953

ORDER NO.HAD8803066C1
A2

# Service Manual

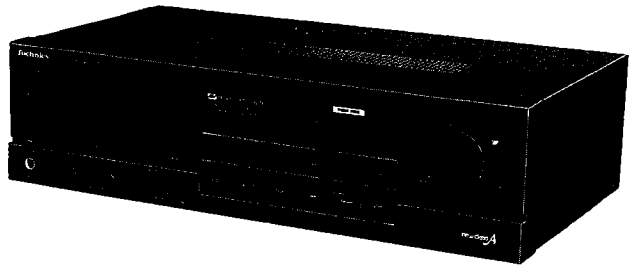
## Stereo Integrated Amplifier

## Amplifier

# SU-V98

**Color**

| |
|---|
| (K).....Black Type |



**Area**

| Color | Area |
|---|---|
| (K) | (M).....U.S.A. |
| (K) | (M5).....U.S.A. |
| (K) | (MC).....Canada. |
| (K) | (MC5).....Canada. |

**System**
**SC-A840 . SC-A850**
**SC-A860 . SC-A870**

## SPECIFICATIONS (IHF '78)

### ■ AMPLIFIER SECTION

| | |
|---|---|
| **Rated minimum sine wave RMS power output** | |
| **20 Hz ~ 20 kHz both channels driven** | |
| **0.05% total harmonic distortion** | 110W per channel (8 ohms) |
| **1 kHz continuous power output both channels driven** | |
| **0.05% total harmonic distortion** | 115W per channel (8 ohms) |
| **Dynamic headroom** | 1.1 dB (8 ohms) |
| **Total harmonic distortion half power at 1 kHz** | 0.03% (8 ohms) |
| **SMPTE intermodulation distortion** | 0.05% (8 ohms) |
| **Frequency responce** | |
| **PHONO** | RIAA standard curve ±0.8 dB |
| **TUNER,CD,TAPE, VCR 2/TV,VCR 1/EQ** | 10 Hz ~ 80 kHz,-3 dB |
| **MAIN IN** | 10 Hz~ 100 kHz |
| **Input sensitivity** | |
| **PHONO** | 0.4 mV (2.5 mV,IHF '66) |
| **TUNER,CD,TAPE, VCR 2/TV,VCR 1/EQ** | 15 mV (150 mV,IHF '66) |
| **MAIN IN** | 2V (IHF'66) |
| **S/N (IHF,A)** | |
| **PHONO** | 71 dB (73 dB,IHF '66) |
| **TUNER,CD,TAPE, VCR 2/TV,VCR 1/EQ** | 75 dB (94 dB,IHF '66) |
| **Maximum input voltage** | |
| **PHONO** | 128 mV (135 mV,1kHz) |
| **Input impedance** | |
| **PHONO** | 47 kilohms |
| **TUNER,CD,TAPE, VCR 2/TV,VCR 1/EQ** | 47 kilohms |
| **MAIN IN** | 39 kilohms |
| **Tone controls** | |
| **BASS** | 50 Hz, +10 dB ~ -10 dB |
| **TREBLE** | 20 kHz, +10 dB ~ -10 dB |
| **SUPER BASS** | 80 Hz, +6 dB |
| **Output voltage** | |
| **TAPE,REC OUT** | 150 mV |
| **PRE OUT** | 1V / 5.6 kilohms |
| **Load impedance** | |
| **MAIN or REMOTE** | 8 ~ 16 ohms |
| **MAIN and REMOTE** | 8 ~ 16 ohms |

### ■ GENERAL

| | |
|---|---|
| **Power consumption** | 360W,470 VA |
| **Power supply** | AC 120V,60 Hz, |
| **Dimensions (W x H x D)** | 430 x 119 x 255 mm (16-15/16" x 4-11/16" x 10-1/32") |
| **Weight** | 7.2 kg (15.9 lb.) |

**Notes:**
1.Specifications are subject to change without notice. Weight and dimensions are approximate.
2.Total harmonic distortion is measured by the digital spectrum analyzer (H.P. 3045 system).

## CONTENTS



Technics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Victoria Industrial Park
Carolina, Puerto Rico 00630

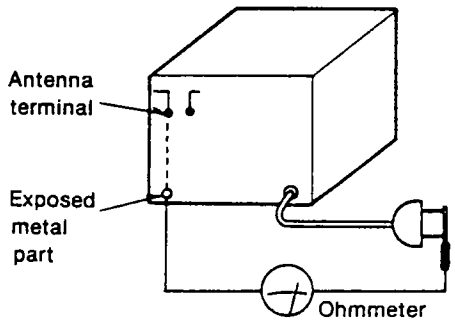
## ■ SAFETY PRECAUTION (This "safety precaution" is applied only in U.S.A.)

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

### • INSULATION RESISTANCE TEST

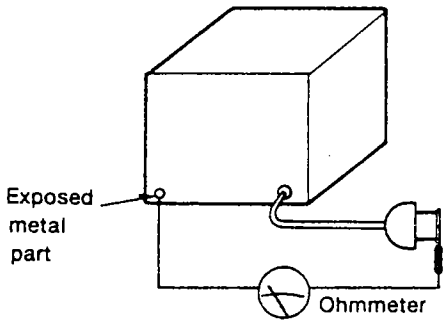
1. Unplug the power cord and short the two prongs of the plug with a jumper wire.
2. Turn on the power switch.
3. Measure the resistance value with ohmmeter between the jumpered AC plug and each exposed metal cabinet part, such as screwheads antenna, control shafts, handle brackets, etc. Equipment with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

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




(Fig. A)

Resistance = 3MΩ—5.2MΩ




(Fig. B)

Resistance = Approx ∞

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

## ■ BEFORE REPAIR

(1) Turn off the power supply. Using a 10Ω, 10W resistor, connect both ends of power supply capcitors(C703, C704) in order to discharge the voltage.
(2) Before turning the power supply on, after completion of repair, slowly apply the primary voltage by using a power supply voltage controller to make sure that the consumed current at 120V, 60Hz in NO SIGNAL mode is 250mA~500mA.

## ■ PROTECTION CIRCUITRY

The protection circuitry may have operated if either of the following conditions is noticed:
* No sound is heard when the power is switched ON.
* Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted" , or if speaker systems with an impedance less than the indicated rated impedance of this unit are used.
If this occurs, follow the procedure outlined below:

1.Switch OFF the power.
2.Determine the cause of the problem and correct it.
3.Switch ON the power once again.

**Note:**
When the protection circuitry functions, the unit will not operate unless the power is first switched OFF and then ON again.

# LOCATION OF CONTROLS

## Front panel

**Power switch (power)**

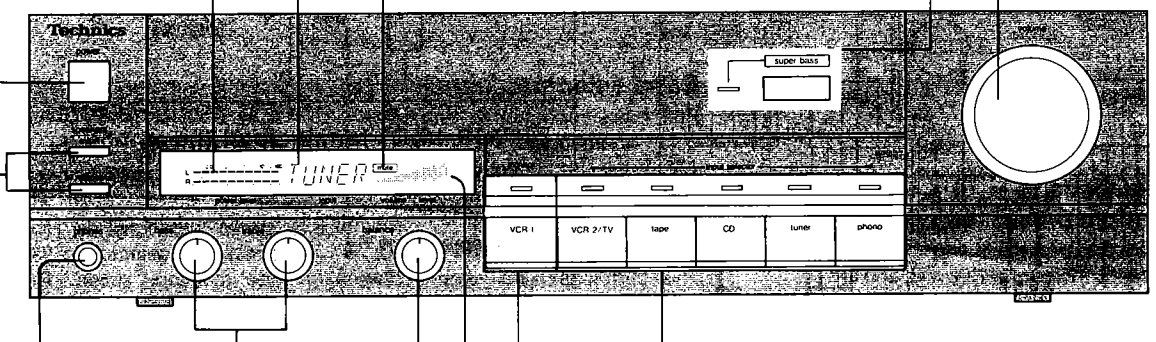
**Peak-power indicators (power level)**
These indicators indicate the peak power value of the output level to the speaker systems.

**Input selector/volume level display (input)**
This display usually shows the sound source selected by the input selectors; when the volume-control is used to adjust the volume level, the volume level is displayed in decibel for about three seconds, after which the display returns again to indication of the sound source.

**Muting indicator (mute)**
This indicator will illuminate when the muting button on the remote-control transmitter is pressed. (Refer to the operating instructions of remote-control transmitter.) To cancel the muting function without the remote-control transmitter, press both "phono" and "VCR 2/TV" buttons of the input selectors on this unit at the same time, after reducing the volume level to the minimum position.

**Super bass switch/indicator (super bass)**
Low frequency sounds are reinforced when this switch is pressed.
The indicator at the left will illuminate.

**Volume control (volume)**




**Tone controls (bass/treble)**
The bass control is for the low-frequency sound range, and the treble control is for the high-frequency sound range.

**Input selectors/indicators (input selector)**
These selectors are used to select the sound source to be heard, such as a disc, radio broadcasts, etc. The corresponding input selector indicator illuminates during operation to indicate the selected sound source.
The selected sound source is also showed on the input selector/volume level display.

**Headphones jack (phones)**

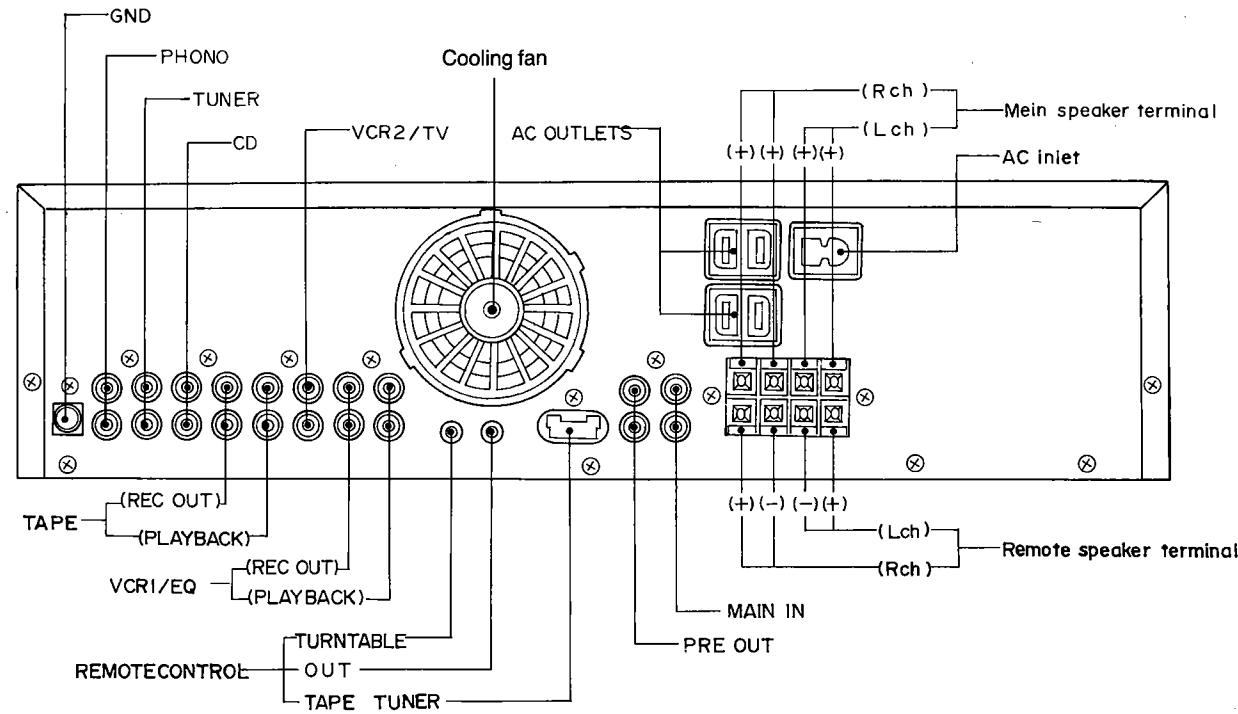
**VCR 1-monitor switch/indicator (VCR 1)**
Press this switch so that the indicator above is illuminated when using a graphic equalizer or, playing back or monitoring the sound from a VCR connected to the "VCR 1/EQ" terminals. This selector should be set to the position (indicator off) at all other times.

**Speaker selectors (speakers)**
These selectors are used to turn the speaker systems on and off.
**Note:**
When only one speaker system is connected to the amplifier, no sound will be heard if both the speaker selectors are pressed.

**Volume indicator (volume level)**

**Balance control (balance)**
This control is used to adjust left/right volume balance.

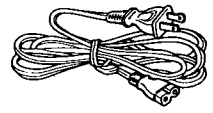
## •Rear panel




※Phono input capacitance is about 100 pF.

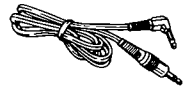
## ■ ACCESSORIES

- AC power supply cord (polarized) ..... 1

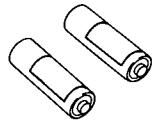


**Thick type**
(SPT-2)
(SJA172-1) ..... For (M) and (M5) areas.
(SJA172) .... For (MC) and (MC5) areas.

- Connection cable for remote-control (SJP2257T) ..... 1



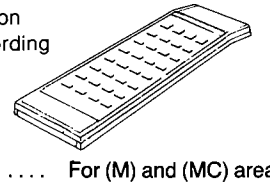
- Batteries ..... 2



(UM-4NEP)

- Flat cable for remote-control ..... 1
(SWKUV98KM1)

- Remote-control transmitter ..... 1
(Configuration differs according to system.)



(EUR64751) .... For (M) and (MC) areas.
(EUR64752) .. For (M5) and (MC5) areas.

# ONNECTIONS

The followings are the included cords and cables, etc. Please make a connection correcty referring to the indicated number below.

