

SHARP SERVICE MANUAL

No. 00ZFO1MKCUSME

FACSIMILE OPTION MEMORY UPGRADE PWB

MODEL FO-1MK

CONTENTS

[1] General description	1
[2] Installation procedure	1
[3] Diagnostic mode	1
[4] Circuit schematics and parts layout	3
[5] Parts guide	

Parts marked with "⚠" is important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

[1] General description

This machine is an option memory unit applicable to the machines FO-4700 (100 or 200V series). It enhances the memory-aided functions such as sequential simultaneous sending and through-memory substitute reception of facsimile.

[2] Installation procedure (pay attention to static electricity)

To install the option memory unit, check the following in advance.

- 1) Make sure that the remaining memory capacity is 0%.
If the remaining memory capacity is not 0%, this implies that any data remains in the image memory on the control PWB.
- 2) Check that a sufficient quantity of paper exists. If there is no paper or paper is lacking, replenish the machine with paper, and print the data received and stored in the memory.
- 3) Then, check whether there is any confidentially received information, seeing the confidential reception data list ("FUNK" + "2" + "1" + "0"). If any confidentially received information is found, input the ID No. of specific reception box, and print the confidentially received information.
- 4) After that, check whether there is timer sending information, seeing the timer sending information list ("FUNK" + "2" + "0" + "2"). It is required to teach users that any timer sending information, if exists, is cleared after the option memory unit is installed and, accordingly, users have to set again the timer sending and do the timer sending.

Install the option memory unit in the following procedure.

- 1) Remove the ROM cover of facsimile.
- 2) Insert two spacers to control PWB, and then connect it to the connector CNOP of control PWB.
(Fig. 1)
- 3) Mount the control PWB to which the option memory has been connected in the machine.
(Tighten the screws, and connect the connector without fail.)
- 4) Mount the ROM cover.
- 5) After installation turn on the power switch.

```
P L E A S E   W A I T   A   M O M E N T
```

appears.

Then, after several seconds,

```
J U N - 1 0   M O N   1 0 : 0 0 A M
M : 0 0 %    S T A N D - B Y   A U T O
```

appears.

[3] Diagnostic mode

Successively input "FUNK" + "9" + "x" + "8" + "#" + "7". Then,

```
R O M : F A A 0 *
```

(* is ROM version.)

appears.

After that, press the "START" key.

Then,

```
0 1 : S O F T   S W I T C H   M O D E
P R E S S   S T A R T   K E Y
```

appears.

Select MEMORY CLEAR, using the one-touch key "11".

```
1 1 : M E M O R Y   C L E A R
P R E S S   S T A R T   K E Y
```

After completion of MEMORY CLEAR, the following indication appears.

```
1 2 : F L A S H   M E M O R Y
P R E S S   S T A R T   K E Y
```

Select ROM/RAM test, using the one-touch key "03".

```
0 3 : R O M   &   R A M   C H E C K
P R E S S   S T A R T   K E Y
```

(This model is provided not only with flash memory for image but also SRAM to enhance the function to store the number of transmissions and receptions.)

When the "START" key is pressed again, the memory of machine (control PWB) and memory of memory unit (excepting the flash memory) are checked.

An example of indication

```
R O M   C P U   S R A M   D R M
P       P       P       P
```

(Upon occurrence of error "E" appears.)

After that, the indication shown below appears, and the result table (Fig. 2) is printed.

After completion of ROM/RAM test the following indication appears.

```
0 4 : A U T O   F E E D E R   M O D E
P R E S S   S T A R T   K E Y
```

Then, select the flash memory test, using the one-touch key "12".

```
1 2 : F L A S H   M E M O R Y
P R E S S   S T A R T   K E Y
```

In the diagnostic mode perform the image memory (standard, option) write/read test, as well as complete erase test.

When the "START" key is pressed,

```
S - - E
T E S T   E X E C U T I N G
```

appears, and the indication changes from "-" to "■" whenever data is written in the flash memory.

