

**ML182/ML183  
TROUBLESHOOTING MANUAL  
With  
COMPONENT PARTS LIST**

**ML182/183  
TROUBLESHOOTING MANUAL  
With  
COMPONENT PARTS LIST**

**ODA Part No. 58027101**

**MICROLINE 182/183  
TROUBLESHOOTING MANUAL  
With  
COMPONENT PARTS LIST  
SUPPLEMENT PACKAGE #58039601**

NOTE: This supplement upgrades MICROLINE 182/183 TROUBLESHOOTING MANUAL with COMPONENT PARTS LIST ODA Part No. 58027101 to the level of ODA Part No. 58027102.

Add the enclosed pages after the manual pages indicated. (Example: page 2-4-55 to 2-4-00 go after page 2-4-54) Replace the table of contents with new table of contents, and add the change record page enclosed in this package after existing change record page.

When this Supplement is added, the Troubleshooting Manual with Component Parts List contains complete information on all existing versions of this product. When ordering new Troubleshooting Manuals with Component Parts List, ask for ODA Part No. 58027102.

**SUPPLEMENT FOR  
MICROLINE 182/183  
TROUBLESHOOTING MANUAL  
With  
COMPONENT PARTS LIST**

ODA Part No.

**58039601**



# **PREFACE**

This manual describes the component level troubleshooting and repair process for the ML182 and ML183.

## RECORDS OF CHANGES

Part No.	Page affected	Description of changes
ODA Part No. 5827101	25 to 47	Troubleshooting flowchart (applicable to SLMR circuit board) is added. (Addition)
	2-4-0 2-7-0 2-8-0 (Addition)	Table for ROM identification by G No. is added. (Addition)
	2-4-55 to 2-4-75 (Addition)	Component parts list (Rev. 14, 15, 16) of SLMC-2 circuit board is added. (Addition)
	2-7-13 to 2-7-30 (Addition)	Component parts list (Rev. 14, 15, 16) of SLMC-5 circuit board is added. (Addition)
	2-8-19 to 2-8-42 (Addition)	Component parts list (Rev. 14, 15, 16) of SLMC-6 circuit board is added. (Addition)
	2-10-1 to 2-10-9 (Addition)	Component parts list (Rev. 2, 3, 4) of SLMR-2 circuit board is added. (Addition)
	2-11-1 to 2-11-9 (Addition)	Component parts list (Rev. 2, 3, 4) of SLMR-5 circuit board is added. (Addition)
	2-12-1 to 2-12-9 (Addition)	Component parts list (Rev. 2, 3, 4) of SLMR-6 circuit board is added. (Addition)
	2-13-1 to 2-13-8 (Addition)	Component parts list (Rev. 15, 16) of SLMC-15 circuit board is added. (Addition)
	2-14-1 to 2-14-9 (Addition)	Component parts list (Rev. 2, 3, 4) of SLMR-15 circuit board is added. (Addition)
	CONTENTS (Replacement)	Revision of the issue No.

# CONTENTS

	Page
<b>CHAPTER 1 TROUBLESHOOTING</b>	
1.1 General .....	1
1.2 Remarks .....	1
1.3 Tools .....	1
1.4 Troubleshooting Procedure .....	2
1.5 General Flowchart .....	3
1.6 Troubleshooting Flowchart .....	6
 <b>CHAPTER 1-A TROUBLESHOOTING</b>	
1.1. General .....	25
1.2. Remarks .....	25
1.3. Tools .....	25
1.4. Troubleshooting Procedure .....	26
1.5. General Flowchart .....	27
1.6. Troubleshooting Flowchart .....	30
 <b>APPENDIX</b>	
A-1 How to Read Circuit Diagrams .....	A-1
A-2 Pin Assignment .....	A-2
A-3 Resistance of coil for LF, SP motors, and print heads .....	A-2
A-4 Layout of major component parts .....	A-3
 <b>CHAPTER 2 COMPONENT PARTS LIST</b>	
Figure 1 Printer Unit .....	2-1-1
Figure 2 Printer Mechanism .....	2-2-1
Figure 3 Pin Tractor Assembly .....	2-3-1
Figure 4 SLMC-2 Printed-Circuit Board .....	2-4-1
Figure 5 SLSQ Printed-Circuit Board .....	2-5-1
Figure 6 SLPB-2/-3/-4 Printed-Circuit Board .....	2-6-1
Figure 7 SLMC-5Printed-Circuit Board .....	2-7-1
Figure 8 SLMC-6Printed-Circuit Board .....	2-8-1
Figure 9 CMDR Printed-Circuit Board .....	2-9-1
Figure 10 SLMR-2 Printed-Circuit Board .....	2-10-1
Figure 11 SLMR-5 Printed-Circuit Board .....	2-11-1
Figure 12 SLMR-6 Printed-Circuit Board .....	2-12-1
Figure 13 SLMC-15 Printed-Circuit Board .....	2-13-1
Figure 14 SLMR-15 Printed-Circuit Board .....	2-14-1

# CONTENTS

	Page
<b>CHAPTER 1 TROUBLESHOOTING</b>	
1.1 General .....	1
1.2 Remarks .....	1
1.3 Tools .....	1
1.4 Troubleshooting Procedure .....	2
1.5 General Flowchart .....	3
1.6 Troubleshooting Flowchart .....	6
<b>APPENDIX</b>	
A-1 How to Read Circuit Diagrams .....	A-1
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A-3 Resistance of coil for LF, SP motors, and print heads .....	A-2
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Figure 3 Pin Tractor Assembly .....	2-3-1
Figure 4 SLMC-2 Printed-Circuit Board .....	2-4-1
Figure 5 SLSQ Printed-Circuit Board .....	2-5-1
Figure 6 SLPB-2/-3/-4 Printed-Circuit Board .....	2-6-1
Figure 7 SLMC-5 Printed-Circuit board .....	2-7-1
Figure 8 SLMC-6 Printed-Circuit board .....	2-8-1
Figure 9 CMDR Printed-Circuit board .....	2-9-1

# Chapter 1 TROUBLESHOOTING

## 1.1 General

This troubleshooting manual is designed to locate and repair troubles on a component basis for the SLMC printed-circuit boards and other printer components.

## 1.2 Remarks

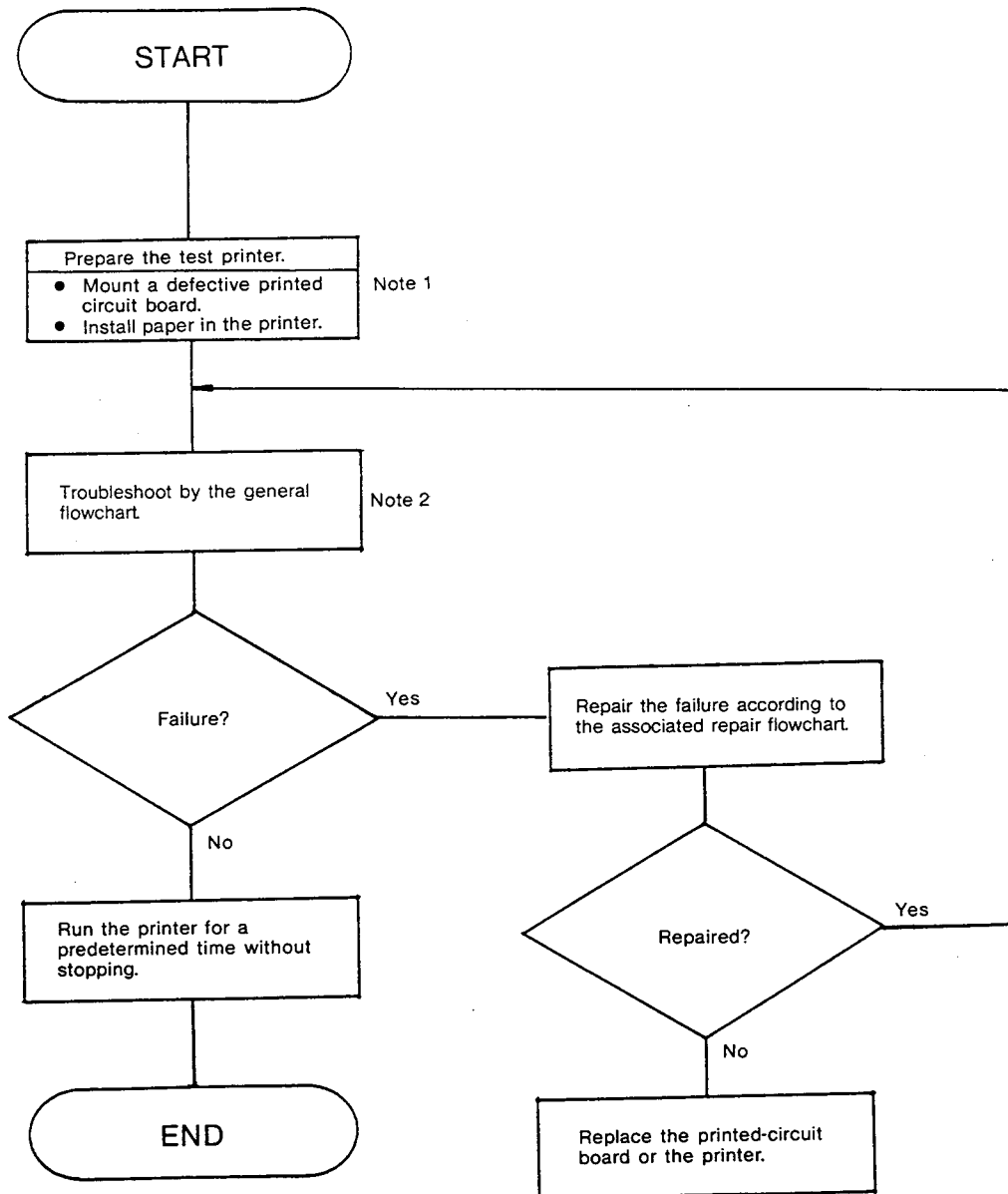
- This manual requires basic knowledge of electronic circuits.
- Use chip-dedicated soldering irons (such as Ungar soldering irons) since the printed-circuit boards of the ML182/183 has many heat-destructible components (chips, packages, etc.). (Soldering irons for flat packages are widely available.)
- Be careful not to break any wiring etched trace patterns on the printed-circuit boards while replacing components.

## 1.3 Tools

In addition to the tools listed in the printer's Maintenance manual, the following tools are required for repair of components on the printed-circuit boards:

- Extension cord (OKI Part No. 3YU5003-5010G1 or equivalent)
  - Oscilloscope
  - Soldering iron (with fine tip)
  - Solder pickup wire
- } commercially available

## 1.4 Troubleshooting Procedure

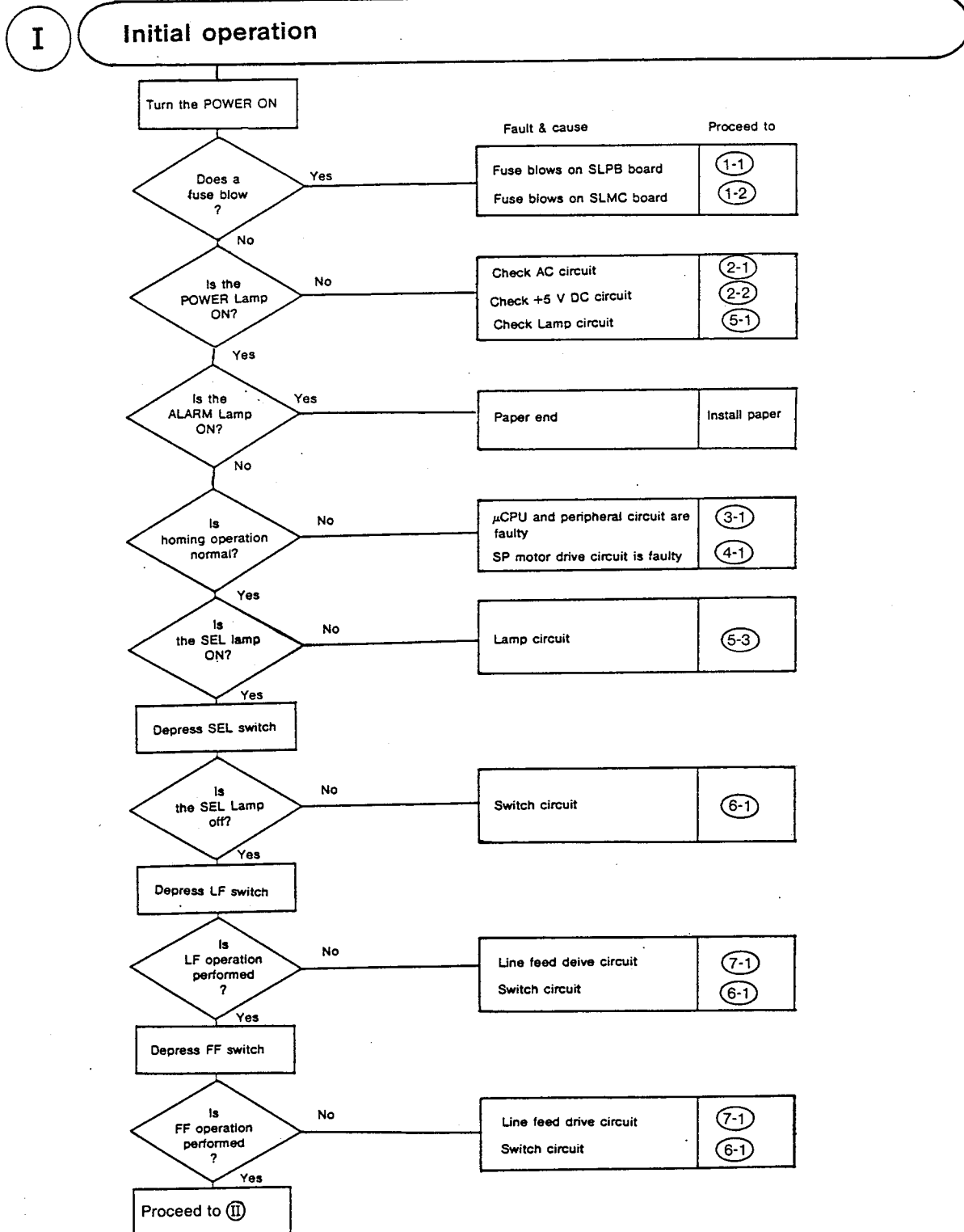


**Note 1:** Visually check the defective printed-circuit board before mounting it on the printer.

**Note 2:** If the printer or the printed-circuit board is returned along with an error report, first checking can be made on the reported failure.



# 1.5 General Flowchart

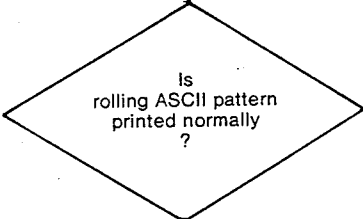


# General Flowchart

II

## Local test printing

Turn the Power switch on while LF switch is depressed



Proceed to **III**

	Fault & cause	Proceed to
Neither spacing nor printing operation occurs.	Switch circuit paper end	<b>6-1</b> Install paper
The spacing operation is normal, but the printing operation is not performed.	Printhead drive circuit	<b>8-1</b>
Some dots are not printed.	Printhead drive circuit	<b>8-2</b>
Print is not dark enough.	Printhead drive Ribbon	<b>8-3</b>

**III**

**Data receiving**

Power OFF connect interface cable. Turn Power on.

Is received data printed normally?

Yes

**END**

No

Is the serial interface board mounted?

Yes

Fault & Cause	Proceed to
Refer to the printer maintenance manual for serial interface board	

No

Does not print at all.

Interface circuit	⑨-1
-------------------	-----

Wrong characters are printed or some characters are not printed.

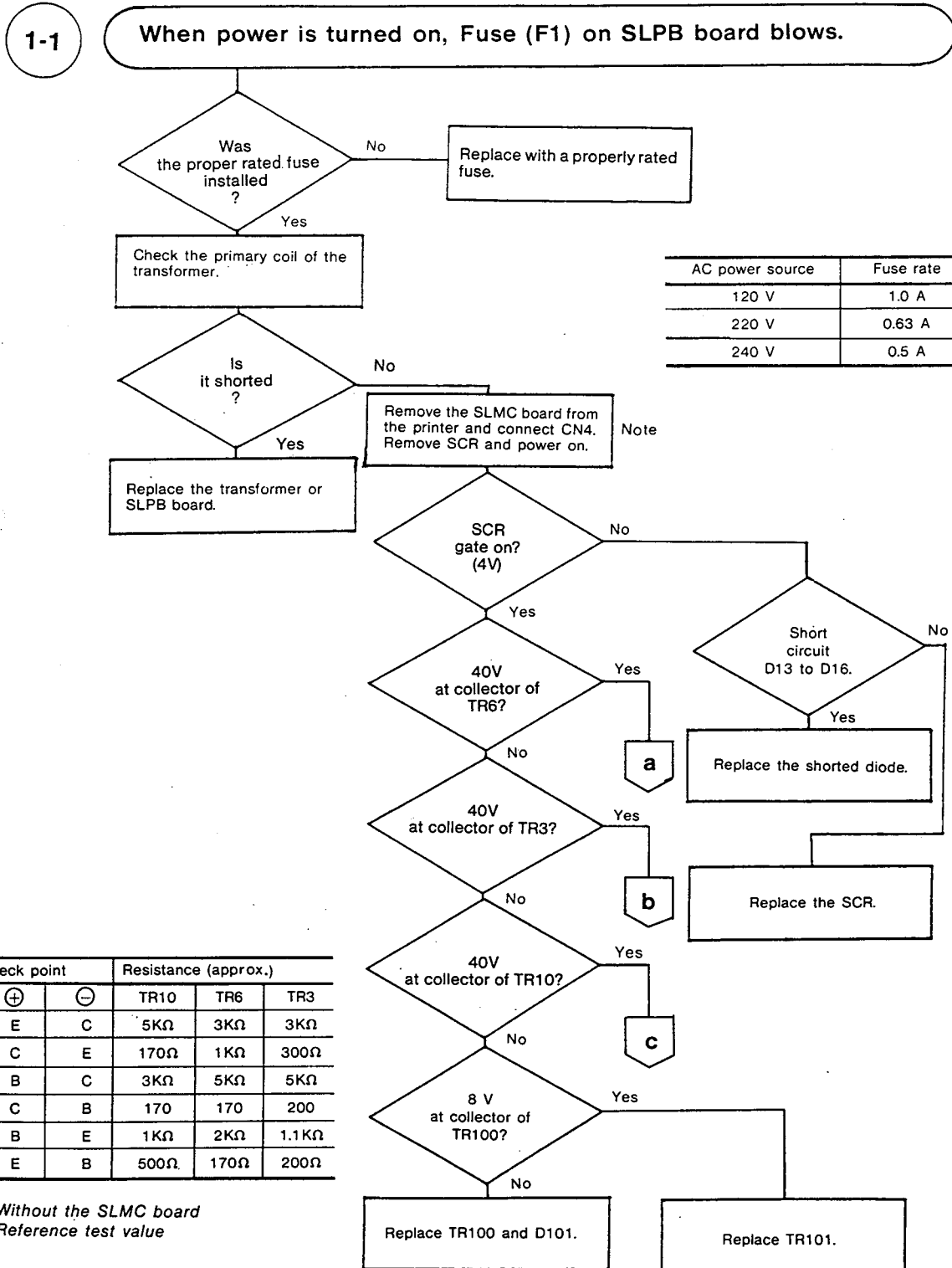
Interface circuit	⑨-2
-------------------	-----

The printing operation stops.

Interface circuit SP MOTOR spacing ALARM Head temperature ALARM	⑨-3
--	-----

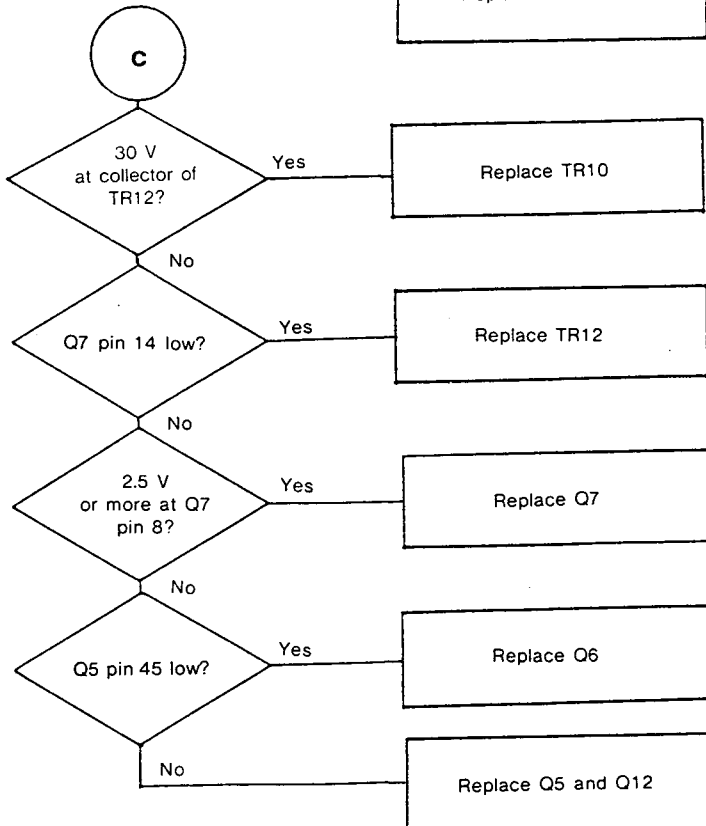
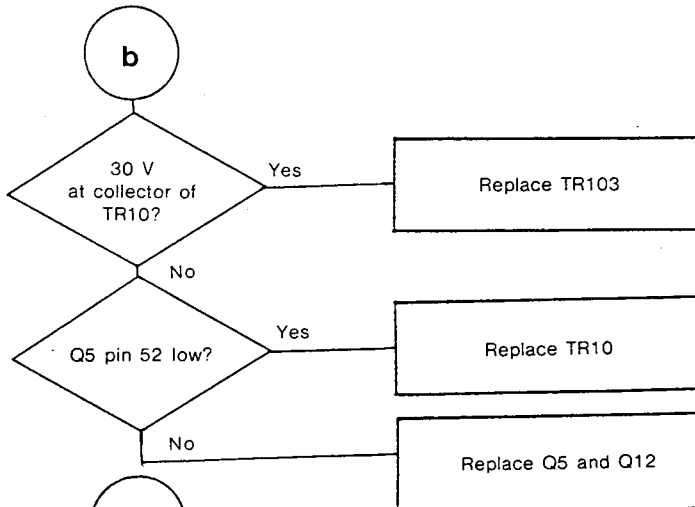
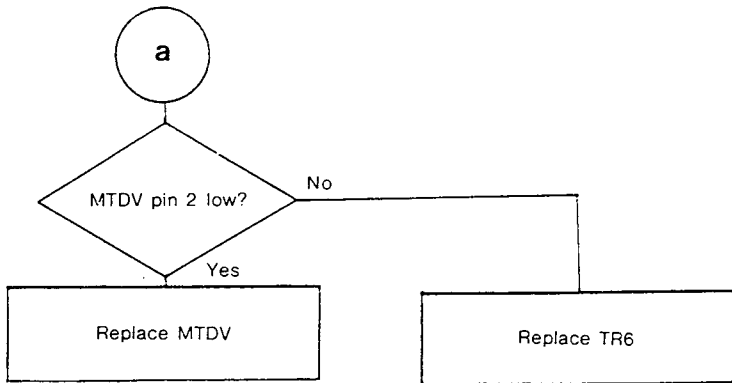
## 1.6 Troubleshooting Flowchart

### 1. Fuse blow



Note: This step is required since parts are overloaded if power is repeatedly supplied with the defective driver parts.

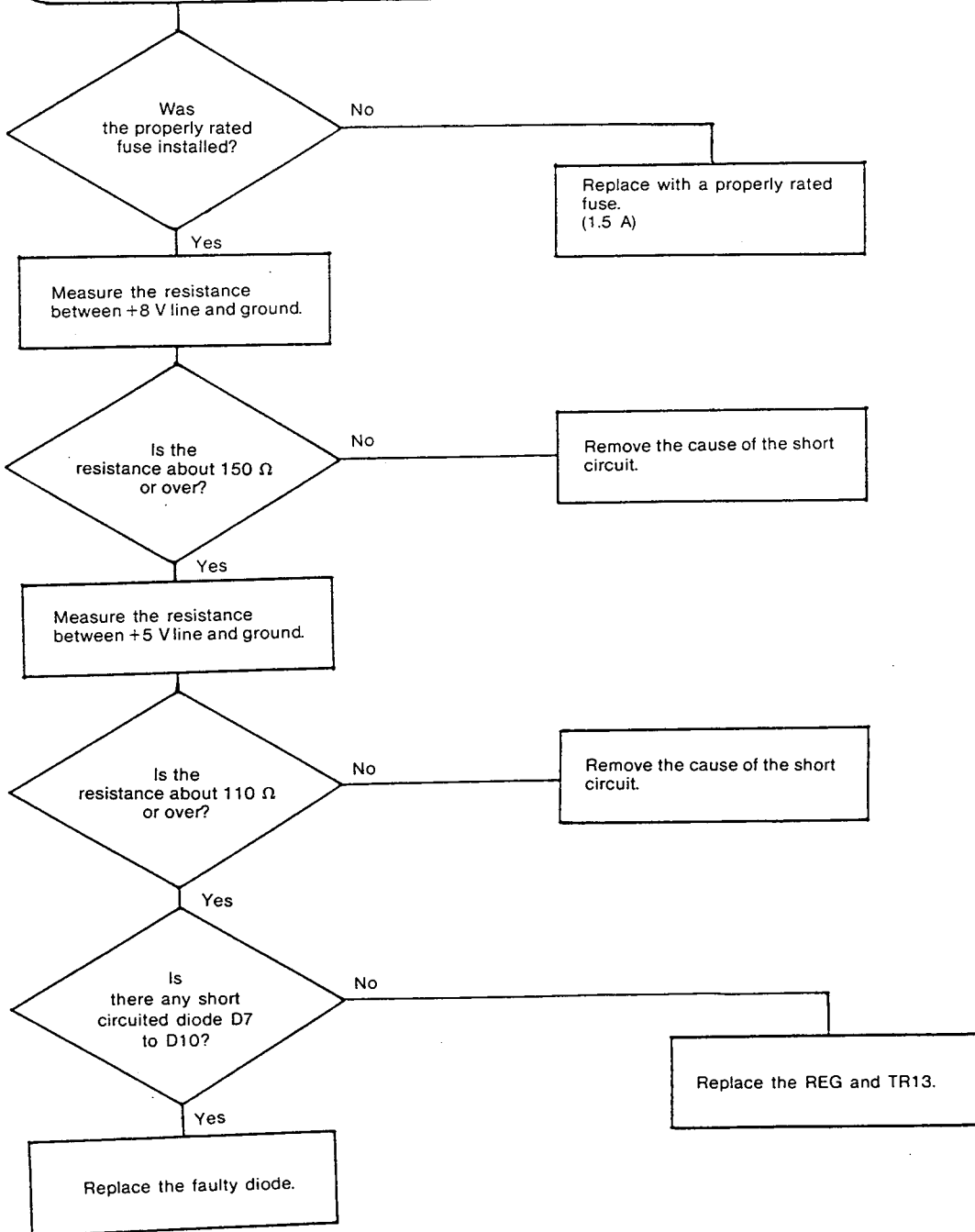
# 1. Fuse blow



# 1. Fuse blow

1-2

When power is turned on, Fuse (F1) on the SLMC board blows.

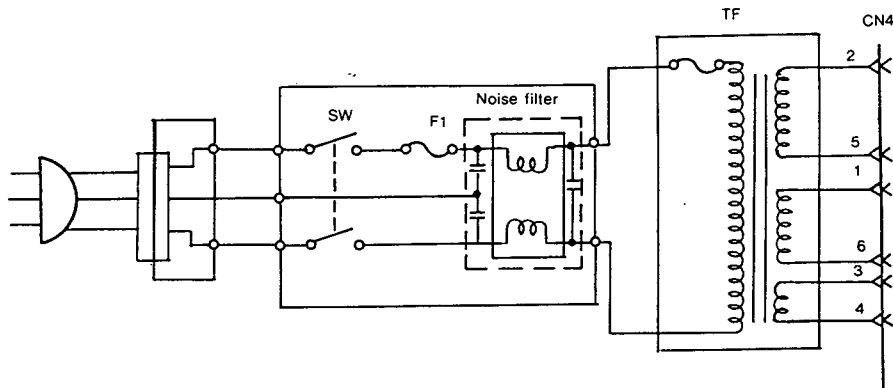
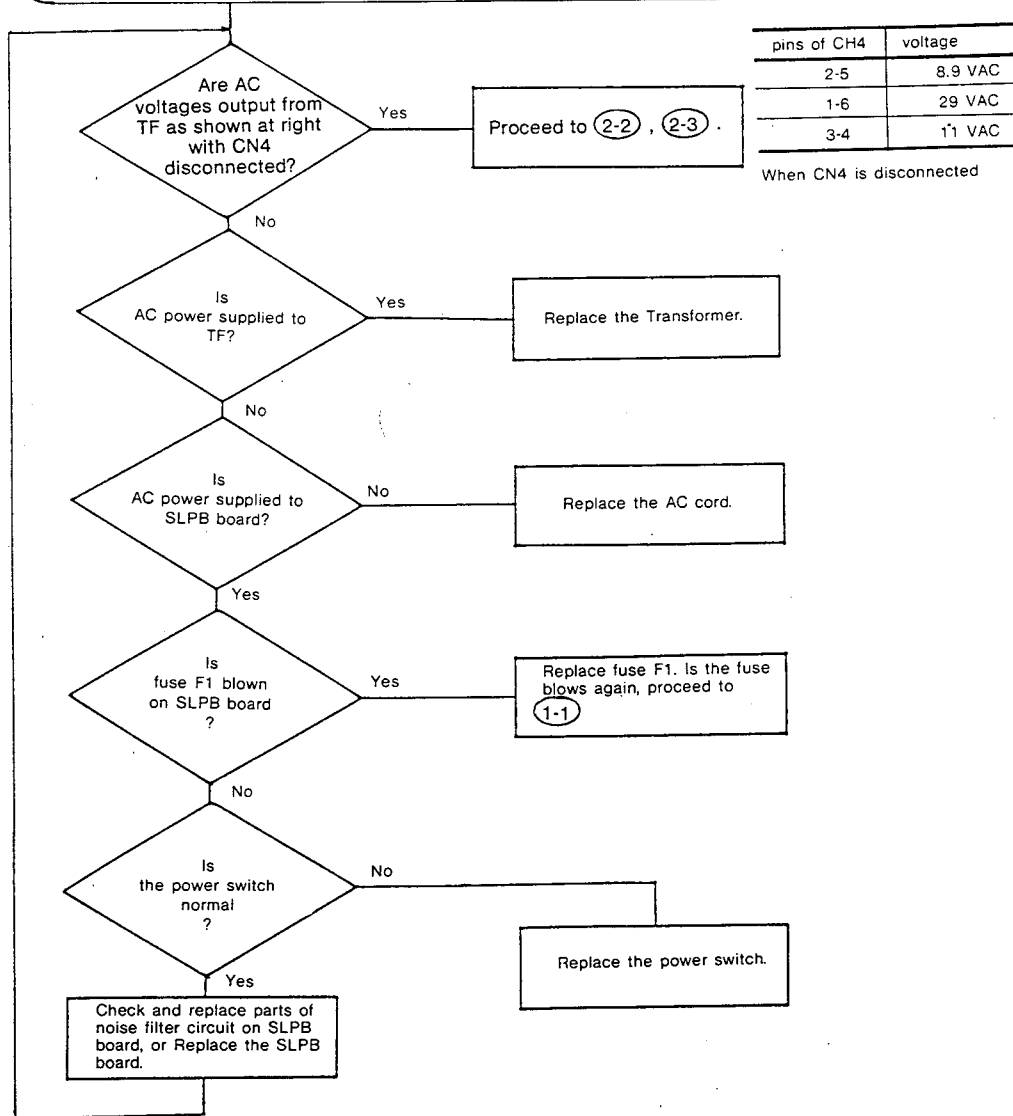


## 2. Power supply circuit

### 2. Power supply circuit

2-1

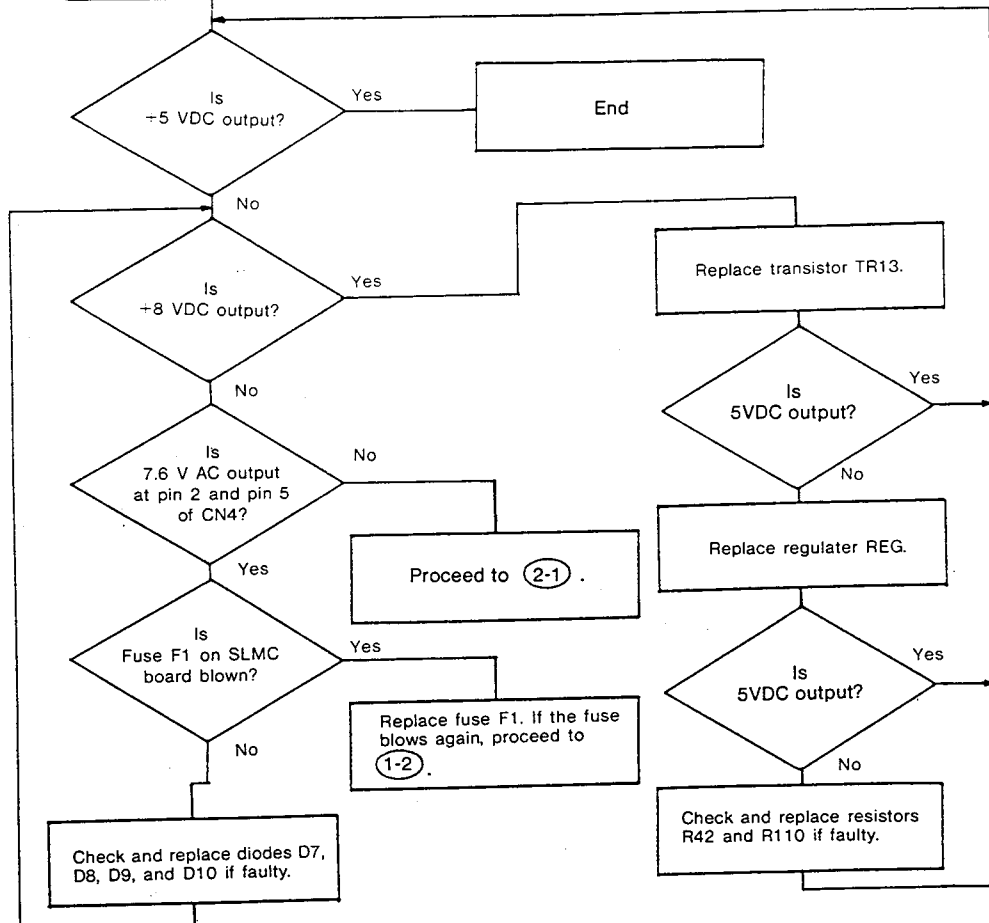
#### AC circuit and transformer



## 2. Power supply circuit

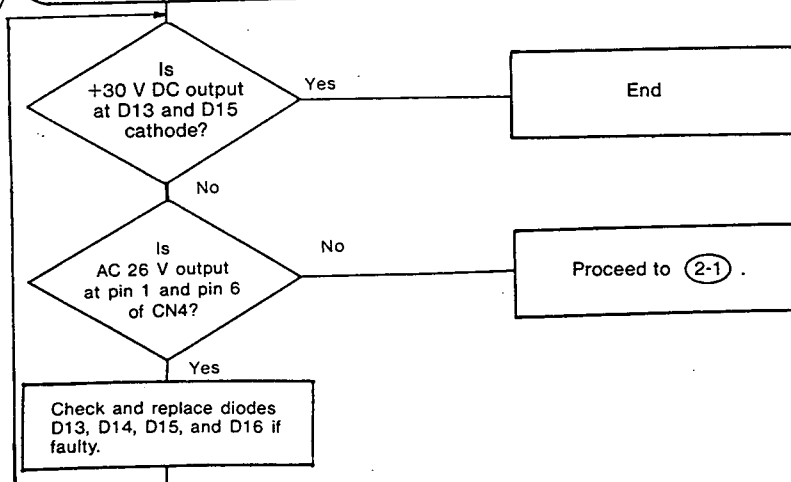
2-2

### DC +5 V. +8 V circuit



2-3

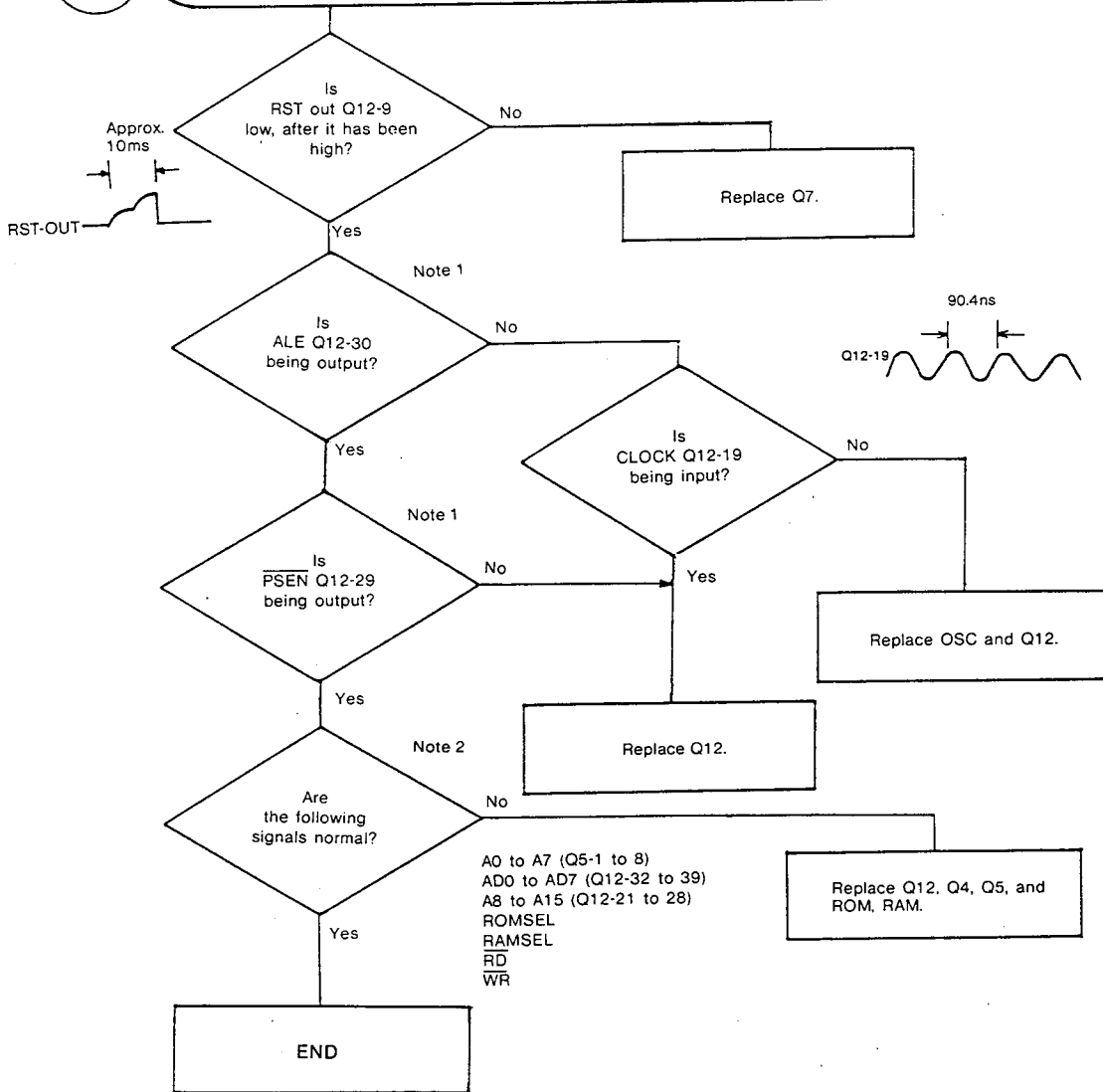
### DC +30 V circuit



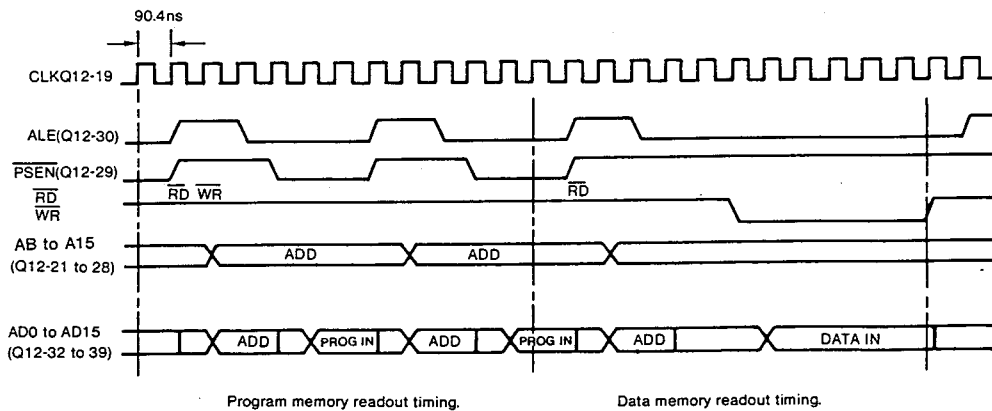


3.  $\mu$ CPU circuit

3-1 Defective  $\mu$ CPU and peripheral circuit

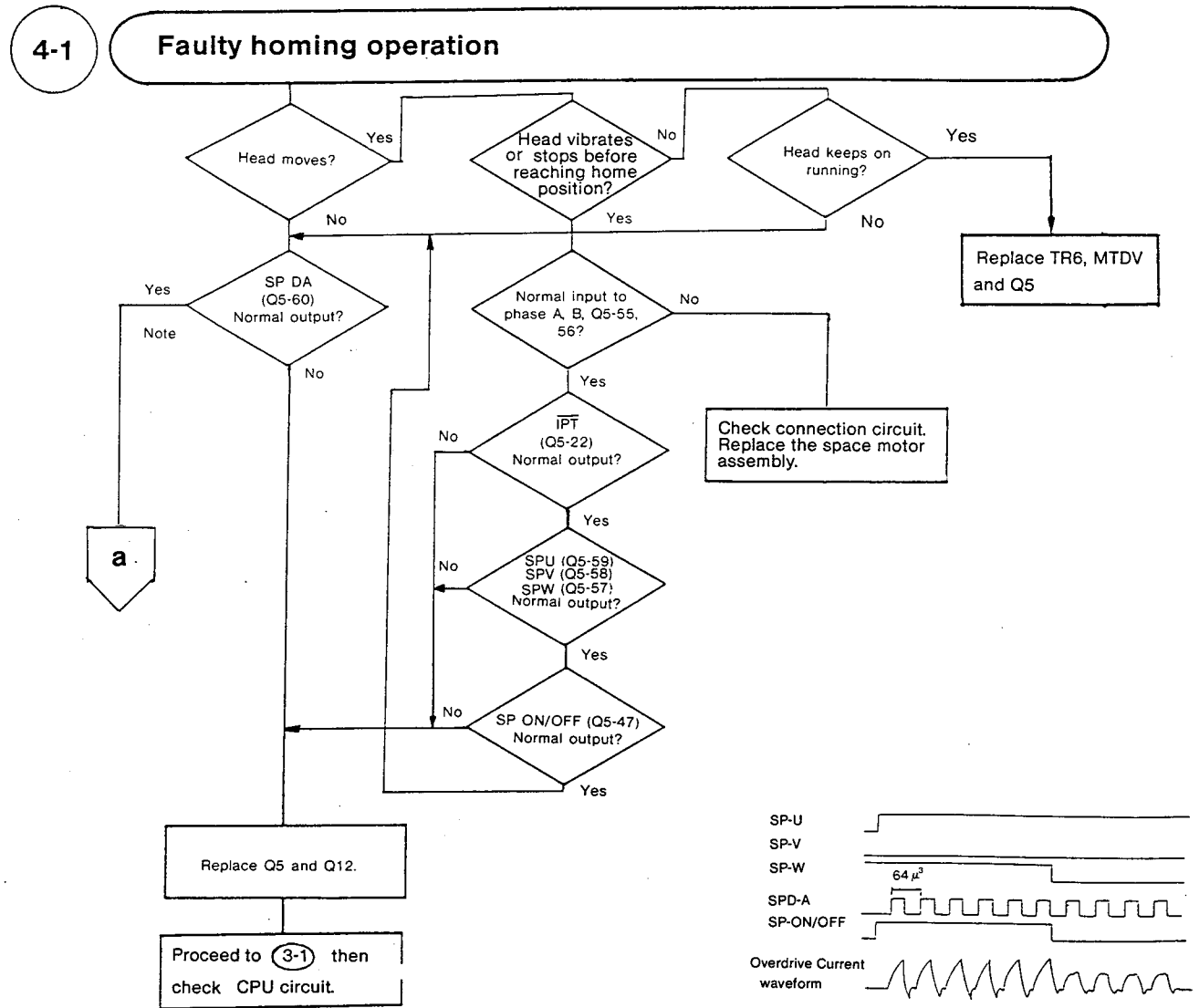


Note 1:

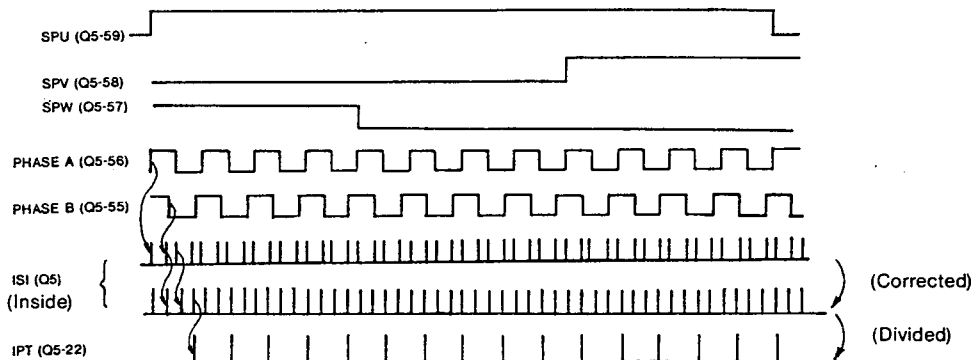


Note 2: The level of each of the output signals should not be at half level (about 2 to 3 V).

4. SP Motor Drive circuit

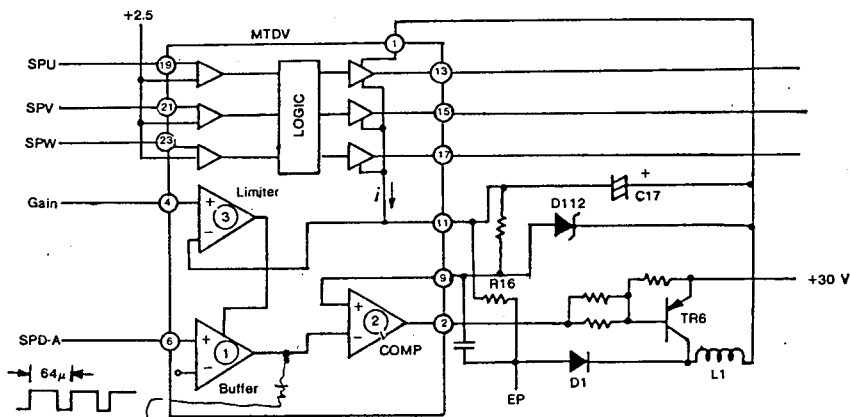
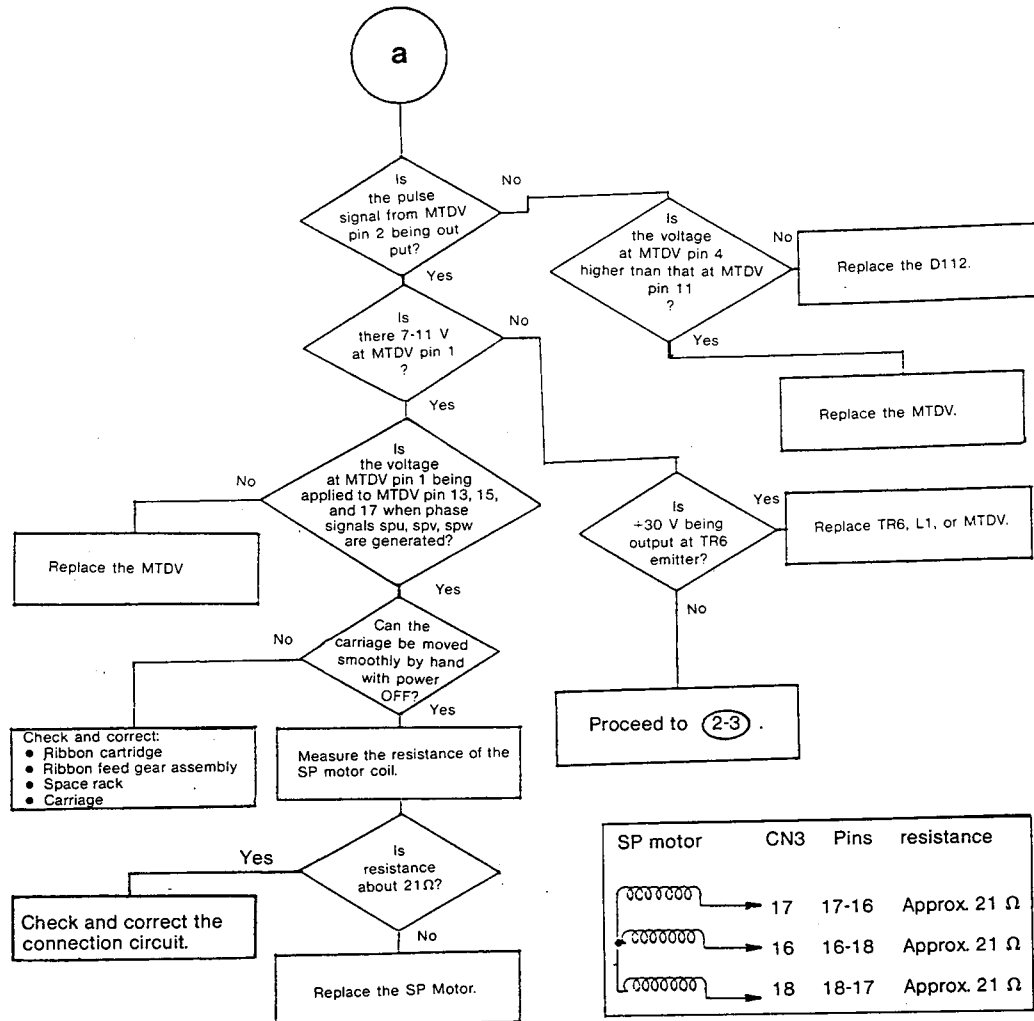


(When printing utility mode at 10CPI)



Note: The phase of the line-feed motor is adjusted when a space-homing is made at power on. Turn on the POWER switch while touching the platen knob. When you feel the platen knob rotate, the CPU circuit is normal.

## 4. SP Motor Drive circuit



Note 1: MTDV operation:

SPD-A pulse signal from the MTDV-6 is output to the MTDV-2 through buffer 1 and comparator 2, smoothed by the chopper switching circuit (TR6, L1, D1, and C17), then fed as a phase-driving voltage to the MTDV-1.

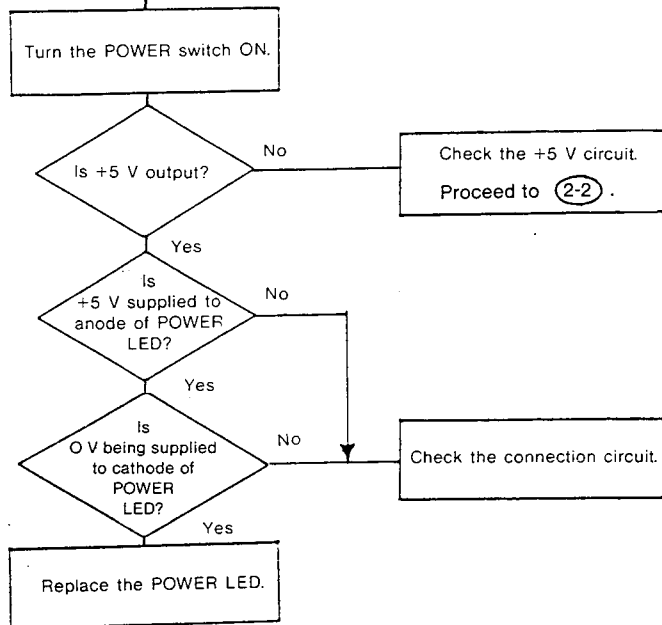
Note 2: Coil current protector:

When a current flows through a phase, voltage drop at resistor R16 is generated by current  $i$ . If the voltage drop becomes higher than the voltage at the MTDV-4, the limiter 3 and buffer 1 are powered off. Thus, the MTDV is powered off.

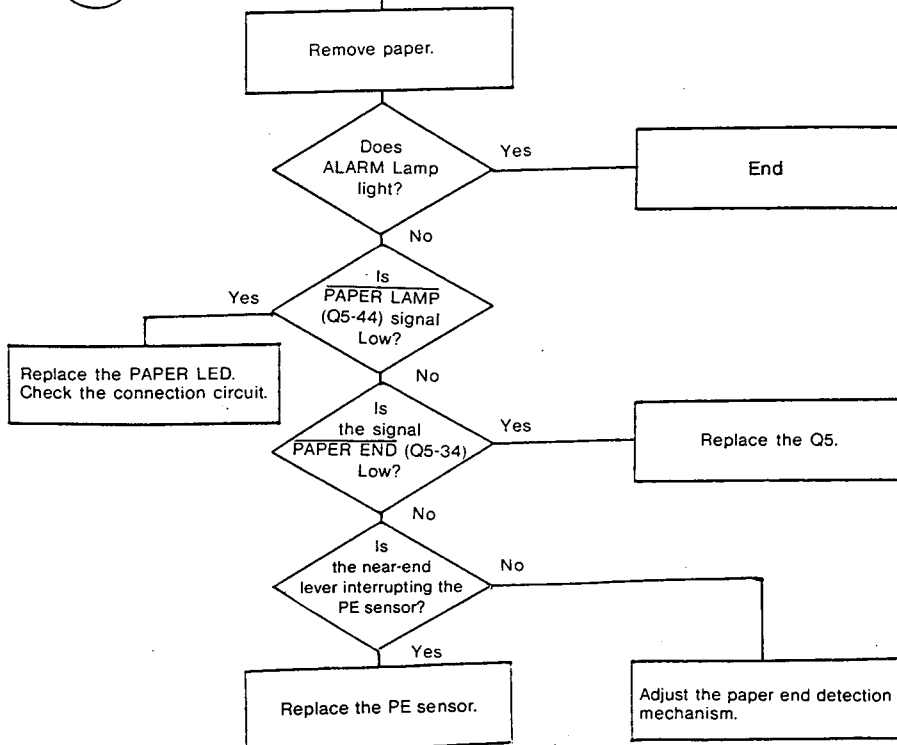
Note 3: Voltage protector: If the voltage generated in the chopper switching circuit exceeds 30 V, comparator 2 is powered off.

5. Lamp circuit

5-1 Power Lamp does not light.

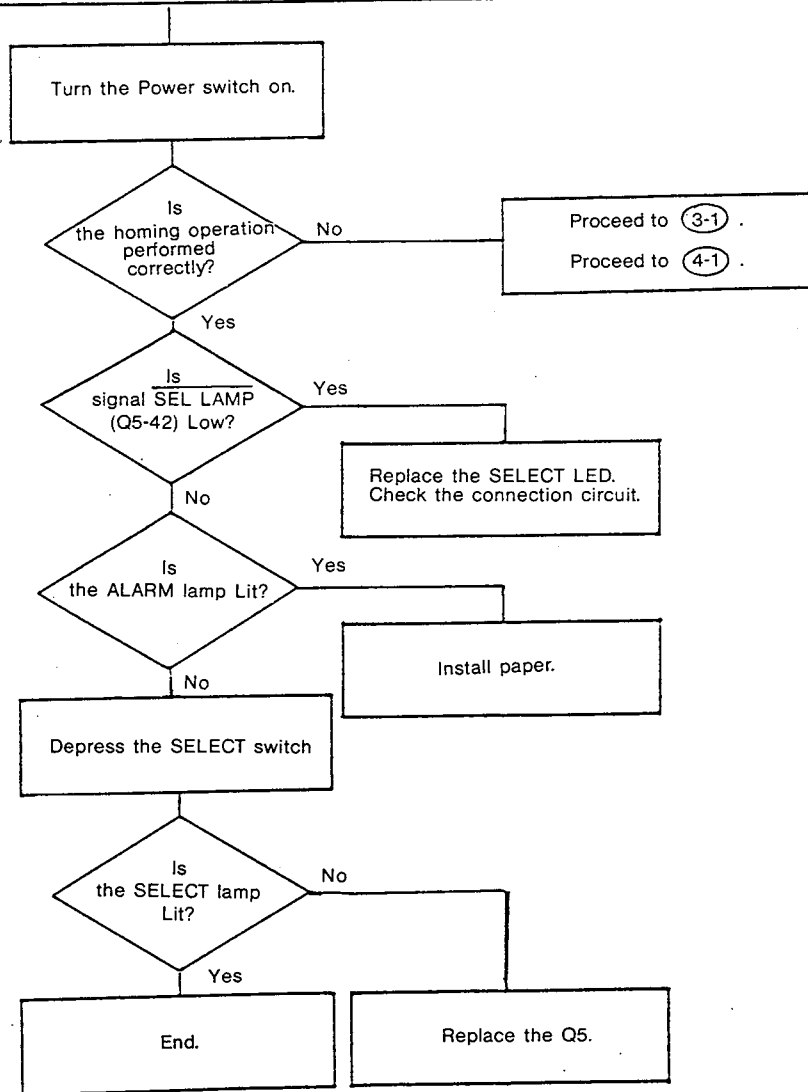


5-2 ALARM Lamp does not light.



5-3

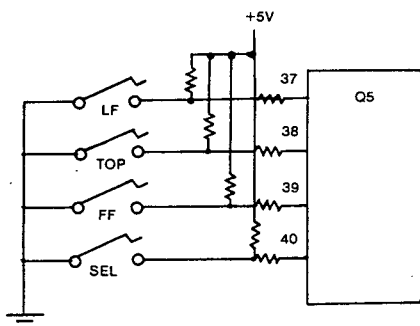
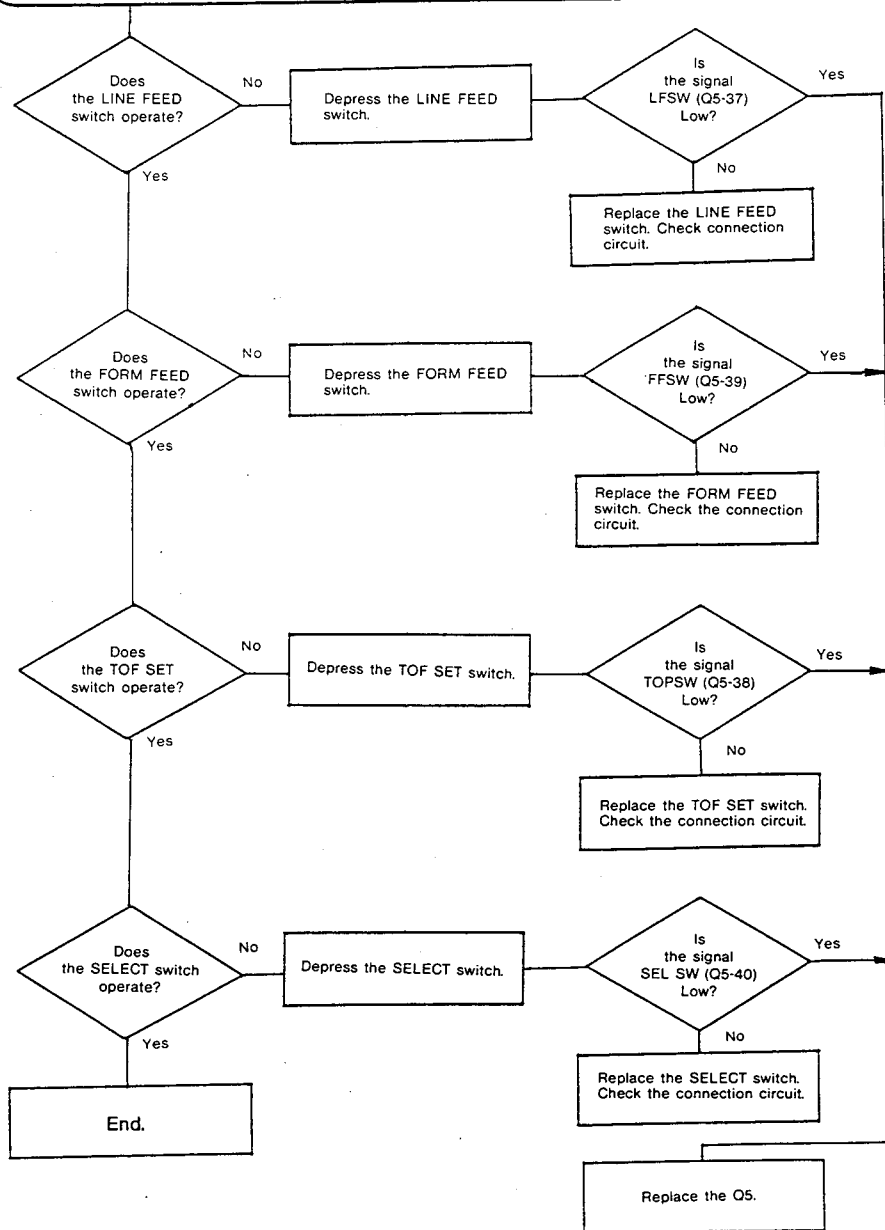
SELECT Lamp does not light.



6. Switch circuit

6-1

Switch does not operate



## 7. LINE FEED Motor Circuit

7-1

Does not perform line feed operation

Observe the following signals  
 LF $\phi$ 1 (Q5-48)  
 LF $\phi$ 2 (Q5-49)  
 LF $\phi$ 3 (Q5-50)  
 LF $\phi$ 4 (Q5-51)  
 LFOVD (Q5-52)  
 When LF is to be executed.

Are all signals normal?

No

Replace Q5 and Q12 sequentially.

Yes

Are TR1, 2, 4, and 5 turned ON/OFF?

No

Replace TR1, 2, 4, or 5.

Yes

Is TR3 turned ON/OFF?

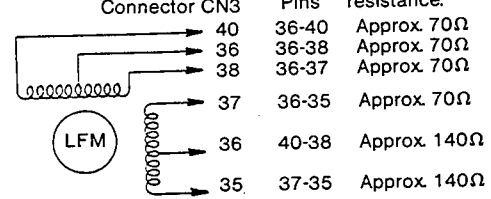
No

Replace TR3, TR103.

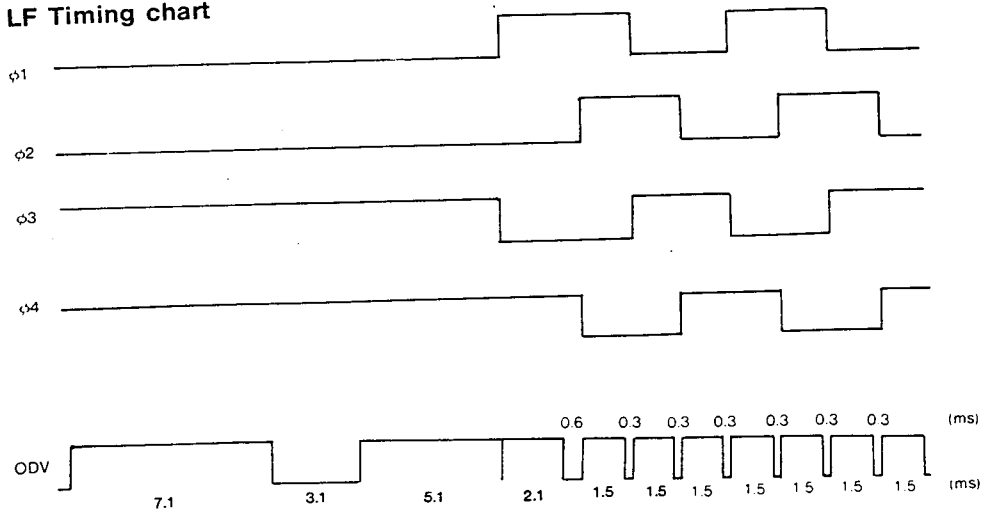
Yes

- Check the resistance of the LF motor. Resistance should be about 70  $\Omega$ .
- Replace the LF Motor.
- Check the connection circuit.

LF motor



LF Timing chart

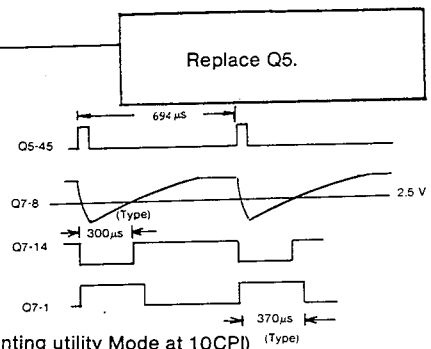
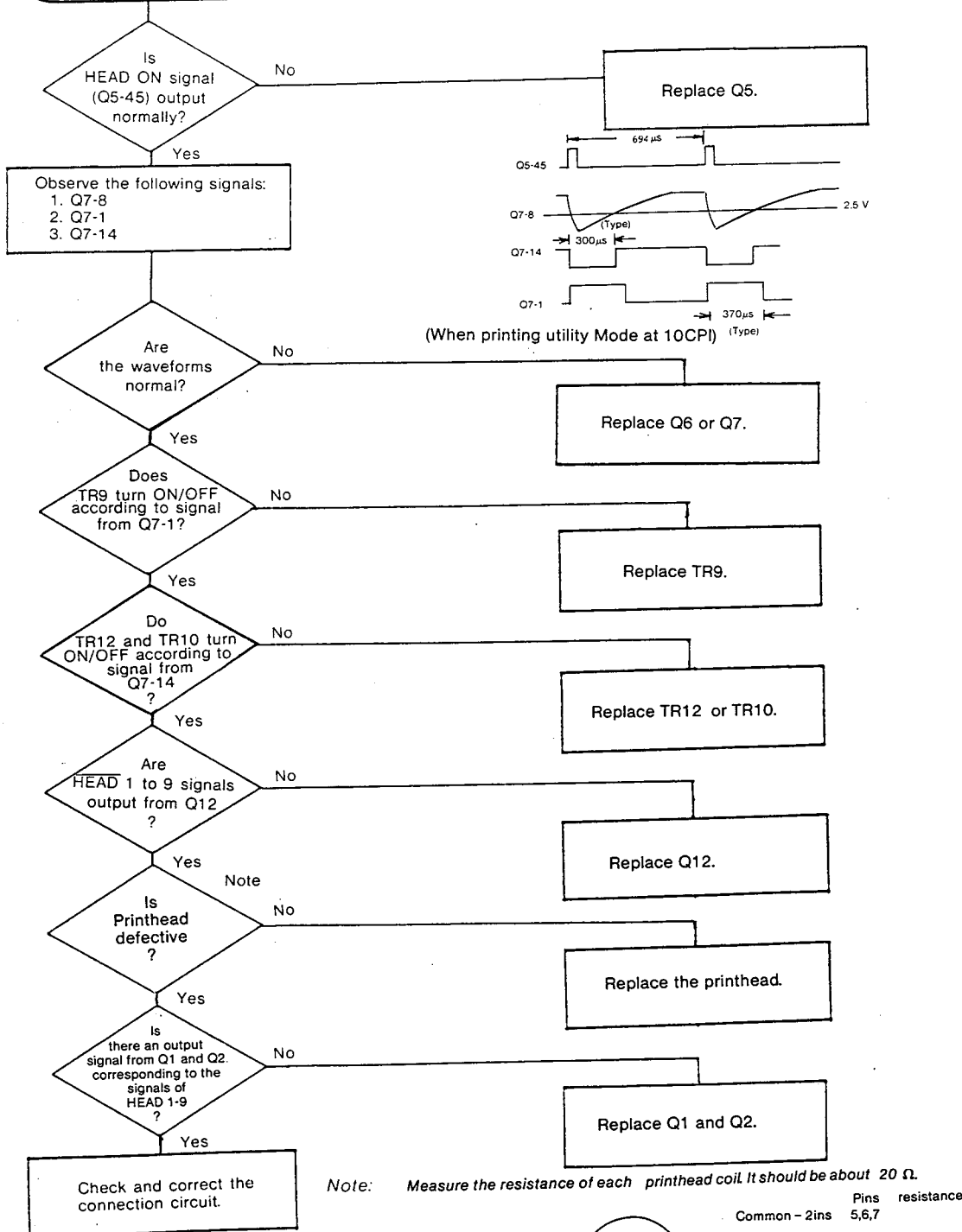


# 8. Print head drive circuit

## 8. Print head drive circuit

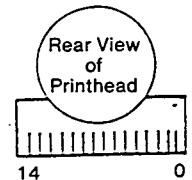
8-1

Printing operation is not performed.



Note: Measure the resistance of each printhead coil. It should be about 20 Ω.

Common - 2ins	Pins	resistance
#3	1-5	} Approx. 20 Ω
#5	2-5	
#7	3-5	
#9	4-5	
#8	10-5	
#6	11-5	
#4	12-5	
#2	13-5	
#1	14-5	



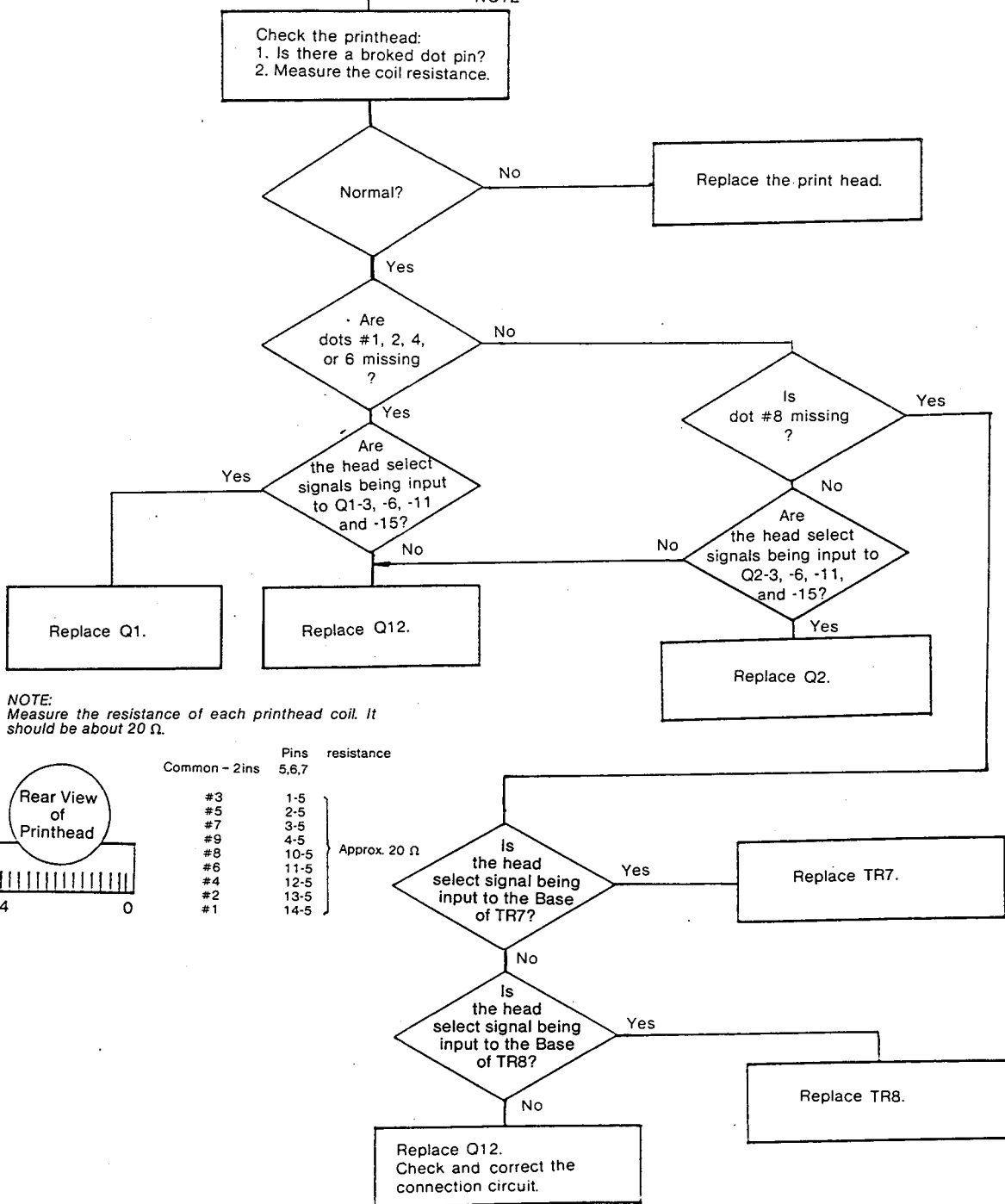


8-2

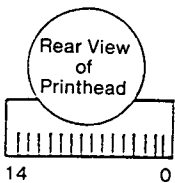
Some dots are not printed.

NOTE

Check the printhead:  
1. Is there a broked dot pin?  
2. Measure the coil resistance.



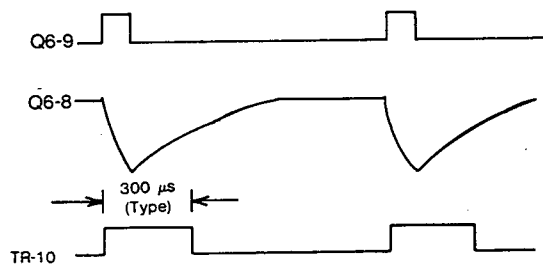
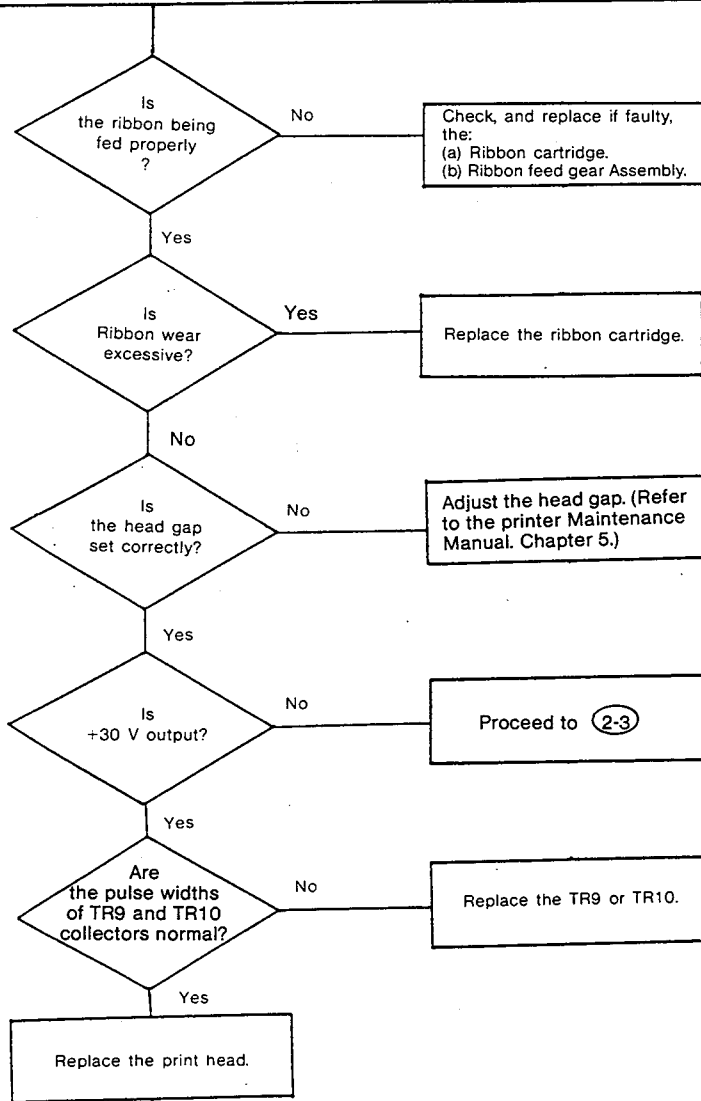
NOTE:  
Measure the resistance of each printhead coil. It should be about 20 Ω.



Common - 2ins	Pins	resistance
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#6	11-5	
#4	12-5	
#2	13-5	
#1	14-5	

8-3

Print is not dark enough.

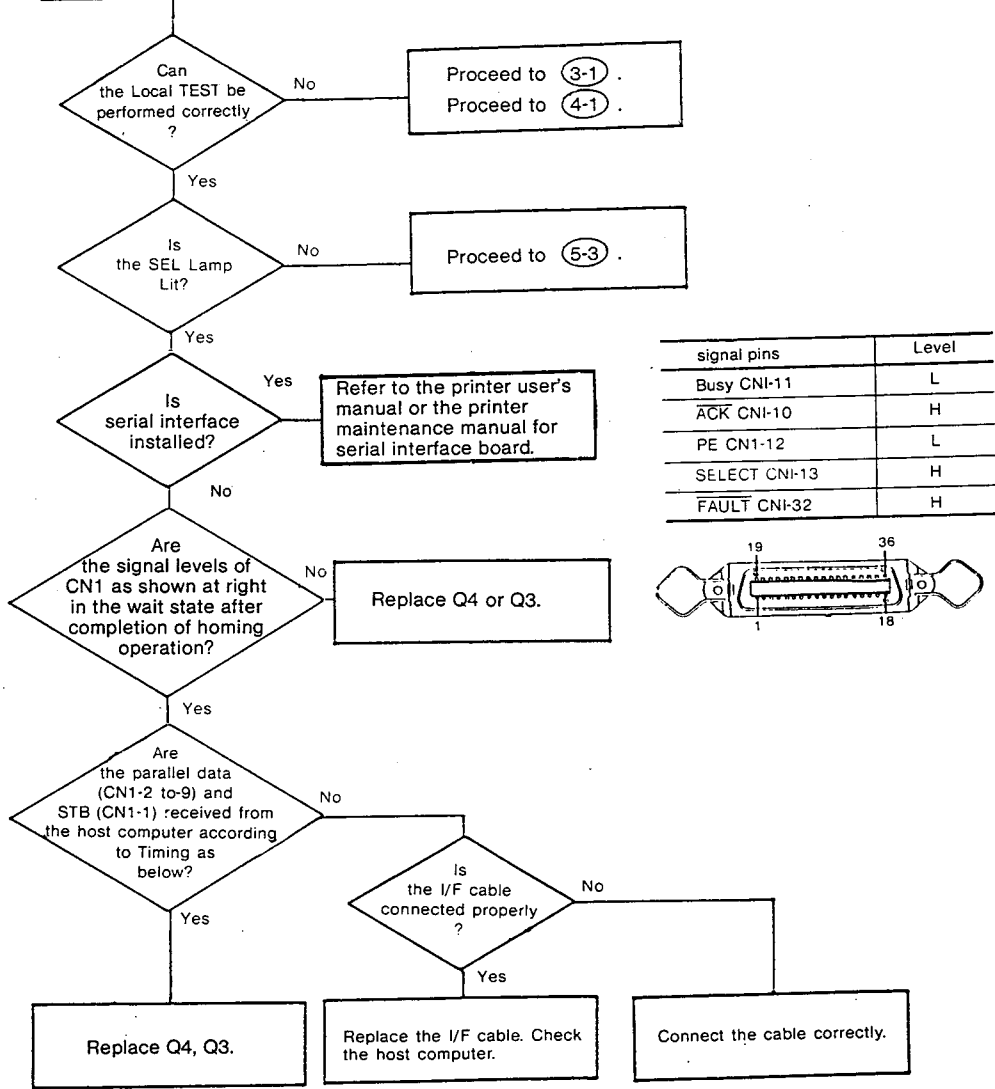


When printing in utility mode at 10 CPI

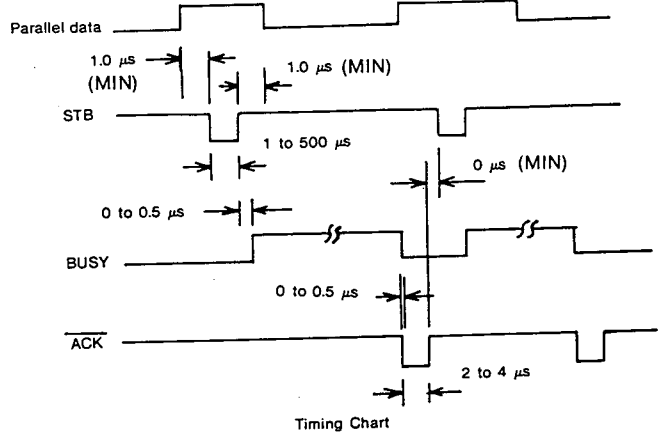
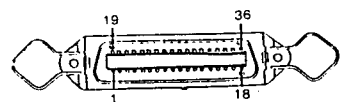
# 9. Interface (Receiving)

## 9. Interface (Receiving)

**9-1 Does not print at all.**



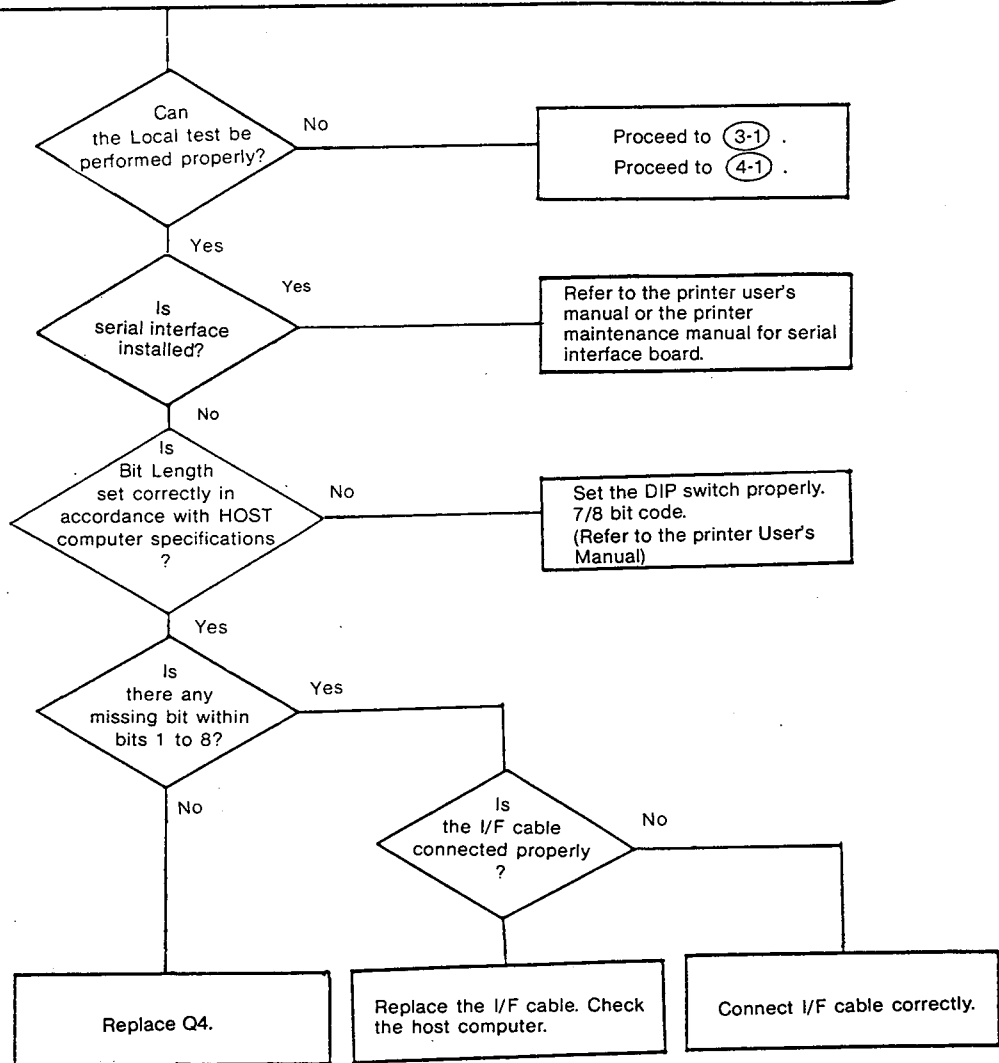
signal pins	Level
Busy CNI-11	L
ACK CNI-10	H
PE CNI-12	L
SELECT CNI-13	H
FAULT CNI-32	H



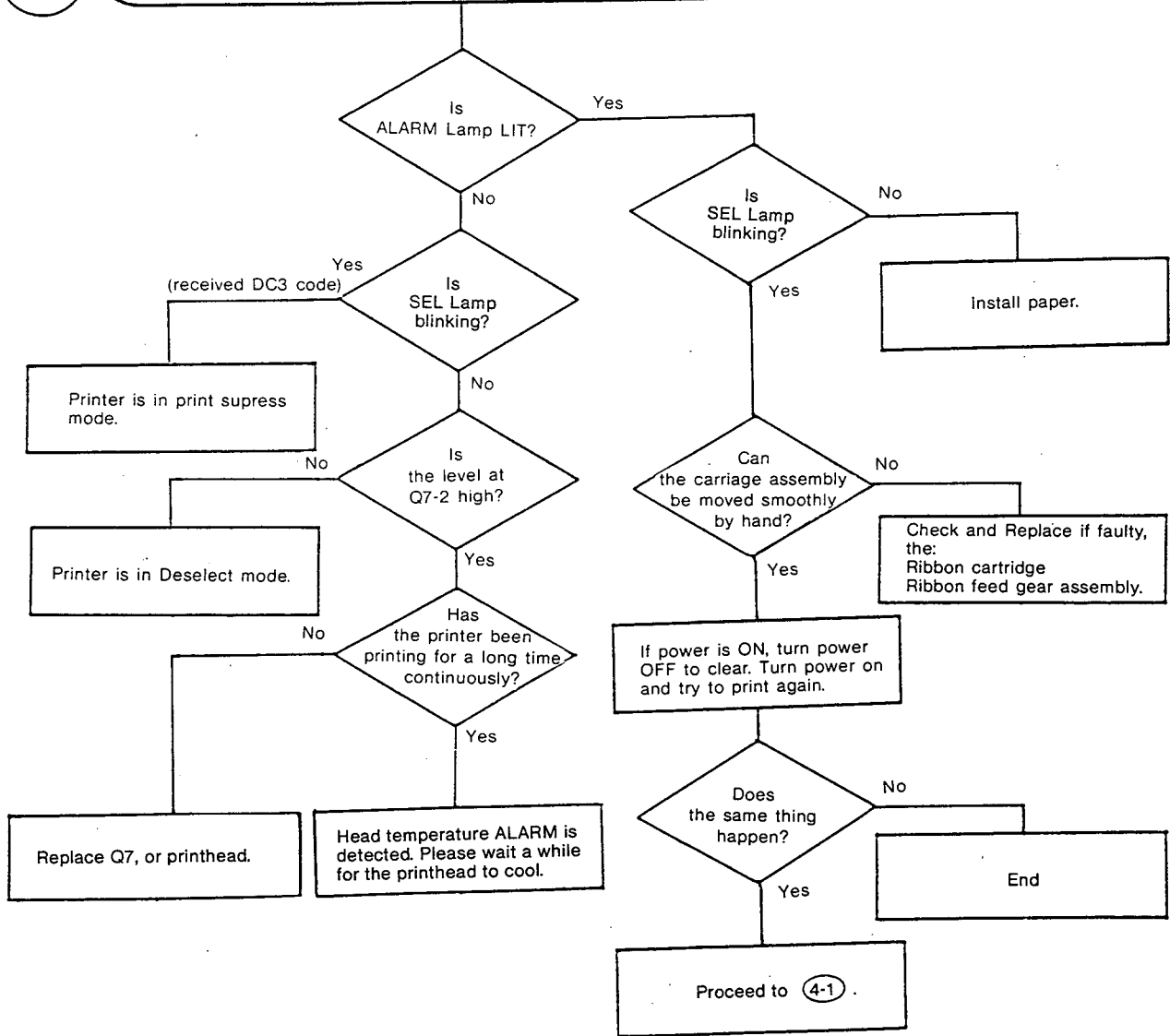
## 9. Interface (Receiving)

9-2

Wrong characters are printed, or some character are not printed.



