SEBM025812

SHOP MANUAL

KOMATSU®

PC300, 300LC-7
PC350, 350LC-7

MACHINE MODEL	SERIAL NUMBER
PC300-7	**40001 and up**
PC300LC-7	**40001 and up**
PC350-7	**20001 and up**
PC350LC-7	**20001 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.

- PC300, 300LC, PC350, 350LC-7 mount the SAA6D114E engine.
  For details of the engine, see the 114 Series Engine Shop Manual.

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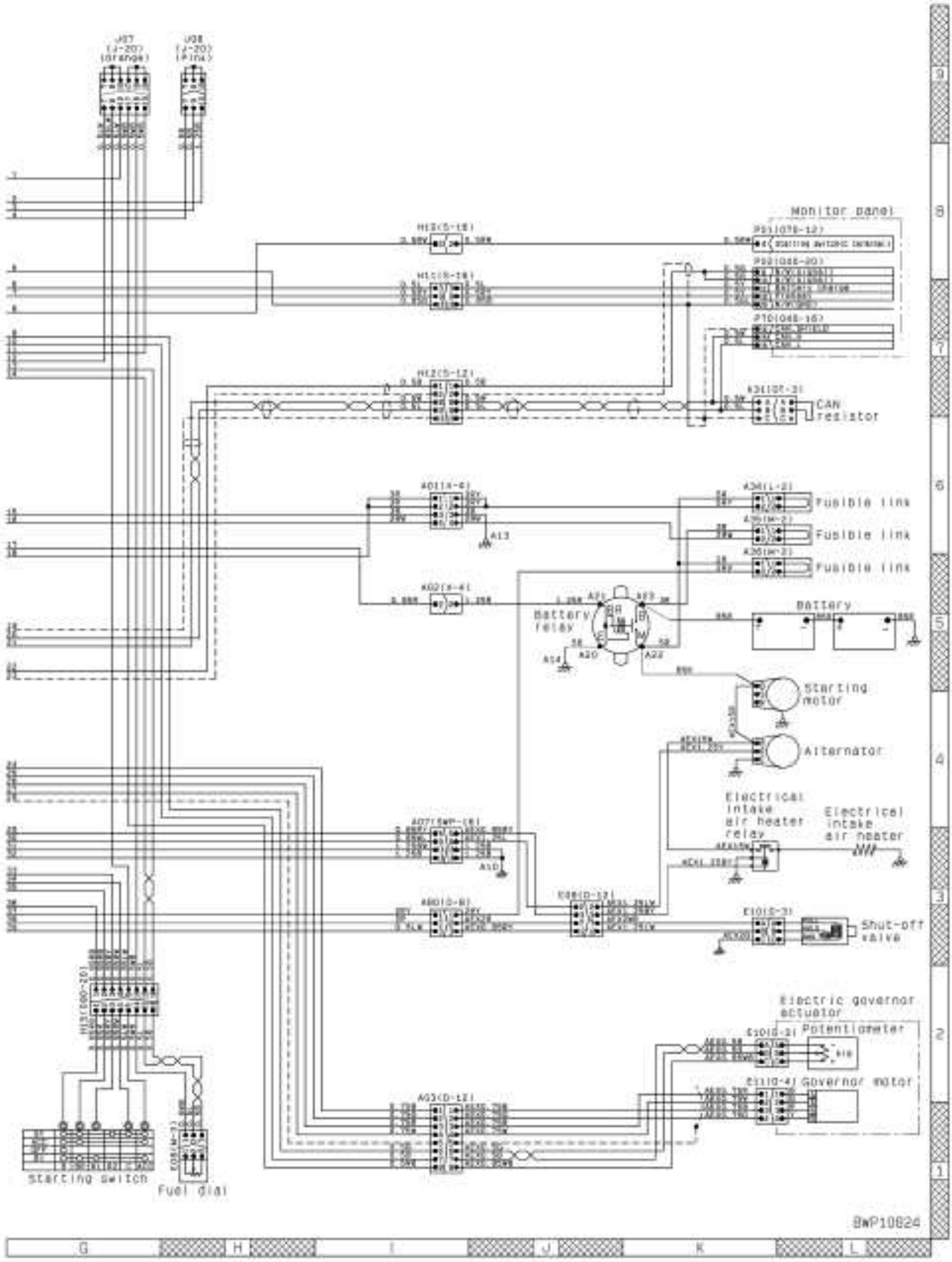
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Machine model				PC300-7	PC300LC-7
Serial Number				40001 and up	
Engine	Model			SAA6D114E	
	Type			4-cycle, water-cooled, in-line, vertical, direct injection, with turbo charger and aftercooler	
	No. of cylinders - bore x stroke		mm	6 - 114 x 135	
	Piston displacement		ℓ {cc}	8.27 {8,270}	
	Performance	Flywheel horsepower	kW/rpm {HP/rpm}	180.3/1,900 {242/1,900}	
		Max. torque	Nm/rpm {kgm/rpm}	1,079/1,400 {110/1,400}	
		Max. speed at no load	rpm	2,160	
		Min. speed at no load	rpm	900	
		Min. fuel consumption	g/kWh {g/HPh}	205 {153}	
	Starting motor			24V, 7.5 kW	
	Alternator			24V, 35 A	
	Battery			12V, 126 Ah x 2	
	Radiator core type			CF19-4	
Under-carriage	Carrier roller			2 on each side	
	Track roller			7 on each side	8 on each side
	Track shoe			Assembly-type triple grouser, 45 on each side	Assembly-type triple grouser, 48 on each side
Hydraulic system	Hydraulic pump	Type x No.		HPV125+125, variable displacement, Piston type x2	
		Delivery	ℓ/min	267.5 x 2	
		Set pressure	MPa {kg/cm²}	37.8 {380}	
	Control valve	Type x No.		6-spool type + 1-spool type x 1	
		Control method		Hydraulic	
	Hydraulic motor	Travel motor		HMV160ADT-2, Piston type (with brake valve, parking brake): x 2	
		Swing motor		KMF230ABE-5, Piston type (with safety valve, holding brake): x 1 reverse rotation check valve	
	Hydraulic cylinder	Type		Boom: Double acting piston	Arm: Double acting piston	Bucket: Double acting piston
		Inside diameter of cylinder	mm	140	160	140
		Diameter of piston rod	mm	100	110	100
		Stroke	mm	1,480	1,825	1,285
		Max. distance between pins	mm	3,525	4,255	3,155
		Min. distance between pins	mm	2,045	2,430	1,870
	Hydraulic tank			Closed box type		
	Hydraulic filter			Tank return side		
	Hydraulic cooler			CFT-1 (Air cooled)		