1 Stereo connection cable (long) (SFDHN05N01)

2 Stereo connection cable (short) (SJPK2203-1) (SJP2271)
(Be sure that (L) and (R) terminals are connected correctly.)

3 Connection cable for remote-control (SJP2257T)

4 Flat cable for remote-control (SWKUV98KM1)

5 AC power supply cord (non-polarized) **Thin type** (SPT-1) (SJA170-1)•(SJA170)

6 AC power supply cord (polarized) **Thin type** (SPT-1) (SJA175-1)•(SJA175)

7 AC power supply cord (polarized) **Thick type** (SPT-2) (SJA172-1)•(SJA172)

## AC outlets

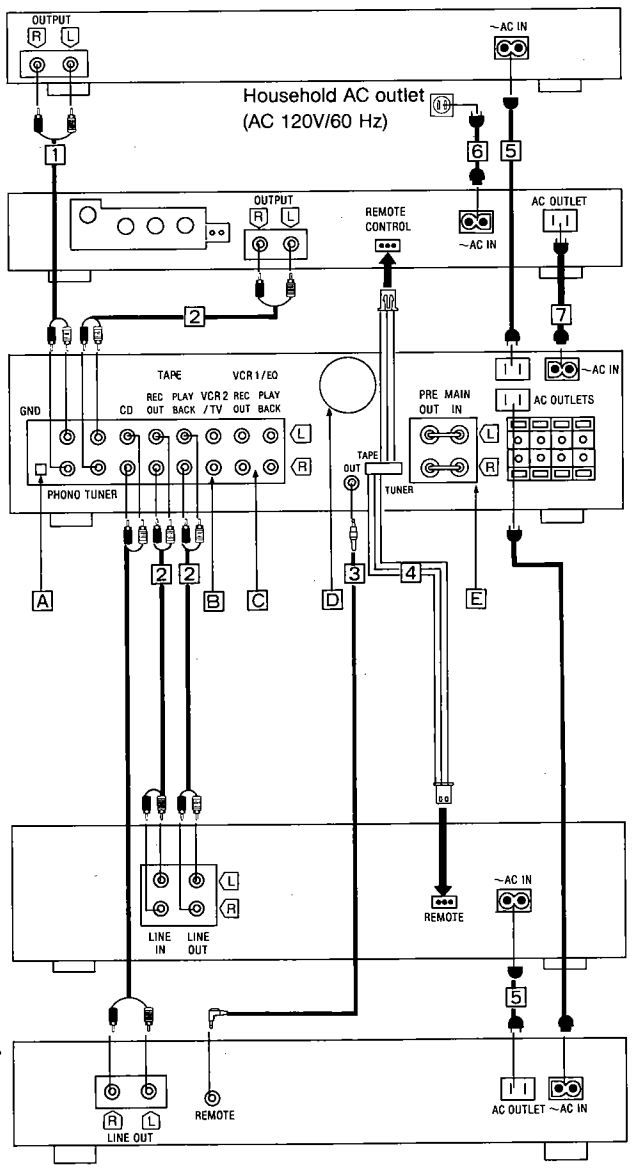
### ■"UNSWITCHED" outlets

Power is always available, regardless of the unit's power switch setting.
**For amplifier:** Audio equipment rated up to 100W (total for all outlets) can be connected here.
**For compact disc player:** Audio equipment rated up to 100W can be connected here.
**For graphic equalizer:** Audio equipment rated up to 150W can be connected here.
**For AV surround processor:** Audio equipment rated up to 100W can be connected here.
**Note:** If the "AC IN" of the amplifier is connected to the "SWITCHED" outlet of the tuner, power for each unit is only available when the tuner's power switch is "on".

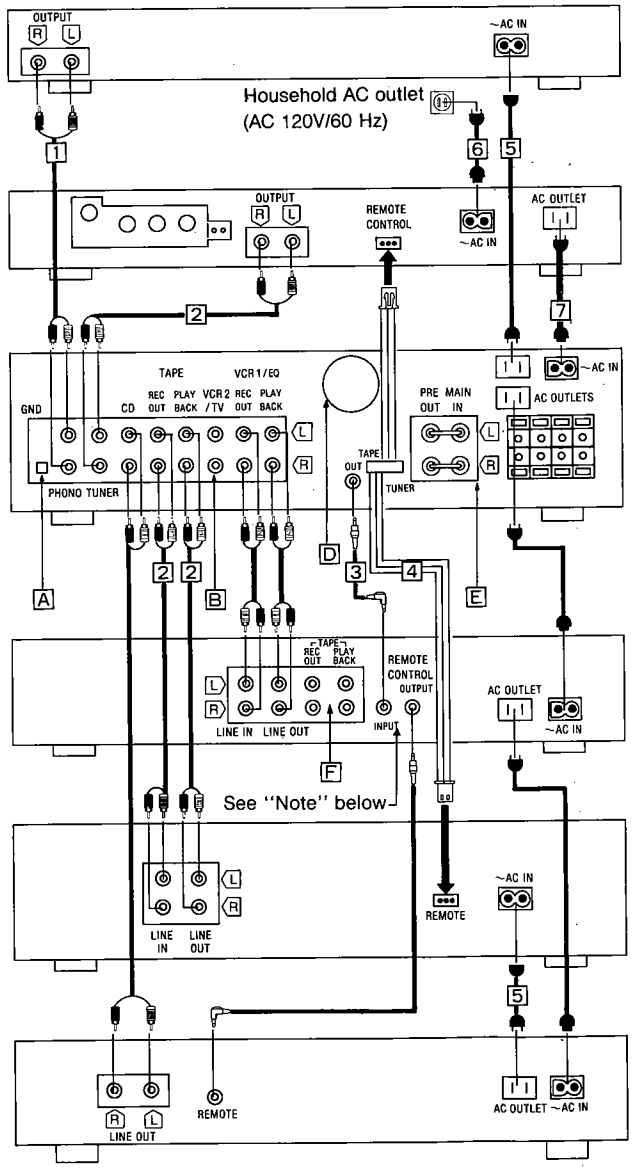
### ■"SWITCHED" outlet

Power is controlled by power switch of the tuner.
**For tuner:** Audio equipment rated up to 460W can be connected here.

## System with compact disc player

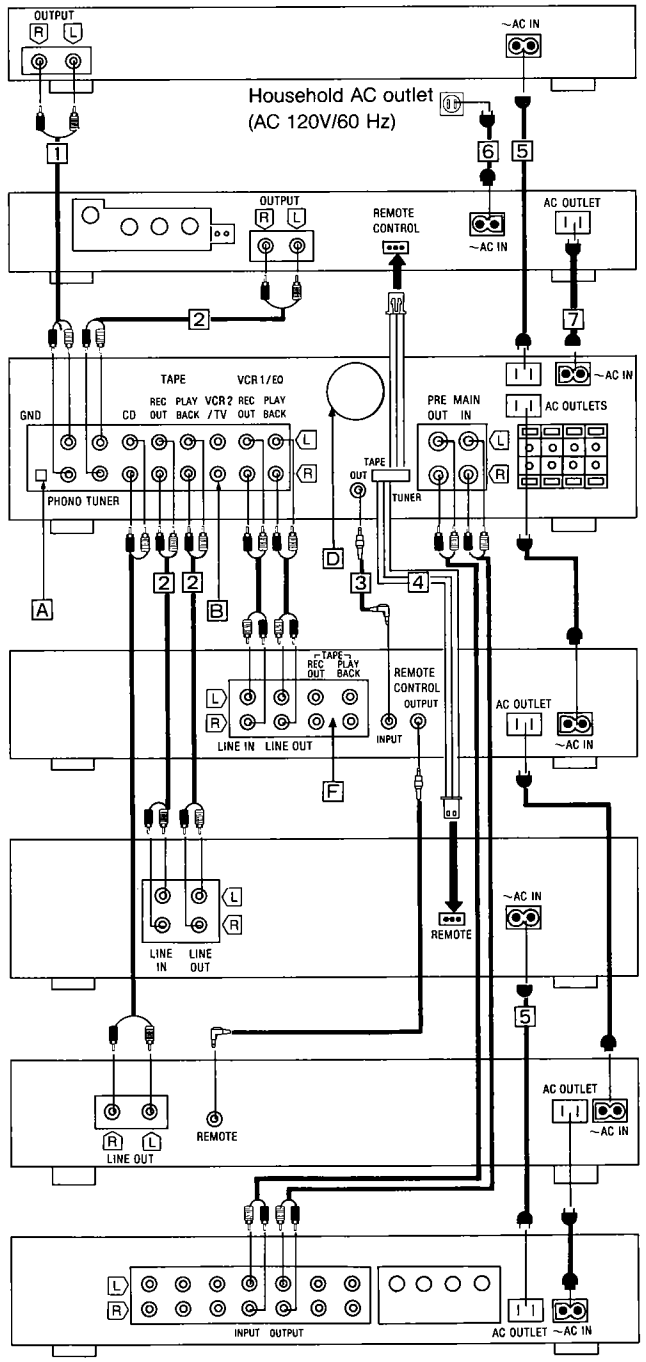



## System with compact disc player and graphic equalizer




**Note:**
These terminals are provided only on the SH-8057.

## System with compact disc player, graphic equalizer and AV surround processor




## System Connection Options

### A"GND" terminal of the amplifier

This terminal is for use with a turntable which has a ground wire.

### B"VCR 2/TV" terminals of the amplifier

For connection to the audio output of a VCR. TV. etc. (Refer to the operating instructions of the optional equipment.)

### C"VCR 1/EQ" terminals of the amplifier

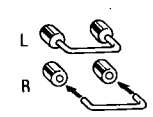
For connections to the audio inputs and outputs of a VCR, EQ, etc.
(Refer to the operating instructions of the optional equipment.)

### DCooling fan of the amplifier

The cooling fan operates only at high output power levels.

### E"PRE OUT/MAIN IN" terminals of the amplifier

Use these terminals to operate the amplifier as an independent preamplifier, main amplifier or AV surround processor.
Do not remove these pins otherwise.
(No sound will be heard if they are removed.)

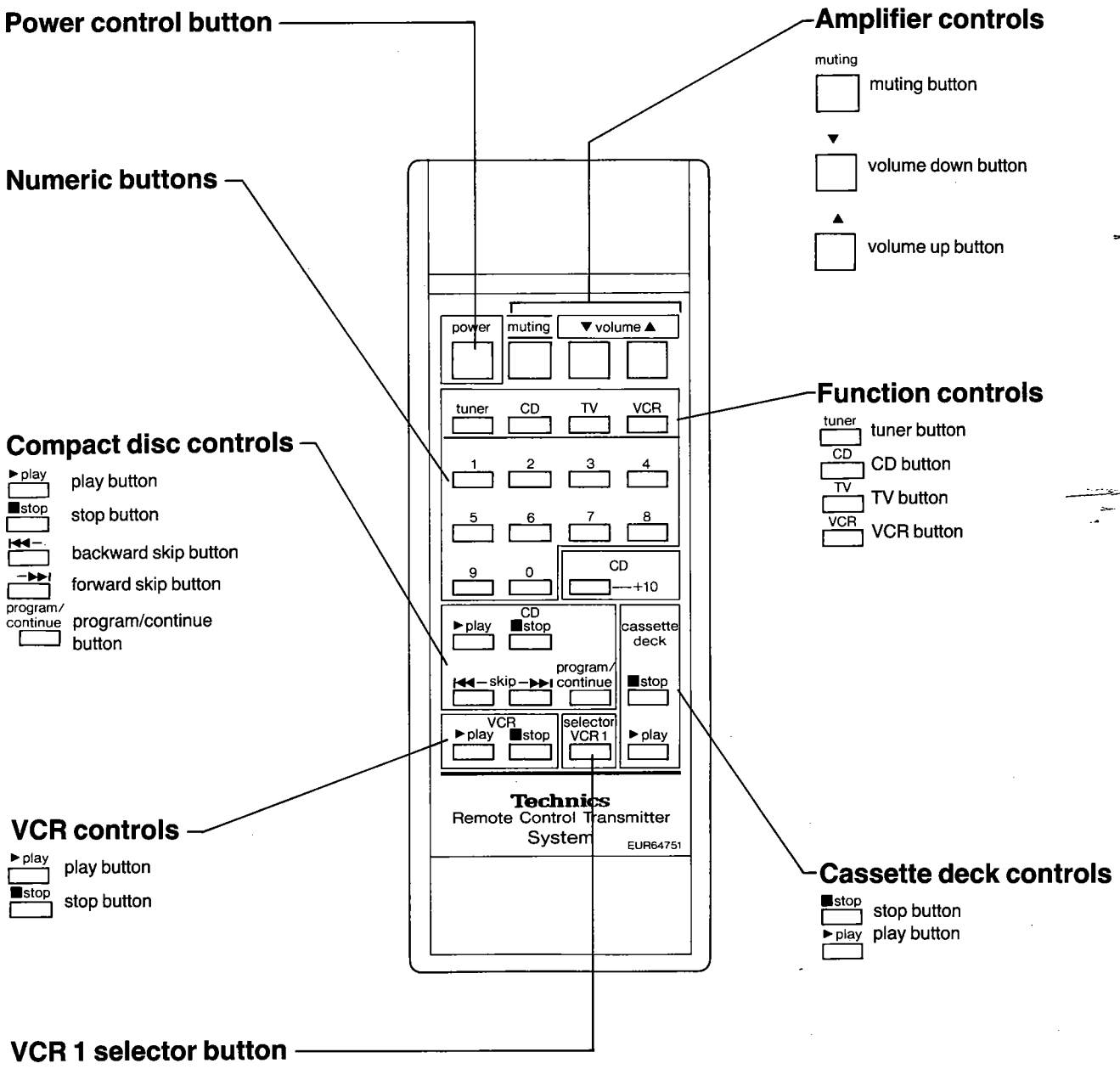



### F"TAPE" terminals of the graphic equalizer

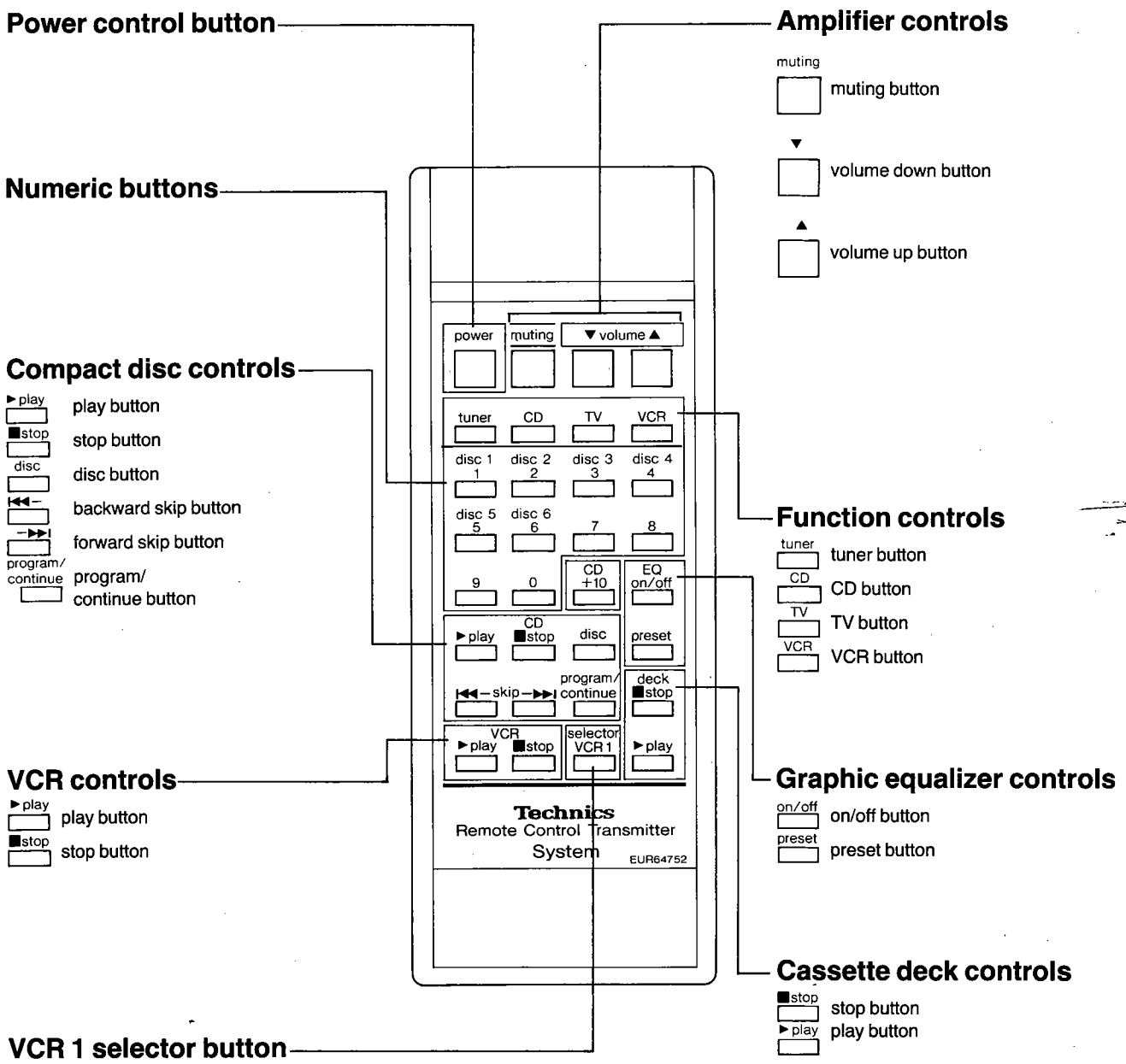
For connections to an additional audio tape deck.

