WHEEL LOADER

SERVICE MANUAL

HL757-9

HYUNDAI

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Fault code (Hex)	Meaning of the fault code possible reason for fault detection	Reaction of the TCU	Possible steps to repair
BB	Slippage at converter lockup clutch TCU calculates a differential speed at closed converter lockup clutch. If this calculated value is out of range, TCU interprets this as slipping clutch · Low pressure at converter lockup clutch · Low main pressure · Wrong signal at engine speed sensor · Wrong signal at turbine speed sensor · Wrong size of the sensor gap · Clutch is defective		· Check pressure at converter lockup clutch · Check main pressure in the system · Check sensor gap at engine speed sensor · Check sensor gap at turbine speed sensor · Check signal at engine speed sensor · Check signal at turbine speed sensor · Replace clutch
BD	S.C. to ground at engine brake solenoid TCU detected a wrong voltage at the output pin, that looks like a S.C. to vehicle ground · Cable is defective and is contacted to vehicle ground · Engine brake solenoid has an internal defect · Connector pin is contacted to vehicle ground	No reaction OP mode : Normal	· Check the cable from TCU to engine brake solenoid · Check the connectors from engine brake solenoid to TCU · Check the resistance* of engine brake solenoid * See page 3-52
BE	S.C. to battery voltage at engine brake TCU detected a wrong voltage at the output pin, that looks like a S.C. to battery voltage · Cable is defective and is contacted to battery voltage · Engine brake solenoid has an internal defect · Connector pin is contacted to battery voltage	No reaction OP mode : Normal	· Check the cable from TCU to the engine brake solenoid · Check the connectors from engine brake solenoid to TCU · Check the resistance* of engine brake solenoid * See page 3-52
BF	O.C. at engine brake TCU detected a wrong voltage at the output pin, that looks like a O.C. for this output pin · Cable is defective and has no connection to TCU · Engine brake solenoid has an internal defect · Connector has no connection to TCU	No reaction OP mode : Normal	· Check the cable from TCU to the engine brake solenoid · Check the connectors from engine brake solenoid to TCU · Check the resistance* of engine brake solenoid * See page 3-52

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5. STEERING VALVE (EHPS) PRESSURE TEST

- SPECIFICATION

Oil temperature	45±5°C (113±9°F)
Engine speed	High idle
Oil pressure	24.5±0.05 MPa (250±5 bar, 3560±71 psi)

