



VIDEO CASSETTE PLAYER VIDEO CASSETTE LINE RECORDER

SV-A17GV/SVK-A17GV
SV-8A/SV-9AK
SV-66H/SV-66HK
SVR-77H



SERVICE Manual

For mechanical disassembly and adjustment, refer to the "Mechanical Manual"
(DX7-R/RC, DX8-R/RC → AC68-20316A).

VIDEO CASSETTE PLAYER/VIDEO CASSETTE LINE RECORDER



CONTENTS

1. Precautions
2. Reference Information
3. Product Specifications and Comparison Chart
4. Disassembly and Reassembly
5. Alignment and Adjustment
6. Exploded View and Parts List
7. Electrical Parts List
8. Block Diagrams
9. PCB Diagrams
10. Wiring Diagram
11. Schematic Diagrams

1. Precautions

1. Be sure that all of the built-in protective devices are replaced. Restore any missing protective shields.
2. When reinstalling the chassis and its assemblies, be sure to restore all protective devices, including : control knobs and compartment covers.
3. Make sure that there are no cabinet openings through which people--particularly children --might insert fingers and contact dangerous voltages. Such openings include the spacing between the picture tube and the cabinet mask, excessively wide cabinet ventilation slots, and improperly fitted back covers.

If the measured resistance is less than 1.0 megohm or greater than 5.2 megohms, an abnormality exists that must be corrected before the unit is returned to the customer.

4. Leakage Current Hot Check (See Fig. 1) :
Warning : Do not use an isolation transformer during this test. Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI C101.1, *Leakage Current for Appliances*), and Underwriters Laboratories (*UL Publication UL1410, 59.7*).
5. With the unit completely reassembled, plug the AC line cord directly the power outlet. With the unit's AC switch first in the ON position and then OFF, measure the current between a known earth ground (metal water pipe, conduit, etc.) and all exposed metal parts, including : antennas, handle brackets, metal cabinets, screwheads and control shafts. The current measured should not exceed 0.5 milliamp. Reverse the power-plug prongs in the AC outlet and repeat the test.
6. X-ray Limits :
The picture tube is designed to prohibit X-ray emissions. To ensure continued X-ray protection, replace the picture tube only with one that is the same type as the original.

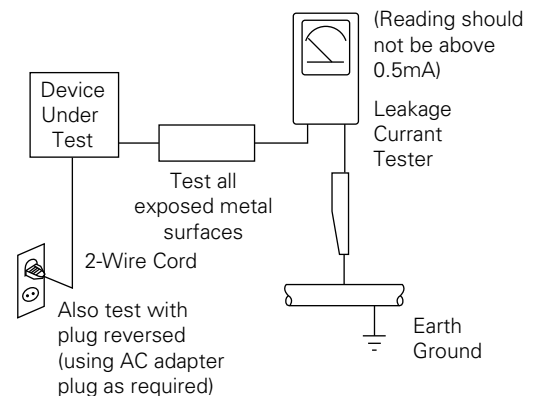




Fig. 1-1 AC Leakage Test

7. Antenna Cold Check :
With the unit's AC plug disconnected from the AC source, connect an electrical jumper across the two AC prongs. Connect one lead of the ohmmeter to an AC prong. Connect the other lead to the coaxial connector.
8. High Voltage Limit :
High voltage must be measured each time servicing is done on the B+, horizontal deflection or high voltage circuits.

Heed the high voltage limits. These include the *X-ray protection Specifications Label*, and the *Product Safety and X-ray Warning Note* on the service data schematic.
9. Some semiconductor ("solid state") devices are easily damaged by static electricity. Such components are called Electrostatically Sensitive Devices (ESDs); examples include integrated circuits and some field-effect transistors. The following techniques will reduce the occurrence of component damage caused by static electricity.
10. Immediately before handling sny semiconductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging Wrist-strap device. (Be sure to remove it prior to applying power--this is an electric shock precaution.)

11. High voltage is maintained within specified limits by close-tolerance, safety-related components and adjustments. If the high voltage exceeds the specified limits, check each of the special components.
12. Design Alteration Warning :
Never alter or add to the mechanical or electrical design of this unit. Example : Do not add auxiliary audio or video connectors. Such alterations might create a safety hazard. Also, any design changes or additions will void the manufacturer's warranty.
13. Hot Chassis Warning :
Some TV receiver chassis are electrically connected directly to one conductor of the AC power cord. If an isolation transformer is not used, these units may be safely serviced only if the AC power plug is inserted so that the chassis is connected to the ground side of the AC source.

To confirm that the AC power plug is inserted correctly, do the following : Using an AC voltmeter, measure the voltage between the chassis and a known earth ground. If the reading is greater than 1.0V, remove the AC power plug, reverse its polarity and reinsert. Re-measure the voltage between the chassis and ground.
14. Some TV chassis are designed to operate with 85 volts AC between chassis and ground, *regardless of the AC plug polarity*. These units can be safely serviced *only* if an isolation transformer inserted between the receiver and the power source.
15. Never defeat any of the B+ voltage interlocks.
Do not apply AC power to the unit (or any of its assemblies) unless all solid-state heat sinks are correctly installed.
16. Always connect a test instrument's ground lead to the instrument chassis ground *before* connecting the positive lead; always remove the instrument's ground lead last.
17. Observe the original lead dress, especially near the following areas : Antenna wiring, sharp edges, and especially the AC and high voltage power supplies. Always inspect for pinched, out-of-place, or frayed wiring. Do not change the spacing between components and the printed circuit board. Check the AC power cord for damage. Make sure that leads and components do not touch thermally hot parts.
18. Picture Tube Implosion Warning :
The picture tube in this receiver employs "integral implosion" protection. To ensure continued implosion protection, make sure that the replacement picture tube is the same as the original.
19. Do not remove, install or handle the picture tube without first putting on shatterproof goggles equipped with side shields. Never handle the picture tube by its neck. Some "in-line" picture tubes are equipped with a permanently attached deflection yoke; do not try to remove such "permanently attached" yokes from the picture tube.
20. Product Safety Notice :
Some electrical and mechanical parts have special safety-related characteristics which might not be obvious from visual inspection. These safety features and the protection they give might be lost if the replacement component differs from the original—even if the replacement is rated for higher voltage, wattage, etc.

Components that are critical for safety are indicated in the circuit diagram by shading, ( or ).
Use replacement components that have the same ratings, especially for flame resistance and dielectric strength specifications. A replacement part that does not have the same safety characteristics as the original might create shock, fire or other hazards.

2. Reference Information

2-1 Servicing Jigs and Special Tools

2-1-1 Servicing guide

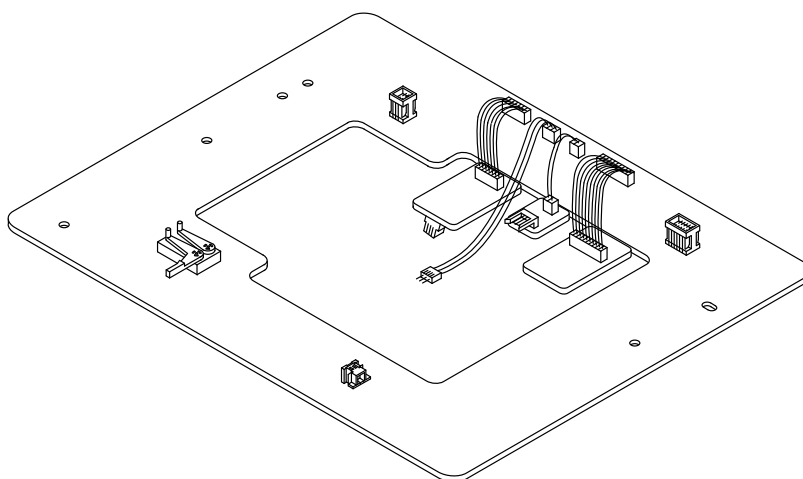
1. For this VCR chassis, the program switch and the sensors (start/end/reel) are located on the main PCB, not on the deck ass'y.
2. As long as the deck ass'y is connected to the main PCB, all repairs are possible.
Important : In order to repair the main PCB without the deck ass'y connected, the X-5 chassis jig should be used.
3. To emulate the function of the sensors, insert diode (1N4148) at service option (D710) on the function PCB.
4. The X-5 chassis jig can be used for the following :
 - 1) When repairing or confirming the operation of the deck ass'y.
 - 2) When replacing or repairing the components located under the deck ass'y.
 - 3) When repairing the function PCB.
5. The X-5 chassis jig can not be used for the following :
 - 1) Repairing defects in the video section.
 - 2) Repairing defects in the audio section.
 - 3) If the defect is related to tape speed.

Note :

- 1) Repair may not be possible if there is external noise between the deck ass'y and main PCB.
- 2) If tape control signal is not connected to the jig, the VCR must be operated in SP mode.

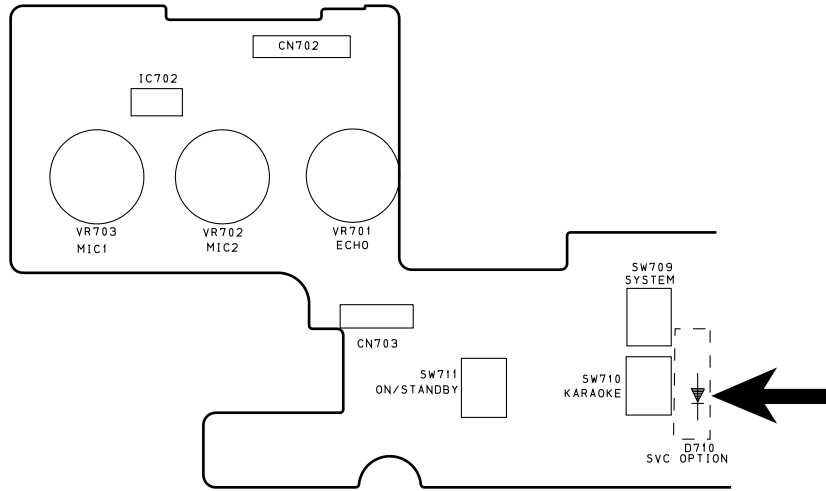
2-1-2 Servicing Jig

| Jig Item | Part No. | Use |
|-----------------|---------------|---|
| X-5 Chassis Jig | 68140-500-013 | Connects the deck ass'y to the main PCB connecting cable. |



2-1-4 How to Connect X-5 chassis jig

1. Unplug the power cord from AC outlet.
2. Remove the deck ass'y from main PCB (See Page 4-5 of service manual).
3. To emulate the function of the sensors, insert diode (1N4148) at service optionon (D710) on the function PCB. (see diagram below).

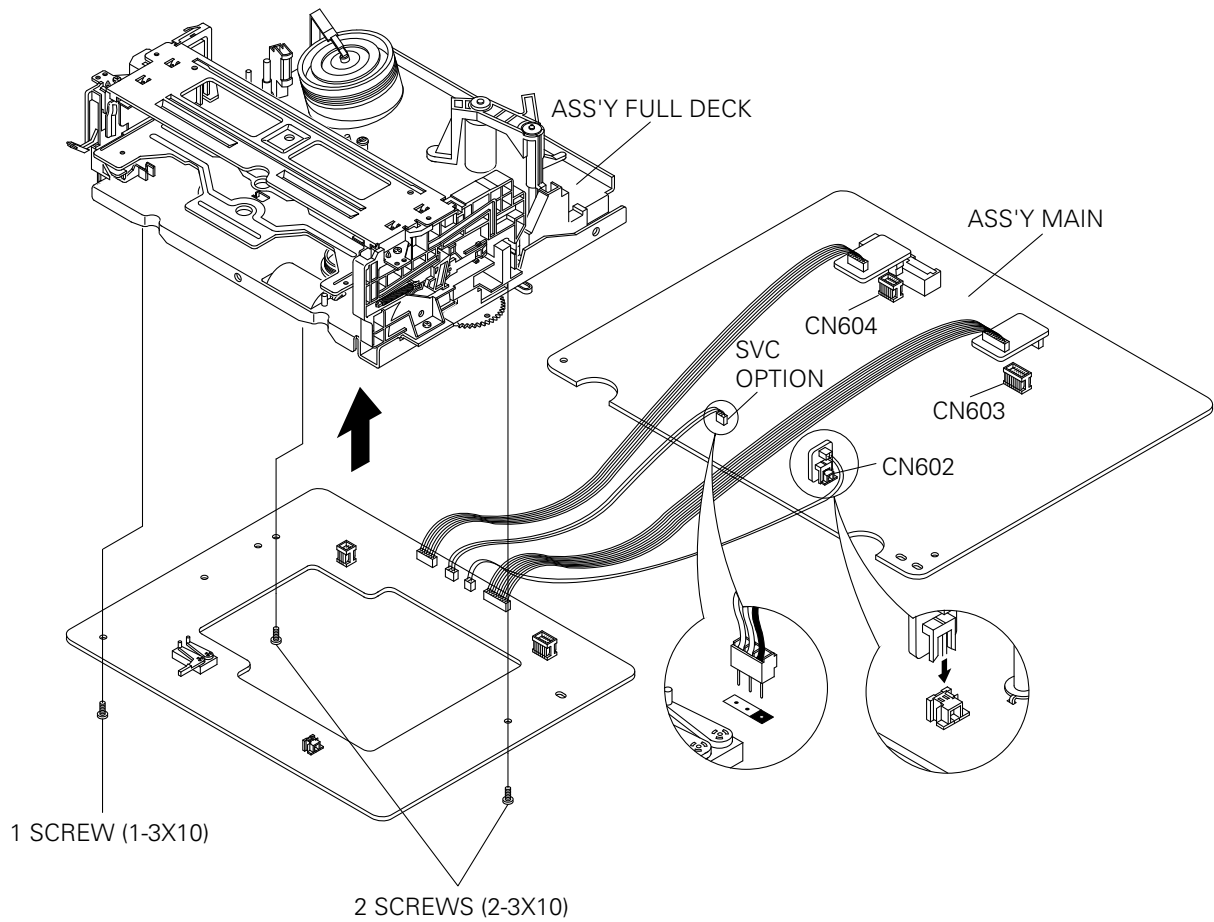
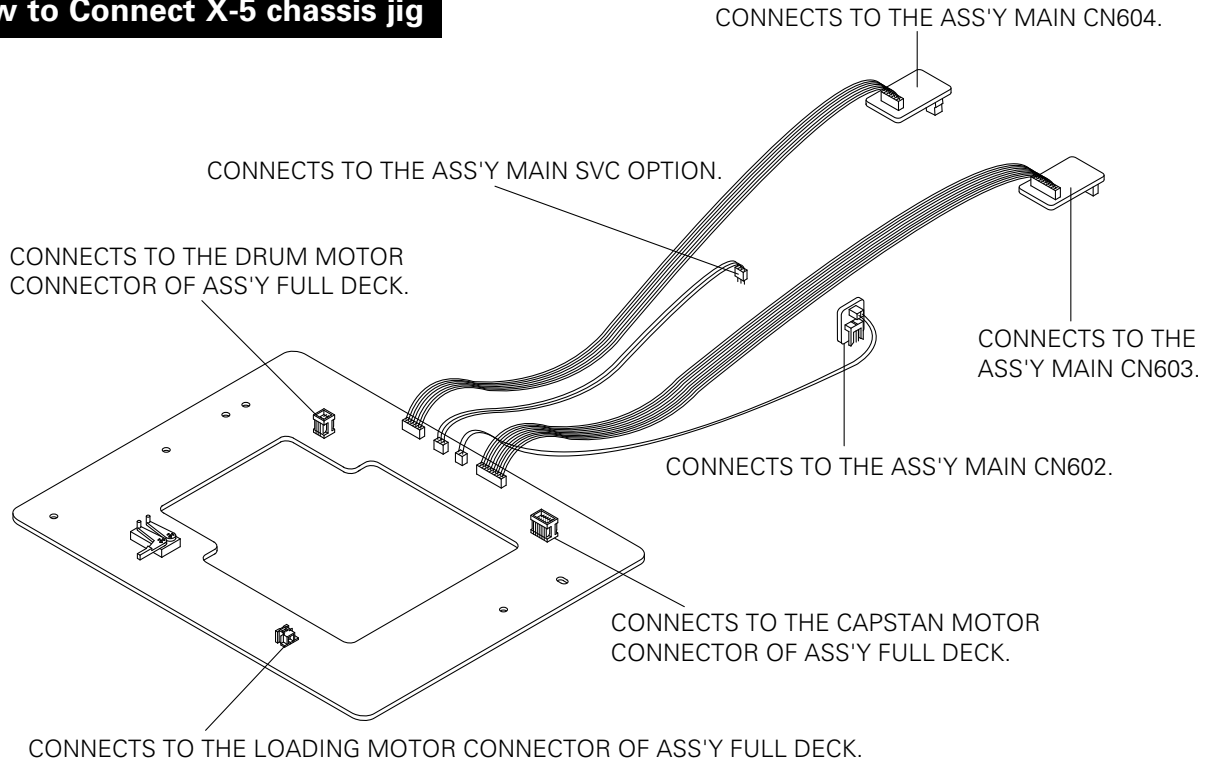


Function (Component side)

Note : After completing repairs, unplug and plug the power cord in order to reset.

4. Insert wafers of drum motor, capstan motor and loading motor on X-5 chassis jig into each of the connectors of deck ass'y, and then secure with three screws.
5. Solder the 3 leads of the jig cable to "CN605" on the main PCB.
6. Apply power to the function PCB.
7. Insert a test tape into the housing ass'y.
8. Simultaneously touch the start and end sensor LEDs on the PCB, so that the tape loads automatically. After the tape is loaded, all of the function buttons on the function PCB can be used.
9. If the test tape is ejected while the jig is in use, attempt to re-load the tape by simultaneously touching the start and end sensor LEDs. If the tape still does not load, unplug and plug the power cord to reset.

How to Connect X-5 chassis jig



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3. Product Specifications and Comparison Chart

3-1 Product Specifications

Design and specifications are subject to change without notice.

| Operation | Description |
|---|---|
| Format | VHS PAL standard |
| Video recording system | Video : 2 rotary heads, helical scanning system Luminance : FM azimuth recording Color : Down converted subcarrier phase shifted |
| Television system | CCIR Standard B/G, D/K |
| Color system | PAL, MESECAM, NT 3.58, NT 4.43, NT PB on PAL TV |
| Tape width | 12.65 mm (1/2 inch) |
| Tape speed | (PAL) SP : 23.39 mm/sec, (NTSC) SP : 33..35 mm/sec |
| Recording/playback time | 3 hours with E-240 Tape |
| F.F/REW time | About 3 min 30 sec with E-180 |
| Heads | Video : 2 rotary heads Audio/Control : 1 stationary head Hi-Fi : 2 rotary heads Erase : 1 full track erase head |
| VIDEO | |
| Input Output Signal-to-noise ratio Horizontal resolution | 0.5 to 2.0 Vp-p : 75 ohm unbalanced 1.0 Vp-p : 75 ohm unbalanced Better than 43 dB More than 240 lines |
| Audio | |
| Input Output Signal-to-noise ratio Frequency response | Line : -8 dBm, 50 Kohm unbalanced Line : -8 dBm, 1 Kohm unbalanced Hi-Fi : More than 68 dB min (IHF A filter) Normal : More than 42 dB min (IHF A filter) Hi-Fi : 20Hz - 20KHz Normal : 100Hz - 8KHz |
| Output channel | Channel 22 - 69 (preset ch36) |
| Power requirement | AC 100 - 240V 50/60 Hz |
| Power consumption | Approx. 17 watts |
| Operation temperature | 41°F-104°F (5°C-40°C) |
| Operation humidity | 10%-75% |
| Weight (net) | 4.0 Kg |
| Dimensions (W x H x D) | 380 x 90.5 x 322 mm |

3-2 Comparison Chart

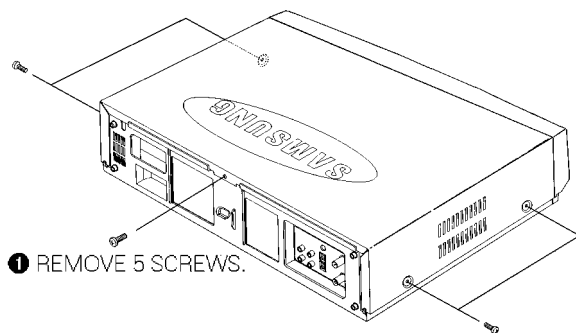
| FUNCTION MODEL | KARAOKE |
|-------------------|---------|
| SV-A17GV | X |
| SVK-A17GV | O |
| SV-8A | X |
| SV-9AK | O |
| SV-66H | X |
| SV-66HK | O |
| SVR-77H | X |

4. Disassembly and Reassembly

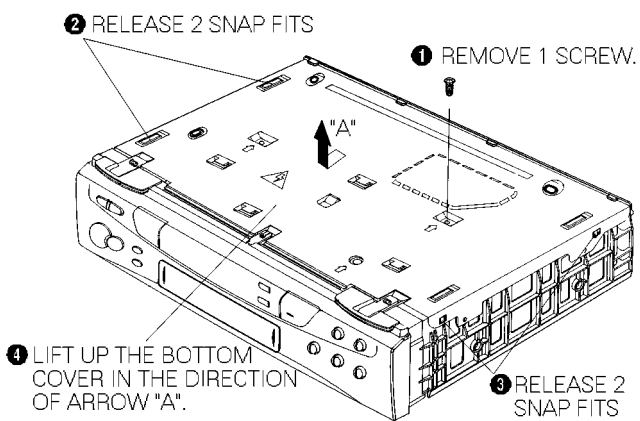
4-1 Cabinet and PCB

Disassemble in the order shown.
Reassemble in reverse order.

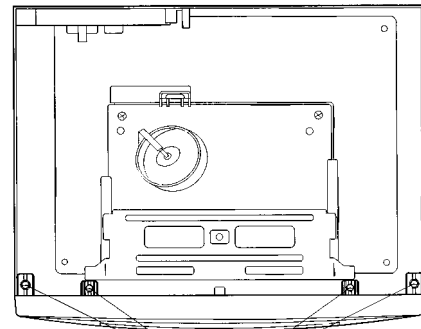
4-1-1 Top cabinet removal



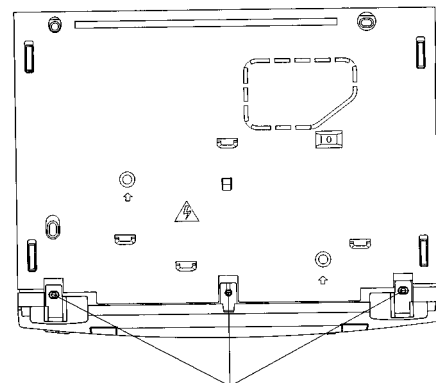
4-1-2 Bottom cover removal



4-1-3 Front panel removal



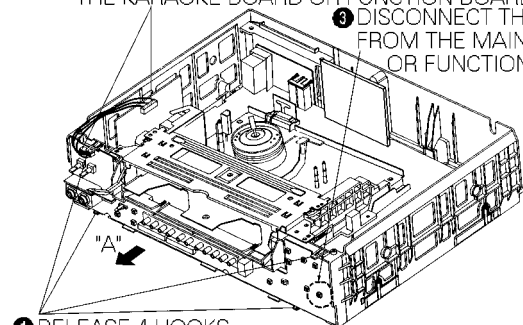
(Top view)



(Bottom view)

4-1-4 Function-Timer PCB removal

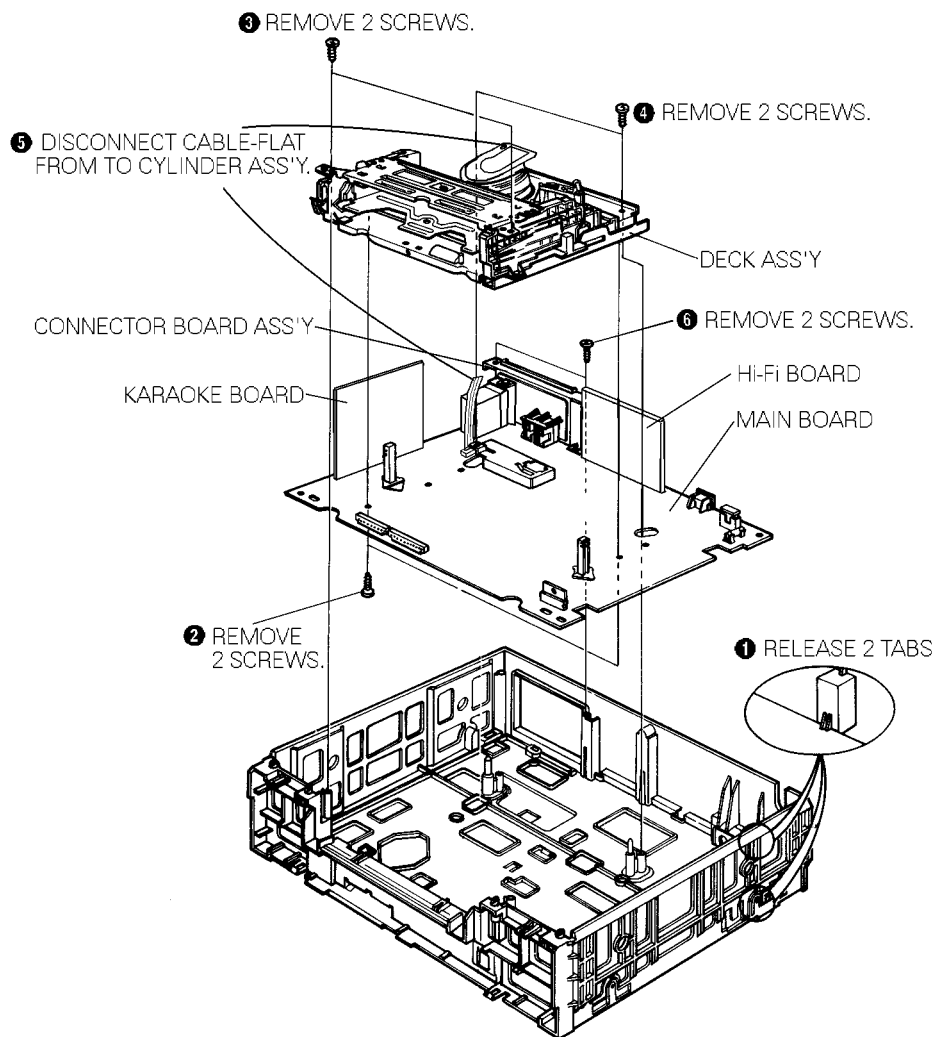
- ② DISCONNECT THE CN704 FROM THE KARAOKE BOARD OR FUNCTION BOARD.
- ③ DISCONNECT THE CN61A FROM THE MAIN BOARD OR FUNCTION BOARD.