9-3 The printing operation stops.



# Chapter 1-A TROUBLESHOOTING

## 1.1 General

This troubleshooting manual is designed to locate and repair troubles on a component basis for the SLMR printed-circuit boards and other printer components.

## 1.2 Remarks

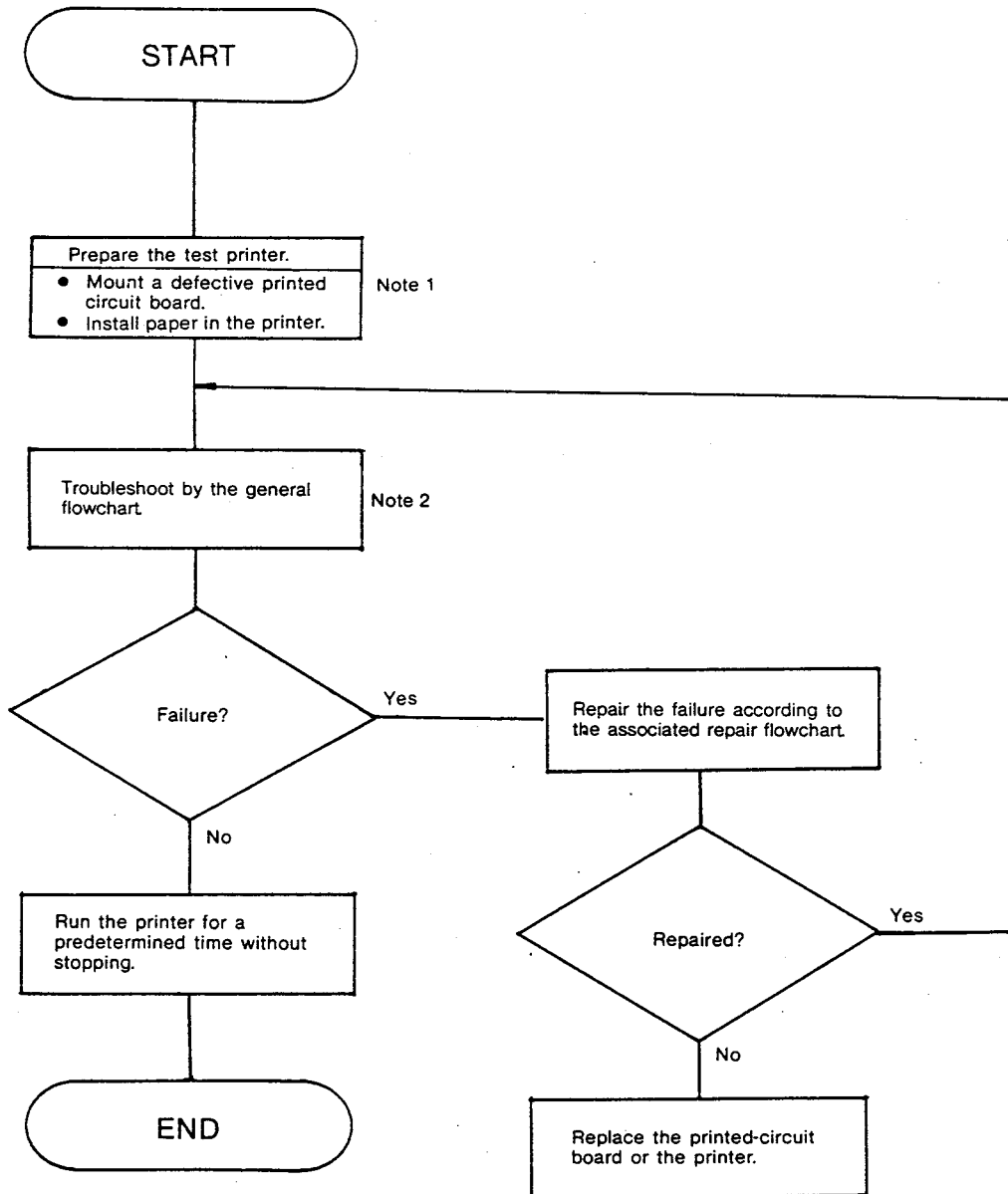
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- Be careful not to break any wiring etched trace patterns on the printed-circuit boards while replacing components.

## 1.3 Tools

In addition to the tools listed in the printer's Maintenance manual, the following tools are required for repair of components on the printed-circuit boards:

- Extension cord (OKI Part No. 3YU5003-5010G1 or equivalent)
  - Oscilloscope
  - Soldering iron (with fine tip)
  - Solder pickup wire
- } commercially available

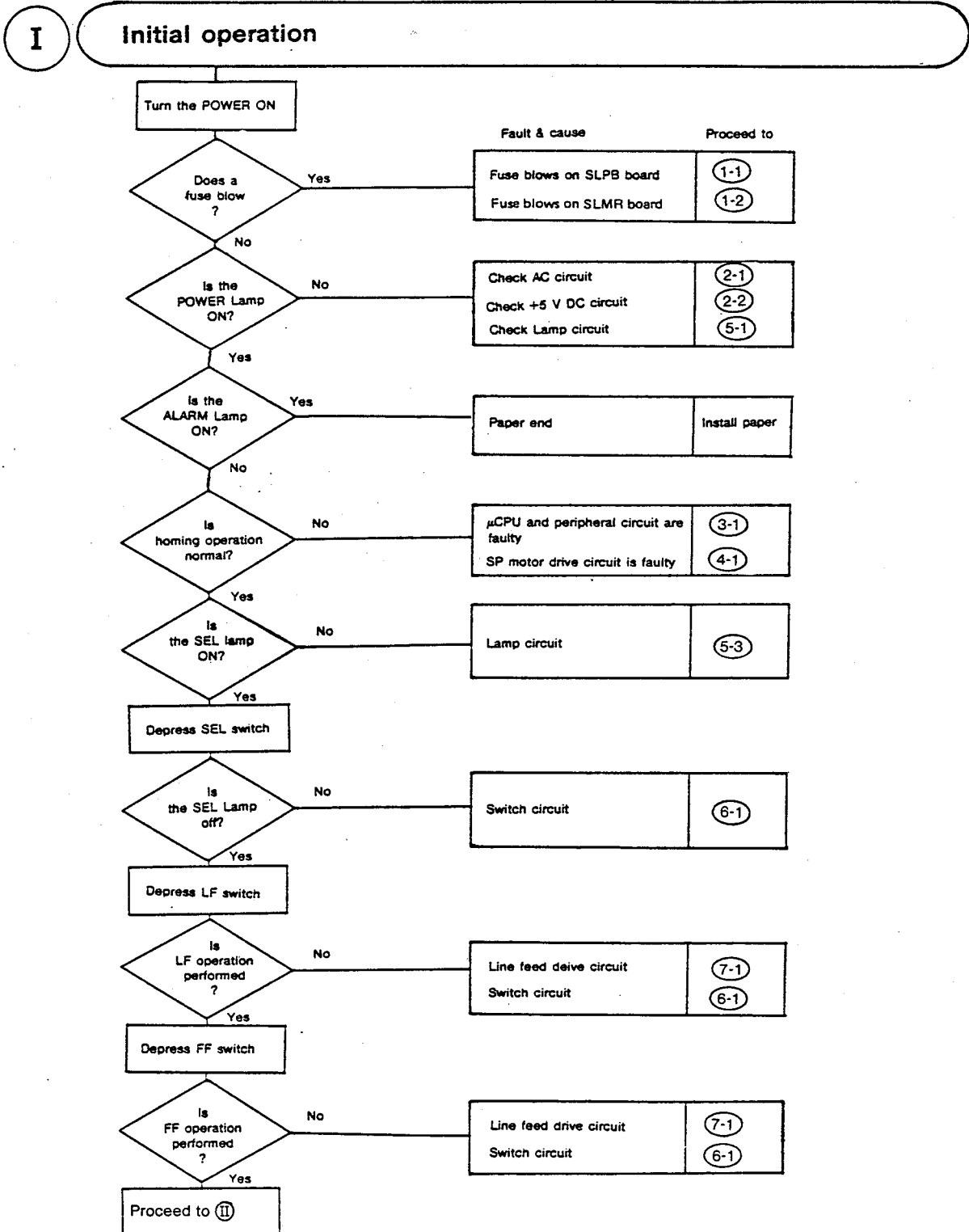
## 1.4 Troubleshooting Procedure



*Note 1: Visually check the defective printed-circuit board before mounting it on the printer.*

*Note 2: If the printer or the printed-circuit board is returned along with an error report, first checking can be made on the reported failure.*

# 1.5 General Flowchart





II

Local test printing

Turn the Power switch on while LF switch is depressed

Is rolling ASCII pattern printed normally?

Yes

Proceed to III

No

Neither spacing nor printing operation occurs.

Fault & cause

Proceed to

Switch circuit  
paper end

6-1  
Install paper

The spacing operation is normal, but the printing operation is not performed.

Printhead drive circuit

8-1

Some dots are not printed.

Printhead drive circuit

8-2

Print is not dark enough.

Printhead drive  
Ribbon

8-3

III

Data receiving

Power OFF connect interface cable. Turn Power on.

Is received data printed normally ?

Yes

END

No

Is the serial interface board mounted?

Yes

Fault & Cause

Proceed to

Refer to the printer maintenance manual for serial interface board

No

Does not print at all.

Interface circuit

9-1

Wrong characters are printed or some characters are not printed.

Interface circuit

9-2

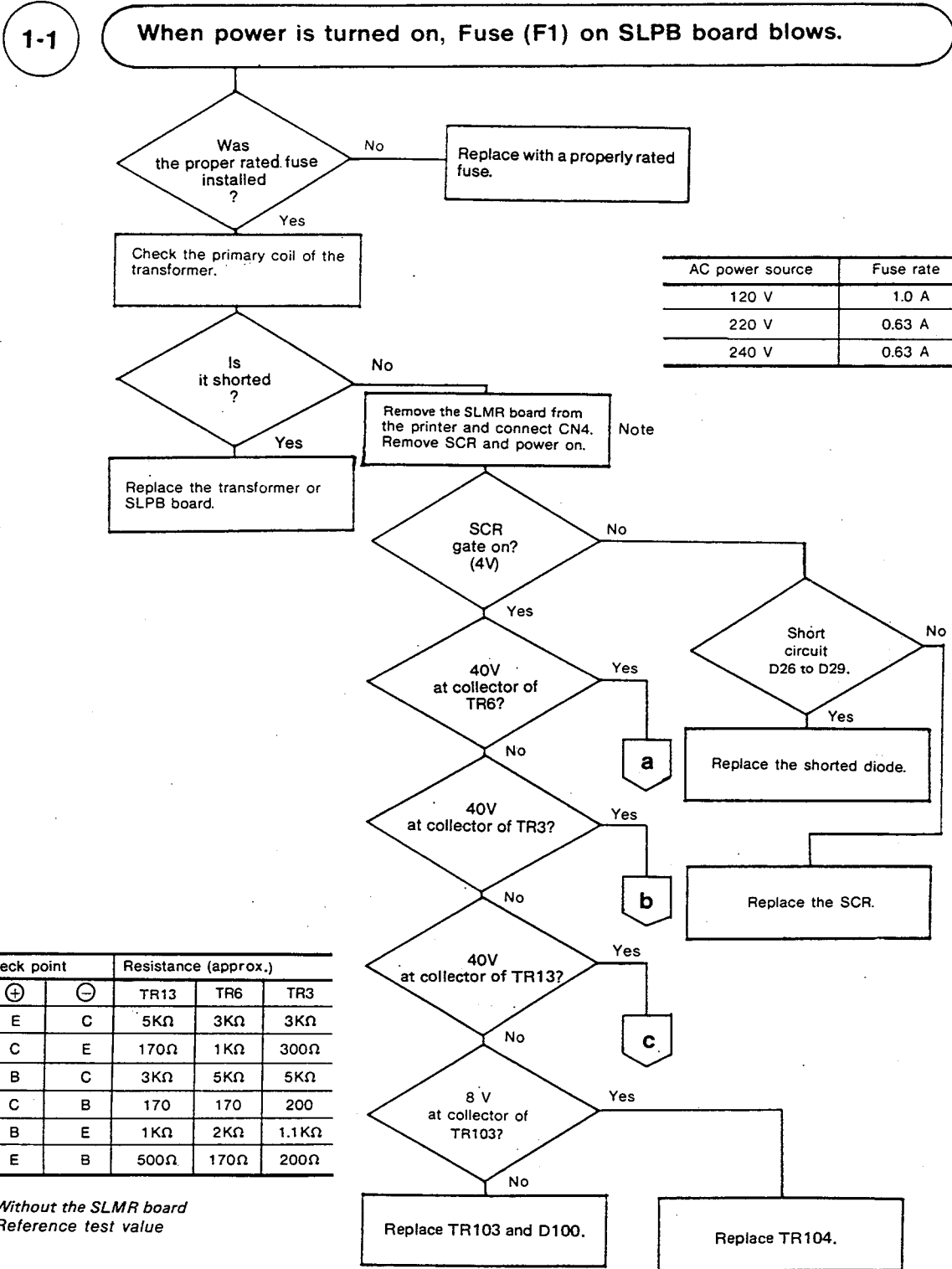
The printing operation stops.

Interface circuit SP MOTOR spacing ALARM  
Head temperature ALARM

9-3

# 1.6 Troubleshooting Flowchart

## 1. Fuse blow



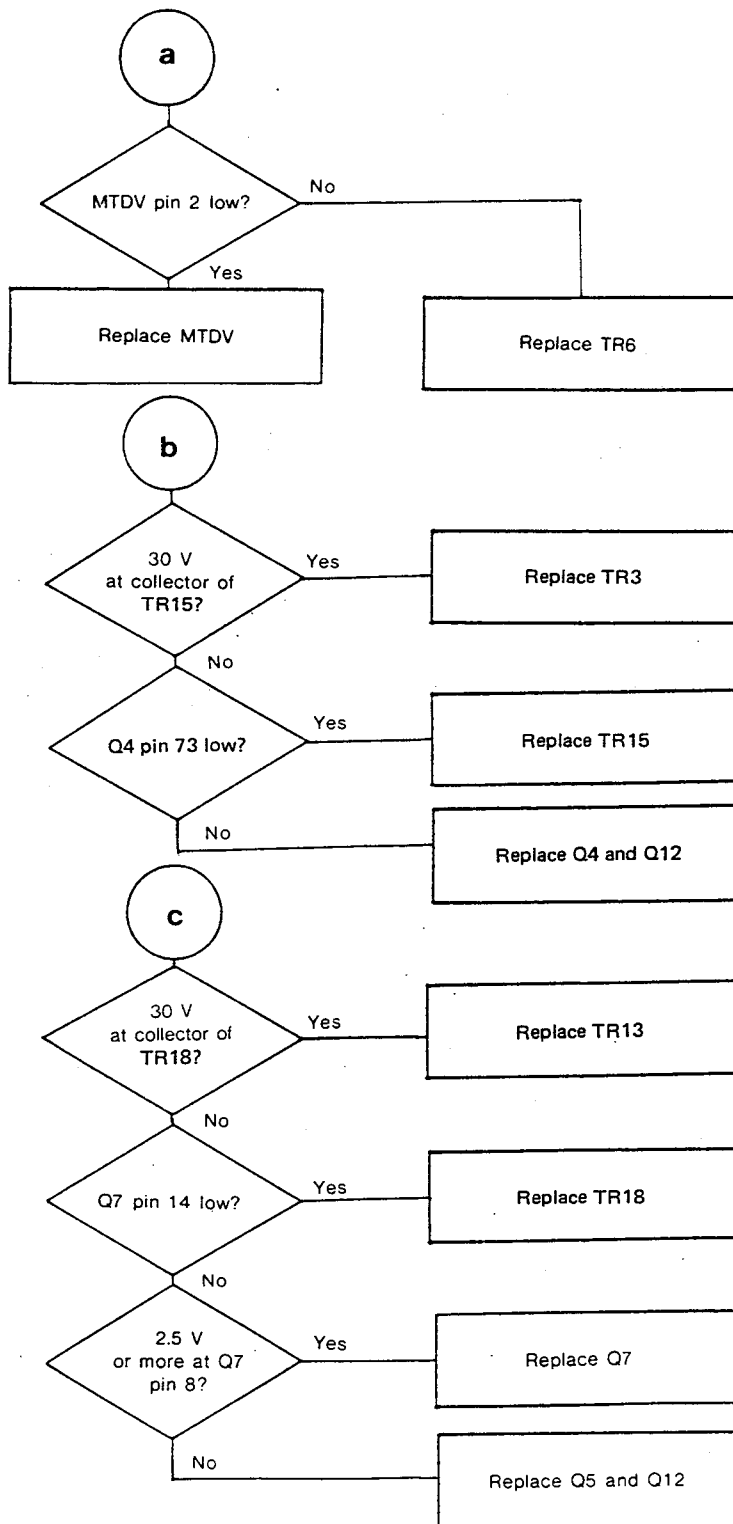
AC power source	Fuse rate
120 V	1.0 A
220 V	0.63 A
240 V	0.63 A

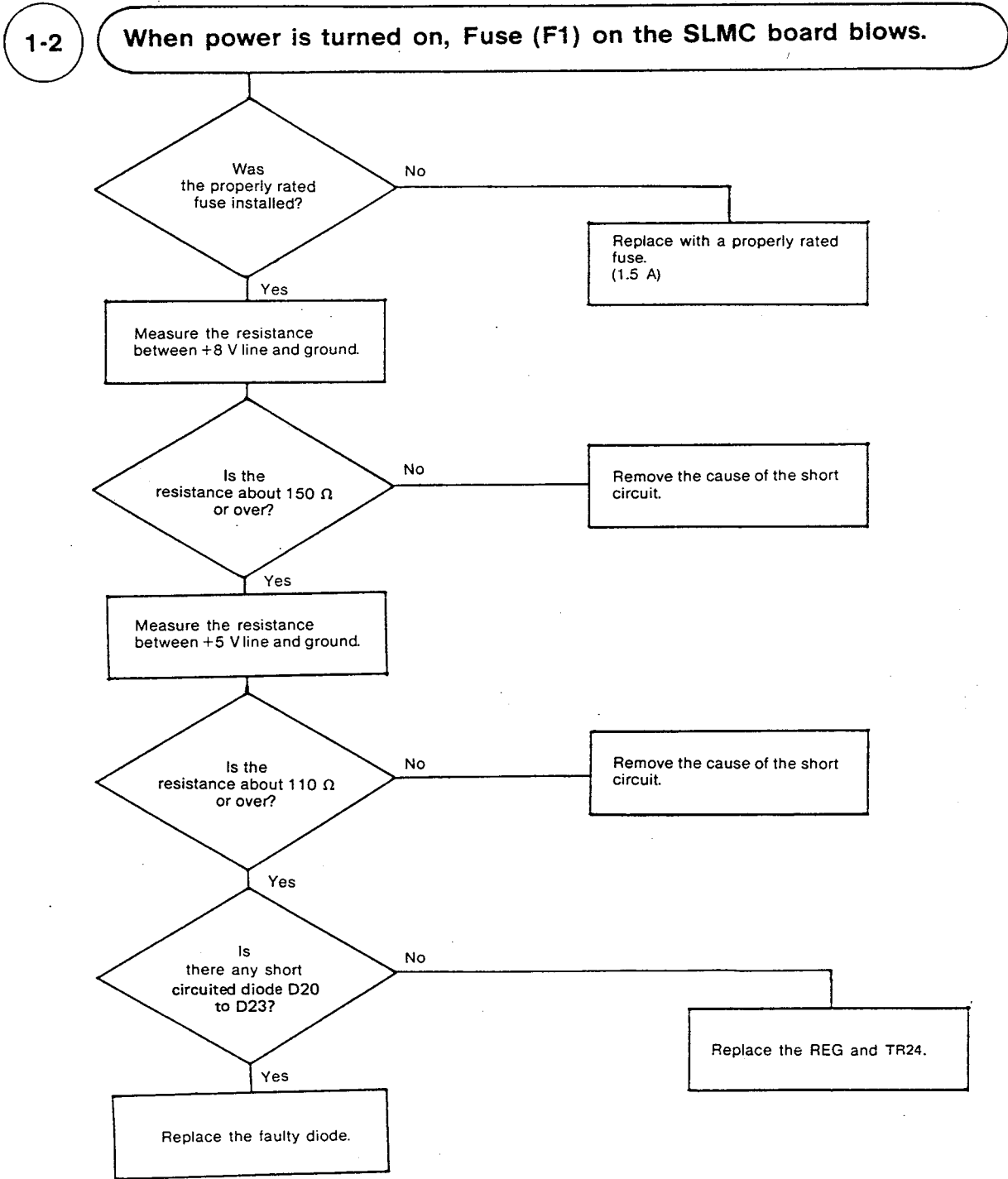
Check point		Resistance (approx.)		
⊕	⊖	TR13	TR6	TR3
E	C	5KΩ	3KΩ	3KΩ
C	E	170Ω	1KΩ	300Ω
B	C	3KΩ	5KΩ	5KΩ
C	B	170	170	200
B	E	1KΩ	2KΩ	1.1KΩ
E	B	500Ω	170Ω	200Ω

\* Without the SLMR board  
 \* Reference test value

Note: This step is required since parts are overloaded if power is repeatedly supplied with the defective driver parts.

# 1. Fuse blow

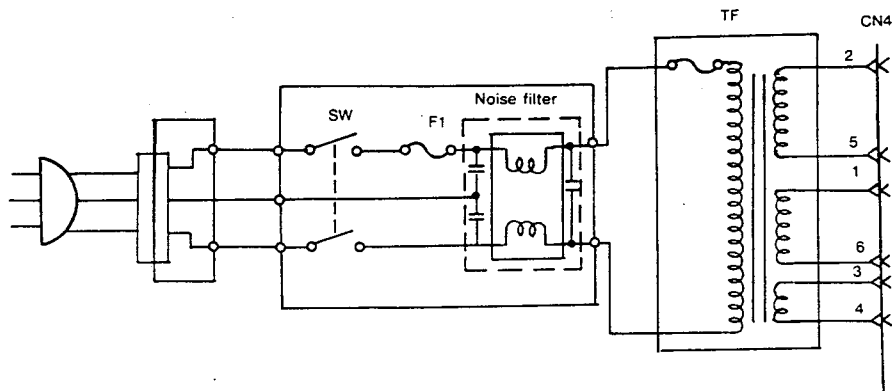
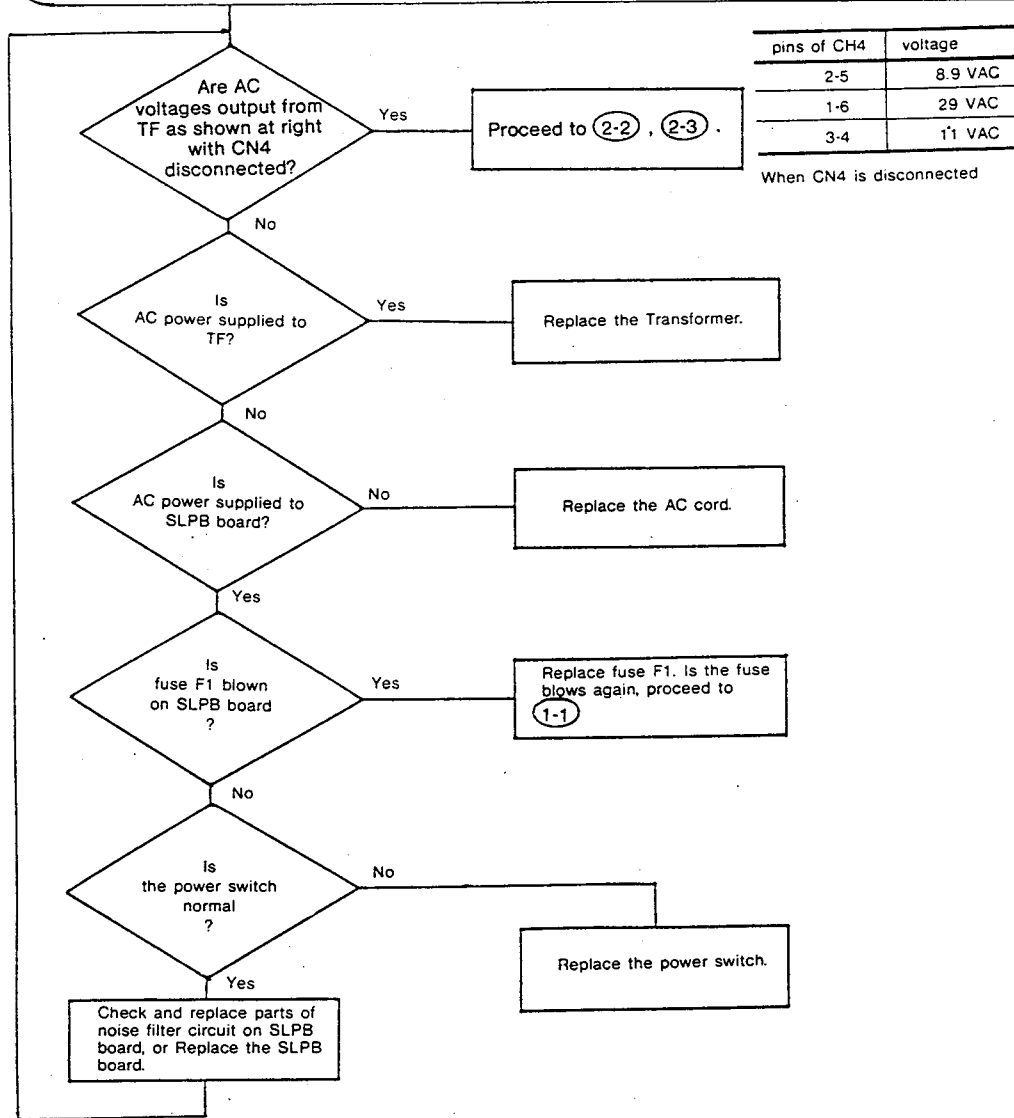




2. Power supply circuit

2-1

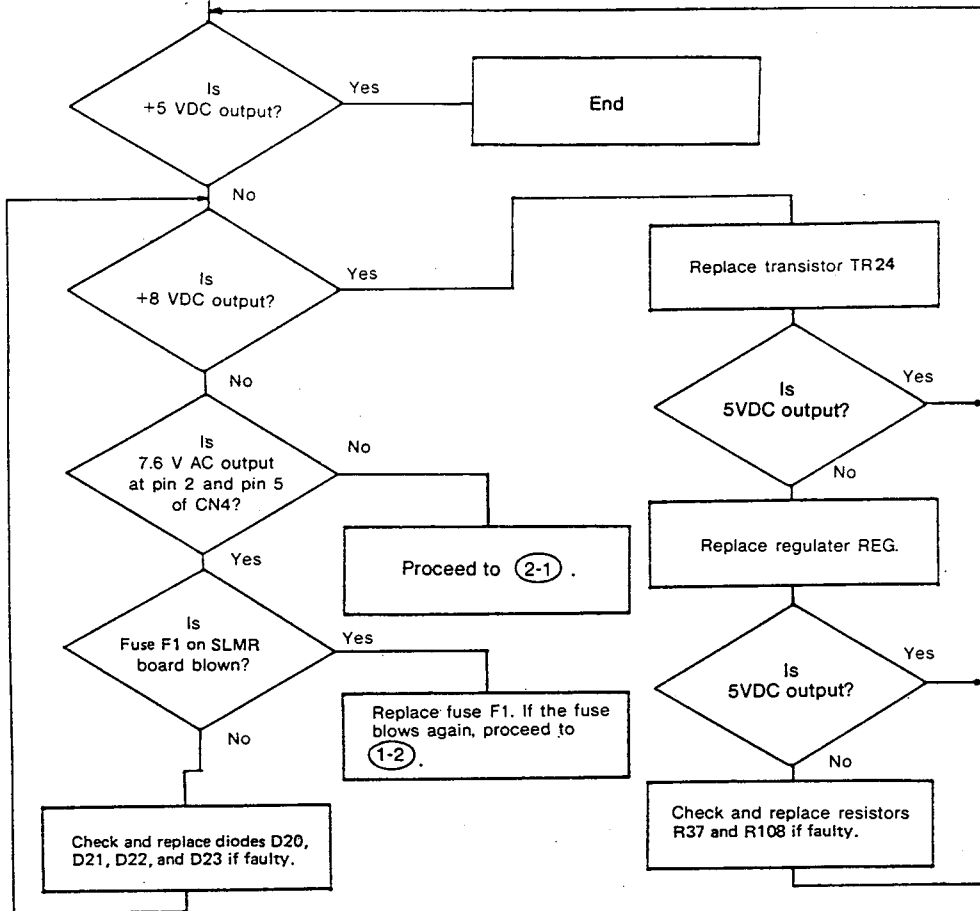
AC circuit and transformer



## 2. Power supply circuit

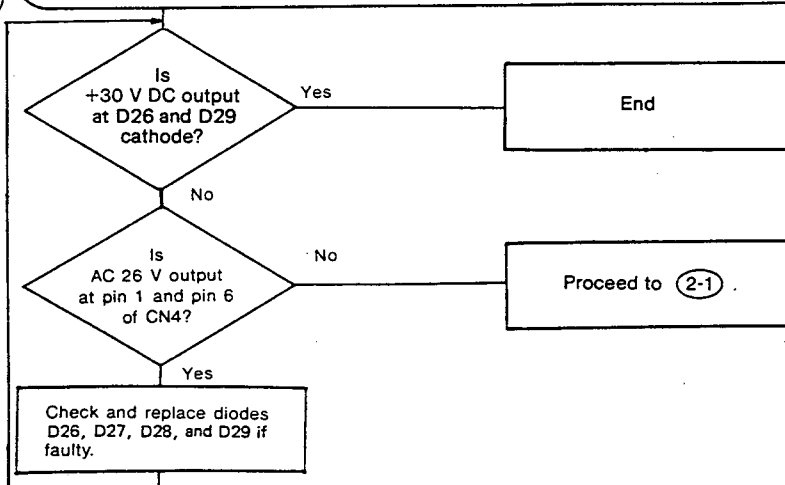
2-2

### DC +5 V. +8 V circuit



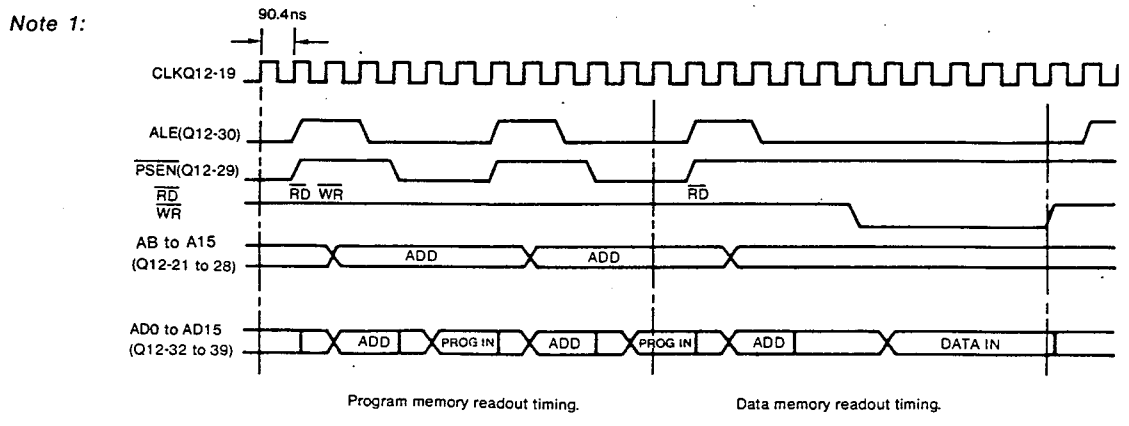
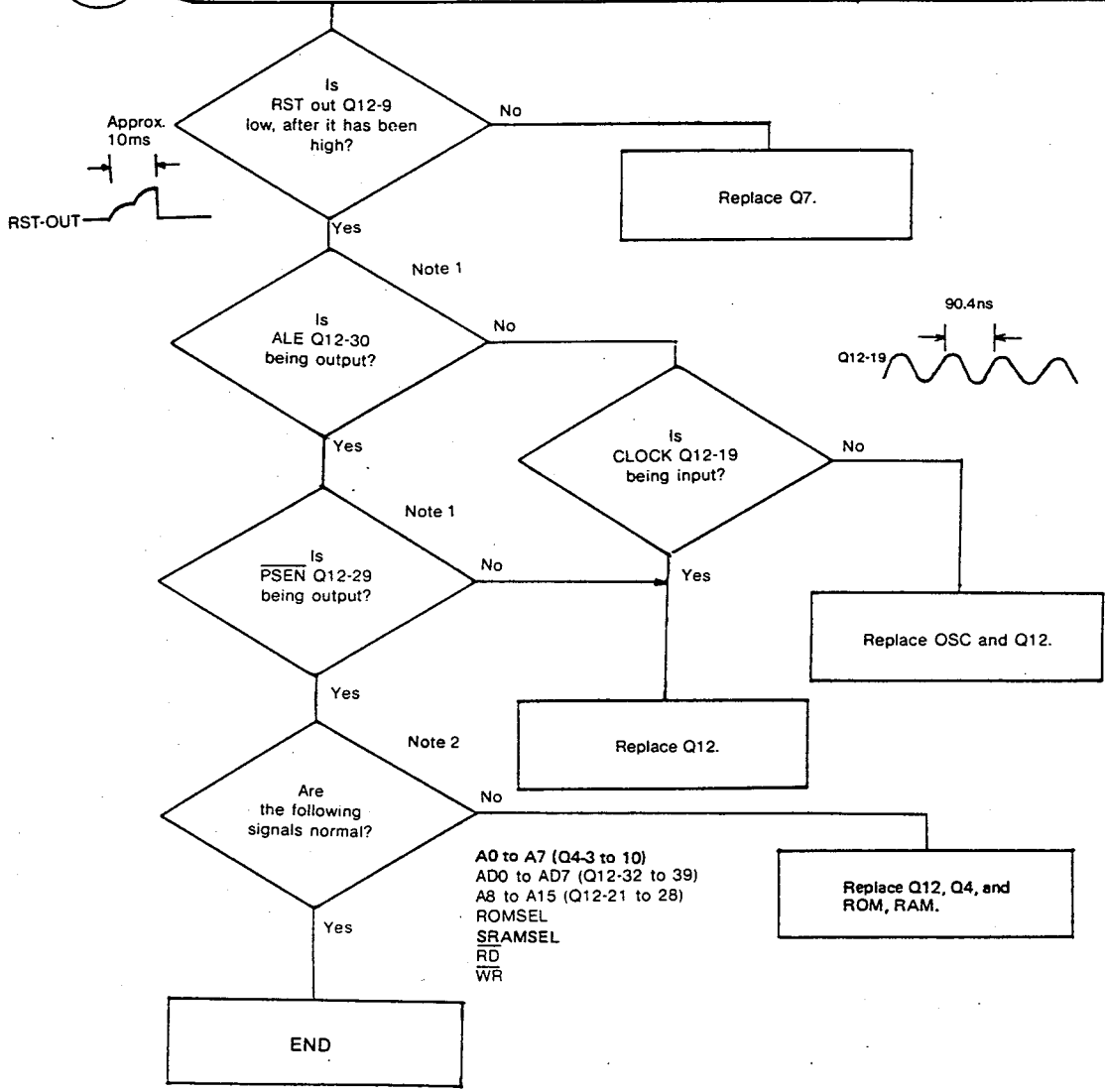
2-3

### DC +30 V circuit



3.  $\mu$ CPU circuit

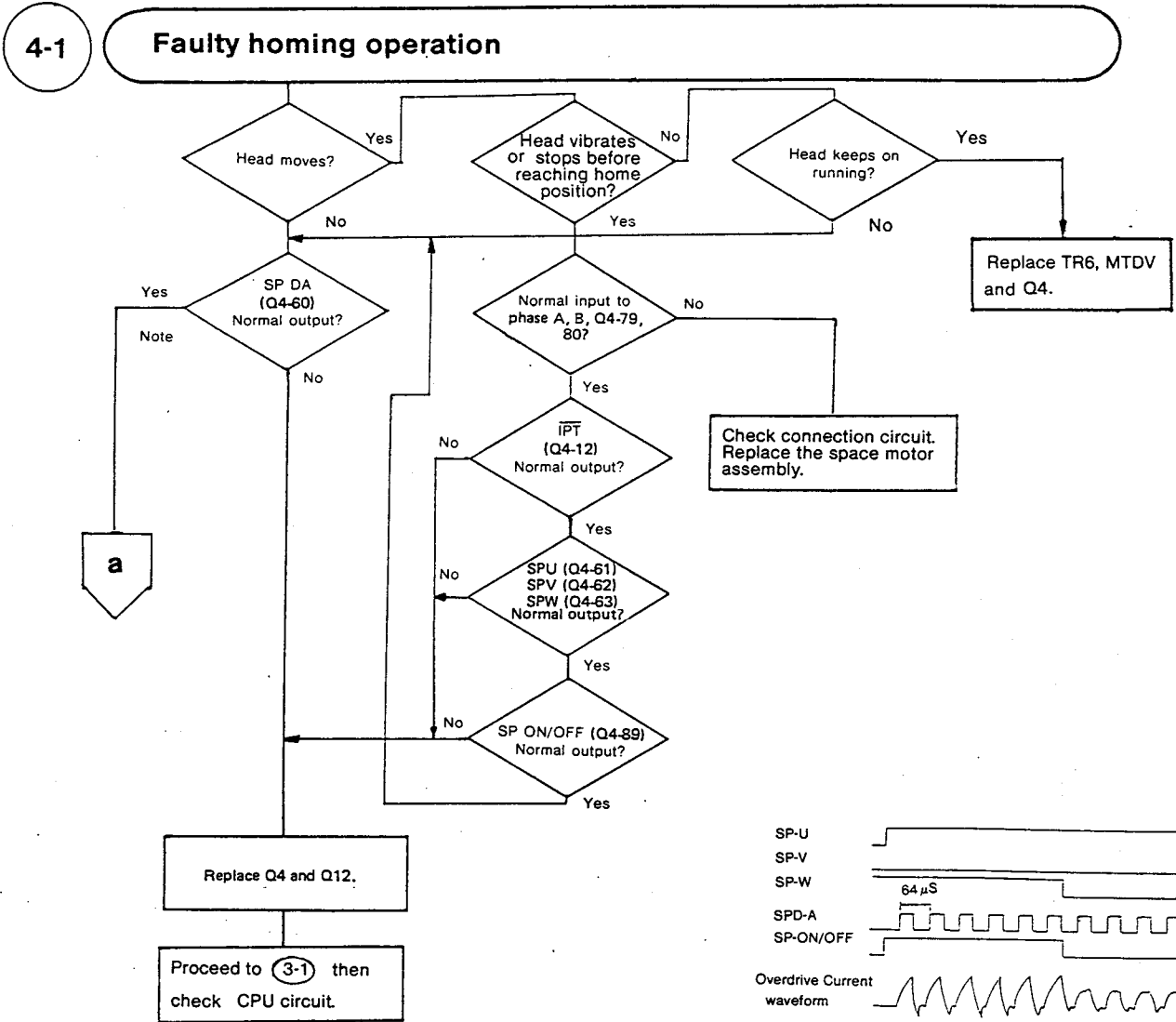
3-1 Defective  $\mu$ CPU and peripheral circuit



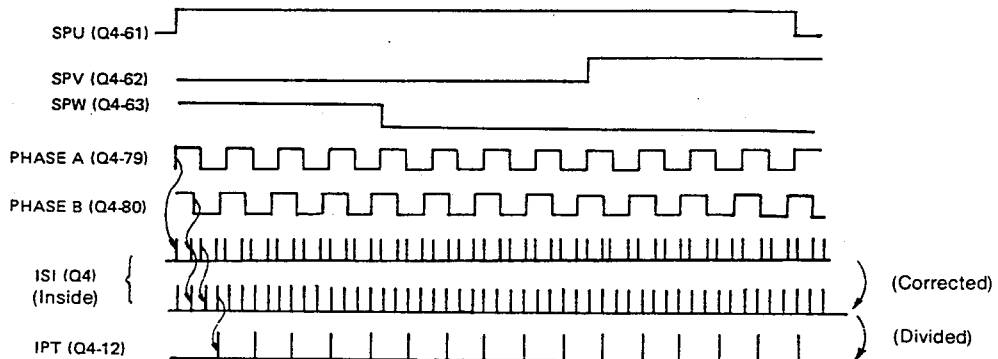
Note 2: The level of each of the output signals should not be at half level (about 2 to 3 V).



4. SP Motor Drive circuit

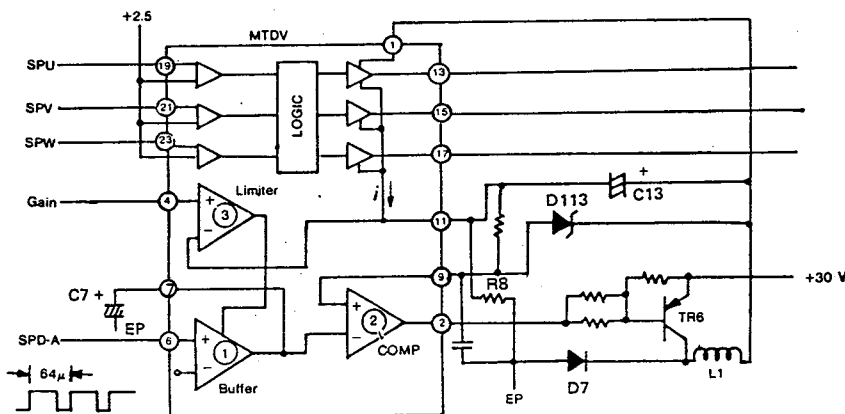
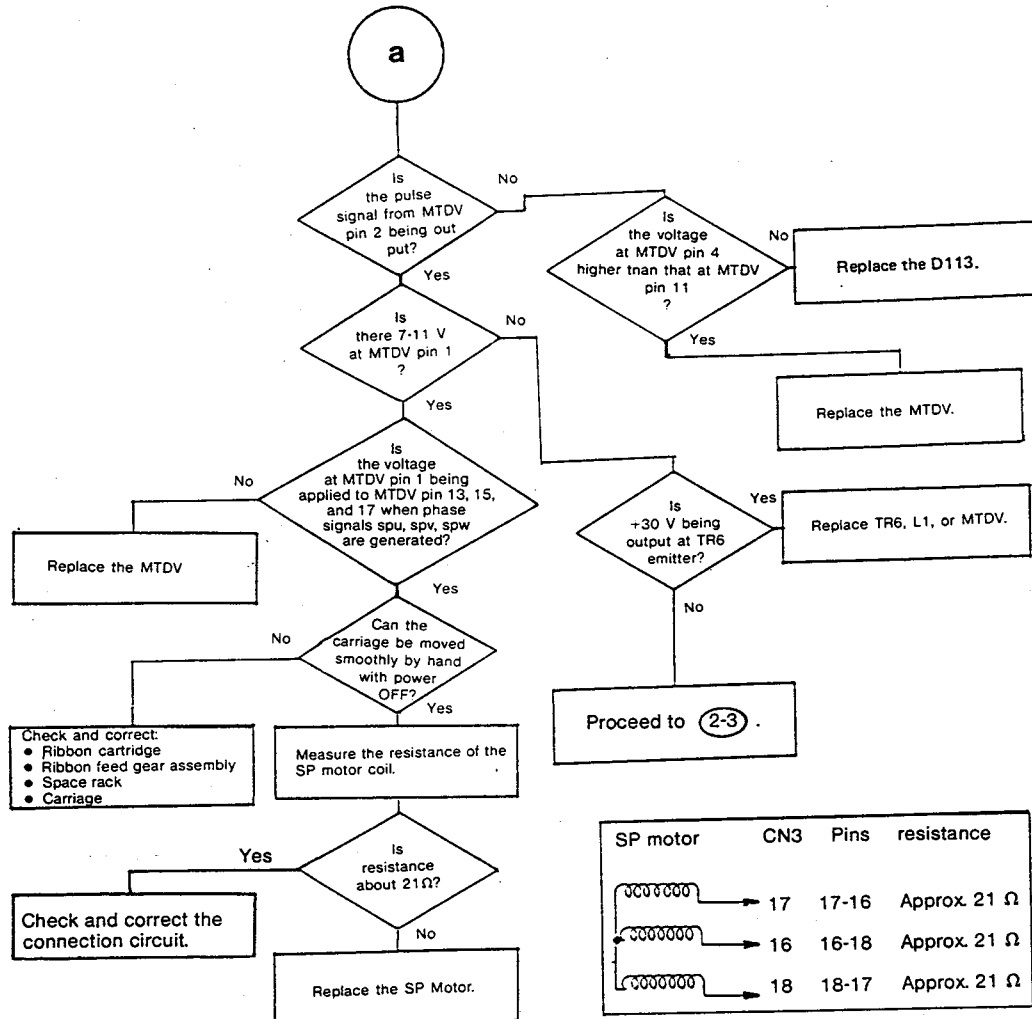


(When printing utility mode at 10CPI)



Note: The phase of the line-feed motor is adjusted when a space-homing is made at power on. Turn on the POWER switch while touching the platen knob. When you feel the platen knob rotate, the CPU circuit is normal.

## 4. SP Motor Drive circuit



Note 1: MTDV operation:

SPD-A pulse signal from the MTDV-6 is output to the MTDV-2 through buffer 1 and comparator 2, smoothed by the chopper switching circuit (TR6, L1, D1, and C17), then fed as a phase-driving voltage to the MTDV-1.

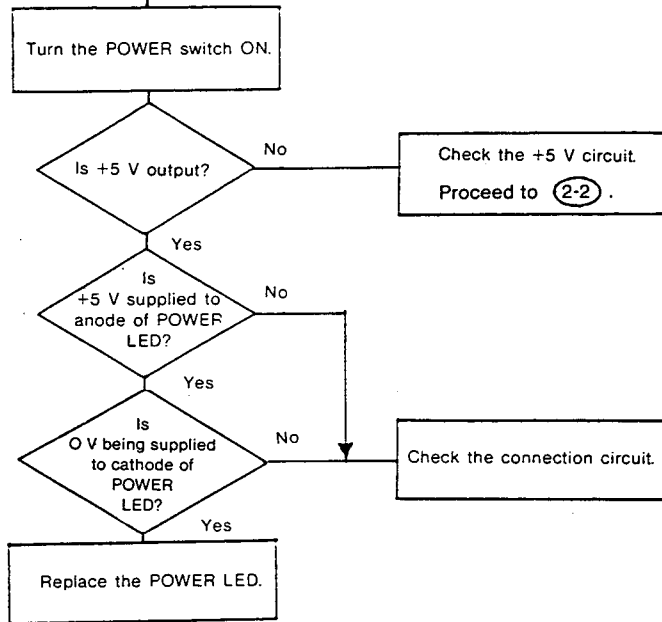
Note 2: Coil current protector:

When a current flows through a phase, voltage drop at resistor R16 is generated by current  $i$ . If the voltage drop becomes higher than the voltage at the MTDV-4, the limiter 3 and buffer 1 are powered off. Thus, the MTDV is powered off.

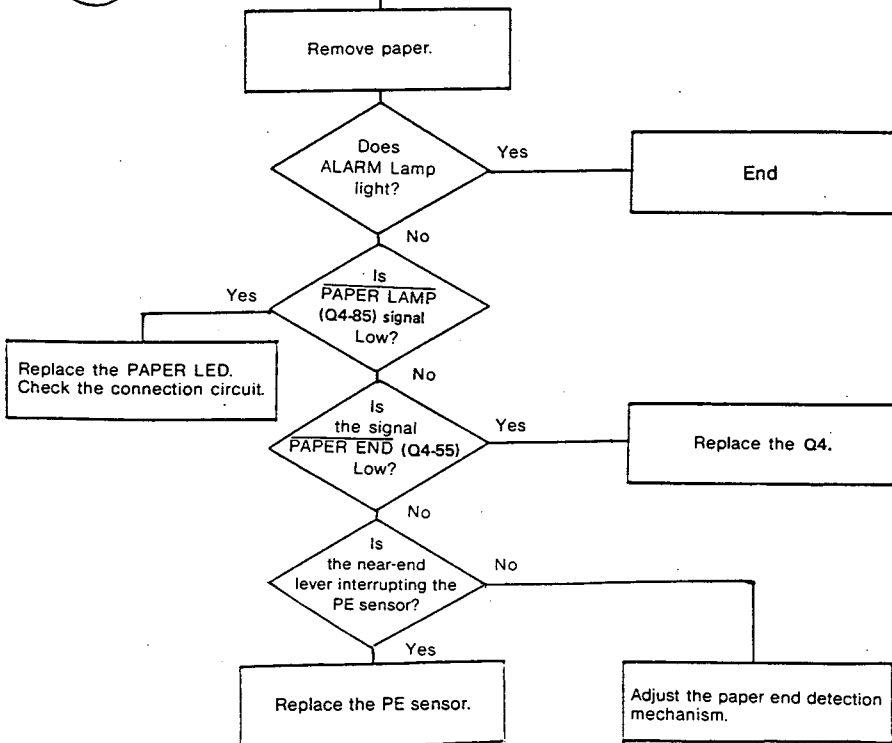
Note 3: Voltage protector: If the voltage generated in the chopper switching circuit exceeds 30 V, comparator 2 is powered off.

5. Lamp circuit

5-1 Power Lamp does not light.

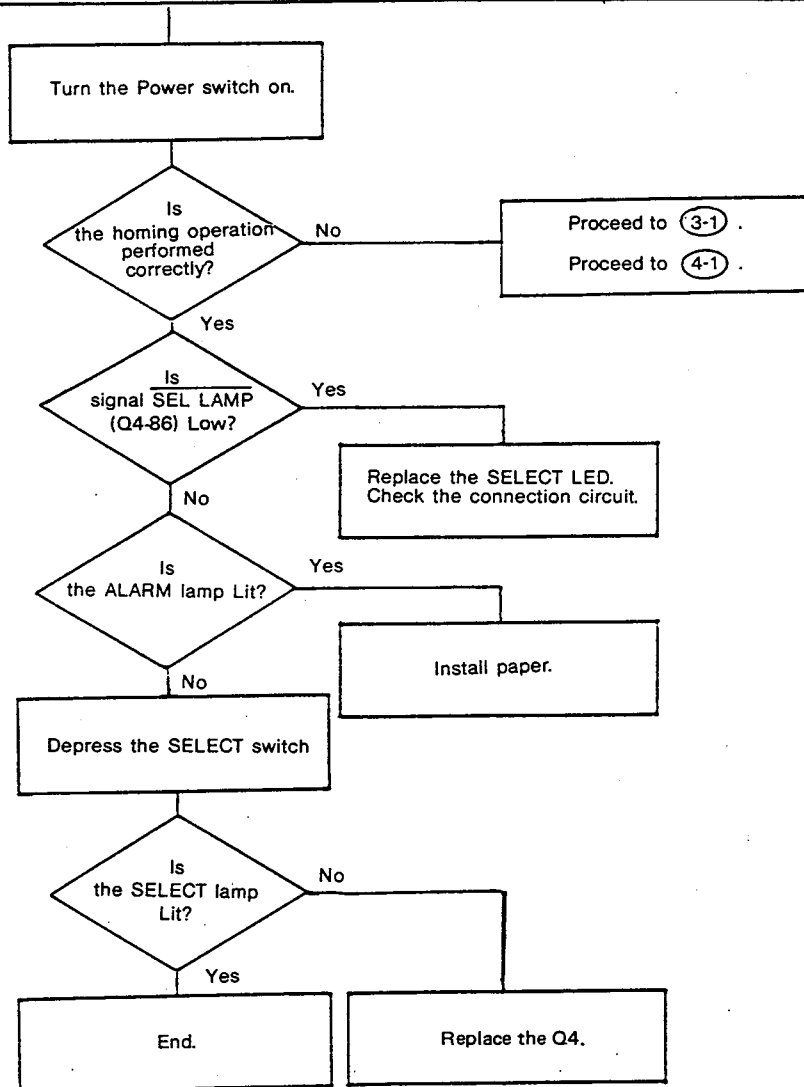


5-2 ALARM Lamp does not light.



5-3

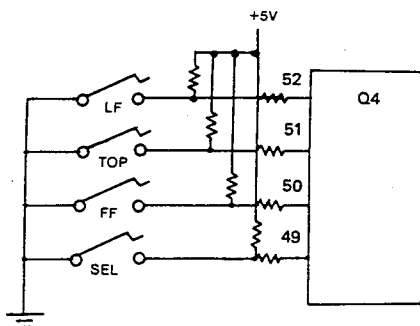
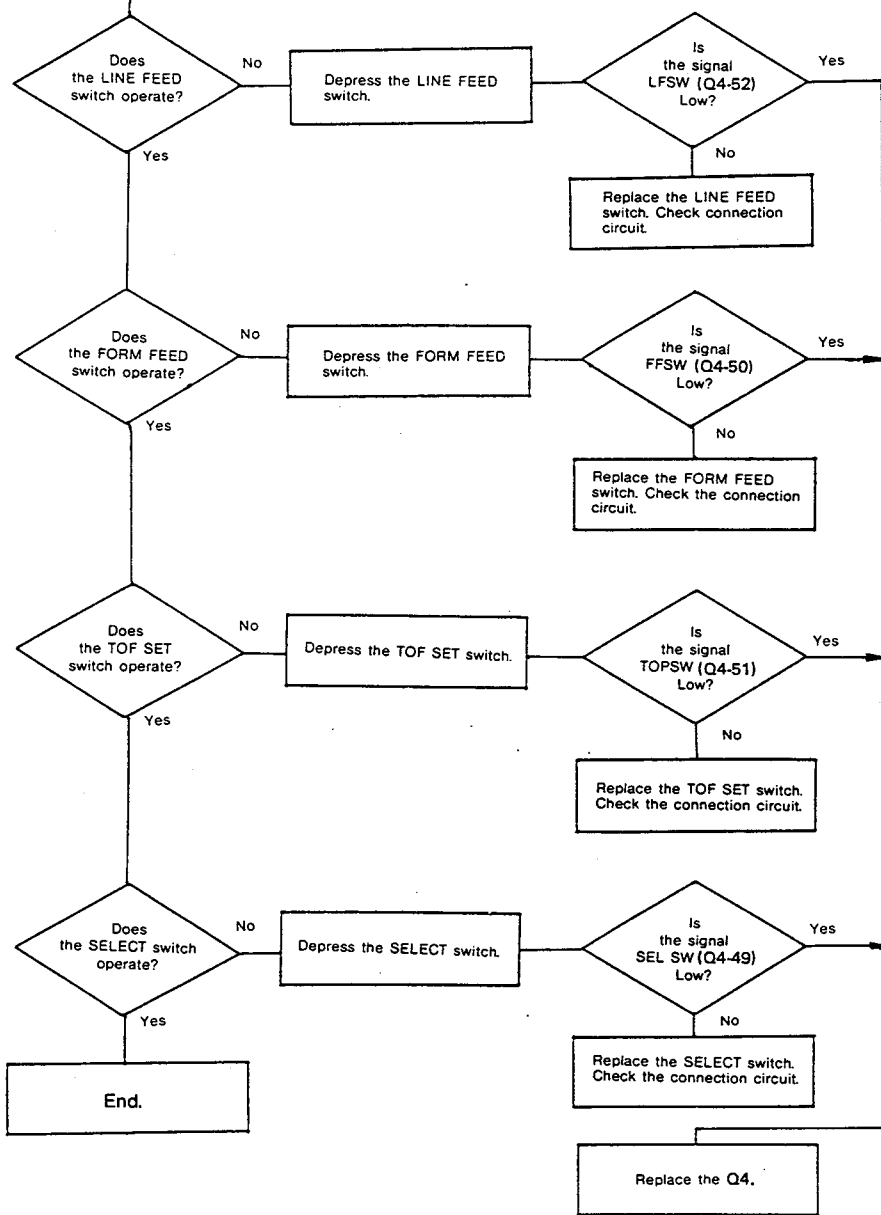
SELECT Lamp does not light.



6. Switch circuit

6-1

Switch does not operate

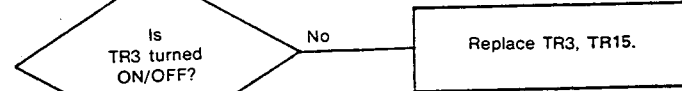
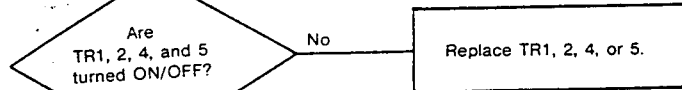
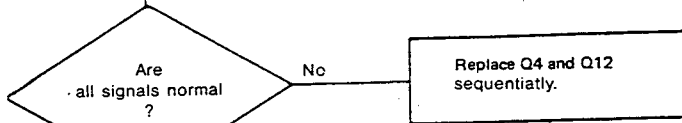


7. LINE FEED Motor Circuit

7-1

Does not perform line feed operation

Observe the following signals  
 LFφ1 (Q4-74)  
 LFφ2 (Q4-75)  
 LFφ3 (Q4-76)  
 LFφ4 (Q4-77)  
 LFOVD (Q4-73)  
 When LF is to be executed.

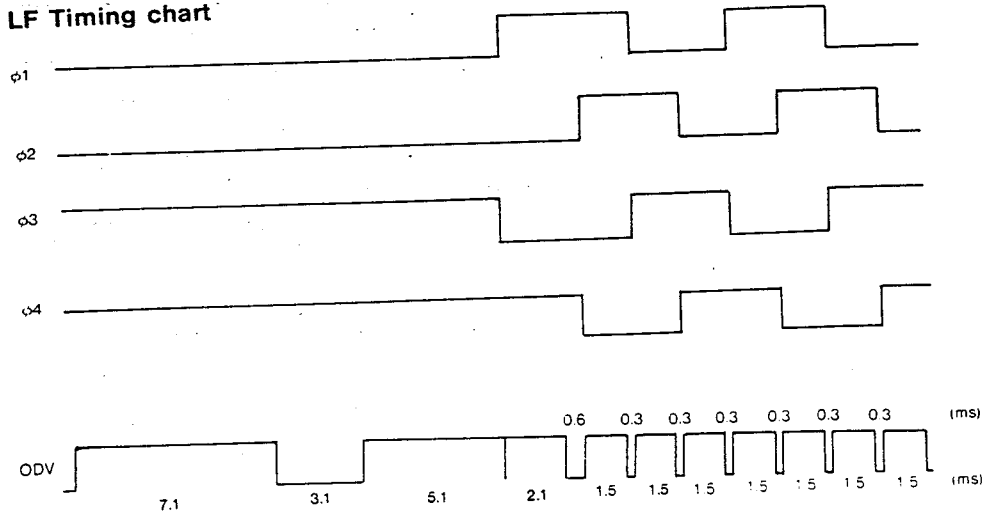


- Check the resistance of the LF motor. Resistance should be about 70 Ω.
- Replace the LF Motor.
- Check the connection circuit.

LF motor

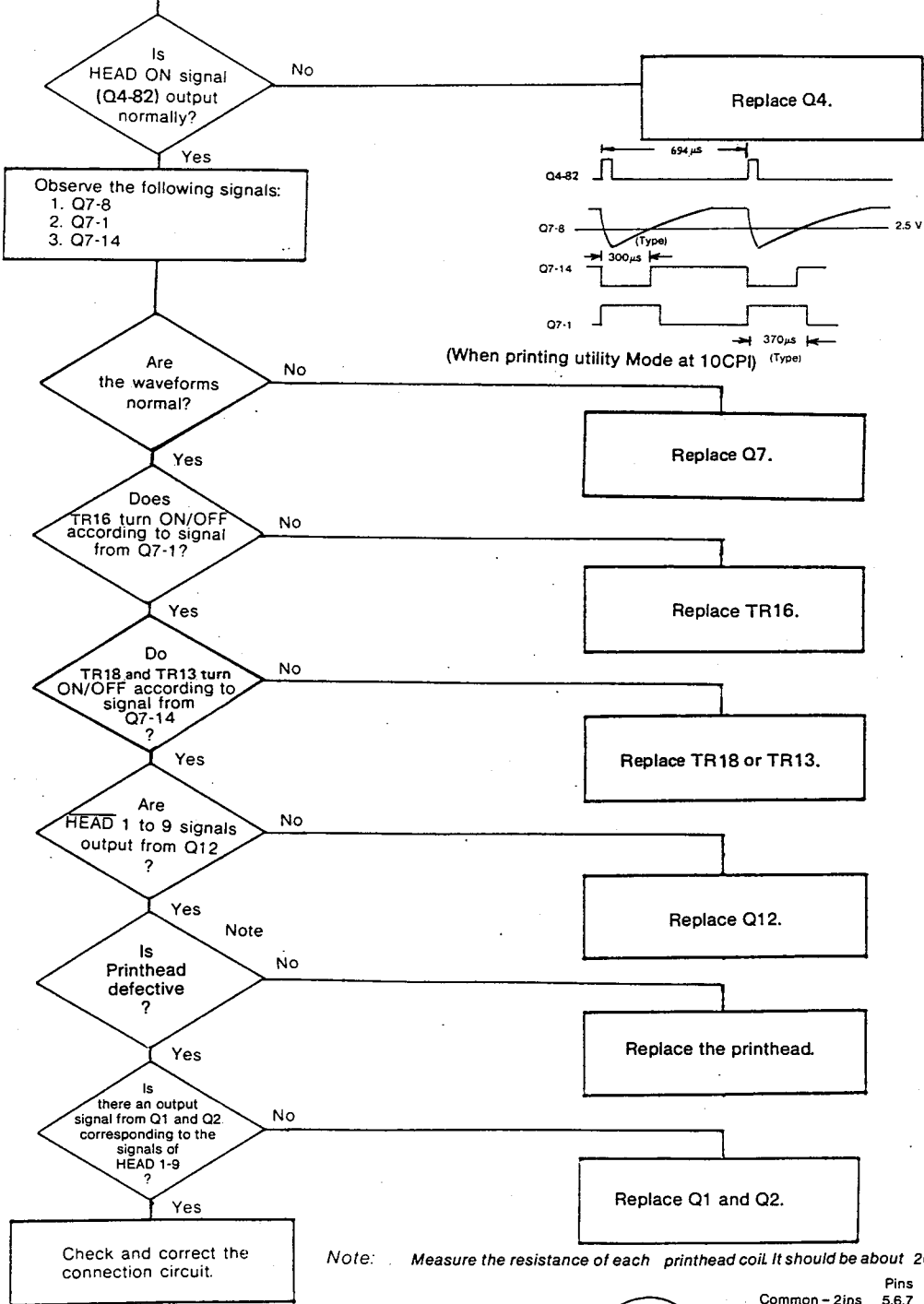
Connector CN3	Pins	resistance.
40	39-40	Approx 70Ω
39	39-38	Approx 70Ω
38	36-37	Approx 70Ω
37	36-35	Approx 70Ω
36	40-38	Approx 140Ω
35	37-35	Approx 140Ω

LF Timing chart



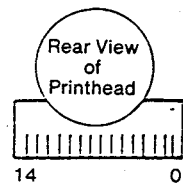
8. Print head drive circuit

8-1 Printing operation is not performed.



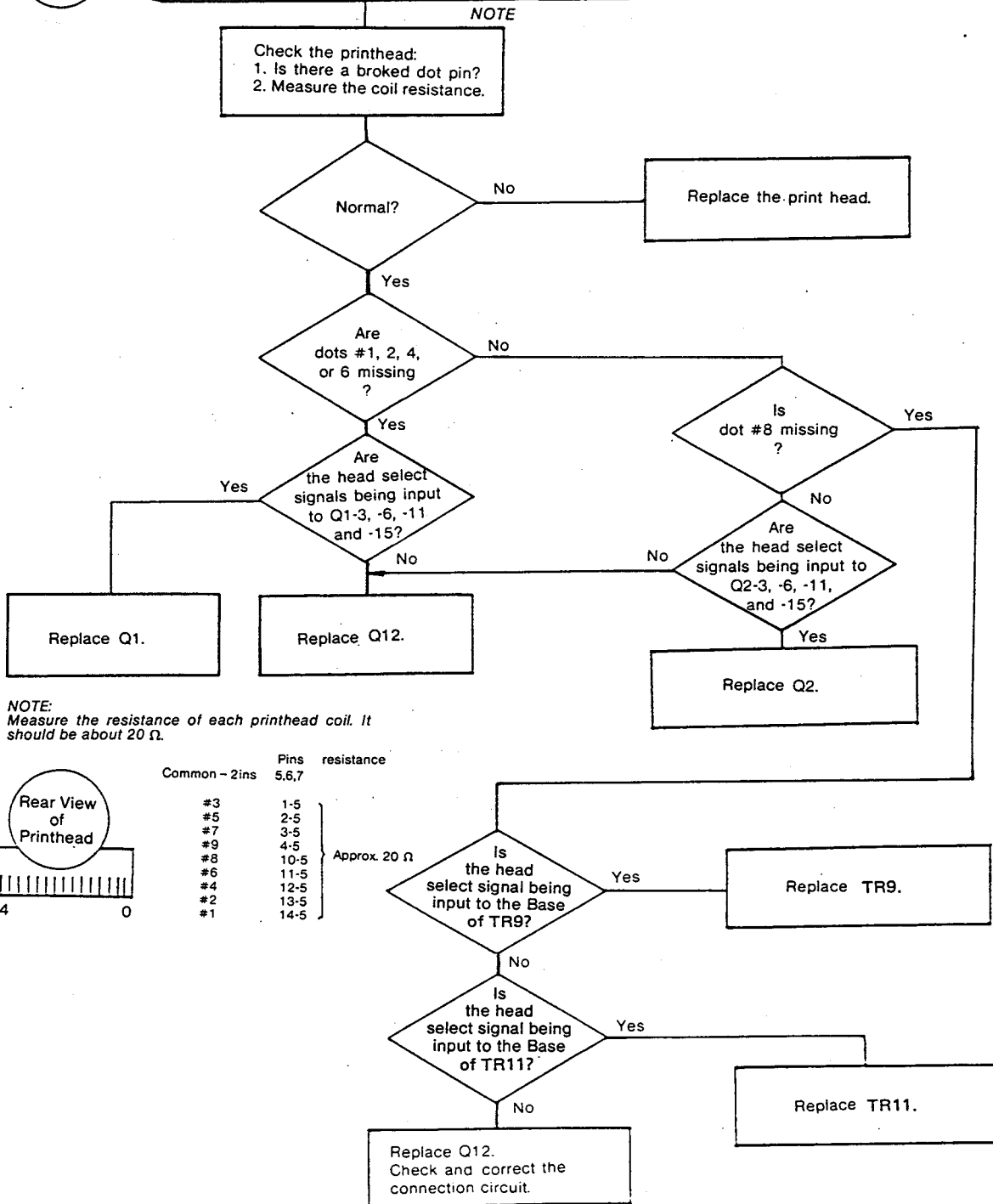
Note: Measure the resistance of each printhead coil. It should be about 20 Ω.

Common - 2ins	Pins	resistance
	5,6,7	
#3	1-5	} Approx. 20 Ω
#5	2-5	
#7	3-5	
#9	4-5	
#8	10-5	
#6	11-5	
#4	12-5	
#2	13-5	
#1	14-5	

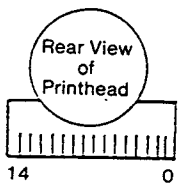


8-2

Some dots are not printed.



NOTE:  
Measure the resistance of each printhead coil. It should be about 20 Ω.

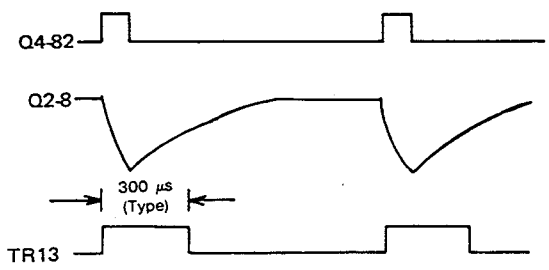
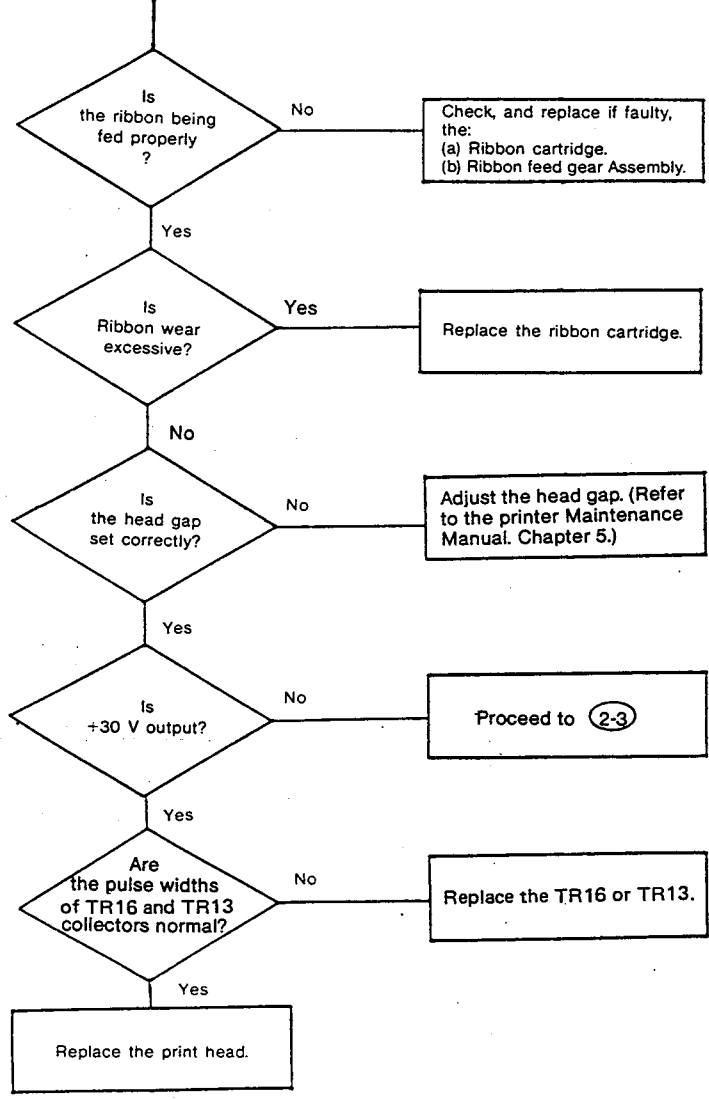


Common - 2ins	Pins	resistance
	5,6,7	
#3	1-5	} Approx. 20 Ω
#5	2-5	
#7	3-5	
#9	4-5	
#8	10-5	
#6	11-5	
#4	12-5	
#2	13-5	
#1	14-5	



8-3

**Print is not dark enough.**

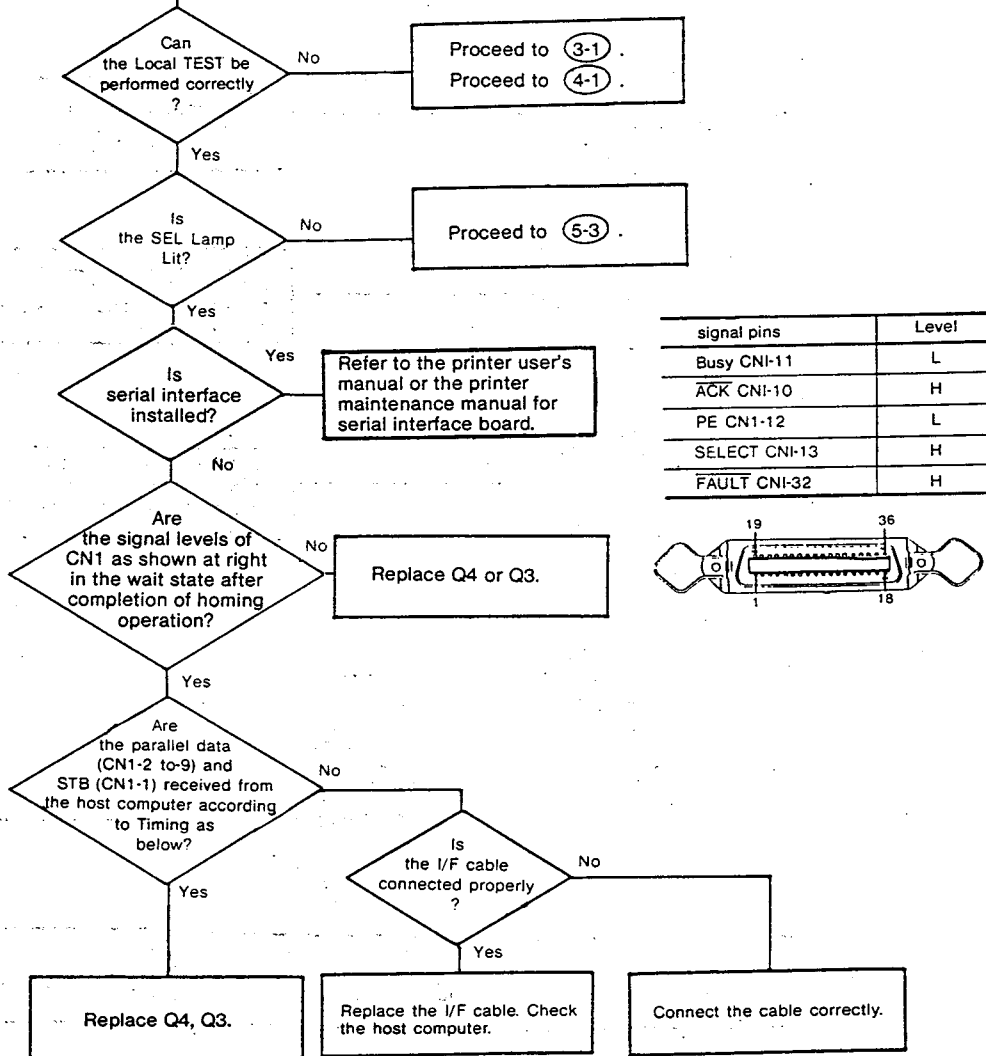


When printing in utility mode at 10 CPI

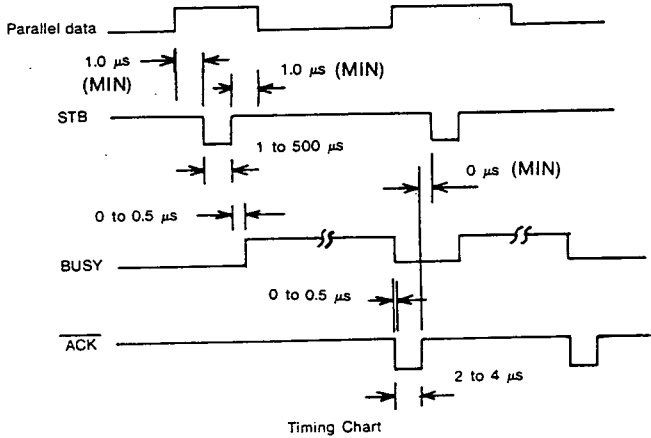
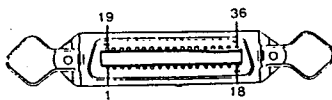
9. Interface (Receiving)

9-1

Does not print at all.

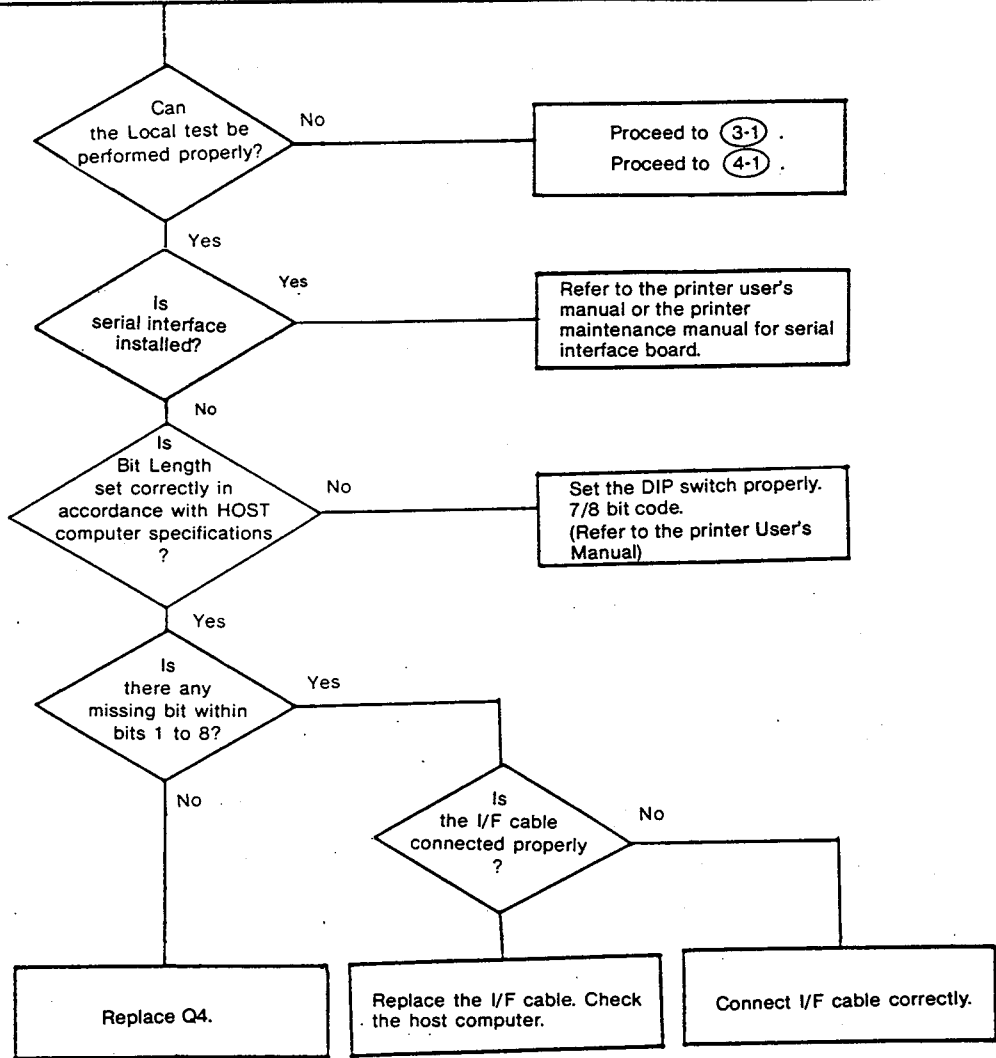


signal pins	Level
Busy CNI-11	L
ACK CNI-10	H
PE CNI-12	L
SELECT CNI-13	H
FAULT CNI-32	H

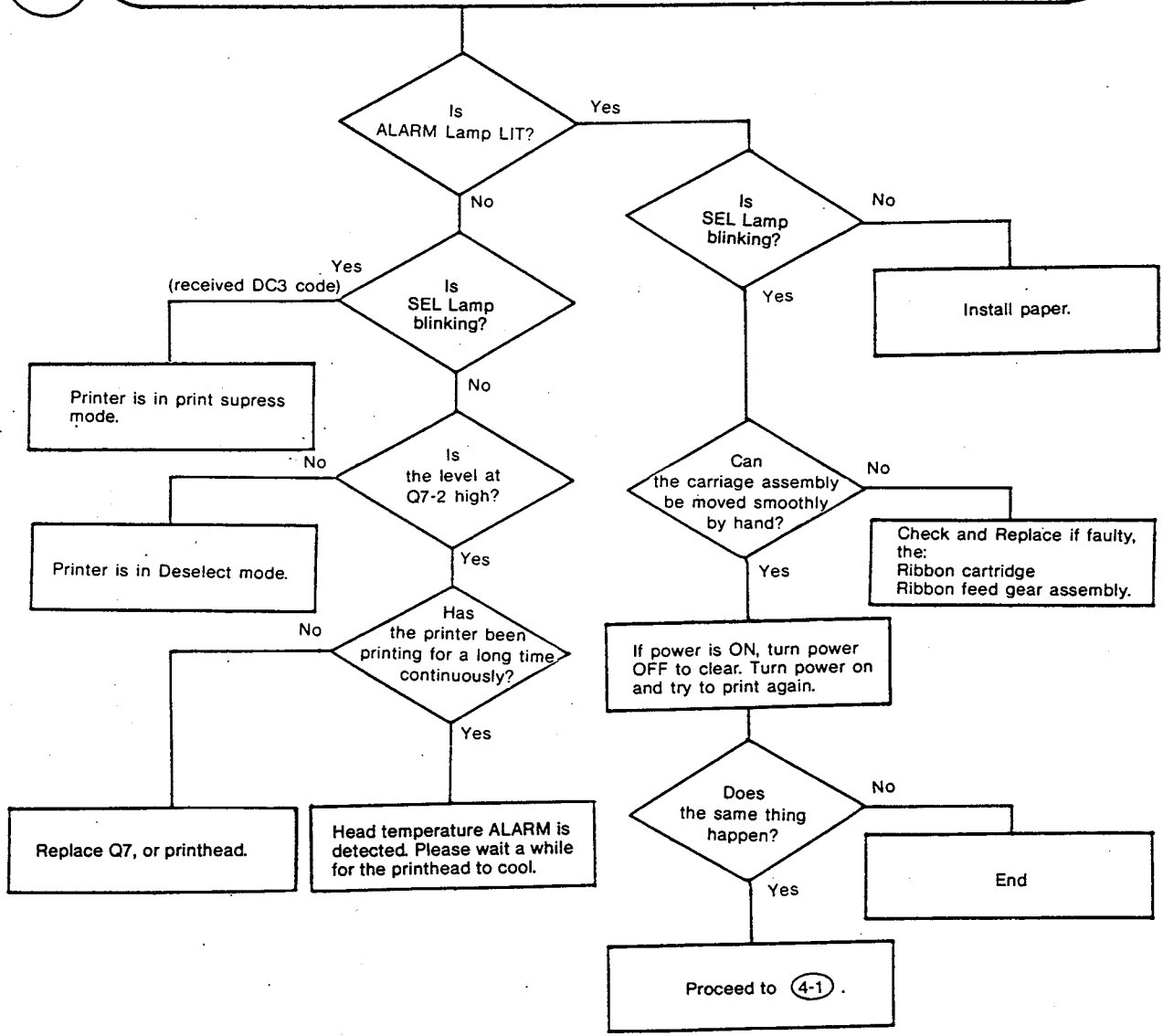


9-2

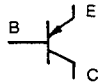
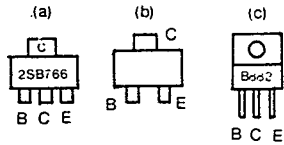
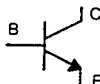
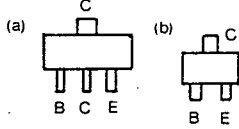
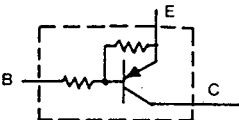
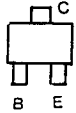
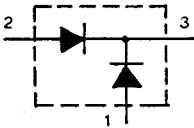
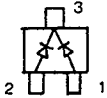

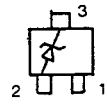


Wrong characters are printed, or some character are not printed.



