# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECIFICATIONS</td>
<td>1</td>
</tr>
<tr>
<td>LOCATION OF CONTROLS</td>
<td>1</td>
</tr>
<tr>
<td>EXPLODED VIEW</td>
<td>2</td>
</tr>
<tr>
<td>BLOCK DIAGRAM</td>
<td>2</td>
</tr>
<tr>
<td>CONFIGURATION</td>
<td>2</td>
</tr>
<tr>
<td>PARTS LIST</td>
<td>3</td>
</tr>
<tr>
<td>TEST PROGRAM</td>
<td>4-6</td>
</tr>
<tr>
<td>IDENTIFYING VERSION NUMBER</td>
<td>6</td>
</tr>
<tr>
<td>IC DATA</td>
<td>7</td>
</tr>
<tr>
<td>MAIN BOARD</td>
<td>8, 9</td>
</tr>
</tbody>
</table>

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**LOCATION OF CONTROLS**

- **Top Case**
  - (22045452)

- **Display Cover**
  - (22065232)
  - LCD Unit EA-D20225PX-1 (15029494)

- **LED Cover**
  - (22025792) × 15pcs
  - Q S-KEYTOP MX1H BLK (22485362) × 29pcs
  - Q S-KEYTOP LX1H BLK (22495363) × 8pcs

- **Knob & DIAL**
  - (22485106)
  - Rotary Encoder EC168405 (13279988)

- **Disk Drive Unit**
  - FZ354 (317F11R) (12409295)

- **Switch**
  - SKPDAA (13169711)

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**SPECIFICATIONS**

- **Disk Drive**
  - 3.5-inch 2DD Micro Floppy Disk

- **Memory Capacity**
  - 320,000 bytes

- **Display**
  - 2-line, 20 characters

- **MIDI**
  - IN, THRU, OUT1, OUT2

- **START/STOP**
  - OFF, ON

- **PUNCH IN/OUT**
  - OFF, ON

- **METRONOME OUTPUT**
  - VR max 0.8Vp-p, 1.2KQ

- **TAPE SYNC IN**
  - Level 20 mV, 0dBv (0.775Vrms)

- **Power Consumption**
  - 800mA/10/5V

- **Dimensions**
  - 280(W)×271(D)×47(H)mm

- **Weight**
  - 1.8kg/4lbs

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**Accessories**

- MF2-DD (Part No. 22463159)
- MIDI Cable X-2 (Part No. 23485228)
- AC-100U (Part No. 12469930)
- AC-120U (Part No. 12469940)
- AC-220U (Part No. 12469950)
- ASC-240E (Part No. 12449566)
- ASC-240C (Part No. 12449548)
- Owner's Manual Set
  - Japanese (Part No. 26055540)
  - English (Part No. 26055541)

**Options**

- Pedal Switch DP-2
CHASSIS REMOVAL SCREWS

1. A x 6 each
2. B x 5
3. C x 1
4. D x 2

(CAUTION: 1. 請勿移除螺絲。)

CIRCUIT DESCRIPTIONS

General
MC-50MKII is a ROM-system MIDI sequencer.
It has basically the same circuit configuration as MC-50.
Basic circuit descriptions not treated by this notes may be found on the MC-50 Service Notes.
MC-50MK II tests contain a test program to perform the following tests.

1. Identifying version number
2. RAM test
3. Metronome test
4. Switch test
5. LED test
6. LCD test
7. MIDI test
8. FSK test
9. Disk test

1. Startup for Test Program and Version Identification

Hold the [CANCEL] and [ ] button on, then switch the power on.

At first, The display will show the current ROM version number and version date. Then it will show the test program initial screen with the version of the test program at the left of low row and ROM version at the right side. Then the LCD moves to the next display screen, prompting for entering the first test item, RAM test.

The [ ] key cycles through all the tests, while the arrow keys [ ] allow selection of a specific test directly. Pressing [SHIFT] and [STOP] keys at the same time during any of the test returns the display to the first test entering prompt. When all the tests have been accepted, the display shows the completion of the tests, as shown below.

2. RAM Test

Pressing the [ ] key, when the prompt shown below is displayed, starts the RAM test. The LCD shows "Now RAM checking...".

When the test was successful, the display shows an OK and moves to the next test prompt screen. If the test failed, ERROR.