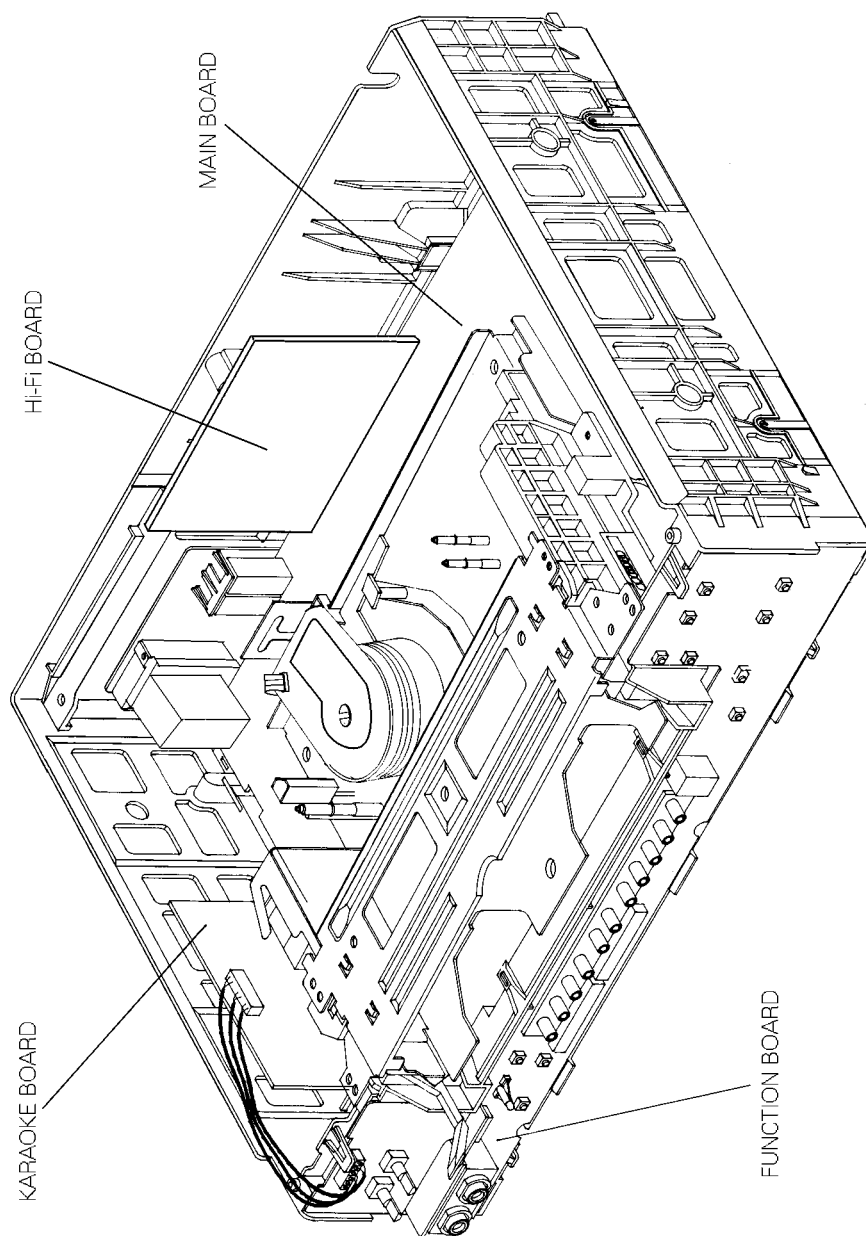
Note : Take extreme care not to damage the PCB when removing it.

4-1-5 Chassis Removal

- Note :** 1. When removing chassis, take extreme care not to damage the main PCB front.
2. When reinstalling the deck on the main PCB, take extreme care not to damage the sensor.



4-2 Circuit Board Locations



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5. Alignment and Adjustment

Note : After replacing the ass'y full deck, the ass'y main, the cylinder ass'y and the micom(IC601), the remote control ass'y can be used to adjust the "X-point (tracking center) adjustment" and "Head S/W point" adjustment.

5-1 Reference

5-1-1 The type of remote control ass'y

1. Remote control ass'y (AC93-10039Y/69099-633-252) is specified as a service jig in the service manual of X-5/X-6(DX5-R/DX5-RC/DX6-R/DX6-RC) chassis. (See Fig. 5-1)
2. Normal remote control ass'y for X-7/X-8 (DX7-R/DX7-RC/DX8-R/DX8-RC) chassis. (See Fig. 5-2)

5-1-2 How to identify between normal remote control ass'y and multi remote control ass'y for X-7/X-8 chassis (See Fig. 5-2)

1. The color of some buttons related to TV function are gold.
2. Audio button is added instead of the test button hidden behind of inlay.
3. The positions of some buttons are different.

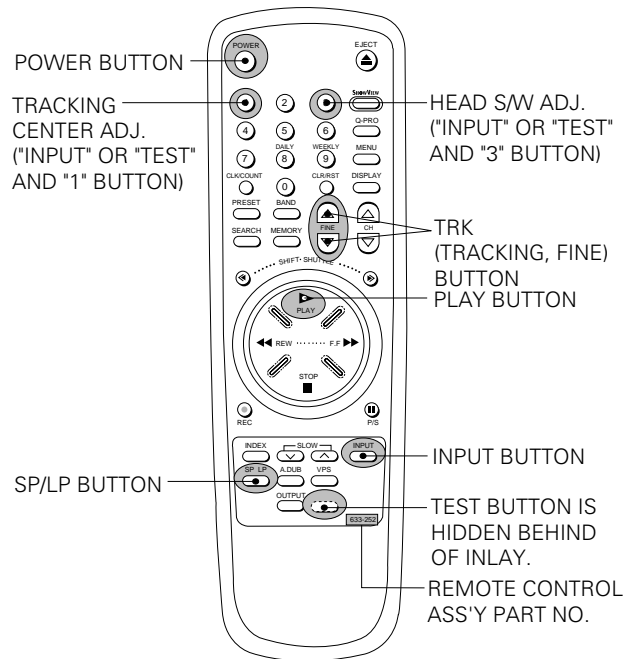


Fig. 5-1 Remote Control Ass'y Jig for X-5/X-6 Chassis (AC93-10039Y/69099-633-252)

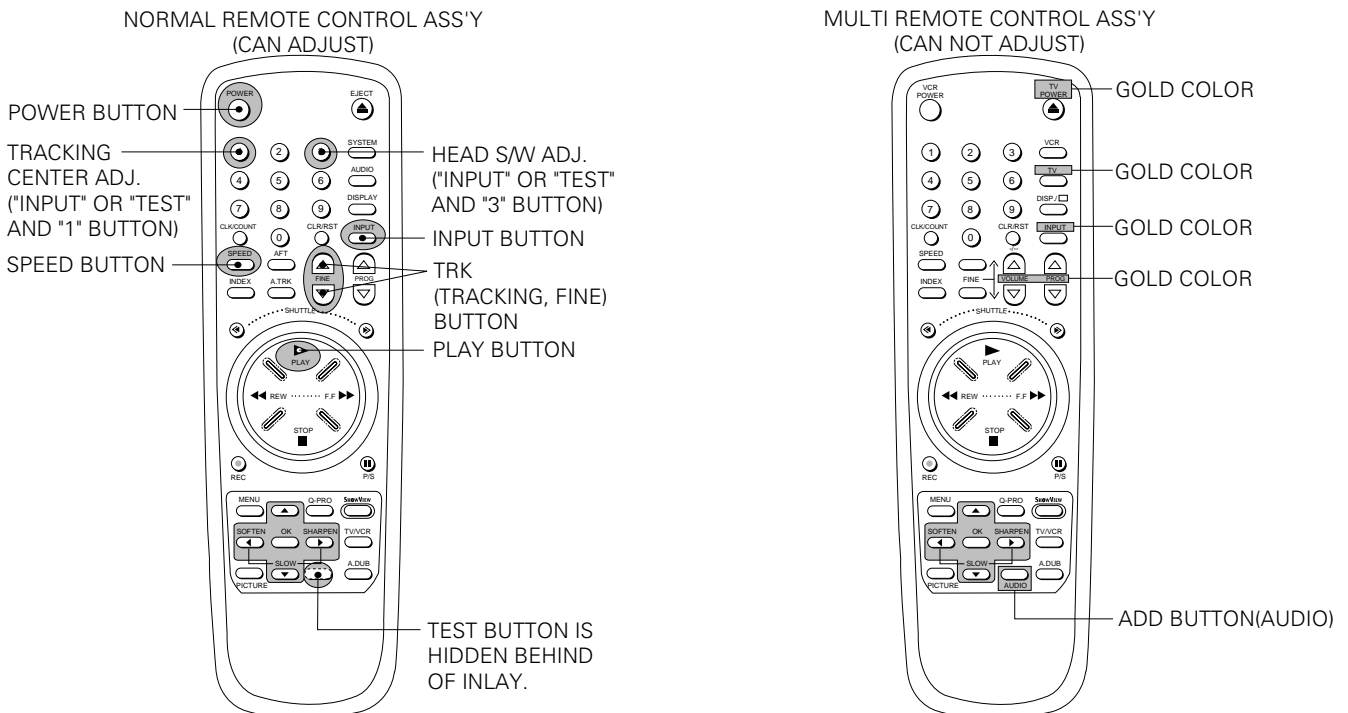


Fig. 5-2 Remote Control Ass'y for X-7/X-8 Chassis

5-2 Mechanical Adjustment

Note : Refer to the Mechanical Manual “DX7-R/DX7-RC/DX8-R/DX8-RC (AC68-20316A)” for the adjustment and confirmation of ass’y full deck.

5-2-1 The number and position of test point

Test point : TP02 (CTL Pulse)
TP03 (H'D S/W -Trigger)
TP04 (V. Envelope)
TP05 (Audio out)

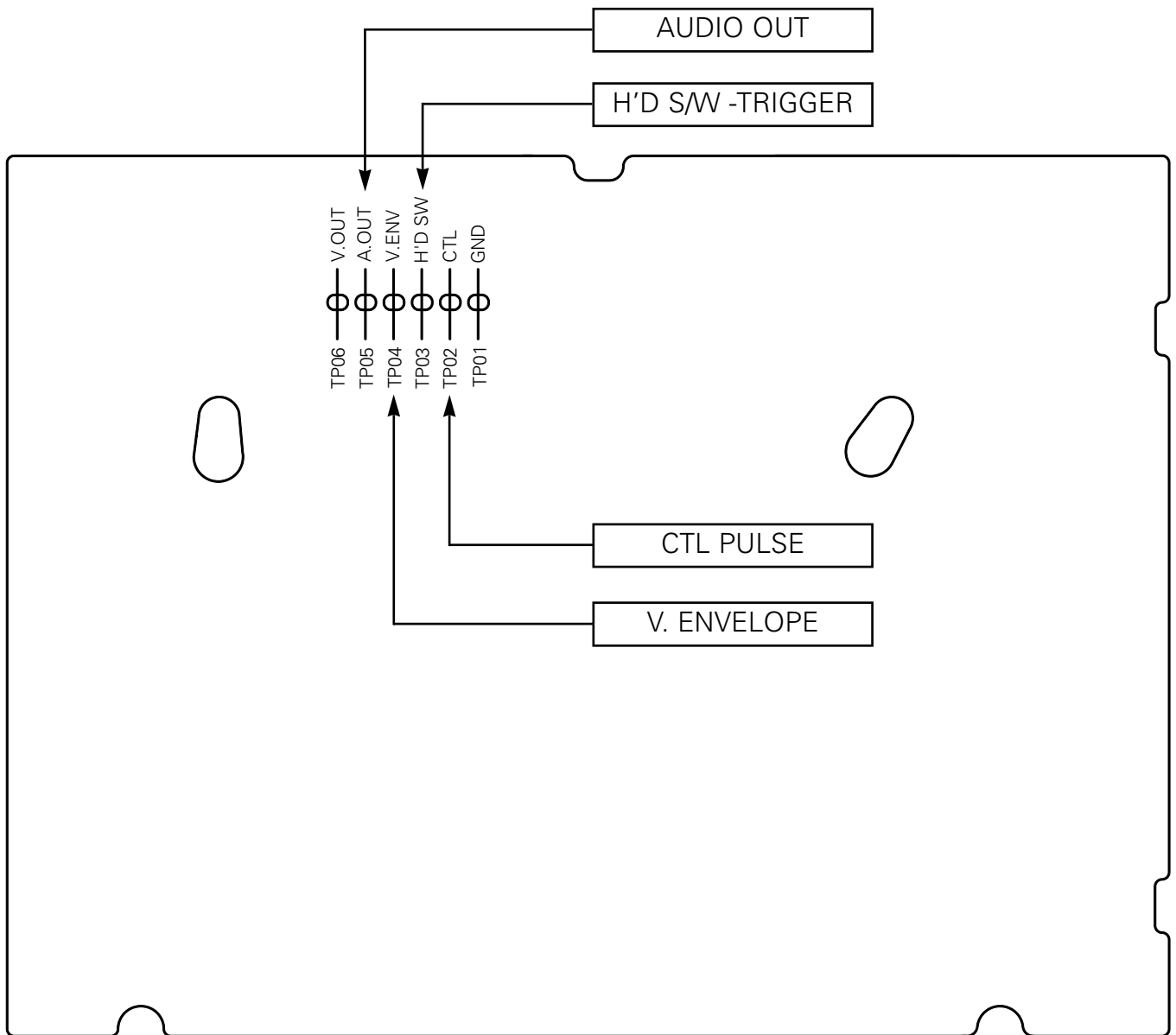


Fig. 5-3 The position of test point (Main PCB-Component side)

5-2-2 X-Point(Tracking center) adjustment (See the 2-2-1 (d) AC HEAD POSITION(X-POINT) ADJUSTMENT on page 2-3 of the mechanical manual)

5-2-2 (a) IF THE REMOTE CONTROL ASS'Y IS NOT AVAILABLE

1. Playback the colorbar alignment tape.
2. Connect CH-1 scope probe to "TP02" and CH-2 scope probe to "TP03". And then, trigger head switching pulse.
3. Set tracking preset to 11msec (2head : 2.7msec, 4, 6head : 11msec) using the "FINE(Tracking, TRK)" button ▲ / ▼ of the other remote control ass'y except the remote control ass'y jig for X-5/ X-6 chassis and the normal remote control ass'y for X-7/X-8 chassis.
4. Connect CH-1 scope probe to "TP02" and the CH-2 to "TP03" trigger on CH-1.
5. Insert the adjusting driver (+) into X-position adjusting gear. Adjust the driver in either direction for maximum envelope waveform.

Note : Since the adjusting gear unit may be damaged, do not adjust by force when adjusting the X-point using the adjusting driver (+). After turn the X-point adjusting screw (D) counterclockwise a little, perform the adjustment. After adjustment is completed, tighten the screw.

<Setting of scope>

- Volt/div. : CH-1 = 0.1V - Time/div. : 5msec
 CH-2 = 0.2V

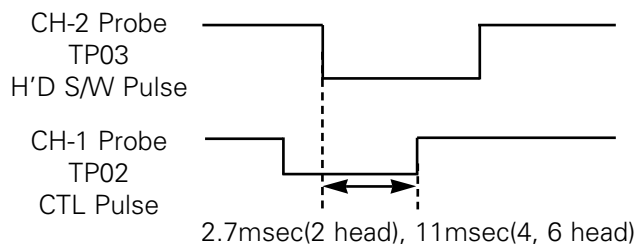


Fig. 5-4 Tracking preset adjustment

| REMOTE BUTTONS | CONTROL PULSE REMOVE |
|---------------------------|----------------------|
| TRACKING ▲ ← PUSH ▼ | |
| TRACKING ▲ ▼ ← PUSH | |

Fig. 5-5 Tracking preset adjustment

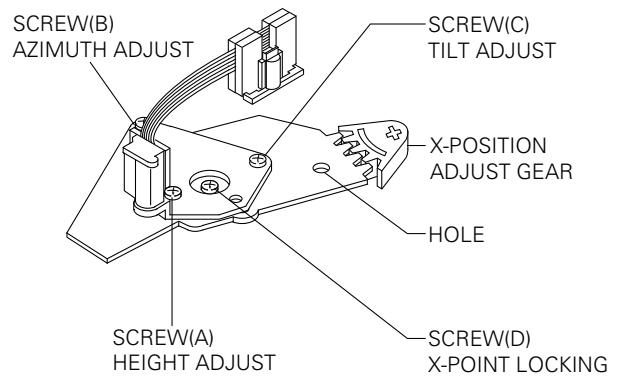


Fig. 5-6 Location of A/C Head adjustment screw

5-2-2 (b) IF THE REMOTE CONTROL ASS'Y (AC93-10039Y/69099-633-252) IS AVAILABLE

Note : How to use the "TEST" button.

1. Disattach the inlay of remote control ass'y. (See Fig. 5-1, 5-2 and 5-3)
2. Press the "TEST" button with the pincers and the precise driver as shown in Fig. 5-1, 5-2 and 5-3)

1. When using the "INPUT" button of remote control ass'y;

- 1) Simultaneously press the "INPUT" button and "1" button in PB mode. This will adjust the tracking center automatically.
- 2) Set the tracking preset using the "FINE(Tracking, TRK)" button of remote control.
- 3) After adjustment is completed, press the "POWER" button to release.

2. When using the "TEST" button of remote control ass'y ;

- 1) Simultaneously press the "TEST" button and "5" button in PB mode. This will adjust the tracking center automatically.
- 2) Set the tracking preset using the "FINE (Tracking, TRK) button of remote control.
- 3) After adjustment is completed, press the "POWER" button to release.

5-2-2 (b) IF THE NORMAL REMOTE CONTROL ASS'Y OF X-7/X-8(DX7-R/DX7-RC/DX8-R/DX8-RC) CHASSIS ("IS" CHASSIS AND "C" CHASSIS) IS AVAILABLE

Note 1 : Three kinds of remote control ass'y are used for X-7/X-8(DX7-R/DX7-RC/DX8-R/DX8-RC) chassis.

1. Three kinds of remote control ass'y are remote control ass'y of "C" chassis, normal remote control ass'y of "IS" chassis, and multi remote control ass'y of "IS" chassis.
2. All adjustments are adjusted by remote control ass'y of "C" chassis and normal remote control ass'y of "IS" chassis.
3. For the identification of remote control ass'y by chassis, See page 5-1 and page 5-2.

Note 2 : How to use the "TEST" button.

1. Disattach the inlay of remote control ass'y.
(See Fig. 5-1, 5-2 and 5-3)
 2. Press the "TEST" button with the pincers and the precise driver as shown in Fig. 5-1, 5-2 and 5-3)
-
1. When using the "INPUT" button of remote control ass'y;
 - 1) Simultaneously press the "INPUT" button and "1" button in PB mode.
This will adjust the tracking center automatically.
 - 2) Set the tracking preset using the "FINE(Tracking, TRK)" button of remote control.
 - 3) After adjustment is completed, press the "POWER" button to release.
 2. When using the "TEST" button of remote control ass'y ;
 - 1) Simultaneously press the "TEST" button and "5" button in PB mode.
This will adjust the tracking center automatically.
 - 2) Set the tracking preset using the "FINE (Tracking, TRK) button of remote control.
 - 3) After adjustment is completed, press the "POWER" button to release.

5-3 Electrical Adjustment

5-3-1 Head S/W Adjustment

Note : Only remote control ass'y can adjust.

5-3-1 (a) IF REMOTE CONTROL ASS'Y
(AC93-10039Y/69099-633-252) IS
AVAILABLE

1. When using the "INPUT" button of remote control
ass'y ;

- 1) Insert an SP tape into the housing ass'y.
- 2) Press the "PLAY" button.
- 3) Press the "INPUT" button and "3" button
simultaneously.
- 4) This will adjust the head S/W point adjustment
automatically.
- 5) After the adjustment is completed, press
"POWER" button to release.

2. When using the "TEST" button of remote control
ass'y ;

- 1) Insert an SP tape into the housing ass'y.
- 2) Press the "PLAY" button.
- 3) Press the "TEST" button and "SP/LP" button
simultaneously.
- 4) This will adjust the head S/W point adjustment
automatically.
- 5) After adjustment is completed, press the
"POWER" button to release.

5-3-1 (b) IF NORMAL REMOTE CONTROL
ASS'Y FOR X-7/X-8(DX7-R/DX7-RC/
DX8-R/DX8-RC) CHASSIS ("IS"
CHASSIS AND "C" CHASSIS) IS
AVAILABLE

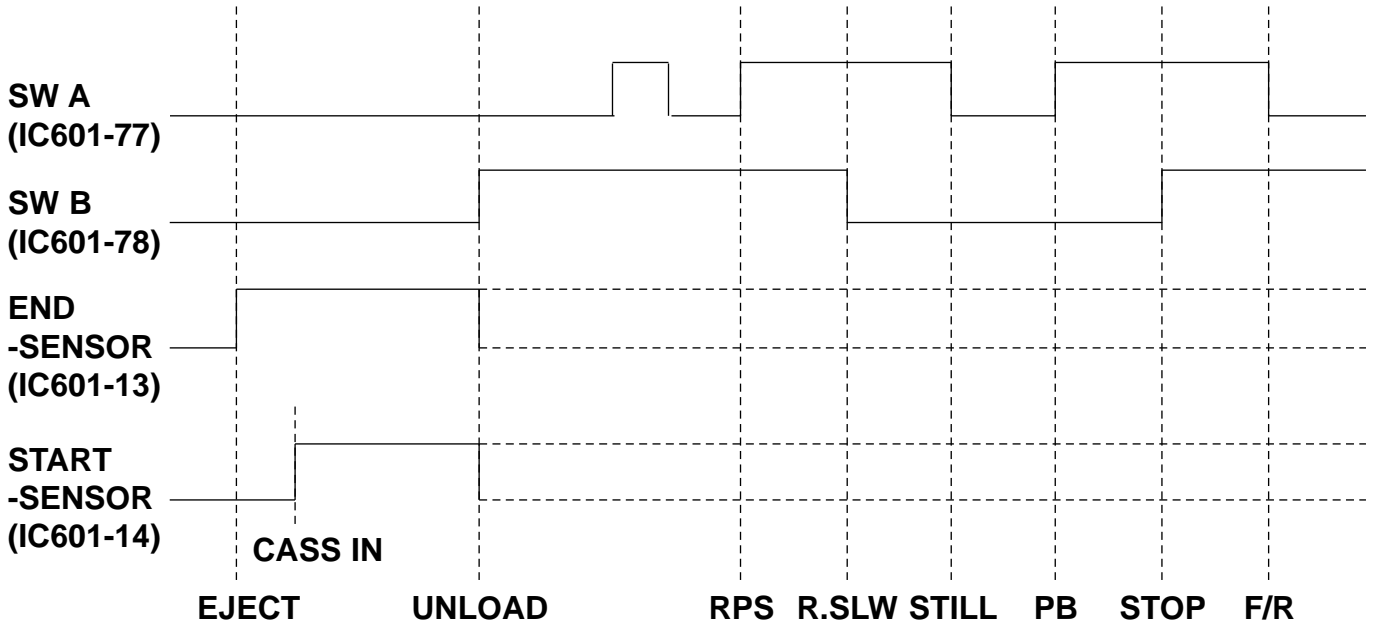
1. When using the "INPUT" button of remote control
ass'y ;

- 1) Insert an SP tape into the housing ass'y.
- 2) Press the "PLAY" button.
- 3) Press the "INPUT" button and "3" button
simultaneously.
- 4) This will adjust the head S/W point adjustment
automatically.
- 5) After the adjustment is completed, press
"POWER" button to release.

2. When using the "TEST" button of remote control
ass'y ;

- 1) Insert an SP tape into the housing ass'y.
- 2) Press the "PLAY" button.
- 3) Press the "TEST" button and "SPEED" button
simultaneously.
- 4) This will adjust the head S/W point adjustment
automatically.
- 5) After adjustment is completed, press the
"POWER" button to release.