9-3 The printing operation stops.



## A.2 Pin Assignment

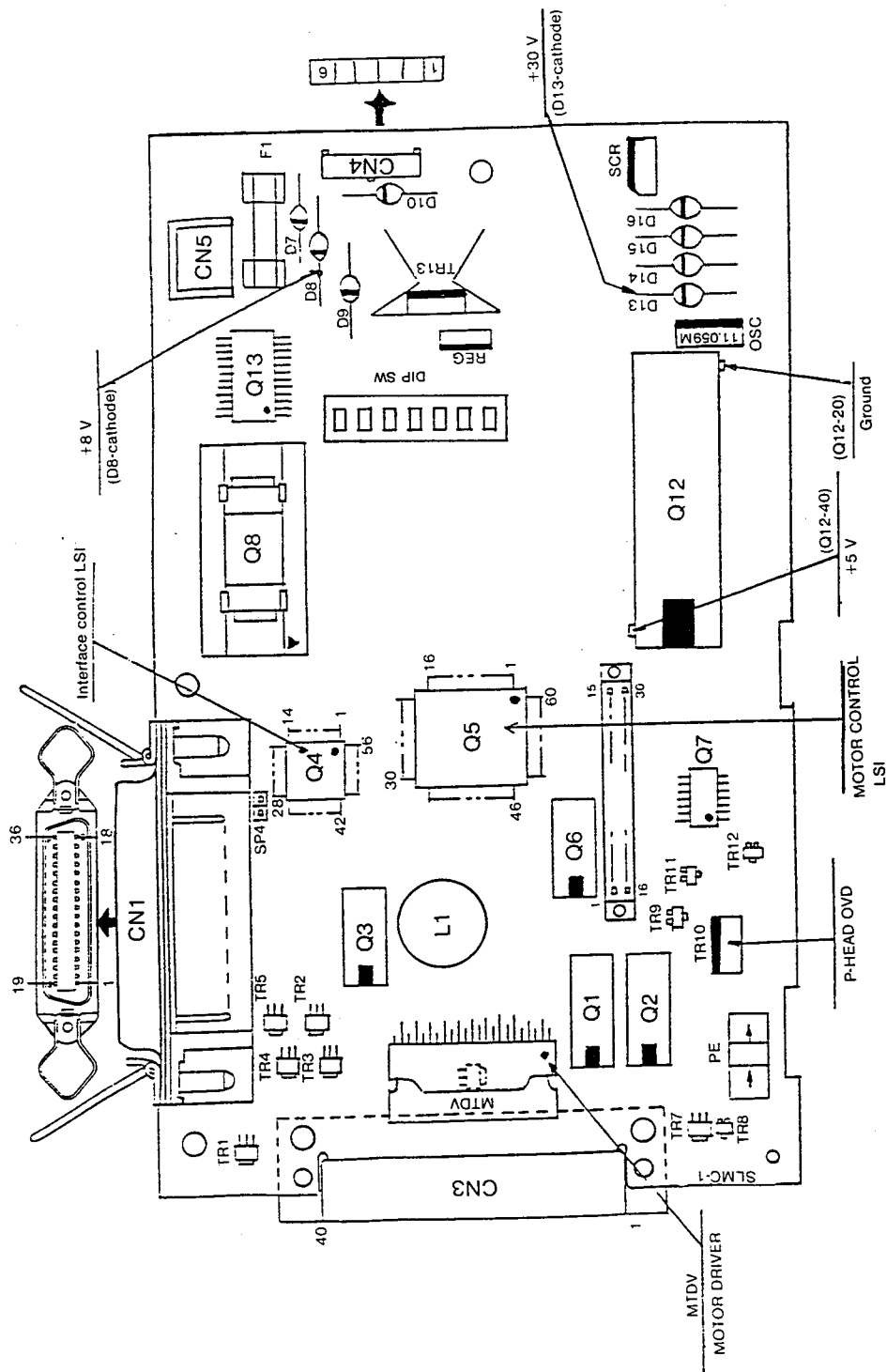
Symbol	Appearance and Pin Configuration	Description
		(a) 2SB1123 2SB766 (b) 2SA1037K (c) 2SB882 2SB858
		(a) 2SD1151 2SD1626 (b) 2SC2412
		DTA114K
		DAN202K
		MA3075M, MA3100, MA3047M, MA3240M, MA3300
		DSA1A2, DFA1A1, DSA1C1

## A.3 Resistance of coil for LF, SP motor, and printhead.

(Refer to the printer Maintenance Manual for more details.)

Items	Resistance (Approx. $\Omega$ )
LF Motor	70 $\Omega$ /each phase
SP Motor	21 $\Omega$ /each phase
Print head	20 $\Omega$ /each coil

# A.4 Layout of major component parts



SP4	short	+5 V is supplied to I/F
	open	+5 V is not supplied to I/F

## **Chapter 2 COMPONENT PARTS LIST**

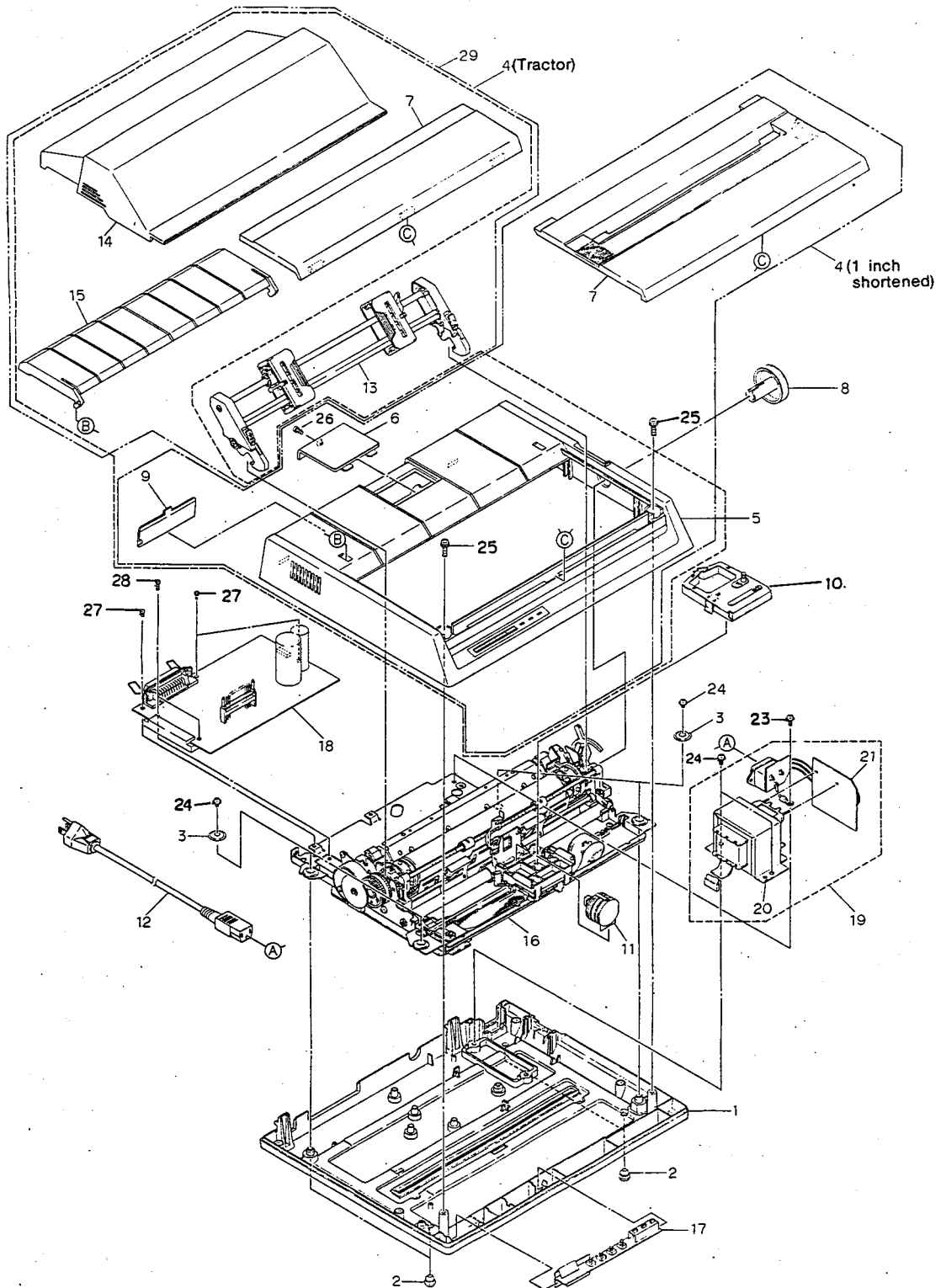


Figure 1 Printer Unit



**Figure 1 Printer Unit**

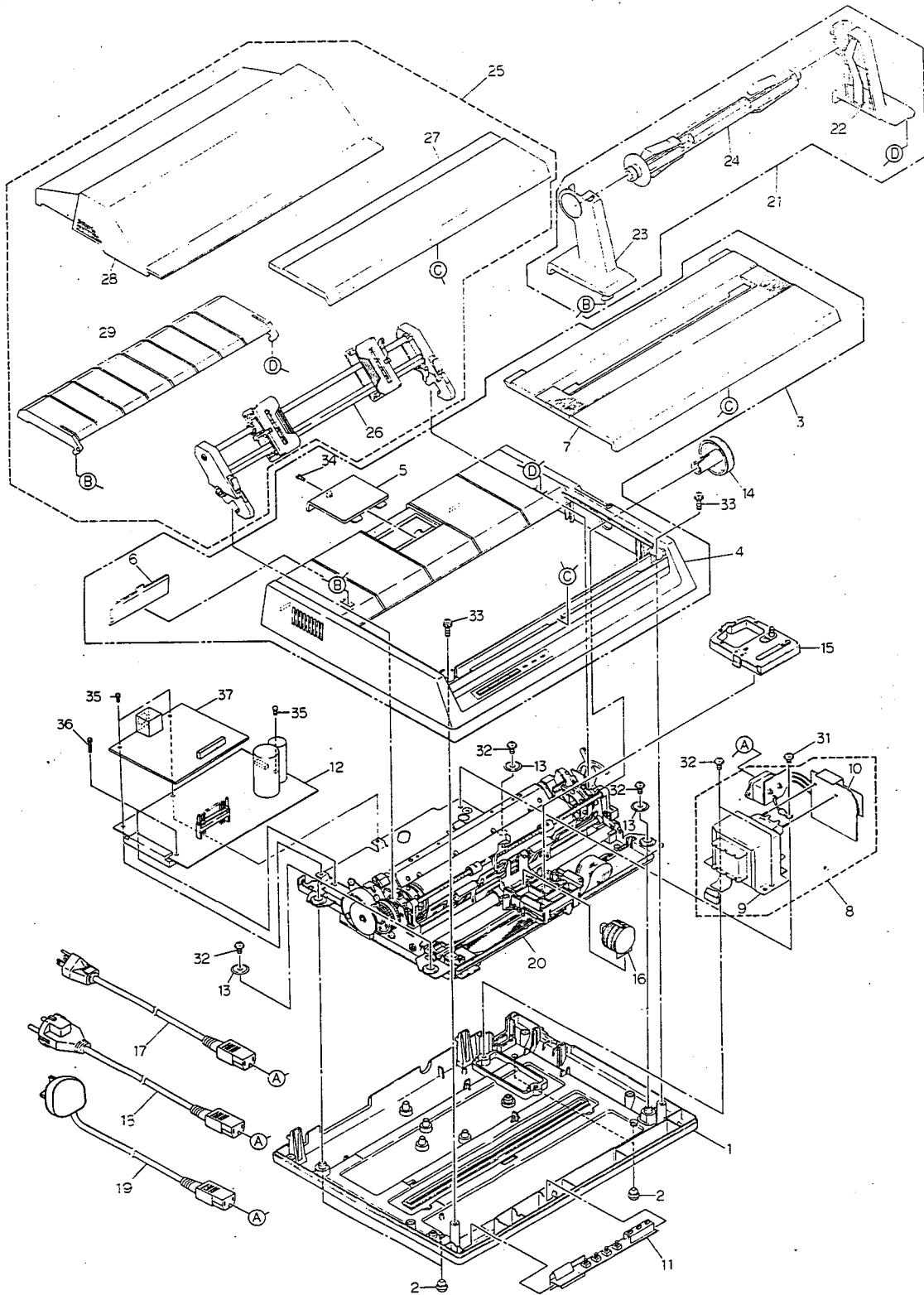
Item No.	Part No.	Description	Qty	Remarks
1	1PB4025-1121P1	Lower cover	1	ML182
1	1PB4025-1221P1	Lower cover	1	ML183
2	4PB4025-1137P1	Rubber foot	4	*
3	4PP4025-1152P1	Washer	4	*
4	3PA4025-1141G1	Upper cover assembly <sup>(1 inch shortened)</sup>	1	ML182
4	3PA4025-1226G1	Upper cover assembly (tractor)	1	ML183
5	3PP4025-1143G1	Upper cover	1	ML182
5	3PP4025-1227G1	Upper cover	1	ML183
6	4PB4025-1123P1	DIP switch access cover	1	*
7	3PA4025-1126G1	Access cover	1	ML182
7	2PB4025-1186P1	Access cover (tractor)	1	ML182 option
7	2PB4025-1187P1	Access cover (tractor)	1	ML183
8	4PB4025-1134P1	Platen knob	1	*
9	4PB4025-1124P1	Connector cover	1	*
10	4PA4025-1301G1	Inked-ribbon cassette assembly	1	*
11	4YA4025-1401G1	Print head	1	*
12	3YS4011-1026P1	AC cord	1	120V *
13	3PA4025-1311G1	Pin tractor assembly	1	ML182 option
13	3PA4025-1311G2	Pin tractor assembly	1	ML183
14	2PB4025-1130P1	Tractor cover	1	ML182 option
14	2PB4025-1130P2	Tractor cover	1	ML183
15	2PB4025-1188P1	Paper separator	1	ML182 option
15	2PB4025-1189P1	Paper separator	1	ML183
16	3YX4025-1010G1	Printer mechanism	1	ML182
16	3YX4025-1201G1	Printer mechanism	1	ML183
17	4YA4021-1007G1	SLSQ printed-circuit board	1	*
18	4YA4021-1001G019	SLMC-2 printed-circuit board	1	ML182 (ODA)
18	4YA4021-1001G100	SLMC-2 printed-circuit board	1	ML182 (IBM)
18	4YA4021-1001G101	SLMC-2 printed-circuit board	1	ML182 (ODG)
18	4YA4021-1001G102	SLMC-2 printed-circuit board	1	ML182 (IBM)
18	4YA4021-1001G040	SLMC-2 printed-circuit board	1	ML183 (ODA)
18	4YA4021-1001G041	SLMC-2 printed-circuit board	1	ML183 (IBM)
18	4YA4021-1001G042	SLMC-2 printed-circuit board	1	ML183 (ODG)
18	4YA4021-1001G043	SLMC-2 printed-circuit board	1	ML183 (IBM)
19	3YX4021-1012G1	AC transformer assembly	1	ML182 (120 V)
19	3YX4021-1013G1	AC transformer assembly	1	ML182 (220 V)
19	3YX4021-1014G1	AC transformer assembly	1	ML182 (240 V)
19	3YX4021-1012G2	AC transformer assembly	1	ML183 (120 V)
12	3YS4011-1051 P1	AC cord	1	240 V *
12	3YS4011-1052 P1	AC cord	1	220 V *

**NOTE:** Parts indicated by \* are common to both ML182 and ML183

Figure 1 (con.)

Item No.	Part No.	Description	Qty	Remarks
19	3YX4021-1013G2	AC transformer assembly	1	ML183 (220 V)
19	3YX4021-1014G2	AC transformer assembly	1	ML183 (240 V)
20	3LP-45474-1	Transformer	1	ML182 (120 V)
20	3LP-45475-1	Transformer	1	ML182 (220 V)
20	3LP-45483-1	Transformer	1	ML182 (240 V)
20	3LP-45474-2	Transformer	1	ML183 (120 V)
20	3LP-45475-2	Transformer	1	ML183 (220 V)
20	3LP-45483-2	Transformer	1	ML183 (240 V)
21	3YU5003-5611G2	SLPB-2 printed-circuit board	1	120 V *
21	3YU5003-5611G3	SLPB-3 printed-circuit board	1	220 V *
21	3YU5003-5611G4	SLPB-4 printed-circuit board	1	240 V *
23	4LP-7058-6	Cup screw (M-4, L-6)	1	*
24	4LP-7058-8	Cup screw (M-4, L-8)	6	*
25	⊕ P (SW+2W) 4-12-HH	Screw	2	*
26	⊕ T2P3-8-G	Screw	1	*
27	⊕ P (SW+2W) 3-8-HH	Screw	3	*
28	⊕ P (SW+W) 3-14-HH	Screw	3	*
29	4YA4025-1709G1	Pin tractor unit	1	Option

**NOTE:** Parts indicated by \* are common to both ML182 and ML183



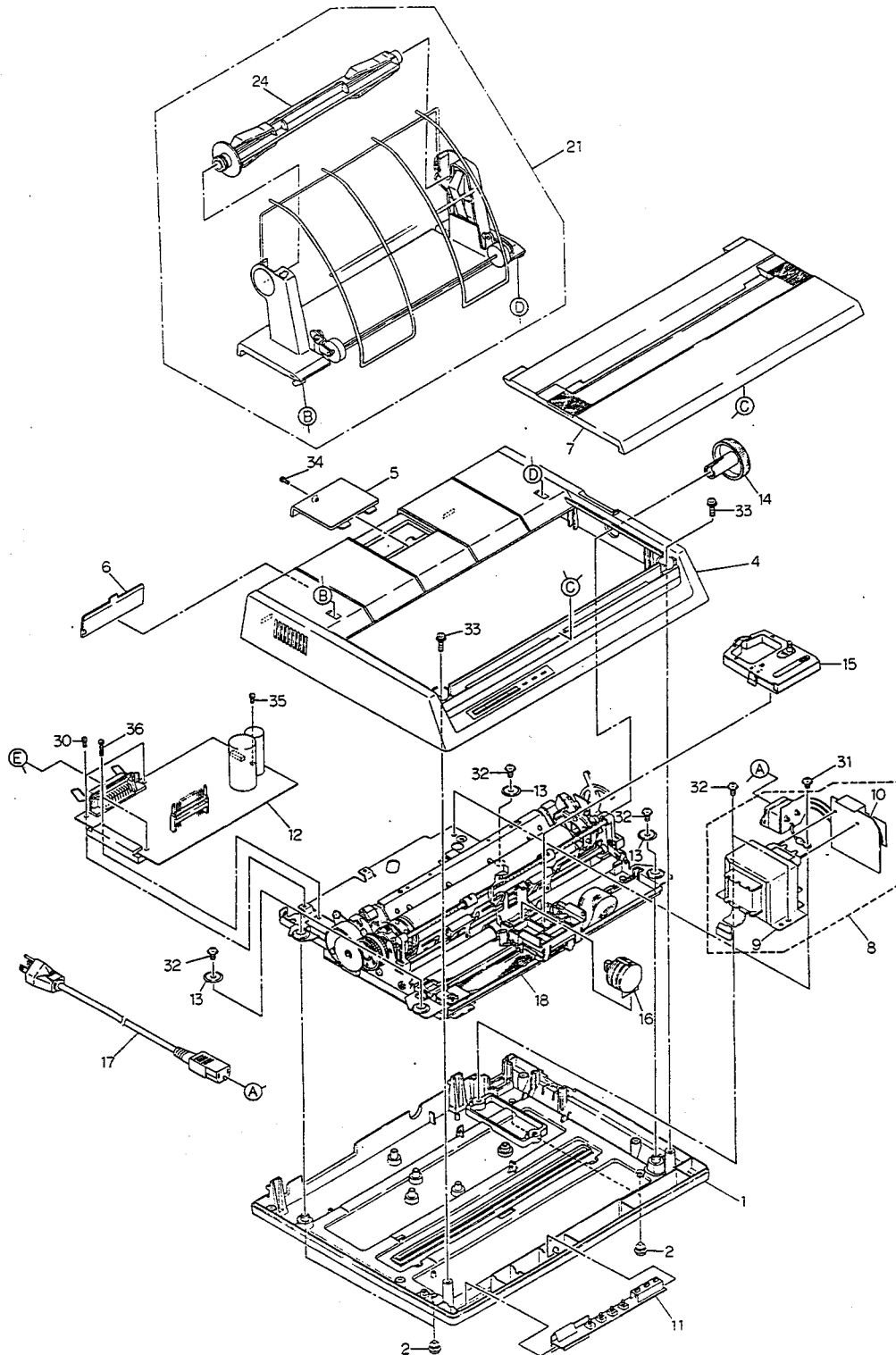
**Printer Unit 1/2 (OKIDATA 120)**

**Printer Unit 2/2 (1/2) (OKIDATA 120)**

Item No.	Part No.	Description	Qty	Remarks
1	1PB4025-1121P1	Lower cover	1	
2	4PB4025-1137P1	Rubber foot	4	
3	3PA4025-1141G1	Upper cover assembly	1	
4	3PP4025-1143G1	Upper cover	1	
5	4PB4025-1123P1	DIP switch access cover	1	
6	4PB4025-1124P1	Connector cover	1	
7	3PA4025-1126G1	Access cover	1	
8	3YX4021-1012G1	AC transformer assembly	1	120 V
8	3YX4021-1013G1	AC transformer assembly	1	220 V
8	3YX4021-1014G1	AC transformer assembly	1	240 V
9	3LP-45474-1	Transformer	1	120 V
9	3LP-45475-1	Transformer	1	220 V
9	3LP-45483-1	Transformer	1	240 V
10	3YU5003-5611G2	SLPB-2 Printed-circuit board	1	120 V
10	3YU5003-5611G3	SLPB-3 Printed-circuit board	1	220 V
10	3YU5003-5611G4	SLPB-4 Printed-circuit board	1	240 V
11	4YA4021-1007G1	SLSQ Printed-circuit board	1	
12	4YA4021-1001G016	SLMC-5 Printed-circuit board	1	ODA
12	4YA4021-1001G103	SLMC-5 Printed-circuit board	1	ODG
13	4PP4025-1152P1	Washer	4	
14	4PB4025-1134P1	Platen knob	1	
15	4PA4025-1301G1	Inked-ribbon cassette assembly	1	
16	4YA4025-1401G1	Print head	1	
17	3YS4011-1026P1	Ac cable	1	120 V
18	3YS4011-1052P1	Ac cable	1	220 V
19	3YS4011-1051P1	Ac cable	1	240 V
20	3YX4025-1010G1	Printer mechanism	1	
21	4YA4025-1710G1	Roll paper stand assembly	1	Option
22	4PA4025-2001G1	Roll paper stand (R)	1	Option
23	2PB4025-2004P1	Roll paper stand (L)	1	Option
24	3LR-190075	Paper shaft	1	Option
25	4YA4025-1709G1	Pin tractor Option kit	1	Option

**Printer Unit 2/2 (2/2) (OKIDATA 120)**

Item No.	Part No.	Description	Qty	Remarks
26	3PA4025-1311G1	Pin tractor assembly	1	Option
27	2PB4025-1186P1	Access cover (tractor)	1	Option
28	2PB4025-1130P1	Tractor cover	1	Option
29	2PB4025-1188P1	Paper separator	1	Option
31	4LP-7058-6	Cup screw (M=4, l=6)	1	
32	4LP-7058-8	Cup screw (M=4, l=8)	6	
33	⊕ P(SW+2W)4-12-HH	Screw	2	
34	⊕ T2P3-8-G	Screw	1	
35	⊕ P(SW+2W)3-8-HH	Screw	3	
36	⊕ P(SW+W)3-14-HH	Screw	3	
37	4YA4042-1056G1	CMDR printed-circuit board	1	



Printer Unit (TTY)

**Printer Unit (TTY)**

Item No.	Part No.	Description	Qty	Remarks
1	1PB4025-1121P1	Lower cover	1	
2	4PB4025-1137P1	Rubber foot	4	
4	3PP4025-1143G1	Upper cover	1	
5	4PB4025-1123P1	DIP switch access cover	1	
6	4PB4025-1124P1	Connector cover	1	
7	3PA4025-1126G1	Access cover	1	
8	3YX4021-1012G1	AC transformer assembly	1	
9	3LP-45474-1	Transformer	1	
10	3YU5003-5611G2	SLPB-2 printed-circuit board	1	
11	4YA4021-1007G1	SLSQ printed-circuit board	1	
12	4YA4021-1001G018	SLMC-6 printed-circuit board	1	
13	4PP4025-1152P1	Washer	4	
14	4PB4025-1134P1	Platen knob	1	
15	4PA4025-1301G1	Inked-ribbon cassette assembly	1	
16	4YA4025-1401G1	Print head	1	
17	3YS4011-1026P1	AC cord	1	
18	3YX4025-1010G1	Printer mechanism	1	
19				
20				
21	4YA4053-1057G2	Roll paper stand assembly	1	
24	3LR-190075	Paper shaft	1	
30				
31	4LP-7058-6	Cup screw (4 mm dia., 6 mm long)	1	
32	4LP-7058-8	Cup screw (4 mm dia., 6 mm long)	6	
33	⊕ P (SW+ZW) 4-12-HH	Screw	2	
34	⊕ T2P3-8-G	Screw	1	
35	⊕ P (SW+2W) 3-8-HH	Screw	3	
36	⊕ P (SW+W) 3-14-HH	Screw	2	

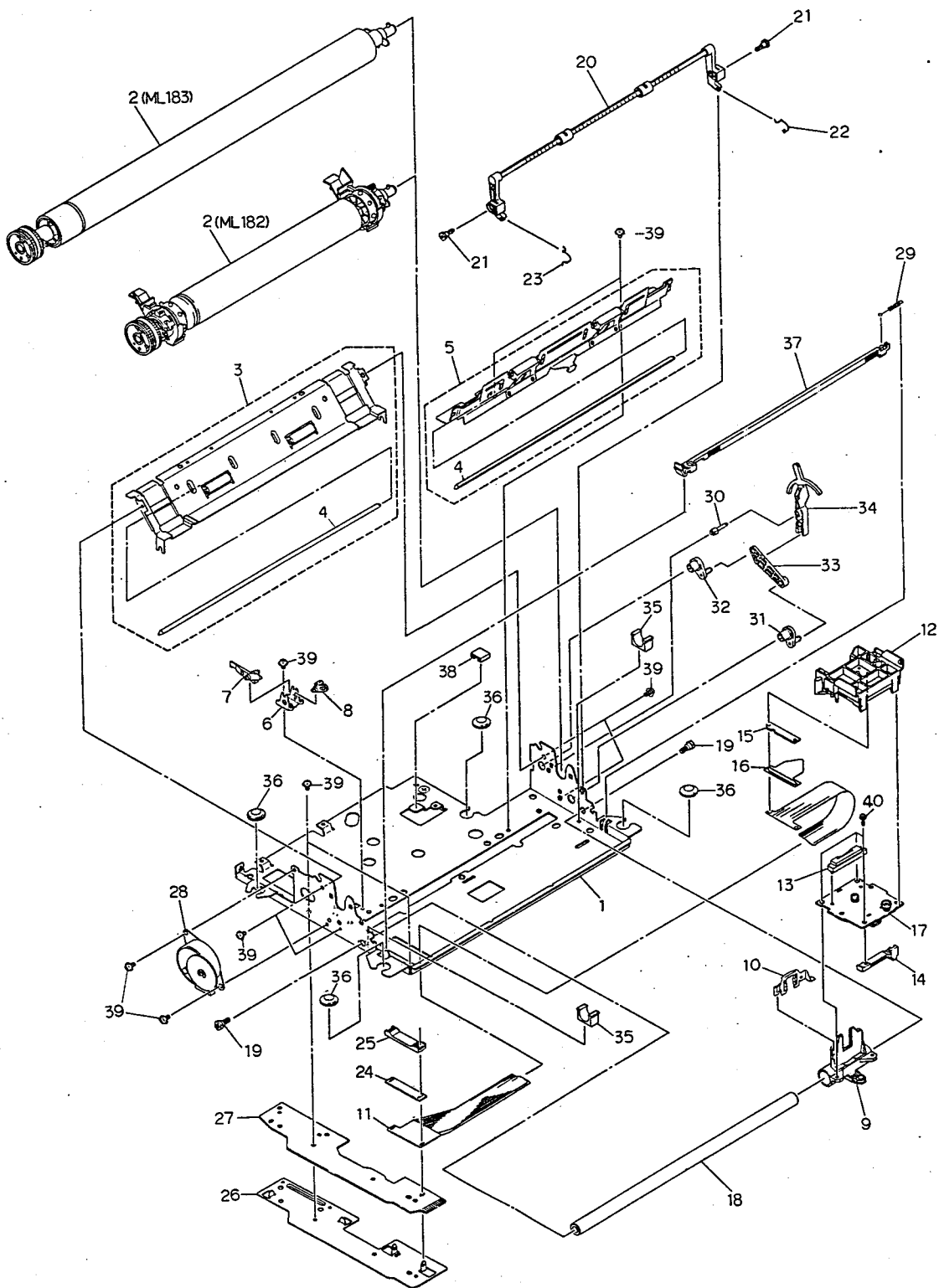


Figure 2 Printer Mechanism



**Figure 2 Printer Mechanism**

Item No.	Part No.	Description	Qty	Remarks
1	1PP4025-1011P1	Base frame	1	ML182
1	1PP4025-1202P1	Base frame	1	ML183
2	4PA4025-1012G1	Platen assembly	1	ML182
2	4PA4025-1203G1	Platen assembly	1	ML183
3	3PA4025-1027G1	Paper chute assembly	1	ML182
3	3PA4025-1205G1	Paper chute assembly	1	ML183
4	4PB4025-1029P1	Pressure release shaft	2	ML182
4	4PB4025-1029P2	Pressure release shaft	2	ML183
5	3PA4025-1032G1	Bottom paper guide assembly	1	ML182
5	3PA4025-1207G1	Bottom paper guide assembly	1	ML183
6	4PP4025-1038P1	Near-end bracket	1	* NOTE
7	4PB4025-1039P1	Near-end lever	1	ML182
7	4PB4025-1211P1	Near-end lever	1	ML183
8	4PB4025-1040P1	Bottom near-end lever	1	*
9	4PP4025-1118G1	Carriage roller	1	*
10	4PP4025-1048P1	Head clamp	1	*
11	2PU4007-1004P1	Carriage cable	1	ML182
11	2PU4007-1004P2	Carriage cable	1	ML183
12	4PA4025-1075G1	Ribbon feed gear assembly	1	*
13	3PB4025-1116P1	Connector	1	*
14	4PB4025-1088P1	Slider	1	*
15	4PP4025-1114P1	Contact pressure rubber	1	*
16	4PP4025-1182P1	Cable clamp	1	*
17	4YX4025-1800G1	Space motor assembly	1	*
18	4PB4025-1089P1	Carriage shaft	1	ML182
18	4PB4025-1089P2	Carriage shaft	1	ML183
19	4PB4025-1090P1	Main shaft screw	2	*
20	4PA4025-1091G1	Indicator assembly	1	ML182
20	4PA4025-1091G2	Indicator assembly	1	ML183
21	4PB4025-1096P1	Push-shaft	2	*
22	4PB4025-1097P1	Pressure roller spring (R)	1	*
23	4PB4025-1098P1	Pressure roller spring (L)	1	*
24	4PP4025-1099P1	Contact rubber	1	*
25	4PB4025-1100P1	Cord clamp	1	*
26	3PP4025-1103P1	Circuit support	1	*
27	2PU4003-5624P1	SLBS printed-circuit board	1	*
28	4PB4025-1105P1	LF motor	1	*
29	4PB4025-1106P1	Tension spring	1	*

**NOTE:** Parts indicated by \* are common to both ML182 and ML183

Figure 2 (con.)

Item No.	Part No.	Description	Qty	Remarks
30	4PB4025-1107P1	Release post	1	* <i>NOTE</i>
31	4PB4025-1108P1	Release link (front)	1	*
32	4PB4025-1109P1	Release link (rear)	1	*
33	4PB4025-1110P1	Release link	1	*
34	4PB4025-1113P1	Paper lock release lever	1	*
35	4PB4025-1115P1	Stopper rubber	2	*
36	4PB4025-1159P1	Grommet	4	*
37	3PB4025-1049P1	Space rack	1	ML182
37	3PB4025-1049P2	Space rack	1	ML183
38	4PP4025-1158P1	Radiating rubber	1	*
39	4LP-7057-6	Cup screw (ML = 3, L = 6)	11	*
40	⊕ P (SW+W) 3-8-HH	Screw.	3	*

**NOTE:** Parts indicated by \* are common to both ML182 and ML183

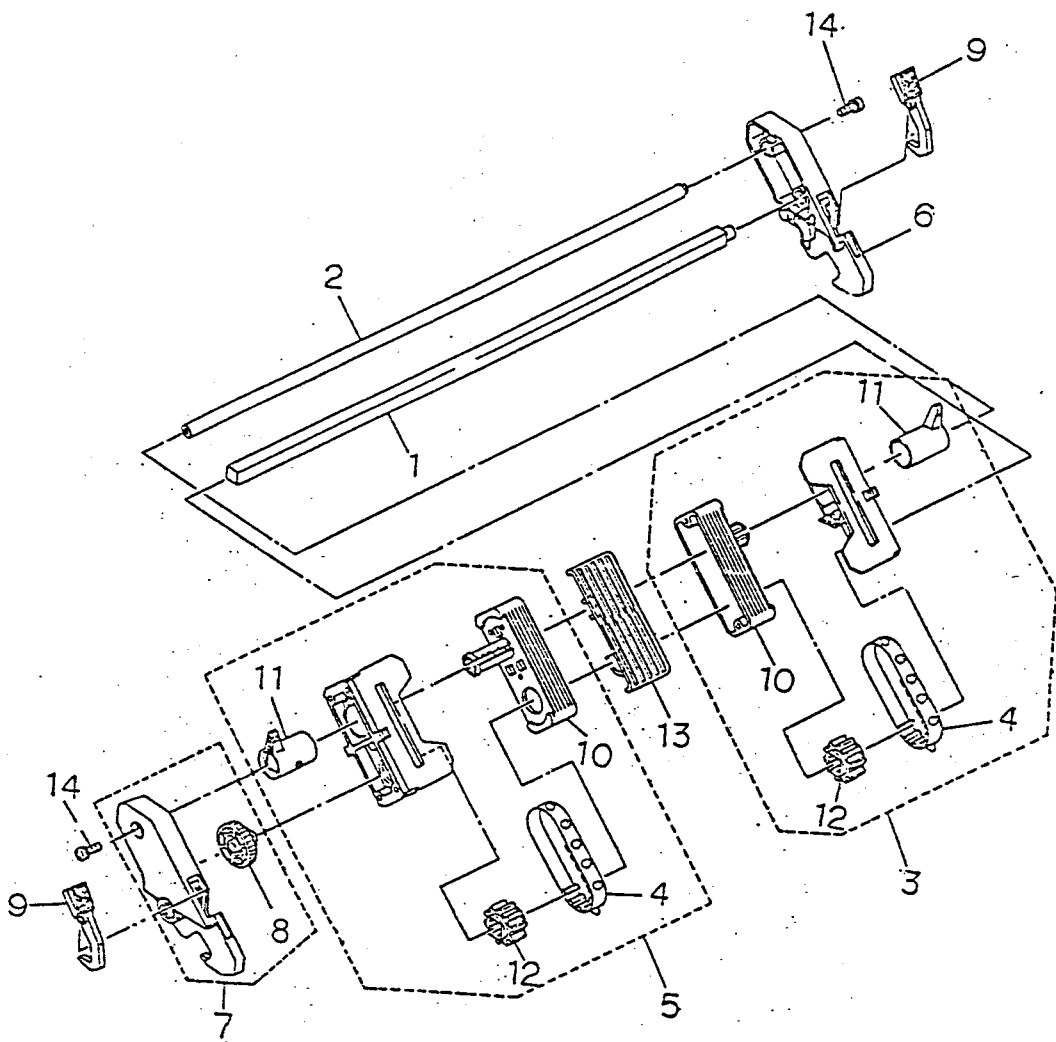


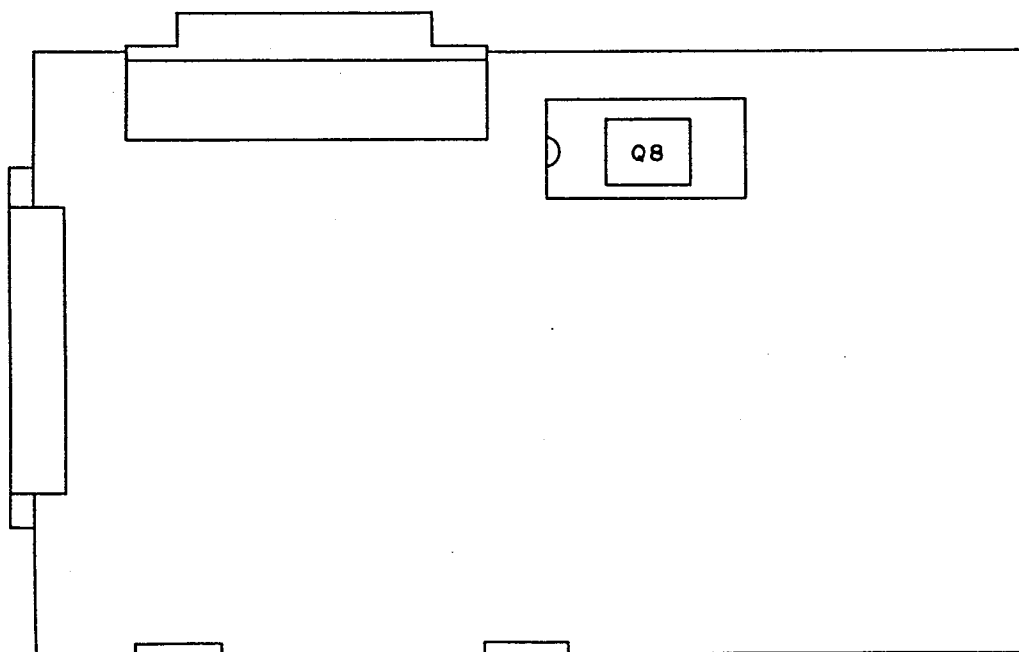
Figure 3 Pin Tractor Assembly

Figure 3. Pin Tractor Assembly

Item No.	Part No.	Description	Qty	Remarks
1	4PB4025-1313P1	Drive shaft	1	ML182 option
1	4PB4025-1313P2	Drive shaft	1	ML183
2	4PB4025-1314P1	Lock shaft	1	ML182 option
2	4PB4025-1314P2	Lock shaft	1	ML183
3	4PA4025-1315G1	Pin tractor assembly (R)	1	ML182 option
4	4PA4025-1319P1	Belt	2	ML182 option
5	4PA4025-1328G1	Pin tractor assembly (L)	1	ML182 option
6	3PB4025-1331P1	Side frame (R)	1	ML182 option
7	4PA4025-1332G1	Side frame assembly (L)	1	ML182 option
8	4PB4025-1337P1	Drive gear	1	ML182 option
9	4PA4025-1339G1	Lock lever	2	ML182 option
10	4PB4025-1318P1	Tractor frame	2	ML182 option
11	4PB4025-1317P1	Lock lever	2	ML182 option
12	4PB4025-1327P1	Wheel	2	ML182 option
13	4PB4025-1338P1	Sheet guide	1	ML183 only
14	⊕ P (SW+W) 3-6-HH	Screw	2	

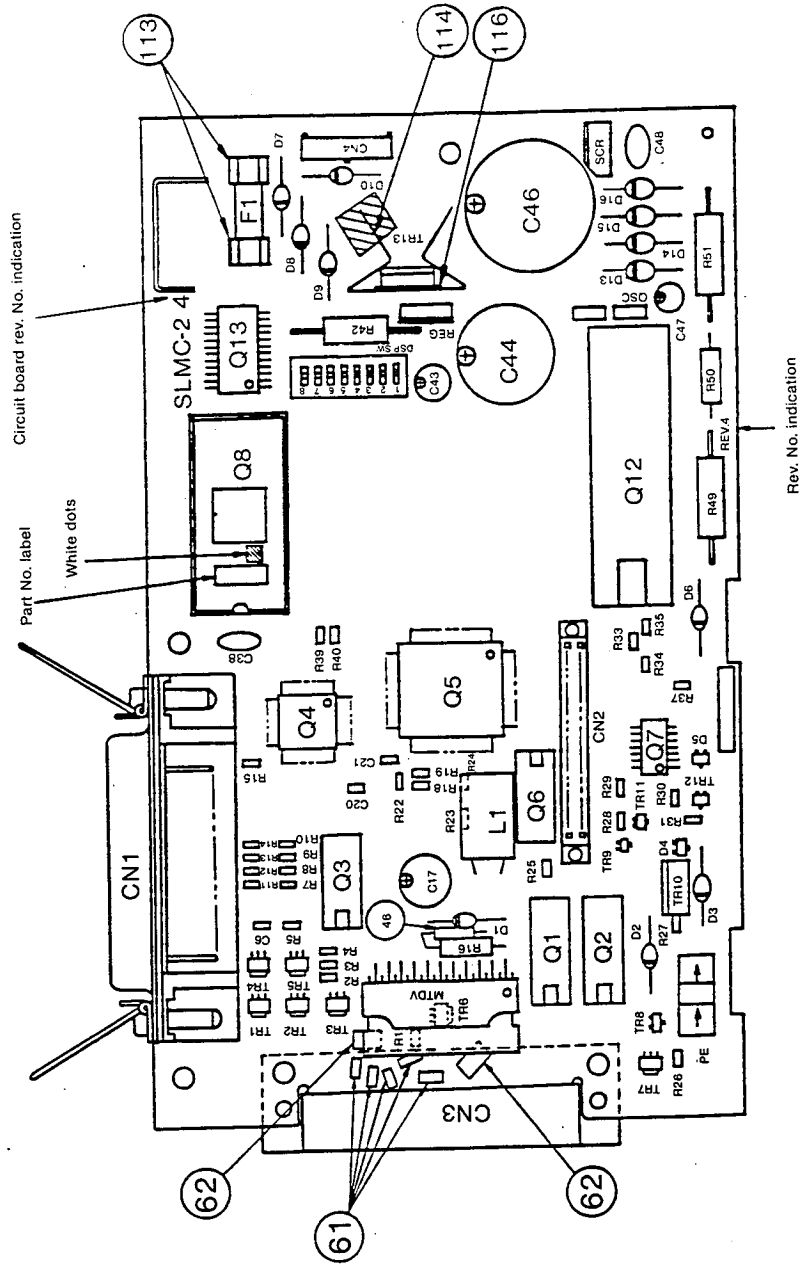
Different types ROMs are used for each G No. as listed below.

G No.	ROM No.	Part No.	Part No. label	Application	Remarks
G010	Q8	4YR4064-1002G1	64-1002	Up to Rev. 4	ODA standard
G010	Q8	4YR4064-1065G1	64-1065	Rev. 5 to Rev. 12	ODA standard
G010	Q8	4YR4065-1222G1	65-1222	Rev. 13 and after	ODA standard
G011	Q8	4YR4065-1001G1	65-1001	Up to Rev. 4	ODA IBM
G011	Q8	4YR4065-1046G1	65-1046	Rev. 5 and after	ODA IBM
G012	Q8	4YR4064-1003G1	64-1003	Up to Rev. 7	ODG standard
G012	Q8	4YR4064-1066G1	64-1066	Rev. 8 to Rev. 12	ODG standard
G012	Q8	4YR4065-1253G1	65-1253	Rev. 13 and after	ODG standard
G013	Q8	4YR4065-1006G1	65-1006	Up to Rev. 7	ODG IBM
G013	Q8	4YR4065-1060G1	65-1060	Rev. 8 and after	ODG IBM
G040	Q8	4YR4064-1109G1	64-1109	Up to Rev. 12	ODA standard
G040	Q8	4YR4065-1223G1	65-1223	Rev. 13 and after	ODA standard
G041	Q8	4YR4065-1099G1	65-1099		ODA IBM
G042	Q8	4YR4064-1126G1	64-1126	Up to Rev. 12	ODG standard
G042	Q8	4YR4065-1254G1	65-1254	Rev. 13 and after	ODG standard
G043	Q8	4YR4065-1100G1	65-1100		ODG IBM

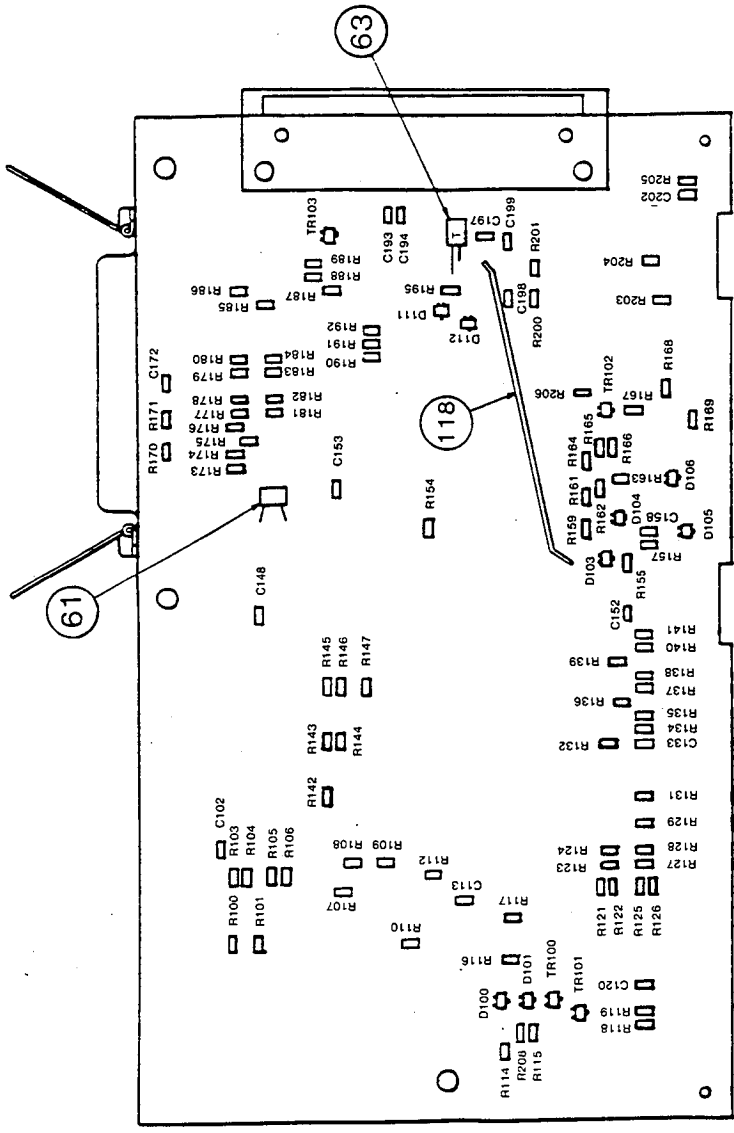


SLMC-2 Printed-Circuit Board (4YA4021-100GXXX)

**Parts side**



**Solder side**



Different types ROMs are used for each G No. as listed below.

G No.	ROM No.	Part No. label	Part No.	Remarks
G010	Q8	64-1065	4YR4064-1065G1	ODA, standard
G011	Q8	65-1046	4YR4065-1046G1	ODA, IBM
G012	Q8	64-1066	4YR4064-1066G1	ODG, standard
G013	Q8	65-1060	4YR4065-1060G1	ODG, IBM

Circuit board	Rev. No.
rev. No.	4
	4

Figure 4 (1/5) SLMC - 2 Printed-Circuit Board (4YA4021-1001Gxxx) (Rev.4)

Figure 4 (2/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (Rev.4)

Item No.	Symbol	Part No.	Description	Qty	Remarks
1	D1	610A0221L0021	Diode	1	✓
2	D2, D6, D7 to D10	610A0021L0090	Diode	6	✓
3	D3, D13 to D16	610A0021L0089A	Diode	5	✓
4	D4, D100, D103, D105	611A0003N0003	Diode	4	✓
5	D104	613A0291M0102M	Zener diode	1	✓
6	D101, D111	613A0291M0182	Zener diode	2	✓
7	D5	613A0291M0152M	Zener diode	1	✓
8	D106	613A0291M0272M	Zener diode	1	✓
9	D112	613A0291M0292	Zener diode	1	✓
10					
11					
12	SCR	620A0022M0003E	Thyristor	1	✓
13					
14					
15	R5	323A5015J0101	RN resistor, 100Ω	1	✓
16	R110	323A5015J0180	RN resistor, 18Ω	1	✓
17	R24	323A5015J0221	RN resistor, 220Ω	1	✓
18	R23, R205	323A5015J0431	RN resistor, 430Ω	2	✓
19	R162, R186, R203	323A5015J0511	RN resistor, 510Ω	3	✓
20	R27, R118, R119, R155, R167, R189	323A5015J0122	RN resistor, 1.2KΩ	6	✓
21	R29, R163	323A5015J0202	RN resistor, 2KΩ	2	✓
22	R1 to R4, R26, R31, R115, R169, R185, R188	323A5015J0222	RN resistor, 2.2KΩ	10	✓
23	R28	323A5015J0561	RN resistor, 560Ω	1	✓
24	R161	323A5015J0242	RN resistor, 2.4KΩ	1	✓
25	R7 to R14, R170, R166, R177 to R180	323A5015J0332	RN resistor, 3.3KΩ	14	✓
26	R18, R19, R129, R135 to R141, R190 to R192	323A5015J0512	RN resistor, 5.1KΩ	13	✓
27	R15, R22, R100, R101, R103 to R109, R112, R154, R159, R164, R168, R187	323A5015J0562	RN resistor, 5.6 KΩ	17	✓

Figure 4 (3/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (Rev.4)

Item No.	Symbol	Part No.	Description	Qty	Remarks
28	R39, R40, R117, R131, R134, R121 to R128, R142 to R147, R173 to R176, R181 to R184, R204	323A5015J0103	RN resistor, 10K $\Omega$	28	✓
29					
30	R200	323A5015J0183	RN resistor, 18K $\Omega$	1	✓
31	R165	323A5015J0123	RN resistor, 12K $\Omega$	1	✓
32	R114	323A5015J0513	RN resistor, 51K $\Omega$	1	✓
33					
34	R25	323A5015J0224	RN resistor, 220K $\Omega$	1	✓
35	R30, R171, R195	323A5015J0102	RN resistor, 1K $\Omega$	3	✓
36	R33, R34	323A5015F0242	RN resistor, 2.4K $\Omega$	2	✓
37	R35	323A5015F0427-72	RN resistor, 4.7K $\Omega$	1	✓
38	R37	323A5015F0752	RN resistor, 7.5K $\Omega$	1	✓
39	R157	323A5015F0124	RN resistor, 120K $\Omega$	1	✓
40	R16	324A1001J0518	RS resistor, 0.51 $\Omega$	1	✓
41	R50	321A1431J0202	RD resistor, 2K $\Omega$	1	✓
42	R42	324A1121J0390	RS resistor, 39 $\Omega$	1	✓
43	R49	324A1121J0151	RS resistor, 150 $\Omega$	1	✓
44	R51	324A1121J0302	RS resistor, 3K $\Omega$	1	✓
45					
46		321A1421J0332	RD resistor, 3.3K $\Omega$	1	✓
47					
48					
49	C6, C172	303A3008K0561	CC capacitor, 50V 560PF	2	✓
50	C193, C194, R201	303A6009K3102	CK capacitor, 50V 1000PF	3	✓
51	C113, C198	303A6009K3103	CK capacitor, 50V 10000PF	2	✓
52	C158	303A6009K3223	CK capacitor, 50V 22000PF	1	✓
53	C20, C21, C102, C120, C148, C152, C153, C197, C199, C202	303A6009Z3104	CK capacitor, 50V 0.1 $\mu$ F	10	✓
54					



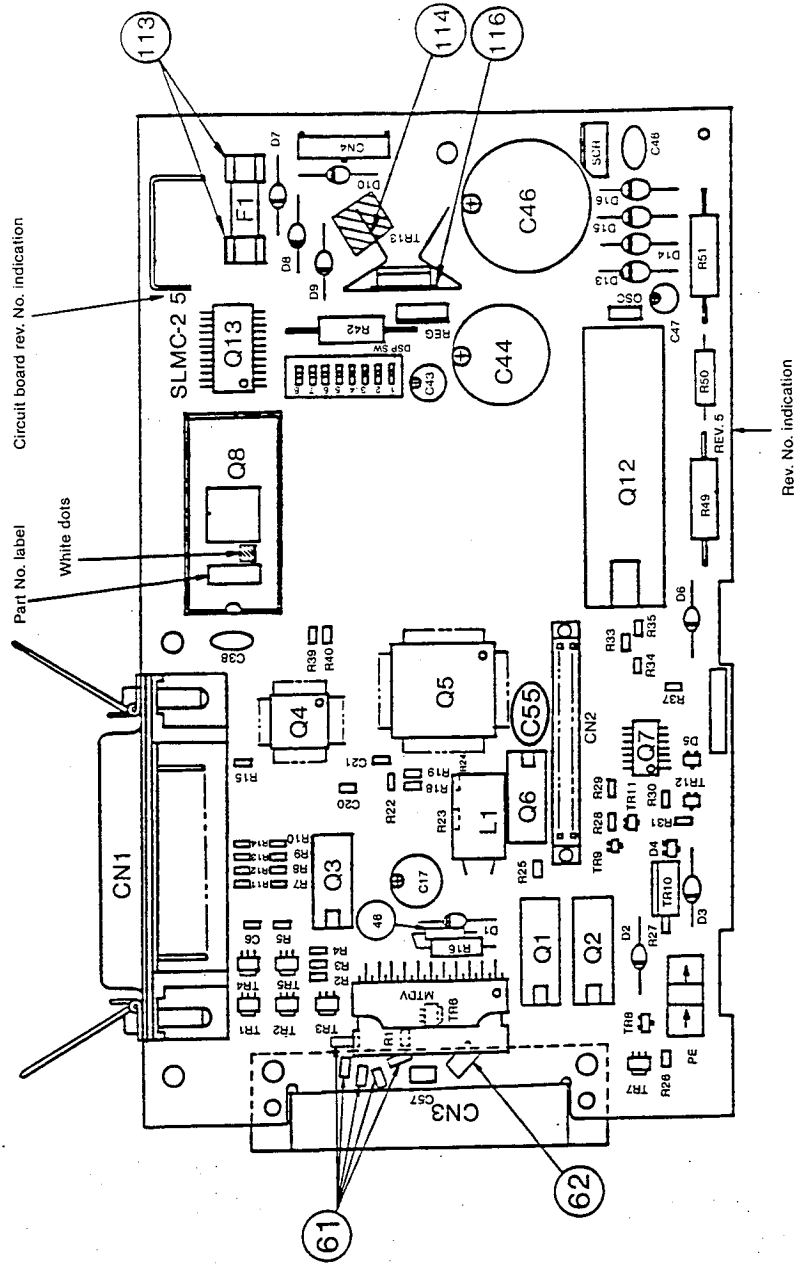
Figure 4 (4/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (Rev.4)

Item No.	Symbol	Part No.	Description	Qty	Remarks
55	C47	304A1040A2109	CE capacitor, 100V 1 $\mu$ F	1	✓
56	C17	304A1040H1100	CE capacitor, 50V 10 $\mu$ F	1	✓
57	C43	304A1040A1101	CE capacitor, 10V 100 $\mu$ F	1	✓
58	C44	304A1037C1822	CE capacitor, 16V 8200 $\mu$ F	1	✓
59	C46	304A1108G1472	CE capacitor, 42V 4700 $\mu$ F	1	✓
60	C38, C48	302A4027Z5103	CK capacitor, 250V 10000PF	2	✓
61		303A0420Z3104	CK capacitor, 50V 0.1 $\mu$ F	6	✓
62		303A4117Z2155	CK capacitor, 25V 1.5 $\mu$ F	2	✓
63		304A1046H1339	CE capacitor, 50V 3.3 $\mu$ F	1	✓
64	Q12	853A0125M0004	P8051AH-0004	1	✓
65					
66	Q6	700A0503M0005	74LS05P	1	✓
67	Q3	700A0003M0006	7406P	1	✓
68	Q1, Q2	760A4731M0401	LB1205	2	✓
69	Q4	702A4924F2001	MSM60201GS-K	1	✓
70	Q5	702A4924F0020	MSM61048GS-K	1	✓
71	Q13	804A0021N4301	HM6116FP-3	1	✓
72	Q7	720A0528N002	NJM2901M	1	✓
73					
74	Q8	4YR4064-1065G1	ROM	1	For G010 ✓
75	Q8	4YR4065-1046G1	ROM	1	For G011 ✓
76	Q8	4YR4064-1066G1	ROM	1	For G012 ✓
77	Q8	4YR4065-1060G1	ROM	1	For G013 ✓
78					
79					
80	Q8	245A1155P0280	IC socket	1	✓
81	L1	353A3002K0102	Choke coil	1	✓
82					
83	F1	540A2036M1152	Fuse, 1.5A	1	✓
84					

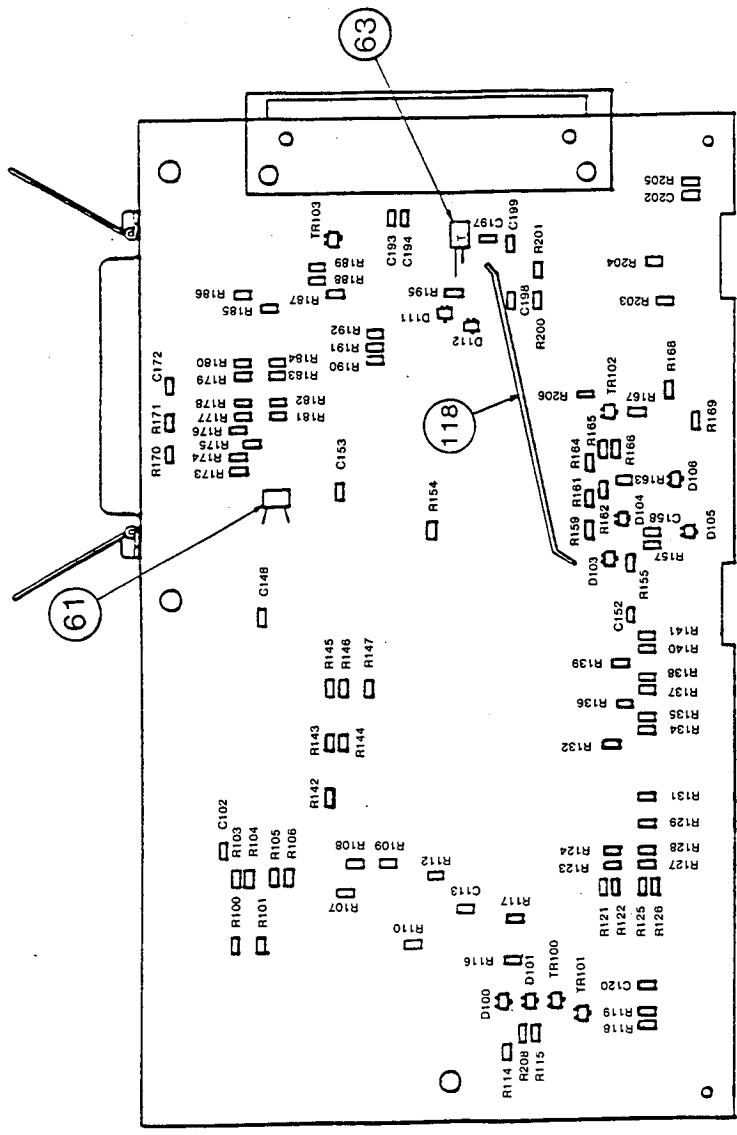
Figure 4 (5/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (Rev.4)

Item No.	Symbol	Part No.	Description	Qty	Remarks
85	R116, R206, R208	323A5011P0001	Tip jumper	3	✓
86					
87					
88	TR9	600A1003N0002	2SA1331/ 2SA1037K	1	✓
89	TR8, TR11, TR101, TR102	600A1003N0003	A1344/UN2111/ DTA114K	4	✓
90	TR13	601A1130M0004	2SB761	1	✓
91	TR6	601A1032N0002	2SB1123	1	✓
92	TR3	601A1130M0001	2SB766A-Q/R	1	✓
93	TR12, TR100, TR103	602A1003N0002	2SC3361/ 2SC2412K	3	✓
94	TR1, TR2, TR4, TR5	603A1130N0003	2SD1511	4	✓
95	TR7	603A1032N0001	2SD1626	1	✓
96	TR10	601A1132M0003	2SB882	1	✓
97					
98	DIP	4LP-3763-8	DIP switch	1	✓
99	MTDV	720A4021E0004	HA13412	1	✓
100	REG	720A1033M0001	LA5005	1	✓
101					
102	CN1	220A1423P0361	Connector	1	✓
103	CN2	224A3376P0300	Connector	1	✓
104	CN3	224A1160P0400	Connector	1	✓
105	CN4	224A3462P0060	Connector	1	✓
106					
107					
108	OSC	4LP-12154-12	Oscillator, 11.059MHz	1	✓
109					
110	PE	652A0127M0009	Photo coupler	1	✓
111					
112					
113		4LP-7142	Fuse holder	2	✓
114		4PP4021-1015P001	Heat sink	1	✓
115					
116		4LP-44106-4	Sercon	1	✓
117		4PP4025-1166P001	Barrier		✓
118			φ0.26 Jumper wire	1	l=60mm
119			Empire tube	1	l=7mm
120			Empire tube	1	l=4mm

**Parts side**



**Solder side**



Different types ROMs are used for each G No. as listed below.

G No.	ROM No.	Part No. label	Part No.	Remarks
G010	Q8	64-1065	4YR4064-1065G1	ODA, standard
G011	Q8	65-1046	4YR4065-1046G1	ODA, IBM
G012	Q8	64-1066	4YR4064-1066G1	ODG, standard
G013	Q8	65-1060	4YR4065-1060G1	ODG, IBM

Circuit board rev. No.	Rev. No.
5	5

Figure 4 (1/5) SLMC - 2 Printed-Circuit Board (4YA4021-1001 Gxxx) (Rev.5)

Figure 4 (2/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (Rev.5)

Item No.	Symbol	Part No.	Description	Qty	Remarks
1	D1	610A0221L0021	Diode	1	
2	D2, D6, D7 to D10	610A0021L0090	Diode	6	
3	D3, D13 to D16	610A0021L0089A	Diode	5	
4	D4, D100, D103, D105	611A0003N0003	Diode	4	
5	D104	613A0291M0102M	Zener diode	1	
6	D101, D111	613A0291M0182	Zener diode	2	
7	D5	613A0291M0152M	Zener diode	1	
8	D106	613A0291M0272M	Zener diode	1	
9	D112	613A0291M0292	Zener diode	1	
10					
11					
12	SCR	620A0022M0003E	Thyristor	1	
13					
14					
15	R5	323A5015J0101	RN resistor, 100 $\Omega$	1	
16	R110	323A5015J0180	RN resistor, 18 $\Omega$	1	
17	R24	323A5015J0221	RN resistor, 220 $\Omega$	1	
18	R23, R205	323A5015J0431	RN resistor, 430 $\Omega$	2	
19	R162, R186, R203	323A5015J0511	RN resistor, 510 $\Omega$	3	
20	R27, R118, R119, R155, R167, R189	323A5015J0122	RN resistor, 1.2K $\Omega$	6	
21	R29, R163	323A5015J0202	RN resistor, 2K $\Omega$	2	
22	R1 to R3, R26, R31, R115, R169, R185, R188, R215	323A5015J0222	RN resistor, 2.2K $\Omega$	10	
23	R28	323A5015J0561	RN resistor, 560 $\Omega$	1	
24	R161	323A5015J0242	RN resistor, 2.4K $\Omega$	1	
25	R7 to R14, R170, R166, R177 to R180	323A5015J0332	RN resistor, 3.3K $\Omega$	14	
26	R18, R19, R129, R135 to R141, R190 to R192	323A5015J0512	RN resistor, 5.1K $\Omega$	13	
27	R15, R22, R100, R101, R103 to R109, R112, R154, R159, R164, R168, R187	323A5015J0562	RN resistor, 5.6 K $\Omega$	17	

Figure 4 (3/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (Rev.5)

Item No.	Symbol	Part No.	Description	Qty	Remarks
28	R212, R213, R117, R131, R134, R121 to R128, R142 to R147, R173 to R176, R181 to R184, R204	323A5015J0103	RN resistor, 10K $\Omega$	28	
29					
30	R200	323A5015J0183	RN resistor, 18K $\Omega$	1	
31	R165	323A5015J0123	RN resistor, 12K $\Omega$	1	
32	R114	323A5015J0513	RN resistor, 51K $\Omega$	1	
33					
34	R25	323A5015J0224	RN resistor, 220K $\Omega$	1	
35	R30, R171, R195	323A5015J0102	RN resistor, 1K $\Omega$	3	
36	R33, R34	323A5015F0242	RN resistor, 2.4K $\Omega$	2	
37	R35	323A5015F0472	RN resistor, 4.7K $\Omega$	1	
38	R37	323A5015F0752	RN resistor, 7.5K $\Omega$	1	
39	R157	323A5015F0124	RN resistor, 120K $\Omega$	1	
40	R16	324A1001J0518	RS resistor, 0.51 $\Omega$	1	
41	R50	321A1431J0202	RD resistor, 2K $\Omega$	1	
42	R42	324A1121J0390	RS resistor, 39 $\Omega$	1	
43	R49	324A1121J0151	RS resistor, 150 $\Omega$	1	
44	R51	324A1121J0302	RS resistor, 3K $\Omega$	1	
45					
46		321A1421J0332	RD resistor, 3.3K $\Omega$	1	
47					
48	C55	306A4100F1223	CQ capacitor, 50V 0.022 $\mu$ F	1	
49	C6, C172	303A3008K0561	CC capacitor, 50V 560PF	2	
50	C193, C194, R201	303A6009K3102	CK capacitor, 50V 1000PF	3	
51	C113, C198	303A6009K3103	CK capacitor, 50V 10000PF	2	
52	C158	303A6009K3223	CK capacitor, 50V 22000PF	1	
53	C20, C102, C120, C148, C152, C153, C197, C199, C202, C214	303A6009Z3104	CK capacitor, 50V 0.1 $\mu$ F	10	
54					

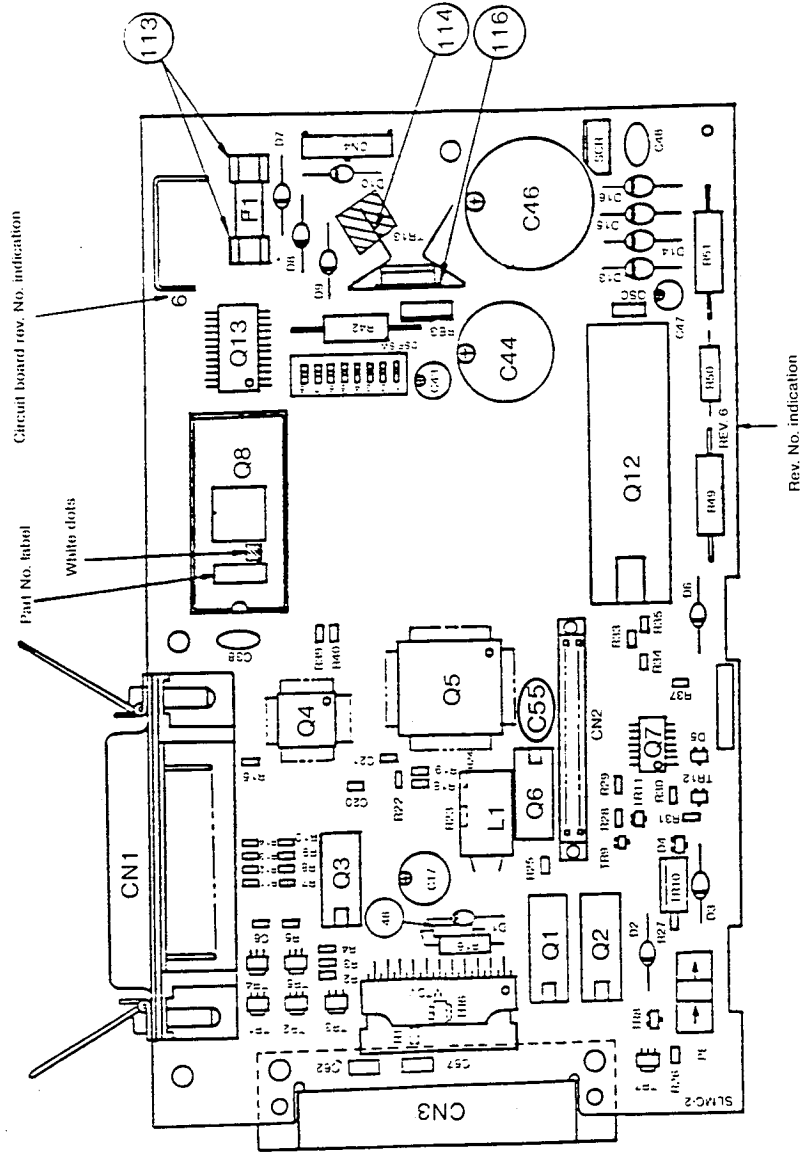
Figure 4 (4/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (Rev.5)

Item No.	Symbol	Part No.	Description	Qty	Remarks
55	C47	304A1040A2109	CE capacitor, 100V 1 $\mu$ F	1	
56	C17	304A1040H1100	CE capacitor, 50V 10 $\mu$ F	1	
57	C43	304A1040A1101	CE capacitor, 10V 100 $\mu$ F	1	
58	C44	304A1037C1822	CE capacitor, 16V 8200 $\mu$ F	1	
59	C46	304A1108G1472	CE capacitor, 42V 4700 $\mu$ F	1	
60	C38, C48	302A4027Z5103	CK capacitor, 250V 10000PF	2	
61		303A0420Z3104	CK capacitor, 50V 0.1 $\mu$ F	6	
62	C57	303A4117Z2155	CK capacitor, 25V 1.5 $\mu$ F	2	
63		304A1046H1339	CE capacitor, 50V 3.3 $\mu$ F	1	
64	Q12	853A0125M0004	P8051AH-0004	1	
65					
66	Q6	700A0503M0005	74LS05P	1	
67	Q3	700A0003M0006	7406P	1	
68	Q1, Q2	760A4731M0401	LB1205	2	
69	Q4	702A4924F2001	MSM60201GS-K	1	
70	Q5	702A4924F0020	MSM61048GS-K	1	
71	Q13	804A0021N4301	HM6116FP-3	1	
72	Q7	720A0528N002	NJM2901M	1	
73					
74	Q8	4YR4064-1065G1	ROM	1	For G010
75	Q8	4YR4065-1046G1	ROM	1	For G011
76	Q8	4YR4064-1066G1	ROM	1	For G012
77	Q8	4YR4065-1060G1	ROM	1	For G013
78					
79					
80	Q8	245A1155P0280	IC socket	1	
81	L1	353A3002K0102	Choke coil	1	
82					
83	F1	540A2036M1152	Fuse, 1.5A	1	
84					

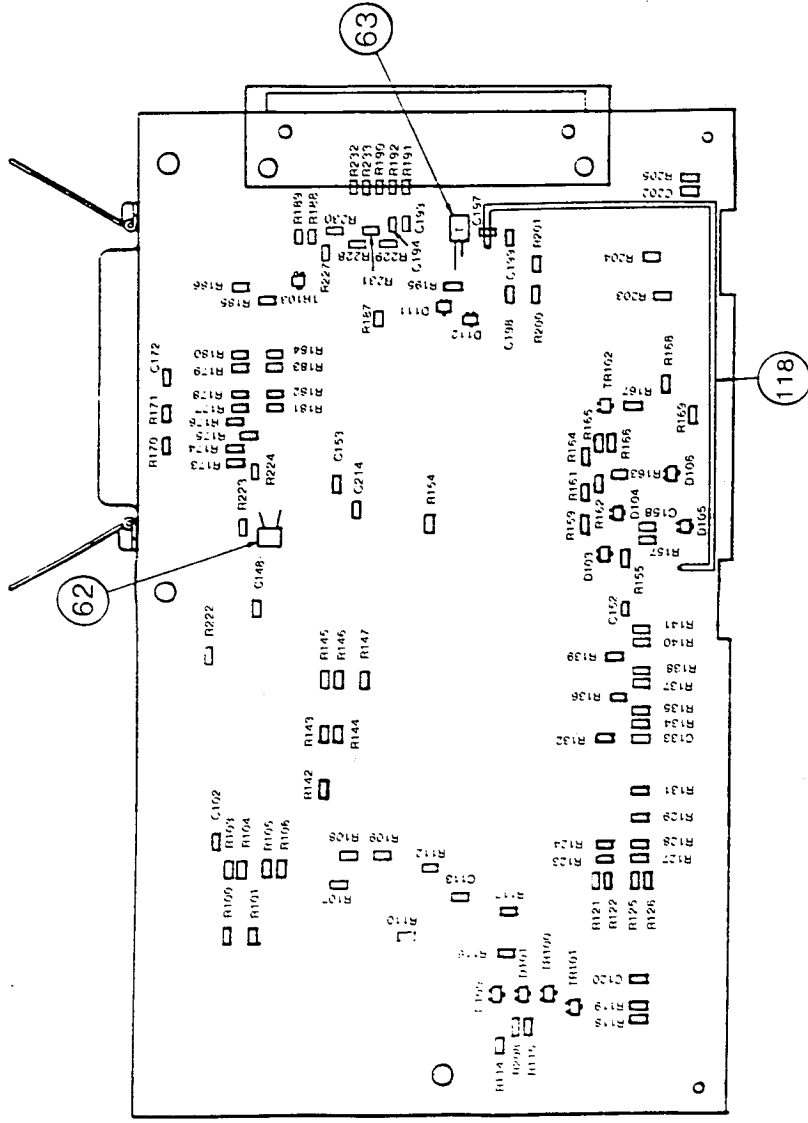
Figure 4 (5/5) SLMC – 2 Printed-Circuit: Board (4YA4021-1001Gxxx) (Rev.5)

Item No.	Symbol	Part No.	Description	Qty	Remarks
85	R116, R206, R208	323A5011P0001	Tip jumper	3	
86					
87					
88	TR9	600A1003N0002	2SA1331/ 2SA1037K	1	
89	TR8, TR11, TR101, TR102	600A1003N0003	A1344/UN2111/ DTA114K	4	
90	TR13	601A1130M0004	2SB761	1	
91	TR6	601A1032N0002	2SB1123	1	
92	TR3	601A1130M0001	2SB766A-Q/R	1	
93	TR12, TR100, TR103	602A1003N0002	2SC3361/ 2SC2412K	3	
94	TR1, TR2, TR4, TR5	603A1130N0003	2SD1511	4	
95	TR7	603A1032N0001	2SD1626	1	
96	TR10	601A1132M0003	2SB882	1	
97					
98	DIP	4LP-3763-8	DIP switch	1	
99	MTDV	720A4021E0004	HA13412	1	
100	REG	720A1033M0001	LA5005	1	
101					
102	CN1	220A1423P0361	Connector	1	
103	CN2	224A3376P0300	Connector	1	
104	CN3	224A1160P0400	Connector	1	
105	CN4	224A3462P0060	Connector	1	
106					
107					
108	OSC	4LP-12186-1	Oscillator, 11.059MHz	1	
109					
110	PE	652A0127M0009	Photo coupler	1	
111					
112					
113		4LP-7142	Fuse holder	2	
114		4PP4021-1015P001	Heat sink	1	
115					
116		4LP-44106-4	Sercon	1	
117		4PP4025-1166P001	Barrier		
118			φ0.26 Jumper wire	1	l=60mm
119			Empire tube	1	l=7mm
120			Empire tube	1	l=4mm

**Parts side**



**Solder side**



Different types ROMs are used for each G No. as listed below.

