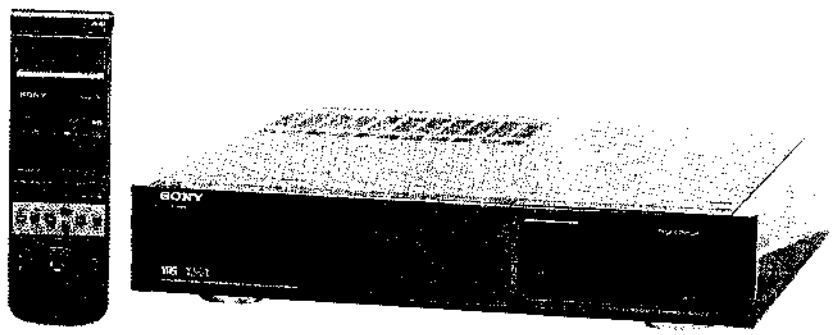
SLV-715/UB/VP
RMT-V5D

SERVICE MANUAL

AEP Model
SLV-715
UK Model
SLV-715UB
Germany Model
SLV-715VP



This photo is SLV-715.

VHS Hi-Fi

SPECIFICATIONS

System

Format	VHS PAL standard
Video recording system	Rotary two-head helical scanning FM system
Video signal	PAL colour (System B and G: SLV-715/715VP System I: SLV-715UB) SECAM B/G colour (SLV-715VP) CCIR monochrome signals 625 lines
Tape speed	SP: 23.39 mm/sec. LP: 11.70 mm/sec.
Maximum recording/playback time	
	SP: 4 hours (with E-240)
	LP: 8 hours (with E-240)
Fast-froward/rewind time	Approx. 4 min. 20 sec. (with E-195)
High speed rewind time	Approx. 2 min. 50 sec. (with E-195)

Tuner Section

Tuner system (audio)	Intercarrier system
Channel coverage	SLV-715/715VP VHF channels E2 – E12 (channels A to H for Italy) CATV channels S01 – S05 CATV channels S1 – S20 HYPER S21 – S41 UHF channels E21 – E69 SLV-715UB UHF channels B21 – B68
RF output signal	SLV-715/715VP UHF channels E30 – E39 (adjustable) SLV-715UB UHF channels B30 – B39 (adjustable)
Aerial input	75-ohms asymmetrical aerial socket

Inputs and Outputs

Video inputs	LINE IN 2: phono jack (1) EURO-AV (LINE 1) and (LINE 3): 21-pin (pin 20) 1 Vp-p, 75 ohms, unbalanced, sync negative
Audio inputs	LINE IN 2: phono jacks (2) 47 kilohms, –7.5 dBs (0 dBs = 0.775 V rms) EURO-AV (LINE 1) and (LINE 3): 21-pin (pins 2 and 6) More than 10 kilohms, –4 dBs
Video outputs	LINE OUT: phono jack (1) EURO-AV (LINE 1): 21-pin (pin 19) 1 Vp-p, 75 ohms, unbalanced, sync negative
Audio outputs	LINE OUT: phono jacks (2) –7.5 dBs at load impedance: 47 kilohms Output impedance: less than 10 kilohms EURO-AV (LINE 1): 21-pin (pins 1 and 3) Output impedance: less than 1 kilohm –4 dBs with 10 kilohm load

– Continued on next page –

MICROFILM

VHS VIDEO CASSETTE RECORDER

SONY®

CONTROL S IN	Minijack (1)
CONTROL S OUT	Minijack (1)
CONTROL L	5-pin DIN (1)
Microphone input	Minijack (1) Input impedance: –60dBs for low impedance microphone
Headphone input	Stereo minijack (1) Impedance more than 8 ohms Output 45mW (8 ohms)

Timer Section

Clock	Quartz locked
Time indication	24-hour cycle
Timer setting	Only for recording 8 programmes in one month at max.
Timer back-up	Built-in self-charging capacitor Back-up duration: Up to 3 hours at one time

General

Power requirements	240 V AC, 50 Hz (SLV-715UB) 220 V AC, 50 Hz (SLV-715/715VP)
Power consumption	38 W
Operating temperature	5°C to 40°C (41°F to 104°F)
Storage temperature	–20°C to 60°C (–4°F to 140°F)
Dimensions	430 × 96.5 × 395 mm (w/h/d) (17 × 3⅞ × 15⅝ inches)
Weight	SLV-715/715VP: 7.2 kg (15 lb 14 oz) SLV-715UB: 7.4 kg (16 lb 5 oz)

Wireless Commander RMT-V5D

Remote control system	Infrared control
Command mode	VTR 1/2/3
Power requirements	3 V DC, two IEC designation R6 batteries
Dimensions	75 × 45 × 235.5 mm (w/h/d) (3 × 1 13/16 × 9⅜ inches)
Weight	Approx. 240g (8½ oz) excluding batteries

Accessories Supplied

Wireless Remote Commander RMT-V5D with two R6 batteries
75-ohm coaxial cable (1)
Video/audio connecting cable (1)
Screwdriver for RF channel adjustment (1)

Design and specifications are subject to change without notice.

Note
This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splasher and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SERVICE NOTE

1. RETURNING PINCH ROLLER, GUIDE ROLLER AND ELEVATOR CAM TO STOP CONDITION

1) Remove the bottom panel.
2) Turn the worm gear Ⓐ of the cam motor, located at lower of the MD (between the front panel and the MD-49 board), to the arrow direction Ⓑ by finger.

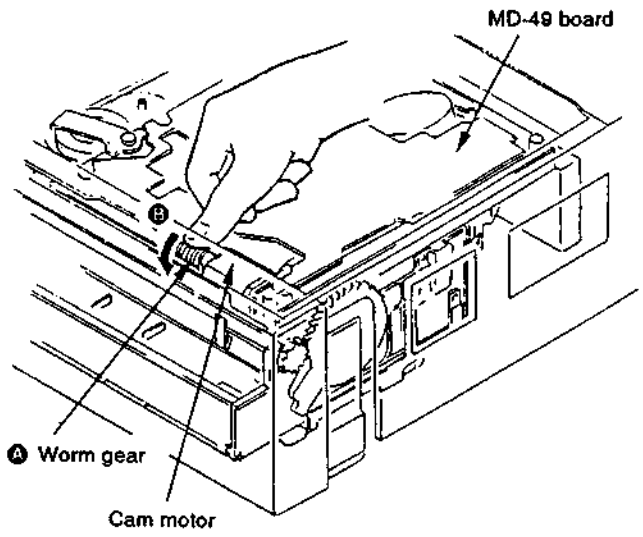


Fig. 1.

2. WINDING TAPE TO CASSETTE HALF

Turn the fly wheel Ⓐ of the capstan motor to the arrow direction Ⓑ by finger, then the cassette tape will be wound to the cassette half.

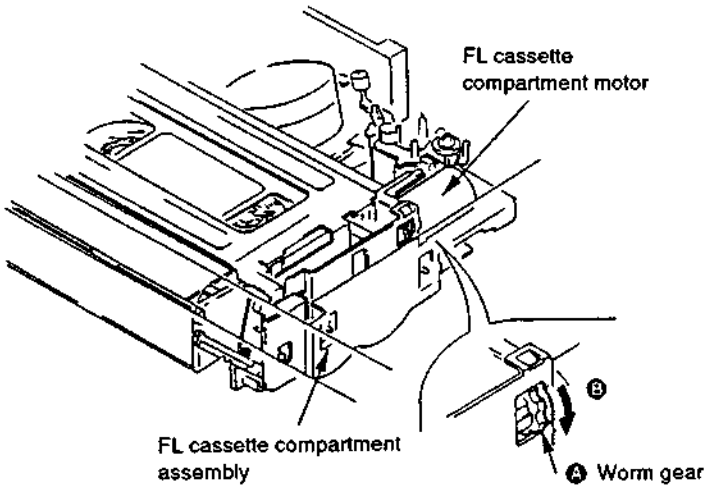


Fig. 2.

3. TAKING OUT CASSETTE WHEN UNIT IS DEFECTIVE WITH CASSETTE IN

1) Remove the upper case.
2) Turn the worm gear Ⓐ of the FL cassette compartment motor to the arrow direction Ⓑ by finger.

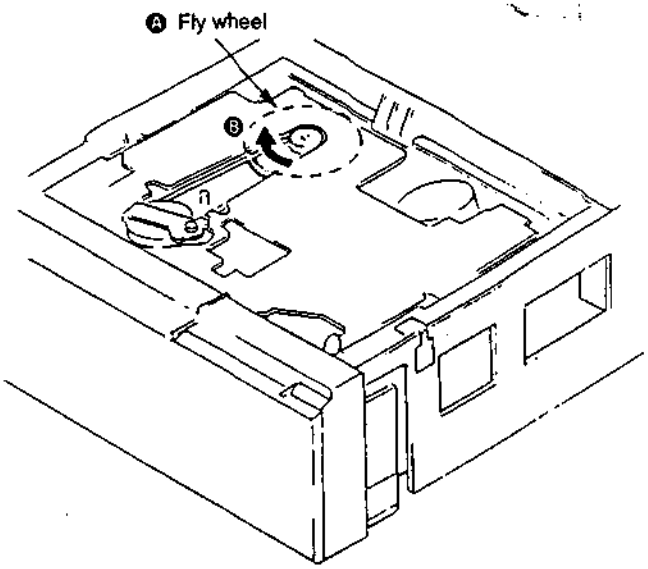


Fig. 3.

Note: When performing 1. to 3., be careful not to clog and damage the cassette tape.

4. UPPER DRUM REPLACEMENT

4-1. Removal of Upper Drum

1) Remove the screw ❶ (P3×5) and take out the grounding shaft ❷. (See Fig. 4.)
2) Completely remove the rotary upper drum board and desolder the soldering indicated by the arrows (16 points).
3) Remove two screws ❸ (PSW3×8) and take out the rotary upper drum in the arrow direction Ⓐ. (See Fig. 5.)
   If it is difficult, remove by shaking the rotary upper drum gradually.

Note: If the drum can not be removed, check whether the solders have been removed or not again.

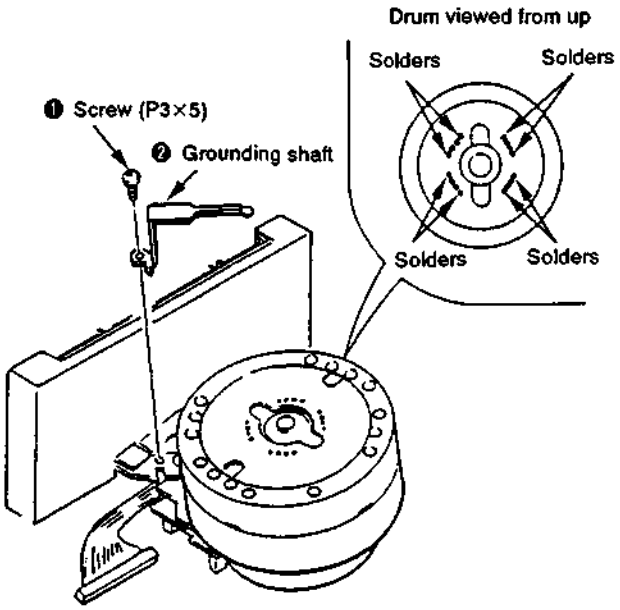


Fig. 4.

4-2. Mounting Upper Drum

1) When inserting the rotary drum into the lower drum, be careful not to blur the contacting surface with fingerprint or the like.
2) Mount the rotary upper drum board by aligning SP1 with S1 of rotary transformer board (lower drum) so that the screw holes of both upper and lower drums match. (See Fig. 5.)
3) If it is difficult, mount the upper drum by shaking it gradually.
   Note: Be careful not to damage the head. Make sure that the upper drum is tightly inserted.
4) Tighten two screws ❸ (PSW3×8). (See Fig. 5.)
   Note: Temporary tighten two screws. After making sure that upper drum is tightly inserted, tighten the screws.
5) Solder 16 points on the board of the rotary upper drum.
6) Fix the grounding shaft ❷ using the screw ❶ (P3×5) so that the protrusion of grounding shaft end contacts the center of the drum shaft.
   Note: When attaching the grounding shaft ❷, be careful not to apply force to the spring section of it.

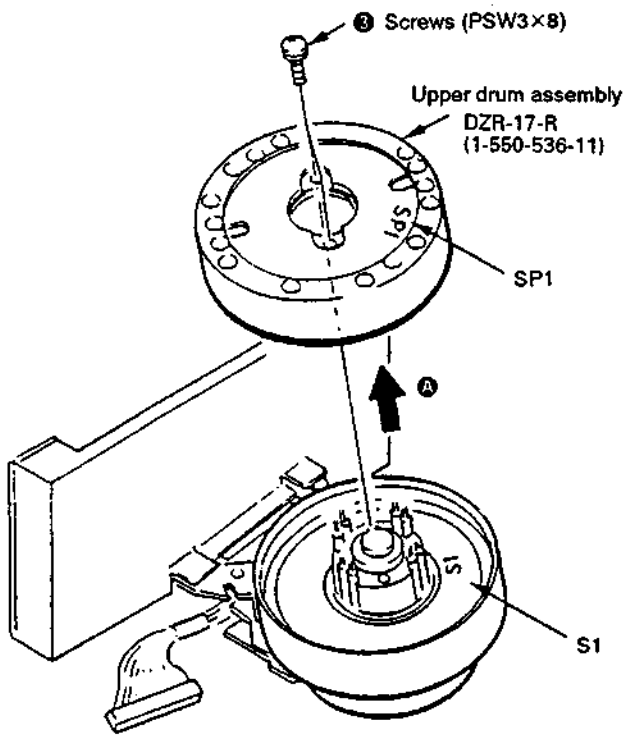


Fig. 5.

TABLE OF CONTENTS

SECTION 1
GENERAL

This section is extracted from instruction manual.

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

NOTICE FOR THE CUSTOMERS IN THE UNITED KINGDOM

IMPORTANT

The wires in the mains lead are coloured in accordance with the following code:
Blue: Neutral
Brown: Live
As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.
Do not connect either wire to the earth terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or coloured green or green-and-yellow.

About This Manual

This manual includes information on three video cassette recorders, the SLV-715, SLV-715UB and SLV-715VP. First, refer to the model name indicated on the front and rear panels and check what your model is. Any differences in appearance or operation of the three VTRs are clearly indicated in the text, for example, "**For SLV-715 only.**" However, note that the illustrations used in this manual are those of the SLV-715VP.

■ **On colour systems of SLV-715/715UB**
This unit is designed to record and play back using the PAL colour system. Recording and playback of video sources based on other colour systems cannot be guaranteed.

■ **On colour systems of SLV-715VP**
This unit is designed to record and play back the PAL and SECAM B/G colour systems. Recording and playback of video sources based on other systems cannot be guaranteed.

■ **On the Quick Reference Guide**
The "**Quick Reference Guide**" is attached on the back cover. Use the Guide in addition to this manual.

Caution
Television programmes, films, video tapes and other materials may be copyrighted.
Unauthorized recording of such materials may be contrary to the provisions of the copyright laws. Also, use of this recorder with cable television transmission may require authorization from the cable television transmitter and/or programme owner.

Precautions

On Safety

- For SLV-715UB, operate on 240 V AC, 50 Hz. For SLV-715 and SLV-715VP operate on 220 V AC, 50 Hz.
- Should anything fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- If the unit will not be used for an extended period, unplug it from the wall outlet. To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- The unit is not disconnected from the mains (AC power source) as long as it is connected to the mains outlet, even if the unit itself has been turned off.

On Installation

- Allow adequate air circulation to prevent internal heat build-up.
- Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies, etc.) that may block the ventilation holes.
- Do not install the unit near heat sources such as radiators or air ducts or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- The unit is designed for operation in a horizontal position. Do not install it in an inclined position.
- Keep the unit and cassette tapes away from equipment with strong magnets, such as microwave ovens or large loudspeakers.
- Do not place any heavy object on the unit.

On Operation

- When the unit is not in use, turn the power off to conserve energy and to extend its life.
- Remove and store video cassettes after recording or playback.

On Cleaning

- Clean the cabinet, panel and controls with a dry soft cloth, or a soft cloth slightly moistened with a mild detergent solution.
- Do not use any type of solvents, such as alcohol or benzine, which might damage the finish.

If you have any questions about the unit, contact your Sony service facility.

Main Features

For Editing

- Flying erase head allows smooth transition between two recordings.
- Synchronized editing either from or onto this VTR is possible.
- Two kinds of remote control terminals, CONTROL L and CONTROL S IN jacks, allow this VTR to be remotely controlled by other equipment involved in tape editing.
- Video/audio input jacks on the front panel offer easy connection to other VTRs.

On-screen Displays

- Information on the tape counter, tape speed, remaining tape length and present date and time, can be displayed on the TV screen.
- Auto menu can be displayed to set the VTR to the desired automatic tape operation.
- Auto repeat function allows playing back the desired portion of the tape repeatedly.
- Information on the pre-selected timer recording programmes can be called up on the screen with a press of the button.