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★ This circuit diagram has been compiled by extracting the governor•pump controller system (power source, governor control, model selection and communication) from the overall electrical circuit diagram.



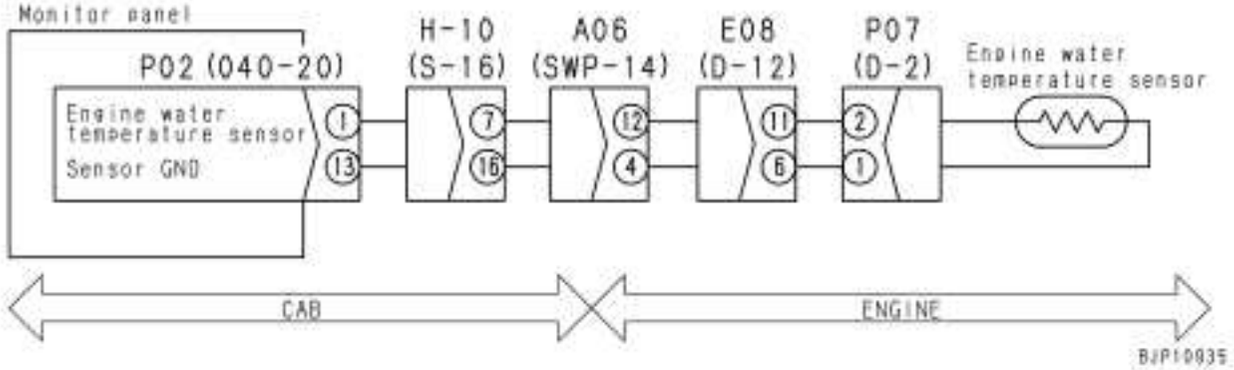
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Failure Code in Mechanical System B@BCNS (Engine cooling water overheating)

User Code	Service Code	Failure Code	Failure phenomenon	Engine cooling water overheated (in mechanical system)
—	— (E108)	B@BCNS		
Failure content	• The engine cooling water sensor inputted a signal of 102°C, while the engine was running.			
Response from monitor panel	• Response from controller			
Phenomenon occurring on machine	• There is a possibility that the engine seizes, if it is kept running without a corrective action.			
Relative information	• Service code (E108) is displayed in the 7-segment monitor panel. • This Failure Code is recorded, if the engine cooling water temperature gauge is displayed in the red range, when the engine is running. • Input from the engine cooling water temperature sensor (temperature) can be confirmed in the monitor function. (Code No. 041: Engine cooling water temperature)			