3. Metronome Test

Press the [ ] when the following display appears.

A high pitch metronome will sound. Press [ ].

The metronome sounds at the low pitch. Press [ ] and the display moves to the next test entry screen. (To alternate high and low pitch beeps, press a key other than [ ]). While metronome is sounding, 1) verify the volume change by turning METRONOME LEVEL on the rear panel, 2) plug a headphone into OUTPUT socket and make sure the headphone overrides internal speaker-monitor the sound through the headphone. Remove the headphone.

4. Switch Test

Press the [ ] when the following display appears.

Turn the encoder clockwise.

Display shows OK when the test succeeded, NG if failed. And moves to the next test prompt.

Turn the encoder counterclockwise.

Display shows OK when the test succeeded, NG if failed. And moves to the next test prompt.

Press arrow [ ] key.

Display shows OK when the test succeeded, NG if failed. And moves to the next test prompt.
以下、同様に PRESS の右側に示されるスイッチを押します。

Display shows OK when the test succeeded, NG if failed. And moves to the next test prompt.

5. LED Test
Press [ENTER] when the prompt as shown below appears.

Verify that all the LEDs (except DISK LED) are lighting (beat indicator LED lights in red), and then press ENTER. The display will move to the next test prompt screen.

6. LCD Test
Press [ENTER] when the display as shown below appears.

Verify all the dots on the LCD are off, and then press ENTER.

Verify all the dots are on, and then press ENTER.

Verify that the LCD looks like the figure, and then press ENTER. The display will show the next test item.

7. MIDI Test
Press [ENTER] when the display as shown below appears.

Link MIDI OUT1 and MIDI IN through the MIDI cable, and then press [ENTER].

Display shows OK when the test succeeded, NG if failed. And moves to the next test prompt.

Shift the one end of MIDI cable from MIDI OUT1 to MIDI OUT2, and then press [ENTER].

Display shows OK when the test succeeded, and then moves to the next test menu, or shows ERROR if failed and returns back to the previous error step.

正常なら OK, 音楽なラ NG と表示して次のスイッチのチェックに表示が変わります。
8. FSK Test
Press ENTER when the display as shown below appears.

Connect an oscilloscope to FSK OUT socket. Verify the pilot tone as shown below and then press ENTER.

Verify that the FSK signal as shown below is coming from FSK OUT, and then press ENTER.

Connect FSK IN to the FSK OUT of another MC-50. Play the song data, recorded with SUPER-MRC system, of another MC-50 on the internal clock.

Display shows RECEIVED when the test succeeded, and moves to the next test item screen. Display will show nothing if the test failed. Press [STOP] and the display shows ABORT and then returns back to either the first FSK test entry display or previous test step display where an error occurred.

9. DISK Test
Press [ENTER] when the display as shown below appears.

Insert a write-protected disk and press ENTER.

Load a working disk (blank disk) into the disk drive and press ENTER.

The display shows OK, and then the ending sign when the test succeeded, or shows an error message and then returns back to the ENTER DISK screen. This working disk is useful for the next time when the test succeeded, but it is useless if the test failed.

.ERROR MESSAGE DESCRIPTION
IC10 TRACK 00 pin is locked at high level.

No disk is inserted, or the READY pin of the disk drive is locked at high level.

No disk is inserted, or the READY pin of the disk drive is locked at high level.

Inserted disk is write protected, or IC10 WPRT pin is locked at high level.

The disk is destroyed or cannot be formatted.

IC10 DRQ output is not fed to MPU.

Although the hardware does not detect any fault, read/write data are destroyed.

Write track failed.

IDENITFING VERSION NUMBER/バージョンナンバーの確認
Hold [CANCEL] and [0] button on, then switch the power on. The display will show the current ROM version number and version date. Turn the power off once and on again to return to the play mode.
REPLACEMENT 総合用

MAIN BOARD (pcb 2293542900 1/3)

NOTE: Replacement Main Board includes the following 2 PCBs.

PANEL BOARD (pcb 2293542900 2/3)
ENCODER BOARD (pcb 2293542900 3/3)

Main Board
(pcb 2293542900 1/3)

Encoder Board
(pcb 2293542900 3/3)

Panel Board
(pcb 2293542900 2/3)

View from component side