

**[8] SELF DIAG AND TROUBLE CODE**

**1. Self diag**

When a trouble occurs in the machine or when the life of a consumable part is nearly expired or when the life is expired, the machine detects and displays it on the display section. This allows the user and the serviceman to take the suitable action. In case of a trouble, this feature notifies the occurrence of a trouble and stops the machine to minimize the damage.

**A. Function and purpose**

- 1) Securing safety. (The machine is stopped on detection of a trouble.)
- 2) The damage to the machine is minimized. (The machine is stopped on detection of a trouble.)
- 3) By displaying the trouble content, the trouble position can be quickly identified. (This allows to perform an accurate repair, improving the repair efficiency.)
- 4) Preliminary warning of running out of consumable parts allows to arrange for new parts in advance of running out. (This avoids stopping of the machine due to running out the a consumable part.)

**B. Self diag message kinds**

The self diag messages are classified as shown in the table below.

|         |            |  |
|---------|------------|--|
| Class 1 | User       | Warning of troubles which can be recovered by the user. (Paper jam, consumable part life expiration, etc.)     |
|         | Serviceman | Warning of troubles which can be recovered only by a serviceman. (Motor trouble, maintenance, etc.)            |
|         | Other      | —  |
| Class 2 | Warning    | Warning to the user, not a machine trouble (Preliminary warning of life expiration of a consumable part, etc.) |
|         | Trouble    | Warning of a machine trouble. The machine is stopped.  |
|         | Other      | —  |

**C. Self diag operation and related work flow**

The machine always monitors its own state.

When the machine recognizes a trouble, it stops the operation and displays the trouble message.

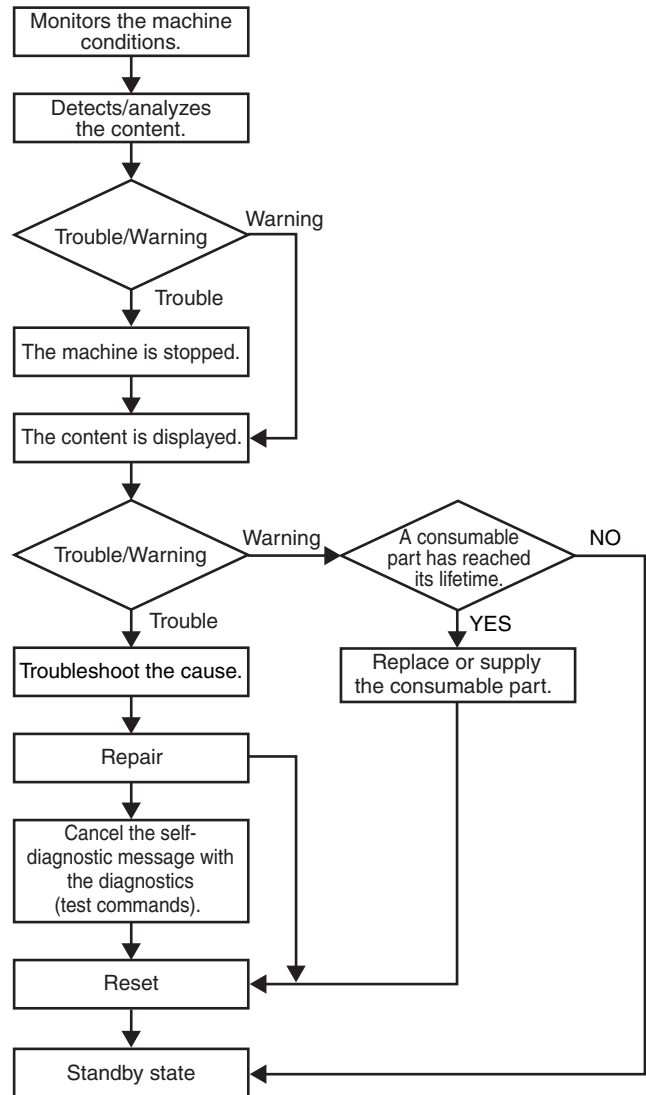
A warning message is displayed when a consumable part life is nearly expired or is expired.

When a warning message is displayed, the machine may be or may not be stopped.

The trouble messages and the warning messages are displayed by the LCD.

Some trouble messages are automatically cleared when the trouble is repaired. Some other troubles must be cleared by a simulation.

Some warning messages of consumable parts are automatically cleared when the trouble is repaired. Some other warning messages must be cleared by a simulation.



## D. Breakdown sequence

### (1) Breakdown mode list

There are following cases of the breakdown mode.

| Kind of trouble   | Judgment block    | Trouble code  | Operable mode                      |                             |                             |             |          |           |       |            |                           |
|---|-------------------|---|------------------------------------|-----------------------------|-----------------------------|-------------|----------|-----------|-------|------------|---------------------------|
|   |                   |   | Copy scan (including interruption) | Scan push                   | Scan pull                   | Scan To HDD | FAX send | FAX print | Print | List print | Notification to FAST host |
| FAX board trouble (1 line)                                      | ICU               | F6  | ○                                  | ○                           | ○                           | ○           | △ 1      | △ 1       | ○     | ○          | △ 1                       |
| FAX board trouble (2 lines)                                     |                   | F7  | ○                                  | ○                           | ○                           | ○           | △ 1      | △ 1       | ○     | ○          | △ 1                       |
| HDD trouble   |                   | E7 (03)   | ×                                  | ×                           | ×                           | ×           | ×        | ×         | ×     | ×          | ○                         |
| SCU communication trouble                                       |                   | E7 (80), A0-02  | ×                                  | ×                           | ×                           | ×           | ×        | ○         | ○     | ○          | ○                         |
| PCU communication trouble                                       |                   | E7 (90), A0-01 L8-20  | ×                                  | ×                           | ×                           | ×           | ×        | ×         | ×     | ×          | ○                         |
| Backup battery voltage fall                                     |                   | U1 (01)   | ×                                  | ×                           | ×                           | ×           | ×        | ×         | ×     | ×          | ○                         |
| Controller fan motor trouble                                    |                   | L4-30   | ×                                  | ×                           | ×                           | ×           | ×        | ×         | ×     | ×          | ×                         |
| Connection trouble (ICU detection)                              |                   | E7 (60 – 65), A0 (10 – 12, 20)  | ×                                  | ×                           | ×                           | ×           | ×        | ×         | ×     | ×          | ×                         |
| Serial number discrepancy                                       |                   | U2 (30)   | ×                                  | ×                           | ×                           | ×           | ×        | ×         | ×     | ×          | ×                         |
| Memory error (included not installed the expansion RAM)         |                   | U2 (00, 05, 10, 11, 22, 23, 24, 25)   | ×                                  | ×                           | ×                           | ×           | ×        | ×         | ×     | ×          | ○                         |
| HDD registration data sum error                                 |                   | U2 (50)   | ×                                  | ×                           | ×                           | ×           | ×        | ×         | ×     | ×          | ○                         |
| Image memory trouble, decode error                              |                   | E7 (00, 01, 05, 06, 08, 09)   | ×                                  | ×                           | ×                           | ×           | ×        | ×         | ×     | ×          | ○                         |
| Network error   |                   | CE  | ○                                  | ○<br>Operatable but send NG | ○<br>Operatable but send NG | ○           | ○        | ○         | ○     | ○          | ×                         |
| Process control trouble (Only history is left.) (ICU detection) |                   | F2 (80 – 87)  | ○                                  | ○                           | ○                           | ○           | ○        | ○         | ○     | ○          | ○                         |
| Laser trouble   | PCU               | E7 (20, 28, 29), L6 (10)  | ×                                  | ×                           | ×                           | ×           | ×        | ×         | ×     | ×          | ○                         |
| Connection trouble (PCU detection)                              |                   | E7 (50, 55), A0 (21)  | ×                                  | ×                           | ×                           | ×           | ×        | ×         | ×     | ×          | ×                         |
| PCU section troubles (motor, fusing, etc.)                      |                   | H2, H3, H4, H5, L4 (excluding L4-30), U2 (90, 91), F2 (40, 64, 70, 74), L8 (01, 02) | ×                                  | ×                           | ×                           | ×           | ×        | ×         | ×     | ×          | ○                         |
| PCU color system troubles                                       |                   | E7 (21), F2 (41 – 43, 65 – 67, 71 – 73, 75 – 77)                                    | ×                                  | ×                           | ×                           | ×           | ×        | ×         | ×     | ×          | ○                         |
| Paper feed tray 1 trouble                                       |                   | F3-12   | △ 2                                | ○                           | ○                           | ○           | ○        | △ 2       | △ 2   | △ 2        | ○                         |
| Paper feed tray 2 trouble                                       |                   | F3-22   | △ 2                                | ○                           | ○                           | ○           | ○        | △ 2       | △ 2   | △ 2        | ○                         |
| Paper feed tray 3 trouble                                       |                   | U6-01   | △ 2                                | ○                           | ○                           | ○           | ○        | △ 2       | △ 2   | △ 2        | ○                         |
| Paper feed tray 4 trouble                                       |                   | U6-02   | △ 2                                | ○                           | ○                           | ○           | ○        | △ 2       | △ 2   | △ 2        | ○                         |
| Paper feed tray 5 trouble                                       |                   | U6 (09, 20 – 22, 51)  | △ 2                                | ○                           | ○                           | ○           | ○        | △ 2       | △ 2   | △ 2        | ○                         |
| Paper feed tray other troubles                                  |                   | U6 (00, 10, 50)   | △ 8                                | ○                           | ○                           | ○           | ○        | △ 8       | △ 8   | △ 8        | ○                         |
| Staple trouble  |                   | F1 (10)   | △ 3                                | △ 3                         | △ 3                         | △ 3         | △ 3      | △ 3       | △ 3   | △ 3        | ○                         |
| After-process trouble   | F1 (excluding 10) | △ 3   | △ 3                                | △ 3                         | △ 3                         | △ 3         | △ 3      | △ 3       | △ 3   | ○          |                           |
| Other troubles  | PCU               | EE (EL, EU, EC)   | ○                                  | ○                           | ○                           | ○           | ○        | ○         | ○     | ○          | ○                         |
| Process control trouble (PCU detection)                         |                   | F2 (39, 44, 45, 49, 51, 58, 78)   | ○                                  | ○                           | ○                           | ○           | ○        | ○         | ○     | ○          | ○                         |

| Kind of trouble   | Judgment block | Trouble code         | Operatable mode                    |           |           |             |          |           |       |            |                           |   |
|---|----------------|----------------------|------------------------------------|-----------|-----------|-------------|----------|-----------|-------|------------|---------------------------|---|
|   |                |                      | Copy scan (including interruption) | Scan push | Scan pull | Scan To HDD | FAX send | FAX print | Print | List print | Notification to FAST host |   |
| Connection trouble (SCU detection)                              | SCU            | E7 (70, 75), A0 (22) | ×                                  | ×         | ×         | ×           | ×        | ×         | ×     | ×          | ×                         | × |
| SCU color system troubles                                       |                | UC (02)              | ×                                  | ×         | ×         | ×           | ×        | ○         | ○     | ○          | ○                         | ○ |
| Document control trouble  |                | UC (20)              | ×                                  | ×         | ×         | ×           | ×        | ○         | ○     | ○          | ○                         | ○ |
| EEPROM system   |                | U2 (80, 81)          | ×                                  | ×         | ×         | ×           | ×        | ○         | ○     | ○          | ○                         | ○ |
| Scanner section troubles (mirror motor, lens, copy lamp)        |                | L1, L3               | ×                                  | ×         | ×         | ×           | ×        | ○         | ○     | ○          | ○                         | ○ |
| CCD troubles (shading, etc.)                                    |                | E7 (10, 11, 14)      | ×                                  | ×         | ×         | ×           | ×        | ○         | ○     | ○          | ○                         | ○ |
| Process control trouble (Only history is left.) (ICU detection) | MFP            | F2 (80 – 87, 90)     | ○                                  | ○         | ○         | ○           | ○        | ○         | ○     | ○          | ○                         | ○ |
| Process control trouble (Only history is left.) (PCU detection) | PCU            | F2 (91 – 94)         | ○                                  | ○         | ○         | ○           | ○        | ○         | ○     | ○          | ○                         | ○ |

○: Operation enabled, ×: Operation disabled

△ 1: The operation is enabled in a line other than the trouble line.

△ 2: When detected during other than a job, the operation is enabled with a tray other than the trouble tray.

△ 3: When detected during other than a job, the operation is enabled in a section other than the trouble paper exit section. \* When, however, the right tray is set.

△ 4: When detected during other than a job, the operation is enabled in the OC mode.

\* 5: Cannot be shifted to the nighttime mode/power saving function. The power cannot be turned OFF with the power SW on the operation panel.

\* 6: When the color mode is set to Disable in the "Color mode disable setting" of the system setting, the operation is enabled in the Black mode.

\* 7: Since communication is enabled, reception can be transferred.

△ 8: When detected during other than a job, the operation is enabled in other than the DESK.

\* 9: Trouble display message is displayed in 2 lines. (Example: Ready to copy. F2 trouble)

\* Trouble mode process

• Machine operation enabled under some conditions.

The operations excluding the trouble mode are enabled (READY). For the mode where operations are disabled, only setting is enabled and the operation disable message is made.

(NOT READY)

(Display) A dialog is displayed when a trouble occurs. For the mode where operations are enabled, [OK] button is added to the message. When operations are disabled, [OK] button is not displayed, and the message is displayed until the trouble is cancelled.

\* For △ 2, 3, 4, 8, perform the following procedures. (In order to avoid patent interference.)

• When a trouble is detected during a job, the machine operation is terminated. (Trouble display/without [OK] key)

• When a trouble is detected during other than a JOB, the trouble display is not made and the trouble position cannot be selected. (The display is not turned off. Machine/Button)

• Troubles which disable the machine operations

The trouble display is always made, and all the modes cannot be set.

• Writing to the trouble memory

Writing of a same trouble to the trouble memory can be selected with SIM 26-35. When this simulation is set, any trouble is written to the trouble memory unconditionally.

