

# PG-1000

## SERVICE NOTES

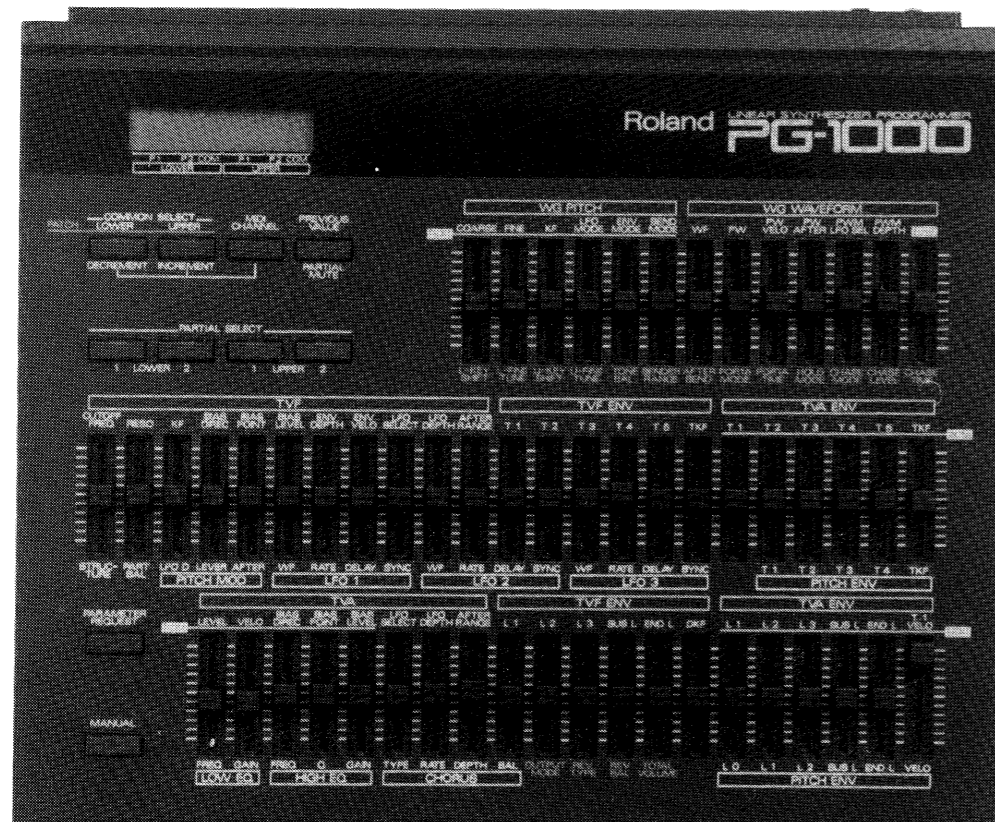
First Edition

### SPECIFICATIONS

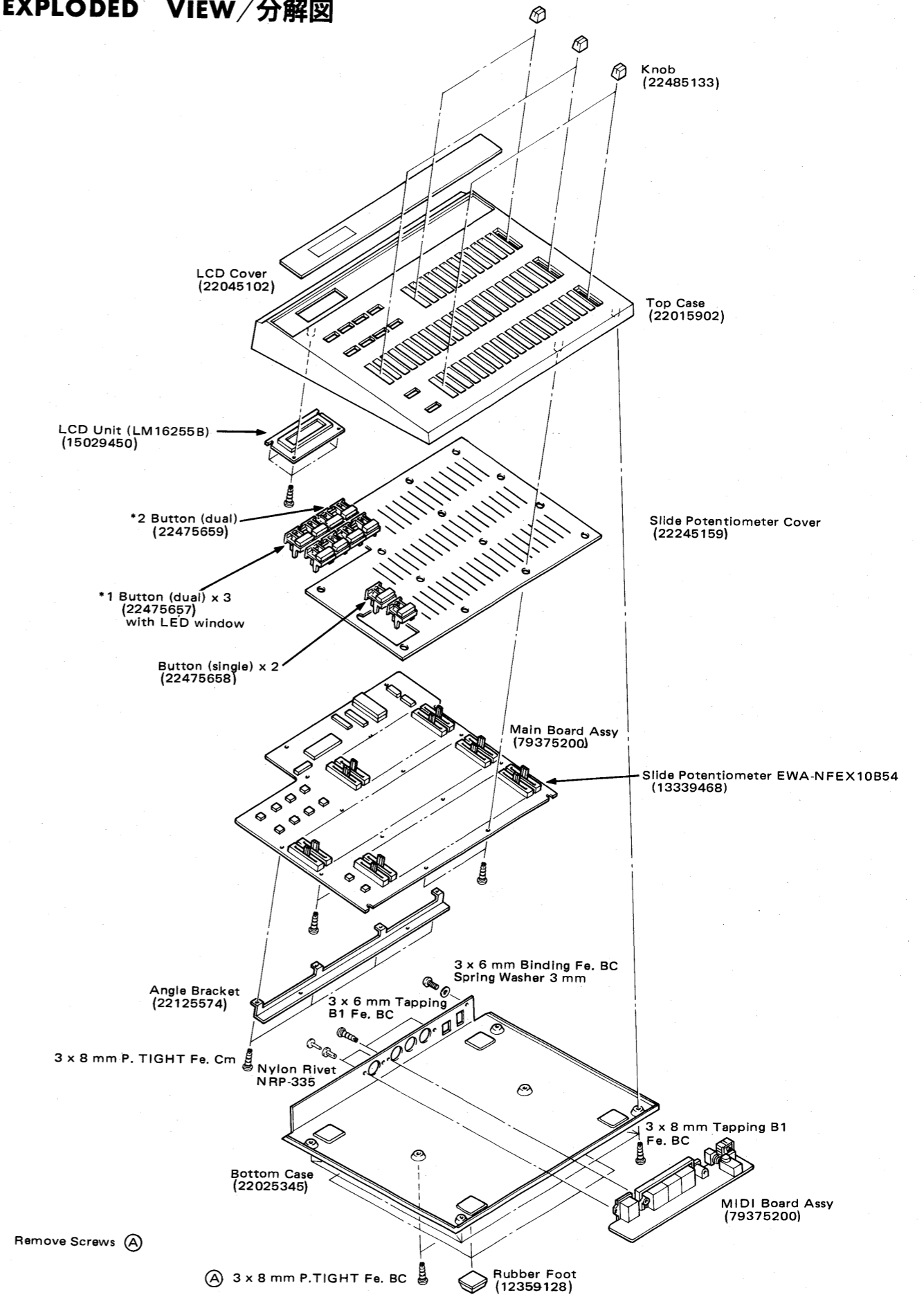
CURRENT CONSUMPTION . . . . .150mA DC at 9V  
 WEIGHT . . . . .1.6 kg/3 lb 9 oz (without Adaptor)  
 DIMENSIONS . . . . .318(W) x 268(D) x 53(H) mm  
 12-1/2" x 10-9/16" x 2-1/16"

ACCESSORY . . . . .AC ADAPTER

PSA-100	100V
PSA-120	117V
PSA-220	220V
PSA-240	240V Australian



### EXPLODED VIEW / 分解図



\*1 This type separable into two: replacement single type only.  
 このボタンは2つに分割可能。補修品はシングルで供給します。  
 Button (single) 22475656

\*2 This type separable into two: replacement single type only.  
 このボタンは2つに分割可能。補修品はシングルで供給します。  
 Button (single) 22475658

## PARTS LIST

## CASING

22015902	Top Case
22025345	Bottom Case
22045102	LCD Cover
22125574	Angle Bracket
12359128	Rubber Foot
22245465	LCD Dust Cover
22245159	Slide Potentiometer Cover

## BUTTON/KNOB

22485133	knob	slide potentiometer
22475657	*1 button (dual) with LED window	COMMON SELECT, PARTIAL SELECT
22475658	button (single)	PARAMETER REQUEST, MANUAL
22475659	*2 button (dual)	MIDI SELECT, PREVIOUS VALUE
22499175	button	POWER

\*This type separable into two: replacement single type only.  
1: button (single) 22475656. 2: button (single) 22475658