After completion of writing of data in all flash memories, the following indication appears.

```
S ■ ■ E
T E S T   E X E C U T I N G
```

After that the long-tone buzzer (normal end) sounds, and at the same time the following indication appears.

```
1 3 : A L L   F A X / T E L   E N T R Y
P R E S S   S T A R T   K E Y
```

Then, the result table (Fig. 3) is printed.
 In case of mismatch, the buzzer emits 9 short tones .
 After that, the result table (Fig. 4) is output.

- 1) If any error occurred, check connection of connector CNOP (check for bending and breakage of pin of connector), check that the option memory unit has been mounted as specified, and then turn on again the power supply, and check.
- 2) If the same error occurs persistently after the measures stated in item 1 above were taken, replace the option memory unit, and check.
- 3) If the same error occurs again after the measures stated in item 2) were taken, check the control PWB.

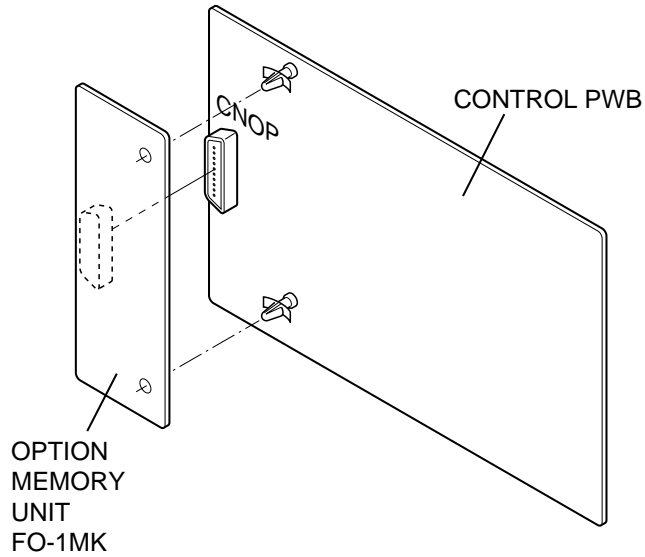


Fig. 1

```

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
X                                     ROM/RAM CHECK LIST                       X
X                                     AUG-04-1999 WED 11:19 AM                    X
X-----X-----X-----X-----X-----X-----X-----X-----X-----X
X  M A I N :   R O M   = OK      V E R.=FAA0X      S U M =5AA1                    X
X              C P U   = OK      V E R.=FAB0A      S U M =1C86                    X
X              S R A M = OK                                           X
X              D R A M = OK                                           X
X-----X-----X-----X-----X-----X-----X-----X-----X
X  P C U :           M / C = 0 0      F / W = 4 1 2 2 5 0 F 0 0 1 J 0            X
X-----X-----X-----X-----X-----X-----X-----X-----X
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
    
```

Fig. 2

```

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
X                                     FLASH MEMORY CHECK REPORT                 X
X                                     AUG-04-1999 WED 07:00 PM                    X
X-----X-----X-----X-----X-----X-----X-----X-----X-----X
X              S I Z E = 2MB (With Option Flash memory)                    X
X              FLASH MEMORY   = OK (28S)                                    X
X              BANK CHANGEOVER = OK                                        X
X              B A N K   = OK                                           X
X-----X-----X-----X-----X-----X-----X-----X-----X
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
    
```