G No.	ROM No.	Part No. label	Part No.	Remarks
G010	Q8	64-1065	4YR4064-1065G1	ODA, standard
G011	Q8	65-1046	4YR4065-1046G1	ODA, IBM
G012	Q8	64-1066	4YR4064-1066G1	ODC, standard
G013	Q8	65-1060	4YR4065-1060G1	ODC, IBM

Circuit board rev. No.	Rev. No.
6	6

Figure 4 (1/5) SLMC - 2 Printed-Circuit Board (4YA4021-1001Gxxx) (Rev. 6)



Figure 4 (2/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (Rev.6)

Item No.	Symbol	Part No.	Description	Qty	Remarks
1	D1	610A0221L0021	Diode	1	
2	D2, D6, D7 to D10	610A0021L0090	Diode	6	
3	D3, D13 to D16	610A0021L0089A	Diode	5	
4	D4, D100, D103, D105	611A0003N0003	Diode	4	
5	D104	613A0291M0102M	Zener diode	1	
6	D101, D111	613A0291M0182	Zener diode	2	
7	D5	613A0291M0152M	Zener diode	1	
8	D106	613A0291M0272M	Zener diode	1	
9	D112	613A0291M0292	Zener diode	1	
10					
11					
12	SCR	620A0022M0003E	Thyristor	1	
13					
14					
15	R5	323A5015J0101	RN resistor, 100 $\Omega$	1	
16	R110	323A5015J0180	RN resistor, 18 $\Omega$	1	
17	R24	323A5015J0221	RN resistor, 220 $\Omega$	1	
18	R23, R205	323A5015J0431	RN resistor, 430 $\Omega$	2	
19	R162, R186, R203	323A5015J0511	RN resistor, 510 $\Omega$	3	
20	R27, R118, R119, R155, R167, R189	323A5015J0122	RN resistor, 1.2K $\Omega$	6	
21	R29, R163	323A5015J0202	RN resistor, 2K $\Omega$	2	
22	R1 to R3, R26, R31, R60, R61, R115, R169, R188	323A5015J0222	RN resistor, 2.2K $\Omega$	10	
23	R28	323A5015J0561	RN resistor, 560 $\Omega$	1	
24	R161	323A5015J0242	RN resistor, 2.4 K $\Omega$	1	
25	R7 to R14, R170, R166, R177 to R180	323A5015J0332	RN resistor, 3.3K $\Omega$	14	
26	R129, R232, R233, R135 to R141, R190 to R192	323A5015J0512	RN resistor, 5.1K $\Omega$	13	
27	R15, R22, R100, R101, R103 to R109, R112, R154, R159, R164, R168, R187, R222, R223	323A5015J0562	RN resistor, 5.6 K $\Omega$	19	

Figure 4 (3/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (Rev.6)

Item No.	Symbol	Part No.	Description	Qty	Remarks
28	R212, R213, R117, R131, R134, R121 to R128, R142 to R147, R204, R173 to R176, R181 to R184, R227 to R231	323A5015J0103	RN resistor, 10K $\Omega$	33	
29					
30	R200	323A5015J0183	RN resistor, 18K $\Omega$	1	
31	R165	323A5015J0123	RN resistor, 12K $\Omega$	1	
32	R114	323A5015J0513	RN resistor, 51K $\Omega$	1	
33					
34	R25	323A5015J0224	RN resistor, 220K $\Omega$	1	
35	R30, R171, R195	323A5015J0102	RN resistor, 1K $\Omega$	3	
36	R33, R34	323A5015F0242	RN resistor, 2.4K $\Omega$	2	
37	R35	323A5015F0472	RN resistor, 4.7K $\Omega$	1	
38	R37	323A5015F0752	RN resistor, 7.5K $\Omega$	1	
39	R157	323A5015F0124	RN resistor, 120K $\Omega$	1	
40	R16	324A1001J0518	RS resistor, 0.51 $\Omega$	1	
41	R50	321A1431J0202	RD resistor, 2K $\Omega$	1	
42	R42	324A1121J0390	RS resistor, 39 $\Omega$	1	
43	R49	324A1121J0151	RS resistor, 150 $\Omega$	1	
44	R51	324A1121J0302	RS resistor, 3K $\Omega$	1	
45					
46		321A1421J0332	RD resistor, 3.3K $\Omega$	1	
47					
48	C55	306A4100F1223	CQ capacitor, 50V 0.022 $\mu$ F	1	
49	C6, C172	303A3008K0561	CC capacitor, 50V 560PF	2	
50	C193, C194, R201	303A6009K3102	CK capacitor, 50V 1000PF	3	
51	C113, C198,	303A6009K3103	CK capacitor, 50V 10000PF	2	
52	C158	303A6009K3223	CK capacitor, 50V 22000PF	1	
53	C20, C102, C120, C148, C152, C153, C197, C199, C202, C214	303A6009Z3104	CK capacitor, 50V 0.1 $\mu$ F	10	
54					

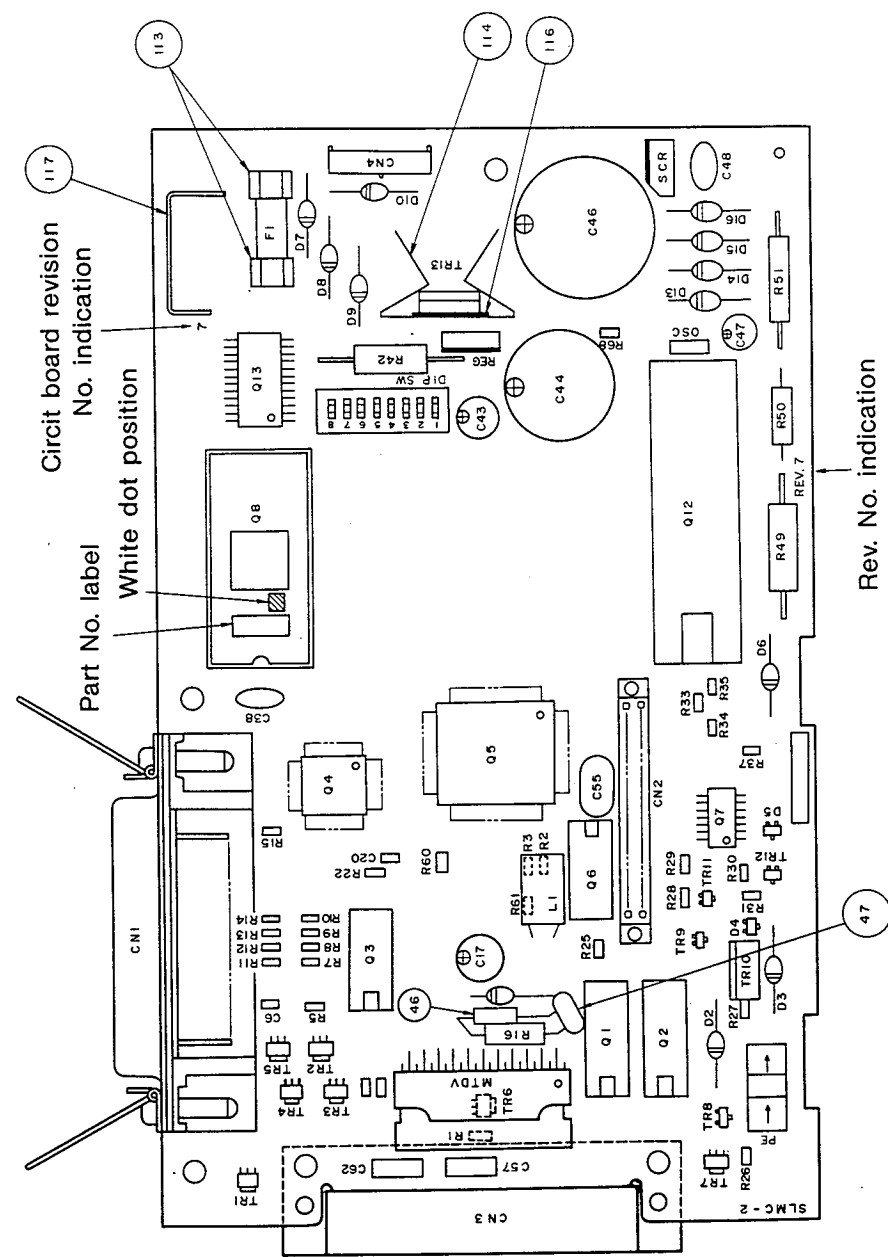
Figure 4 (4/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (Rev.6)

Item No.	Symbol	Part No.	Description	Qty	Remarks
55	C47	304A1040A2109	CE capacitor, 100V 1 $\mu$ F	1	
56	C17	304A1040H1100	CE capacitor, 50V 10 $\mu$ F	1	
57	C43	304A1040A1101	CE capacitor, 10V 100 $\mu$ F	1	
58	C44	304A1037C1822	CE capacitor, 16V 8200 $\mu$ F	1	
59	C46	304A1108G1472	CE capacitor, 42V 4700 $\mu$ F	1	
60	C38,C48	302A4027Z5103	CK capacitor, 250V 10000PF	2	
61	C57, C62	303A4117Z2155	CK capacitor, 25V 1.5 $\mu$ F	2	
62		303A0420Z3104	CK capacitor, 50V 0.1 $\mu$ F	1	
63		304A1046H1339	CE capacitor, 50V 3.3 $\mu$ F	1	
64	Q12	853A0125M0004	P8051AH-0004	1	
65					
66	Q6	700A0503M0005	74LS05P	1	
67	Q3	700A0003M0006	7406P	1	
68	Q1, Q2	760A4731M0401	LB1205	2	
69	Q4	702A4924F2001	MSM60201GS-K	1	
70	Q5	702A4924F0020	MSM61048GS-K	1	
71	Q13	804A0021N4301	HM6116FP-3	1	
72	Q7	720A0528N002	NJM2901M	1	
73					
74	Q8	4YR4964-1065G1	ROM	1	For G010
75	Q8	4YR4065-1046G1	ROM	1	For G011
76	Q8	4YR4064-1066G1	ROM	1	For G012
77	Q8	4YR4065-1060G1	ROM	1	For G013
78					
79					
80	Q8	245A1155-P0280	IC socket	1	
81	L1	353A3002K0102	Choke coil	1	
82					
83	F1	540A2036M1152	Fuse, 1.5A	1	
84					

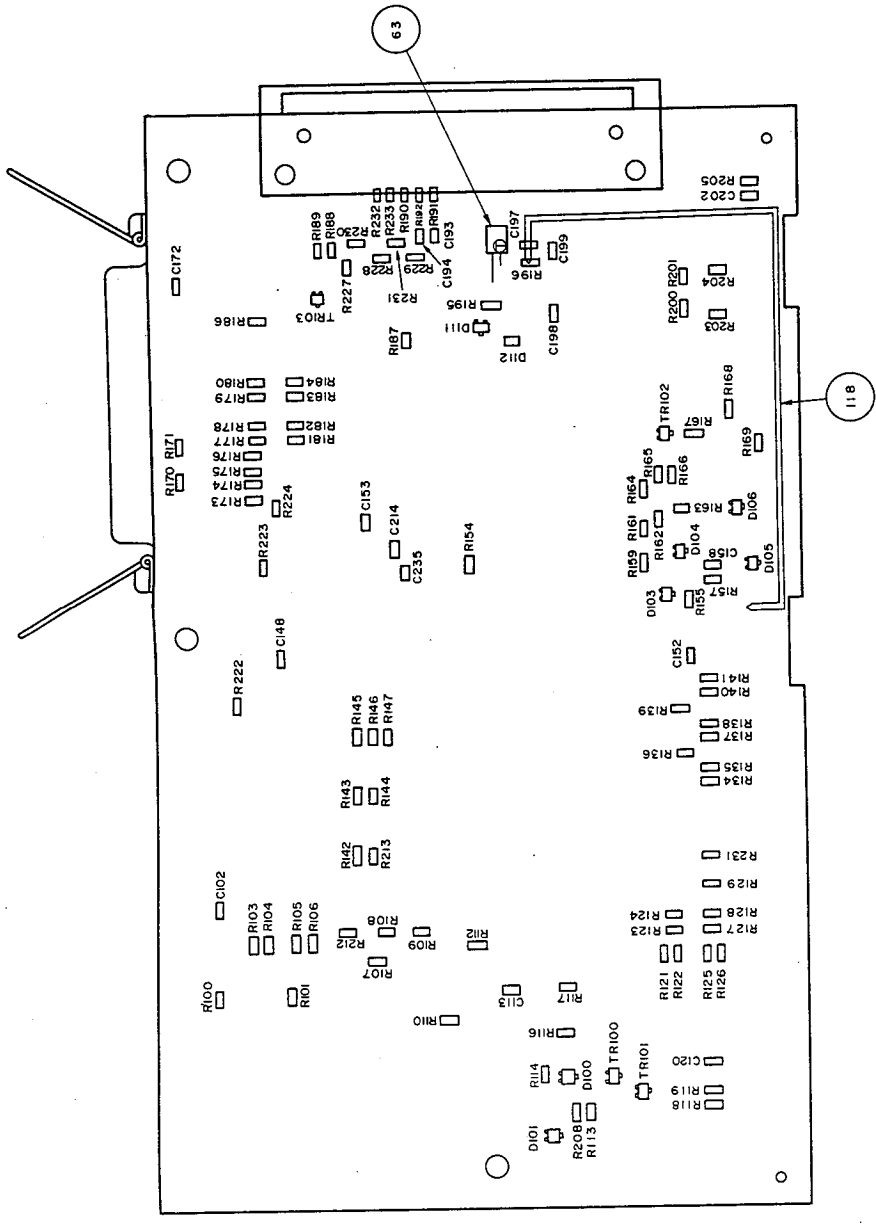
Figure 4 (5/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (Rev.6)

Item No.	Symbol	Part No.	Description	Qty	Remarks
85	R116, R208, R224	323A5011P0001	Tip jumper	3	
86					
87					
88	TR9	600A1003N0002	2SA1331/ 2SA1037K	1	
89	TR8, TR11, TR101, TR102	600A1003N0003	A1344/UN2111/ DTA114K	4	
90	TR13	601A1130M0004	2SB761	1	
91	TR6	601A1032N0002	2SB1123	1	
92	TR3	601A1130M0001	2SB766A-Q/R	1	
93	TR12, TR100, TR103	602A1003N0002	2SC3361/ 2SC2412K	3	
94	TR1, TR2, TR4, TR5	603A1130N0003	2SD1511	4	
95	TR7	603A1032N0001	2SD1626	1	
96	TR10	601A1132M0003	2SB882	1	
97					
98	DIP	4LP-3763-8	DIP switch	1	
99	MTDV	720A4021E0004	HA13412	1	
100	REG	720A1033M0001	LA5005	1	
101					
102	CN1	220A1423P0361	Connector	1	
103	CN2	224A3376P0300	Connector	1	
104	CN3	224A1160P0400	Connector	1	
105	CN4	224A3462P0060	Connector	1	
106					
107					
108	OSC	4LP-12186-1	Oscillator, 11.059MHz	1	
109					
110	PE	652A0127M0009	Photo coupler	1	
111					
112					
113		4LP-7142	Fuse holder	2	
114		4PP4021-1015P001	Heat sink	1	
115					
116		4LP-44106-4	Sercon	1	
117		4PP4025-1166P001	Barrier		
118			φ0.26 Jumper wire	1	l=160mm
119			Empire tube	1	l=7mm
120			Empire tube	1	l=4mm

**Part side**



**Solder side**



Different types ROMs are used for each G No. as listed below.

Model	G No.	ROM No.	Part No. label	Part No.	No. of white dots	Remarks
ML182	G010	Q8	64-1065	4YR4064-1065G1	3	ODA standard
	G011	Q8	65-1046	4YR4065-1046G1	3	ODA IBM
	G012	Q8	64-1066	4YR4064-1066G1	3	ODG standard
ML183	G013	Q8	65-1060	4YR4065-1060G1	3	ODG IBM
	G40	Q8	64-1109	4YR4064-1109G1	0	ODA standard
ML183	G41	Q8	65-1099	4YR4065-1099G1	0	ODA IBM
	G42	Q8	64-1126	4YR4064-1126G1	0	ODG standard
	G43	Q8	65-1100	4YR4065-1100G1	0	ODG IBM

Circuit board rev. No.	7
Rev.	7

Figure 4 (1/5) SLMC - 2 Printed-Circuit Board (4YA4021-1001 Gxxx) (REV.7)

Figure 4 (2/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.7)

Item No./Symbol	Part No.	Description	Qty	Remarks
D1	610A0221L0021	Diode	1	
D2, D6, D7 to D10	610A0021L0090	Diode	6	
D3, D13 to D16	610A0021L0089A	Diode	5	
D4, D100, D103, D105	611A0003N0003	Diode	4	
D104	613A0291M0102M	Zener diode	1	
D101, D111	613A0291M0182	Zener diode	2	
D5	613A0291M0152M	Zener diode	1	
D106	613A0291M0272M	Zener diode	1	
D112	613A0291M0292	Zener diode	1	
SCR	620A0022M0006E	Thyristor	1	
R5	323A5015J0101	RN resistor, 100 $\Omega$	1	
R110	323A5015J0180	RN resistor, 18 $\Omega$	1	
R24	323A5015J0221	RN resistor, 220 $\Omega$	1	
R23, R205	323A5015J0431	RN resistor, 430 $\Omega$	2	
R162, R186, R203	323A5015J0511	RN resistor, 510 $\Omega$	3	
R27, R118, R119, R155, R167, R189	323A5015J0122	RN resistor, 1.2 k $\Omega$	6	
R29, R163,	323A5015J0202	RN resistor, 2 k $\Omega$	2	
R1 to R3, R26, R31, R60, R61, R115, R169, R188	323A5015J0222	RN resistor, 2.2 k $\Omega$	10	
R28	323A5015J0561	RN resistor, 560 $\Omega$	1	
R161	323A5015J0242	RN resistor, 2.4 k $\Omega$	1	
R7 to R14, R166, R170, R177 to R180	323A5015J0332	RN resistor, 3.3 k $\Omega$	14	
R129, R232, R233, R135 to R141, R190 to R192	323A5015J0512	RN resistor, 5.1 k $\Omega$	13	

Figure 4 (3/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.7)

Item No./Symbol	Part No.	Description	Qty	Remarks
R15, R22, R100, R101, R103 to R109, R222, R112, R154, R159, R164, R168, R187, R223	323A5015J0562	RN resistor, 5.6 k $\Omega$	19	
R117, R121 to R128, R142 to R147 R134, R131, R173 to R176, R181 to R184, R204, R212, R213 R227 to R231, R224	323A5015J0103	RN resistor, 10 k $\Omega$	34	
R200	323A5015J0183	RN resistor, 18 k $\Omega$	1	
R165	323A5015J0123	RN resistor, 12 k $\Omega$	1	
R114	323A5015J0513	RN resistor, 51 k $\Omega$	1	
R25	323A5015J0224	RN resistor, 220 k $\Omega$	1	
R30, R171, R195	323A5015J0102	RN resistor, 1 k $\Omega$	3	
R33, R34	323A5015F0242	RN resistor, 2.4 k $\Omega$	2	
R35	323A5015F0472	RN resistor, 4.7 k $\Omega$	1	
R37	323A5015F0752	RN resistor, 7.5 k $\Omega$	1	
R157	323A5015F0124	RN resistor, 120 k $\Omega$	1	
R16	324A1001J0518	RS resistor, 0.51 $\Omega$	1	
R50	321A1431J0202	RD resistor, 2 k $\Omega$	1	
R42	324A1121J0390	RS resistor, 39 $\Omega$	1	
R49	324A1121J0151	RS resistor, 150 $\Omega$	1	
R51	324A1121J0302	RS resistor, 3 k $\Omega$	1	
46	321A1421J0332	RD resistor, 3.3 k $\Omega$	1	
47	306A2002K2152	CQ-M capacitor, 100 V, 0.0015 $\mu$ F	1	
C55	306A4100G1223	CQ capacitor, 100 V, 0.022 $\mu$	1	
C6, C172	303A3008K0561	CC capacitor, 50 V, 560PF	2	
C193, C194, R201	303A6009K3102	CK capacitor, 50 V, 1000PF	3	
C113, C198	303A6009K3103	CK capacitor, 50 V, 10000PF	2	

Figure 4 (4/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.7)

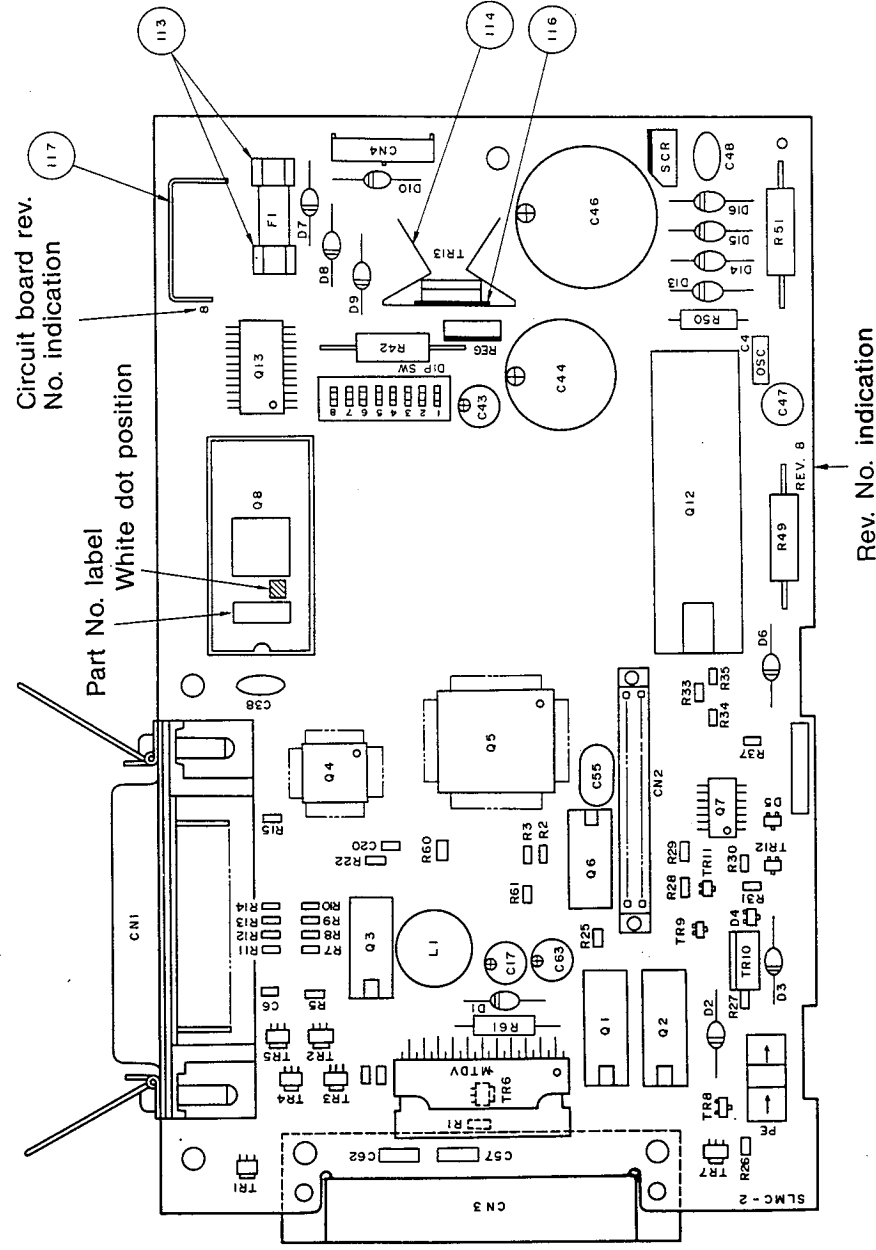
Item No./Symbol	Part No.	Description	Qty	Remarks
C20, C102, C120, C148, C152, C153, C197, C199, C202, C214, C235	303A6009Z3104	CK capacitor, 50 V, 0.1 $\mu$ F	11	
C47	304A1040A2109	CE capacitor, 100 V, 1 $\mu$ F	1	
C17	304A1040H1100	CE capacitor, 50 V, 10 $\mu$ F	1	
C43	304A1040A1101	CE capacitor, 10 V, 100 $\mu$ F	1	
C44	304A1037C1822	CE capacitor, 16 V, 8200 $\mu$ F	1	
C46	304A1108G1472	CE capacitor, 42 V, 4700 $\mu$ F	1	
C38, C48	302A4027Z5103	CK capacitor, 250 V, 10000PF	2	
C57, C62	303A4117Z2155	CK capacitor, 25 V, 1.5 $\mu$ F	2	
63	304A1046H1339	CE capacitor, 50 V, 3.3 $\mu$ F	1	
Q12	853A0125M0004	P8051AH-0004	1	
Q6	700A0503M0005	74LS05P	1	
Q3	700A0003M0006	7406P	1	
Q1, Q2	760A4731M0401	LB1205	2	
Q4	702A4924F2001	MSM60201GS-K	1	
Q5	702A4924F0020	MSM61048GS-K	1	
Q13	804A0021N4301	HM6116FP-3	1	
Q7	720A0528N002	NJM2901M	1	
Q8	4YR4064-1065G1	ROM	1	For G010
Q8	4YR4065-1046G1	ROM	1	For G011
Q8	4YR4065-1066G1	ROM	1	For G012
Q8	4YR4065-1060G1	ROM	1	For G013
Q8	4YR4064-1109G1	ROM	1	For G40
Q8	4YR4065-1099G1	ROM	1	For G41
Q8	4YR4064-1126G1	ROM	1	For G42
Q8	4YR4065-1100G1	ROM	1	For G43
L1	353A3002K0102	Choke coil	1	
F1	540A2036M1152	Fuse, 1.5 A	1	
R116, R208	323A5011P0001	Chip jumper	2	



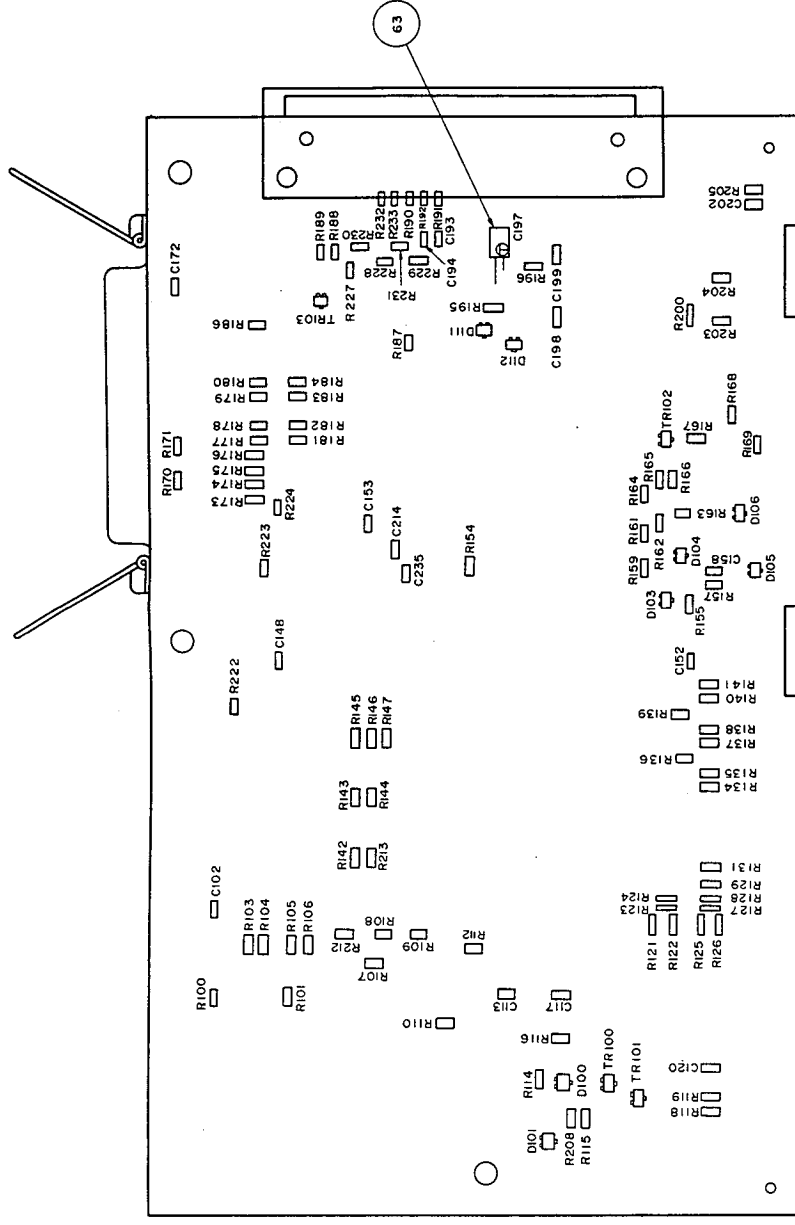
Figure 4 (5/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.7)

Item No./Symbol	Part No.	Description	Qty	Remarks
TR9	600A1003N0002	2SA1331/2SA1037K	1	
TR8, TR11, TR101, TR102	600A1003N0003	A1344/UN2111/DTA114K	4	
TR13	601A1130M0004	2SB761	1	
TR6	601A1032N0002	2SB1123	1	
TR3	601A1130M0001	2SB766A-Q/R	1	
TR12, TR100, TR103	602A1003N0002	2SC3361/2SC2412K	3	
TR1, TR2, TR4, TR5	603A1130N0003	2SD1511	4	
TR7	603A1032N0001	2SD1626	1	
TR10	601A1132M0003	2SB882	1	
DIP	4LP-3763-8	DIP switch	1	
MTDV	720A4021E0004	HA13412	1	
REG	720A1033M0001	LA5005	1	
CN1	220A1423P0361	Connector	1	
CN2	224A3376P0300	Connector	1	
CN3	224A1160P0400	Connector	1	
CN4	224A3462P0060	Connector	1	
OSC	4LP-12186-1	11.059 MHz oscillator	1	
PE	652A0127M0009	Photo coupler	1	
Q8	245A115P0280	IC socket	1	
113	4LP-7142	Fuse holder	2	
114	4PP4021-1015P001	Heat sink	1	
116	4LP-44106-4	Sercon	1	
117	4PP4025-1166P001	Barrier	1	
118		φ0.26 TEF-ZEL wire	1	160 mm long
119		Empire tube	1	7 mm long
120		Empire tube	1	4 mm long

**Part side**



**Solder side**



Different types ROMs are used for each G No. as listed below.

Model	G No.	ROM No.	Part No. label	Part No.	No. of white dots	Remarks
ML182	G010	Q8	64-1065	4YR4064-1065G1	3	ODA standard
	G011	Q8	65-1046	4YR4065-1046G1	3	ODA IBM
	G012	Q8	64-1066	4YR4064-1066G1	3	ODG standard
ML183	G013	Q8	65-1060	4YR4065-1060G1	3	ODG IBM
	G40	Q8	64-1109	4YR4064-1109G1	0	ODA standard
	G41	Q8	65-1099	4YR4065-1099G1	0	ODA IBM
	G42	Q8	64-1126	4YR4064-1126G1	0	ODG standard
	G43	Q8	65-1100	4YR4065-1100G1	0	ODG IBM

Circuit board rev. No.	8
Rev.	8

Figure 4 (1/5) SLMC - 2 Printed-Circuit Board (4YA4021-1001 Gxxx) (REV.8)

Figure 4 (2/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.8)

Item No./Symbol	Part No.	Description	Qty	Remarks
D1	610A0221L0021	Diode	1	
D2, D6, D7 to D10	610A0021L0090	Diode	6	
D3, D13 to D16	610A0021L0089A	Diode	5	
D4, D100, D103, D105	611A0003N0003	Diode	4	
D104	613A0291M0102M	Zener diode	1	
D101, D111	613A0291M0182	Zener diode	2	
D5	613A0291M0152M	Zener diode	1	
D106	613A0291M0272M	Zener diode	1	
D112	613A0291M0292	Zener diode	1	
SCR	620A0022M0006 E	Thyristor	1	
R5	323A5015J0101	RN resistor, 100 $\Omega$	1	
R110	323A5015J0180	RN resistor, 18 $\Omega$	1	
R24	323A5015J0221	RN resistor, 220 $\Omega$	1	
R23, R205	323A5015J0431	RN resistor, 430 $\Omega$	2	
R162, R186, R203	323A5015J0511	RN resistor, 510 $\Omega$	3	
R27, R118, R119, R155, R167, R189	323A5015J0122	RN resistor, 1.2 k $\Omega$	6	
R29, R163,	323A5015J0202	RN resistor, 2 k $\Omega$	2	
R1 to R3, R26, R31, R60, R61, R115, R169, R188	323A5015J0222	RN resistor, 2.2 k $\Omega$	10	
R28	323A5015J0561	RN resistor, 560 $\Omega$	1	
R161	323A5015J0242	RN resistor, 2.4 k $\Omega$	1	
R7 to R14, R166, R170, R177 to R180, R196	323A5015J0332	RN resistor, 3.3 k $\Omega$	15	
R129, R232, R233, R135 to R141, R190 to R192	323A5015J0512	RN resistor, 5.1 k $\Omega$	13	

Figure 4 (3/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.8)

Item No./Symbol	Part No.	Description	Qty	Remarks
R15, R22, R100, R101, R103 to R109, R222, R112, R154, R159, R164, R168, R187, R223	323A5015J0562	RN resistor, 5.6 k $\Omega$	19	
R117, R121 to R128, R142 to R147 R134, R131, R173 to R176, R181 to R184, R204, R212, R213 R227 to R231, R224	323A5015J0103	RN resistor, 10 k $\Omega$	34	
R200	323A5015J0183	RN resistor, 18 k $\Omega$	1	
R165	323A5015J0123	RN resistor, 12 k $\Omega$	1	
R114	323A5015J0513	RN resistor, 51 k $\Omega$	1	
R25	323A5015J0224	RN resistor, 220 k $\Omega$	1	
R30, R171, R195	323A5015J0102	RN resistor, 1 k $\Omega$	3	
R33, R34	323A5015F0242	RN resistor, 2.4 k $\Omega$	2	
R35	323A5015F0472	RN resistor, 4.7 k $\Omega$	1	
R37	323A5015F0752	RN resistor, 7.5 k $\Omega$	1	
R157	323A5015F0124	RN resistor, 120 k $\Omega$	1	
R16	324A1001J0518	RS resistor, 0.51 $\Omega$	1	
R50	321A1431J0202	RD resistor, 2 k $\Omega$	1	
R42	324A1121J0390	RS resistor, 39 $\Omega$	1	
R49	324A1121J0151	RS resistor, 150 $\Omega$	1	
R51	324A1121J0302	RS resistor, 3 k $\Omega$	1	
47	306A2002K2152	CQ-M capacitor, 100 V, 0.0015 $\mu$ F	1	
C55	306A4100G1223	CQ capacitor, 100 V, 0.022 $\mu$	1	
C6	303A3008K0561	CC capacitor, 50 V, 560PF	1	
C193, C194	303A6009K3102	CK capacitor, 50 V, 1000PF	2	
C113, C198	303A6009K3103	CK capacitor, 50 V, 10000PF	2	

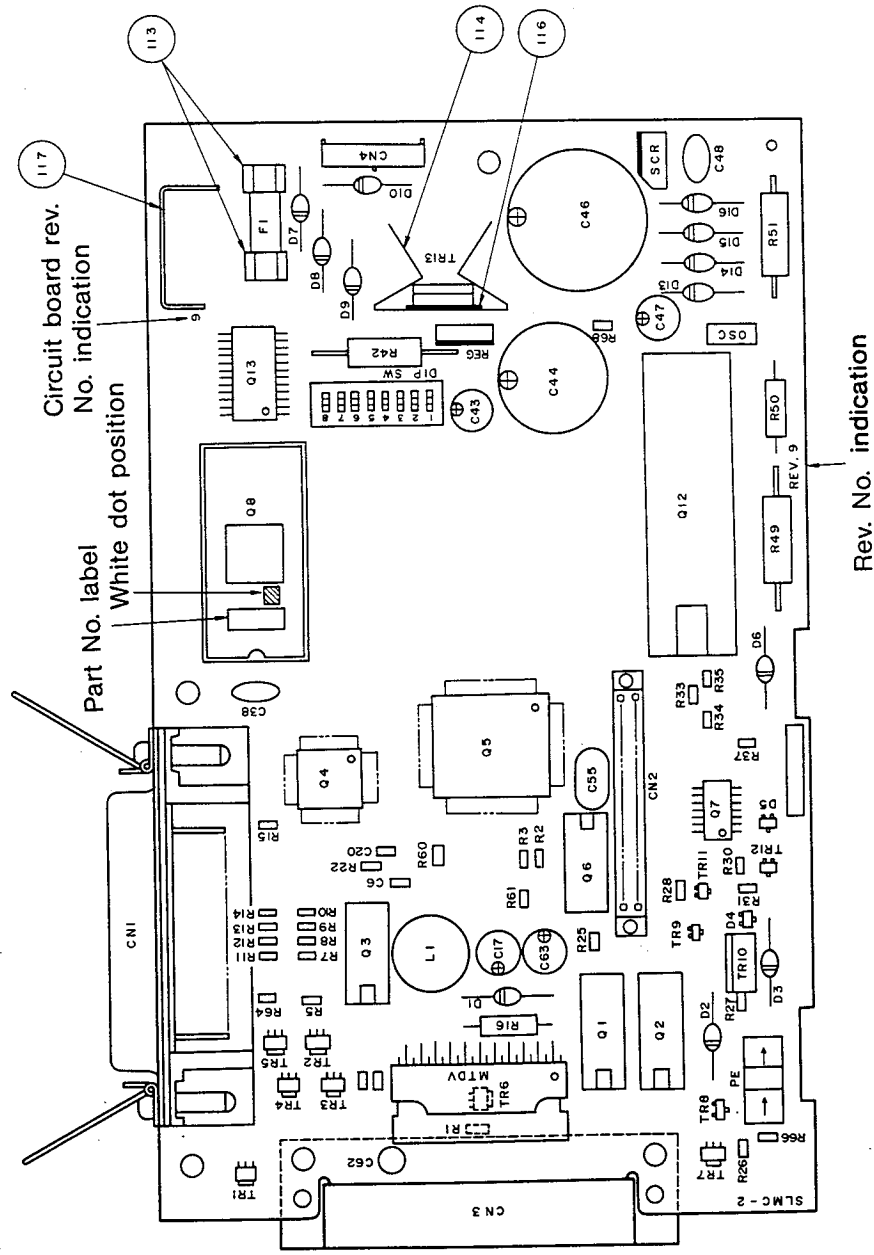
Figure 4 (4/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.8)

Item No./Symbol	Part No.	Description	Qty	Remarks
C20, C102, C120, C148, C152, C153, C197, C199, C202, C214, C235	303A6009Z3104	CK capacitor, 50 V, 0.1 $\mu$ F	11	
C47	304A1040A2109	CE capacitor, 100 V, 1 $\mu$ F	1	
C17	304A1040H1100	CE capacitor, 50 V, 10 $\mu$ F	1	
C43	304A1040A1101	CE capacitor, 10 V, 100 $\mu$ F	1	
C44	304A1037C1822	CE capacitor, 16 V, 8200 $\mu$ F	1	
C46	304A1108G1472	CE capacitor, 42 V, 4700 $\mu$ F	1	
C38, C48	302A4027Z5103	CK capacitor, 250 V, 10000PF	2	
C57, C62	303A4117Z2155	CK capacitor, 25 V, 1.5 $\mu$ F	2	
63	304A1046H1339	CE capacitor, 50 V, 3.3 $\mu$ F	1	
Q12	853A0125M0004	P8051AH-0004	1	
Q6	700A0503M0005	74LS05P	1	
Q3	700A0003M0006	7406P	1	
Q1, Q2	760A4731M0401	LB1205	2	
Q4	702A4924F2001	MSM60201GS-K	1	
Q5	702A4924F0020	MSM61048GS-K	1	
Q13	804A0021N4301	HM6116FP-3	1	
Q7	720A0528N002	NJM2901M	1	
Q8	4YR4064-1065G1	ROM	1	For G010
Q8	4YR4065-1046G1	ROM	1	For G011
Q8	4YR4065-1066G1	ROM	1	For G012
Q8	4YR4065-1060G1	ROM	1	For G013
Q8	4YR4064-1109G1	ROM	1	For G40
Q8	4YR4065-1099G1	ROM	1	For G41
Q8	4YR4064-1126G1	ROM	1	For G42
Q8	4YR4065-1100G1	ROM	1	For G43
L1	353A3002K0102	Choke coil	1	
F1	540A2036M1152	Fuse, 1.5 A	1	
R116, R208	323A5011P0001	Chip jumper	2	

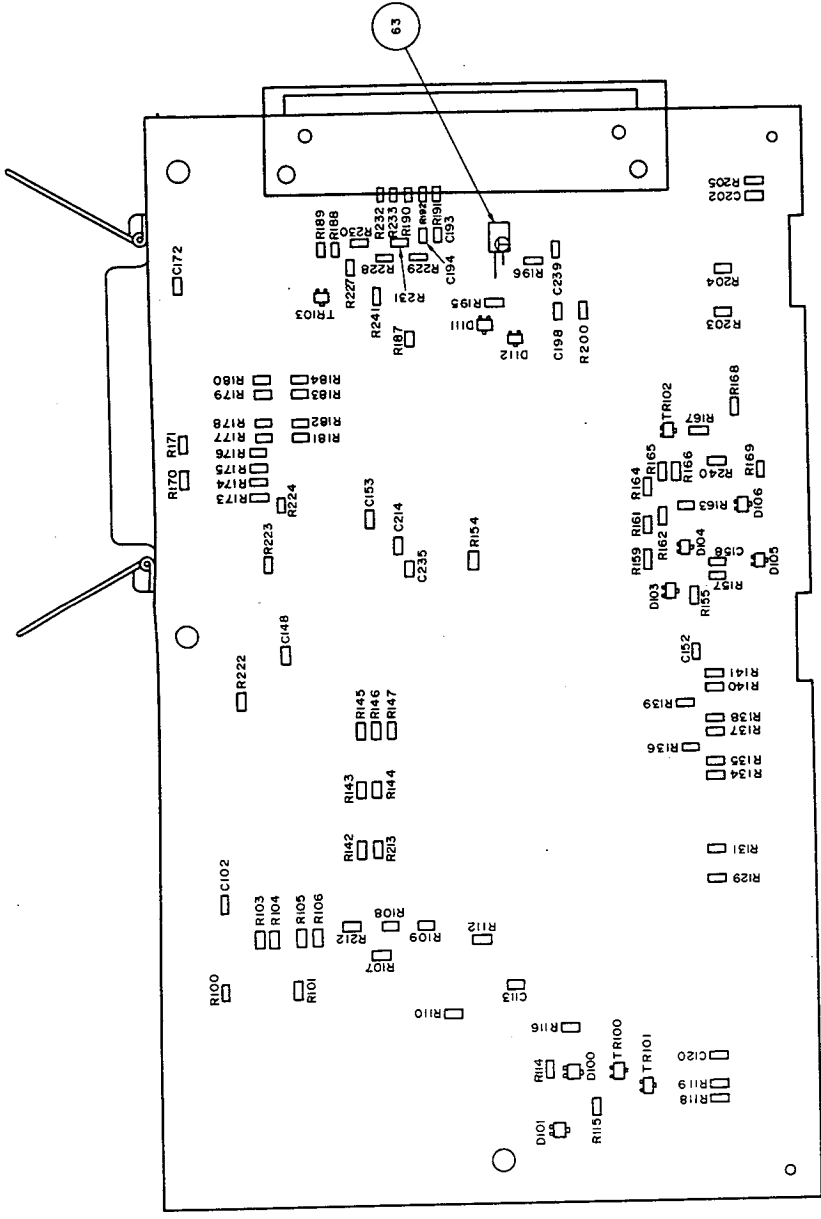
Figure 4 (5/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.8)

Item No./Symbol	Part No.	Description	Qty	Remarks
TR9	600A1003N0002	2SA1331/2SA1037K	1	
TR8, TR11, TR101, TR102	600A1003N0003	A1344/UN2111/DTA114K	4	
TR13	601A1130M0004	2SB761	1	
TR6	601A1032N0002	2SB1123	1	
TR3	601A1130M0001	2SB766A-Q/R	1	
TR12, TR100, TR103	602A1003N0002	2SC3361/2SC2412K	3	
TR1, TR2, TR4, TR5	603A1130N0003	2SD1511	4	
TR7	603A1032N0001	2SD1626	1	
TR10	601A1132M0003	2SB882	1	
DIP	4LP-3763-8	DIP switch	1	
MTDV	720A4021E0004	HA13412	1	
REG	720A1033M0001	LA5005	1	
CN1	220A1423P0361	Connector	1	
CN2	224A3376P0300	Connector	1	
CN3	224A1160P0400	Connector	1	
CN4	224A3462P0060	Connector	1	
OSC	4LP-12186-1	11.059 MHz oscillator	1	
PE	652A0127M0009	Photo coupler	1	
Q8	245A1155P0280	IC socket	1	
113	4LP-7142	Fuse holder	2	
114	4PP4021-1015P001	Heat sink	1	
116	4LP-44106-4	Sercon	1	
117	4PP4025-1166P001	Barrier	1	
118		φ0.26 TEF-ZEL wire	1	160 mm long

**Part side**



**Solder side**



Different types ROMs are used for each G No. as listed below.

Model	G No.	ROM No.	Part No. label	Part No.	No. of white dots	Remarks
ML182	G010	Q8	64-1065	4YR4064-1065G1	3	ODA standard
	G011	Q8	65-1046	4YR4065-1046G1	3	ODA IBM
	G012	Q8	64-1066	4YR4064-1066G1	3	ODG standard
	G013	Q8	65-1060	4YR4065-1060G1	3	ODG IBM
ML183	G40	Q8	64-1109	4YR4064-1109G1	0	ODA standard
	G41	Q8	65-1099	4YR4065-1099G1	0	ODA IBM
	G42	Q8	64-1126	4YR4064-1126G1	0	ODG standard
	G43	Q8	65-1100	4YR4065-1100G1	0	ODG IBM

Circuit board rev. No.	9
Rev.	9

Figure 4 (1/5) SLMC - 2 Printed-Circuit Board (4YA4021-1001 Gxxx) (REV.9)

Figure 4 (2/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.9)

Item No./Symbol	Part No.	Description	Qty	Remarks
D1	610A022AL0021	Diode	1	
D2, D6, D7 to D10	610A0021L0090	Diode	6	
D3, D13 to D16	610A0021L0089A	Diode	5	
D4, D100, D103, D105	611A0003N0003	Diode	4	
D104	613A0291M0102M	Zener diode	1	
D101, D111	613A0291M0182	Zener diode	2	
D5	613A0291M0152M	Zener diode	1	
D106	613A0291M0272M	Zener diode	1	
D112	613A0291M0292	Zener diode	1	
SCR	620A0022M0006E	Thyristor	1	
R5	323A5015J0101	RN resistor, 100Ω	1	
R110	323A5015J0180	RN resistor, 18Ω	1	
R24	323A5015J0221	RN resistor, 220Ω	1	
R23, R66	323A5015J0431	RN resistor, 430Ω	2	
R64, R162, R203	323A5015J0511	RN resistor, 510Ω	3	
R27, R118, R119, R155, R167, R189	323A5015J0122	RN resistor, 1.2 kΩ	6	
R240, R163	323A5015J0202	RN resistor, 2 kΩ	2	
R1 to R3, R26, R31, R60, R61, R115, R169	323A5015J0222	RN resistor, 2.2 kΩ	9	
R28	323A5015J0561	RN resistor, 560Ω	1	
R161	323A5015J0242	RN resistor, 2.4 kΩ	1	
R7 to R14, R166, R170, R177 to R180, R196	323A5015J0332	RN resistor, 3.3 kΩ	15	
R129, R232, R233, R135 to R141, R190 to R192	323A5015J0512	RN resistor, 5.1 kΩ	13	



Figure 4 (3/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.9)

Item No./Symbol	Part No.	Description	Qty	Remarks
R15, R22, R100, R101, R103 to R109, R222, R112, R154, R159, R164, R168, R187, R223	323A5015J0562	RN resistor, 5.6 k $\Omega$	19	
R117, R68, R142 to R147, R134, R131, R173 to R176, R181 to R184, R204, R212, R213, R227 to R231, R224	323A5015J0103	RN resistor, 10 k $\Omega$	26	
R200	323A5015J0183	RN resistor, 18 k $\Omega$	1	
R165	323A5015J0123	RN resistor, 12 k $\Omega$	1	
R114	323A5015J0513	RN resistor, 51 k $\Omega$	1	
R188, R241	323A5015J0472	RN resistor, 4.7 k $\Omega$	2	
R25	323A5015J0224	RN resistor, 220 k $\Omega$	1	
R30, R171, R195	323A5015J0102	RN resistor, 1 k $\Omega$	3	
R33, R34	323A5015F0242	RN resistor, 2.4 k $\Omega$	2	
R35	323A5015F0472	RN resistor, 4.7 k $\Omega$	1	
R37	323A5015F0752	RN resistor, 7.5 k $\Omega$	1	
R157	323A5015F0124	RN resistor, 120 k $\Omega$	1	
R16	324A1001J0518	RS resistor, 0.51 $\Omega$	1	
R50	321A1431J0202	RD resistor, 2 k $\Omega$	1	
R42	324A1121J0390	RS resistor, 39 $\Omega$	1	
R49	324A1121J0151	RS resistor, 150 $\Omega$	1	
R51	324A1121J0302	RS resistor, 3 k $\Omega$	1	
47	306A2002K2152	CQ-M capacitor, 100 V, 0.0015 $\mu$ F	1	
C55	306A4100G1223	CQ capacitor, 100 V, 0.022 $\mu$	1	
C6	303A3008K0561	CC capacitor, 50 V, 560PF	1	
C193, C194,	303A6009K3102	CK capacitor, 50 V, 1000PF	2	
C113, C198	303A6009K3103	CK capacitor, 50 V, 10000PF	2	

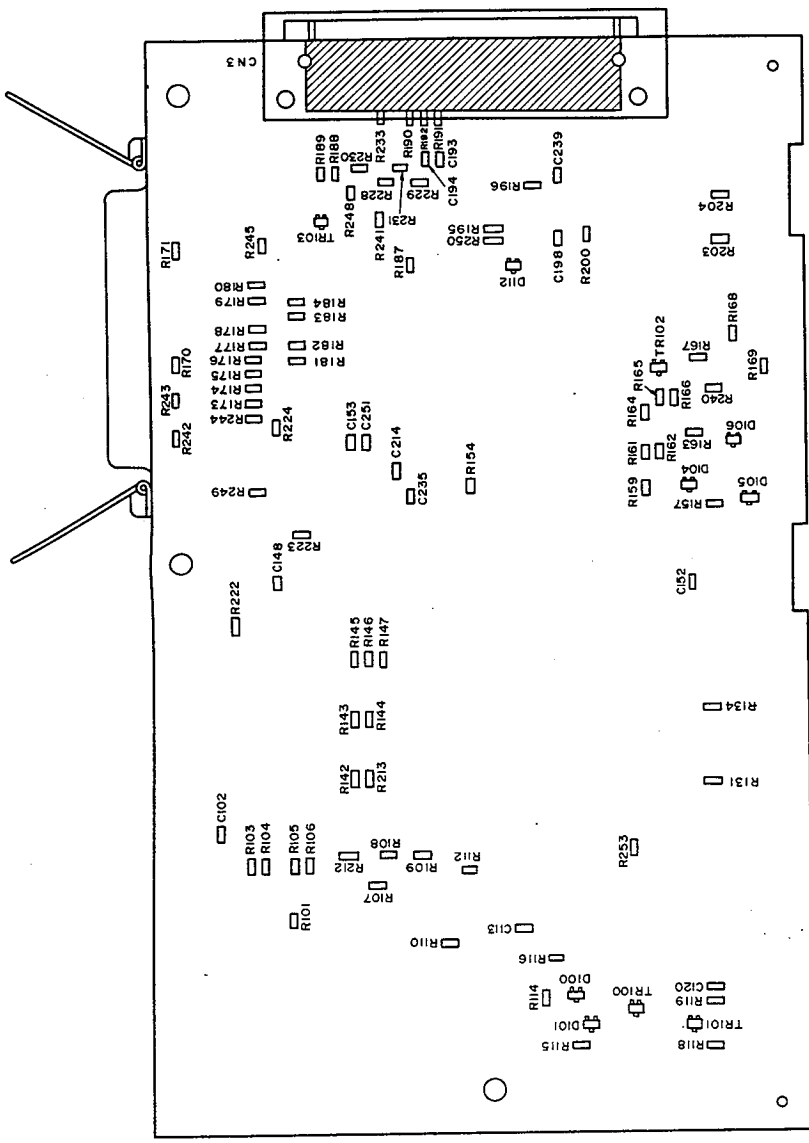
Figure 4 (4/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.9)

Item No./Symbol	Part No.	Description	Qty	Remarks
C20, C102, C120, C148, C152, C153, C214, C235	303A6009Z3104	CK capacitor, 50 V, 0.1 $\mu$ F	8	
C47	304A1040A2109	CE capacitor, 100 V, 1 $\mu$ F	1	
C17	304A1040H1100	CE capacitor, 50 V, 10 $\mu$ F	1	
C43	304A1040A1101	CE capacitor, 10 V, 100 $\mu$ F	1	
C44	304A1037C1822	CE capacitor, 16 V, 8200 $\mu$ F	1	
C46	304A1108G1472	CE capacitor, 42 V, 4700 $\mu$ F	1	
C38, C48	302A4027Z5103	CK capacitor, 250 V, 10000PF	2	
C63, C62	304A1046H1339	CE capacitor, 50 V, 3.3 $\mu$ F	2	
Q12	853A0125M0004	P8051AH-0004	1	
Q6	700A0503M0005	74LS05P	1	
Q3	700A0003M0006	7406P	1	
Q1, Q2	760A4731M0401	LB1205	2	
Q4	702A4924F2001	MSM60201GS-K	1	
Q5	702A4924F0020	MSM61048GS-K	1	
Q13	804A0021N4301	HM6116FP-3	1	
Q7	720A0528N002	NJM2901M	1	
Q8	4YR4064-1065G1	ROM	1	For G010
Q8	4YR4065-1046G1	ROM	1	For G011
Q8	4YR4065-1066G1	ROM	1	For G012
Q8	4YR4065-1060G1	ROM	1	For G013
Q8	4YR4064-1109G1	ROM	1	For G40
Q8	4YR4065-1099G1	ROM	1	For G41
Q8	4YR4064-1126G1	ROM	1	For G42
Q8	4YR4065-1100G1	ROM	1	For G43
L1	353A3002K0102	Choke coil	1	
F1	540A2036M1152	Fuse, 1.5 A	1	
R116	323A5011P0001	Chip jumper	1	
TR9	600A1003N0002	2SA1331/2SA1037K	1	

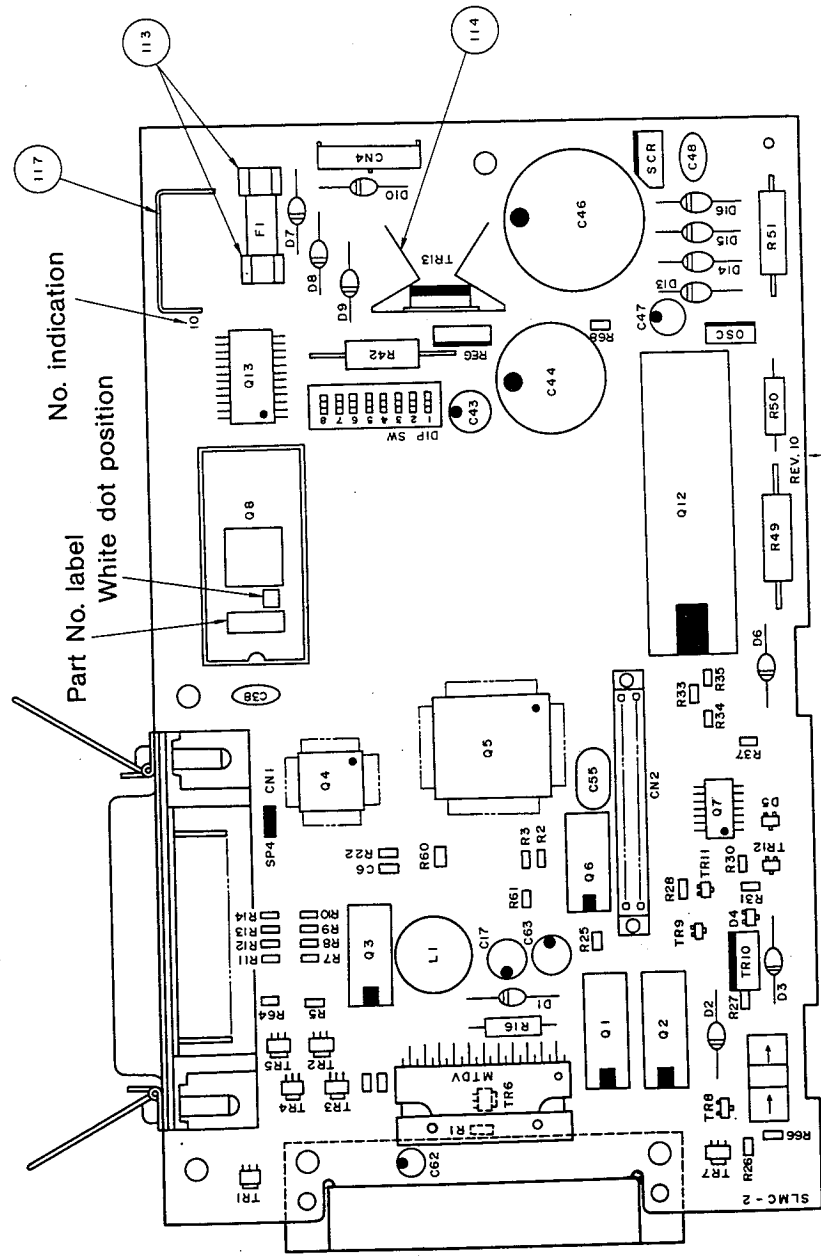
Figure 4 (5/5) SLMC-2 Printed-Circuit Board (4YA4021-1001Gxxx) (Rev. 9)

Item No./Symbol	Part No.	Description	Qty	Remarks
TR8, TR11, TR101, TR102	600A1003N0003	A1344/UN2111/DTA114K	4	
TR13	601A1130M0004	2SB761	1	
TR6	601A1032N0002	2SB1123	1	
TR3	601A1130M0001	2SB766A-Q/R	1	
TR12, TR100, TR103	602A1003N0002	2SC3361/2SC2412K	3	
TR1, TR2, TR4, TR5	603A1130N0003	2SD1511	4	
TR7	603A1032N0001	2SD1626	1	
TR10	601A1132M0003	2SB882	1	
DIP	4LP-3763-8	DIP switch	1	
MTDV	720A4021E0004	HA13412	1	
REG	720A1033M0001	LA5005	1	
CN1	220A1423P0361	Connector	1	
CN2	224A3376P0300	Connector	1	
CN3	224A1160P0400	Connector	1	
CN4	224A3462P0060	Connector	1	
OSC	4LP-12186-1	11.059 MHz oscillator	1	
PE	652A0127M0009	Photo coupler	1	
Q8	245A1155P0280	IC socket	1	
113	4LP-7142	Fuse holder	2	
114	4PP4021-1015P001	Heat sink	1	
116	4LP-44106-4	Sercon	1	
117	4PP4025-1166P001	Barrier	1	

**Solder side**



**Part side**



Rev. No. indication

Different types ROMs are used for each G No. as listed below.

Model	G No.	ROM No.	Part No. label	Part No.	No. of white dots	Remarks
ML182	G019	Q8	42-1087	4YR4042-1087G1	0	ODA standard
	G100	Q8	42-1088	4YR4042-1088G1	0	ODA IBM
	G101	Q8	42-1103	4YR4042-1103G1	0	ODG standard
	G102	Q8	42-1104	4YR4042-1104G1	0	ODG IBM
ML183	G040	Q8	64-1109	4YR4064-1109G1	0	ODA standard
	G041	Q8	65-1099	4YR4065-1099G1	0	ODA IBM
	G042	Q8	64-1126	4YR4064-1126G1	0	ODG standard
	G043	Q8	65-1100	4YR4065-1100G1	0	ODG IBM

Circuit board rev. No.	10
Rev.	10

(Corresponds to FX)

Figure 4 (1/5) SLMC - 2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.10)

Figure 4 (2/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.10)

Item No./Symbol	Part No.	Description	Qty	Remarks
D1	610A0221L0021	Diode	1	
D2, D6, D7 to D10	610A0021L0090	Diode	6	
D3, D13 to D16	610A0021L0089A	Diode	5	
D4, D100, D105	611A0003N0003	Diode	3	
D104	613A0291M0102B	Zener diode	1	
D101	613A0103M0182	Zener diode	1	
D5	613A0103M0152B	Zener diode	1	
D106	613A0103M0272B	Zener diode	1	
D112	613A0103M0292	Zener diode	1	
SCR	620A0022M0006E	Thyristor	1	
R159	323A5015J0682	RN resistor, 6.8 k $\Omega$	1	
R5	323A5015J0101	RN resistor, 100 $\Omega$	1	
R110	323A5015J0180	RN resistor, 18 $\Omega$	1	
R24	323A5015J0221	RN resistor, 220 $\Omega$	1	
R23, R66	323A5015J0431	RN resistor, 430 $\Omega$	2	
R64, R162, R203	323A5015J0511	RN resistor, 510 $\Omega$	3	
R27, R118, R119, R167, R189	323A5015J0122	RN resistor, 1.2 k $\Omega$	5	
R240, R163	323A5015J0202	RN resistor, 2 k $\Omega$	2	
R1 to R3, R26, R31, R60, R61, R115, R169	323A5015J0222	RN resistor, 2.2 k $\Omega$	9	
R28	323A5015J0561	RN resistor, 560 $\Omega$	1	
R161	323A5015J0182	RN resistor, 1.8 k $\Omega$	1	
R7 to R14, R166, R170, R177 to R180, R195, R196, R242, R243, R245, R250	323A5015J0332	RN resistor, 3.3 k $\Omega$	20	
R233, R190 to R192	323A5015J0512	RN resistor, 5.1 k $\Omega$	4	

Figure 4 (3/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.10)

Item No./Symbol	Part No.	Description	Qty	Remarks
R22, R100, R101, R103 to R109, R222, R112, R154, R164, R168, R187, R223, R249, R253	323A5015J0562	RN resistor, 5.6 k $\Omega$	18	
R212, R213, R131, R134, R68, R142 to R147, R224, R204, R173 to R176, R181 to R184, R228 to R231, R244, R248	323A5015J0103	RN resistor, 10 k $\Omega$	28	
R200	323A5015J0183	RN resistor, 18 k $\Omega$	1	
R165	323A5015J0683	RN resistor, 68 k $\Omega$	1	
R114	323A5015J0513	RN resistor, 51 k $\Omega$	1	
R188, R241	323A5015J0472	RN resistor, 4.7 k $\Omega$	2	
R25	323A5015J0224	RN resistor, 220 k $\Omega$	1	
R30, R171	323A5015J0102	RN resistor, 1 k $\Omega$	2	
R33, R34	323A5015F0242	RN resistor, 2.4 k $\Omega$	2	
R35	323A5015F0472	RN resistor, 4.7 k $\Omega$	1	
R37	323A5015F0752	RN resistor, 7.5 k $\Omega$	1	
R157	323A5015F0124	RN resistor, 120 k $\Omega$	1	
R16	324A1001J0518	RS resistor, 0.51 $\Omega$	1	
R50	321A1431J0202	RD resistor, 2 k $\Omega$	1	
R42	324A1121J0390	RS resistor, 39 $\Omega$	1	
R49	324A1121J0151	RS resistor, 150 $\Omega$	1	
R51	324A1121J0302	RS resistor, 3 k $\Omega$	1	
C55	306A4100G1223	CQ capacitor, 100 V, 0.022 $\mu$	1	
C6	303A3008K0561	CC capacitor, 50 V, 560PF	1	
C193, C194, C239	303A6009K3102	CK capacitor, 50 V, 1000PF	3	
C113, C198	303A6009K3103	CK capacitor, 50 V, 10000PF	2	

Figure 4 (4/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.10)

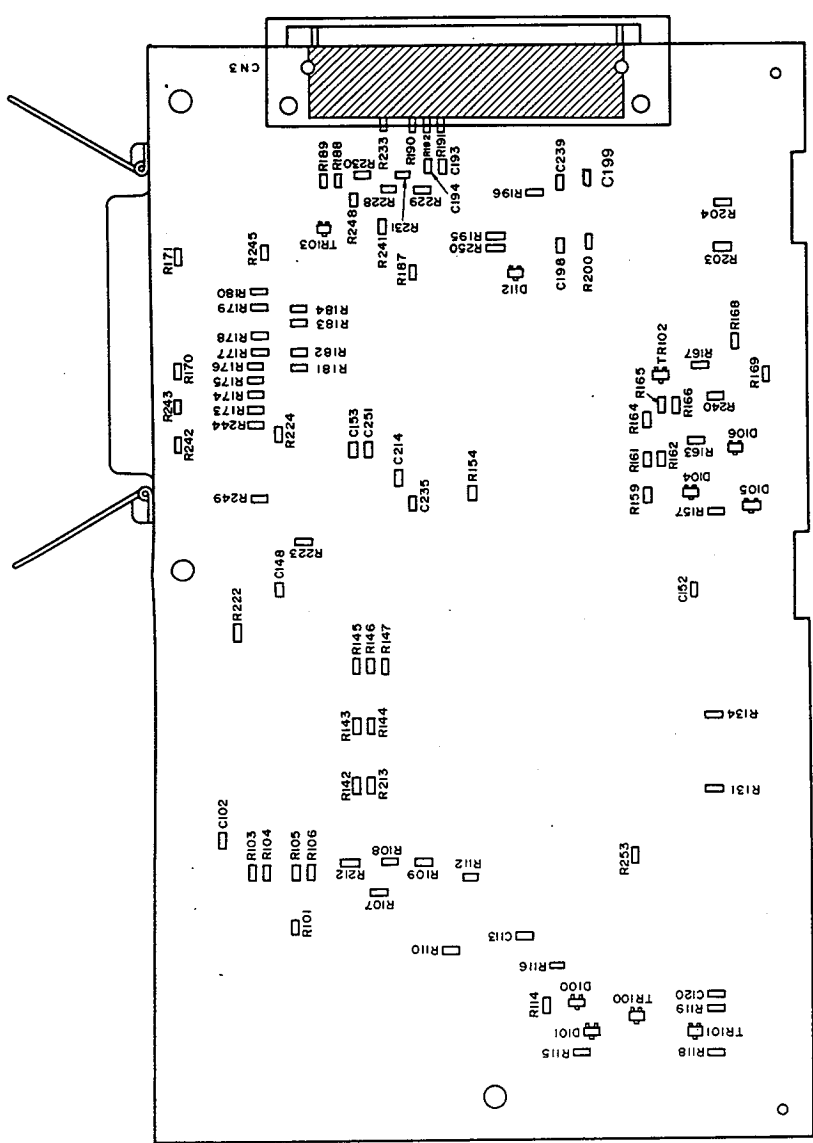
Item No./Symbol	Part No.	Description	Qty	Remarks
C102, C120, C148, C152, C153, C214, C235, C251	303A6009Z3104	CK capacitor, 50 V, 0.1 $\mu$ F	8	
C47	304A1040A2109	CE capacitor, 100 V, 1 $\mu$ F	1	
C17	304A1040H1100	CE capacitor, 50 V, 10 $\mu$ F	1	
C43	304A1040A1101	CE capacitor, 10 V, 100 $\mu$ F	1	
C44	304A1037C1822	CE capacitor, 16 V, 8200 $\mu$ F	1	
C46	304A1108G1472	CE capacitor, 42 V, 4700 $\mu$ F	1	
C38, C48	302A4027Z5103	CK capacitor, 250 V, 10000PF	2	
C63, C62	304A1046H1339	CE capacitor, 50 V, 3.3 $\mu$ F	2	
Q12	853A2103M5004	P8051-004P	1	
Q6	700A0503M0005	74LS05P	1	
Q3	700A0003M0006	7406P	1	
Q1, Q2	760A4731M0401	LB1205	2	
Q4	702A4924F2001	MSM60201GS-K	1	
Q5	702A4924F0020	MSM61048GS-K	1	
Q13	804A0021N4301	HM6116FP-3	1	
Q7	720A0528N0002	NJM2901M	1	
Q8	4YA4042-1087G1	ROM	1	For G019
Q8	4YA4042-1088G1	ROM	1	For G100
Q8	4YA4042-1103G1	ROM	1	For G101
Q8	4YA4042-1104G1	ROM	1	For G102
Q8	4YR4064-1109G1	ROM	1	For G040
Q8	4YR4065-1099G1	ROM	1	For G041
Q8	4YR4064-1126G1	ROM	1	For G042
Q8	4YR4065-1100G1	ROM	1	For G043
L1	353A3002K0102	Choke coil	1	
F1	540A2036M1152	Fuse, 1.5 A	1	
R116	323A5011P0001	Chip jumper	1	
TR9	600A1003N0002	2SA1331/2SA1037K	1	

Figure 4 (5/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.10)

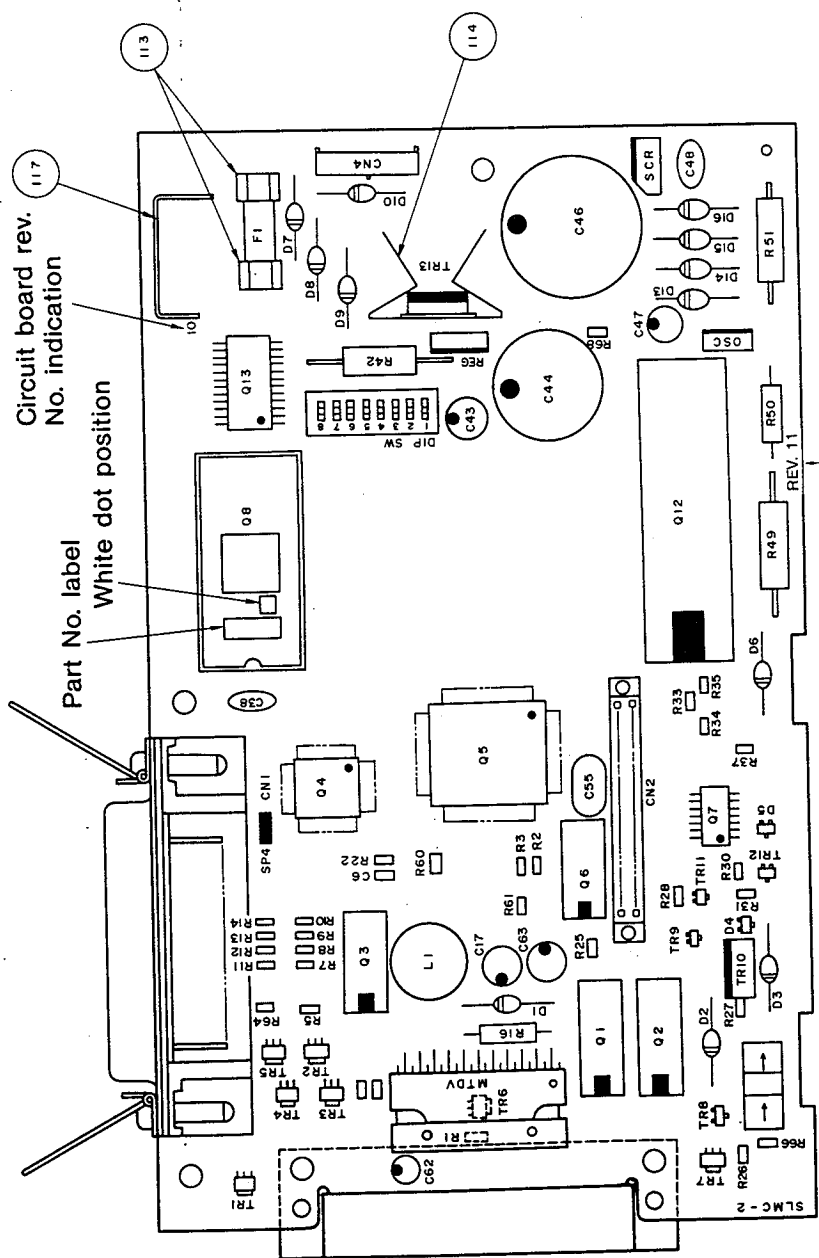
Item No./Symbol	Part No.	Description	Qty	Remarks .
TR8, TR11, TR101, TR102	600A1003N0003	A1344/UN2111/DTA114K	4	
TR13	601A1130M0004	2SB761	1	
TR6	601A1032N0002	2SB1123	1	
TR3	601A1130M0001	2SB766A-Q/R	1	
TR12, TR100, TR103	602A1003N0002	2SC3361/2SC2412K	3	
TR1, TR2, TR4, TR5	603A1130N0003	2SD1511	4	
TR7	603A1032N0001	2SD1626	1	
TR10	601A1132M0003	2SB882	1	
DIP	4LP-3763-8	DIP switch	1	
MTDV	720A4021E0004	HA13412	1	
REG	720A1033M0001	LA5005	1	
CN1	220A1423P0361	Connector	1	
CN2	224A3376P0300	Connector	1	
CN3	224A1160P0400	Connector	1	
CN4	224A3462P0060	Connector	1	
SP4	225A3123P0020	FC connector	1	
OSC	4LP-12186-1	11.059 MHz oscillator	1	
PE	652A0127M0009	Photo coupler	1	
Q8	245A1155P0280	IC socket	1	
113	4LP-7142	Fuse holder	2	
114	4PP4021-1015P001	Heat sink	1	
SP4	224A3182P0020	PC connector	1	
117	4PP4025-1166P001	Barrier	1	



**Solder side**



**Part side**



Rev. No. indication

Different types ROMs are used for each G No. as listed below.

Model	G No.	ROM No.	Part No. label	Part No.	No. of white dots	Remarks
ML182	G019	Q8	42-1087	4YR4042-1087G1	0	ODA standard
	G100	Q8	42-1088	4YR4042-1088G1	0	ODA IBM
	G101	Q8	42-1103	4YR4042-1103G1	0	ODG standard
	G102	Q8	42-1104	4YR4042-1104G1	0	ODG IBM
ML183	G040	Q8	64-1109	4YR4064-1109G1	0	ODA standard
	G041	Q8	65-1099	4YR4065-1099G1	0	ODA IBM
	G042	Q8	64-1126	4YR4064-1126G1	0	ODG standard
	G043	Q8	65-1100	4YR4065-1100G1	0	ODG IBM

Circuit board rev. No.	11
Rev.	11

(Corresponds to FX)

Figure 4 (1/5) SLMC - 2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.11)

Figure 4 (2/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.11)

Item No./Symbol	Part No.	Description	Qty	Remarks
D1	610A0221L0021	Diode	1	
D2, D6, D7 to D10	610A0021L0090	Diode	6	
D3, D13 to D16	610A0021L0089A	Diode	5	
D4, D100, D105	611A0003N0003	Diode	3	
D104	613A0291M0102B	Zener diode	1	
D101	613A0103M0182	Zener diode	1	
D5	613A0103M0152B	Zener diode	1	
D106	613A0103M0272B	Zener diode	1	
D112	613A0103M0292	Zener diode	1	
SCR	620A0022M0006E	Thyristor	1	
R159	323A5015J0682	RN resistor, 6.8 k $\Omega$	1	
R5	323A5015J0101	RN resistor, 100 $\Omega$	1	
R110	323A5015J0180	RN resistor, 18 $\Omega$	1	
R24	323A5015J0221	RN resistor, 220 $\Omega$	1	
R23, R66	323A5015J0431	RN resistor, 430 $\Omega$	2	
R64, R162, R203	323A5015J0511	RN resistor, 510 $\Omega$	3	
R27, R118, R119, R167, R189	323A5015J0122	RN resistor, 1.2 k $\Omega$	5	
R240, R163	323A5015J0202	RN resistor, 2 k $\Omega$	2	
R1 to R3, R26, R31, R60, R61, R115, R169	323A5015J0222	RN resistor, 2.2 k $\Omega$	9	
R28	323A5015J0561	RN resistor, 560 $\Omega$	1	
R161	323A5015J0182	RN resistor, 1.8 k $\Omega$	1	
R7 to R14, R166, R170, R177 to R180, R195, R196, R242, R243, R245, R250	323A5015J0332	RN resistor, 3.3 k $\Omega$	20	
R233, R190 to R192	323A5015J0512	RN resistor, 5.1 k $\Omega$	4	

Figure 4 (3/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.11)

Item No./Symbol	Part No.	Description	Qty	Remarks
R22, R100, R101, R103 to R109, R222, R112, R154, R164, R168, R187, R223, R249, R253	323A5015J0562	RN resistor, 5.6 k $\Omega$	18	
R212, R213, R131, R134, R68, R142 to R147, R224, R204, R173 to R176, R181 to R184, R228 to R231, R244, R248	323A5015J0103	RN resistor, 10 k $\Omega$	28	
R200	323A5015J0183	RN resistor, 18 k $\Omega$	1	
R165	323A5015J0683	RN resistor, 68 k $\Omega$	1	
R114	323A5015J0513	RN resistor, 51 k $\Omega$	1	
R188, R241	323A5015J0472	RN resistor, 4.7 k $\Omega$	2	
R25	323A5015J0224	RN resistor, 220 k $\Omega$	1	
R30, R171	323A5015J0102	RN resistor, 1 k $\Omega$	2	
R33, R34	323A5015F0242	RN resistor, 2.4 k $\Omega$	2	
R35	323A5015F0472	RN resistor, 4.7 k $\Omega$	1	
R37	323A5015F0752	RN resistor, 7.5 k $\Omega$	1	
R157	323A5015F0124	RN resistor, 120 k $\Omega$	1	
R16	324A1001J0518	RS resistor, 0.51 $\Omega$	1	
R50	321A1431J0202	RD resistor, 2 k $\Omega$	1	
R42	324A1121J0390	RS resistor, 39 $\Omega$	1	
R49	324A1121J0151	RS resistor, 150 $\Omega$	1	
R51	324A1121J0302	RS resistor, 3 k $\Omega$	1	
C55	306A4100G1223	CQ capacitor, 100 V, 0.022 $\mu$	1	
C6	303A3008K0561	CC capacitor, 50 V, 560PF	1	
C193, C194, C239	303A6009K3102	CK capacitor, 50 V, 1000PF	3	
C113, C198	303A6009K3103	CK capacitor, 50 V, 10000PF	2	

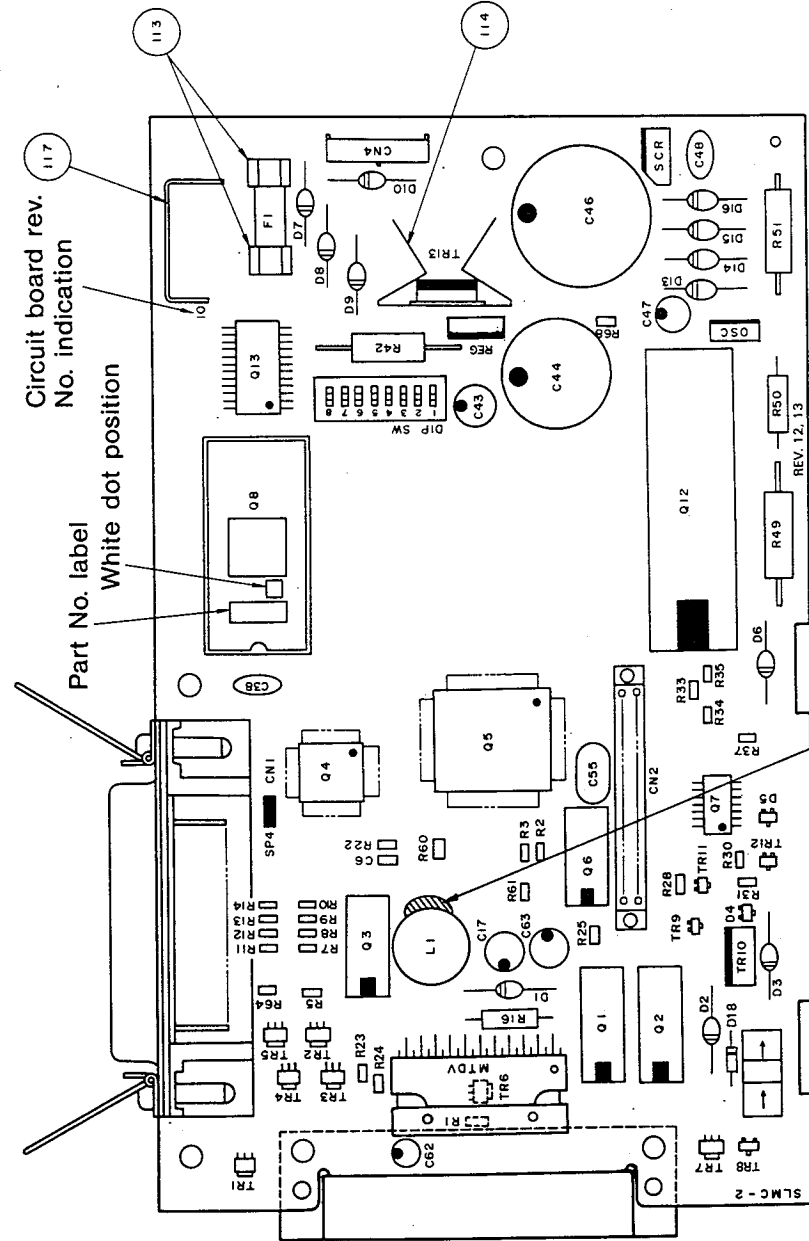
Figure 4 (4/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.11)

Item No./Symbol	Part No.	Description	Qty	Remarks
C102, C120, C148, C152, C153, C214, C235, C251, C199	303A6009Z3104	CK capacitor, 50 V, 0.1 $\mu$ F	9	
C47	304A1040A2109	CE capacitor, 100 V, 1 $\mu$ F	1	
C17	304A1040H1100	CE capacitor, 50 V, 10 $\mu$ F	1	
C43	304A1040A1101	CE capacitor, 10 V, 100 $\mu$ F	1	
C44	304A1037C1822	CE capacitor, 16 V, 8200 $\mu$ F	1	
C46	304A1108G1472	CE capacitor, 42 V, 4700 $\mu$ F	1	
C38, C48	302A4027Z5103	CK capacitor, 250 V, 10000PF	2	
C63, C62	304A1046H1339	CE capacitor, 50 V, 3.3 $\mu$ F	2	
Q12	853A2103M5004	P8051-004P	1	
Q6	700A0503M0005	74LS05P	1	
Q3	700A0003M0006	7406P	1	
Q1, Q2	760A4731M0401	LB1205	2	
Q4	702A4924F2001	MSM60201GS-K	1	
Q5	702A4924F0020	MSM61048GS-K	1	
Q13	804A0021N4301	HM6116FP-3	1	
Q7	720A0528N0002	NJM2901M	1	
Q8	4YA4042-1087G1	ROM	1	For G019
Q8	4YA4042-1088G1	ROM	1	For G100
Q8	4YA4042-1103G1	ROM	1	For G101
Q8	4YA4042-1104G1	ROM	1	For G102
Q8	4YR4064-1109G1	ROM	1	For G040
Q8	4YR4065-1099G1	ROM	1	For G041
Q8	4YR4064-1126G1	ROM	1	For G042
Q8	4YR4065-1100G1	ROM	1	For G043
L1	353A3002K0102	Choke coil	1	
F1	540A2036M1152	Fuse, 1.5 A	1	
R116	323A5011P0001	Chip jumper	1	
TR9	600A1003N0002	2SA1331/2SA1037K	1	

Figure 4 (5/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.11)

Item No./Symbol	Part No.	Description	Qty	Remarks
TR8, TR11, TR101, TR102	600A1003N0003	A1344/UN2111/DTA114K	4	
TR13	601A1130M0004	2SB761	1	
TR6	601A1032N0002	2SB1123	1	
TR3	601A1130M0001	2SB766A-Q/R	1	
TR12, TR100, TR103	602A1003N0002	2SC3361/2SC2412K	3	
TR1, TR2, TR4, TR5	603A1130N0003	2SD1511	4	
TR7	603A1032N0001	2SD1626	1	
TR10	601A1132M0003	2SB882	1	
DIP	4LP-3763-8	DIP switch	1	
MTDV	720A4021E0004	HA13412	1	
REG	720A1033M0001	LA5005	1	
CN1	220A1423P0361	Connector	1	
CN2	224A3376P0300	Connector	1	
CN3	224A1160P0400	Connector	1	
CN4	224A3462P0060	Connector	1	
SP4	225A3123P0020	FC connector	1	
OSC	4LP-12186-1	11.059 MHz oscillator	1	
PE	652A0127M0009	Photo coupler	1	
Q8	245A1155P0280	IC socket	1	
113	4LP-7142	Fuse holder	2	
114	4PP4021-1015P001	Heat sink	1	
SP4	224A3182P0020	PC connector	1	
117	4PP4025-1166P001	Barrier	1	

**Part side**

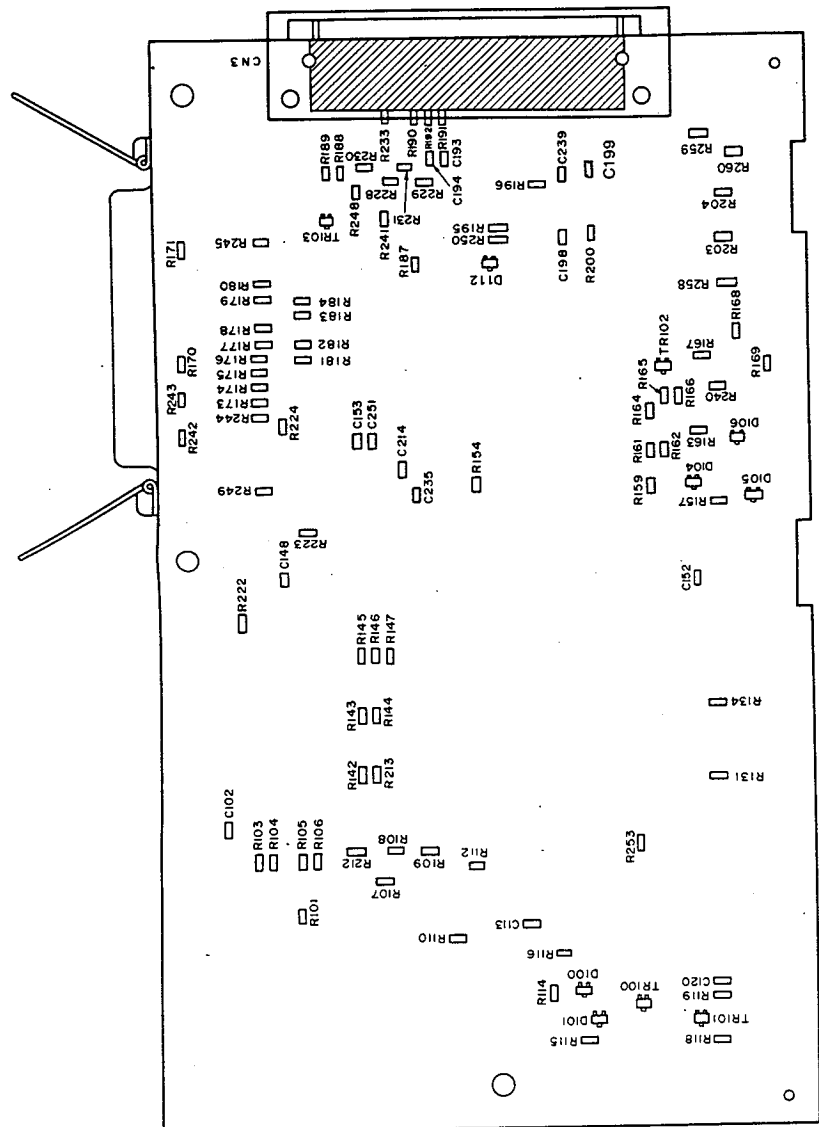


Fastened with silicon rubber in Rev. 13 only.

Different types ROMs are used for each G No. as listed below.

