SHOP MANUAL

KOMATSU®

D375A-5

Radio-Control Specification

MACHINE MODEL

D375A-5 (Radio-Control Specification)

SERIAL NUMBER

18020, 18040

- This manual contains only information related to the Radio-Control Specification.
  For other information, see the D375A-5 Shop Manual SEBM023503.

- 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.

- D375A-5 mounts the SA6D170E-3 engine.
  For details of the engine, see the 170-3 Series Engine Shop Manual.

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ELECTRIC WIRE CODE

In the wiring diagrams, various colors and symbols are employed to indicate the thickness of wires.
This wire code table will help you understand WIRING DIAGRAMS.
Example: 5WB indicates a cable having a nominal number 5 and white coating with black stripe.

CLASSIFICATION BY THICKNESS

Norminal number	Copper wire			Cable O.D. (mm)	Current rating (A)	Applicable circuit
	Number of strands	Dia. of strands (mm^2)	Cross section (mm^2)			
0.85	11	0.32	0.88	2.4	12	Starting, lighting, signal etc.
2	26	0.32	2.09	3.1	20	Lighting, signal etc.
5	65	0.32	5.23	4.6	37	Charging and signal
15	84	0.45	13.36	7.0	59	Starting (Glow plug)
40	85	0.80	42.73	11.4	135	Starting
60	127	0.80	63.84	13.6	178	Starting
100	217	0.80	109.1	17.6	230	Starting

CLASSIFICATION BY COLOR AND CODE

Priority	Classification \ Circuits		Charging	Ground	Starting	Lighting	Instrument	Signal	Other
1	Primary	Code	W	B	B	R	Y	G	L
		Color	White	Black	Black	Red	Yellow	Green	Blue
2	Auxiliary	Code	WR	—	BW	RW	YR	GW	LW
		Color	White & Red	—	White & Black	Red & White	Rellow & Red	Green & White	Blue & White
3		Code	WB	—	BY	RB	YB	GR	LR
		Color	White & Black	—	Black & Yellow	Red & Black	Yellow & Black	Green & Red	Blue & Yellow
4		Code	WL	—	BR	RY	YG	GY	LY
		Color	White & Blue	—	Black & Red	Red & Yellow	Yellow & Green	Green & Yellow	Blue & Yellow
5		Code	WG	—	—	RG	YL	GB	LB
		Color	White & Green	—	—	Red & Green	Yellow & Blue	Green & Black	Blue & Black
6		Code	—	—	—	RL	YW	GL	—
		Color	—	—	—	Red & Blue	Yellow & White	Green & Blue	—

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SPECIFICATIONS OF RADIO CONTROL SYSTEM

Transmitter

Weight		Approx. 3.9 kg (Including battery and breast set)
Practical controllable distance		Min. 100 m (Depends on environment)
Radio wave output		Approx. 17 mW
Frequency band		458.800 to 459.175 MHz (16 channels in total)
Frequency band selection		Fixed to 1 of 16 channels
Transmission rate		4,800 bps
Required license		No licenses are required (FCC license has been obtained).
Battery used	Weight	Approx. 100 g
	Voltage	3.6 V
	Capacity	1,200 mAh
	Type	Ni – MH
	Operable time	12 hours (Continuous)
	Possible number of charging times	500 (When discharged and charged fully)
External power source		DC 12 V (Special adapter must be used)

Receiver

Weight		Approx. 700 g
Receiving frequency		458.800 to 459.175 MHz (Fixed to 1 of 16 channels)
Receiving method		Double superheterodyne
Output	Serial output	RS232C
	E_STOP output	
	RX_OK output	

AC charger

Weight		Approx. 700 g
Charging time		Approx. 6 hours (to charge full)
Charging method		Constant-current charging (– △ V)
Charging monitor	Green LED lamp	During charging: Lights up.
		When battery is charged full: Flashes.
		When timer operates: Goes out.
OFF timer		With built-in automatic OFF timer (16 hours)

Antenna

Applicable frequency	440 – 470 MHz
Impedance	50 Ω
Gain	4 dB

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INFORMATION IN TROUBLESHOOTING TABLE

