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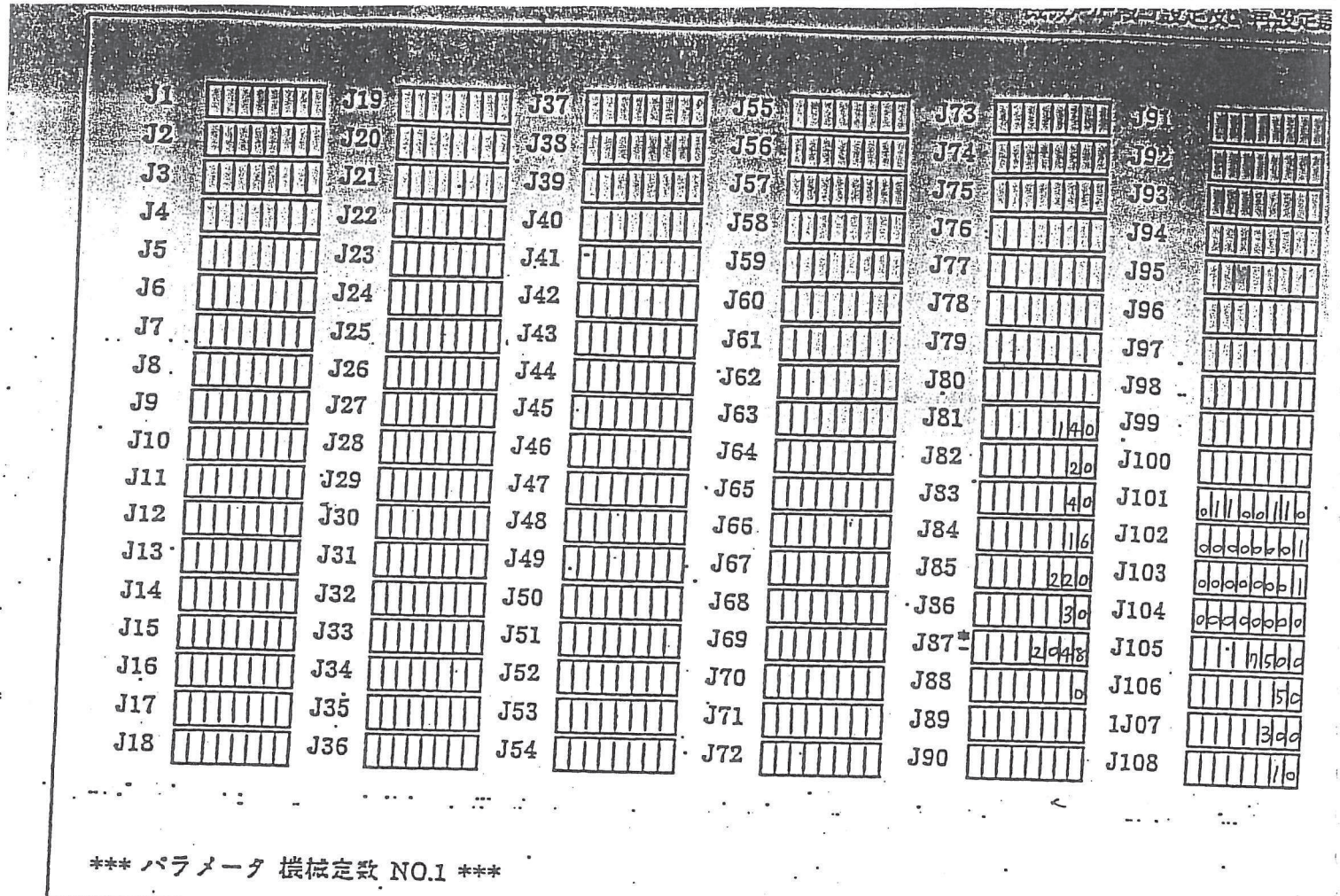
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