5-4 Timing Chart of Program S/W

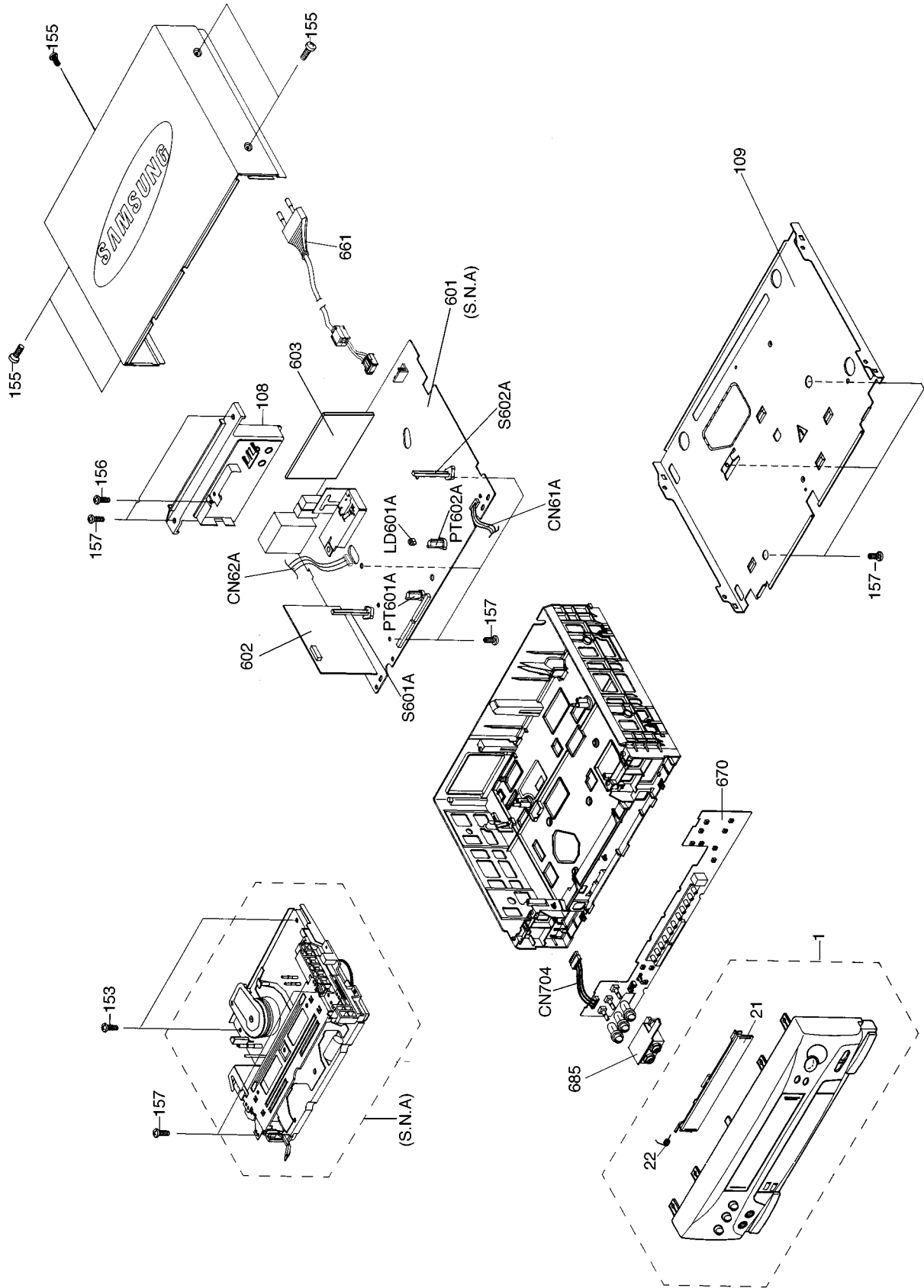


| Position | Program S/W (SW601) | | | | Action Mode |
|-------------|---------------------|-----|------|------|--------------------------------------|
| | E/S | S/S | SW A | SW B | |
| Eject | L | L | L | L | Eject |
| Cassette IN | H | L H | L | L | Cassette IN |
| Unload | - | - | L | L H | Unload |
| R. PS | - | - | L H | H | R. PS, Z-R. PS |
| R. Slow | - | - | H | H L | Pinch Roller off Position |
| Still | - | - | H L | L | Still, Slow, F-ADV |
| Play | - | - | L H | L | PB, T-Stop, REC, Pause, F. PS, Z-FPS |
| Stop | - | - | H | L H | Stop, Power off |
| FF/REW | - | - | H L | H | FF, REW |

6. Exploded View and Parts List

| | Page |
|---|-------------|
| 6-1 Cabinet Assembly - - - - - | 6-2 |
| 6-2 Mechanical Parts (Top Side) - - - - - | 6-4 |
| 6-3 Mechanical Parts (Bottom Side) - - - - - | 6-6 |
| 6-4 Housing Assembly - - - - - | 6-8 |

6-1 Cabinet Assembly

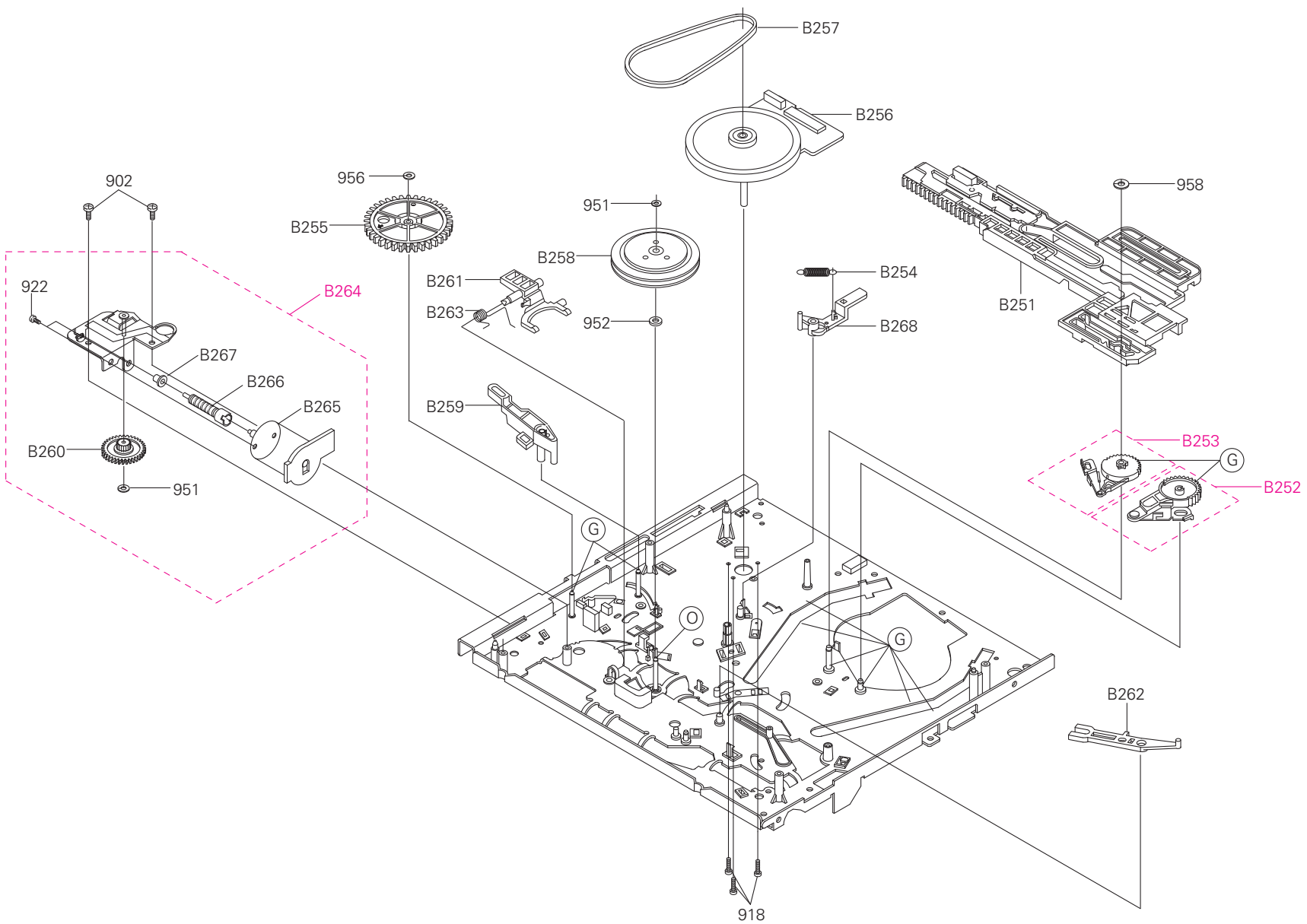


* S.N.A : Service Not Available

| Loc. No | Part No | Description and Specification | Remark |
|---------|-----------------------|--|------------|
| - | DO NOT ORDER | ASSY-DECK (DX7-R) | (S.N.A) |
| 1 | AC98-11224J | ASSY-PANEL FRONT;SVK-A17GV/SAV,SMR, SV-9AK | TSEC LOCAL |
| | AC98-11224L | ASSY-PANEL FRONT;SV-A17GV/SAV,CIS, SV-8A, SVR-77H | TSEC LOCAL |
| | AC98-11224G | ASSY-PANEL FRONT;SVK-A17GV/TSE, SV-66HK | TSEC LOCAL |
| | AC98-11224F | ASSY-PANEL FRONT;SV-A17GV/TSE, SV-66H | TSEC LOCAL |
| 21 | AC64-50834E | DOOR-CASSETTE;SVK-A17GV/SAV,CIS, SV-9AK | TSEC LOCAL |
| | AC64-50834F | DOOR-CASSETTE;SV-A17GV/SAV,SMR, SV-8A, SVR-77H | TSEC LOCAL |
| | AC64-50834D | DOOR-CASSETTE;SV-A17GV/TSE, SV-66H | TSEC LOCAL |
| | AC64-50834C | DOOR-CASSETTE;SVK-A17GV/TSE, SV-66HK | TSEC LOCAL |
| 22 | AC61-62003A | SPRING;-;SUS304,(GE/RCA),-,-,-,- | TSEC LOCAL |
| 108 | AC61-11006A | CONNECTOR BOARD-ASSY;SVK-A17DV/TSEC,HIPS94,HB,T2 | TSEC LOCAL |
| 153 | AC60-12126A | SCREW-BH;-;BH,-,4*12,FE,FZY,-,-,- | |
| 155 | AC60-12134A | SCREW-TAP BH;-;BH,-,2-4X16,-,FE | |
| 157 | AC60-10063A | SCREW-TAPTITE;BH,+,-,M3,L12,ZPC3,SWRCH18A | |
| 601 | DO NOT ORDER | ASSY-MAIN | (S.N.A) |
| 602 | AC93-10824F | ASSY-KARAOKE;SVK-A17GV (KARAOKE MODEL ONLY) | TSEC LOCAL |
| 603 | AC93-10824S | ASSY-HIFI;SVK-A17GV | TSEC LOCAL |
| 661 | AC39-10019A | POWER CORD;KKP-419C,H03VVH2-F,VDE/KEMA-KE | TSEC LOCAL |
| 670 | AC93-10824E | ASSY-F/TIMER;SVK-A17GV/SMR,TSE,SAVINA(KARAOKE) | TSEC LOCAL |
| | AC93-10824K | ASSY-F/TIMER;SV-A17GV/SMR,TSE,SAVINA,CIS(NO KARAOKE) | TSEC LOCAL |
| 685 | AC93-10824G | ASSY-MIC JACK;SVK-A17GV (KARAOKE MODEL ONLY) | TSEC LOCAL |
| CN61A | 3809-001051 | CABLE-FLAT;30V,80C,100MM,12P,1.25MM,UL289 | |
| CN62A | 3809-001048 | CABLE-FLAT;30V,80C,110MM,6P,1.25MM,UL2896 | |
| CN704 | AC39-22017U | LEAD-CONNECTOR ASSY;5395,5264,6P,160M/M,1534#26 | |
| LD601A | AC61-22345A | HOLDER-LED;POM,-,-,-,-,- | TSEC LOCAL |
| PT601A | AC61-22344A | HOLDER-PHOTO;POM,-,-,-,-,- | TSEC LOCAL |
| PT602A | AC61-22344A | HOLDER-PHOTO;POM,-,-,-,-,- | TSEC LOCAL |
| SC301 | AC63-42222A | SHIELD-CASE P/AMP(AS;3516ET,T0.3,SIL,SV-80Z,- | TSEC LOCAL |
| SP601 | AC61-22321A | HOLDER-TR;POM,-,-,-,-,- | TSEC LOCAL |
| SP602 | AC61-22321A | HOLDER-TR;POM,-,-,-,-,- | TSEC LOCAL |
| | ACCESSORY PART | | |
| | AC59-92003T | MICROPHONE;SDM-702,PI6.3MM 5MT 600OHM | TSEC LOCAL |

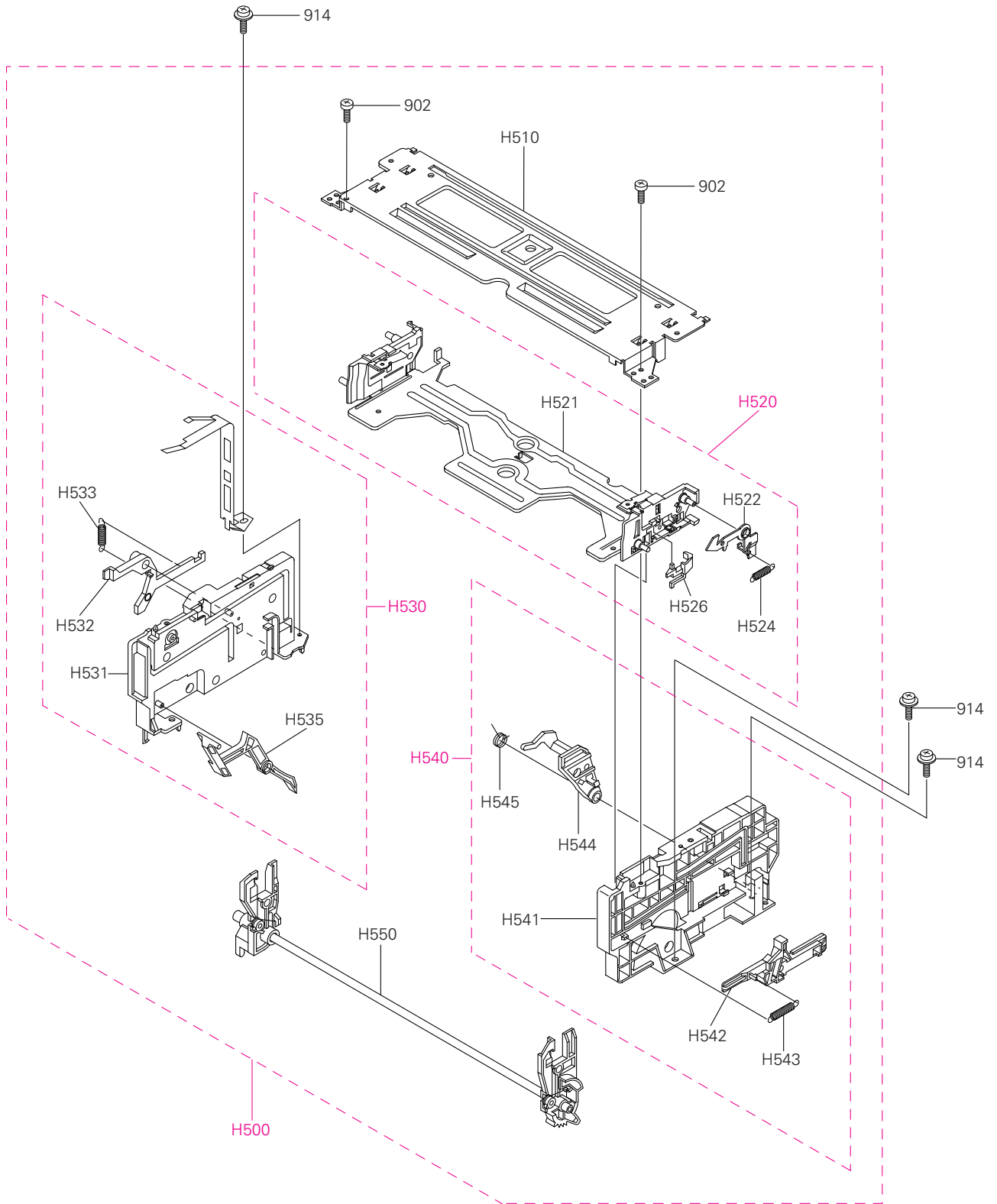
| Loc. No | Part No | Description and Specification | Remark |
|---------|---------------|--|------------|
| 901 | AC60-10012A | SCREW-MACHINE;BH,+ ,M3,L8,-,FE,-,-,- | TSEC LOCAL |
| 904 | AC60-12125A | SCREW-PH;-,-,-,M3X6 TAP TITE,-,-,-,- | TSEC LOCAL |
| 905 | AC60-12096A | SCREW-MACHINE;FP,PH,-,M2.6,X10,SWRCH1-A,YEL | TSEC LOCAL |
| 912 | 67094-604-710 | SCREW-DAMPER;M2.0X7.0 SWCM 10(MFZN2-C) | TSEC LOCAL |
| 919 | AC60-10004A | SCREW-MACHINE;BH,+ ,M3,L8,ZPC,SWRCH18A,-,-,- | TSEC LOCAL |
| 920 | AC60-10007A | SCREW-TAPPING;BH,+ ,M2.6,L12,-,SWRCH18A,-,-,- | TSEC LOCAL |
| 952 | AC60-30018A | WASHER-PLAIN;PLAIN,M3.2,D6,T0.5,POLYSLIDER, | TSEC LOCAL |
| 956 | AC60-30007A | WASHER-SLIT;PLAIN,ID2.5,OD7,T0.5,SPC1,-,- | TSEC LOCAL |
| 957 | AC60-30008A | WASHER-SLIT;- ,ID3.5,OD9,T0.5,SPC1,-,- | TSEC LOCAL |
| T201 | AC66-10023A | REEL-DISK L ASSY;POM,-,PACKAGE,X-5,- | TSEC LOCAL |
| T202 | AC66-10022A | REEL-DISK R (ASSY);POM,-,PACKAGE,X-5,- | TSEC LOCAL |
| T203 | AC66-30474A | BRAKE-SUB L;- ,PBT,-,-,-,X-5/IS | TSEC LOCAL |
| T204 | AC66-30148A | BRAKE SUB R-ASSY;PBT,-,-,-,X5,- | TSEC LOCAL |
| T207 | AC66-30475A | BRAKE-MAIN L ASS'Y;- ,POM+PELT,-,-,-,X-5/IS | TSEC LOCAL |
| T208 | AC66-30476A | BRAKE-MAIN R ASS'Y;- ,POM+PELT,-,-,-,X-5/IS | TSEC LOCAL |
| T209 | AC61-60112A | SPRING- BRAKE MAIN;ES,SUS304WPB,PI0.35,ID2.8,OD4. | TSEC LOCAL |
| T210 | AC66-20073A | GEAR RELAY S-ASSY;- ,PEBAX,M0.5,M48,SP,X5,- | TSEC LOCAL |
| T211 | AC66-20037A | GEAR- RELAY T;PEBAX7033,X-5,Z39,GEAR-SPUR,D1 | TSEC LOCAL |
| T212 | AC66-32209A | ARM-TENSION CKD;-,-,-,-,CKD,DX5-R,- | TSEC LOCAL |
| T216 | AC61-60119A | SPRING TENSION;ES,SWPB,PI0.35,ID2.1,L33(OD3.8),- | TSEC LOCAL |
| T217 | AC66-30470A | LEVER-REC S/W;- ,PBT #3300,T4.0,L32,-,(X-5/IS | TSEC LOCAL |
| T218 | AC61-62017A | SPRING-SUB BRAKE L;ES,SUS304,PI0.23,D3.5,L14.8,-, | TSEC LOCAL |
| T219 | AC33-10003P | HEAD- MAGNET F/E;MH131S,-,-,-,L51.05XW7.4XH12.3 | TSEC LOCAL |
| T220 | AC66-82051A | SLIDER-G/R ASSY(S);-,-,-,-,X-5 | TSEC LOCAL |
| T221 | AC66-82061A | SLIDER-G/R ASSY T;-,-,-,-,X-7(VW-31H) | TSEC LOCAL |
| T222 | AC33-10002E | HEAD-CLEANER;-,-,-,-,X-5 (OPTIONAL) | TSEC LOCAL |
| T223 | AC66-20065A | RACK-HOUSING;L74.29,POM M90-44,BLK,M1,3.14, | TSEC LOCAL |
| T224 | AC33-10215A | HEAD-ACE ALL ASSY;- ,X-7,-,-,- | TSEC LOCAL |
| T225 | AC66-82045A | SLIDER-PINCH;POM(M90-44),T2,L54.35,NAT,DX-5 | TSEC LOCAL |
| T226 | AC66-30014A | LEVER-REVIEW;ZYTEL(70G-43L),T3.8,-,PCD25.6, | TSEC LOCAL |
| T227 | AC66-32216A | ARM REVIEW CKD;-,-,-,-,DX5-RV,- | TSEC LOCAL |
| T228 | AC66-30013A | LEVER-PINCH CAM;PBT 6300T,-,L45,W9,X-5,- | TSEC LOCAL |
| T229 | AC66-30003A | LEVER PINCH COUP;PBT 3300,T7.5,L45.25,-,-,X-5 | TSEC LOCAL |
| T230 | AC61-60116A | SPRING- PINCH COMP;TS,SWPB,PI1.0,D6,L38(OD8),- | TSEC LOCAL |
| T231 | AC67-32002A | PRISM-LED;PMMA,D5,IF-850,-,-,- | TSEC LOCAL |
| T232 | V1643-0025-00 | SLIDER-PUSH;LUPOX 2150,T2,-,NTR,- | TSEC LOCAL |
| T233 | AC61-62016A | SPRING-SLIDE PUSH;ES,SUS304WPB,PI0.55,D3.55,L24. | TSEC LOCAL |
| T234 | AC59-92002G | UNIT-PINCH ROLLER CK;DX5-RV | |
| T236 | AC66-10010A | IDLER-ASSY;PACKAGE,-,X-5,- | TSEC LOCAL |
| T237 | V3383-0031-00 | STOPPER-TAPE;POM M90-44,OD7,T1.5,NTR,X-5,- (OPTIONAL) | TSEC LOCAL |
| T238 | AC61-60132A | SPRING ARM PINCH;CS,SUS304WPB,PI0.4,D7.1,OD7.9, | TSEC LOCAL |
| T239 | AC66-30132A | LEVER JOG-ASSY;-,-,-,-,X5,- (DX8-R/RC ONLY) | TSEC LOCAL |
| T240 | AC61-60505A | SPRING-REC S/W;- ,ES,SUS304 WPB,PI0.29,PI3.5,- | TSEC LOCAL |
| T300 | AC96-10475J | ASSY-CYLINDER;- ,CX8-H4P/DLC | TSEC LOCAL |

6-3 Mechanical Parts (Bottom Side)



| Loc. No | Part No | Description and Specification | Remark |
|---------|---------------|--|------------|
| 902 | AC60-10051A | SCREW-TAPPING;BH,-,-,M3,L8,FZY | TSEC LOCAL |
| 918 | AC60-10006A | SCREW-MACHINE;BH,+I90,M2.6,L7,ZPC,SWRCH18A,- | TSEC LOCAL |
| 922 | 67008-130-171 | SCREW PH;+M3X3 FE FZY | TSEC LOCAL |
| 951 | AC60-30025A | WASHER-SLIT;- ,ID2.5,OD5.0,T0.5,POLY SLIDE, | TSEC LOCAL |
| 952 | AC60-30018A | WASHER-PLAIN;PLAIN,M3.2,D6,T0.5,POLYSLIDER, | TSEC LOCAL |
| 956 | AC60-30007A | WASHER-SLIT;PLAIN,ID2.5,OD7,T0.5,SPC1,-,- | TSEC LOCAL |
| 958 | AC60-30028A | WASHER-SLIT;- ,D2.5,D9.0,T0.5,NUMIRROR,-,- | TSEC LOCAL |
| B251 | AC66-82042A | SILDER- MAIN;PBT2002K,T12.4,L206.2,NAT,DX-5 | TSEC LOCAL |
| B252 | AC66-20019A | GEAR-LOADING L ASSY;-,-,-,PACKAGE,-,X-5,- | TSEC LOCAL |
| B253 | V1473-0105-00 | GEAR LOADING R ASSY;-,-,-,-,X5,- | TSEC LOCAL |
| B254 | AC61-60115A | SPRING-BRAKE CAPSTAN;ES,SUS304WPB,PI0.4,D22,L16.1(| TSEC LOCAL |
| B255 | AC66-20003A | GEAR-MASTER;POM (M90-44),M 1,Z 60,SP,-,X-5 | TSEC LOCAL |
| B256 | AC31-12001R | MOTOR-D/D CAPSTAN;DMVCMC06A,- | TSEC LOCAL |
| B257 | AC66-62008A | BELT-CAPSTAN;5CM-70 FR,W2 T2 L88.6,-,-,-,-, | |
| B258 | AC66-20066A | CLUTCH-ASSY;-,-,-,-,-,X5,- | TSEC LOCAL |
| B259 | V1533-0095-00 | LEVER-SLIDER PINCH;PBT,T4,NAT,-,-,- | TSEC LOCAL |
| B260 | AC66-20016A | GEAR- WORM WHEEL;POM SW-01,M0.55/M1,Z57/Z10,GEA | TSEC LOCAL |
| B261 | AC66-30011A | LEVER- SHIFT;PBT2002K,T10.9,L35,-,-,- | TSEC LOCAL |
| B262 | AC66-30012A | LEVER- IDELR CHANGE;PBT330,T3.3,L50,-,W6.0,- | TSEC LOCAL |
| B263 | AC61-60111A | SPRING-LEVER SHIFT;TS,SWPB,PI0.7,D5.5,L13.8(OD6.9 | TSEC LOCAL |
| B264 | AC59-90001A | UNIT-LOADING ASSY;X-5,-,- | TSEC LOCAL |
| B265 | 66823-0060-00 | MOTOR-LOADING ASSY;POM+RF370C X-5 | TSEC LOCAL |
| B266 | AC66-20039A | GEAR- WORM LO;PBT 2002K,-,-,-,D4.5,3,- | TSEC LOCAL |
| B267 | AC61-20224A | HOLDER SHAFT;POM M90-44,T1.25,NAT,PI5XH5.5, | TSEC LOCAL |
| B268 | AC66-30149A | BRAKE CAPSTAN-ASSY;POM,-,-,-,X5,- | TSEC LOCAL |

