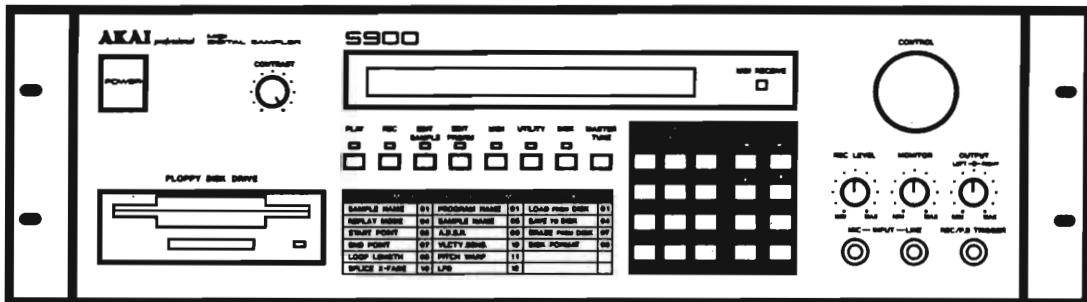


AKAI SERVICE MANUAL

0065



MIDI DIGITAL SAMPLER

MODEL S900

DRUM INTERFACE

MODEL ASK90

SPECIFICATIONS

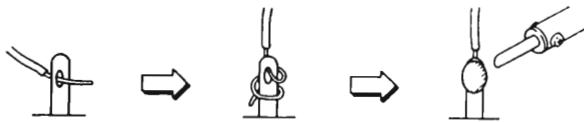
| | | | |
|-----------------------|--|----------------------|---|
| System | Digital sampling Sampling frequency: 7.5 kHz ~ 40 kHz (MIN ~ MAX) Sampling time: 63.3 sec. ~ 11.75 sec. (MAX ~ MIN) | Communication | RS-232C or EQUIVALENT External jack..... |
| Storage | Built-in FLOPPY DISK DRIVE Memory capacity: 1M byte Memory Medium: 3.5 inch (2DD) BOTH SIDE, DOUBLE TRACK, DOUBLE DENSITY Internal memory: 750K byte | | MIDI (IN, OUT, THRU) REC trigger x 1 Mic input/P.B trigger x 1 Line input/P.B trigger x 1 Line output x 8 Stereo output x 2 (L,R) Mix output x 1 Voice output x 1 (13 PIN/DIN) |
| Multi sampling | 32 | Dimensions | 482.6 (W) x 132.6 (H) x 410 (D) mm (EIA Rack mount/3U) |
| Edit | Scanning (ONE SHOT, LOOPING, ALTERNATING) A.D.S.R (Velocity-Attack, Velocity-Release) Velocity cross fade Velocity switch Positional cross fade Attack pitch offset (- Velocity) LFO (delay, rate, depth) Filter (Key tracking, Velocity) Sample merge | Weight | 10.8 kg |

* For improvement purposes, specifications and design are subject to change without notice.

★SAFETY INSTRUCTIONS

PRECAUTIONS DURING SERVICING

1. Parts identified by the Δ symbol parts are critical for safety. Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation. These must also be replaced only with specified replacements.
Examples: RF converters, tuner units, antenna selector switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
 - 1) Wires covered with PVC tubing
 - 2) Double insulated wires
 - 3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
 - 1) Insulation Tape
 - 2) PVC tubing
 - 3) Spacers (Insulating Barriers)
 - 4) Insulation sheets for transistors
 - 5) Plastic screws for fixing microswitch (especially in turntable)
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).

7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

SAFETY CHECK AFTER SERVICING

Confirm the specified insulation resistance between power cord plug prongs and externally exposed parts of the set is greater than 10 M ohms. but for equipment with external antenna terminals (tuner, receiver, etc.) and is intended for **C** or **A**, specified insulation resistance should be headphone jacks line-in-out jacks etc. more than 2.2 M ohms (ground terminals, microphone jacks).

PRECAUTION FOR THE LITHIUM BATTERY

The LITHIUM BATTERY employed for memory Back up has a explosive probability when the BATTERY itself is excessive heated.

IN CASE OF REPLACING: RESOLDER and SOLDER AS RECOMMENDED WAY.



(DANGER)



(RECOMMENDED WAY)

★INFORMATION

SYMBOLS FOR PRIMARY DESTINATION

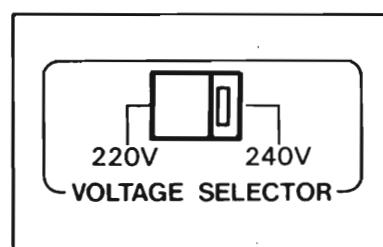
Alphabet indicates the destination of the units as listed below.

| Symbols | Principal Destinations |
|-----------|------------------------|
| A | USA |
| B | UK |
| C | Canada |
| E | Europe (except UK) |
| J | Japan |
| S | Australia |
| V | W. Germany only |
| U | Universal Area |
| Y* | Custom version |

VOLTAGE CONVERSION

(**E, V, B, S** Model only)

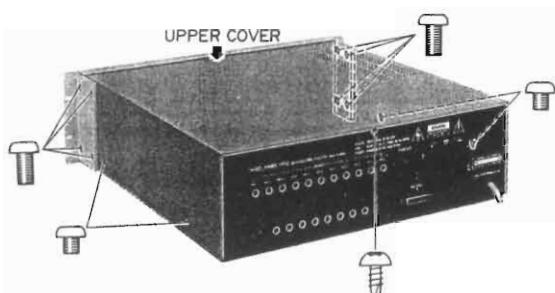
Before connecting the power cord. SET the VOLTAGE SELECTOR located on the rear panel with a screwdriver so that the correct voltage is indicated.



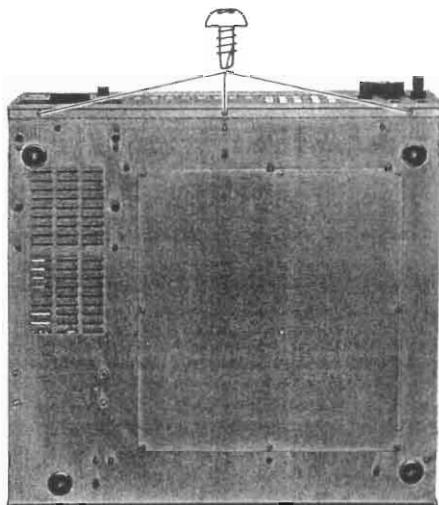
I. DISMANTLING OF UNIT

In case of trouble, etc. necessitating dismantling, please dismantle in the order shown in the photographs. Reassemble in reverse order.

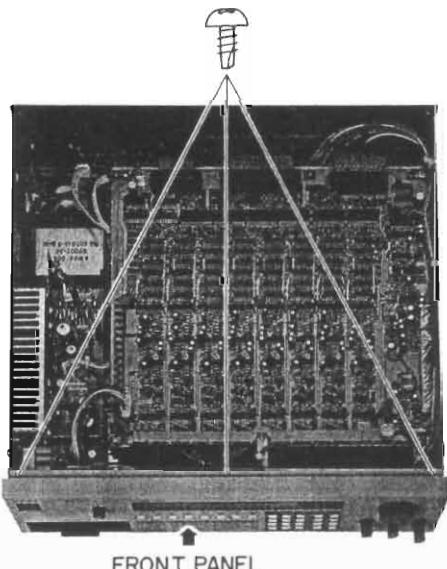
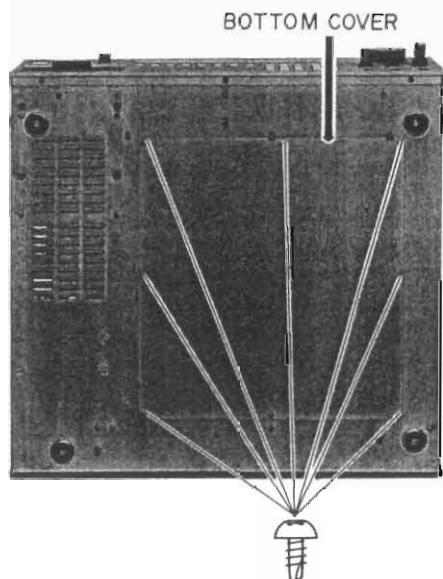
1. REMOVAL OF UPPER COVER



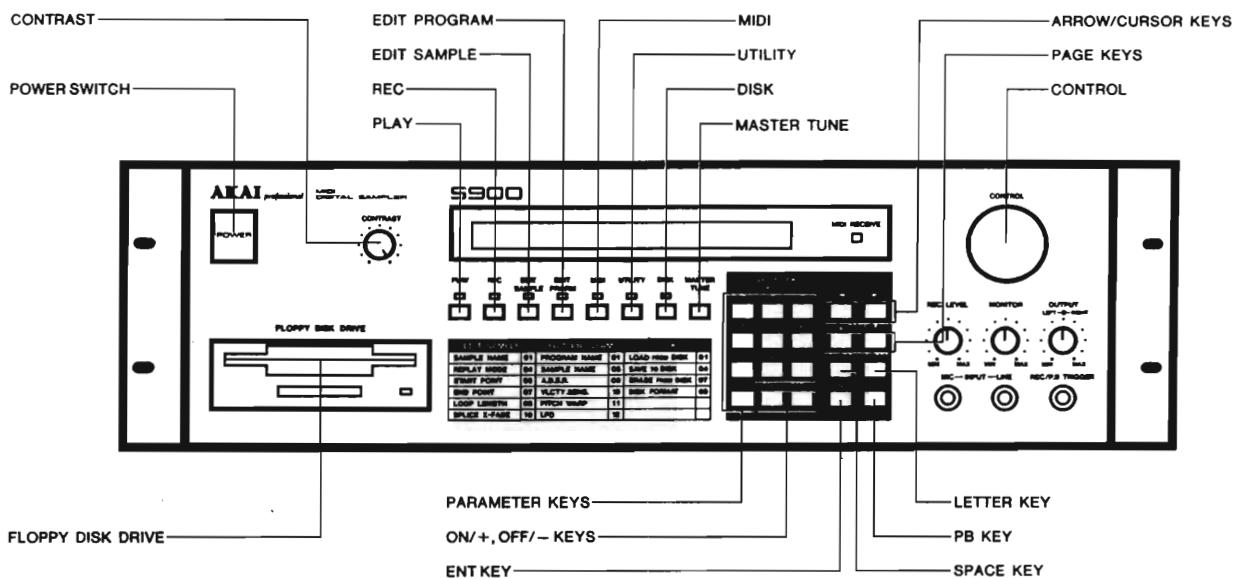
3. REMOVAL OF FRONT PANEL



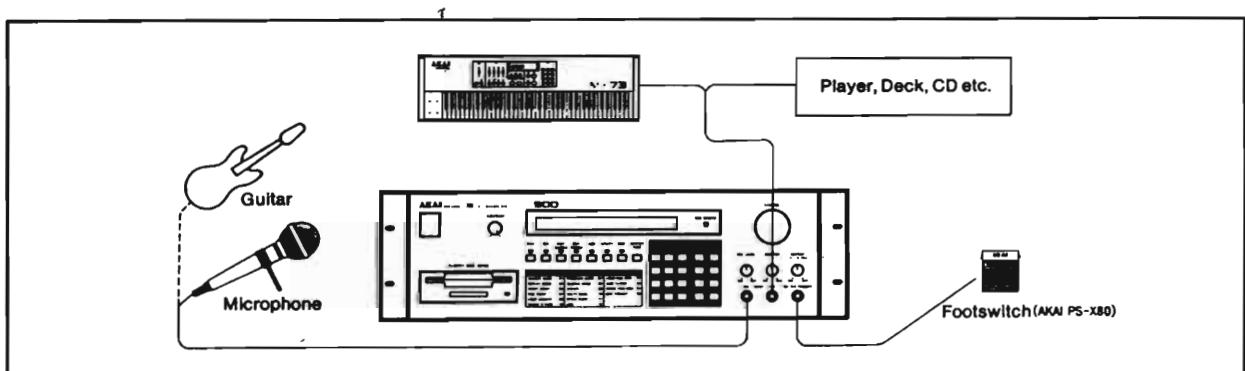
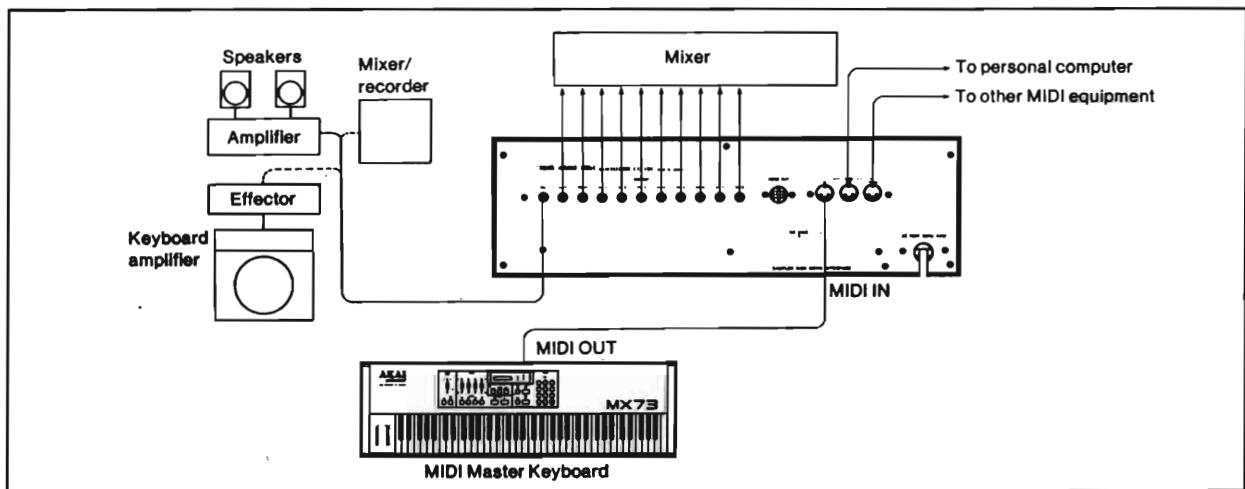
2. REMOVAL OF BOTTOM COVER