Model	G No.	ROM No.	Part No. label	Part No.	Rev. No. indicated on the seal	Remarks
ML182	G010	Q8	65-1222	4YR4065-1222G1	1	ODA standard
	G011	Q8	65-1046	4YR4065-1046G1	6	ODA IBM
ML183	G040	Q8	65-1223	4YR4065-1223G1	1	ODA standard
	G041	Q8	65-1099	4YR4065-1099G1	2	ODA IBM
	G042	Q8	65-1254	4YR4065-1254G1	1	ODG standard
	G043	Q8	65-1100	4YR4065-1100G1	3	ODG IBM

**Solder side**



Circuit board rev. No.	Rev.
12,13	12,13
(Corresponds to FX)	

Figure 4 (1/5) SLMC-2 Printed-Circuit Board (4YA4021-1001 Gxxx)(REV.12,13)

Figure 4 (2/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV. 12, 13)

Item No./Symbol	Part No.	Description	Qty	Remarks
D1	610A0221L0021	Diode	1	
D2, D6, D7 to D10	610A0021L0090	Diode	6	
D3, D13 to D16	610A0021L0089A	Diode	5	
D4, D100, D105	611A0003N0003	Diode	3	
D104	613A0291M0102B	Zener diode	1	
D101	613A0103M0182	Zener diode	1	
D5	613A0103M0152B	Zener diode	1	
D106	613A0103M0272B	Zener diode	1	
D112	613A0103M0292	Zener diode	1	
D18	613A1231L0182	Diode	1	
SCR	620A0022M0006E	Thyristor	1	
R159	323A5015J0682	RN resistor, 6.8 k $\Omega$	1	
R5	323A5015J0101	RN resistor, 100 $\Omega$	1	
R110	323A5015J0180	RN resistor, 18 $\Omega$	1	
R24	323A5015J0221	RN resistor, 220 $\Omega$	1	
R23, R260	323A5015J0431	RN resistor, 430 $\Omega$	2	
R64, R162, R203	323A5015J0511	RN resistor, 510 $\Omega$	3	
R118, R119, R167, R189, R258	323A5015J0122	RN resistor, 1.2 k $\Omega$	5	
R240, R163	323A5015J0202	RN resistor, 2 k $\Omega$	2	
R1 to R3, R31, R60, R61, R115, R169, R259	323A5015J0222	RN resistor, 2.2 k $\Omega$	9	
R28	323A5015J0561	RN resistor, 560 $\Omega$	1	
R161	323A5015J0182	RN resistor, 1.8 k $\Omega$	1	
R7 to R14, R166, R170, R177 to R180, R195, R196, R242, R243, R245, R250	323A5015J0332	RN resistor, 3.3 k $\Omega$	20	
R233, R190 to R192	323A5015J0512	RN resistor, 5.1 k $\Omega$	4	

Figure 4 (3/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx)(REV. 12, 13)

Item No./Symbol	Part No.	Description	Qty	Remarks
R22, R100, R101, R103 to R109, R222, R112, R154, R164, R168, R187, R223, R249, R253	323A5015J0562	RN resistor, 5.6 k $\Omega$	18	
R212, R213, R131, R134, R68, R142 to R147, R224, R204, R173 to R176, R181 to R184, R228 to R231, R244, R248	323A5015J0103	RN resistor, 10 k $\Omega$	28	
R200	323A5015J0183	RN resistor, 18 k $\Omega$	1	
R165	323A5015J0683	RN resistor, 68 k $\Omega$	1	
R114	323A5015J0513	RN resistor, 51 k $\Omega$	1	
R188, R241	323A5015J0472	RN resistor, 4.7 k $\Omega$	2	
R25	323A5015J0224	RN resistor, 220 k $\Omega$	1	
R30, R171	323A5015J0102	RN resistor, 1 k $\Omega$	2	
R33, R34	323A5015F0242	RN resistor, 2.4 k $\Omega$	2	
R35	323A5015F0472	RN resistor, 4.7 k $\Omega$	1	
R37	323A5015F0752	RN resistor, 7.5 k $\Omega$	1	
R157	323A5015F0124	RN resistor, 120 k $\Omega$	1	
R16	324A1001J0518	RS resistor, 0.51 $\Omega$	1	
R50	321A1431J0202	RD resistor, 2 k $\Omega$	1	
R42	324A1121J0390	RS resistor, 39 $\Omega$	1	
R49	324A1121J0151	RS resistor, 150 $\Omega$	1	
R51	324A1121J0302	RS resistor, 3 k $\Omega$	1	
C55	306A4100G1223	CQ capacitor, 100 V, 0.022 $\mu$	1	
C6	303A3008K0561	CC capacitor, 50 V, 560PF	1	
C193, C194, C239	303A6009K3102	CK capacitor, 50 V, 1000PF	3	
C113, C198	303A6009K3103	CK capacitor, 50 V, 10000PF	2	



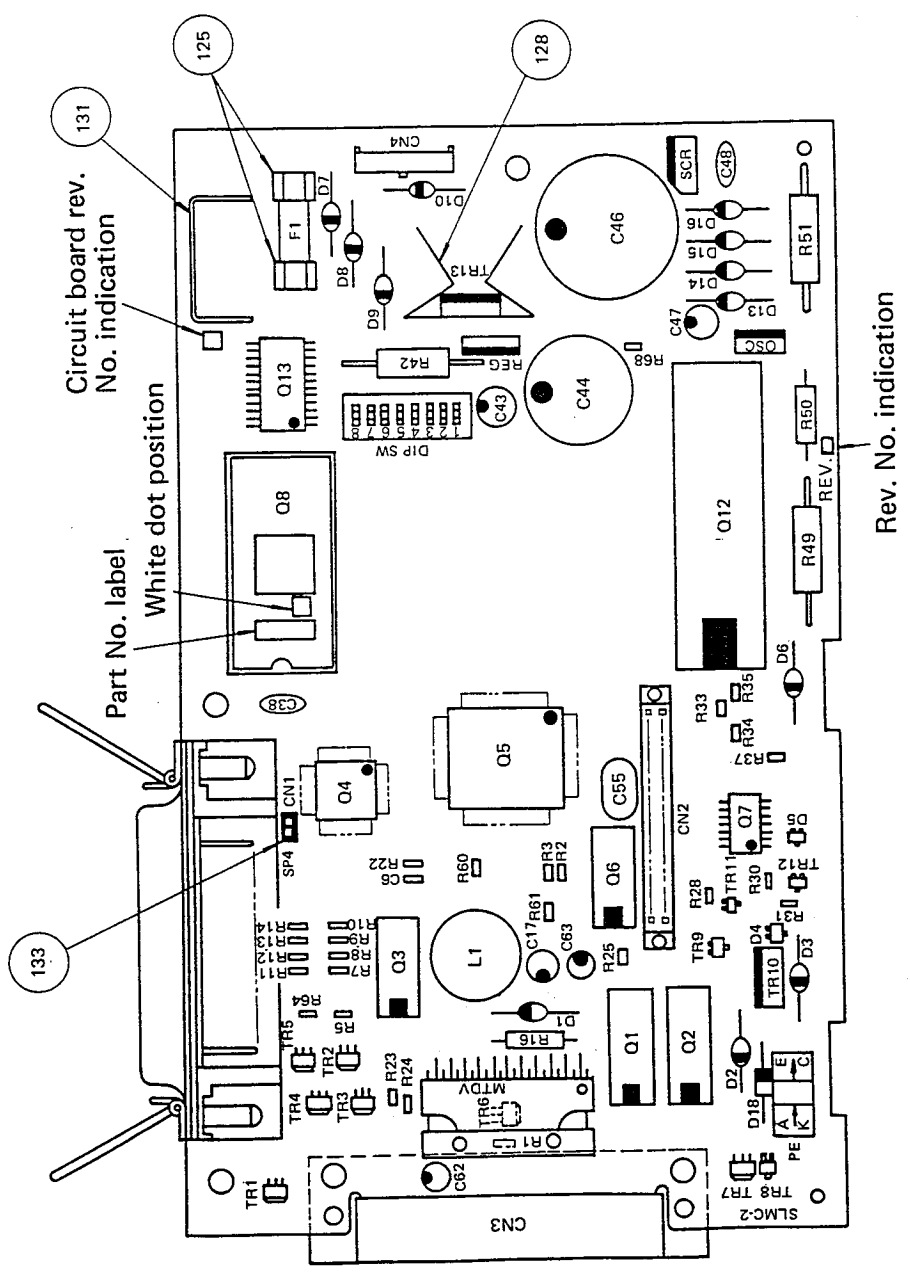
Figure 4 (4/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV. 12, 13)

Item No./Symbol	Part No.	Description	Qty	Remarks
C102, C120, C148, C152, C153, C214, C235, C251, C199	303A6009Z3104	CK capacitor, 50 V, 0.1 $\mu$ F	9	
C47	304A1040A2109	CE capacitor, 100 V, 1 $\mu$ F	1	
C17	304A1040H1100	CE capacitor, 50 V, 10 $\mu$ F	1	
C43	304A1040A1101	CE capacitor, 10 V, 100 $\mu$ F	1	
C44	304A1037C1822	CE capacitor, 16 V, 8200 $\mu$ F	1	
C46	304A1108G1472	CE capacitor, 42 V, 4700 $\mu$ F	1	
C38, C48	302A4027Z5103	CK capacitor, 250 V, 10000PF	2	
C63, C62	304A1046H1339	CE capacitor, 50 V, 3.3 $\mu$ F	2	
Q12	853A2103M5004	P8051-004P	1	
Q6	700A0503M0005	74LS05P	1	
Q3	700A0003M0006	7406P	1	
Q1, Q2	760A4731M0401	LB1205	2	
Q4	702A4924F2001	MSM60201GS-K	1	
Q5	702A4924F0020	MSM61048GS-K	1	
Q13	804A0021N4301	HM6116FP-3	1	
Q7	720A0528N0002	NJM2901M	1	
Q8	4YA4042-1087G1	ROM	1	For G019
Q8	4YA4042-1088G1	ROM	1	For G100
Q8	4YA4042-1103G1	ROM	1	For G101
Q8	4YA4042-1104G1	ROM	1	For G102
Q8	4YR4064-1109G1	ROM	1	For G040
Q8	4YR4065-1099G1	ROM	1	For G041
Q8	4YR4064-1126G1	ROM	1	For G042
Q8	4YR4065-1100G1	ROM	1	For G043
L1	353A3002K0102	Choke coil	1	
F1	540A2036M1152	Fuse, 1.5 A	1	
R116	323A5011P0001	Chip jumper	1	
TR9	600A1003N0002	2SA1331/2SA1037K	1	

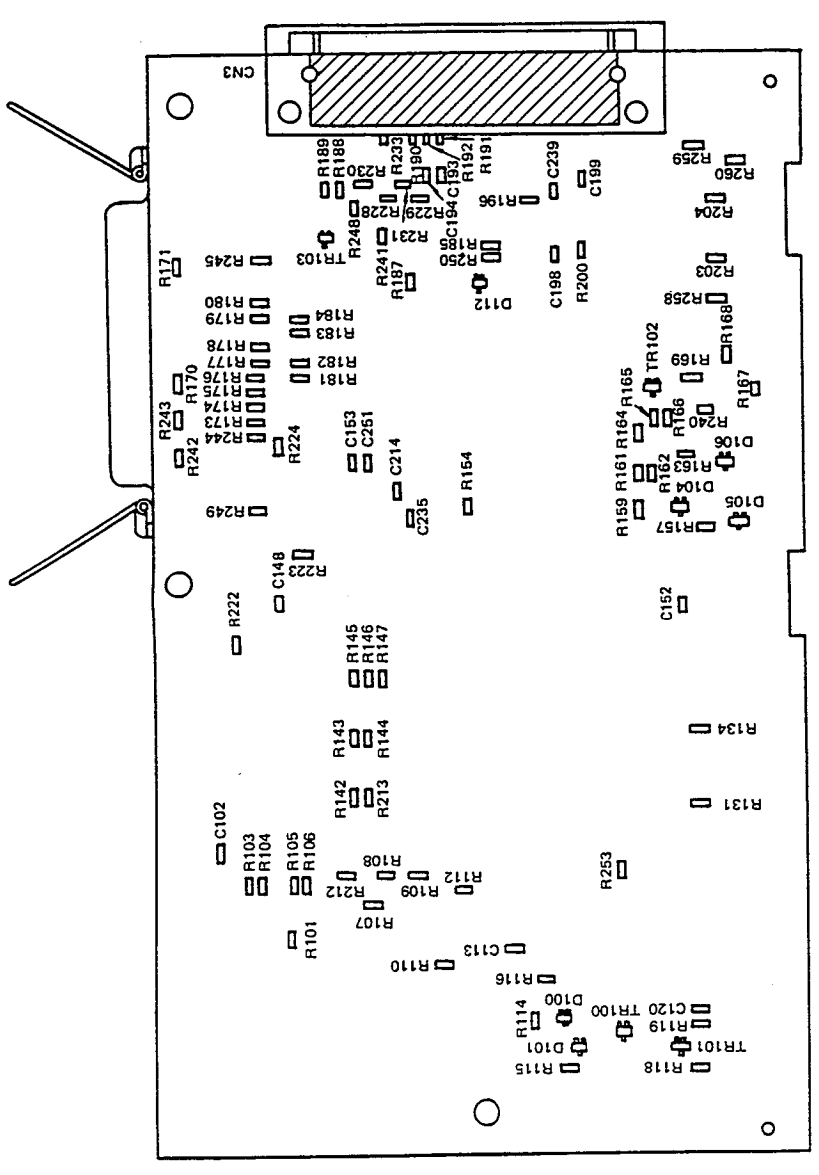
Figure 4 (5/5) SLMC – 2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV. 12, 13)

Item No./Symbol	Part No.	Description	Qty	Remarks
TR8, TR11, TR101, TR102	600A1003N0003	A1344/UN2111/DTA114K	4	
TR13	601A1130M0004	2SB761	1	
TR6	601A1032N0002	2SB1123	1	
TR3	601A1130M0001	2SB766A-Q/R	1	
TR12, TR100, TR103	602A1003N0002	2SC3361/2SC2412K	3	
TR1, TR2, TR4, TR5	603A1130N0003	2SD1511	4	
TR7	603A1032N0001	2SD1626	1	
TR10	601A1132M0003	2SB882	1	
DIP	4LP-3763-8	DIP switch	1	
MTDV	720A4021E0004	HA13412	1	
REG	720A1033M0001	LA5005	1	
CN1	220A1423P0361	Connector	1	
CN2	224A3376P0300	Connector	1	
CN3	224A1160P0400	Connector	1	
CN4	224A3462P0060	Connector	1	
SP4	225A3123P0020	FC connector	1	
OSC	4LP-12186-1	11.059 MHz oscillator	1	
PE	652A0127M0009	Photo coupler	1	
Q8	245A1155P0280	IC socket	1	
113	4LP-7142	Fuse holder	2	
114	4PP4021-1015P001	Heat sink	1	
SP4	224A3182P0020	PC connector	1	
117	4PP4025-1166P001	Barrier	1	

Parts side



Solder side



Circuit board rev. No.	Rev. No.
14	14

Figure 4(1/5) SLMC-2 Printed-Circuit Board (4YA4021-1001GXXX)

Figure 4 (2/5) SLMC-2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.14)

Item No./Symbol	Part No.	Description	Qty	Remarks
D1	610A0221L0021	Rectifying diode, DFA1A1	1	
D2, D6, D7 to D10	610A0021L0090	Rectifying diode, DSA1A2	6	
D3, D13 to D16	610A0021L0089A	Rectifying diode, DSA1C1	5	
D4, D100, D105	611A0003N0003	Signal diode(CP), MA151WK/DAN202K	3	
D104	613A0291M0102H	Zener diode(CP), MA3047-H	1	
D101	613A0103M0182	Zener diode(CP), MA3100/RD10M-B	1	
D5	613A0103M0152B	Zener diode(CP), MA3075-M/RD.75M-B2	1	
D106	613A0103M0272B	Zener diode(CP), MA3240-M/RD24M-B2	1	
D112	613A0103M0292	Zener diode(CP), MA3300/RD30M-B	1	
D18	613A2232L0182	Zener diode, RD10F-B		
SCR	620A0022M0006E	Gate thyristor OFF, CR3CM-8	1	
R5	323A5015J0101	RN resistor(CP), RM73B2B101J	1	
R110	323A5015J0180	RN resistor(CP), RN73B2B180J	1	
R24	323A5015J0221	RN resistor(CP), RM73B2B221J	1	
R23, R260	323A5015J0431	RN resistor(CP), RM73B2B431J	2	
R64, R162, R203	323A5015J0511	RN resistor(CP), RM73B2B511J	3	
R118, R119, R167, R189, R258	323A5015J0122	RN resistor(CP), RM73B2B122J	5	
R163, R240	323A5015J0202	RN resistor(CP), RM73B2B202J	2	
R1 to R3, R31, R60, R61, R115, R169, R259	323A5015J0222	RN resistor(CP), RM73B2B222J	9	
R161	323A5015J0182	RN resistor(CP), RM73B2B182J	1	
R7 to R14, R166, R170, R177 to R180, R195, R196, R242, R243, R245, R250	323A5015J0332	RN resistor(CP), RM73B2B332J	20	
R188, R241	323A5015J0472	RN resistor(CP), RM73B2B472J	2	
R190 to R192, R233	323A5015J0512	RN resistor(CP), RM73B2B512J	4	

Figure 4(3/5) SLMC-2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.14)

Item No./Symbol	Part No.	Description	Qty	Remarks
R22, R101, R103 to R109, R112, R154, R164, R168, R187, R222, R223, R249, R253	323A5015J0562	RN resistor(CP), RM73B2B562J	18	
R68, R131, R134, R142 to R147, R173 to R176, R181 to R184, R204, R212, R213, R224, R228 to R231, R244, R248	323A5015J0103	RN resistor(CP), RM73B2B103J	27	
R200	323A5015J0183	RN resistor(CP), RM73B2B183J	1	
R165	323A5015J0683	RN resistor(CP), RM73B2B683J	1	
R28	323A5015J0561	RN resistor(CP), RM73B2B561J	1	
R114	323A5015J0513	RN resistor(CP), RM73B2B513J	1	
R25	323A5015J0224	RN resistor(CP), RM73B2B224J	1	
R30, R171	323A5015J0102	RN resistor(CP), RM73B2B102J	2	
R159	323A5015J0682	RN resistor(CP), RM73B2B682J	1	
R33, R34	323A5015F0242	RN resistor(CP), RM73B2B242F	2	
R35	323A5015F0472	RN resistor(CP), RM73B2B472F	1	
R37	323A5015F0752	RN resistor(CP), RM73B2B752F	1	
R157	323A5015F0124	RN resistor(CP), RM73B2B124F	1	
R16	324A1001J0518	RS resistor, MSF1/2B 0.51ΩJ	1	
R50	321A1431J0202	RD resistor, RD1/2Y 2 kΩJ	1	
R42	324A1121J0390	RS resistor, MOR2B 39ΩJ	1	
R49	324A1121J0151	RS resistor, MOR2B 150ΩJ	1	
R51	324A1121J0302	RS resistor, MOR2B 3.0 kΩJ	1	
C6	303A3008K0561	CC capacitor(CP), CC3216SL1H561J	1	
C193, C194, C239	303A6009K3102	CK capacitor(CP), CK3216B1H102K	3	
C113, C198	303A6009K3103	CK capacitor(CP), CK3216B1H103K	2	

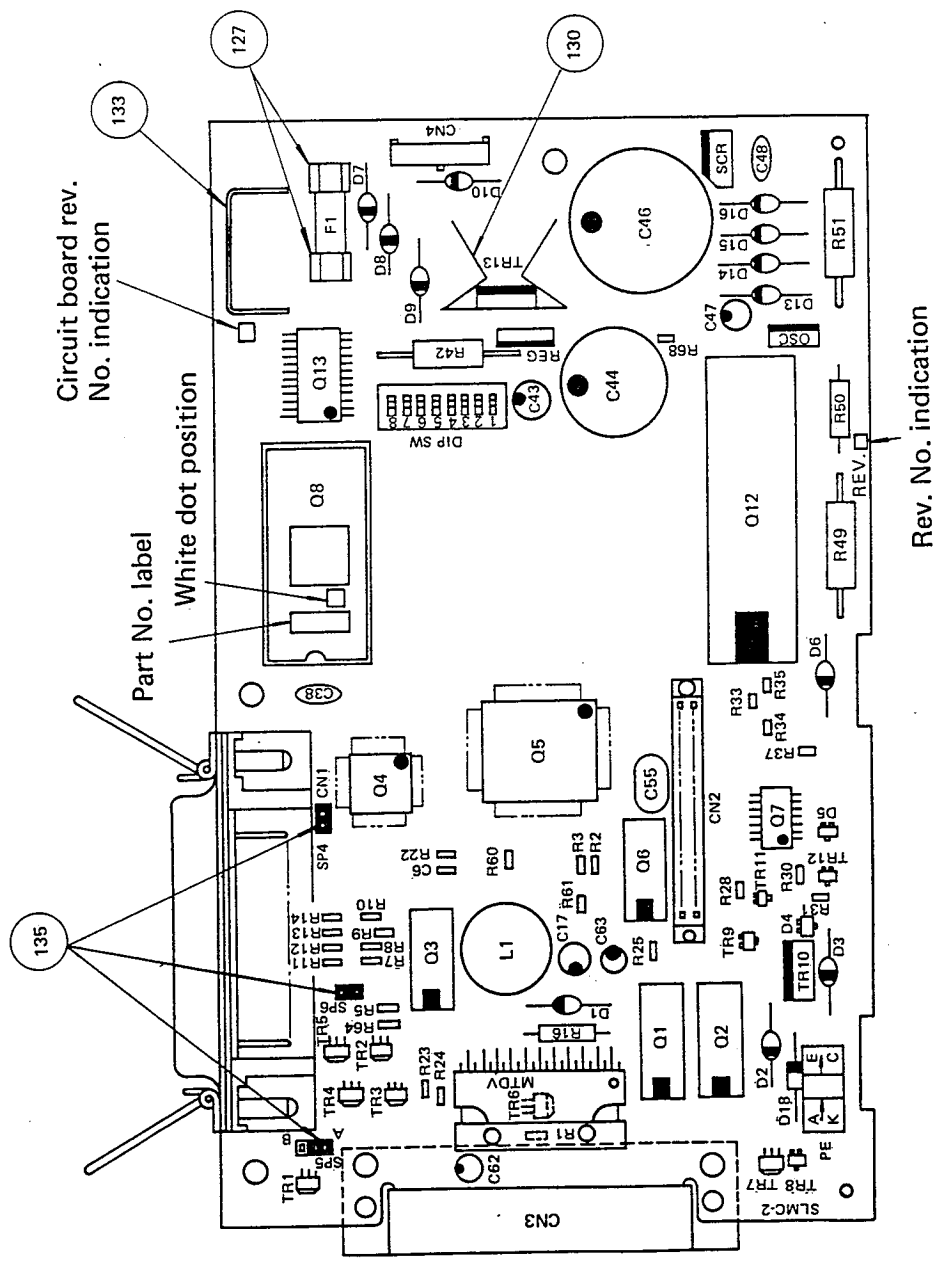
Figure 4 (4/5) SLMC-2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.14)

Item No./Symbol	Part No.	Description	Qty	Remarks
C102, C120, C148, C152, C153, C199, C214, C235, C251	303A6009Z3104	CK capacitor(CP) CK3216F1H1042	9	
C47	304A1040A2109	CE capacitor 1 $\mu$ CESHM2A109 100 V	1	
C17	304A1040H1100	CE capacitor 10 $\mu$ CESHM1H100 50 V	1	
C43	304A1040A1101	CE capacitor 100 $\mu$ CESHM1A101 10 V		1
C44	304A1037C1822	CE capacitor 8200 $\mu$ 16VBSN-8200 16 V	1	
C46	304A1108G1472	CE capacitor 4700 $\mu$ 42VPSN-4700(M) 42 V	1	
C38, C48	302A4027Z5103	CK capacitor 10000P TCK45F2E103ZYA 250 V	2	
C62, C63	304A1046H1339	CE capacitor 3.3 $\mu$ 50MS5-3.3M 50 V	2	
C55	306A4100G2223	CQ capacitor 0.022 $\mu$ COM-92PP2A223G 100 V	1	
Q12	853A2103M5004	MOS-CPU(ROM), 8051-004P	1	
Q6	700A0503M0005	BIP digital IC, 74LS05P	1	
Q3	700A0003M0006	BIP digital IC, 7406P	1	
Q1, Q2	760A4731M0401	Transistor array, LB1205	2	
Q4	702A4924F2001	MOS digital IC(FP), MSM60201GS-VK	1	
Q5	702A4924F0020	MOS digital IC(FP), MSM61048GS-VK	1	
Q13	804A0021N4301	MOS-S-RAM(SO), HM6116FP-3	1	
Q7	720A0528N0002	BIP linear type IC(SO), NJM2901M	1	
Q8	245A1155P0280	IC socket, DL2-28A-05	1	
R116	323A5011P0001	Chip jumper(CP), MCR18-JPW	1	
F1	540A2036M1152	Fuse, GGS1-1/2	1	

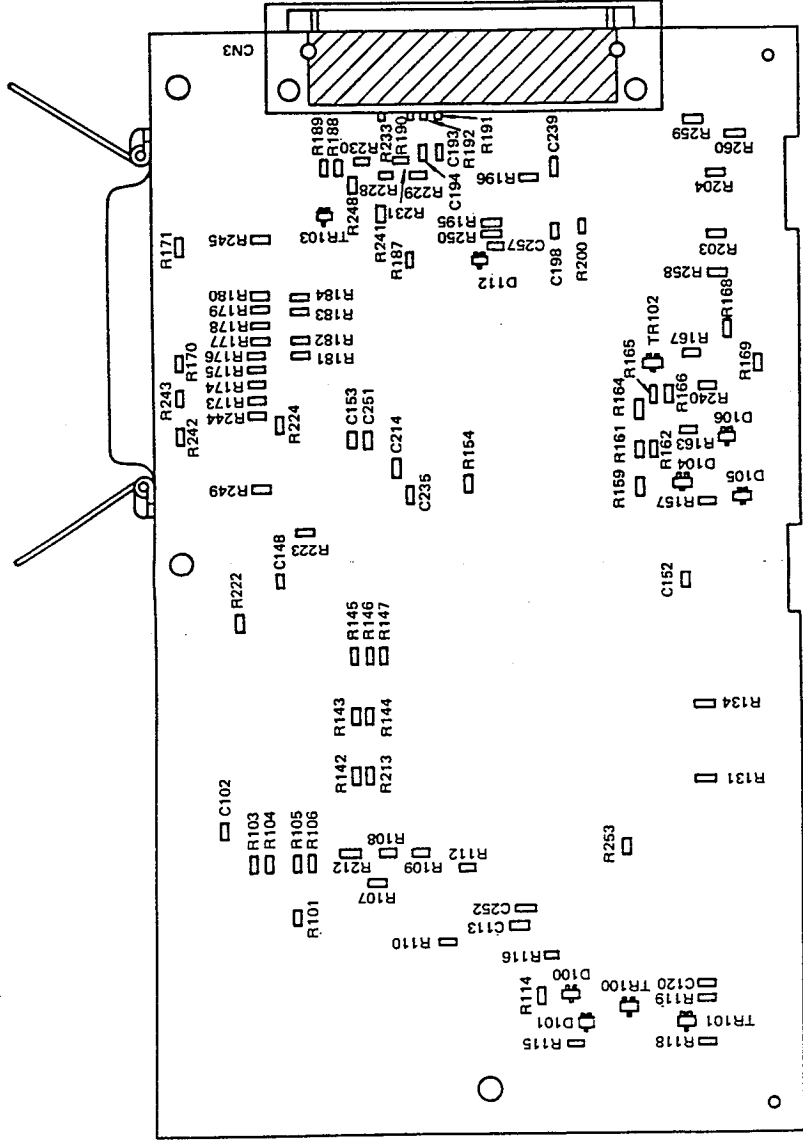
Figure 4 (5/5) SLMC-2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.14)

Item No./Symbol	Part No.	Description	Qty	Remarks
L1	353A3002K0102	H coil, OL1614-102KR70(B)	1	
TR9	600A1003N0002	PNP-HF-TR(CP), 2SA1331/2SA1037K	1	
TR8, TR11, TR101, TR102	600A1003N0003	PNP-HF-TR(CP), A1344/UN2111/DTA114K	4	
TR13	601A1130M0004	PNP-LF-TR, 2SB761	1	
TR6	601A1032N0002	PNP-LF-TR(CP), 2SB1123	1	
TR3	601A1130M0001	PNP-LF-TR(CP), 2SB766A-Q/R	1	
TR12, TR100, TR103	602A1003N0002	NPN-HF-TR(CP), 2SC3361/2SC2412K	3	
TR1, TR2, TR4, TR5	603A1130N0003	NPN-LF-TR(CP), 2SD1511	4	
TR7	603A1032N0001	NPN-LF-TR(CP), 2SD1626	1	
TR10	601A1132M0003	PNP-LF-TR, 2SB882	1	
MTDV	720A4021E0004	BIP linear type IC, HA13412	1	
REG	720A1033M0001	BIP linear type IC, LA5005	1	
SP4	225A3123P0020	FC connector, FFC-2AMEP1	1	
DIP	4LP-3763-8	DIP switch, KSD08	1	
CN1	220A1423P0361	Square connector, 57LE-40360-7700(D53)	1	
CN2	224A3376P0300	PC connector, 00-9072-230-101-883	1	
CN3	224A1160P0400	PC connector, PD40A2X0	1	
CN4	224A3462P0060	PC connector, 172681-6	1	
OSC	4LP-12186-1	Oscillator, FAR-C4SB11059000-M02	1	
PE	652A0127M0009	Photo coupler, EE-SJ5-B	1	
125	4LP-7142	Fuse holder, FP-213	2	
128	4PP4021-1015P001	Heat sink	1	
131	4PP4025-1166P001	Barrier	1	
133	224A3182P0020	PC connector, DIC-252	1	

Parts side



Solder side



Circuit board rev. No.	Rev. No.
15	15

Figure 4(1/6) SLMC-2 Printed-Circuit Board (4YA4021-1001GXXX)



Figure 4 (2/6) SLMC-2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.15)

Item No./Symbol	Part No.	Description	Qty	Remarks
D1	610A0221L0021	Rectifying diode, DFA1A1	1	
D2, D6, D7 to D10	610A0021L0090	Rectifying diode, DSA1A2	6	
D3, D13 to D16	610A0021L0089A	Rectifying diode, DSA1C1	5	
D4, D100, D105	611A0003N0003	Signal diode(CP), MA151WK/DAN202K	3	
D104	613A0291M0102H	Zener diode(CP), MA3047-H	1	
D101	613A0103M0182	Zener diode(CP), MA3100/RD10M-B	1	
D5	613A0103M0152B	Zener diode(CP), MA3075-M/RD.7.5M-B2	1	
D106	613A0103M0272B	Zener diode(CP), MA3240-M/RD24M-B2	1	
D112	613A0103M0292	Zener diode(CP), MA3300/RD30M-B	1	
D18	613A2232L0182	Zener diode, RD10F-B	1	
SCR	620A0022M0006E	Gate thyristor OFF, CR3CM-8	1	
R5	323A5015J0101	RN resistor(CP), RM73B2B101J	1	
R110	323A5015J0180	RN resistor(CP), RM73B2B180J	1	
R24	323A5015J0221	RN resistor(CP), RM73B2B221J	1	
R23, R260	323A5015J0431	RN resistor(CP), RM73B2B431J	2	
R64, R162, R203	323A5015J0511	RN resistor(CP), RM73B2B511J	3	
R118, R119, R167, R189, R258	323A5015J0122	RN resistor(CP), RM73B2B122J	5	
R163, R240	323A5015J0202	RN resistor(CP), RM73B2B202J	2	
R1 to R3, R31, R60, R61, R115, R169, R259	323A5015J0222	RN resistor(CP), RM73B2B222J	9	
R161	323A5015J0182	RN resistor(CP), RM73B2B182J	1	
R7 to R14, R166, R170, R177 to R180, R195, R196, R242, R243, R245, R250	323A5015J0332	RN resistor(CP), RM73B2B332J	20	
R188, R241	323A5015J0472	RN resistor(CP), RM73B2B472J	2	
R190 to R192, R233	323A5015J0512	RN resistor(CP), RM73B2B512J	4	

Figure 4 (3/6) SLMC-2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.15)

Item No./Symbol	Part No.	Description	Qty	Remarks
R22, R101, R103 to R109, R112, R154, R164, R168, R187, R222, R223, R249, R253	323A5015J0562	RN resistor (CP) RM73B2B562J	18	
R68, R131, R134, R142 to R147, R173 to R176, R181 to R184, R204, R212, R213, R224, R248	323A5015J0103	RN resistor (CP) RM73B2B103J	27	
R200	323A5015J0183	RN resistor (CP) RM73B2B183J	1	
R165	323A5015J0683	RN resistor (CP) RM73B2B683J	1	
R28	323A5015J0561	RN resistor (CP) RM73B2B561J	1	
R114	323A5015J0513	RN resistor (CP) RM73B2B513J	1	
R25	323A5015J0224	RN resistor (CP) RM73B2B224J	1	
R30, R171	323A5015J0102	RN resistor (CP) RM73B2B102J	2	
R159	323A5015J0682	RN resistor (CP) RM73B2B682J	1	
R33, R34	323A5015F0242	RN resistor (CP) RM73B2B242J	2	
R35	323A5015F0472	RN resistor (CP) RM73B2B472J	1	
R37	323A5015F0752	RN resistor (CP) RM73B2B752F	1	
R157	323A5015F0124	RN resistor (CP) RM73B2B124F	1	
R16	324A1001J0518	RS resistor (CP) MSF1/2B 0.51ΩJ	1	
R50	321A1431J0202	RD resistor (CP) RD1/2Y 2 kΩJ	1	
R42	324A1121J0390	RS resistor (CP) MOR2B 39ΩJ	1	
R49	324A1121J0151	RS resistor (CP) MOR2B 150ΩJ	1	

Figure 4 (4/6) SLMC-2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.15)

Item No./Symbol	Part No.	Description	Qty	Remarks
R51	324A1121J0302	RS resistor(CP) MOR2B 3.0ΩJ	1	
C257	303A3008K0100	CC capacitor(CP) CC3216SL1H100D	1	
C252	303A3008K0221	CC capacitor(CP) CC3216SL1H221J	1	
C6	303A3008K0561	CC capacitor(CP) CC3216SL1H561J	1	
C193, C194, C239	303A6009K3102	CK capacitor(CP) CK3216B1H102K	3	
C113, C198	303A6009K3103	CK capacitor(CP) CK3216B1H103K	2	
C102, C120, C148, C152, C153, C214, C235, C251	303A6009Z3104	CK capacitor(CP) CK3216F1H104Z	8	
C47	304A1040A2109	CE capacitor 1.0μ CESHM2A109 100 V	1	
C17	304A1040H1100	CE capacitor 10μ CESHM100 50 V	1	
C43	304A1040A1101	CE capacitor 100μ CESHMA101 10 V	1	
C44	304A1037C1822	CE capacitor 8200μ 16VBSN-8200 16 V	1	
C46	304A1108G1472	CE capacitor 4700μ 42VPSN-4700(M) 42 V	1	
C38, C48	302A4027Z5103	CK capacitor 10000P TCK45F2E103ZYA 250 V	2	
C62, C63	304A1046H1339	CE capacitor 3.3μ 50MS5-3.3M 50 V	2	
C55	306A4100G#223 Z	CQ capacitor 0.022μ CQM-92PP2A223G 100 V	1	
Q12	853A2103M5004	MOS-CPU(ROM), 8051-004P	1	
Q6	700A0503M0005	BIP digital IC, 74LS05P	1	
Q3	700A0003M0006	BIP digital IC, 7406P	1	
Q1, Q2	760A4731M0401	Transistor array LB1205	2	

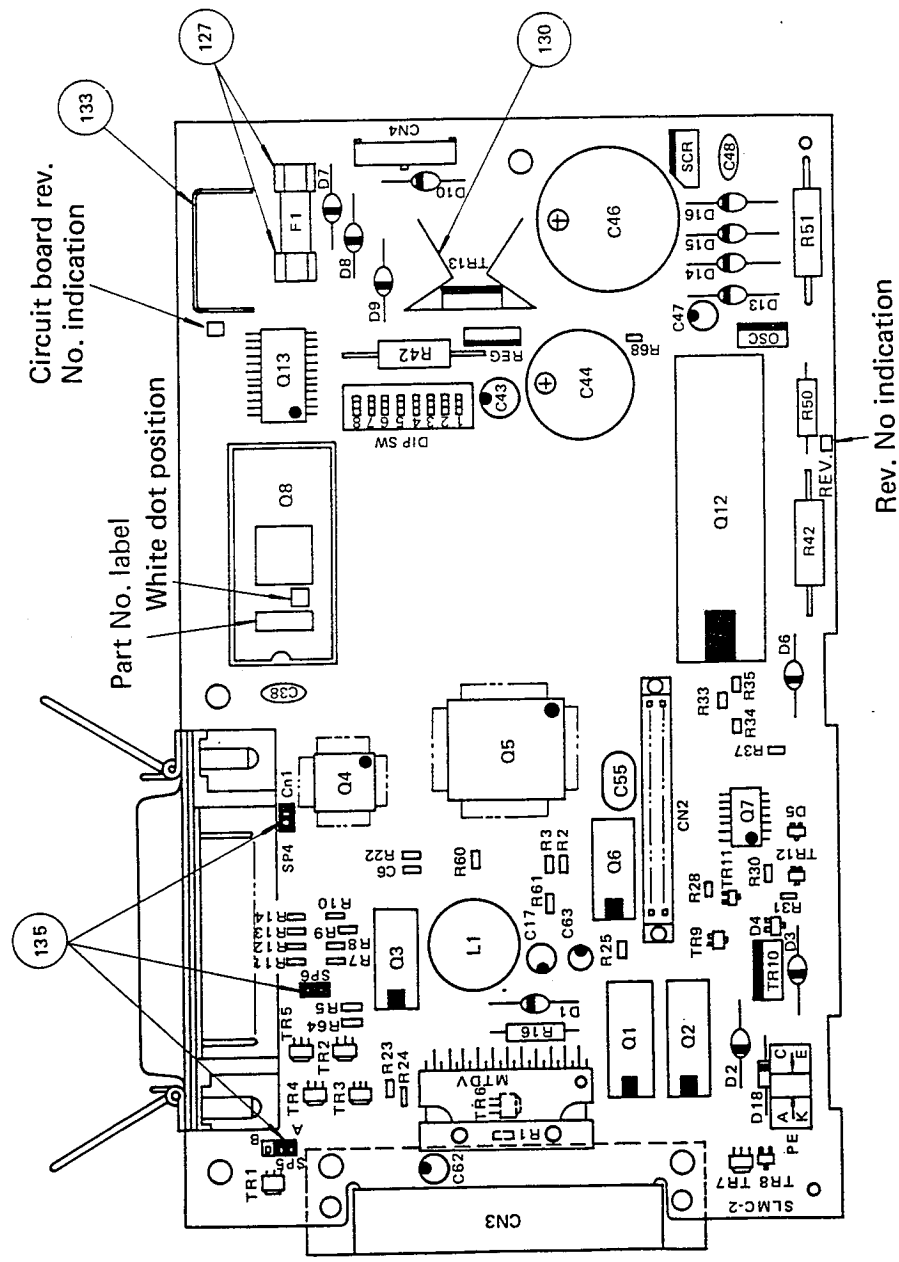
Figure 4 (5/6) SLMC-2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.15)

Item No./Symbol	Part No.	Description	Qty	Remarks
Q4	702A4924F2001	MOS digital IC((FP) MSM60201GS-VK	1	
Q5	702A4924F0020	MOS digital IC(FP) MSM61048GS-VK	1	
Q13	804A0021N4301	MOS-S-RAM(SO) HM6116FP-3	1	
Q7	720A0528N0002	BIP linear type IC(SO), NJM2901M	1	
Q8	245A1155P0280	LC socket DL2-28A-05	1	
R116	323A5011P0001	Chip jumper (CP) MCR18-JPW	1	
F1	540A2036M1152	Fuse, GGS1-1/2	1	
L1	353A3002K0102	H coil QL1614-102KR70(C)	1	
TR9	600A1003N0002	PNP-HF-TR(CP) 2SA1331/2SA1037K	1	
TR8, TR11, TR101, TR102	600A1003N0003	PNP-HF-TR(CP) A1344/UN2111/DTA114K	4	
TR13	601A1130M0004	PNP-LF-TR 2SB761	1	
TR6	601A1032N0002	PNP-LF-TR(CP) 2SB1123	1	
TR3	601A1130M0001	PNP-LF-TR(CP) 2SB766A-Q/R	1	
TR12, TR100, TR103	602A1003N0002	NPN-HF-TR(CP) 2SC3361/2SC2412K	3	
TR1, TR2, TR4, TR5	603A1130N0003	NPN-LF-TR(CP) 2SD1511	4	
TR7	603A1032N0001	NPN-LF-TR(CP) 2SD1626	1	
TR10	601A1132M0003	PNP-LF-TR 2SB882	1	
MTDV	720A4021E0004	BIP linear type IC HA13412	1	

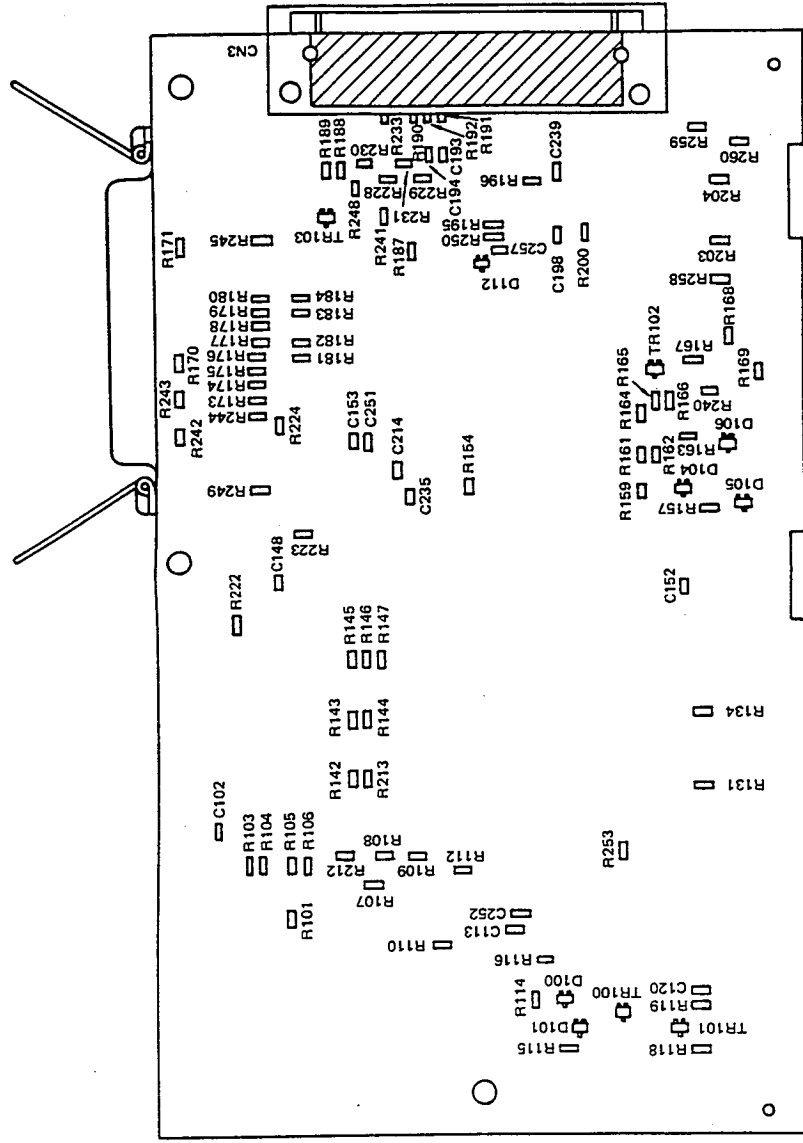
Figure 4 (6/6) SLMC-2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.15)

Item No./Symbol	Part No.	Description	Qty	Remarks
REG	720A1033M0001	BIP linear type LA5005	1	
SF4, SF6	225A3123P0020	FC connector FFC-2AMEP1	2	
SP5	225A3123P0030	FC connector FFC-3AMEP1	1	
DIP	4LP-3763-8	DIP switch KSD08	1	
CN1	220A1423P0361	Square connector 57LE-40360-7700(D53)	1	
CN2	224A3376P0300	PC connector 00-9072-230-101-883	1	
CN3	224A1160P0400	PC connector PD40A2X0	1	
CN4	224A3462P0060	PC connector 172681-6	1	
SP4	225A3123P0020	FC connector	1	
OSC	4LP-12186-1	Oscillator FAR-C4SB11059000-M02	1	
PE	652A0127M0009	Photo coupler EE-SJ5-B	1	
127	4LP-7142	Fuse holder FP-213	2	
130	4PP4021-1015P001	Heat sink	1	
133	4PP4025-1166P001	Barrier	1	
135	224A3182P0020	PC connector DIC-252	3	

Parts side



Solder side



Circuit board rev. No.	16
Rev. No.	16

Figure 4(1/6) SLMC-2 Printed-Circuit Board (4YA4021-1001GXXX)

Figure 4 (2/6) SLMC-2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.16)

Item No./Symbol	Part No.	Description	Qty	Remarks
D1	610A0221L0021	Rectifying diode DFA1A1	1	
D2, D6, D7 to D10	610A0021L0090	Rectifying diode DSA1A2	6	
D3, D13 to D16	610A0021L0089A	Rectifying diode DSA1C1	5	
D4, D100, D105	611A0003N0003	Signal diode (CP) MA151WK/DAN-202K	3	
D104	613A0291M0102H	Zener diode (CP) MA3047-H	1	
D101	613A0103M0182	Zener diode (CP) MA3100/RD10M-B	1	
D5	613A0103M0152B	Zener diode (CP) MA3075-M/RD7.5M-B2	1	
D106	613A0103M0272B	Zener diode (CP) MA3240-M/RD24M-B2	1	
D112	613A0103M0292	Zener diode (CP) MA3300/RD30M-B	1	
D18	613A2232L0182	Zener diode RD10F-B	1	
SCR	620A0022M0006E	Gate thyristor OFF CR3CM-8	1	
R110	323A5015J0180	RN resistor (CP) RM73B2B180J	1	
R24	323A5015J0221	RN resistor (CP) RM73B2B221J	1	
R23, R260	323A5015J0431	RN resistor (CP) RM73B2B431J	2	
R64, R162, R203	323A5015J0511	RN resistor (CP) RM73B2B511J	3	
R118, R119, R167, R189, R258	323A5015J0122	RN resistor (CP) RM73B2B122J	5	
R163, R240	323A5015J0202	RN resistor (CP) RM73B2B202J	2	
R1 to R3, R31, R60, R61, R115, R169, R259	323A5015J0222	RN resistor (CP) RM73B2B222J	9	
R28	323A5015J0561	RN resistor (CP) RM73B2B561J	1	
R161	323A5015J0182	RN resistor (CP) RM73B2B182J	1	

Figure 4 (3/6) SLMC-2 Printed-Circuit Board (4YA4021-1001Gxxx)(REV.16)

Item No./Symbol	Part No.	Description	Qty	Remarks
R7 to R14, R166, R170, R177 to R180, R195, R196, R242, R243, R245, R250	323A5015J0332	RN resistor (CP) RM73B2B332J	20	
R188, R241	323A5015J0472	RN resistor (CP) RM73B2B472J	2	
R190 to R192, R233	323A5015J0512	RN resistor (CP) RM73B2B512J	4	
R22, R101, R103 to R109, R112, R154, R164, R168, R187, R222, R223, R249, R253	323A5015J0562	RN resistor (CP) RM73B2B562J	18	
R68, R131, R134, R142 to R147, R173 to R176, R181 to R184, R204, R212, R213, R224, R228 to R231, R244, R248	323A5015J0103	RN resistor (CP) RM73B2B103J	27	
R200	323A5015J0183	RN resistor (CP) RM73B2B183J	1	
R165	323A5015J0683	RN resistor (CP) RM73B2B683J	1	
R28	323A5015J0561	RN resistor (CP) RM73B2B561J	1	
R114	323A5015J0513	RN resistor (CP) RM73B2B513J	1	
R25	323A5015J0224	RN resistor (CP) RM73B2B224J	1	
R5, R30, R171	323A5015J0102	RN resistor (CP) RM73B2B102J	3	
R159	323A5015J0682	RN resistor (CP) RM73B2B682J	1	
R33, R34	323A5015F0242	RN resistor (CP) RM73B2B242F	2	
R35	323A5015F0472	RN resistor (CP) RM73B2B472F	1	
R37	323A5015F0752	RN resistor (CP) RM73B2B752F	1	
R157	323A5015F0124	RN resistor (CP) RM73B2B124F	1	



Figure 4 (4/6) SLMC-2 Printed-Circuit Board (4YA4021-1001Gxxx)(REV.16)

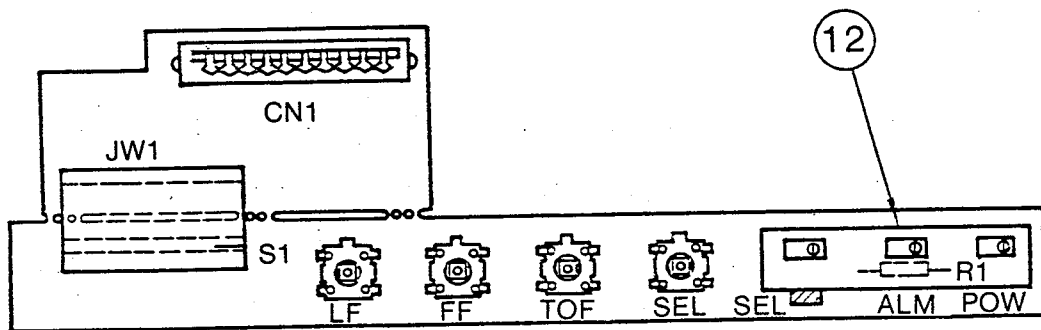
Item No./Symbol	Part No.	Description	Qty	Remarks
R16	324A1001J0518	RS resistor MSF1/2B 0.51ΩJ	1	
R50	321A1431J0202	RD resistor RD1/2Y 2 kΩJ	1	
R42	324A1121J0390	RS resistor MOR2B 39ΩJ	1	
R49	324A1121J0151	RS resistor MOR2B 150ΩJ	1	
R51	324A1121J0302	RS resistor MOR2B 3.0 kΩJ	1	
C257	303A3008K0100	CC capacitor (CP) CC3216SL1H100D	1	
C252	303A3008K0221	CC capacitor (CP) CC3216SL1H221J	1	
C6	303A3008K0560	CC capacitor (CP) CC3216SL1H560J	1	
C193, C194, C239	303A6009K3102	CK capacitor (CP) CK3216B1H102K	3	
C113, C198	303A6009K3103	CK capacitor (CP) CK3216B1H103K	2	
C102, C120, C148, C152, C153, C214, C235, C251	303A6009Z3104	CK capacitor (CP) CK3216F1H104Z	8	
C47	304A1041A2109	CE capacitor 1.0μ CEUSM2A010 100 V	1	
C17	304A1041H1100	CE capacitor 10μ CEUSM1H100 50 V	1	
C43	304A1041A1101	CE capacitor 100μ CEUSM1A101 10 V	1	
C44	304A1037C1822	CE capacitor 8200μ 16VBSN-8200 16 V	1	
C46	304A1108G1472	CE capacitor 4700μ 42VPSN-4700(M) 42 V	1	
C38, C48	302A4027Z5103	CK capacitor 10000P TCK45F2E1032ZYA 250 V	2	
C62, C63	304A1046H1339	CE capacitor 3.3μ 50MS5-3.3M 0 V	2	
C55	306A4100G2223	CQ capacitor 0.022μ CQM-92PP2A223G 100 V	1	

Figure 4 (5/6) SLMC-2 Printed-Circuit Board (4YA4021-1001Gxxx)(REV.16)

Item No./Symbol	Part No.	Description	Qty	Remarks
Q12	853A2103M5004	MOS-CPU(ROM) 8051-004P	1	
Q6	700A0503M0005	BIP digital IC 74LS05P	1	
Q3	700A0003M0006	BIP digital IC 7406P	1	
Q1, Q2	760A4731M0401	Transistor array LB1205	2	
Q4	702A4924F2001	MOS digital IC (FP) MSM60201GS-VK	1	
Q5	702A4924F0020	MOS digital IC (FP) MSM61048GS-VK	1	
Q13	804A0021N4301	MOS-S-RAM(SO) HM6116FP-3	1	
Q7	720A0528N0002	BIP linear type IC(SO) NJM2901M	1	
Q8	245A1155P0280	IC socket DL2-28A-05	1	
R116	323A5011P0001	Chip jumper(CP) MCR18-JPW	1	
F1	540A2036M1152	Fuse GGS1-1/2	1	
L1	353A3002K0102	H coil QL1614-102KR70(D)	1	
TR9	600A1003N0002	PNP-HF-TR(CP) 2SA1331/2SA1037K	1	
TR8, TR11, TR101, TR102	600A1003N0003	PNP-HF-TR(CP) A1344/UN2111/DTA114K	4	
TR13	601A1130M0004	PNP-LF-TR 2SB761	1	
TR6	601A1032N0002	PNP-LF-TR(CP) 2SB1123	1	
TR3	601A1130M0001	PNP-LF-TR(CP) 2SB766A-Q/R	1	
TR12, TR100, TR103	602A1003N0002	NPN-HF-TR(CP) 2SC3361/2SC2412K	3	

Figure 4 (6/6) SLMC-2 Printed-Circuit Board (4YA4021-1001Gxxx)(REV.16)

Item No./Symbol	Part No.	Description	Qty	Remarks
TR1, TR2, TR4, TR5	603A1130N0003	NPN-LF-TR(CP) 2SD1511	4	
TR7	603A1032N0001	NPN-LF-TR(CP) 2SD1626	1	
TR10	601A1132M0003	PNP-LF-TR 2SB882	1	
MTDV	720A4021E0004	BIP linear type IC HA13412	1	
REG	720A1033M0001	BIP linear type IC LA5005	1	
SP4, SP6	225A3123P0020	FC connector FFC-2AMEP1	2	
SP5	225A3123P0030	FC connector FFC-3AMEP1	1	
DIP	4LP-3763-8	DIP switch KSD08	1	
CN1	220A1423P0361	Square connector 57LE-40360-7300(D53)	1	
CN2	224A3376P0300	PC connector 00-9072-230-101-883	1	
CN3	224A1160P0400	PC connector PD40A2X0	1	
CN4	224A3462P0060	PC connector 172681-6	1	
OSC	4LP-12186-1	Oscillator FAR-C4SB11059000-M02	1	
PE	652A0127M0009	Photo coupler EE-SJ5-B	1	
127	4LP-7142	Fuse holder FP-213	2	
130	4PP4021-1015P001	Heat sink	1	
133	4PP4025-1166P001	Barrier	1	
135	224A3182P0020	PC connector DIC-252	3	

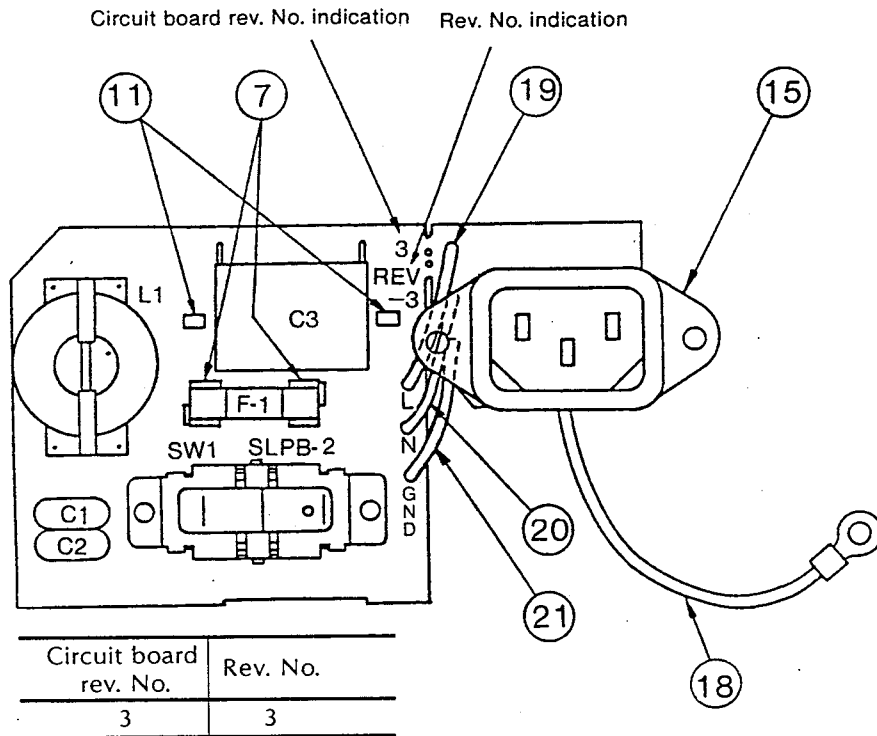


Circuit board rev. No.	Rev. No.
3	3

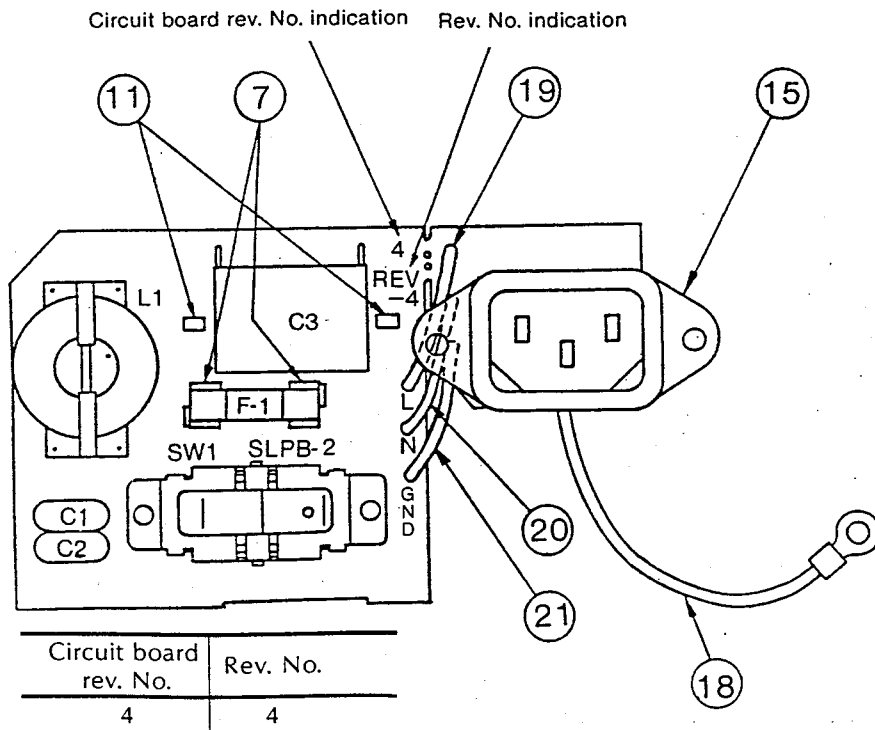
Figure 5 SLSQ Printed-Circuit Board (4YA4021-1007G1)

Figure 5 SLSQ Printed-Circuit Board (4YA4021-1007G1)

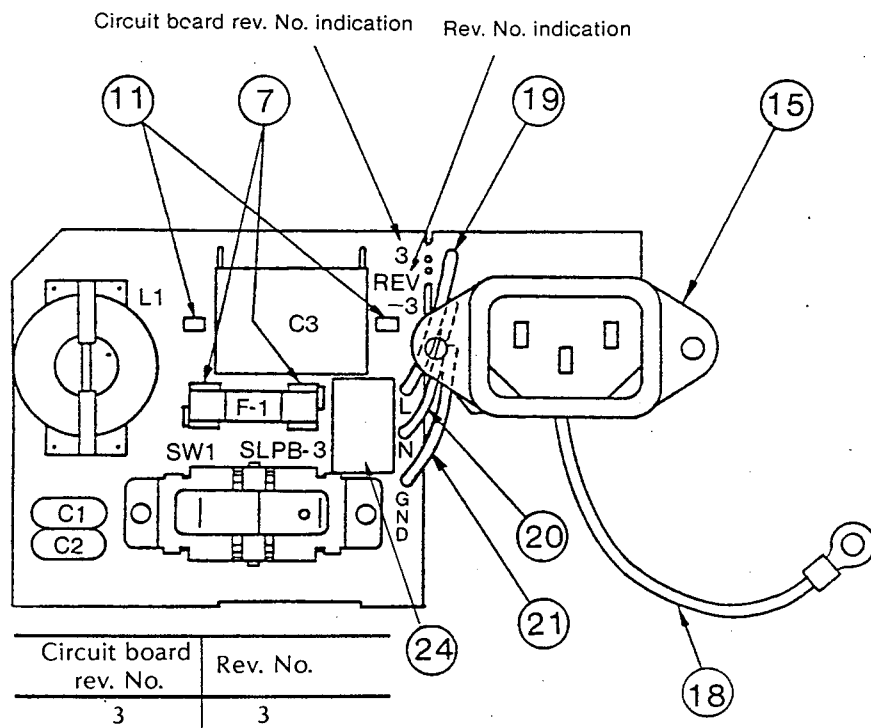
Item No.	Symbol	Part No.	Description	Qty	Remarks
1	ALM	650A0129M0004	Light-emitting diode, red	1	
2	SEL, POW	650A0329M0006	Light-emitting diode, green	2	
3					
4	R1	321A1421J0221	RN resistor, RD1/4Y 220Ω	1	
5					
6	LF, FF, TOF, SEL	205A1171P1000	Pushbutton switch	4	
7					
8	CN1	224A3091P0100	Connector, FH1-10S-2.54DSA	1	
9					
10	JW1	4LP-39763	Jumper wire, 10-pin, l=30	1	
11					
12		4PP4021-1016P001	LED support bracket	1	
13					
14	S1	5KH-31036-25	U-shape jumper wire	1	



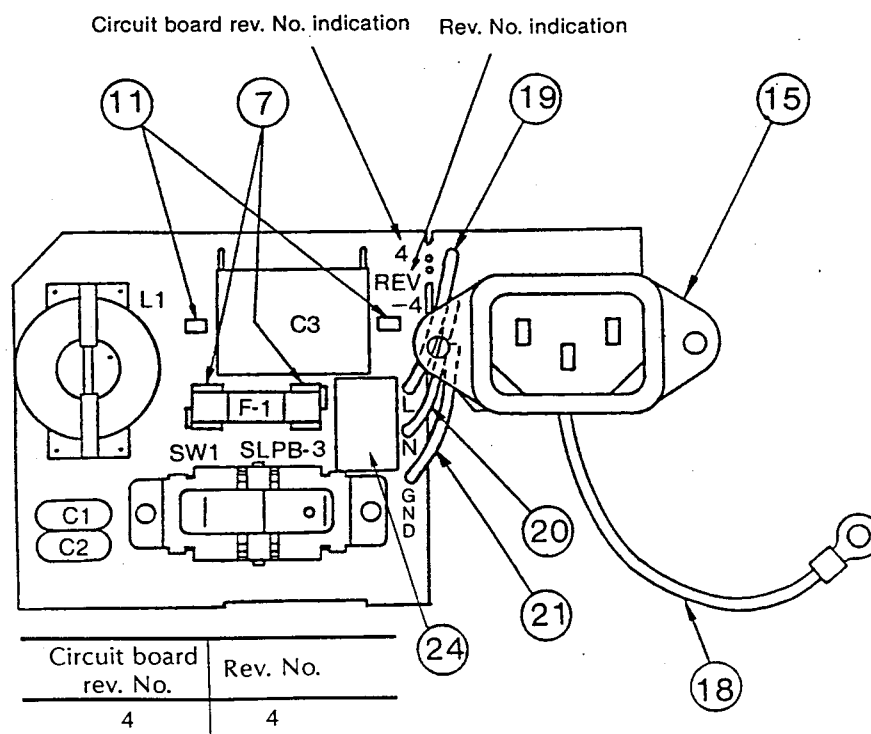
**Figure 6 (1/7) Printed-Circuit Board (3YU5003-5611G2)**



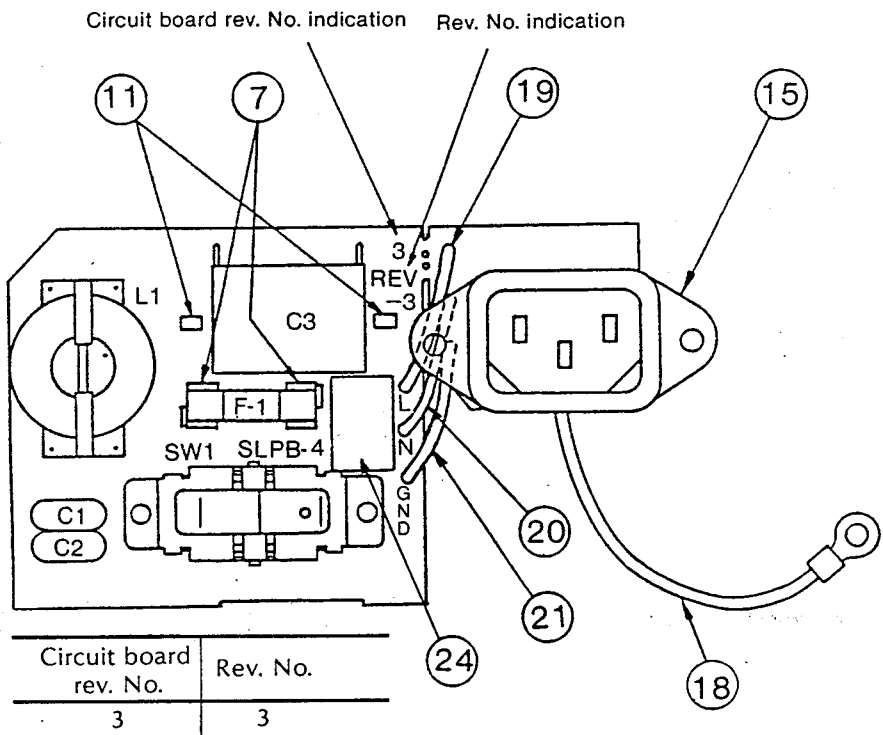
**Figure 6 (2/7) Printed-Circuit Board (3YU5003-5611G2)**



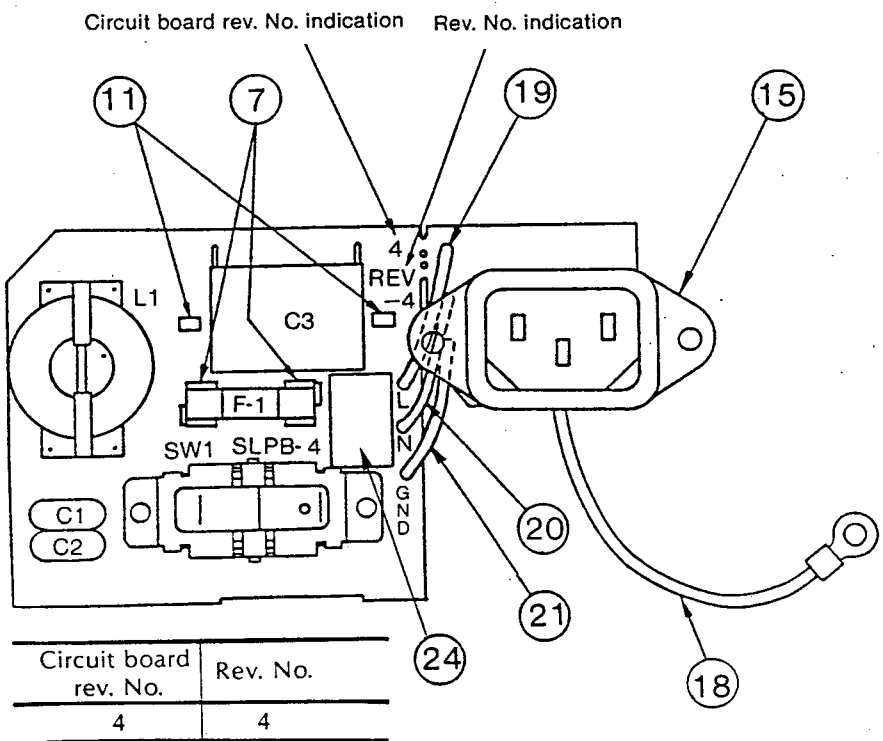
**Figure 6 (3/7) Printed-Circuit Board (3YU5003-5611G3)**



**Figure 6 (4/7) Printed-Circuit Board (3YU5003-5611G3)**



**Figure 6 (5/7) Printed-Circuit Board (3YU5003-5611G4)**



**Figure 6 (6/7) Printed-Circuit Board (3YU5003-5611G4)**

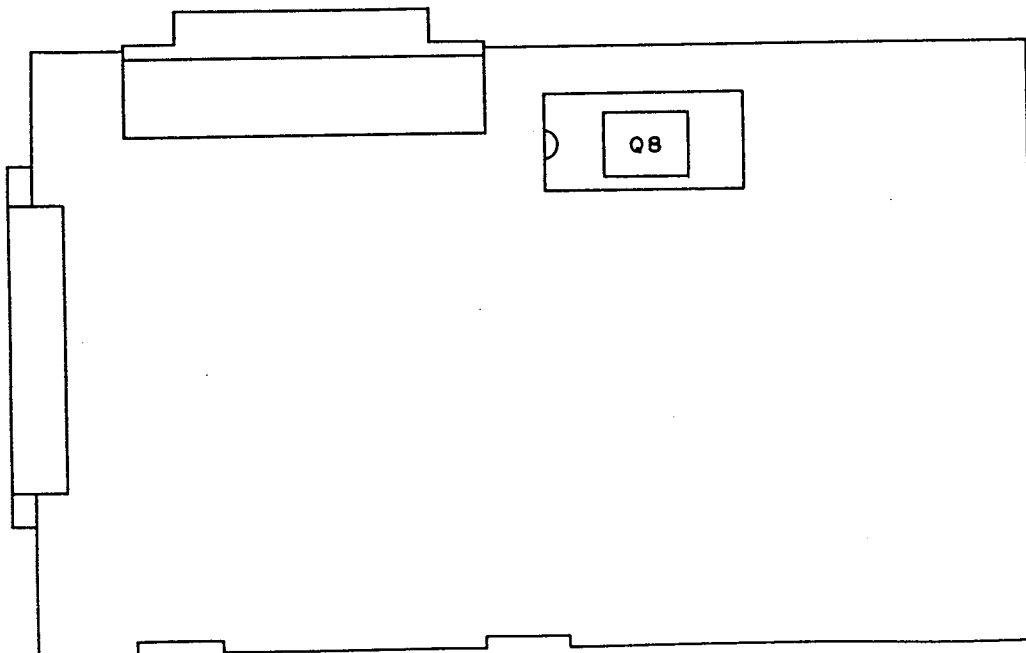


Figure 6 (7/7) SLPB - 2, - 3, - 4 Printed-Circuit Board (3YU5003-5611Gx) (Rev. 3, 4)

Item No.	Symbol	Part No.	Description	Qty	Remarks
1	C1, C2	302A4035Z6472	Ceramic capacitor, 400V, 4700PF	2	
2	C3	306A2217M5104	CF capacitor, 250V, 0.1 $\mu$ F	1	
3					
4	L1	4LP-45481	SC coil	1	
5					
6	F1	540A2036M2102	Fuse, 1A	1	For G2
6		540A2044S2631	Fuse, 0.63A	1	For G3
6		540A2044S2501	Fuse, 0.5A	1	For G4
7		4LP-7142	Fuse holder	2	
8					
9	SW1	4LP-32034	Toggle switch	1	
10					
11		224A7172P0001	Socket contact	2	
12					
13					
14					
15		4LP-7144	Inlet	1	
16					
17					
18		4YS4011-1507G001	FG lead wire	1	
19		LY-4658-7-BK	33/0.18 heat-resisting PVC wire (black)	1	
20		LY-4658-7-WE	33/0.18 heat-resisting PVC wire (white)	1	
21		LY-4658-7-GN	33/0.18 heat-resisting PVC wire (green)	1	
22					
23					
24		4PB4012-5182P001	Fuse name plate (220V)	1	For G3
24		4PB4012-5183P001	Fuse name plate (240V)	1	For G4

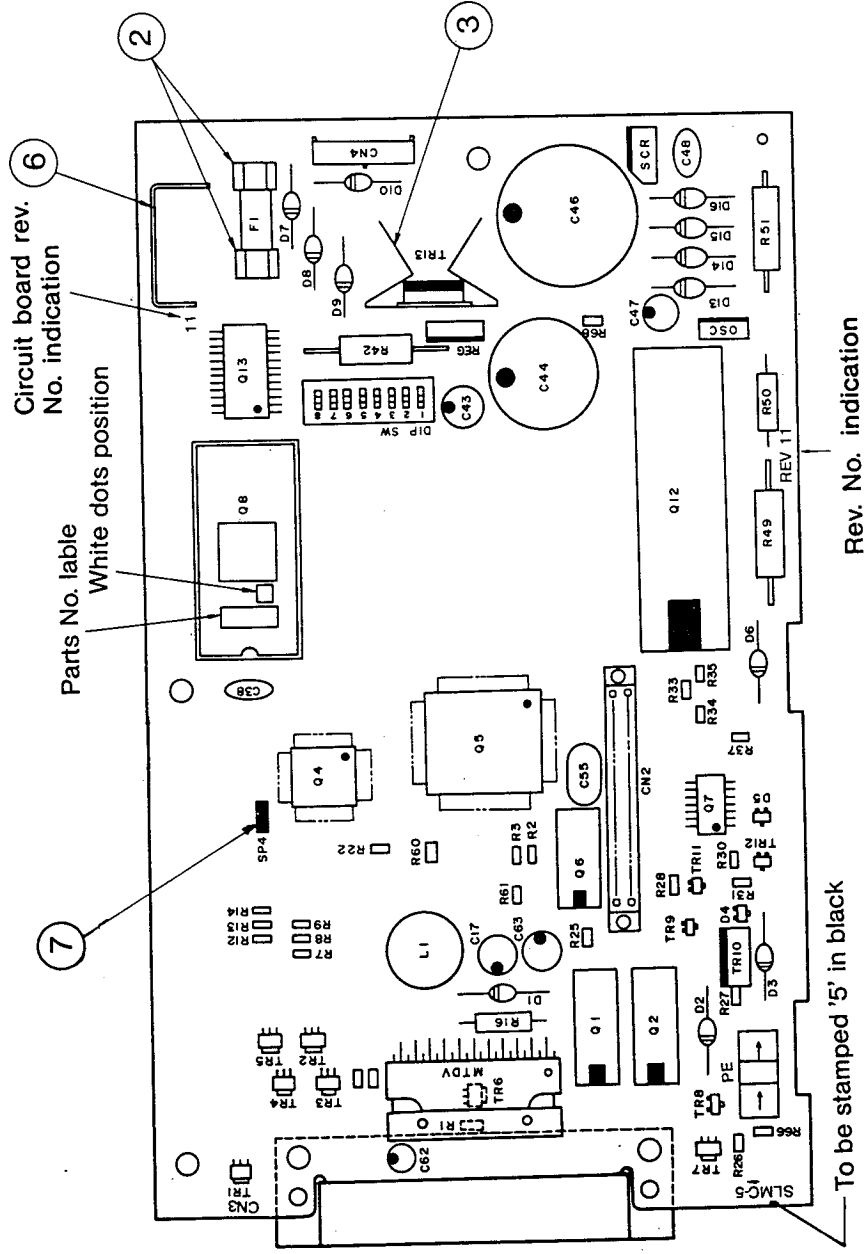
Different types ROMs are used for each G No. as listed below.

G No.	ROM No.	Part No.	Part No. label	Application	Remarks
G016	Q8	4YR4065-7003G1	65-7003	Up to Rev. 8	ODA
G016	Q8	4YR4064-7023G1	64-7023	Rev. 9 to Rev. 12	ODA
G016	Q8	4YR4065-7013G1	65-7013	Rev. 13 and after	ODA
G103	Q8	4YR4064-7028G1	64-7028	Up to Rev. 9	ODG
G103	Q8	4YR4065-7014G1	65-7014	Rev. 10 and after	ODG

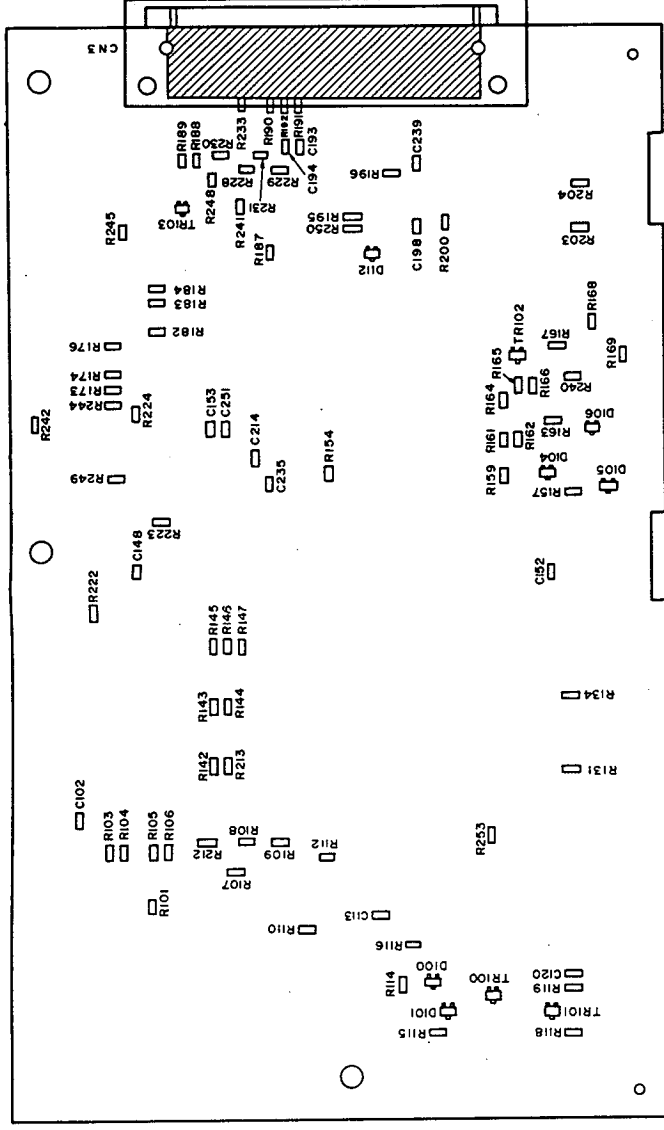


SLMC-5 Printed-Circuit Board (4YA4021-1001Gxxx)

**Part side**



**Solder side**



Different types ROMs are used for each G No. as listed below.

Model	G No.	ROM No.	Parts No. label	Parts No.	No. of White dots	Remarks
ML182	G016	Q8	64-7023	4TR4064-7023G1	0	ODG
	G013	Q8	64-7028	4YR4064-7028G1	0	ODA

Circuit board rev. No.	11	Rev. No.	11
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Figure 7 SLMC-5 Printed-Circuit Board (4YA4021-100Gxxx) 1/2

Figure 7 SLMC – 5 Printed-Circuit Board (4YA4021-1001Gxxx) 2/2 (1/4)

Symbol	Part No.	Description	Qty	Remarks
D1	610A0221L0021	Rectifying diode, DFA1A1	1	
D2, 6, 7 to 10	610A0221L0090	Rectifying diode, DSA1A2	6	
D3, 13 to 16	610A0021L0090	Rectifying diode, DSA1C1	5	
D4, 100, 105	611A0003N0003	Signal diode, MA151WK/DAN202K (CP)	3	
D104	613A0291M0102H	Zener diode, MA3047-H	1	
D101	613A0291M0182	Zener diode, MA3100	1	
D5	613A0291M0152M	Zener diode, MA3075-M	1	
D106	613A0291M0272M	Zener diode, MA3240-M	1	
D112	613A0291M0292	Zener diode, MA3300	1	
SCR	620A0022M0006E	Gate thyristor OFF, CR3CM-8	1	
R110	323A5015J0180	RN resistor, RM73B2B180J	1	
R24	323A5015J0221	RN resistor, RM73B2B221J	1	
R23, 66	323A5015J0431	RN resistor, RM73B2B431J	2	
R162,203	323A5015J0511	RN resistor, RM73B2B511J	2	
R27, 118, 119, 167, 189	323A5015J0122	RN resistor, RM73B2B122J	5	
R240, 163	323A5015J0202	RN resistor, RM73B2B202J	2	
R1 to 3, 26, 31, 60, 61, 115, 169	323A5015J0222	RN resistor, RM73B2B222J	9	
R7 to 9, 12 to 14, 166, 196, 195, 242, 245, 250	323A5015J0332	RN resistor, RM73B2B332J	12	
R188, 241	323A5015J0472	RN resistor, RM73B2B472J	2	
R233, 190 to 192	323A5015J0512	RN resistor, RM73B2B512J	4	
R22, 101, 103 to 109, 112, 154, 164, 168, 187, 222, 223, 249, 253	323A5015J0562	RN resistor, RM73B2B562J	18	
R68, 244, 248, 131, 134, 142 to 147, 173, 174, 176, 182 to 184, 204, 212, 213, 224, 228 to 231	323A5015J0103	RN resistor, RM73B2B103J	25	

Figure 7 SLMC – 5 Printed-Circuit Board (4YA4021-1001Gxxx) 2/2 (2/4)

Symbol	Part No.	Description	Qty	Remarks
R200	323A5015J0183	RN resistor, RM73B2B183J	1	
R165	323A5015J0683	RN resistor, RM73B2B683J	1	
R28	323A5015J0561	RN resistor, RM73B2B561J	1	
R114	323A5015J0513	RN resistor, RM73B2B513J	1	
R159	323A5015J0682	RN resistor, RM73B2B682J	1	
R25	323A5015J0224	RN resistor, RM73B2B224J	1	
R30	323A5015J0102	RN resistor, RM73B2B102J	1	
R33, 34	323A5015F0242	RN resistor, RM73B2B242F	2	
R35	323A5015F0472	RN resistor, RM73B2B472F	1	
R37	323A5015F0752	RN resistor, RM73B2B752F	1	
R157	323A5015F0124	RN resistor, RM73B2B124F	1	
R16	324A1001J0518	RS resistor, MSF1/2BO, 51ΩJ	1	
R50	321A1431J0202	RD resistor, RD1/2Y2KΩJ	1	
R42	324A1121J0390	RS resistor, MOR2B39ΩJ	1	
R49	324A1121J0151	RS resistor, MOR2B150ΩJ	1	
R51	324A1121J0302	RS resistor, MOR2B3.0KΩJ	1	
C193, 194, 239	303A6009K3102	CK Capacitor, CK3216B1H102K (CP)	3	
C113, 198	303A6009K3103	CK Capacitor, CK3216B1H103K (CP)	2	
C102, 120, 148, 152, 153, 199, 214, 235, 251	303A6009Z3104	CK Capacitor, CK3216F1H104Z (CP)	9	
C47	304A1040A2109	CE Capacitor, CESHM2A109, 100 V, 1.0U	1	
C17	304A1040H1100	CE Capacitor, CESHM1H100, 50 V, 10U	1	
C43	304A1040A1101	CE Capacitor, CESHM1A101, 10 V, 100U	1	
C44	304A1037C1822	CE Capacitor, 16VBSN-8200, 16 V, 8200U	1	
C46	304A1108G1472	CE Capacitor, 42VPSN-4700(M), 42 V, 4700U	1	
C38, 48	302A4027Z5103	CK Capacitor, TCK45F2E103ZYA, 250 V, 10000P	2	
C63, 62	304A1046H1339	CK Capacitor, 50MS5-3.3M, 50 V, 3.3U	2	

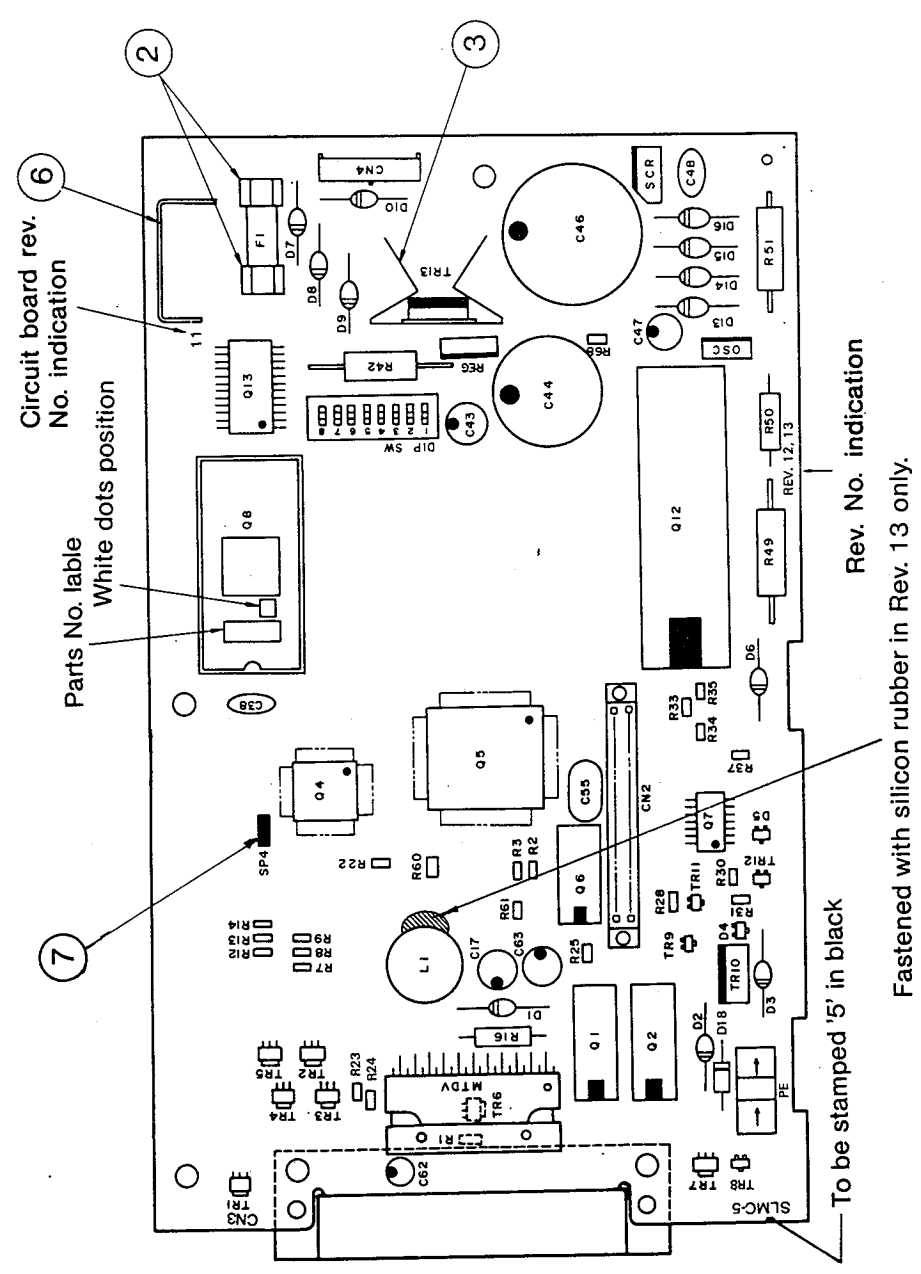
Figure 7 SLMC – 5 Printed-Circuit Board (4YA4021-1001Gxxx) 2/2 (3/4)

Symbol	Part No.	Description	Qty	Remarks
C55	306A4100G2223	CK-Capacitor, CQM-92PP2A223G, 100 V, 0.022U	1	
Q12	853A2103M5004	8051-004P MOS-CPU(ROM)	1	
Q6	700A0503M0005	BIP digital IC, 74LS05P	1	
Q1, 2	760A4731M0401	Transistor array, LB1205	2	
Q4	702A4924F2001	MOS digital IC, MSM60201GS-K (FP)	1	
Q5	702A4924F0020	MOS digital IC, MSM61048GS-K (FP)	1	
Q13	804A0021N4301	HM6116FP-3 MOS-S-RAM (SO)	1	
Q7	720A0528N0002	BIP linear IC, NJM2901M (SO)	1	
Q8	245A1155P0280	IC socket, DL2-28A-05	1	
R116	323A5011P0001	Chip jumper(CP), MCR18-JPW	1	
F1	540A2036M1152	Fuse, OL1614-102KR70(B)	1	
L1	353A3002K0102	H coil, OL16414-102KR70 (B)	1	
TR9	600A1003N0002	2SA1331/2SA1037K PNP-HR-TR (CP)	1	
TR8, 101, 102, 11	600A1003N0003	A1344/UN2111/DTA114K PNP-HF-TR (CP)	4	
TR13	601A1130M0004	2SB761 PNP-LF-TR	1	
TR6	601A1032N0002	2SB1123 PNP-LF-TR (CP)	1	
TR3	601A1130M0001	2SB766A-Q/R PNP-LF-TR (CP)	1	
TR12, 100, 103	602A1003N0002	2SC3361/2S02412K NPN-HF-TR (CP)	3	
TR1, 2, 4, 5	603A1130N0003	2SD1511 NPN-LF-TR (CP)	4	
TR7	603A1032N0001	2SD1626 NPN-LF-TR (CP)	1	
TR10	601A1132M0003	2SB882 PNP-LF-TR	1	
MTDV	720A4021E0004	BIP Linear type IC, HA13412	1	
REG	720A1033M0001	BIP Linear type IC, LA5005	1	
DIP	4LP-3763-8	DIP switch, KSD08	1	
SP4	225A3123P0020	FC connector, FFC-2AMEP1	1	

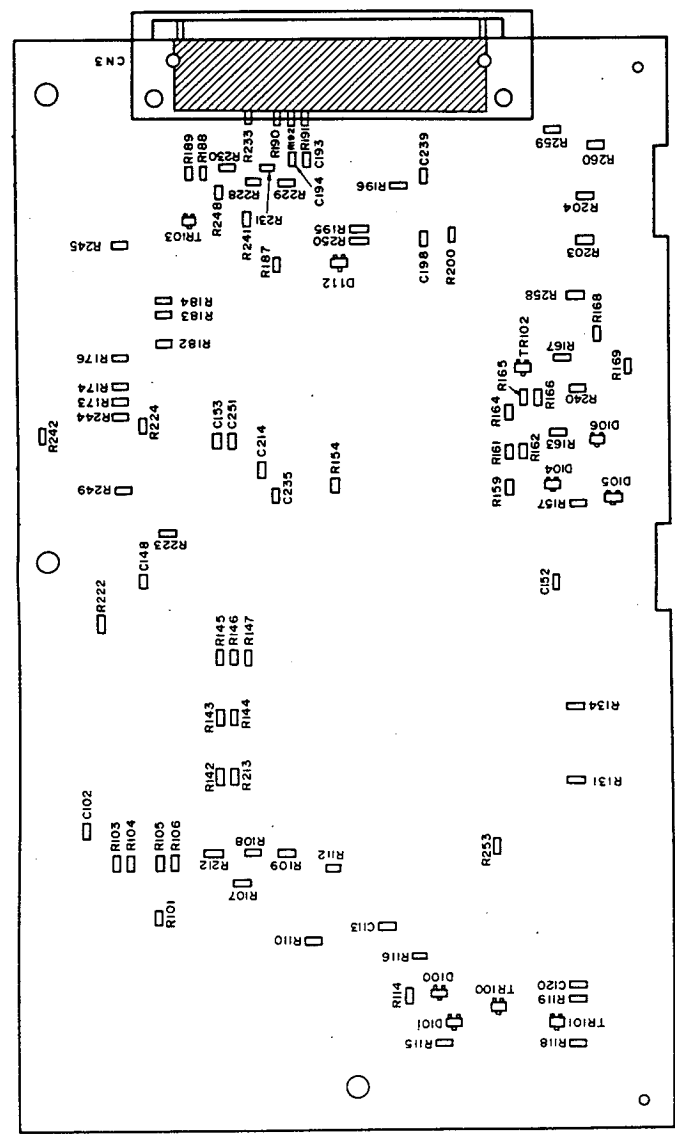
Figure 7 SLMC – 5 Printed-Circuit Board (4YA4021-1001Gxxx) 2/2 (4/4)

Symbol	Part No.	Description	Qty	Remarks
CN2	224A3376P0300	PC connector, 00-9072-230-101-883	1	
CN3	224A1160P0400	PC connector, PD40A2XD	1	
CN4	224A3462P0060	PC connector, 172681-6	1	
OSC	4LP-12186-1	Oscillator, FAR-C4SB11059000-M02	1	
PE	652A0127M0009	Photo coupler, EE-SJ5-B	1	
2	4LP-7142	Fuse holder, EP-213	2	
3	4PP4021-1015P001	Heat sink	1	
6	4PP4025-1166P001	Barrier	1	
7	224A182P0020	PC connector, DIC-252	1	
Q8	4YR4064-7023G1	ROM	1	For G016
Q8	4YR4064-7028G1	ROM	1	For G013

**Part side**



**Solder side**



Different types ROMs are used for each G No. as listed below.