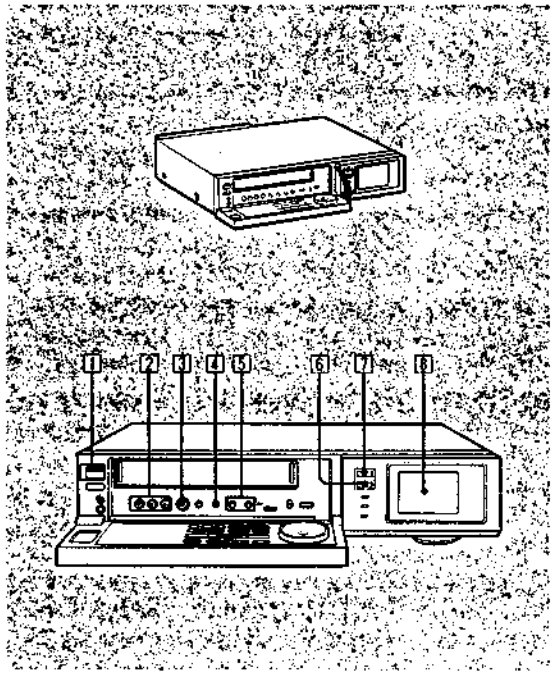
Convenient Functions

- Auto tracking function automatically adjusts the tracking condition for maximum picture and sound quality.
- JOG/SHUTTLE on the VTR or the Remote Commander and SHUTTLE EDIT on the Commander allow quick access to the desired scene.
- The wireless Commander with liquid crystal display (LCD) provides access to almost all of the VTR controls and makes timer setting easy.
- Timer recording can be set for up to eight programmes within one month in advance.
- The beginning of the desired scene can be located easily with the index scan/index search function.
- The NICAM broadcast (stereo/bilingual programmes in the United Kingdom and Nordic countries) can be received. (SLV-715UB only)

High-quality Picture

- Sharp, finely detailed pictures are possible through the use of High Quality (HQ) picture technology.
- **HQ**
Video Cassette Recorders (VTR) with this marking incorporate VHS high-quality picture technology and are compatible with any video cassette recorders bearing the VHS mark.

Identifying the Operational Parts



Front

[1] **ON/STANDBY switch and indicator**

[2] **LINE IN 2 VIDEO/AUDIO jacks**

[3] **CONTROL L connector (5-pin DIN type) (page 69)**
Connect to the CONTROL L connector of other Sony product for systematic operations such as synchronized editing.

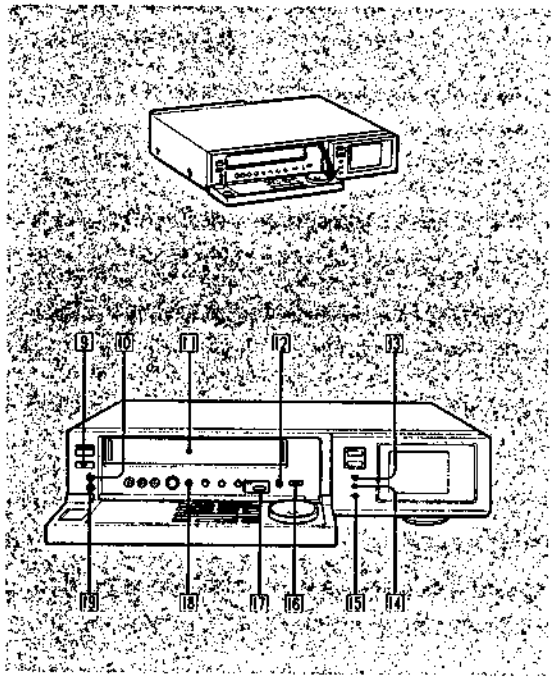
[4] **SHARPNESS (SOFT/SHARP) control**
Use to adjust the sharpness of the picture.

[5] **REC LEVEL controls (page 64)**
Adjust the audio recording level. Normally set these controls at the center indented position.

[6] **Remote sensor**
Point the Commander here.

[7] **AUTO TRACKING indicator (page 26)**

[8] **Display window**



Front

[9] **⏏ EJECT button**
Press to eject the cassette. This button does not function during recording.

[10] **MIC jack (mini type)**
Connect a microphone.

[11] **Cassette compartment (page 24)**

[12] **COMMAND MODE selector (page 16)**
Set to the same position as the COMMAND MODE button on the Commander.

[13] **AUDIO INSERT indicator**

[14] **VIDEO INSERT indicator**

[15] **HIGH SPEED REWIND indicator**

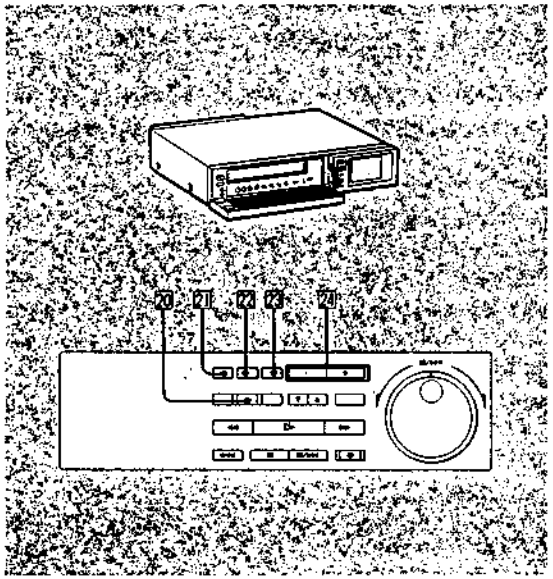
[16] **VPS (Video Programme System) ON/OFF switch (SLV-715VP only) (page 56)**

[17] **SYNCHRO EDIT button and indicator (pages 73, 74)**
Press to perform synchronized editing.

[18] **PHONE LEVEL (headphone level) control**

[19] **PHONES (headphones) jack (stereo mini type)**

Identifying the Operational Parts



Front

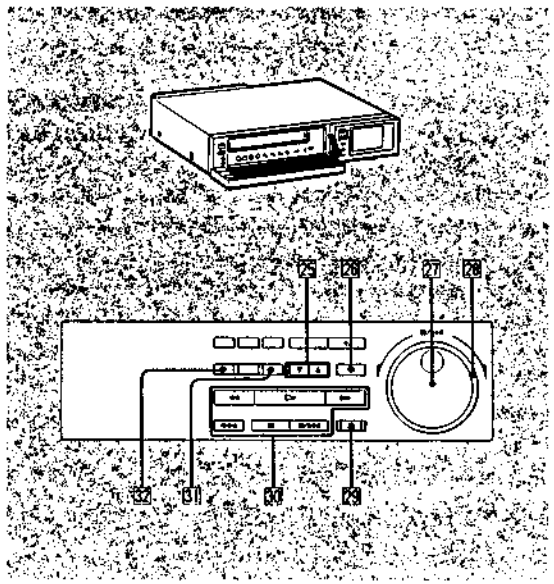
20 TIMER REC ON/OFF button
Press to deactivate or reactivate the timer recording standby mode when using the VTR before timer recording.

21 TV/VTR button (page 41)
Press and light the VTR indicator in the display window to view the playback of the VTR or a programme selected on the VTR. Press this button again to turn off the VTR indicator to view a programme selected on the TV. This button is effective only when the VTR is connected to the TV via the EURO-AV (LINE 1) connector.

22 INPUT SELECT button (pages 20, 38)
Press to select the signals to be recorded by the VTR. The selected mode will be indicated in the display window as follows:
TUNER: To record TV programmes.
SIMUL: To record TV programmes and audio signals from equipment connected to the EURO-AV (LINE 1) connector or the LINE IN 2 jacks simultaneously.
LINE L1: To record the signals from equipment connected to the EURO-AV (LINE 1) connector.
LINE L2: To record the signals from equipment connected to the LINE IN 2 jacks.
LINE L3: To record the signals from equipment connected to the EURO-AV (LINE 3) connector.

23 REC MODE (SP/LP) button (page 38)
Press to select the recording tape speed, SP or LP.

24 PROGRAM +/– buttons
Press to select the programme positions.



Front

25 TRACKING NORMAL/SLOW and STILL ADJUST buttons (pages 26, 28)
Press either of the buttons to clear streaks that may appear on the screen when playing back tapes in normal or slow speed or to reduce picture shaking in still mode.

26 TRACKING AUTO/MANUAL button (page 26)
Press to reactivate the automatic tracking function after manual tracking adjustment.

27 JOG dial (pages 28, 38, 39)

28 SHUTTLE ring (FORWARD/REVERSE) (pages 28, 39)

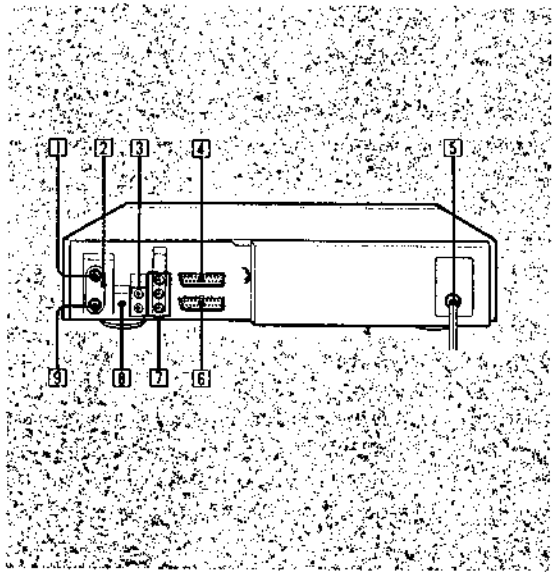
29 ● REC (record) button (page 38)

30 Tape transport buttons (pages 25, 27)
◀◀ REW (rewind) button
▷ PLAY button
▶▶ FF (fast-forward) button
■ STOP button
❚❚/▶❚ PAUSE/STILL button
◀◀◀◀ HIGH SPEED REWIND button

31 QUICK TIMER button (page 58)
Press to activate the quick timer recording function.

32 EDIT ON/OFF button (page 66)
Normally keep this button at OFF (i.e. the EDIT indicator is off in the display window). When using this VTR for editing, press this button to light the EDIT indicator.

Identifying the Operational Parts



Rear

[1] **AERIAL IN socket** (page 14)

[2] **DX/LOCAL switch**
Normally set to DX. If the TV signal is very strong, set it to LOCAL.

[3] **CONTROL S IN/OUT jacks (minijack)** (pages 71, 72)
Connect to the CONTROL S output/input jack of other Sony product for systematic operations such as synchronized editing or remote control operation.

[4] **EURO-AV (LINE 1) connector (21-pin)** (page 14)
The on-screen display is available via this connector.

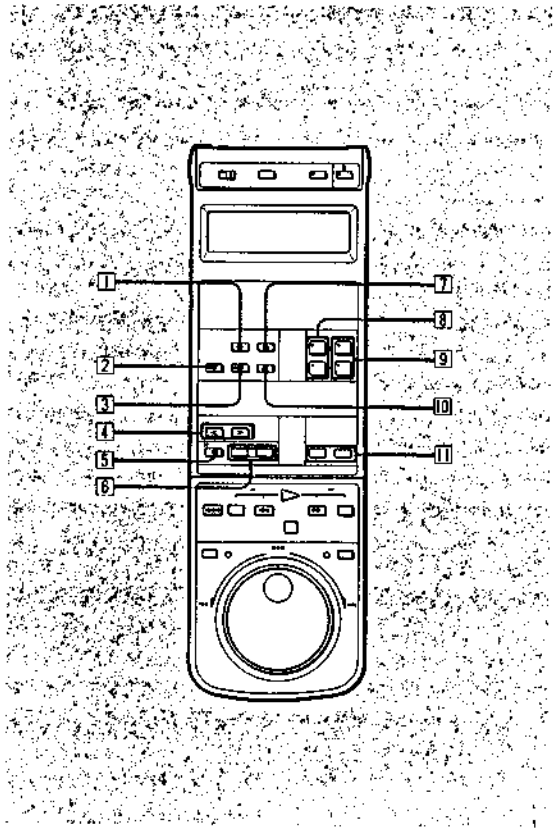
[5] **AC power cord**

[6] **EURO-AV (LINE 3) connector (21-pin)** (page 71)

[7] **LINE OUT VIDEO/AUDIO jacks (phono type)** (pages 14, 68)
The on-screen display is not available via these jacks.

[8] **RF CHANNEL screw (30 to 39)** (page 19)

[9] **AERIAL OUT socket** (page 14)



Remote Commander RMT-V5D

- The buttons on the Commander with the same name or mark as those on the VTR have the same function.
- The buttons with a red dot inscribed on top can be used to remotely control Sony TVs with the mark when the TV/ VTR remote control selector is set to TV.
- Keep the upper cover closed except where noted.

[1] **TIMER ON SCREEN button** (page 50)
Press to display the timer settings on the TV screen.

[2] **DATA SCREEN button** (page 31)

[3] **AUDIO MONITOR button** (pages 29, 42, 43)

[4] **SHUTTLE EDIT buttons** (page 39)

[5] **II PAUSE button**

[6] **● REC (recording) buttons** (page 38)
Press two buttons simultaneously

[7] **INDEX button** (pages 61, 62, 63)

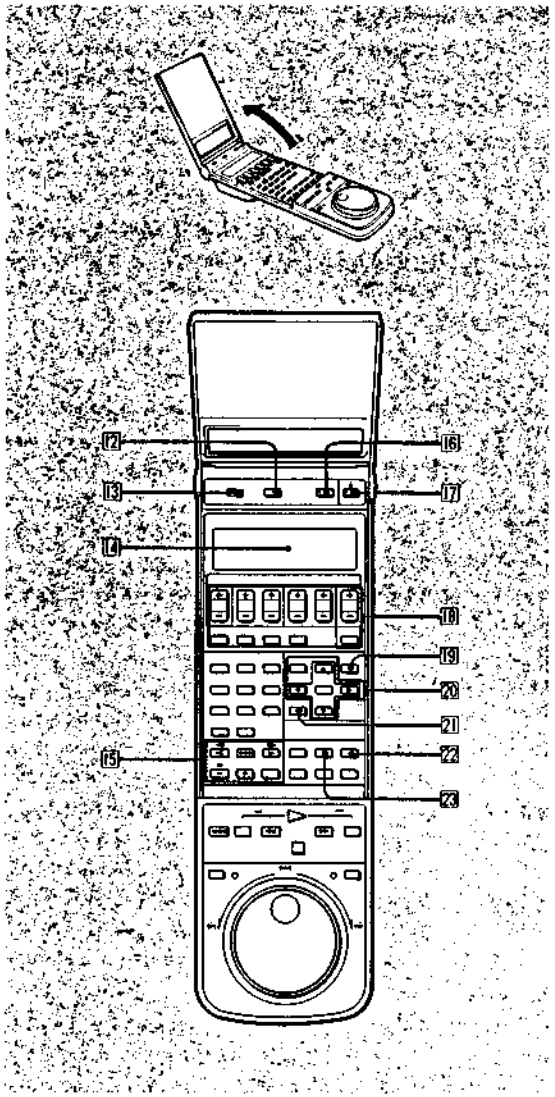
[8] **VOL (TV volume) +/– buttons**
Press to control the volume of the TV. Effective only for Sony TVs with the mark.

[9] **PROG (programme) +/– buttons**

[10] **COUNTER RESET button** (page 45)

[11] **AUDIO/VIDEO INSERT buttons** (page 77)

Identifying the Operational Parts



Remote Commander RMT-V5D

12 **TIMER REC (ON/OFF) button** (page 49)

13 **[TV] / [VTR] remote control selector** (page 16)
Set to [VTR] to control this VTR and set to [TV] to control the TV.

14 **Liquid-crystal display**

15 **Various speed playback buttons** (page 27)
< ◀II / II▶ > (to select the direction for frame-by-frame picture or the direction for any playback mode)
▶I◀I (to obtain a still picture)
I▶ SLOW +/– (slow speed up/down)
× 2 (double speed playback)

16 **TV/VTR button** (page 41)

17 **⏻ (on/standby) button**

18 **Timer recording/clock set buttons** (pages 17, 47)

19 **COMMAND MODE button** (page 16)

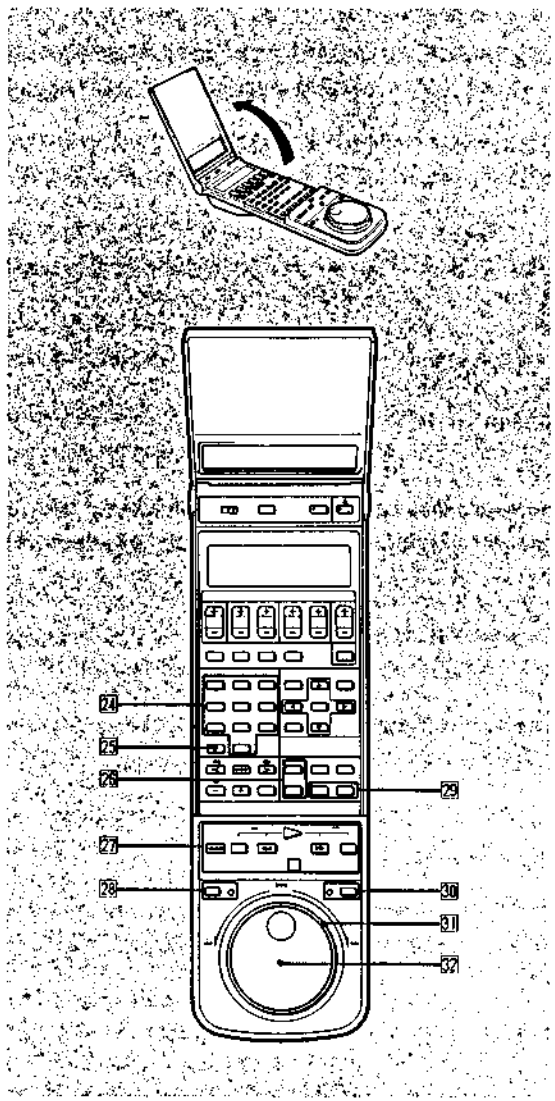
20 **Menu operation buttons**
Press MENU to display or erase the main MENU. Press EXE to store the selected parameters.
Press ▲ / ▼/ ◀ / ▶ to move the cursor.

21 **FUNCTION MEMORY button** (page 35)

22 **INPUT SELECT button** (pages 38, 67, 73, 75)

23 **REC MODE select button** (page 38)

Note on the [TV] / [VTR] remote control selector
When you set the [TV] / [VTR] remote control selector on the Remote Commander to [TV], the TV/VTR button cannot operate some Sony TV's.



Remote Commander RMT-V5D

24 **Programme position number buttons** (page 38)
Press to select the programme position directly.

25 **– / – – (10's digit) button** (page 38)
Press to select a programme number over 9. To select 23, press –/– –, then 2 and 3.