II. CONTROLS



III. CONNECTIONS



IV. PRINCIPAL PARTS LOCATION

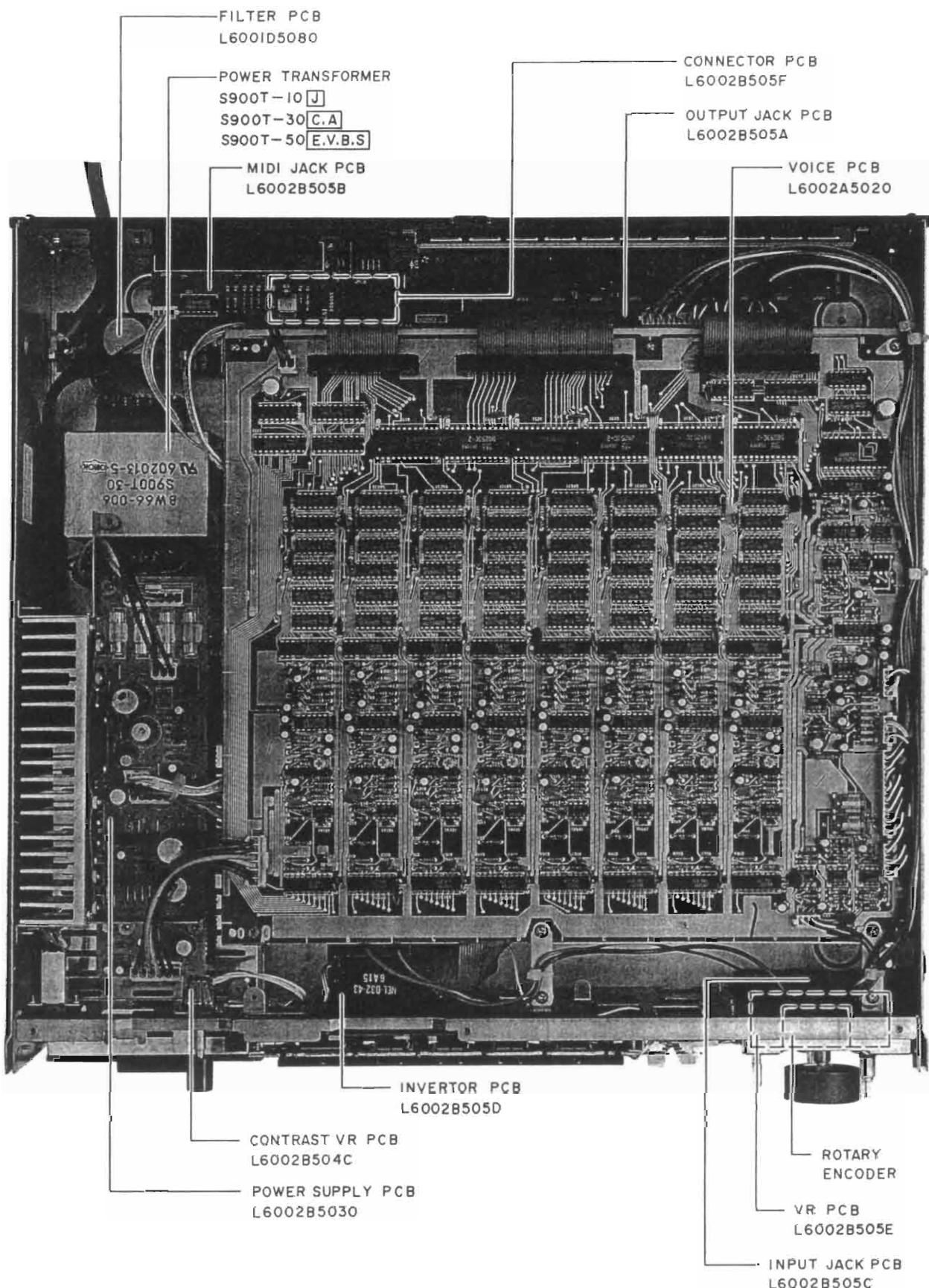


Fig. 4-1

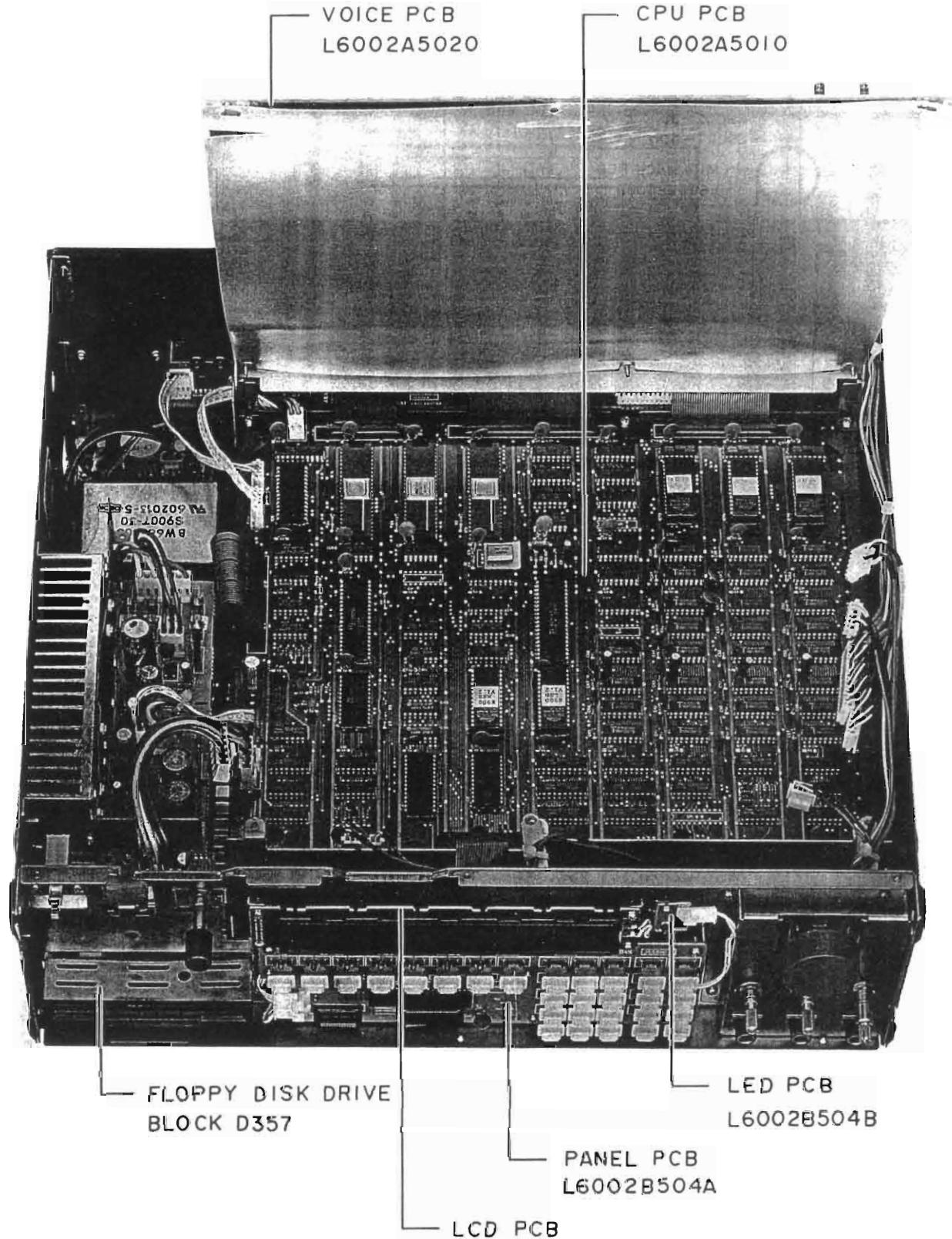


Fig. 4-2

V. ADJUSTMENT

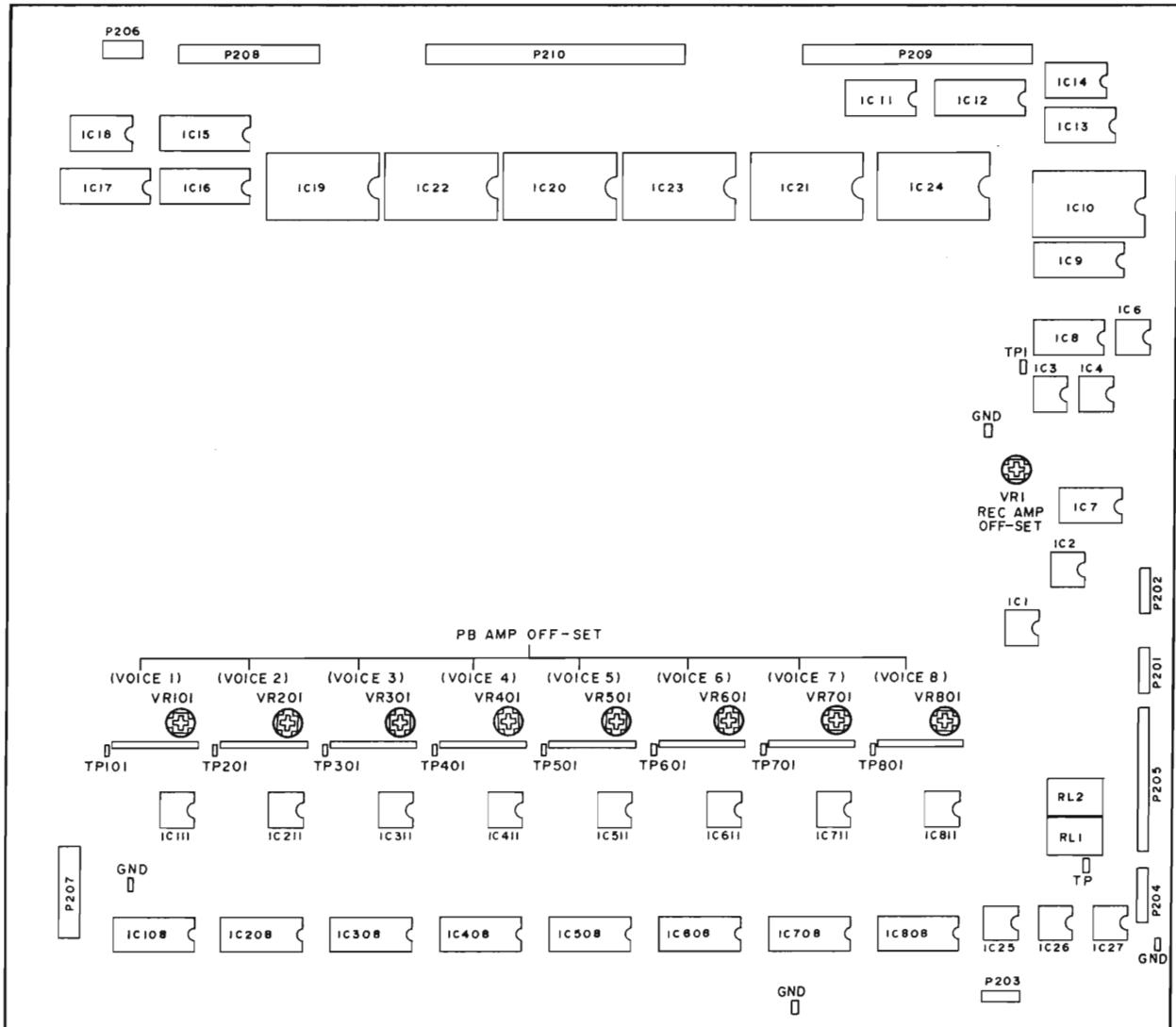


Fig. 5-1 Adjustment points of VOICE PC Board

5-1. ADJUSTMENT OF REC AMP OFF-SET

- 1) Connect the digital DC voltmeter between TP1 (REC AMP OFF-SET) and TP (GND).
- 2) Adjust VR1 (REC AMP OFF-SET) so that the reading on the digital DC voltmeter is DC 0 ± 1 mV.

5-2. ADJUSTMENT OF PB AMP OFF-SET

- 1) Connect the digital DC voltmeter between TP101 (PB AMP OFF-SET) and TP (GND).
- 2) Set the REC LEVEL control to "MIN" position, and record with no signal input condition.
- 3) After recording, read the voltage on the digital DC voltmeter, then push the PB button on the front panel and read the voltage again.
- 4) Adjust VR101 (VOICE 1 PB AMP OFF-SET) so that the both reading voltages are equal or the voltages difference is within ± 5 mV.
- 5) Adjust VR201 (VOICE 2 PB AMP OFF-SET) to VR801 (VOICE 8 PB AMP OFF-SET) as same maner as 1) to 4).

VI. DISASSEMBLY AND ASSEMBLY OF FDD BLOCK

6-1. FDD COVER

6-1-1. REMOVAL

- 1) Set up the FDD as shown Fig. 6-1 then insert a regular screwdriver a little into position A and B and try to slightly lift it in order to remove the FDD cover.

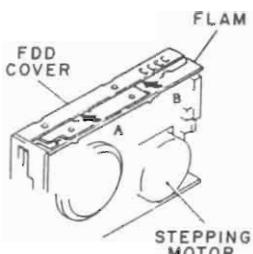


Fig. 6-1

6-1-2. INSTALLATION

- 1) Catching one side of the FDD cover on the side plate as shown Fig. 6-2, install it to main body.

NOTE: When installing, be careful not to damage the FRONT BEZEL and other parts.

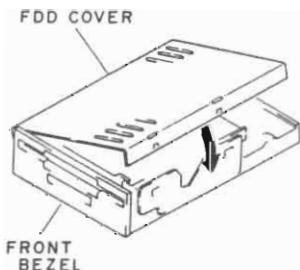


Fig. 6-2

6-2. DISK HOLDER ASSY

6-2-1. REMOVAL

- 1) Remove the FDD COVER as in 6-1-1.
- 2) Install the FRONT BEZEL assy from the FDD front side (Disk holder side). Remove two screws (Bind 2.6 x 5) and remove FRONT BEZEL assy. (Refer to Fig. 6-3)

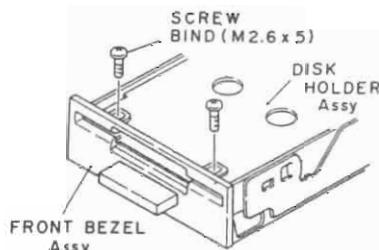


Fig. 6-3

- 3) Unlock the eject hook and remove the disk holder assy by trying to lift up its front portion while pressing the button to near the middle. (Refer to Fig. 6-4)

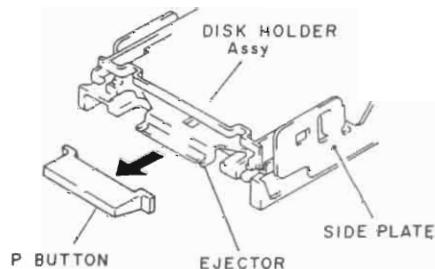


Fig. 6-4

6-2-2. INSTALLATION

- 1) Press the P button in order to lock the eject hook.
- 2) Install the disk holder assy from behind and unlock the eject hook. At this time, press P button near the middle with hand.

6-3. INSERT SPRING, EJECT LEVER AND EJECT LEVER SPRING

6-3-1. REMOVAL

- 1) Remove the FDD cover. (Refer to 6-1-1)
- 2) Remove the disk holder assy. (Refer to 6-2-1)
- 3) Remove the insert spring, eject lever and eject lever spring from the disk holder assy. (Refer to Fig. 6-5)

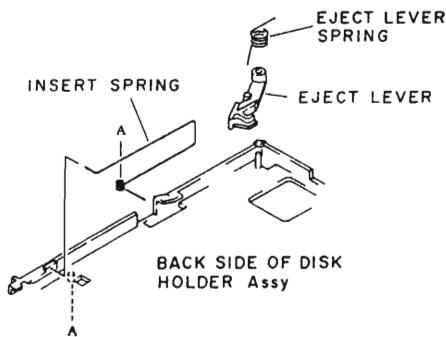


Fig. 6-5

6-3-2. INSTALLATION

- 1) Install the insert spring to the disk holder. At this time, use a plier to bend the tip of the spring A, as shown in Fig. 6-6.

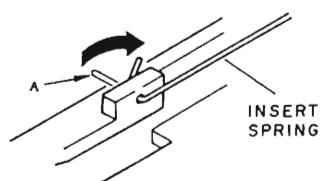


Fig. 6-6

- 2) Install the eject lever and eject lever spring to the disk holder. (At this time, pay attention to the length of the spring.)
- 3) Install the disk holder assy into the FDD. (Refer to 6-2-1)
- 4) Install the FDD cover. (Refer to 6-1-1)

6-4. ROLLER

6-4-1. REMOVAL

- 1) Remove the FDD cover. (Refer to 6-1-1)
- 2) Remove the disk holder assy. (Refer to 6-2-1)
- 3) Remove the roller from the disk holder assy. (Refer to Fig. 6-7)

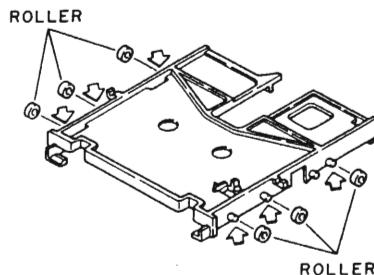


Fig. 6-7

6-4-2. INSTALLATION

- 1) Apply grease to the disk holder assy at six places (Refer to Fig. 6-7) and install the roller.
- 2) Install the disk holder to the FDD. (Refer to 2-2)
- 3) Install the FDD cover. (Refer to 6-1-2)

6-5. EJECTOR AND EJECTOR SPRING

6-5-1. REMOVAL

- 1) Remove the FDD cover. (Refer to 6-1-1)
- 2) Remove the disk holder assy. (Refer to 6-2-1)
- 3) Remove the ejector spring.
- 4) Remove the thrust washers from three places and remove the ejector.

6-5-2. INSTALLATION

- 1) As shown in Fig. 6-8, install the thrust washer to the frame and install the ejector and then use the thrust washer and cut washer to secure.

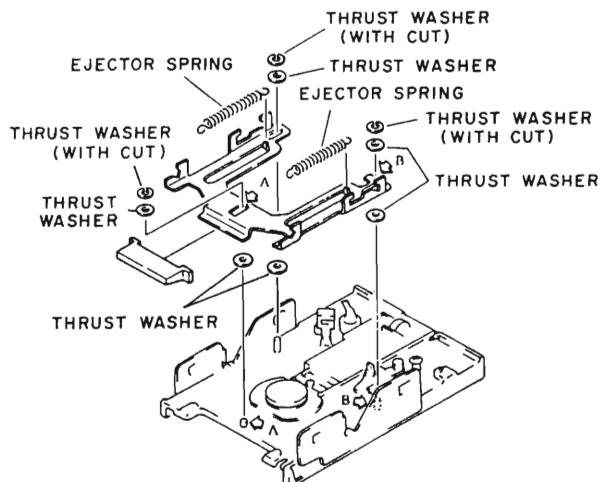


Fig. 6-8

- 2) Install the ejector spring.
- 3) Install the P button the ejector.
- 4) Apply grease to two places, A and B in Fig. 6-8.
- 5) Install the disk holder assy to the FDD. (Refer to 6-2-2)
- 6) Install the FDD cover. (Refer to 6-1-2)

VII. MIDI IMPLEMENTATION CHART

[MIDI DIGITAL SAMPLER]

Model S900 MIDI Implementation Chart Version: 1.0

| Function ... | | Transmitted | Recognized | Remarks |
|------------------------------|--|-------------|---|----------------------------------|
| Basic Channel | Default Changed | × | 1 1 – 16 | Without Disk Memorized (Disk) |
| Mode | Default Messages Altered | × | Mode 1 Mode 1 – 4 Omni on/off, P/M × | Without Disk Memorized (Disk) |
| Note Number | : True voice | × | 0 – 127 24 – 96 | |
| Velocity Note ON Note OFF | | × | ○ 9n V = 1 – 127 ○ 9n V = 0 or 8n V = 1 – 127 | Used Velocity release |
| After Touch | Key's Ch's | × | × | |
| Pitch Bender | | × | ○ | 0 – 12: Half tone step (7 bit) |
| Control Change | 1 64 | × | ○ ○ | Modulation wheel Damper pedal |
| Prog Change | : True # | ★ | 1 – 32 1 – 32 | by Preset number value |
| System Exclusive | | ○ | ○ | ID: 47 |
| System Common | : Song Pos : Song Sel : Tune | × | × | |
| System Real Time | : Clock : Commands | × | × | |
| Aux Messages | : Local ON/OFF : All Notes OFF : Active Sense : Reset | × | × | ○ (123) |
| Notes | | | | |

Mode 1: OMNI ON, POLY
Mode 3: OMNI OFF, POLY

Mode 2: OMNI ON, MONO
Mode 4: OMNI OFF, MONO

○: Yes
×: No

VIII. PARTS LIST

ATTENTION

1. When placing an order for parts, be sure to list Part No., Model No. and the description of each part. Otherwise, the non-delivery of the part or the delivery of a wrong part may result.
2. Please make sure that Part No. is correct when ordering. If not, a part different from the one you ordered may be delivered.
3. Since the parts shown in Parts List of Preliminary Service Manual may have been the subject of changes, please use this Parts List for all future reference.

HOW TO USE THIS PARTS LIST

1. This Parts List lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
2. The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
4. How to read the Parts List.

a) Mechanism Block

b) PC Board

2. HEAD BASE BLOCK

| REF. NO. | PART NO. | DESCRIPTION |
|-------------|---------------|--------------------|
| 2-1x | BH-T2023A320A | HEAD BASE BLOCK |
| 2-2 | HP-H2206A010A | HEAD R/P PR4-8FU C |
| 2-3 | ZS-477876 | PAN20x03STL CMT |
| 2-4 | ZS-536488 | BID20x08STL CMT |
| 2-5 | ZG-402895 | SP CS ANGLE ADJUST |

SP (Service Parts) Classification
A small "x" indicates that this part is not shown in the Photo or Illustration.
This number corresponds with the individual parts index number in that figure.
This number corresponds with the Figure Number.

6. MAIN PC BOARD

| REF. NO. | PART NO. | DESCRIPTION |
|-------------|-----------|------------------------------|
| 6-IC1 | EI-324536 | IC HD14049BP |
| 6-IC2 | EI-336801 | IC MB8841-564M |
| 6-C1A | EC-338399 | C MMY V 223M 250AC [U,E,B,S] |
| 6-C1B | EC-350949 | C MMY V 223M 250DC [J] |
| 6-C1C | EC-338397 | C MMY V 223M 125AC [C,A] |
| 6-X1 | EI-318384 | OSC X'TAL NC-18C |

Symbols for primary destination
[A]: AAL(U.S.A.) [S]: SAA(Australia)
[B]: BEAB(England) [U]: U/T(Universal Area)
[C]: CSA(Canada) [V]: VDE(W. Germany)
[E]: CEE(Europe) [Y]: Custom Version
[J]: JPN(Japan)

SP (Service Parts) Classification
These reference symbols correspond with component symbols in the Schematic Diagrams.

The available PC Board Blocks are listed separately.

5. When Part No. is known, Parts Index at end of Parts List can be used to locate where that part is shown in Parts List by its Reference No. listed at right of Part No.

WARNING

△ (*) INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS.

AVERTISSEMENT

△ (*) IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DÉGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.

RECOMMENDED SPARE PARTS LIST

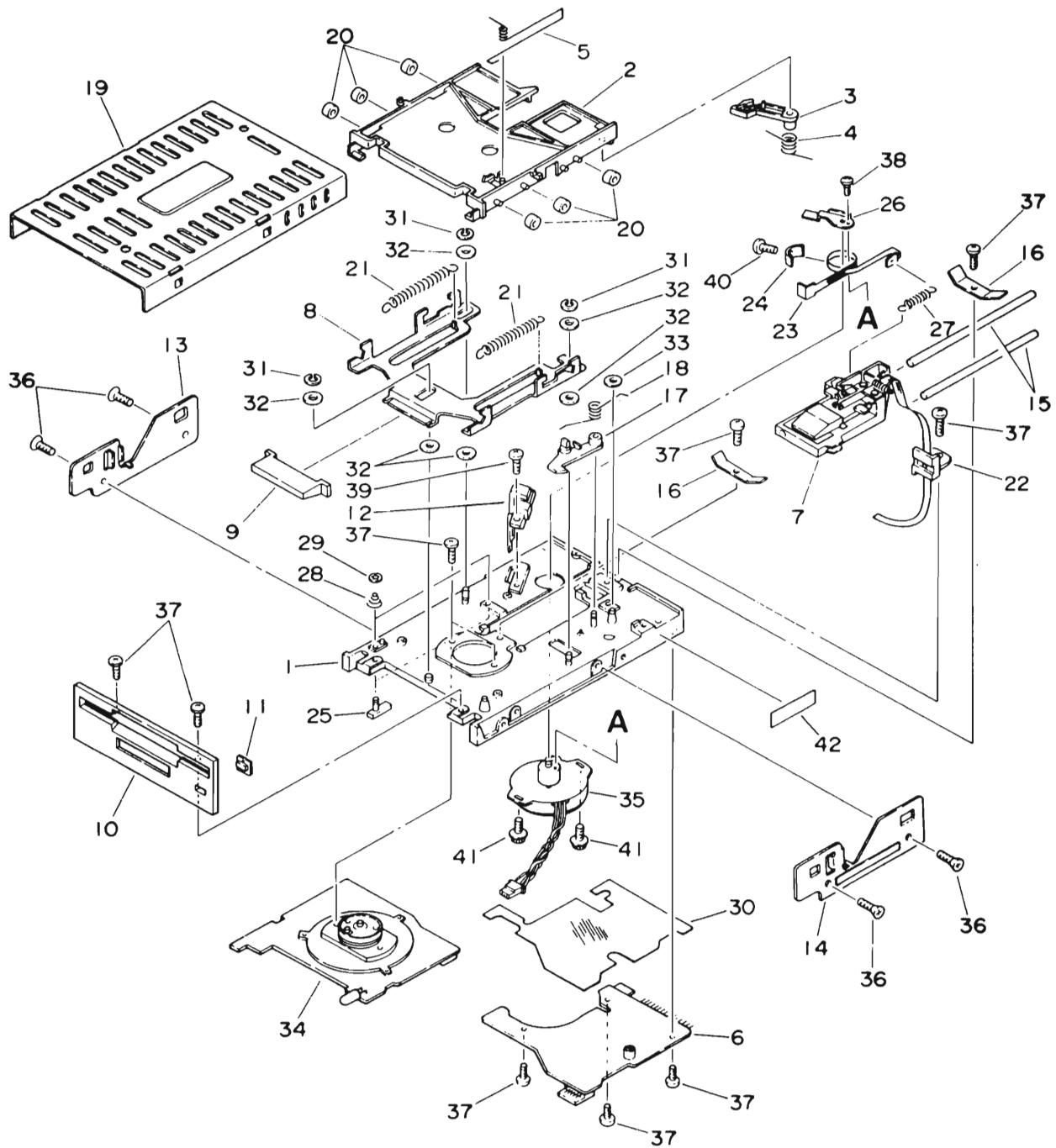
Because, if the parts listed below are on hand, almost any repair can be accomplished, we suggest that you stock these Recommended Spare Parts Items.