# ■ REMOTE-CONTROL TRANSMITTER

## ●EUR64751 For (M) and (MC) areas

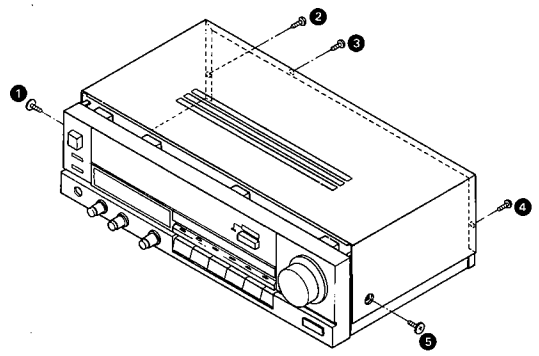


## •EUR64752 For (M5) and (MC5) areas

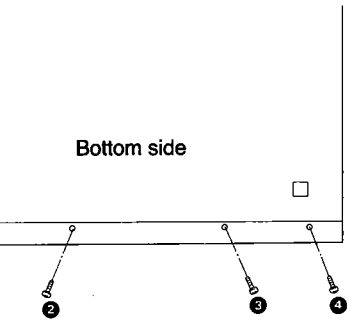


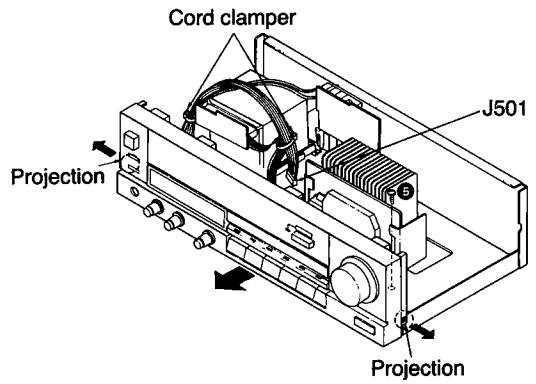
# SASSEMBLY INSTRUCTIONS

| f. No. 1 | How to remove the cabinet |
|---|---|
| cedure 1 | •Remove the 5 screws (❶~❺). |



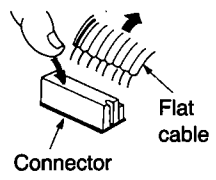
| f. No. 2 | How to remove the front panel |
|---|---|
| cedure →2 | 1. Cut the cord clamper.<br>2. Remove the flat cable (J501).<br>3. Remove the 5 screws (❶~❺).<br>4. Remove from the projection of the bottom chassis.<br>5. Remove the front panel in the direction of the arrow. |



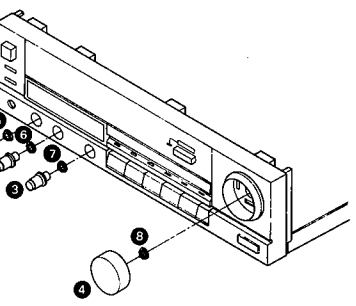



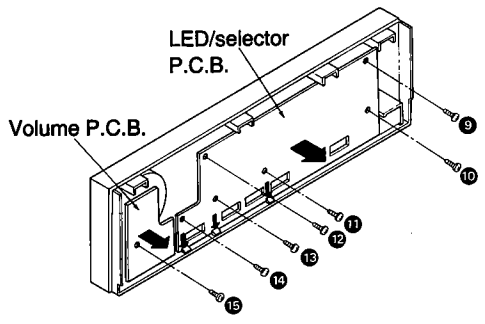

How to remove the flat cable

Pull out the flat cable while pressing the connector.



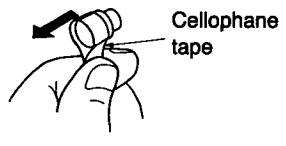

| f. No. 3 | How to remove the volume and LED/selector P.C.B. |
|---|---|
| cedure →2→3 | 1. Pull out the 4 knobs (❶~❹).<br>2. Remove the 4 nuts (❺~❽).<br>3. Remove the 5 screws (❾~⓭).<br>4. Rotate the Volume Circuit Board and LED/Selector Circuit Board simultaneously in the direction of the arrow.<br>5. Remove the 1 connector (J901). |

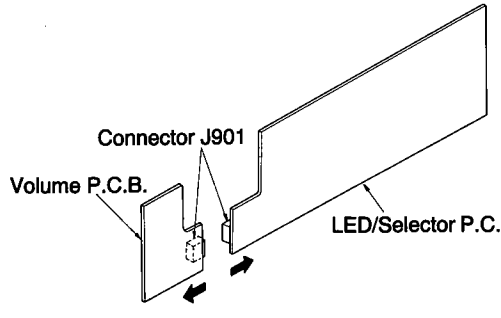





o remove the knob.

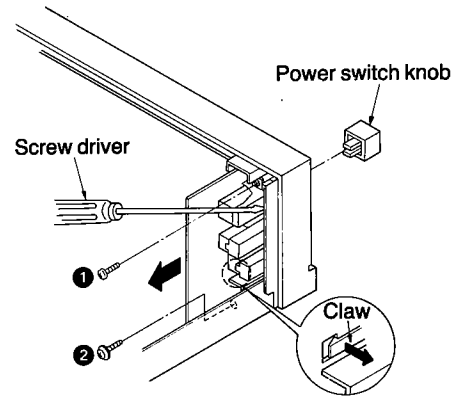
nd cellophane tape around the ob and put it the direction of the ow.



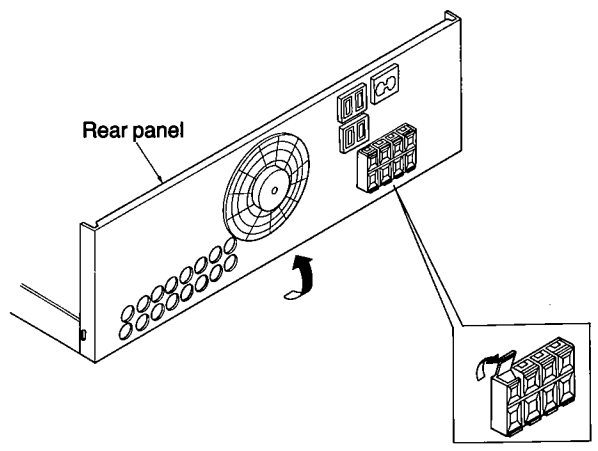



| Ref. No. 4 | How to remove the power switch P.C.B. |
|---|---|
| Procedure 1→2→4 | 1. Remove the power switch knob by pushing it from behind the front panel.<br>2. Remove the 2 screws (❶, ❷).<br>3. Release the 1 claw.<br>4. Remove the power switch P.C.B. in the direction of the arrow. |

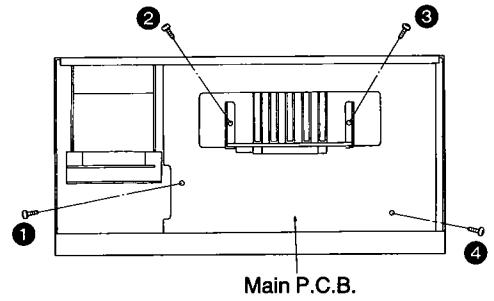


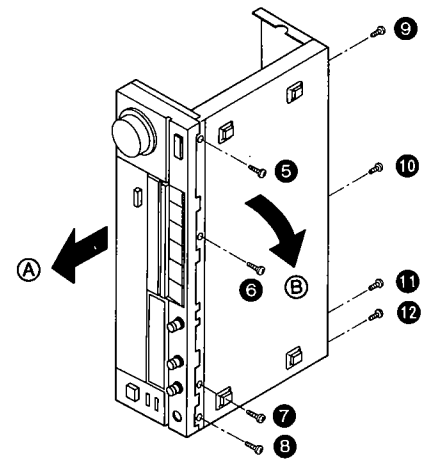

| Ref. No. 5 | How to remove rear panel |
|---|---|
| Procedure 1→5 | 1. Remove the 11 screws (❶~⓭).<br>2. Remove the shorting pin.<br>3. Remove from the projection of the bottom chassis.<br>4. Remove the rear panel in the direction of the arrow. |

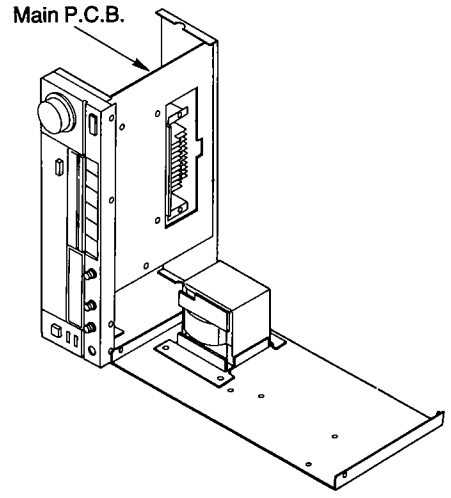


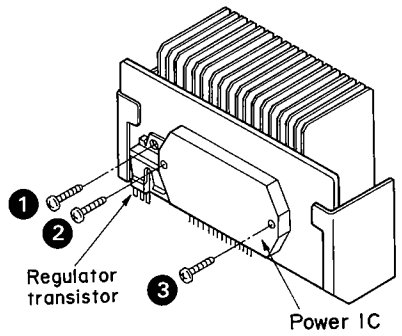

| Ref. No. 6 | How to check the main P.C.B. |
|---|---|
| Procedure 1→6 | 1. Remove the 12 screws (❶~⓬).<br>2. Remove the front panel in the direction of the arrow Ⓐ.<br>3. Release the main P.C.B from the projection of the bottom chassis.<br>4. Remove the bottom chassis in the direction of the arrow Ⓑ.<br>5. Reinstall the front panel to the main P.C.B. |



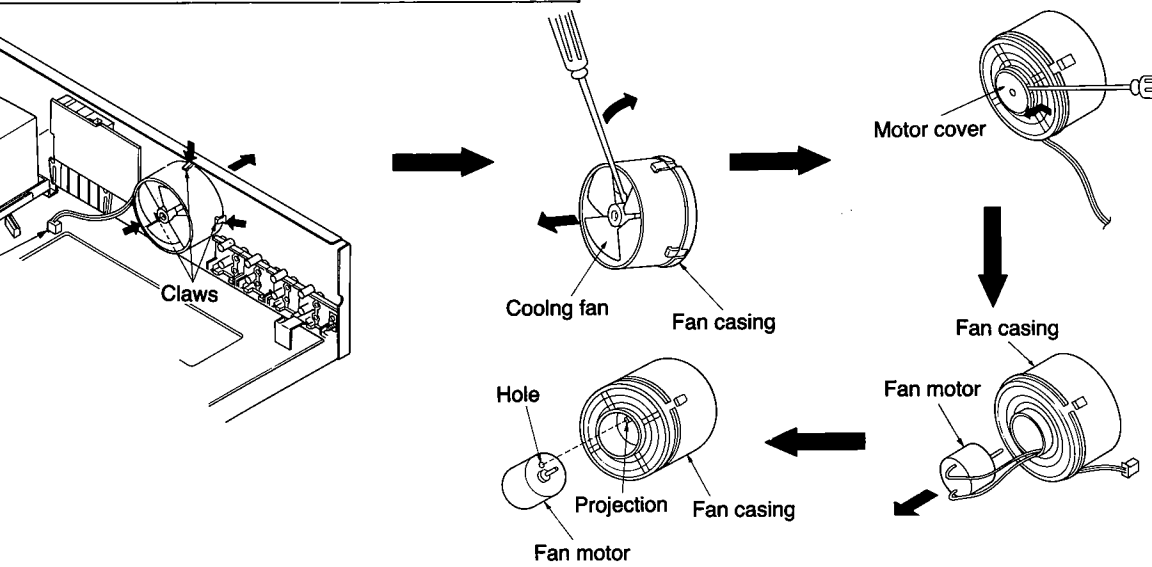



| No. | How to remove the power IC and regulator transistor |
|---|---|
| dure 6→7 | 1. Unsolder the power IC or regulator transistor.<br>2. Remove the 3 screws (❶~❸). |




**mounting the power IC or regulator transistor.**
silicone compond (SZZOL15) to the rear side of power egulator transistor.

| Ref. No. 8 | How to remove the fan motor |
|---|---|
| Procedure 1→8 | 1. Pull out the 1 connector (J801).<br>2. Release the 3 claws.<br>3. Insert a screwdriver at the root of the cooling fan. Force it out of the shaft.<br>4. Remove the motor cover by used ⊖ screwdriver.<br>5. Remove the motor from the fan casing.<br>6. When mounting the motor fan, align the fan casing's projection with the hole of the fan motor. |




# HEMATIC DIAGRAM

matic diagram may be modified at any time with the nt of new technology.)

: Power switch in **"on"** position.
: Speaker selector (remote) switch in **"off"** position.
: Speaker selector (main) switch in **"on"** position.
905 : Input selector switches.
**S901; Phono S902; tuner S903; CD**
**S904; tape S905; VCR2/TV**
: VCR1-monitor switch.
: Super bass switch.
: Phono signal (Lch).
: Positive voltage lines.
: Negative voltage lines.