このボタンは2つに分割可能。補修品はシングルで供給します。

## AC ADAPTER

12449509	PSA-100	100V
12449510	PSA-120	117V
12449511	PSA-220	220V
12449512	PSA-240	240V Australian

## SOCKET

13429168	MIDI 3-NS (triplet)	MIDI IN/OUT/THRU
13429615	TCS5350-01-1111	DIN socket (PARAMETER IN)
13449706	HCE0470-01-230	AC adaptor jack
13429534	ICE-286-S-TG	EP ROM

## SWITCH

13129143	SDDW A1	POWER
13169633	SKHHAD039A	

## TRANSFORMER

12449552	D 32-45	EL inverter
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## LCD UNIT

15029450	LM16255B with EL, PCB and wirings
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No replacement for individual parts.

ユニット単位で供給。

## PCB ASSEMBLY

79375200	Main Board (PCB 22925458 1/2)
79375300	MIDI Board (PCB 22925458 2/2)

## POTENTIOMETER

13339468	EWA-NFEX10B54	50kB all potentiometers
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## INDUCTOR

12449265	ELE-H102KA	1mH line filter
13529105	DSS 310-55D223S	EMI filter
12449294	BL03RN2-R62T2	

## CRYSTAL

12389765	TQC-226A-612 12MHz
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## TRANSISTOR

15119132	2SA1015GR
15129151	2SC1815GR

## TRANSISTOR ARRAY

15149114	M54527P
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## RESISTOR ARRAY

13919312	RMLS 8-153J 15k x 8
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## CAPACITOR ARRAY

13529115	EXFP8101MW 100P x 8
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## IC

(main board)		
15179256	μPD78C10G	CPU
15449102	TMM2764D	EP ROM
15179343S0	LC3517 AS 12	S RAM
15159113T0	TC4051BP	8 channel multiplexer/demultiplexer
15159503	TC40H000P	quad 2-input NAND gate
15159510	TC40H074P	dual D-type flip-flops
15159506	TC40H138P	3-8 line decoder/demultiplexer
15169544	TC74H573P	octal transparent latches (with 3 state outputs)
(MIDI board)		
15169304X0	SN74LS04N	hex inverters
15229706	TLP-552	optoisolator
15199135	L78MR05	voltage regulator