Model	G No.	ROM No.	Part No. label	Part No.	Rev. No. indicated on the seal	Remarks
ML182	G016	Q8	64-7023	4YR4064-7023G1	0	ODA
	G103	Q8	64-7028	4YR4064-7028G1	0	ODG

Circuit board rev. No.	Rev. No.
12, 13	12, 13

Figure 7 SLMC-5 Printed-Circuit Board (4YA4021-100Gxxx) 1/2



Figure 7 SLMC – 5 Printed-Circuit Board (4YA4021-1001Gxxx) 2/2 (1/4) (REV. 12, 13)

Symbol	Part No.	Description	Qty	Remarks
D1	610A0221L0021	Rectifying diode, DFA1A1	1	
D2, 6, 7 to 10	610A0221L0090	Rectifying diode, DSA1A2	6	
D3, 13 to 16	610A0021L0090	Rectifying diode, DSA1C1	5	
D4, 100, 105	611A0003N0003	Signal diode, MA151WK/DAN202K (CP)	3	
D104	613A0291M0102H	Zener diode, MA3047-H	1	
D101	613A0291M0182	Zener diode, MA3100	1	
D5	613A0291M0152M	Zener diode, MA3075-M	1	
D106	613A0291M0272M	Zener diode, MA3240-M	1	
D112	613A0291M0292	Zener diode, MA3300	1	
D18	613A1231L0182	Diode	1	
SCR	620A0022M0006E	Gate thyristor OFF, CR3CM-8	1	
R110	323A5015J0180	RN resistor, RM73B2B180J	1	
R24	323A5015J0221	RN resistor, RM73B2B221J	1	
R23, R260	323A5015J0431	RN resistor, RM73B2B431J	2	
R162,203	323A5015J0511	RN resistor, RM73B2B511J	2	
118, 119, 167, 189, 258	323A5015J0122	RN resistor, RM73B2B122J	5	
R240, 163	323A5015J0202	RN resistor, RM73B2B202J	2	
R1 to 3, 31, 60, 61, 115, 169, 259	323A5015J0222	RN resistor, RM73B2B222J	9	
R7 to 9, 12 to 14, 166, 196, 195, 242, 245, 250	323A5015J0332	RN resistor, RM73B2B332J	12	
R188, 241	323A5015J0472	RN resistor, RM73B2B472J	2	
R233, 190 to 192	323A5015J0512	RN resistor, RM73B2B512J	4	
R22, 101, 103 to 109, 112, 154, 164, 168, 187, 222, 223, 249, 253	323A5015J0562	RN resistor, RM73B2B562J	18	
R68, 244, 248, 131, 134, 142 to 147, 173, 174, 176, 182 to 184, 204, 212, 213, 224, 228 to 231	323A5015J0103	RN resistor, RM73B2B103J	25	

Figure 7 SLMC – 5 Printed-Circuit Board (4YA4021-1001Gxxx) 2/2 (2/4) (REV. 12, 13)

Symbol	Part No.	Description	Qty	Remarks
R200	323A5015J0183	RN resistor, RM73B2B183J	1	
R165	323A5015J0683	RN resistor, RM73B2B683J	1	
R28	323A5015J0561	RN resistor, RM73B2B561J	1	
R114	323A5015J0513	RN resistor, RM73B2B513J	1	
R159	323A5015J0682	RN resistor, RM73B2B682J	1	
R25	323A5015J0224	RN resistor, RM73B2B224J	1	
R30	323A5015J0102	RN resistor, RM73B2B102J	1	
R33, 34	323A5015F0242	RN resistor, RM73B2B242F	2	
R35	323A5015F0472	RN resistor, RM73B2B472F	1	
R37	323A5015F0752	RN resistor, RM73B2B752F	1	
R157	323A5015F0124	RN resistor, RM73B2B124F	1	
R16	324A1001J0518	RS resistor, MSF1/2BO, 51ΩJ	1	
R50	321A1431J0202	RD resistor, RD1/2Y2KΩJ	1	
R42	324A1121J0390	RS resistor, MOR2B39ΩJ	1	
R49	324A1121J0151	RS resistor, MOR2B150ΩJ	1	
R51	324A1121J0302	RS resistor, MOR2B3.0KΩJ	1	
C193, 194, 239	303A6009K3102	CK Capacitor, CK3216B1H102K (CP)	3	
C113, 198	303A6009K3103	CK Capacitor, CK3216B1H103K (CP)	2	
C102, 120, 148, 152, 153, 199, 214, 235, 251	303A6009Z3104	CK Capacitor, CK3216F1H104Z (CP)	9	
C47	304A1040A2109	CE Capacitor, CESHM2A109, 100 V, 1.0U	1	
C17	304A1040H1100	CE Capacitor, CESHM1H100, 50 V, 10U	1	
C43	304A1040A1101	CE Capacitor, CESHM1A101, 10 V, 100U	1	
C44	304A1037C1822	CE Capacitor, 16VBSN-8200, 16 V, 8200U	1	
C46	304A1108G1472	CE Capacitor, 42VPSN-4700(M), 42 V, 4700U	1	
C38, 48	302A4027Z5103	CK Capacitor, TCK45F2E103ZYA, 250 V, 10000P	2	
C63, 62	304A1046H1339	CK Capacitor, 50MS5-3.3M, 50 V, 3.3U	2	

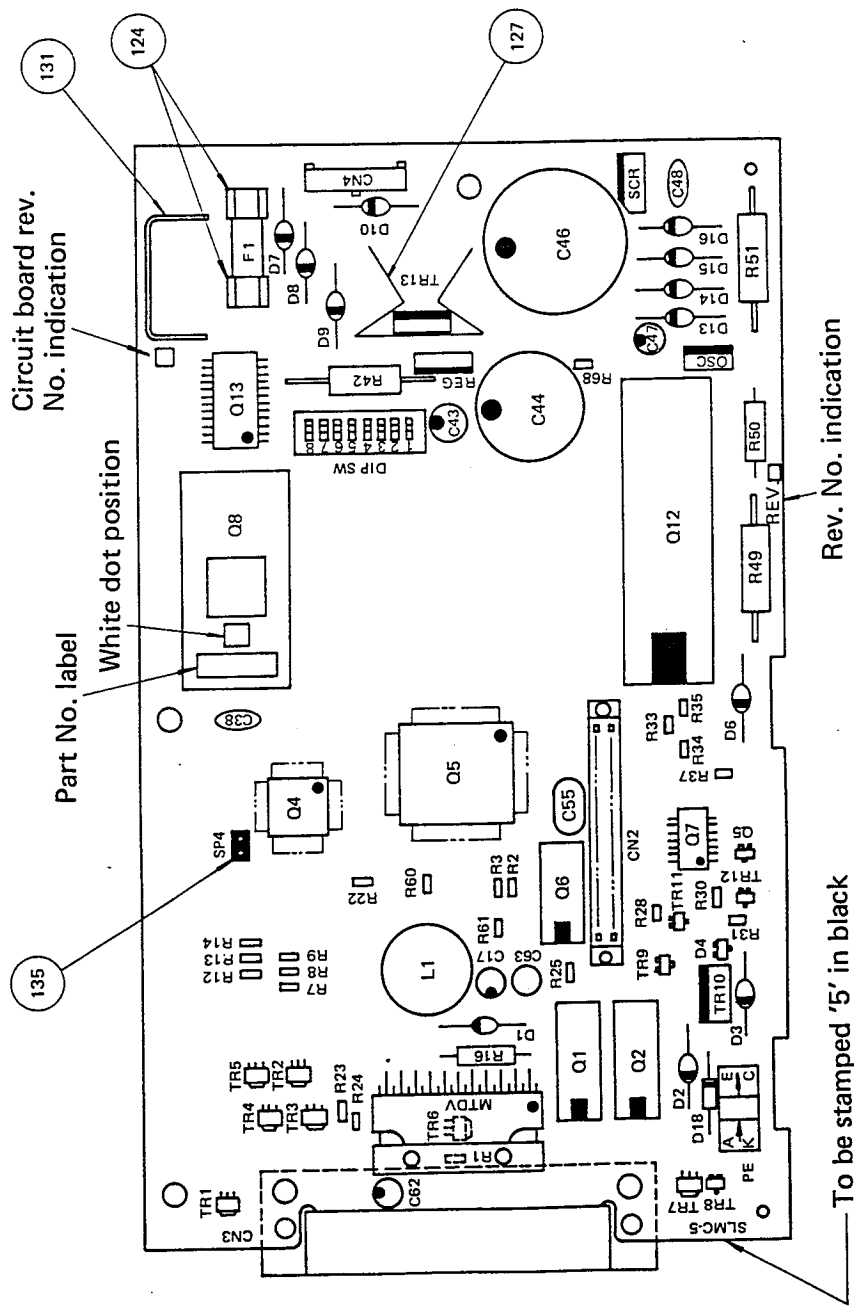
Figure 7 SLMC – 5 Printed-Circuit Board (4YA4021-1001Gxxx) 2/2 (3/4) (REV. 12, 13)

Symbol	Part No.	Description	Qty	Remarks
C55	306A4100G2223	CK Capacitor, CQM-92PP2A223G, 100 V, 0.022U	1	
Q12	853A2103M5004	8051-004P MOS-CPU(ROM)	1	
Q6	700A0503M0005	BIP digital IC, 74LS05P	1	
Q1, 2	760A4731M0401	Transistor array, LB1205	2	
Q4	702A4924F2001	MOS digital IC, MSM60201GS-K (FP)	1	
Q5	702A4924F0020	MOS digital IC, MSM61048GS-K (FP)	1	
Q13	804A0021N4301	HM6116FP-3 MOS-S-RAM (SO)	1	
Q7	720A0528N0002	BIP linear IC, NJM2901M (SO)	1	
Q8	245A1155P0280	IC socket, DL2-28A-05	1	
R116	323A5011P0001	Chip jumper(CP), MCR18-JPW	1	
F1	540A2036M1152	Fuse, OL1614-102KR70(B)	1	
L1	353A3002K0102	H coil, OL16414-102KR70 (B)	1	
TR9	600A1003N0002	2SA1331/2SA1037K PNP-HR-TR (CP)	1	
TR8, 101, 102, 11	600A1003N0003	A1344/UN2111/DTA114K PNP-HF-TR (CP)	4	
TR13	601A1130M0004	2SB761 PNP-LF-TR	1	
TR6	601A1032N0002	2SB1123 PNP-LF-TR (CP)	1	
TR3	601A1130M0001	2SB766A-Q/R PNP-LF-TR (CP)	1	
TR12, 100, 103	602A1003N0002	2SC3361/2S02412K NPN-HF-TR (CP)	3	
TR1, 2, 4, 5	603A1130N0003	2SD1511 NPN-LF-TR (CP)	4	
TR7	603A1032N0001	2SD1626 NPN-LF-TR (CP)	1	
TR10	601A1132M0003	2SB882 PNP-LF-TR	1	
MTDV	720A4021E0004	BIP Linear type IC, HA13412	1	
REG	720A1033M0001	BIP Linear type IC, LA5005	1	
DIP	4LP-3763-8	DIP switch, KSD08	1	
SP4	225A3123P0020	FC connector, FFC-2AMEP1	1	

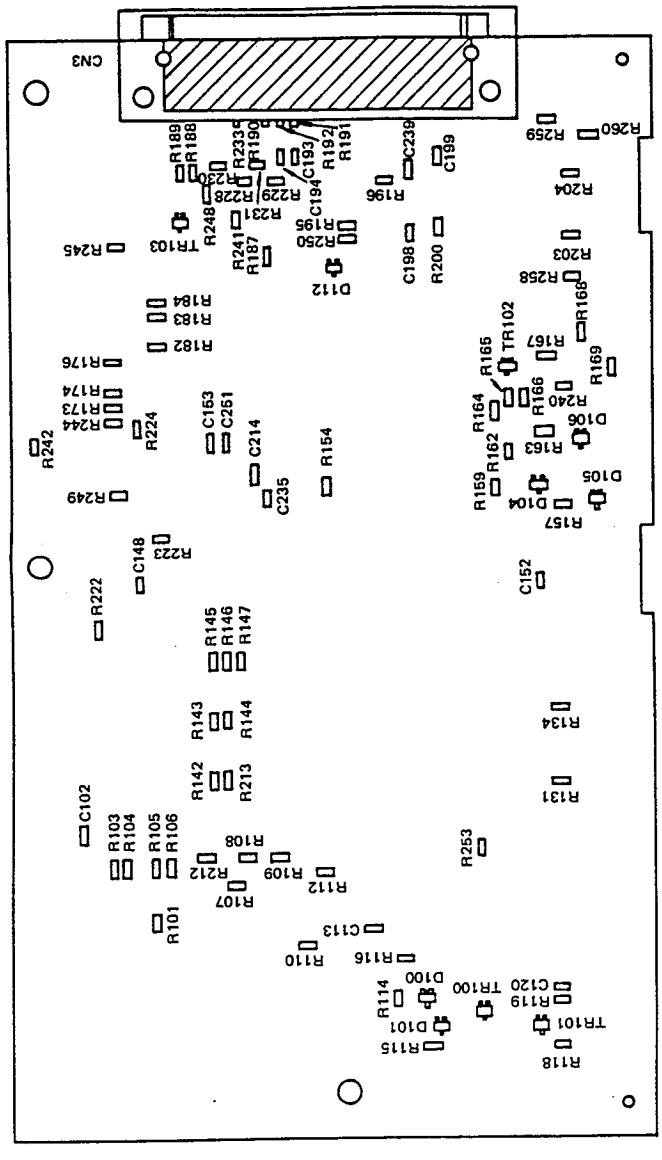
Figure 7 SLMC – 5 Printed-Circuit Board (4YA4021-1001Gxxx) 2/2 (4/4) (REV. 12, 13)

Symbol	Part No.	Description	Qty	Remarks
CN2	224A3376P0300	PC connector, 00-9072-230-101-883	1	
CN3	224A1160P0400	PC connector, PD40A2XD	1	
CN4	224A3462P0060	PC connector, 172681-6	1	
OSC	4LP-12186-1	Oscillator, FAR-C4SB11059000-M02	1	
PE	652A0127M0009	Photo coupler, EE-SJ5-B	1	
2	4LP-7142	Fuse holder, EP-213	2	
3	4PP4021-1015P001	Heat sink	1	
6	4PP4025-1166P001	Barrier	1	
7	224A182P0020	PC connector, DIC-252	1	
Q8	4YR4064-7023G1	ROM	1	For G016
Q8	4YR4064-7028G1	ROM	1	For G013

Parts side



Solder side



Circuit board rev. No.	14
Rev. No.	14

Figure 7(1/5) SLMC-5 Printed-Circuit Board (4YA4021-1001GXXX)

Figure 7 (2/5) SLMC-5 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.14)

Item No./Symbol	Part No.	Description	Qty	Remarks
D1	610A0221L0021	Rectifying diode, DFA1A1	1	
D2, 6, 7 to 10	610A0021L0090	Rectifying diode, DSA1A2	6	
D3, 13 to 16	610A0021L0089A	Rectifying diode, DSA1C1	5	
D4, 100, 105	611A0003N0003	Signal diode (CP) MA151WK/DAN202K	3	
D104	613A0291M0102H	Zener diode (CP) MA3047-H	1	
D101	613A0291M0182	Zener diode (CP) MA3100	1	
D5	613A0291M0152M	Zener diode (CP) MA3075-M	1	
D106	613A0291M0272M	Zener diode (CP) MA3240-M	1	
D112	613A0291M0292	Zener diode (CP) MA3300	1	
D18	613A2232L0182	Zener diode (CP) RD10F-B	1	
SCR	620A0022M0006E	Gate thyristor OFF CR3CM-8	1	
R110	323A5015J0180	RN resistor (CP) RM73B2B180J	1	
R24	323A5015J0221	RN resistor (CP) RM73B2B221J	1	
R23, 260	323A5015J0431	RN resistor (CP) RM73B2B431J	2	
R162, 203	323A5015J0511	RN resistor (CP) RM73B2B511J	2	
R118, 119, 167, 189, 258	323A5015J0122	RN resistor (CP) RM73B2B122J	5	
R240, 163	323A5015J0202	RN resistor (CP) RM73B2B202J	2	
R1 to 3, 31, 60, 61, 115, 169, 259	323A5015J0222	RN resistor (CP) RM73B2B222J	9	
R7 to 9, 12 to 14, 166, 195, 196, 242, 245, 250	323A5015J0332	RN resistor (CP) RM73B2B332J	12	
R188, 241	323A5015J0472	RN resistor (CP) RM73B2B472J	2	
R190 to 192, 233	323A5015J0512	RN resistor (CP) RM73B2B512J	4	

Figure 7 (3/5) SLMC-5 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.14)

Item No./Symbol	Part No.	Description	Qty	Remarks
R22, 101, 103 to 109, 112, 154, 164, 168, 187, 222, 223, 249, 253	323A5015J0562	RN resistor (CP) RM73B2B562J	18	
R68, 131, 134, 142 to 147, 173, 174, 176, 182 to 184, 204, 212, 213, 224, 228 to 231, 244, 248	323A5015J0103	RN resistor (CP) RM73B2B103J	25	
R200	323A5015J0183	RN resistor (CP) RM73B2B183J	1	
R165	323A5015J0683	RN resistor (CP) RM73B2B683J	1	
R28	323A5015J0561	RN resistor (CP) RM73B2B561J	1	
R114	323A5015J0513	RN resistor (CP) RM73B2B513J	1	
R159	323A5015J0682	RN resistor (CP) RM73B2B682J	1	
R25	323A5015J0224	RN resistor (CP) RM73B2B224J	1	
R30	323A5015J0102	RN resistor (CP) RM73B2B102J	1	
R33, 34	323A5015F0242	RN resistor (CP) RM73B2B242F	2	
R35	323A5015F0472	RN resistor (CP) RM73B2B472F	1	
R37	323A5015F0752	RN resistor (CP) RM73B2B752F	1	
R157	323A5015F0124	RN resistor (CP) RM73B2B124F	1	
R16	324A1001J0518	RS resistor MSF1/2B 0.51ΩJ	1	
R50	321A1431J0202	RD resistor RD1/2Y 2 kΩJ	1	
R42	324A1121J0390	RS resistor MOR2B 39ΩJ	1	
R49	324A1121J0151	RS resistor MOR2B 150ΩJ	1	
R51	324A1121J0302	RS resistor MOR2B 3.0 kΩJ	1	

Figure 7 (4/5) SLMC-5 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.14)

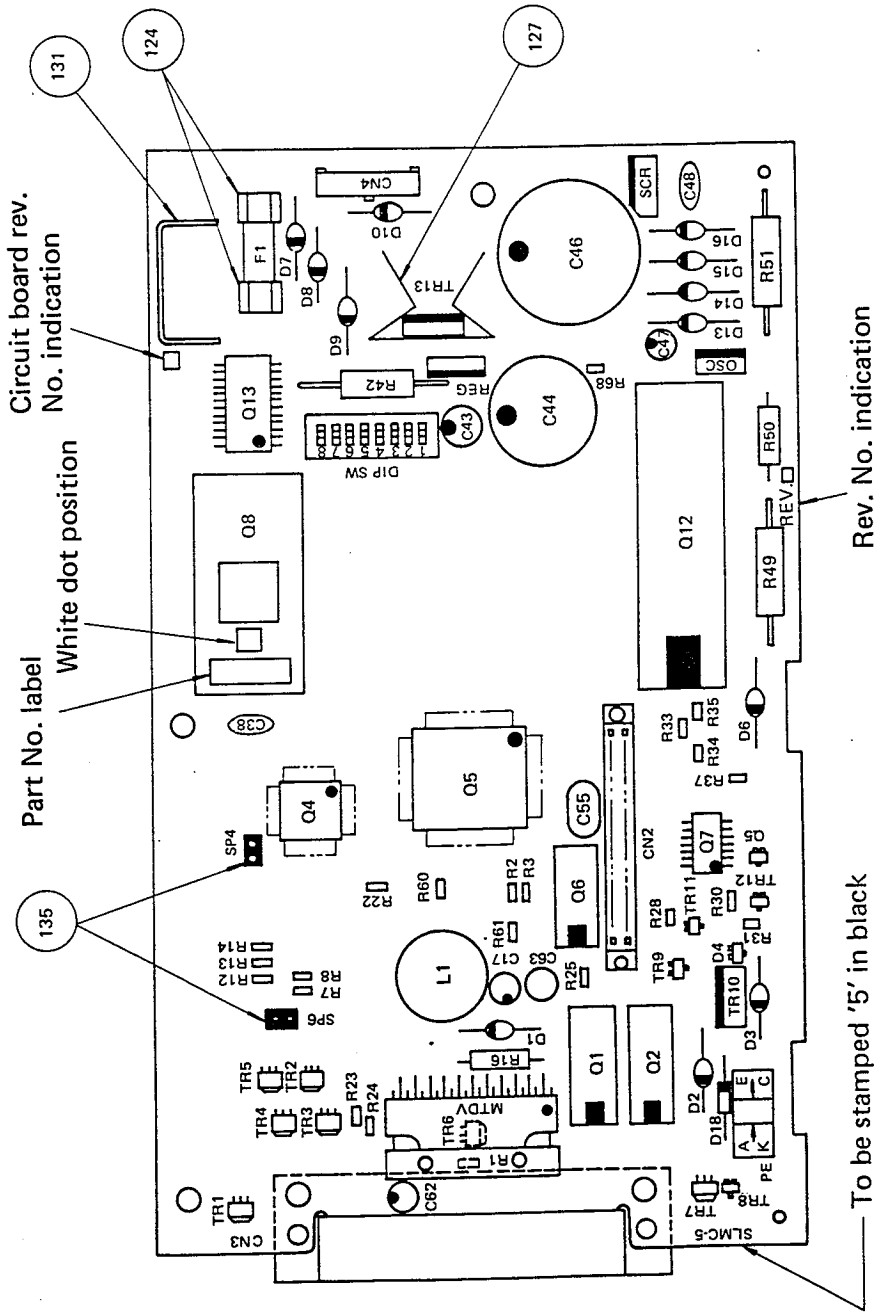
Item No./Symbol	Part No.	Description	Qty	Remarks
C193, 194, 239	303A6009K3102	CK capacitor (CP) CK3216B1H102K	3	
C113, 198	303A6009K3103	CK capacitor (CP) CK3216B1H103K	2	
C102, 120, 148, 152, 153, 199, 214, 235, 251	303A6009Z3104	CK capacitor (CP) CK3216F1H104Z	9	
C47	304A1040A2109	CE capacitor 1.0 $\mu$ CESHM2A109 100 V	1	
C17	304A1040H1100	CE capacitor 10 $\mu$ CESHM1H100 50 V	1	
C43	304A1040A1101	CE capacitor 100 $\mu$ CESHM1A101 10 V	1	
C44	304A1037C1822	CE capacitor 8200 $\mu$ 16VBSN-8200 16 V	1	
C46	304A1108G1472	CE capacitor 4700 $\mu$ 42VPSN-4700(M) 42 V	1	
C38, 48	302A4027Z5103	CK capacitor 10000P TCK45F2E103ZYA 250 V	2	
C62, 63	304A1046H1339	CE capacitor 3.3 $\mu$ 50MS5-3.3M 50 V	2	
C55	306A4100G2223	CQ capacitor 0.022 $\mu$ CQM-92PP2A223G 100 V	1	
Q12	853A2103M5004	MOS-CPU(ROM) 8051-004P	1	
Q6	700A0503M0005	BIP digital IC, 74LS05P	1	
Q1, 2	760A4731M0401	Transistor array, LB1205	2	
Q4	702A4924F2001	MOS digital IC (FP) MSM60201GS-VK	1	
Q5	702A4924F0020	MOS digital IC (FP) MSM61048GS-VK	1	
Q13	804A0021N4301	MOS-S-RAM (SO) HM6116FP-3	1	
Q7	720A0528N0002	BIP linear type IC (SO) NJM2901M	1	
Q8	245A1155P0280	IC socket, DL2-28A-05	1	
R116	323A5011P0001	Chip jumper (CP) MCR18-JPW	1	
F1	540A2036M1152	Fuse, GGS1-1/2	1	
L1	353A3002K0102	H coil OL1614-102KR70(B)	1	



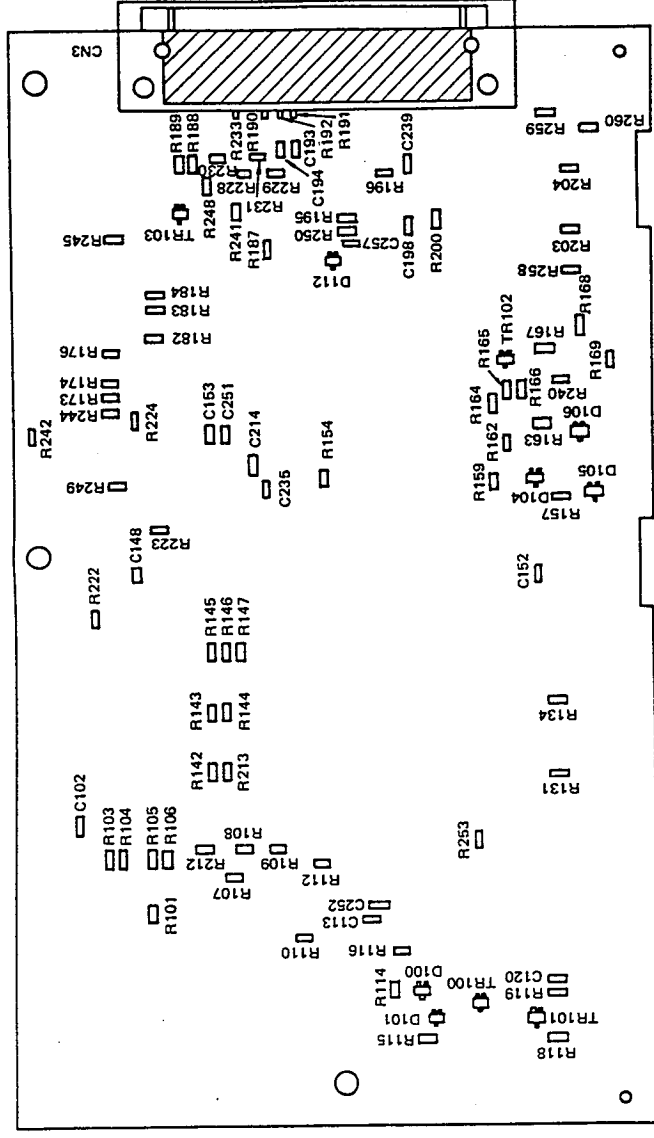
Figure 7 (5/5) SLMC-5 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.14)

Item No./Symbol	Part No.	Description	Qty	Remarks
TR9	600A1003N0002	PNP-HF-TR (CP) 2SA1331/2SA1037K	1	
TR8, 11, 101, 102	600A1003N0003	PNP-HF-TR (CP) A1344/UNZ111/DTA114K	4	
TR13	601A1130M0004	PNP-LF-TR 2SB761	1	
TR6	601A1032N0002	PNP-LF-TR (CP), 2SB1123	1	
TR3	601A1130M0001	PNP-LF-TR (CP) 2SB766A-Q/R	1	
TR12, 100, 103	602A1003N0002	NPN-HF-TR (CP) 2SC3361/2S02412K	3	
TR1, 2, 4, 5	603A1130N0003	NPN-LF-TR (CP), 2SD1511	4	
TR7	603A1032N0001	NPN-LF-TR (CP), 2SD1626	1	
TR10	601A1132M0003	PNP-LF-TR 2SB882	1	
MTDV	720A4021E0004	BIP linear type IC, HA13412	1	
REG	720A1033M0001	BIP linear type IC, LA5005	1	
DIP	4LP-3763-8	DIP switch, KSD08	1	
SP4	225A3123P0020	FC connector, FFC-2AMEP1	1	
CN2	224A3376P0300	PC connector, 00-9072-230-101-883	1	
CN3	224A1160P0400	PC connector, PD40A2X0	1	
CN4	224A3462P0060	PC connector, 172681-6	1	
OSC	4LP-12186-1	Oscillator FAR-C4SB11059000-M02	1	
PE	652A0127M0009	Photo coupler, EE-SJ5-B	1	
124	4LP-7142	Fuse holder, FP-213	2	
127	4PP4021-1015P001	Heat sink	1	
131	4PP4025-1166P001	Barrier	1	
135	224A3182P0020	PC connector, DIC-252	1	

Parts side



Solder side



Circuit board rev. No.	Rev. No.
15	15

Figure 7(1/5) SLMC-5 Printed-Circuit Board (4YA4021-1001GXXX)

Figure 7 (2/5) SLMC-5 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.15)

Item No./Symbol	Part No.	Description	Qty	Remarks
D1	610A0221L0021	Rectifying diode, DFA1A1	1	
D2, 6, 7 to 10	610A0021L0090	Rectifying diode, DSA1A2	6	
D3, 13 to 16	610A0021L0089A	Rectifying diode, DSA1C1	5	
D4, 100, 105	611A0003N0003	Signal diode (CP) MA151WK/DAN202K	3	
D104	613A0291M0102H	Zener diode (CP) MA3047-H	1	
D101	613A0291M0182	Zener diode (CP) MA3100	1	
D5	613A0291M0152M	Zener diode (CP) MA3075-M	1	
D106.	613A0291M0272M	Zener diode (CP) MA3240-M	1	
D112	613A0291M0292	Zener diode (CP) MA3300	1	
D18	613A2232L0182	Zener diode (CP) RD10F-B	1	
SCR	620A0022M0006E	Gate thyristor OFF CR3CM-8	1	
R110	323A5015J0180	RN resistor (CP) RM73B2B180J	1	
R24	323A5015J0221	RN resistor (CP) RM73B2B221J	1	
R23, 260	323A5015J0431	RN resistor (CP) RM73B2B431J	2	
R162, 203	323A5015J0511	RN resistor (CP) 4RM73B2B511J	2	
R118, 119, 167, 189, 258	323A5015J0122	RN resistor (CP) RM73B2B122J	5	
R163, 240	323A5015J0202	RN resistor (CP) RM73B2B202J	2	
R1 to 3, 31, 60, 61, 115, 169, 259	323A5015J0222	RN resistor (CP) RM73B2B222J	9	
R7 to 9, 12 to 14, 166, 195, 196, 242, 245, 250	323A5015J0332	RN resistor (CP) RM73B2B332J	12	
R188, 241	323A5015J0472	RN resistor (CP) RM73B2B472J	2	
R190 to 192, 233	323A5015J0512	RN resistor (CP) RM73B2B512J	4	

Figure 7 (3/5) SLMC-5 Printed-Circuit board (4YA4021-1001Gxxx) (REV.15)

Item No./Symbol	Part No.	Description	Qty	Remarks
R22, 101, 103 to 109, 112, 154, 164, 168, 187, 222, 223, 249, 253	323A5015J0562	RN resistor (CP) RM73B2B562J	18	
R68, 131, 134, 142 to 147, 173, 174, 176, 182 to 184, 204, 212, 213, 224, 228 to 231, 244, 248	323A5015J0103	RN resistor (CP) RM73B2B103J	25	
R200	323A5015J0183	RN resistor (CP) RM73B2B183J	1	
R165	323A5015J0683	RN resistor (CP) RM73B2B683J	1	
R28	323A5015J0561	RN resistor (CP) RM73B2B561J	1	
R114	323A5015J0513	RN resistor (CP) RM73B2B513J	1	
R159	323A5015J0682	RN resistor (CP) RM73B2B682J	1	
R25	323A5015J0224	RN resistor (CP) RM73B2B224J	1	
R5, 30	323A5015J0102	RN resistor (CP) RM73B2B102J	2	
R33, 34	323A5015F0242	RN resistor (CP) RM73B2B242F	2	
R35	323A5015F0472	RN resistor (CP) RM73B2B472F	1	
R37	323A5015F0752	RN resistor (CP) RM73B2B752F	1	
R157	323A5015F0124	RN resistor (CP) RM73B2B124F	1	
R16	324A1001J0518	RS resistor, MSF1/2B 0.51ΩJ	1	
R50	321A1431J0202	RD resistor, RD1/2Y 2 kΩJ	1	
R42	324A1121J0390	RS resistor, MOR2B 39ΩJ	1	
R49	324A1121J0151	RS resistor, MOR2B 150ΩJ	1	
R51	324A1121J0302	RS resistor, MOR2B 3.0kΩJ	1	
C257	303A3008K0100	CC capacitor (CP) CC3216SL1H100D	1	
C252	303A3008K0221	CC capacitor (CP) CC3216SL1H221J	1	
C193, 194, 239	303A6009K3102	CK capacitor (CP) CK3216B1H102K	3	

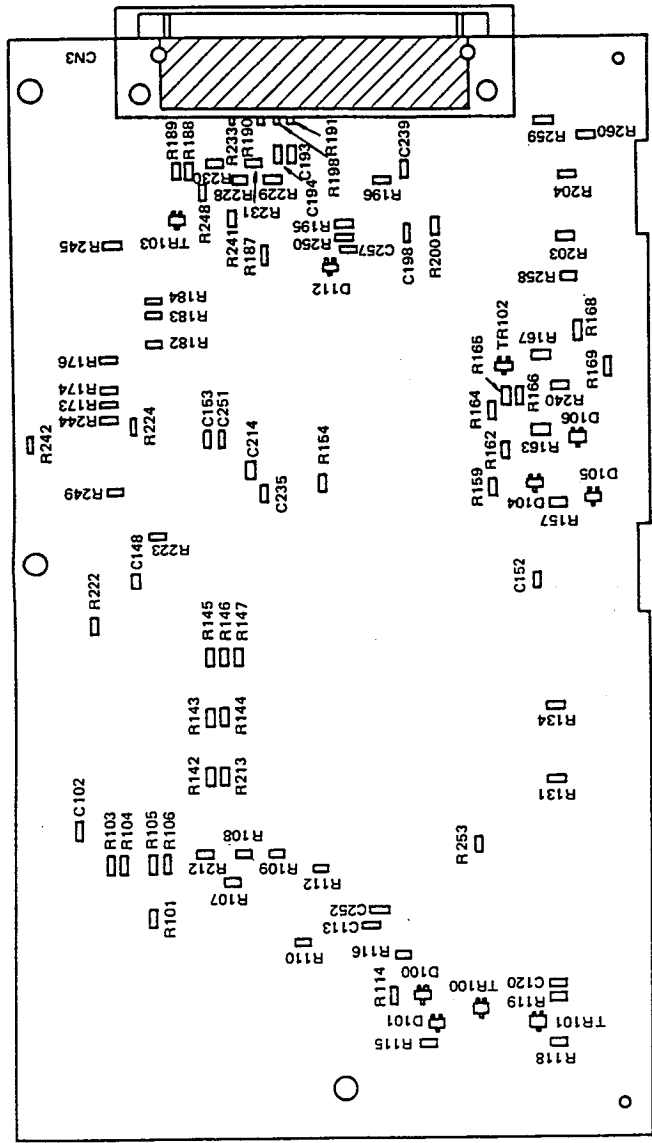
Figure 7 (4/5) SLMC-5 Printed-Circuit board (4YA4021-1001Gxxx) (REV.15)

Item No./Symbol	Part No.	Description	Qty	Remarks
C113, 198	303A6009K3103	CK capacitor (CP) CK3216B1H103K	2	
C102, 120, 148, 152, 153, 214, 235, 251	303A6009Z3104	CK capacitor (CP) CK3216F1H104Z	8	
C47	304A1040A2109	CE capacitor 1.0 $\mu$ CESHM2A109 100 V	1	
C17	304A1040H1100	CE capacitor 10 $\mu$ CESHM1H100 50 V	1	
C43	304A1040A1101	CE capacitor 100 $\mu$ CESHM1A101 10 V	1	
C44	304A1037C1822	CE capacitor 8200 $\mu$ 16VBSN-8200 16 V	1	
C46	304A1108G1472	CE capacitor 4700 $\mu$ 42VPSN-4700(M) 42 V	1	
C38, 48	302A4027Z5103	CK capacitor 10000P TCK45F2E103ZYA 250 V	2	
C62, 63	304A1046H1339	CK capacitor 3.3 $\mu$ 50MS5-3.3M 50 V	2	
C55	306A4100G2223	CK capacitor 0.022 $\mu$ CQM-92PP2A223G 100 V	1	
Q12	853A2103M5004	MOS-CPU(ROM) 8051-004P	1	
Q6	700A0503M0005	BIP digital IC, 74LS05P	1	
Q1, 2	760A4731M0401	Transistor array, LB1205	2	
Q4	702A4924F2001	MOS digital IC (FP) MSM60201GS-VK	1	
Q5	702A4924F0020	MOS digital IC (FP) MSM61048GS-VK	1	
Q13	804A0021N4301	MOS-S-RAM (SO) HM6116FP-3	1	
Q7	720A0528N0002	BIP linear type IC (SO) NJM2901M	1	
Q8	245A1155P0280	IC socket, DL2-28A-05	1	
R116	323A5011P0001	Chip jumper (CP) MCR18-JPW	1	
F1	540A2036M1152	Fuse, GGS1-1/2	1	
L1	353A3002K0102	H coil OL1614-102KR70 (C)	1	
TR9	600A1003N0002	2SA1331/2SA1037K PNP-HF-TR (CP)	1	

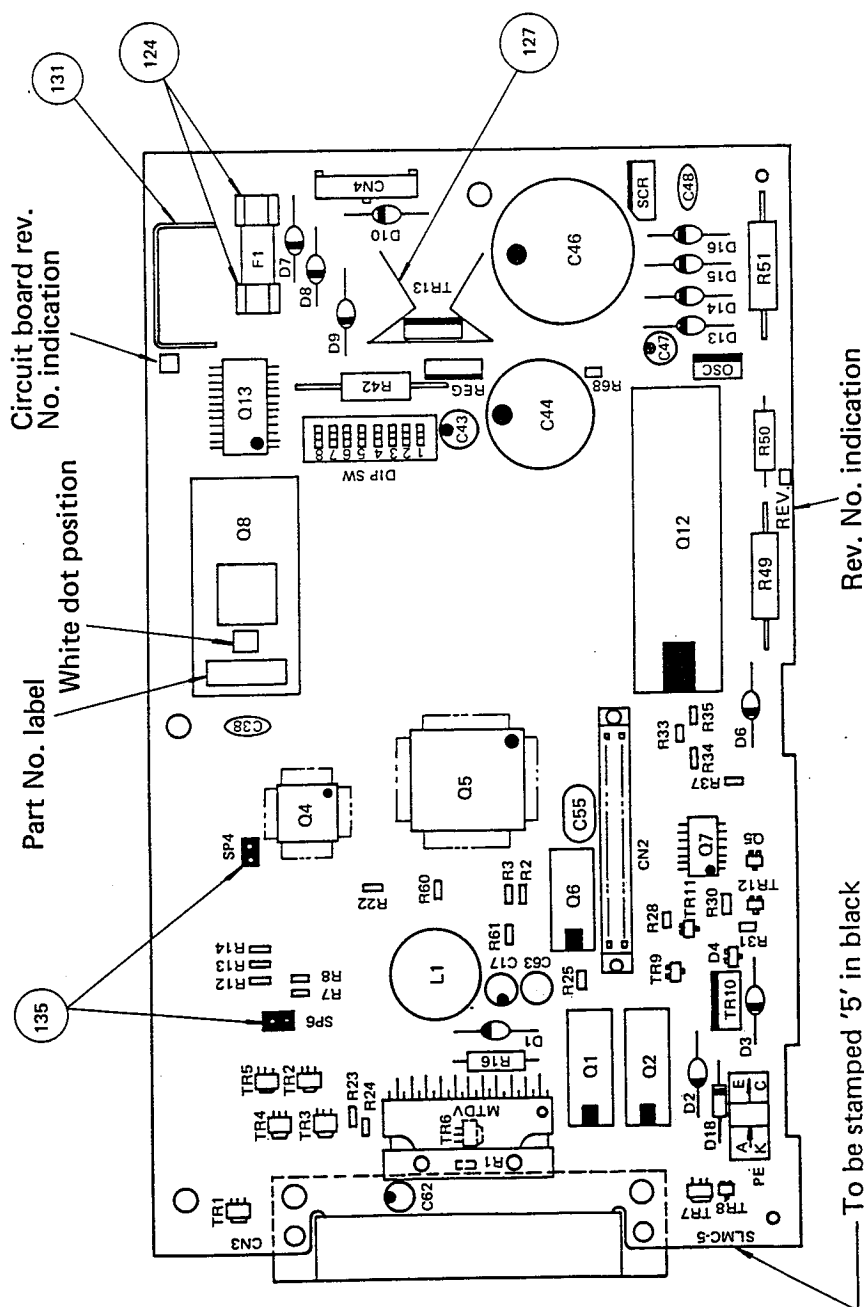
Figure 7 (5/5) SLMC-5 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.15)

Item No./Symbol	Part No.	Description	Qty	Remarks
TR8, 11, 101, 102	600A1003N0003	PNP-HF-TR (CP) A1344/UN2111/DTA114K	4	
TR13	601A1130M0004	PNP-LF-TR, 2SB761	1	
TR6	601A1032N0002	PNP-LF-TR (CP), 2SB1123	1	
TR3	601A1130M0001	PNP-LF-TR (CP) 2SB766A-Q/R	1	
TR12, 100, 103	602A1003N0002	NPN-HF-TR (CP) 2SC3361/2SC2412K	3	
TR1, 2, 4, 5	603A1130N0003	NPN-LF-TR (CP), 2SD1511	4	
TR7	603A1032N0001	NPN-LF-TR (CP), 2SD1626	1	
TR10	601A1132M0003	PNP-LF-TR, 2SB882	1	
MTDV	720A4021E0004	BIP Linear type IC, HA13412	1	
REG	720A1033M0001	BIP Linear type IC, LA5005	1	
DIP	4LP-3763-8	DIP switch, KSD08	1	
SP4, 6	225A3123P0020	FC connector, FFC-2AMEP1	2	
CN2	224A3376P0300	PC connector 00-9072-230-101-883	1	
CN3	224A1160P0400	PC connector, PD40A2X0	1	
CN4	224A3462P0060	PC connector, 172681-6	1	
OSC	4LP-12186-1	Oscillator FAR-C4SB11059000-M02	1	
PE	652A0127M0009	Photo coupler, EE-SJ5-B	1	
124	4LP-7142	Fuse holder, FP-213	2	
127	4PP4021-1015P001	Heat sink	1	
131	4PP4025-1166P001	Barrier	1	
135	224A3182P0020	PC connector, DIC-252	2	

Solder side



Parts side



Circuit board rev. No.	16
Rev. No.	16

Figure 7(1/5) SLMC-5 Printed-Circuit Board (4YA4021-1001GXXX)

Figure 7 (2/5) SLMC-5 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.16)

Item No./Symbol	Part No.	Description	Qty	Remarks
D1	610A0221L0021	Rectifying diode, DFA1A1	1	
D2, 6, 7 to 10	610A0021L0090	Rectifying diode, DSA1A2	6	
D3, 13 to 16	610A0021L0089A	Rectifying diode, DSA1C1	5	
D4, 100, 105	611A0003N0003	Signal diode (CP) MA151WK/DAN202K	3	
D104	613A0291M0102H	Zener diode (CP) MA3047-H	1	
D101	613A0291M0182	Zener diode (CP) MA3100	1	
D5	613A0291M0152M	Zener diode (CP) MA3075-M	1	
D106	613A0291M0272M	Zener diode (CP) MA3240-M	1	
D112	613A0291M0292	Zener diode (CP) MA3300	1	
D18	613A2232L0182	Zener diode RD10F-B	1	
SCR	620A0022M0006E	Gate thyristor OFF CR3CM-8	1	
R110	323A5015J0180	RN resistor (CP) RM73B2B180J	1	
R24	323A5015J0221	RN resistor (CP) RM73B2B221J	1	
R23, R260	323A5015J0431	RN resistor (CP) RM73B2B511J	2	
R162, 203	323A5015J0511	RN resistor (CP) RM73B2B511J	2	
R118, 119, 167, 189, 258	323A5015J0122	RN resistor (CP) RM73B2B122J	5	
R163, 240	323A5015J0202	RN resistor (CP) RM73B2B202J	2	
R1 to 3, 31, 60, 61, 115, 169, 259	323A5015J0222	RN resistor (CP) RM73B2B222J	9	
R7 to 9, 12 to 14, 166, 195, 196, 242, 245, 250	323A5015J0332	RN resistor (CP) RM73B2B332J	12	
R188, 241	323A5015J0472	RN resistor (CP) RM73B2B472J	2	
R190 to 192, 233	323A5015J0512	RN resistor (CP) RM73B2B512J	4	



Figure 7 (3/5) SLMC-5 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.16)

Symbol	Part No.	Description	Qty	Remarks
R22, 101, 103 to 109, 112, 154, 164, 168, 187, 222, 223, 249, 253	323A5015J0562	RN resistor (CP) RM73B2B562J	18	
R68, 131, 134, 142 to 147, 173 174, 176, 182 to 184, 204, 212, 213, 244, 248, 224, 228 to 231	323A5015J0103	RN resistor (CP) RM73B2B103J	25	
R200	323A5015J0183	RN resistor (CP) RM73B2B183J	1	
R165	323A5015J0683	RN resistor (CP) RM73B2B683J	1	
R28	323A5015J0561	RN resistor (CP) RM73B2B561J	1	
R114	323A5015J0513	RN resistor (CP) RM73B2B513J	1	
R159	323A5015J0682	RN resistor (CP) RM73B2B682J	1	
R25	323A5015J0224	RN resistor (CP) RM73B2B224J	1	
R30	323A5015J0102	RN resistor (CP) RM73B2B102J	1	
R33, 34	323A5015F0242	RN resistor (CP) RM73B2B242F	2	
R35	323A5015F0472	RN resistor (CP) RM73B2B472F	1	
R37	323A5015F0752	RN resistor (CP) RM73B2B752F	1	
R157	323A5015F0124	RN resistor (CP) RM73B2B124F	1	
R16	324A1001J0518	RS resistor, MSF1/2B 0.51ΩJ	1	
R50	321A1431J0202	RD resistor, RD1/2Y 2 kΩJ	1	
R42	324A1121J0390	RS resistor, MOR2B 39ΩJ	1	
R49	324A1121J0151	RS resistor, MOR2B 150ΩJ	1	
R51	324A1121J0302	RS resistor, MOR2B 3.0 kΩJ	1	
C257	303A3008K0100	CC capacitor (CP) CC3216SL1H100D	1	✓
C252	303A3008K0221	CC capacitor (CP) CC3216SLH221J	1	✓

Figure 7 (4/5) SLMC-5 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.16)

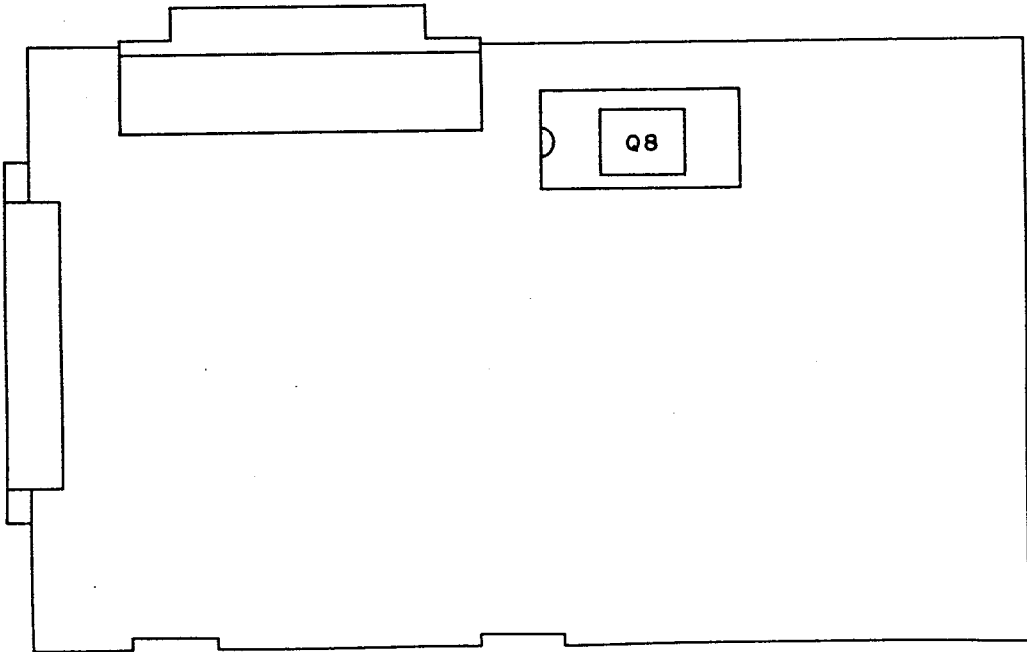
Symbol	Part No.	Description	Qty	Remarks
C193, 194, 239	303A6009K3102	CK Capacitor (CP) CK3216B1H102K	3	
C113, 198	303A6009K3103	CK Capacitor (CP) CK3216B1H103K	2	
C102, 120, 148, 152, 153, 214, 235, 251	303A6009Z3104	CK Capacitor (CP) CK3216F1H104Z	8	
C47	304A1041A2109	CE Capacitor 1.0 $\mu$ CEUSM2A010 100 V	1	
C17	304A1041H1100	CE Capacitor 10 $\mu$ CEUSM1H100 50 V	1	
C43	304A1041A1101	CE Capacitor 100 $\mu$ CEUSM1A101 10 V	1	
C44	304A1037O1822	CE Capacitor 8200 $\mu$ 16VBSN-8200 16 V	1	
C46	304A1108G1472	CE capacitor 4700 $\mu$ 42VPSN-4700(M) 42 V	1	
C38, 48	302A4027Z5103	CK Capacitor 10000P TCK45F2E103ZYA 250 V	2	
C62, 63	304A1046H1339	CK Capacitor 3.3 $\mu$ 50MS5-3.3M 50 V	2	
C55	306A4100G2223	CK Capacitor 0.022 $\mu$ CQM-92PP2A223G 100 V	1	
Q12	853A2103M5004	MOS-CPU(ROM) 8051-004P	1	
Q6	700A0503M0005	BIP digital IC, 74LS05P	1	
Q1, 2	760A4731M0401	Transistor array, LB1205	2	
Q4	702A4924F2001	MOS digital IC (FP) MSM60201GS-VK	1	
Q5	702A4924F0020	MOS digital IC (FP) MSM61048GS-VK	1	
Q13	804A0021N4301	MOS-S-RAM (SO) HM6116FP-3	1	
Q7	720A0528N0002	BIP linear type IC (SO) NJM2901M	1	
Q8	245A1155P0280	IC socket, DL2-28A-05	1	
R116	323A5011P0001	Chip jumper (CP) MCR18-JPW	1	
F1	540A2036M1152	Fuse, GGS1-1/2	1	

Figure 7 (5/5) SLMC-5 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.16)

Symbol	Part No.	Description	Qty	Remarks
L1	353A3002K0102	H coil OL164-102KR70 (D)	1	
TR9	600A1003N0002	PNP-HF-TR (CP) 2SA1331/2SA1037K	1	
TR8, 11, 101, 102	600A1003N0003	PNP-HF-TR (CP) A1344/UN2111/DTA114K	4	
TR13	601A1130M0004	PNP-LF-TR, 2SB761	1	
TR6	601A1032N0002	PNP-LF-TR (CP), 2SB1123	1	
TR3	601A1130M0001	PNP-LF-TR (CP) 2SB766A-Q/R	1	
TR12, 100, 103	602A1003N0002	NPN-HF-TR (CP) 2SC3361/2SC2412K	3	
TR1, 2, 4, 5	603A1130N0003	NPN-LF-TR (CP), 2SD1511	4	
TR7	603A1032N0001	NPN-LF-TR (CP), 2SD1626	1	
TR10	601A1132M0003	PNP-LF-TR, 2SB882	1	
MTDV	720A4021E0004	BIP linear type IC, HA13412	1	
REG	720A1033M0001	BIP linear type IC, LA5005	1	
DIP	4LP-3763-8	DIP switch, KSD08	1	
SP4, 6	225A3123P0020	FC connector, FFC-2AMEP1	2	
CN2	224A3376P0300	PC connector 00-9072-230-101-883	1	
CN3	224A1160P0400	PC connector, PD40A2XO	1	
CN4	224A3462P0060	PC connector, 172681-6	1	
OSC	4LP-12186-1	Oscillator FAR-C4SB11059000-M02	1	
PE	652A0127M0009	Photo coupler, EE-SJ5-B	1	
124	4LP-7142	Fuse holder, FP-213	2	
127	4PP4021-1015P001	Heat sink	1	
131	4PP4025-1166P001	Barrier	1	
135	224A3182P0020	PC connector, DIC-252	2	

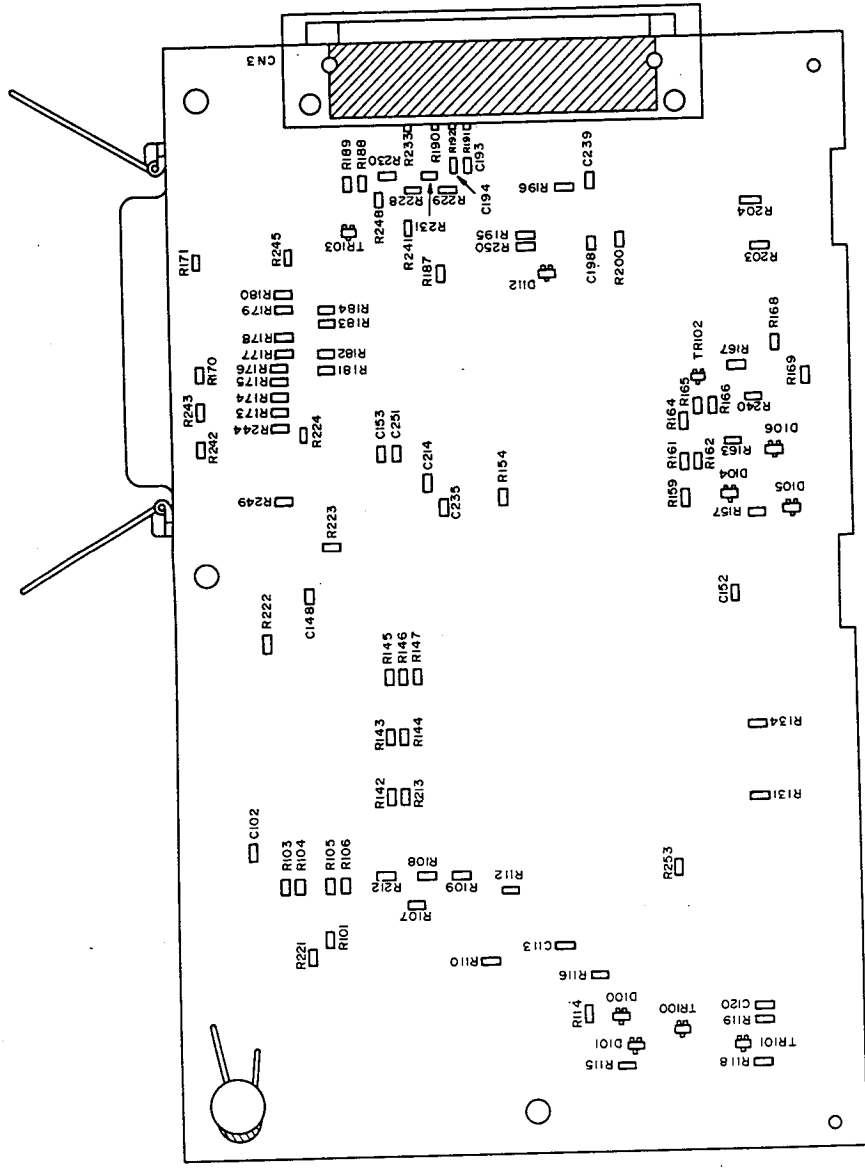
Different types ROMs are used for each G No. as listed below.

G No.	ROM No.	Part No.	Part No. label	Application	Remarks
G018	Q8	4YR4064-1166G1	64-1166	Up to Rev. 9	
G018	Q8	4YR4065-1153G1	65-1153	Rev. 10 and after	

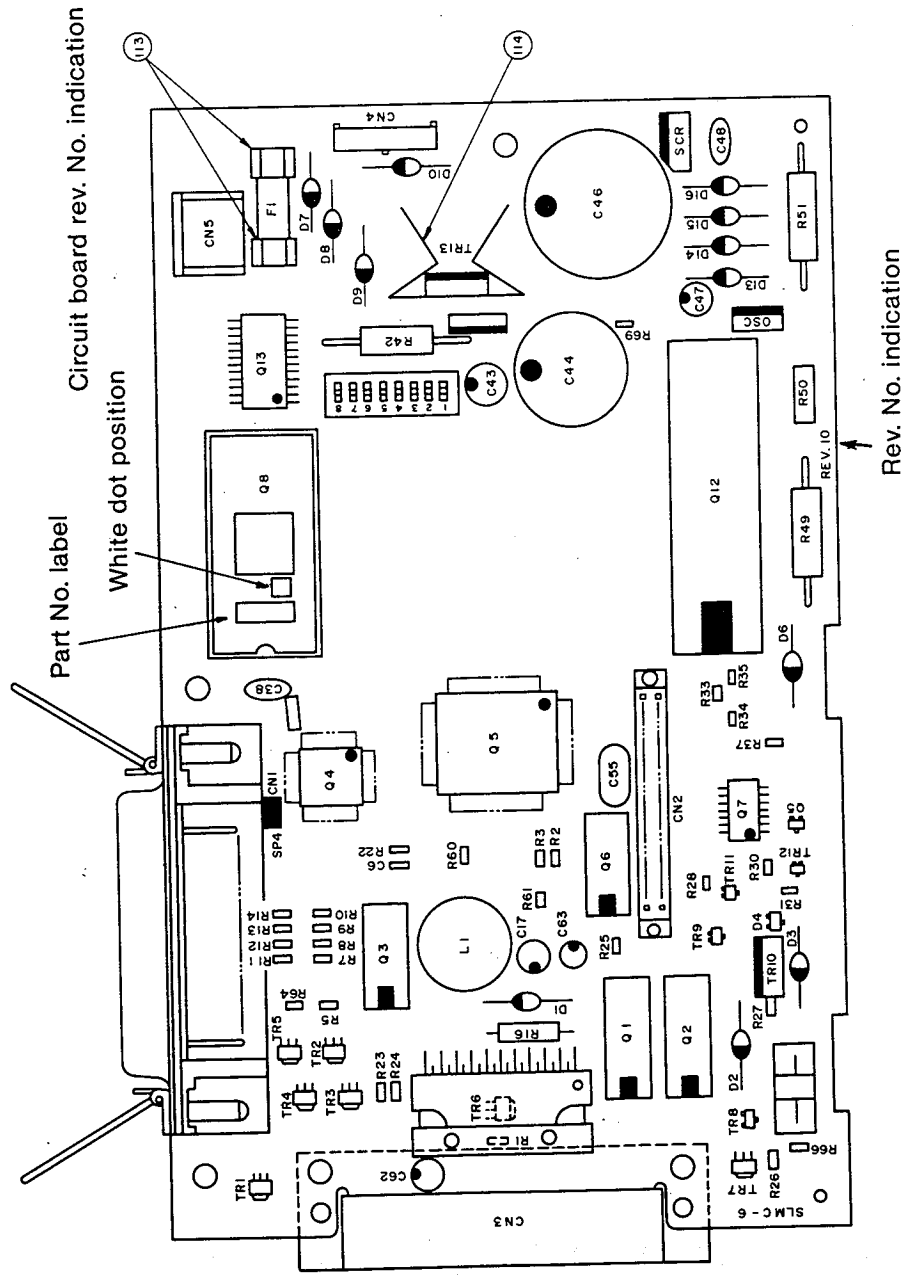


SLMC-6 Printed-Circuit Board (4YA4021-1001Gxxx)

Solder side



Parts side



G No.	ROM No.	Part No. label	Part No.	No. of white dots	Remarks
018	Q8	65-1153	4PR4065-1153G1	0	TTY

Circuit board rev. No.	Rev. No.
10	10

Figure 8 SLMC-6 Printed-Circuit Board (4YA4021-1001G018) 1/2

Figure 8 SLMC-6 Printed-Circuit Board (4YA4021-1001G018) (1/4) (REV.10)

Item No./Symbol	Part No.	Description	Qty	Remarks
D1	610A0221L0021	Diode	1	
D2, D6, D7 to D10	610A0021L0090	Diode	6	
D3, D13 to D16	610A0021L0089A	Diode	5	
D4, D100, D105	611A0003N0003	Diode	3	
D104	613A0291M0102H	Zener diode	1	
D101	613A0103M0182	Zener diode	1	
D5	613A0103M0152B	Zener diode	1	
D106	613A0103M0272B	Zener diode	1	
D112	613A0103M0292	Zener diode	1	
SCR	620A0022M0006E	Thyristor	1	
R221	323A5015J0104	RN resistor, 100 k $\Omega$	1	
R5	323A5015J0101	RN resistor, 100 $\Omega$	1	
R110	323A5015J0180	RN resistor, 18 $\Omega$	1	
R24	323A5015J0221	RN resistor, 220 $\Omega$	1	
R23, R66	323A5015J0431	RN resistor, 430 $\Omega$	2	
R162, R64, R203	323A5015J0511	RN resistor, 510 $\Omega$	3	
R27, R118, R119, R167, R189	323A5015J0122	RN resistor, 1.2 k $\Omega$	5	
R240, R163	323A5015J0202	RN resistor, 2 k $\Omega$	2	
R1 to R3, R26, R31, R60, R61, R115, R169	323A5015J0222	RN resistor, 2.2 k $\Omega$	9	
R28	323A5015J0561	RN resistor 560 $\Omega$	1	
R161	323A5015J0182	RN resistor 1.8 k $\Omega$	1	
R7 to R14, R166, R170, R177 to R180, R195, R196, R242, R243, R245, R250	323A5015J0332	RN resistor 3.3 k $\Omega$	20	
R233, R190 to R192	<del>3</del> 2 323A5015J0512	RN resistor 5.1 k $\Omega$	4	

Figure 8 SLMC-6 Printed-Circuit Board (4YA4021-1001G018) (2/4) (REV. 10)

Item No./Symbol	Part No.	Description	Qty	Remarks
R22, R249, R101, R103 to R109, R222, R112, R154, R253, R166, R168, R187, R223	323A5015J0562	RN resistor 5.6 k $\Omega$	18	
R212, R213, R131, R134, R68, R142 to R147, R173 to R176, R181 to R184, R204, R224, R228 to R231, R244, R248.	323A5015J0103	RN resistor, 10 k $\Omega$	27	
R200	323A5015J0183	RN resistor, 18 k $\Omega$	1	
R165	323A5015J0683	RN resistor, 68 k $\Omega$	1	
R114	323A5015J0513	RN resistor, 51 k $\Omega$	1	
R188 R241	323A5015J0472	RN resistor, 4.7 k $\Omega$	2	
R25	323A5015J0224	RN resistor, 220 k $\Omega$	1	
R30, R171,	323A5015J0102	RN resistor, 1 k $\Omega$	2	
R33, R34	332A5015F0242	RN resistor, 2.4 k $\Omega$	2	
R35	323A5015F0472	RN resistor, 4.7 k $\Omega$	1	
R37	323A5015F0752	RN resistor, 7.5 k $\Omega$	1	
R157	323A5015F0124	RN resistor, 120 k $\Omega$	1	
R16	324A1001J0518	RS resistor, 0.51 $\Omega$	1	
R50	321A1431J0202	RD resistor, 2 k $\Omega$	1	
R42	324A1121J0390	RS resistor, 39 $\Omega$	1	
R49	324A1121J0151	RS resistor, 150 $\Omega$	1	
R51	324A1121J0302	RS resistor, 3k $\Omega$	1	
C55	306A4100G2223	CQ capacitor, 100V, 0.022 $\mu$	1	
C6	303A3008K0561	CC capacitor, 50V, 560PF	1	
C193, C194, C239	303A6009K3102	CK capacitor, 50V, 1000PF	3	
C113, C198	303A6009K3103	CK capacitor, 50V, 10000PF	2	
C20, C102, C120, C148, C152, C153, C214 C235, C251,	303A6009Z3104	CK capacitor, 50V 0.1 $\mu$ F	8	

Figure 8 SLMC-6 Printed-Circuit Board (4YA4021-1001G018) (3/4) (REV. 10)

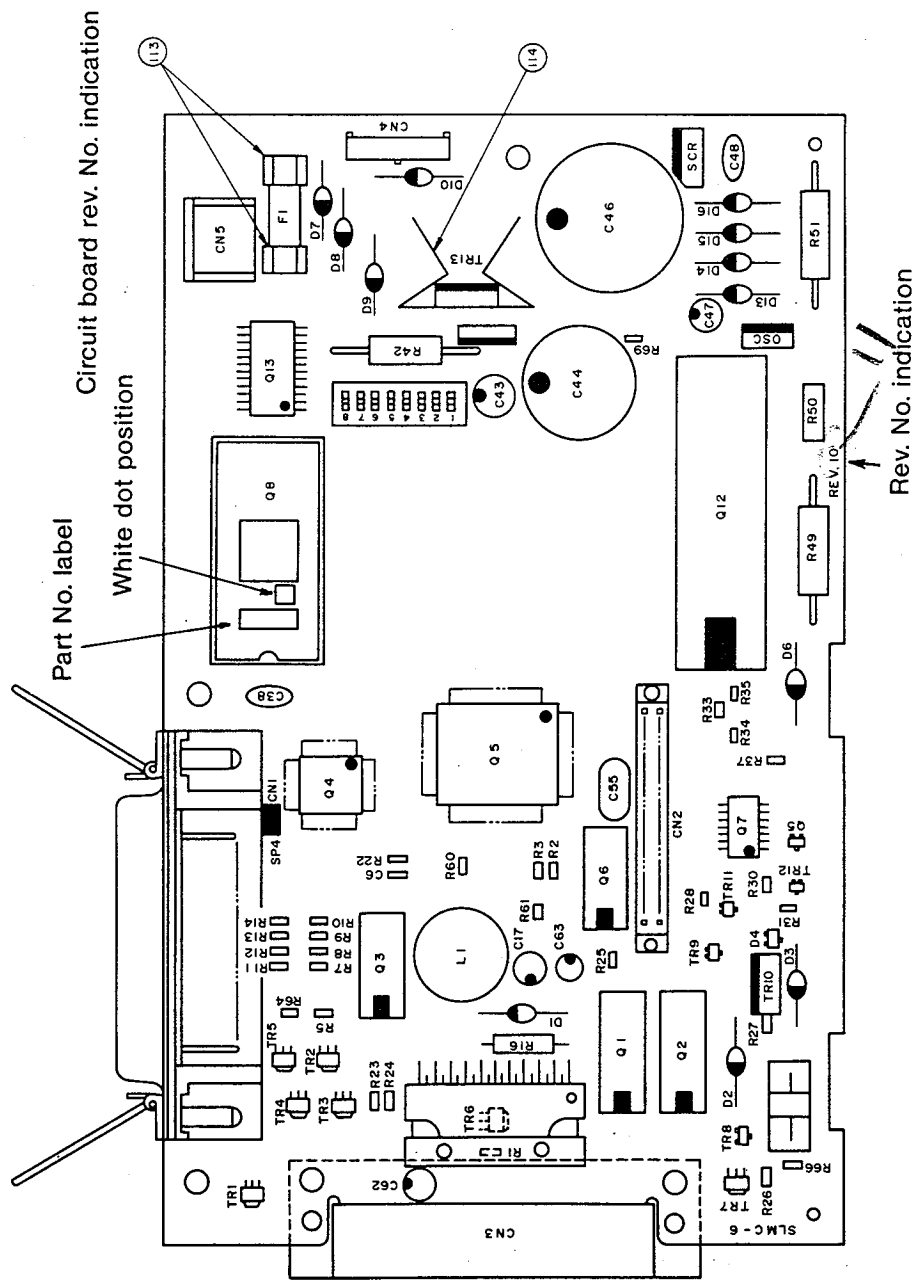
Item No./Symbol	Part No.	Description	Qty	Remarks
C47	304A1040A2109	CE capacitor, 100V, 1 $\mu$ F	1	
C17	304A1040H1100	CE capacitor, 50V, 10 $\mu$ F	1	
C43	304A1040A1101	CE capacitor, 10V, 100 $\mu$ F	1	
C44	304A1037C1822	CE capacitor, 16V, 8200 $\mu$ F	1	
C46	304A1108G1472	CE capacitor, 42V, 4700 $\mu$ F	1	
C38, C48	302A4027Z5103	CK capacitor, 250V, 10000PF	2	
	303A4117Z3224	CK capacitor, 50V, 0.22 $\mu$ F	1	
C63, C62	304A1046H1339	CE capacitor, 50V, 3.3 $\mu$ F	2	
Q12	853A2103M5004	P8051 — 004P	1	
Q6	700A0503M0005	74LS05P	1	
Q3	700A0003M0006	7406P	1	
Q1, Q2	760A4731M0401	LB1205	2	
Q4	702A4924F2001	MSH60201GS-K	1	
Q5	702A4924F0020	MSM61048GS-K	1	
Q13	804A0021N4301	HM6116FP-3	1	
Q7	720A0528N002	NJM2901M	1	
Q8	4YR4065-1153G1	ROM	1	
Q8	245A1155P0280	IC socket	1	
L1	353A3002K0102	Choke coil	1	
F1	540A2036M1152	Fuse 1.5 A	1	
R116	323A5011P0001	Chip jumper	1	
TR9	600A1003N0002	2SA1331/2SA1037K	1	
TR8, TR11, TR101, TR102	600A1003N0003	A1344/UN2111/DTA114K	4	
TR13	601A1130M0004	2SB761	1	
TR6	601A1032N0002	2SB1123	1	
TR3	601A1130M0001	2SB766A-Q/R	1	
TR12, TR100, TR103	602A1003N0002	2SC3361/2SC2412K	3	
TR1, TR2, TR4, TR5	603A1130N0003	2SD1511	4	



Figure 8 SLMC-6 Printed-Circuit Board (4YA4021-1001G018) (4/4) (REV. 10)

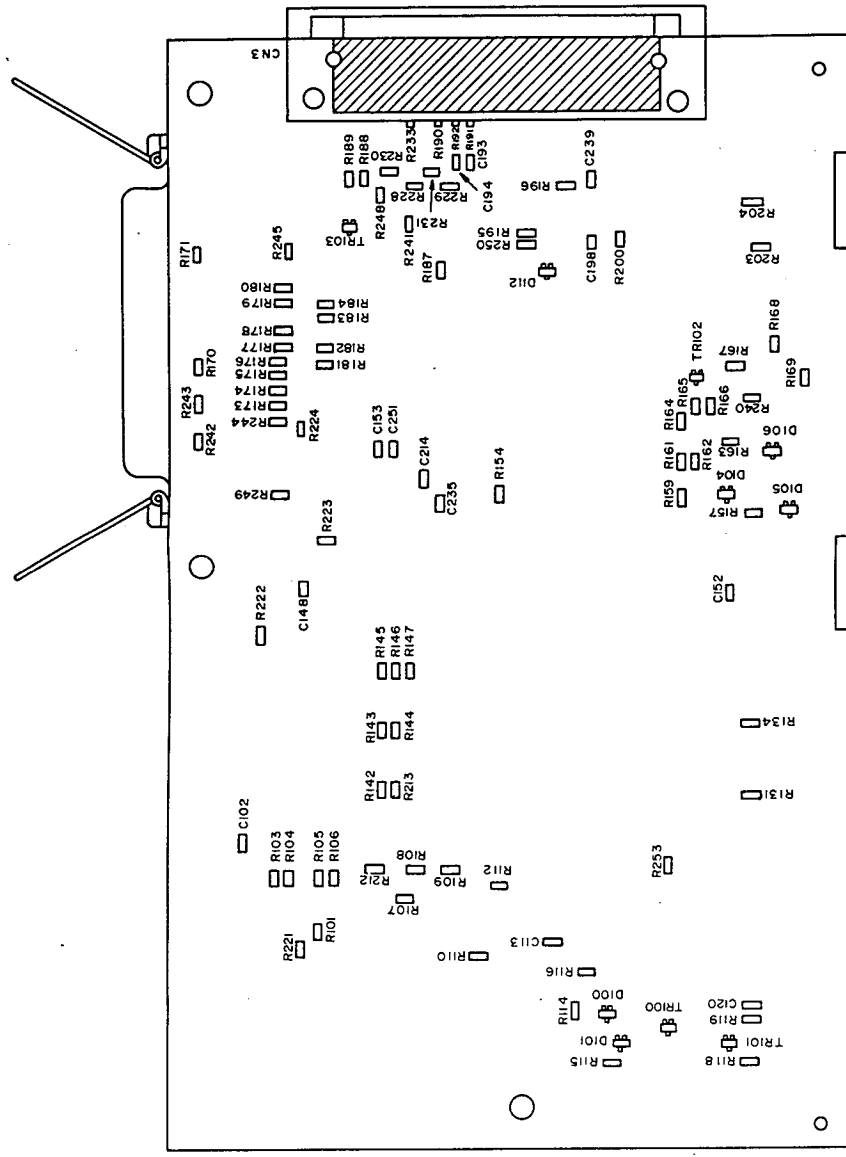
Item No./Symbol	Part No.	Description	Qty	Remarks
TR7	603A1032N0001	2SD1626	1	
TR10	601A1132M0003	2SB882	1	
DIP	4LP-3763-8	DIP switch	1	
MTDV	720A4021E0004	HA13412	1	
REG	720A1033M0001	LA5005	1	
CN1	220A1423P0361	Connector	1	
CN2	224A3376P0300	Connector	1	
CN3	224A1160P0400	Connector	1	
CN4	224A3462P0060	Connector	1	
SP4	225A3123P0020	FC connector	1	
CN5	221A1525P0080	Connector	1	
OSC	4LP-12186-1	11.059MHz oscillator	1	
PE	652A0127M0009	Photo-coupler	1	
113	4LP-7142	Fuse holder	2	
114	4PP4021-1015P001	Heat sink	1	
SP4	224A3182P0020	PC connector	1	

**Parts side**



G No.	ROM No.	Part No. label	Part No.	No. of white dots	Remarks
018	Q8	65-1153	4YR4065-1153G1	0	TTY

**Solder side**



Circuit board rev. No.	Rev. No.
11	11

Figure 8 SLMC-6 Printed-Circuit Board (4YA4021-1001G018) 1/2

Figure 8 SLMC-6 Printed-Circuit Board (4YA4021-1001G018) (1/4) (REV.11)

Item No./Symbol	Part No.	Description	Qty	Remarks
D1	610A0221L0021	Diode	1	
D2, D6, D7 to D10	610A0021L0090	Diode	6	
D3, D13 to D16	610A0021L0089A	Diode	5	
D4, D100, D105	611A0003N0003	Diode	3	
D104	613A0291M0102H	Zener diode	1	
D101	613A0103M0182	Zener diode	1	
D5	613A0103M0152B	Zener diode	1	
D106	613A0103M0272B	Zener diode	1	
D112	613A0103M0292	Zener diode	1	
SCR	620A0022M0006E	Thyristor	1	
R221	323A5015J0104	RN resistor, 100 k $\Omega$	1	
R5	323A5015J0101	RN resistor, 100 $\Omega$	1	
R110	323A5015J0180	RN resistor, 18 $\Omega$	1	
R24	323A5015J0221	RN resistor, 220 $\Omega$	1	
R23, R66	323A5015J0431	RN resistor, 430 $\Omega$	2	
R162, R64, R203	323A5015J0511	RN resistor, 510 $\Omega$	3	
R27, R118, R119, R167, R189	323A5015J0122	RN resistor, 1.2 k $\Omega$	5	
R240, R163	323A5015J0202	RN resistor, 2 k $\Omega$	2	
R1 to R3, R26, R31, R60, R61, R115, R169	323A5015J0222	RN resistor, 2.2 k $\Omega$	9	
R28	323A5015J0561	RN resistor 560 $\Omega$	1	
R161	323A5015J0182	RN resistor 1.8 k $\Omega$	1	
R7 to R14, R166, R170, R177 to R180, R195, R196, R242, R243, R245, R250	323A5015J0332	RN resistor 3.3 k $\Omega$	20	
R233, R190 to R192	343A5015J0512	RN resistor 5.1 k $\Omega$	4	

Figure 8 SLMC-6 Printed-Circuit Board (4YA4021-1001G018) (2/4) (REV. 11)

Item No./Symbol	Part No.	Description	Qty	Remarks
R22, R249, R103 to R109, R222, R112, R154, R253, R164, R168, R187, R223, R256	323A5015J0562	RN resistor 5.6 k $\Omega$	18	
R212, R213, R131, R134, R68, R142 to R147, R173 to R176, R181 to R184, R204, R224, R228 to R231, R244, R248	323A5015J0103	RN resistor, 10 k $\Omega$	27	
R200	323A5015J0183	RN resistor, 18 k $\Omega$	1	
R165	323A5015J0683	RN resistor, 68 k $\Omega$	1	
R114	323A5015J0513	RN resistor, 51 k $\Omega$	1	
R188 R241	323A5015J0472	RN resistor, 4.7 k $\Omega$	2	
R25	323A5015J0224	RN resistor, 220 k $\Omega$	1	
R30, R171	323A5015J0102	RN resistor, 1 k $\Omega$	2	
R33, R34	332A5015F0242	RN resistor, 2.4 k $\Omega$	2	
R35	323A5015F0472	RN resistor, 4.7 k $\Omega$	1	
R37	323A5015F0752	RN resistor, 7.5 k $\Omega$	1	
R157	323A5015F0124	RN resistor, 120 k $\Omega$	1	
R16	324A1001J0518	RS resistor, 0.51 $\Omega$	1	
R50	321A1431J0202	RD resistor, 2 k $\Omega$	1	
R42	324A1121J0390	RS resistor, 39 $\Omega$	1	
R49	324A1121J0151	RS resistor, 150 $\Omega$	1	
R51	324A1121J0302	RS resistor, 3 k $\Omega$	1	
C55	306A4100G2223	CQ capacitor, 100V, 0.022 $\mu$	1	
C6	303A3008K0561	CC capacitor, 50V, 560PF	1	
C193, C194, C239	303A6009K3102	CK capacitor, 50V, 1000PF	3	
C113, C198	303A6009K3103	CK capacitor, 50V, 10000PF	2	
C20, C102, C120, C148, C152, C153, C214, C235, C251, C199, C254, C255	303A6009Z3104	CK capacitor, 50V 0.1 $\mu$ F	11	

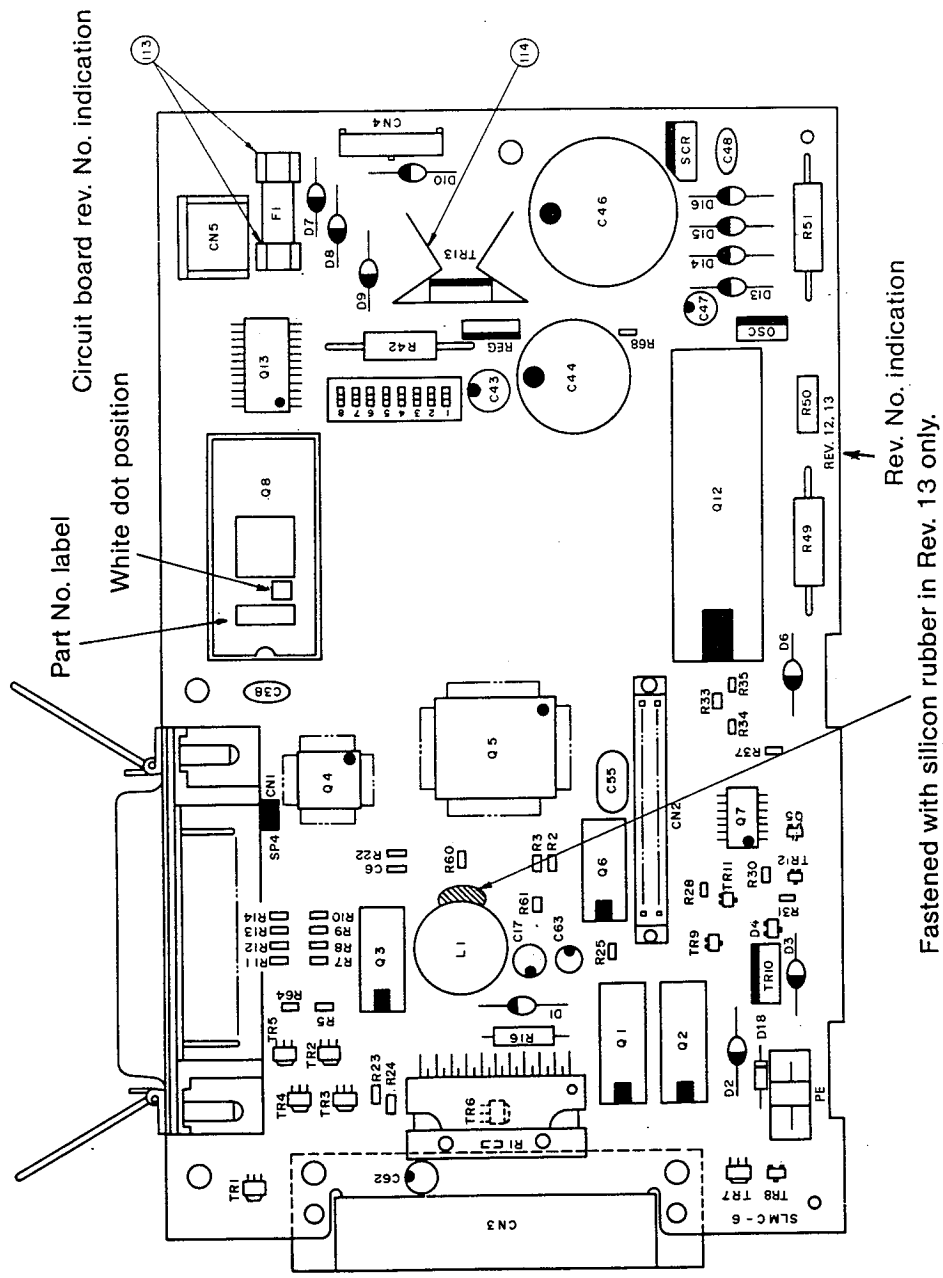
Figure 8 SLMC-6 Printed-Circuit Board (4YA4021-1001G018) (3/4) (REV. 11)

Item No./Symbol	Part No.	Description	Qty	Remarks
C47	304A1040A2109	CE capacitor, 100V, 1 $\mu$ F	1	
C17	304A1040H1100	CE capacitor, 50V, 10 $\mu$ F	1	
C43	304A1040A1101	CE capacitor, 10V, 100 $\mu$ F	1	
C44	304A1037C1822	CE capacitor, 16V, 8200 $\mu$ F	1	
C46	304A1108G1472	CE capacitor, 42V, 4700 $\mu$ F	1	
C38, C48	302A4027Z5103	CK capacitor, 250V, 10000PF	2	
C63, C62	304A1046H1339	CE capacitor, 50V, 3.3 $\mu$ F	2	
Q12	853A2103M5004	P8051 — 004P	1	
Q6	700A0503M0005	74LS05P	1	
Q3	700A0003M0006	7406P	1	
Q1, Q2	760A4731M0401	LB1205	2	
Q4	702A4924F2001	MSM60201GS-K	1	
Q5	702A4924F0020	MSM61048GS-K	1	
Q13	804A0021N4301	HM6116FP-3	1	
Q7	720A0528N002	NJM2901M	1	
Q8	4YR4065-1153G1	ROM	1	
Q8	245A1155P0280	IC socket	1	
L1	353A3002K0102	Choke coil	1	
F1	540A2036M1152	Fuse 1.5 A	1	
R116	323A5011P0001	Chip jumper	1	
TR9	600A1003N0002	2SA1331/2SA1037K	1	
TR8, TR11, TR101, TR102	600A1003N0003	A1344/UN2111/DTA114K	4	
TR13	601A1130M0004	2SB761	1	
TR6	601A1032N0002	2SB1123	1	
TR3	601A1130M0001	2SB766A-Q/R	1	
TR12, TR100, TR103	602A1003N0002	2SC3361/2SC2412K	3	
TR1, TR2, TR4, TR5	603A1130N0003	2SD1511	4	

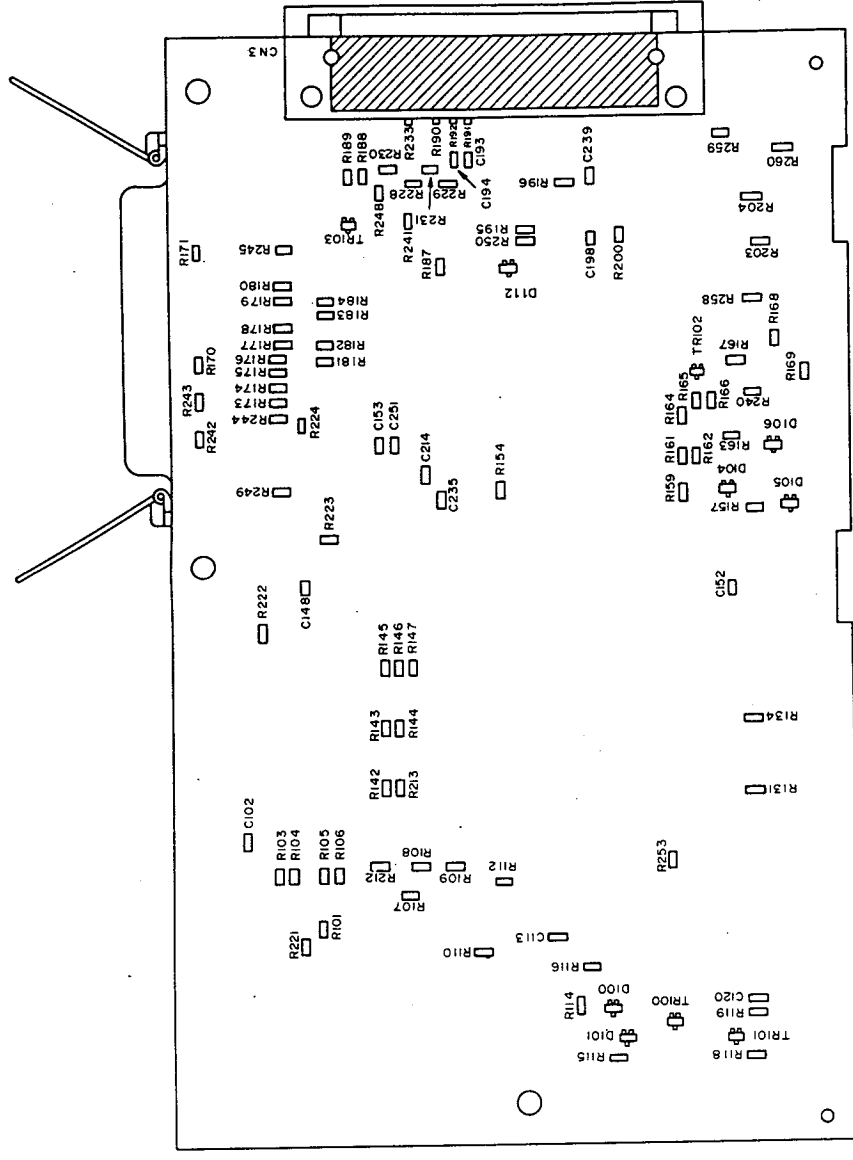
**Figure 8 SLMC-6 Printed-Circuit Board (4YA4021-1001G018) (4/4) (REV. 11)**

Item No./Symbol	Part No.	Description	Qty	Remarks
TR7	603A1032N0001	2SD1626	1	
TR10	601A1132M0003	2SB882	1	
DIP	4LP-3763-8	DIP switch	1	
MTDV	720A4021E0004	HA13412	1	
REG	720A1033M0001	LA5005	1	
CN1	220A1423P0361	Connector	1	
CN2	224A3376P0300	Connector	1	
CN3	224A1160P0400	Connector	1	
CN4	224A3462P0060	Connector	1	
SP4	225A3123P0020	FC connector	1	
CN5	221A1525P0080	Connector	1	
OSC	4LP-12186-1	11.059MHz oscillator	1	
PE	652A0127M0009	Photo-coupler	1	
113	4LP-7142	Fuse holder	2	
114	4PP4021-1015P001	Heat sink	1	
SP4	224A3182P0020	PC connector	1	

**Parts side**



**Solder side**



Different types ROMs are used for each G No. as listed below.

