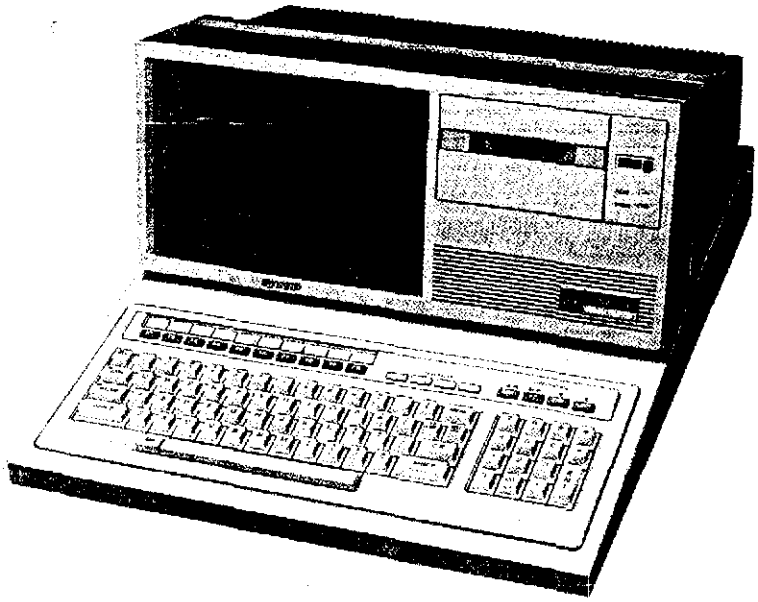
SHARP SERVICE MANUAL

PDSM581008-MZ



Personal Computer

MZ-80B

Options

MZ-80EU	(Expansion Port)
MZ-80IO2	(Universal I/O Card)
MZ-80GMK	(Expansion Graphic RAM)
MZ-80FI	(Floppy Disk I/O Card)

Optional Peripherals

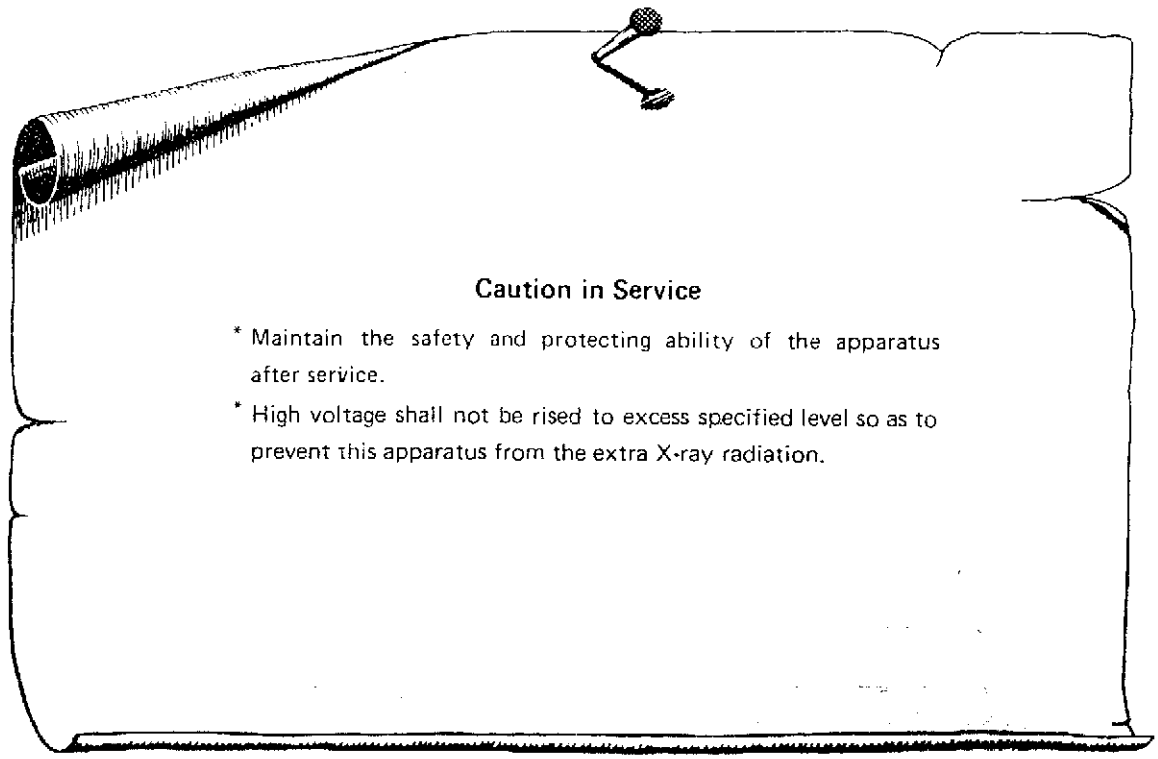
MZ-80FB	(Floppy Disk)
MZ-80FBK	(Expansion Floppy Disk)

FEATURES

- The MZ-80B, stepped up version of the MZ-80K, is a personal computer with many new functions.
- Using a Z-80 processor (4MHz Version) in the CPU, it is capable of high speed data processing.
- It has a keyboard touch that's ideal for a professional operator and is equipped with a 10 numerical keys and 10 function keys.
- The cassette-recorder, using an electromagnetic mechanism, can be stopped/started remotely. Programs and data can be recorded automatically.
- With the optional expansion port, I/O card can be set in the body of the MZ-80B for peripherals such as a floopy disk, printer, etc.

SHARP CORPORATION

Contents



Caution in Service

* Maintain the safety and protecting ability of the apparatus after service.
* High voltage shall not be rised to excess specified level so as to prevent this apparatus from the extra X-ray radiation.

SPECIFICATIONS

■ MZ-80B General

CPU	LH0080A (Z 80A-CPU)	Key Layout	Keys 92 ASCII Standard, 10 Numerical keys, Function keys, Cursor control keys, Cassette tape deck control keys
Clock	4MHz		
Memory	ROM 2K bytes RAM 64K bytes (dynamic RAM)	Clock function	Built-in
		Editor function	Cursor control; up, down, right, left, home, clear. Edit key Delete key
Display	9" CRT (green display) 8 x 8 dot matrix 1) Characters; 1000 (40 characters x 25 lines) 2) Characters; 2000 (80 characters x 25 lines) 1), 2): software change-over	Power supply	AC 240V (50Hz)
		Temperature	Operating temp; 0° to 35°C Storage temp; −15° to 60°C
		Humidity	Lower than 80%
Cassette	Standard audio cassette tape Data transfer speed; 1800 bits/sec. Data transfer system; SHARP PWM Manual or Automatic control	Weight	Approx. 16kg
		Dimensions	Width 45cm Depth 52cm Height 27cm
Sound output	400mW max. (440Hz)		

■ CPU Board Section

CPU	LH0080A (Z80A-CPU) 1 pc.	Programmable counter	8253 1 pc.
PIO	LH0081A (Z80A-PIO) 1 pc.		
ROM	IPL 1 pc. (2K bytes) Character generator 1 pc. (2K bytes)	Programmable peripheral interface	8255 1 pc.
RAM	Standard; 16K RAM 32 pcs. (64K bytes) Video RAM; 1 pc. (2K bytes)	Other IC's	40 pcs.

■ Power Supply Section

Input	AC 240V (50Hz)
Output	5V −5V 12V (stabilizing) 12V (non-stabilizing)

■ Graphic RAM (I) PWB Section

RAM	Static RAM; 4 pcs. (8K bytes)
Other IC's	17 pcs.

NOTE Specifications and appearance are subject to change without prior notice for improvement. In such a case, the explanation here may be a little different from the product.

■ Display Section

I. General specifications	
Size	9"
Vertical Horizontal Frequency	60Hz (vertical), 15.75kHz (horizontal)
Power source	DC 12V, 1.1A ±10%
Picture tube	E2728B31; 9" 90° deflection explosion proof type Heater; 12V, 75mA
IC's	2 pcs.
Transistors	7 pcs.
Diodes	13 pcs.
Sound output	400mW max. (440 Hz) Speaker 8cm, round dynamic type (32Ω)
Control knobs	Volume, V-Hold, Contrast, H-Hold, Brightness, Focus
Working temperature	−10°C to 50°C

II. Electrical specifications	
Video output	40Vp-p standard (35Vp-p limit)
Resolution	Horizontal  *The pattern of the left in the center of the picture must be clear.
Non-linearity distortion	Horizontal; ±8% (±14% max.) Vertical; ±8% (±12% max.)
Geometrical distortion	Pincushion dist.; 1% (2% max.) Barrel dist.; 1% (2% max.) Trapezoidal dist.; 1% (2% max.) Parallelogram dist.; 1° (2.5° max.)
High voltage	Zero beam; 11.0kV (10.0kV, min., 12.0kV, max.)
Power supply	DC12.0V, 1.05A (1.2A max.)
Working range	12V ±10%
Scan size	Horizontal; 10% (15% max.) Vertical; 10% (15% max.)
Horizontal lock-in range	±300 Hz (±100Hz limit)
Vertical lock-in range	−12 Hz (−6 Hz limit)
Audio frequency characteristic	440 Hz (0dB) −10dB ±4dB at 100 Hz −12dB ±4dB at 10kHz
Sound maximum output	400mW at 440 Hz

■ Cassette Tape Recorder Section

System	PWM recording
Power source	5V ± 5% 12V ± 5% (stabilizing) 9.5V∿16.5V (Non-stabilizing)
Semi-conductors	22 transistors 13 ICs 9 diodes
Tape	From C30 to C60
Tape speed	4.75 cm/sec.
Track	2-track monaural type
Motor	Electronic governor motor (12V)

Biasing	DC system
Erasing	DC system
Playback sensitivity	667 μsec. to 333 μsec. (standard)
Working temperature	−10°C to +40°C
Storage temperature	−25°C to +65°C

SYSTEM CONFIGURATION AND NOMENCLATURE OF MZ-80B

The MZ-80B system and expansion thereof are shown in the block diagram of Fig. 1. The inside of the dotted lines is the constitution of the MZ-80B, in which units enclosed in thick-line frames are optional ones. In the expansion port, interface cards can be inserted up to six pieces. The devices outside the dotted lines are optional peripheral devices and user's devices.

Figures 2 and 3 show the front view and rear view of the MZ-80B, identifying the parts with names.

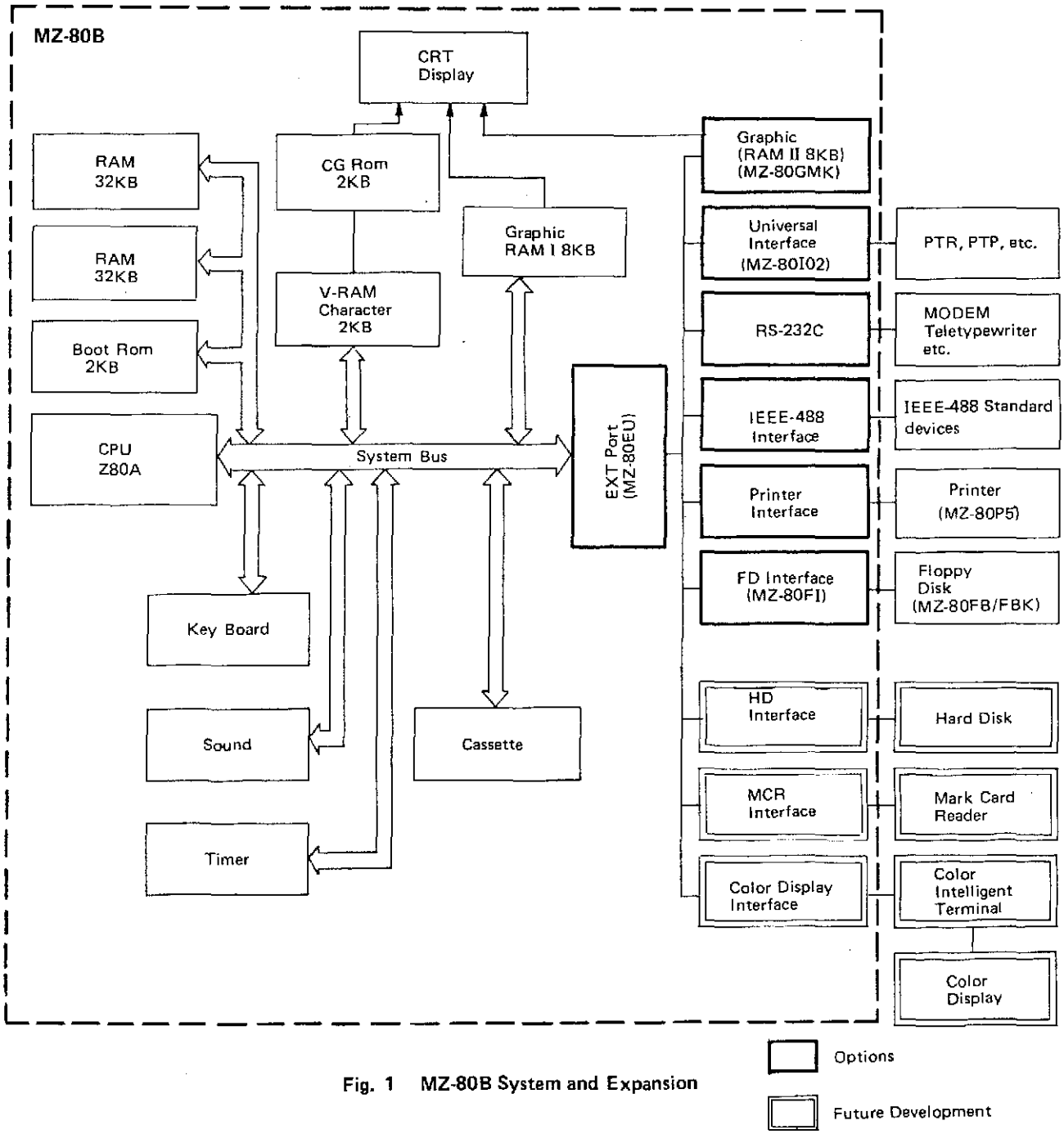


Fig. 1 MZ-80B System and Expansion

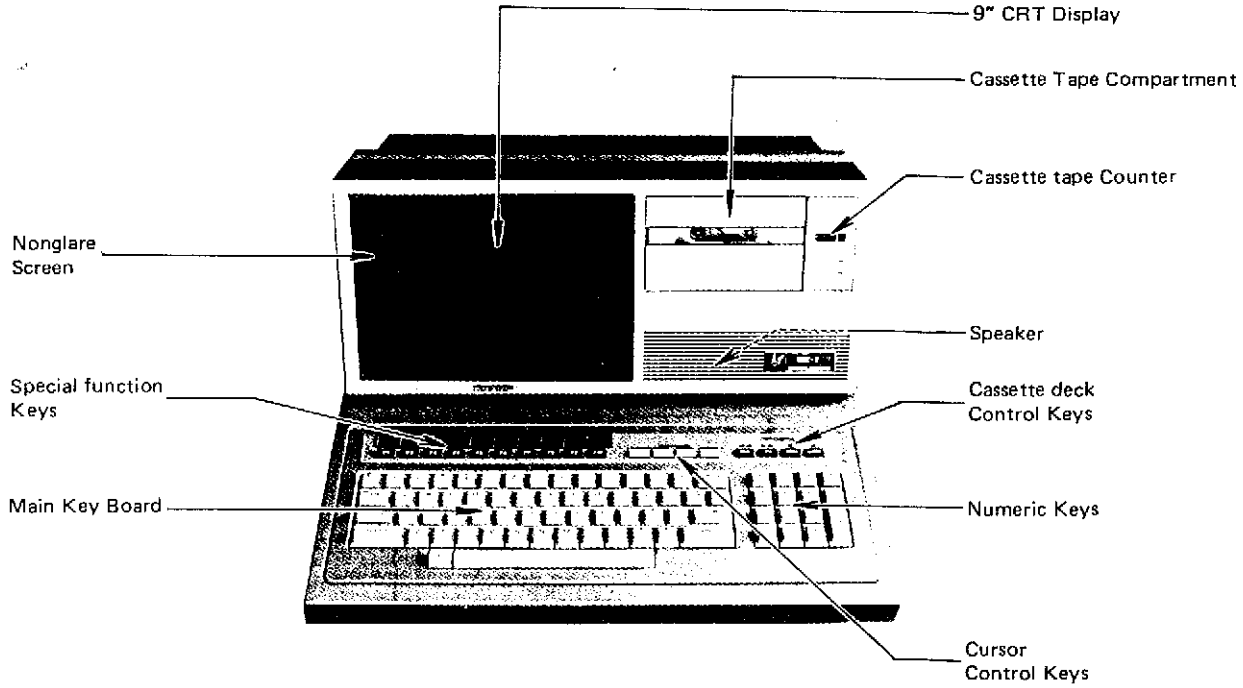


Fig. 2 Front View of MZ-80B

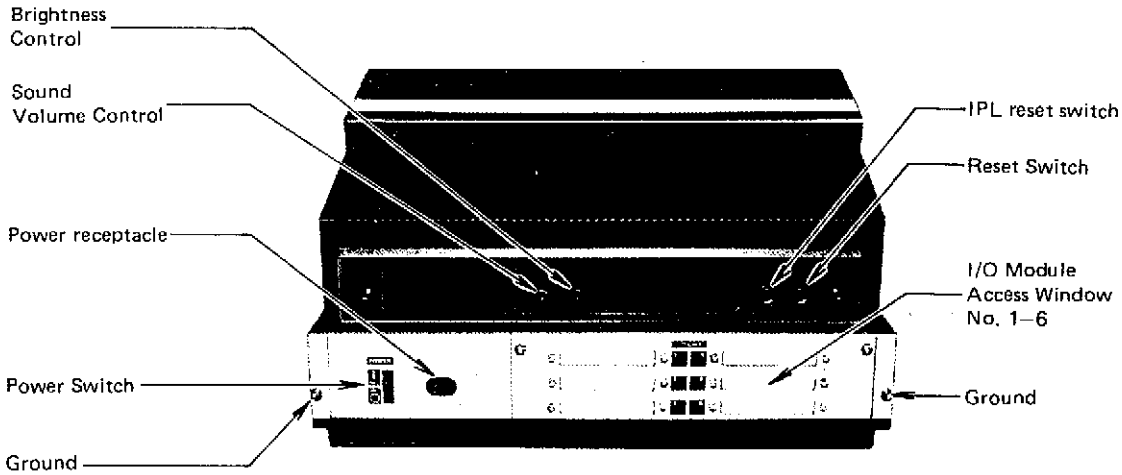
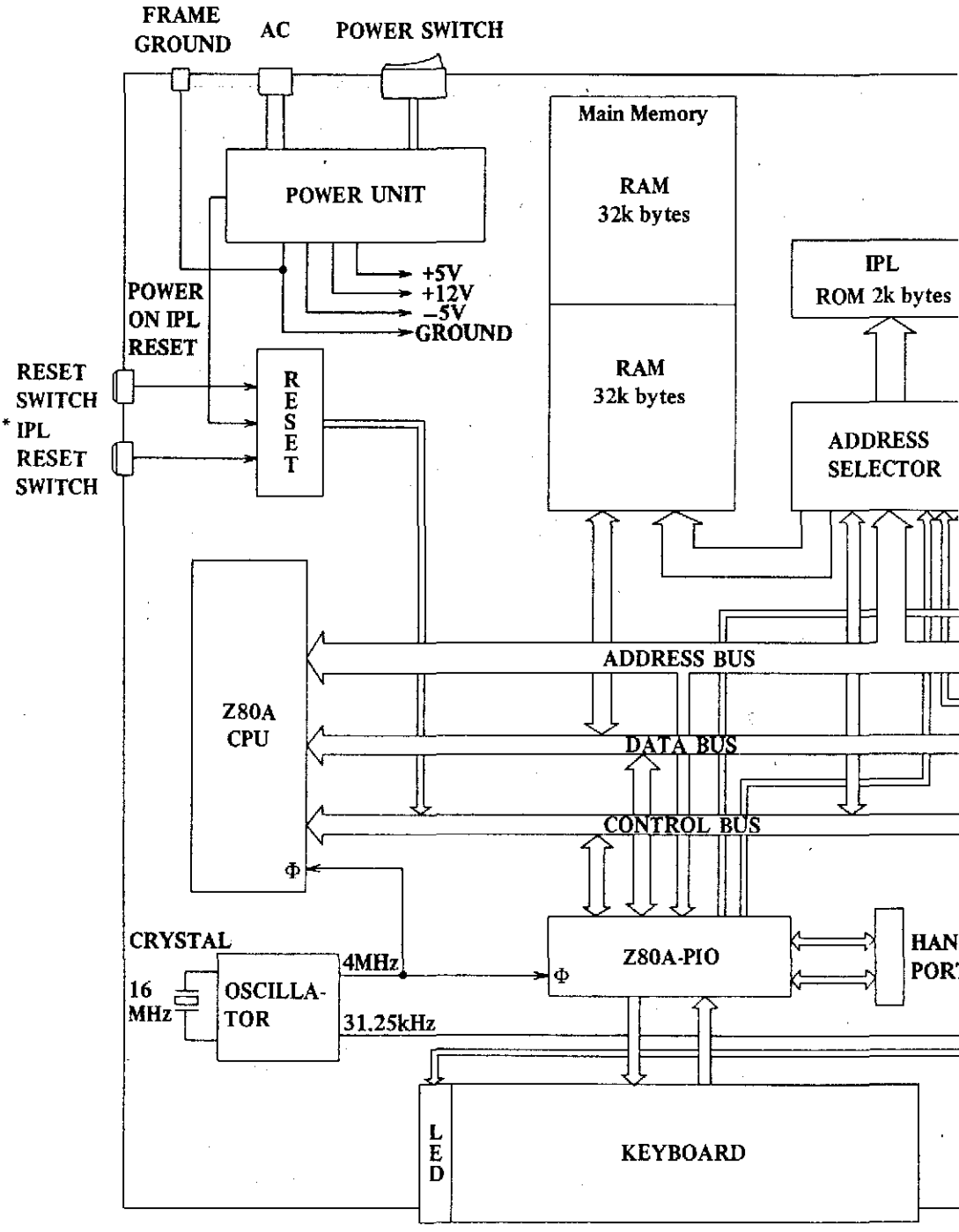


Fig. 3 Rear View of MZ-80B

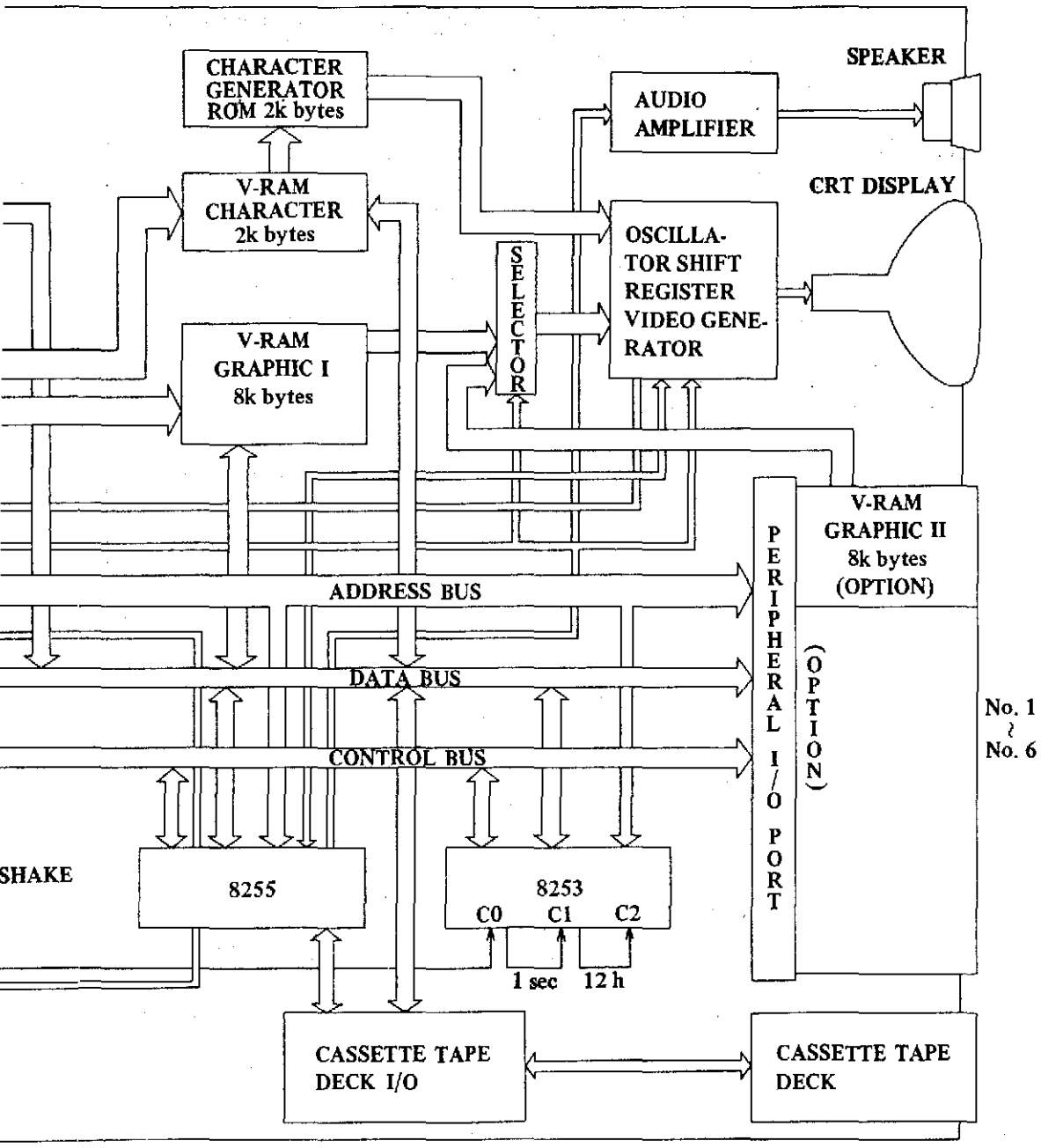
CONFIGURATION OF MZ-80B

The system diagram of the MZ-80B is shown in Fig. 4. With the CPU and its bus lines in the center, the memories (main memory, boot ROM, V-RAM), keyboard, cassette recorder, CRT display, clock, reset circuit, and I/O port are arranged, showing the relations with PIO, 8225, 8253, to constitute the MZ-80B.



*IPL RESET ..... Initial Program Loader RESET

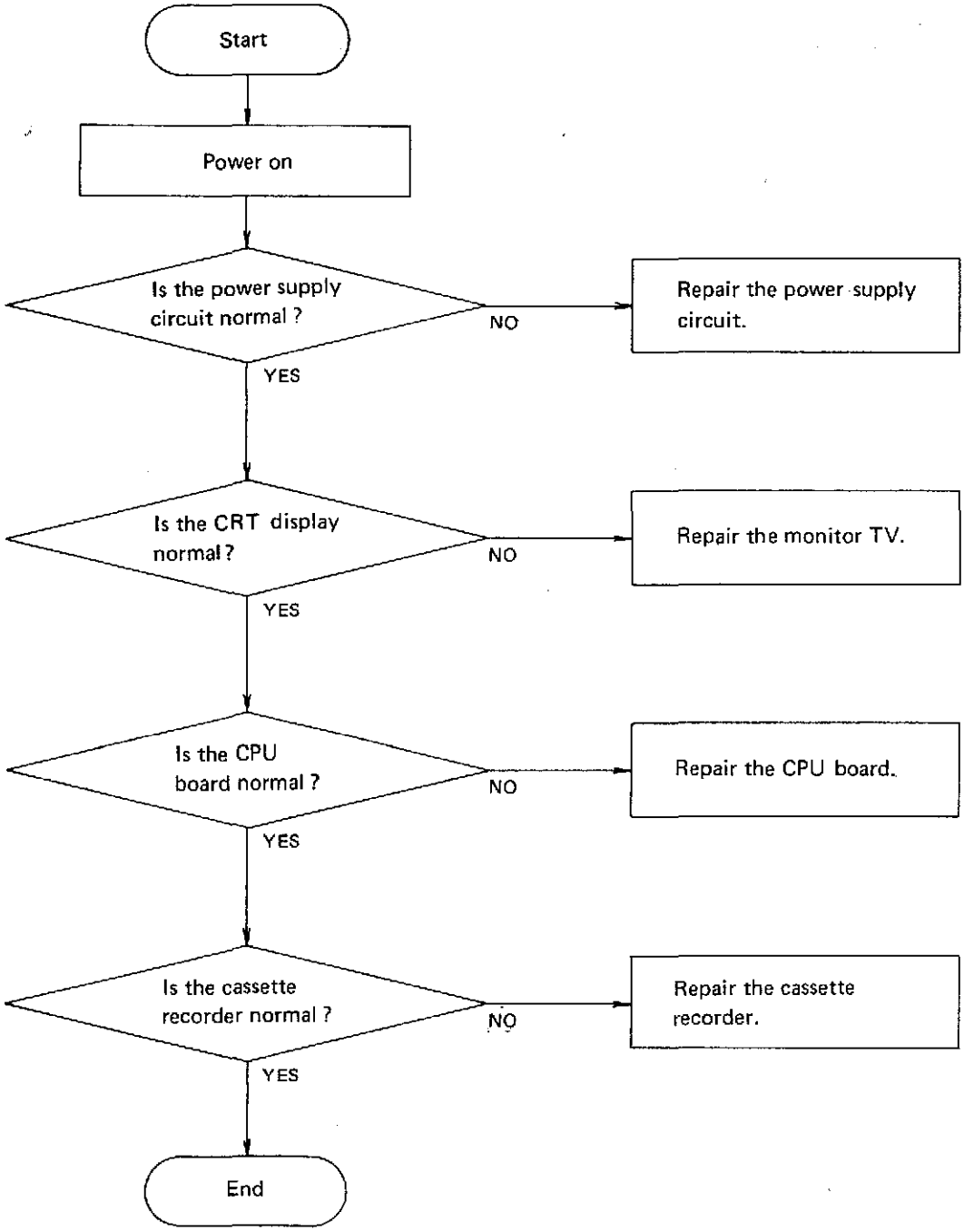
Fig. 4



-80B System Diagram

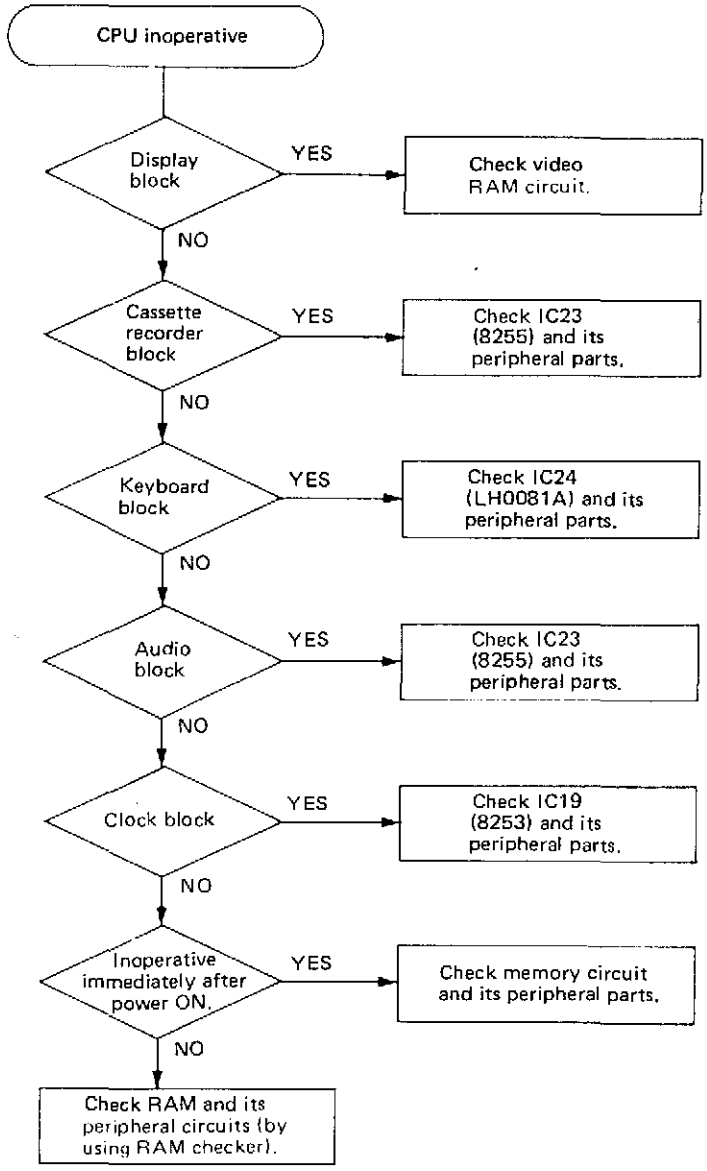
TROUBLE SHOOTING GUIDE

The system comprises four main units.
For quick solution to most operational difficulties, follow the chart below to find which unit is causing the problem.



CPU BOARD SECTION

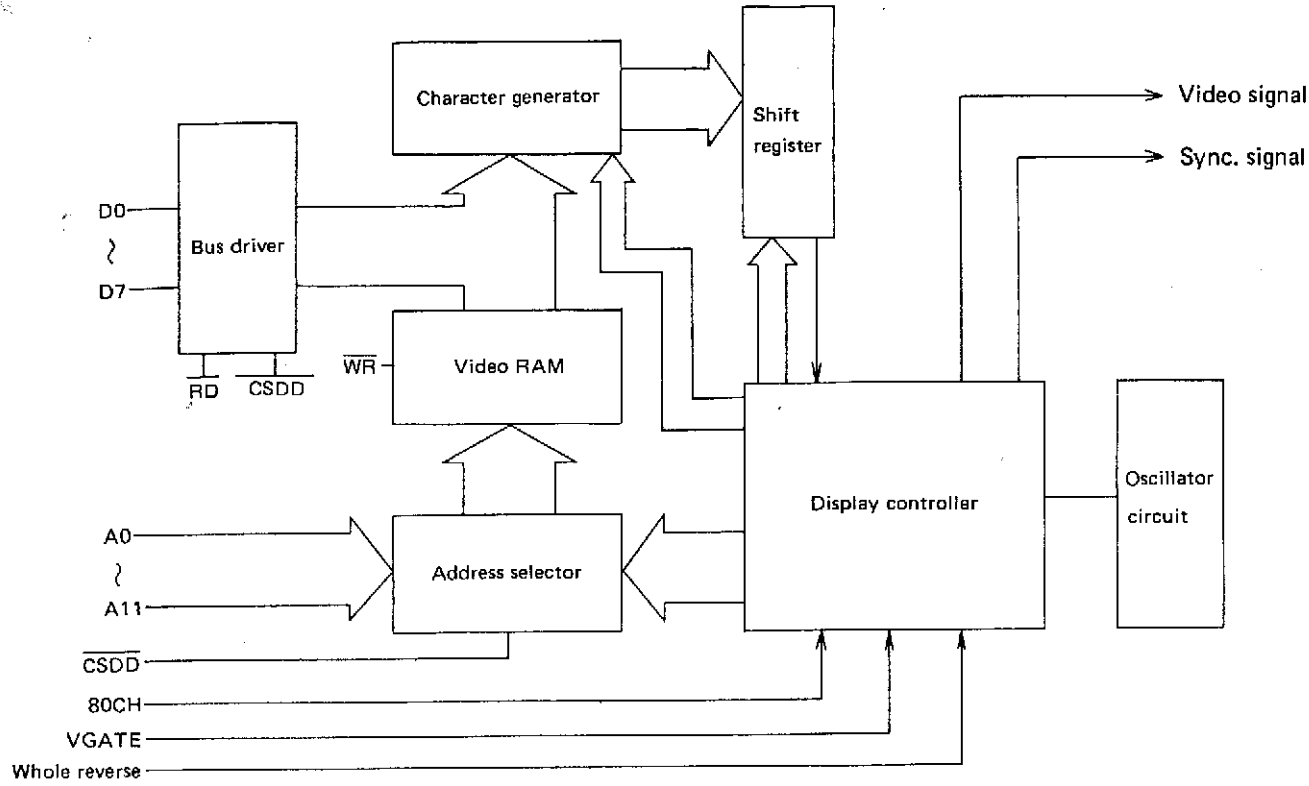
The CPU board is composed of the following six blocks. When it malfunctions, first locate which block is concerned with the malfunctions, and next try to check for its corresponding circuits; the wiring diagrams of every block will be shown separately.



■ Checking methods of each circuit

1. By touching IC package by fingers:
   - If they seem too hot by heat generation;
     IC is defective, IC load is heavy or components are touching each other (ROM and V-RAM are exempted from this checking).
   - If a circuitry state changes to another; Soldering is poor, socket contact is improper or printed-wiring is erroneous.
2. By using a synchroscope:
   - If the relation between input and output of TTL IC is illogical, this means defective IC gate.
   - Check if the voltage of TTL IC is as specified: High level; over 2.4V, Low level; below 0.5V.
   - When the signal is between the high and low levels, is there circuit touching or IC malfunction ?

■ Display Block

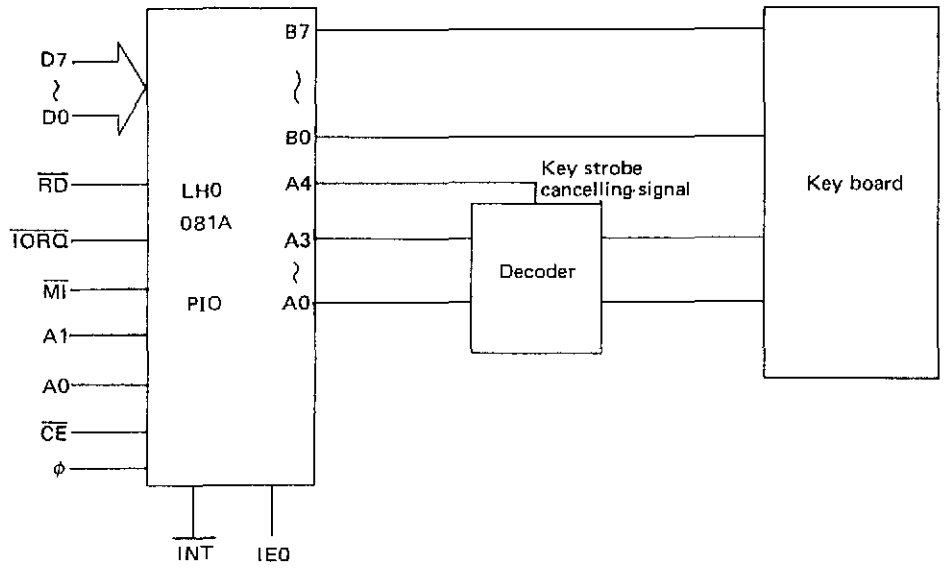


Block Diagram around Video RAM

Problem	Check Point
No sync. signal	Is the correct signal present at pins 12 and 13 of IC36 ? Yes: Check IC36. No: Check IC42 and IC43 and around them. (In particular, check if the input of 8MHz, 16MHz and other clocks are correct (Wave form is shown on page 15.))
No video signal	Is pin 16 of IC42 at a high level ? No: Check IC23. Yes: Proceed to the following. Is a video signal present at pin 8 of IC46 ? Yes: Check IC31, IC33 and IC36. No: Check IC42 and IC43 and around them. (In particular, check if the input of 8MHz and 16MHz and other clocks are correct (Wave form is shown on page 15.))
Characters displayed but position abnormal	Is the signal at pins 3, 6, 10 and 13 of IC37, IC38 and IC39 correct ? Yes: Check the address of IC41 and the signals of IC37, 38 and 39 connected to it.