## DIODE

15019152T0	1SS176 TPA-7	
15019281	1SR35-100A T-93	100V 1A rectifier

## (LED)

15029222	SLR55VC3F
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## CONNECTOR

13439330	IL-S-3P-S2T2-EF
13439297	IL-S-8P-S2T2-EF

## MISCELLANEOUS

22195889	MIDI holder	
22255137	LCD shield paper	
12469158	SC-7-BS-T	heat sink

**TEST MODE**

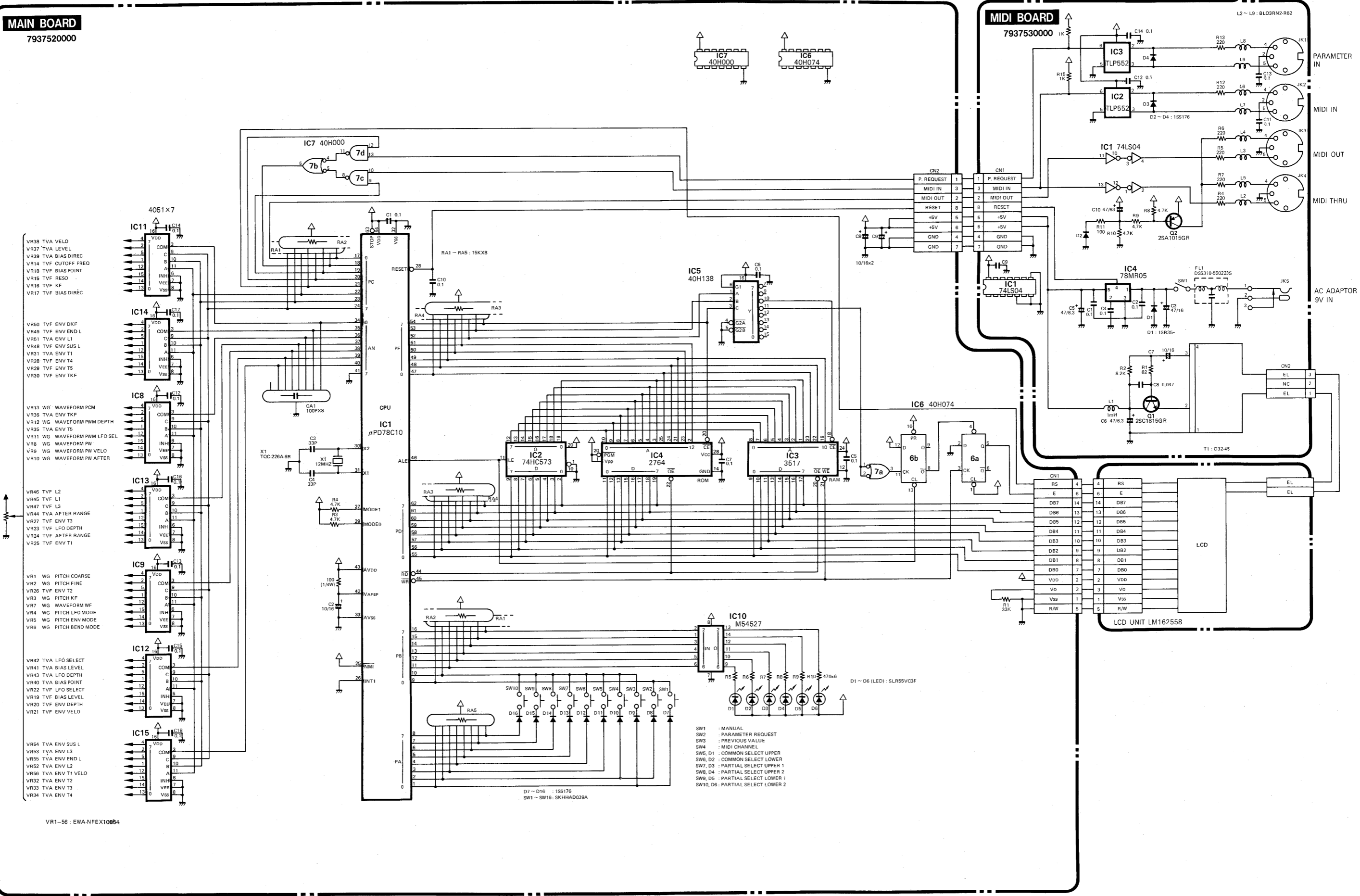
- |   |  |
|---|--|
| <p>1. Press and hold PARAMETER REQUEST then switch the power on: the instrument will turn on all of the display dots, indicating that it is now in the test mode.</p> <p>2. Test panel buttons, LCD and LEDs to the table below (in any order).</p> | <p>1. PARAMETER REQUEST を押しながら、電源オン。<br/>(ディスプレイの全ドットが点灯し、テスト・モードになる。)</p> <p>2. 各ボタンで、LCD、LED の動作を確認。</p> |
|---|--|

Press button	LCD will	How LEDs response
MANUAL	Turn off all dots 全ドット消灯	COMMON SELECT: on , others: off COMMON SELECT の 2 つの LED のみ
PARAMETER REQUEST	Turn on all dots 全ドット点灯	PARTIAL SELECT: on PARTIAL SELECT の 4 つの LED 点灯
MIDI CHANNEL	Unaffected 変化せず	All: on 全 LED 点灯
PREVIOUS VALUE	Unaffected 変化せず	All: off 全 LED 消灯
COMMON SELECT PARTIAL SELECT	Unaffected 変化せず	Only LED associates with pressed button: on 押したボタンの LED のみ点灯

- |  |  |
|--|--|
| <p>3. Turn the power off.</p> <p>Conducting the following checking is recommended to make sure that all panel controls are functioning satisfactorily.</p> <p>4. Turn the power on (normal play mode).</p> <p>5. Press all PARTIAL SELECT buttons to light mated LEDs.</p> <p>6. Move all edit knobs in any order and verify the corresponding indications on the display.</p> | <p>3. 電源オフにする。</p> <p>各エディット・ツマミのチェックは、通常の操作状態で次のように行なう。</p> <p>4. 電源オンにする。</p> <p>5. PARTIAL SELECT のインジケータをすべて点灯させる。</p> <p>6. 任意の順に EDIT ツマミを動かすと、EDIT ツマミに対応した画面になると同時に、設定値が変化することを確認。</p> |
|--|--|