26 **TIMER CHECK/TIMER CLEAR buttons** (page 51)
Press to check, correct, or clear the timer settings.

27 **Tape transport buttons** (pages 25, 27)
⏪ / ⏩ SEARCH (reverse/forward)
◀◀ REW (rewind)
▶ PLAY
▶▶ FF (fast-forward)
■ STOP
◀◀◀ HIGH SPEED REW

28 **JOG/SHUTTLE function button and indicator** (page 28)
Press to light the indicator to use JOG/SHUTTLE for various playback modes.

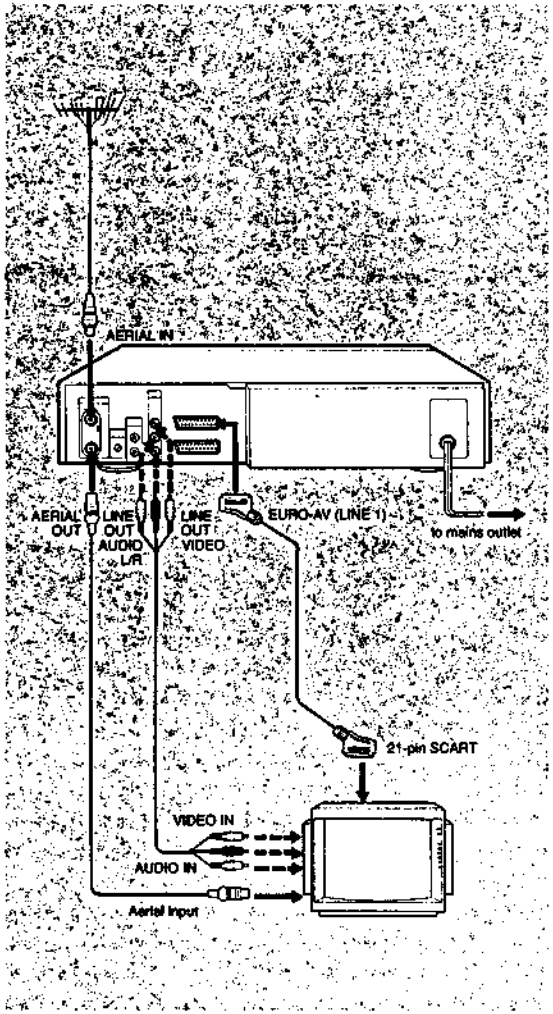
29 **INDEX MARK and ERASE buttons** (pages 60, 63)

30 **PROG (programme) function button and indicator** (pages 21, 38)
Press to light the indicator to use JOG for selection of the programme position.

31 **SHUTTLE ring** (page 28)

32 **JOG dial** (pages 21, 28, 38)

Connections



Before You Begin

- Turn off the power to the VTR and TV.
- Do not connect the mains lead until all of the connections are complete.
- Connect firmly since a loose connection may cause picture distortion.

Using the AERIAL IN/OUT Sockets

1 **Connect the aerial to the AERIAL IN of this VTR.**

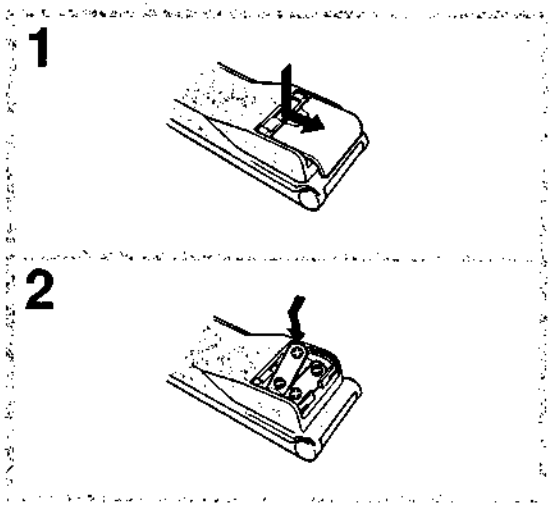
2 **Connect the AERIAL OUT of this VTR to the aerial input terminal of the TV using the supplied aerial cable.**

Additional Connections for Higher Picture Quality

■ **Using the EURO-AV connector**
If your TV is equipped with a 21-pin SCART connector, connect it to the VTR's EURO-AV (LINE 1) connector using the optional VMC-2121CE cable to view a higher quality picture.

■ **Using the LINE OUT VIDEO/AUDIO jacks**
If your TV is equipped with video/audio input jacks, connect it to the VTR's LINE OUT VIDEO/AUDIO jacks using the supplied video/audio connecting cable to view a higher quality picture. Note that the on-screen display will not be available if connection is made via these jacks.

Remote Control Operation



Preparing the Commander

■ **Battery insertion**

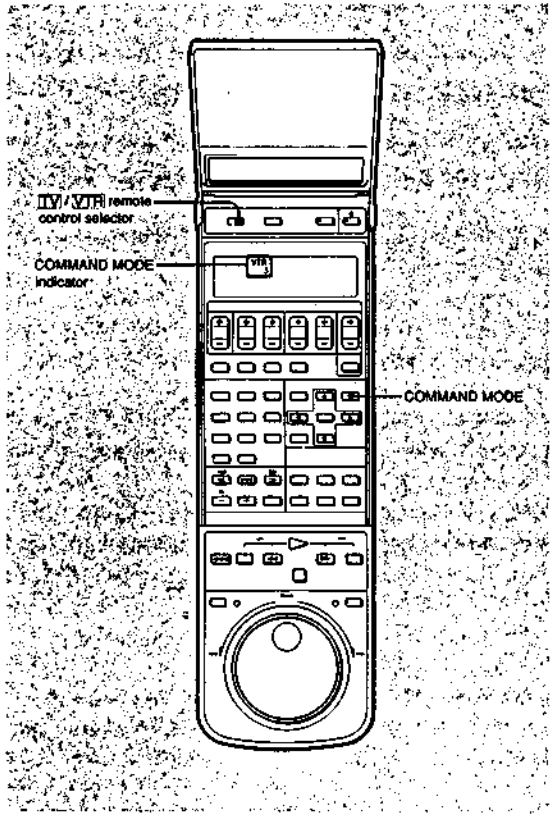
1 **Slide and remove the cover.**

2 **Insert two R6 (size AA) batteries with polarity positioned correctly.**

3 **Close the cover.**
The clock on the Commander will read – D –:– –. Set the date and clock referring to the "Date and Clock Setting" (page 17).

Note on batteries
With normal operation, batteries will last for about three months. However, if the Commander will not be used for a long period, remove the batteries to avoid possible damage from battery leakage.

Remote Control Operation



Command Mode Setting

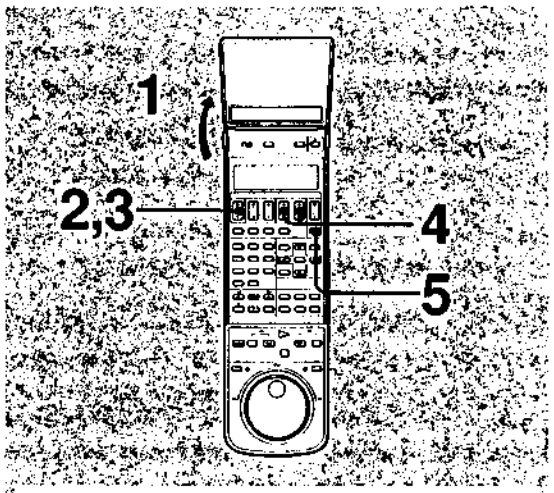
Set the COMMAND MODE 1/2/3 selector on the VTR to the same number displayed in the LCD. To change the setting on the Commander, press COMMAND MODE repeatedly. Then, set the TV / VTR remote control selector to VTR.

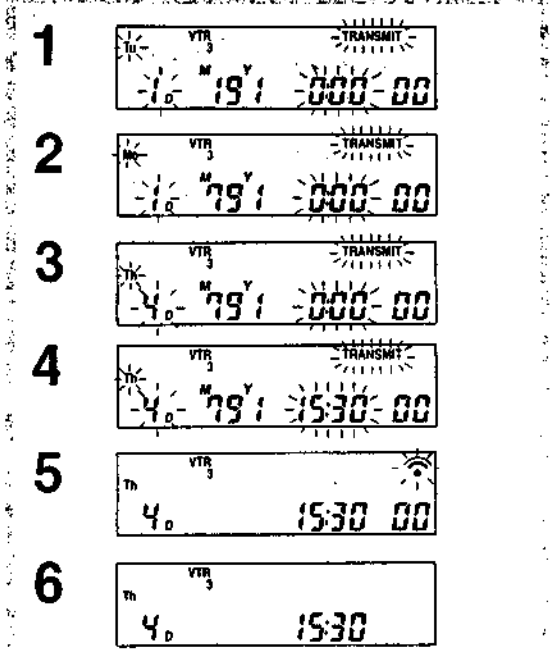
Remotely Controlling Other Sony Equipment

- **Controlling another VTR equipped with a command mode selector**
  Set different command mode for this VTR (VTR 3, for instance) and the other VTR (VTR 1). Select VTR 1 on the Commander to control the other VTR and VTR 3 to control this VTR.

- **Controlling equipment without a command mode selector**
  Change the setting on the Commander as follows to control each type of VTR.
  VTR 1: Sony Betamax infrared remote control VTRs
  VTR 2: Sony 8 mm format VTRs
  VTR 3: This VTR

Date and Clock Setting





Before You Begin

The time and date between the years 1991 and 2006 can be set with the Commander.

Operation

Example: To set to 15:30, Thursday, July 4, 1991.

1 **Open the cover.**

2 **Keep pressing the D (date) button until 7 M 91 Y is displayed.**
The date will be incremented slowly up to 30 days and then the month will be incremented.

3 **Press the + side or – side of the D (date) button until 4 D is displayed.**
The day of the week appears automatically.

4 **Press the H (hour) and M (minute) buttons under TURN OFF to set the current time.**

5 **Point the Commander at the VTR and press TRANS (transmit).**
A beep sound confirms that the date and clock setting is registered in the VTR as well.

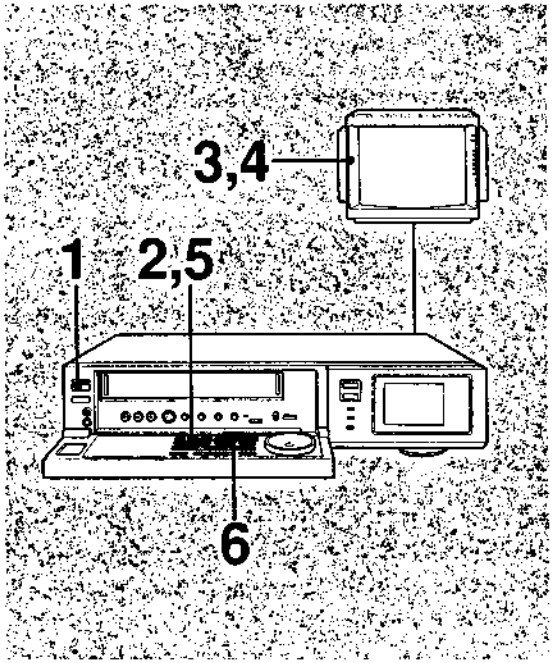
6 **Check the display window on the VTR and close the cover.**

To correct the preset date and time
Open the cover, press CLOCK SET and repeat steps 2 to 6.

When 0:00 is blinking on the VTR
Any time power is interrupted for more than three hours, you will see 0:00 blinking when power is restored. You will have to re-set the date and clock again.

When a short beep sounds repeatedly
The VTR is in the timer recording or quick timer recording mode or standby mode for timer recording and the setting cannot be transmitted.

Adjusting the TV



Before You Begin

If you have connected your VTR and TV using only the aerial sockets, one of the television programme positions must be adjusted to receive the VTR's playback signal. If TV-VTR connection is made by other means, skip this step.

Operation

1 **Make connections referring to "Connections" and press ON/STANDBY.**

2 **Press INPUT SELECT to light LINE L2 in the display window.**
Do not connect any equipment to the LINE IN 2 VIDEO jack.

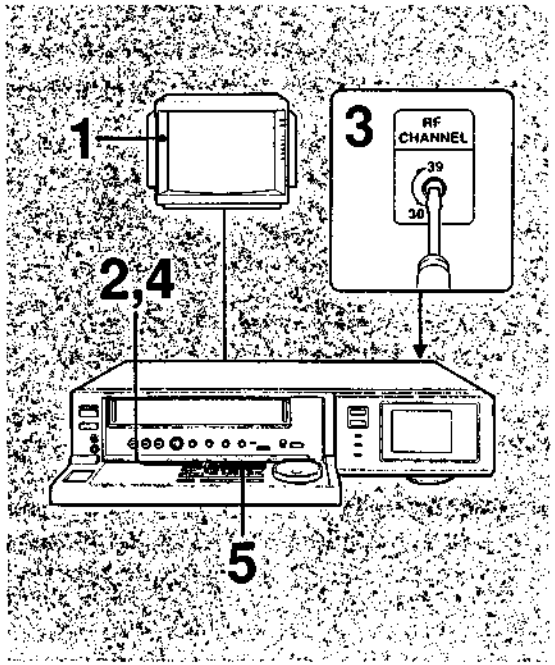
3 **Turn on the TV and select a programme position that is not used to receive a TV station.**

4 **Tune the TV so that a blue screen with tape counter and tape speed indication is clearly displayed on the TV screen.**

5 **Press INPUT SELECT to light TUNER in the display window.**

6 **Press PROGRAM +/– on the VTR and check that the screen changes to a different programme.**

Now your TV is tuned to receive the VTR's playback picture. Whenever playing back a tape, select the programme position you chose in step 3.
If you are not sure how to tune your TV, refer to the TV's instruction manual or consult your dealer.



When the Playback Picture is not Free of Disturbance

1 **Select a programme position on the TV between UHF channels 30 and 39, so that the TV shows no picture and a steady rustling sound or no sound is heard.**

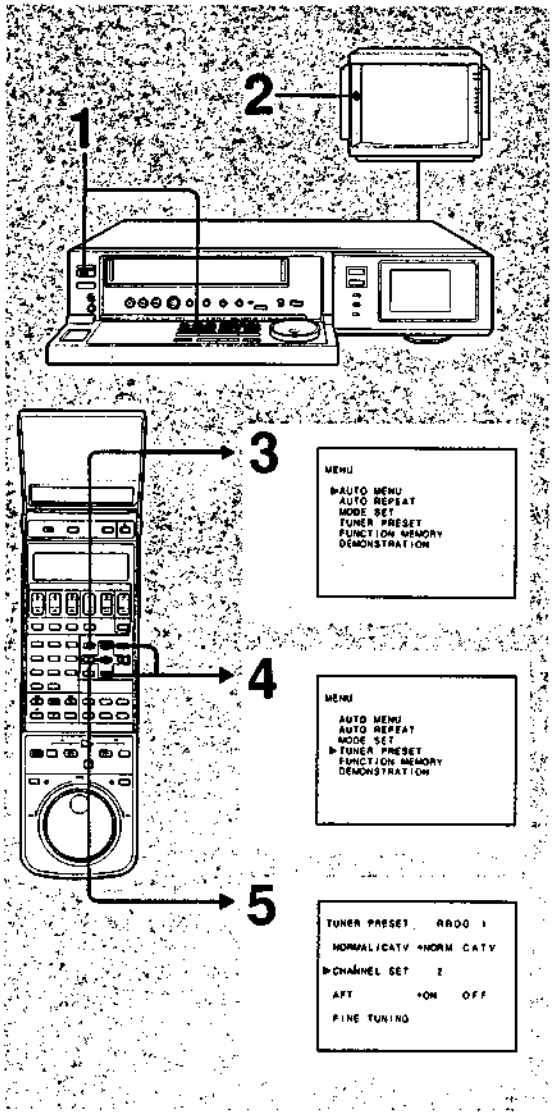
2 **Press INPUT SELECT to light LINE L2 in the display window.**
Do not connect any equipment to the LINE IN 2 VIDEO jack.

3 **Turn the RF CHANNEL screw with the supplied screwdriver so that a blue screen with tape counter and tape speed indication is clearly displayed on the TV screen.**

4 **Press INPUT SELECT to light TUNER in the display window.**

5 **Press PROGRAM +/– on the VTR and check that the screen changes to a different programme.**

Presetting the Active Channels



Before You Begin

- The SLV-715 and 715VP are capable of receiving VHF channels E2 — E12, UHF channels E21 — E69, and cable TV channels S1 — S41 and S01 — S05. The SLV-715UB is capable of receiving VHF channels B21 — B68.
- The receivable channels are governed by the TV broadcasting system in your area.
- Up to 60 channels can be allocated to any desired programme position.
- The TUNER PRESET menu will not be displayed unless VTR-TV connection is made via the aerial sockets or EURO-AV (LINE 1).

