SHOP MANUAL

KOMATSU®

WA400-5

Machine model	Serial number
WA400-5	**70001 and up**

- This shop manual may contain attachments and optional equipment that are not available in your area. Please consult your local Komatsu distributor for those items you may require. Materials and specifications are subject to change without notice.

- WA400-5 mounts the SAA6D114E-2 engine.
  For details of the engine, see the 114-2 Series Engine Shop Manual.

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FAILURE CODE [D191KB]

Action code	Failure code	Controller code	Trouble	Neutral safety relay output system grounded
E01	D191KB	TM		
Description of trouble	• No signal is output to the neutral safety relay due to grounding.			
Controller reaction	• Turns output to the neutral safety relay OFF when it is grounded.			
Effect on machine	• The engine cannot be started when the right FNR switch or joystick mode is on (Can be started in steering wheel mode).			
Related information	—			

	Causes		Standard Values in Normal State and Remarks on Troubleshooting			
Possible causes and standard values in normal state	1	Defective exchange relay (L115)	1) Turn starting switch OFF. 2) Replace relay. 3) Turn starting switch ON. 4) Turn right or joystick FN 5) Turn FNR selector switch ON.			
			This Failure code (D191KB) issued		Relay L115 is not defective.	
			This Failure code (D191KB) not issued		Relay L115 is defective.	
	2	Defective neutral safety relay (L116)	1) Turn starting switch OFF. 2) Replace relay. 3) Turn starting switch ON. 4) Turn right or joystick FNR switch 5) Turn FNR selector switch ON.			
			This Failure code (D191KB) issued		Relay L116 is not defective.	
			This Failure code (D191KB) not issued		Relay L116 is defective.	
	3	Ground fault in wiring harness	1) Turn starting switch OFF. 2) Disconnect connectors L63, L101 and L102. 3) Connect T-adapter.			
			Between L63 (Female) (37)/L101 (Female) (14) - body		Resistance	Min. 1 MΩ
			Between L101 (Female) (13)/L102 (Female) (11) - body		Resistance	Max. 1 MΩ
	4	Defective transmission and fan pump motor controller	1) Turn starting switch OFF. 2) Disconnect connector L63. 3) Connect T-adapter. 4) Turn starting switch ON. 5) Turn forward-reverse lever to "N".			
			When right FNR switch mounted (Right FNR switch = ON)			
			Between L63 (37) - body	Right FNR switch = N	Voltage	17 - 30 V
				Other than above	Voltage	Max. 1 V
			When joystick mounted (Arm rest lock and joystick switch = ON)			
			Between L63 (37) - body	Joystick FNR switch = "N" and joystick lever = Neutral	Voltage	17 - 30 V
				Joystick FNR switch ≠ N	Voltage	Max. 1 V
				Joystick lever being operated	Voltage	Max. 1 V