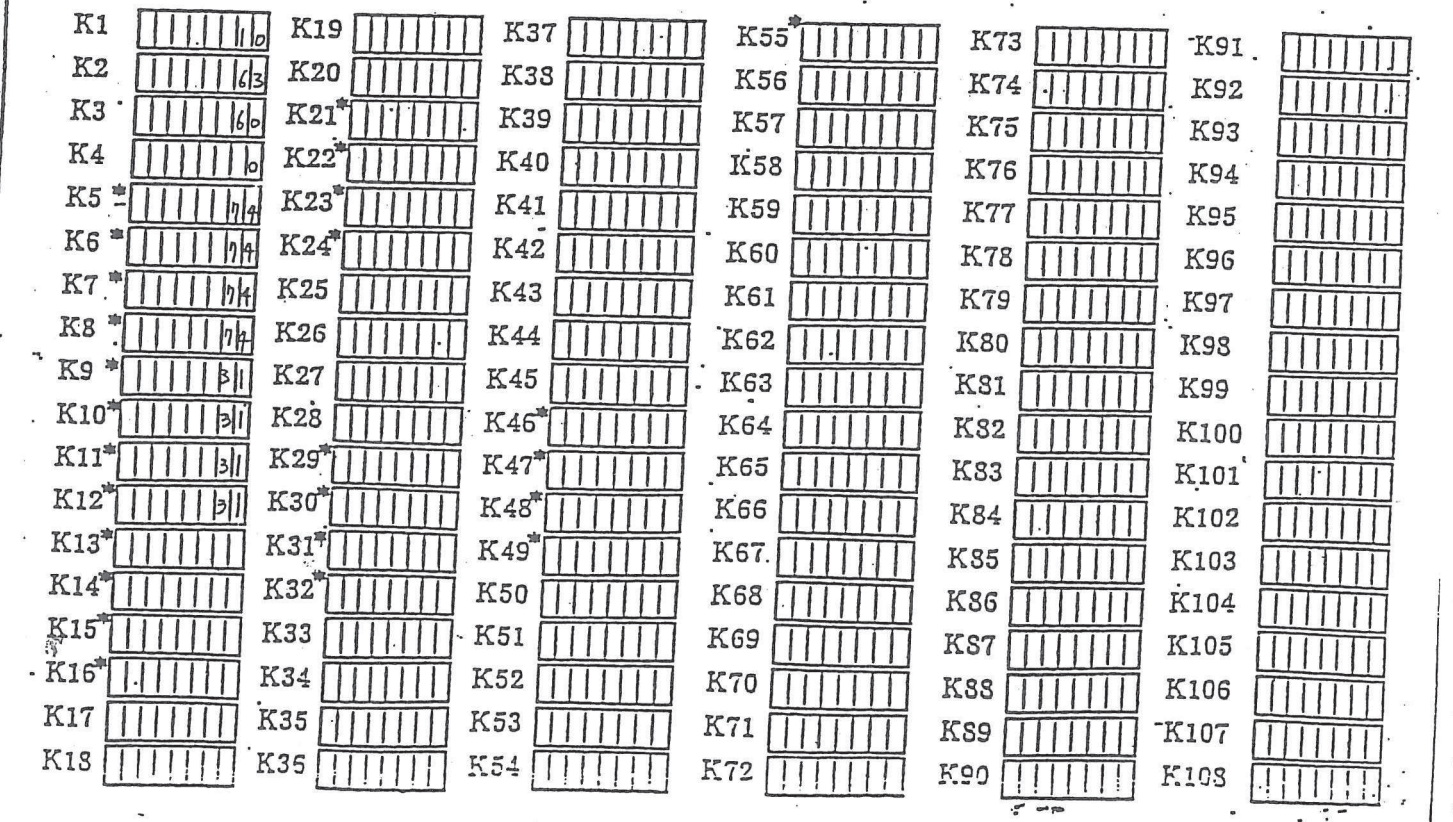
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Find the *Mitsubishi MC301* at our website: ***Click HERE***

