CRAWLER EXCAVATOR

SERVICE MANUAL

R800LC-7A

HYUNDAI

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3) GEAR PUMP

Item	Specification
Type	Fixed displacement gear pump single stage
Capacity	15cc/rev
Maximum pressure	40kgf/cm²(569psi)
Rated oil flow	27 ℓ /min(7.1U.S. gpm/5.9U.K. gpm)

4) MAIN CONTROL VALVE

Item	Specification
Type	9 spools
Operating method	Hydraulic pilot system
Main relief valve pressure	330kgf/cm²(4690psi) [360kgf/cm²(5120psi)]
Overload relief valve pressure	380kgf/cm²(5400psi)

[ ]: Power boost

5) SWING MOTOR

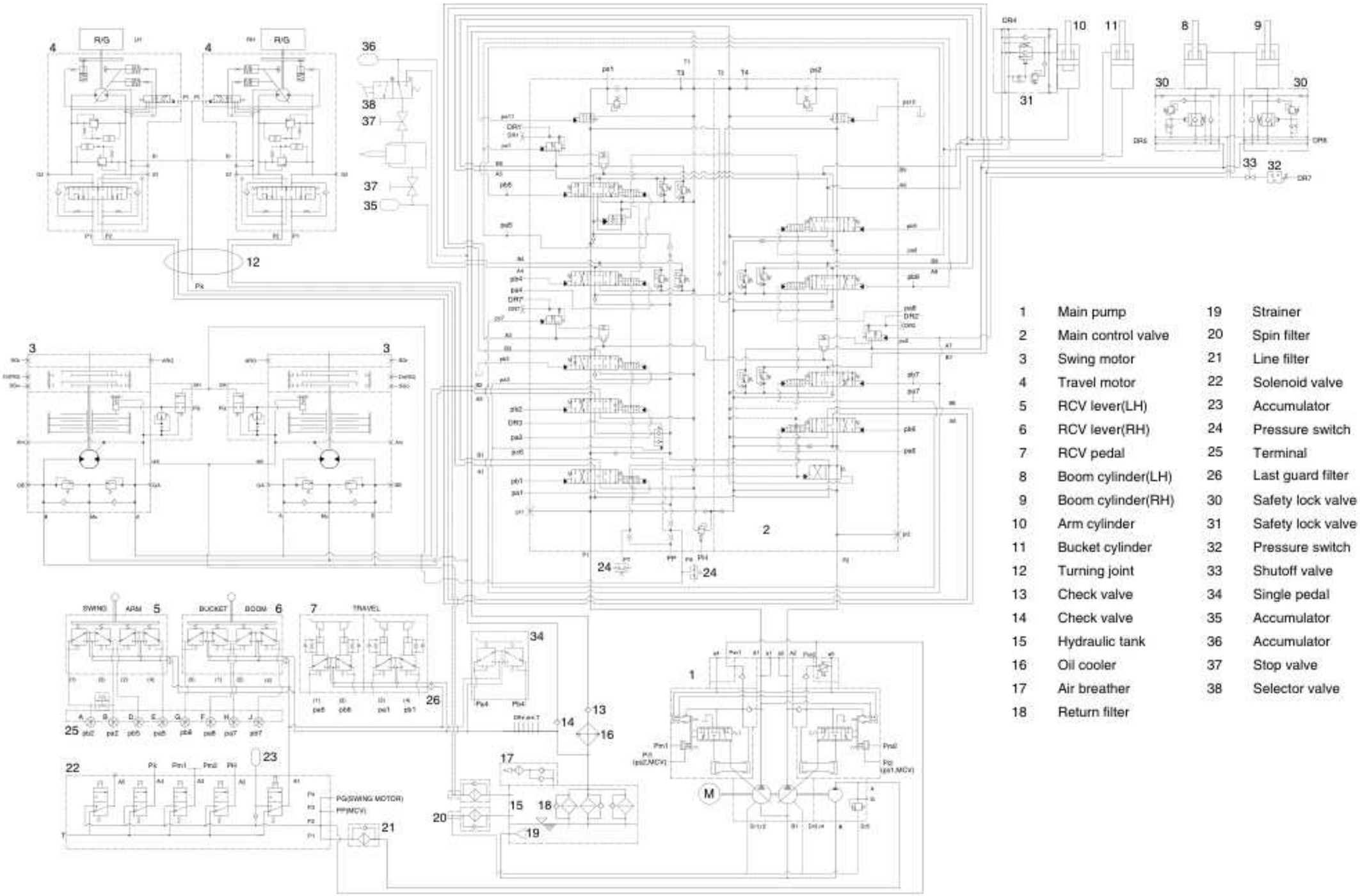
Item	Specification
Type	Fixed displacement axial piston motor
Capacity	250cc/rev
Relief pressure	295kgf/cm²(4200psi)
Braking system	Automatic, spring applied hydraulic released
Braking torque	107kgf · m(774lbf · ft)
Brake release pressure	30~50kgf/cm²(427~711psi)
Reduction gear type	2 - stage planetary