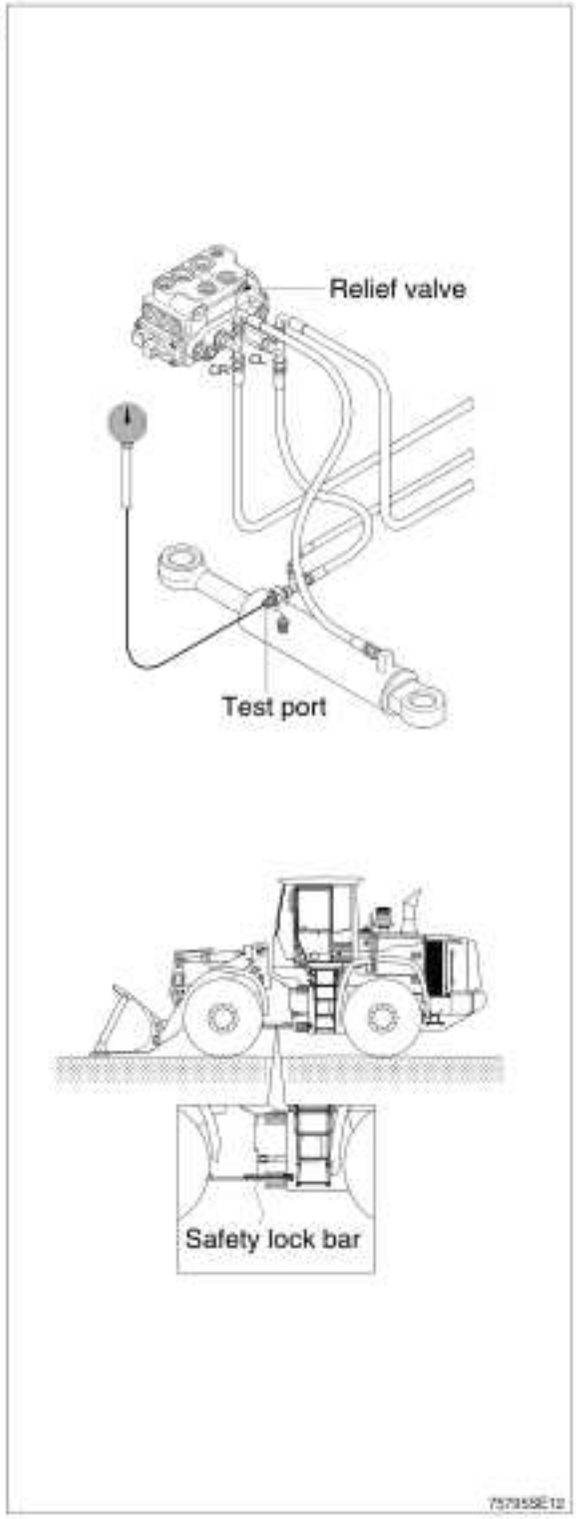
- GAUGE AND TOOL

  Gauge 0~35 MPa (0~350 bar, 0~5000 psi)
  Temperature reader

1) Connect gauge to test port.
2) Install temperature reader (see installation procedure in this group).
3) Install frame locking bar.
4) Heat hydraulic oil to specifications (see hydraulic oil warm up procedure at page 6-58).
5) Run engine at specifications and turn steering wheel rapidly hold approximately 22N (5lb force) pressure on wheel with frames locked.

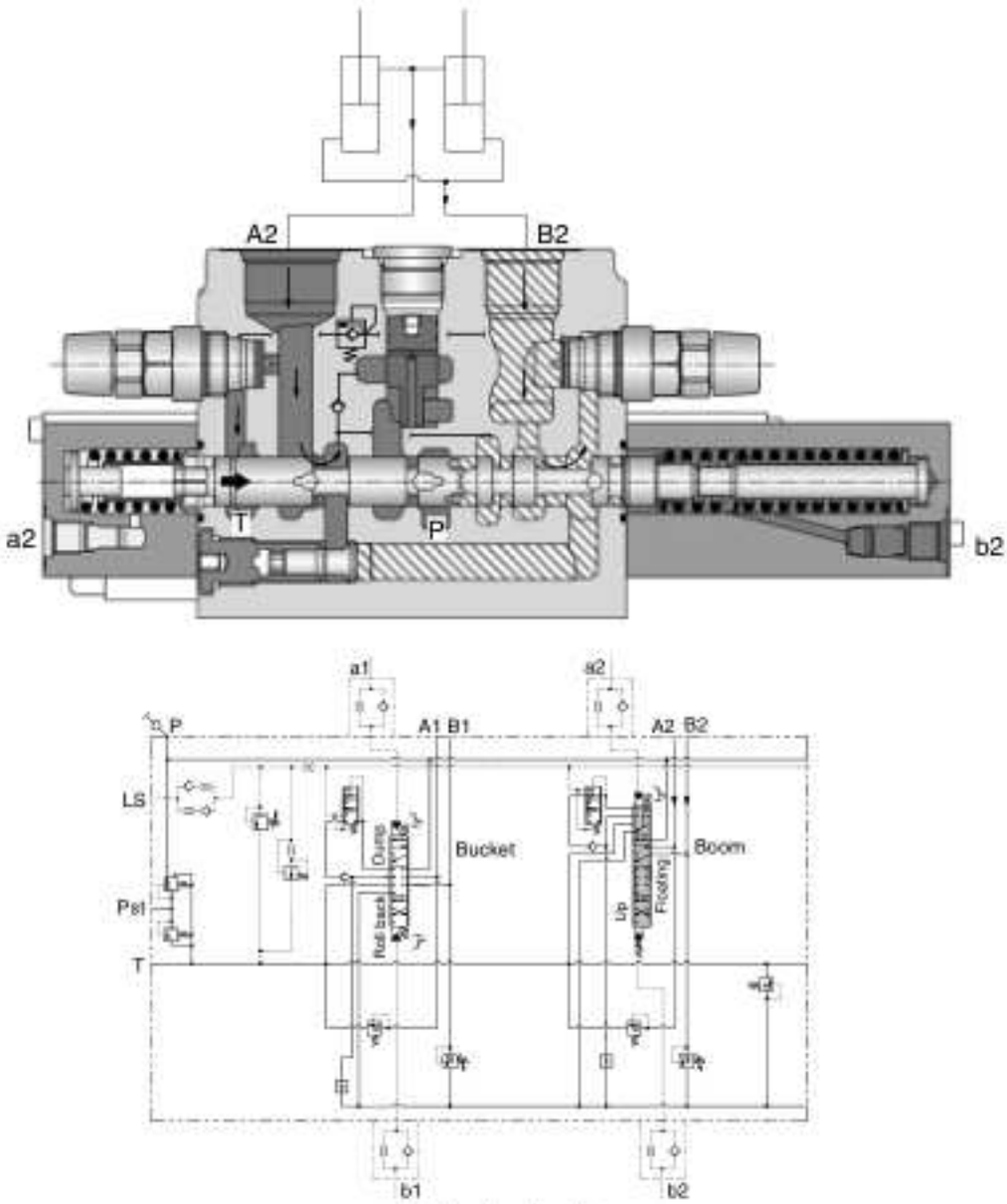
   ※ If steering wheel is turned slowly, it will continue to with the frames locked. This will give an incorrect pressure reading.
   If steering wheel continues to turn rapidly with the frames locked, steering system leakage is indicated.
6) Read pressure gauge. This is the steering valve relief pressure.
7) If pressure in not to specification, turn adjusting screw in relief cartridge using a hex head wrench (6 mm) to adjust pressure.