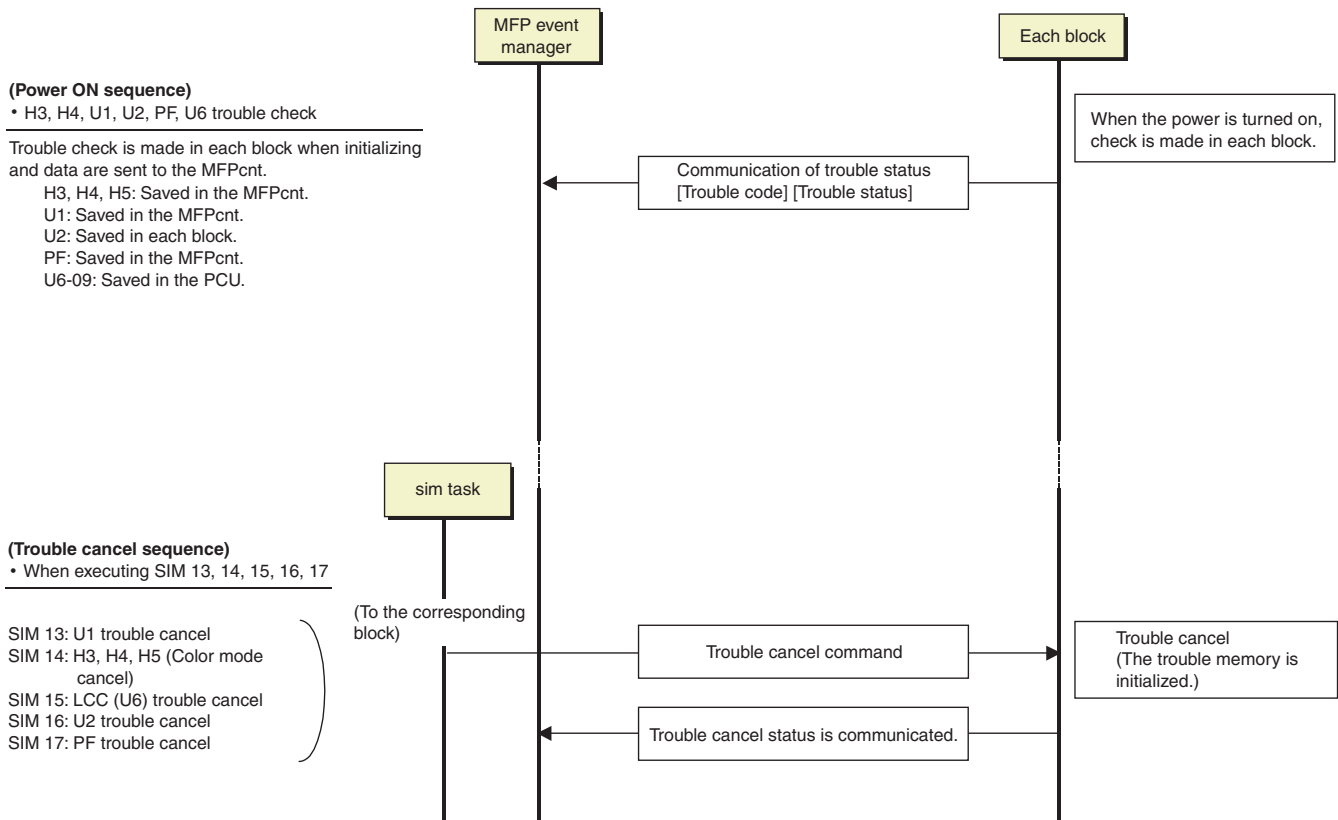
(Sim.26-35)

0: Only once. If same as the previous one, it is not saved. (Default)

1: Any time. Though same as the previous one, it is saved.

**(2) Power ON trouble detection sequence.**

- When the power is turned ON and each trouble of H3, H4, H5, U1, U2, PF, U6 (09) is stored, it is judged as a trouble immediately.



**2. Trouble code list**

| Trouble code |                              | Trouble code content   | Remarks | Trouble detection | Mechanism | Option | Electricity | FAX | Supply |
|--------------|------------------------------|--|---------|-------------------|-----------|--------|-------------|-----|--------|
| Main code    | Sub code                     |  |         |                   |           |        |             |     |        |
| A0           | 01                           | PCU ROM abnormality  |         | PCU               |           |        | ●           |     |        |
|              | 02                           | SCU ROM abnormality  |         | Scanner           |           |        | ●           |     |        |
|              | 10                           | Controller ROM error   |         | MFP               |           |        | ●           |     |        |
|              | 11                           | IF version discrepancy (CTL-PCU)   |         | MFP               |           |        | ●           |     |        |
|              | 12                           | IF version discrepancy (CTL-SCU)   |         | MFP               |           |        | ●           |     |        |
|              | 20                           | Machine level error (CTL detection)  |         | MFP               |           |        | ●           |     |        |
|              | 21                           | Machine level error (PCU detection)  |         | PCU               |           |        | ●           |     |        |
|              | 22                           | Machine level error (SCU detection)  |         | Scanner           |           |        | ●           |     |        |
| CE           | 00                           | Communication error other than CE-01 – 08  |         | MFP               |           |        | ●           |     |        |
|              | 01                           | Network controller trouble   |         | MFP               |           |        | ●           |     |        |
|              | 02                           | Not-specified mail/FTP server error  |         | MFP               |           |        | ●           |     |        |
|              | 03                           | Communication error in image send  |         | MFP               |           |        | ●           |     |        |
|              | 04                           | FTP server account name or authentication password input error                           |         | MFP               |           |        | ●           |     |        |
|              | 05                           | FTP server directory input error   |         | MFP               |           |        | ●           |     |        |
|              | 06                           | POP3 server access error   |         | MFP               |           |        | ●           |     |        |
|              | 07                           | POP3 server authentication check error   |         | MFP               |           |        | ●           |     |        |
| E7           | 08                           | POP3 server timeout error  |         | MFP               |           |        | ●           |     |        |
|              | 00                           | System memory access error   |         | MFP               |           |        | ●           |     |        |
|              | 01                           | System data trouble  |         | MFP               |           |        | ●           |     |        |
|              | 03                           | HDD trouble  |         | MFP               |           |        | ●           |     |        |
|              | 05                           | Local memory access error  |         | MFP               |           |        | ●           |     |        |
|              | 06                           | Decode error trouble: Compression decode error (A compression file cannot decompressed.) |         | MFP               |           |        | ●           |     |        |
|              | 08                           | Local memory specifications error  |         | MFP               |           |        | ●           |     |        |
|              | 09                           | Local memory combination error   |         | MFP               |           |        | ●           |     |        |
|              | 10                           | Shading trouble (Black correction)   |         | Scanner           |           |        | ●           |     |        |
|              | 11                           | Shading trouble (White correction)   |         | Scanner           |           |        | ●           |     |        |
|              | 14                           | SCAN-ASIC trouble  |         | Scanner           |           |        | ●           |     |        |
| 20           | LSU BD detection trouble     |  | PCU     |                   |           | ●      |             |     |        |
| 21           | LSU LD deterioration trouble |  | PCU     |                   |           | ●      |             |     |        |

| Trouble code |  | Trouble code content  | Remarks | Trouble detection | Mechanism | Option | Electricity | FAX | Supply |
|--------------|--|---|---------|-------------------|-----------|--------|-------------|-----|--------|
| Main code    | Sub code   |   |         |                   |           |        |             |     |        |
| E7           | 28   | LSU control ASIC connection abnormality   |         | PCU               |           |        | ●           |     |        |
|              | 29   | LSU-ASIC frequency abnormality  |         | PCU               |           |        | ●           |     |        |
|              | 50   | Engine connection trouble   |         | PCU               |           |        | ●           |     |        |
|              | 55   | PWB information sum error (Engine detection)  |         | PCU               |           |        | ●           |     |        |
|              | 60   | Controller connection trouble (Engine detection)  |         | MFP               |           |        | ●           |     |        |
|              | 61   | Controller connection trouble (Engine)  |         | MFP               |           |        | ●           |     |        |
|              | 62   | Controller connection trouble (Scanner)   |         | MFP               |           |        | ●           |     |        |
|              | 65   | PWB information sum error (Controller detection)  |         | MFP               |           |        | ●           |     |        |
|              | 70   | Scanner connection trouble  |         | SCU               |           |        | ●           |     |        |
|              | 75   | PWB information sum error (Scanner detection)   |         | SCU               |           |        | ●           |     |        |
|              | 80   | Communication trouble between the controller and the scanner  |         | MFP               |           |        | ●           |     |        |
|              | 90   | Communication trouble between the controller and the engine   |         | MFP               |           |        | ●           |     |        |
| EE           | EC   | Auto developer adjustment trouble (The sample level for every rotation is other than $128 \pm 10$ .)  |         | PCU               |           |        | ●           |     |        |
|              | EL   | Auto developer adjustment trouble (overtoner error)   |         | PCU               |           |        | ●           |     |        |
|              | EU   | Auto development adjustment trouble (Under-toner abnormality)   |         | PCU               |           |        | ●           |     |        |
| F1           | 00   | Finisher communication trouble (Machine side detection)   |         | PCU               |           |        | ●           |     |        |
|              | 02   | Saddle finisher transport motor trouble   |         | PCU               |           | ●      |             |     |        |
|              | 03   | Finisher paddle motor trouble (MX-FNX2), finisher swing motor trouble (MX-FNX1)                       |         | PCU               |           | ●      |             |     |        |
|              | 08   | Finisher stapler shift motor trouble  |         | PCU               |           | ●      |             |     |        |
|              | 10   | Finisher staple motor abnormality   |         | PCU               |           | ●      |             |     |        |
|              | 11   | Finisher bundle process motor abnormality   |         | PCU               |           | ●      |             |     |        |
|              | 15   | Finisher tray lift motor abnormality  |         | PCU               |           | ●      |             |     |        |
|              | 19   | Finisher pre-alignment motor abnormality  |         | PCU               |           | ●      |             |     |        |
|              | 20   | Finisher after-alignment motor abnormality  |         | PCU               |           | ●      |             |     |        |
|              | 21   | Finisher fan motor abnormality (MX-FNX1), Finisher interface fan motor abnormality (MX-FNX2)          |         | PCU               |           | ●      |             |     |        |
|              | 31   | Finisher folding sensor trouble (MX-FNX2)   |         | PCU               |           | ●      |             |     |        |
|              | 32   | Communication trouble between the finisher and the punch unit (MX-FN2)                                |         | PCU               |           | ●      |             |     |        |
|              | 33   | Finisher punch shift motor trouble  |         | PCU               |           | ●      |             |     |        |
|              | 34   | Finisher punch motor trouble  |         | PCU               |           | ●      |             |     |        |
|              | 35   | Finisher punch side registration sensor trouble (MX-FNX2)   |         | PCU               |           | ●      |             |     |        |
|              | 36   | Finisher punch registration sensor trouble (MX-FNX2)  |         | PCU               |           | ●      |             |     |        |
|              | 37   | Finisher backup RAM trouble   |         | PCU               |           | ●      |             |     |        |
|              | 38   | Finisher punch backup RAM trouble (MX-FNX2)   |         | PCU               |           | ●      |             |     |        |
|              | 39   | Finisher punch dust sensor trouble (MX-FNX2)  |         | PCU               |           | ●      |             |     |        |
|              | 40   | Saddle finisher punch power interruption trouble (MX-FNX2)  |         | PCU               |           | ●      |             |     |        |
| 50           | Finisher incompatibility trouble                       |   | PCU     |                   | ●         |        |             |     |        |
| F2           | 39   | Process thermistor trouble  |         | PCU               |           |        |             |     | ●      |
|              | 40   | Toner empty sensor abnormality (BLACK)  |         | PCU               |           |        |             |     | ●      |
|              | 41   | Toner empty sensor abnormality (CYAN)   |         | PCU               |           |        |             |     | ●      |
|              | 42   | Toner empty sensor abnormality (MAGENTA)  |         | PCU               |           |        |             |     | ●      |
|              | 43   | Toner empty sensor abnormality (YELLOW)   |         | PCU               |           |        |             |     | ●      |
|              | 44   | Black exclusive image density sensor trouble (Transfer belt surface reflection ratio abnormality)     |         | PCU               |           |        |             |     | ●      |
|              | 45   | Color exclusive image density sensor trouble (Calibration plate surface reflection ratio abnormality) |         | PCU               |           |        |             |     | ●      |
|              | 49   | LSU thermistor trouble  |         | PCU               |           |        |             |     | ●      |
|              | 50   | K phase sensor sensing trouble  |         | PCU               |           |        |             |     | ●      |
|              | 51   | CL phase sensor sensing trouble   |         | PCU               |           |        |             |     | ●      |
|              | 58   | Process humidity sensor trouble   |         | PCU               |           |        |             |     | ●      |
|              | 64   | Toner supply abnormality error (BLACK)  |         | PCU               |           |        |             |     | ●      |
|              | 65   | Toner supply abnormality error (CYAN)   |         | PCU               |           |        |             |     | ●      |
|              | 66   | Toner supply abnormality error (MAGENTA)  |         | PCU               |           |        |             |     | ●      |
|              | 67   | Toner supply abnormality error (YELLOW)   |         | PCU               |           |        |             |     | ●      |
|              | 70   | Toner cartridge improper cartridge detection (BLACK)  |         | PCU               |           |        |             |     | ●      |
|              | 71   | Toner cartridge improper cartridge detection (CYAN)   |         | PCU               |           |        |             |     | ●      |
| 72           | Toner cartridge improper cartridge detection (MAGENTA) |   | PCU     |                   |           |        |             | ●   |        |
| 73           | Toner cartridge improper cartridge detection (YELLOW)  |   | PCU     |                   |           |        |             | ●   |        |
| 74           | Toner cartridge CRUM error (BLACK)                     |   | PCU     |                   |           |        |             | ●   |        |

| Trouble code |          | Trouble code content  | Remarks                         | Trouble detection | Mechanism | Option | Electricity | FAX | Supply |
|--------------|----------|---|---------------------------------|-------------------|-----------|--------|-------------|-----|--------|
| Main code    | Sub code |   |                                 |                   |           |        |             |     |        |
| F2           | 75       | Toner cartridge CRUM error (CYAN)   |                                 | PCU               |           |        |             |     | ●      |
|              | 76       | Toner cartridge CRUM error (MAGENTA)  |                                 | PCU               |           |        |             |     | ●      |
|              | 77       | Toner cartridge CRUM error (YELLOW)   |                                 | PCU               |           |        |             |     | ●      |
|              | 78       | Registration exclusive image density sensor trouble (Transfer belt surface reflection ratio abnormality)                |                                 | PCU               |           |        |             |     | ●      |
|              | 80       | Half tone process control 1st patch reference value trouble (BLACK)   |                                 | PCU               |           |        |             |     | ●      |
|              | 81       | Half tone process control 1st patch reference value trouble (CYAN)  |                                 | PCU               |           |        |             |     | ●      |
|              | 82       | Half tone process control 1st patch reference value trouble (MAGENTA)   |                                 | PCU               |           |        |             |     | ●      |
|              | 83       | Half tone process control 1st patch reference value trouble (YELLOW)  |                                 | PCU               |           |        |             |     | ●      |
|              | 84       | Half tone process control 2nd patch reference value trouble (BLACK)   |                                 | PCU               |           |        |             |     | ●      |
|              | 85       | Half tone process control 2nd patch reference value trouble (CYAN)  |                                 | PCU               |           |        |             |     | ●      |
|              | 86       | Half tone process control 2nd patch reference value trouble (MAGENTA)   |                                 | PCU               |           |        |             |     | ●      |
|              | 87       | Half tone process control 2nd patch reference value trouble (YELLOW)  |                                 | PCU               |           |        |             |     | ●      |
|              | 92       | High-density process control density correction error (CYAN)  |                                 | PCU               |           |        |             |     | ●      |
|              | 93       | High-density process control density correction error (MAGENTA)   |                                 | PCU               |           |        |             |     | ●      |
|              | 94       | High-density process control density correction error (YELLOW)  |                                 | PCU               |           |        |             |     | ●      |
| F3           | 12       | Main unit tray 1 lift-up trouble  |                                 | PCU               | ●         |        |             |     |        |
|              | 22       | Main unit tray 2 lift-up trouble  |                                 | PCU               | ●         |        |             |     |        |
| F6           | 00       | Communication trouble between the ICU and the FAX   | Refer to FAX manual for details |                   |           |        |             |     |        |
|              | 01       | FAX board EEPROM read/write error   |                                 |                   |           |        |             |     |        |
|              | 04       | FAX MODEM operation trouble   |                                 |                   |           |        |             |     |        |
|              | 21       | Combination error between the TEL/LIU PWB and the FAX soft switch   |                                 |                   |           |        |             |     |        |
|              | 30       | Access error to power controller on the FAX board (FAX detection)   |                                 |                   |           |        |             |     |        |
|              | 97       | FAX PWB incompatibility trouble   |                                 |                   |           |        |             |     |        |
|              | 98       | Combination error between the FAX-BOX PWB destination information and the machine destination information.              |                                 |                   |           |        |             |     |        |
| F7           | 00       | Communication trouble between the ICU and the FAX (Second line)   |                                 |                   |           |        |             |     |        |
|              | 01       | FAX board EEPROM read/write error (Second line)   |                                 |                   |           |        |             |     |        |
|              | 04       | FAX MODEM operation trouble (Second line)   |                                 |                   |           |        |             |     |        |
|              | 21       | Combination error between the TEL/LIU PWB and the FAX soft switch (Second line)   |                                 |                   |           |        |             |     |        |
|              | 30       | Access error to power controller on the FAX board (Second line)   |                                 |                   |           |        |             |     |        |
|              | 97       | FAX PWB incompatibility trouble (Second line)   |                                 |                   |           |        |             |     |        |
|              | 98       | Combination error between the FAX-BOX PWB destination information and the machine destination information (Second line) |                                 |                   |           |        |             |     |        |
| H2           | 00       | Non-contact thermistor detection thermistor open (TH_UM_AD2)  |                                 | PCU               | ●         |        |             |     |        |
|              | 01       | Lower thermistor open (TH_LM)   |                                 | PCU               | ●         |        |             |     |        |
|              | 02       | Sub thermistor open (TH_US)   |                                 | PCU               | ●         |        |             |     |        |
|              | 03       | Non-contact thermistor compensation thermistor open (TH_UM_AD1)   |                                 | PCU               | ●         |        |             |     |        |
| H3           | 00       | Fusing section high temperature trouble (TH_UM)   |                                 | PCU               | ●         |        |             |     |        |
|              | 01       | Fusing section high temperature trouble (TH_LM)   |                                 | PCU               | ●         |        |             |     |        |
|              | 02       | Sub thermistor fusing section high temperature trouble (TH_US)  |                                 | PCU               | ●         |        |             |     |        |
| H4           | 00       | Fusing section low temperature trouble (TH_UM_AD2)  |                                 | PCU               | ●         |        |             |     |        |
|              | 01       | Fusing section low temperature trouble (TH_LM)  |                                 | PCU               | ●         |        |             |     |        |
|              | 02       | Sub thermistor fusing section low temperature trouble (TH_US)   |                                 | PCU               | ●         |        |             |     |        |
|              | 30       | Thermistor differential input trouble (TH_UM)   |                                 | PCU               | ●         |        |             |     |        |
| H5           | 01       | 5 continuous detection of POD1 not-reached jam  |                                 | PCU               | ●         |        |             |     |        |
| L1           | 00       | Mirror feed trouble   |                                 | Scanner           | ●         |        |             |     |        |
| L3           | 00       | Mirror return trouble   |                                 | Scanner           | ●         |        |             |     |        |

