CRAWLER EXCAVATOR

SERVICE MANUAL

R320LC-7A

HYUNDAI

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3) R320LC-7A HIGH WALKER

(1) 6.15m(20' 2") boom, 2.2m(7' 3") arm equipped with 1.44m³(SAE heaped) bucket and 600mm (24") triple grouser shoe and 6200kg(13670lb) counterweight.

• : Rating over-front • : Rating over-side or 360 degree

Load point height		Load radius								At max. reach		
		3.0m(10.0ft)		4.5m(15.0ft)		6.0m(20.0ft)		7.5m(25.0ft)		Capacity		Reach
												m(ft)
7.5m (25.0ft)	kg									*6910	6330	7.90
	lb									*15230	13960	(25.9)
6.0m (20.0ft)	kg					*7930	*7930	*7480	6770	*6980	5180	8.74
	lb					*17480	*17480	*16490	14930	*15390	11420	(28.7)
4.5m (15.0ft)	kg			*11810	*11810	*9180	*9180	*7960	6600	6780	4610	9.22
	lb			*26040	*26040	*20240	*20240	*17550	14550	14950	10160	(30.2)
3.0m (10.0ft)	kg			*15000	14120	*10660	9050	*8690	6360	6460	4360	9.40
	lb			*33070	31130	*23500	19950	*19160	14020	14240	9610	(30.8)
1.5m (5.0ft)	kg			*16960	13410	*11890	8640	9120	6140	6500	4370	9.31
	lb			*37390	29560	*26210	19050	20110	13540	14330	9630	(30.5)
Ground Line	kg			*17380	13190	*12510	8420	8380	6010	6930	4660	8.93
	lb			*38320	29080	*27580	18560	19800	13250	15280	10270	(29.3)
-1.5m (-5.0ft)	kg	*17620	*17620	*16750	13230	*12360	8370	8970	6000	*7870	5370	8.21
	lb	*38850	*38850	*36930	29170	*27250	18450	19780	13230	*17350	11840	(26.9)
-3.0m (-10.0ft)	kg	*20600	*20600	*15000	13460	*11110	8520			*7590	7010	7.03
	lb	*45420	*45420	*33070	29670	*24490	18780			*16730	15450	(23.1)
-4.5m (-15.0ft)	kg			*11180	*11180							
	lb			*24650	*24650							

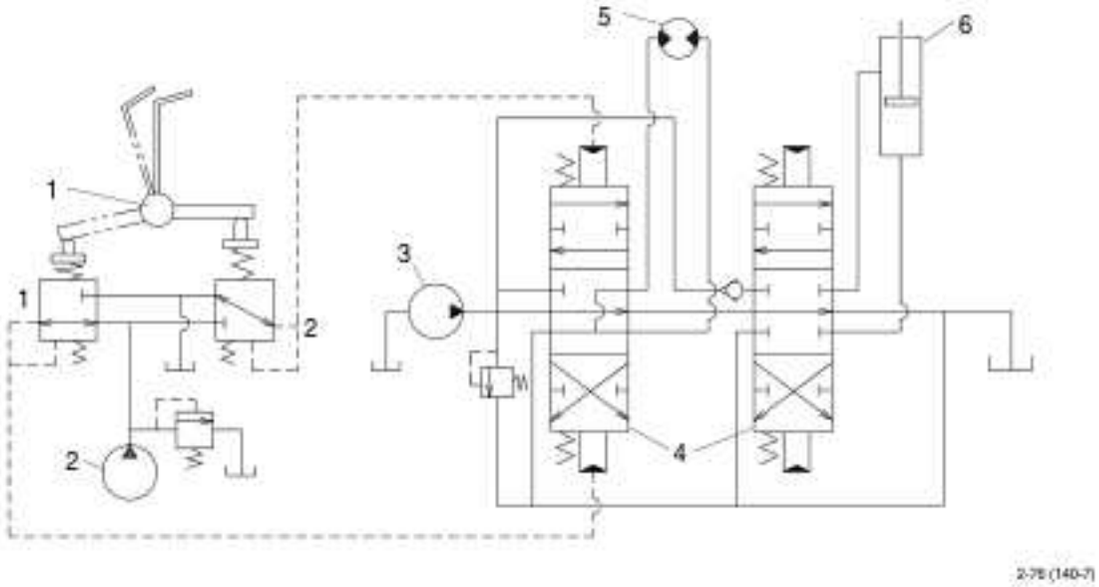
Note
1. Lifting capacity are based on SAE J1097 and ISO 10567.
2. Lifting capacity of the ROBEX series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
3. The load point is a hook located on the back of the bucket.
4. *indicates load limited by hydraulic capacity.

