WHEEL LOADER

SERVICE MANUAL

HL760-9SB

HYUNDAI

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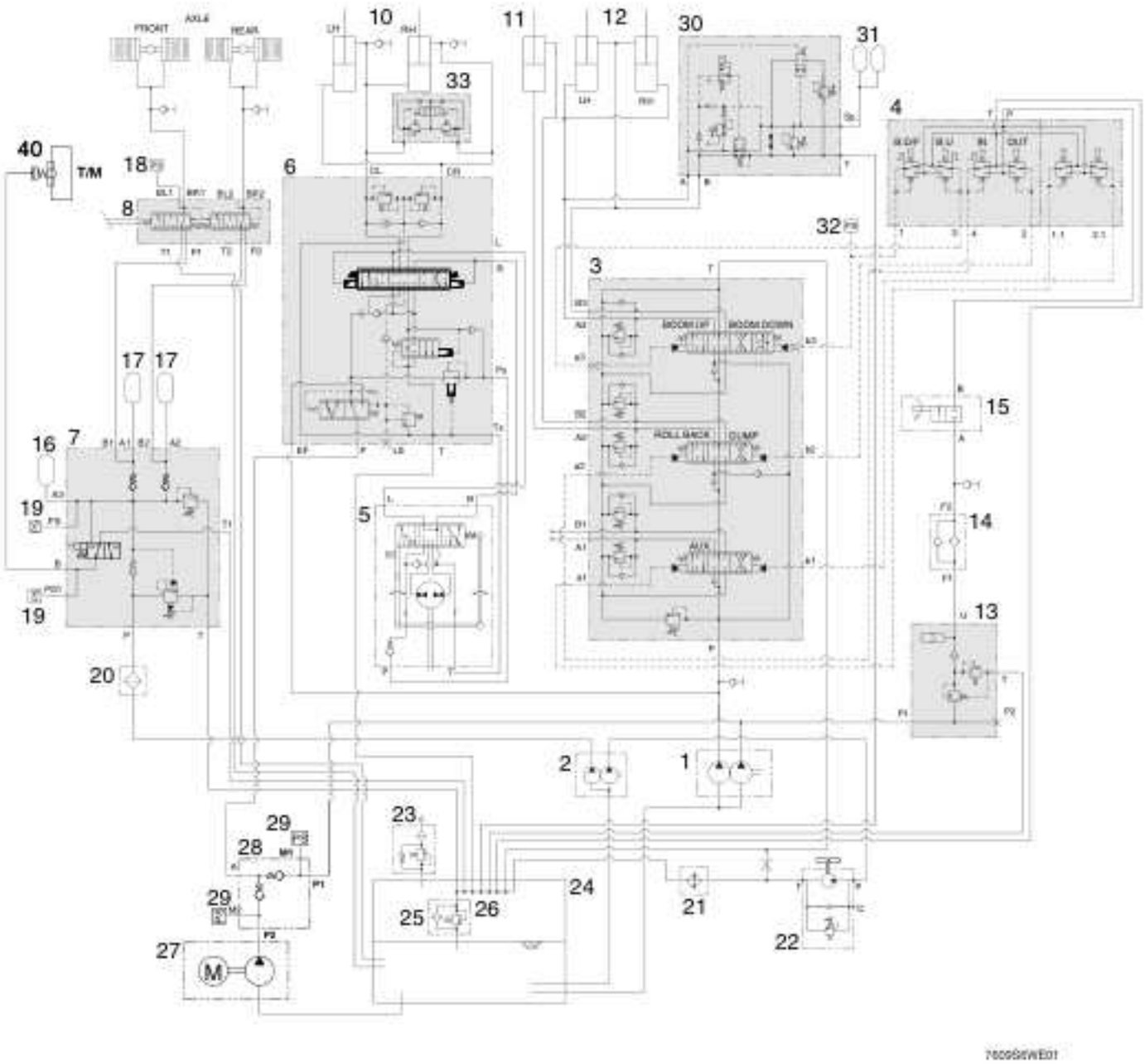
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Fault code (Hex)	Meaning of the fault code possible reason for fault detection	Reaction of the TCU	Possible steps to repair
93	O.C. at relay reverse warning alarm TCU detected a wrong voltage at the output pin, that looks like a O.C. for this output pin · Cable is defective and has no connection to TCU · Backup alarm device has an internal defect · Connector has no connection to TCU	No reaction OP mode : Normal	· Check the cable from TCU to the backup alarm device · Check the connectors from backup alarm device to TCU · Check the resistance* of backup alarm device * See page 3-49
94	S.C. to ground at relay starter interlock TCU detected a wrong voltage at the output pin, that looks like a S.C. to vehicle ground · Cable is defective and is connection to vehicle ground · Starter interlock relay has an internal defect · Connector pin is contacted to vehicle ground	No reaction OP mode : Normal	· Check the cable from TCU to the stater interlock relay · Check the connectors from starter interlock relay to TCU · Check the resistance* of starter interlock relay * See page 3-49
95	S.C. to battery voltage at relay starter interlock TCU detected a wrong voltage at the output pin, that looks like a S.C. to battery voltage · Cable is defective and has no connection to battery voltage · Starter interlock relay has an internal defect · Connector pin is contacted to battery voltage	No reaction OP mode : Normal	· Check the cable from TCU to the starter interlock relay · Check the connectors from starter interlock relay to TCU · Check the resistance* of starter interlock relay * See page 3-49
96	O.C. at relay starter interlock 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 · Starter interlock relay has an internal defect · Connector has no connection to TCU	No reaction OP mode : Normal	· Check the cable from TCU to the starter interlock relay · Check the connectors from starter interlock relay to TCU · Check the resistance* of starter interlock relay * See page 3-49
9A	S.C. to ground at converter lock up clutch 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 · Converter clutch solenoid has an internal defect · Connector pin is contacted to vehicle ground	No reaction OP mode : Normal	· Check the cable from TCU to the converter clutch solenoid · Check the connectors from converter clutch solenoid to TCU · Check the resistance* of converter clutch solenoid * See page 3-49