G No.	ROM No.	Part No. label	Part No.	Rev. No. indicated on the seal	Remarks
018	Q8	65-1153	4YR4065-1153G1	2	TTY ODA
012	Q8	65-1253	4YR4065-1253G1	2	ML182 ODG standard
013	Q8	65-1060	4YR4065-1060G1	7	ML182 ODG IBM

Circuit board rev. No.	Rev. No.
12, 13,	12, 13,

Figure 8 SLMC-6 Printed-Circuit Board (4YA4021-1001G018) 1/2

Figure 8 SLMC-6 Printed-Circuit Board (4YA4021-1001G018) (1/4) (REV. 12, 13)

Item No./Symbol	Part No.	Description	Qty	Remarks
D1	610A0221L0021	Diode	1	
D2, D6, D7 to D10	610A0021L0090	Diode	6	
D3, D13 to D16	610A0021L0089A	Diode	5	
D4, D100, D105	611A0003N0003	Diode	3	
D104	613A0291M0102H	Zener diode	1	
D101	613A0103M0182	Zener diode	1	
D5	613A0103M0152B	Zener diode	1	
D106	613A0103M0272B	Zener diode	1	
D112	613A0103M0292	Zener diode	1	
D18	613A1231L0182	Diode	1	
SCR	620A0022M0006E	Thyristor	1	
R221	323A5015J0104	RN resistor, 100 k $\Omega$	1	
R5	323A5015J0101	RN resistor, 100 $\Omega$	1	
R110	323A5015J0180	RN resistor, 18 $\Omega$	1	
R24	323A5015J0221	RN resistor, 220 $\Omega$	1	
R23, R260	323A5015J0431	RN resistor, 430 $\Omega$	2	
R162, R64, R203	323A5015J0511	RN resistor, 510 $\Omega$	3	
R118, R119, R167, R189, R258	323A5015J0122	RN resistor, 1.2 k $\Omega$	5	
R240, R163	323A5015J0202	RN resistor, 2 k $\Omega$	2	
R1 to R3, R31, R60, R61, R115, R169, R259	323A5015J0222	RN resistor, 2.2 k $\Omega$	9	
R28	323A5015J0561	RN resistor 560 $\Omega$	1	
R161	323A5015J0182	RN resistor 1.8 k $\Omega$	1	
R7 to R14, R166, R170, R177 to R180, R195, R196, R242, R243, R245, R250	323A5015J0332	RN resistor 3.3 k $\Omega$	20	
R233, R190 to R192	343A5015J0512	RN resistor 5.1 k $\Omega$	4	



Figure 8 SLMC-6 Printed-Circuit Board (4YA4021-1001G018) (2/4) (REV. 12, 13)

Item No./Symbol	Part No.	Description	Qty	Remarks.
R22, R249, R103 to R109, R222, R112, R154, R253, R164, R168, R187, R223, R256	323A5015J0562	RN resistor, 5.6 k $\Omega$	18	
R212, R213, R131, R134, R68, R142 to R147, R173 to R176, R181 to R184, R204, R224, R228 to R231, R244, R248	323A5015J0103	RN resistor, 10 k $\Omega$	27	
R200	323A5015J0183	RN resistor, 18 k $\Omega$	1	
R165	323A5015J0683	RN resistor, 68 k $\Omega$	1	
R114	323A5015J0513	RN resistor, 51 k $\Omega$	1	
R188 R241	323A5015J0472	RN resistor, 4.7 k $\Omega$	2	
R25	323A5015J0224	RN resistor, 220 k $\Omega$	1	
R30, R171,	323A5015J0102	RN resistor, 1 k $\Omega$	2	
R33, R34	332A5015F0242	RN resistor, 2.4 k $\Omega$	2	
R35	323A5015F0472	RN resistor, 4.7 k $\Omega$	1	
R37	323A5015F0752	RN resistor, 7.5 k $\Omega$	1	
R157	323A5015F0124	RN resistor, 120 k $\Omega$	1	
R16	324A1001J0518	RS resistor, 0.51 $\Omega$	1	
R50	321A1431J0202	RD resistor, 2 k $\Omega$	1	
R42	324A1121J0390	RS resistor, 39 $\Omega$	1	
R49	324A1121J0151	RS resistor, 150 $\Omega$	1	
R51	324A1121J0302	RS resistor, 3 k $\Omega$	1	
C55	306A4100G2223	CQ capacitor, 100V, 0.022 $\mu$	1	
C6	303A3008K0561	CC capacitor, 50V, 560PF	1	
C193, C194, C239	303A6009K3102	CK capacitor, 50V, 1000PF	3	
C113, C198	303A6009K3103	CK capacitor, 50V, 10000PF	2	
C20, C102, C120, C148, C152, C153, C214, C235, C251, C199, C254, C255	303A6009Z3104	CK capacitor, 50V 0.1 $\mu$ F	11	

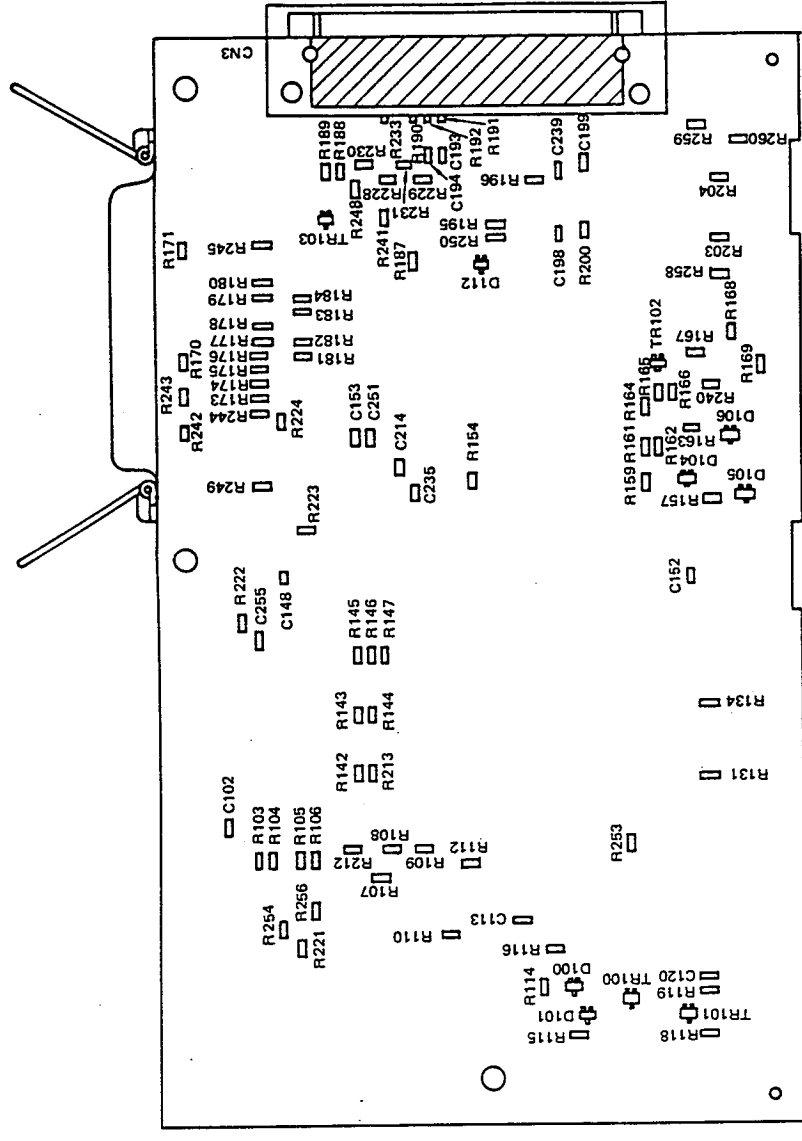
Figure 8 SLMC-6 Printed-Circuit Board (4YA4021-1001G018) (3/4) (REV. 12, 13)

Item No./Symbol	Part No.	Description	Qty	Remarks
C47	304A1040A2109	CE capacitor, 100V, 1 $\mu$ F	1	
C17	304A1040H1100	CE capacitor, 50V, 10 $\mu$ F	1	
C43	304A1040A1101	CE capacitor, 10V, 100 $\mu$ F	1	
C44	304A1037C1822	CE capacitor, 16V, 8200 $\mu$ F	1	
C46	304A1108G1472	CE capacitor, 42V, 4700 $\mu$ F	1	
C38, C48	302A4027Z5103	CK capacitor, 250V, 10000PF	2	
C63, C62	304A1046H1339	CE capacitor, 50V, 3.3 $\mu$ F	2	
Q12	853A2103M5004	P8051 — 004P	1	
Q6	700A0503M0005	74LS05P	1	
Q3	700A0003M0006	7406P	1	
Q1, Q2	760A4731M0401	LB1205	2	
Q4	702A4924F2001	MSM60201GS-K	1	
Q5	702A4924F0020	MSM61048GS-K	1	
Q13	804A0021N4301	HM6116FP-3	1	
Q7	720A0528N002	NJM2901M	1	
Q8	4YR4065-1153G1	ROM	1	
Q8	245A1155P0280	IC socket	1	
L1	353A3002K0102	Choke coil	1	
F1	540A2036M1152	Fuse 1.5 A	1	
R116	323A5011P0001	Chip jumper	1	
TR9	600A1003N0002	2SA1331/2SA1037K	1	
TR8, TR11, TR101, TR102	600A1003N0003	A1344/UN2111/DTA114K	4	
TR13	601A1130M0004	2SB761	1	
TR6	601A1032N0002	2SB1123	1	
TR3	601A1130M0001	2SB766A-Q/R	1	
TR12, TR100, TR103	602A1003N0002	2SC3361/2SC2412K	3	
TR1, TR2, TR4, TR5	603A1130N0003	2SD1511	4	

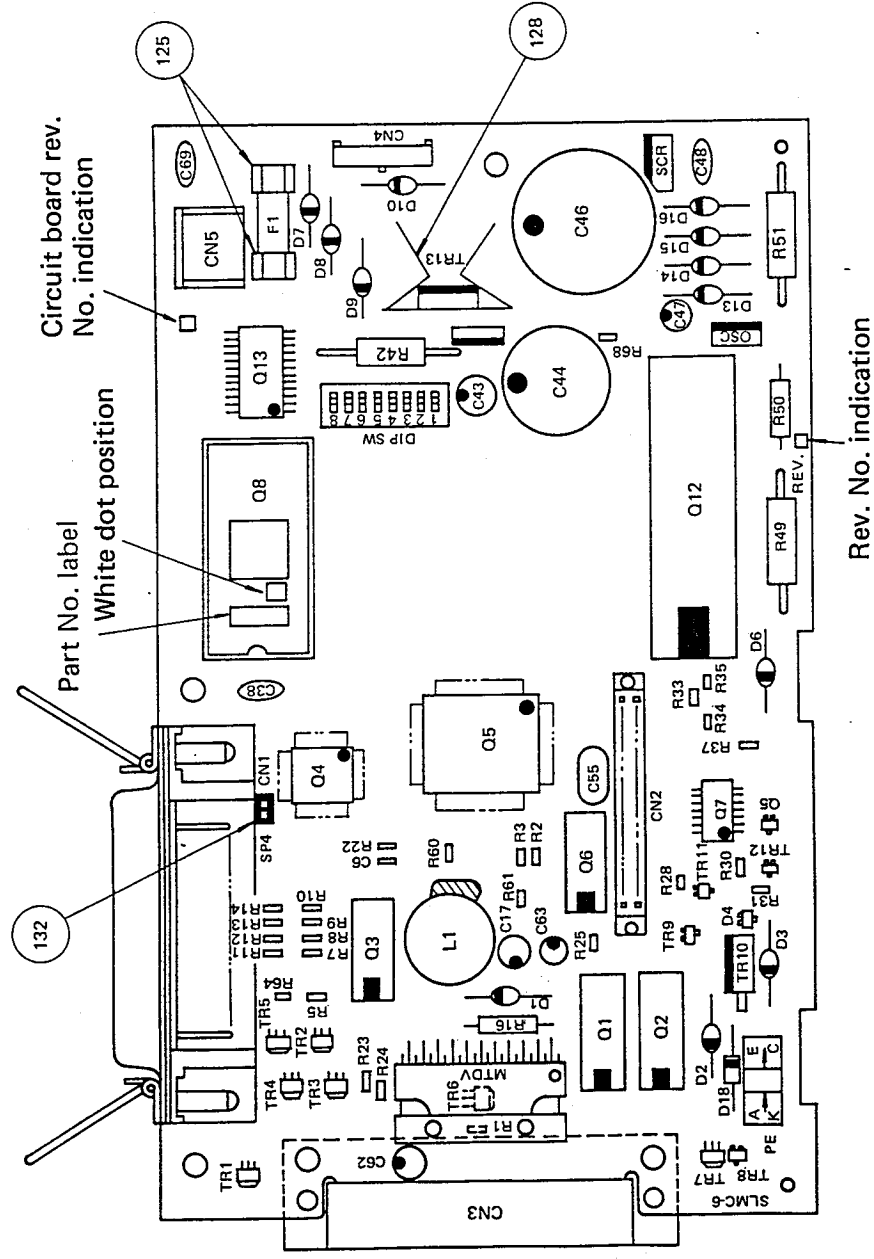
Figure 8 SLMC-6 Printed-Circuit Board (4YA4021-1001G018) (4/4) (REV. 12, 13)

Item No./Symbol	Part No.	Description	Qty	Remarks
TR7	603A1032N0001	2SD1626	1	
TR10	601A1132M0003	2SB882	1	
DIP	4LP-3763-8	DIP switch	1	
MTDV	720A4021E0004	HA13412	1	
REG	720A1033M0001	LA5005	1	
CN1	220A1423P0361	Connector	1	
CN2	224A3376P0300	Connector	1	
CN3	224A1160P0400	Connector	1	
CN4	224A3462P0060	Connector	1	
SP4	225A3123P0020	FC connector	1	
CN5	221A1525P0080	Connector	1	
OSC	4LP-12186-1	11.059MHz oscillator	1	
PE	652A0127M0009	Photo-coupler	1	
113	4LP-7142	Fuse holder	2	
114	4PP4021-1015P001	Heat sink	1	
SP4	224A3182P0020	PC connector	1	

Solder side



Parts side



Circuit board rev. No.	Rev. No.
14	14

Figure 8(1/6) SLMC-6 Printed-Circuit Board (4YA4021-1001XXX)

Figure 8 (2/6) SLMC-6 Printed-Circuit Board (4YA4021-1001GXXX) (REV.14)

Item No./Symbol	Part No.	Description	Qty	Remarks
D1	610A0221L0021	Rectifying diode, DFA1A1	1	
D2, D6, D7 to D10	610A0021L0090	Rectifying diode, DSA1A2	6	
D3, D13 to D16	610A0021L0089A	Rectifying diode, DSA1C1	5	
D4, D100, D105	611A0003N0003	Signal diode (CP) MA151WK/DAN202K	3	
D104	613A0291M0102H	Zener diode (CP) MA3047-H	1	
D101	613A0103M0182	Zener diode (CP) MA3100/RD10M-B	1	
D5	613A0103M0152B	Zener diode (CP) MA3075-M/RD7.5M-B2	1	
D106	613A0103M0272B	Zener diode (CP) MA3240-M/RD24-B2	1	
D112	613A0103M0292	Zener diode (CP) MA3300/RD30M-B	1	
D18	613A2232L0182	Zener diode, RD10F-B	1	
SCR	620A0022M0006E	Gate thyristor OFF CR3CM-8	1	
R5	323A5015J0101	RN resistor (CP) RM73B2B101J	1	
R110	323A5015J0180	RN resistor (CP) RM73B2B180J	1	
R24	323A5015J0221	RN resistor (CP) RM73B2B221J	1	
R23, R260	323A5015J0431	RN resistor (CP) RM73B2B431J	2	
R64, R162, R203	323A5015J0511	RN resistor (CP) RM73B2B511J	3	
R118, R119, R167, R189, R258	323A5015J0122	RN resistor (CP) RM73B2B122J	5	
R163, R240	323A5015J0202	RN resistor (CP) RM73B2B202J	2	
R1 to R3, R31, R60, R61, R115, R169, R259	323A5015J0222	RN resistor (CP) RM73B2B222J	9	
R161	323A5015J0182	RN resistor (CP) RM73B2B182J	1	

Figure 8 (3/6) SLMC-6 Printed-Circuit Board (4YA4021-1001GXXX) (REV.14)

Item No./Symbol	Part No.	Description	Qty	Remarks
R7 to R14, R166, R170, R177 to R180, R195, R196, R242, R243, R245, R250	323A5015J0332	RN resistor (CP) RM73B2B332J	20	
R188, R241	323A5015J0472	RN resistor (CP) RM73B2B472J	2	
R190 to R192, R233	323A5015J0512	RN resistor (CP) RM73B2B512J	4	
R22, R103 to R109, R112, R154, R164, R168, R187, R222, R223, R249, R253, R256	323A5015J0562	RN resistor (CP) RM73B2B562J	18	
R68, R131, R134, R142 to R147, R173 to R176, R181 to R184, R204, R212, R213, R224, R228 to R231, R244, R248	323A5015J0103	RN resistor (CP) RM73B2B103J	27	
R200	323A5015J0183	RN resistor (CP) RM73B2B183J	1	
R165	323A5015J0683	RN resistor (CP) RM73B2B683	1	
R28	323A5015J0561	RN resistor (CP) RM73B2B561J	1	
R114	323A5015J0513	RN resistor (CP) RM73B2B513J	1	
R25	323A5015J0224	RN resistor (CP) RM73B2B224J	1	
R30, R171	323A5015J0102	RN resistor (CP) RM73B2B102J	2	
R159	323A5015J0682	RN resistor (CP) RM73B2B682J	1	
R33, R34	323A5015F0242	RN resistor (CP) RM73B2B242F	1	
R35	323A5015F0472	RN resistor (CP) RM73B2B472F	1	
R37	323A5015F0752	RN resistor (CP) RM73B2B752F	1	
R157	323A5015F0124	RN resistor (CP) RM73B2B124F	1	

Figure 8 (4/6) SLMC-6 Printed-Circuit Board (4YA4021-1001GXXX) (REV.14)

Item No./Symbol	Part No.	Description	Qty	Remarks
R16	324A1001J0518	RS resistor MSF1/2B 0.51ΩJ	1	
R50	321A1431J0202	RD resistor RD1/2Y 2 kΩJ	1	
R42	324A1121J0390	RS resistor MOR2B 39ΩJ	1	
R49	324A1121J0151	RS resistor MOR2B 150ΩJ	1	
R51	324A1121J0302	RS resistor MOR2B 3.0ΩJ	1	
R221	323A5015J0104	RN resistor (CP) RM73B2B104J	1	
C6	303A3008K0561	CC capacitor (CP) CC3216SL1H561J	1	
C193, C194, C239	303A6009K3102	CK capacitor (CP) CK3216B1H102K	3	
C113, C198	303A6009K3103	CK capacitor (CP) CK3216B1H103K	2	
C102, C120, C148, C152, C153, C199, C214, C235, C251, C254, C255	303A6009Z3104	CK capacitor (CP) CK3216F1H104Z	11	
C47	304A1040A2109	CE capacitor 1.0μ CESHM2A109 100 V	1	
C17	304A1040H1100	CE capacitor 10μ CESHM1H100 50 V	1	
C43	304A1040A1101	CE capacitor 100μ CESHM1A101 10 V	1	
C44	304A1037C1822	CE capacitor 8200μ 16VBSN-8200 16 V	1	
C46	304A1108G1472	CE capacitor 4700μ 42VPSN-4700(M) 42 V	1	
C38, C48, C69	302A4027Z5103	CK capacitor 10000P TCK45F2E103ZYA 250 V	3	
C62, C63	304A1046H1339	CE capacitor 3.3μ 50MS5-3.3M 50 V	2	

Figure 8 (5/6) SLMC-6 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.14)

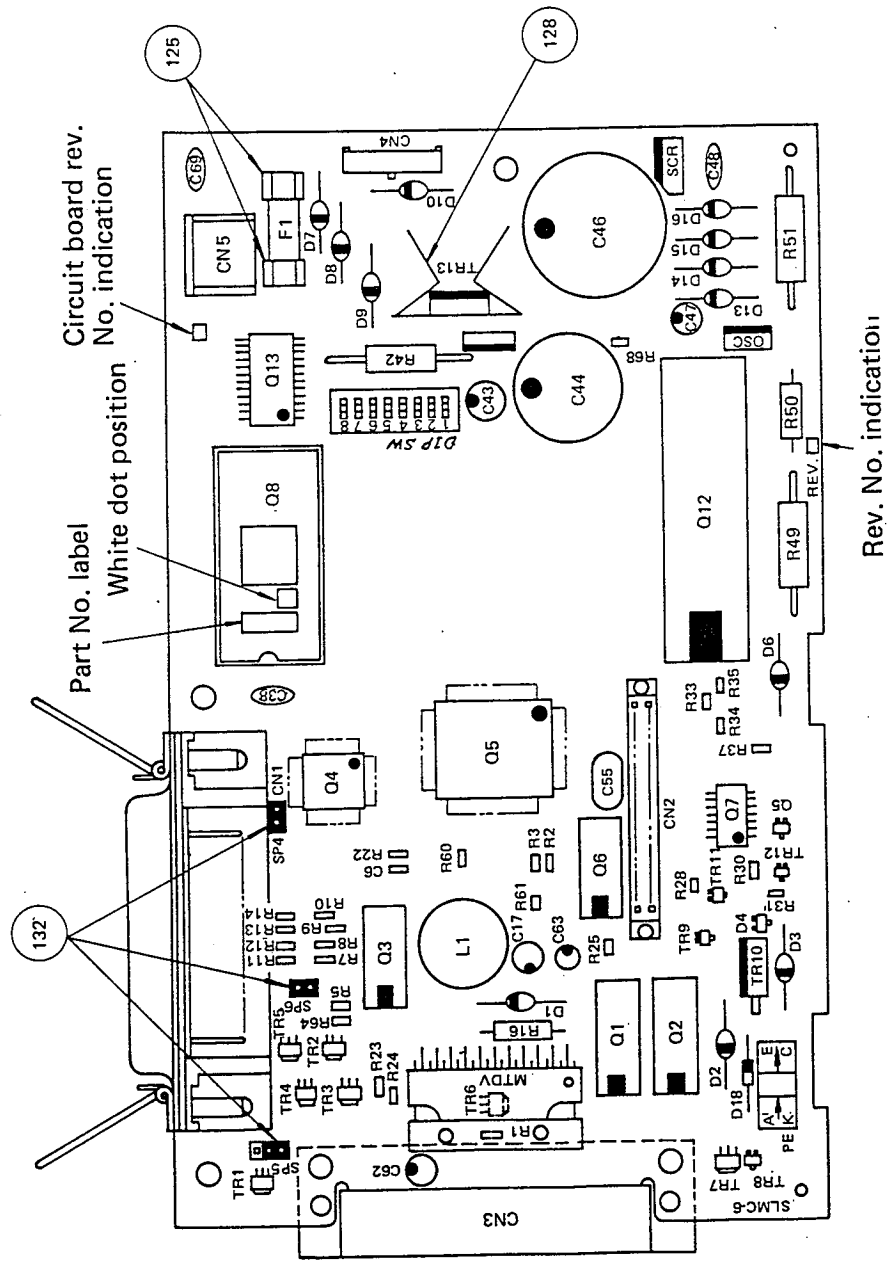
Item No./Symbol	Part No.	Description	Qty	Remarks
C55	306A4100G2223	CQ capacitor 0.022 $\mu$ CQM-92PP2A223G 100 V	1	
Q12	853A2103M5004	MOS-CPU (ROM) 8051-004P	1	
Q6	700A0503M0005	BIP digital IC, 74LS05P	1	
Q3	700A0003M0006	BIP digital IC, 7406P	1	
Q1, Q2	760A4731M0401	Transistor array, LB1205	2	
Q4	702A4924F2001	MOS digital IC (FP) MSM60201GS-VK	1	
Q5	702A4924F0020	MOS digital IC (FP) MSM61048GS-VK	1	
Q13	804A0021N4301	MOS-S-RAM (SO) HM6116FP-3	1	
Q7	720A0528N0002	BIP linear type IC (SO) NJM2901M	1	
Q8	245A1155P0280	IC socket, DL2-28A-05	1	
R116	323A5011P0001	Chip jumper (CP) MCR18-JPW	1	
F1	540A2036M1152	Fuse, GGS1-1/2	1	
L1	353A3002K0102	H coil OL1614-102KR70(B)	1	
TR9	600A1003N0002	PNP-HF-TR (CP) 2SA1331/2SA1037K	1	
TR8, TR11, TR101, TR102	600A1003N0003	PNP-HF-TR (CP) A1344/UN2111/DTA114K	4	
TR13	601A1130M0004	PNP-LF-TR 2SB761	1	
TR6	601A1032N0002	PNP-LF-TR (CP) 2SB1123	1	
TR3	601A1130M0001	PNP-LF-TR (CP) 2SB766A-Q/R	1	
TR12, TR100, TR103	602A1003N0002	NPN-HF-TR (CP) 2SC3361/2SC2412K	3	
TR1, TR2, TR4, TR5	603A1130N0003	NPN-LF-TR (CP) 2SD1511	4	
TR7	603A1032N0001	NPN-LF-TR (CP), 2SD1626	1	
TR10	601A1132N0003	PNP-LF-TR, 2SB882	1	



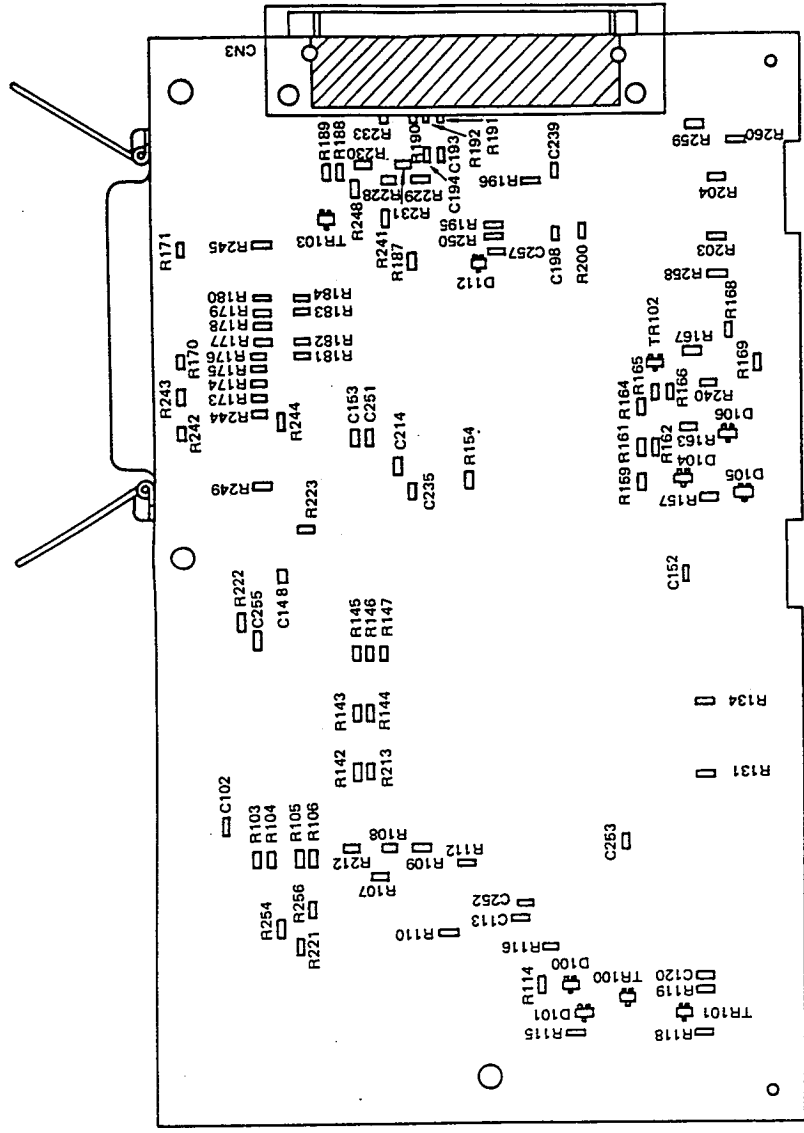
Figure 8 (6/6) SLMC-6 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.14)

Item No./Symbol	Part No.	Description	Qty	Remarks
MTDV	720A4021E0004	BIP linear type IC, HA13412	1	
REG	720A1033M0001	BIP linear type IC, LA5005	1	
SP4	225A3123P0020	FC connector, FFC-2AMEP1	1	
DIP	4LP-3763-8	DIP switch, KSDOS	1	
CN1	220A1423P0361	Square connector 57LE-40360-7700 (D53)	1	
CN2	224A3376P0300	PC connector 00-9072-230-101-883	1	
CN3	224A1160P0400	PC connector PD40A2XO	1	
CN4	224A3462P0060	PC connector 172681-6	1	
CN5	221A1525P0080	Circle connector TCS7580-01-101	1	
OSC	4LP-12186-1	Oscillator FAR-C4SB11059000-M02	1	
PE	652A0127M0009	Photo coupler, EE-SJ5-B	1	
125	4LP-7142	Fuse holder, FP-213	2	
128	4PP4021-1015P001	Heat sink	1	
132	224A3182P0020	PC connector, DIC-252	1	

Parts side



Solder side



Circuit board rev. No.	15
Rev. No.	15

Figure 8(1/7) SLMC-6 Printed-Circuit Board (4YA4021-1001XXX)

Figure 8 (2/7) SLMC-6 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.15)

Item No./Symbol	Part No.	Description	Qty	Remarks
D1	610A0221L0021	Rectifying diode DFA1A1	1	
D2, D6, D7 to D10	610A0021L0090	Rectifying diode DSA1A2	6	
D3, D13 to D16	610A0021L0089A	Rectifying diode DSA1C1	5	
D4, D100, D105	611A0003N0003	Signal diode (CP) MA151WK/DAN202K	3	
D104	613A0291M0102H	Zener diode (CP) MA3047-H	1	
D101	613A0103M0182	Zener diode (CP) MA3100/RD10M-B	1	
D5	613A0103M0152B	Zener diode (CP) MA3075-M/RD7.5M-B2	1	
D106	613A0103M0272B	Zener diode (CP) MA3240-M/RD24M-B2	1	
D112	613A0103M0292	Zener diode (CP) MA3300/RD30M-B	1	
D18	613A2232L0182	Zener diode (CP) RD10F-B	1	
SCR	620A0022M0006E	Gate thyristor OFF CR3CM-8	1	
R5	323A5015J0101	RN resistor (CP) RM73B2B101J	1	
R110	323A5015J0180	RN resistor (CP) RM73B2B180J	1	
R24	323A5015J0221	RN resistor (CP) RM73B2B221J	1	
R23, R260	323A5015J0431	RN resistor (CP) RM73B2B431J	2	
R64, R162, R203	323A5015J0511	RN resistor (CP) RM73B2B511J	3	
R118, R119, R167, R189, R253	323A5015J0122	RN resistor (CP) RM73B2B122J	5	
R163, R240	323A5015J0202	RN resistor (CP) RM73B2B202J	2	

Figure 8 (3/7) SLMC-6 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.15)

Item No./Symbol	Part No.	Description	Qty	Remarks
R1 to R3, R31, R60, R61, R115, R169, R259	323A5015J0222	RN resistor (CP) RM73B2B222J	9	
R161	323A5015J0182	RN resistor (CP) RM73B2B182J	1	
R7 to R14, R166, R170, R177 to R180, R195, R196, R242, R243, R245, R250	323A5015J0332	RN resistor (CP) RM73B2B332J	20	
R188, R241	323A5015J0472	RN resistor (CP) RM73B2B472J	2	
R190 to R192, R233	323A5015J0512	RN resistor (CP) RM73B2B512J	4	
R22, R103 to R109, R112, R154, R164, R168, R187, R222, R223, R249, R253, R256	323A5015J0562	RN resistor (CP) RM73B2B562J	18	
R66, R131, R134, R142 to R147, R173 to R176, R181 to R184, R204, R212, R213, R224, R228 to R231, R244, R248	323A5015J0103	RN resistor (CP) RM73B2B103J	27	
R200	323A5015J0183	RN resistor (CP) RM73B2B183J	1	
R165	323A5015J0683	RN resistor (CP) RM73B2B683J	1	
R28	323A5015J0561	RN resistor (CP) RM73B2B561J	1	
R114	323A5015J0513	RN resistor (CP) RM73B2B513J	1	
R25	323A5015J0224	RN resistor (CP) RM73B2B224J	1	
R30, R171	323A5015J0102	RN resistor (CP) RM73B2B102J	2	

Figure 8 (4/7) SLMC-6 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.15)

Item No./Symbol	Part No.	Description	Qty	Remarks
R159	323A5015J0682	RN resistor (CP) RM73B2B682J	1	
R33, R34	323A5015F0242	RN resistor (CP) RM73B2B242F	2	
R35	323A5015F0472	RN resistor (CP) RM73B2B472F	1	
R37	323A5015F0752	RN resistor (CP) RM73B2B752F	1	
R157	323A5015F0124	RN resistor (CP) RM73B2B124F	1	
R16	324A1001J0518	RS resistor MSF1/2B 0.51ΩJ	1	
R50	321A1431J0202	RD resistor RD1/2Y 2 kΩJ	1	
R42	324A1121J0390	RS resistor MOR2B 39ΩJ	1	
R49	324A1121J0151	RS resistor MOR2B 150ΩJ	1	
R51	324A1121J0302	RS resistor MOR2B 3.0kΩJ	1	
R221	323A5015J0104	RN resistor (CP) RM73B2B104J	1	
C6	303A3008K0561	CC capacitor (CP) CC3216SL1H561J	1	
C193, C194, C239	303A6009K3102	CK capacitor (CP) CK3216B1H102K	3	
C113, C198	303A6009K3103	CK capacitor (CP) CK3216B1H103K	2	
C102, C120, C148, C152, C153, C214, C235, C251, C254, C255,	303A6009Z3104	CK capacitor (CP) CK3216F1H104Z	10	
C47	304A1040A2109	CE capacitor 1.0μ CESHM2A109 100 V	1	
C17	304A1040H1100	CE capacitor 10μ CESHM1H100 50 V	1	
C257	303A3008K0100	CC capacitor (CP) CC3216SL1H100D	1	
C252	303A3008K0221	CC capacitor (CP) CC3216SL1H221J	1	

Figure 8 (5/7) SLMC-6 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.15)

Item No./Symbol	Part No.	Description	Qty	Remarks
C43	304A1040A1101	CE capacitor 100 $\mu$ CESHM1A101 10 V	1	
C44	304A1037C1822	CE capacitor 8200 $\mu$ 16VBSN-8200 16 V	1	
C46	304A1108G1472	CE capacitor 4700 $\mu$ 42VPSN-4700(M) 42 V	1	
C38, C48, C69	302A4027Z5103	CK capacitor 10000P TCK45F2E103ZYA 250 V	3	
C62, C63	304A1046H1339	CE capacitor 3.3 $\mu$ 50MS5-3.3M 50 V	2	
C55	306A4100G2223	CQ capacitor 0.022 $\mu$ CQM-92PP2A223G 100 V	1	
Q12	853A2103M5004	MOS-CPU (ROM) 8051-004P	1	
Q6	700A0503M0005	BIP digital IC 74LS05P	1	
Q3	700A0003M0006	BIP digital IC 7406P	1	
Q1, Q2	760A4731M0401	Transistor array LB1205	2	
Q4	702A4924F2001	MOS digital IC (FP) MSM60201GS-VK	1	
Q5	702A4924F0020	MOS digital IC (FP) MSM61048GS-VK	1	
Q13	804A0021N4301	MOS-S-RAM (SO) HM6116FP-3	1	
Q7	720A0528N0002	BIP linear type IC (SO) NJM2901M	1	
Q8	245A1155P0280	IC socket DL2-28A-05	1	
R116	323A5011P0001	Chip jumper (CP) MCR18-JPW	1	
F1	540A2036M1152	Fuse GG51-1/2	1	
L1	353A3002K0102	H coil OL1614-102KR70(C)	1	

Figure 8 (6/7) SLMC-6 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.15)

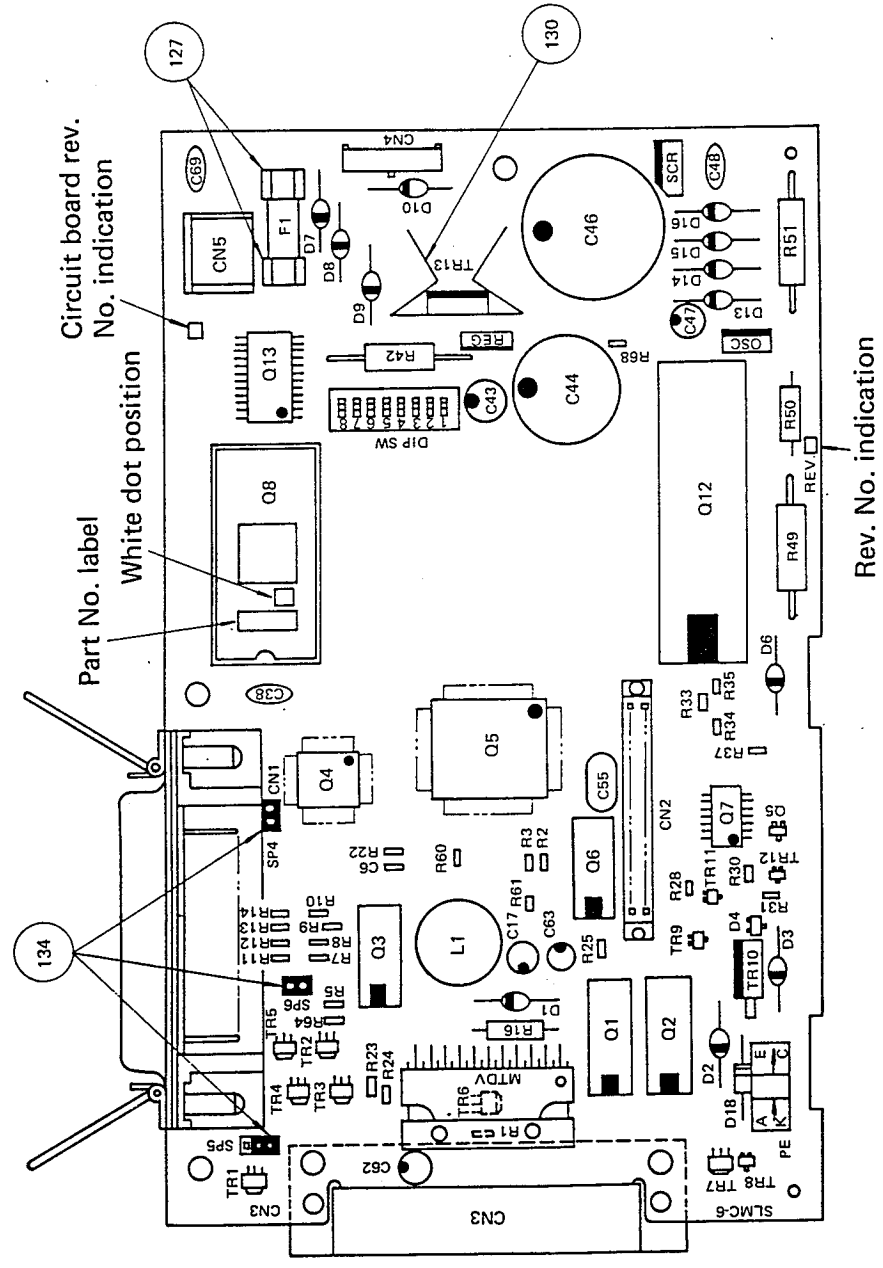
Item No./Symbol	Part No.	Description	Qty	Remarks
TR9	600A1003N0002	PNP-HF-TR (CP) 2SA1331/2SA1037K	1	
TR8, TR11, TR101, TR102	600A1003N0003	PNP-HF-TR (CP) A1344/UN2111/DTA114K	4	
TR13	601A1130M0004	PNP-LF-TR 2SB761	1	
TR6	601A1032N0002	PNP-LF-TR (CP) 2SB1123	1	
TR3	601A1130M0001	PNP-LF-TR (CP) 2SB766A-Q/R	1	
TR12, TR100, TR103	602A1003N0002	NPN-HF-TR (CP) 2SC3361/2SC2412K	3	
TR1, TR2, TR4, TR5	603A1130N0003	NPN-LF-TR (CP) 2SD1511	4	
TR7	603A1032N0001	NPN-LF-TR (CP) 2SD1626	1	
TR10	601A1132M0003	PNP-LF-TR 2SB882	1	
MTDV	720A4021E0004	BIP linear type IC HA13412	1	
REG	720A1033M0001	BIP linear type IC LA5005	1	
SP4, SP6	225A3123P0020	FC connector FFC-2AMEP1	2	
DIP	4LP-3763-8	DIP switch KSD08	1	
CN1	220A1423P0361	Square connector 57LE-40360-77OO (D53)	1	
CN2	224A3376P0300	PC connector 00-9072-230-101-883	1	
CN3	224A1160P0400	PC connector PD40A2XO	1	
CN4	224A3462P0060	PC connector 172681-6	1	
CN5	221A1525P0080	Circle connector TCS7580-01-101	1	
OSC	4LP-12186-1	Oscillator FAR-C4SB11059000-M02	1	
SP5	225A3123P0030	FC connector FFC-3AMEP1	1	

**Figure 8 (7/7) SLMC-6 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.15)**

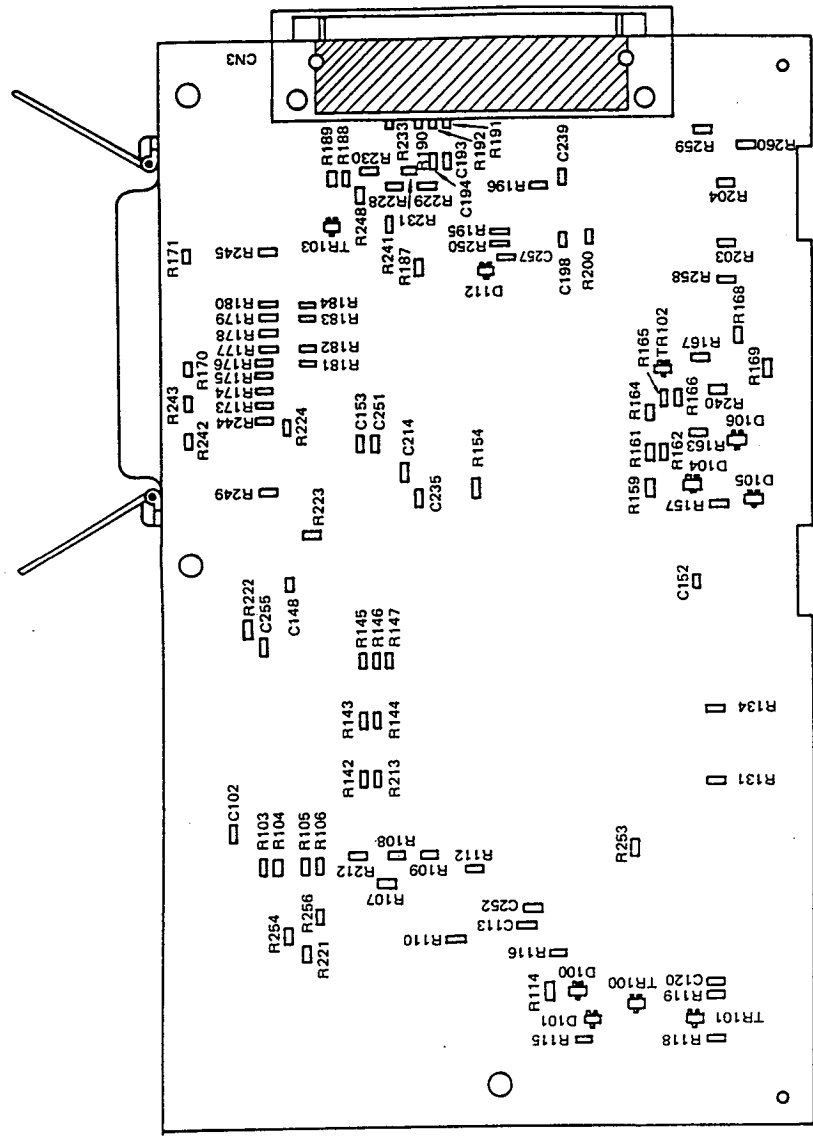
Item No./Symbol	Part No.	Description	Qty	Remarks
PE	652A0127M0009	Photo coupler EE-SJ5-B	1	
125	4LP-7142	Fuse holder FP-213	2	
128	4PP4021-1015P001	Heat sink	1	
132	224A3182P0020	PC connector DIC-252	3	



Parts side



Solder side



Circuit board rev. No.	16
Rev. No.	16

Figure 8(1/7) SLMC-6 Printed-Circuit Board (4YA4021-1001XXX)

Figure 8 (2/7) SLMC-6 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.16)

Item No./Symbol	Part No.	Description	Qty	Remarks
D1	610A0221L0021	Rectifying diode DFA1A1	1	
D2, D6, D7 to D10	610A0021L0090	Rectifying diode DSA1A2	6	
D3, D13 to D16	610A0021L0089A	Rectifying diode DSA1C1	5	
D4, D100, D105	611A0003N0003	Signal diode (CP) MA151WK/DAN202K	3	
D104	613A0291M0102H	Zener diode (CP) MA3047-H	1	
D101	613A0103M0182	Zener diode (CP) MA3100/RD10M-B	1	
D5	613A0103M0152B	Zener diode (CP) MA3075-M/RD7.5M-B2	1	
D106	613A0103M0272B	Zener diode (CP) MA3240-M/RD24M-B2	1	
D112	613A0103M0292	Zener diode (CP) MA3300/RD30M-B	1	
D18	613A2232L0182	Zener diode (CP) RD10F-B	1	
SCR	620A0022M0006E	Gate thyristor OFF CR3CM-8	1	
R110	323A5015J0180	RN resistor (CP) RM73B2B180J	1	
R24	323A5015J0221	RN resistor (CP) RM73B2B221J	1	
R23, R260	323A5015J0431	RN resistor (CP) RM73B2B431J	2	
R64, R162, R203	323A5015J0511	RN resistor (CP) RM73B2B511J	3	
R118, R119, R167, R189, R258	323A5015J0122	RN resistor (CP) RM73B2B122J	5	
R163, R240	323A5015J0202	RN resistor (CP) RM73B2B202J	2	
R1 to R3, R31, R60, R61, R115, R169, R259	323A5015J0222	RN resistor (CP) RM73B2B222J	8	
R161	323A5015J0182	RN resistor (CP) RM73B2B182J	1	

Figure 8 (3/7) SLMC-6 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.16)

Item No./Symbol	Part No.	Description	Qty	Remarks
R7 to R14, R166, R170, R177 to R180, R195, R196, R242, R243, R245, R250	323A5015J0332	RN resistor (CP) RM73B2B332J	20	
R188, R241	323A5015J0472	RN resistor (CP) RM73B2B472J	2	
R190 to R192, R233	343A5015J0512	RN resistor (CP) RM73B2B512J	4	
R22, R103 to R109, R112, R154, R164, R168, R187, R222, R223, R249, R253, R256	323A5015J0562	RN resistor (CP) RM73B2B562J	18	
R68, R131, R134, R142 to R147, R173 to R176, R181 to R184, R204, R212, R213, R224, R228 to R231, R244, R248	323A5015J0103	RN resistor (CP) RM73B2B103J	27	
R200	323A5015J0183	RN resistor (CP) RM73B2B183J	1	
R165	323A5015J0683	RN resistor (CP) RM73B2B683J	1	
R28	323A5015J0561	RN resistor (CP) RM73B2B561J	1	
R114	323A5015J0513	RN resistor (CP) RM73B2B513J	1	
R25	323A5015J0224	RN resistor (CP) RM73B2B224J	1	
R5, R30, R171	323A5015J0102	RN resistor (CP) RM73B2B102J	3	
R159	323A5015J0682	RN resistor (CP) RM73B2B682J	1	
R33, R34	323A5015F0242	RN resistor (CP) RM73B2B242F	2	

Figure 8 (4/7) SLMC-6 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.16)

Item No./Symbol	Part No.	Description	Qty	Remarks
R35	323A5015F0472	RN resistor (CP) RM73B2B472F	1	
R37	323A5015F0752	RN resistor (CP) RM73B2B752F	1	
R157	323A5015F0124	RN resistor (CP) RM73B2B124F	1	
R16	324A1001J0518	RS resistor MSF1/2B 0.51Ω	1	
R50	321A1431J0202	RD resistor RD1/2Y 2 kΩ	1	
R42	324A1121J0390	RS resistor MOR2B 39Ω	1	
R49	324A1121J0151	RS resistor MOR2B 150Ω	1	
R51	324A1121J0302	RS resistor MOR2B 3.0 kΩ	1	
R221	323A5015J0104	RN resistor (CP) RM73B2B104J	1	
C257	303A3008K0100	CC capacitor (CP) CC3216SL1H100D	1	
C252	303A3008K0221	CC capacitor (CP) CC3216SL1H221J	1	
C6	303A3008K0560	CC capacitor (CP) CC3216SL1H560J	1	
C193, C194, C239	303A6009K3102	CK capacitor (CP) CK3216B1H102K	3	
C113, C198	303A6009K3103	CK capacitor (CP) CK3216B1H103K	2	
C102, C120, C148, C152, C153, C214, C235, C251, C254, C255,	303A6009Z3104	CK capacitor (CP) CK3216F1H104Z	10	
C47	304A1041A2109	CE capacitor 1.0μ CEUSM2A010 100 V	1	
C17	304A1041H1100	CE capacitor 10μ CEUSM1H100 50 V	1	
C43	304A1041A1101	CE capacitor 100μ CEUSM1A101 10 V	1	

Figure 8 (5/7) SLMC-6 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.16)

Item No./Symbol	Part No.	Description	Qty	Remarks
C44	304A1037C1822	CE capacitor 8200 $\mu$ 16VBSN-8200 16 V	1	
C46	304A1108G1472	CE capacitor 4700 $\mu$ 42VPSN-4700(M) 42 V	1	
C38, C48, C69	302A4027Z5103	CK capacitor 10000P TCK45F2E103ZYA	3	
C62, C63	304A1046H1339	CE capacitor 3.3 $\mu$ 50MS5-3.3M 50 V	2	
C55	306A4100G2223	CQ capacitor 0.022 $\mu$ CQM-92PP2A223G 100 V	1	
Q12	853A2103M5004	MOS-CPU (ROM) 8051-004P	1	
Q6	700A0503M0005	BIP digital IC 74LS05P	1	
Q3	700A0003M0006	BIP digital IC 7406P	1	
Q1, Q2	760A4731M0401	Transistor array LB1205	2	
Q4	702A4924F2001	MOS digital IC (FP) MSM60201GS-VK	1	
Q5	702A4924F0020	MOS digital IC (FP) MSM61048GS-VK	1	
Q13	804A0021N4301	MOS-S-RAM (SO) HM6116FP-3	1	
Q7	720A0528N0002	BIP linear type IC (SO) NJM2901M	1	
Q8	245A1155P0280	IC socket DL2-28A-05	1	
R116	323A5011P0001	Chip jumper (CP) MCR18-JPW	1	
F1	540A2036M1152	Fuse GGS1-1/2	1	
L1	353A3002K0102	H coil OL1614-102KR70(D)	1	
TR9	600A1003N0002	PNP-HF-TR (CP) 2SA1331/2SA1037K	1	

Figure 8 (6/7) SLMC-6 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.16)

Item No./Symbol	Part No.	Description	Qty	Remarks
TR8, TR11, TR101, TR102	600A1003N0003	PNP-HF-TR (CP) A1344/UN2111/DTA114K	4	
TR13	601A1130M0004	PNP-LF-TR 2SB761	1	
TR6	601A1032N0002	PNP-LF-TR (CP) 2SB1123	1	
TR3	601A1130M0001	PNP-LF-TR (CP) 2SB766A-Q/R	1	
TR12, TR100, TR103	602A1003N0002	NPN-HF-TR (CP) 2SC3361/2SC2412K	3	
TR1, TR2, TR4, TR5	603A1130N0003	NPN-LF-TR (CP) 2SD1511	4	
TR7	603A1032N0001	NPN-LF-TR (CP) 2SD1626	1	
TR10	601A1132M0003	PNP-LF-TR 2SB882	1	
MTDV	720A4021E0004	BIP linear type IC HA13412	1	
REG	720A1033M0001	BIP linear type IC LA5005	1	
SP4, SP6	225A3123P0020	FC connector FFC-2AMEP1	2	
SP5	225A3123P0030	FC connector FFC-3AMEP1	1	
DIP	4LP-3763-8	DIP switch KSD08	1	
CN1	220A1423P0361	Square connector 57LE-40360-73OO (D53)	1	
CN2	224A3376P0300	PC connector 00-9072-230-101-893	1	
CN3	224A1160P0400	PC connector PD40A2XO	1	
CN4	224A3462P0060	PC connector 172681-6	1	
CN5	221A1525P0080	Circle connector TCS7580-01-101	1	
OSC	4LP-12186-1	Oscillator FAR-C4SB11059000-M02	1	

**Figure 8 (7/7) SLMC-6 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.16)**

Item No./Symbol	Part No.	Description	Qty	Remarks
PE	652A0127M0009	Photo coupler EE-SJ5-B	1	
127	4LP-7142	Fuse holder FP-213	2	
130	4PP4021-1015P001	Heat sink	1	
134	224A3182P0020	PC connector DIC-252	3	

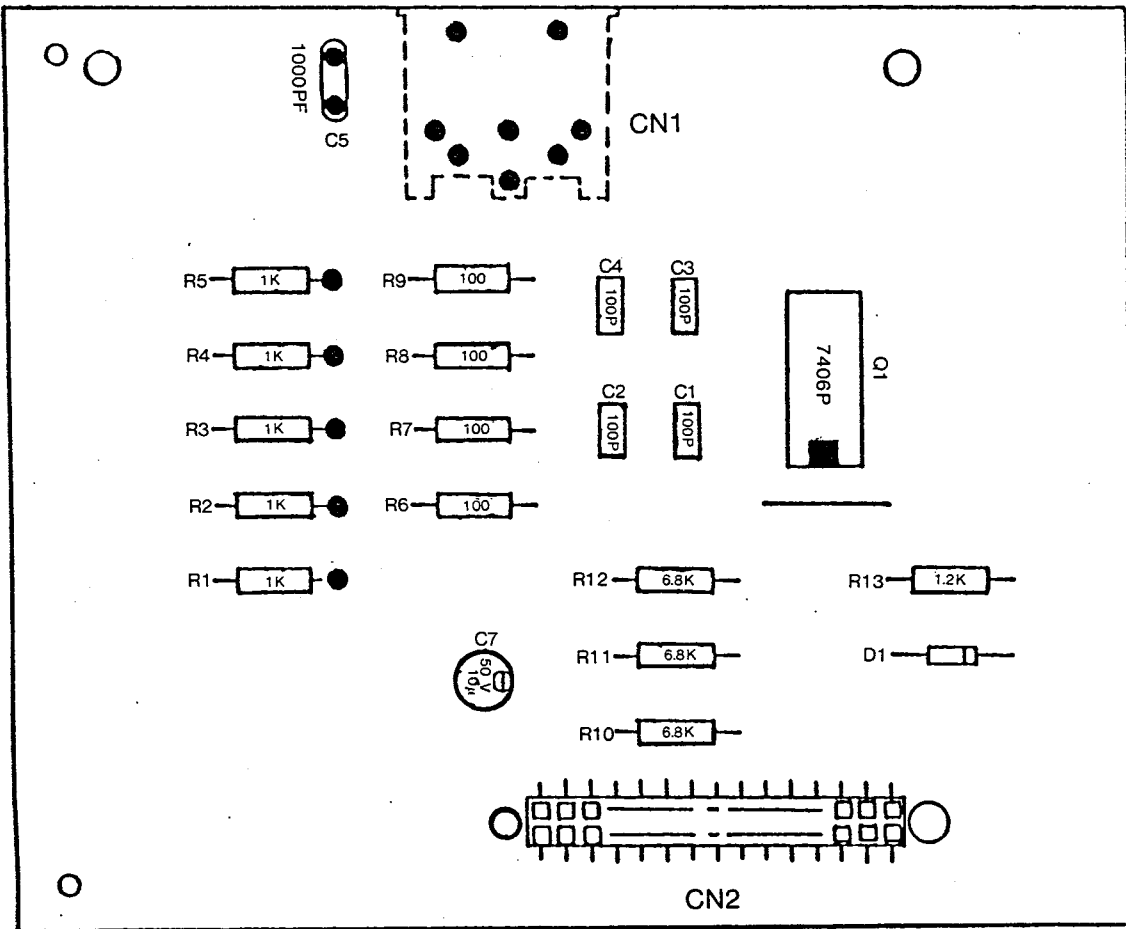


Figure 9 CDR Printed-Circuit Board (4YA4042-1056) 1/2 (2/2)

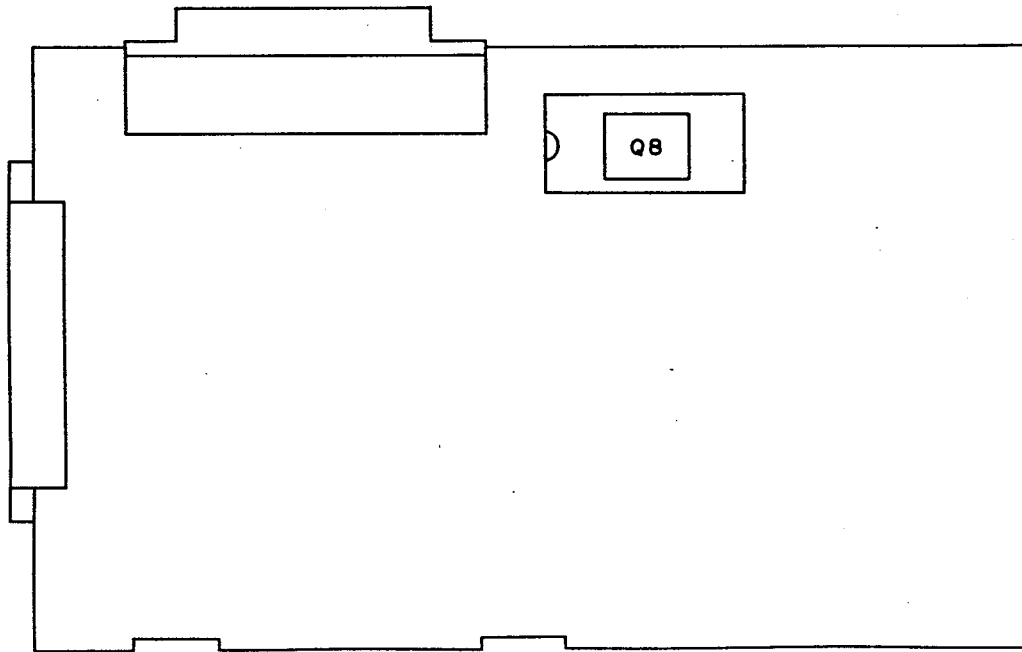


Figure 9 CMDR Printed-Circuit Board (4YA4042-1056) 2/2

Symbol	Part No.	Description	Qty	Remarks
D1	611A0003L0001	Signal diode, 1S953/1S2075K/1S2473	1	
R6 to 9	321A1421J0101	RD resistor, RD1/4Y100ΩJ	4	
R1 to 5	321A1421J0102	RD resistor, RD1/4Y1KΩJ	5	
R13	321A1421J0122	RD resistor, RD1/4Y1.2KΩJ	1	
R10 to 12	321A1421J0682	RD resistor, RD1/4Y6.8KΩJ	3	
C1 to 4	303A4010M3101	CK capacitor, FK20Y5R1H101M, 50 V, 100P	4	
C5	302A4027Z5103	CK capacitor, TCK45F2E103ZYA, 250 V, 10000P	1	
C7	304A1040H1100	CE capacitor, CESHM1H100; 50 V, 10U	1	
Q1	700A0003M0006	BIP digital IC, 7406P	1	
S1	TA-0.65	0.65 tin-plated annealed copper wire	1	
CN1	221A1523P0060	Disk type connector, TC94460-01-1011	1	
CN2	224A3377P0300	PC connector, 00-9072-230-901-883	1	
	4PB4025-1163P1	Screw stud	2	

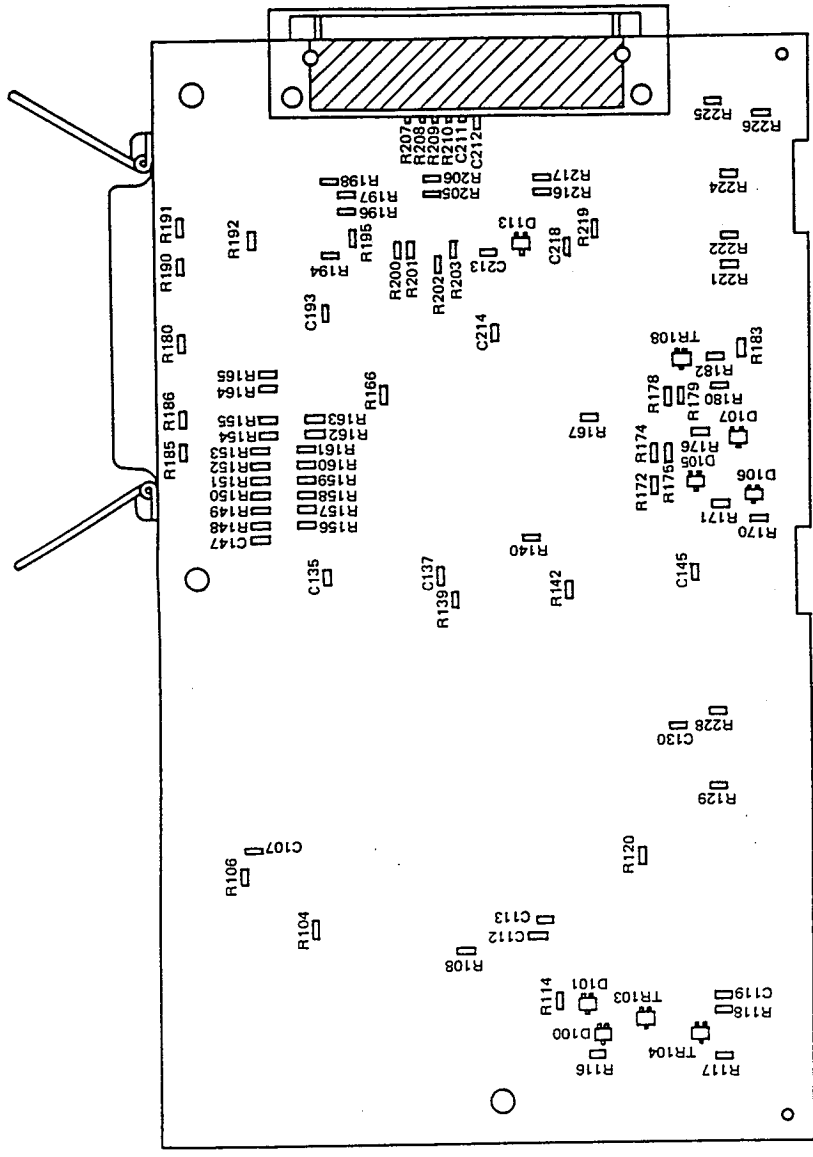
Different types ROMs are used for each G No. as listed below.

G No.	ROM No.	Part No.	Part No. label	Application	Remarks
G010	Q8	4YR4065-1222G1	65-1222	Rev. 2, 3, 4	ODA standard
G011	Q8	4YR4065-1046G1	65-1046	Rev. 2, 3, 4	ODA IBM
G012	Q8	4YR4065-1253G1	65-1253	Rev. 2, 3, 4	ODG standard
G013	Q8	4YR4065-1060G1	65-1060	Rev. 2, 3, 4	ODG IBM
G040	Q8	4YR4065-1223G1	65-1223	Rev. 2, 3, 4	ODA standard
G041	Q8	4YR4065-1099G1	65-1099	Rev. 2, 3, 4	ODA IBM
G042	Q8	4YR4065-1254G1	65-1254	Rev. 2, 3, 4	ODG standard
G043	Q8	4YR4065-1100G1	65-1100	Rev. 2, 3, 4	ODG IBM

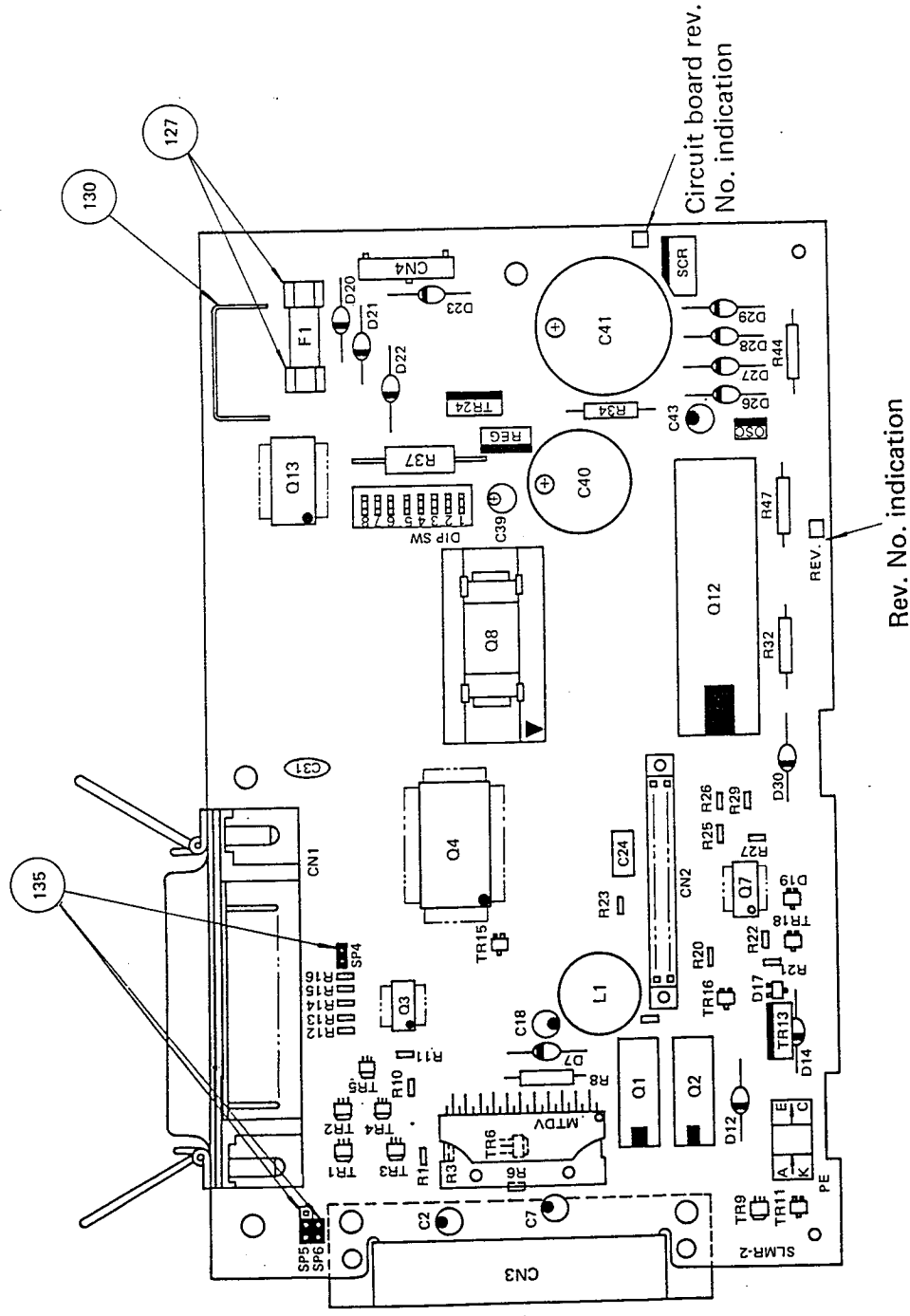


SLMR-2 Printed-Circuit Board (4YA4021-1001Gxxx)

Solder side



Parts side



Circuit board rev. No.	Rev. No.
2, 3, 4	2, 3, 4

Figure 10(1/6) SLMR-2 Printed-Circuit Board (4YA4021-1001 GXXX)

Figure 10 (2/6) SLMR-2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.2, 3, 4)

Item No./Symbol	Part No.	Description	Qty	Remarks
D7	610A0221L0021	Rectifying diode DFA1A1	1	
D12, 20 to 23, 30	610A0021L0090	Rectifying diode DSA1A2	6	
D14, 26 to 29	610A0021L0089A	Rectifying diode DSA1C1	5	
D17, 101, 106	611A0003N0003	Signal diode (CP) MA151WK/DAN202K	3	
D105	613A0291M0102H	Zener diode (CP) MA3047-H	1	
D100	613A0103M0182	Zener diode (CP) MA3100/RD10M-B	1	
D19	613A0103M0152B	Zener diode (CP) MA3075-M/RD7.5M-B2	1	
D107	613A0103M0272B	Zener diode (CP) MA3240-M/RD24M-B2	1	
D113	613A0103M0292	Zener diode (CP) MA3300/RD30M-B	1	
SCR	620A0022M0006E	Gate thyristor OFF CR3CM-8	1	
R23	323A5015J0101	RN resistor (CP) RM73B2B101J	1	
R108	323A5015J0180	RN resistor (CP) RM73B2B180J	1	
R1	323A5015J0221	RN resistor (CP) RM73B2B221J	1	
R200, 226	323A5015J0431	RN resistor (CP) RM73B2B431J	2	
R175, 191, 222	323A5015J0511	RN resistor (CP) RM73B2B511J	3	
R117, 118, 182, 198, 221	323A5015J0122	RN resistor (CP) RM73B2B122J	5	
R176, 180	323A5015J0202	RN resistor (CP) RM73B2B202J	2	
R6, 10, 11, 21, 116, 183, 194, 195, 225	323A5015J0222	RN resistor (CP) RM73B2B222J	9	
R174	323A5015J0182	RN resistor (CP) RM73B2B182J	1	
R12 to 16, R148 to 155, 179, 185, 186, 188, 202, 203, 216	323A5015J0332	RN resistor (CP) RM73B2B332J	20	

Figure 10 (3/6) SLMR-2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.2, 3, 4)

Item No./Symbol	Part No.	Description	Qty	Remarks
R196, 197	323A5015J0472	RN resistor (CP) RM73B2B472J	2	
R207 to 210	323A5015J0512	RN resistor (CP) RM73B2B512J	4	
R29, 104, 106, 120, 139, 166	323A5015J0562	RN resistor (CP) RM73B2B562J	6	
R142	323A5011P0001	Chip jumper (CP) MCR18-JPW	1	
R172	323A5015J0682	RN resistor (CP) RM73B2B682J	1	
R3, 129, 140, 156 to 165, 167, 201, 205, 206, 224, 228	323A5015J0103	RN resistor (CP) RM73B2B103J	19	
R219	323A5015J0183	RN resistor (CP) RM73B2B183J	1	
R178	323A5015J0683	RN resistor (CP) RM73B2B683J	1	
R20	323A5015J0561	RN resistor (CP) RM73B2B561J	1	
R114	323A5015J0513	RN resistor (CP) RM73B2B513J	1	
R19	323A5015J0224	RN resistor (CP) RM73B2B224J	1	
R22, 190, 192	323A5015J0102	RN resistor (CP) RM73B2B102J	3	
R25, 26	323A5015F0242	RN resistor (CP) RM73B2B242F	2	
R170	323A5015F0472	RN resistor (CP) RM73B2B472F	1	
R27	323A5015F0752	RN resistor (CP) RM73B2B752F	1	
R171	323A5015F0124	RN resistor (CP) RM73B2B124F	1	
R8	324A1001J0518	RS resistor MSF1/2B 0.51ΩJ	1	
R34	321A1431J0202	RD resistor RD1/2Y 2 kΩJ	1	
R37	324A1121J0390	RS resistor MOR2B 39ΩJ	1	
R32, 47	321A1431J0301	RD resistor RD1/2Y 300ΩJ	2	

Figure 10 (4/6) SLMR-2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.2, 3, 4)

Item No./Symbol	Part No.	Description	Qty	Remarks
R44	321A1431J0622	RD resistor RD1/2Y 6.2 kΩ	1	
C213	303A3008K0100	CC capacitor (CP) CC3216SL1H100D	1	
C113	303A3008K0221	CC capacitor (CP) CC3216SL1H221J	1	
C193	303A3008K0560	CC capacitor (CP) CC3216SL1H560J	1	
C211, 212, 217	303A6009K3102	CK capacitor (CP) CK3216B1H102K	3	
C112, 218	303A6009K3103	CK capacitor (CP) CK3216B1H103K	2	
C107, 119, 130, 135, 137, 145, 147, 214	303A6009Z3104	CK capacitor (CP) CK3216F1H104Z	8	
C43	304A1041A2109	CE capacitor 1.0μ CEUSM2A010 100 V	1	
C18	304A1041H1100	CE capacitor 10μ CEUSM1H100 50 V	1	
C39	304A1041A1101	CE capacitor 100μ CEUSM1A101 10 V	1	
C40	304A1037C1822	CE capacitor 8200μ 16VBSN-8200 16 V	1	
C41	304A1108G1472	CE capacitor 4700μ 42VPSN-4700(M) 42 V	1	
C31	302A4027Z5103	CK capacitor 10000P TCK45F2E103ZYA 250 V	1	
C2, 7	304A1041A2339	CE capacitor 3.3μ CEUSM2A3R3 100V	2	
C24	306A4100G2223	CQ capacitor 0.022μ CQM-92PP2A223G 100 V	1	
Q12	853A0125M0049	P8051AH-0049 MOS-CPU(ROM)	1	
Q4	702A2024N0003	MOS digital IC (FP) MSM6990GS-V1K	1	
Q3	700A0550N0006	BIP digital IC (SO) SN74LS06NS	1	
Q1, 2	760A4731M0401	Transistor array LB1205	2	
Q13	804A0003N4302	MOS-S-RAM (SO) 5128-20GS/5517AFL-2	1	
Q7	720A0528N0002	BIP linear type IC (SO) NJM2901M	1	

Figure 10 (5/6) SLMR-2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.2, 3, 4)

Item No./Symbol	Part No.	Description	Qty	Remarks
Q8	245A1155P0280	IC socket DL2-28A-05	1	
F1	540A0220M1152	Fuse GHMF 125 V 1.5A	1	
L1	353A3002K0102	H coil OL1614-102KR70(D)	1	
TR16	600A1003N0002	PNP-HF-TR (CP) 2SA1331/2SA1037K	1	
TR11, 104, 108	600A1003N0003	PNP-HF-TR (CP) A1344/UN2111/DTA114K	3	
TR24	601A1130M0004	PNP-LF-TR 2SB761	1	
TR6	601A1032N0002	PNP-LF-TR (CP) 2SB1123	1	
TR3	601A1130M0001	PNP-LF-TR (CP) 2SB766A-Q/R	1	
TR15, 18, 103	602A1003N0002	NPN-HF-TR (CP) 2SC3361/2SC2412K	3	
TR1, 2, 4, 5	603A1130N0003	NPN-LF-TR (CP) 2SD1511	4	
TR9	603A1032N0001	NPN-LF-TR (CP) 2SD1626	1	
TR13	601A1132M0003	PNP-LF-TR 2SB882	1	
MTDV	720A4021E0004	BIP linear type IC HA13412	1	
REG	720A1033M0001	BIP linear type IC LA5005	1	
SP4, 6	225A3123P0020	FC connector FFC-2AMEP1	2	
SP5	225A3123P0030	FC connector FFC-3AMEP1	1	
CN1	220A1423P0361	Square connector 00-9072-230-101-883	1	
DIP	4LP-3763-8	DIP switch KSD08	1	
CN2	224A3376P0300	PC connector 00-9072-230-101-883	1	
CN3	224A1160P0400	PC connector PD40A2X0	1	

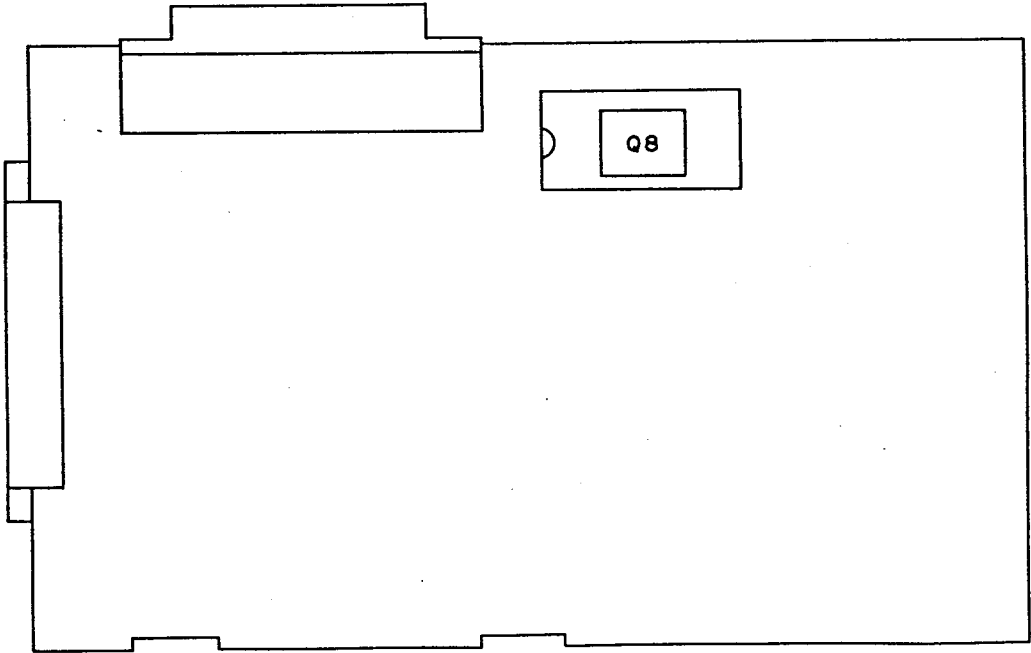
Figure 10 (6/6) SLMR-2 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.2, 3, 4)

Item No./Symbol	Part No.	Description	Qty	Remarks
CN4	224A3462P0060	PC connector 172681-6	1	
OSC	4LP-12186-1	Oscillator FAR-C4SB11059000-M02	1	
PE	652A0127M0009	Photo coupler EE-SJ5-B	1	
127	4LP-7142	Fuse holder FP-213	2	
130	4PP4025-1166P001	Barrier	1	
135	224A3182P0020	PC connector DIC-252	3	
<u>IS TO</u>	4PP4025-211171	SPACER	1	NML-823



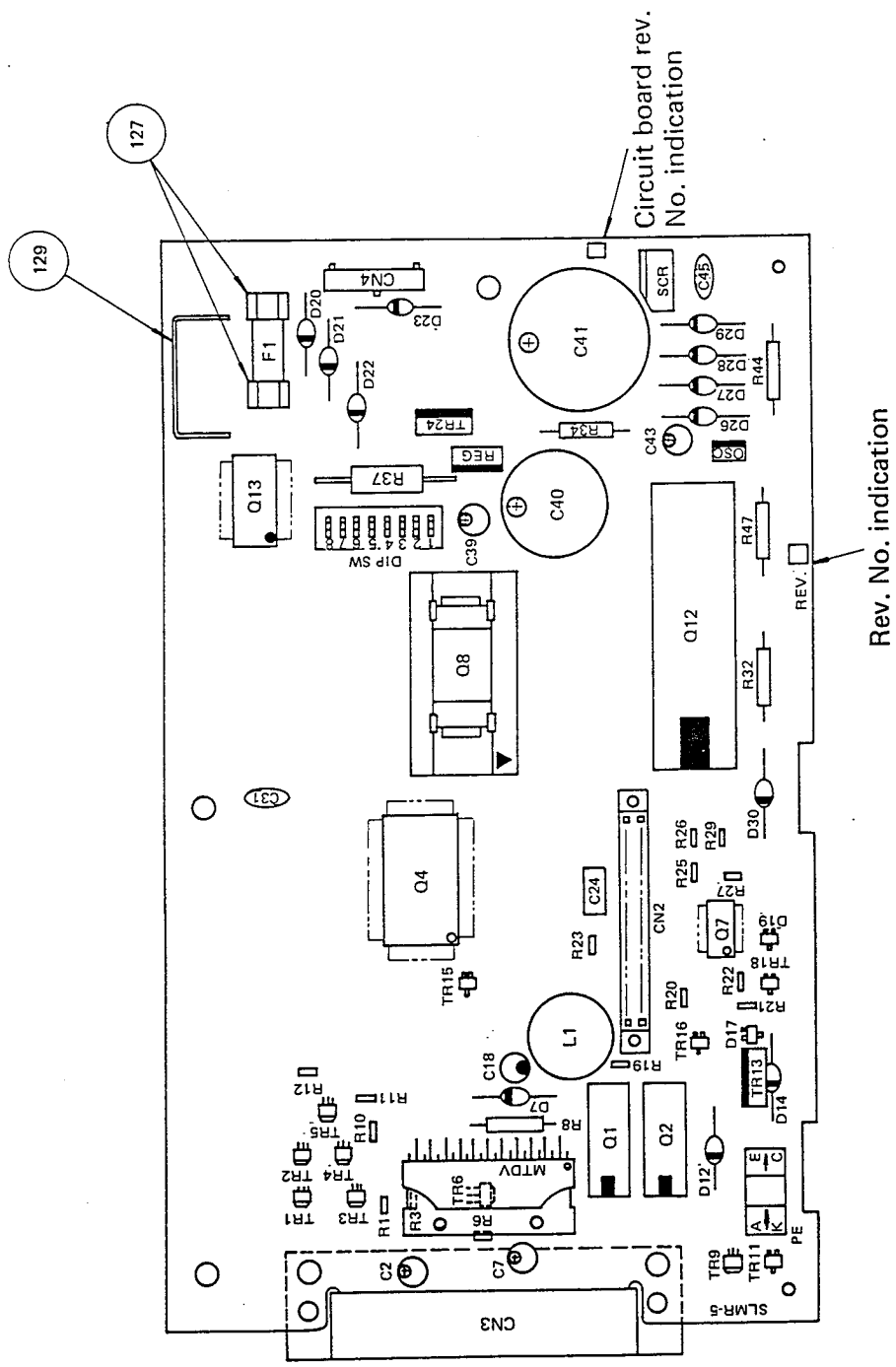
Different types ROMs are used for each G No. as listed below.