To Call Up the TUNER PRESET Menu

1 **Turn on the VTR and press INPUT SELECT to light the TUNER indicator and the programme position number in the display window.**

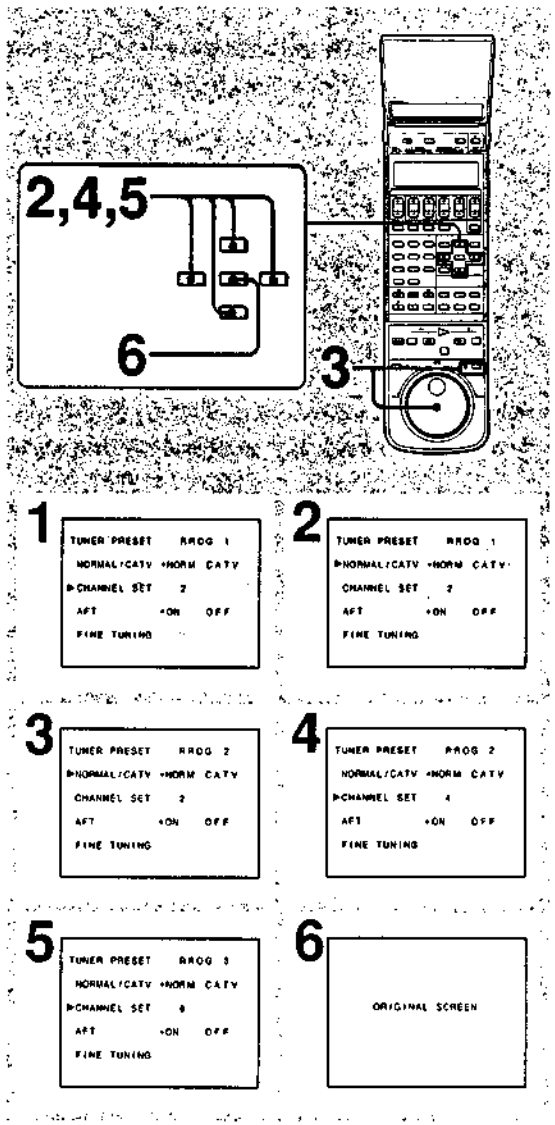
2 **Turn on the TV.**
Set to the programme position for the VTR if VTR-TV connection is made via the aerial sockets. Select VTR input if VTR-TV connection is made via EURO-AV (LINE 1).

3 **Press MENU with the VTR in the stop mode.**
The main MENU appears.

4 **Move cursor with ▲ or ▼ to TUNER PRESET.**

5 **Press EXE.**
The TUNER PRESET menu appears.

Note for the users of SLV-715UB
The TUNER PRESET menu of the SLV-715UB does not have the NORMAL/CATV selection as illustrated.



Tuning a Desired Channel

1 **Call up the TUNER PRESET menu.**

2 **Move cursor with ▲ to NORMAL /CATV and select NORM with ◀. (For SLV-715UB, skip this step.)**
To tune in CATV channels first, select CATV with ▶.

3 **Select the desired programme position in any of the following ways:**
- **Press the PROG function button to light the indicator and turn JOG on the Commander.**
  Turn it clockwise for higher numbered programme positions; counterclockwise for lower numbered programme positions.
- **Press PROG +/– on the Commander or PROGRAM +/– on the VTR.**

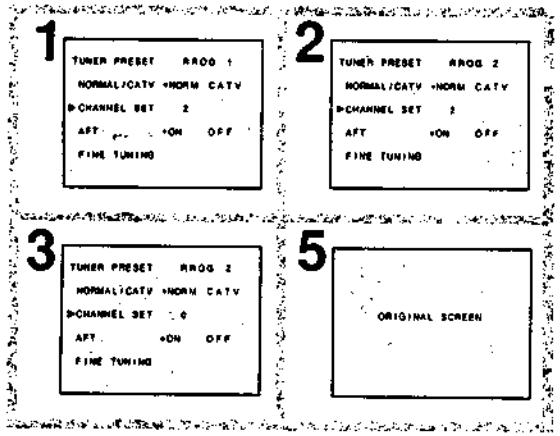
4 **Move cursor to CHANNEL SET with ▲ or ▼ and press ◀ or ▶.**
The channel number automatically increases with ▶ and decreases with ◀. The number stops changing when the first channel received in your area is detected.

5 **To allocate a channel to the next programme position, repeat steps 2 to 4.**

6 **Press EXE to store the allocated channels and return to the original screen.**

Channel scanning on your VTR
- When ▶ is pressed in steps 4 and 5, the channels are scanned in the following order. When ◀ is pressed, the scanning order is reversed.
  VHF (E2—E12) ⇒ UHF (E21—E69) ⇒ CATV (S1—S20) ⇒ HYPER BAND (S21—S41) ⇒ CATV (S01—S05)
- The SLV-715UB only scans UHF channels B21 to B68.
- In Italy, channels 13 to 20 correspond to channels A to H.

Presetting the Active Channels



Erasing Unwanted Programme Positions

The VTR can be preset so that only the desired programme positions will appear when you press PROG +/– on the Commander or PROGRAM +/– on the VTR.

1 **Call up the TUNER PRESET menu.**

2 **Press PROG +/– on the Commander or PROGRAM +/– on the VTR to call up the unused programme position. You can also call it up using JOG on the Commander. Press the PROG function button to light the indicator and turn JOG.**

3 **Press programme position number button 0 twice or keep pressing ◀ or ▶ until 0 is displayed.**

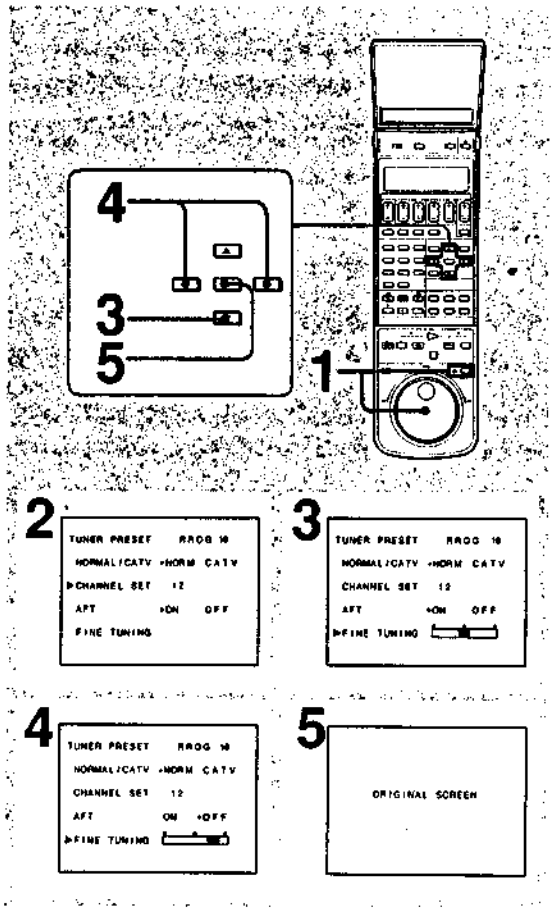
4 **Repeat steps 2 and 3 to erase other programme positions.**

5 **Press EXE.**

■ **To enter the erased programme positions again**
Follow the operations in "Tuning a Desired Channel."

To Allocate the Channels Directly

After step 3 in "Tuning a Desired Channel," move cursor to CHANNEL SET.
Enter the desired programme numbers using the programme position number buttons. To enter one's digits, press 0 and then the desired number. To enter two digit numbers, press the ten's digit number and the one's digit number.



Manually Fine-tuning a Weak Station

Normally the AFT (Automatic Fine Tuning) function fine-tunes the picture with the AFT in TUNER PRESET menu set to ON. However, when the programme received on the VTR is distorted due to signal interference, fine tuning may solve the problem.

1 **Select the distorted programme position by pressing PROG +/– on the Commander or PROGRAM +/– on the VTR, or using JOG on the Commander.**

2 **Call up the TUNER PRESET menu.**

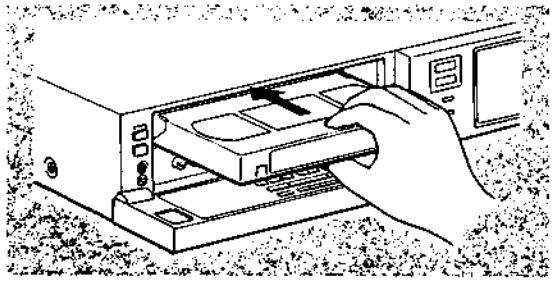
3 **Move cursor to FINE TUNING.**
The fine tuning meter appears.

4 **Press ◀ or ▶ to obtain the best picture.**
If you cannot obtain a better picture, move cursor to AFT and move dot to ON.

5 **Press EXE to store that position and return to the original screen.**

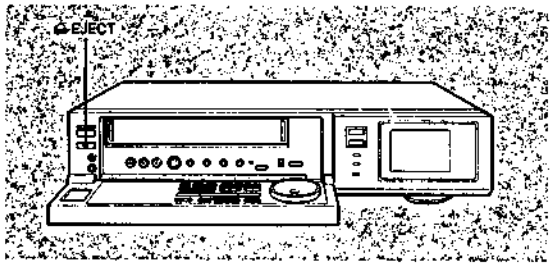
Note on the TUNER PRESET Menu
When the channel scanning function finds a station, it stops, and the blue background changes to the received TV picture. Usually, the TUNER PRESET menu will be superimposed over the TV picture clearly. However, if the synchronization of the received TV picture is disturbed (e.g. through interference from a subsidiary channel), the TUNER PRESET menu disappears or is not clear. In this case, press ◀ or ▶ to continue the scanning operation.

Handling Video Cassettes



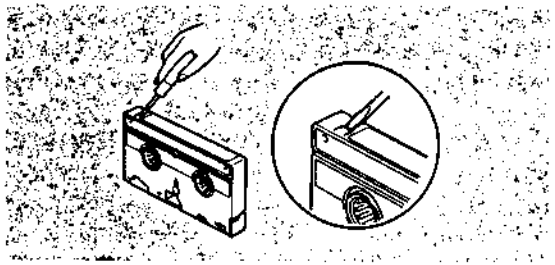
Cassette Insertion

Insert the cassette by slowly pressing its center with the arrow indication facing upwards. When a cassette is inserted, the power will be turned on automatically. If the inserted cassette has its safety tab removed, playback starts automatically.



Cassette Ejection

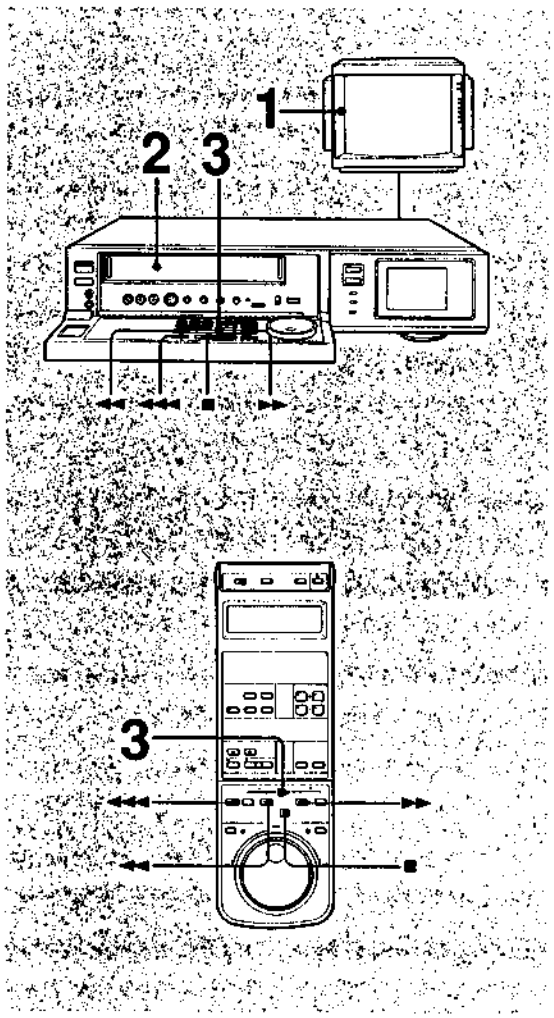
Press ⏏ EJECT on the VTR. When the VTR is turned off, pressing the ⏏ EJECT button will turn on the unit, eject the cassette, and turn off the VTR again.
Note that ⏏ EJECT will not function during recording.



Erase Protection

When recording is made on a pre-recorded tape, the previous recording will be erased. To avoid this, remove the safety tab with a screwdriver or a similar tool.
The cassette will then be ejected when recording is attempted. To record again on a cassette that has no tab, simply cover the safety tab hole with a piece of plastic tape.

Playback



Playing a Tape

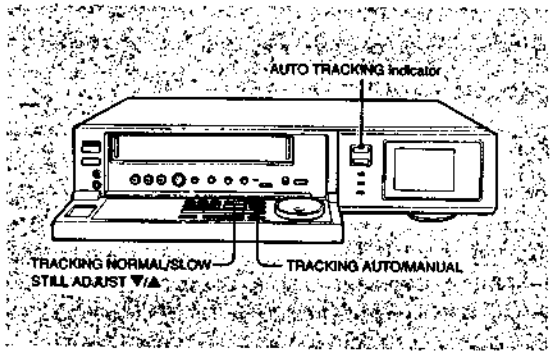
1 **Turn on the TV and select the programme position for the VTR.**
If VTR-TV connection is made via EURO-AV (LINE 1) or LINE OUT VIDEO/ AUDIO, select the input for the VTR.

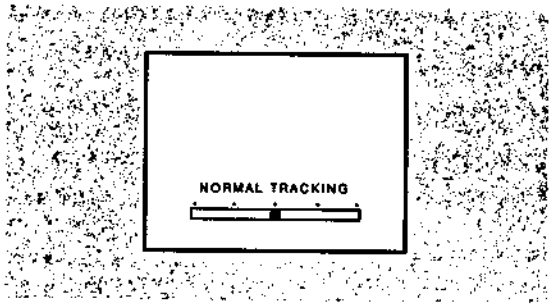
2 **Insert a cassette.**
The VTR will be turned on. If your cassette has its safety tab removed, playback starts automatically.

3 **Press ▶.**
Playback starts.
The VTR automatically rewinds the tape when it reaches the end.

To stop playback, press ■.
To rewind the tape, press ◀◀.
To rewind the tape at a higher speed, press ◀◀◀◀.
To advance the tape rapidly, press ▶▶.

Playback





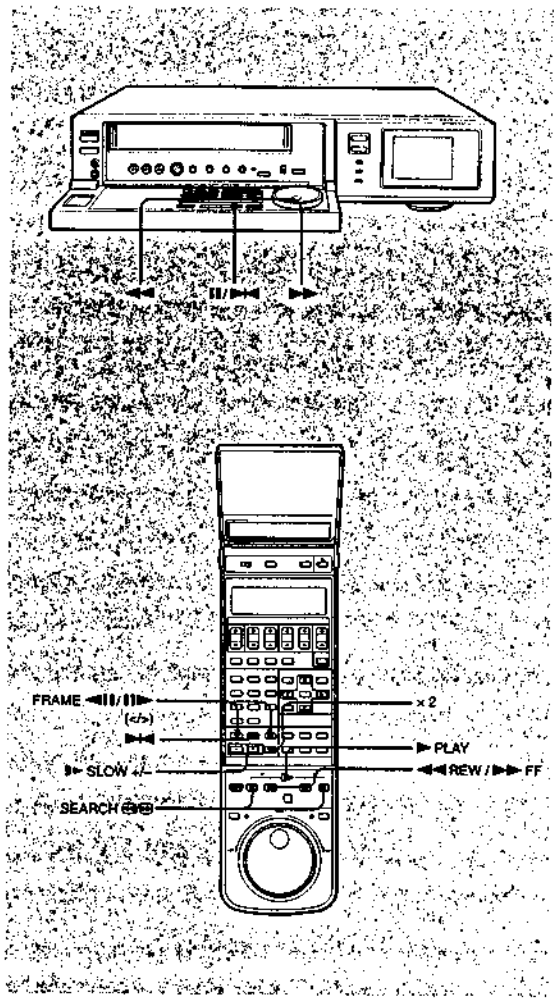
Picture Adjustments

■ **Auto tracking function**
The tracking condition is automatically adjusted on this VTR. The AUTO TRACKING indicator blinks while the VTR is searching for the best tracking condition and lights when maximum playback picture is obtained. The automatic tracking control is activated in the following conditions:
— when the cassette is inserted and played back.
— when the recording tape speed on the playback tape is switched between SP and LP.
— when the picture is distorted by scratches, etc. on the tape.
— when the AUTO TRACKING indicator is turned on by pressing TRACKING AUTO/MANUAL after the picture is adjusted manually. (See below.)

■ **Manual adjustment during normal playback**
If streaks or snow appear, adjust the picture using TRACKING NORMAL /SLOW and STILL ADJUST ▼/▲.

Press either ▼ or ▲ to obtain the best possible picture.

Notes on auto tracking
- **When the manual adjustment proves unsatisfactory, press both of the** TRACKING NORMAL SLOW and STILL ADJUST ▼/▲. The tracking condition will return to the center position.
- **When the sound on the hi-fi audio track is not clear,** adjust it with TRACKING NORMAL/SLOW and STILL ADJUST ▼/▲.
While adjusting, the sound on the normal audio track may be heard.
- Tracking adjustment may not be possible when the recording condition of the tape is very poor.



Various Playback Modes Using the Buttons on the Commander and the VTR

■ **Playback pause/still**
Press II/►►I on the VTR, II or ►►I during playback. Press ► to resume normal playback.

■ **Frame-by-frame playback**
Press ◄II or II► in playback still mode.
II► will advance and ◄II will reverse the picture one frame. Press ► to resume normal playback.

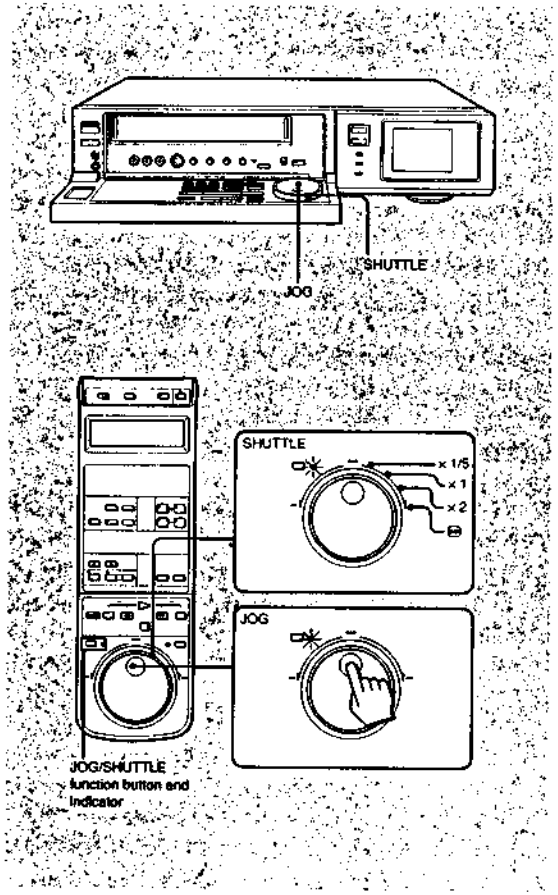
■ **Variable speed playback**
Press I► SLOW +/– for slow playback between 1/5 to 1/30 times normal speed.
Press + or – to change the playback speed.
Press × 2 for double speed playback.
The speed setting can be made from any playback mode. Press ► to resume normal playback.