※ Some fault codes are not applied to this machine.

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2. HYDRAULIC CIRCUIT



1	Main pump	13	Pilot supply unit	24	Hydraulic tank
2	Fan & brake pump	14	Line filter	25	Return filter
3	Main control valve	15	Safety valve	26	Bypass valve
4	Remote control valve	16	Accumulator	27	Pump motor (opt)
5	Steering unit	17	Accumulator	28	Check valve (opt)
6	Steering valve (EHPS)	18	Pressure sensor	29	Pressure sensor (opt)
7	Cut off valve	19	Pressure sensor	30	Ride control valve (opt)
8	Brake valve	20	Line filter	31	Accumulator (opt)
10	Steering cylinder	21	Oil cooler	32	Pressure sensor (opt)
11	Bucket cylinder	22	Fan motor	33	Cushion valve
12	Boom cylinder	23	Air breather	40	Parking brake on T/M

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6. LOADER SYSTEM AND PORT RELIEF VALVE PRESSURE TEST

- SPECIFICATION

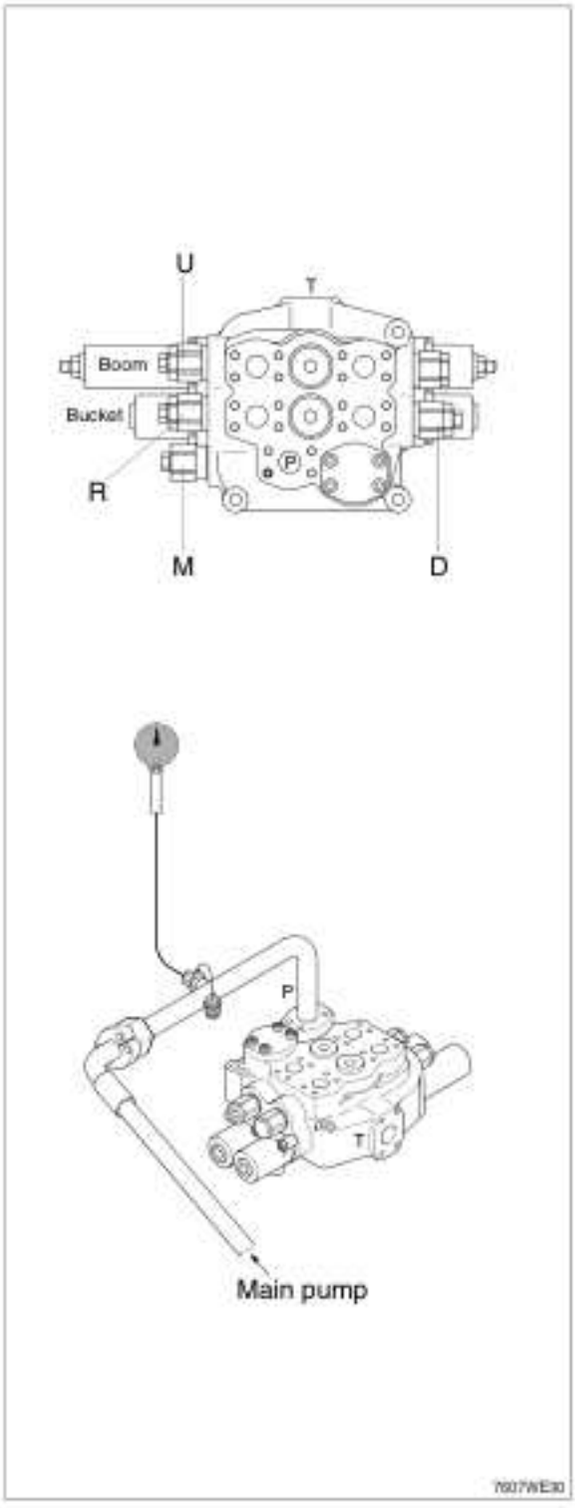
Oil temperature (40~50°C)