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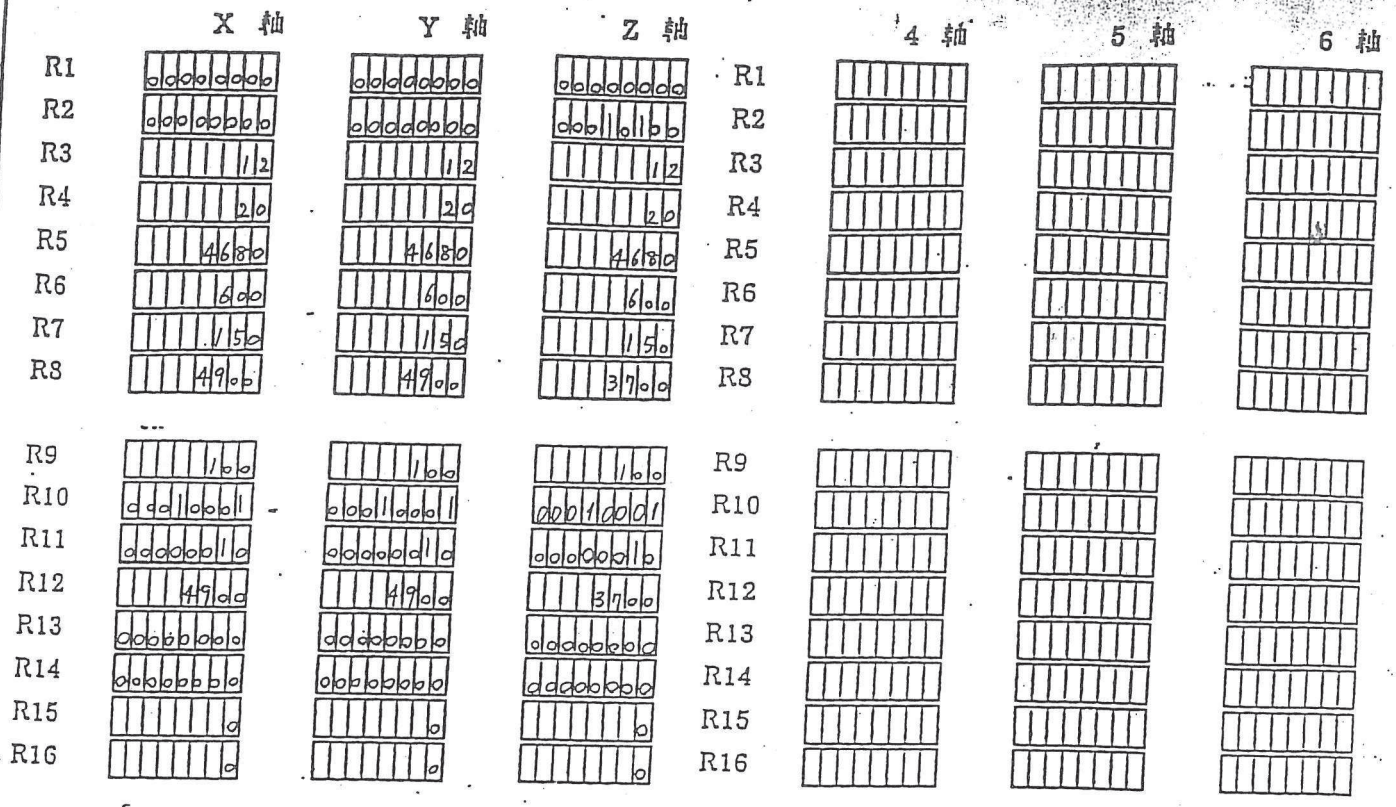
*** パラメータ 機械定数 NO.1 ***