■ **Reverse playback**
During normal, slow or × 2 playback, press ◄II (<) to reverse the picture. Press II► (>) or ► to resume forward playback.

■ **Picture search**
Press ◄◄ or ►► during playback.
The picture will be scanned in reverse with ◄◄ and forward with ►► as long as they are pressed. Release the button to return to the previous playback mode.

■ **Locked picture search**
Press ⊖ or ⊕ SEARCH during playback.
The picture will keep on scanning in reverse with ⊖ and in forward with ⊕ even after the button is released. To resume normal playback, press ►.

■ **Viewing the picture during fast-forward or rewind**
Press ►► during fast-forward, or ◄◄ during rewind mode. The picture can be seen while the button is pressed. Release the button to return to the previous mode.



Various Playback Modes Using JOG/SHUTTLE

Various playback modes can be selected with JOG/SHUTTLE on the Commander or the VTR from any playback mode.
If you use the Remote Commander, press the JOG/SHUTTLE function button to light the indicator. (The VTR enters the still picture mode.)

■ **Using the SHUTTLE ring**
Turn the ring and hold it. Playback speed can be selected according to the turning angle as illustrated. The same speed is available in the reverse direction.

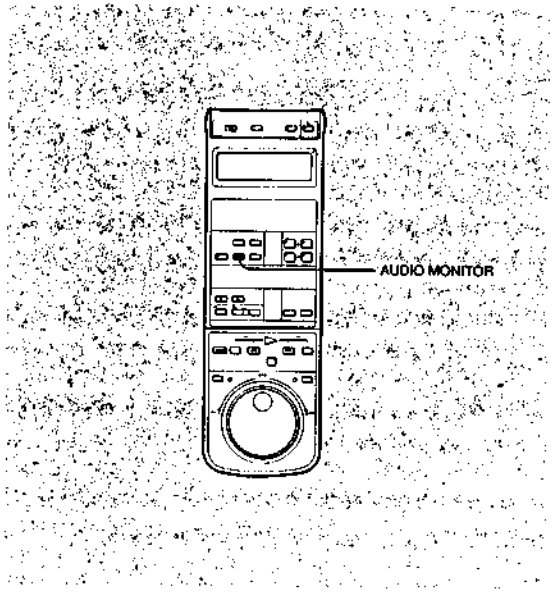
■ **Using the JOG dial**
Playback speed varies according to the speed at which you turn the dial (frame-by-frame, slow, × 1). The same speed is available in the reverse direction.

Releasing JOG/SHUTTLE makes a still picture. To resume normal playback, press ▶.

To eliminate streaks or noise bands during slow motion play
Adjust the picture with TRACKING NORMAL/SLOW and STILL ADJUST ▼/▲ inside the front panel. The picture can be adjusted easily in faster speed playback.

To eliminate the bands on the top or bottom of the screen in still mode
Change to the slow motion play mode and adjust the picture with TRACKING NORMAL/SLOW and STILL ADJUST ▼/▲.

To eliminate picture shaking during still mode
Adjust the picture with TRACKING NORMAL/SLOW and STILL ADJUST ▼/▲.



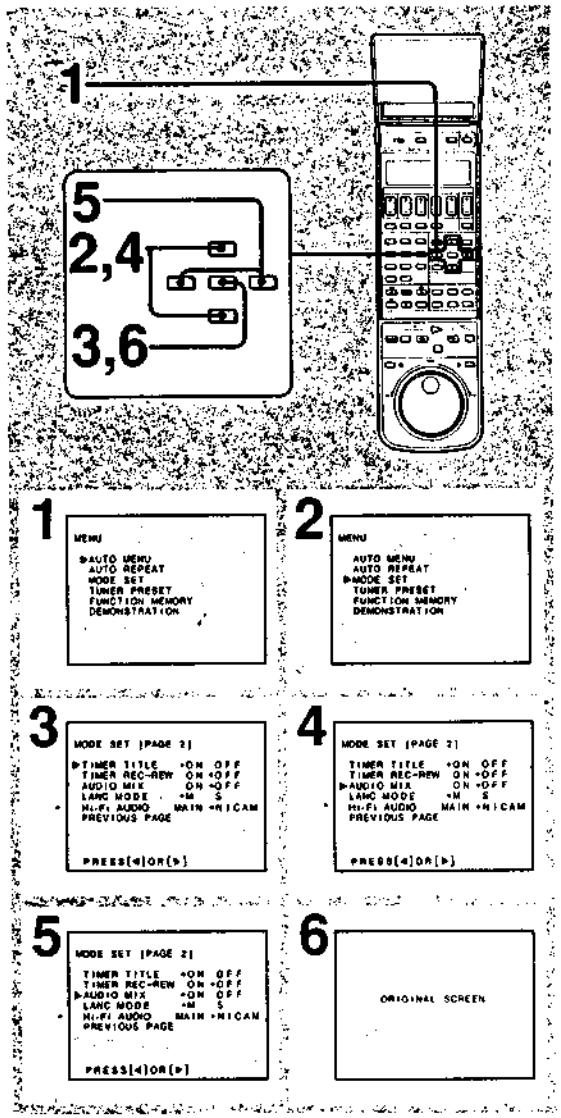
Listening to a Stereo or Bilingual Tape

Press AUDIO MONITOR to select the sound to be heard.
With each pression, stereo (left and right channel sounds), left-channel sound, right-channel sound or the sound on the normal audio track is selected cyclically in order. The selected sound is indicated in the display window of the VTR.

Display	Sound to be heard	
	Stereo tape	Bilingual tape
STEREO	Stereo	Left and right channels
MAIN/L	Left channel	Left channel
SUB/R	Right channel	Right channel
None	Monaural (on normal audio track)	Sound on normal audio track

Notes on the AUDIO MONITOR button
- AUDIO MONITOR will not function with a monaural tape.
- AUDIO MONITOR does not operate when AUDIO MIX ON is selected in the MODE SET menu (see page 30).

Playback



*Hi-Fi AUDIO for SLV-715UB only.

To listen to the sounds on the hi-fi video track and normal audio track mixed

It is possible to output the sounds recorded on the hi-fi video track and the normal audio track simultaneously. This function is useful when you listen to an audio-inserted tape.

1 **Press MENU in the stop mode.**
The main MENU appears.

2 **Move cursor with ▲ or ▼ to MODE SET.**

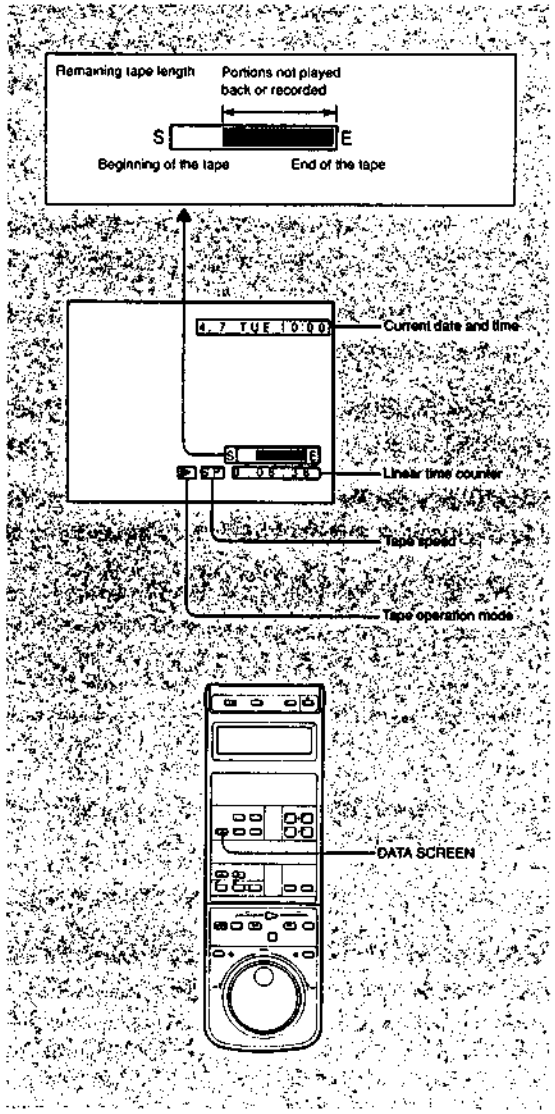
3 **Press EXE.**
If the MODE SET (PAGE 1) menu appears, move cursor with ▲ or ▼ to NEXT PAGE and press EXE.
The MODE SET (PAGE 2) menu appears.

4 **Move cursor with ▲ or ▼ to AUDIO MIX.**

5 **Select ON or OFF by ◀ or ▶.**
ON: to make AUDIO MONITOR inoperative so that the sounds of the hi-fi video and normal audio tracks are always output.
OFF: to make AUDIO MONITOR operative so that you can select the sound to be heard.

6 **Press EXE to store the setting and return to the original screen.**

Note
Reset the AUDIO MIX setting to OFF after listening to the particular tape.

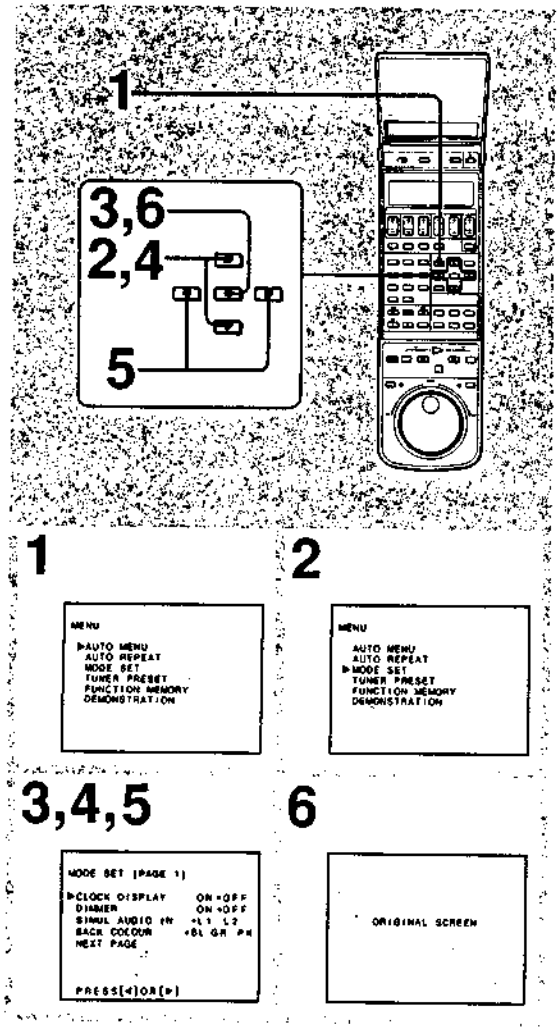


Data Screen

Data screen information illustrated on the left will automatically appear on the screen during playback or recording as a reference. Note, however, that the data screen will not be displayed in the following cases:
- When the VTR-TV connection is made via the LINE OUT VIDEO jack.
- When the VTR is in slow motion or playback pause mode.

■ **To erase or display the data screen**
Press DATA SCREEN.

Notes on the remaining tape length indicator
- The remaining tape length indicator only shows the approximate amount of tape left.
- The indication may shift vertically during the fast-forward or rewind mode.
- It may not operate properly when a short tape, such as the E-30 and VHS-C cassettes, or when a non-standardized tape is inserted.



To Erase the Current Date and Time from the Data Screen

1 **Press MENU**
The main MENU appears.

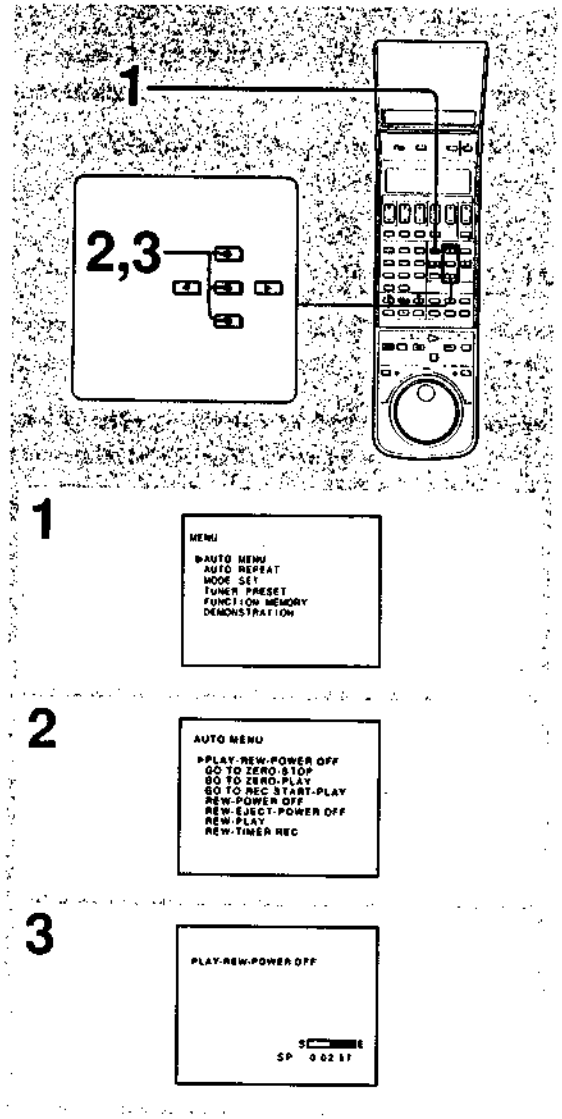
2 **Move cursor with ▲ or ▼ to MODE SET.**

3 **Press EXE.**
If the MODE SET [PAGE 2] menu appears, move cursor with ▼ or ▲ to PREVIOUS PAGE and press EXE.
The MODE SET [PAGE 1] menu is displayed.

4 **Move cursor with ▲ or ▼ to CLOCK DISPLAY.**

5 **Press ◀ or ▶ to move the dot to OFF to erase the current date and time and to ON to display them.**

6 **Press EXE to store the setting and return to the original screen.**



Assigning a Desired Operation Mode — AUTO MENU

Guided by the AUTO MENU, you can make the VTR enter the desired operational sequence automatically.

1 **Press MENU while the VTR is in the stop mode.**
The main MENU appears.

2 **Move cursor with ▲ or ▼ to AUTO MENU and press EXE.**
The AUTO MENU appears.

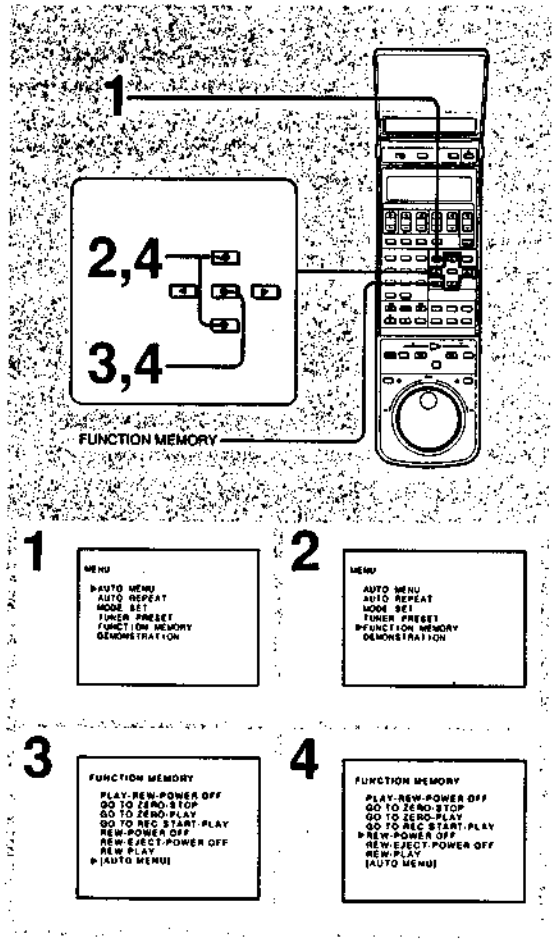
3 **Move cursor with ▲ or ▼ to the desired operational sequence and press EXE.**
The selected operation will begin.
The selected operating mode will be superimposed on the TV screen for a few seconds. The AUTO indicator will light in the display window during AUTO MENU operation.

Note on AUTO MENU operation
AUTO MENU cannot be operated if there is no cassette installed or if the VTR is in modes other than stop mode. A short beep alerts you if the AUTO MENU is not operable.

Note on "GO TO REC START — PLAY"
The recording start point data will be erased from the memory after the following operations and "GO TO REC START — PLAY" will not be operable.
- When COUNTER RESET is pressed.
- When cassette is ejected and re-inserted.
- When HIGH SPEED REWIND is pressed.

Auto Menu Modes

- **PLAY — REW — POWER OFF** plays back the tape, rewinds the tape when the end is reached, and turns the power off.
- **GO TO ZERO — STOP** searches for the counter zero point and stops. See page 46.
- **GO TO ZERO — PLAY** searches for the counter zero point and starts playback. See page 46.
- **GO TO REC START — PLAY** searches for the recording start point and starts playback.
- **REW — POWER OFF** rewinds the tape to the beginning and turns the power off.
- **REW — EJECT — POWER OFF** rewinds the tape to the beginning, ejects the cassette, and turns off the power.
- **REW — PLAY** rewinds the tape to the beginning and starts playback.
- **REW — TIMER REC** rewinds the tape to the beginning and enters the timer recording standby mode for timer recording when a timer recording is preset. A cassette with its safety tab removed will be ejected.
  When the VTR is in the timer recording standby mode, 1) press TIMER REC ON/OFF to cancel the standby mode, 2) turn on the power of the VTR, 3) call up the AUTO MENU referring to page 33.