6-4 Housing Assembly



| Loc. No | Part No | Description and Specification | Remark |
|---------|---------------|--|------------|
| 902 | AC60-10051A | SCREW-TAPPING;BH,-,-,M3,L8,FZY | TSEC LOCAL |
| 914 | AC60-10067A | SCREW-TAPTITE;PWH,+,-,M3,L8,MFZN2-C,SWCH1018 | TSEC LOCAL |
| H500 | AC61-82005A | HOUSING-ASSY;-X7FL26280A,230X130X60,-,X-7 | TSEC LOCAL |
| H510 | AC61-10006A | CHASSIS- UPPER;SECC 20/20,-,T1.0,BLK,-,X5,- | TSEC LOCAL |
| H520 | 63322-0317-00 | HOLDER-CASSETTE ASSY;-X5FL06080A,-,-,-,X-7(CODO) | TSEC LOCAL |
| H521 | AC61-20083A | HOLDER-CASSETTE;-SECC T1.2,-,NAT,-,X-7(CODO) | TSEC LOCAL |
| H522 | AC66-30018A | LEVER-LOCK R;SECC 20/20,T1.2,L44,W32,-,- | TSEC LOCAL |
| H524 | AC61-60121A | SPRING-LEVER LOCK;ES,SUS304 WPB,PI0.2,D2.6,L9.9(| TSEC LOCAL |
| H526 | AC66-30019A | LEVER-KEY CASSETTE;LUCEL N109-LD,T2.5,L20,W15.2,- | TSEC LOCAL |
| H530 | 62203-0105-00 | CHASSIS-SIDE L(ASSY);ABS X5FL0505A X-5 | TSEC LOCAL |
| H531 | AC61-10004A | CHASSIS- SIDE L;ABS HF-380,-,T10,BLK,-,X5,BLK | TSEC LOCAL |
| H532 | AC66-30004A | LEVER- LIGHT SHUTTER;LUCEL N109-LD,T2.5,L61.7,BLK, | TSEC LOCAL |
| H533 | AC61-60142A | SPRING- LIGHT;ES,SUS304WPB,PI0.2,L11.4(OD3.7 | TSEC LOCAL |
| H535 | AC66-30017A | LEVER- DOOR;LUCELN109-LD,T5,L74.3,W21.1,-, | TSEC LOCAL |
| H540 | 62203-0104-00 | CHASSIS-SIDE R(ASSY);ABS X5FL0505A X-5 | TSEC LOCAL |
| H541 | AC61-10003A | CHASSIS- SIDE R;ABS HF-380,-,T10,BLK,-,X5,BLK | TSEC LOCAL |
| H542 | AC66-80008A | SLIDER DAMPER;LUCEL N109-LD,T4,L87,-,-,- | TSEC LOCAL |
| H543 | AC61-60120A | SPRING-SLIDE DAMPER;ES,SUS 304WPB,PI0.4,D3.8,L25(O | TSEC LOCAL |
| H544 | AC66-30016A | LEVER- LID OPENER;LUCEL N109-LD,T5.0,L34.7,W16.6 | TSEC LOCAL |
| H545 | AC61-60123A | SPRING-LID OPENER;TS,SWPB,PI0.55,D8.9,L15(OD10), | TSEC LOCAL |
| H550 | 61403-0073-00 | SHAFT-ARM(ASSY);SUM24L X5FL0405A X-5 | TSEC LOCAL |

MEMO

7. Electrical Parts List

| Loc.No | Part No | Desc and Spec | Remark | Loc.No | Part No | Desc and Spec | Remark |
|-------------------------|---------------------|--|----------------|-----------------------------------|-------------|---|------------|
| 601 | DO NOT ORDER | ASSY-MAIN | (S.N.A) | Q1P05 | 0501-000610 | TR-SMALL SIGNAL;KSA928A-Y,PNP,1W,TO-92L,TP,160 | |
| SMPS/POWER PARTS | | | | R1P01 | 2004-000571 | R-METAL;220OHM,5%,1/4W,AA,TP,2.4X6.4MM | TSEC LOCAL |
| C1P02 | 2401-001915 | C-AL;1UF,20%,50V,GP,TP,3X5,1MM | TSEC LOCAL | R1P02 | 2004-001096 | R-METAL;560OHM,5%,1/4W,AA,TP,2.4X6.4MM | TSEC LOCAL |
| C1P04 | 2401-001912 | C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM | TSEC LOCAL | R1P03 | 2004-001096 | R-METAL;560OHM,5%,1/4W,AA,TP,2.4X6.4MM | TSEC LOCAL |
| C1S01 | 2305-001021 | △ C-FILM,MPEF;100NF,20%,275V,TP,17.5X7X13.5, | TSEC LOCAL | R1P04 | 2004-001096 | R-METAL;560OHM,5%,1/4W,AA,TP,2.4X6.4MM | TSEC LOCAL |
| C1S02 | 2201-000934 | △ C-CERAMIC,DISC;3.3NF,20%,400V,Y5P,TP,18X8,10 | TSEC LOCAL | R1P05 | 2001-000761 | R-CARBON;430OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C1S03 | 2201-000808 | △ C-CERAMIC,DISC;2.2NF,10%,400V,Y5P,TP,12X7.5,7 | TSEC LOCAL | R1P06 | 2001-000405 | R-CARBON;180OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C1S11 | 2401-001682 | △ C-AL;82UF,20%,400V,GP,BK,22X25,10MM | TSEC LOCAL | R1P07 | 2001-000362 | R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C1S12 | 2301-000140 | C-FILM,PEF;10NF,10%,630V,BK,16.5X9.5X5.7X | TSEC LOCAL | R1P08 | 2001-000449 | R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL |
| C1S13 | 2201-000915 | C-CERAMIC,DISC;100PF,10%,1KV,Y5P,TP,6X5,5 | TSEC LOCAL | R1P09 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C1S18 | 2301-000224 | C-FILM,PEF;22NF,5%,50V,TP,7.4X3.9X13MM,5M | TSEC LOCAL | R1P10 | 2001-000761 | R-CARBON;430OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C1S19 | 2401-001912 | C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM | TSEC LOCAL | R1P11 | 2004-001096 | R-METAL;560OHM,5%,1/4W,AA,TP,2.4X6.4MM | TSEC LOCAL |
| C1S20 | 2301-000224 | C-FILM,PEF;22NF,5%,50V,TP,7.4X3.9X13MM,5M | TSEC LOCAL | R1S11 | 2006-000262 | R-CEMENT;2.7OHM,10%,2W,CB,ST,7.5X11X20. | TSEC LOCAL |
| C1S21 | 2401-000970 | C-AL;22UF,20%,50V,WT,TP,5X11,2MM | TSEC LOCAL | R1S12 | 2001-000076 | R-CARBON;47KOHM,5%,1/4W,AA,TP,2.4X6.4MM | TSEC LOCAL |
| C1S30 | 2401-000385 | C-AL;10UF,20%,100V,GP,-,6.3X11,2.5M | TSEC LOCAL | R1S13 | 2001-000076 | R-CARBON;47KOHM,5%,1/4W,AA,TP,2.4X6.4MM | TSEC LOCAL |
| C1S32 | 2401-001998 | C-AL;1000UF,20%,25V,GP,TP,10X20,5MM | TSEC LOCAL | R1S14 | 2001-000076 | R-CARBON;47KOHM,5%,1/4W,AA,TP,2.4X6.4MM | TSEC LOCAL |
| C1S33 | 2401-000303 | C-AL;100UF,20%,25V,GP,TP,6.3X11,2.5 | TSEC LOCAL | R1S15 | 2001-000076 | R-CARBON;47KOHM,5%,1/4W,AA,TP,2.4X6.4MM | TSEC LOCAL |
| C1S34 | 2401-001992 | C-AL;2200UF,20%,10V,GP,TP,10X20MM,5 | TSEC LOCAL | R1S17 | 2003-000273 | R-METAL OXIDE;33KOHM,5%,2W,AA,TP,6X16MM | TSEC LOCAL |
| C1S35 | 2401-000303 | C-AL;100UF,20%,25V,GP,TP,6.3X11,2.5 | TSEC LOCAL | R1S21 | 2003-000273 | R-METAL OXIDE;33KOHM,5%,2W,AA,TP,6X16MM | TSEC LOCAL |
| C1S36 | 2401-001583 | C-AL;47UF,20%,50V,WT,TP,6.3X11,2.5M | TSEC LOCAL | R1S22 | 2003-000148 | R-METAL OXIDE;100OHM,5%,2W,AE,TP,6X16MM | TSEC LOCAL |
| C1S37 | 2401-001355 | C-AL;470UF,20%,10V,GP,-,8X11.5,5MM | TSEC LOCAL | R1S23 | 2001-000302 | R-CARBON;10OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C1S38 | 2301-000129 | C-FILM,PEF;100NF,5%,50V,TP,10X9X4.3X5,5MM | TSEC LOCAL | R1S30 | 2001-000515 | R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C1S39 | 2301-000383 | C-FILM,PEF;10NF,5%,50V,TP,6X7X3.2MM,5MM | TSEC LOCAL | R1S31 | 2001-000221 | R-CARBON;1.2KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL |
| CN1S1 | 3711-000178 | △ CONNECTOR-HEADER;1WALL,2P,1R,3.96MM,STRA | TSEC LOCAL | R1S32 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| D1P01 | 0402-000127 | DIODE-RECTIFIER;1N4002,100V,1A,DO-41 | TSEC LOCAL | R1S33 | 2004-000869 | R-METAL;3KOHM,1%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| D1P02 | 0402-000127 | DIODE-RECTIFIER;1N4002,100V,1A,DO-41 | TSEC LOCAL | R1S34 | 2004-000459 | R-METAL;2.2KOHM,1%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL |
| D1P04 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL | VA1S01 | 1405-000186 | △ VARISTOR;470V,4500A,17X12MM,TP | TSEC LOCAL |
| D1P05 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL | VA1S02 | 1405-000186 | △ VARISTOR;470V,4500A,17X12MM,TP | TSEC LOCAL |
| D1S01 | 0402-0001009 | △ DIODE-RECTIFIER;1SR139,600V,1A,MSR | TSEC LOCAL | ZD1P02 | 0403-000539 | DIODE-ZENER;MTZ18C,18V,17.42-18.33V,500MW, | TSEC LOCAL |
| D1S02 | 0402-0001009 | △ DIODE-RECTIFIER;1SR139,600V,1A,MSR | TSEC LOCAL | ZD1P03 | 0403-000563 | DIODE-ZENER;MTZ9.1B,9.1V,8.57-9.01V,500MW, | TSEC LOCAL |
| D1S03 | 0402-0001009 | △ DIODE-RECTIFIER;1SR139,600V,1A,MSR | TSEC LOCAL | ZD1P05 | 0403-000295 | DIODE-ZENER;MTZ5.1B,5.1V,4.94-5.20V,500MW, | TSEC LOCAL |
| D1S04 | 0402-0001009 | △ DIODE-RECTIFIER;1SR139,600V,1A,MSR | TSEC LOCAL | ZD1S11 | 0403-000539 | DIODE-ZENER;MTZ18C,18V,17.42-18.33V,500MW, | TSEC LOCAL |
| D1S11 | 0402-000378 | DIODE-RECTIFIER;EG01C,1000V,500MA,DO-41 | TSEC LOCAL | ZD1S12 | 0403-000294 | DIODE-ZENER;MTZ4.7B,4.7V,4.55-4.80V,500MW, | TSEC LOCAL |
| D1S12 | 0402-0001013 | DIODE-RECTIFIER;1SR153-400,400V,800MA,DO-41 | TSEC LOCAL | SYSTEM CONTROL/SERVO PARTS | | | |
| D1S30 | 0402-0001013 | DIODE-RECTIFIER;1SR153-400,400V,800MA,DO-41 | TSEC LOCAL | C601 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL |
| D1S32 | 0402-0001069 | DIODE-RECTIFIER;RL10Z,200V,2A,DO,TP | TSEC LOCAL | C602 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5 | TSEC LOCAL |
| D1S33 | 0402-000431 | DIODE-RECTIFIER;FML-M02S,200V,2.5A,TO-220F | TSEC LOCAL | C603 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5 | TSEC LOCAL |
| D1S34 | 0402-0001013 | DIODE-RECTIFIER;1SR153-400,400V,800MA,DO-41 | TSEC LOCAL | C604 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL |
| D1S35 | 0402-0001013 | DIODE-RECTIFIER;1SR153-400,400V,800MA,DO-41 | TSEC LOCAL | C605 | 2202-000791 | C-CERAMIC,MLC-AXIAL;150PF,10%,50V,Y5P,TP,3.5X19,- | TSEC LOCAL |
| F1S01 | A3065-0157 | △ FUSE;FST 250V 1.6A 20MM SEMKO S505 C | TSEC LOCAL | C606 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL |
| IC1P01 | 0403-000390 | DIODE-ZENER;UZP33B,33V,31.4-34.6V,1W,DO-41 | TSEC LOCAL | C607 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL |
| IC1S11 | B4161-0030 | △ PHOTO-COUPLER;PS2561-1 ST DIP | TSEC LOCAL | C608 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5 | TSEC LOCAL |
| IC1S12 | 1203-001049 | △ IC-PWM CONTROLLER;1L0380,TO-220F,4P,10MIL,PLASTI | TSEC LOCAL | C609 | 2201-000646 | C-CERAMIC,DISC;68NF,+80-20%,50V,Y5V,TP,12.5X4 | TSEC LOCAL |
| IC1S31 | AC14-12006D | △ IC;KA431Z,TO-92,TAPING | TSEC LOCAL | C610 | 2301-000471 | C-FILM,PEF;68NF,5%,50V,TP,9X12X4.5MM,5MM | TSEC LOCAL |
| L1S02 | A1151-0042 | △ COIL-LINE FILTER;BSF-2120Z 25MH 3.2OHM | TSEC LOCAL | C6101 | 2202-000807 | C-CERAMIC,MLC-AXIAL;22NF,+80-20%,25V,Y5V,TP,3.5X | TSEC LOCAL |
| L1S03 | AC27-92001M | △ INDUCTOR;70UH-M RT BFS3565R2F,-,-,-,- | TSEC LOCAL | C6102 | 2202-000781 | C-CERAMIC,MLC-AXIAL;100PF,10%,50V,Y5P,TP,3.5X19,- | TSEC LOCAL |
| L1S12 | AC27-92001M | INDUCTOR;70UH-M RT BFS3565R2F,-,-,-,- | TSEC LOCAL | C6103 | 2202-000216 | C-CERAMIC,MLC-AXIAL;27PF,5%,50V,SL,TP,3.5X19,- | TSEC LOCAL |
| L1S30 | AC27-12001N | COIL-CHOKE;10UH-15%,RA,K-30,Q80,150KHZ,-, | TSEC LOCAL | C6104 | 2202-000216 | C-CERAMIC,MLC-AXIAL;27PF,5%,50V,SL,TP,3.5X19,- | TSEC LOCAL |
| L1S31 | AC27-12001N | COIL-CHOKE;10UH-15%,RA,K-30,Q80,150KHZ,-, | TSEC LOCAL | C6105 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL |
| L1S32 | AC27-92001M | INDUCTOR;70UH-M RT BFS3565R2F,-,-,-,- | TSEC LOCAL | C6106 | 2301-000392 | C-FILM,PEF;15NF,5%,50V,TP,6.5X8.5X3.2MM,5 | TSEC LOCAL |
| PT1S01 | AC26-20120A | △ TRANS-SWITCHING;-;220V,UJ,CSA,-,1000UH,-,SV-D1 | TSEC LOCAL | C6107 | 2202-000162 | C-CERAMIC,MLC-AXIAL;15PF,5%,50V,SL,3.5X19,-,TP | TSEC LOCAL |
| Q1P01 | 0501-000616 | TR-SMALL SIGNAL;KSC2328A-Y,NPN,1W,TO-92L,TP,16 | TSEC LOCAL | C611 | 2201-000928 | C-CERAMIC,DISC;2.7NF,20%,16V,Y5R,TP,3.5X1.9,- | TSEC LOCAL |
| Q1P02 | 0502-000213 | TR-POWER;2SD1944,NPN,30W,TO-220FP,-,400 | TSEC LOCAL | C6114 | 2202-000145 | C-CERAMIC,MLC-AXIAL;120PF,10%,50V,Y5P,3.5X19,7.5 | TSEC LOCAL |
| Q1P03 | 0504-000142 | TR-DIGITAL;KSR2001,PNP,300MW,4.7K-4.7K,TO | TSEC LOCAL | C6116 | 2202-000205 | C-CERAMIC,MLC-AXIAL;22PF,5%,50V,SL,1.9X3.5,-,TP | TSEC LOCAL |
| Q1P04 | 0504-000118 | TR-DIGITAL;KSR1003,NPN,300MW,22K-22K,TO-9 | TSEC LOCAL | C6117 | 2202-000205 | C-CERAMIC,MLC-AXIAL;22PF,5%,50V,SL,1.9X3.5,-,TP | TSEC LOCAL |

Electrical Parts List

| Loc.No | Part No | Desc and Spec | Remark | Loc.No | Part No | Desc and Spec | Remark |
|--------|-------------|---|------------|--------|---------------|--|------------|
| C6119 | 2401-001511 | C-AL;47UF,20%,16V,GP,-6X7,5 | TSEC LOCAL | D6108 | 0402-000127 | DIODE-RECTIFIER;1N4002,100V,1A,DO-41 | TSEC LOCAL |
| C6120 | 2202-000791 | C-CERAMIC,MLC-AXIAL;150PF,10%,50V,Y5P,TP,3.5X19,- | TSEC LOCAL | D6120 | 0402-000127 | DIODE-RECTIFIER;1N4002,100V,1A,DO-41 | TSEC LOCAL |
| C6120 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5 | TSEC LOCAL | IC601 | AC09-10454W | IC-MCU;HD6433976RAF,C10G,100P,QFP,SV- | |
| C6122 | 2401-001952 | C-AL;4.7UF,20%,50V,-,TP,6.3X7,5 | TSEC LOCAL | IC602 | AC14-12003K | IC;KA8301(N.M.);- | |
| C6123 | 2401-001511 | C-AL;47UF,20%,16V,GP,-6X7,5 | TSEC LOCAL | IC603 | 1201-000230 | IC-OP AMP;6324,DIP,14P,-,QUAD,15/100MV,P | |
| C6124 | 2401-001325 | C-AL;470NF,20%,50V,GP,TP,3X5,5 | TSEC LOCAL | IC604 | AC14-12006C | IC;KA7533,DIP,- | |
| C6126 | 2401-000419 | C-AL;10UF,20%,16V,GP,-4X7,5 | TSEC LOCAL | IC605 | AC11-12001H | IC-EEPROM;24LC02B/P,DIP,- | |
| C613 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5 | TSEC LOCAL | IC606 | AC14-12001G | IC;KA78L05,T,- | |
| C614 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5 | TSEC LOCAL | L601 | AC27-92001B | COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,- | TSEC LOCAL |
| C615 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL | L602 | AC27-92001B | COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,- | TSEC LOCAL |
| C616 | 2202-000796 | C-CERAMIC,MLC-AXIAL;1NF,10%,50V,Y5P,TP,3.5X19,- | TSEC LOCAL | L603 | AC27-92001B | COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,- | TSEC LOCAL |
| C617 | 2202-000796 | C-CERAMIC,MLC-AXIAL;1NF,10%,50V,Y5P,TP,3.5X19,- | TSEC LOCAL | L604 | 2701-000131 | INDUCTOR-AXIAL;15UH,5%,2.4X3.4MM | TSEC LOCAL |
| C618 | 2202-000850 | C-CERAMIC,MLC-AXIAL;2.2NF,30%,16V,Y5R,TP,3.5X19.9 | TSEC LOCAL | L6101 | AC27-92001B | COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,- | TSEC LOCAL |
| C619 | 2202-000781 | C-CERAMIC,MLC-AXIAL;100PF,10%,50V,Y5P,TP,3.5X19,- | TSEC LOCAL | L6103 | 2701-000117 | INDUCTOR-AXIAL;10UH,5%,2.4X3.4MM | TSEC LOCAL |
| C620 | 2202-000781 | C-CERAMIC,MLC-AXIAL;100PF,10%,50V,Y5P,TP,3.5X19,- | TSEC LOCAL | LD601 | 0601-000495 | LED-IR;ROUND,3MM,150MW,6V,950NM,BK | |
| C621 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5 | TSEC LOCAL | PT601 | 0604-000188 | PHOTO-INTERRUPTER;TR,-,-,DIP-4,TR | |
| C622 | 2202-000807 | C-CERAMIC,MLC-AXIAL;22NF,+80-20%,25V,Y5V,TP,3.5X | TSEC LOCAL | PT602 | 0604-000188 | PHOTO-INTERRUPTER;TR,-,-,DIP-4,TR | |
| C623 | 2202-000162 | C-CERAMIC,MLC-AXIAL;15PF,5%,50V,SL,3.5X19,-,TP | TSEC LOCAL | Q601 | 0501-000398 | TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120- | |
| C624 | 2202-000162 | C-CERAMIC,MLC-AXIAL;15PF,5%,50V,SL,3.5X19,-,TP | TSEC LOCAL | Q602 | 0501-000398 | TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120- | |
| C625 | 2202-000162 | C-CERAMIC,MLC-AXIAL;15PF,5%,50V,SL,3.5X19,-,TP | TSEC LOCAL | Q603 | 0501-000231 | TR-SMALL SIGNAL;2SD1468SQ,NPN,300MW,TO-92S,TP, | |
| C626 | 2202-000162 | C-CERAMIC,MLC-AXIAL;15PF,5%,50V,SL,3.5X19,-,TP | TSEC LOCAL | Q604 | 0501-000303 | TR-SMALL SIGNAL;KSA733-Y,PNP,250MW,TO-92,-,120 | |
| C627 | 2202-000807 | C-CERAMIC,MLC-AXIAL;22NF,+80-20%,25V,Y5V,TP,3.5X | TSEC LOCAL | Q605 | 0504-000203 | TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9 | |
| C628 | 2202-000807 | C-CERAMIC,MLC-AXIAL;22NF,+80-20%,25V,Y5V,TP,3.5X | TSEC LOCAL | Q606 | 0504-000203 | TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9 | |
| C629 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5 | TSEC LOCAL | Q6101 | 0501-000398 | TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120- | |
| C630 | 2301-000129 | C-FILM,PEF;100NF,5%,50V,TP,10X9X4.3X5,5MM | TSEC LOCAL | Q6102 | 0501-000398 | TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120- | |
| C633 | 2401-001904 | C-AL;10UF,20%,16V,-,TP,4X7MM,5 | TSEC LOCAL | Q6106 | 0501-000398 | TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120- | |
| C635 | 2401-001511 | C-AL;47UF,20%,16V,GP,-6X7,5 | TSEC LOCAL | Q6108 | 0501-000303 | TR-SMALL SIGNAL;KSA733-Y,PNP,250MW,TO-92,-,120 | |
| C636 | 2401-001978 | C-AL;47UF,20%,25V,GP,TP,6.3X5,5 | TSEC LOCAL | R601 | 2001-000832 | R-CARBON;510OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C637 | 2401-001978 | C-AL;47UF,20%,25V,GP,TP,6.3X5,5 | TSEC LOCAL | R602 | 2001-000679 | R-CARBON;36KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C638 | 2401-001915 | C-AL;1UF,20%,50V,GP,TP,3X5,1MM | TSEC LOCAL | R604 | 2001-000010 | R-CARBON;68KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C639 | 2401-001904 | C-AL;10UF,20%,16V,-,TP,4X7MM,5 | TSEC LOCAL | R608 | 2001-000221 | R-CARBON;1.2KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL |
| C640 | 2401-001511 | C-AL;47UF,20%,16V,GP,-6X7,5 | TSEC LOCAL | R610 | 2004-000218 | R-METAL;10KOHM,1%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C641 | 2401-000753 | C-AL;220NF,20%,50V,GP,TP,3X5,5 | TSEC LOCAL | R6101 | 2001-000258 | R-CARBON;1.8KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL |
| C642 | 2401-000918 | C-AL;22UF,20%,16V,GP,-,6.3X7,5 | TSEC LOCAL | R6102 | 2001-000802 | R-CARBON;5.6KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL |
| C643 | 2401-001036 | C-AL;33UF,20%,16V,GP,TP,6.3X5,5 | TSEC LOCAL | R6103 | 2001-000290 | R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C644 | A1104-0611 | C-ELEC;CE 04 -40/85 16V T 100-M SRE 3.5X5 10UF | TSEC LOCAL | R6104 | 2001-000773 | R-CARBON;470KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL |
| C645 | 2401-001915 | C-AL;1UF,20%,50V,GP,TP,3X5,1MM | TSEC LOCAL | R6105 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C647 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL | R6106 | 2001-000435 | R-CARBON;1MOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C650 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL | R6107 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C651 | 2401-001511 | C-AL;47UF,20%,16V,GP,-6X7,5 | TSEC LOCAL | R6109 | 2001-000241 | R-CARBON;1.5KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL |
| C652 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5 | TSEC LOCAL | R6110 | 2001-000786 | R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| CN602 | 3711-002445 | CONNECTOR-HEADER;BOX,2P,2R,1.5MM,STRAIGHT,SN | | R6111 | 2001-000802 | R-CARBON;5.6KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL |
| CN603 | 3711-003105 | CONNECTOR-HEADER;BOX,10P,2R,2.0MM,STRAIGHT,SN | | R6112 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| CN605 | 3708-001048 | CONNECTOR-FPC/FC/PIC;12P,1.25MM,STRAIGHT,SN | TSEC LOCAL | R6113 | 2001-000802 | R-CARBON;5.6KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL |
| CN607 | 3708-001165 | CONNECTOR-FPC/FC/PIC;6P,1.25MM,STRAIGHT,SN | | R6115 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| D601 | 0402-000127 | DIODE-RECTIFIER;1N4002,100V,1A,DO-41 | TSEC LOCAL | R6116 | 2001-001031 | R-CARBON;91KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| D602 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL | R6117 | 2001-000850 | R-CARBON;560KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL |
| D604 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL | R6119 | 61048-177-563 | R-CARBON;RD 1/8 T 563-J | TSEC LOCAL |
| D605 | 0402-000127 | DIODE-RECTIFIER;1N4002,100V,1A,DO-41 | TSEC LOCAL | R612 | 2004-000218 | R-METAL;10KOHM,1%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| D606 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL | R6120 | 2001-000435 | R-CARBON;1MOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| D607 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL | R6121 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| D608 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL | R6122 | 2001-000290 | R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| D609 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL | R6123 | 2001-000786 | R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| D610 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL | R6124 | 2001-000633 | R-CARBON;30KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| D6101 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL | R6125 | 2001-000633 | R-CARBON;30KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| D6103 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL | R6128 | 2001-000780 | R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| D6104 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL | R6129 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| D6105 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL | R6130 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| D6106 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL | R6131 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| D6107 | 0402-000127 | DIODE-RECTIFIER;1N4002,100V,1A,DO-41 | TSEC LOCAL | R6132 | 2001-000290 | R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |

Electrical Parts List

| Loc.No | Part No | Desc and Spec | Remark | Loc.No | Part No | Desc and Spec | Remark |
|--------|-------------|--|------------|--------|---------------|--|------------|
| C350 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL | C511 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL |
| C351 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5 | TSEC LOCAL | C512 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL |
| C352 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | TSEC LOCAL | C513 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL |
| C353 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL | CN301 | 3708-000391 | CONNECTOR-FPC/FC/PC;10P,1.25MM,STRAIGHT,SN | |
| C355 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL | CN3A01 | 3708-001053 | CONNECTOR-FPC/FC/PC;7P,1.25MM,STRAIGHT,SN | TSEC LOCAL |
| C356 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL | CN3A02 | 3711-000371 | CONNECTOR-HEADER;-2P,1R,2MM,STRAIGHT,- | |
| C357 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5 | TSEC LOCAL | FL3A01 | AC27-80100A | COIL-OSC;126QN-K5272YHC-K,-,AM | TSEC LOCAL |
| C358 | 2401-001912 | C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM | TSEC LOCAL | IC301 | 1204-001056 | IC-SIGNAL PROCESSOR;SS11501M,QFP,80P,-,PLASTIC | |
| C359 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL | IC302 | AC14-12014L | IC-LINEAR;LA7411,DIP,PRE-AMP | |
| C360 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5 | TSEC LOCAL | IC303 | 1209-001024 | IC-DELAY LINE;SS23378M,SOP,14P,225MIL,PLASTI | |
| C361 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | TSEC LOCAL | IC502 | 1204-001049 | IC-SOUND;LA7256,DIP,24P,300MIL,PLASTIC, | |
| C362 | 2401-001912 | C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM | TSEC LOCAL | L301 | AC27-92001B | COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,- | TSEC LOCAL |
| C363 | 2202-000807 | C-CERAMIC,MLC-AXIAL;22NF,+80-20%,25V,Y5V,TP,3.5X | TSEC LOCAL | L303 | 2701-000206 | INDUCTOR-AXIAL;56UH,5%,2.4X3.4MM | TSEC LOCAL |
| C364 | 2401-001912 | C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM | TSEC LOCAL | L304 | 2702-000176 | INDUCTOR-RADIAL;56UH,5%,6X6.4MM | TSEC LOCAL |
| C366 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL | L305 | 2701-000181 | INDUCTOR-AXIAL;33UH,5%,2.4X3.4MM | TSEC LOCAL |
| C367 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5 | TSEC LOCAL | L308 | AC27-92001B | COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,- | TSEC LOCAL |
| C368 | 2202-000854 | C-CERAMIC,MLC-AXIAL;47NF,30%,50V,Y5R,TP,3.5X1.9. | TSEC LOCAL | L3A02 | AC27-92001B | COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,- | TSEC LOCAL |
| C369 | 2401-001912 | C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM | TSEC LOCAL | L3A03 | 2702-000120 | INDUCTOR-RADIAL;15MH,5%,6.2X7.4MM | TSEC LOCAL |
| C370 | B1102-0113 | C-FILM;CQ 922 P 100V 473-J CQ298PVT473J ECQV473J | | L3A04 | AC27-92001B | COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,- | TSEC LOCAL |
| C371 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL | L501 | AC27-92001B | COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,- | TSEC LOCAL |
| C372 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL | Q302 | 0501-000303 | TR-SMALL SIGNAL;KSA733-Y,PNP,250MW,TO-92,-,120 | |
| C373 | 2301-000439 | C-FILM,PEF;3NF,5%,50V,TP,5.5X7X3MM,5MM | TSEC LOCAL | Q303 | 0501-000303 | TR-SMALL SIGNAL;KSA733-Y,PNP,250MW,TO-92,-,120 | |
| C374 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL | Q304 | 0501-000398 | TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120- | |
| C375 | 2202-000162 | C-CERAMIC,MLC-AXIAL;15PF,5%,50V,SL,3.5X19,-,TP | TSEC LOCAL | Q306 | 0504-000203 | TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9 | |
| C376 | 2202-000796 | C-CERAMIC,MLC-AXIAL;1NF,10%,50V,Y5P,TP,3.5X19,- | TSEC LOCAL | Q307 | 0504-000203 | TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9 | |
| C377 | 2202-000781 | C-CERAMIC,MLC-AXIAL;100PF,10%,50V,Y5P,TP,3.5X19, | TSEC LOCAL | Q308 | 0504-000203 | TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9 | |
| C380 | 2401-001905 | C-AL;10UF,20%,16V,BP,BK,6X11MM,2.5M | TSEC LOCAL | Q309 | 0501-000398 | TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120- | |
| C3A01 | 2401-001893 | C-AL;100UF,20%,16V,GP,TP,6.3X7MM,5 | TSEC LOCAL | Q310 | 0501-000303 | TR-SMALL SIGNAL;KSA733-Y,PNP,250MW,TO-92,-,120 | |
| C3A02 | B1102-0113 | C-FILM;CQ 922 P 100V 473-J CQ298PVT473J ECQV473J | | Q312 | 0501-000398 | TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120- | |
| C3A03 | 2401-001511 | C-AL;47UF,20%,16V,GP,-,6X7,5 | TSEC LOCAL | Q3A01 | 0501-000231 | TR-SMALL SIGNAL;2SD1468SQ,NPN,300MW,TO-92S,TP, | |
| C3A04 | 2301-000299 | C-FILM,PEF;6.8NF,5%,100V,TP,5.8X12.5MM,5M | TSEC LOCAL | Q3A02 | 0501-000231 | TR-SMALL SIGNAL;2SD1468SQ,NPN,300MW,TO-92S,TP, | |
| C3A05 | 2301-000445 | C-FILM,PEF;4.7NF,5%,50V,TP,5.5X7X3MM,5MM | TSEC LOCAL | Q3A03 | 0501-000010 | TR-SMALL SIGNAL;KSC1008-Y,NPN,80V,60V,700MA,80 | |
| C3A06 | 2301-000408 | C-FILM,PEF;2.7NF,5%,50V,TP,5.5X7X3MM,5MM | TSEC LOCAL | Q3A04 | 0501-000303 | TR-SMALL SIGNAL;KSA733-Y,PNP,250MW,TO-92,-,120 | |
| C3A07 | 2301-000400 | C-FILM,PEF;1NF,10%,50V,TP,5.5X7X2.8MM,5MM | TSEC LOCAL | Q3A05 | 0501-000398 | TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120- | |
| C3A08 | 2401-001917 | C-AL;1UF,20%,50V,-,TP,5X7MM,5 | TSEC LOCAL | Q3A06 | 0504-000203 | TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9 | |
| C3A09 | 2401-003122 | C-AL;4.7UF,20%,50V,LL,TP,4X7,1.5 | TSEC LOCAL | R302 | 2001-000302 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C3A10 | 2401-001904 | C-AL;10UF,20%,16V,-,TP,4X7MM,5 | TSEC LOCAL | R303 | 2001-000522 | R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C3A11 | 2401-000918 | C-AL;22UF,20%,16V,GP,-,6.3X7,5 | TSEC LOCAL | R305 | 2001-000258 | R-CARBON;1.8KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL |
| C3A12 | 2301-000381 | C-FILM,PEF;10NF,5%,50V,TP,6.5X5.5X3MM,5MM | TSEC LOCAL | R306 | 61048-177-563 | R-CARBON;RD 1/8 T 563-J | TSEC LOCAL |
| C3A15 | 2401-001912 | C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM | TSEC LOCAL | R307 | 2001-000273 | R-CARBON;100KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL |
| C3A16 | 2401-001912 | C-AL;1UF,20%,50V,GP,BK,5X11MM,2MM | TSEC LOCAL | R309 | 2001-000660 | R-CARBON;33KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C3A17 | 2301-000464 | C-FILM,PEF;6.8NF,5%,50V,TP,5.5X7X3MM,5MM | TSEC LOCAL | R310 | 2001-000613 | R-CARBON;3.9KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL |
| C3A18 | 2301-000464 | C-FILM,PEF;6.8NF,5%,50V,TP,5.5X7X3MM,5MM | TSEC LOCAL | R311 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C3A19 | 2301-000314 | C-FILM,PEF;8.2NF,5%,50V,6.5*3.0*5.5MM,5MM | TSEC LOCAL | R312 | 2001-000660 | R-CARBON;33KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C3A21 | 2401-000918 | C-AL;22UF,20%,16V,GP,-,6.3X7,5 | TSEC LOCAL | R313 | 2001-000734 | R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL |
| C3A22 | 2401-001917 | C-AL;1UF,20%,50V,-,TP,5X7MM,5 | TSEC LOCAL | R314 | 2001-000554 | R-CARBON;270OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C3A23 | 2401-001169 | C-AL;33UF,20%,16V,GP,-,6.3X7,2.5MM | TSEC LOCAL | R315 | 2001-000613 | R-CARBON;3.9KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL |
| C3A25 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5 | TSEC LOCAL | R316 | 2001-000890 | R-CARBON;6.8KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL |
| C3A26 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | TSEC LOCAL | R317 | 2001-000660 | R-CARBON;33KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C3A27 | 2401-001904 | C-AL;10UF,20%,16V,-,TP,4X7MM,5 | TSEC LOCAL | R318 | 2001-000660 | R-CARBON;33KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C3A28 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5 | TSEC LOCAL | R319 | 2001-000005 | R-CARBON;390OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C3A29 | 2301-000383 | C-FILM,PEF;10NF,5%,50V,TP,6X7X3.2MM,5MM | TSEC LOCAL | R320 | 2001-000577 | R-CARBON;2KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C3A30 | 2301-000392 | C-FILM,PEF;15NF,5%,50V,TP,6.5X8.5X3.2MM,5 | TSEC LOCAL | R321 | 2001-000005 | R-CARBON;390OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C501 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL | R322 | 2001-001015 | R-CARBON;9.1KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL |
| C504 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL | R323 | 2001-000734 | R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL |
| C505 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL | R324 | 2001-000241 | R-CARBON;1.5KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL |
| C506 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5 | TSEC LOCAL | R325 | 2001-000003 | R-CARBON;330OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C507 | 2401-001893 | C-AL;100UF,20%,16V,GP,TP,6.3X7MM,5 | TSEC LOCAL | R327 | 2001-000241 | R-CARBON;1.5KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL |
| C508 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL | R328 | 2001-000221 | R-CARBON;1.2KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL |
| C509 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL | R329 | 2001-000449 | R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL |

| Loc.No | Part No | Desc and Spec | Remark | Loc.No | Part No | Desc and Spec | Remark |
|------------------|---------------|--|------------|------------|--------------------|---|------------|
| R331 | 2001-000449 | R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | D401 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL |
| R332 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | D402 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL |
| R333 | 2001-000977 | R-CARBON;8.2KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | D403 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL |
| R334 | 2001-000258 | R-CARBON;1.8KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | D404 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL |
| R335 | 2001-000319 | R-CARBON;120KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | IC402 | AC14-12001G | IC;KA78L05,T- | |
| R337 | 2001-000472 | R-CARBON;2.7KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | JC401 | AC37-20001G | JACK-RCA;DPAE-,6P,HIFI,PI3.3 | |
| R338 | 2001-000734 | R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | L402 | AC27-92001B | COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,- | TSEC LOCAL |
| R339 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | L404 | AC27-92001B | COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,- | TSEC LOCAL |
| R340 | 2001-000449 | R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | Q402 | 0504-000142 | TR-DIGITAL;KSR2001,PNP,300MW,4.7K-4.7K,TO | |
| R341 | 2001-000472 | R-CARBON;2.7KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | Q403 | 0504-000203 | TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9 | |
| R352 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | Q404 | 0501-000303 | TR-SMALL SIGNAL;KSA733-Y,PNP,250MW,TO-92-,120 | |
| R399 | 2001-000003 | R-CARBON;330OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | Q405 | 0501-000398 | TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120- | |
| R3A02 | 2001-000405 | R-CARBON;180OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | R411 | 2001-000780 | R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| R3A03 | 2001-000780 | R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | R412 | 2001-001026 | R-CARBON;910OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| R3A04 | 2001-000258 | R-CARBON;1.8KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | R415 | 2001-000786 | R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| R3A05 | 2001-000449 | R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | R417 | 2001-000786 | R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| R3A06 | 2001-000449 | R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | R419 | 2001-000969 | R-CARBON;75OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| R3A07 | 2001-000458 | R-CARBON;2.2OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | R420 | 2001-000969 | R-CARBON;75OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| R3A08 | 2001-000290 | R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | R421 | 2001-000780 | R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| R3A09 | 2001-000522 | R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | R432 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| R3A10 | 2001-000241 | R-CARBON;1.5KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | SW401 | 3408-000127 | SWITCH-SLIDE;12V,100MA,-,- | |
| R3A11 | 2001-000660 | R-CARBON;33KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | U401 | AD40-20100A | RF-MODULATOR;MDLM3E301A,G/I/K/L/M | |
| R3A12 | 2001-000362 | R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | 602 | AC93-10824F | ASSY-KARAOKE;SVK-A17GV,SV-9AK,SV-66HK (KARAOKE ONLY) | |
| R3A13 | 2001-000645 | R-CARBON;330KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | C5101 | 2401-001511 | C-AL;47UF,20%,16V,GP,-,6X7,5 | TSEC LOCAL |
| R3A15 | 2001-000331 | R-CARBON;12KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | C5102 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL |
| R3A17 | 2001-000802 | R-CARBON;5.6KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | C5103 | 2401-001919 | C-AL;2.2UF,20%,50V,-,TP,4X7MM,5 | TSEC LOCAL |
| R3A19 | 2001-000221 | R-CARBON;1.2KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | C5104 | 2401-001919 | C-AL;2.2UF,20%,50V,-,TP,4X7MM,5 | TSEC LOCAL |
| R3A22 | 2001-000786 | R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | C5105 | 2401-001919 | C-AL;2.2UF,20%,50V,-,TP,4X7MM,5 | TSEC LOCAL |
| R3A24 | 2001-000454 | R-CARBON;2.2MOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | C5106 | 2401-000459 | C-AL;10UF,20%,35V,GP,TP,5X7,2MM | TSEC LOCAL |
| R3A25 | 2001-000890 | R-CARBON;6.8KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | C5107 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL |
| R3A27 | 2001-000734 | R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | C5108 | 2202-000781 | C-CERAMIC,MLC-AXIAL;100PF,10%,50V,Y5P,TP,3.5X19,- | TSEC LOCAL |
| R3A28 | 2001-000290 | R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | C5109 | 2202-000796 | C-CERAMIC,MLC-AXIAL;1NF,10%,50V,Y5P,TP,3.5X19,- | TSEC LOCAL |
| R3A29 | 2001-000006 | R-CARBON;2.4KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | C5110 | 2202-000796 | C-CERAMIC,MLC-AXIAL;1NF,10%,50V,Y5P,TP,3.5X19,- | TSEC LOCAL |
| R3A30 | 2001-000613 | R-CARBON;3.9KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | C5111 | 2401-001919 | C-AL;2.2UF,20%,50V,-,TP,4X7MM,5 | TSEC LOCAL |
| R3A31 | 2001-000613 | R-CARBON;3.9KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | C5112 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5 | TSEC LOCAL |
| R3A32 | 2001-000904 | R-CARBON;620OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | C5113 | 2401-001893 | C-AL;100UF,20%,16V,GP,TP,6.3X7MM,5 | TSEC LOCAL |
| R3A99 | 2001-000241 | R-CARBON;1.5KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | C5114 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL |
| R501 | 2001-000258 | R-CARBON;1.8KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | C5115 | 2301-000445 | C-FILM,PEF;4.7NF,5%,50V,TP,5.5X7X3MM,5MM | TSEC LOCAL |
| R502 | 2001-000924 | R-CARBON;680OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | C5116 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL |
| R503 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | C5117 | 2201-000800 | C-CERAMIC,DISC;120PF,5%,50V,SL,TP,5X3,5 | TSEC LOCAL |
| R504 | 2001-000734 | R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | C5118 | 2401-000918 | C-AL;22UF,20%,16V,GP,-,6.3X7,5 | TSEC LOCAL |
| R505 | 2001-000241 | R-CARBON;1.5KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | C5119 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL |
| R506 | 2001-000009 | R-CARBON;20KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | C5120 | 2301-000424 | C-FILM,PEF;3.3NF,5%,50V,TP,5.5X7X3MM,5MM | TSEC LOCAL |
| XT301 | B1280-0169 | CRYSTAL;4.433619MHZ HC-49/U-S 15PPM SERIES | TSEC LOCAL | C5121 | 2301-000392 | C-FILM,PEF;15NF,5%,50V,TP,6.5X8.5X3.2MM,5 | TSEC LOCAL |
| XT302 | 64539-012-009 | CRYSTAL;3.579545 HC49U(8PF) TAPG | TSEC LOCAL | C5122 | 2401-001965 | C-AL;470NF,20%,50V,-,BK,4X7MM,1.5MM | TSEC LOCAL |
| I/O PARTS | | | | C5131 | 2401-001019 | C-AL;3.3UF,20%,50V,GP,-,5X7,1.5MM | TSEC LOCAL |
| C401 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL | C5132 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL |
| C403 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5 | TSEC LOCAL | C5133 | 2401-000918 | C-AL;22UF,20%,16V,GP,-,6.3X7,5 | TSEC LOCAL |
| C404 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF,+80-20%,50V,Y5V,TP,3.5 | TSEC LOCAL | C5134 | 2401-001965 | C-AL;470NF,20%,50V,-,BK,4X7MM,1.5MM | TSEC LOCAL |
| C431 | 2401-001893 | C-AL;100UF,20%,16V,GP,TP,6.3X7MM,5 | TSEC LOCAL | C5135 | 2401-001511 | C-AL;47UF,20%,16V,GP,-,6X7,5 | TSEC LOCAL |
| C432 | 2401-001511 | C-AL;47UF,20%,16V,GP,-,6X7,5 | TSEC LOCAL | C5137 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL |
| C432 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | TSEC LOCAL | C5138 | 2401-001917 | C-AL;1UF,20%,50V,-,TP,5X7MM,5 | TSEC LOCAL |
| C433 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL | C5139 | 2401-001965 | C-AL;470NF,20%,50V,-,BK,4X7MM,1.5MM | TSEC LOCAL |
| C440 | 2202-000781 | C-CERAMIC,MLC-AXIAL;100PF,10%,50V,Y5P,TP,3.5X19, | TSEC LOCAL | CN5101 | 3711-001247 | CONNECTOR-HEADER;NOWALL,12P,1R,2MM,-,P-BRONZE | |
| C441 | 2202-000781 | C-CERAMIC,MLC-AXIAL;100PF,10%,50V,Y5P,TP,3.5X19, | TSEC LOCAL | CN5102 | 3711-001050 | CONNECTOR-HEADER;BOX,6P,1R,2.5MM,ANGLE,SN | |
| C442 | 2202-000781 | C-CERAMIC,MLC-AXIAL;100PF,10%,50V,Y5P,TP,3.5X19, | TSEC LOCAL | D5101 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL |
| C443 | 2202-000781 | C-CERAMIC,MLC-AXIAL;100PF,10%,50V,Y5P,TP,3.5X19, | TSEC LOCAL | D5102 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL |
| C444 | 2202-000781 | C-CERAMIC,MLC-AXIAL;100PF,10%,50V,Y5P,TP,3.5X19, | TSEC LOCAL | D5103 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL |
| C446 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL | IC5101 | 1204-001211 | IC-ECHO;BU9253AS,DIP,18P,194ML,PLASTI | |
| C447 | 2401-001975 | C-AL;47UF,20%,16V,GP,TP,5X11MM,5 | TSEC LOCAL | IC5102 | 1201-000191 | IC-OP AMP;4558,DIP,8P,300ML,DUAL,20V/MV | |