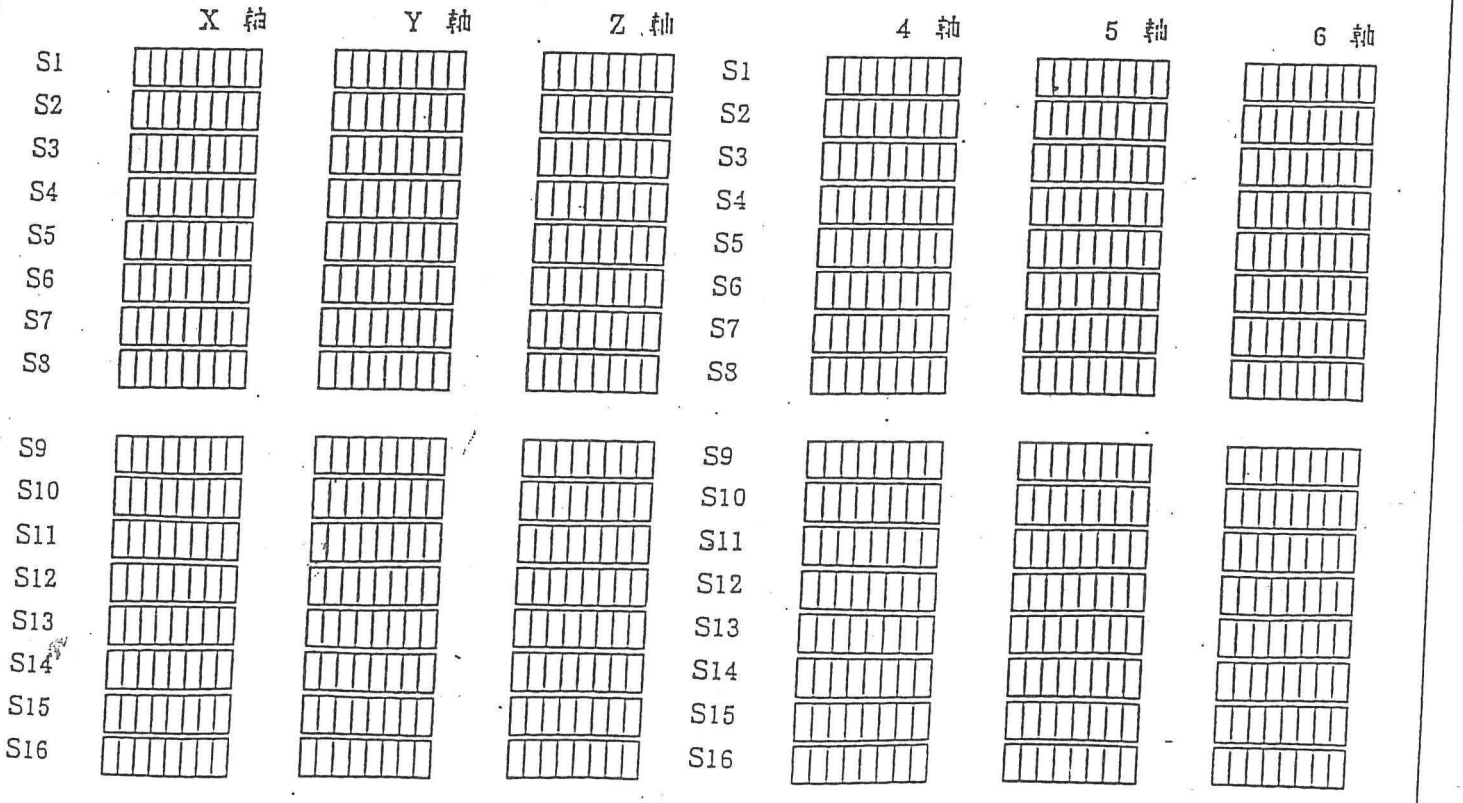
*** パラメータ 機械定数 NO.2 ***

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*** パラメータ 機械定数 NO.7 ***



*** パラメータ 機械定数 NO.8 ***

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Card Name	LED Name	Status		Error Contents	Countermeasures
		Normal	Abnormal		
MC121	LED1 LED2 LED3	× ○/△ ○/△		⟶	The contents of error may differ due to the combination. Refer to the item 3-4-2.
	LED4	×	○	Watchdog alarm	Replace with a normal card.
MC442	LED1	×	○	DRAM parity error	Reload the data again for performance, and if the LED still lights up, replace with a normal card.
	LED2	×	○	SRAM parity error	
	LED3	×	○	DRAM battery alarm	Charge or replace the battery.
	LED4	×	○	SRAM battery alarm	Charge or replace the battery, and reconfirm the machining data.
	LED5	×	○	Memory guard error	There are bugs in the system S/W, user's PC, etc.
MC611	WDOG	×	○	Watchdog alarm	Inform Mitsubishi Service Center. Confirm the connector connection, and check the cable for disconnection; if the LED still lights up, replace with a normal card.
	ALARM	×	○	System alarm	System S/W and custom S/W are broken (destroyed). Inform Mitsubishi Service Center.
	SVAL	×	○	Servo alarm	The LED lights up when trouble occurs in the servo system. Find out the cause of alarm through the Error Code No., take necessary steps, and turn the "NC RESET" key to ON to release the alarm. Refer to the Instruction Manual for the factors causing alarm.
	FBAL	×	○	Feedback alarm	
MC471	LED1	×	○	Parity error	Reload the data again for performance, and if the LED still lights up, replace with a normal card.
	LED2	×	○	Memory guard error	There are bugs in the system S/W, user's PC, etc. Inform Mitsubishi Service Center.