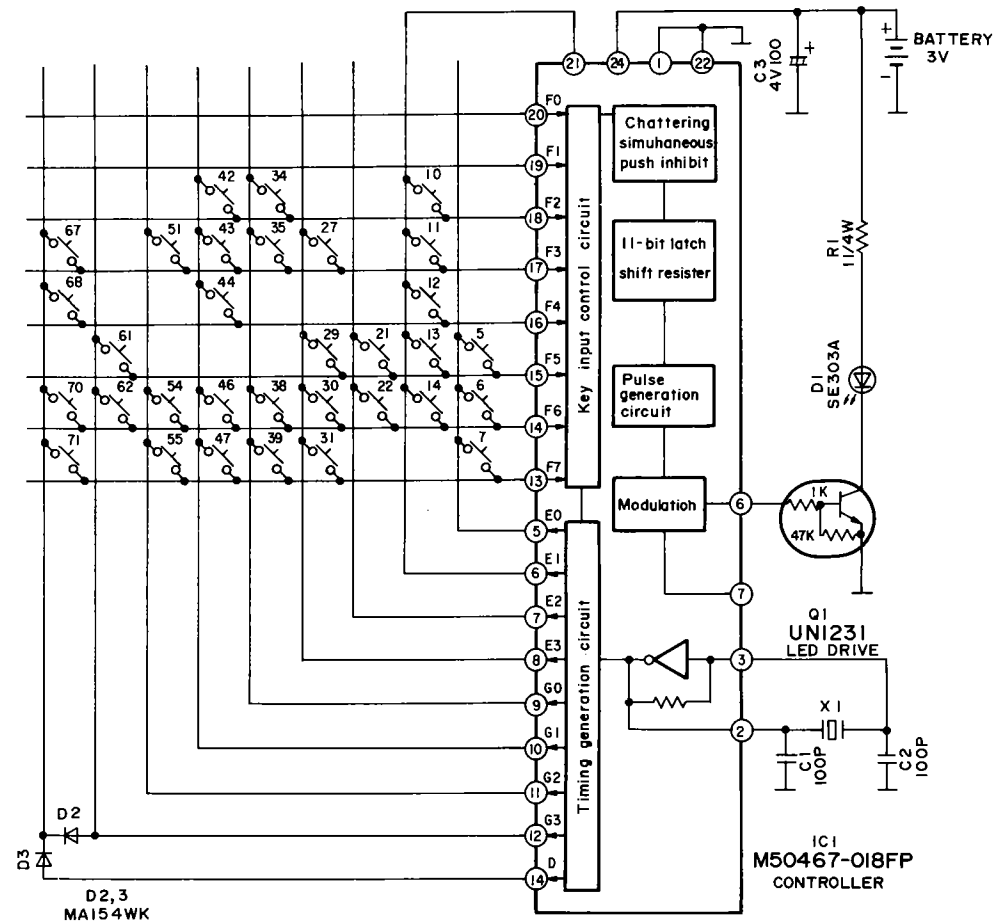
- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
- Important safety notice:
  Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

***Caution!**
IC and LSI are sensitive to static electricity.
Secondary trouble can be prevented by taking care furing repair.
*Cover the parts boxes made of plastics with aluminum foil.
*Ground the soldering iron.
*Put a conductive mat on the work table.
*Do not touch the legs of IC or LSI with the fingers directly.

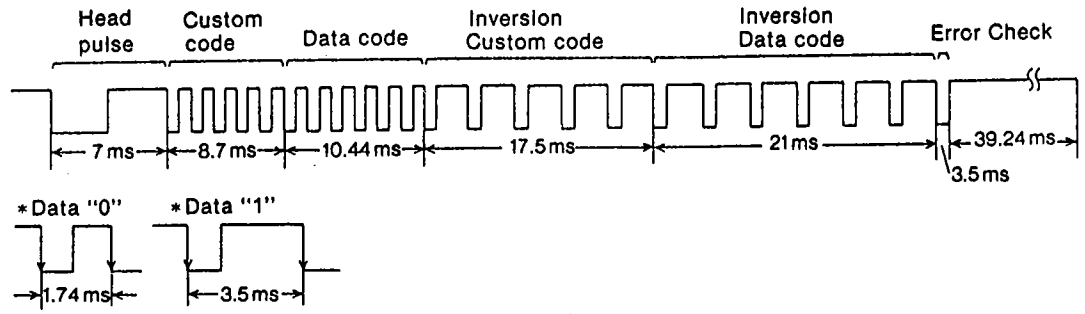


## • Remote control unit

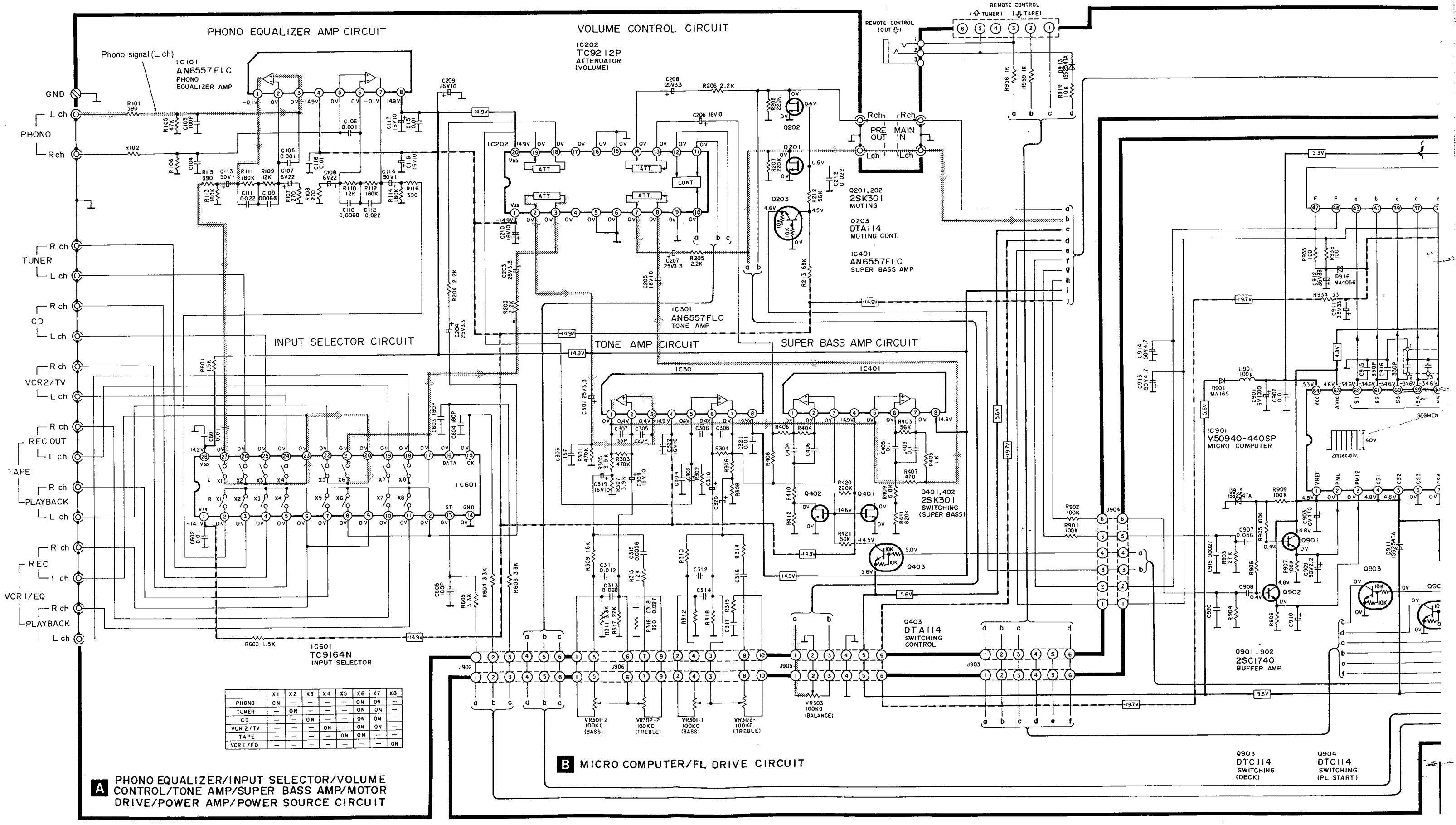
**Note: Key No. 51, 61 and 62 are for EUR64752 only.**




## • Remote control data code




| Key No. | Function | Custom code | Data code | Key No. | Function | Custom code | Data code |
|---|---|---|---|---|---|---|---|
| 7 | power | 01001 | 100000 | 38 | 9 | 01001 | 011000 |
| 21 | muting | 01001 | 100111 | 46 | 0 | 01001 | 011001 |
| 13 | Volume ▼ | 01001 | 100101 | 54 | CD+10 | 01001 | 011010 |
| 5 | Volume ▲ | 01001 | 100100 | 61 | EQ on/off | 01001 | 110000 |
| 67 | tuner | 01001 | 111001 | 11 | CD ▶ play | 01100 | 001010 |
| 68 | CD | 01100 | 111011 | 27 | CD ■ stop | 01100 | 000000 |
| 71 | TV | 00000 | 100000 | 51 | CD disc | 01100 | 100110 |
| 70 | VCR | 00010 | 111110 | 62 | EQ preset | 01001 | 110010 |
| 31 | disc 1, 1 | 01001 | 010000 | 35 | CD ◀◀- skip | 01100 | 000010 |
| 39 | disc 2, 2 | 01001 | 010001 | 43 | CD skip-▶▶ | 01100 | 000011 |
| 47 | disc 3, 3 | 01001 | 010010 | 10 | program/continue | 01100 | 011101 |
| 55 | disc 4, 4 | 01001 | 010011 | 44 | deck ■ stop | 01001 | 000000 |
| 6 | disc 5, 5 | 01001 | 010100 | 34 | VCR ▶ play | 00010 | 001010 |
| 14 | disc 6, 6 | 01001 | 010101 | 42 | VCR ■ stop | 00010 | 000000 |
| 22 | 7 | 01001 | 010110 | 29 | selector VCR 1 | 01001 | 111110 |
| 30 | 8 | 01001 | 010111 | 12 | deck ▶ play | 01001 | 001010 |




| | X1 | X2 | X3 | X4 | X5 | X6 | X7 | X8 |
|---|---|---|---|---|---|---|---|---|
| PHONO | ON | — | — | — | — | ON | ON | — |
| TUNER | — | ON | — | — | — | ON | ON | — |
| CD | — | — | ON | — | — | ON | ON | — |
| VCR 2/TV | — | — | — | ON | — | ON | ON | — |
| TAPE | — | — | — | — | ON | ON | — | — |
| VCR 1/EQ | — | — | — | — | — | — | — | ON |

CUIT

REMOTE CONTROL (OUT)

REMOTE CONTROL (↑TUNER) (↓TAPE)

R956 1K R959 1K R819 150 D913 1SS254TA

PRE OUT Rch Lch MAIN IN Rch Lch

Q202 Q201 R208 220K R207 220K C212 0.022 R212 56K R213 68K

Q201, 202 2SK301 MUTING

Q203 DTA114 MUTING CONT.

IC401 AN6557FLC SUPER BASS AMP

FLC

SUPER BASS AMP CIRCUIT

IC401

Q402 Q401 R420 220K R421 56K R409 470 R411 820K R410

Q401, 402 2SK301 SWITCHING (SUPER BASS)

Q403 DTA114 SWITCHING CONTROL

J905 J903

VR303 100KG (BALANCE)

VR302-1 100KC (TREBLE)

DRIVE CIRCUIT

FL901

D902~910 1SS254TA

D917~921 LN064448PH

Q913~915 2SC1740 FL DRIVE

PHONO S901 TUNER S902 CD S903 TAPE S904 VCR2/TV S905 VCR1 S906 S.BASS S907

D916 MA4056

Z901 330P x 8 Z902 330P x 8

L901 100μ D901 MA165

IC901 M50940-440SP MICRO COMPUTER

SEGMENT OUTPUT DIGIT / KEY OUTPUT LED DRIVE KEY RETURN INPUT

SYNCRO INPUT VOLUME ENCODER INPUT

Q901 Q902 Q903 Q904

Q901, 902 2SC1740 BUFFER AMP

D915 1SS254TA D911 1SS254TA D912 1SS254TA

Q905 Q906 Q907 Q910 Q912 Q914 Q915

D922 (S.BASS) D923 (VCR)

D923 LN064448PH D922 LN01839?PH

MICRO COMPUTER CIRCUIT

Q912 DTC114 SWITCHING (REST)

X901 4MHz

Q903 DTC114 SWITCHING (DECK)

Q904 DTC114 SWITCHING (PL START)

J901 VR901 (VOLUME ENCODER)

C VOLUME CIRCUIT

Q905,906 DTC114 LED DRIVE

Q907 2SA933 SWITCHING (REMOTE)

Q910 2SC1740 SWITCHING (REMOTE)