	No: Check IC 37, 38, 39, 42 and 43.
Position is correct but characters are abnormal	Check the common line of IC22, IC41 and IC44 and around the IC22.
Displayed characters are abnormal	Check $A_3 - A_0$ and $D_7 - D_0$ of IC45 and IC42.

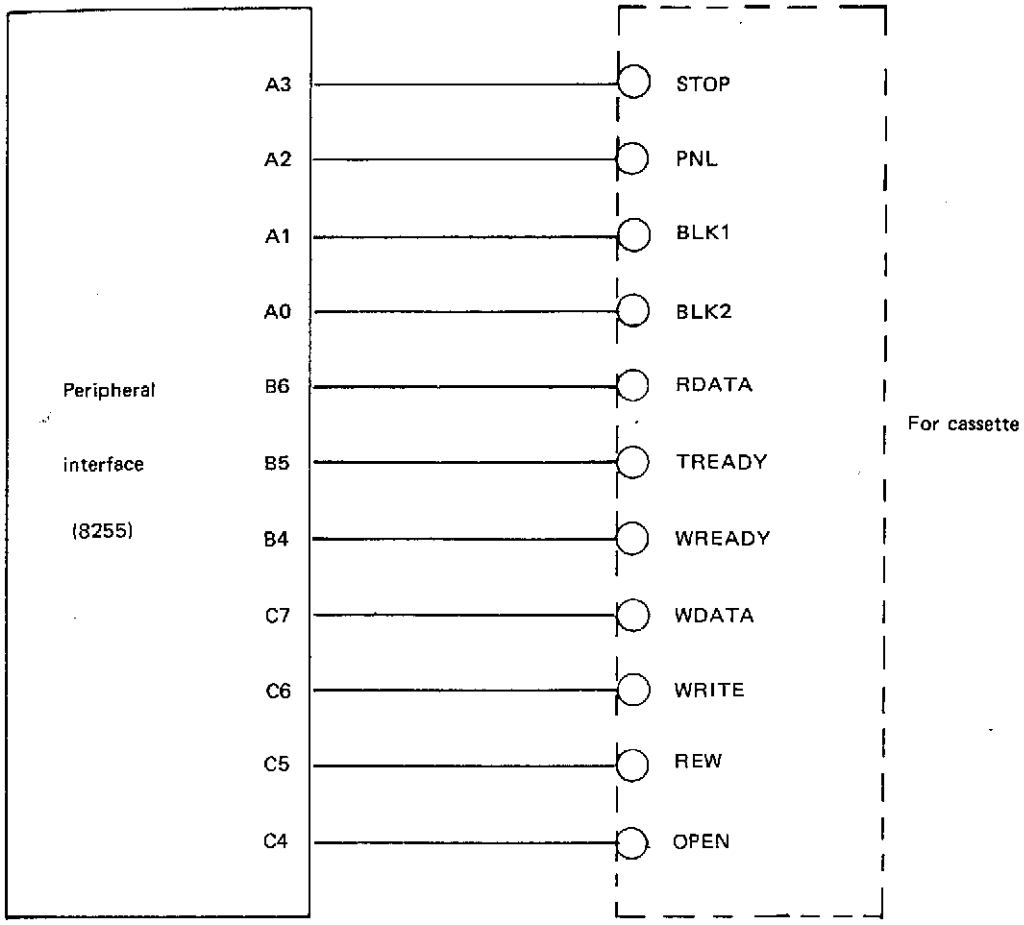
■ Keyboard Block



Block Diagram around Keyborad

Problem	Check Point
Does not accept key entry.	Is key strobe present ? Yes: Check keyboard, IC24 and around it. No: Check IC25, IC27, IC28, IC29 and IC36. If they are normal, check IC24 and around it.

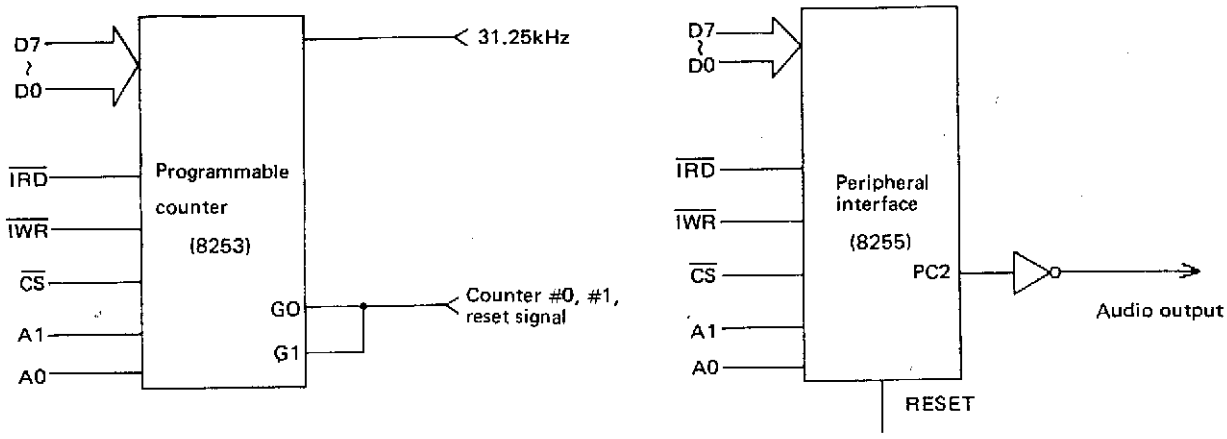
■ Cassette Block



Block Diagram around the Cassette

Condition	Check Point
Load is not possible.	Is there a signal from pin 6 of IC 26? YES: Check IC23. NO: Check IC26.
Save is not possible.	Is there a signal from pin 10 of IC23? YES: Check IC26. NO: Check IC23.
Motor does not turn.	Check IC23.
Motor does not stop.	Check IC23.

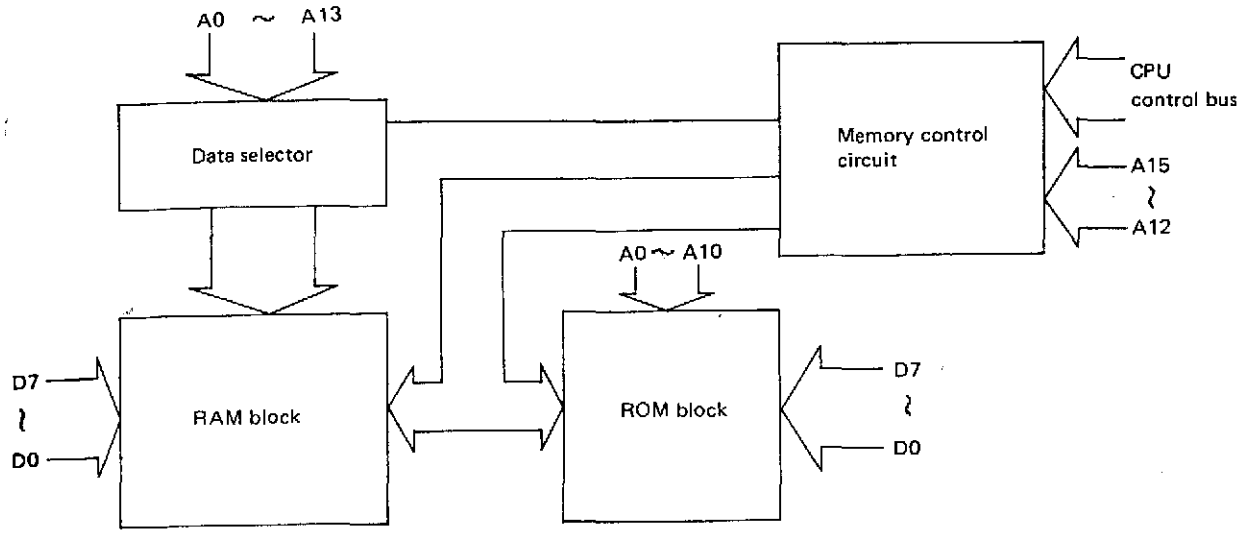
■ Clock/Audio Block



Block Diagram around Clock/Audio Block

Problem	Check Point
Clock function is abnormal.	Is there a 31.25kHz signal present at pin 9 of IC19? Yes: Check IC19 (8253) and around it. No: Check IC42 and around it.
Audio output is abnormal.	Is an output signal present at pin 4 of IC31? Yes: Check amplifier section in the display board. No: Check IC23, IC31

■ Memory/Reset Circuit Block



Memory/Reset Circuit

Problem	Check Point
Picture "panic" when power is on.	Does pin 26 of IC3 go from High to Low when the BOOT reset SW is pushed ? No: Check IC33 Yes: Proceed the following. Is pin 15 of IC2 High ? No: Check IC34 Yes: Check address line A0 – A15 (IC6, IC10) Data line D0 – D7 (IC11) Control line (IC7) IC2, IC8, IC14, IC16
Abnormal action immediately after end of program due to BOOT program	Is pin 15 of IC2 at Low Level ? Yes: Check IC34 No: Check IC2
Error when program is in RAM	Check RAM

* How to Use RAM CHECKER

Insert RAM CHECKER into BOOT ROM socket and turn the power on. Then RAM TEST-1 and RAM TEST-2 will automatically be carried out from RAM address $0000 to address $FFFF as shown below and the tested results will be displayed.

The checker tests the store by dividing it into two parts of addresses $0000 to $7FFF and $8000 to $FFFF.

Example of the test results (When all RAM's are normal)

Check RAM (I) block, 16K bytes, RAM (II) block 16K bytes

```
RAM TEST-1    0000-OK
              4000-OK
RAM TEST-2    00 FF 00 FF F0 OK
```

The checker continues to check the RAM (III) block 16K bytes and RAM (IV) block 16K bytes.

```
RAM TEST-1    8000-OK
              C000-OK
RAM TEST-2    00 FF 00 FF F0 OK
```

1) RAM TEST-1

A write/read test of data $00 and $FF is carried out from address $0000 to $FFFF, and if an error occurs ERROR is displayed in the 16K bytes unit.

Example of above mentioned display

```
0000 - OK
```

..... Result of write/read test from address $0000 to $3FFF is normal.

Example of display when ERROR appears.

```
ER-235B-00, 01
```

..... Write in data was $00 at address $235B but read-out data was $01.

An error is displayed by the address number at which the error takes place, and the excution of check is stopped at the address.

2) RAM TEST-2

Write/read test is carried out with the following items.

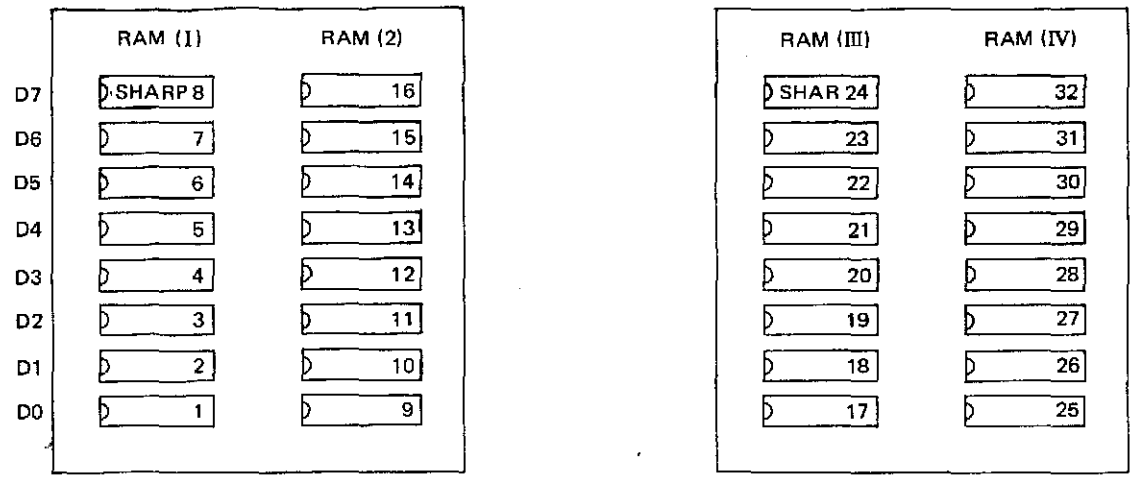
a) Write-in data $00 (From address $0000 to $7FFF)
b) Write-in data $FF (From address $0000 to $7FFF)
c) Write-in data $00 (From address $7FFF to $0000)
d) Write-in data $FF (From address $7FFF to $0000)
e) Write-in data $F0 and $0F entered alternately (From address $0000 to $7FFF and vice versa.)
f) Write-in data $00 (From address $8000 to $FFFF)
g) Write-in data $FF (From address $8000 to $FFFF)
h) Write-in data $00 (From address $FFFF to $8000)
i) Write-in data $FF (From address $FFFF to $8000)
j) Write-in data $F0 and $0F alternately (From address $8000 to $FFFF and vice versa)

Example of ERROR in RAM TEST-2

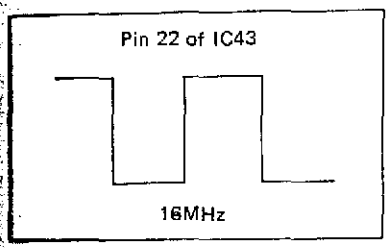
```
RAM TEST-2    00    FF    00    ER-23FF-01
```

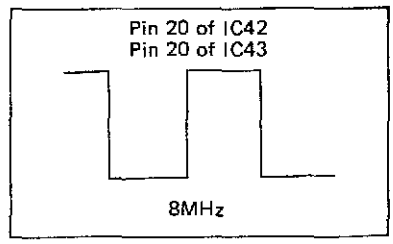
Test results of a) and b) were normal but in c), although data $00 was written in address $23FF, read-out data was $01. When ERROR is displayed in the above mentioned RAM TESTs, decide which RAM block is bad according to the memory address where the error occurs. Then you can decide which RAM is bad in the RAM block where the error occurs by the bytes pattern of the write-in data and read-out data. In the above example, you can tell that it's RAM (I) block by $23FF and that RAM 1 is bad because write-in data is $00 but read-out data is $01. (See Fig. next)

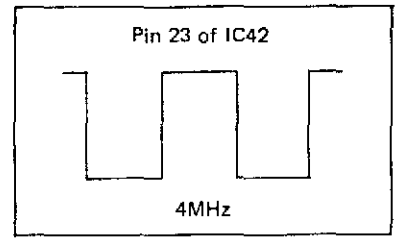
	D7	D6	D5	D4	D3	D2	D1	D0	
Write-in date $00	0	0	0	0	0	0	0	0	← Error to occur
Read-out data $01	0	0	0	0	0	0	0	1	

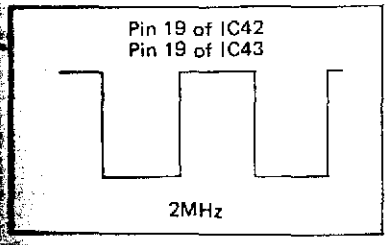


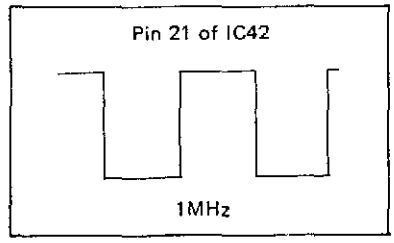
■ Waveforms of CPU Board

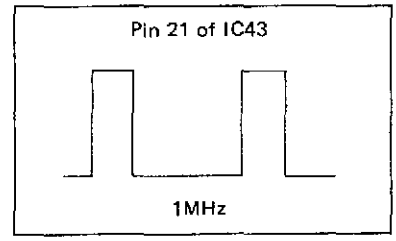


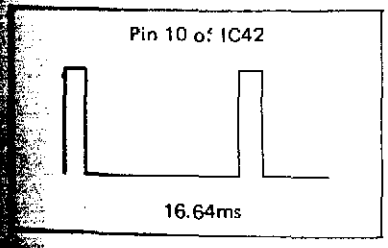


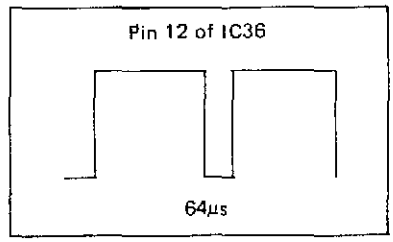


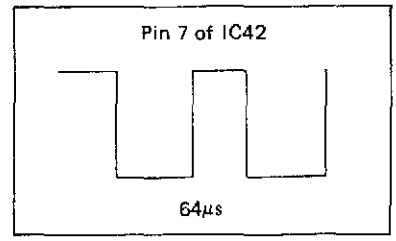


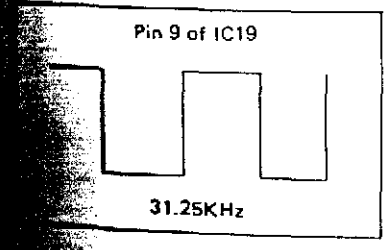


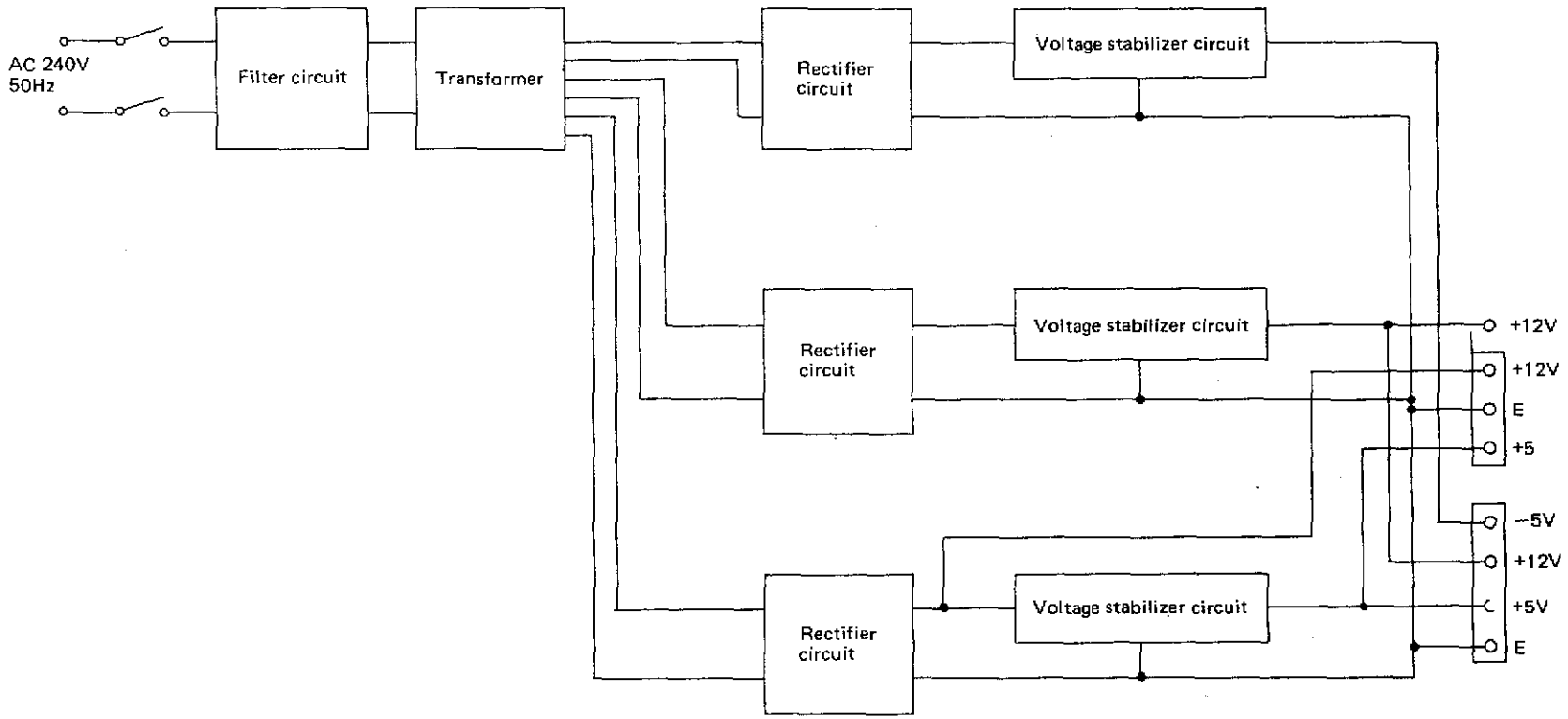










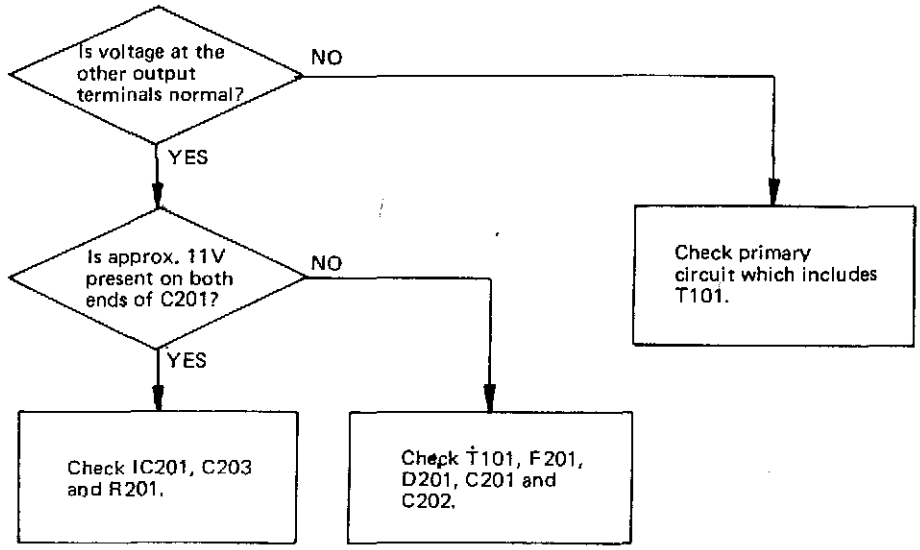


Block Diagram of Power Supply Circuit

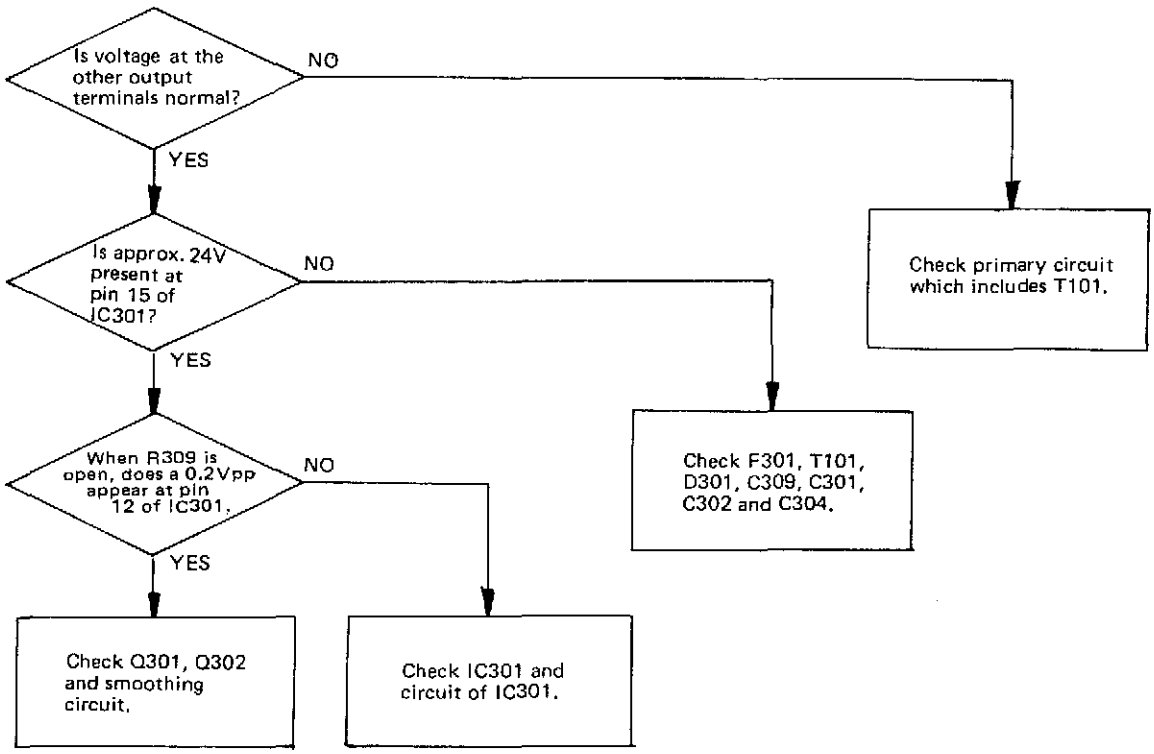
■ Trouble Shooting Chart

Problem (1) No voltage at any output terminal.
Check primary circuit which includes the transformer.

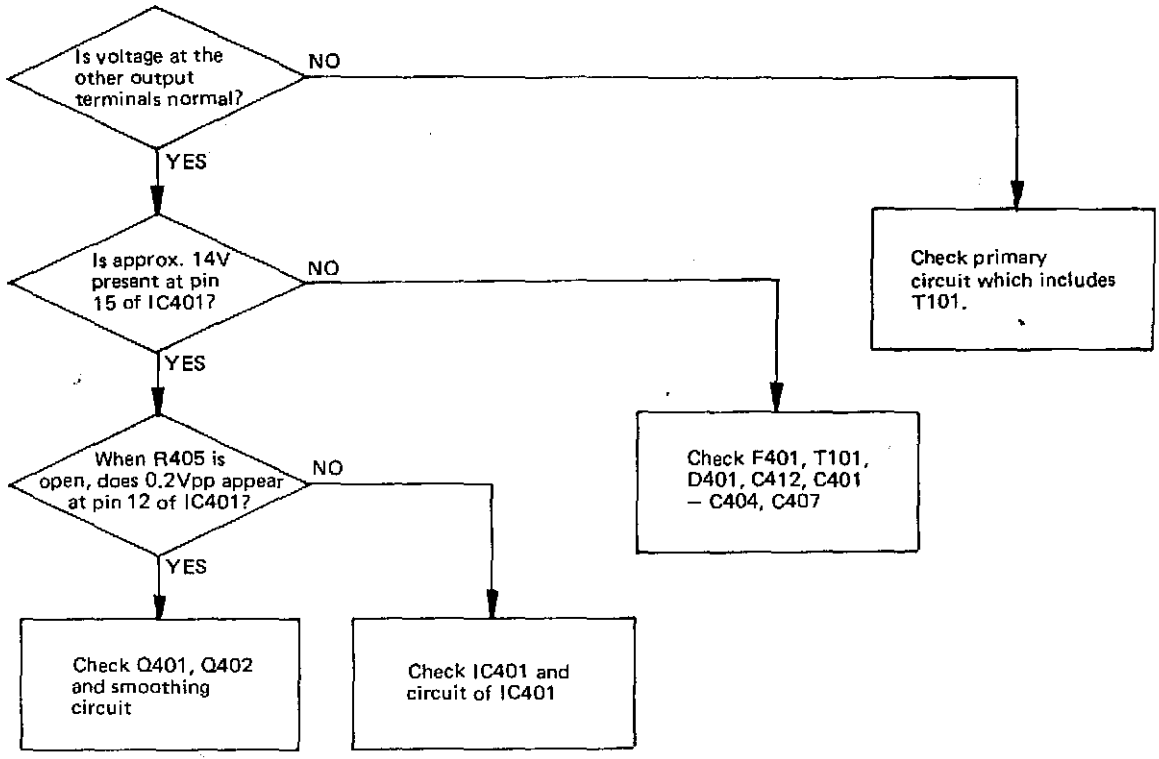
Problem (2) No. –5V.



Problem (3) No +12V.



Problem (4) No +5V.

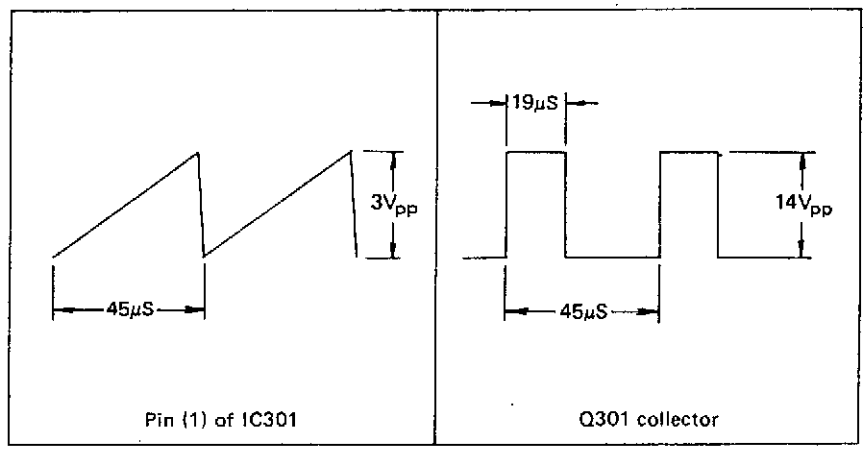


Problem (5) −5V is abnormally high.
Check IC201

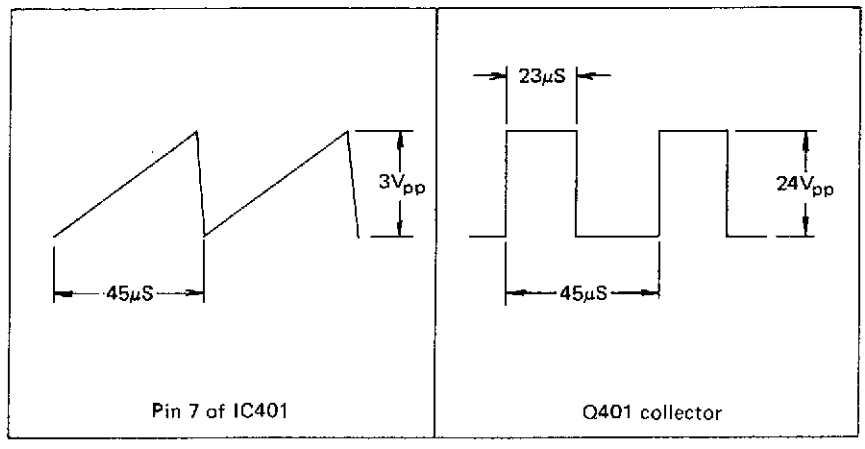
Problem (6) +12V is abnormally high.
Check Q301, Q302 and IC 301.

Problem (7) +5V is abnormally high.
Check Q401, Q402 and IC401.

■ Waveforms of Power Supply Circuit

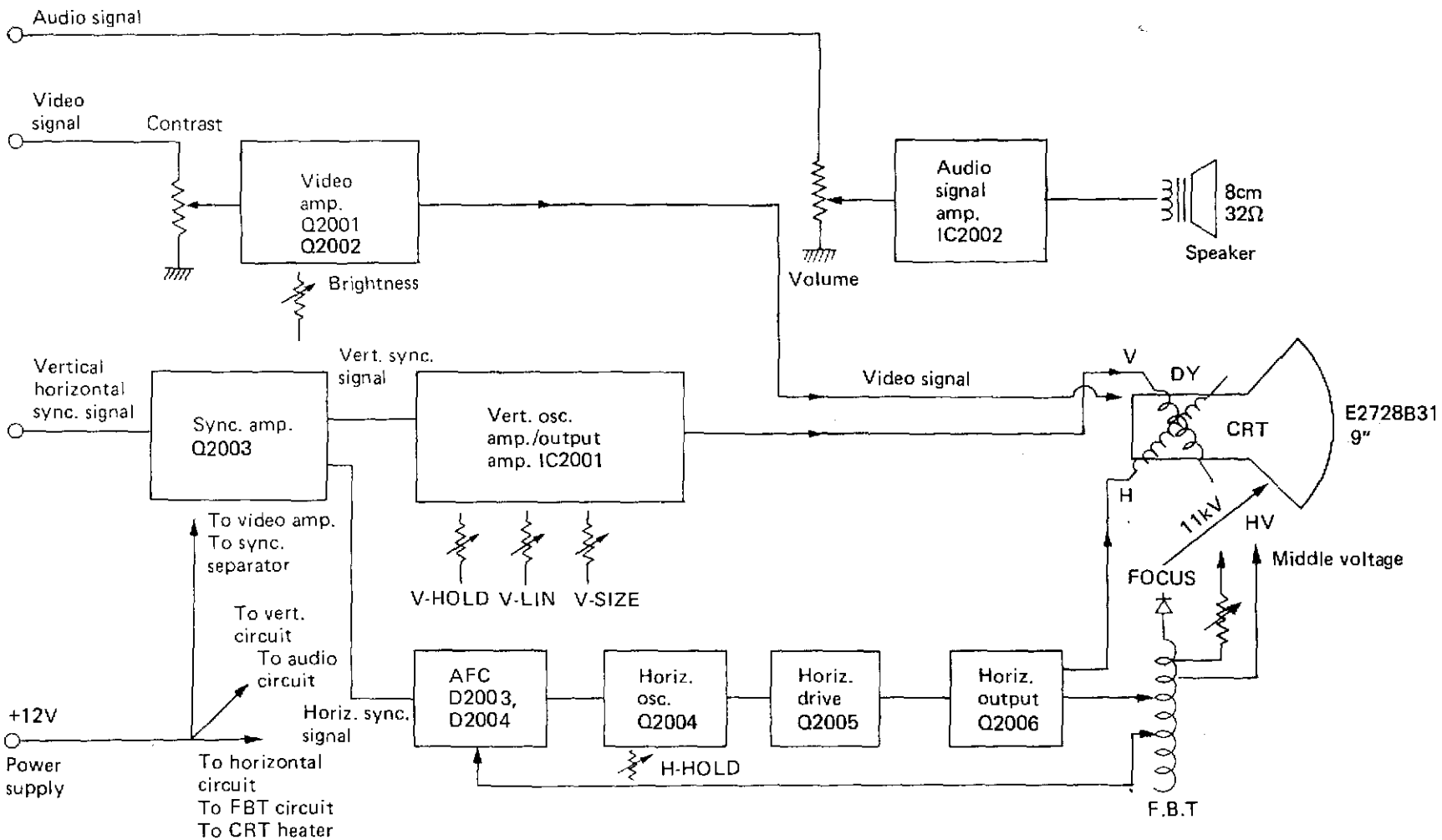


Pin (1) of IC301 | Q301 collector



Pin 7 of IC401 | Q401 collector

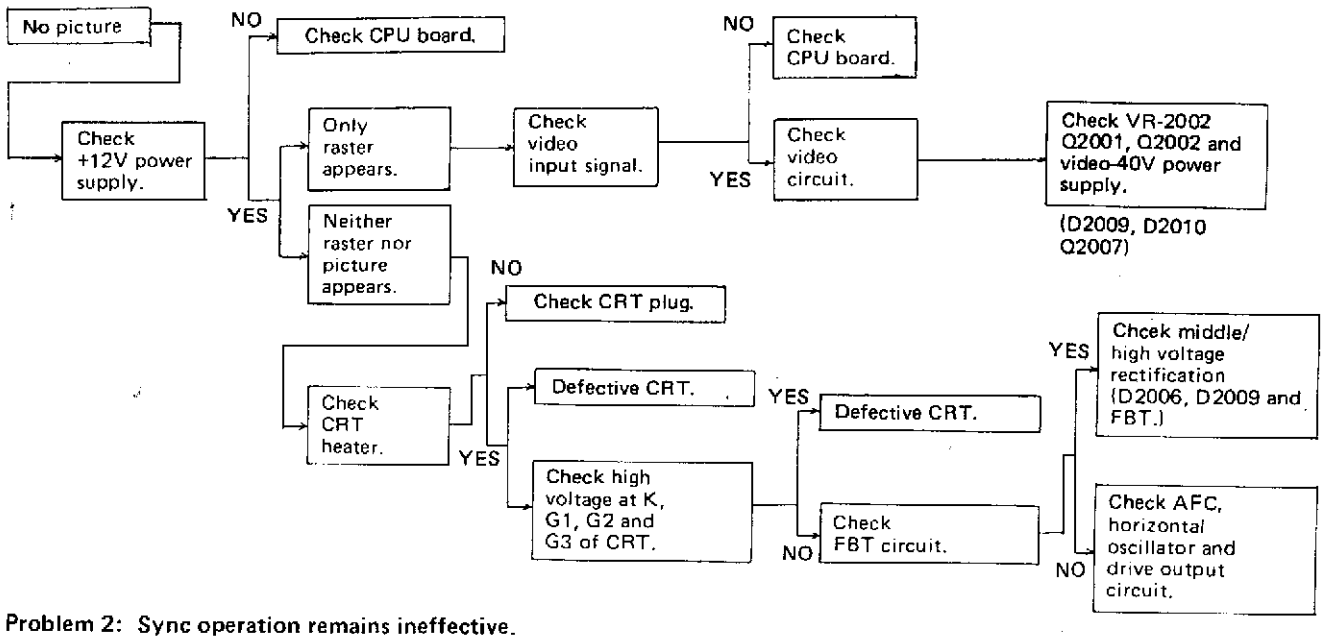
These are basic waveforms when the load current of +5V 2.5A, +12V 1.25A and −5V 10mA flow from the output terminals.