Assigning an Auto Menu Mode to the FUNCTION MEMORY Button

One of the AUTO MENU modes can be assigned to the FUNCTION MEMORY button on the Commander.

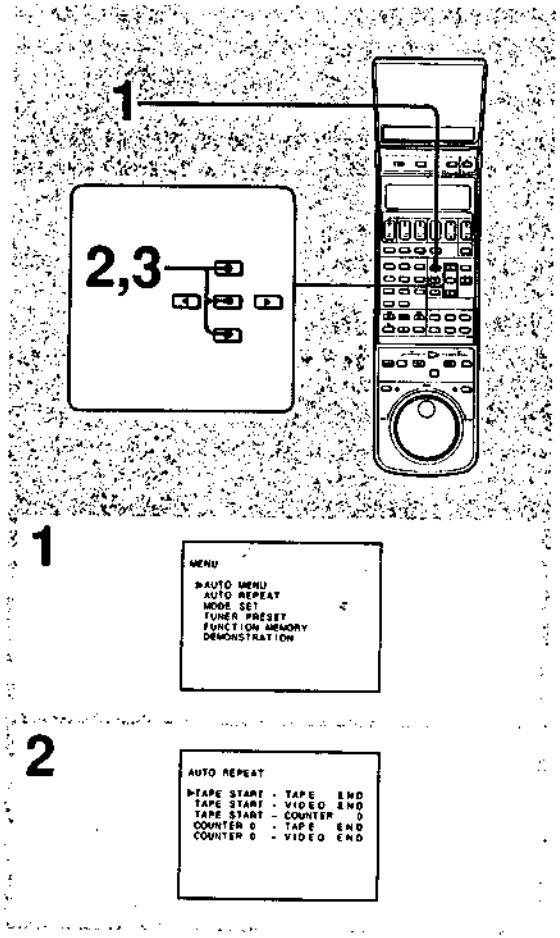
1 **Press MENU.**
The main MENU appears.

2 **Move cursor with ▲ or ▼ to FUNCTION MEMORY.**

3 **Press EXE.**
The FUNCTION MEMORY menu appears.

4 **Move cursor to the desired operational sequence and press EXE.**
The selected operation will be activated every time FUNCTION MEMORY is pressed when the VTR is in stop mode.

If you have selected "AUTO MENU" in step 4, the AUTO MENU will be displayed immediately after FUNCTION MEMORY is pressed, providing a short cut to the AUTO MENU.



Assigning a Desired Portion of the Tape Played Back Repeatedly—AUTO REPEAT

You can make the VTR to repeat playback of a certain portion of the tape automatically.

1 **Press MENU while the VTR is in the stop mode.**
The main MENU appears.

2 **Move cursor with ▲ or ▼ to AUTO REPEAT and press EXE.**
The AUTO REPEAT menu appears.

3 **Move cursor with ▲ or ▼ to the desired item you want to play back repeatedly and press EXE.**
The VTR will rewind or advance the tape rapidly to the start point of the selected repeat portion and start playback. Playback of that portion will repeat five times and then the VTR will rewind the tape to the start point. The AUTO indicator will light in the display window during repeat playback.

■ **To stop playback**
Press ■ STOP on the VTR or the Commander.

Notes on AUTO REPEAT operation
- If you press any tape operation button during repeat playback, AUTO REPEAT will be released.
- AUTO REPEAT cannot be operated if there is no cassette installed or if the VTR is in modes other than stop mode.
  A short beep alerts you if the AUTO REPEAT is not operable.

Auto Repeat Menu

■ **TAPE START—TAPE END** repeats playback from the beginning to the end of the tape.

■ **TAPE START—VIDEO END** repeats playback from the beginning of the tape to the end of the recorded portion.

■ **TAPE START— COUNTER 0** repeats playback from the beginning of the tape to the counter zero point.

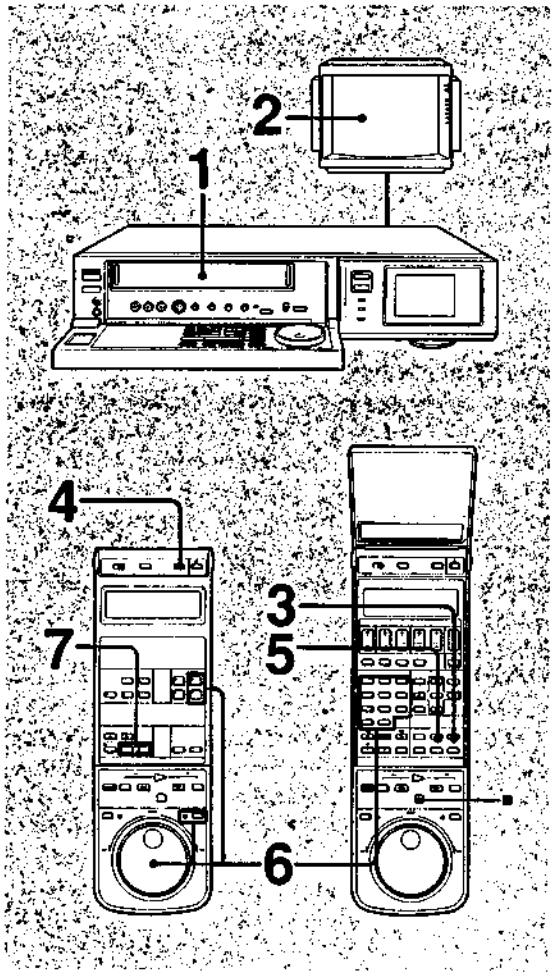
■ **COUNTER 0 —TAPE END** repeats playback from the counter zero point to the end of the tape.

■ **COUNTER 0—VIDEO END** repeats playback from the counter zero point to the end of the recorded portion of the tape.

When you select the menu including "COUNTER 0"
Before activating AUTO REPEAT, press COUNTER RESET on the Commander to set the tape counter to 0H00M00S at the desired point.

Note on "VIDEO END"
The VTR normally detects a blank of about 10 seconds on the tape as "VIDEO END". However, for about 30 seconds from the beginning of the tape, the VTR does not do this. Accordingly, AUTO REPEAT will not work correctly in the following cases.
- When there is a blank of more than 10 seconds in the assigned repeat portion (more than 40 seconds at the beginning).
- When there is a blank of less than 10 seconds after the recorded portion to be played back repeatedly.
- When the tape is recorded to its end. (Assign the menu including "TAPE END".)

Recording TV Programmes



Before You Begin

- Check that all of the preparations are complete.
- The buttons on the VTR with the same name or mark can be used in the operation below as well.
- Data screen displays will not be recorded on the tape.

Operation

1 **Insert a cassette.**

2 **Turn on the TV.**
Set to the programme position for the VTR playback if VTR-TV connection is made only via the aerial sockets.
Select VTR input if VTR-TV connection is via the EURO-AV (LINE 1) connector or LINE OUT VIDEO/AUDIO jacks.

3 **Press INPUT SELECT so that the TUNER indicator appears in the display window.**

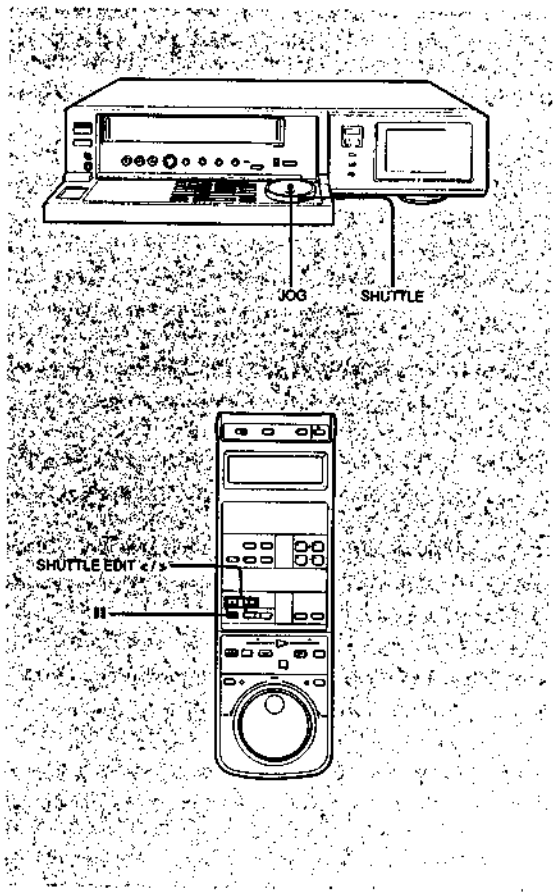
4 **Press TV/VTR so that the VTR indicator lights in the display window.**
(Only when connection is made via EURO-AV (LINE 1).)

5 **Select the recording speed, SP or LP.**

6 **Select the programme position to be recorded in any of the following ways:**
- Press PROG +/–.
- Press the programme position number buttons. To select 23, press –/– –, then 2 and 3. To select 9, press 0 and 9.
- Press the PROG function button to light the indicator and turn JOG on the Commander. Turn it clockwise for higher numbered programme positions; counterclockwise for lower numbered programme positions.

7 **Press the right button while pressing ● REC.**
Recording will begin. When the tape reaches the end, it will be automatically rewound to the beginning. Pressing the ● REC button on the VTR also activates the recording.

To stop recording, press ■.



To Stop Recording Momentarily at an Unwanted Scene

1 **Press II when an unwanted scene appears.**
Recording is stopped and the VTR enters the recording pause mode.

2 **Press II again to resume recording at the desired scene.**

To Cut Out an Unwanted Scene by Recording Over It

1 **Press II during recording to enter the recording pause mode.**

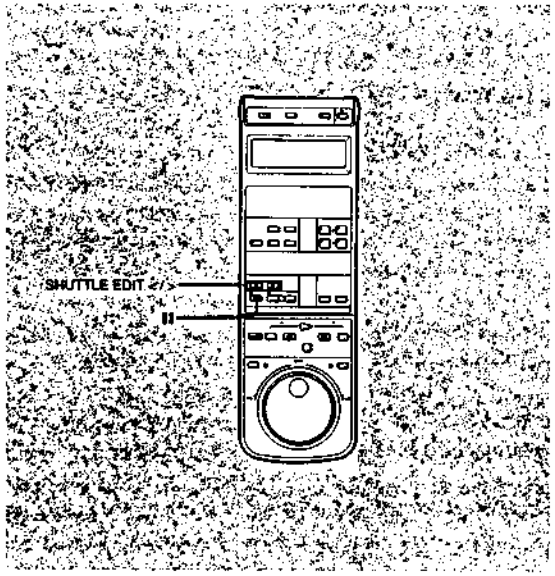
2 **Locate the point where you wish to continue recording using JOG/SHUTTLE on the VTR or SHUTTLE EDIT on the Commander.**

3 **At the desired point, release JOG, SHUTTLE or SHUTTLE EDIT.**

4 **Press II to resume recording.**

■ **How to use the JOG dial and the SHUTTLE ring on the VTR**
Turn the dial and the ring during playback or in the recording pause mode.
Using JOG, playback speed and the direction can be selected according to the turnig speed and direction.
Using SHUTTLE, playback speed and the direction can be selected according to the turning angle and direction.
Release the dial or ring to enter the playback pause mode or resume the recording pause mode.

Recording TV Programmes

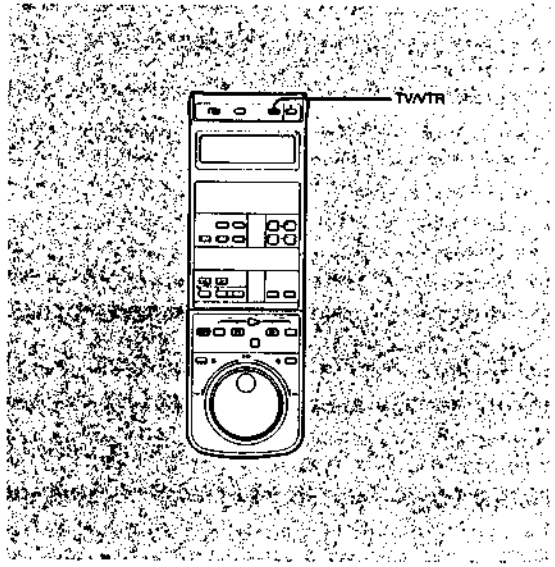


■ **How to use the SHUTTLE EDIT buttons on the Commander**

Use the buttons in the playback pause mode or in the recording pause mode. Keep ⏪ pressed to obtain 1/5 playback picture in reverse, and keep ⏩ pressed to obtain 1/5 playback picture. Release the button to resume the playback pause or recording pause mode.

To record over from playback mode

1) Locate the point from where you want to re-record using JOG/ SHUTTLE on the VTR or the Commander, or SHUTTLE EDIT and release it.
2) Press ● REC and its right button to enter the recording pause mode.
3) Press ⏸ to start recording.



Watching a TV Broadcast While Recording Another

■ **If VTR-TV connection is made using the EURO-AV (LINE 1) connector**

Press TV/VTR to turn off the VTR indicator.
The programme selected on the TV appears on the screen.

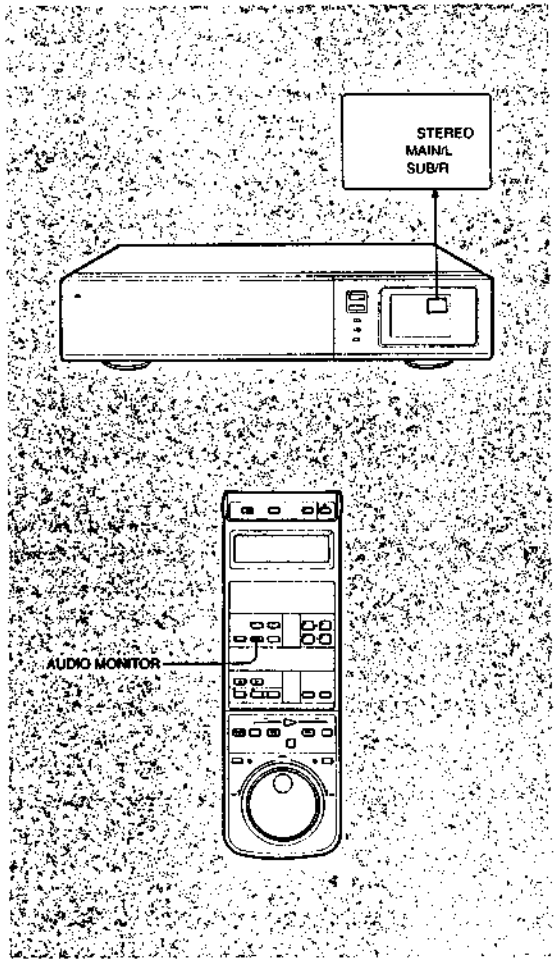
■ **If VTR-TV connection is made using the LINE OUT VIDEO/ AUDIO jacks**

Select the tuner input on the TV and change the programme position on the TV.

■ **If VTR-TV connection is made using only the aerial sockets**

Change the programme position on the TV.

Recording Stereo/Bilingual Programmes



SLV-715/715VP

The SLV-715/715VP receive and record stereo/bilingual programmes based on the "Zweiton" system adopted in Germany (Former West Germany).

■ Stereo programme

When a stereo programme is received, STEREO appears in the display window.
The AUDIO MONITOR button does not function for the stereo programmes of the Zweiton system.

■ Bilingual programme

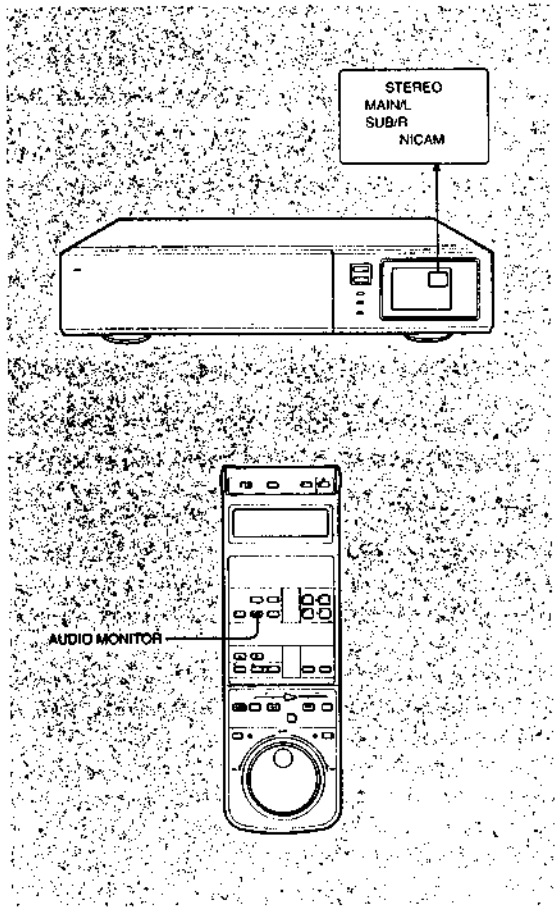
When a bilingual programme is received, MAIN/L appears in the display window.
Press the AUDIO MONITOR button repeatedly until the desired sound is heard. The sound is selected cyclically in the order as follows:

Display	Sound to be heard
MAIN/L	Main sound
SUB/R	Sub sound
MAIN/L SUB/R	Main sound on the left channel Sub sound on the right channel

■ To record

A stereo or bilingual programme will be recorded on the hi-fi video track and normal audio track as follows regardless of the sound being monitored.

Track	Sound to be recorded	
	Stereo	Bilingual
Hi-fi video Left channel	Left channel	Main
Right channel	Right channel	Sub
Normal audio	Monaural (L and R channels mixed)	Main



SLV-715UB

The SLV-715UB receives and records stereo/bilingual programmes based on the "NICAM" system adopted in the United Kingdom and Nordic countries.