| Trouble code |                              | Trouble code content                                     | Remarks | Trouble detection | Mechanism | Option | Electricity | FAX | Supply |
|--------------|------------------------------|--|---------|-------------------|-----------|--------|-------------|-----|--------|
| Main code    | Sub code                     |  |         |                   |           |        |             |     |        |
| L4           | 02                           | Paper feed motor lock trouble                            |         | PCU               |           |        | ●           |     |        |
|              | 04                           | Developing motor trouble (BLACK)                         |         | PCU               |           |        | ●           |     |        |
|              | 05                           | Developing motor trouble (COLOR)                         |         | PCU               |           |        | ●           |     |        |
|              | 06                           | Transfer belt separation position sensor trouble         |         | PCU               |           |        | ●           |     |        |
|              | 11                           | Shift motor trouble                                      |         | PCU               |           |        | ●           |     |        |
|              | 30                           | Controller fan/HDD fan motor trouble                     |         | MFP               |           |        | ●           |     |        |
|              | 31                           | Paper exit cooling fan trouble                           |         | PCU               |           |        | ●           |     |        |
|              | 32                           | Power cooling fan/ozone exhaust fan trouble              |         | PCU               |           |        | ●           |     |        |
| L6           | 10                           | Polygon motor lock detection                             |         | LSUcnt            |           |        | ●           |     |        |
| L8           | 01                           | No full wave signal                                      |         | PCU               |           |        | ●           |     |        |
|              | 02                           | Full wave signal width abnormality                       |         | PCU               |           |        | ●           |     |        |
|              | 20                           | Power controller communication trouble                   |         | MFP               |           |        | ●           |     |        |
| PC           | --                           | Personal counter not installed                           |         | MFP               | ●         |        |             |     |        |
| U1           | 01                           | Battery trouble  |         | MFP               |           |        | ●           |     |        |
| U2           | 00                           | EEPROM read/write error (MFP detection)                  |         | MFP               |           |        | ●           |     |        |
|              | 05                           | HDD/Flash/EEPROM data discrepancy                        |         | MFP               |           |        | ●           |     |        |
|              | 10                           | SRAM user authentication index check sum error           |         | MFP               |           |        | ●           |     |        |
|              | 11                           | EEPROM check sum error (MFP detection)                   |         | MFP               |           |        | ●           |     |        |
|              | 22                           | SRAM memory check sum error                              |         | MFP               |           |        | ●           |     |        |
|              | 23                           | MFPC section SRAM memory individual data check sum error |         | MFP               |           |        | ●           |     |        |
|              | 24                           | SRAM memory user authentication counter check sum error  |         | MFP               |           |        | ●           |     |        |
|              | 25                           | Flash memory user authentication counter check sum error |         | MFP               |           |        | ●           |     |        |
|              | 30                           | Serial number data discrepancy (MFP ↔ PCU)               |         | MFP               |           |        | ●           |     |        |
|              | 50                           | HDD section individual data check sum error              |         | MFP               |           |        | ●           |     |        |
|              | 80                           | EEPROM read/write error (SCU detection)                  |         | Scanner           |           |        | ●           |     |        |
|              | 81                           | Adjustment value check sum error (SCU detection)         |         | Scanner           |           |        | ●           |     |        |
|              | 90                           | EEPROM read/write error (PCU detection)                  |         | PCU               |           |        | ●           |     |        |
| 91           | EEPROM (PCU) check sum error |  | PCU     |                   |           | ●      |             |     |        |
| U6           | 00                           | Desk communication trouble                               |         | PCU               |           |        | ●           |     |        |
|              | 01                           | Tray 1 lift-up trouble                                   |         | PCU               | ●         |        |             |     |        |
|              | 02                           | Tray 2 lift-up trouble                                   |         | PCU               | ●         |        |             |     |        |
|              | 09                           | LCC lift motor trouble                                   |         | PCU               |           | ●      |             |     |        |
|              | 10                           | Desk transport motor trouble                             |         | PCU               | ●         |        |             |     |        |
|              | 20                           | LCC communication trouble                                |         | PCU               |           | ●      |             |     |        |
|              | 21                           | LCC transport motor trouble                              |         | PCU               |           | ●      |             |     |        |
|              | 22                           | LCC 24V power abnormality                                |         | PCU               |           | ●      |             |     |        |
|              | 50                           | Desk incompatibility trouble                             |         | PCU               | ●         |        |             |     |        |
| 51           | LCC incompatibility trouble  |  | PCU     |                   | ●         |        |             |     |        |
| UC           | 02                           | CPT-ASIC abnormality                                     |         | Scanner           |           |        | ●           |     |        |
|              | 20                           | Document control module trouble                          |         | Scanner           |           |        | ●           |     |        |

### 3. Details of trouble code

#### A0-01 PCU ROM abnormality

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | PCU ROM content trouble                                      |
| Section         |                  | PCU  |
| Case 1          | Cause            | Firmware upgrade is not made properly due to power OFF, etc. |
|                 | Check and remedy | Use SIM49-1 to upgrade the firmware.                         |

#### A0-02 SCU ROM abnormality

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | SCU ROM content trouble  |
| Section         |                  | Scanner  |
| Case 1          | Cause            | Some part of SFU is not upgraded during upgrading of the firmware. |
|                 | Check and remedy | Use SIM49-1 to execute the firmware.                               |

#### A0-10 Controller ROM error

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | SFU combination error in the controller                        |
| Section         |                  | MFP  |
| Case 1          | Cause            | SFU upgrade was not properly made when upgrading the firmware. |
|                 | Check and remedy | Controller firmware upgrade                                    |

#### A0-11 IF version discrepancy (CTL-PCU)

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Combination error between CTL and PCU               |
| Section         |                  | MFP   |
| Case 1          | Cause            | Combination error between CTL and PCU               |
|                 | Check and remedy | Check the firmware combination between CTL and PCU. |

#### A0-12 IF version discrepancy (CTL-SCU)

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Combination error between CTL and SCU               |
| Section         |                  | MFP   |
| Case 1          | Cause            | Combination error between CTL and SCU               |
|                 | Check and remedy | Check the firmware combination between CTL and SCU. |

#### A0-20 Machine level error (CTL detection)

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Combination error between the machine production/remodeling and the firmware      |
| Section         |                  | MFP   |
| Case 1          | Cause            | Combination error between the machine production/remodeling and the firmware      |
|                 | Check and remedy | Check the combination between the machine production/remodeling and the firmware. |

#### A0-21 Machine level error (PCU detection)

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Combination error between the machine production/remodeling and the firmware      |
| Section         |                  | PCU   |
| Case 1          | Cause            | Combination error between the machine production/remodeling and the firmware      |
|                 | Check and remedy | Check the combination between the machine production/remodeling and the firmware. |

#### A0-22 Machine level error (SCU detection)

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Combination error between the machine production/remodeling and the firmware      |
| Section         |                  | Scanner   |
| Case 1          | Cause            | Combination error between the machine production/remodeling and the firmware      |
|                 | Check and remedy | Check the combination between the machine production/remodeling and the firmware. |

#### CE-00 Communication error other than CE-01 – 08

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Another communication error occurs.                           |
| Section         |                  | MFP   |
| Case 1          | Cause            | Network cable connection trouble                              |
|                 | Check and remedy | Check to insure that the network cable is securely connected. |

#### CE-01 Network controller trouble

|                            |                  |   |
|----------------------------|------------------|---|
| Trouble content            |                  | Network controller and its peripheral circuit trouble       |
| Section                    |                  | MFP   |
| Case 1                     | Cause            | Network controller and its peripheral circuit trouble       |
|                            | Check and remedy | 1) Check the network controller and its peripheral circuit. |
|                            |                  | 2) Output the NIC Config Page and check the NIC version.    |
| 3) Replace the MFPcnt PWB. |                  |   |

#### CE-02 Not-specified mail/FTP server error

|   |                  |   |   |
|---|------------------|---|---|
| Trouble content   |                  | The specified mail server, FTP server, and SMB server are not found |   |
| Section   |                  | MFP   |   |
| Case 1  | Cause            | Network cable connection trouble                                    |   |
|   | Check and remedy | Check to insure that the network cable is securely connected.       |   |
| Case 2  | Cause            | Network setup trouble   |   |
|   |                  | Check and remedy  | 1) Check that the connected network supports TCP/IP protocol.   |
|   |                  |   | 2) Check from Web page that the Primary/Secondary E-mail Server Address or the FTP server/Desktop PC/SMB server address as the destination is properly set. |
| 3) When the above address is described with the Hostname, check that the DNS server is properly set or not. |                  |   |   |
| Case 3  | Cause            | SMTP server/FTP server/NST/SMB server trouble                       |   |
|   | Check and remedy | Check the SMTP server/FTP server/NST/SMB server for any trouble.    |   |

#### CE-03 Communication error in image send

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | The specified server does not respond during image send.         |
| Section         |                  | MFP  |
| Case 1          | Cause            | Network cable connection trouble                                 |
|                 | Check and remedy | Check to insure that the network cable is securely connected.    |
| Case 2          | Cause            | SMTP server/FTP server/NST/SMB server trouble                    |
|                 | Check and remedy | Check the SMTP server/FTP server/NST/SMB server for any trouble. |



**CE-04 FTP server account name or authentication password input error**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | The entered FTP server account name or the authentication password is invalid.<br>The entered SMB server log-in name or the password is invalid. |
| Section         |                  | MFP  |
| Case 1          | Cause            | Network cable connection trouble   |
|                 | Check and remedy | Check to insure that the network cable is securely connected.  |
| Case 2          | Cause            | The FTP server account name registered as the destination or the password for the account is incorrect.  |
|                 | Check and remedy | Check to insure that the FTP server account name registered as the destination or the password for the account is correct.                       |
| Case 3          | Cause            | The SMB server account name registered as the destination or the password for the account is incorrect.  |
|                 | Check and remedy | Check to insure that the SMB server account name registered as the destination or the password for the account is correct.                       |

**CE-05 FTP server directory input error**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | The entered FTP server directory is invalid.<br>The entered SMB server folder is invalid.               |
| Section         |                  | MFP   |
| Case 1          | Cause            | Network cable connection trouble  |
|                 | Check and remedy | Check to insure that the network cable is securely connected.   |
| Case 2          | Cause            | The FTP server account name registered as the destination or the password for the account is incorrect. |
|                 | Check and remedy | Check to insure that there exists the FTP server directory registered as the destination.               |
| Case 3          | Cause            | The SMB server account name registered as the destination or the password for it is incorrect.          |
|                 | Check and remedy | Check to insure that there exists the SMB server folder registered as the destination.                  |

**CE-06 POP3 server access error**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | The specified mail server (POP3) is not found. (POP3 server access error)  |
| Section         |                  | MFP  |
| Case 1          | Cause            | Network cable connection trouble   |
|                 | Check and remedy | Check to insure that the network cable is securely connected.  |
| Case 2          | Cause            | Network setup error  |
|                 | Check and remedy | 1) Check that the connected network supports TCP/IP protocol.<br>2) Check the Web page to insure that the POP3 server address is correctly set.<br>3) If the above address is described in Hostname, check to insure that the DNS server is correctly set. |
| Case 3          | Cause            | POP3 server trouble  |
|                 | Check and remedy | Check the POP3 server for any trouble.   |

**CE-07 POP3 server authentication check error**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | The entered POP3 server account name or the authentication password is invalid. (POP3 server authentication check error) |
| Section         |                  | MFP  |
| Case 1          | Cause            | Network cable connection trouble   |
|                 | Check and remedy | Check to insure that the network cable is securely connected.  |
| Case 2          | Cause            | The POP3 server account name or the password registered for the account is incorrect.                                    |
|                 | Check and remedy | Check to insure that the POP3 server account name or the password for the account is correct.                            |

**CE-08 POP3 server timeout error**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | The specified mail server (POP3) does not respond. (POP3 server timeout error) |
| Section         |                  | MFP  |
| Case 1          | Cause            | Network cable connection trouble   |
|                 | Check and remedy | Check to insure that the network cable is securely connected.                  |
| Case 2          | Cause            | POP3 server trouble  |
|                 | Check and remedy | Check the POP3 server for any trouble.   |

**E7-00 System memory access error**

|                 |                  |   |  |
|-----------------|------------------|---|--|
| Trouble content |                  | System memory trouble (Tandem memory cannot be guaranteed.)<br>Access to system memory cannot be made.                      |  |
| Section         |                  | MFP   |  |
| Case 1          | Cause            | Expansion memory installation error   |  |
|                 | Check and remedy | Check installation of the system expansion memory.  |  |
| Case 2          | Cause            | Garbled data  |  |
|                 | Check and remedy | 1) Use SIM60-01 to check memory read/write<br>2) Replace the expansion memory (if installed.)<br>3) Replace the MFPcnt PWB. |  |
| Case 3          | Cause            | Dirt on the memory pin  |  |
|                 | Check and remedy | Clean the memory pin with alcohol.  |  |