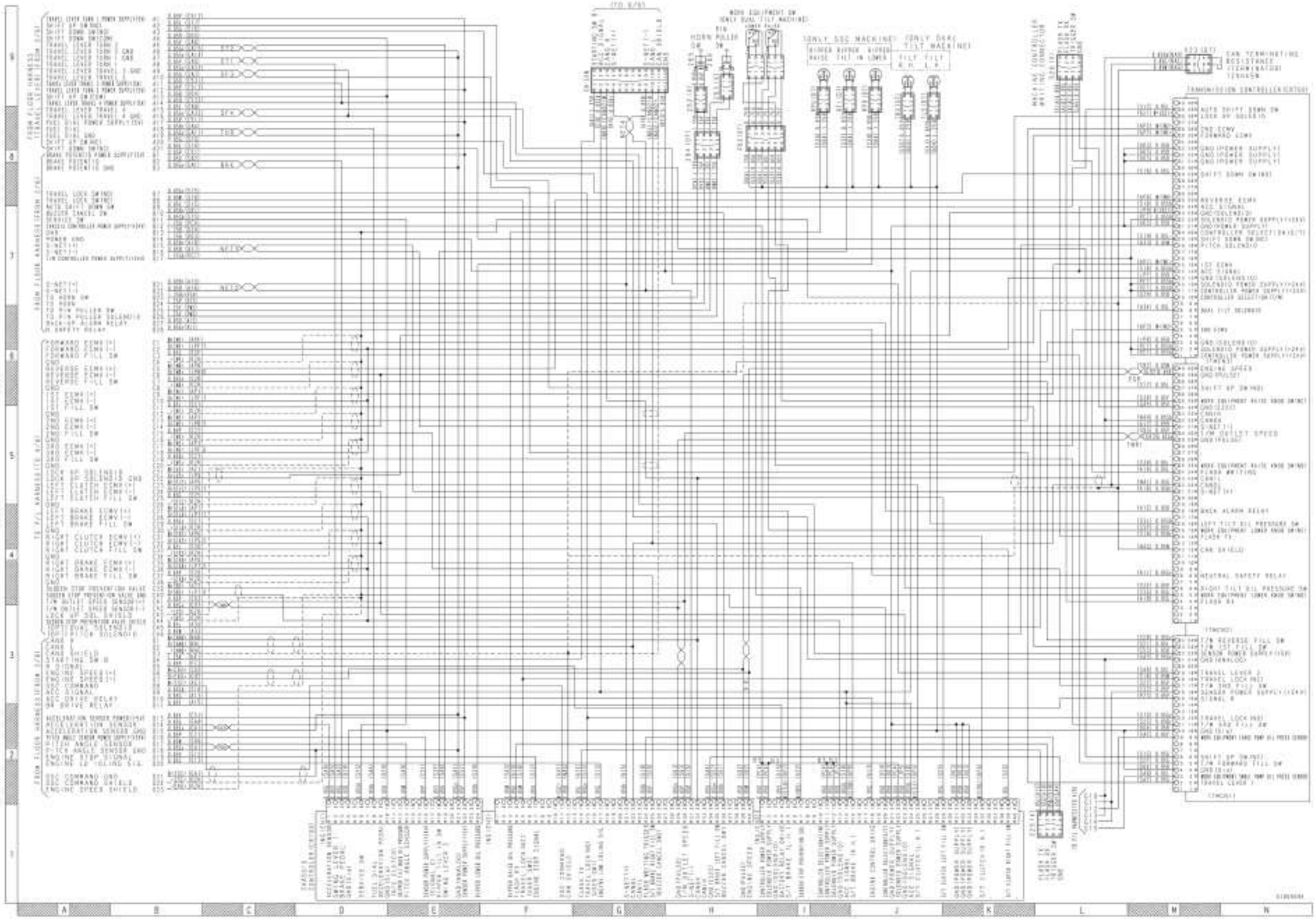
★ The following information is summarized in the troubleshooting table and the related electrical circuit diagram. Before carrying out troubleshooting, understand that information fully.

User code	Service code	Trouble	Trouble in machine
Display on panel	Display on panel		
Contents of trouble	Contents of trouble detected by monitor panel or controller		
Action of controller	Action taken by controller to protect system or devices when monitor panel or controller detects trouble		
Problem that appears on machine	Problem that appears on machine as result of action taken by monitor panel or controller (shown above)		
Related information	Information related to detected trouble or troubleshooting		

	Cause		Standard value in normal state/Remarks on troubleshooting
Possible causes and standard value in normal state	1 2 3 4	Possible causes of trouble (Given numbers are reference numbers, which do not indicate priority)	<Contents of description> • Standard value in normal state to judge possible causes • Remarks on judgment <Troubles in harness> • Disconnection Connector is connected imperfectly or harness is broken. • Short circuit with chassis ground Harness which is not connected to chassis ground circuit is in contact with chassis ground circuit. • Short circuit with power source Harness which is not connected to power source (24 V) circuit is in contact with power source (24 V) circuit. • Short circuit Independent harnesses are in contact with each other abnormally. <Precautions for troubleshooting> (1) Method of indicating connector No. and handling of T-adapter Insert or connect T-adapter as explained below for troubleshooting, unless otherwise specified. • If connector No. has no marks of "male" and "female", disconnect connector and insert T-adapters in both male side and female side. • If connector No. has marks of "male" and "female", disconnect connector and connect T-adapter to only male side or female side. (2) Entry order of pin Nos. and handling of tester leads Connect positive (+) lead and negative (–) lead of tester as explained below for troubleshooting, unless otherwise specified. • Connect positive (+) lead to pin No. or harness entered on front side. • Connect negative (–) lead to pin No. or harness entered on rear side.

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ELECTRICAL CIRCUIT DIAGRAM (3/6)



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