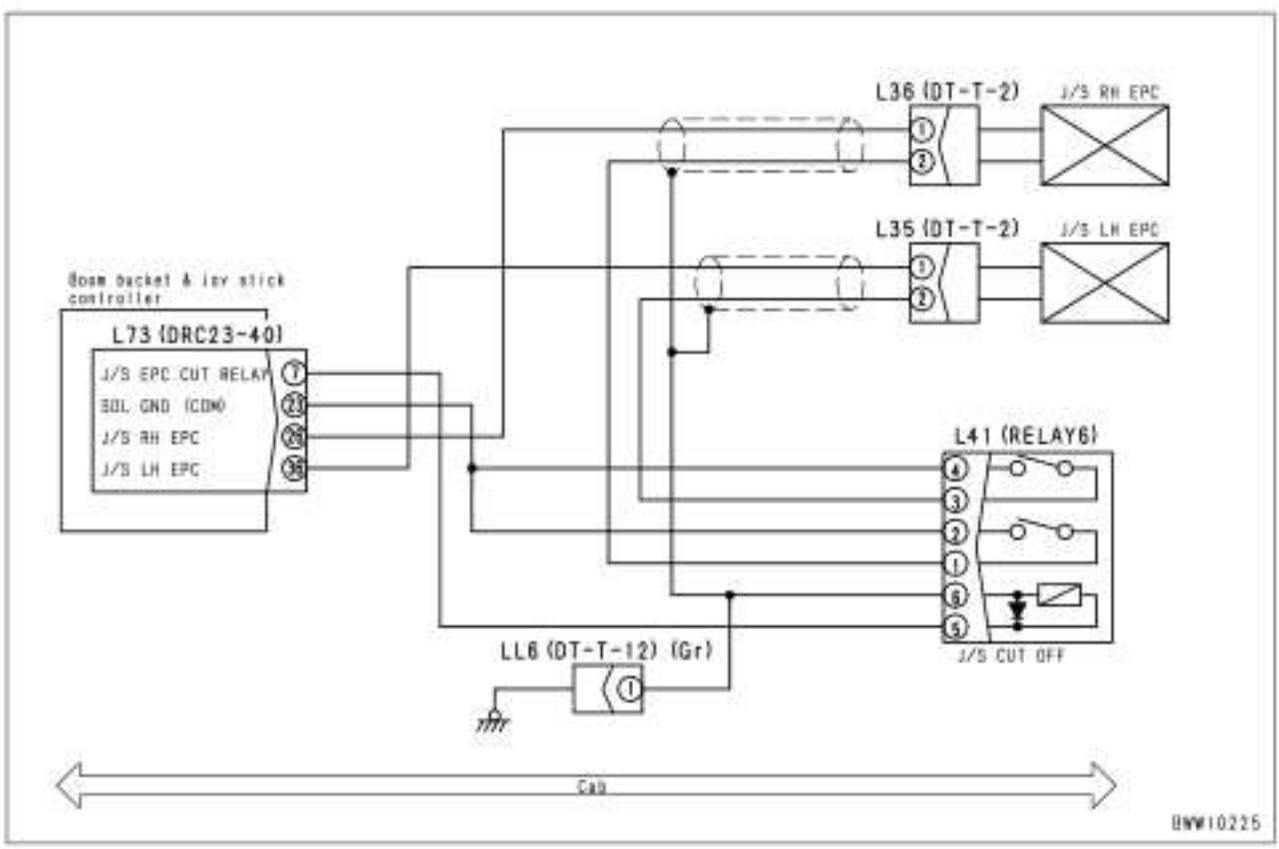
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ERROR CODE: [DXHMKA]

Action Code	Error Code	Controller Code	Trouble	Joystick steering left-hand EPC solenoid system disconnection
E03	DXHMKA	WRK		
Description of Trouble	• Joystick steering left-hand EPC solenoid system disconnection prevents output to the joystick steering left-hand EPC solenoid.			
Controller Reaction	• Stops output to the joystick steering left-hand EPC solenoid (Both sides).			
Effect on Machine	• Stops output to the joystick steering left-hand EPC solenoid (Both sides). • Stops output to the joystick solenoid cutoff relay.			
Related Information	—			

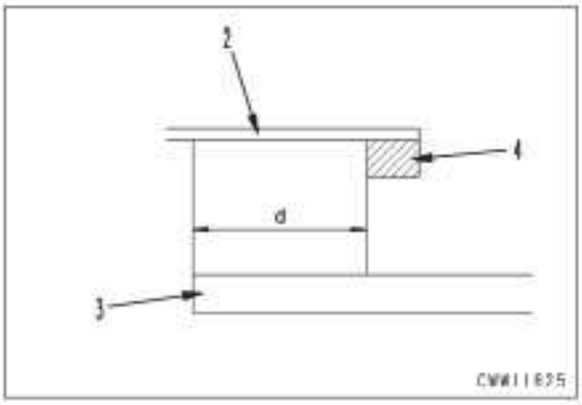
	Causes		Standard Value in Normal State and Remarks on Troubleshooting		
Possible Causes and Standard Values	1	Defective joystick steering left-hand EPC solenoid	1) Turn starting switch OFF. 2) Disconnect connector L35. 3) Connect T-adapter.		
			Between L35 (Male) ① ~ ②	Resistance	10 ~ 15 Ω
			Between L35 (Male) ① ~ body	Resistance	1 MΩ or more
	2	Wiring harness discontinuity (Disconnection or defective contact)	1) Turn starting switch OFF. 2) Disconnect connectors L73 and L35. 3) Connect T-adapter.		
			Wiring harness between L73 (Female) ㊱ ~ L35 (Female) ①	Resistance	1 Ω or below
			Wiring harness between L35 (Female) ② ~ L41 (Female) ③	Resistance	1 Ω or below
			Wiring harness between L35 (Female) ② ~ body	Resistance	1 Ω or below
			Wiring harness between L73 (Female) ㉓ ~ L41 (Female) ④	Resistance	1 Ω or below
	3	Defective work equipment controller	1) Turn starting switch OFF. 2) Disconnect connector L73. 3) Connect T-adapter.		
			Between L73 (Female) ㊱ ~ L41 (Female) ③	Resistance	10 ~ 15 Ω