| REF. NO. | PART NO. | DESCRIPTION | REF. NO. | PART NO. | DESCRIPTION |
|-------------|-----------|--|-------------|-------------|---------------------------------------|
| 1 | BM-718237 | MOTOR DD D355 BLK | 71 | EI-365802 | IC TC74HC191P |
| 2 | BT-365907 | Δ TRANS POWER S900T-10 (J) | 72 | EI-360029 | IC TC74HC244P |
| 3 | BT-365908 | Δ TRANS POWER S900T-30 (A, C) | 73 | EI-360032 | IC TC74HC245P |
| 4 | BT-365909 | Δ TRANS POWER S900T-50 (E, V, B, S) | 74 | EI-365801 | IC TC74HC257P |
| 5 | ED-365819 | Δ D SILICON CTU-12R | 75 | EI-360042 | IC TC74HC259P |
| 6 | ED-365818 | Δ D SILICON CTU-12S | 76 | EI-365809 | IC TC74HC283P |
| 7 | ED-330319 | Δ D SILICON DBA10B 100/1.0A | 77 | EI-360036 | IC TC74HC32P |
| 8 | ED-357038 | Δ D SILICON DBB10B 100/1.0A | 78 | EI-360030 | IC TC74HC373P |
| 9 | ED-364261 | D LED SLP-981C-50 | 79 | EI-360047 | IC TC74HC374P |
| 10 | ED-301911 | D SILICON H DS448 | 80 | EI-365831 | IC TC74HC393P |
| 11 | ED-346617 | D ZENER H HZ12 C2 | 81 | EI-365803 | IC TC74HC4002P |
| 12 | EF-355226 | Δ FUSE BET T 1.00A 250V [B] | 82 | EI-365830 | IC TC74HC670P |
| 13 | EF-359225 | Δ FUSE BET T 3.15A 250V [B] | 83 | EI-360027 | IC TC74HC86P |
| 14 | EF-358974 | Δ FUSE BET T 630MA 250V [B] | 84 N | EI-367331-C | IC TMM27128AD-20 S900LSB-V 1.2A |
| 15 | EF-358641 | Δ FUSE BET T 800MA 250V [B] | 85 N | EI-367330-C | IC TMM27128AD-20 S900MSB-V 1.2A |
| 16 | EF-623103 | Δ FUSE SEMKO T 1.00A 250V [E,V,S] | 86 N | EI-367194 | IC TMM2764D-2-S900-V 1.0 Custom |
| 17 | EF-691007 | Δ FUSE SEMKO T 3.15A 250V [E,V,S] | 87 | EI-365829 | IC μPC812C-AK |
| 18 | EF-601942 | Δ FUSE SEMKO T 630MA 250V [E,V,S] | 88 | EI-361275 | IC μPD71054C |
| 19 | EF-258344 | Δ FUSE SEMKO T 800MA 250V [E,V,S] | 89 | EI-365813 | IC μPD71055C |
| 20 | EF-309387 | Δ FUSE TSC A 250V 1.00A [J] | 90 | EI-365797 | IC μPD7265C |
| 21 | EF-306951 | Δ FUSE TSC A 250V 2.50A [J] | 91 | EI-354146 | IC μPD8253C-2 |
| 22 | EF-306952 | Δ FUSE TSC A 250V 4.00A [J] | 92 | EI-718241 | IC 74LS93 |
| 23 | EF-306124 | Δ FUSE TSC A 250V 630MA [J] | 93 | EI-365811 | OSC X'TAL NR18 16.000MHz |
| 24 | EF-310229 | Δ FUSE TSC 125V 1.00A [C,A] | 94 | EM-365844 | IND LCD DMC40218UE |
| 25 | EF-306954 | Δ FUSE TSC 125V 2.00A [C,A] | 95 | EQ-348929 | RELAY SIGNAL G5A-232P 2TR 12V |
| 26 | EF-306957 | Δ FUSE TSC 125V 4.00A [C,A] | 96 | ER-326169 | Δ R FUSE ERD2FC S10 1/4W 22R0G |
| 27 | EF-305703 | Δ FUSE TSC 125V 630MA [C,A] | 97 | ER-337754 | Δ R OMF H S15 FS 1W 100J |
| 28 | EI-348123 | Δ IC M5230L | 98 | ER-356747 | Δ R OMF H S15 FS 1W 820J |
| 29 | EI-365822 | Δ IC NJM78M06A | 99 | ES-337902 | Δ SW PUSH SDLDIP 01-1 |
| 30 | EI-365823 | Δ IC NJM79M06A | 100 | ES-306430 | Δ SW SLIDE J-S4013 #01 01-2 [E,V,B,S] |
| 31 | EI-365820 | Δ IC STR9005 | 101 | ES-718243 | SW REED |
| 32 | EI-347758 | Δ IC TA78012AP | 102 | ET-356817 | Δ TR 2SB891 Q, R |
| 33 | EI-360049 | IC AM2504PC | 103 | ET-354083 | Δ TR 2SD1189 Q, R |
| 34 | EI-354283 | IC BA6110 | 104 N | ET-354167 | PHOTO SENSOR NJL5127D |
| 35 | EI-390060 | IC BA9201 | 105 | ET-353899 | TR 2SA1317 S, T, U |
| 36 | EI-360050 | IC BA9221 | 106 | ET-360067 | TR 2SC3330 T, U F05 |
| 37 | EI-360045 | IC DG211CJ | 107 | ET-360067 | TR 2SC3330 T, U F05 |
| 38 | EI-718240 | IC HA13421 | 108 | EV-307695 | R S-FIX H RH0651C15 3P 0.05W 104 |
| 39 | EI-360021 | IC HD6850P | 109 | EV-718242 | R S-FIX VRP0016-204BIM |
| 40 | EI-355887 | IC HD74LS04P | 110 | EV-365817 | VR ROTARY 16P10×2G B102 |
| 41 | EI-355888 | IC HD74LS08P | 111 | EV-365952 | VR ROTARY 16P10×2H B103 |
| 42 | EI-355892 | IC HD74LS38P | 112 | EV-366285 | VR ROTARY 16P10×2I A103 |
| 43 | EI-365804 | IC HD7406P | 113 | EV-365953 | VR ROTARY 16P22×OZ B103 B103 |
| 44 | EI-365806 | IC HD75188P | | | |
| 45 | EI-365805 | IC HD75189P | | | |
| 46 | EI-360954 | IC IR9311 | | | |
| 47 | EI-360058 | IC MF6CN-50 | | | |
| 48 | EI-365239 | IC MN41256-12 | | | |
| 49 | EI-718239 | IC M51017P | | | |
| 50 | EI-360043 | IC M5220P | | | |
| 51 | EI-360565 | IC M5223P | | | |
| 52 | EI-362588 | IC M5238P | | | |
| 53 | EI-365798 | IC SED9420CAC | | | |
| 54 | EI-310044 | IC SN74LS05N | | | |
| 55 | EI-365792 | IC S900 A | | | |
| 56 | EI-365793 | IC S900 B | | | |
| 57 | EI-365794 | IC S900 C | | | |
| 58 | EI-365795 | IC S900 D | | | |
| 59 | EI-365796 | IC S900 E | | | |
| 60 | EI-360037 | IC TC74HC00P | | | |
| 61 | EI-360038 | IC TC74HC02P | | | |
| 62 | EI-360026 | IC TC74HC04P | | | |
| 63 | EI-360039 | IC TC74HC08P | | | |
| 64 | EI-365846 | IC TC74HC109P | | | |
| 65 | EI-360025 | IC TC74HC138P | | | |
| 66 | EI-356049 | IC TC74HC139P | | | |
| 67 | EI-360035 | IC TC74HC157P | | | |
| 68 | EI-365810 | IC TC74HC158P | | | |
| 69 | EI-360048 | IC TC74HC173P | | | |
| 70 | EI-360053 | IC TC74HC175P | | | |

1. FLOPPY DISK DRIVE BLOCK

| Ref. No. | Part No. | Description |
|----------|-------------|-----------------------------------|
| 1-1 | BB-365944-A | FDD D357 (FLOPPY DISK DRIVE UNIT) |
| 1-2 | MZ-718224 | HOLDER DISK D350 |
| 1-3 | ML-718225 | LEVER EJECT |
| 1-4 | ZG-718226 | SP LEVER EJECT |
| 1-5 | ZG-718227 | SP INSERT |
| 1-6 | BA-718228 | PC D355 BLK |
| 1-9 | SK-718229 | KNOB P |
| 1-10 | SP-718230 | PANEL FRONT D350 |
| 1-11 | SZ-718231 | LENZ LED(B) |
| 1-17 | MZ-718232 | HOOK EJECT |
| 1-18 | ZG-718234 | SP HOOK EJECT(B) |
| 1-20 | MR-718235 | ROLLER |
| 1-21 | ZG-718236 | SP EJECTOR |
| 1-34 | BM-718237 | MOTOR DD D355 BLK |
| 1-37 | ZS-718238 | SCREW BIND |

FLOPPY DISK DRIVE BLOCK



2. P.C BOARD BLOCK

| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|----------|---------------|-------------------|----------|-----------|---------------|
| 2-1 | BA-L6002A050A | PC VOICE BLK S900 | 3-IC210 | EI-354283 | IC BA6110 |
| 2-2 | BA-L6002A040A | PC CPU BLK S900 | 3-IC211 | EI-360565 | IC M5223P |
| 2-3 | BA-L6002A020A | PC PANEL BLK S900 | 3-IC301 | EI-365830 | IC TC74HC670P |
| 2-4 | BA-L6002A080A | PC JACK BLK S900 | 3-IC302 | EI-365830 | IC TC74HC670P |
| 2-5 | BA-L6002A060A | POWER BLK S900 | 3-IC303 | EI-365830 | IC TC74HC393P |

NOTE: (1) PC PANEL BLK includes following PC BOARDS.
 *OPERATION PC BOARD *CONTRAST VR PC BOARD
 *LED PC BOARD

(2) PC JACK BLK includes following PC BOARDS.
 *OUTPUT JACK PAC BOARD *INPUT JACK PC BOARD
 *INVERTER PC BOARD *VR PC BOARD
 *MIDI JACK PC BOARD *COMMUNICATION BUS PC BOARD

3. VOICE P.C BOARD

| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|----------|-----------|-----------------------------|----------|------------|-------------------------------|
| 3-C5 | EC-360719 | C PP V S05 CQMF92 101J 50DC | 3-IC406 | EI-360027 | IC TC74HC86P |
| 3-C6 | EC-360719 | C PP V S05 CQMF92 101J 50DC | 3-IC407 | EI-360050 | IC BA9221 |
| 3-C10 | EC-360719 | C PP V S05 CQMF92 101J 50DC | 3-IC408 | EI-390060 | IC BA9201 |
| 3-C21 | EC-360716 | C PP V S05 CQMF92 391J 50DC | 3-IC409 | EI-360058 | IC MF6CN-50 |
| 3-C109 | EC-360719 | C PP V S05 CQMF92 101J 50DC | 3-IC410 | EI-354283 | IC BA6110 |
| 3-C209 | EC-360719 | C PP V S05 CQMF92 101J 50DC | 3-IC411 | EI-360565 | IC M5223P |
| 3-C309 | EC-360719 | C PP V S05 CQMF92 101J 50DC | 3-IC501 | EI-365830 | IC TC74HC670P |
| 3-C409 | EC-360719 | C PP V S05 CQMF92 101J 50DC | 3-IC502 | EI-365830 | IC TC74HC670P |
| 3-C509 | EC-360719 | C PP V S05 CQMF92 101J 50DC | 3-IC503 | EI-365830 | IC TC74HC670P |
| 3-C609 | EC-360719 | C PP V S05 CQMF92 101J 50DC | 3-IC504 | EI-365831 | IC TC74HC393P |
| 3-C709 | EC-360719 | C PP V S05 CQMF92 101J 50DC | 3-IC505 | EI-360038 | IC TC74HC02P |
| 3-C809 | EC-360719 | C PP V S05 CQMF92 101J 50DC | 3-IC506 | EI-360027 | IC TC74HC86P |
| 3-D1 | ED-301911 | D SILICON H DS448 | 3-IC507 | EI-360050 | IC BA9221 |
| 3-IC1 | EI-360043 | IC M5220P | 3-IC508 | EI-390060 | IC BA9201 |
| 3-IC2 | EI-362588 | IC M5238P | 3-IC509 | EI-360058 | IC MF6CN-50 |
| 3-IC3 | EI-362588 | IC M5238P | 3-IC510 | EI-354283 | IC BA6110 |
| 3-IC4 | EI-365829 | IC UPC812C-AK | 3-IC511 | EI-360565 | IC M5223P |
| 3-IC6 | EI-360954 | IC IR9311 | 3-IC601 | EI-365830 | IC TC74HC670P |
| 3-IC7 | EI-360058 | IC MF6CN-50 | 3-IC602 | EI-365830 | IC TC74HC670P |
| 3-IC8 | EI-360045 | IC DG211CJ | 3-IC603 | EI-365830 | IC TC74HC670P |
| 3-IC9 | EI-360050 | IC BA9221 | 3-IC604 | EI-365831 | IC TC74HC393P |
| 3-IC10 | EI-360049 | IC AM2504PC | 3-IC605 | EI-360038 | IC TC74HC02P |
| 3-IC11 | EI-360048 | IC TC74HC173P | 3-IC606 | EI-360027 | IC TC74HC86P |
| 3-IC12 | EI-360047 | IC TC74HC374P | 3-IC607 | EI-360050 | IC BA9221 |
| 3-IC13 | EI-365846 | IC TC74HC109P | 3-IC608 | EI-390060 | IC BA9201 |
| 3-IC14 | EI-360038 | IC TC74HC02P | 3-IC609 | EI-360058 | IC MF6CN-50 |
| 3-IC15 | EI-360047 | IC TC74HC374P | 3-IC610 | EI-354283 | IC BA6110 |
| 3-IC16 | EI-360047 | IC TC74HC374P | 3-IC611 | EI-360565 | IC M5223P |
| 3-IC17 | EI-360029 | IC TC74HC244P | 3-IC701 | EI-365830 | IC TC74HC670P |
| 3-IC18 | EI-360026 | IC TC74HC04P | 3-IC702 | EI-365830 | IC TC74HC670P |
| 3-IC19 | EI-361275 | IC UPD71054C | 3-IC703 | EI-365830 | IC TC74HC670P |
| 3-IC20 | EI-361275 | IC UPD71054C | 3-IC704 | EI-365831 | IC TC74HC393P |
| 3-IC21 | EI-361275 | IC UPD71054C | 3-IC705 | EI-360038 | IC TC74HC02P |
| 3-IC22 | EI-354146 | IC UPD8253C-2 | 3-IC706 | EI-360027 | IC TC74HC86P |
| 3-IC23 | EI-354146 | IC UPD8253C-2 | 3-IC707 | EI-360050 | IC BA9221 |
| 3-IC24 | EI-354146 | IC UPD8253C-2 | 3-IC708 | EI-390060 | IC BA9201 |
| 3-IC25 | EI-362588 | IC M5238P | 3-IC709 | EI-360058 | IC MF6CN-50 |
| 3-IC26 | EI-362588 | IC M5238P | 3-IC710 | EI-354283 | IC BA6110 |
| 3-IC27 | EI-362588 | IC M5238P | 3-IC711 | EI-360565 | IC M5223P |
| 3-IC101 | EI-365830 | IC TC74HC670P | 3-IC801 | EI-365830 | IC TC74HC670P |
| 3-IC102 | EI-365830 | IC TC74HC670P | 3-IC802 | EI-365830 | IC TC74HC670P |
| 3-IC103 | EI-365830 | IC TC74HC670P | 3-IC803 | EI-365830 | IC TC74HC670P |
| 3-IC104 | EI-365831 | IC TC74HC393P | 3-IC804 | EI-365831 | IC TC74HC393P |
| 3-IC105 | EI-360038 | IC TC74HC02P | 3-IC805 | EI-360038 | IC TC74HC02P |
| 3-IC106 | EI-360027 | IC TC74HC86P | 3-IC806 | EI-360027 | IC TC74HC86P |
| 3-IC107 | EI-360050 | IC BA9221 | 3-IC807 | EI-360050 | IC BA9221 |
| 3-IC108 | EI-390060 | IC BA9201 | 3-IC808 | EI-390060 | IC BA9201 |
| 3-IC109 | EI-360058 | IC MF6CN-50 | 3-IC809 | EI-360058 | IC MF6CN-50 |
| 3-IC110 | EI-354283 | IC BA6110 | 3-IC810 | EI-354283 | IC BA6110 |
| 3-IC111 | EI-360565 | IC M5223P | 3-IC811 | EI-360565 | IC M5223P |
| 3-IC201 | EI-365830 | IC TC74HC670P | 3-RL1 | EQ-348929 | RELAY SIGNAL G5A-232P 2TR 12V |
| 3-IC202 | EI-365830 | IC TC74HC670P | 3-RL2 | EQ-348929 | RELAY SIGNAL G5A-232P 2TR 12V |
| 3-IC203 | EI-365830 | IC TC74HC670P | 3-R7 | ER-362495 | R OMF H S10 FS 1/2W 101J |
| 3-IC204 | EI-365831 | IC TC74HC393P | 3-R8 | ER-362495 | R OMF H S10 FS 1/2W 101J |
| 3-IC205 | EI-360038 | IC TC74HC02P | 3-R29 | ER-324185 | R CB H S10 FS RDS 1/4W 221J |
| 3-IC206 | EI-360027 | IC TC74HC86P | 3-R30 | *ER-326169 | R FUSE ERD2FC S10 1/4W 22ROG |
| 3-IC207 | EI-360050 | IC BA9221 | 3-R31 | ER-365788 | R MF H F10 1/4W 2491F |
| 3-IC208 | EI-390060 | IC BA9201 | 3-R32 | ER-365789 | R MF H F10 1/4W 4991F |
| 3-IC209 | EI-360058 | IC MF6CN-50 | 3-R58 | *ER-356747 | R OMF H S15 FS 1W 820J |

| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|----------|-----------|----------------------------------|----------|-----------|-------------------------|
| 3-R121 | ER-324185 | R CB H S10 FS RDS 1/4W 221J | 4-IC32 | EI-360026 | IC TC74HC04P |
| 3-R202 | ER-365788 | R MF H F10 1/4W 2491F | 4-IC33 | EI-360036 | IC TC74HC32P |
| 3-R203 | ER-365789 | R MF H F10 1/4W 4991F | 4-IC34 | EI-360036 | IC TC74HC32P |
| 3-R221 | ER-324185 | R CB H S10 FS RDS 1/4W 221J | 4-IC35 | EI-360037 | IC TC74HC00P |
| 3-R302 | ER-365788 | R MF H F10 1/4W 2491F | 4-IC36 | EI-360037 | IC TC74HC00P |
| 3-R303 | ER-365789 | R MF H F10 1/4W 4991F | 4-IC37 | EI-360039 | IC TC74HC08P |
| 3-R321 | ER-324185 | R CB H S10 FS RDS 1/4W 221J | 4-IC38 | EI-365804 | IC HD7406P |
| 3-R402 | ER-365788 | R MF H F10 1/4W 2491F | 4-IC39 | EI-355889 | IC HD74LS14P |
| 3-R403 | ER-365789 | R MF H F10 1/4W 4991F | 4-IC40 | EI-355892 | IC HD74LS38P |
| 3-R421 | ER-324185 | R CB H S10 FS RDS 1/4W 221J | 4-IC41 | EI-355888 | IC HD74LS08P |
| 3-R502 | ER-365788 | R MF H F10 1/4W 2491F | 4-IC42 | EI-355887 | IC HD74LS04P |
| 3-R503 | ER-365789 | R MF H F10 1/4W 4991F | 4-IC43 | EI-365805 | IC HD75189P |
| 3-R521 | ER-324185 | R CB H S10 FS RDS 1/4W 221J | 4-IC44 | EI-365806 | IC HD75188P |
| 3-R602 | ER-365788 | R MF H F10 1/4W 2491F | 4-IC45 | EI-365239 | IC MN41256-12 |
| 3-R603 | ER-365789 | R MF H F10 1/4W 4991F | 4-IC46 | EI-365239 | IC MN41256-12 |
| 3-R621 | ER-324185 | R CB H S10 FS RDS 1/4W 221J | 4-IC47 | EI-365239 | IC MN41256-12 |
| 3-R702 | ER-365788 | R MF H F10 1/4W 2491F | 4-IC48 | EI-365239 | IC MN41256-12 |
| 3-R703 | ER-365789 | R MF H F10 1/4W 4991F | 4-IC49 | EI-365239 | IC MN41256-12 |
| 3-R721 | ER-324185 | R CB H S10 FS RDS 1/4W 221J | 4-IC50 | EI-365239 | IC MN41256-12 |
| 3-R802 | ER-365788 | R MF H F10 1/4W 2491F | 4-IC51 | EI-365239 | IC MN41256-12 |
| 3-R803 | ER-365789 | R MF H F10 1/4W 4991F | 4-IC52 | EI-365239 | IC MN41256-12 |
| 3-R821 | ER-324185 | R CB H S10 FS RDS 1/4W 221J | 4-IC53 | EI-365239 | IC MN41256-12 |
| 3-TR1 | ET-360067 | TR 2SC3330 T.U F05 | 4-IC54 | EI-365239 | IC MN41256-12 |
| 3-TR101 | ET-353899 | TR 2SA1317 S.T.U | 4-IC55 | EI-365239 | IC MN41256-12 |
| 3-TR201 | ET-353899 | TR 2SA1317 S.T.U | 4-IC56 | EI-365239 | IC MN41256-12 |
| 3-TR301 | ET-353899 | TR 2SA1317 S.T.U | 4-IC57 | EI-365239 | IC MN41256-12 |
| 3-TR401 | ET-353899 | TR 2SA1317 S.T.U | 4-IC58 | EI-365239 | IC MN41256-12 |
| 3-TR501 | ET-353899 | TR 2SA1317 S.T.U | 4-IC59 | EI-365239 | IC MN41256-12 |
| 3-TR601 | ET-353899 | TR 2SA1317 S.T.U | 4-IC60 | EI-365239 | IC MN41256-12 |
| 3-TR701 | ET-353899 | TR 2SA1317 S.T.U | 4-IC61 | EI-365239 | IC MN41256-12 |
| 3-TR801 | ET-353899 | TR 2SA1317 S.T.U | 4-IC62 | EI-365239 | IC MN41256-12 |
| 3-VR1 | EV-307695 | R S-FIX H RH0651C15 3P 0.05W 104 | 4-IC63 | EI-365239 | IC MN41256-12 |
| 3-VR101 | EV-307695 | R S-FIX H RH0651C15 3P 0.05W 104 | 4-IC64 | EI-365239 | IC MN41256-12 |
| 3-VR201 | EV-307695 | R S-FIX H RH0651C15 3P 0.05W 104 | 4-IC65 | EI-365239 | IC MN41256-12 |
| 3-VR301 | EV-307695 | R S-FIX H RH0651C15 3P 0.05W 104 | 4-IC66 | EI-365239 | IC MN41256-12 |
| 3-VR401 | EV-307695 | R S-FIX H RH0651C15 3P 0.05W 104 | 4-IC67 | EI-365239 | IC MN41256-12 |
| 3-VR501 | EV-307695 | R S-FIX H RH0651C15 3P 0.05W 104 | 4-IC68 | EI-365239 | IC MN41256-12 |
| 3-VF601 | EV-307695 | R S-FIX H RH0651C15 3P 0.05W 104 | 4-IC69 | EI-365239 | IC MN41256-12 |
| 3-VR701 | EV-307695 | R S-FIX H RH0651C15 3P 0.05W 104 | 4-IC70 | EI-365239 | IC MN41256-12 |
| 3-VR801 | EV-307695 | R S-FIX H RH0651C15 3P 0.05W 104 | 4-IC71 | EI-365239 | IC MN41256-12 |
| | | | 4-IC72 | EI-365239 | IC MN41256-12 |
| | | | 4-IC73 | EI-367194 | IC TMM2764D-2-S900-V1.0 |
| | | | 4-IC74 | EI-367194 | IC TMM2764D-2-S900-V1.0 |
| | | | 4-IC75 | EI-367194 | IC TMM2764D-2-S900-V1.0 |