\* When E7-00 is in the following combination where system memory Slot 2 (inside) and Slot 1 (outside) operate normally but a hard error occurs. (Combination of system memory (slot 1, slot 2))

| No. | System memory  |                 | Operation guarantee |      | When turning on the power   |
|-----|----------------|-----------------|---------------------|------|---|
|     | Slot2 (Inside) | Slot1 (Outside) | Hard                | Soft |   |
| 1   | —              | —               | ×                   | ×    | Since the machine is not booted, the trouble display is not made. |
| 2   | 256MB          | —               | ○                   | ○    | Normal operation  |
| 3   | 512MB          | —               | ○                   | ○    | Normal operation  |
| 4   | 256MB          | 256MB           | ○                   | ○    | Normal operation  |
| 5   | 512MB          | 256MB           | ○                   | ○    | Normal operation  |
| 6   | 256MB          | 512MB           | ○                   | ○    | Normal operation  |
| 7   | 512MB          | 512MB           | ○                   | ○    | Normal operation  |
| 8   | —              | 256MB           | ○                   | ○    | Normal operation  |
| 9   | —              | 512MB           | ○                   | ○    | Normal operation  |

**E7-01 System data trouble**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | ICU data trouble occurs.   |
| Section         |                  | MFP  |
| Case 1          | Cause            | ICU image transfer trouble   |
|                 | Check and remedy | 1) Check the connection state of the MFPcnt PWB connector.<br>2) Replace the MFPcnt PWB. |

**E7-03 HDD trouble**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | HDD connection trouble<br>File control area data trouble (when FAT is broken)  |
| Section         |                  | MFP  |
| Case 1          | Cause            | The HDD is not properly installed to the MFPcnt PWB  |
|                 | Check and remedy | 1) Check installation of the HDD of the MFPcnt PWB.<br>2) Check connection of the harness of the MFPcnt PWB.<br>3) Use SIM62-2 and -3 to check read/write from/to the HDD. |
| Case 2          | Cause            | The HDD does not work properly.  |
|                 | Check and remedy | Replace the HDD.   |
| Case 3          | Cause            | MFPcnt PWB trouble   |
|                 | Check and remedy | Replace the MFPcnt PWB.  |

**E7-05 Local memory access error**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Local memory cannot be accessed.  |
| Section         |                  | MFP   |
| Case 1          | Cause            | Local memory installation abnormality   |
|                 | Check and remedy | Check the installing state of the local memory.   |
| Case 2          | Cause            | Dirt on local memory pin  |
|                 | Check and remedy | Clean the local memory pin with alcohol.  |
| Case 3          | Cause            | Garbled data  |
|                 | Check and remedy | 1) Use SIM60-01 to check memory read/write.<br>2) Replace the memory.<br>3) Replace the MFPcnt PWB. |

\* Combination where local memory Slot 4 (inside) and Slot 3 (outside) operate normally (Refer to E7-09) but a hard error occurs.

**E7-06 Decode error trouble: Compression decode error (A compression file cannot decompressed.)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | A decode error occurs when forming an image.  |
| Section         |                  | MFP   |
| Case 1          | Cause            | Compression data abnormality  |
|                 | Check and remedy | 1) Check the installing state of the PWB. (PCI bus)<br>2) When an error occurs during a FAX job, check the installation of the FAX PWB. In the other cases, check the installation of the MFPcnt PWB and HDD.<br>3) Replace the MFPcnt PWB. |
| Case 2          | Cause            | HDD connection abnormality  |
|                 | Check and remedy | Check the HDD connection.   |
| Case 3          | Cause            | Data are garbled in image compression/send.   |
|                 | Check and remedy | 1) Check the installation of the PWB. (PCI bus)<br>2) When an error occurs during a FAX job, check the installation of the FAX PWB. In the other cases, check the installation of the MFPcnt PWB and HDD.<br>3) Replace the MFPcnt PWB.     |
| Case 4          | Cause            | MFPcnt PWB abnormality  |
|                 | Check and remedy | Replace the MFPcnt PWB.   |
| Case 5          | Cause            | Local memory access trouble   |
|                 | Check and remedy | Check and execute remedy similarly to E7-05.  |

**E7-08 Local memory specifications error**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | DIMM of different specification is detected in the local memory slot.  |
| Section         |                  | MFP  |
| Case 1          | Cause            | DIMM of different specification is installed to the local memory slot. |
|                 | Check and remedy | Check the installed DIMM.  |

\* The error occurs when a DIMM which is not recommended by Sharp.

**E7-09 Local memory combination error**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Local memory slot combination error                          |
| Section         |                  | MFP  |
| Case 1          | Cause            | DIMM of other than 256MB is installed to the default slot.   |
|                 | Check and remedy | Check the combination of installed DIMM.                     |
| Case 2          | Cause            | DIMM of other than 256MB is installed to the expansion slot. |
|                 | Check and remedy | Check the combination of installed DIMM.                     |

\* When the following combination (E7-09) where operation is not performed properly is used. Local memory (slot 3, slot 4) combination

| No. | Local memory    |                  | Operation guarantee |      | When turning on the power |
|-----|-----------------|------------------|---------------------|------|---------------------------|
|     | Slot 4 (Inside) | Slot 3 (Outside) | Hard                | Soft |                           |
| 1   | —               | —                | ×                   | ×    | E7-09                     |
| 2   | 256MB           | —                | ○                   | ○    | Normal operation          |
| 3   | 512MB           | —                | ○                   | ×    | E7-09                     |
| 4   | 256MB           | 256MB            | ○                   | ×    | E7-09                     |
| 5   | 512MB           | 256MB            | ○                   | ×    | E7-09                     |
| 6   | 256MB           | 512MB            | ○                   | ○    | Normal operation          |
| 7   | 512MB           | 512MB            | ○                   | ×    | E7-09                     |
| 8   | —               | 256MB            | ×                   | ×    | E7-09                     |
| 9   | —               | 512MB            | ×                   | ×    | E7-09                     |

### E7-10 Shading trouble (Black correction)

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | CCD black scan level abnormality when the copy lamp is turned off. |
| Section         |                  | Scanner  |
| Case 1          | Cause            | Installation error of the CCD unit flat cable                      |
|                 | Check and remedy | Check the installing state of the flat cable to the CCD unit.      |
| Case 2          | Cause            | CCD unit abnormality   |
|                 | Check and remedy | Check the CCD unit.  |
| Case 3          | Cause            | SCU PWB abnormality  |
|                 | Check and remedy | Check the SCU PWB.   |

### E7-11 Shading trouble (White correction)

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | CCD white scan level abnormality when the copy lamp is on.          |
| Section         |                  | Scanner   |
| Case 1          | Cause            | Installation error of the CCD unit flat cable                       |
|                 | Check and remedy | Check the installing state of the flat cable to the CCD unit.       |
| Case 2          | Cause            | Dirt on the mirror, the lens, or the reference white plate.         |
|                 | Check and remedy | Clean the mirror, the lens, or the reference white plate.           |
| Case 3          | Cause            | Copy lamp lighting trouble  |
|                 | Check and remedy | Check the installing state of the flat cable to the copy lamp unit. |
| Case 4          | Cause            | CCD unit abnormality  |
|                 | Check and remedy | Check the CCD unit.   |
| Case 5          | Cause            | SCU PWB abnormality   |
|                 | Check and remedy | Check the SCU PWB.  |

### E7-14 SCAN-ASIC trouble

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Written register value cannot be read correctly |
| Section         |                  | Scanner   |
| Case 1          | Cause            | SCU PWB abnormality                             |
|                 | Check and remedy | Check the SCU PWB.                              |

### E7-20 LSU BD detection trouble

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | LSU BD signal is not detected.   |
| Section         |                  | PCU  |
| Case 1          | Cause            | Disconnection or improper connection of harness and connector between LD/BD PWB and LSUcnt PWB   |
|                 | Check and remedy | Check connection of the harness of each PWB inside the LSU.  |
| Case 2          | Cause            | 1) Optical axis shift<br>2) BK laser deterioration, power reduction<br>3) BD PWB trouble   |
|                 | Check and remedy | 1) Use SIM61-1 to check the LSU operation.<br>2) Replace the LSUcnt/BD PWB.<br>3) If the trouble cannot be removed by the above 1) to 2), replace the LSU. |

### E7-21 LSU LD deterioration trouble

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | The color laser does not light up normally.   |
| Section         |                  | PCU   |
| Case 1          | Cause            | Disconnection or improper connection of harness and connector between LD PWB and LSUcnt PWB   |
|                 | Check and remedy | Check connection of the harness of each PWB inside the LSU.   |
| Case 2          | Cause            | Y/M/C laser deterioration   |
|                 | Check and remedy | 1) Use SIM61-1 to check the LSU operation.<br>2) Replace the LSUcnt PWB.<br>3) If the trouble cannot be removed by the above 1) to 2), replace the LSU. |

### E7-28 LSU control ASIC connection abnormality

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Access error between the CPU of the PCU PWB and the LSU control ASIC   |
| Section         |                  | PCU  |
| Case 1          | Cause            | <When this trouble occurs in the initial process on turn on the power><br>Communication connector trouble between the PCU PWB and the LSUcnt PWB (interface PWB). Harness trouble.   |
|                 | Check and remedy | Check the connector connection between the PCU PWB and the LSUcnt PWB (interface PWB).<br>Check the harness. If the trouble cannot be removed, replace the LSUcnt PWB or the PCU PWB.  |
| Case 2          | Cause            | <When this trouble occurs on starting printing/during printing, and SIM61-1 is used to check the LSU unit operation for each of B/W and COLOR and the judgment is NG.><br>Connected the connector between the PCU PWB and the LSUcnt PWB (interface PWB) / Harness trouble |
|                 | Check and remedy | Check the harness between the PCU PWB and the LSUcnt PWB (interface PWB). If the trouble cannot be removed, replace the LSUcnt PWB or the PCU PWB.   |
| Case 3          | Cause            | PCU PWB or LSUcnt PWB (interface PWB) trouble  |
|                 | Check and remedy | Replace the PCU PWB or the LSUcnt PWB (interface PWB).   |

### E7-29 LSU-ASIC frequency abnormality

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Oscillation trouble of the external oscillator used in LSU-ASIC and the internal oscillation circuit                            |
| Section         |                  | PCU   |
| Case 1          | Cause            | Trouble of the oscillator on the LSU-ASIC PWB, the resistor and capacitor for the oscillation circuit, and the LSU-ASIC itself. |
|                 | Check and remedy | Replace the LSUcnt PWB.   |

**E7-50 Engine connection trouble**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Unknown PWB identification information is detected in the PCU PWB.        |
| Section         |                  | PCU   |
| Case 1          | Cause            | A PWB which is incompatible with the machine specifications is connected. |
|                 | Check and remedy | 1) Replace the PCU PWB.<br>2) Replace the LSU PWB.                        |
| Case 2          | Cause            | A firmware which is incompatible with the machine specifications is used. |
|                 | Check and remedy | Check the kind and the version of the firmware.                           |

**E7-55 PWB information sum error (Engine detection)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | EEPROM PWB information sum error   |
| Section         |                  | PCU  |
| Case 1          | Cause            | 1) EEPROM device error<br>2) EEPROM device contact failure<br>3) Device access error due to noises |
|                 | Check and remedy | Replace the PCU PWB.   |

**E7-60 Controller connection trouble (Engine detection)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Unknown PWB kind information is detected in the MFPcnt PWB.<br>A PWB/firmware which is not compatible with the machine specifications is connected. |
| Section         |                  | MFP   |
| Case 1          | Cause            | Controller PWB trouble  |
|                 | Check and remedy | Replace the controller PWB.   |
| Case 2          | Cause            | A firmware which is not compatible with the machine specifications is applied.  |
|                 | Check and remedy | Check the kind and the version of the firmware.   |

**E7-61 Controller connection trouble (Engine)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | MFPcnt PWB connection trouble<br>Compatibility trouble between the controller and the engine  |
| Section         |                  | MFP   |
| Case 1          | Cause            | Combination trouble of the controller PWB and the engine                                      |
|                 | Check and remedy | Check the controller PWB.<br>Check the combination between the controller PWB and the engine. |

**E7-62 Controller connection trouble (Scanner)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Controller connection trouble<br>Compatibility trouble between the controller and the scanners  |
| Section         |                  | MFP   |
| Case 1          | Cause            | Combination trouble between the controller PWB and the engine                                   |
|                 | Check and remedy | Replace the controller PWB.<br>Check the combination between the controller PWB and the engine. |

**E7-65 PWB information sum error (Controller detection)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | EEPROM PWB information sum error   |
| Section         |                  | MFP  |
| Case 1          | Cause            | 1) EEPROM device trouble<br>2) EEPROM device contact failure<br>3) Device access error due to noises |
|                 | Check and remedy | Replace the MFPcnt PWB.  |

**E7-70 Scanner connection trouble**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Unknown identification information is detected in the SCU PWB.                 |
| Section         |                  | SCU  |
| Case 1          | Cause            | SCU PWB trouble  |
|                 | Check and remedy | Replace the SCU PWB.   |
| Case 2          | Cause            | A firmware which is incompatible with the machine specifications is connected. |
|                 | Check and remedy | Check the kind and the version of the firmware.                                |

**E7-75 PWB information sum error (Scanner detection)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | EEPROM PWB information sum error   |
| Section         |                  | SCU  |
| Case 1          | Cause            | 1) EEPROM device trouble<br>2) EEPROM device contact failure<br>3) Device access error due to noises |
|                 | Check and remedy | Replace the scanner control PWB.   |

**E7-80 Communication trouble between the controller and the scanner**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Communication trouble between the MFP and the scanner MFP detection<br>Communication establishment error/Framing/Parity/Protocol error |
| Section         |                  | MFP  |
| Case 1          | Cause            | SCU PWB connector connection trouble   |
|                 | Check and remedy | Check the connector connection between the SCU PWB and the MFPcnt PWB.   |
| Case 2          | Cause            | Harness trouble between the SCU PWB and the MFPcnt PWB   |
|                 | Check and remedy | Check the harness between the SCU PWB and the MFPcnt PWB.  |
| Case 3          | Cause            | Broken connector pin of the SCU PWB mother board   |
|                 | Check and remedy | Check grounding of the machine.  |

**E7-90 Communication trouble between the controller and the engine**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Communication trouble between the MFP and the PCU (MFP detection)<br>Communication establishment error/Framing/Parity/Protocol error |
| Section         |                  | MFP  |
| Case 1          | Cause            | PCU PWB connector connection trouble   |
|                 | Check and remedy | Check the connector connection between the PCU PWB and the MFPcnt PWB.   |
| Case 2          | Cause            | Harness trouble between the PCU PWB and the MFPcnt PWB   |
|                 | Check and remedy | Check the harness between the PCU PWB and the MFPcnt PWB.  |
| Case 3          | Cause            | Broken connector pin of the PCU PWB mother board   |
|                 | Check and remedy | Check grounding of the machine.  |

**EE-EC Auto developer adjustment trouble (The sample level for every rotation is other than 128 ± 10).**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Auto developer adjustment trouble (The sample level for every rotation is other than 128 ± 10.) <Detection only with SIM25-2, no trouble memory, only display> |
| Section         |                  | PCU  |
| Case 1          | Cause            | Toner density sensor trouble, charging voltage/developing voltage trouble, toner density trouble, developing unit trouble, PCU PWB trouble                     |
|                 | Check and remedy | Use SIM25-2 to execute the auto development adjustment.  |

**EE-EL Auto developer adjustment trouble (overtoner error)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | The sample level is 76 or below, or the control voltage is 208V or above. <Detection only with SIM25-2, no trouble memory, only display>   |
| Section         |                  | PCU  |
| Case 1          | Cause            | Toner density sensor trouble, charging voltage/developing voltage trouble, toner density trouble, developing unit trouble, PCU PWB trouble |
|                 | Check and remedy | Use SIM25-2 to execute the auto development adjustment.  |

