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# M32

# TROUBLE-SHOOTING GUIDE

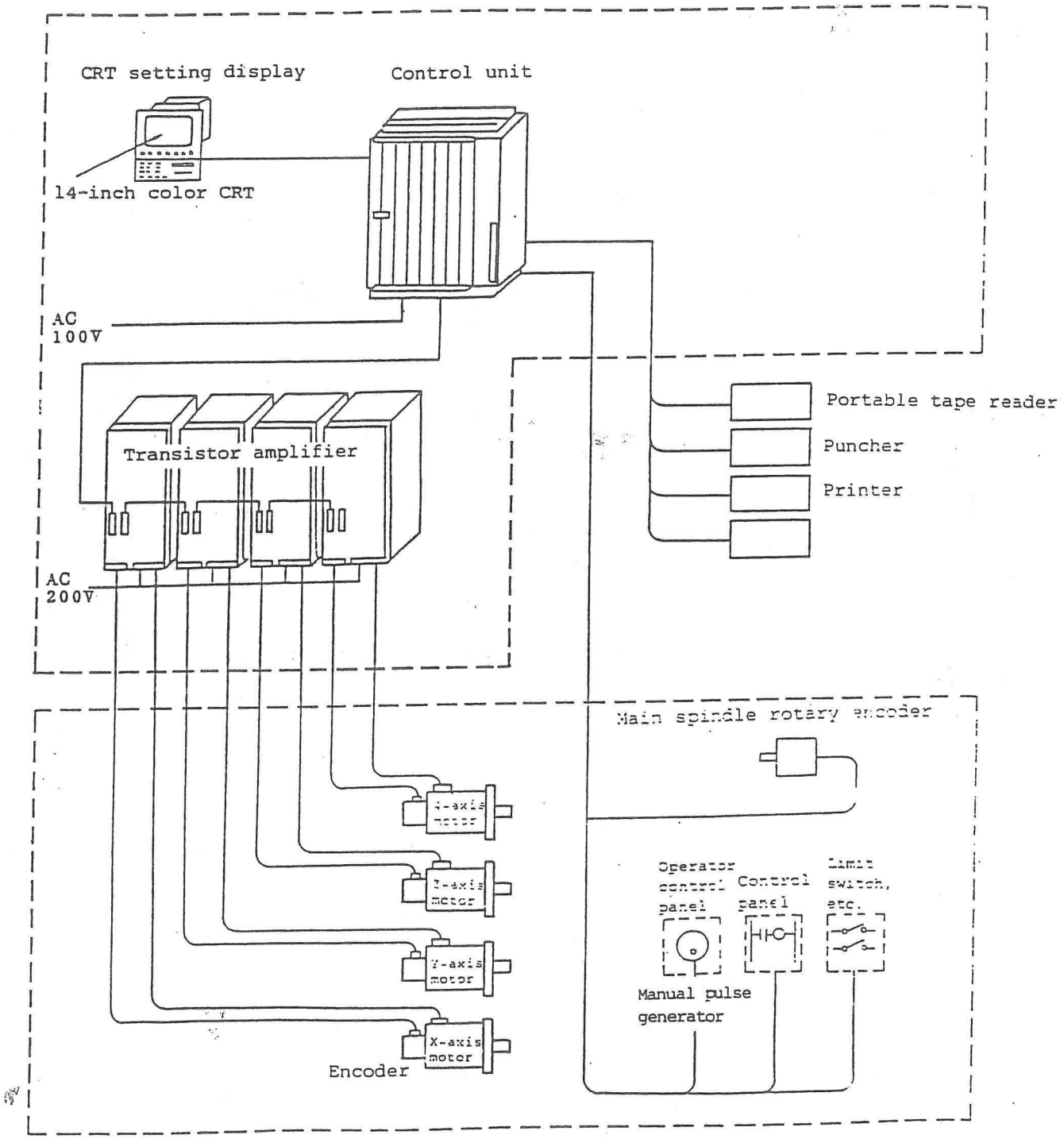


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# 1. CONFIGURATION

## 1-1 System Configuration

The system using MAZATROL M-32 is generally composed of the following.