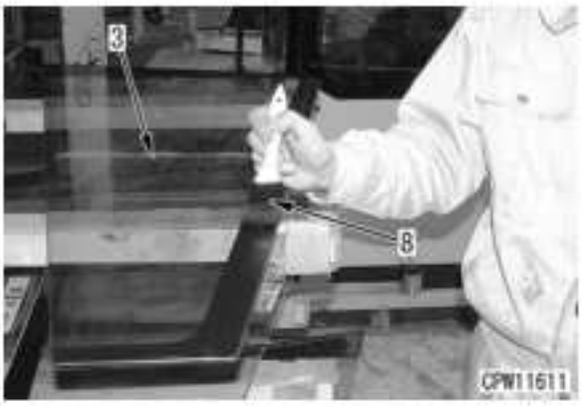
Related circuit diagram



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★ Do not apply the primer to the boarder about 5 mm wide between the black part and transparent part of the glass.
★ After applying the primer, leave it for at least 5 minutes (within 8 hours) to dry.
★ If the paint primer is applied by mistake, wipe it off with white gasoline. (If wrong primer is applied, the glass will not be stuck.)





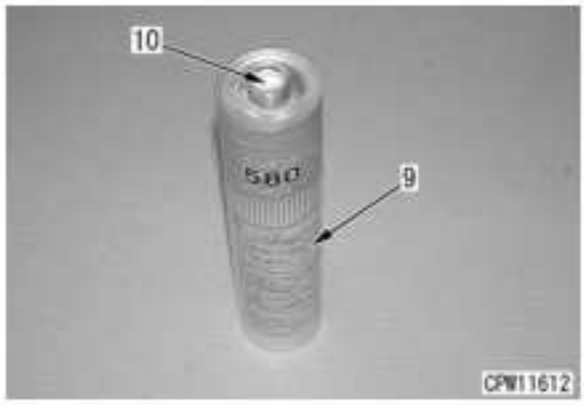
7. Apply adhesive.
★ Use either of the 2 types of the adhesive.

Adhesive (Summer):
SUNSTAR PENGUINE SEAL 580 SUPER "S"

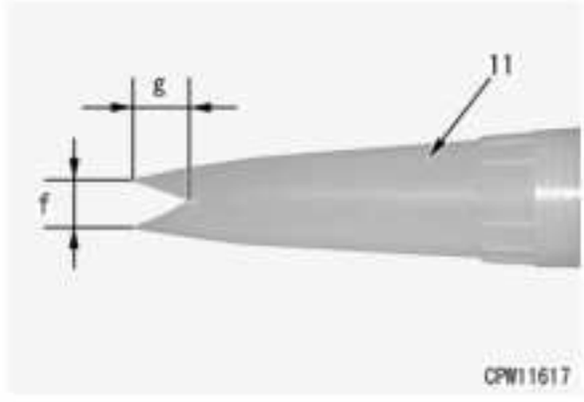
Adhesive (Winter):
SUNSTAR PENGUINE SEAL 580 SUPER "W"

★ The using limit of the adhesive is 4 months after the date of manufacture. Do not use the adhesive after this limit.
★ Keep the adhesive in a dark place where the temperature is below 25°C.
★ Never heat the adhesive higher than 30°C.
★ When reusing the adhesive, remove the all hardened part from the nozzle tip.

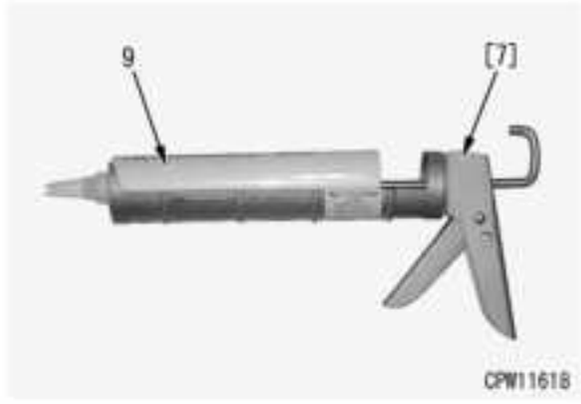
1) Break aluminum seal (10) of the outlet of adhesive cartridge (9) and install the nozzle.