   If pressure cannot be adjusted to specification, disassemble and inspect steering valve.



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(4) Boom float position



Hydraulic circuit

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When the boom spool is located in float position, the oil from the pump will be blocked.
The cylinder ports (A2, B2) are connected to the tank passage, so the boom will be lowered due to it's own weight.

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5) DISASSEMBLY AND ASSEMBLY

(1) Spool

① Loosen the bolt (2EA).

- Tool : Wrench 4 mm
- Tightening torque : 0.85 kgf · m (6.1 lbf · ft)



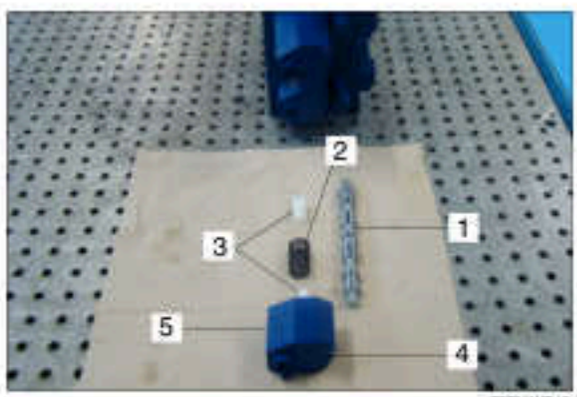
T5706WE41

② Remove the cover, spring retainer, spring and spool.



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1 Spool
2 Spring
2 Spring ratainer
4 Bolt
5 Cover



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(2) Port relief valve

- Tool : Spanner 24 mm

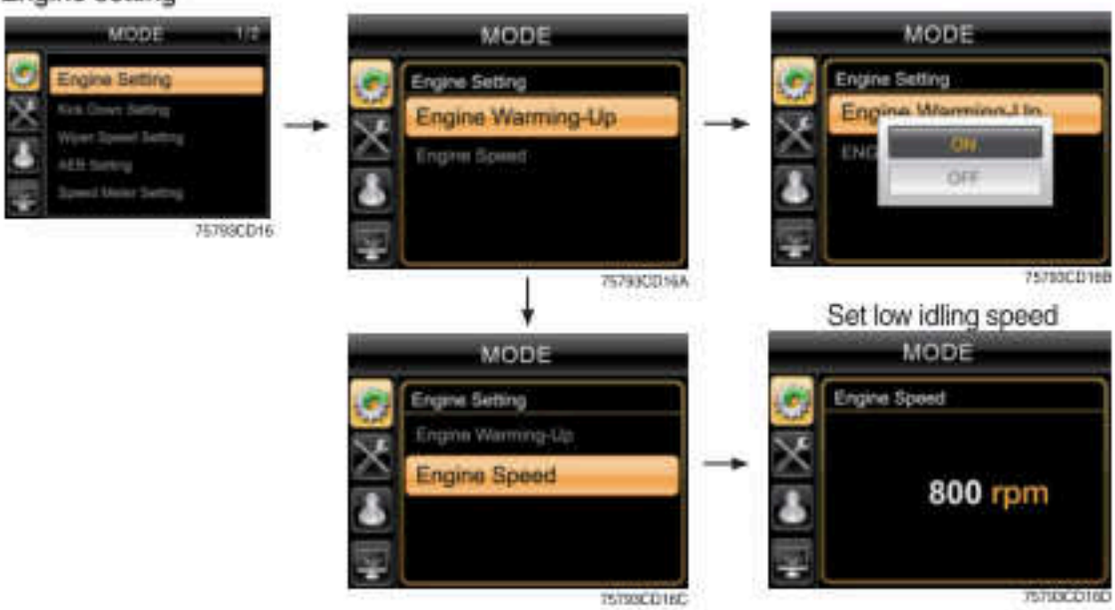


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(2) Mode

① Engine setting



② Kick down setting



- Mode 1 (down/up) : Press kick down button once, shift down and press button again, shift up.
- Mode 2 (down only) : Press kick down button every time, shift to lower gear respectively.