Electrical Parts List

| Loc.No | Part No | Desc and Spec | Remark | Loc.No | Part No | Desc and Spec | Remark |
|------------|--------------------|---|------------|-------------|-------------|--|------------|
| L5101 | AC27-92001B | COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,- | TSEC LOCAL | C545 | 2401-001917 | C-AL;1UF,20%,50V,-,TP,5X7MM,5 | TSEC LOCAL |
| L5102 | AC27-92001B | COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,- | TSEC LOCAL | C546 | 2401-001917 | C-AL;1UF,20%,50V,-,TP,5X7MM,5 | TSEC LOCAL |
| Q5101 | 0501-000398 | TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120- | | C547 | 2401-001904 | C-AL;10UF,20%,16V,-,TP,4X7MM,5 | TSEC LOCAL |
| Q5102 | 0501-000398 | TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120- | | C548 | 2401-001917 | C-AL;1UF,20%,50V,-,TP,5X7MM,5 | TSEC LOCAL |
| Q5103 | 0501-000398 | TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120- | | C549 | 2401-001917 | C-AL;1UF,20%,50V,-,TP,5X7MM,5 | TSEC LOCAL |
| Q5104 | 0501-000398 | TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120- | | C550 | 2401-001917 | C-AL;1UF,20%,50V,-,TP,5X7MM,5 | TSEC LOCAL |
| Q5105 | 0501-000398 | TR-SMALL SIGNAL;KSC945,NPN,250MW,TO-92,TP,120- | | C560 | 2401-001917 | C-AL;1UF,20%,50V,-,TP,5X7MM,5 | TSEC LOCAL |
| R5101 | 2001-000258 | R-CARBON;1.8KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | C561 | 2401-001917 | C-AL;1UF,20%,50V,-,TP,5X7MM,5 | TSEC LOCAL |
| R5102 | 2001-000290 | R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | C570 | 2401-001904 | C-AL;10UF,20%,16V,-,TP,4X7MM (KARAOKE OPTION) | TSEC LOCAL |
| R5103 | 2001-000290 | R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | C571 | 2401-001904 | C-AL;10UF,20%,16V,-,TP,4X7MM (KARAOKE OPTION) | TSEC LOCAL |
| R5104 | 2001-000563 | R-CARBON;27KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | C572 | 2401-001904 | C-AL;10UF,20%,16V,-,TP,4X7MM (KARAOKE OPTION) | TSEC LOCAL |
| R5105 | 2001-000010 | R-CARBON;68KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | C573 | 2401-001904 | C-AL;10UF,20%,16V,-,TP,4X7MM (KARAOKE OPTION) | TSEC LOCAL |
| R5106 | 61048-177-563 | R-CARBON;RD 1/8 T 563-J | TSEC LOCAL | C574 | 2401-001904 | C-AL;10UF,20%,16V,-,TP,4X7MM (KARAOKE OPTION) | TSEC LOCAL |
| R5107 | 2001-000007 | R-CARBON;3KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | C575 | 2401-001904 | C-AL;10UF,20%,16V,-,TP,4X7MM (KARAOKE OPTION) | TSEC LOCAL |
| R5108 | 2001-001031 | R-CARBON;91KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | C576 | 2401-001904 | C-AL;10UF,20%,16V,-,TP,4X7MM (KARAOKE OPTION) | TSEC LOCAL |
| R5109 | 2001-000362 | R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | C577 | 2401-001904 | C-AL;10UF,20%,16V,-,TP,4X7MM (KARAOKE OPTION) | TSEC LOCAL |
| R5110 | 2001-000702 | R-CARBON;39KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | C578 | 2401-001904 | C-AL;10UF,20%,16V,-,TP,4X7MM (KARAOKE OPTION) | TSEC LOCAL |
| R5111 | 2001-000837 | R-CARBON;51KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | C579 | 2401-000778 | C-AL;220UF,20%,10V,GP,-,6.3X11,2.5M | |
| R5112 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | C580 | 2401-000918 | C-AL;22UF,20%,16V,GP,-,6.3X7,5 | TSEC LOCAL |
| R5113 | 2001-000009 | R-CARBON;20KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | C590 | 2401-001511 | C-AL;47UF,20%,16V,GP,-,6X7,5 | TSEC LOCAL |
| R5114 | 2001-000977 | R-CARBON;8.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | CN501 | 3711-002143 | CONNECTOR-HEADER;NOWALL,14P,1R,2.0MM,ANGLE,SN | |
| R5115 | 2001-000290 | R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | CN502 | 3711-002143 | CONNECTOR-HEADER;NOWALL,14P,1R,2.0MM,ANGLE,SN | |
| R5116 | 2001-000702 | R-CARBON;39KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | IC501 | 1204-001162 | IC-AUDIO PROCESSOR;TA1246F,QFP,48P,16MIL,PLASTIC | |
| R5117 | 2001-000290 | R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | IC503 | AC14-12011B | IC;NJM2283D,DIP,BULK (KARAOKE OPTION) | |
| R5118 | 2001-000734 | R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | L504 | AC27-92001B | COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,- | TSEC LOCAL |
| R5119 | 2001-000008 | R-CARBON;15KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | L505 | AC27-92001B | COIL-PEAKING AXIAL;BAL04ST101K,-,-,-,- | TSEC LOCAL |
| R5131 | 2001-000411 | R-CARBON;18KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | R509 | 2001-000522 | R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| R5132 | 2001-000454 | R-CARBON;2.2MOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | R510 | 2001-000522 | R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| R5133 | 2001-000362 | R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | R511 | 2001-000660 | R-CARBON;33KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| R5140 | 2001-000331 | R-CARBON;12KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | R512 | 2001-000660 | R-CARBON;33KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| R5141 | 2001-000522 | R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | R513 | 2001-000780 | R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| R5142 | 2001-000786 | R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | R514 | 2001-000780 | R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| R5143 | 2001-000977 | R-CARBON;8.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | R523 | 2001-000660 | R-CARBON;33KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| R5144 | 2001-000534 | R-CARBON;240OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | R524 | 2001-000766 | R-CARBON;43KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| R5145 | 2001-000273 | R-CARBON;100KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | R525 | 2001-000009 | R-CARBON;20KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| R5146 | 2001-001015 | R-CARBON;9.1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | R530 | 2001-000006 | R-CARBON;2.4KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| R5147 | 2001-000411 | R-CARBON;18KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | R531 | 2001-000977 | R-CARBON;8.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| R5150 | 2001-000008 | R-CARBON;15KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | R532 | 2001-000009 | R-CARBON;20KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| 603 | AC93-10824S | ASSY-HIFI | | R533 | 2001-000563 | R-CARBON;27KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C515 | 2401-001917 | C-AL;1UF,20%,50V,-,TP,5X7MM,5 | TSEC LOCAL | R540 | 2001-000786 | R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C516 | 2401-001917 | C-AL;1UF,20%,50V,-,TP,5X7MM,5 | TSEC LOCAL | R541 | 2001-000577 | R-CARBON;2KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C517 | 2401-000918 | C-AL;22UF,20%,16V,GP,-,6.3X7,5 | TSEC LOCAL | R542 | 2001-000633 | R-CARBON;30KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C518 | 2401-001893 | C-AL;100UF,20%,16V,GP,TP,6.3X7MM,5 | TSEC LOCAL | R543 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C519 | 2401-001904 | C-AL;10UF,20%,16V,-,TP,4X7MM,5 | TSEC LOCAL | R544 | 2001-000281 | R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C520 | 2401-001904 | C-AL;10UF,20%,16V,-,TP,4X7MM,5 | TSEC LOCAL | R545 | 2001-000734 | R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C521 | 2301-000383 | C-FILM,PEF;10NF,5%,50V,TP,6X7X3.2MM,5MM | TSEC LOCAL | R546 | 2001-000734 | R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C522 | 2401-001904 | C-AL;10UF,20%,16V,-,TP,4X7MM,5 | TSEC LOCAL | R547 | 2001-000435 | R-CARBON;1MOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C523 | 2301-000383 | C-FILM,PEF;10NF,5%,50V,TP,6X7X3.2MM,5MM | TSEC LOCAL | R591 | 2001-000958 | R-CARBON;750OHM,5%,1/8W,AA (KARAOKE OPTION) | TSEC LOCAL |
| C524 | 2301-000383 | C-FILM,PEF;10NF,5%,50V,TP,6X7X3.2MM,5MM | TSEC LOCAL | R592 | 2001-000958 | R-CARBON;750OHM,5%,1/8W,AA (KARAOKE OPTION) | TSEC LOCAL |
| C525 | 2401-000918 | C-AL;22UF,20%,16V,GP,-,6.3X7,5 | TSEC LOCAL | 670 | | ASSY-F/TIMER | |
| C526 | 2401-000918 | C-AL;22UF,20%,16V,GP,-,6.3X7,5 | TSEC LOCAL | AC93-10824E | | SVK-A17GV,SV-9AK,SV-66HK (KARAOKE ONLY) | |
| C533 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL | AC93-10824K | | SV-A17GV,SV-8A,SV-66H,SVR-77H (NO KARAOKE ONLY) | |
| C534 | 2401-001893 | C-AL;100UF,20%,16V,GP,TP,6.3X7MM,5 | TSEC LOCAL | C701 | 2202-000796 | C-CERAMIC,MLC-AXIAL;1NF,10%,50V,Y5P,TP,3.5X19,- | TSEC LOCAL |
| C537 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL | C702 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL |
| C538 | 2202-000825 | C-CERAMIC,MLC-AXIAL;680PF,10%,50V,Y5P,TP,3.5X19,- | TSEC LOCAL | C703 | 2401-001893 | C-AL;100UF,20%,16V,GP,TP,6.3X7MM,5 | TSEC LOCAL |
| C539 | 2401-001904 | C-AL;10UF,20%,16V,-,TP,4X7MM,5 | TSEC LOCAL | C704 | 2202-000279 | C-CERAMIC,MLC-AXIAL;47PF,5%,50V,SL,3.5X19,-,TP | TSEC LOCAL |
| C540 | 2301-000383 | C-FILM,PEF;10NF,5%,50V,TP,6X7X3.2MM,5MM | TSEC LOCAL | C705 | 2202-000279 | C-CERAMIC,MLC-AXIAL;47PF,5%,50V,SL,3.5X19,-,TP | TSEC LOCAL |
| C541 | 2401-001904 | C-AL;10UF,20%,16V,-,TP,4X7MM,5 | TSEC LOCAL | C706 | 2202-000279 | C-CERAMIC,MLC-AXIAL;47PF,5%,50V,SL,3.5X19,-,TP | TSEC LOCAL |
| C543 | 2401-001893 | C-AL;100UF,20%,16V,GP,TP,6.3X7MM,5 | TSEC LOCAL | C707 | 2202-000807 | C-CERAMIC,MLC-AXIAL;22NF,+80-20%,25V,Y5V,TP,3.5X | TSEC LOCAL |
| C544 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL | C708 | 2401-001893 | C-AL;100UF,20%,16V,GP,TP,6.3X7MM,5 | TSEC LOCAL |

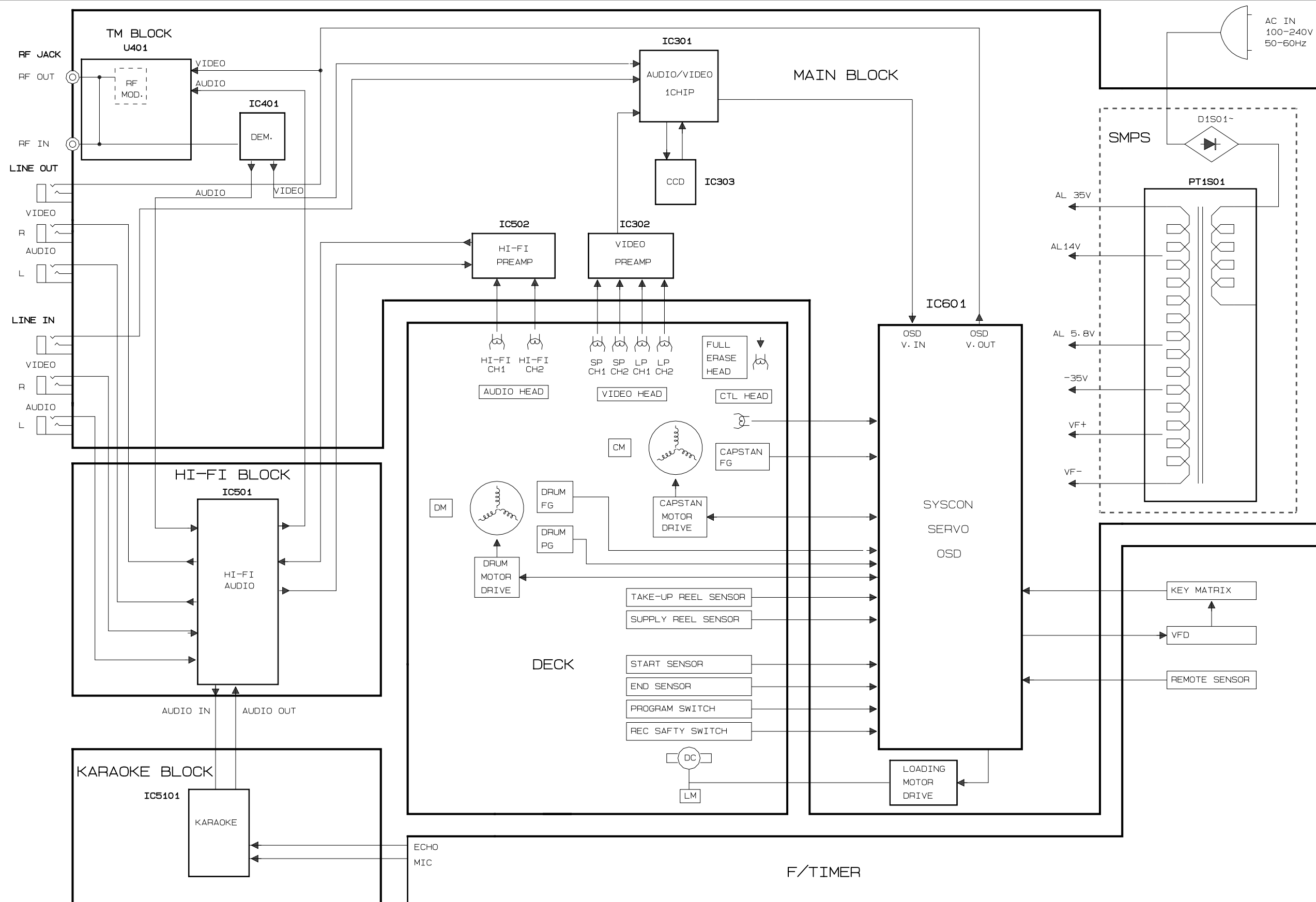
| Loc.No | Part No | Desc and Spec | Remark | Loc.No | Part No | Desc and Spec | Remark |
|--------|---------------|--|------------|--------|---------------|---|------------|
| C709 | 2202-000850 | C-CERAMIC,MLC-AXIAL;2.2NF,30 (KARAOEK OPTION) | TSEC LOCAL | R721 | 2001-000924 | R-CARBON;680OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C710 | 2401-001952 | C-AL;4.7UF,20%,50V,-,TP,6.3X7.5 (KARAOEK OPTION) | TSEC LOCAL | R722 | 2001-000362 | R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C711 | 2401-001917 | C-AL;1UF,20%,50V,-,TP,5X7MM,5 (KARAOEK OPTION) | TSEC LOCAL | R723 | 61048-177-563 | R-CARBON;RD 1/8 T 563-J (KARAOEK OPTION) | TSEC LOCAL |
| C712 | 2401-001511 | C-AL;4.7UF,20%,16V,GP,-,6X7.5 (KARAOEK OPTION) | TSEC LOCAL | R724 | 2001-000802 | R-CARBON;5.6KOHM,5%,1/8W,AA (KARAOEK OPTION) | TSEC LOCAL |
| C713 | 2401-001917 | C-AL;1UF,20%,50V,-,TP,5X7MM,5 (KARAOEK OPTION) | TSEC LOCAL | R725 | 2001-000005 | R-CARBON;390OHM,5%,1/8W,AA (KARAOEK OPTION) | TSEC LOCAL |
| C714 | 2202-000796 | C-CERAMIC,MLC-AXIAL;1NF,10% (KARAOEK OPTION) | TSEC LOCAL | R730 | 2001-000522 | R-CARBON;22KOHM,5%,1/8W,AA, (KARAOEK OPTION) | TSEC LOCAL |
| C715 | 2202-000791 | C-CERAMIC,MLC-AXIAL;150PF (KARAOEK OPTION) | TSEC LOCAL | R731 | 2001-000522 | R-CARBON;22KOHM,5%,1/8W,AA, (KARAOEK OPTION) | TSEC LOCAL |
| C716 | 2401-000918 | C-AL;22UF,20%,16V,GP,-,6.3X7.5 (KARAOEK OPTION) | TSEC LOCAL | R732 | 2001-000290 | R-CARBON;10KOHM,5%,1/8W,AA, (KARAOEK OPTION) | TSEC LOCAL |
| C717 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF (KARAOEK OPTION) | TSEC LOCAL | R733 | 2001-000290 | R-CARBON;10KOHM,5%,1/8W,AA, (KARAOEK OPTION) | TSEC LOCAL |
| C718 | 2202-000791 | C-CERAMIC,MLC-AXIAL;150PF (KARAOEK OPTION) | TSEC LOCAL | R734 | 2001-000005 | R-CARBON;390OHM,5%,1/8W,AA, (KARAOEK OPTION) | TSEC LOCAL |
| C719 | 2401-000918 | C-AL;22UF,20%,16V,GP,-,6.3X7.5 (KARAOEK OPTION) | TSEC LOCAL | R735 | 2001-000802 | R-CARBON;5.6KOHM,5%,1/8W,AA (KARAOEK OPTION) | TSEC LOCAL |
| C720 | 2401-001511 | C-AL;4.7UF,20%,16V,GP,-,6X7.5 (KARAOEK OPTION) | TSEC LOCAL | R736 | 2001-000472 | R-CARBON;2.7KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL |
| C721 | 2401-001893 | C-AL;100UF,20%,16V,GP,TP,6.3 (KARAOEK OPTION) | TSEC LOCAL | R737 | 2001-000376 | R-CARBON;15OHM,5%,1/8W,AA,T (KARAOEK OPTION) | TSEC LOCAL |
| C722 | 2202-000780 | C-CERAMIC,MLC-AXIAL;100NF (KARAOEK OPTION) | TSEC LOCAL | R740 | 2001-000362 | R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL |
| C723 | 2401-001952 | C-AL;4.7UF,20%,50V,-,TP,6.3X7.5 (KARAOEK OPTION) | TSEC LOCAL | R741 | 2001-000273 | R-CARBON;100KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL |
| C724 | 2202-000243 | C-CERAMIC,MLC-AXIAL;33PF,5%,50V,SL,3.5X19,-,TP | TSEC LOCAL | RM701 | AC59-62001G | MODULE-REMOCON;TFMR5380,38KHZ,-,-,- | |
| C750 | 2401-001952 | C-AL;4.7UF,20%,50V,-,TP,6.3X7.5 | TSEC LOCAL | SW701 | 3404-001008 | SWITCH-TACT;12V,20MA,160+50,6X7.9X3.5MM,D | |
| CN701 | 3708-001048 | CONNECTOR-FPC/FC/PIC;12P,1.25MM,STRAIGHT,SN | TSEC LOCAL | SW702 | 3404-001008 | SWITCH-TACT;12V,20MA,160+50,6X7.9X3.5MM,D | |
| CN703 | 3711-002592 | CONNECTOR-HEADER;3WALL (KARAOEK OPTION) | | SW703 | 3404-001008 | SWITCH-TACT;12V,20MA,160+50,6X7.9X3.5MM,D | |
| D701 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL | SW704 | 3404-001008 | SWITCH-TACT;12V,20MA,160+50,6X7.9X3.5MM,D | |
| D702 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL | SW705 | 3404-001008 | SWITCH-TACT;12V,20MA,160+50,6X7.9X3.5MM,D | |
| D703 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL | SW706 | 3404-001008 | SWITCH-TACT;12V,20MA,160+50,6X7.9X3.5MM,D | |
| D704 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL | SW708 | 3404-001008 | SWITCH-TACT;12V,20MA,160+50,6X7.9X3.5MM,D | |
| D705 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL | SW709 | 3404-001008 | SWITCH-TACT;12V,20MA,160+50,6X7.9X3.5MM,D | |
| D706 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL | SW710 | 3404-001008 | SWITCH-TACT;12V,20MA,160+50 (KARAOEK OPTION) | |
| D707 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL | SW711 | 3404-001008 | SWITCH-TACT;12V,20MA,160+50,6X7.9X3.5MM,D | |
| D711 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL | VR701 | 2101-000268 | VR-ROTARY;5KOHM,20%,1/20W, (KARAOEK OPTION) | TSEC LOCAL |
| D712 | 0401-000101 | DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS | TSEC LOCAL | VR702 | 2101-000268 | VR-ROTARY;5KOHM,20%,1/20W, (KARAOEK OPTION) | TSEC LOCAL |
| D713 | 0401-000101 | DIODE-SWITCHING;1N4148,100V (KARAOEK OPTION) | TSEC LOCAL | VR703 | 2101-000268 | VR-ROTARY;5KOHM,20%,1/20W, (KARAOEK OPTION) | TSEC LOCAL |
| IC701 | 1003-001034 | IC-VFD;UPD16312,QFP,44P,9.5MIL,-,9.5M | | ZD701 | 0403-000555 | DIODE-ZENER;MTZ30D,30V,29.02-30.51V,500MW, | TSEC LOCAL |
| IC702 | 1201-001123 | IC-AUDIO AMP;7760,SOP,14P (KARAOEK OPTION) | | 685 | AC93-10824G | ASSY-MIC JACK;SVK-A17GV,SV-9AK,SV-66HK (KARAOEK ONLY) | |
| L701 | AC27-92001B | COIL-PEAKING AXIAL;BAL04ST101K,-,-,- | TSEC LOCAL | C761 | 2202-000797 | C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,TP,3.5X19,- | TSEC LOCAL |
| L702 | AC27-92001B | COIL-PEAKING AXIAL;BAL04ST (KARAOEK OPTION) | TSEC LOCAL | C762 | 2202-000850 | C-CERAMIC,MLC-AXIAL;2.2NF,30%,16V,Y5R,TP,3.5X1.9 | TSEC LOCAL |
| LD701 | 0601-000497 | LED;ROUND,GRN,3MM,565NM | TSEC LOCAL | CN705 | 3710-000543 | CONNECTOR-SOCKET;6P,1R,2.0MM,ANGLE,SN | |
| LD702 | 62309-110-340 | LED;GL-3HD7/GL3HD8 | | JACK1 | 3722-000441 | JACK-PHONE;1P/1C,P16.4,SN,BLK,- | TSEC LOCAL |
| LD703 | 0601-000497 | LED;ROUND,GRN,3MM,565NM | TSEC LOCAL | JACK2 | 3722-000441 | JACK-PHONE;1P/1C,P16.4,SN,BLK,- | TSEC LOCAL |
| LD704 | 0601-000497 | LED;ROUND,GRN,3MM,565NM | TSEC LOCAL | R763 | 61048-177-563 | R-CARBON;RD 1/8 T 563-J | TSEC LOCAL |
| LD705 | 0601-000497 | LED;ROUND,GRN,3MM,565NM | TSEC LOCAL | | AC59-10357A | REMOCON-ASSY;-NR-4534,-,34,SVK-C17GV,S,S | TSEC LOCAL |
| LD706 | 0601-000497 | LED;ROUND,GRN,3MM,565NM | TSEC LOCAL | | AC64-50898A | DOOR-BATTERY REMOCON;-ABS94,HB,T2.0,-,DIGRY | TSEC LOCAL |
| LD707 | 0601-000497 | LED;ROUND,GRN,3MM,565NM | TSEC LOCAL | CT1 | 2401-001954 | C-AL;4.7UF,20%,50V,GP,BK,5X11MM,5 | TSEC LOCAL |
| R701 | 2001-000290 | R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | CT2 | 2203-000239 | C-CERAMIC,CHIP;100PF,5%,50V,NPO,TP,2012,- | TSEC LOCAL |
| R702 | 2001-000362 | R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | CT3 | 2203-000239 | C-CERAMIC,CHIP;100PF,5%,50V,NPO,TP,2012,- | TSEC LOCAL |
| R703 | 2001-000362 | R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | ICT1 | AC09-12014C | IC-MCU;KS51810-76,QFP,V-PAL | TSEC LOCAL |
| R704 | 2001-000362 | R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | LDT1 | A4150-0168 | LED-IRREDARED;SI5312-H NTR 940NM/1.4V | TSEC LOCAL |
| R705 | 2001-000362 | R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | QT1 | 0501-000592 | TR-SMALL SIGNAL;2SD1781K-QR,NPN,200MW,SOT-23 | TSEC LOCAL |
| R706 | 2001-000362 | R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | RT1 | 2007-000483 | R-CHIP;10OHM,5%,1/10W,DA,TP,2012 | TSEC LOCAL |
| R707 | 2001-000429 | R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | XT1 | 64539-102-311 | CERAMIC RESONATOR;CSB455EBL/KBR455BCTL | TSEC LOCAL |
| R708 | 2001-000780 | R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | | | | |
| R709 | 2001-000780 | R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | | | | |
| R710 | 2001-000734 | R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M | TSEC LOCAL | | | | |
| R711 | 2001-000290 | R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | | | | |
| R712 | 61048-177-563 | R-CARBON;RD 1/8 T 563-J | TSEC LOCAL | | | | |
| R713 | 2001-000290 | R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | | | | |
| R714 | 2001-000290 | R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | | | | |
| R715 | 2001-000290 | R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | | | | |
| R716 | 2001-000290 | R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | | | | |
| R717 | 2001-000660 | R-CARBON;33KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | | | | |
| R718 | 2001-000660 | R-CARBON;33KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | | | | |
| R719 | 2001-000660 | R-CARBON;33KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | | | | |
| R720 | 2001-000660 | R-CARBON;33KOHM,5%,1/8W,AA,TP,1.8X3.2MM | TSEC LOCAL | | | | |

MEMO

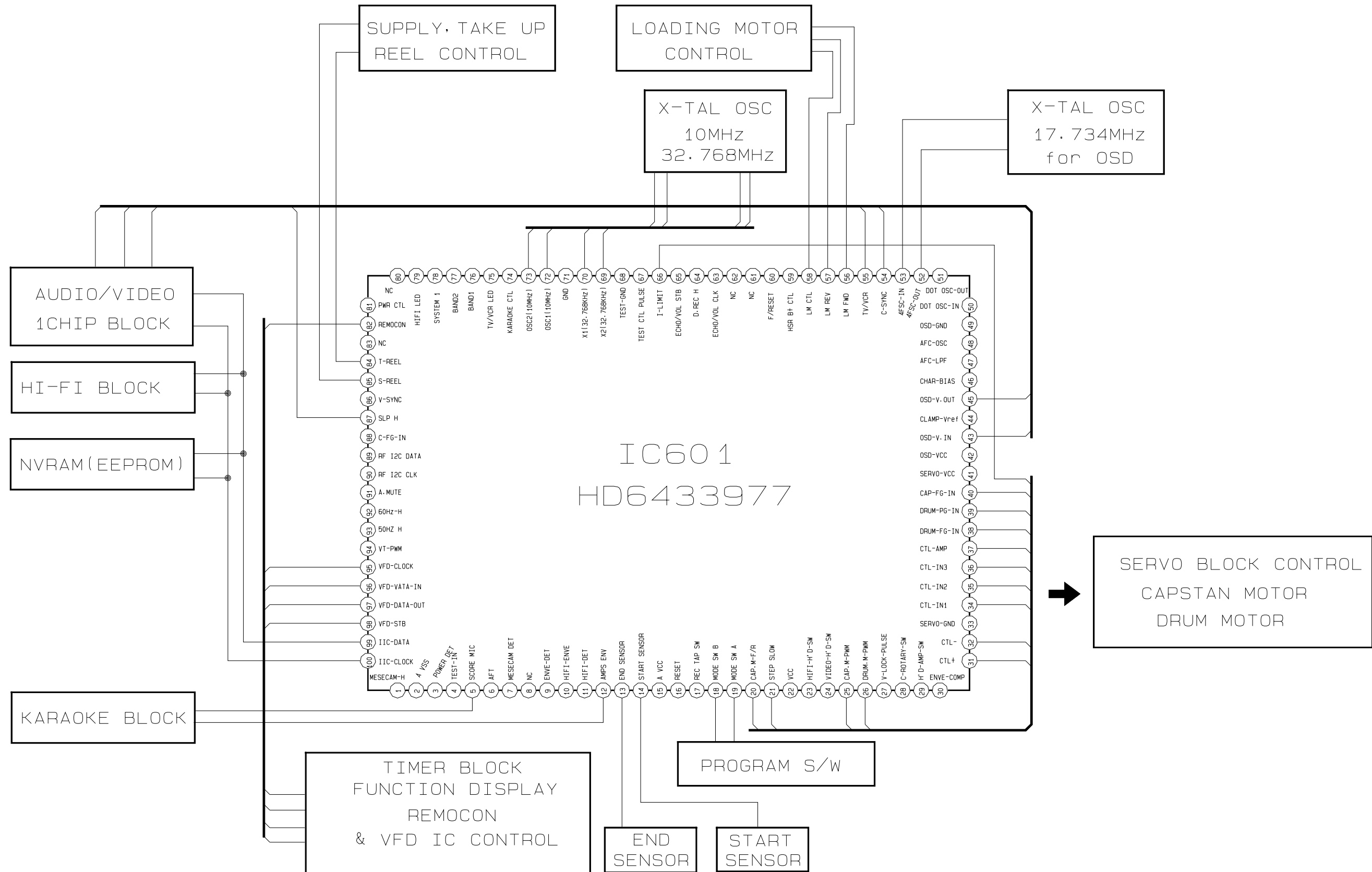
8. Block Diagrams

| | Page |
|--|-------------|
| 8-1 Overall Block Diagram - - - - - | 8-2 |
| 8-2 System Control - - - - - | 8-3 |
| 8-3 Video - - - - - | 8-4 |
| 8-4 Hi-Fi Audio - - - - - | 8-5 |

