

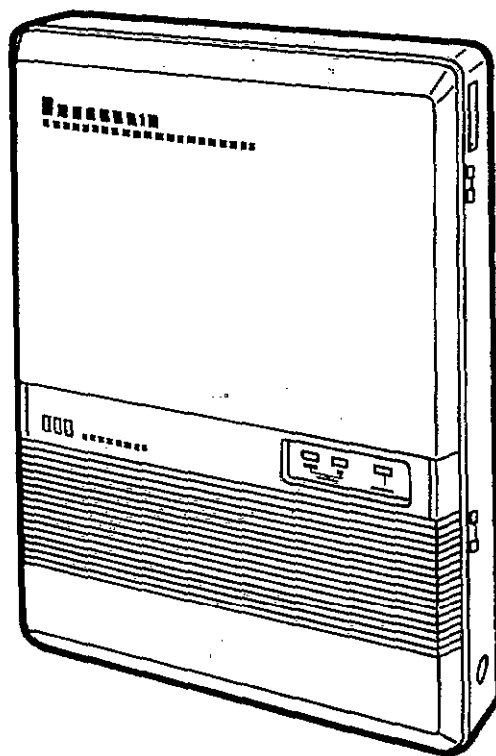
Service Manual

EASA-PHONE

ELECTRONIC MODULAR SWITCHING SYSTEM

KX-T30810BE-2

(For United Kingdom)



Panasonic EASA-PHONE
MODEL NO. KX-T30810BE
 TELEPHONE EQUIPMENT

POWER SOURCE : 240V~50Hz 0.3A

REN : 3.0

Made in Japan
 Matsushita Electric Industrial Co., Ltd.
 Part No. T5732A

(Model KX-T30810BE)

Panasonic EASA-PHONE
MODEL NO. KX-T30810BE
 TELEPHONE EQUIPMENT

POWER SOURCE : 240V~50Hz 0.3A

REN : 3.0

Mfr'd by Kyushu Matsushita Electric (U.K.) Ltd. Newport, U.K.
 Made in U.K.
 Part No. T0622A

(Model KX-T30810BE-1)

Panasonic EASA-PHONE
MODEL NO. KX-T30810BE
 TELEPHONE EQUIPMENT

POWER SOURCE : 240V~50Hz 0.3A

Mfr'd by Kyushu Matsushita Electric (U.K.) Ltd. Newport, U.K.
 Made in U.K.
 Part No. T102982B

(Model KX-T30810BE-2)

1. There are 3 types of model KX-T30810BE, such as KX-T30810BE, KX-T30810BE-1 and KX-T30810BE-2.
2. The model KX-T30810BE-2, have a mark ② on the name plate in figure left.
3. Please use this manual for model KX-T30810BE-2.

Panasonic

When you mention the serial number, write down the 11 digits. The serial number may be found on the name plate on the bottom of the unit.

TABLE OF CONTENTS

SAFETY PRECAUTIONS	2
INSULATION RESISTANCE TEST	2
SPECIFICATIONS	3
NAME AND LOCATION	4
CONNECTION	5
PROGRAMMING	6~13
FOR SERVICE TECHNICIANS	14
DISASSEMBLY INSTRUCTIONS	14
IC I/O DATA	15~17
ADJUSTMENTS	18
BLOCK DIAGRAM	19
SCHEMATIC DIAGRAM	20~26
CIRCUIT BOARD	27~34
WIRING CONNECTION DIAGRAM	35
HOW TO REPLACE FLAT PACKAGE IC	38
IC BLOCK DIAGRAM	39, 40
TERMINAL GUIDE OF ICs, TRANSISTORS AND DIODES	41
EXPLODED VIEW	42
ACCESSORIES AND PACKING MATERIALS	43
REPLACEMENT PARTS LIST	44~48

SAFETY PRECAUTIONS

1. Before servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only manufacturer's recommended components of safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.
5. Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.

INSULATION RESISTANCE TEST

1. Unplug the power cord and short the two prongs of the plug with a jumper wire.
2. Turn on the power switch.
3. Measure the resistance value with ohmmeter between the jumpered AC plug and each exposed metal cabinet part, such as screwheads, antenna, control shafts, handle brackets, etc. Equipment with antenna terminals should read between 3 M Ω and 5.2 M Ω to all exposed parts*. (Fig. 1) Equipment without antenna terminals should read approximately infinity to all exposed parts. (Fig. 2)

*Note: Some exposed parts may be isolated from the chassis by design. These will read infinity.

4. If the measurement is outside the specified limits, there is a possibility of a shock hazard. The equipment should be repaired and rechecked before it is returned to the customer.

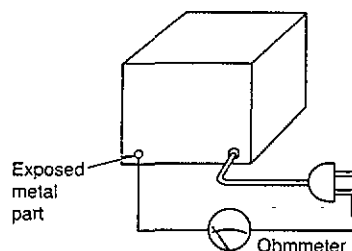


Fig. 2

Resistance=Approx 5 M Ω

SPECIFICATIONS

General Description

- | | | |
|-----------------------------|--|---|
| 1. Capacity | Outsides (CO) | 3 |
| | Stations | 8 |
| 2. Control Method | Stored Program CPU: 8 bits CPU, 4 bits CPU | |
| | Control ROM: 48 KB, Control RAM: 8 KB | |
| 3. Switching | Space Division CMOS Crosspoint Switch | |
| 4. Power Supplies | Primary | AC 240 V 50 Hz |
| | Secondary | Station Supply Volt: +26 V,
Circuit Volt: +5 V, +12 V, +18 V, +26 V |
| | Power Failure • 3 outsides assigned to stations (1 through 3) ... power failure transfer | |
| 5. Dialing | Outward | Dial Pulse 10PPS
Tone Dial |
| | Internal | Dial Pulse 10PPS, 20PPS
Tone Dial |
| | Mode Conversion | DP-DTMF, DTMF-DP |
| 6. Connector | Outsides (CO) | Modular Jack |
| | Station | Modular Jack |
| | Paging Output | Pin Jack (PCA JACK) |
| | External Music Input | two-conductors Jack (MINI JACK $\frac{9}{64}$ inch diameter) |
| 7. EXT Connection | Cable | 1 pair wire (Standard Telephone)
2 pair wire (KX-T7130E/KX-T7020E/
KX-T7050E) |
| 8. Intercom Paths | 3 | |
| 9. Dimensions | 334 (W)×437 (H)×107 (D) mm
(13 $\frac{9}{32}$ "×17 $\frac{7}{32}$ "×4 $\frac{7}{32}$ ") | |
| 10. Weight | 5 kg (11 lb 0.4 oz) | |
| 11. Power Consumption | 40 W (Max.) | |

Characteristics

- | | | |
|---|---|------------------------|
| 1. Station Loop Limit | KX-T7130E/KX-T7020E | 40 ohms |
| | KX-T7050E | |
| | Standard Telephone | 600 ohms including set |
| | Doorphone | 20 ohms |
| 2. Minimum Leak Resistance | 15,000 ohms | |
| 3. Maximum Number of Station Instruments per Line | 1 (KX-T7130E, KX-T7020E or KX-T7050E)
3 (Standard telephone) | |
| 4. Ring Voltage | 90 Vrms at 20 Hz depends on Ringing Load | |
| 5. Primary Power | 240 Vac, 50 Hz | |
| 6. Environmental Requirements | 0–40°C, 132–104°F, 10%–90% | |

Design and specifications are subject to change without notice.

NAME AND LOCATION

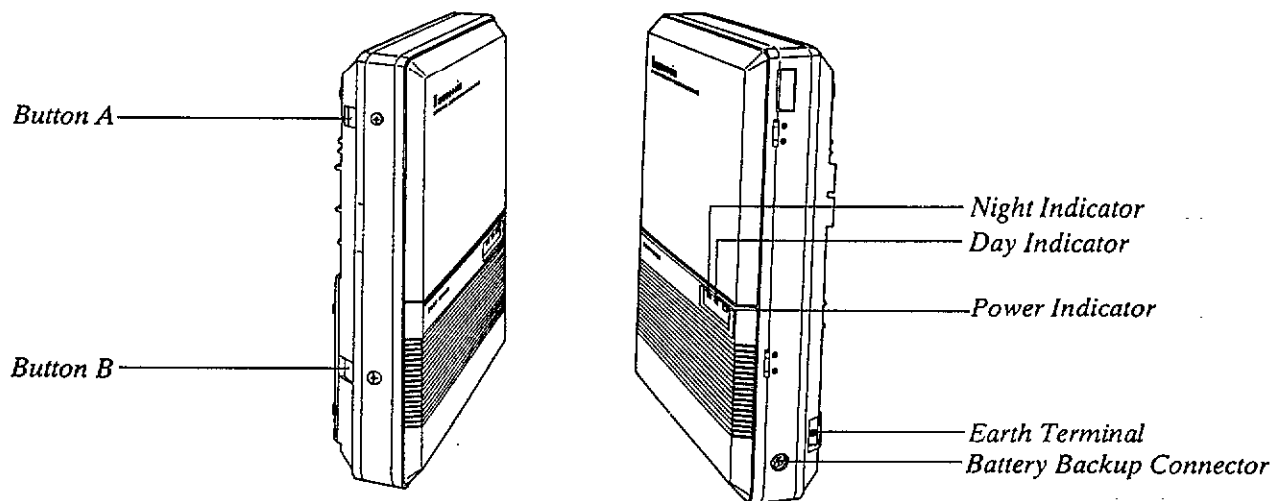


Fig. 3

Remove the two screws and push the Buttons A and B simultaneously to open the front cover.

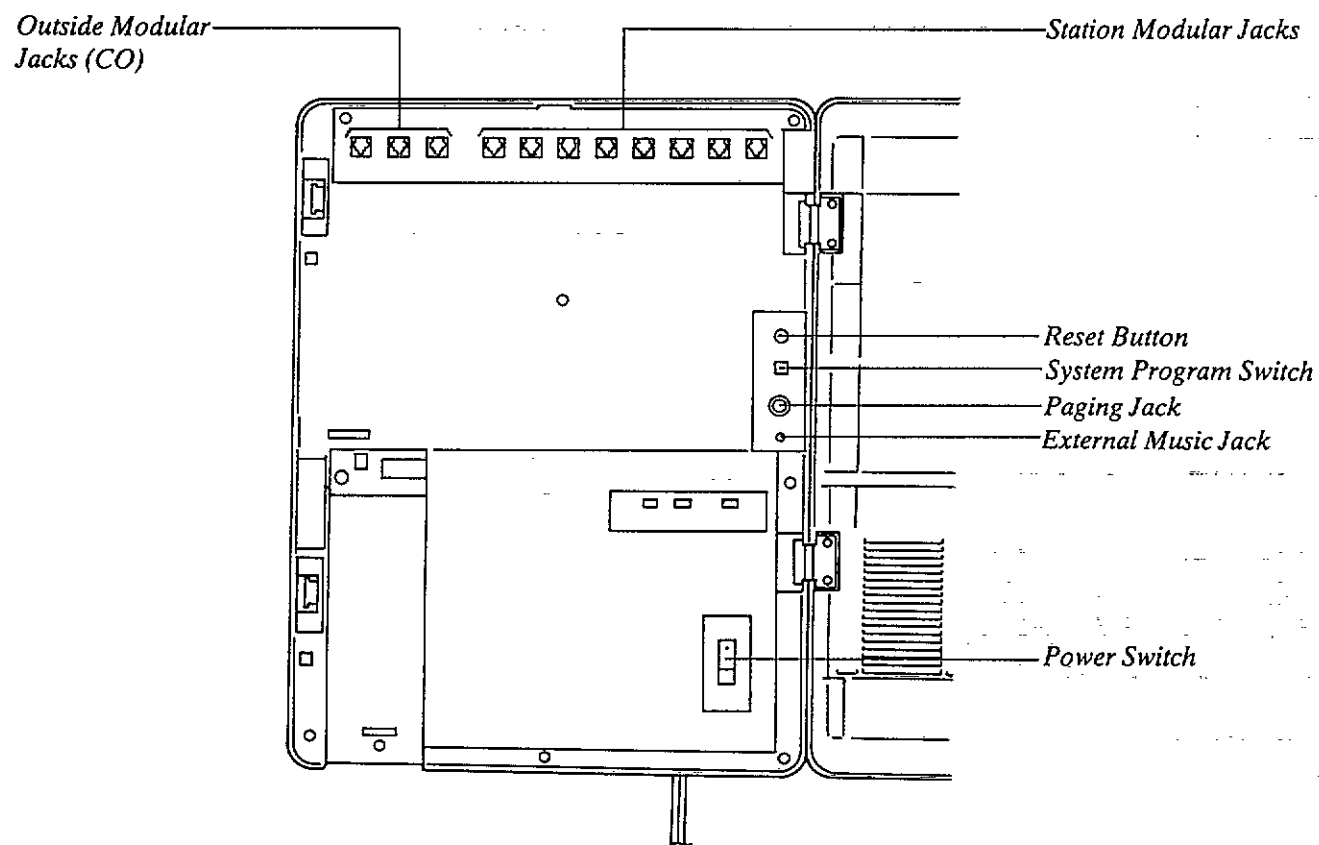


Fig. 4

CONNECTION

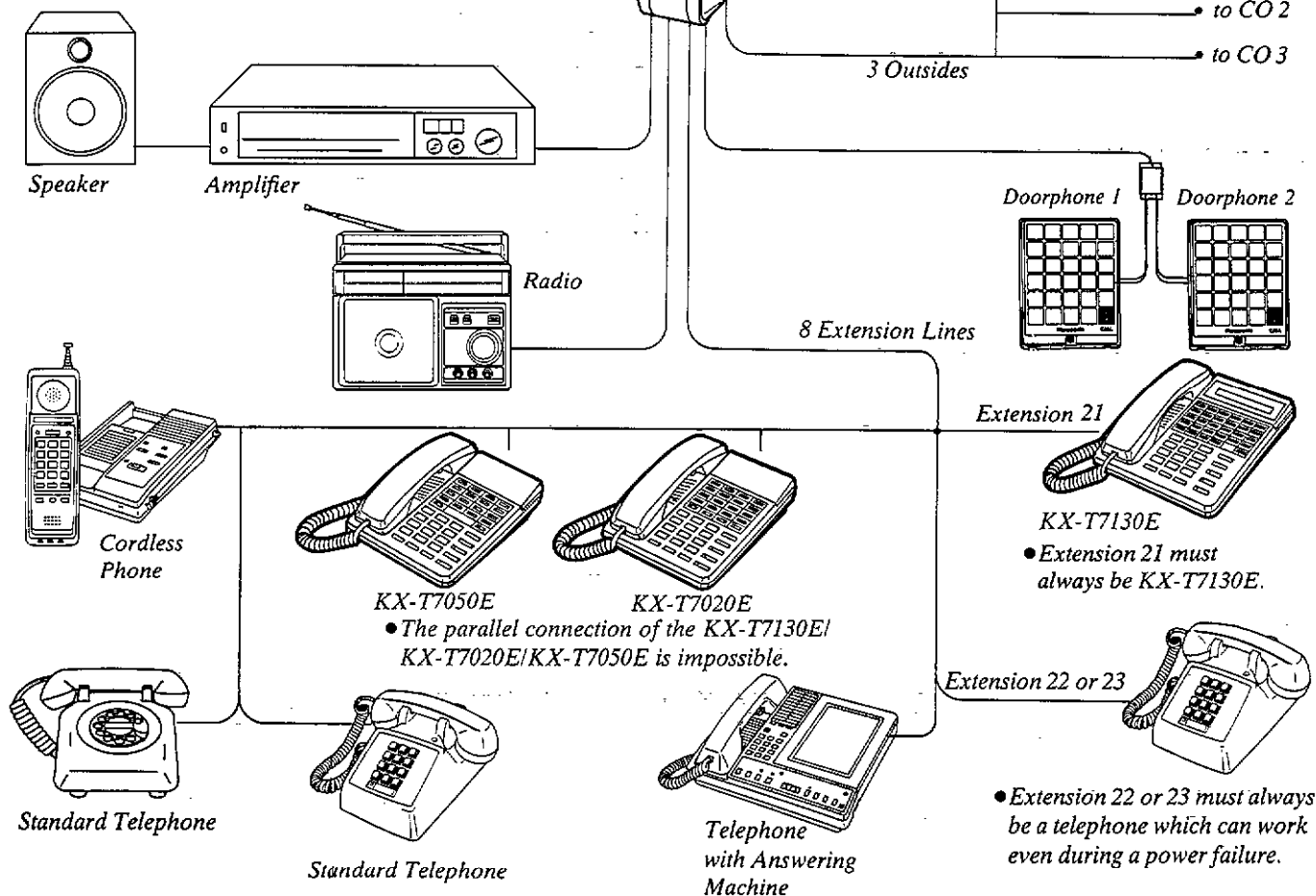
Cautions

1. Do not wire the telephone cable in parallel with the AC power source, computer, telex etc. If the cables run near those wires, shield the cables with metal tube or use shield cables and ground the shields.
2. When cables run on the floor, use protectors or the like to protect the wires where they may be stepped on. Avoid wiring under carpets.
3. Avoid using the same power supply outlet for computers, telexes, and other office equipment. Otherwise, KX-T30810BE system operation may be interrupted by the induction noise from such equipments.
4. Please use one pair telephone wire for extension connection of (telephone) equipments such as standard telephone, data terminal, answering machine, computer, etc., except proprietary telephone KX-T7020E, KX-T7050E, KX-T7130E, etc.).