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

A B C D E F G H I J K L M N O P Q R S T U



MAIN BOARD  
7937520000

MIDI BOARD  
7937530000

- VR38 TVA VELO
- VR37 TVA LEVEL
- VR39 TVA BIAS DIREC
- VR14 TVF CUTOFF FREQ
- VR18 TVF BIAS POINT
- VR15 TVF RESO
- VR16 TVF KF
- VR17 TVF BIAS DIREC
- VR50 TVF ENV DKF
- VR49 TVF ENV END L
- VR51 TVA ENV L1
- VR48 TVF ENV SUS L
- VR31 TVA ENV T1
- VR28 TVF ENV T4
- VR29 TVF ENV T5
- VR30 TVF ENV TKF
- VR13 WG WAVEFORM PCM
- VR36 TVA ENV TKF
- VR12 WG WAVEFORM PWM DEPTH
- VR35 TVA ENV T5
- VR11 WG WAVEFORM PWM LFO SEL
- VR8 WG WAVEFORM PW
- VR9 WG WAVEFORM PW VELO
- VR10 WG WAVEFORM PW AFTER
- VR46 TVF L2
- VR45 TVF L1
- VR47 TVF L3
- VR44 TVA AFTER RANGE
- VR27 TVF ENV T3
- VR23 TVF LFO DEPTH
- VR24 TVA AFTER RANGE
- VR25 TVF ENV T1
- VR1 WG PITCH COARSE
- VR2 WG PITCH FINE
- VR26 TVF ENV T2
- VR3 WG PITCH KF
- VR7 WG WAVEFORM WF
- VR4 WG PITCH LFO MODE
- VR5 WG PITCH ENV MODE
- VR6 WG PITCH BEND MODE
- VR42 TVA LFO SELECT
- VR41 TVA BIAS LEVEL
- VR43 TVA LFO DEPTH
- VR40 TVA BIAS POINT
- VR22 TVF LFO SELECT
- VR19 TVF BIAS LEVEL
- VR20 TVF ENV DEPTH
- VR21 TVF ENV VELO
- VR54 TVA ENV SUS L
- VR53 TVA ENV L3
- VR55 TVA ENV END L
- VR52 TVA ENV L2
- VR56 TVA ENV T1 VELO
- VR32 TVA ENV T2
- VR33 TVA ENV T3
- VR34 TVA ENV T4