2) Cut the tip of the adhesive nozzle (11) so that dimensions (f) and (g) will be as follows.
• Dimension (f): **10 mm**
• Dimension (g): **12 mm**

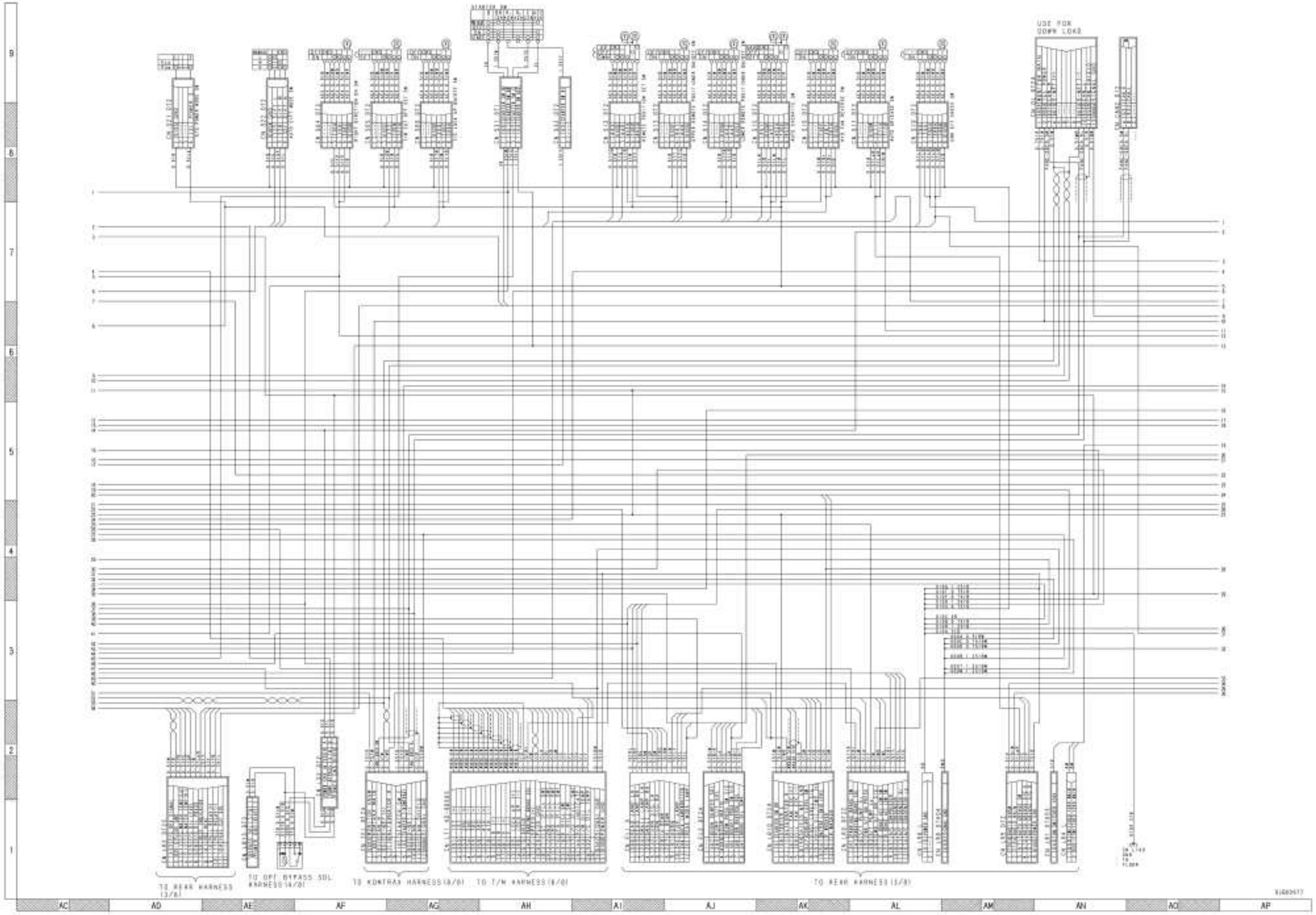


3) Set adhesive cartridge (9) to caulking gun [7].
★ An electric caulking gun is more efficient.



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ELECTRICAL CIRCUIT DIAGRAM 2/8 (3/4)



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