4. CPU P.C BOARD

| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|----------|-------------|--------------------------------|----------|-----------|-----------------------------|
| 4-D1 | ED-301911 | D SILICON H DS448 | 4-IC76 | EI-365809 | IC TC74HC283P |
| 4-IC1 | EI-365792 | IC S900 A | 4-IC77 | EI-365809 | IC TC74HC283P |
| 4-IC2 | EI-365793 | IC S900 B | 4-IC78 | EI-365809 | IC TC74HC283P |
| 4-IC3 | EI-365794 | IC S900 C | 4-IC79 | EI-365801 | IC TC74HC257P |
| 4-IC4 | EI-365794 | IC S900 C | 4-IC80 | EI-365801 | IC TC74HC257P |
| 4-IC5 | EI-365794 | IC S900 C | 4-IC81 | EI-365801 | IC TC74HC257P |
| 4-IC6 | EI-365795 | IC S900 D | 4-IC82 | EI-360035 | IC TC74HC157P |
| 4-IC7 | EI-365796 | IC S900 E | 4-IC83 | EI-365810 | IC TC74HC158P |
| 4-IC8 | EI-360021 | IC HD6850P | 4-IC84 | EI-365810 | IC TC74HC158P |
| 4-IC9 | EI-365797 | IC UPD7265C | 4-IC85 | EI-360039 | IC TC74HC08P |
| 4-IC10 | EI-365798 | IC SED9420CAC | 4-IC86 | EI-360026 | IC TC74HC04P |
| 4-IC11 | EI-367330-C | IC TMM27128AD-20 S900MSB-V1.2A | 4-IC87 | EI-360038 | IC TC74HC02P |
| 4-IC12 | EI-367331-C | IC TMM27128AD-20 S900LSB-V1.2A | 4-IC88 | EI-360036 | IC TC74HC32P |
| 4-IC13 | EI-360030 | IC TC74HC373P | 4-IC89 | EI-360053 | IC TC74HC175P |
| 4-IC14 | EI-360030 | IC TC74HC373P | 4-IC90 | EI-360039 | IC TC74HC08P |
| 4-IC15 | EI-360030 | IC TC74HC373P | 4-R30 | ER-200939 | R CB H S10 FS RDS 1/4W 181J |
| 4-IC16 | EI-360030 | IC TC74HC373P | 4-R31 | ER-200939 | R CB H S10 FS RDS 1/4W 181J |
| 4-IC17 | EI-360030 | IC TC74HC373P | 4-X1 | EI-365811 | OSC X'TAL NR18 16.000MHZ |
| 4-IC18 | EI-360032 | IC TC74HC245P | 4-1 | EJ-358691 | SOCKET IC DILB28P-8J |
| 4-IC19 | EI-365831 | IC TC74HC393P | | | |
| 4-IC20 | EI-365801 | IC TC74HC257P | | | |
| 4-IC21 | EI-360053 | IC TC74HC175P | | | |
| 4-IC22 | EI-360025 | IC TC74HC138P | | | |
| 4-IC23 | EI-360025 | IC TC74HC138P | | | |
| 4-IC24 | EI-360025 | IC TC74HC138P | | | |
| 4-IC25 | EI-360042 | IC TC74HC259P | | | |
| 4-IC26 | EI-360029 | IC TC74HC244P | | | |
| 4-IC27 | EI-365801 | IC TC74HC257P | | | |
| 4-IC28 | EI-365802 | IC TC74HC191P | | | |
| 4-IC29 | EI-356049 | IC TC74HC139P | | | |
| 4-IC30 | EI-360053 | IC TC74HC175P | | | |
| 4-IC31 | EI-365803 | IC TC74HC4002P | | | |

5. PANEL P.C BOARD

| Ref. No. | Part No. | Description |
|----------|-----------|--------------------|
| 5-CR1 | EH-347688 | COMP R EXB-P88472K |
| 5-CR2 | EH-347688 | COMP R EXB-P88472K |
| 5-D1 | ED-364261 | D LED SLP-981C-50 |
| 5-D2 | ED-364261 | D LED SLP-981C-50 |
| 5-D3 | ED-364261 | D LED SLP-981C-50 |
| 5-D4 | ED-364261 | D LED SLP-981C-50 |
| 5-D5 | ED-364261 | D LED SLP-981C-50 |
| 5-D6 | ED-364261 | D LED SLP-981C-50 |
| 5-D7 | ED-364261 | D LED SLP-981C-50 |
| 5-IC1 | EI-365813 | IC UPD71055C |
| 5-SW1 | ES-365851 | SW TACT SPPQ19 |
| 5-SW2 | ES-365851 | SW TACT SPPQ19 |
| 5-SW3 | ES-365851 | SW TACT SPPQ19 |
| 5-SW4 | ES-365851 | SW TACT SPPQ19 |
| 5-SW6 | ES-365851 | SW TACT SPPQ19 |
| 5-SW7 | ES-365851 | SW TACT SPPQ19 |
| 5-SW8 | ES-365851 | SW TACT SPPQ19 |
| 5-SW9 | ES-365851 | SW TACT SPPQ19 |
| 5-SW10 | ES-365851 | SW TACT SPPQ19 |
| 5-SW11 | ES-365851 | SW TACT SPPQ19 |
| 5-SW12 | ES-365851 | SW TACT SPPQ19 |
| 5-SW13 | ES-365851 | SW TACT SPPQ19 |
| 5-SW14 | ES-365851 | SW TACT SPPQ19 |
| 5-SW16 | ES-365851 | SW TACT SPPQ19 |
| 5-SW17 | ES-365851 | SW TACT SPPQ19 |
| 5-SW18 | ES-365851 | SW TACT SPPQ19 |
| 5-SW19 | ES-365851 | SW TACT SPPQ19 |
| 5-SW20 | ES-365851 | SW TACT SPPQ19 |
| 5-SW21 | ES-365851 | SW TACT SPPQ19 |
| 5-SW22 | ES-365851 | SW TACT SPPQ19 |
| 5-SW23 | ES-365851 | SW TACT SPPQ19 |
| 5-SW24 | ES-365851 | SW TACT SPPQ19 |
| 5-SW25 | ES-365851 | SW TACT SPPQ19 |
| 5-SW26 | ES-365851 | SW TACT SPPQ19 |
| 5-SW27 | ES-365851 | SW TACT SPPQ19 |
| 5-SW28 | ES-365851 | SW TACT SPPQ19 |

9. INVERTER P.C BOARD

| Ref. No. | Part No. | Description |
|----------|-----------|-------------------------------|
| 9-R1 | ER-333372 | R CB H S10 FS RDS 1/4W 150J |
| 9-1 | VT-365945 | MULTI BLK INVERTER NEL-D32-43 |

10. VOLUME P.C BOARD

| Ref. No. | Part No. | Description |
|----------|-----------|------------------------------|
| 10-VR1 | EV-366285 | VR ROTARY 16P10X2I A103 |
| 10-VR2 | EV-365952 | VR ROTARY 16P10X2H B103 |
| 10-VR3 | EV-365953 | VR ROTARY 16P22X0Z B103 B103 |

11. CONTRAST P.C BOARD

| Ref. No. | Part No. | Description |
|----------|-----------|-------------------------|
| 11-VR1 | EV-365817 | VR ROTARY 16P10X2G B102 |

12. LED P.C BOARD

| Ref. No. | Part No. | Description |
|----------|-----------|-------------------|
| 12-D1 | ED-364261 | D LED SLP-981C-50 |

6. OUTPUT JACK P.C BOARD

| Ref. No. | Part No. | Description |
|----------|-----------|----------------------------|
| 6-J501 | EJ-354269 | PHONE J 3P HLJ0540-110 6.3 |
| 6-J502 | EJ-354269 | PHONE J 3P HLJ0540-110 6.3 |
| 6-J503 | EJ-354269 | PHONE J 3P HLJ0540-110 6.3 |
| 6-J505 | EJ-354269 | PHONE J 3P HLJ0540-110 6.3 |
| 6-J505 | EJ-354269 | PHONE J 3P HLJ0540-110 6.3 |
| 6-J506 | EJ-354269 | PHONE J 3P HLJ0540-110 6.3 |
| 6-J507 | EJ-354269 | PHONE J 3P HLJ0540-110 6.3 |
| 6-J508 | EJ-354269 | PHONE J 3P HLJ0540-110 6.3 |
| 6-J509 | EJ-354269 | PHONE J 3P HLJ0540-110 6.3 |
| 6-J510 | EJ-354269 | PHONE J 3P HLJ0540-110 6.3 |
| 6-J511 | EJ-354269 | PHONE J 3P HLJ0540-110 6.3 |
| 6-J512 | EJ-360771 | DIN J TCS5037-01-241 13P |

7. INPUT JACK P.C BOARD

| Ref. No. | Part No. | Description |
|----------|-----------|----------------------------|
| 7-J514 | EJ-354269 | PHONE J 3P HLJ0540-110 6.3 |
| 7-J515 | EJ-354269 | PHONE J 3P HLJ0540-110 6.3 |
| 7-J516 | EJ-354269 | PHONE J 3P HLJ0540-110 6.3 |

8. MIDI JACK P.C BOARD

| Ref. No. | Part No. | Description |
|----------|-----------|-------------------|
| 8-D1 | ED-301911 | D SILICON H DS448 |
| 8-IC1 | EI-310044 | IC SN74LS05N |
| 8-J513 | EJ-364256 | DIN J M1704 3P |
| 8-PH1 | ET-354167 | DETECTOR PC900 |

13. POWER SUPPLY P.C BOARD

| Ref. No. | Part No. | Description |
|----------|------------|------------------------------------|
| 13-C1 | EC-201650 | C EC V CUT AS1 472M 10DC |
| 13-C5 | EC-316188 | C EC V CUT SM 102M 25DC |
| 13-C6 | EC-316188 | C EC V CUT SM 102M 25DC |
| 13-TR1 | ET-360067 | TR 2SC3330 T.U F05 |
| 13-D1 | *ED-357038 | D SILICON DBB10B 100/1.0A |
| 13-D2 | *ED-330319 | D SILICON DBA10B 100/1.0A |
| 13-D3 | *ER-337754 | R OMF H S15 FS 1W 100J |
| 13-D4 | *ER-337754 | R OMF H S15 FS 1W 100J |
| 13-D5 | *ER-337754 | R OMF H S15 FS 1W 100J |
| 13-D6 | *ER-337754 | R OMF H S15 FS 1W 100J |
| 13-D7 | *ER-337754 | R OMF H S15 FS 1W 100J |
| 13-D8 | ED-301911 | D SILICON H DS448 |
| 13-D9 | ED-346617 | D ZENER H HZ12 C2 |
| 13-IC1 | *EI-348123 | IC M5230L |
| 13-R1 | ER-324185 | R CB H S10 FS RDS 1/4W 221J |
| 13-R2 | ER-324185 | R CB H S10 FS RDS 1/4W 221J |
| 13-TR1 | ET-360067 | TR 2SC3330 T.U F05 |
| 13-F2 | *EF-306952 | FUSE TSC A 250V 4.00A [J] |
| 13-F2A | *EF-306957 | FUSE TSC 125V 4.00A [C.A] |
| 13-F2B | *EF-691007 | FUSE SEMKO T 3.15A 250V [E.V.S] |
| 13-F2C | *EF-359225 | FUSE BET T 3.15A 250V [B] |
| 13-F3 | *EF-306124 | FUSE TSC A 250V 630MA [J] |
| 13-F3A | *EF-305703 | FUSE TSC 125V 630MA [C.A] |
| 13-F3B | *EF-601942 | FUSE SEMKO T 630MA 250V [E.V.S] |
| 13-F3C | *EF-358974 | FUSE BET T 630MA 250V [B] |
| 13-F4 | *EF-309387 | FUSE TSC A 250V 1.00A [J] |
| 13-F4A | *EF-310229 | FUSE TSC 125V 1.00A [C.A] |
| 13-F4B | *EF-258344 | FUSE SEMKO T 800MA 250V [E.V.S] |
| 13-F4C | *EF-358641 | FUSE BET T 800MA 250V [B] |
| 13-F5 | *EF-309387 | FUSE TSC A 250V 1.00A [J] |
| 13-F5A | *EF-310229 | FUSE TSC 125V 1.00A [C.A] |
| 13-F5B | *EF-258344 | FUSE SEMKO T 800MA 250V [E.V.S] |
| 13-F5C | *EF-358641 | FUSE BET T 800MA 250V [B] |
| 13-D901 | *ED-365818 | D SILICON CTU-12S |
| 13-D902 | *ED-365819 | D SILICON CTU-12R |
| 13-IC901 | *EI-365820 | IC STR9005 |
| 13-IC902 | *EI-347758 | IC TA78012AP |
| 13-IC903 | *EI-365822 | IC NJM78M06A |
| 13-IC904 | *EI-365823 | IC NJM79M06A |
| 13-TR901 | *ET-356817 | TR 2SB891 Q.R |
| 13-TR902 | *ET-354083 | TR 2SD1189 Q.R |
| 13-1 | ZW-632226 | WASHER INSULATOR (BUSH M) |

14. FILTER P.C BOARD

| Ref. No. | Part No. | Description |
|----------|------------|--|
| 14-C2 | *EC-358450 | C CE V DNS102MBE B 102M 400AC [A.V] |
| 14-C3 | *EC-358450 | C CE V DNS102MBE B 102M 400AC [A.V] |
| 14-C4 | *EC-369670 | C MY V XE 683M 250V [A.V] |
| 14-FL1 | EO-360068 | COIL LF LF-2 B |
| 14-F1 | *EF-306951 | FUSE TSC A 250V 2.50A [J] |
| 14-F1A | *EF-306954 | FUSE TSC 125V 2.00A [C.A] |
| 14-F1B | *EF-623103 | FUSE SEMKO T 1.00A 250V [E.V.S] |
| 14-F1C | *EF-355226 | FUSE BET T 1.00A 250V [B] |

15. LCD P.C BOARD

| Ref. No. | Part No. | Description |
|----------|-----------|----------------------------------|
| 15-1 | EM-365844 | IND LCD DMC40218UE [INC. PCB] |

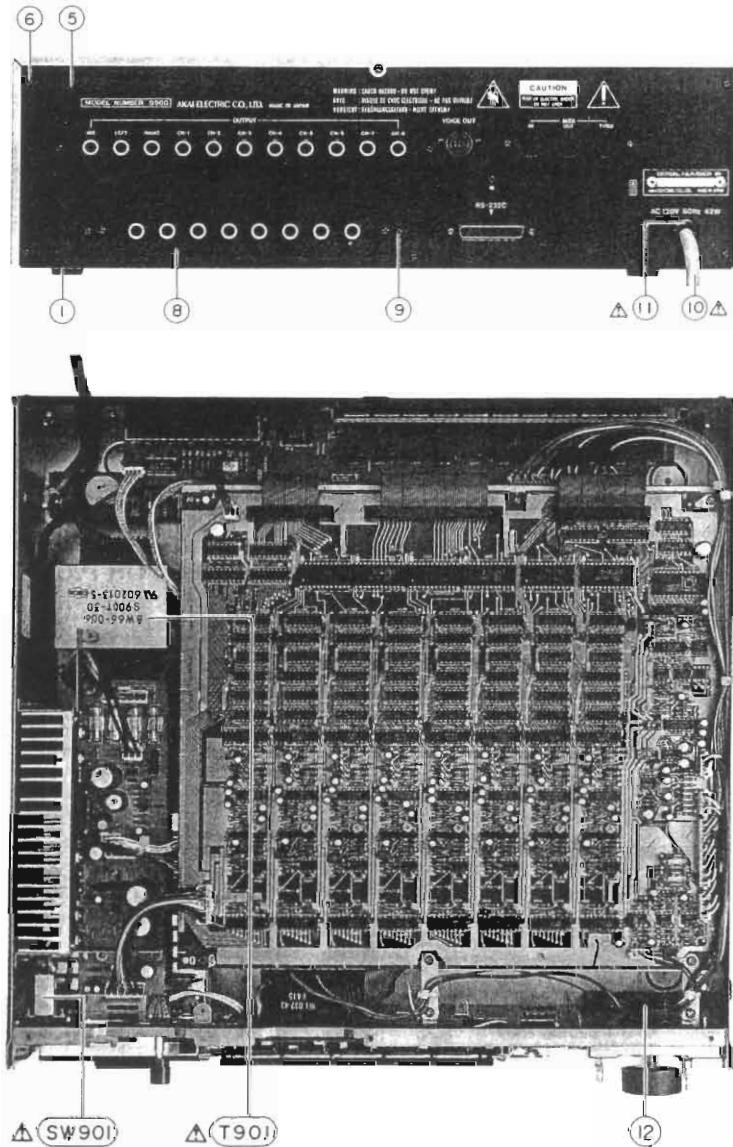
16. CONNECTOR P.C BOARD

| Ref. No. | Part No. | Description |
|----------|-----------|-------------------------------|
| 16-J522 | EJ-365932 | CONNECTOR HDB0001-01-2131 25P |

17. FDD

| Ref. No. | Part No. | Description |
|----------|-----------|------------------------|
| 17-IC1 | EI-718239 | IC M51017P |
| 17-IC2 | EI-718240 | IC HA13421 |
| 17-IC3 | EI-718241 | IC 74LS93 |
| 17-RSW1 | ES-718243 | SW REED |
| 17-SP2 | EJ-718245 | PLUG SHORT |
| 17-VR2 | EV-718242 | R S-FIX VRP0016-204BIM |

ASSEMBLY BLOCK



18. ASSEMBLY BLOCK

| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|----------|------------|---|----------|------------|---|
| 18-1 | SA-349332 | FOOT | 18-10B | *EW-359641 | AC CORD 2 CORES KP-419C/KS-17 EV [E.V] |
| 18-2X | ZS-360715 | ST PAN30X08STL CMT C080 [ROOT FIX] | 18-10C | *EW-358631 | AC CORD 2 CORES KS-17 LTBS2F BS [B] |
| 18-3X | ZS-314702 | ST #D40X10STL CMT [TRANS POWER FIX] | 18-10D | *EW-358630 | AC CORD 2 CORES KP560 LTSA2F KS17 S [S] |
| 18-4X | ZW-273892 | TW40 [TRANS POWER FIX] | 18-11 | *EZ-302906 | STRAIN RELIEF SR-6N-4 [C.A] |
| 18-5 | SP-362368A | PANEL REAR (J) | 18-12 | EJ-361943 | SW, EWT-XDFK2550B |
| 18-5A | SP-362368B | PANEL REAR (C,A) | 18-C901 | *EZ-361942 | C CE V DNS103ZV V 103Z.400AC |
| 18-5B | SP-362368C | PANEL REAR (E,V.B.S) | 18-J901 | *EZ-358633 | SOCKET INLET SOT017 2P [J,E,V.B,S] |
| 18-6 | ZS-366240 | T2BR30X06STL BNI PROJECTION [PANEL REAR FIX] | 18-SW901 | *ES-337902 | SW PUSH SDLD1P 01.1 |
| 18-7X | ZW-698308 | RV NYL30X055 BL | 18-WS901 | *ES-306430 | SW (SUDE J-S4013#01 01-2 [E,V.B,S]) |
| 18-8 | SC-362359A | COVER REAR (A) | 18-T901 | *BT-365907 | TRANS POWER S900T-10(j) |
| 18-9 | ZS-366240 | T2BR30X06STL BN PROJECTION [COVER REAR FIX] | 18-T901A | *BT-365908 | TRANS POWER S900T-30(A,C) |
| 18-10 | *EW-365947 | AC CORD 250 SKP210KS17B A J [J] | 18-T901B | *BT-365909 | TRANS POWER S900T-50(E,V,B,S) |
| 18-10A | *EW-366055 | AC CORD 250 KP-11 WSJT18 UC [C,A] | | | |

FINAL ASSEMBLY BLOCK



19. FINAL ASSEMBLY BLOCK

| Ref. No. | Part No. | Description |
|----------|--------------|---|
| 19-1 | BD-B362369 | PANEL FRONT PART |
| 19-2 | SK-362347A-A | KNOB PUSH (1) |
| 19-3 | SK-343017J | KNOB POWER (C) |
| 19-4 | SK-331108E | KNOB (A-5) |
| 19-5 | SK-362353 | KNOB ROTARY (A) |
| 19-6 | SK-B364611 | KNOB MONITOR RED (2) PART |
| 19-7 | SK-B364614 | KNOB MONITOR WHITE (2) PART |
| 19-8 | SK-B364607 | KNOB UPPER WHITE (3) PART |
| 19-9 | SK-352755C | KNOB LOWER (3) |
| 19-10 | SP-362371-A | COVER UPPER |
| 19-11 | ZS-341959 | ST BID40X06STL NI3 [COVER UPPER FIX] |
| 19-12 | SH-362361 | HANDLE RACK |
| 19-13X | ZS-321783 | ST BID40X10STL NI3 [HANDLE RACK FIX] |

ASK90

1. P.C BOARD BLOCK

| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|----------|---------------|-------------------|----------|------------|--------------------|
| 1-1 | BA-L5012A020A | PC DRUM BLK ASK90 | 2-TR802 | ET-360067 | TR 2SC3330 T.U F05 |
| | | | 2-1 | SC-362359B | COVER REAR (B) |
| | | | 2-2 | ZS-447761 | T2BR30X06STL BNI |