VR1-56 : EWA-NFEX10954

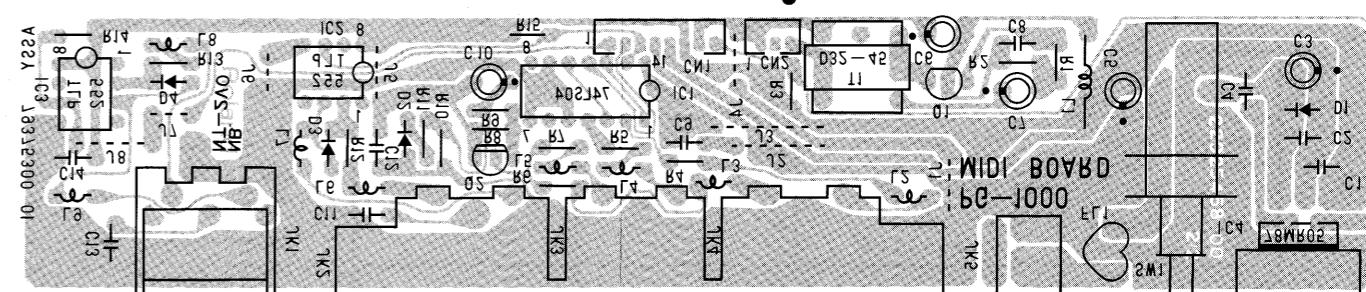
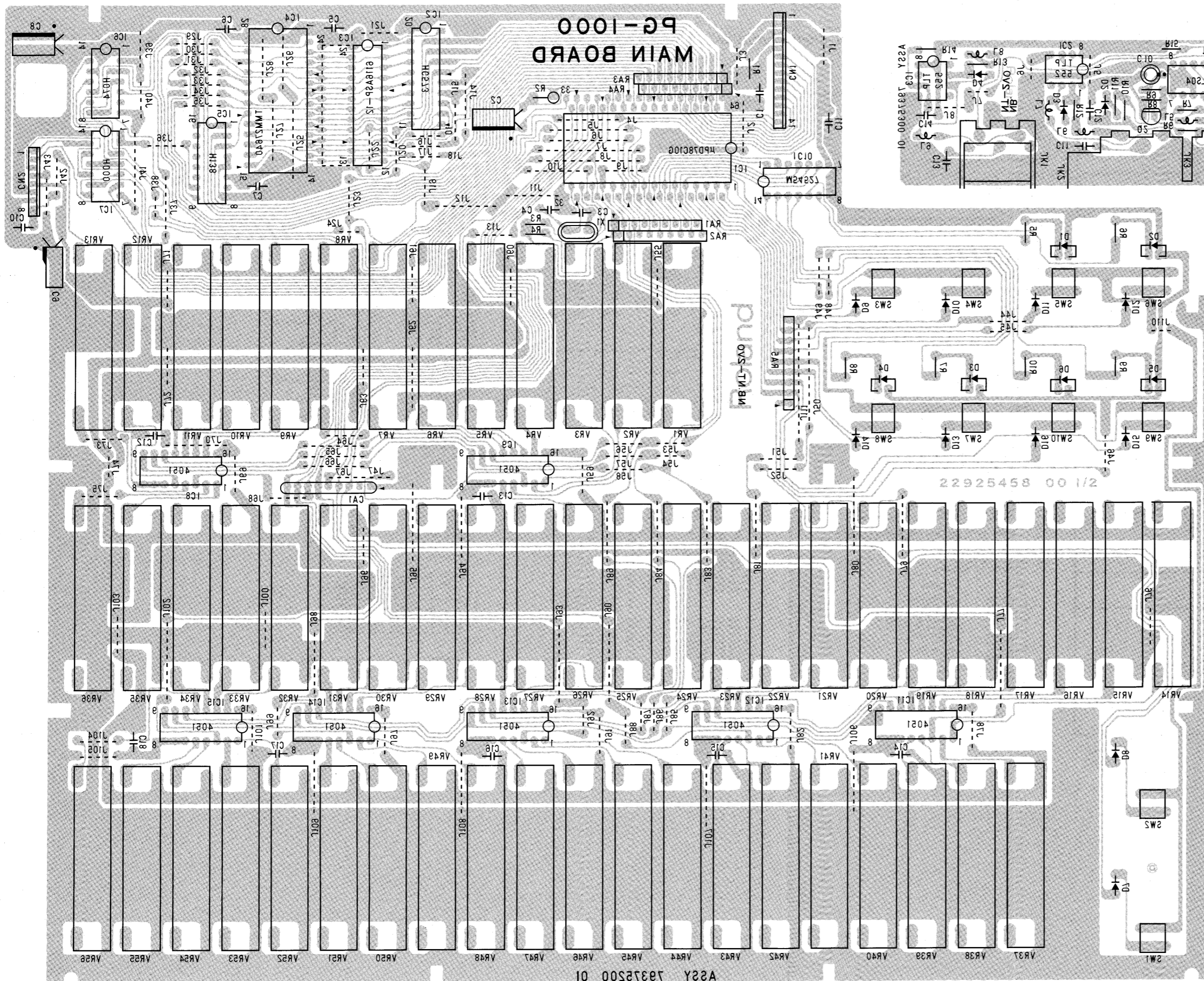
- SW1 : MANUAL
- SW2 : PARAMETER REQUEST
- SW3 : PREVIOUS VALUE
- SW4 : MIDI CHANNEL
- SW5, D1 : COMMON SELECT UPPER
- SW6, D2 : COMMON SELECT LOWER
- SW7, D3 : PARTIAL SELECT UPPER 1
- SW8, D4 : PARTIAL SELECT UPPER 2
- SW9, D5 : PARTIAL SELECT LOWER 1
- SW10, D6 : PARTIAL SELECT LOWER 2