6) TRAVEL MOTOR

Item	Specification
Type	Variable displacement axial piston motor
Relief pressure	350kgf/cm²(4980psi)
Capacity(max / min)	304.1/205.2cc/rev
Reduction gear type	3-stage planetary
Braking system	Automatic, spring applied hydraulic released
Brake release pressure	18kgf/cm²(256psi)
Braking torque	114kgf · m(825lbf · ft)

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GROUP 1 HYDRAULIC CIRCUIT



1	Main pump	19	Strainer
2	Main control valve	20	Spin filter
3	Swing motor	21	Line filter
4	Travel motor	22	Solenoid valve
5	RCV lever(LH)	23	Accumulator
6	RCV lever(RH)	24	Pressure switch
7	RCV pedal	25	Terminal
8	Boom cylinder(LH)	26	Last guard filter
9	Boom cylinder(RH)	30	Safety lock valve
10	Arm cylinder	31	Safety lock valve
11	Bucket cylinder	32	Pressure switch
12	Turning joint	33	Shutoff valve
13	Check valve	34	Single pedal
14	Check valve	35	Accumulator
15	Hydraulic tank	36	Accumulator
16	Oil cooler	37	Stop valve
17	Air breather	38	Selector valve
18	Return filter		

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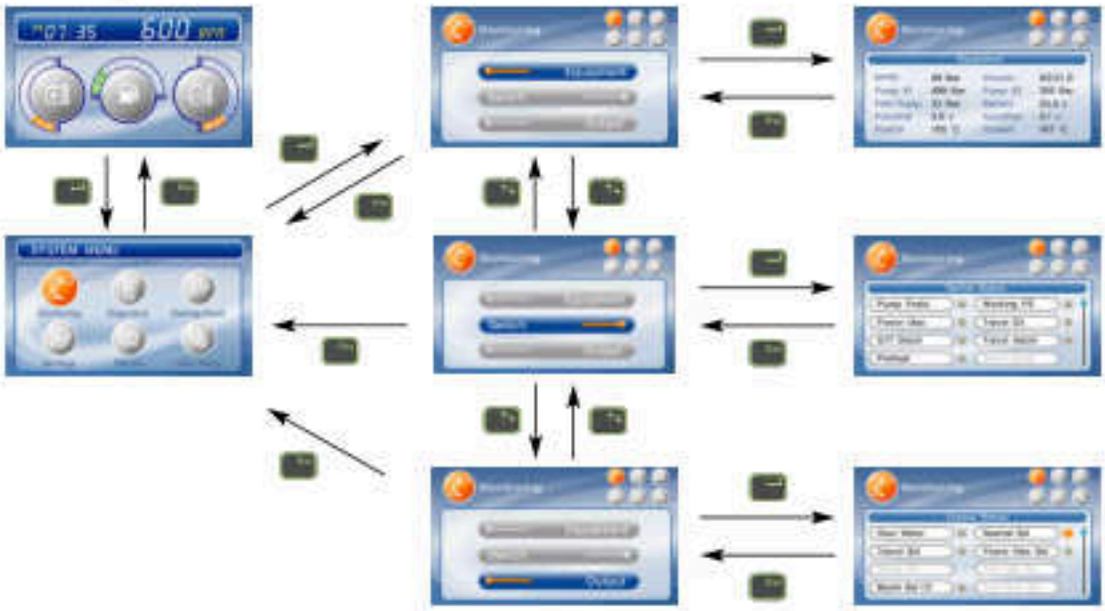
6. ENGINE FAULT CODE INFORMATION (For QSX15)