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Card Name	LED Name	Status		Error Contents	Countermeasures
		Normal	Abnormal		
	LED3	×	○	Battery alarm	Charge or replace the battery, and reconfirm the machining data.
MC472	LED1	×	○	Parity error	Reload the data again for performance, and if the LED still lights up, replace with a normal card.
	LED2	×	○	Memory guard error	There are bugs in the system S/W, user's PC, etc. Inform Mitsubishi Service Center.
	LED3	×	○	Battery alarm	Charge or replace the battery, and reconfirm the machining data.
MC301	LDG	○	×	Output photo-coupler power	The LED is extinguished only at CPU resetting. Hence, with this LED extinguished, the system S/W is not running, so that when this state continues, it is necessary to replace the MC111 or MC112 card.
MC303	LED1	○	×	Output photo-coupler power	

○ : Lit up △ : Flickering × : Extinguished

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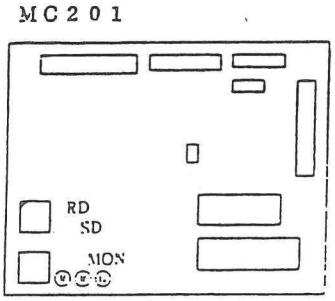
3-2-2 CPU card LEDs

The LEDs 1,2 and 3 of CPU cards MC111 and MC121 are the LEDs transmitted from the system software. The error contents differ according to the combinations of these LEDs.

LED1	LED2	LED3	Error Contents	Countermeasures
×	○	○	Parity error	Reload the RAM data on the CPU card for performance; if the error still remains, replace with a normal card.
×	○	○	Write guard error	There are S/W bugs in the system S/W, user's PC, etc. Hence, inform Mitsubishi Service Center.
○	×	○	Bus error	Inform Mitsubishi Service Center.
○	○	○	System error	Inform Mitsubishi Service Center.
○	×	×	Zero operation	Confirm the parameter machining data.

○ : Lit up × : Extinguished

3-2-3 LEDs on operation board side



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Card Name	LED Name	Status		Error Contents	Countermeasures
		Normal	Abnormal		
MC2C1	RD	O/△	×	Received signal (remains extinguished when not connected to NC)	Replace the MC712 card if RD and SD as well as the LED3 of MC712 card on the control unit side are extinguished, with the MON flickering. If the status does not turn for better, replace this card with a normal one.
	SD	O/△	×	Transmitted signal (remains extinguished when not connected to NCO	
	MON	△	O/×	System monitor (flickers periodically)	Replace with a normal card.

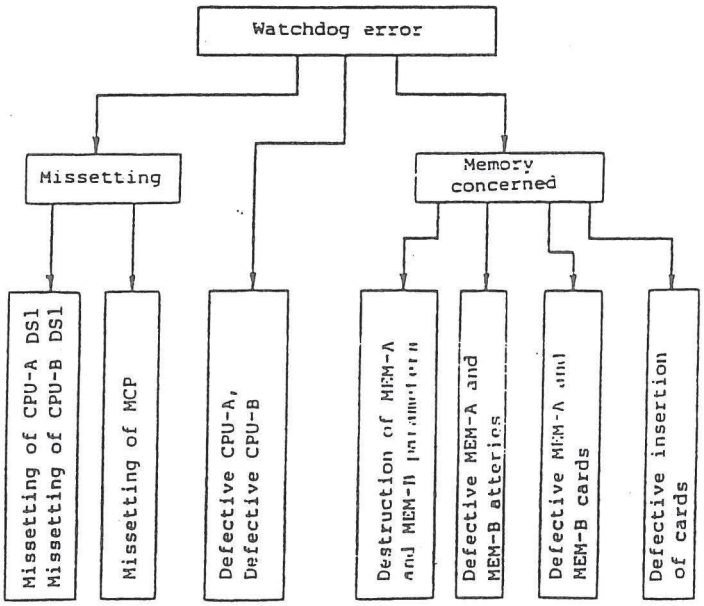
O : Lit up △ : Flickering × : Extinguished