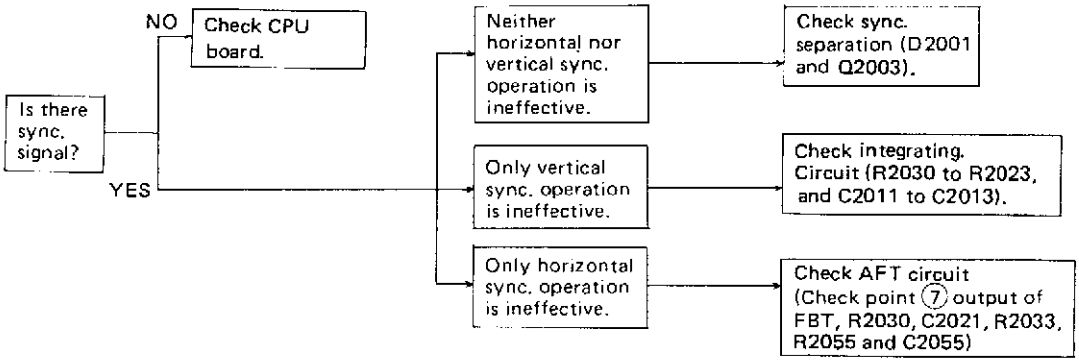
Block Diagram of Monitor TV Section

■ Trouble Shooting Chart

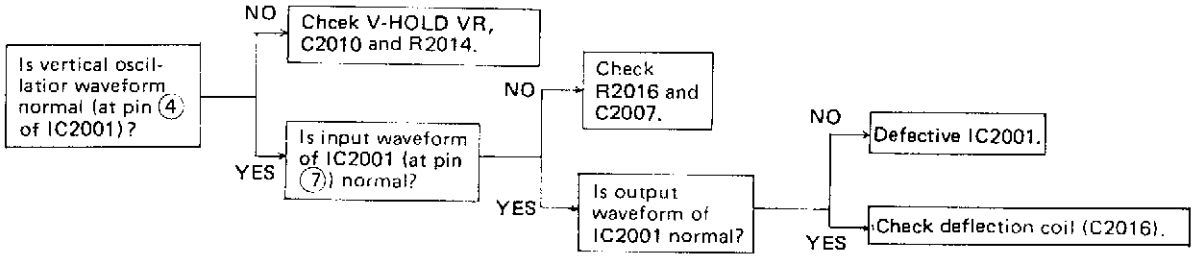
Problem 1: No picture appears.



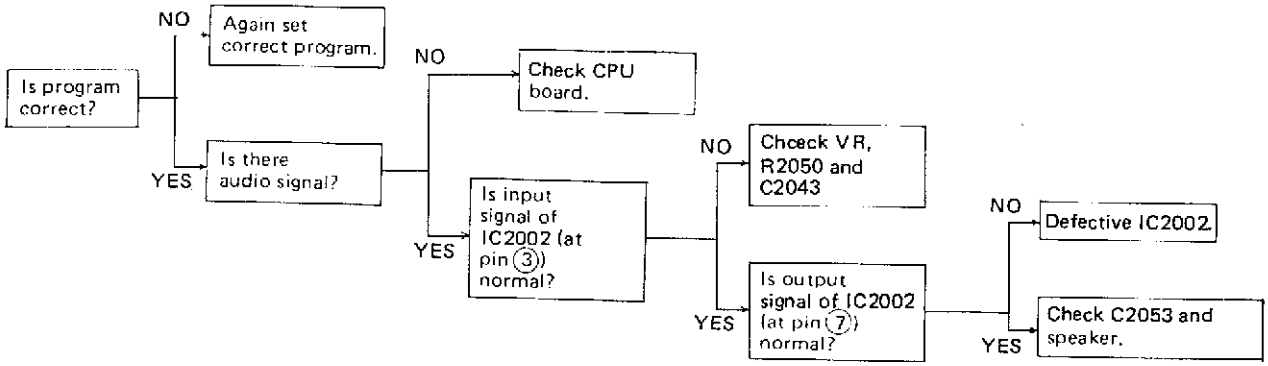
Problem 2: Sync operation remains ineffective.



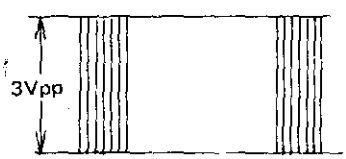
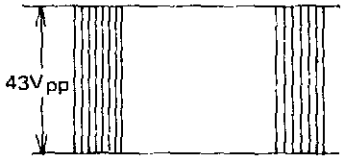
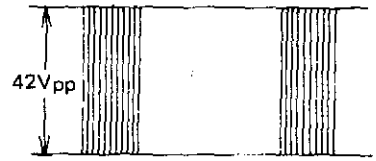
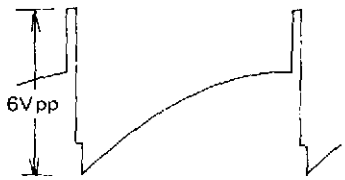
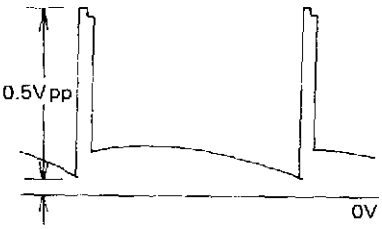
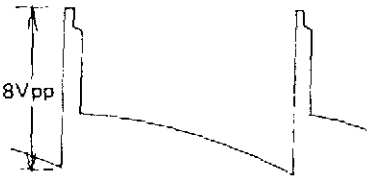
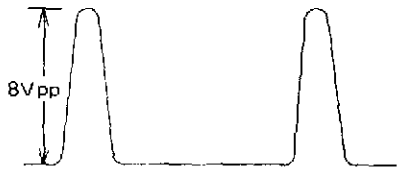
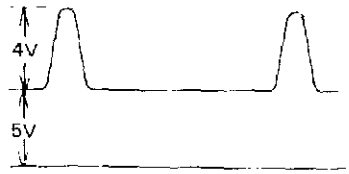
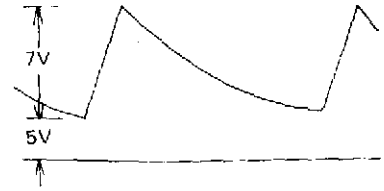
Problem 3: Raster is too narrow.

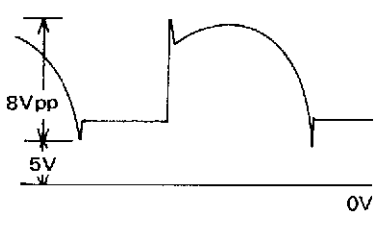
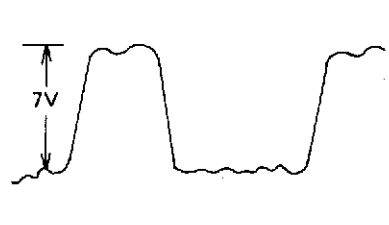
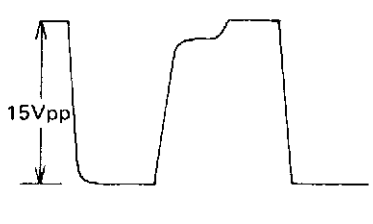
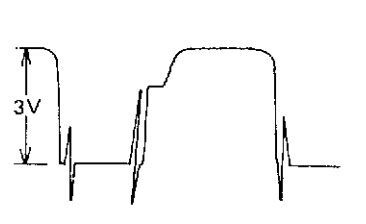
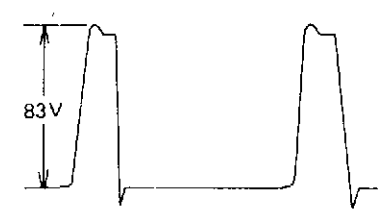
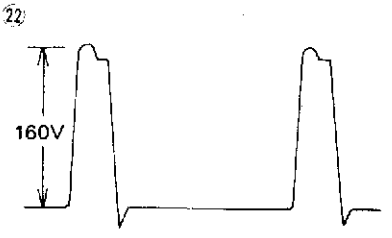
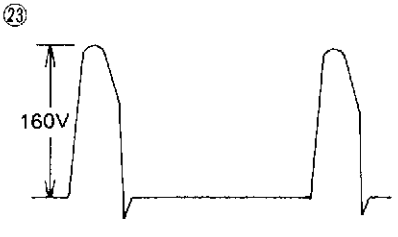
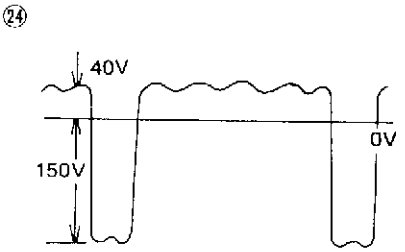
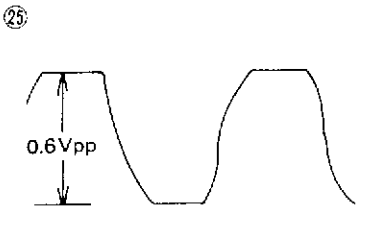
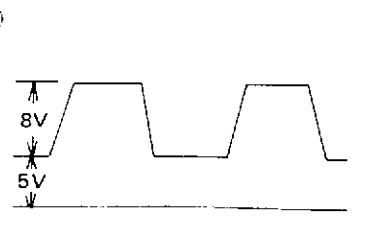


Problem 4: No sound comes out.



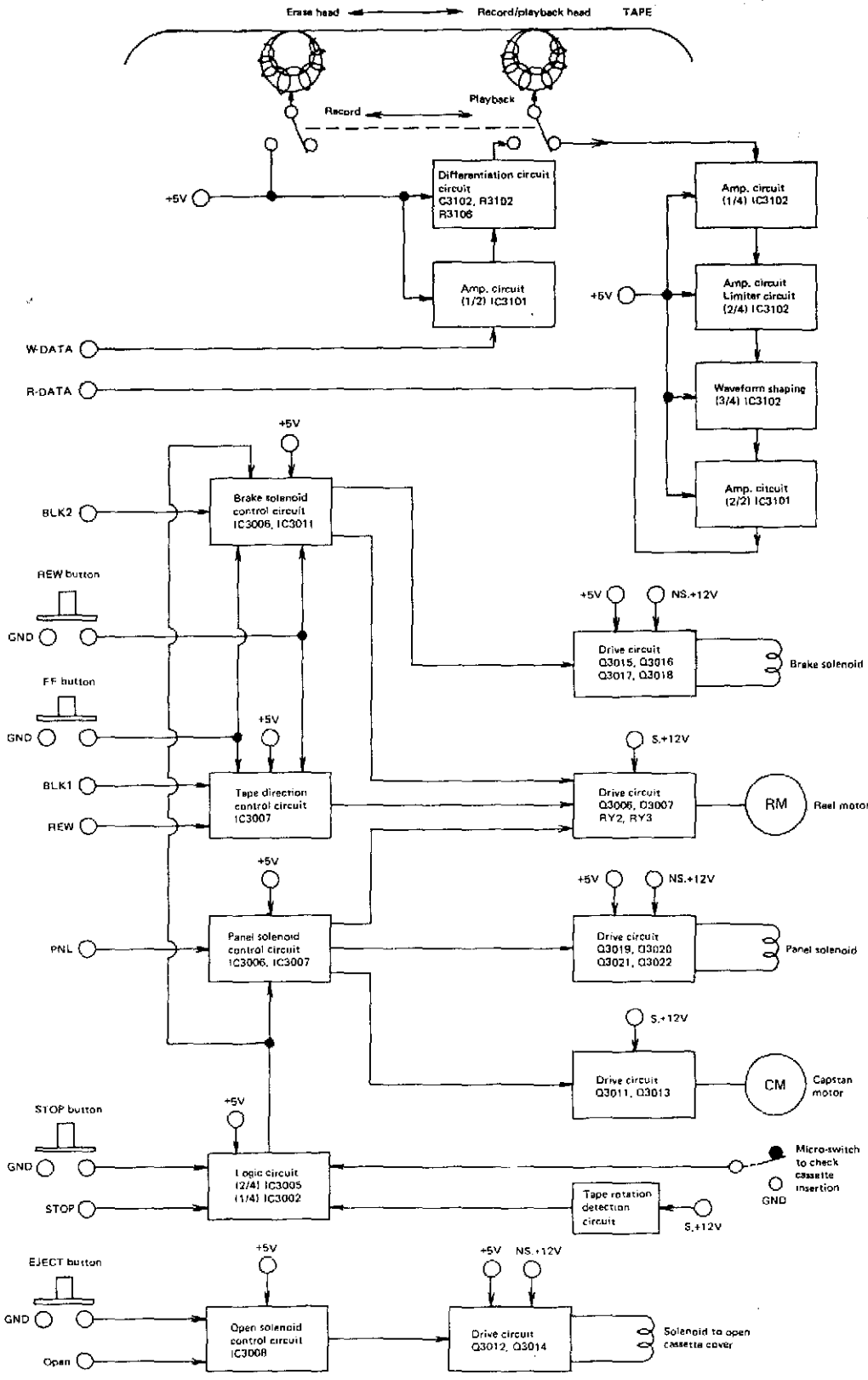
■ Waveforms of Monitor TV Section

Video input signal	Video output signal	Video output signal
①  5ms	②  5ms	③  5ms
Sync. input signal	**Sync. signal amp. output**	**Vertical sync. signal**
④  20μs	⑤  20μs	⑥  2ms
Vertical oscillator Circuit	**Vertical output waveform**	**Vertical drive collector waveform**
⑦  5ms	⑧  1.5V	⑨  5ms
Voltage at pin ⑨ of RH-IX0015	**Vertical deflection coil voltage waveform**	**Vertical linearity circuit waveform**
⑩  5ms	⑪  5ms	⑫  5ms
Horizontal sync. signal waveform	**AFC waveform**	**FBT waveform**
⑬  20μs	⑭  20μ	⑮  20μs

Horizontal oscillator waveform	Horizontal oscillator emitter waveform	Horizontal oscillator output waveform
⑯ 	⑰ 	⑱ 
Horizontal drive collector waveform	**Horizontal output base waveform**	**Horizontal output pulse**
⑲ 	⑳ 	㉑ 
AFC pulse	**Middle voltage FBT pulse**	**Video power supply pulse**
㉒ 	㉓ 	㉔ 
Audio input signal	**Audio output waveform**	
㉕ 	㉖ 	

The figures encircled by ◯ in the above refer to those of "Wiring Diagram" --- "Check Points of Waveforms".

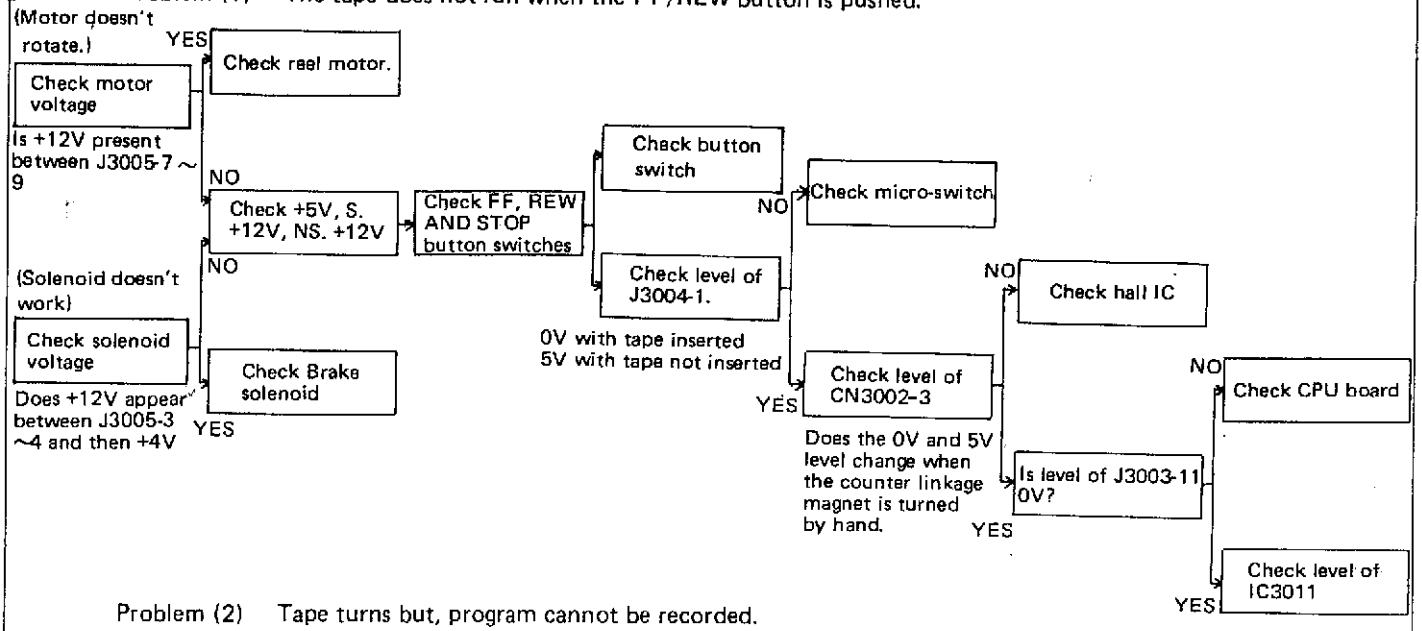
CASSETTE TAPE RECORDER SECTION



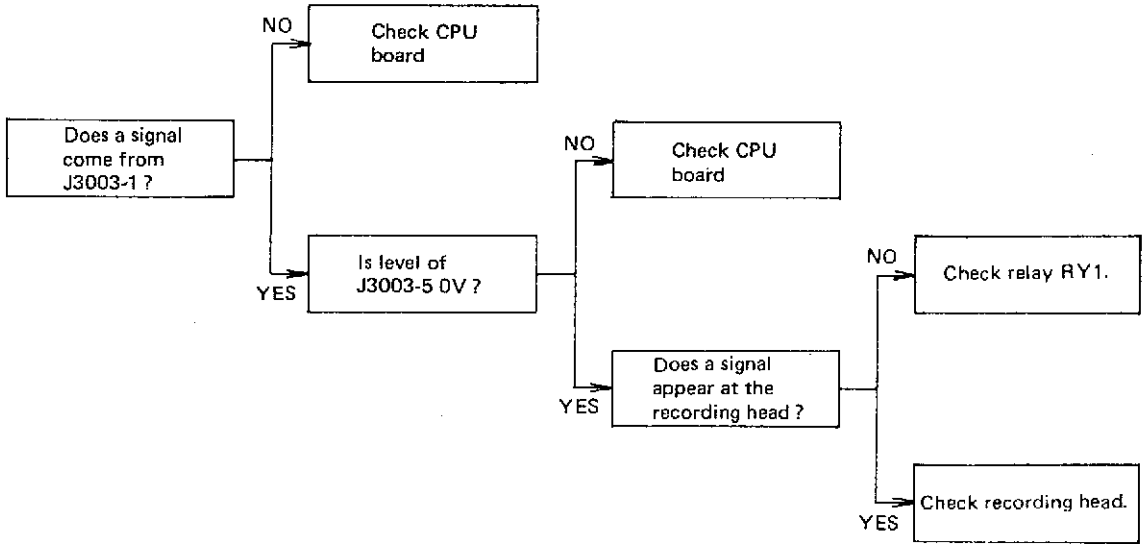
Block Diagram of Cassette Tape Recorder

■ Trouble Shooting Chart

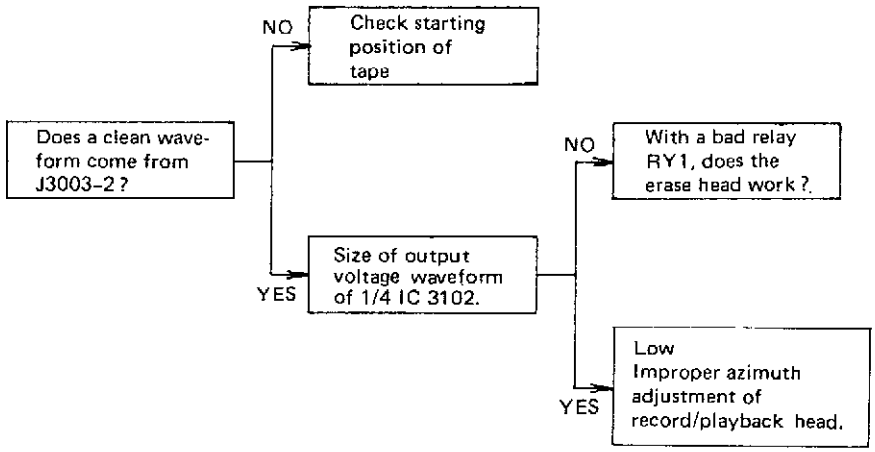
Problem (1) The tape does not run when the FF/REW button is pushed.



Problem (2) Tape turns but, program cannot be recorded.



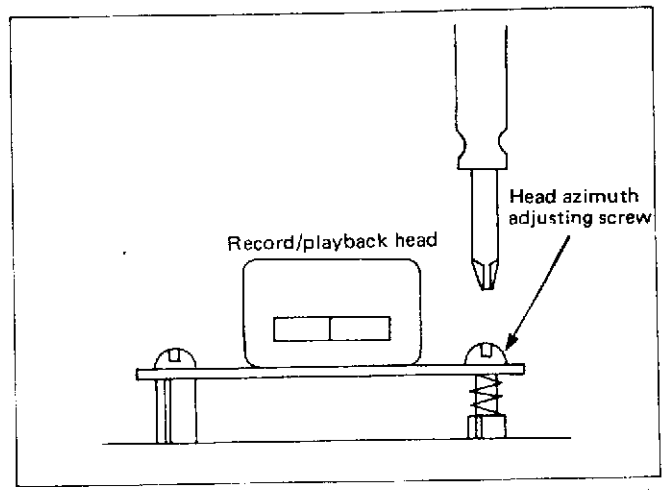
Problem (3) Tape turns, but programs cannot be played back or an error occurs.



■ Azimuth Adjustment and Head Cleaning

*** Azimuth adjustment of record/playback head**

1. Connect a synchroscope to pin 8 of IC3102.
2. Load a test tape (TEAC, 3kHz-signal recorded) and play it back.
3. Rotate the azimuth adjusting screw so that the waveform on a synchroscope will be the maximum.



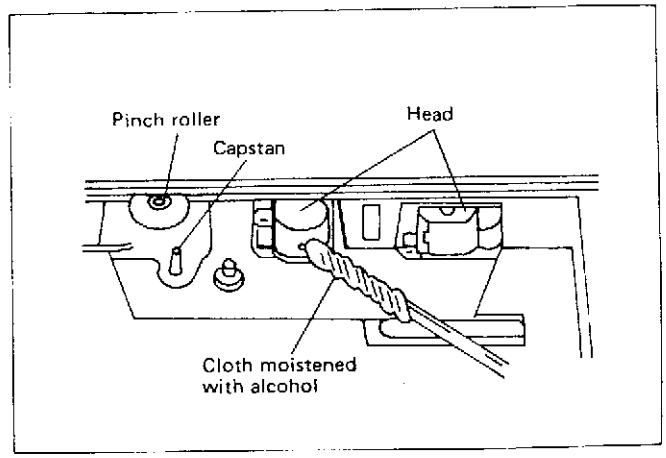
Head cleaning

Clean the heads, capstan and pinch roller often, to remove dust and tape residue. Foreign material on them impairs the sound quality of both recording and playback.

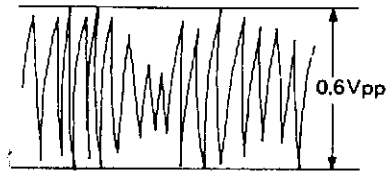
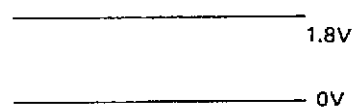
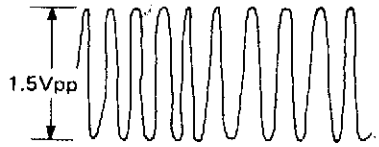
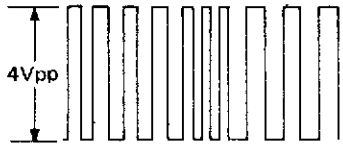
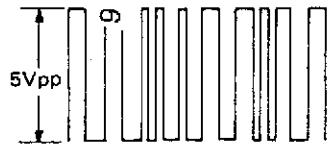
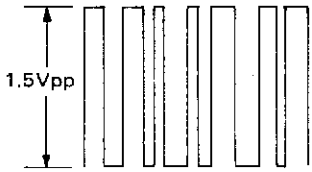
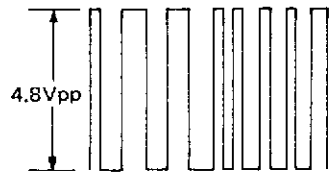
Open the cassette holder, remove the tape, push the play button and clean them with a soft cloth moistened in alcohol.

Erase protection

To protect a cassette tape from being accidentally erased it was designed with two removable tabs. By removing tabs recording mechanism does not function when the record button is pushed.



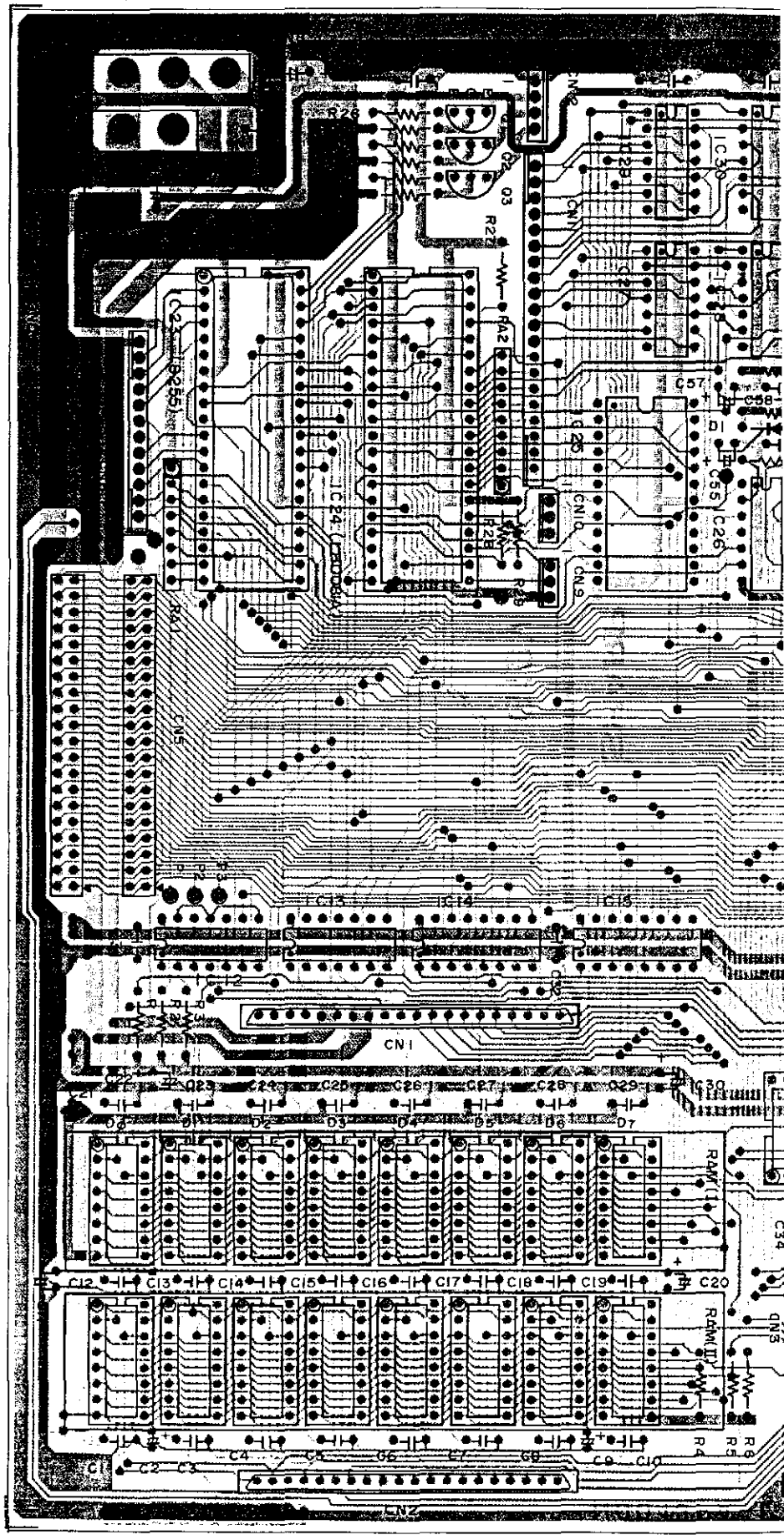
■ Waveforms of Cassette Tape Recorder

1st stage amp. output waveform	Operational amp. input waveform	Operational amp. input waveform
① 	② 	③ 
Operational amp. input waveform	**Operational amp. output waveform**	**Output waveform**
④ 	⑤ 	⑥ 
Record input waveform	**Record amp. waveform**	**Head input waveform**
⑦ 	⑧ 	⑨ 

The figures encircled by ◯ correspond to those of "Wiring Diagram" — "Check Points of Waveforms".

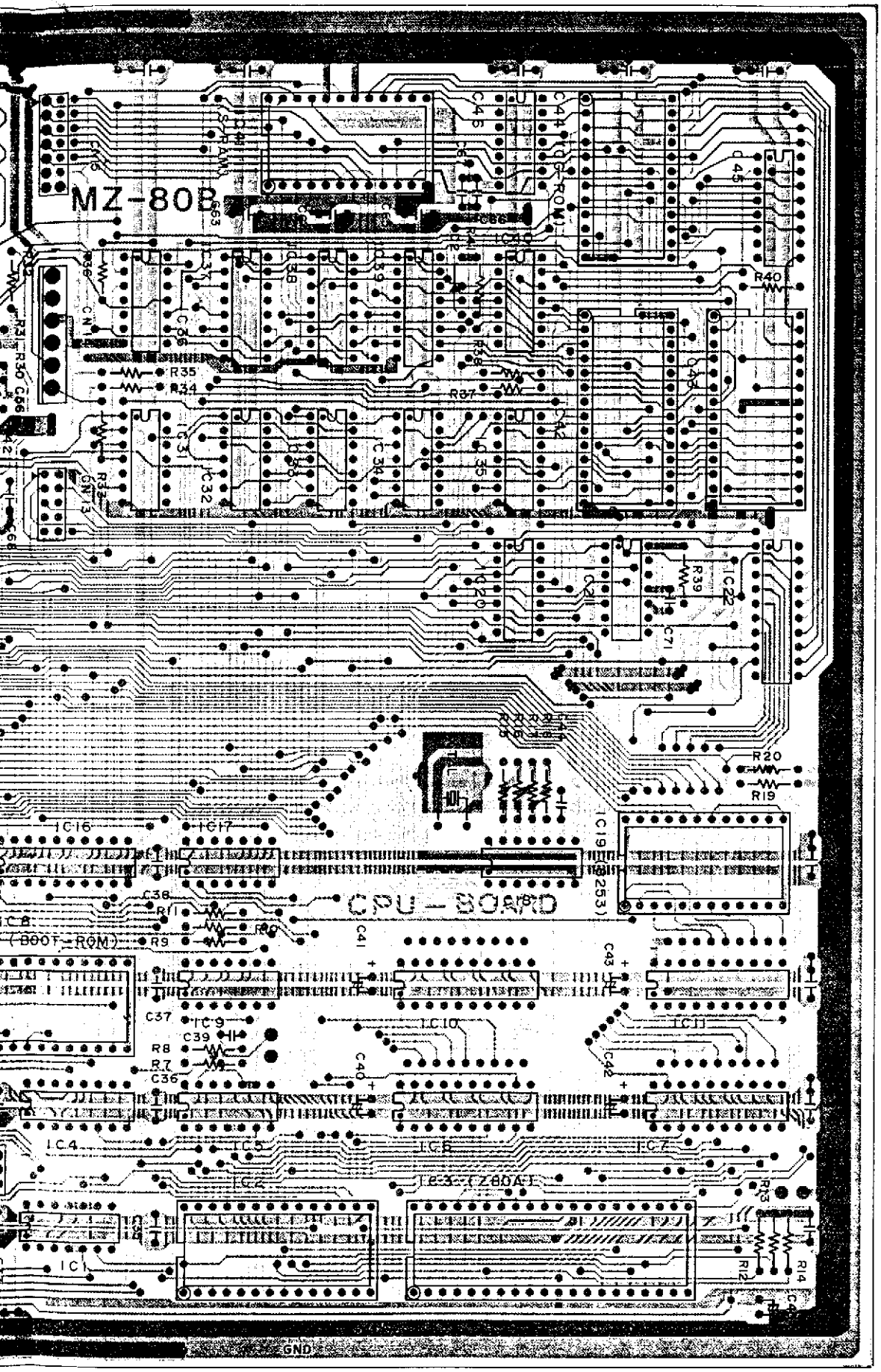
PRINTED WIRING BOARD AND CIRCUIT DI

■ CPU PWB



GRAM

Notes: The circuit diagram and printed wiring board subject to change without prior notice.