**EE-EU Auto development adjustment trouble (Under-toner abnormality)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | The sample level is 178 or above, or the control voltage is 51V or below. <Detection only with SIM25-2, no trouble memory, only display>   |
| Section         |                  | PCU  |
| Case 1          | Cause            | Toner density sensor trouble, charging voltage/developing voltage trouble, toner density trouble, developing unit trouble, PCU PWB trouble |
|                 | Check and remedy | Use SIM25-2 to execute the auto development adjustment.  |

**F1-00 Finisher communication trouble (Machine side detection)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Communication line test error when turning on the power or after canceling an exclusion simulation.<br>Communication error with the finisher |
| Section         |                  | PCU  |
| Case 1          | Cause            | Malfunction due to noises  |
|                 | Check and remedy | Turn OFF/ON the power to cancel.   |
| Case 2          | Cause            | PCU finisher connector or harness connection error or disconnection  |
|                 | Check and remedy | Check the connector and harness in the communication line.   |
| Case 3          | Cause            | Finisher control PWB trouble   |
|                 | Check and remedy | Replace the finisher control PWB.  |
| Case 4          | Cause            | Control PWB (PCU) trouble  |
|                 | Check and remedy | Replace the PCU PWB.   |

**F1-02 Saddle finisher transport motor trouble**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Transport drive motor trouble  |
| Section         |                  | PCU  |
| Case 1          | Cause            | Motor lock, motor RPM abnormality, motor overvoltage, saddle finisher control PWB trouble            |
|                 | Check and remedy | Use SIM3-3 to check the operation of the transport motor (FFM).<br>Replace the finisher control PWB. |

**F1-03 Finisher paddle motor trouble (MX-FNX2), finisher swing motor trouble (MX-FNX1)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Paddle motor operation trouble (MX-FNX2)<br>Swing motor operation trouble (MX-FNX1)             |
| Section         |                  | PCU   |
| Case 1          | Cause            | Motor lock, motor RPM abnormality, motor overvoltage, finisher control PWB trouble              |
|                 | Check and remedy | Use SIM3-3 to check the operation of the motor (FPM/FSWM).<br>Replace the finisher control PWB. |

**F1-08 Finisher stapler shift motor trouble**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Stapler shift motor operation trouble   |
| Section         |                  | PCU   |
| Case 1          | Cause            | Motor lock, motor RPM abnormality, motor overvoltage, finisher control PWB trouble                |
|                 | Check and remedy | Use SIM3-3 to check the operation of the staple motor (FSM).<br>Replace the finisher control PWB. |

**F1-10 Finisher staple motor abnormality**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Staple operation trouble   |
| Section         |                  | PCU  |
| Case 1          | Cause            | Motor lock, motor RPM abnormality, motor overvoltage, saddle finisher control PWB trouble          |
|                 | Check and remedy | Use SIM3-3 to check the operation of the staple motor (FFSM).<br>Replace the finisher control PWB. |

**F1-11 Finisher bundle process motor abnormality**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Bundle process motor trouble  |
| Section         |                  | PCU   |
| Case 1          | Cause            | Motor lock, motor RPM abnormality, motor overvoltage, finisher control PWB trouble (MX-FNX2)              |
|                 | Check and remedy | Use SIM3-3 to check the operation of the bundle process motor (FAM).<br>Replace the finisher control PWB. |

**F1-15 Finisher tray lift motor abnormality**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Lift motor trouble  |
| Section         |                  | PCU   |
| Case 1          | Cause            | Motor lock, motor RPM abnormality, motor overvoltage, finisher control PWB trouble                        |
|                 | Check and remedy | Use SIM3-3 to check the operation of the tray lift motor (FLM/FTLM).<br>Replace the finisher control PWB. |

**F1-19 Finisher pre-alignment motor abnormality**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Pre-alignment motor trouble   |
| Section         |                  | PCU   |
| Case 1          | Cause            | Motor lock, motor RPM abnormality, motor overvoltage, saddle finisher control PWB trouble                 |
|                 | Check and remedy | Use SIM3-3 to check the operation of the pre-alignment motor (FFJM).<br>Replace the finisher control PWB. |

**F1-20 Finisher after-alignment motor abnormality**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | After-alignment motor trouble   |
| Section         |                  | PCU   |
| Case 1          | Cause            | Motor lock, motor RPM abnormality, motor overvoltage, finisher control PWB trouble                          |
|                 | Check and remedy | Use SIM3-3 to check the operation of the after-alignment motor (FRJM).<br>Replace the finisher control PWB. |

**F1-21 Finisher fan motor abnormality (MX-FNX1), Finisher interface fan motor abnormality (MX-FNX2)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Cooling fan motor trouble (MX-FNX1)<br>Interface transport fan motor trouble (MX-FNX2)               |
| Section         |                  | PCU  |
| Case 1          | Cause            | Motor lock, motor RPM abnormality, motor overvoltage, finisher control PWB trouble                   |
|                 | Check and remedy | Use SIM3-3 to check the operation of the fan motor (FFAM/FJFM).<br>Replace the finisher control PWB. |

**F1-31 Finisher folding sensor trouble (MX-FNX2)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Sensor input value abnormality   |
| Section         |                  | PCU  |
| Case 1          | Cause            | Sensor breakage, harness disconnection, finisher control PWB trouble (MX-FNX2)               |
|                 | Check and remedy | Use SIM3-2 to check the operation of the sensor (FFPD).<br>Replace the finisher control PWB. |

**F1-32 Communication trouble between the finisher and the punch unit (MX-FNX2)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Finisher and punch unit communication trouble (MX-FNX2)                                     |
| Section         |                  | PCU   |
| Case 1          | Cause            | Malfunction due to noises   |
|                 | Check and remedy | Cancel by turning OFF/ON the power.   |
| Case 2          | Cause            | Connector/harness connection error or disconnection between the finisher and the punch unit |
|                 | Check and remedy | Check the connector and the harness in the communication line.                              |
| Case 3          | Cause            | Finisher control PWB trouble (MX-FNX2)  |
|                 | Check and remedy | Replace the finisher control PWB.   |
| Case 4          | Cause            | Control PWB (PCU) trouble   |
|                 | Check and remedy | Replace the control PWB (PCU) trouble   |

**F1-33 Finisher punch shift motor trouble**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Punch shift motor operation abnormality   |
| Section         |                  | PCU   |
| Case 1          | Cause            | Motor lock, motor RPM abnormality, motor overvoltage, finisher control PWB trouble, punch control PWB trouble (MX-FNX2)                 |
|                 | Check and remedy | Use SIM3-3 to check the operation of the punch shift motor (FPSM).<br>Replace the finisher punch unit (Replace the punch control PWB.). |

**F1-34 Finisher punch motor trouble**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Punch motor operation abnormality   |
| Section         |                  | PCU   |
| Case 1          | Cause            | Motor lock, motor RPM abnormality, motor overvoltage, finisher control PWB trouble, punch control PWB trouble (MX-FNX2)           |
|                 | Check and remedy | Use SIM3-3 to check the operation of the punch motor (FPNW).<br>Replace the finisher punch unit (Replace the punch control PWB.). |

**F1-35 Finisher punch side registration sensor trouble (MX-FNX2)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Sensor input value abnormality   |
| Section         |                  | PCU  |
| Case 1          | Cause            | Sensor breakage, harness disconnection, saddle finisher control PWB trouble (MX-FNX2), punch control PWB trouble (MX-FNX2)                         |
|                 | Check and remedy | Use SIM3-2 to check the operation of the punch section sensor (FPSPD/FPD1-4).<br>Replace the finisher punch unit (Replace the punch control PWB.). |

### F1-36 Finisher punch registration sensor trouble (MX-FNX2)

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Sensor input value abnormality  |
| Section         |                  | PCU   |
| Case 1          | Cause            | Sensor breakage, harness disconnection, saddle finisher control PWB trouble (MX-FNX2), punch control PWB trouble (MX-FNX2)                |
|                 | Check and remedy | Use SIM3-2 to check the operation of the punch timing sensor (FPTD).<br>Replace the finisher punch unit (Replace the punch control PWB.). |

### F1-37 Finisher backup RAM trouble

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Backup RAM data garbled  |
| Section         |                  | PCU  |
| Case 1          | Cause            | Finisher control PWB trouble, malfunction due to electrical noises |
|                 | Check and remedy | Replace the finisher control PWB.                                  |

### F1-38 Finisher punch backup RAM trouble (MX-FNX2)

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Punch unit backup RAM data garbled                              |
| Section         |                  | PCU   |
| Case 1          | Cause            | Punch control PWB trouble, malfunction due to electrical noises |
|                 | Check and remedy | Replace the punch control PWB.                                  |

### F1-39 Finisher punch dust sensor trouble (MX-FNX2)

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Punch dust sensor detection trouble   |
| Section         |                  | PCU   |
| Case 1          | Cause            | Sensor breakage, harness disconnection, finisher control PWB trouble (MX-FNX2), punch control PWB trouble (MX-FNX2)                     |
|                 | Check and remedy | Use SIM3-2 to check the operation of the sensor punch dust sensor (FPDD).<br>Replace the finisher control PWB or the punch control PWB. |

### F1-40 Saddle finisher punch power interruption trouble (MX-FNX2)

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | When the punch unit power interruption is detected.  |
| Section         |                  | PCU  |
| Case 1          | Cause            | Harness disconnection, punch control PWB trouble   |
|                 | Check and remedy | Use SIM3-3 to check the operation punch motor (FPNW).<br>Replace the finisher punch unit (Replace the punch control PWB.). |

### F1-50 Finisher incompatibility trouble

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Detection of finisher incompatible with MX-2700**/2300**                                |
| Section         |                  | PCU   |
| Case 1          | Cause            | Connection of the AR-F13, etc. which is incompatible with MX-2700**/2300** is detected. |
|                 | Check and remedy | Connect the MX-FNX1/MX-FNX2.  |

### F2-39 Process thermistor trouble

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Process thermistor open   |
| Section         |                  | PCU   |
| Case 1          | Cause            | Process thermistor harness connection trouble                             |
|                 | Check and remedy | Check the connection of the harness, connector of the process thermistor. |
| Case 2          | Cause            | Process thermistor trouble  |
|                 | Check and remedy | Check the connection of the process thermistor.                           |
| Case 3          | Cause            | PCU PWB trouble   |
|                 | Check and remedy | Check the PCU PWB.  |

### F2-40 Toner empty sensor abnormality (BLACK)

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Toner empty sensor output abnormality. Sample level 25 or less or 231 or above.                               |
| Section         |                  | PCU   |
| Case 1          | Cause            | The connector is not installed.   |
|                 | Check and remedy | Check the connection of the connector harness to the PCU PWB. Check the connection of the toner empty sensor. |
| Case 2          | Cause            | Connector harness trouble   |
|                 | Check and remedy | Check the harness disconnection.  |
| Case 3          | Cause            | Cartridge trouble   |
|                 | Check and remedy | Check the cartridge connection.   |

### F2-41 Toner empty sensor abnormality (CYAN)

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Toner empty sensor output abnormality. Sample level 25 or less or 231 or above.                               |
| Section         |                  | PCU   |
| Case 1          | Cause            | The connector is not installed.   |
|                 | Check and remedy | Check the connection of the connector harness to the PCU PWB. Check the connection of the toner empty sensor. |
| Case 2          | Cause            | Connector harness trouble   |
|                 | Check and remedy | Check the harness disconnection.  |
| Case 3          | Cause            | Cartridge trouble   |
|                 | Check and remedy | Check the cartridge connection.   |

**F2-42 Toner empty sensor abnormality (MAGENTA)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Toner empty sensor output abnormality. Sample level 25 or less or 231 or above.                               |
| Section         |                  | PCU   |
| Case 1          | Cause            | The connector is not installed.   |
|                 | Check and remedy | Check the connection of the connector harness to the PCU PWB. Check the connection of the toner empty sensor. |
| Case 2          | Cause            | Connector harness trouble   |
|                 | Check and remedy | Check the harness disconnection.  |
| Case 3          | Cause            | Cartridge trouble   |
|                 | Check and remedy | Check the cartridge connection.   |

**F2-43 Toner empty sensor abnormality (YELLOW)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Toner empty sensor output abnormality. Sample level 25 or less or 231 or above.                               |
| Section         |                  | PCU   |
| Case 1          | Cause            | The connector is not installed.   |
|                 | Check and remedy | Check the connection of the connector harness to the PCU PWB. Check the connection of the toner empty sensor. |
| Case 2          | Cause            | Connector harness trouble   |
|                 | Check and remedy | Check the harness disconnection.  |
| Case 3          | Cause            | Cartridge trouble   |
|                 | Check and remedy | Check the cartridge connection.   |

**F2-44 Black exclusive image density sensor trouble (Transfer belt surface reflection ratio abnormality)**

|                 |                  |   |  |
|-----------------|------------------|---|--|
| Trouble content |                  | The transfer belt surface is scanned by the image density sensor before starting the process control, and adjust the sensor gain so that the output is kept at a certain level. However, the output is not within the specified range though the sensor gain is adjusted. |  |
| Section         |                  | PCU   |  |
| Case 1          | Cause            | Image density sensor trouble, harness connection trouble between PCU PWB and the image density sensor, image density sensor dirt, transfer belt cleaning trouble, calibration plate solenoid operation trouble  |  |
|                 | Check and remedy | Use SIM44-2 to execute the process control sensor gain adjustment. If "ERROR" is displayed, check the sensor, the harness, the calibration plate solenoid operation for any trouble. If the adjustment is completed, check the transfer belt surface state.               |  |

**F2-45 Color exclusive image density sensor trouble (Calibration plate surface reflection ratio abnormality)**

|                 |                  |   |  |
|-----------------|------------------|---|--|
| Trouble content |                  | The calibration plate surface is scanned by the image density sensor before starting the process control, and adjust the sensor gain so that the output is kept at a certain level. However, the output is not within the certain level though the sensor gain is adjusted. |  |
| Section         |                  | PCU   |  |
| Case 1          | Cause            | Image density sensor trouble, harness connection trouble between PCU PWB and the image density sensor, image density sensor dirt, calibration plate dirt, calibration plate solenoid operation trouble  |  |
|                 | Check and remedy | Use SIM44-2 to execute the process control gain adjustment. If "ERROR" is displayed, check the sensor and the harness. If the adjustment is completed, check the calibration plate solenoid operation.  |  |

**F2-49 LSU thermistor trouble**

|                 |                  |   |  |
|-----------------|------------------|---|--|
| Trouble content |                  | The detection temperature is out of the range of 5°C to 55°C.   |  |
| Section         |                  | PCU   |  |
| Case 1          | Cause            | LSU thermistor harness connection trouble   |  |
|                 | Check and remedy | Check the connection of the LSU thermistor harness and connector.<br>If the trouble cannot be removed, replace the LSU thermistor or the PCU PWB. |  |
| Case 2          | Cause            | LSU thermistor trouble, PCU PWB trouble   |  |
|                 | Check and remedy | Check the PCU PWB.<br>If the trouble cannot be removed, replace the LSU thermistor or the PCU PWB.  |  |

**F2-50 K phase sensor sensing trouble**

|                 |                  |   |  |
|-----------------|------------------|---|--|
| Trouble content |                  | Detection is made by interruption of light in the sensor section of the projection rib on the drum drive gear to control the BK drum phase. The detection signal cannot be acquired and phase control cannot be made. |  |
| Section         |                  | PCU   |  |
| Case 1          | Cause            | Sensor connector connection trouble   |  |
|                 | Check and remedy | Check the sensor connector connection.  |  |
| Case 2          | Cause            | Dirt on the sensor light emitting section, or installation trouble  |  |
|                 | Check and remedy | Check for dirt on the sensor or check the installation state.   |  |
| Case 3          | Cause            | Drum drive gear upper rib breakage, sensor trouble  |  |
|                 | Check and remedy | If there is no trouble in the rib, replace the sensor. (Use SIM30-1 "DHPD_K" to check interruption or transmission of light.)   |  |



