FORKLIFT

SERVICE MANUAL

BOP

HYUNDAI

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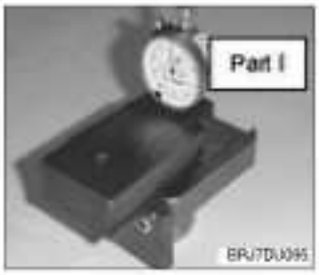
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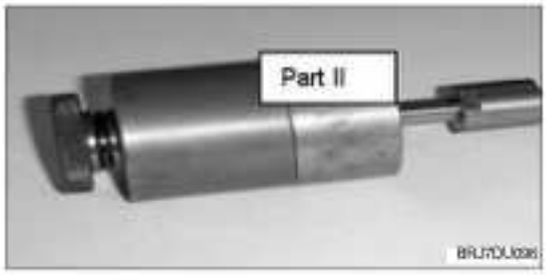
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At zero position of the dial gauge the following can be taken as basis:
Dimension "1" = 111.50 mm

Determine Dimension "2" in housing bearing bore L3 (see figure 94) and add it to the respective Dimension "1".

Example :

Dimension "1"	111.50 mm
Dimension "2"	0.05 mm
Housing dimension "G"	**111.55 mm**

By means of the equation
X = G - E - B

The required thickness of the shim (Item 1, Figure 94) can be calculated. "E" means the installation dimension of the bevel pinion shaft

Dimension "E" : 89.00 mm

Calculation example

Dimension "G"	- 111.55 mm
Dimension "B"	- 22.09 mm
Dimension "E"	- 89.00 mm

X = G - E - B
X = 111.55 - 89.00 - 22.09 = **0.46 mm**

Add shims according to thickness X = **0.46 mm**

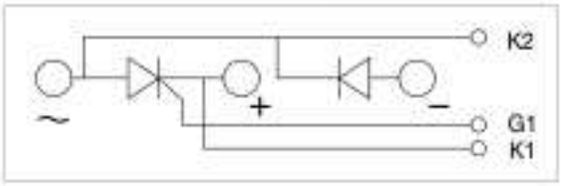
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Code	Alarm	Traction (T)	Pump (P)	EPS (E)	Description
234	EV2 DRIVER SHORTED	○			Cause : Electrovalve EV2 driver is shorted. Troubleshooting : Check if there is a short or a low impedance between the negative of this coil and -BATT. This warning occurs also if the external load is not present and the parameter EV2 in the "Set Options" menu is set "PRESENT", in this case the warning disappears setting the EV2 parameter "ABSENT". Otherwise the driver circuit is damaged and the controller must be replaced.
	EV3 DRIVER SHORTED	○			Cause : Electrovalve EV3 driver is shorted. Troubleshooting : Check if there is a short or a low impedance between the negative of this coil and -BATT. This warning occurs also if the external load is not present and the parameter EV3 in the "Set Options" menu is set "PRESENT", in this case the warning disappears setting the EV3 parameter "ABSENT". Otherwise the driver circuit is damaged and the controller must be replaced.
	EV4 DRIVER SHORTED	○			Cause : Electrovalve EV4 driver is shorted. Troubleshooting : Check if there is a short or a low impedance between the negative of this coil and -BATT. This warning occurs also if the external load is not present and the parameter EV4 in the "Set Options" menu is set "PRESENT", in this case the warning disappears setting the EV4 parameter "ABSENT". Otherwise the driver circuit is damaged and the controller must be replaced.
	BRAKE RUN OUT		○		Cause : The CPOTBRAKE input red by the microcontroller is at the maximum value without the hand brake request. Troubleshooting : Check the mechanical calibration and the functionality of the brake potentiometer. If the alarm is not disappeared the failure is in the ACE logic board, replace it.
235	COIL SHORTED EV	○			Cause : This alarm occurs when there is a short circuit of one of the coils connected to outputs of the ac0(electronic valve coil). After the overload condition has been removed, the alarm exits automatically by releasing and then enabling a travel demand. Troubleshooting: A) The typical root cause for this error code to be displayed is in the harness or in the load coil. So the very first check to carry out concerns connections between controller outputs and loads. B) In case no failures/problems have been found externally, the problem is in the controller, which has to be replaced.