Presumed cause and standard value in normalcy		Cause	Standard value in normalcy and references for troubleshooting		
	1	Engine Overheating (system in normal condition)	★Check the engine for the cause and damage, and repair it.		
	2	Engine cooling water temperature sensor defective (Internal short-circuiting)	★Turn the engine starting switch OFF for the preparations, and hold it in the OFF position during the troubleshooting.		
			P07 (male)	Engine cooling water temperature	Resistance value
			Between ① and ②	10 – 100 °C	90 – 3.5kΩ
			Between ② and grounding		Above 1 MΩ
	3	Grounding fault of wiring harness (Contact with grounding circuit)	★Turn the engine starting switch OFF for the preparations, and hold it in the OFF position during the troubleshooting.		
			Between wiring harness between P02 (female) ① and P07 (female) ② and grounding	Resistance value	Above 1 MΩ
	4	Monitor panel defective	★Turn the engine starting switch OFF for the preparations, and hold it in the OFF position during the troubleshooting.		
			P02 (female)	Engine water temperature	Resistance value
			Between ① and ⑬	10 – 100 °C	90 – 3.5kΩ
			Between ① and grounding		Above 1 MΩ

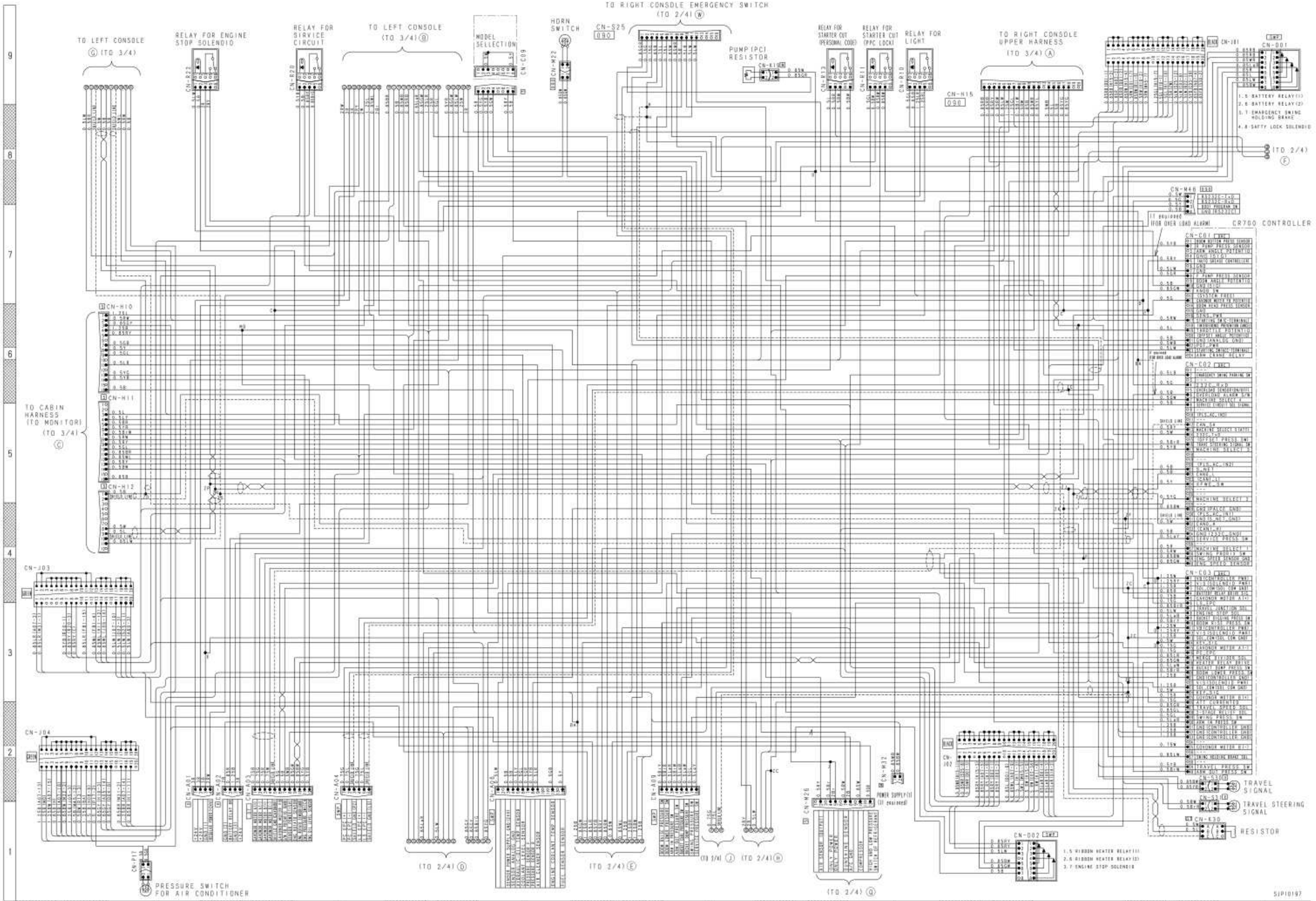
Electrical Circuit Diagram for Engine Cooling Water Temperature Sensor in Monitor Panel



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ELECTRICAL CIRCUIT DIAGRAM (1/4)

PC300-7, PC300LC-7: Serial No. 45001 and up
PC350-7, PC350LC-7: Serial No. 25001 and up



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