**F2-51 CL phase sensor sensing trouble**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Detection is made by interruption of light in the sensor section of the projection rib on the drum drive gear to control the phases of all the color drums. The detection signal cannot be acquired and phase control cannot be made. |
| Section         |                  | PCU   |
| Case 1          | Cause            | Sensor connector connection trouble   |
|                 | Check and remedy | Check the sensor connector connection.  |
| Case 2          | Cause            | Dirt on the sensor light emitting section, or installation trouble  |
|                 | Check and remedy | Check for dirt on the sensor or check the installation state.   |
| Case 3          | Cause            | Drum drive gear upper rib breakage, sensor trouble  |
|                 | Check and remedy | If there is no trouble in the rib, replace the sensor. (Use SIM30-1 "DHPD_CL" to check interruption or transmission of light.)  |

**F2-58 Process humidity sensor trouble**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Process humidity sensor open   |
| Section         |                  | PCU  |
| Case 1          | Cause            | Process humidity sensor harness connection trouble                         |
|                 | Check and remedy | Check the harness and connector connection of the process humidity sensor. |
| Case 2          | Cause            | Process humidity sensor trouble  |
|                 | Check and remedy | Check the process humidity sensor.   |
| Case 3          | Cause            | PCU PWB trouble  |
|                 | Check and remedy | Check the PCU PWB.   |

**F2-64 Toner supply abnormality (BLACK)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Toner end with the remaining quantity of 50% or more. The toner supply time exceeds 3 times as much as the specified time.   |
| Section         |                  | PCU  |
| Case 1          | Cause            | Toner motor section connector harness trouble  |
|                 | Check and remedy | Check the connector connection of the toner motor section.<br>Check the connector harness (TM) connection to the main PWB.   |
| Case 2          | Cause            | Toner motor and toner density sensor trouble   |
|                 | Check and remedy | Check the toner density sensor output. (SIM25-1)<br>Check that the toner transport pipe is not clogged between the toner cartridge and the developing unit.<br>Replace the toner cartridge (CRUM) if necessary.<br>If replacement of the toner cartridge (CRUM) does not clear the trouble, check the developing unit. |

**F2-65 Toner supply abnormality (CYAN)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Toner end with the remaining quantity of 50% or more. The toner supply time exceeds 3 times as much as the specified time.   |
| Section         |                  | PCU  |
| Case 1          | Cause            | Toner motor section connector harness trouble  |
|                 | Check and remedy | Check the connector connection of the toner motor section.<br>Check the connector harness (TM) connection to the main PWB.   |
| Case 2          | Cause            | Toner motor and toner density sensor trouble   |
|                 | Check and remedy | Check the toner density sensor output. (SIM25-1)<br>Check that the toner transport pipe is not clogged between the toner cartridge and the developing unit.<br>Replace the toner cartridge (CRUM) if necessary.<br>If replacement of the toner cartridge (CRUM) does not clear the trouble, check the developing unit. |

**F2-66 Toner supply abnormality (MAGENTA)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Toner end with the remaining quantity of 50% or more. The toner supply time exceeds 3 times as much as the specified time.   |
| Section         |                  | PCU  |
| Case 1          | Cause            | Toner motor section connector harness trouble  |
|                 | Check and remedy | Check the connector connection of the toner motor section.<br>Check the connector harness (TM) connection to the main PWB.   |
| Case 2          | Cause            | Toner motor and toner density sensor trouble   |
|                 | Check and remedy | Check the toner density sensor output. (SIM25-1)<br>Check that the toner transport pipe is not clogged between the toner cartridge and the developing unit.<br>Replace the toner cartridge (CRUM) if necessary.<br>If replacement of the toner cartridge (CRUM) does not clear the trouble, check the developing unit. |

**F2-67 Toner supply abnormality (YELLOW)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Toner end with the remaining quantity of 50% or more. The toner supply time exceeds 3 times as much as the specified time.   |
| Section         |                  | PCU  |
| Case 1          | Cause            | Toner motor section connector harness trouble  |
|                 | Check and remedy | Check the connector connection of the toner motor section.<br>Check the connector harness (TM) connection to the main PWB.   |
| Case 2          | Cause            | Toner motor and toner density sensor trouble   |
|                 | Check and remedy | Check the toner density sensor output. (SIM25-1)<br>Check that the toner transport pipe is not clogged between the toner cartridge and the developing unit.<br>Replace the toner cartridge (CRUM) if necessary.<br>If replacement of the toner cartridge (CRUM) does not clear the trouble, check the developing unit. |

**F2-70 Toner cartridge improper cartridge detection (BLACK)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Improper data are detected in the CRUM contents when the normal CRUM of the cartridge is detected. |
| Section         |                  | PCU  |
| Case 1          | Cause            | An improper cartridge is inserted. Toner cartridge trouble   |
|                 | Check and remedy | Replace the toner cartridge.   |

**F2-71 Toner cartridge improper cartridge detection (CYAN)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Improper data are detected in the CRUM contents when the normal CRUM of the cartridge is detected. |
| Section         |                  | PCU  |
| Case 1          | Cause            | An improper cartridge is inserted. Toner cartridge trouble   |
|                 | Check and remedy | Replace the toner cartridge.   |

**F2-72 Toner cartridge improper cartridge detection (MAGENTA)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Improper data are detected in the CRUM contents when the normal CRUM of the cartridge is detected. |
| Section         |                  | PCU  |
| Case 1          | Cause            | An improper cartridge is inserted. Toner cartridge trouble   |
|                 | Check and remedy | Replace the toner cartridge.   |

**F2-73 Toner cartridge improper cartridge detection (YELLOW)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Improper data are detected in the CRUM contents when the normal CRUM of the cartridge is detected. |
| Section         |                  | PCU  |
| Case 1          | Cause            | An improper cartridge is inserted. Toner cartridge trouble   |
|                 | Check and remedy | Replace the toner cartridge.   |

**F2-74 Toner cartridge CRUM error (BLACK)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | CRUM cannot be read or written.   |
| Section         |                  | PCU   |
| Case 1          | Cause            | Connection trouble or disconnection of the connector and the harness between the PCU and the toner cartridge. |
|                 | Check and remedy | Check the connector and the harness between the PCU and the toner cartridge.                                  |
| Case 2          | Cause            | CRUM trouble  |
|                 | Check and remedy | Replace the toner cartridge.  |
| Case 3          | Cause            | Control PWB (PCU) trouble   |
|                 | Check and remedy | Replace the PCU PWB.  |

**F2-75 Toner cartridge CRUM error (CYAN)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | CRUM cannot be read or written.   |
| Section         |                  | PCU   |
| Case 1          | Cause            | Connection trouble or disconnection of the connector and the harness between the PCU and the toner cartridge. |
|                 | Check and remedy | Check the connector and the harness between the PCU and the toner cartridge.                                  |
| Case 2          | Cause            | CRUM trouble  |
|                 | Check and remedy | Replace the toner cartridge.  |
| Case 3          | Cause            | Control PWB (PCU) trouble   |
|                 | Check and remedy | Replace the PCU PWB.  |

**F2-76 Toner cartridge CRUM error (MAGENTA)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | CRUM cannot be read or written.   |
| Section         |                  | PCU   |
| Case 1          | Cause            | Connection trouble or disconnection of the connector and the harness between the PCU and the toner cartridge. |
|                 | Check and remedy | Check the connector and the harness between the PCU and the toner cartridge.                                  |
| Case 2          | Cause            | CRUM trouble  |
|                 | Check and remedy | Replace the toner cartridge.  |
| Case 3          | Cause            | Control PWB (PCU) trouble   |
|                 | Check and remedy | Replace the PCU PWB.  |

**F2-77 Toner cartridge CRUM error (YELLOW)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | CRUM cannot be read or written.   |
| Section         |                  | PCU   |
| Case 1          | Cause            | Connection trouble or disconnection of the connector and the harness between the PCU and the toner cartridge. |
|                 | Check and remedy | Check the connector and the harness between the PCU and the toner cartridge.                                  |
| Case 2          | Cause            | CRUM trouble  |
|                 | Check and remedy | Replace the toner cartridge.  |
| Case 3          | Cause            | Control PWB (PCU) trouble   |
|                 | Check and remedy | Replace the PCU PWB.  |

**F2-78 Registration exclusive image density sensor trouble (Transfer belt surface reflection ratio abnormality)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | The transfer belt surface is scanned by the image density sensor before starting the registration, and adjust the sensor gain so that the output is kept at a certain level. However, the output is not within the specified range though the sensor gain is adjusted.  |
| Section         |                  | PCU   |
| Case 1          | Cause            | Image density sensor trouble, harness connection trouble between PCU PWB and the image density sensor, image density sensor dirt, transfer belt cleaning trouble, calibration plate solenoid operation trouble  |
|                 | Check and remedy | Check the sensor and the harness. Check the calibration plate solenoid operation and the transfer belt surface state.<br>If the trouble is not cleared, replace the image sensor exclusively used for registration, replace the transfer belt, replace the calibration plate, replace the solenoid, or replace the PCU PWB according to the check result. |

**F2-80 Half tone process control 1st patch reference value trouble (BLACK)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | The low-density rising point or the high-density saturation point cannot be calculated because of a calculation error in the primary approximation formula of the sensor output ratio for the LSU PWM value obtained from the first step patch print result when executing the half tone process control in BLACK. |
| Section         |                  | PCU  |
| Case 1          | Cause            | Image density sensor trouble, harness connection trouble between PCU sub PWB and the image density sensor, image density sensor dirt, transfer belt cleaning trouble   |
|                 | Check and remedy | Use SIM44-2 to execute the process control gain adjustment. If "ERROR" is displayed, check the sensor and the harness. If the adjustment is completed, check the drum surface state and the belt surface state.  |

**F2-81 Half tone process control 1st patch reference value trouble (CYAN)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | The low-density rising point or the high-density saturation point cannot be calculated because of a calculation error in the primary approximation formula of the sensor output ratio for the LSU PWM value obtained from the first step patch print result when executing the half tone process control in CYAN. |
| Section         |                  | PCU   |
| Case 1          | Cause            | Image density sensor trouble, harness connection trouble between PCU sub PWB and the image density sensor, image density sensor dirt, transfer belt cleaning trouble  |
|                 | Check and remedy | Use SIM44-2 to execute the process control gain adjustment. If "ERROR" is displayed, check the sensor and the harness. If the adjustment is completed, check the drum surface state and the belt surface state.   |

**F2-82 Half tone process control 1st patch reference value trouble (MAGENTA)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | The low-density rising point or the high-density saturation point cannot be calculated because of a calculation error in the primary approximation formula of the sensor output ratio for the LSU PWM value obtained from the first step patch print result when executing the half tone process control in MAGENTA. |
| Section         |                  | PCU  |
| Case 1          | Cause            | Image density sensor trouble, harness connection trouble between PCU sub PWB and the image density sensor, image density sensor dirt, transfer belt cleaning trouble   |
|                 | Check and remedy | Use SIM44-2 to execute the process control gain adjustment. If "ERROR" is displayed, check the sensor and the harness. If the adjustment is completed, check the drum surface state and the belt surface state.  |

**F2-83 Half tone process control 1st patch reference value trouble (YELLOW)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | The low-density rising point or the high-density saturation point cannot be calculated because of a calculation error in the primary approximation formula of the sensor output ratio for the LSU PWM value obtained from the first step patch print result when executing the half tone process control in YELLOW. |
| Section         |                  | PCU   |
| Case 1          | Cause            | Image density sensor trouble, harness connection trouble between PCU sub PWB and the image density sensor, image density sensor dirt, transfer belt cleaning trouble  |
|                 | Check and remedy | Use SIM44-2 to execute the process control gain adjustment. If "ERROR" is displayed, check the sensor and the harness. If the adjustment is completed, check the drum surface state and the belt surface state.   |

**F2-84 Half tone process control 2nd patch reference value trouble (BLACK)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | The low-density section output is greater than the middle-density section output when connecting the low-density section approximation formula and the middle-density section approximation formula (formula of the sensor output ratio for the LSU PWM value) from the second step patch print result when executing the half tone process control in BLACK. |
| Section         |                  | PCU   |
| Case 1          | Cause            | Image density sensor trouble, harness connection trouble between PCU sub PWB and the image density sensor, image density sensor dirt, transfer belt cleaning trouble, transfer belt cleaning trouble  |
|                 | Check and remedy | Use SIM44-2 to execute the process control gain adjustment. If "ERROR" is displayed, check the sensor and the harness. If the adjustment is completed, check the drum surface state and the belt surface state.   |

**F2-85 Half tone process control 2nd patch reference value trouble (CYAN)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | The low-density section output is greater than the middle-density section output when connecting the low-density section approximation formula and the middle-density section approximation formula (formula of the sensor output ratio for the LSU PWM value) from the second step patch print result when executing the half tone process control in CYAN. |
| Section         |                  | PCU  |
| Case 1          | Cause            | Image density sensor trouble, harness connection trouble between PCU sub PWB and the image density sensor, image density sensor dirt, transfer belt cleaning trouble   |
|                 | Check and remedy | Use SIM44-2 to execute the process control gain adjustment. If "ERROR" is displayed, check the sensor and the harness. If the adjustment is completed, check the drum surface state and the belt surface state.  |

**F2-86 Half tone process control 2nd patch reference value trouble (MAGENTA)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | The low-density section output is greater than the middle-density section output when connecting the low-density section approximation formula and the middle-density section approximation formula (formula of the sensor output ratio for the LSU PWM value) from the second step patch print result when executing the half tone process control in MAGENTA. |
| Section         |                  | PCU   |
| Case 1          | Cause            | Image density sensor trouble, harness connection trouble between PCU sub PWB and the image density sensor, image density sensor dirt, transfer belt cleaning trouble  |
|                 | Check and remedy | Use SIM44-2 to execute the process control gain adjustment. If "ERROR" is displayed, check the sensor and the harness. If the adjustment is completed, check the drum surface state and the belt surface state.   |

**F2-87 Half tone process control 2nd patch reference value trouble (YELLOW)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | The low-density section output is greater than the middle-density section output when connecting the low-density section approximation formula and the middle-density section approximation formula (formula of the sensor output ratio for the LSU PWM value) from the second step patch print result when executing the half tone process control in YELLOW. |
| Section         |                  | PCU  |
| Case 1          | Cause            | Image density sensor trouble, harness connection trouble between PCU sub PWB and the image density sensor, image density sensor dirt, transfer belt cleaning trouble   |
|                 | Check and remedy | Use SIM44-2 to execute the process control gain adjustment. If "ERROR" is displayed, check the sensor and the harness. If the adjustment is completed, check the drum surface state and the belt surface state.  |

**F2-92 High-density process control density correction error (CYAN)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | The patch density value is not in the range of the density correction reference density value (STD value) $\pm 30\%$ at the upper limit or the lower limit bias voltage when executing the high density process control.                    |
| Section         |                  | PCU   |
| Case 1          | Cause            | Image density sensor trouble, harness connection trouble between PCU PWB-image density sensor, dirt on image density sensor, transfer belt cleaning trouble   |
|                 | Check and remedy | 1) Use SIM44-2 to execute the process control sensor gain adjustment.<br>2) If an error occurs, check the sensors and the harnesses.<br>3) If the adjustment of 1) is completed, check the drum surface state, the belt surface state, etc. |