G No.	ROM No.	Part No.	Part No. label	Application	Remarks
G016	Q8	4YR4065-7013G1	65-7013	Rev. 2, 3, 4	ODA
G103	Q8	4YR4065-7014G1	65-7014	Rev. 2, 3, 4	ODG

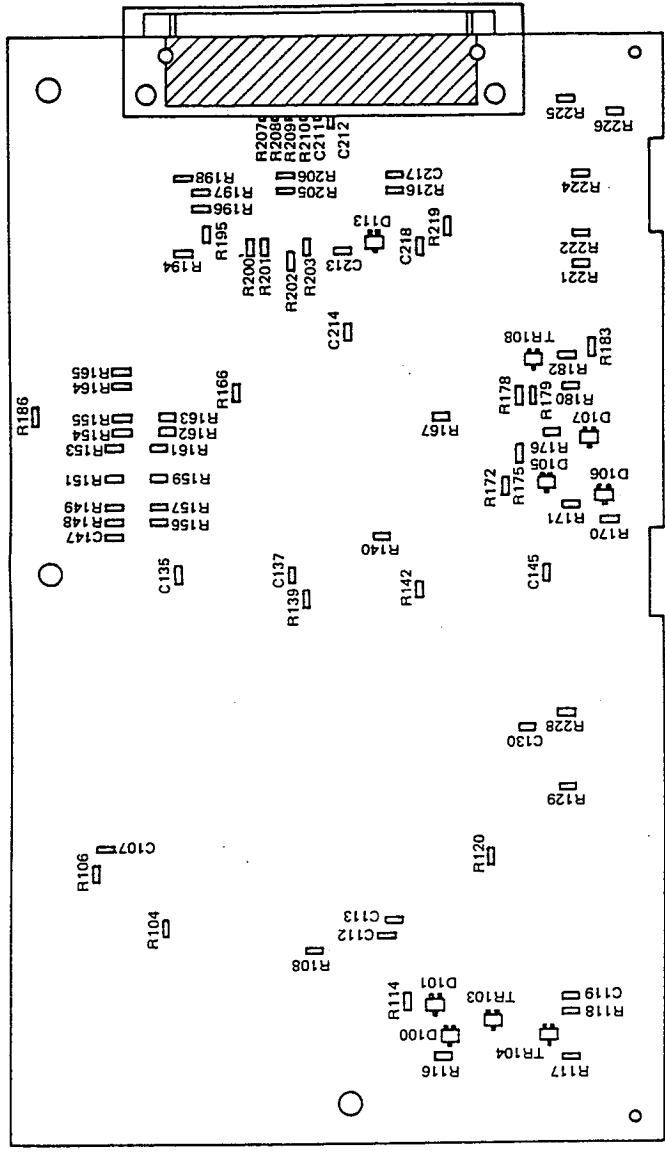


SLMR-5 Printed-Circuit Board (4YA4021-1001Gxxx)

Parts side



Solder side



Circuit board rev. No.	Rev. No.
2, 3, 4	2, 3, 4

Figure 11(1/6) SLMR-5 Printed-Circuit Board (4YA4021-1001GXXX)

Figure 11 (2/6) SLMR-5 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.2, 3, 4)

Item No./Symbol	Part No.	Description	Qty	Remarks
D7	610A0221L0021	Rectifying diode DFA1A1	1	
D12, 20 to 23, 30	610A0021L0090	Rectifying diode DSA1A2	6	
D14, 26 to 29	610A0021L0089A	Rectifying diode DSA1C1	5	
D17, 101, 106	611A0003N0003	Signal diode (CP) MA151WK/DAN202K	3	
D105	613A0291M0102H	Zener diode (CP) MA3047-H	1	
D100	613A0103M0182	Zener diode (CP) MA3100/RD10M-B	1	
D19	613A0103M0152B	Zener diode (CP) MA3075-M/RD7.5M-B2	1	
D107	613A0103M0272B	Zener diode (CP) MA3240-M/RD24M-B2	1	
D113	613A0103M0292	Zener diode (CP) MA3300/RD30M-B	1	
SCR	620A0022M0006E	Gate thyristor OFF CR3CM-8	1	
R23	323A5015J0101	RN resistor (CP) RM73B2B101J	1	
R108	323A5015J0180	RN resistor (CP) RM73B2B180J	1	
R1	323A5015J0221	RN resistor (CP) RM73B2B221J	1	
R200, 226	323A5015J0431	RN resistor (CP) RM73B2B431J	2	
R175, 222	323A5015J0511	RN resistor (CP) RM73B2B511J	2	
R117, 118, 182, 198, 221	323A5015J0122	RN resistor (CP) RM73B2B122J	5	
R176, 180	323A5015J0202	RN resistor (CP) RM73B2B202J	2	
R6, 10, 11, 21, 116, 183, 194, 195, 225	323A5015J0222	RN resistor (CP) RM73B2B222J	9	

Figure 11 (3/6) SLMR-5 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.2, 3, 4)

Item No./Symbol	Part No.	Description	Qty	Remarks
R12, 148, 149, 151, 153 to 155, 179, 186, 202, 203, 216	323A5015J0332	RN resistor (CP) M73B2B332J	12	
R196, 197	323A5015J0472	RN resistor (CP) RM73B2B472J	2	
R207 to 210	323A5015J0512	RN resistor (CP) RM73B2B512J	4	
R29, 104, 106, 120, 139, 166	323A5015J0562	RN resistor (CP) RM73B2B562J	6	
R142	323A5011P0001	Chip jumper (CP) MCR18-JPW	1	
R172	323A5015J0682	RN resistor (CP) RM73B2B682J	1	
R3, 129, 140, 156, 157, 159, 161 to 165, 167, 201, 205, 206, 224, 228	323A5015J0103	RN resistor (CP) RM73B2B103J	17	
R219	323A5015J0183	RN resistor (CP) RM73B2B183J	1	
R178	323A5015J0683	RN resistor (CP) RM73B2B683J	1	
R20	323A5015J0561	RN resistor (CP) RM73B2B561J	1	
R114	323A5015J0513	RN resistor (CP) RM73B2B513J	1	
R19	323A5015J0224	RN resistor (CP) RM73B2B224J	1	
R22	323A5015J0102	RN resistor (CP) RM73B2B102J	1	
R25, 26	323A5015F0242	RN resistor (CP) RM73B2B242F	2	
R170	323A5015F0472	RN resistor (CP) RM73B2B472F	1	
R27	323A5015F0752	RN resistor (CP) RM73B2B752F	1	
R171	323A5015F0124	RN resistor (CP) RM73B2B124F	1	
R8	324A1001J0518	RS resistor MSF1/2B 0.51ΩJ	1	
R34	321A1431J0202	RD resistor RD1/2Y 2 kΩJ	1	

Figure 11 (4/6) SLMR-5 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.2, 3, 4)

Item No./Symbol	Part No.	Description	Qty	Remarks
R37	324A1121J0390	RS resistor MOR2B 39ΩJ	1	
R32, 47	321A1431J0301	RD resistor RD1/2Y 300ΩJ	2	
R44	321A1431J0622	RD resistor RD1/2Y 6.2 kΩJ	1	
C213	303A3008K0100	CC capacitor (CP) CC3216SL1H100D	1	
C113	303A3008K0221	CC capacitor (CP) CC3216SL1H221J	1	
C211, 212, 217	303A6009K3102	CK capacitor (CP) CK3216B1H102K	3	
C112, 218	303A6009K3103	CK capacitor (CP) CK3216B1H103K	2	
C107, 119, 130, 135, 137, 145, 147, 214	303A6009Z3104	CK capacitor (CP) CK3216F1H104Z	8	
C43	304A1041A2109	CE capacitor 1.0μ CEUSM2A010 100 V	1	
C18	304A1041H1100	CE capacitor 10μ CEUSM1H100 50 V	1	
C39	304A1041A1101	CE capacitor 100μ CEUSM1A101 10 V	1	
C40	304A1037C1822	CE capacitor 8200μ 16VBSN-8200 16 V	1	
C41	304A1108G1472	CE capacitor 4700μ 42VPSN-4700(M) 42 V	1	
C31, 45	302A4027Z5103	CK capacitor 10000P TCK45F2E103ZYA 250 V	2	
C2, 7	304A1041A2339	CE capacitor 3.3μ CEUSM2A3R3 100V	2	
C24	306A4100G2223	CQ capacitor 0.022μ CQM-92PP2A223G 100 V	1	
Q12	853A0125M0049	P8051AH-0049 MOS-CPU(ROM)	1	
Q4	702A2024N0003	MOS digital IC (FP) MSM6990GS-V1K	1	
Q1, 2	760A4731M0401	Transistor array LB1205	2	
Q13	804A0003N4302	MOS-S-RAM (SO) 5128-20GS/5517AFL-2	1	

Figure 11 (5/6) SLMR-5 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.2, 3, 4)

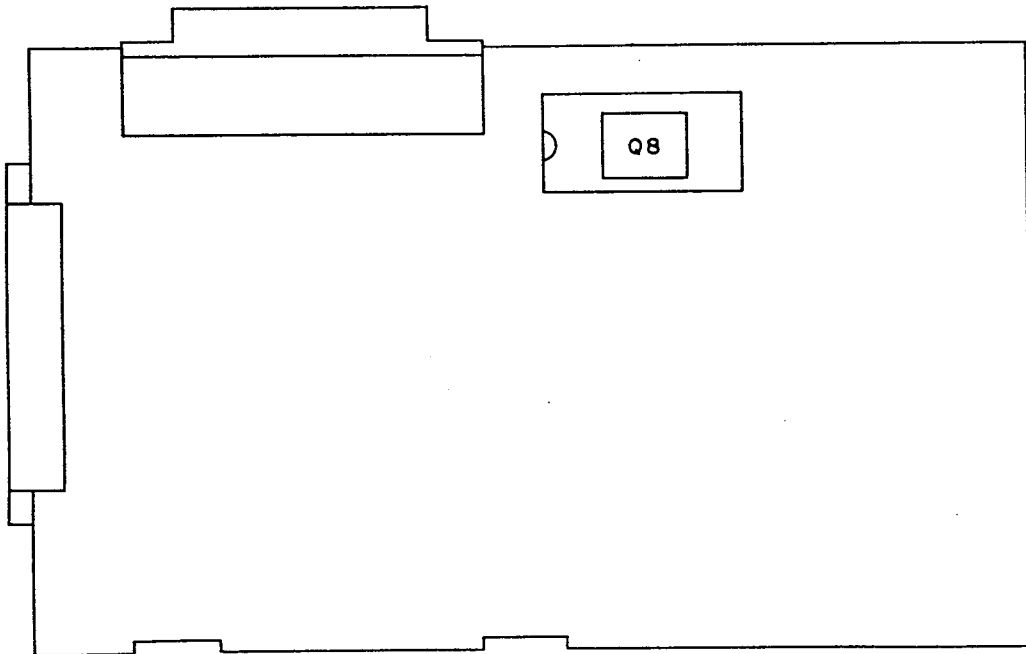
Item No./Symbol	Part No.	Description	Qty	Remarks
Q7	720A0528N0002	BIP linear type IC (SO) NJM2901M	1	
Q8	245A1155P0280	IC socket DL2-28A-05	1	
F1	540A0220M1152	Fuse GHMF 125 V 1.5 A	1	
L1	353A3002K0102	H coil OL1614-102KR70(D)	1	
TR16	600A1003N0002	PNP-HF-TR (CP) 2SA1331/2SA1037K	1	
TR11, 104, 108	600A1003N0003	PNP-HF-TR (CP) A1344/UN2111/DTA114K	3	
TR24	601A1130M0004	PNP-LF-TR 2SB761	1	
TR6	601A1032N0002	PNP-LF-TR (CP) 2SB1123	1	
TR3	601A1130M0001	PNP-LF-TR (CP) 2SB766A-Q/R	1	
TR15, 18, 103	602A1003N0002	NPN-HF-TR (CP) 2SC3361/2SC2412K	3	
TR1, 2, 4, 5	603A1130N0003	NPN-LF-TR (CP) 2SD1511	4	
TR9	603A1032N0001	NPN-LF-TR (CP) 2SD1626	1	
TR13	601A1132M0003	PNP-LF-TR 2SB882	1	
MTDV	720A4021E0004	BIP linear type IC HA13412	1	
REG	720A1033M0001	BIP linear type IC LA5005	1	
DIP	4LP-3763-8	DIP switch KSD08	1	
CN2	224A3376P0300	PC connector 00-9072-230-101-883	1	
CN3	224A1160P0400	PC connector PD40A2XO	1	
CN4	224A3462P0060	PC connector 172681-6	1	
OSC	4LP-12186-1	Oscillator FAR-C4SB11059000-M02	1	

Figure 11 (6/6) SLMR-5 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.2, 3, 4)

Item No./Symbol	Part No.	Description	Qty	Remarks
PE	652A0127M0009	Photo coupler EE-SJ5-B	1	
127	4LP-7142	Fuse holder FP-213	2	
130	4PP4025-1166P001	Barrier	1	
E 40	4PP4030-2111P1	SPACE	1	ECG NAL-370

Different types ROMs are used for each G No. as listed below.

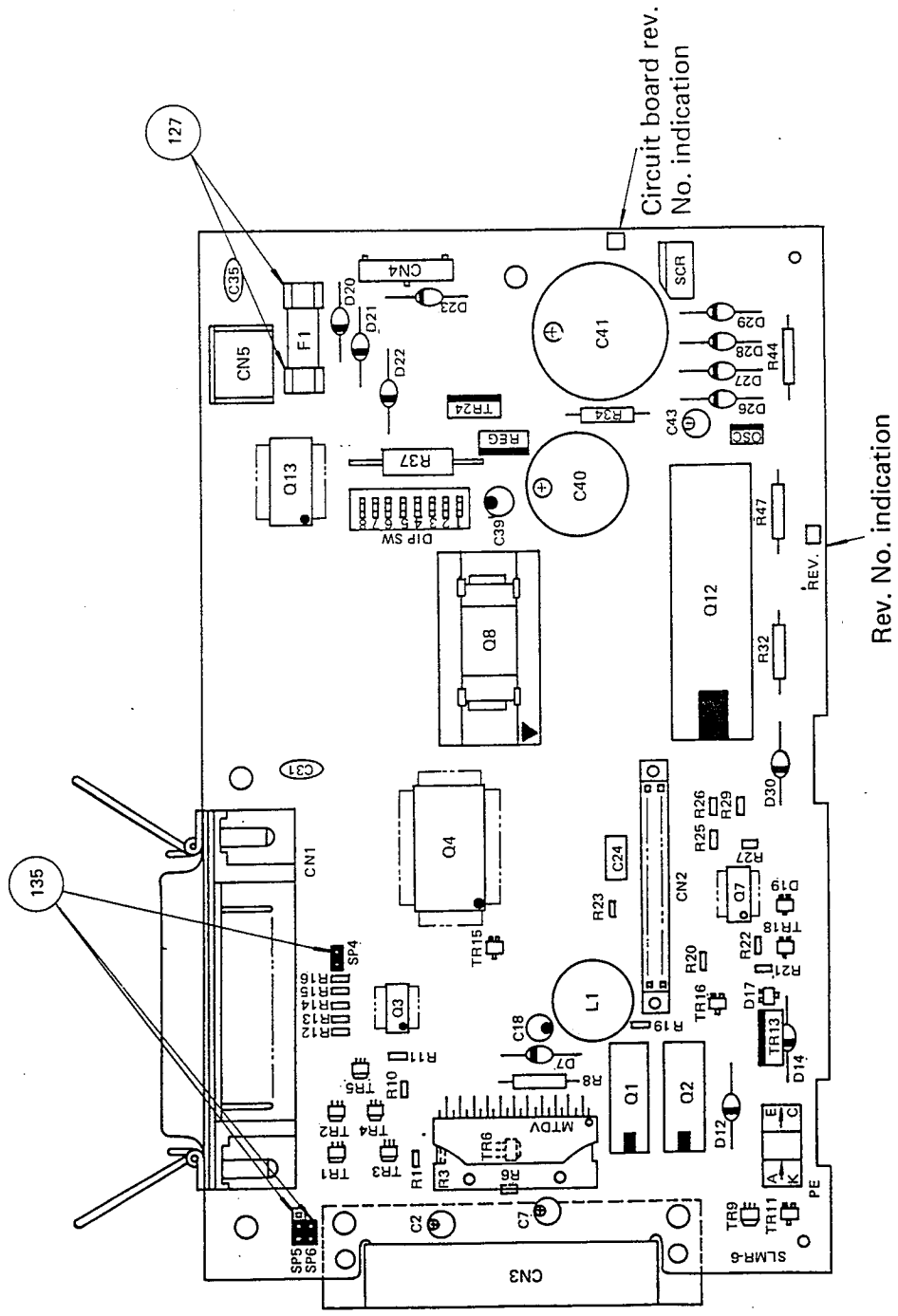
G No.	ROM No.	Part No.	Part No. label	Application	Remarks
G018	Q8	4YR4065-1153G1	65-1153	Rev. 2, 3, 4	



SLMR-6 Printed-Circuit Board (4YA4021-1001Gxxx)



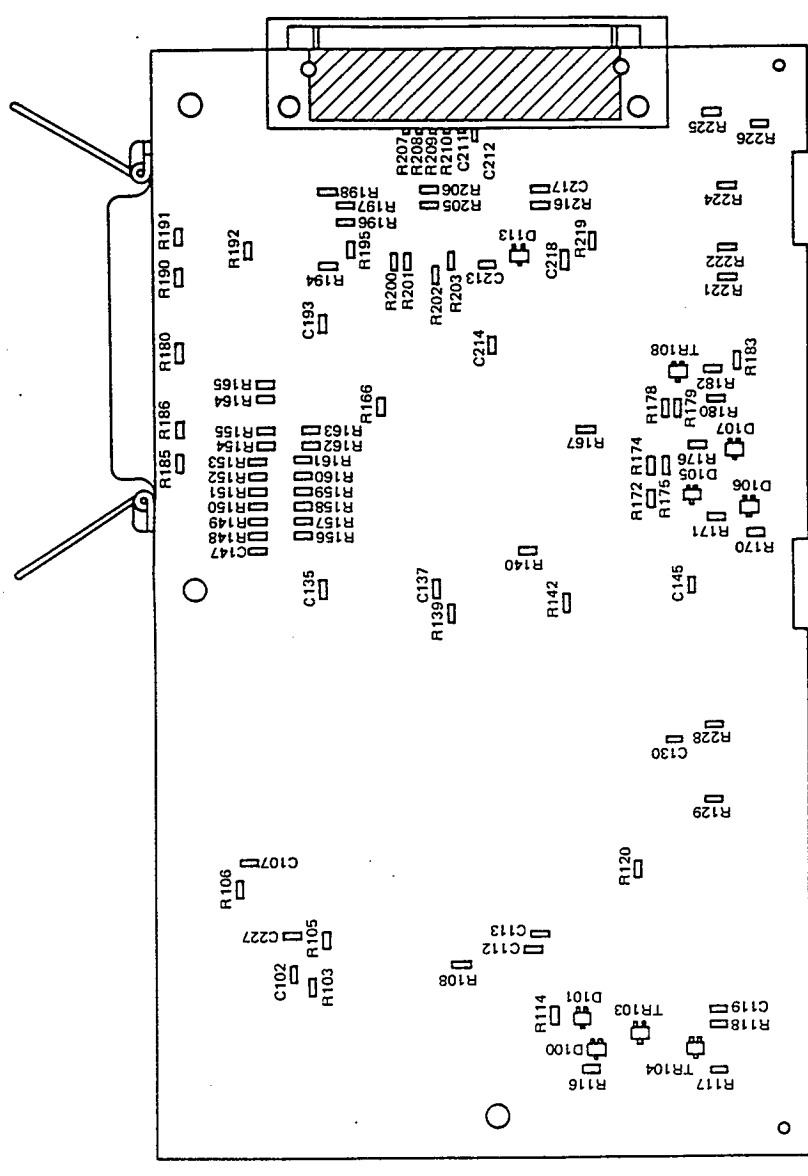
Parts side



Rev. No. indication

Circuit board rev. No. indication

Solder side



Circuit board rev. No.	Rev. No.
2, 3, 4	2, 3, 4

Figure 12(1/6) SLMR-6 Printed-Circuit Board (4YA4021-1001GXXX)

Figure 12 (2/6) SLMR-6 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.2, 3, 4)

Item No./Symbol	Part No.	Description	Qty	Remarks
D7	620A0221L0021	Rectifying diode DFA1A1	1	
D12, 20 to 23, 30	610A0021L0090	Rectifying diode DSA1A2	6	
D14, 26 to 29	620A0021L0089A	Rectifying diode DSA1C1	5	
D17, 101, 106	611A0003N0003	Signal diode (CP) MA151WK/DAN202K	3	
D105	613A0291M0102H	Zener diode (CP) MA3047-H	1	
D100	613A0103M0182	Zener diode (CP) MA3100/RD10M-B	1	
D19	613A0103M0152B	Zener diode (CP) MA3075-M/RD7.5M-B2	1	
D107	613A0103M0272B	Zener diode (CP) MA3240-M/RD24M-B2	1	
D113	613A0103M0292	Zener diode (CP) MA3300/RD30M-B	1	
SCR	620A0022M0006E	Gate thyristor OFF CR3CM-8	1	
R23	323A5015J0101	RN resistor (CP) RM73B2B101J	1	
R108	323A5015J0180	RN resistor (CP) RM73B2B180J	1	
R1	323A5015J0221	RN resistor (CP) RM73B2B221J	1	
R200, 226	323A5015J0431	RN resistor (CP) RM73B2B431J	2	
R175, 191, 222	323A5015J0511	RN resistor (CP) RM73B2B511J	3	
R117, 118, 182, 198, 221	323A5015J0122	RN resistor (CP) RM73B2B122J	5	
R176, 180	323A5015J0202	RN resistor (CP) RM73B2B202J	2	
R6, 10, 11, 21, 116, 183, 194, 195, 225	323A5015J0222	RN resistor (CP) RM73B2B222J	9	
R174	323A5015J0182	RN resistor (CP) RM73B2B182J	1	
R12 to 16, 148 to 155, 179, 185, 186, 188, 202, 203, 216	323A5015J0332	RN resistor (CP) RM73B2B332J	20	

Figure 12 (3/6) SLMR-6 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.2, 3, 4)

Item No./Symbol	Part No.	Description	Qty	Remarks
R196, 197	323A5015J0472	RN resistor (CP) RM73B2B472J	2	
R207 to 210	323A5015J0512	RN resistor (CP) RM73B2B512J	4	
R29, 105, 106, 120, 139, 166	323A5015J0562	RN resistor (CP) RM73B2B562J	6	
R142	323A5011P0001	Chip jumper (CP) MCR18-JPW	1	
R172	323A5015J0682	RN resistor (CP) RM73B2B682J	1	
R3, 129, 140, 156 to 165, 167, 201, 205, 206, 224, 228	323A5015J0103	RN resistor (CP) RM73B2B103J	19	
R103	323A5015J0104	RN resistor (CP) RM73B2B104J	1	
R219	323A5015J0183	RN resistor (CP) RM73B2B183J	1	
R178	323A5015J0683	RN resistor (CP) RM73B2B683J	1	
R20	323A5015J0561	RN resistor (CP) RM73B2B561J	1	
R114	323A5015J0513	RN resistor (CP) RM73B2B513J	1	
R19	323A5015J0224	RN resistor (CP) RM73B2B224J	1	
R22, 190, 192	323A5015J0102	RN resistor (CP) RM73B2B102J	3	
R25, 26	323A5015F0242	RN resistor (CP) RM73B2B242F	2	
R170	323A5015F0472	RN resistor (CP) RM73B2B472F	1	
R27	323A5015F0752	RN resistor (CP) RM73B2B752F	1	
R171	323A5015F0124	RN resistor (CP) RM73B2B124F	1	
R8	324A1001J0518	RS resistor MSF1/2B 0.51ΩJ	1	
R34	321A1431J0202	RD resistor RD1/2Y 2 kΩJ	1	

Figure 12 (4/6) SLMR-6 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.2, 3, 4)

Item No./Symbol	Part No.	Description	Qty	Remarks
R37	324A1121J0390	RS resistor MOR2B 39Ω	1	
R32, 47	321A1431J0301	RD resistor RD1/2Y 300Ω	2	
R44	321A1431J0622	RD resistor RD1/2Y 6.2 kΩ	1	
C213	303A3008K0100	CC capacitor (CP) CC3216SL1H100D	1	
C113	303A3008K0221	CC capacitor (CP) CC3216SL1H221J	1	
C193	303A3008K0560	CC capacitor (CP) CC3216SL1H560J	1	
C211, 212, 217	303A6009K3102	CK capacitor (CP) CK3216B1H102K	3	
C112, 218	303A6009K3103	CK capacitor (CP) CK3216B1H103K	2	
C102, 107, 119, 130, 135, 137, 145, 147, 214, 227	303A6009Z3104	CK capacitor (CP) CK3216F1H104Z	10	
C43	304A1041A2109	CE capacitor 1.0μ CEUSM2A010 100 V	1	
C18	304A1041H1100	CE capacitor 10μ CEUSM1H100 50 V	1	
C39	304A1041A1101	CE capacitor 100μ CEUSM1A101 10 V	1	
C40	304A1037C1822	CE capacitor 8200μ 16VBSN-8200 16 V	1	
C41	304A1108G1472	CE capacitor 4700μ 42VPSN-4700(M) 42 V	1	
C31, 35	302A4027Z5103	CK capacitor 10000P TCK45F2E103ZYA 250 V	2	
C2, 7	304A1041A2339	CE capacitor 3.3μ CEUSM2A3R3 100V	2	
C24	306A4100G2223	CQ capacitor 0.022μ CQM-92PP2A223G 100 V	1	
Q12	853A0125M0049	MOC-CPU(ROM) P8051AH-0049	1	
Q4	702A2024N0003	MOS digital IC (FP) MSM6990GS-V1K	1	

Figure 12 (5/6) SLMR-6 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.2, 3, 4)

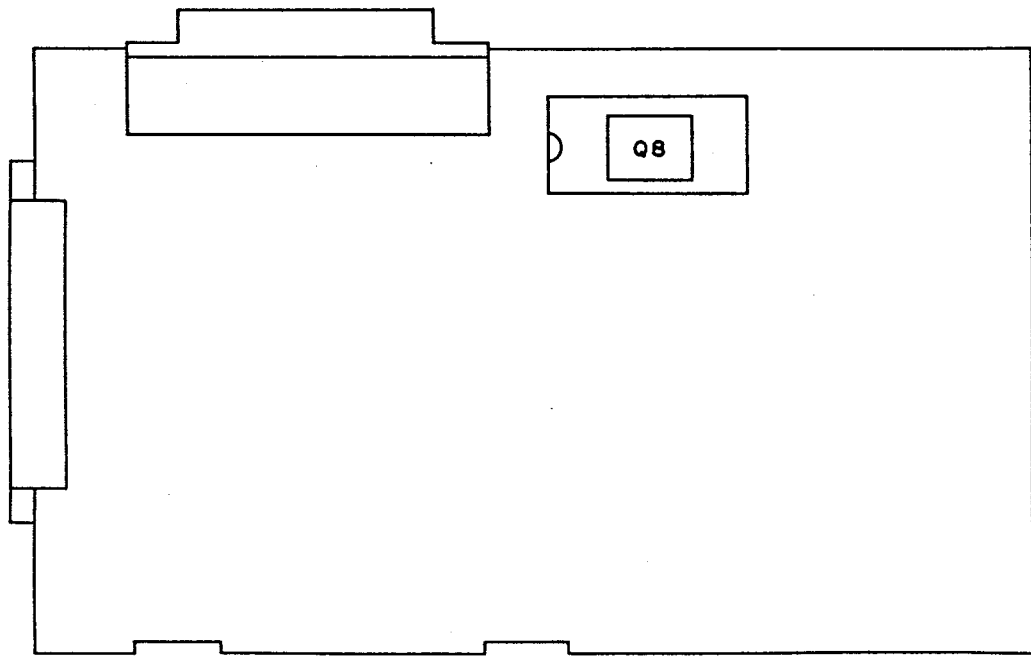
Item No./Symbol	Part No.	Description	Qty	Remarks
Q3	700A0550N0006	BIP digital IC (SO) SN74LS06NS	1	
Q1, 2	760A4731M0401	Transistor array LB1205	2	
Q13	804A0003N4302	MOS-S-RAM (SO) 5128-20GS/5517AFL-2	1	
Q7	720A0528N0002	BIP linear type IC (SO) NJM2901M	1	
Q8	245A1155P0280	IC socket DL2-28A-05	1	
F1	540A0220M1152	Fuse GHMF 125 V 1.5 A	1	
L1	353A3002K0102	H coil OL1614-102KR70(D)	1	
TR16	600A1003N0002	PNP-HF-TR (CP) 2SA1331/2SA1037K	1	
TR11, 104, 108	600A1003N0003	PNP-HF-TR (CP) A1344/UN2111/DTA114K	3	
TR24	601A1130M0004	PNP-LF-TR 2SB761	1	
TR6	601A1032N0002	PNP-LF-TR (CP) 2SB1123	1	
TR3	601A1130M0001	PNP-LF-TR (CP) 2SB766A-Q/R	1	
TR15, 18, 103	602A1003N0002	NPN-HF-TR (CP) 2SC3361/2SC2412K	3	
TR1, 2, 4, 5	603A1130N0003	NPN-LF-TR (CP) 2SD1511	4	
TR9	603A1032N0001	NPN-LF-TR (CP) 2SD1626	1	
TR13	601A1132M0003	PNP-LF-TR 2SB882	1	
MTDV	720A4021E0004	BIP linear type IC HA13412	1	
REG	720A1033M0001	BIP linear type IC LA5005	1	
SP4, 6	225A3123P0020	FC connector FFC-2AMEP1	2	
SP5	225A3123P0030	FC connector FFC-3AMEP1	1	

Figure 12 (6/6) SLMR-6 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.2, 3, 4)

Item No./Symbol	Part No.	Description	Qty	Remarks
DIP	4LP-3763-8	DIP switch KSD08	1	
CN1	220A1423P0361	Square connector 57LE-40360-73OO(D53)	1	
CN2	224A3376P0300	PC connector 00-9072-230-101-883	1	
CN3	224A1160P0400	PC connector PD40A2XO	1	
CN4	224A3462P0060	PC connector 172681-6	1	
CN5	221A1525P0081	Circle connector TCS7580-01-201	1	
OSC	4LP-12186-1	Oscillator FAR-C4SB11059000-M02	1	
PE	652A0127M0009	Photo coupler EE-SJ5-B	1	
127	4LP-7142	Fuse holder FP-213	2	
135	224A3182P0020	PC connector DIC-252	3	
追加	4PP4050-2111P1	SPACER	1	ECO NML-323

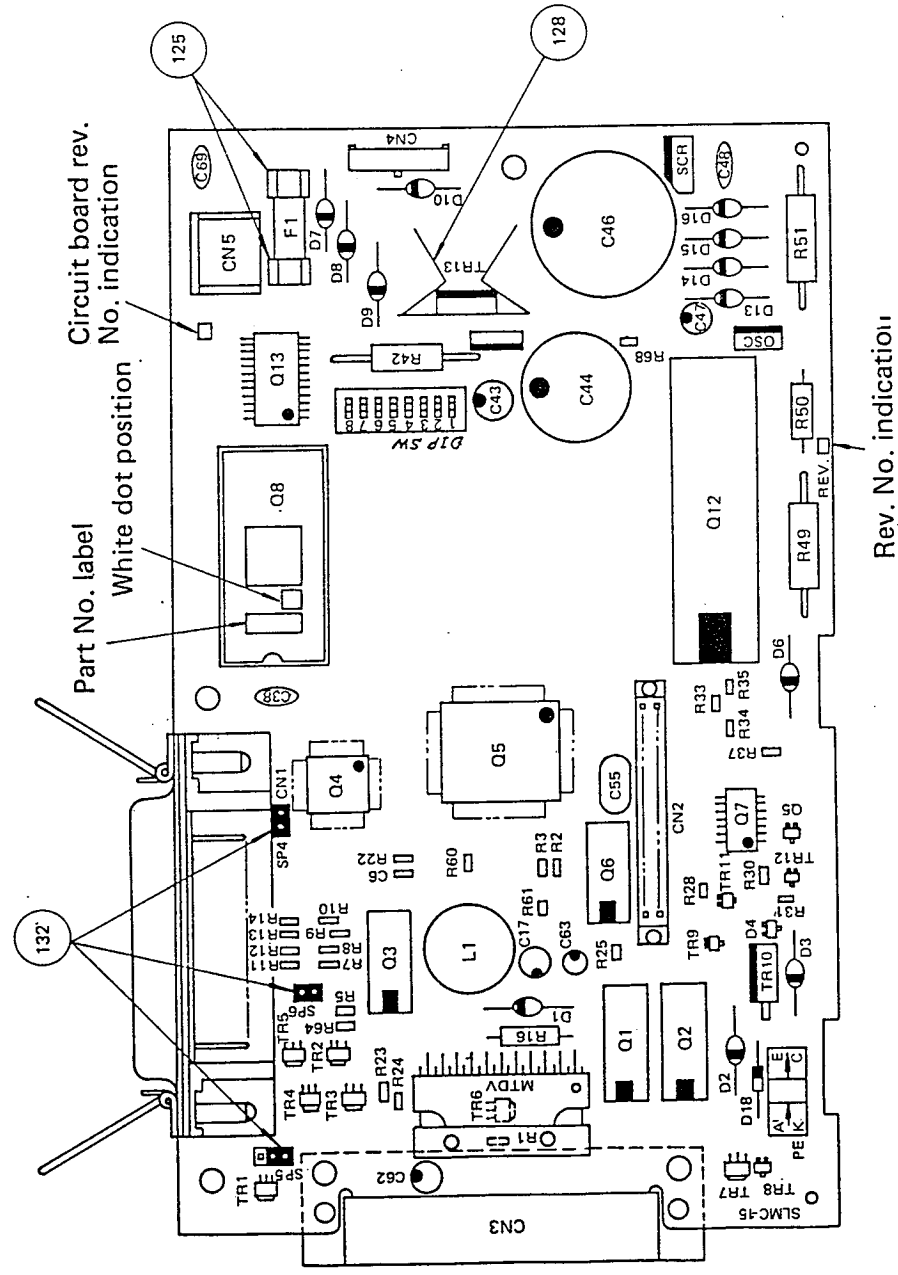
Different types ROMs are used for each G No. as listed below.

G No.	ROM No.	Part No.	Part No. label	Application	Remarks
G012	Q8	4YR4065-1253G1	65-1253	Rev. 15, 16	Standard
G013	Q8	4YR4065-1060G1	65-1060	Rev. 15, 16	IBM

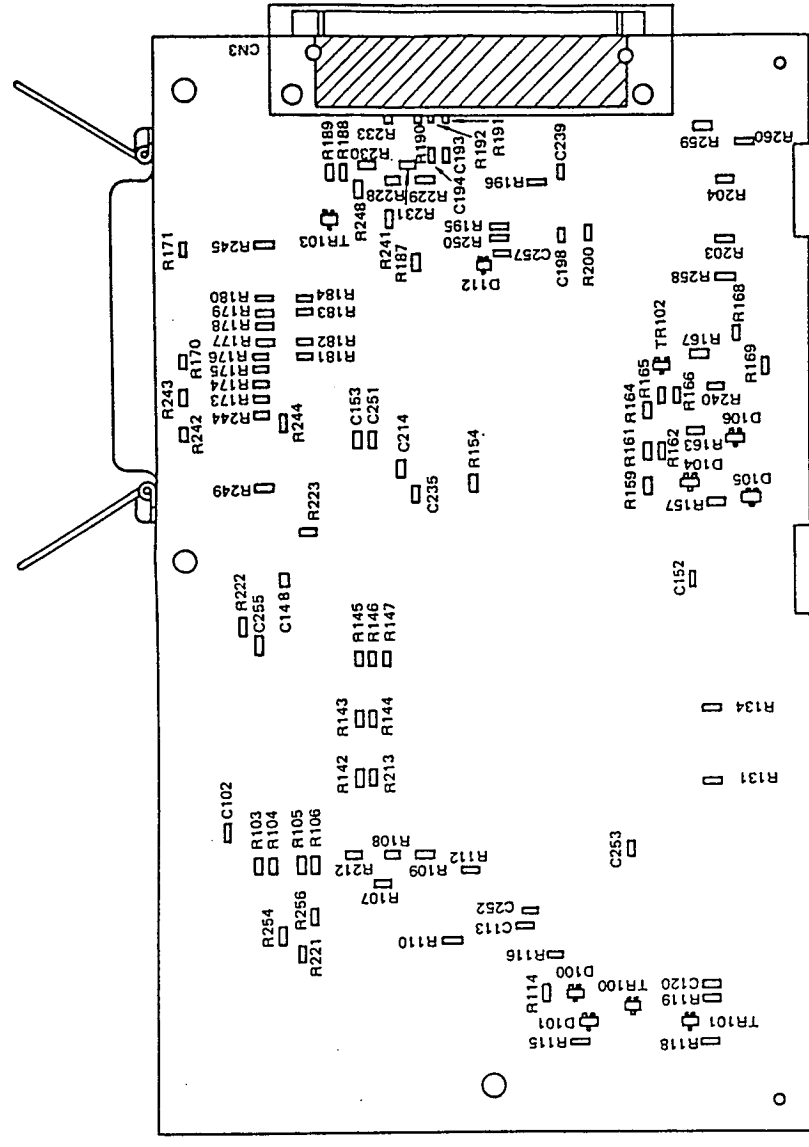


**SLMC-15 Printed-Circuit Board (4YA4021-1001Gxxx)**

Parts side



Solder side



Circuit board rev. No.	15
Rev. No.	15

Figure 13(1/7) SLMR-15 Printed-Circuit Board (4YA4021-1001GXXX)



Figure 13 (2/7) SLMC-15 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.15)

Item No./Symbol	Part No.	Description	Qty	Remarks
D1	610A0221L0021	Rectifying diode DFA1A1	1	
D2, D6, D7 to D10	610A0021L0090	Rectifying diode DSA1A2	6	
D3, D13 to D16	610A0021L0089A	Rectifying diode DSA1C1	5	
D4, D100, D105	611A0003N0003	Signal diode (CP) MA151WK/DAN202K	3	
D104	613A0291M0102H	Zener diode (CP) MA3047-H	1	
D101	613A0103M0182	Zener diode (CP) MA3100/RD10M-B	1	
D5	613A0103M0152B	Zener diode (CP) MA3075-M/RD7.5M-B2	1	
D106	613A0103M0272B	Zener diode (CP) MA3240-M/RD24M-B2	1	
D112	613A0103M0292	Zener diode (CP) MA3300/RD30M-B	1	
D18	613A2232L0182	Zener diode (CP) RD10F-B	1	
SCR	620A0022M0006E	Gate thyristor OFF CR3CM-8	1	
R110	323A5015J0180	RN resistor (CP) RM73B2B180J	1	
R24	323A5015J0221	RN resistor (CP) RM73B2B221J	1	
R23, R260	323A5015J0431	RN resistor (CP) RM73B2B431J	2	
R162, R203	323A5015J0511	RN resistor (CP) RM73B2B511J	2	
R118, R119, R167, R189, R258, R64	323A5015J0122	RN resistor (CP) RM73B2B122J	6	
R163, R240	323A5015J0202	RN resistor (CP) RM73B2B202J	2	

Figure 13 (3/7) SLMC-15 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.15)

Item No./Symbol	Part No.	Description	Qty	Remarks
R1 to R3, R31, R60, R61, R115, R169, R259	323A5015J0222	RN resistor (CP) RM73B2B222J	9	
R161	323A5015J0182	RN resistor (CP) RM73B2B182J	1	
R7 to R14, R166, R170, R177 to R180, R195, R196, R242, R243, R245, R250	323A5015J0332	RN resistor (CP) RM73B2B332J	20	
R188, R241	323A5015J0472	RN resistor (CP) RM73B2B472J	2	
R190 to R192, R233	323A5015J0512	RN resistor (CP) RM73B2B512J	4	
R22, R103 to R109, R112, R154, R164, R168, R187, R222, R223, R249, R253, R256	323A5015J0562	RN resistor (CP) RM73B2B562J	18	
R66, R131, R134, R142 to R147, R173 to R176, R181 to R184, R204, R212, R213, R224, R228 to R231, R244, R248	323A5015J0103	RN resistor (CP) RM73B2B103J	27	
R200	323A5015J0183	RN resistor (CP) RM73B2B183J	1	
R165	323A5015J0683	RN resistor (CP) RM73B2B683J	1	
R28	323A5015J0561	RN resistor (CP) RM73B2B561J	1	
R114	323A5015J0513	RN resistor (CP) RM73B2B513J	1	
R25	323A5015J0224	RN resistor (CP) RM73B2B224J	1	
R5, R30, R171	323A5015J0102	RN resistor (CP) RM73B2B102J	3	

Figure 13 (4/7) SLMC-15 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.15)

Item No./Symbol	Part No.	Description	Qty	Remarks
R159	323A5015J0682	RN resistor (CP) RM73B2B682J	1	
R33, R34	323A5015F0242	RN resistor (CP) RM73B2B242F	2	
R35	323A5015F0472	RN resistor (CP) RM73B2B472F	1	
R37	323A5015F0752	RN resistor (CP) RM73B2B752F	1	
R157	323A5015F0124	RN resistor (CP) RM73B2B124F	1	
R16	324A1001J0518	RS resistor MSF1/2B 0.51 $\Omega$ J	1	
R50	321A1431J0202	RD resistor RD1/2Y 2 k $\Omega$ J	1	
R42	324A1121J0390	RS resistor MOR2B 39 $\Omega$ kJ	1	
R49	324A1121J0151	RS resistor MOR2B 150 $\Omega$ J	1	
R51	324A1121J0302	RS resistor MOR2B 3.0 k $\Omega$ J	1	
R221	323A5015J0104	RN resistor (CP) RM73B2B104J	1	
C6	303A3008K0560	CC capacitor (CP) CC3216SL1H560J	1	
C193, C194, C239	303A6009K3102	CK capacitor (CP) CK3216B1H102K	3	
C113, C198	303A6009K3103	CK capacitor (CP) CK3216B1H103K	2	
C102, C120, C148, C152, C153, C214, C235, C251, C254, C255	303A6009Z3104	CK capacitor (CP) CK3216F1H104Z	10	
C47	304A1040A2109	CE capacitor 1.0 $\mu$ CESHM2A109 100 V	1	
C17	304A1040H1100	CE capacitor 10 $\mu$ CESHM1H100 50 V	1	
C257	303A3008K0100	CC capacitor (CP) CC3216SL1H100D	1	
C252	303A3008K0221	CC capacitor (CP) CC3216SL1H221J	1	

Figure 13 (5/7) SLMC-15 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.15)

Item No./Symbol	Part No.	Description	Qty	Remarks
C43	304A1040A1101	CE capacitor 100 $\mu$ CESHM1A101 10 V	1	
C44	304A1037C1822	CE capacitor 8200 $\mu$ 16VBSN-8200 16 V	1	
C46	304A1108G1472	CE capacitor 4700 $\mu$ 42VPSN-4700(M) 42 V	1	
C38, C48, C69	302A4027Z5103	CK capacitor 10000P TCK45F2E103ZYA 250 V	3	
C62, C63	304A1046H1339	CE capacitor 3.3 $\mu$ 50MS5-3.3M 50 V	2	
C55	306A4100G2223	CQ capacitor 0.022 $\mu$ CQM-92PP2A223G 100 V	1	
Q12	853A2103M5004	MOS-CPU (ROM) 8051-004P	1	
Q6	700A0503M0005	BIP digital IC 74LS05P	1	
Q3	700A0003M0006	BIP digital IC 7406P	1	
Q1, Q2	760A4731M0401	Transistor array LB1205	2	
Q4	702A4924F2001	MOS digital IC (FP) MSM60201GS-VK	1	
Q5	702A4924F0020	MOS digital IC (FP) MSM61048GS-VK	1	
Q13	804A0021N4301	MOS-S-RAM (SO) HM6116FP-3	1	
Q7	720A0528N0002	BIP linear type IC (SO) NJM2901M	1	
Q8	245A1155P0280	IC socket DL2-28A-05	1	
R116	323A5011P0001	Chip jumper (CP) MCR18-JPW	1	
F1	540A2036M1152	Fuse GG51-1/2	1	
L1	353A3002K0102	H coil OL1614-102KR70(C)	1	

Figure 13 (6/7) SLMC-15 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.15)

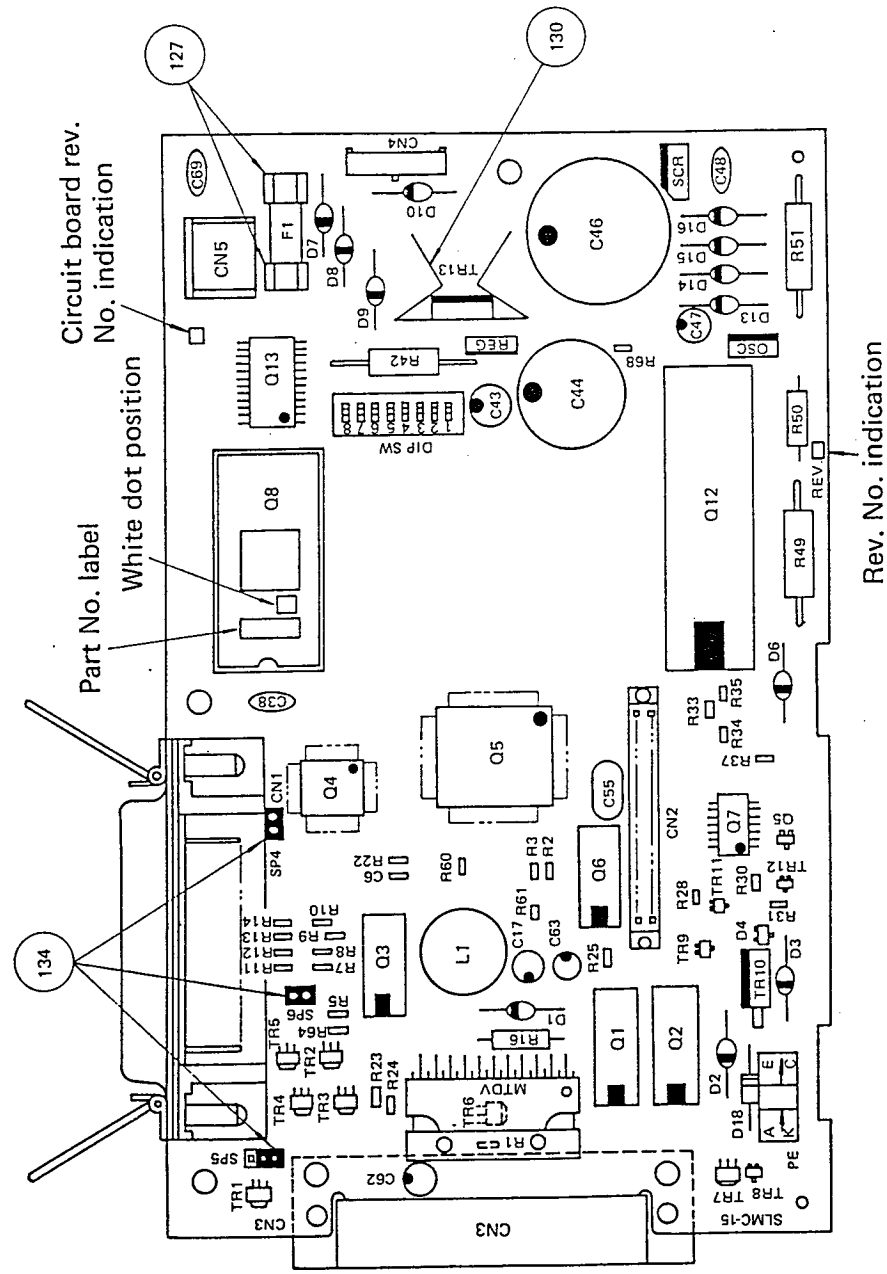
Item No./Symbol	Part No.	Description	Qty	Remarks
TR9	600A1003N0002	PNP-HF-TR (CP) 2SA1331/2SA1037K	1	
TR8, TR11, TR101, TR102	600A1003N0003	PNP-HF-TR (CP) A1344/UN2111/DTA114K	4	
TR13	601A1130M0004	PNP-LF-TR 2SB761	1	
TR6	601A1032N0002	PNP-LF-TR (CP) 2SB1123	1	
TR3	601A1130M0001	PNP-LF-TR (CP) 2SB766A-Q/R	1	
TR12, TR100, TR103	602A1003N0002	NPN-HF-TR (CP) 2SC3361/2SC2412K	3	
TR1, TR2, TR4, TR5	603A1130N0003	NPN-LF-TR (CP) 2SD1511	4	
TR7	603A1032N0001	NPN-LF-TR (CP) 2SD1626	1	
TR10	601A1132M0003	PNP-LF-TR 2SB882	1	
MTDV	720A4021E0004	BIP linear type IC HA13412	1	
REG	720A1033M0001	BIP linear type IC LA5005	1	
SP4, SP6	225A3123P0020	FC connector FFC-2AMEP1	2	
DIP	4LP-3763-8	DIP switch KSD08	1	
CN1	220A1423P0361	Square connector 57LE-40360-77OO (D53)	1	
CN2	224A3376P0300	PC connector 00-9072-230-101-883	1	
CN3	224A1160P0400	PC connector PD40A2XO	1	
CN4	224A3462P0060	PC connector 172681-6	1	
CN5	221A1525P0080	Circle connector TCS7580-01-101	1	
OSC	4LP-12186-1	Oscillator FAR-C4SB11059000-M02	1	
SP5	225A3123P0030	FC connector FFC-3AMEP1	1	

Figure 13 (7/7) SLMC-15 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.15)

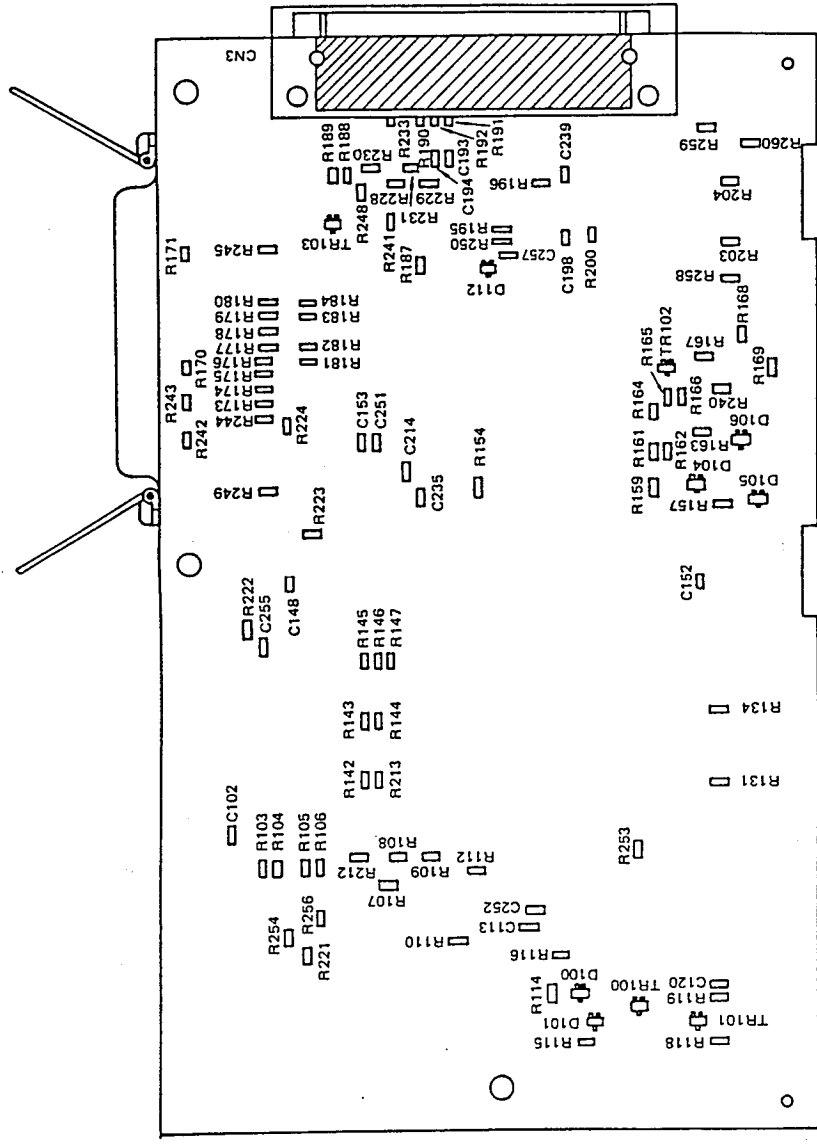
Item No./Symbol	Part No.	Description	Qty	Remarks
PE	652A0127M0009	Photo coupler EE-SJ5-B	1	
125	4LP-7142	Fuse holder FP-213	2	
128	4PP4021-1015P001	Heat sink	1	
132	224A3182P0020	PC connector DIC-252	3	

*[Handwritten notes and markings, including "NML-80" and other illegible text]*

Parts side



Solder side



Circuit board rev. No.	16
Rev. No.	16

Figure 13(1/7) SLMC-15 Printed-Circuit Board (4YA4021-1001XXX)

Figure 13 (2/7) SLMC-15 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.16)

Item No./Symbol	Part No.	Description	Qty	Remarks
D1	610A0221L0021	Rectifying diode DFA1A1	1	
D2, D6, D7 to D10	610A0021L0090	Rectifying diode DSA1A2	6	
D3, D13 to D16	610A0021L0089A	Rectifying diode DSA1C1	5	
D4, D100, D105	611A0003N0003	Signal diode (CP) MA151WK/DAN202K	3	
D104	613A0291M0102H	Zener diode (CP) MA3047-H	1	
D101	613A0103M0182	Zener diode (CP) MA3100/RD10M-B	1	
D5	613A0103M0152B	Zener diode (CP) MA3075-M/RD7.5M-B2	1	
D106	613A0103M0272B	Zener diode (CP) MA3240-M/RD24M-B2	1	
D112	613A0103M0292	Zener diode (CP) MA3300/RD30M-B	1	
D18	613A2232L0182	Zener diode (CP) RD10F-B	1	
SCR	620A0022M0006E	Gate thyristor OFF CR3CM-8	1	
R110	323A5015J0180	RN resistor (CP) RM73B2B180J	1	
R24	323A5015J0221	RN resistor (CP) RM73B2B221J	1	
R23, R260	323A5015J0431	RN resistor (CP) RM73B2B431J	2	
R162, R203	323A5015J0511	RN resistor (CP) RM73B2B511J	2	
R118, R119, R167, R189, R258, R64	323A5015J0122	RN resistor (CP) RM73B2B122J	6	
R163, R240	323A5015J0202	RN resistor (CP) RM73B2B202J	2	
R1 to R3, R31, R60, R61, R115, R169, R259	323A5015J0222	RN resistor (CP) RM73B2B222J	8	
R161	323A5015J0182	RN resistor (CP) RM73B2B182J	1	



Figure 13 (3/7) SLMC-15 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.16)

Item No./Symbol	Part No.	Description	Qty	Remarks
R7 to R14, R166, R170, R177 to R180, R195, R196, R242, R243, R245, R250	323A5015J0332	RN resistor (CP) RM73B2B332J	20	
R188, R241	323A5015J0472	RN resistor (CP) RM73B2B472J	2	
R190 to R192, R233	343A5015J0512	RN resistor (CP) RM73B2B512J	4	
R22, R103 to R109, R112, R154, R164, R168, R187, R222, R223, R249, R253, R256	323A5015J0562	RN resistor (CP) RM73B2B562J	18	
R68, R131, R134, R142 to R147, R173 to R176, R181 to R184, R204, R212, R213, R224, R228 to R231, R244, R248	323A5015J0103	RN resistor (CP) RM73B2B103J	27	
R200	323A5015J0183	RN resistor (CP) RM73B2B183J	1	
R165	323A5015J0683	RN resistor (CP) RM73B2B683J	1	
R28	323A5015J0561	RN resistor (CP) RM73B2B561J	1	
R114	323A5015J0513	RN resistor (CP) RM73B2B513J	1	
R25	323A5015J0224	RN resistor (CP) RM73B2B224J	1	
R5, R30, R171	323A5015J0102	RN resistor (CP) RM73B2B102J	3	
R159	323A5015J0682	RN resistor (CP) RM73B2B682J	1	
R33, R34	323A5015F0242	RN resistor (CP) RM73B2B242F	2	

Figure 13 (4/7) SLMC-15 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.16)

Item No./Symbol	Part No.	Description	Qty	Remarks
R35	323A5015F0472	RN resistor (CP) RM73B2B472F	1	
R37	323A5015F0752	RN resistor (CP) RM73B2B752F	1	
R157	323A5015F0124	RN resistor (CP) RM73B2B124F	1	
R16	324A1001J0518	RS resistor MSF1/2B 0.51Ω	1	
R50	321A1431J0202	RD resistor RD1/2Y 2 kΩ	1	
R42	324A1121J0390	RS resistor MOR2B 39Ω	1	
R49	324A1121J0151	RS resistor MOR2B 150Ω	1	
R51	324A1121J0302	RS resistor MOR2B 3.0 kΩ	1	
R221	323A5015J0104	RN resistor (CP) RM73B2B104J	1	
C257	303A3008K0100	CC capacitor (CP) CC3216SL1H100D	1	
C252	303A3008K0221	CC capacitor (CP) CC3216SL1H221J	1	
C6	303A3008K0560	CC capacitor (CP) CC3216SL1H560J	1	
C193, C194, C239	303A6009K3102	CK capacitor (CP) CK3216B1H102K	3	
C113, C198	303A6009K3103	CK capacitor (CP) CK3216B1H103K	2	
C102, C120, C148, C152, C153, C214, C235, C251, C254, C255,	303A6009Z3104	CK capacitor (CP) CK3216F1H104Z	10	
C47	304A1041A2109	CE capacitor 1.0μ CEUSM2A010 100 V	1	
C17	304A1041H1100	CE capacitor 10μ CEUSM1H100 50 V	1	
C43	304A1041A1101	CE capacitor 100μ CEUSM1A101 10 V	1	

Figure 13 (5/7) SLMC-15 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.16)

Item No./Symbol	Part No.	Description	Qty	Remarks
C44	304A1037C1822	CE capacitor 8200 $\mu$ 16VBSN-8200 16 V	1	
C46	304A1108G1472	CE capacitor 4700 $\mu$ 42VPSN-4700(M) 42 V	1	
C38, C48, C69	302A4027Z5103	CK capacitor 10000P TCK45F2E103ZYA	3	
C62, C63	304A1046H1339	CE capacitor 3.3 $\mu$ 50MS5-3.3M 50 V	2	
C55	306A4100G2223	CQ capacitor 0.022 $\mu$ CQM-92PP2A223G 100 V	1	
Q12	853A2103M5004	MOS-CPU (ROM) 8051-004P	1	
Q6	700A0503M0005	BIP digital IC 74LS05P	1	
Q3	700A0003M0006	BIP digital IC 7406P	1	
Q1, Q2	760A4731M0401	Transistor array LB1205	2	
Q4	702A4924F2001	MOS digital IC (FP) MSM60201GS-VK	1	
Q5	702A4924F0020	MOS digital IC (FP) MSM61048GS-VK	1	
Q13	804A0021N4301	MOS-S-RAM (SO) HM6116FP-3	1	
Q7	720A0528N0002	BIP linear type IC (SO) NJM2901M	1	
Q8	245A1155P0280	IC socket DL2-28A-05	1	
R116	323A5011P0001	Chip jumper (CP) MCR18-JPW	1	
F1	540A2036M1152	Fuse GG51-1/2	1	
L1	353A3002K0102	H coil OL1614-102KR70(D)	1	
TR9	600A1003N0002	PNP-HF-TR (CP) 2SA1331/2SA1037K	1	

Figure 13 (6/7) SLMC-15 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.16)

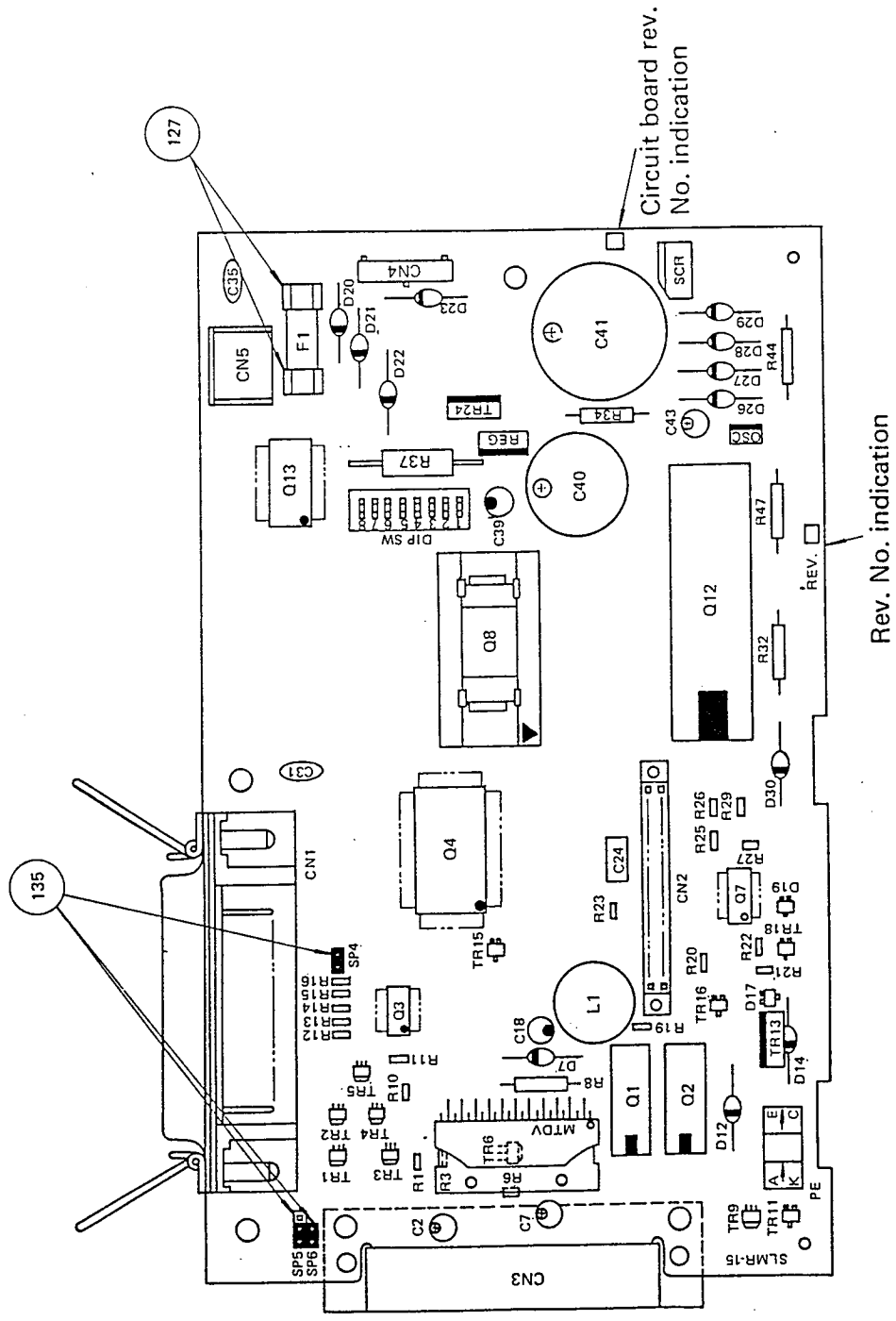
Item No./Symbol	Part No.	Description	Qty	Remarks
TR8, TR11, TR101, TR102	600A1003N0003	PNP-HF-TR (CP) A1344/UN2111/DTA114K	4	
TR13	601A1130M0004	PNP-LF-TR 2SB761	1	
TR6	601A1032N0002	PNP-LF-TR (CP) 2SB1123	1	
TR3	601A1130M0001	PNP-LF-TR (CP) 2SB766A-Q/R	1	
TR12, TR100, TR103	602A1003N0002	NPN-HF-TR (CP) 2SC3361/2SC2412K	3	
TR1, TR2, TR4, TR5	603A1130N0003	NPN-LF-TR (CP) 2SD1511	4	
TR7	603A1032N0001	NPN-LF-TR (CP) 2SD1626	1	
TR10	601A1132M0003	PNP-LF-TR 2SB882	1	
MTDV	720A4021E0004	BIP linear type IC HA13412	1	
REG	720A1033M0001	BIP linear type IC LA5005	1	
SP4, SP6	225A3123P0020	FC connector FFC-2AMEP1	2	
SP5	225A3123P0030	FC connector FFC-3AMEP1	1	
DIP	4LP-3763-8	DIP switch KSD08	1	
CN1	220A1423P0361	Square connector 57LE-40360-73OO (D53)	1	
CN2	224A3376P0300	PC connector 00-9072-230-101-893	1	
CN3	224A1160P0400	PC connector PD40A2XO	1	
CN4	224A3462P0060	PC connector 172681-6	1	
CN5	221A1525P0080	Circle connector TCS7580-01-101	1	
OSC	4LP-12186-1	Oscillator FAR-C4SB11059000-M02	1	

**Figure 13 (7/7) SLMC-15 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.16)**

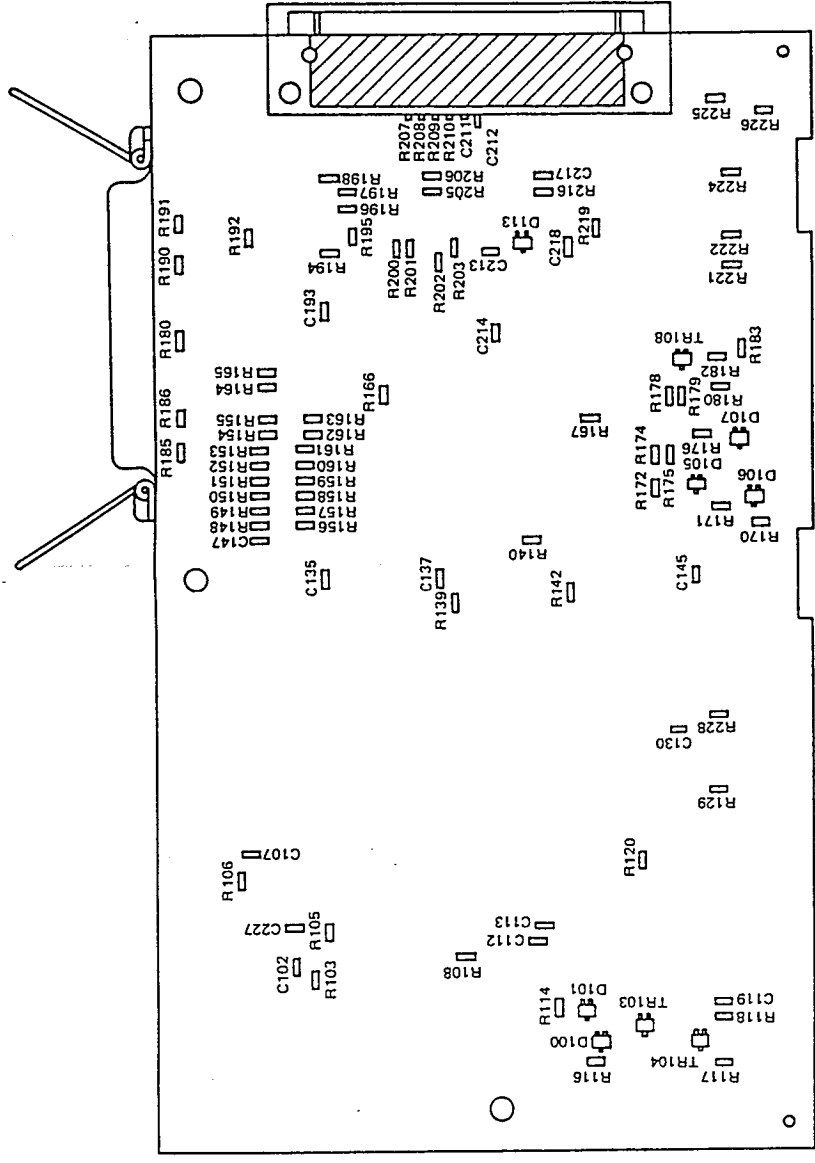
Item No./Symbol	Part No.	Description	Qty	Remarks
PE	652A0127M0009	Photo coupler EE-SJ5-B	1	
127	4LP-7142	Fuse holder FP-213	2	
130	4PP4021-1015P001	Heat sink	1	
134	224A3182P0020	PC connector DIC-252	3	



Parts side



Solder side



Circuit board rev. No.	Rev. No.
2, 3, 4	2, 3, 4

Figure 14(1/6) SLMR-15 Printed-Circuit Board (4YA4021-1001GXXX)

Figure 14 (2/6) SLMR-15 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.2, 3, 4)

Item No./Symbol	Part No.	Description	Qty	Remarks
D7	620A0221L0021	Rectifying diode DFA1A1	1	
D12, 20 to 23, 30	610A0021L0090	Rectifying diode DSA1A2	6	
D14, 26 to 29	620A0021L0089A	Rectifying diode DSA1C1	5	
D17, 101, 106	611A0003N0003	Signal diode (CP) MA151WK/DAN202K	3	
D105	613A0291M0102H	Zener diode (CP) MA3047-H	1	
D100	613A0103M0182	Zener diode (CP) MA3100/RD10M-B	1	
D19	613A0103M0152B	Zener diode (CP) MA3075-M/RD7.5M-B2	1	
D107	613A0103M0272B	Zener diode (CP) MA3240-M/RD24M-B2	1	
D113	613A0103M0292	Zener diode (CP) MA3300/RD30M-B	1	
SCR	620A0022M0006E	Gate thyristor OFF CR3CM-8	1	
R23	323A5015J0101	RN resistor (CP) RM73B2B101J	1	
R108	323A5015J0180	RN resistor (CP) RM73B2B180J	1	
R1	323A5015J0221	RN resistor (CP) RM73B2B221J	1	
R200, 226	323A5015J0431	RN resistor (CP) RM73B2B431J	2	
R175, 222	323A5015J0511	RN resistor (CP) RM73B2B511J	2	
R117, 118, 182, 198, 221, 191	323A5015J0122	RN resistor (CP) RM73B2B122J	6	
R176, 180	323A5015J0202	RN resistor (CP) RM73B2B202J	2	
R6, 10, 11, 21, 116, 183, 194, 195, 225	323A5015J0222	RN resistor (CP) RM73B2B222J	9	
R174	323A5015J0182	RN resistor (CP) RM73B2B182J	1	
R12 to 16, 148 to 155, 179, 185, 186, 188, 202, 203, 216	323A5015J0332	RN resistor (CP) RM73B2B332J	20	



Figure 14 (3/6) SLMR-15 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.2, 3, 4)

Item No./Symbol	Part No.	Description	Qty	Remarks
R196, 197	323A5015J0472	RN resistor (CP) RM73B2B472J	2	
R207 to 210	323A5015J0512	RN resistor (CP) RM73B2B512J	4	
R29, 105, 106, 120, 139, 166	323A5015J0562	RN resistor (CP) RM73B2B562J	6	
R142	323A5011P0001	Chip jumper (CP) MCR18-JPW	1	
R172	323A5015J0682	RN resistor (CP) RM73B2B682J	1	
R3, 129, 140, 156 to 165, 167, 201, 205, 206, 224, 228	323A5015J0103	RN resistor (CP) RM73B2B103J	19	
R103	323A5015J0104	RN resistor (CP) RM73B2B104J	1	
R219	323A5015J0183	RN resistor (CP) RM73B2B183J	1	
R178	323A5015J0683	RN resistor (CP) RM73B2B683J	1	
R20	323A5015J0561	RN resistor (CP) RM73B2B561J	1	
R114	323A5015J0513	RN resistor (CP) RM73B2B513J	1	
R19	323A5015J0224	RN resistor (CP) RM73B2B224J	1	
R22, 190, 192	323A5015J0102	RN resistor (CP) RM73B2B102J	3	
R25, 26	323A5015F0242	RN resistor (CP) RM73B2B242F	2	
R170	323A5015F0472	RN resistor (CP) RM73B2B472F	1	
R27	323A5015F0752	RN resistor (CP) RM73B2B752F	1	
R171	323A5015F0124	RN resistor (CP) RM73B2B124F	1	
R8	324A1001J0518	RS resistor MSF1/2B 0.51ΩJ	1	
R34	321A1431J0202	RD resistor RD1/2Y 2 kΩJ	1	

Figure 14 (4/6) SLMR-15 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.2, 3, 4)

Item No./Symbol	Part No.	Description	Qty	Remarks
R37	324A1121J0390	RS resistor MOR2B 39ΩJ	1	
R32, 47	321A1431J0301	RD resistor RD1/2Y 300ΩJ	2	
R44	321A1431J0622	RD resistor RD1/2Y 6.2 kΩJ	1	
C213	303A3008K0100	CC capacitor (CP) CC3216SL1H100D	1	
C113	303A3008K0221	CC capacitor (CP) CC3216SL1H221J	1	
C193	303A3008K0560	CC capacitor (CP) CC3216SL1H560J	1	
C211, 212, 217	303A6009K3102	CK capacitor (CP) CK3216B1H102K	3	
C112, 218	303A6009K3103	CK capacitor (CP) CK3216B1H103K	2	
C102, 107, 119, 130, 135, 137, 145, 147, 214, 227	303A6009Z3104	CK capacitor (CP) CK3216F1H104Z	10	
C43	304A1041A2109	CE capacitor 1.0μ CEUSM2A010 100 V	1	
C18	304A1041H1100	CE capacitor 10μ CEUSM1H100 50 V	1	
C39	304A1041A1101	CE capacitor 100μ CEUSM1A101 10 V	1	
C40	304A1037C1822	CE capacitor 8200μ 16VBSN-8200 16 V	1	
C41	304A1108G1472	CE capacitor 4700μ 42VPSN-4700(M) 42 V	1	
C31, 35	302A4027Z5103	CK capacitor 10000P TCK45F2E103ZYA 250 V	2	
C2, 7	304A1041A2339	CE capacitor 3.3μ CEUSM2A3R3 100V	2	
C24	306A4100G2223	CQ capacitor 0.022μ CQM-92PP2A223G 100 V	1	
Q12	853A0125M0049	MOC-CPU(ROM) P8051AH-0049	1	
Q4	702A2024N0003	MOS digital IC (FP) MSM6990GS-V1K	1	

Figure 14 (5/6) SLMR-15 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.2, 3, 4)

Item No./Symbol	Part No.	Description	Qty	Remarks
Q3	700A0550N0006	BIP digital IC (SO) SN74LS06NS	1	
Q1,2	760A4731M0401	Transistor array LB1205	2	
Q13	804A0003N4302	MOS-S-RAM (SO) 5128-20GS/5517AFL-2	1	
Q7	720A0528N0002	BIP linear type IC (SO) NJM2901M	1	
Q8	245A1155P0280	IC socket DL2-28A-05	1	
F1	540A0220M1152	Fuse GHMF 125 V 1.5 A	1	
L1	353A3002K0102	H coil OL1614-102KR70(D)	1	
TR16	600A1003N0002	PNP-HF-TR (CP) 2SA1331/2SA1037K	1	
TR11, 104, 108	600A1003N0003	PNP-HF-TR (CP) A1344/UN2111/DTA114K	3	
TR24	601A1130M0004	PNP-LF-TR 2SB761	1	
TR6	601A1032N0002	PNP-LF-TR (CP) 2SB1123	1	
TR3	601A1130M0001	PNP-LF-TR (CP) 2SB766A-Q/R	1	
TR15, 18, 103	602A1003N0002	NPN-HF-TR (CP) 2SC3361/2SC2412K	3	
TR1, 2, 4, 5	603A1130N0003	NPN-LF-TR (CP) 2SD1511	4	
TR9	603A1032N0001	NPN-LF-TR (CP) 2SD1626	1	
TR13	601A1132M0003	PNP-LF-TR 2SB882	1	
MTDV	720A4021E0004	BIP linear type IC HA13412	1	
REG	720A1033M0001	BIP linear type IC LA5005	1	
SP4, 6	225A3123P0020	FC connector FFC-2AMEP1	2	
SP5	225A3123P0030	FC connector FFC-3AMEP1	1	

Figure 14 (6/6) SLMR-15 Printed-Circuit Board (4YA4021-1001Gxxx) (REV.2, 3, 4)

Item No./Symbol	Part No.	Description	Qty	Remarks
DIP	4LP-3763-8	DIP switch KSD08	1	
CN1	220A1423P0361	Square connector 57LE-40360-73OO(D53)	1	
CN2	224A3376P0300	PC connector 00-9072-230-101-883	1	
CN3	224A1160P0400	PC connector PD40A2XO	1	
CN4	224A3462P0060	PC connector 172681-6	1	
CN5	221A1525P0081	Circle connector TCS7580-01-201	1	
OSC	4LP-12186-1	Oscillator FAR-C4SB11059000-M02	1	
PE	652A0127M0009	Photo coupler EE-SJ5-B	1	
127	4LP-7142	Fuse holder FP-213	2	
135	224A3182P0020	PC connector DIC-252	3	