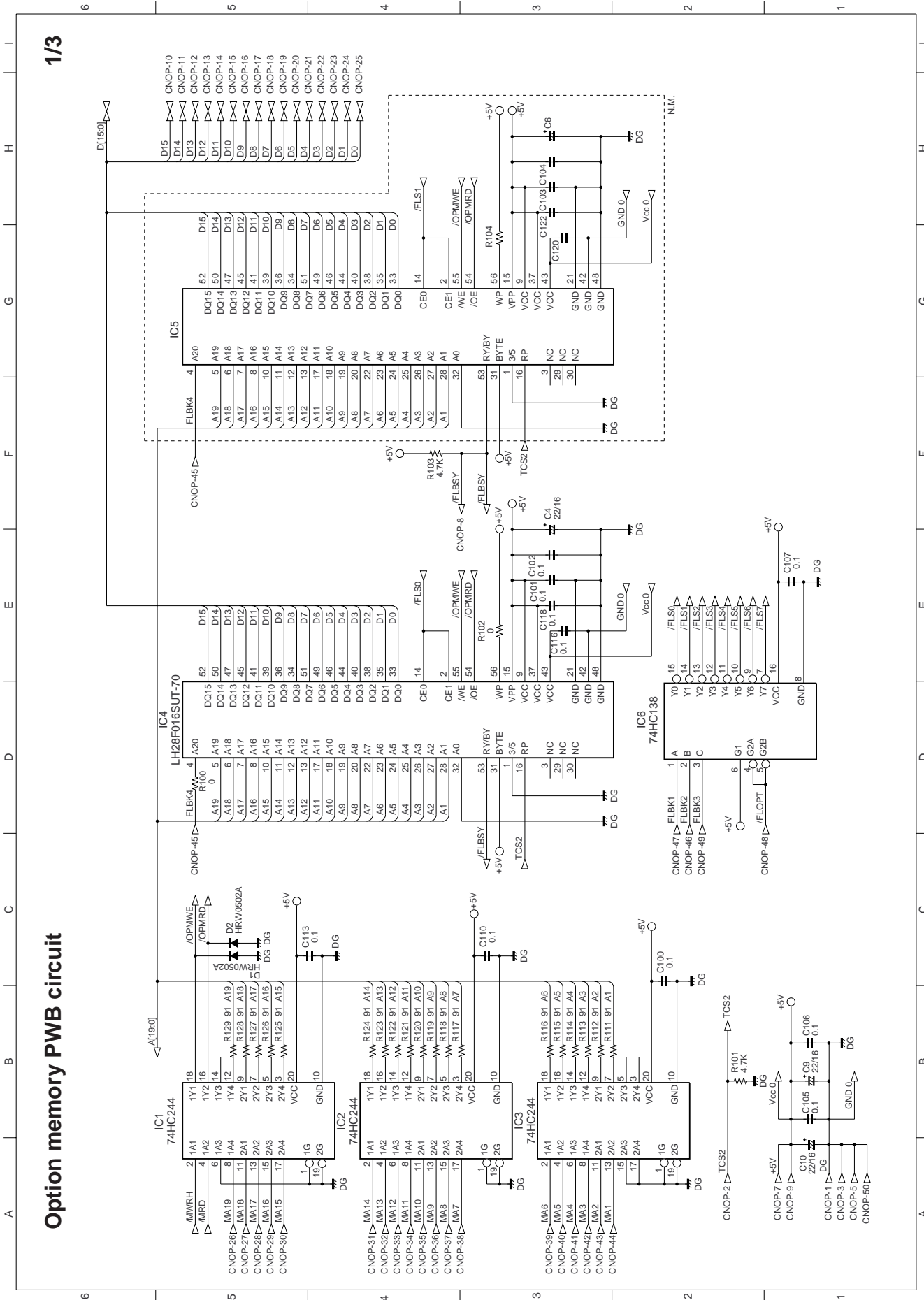
Fig. 3

```

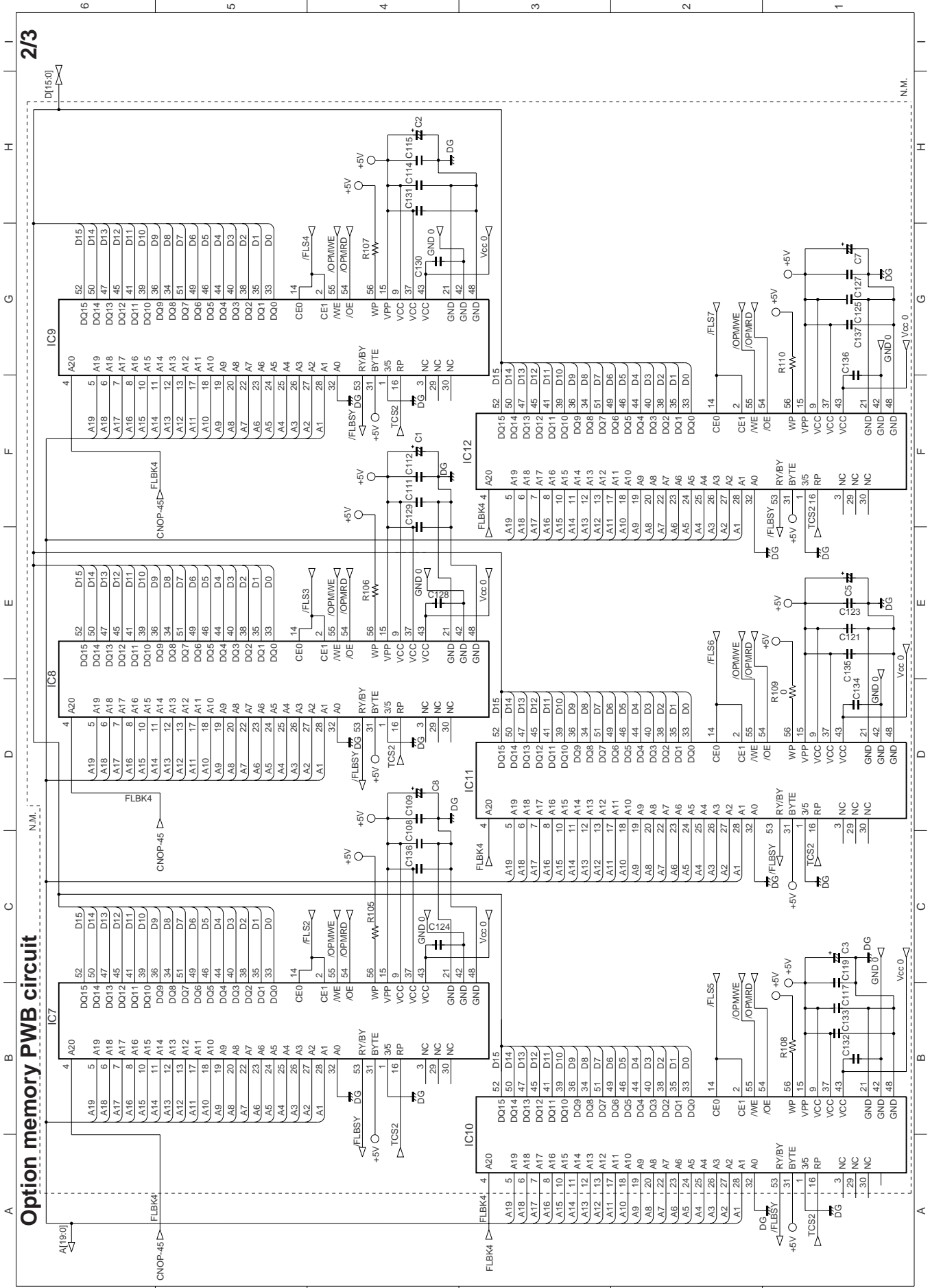
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
X                                     FLASH MEMORY CHECK REPORT                 X
X                                     AUG-04-1999 WED 07:00 PM                    X
X-----X-----X-----X-----X-----X-----X-----X-----X-----X
X              S I Z E = 2MB (With Option Flash memory)                    X
X              FLASH MEMORY   = NG (28S)                                    X
X              BANK CHANGEOVER = NG                                        X
X              B A N K   = NG                                           X
X-----X-----X-----X-----X-----X-----X-----X-----X
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
    
```