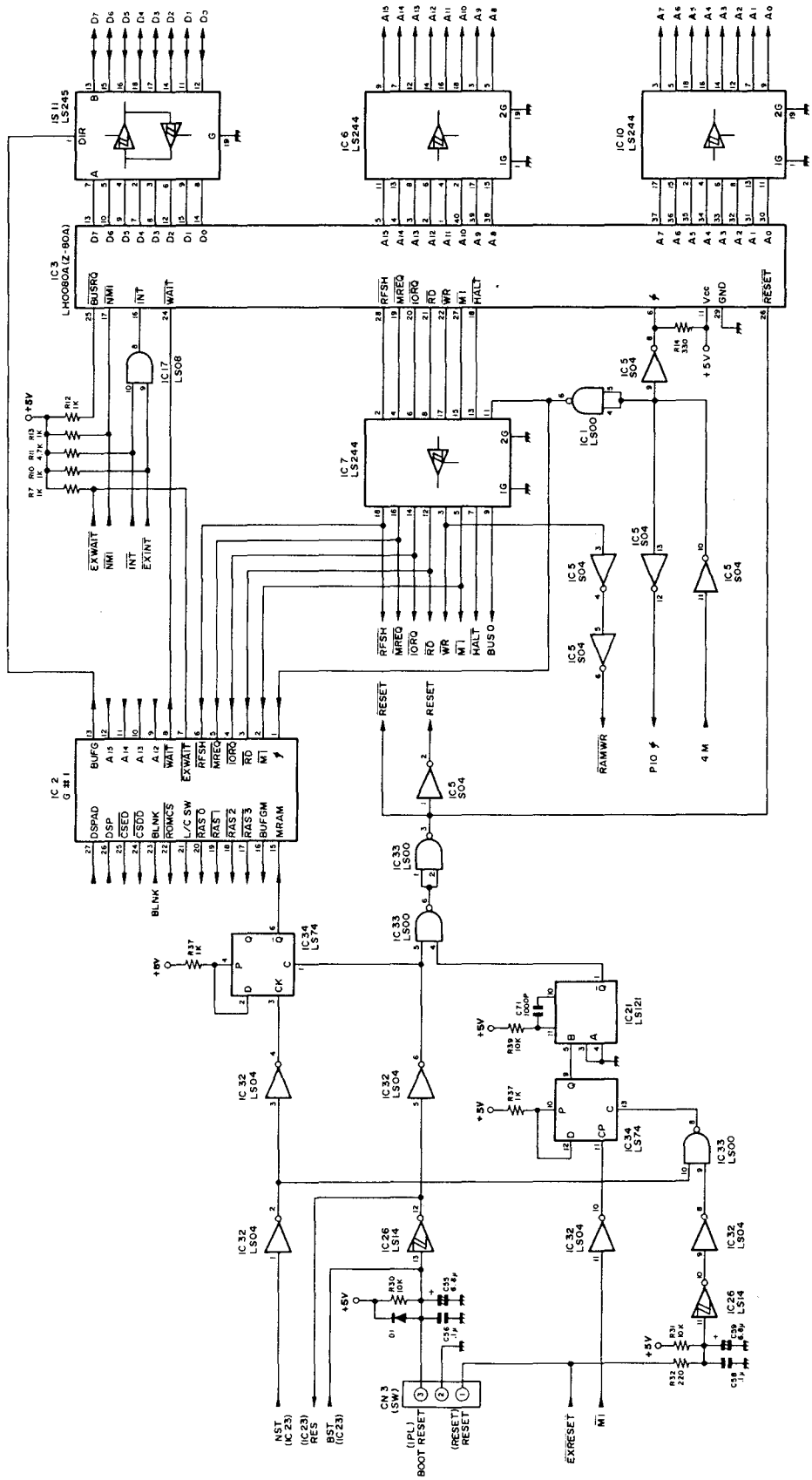


Prespective View

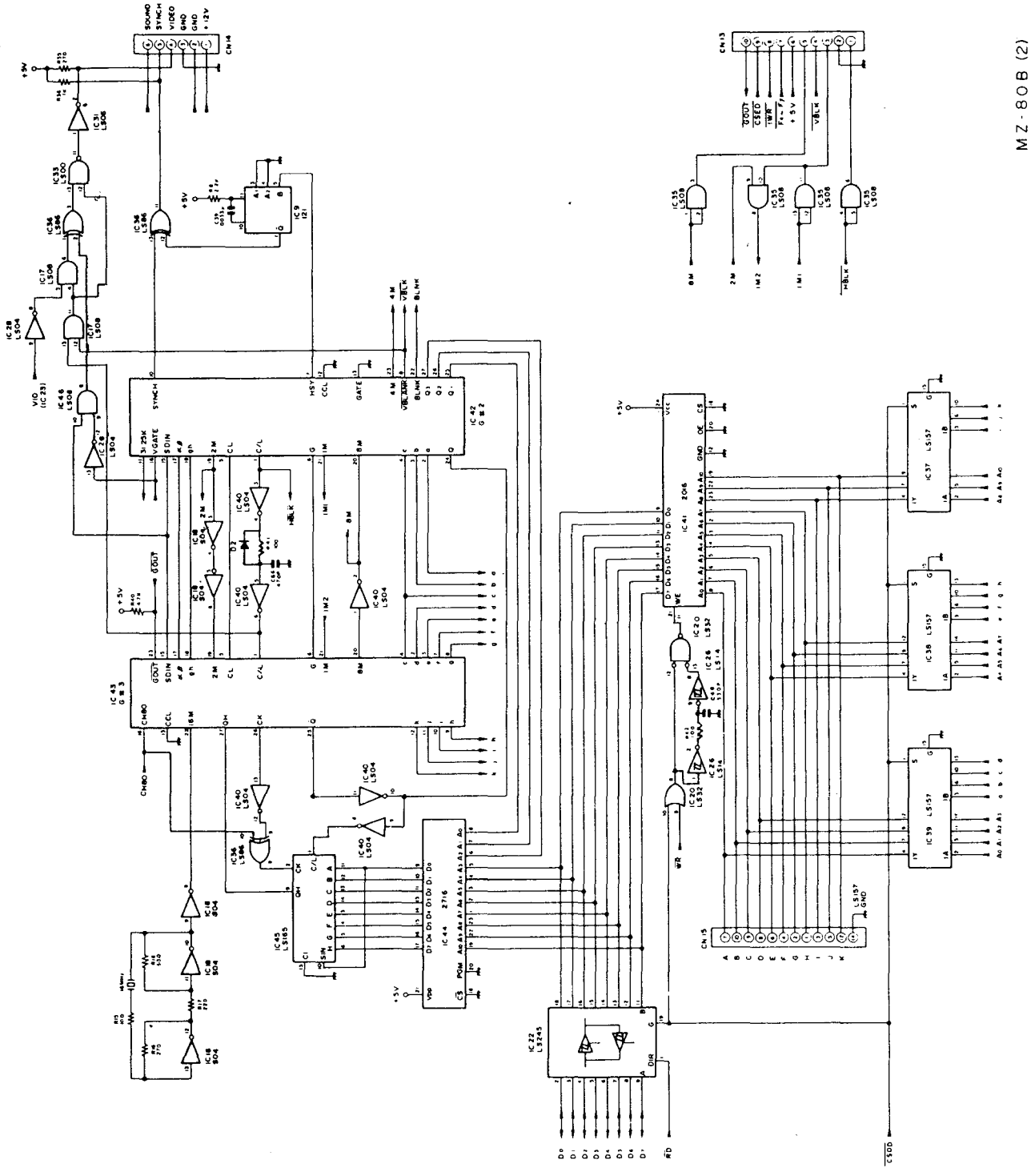
Parts-fitted face

Opposite Side

■ CPU Board Circuit (1)

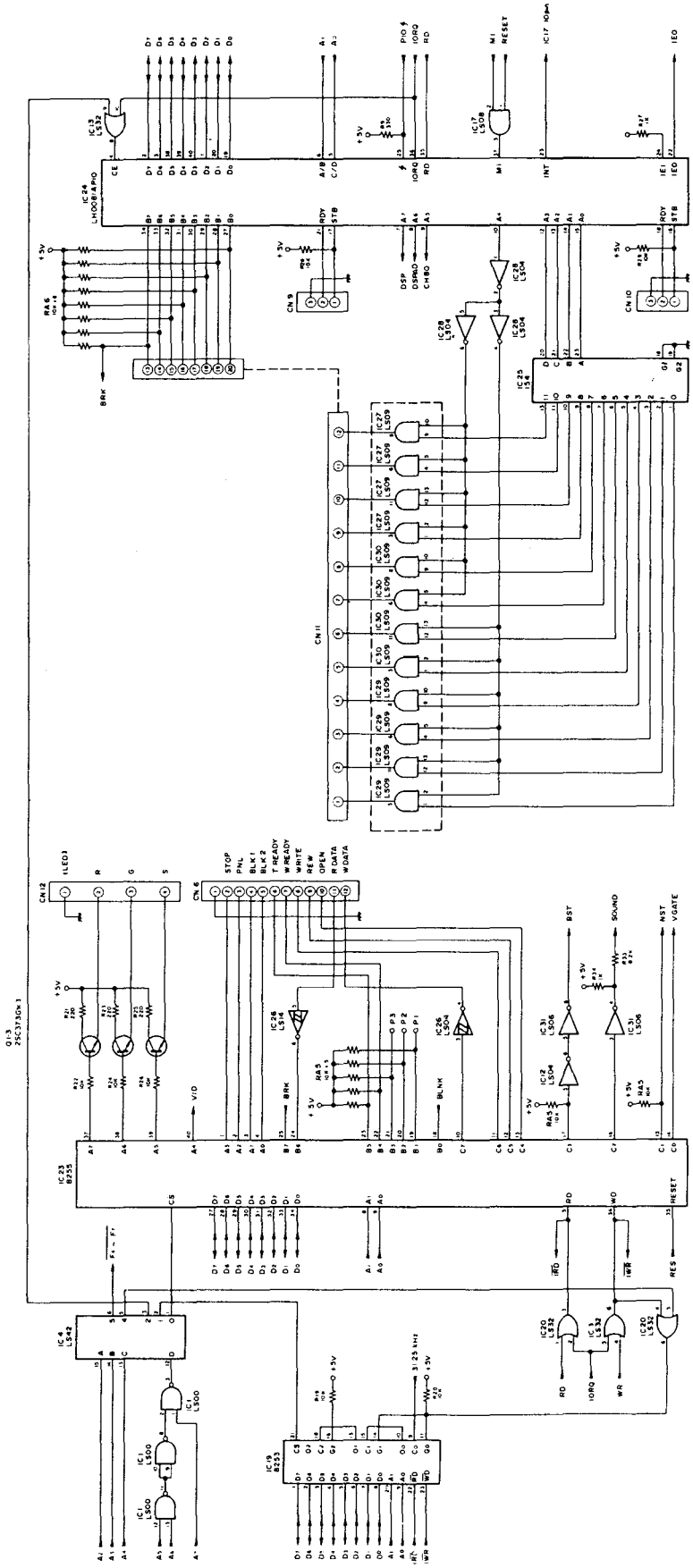


■ CPU Board Circuits (2)

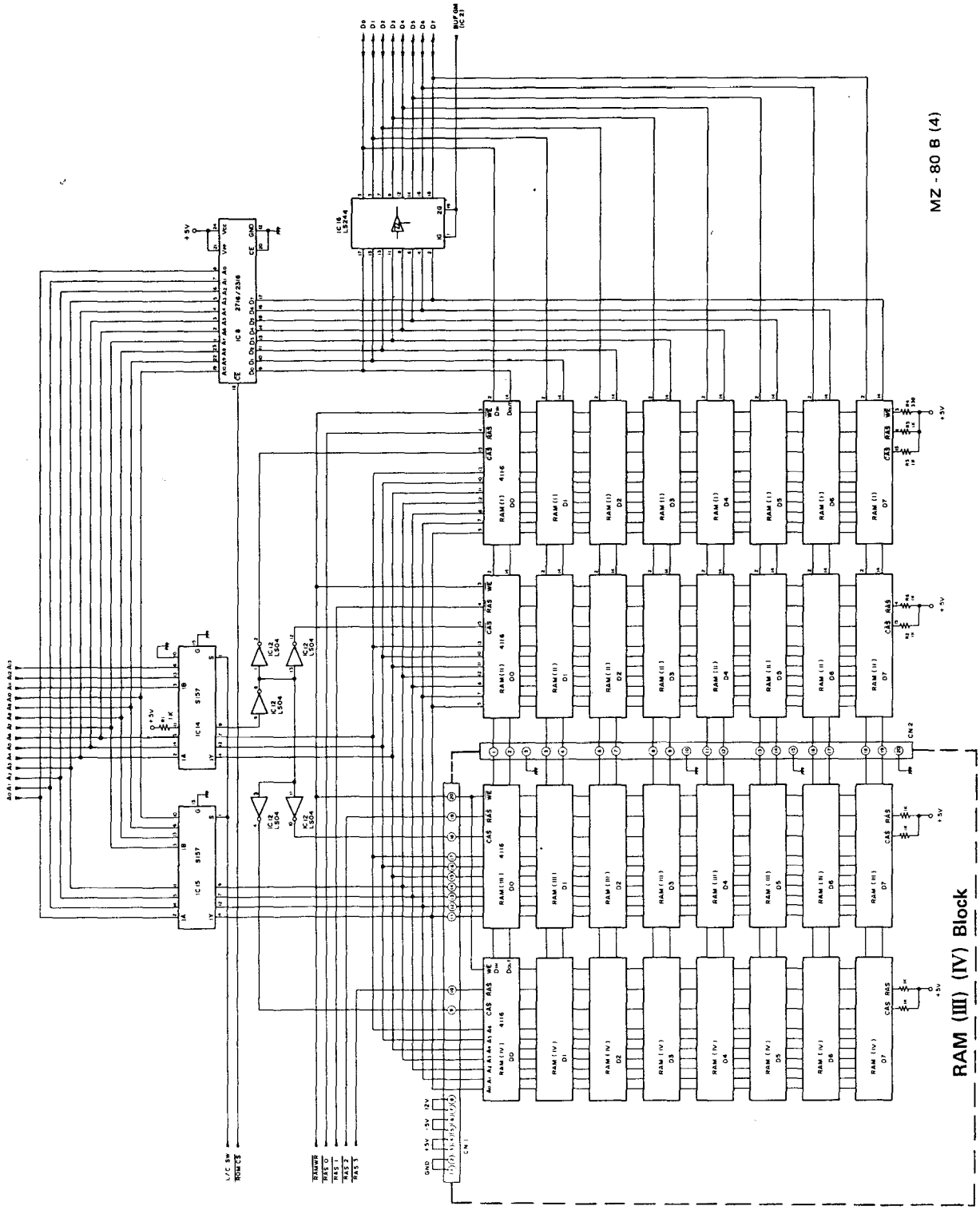


MZ-80B (2)

■ CPU Board Circuits (3)



■ CPU Board (4) and Expansion RAM (Ⅲ) (Ⅳ) Block Circuits

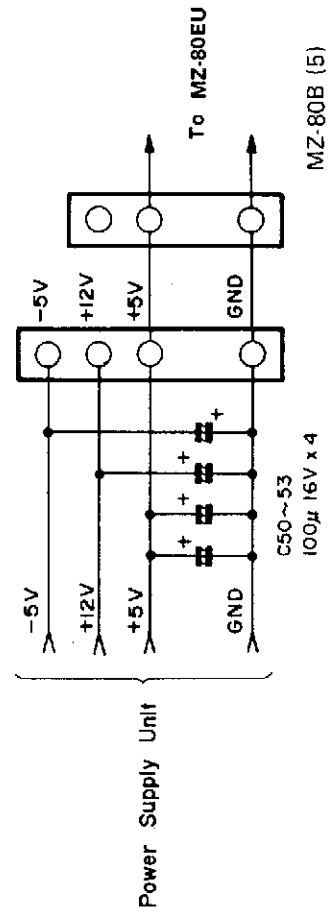


■ CPU Board Circuits (5)

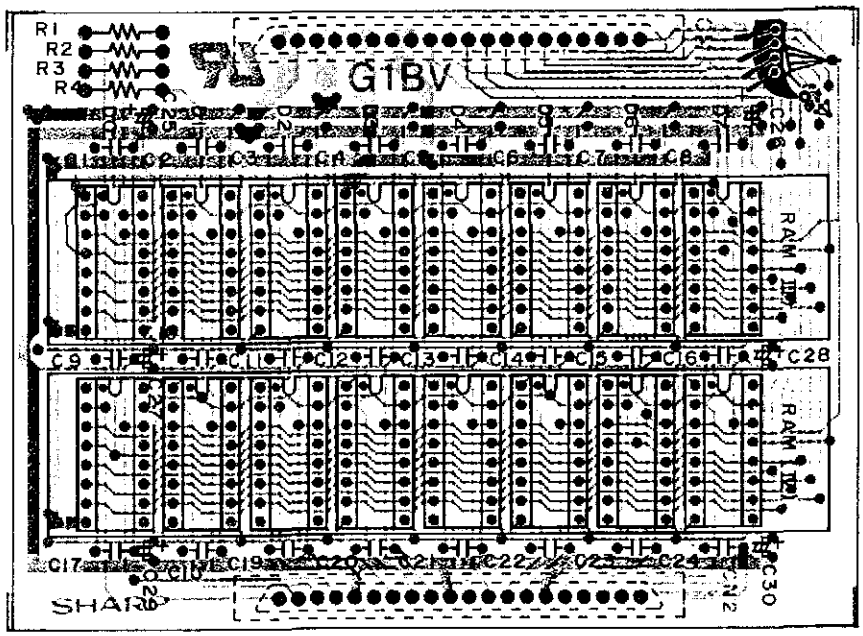
CN4 ⟶ MZ – 80EU
CN5 ⟶ Graphic RAM PWB

CN4, 5	40P	
1	A15	2	A14
3	A13	4	A12
5	A11	6	A10
7	A9	8	A8
9	GND	10	A7
11	A6	12	A5
13	A4	14	A3
15	A2	16	A1
17	A0	18	GND
19	D7	20	D6
21	D5	22	D4
23	D3	24	D2
25	D1	26	D0
27	GND	28	$\overline{NMI}$
29	$\overline{EX\ WAIT}$	30	$\overline{EX\ INT}$
31	$\overline{EX\ RESET}$	32	$\overline{RESET}$
33	IEO	34	$\overline{HALT}$
35	$\overline{MREQ}$	36	$\overline{IOREQ}$
37	$\overline{RD}$	38	$\overline{WR}$
39	$\overline{M1}$	40	BUSØ

BUS CONNECTOR



■ RAM (III) (IV) Block PWB Section



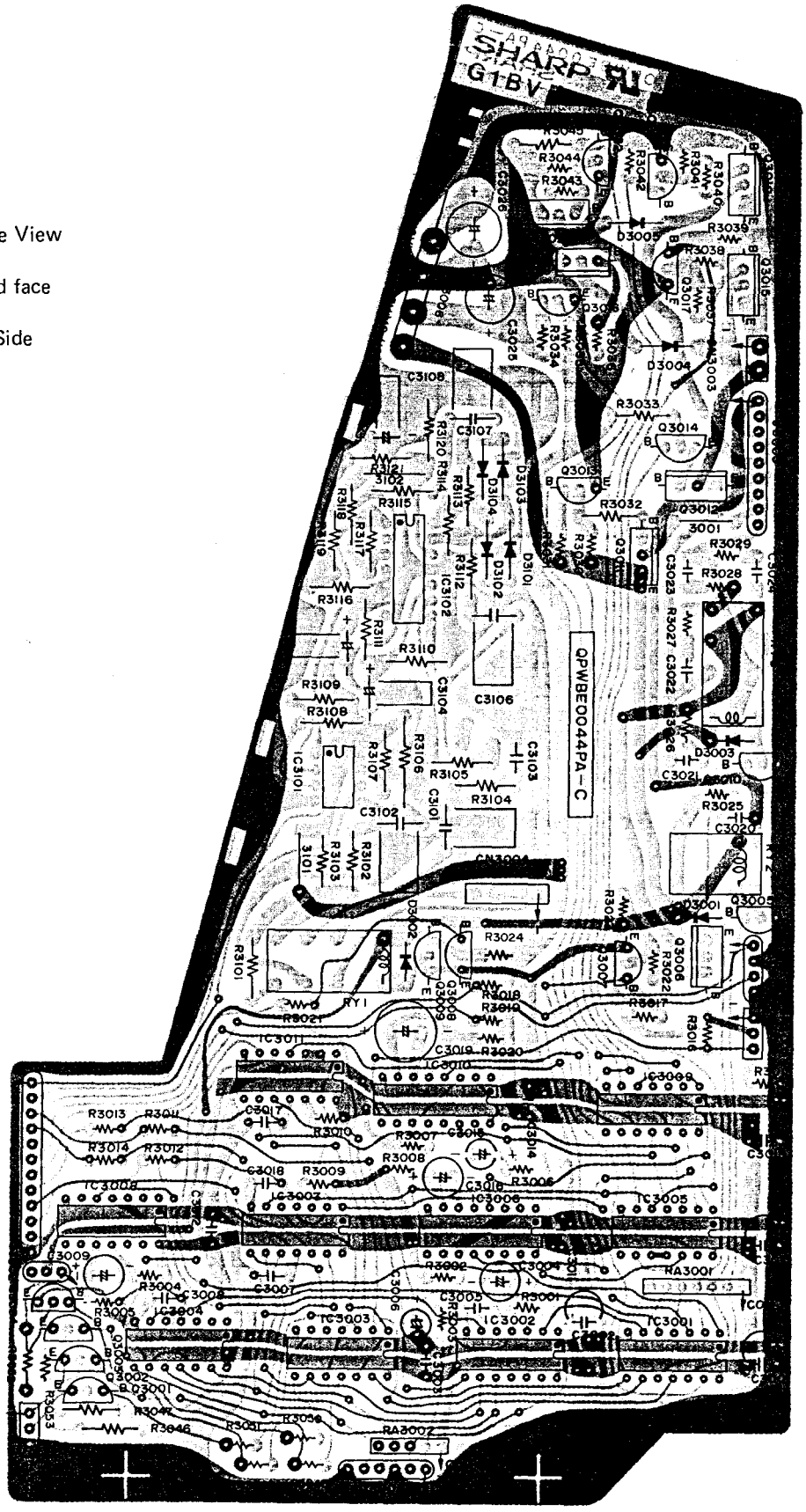
Parts-fitted face
Opposite Side

■ Cassette Tape Recorder PWB Section

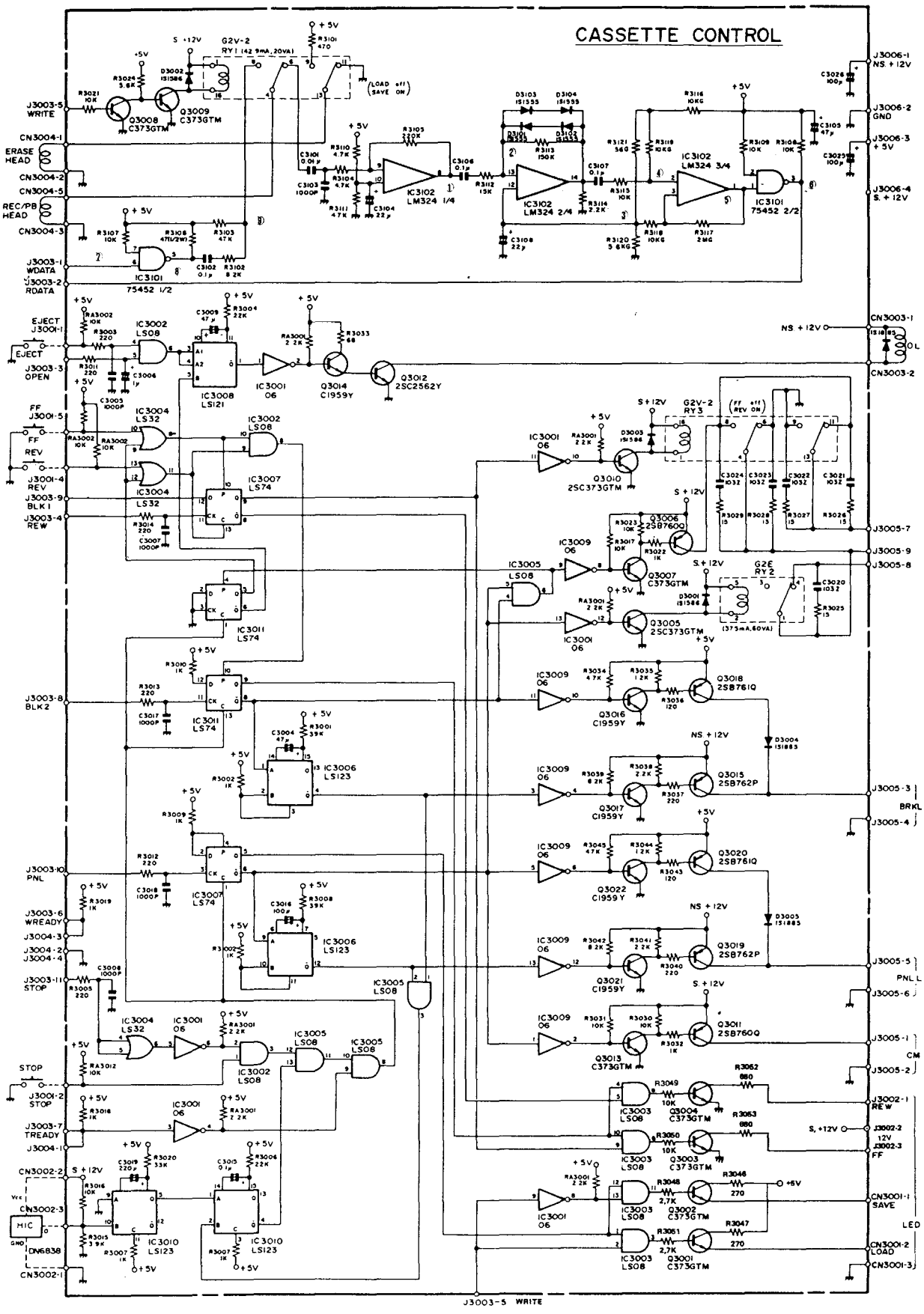
Perspective View

Parts-fitted face

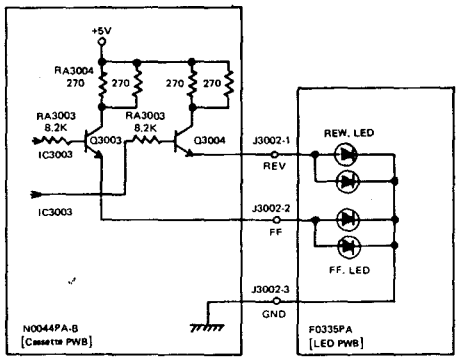
Opposite Side



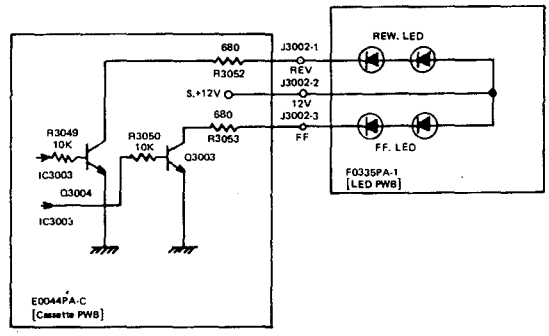
■ Cassette Tape Recorder Circuit



* Alteration of "FF" and "REW" display LED circuit (Cassette Tape Recorder)



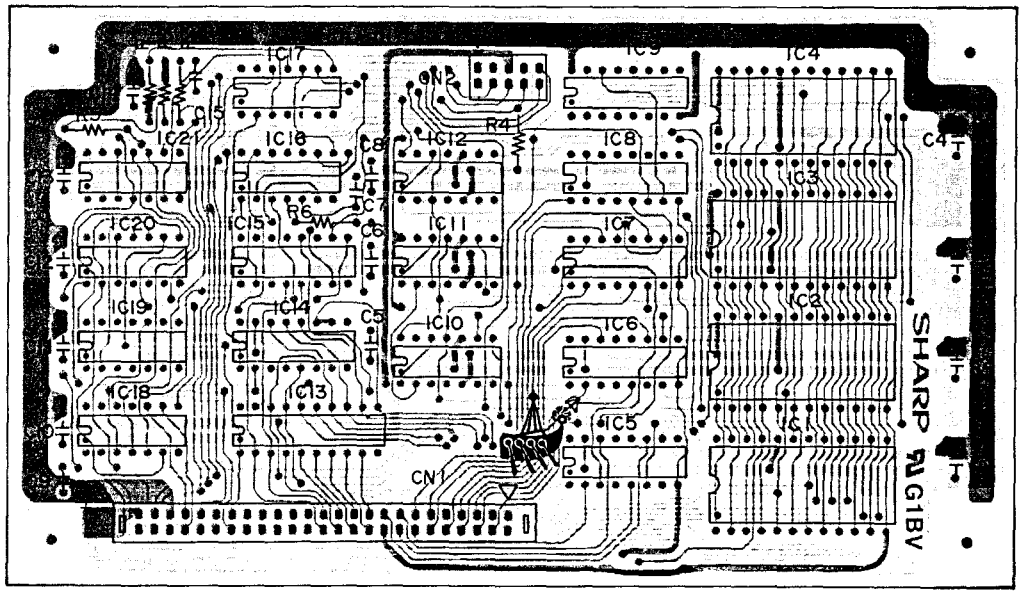
Early Circuit Diagram



Late Circuit Diagram

The "FF" and "REW" display LED circuit was changed with later products. When the cassette PWB is replaced, check the LED PWB circuit. (Adjust the pattern of the LED PWB it the circuit does not conform.)