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## 1-2 A List of Component Unit

The MAZATROL M-32 is composed of following parts.

| Component | Type | Q'ty | Specification |
|---|---|---|---|
| Main control unit | MU311 | 1 | NC main theoretical unit |
| | MC | (1) | Back panel for 10 slots |
| | PD21 AVR | (1) | Power source |
| CRT unit | MB411(14") | 1 | CRT setting display |
| | MDT- | (1) | 14" color CRT |
| | LT3B AVR | (1) | Power source |
| | KS-MB411 | (1) | Data key |
| | KS-MB401 | (1) | Menu key |
| | MC201 OPBC | (1) | NC operation board I/F card |
| | | | |
| Transistor amplifier MR-S | | For a number of shaft | Supplies electric current to motor |
| Motor | HA-C | For a number of shaft | For control shaft driving |
| Detector | | For a number of shaft | Encoder for machine position detection |
| Manual pulse generator HD52A | | 1 | Manual handle |
| Rotary encoder | | 1 | Main spindle motor position detection |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| Connection cable | | Required number | Unit to unit connection cable |
| | | | |



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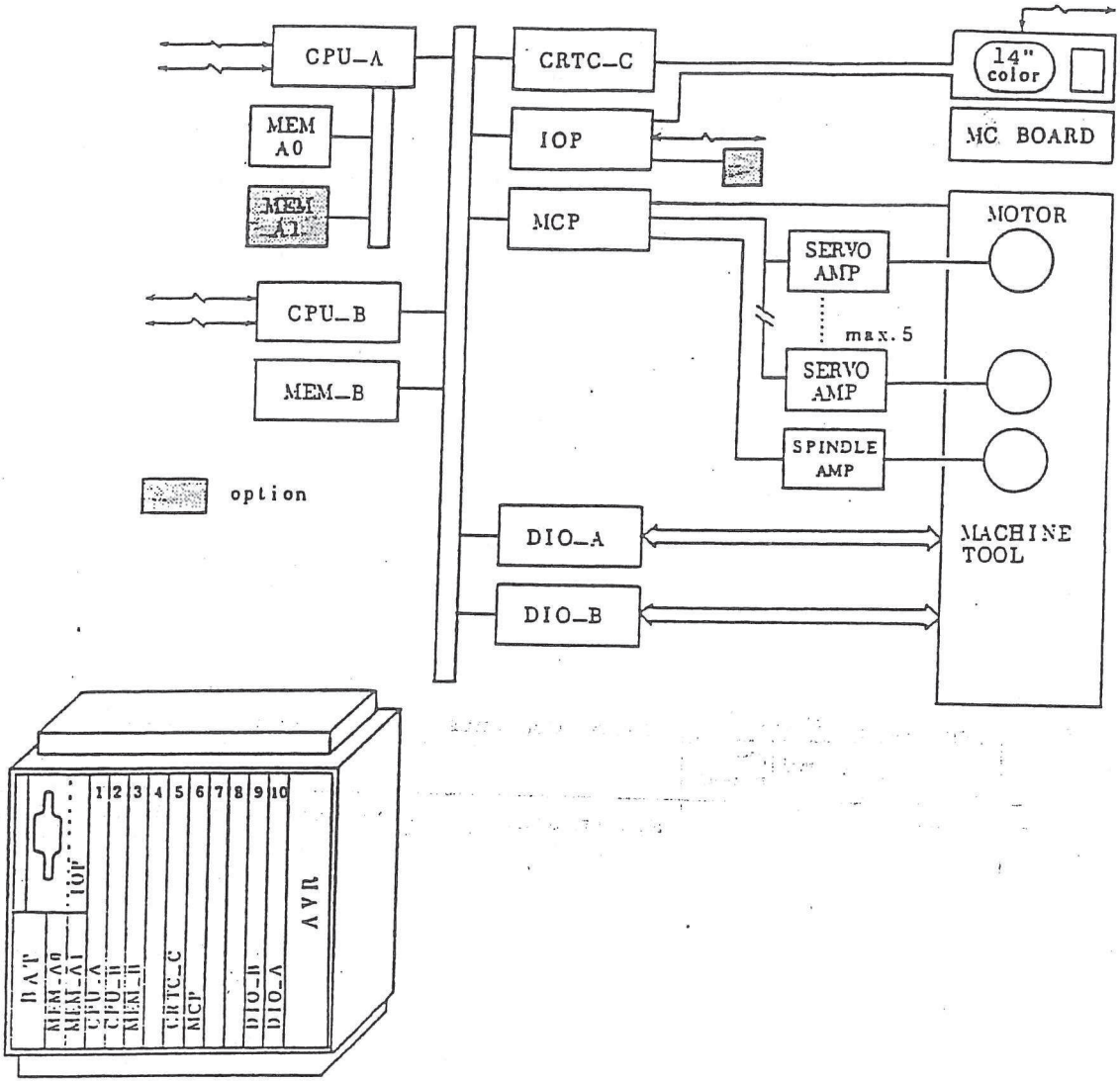
| | Type | Specification |
|---|---|---|
| Floppy disk drive | FDM1332A | 3.5" floppy disk<br>(Format capacity: 1.18MB) |
| P.C. board | MC111 CPU_A<br>TN831□111 | Main processor |
| | MC121 CPU_B<br>TN831□121 | Additional processor |
| | MC411 MEM_A<br>TN831□411 | User PC memory (128KB x 3) |
| | MC413 MEM_A<br>TN831□413 | Main memory, user PC memory<br>(max. 768KB) |
| | MC442 MEM_B<br>TN831□442 | Extended main memory<br>(DRAM 2MB, SRAM 256KB) |
| | MC471 MEM_AX0<br>TN831□471 | Large capacity memory (256KB) |
| | MC472 MEM_AX1<br>TN831□472 | Large capacity memory (1MB) |
| | MC474 MEM_AX2<br>TN831□474 | Large capacity memory (768KB) |
| | MC611 MCP<br>TN831□611 | Servo interface processor |
| | MC724 CRTC_C<br>TN831□724 | Controller dedicated to color CRT |
| | MC712 IOP<br>TN831□712 | Processor dedicated to input/output control |
| | MC301 DIO_A<br>TN831□301 | Manual handle interface 3-axis<br>Contact input/output interface<br>DI: 64, DO: 45 |
| | MC303 DIO_B<br>TN831□303 | Analog input/output interface<br>Contact input/output interface DI:48,<br>DO: 45 |