After all the connections are completed, turn the Power Switch ON.

If an extension does not operate properly (for example: The LCD of the KX-T7130E does display properly.), disconnect the telephone from the extension line and then connect again, or turn OFF the power switch of the KX-T30810BE and then ON again after 5 minutes.

The socket outlet shall be placed close to the equipment and shall be easily accessible.



Warning. Identified ports do not provide isolation sufficient to satisfy the requirements of BS6301. Apparatus connected to such ports should either have been approved to BS6301 or have previously been evaluated against British Telecommunications plc (Post Office) Technical Guides 2 or 26 and given permission to attach. Other usage will invalidate any approval given to the apparatus. Connect apparatus complying with BS6317 to these ports.

Fig. 5

PROGRAMMING

Programming Instructions

1. At extension 21:

All system programming changes (example: system clear, station program clear, toll restriction, hookswitch flash timing...) are done through extension 21.

• Extension 21 must always be a Panasonic model, KX-T7130E.

2. System Program Switch setting:

The System Program Switch located on the KX-T30810BE must be set to the PROGRAM position while making program changes. After all programming changes are completed, return the program switch to the SET position.

3. Overlay:

This overlay is used for programming the system and the program function names on buttons are inscribed on this card. Refer to page 2-2.

4. Before system programming, you may operate system clear and station program clear to set default data of programming.

A. System Clear:

1 Dial (99).

• "SYSTEM CLEAR" will be displayed.

2 Press the NEXT button.

• "ALL CLEAR?" will be displayed.

3 Press the STORE button to clear system.

4 To exit from system clear, press the END button.

The following features are preset as the default data.

Date and Time

System Speed Calling

Dial Mode (Tone/Pulse) Selection

Switching Mode (Day/Night Service)

Starting Time (Day/Night Service)

Flexible Day Outward Dialling Assignment

Flexible Night Outward Dialling Assignment

Flexible Day Ringing Assignment

Flexible Night Ringing Assignment

Toll Restriction—Class Assignment

Toll Restriction—Area Code Selection

Transfer Recall Time

Automatic Answering (Automatic/Manual) Selection

Duration Time Count Start Mode

Register Recall Signal

Disconnect Time

Calling Party Control (CPC) Signal

Intercom Alerting Mode

Programmable Doorphone

Dial Call Pickup Group Assignment

Hold Time Reminder

Hold Recall Time Set

Programmable External Paging Access Tone

DTMF Receiver

Programmable Secret Auto Dial

Automatic Designated CO Line Access

Door Opener Assignment

Least Cost Routing Feature

B. Station Program Clear:

1 Dial (98).

• "EXT CLEAR" will be displayed.

2 Press the NEXT button.

• "ALL CLEAR?" will be displayed.

3 Press the STORE button to clear the system.

4 To exit from station clear, press the END button.

The following features are preset as the default data.

One Touch Dialling

Background Music

Call Forwarding

Data Line Security

Dial Call Pickup Deny

Do not Disturb

Flexible CO Button

Flexible DSS Button

When the System Program Switch on the EMSS Control Unit is set to the position for programming, the function of the KX-T7130E connected to your EMSS Control Unit will change as follows.

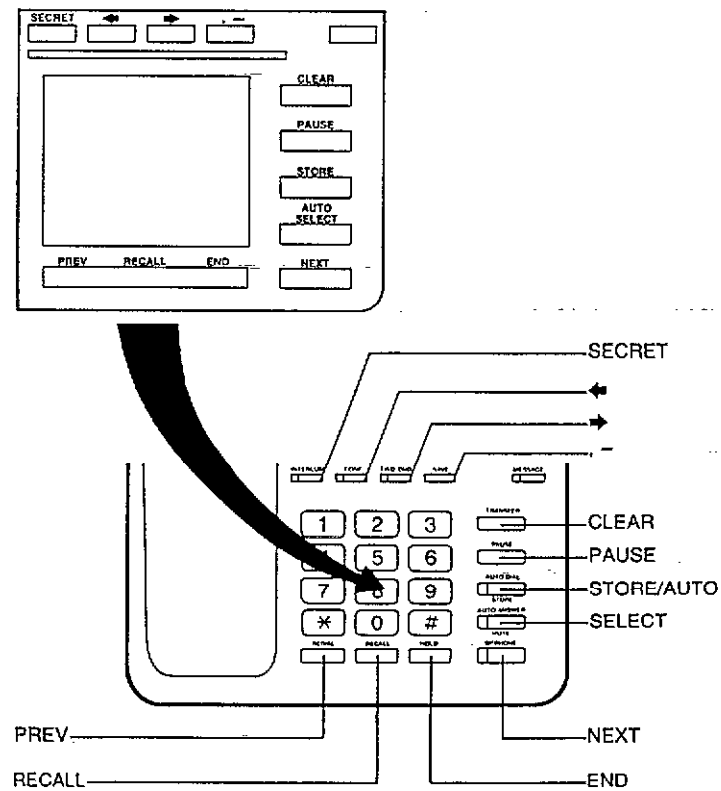


Fig. 6

Notes: 1. For details of installation, refer to the Installation Manual (Part No. PQQX10361Z).
2. For details of operation, refer to the User Guide (Part No. PQQX10362Z).

Example of Programming

1. Turn the Power Switch to ON

2. Set the System Program Switch to PROGRAM
The LCD on the KX-T7130E shows "ENTER PGM CODE".

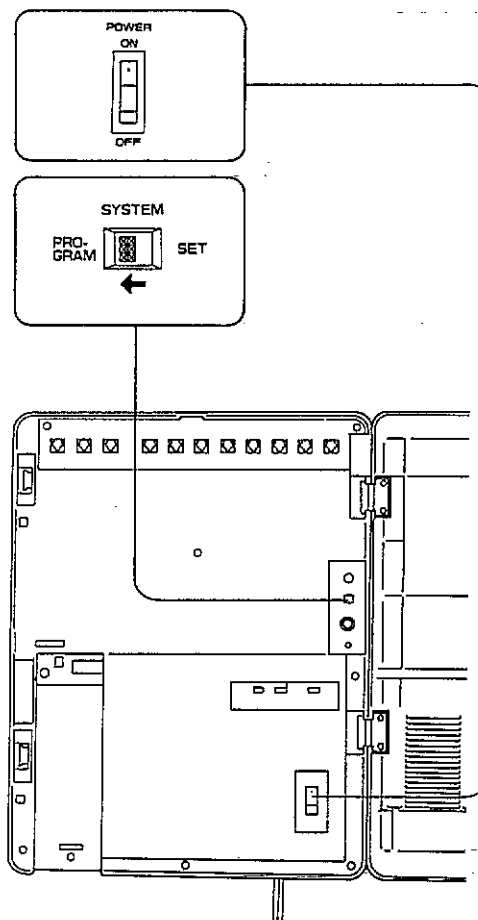
- Be sure the handset of the extension 21 is in the cradle and the speakerphone button of the extension 21 is off.

3. To program automatic line access number 9 and the phone number 987-654-3210 into memory location (speed dial access) number 00.

KX-T7130E at extension 21 (Extension 21 must always be KX-T7130E.)		
1.	Dial (01) or press the AUTO button.	Display SPEED CALLING
2.	Press the NEXT button.	ENTER SPEED CODE
3.	Dial (00) or press the NEXT button.	<ul style="list-style-type: none"> • If nothing is stored in access code "00", 00: NOT STORED • If already stored the automatic line access number 9 and the phone number 123-456-7890, 00: -123-456-7890
4.	① Dial "9". ② Press "-" button. ③ Dial "987". ④ Press "-" button. ⑤ Dial "654". ⑥ Press "-" button. ⑦ Dial "3210".	00: -987-654-3210
5.	Press the MEMORY button.	00: -987-654-3210
6.	<ul style="list-style-type: none"> • To program a next access code, press the NEXT button. • To program a desired access code, press the SELECT button and then dial the number. 	
7.	Repeat step 4 to 6.	
8.	To return to the initial program mode, press the END button.	ENTER PGM CODE

4. Return the System Program Switch to SET

- To make program change, start from the beginning.



While programming if a mistake is made,

1. Press the "END" button.

2. Start programming procedure from the beginning.

- You will hear the beeps after press the MEMORY button.
- The MEMORY indicator light goes on when the MEMORY button is pressed, and then Indicator light goes out when the NEXT or PREV button is pressed.

PROGRAMMING TABLE

TO SET	PROGRAM ADDRESS	STEPS REQUIRED TO CHANGE PROGRAM																																																		
Date and Time	[00]	[A][X][SELECT][Y][B][Y][SELECT][Z][C][Z][D][Z][SELECT][MEMORY][END] year month day day of the week minute AM/PM																																																		
System Speed Calling Entry	[01] or [AUTO]	[AB][CD][phone number][MEMORY] [9]: automatic line access number [81] through [83]: outside line access number [00] through [79]: speed access code • To advance to the next code [SELECT][AB][CD][phone number][MEMORY] • To exit the speed calling entry, press [END].																																																		
Dial Mode (Tone/Pulse) Selection	[03]	[NEXT][SELECT][MEMORY][END] TONE/PULSE until the desired CO number appears <table><tr><th></th><th>Default</th><th colspan="3">To make program change</th></tr><tr><td>CO(s)</td><td>all CO's</td><td>1</td><td>2</td><td>3</td></tr><tr><td>Pulse mode</td><td>x</td><td></td><td></td><td></td></tr><tr><td>Tone (DTMF) mode</td><td></td><td></td><td></td><td></td></tr></table>		Default	To make program change			CO(s)	all CO's	1	2	3	Pulse mode	x				Tone (DTMF) mode																																		
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Pulse mode	x																																																			
Tone (DTMF) mode																																																				
Switching Mode (Day/Night Service)	[04]	[SELECT][MEMORY][END] MAN/AUTO <table><tr><th></th><th>Default</th><th colspan="3">To make program change</th></tr><tr><td>Manual</td><td>x</td><td></td><td></td><td></td></tr><tr><td>Automatic</td><td></td><td></td><td></td><td></td></tr></table>		Default	To make program change			Manual	x				Automatic																																							
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Manual	x																																																			
Automatic																																																				
Starting Time (Day/Night Service)	[05]	[A][Y][B][Y][SELECT][MEMORY][NEXT][C][Z][D][Z][SELECT][MEMORY][END] minute AM/PM minute AM/PM starting time for day service (hour) starting time for night service (hour) <table><tr><th></th><th>Default</th><th colspan="3">To make program change</th></tr><tr><td>Day plan</td><td>9:00 AM</td><td></td><td></td><td></td></tr><tr><td>Night plan</td><td>5:00 PM</td><td></td><td></td><td></td></tr></table>		Default	To make program change			Day plan	9:00 AM				Night plan	5:00 PM																																						
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Day plan	9:00 AM																																																			
Night plan	5:00 PM																																																			
Flexible Day Outward Dialling Assignment	[06]	[NEXT][C...E][MEMORY][END] CO number until the desired extension number appears <table><tr><th></th><th>Default</th><th colspan="8">To make program change</th></tr><tr><td>Extensions</td><td>all extensions</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td></tr><tr><td>CO 1</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 2</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 3</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>		Default	To make program change								Extensions	all extensions	21	22	23	24	25	26	27	28	CO 1	x									CO 2	x									CO 3	x								
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Flexible Night Outward Dialling Assignment	[07]	[NEXT][C...E][MEMORY][END] CO number until the desired extension number appears <table><tr><th></th><th>Default</th><th colspan="8">To make program change</th></tr><tr><td>Extensions</td><td>all extensions</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td></tr><tr><td>CO 1</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 2</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 3</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>		Default	To make program change								Extensions	all extensions	21	22	23	24	25	26	27	28	CO 1	x									CO 2	x									CO 3	x								
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Flexible Day Ringing Assignment	[08]	[NEXT][C...E][MEMORY][END] CO number until the desired extension number appears <table><tr><th></th><th>Default</th><th colspan="8">To make program change</th></tr><tr><td>Extensions</td><td>all extensions</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td></tr><tr><td>CO 1</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 2</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 3</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>		Default	To make program change								Extensions	all extensions	21	22	23	24	25	26	27	28	CO 1	x									CO 2	x									CO 3	x								
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Flexible Night Ringing Assignment	[09]	<div>[NEXT][C...E][MEMORY][END] -----CO number -----until the desired extension number appears</div> <table><tr><th></th><th>Default</th><th colspan="8">To make program change</th></tr><tr><th>Extensions</th><th>all extensions</th><th>21</th><th>22</th><th>23</th><th>24</th><th>25</th><th>26</th><th>27</th><th>28</th></tr><tr><td>CO 1</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 2</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 3</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>		Default	To make program change								Extensions	all extensions	21	22	23	24	25	26	27	28	CO 1	x									CO 2	x									CO 3	x																		
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Toll Restriction—Class Assignment	[10]	<div>[NEXT][SELECT][MEMORY][END] -----CLASS 1/2/3/4 -----until the desired extension number appears</div> <table><tr><th></th><th>Default</th><th colspan="8">To make program change</th></tr><tr><th>Extensions</th><th>all extensions</th><th>21</th><th>22</th><th>23</th><th>24</th><th>25</th><th>26</th><th>27</th><th>28</th></tr><tr><td>Class 1</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Class 2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Class 3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Class 4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>		Default	To make program change								Extensions	all extensions	21	22	23	24	25	26	27	28	Class 1	x									Class 2										Class 3										Class 4									
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Toll Restriction—Denied Codes	[11]	<div>[NEXT][C][MEMORY][END] -----area code with 4 digits -----until the desired memory location number appears</div> <table><tr><td>Location number</td><td>00</td><td>01</td><td>02</td><td>03</td><td>04</td></tr><tr><td>Area code</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Location number</td><td>05</td><td>06</td><td>07</td><td>08</td><td>09</td></tr><tr><td>Area code</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Location number</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td></tr><tr><td>Area code</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Location number</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td></tr><tr><td>Area code</td><td></td><td></td><td></td><td></td><td></td></tr></table>	Location number	00	01	02	03	04	Area code						Location number	05	06	07	08	09	Area code						Location number	10	11	12	13	14	Area code						Location number	15	16	17	18	19	Area code																	
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Transfer Recall Time	[12]	<div>[SELECT][MEMORY][END] -----30 SEC/15 SEC</div> <table><tr><th></th><th>Default</th><th colspan="8">To make program change</th></tr><tr><td>30 sec</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>15 sec</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>		Default	To make program change								30 sec	x									15 sec																																							
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Automatic Answering (Automatic/Manual) Selection	[14]	<div>[NEXT][SELECT][MEMORY][END] -----AUTO ANSWER/MAN ANSWER -----until the desired extension number appears</div> <table><tr><th></th><th>Default</th><th colspan="8">To make program change</th></tr><tr><th>Extensions</th><th>all extensions</th><th>21</th><th>22</th><th>23</th><th>24</th><th>25</th><th>26</th><th>27</th><th>28</th></tr><tr><td>Automatic</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Manual</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>		Default	To make program change								Extensions	all extensions	21	22	23	24	25	26	27	28	Automatic	x									Manual																													
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Extensions	all extensions	21	22	23	24	25	26	27	28																																																					
Automatic	x																																																													
Manual																																																														