3-3 Likely Causes of Alarm

1. WDOG Watchdog error

(1) With CPU-A LED4, CPU-B LED4 lit up

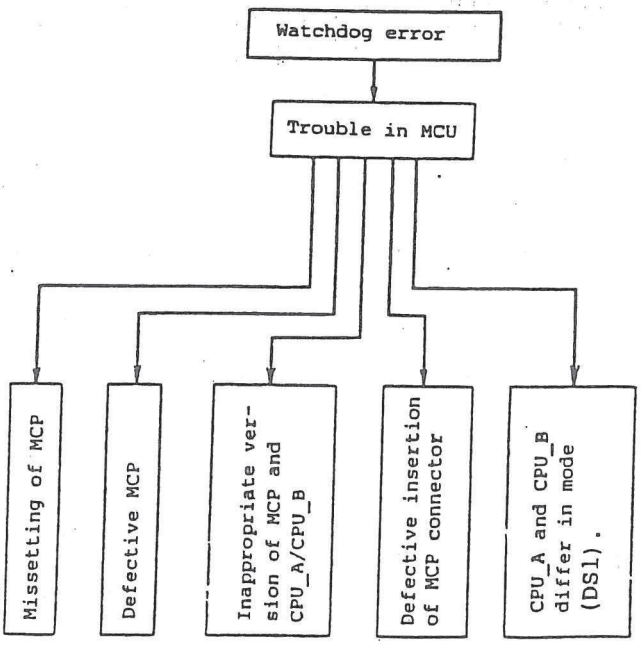
The CPU transmits the message of address 7D8000, with bit 7 = H.



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The "Watchdog Error", occurring when the system fails to run properly in order to assure the safety of system, is capable of bringing the system to an immediate stop. In a system such as NC, running at real time, a periodical routine is formed, with a specific counter getting reset every time the system passes through the routine. Should the system fails to run normally due to some reason, the system can not pass through the routine, and the counter does not get reset. If a lock of a constant frequency is provided to the clock terminal of the counter, the counter overflows, and the output thus obtained interrupts the CPU, making it possible to take urgent and appropriate measures.

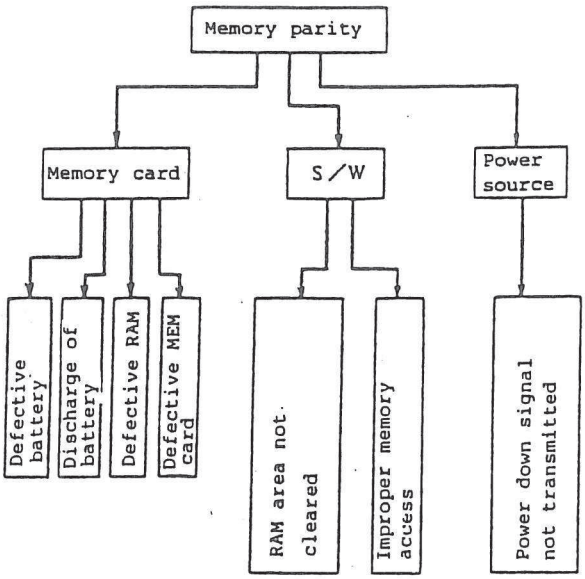
(2) With MCP WDG lit up



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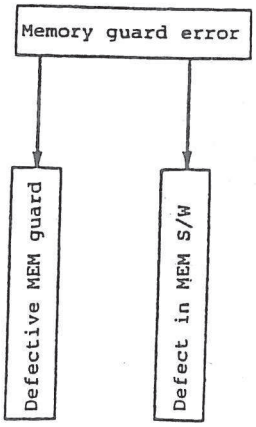
The watchdog error of MCP is the watchdog error of MCU (servo system) against the watchdog error of CPU as an error of the total system. The watchdog error of MCP occurs when 1 servo processing can not be carried out in less than a certain time period (normally 35 ms) or when MCU main processing falls behind the time.

2. MPE memory parity



3. MGE memory guard error

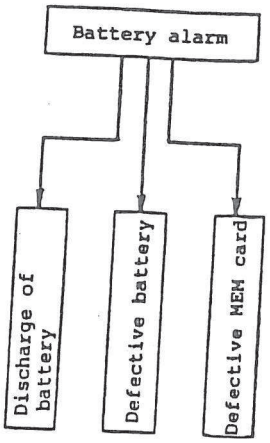
This message is transmitted when the address 7D800 in CPU-A and CPU-B has bit 4 = H.



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4. BAT battery alram

The message is transmitted when the address 7D800 in CPU has bit 6 = H.



The battery breaks down when the MEM card is placed on a metallic desk or when the battery is installed with wrong polarity. In such case, immediately exchange the battery.