**F2-93 High-density process control density correction error (MAGENTA)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | The patch density value is not in the range of the density correction reference density value (STD value) $\pm 30\%$ at the upper limit or the lower limit bias voltage when executing the high density process control.                    |
| Section         |                  | PCU   |
| Case 1          | Cause            | Image density sensor trouble, harness connection trouble between PCU PWB-image density sensor, dirt on image density sensor, transfer belt cleaning trouble   |
|                 | Check and remedy | 1) Use SIM44-2 to execute the process control sensor gain adjustment.<br>2) If an error occurs, check the sensors and the harnesses.<br>3) If the adjustment of 1) is completed, check the drum surface state, the belt surface state, etc. |

**F2-94 High-density process control density correction error (YELLOW)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | The patch density value is not in the range of the density correction reference density value (STD value) $\pm 30\%$ at the upper limit or the lower limit bias voltage when executing the high density process control.                    |
| Section         |                  | PCU   |
| Case 1          | Cause            | Image density sensor trouble, harness connection trouble between PCU PWB-image density sensor, dirt on image density sensor, transfer belt cleaning trouble   |
|                 | Check and remedy | 1) Use SIM44-2 to execute the process control sensor gain adjustment.<br>2) If an error occurs, check the sensors and the harnesses.<br>3) If the adjustment of 1) is completed, check the drum surface state, the belt surface state, etc. |

**F3-12 Main unit tray 1 lift-up trouble**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | LUD1 does not turn ON within the specified time.  |
| Section         |                  | PCU   |
| Case 1          | Cause            | LUD1 sensor trouble, harness connection trouble between PCU PWB, the lift-up unit, and the paper feed unit. |
|                 | Check and remedy | Check the harness and the connector of LUD1.  |
| Case 2          | Cause            | Tray 1 lift-up motor trouble  |
|                 | Check and remedy | Check the lift-up unit.   |

**F3-22 Main unit tray 2 lift-up trouble**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | LUD2 does not turn ON within the specified time.  |
| Section         |                  | PCU   |
| Case 1          | Cause            | LUD2 sensor trouble, harness connection trouble between PCU PWB, the lift-up unit, and the paper feed unit. |
|                 | Check and remedy | Check the harness and the connector of LUD2.  |
| Case 2          | Cause            | Tray 2 lift-up motor trouble  |
|                 | Check and remedy | Check the lift-up unit.   |

**H2-00 Non-contact thermistor detection thermistor open (TH\_UM\_AD2)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Thermistor open  |
| Section         |                  | PCU  |
| Case 1          | Cause            | Thermistor trouble, control PWB trouble, fusing section connector connection trouble, AC power source trouble, fusing unit not-installed |
|                 | Check and remedy | Check the harness and the connector from the thermistor to the control PWB.  |

**H2-01 Lower thermistor open (TH\_LM)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Thermistor open  |
| Section         |                  | PCU  |
| Case 1          | Cause            | Thermistor trouble, control PWB trouble, fusing section connector connection trouble, AC power source trouble, fusing unit not-installed |
|                 | Check and remedy | Check the harness and the connector from the thermistor to the control PWB.  |

**H2-02 Sub thermistor open (TH\_US)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Thermistor open  |
| Section         |                  | PCU  |
| Case 1          | Cause            | Thermistor trouble, control PWB trouble, fusing section connector connection trouble, AC power source trouble, fusing unit not-installed |
|                 | Check and remedy | Check the harness and the connector from the thermistor to the control PWB.  |

**H2-03 Non-contact thermistor compensation thermistor open (TH\_UM\_AD1)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Thermistor open   |
| Section         |                  | PCU   |
| Case 1          | Cause            | Thermistor trouble, control PWB trouble, fusing section connector connection trouble, AC power source trouble |
|                 | Check and remedy | Check the harness and the connector from the thermistor to the control PWB.                                   |

**H3-00 Fusing section high temperature trouble (TH\_UM)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | The fusing temperature inside the PWB exceeds the specified level.  |
| Section         |                  | PCU   |
| Case 1          | Cause            | Thermistor trouble, control PWB trouble, fusing section connector connection error, AC power source trouble   |
|                 | Check and remedy | 1) Use SIM5-2 to check blinking of the heater lamp.<br>2) If it blinks normally, check the thermistor and the harness.<br>Check the control PWB thermistor input circuit section.<br>3) If the heater lamp keep lighting, check the AC PWB and the control PWB lamp control circuit.<br>4) Use SIM14 to cancel the trouble. |

**H3-01 Fusing section high temperature trouble (TH\_LM)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | The fusing temperature inside the PWB exceeds the specified level.  |
| Section         |                  | PCU   |
| Case 1          | Cause            | Thermistor trouble, control PWB trouble, fusing section connector connection error, AC power source trouble   |
|                 | Check and remedy | 1) Use SIM5-2 to check blinking of the heater lamp.<br>2) If it blinks normally, check the thermistor and the harness.<br>Check the control PWB thermistor input circuit section.<br>3) If the heater lamp keep lighting, check the AC PWB and the control PWB lamp control circuit.<br>4) Use SIM14 to cancel the trouble. |

**H3-02 Sub thermistor fusing section high temperature trouble (TH\_US)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | The fusing temperature inside the PWB exceeds the specified level.  |
| Section         |                  | PCU   |
| Case 1          | Cause            | Thermistor trouble, control PWB trouble, fusing section connector connection error, AC power source trouble   |
|                 | Check and remedy | 1) Use SIM5-2 to check blinking of the heater lamp.<br>2) If it blinks normally, check the thermistor and the harness.<br>Check the control PWB thermistor input circuit section.<br>3) If the heater lamp keep lighting, check the AC PWB and the control PWB lamp control circuit.<br>4) Use SIM14 to cancel the trouble. |

**H4-00 Fusing section low temperature trouble (TH\_UM\_AD2)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | The temperature does not reach the specified level within the specified time after turning on the power relay.  |
| Section         |                  | PCU   |
| Case 1          | Cause            | Thermistor trouble, heater lamp trouble, PCU PWB trouble, thermostat trouble, AC power source trouble, interlock switch trouble   |
|                 | Check and remedy | <ol style="list-style-type: none"> <li>1) Use SIM5-2 to check blinking of the heater lamp.</li> <li>2) If it blinks normally, check the thermistor and the harness.<br/>Check the control PWB thermistor input circuit section.</li> <li>3) If it is not lighted, check for the heater lamp disconnection and the thermostat breakage.<br/>Check the interlock switch. Check the AC PWB and the PCU PWB lamp control circuit.</li> <li>4) Use SIM14 to cancel the trouble.</li> </ol> |

**H4-01 Fusing section low temperature trouble (TH\_LM)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | The temperature does not reach the specified level within the specified time after turning on the power relay.  |
| Section         |                  | PCU   |
| Case 1          | Cause            | Thermistor trouble, heater lamp trouble, PCU PWB trouble, thermostat trouble, AC power source trouble, interlock switch trouble   |
|                 | Check and remedy | <ol style="list-style-type: none"> <li>1) Use SIM5-2 to check blinking of the heater lamp.</li> <li>2) If it blinks normally, check the thermistor and the harness.<br/>Check the control PWB thermistor input circuit section.</li> <li>3) If it is not lighted, check for the heater lamp disconnection and the thermostat breakage.<br/>Check the interlock switch. Check the AC PWB and the PCU PWB lamp control circuit.</li> <li>4) Use SIM14 to cancel the trouble.</li> </ol> |

**H4-02 Sub thermistor fusing section low temperature trouble (TH\_US)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | The temperature does not reach the specified level within the specified time after turning on the power relay.   |
| Section         |                  | PCU  |
| Case 1          | Cause            | Thermistor trouble, heater lamp trouble, PCU PWB trouble, thermostat trouble, AC power source trouble, interlock switch trouble  |
|                 | Check and remedy | <ol style="list-style-type: none"> <li>1) Use SIM5-2 to check blinking of the heater lamp..</li> <li>2) If it blinks normally, check the thermistor and the harness.<br/>Check the control PWB thermistor input circuit section.</li> <li>3) If it is not lighted, check for the heater lamp disconnection and the thermostat breakage.<br/>Check the interlock switch. Check the AC PWB and the PCU PWB lamp control circuit.</li> <li>4) Use SIM14 to cancel the trouble.</li> </ol> |

**H4-30 Thermistor differential input trouble (TH\_UM)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | TH_UM_AD1 and TH_UM_AD2 do not exceed the specified level (50 count with the AD value) within 1minute after HL_UM is turned on.   |
| Section         |                  | PCU   |
| Case 1          | Cause            | HL_UM does not turn on. Thermistor trouble, harness trouble, PCU PWB trouble  |
|                 | Check and remedy | <ol style="list-style-type: none"> <li>1) Use SIM5-2 to check blinking of the heater lamp.</li> <li>2) If it blinks normally, check the thermistor and the harness.<br/>Check the PCU PWB thermistor input circuit section.</li> <li>3) If it is not lighted, check for the heater lamp disconnection and the thermostat breakage.<br/>Check the interlock switch. Check the AC PWB and the PCU PWB lamp control circuit.</li> <li>4) Use SIM14 to cancel the trouble.</li> </ol> |

**H5-01 5 continuous detection of POD1 not-reached jam**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | 5 continuous detection of POD1 not-reached jam                  |
| Section         |                  | PCU   |
| Case 1          | Cause            | The fusing jam is not removed completely. (Jam paper remains.)  |
|                 | Check and remedy | Check the fusing section for jam paper. (winding, etc.)         |
| Case 2          | Cause            | POD1 sensor trouble or harness connection trouble               |
|                 | Check and remedy | Check the POD1 sensor harness. Use SIM14 to cancel the trouble. |
| Case 3          | Cause            | Fusing unit installation trouble                                |
|                 | Check and remedy | Check the fusing unit installation.                             |

**L1-00 Mirror feed trouble**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Mirror feed is not completed within the specified time. |
| Section         |                  | Scanner   |
| Case 1          | Cause            | Mirror unit trouble, mirror wire disengagement          |
|                 | Check and remedy | Use SIM1-1 to check the mirror operation.               |

**L3-00 Mirror return trouble**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Mirror return is not completed within the specified time. |
| Section         |                  | Scanner   |
| Case 1          | Cause            | Mirror unit trouble, mirror wire disengagement            |
|                 | Check and remedy | Use SIM1-1 to check the mirror operation.                 |

**L4-02 Paper feed motor lock trouble**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | When the paper feed motor is rotated in warming up or in canceling a jam and the lock signal is not detected within 1sec.                |
| Section         |                  | PCU  |
| Case 1          | Cause            | Paper feed motor trouble, harness connection trouble between PCU PWB and paper feed motor, control circuit trouble                       |
|                 | Check and remedy | Use SIM6-1 to check the paper feed motor operation.<br>Check the harness and the connector between the PCU PWB and the paper feed motor. |

**L4-04 Developing motor trouble (BLACK)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | The motor lock signal is detected during rotation of the developing motor.        |
| Section         |                  | PCU   |
| Case 1          | Cause            | Harness connection trouble between the PCU PWB and the developing motor.          |
|                 | Check and remedy | Check the harness and the connector between the PCU PWB and the developing motor. |
| Case 2          | Cause            | Developing motor trouble, control circuit trouble                                 |
|                 | Check and remedy | Use SIM25-1 to check the operation of the developing motor.                       |

**L4-05 Developing motor trouble (COLOR)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | The motor lock signal is detected during rotation of the developing motor.        |
| Section         |                  | PCU   |
| Case 1          | Cause            | Harness connection trouble between the PCU PWB and the developing motor.          |
|                 | Check and remedy | Check the harness and the connector between the PCU PWB and the developing motor. |
| Case 2          | Cause            | Developing motor trouble, control circuit trouble                                 |
|                 | Check and remedy | Use SIM25-1 to check the operation of the developing motor.                       |

**L4-06 Transfer belt separation position sensor trouble**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | When separating the primary transfer belt unit, change in the separation position sensor characteristics is not detected within the specified time. |
| Section         |                  | PCU   |
| Case 1          | Cause            | Harness connection trouble between the PCU PWB and the separation position sensor   |
|                 | Check and remedy | Check the harness between the PCU PWB and the separation position sensor.   |
| Case 2          | Cause            | The belt position sensor is not interrupted or it is always interrupted. Belt separation clutch operation trouble                                   |
|                 | Check and remedy | Use SIM6-3 to check the belt separation operation.  |
| Case 3          | Cause            | The primary transfer belt unit is not installed.  |
|                 | Check and remedy | Install the primary transfer belt.  |

**L4-11 Shift motor trouble**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | When the shift motor is initialized, no characteristics change of the shifter home position sensor is not detected within the specified time. |
| Section         |                  | PCU   |
| Case 1          | Cause            | Shift motor trouble   |
|                 | Check and remedy | Use SIM6-1 to check the operation of the shift motor.   |
| Case 2          | Cause            | Harness connection trouble between the PCU PWB and the shift motor, control circuit trouble   |
|                 | Check and remedy | Use SIM30-1 to check the shifter home position sensor. Check the harness and the connector between the PCU PWB and the shift motor.           |
| Case 3          | Cause            | When the finisher is installed with the finisher connector disconnected and when the finisher communication trouble occurs.                   |
|                 | Check and remedy | Connect the finisher connector. When the communication trouble occurs between the PCU and the finisher, refer to the content of F1-00.        |

**L4-30 Controller fan/HDD fan motor trouble**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | 1) The motor lock signal is detected during rotation of the controller fan motor.<br>2) The motor lock signal is detected during rotation of the HDD fan motor. |
| Section         |                  | MFP   |
| Case 1          | Cause            | Fan motor trouble   |
|                 | Check and remedy | Use SIM6-2 to check the operation of the fan motor.   |
| Case 2          | Cause            | Harness connection trouble between the mother PWB and the fan motor.  |
|                 | Check and remedy | Check the harness and the connector between the mother PWB and the fan motor.   |
| Case 3          | Cause            | Control circuit trouble   |
|                 | Check and remedy | Replace the controller PWB.   |
| Case 4          | Cause            | Mother PWB trouble.   |
|                 | Check and remedy | Replace the mother PWB.   |

**L4-31 Paper exit cooling fan trouble**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | When the paper exit cooling fan is operated, the fan operation signal is not detected within the specified time. |
| Section         |                  | PCU  |
| Case 1          | Cause            | Fan connector disconnection  |
|                 | Check and remedy | Check the harness and the connector between the PCU PWB and the fan.   |
| Case 2          | Cause            | Fan does not rotate because of other trouble.  |
|                 | Check and remedy | Use SIM6-2 to check that the fan is rotation actually.   |

### L4-32 Power cooling fan/ozone exhaust fan trouble

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | When the power cooling fan/ozone exhaust fan is operated, the fan operation signal is not detected within the specified time. |
| Section         |                  | PCU   |
| Case 1          | Cause            | Power cooling fan or ozone exhaust fan connector disconnection  |
|                 | Check and remedy | Check the harness and the connector between the PCU PWB and the fan.  |
| Case 2          | Cause            | Fan does not rotate because of other trouble  |
|                 | Check and remedy | Use SIM6-2 to check that the fan is actually rotating.  |

### L6-10 Polygon motor lock detection

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | It is judged that the LSU polygon motor lock signal is not outputted, and the lock signal is checked after 7 sec from starting rotation of the polygon motor and it is judged that the polygon motor does not rotate properly. |
| Section         |                  | LSU  |
| Case 1          | Cause            | Disconnection of the LSU connector or the LSU inside harness, or breakage  |
|                 | Check and remedy | Check connection of the harness and the connector. If the trouble cannot be removed, replace the LSUcnt PWB or the LSU.  |
| Case 2          | Cause            | Polygon motor trouble, LSU PWB trouble   |
|                 | Check and remedy | Use SIM61-1 to check the operation of the polygon motor. If the trouble cannot be removed, replace the LSUcnt PWB or the LSU.  |