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## 1-3 Hardware Configuration

HARDWARE BLOCK DIAGRAM



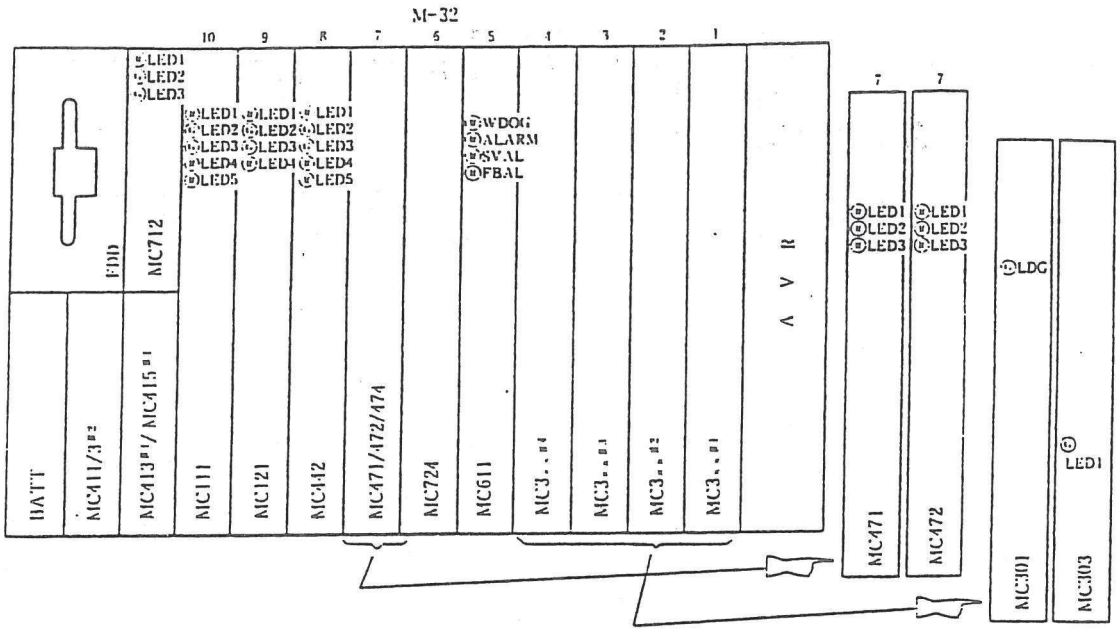

| | | MAZATROL M-32 |
|---|---|---|
| CONTROLLABLE AXES | | ~ 6 |
| DISPLAY | | 14" COLOR CRT |
| MACHINE TOOL INTER FACE | DI | 112~ |
| | DO | 90~ |



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## 3-2 List of LEDs of Each Card (Unit)