■ Graphic RAM (I) PWB Section

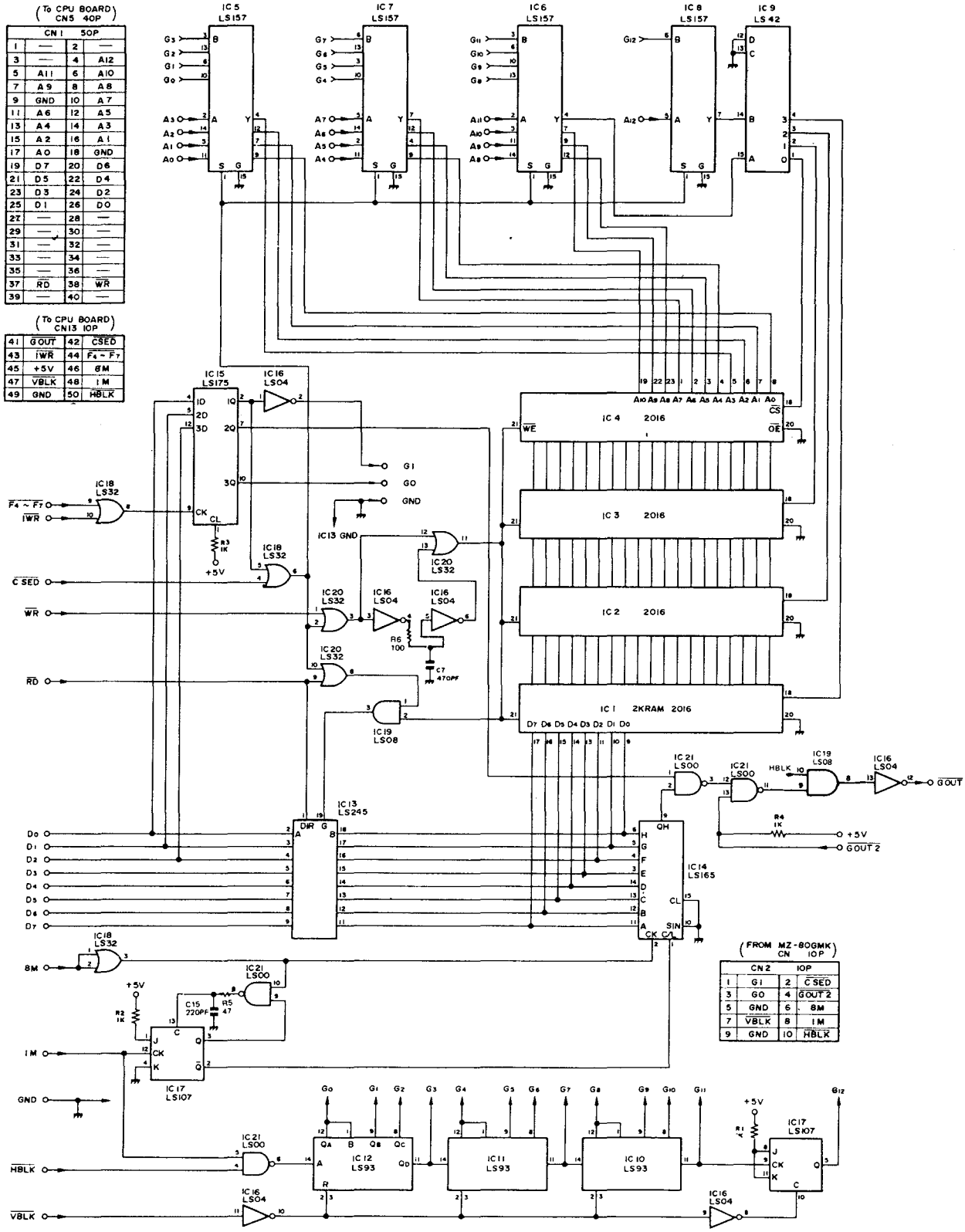


Perspective View

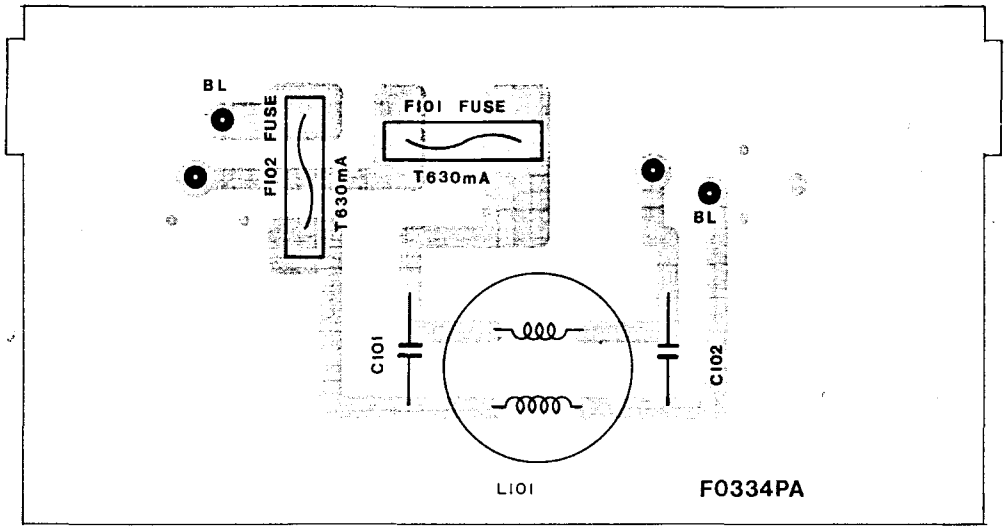
Parts-fitted face

Opposite Side

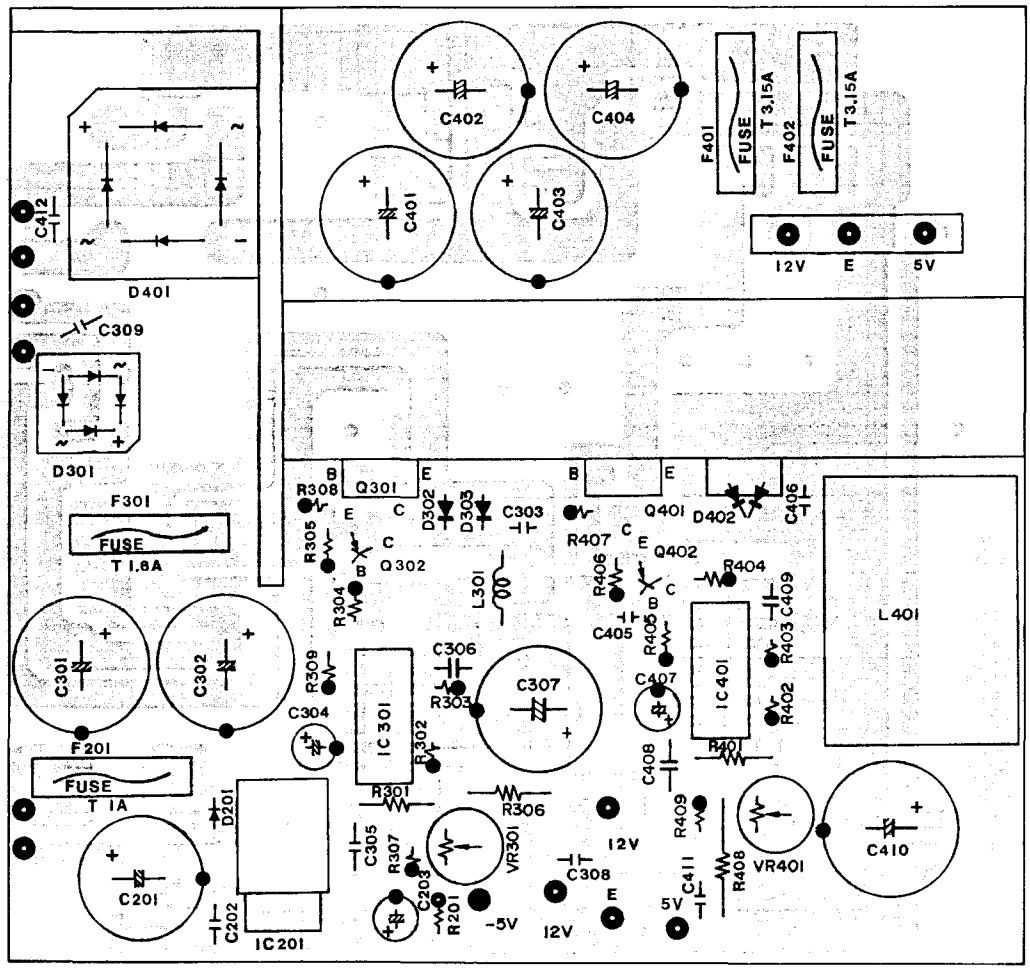
■ Graphic RAM (I) Circuit Diagram



■ Power Supply PWB Section

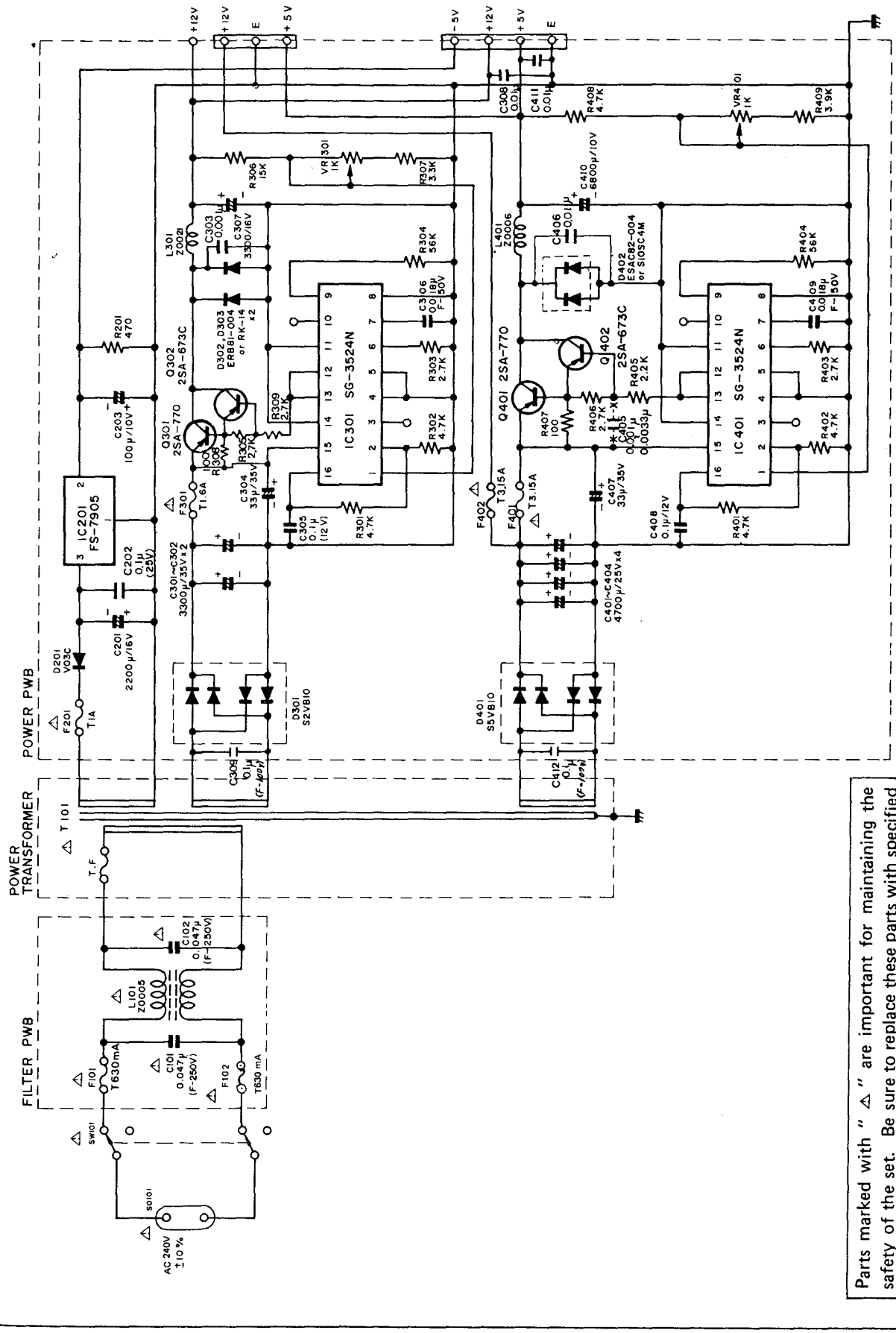


Primar



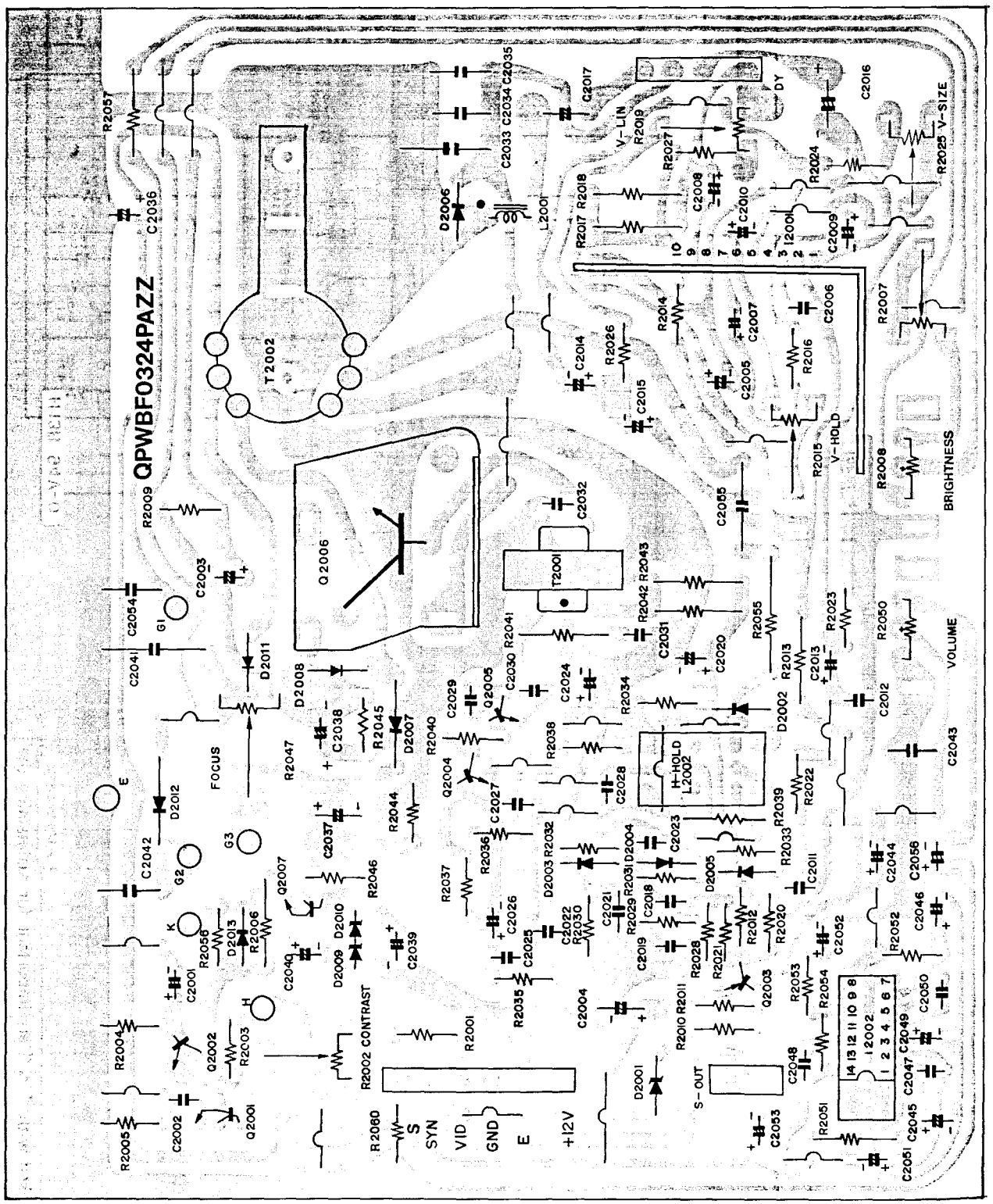
Secondary

■ Power Supply Circuit

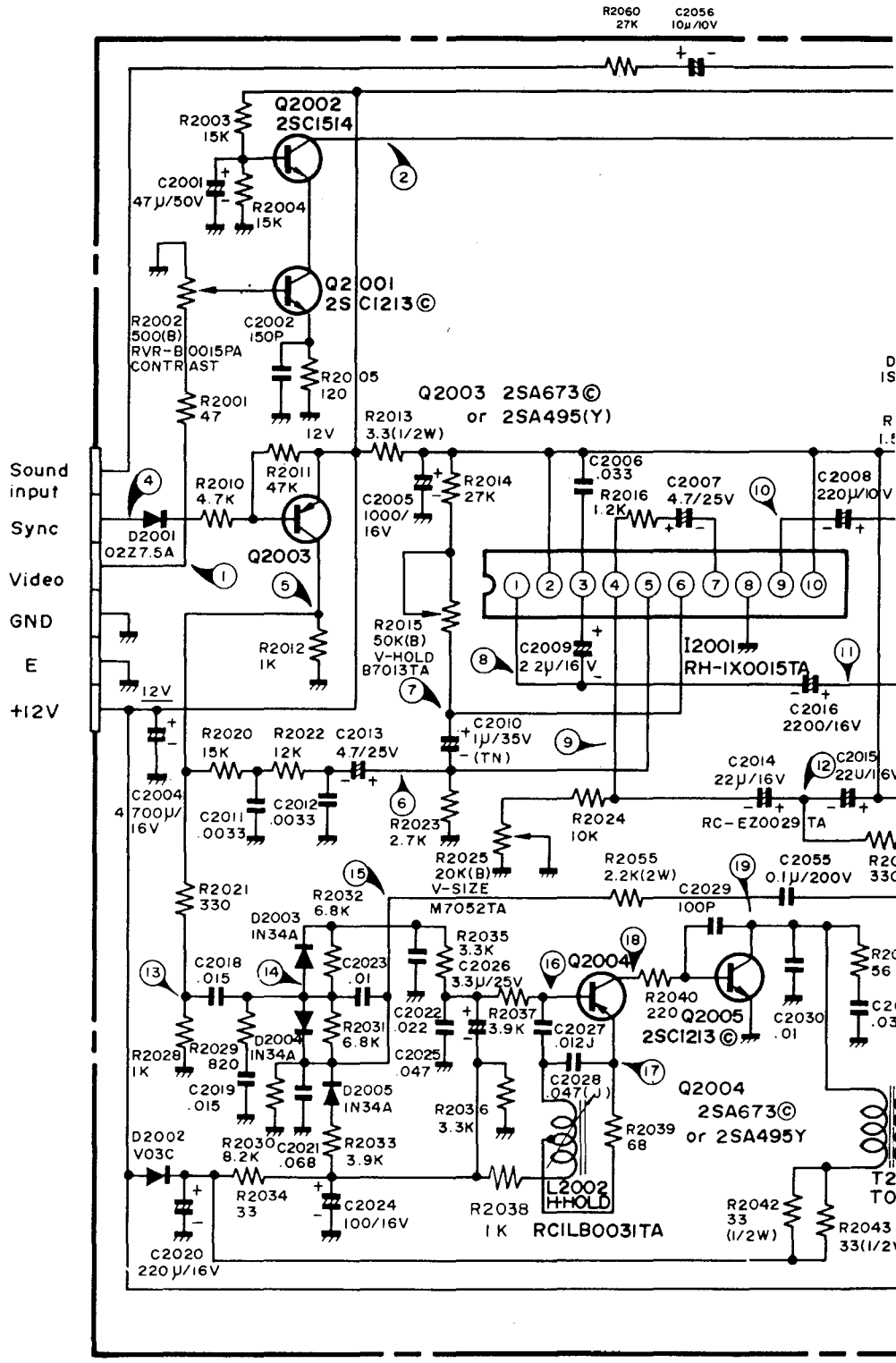


Parts marked with " △ " are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

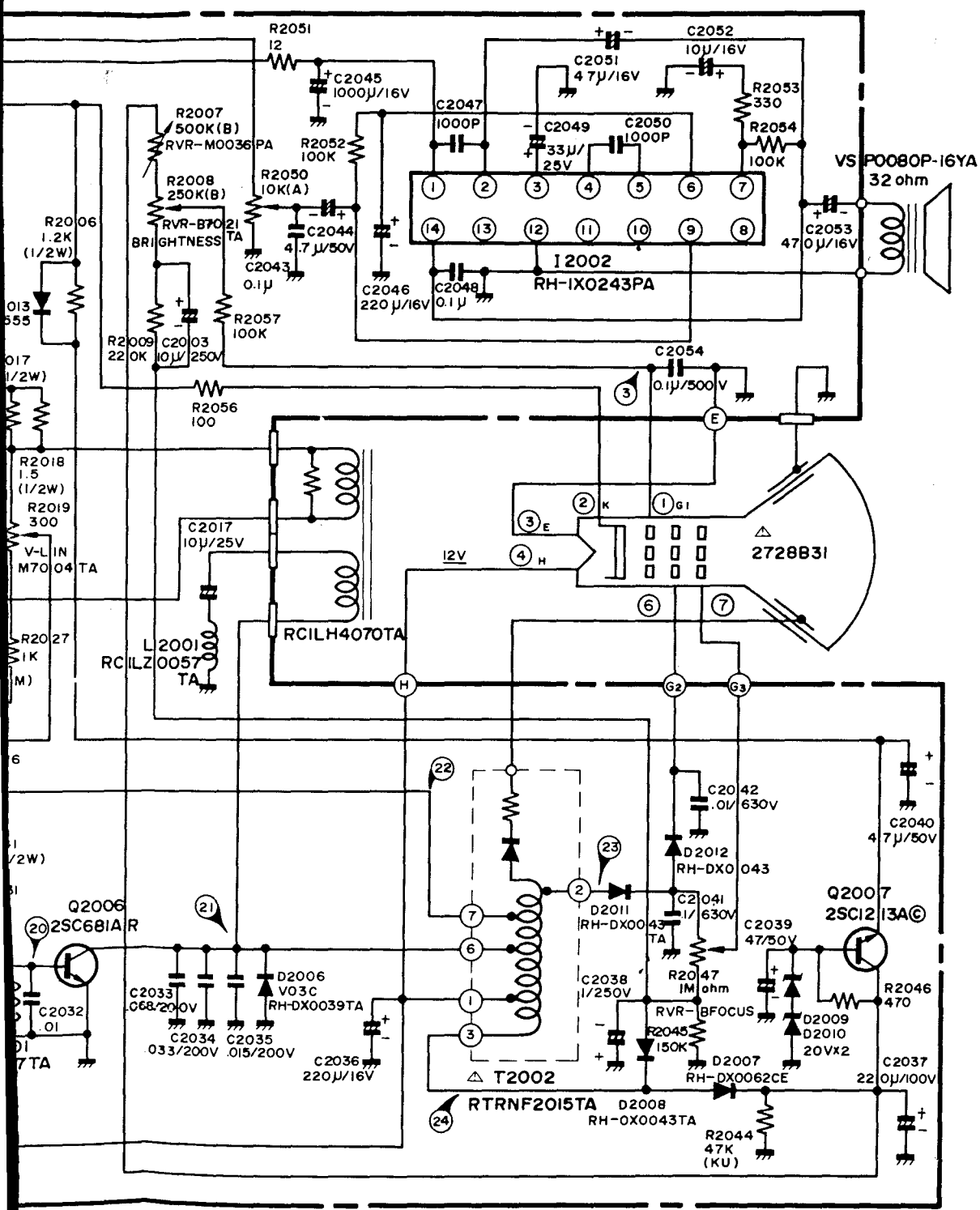
■ Monitor TV PWB Section



■ Monitor TV Circuit

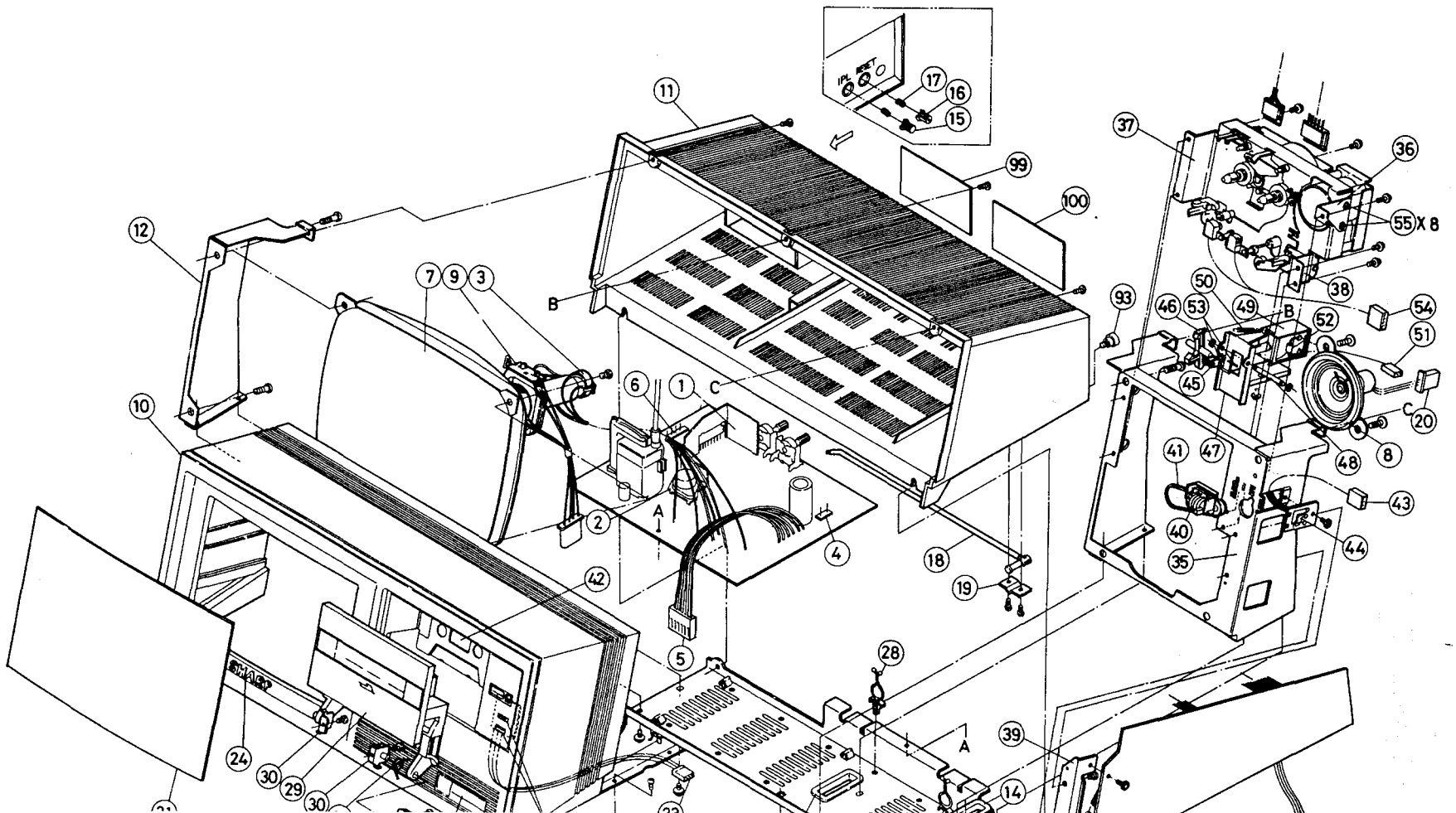


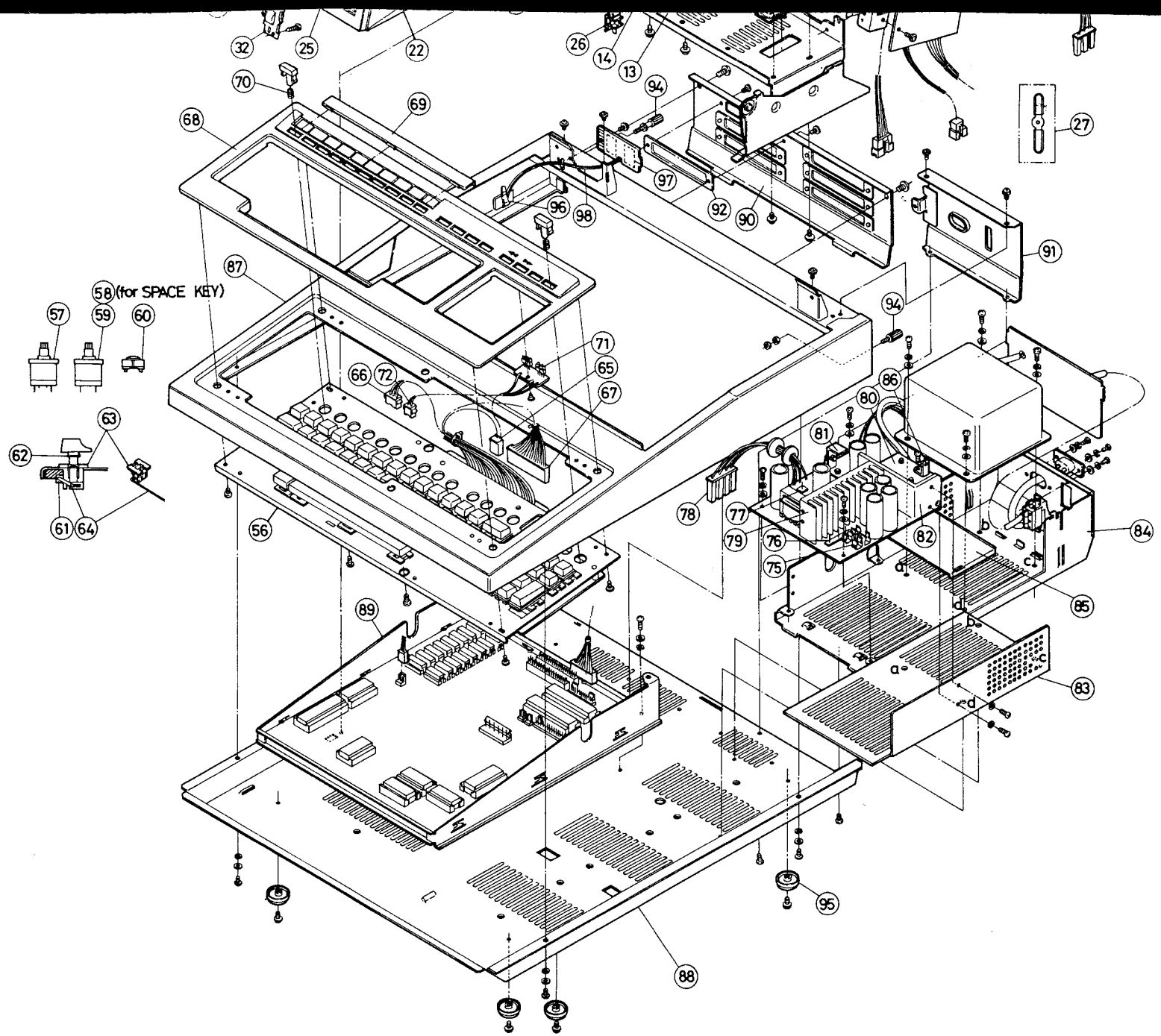
Parts marked with " △ " are important for maintaining the safety of the set. Be
set.



e to replace these parts with specified ones for maintaining the safety and performance of the

DISASSEMBLED VIEW




32
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58 (for SPACE KEY)
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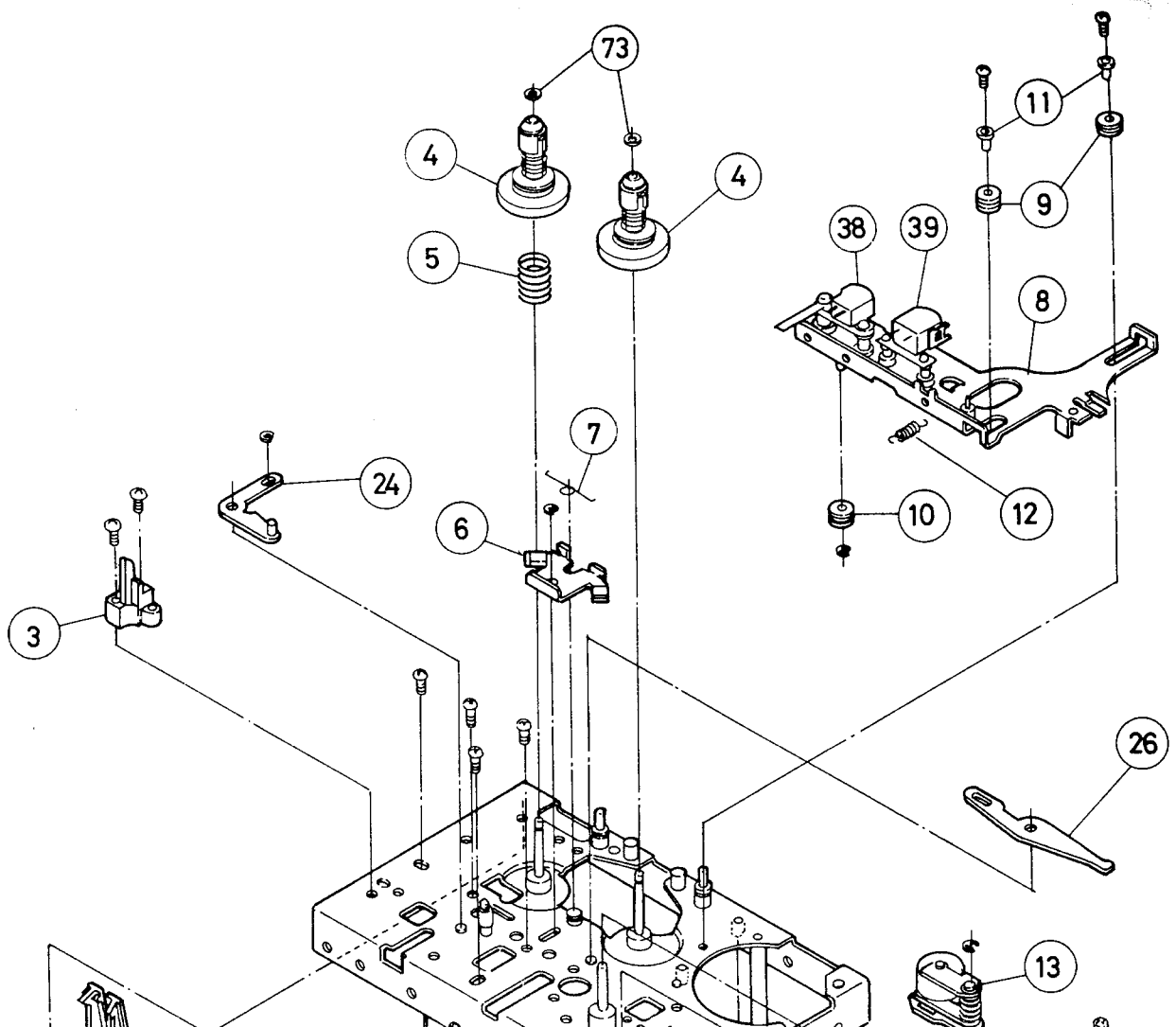
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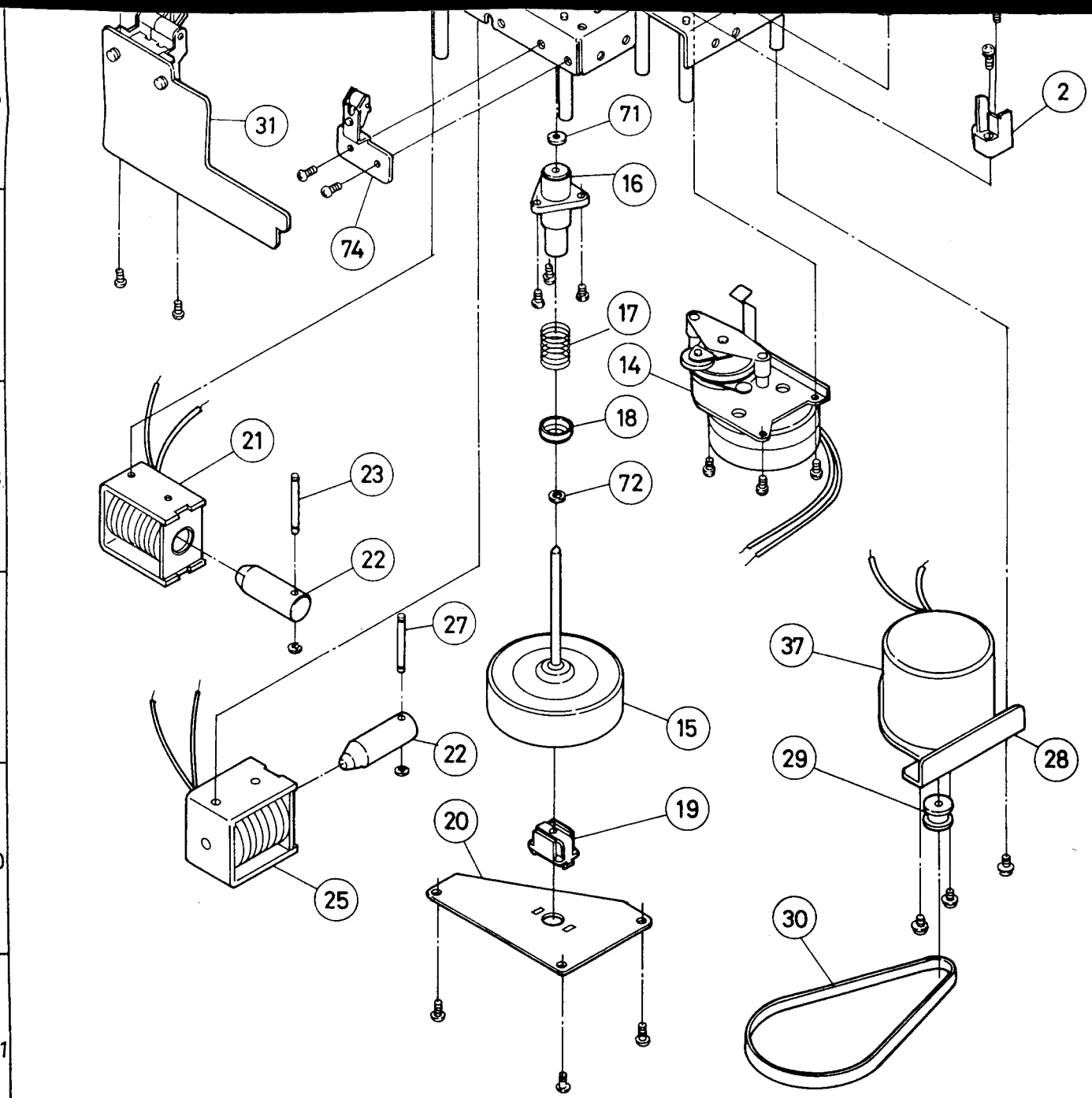


Cassette tape recorder mechanical parts

REF. NO.	PART NO.	DESCRIPTION	CODE
2	94R00280BCTRM	Cassette Guide R	AC
3	94R00380BCTRM	Cassette Guide L	AC
4	94R00480BCTRM	Reel Ass'y	AF
5	94R00580BCTRM	B.T Spring	AA
6	94R00680BCTRM	Brake Arm Ass'y	AE
7	94R00780BCTRM	Brake Arm Spring	AA
8	94R00880BCTRM	Head Panel Ass'y	AK
9	94R00980BCTRM	Guide Roller A	AB
10	94R01080BCTRM	Guide Roller B	AB
11	94R01180BCTRM	Guide Coller	AA
12	94R01280BCTRM	Head Panel Spring	AA
13	94R01380BCTRM	Pinch Roller Arm Ass'y	AQ
14	94R01480BCTRM	Drive Unit Ass'y	BB
15	94R01580BCTRM	Flywheel Capstan	AP
16	94R01680BCTRM	Flywheel Metal	AH
17	94R01780BCTRM	Thrust Pressure Spring	AA
18	94R01880BCTRM	Thrust Pressure	AA
19	94R01980BCTRM	F.L Damper	AC
20	94R02080BCTRM	F.L Hold Plate	AD
21	94R02180BCTRM	Panel Plunger Coil Ass'y	AW
22	94R02280BCTRM	Plunger	AG
23	94R02380BCTRM	Plunger Shaft (L)	AB
24	94R02480BCTRM	Plunger Lever Ass'y	AC
25	94R02580BCTRM	Brake Plunger Coil Ass'y	AW
26	94R02680BCTRM	RC Lever	AC
27	94R02780BCTRM	Brake Pin	AB
28	94R02880BCTRM	Main Motor Ass'y	AV
29	94R02980BCTRM	Motor Pulley	AC
30	94R03080BCTRM	Main Belt	AE
31	94R03180BCTRM	P.C.B. Ass'y	AX
37	94R06480KCTRM	Motor	AV
38	94R06180KCTRM	Erase Head	AG
39	94R06080KCTRM	R/P Head	AM
71	94R07180BCTRM	Nylon Washer 2.5 x 7 x 0.5	AA
72	94R07280BCTRM	Nylon Washer 2.5 x 6 x 0.5	AA
73	94R07380BCTRM	Nylon Washer 1.6 x 3.8 x 0.5	AA
74	LSTPF2015PAZZ	Spring Ass'y	AD

KEY BUTTON PARTS No.

	SYMBOL ASCii	SYMBOL Graphic	PART NO.	CODE
Main Key Board	! 1		JBTN-0039PA01	AG
	" 2		JBTN-0039PA02	AG
	# 3		JBTN-0039PA03	AG
	$ 4		JBTN-0039PA04	AG
	% 5		JBTN-0039PA05	AG
	& 6		JBTN-0039PA06	AG
	' 7		JBTN-0039PA07	AG
	(8		JBTN-0039PA08	AG
	) 9		JBTN-0039PA09	AG
	— 0		JBTN-0039PA10	AG
	= —		JBTN-0039PA11	AG
	~ ^		JBTN-0039PA12	AG
	| \		JBTN-0039PA13	AG
	` @		JBTN-0039PA14	AG
	¦ ⌐		JBTN-0039PA15	AG
	CLR HOME		JBTN-0039PA16	AG
	INST DEL		JBTN-0039PA17	AG
	+ ;		JBTN-0039PA18	AG
	* :		JBTN-0039PA19	AG
	¦ ⌐		JBTN-0039PA20	AG
	< ,	¥	JBTN-0039PA21	AG
	> .	π	JBTN-0039PA22	AG
	← /	→	JBTN-0039PA23	AG

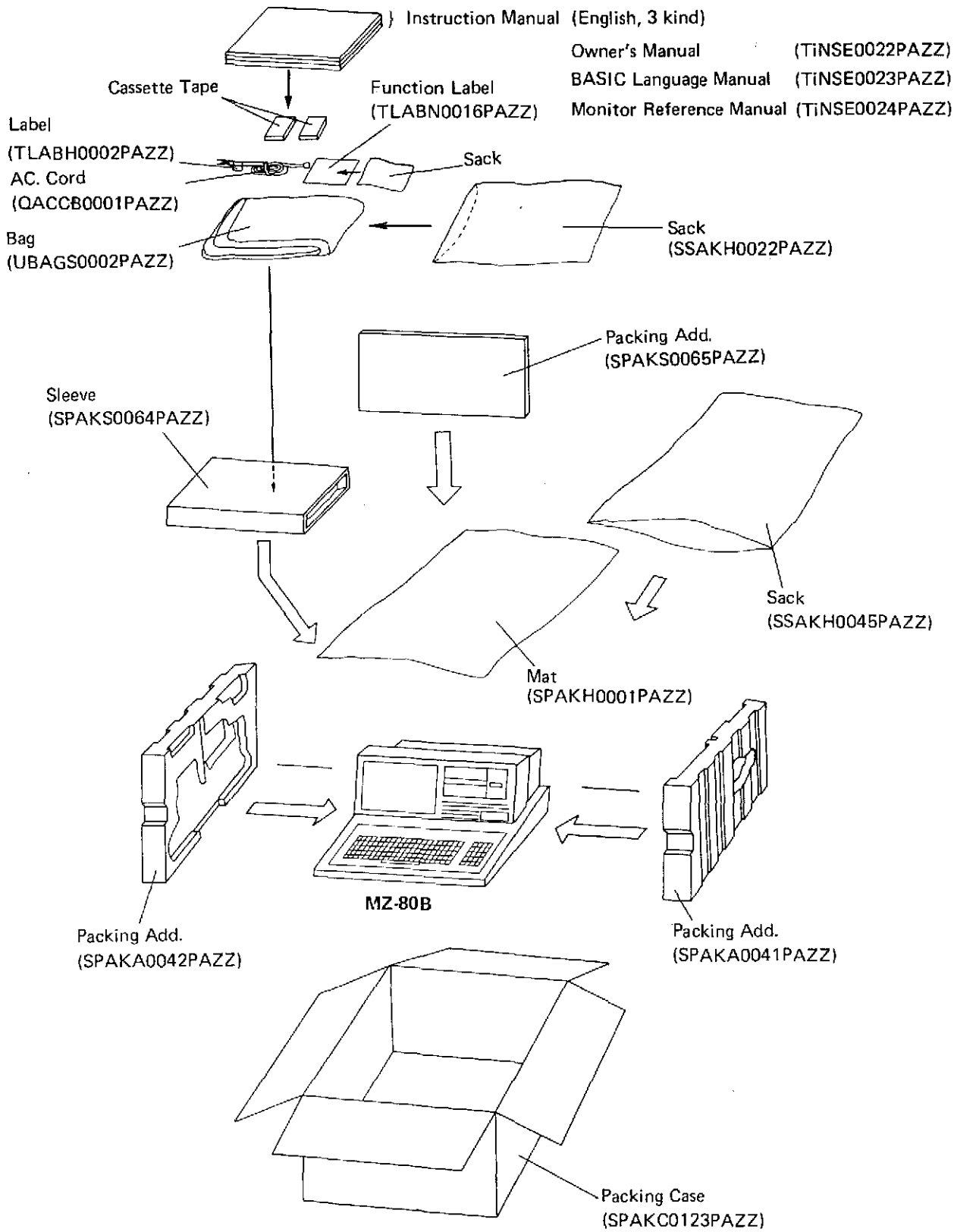
	SYMBOL ASCii	SYMBOL Graphic	PART NO.	CODE
Main Key Board	↑ ?	↓	JBTN-0039PA24	AG
	A		JBTN-0039PA25	AG
	B	♣	JBTN-0039PA26	AG
	C	♥	JBTN-0039PA27	AG
	D		JBTN-0039PA28	AG
	E		JBTN-0039PA29	AG
	F		JBTN-0039PA30	AG
	G		JBTN-0039PA31	AG
	H		JBTN-0039PA32	AG
	I		JBTN-0039PA33	AG
	J		JBTN-0039PA34	AG
	K		JBTN-0039PA35	AG
	L		JBTN-0039PA36	AG
	M	£	JBTN-0039PA37	AG
	N		JBTN-0039PA38	AG
	O		JBTN-0039PA39	AG
	P		JBTN-0039PA40	AG
	Q		JBTN-0039PA41	AG
	R		JBTN-0039PA42	AG
	S		JBTN-0039PA43	AG
	T		JBTN-0039PA44	AG
	U		JBTN-0039PA45	AG
	V	◆	JBTN-0039PA46	AG

KEY BUTTON PARTS No.