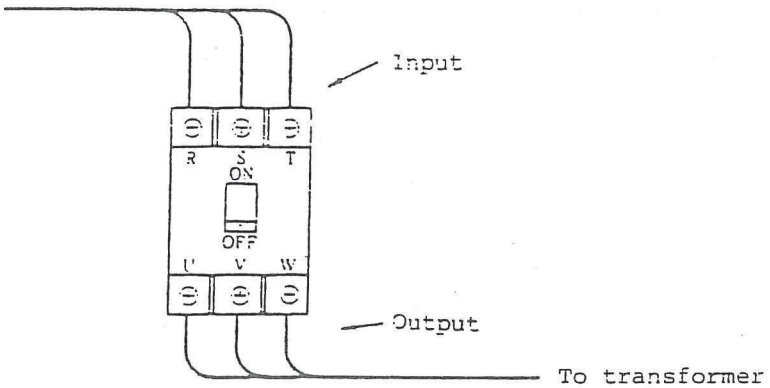
3-4 Inspection Procedures for Troubles

(1) Confirmation of power voltage

Confirmation of input power voltage

The 3-phase input power voltage is supplied to the NC side no-fuse breaker terminals R.S.T. through the machine side no-fuse breaker. Hence, make sure that the specified voltage is applied to R.S.T. terminals.

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The single-phase input voltage is connected to the terminal stand of the DC power PD21 of control unit. Make sure that the terminal stand is applied with the specified voltage of AC100V ±15%.

Confirmation of DC power voltage

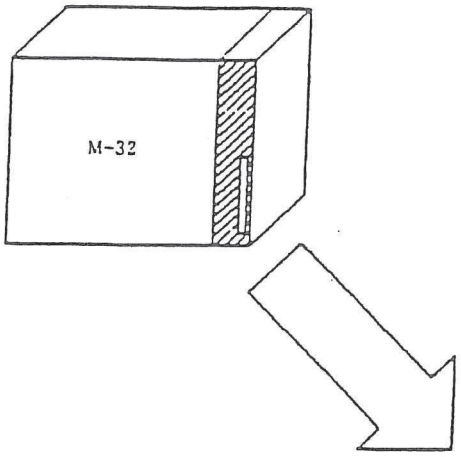
The DC power voltage is supplied to the DC power PD 21 connector of control unit; make sure that the connector is applied with the specified DC voltage.

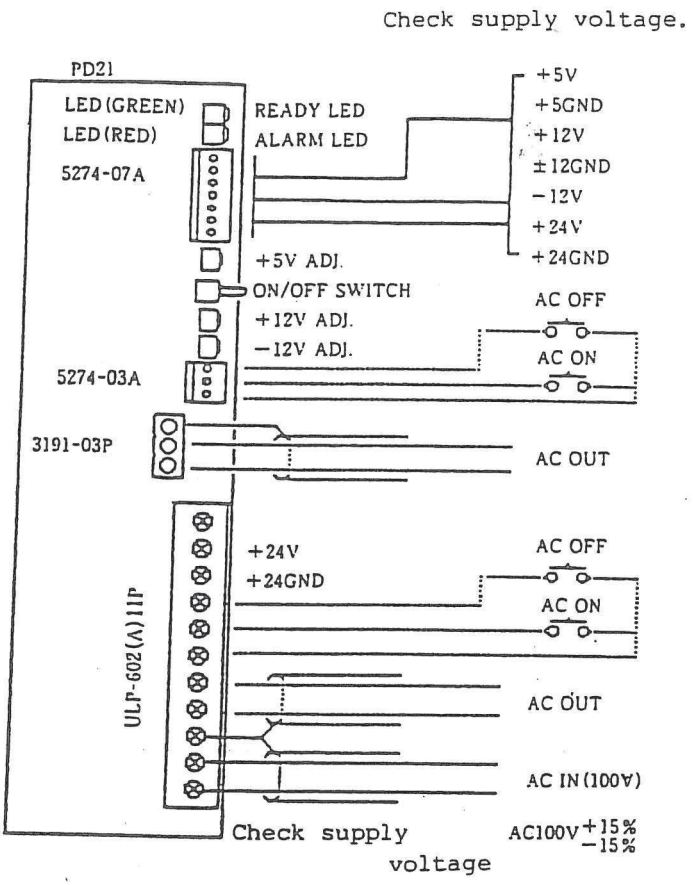
	Max. total regulation	Max. ripple voltage	Voltage regulating rheostat
+5V	−2%~ +2%	~50 mV	In Fig.: +5V ADJ
+12V	−2%~ +2%	~60 mV	In Fig.: +12V ADJ
−12V	−2%~ +2%	~60 mV	In Fig.: −12V ADJ
+24V	−20%~+10%	~200 mV	−

Turn the variable resistance clockwise to increase the voltage.

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(2) Connection of power





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