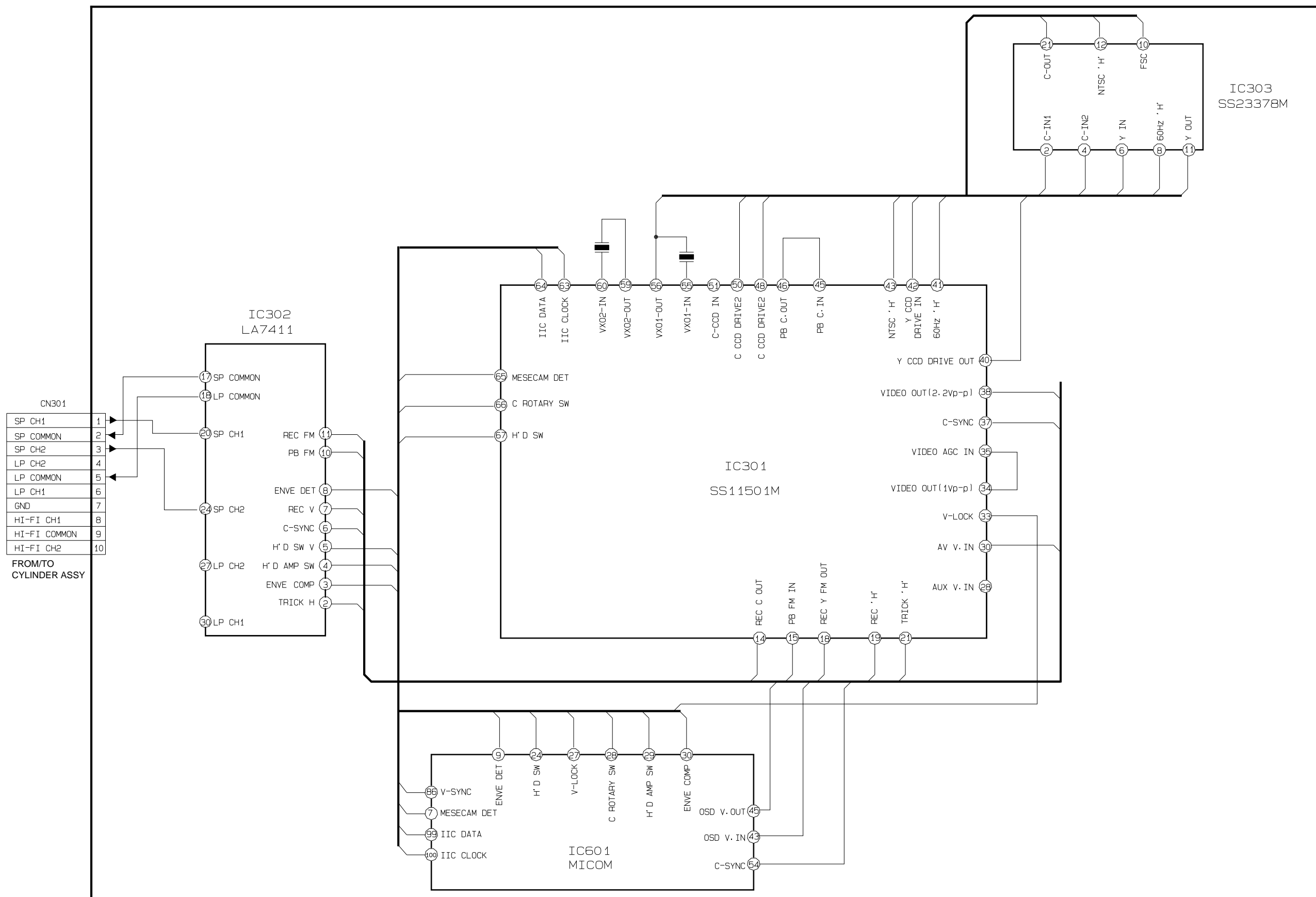
8-1 Overall Block Diagram



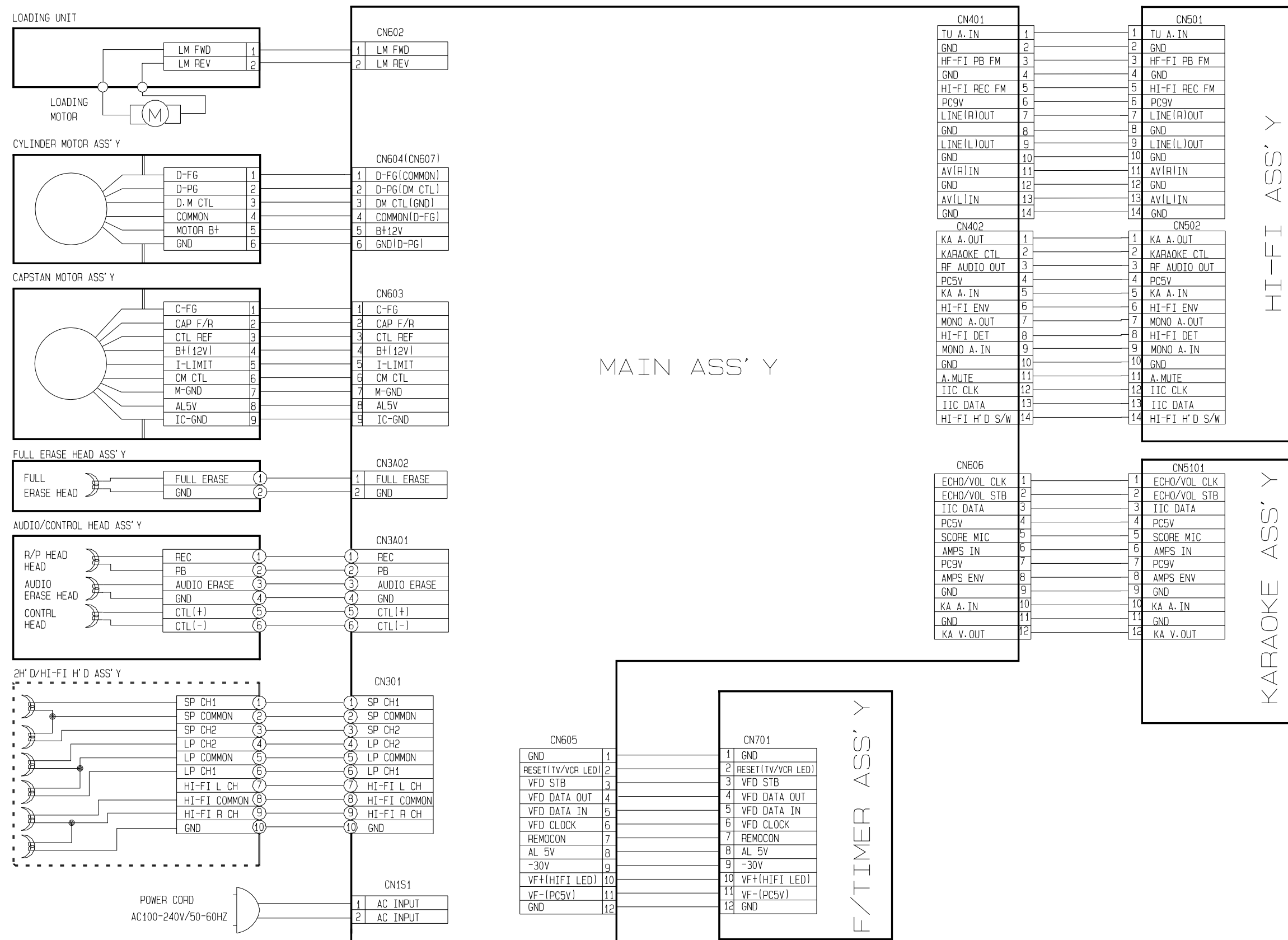
8-2 System Control



8-3 Video



10. Wiring Diagram



11. Schematic Diagrams

| | Page |
|--|-------|
| ◆ Block Identification of Main PCB | 11-2 |
| 11-1 S.M.P.S/Power | 11-3 |
| 11-2 System Control/Servo | 11-4 |
| 11-3 Audio/Video | 11-6 |
| 11-4 Hi-Fi | 11-8 |
| 11-5 Karaoke | 11-10 |
| 11-6 I/O | 11-11 |
| 11-7 Function | 11-12 |
| 11-8 Remote-Control | 11-13 |

Note

For schematic Diagram
 - Resistors are in ohms, 1/8W unless otherwise noted.
 - Circled numbers refer to waveforms.


Special note :

Most semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "electrostatically sensitive (ES) devices" section of this service manual.

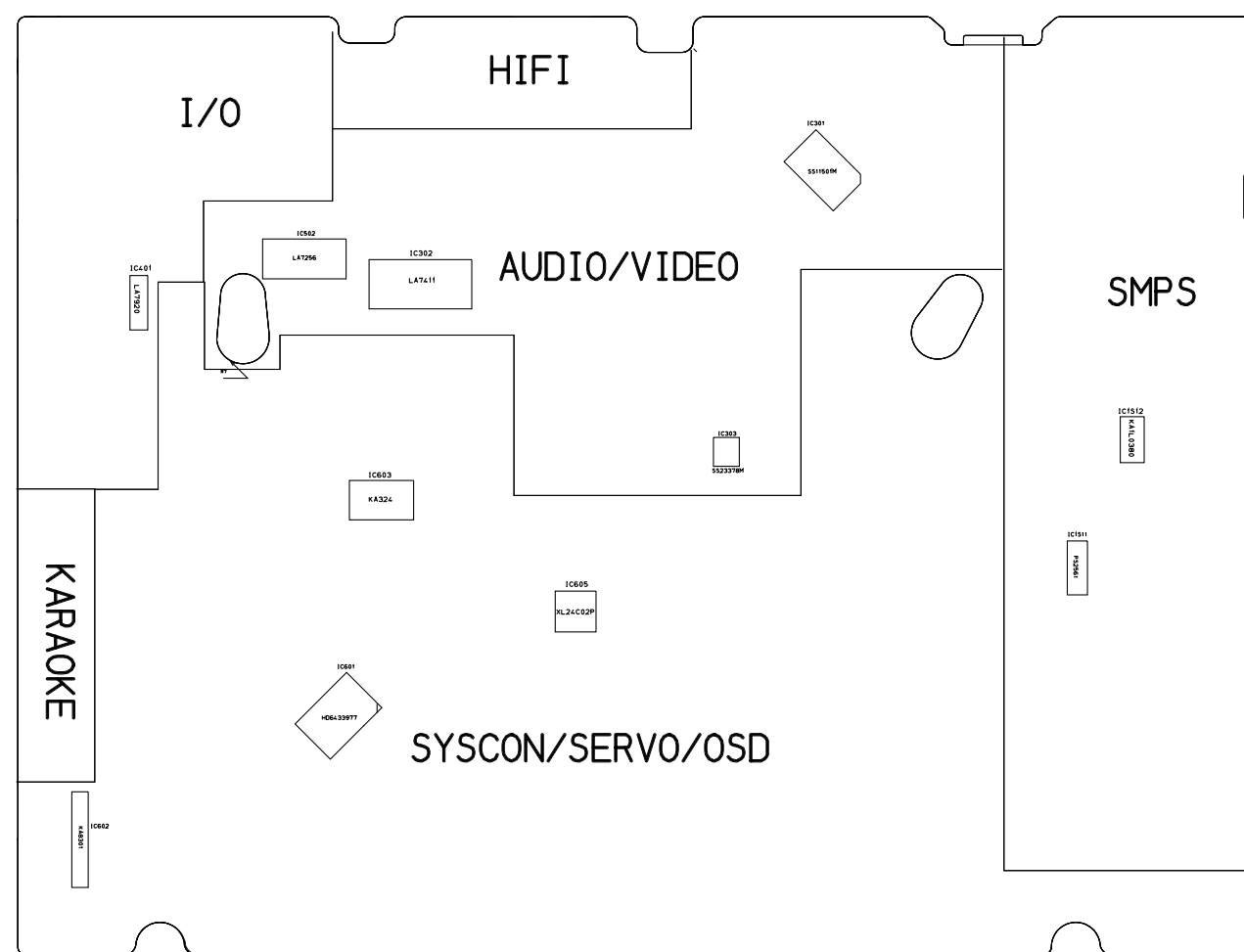
Note :

Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list (may be slightly different or amended since this drawing was prepared).

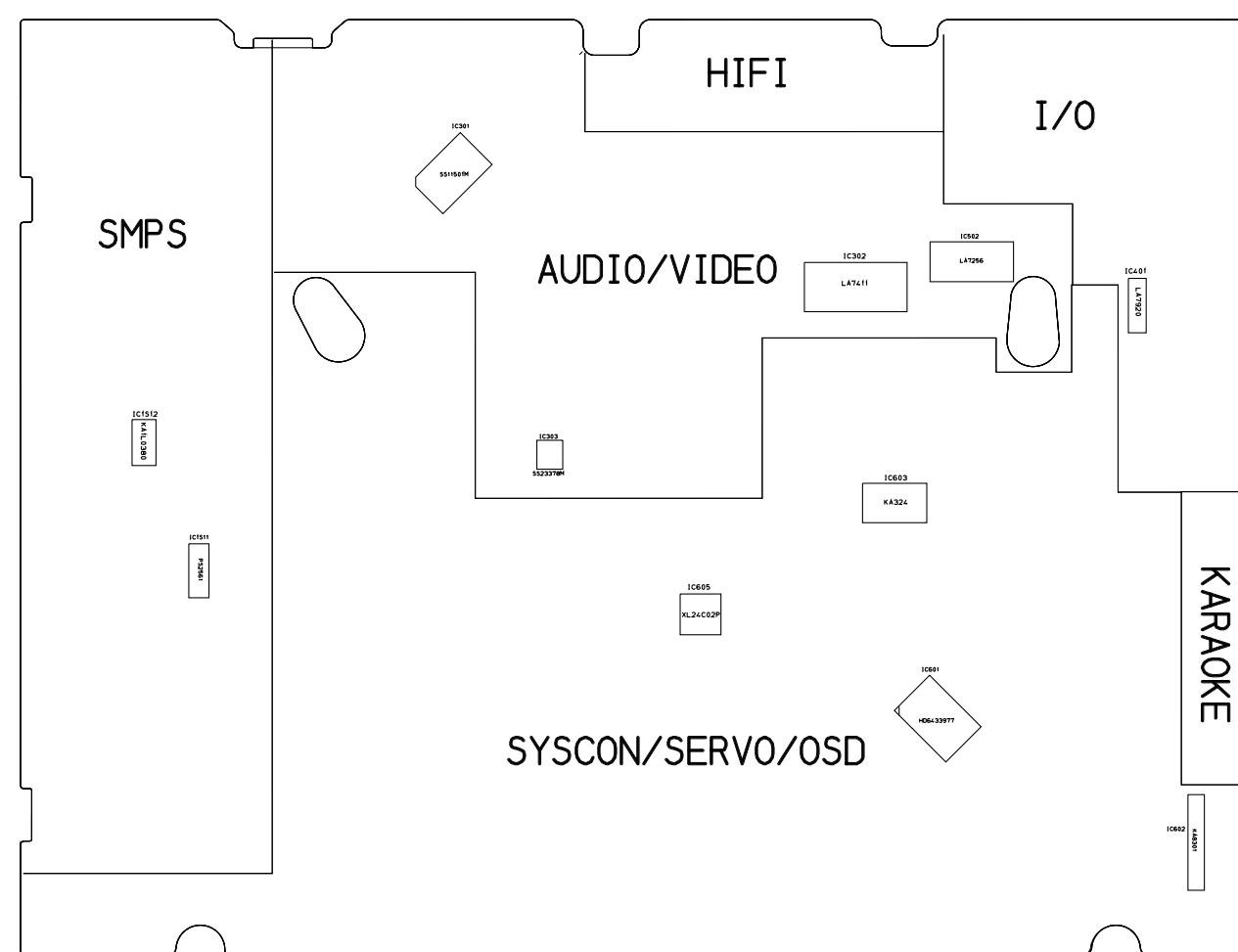
Important safety notices :

Components identified with the mark  have the special characteristics for safety. When replacing any of these components. Use only the same type.

◆ **Block Identification of Main PCB**

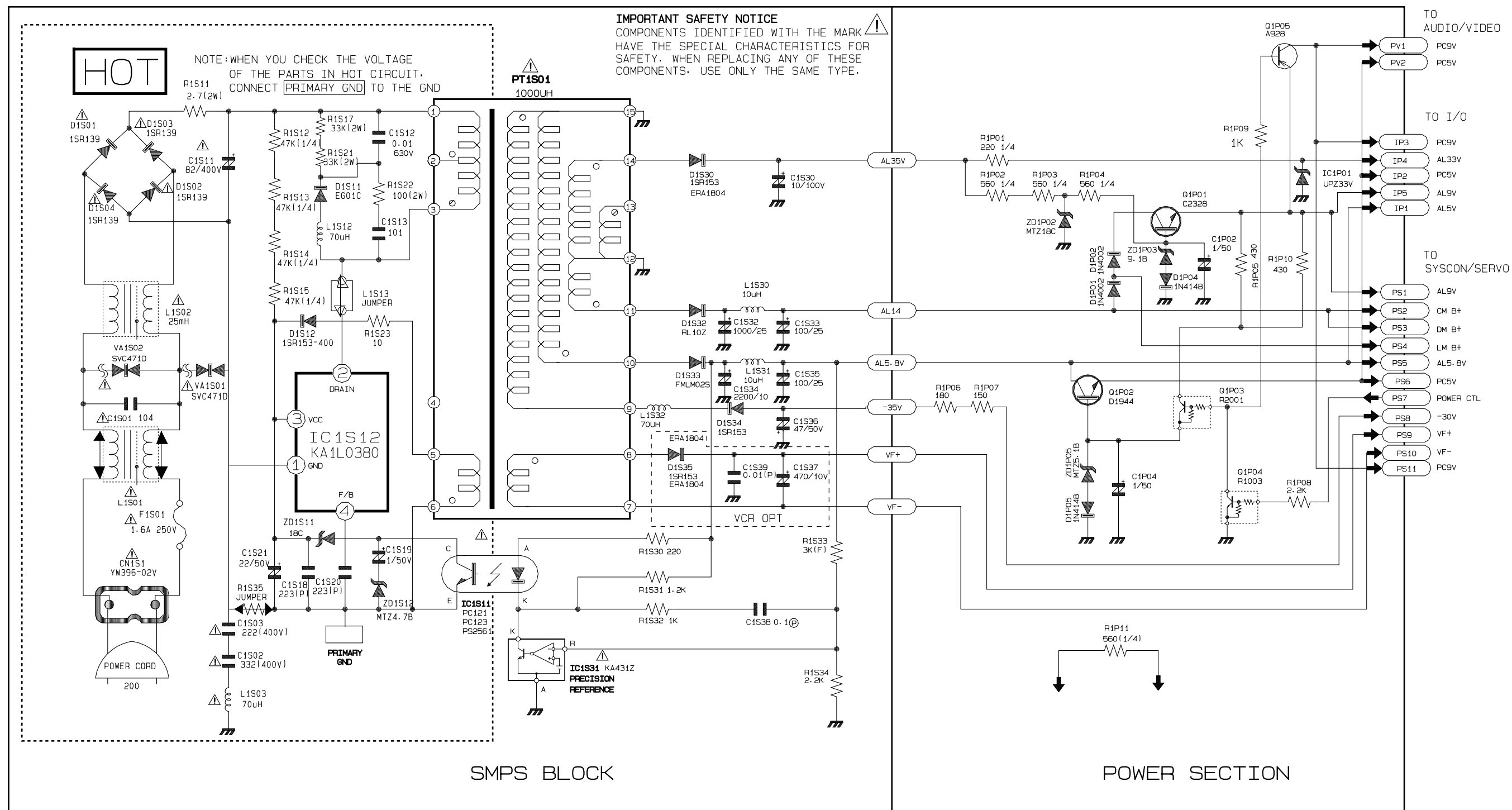


(Component Side)

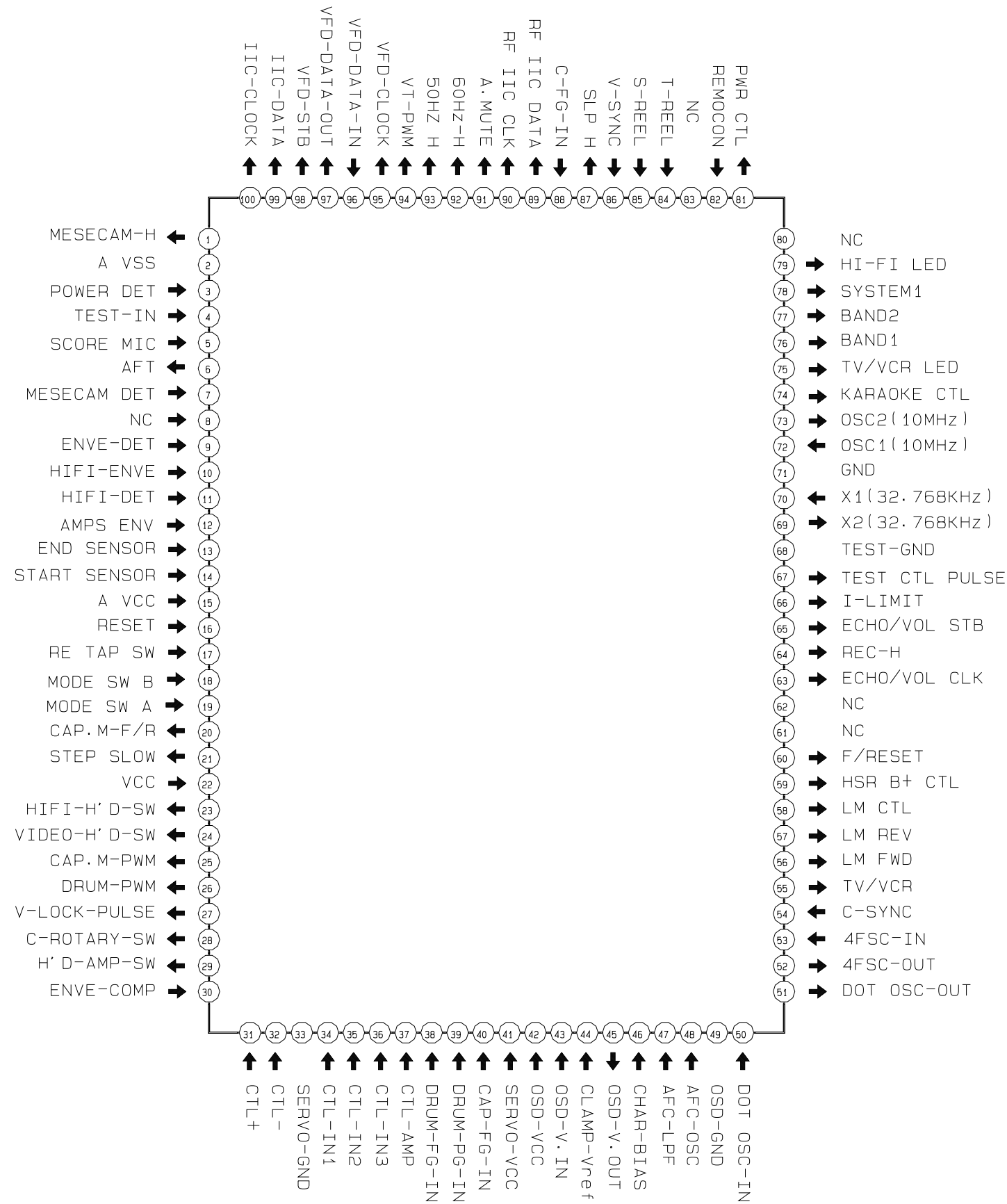


(Conductor Side)