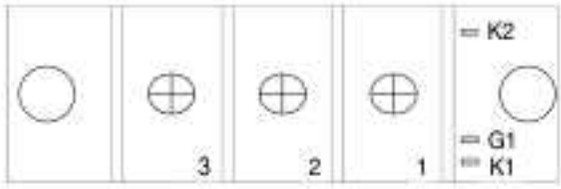
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7) HOW TO CHECK THE SCR MODULE

Circuit

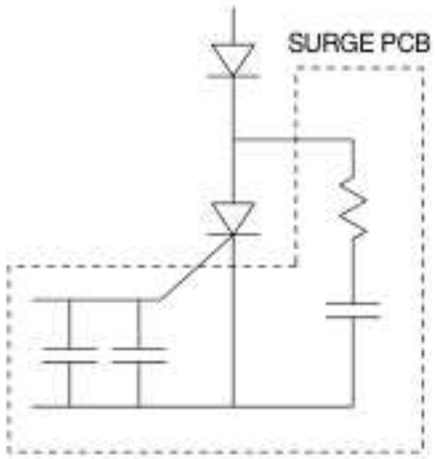


Real diagram

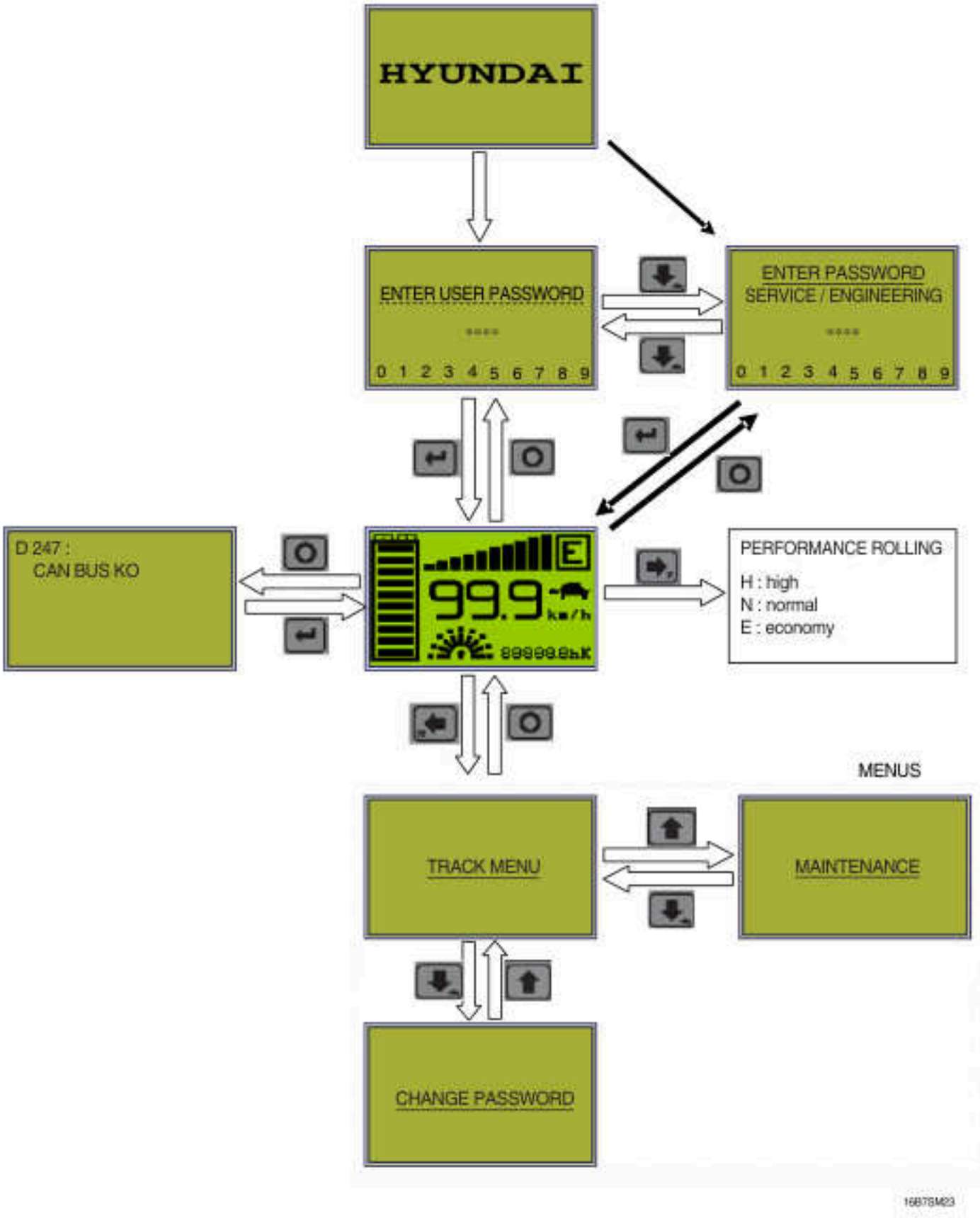


* Before checking SCR MODULE, be sure to disconnect bus bar and wire on the terminal.

No.	Measuring point (Real diagram)	Measure value (Measurement of digital tester)
1	No.1 – No.3	Forward : Under 100 k ohm Reverse : Infinity (∞)
2	No.2 – No.3	Forward : Infinity (∞) Reverse : Infinity (∞)
3	G1 – K1	Forward : Under 100 ohm Reverse : Under 100 ohm But It depends on the module. If it is not 0 ohm, It is Ok.
4	G1 – K2	Forward : Infinity (∞) Reverse : Infinity (∞)