Relief valve	Engine speed	Relief pressure
System (M)	High	210±10 kg/cm² (2990±140 psi)
Boom raise (U)	Low	240±10 kg/cm² (3410±140 psi)
Bucket rollback (R)	Low	240±10 kg/cm² (3410±140 psi)
Bucket dump (D)	Low	240±10 kg/cm² (3410±140 psi)

- Gauge and tool

Gauge 0~35 MPa (0~350 bar, 0~5000 psi)
M : System (main) relief valve
R : Bucket rollback relief
D : Bucket dump relief
U : Boom raise relief

1) Install fitting and pressure gauge to test port in pump delivery line.
2) Install temperature reader. (see temperature reader installation procedure in this group)
3) Heat hydraulic oil to specifications. (see hydraulic oil warm up procedure in this group)
4) To check the system relief (M), run engine at high idle. Lower boom to bottomed position.
Slowly activate boom down function while watching pressure gauge. If pressure is not to specification, loosen lock nut on system relief valve (M) and adjust to specification.



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(14) Assembled nut (31).

- Tool : spanner 19 mm
- Tightening torque (M12) :
  40 ± 4 kgf · cm (28 ± 28.9 lbf · ft)



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(15) Assemble the boots (32).

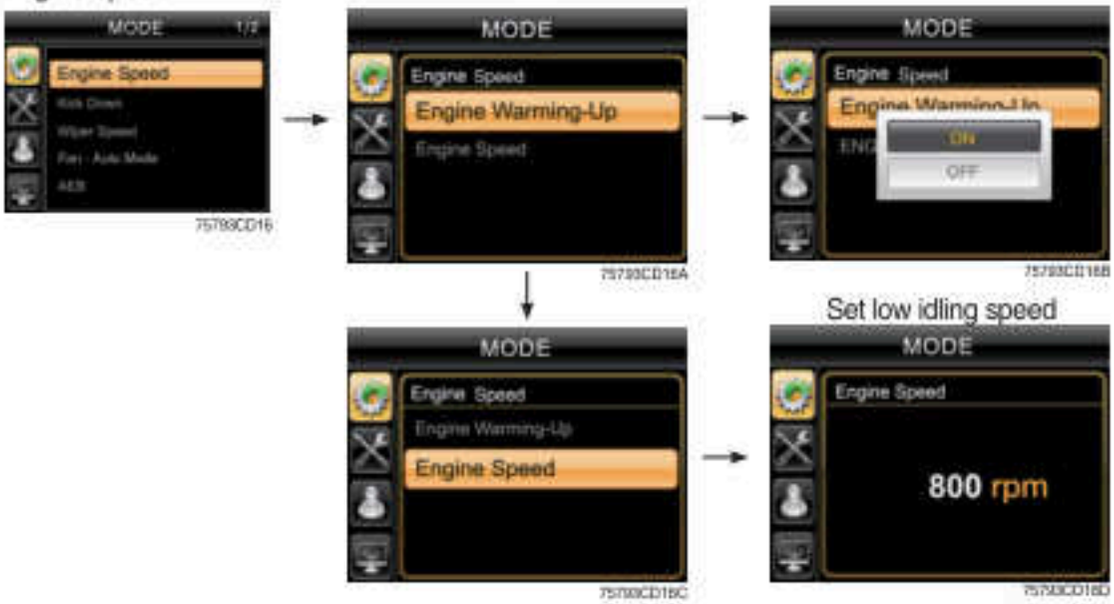


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(2) Mode

① Engine speed



② Kick down



- 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 7-46.