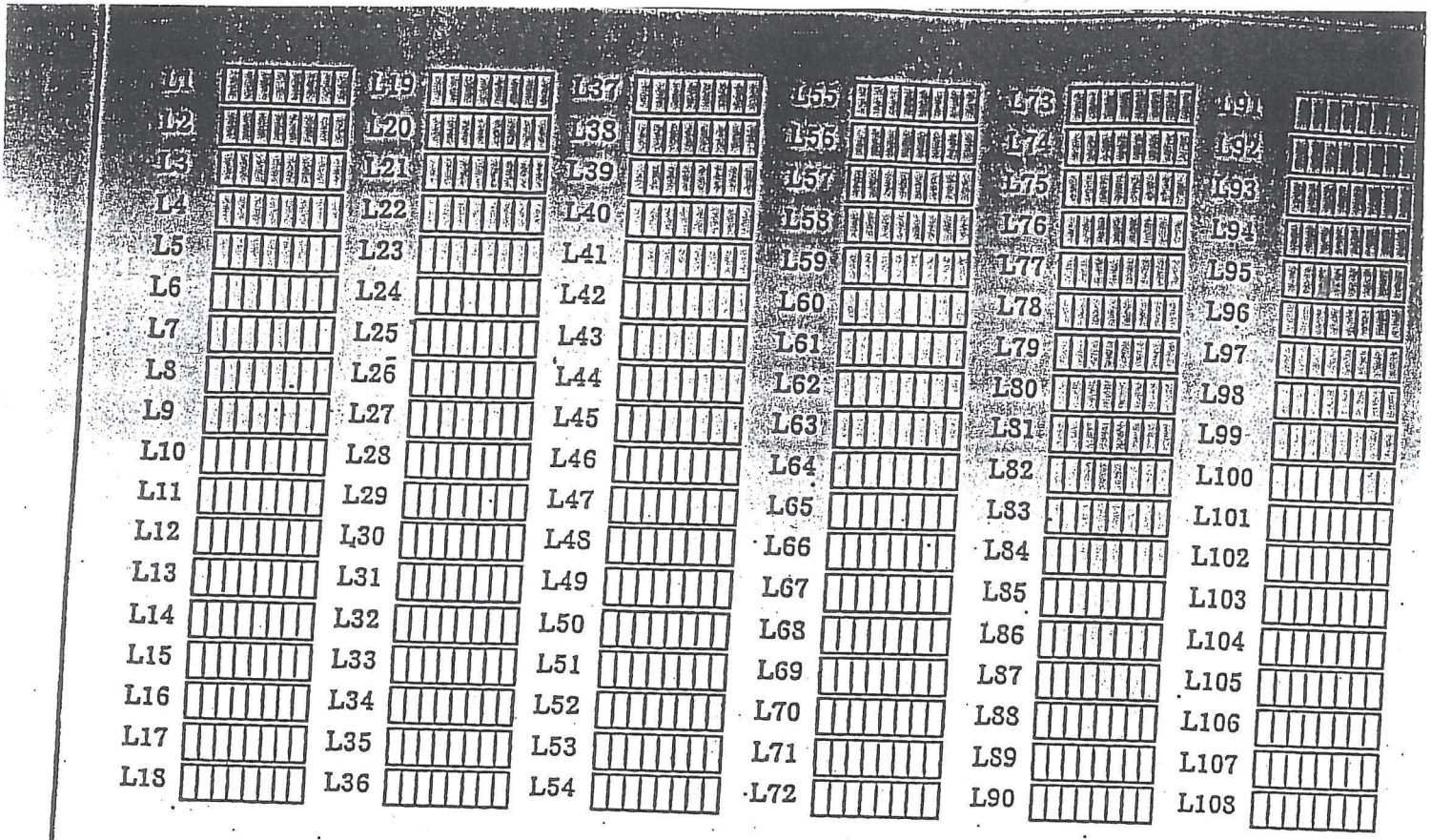
### 3-2-1 M-32



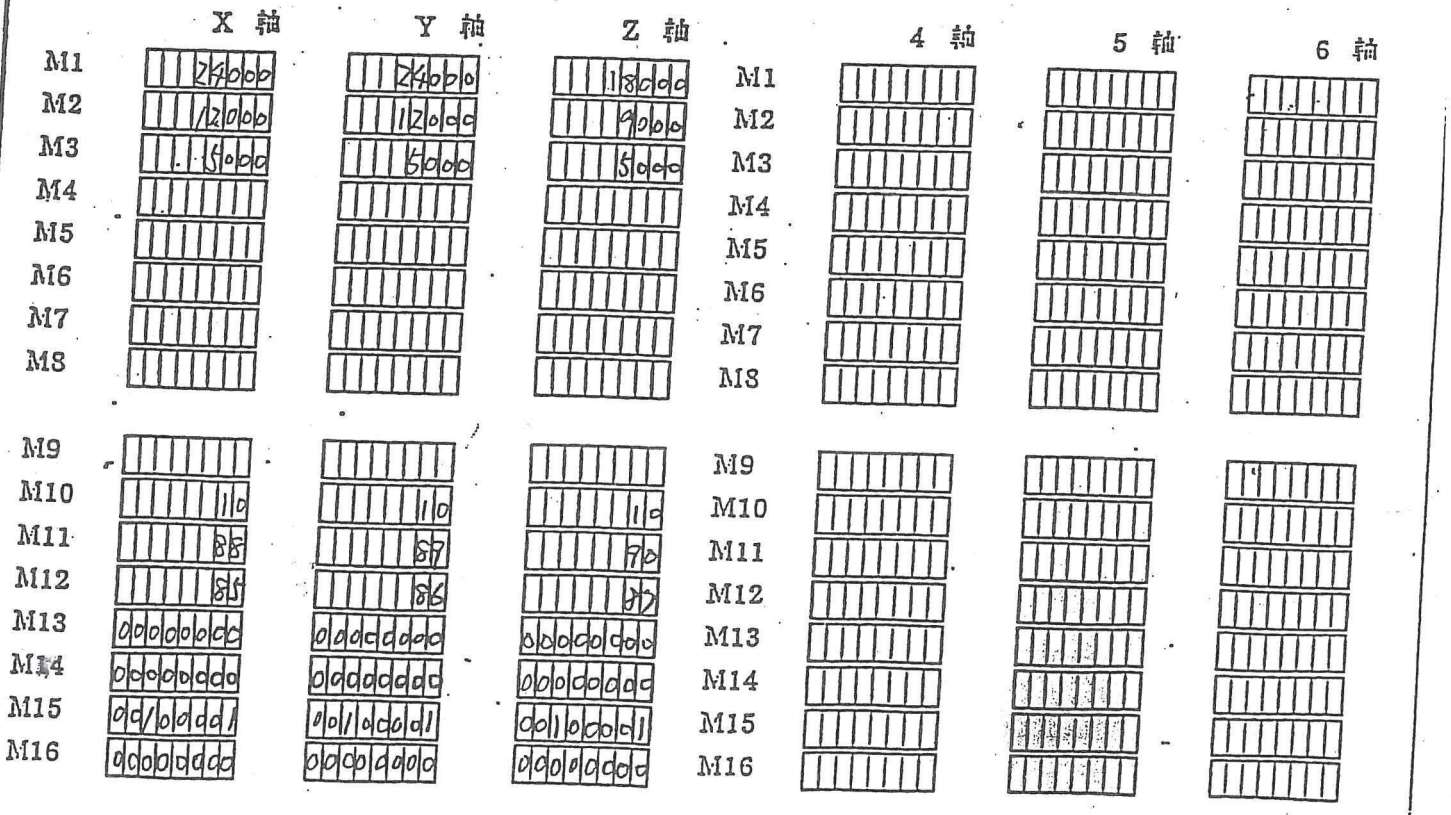

| Card Name | LED Name | Status | | Error Contents | Countermeasures |
|---|---|---|---|---|---|
| | | Normal | Abnormal | | |
| MC712 | LED1 | × | ○ | System alarm | Normally this LED is lit up only at the time of initializing after resetting, if the LED remains lit up constantly, replace with a normal card. |
| | LED2 | ○/△ | × | System ready A | Replace the MC712 card when LED1 and LED2 extinguish simultaneously, and the MC201 card or board side when LED2 only extinguishes. |
| | LED3 | ○/△ | × | System ready B | |
| MC111 | LED1<br>LED2<br>LED3 | ×<br>○/△<br>○/△ | | → | The contents of error may differ due to the combination.<br>Refer to the item 3-4-2. |
| | LED4 | × | ○ | Watchdog alarm | Replace with a normal card. |
| | LED5 | × | ○ | Memory guard alarm | There are bugs in the system S/W, user's PC, etc. Inform Mitsubishi Service Center. |