	SYMBOL ASCii	SYMBOL Graphic	PART NO.	CODE
Main Key Board	W		JBTN-0039PA47	AG
	X		JBTN-0039PA48	AG
	Y		JBTN-0039PA49	AG
	Z		JBTN-0039PA50	AG
Numeric Key	■		JBTN-0039PA51	AG
	1		JBTN-0039PA52	AG
	2		JBTN-0039PA53	AG
	3		JBTN-0039PA54	AG
	4		JBTN-0039PA55	AG
	5		JBTN-0039PA56	AG
	6		JBTN-0039PA57	AG
	7		JBTN-0039PA58	AG
	8		JBTN-0039PA59	AG
	9		JBTN-0039PA60	AG
	0		JBTN-0039PA61	AG
	00		JBTN-0039PA62	AG
	+		JBTN-0039PA63	AG
	—		JBTN-0039PA64	AG
	ENT		JBTN-0045PASA	AG
Main Key Board	BREAK		JBTN-0040PASA	AG
	CR		JBTN-0041PASA	AG
	SHIFT		JBTN-0042PASA	AH
	(SPACE bar)		JBTN-0043PASA	AM

	SYMBOL ASCii	SYMBOL Graphic	PART NO.	CODE
Main Key Board	TAB		JBTN-0044PASA	AG
	RVS		JBTN-0046PASA	AG
	GRPH		JBTN-0047PASA	AG
	SFTLOCK		JBTN-0048PASA	AG
Special Function Key	F1		JBTN-0049PASA	AG
	F2		JBTN-0049PASB	AG
	F3		JBTN-0049PASC	AG
	F4		JBTN-0049PASD	AG
	F5		JBTN-0049PASE	AG
	F6		JBTN-0049PASF	AG
	F7		JBTN-0049PASG	AG
	F8		JBTN-0049PASH	AG
	F9		JBTN-0049PASI	AG
	F10		JBTN-0049PASJ	AG
Cursor Control Key	←		JBTN-0049PASK	AG
	→		JBTN-0049PASL	AG
	↑		JBTN-0049PASM	AG
	↓		JBTN-0049PASN	AG
Cassette Control Key	REW		JBTN-0049PASO	AG
	FF		JBTN-0049PASP	AG
	STOP		JBTN-0049PASQ	AG
	EJECT		JBTN-0049PASR	AG

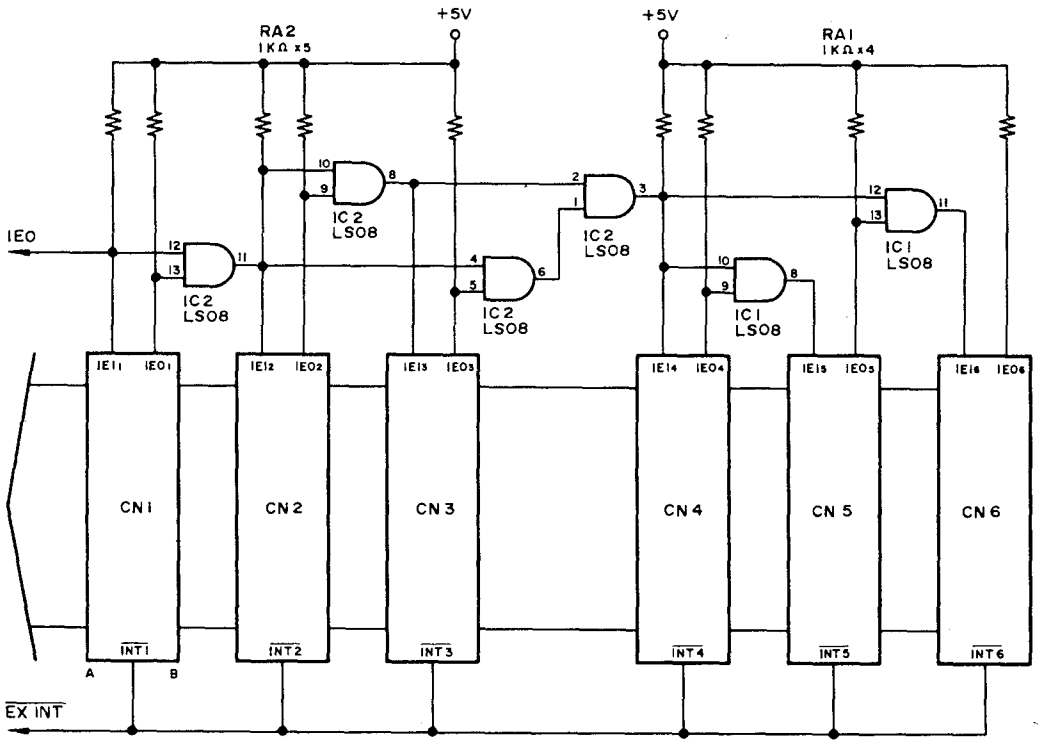
PACKING METHOD



■ Circuit Diagram

(To CPU BOARD CN4 40P)

CN7. 8		40P	
1	A15	2	A14
3	A13	4	A12
5	A11	6	A10
7	A9	8	A8
9	GND	10	A7
11	A6	12	A5
13	A4	14	A3
15	A2	16	A1
17	A0	18	GND
19	D7	20	D6
21	D5	22	D4
23	D3	24	D2
25	D1	26	D0
27	GND	28	$\overline{NMI}$
29	$\overline{EX\ WAIT}$	30	$\overline{EX\ INT}$
31	$\overline{EX\ RESET}$	32	RESET
33	IEO	34	$\overline{HALT}$
35	$\overline{MREQ}$	36	$\overline{IOREQ}$
37	$\overline{RD}$	38	$\overline{WR}$
39	$\overline{M1}$	40	BUSØ

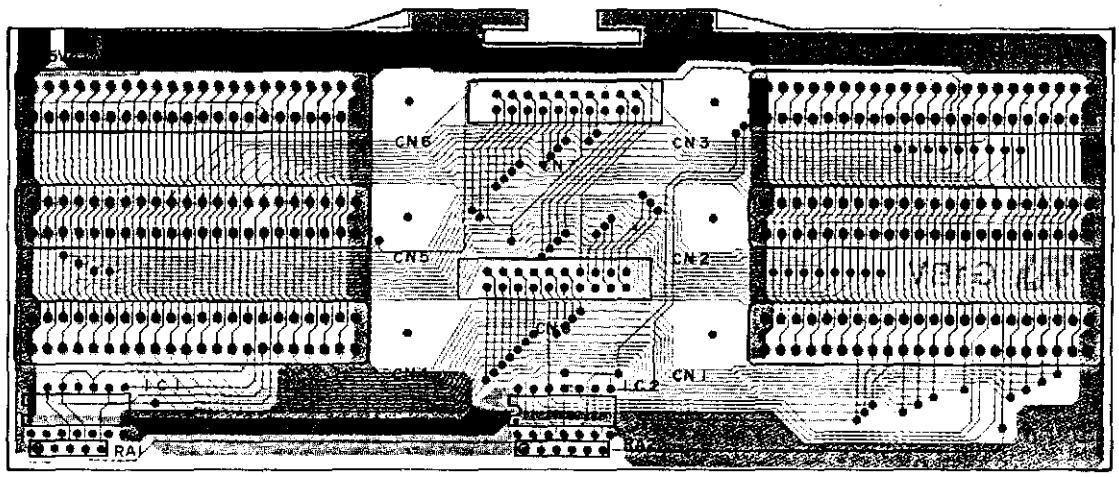


CN1 ~ CN6

A		B
+5V	1	+5V
D2	2	D3
D1	3	D4
D0	4	D5
GND	5	D6
A15	6	D7
A14	7	BUSØ
A13	8	$\overline{M1}$
A12	9	$\overline{WR}$
A11	10	$\overline{RD}$
A10	11	$\overline{IOREQ}$
A9	12	$\overline{MREQ}$
A8	13	GND
A7	14	$\overline{HALT}$
A6	15	IEI
A5	16	IEO
A4	17	RESET
A3	18	$\overline{EX\ RESET}$
A2	19	$\overline{EX\ INT}$
A1	20	$\overline{EX\ WAIT}$
A0	21	$\overline{NMI}$
GND	22	GND

A: PARTS SIDE

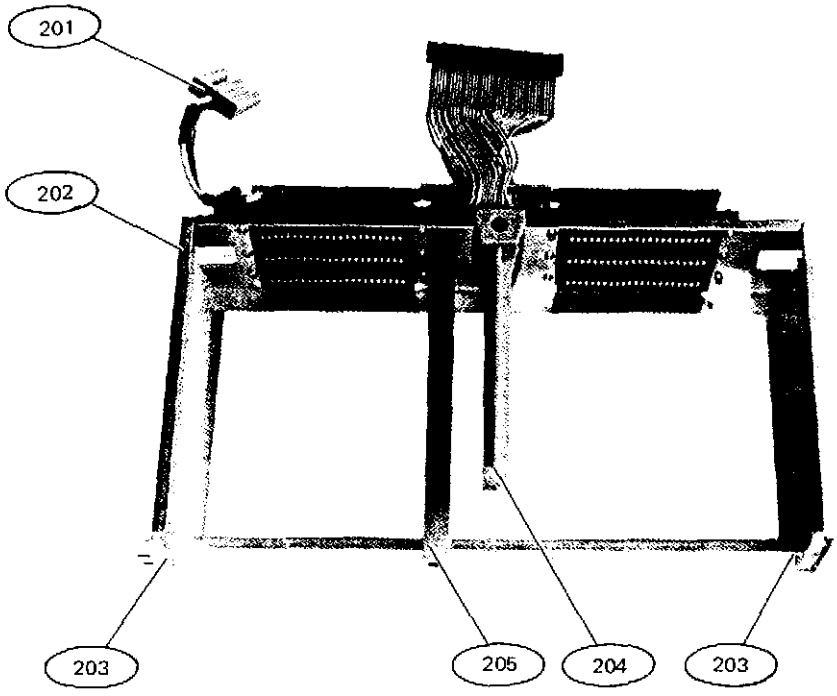
■ PWB and Disassembled Views



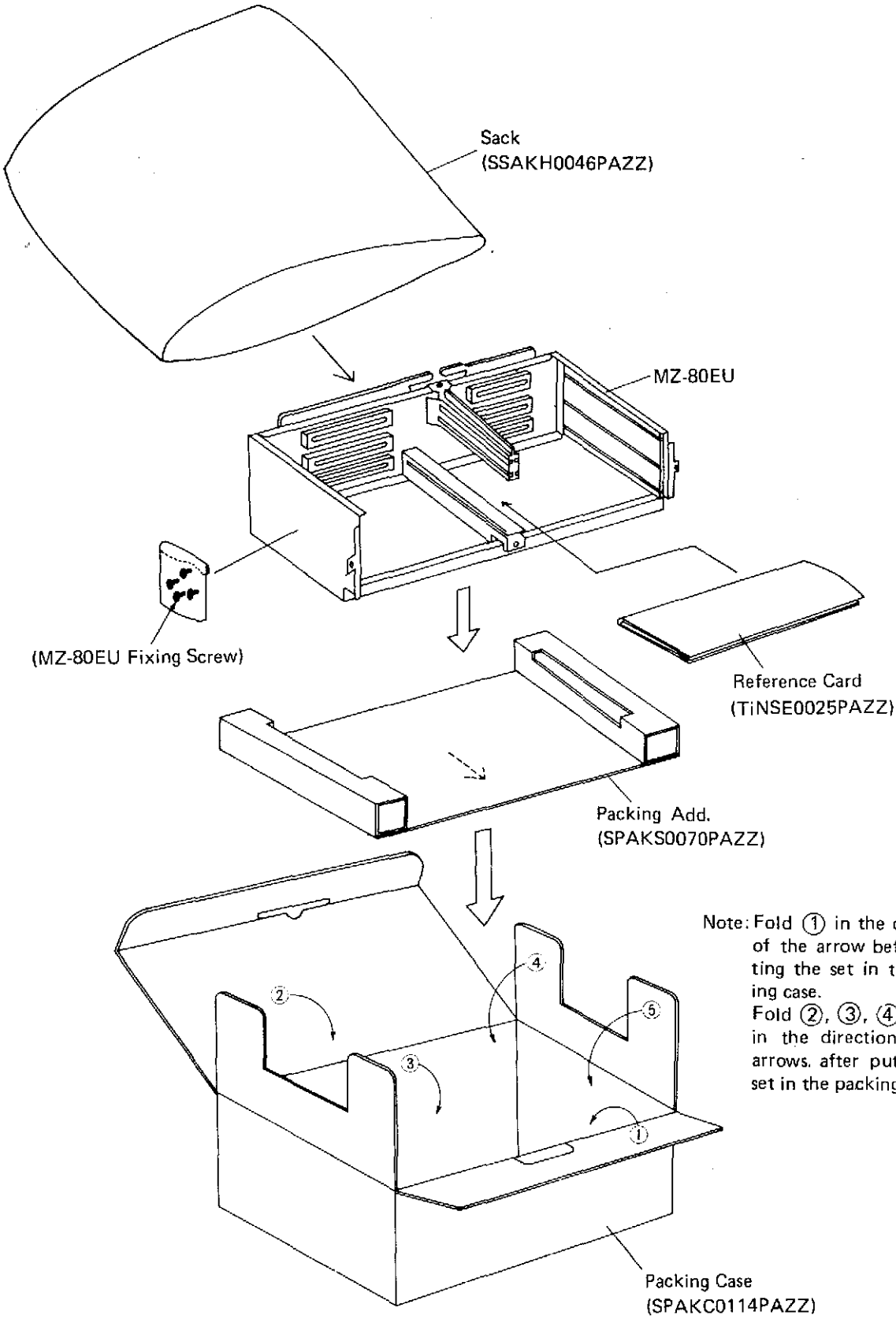
Perspective View

Parts-fitted face

Opposite side

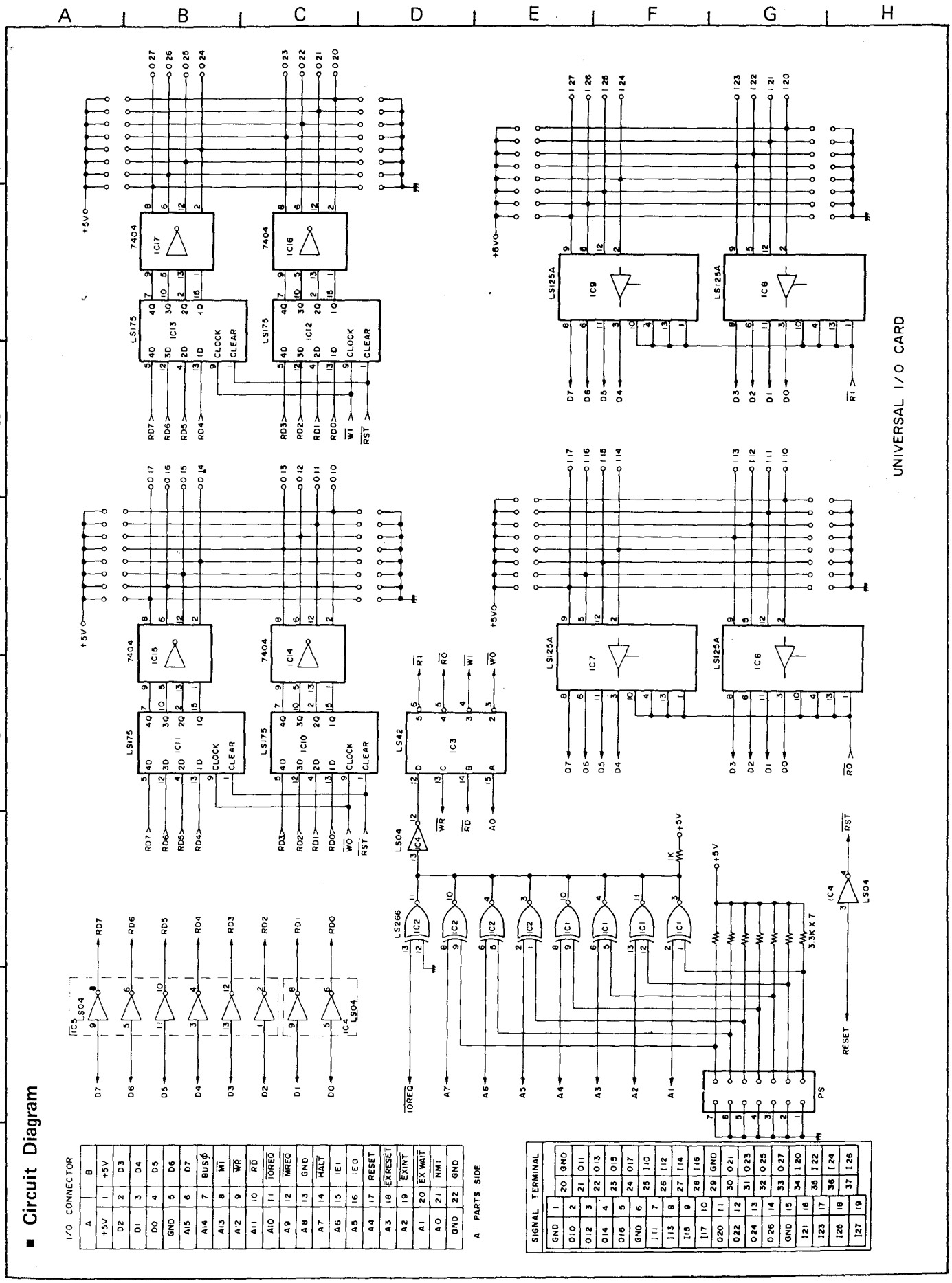


■ Packing Method



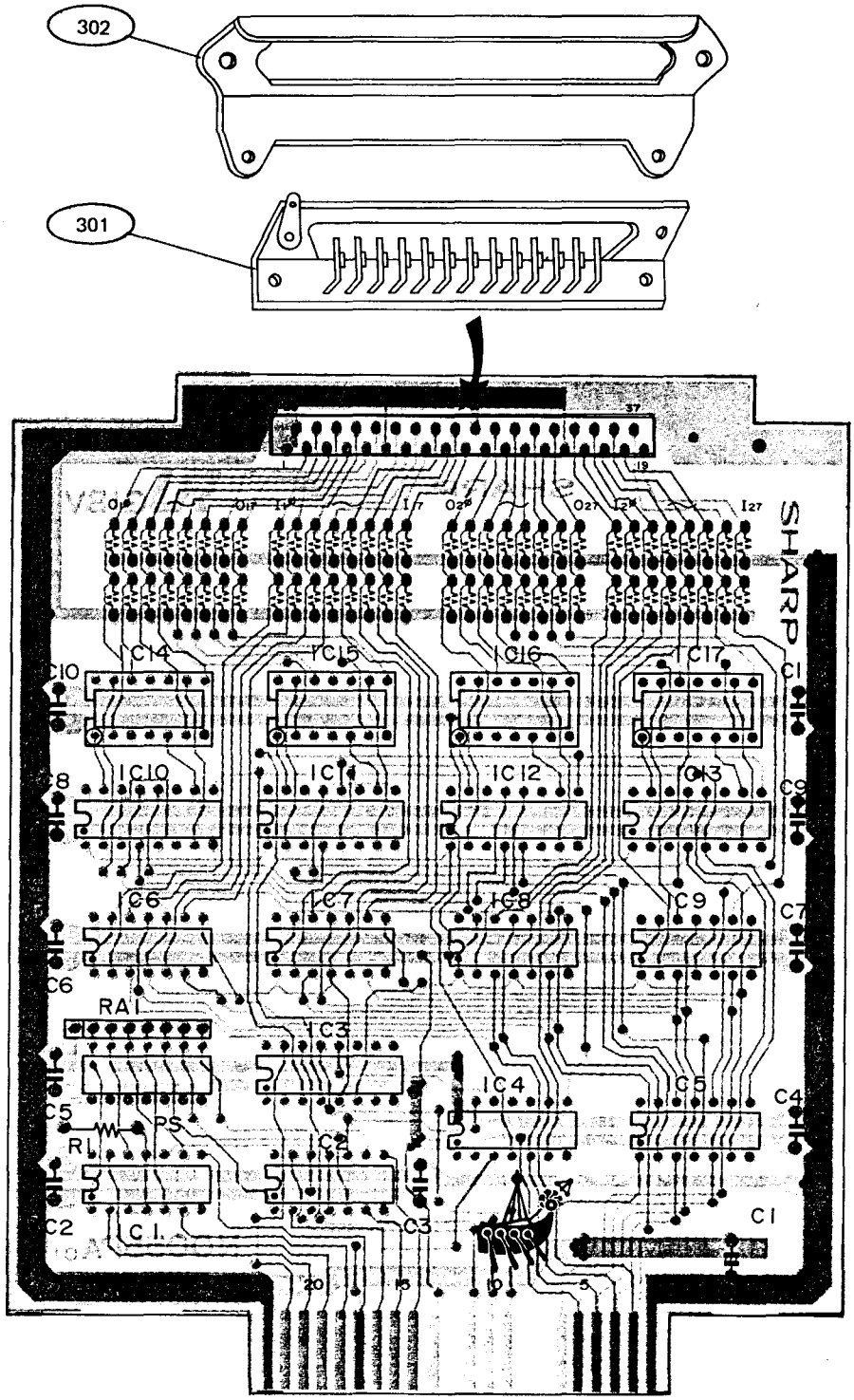
Note: Fold ① in the direction of the arrow before putting the set in the packing case.
Fold ②, ③, ④ and ⑤ in the direction of the arrows, after putting the set in the packing case.

Universal I/O Card MZ-80IO2



■ Circuit Diagram

■ PWB Section

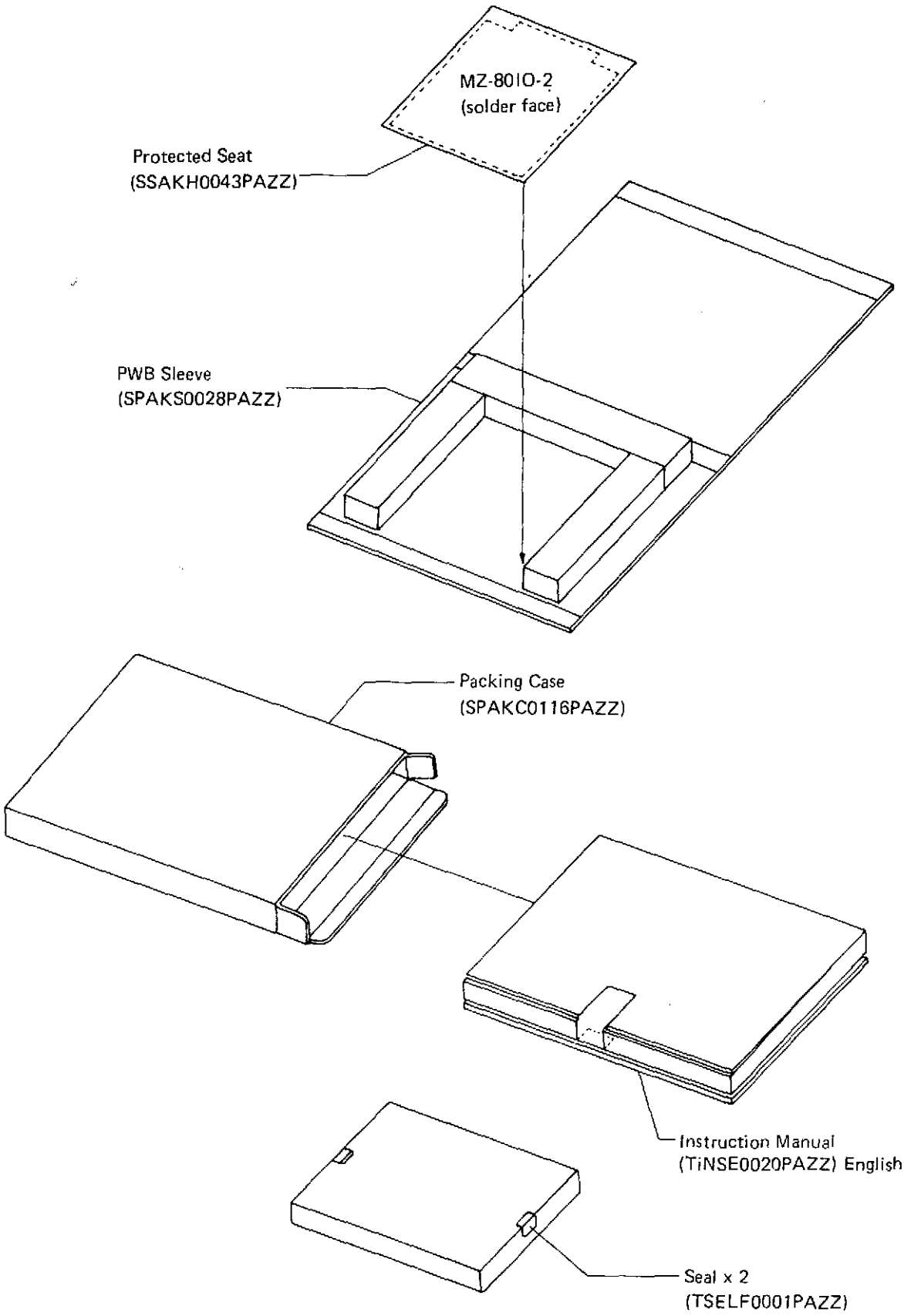


Perspective View

Parts-fitted face

Opposite Side

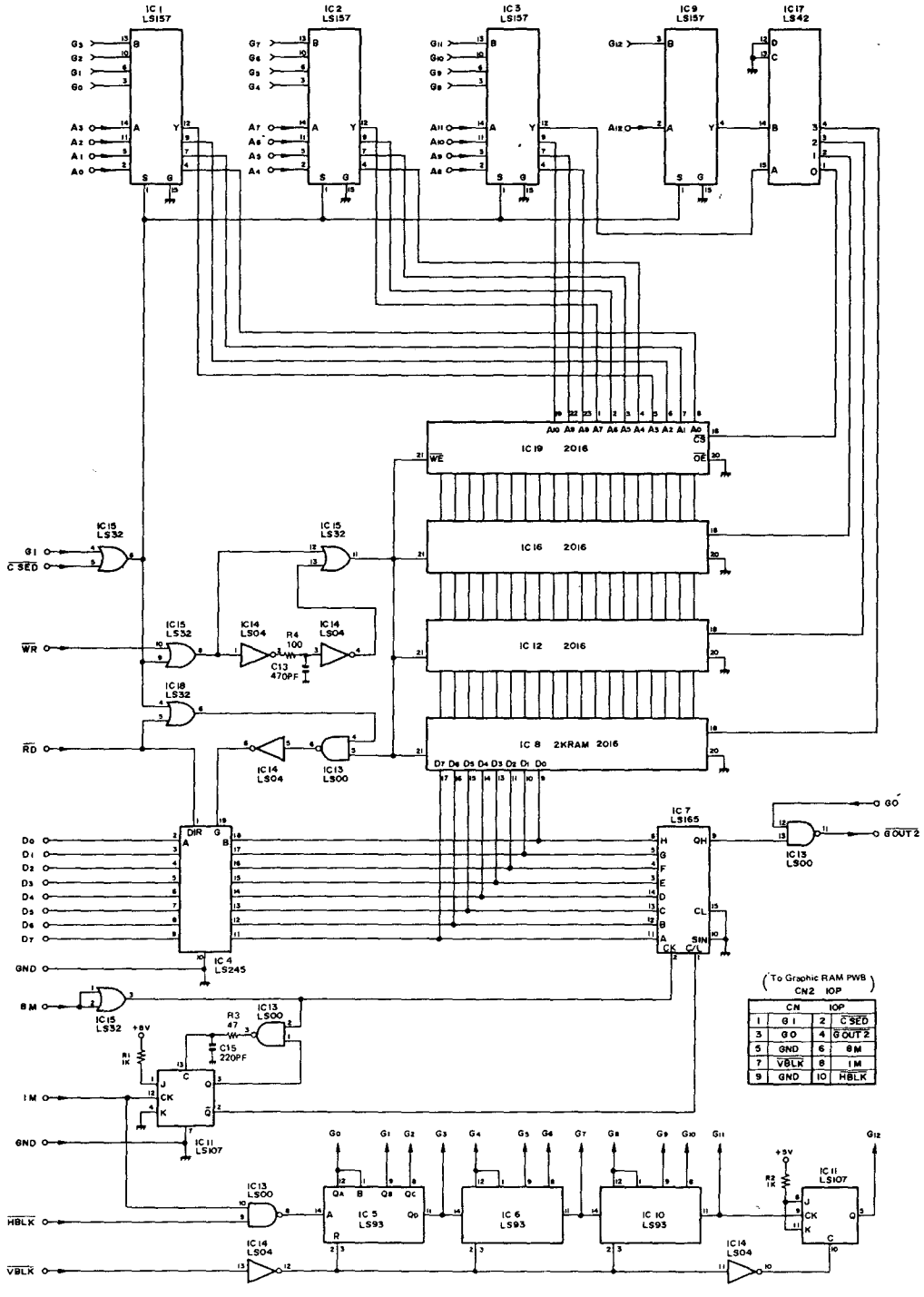
■ Packing Method



A B C D E F G H

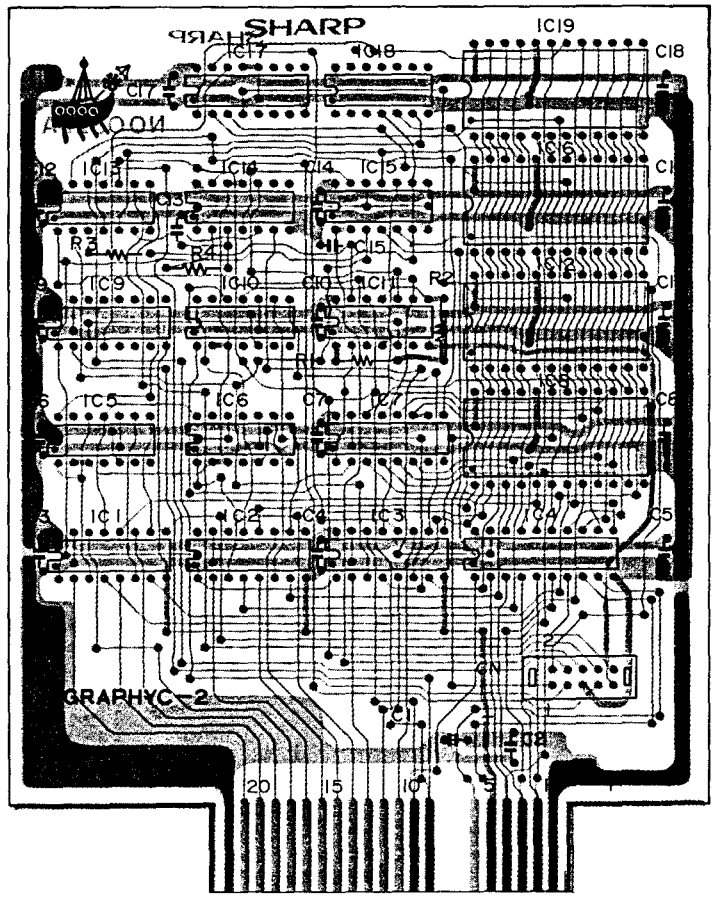
1 2 3 4 5 6 7 8

■ Circuit Diagram



MZ-80GMK

■ **PWB Section**

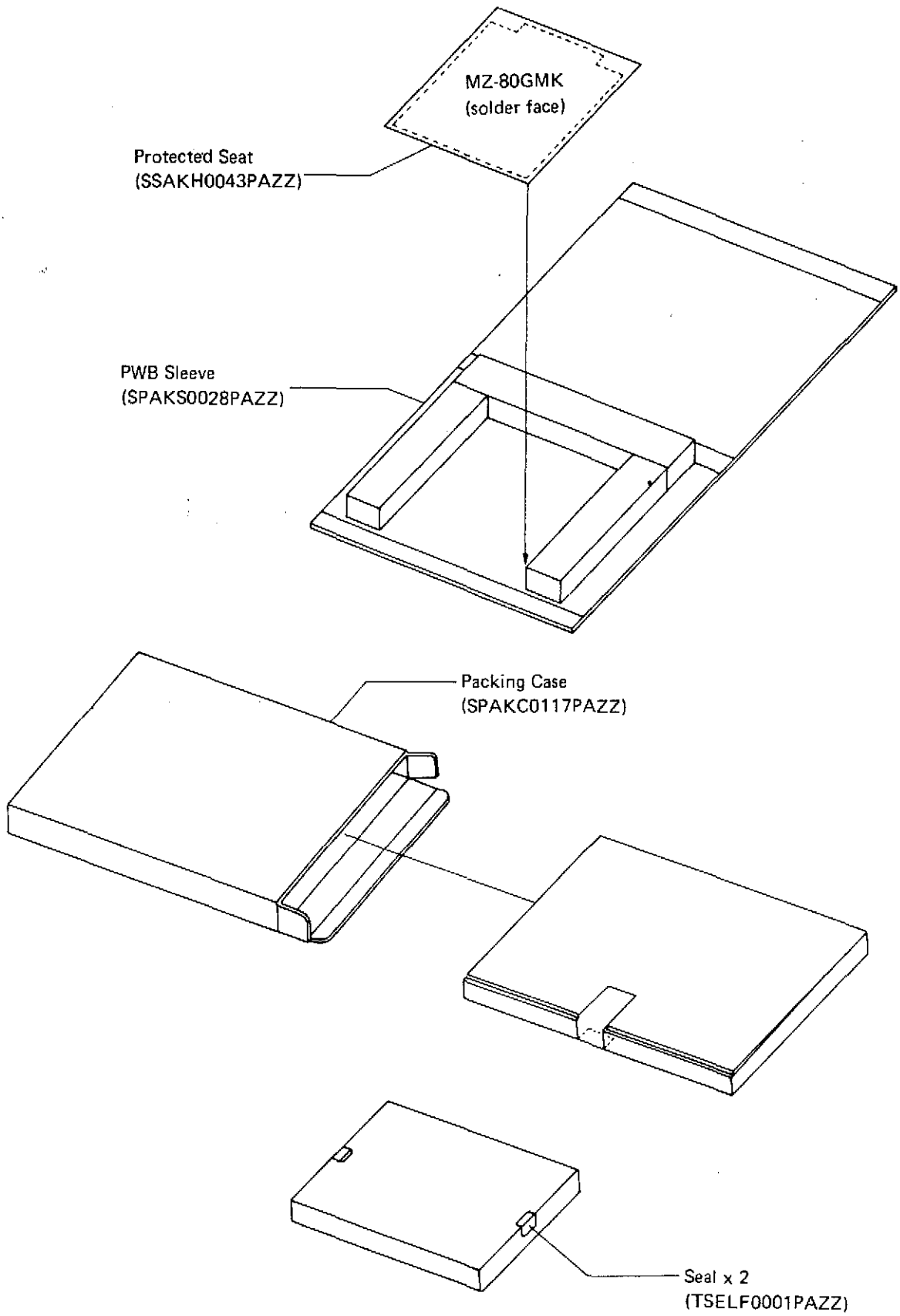


Perspective View

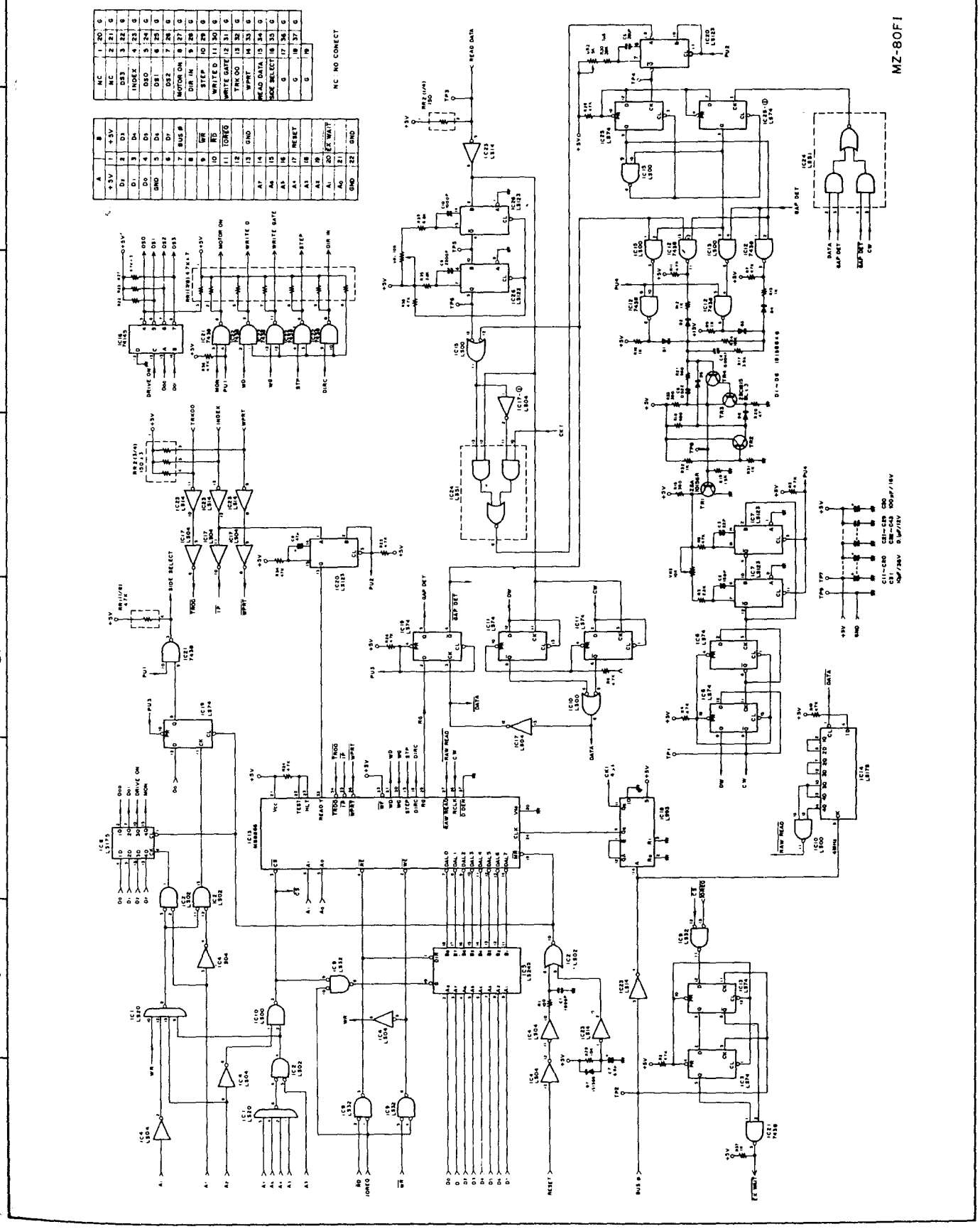
Parts-fitted face

Opposite Side

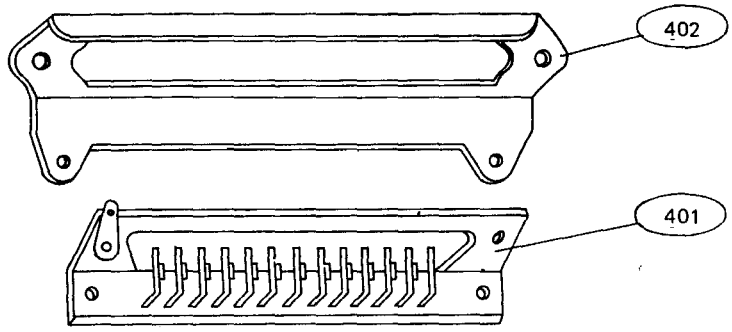
■ Packing Method

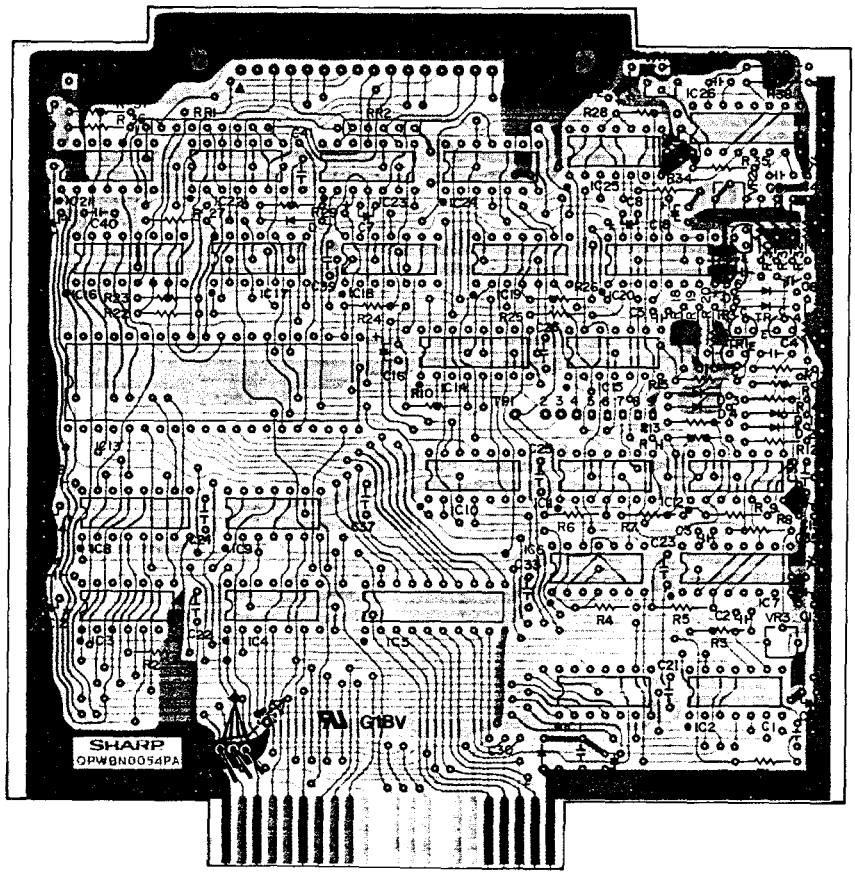


■ Circuit Diagram



■ PWB Section





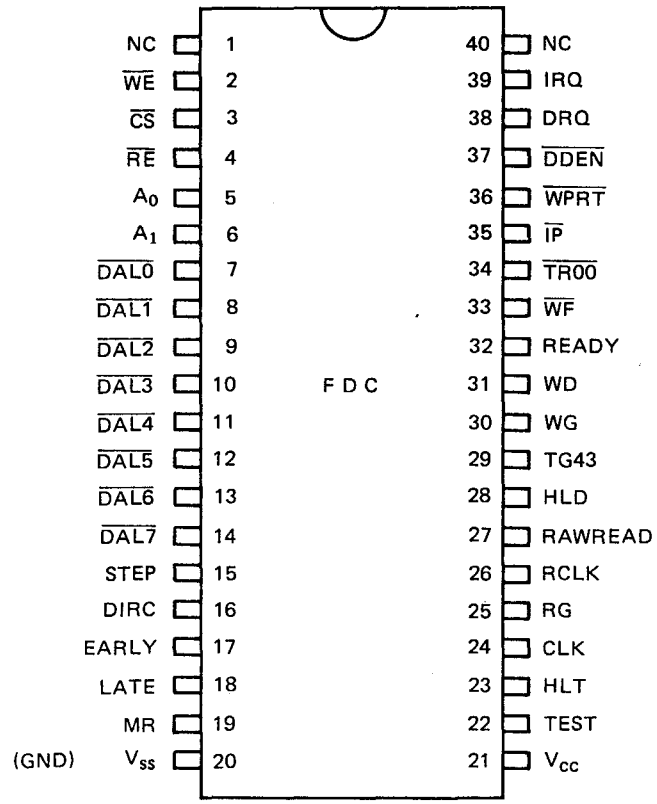
Perspective View

Parts-fitted face

Opposite Side

■ Explanation of Floppy Controller MB8866

Terminal Connection Chart



Terminal name and explanation of functions

Terminal No.	Terminal Name	Symbol	I/O	Explanation of Functions
20	POWER SUPPLY	Vss	I	Ground
21		Vcc	I	+5V power terminal
19	MASTER RESET	$\overline{MR}$	I	With $\overline{MR}$ = 0, MASTER RESET starts, STR7 bite ( )0 is reset and becomes SCR $(01)_H$, CR $(03)_H$. The restore command is activated with a rise from MR low to high.
	Computer Interface			
2	WRITE ENABLE	$\overline{WE}$	I	It is the strobe input terminal only for data write-in to the inner register. With $\overline{CS}$ = 0 and $\overline{WE}$ = 0, write-in is possible.
3	CHIP SELECT	$\overline{CS}$	I	It is the chip selection signal. With $\overline{CS}$ = 0, the chip is selected and sending and receiving of data with the computer is possible.
4	READ ENABLE	$\overline{RE}$	I	It is the strobe input terminal for read-out of data in the inner register. With CS = 0 and $\overline{RE}$ = 0, read-out is possible.
5 6	REGISTER SELECT LINE	A0 A1	I	It is the input terminal for selection of the inner register. Selected registers are CR, STR, TR, SCR and DR.
7 ~ 14	DATA ACCESS LINE	$\overline{DAL0}$ ~ $\overline{DAL7}$	I/O	It is an 8-bite, two-way data input terminal. When $\overline{CS}$ = 1, it is high impedance. Signal polarity is reverse. (Negative logic)
24	CLOCK	CLK	I	It is the input terminal for the 2MHz standard clock. In the case of a mini floppy disk, it is 1MHz.