③ Wiper speed



- Setting wipe speed 1 to 4.

④ Fan-auto mode



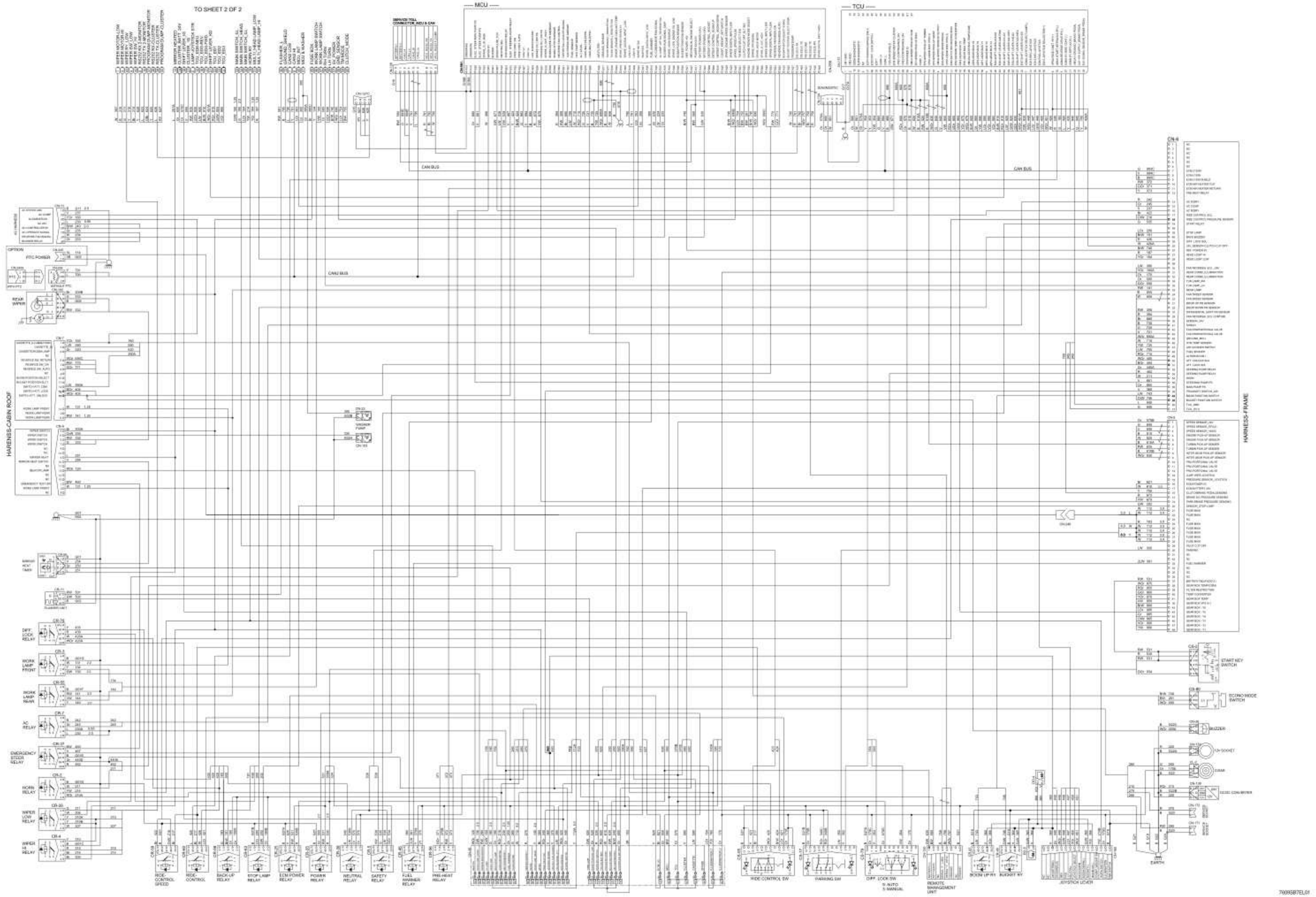
- Select reverse interval or reverse time.
- Set reverse interval (30~300 min) or reverse time (30~300 sec).

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

※ Refer to page 7-44, fan control switch.

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· ELECTRICAL CIRCUIT (1/2) :



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