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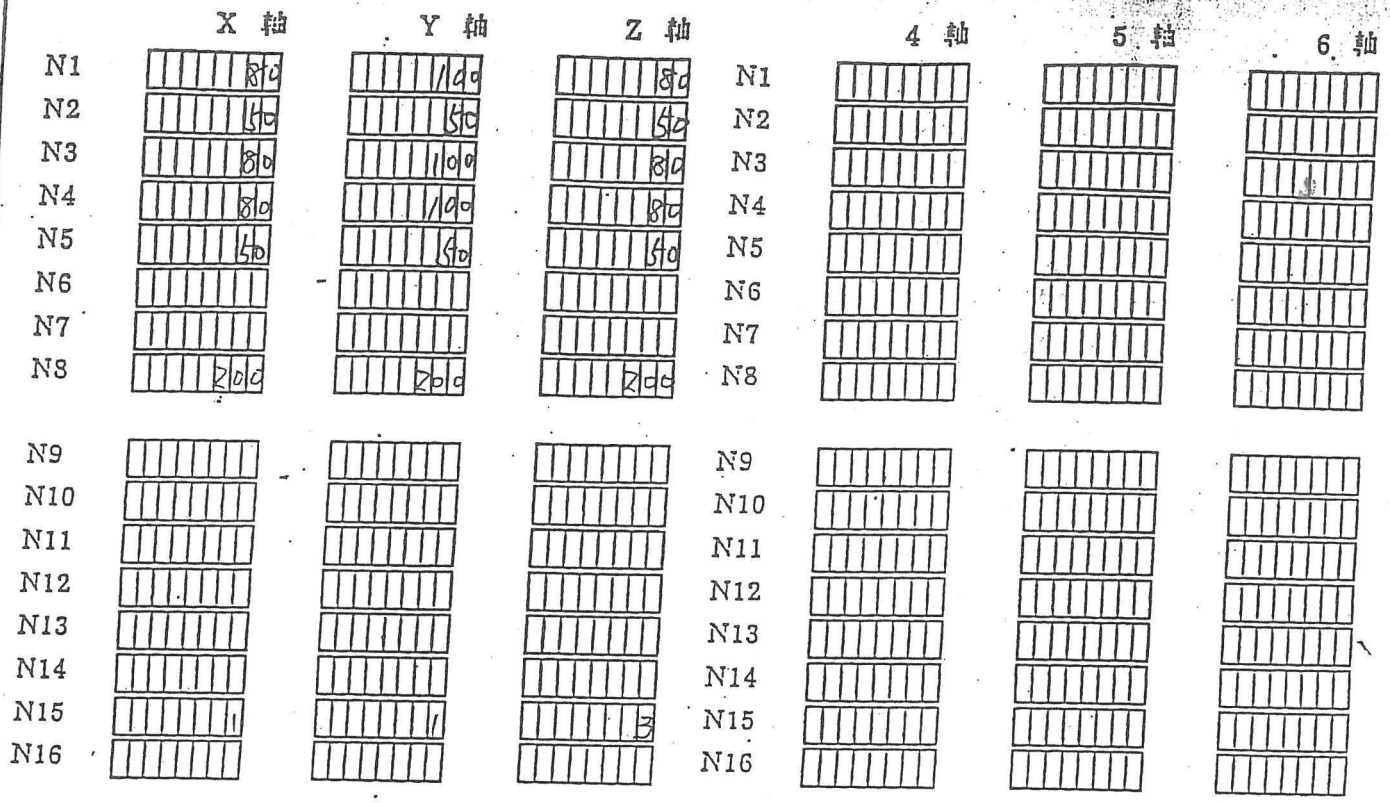