Terminal No.	Terminal Name	Symbol	I/O	Explanation of Functions
38	DATA REQUEST	DRQ	O	It is the open drain output and, when DRQ = 1, it indicates byte data accumulated in DR in case of read-out. In case of write-in, DR is empty and it indicates a demand for data. DRQ is reset through the function of write-in or read-out. Connect a 10KΩ blew up resistance.
39	INTERRUPT REQUEST	IRQ	O	It is the open drain output and with generation of command end, stop or interruption of type IV command, IRQ = 1. It is reset with the write-in of the following command or read-out of STR. Blew up resistance is 10KΩ.
	Floppy Interface			
15	STEP	STEP	O	The step output generates a step pulse for moving the head. There is 1 pulse for 1 step.
16	DIRECTION	DIRC	O	It is the terminal showing the direction of head movement. With DIRC = 0, the head moves outward and with DIRC - 1 the head moves inward.
17	EARLY	EARLY	O	It is the output terminal for write preconvention and when EARLY = 1 it indicates that serial data output from WD should be shifted faster.
18	LATE	LATE	O	It is the output terminal for write preconvention and when LATE = 1 it indicates that serial data output from WD should be shifted slower.
22	TEST	$\overline{\text{TEST}}$	I	Input terminal used only for chip testing. (When $\overline{\text{TEST}}$ = 0, delay due to the inner timer is ignored) The user should connect this terminal to 5V or leave it open.
23	HEAD LOAD TIMING	HLT	I	It is the settle input signal for the head after a head load command (HLD = 1). It engages when HLT = 1.
25	READ GATE	RG	O	With $\overline{\text{RG}}$ = 1, it informs the external data separator of a check of the field only when FDC is 0 (in case of FM) or of the field only when it is 0 or 1 (in case of MFM). It is the signal for taking this simultaneously.
26	READ CLOCK	RCLK	I	This is a signal for making a window in the data. It is developed in response to external data flow and is input on the FDC side. Related to $\overline{\text{RAW READ}}$, rising and falling is important but level (high or low) is not important.
27	RAW READ	$\overline{\text{RAW READ}}$	I	This is raw data directly input from the disk drive. It is used when receiving a signal and data is indicated by a negative pulse.
28	HEAD LOAD	HLD	O	It is the output terminal for controlling whether the head is pressed down to the media or not. The head is pressed down to the media when HLD = 1. The head is separated when HLD = 0.
29	TRACK GREATER THAN 43	TG43	O	It indicates that the head is positioned from track 44 to 76 when TG43 = 1. It indicates that it is from track 00 to track 43 when TG43 = 0. This output signal is effective only at the time of read/write commands.
30	WRITE GATE	WG	O	Output indicating that data is being written into the disk. It indicates data write-in when WG = 1.
31	WRITE DATA	WD	O	It is an output for read-in data to the disk. Pulse width for MFM is 250ns and for FM it is 500ns. Both data and address mark are output together at the same time in the case of both FM and MFM.
32	READY	READY	I	It indicates that the disk drive is ready for operation when READY = 1 and read/write operations are performed. When READY = 0, it indicates that the disk drive is not ready for operation, read/write operations are not performed and IRQ = 1. Namely, seek is carried out without reference to the READY condition. It indicates the polarity of the READY input is inverted to STR 7.
33	WRITE FAULT	$\overline{\text{WF}}$	I	It is the input for trouble checks during write-in to the disk. It indicates an error during write-in when $\overline{\text{WF}}$ = 0. The write command is stopped and the WRITE FAULT status bite set.
34	TRACK 00	$\overline{\text{TR00}}$	I	Input indicating whether the head position is in track 00 or not. It indicates track 00 is being checked when $\overline{\text{TR00}}$ = 0.
35	INDEX PULSE	$\overline{\text{IP}}$	I	Input indicating that the index pulse of the disk is being checked. It indicates the index pulse is being checked when $\overline{\text{IP}}$ = 0.
36	WRITE PROTECT	$\overline{\text{WRPT}}$	I	Input indicating that write-in to the disk is forbidden. When a write command is started, generally $\overline{\text{WPRT}}$ is sampled and if $\overline{\text{WPRT}}$ = 0 the command is stopped and WRITE PROTECT status bite is set.
37	DOUBLE DENSITY	$\overline{\text{DDEN}}$	I	This input is for selection of single or double density operation. Double density is selected when $\overline{\text{DDEN}}$ = 0 and single when $\overline{\text{DDEN}}$ = 1.
40 1	NON CONNECTION	NC		

■ Adjustment

Adjust and check the following when exchanging IC7, 20, 26 (74LS123N), TR1 and their peripherals.

When adjusting, add power voltage 5V to TP7 (+5V) and TP9 (0V) and apply 4MHz clock (duty ratio 50%, TTL level) to TP2.

VR1 Adjustment

As shown in Fig. 1, apply a negative pulse with a period of more than 30μs~50μs to TP3 (READ DATA). At this time, adjust VR1 so that the width of the negative pulse appearing at TP5 is 5μs.

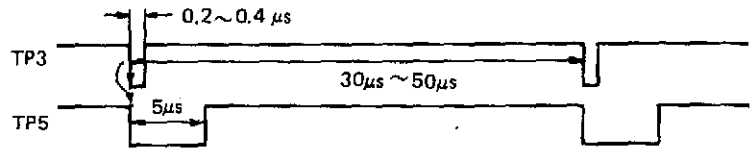


Fig. 1

VR2 Adjustment

Apply a negative pulse with a period of 5μs to TP3 (READ DATA). At this time, adjust VR2 so that the width of the negative pulse appearing at TP4 is 1μs.

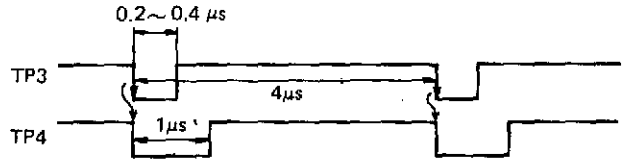


Fig. 2

VR3 Adjustment

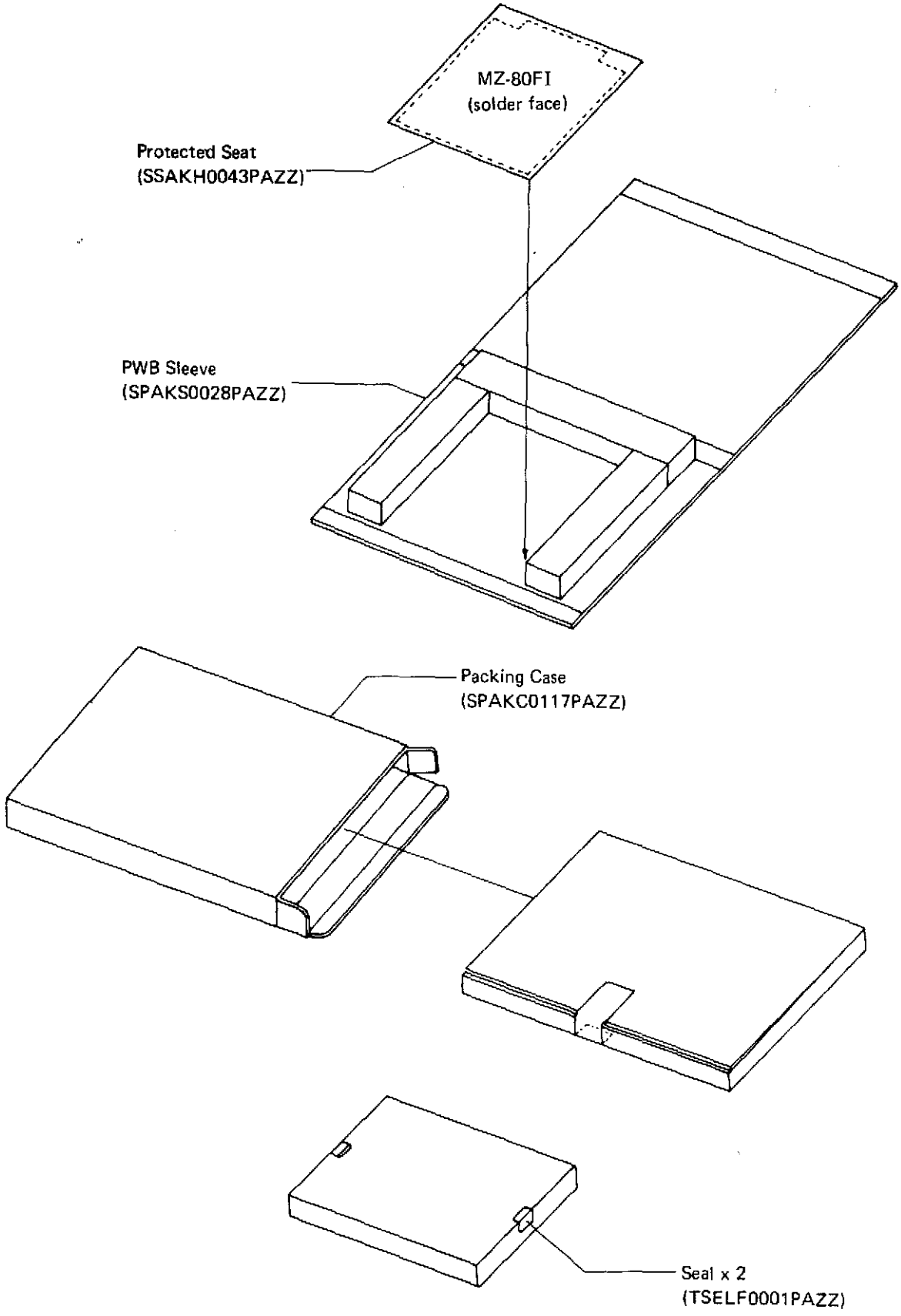
Apply a negative pulse with a period of 4μs to TP3. At this time, adjust VR3 so that the voltage of TP8 is 2.65V. After adjusting, change the period of the negative pulse added to TP3 and check that the VCO output is within a periodic range of 4μs ±1μs.

Adjustment range

The following shows the adjustment range for each adjustment.

- VR1 adjustment 5μs ±0.2μs
- VR2 adjustment 1μs ±0.04μs
- VR3 adjustment 2.65V ±0.05V

■ Packing Method



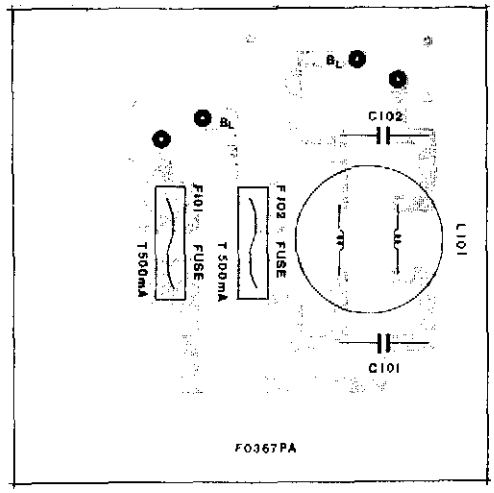
Floppy Disk MZ-80FB
Expansion Floppy Disk MZ-80FBK

- For the system of MZ-80B, MZ-80FB/MZ-80FBK mechanically differ from MZ-80FD/MZ-80FDK (for the system of MZ-80K) in signal connecter on the rear side and power supply circuit. However, the disk drive are the same as those of the MZ-80FD/MZ-80FDK in circuit design.
  Use the service manual of the MZ-80FD/MZ-80FDK for service.

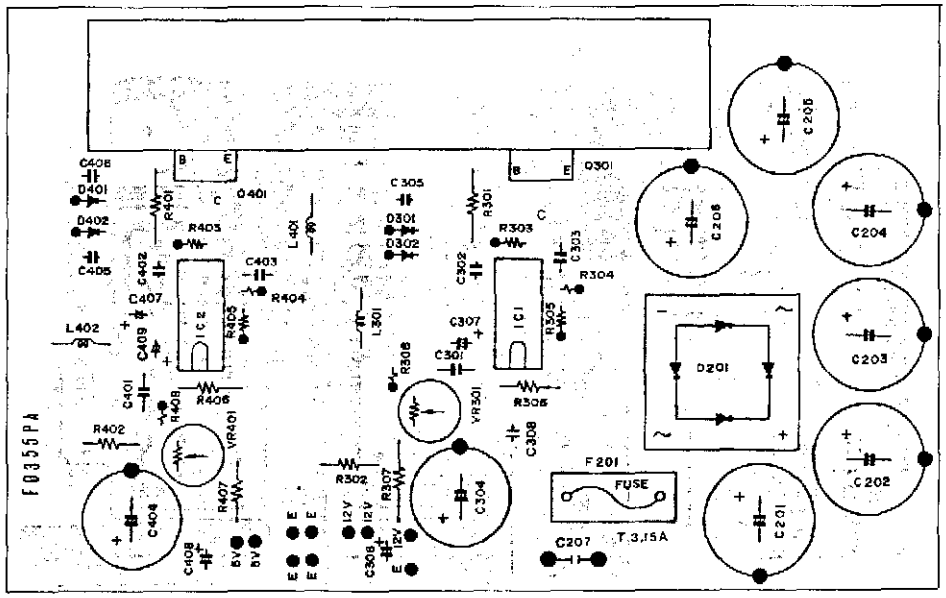
A B C D E F G H

1 2 3 4 5

■ Power Supply Circuit (PWB Section)

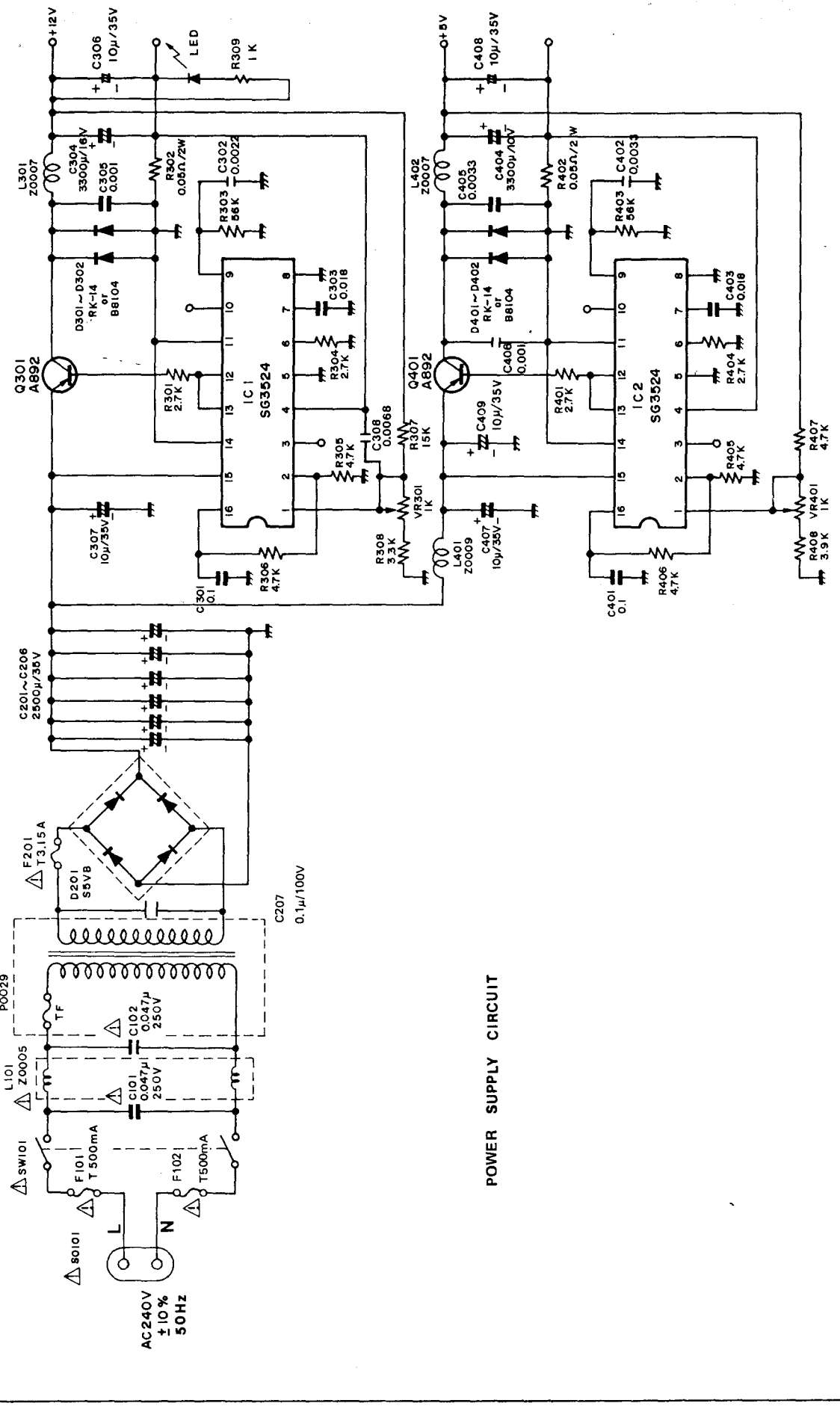


Primary



Secondary

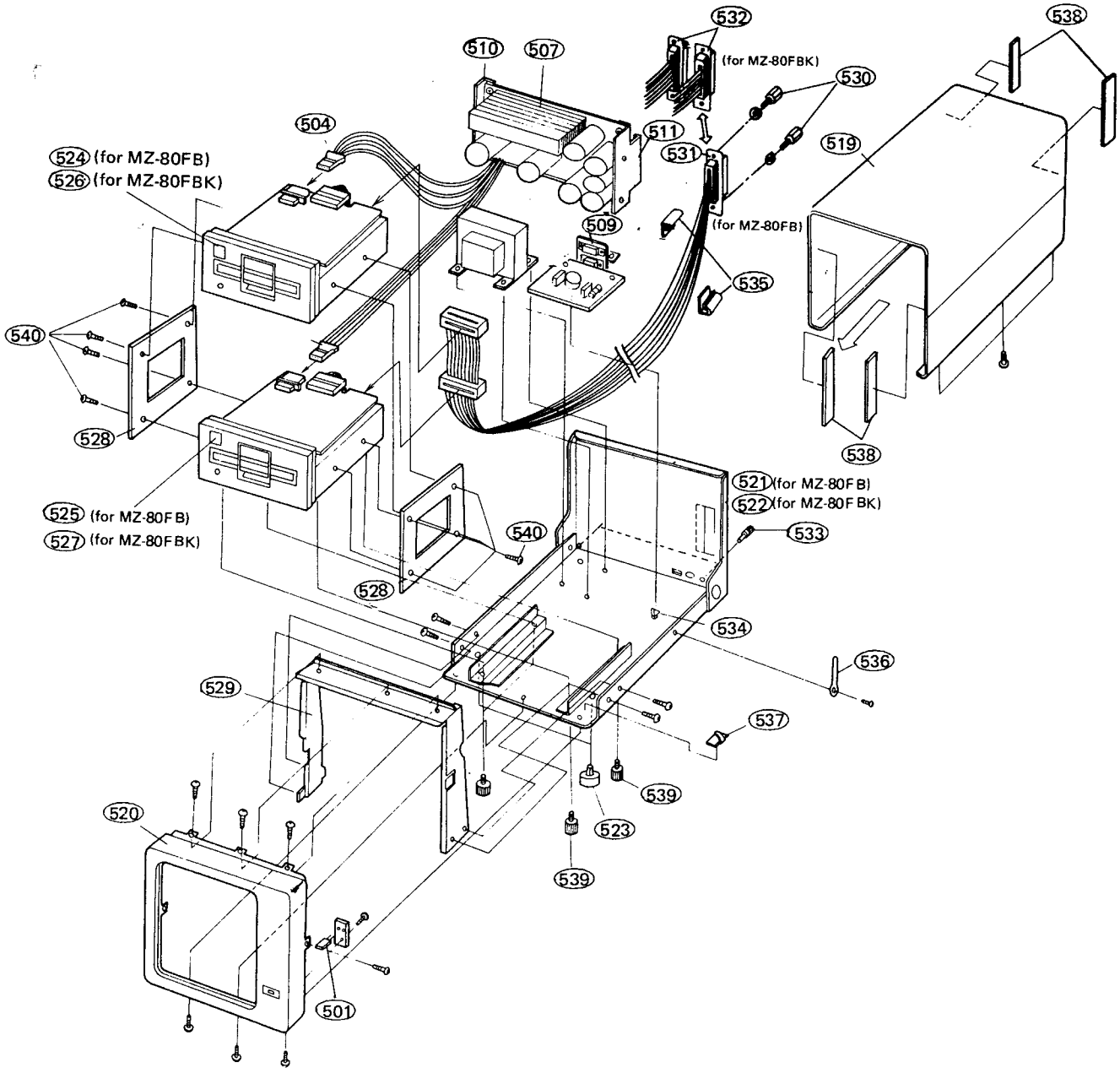
■ Power Supply Circuit



POWER SUPPLY CIRCUIT

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

■ Disassembled Views



REPLACEMENT PARTS LIST

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.
1. MODEL NAME 2. REF.NO.
3. PART NO. 4. DESCRIPTION

NOTES: Be sure to use regular parts for securing the safety and reliability of the set. Parts marked with "⚠" (⚠) are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

MODEL MZ-80B

REF. NO.	PART NO.	DESCRIPTION	CODE
		***** CPU BOARD UNIT SECTION*****	
	DCPU-0009PAZZ	Assembled CPU Board Unit (Not replacement item)	—
		INTEGRATED CIRCUITS	
ROM	DPROM0005PAZZ	IPL MB 8516 (2K ROM)	BM
CG-ROM	DPROM0006PAZZ	TMM323D-1 (2K ROM)	BK
RAM	RH-iX0145PAZZ	D-RAM 4116	BE
IC1, IC33	RH-iX0070PAZZ	SN74LS00N	AE
IC2	RH-iX0240PAZZ	Gate array (14297)	BD
IC3	RH-iX0228PAZZ	LH0080A (CPU)	BG
IC4	RH-iX0104PAZZ	SN74LS42N	AH
IC5, IC18	RH-iX0101PAZZ	SN74S04N	AG
IC6, IC7, IC10, IC16	RH-iX0123PAZZ	SN74LS244N	AS
IC9, IC21	RH-iX0040PAZZ	SN74121N	AG
IC11, IC22	RH-iX0124PAZZ	SN74LS245N	AR
IC12, IC28, IC32, IC40	RH-iX0074PAZZ	SN74LS04N	AE
IC13, IC20	RH-iX0078PAZZ	SN74LS32N	AF
IC14, IC15	RH-iX0148PAZZ	SN74S157N	AQ
IC17, IC35, IC46	RH-iX0075PAZZ	SN74LS08N	AE
IC19	RH-iX0146PAZZ	D8253C	BC
IC23	RH-iX0136PAZZ	D8255C	BA
IC24	RH-iX0229PAZZ	LH0081A (PIO)	BE
IC25	RH-iX0045PAZZ	SN74154N	AN
IC26	RH-iX0102PAZZ	SN74LS14N	AM
IC27, IC29, IC30	RH-iX0252PAZZ	SN74LS09N	AE
IC31	RH-iX0038PAZZ	SN7406N	AG
IC34	RH-iX0079PAZZ	SN74LS74AN	AG
IC36	RH-iX0247PAZZ	SN74LS86N	AG
IC37, IC38, IC39	RH-iX0083PAZZ	SN74LS157N	AH
IC41	RH-iX0256PAZZ	S-RAM, TMM2016P-1	BP
IC42	RH-iX0241PAZZ	Gate Array (14298)	BD
IC43	RH-iX0242PAZZ	Gate Array (14299)	BD
IC45	RH-iX0129PAZZ	SN74LS165N	AQ

REF. NO.	PART NO.	DESCRIPTION	CODE
		TRANSISTORS AND DIODES	
Q1, Q2, Q3	VS2SC373-G/-1	2SC373G	AC
D1	VHD1S1555//1A	1S1555	AA
		RESISTORS	
R10, R12, R13, R27, R34, R36, R37, R38	VRD-SC2EF102J	1K ohm 1/4W	AA
R14, R18	VRD-SC2EF331J	330 ohm 1/4W	AA
R8	VRD-SC2EF222J	2.2K ohm 1/4W	AA
R11, R40	VRD-SC2EF472J	4.7K ohm 1/4W	AA
R15	VRD-SC2EF101J	100 ohm 1/4W	AA
R17, R21, R23, R25, R32	VRD-SC2EF221J	220 ohm 1/4W	AA
R16, R35	VRD-SC2EF271J	270 ohm 1/4W	AA
R19, R20, R22, R24, R26, R28 ~ R31, R39	VRD-SC2EF103J	10K ohm 1/4W	AA
R33	VRD-SC2EF822J	8.2K ohm 1/4W	AA
RA5	RMPTC1014PAZZ	Resistor Array 10K ohm x 7	AD
RA6	RMPTC1004PAZZ	Resistor Array 10K ohm x 8	AD

MODEL MZ-80B PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	CODE
CAPACITORS			
C3, C5, C7, C10, C12, C14, C16, C18, C23, C25, C27, C29	RC-KZ0001PAZZ	0.1MFD, 50V	AE
C2, C9, C11, C20, C22, C30	VCSACU1VE104M	0.1MFD, 35V Tantalum	AE
C1, C4, C6, C8, C13, C15, C17, C19, C21, C26, C28, C31 ~ C38, C46 ~ C49, C54, C56, C58 ~ C65, C69, C70, C74	VCTYPU1BD104Z	0.1MFD, 12V, Ceramic	AB
C39	VCQYKU1HM332K	0.0033MFD, 50V, Film	AA
C40 ~ C43, C45, C55, C57	VCEAAU1CW106Y	10MFD, 16V, Aluminum	AB
C50 ~ C53	VCEAAU1CW107Y	100MFD, 16V, Aluminum	AB
C66	VCCSPR1H6471J	470PF, 50V, Ceramic	AA
C68	VCCSPR1H6331J	330PF, 50V, Ceramic	AA
C71	VCQYKU1HM102K	0.001MFD, 50V, Film	AA
MISCELLANEOUS			
X'TAL	RCRSA0015PAZZ	Crystal, 16MHz	AM

REF. NO.	PART NO.	DESCRIPTION	CODE
	QSOCZ0010PAZZ	24-Pin IC Socket	AF
	QSOCZ0011PAZZ	28-Pin IC Socket	AN
	QSOCZ0012PAZZ	40-Pin IC Socket	AH
	QSOCZ0022PAZZ	16-Pin IC Socket	AE
CN1, CN2	QPLGZ0065PAZZ	20-Pin Terminal (for RAM Option)	AM
CN3, CN9, CN10	QPLGZ0020PAZZ	3-Pin Terminal	AD
CN4, CN5	QPLGZ0067PAZZ	40-Pin Terminal (for Bus lines)	AP
CN6	QPLGZ0048PAZZ	12-Pin Terminal (for Cassette)	AE
CN7	QPLGN0303CEZZ	3-Pin Terminal	AB
CN8	QPLGN0403CEZZ	4-Pin Terminal (for Power supply)	AB
CN11	QPLGZ0066PAZZ	20-Pin Terminal (for Keyboard)	AG
CN12	QPLGZ0057PAZZ	4-Pin Terminal (for LED)	AC
CN13	QPLGZ0068PAZZ	10-Pin Terminal (for Graphic)	AH
CN14	QPLGZ0069PAZZ	6-Pin Terminal (for Monitor TV)	AD
CN15	QPLGZ0078PAZZ	14-Pin Terminal	AH

*** MONITOR TV & CASSETTE TAPE RECORDER SECTION ***

*MONITOR TV PWB

DPWB-0221PAZZ	Assembled Monitor TV PWB Unit (Not replacement item)	—

INTEGRATED CIRCUITS

i2001	RH-iX0015TAZZ	μPC1031H, Vertical deflection	AN
i2002	RH-iX0243PAZZ	LA4200 Sound Amp.	AK

TRANSISTORS AND DIODES

Q2001, Q2005, Q2007	VS2SC1213-C1A	2SC1213	AC
Q2002	VS2SC1514-/1E	2SC1514	AF
Q2003, Q2004	VS2SA673-C/1E	2SA673	AC
Q2006	VS2SC681A-R1A	2SC681A-R	AM
D2001	VHD02Z7R5A//A	7.5V Zener	AC
D2002, D2006	RH-DX0039TAZZ	S1RECT208	AC
D2003, D2004, D2005	VHD1N34A///-1	1N-34A	AB
D2007	RH-DX0062CEZZ	RH1	AD
D2008, D2011, D2012	RH-DX0043TAZZ	SiR60	AC
D2009, D2010	VHD05Z20L//1A	20V Zener	AC
D2013	VHD1S1555//1A	1S1555	AA

MODEL MZ-80B PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	CODE
RESISTORS			
R2001	VRD-SC2EF470J	47 ohm 1/4W	AA
R2002	RVR-M7003TAZZ	Variable Resistor 500 ohm	AC
R2003, R2004, R2020	VRD-SC2EF153J	15K ohm 1/4W	AA
R2005	VRD-SC2EF121J	120 ohm 1/4W	AA
R2006	VRC-MT2HG122J	1.2K ohm 1/2W	AA
R2007	RVR-M0036PAZZ	Variable Resistor 500K ohm	AC
R2008	RVR-B4010PAZZ	Variable Resistor 250K ohm	AD
R2009	VRD-SC2EF224J	220K ohm 1/4W	AA
R2010	VRD-SC2EF472J	4.7K ohm 1/4W	AA
R2011, R2044	VRD-SC2EF473J	47K ohm 1/4W	AA
R2012, R2027, R2028, R2038	VRD-SC2EF102J	1K ohm 1/4W	AA
R2013	VRC-MT2HG3R3J	3.3 ohm 1/2W	AA
R2014	VRD-SC2EF273J	27K ohm 1/4W	AA
R2015	RVR-M7013TAZZ	Variable Resistor 50K ohm	AC
R2016	VRD-SC2EF122J	1.2K ohm 1/4W	AA
R2017, R2018	VRC-MT2HG1R5J	1.5 ohm 1/2W	AA
R2019	RVR-M7004TAZZ	Variable Resistor 300 ohm	AC
R2021, R2026, R2053	VRD-SC2EF331J	330 ohm 1/4W	AA
R2022	VRD-SC2EF123J	12K ohm 1/4W	AA
R2023	VRD-SC2EF272J	2.7K ohm 1/4W	AA
R2024	VRD-SC2EF103J	10K ohm 1/4W	AA
R2025	RVR-M7052TAZZ	Variable Resistor 20K ohm	AC
R2029	VRD-SC2EF821J	820 ohm 1/4W	AA
R2030	VRD-SC2EF822J	8.2K ohm 1/4W	AA
R2031, R2032	VRD-SC2EF682J	6.8K ohm 1/4W	AA
R2033, R2037	VRD-SC2EF392J	3.9K ohm 1/4W	AA
R2034	VRD-SC2EF330J	33 ohm 1/4W	AA
R2035, R2036	VRD-SC2EF332J	3.3K ohm 1/4W	AA
R2039	VRD-ST2EF680J	68 ohm 1/4W	AA
R2040	VRD-SC2EF221J	220 ohm 1/4W	AA
R2041	VRC-MT2HG560J	56 ohm 1/2W	AA
R2042, R2043	VRC-MT2HG330J	33 ohm 1/2W	AA
R2045	VRD-SC2EF154J	150K ohm 1/4W	AA
R2046	VRD-SC2EF471J	470 ohm 1/4W	AA
R2047	RVR-B4009PAZZ	Variable Resistor 1M ohm	AD
R2050	RVR-A0003PAZZ	Variable Resistor 10K ohm	AD
R2051	VRD-ST2EF120J	12 ohm 1/4W	AA
R2052, R2054	VRD-SC2EF104J	100K ohm 1/4W	AA
R2055	VRS-PU3DB222J	2.2K ohm 2W	AA
R2056	VRD-SC2EF101J	100 ohm 1/4W	AA
R2057	VRD-ST2EF104J	100K ohm 1/4W	AA
R2060	VRD-ST2EF273J	27K ohm 1/4W	AA
CAPACITORS			
C2001, C2039, C2040	VCEAAU1HW476Y	47MFD, 50V, Aluminum	AC
C2002	VCCSPR1H6151J	150PF, 50V, Ceramic	AA
C2003	VCEAAU2EW106Y	10MFD, 250V, Aluminum	AD
C2004	VCEAAU1CW478M	4,700MFD, 16V, Aluminum	AH
C2005, C2045	VCEAAU1CW108M	1,000MFD, 16V, Aluminum	AD
C2006, C2031	VCQYKU1HM333K	0.033MFD, 50V, Film	AB
C2007, C2013	VCEAAU1EW475A	4.7MFD, 25V, Aluminum	AB
C2008	VCEAAU1AW227Y	220 MFD, 10V, Aluminum	AB
C2009	VCEAAU1CW226Y	22MFD, 16V, Aluminum	AB
C2010	VCSACU1VE105K	1MFD, 35V, Tantalum	AC
C2011, C2012	VCQYKU1HM332K	0.0033MFD, 50V, Film	AA
C2014	RC-EZ0029TAZZ	22MFD, 16V, Aluminum	AC
C2015	VCEABA1CW226M	22MFD, 16V, Aluminum	AC
C2016	VCEAAU1CW228M	2,200MFD, 16V, Aluminum	AF
C2017	RC-EZ0027TAZZ	10MFD, 25V, Nonpolar Alum.	AG
C2018, C2019	VCQYKU1HM153K	0.015MFD, 50V, Film	AB
C2020, C2036, C2046	VCEAAU1CW227Y	220MFD, 16V, Aluminum	AC
C2021	VCQYKU1HM683K	0.068MFD, 50V, Film	AB
C2022	VCQYKU1HM223K	0.022MFD, 50V, Film	AB
C2023, C2030	VCQYKU1HM103K	0.01MFD, 50V, Film	AB
C2024	VCEAAU1CW107Y	100MFD, 16V, Aluminum	AB
C2025	VCQYKU1HM473K	0.047MFD, 50V, Film	AB
C2026	VCEAAU1EW335Y	3.3MFD, 25V, Aluminum	AB
C2027	VCQYKU1HM123J	0.012MFD, 50V, Film	AB
C2028	VCQYKU1HM473J	0.047MFD, 50V, Film	AB
C2029	VCCSPR1H6101K	100PF, 50V, Ceramic	AA
C2032, C2043	VCKZPR1HF103P	0.01MF, 50V, Ceramic	AA
C2033	VCQPSC2DA683K	0.068MFD, 200V, Film	AB
C2034	VCQPSC2DA333K	0.033MFD, 200V, Film	AB
C2035	VCQPSC2DA153K	0.015MFD, 200V, Film	AB
C2037	VCEAAU2AW227Y	220MFD, 100V, Aluminum	AF
C2038	VCEAAU2EW105Y	1MFD, 250V, Aluminum	AC
C2041	VCQYSU2JM104K	0.1MFD, 630V, Film	AE
C2042	VCQYSU2JM103K	0.01MFD, 630V, Film	AC
C2044	VCEAAU1HW475M	4.7MFD, 50V, Aluminum	AB
C2047, C2050	VCKZPR1HF102Z	1,000PF, 50V, Ceramic	AA
C2048	VCTYPU1BD104Z	0.1MFD, 12V, Ceramic	AB
C2049	VCEAAU1EW336Y	33MFD, 25V, Aluminum	AB
C2051	VCEAAU1CW476Y	47MFD, 16V, Aluminum	AB
C2052, C2056	VCEAAU1CW106Y	10MFD, 16V, Aluminum	AB
C2053	VCEAAU1CW477M	470MFD, 16V, Aluminum	AC
C2054	VCKYPU2HE103P	0.01MFD, 500V, Ceramic	AB
C2055	VCQPSC2DA104K	0.1MFD, 200V, Film	AC
COILS AND TRANSFORMERS			
T2001	RTRNT0017TAZZ	H-Drive Transformer	AF
⚠ T2002	RTRNF2105TAZZ	FBT	AZ
L2001	RCiLZ0057TAZZ	H-Line Coil	AG
L2002	RCiLB0031TAZZ	H-Hold Coil	AG
MISCELLANEOUS			
1	PRDAF0147TAZZ	Radiator (for IC2001)	AB
2	PRDAF0107TAZZ	Radiator (for 2 SC681A-R)	AB
3	QSOCV0012VAZZ	CRT Socket	AF
4	QPLGN0207CEZZ	2-Pin Plug (for Speaker)	AA
5	DSOCN0099PAZZ	Lead Wire with 6-Pin Socket	AH
6	QPLGN0404CEZZ	4-Pin Plug (for Refrection Coil)	AB