■ Stereo programme

When a stereo programme is received, STEREO and NICAM appear in the display window.
Press the AUDIO MONITOR button to select the sound to be heard. Each time AUDIO MONITOR is pressed, the stereo (NICAM L and R channels) or the standard sound is selected alternately.

Display	Sound to be heard
STEREO	Left channel sound on the left channel Right channel sound on the right channel
None	Standard sound

■ Bilingual programme

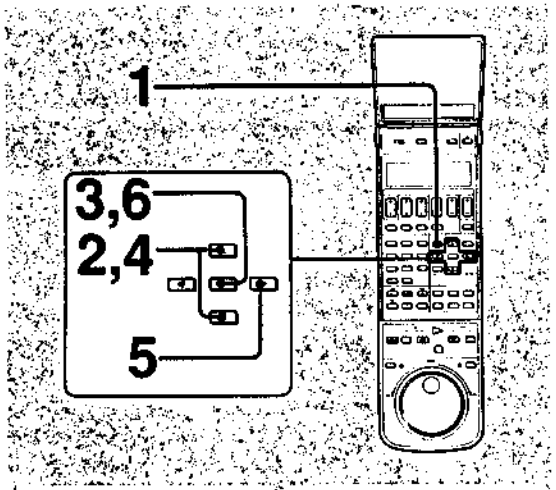
When a bilingual programme is received, NICAM and MAIN/L appear in the display window.
Press the AUDIO MONITOR button repeatedly until the desired sound is heard. The sound is selected cyclically in the order as follows:

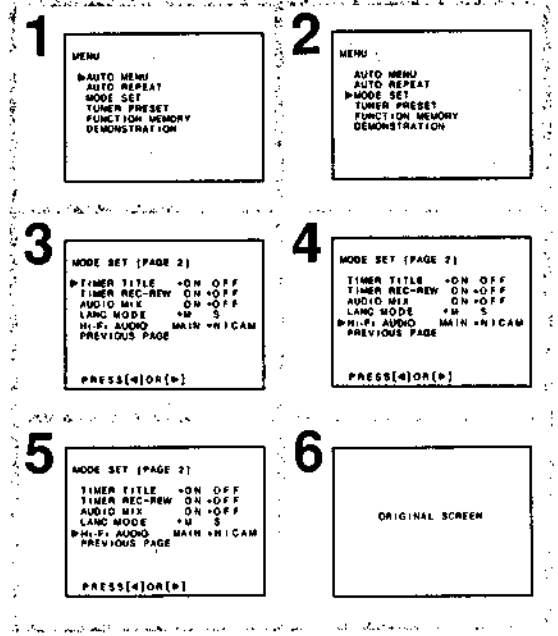
Display	Sound to be heard
MAIN/L	Main sound
SUB/R	Sub sound
MAIN/L SUB/R	Main sound on the left channel Sub sound on the right channel
None	Standard sound

Understanding the NICAM broadcast

NICAM broadcasting has two-channel digital sounds called NICAM L and R channels in addition to the standard sound. The NICAM L and R are assigned to the stereo left and right channels or the main and sub sounds of a bilingual programme. The standard sound of most NICAM broadcasts is the mixed sound of the left and right channels for a stereo programme, and the main sound for a bilingual programme.

Recording Stereo/Bilingual Programmes





■ **To record NICAM broadcasts**

1 **Before recording a NICAM broadcast, press MENU.**
The main MENU appears.

2 **Move cursor with ▲ or ▼ to MODE SET.**

3 **Press EXE.**
If the MODE SET [PAGE 1] menu appears, move cursor with ▲ or ▼ to NEXT PAGE and press EXE.
The MODE SET [PAGE 2] menu appears.

4 **Move cursor with ▲ or ▼ to HI-FI AUDIO.**

5 **Press ▶ to move the dot to NICAM.**

6 **Press EXE to store the setting.**

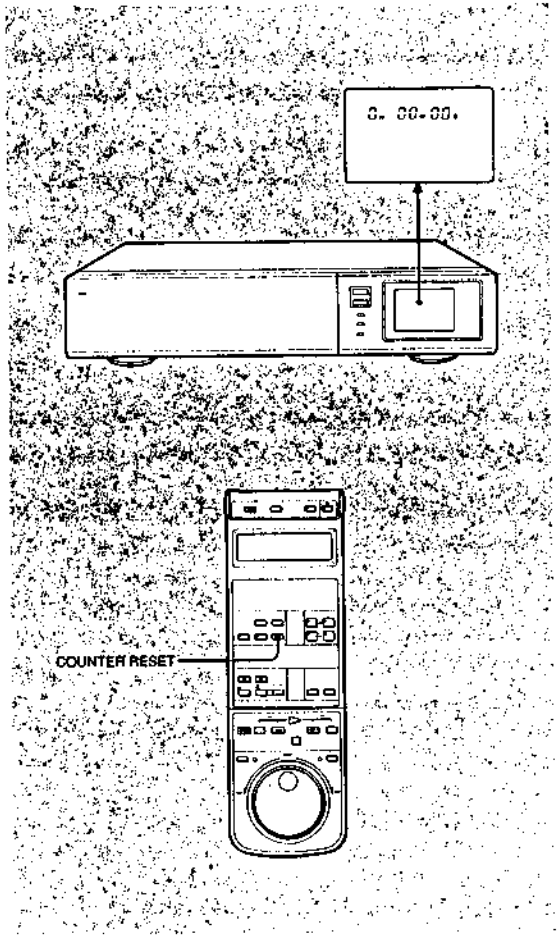
With NICAM setting, NICAM broadcasts will be recorded as in the following table.

Track	Sound to be recorded	
	Stereo	Bilingual
Hi-fi video		
Left channel	Left channel	Main
Right channel	Right channel	Sub
Normal audio	Standard	Standard

* When there is no NICAM broadcast, the standard sound will be recorded on both the hi-fi video track and the normal audio track.

■ **To record the standard sound only**
Follow the operations above and set Hi-Fi AUDIO to MAIN in step 5.
The standard sound will be recorded on the left and right channels of the hi-fi video track and the normal audio track.

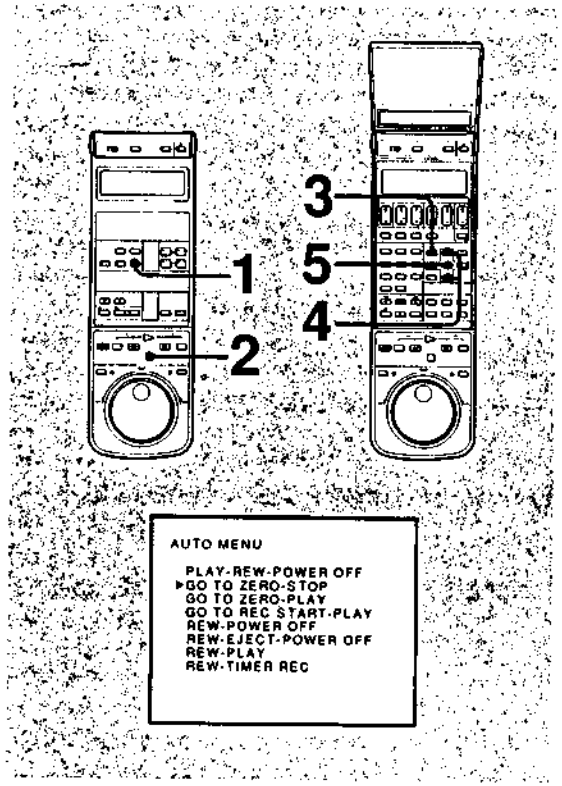
Use of the Tape Counter

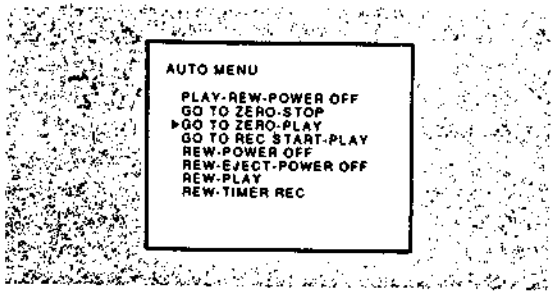


Understanding Counter Zero Position

The tape counter on this VTR can be used as a reference when you wish to locate a certain scene after recording or playback. Press COUNTER RESET to set the counter to "0H00M00S" (counter zero position) before operation. The VTR will keep counting the length of tape being played back or recorded. Note, however, that the tape counter will not count the portions of tape with no signals recorded. This VTR automatically resets the counter to zero whenever a cassette is inserted. Two additional features using COUNTER RESET are available on this VTR: Tape Return and Tape Return Play.

Use of the Tape Counter





Tape Return

The VTR can search for the counter zero position and stop. This function is useful for locating a particular scene after recording or playback.

1 **Press COUNTER RESET at the desired scene during recording or playback.**

2 **Press ■ to stop after recording or playback.**

3 **Press MENU and select AUTO MENU.**
See "Assigning a Desired Operation Mode" for operation.

4 **Move cursor to "GO TO ZERO-STOP."**

5 **Press EXE.**

Tape Return Play

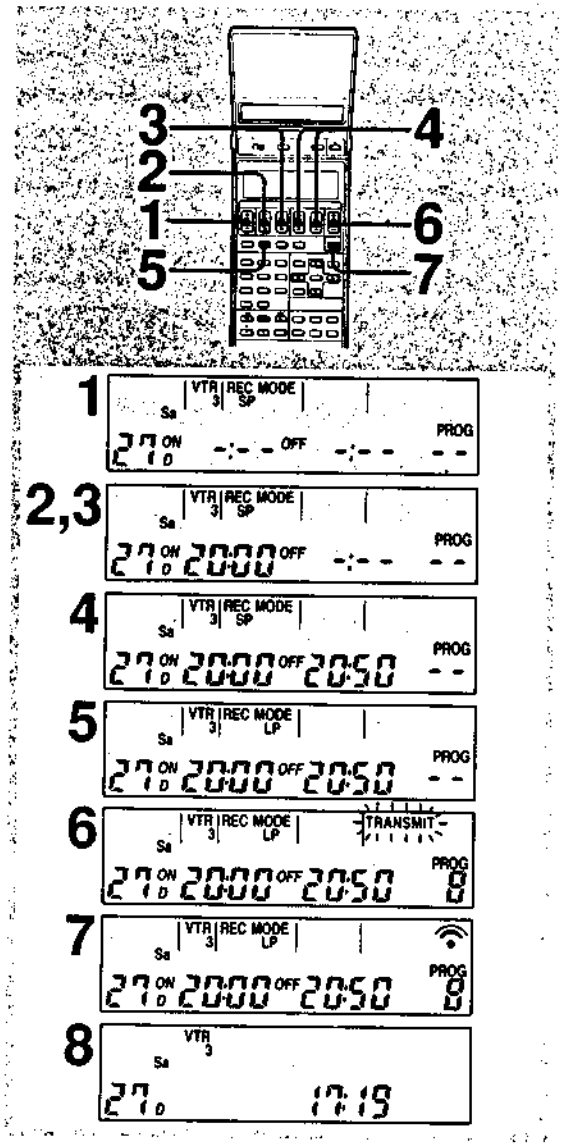
The VTR will even search and start playback from the counter zero position after recording or playback.

1 **Repeat steps 1 to 3 in the Tape Return operation.**

2 **Move cursor to "GO TO ZERO-PLAY".**

3 **Press EXE.**

Timer Activated Recording



Timer Recording on this VTR

Up to eight preselected programmes can be set on this VTR, up to one month in advance.

Before You Begin

- Turn on the TV and adjust it to view the VTR output.
- Check to see that the clock on the Commander and the VTR shows the present time.
- To operate the SLV-715VP, read "VPS Function" first. (See page 56.)

Operation

Example: To record a programme broadcast from 20:00 to 20:50 on Saturday, July 27, 1991 on programme position 6 in LP mode.

1 **Open the cover of the Commander and press D until 27 appears.**
The day of the week, Sa (Saturday), is automatically set.

2 **Set the recording start hour with TURN ON H.**

3 **Set the recording start minute with TURN ON M.**

4 **Set the recording end hour and minute with TURN OFF H and M referring to step 2 and 3.**

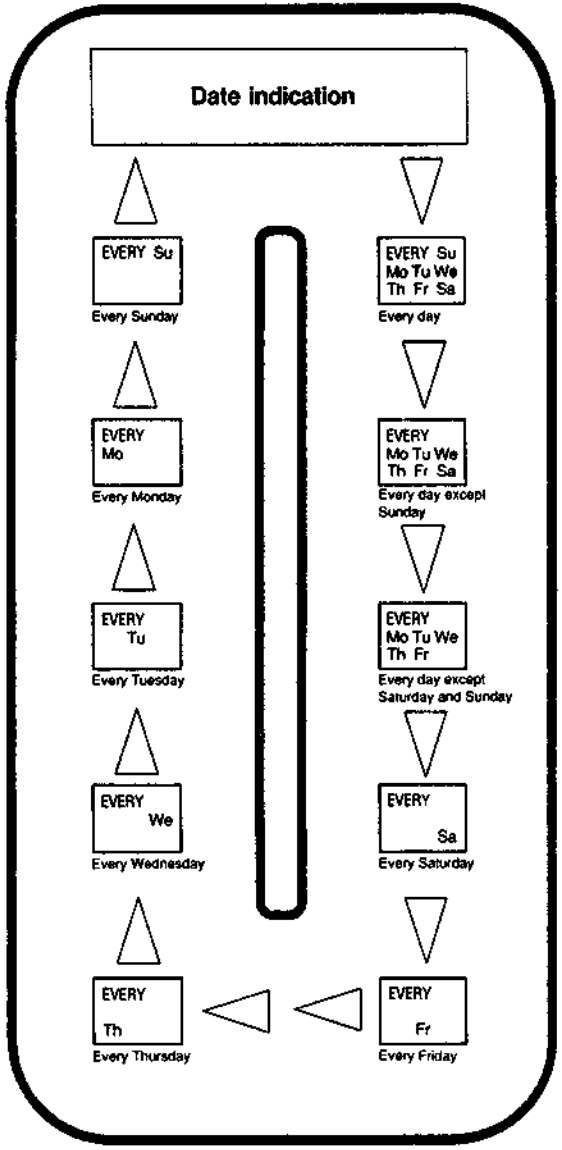
5 **Set the recording speed, SP or LP, with REC MODE.**

6 **Set the programme position with PROG.**
The TRANSMIT indicator blinks to indicate that all of the items are entered.

7 **Point the Commander to the VTR and press TRANS.**
With a beep sound, the settings appear in the display window of the VTR for a few seconds and the VTR enters the timer recording standby mode. The PROGRAM LIST appears on the screen for a few seconds if the VTR is turned on.

8 **Close the cover of the Commander so that the present time appears on the LCD.**
The VTR turns on, starts recording at the selected time, and turns off after recording ends.

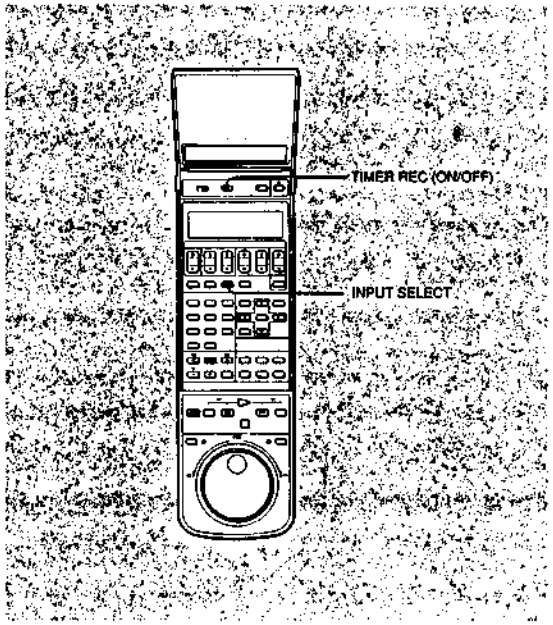
Timer Activated Recording



Daily/Weekly Recording

This VTR can be preset to record the same programme each day of the week (daily recording) or the same programme on a specific day of every week.

Press D – (minus) on the Commander to change the LCD in the order shown in the illustration instead of step 1 in the "Operation." When the desired recording mode is set and transmitted to the VTR, the corresponding indicator lights in the display window.



To Set Other Programmes

Repeat steps 1 to 7 in "Operation" before step 8.

To Stop Timer Recording

Press TIMER REC ON/OFF.

To Record from Equipment Connected to EURO-AV (LINE 1), EURO-AV (LINE 3), or LINE IN 2 VIDEO/AUDIO

Press INPUT SELECT anytime in step 1 to 6 to change the indication from PROG – – to LINE L1 (for the EURO-AV (LINE 1) connector), LINE L2 (for the LINE IN 2 VIDEO/AUDIO jacks) or LINE L3 (for the EURO-AV (LINE 3) connector).

To Record TV Programme and Audio Signals from Equipment Connected to EURO-AV (LINE 1) or LINE IN 2 AUDIO Simultaneously

Set the desired programme position and press INPUT SELECT to indicate SIMUL in step 8. For simulcast recording, see page 65.

If a short beep sounds repeatedly when TRANS is pressed

- No cassette is inserted.
- An illogical setting has been made.
- Timer setting can only be performed when the VTR is in turned off, stop, or timer recording mode.
- Eight timer settings have already been made.
- The tape is at its end.