Fault code J1939 SPN J1939 FMI	Reason	Effect(only when fault code is active)
111 629 12	Error internal to the ECM related to the memory hardware failures or internal ECM voltage supply circuits.	Engine will not start.
115 190 2	No engine speed signal detected from the camshaft engine position sensor.	Engine may take longer to start.
121 190 10	No engine speed signal detected from the crankshaft engine position sensor.	Hard starting, low power, rough idle, or possible white smoke.
122 102 3	High voltage detected at the intake manifold pressure sensor circuit.	Derate in power output of the engine.
123 102 4	Low voltage detected on the intake manifold pressure/temperature sensor.	Derate in power output of the engine.
131 91 3	High voltage detected at accelerator position sensor.	Severe derate (power and speed). Limp home power only.
132 91 4	Low voltage detected at the accelerator position sensor circuit.	Severe derate (power and speed). Limp home power only.
133 974 3	High voltage detected at the remote throttle position signal circuit.	None on performance if remote throttle is not used.
134 974 4	Low voltage detected at the remote throttle position signal circuit.	None on performance if remote throttle is not used.
135 100 3	High voltage detected at the oil pressure circuit.	No engine protection for oil pressure.
141 100 4	Low voltage detected at the oil pressure circuit.	No engine protection for oil pressure.
143 100 1	Engine Oil Pressure Low - Warning. Engine oil pressure signal indicates engine oil pressure is below the engine protection warning limit.	Progressive power derate increasing in severity from time of alert.
144 110 3	High voltage detected at the coolant temperature circuit.	Possible white smoke. Fan will stay on if controlled by the electronic control module (ECM). No engine protection for coolant temperature.
145 110 4	Low voltage detected at the coolant temperature circuit.	Possible white smoke. Fan will stay on if controlled by the electronic control module (ECM). No engine protection for coolant temperature.
147 91 1	A frequency of less than 100 Hz was detected at frequency throttle signal pin of the actuator harness connector at the ECM.	Calibration-dependent power and speed derate.
148 91 0	A frequency of more than 100 Hz was detected at the frequency throttle signal pin of the actuator harness connector at the ECM.	Calibration-dependent power and speed derate.

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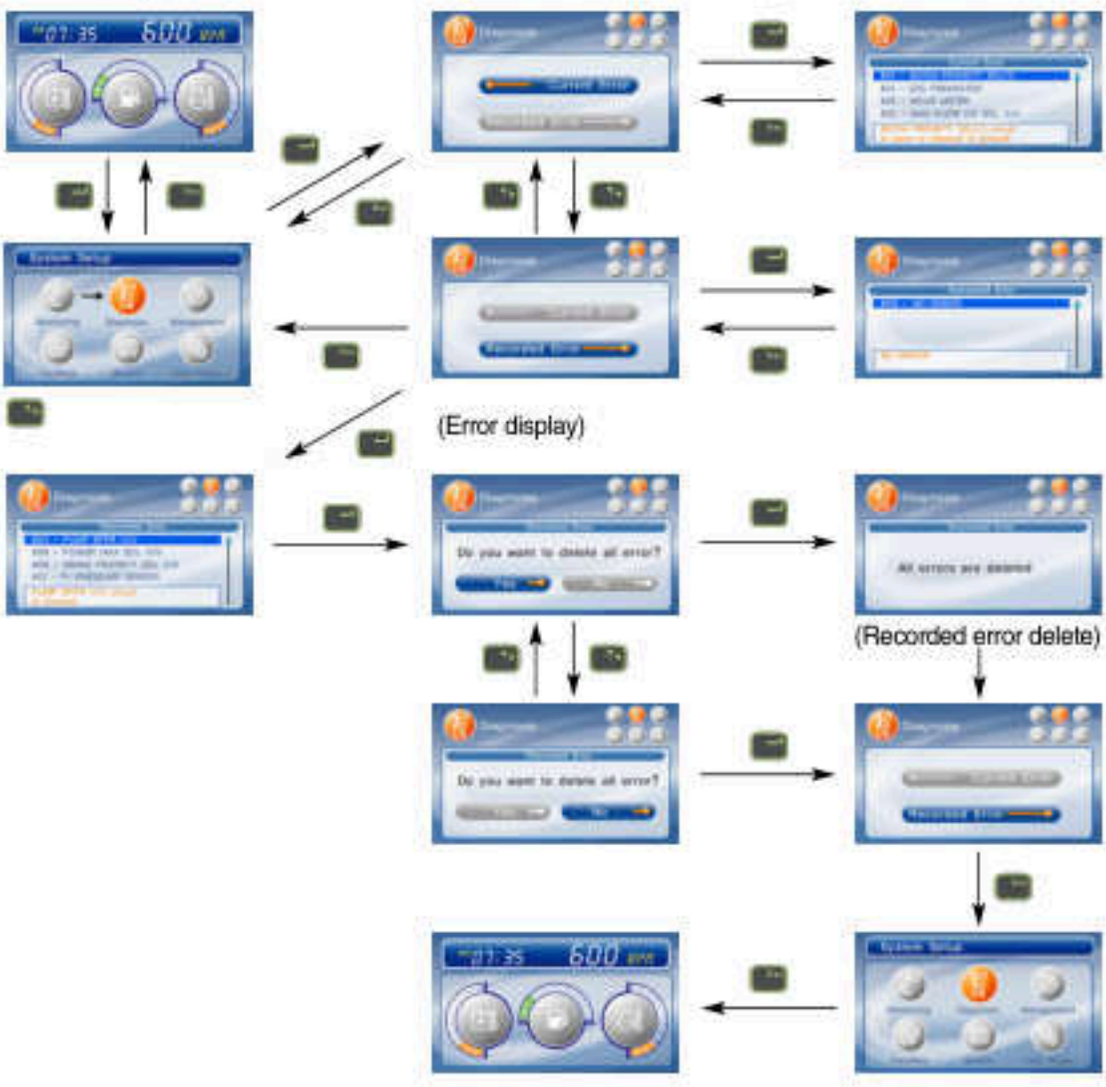
(2) Display map

① Monitoring



② Diagnosis

a. Protocol type 1



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⑤ Disassemble shoe plate(8) from body(1).