TO SET	PROGRAM ADDRESS	STEPS REQUIRED TO CHANGE PROGRAM																																																		
Duration Time Count Start Mode	[17]	[SELECT][MEMORY][END] -----INSTANTLY/5S AFTER DIAL/10S AFTER DIAL <table><tr><th></th><th>Default</th><th colspan="3">To make program change</th></tr><tr><td>Instantly</td><td></td><td></td><td></td><td></td></tr><tr><td>5S after dial</td><td>x</td><td></td><td></td><td></td></tr><tr><td>10S after dial</td><td></td><td></td><td></td><td></td></tr></table>		Default	To make program change			Instantly					5S after dial	x				10S after dial																																		
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Instantly																																																				
5S after dial	x																																																			
10S after dial																																																				
Register Recall Signal	[18]	[NEXT][SELECT][MEMORY][END] -----EARTH/TIMED/MANUAL 1/MANUAL 2 -----until the desired CO number appears <table><tr><th></th><th>Default</th><th colspan="3">To make program change</th></tr><tr><td>CO(s)</td><td>all CO's</td><td>1</td><td>2</td><td>3</td></tr><tr><td>EARTH</td><td>x</td><td></td><td></td><td></td></tr><tr><td>TIMED</td><td></td><td></td><td></td><td></td></tr><tr><td>MANUAL 1</td><td></td><td></td><td></td><td></td></tr><tr><td>MANUAL 2</td><td></td><td></td><td></td><td></td></tr></table>		Default	To make program change			CO(s)	all CO's	1	2	3	EARTH	x				TIMED					MANUAL 1					MANUAL 2																								
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MANUAL 1																																																				
MANUAL 2																																																				
Disconnect Time	[19]	[NEXT][SELECT][MEMORY][END] -----2.0 SEC/4.0 SEC -----until the desired CO number appears <table><tr><th></th><th>Default</th><th colspan="3">To make program change</th></tr><tr><td>CO(s)</td><td>all CO's</td><td>1</td><td>2</td><td>3</td></tr><tr><td>2.0 sec</td><td>x</td><td></td><td></td><td></td></tr><tr><td>4.0 sec</td><td></td><td></td><td></td><td></td></tr></table>		Default	To make program change			CO(s)	all CO's	1	2	3	2.0 sec	x				4.0 sec																																		
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CO(s)	all CO's	1	2	3																																																
2.0 sec	x																																																			
4.0 sec																																																				
Calling Party Control (CPC) Signal	[20]	[NEXT][SELECT][MEMORY][END] -----ENABLE/DISABLE -----until the desired CO number appears <table><tr><th></th><th>Default</th><th colspan="3">To make program change</th></tr><tr><td>CO(s)</td><td>all CO's</td><td>1</td><td>2</td><td>3</td></tr><tr><td>Enable</td><td>x</td><td></td><td></td><td></td></tr><tr><td>Disable</td><td></td><td></td><td></td><td></td></tr></table>		Default	To make program change			CO(s)	all CO's	1	2	3	Enable	x				Disable																																		
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Enable	x																																																			
Disable																																																				
Intercom Alerting Mode	[21]	[NEXT][SELECT][MEMORY][END] -----TONE CALL/VOICE CALL -----until the desired extension number appears <table><tr><th></th><th>Default</th><th colspan="8">To make program change</th></tr><tr><td>Extensions</td><td>all extensions</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td></tr><tr><td>Tone call</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Voice call</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>		Default	To make program change								Extensions	all extensions	21	22	23	24	25	26	27	28	Tone call	x									Voice call																			
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Extensions	all extensions	21	22	23	24	25	26	27	28																																											
Tone call	x																																																			
Voice call																																																				
Programmable Doorphone	[22]	[NEXT][SELECT][MEMORY][END] -----D-PHONE 1, 2/1/2... (deny the ringing) -----until the desired extension number appears <table><tr><th></th><th>Default</th><th colspan="8">To make program change</th></tr><tr><td>Extensions</td><td>all extensions</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td></tr><tr><td>Doorphone 1</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Doorphone 2</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>deny the ringing</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>		Default	To make program change								Extensions	all extensions	21	22	23	24	25	26	27	28	Doorphone 1	x									Doorphone 2	x									deny the ringing									
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Extensions	all extensions	21	22	23	24	25	26	27	28																																											
Doorphone 1	x																																																			
Doorphone 2	x																																																			
deny the ringing																																																				
Dial Call Pickup Group Assignment	[23]	[NEXT][SELECT][MEMORY][END] -----PICKUP-G:1/2/1, 2/... (out of the group) -----until the desired extension number appears <table><tr><th></th><th>Default</th><th colspan="8">To make program change</th></tr><tr><td>Extensions</td><td>all extensions</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td></tr><tr><td>Pickup Group 1</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Pickup Group 2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>out of the group</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>		Default	To make program change								Extensions	all extensions	21	22	23	24	25	26	27	28	Pickup Group 1	x									Pickup Group 2										out of the group									
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Pickup Group 1	x																																																			
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out of the group																																																				

TO SET	PROGRAM ADDRESS	STEPS REQUIRED TO CHANGE PROGRAM																																																		
Hold Time Reminder	[25]	<div>[SELECT][MEMORY][END] -----1 MIN/2 MIN...9 MIN</div> <table><tr><th></th><th colspan="9">minutes</th></tr><tr><th></th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th><th>9</th></tr><tr><td>Default</td><td></td><td></td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>To make program change</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>		minutes										1	2	3	4	5	6	7	8	9	Default			x							To make program change																			
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Default			x																																																	
To make program change																																																				
Hold Recall Time Set	[26]	<div>[SELECT][MEMORY][END] -----30 SEC/1 MIN/1.5 MIN/2 MIN/DISABLE</div> <table><tr><th></th><th>30 seconds</th><th>1 minute</th><th>1 minute 30 seconds</th><th>2 minutes</th><th>disable</th></tr><tr><td>Default</td><td>x</td><td></td><td></td><td></td><td></td></tr><tr><td>To make program change</td><td></td><td></td><td></td><td></td><td></td></tr></table>		30 seconds	1 minute	1 minute 30 seconds	2 minutes	disable	Default	x					To make program change																																					
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To make program change																																																				
Programmable External Paging Access Tone	[27]	<div>[SELECT][MEMORY][END] -----ENABLE/DISABLE</div> <table><tr><th></th><th>Default</th><th>To make program change</th></tr><tr><td>Enable</td><td>x</td><td></td></tr><tr><td>Disable</td><td></td><td></td></tr></table>		Default	To make program change	Enable	x		Disable																																											
	Default	To make program change																																																		
Enable	x																																																			
Disable																																																				
DTMF Receiver Check	[28]	<div>[SELECT][MEMORY][END] -----ENABLE/DISABLE</div> <table><tr><th></th><th>Default</th><th colspan="2">To make program change</th></tr><tr><td>DTMF receiver</td><td>1, 2</td><td>1</td><td>2</td></tr><tr><td>Enable</td><td>x</td><td></td><td></td></tr><tr><td>Disable</td><td></td><td></td><td></td></tr></table>		Default	To make program change		DTMF receiver	1, 2	1	2	Enable	x			Disable																																					
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DTMF receiver	1, 2	1	2																																																	
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Programmable Secret Auto Dial	[29]	<div>[SELECT][MEMORY][END] -----NO SECRET/SECRET</div> <table><tr><th></th><th>Default</th><th>To make program change</th></tr><tr><td>No secret</td><td>x</td><td></td></tr><tr><td>Secret</td><td></td><td></td></tr></table>		Default	To make program change	No secret	x		Secret																																											
	Default	To make program change																																																		
No secret	x																																																			
Secret																																																				
Automatic Designated CO Line Access	[31]	<div>[NEXT][C...E][MEMORY][END] -----CO number -----until the desired extension number appears</div> <table><tr><th></th><th>Default</th><th colspan="8">To make program change</th></tr><tr><th>Extensions</th><th>all extensions</th><th>21</th><th>22</th><th>23</th><th>24</th><th>25</th><th>26</th><th>27</th><th>28</th></tr><tr><td>CO 1</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 2</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO 3</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>		Default	To make program change								Extensions	all extensions	21	22	23	24	25	26	27	28	CO 1	x									CO 2	x									CO 3	x								
	Default	To make program change																																																		
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CO 2	x																																																			
CO 3	x																																																			
Toll Restriction—Allowed Codes	[33]	<div>[NEXT][C][MEMORY][END] -----area code with 4 digits -----until the desired extension number appears</div> <table><tr><th>Location number</th><th>00</th><th>01</th><th>02</th><th>03</th><th>04</th></tr><tr><td>Area code</td><td></td><td></td><td></td><td></td><td></td></tr><tr><th>Location number</th><th>05</th><th>06</th><th>07</th><th>08</th><th>09</th></tr><tr><td>Area code</td><td></td><td></td><td></td><td></td><td></td></tr></table>	Location number	00	01	02	03	04	Area code						Location number	05	06	07	08	09	Area code																															
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Location number	05	06	07	08	09																																															
Area code																																																				
Door Opener Assignment	[34]	<div>[NEXT][SELECT][MEMORY][END] -----D-OPENER 1, 2/1/2/... (not assigned) -----until the desired extension number appears</div> <table><tr><th></th><th>Default</th><th colspan="8">To make program change</th></tr><tr><th>Extensions</th><th>all extensions</th><th>21</th><th>22</th><th>23</th><th>24</th><th>25</th><th>26</th><th>27</th><th>28</th></tr><tr><td>not assigned</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Door opener 1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Door opener 2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>		Default	To make program change								Extensions	all extensions	21	22	23	24	25	26	27	28	not assigned	x									Door opener 1										Door opener 2									
	Default	To make program change																																																		
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TO SET	PROGRAM ADDRESS	STEPS REQUIRED TO CHANGE PROGRAM																																																																																																
LCR Enable or Disable	[70]	<div>[SELECT][MEMORY][END]</div> <div>-----DISABLE/ENABLE</div> <table><tr><th></th><th>Default</th><th colspan="3">To make program change</th></tr><tr><td>Disable</td><td>x</td><td></td><td></td><td></td></tr><tr><td>Enable</td><td></td><td></td><td></td><td></td></tr></table>		Default	To make program change			Disable	x				Enable																																																																																					
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BTL Used Code	[71]	<div>[NEXT][C...G][MEMORY][END]</div> <div>-----BTL Used Code with 5 digits</div> <div>-----until the desired entry</div> <table><tr><th></th><th>00</th><th>01</th><th>02</th><th>03</th><th>04</th></tr><tr><td>Area code</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><th>05</th><th>06</th><th>07</th><th>08</th><th>09</th></tr><tr><td>Area code</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><th>10</th><th>11</th><th>12</th><th>13</th><th>14</th></tr><tr><td>Area code</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><th>15</th><th>16</th><th>17</th><th>18</th><th>19</th></tr><tr><td>Area code</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><th>20</th><th>21</th><th>22</th><th>23</th><th>24</th></tr><tr><td>Area code</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><th>25</th><th>26</th><th>27</th><th>28</th><th>29</th></tr><tr><td>Area code</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><th>30</th><th>31</th><th>32</th><th>33</th><th>34</th></tr><tr><td>Area code</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><th>35</th><th>36</th><th>37</th><th>38</th><th>39</th></tr><tr><td>Area code</td><td></td><td></td><td></td><td></td><td></td></tr></table>		00	01	02	03	04	Area code							05	06	07	08	09	Area code							10	11	12	13	14	Area code							15	16	17	18	19	Area code							20	21	22	23	24	Area code							25	26	27	28	29	Area code							30	31	32	33	34	Area code							35	36	37	38	39	Area code					
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MCL Authorization Code	[72]	<div>[ABCD][MEMORY]</div> <div>-----Password</div> <div>[NEXT][EF][G...Z][MEMORY][END]</div> <div>-----Authorization code with pauses</div> <div>-----CO number</div>																																																																																																
MCL Access Code	[73]	<div>[A...J][MEMORY][END]</div> <div>-----MCL Access code</div>																																																																																																
Itemized Bill by Extension	[74]	<div>[NEXT][SELECT][MEMORY][END]</div> <div>-----DISABLE/ENABLE</div> <div>-----until the desired CO number appears</div> <table><tr><th></th><th>Default</th><th colspan="3">To make program change</th></tr><tr><td>CO(s)</td><td>all COs</td><td>1</td><td>2</td><td>3</td></tr><tr><td>Disable</td><td>x</td><td></td><td></td><td></td></tr><tr><td>Enable</td><td></td><td></td><td></td><td></td></tr></table>		Default	To make program change			CO(s)	all COs	1	2	3	Disable	x				Enable																																																																																
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Disable	x																																																																																																	
Enable																																																																																																		
BTL Access Code	[75]	<div>[NEXT][ABCD][MEMORY][END]</div> <div>-----BTL Access code</div>																																																																																																
Station Program Clear	[98]	[MEMORY][END]																																																																																																
System Clear	[99]	[MEMORY][END]																																																																																																

FOR SERVICE TECHNICIANS

ICs and LSIs are vulnerable to static electricity.

When repairing, the following precautions will help prevent recurring malfunctions.

- Cover plastic parts boxes with aluminum foil.
- Ground soldering irons.
- Use a conductive mat on worktable.
- Do not grasp IC or LSI pins with bare fingers.