D7 ~ D16 : 1S176  
SW1 ~ SW16 : SKHHA039A

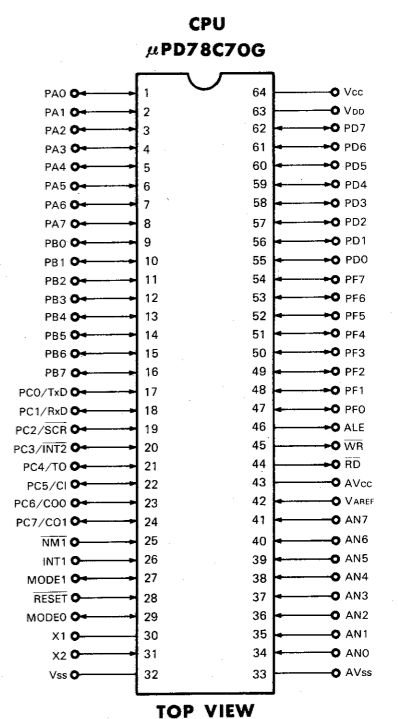
LCD UNIT LM162558

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29  
MAIN BOARD 79375200 (pcb 22925458 1/2)

MIDI BOARD 79375300 (pcb 22925458 1/2)

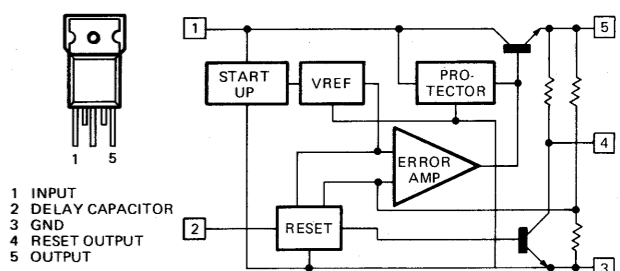


View from foil side



TOP VIEW

L78MR05R



- 1 INPUT
2 DELAY CAPACITOR
3 GND
4 RESET OUTPUT
5 OUTPUT

View from foil side

PROGRAMMER FOR D-50  
MODEL PG-1000

MIDI Implementation Chart

Date : Feb. 6. 1987  
Version : 1.00

PPROGRAMMER FOR D-50  
MODEL PG-1000

MIDI Implementation

Date : Feb. 6. 1987  
Version : 1.00

Table with 4 columns: Function..., Transmitted, Recognized, Remarks. Rows include Basic Channel, Mode, Note Number, Velocity, After Touch, Pitch Bender, Control Change, Prog Change, System Exclusive, System common, System Real Time, Aux Message, and Notes.

1. TRANSMITTED DATA
1.1 Undefined Status ( F4H, F5H ) of Common Messages.
1.2 Created message.
Status Second Third Description
1001 nnnn 0kkk kkkk 0000 0000 Note OFF \*1-1

\* [ hh-mm-ll ] 'hh', 'mm' and 'll' are showed by hex decimal.
\*3-2 When operating Parameter Request, the receive connector is not MIDI IN but PARAMETER IN.
\*3-3 If aaaaaa - cccccc doesn't indicate the address of the tone parameter or the patch factor, the message will be ignored.
\*3-4 The received value that exceeds the valid range of the parameter will be ignored.

Table with 2 columns: Parameter Name, Value. Lists parameters like TVA Level, TVA Velocity Range, TVA Bias Point Direction, etc.

Table with 2 columns: Offset/Function, Value. Lists parameters like Patch Factors, Portamento Mode, Hold Mode, etc.

4. ADDRESS MAPPING OF PARAMETERS AND REMOTE FUNCTION
4.1 Parameter base address (Top address)
Address Description
[ 00-00-00 ] Upper Partial 1 ( 0 - 53 )

Table with 3 columns: Value, Partial 1, Partial 2. Lists EQ Gain, EQ Frequency, EQ Q, EQ Gain, Chorus Type, etc.

4.3 Partial parameters
( Parameter address = Base address + Offset )
Offset/Function Value

Mode 1 : OMNI ON, POLY Mode 2 : OMNI ON, MONO
Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF, MONO