Fig. 4

[4] Circuit schematics and parts layout



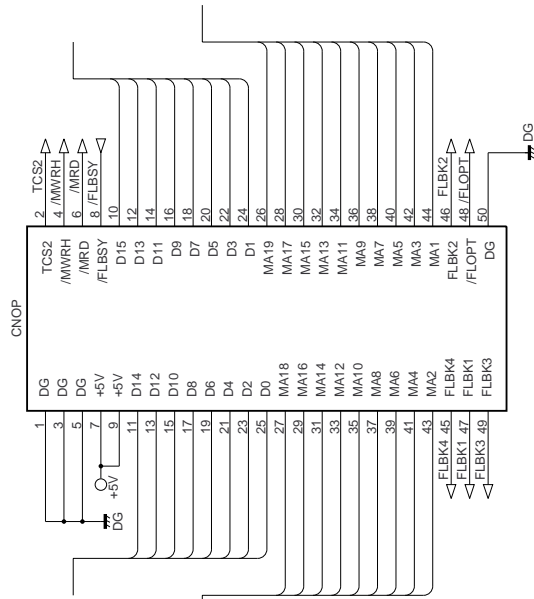
Option memory PWB circuit



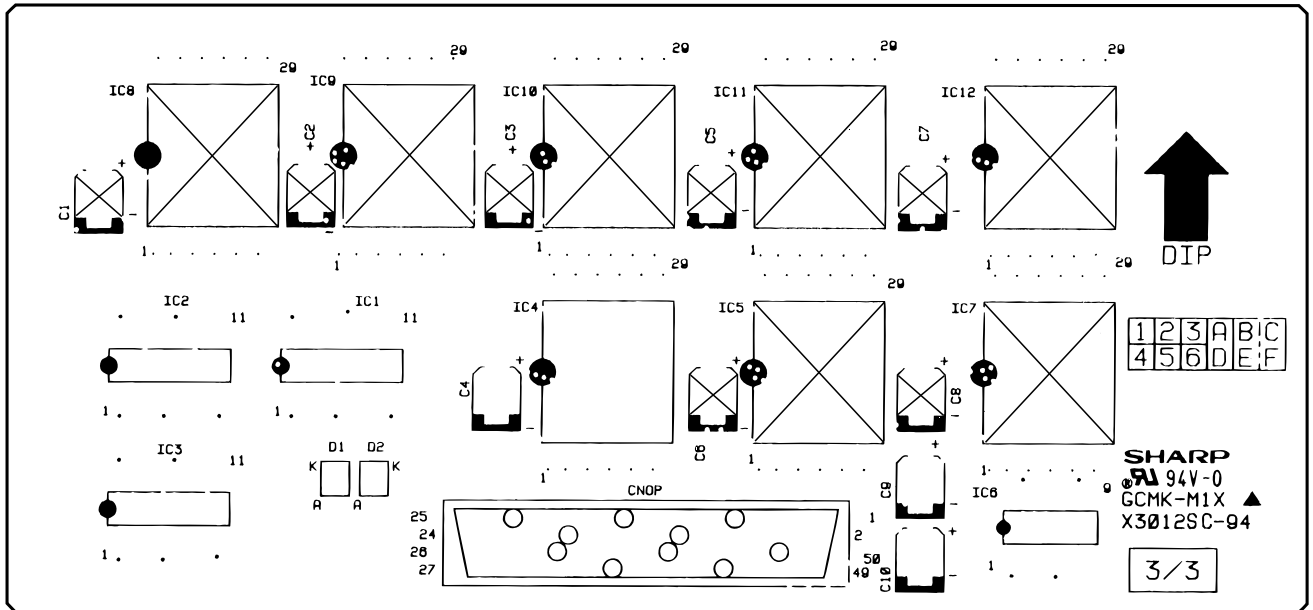
Option memory PWB circuit