DISASSEMBLY INSTRUCTIONS

1. HOW TO OPEN THE FRONT COVER

1. Remove the two (2) screws (A).
2. Push the buttons.

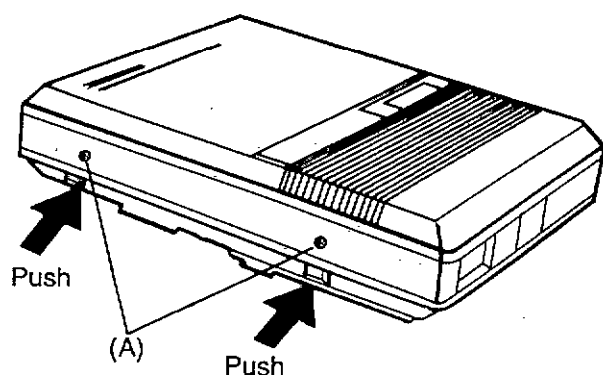


Fig. 7

2. HOW TO REMOVE THE INSIDE COVER.

1. Remove the nine (8) screws (B).
2. Remove the inside cover.
3. Pull out the connector.

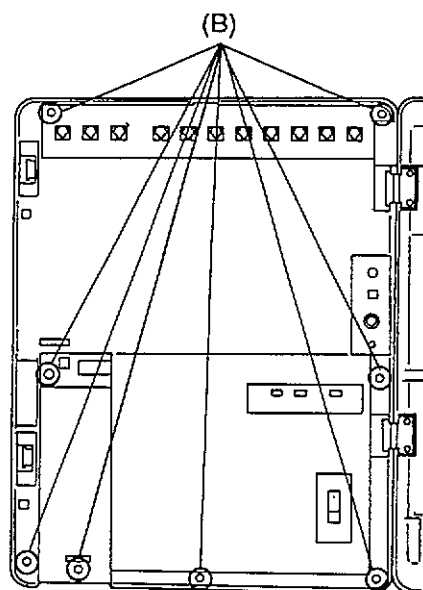


Fig. 8

3. HOW TO REMOVE THE MAIN BOARD.

1. Pull out the three (3) connectors.
2. Remove the main board.

4. HOW TO REMOVE THE POWER REGULATOR BOARD

1. Remove the six (6) screws (C).
2. Pull out the six (6) connectors.
3. Remove the power regulator board.

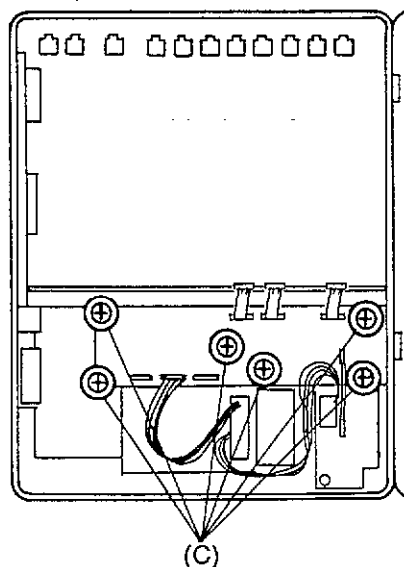


Fig. 9

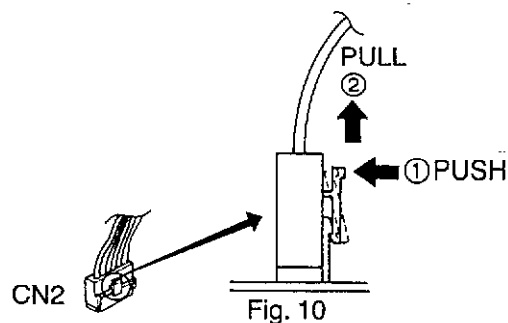


Fig. 10

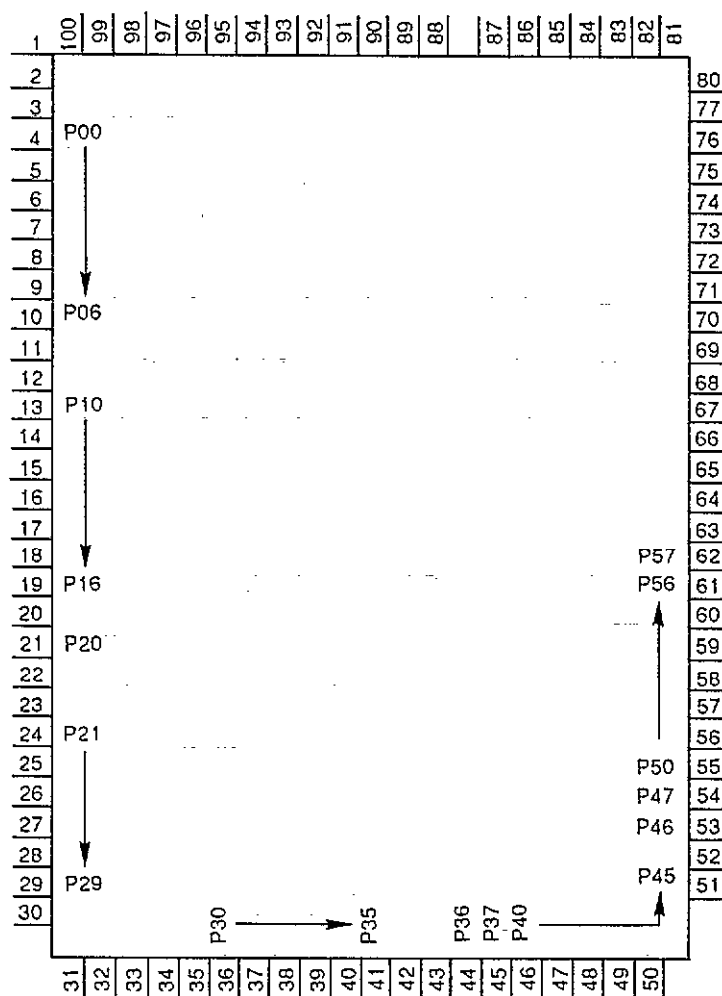
IC I/O DATA

IC100		
1	VSS	E 64
2	XTAL	RD 63
3	EXTAL	WR 62
4	MPO	R/W 61
5	MPI	LIR 60
6	RST	BA 59
7	STBY	D0 58
8	NMI	D1 57
9	P20	D2 56
10	P21	D3 55
11	P22	D4 54
12	P23	D5 53
13	P24	D6 52
14	P25	D7 51
15	P26	A0 50
16	P27	A1 49
17	P50	A2 48
18	P51	A3 47
19	P52	A4 46
20	P53	A5 45
21	P54	A6 44
22	P55	A7 43
23	P56	VSS 42
24	P57	A8 41
25	P60	A9 40
26	P61	A10 39
27	P62	A11 38
28	P63	A12 37
29	P64	A13 36
30	P65	A14 35
31	P66	A15 34
32	P67	Vcc 33

IC100

Port	Pin No.	I/O	Signal Name	High Imp.	High Level	Low Level	Remarks
NMI	8	I	CPU Restart	-----	-----	-----	
P20	9	I	CNCT1: Doorphone 1 Connect Detection	-----	Connect	Non-Connect	
P21	10	I	CNCT2: Doorphone 2 Connect Detection	-----	Connect	Non-Connect	
P22	11	I	DHK1: Doorphone 1 Connect Detection	-----	Off-Hook	On-Hook	
P23	12	I	DHK2: Doorphone 2 Connect Detection	-----	Off-Hook	On-Hook	
P26	15	I	DROP: Doorphone Adaptor Connect Detection	-----	Non-Connect	Connect	
P51	18	I	PFD: Power Failure Detection	-----	Power Failure	Normal	
P53	20	I	HALT: Halt Control Input	-----	Normal	Power Failure	
P54	21	I	TEST1	-----	Normal	Test Mode	
P55	22	I	TEST2	-----	Normal	Test Mode	
P56	23	I	STD1: DTMF Signal Detection 1	-----	Reception	Non-Reception	DTMF R1
P57	24	I	STD2: DTMF Signal Detection 2	-----	Reception	Non-Reception	DTMF R2
P60	25	O	Door Opener 1	-----	Make	Break	
P61	26	O	Door Opener 2	-----	Make	Break	
P62	27	O	Bank Control	-----	Bank 1	Bank 2	
P63	28	O	20Hz: Ringing Signal Output	-----	-----	-----	
P64	29	O	PF: Power Failure Control	-----	Power Failure	Normal	
P65	30	O	20Hz: Ringing Signal Output	-----	-----	-----	
P66	31	O	BRK: EXT Over Current Protection	Break	On	Break	EXT11-18
P67	32	I	Test	-----	Normal	Test Mode	

IC113



IC113

Port	Pin No.	I/O	Signal Name	High Imp.	High Level	Low Level	Remarks
PO0	4	O	COL1: HD Signal Generator Control 1	-----	Active	In-Active	
PO1	5	O	COL2: HD Signal Generator Control 2	-----	Active	In-Active	
PO2	6	O	COL3: HD Signal Generator Control 3	-----	Active	In-Active	
PO3	7	O	ROW1: HD Signal Generator Row 1	-----	Active	In-Active	
PO4	8	O	ROW2: HD Signal Generator Row 2	-----	Active	In-Active	
PO5	9	O	ROW3: HD Signal Generator Row 3	-----	Active	In-Active	
PO6	10	O	ROW4: HD Signal Generator Row 4	-----	Active	In-Active	
P10	13	O	A: Cross Point Address	-----	Address High	Address Low	
P11	14	O	B: Cross Point Address	-----	Address High	Address Low	
P12	15	O	C: Cross Point Address	-----	Address High	Address Low	
P13	16	O	D: Cross Point Address	-----	Address High	Address Low	
P14	17	O	E: Cross Point Address	-----	Address High	Address Low	
P15	18	O	STB0: Cross Point Strobe	-----	Active	In-Active	
P16	19	O	STB1: Cross Point Strobe	-----	Active	In-Active	
P20	21	O	XD0: Cross Point Data	-----	Data High	Data Low	
P21	24	O	XD1: Cross Point Data	-----	Data High	Data Low	
P22	25	O	XD2: Cross Point Data	-----	Data High	Data Low	
P23	26	O	XD3: Cross Point Data	-----	Data High	Data Low	
P24	27	O	Earth Recall Control	-----	Make	Break	CO1
P25	28	O	Earth Recall Control	-----	Make	Break	CO2
P26	29	O	Earth Recall Control	-----	Make	Break	CO3
P60	31	I	OL: EXT Over Current Detection	-----	Over Current	Normal	EXT11-18
P61	32	I	PRG: System Selection	-----	System Mode	Program Mode	
P30	36	O	PDRLY: Power Failure Control	Break	Make	Break	RLY10A-10C
P31	37	O	DL3: Line Close, Dial Transmission	Break	Make	Break	CO3
P32	38	O	CF3: CO Amp Conference	Conference	Non-Conference	Conference	CO3
P33	39	O	HD3: CO Amp Hold on Music Control	Transmission	Non-Transmission	Transmission	CO3
P34	40	O	SH3: CO Amp Shunt Control	Shunt	Non-Shunt	Shunt	CO3
P35	41	O	MT3: CO Amp Mute Control	Non-Mute	Mute	Non-Mute	CO3
P36	44	O	Shunt Relay Control	-----	Make	Break	CO1
P37	45	I	BELL3: Bell, CPC Input	-----	Non-Bell, Line Break	Bell, Line Make	CO3
P40	46	O	DAY: Day Mode LED Control	Lights-Out	Lighting	Lights-Out	CO2
P41	47	O	DL2: Line Close, Dial Transmission	Break	Make	Break	CO2
P42	48	O	CF2: CO Amp Conference	Conference	Non-Conference	Conference	CO2
P43	49	O	HD2: CO Amp Hold on Music Control	Transmission	Non-Transmission	Transmission	CO2
P44	50	O	SH2: CO Amp Shunt Control	Shunt	Non-Shunt	Shunt	CO2
P45	51	O	MT2: CO Amp Mute Control	Non-Mute	Mute	Non-Mute	CO2
P46	53	O	BUSY2: Doorphone 2 ON/Off Control	Off	On	Off	
P47	54	I	BELL2: Bell, CPC Input	-----	Non-Bell, Line Break	Bell, Line Make	CO2
P50	55	O	NIGHT: Night Mode LED Control	Lights-Out	Lighting	Lights-Out	
P51	56	O	DL1: Line Close, Dial Transmission	Break	Make	Break	CO1
P52	57	O	CF1: CO Amp Conference	Conference	Non-Conference	Conference	CO1
P53	58	O	HD1: CO Amp Hold on Music Control	Transmission	Non-Transmission	Transmission	CO1
P54	59	O	SH1: CO Amp Shunt Control	Shunt	Non-Shunt	Shunt	CO1
P55	60	O	MT1: CO Amp Mute Control	Non-Mute	Mute	Non-Mute	CO1
P56	61	O	Shunt Relay Control	-----	Make	Break	CO1
P57	62	I	BELL1: Bell, CPC Input	-----	Non-Bell, Line Break	Bell, Line Make	CO1

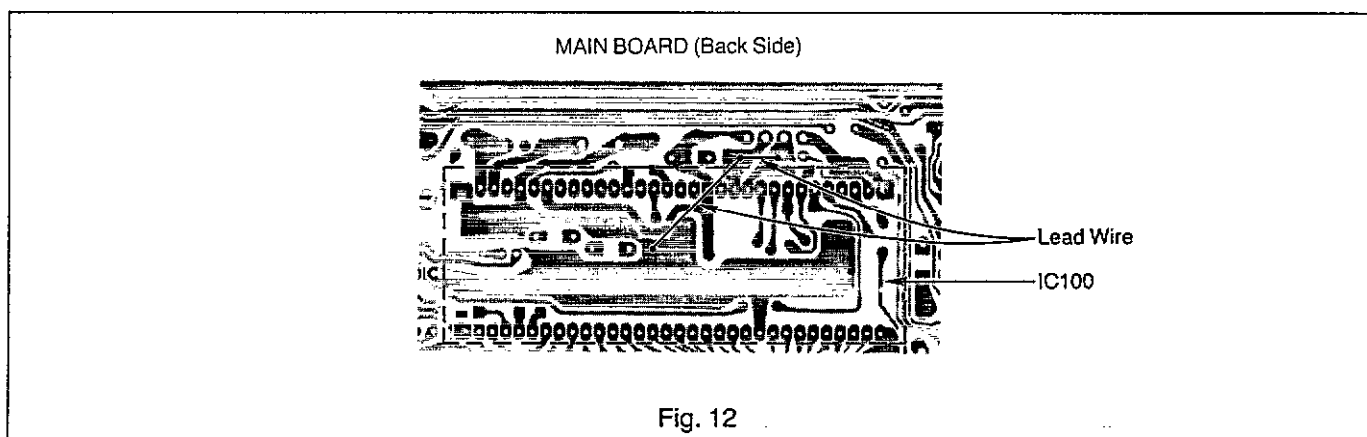
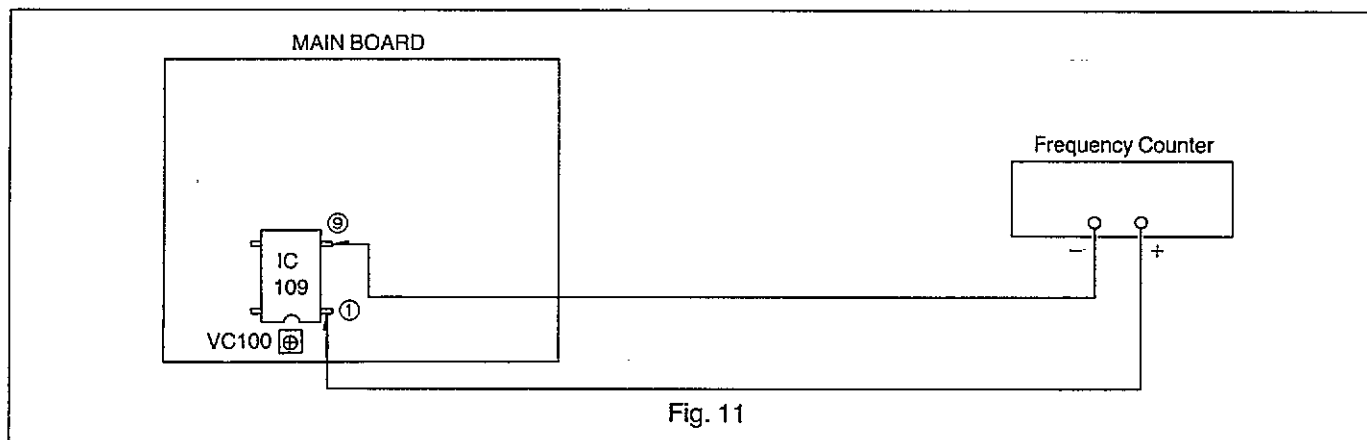
ADJUSTMENTS

■ OSCILLATION PERIOD ADJUSTMENT

Perform the following adjustment after replacing IC109.