MODEL MZ-80B PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
***CASSETTE TAPE RECORDER PWB**		
	DPWB-0184PAZZ	Assembled Cassette Tape Recorder PWB Unit (Not replacement item)
INTEGRATED CIRCUIT		
IC3001, IC3009	RH-iX0038PAZZ	SN7406N
IC3002, IC3003, IC3005	RH-iX0075PAZZ	SN74LS08N
IC3004	RH-iX0078PAZZ	SN74LS32N
IC3006, IC3010	RH-iX0245PAZZ	SN74LS123N
IC3007, IC3011	RH-iX0079PAZZ	SN74LS74AN
IC3008	RH-iX0040PAZZ	SN74121N
IC3101	RH-iX0220PAZZ	SN75452BP
IC3102	RH-iX0260PAZZ	LM324N
TRANSISTORS AND DIODES		
Q3001 ~ Q3005, Q3007 ~ Q3010, Q3013	VS2SC373GTM-1	2SC373GTM
Q3006, Q3011	VS2SB760Q//-1	2SB760Q
Q3012	VS2SC2562Y/-1	2SC2562Y
Q3014, Q3016, Q3017, Q3021, Q3022	VS2SC1959Y/-1	2SC1959Y
Q3015, Q3019	VS2SB762P//-1	2SB762P
Q3018, Q3020	VS2SB761Q//-1	2SB761Q
D3001 ~ D3003	VHD1S1586//1A	1S1586
D3004, D3005	VHD1S1885//1A	1S1885
D3101 ~ D3104	VHD1S1555//1A	1S1555
RESISTORS		
R3001, R3008	VRD-RU2EE393J	39K ohm 1/4W
R3002, R3007, R3009, R3010, R3018, R3019, R3022	VRD-RU2EE102J	1K ohm 1/4W

CODE	REF. NO.	PART NO.	DESCRIPTION	CODE
—	R3003, R3005, R3011 ~ R3014, R3037, R3040	VRD-RU2EE221J	220 ohm 1/4W	AA
AG	R3004, R3006	VRD-RU2EE223J	22K ohm 1/4W	AA
AE	R3015	VRD-RU2EE392J	3.9K ohm 1/4W	AA
AF	R3016, R3017			
AL	R3021, R3023	VRD-RU2EE103J	10K ohm 1/4W	AA
AG	R3030			
AG	R3031			
AG	R3049			
AK	R3050			
AK	R3020	VRD-RU2EE333J	33K ohm 1/4W	AA
	R3024	VRD-RU2EE562J	5.6K ohm 1/4W	AA
	R3025 ~ R3029	VRD-RU2EE150J	15 ohm 1/4W	AA
	R3032	VRD-SC2EF102J	1K ohm 1/4W	AA
	R3033	VRD-SC2EF680J	68 ohm 1/4W	AA
AC	R3034, R3045	VRD-RU2EE472J	4.7K ohm 1/4W	AA
	R3035, R3044	VRD-RU2EE122J	1.2K ohm 1/4W	AA
AG	R3036, R3043	VRD-RU2EE121J	120 ohm 1/4W	AA
AH	R3038, R3041	VRD-RU2EE222J	2.2K ohm 1/4W	AA
AC	R3039, R3042	VRD-RU2EE822J	8.2K ohm 1/4W	AA
	R3101	VRD-SC2EF471J	470 ohm 1/4W	AA
	R3102	VRD-SC2EF822J	8.2K ohm 1/4W	AA
	R3103	VRD-SC2EF473J	47K ohm 1/4W	AA
AH	R3046, R3047	VRD-SC2EF271J	270 ohm 1/4W	AA
AG	R3048, R3051	VRD-RU2EE272J	2.7K ohm 1/4W	AA
AB	R3052	VRD-SC2EF681J	680 ohm 1/4W	AA
	R3053	VRD-RU2EE681J	680 ohm 1/4W	AA
AC	R3104, R3110, R3111	VRD-SC2EF472J	4.7K ohm 1/4W	AA
AA	R3105	VRD-SC2EF224J	220K ohm 1/4W	AA
	R3106	VRD-ST2HF470J	47 ohm 1/2W	AA
	R3107 ~ R3109, R3115	VRD-SC2EF103J	10K ohm 1/4W	AA
AA	R3112	VRD-SC2EF153J	15K ohm 1/4W	AA
	R3113	VRD-SC2EF154J	150K ohm 1/4W	AA
	R3114	VRD-SC2EF222J	2.2K ohm 1/4W	AA
AA	R3116, R3118, R3119	VRD-SC2EF103G	10K ohm (G) 1/4W	AA
	R3117	VRD-SC2EF205G	2M ohm (G) 1/4W	AA
	R3120	VRD-SC2EF562G	5.6K ohm (G) 1/4W	AA
	R3121	VRD-SC2EF560G	56 ohm (G) 1/4W	AA
	RA3001	RMPTC1006PAZZ	Resistor Array 2.2K ohm x 6	AC
	RA3002	RMPTC1005PAZZ	Resistor Array 10K ohm x 4	AC

MODEL MZ-80B PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	CODE
CAPACITORS			
C3001 C3002 C3003 C3010 C3011 ~ C3014	VCTYPU1ED104Z	0.1MFD, 25V, Ceramic	AB
C3004 C3009	VCEALA1AE476M	47MFD, 10V, Elec-Lytic	AB
C3005 C3007 C3008 C3017 C3018 C3103	VCKZPR1HF102P	0.001PFD, 50V, Ceramic	AA
C3006	VCEALA1HW105M	1MFD, 50V, Elec-Lytic	AB
C3015	VCEALA1HW104M	0.1MFD, 50V, Elec-Lytic	AB
C3016	VCEALA1AW107M	100MFD, 10V, Elec-Lytic	AC
C3019	RC-AZ0001PAZZ	220μF, 10V, Aluminum	AF
C3020 ~ C3024	VCKZPR1HF103P	0.01MFD, 50V, Ceramic	AA
C3025	VCEAAU1CW107Y	100MFD, 16V, Aluminum	AB
C3026	VCEAAU1EW107Y	100MFD, 25V, Aluminum	AB
C3101	VCQYKU1HM103K	0.01MFD, 50V, Film	AB
C3102 C3106 C3107	VCQYKU1HM104K	0.1MFD, 50V, Film	AB
C3104 C3108	VCEAAU1CW226Y	22MFD, 16V, Aluminum	AB
C3105	VCEAAU1CW476Y	47MFD, 16V, Aluminum	AB
MISCELLANEOUS			
RY1 RY3	RRLYJ0028PAZZ	Relay G2V	AN
RY2	RRLYJ0027PAZZ	Relay G2E	AN
CN3001 CN3002	QPLGZ0020PAZZ	3-Pin Terminal	AD
CN3003	QPLGZ0088PAZZ	2-Pin Terminal	AC
CN3004	QPLGN0511CEZZ	5-Pin Terminal	AC
J3001	DSOCN0085PAZZ	Lead Wire with 6-Pin Socket (for Keyboard)	AG
J3002	DSOCN0086PAZZ	Lead Wire with 3-Pin Socket (for LED)	AE
J3003	DSOCN0080PAZZ	Lead Wire with 12-Pin Socket (for CPU Board)	AH
J3004	DSOCN0082PAZZ	Lead Wire with 6-Pin Socket (for Cassette)	AG
J3005	DSOCN0081PAZZ	Lead Wire with 9-Pin Socket (for Cassette)	AG
J3006	DSOCN0083PAZZ	Lead Wire with 3-Pin + 1-Pin Socket (for Power Supply)	AF
***MONITOR TV & CASSETTE TAPE RECORDER MISCELLANEOUS**			
⚠ 7	VBE2728B31/1E	CRT	BQ
8	VSP0080P-16YA	Speaker	AQ
9	RCILH4070TAZZ	Reflection Coil	AW
10	DCABC8173PASA	Monitor TV Cabinet (Front)	BB
11	GCABD8173PASA	Monitor TV Cabinet (Rear)	AZ
12	LANGK0282PAZZ	CRT Mounting Plate	AL
13	DANG-0016PAZZ	Monitor TV Cabinet Mounting Plate	AY
14	PGUMS1007PAZZ	Rubber Bush	AD
15	JBTN-0037PASA	Reset Button	AC
16	JBTN-0050PASA	Reset Button	AC
17	MSPRC0014PAZZ	Spring for Reset Button	AB
18	MARMM0001PAZZ	Arm	AN
19	LANGK0311PAZZ	Arm Fixing Plate	AB
20	DSOCN0112PAZZ	Lead Wire with 2-Pin Socket (for Speaker)	AD
21	GCOVZ0007PAZZ	Smoky Panel	AX
22	RH-PX0048PAZZ	LED (for Cassette)	AE
23	DSOCN0102PAZZ	Lead Wire with 3-Pin Socket	AF
24	HBDGB3002GESA	SHARP Badge	AU
25	HBDGB0003PAZZ	Badge	AV
26	LHLDF0006PAZZ	Holder	AB
27	LHLDW9002CEZZ	Wire Holder	AA
28	LHLDW0007PAZZ	Wire Holder	AA
	MSPRT0011PAZZ	Spring for CRT earth	AB
	KMEKA0002PAZZ	Cassette Tape Recorder Mechanical Unit (Refer to other table for detailed parts)	BR
29	DFTAC0003PASA	Flap	AU
30	LANGK0321PAZZ	Flap Fixing Plate	AD
31	MSPRB0036PAFJ	Spring	AC
32	PDMPO0001PAZZ	Damper	AE
35	DANG-0014PAZZ	Machinical Mounting Plate	AV
36	LANGK0283PAZZ	Mechinical Mounting Plate C	AB
37	LANGK0284PAZZ	Machinical Mounting Plate A	AC
38	LANGK0285PAZZ	Machinical Mounting Plate B	AC
39	LANGK0319PAZZ	PWB Mounting Plate	AD
40	KCOUB0001PAZZ	Counter	AM
41	NBLTZ0003PAZZ	Counter Belt	AB
42	HDECA0031PASA	Decoration Plate	AA
43	DSOCN0100PAZZ	Lead Wire with 3-Pin Socket	AF
44	RH-iX0257PAZZ	DN6838 (HIC)	AG
45	MCRK-0001PAZZ	Crank	AD
46	MLOKC0001PAZZ	Lock Lever	AD
47	LANGK0320PAZZ	Lock Lever Fixing Plate	AH
48	LSFTZ0008PAZZ	Lock Lever Fixing Pin	AD
49	RPLU-0001PAZZ	Plunger Coil	AS
50	MSPRT0002PAFJ	Lock Lever Spring	AA
51	DSOCN0113PAZZ	Lead Wire with 2-Pin Socket	AF
52	VHD1S1885//1A	1S1885	AC
53	XPSSP25-10000	Spring Pin (φ 2.5 x 10)	AA
54	DSOCN0084PAZZ	Lead Wire with 5-Pin Socket (for Cassette Head)	AD
55	LX-BZ0074PAZZ	Screw	AA
***** KEY BOARD UNIT SECTION *****			
	DKEY-0007PAZZ	Assembled Key Board Unit (Not replacement item)	——
MISCELLANEOUS			
56	DANGK0318PAZZ	Key Switch Fixing Plate	AY
57	QSW-P0016PAZZ	Push Switch (with LED)	AP

MODEL MZ-80B PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	CODE
58	QSW-P0017PAZZ	Push Switch	AE
59	QSW-P0018PAZZ	Push Switch	AE
60	QSW-P0019PAZZ	Push Switch (with cushion)	AD
61	LSTYM0008PAZZ	Stay for SPACE Key	AB
62	PCUSG0010PAZZ	Cushion for SPACE Key	AA
63	PGIDM0006PAZZ	Guide for SPACE Key	AC
64	MLEVP0005PAZZ	Lever for SPACE Key	AE
65	DSŌCN0107PAZZ	Lead Wire with 4-Pin Socket	AH
66	DSŌCN0108PAZZ	Lead Wire with 6-Pin Socket	AM
67	DSŌCN0109PAZZ	Lead Wire with 20-Pin Socket	AT
68	HPNLH0057VASA	Panel	AU
69	PCŌVP0007PAZZ	Cover	AE
70	MSPRC0015PAZZ	Spring	AB
71	RH-PX0049PAZZ	LED	AE
72	DSŌCN0103PAZZ	Lead Wire with 3-Pin Socket	AF

(Refer to separate list for PART NO. of keyboard.)

*** POWER SUPPLY UNIT SECTION ***

DBŌXD0028PAZZ	Assembled Power Supply Unit (Not replacement item)	—

INTEGRATED CIRCUIT

IC201	RH-iX0231PAZZ	FS7905	AP
IC301, IC401	RH-iX0151PAZZ	SG3524N	AT

TRANSISTORS AND DIODES

Q301, Q401	VS2SA770-Y/-1	2SA770	AH
Q302, Q402	VS2SA673-C/1E	2SA673C	AC
D201	RH-DX0039TAZZ	V03C	AC
D301	VHDS2VB10//-1	S2VB10	AG
D302, D303	VHDERB81-004/	ERB81-004	AG
D401	VHDS5VB10//-1	S5VB10	AL
D402	VHDESAC8204-1	ESAC82-004 (or VHDS10SC4M/-1)	AP

RESISTORS

R201	VRD-SU2EF471J	470 ohm 1/4W	AA
R301, R401, R408	VRD-ST2EF472J	4.7K ohm 1/4W	AA
R302, R402	VRD-SU2EF472J	4.7K ohm 1/4W	AA
R303, R305, R309, R403, R406	VRD-SU2EF272J	2.7K ohm 1/4W	AA
R304, R404	VRD-SU2EF563J	56K ohm 1/4W	AA
R306	VRD-ST2EF153J	15K ohm 1/4W	AA
R307	VRD-SU2EF332J	3.3K ohm 1/4W	AA
R308, R407	VRD-SU2EF101J	100 ohm 1/4W	AA
R405	VRD-SU2EF222J	2.2K ohm 1/4W	AA
R409	VRD-SU2EF392J	3.9K ohm 1/4W	AA
VR301, VR401	RVR-M0010PAZZ	Variable Resistor 1K ohm	AC

CAPACITORS

⚠C101, ⚠C102	RC-CZ0180PAZZ	0.047MFD, 250V	AH
C201	VCEAAU1CM228M	2,200MFD, 16V, Aluminum	AE
C202	VCTYPU1ED104Z	0.1MFD, 25V, Ceramic	AB
C305, C408	VCKYPU1NB104Z	0.1MFD, 12V, Ceramic	AB
C203	VCEAAU1AM107M	100MFD, 10V, Aluminum	AC
C301, C302	VCEAAU1VM338M	3,300MFD, 35V, Aluminum	AC
C303, C405	VCQYKU1HM102K	0.001MFD, 50V, Film	AA
C304, C407	VCEAAU1VM336M	33MFD, 35V, Aluminum	AB
C306, C409	VCQYKU1HM183K	0.018MFD, 50V, Film	AB
C307	VCEAAU1CM338M	3,300MFD, 16V, Aluminum	AG
C308, C406, C411	VCQYKU1HM103K	0.01MFD, 50V, Film	AB
C309, C412	RC-QZ0003PAZZ	0.1MFD, 100V, Film	AB
C401 ~ C404	VCEAAU1EM478M	4,700MFD, 25V, Aluminum	AH
C410	VCEAAU1AM688M	6,800MFD, 10V, Aluminum	AG

COILS AND TRANSFORMER

⚠L101	RTRNZ0005PAZZ	Line Coil	AL
L301	RTRNZ0021PAZZ	Choke Coil	AQ
L401	RTRNZ0006PAZZ	Choke Coil	AR
⚠T101	RTRNP0037PAZZ	Power Supply Transformer	BL

MISCELLANEOUS

⚠SW101	QSW-C0003PAZZ	A.C. Switch	AQ
⚠SO101	QSŌCA0003PAZZ	Appliance Inlet	AF
⚠F101, ⚠F102	QFS-C0006PAZZ	Fuse, T 630mA	AD
⚠F201	QFS-C0005PAZZ	Fuse, T 1A	AE
⚠F301	QFS-C0003PAZZ	Fuse, T 1.6A	AD
⚠F401, ⚠F402	QFS-C0004PAZZ	Fuse, T 3.15A	AD
75	QFSHA0001PAZZ	Fuse Holder	AA
76	QPLGN0303CEZZ	3-Pin Terminal	AB
77	QPLGN0103CEZZ	1-Pin Terminal	AA
78	DSŌCN0098PAZZ	Lead Wire with 4-Pin Socket	AF
79	PRDAR0028PAZZ	Radiator (A)	AV
80	PRDAR0029PAZZ	Radiator (B)	AH
81	PRDAR0030PAZZ	Radiator (C)	AE
82	PRDAR0031PAZZ	Radiator (D)	AH
83	PRDAR0032PAZZ	Radiator (E)	AS

MODEL MZ-80B PARTS LIST

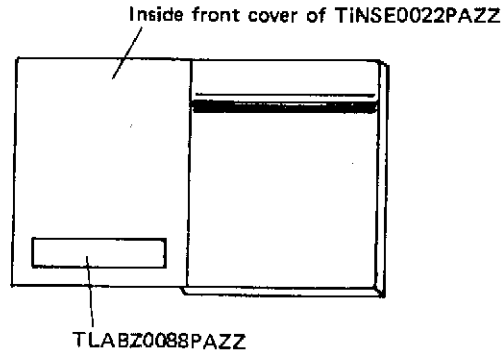
REF. NO.	PART NO.	DESCRIPTION	CODE
84	GCABA8195PAZZ	Cabinet (A) (for Power Supply)	BA
85	GCABB8195PAZZ	Cabinet (B) (for Power Supply)	AH
86	LANGK0317PAZZ	Radiator Fixing Metal	AC
	***** RAM (Ⅲ) (Ⅳ) BLOCK UNIT SECTION *****		
	DPWB-0246PAZZ	Assembled RAM (Ⅲ) (Ⅳ) Block Unit (Not replacement item)	----
	INTEGRATED CIRCUIT		
RAM	RH-iX0145PAZZ	D-RAM 4116	BE
	RESISTORS		
R1 ⟆ R4	VRD-SC2EF102J	1K ohm 1/4W	AA
	CAPACITORS		
C1 C3 C5 C7 C10 C12 C14 C16 C17 C19 C21 C23	VCTYPU1BD104Z	0.1MFD, 12V, Ceramic	AB
C2 C4 C6 C8 C9 C11 C13 C15 C18 C20 C22, C24	VCTYPU1ED104Z	0.1MFD, 25V, Ceramic	AB
C25 ⟆ C30	VCSACU1VE104M	0.1MFD, 35V, Tantalum	AC
	MISCELLANEOUS		
CN1 CN2	QPLGZ0080PAZZ	20-Pin Terminal	AD
	QSOCZ0022PAZZ	16-Pin IC Socket	AF
	***** GRAPHIC RAM (I) UNIT SECTION *****		
	DPWB-0288PAZZ	Assembled Graphic RAM Unit (Not replacement item)	----

REF. NO.	PART NO.	DESCRIPTION	CODE
	INTEGRATED CIRCUIT		
IC1 ⟆ IC4	RH-iX0265PAZZ	TMM2016 (2K, S-RAM)	BP
IC5 ⟆ IC8	RH-iX0083PAZZ	SN74LS157N	AH
IC9	RH-iX0104PAZZ	SN74LS42AN	AH
IC10 ⟆ IC12	RH-iX0125PAZZ	SN74LS93N	AK
IC13	RH-iX0124PAZZ	SN74LS245N	AR
IC14	RH-iX0129PAZZ	SN74LS165N	AQ
IC15	RH-iX0181PAZZ	SN74LS175N	AM
IC16	RH-iX0074PAZZ	SN74LS04N	AE
IC17	RH-iX0127PAZZ	SN74LS107N	AG
IC18 IC20	RH-iX0078PAZZ	SN74LS32N	AF
IC19	RH-iX0075PAZZ	SN74LS08N	AE
IC21	RH-iX0070PAZZ	SN74LS00N	AE
	RESISTORS		
R1 ⟆ R4	VRD-SC2EF102J	1K ohm 1/4W	AA
R5	VRD-SC2EF470J	47 ohm, 1/4W	AA
R6	VRD-SC2EF101J	100 ohm, 1/4W	AA
	CAPACITORS		
C1 ⟆ C6 C8 C10 ⟆ C14	VCTYPU1BD104Z	0.1MFD, 12V, Ceramic	AB
C7	VCCSPR1H6471J	470PF, 50V, Ceramic	AA
C9	VCEAAU1CW107Y	100MFD, 16V, Aluminum	AB
C15	VCCSPR1H6221J	220PF, 50V, Ceramic	AA
	MISCELLANEOUS		
CN1	DSOCZ0005PAZZ	Lead Wire with 50-Pin Socket	BE
CN2	QPLGZ0085PAZZ	10-Pin Plug	AH
	***** OTHER SECTION *****		
87	DCABA8173PASA	Cabinet Complete	BR
88	GCABB8173PASA	Cabinet Complete	BG
89	DANG-0015PAZZ	CPU Board Mounting Plate	AX
90	PFTA-0005PASA	Rear Cover E	AQ
91	PFTA-0006PASA	Rear Cover F	AP
92	LANGK0298PAZZ	I/O Connector Cover	AC
93	LX-BZ5002BCZZ	Screw	AC
	TLABN0016PAZZ	Function Label	AE
94	QTANN0002PAZZ	Frame Ground Terminal	AH
95	GLEGP0007PAZZ	Foot	AB
96	LBNDC0001PAZZ	Cord Keeper	AC
	UBAGS0002PAZZ	Bag	AW
△	QACCB0001PAZZ	AC Cord	AQ
97	QSW-P0010PAZZ	Reset Switch	AD

MODEL MZ-80B PARTS LIST

REF. NO.	ART NO.	DESCRIPTION	CODE
98	DSOCN0101PAZZ	Lead Wire with 3-Pin Socket (for Reset Switch)	AE
99	TSPCE0022PAZZ	Specification Panel	AG
△ 100	TLABE0005PAZZ	Label	AC
△	TLABH0002PAZZ	Label for A.C. Cord	AC
	TiNSE0022PAZZ	Instruction Manual (English)	BB
	TiNSE0023PAZZ	Instruction Manual (English)	BB
	TiNSE0024PAZZ	Instruction Manual (English)	BA
	TLABZ0088PAZZ	Label for Manual (English)	AB

← For U.K. a label (TLABZ0088PAZZ) shall be stuck on the inside front cover. (as shown below)



MODEL MZ-80EU

REF. NO.	PART NO.	DESCRIPTION	CODE
INTEGRATED CIRCUIT			
IC1 } IC2	RH-iX0075PAZZ	SN74LS08N	AE
RESISTOR			
RA1	RMPTC1010PAZZ	Resistor Array 1K ohm x 4	AC
RA2	RMPTC1011PAZZ	Resistor Array 1K ohm x 5	AC
MISCELLANEOUS			
CN1 ~ CN6	QSŌCZ0021PAZZ	44-Pin Socket	AW
CN7,8	DSŌCZ0006PAZZ	Lead Wire with 40-Pin Socket (for Bus Line)	BE
201	QSŌCN0155PAZZ	Lead Wire with 3-Pin Socket (for Power Supply)	AD
202	DANG-0018PAZZ	I/O Code Fixing Metal	AQ
203	LRALP0001PAZZ	Guide Rail	AF
204	LRALP0002PAZZ	Guide Rail	AE
205	LRALP0003PAZZ	Guide Rail	AE
	TINSE0025PAZZ	Reference Card	AD

MZ-80IO2 PARTS LIST

MODEL MZ-80IO2

REF. NO.	PART NO.	DESCRIPTION	CODE
INTEGRATED CIRCUIT			
IC1 } IC2	RH-iX0190PAZZ	SN74LS266N	AF
IC3	RH-iX0104PAZZ	SN74LS42N	AH
IC4 } IC5	RH-iX0074PAZZ	SN74LS04N	AE
IC6 ~ IC9	RH-iX0141PAZZ	SN74LS125AN	AK
IC10 ~ IC13	RH-iX0181PAZZ	SN74LS175N	AM
IC14 ~ IC17	RH-iX0012PAZZ	SN7404N	AF
RESISTORS			
R1	VRD-SC2EF102J	1K ohm 1/4W	AA
RA1	RR-KZ0037PAZZ	Resistor Array 3.3K ohm x 7	AG
CAPACITORS			
C1	VCEAAU1CW107Y	100MFD, 16V, Aluminium	AB
C2 ~ C11	VCTYPU1BD104Z	0.1MFD, 12V, Ceramic	AB
MISCELLANEOUS			
	QSŌCZ0016PAZZ	14-Pin IC Socket	AD
	QSW-D0001PAZZ	Dip Switch	AR
301	QPLGZ0081PAZZ	37-Pin Terminal (for Bus Lines)	BG
302	LANGK0296PAZZ	37-Pin Terminal Fixing Metal	AF
	TINSE0020PAZZ	Instruction Manual (English)	AH

MZ-80GMK PARTS LIST

MODEL MZ-80GMK

REF. NO.	PART NO.	DESCRIPTION	CODE
INTEGRATED CIRCUIT			
IC1 ~ IC3, IC9	RH-iX0083PAZZ	SN74LS157N	AH
IC4	RH-iX0124PAZZ	SN74LS245N	AR
IC5, IC6, IC10	RH-iX0125PAZZ	SN74LS93N	AK
IC7	RH-iX0129PAZZ	SN74LS165N	AQ
IC8, IC12, IC16, IC19	RH-iX0265PAZZ	TMM2016P (2K, S-RAM)	BP
IC11	RH-iX0127PAZZ	SN74LS107N	AG
IG13	RH-iX0070PAZZ	SN74LS00N	AE
IC14	RH-iX0074PAZZ	SN74LS04N	AE
IC15, IC18	RH-iX0078PAZZ	SN74LS32N	AF
IC17	RH-iX0104PAZZ	SN74LS42N	AH
RESISTORS			
R1, R2	VRD-SC2EF102J	1K ohm 1/4W	AA
R3	VRD-SC2EF470J	47 ohm 1/4W	AA
R4	VRD-SC2EF101J	100 ohm 1/4W	AA
CAPACITORS			
C1	VCEAAU1CW107Y	100MFD, 16V, Aluminum	AB
C2 ~ C12, C14, C16, C17	VCTYPU1BD104Z	0.1MFD, 12V, Ceramic	AB
C13	VCCSPR1H6471J	470PF, 50V, Ceramic	AA
C15	VCCSPR1H6221J	220PF, 50V, Ceramic	AA
MISCELLANEOUS			
CN1	DSG̅CZ0007PAZZ	Lead Wire with 10-Pin Socket	BA

MZ-80FI PARTS LIST

MODEL MZ-80FI

REF. NO.	PART NO.	DESCRIPTION	CODE
INTEGRATED CIRCUIT			
IC1	RH-iX0128PAZZ	SN74LS20N	AE
IC2	RH-iX0071PAZZ	SN74LS02N	AE
IC3, IC6	RH-iX0079PAZZ	SN74LS74AN	AG
IC11, IC19, IC25	RH-iX0079PAZZ	SN74LS74AN	AG
IC4, IC17	RH-iX0074PAZZ	SN74LS04N	AE
IC5	RH-iX0124PAZZ	SN74LS245N	AR
IC7, IC20, IC26	RH-iX0245PAZZ	SN74LS123N	AK
IC8, IC14	RH-iX0181PAZZ	SN74LS175N	AM
IC9	RH-iX0078PAZZ	SN74LS32N	AF
IC10, IC15	RH-iX0070PAZZ	SN74LS00N	AE
IC12, IC21, IC22	RH-iX0103PAZZ	SN7438N	AF
IC13	RH-iX0262PAZZ	MB8866 (FDC)	BW
IC16	RH-iX0217PAZZ	SN74145N	AM
IC18	RH-iX0125PAZZ	SN74LS93N	AK
IC23	RH-iX0102PAZZ	SN74LS14N	AM
IC24	RH-iX0261PAZZ	SN74LS51N	AE
TRANSISTORS AND DIODES			
TR1	VS2SA1015G/1E	2SA1015G	AB
TR2 ~ TR4	VS2SC1815-B-A	2SC1815B	AB
D1 ~ D7	VHD1S1586//-1	1S1586	AB
RESISTORS			
R1, R2, R4 ~ R8, R10, R11, R22 ~ R28, R36, R38	VRD-SC2EF472J	4.7K ohm 1/4W	AA
R3	VRD-SC2EF222J	2.2K ohm 1/4W	AA
R9, R12, R13, R16, R31, R32, R37	VRD-SC2EF102J	1K ohm 1/4W	AA
R14	VRD-SC2EF183J	18K ohm 1/4W	AA
R15, R33	VRD-SC2EF391J	390 ohm 1/4W	AA
R17, R30	VRD-SC2EF392J	3.9K ohm 1/4W	AA
R18	VRD-SC2EF681J	680 ohm 1/4W	AA
R19	VRD-SC2EF152J	1.5K ohm 1/4W	AA
R20	VRD-SC2EF470J	47 ohm 1/4W	AA
R21	VRD-SC2EF561J	560 ohm 1/4W	AA
R29	VRD-SC2EF103J	10K ohm 1/4W	AA
R34	VRD-SC2EF473J	47K ohm 1/4W	AA
R35	VRD-SC2EF223J	22K ohm 1/4W	AA
R39	VRD-SC2EF682J	6.8K ohm 1/4W	AA
RR1	RMPTC1012PAZZ	Resistor Array 4.7K ohm x 8	AD
RR2	RMPTC1013PAZZ	Resistor Array 150 ohm x 4	AC
VR1, VR3	RVR-Z0003PAZZ	Variable Resistor 10K ohm	AL
VR2	RVR-Z0002PAZZ	Variable Resistor 5KΩ	AL
CAPACITORS			
C1, C10	VCQSMU1HM102J	1,000PF, 50V, Film	AC
C2	VCQSMU1HM151J	150PF, 50V, Film	AC
C3	VCMZSU1HC220G	22PF, 50V,	AC
C4	VCQYKU1HM472K	0.0047MFD, 50V, Film	AA
C5	VCQSMU1HM301J	300PF, 50V, Film	AC
C6	VCQYKU1HM223K	0.022MFD, 50V, Film	AB
C7	VCSACU1CE685K	6.8MFD, 16V, Tantalum	AD
C8	VCSACU0JE476K	47MFD, 6.3V, Tantalum	AF
C9	VCQSMU1HM222J	2,200PF, 50V, Film	AC
C11 ~ C20, C31	VCSACU1VE106M	10MFD, 35V, Tantalum	AE
C21 ~ C29, C32 ~ C43	VCTYPU1BD104Z	0.1MFD, 12V, Ceramic	AD
C30	VCEAAU1CW107Y	100MFD, 16V, Aluminum	AB
MISCELLANEOUS			
	QSOCZ0012PAZZ	40-Pin IC Socket (for MB8116)	AH
401	QPLGZ0081PAZZ	37-Pin Terminal (for Bus Lines)	BH
TP1 ~ 9	QPLGZ0082PAZZ	9-Pin Terminal (for Test Point)	AC
402	LANGK0296PAZZ	37-Pin Terminal Fixing Metal	AF

MZ-80FB/MZ-80FBK PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	CODE
	MODEL MZ-80FB/MZ-80FBK		
	***** POWER SUPPLY UNIT SECTION *****		
	DBŌXD0029PAZZ	Assembled Power Supply unit (Not replacement item)	——
	INTEGRATED CIRCUIT		
IC1, IC2	RH-iX0151PAZZ	SG3524	AW
	TRANSISTORS AND DIODES		
Q301, Q401	VS2SA892///-1	2SA892	AN
D201	VHDS5VB10//-1	S5VB10	AL
D301, D302, D401, D402	VHDERB81-004/	ERB81-004 or RK-14	AG
501	RH-PX0033PAZZ	LED	AD
	RESISTORS		
R301, R401	VRD-ST2EF272J	2.7K ohm 1/4W	AA
R302, R402	VRF-GV3DBR05K	0.05 ohm 2W	AD
R303, R403	VRD-SU2EF563J	56K ohm 1/4W	AA
R304, R404	VRD-SU2EF272J	2.7K ohm 1/4W	AA
R305, R405	VRD-SU2EF472J	4.7K ohm 1/4W	AA
R306, R406, R407	VRD-ST2EF472J	4.7K ohm 1/4W	AA
R307	VRD-ST2EF153J	15K ohm 1/4W	AA
R308	VRD-SU2EF332J	3.3K ohm 1/4W	AA
R309	VRD-ST2EF102J	1K ohm 1/4W	AA
R408	VRD-SU2EF392J	3.9K ohm 1/4W	AA
VR301, VR401	RVR-M0010PAZZ	Variable Resistor 1K ohm	AC
	CAPACITORS		
△C101, △C102	RC-CZ0180PAZZ	0.047MFD, 250V, Line Capacitor	AH
C201 ~ C206	VCEAAU1VM258Y	2,500MFD, 35V, Aluminum	AF
C207	RC-QZ0003PAZZ	0.1MFD, 100V, Film	AB
C301, C401	VCKYPU1NB104Z	0.1MFD, 12V, Ceramic	AB
C302	VCQYKU1HM222K	0.0022MFD, 50V, Film	AA
C303, C403	VCQYKU1HM183K	0.018MFD, 50V, Film	AB
C304	VCEAAU1CM338M	3,300MFD, 16V, Aluminum	AG
C305, C406	VCQYKU1HM102K	0.001MFD, 50V, Film	AB
C306, C307, C407 ~ C409	VCSACU1VE106M	10MFD, 35V, Tantalum	AE
C308	VCQYKU1HM682K	0.0068MFD, 50V, Film	AA
C402, C405	VCQYKU1HM332K	0.0033MFD, 50V, Film	AB
C404	VCEAAU1AM338M	3,300MFD, 10V, Aluminum	AF
	COILS AND TRANSFORMER		
△T101	RTRNZ0129PAZZ	Main Transformer	BE
△L101	RTRNZ0005PAZZ	Line Coil	AL
L301, L402	RTRNZ0007PAZZ	Coil	AQ
L401	RTRNZ0009PAZZ	Coil	AM
	MISCELLANEOUS		
△F101, △F102	QFS-C0002PAZZ	Fuse T 500mA	AD
△F201	QFS-C0004PAZZ	Fuse T 3.15A	AD
	QFSHA0001PAZZ	Fuse Holder	AA
△SW101	QSW-C0003PAZZ	A.C. Switch	AQ
△SŌ101	QSŌCA0001PAZZ	Appliance Inlet	AD
504	DSŌCN0064PAZZ	Lead Wire with 4-Pin Connector	AG
	DSŌCN0065PAZZ	Lead Wire with 2-Pin Connector (for LED)	AE
	QPLGZ0050PAZZ	2-Pin Plug (for LED)	AC
507	PRDAR0021PAZZ	Radiation Plate	AT
	PRDAR0022PAZZ	Radiation Plate (for D201)	AD
509	LANGK0270PAZZ	Switch, Inlet, Filter PWB Fixing Angle	AF
510	LANGQ0022PAZZ	PWB Fixing Angle	AD
511	LANGQ0023PAZZ	PWB Fixing Angle	AE
	PSPAK0005VAZZ	LED Specer	AA
	***** DISK DRIVE UNIT SECTION *****		
	RMEMR0001PAZZ	Assembled Disk Drive Unit (Not replacement item)	——
	95AF140622-01	Belt	BA
	95AF120138-01	PWB Unit Ass'y	**
	95AF140630-01	Index Lamp Ass'y	BL
	95AF120151-01	Medium Guide L Ass'y (with Write Protect Sensor, Lamp)	BN
	95AF140640-01	Operation indicator	AZ
	95AF130246-01	Drive Motor Ass'y (with Motor Control PWB)	BY
	***** OTHER SECTION *****		
519	GCABA8121PAS8	Cabinet	BF
520	GWAKP0006PASA	Front Frame	AR
521	LCHSM0097PASA	Chassis (for MZ-80FB)	BH
522	LCHSM0098PASA	Chassis (for MZ-80FBK)	BH
523	GLEGR0001PAZZ	Foot	AB
524	TLABZ0029PAZZ	Drive Number Lavel DRIVE 1 (for MZ-80FB)	AB

PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	CODE
525	TLABZ0033PAZZ	Drive Number Label DRIVE 2 (for MZ-80FB)	AB
526	TLABZ0034PAZZ	Drive Number Label DRIVE 3 (for MZ-80FBK)	AB
527	TLABZ0035PAZZ	Drive Number Label DRIVE 4 (for MZ-80FBK)	AB
528	LANGF0017PAZZ	Drive Fixing Angle	AE
529	LANGF0023PAZZ	Front Frame Fixing Angle	AM
530	LX-BZ0075PAZZ	Screw (for Flat Cabble Ass'y)	AG
531	DSŌCN0114PAZZ	Flat Cable Ass'y (for MZ-80FB)	BP
532	DSŌCN0115PAZZ	Flat Cable Ass'y (for MZ-80FBK)	BU
533	QTANN0002PAZZ	Ground Terminal	AH
	DTiP0046PAZZ	Braided Wire (for MZ-80FB)	AN
	DTiP-0047PAZZ	Braided Wire (for MZ-80FBK)	AN
534	LHLDF0015PAZZ	Filter PWB Fixing Holder	AC
535	LHLDW0006PAZZ	Flat Cable Fixer	AD
536	LHLDW9003CEZZ	Cord Fixer, HW-146	AA
537	LBNDC0003PAZZ	Wire Band	AB
538	PCUSG0005PAZZ	Cushion 5 x 100 x t1.0	AA
⚠	QACCP0011PAZZ	AC Cord	AC
539	LX-BZ0067PAFN	Screw for Disk Drive	AG
540	LX-BZ0068PAFN	Screw for Disk Drive Fixing Angle	AH
	TiNSE0016PAZZ	Instruction Manual (English)	AS
⚠	SPCE0020PAZZ	Specification Card (for MZ-80FB)	AC
⚠	SPCE0019PAZZ	Specification Card (for MZ-80FBK)	AC
⚠	TLABH0002PAZZ	Label for AC Cord	AC

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