Option memory PWB circuit

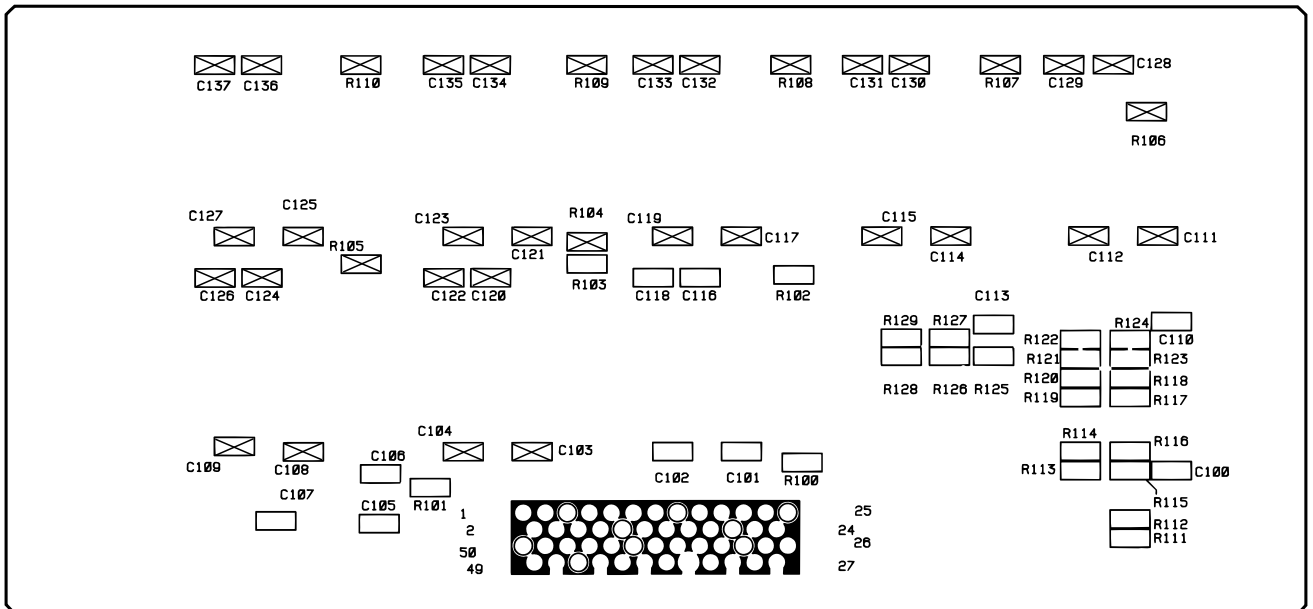
3/3



Option memory PWB parts layout (Top side)



Option memory PWB parts layout (Bottom side)