### L8-01 No full wave signal

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | No full wave signal is detected.                   |
| Section         |                  | PCU  |
| Case 1          | Cause            | Harness trouble                                    |
|                 | Check and remedy | Check connection of the harness and the connector. |
| Case 2          | Cause            | Power unit trouble                                 |
|                 | Check and remedy | Replace the power unit.                            |
| Case 3          | Cause            | PCU PWB trouble                                    |
|                 | Check and remedy | Replace the PCU PWB.                               |

### L8-02 Full wave signal width abnormality

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | The full wave signal is judged as frequency abnormality. (The detection frequency is judged as 65Hz or above or 45Hz or less.) |
| Section         |                  | PCU  |
| Case 1          | Cause            | Harness trouble  |
|                 | Check and remedy | Check the harness and the connector connection.  |
| Case 2          | Cause            | Power unit trouble   |
|                 | Check and remedy | Replace the power unit.  |
| Case 3          | Cause            | PCU PWB trouble  |
|                 | Check and remedy | Replace the PCU PWB.   |

### L8-20 Power controller communication trouble

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Communication establishment error/Framing/Parity/Protocol error   |
| Section         |                  | MFP   |
| Case 1          | Cause            | Connector connection trouble between the mother board PWB and the MFPcnt PWB.<br>MFPcnt PWB mother board connector pin breakage |
|                 | Check and remedy | Check the connector connection between the mother board PWB and the MFPcnt PWB. Check grounding of the machine.                 |
| Case 2          | Cause            | Mother PWB trouble  |
|                 | Check and remedy | Replace the mother PWB.   |
| Case 3          | Cause            | Mother PWB jumper error   |
|                 | Check and remedy | Set the mother PWB jumper to the Default side.  |

### PC--- Personal counter not installed

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | The personal counter is not installed. |
| Section         |                  | MFP                                    |
| Case 1          | Cause            | The personal counter is not installed. |
|                 | Check and remedy | Install the personal counter.          |

### U1-01 Battery trouble

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Backup SRAM battery voltage fall                       |
| Section         |                  | MFP  |
| Case 1          | Cause            | 1) Battery life<br>2) Battery circuit abnormality      |
|                 | Check and remedy | Check that the battery voltage is about 2.5V or above. |

### U2-00 EEPROM read/write error (MFP detection)

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | EEPROM device read/write error                 |
| Section         |                  | MFP  |
| Case 1          | Cause            | EEPROM device trouble                          |
|                 | Check and remedy | Replace the EEPROM device.                     |
| Case 2          | Cause            | EEPROM device contact failure                  |
|                 | Check and remedy | Check that EEPROM device is properly inserted. |
| Case 3          | Cause            | Device access error due to electrical noises   |
|                 | Check and remedy | Replace the MFPcnt PWB.                        |

### U2-05 HDD/Flash/EEPROM data discrepancy

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | A HDD or Flash memory for user authentication different from that used before turn off the power is installed. |
| Section         |                  | MFP  |
| Case 1          | Cause            | HDD replacement or Flash memory replacement  |
|                 | Check and remedy | Initialize the authentication information with SIM16, and import the backup data (exported data) if any.       |



**U2-10 SRAM user authentication index check sum error**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | User index information (basic data of user authentication) check sum error on the SRAM                                     |
| Section         |                  | MFP  |
| Case 1          | Cause            | 1) SRAM trouble<br>2) Hang-up of the control circuit due to electrical noises<br>3) MFPcnt PWB SRAM access circuit trouble |
|                 | Check and remedy | Use SIM16 to cancel U2 trouble.  |

**U2-11 EEPROM check sum error (MFP detection)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Counter information check sum error on the EEPROM   |
| Section         |                  | MFP   |
| Case 1          | Cause            | 1) EEPROM device trouble<br>2) EEPROM device contact failure<br>3) Device access error due to electrical noises |
|                 | Check and remedy | Use SIM16 to cancel U2 trouble.   |

**U2-22 SRAM memory check sum error**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | MFPcnt PWB SRAM memory check sum error   |
| Section         |                  | MFP  |
| Case 1          | Cause            | SRAM trouble   |
|                 | Check and remedy | 1) Initialize the communication management table registered in SRAM and the FAX soft switch.<br>2) Since the registered contents have been deleted, register them again. |
| Case 2          | Cause            | Control circuit hang-up due to electrical noises   |
|                 | Check and remedy | Use SIM16 to cancel U2 trouble.  |
| Case 3          | Cause            | MFPcnt PWB SRAM access circuit trouble   |
|                 | Check and remedy | Replace the MFPcnt PWB.  |

**U2-23 MFPC section SRAM memory individual data check sum error**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | MFPcnt PWB SRAM memory individual data check sum error (Communication management table, sender registration data, etc.)   |
| Section         |                  | MFP   |
| Case 1          | Cause            | SRAM trouble  |
|                 | Check and remedy | 1) Turn OFF/ON the power to initialize the data related to the check sum error automatically.<br>2) Since the registered contents have been deleted, register them again. |
| Case 2          | Cause            | Control circuit hang-up due to electrical noises  |
|                 | Check and remedy | Use SIM16 to cancel U2 trouble.   |
| Case 3          | Cause            | MFPcnt PWB SRAM access circuit trouble  |
|                 | Check and remedy | Replace the MFPcnt PWB.   |

**U2-24 SRAM memory user authentication counter check sum error**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Check sum error of the user counter on SRAM   |
| Section         |                  | MFP   |
| Case 1          | Cause            | 1) SRAM trouble<br>2) Control circuit hang-up due to electrical noises<br>3) MFPcnt PWB SRAM access circuit trouble |
|                 | Check and remedy | Use SIM16 to cancel U2 trouble.   |

**U2-25 Flash memory user authentication counter check sum error**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Check sum error of the user authentication counter on FLASH   |
| Section         |                  | MFP   |
| Case 1          | Cause            | Flash trouble. Control circuit hang-up due to electrical noises<br>MFPcnt PWB FLASH access circuit trouble. |
|                 | Check and remedy | Use SIM16 to recalculate the check sum of the user counter and save the normal sum value.                   |

**U2-30 Serial number data discrepancy (MFP ↔ PCU)**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | The serial number stored in the PCU differs from that stored in the MFP.  |
| Section         |                  | MFP   |
| Case 1          | Cause            | EEPROM is not changed when the PCU/MFPcnt PWB is replaced.  |
|                 | Check and remedy | 1) Check that EEPROM is properly set.<br>2) Check that EEPROM on the previous PWB is inserted to the newly installed PWB. |

**U2-50 HDD section individual data check sum error**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | MFPcnt HDD individual data check sum error (One-touch, group, program, etc.)  |
| Section         |                  | MFP   |
| Case 1          | Cause            | Write/read error to/from HDD  |
|                 | Check and remedy | 1) Turn OFF/ON the power to initialize the data related to the check sum error contents.<br>2) Since the registered contents have been deleted, register them again.<br>3) If the trouble is not canceled, replace the HDD. |
| Case 2          | Cause            | Control circuit hang-up due to electrical noises  |
|                 | Check and remedy | Use SIM16 to cancel U2 trouble.   |
| Case 3          | Cause            | MFPcnt PWB HDD access circuit trouble   |
|                 | Check and remedy | Replace the MFPcnt PWB.   |

**U2-80 EEPROM read/write error (SCU detection)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | 1) EEPROM version error<br>2) Write error to EEPROM  |
| Section         |                  | Scanner  |
| Case 1          | Cause            | EEPROM trouble, installation of EEPROM which is not initialized  |
|                 | Check and remedy | Check that EEPROM is properly set.   |
| Case 2          | Cause            | SCU PWB EEPROM access circuit trouble  |
|                 | Check and remedy | To avoid deletion of the counter data/adjustment data, use the simulation to save the counter/adjustment values. (If there is a printer option, execute SIM22-1 to save the counter data and the adjustment values.) Replace the SCU PWB. Use SIM16 to cancel the trouble. |

**U2-81 Adjustment value check sum error (SCU detection)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | EEPROM (SCU) check sum error   |
| Section         |                  | Scanner  |
| Case 1          | Cause            | Control circuit hang-up due to electrical noises   |
|                 | Check and remedy | Use SIM16 to cancel U2 trouble.  |
| Case 2          | Cause            | EEPROM trouble   |
|                 | Check and remedy | To avoid deletion of the counter data/adjustment data, use the simulation to save the counter/adjustment values. (If there is a printer option, execute SIM22-1 to save the counter data and the adjustment values.) Replace the SCU PWB. Use SIM16 to cancel the trouble. |
| Case 3          | Cause            | SCU PWB EEPROM access circuit trouble  |
|                 | Check and remedy | Check that EEPROM is properly set.   |

**U2-90 EEPROM read/write error (PCU detection)**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | EEPROM version error, write error to EEPROM  |
| Section         |                  | PCU  |
| Case 1          | Cause            | EEPROM trouble, installation of EEPROM which is not initialized  |
|                 | Check and remedy | Check that EEPROM is properly set.   |
| Case 2          | Cause            | PCU PWB EEPROM access circuit trouble  |
|                 | Check and remedy | To avoid deletion of the counter data/adjustment data, use the simulation to save the counter/adjustment values. (If there is a printer option, execute SIM22-1 to save the counter data and the adjustment values.) Replace the PCU PWB. Use SIM16 to cancel the trouble. |

**U2-91 EEPROM (PCU) check sum error**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Check sum error of adjustment value (PCU)   |
| Section         |                  | PCU   |
| Case 1          | Cause            | Control circuit hang-up due to electrical noises  |
|                 | Check and remedy | Use SIM16 to cancel the trouble.  |
| Case 2          | Cause            | EEPROM trouble.   |
|                 | Check and remedy | Check that EEPROM is properly set.  |
| Case 3          | Cause            | PCU PWB EEPROM access circuit trouble   |
|                 | Check and remedy | To avoid deletion of the counter data/adjustment data, use the simulation to save the counter/adjustment values. (If there is a printer option, execute SIM22-1 to save the counter data and the adjustment values.) Replace the PCU PWB. |

**U6-00 Desk communication trouble**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Desk communication error, communication line test error after turning on the power or canceling the exclusive simulation                             |
| Section         |                  | PCU  |
| Case 1          | Cause            | Connector and harness connection trouble or disconnection, desk control PWB trouble, control PWB (PCU) trouble, malfunction due to electrical noises |
|                 | Check and remedy | Cancel the trouble by turning OFF/ON. Check the connector and the harness of the communication line.   |

**U6-01 Tray 1 lift-up trouble**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | DLUD1 does not turn ON within the specified time.  |
| Section         |                  | PCU  |
| Case 1          | Cause            | DLUD1 sensor trouble, tray 1 lift-up motor trouble, desk PWB, lift-up unit, paper feed unit harness connection trouble |
|                 | Check and remedy | Check DLUD1 and its harness and connector. Check the lift-up unit.   |

**U6-02 Tray 2 lift-up trouble**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | DLUD2 does not turn ON within the specified time.  |
| Section         |                  | PCU  |
| Case 1          | Cause            | DLUD2 sensor trouble, tray 2 lift-up motor trouble, desk PWB, lift-up unit, paper feed unit harness connection trouble |
|                 | Check and remedy | Check DLUD2 and its harness and connector. Check the lift-up unit.   |

**U6-09 LCC lift motor trouble**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | <ul style="list-style-type: none"> <li>The encoder input value is not changed in 0.13sec (1st time)/0.5sec (2nd time and later) after rotation of the motor.</li> <li>The motor is rotated for 18sec or more.</li> <li>The encoder is changed after passing a certain time from stopping the motor. (2sec, 10 count or more)</li> </ul> |
| Section         |                  | PCU   |
| Case 1          | Cause            | Sensor trouble, LCC control PWB trouble, gear breakage, lift motor trouble  |
|                 | Check and remedy | Use SIM4-2 and 4-3 to check the operation of the sensor and the lift motor. Use SIM15 to cancel the trouble.  |

**U6-10 Desk transport motor trouble**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Desk transport motor operation trouble  |
| Section         |                  | PCU   |
| Case 1          | Cause            | Motor lock, motor RPM abnormality, overcurrent to the motor, console finisher control PWB trouble |
|                 | Check and remedy | Use SIM 4-3 to check the operation of the desk transport motor.                                   |

**U6-20 LCC communication trouble**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | LCC communication error. Communication line test error after turning ON the power or canceling the exclusive simulation. LCC and machine model codes discrepancy error |
| Section         |                  | PCU  |
| Case 1          | Cause            | Connector and harness connection trouble or disconnection, LCC control PWB trouble, control PWB (PCU) trouble, malfunction due to electrical noises                    |
|                 | Check and remedy | Turn OFF/ON the power to cancel the trouble. Check the connector and the harness of the communication line.  |

**U6-21 LCC transport motor trouble**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | <ul style="list-style-type: none"> <li>The encoder input value is not changed in 0.06sec after turning on the motor.</li> <li>The encoder input value is changed after a certain time from turning OFF the motor. (After 5sec, count is made for 0.1sec to get 100 or more count.)</li> </ul> |
| Section         |                  | PCU   |
| Case 1          | Cause            | Motor lock, motor RPM abnormality, an overcurrent to the motor, LCC control PWB trouble   |
|                 | Check and remedy | Use SIM4-3 to check the operation of the transport motor.   |

**U6-22 LCC 24V power abnormality**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | DC24V power is not supplied to LCC.   |
| Section         |                  | PCU   |
| Case 1          | Cause            | Connector and harness connection trouble or disconnection, LCC control PWB trouble, power unit trouble              |
|                 | Check and remedy | Check the connector and the harness of the power line. Check that the power unit and the LCC control PWB is of 24V. |

**U6-50 Desk incompatibility trouble**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Detection of desk connection incompatible with the MX-2300/2700 **               |
| Section         |                  | PCU  |
| Case 1          | Cause            | Connection of a desk which is incompatible with the MX-2300/2700 ** is detected. |
|                 | Check and remedy | Connect the MX-DEX1/DEX2.  |

**U6-51 LCC incompatibility trouble**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | Detection of LCC connection which is incompatible with the MX-2300/2700 **.        |
| Section         |                  | PCU  |
| Case 1          | Cause            | Connection of the LCC, which is incompatible with the MX-2300/2700 ** is detected. |
|                 | Check and remedy | Connect the MX-LCX1.   |

**UC-02 CPT-ASIC abnormality**

|                 |                  |  |
|-----------------|------------------|--|
| Trouble content |                  | CPT-ASIC access error (When the ASIC does not operate normally.)                                       |
| Section         |                  | Scanner  |
| Case 1          | Cause            | CPT-ASIC abnormality, SCU PWB abnormality  |
|                 | Check and remedy | Turn OFF/ON the power several times. If the trouble still occurs, replace the SCU PWB or the CPT-ASIC. |

**UC-20 Document control module trouble**

|                 |                  |   |
|-----------------|------------------|---|
| Trouble content |                  | Communication error between SCU and DOCC<br>Communication line test error when turning on the power or after canceling an exclusion simulation. |
| Section         |                  | Scanner   |
| Case 1          | Cause            | Connector or harness connection error or disconnection  |
|                 | Check and remedy | Check the connector and harness in the communication line.  |
| Case 2          | Cause            | Control PWB (SCU) trouble, DOCC PWB trouble.  |
|                 | Check and remedy | Replace the SCU PWB or the DOCC PWB.  |
| Case 3          | Cause            | Malfunction due to electrical noises.   |
|                 | Check and remedy | Turn OFF/ON the power to electrical cancel the trouble.   |