2. DRUM P.C BOARD

| Ref. No. | Part No. | Description |
|----------|-----------|----------------------------|
| 2-D101 | ED-301911 | D SILICON H DS448 |
| 2-D102 | ED-301911 | D SILICON H DS448 |
| 2-D103 | ED-301911 | D SILICON H DS448 |
| 2-D201 | ED-301911 | D SILICON H DS448 |
| 2-D202 | ED-301911 | D SILICON H DS448 |
| 2-D203 | ED-301911 | D SILICON H DS448 |
| 2-D301 | ED-301911 | D SILICON H DS448 |
| 2-D302 | ED-301911 | D SILICON H DS448 |
| 2-D303 | ED-301911 | D SILICON H DS448 |
| 2-D401 | ED-301911 | D SILICON H DS448 |
| 2-D402 | ED-301911 | D SILICON H DS448 |
| 2-D403 | ED-301911 | D SILICON H DS448 |
| 2-D501 | ED-301911 | D SILICON H DS448 |
| 2-D502 | ED-301911 | D SILICON H DS448 |
| 2-D503 | ED-301911 | D SILICON H DS448 |
| 2-D601 | ED-301911 | D SILICON H DS448 |
| 2-D602 | ED-301911 | D SILICON H DS448 |
| 2-D603 | ED-301911 | D SILICON H DS448 |
| 2-D701 | ED-301911 | D SILICON H DS448 |
| 2-D702 | ED-301911 | D SILICON H DS448 |
| 2-D703 | ED-301911 | D SILICON H DS448 |
| 2-D801 | ED-301911 | D SILICON H DS448 |
| 2-D802 | ED-301911 | D SILICON H DS448 |
| 2-D803 | ED-301911 | D SILICON H DS448 |
| 2-IC1 | EI-360051 | IC ADC0809CCN |
| 2-IC2 | EI-360026 | IC TC74HC04P |
| 2-IC3 | EI-365839 | IC HD74LS92P |
| 2-IC4 | EI-365840 | IC TC74HC155P |
| 2-IC5 | EI-365801 | IC TC74HC257P |
| 2-IC6 | EI-360053 | IC TC74HC175P |
| 2-IC7 | EI-360042 | IC TC74HC259P |
| 2-IC8 | EI-336995 | IC NJM78L05A |
| 2-IC101 | EI-367225 | IC M5238P-13 |
| 2-IC102 | EI-367225 | IC M5238P-13 |
| 2-IC201 | EI-367225 | IC M5238P-13 |
| 2-IC202 | EI-367225 | IC M5238P-13 |
| 2-IC301 | EI-367225 | IC M5238P-13 |
| 2-IC302 | EI-367225 | IC M5238P-13 |
| 2-IC401 | EI-367225 | IC M5238P-13 |
| 2-IC402 | EI-367225 | IC M5238P-13 |
| 2-IC501 | EI-367225 | IC M5238P-13 |
| 2-IC502 | EI-367225 | IC M5238P-13 |
| 2-IC601 | EI-367225 | IC M5238P-13 |
| 2-IC602 | EI-367225 | IC M5238P-13 |
| 2-IC701 | EI-367225 | IC M5238P-13 |
| 2-IC702 | EI-367225 | IC M5238P-13 |
| 2-IC801 | EI-367225 | IC M5238P-13 |
| 2-IC802 | EI-362588 | IC M5238P |
| 2-J601 | EJ-354269 | PHONE J 3P HLJ0540-110 6.3 |
| 2-J602 | EJ-354269 | PHONE J 3P HLJ0540-110 6.3 |
| 2-J603 | EJ-354269 | PHONE J 3P HLJ0540-110 6.3 |
| 2-J604 | EJ-354269 | PHONE J 3P HLJ0540-110 6.3 |
| 2-J605 | EJ-354269 | PHONE J 3P HLJ0540-110 6.3 |
| 2-J606 | EJ-354269 | PHONE J 3P HLJ0540-110 6.3 |
| 2-J607 | EJ-354269 | PHONE J 3P HLJ0540-110 6.3 |
| 2-J608 | EJ-354269 | PHONE J 3P HLJ0540-110 6.3 |
| 2-TR101 | ET-360067 | TR 2SC3330 T.U F05 |
| 2-TR102 | ET-360067 | TR 2SC3330 T.U F05 |
| 2-TR201 | ET-360067 | TR 2SC3330 T.U F05 |
| 2-TR202 | ET-360067 | TR 2SC3330 T.U F05 |
| 2-TR301 | ET-360067 | TR 2SC3330 T.U F05 |
| 2-TR302 | ET-360067 | TR 2SC3330 T.U F05 |
| 2-TR401 | ET-360067 | TR 2SC3330 T.U F05 |
| 2-TR402 | ET-360067 | TR 2SC3330 T.U F05 |
| 2-TR501 | ET-360067 | TR 2SC3330 T.U F05 |
| 2-TR502 | ET-360067 | TR 2SC3330 T.U F05 |
| 2-TR601 | ET-360067 | TR 2SC3330 T.U F05 |
| 2-TR602 | ET-360067 | TR 2SC3330 T.U F05 |
| 2-TR701 | ET-360067 | TR 2SC3330 T.U F05 |
| 2-TR702 | ET-360067 | TR 2SC3330 T.U F05 |
| 2-TR801 | ET-360067 | TR 2SC3330 T.U F05 |

| Part No. | Ref. No. | Part No. | Ref. No. | Part No. | Ref. No. | Part No. | Ref. No. |
|-----------|----------|--------------|----------|----------|----------|----------|----------|
| ER-324185 | 13-R1 | EV-307695 | 3-VR801 | | | | |
| ER-324185 | 13-R2 | EV-365817 | 11-VR1 | | | | |
| ER-326169 | 3-R30 | EV-365952 | 10-VR2 | | | | |
| ER-333372 | 9-R1 | EV-365953 | 10-VR3 | | | | |
| ER-337754 | 13-D3 | EV-366285 | 10-VR1 | | | | |
| ER-337754 | 13-D4 | EV-718242 | 17-VR2 | | | | |
| ER-337754 | 13-D5 | EW-358630 | 18-10D | | | | |
| ER-337754 | 13-D6 | EW-358631 | 18-10C | | | | |
| ER-337754 | 13-D7 | EW-359641 | 18-10B | | | | |
| ER-356747 | 3-R58 | EW-365947 | 18-10 | | | | |
| ER-362495 | 3-R7 | EW-366055 | 18-10A | | | | |
| ER-362495 | 3-R8 | EZ-302906 | 18-11 | | | | |
| ER-365788 | 3-R31 | ML-718225 | 1-3 | | | | |
| ER-365788 | 3-R202 | MR-718235 | 1-20 | | | | |
| ER-365788 | 3-R302 | MZ-718224 | 1-2 | | | | |
| ER-365788 | 3-R402 | MZ-718232 | 1-17 | | | | |
| ER-365788 | 3-R502 | SA-349332 | 18-1 | | | | |
| ER-365788 | 3-R602 | SC-362359A | 18-8 | | | | |
| ER-365788 | 3-R702 | SH-362361 | 19-12 | | | | |
| ER-365788 | 3-R802 | SK-B364607 | 19-8 | | | | |
| ER-365789 | 3-R32 | SK-B364611 | 19-6 | | | | |
| ER-365789 | 3-R203 | SK-B364614 | 19-7 | | | | |
| ER-365789 | 3-R303 | SK-331108E | 19-4 | | | | |
| ER-365789 | 3-R403 | SK-343017J | 19-3 | | | | |
| ER-365789 | 3-R503 | SK-352755C | 19-9 | | | | |
| ER-365789 | 3-R603 | SK-362347A-A | 19-2 | | | | |
| ER-365789 | 3-R703 | SK-362353 | 19-5 | | | | |
| ER-365789 | 3-R803 | SK-718229 | 1-9 | | | | |
| ES-306430 | 18-VS901 | SP-362368A | 18-5 | | | | |
| ES-337902 | 18-SW901 | SP-362368B | 18-5A | | | | |
| ES-365851 | 5-SW1 | SP-362368C | 18-5B | | | | |
| ES-365851 | 5-SW2 | SP-362371-A | 19-10 | | | | |
| ES-365851 | 5-SW3 | SP-718230 | 1-10 | | | | |
| ES-365851 | 5-SW4 | SZ-718231 | 1-11 | | | | |
| ES-365851 | 5-SW6 | VT-365945 | 9-1 | | | | |
| ES-365851 | 5-SW7 | ZG-718226 | 1-4 | | | | |
| ES-365851 | 5-SW8 | ZG-718227 | 1-5 | | | | |
| ES-365851 | 5-SW9 | ZG-718234 | 1-18 | | | | |
| ES-365851 | 5-SW10 | ZG-718236 | 1-21 | | | | |
| ES-365851 | 5-SW11 | ZS-314702 | 18-3X | | | | |
| ES-365851 | 5-SW12 | ZS-321783 | 19-13X | | | | |
| ES-365851 | 5-SW13 | ZS-341959 | 19-11 | | | | |
| ES-365851 | 5-SW14 | ZS-360715 | 18-2X | | | | |
| ES-365851 | 5-SW16 | ZS-366240 | 18-6 | | | | |
| ES-365851 | 5-SW17 | ZS-366240 | 18-9 | | | | |
| ES-365851 | 5-SW18 | ZS-718238 | 1-37 | | | | |
| ES-365851 | 5-SW19 | ZW-273892 | 18-4X | | | | |
| ES-365851 | 5-SW20 | ZW-632226 | 13-1 | | | | |
| ES-365851 | 5-SW21 | ZW-698308 | 18-7X | | | | |
| ES-365851 | 5-SW22 | | | | | | |
| ES-365851 | 5-SW23 | | | | | | |
| ES-365851 | 5-SW24 | | | | | | |
| ES-365851 | 5-SW25 | | | | | | |
| ES-365851 | 5-SW26 | | | | | | |
| ES-365851 | 5-SW27 | | | | | | |
| ES-365851 | 5-SW28 | | | | | | |
| ES-365943 | 18-12 | | | | | | |
| ES-718243 | 17-RSW1 | | | | | | |
| ET-353899 | 3-TR101 | | | | | | |
| ET-353899 | 3-TR201 | | | | | | |
| ET-353899 | 3-TR301 | | | | | | |
| ET-353899 | 3-TR401 | | | | | | |
| ET-353899 | 3-TR501 | | | | | | |
| ET-353899 | 3-TR601 | | | | | | |
| ET-353899 | 3-TR701 | | | | | | |
| ET-353899 | 3-TR801 | | | | | | |
| ET-354083 | 13-TR902 | | | | | | |
| ET-354167 | 8-PH1 | | | | | | |
| ET-356817 | 13-TR901 | | | | | | |
| ET-360067 | 3-TR1 | | | | | | |
| ET-360067 | 13-TR1 | | | | | | |
| EV-307695 | 3-VR1 | | | | | | |
| EV-307695 | 3-VR101 | | | | | | |
| EV-307695 | 3-VR201 | | | | | | |
| EV-307695 | 3-VR301 | | | | | | |
| EV-307695 | 3-VR401 | | | | | | |
| EV-307695 | 3-VR501 | | | | | | |
| EV-307695 | 3-VF601 | | | | | | |
| EV-307695 | 3-VR701 | | | | | | |

| Part No. | Ref. No. | Part No. | Ref. No. | Part No. | Ref. No. | Part No. | Ref. No. |
|---------------|----------|----------|----------|----------|----------|----------|----------|
| BA-L5012A020A | 1-1 | | | | | | |
| ED-301911 | 2-D101 | | | | | | |
| ED-301911 | 2-D102 | | | | | | |
| ED-301911 | 2-D103 | | | | | | |
| ED-301911 | 2-D201 | | | | | | |
| ED-301911 | 2-D202 | | | | | | |
| ED-301911 | 2-D203 | | | | | | |
| ED-301911 | 2-D301 | | | | | | |
| ED-301911 | 2-D302 | | | | | | |
| ED-301911 | 2-D303 | | | | | | |
| ED-301911 | 2-D401 | | | | | | |
| ED-301911 | 2-D402 | | | | | | |
| ED-301911 | 2-D403 | | | | | | |
| ED-301911 | 2-D501 | | | | | | |
| ED-301911 | 2-D502 | | | | | | |
| ED-301911 | 2-D503 | | | | | | |
| ED-301911 | 2-D601 | | | | | | |
| ED-301911 | 2-D602 | | | | | | |
| ED-301911 | 2-D603 | | | | | | |
| ED-301911 | 2-D701 | | | | | | |
| ED-301911 | 2-D702 | | | | | | |
| ED-301911 | 2-D703 | | | | | | |
| ED-301911 | 2-D801 | | | | | | |
| ED-301911 | 2-D802 | | | | | | |
| ED-301911 | 2-D803 | | | | | | |
| EI-336995 | 2-IC8 | | | | | | |
| EI-360026 | 2-IC2 | | | | | | |
| EI-360042 | 2-IC7 | | | | | | |
| EI-360051 | 2-IC1 | | | | | | |
| EI-360053 | 2-IC6 | | | | | | |
| EI-362588 | 2-IC802 | | | | | | |
| EI-365801 | 2-IC5 | | | | | | |
| EI-365839 | 2-IC3 | | | | | | |
| EI-365840 | 2-IC4 | | | | | | |
| EI-367225 | 2-IC101 | | | | | | |
| EI-367225 | 2-IC102 | | | | | | |
| EI-367225 | 2-IC201 | | | | | | |
| EI-367225 | 2-IC202 | | | | | | |
| EI-367225 | 2-IC301 | | | | | | |
| EI-367225 | 2-IC302 | | | | | | |
| EI-367225 | 2-IC401 | | | | | | |
| EI-367225 | 2-IC402 | | | | | | |
| EI-367225 | 2-IC501 | | | | | | |
| EI-367225 | 2-IC502 | | | | | | |
| EI-367225 | 2-IC601 | | | | | | |
| EI-367225 | 2-IC602 | | | | | | |
| EI-367225 | 2-IC701 | | | | | | |
| EI-367225 | 2-IC702 | | | | | | |
| EI-367225 | 2-IC801 | | | | | | |
| EJ-354269 | 2-J601 | | | | | | |
| EJ-354269 | 2-J602 | | | | | | |
| EJ-354269 | 2-J603 | | | | | | |
| EJ-354269 | 2-J604 | | | | | | |
| EJ-354269 | 2-J605 | | | | | | |
| EJ-354269 | 2-J606 | | | | | | |
| EJ-354269 | 2-J607 | | | | | | |
| EJ-354269 | 2-J608 | | | | | | |
| ET-360067 | 2-TR101 | | | | | | |
| ET-360067 | 2-TR102 | | | | | | |
| ET-360067 | 2-TR201 | | | | | | |
| ET-360067 | 2-TR202 | | | | | | |
| ET-360067 | 2-TR301 | | | | | | |
| ET-360067 | 2-TR302 | | | | | | |
| ET-360067 | 2-TR401 | | | | | | |
| ET-360067 | 2-TR402 | | | | | | |
| ET-360067 | 2-TR501 | | | | | | |
| ET-360067 | 2-TR502 | | | | | | |
| ET-360067 | 2-TR601 | | | | | | |
| ET-360067 | 2-TR602 | | | | | | |
| ET-360067 | 2-TR701 | | | | | | |
| ET-360067 | 2-TR702 | | | | | | |
| ET-360067 | 2-TR801 | | | | | | |
| ET-360067 | 2-TR802 | | | | | | |
| SC-362359B | 2-1 | | | | | | |
| ZS-447761 | 2-2 | | | | | | |

AKAI

MODEL S900

SCHEMATIC DIAGRAM AND PC BOARDS

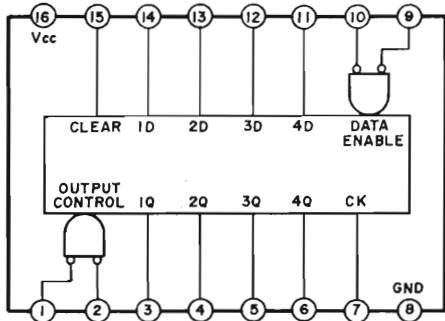
TABLE OF CONTENTS

| | |
|---|----|
| 1. SCHEMATIC DIAGRAM OF ICs | 2 |
| 2. VOICE BLOCK DIAGRAM..... | 3 |
| 3. INPUT JACK, OUTPUT JACK, VR, CONNECTOR, INVERTOR, FILTER, CONTRAST, LED PCB | 4 |
| 4. CONNECTION DIAGRAM..... | 5 |
| 5. VOICE SCHEMATIC DIAGRAM..... | 6 |
| 6. VOICE PCB | 7 |
| 7. POWER SUPPLY, PANEL SCHEMATIC DIAGRAM AND POWER SUPPLY, PANEL, CONTRAST, LED PCB..... | 8 |
| 8. FDD BLOCK DIAGRAM | 9 |
| 9. DRUM INTERFACE SCHEMATIC DIAGRAM | 10 |

INFORMATION OF ICs

| NAME OF IC | FUNCTION |
|-----------------|---|
| 74HC02P | Quad 2 Input NOR |
| 74HC04P | Hex Inverters |
| 74LS05P | Hex OC Inverters |
| 74HC86P | Quad 2 Input EX-OR |
| 74HC109P | Dual JK-FFs with Preset and Clear |
| 74HC173P | 4 Bit Register 3 state |
| 74HC244 | Octal 3 state Bus Buffers |
| 74HC374P | Octal 3 state D-FFs |
| 74HC670P | 4-4 Register Files (3 states) |
| AM2504PC | 8 Bit/12 Bit Successive Approximation Registers |
| BA6110 | Voltage Controlled Low Noise OP-Amp |
| BA9201 | 8 Bit D/A Convertor with Latch |
| BA9221 | 12 Bit D/A Convertor |
| DG211CJ | Quad Analog Switch |
| IR9311 | Comparator |
| M5220P | Dual Low Noise Voltage Amplifier |
| M5223P | Dual J-FET Input OP-Amp |
| M5230P | Regulator (Variable output, + – tracking type) |
| M5238P | Dual FET Input OP Amp |
| MF6CN-50 | 6th order switched capacitor Butter worth Low pass filter |
| SRT9005 | Molded Series Regulator |
| TA78012P | +12V Regulator |
| TA78M06P | +6V Regulator |
| TA79M06P | -6V Regulator |
| μ PC812C-AK | Dual Low drift J-FET Input OP-Amp |
| μ PD71054C | Programmable timer counter |
| μ PD71055C | Parallel Interface unit |
| μ PD7265C | Programmable Floppy Disk Drive |
| μ PD8253C | Programmable Interval timer |

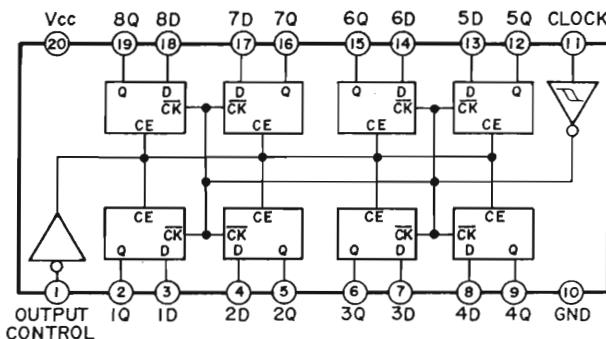
74HC173P



TRUTH TABLE

| INPUT | | | | OUTPUT QA ~ QD | OPERATION | |
|-------|----|--------|----|-------------------|------------------|--|
| CLEAR | CK | ENABLE | | | | |
| | | G1 | G2 | M | N | |
| L | | L | L | — | 1D ~ 4D DATA SET | |
| L | | H | X | — | — HOLD | |
| | | X | H | — | — | |
| | | | X | — | LLLl CLEAR | |
| | | H | X | Z | — | |
| | | X | H | | — | |

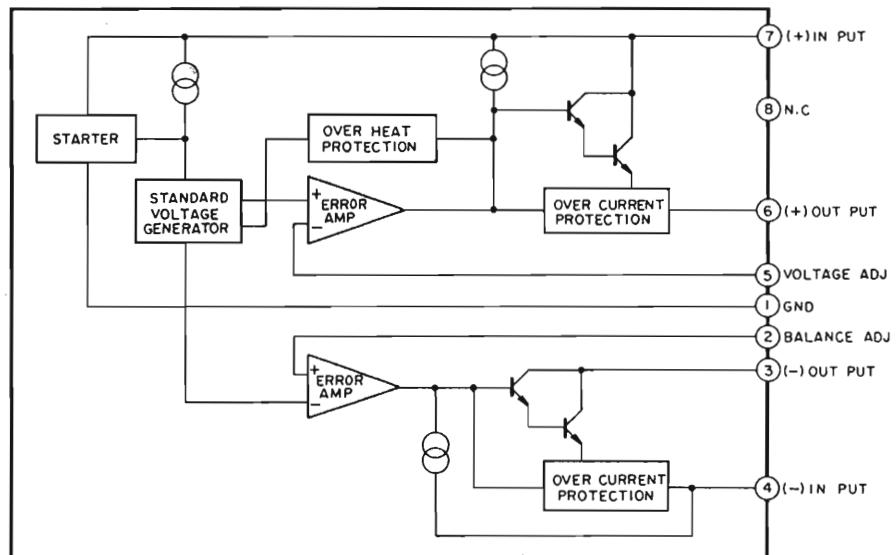
74HC374P

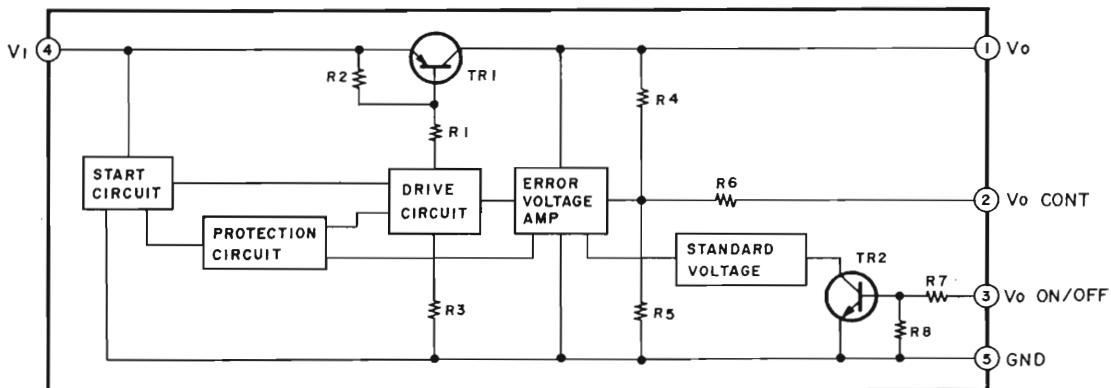
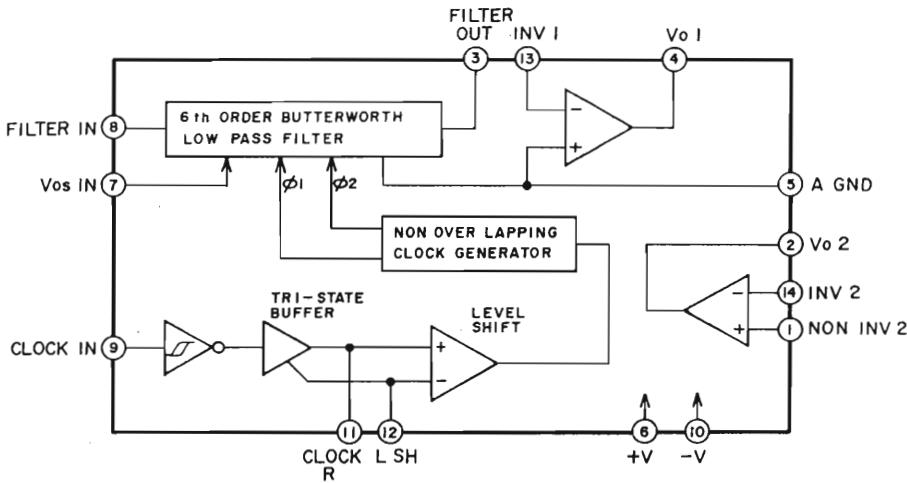