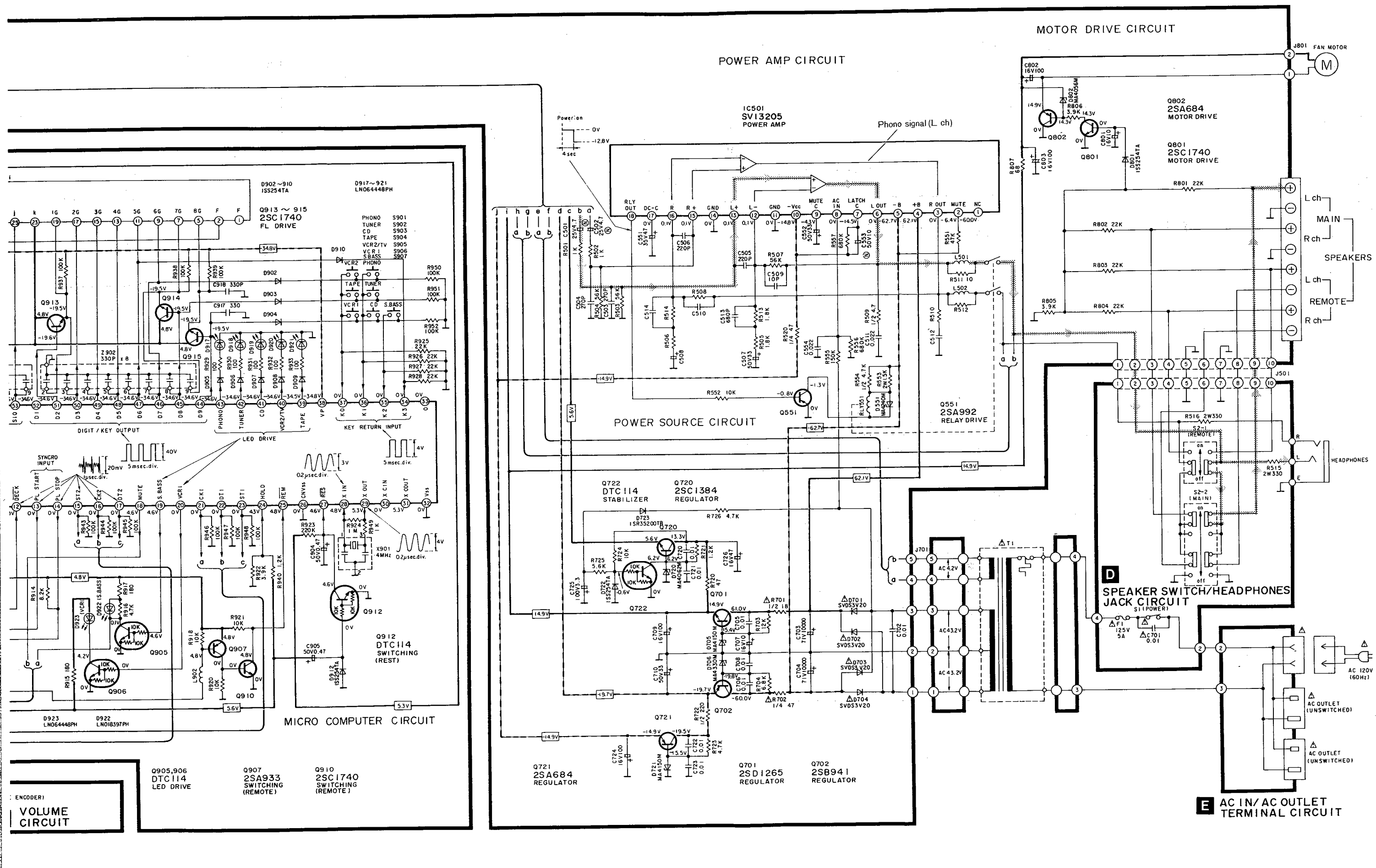
Power on 0V -12.8V 4sec

RLY OUT

Q722 DTC114 STABILIZE

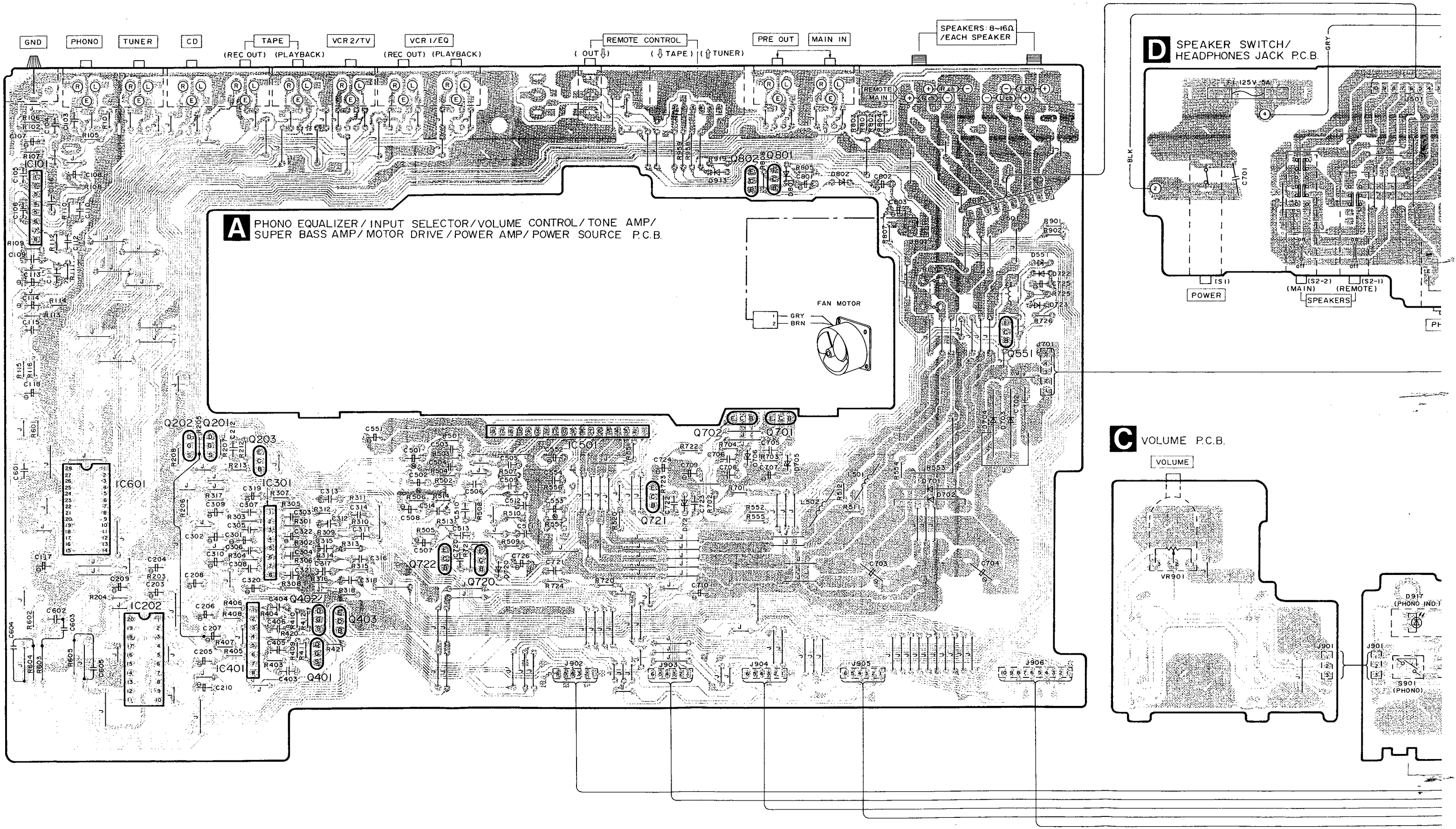
Q721 2SA684 REGULATOR

POWI


POWER AMP CIRCUIT
IC501
SV13205
POWER AMP
Power on
0V
12.8V
4sec
Phono signal (L ch)
RLY OUT
DC-C
R
R+
GND
L+
L-
GND
-Vcc
MUTE C
AC IN
LATCH C
L OUT
-B
+B
R OUT
MUTE
NC
POWER SOURCE CIRCUIT
Q551
2SA992
RELAY DRIVE
MOTOR DRIVE CIRCUIT
J801 FAN MOTOR
Q802
2SA684
MOTOR DRIVE
Q801
2SC1740
MOTOR DRIVE
L ch
MAIN
R ch
SPEAKERS
L ch
REMOTE
R ch
J501
S2-1 (REMOTE)
S2-2 (MAIN)
HEADPHONES
D
SPEAKER SWITCH/HEADPHONES JACK CIRCUIT
S1 (POWER)
AC 120V (60Hz)
AC OUTLET (UNSWITCHED)
AC OUTLET (UNSWITCHED)
E
AC IN/AC OUTLET TERMINAL CIRCUIT
Q722
DTC114
STABILIZER
Q720
2SC1384
REGULATOR
Q701
2SD1265
REGULATOR
Q702
2SB941
REGULATOR
Q721
2SA684
REGULATOR
D902~910
ISS254TA
D917~921
LN064448PH
Q913 ~ 915
2SC1740
FL DRIVE
PHONO S901
TUNER S902
CD S903
TAPE S904
VCR2/TV S905
VCR1 S906
S.BASS S907
DIGIT / KEY OUTPUT
LED DRIVE
KEY RETURN INPUT
SYNCRO INPUT
MICRO COMPUTER CIRCUIT
Q905,906
DTC114
LED DRIVE
Q907
2SA933
SWITCHING
(REMOTE)
Q910
2SC1740
SWITCHING
(REMOTE)
Q912
DTC114
SWITCHING
(REST)
D923
LN064448PH
D922
LN018397PH
VOLUME
CIRCUIT

# ■ CIRCUIT BOARDS AND WIRING CONNECTION DIAGRAM





7 8 9 10 11 12 13 14 15 16 17 18 19 20

REMOTE CONTROL
OUT ⇩ ( ⇩ TAPE ) ( ⇧ TUNER )
PRE OUT
MAIN IN
SPEAKERS: 8~16Ω /EACH SPEAKER
REMOTE
MAIN

/ TONE AMP/
SOURCE P.C.B.

FAN MOTOR
GRY
BRN

**D** SPEAKER SWITCH/
HEADPHONES JACK P.C.B.

BLK
GRY
AC 125 V 5A
POWER
(S1)
(S2-2) (MAIN)
(S2-1) (REMOTE)
SPEAKERS
PHONES

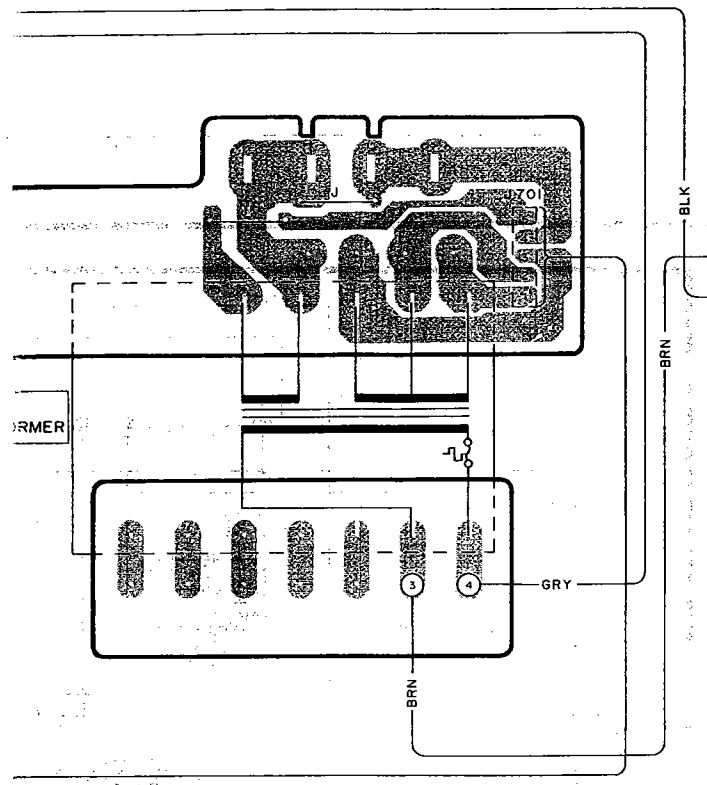
T1
POWER TRANSFORMER
BLK
BRN
GRY

AC IN (120V 60Hz)
AC OUTLET (UNSWITCHED)
BLK

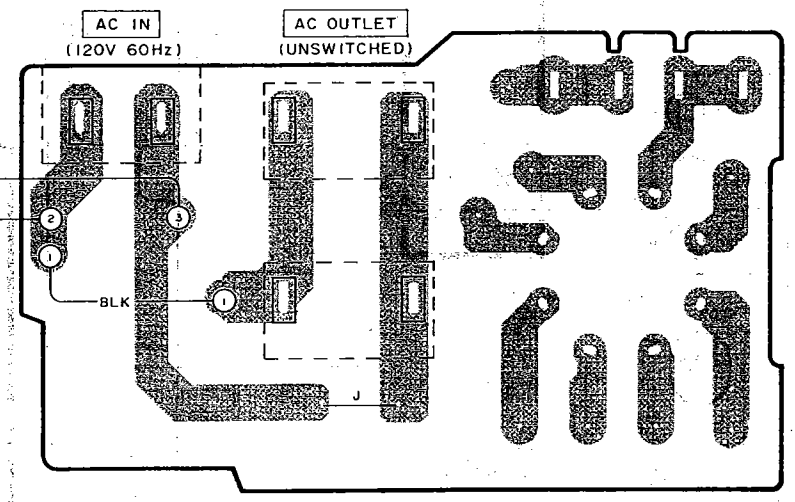
**E** AC IN / AC OUTLET TERMI

**C** VOLUME P.C.B.
VOLUME
VR901

**B** MICRO COMPUTER/ FL DRIVE P.C.B.
S907 (SUPER BASS)
D922 (SUPER BASS IND.)
D917 (PHONO IND.)
D918 (TUNER IND.)
D919 (CD IND.)
D921 (TAPE IND.)
D920 (VCR 2/TV IND.)
D923 (VCR 1 IND.)
S901 (PHONO)
S902 (TUNER)
S903 (CD)
S904 (TAPE)
S905 (VCR 2/TV)
S906 (VCR 1)
INPUT SELECTOR
BALANCE




RO COMPUTER/FL DRIVE P.C.B.




E AC IN / AC OUTLET TERMINAL P.C.B.

**CAUTION:** FOR CONTINUE PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE 5 A 125 V FUSE.

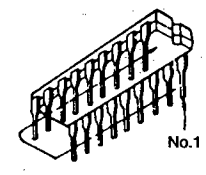
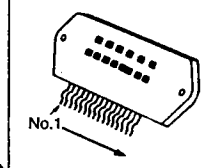
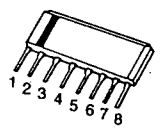
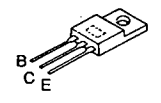
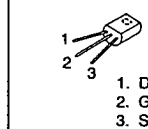
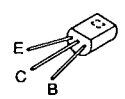
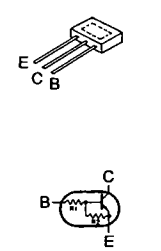
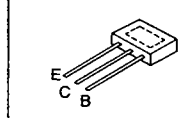
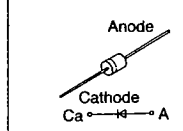
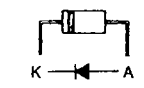
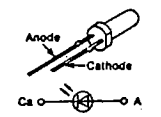
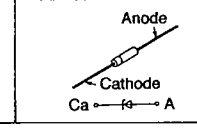
RISK OF FIRE-REPLACE FUSE AS MARKED.

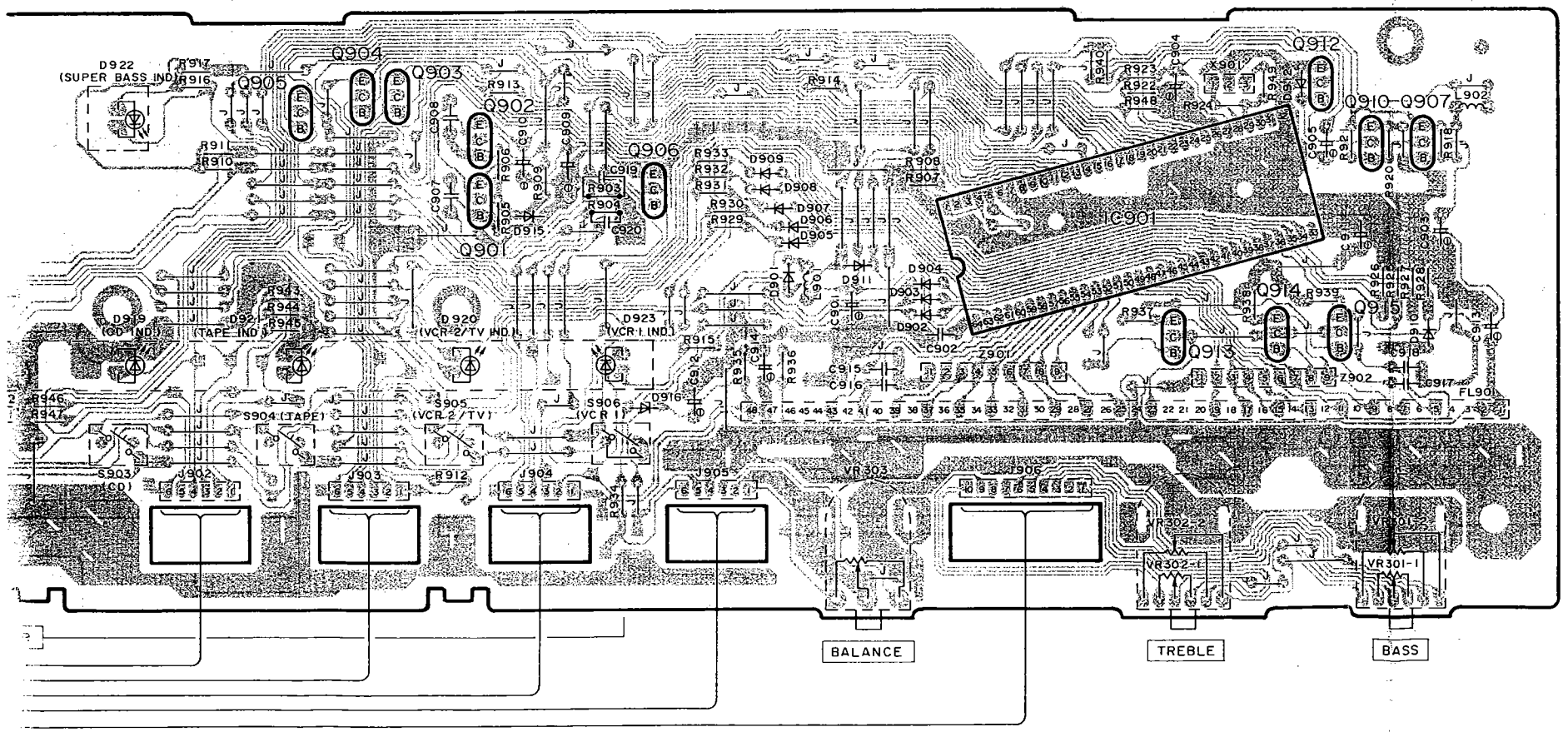
**FUSE CAUTION**

This symbol located near the fuse indicates that the fuse used is fast operating type. For continued protection against fire hazard, replace with same type fuse. For fuse rating, refer to the rating adjacent to the symbol.