11-1 S.M.P.S/POWER

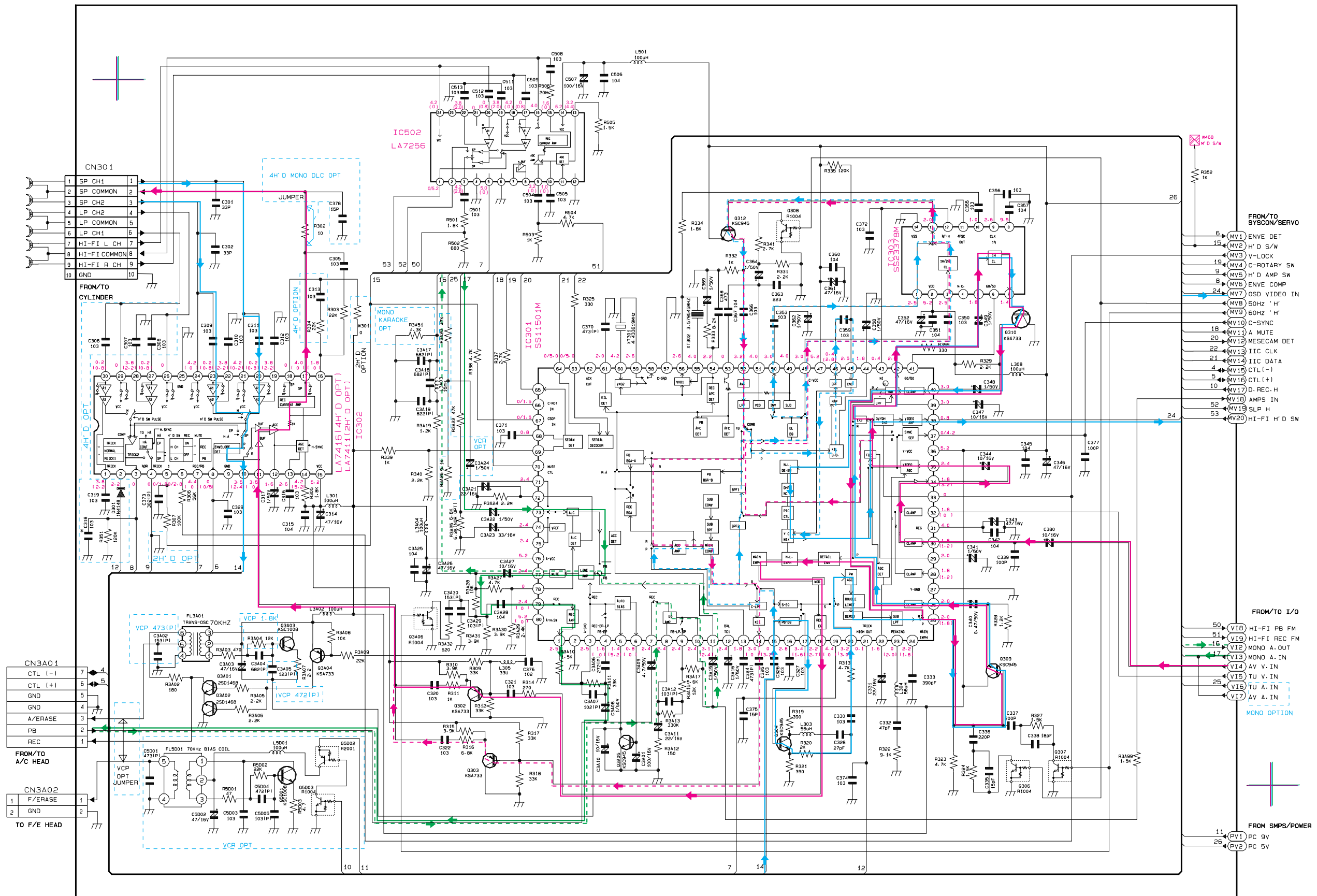


IC601 HD6433976RAF



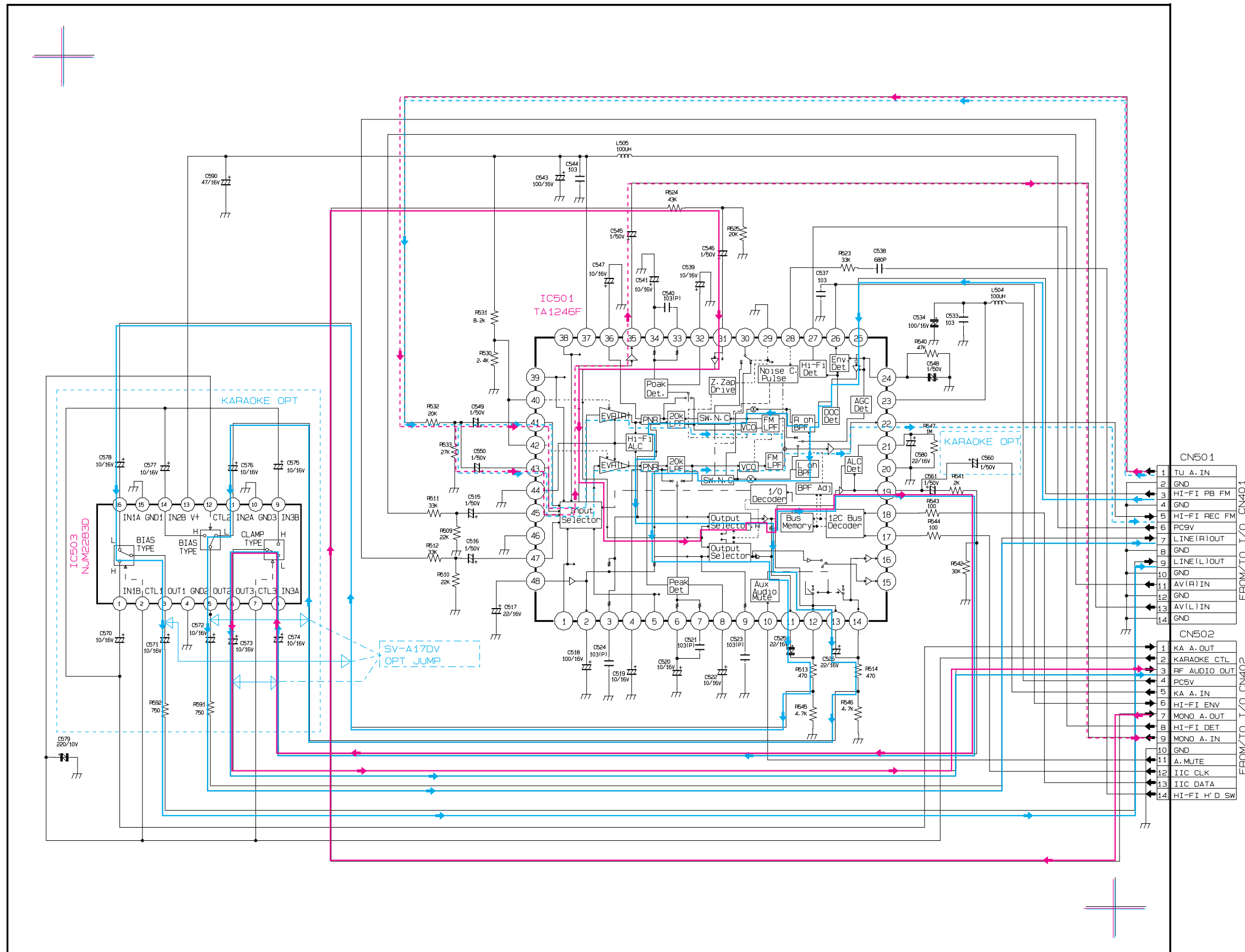
11-3 Audio/Video

REC Y PROCESS PB Y PROCESS REC LINEAR AUDIO
 REC C PROCESS PB C PROCESS PB LINEAR AUDIO

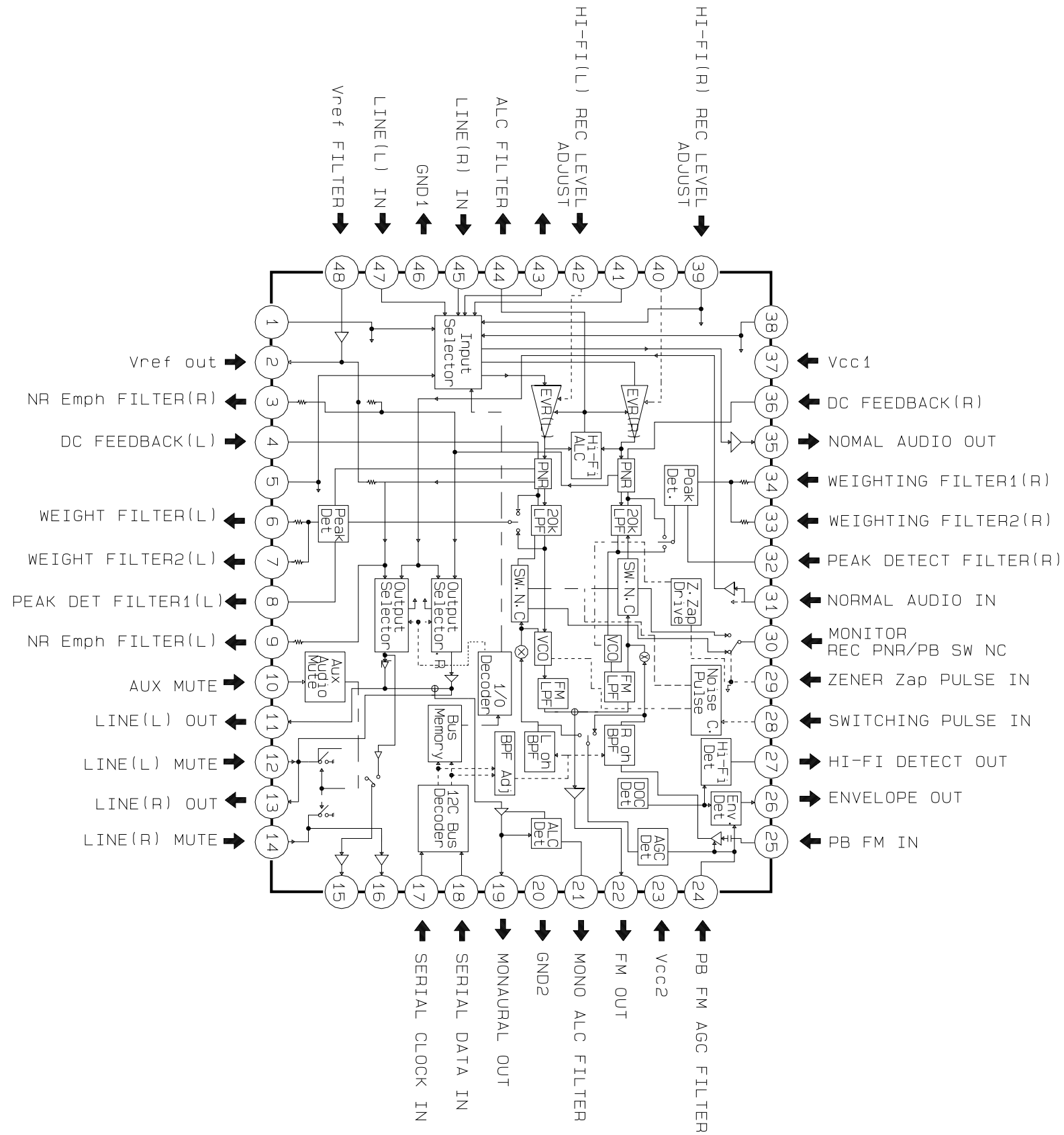


11-4 Hi-Fi

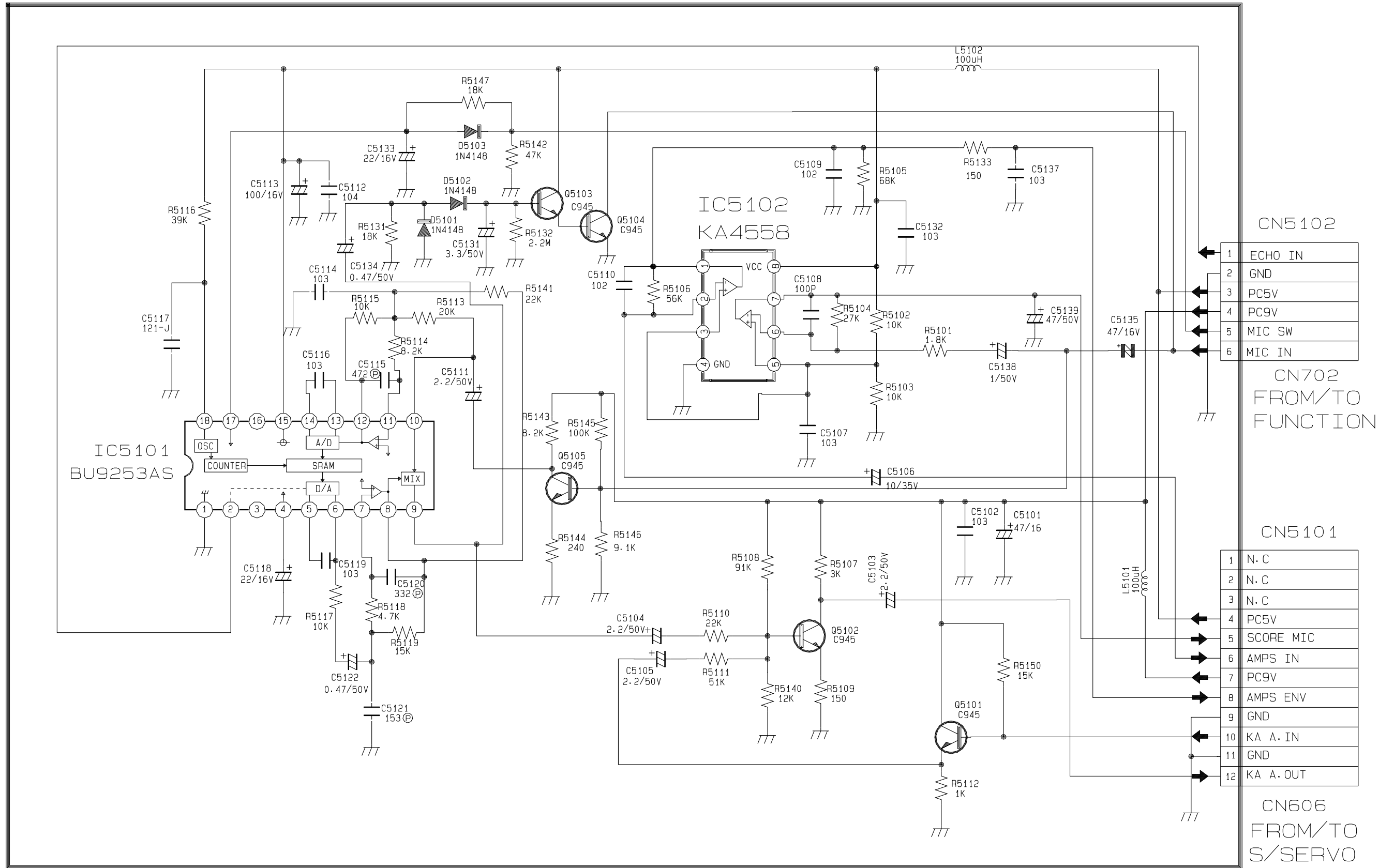
———— AUDIO PB (MONO) ————— AUDIO PB (Hi-Fi)
 - - - - - AUDIO REC (MONO) - - - - - AUDIO REC (Hi-Fi)



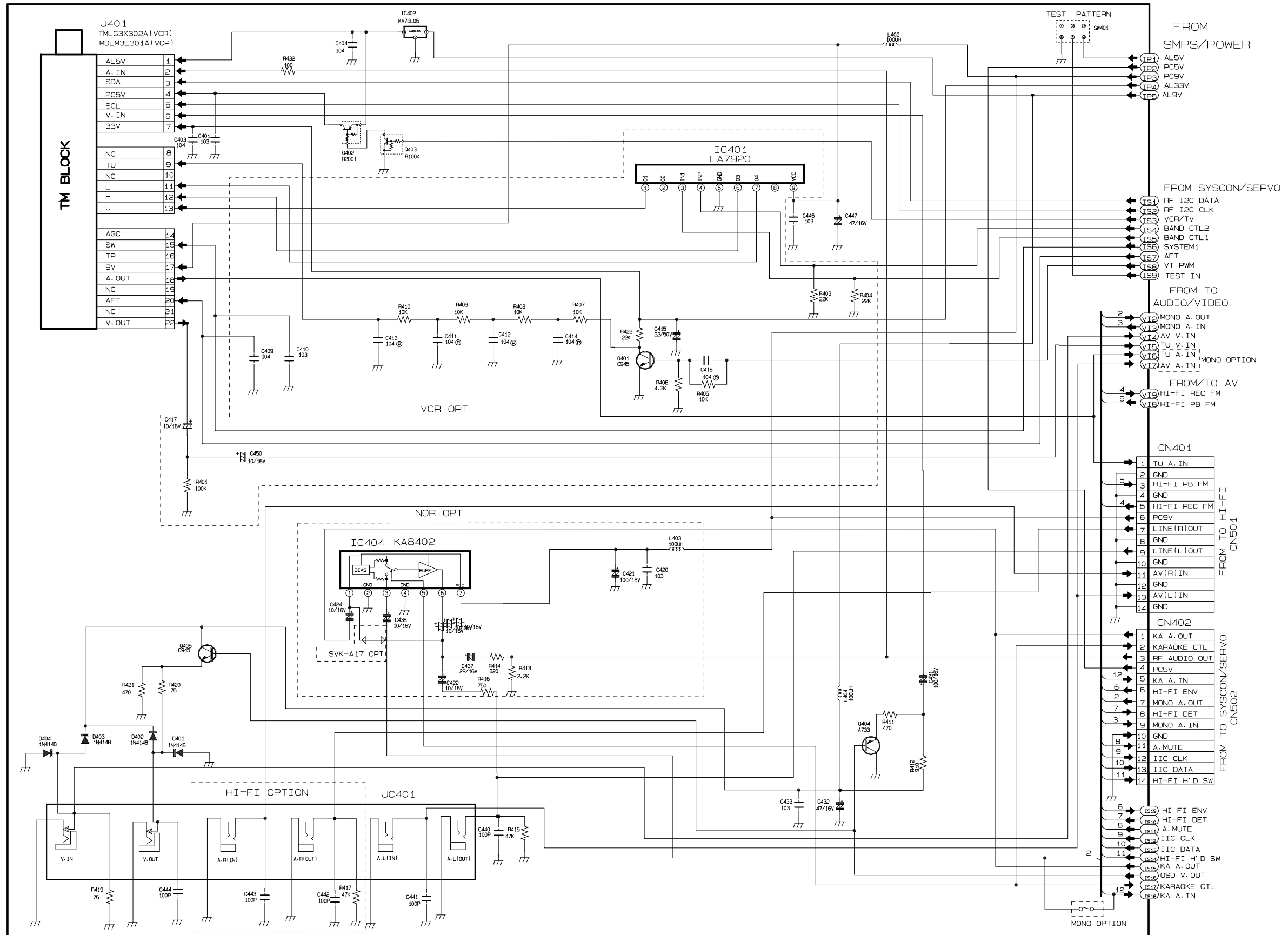
IC501 TA1246F



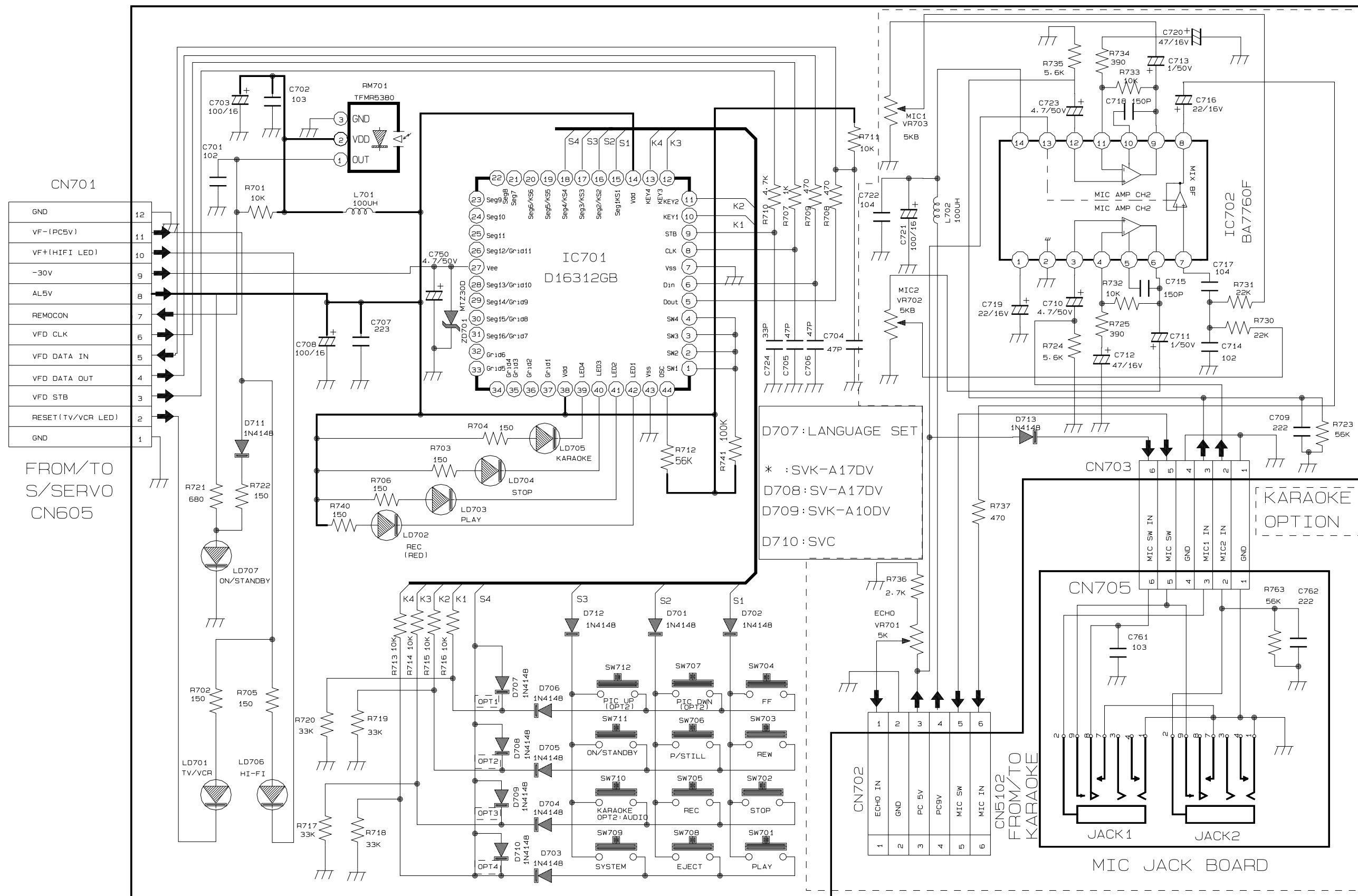
11-5 Karaoke



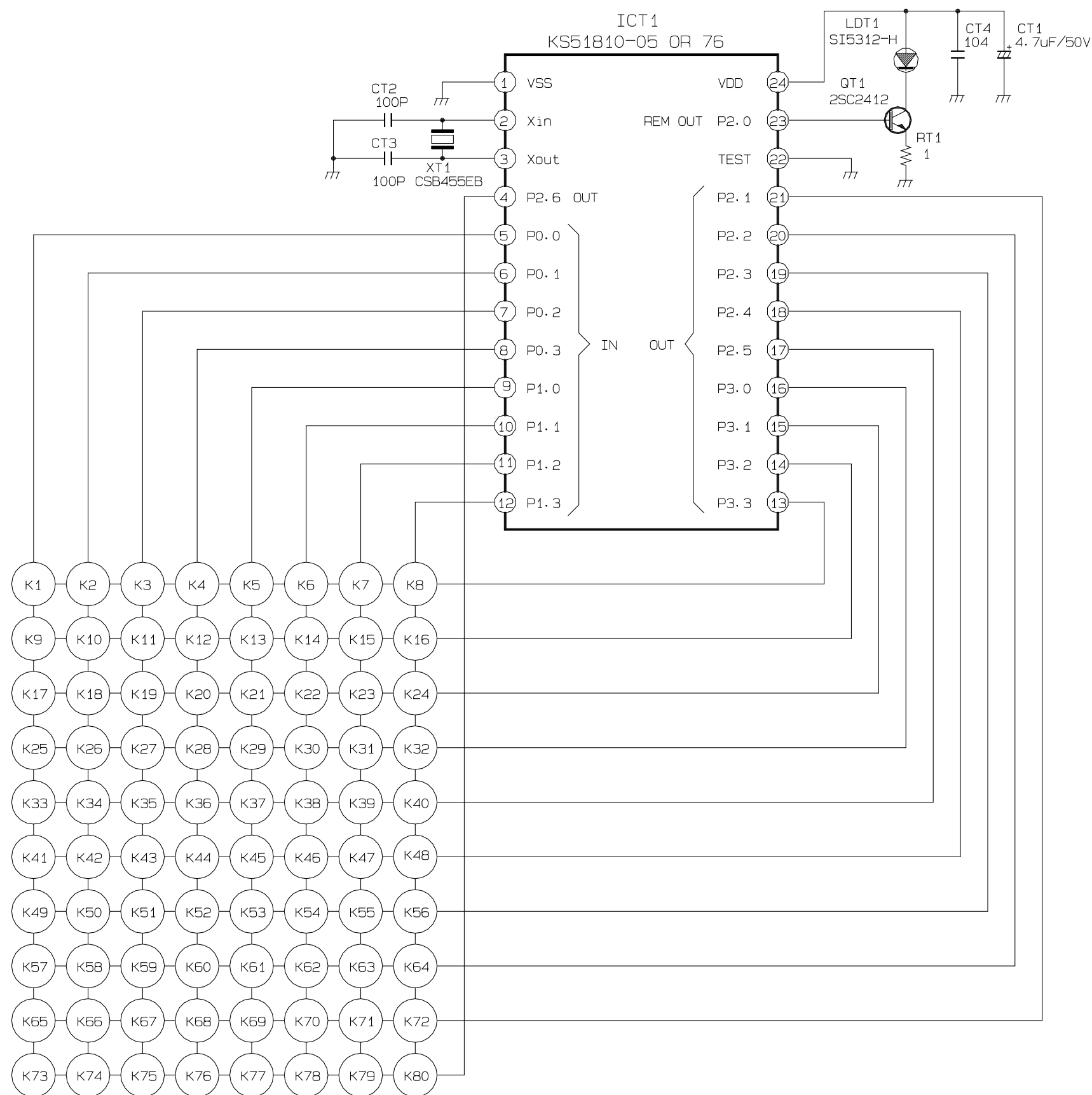
11-6 I/O



11-9 Function



11-11 Remote-Control



| FUNCTION KEY | | | |
|--------------|-------------------------|-----|---------------------|
| K1 | - | K41 | REW |
| K2 | TV/VCR | K42 | PLAY |
| K3 | POWER | K43 | F.F |
| K4 | REPEAT | K44 | - |
| K5 | - | K45 | - |
| K6 | ERASE | K46 | - |
| K7 | TEST (TEST ONLY) | K47 | - |
| K8 | INDEX | K48 | - |
| K9 | CH1 (LESSON) | K49 | - |
| K10 | CH 2 Δ | K50 | CLEAR/RESET |
| K11 | CH 3 | K51 | DISPLAY |
| K12 | - | K52 | MENU |
| K13 | TRACKING UP | K53 | SYSTEM (TEST ONLY) |
| K14 | TRACKING DOWN | K54 | - |
| K15 | - | K55 | - |
| K16 | MARK | K56 | - |
| K17 | CH 4 ▷ | K57 | EJECT |
| K18 | CH 5 | K58 | - |
| K19 | CH 6 ◁ | K59 | AUDIO (OUTPUT SEL.) |
| K20 | - | K60 | - |
| K21 | - | K61 | - |
| K22 | - | K62 | - |
| K23 | - | K63 | PICTURE |
| K24 | CLK/COUNTER (TEST ONLY) | K64 | - |
| K25 | CH 7 | K65 | - |
| K26 | CH 8 ▽ | K66 | - |
| K27 | CH 9 | K67 | - |
| K28 | - | K68 | - |
| K29 | - | K69 | - |
| K30 | - | K70 | - |
| K31 | - | K71 | SHUTTLE- |
| K32 | - | K72 | SHUTTLE+ |
| K33 | REC (OTR) | K73 | - |
| K34 | STOP | K74 | CH 0 |
| K35 | P/STILL | K75 | - |
| K36 | SLOW-DOWN | K76 | SLOW UP |
| K37 | - | K77 | - |
| K38 | - | K78 | - |
| K39 | - | K79 | SP/LP (TEST ONLY) |
| K40 | - | K80 | - |