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3) OPERATION

The operation of the pilot valve will be described on the basis of the hydraulic circuit diagram shown below ant the attached operation explanation drawing.

The diagram shown below is the typical application example of the pilot valve.



2-78 (140-7)

1	Pilot valve	3	Main pump	5	Hydraulic motor
2	Pilot pump	4	Main control valve	6	Hydraulic cylinder

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Fault code No.	Reason	Effect (only when fault code is active)
585	Starter Relay Driver Circuit - Voltage Below Normal, or Shorted to Low Source. Low voltage detected at starter lockout circuit.	Engine power derate. The ECM uses an estimated turbocharger speed.
595	Turbocharger 1 Speed - Data Valid but Above Normal Operational Range - Moderately Severe Level. High turbocharger speed has been detected.	Amber lamp will light until high battery voltage condition is corrected.
599	Auxiliary Commanded Dual Output Shutdown - Special Instructions.	None or possible engine noise associated with higher injection pressures (especially at idle or light load). Engine power is reduced.
687	Turbocharger 1 Speed - Data Valid but Below Normal Operational Range - Moderately Severe Level. Low turbocharger speed detected by the ECM.	Engine can run rough. Possibly poor starting capability. Engine runs using backup speed sensor. Engine power is reduced.
689	Engine Crankshaft Speed/Position - Data Erratic, Intermittent, or Incorrect. Loss of signal from crankshaft sensor.	Engine power derate.
691	Turbocharger 1 Compressor Inlet Temperature Circuit - Voltage Above Normal, or Shorted to High Source. High signal voltage detected at turbocharger compressor inlet air temperature circuit.	Engine power derate.
692	Turbocharger 1 Compressor Inlet Temperature Circuit - Voltage Below Normal, or Shorted to Low Source. Low signal voltage detected at turbocharger compressor inlet air tempera	Engine will run derated. Excessive black smoke, hard start, and rough idle possible.
731	Engine Speed / Position Camshaft and Crankshaft Misalignment - Mechanical System Not Responding Properly or Out of Adjustment. Mechanical misalignment between the crankshaft and camshaft engine speed sensors.	Possible no noticeable performance effects, engine dying, or hard starting.
757	Electronic Control Module data lost - Condition Exists. Severe loss of data from the ECM.	Possible poor starting. Engine power derate.
778	Engine Camshaft Speed / Position Sensor - Data Erratic, Intermittent, or Incorrect. The ECM has detected an error in the camshaft position sensor signal.	Possible engine power derate.
779	Auxiliary Equipment Sensor Input 3 - Root Cause Not Known.	Possible no noticeable performance effects or engine dying or hard starting. Fault information, trip information, and maintenance monitor data may be inaccurate.
1117	Power Supply Lost With Ignition On - Data Erratic, Intermittent, or Incorrect. Supply voltage to the ECM fell below 6.2 volts momentarily, or the ECM was not allowed to power down correctly (retain battery voltage for 30 seconds after key OFF).	Engine will shut down.
1633	OEM Datalink Cannot Transmit - Data Erratic, Intermittent, or Incorrect. Communications within the OEM datalink network is intermittent.	Engine will only idle.
2185	Sensor Supply 4 Circuit - Voltage Above Normal, or Shorted to High Source. High voltage detected at +5 volt sensor supply circuit to the accelerator pedal position sensor.	Engine will only idle.

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(28)Assemble piston ring(30), piston ring 252(30) and 278(31) into brake piston(29).



(29)Assemble brake piston into shaft casing.

※ Be careful of the direction of assembling brake piston.



(30)Assemble brake spring(32).

※ Quantity : Spring-10pieces, Holes-11pieces

※ Do not assemble on the top of brake piston.



(31)Insert O-ring(69), after fastening orifice screw(4) with standard torque.