⑥ Using a plier jig, disassemble snap ring (4) and shaft assy(5).



(2) Disassemble cylinder block assy sub

① Disassemble piston assy(14), set plate (13) from cylinder block assy.

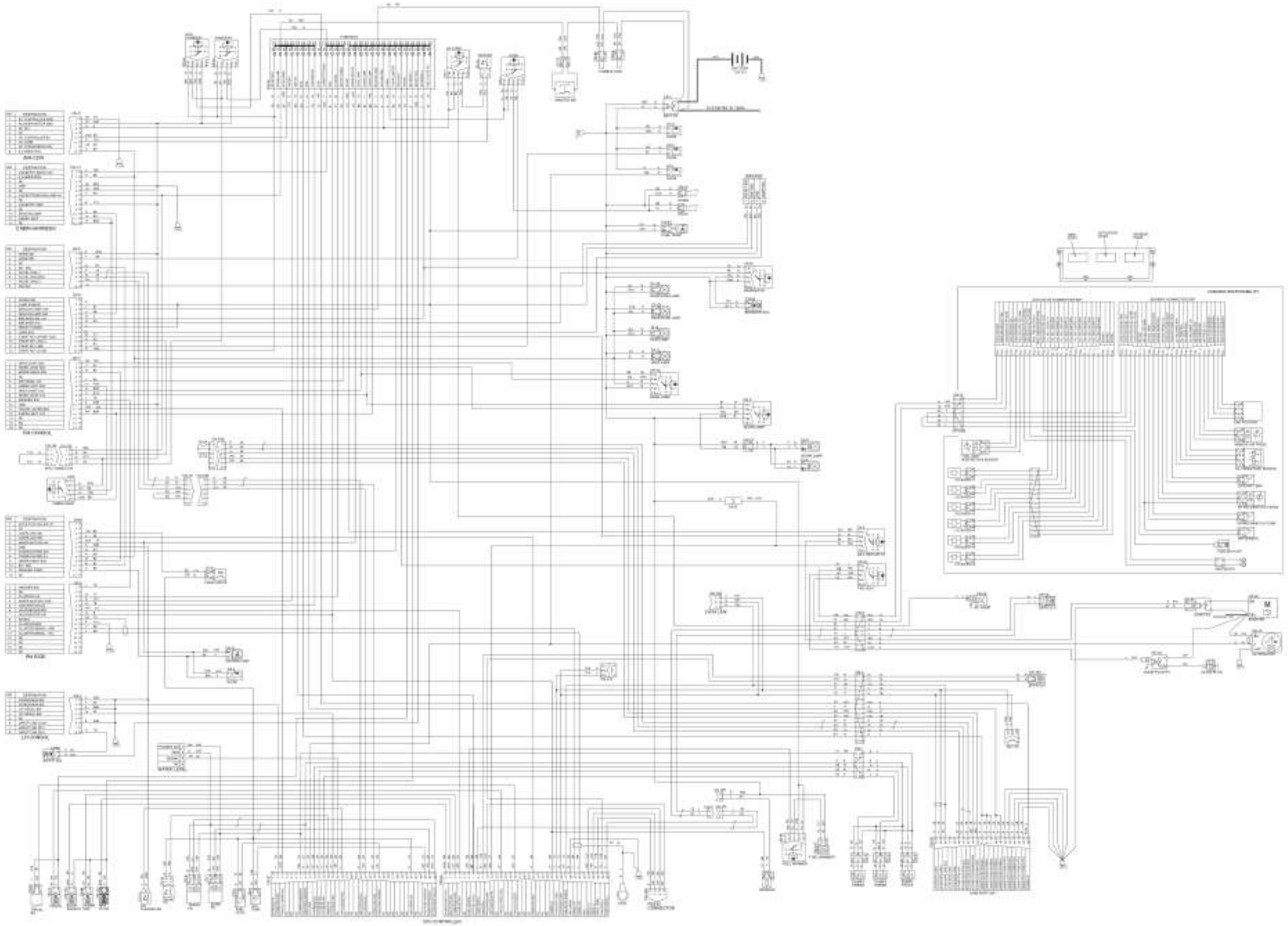


② Disassemble ball guide(12), friction plate(15), plate(16) and ball guide seat(11) from cylinder block(9).



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· ELECTRICAL CIRCUIT(1/2)



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