*** パラメータ 機械定数 NO.3 ***



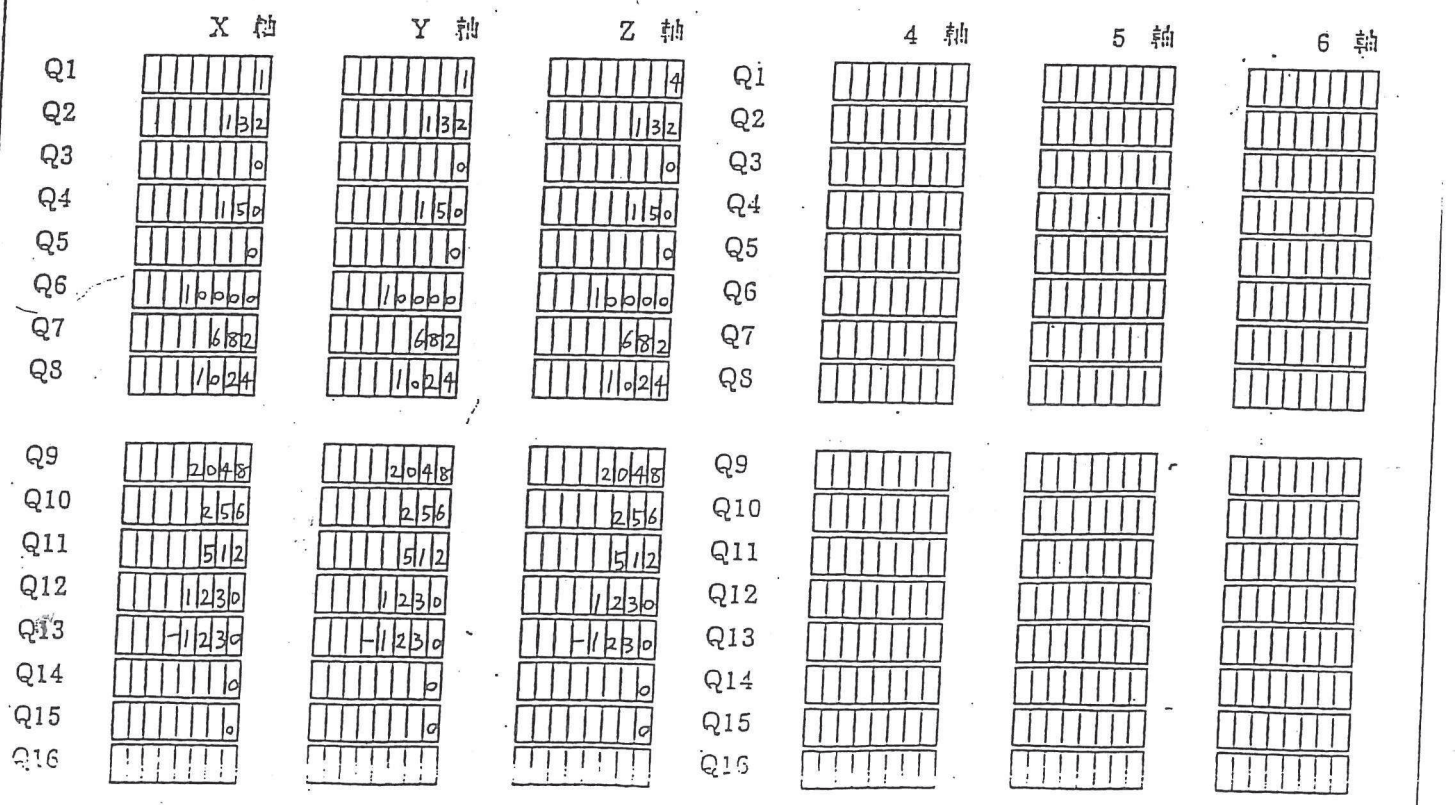

*** パラメータ 機械定数 NO.4 ***

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*** パラメータ 機械定数 NO.5 ***



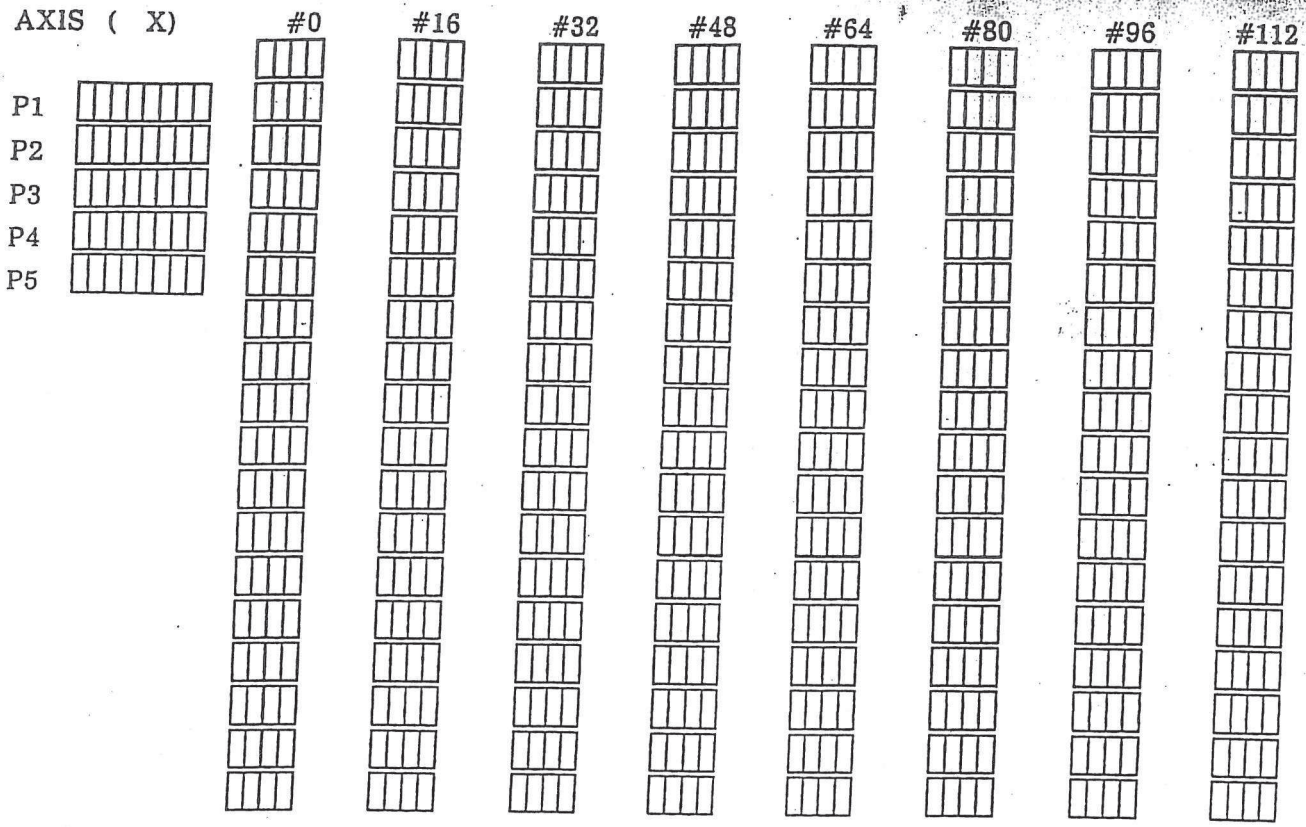