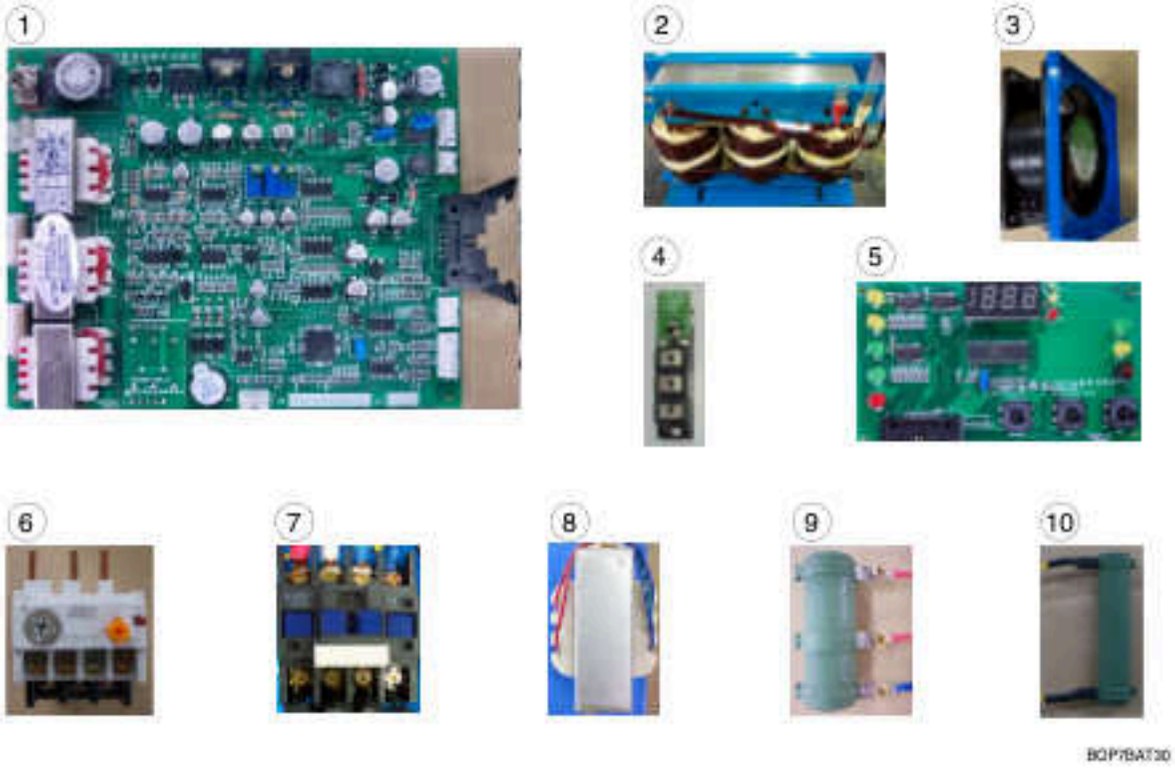


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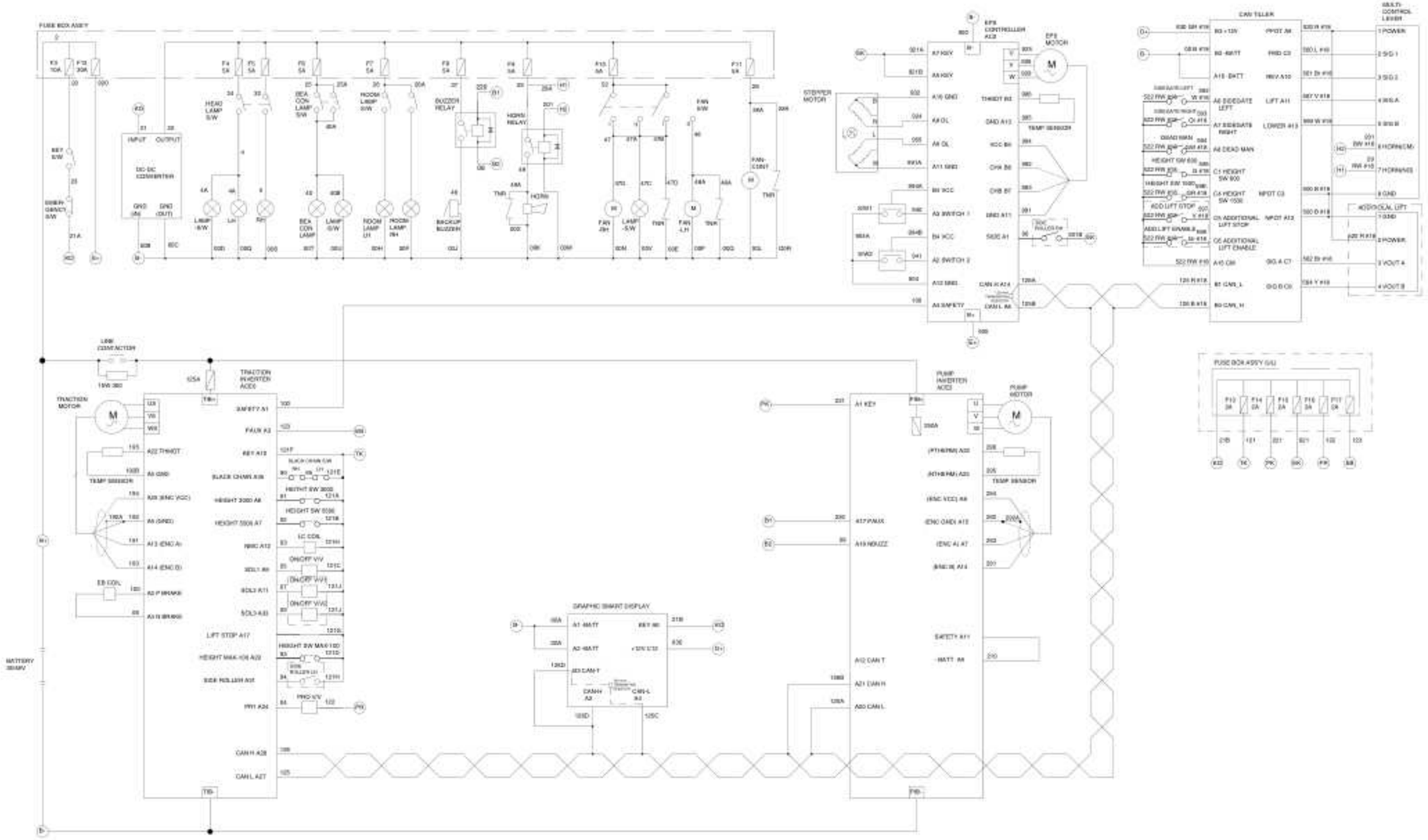
(3) Names of each part (independent items)



1	Main PCB board	5	Monitor PCB	9	Resistance (RD)
2	Main trans (Class H)	6	Overload	10	Resistance (DR)
3	Cooling fan	7	MG S/W		
4	SCR module	8	Assistant trans		

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GROUP 2 ELECTRICAL CIRCUIT



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