[5] Parts guide

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
[1] Packing parts					
1	SPAKA110BXHZZ	AB	N	D	Vinyl bag
2	DCEKM473BXH01	BR	N	E	Option memory PWB unit
3	SSAKA0006UCZZ	AA		D	Vinyl bag
4	LSTY-0057AFZZ	AC	N	C	Spacer
5	SPAKC113BXHZZ	AD	N	D	Packing case
6	PSHEM3490XHZZ	AC	N	D	Aluminum fold
[2] Option memory PWB unit					
1	VCEAPS226AF1C	AC		C	Capacitor(16WV 22μF) [C4]
2	VCEAPS226AF1C	AC		C	Capacitor(16WV 22μF) [C9]
3	VCEAPS226AF1C	AC		C	Capacitor(16WV 22μF) [C10]
4	VCKYTV1EF104Z	AA		C	Capacitor(25WV 0.1μF) [C100]
5	VCKYTV1EF104Z	AA		C	Capacitor(25WV 0.1μF) [C101]
6	VCKYTV1EF104Z	AA		C	Capacitor(25WV 0.1μF) [C102]
7	VCKYTV1EF104Z	AA		C	Capacitor(25WV 0.1μF) [C105]
8	VCKYTV1EF104Z	AA		C	Capacitor(25WV 0.1μF) [C106]
9	VCKYTV1EF104Z	AA		C	Capacitor(25WV 0.1μF) [C107]
10	VCKYTV1EF104Z	AA		C	Capacitor(25WV 0.1μF) [C110]
11	VCKYTV1EF104Z	AA		C	Capacitor(25WV 0.1μF) [C113]
12	VCKYTV1EF104Z	AA		C	Capacitor(25WV 0.1μF) [C116]
13	VCKYTV1EF104Z	AA		C	Capacitor(25WV 0.1μF) [C118]
14	QCNCW2590SC5J	AM	N	C	Connector(DHB-RD50-S131N-2.9) [CNOP]
15	VHDHRW0502A-1	AD		B	Diode(HRW0502A) [D1]
16	VHDHRW0502A-1	AD		B	Diode(HRW0502A) [D2]
17	VHIHD74HC244F	AE	N	B	IC(HD74HC244) [IC1]
18	VHIHD74HC244F	AE	N	B	IC(HD74HC244) [IC2]
19	VHIHD74HC244F	AE	N	B	IC(HD74HC244) [IC3]
20	VHILH28F016SU	BR		B	IC(LH28F016SUT) [IC4]
21	VHIHD74HC138F	AE	N	B	IC(HD74HC138) [IC6]
22	VRS-TV2AD000J	AA		C	Resistor(1/10W 0Ω ±5%) [R100]
23	VRS-TV2AD472J	AA		C	Resistor(1/10W 4.7KΩ ±5%) [R101]
24	VRS-TV2AD000J	AA		C	Resistor(1/10W 0Ω ±5%) [R102]
25	VRS-TV2AD472J	AA		C	Resistor(1/10W 4.7KΩ ±5%) [R103]
26	VRS-TS2AD910J	AA		C	Resistor(1/10W 91Ω ±5%) [R111]
27	VRS-TS2AD910J	AA		C	Resistor(1/10W 91Ω ±5%) [R112]
28	VRS-TS2AD910J	AA		C	Resistor(1/10W 91Ω ±5%) [R113]
29	VRS-TS2AD910J	AA		C	Resistor(1/10W 91Ω ±5%) [R114]
30	VRS-TS2AD910J	AA		C	Resistor(1/10W 91Ω ±5%) [R115]
31	VRS-TS2AD910J	AA		C	Resistor(1/10W 91Ω ±5%) [R116]
32	VRS-TS2AD910J	AA		C	Resistor(1/10W 91Ω ±5%) [R117]
33	VRS-TS2AD910J	AA		C	Resistor(1/10W 91Ω ±5%) [R118]
34	VRS-TS2AD910J	AA		C	Resistor(1/10W 91Ω ±5%) [R119]
35	VRS-TS2AD910J	AA		C	Resistor(1/10W 91Ω ±5%) [R120]
36	VRS-TS2AD910J	AA		C	Resistor(1/10W 91Ω ±5%) [R121]
37	VRS-TS2AD910J	AA		C	Resistor(1/10W 91Ω ±5%) [R122]
38	VRS-TS2AD910J	AA		C	Resistor(1/10W 91Ω ±5%) [R123]
39	VRS-TS2AD910J	AA		C	Resistor(1/10W 91Ω ±5%) [R124]
40	VRS-TS2AD910J	AA		C	Resistor(1/10W 91Ω ±5%) [R125]
41	VRS-TS2AD910J	AA		C	Resistor(1/10W 91Ω ±5%) [R126]
42	VRS-TS2AD910J	AA		C	Resistor(1/10W 91Ω ±5%) [R127]
43	VRS-TS2AD910J	AA		C	Resistor(1/10W 91Ω ±5%) [R128]
44	VRS-TS2AD910J	AA		C	Resistor(1/10W 91Ω ±5%) [R129]
	(Unit)				
901	DCEKM473BXH01	BR	N	E	Option memory PWB unit

SHARP

COPYRIGHT © 1999 BY SHARP CORPORATION

ALL RIGHTS RESERVED.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without prior written permission of the publisher.

SHARP CORPORATION
 Communication Systems Group
 Quality & Reliability Control Center
 Higashihiroshima, Hiroshima 739-0192, Japan
 Printed in JAPAN
 9908-1834SS•IS•T