*** パラメータ 機械定数 NO.6 ***

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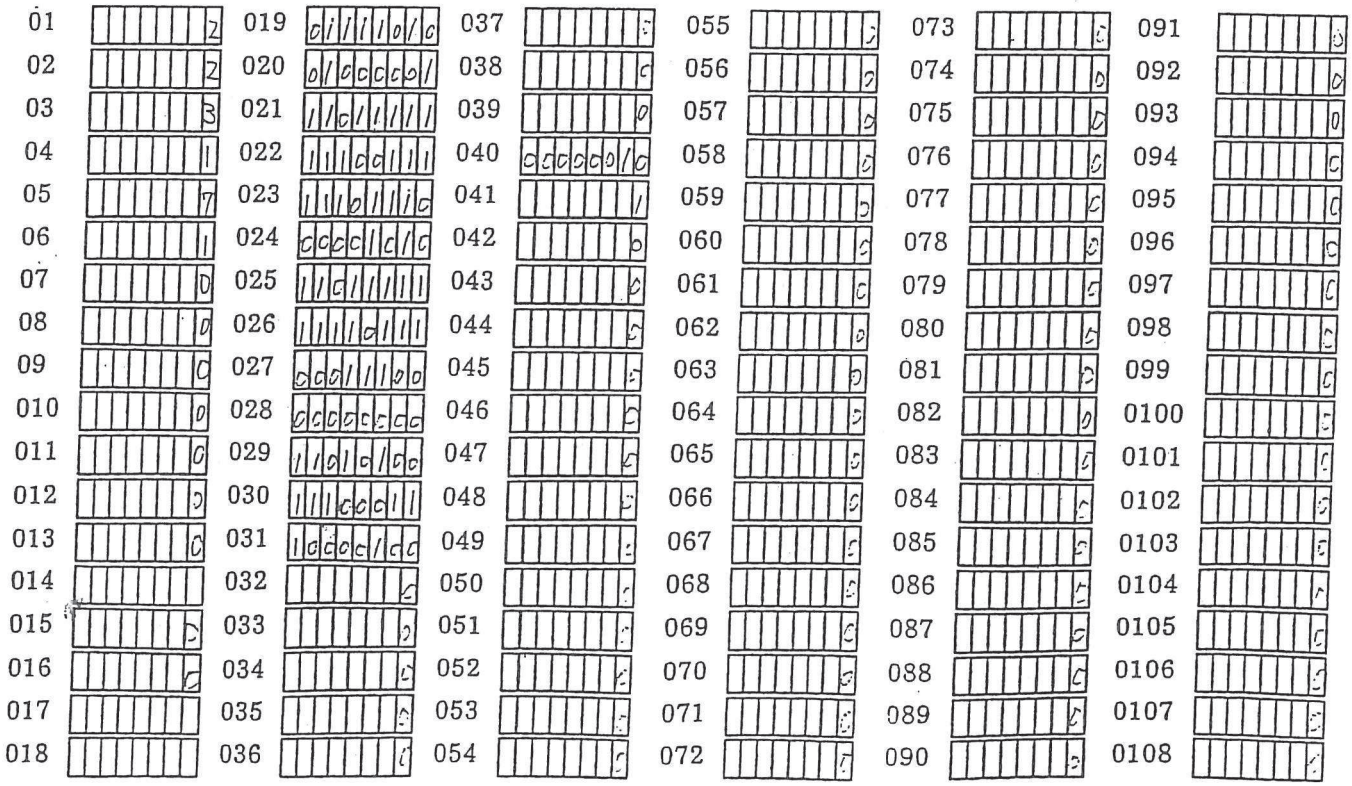
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AXIS ( X)




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