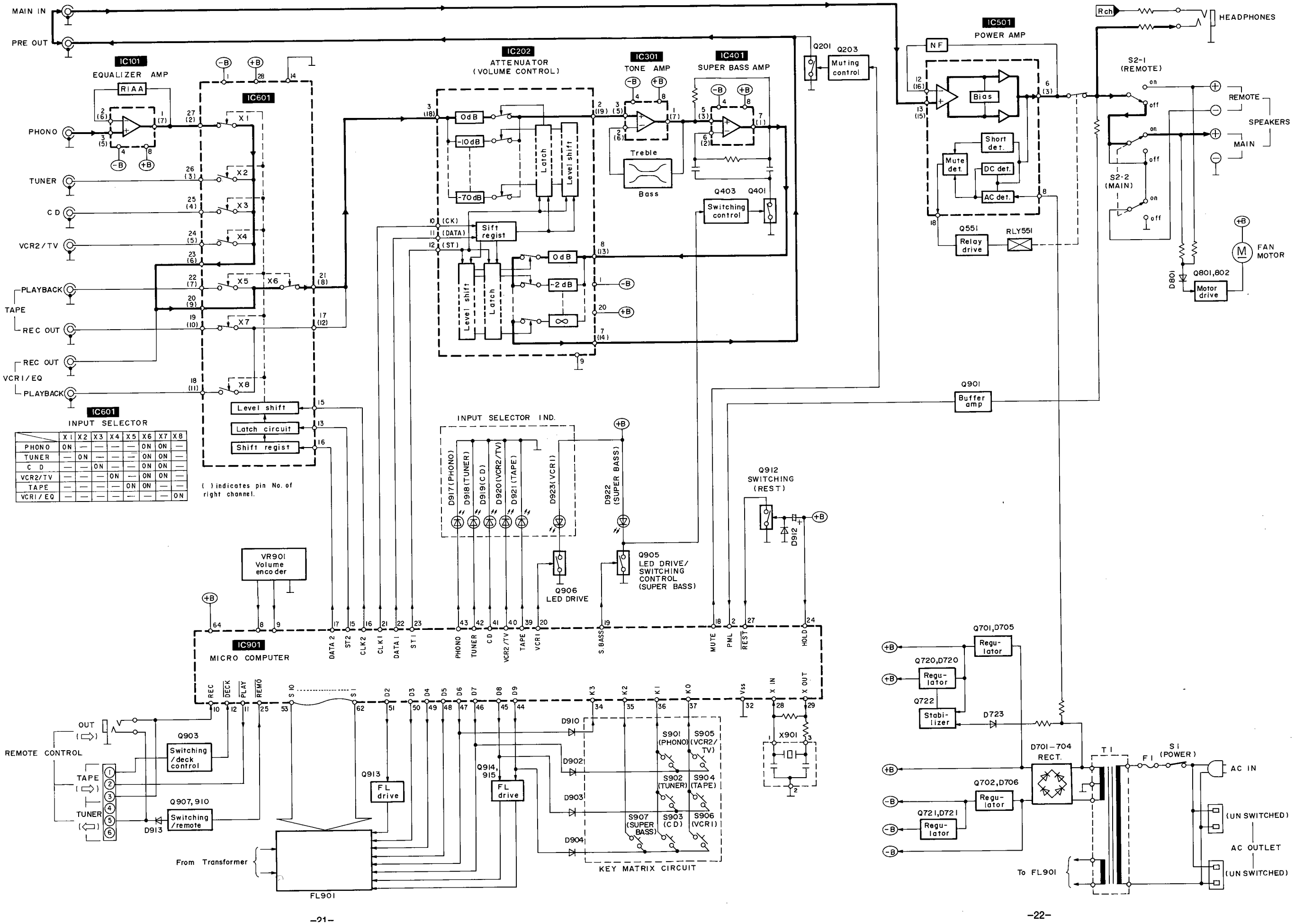
Ce symbol indique que le fusible utilisé est à rapide. Pour une protection permanente, n' utiliser que des fusibles de même type. Ce dernier est indiqué là qù le présent symbol est apposé.

●Terminal guide of transistors, diodes and IC's.

| | | |
|---|---|---|
| TC9212P 20PIN<br>TC9164N 28PIN<br>  | | SV13205 18PIN<br>  |
| AN6557<br>  | 2SD1265<br>2SB941QR<br>  | 2SK301<br>  |
| 2SA684, 2SA992<br>2SC1384<br>  | DTA114ESTP<br>DTC114ESTP<br>  | 2SA933<br>2SC17405Q<br>  |
| | | MA165<br>MA4056<br>  |
| ISR35200<br>SVDS3V40<br>  | LN018397PH<br>LN064448P11<br>  | MA4240H, MA4150M<br>MA4330M, MA4062-M<br>MA4056-M<br>  |



## ■ BLOCK DIAGRAM

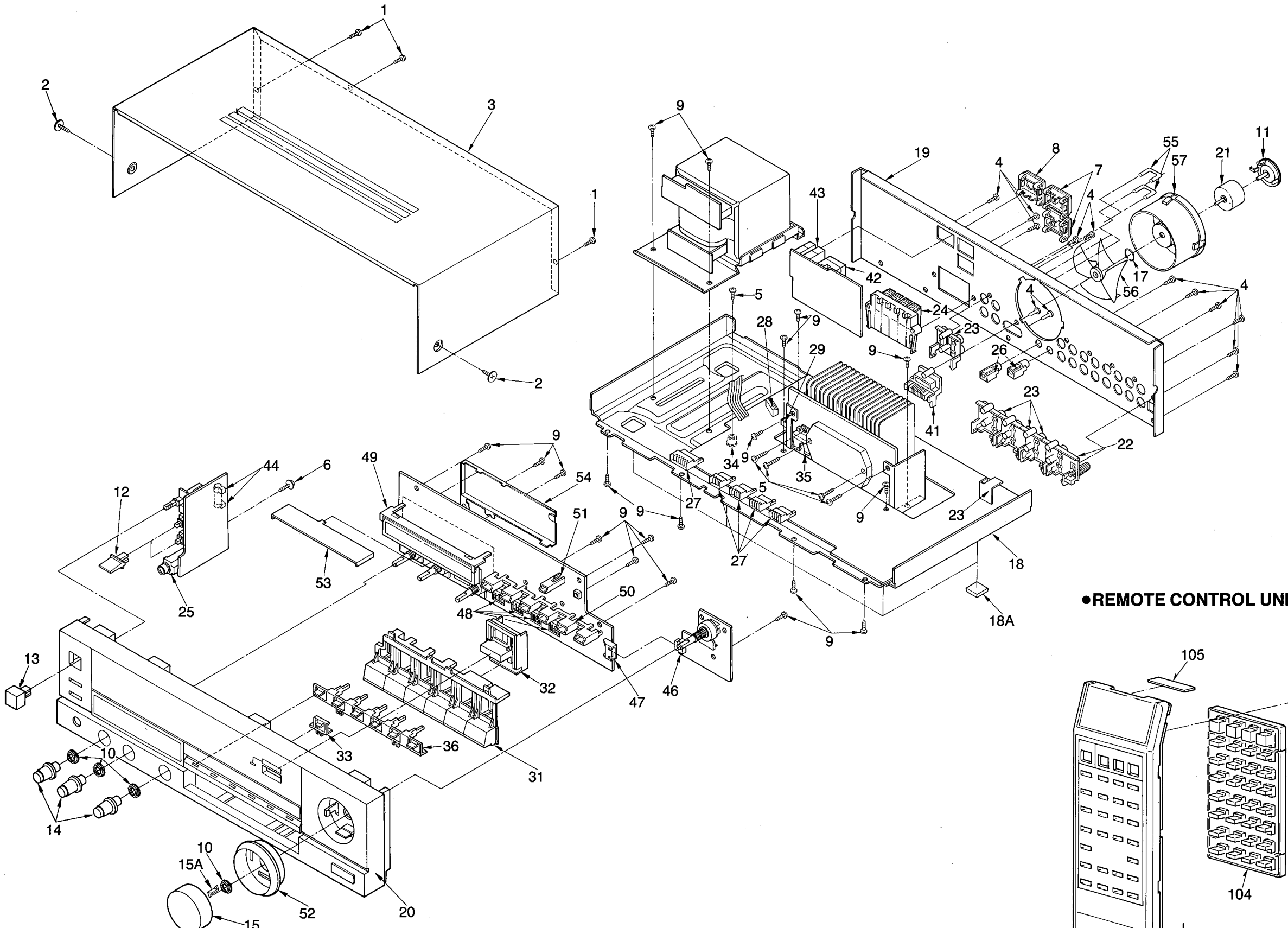



( ) indicates pin No. of right channel.

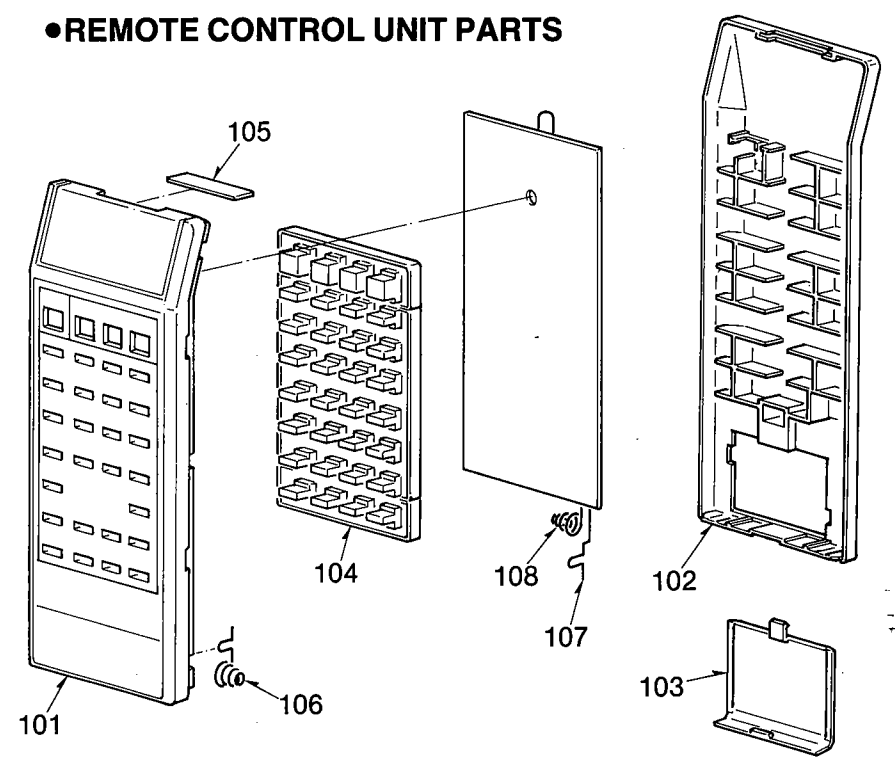
| | X1 | X2 | X3 | X4 | X5 | X6 | X7 | X8 |
|---|---|---|---|---|---|---|---|---|
| PHONO | ON | — | — | — | — | ON | ON | — |
| TUNER | — | ON | — | — | — | ON | ON | — |
| C D | — | — | ON | — | — | ON | ON | — |
| VCR2/TV | — | — | — | ON | — | ON | ON | — |
| TAPE | — | — | — | — | ON | ON | — | — |
| VCR1/EQ | — | — | — | — | — | — | — | ON |

## ■ EXPLODED VIEWS

### •CABINET PARTS




### •REMOTE CONTROL UNIT PARTS



# ■ REPLACEMENT PARTS LIST

**Notes :** * Important safety notice :
Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
* Bracketed indications in Ref. No. columns specify the area. (Refer to the first page for area.)
Parts without these indications can be used for all areas.
* Remote Control Ass'y:
Supply period for three years from termination of production.