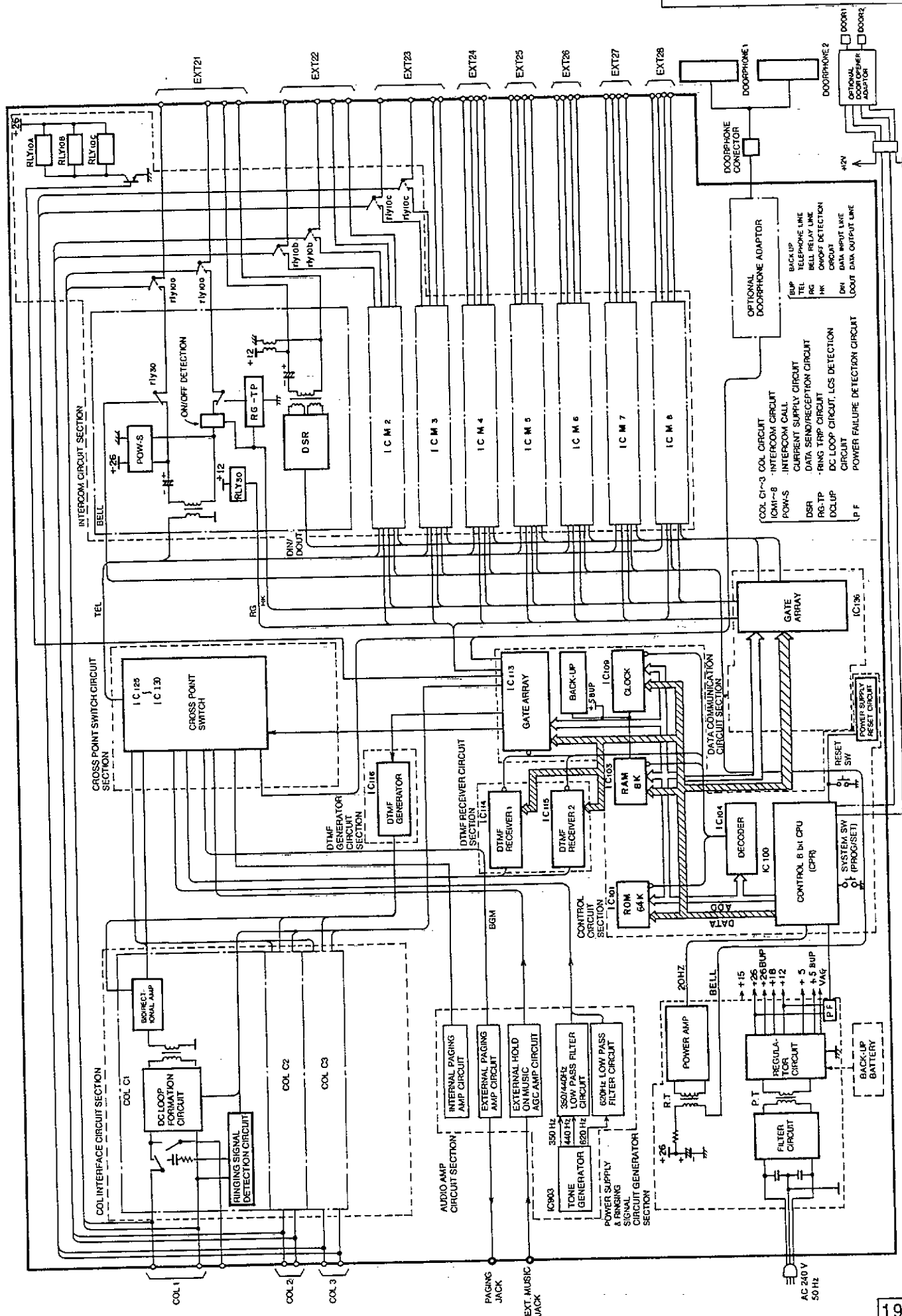
1. Connect the AC cord to the AC power SOURCE (AC 240 V, 50 Hz).
2. Set the power switch to ON.
3. Connect the lead wire. (See Fig. 12)
(After adjustment, remove the lead wire.)
4. Push the reset switch.
5. Connect the frequency counter. (See Fig. 11)
6. Set the frequency counter to PERIOD.
7. Adjust VC100 for a reading of () msec on the frequency counter.

Room temperature for adjusting (°C)	Period value (msec)	Room temperature for adjusting (°C)	Period value (msec)
10~10.9	15.62498~15.62500	17~17.9	15.62491~15.62492
11~11.9	15.62497~15.62499	18~18.9	15.62490~15.62491
12~12.9	15.62495~15.62497	19~19.9	15.62489~15.62490
13~13.9	15.62494~15.62496	20~20.9	15.62488~15.62489
14~14.9	15.62493~15.62495	21~21.9	15.62487~15.62489
15~15.9	15.62492~15.62494	22~27.9	15.62486~15.62488
16~16.9	15.62491~15.62493	28~28.9	15.62487~15.62489

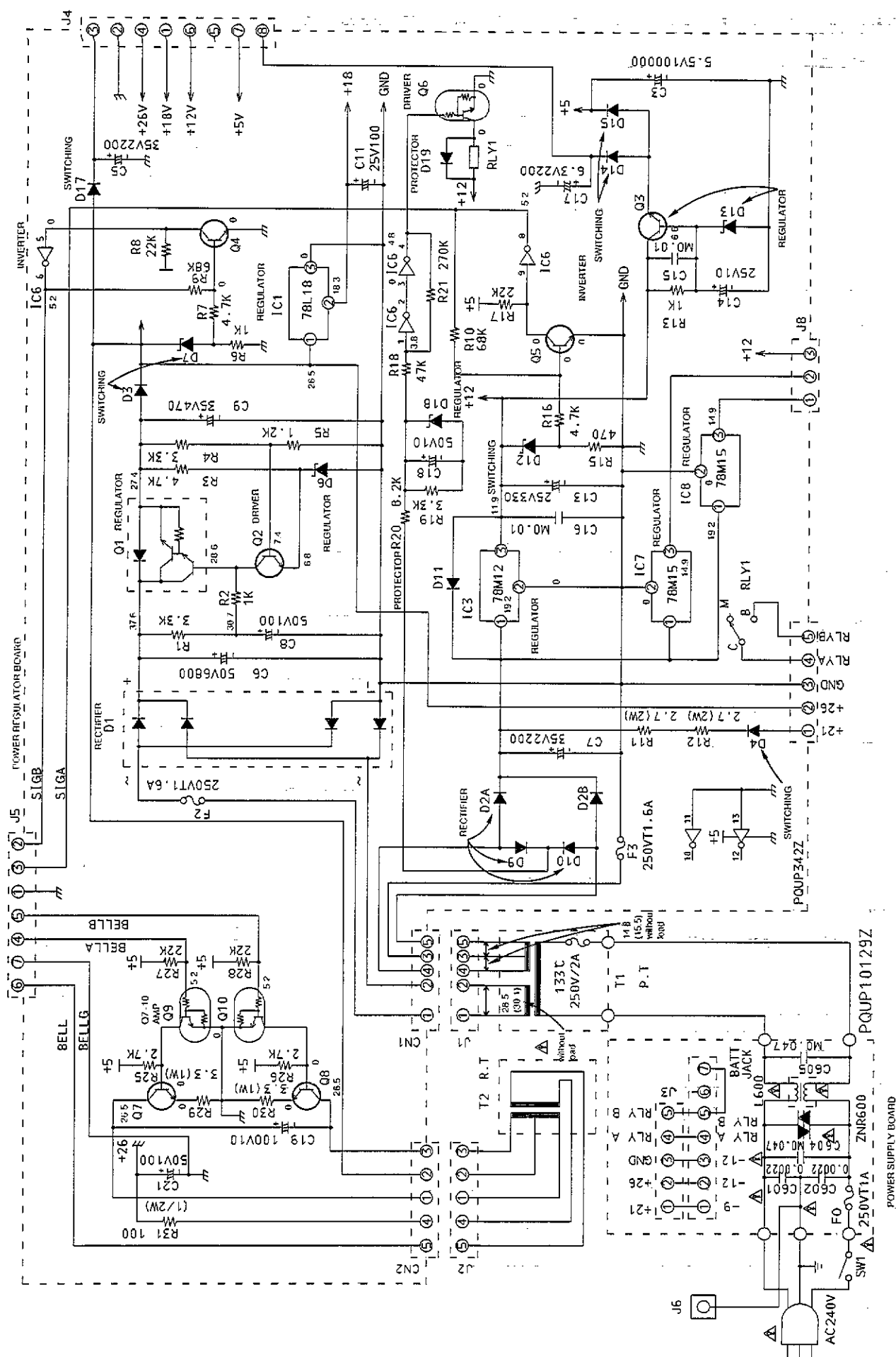


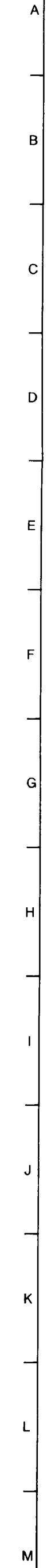
BLOCK DIAGRAM

KX-T30810BE-2



SCHEMATIC DIAGRAM

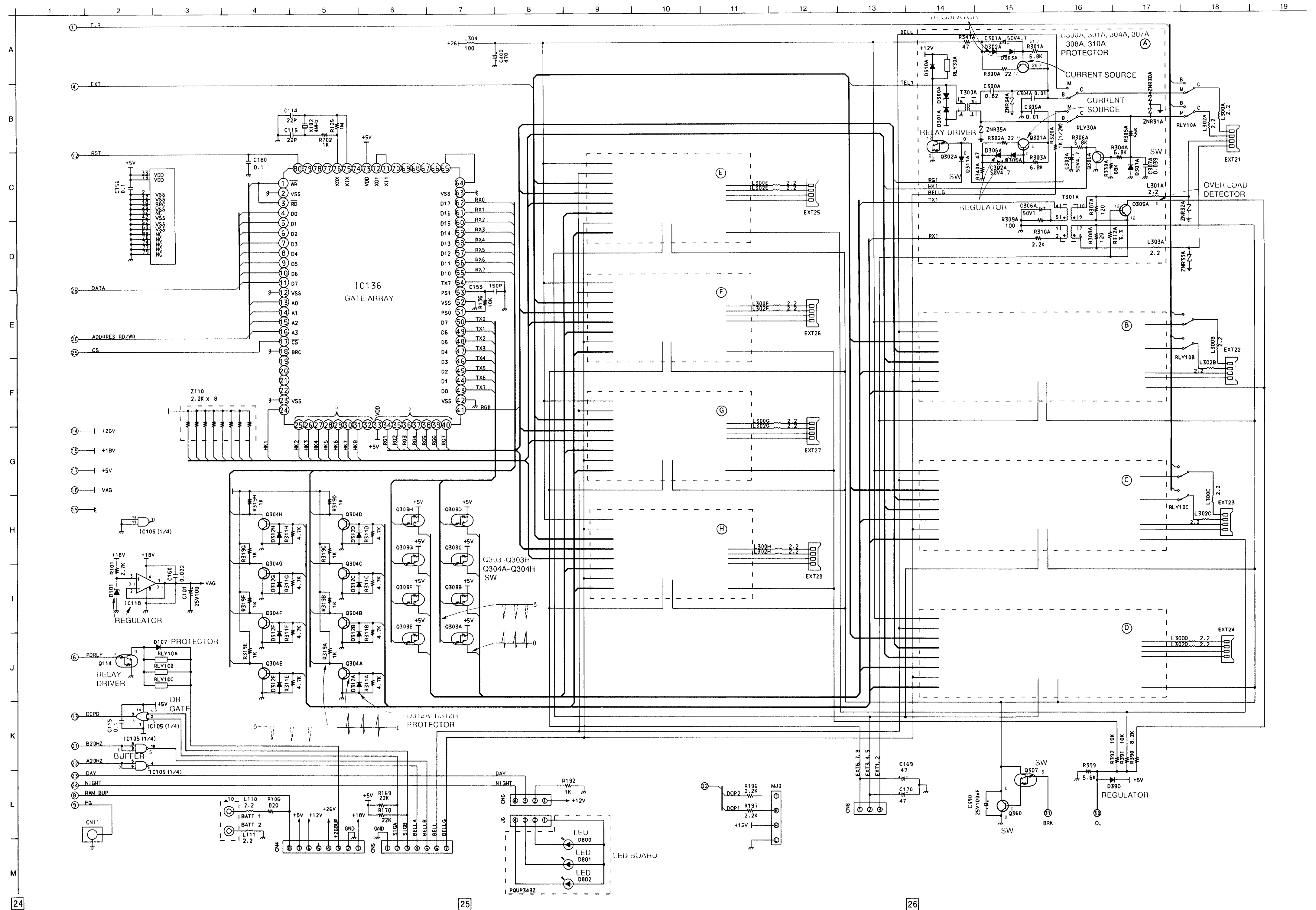




7. The image shows five diode symbols in boxes. 1. Varicap: A diode symbol with a capacitor symbol (two parallel lines) across it. 2. General: A standard diode symbol. 3. Zener: A diode symbol with a Z-shaped line across it. 4. LED: A diode symbol with two arrows pointing away from it. 5. Photo Diode: A diode symbol with two arrows pointing towards it.






5. This schematic diagram may be modified at any time with the development of new technology.

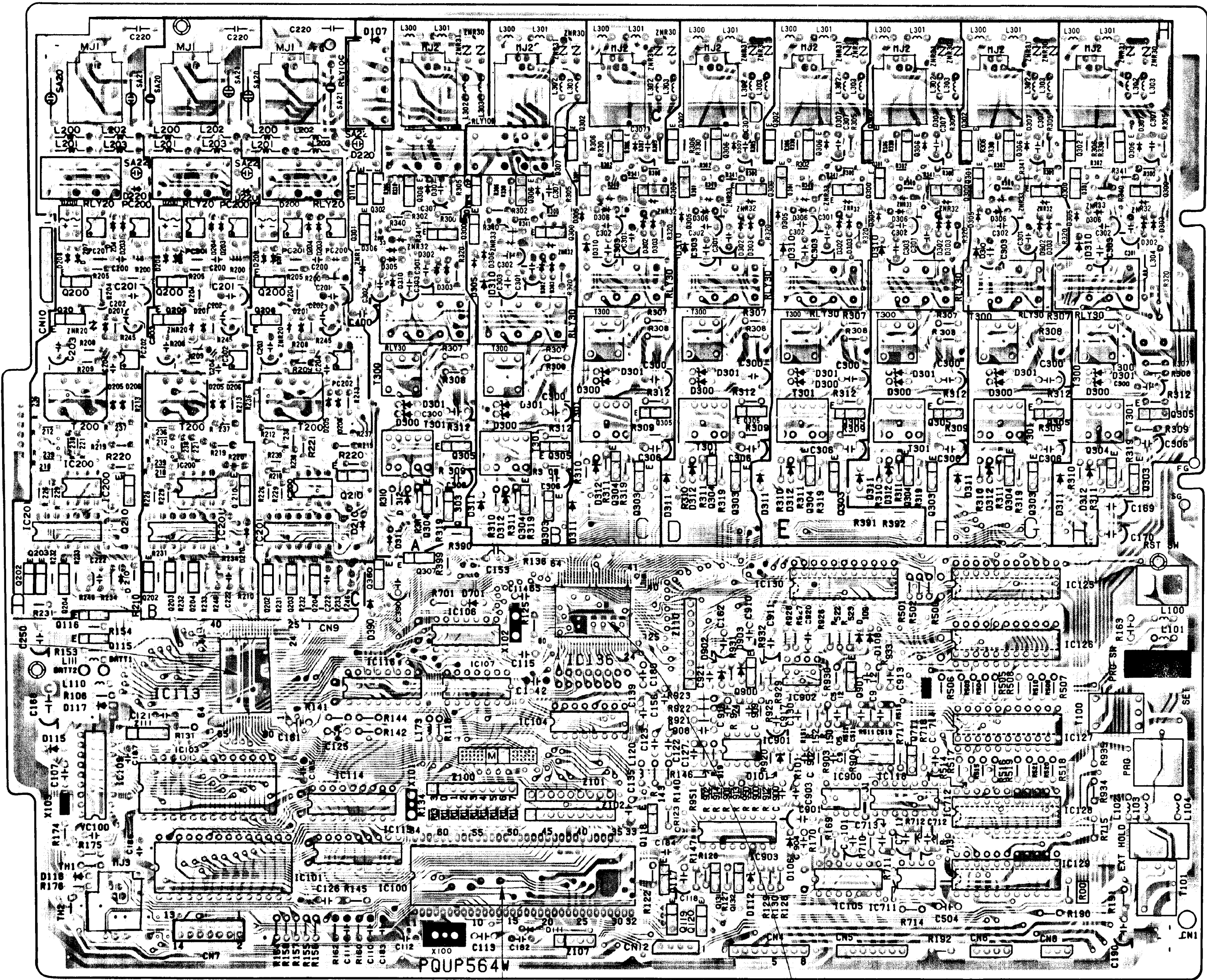
SCHEMATIC DIAGRAM






CIRCUIT BOARD

COMPONENT VIEW

Pin No.	Voltage (V) & Waveform
4-10	0 V
13, 14	 5 0
15	 5 0
16	 5 0
17	 5 0
18, 19	 5 0
21 24-26	0 V
36	5 V
37	0 V
38, 39	5 V
40	0 V
41	5 V
45, 46	5 V
47	0 V
48, 49	5 V
50	0 V
51	5 V
53	0 V
54	5 V
55	0 V
56	0 V
57, 58	5 V
59	0 V
60	5 V
61	0 V
64	5 V