※ Refer to page 7-50.

③ Wiper speed setting



- Setting wipe speed 1 to 4.

④ Fan-auto mode



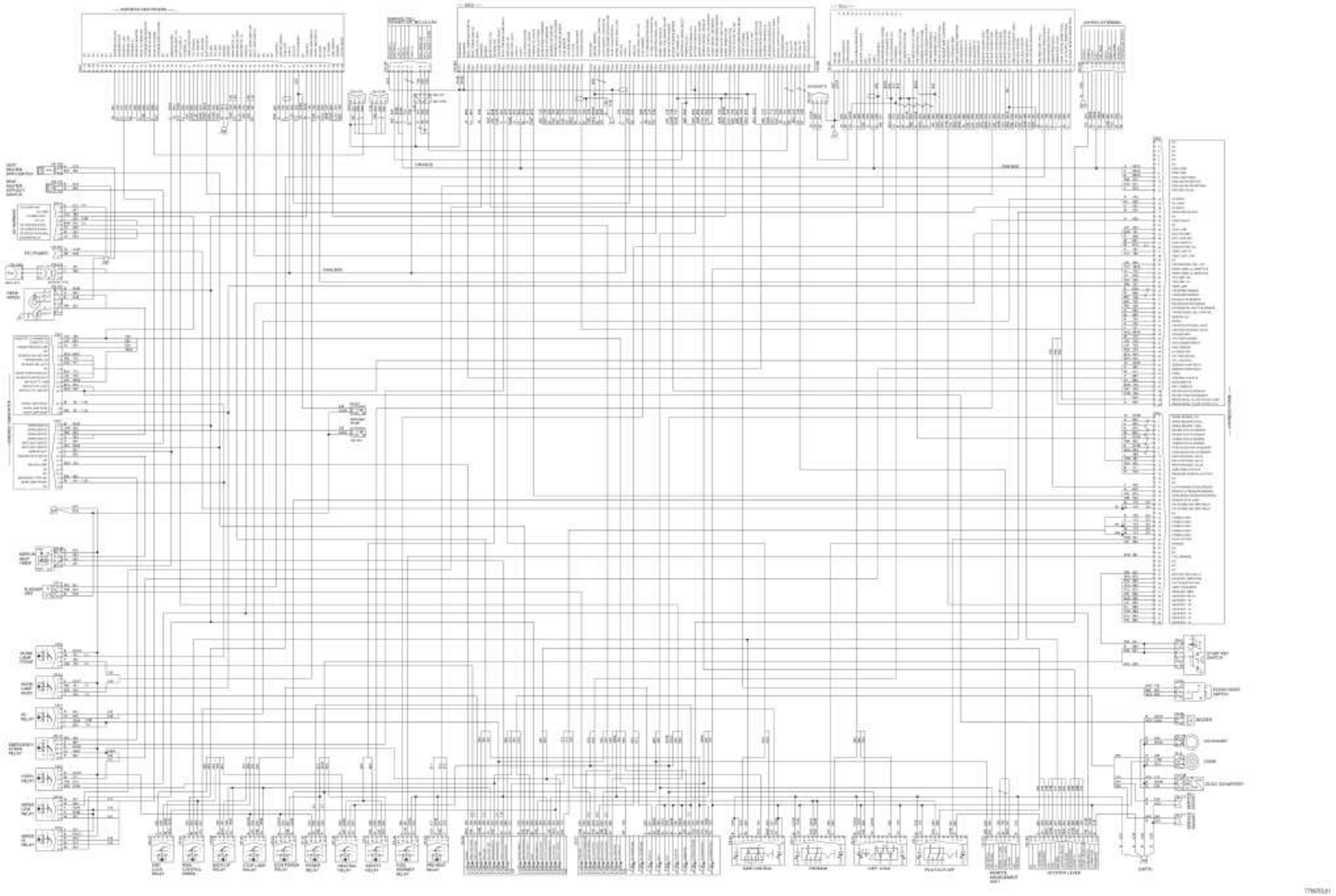
- Select reverse interval or reverse time.
- Set reverse interval (30~300 min) or reverse time (30~300 sec).

※ Default : Interval (60 min), time (120 sec)

※ Refer to page 7-46, fan control switch.

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· ELECTRICAL CIRCUIT (1/2) : Machine serial No.-#0067 (HL757-9)
Machine serial No.-#0019 (HL757TM-9)



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