TRUTH TABLE

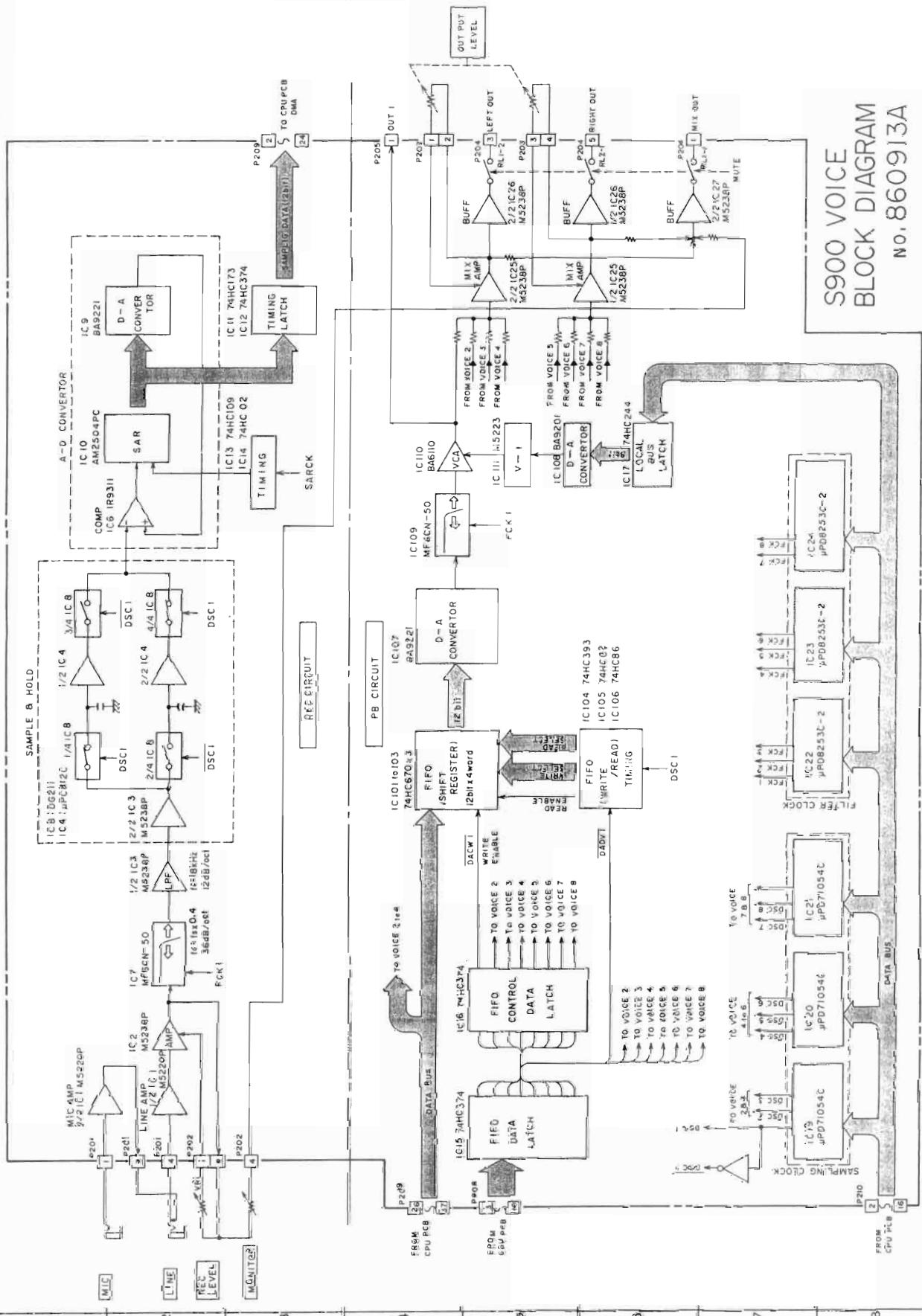
| INPUT | | OUTPUT |
|-------------------|----|-----------------------|
| OUTPUT CONTROL | CK | |
| X | | DATA SET |
| H | X | OUTPUT HIGH IMPEDANCE |

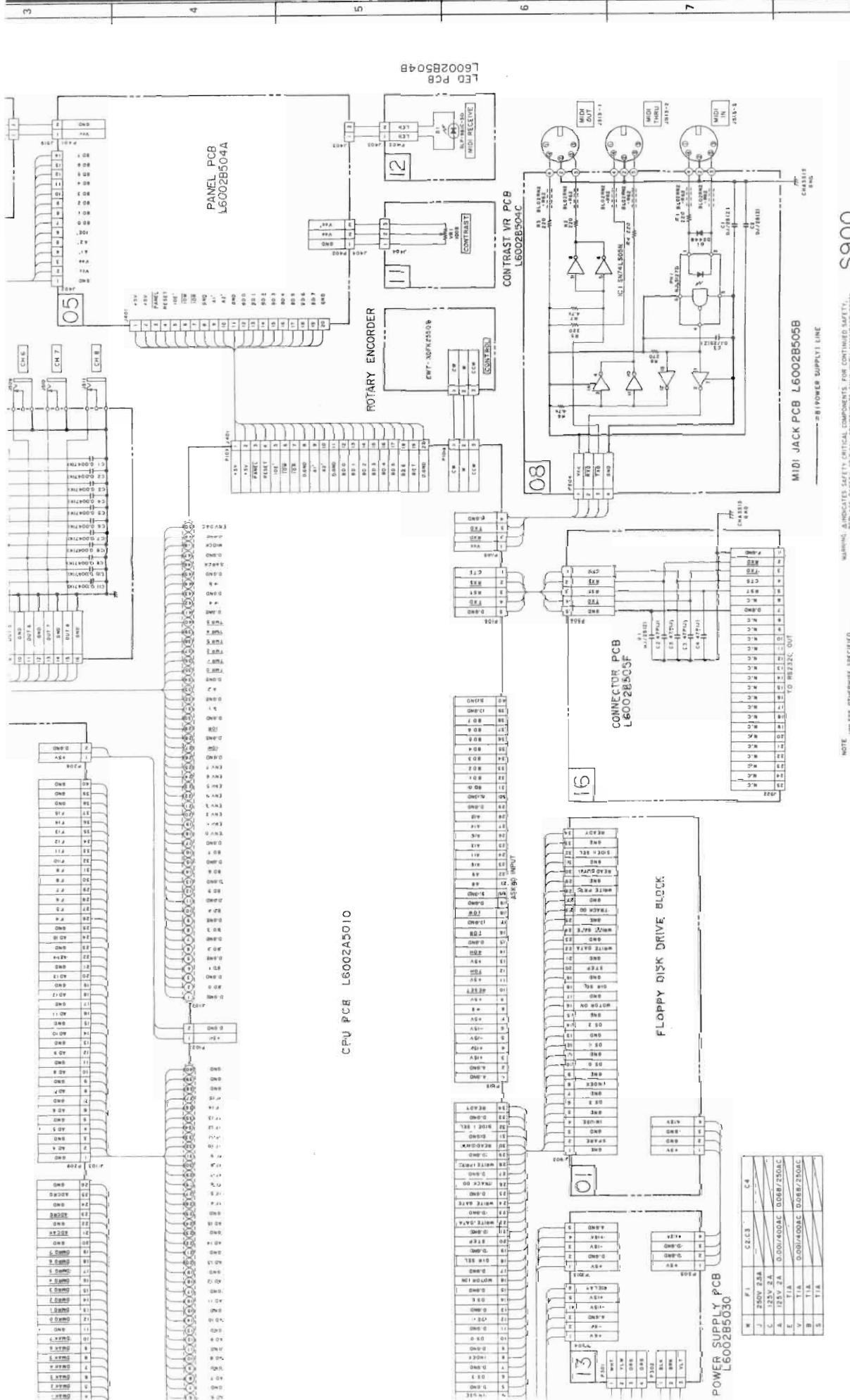
M5230L





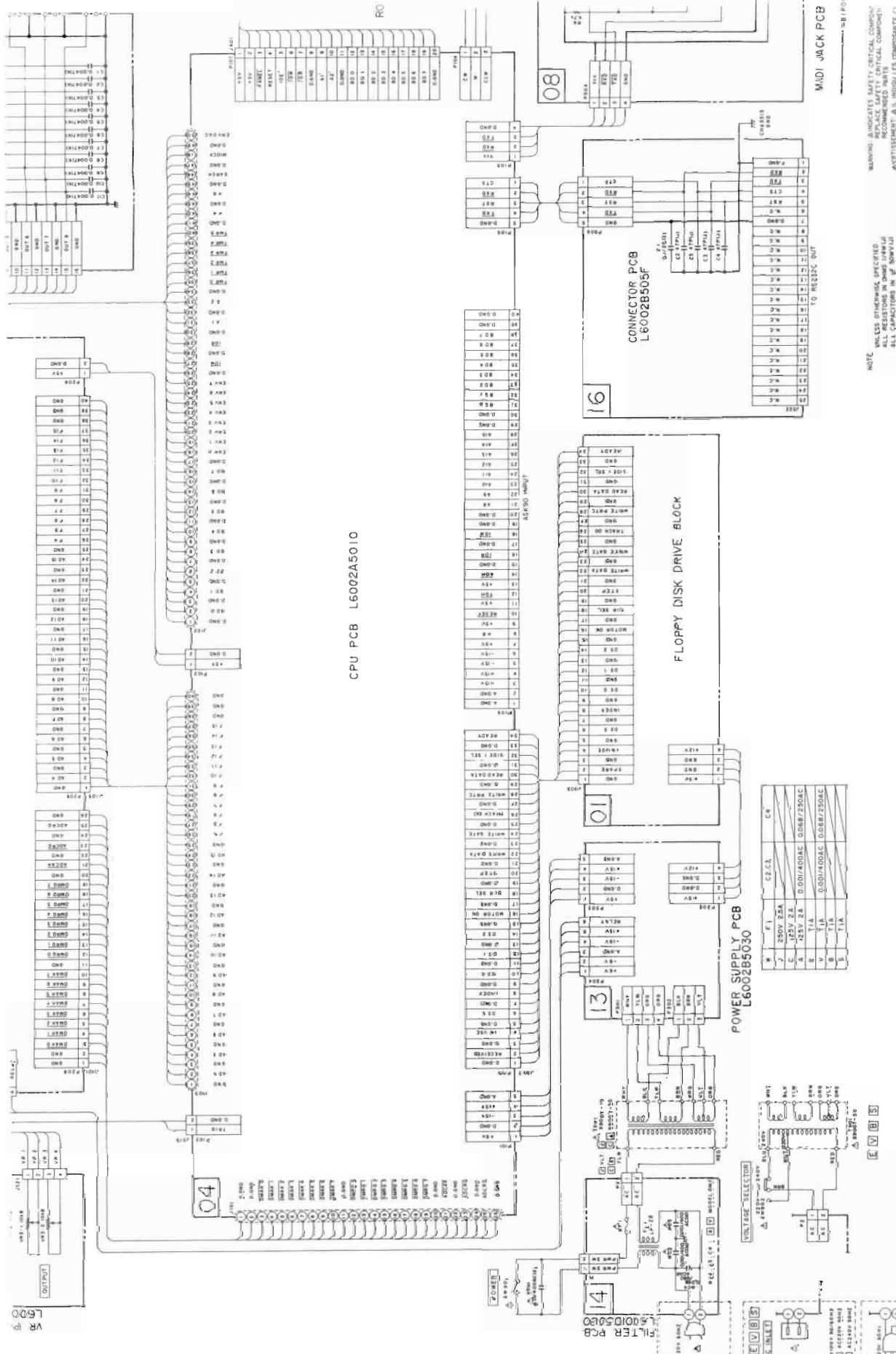
S900 VOICE
BLOCK DIAGRAM
NO. 860913A





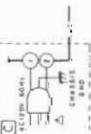
S900 CONNECTION DIAGRAM NO.6-1

860914A



NOTE: UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS (RMW)
ALL CAPACITORS IN μ F (RMW)
POWER TRANSFORMER IS DIFFERENT
ACCORDING TO AREA P

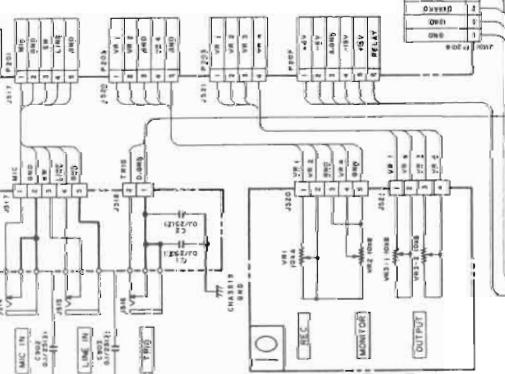
E V B S



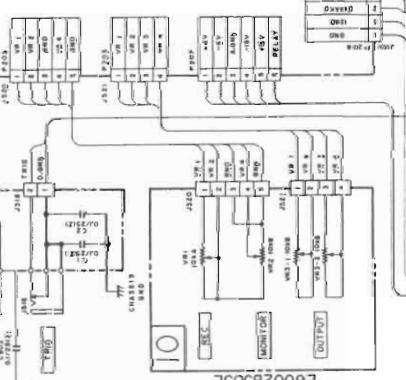
NOTE: INDICATE SAFETY CRITICAL COMPONETS
RECOMMENDED PARTS