IC100

Pin No.	Voltage (V) & Waveform
9-13	5 V
15	5 V
18	0 V
21, 22	5 V
29	0 V
32	5 V
34-41	 5 0
43-58	 5 0
62, 63	 5 0

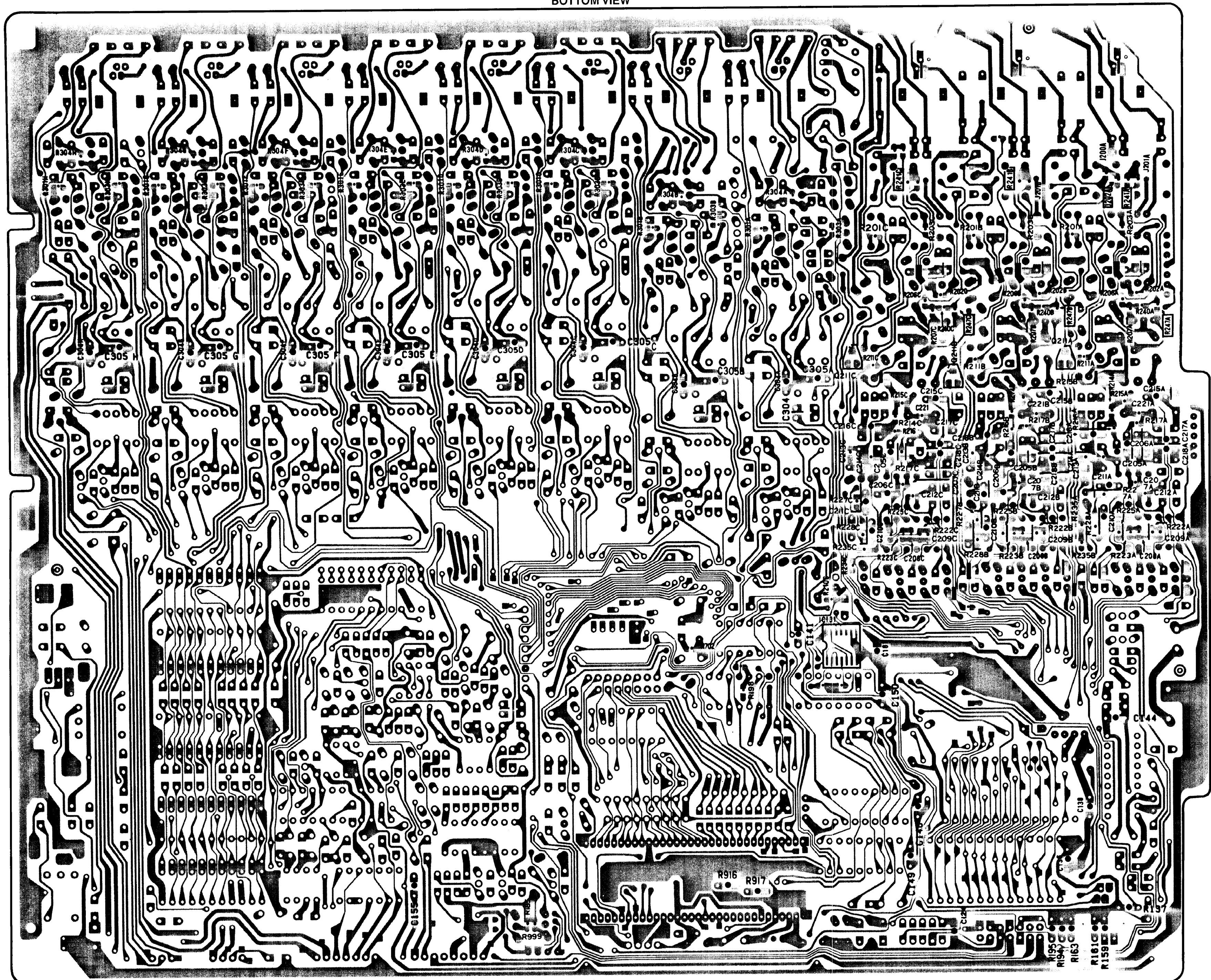
IC136

Pin No.	Voltage (V) & Waveform
25-32	5 V
33-40	0 V

Notes:

1. The circuit shown in  on the conductor indicates printed circuit on the back side of the printed circuit board.
2. The circuit shown in  on the conductor indicates printed circuit on the front side of the printed circuit board.
3. TR Polarity
O
E I C B

BOTTOM VIEW



HOW TO REPLACE FLAT PACKAGE IC

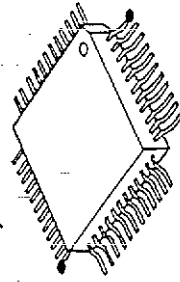
■ PREPARATION

- SOLDER Sparkle Solder 115A-1, 115B-1
OR
Almit Solder KR-19, KR-19RMA
- Soldering iron Recommended power consumption will be between 30w to 40w.
Temperature of Copper Rod 662 ±50° F (350 ±10° C)
(An expert may handle 60~80w iron, but beginner might damage foil by overheating)
- Flux HI115 Specific gravity 0.863

(Original flux will be replaced daily.)

■ PROCEDURE

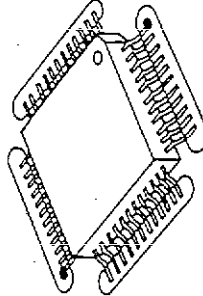
1. Temporary fix FLAT PACKAGE IC by Soldering on marked 2pins.



- Temporary soldering point.

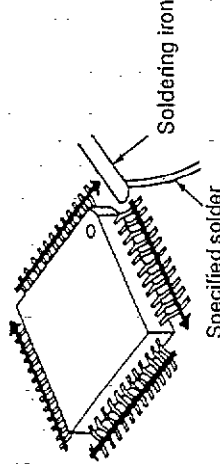
*Most important matter is accurate setting of IC to the corresponding soldering foil.

2. Apply flux for all pins of FLAT PACKAGE IC.



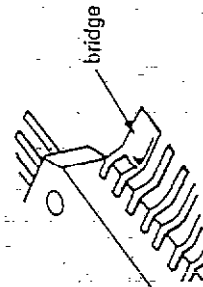
.....Flux

3. Solder employing specified solder to direction arrow, as slide the soldering iron.

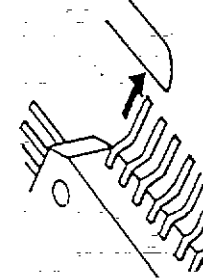


■ MODIFICATION PROCEDURE OF BRIDGE

1. Re-solder slightly on bridging portion.
2. Remove remained solder along pins employing soldering iron as shown in below Figure.

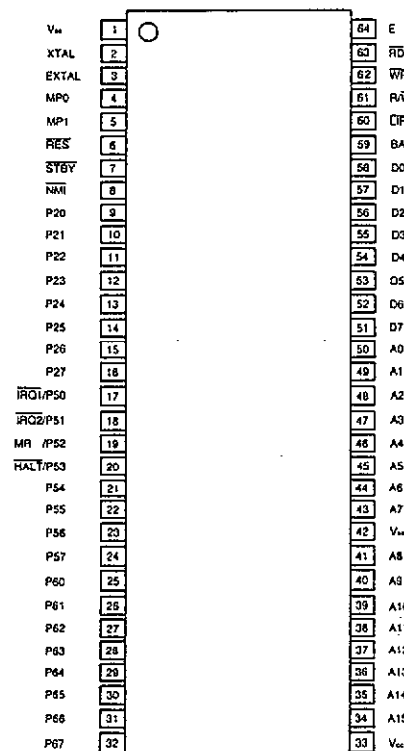


bridge

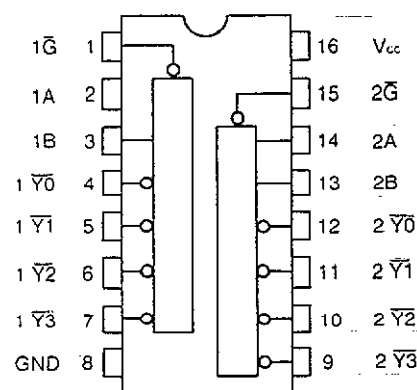
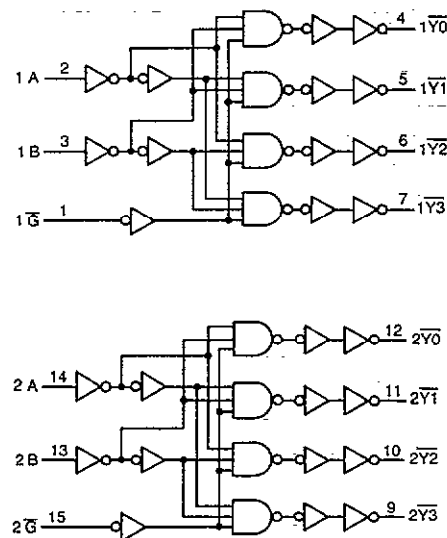


IC BLOCK DIAGRAM

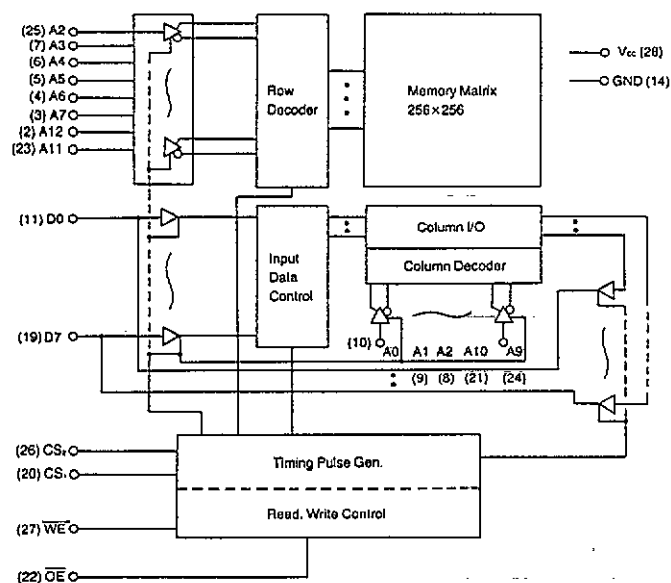
IC100 PQVIH63B03XP



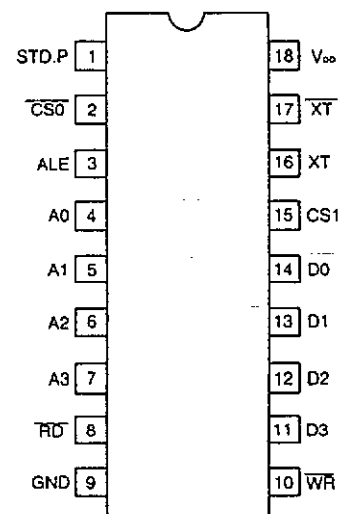
IC104 PQVITC7H139P



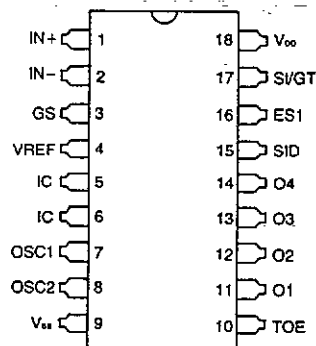
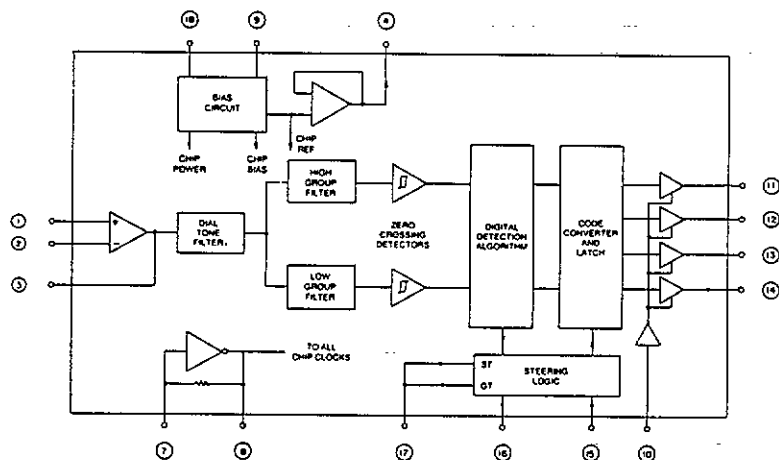
IC103 PQVIHM6264LA



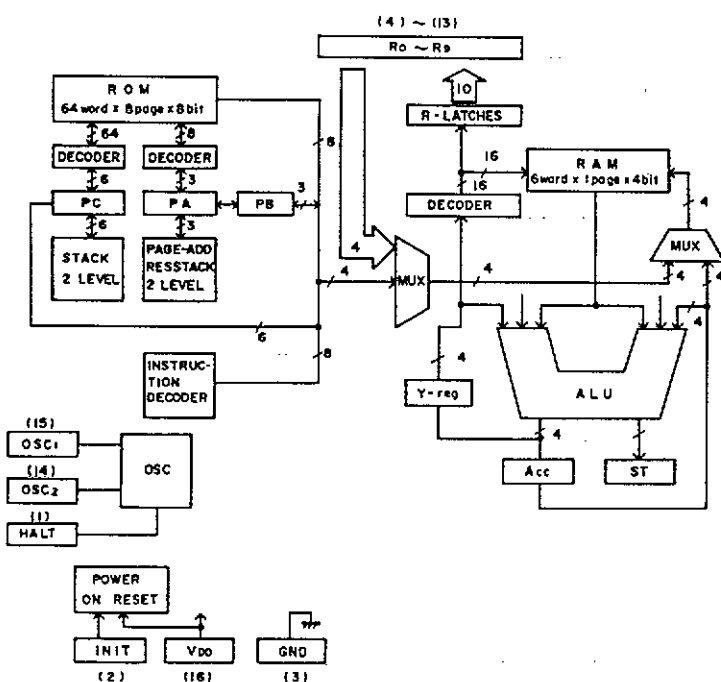
IC109 PQVIMS6242BS



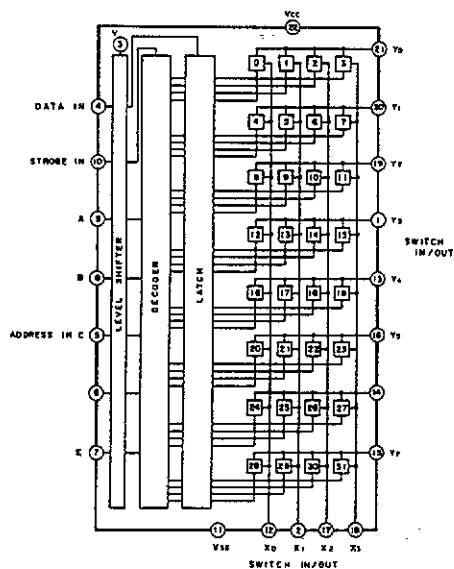
IC114, 115 PQVIMT8870BC



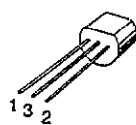
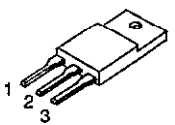
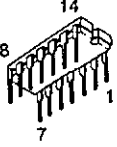
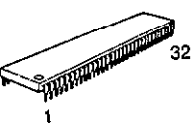
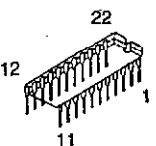
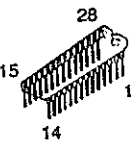
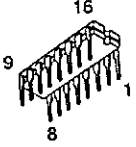
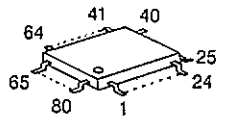
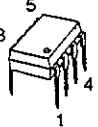
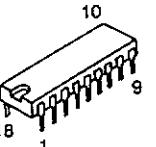
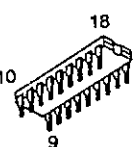
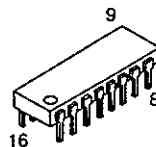
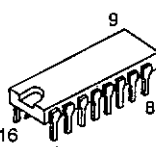
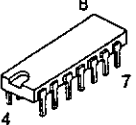
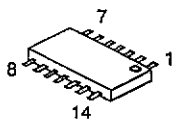
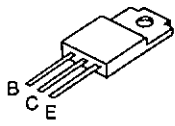
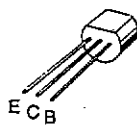
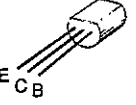
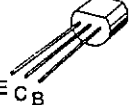
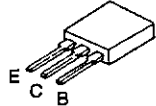
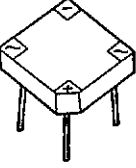
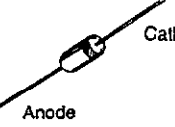
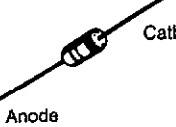
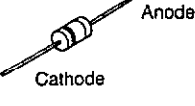