## ●CABINET PARTS LIST

| Ref. No. | Part No. | Description |
|---|---|---|
| CABINET AND CHASSIS | | |
| 1 | XTBS3+8JFZ1 | SCREW |
| 2 | SNE2129-1 | SCREW |
| 3 | SKC2200K991 | CABINET |
| 4 | XTBS3+8JFZ1 | SCREW |
| 5 | XTB3+14J | TAPPING SCREW |
| 6 | XTWS3+8T | SCREW |
| 7 | SJS9233A | AC OUTLET COVER |
| 8 | SJS9234A | AC INLET COVER |
| 9 | XTB3+8JFZ | SCREW |
| 10 | SNE4021 | NUT |
| 11 | SHE234 | HOLDER |
| 12 | SBC315-7 | BUTTON |
| 13 | SBC666-1 | BUTTON |
| 14 | SBN1221 | KNOB |
| 15 | SBN1239 | KNOB |
| 15A | SHR9451 | SPACER |
| 17 | SUS271 | SPRING |
| 18 | SKUUV98-KM | BOTTOM BOARD |
| 18A | SKL293 | FOOT |
| 19 | SGP7340A | REAR PANEL |
| 20 | SGYUV98-KM | PANEL |
| 21 | MDN-4RB4MXB | MOTOR |
| 22 | SJF3067N | TERMINAL |
| 23 | SJF3069N | TERMINAL |
| 23 | SMC6379 | SHIELD COVER |
| 24 | SJF5813 | TERMINAL |
| 25 | QJA0455ZC | JACK |
| 26 | SJJ141-1 | JACK |
| 27 | SJS50680WL | CONNECTOR(6P) |
| 27 | SJS51080WL | CONNECTOR(10P) |
| 28 | SJT31043-V | CONNECTOR(10P) |
| 29 | SJT3213 | CONNECTOR(2P) |
| 31 | SBC1027 | BUTTON |
| 32 | SBC1028 | BUTTON |
| 33 | SGLUV98-KM1 | HOLDER |
| 34 | SHE185-1 | SPACER |
| 35 | SUS894 | COIL SPRING |
| 36 | SGLUV98-KM2 | HOLDER |
| 41 | SJS604 | CONNECTOR |
| 42 ⚠ | SJS9233B | AC OUTLET |
| 43 ⚠ | SJS9234B | AC INLET |
| 44 | SJT391 | LUG TERMINAL |
| 46 | SJS50382JQH | CONNECTOR |
| 47 | SJT30345JQ | TERMINAL (3P) |
| 48 | SJT30647WL | CONNECTOR(6P) |
| 48 | SJT31047WL | CONNECTOR(10P) |
| 49 | SHR9861 | FL HOLDER |
| 50 | LN064448PH | DIODE, SI |
| 51 | LN018397PH | LED ASS'Y |
| 52 | SGX7982 | ORNAMENT |
| 53 | SMC1291 | SHIELD COVER |
| 54 | SMC1292 | SHIELD COVER |
| 55 | SJP9205-2Y | SHORTING PIN |
| 56 | SHE232 | FAN |
| 57 | SHE233 | MOTOR CASE |

## ●REMOTE CONTROL UNIT PARTS

| Ref. No. | Part No. | Description |
|---|---|---|
| REMOTE CONTROL ASS'Y | | |
| A3 (M, MC) | EUR64751 | REMOTE CONTROL |
| A3 (MC5, M5) | EUR64752 | REMOTE CONTROL |
| REMOTE CONTROL(EUR64751) | | |
| INTEGRATED CIRCUITS | | |
| IC1 | M50467018FP | INTEGRATED CIRCUIT |
| TRANSISTORS | | |
| Q1 | UN1231 | TRANSISTOR |
| DIODES | | |
| D1 | LN66 | L.E.D |
| D2 | MA154 | DIODE, SI |
| D3 | MA154 | DIODE, SI |
| OSCILLATOR | | |
| X1 | CSB455EB1 | OSCILLATOR |
| RESISTORS | | |
| R1 | ERDS2TJ1R0 | CARBON, 1Ω, 1/4W |
| CAPACITORS | | |
| C1 | ECKD1H101KB | CERAMIC, 100PF, 50V |
| C2 | ECKD1H101KB | CERAMIC, 100PF, 50V |
| C3 | ECEA0GK101 | ELECTROLYTIC, 100μF, 4V |
| MECHANISM PARTS | | |
| 101 | UR64VCS561 | UPPER CASE |
| 102 | UR64CS803A | LOWER CABINET |
| 103 | UR64EC804 | BATTERY COVER |
| 104 | UR64CT805B | RUBBER SWITCH |
| 105 | UR52SB327 | PLATE |
| 106 | UR64TD374 | BATTERY TERMINAL(COMMON) |
| 107 | UR64TD808 | TERMINAL |
| 108 | UR64TD809 | TERMINAL |
| REMOTE CONTROL (EUR64752) | | |
| INTEGRATED CIRCUITS | | |
| IC1 | M50467018FP | INTEGRATED CIRCUIT |
| TRANSISTORS | | |
| Q1 | UN1231 | TRANSISTOR |
| DIODES | | |
| D1 | LN66 | L.E.D |
| D2 | MA154 | DIODE, SI |
| D3 | MA154 | DIODE, SI |
| OSCILLATOR | | |
| X1 | CSB455EB1 | OSCILLATOR |
| RESISTORS | | |
| R1 | ERDS2TJ1R0 | CARBON, 1Ω, 1/4W |
| CAPACITORS | | |
| C1 | ECKD1H101KB | CERAMIC, 100PF, 50V |
| C2 | ECKD1H101KB | CERAMIC, 100PF, 50V |
| C3 | ECEA0GK101 | ELECTROLYTIC, 100μF, 4V |
| MECHANISM PARTS | | |
| 101 | UR64VCS563 | UPPER CASE |
| 102 | UR64CS803A | LOWER CABINET |
| 103 | UR64EC804 | BATTERY COVER |
| 104 | UR64CT805 | RUBBER SWITCH |
| 105 | UR52SB327 | PLATE |
| 106 | UR64TD374 | BATTERY TERMINAL(COMMON) |
| 107 | UR64TD808 | TERMINAL |
| 108 | UR64TD809 | TERMINAL |

## •ELECTRICAL PARTS LIST

| Ref. No. | Part No. | Description |
|---|---|---|
| **INTEGRATED CIRCUITS** | | |
| IC101 | AN6557FLC | I.C. PHONO EQ |
| IC202 | TC9212P | I.C. ATTENUATOR |
| IC301 | AN6557FLC | I.C. TONE AMP |
| IC401 | AN6557FLC | I.C. SUPER AMP |
| IC501 | SVI3205 | I.C. POWER |
| IC601 | TC9164N | I.C. INPUT |
| IC901 | M50940-440SP | I.C. MICRO CON. |
| **TRANSISTORS** | | |
| Q201 | 2SK301 | TRANSISTOR |
| Q202 | 2SK301 | TRANSISTOR |
| Q203 | DTA114ESTP | TRANSISTOR |
| Q401 | 2SK301 | TRANSISTOR |
| Q402 | 2SK301 | TRANSISTOR |
| Q403 | DTA114ESTP | TRANSISTOR |
| Q551 | 2SA992E | TRANSISTOR |
| Q701 | 2SD1265-P | TRANSISTOR |
| Q702 | 2SB941QR | TRANSISTOR |
| Q720 | 2SC1384A-R | TRANSISTOR |
| Q721 | 2SA684-RNC | TRANSISTOR |
| Q722 | DTC114ESTP | TRANSISTOR |
| Q801 | 2SC1740SQ | TRANSISTOR |
| Q802 | 2SA684-RNC | TRANSISTOR |
| Q901 | 2SC1740SQ | TRANSISTOR |
| Q902 | 2SC1740SQ | TRANSISTOR |
| Q903 | DTC114ESTP | TRANSISTOR |
| Q904 | DTC114ESTP | TRANSISTOR |
| Q905 | DTC114ESTP | TRANSISTOR |
| Q906 | DTC114ESTP | TRANSISTOR |
| Q907 | 2SA933SQR | TRANSISTOR |
| Q910 | 2SC1740SQ | TRANSISTOR |
| Q912 | DTC114ESTP | TRANSISTOR |
| Q913 | 2SC1740SQ | TRANSISTOR |
| Q914 | 2SC1740SQ | TRANSISTOR |
| Q915 | 2SC1740SQ | TRANSISTOR |
| **DIODES** | | |
| 45 | SMC6379 | SHIELD COVER |
| 50 | SMC1291 | SHIELD COVER |
| 51 | SMC1292 | SHIELD COVER |
| D551 | MA4240H | DIODE |
| D701 ⚠ | SVDS3V40 | RECTIFIER |
| D702 ⚠ | SVDS3V40 | RECTIFIER |
| D703 ⚠ | SVDS3V40 | RECTIFIER |
| D704 ⚠ | SVDS3V40 | RECTIFIER |
| D705 | MA4150M | DIODE |
| D706 | MA4330M | DIODE |
| D720 | MA4062-M | DIODE |
| D721 | MA4150M | DIODE |
| D722 | MA165 | DIODE |
| D723 ⚠ | SVD1SR35200A | RECTIFIER |
| D801 | MA165 | DIODE |
| D802 | MA4056-M | DIODE |
| D901 | MA165 | DIODE |
| D902 | MA165 | DIODE |

| Ref. No. | Part No. | Description |
|---|---|---|
| D903 | MA165 | DIODE |
| D904 | MA165 | DIODE |
| D905 | MA165 | DIODE |
| D906 | MA165 | DIODE |
| D907 | MA165 | DIODE |
| D908 | MA165 | DIODE |
| D909 | MA165 | DIODE |
| D910 | MA165 | DIODE |
| D911 | MA165 | DIODE |
| D912 | MA165 | DIODE |
| D913 | MA165 | DIODE |
| D915 | MA165 | DIODE |
| D916 | MA4056-M | DIODE |
| D917 | LN064448PH | DIODE, SI |
| D918 | LN064448PH | DIODE, SI |
| D919 | LN064448PH | DIODE, SI |
| D920 | LN064448PH | DIODE, SI |
| D921 | LN064448PH | DIODE, SI |
| D922 | LN018397PH | LED ASS'Y |
| D923 | LN064448PH | DIODE, SI |
| **VARIABLE RESISTORS** | | |
| VR301 | EWC2XA025C15 | V.R. BASS |
| VR302 | EWC2XA025C15 | V.R. TREBLE |
| VR303 | EWHG6AF25G15 | V.R. BALANCE |
| VR901 | EVQWQAF2524B | V.R. ENCODER |
| **COILS AND TRANSFORMERS** | | |
| L501 | SLQY07G-4A | CHOKE COIL |
| L502 | SLQY07G-4A | CHOKE COIL |
| L901 | ELEXH101KA | COIL |
| L902 | ELEXH101KA | COIL |
| PT1 ⚠ | SLT5P284 | POWER TRANSFORMER |
| **COMPONENT COMBINATIONS** | | |
| Z901 | EXFP8331MW | COMBINATION |
| Z902 | EXFP8331MW | COMBINATION |
| **FILTERS** | | |
| FL901 | SADBG543GK | DISPLAY TUBE |
| **FUSES** | | |
| F1 ⚠ | XBA1F50NU14 | FUSE |
| **SWITCHES** | | |
| S1 ⚠ | ESB8249V | SW, POWER |
| S2 | SSH2136 | SW |
| S901 | EVQQTG05R | SWITCH |
| S902 | EVQQTG05R | SWITCH |
| S903 | EVQQTG05R | SWITCH |
| S904 | EVQQTG05R | SWITCH |
| S905 | EVQQTG05R | SWITCH |
| S906 | EVQQTG05R | SWITCH |
| S907 | EVQQTG05R | SWITCH |
| **RELAYS** | | |
| RL551 ⚠ | SSY134 | RELAY |
| **OTHERS** | | |
| X901 | EF0FC4004A4 | COMPONENT COMBINATION |

# ■ RESISTORS & CAPACITORS

**Notes :** * Important safety notice :
Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
* Bracketed indications in Ref. No. columns specify the area. (Refer to the first page for area.)
Parts without these indications can be used for all areas.

**Numbering System of Resistor**

**Example:**

| ERD | 25 | F | J | 102 |
|---|---|---|---|---|
| Type | Wattage (1/4W) | Shape | Tolerance | Value (1KΩ) |
| ERX | 2 | AN | J | 471 |
| Type | Wattage (2W) | Shape | Tolerance | Value (470Ω) |

**Numbering System of Capacitor**

**Example:**

| ECKD | 1H | 102 | Z | F |
|---|---|---|---|---|
| Type | Voltage (50V) | Value (0.001μF) | Tolerance | Peculiarity |
| ECEA | 50 | M | 330 | |
| Type | Voltage (50V) | Pecliarity | Value (33μF) | |

- Capacity are in microfarads (μF) unless specified otherwise, P = Pico-farads (pF) F = Farads (F).
- Resistance are in ohms (Ω), unless specified otherwise, 1K = 1,000Ω, 1M = 1,000kΩ

| Resistor Type | | Wattage | | Tolerance |
|---|---|---|---|---|
| ERD | : Carbon | 10 : 1/8W | 12 : 1/2W | J : ±5% |
| ERG | : Metal Oxide | 14 : 1/4W | 25 : 1/4W | F : ±1% |
| ERQ | : Fuse Type Metal | 1A : 1W | 18 : 1/8W | G : ±2% |
| ERX | : Metal Film | S2 : 1/4W | S1 : 1/2W | J : ±5% |
| ERD L | : Carbon (chip) | 2F : 1/4W | 50 : 1/2W | K : ±10% |
| ERO K | : Metal Film (chip) | 2A : 2W | 3A : 3W | M : ±20% |
| ERC | : Solid | 6G : 1/10W | 8G : 1/8W | |
| ERF | : Incombustible Box-Shaped | | | |
| ERM | : Wire-Wound | | | |
| RRJ | : Cip Resistor | | | |
| ERJ | : Cip Resistor | | | |

| Capacitor Type | | Voltage | | Tolerance |
|---|---|---|---|---|
| ECE | : Electrolytic | 0J : 6.3V | 1A : 10V | K : ±10% |
| ECCD | : Ceramic | 1C : 16V | 1E : 25V | M : ±20% |
| ECKD | : Ceramic Capacitor | 1H : 50V | 1V : 35V | Z : +80 −20 % |
| ECQM | : Poyester | 50 : 50V | 05 : 50V | J : ±5% |
| ECQP | : Polypropylene | 2H : 500V | 2A : 100V | G : ±2% |
| ECG | : Ceramic | 1 : 100V | 1J : 63V | F : ±1% |
| ECEA N | : Non Polar Electrolytic | KC : 400V AC | | C : ±0.25pF |
| QCU | : Ceramic (Chip Type) | KC : 125V AC (UL) | | D : ±0.5pF |
| ECUX | : Ceramic (Chip Type) | | | |
| ECF | : Semiconductor | | | |
| EECW | : Liquid electrolyte double layer capacitor | | | |