ANTI-SURGE, LOW DENSITY, ST
COMPONENTS FOR SECURITY
PAYS DES PIECES RECOMMANDÉES

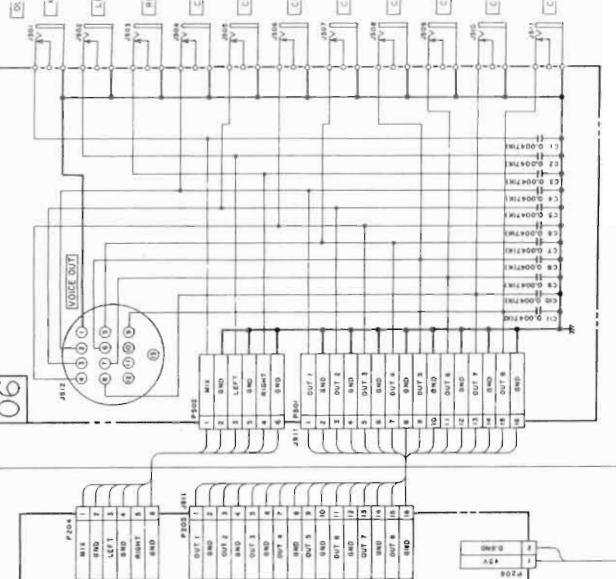
INPUT JACK PCB
L6002B505C
07



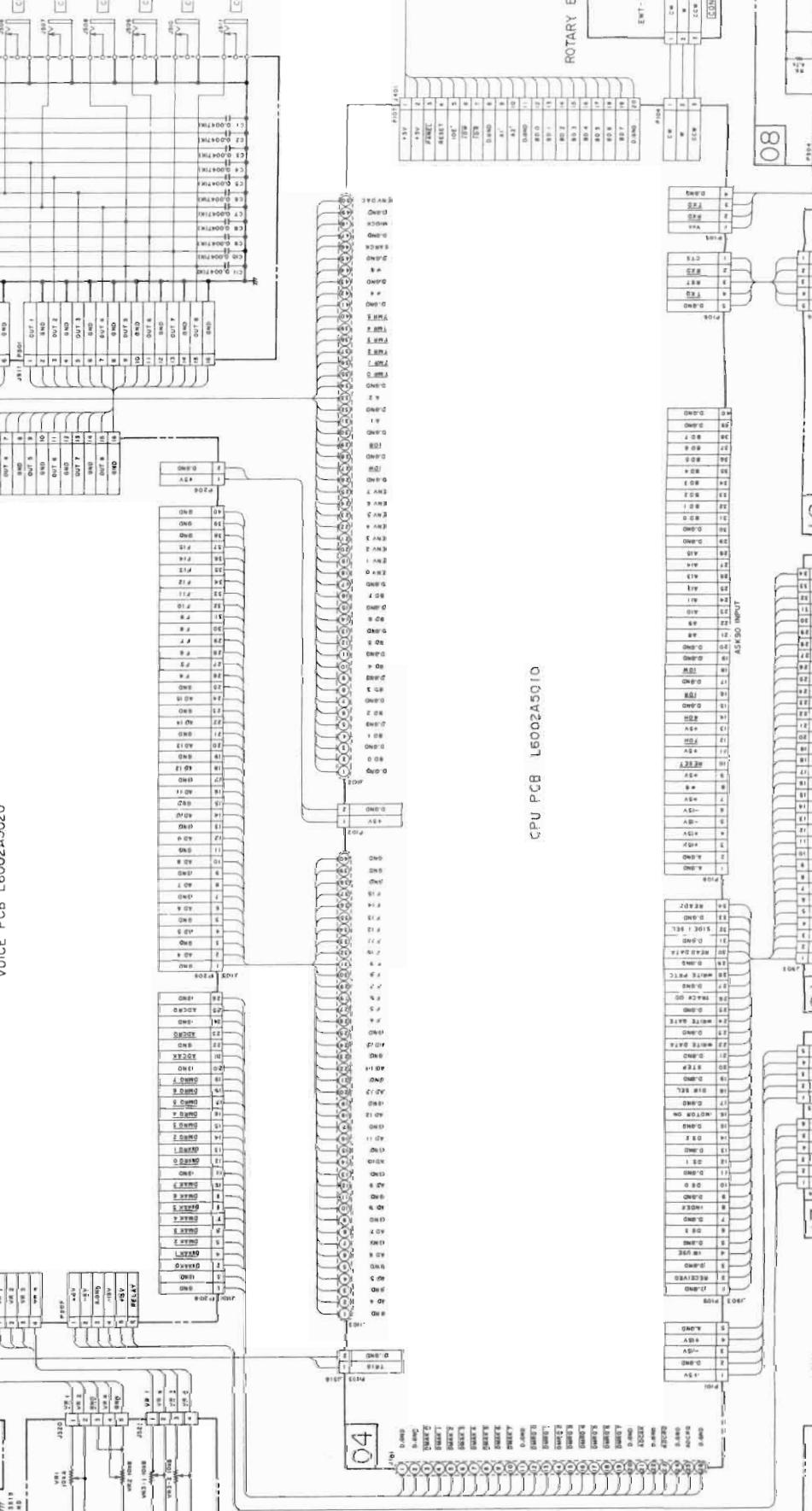
VR PCB
L6002B505E
03



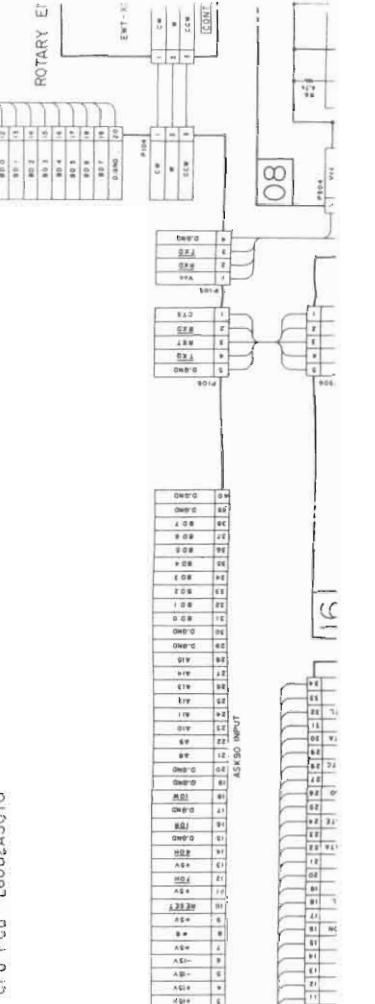
OUTPUT JACK PCB L6002B505A
06

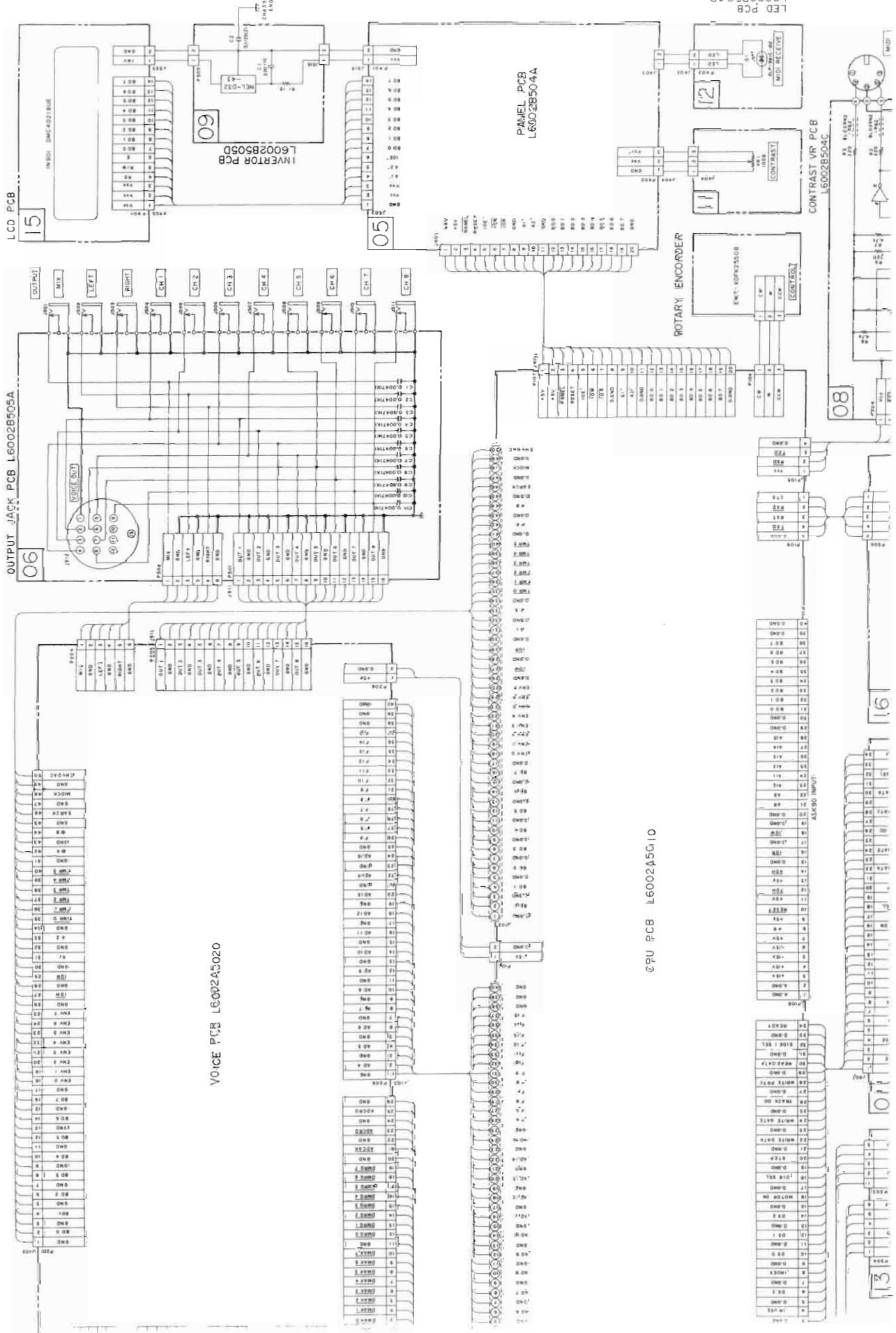


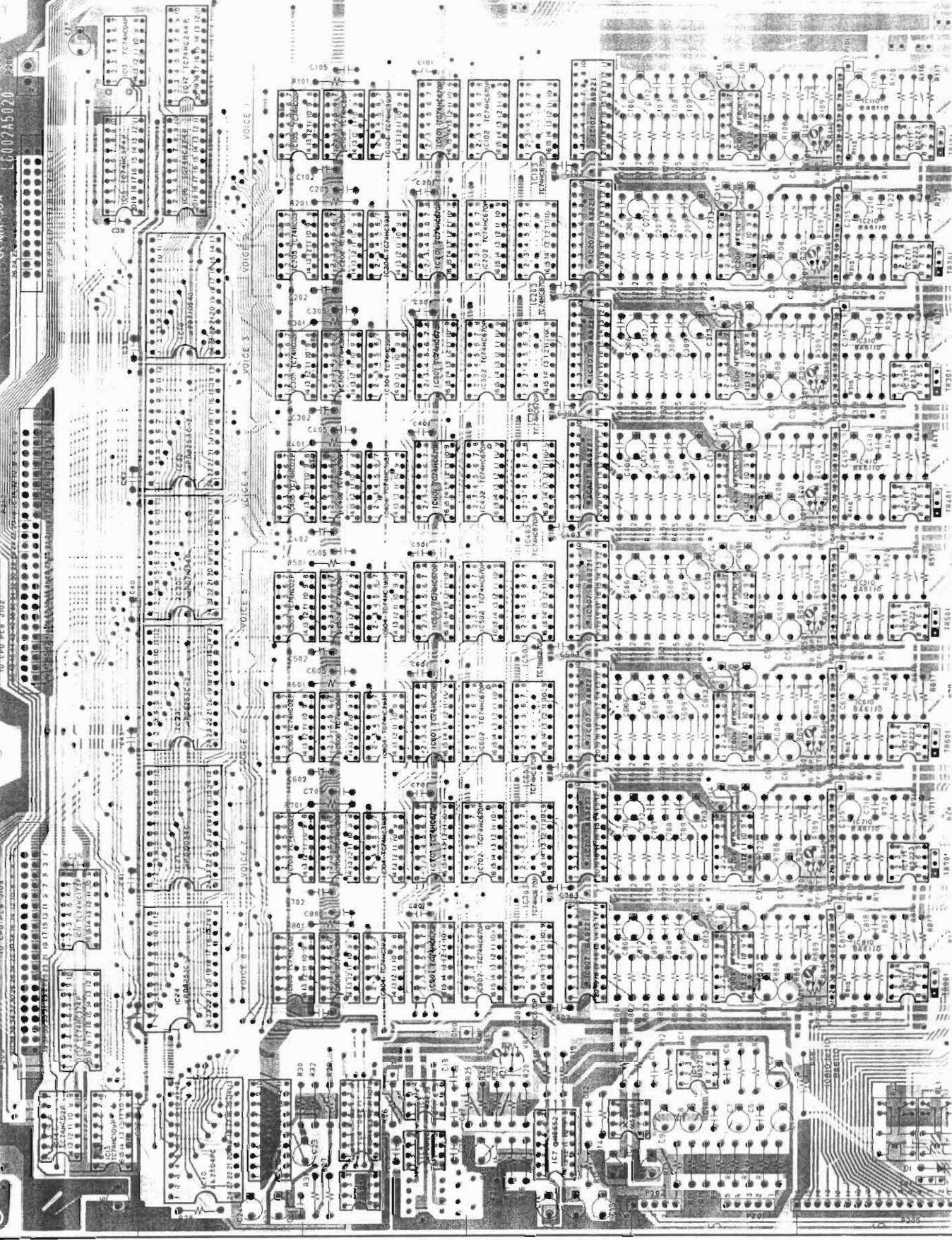
VOICE PCB L6002A5020



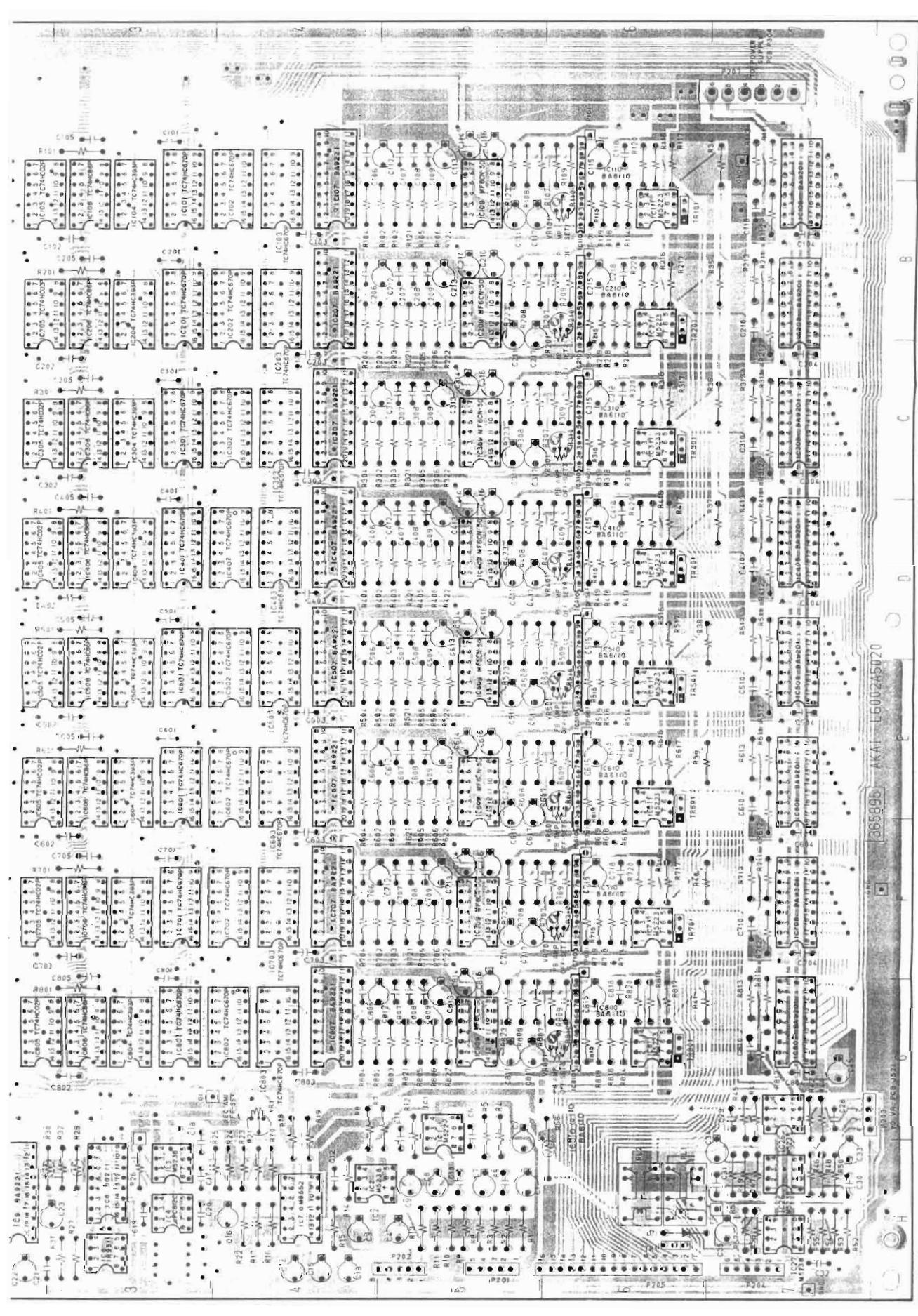
CPU PCB L6002A5010





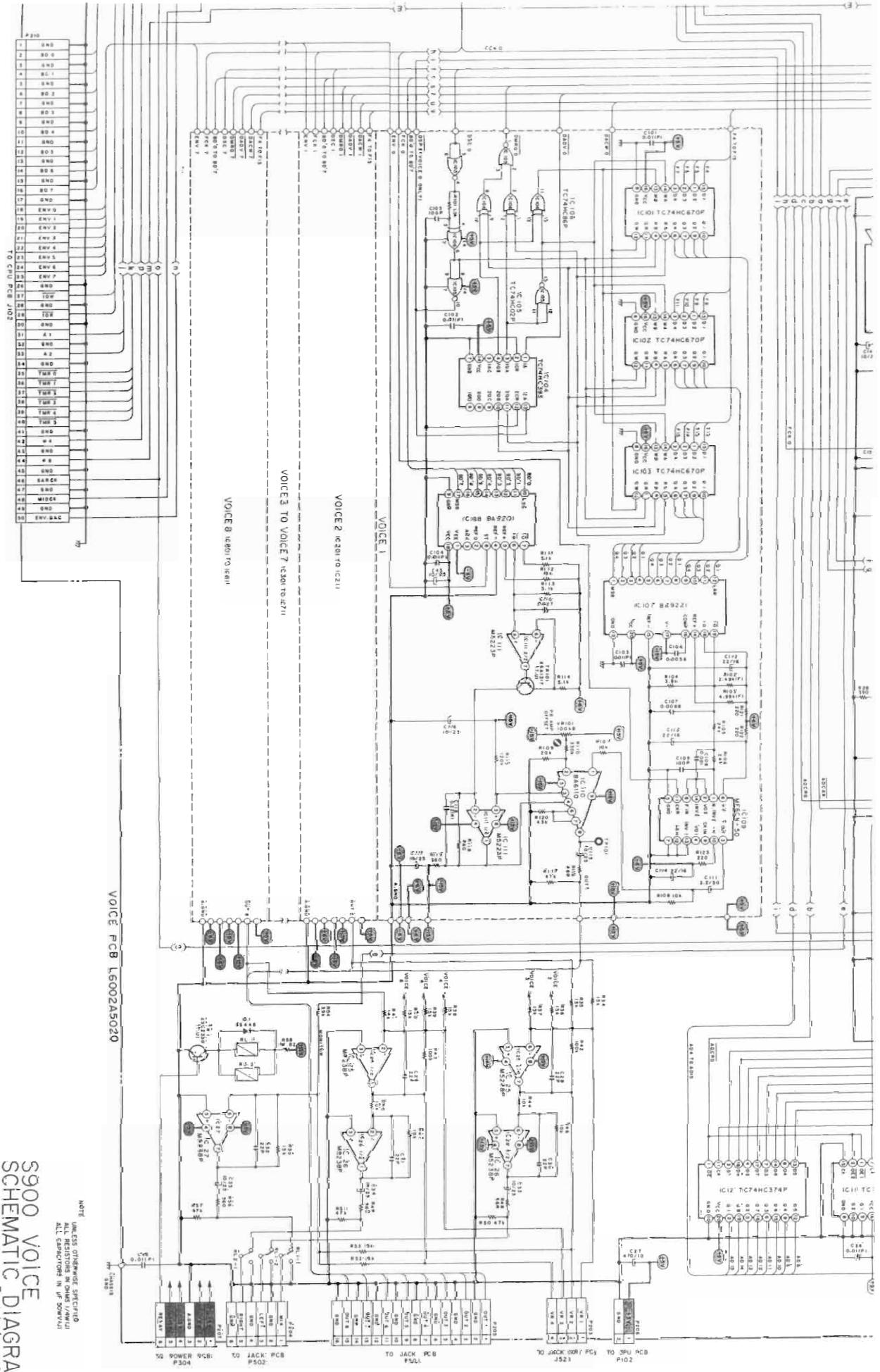
TO INPUT
JACK
PCB
1520TO OUTPUT
JACK
PCB P50

366895 AKAI L6002A5020

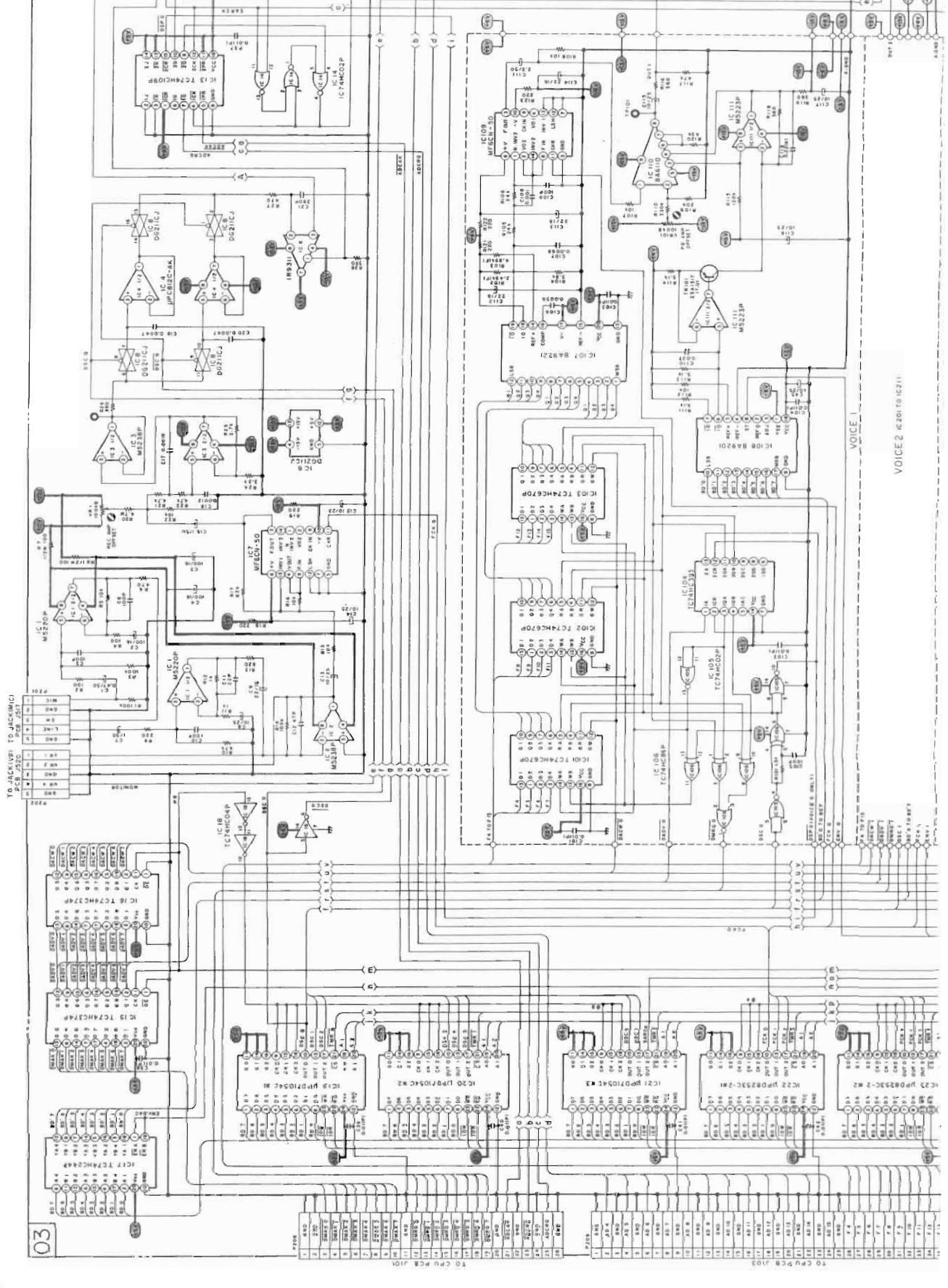


TO OUTPUT JACK
PCB P.301

PCB P.302



S900 VOICE
 SCHEMATIC DIAGRAM
 NO. 6-2 860916A



TO JACK IN (R) PCB-J520

1

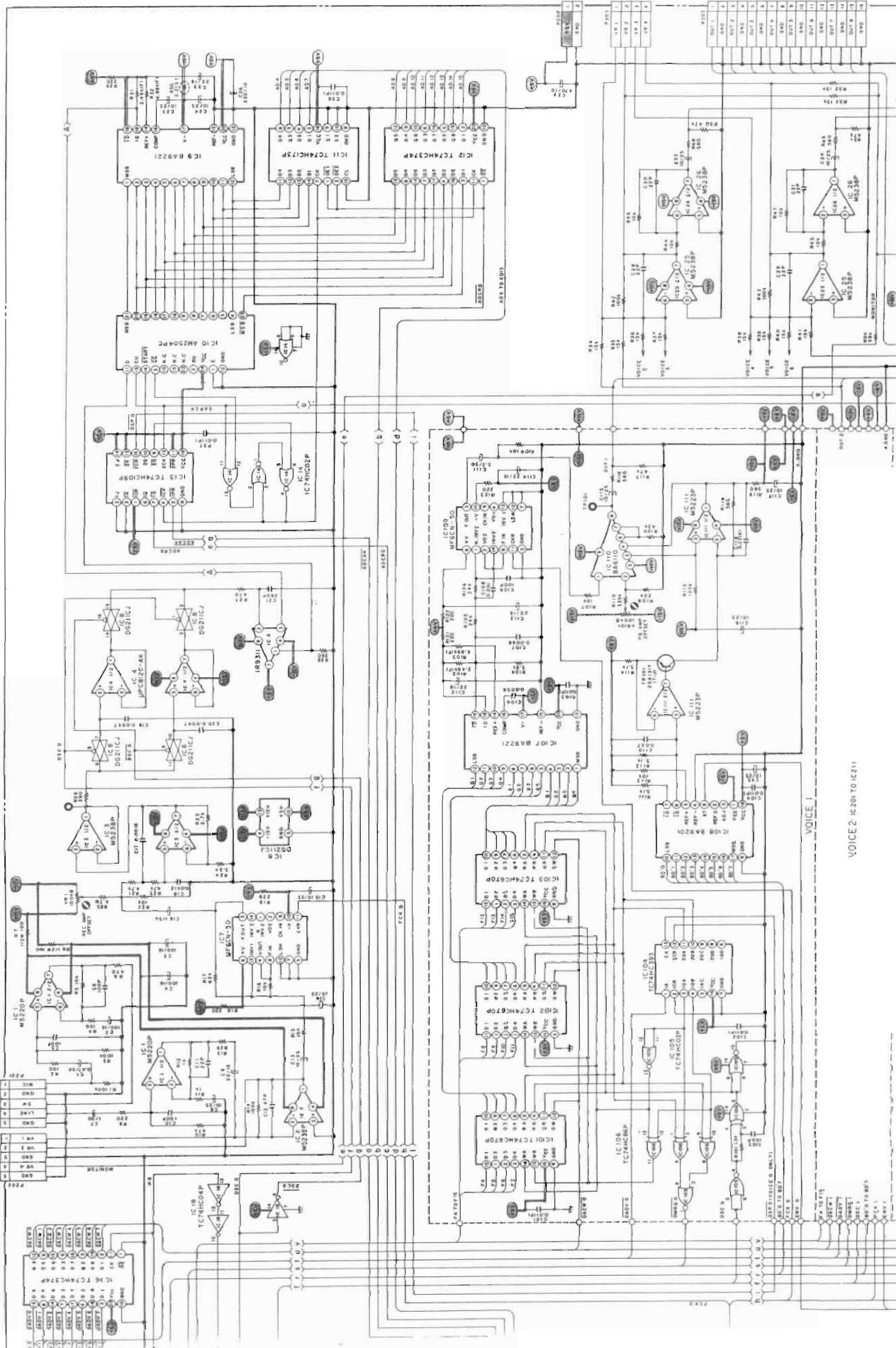
2

3

4

5

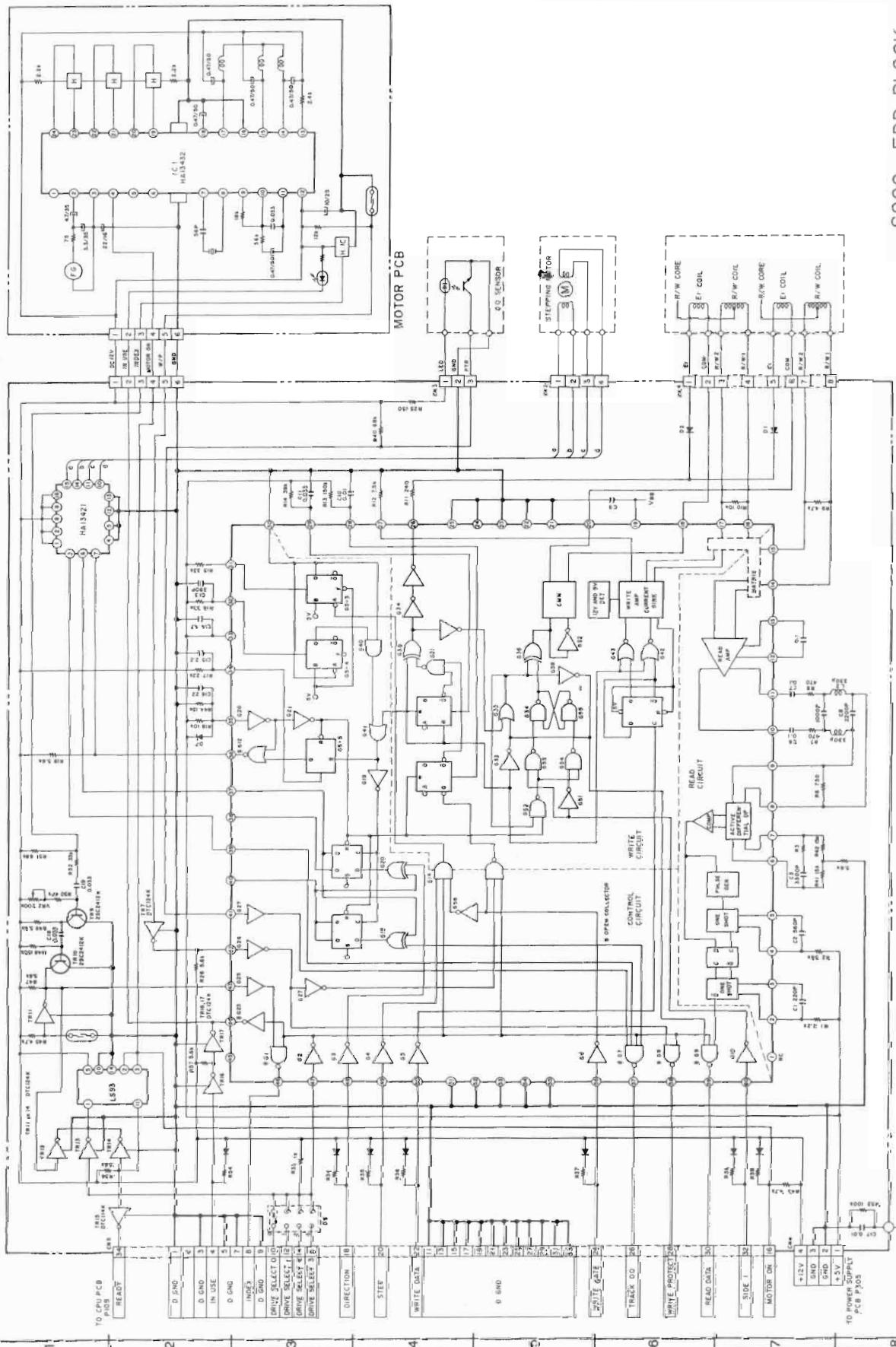
6



VOICE 1

VOICE 2 (IC 201 TO IC 21)