IC903 PQVIBU3140



IC125~130 PQVIM402101P



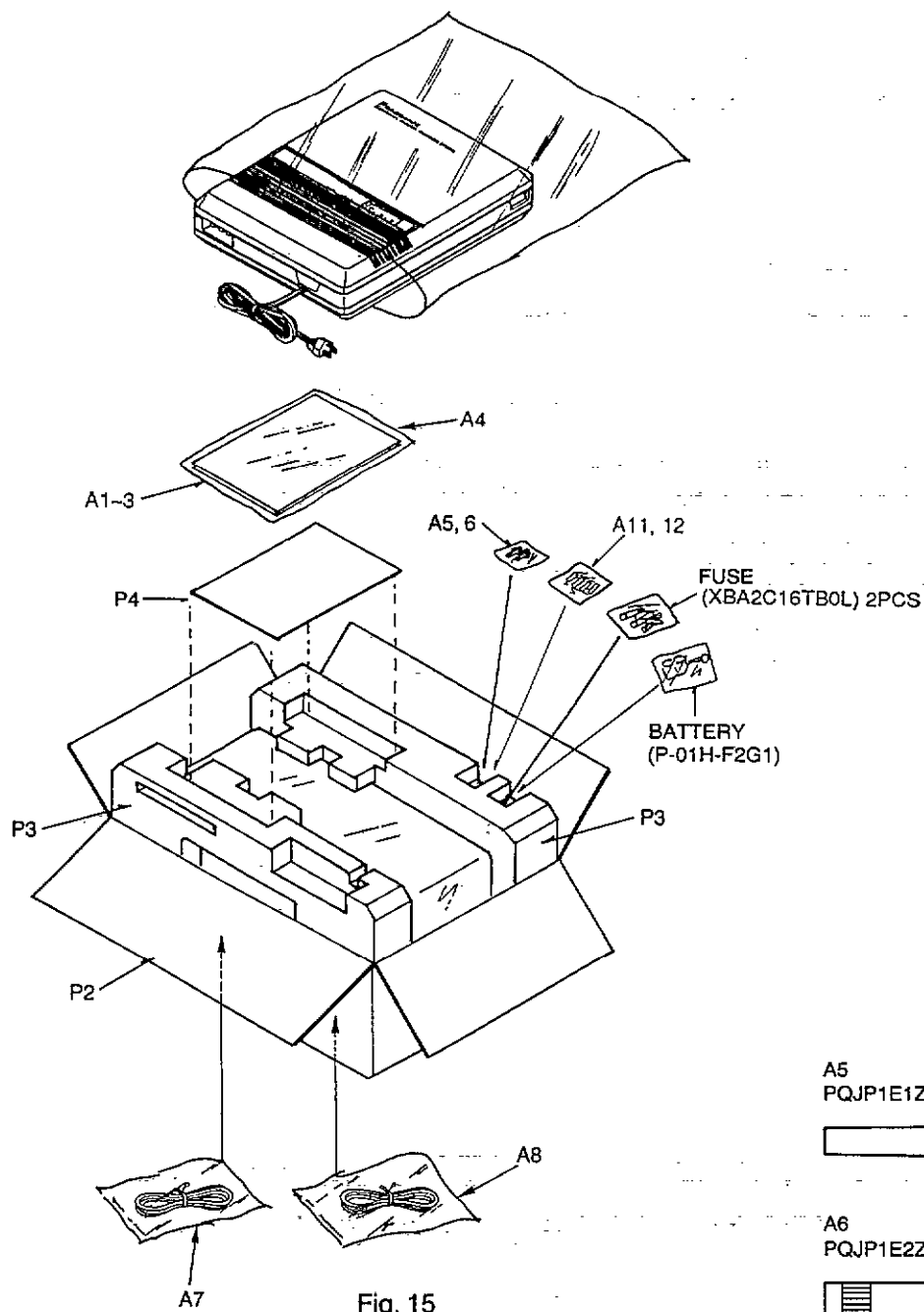
TERMINAL GUIDE OF IC'S, TRANSISTORS AND DIODES

 <p>PQVIM78L18AP</p>	 <p>PQVIL78M12CV</p>	 <p>PQVITC7H04P PQVINJM4011BC PQVIPD4066BC</p>	 <p>PQVIH63B03XP</p>	 <p>PQVIM402101P</p>
 <p>PQVIHM6264LA PQWIT30810M2</p>	 <p>PQVITC7H139P</p>	 <p>PQVI671152F PQVI672191F</p>	 <p>PQVINJM4558D</p>	 <p>PQVIMS6242BS</p>
 <p>PQVIMT8870BC</p>	 <p>PQVITP5089N</p>	 <p>PQVIBU3140</p>	 <p>PQVIM7H32P</p>	
 <p>PQVIPD4066BC</p>	 <p>2SD1275 2SD1406</p>		 <p>DTA124XA DTC143XA PQVTJA101R PQVTJC501Q PQVTDTC114Y PQVTJC32725 2SD637 2SD639</p>	
 <p>2SC2235</p>	 <p>2SC2878</p>	 <p>2SA1626</p>	 <p>PQVD2B4B41</p>	
 <p>Anode Cathode</p> <p>1SS131 1SV124 1SR35-200 MA4030 PQVDHZS2B1</p>	 <p>Anode Cathode</p> <p>MA4039 MA4047 MA4051 MA4062 MA4091 PQVDHZ7A2</p>		 <p>Anode Cathode</p> <p>MA4200</p>	
 <p>Anode Cathode</p> <p>LN220RPH LN320GPH LN420YPH</p>				

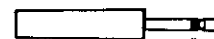
42

POWER SUPPLY SECTION

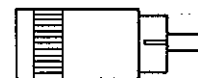
ACCESSORIES & PACKING MATERIALS



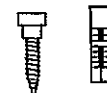
A5
PQJP1E1Z



A6
PQJP1E2Z



A12 A11



WARNING

Interconnection directly, or by way of other apparatus, of ports marked in accordance with 4.3.1(a) with ports not so marked may produce hazardous conditions on the BT network and that advice should be obtained from a competent engineer before such a connection is made.

The connection to the BT network must be unplugged before the earth is disconnected.

The connection to the BT network must not be hard wired.

NOTE: An appropriate means of connecting the apparatus to protective earth is by hard wiring.

'Prevention of access by user. This apparatus is intended to be accessible only to authorized personnel. This apparatus must be installed in a locked room or similar environment, such that user-access is prevented. Failure to prevent such user-access will invalidate any approval given to this apparatus.'

REPLACEMENT PARTS LIST

Model KX-T30810BE-2

Notes:

1. RTL (Retention Time Limited)

The marking (RTL) indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention.

After the end of this period, the assembly will no longer be available.

2. Important safety notice.

Components identified by the Δ mark special characteristics Important for safety.

When replacing any of these components, use only manufacturer's specified parts.

3. The S mark indicates service standard parts and may differ from production parts.

4. RESISTORS & CAPACITORS

Unless otherwise specified,

All resistors are in ohms (Ω) K=1000 Ω , M=1000K Ω

All capacitors are in MICRO FARADS (μ F) P= μ F

*Type & Wattage of Resistor

Type

ERC: Solid	ERX: Metal Film	PQRD: Carbon
ERD: Carbon	ERG: Metal Oxide	ERS: Fusible Resistor
PQRD: Carbon	ERO: Metal Film	ERF: Cement Resistor

Wattage

10, 16: 1/8W	14, 25: 1/4W	12: 1/2W	1: 1W	2: 2W	3: 3W
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*Type & Voltage of Capacitor

Type

ECFD: Semi-Conductor	ECCD, ECKD, ECBT, PQCBC: Ceramic
ECQS: Styrol	ECQE, ECQV, ECQG: Polyester
PQCUV: Chip	ECEA, ECSZ: Electrolytic
ECQMS: Mica	ECQP: Polypropylene

Voltage

ECQ Type	ECQG Type	ECSZ Type	Others	
1H: 50V	05: 50V	0F: 3.15V	0J: 6.3V	1V: 35V
2A: 100V	1: 100V	1A: 10V	1A: 10V	50, 1H: 50V
2E: 250V	2: 200V	1V: 35V	1C: 16V	1J: 63V
2H: 500V		0J: 6.3V	1E, 25: 25V	2A: 100V

Ref. No.	Part No.	Part Name & Description	Pcs
CABINET & ELECTRICAL PARTS			
1	PQYM30810BE2	REAR CABINET ASSY	1
1-2	PQHR9120Y8	HOOK	2
1-3	PQUS91Z	SPRING, HOOK	2
2	PQKE31Z8	CABINET DOOR	1
3	PQYF130810E2	FRONT CABINET ASSY	1
4	PQBH2Z	HINGE-A	2
5	PQHR9121Z8	HINGE-B	2
6	PQYF230810E2	INSIDE COVER ASSY	1
6-1	PQUS102Z	LEAF SPRING	2
6-2	PQHR118Z	CARD HOLDER-A	1
6-3	PQHR119Z	CARD HOLDER-B	1
6-4	PQHR120Z	CARD HOLDER-C	1
7	P-01H-F2G1	BATTERY	1
8	PQUV50Z	BATTERY COVER	1
9	PQQT8002Z	LABEL, BATTERY	1
ACCESSORIES AND PACKING MATERIALS			
A1	PQQX10361ZUK	INSTALLATION MANUAL Δ	1
A2	PQQX10362ZUK	USER GUIDE Δ	1
A3	PQQX10150ZUK	ADDITIONAL INSTALLATION MANUAL Δ	1
A4	XZB25X34A04	PROTECTION COVER FOR DOCUMENTS	1
A5	PQJP1E1Z	PLUG-A	1
A6	PQJP1E2Z	PLUG-B	1
A7	PQJA150Z	TEL. CORD(3 PIN) (FOR CO LINE) Δ	3
A8	PQJA151Z	TEL. CORD(4 PIN) (FOR EXT LINE)	8
A9	PQQT9421Z1	LABEL, SOCKET	1
A10	PQQT9423Z1	LABEL, EXT/CO	1
A11	PQHE10Z	PLUG	3
A12	PQHE5008Z	SCREW	3
P1	Not Used		
P2	PQPK1101WUK	PACKING CASE	1
P3	PQPN9053Z	CUSHION COMPLETE (L, R SIDE)	1
P4	PQPN668Z	CUSHION	1

Ref. No.	Part No.	Part Name & Description	Pcs
MAIN BOARD PARTS			
PCB1	PQWP130810E2	MAIN BOARD ASSY (RTL)	1
		(ICs)	
IC100	PQVIH63B03XP	IC	1
IC101	PQWI30810BE2	IC	1
IC102	Not Used		
IC103	PQVIHM6264LA	IC	S 1
IC104	PQVITC7H139P	IC	S 1
IC105	PQVITC4011BP	IC	S 1
IC106	PQVITC7H04P	IC	S 1
IC107	PQVIM7H32P	IC	S 1
IC108	Not Used		
IC109	PQVIMS6242BS	IC	1
IC110-112	Not Used		
IC113	PQVI672191F	IC	1
IC114, 115	PQVIMT8870CE	IC	S 2
IC116	PQVITP5089N	IC	1
IC117	Not Used		
IC118	PQVINJM4558D	IC	S 1
IC119-124	Not Used		
IC125-130	PQVIM402101B	IC	6
IC131	PQVISN7H02S	IC	1
IC132-135	Not Used		
IC136	PQVI671152F	IC	1
IC200A, 200B	PQVINJM4558D	IC	S 3
,200C			
IC201A, 201B	PQVIPD4066BC	IC	S 3
,201C			
IC900, 901	PQVINJM4558D	IC	S 3
,902			
IC903	PQVIBU3140	IC	1
		(TRANSISTORS)	
Q114, 115	PQVTDTC143XS	TRANSISTOR(SI)	3
,116			
Q117, 118	PQVTDTC144ES	TRANSISTOR(SI)	2
Q119, 120	PQVTDTA143EA	TRANSISTOR(SI)	S 2
Q131, 132	PQVTJC501Q	TRANSISTOR(SI)	S 2
Q200A, 200B	2SA1626	TRANSISTOR(SI)	3
,200C			
Q201A, 201B	Not Used		
,201C			
Q202A, 202B	PQVTDTC144ES	TRANSISTOR(SI)	9
,202C, 203A			
,203B, 203C			
,204A, 204B			
,204C			
Q206A-206C	2SC2590	TRANSISTOR(SI)	3
Q210A, 210B	DTA124XA	TRANSISTOR(SI)	S 3
,210C			
Q211A-211C	PQVTDTC114EU	TRANSISTOR(SI)	3
Q300A-300H	PQVTJC3272S	TRANSISTOR(SI)	S 8
Q301A-301H	PQVTJC3372S	TRANSISTOR(SI)	S 8
Q302A-302H	PQVTDTC114Y	TRANSISTOR(SI)	8
Q303A-303H	DTA143EA	TRANSISTOR(SI)	S 8
Q304A-304H	PQVTJC501Q	TRANSISTOR(SI)	S 8
Q305A-305H	PQVTA101R	TRANSISTOR(SI)	S 8
Q306A-306H	PQVTJC501Q	TRANSISTOR(SI)	S 8
Q307	PQVTDTC144ES	TRANSISTOR(SI)	1
Q360	2SD1406Y	TRANSISTOR(SI)	S 1
Q900	PQVTJC501Q	TRANSISTOR(SI)	S 1
Q901	PQVTJC3372S	TRANSISTOR(SI)	S 1
		(DIODES)	
D101	MA4091	DIODE(SI)	1
D102-105	Not Used		
D106-109	1SS131	DIODE(SI)	4
D110	Not Used		
D111	1SS131	DIODE(SI)	1
D112	MA4039	DIODE(SI)	1
D113, 114	Not Used		
D115	PQVD1SV124	DIODE(SI)	1