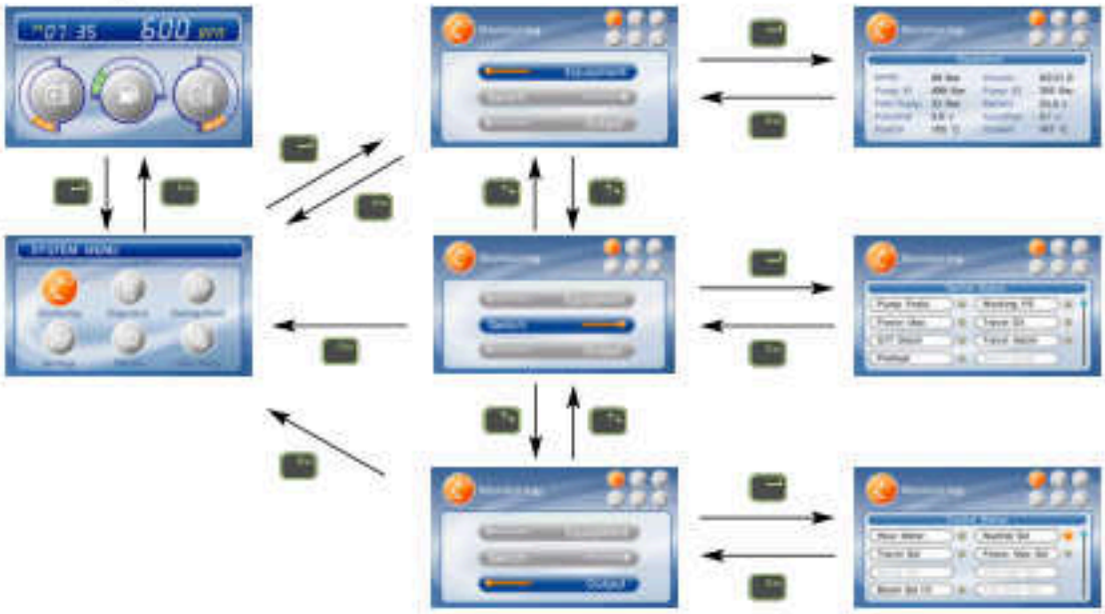
- Quantity and size : (4)2 pieces-ø 1.0
  (56)1pieces-ø 1.5
- Tightening torque : 7kgf · m (50.63lbf · ft)



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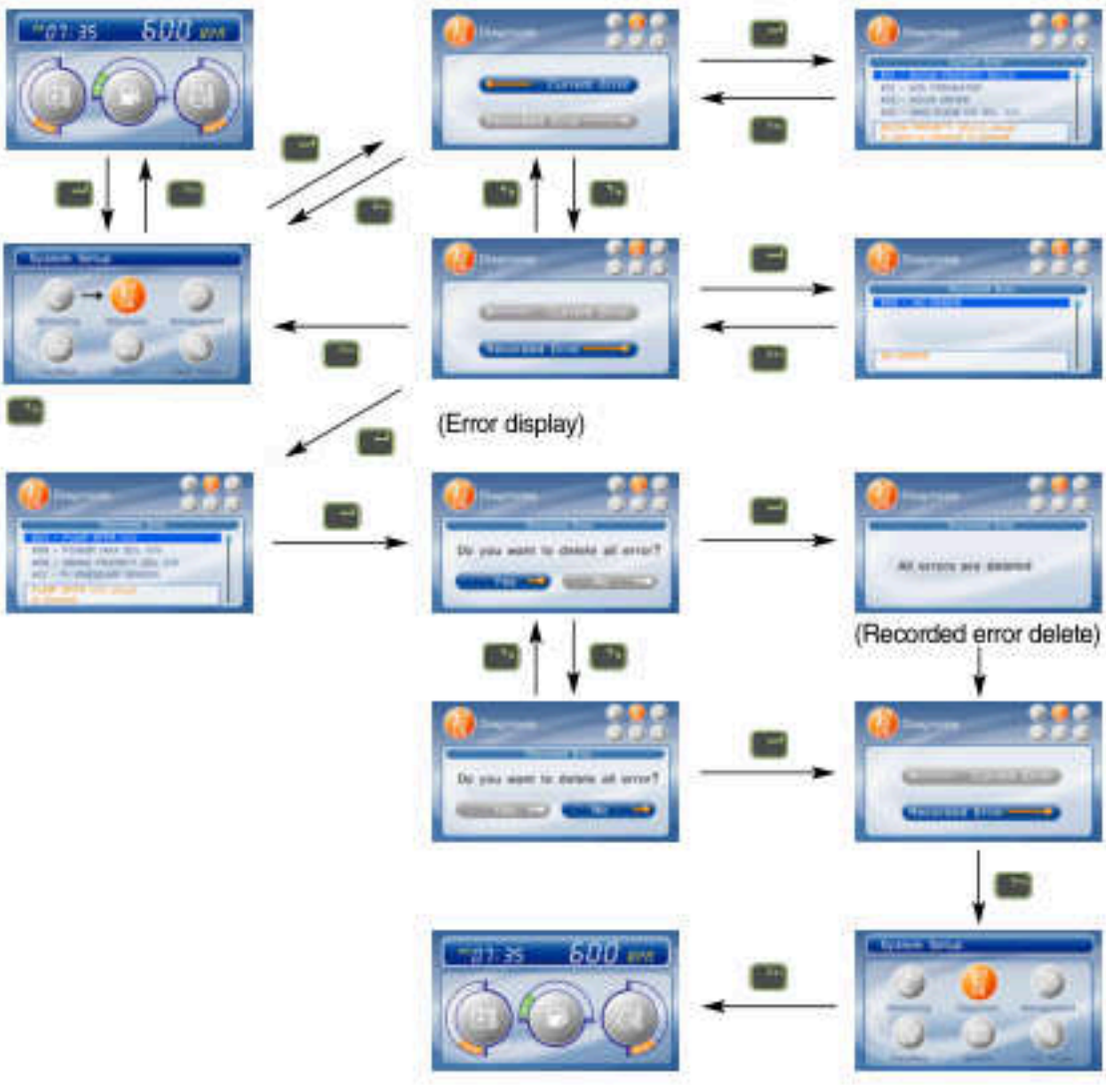
(2) Display map