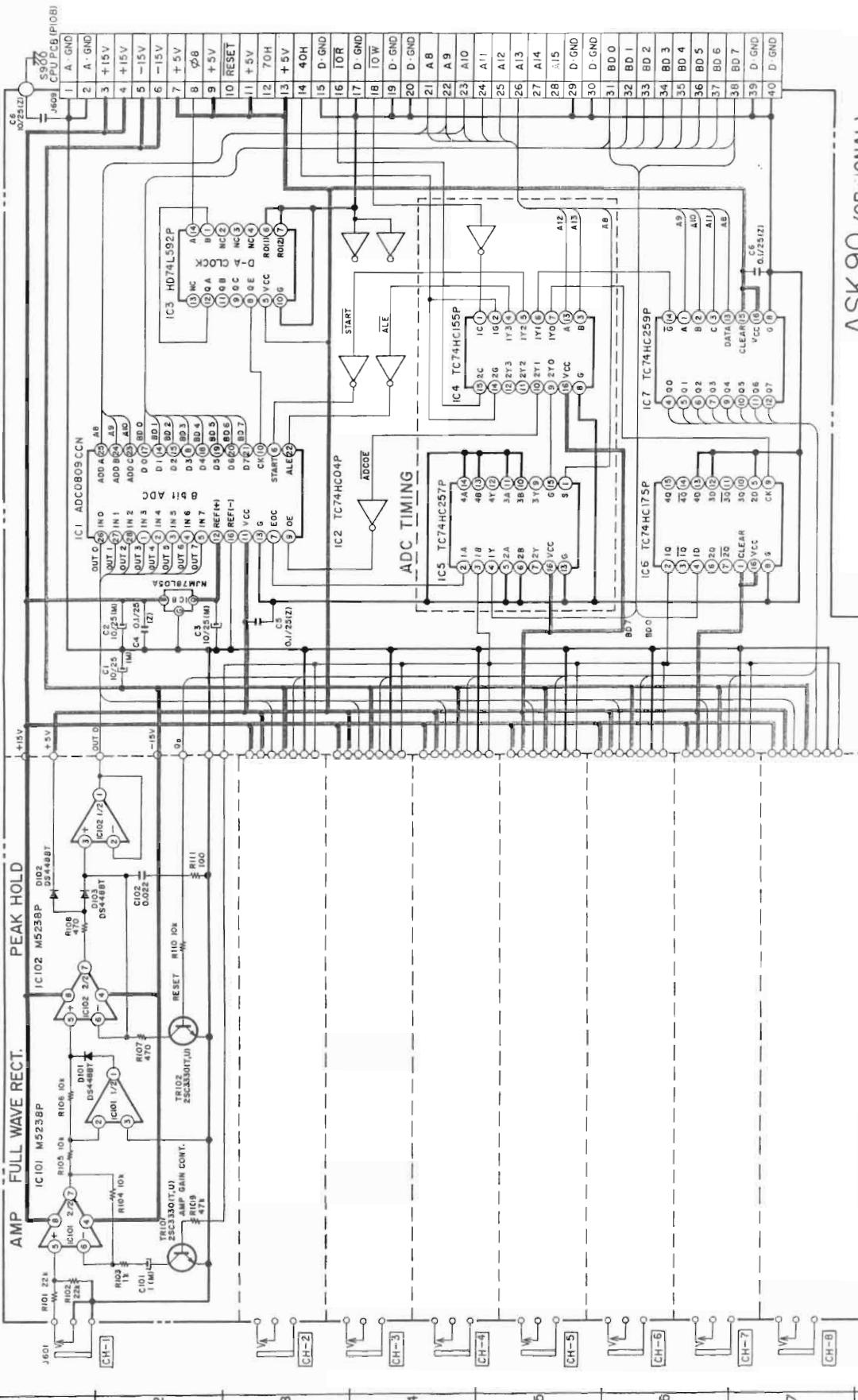
S900 FDD BLOCK
SCHEMATIC DIAGRAM
NO.6-5 860921A



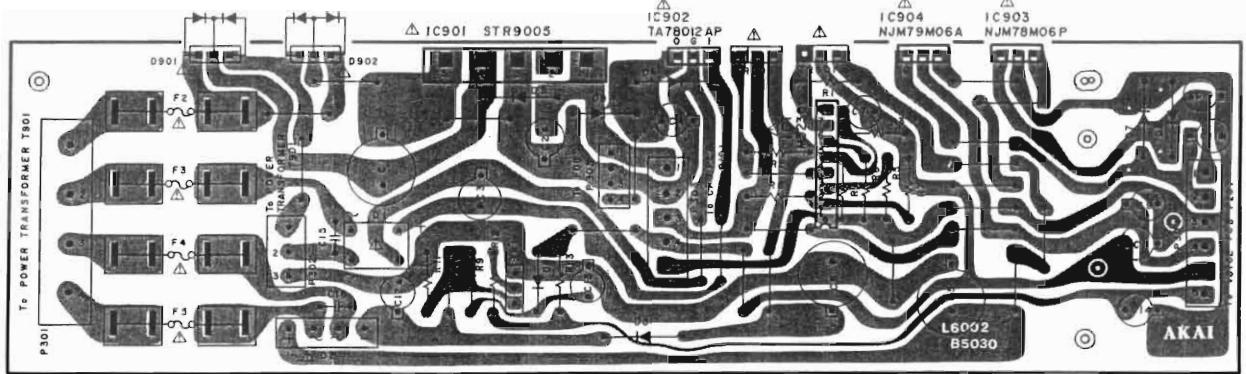
ASK 90 (OPTIONAL)
DRUM INTERFACE
SCHEMATIC DIAGRAM
NO. 6-6 860918A

NOTES UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (J)
ALL CAPACITORS IN μ F 50 WV (J)

B (POWER SUPPLY LINE)

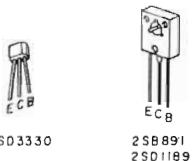


DRUM PCB L5012B5010



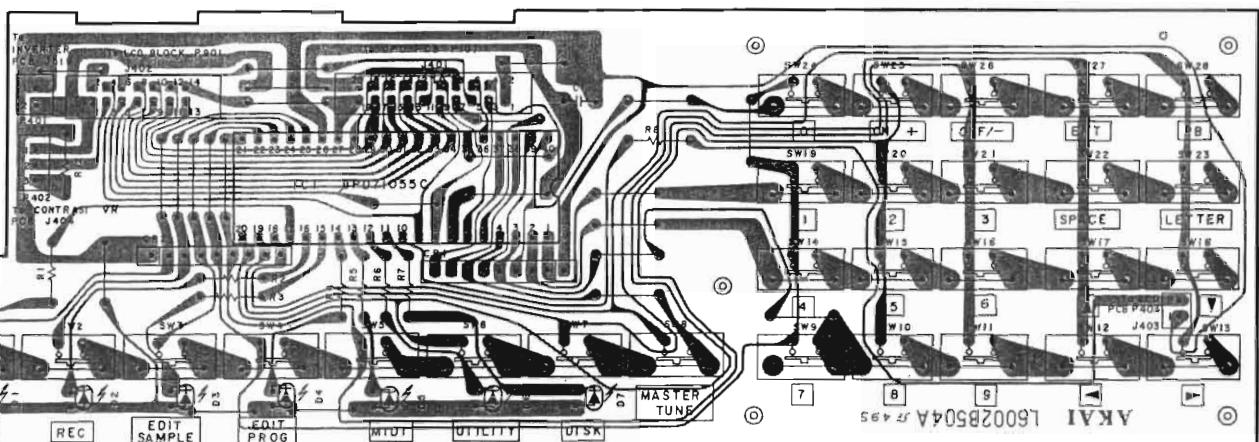
POWER SUPPLY PCB L6002B5030

B
■●● = PNP TRANSISTOR
B
●●● = NPN TRANSISTOR

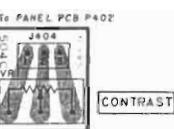


WARNING: Δ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

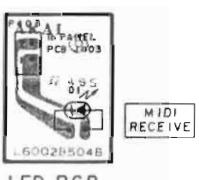
AVERTISSEMENT: Δ IL INDIQUE LES COMPOSANTS CRITIQUES DE SURETÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SÉCURITÉ QUE PAR DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.



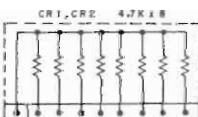
PANEL PCB L6002B504A

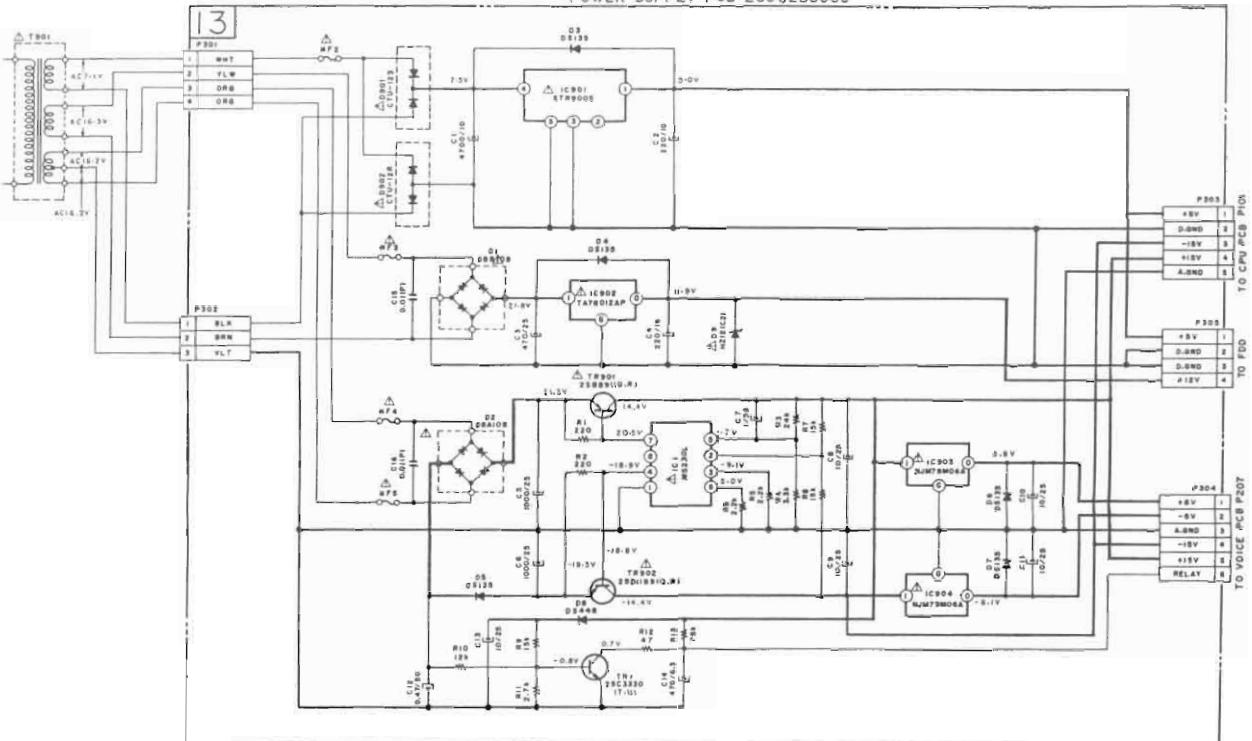


CONTRAST VR PCB
L6002B504C



LED PCB
L6002B504B





| N | F2 | F3 | F4 | F5 |
|---|---------|------------|---------|---------|
| 1 | 250V 4A | 250V 630mA | 250V 1A | 250V 1A |
| 2 | 125V 4A | 125V 630mA | 125V 1A | 125V 1A |
| 3 | 13.15A | T630mA | T800mA | T800mA |

--- B (POWER SUPPLY LINE)

NOTES

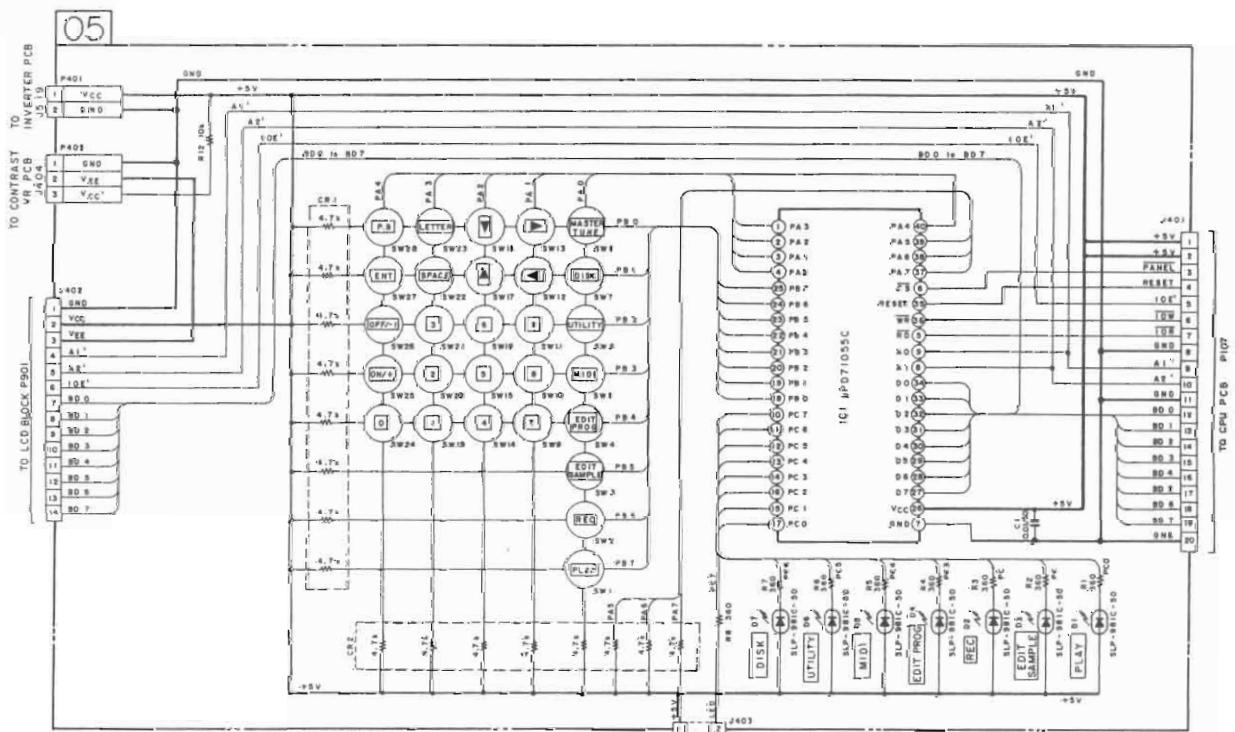
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (1)
ALL CAPACITORS IN μ F 50 WY (2)
(FS) = FAIL SAFE RESISTORS

WARNING: & INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY,
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS

AVERTISSEMENT: & INDIQUE LES COMPOSANTS CRITIQUES DE SURETÉ. POUR
MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER LES
COMPOSANTS CRITIQUES DE SURETÉ QUE PAR DES PIÈCES RECOMMANDÉES PAR LE FABRICANT
QUE PAR DES PIÈCES RECOMMANDÉES PAR LE FABRICANT

S900
POWER SUPPLY
SCHEMATIC DIAGRAM
NO.6-3 860915A

S900



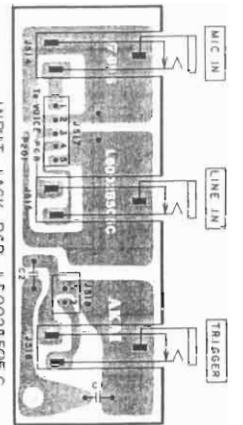
PANEL PCB L6002B504.4



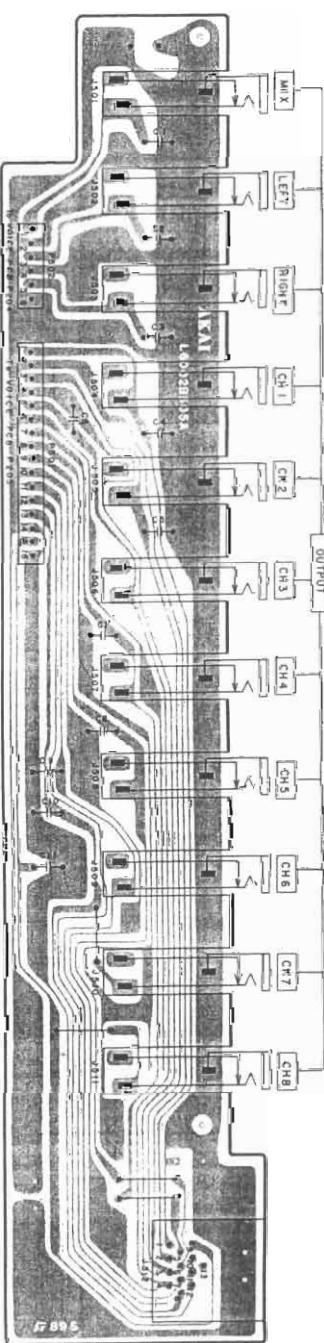
NOTES:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W (1)
ALL CAPACITORS IN μ F 50 WY (2)

S900 PANEL
SCHEMATIC DIAGRAM
NO.6-4 860917A

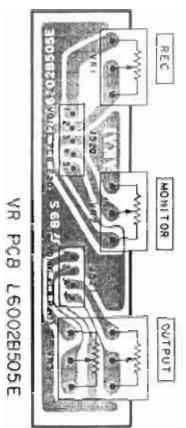
--- B (POWER SUPPLY LINE)



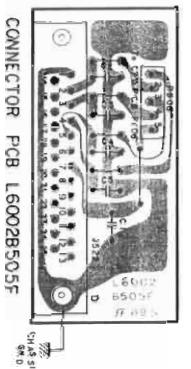
INPUT JACK PCB L6002B505C



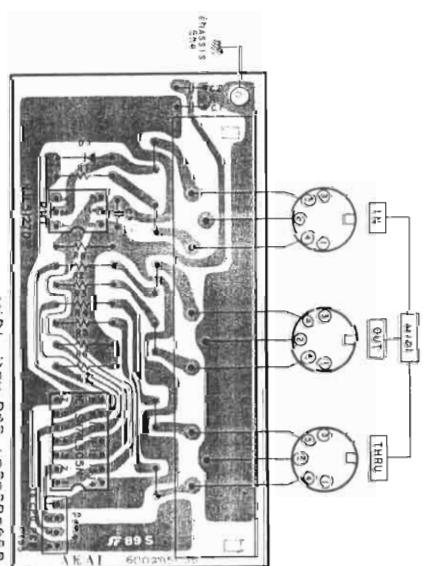
OUTPUT JACK PCB L6002B505A



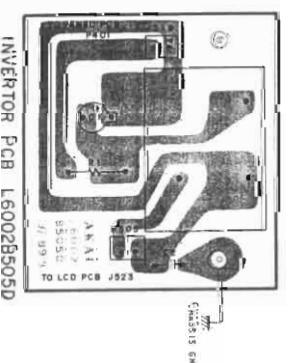
VR PCB L6002B505E



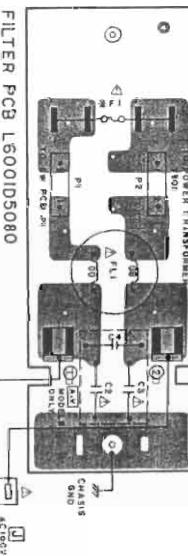
CONNECTOR PCB L6002B505F



MIDI JACK PCB L6002B505B



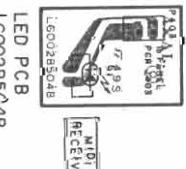
INVERTOR PCB L6002B505D



FILTER PCB L6000ID5050



CONTRAST VR PCB
L60Q2B504C



LED PCB
L6002B504B

WARNING: Δ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

AERTIFICIALLY Δ INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ, NE PAS remplacer que DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.