Ref. No.	Part No.	Part Name & Description	Pcs	Ref. No.	Part No.	Part Name & Description	Pcs
D116, 117	1SS131	DIODE(SI)	S 2	T100, 101	PQLT2D6A	(TRANSFORMERS)	
D200A, 200B	PQVDS1YB40F1	DIODE(SI)	3	T200A, 200B	ETA14Y85AY	INTERFACE TRANSFORMER	2
,200C				,200C		INTERFACE TRANSFORMER	S 11
D201A, 201B	PQVDHZS2B1	DIODE(SI)	3	,300A-300H			
,201C				T301A-301H	ETE13K38AY	PULSE TRANSFORMER	S 8
D202A-202C	Not Used						
D203A, 203B	1SS131	DIODE(SI)	S 6	SW100	PQSH1A12Z	(SWITCHES)	
,203C, 204A				SW101	PQSS2A20Z	SWITCH, RESET	1
,204B, 204C						SWITCH, SYSTEM PROGRAM	1
D205A, 205B	MA4047	DIODE(SI)	6				
,205C, 206A						(RELAYS)	
,206B, 206C				RLY10A, 10B	PQSL49Z	RELAY	S 3
D207A, 207B	MA4039	DIODE(SI)	6	,10C			
,207C, 208A				RLY20A, 20B	PQSL41Z	RELAY	S 11
,208B, 208C				,20C			
D209A-209C	Not Used			,30A-30H			
D210A-210C	1SS131	DIODE(SI)	S 6				
,220A-220C						(VARIABLE CAPACITOR)	
D300A-300H	MA4047	DIODE(SI)	16	VC100	PQCVTZB30B	TRIMMER	1
,301A-301H							
D302A-302H	1SS131	DIODE(SI)	S 68			(THERMISTORS)	
,303A-303H				TH1	PQRRTS104U	THERMISTOR	1
,305A-305H				TH2	PQRRTS203U	THERMISTOR	1
,306A-306H							
,307A-307H						(PHOTO ELECTIC TRANSDUCERS)	
,310A-310H						PHOTO COUPLER	S 3
,311A-311H							
,312A-312H						PHOTO COUPLER	3
,390, 701						PHOTO COUPLER	S 3
,902, 903							
		(VARISTORS)					
ZNR20A, 20B	ERZC07DK820	ZENER	S 3			(CAPACITORS)	
,20C						100	1
ZNR30A-30H	PQVDNV039D03	ZENER	S 32	C101	ECEA1EU101		
,31A-31H				C102-106	Not Used		
,32A-32H				C107	ECQM1H472JV	0.0047	1
,33A-33H				C108, 109	Not Used		
				C110, 111	ECKD1H103KB	0.01	S 2
SA20A, 20B	PQVDDSS301L	SURGE ABSORBER	S 6	C112, 113	ECCD1H150JC	15P	S 2
,20C, 21A				C114, 115	ECCD1H220JC	22P	2
,21B, 21C				C116, 117	Not Used		
SA22A-22C	PQVDRA311PT2	SURGE ABSORBER	3	C118	ECEA1HU100	10	1
ZNR1	ERZC10DK681	SURGE ABSORBER	1	C119, 120	Not Used		
				C121	ECKD1H223MD	0.022	S 1
		(CRYSTAL OSCILLATORS)		C122, 123	ECQV1H104JZ	0.1	2
X100	PQVCK6000N3Z	CRYSTAL OSCILLATOR	1	C124	ECUV1H103KB	0.01	S 1
X101	PQVCX3579H5R	CRYSTAL OSCILLATOR	S 1	C125, 126, 127	ECQV1H104JZ	0.1	3
X102	PQVCX4000N8Z	CRYSTAL OSCILLATOR	S 1	C128, 129	Not Used		
X103	PQVCL3276N4Z	CRYSTAL OSCILLATOR	1	C130	ECKD1H102JA	0.001	S 1
				C131-134	Not Used		
				C135	ECKD1H223MD	0.022	S 1
				C136	ECUV1H223MD	0.022	1
				C137	Not Used		
		(COMPONENT COMBINATIONS)		C138	ECUV1H223MD	0.022	1
Z100,101, 102	PQRS1D8X473J	RESISTOR ARRAY	S 3	C139	ECKD1H223MD	0.022	S 1
Z107	PQRS1D3X223J	RESISTOR ARRAY	S 1	C140	Not Used		
Z110	PQRS1D8X222J	RESISTOR ARRAY	S 1	C141	ECUV1H223MD	0.022	1
Z111	PQRS1D3X472J	RESISTOR ARRAY	1	C142	Not Used		
				C143	Not Used		
		(COILS)		C144	ECUV1H223MD	0.022	S 1
L100-103	ELEPK820KA	CHOKE COIL	S 4	C145-147	Not Used		
L104	PQLQZM2R2K	CHOKE COIL	S 1	C148, 149	ECUV1H223MD	0.022	S 2
L105-109	Not Used			C149	Not Used		
L110, 111	PQLQZM2R2K	CHOKE COIL	S 36	C150	ECUV1H223MD	0.022	1
,120, 173				C151, 152	Not Used		
,300A-300H				C153	ECCD1H151JC	150P	S 1
,301A-301H				C154	Not Used		
,302A-302H				C155	ECUV1H223MD	0.022	1
,303A-303H				C156	ECKD1H223MD	0.022	S 1
L200A-200C	PQLQZK101K	CHOKE COIL	6	C157-160	Not Used		
,202A-202C				C161	ECQV1H104JZ	0.1	1
L201A-201C	PQLQZK2R2K	CHOKE COIL	6	C162	ECEA1EU101	100	S 1
,203A-203C				C163	ECQV1H104JZ	0.1	1
L304	ELEA100KA	CHOKE COIL	S 1	C164-167	Not Used		

Ref. No.	Part No.	Value	Pcs	Ref. No.	Part No.	Value	Pcs
C168	ECEA1CSS332	3300	1	C914-916	Not Used		
C169, 170	ECEA1EK470	47	2	C917	ECEA1EU470	47	1
C171-179	Not Used			C918	ECQM1H332JV	0.0033	1
C180	ECQV1H104JZ	0.1	1	C919	Not Used		
C181	ECUV1H223MD	0.022	1	C920	ECCD1H681KB	680P	1
C182-184	ECQV1H104JZ	0.1	3	C921	ECCD1H151JC	150P	1
C185	ECCD1H680JC	68P	1				
C186, 187	ECQV1H104JZ	0.1	2			(RESISTORS)	
C190	ECEA1HU2R2	2.2	1	J101, 103, 104	PQ4R10XJ000	0	3
C200A, 200B	ECQE2185KS	1.8	3	J200A, 200B	PQ4R10XJ000	0	6
,200C			1	200C, 201A			
C201A, 201B	ECEA1HU220	22	3	201B, 201C			
,201C							
C202A, 202B	ECEA1HU330	33	3	R101	ERDS2TJ272	2.7K	1
,202C				R102-105	Not Used		
C203A, 203B	ECEA1HU2R2	2.2	3	R106	ERDS2TJ821	820	1
,203C				R107-109	Not Used		
C204A, 204B	ECQV1H274JZ	0.27	3	R110-118	ERDS2TJ151	150	9
,204C				R119-121	Not Used		
C205A, 205B	ECUV1H563MD	0.056	6	R122	ERDS2TJ103	10K	1
,205C, 206A				R123	ERDS2TJ223	22K	1
,206B, 206C				R124	Not Used		
C207A, 207B	PQCUV1H820JC	82P	3	R125	ERDS2TJ105	1M	1
,207C				R126	ERDS2TJ222	2.2K	1
C208A, 208B	Not Used			R127, 128	ERDS2TJ103	10K	2
,208C				R129	ERDS2TJ561	560	1
C209A, 209B	PQCUV1H103KB	0.01	3	R130	ERDS2TJ681	680	1
,209C				R131	ERDS2TJ103	10K	1
C210A, 210B	ECUV1H563MD	0.056	6	R132	Not Used		
,210C, 211A				R133, 134	ERDS2TJ473	47K	2
,211B, 211C				R135	Not Used		
C212A, 212B	PQCUV1H101JC	100P	3	R136	ERDS2TJ103	10K	1
,212C				R137	PQ4R18XJ223	22K	1
C213A, 213B	PQCUV1H101JC	100P	3	R138, 139	Not Used		
,213C				R140	ERDS2TJ104	100K	1
C214A, 214B	PQCUV1H820JC	82P	3	R141	ERDS2TJ333	33K	1
,214C				R142	ERDS2TJ334	330K	1
C215A, 215B	ECUV1C154JB	0.15	12	R143	ERDS2TJ104	100K	1
,215C, 216A				R144	ERDS2TJ333	33K	1
,216B, 216C				R145	ERDS2TJ334	330K	1
,217A, 217B				R146	ERDS2TJ472	4.7K	1
,217C, 218A				R147	ERDS2TJ683	68K	1
,218B, 218C				R148, 149	Not Used		
C220A, 220B	ECKDKC222KB	0.0022	3	R150	ERDS2TJ102	1K	1
,220C				R151	ERDS2TJ333	33K	1
C221A, 221B	PQCUV1H102J	0.001	3	R152	ERDS2TJ223	22K	1
,221C				R153, 154	ERDS2TJ102	1K	2
C222A, 222B	ECQV1H394JZ	0.39	3	R155-158	ERDS2TJ103	10K	4
,222C				R159	PQ4R18XJ472	4.7K	1
C240A, 240B	Not Used			R160	ERDS2TJ103	10K	1
,240C				R161	PQ4R18XJ472	4.7K	1
C250	ECEA1EU102	1000	1	R162	ERDS2TJ103	10K	1
C300A-300H	ECQV1H824JZ	0.82	8	R163	PQ4R18XJ472	4.7K	1
C301A-301H	ECEA1HU4R7	4.7	16	R164	ERDS2TJ103	10K	1
,302A-302H				R165-168	Not Used		
C303A-303H	ECEA1HU4R7	4.7	8	R169, 170	ERDS2TJ223	22K	2
C304A-304H	ECUV1H103KB	0.01	16	R171, 172, 173	Not Used		
,305A-305H				R174	ERDS2TJ225	2.2M	1
C306A-306H	ECEA1HU010	1	8	R175	ERDS2TJ154	150K	1
C307A-307H	ECQV1H393JZ	0.039	8	R176	ERDS2TJ223	22K	1
C390	ECEA1EU101	100	1	R177-184	Not Used		
C400	ECEA1VU471	470	1	R185	PQ4R10XJ103	10K	1
C500-504	Not Used			R186-189	Not Used		
C511, 512, 513	ECQV1H273JZ	0.027	3	R190, 191	ERDS2TJ103	10K	2
				R192	ERDS2TJ102	1K	1
C900	ECQV1H473JZ	0.047	1	R193	Not Used		
C901	ECQV1H104JZ	0.1	1	R194, 195	PQ4R18XJ472	4.7K	2
C902	ECQM1H332JV	0.0033	1	R196, 197	Not Used		
C903	ECQV1H683JZ	0.068	1	R198	PQ4R10XJ103	10K	1
C904	ECQV1H104JZ	0.1	1	R200A, 200B	PQRD12VJ822	8.2K	3
C905	ECQM1H682JV	0.0068	1	,200C			
C906, 907	Not Used			R201A, 201B	PQ4R10XJ561	560	3
C908	ECQM1H102JV	0.001	1	,201C			
C909	ECKD1H102JA	0.001	1	R202A, 202B	PQ4R10XJ104	100K	3
C910, 911	ECEA1HU4R7	4.7	2	,202C			
C912	ECQV1H333JZ	0.033	1	R203A, 203B	PQ4R10XJ472	4.7K	3
C913	ECKD1H102JA	0.001	1	,203C			

Ref. No.	Part No.	Part Name & Description	Pcs	Pcs	Ref. No.	Part Name & Description	Pcs	
				LED BOARD PARTS				
D1	PQVD2B4B41	(DIODES)	1	PCB3	PQWP330810UK	LED P. C. BOARD ASS'Y (RTL)	1	
D2A, 2B	PQVDD1NL20	DIODE(SI)	2			(DIODES)		
D3, 4, 9, 10, 11	1SR35-200	DIODE(SI)	8			LED	1	
D5	Not Used					LED	1	
D6	MA1068	DIODE(SI)	1	D800	LN220RPH	LED	1	
D7	MA4200	DIODE(SI)	1	D801	LN420YPH	LED	1	
D8	Not Used			D802	LN320GPH	LED	1	
D12	MA4091	DIODE(SI)	1			(OTHERS)		
D13	MA4062	DIODE(SI)	1	E800	PQJS4L17Z	CONNECTOR SOCKET, 4P	1	
D16	Not Used					(W/LEAD) (J6)		
D18	MA4051	DIODE(SI)	1	E801	PQHR402Z	SPACER, LED	3	
D19	1SS131	DIODE(SI)	1	POWER SUPPLY PARTS				
				POWER P. C. BOARD ASS'Y (RTL)				
RLY1	PQSL50Z	(RELAY) RELAY	1	PCB4	PQWP430810E2	(with C601, C602, C604, C605, ZNR600, L600, E603, E604 and E606)	1	
				(CAPACITORS)				
C3	EECW0H104Z1N	100000	1	C601, 602 C604, 605	ECKDKD222MF ECQU2A473MN	0.0022	2	
C4	Not Used					0.047	2	
C5, 7	ECET35S222SW	2200	2			(VARISTOR)		
C6	ECET50S682SW	6800	1	ZNR600	ERZC14DK471U	VARIATOR	1	
C8	ECEA1HU101	100	1			(SWITCH)		
C9	ECEA1VU471	470	1	SW1	EST15704V	SWITCH, POWER	1	
C10	Not Used					(TRANSFORMERS)		
C11	ECEA1EU101	100	1	T1	PQLT5M9E1A	POWER TRANSFORMER	1	
C12	Not Used			T2	PQLT1K9M1A	BELL TRANSFORMER	1	
C13	ECEA1EU331	330	1			(COIL)		
C14	ECEA1HU100	10	1	L600	PQLE61	COIL	1	
C15, 16	ECKD1H103KB	0.01	2			(OTHERS)		
C17	ECEA0JU222	2200	1	E600	PQWA30810BE2	POWER CORD ASS'Y	1	
C18	ECEA1HU100	10	1	E601	PQUV36Y	POWER BOX COVER	1	
C19	ECEA2AN100	10	1	E602	PQUV37Y	POWER BOX	1	
C20	Not Used			E603	PQJP7C1Z	CONNECTOR PLUG, 7P	1	
C21	ECEA1HU101	100	1	E604	PQJS5L36Z	CONNECTOR SOCKET, 7P	1	
						(W/LEAD) (J3)		
R1	ERDS2TJ332	3.3K	1	E605	PQMD4012Y	BRACKET, POWER BOX	1	
R2	ERDS2TJ102	1K	1	E606	XBA2C10TB0L	FUSE	1	
R3	ERDS2TJ472	4.7K	1	E607	PQQT4181Z	LABEL		
R4	ERDS2TJ332	3.3K	1	EARTH RECALL BOARD PARTS				
R5	ERDS2TJ122	1.2K	1	EARTH RECALL BOARD ASS'Y (RTL)				
R6	ERDS2TJ102	1K	1	PCB5	PQWP730810BE		1	
R7	ERDS2TJ472	4.7K	1	Q201A-201C	DTC143XA	(TRANSISTORS)		
R8	ERDS2TJ223	22K	1			TRANSISTORS (SI)	3	
R9, 10	ERDS2TJ683	68K	2	D120A-120C	1SS131	(DIODES)		
R11, 12	PQRD2VJ2R7	2.7	2			DIODES	3	
R13	ERDS2TJ102	1K	1	RLY22A-22C	PQSL41Z	(RELAYS)		
R14	Not Used					RELAY	3	
R15	ERDS2TJ471	470	1			(RESISTORS)		
R16	ERDS2TJ472	4.7K	1	R250A-250C, 251A-251C	ERDS2TJ560	56	6	
R17	ERDS2TJ223	22K	1			(CONNECTORS)		
R18	ERDS2TJ473	47K	1	E200	PQJS5L38Z	CONNECTORS SOCKET, 5P(J9)	1	
R19	ERDS2TJ332	3.3K	1	E201	PQJS7L41Z	(W/Lead)		
R20	ERDS2TJ822	8.2K	1			CONNECTORS SOCKET, 7P(J10)	1	
R21	ERDS2TJ274	270K	1					
R22-24	Not Used							
R25, 26	ERDS2TJ222	2.2K	2					
R27, 28	ERDS2TJ223	22K	2					
R29, 30	PQRD1VJ3R3	3.3	2					
R31	PQRD12TJ101	100	1					
E1	XBA2C16TB0L	(OTHERS) FUSE (F2, F3)	2					
E2	PQJP5D48Z	CONNECTOR PLUG, 5P (CN1)	1					
E3	PQJP5D30Z	CONNECTOR PLUG, 5P (CN2)	1					
E4	PQJP5D14Z	CONNECTOR PLUG, 5P (CN3)	1					
E5	PQJS7L40ZUK	CONNECTOR SOCKET, 7P	1					
E6	PQJS8L39ZUK	(W/LEAD) (J5) CONNECTOR SOCKET, 8P	1					
E7	PQJS3L46ZUK	(W/LEAD) (J4) CONNECTOR SOCKET, 3P (J8)	1					

156