① Monitoring



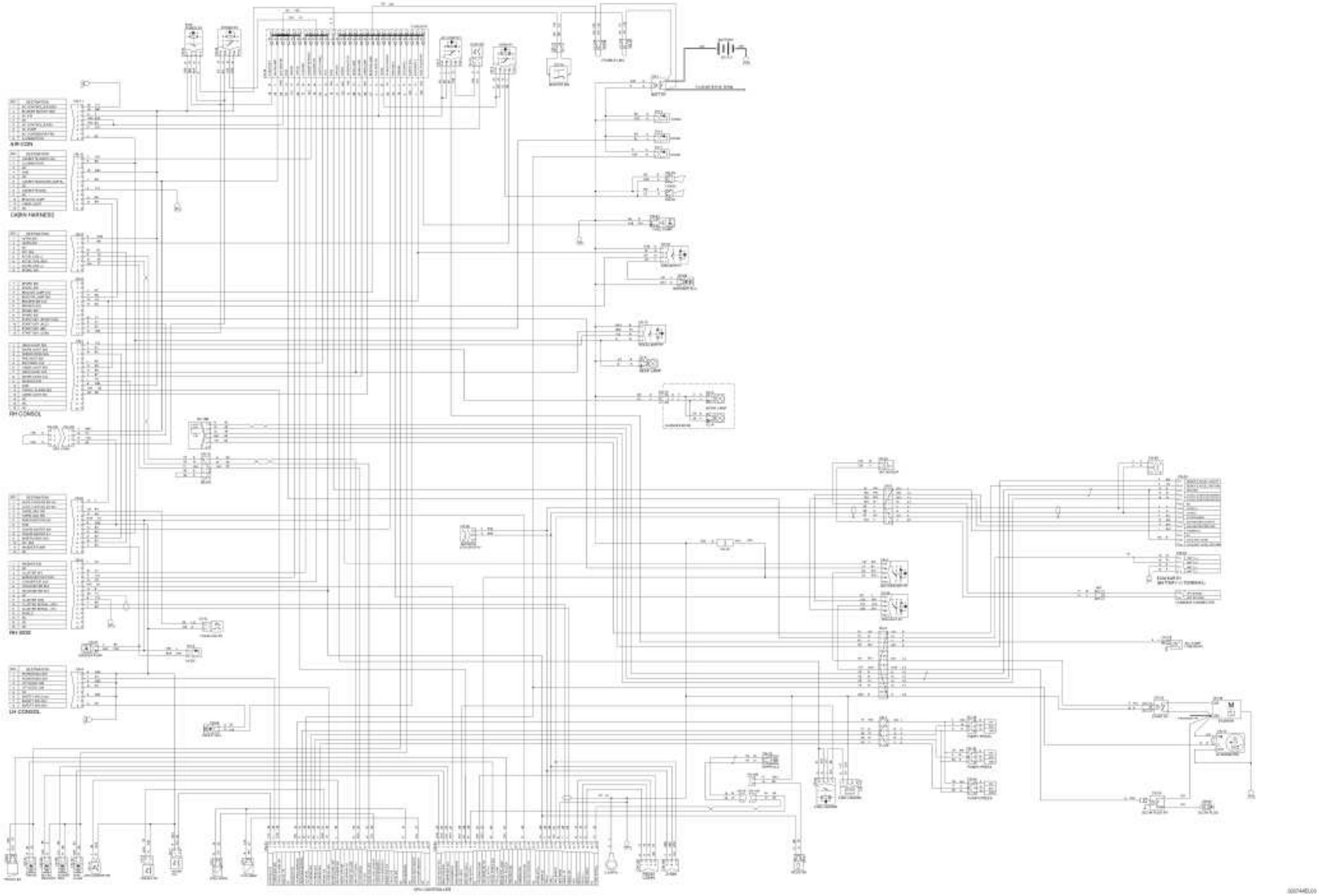
② Diagnosis

a. Protocol type 1



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- ELECTRIC CIRCUIT(1/2)



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