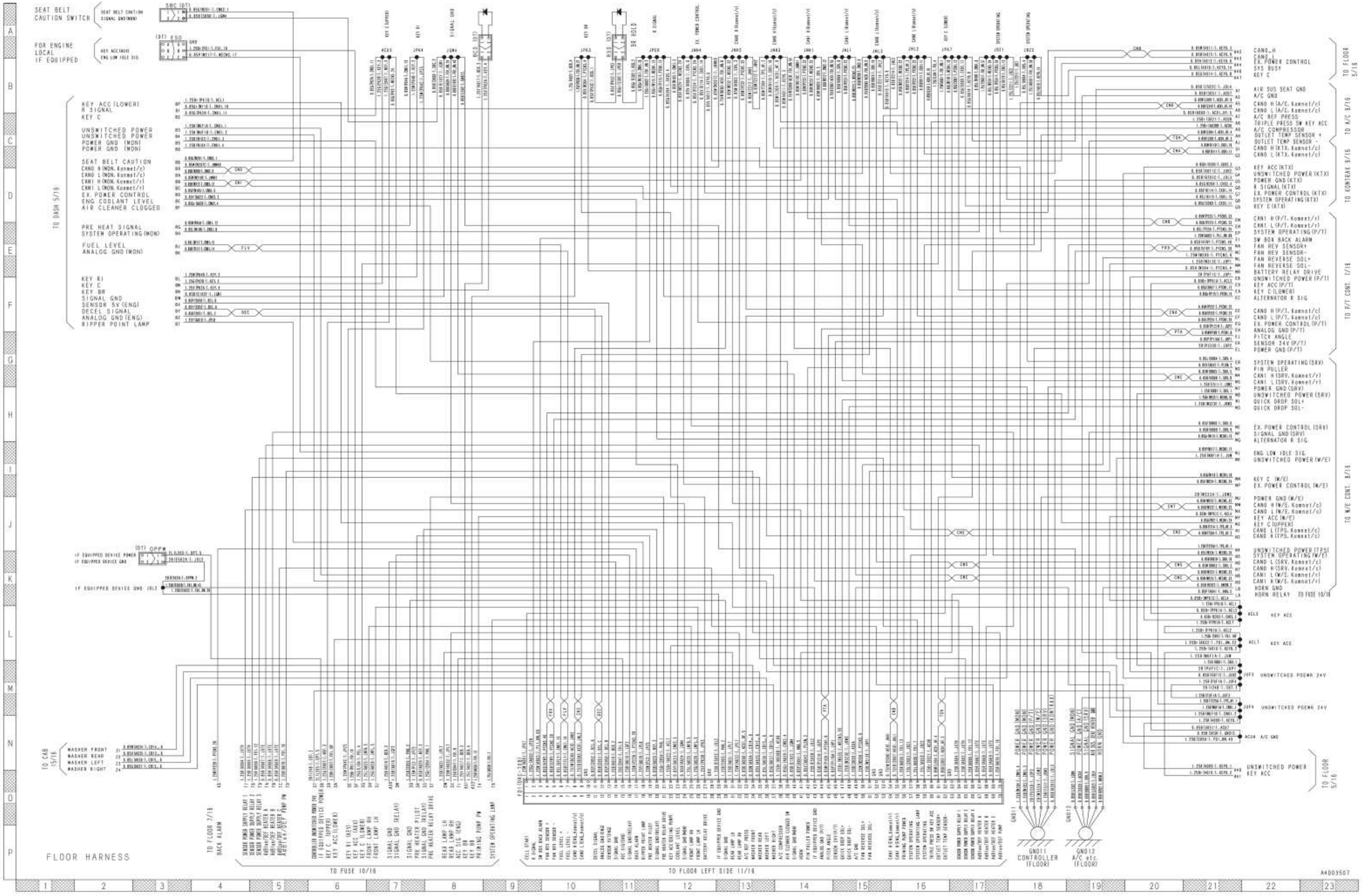
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ELECTRICAL CIRCUIT DIAGRAM (6/16)

D155AXI-8

REMARK

This figure includes the equipment and devices that are unavailable as optional items in some areas.



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