| Ref. No. | Part No. | Value. | Ref. No. | Part No. | Value. | Ref. No. | Part No. | Value. |
|---|---|---|---|---|---|---|---|---|
| RESISTORS(VALUE,WATTAGE) | | | R403 | ERDS2TJ563 | 56K 1/4 | R720 | ERDS2TJ470 | 47 1/4 |
| R101 | ERDS2TJ391 | 390 1/4 | R404 | ERDS2TJ563 | 56K 1/4 | R721 | ERDS2TJ122 | 1.2K 1/4 |
| R102 | ERDS2TJ391 | 390 1/4 | R405 | ERDS2TJ102 | 1K 1/4 | R722 | ERDS1FJ221 | 220 1/2 |
| R105 | ERDS2TJ473 | 47K 1/4 | R406 | ERDS2TJ102 | 1K 1/4 | R723 | ERDS2TJ472 | 4.7K 1/4 |
| R106 | ERDS2TJ473 | 47K 1/4 | R407 | ERDS2TJ471 | 470 1/4 | R724 | ERDS2TJ103 | 10K 1/4 |
| R107 | ERDS2TJ271 | 270 1/4 | R408 | ERDS2TJ471 | 470 1/4 | R725 | ERDS2TJ562 | 5.6K 1/4 |
| R108 | ERDS2TJ271 | 270 1/4 | R409 | ERDS2TJ682 | 6.8K 1/4 | R726 | ERDS2TJ472 | 4.7K 1/4 |
| R109 | ERDS2TJ123 | 12K 1/4 | R410 | ERDS2TJ682 | 6.8K 1/4 | R801 | ERDS2TJ223 | 22K 1/4 |
| R110 | ERDS2TJ123 | 12K 1/4 | R411 | ERDS2TJ824 | 820K 1/4 | R802 | ERDS2TJ223 | 22K 1/4 |
| R111 | ERDS2TJ184 | 180K 1/4 | R412 | ERDS2TJ824 | 820K 1/4 | R803 | ERDS2TJ223 | 22K 1/4 |
| R112 | ERDS2TJ184 | 180K 1/4 | R420 | ERDS2TJ224 | 220K 1/4 | R804 | ERDS2TJ223 | 22K 1/4 |
| R113 | ERDS2TJ184 | 180K 1/4 | R421 | ERDS2TJ563 | 56K 1/4 | R805 | ERDS2TJ392 | 3.9K 1/4 |
| R114 | ERDS2TJ184 | 180K 1/4 | R501 | ERDS2TJ102 | 1K 1/4 | R806 | ERDS2TJ392 | 3.9K 1/4 |
| R115 | ERDS2TJ391 | 390 1/4 | R502 | ERDS2TJ102 | 1K 1/4 | R807 | ERDS2TJ680 | 68 1/4 |
| R116 | ERDS2TJ391 | 390 1/4 | R503 | ERDS2TJ563 | 56K 1/4 | R901 | ERDS2TJ104 | 100K 1/4 |
| R203 | ERDS2TJ222 | 2.2K 1/4 | R504 | ERDS2TJ563 | 56K 1/4 | R902 | ERDS2TJ104 | 100K 1/4 |
| R204 | ERDS2TJ222 | 2.2K 1/4 | R505 | ERDS2TJ182 | 1.8K 1/4 | R903 | ERDS2TJ273 | 27K 1/4 |
| R205 | ERDS2TJ222 | 2.2K 1/4 | R506 | ERDS2TJ182 | 1.8K 1/4 | R904 | ERDS2TJ273 | 27K 1/4 |
| R206 | ERDS2TJ222 | 2.2K 1/4 | R507 | ERDS2TJ563 | 56K 1/4 | R905 | ERDS2TJ104 | 100K 1/4 |
| R207 | ERDS2TJ224 | 220K 1/4 | R508 | ERDS2TJ563 | 56K 1/4 | R906 | ERDS2TJ104 | 100K 1/4 |
| R208 | ERDS2TJ224 | 220K 1/4 | R509 | ERDS1FJ4R7 | 4.7 1/2 | R907 | ERDS2TJ104 | 100K 1/4 |
| R212 | ERDS2TJ563 | 56K 1/4 | R510 | ERDS1FJ4R7 | 4.7 1/2 | R908 | ERDS2TJ104 | 100K 1/4 |
| R213 | ERDS2TJ683 | 68K 1/4 | R511 | ERDS2TJ100 | 10 1/4 | R909 | ERDS2TJ104 | 100K 1/4 |
| R301 | ERDS2TJ474 | 470K 1/4 | R512 | ERDS2TJ100 | 10 1/4 | R910 | ERDS2TJ153 | 15K 1/4 |
| R302 | ERDS2TJ474 | 470K 1/4 | R513 | ERDS2TJ182 | 1.8K 1/4 | R911 | ERDS2TJ153 | 15K 1/4 |
| R303 | ERDS2TJ474 | 470K 1/4 | R514 | ERDS2TJ182 | 1.8K 1/4 | R912 | ERDS2TJ224 | 220K 1/4 |
| R304 | ERDS2TJ474 | 470K 1/4 | R515 | ERG2ANJ331 | 330 2 | R913 | ERDS2TJ822 | 8.2K 1/4 |
| R305 | ERDS2TJ392 | 3.9K 1/4 | R516 | ERG2ANJ331 | 330 2 | R914 | ERDS2TJ822 | 8.2K 1/4 |
| R306 | ERDS2TJ392 | 3.9K 1/4 | R520 | ERD25FJ470 | 47 1/4 | R915 | ERDS2TJ181 | 180 1/4 |
| R307 | ERDS2TJ392 | 3.9K 1/4 | R551 | ERDS2TJ473 | 47K 1/4 | R916 | ERDS2TJ472 | 4.7K 1/4 |
| R308 | ERDS2TJ392 | 3.9K 1/4 | R552 | ERDS2TJ103 | 10K 1/4 | R917 | ERDS2TJ181 | 180 1/4 |
| R309 | ERDS2TJ183 | 18K 1/4 | R553 | ERG2ANJ152 | 1.5K 2 | R918 | ERDS2TJ103 | 10K 1/4 |
| R310 | ERDS2TJ183 | 18K 1/4 | R554 ⚠ | ERDS1FJ472 | 4.7K 1/2 | R919 | ERDS2TJ103 | 10K 1/4 |
| R311 | ERDS2TJ332 | 3.3K 1/4 | R555 | ERDS2TJ154 | 150K 1/4 | R920 | ERDS2TJ103 | 10K 1/4 |
| R312 | ERDS2TJ332 | 3.3K 1/4 | R556 | ERDS2TJ684 | 680K 1/4 | R921 | ERDS2TJ103 | 10K 1/4 |
| R313 | ERDS2TJ122 | 1.2K 1/4 | R557 | ERDS2TJ684 | 680K 1/4 | R922 | ERDS2TJ392 | 3.9K 1/4 |
| R314 | ERDS2TJ122 | 1.2K 1/4 | R601 | ERDS2TJ152 | 1.5K 1/4 | R923 | ERDS2TJ224 | 220K 1/4 |
| R315 | ERDS2TJ821 | 820 1/4 | R602 | ERDS2TJ152 | 1.5K 1/4 | R924 | ERDS2TJ105 | 1M 1/4 |
| R316 | ERDS2TJ821 | 820 1/4 | R701 | ERDS1FJ180 | 18 1/2 | R925 | ERDS2TJ223 | 22K 1/4 |
| R317 | ERDS2TJ223 | 22K 1/4 | R702 | ERD25FJ470 | 47 1/4 | R926 | ERDS2TJ223 | 22K 1/4 |
| R318 | ERDS2TJ223 | 22K 1/4 | R703 | ERDS2TJ123 | 12K 1/4 | R927 | ERDS2TJ223 | 22K 1/4 |
| | | | R704 | ERDS2TJ682 | 6.8K 1/4 | R928 | ERDS2TJ223 | 22K 1/4 |

| Ref. No. | Part No. | Value. |
|---|---|---|
| R929 | ERDS2TJ101 | 100 1/4 |
| R930 | ERDS2TJ101 | 100 1/4 |
| R931 | ERDS2TJ101 | 100 1/4 |
| R932 | ERDS2TJ101 | 100 1/4 |
| R933 | ERDS2TJ101 | 100 1/4 |
| R934 | ERDS2TJ330 | 33 1/4 |
| R935 | ERDS2TJ101 | 100 1/4 |
| R936 | ERDS2TJ101 | 100 1/4 |
| R937 | ERDS2TJ104 | 100K 1/4 |
| R938 | ERDS2TJ104 | 100K 1/4 |
| R939 | ERDS2TJ104 | 100K 1/4 |
| R940 | ERDS2TJ122 | 1.2K 1/4 |
| R943 | ERDS2TJ104 | 100K 1/4 |
| R944 | ERDS2TJ104 | 100K 1/4 |
| R945 | ERDS2TJ104 | 100K 1/4 |
| R946 | ERDS2TJ104 | 100K 1/4 |
| R947 | ERDS2TJ104 | 100K 1/4 |
| R948 | ERDS2TJ104 | 100K 1/4 |
| R949 | ERDS2TJ102 | 1K 1/4 |
| R950 | ERDS2TJ104 | 100K 1/4 |
| R951 | ERDS2TJ104 | 100K 1/4 |
| R952 | ERDS2TJ104 | 100K 1/4 |
| CAPACITORS(VALUE,VOLTAGE) | | |
| C103 | RCBC1H101KBY | 100P 50 |
| C104 | RCBC1H101KBY | 100P 50 |
| C105 | ECKD1H102KB | 0.001 50 |
| C106 | ECKD1H102KB | 0.001 50 |
| C107 | ECEA0JK220 | 22 6.3 |
| C108 | ECEA0JK220 | 22 6.3 |
| C109 | ECFTD682KXL | 0.0068 25 |
| C110 | ECFTD682KXL | 0.0068 25 |
| C111 | ECFTD223KXL | 0.022 25 |
| C112 | ECFTD223KXL | 0.022 25 |
| C113 | ECEA1HK010 | 1 50 |
| C114 | ECEA1HK010 | 1 50 |
| C115 | ECKD1H103PF | 0.01 50 |
| C116 | ECKD1H103PF | 0.01 50 |
| C117 | ECEA1CKS100 | 10 16 |
| C118 | ECEA1CKS100 | 10 16 |
| C203 | ECEA1EK3R3B | 3.3 25 |
| C204 | ECEA1EK3R3B | 3.3 25 |
| C205 | ECEA1CKS100 | 10 16 |
| C206 | ECEA1CKS100 | 10 16 |

| Ref. No. | Part No. | Value. |
|---|---|---|
| C207 | ECEA1EK3R3B | 3.3 25 |
| C208 | ECEA1EK3R3B | 3.3 25 |
| C209 | ECEA1CKS100 | 10 16 |
| C210 | ECEA1CKS100 | 10 16 |
| C212 | ECFTD223KXL | 0.022 25 |
| C301 | ECEA1EK3R3B | 3.3 25 |
| C302 | ECEA1EK3R3B | 3.3 25 |
| C303 | RCBC1H150JLY | 15P 50 |
| C304 | RCBC1H150JLY | 15P 50 |
| C305 | RCBS1H221KBY | 220P 50 |
| C306 | RCBS1H221KBY | 220P 50 |
| C307 | RCBS1H330JLY | 33P 50 |
| C308 | RCBS1H330JLY | 33P 50 |
| C309 | ECEA1CKS100 | 10 16 |
| C310 | ECEA1CKS100 | 10 16 |
| C311 | ECFTD123KXL | 0.012 25 |
| C312 | ECFTD123KXL | 0.012 25 |
| C313 | ECFTD683KXL | 0.068 25 |
| C314 | ECFTD683KXL | 0.068 25 |
| C315 | ECFTD562KXL | 0.0056 25 |
| C316 | ECFTD562KXL | 0.0056 25 |
| C317 | ECFTD273KXL | 0.027 25 |
| C318 | ECFTD273KXL | 0.027 25 |
| C319 | ECEA1CKS100 | 10 16 |
| C320 | ECEA1CKS100 | 10 16 |
| C321 | ECKD1H103PF | 0.01 50 |
| C322 | ECEA1CKS100 | 10 16 |
| C403 | ECFTD104KXL | 0.1 25 |
| C404 | ECFTD104KXL | 0.1 25 |
| C405 | ECFTD104KXL | 0.1 25 |
| C406 | ECFTD104KXL | 0.1 25 |
| C501 | ECEA1EN4R7S | 4.7 25 |
| C502 | ECEA1EN4R7S | 4.7 25 |
| C503 | ECCD1H271K | 270P 50 |
| C504 | ECCD1H271K | 270P 50 |
| C505 | ECKD1H221KB | 220P 50 |
| C506 | ECKD1H221KB | 220P 50 |
| C507 | ECEA1HU330 | 33 50 |
| C508 | ECEA1HU330 | 33 50 |
| C509 | ECCD1H100KC | 10P 50 |
| C510 | ECCD1H100KC | 10P 50 |
| C511 | ECFTD223KXL | 0.022 25 |
| C512 | ECFTD223KXL | 0.022 25 |
| C513 | ECKD1H681KB | 680P 50 |

| Ref. No. | Part No. | Value. |
|---|---|---|
| C514 | ECKD1H681KB | 680P 50 |
| C551 | ECEA1VU470 | 47 35 |
| C552 | ECEA1HU330 | 33 50 |
| C553 | ECEA1HN100S | 10 50 |
| C554 | ECKD1H223PF | 0.022 50 |
| C601 | ECKD1H103PF | 0.01 50 |
| C602 | ECKD1H103PF | 0.01 50 |
| C701 ⚠ | ECKWNS103ZV | 0.01 |
| C702 ⚠ | ECKD2H103PE | 0.01 500 |
| C703 ⚠ | ECES71V103VN | 10000 71 |
| C704 ⚠ | ECES71V103VN | 10000 71 |
| C705 | ECKD1H103PF | 0.01 50 |
| C706 | ECKD1H103PF | 0.01 50 |
| C707 | ECEA1CKS100 | 10 16 |
| C708 | ECKD1H103PF | 0.01 50 |
| C709 | ECEA1CU101 | 100 16 |
| C710 | ECEA1HU330 | 33 50 |
| C720 | ECKD1H103PF | 0.01 50 |
| C721 | ECKD1H103PF | 0.01 50 |
| C722 | ECKD1H103PF | 0.01 50 |
| C723 | ECKD1H103PF | 0.01 50 |
| C724 | ECEA1CU101 | 100 16 |
| C725 | ECEA2AU3R3 | 3.3 100 |
| C726 | ECEA1CU470 | 47 16 |
| C801 | ECEA1CKS100 | 10 16 |
| C802 | ECEA1CU101 | 100 16 |
| C803 | ECEA1CU101 | 100 16 |
| C901 | ECEA0JS102 | 1000 6.3 |
| C902 | ECKD1H103PF | 0.01 50 |
| C903 ⚠ | ECEA0JU471 | 470 6.3 |
| C904 | ECEA1HKR47 | 0.47 50 |
| C905 | ECEA1HKR47 | 0.47 50 |
| C907 | ECFTD563KXL | 0.056 25 |
| C908 | ECFTD563KXL | 0.056 25 |
| C909 | ECEA1HK2R2B | 2.2 50 |
| C910 | ECEA1HK2R2B | 2.2 50 |
| C911 | ECEA1VU330 | 33 35 |
| C912 | ECEA1VU330 | 33 35 |
| C913 | ECEA1HK4R7 | 4.7 50 |
| C914 | ECEA1HK4R7 | 4.7 50 |
| C915 | RCBS1H331KBY | 330P 50 |
| C916 | RCBS1H331KBY | 330P 50 |
| C917 | RCBS1H331KBY | 330P 50 |
| C918 | RCBS1H331KBY | 330P 50 |
| C919 | RCBS1H272MXY | 0.0027 50 |
| C920 | RCBS1H272MXY | 0.0027 50 |

## ●PACKING PARTS LIST

| Ref. No. | Part No. | Description |
|---|---|---|
| PACKING MATERIAL | | |
| P1 | SPG6221 | PAD |
| P2 | SPS5126 | PAD |
| P3 | SPS5130 | PAD |
| (M, MC, MC5) | | |
| (M5) | | |
| P4 | SPP723 | PROTECTION COVER |
| P5 | SPS5127 | PAD |
| ACCESSORIES | | |
| A1 | SQF13227 | INSTRUCTION MANUAL |
| (M) | | |
| A1 | SQF13228 | INSTRUCTION MANUAL |

| Ref. No. | Part No. | Description |
|---|---|---|
| (MC) | | |
| A1 | SQF13229 | INSTRUCTION BOOK |
| (M5) | | |
| A1 | SQF13230 | INSTRUCTION BOOK |
| (MC5) | | |
| A2 ⚠ | SJA172 | POWER CORD |
| (MC) | | |
| A2 ⚠ | SJA172-1 | POWER CORD |
| (M) | | |
| A3 | SWKUV98KM1 | WIRING MATERIAL |
| A4 | SJP2257T | REMOTE CONTROL CORD |
| A5 | UM-4NEP | BATTERY |
| A6 | SPB1155 | HEADHONES |
| (MC) | | |



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