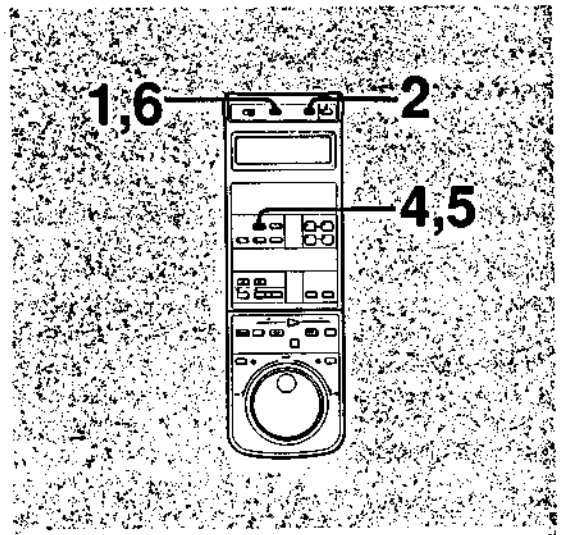
If the tape is ejected after pressing TRANS

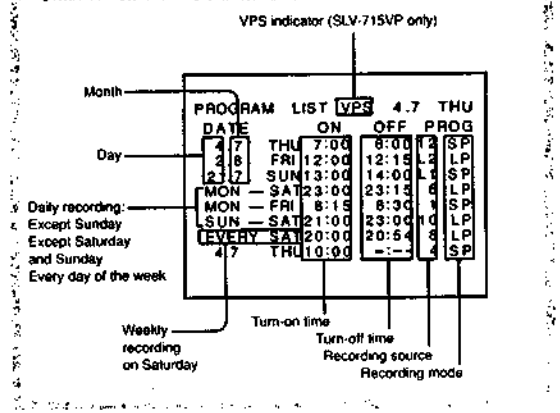
The safety tab of the inserted cassette is removed.

Understanding "one month"

This VTR sets the timer to record programmes which are to be broadcast between today and one day before the same date of the next month.

Timer Activated Recording





Checking the Timer Settings

The timer settings can be checked while the VTR is in the timer recording standby mode by displaying the programme list on the TV screen.

1 **Press TIMER REC ON/OFF to turn off the TIMER REC indicator in the display window of the VTR.**

2 **Turn on the VTR and press TV/VTR to light the VTR indicator in the display window.**
(Only when connection is made via EURO-AV (LINE 1).)

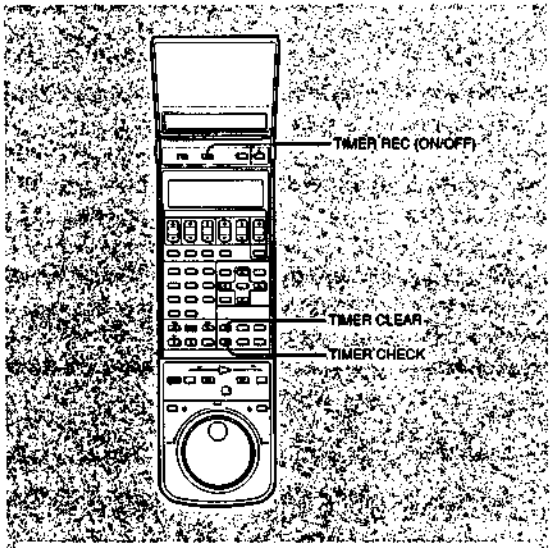
3 **Turn on the TV.**
Set to the programme position for VTR if VTR-TV connection is made via the aerial sockets. Select VTR input on the TV if VTR-TV connection is made via EURO-AV (LINE 1).

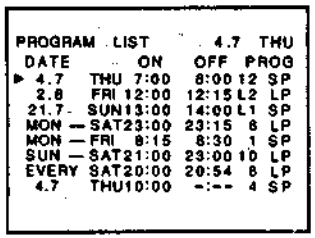
4 **Press TIMER ON SCREEN.**
The programme list appears.

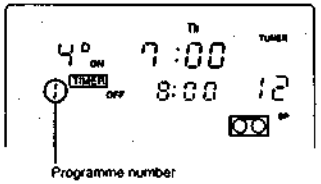
5 **Press TIMER ON SCREEN again to return to the original screen.**

6 **Press TIMER REC ON/OFF to return to the timer recording standby mode.**

Checking the settings without releasing timer recording standby mode
Press TIMER CHECK. Each press changes the programme in the display window one after another.







Clearing/Correcting the Timer Setting

■ **Referring to the programme list**

1 **Display the programme list referring to steps 1 to 4 in "Checking the Timer Settings."**

2 **Press TIMER CHECK to call up and move cursor to the setting you want to clear or correct.**

3 **To clear the setting, press TIMER CLEAR.**
If there are other timer settings on the list, press TIMER REC ON/OFF to return to the timer recording standby mode.
To correct the setting, re-enter all of the items using the Commander. Refer to "Timer Activated Recording — Operation" steps 1 to 7.
The VTR automatically enters the timer recording standby mode.

■ **Clearing the setting without the programme list**

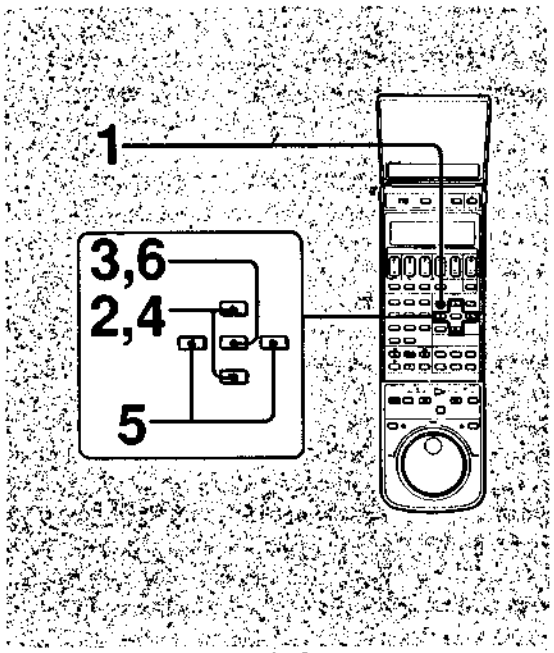
1 **Press TIMER REC ON/OFF.**

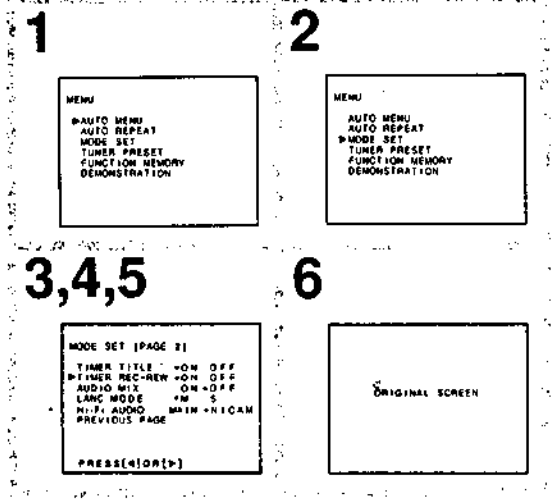
2 **Press TIMER CHECK repeatedly until the desired programme appears in the display window.**

3 **Press TIMER CLEAR.**

4 **Press TIMER REC ON/OFF to return to the timer recording standby mode if there are other programmes set for timer recording.**

Timer Activated Recording





*Hi-Fi AUDIO for SLV-715UB only

To Automatically Rewind the Tape After Timer Recording

1 **Before setting the timer, press MENU.**

2 **Move cursor with ▲ or ▼ to MODE SET in the main menu.**

3 **Press EXE.**
If the MODE SET [PAGE 1] menu appears, move cursor with ▲ or ▼ to NEXT PAGE and press EXE. The MODE SET [PAGE 2] menu is displayed.

4 **Move cursor with ▲ or ▼ to TIMER REC — REW.**

5 **Press ◀ or ▶ to move the dot to ON.**
To cancel this setting, move the dot to OFF.

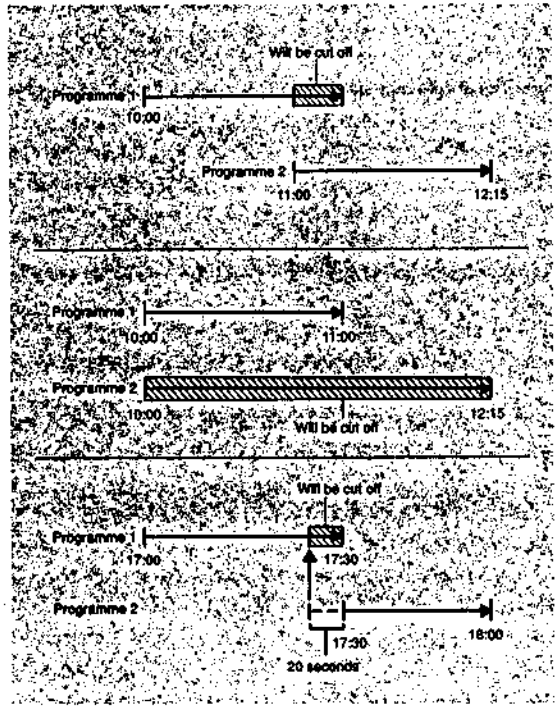
6 **Press EXE to store this setting and return to the original screen.**

Using the VTR during Timer Recording Standby Mode

1 **Press TIMER REC ON/OFF to turn off the TIMER REC indicator.**

2 **Turn on the power of the VTR.**
The VTR is ready to be used.

3 **After using the VTR, press TIMER REC ON/OFF to light the TIMER REC indicator. The VTR re-enters the timer recording standby mode.**



When the Timer Settings Overlap

■ **If the setting of two programmes overlap**
The recording of the following programme will begin automatically before the proceeding programme ends.

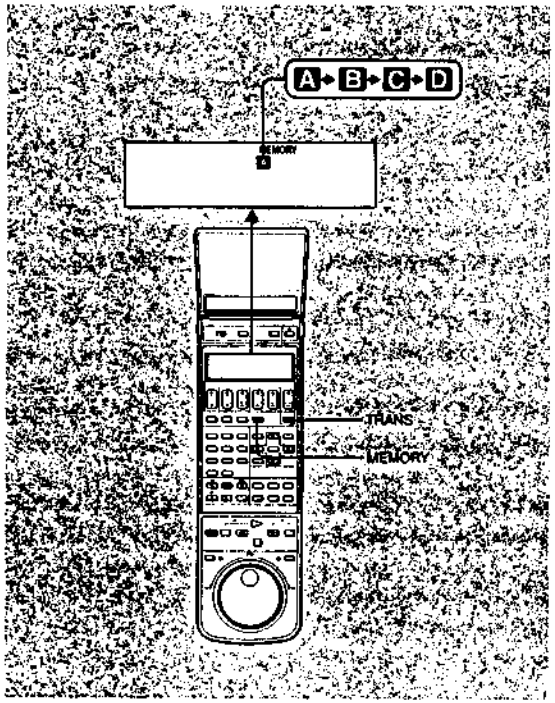
■ **If the turn-on time of two programmes are the same**
The VTR will record the programme with the smaller programme number or listed first on the programme list. The programme with the larger programme number or listed lower in the list will be erased.

■ **If the recording end time of programme 1 and the recording start time of programme 2 are the same**
The last 20 seconds of programme 1 will not be recorded because the VTR will enter the recording pause mode for programme 2 and records the timer title for programme 2 before programme 1 ends.

Power interruption during timer recording standby/timer recording mode

- If the power interruption lasts less than three hours, the VTR will enter the recording standby mode or resume timer recording when the power is recovered.
- If the power interruption exceeds three hours during the recording standby mode, the timer settings will be cleared.
  Reset the clock and re-enter the items for timer recording again. If the power interruption occurred during timer recording, the recording will stop and the VTR will be turned off.

Timer Activated Recording



To Store the Frequently Used Timer Settings in the Commander

The items selected for one timer recording programme will be erased from the LCD when the Commander cover is closed, and cleared from the programme list as well when recording is over.
However, the turn-on/turn-off time and the programme position of up to four programmes can be stored in the Commander to be recalled later. This enables you to quickly access the most frequently used items, especially your favorite weekly programme, since the recording date will automatically be shifted to the next week after the recording is over.

■ Storing the parameters

1 **Press MEMORY to indicate MEMORY A.**

2 **Set all of the items for timer recording referring to "Timer Activated Recording — Operation."**

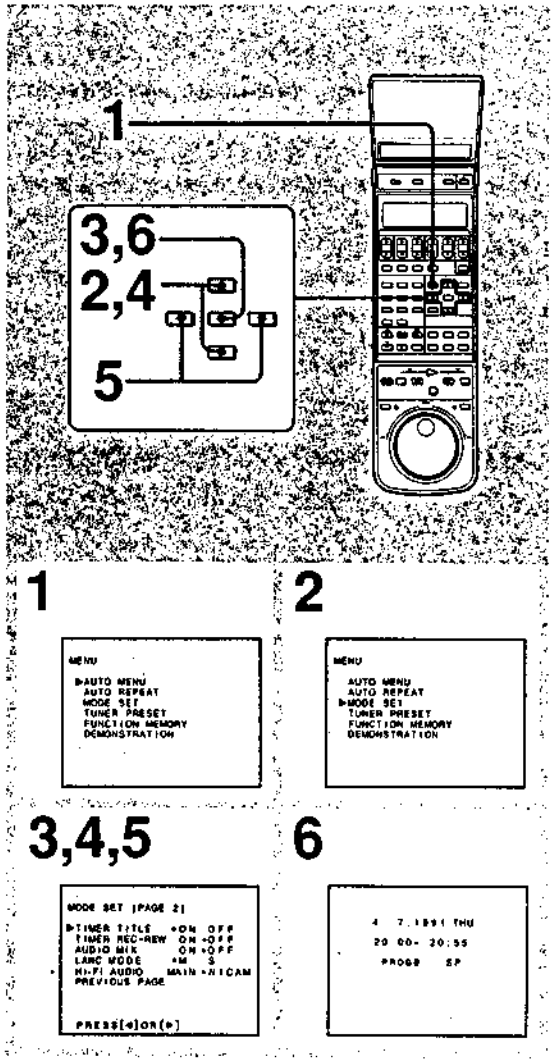
3 **Press MEMORY to change the indication to B, C, or D, and repeat step 2 for other programmes.**
The items set will be kept in the memory even when the Commander cover is closed.

■ Recalling and re-entering the items

1 **Press MEMORY to call up the desired memory indication (A, B, C, or D).**

2 **Make whatever changes necessary.**

3 **Press TRANS.**
The VTR enters the timer recording standby mode.



*Hi-Fi AUDIO for SLV-715UB only

Recording a Timer Title

A timer title screen consisting of the date of recording, recording start/end time, the programme position and recording mode can be recorded on the tape for 3 seconds before the programme. The timer title is convenient for locating a desired programme when several programmes are recorded on a single tape.

1 **Before setting the timer, press MENU.**
The main menu appears.

2 **Move cursor with ▲ or ▼ to MODE SET.**

3 **Press EXE.**
If the MODE SET [PAGE 1] menu appears, move cursor with ▲ or ▼ to NEXT PAGE and press EXE. The MODE SET (PAGE 2) menu is displayed.

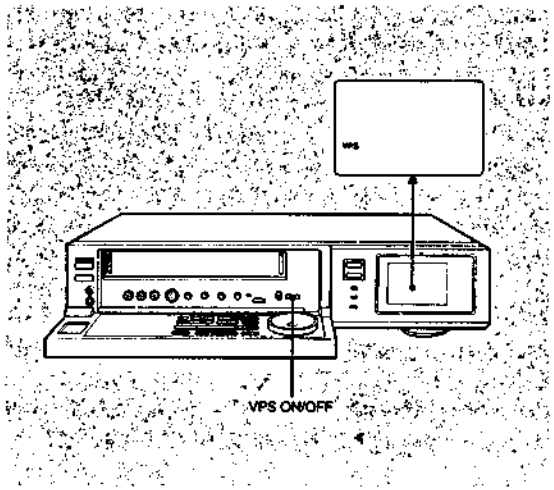
4 **Move cursor with ▲ or ▼ to TIMER TITLE.**

5 **Press ◀ or ▶ to move the dot to ON to record the timer title, and OFF to record without timer title.**

6 **Press EXE to store the setting.**
If ON is selected in step 5, the timer title will automatically be recorded before the timer recording starts.

SLV-715VP only
The timer title cannot be recorded if the VPS indication is lit in the VTR's display window, regardless of the setting in the MODE SET [PAGE 2] menu.

Timer Activated Recording



VPS (Video Programme System) Function (SLV-715VP only)

The German broadcasting system transmits VPS signals with the TV programmes which assure that your timer recording will be performed without missing any portion of it regardless of any earliness, time delay, extension, or broadcast interruption which might occur during that programme.

■ Operation

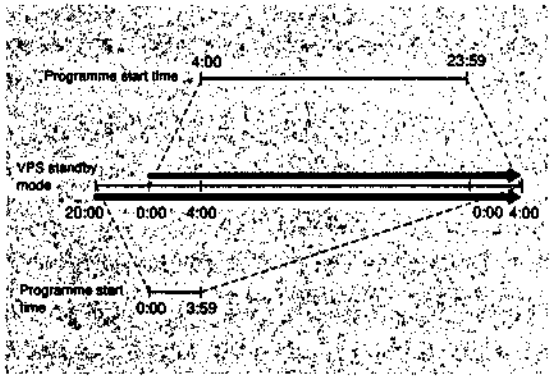
1 **Check whether VPS is transmitted with the programme to be recorded.**

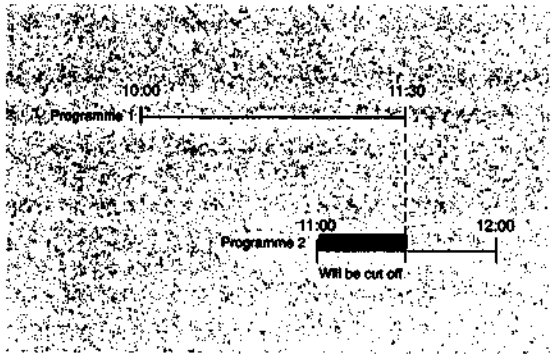
2 **Press VPS ON/OFF so that the VPS indicator lights in the display window.**

3 **Set the timer referring to "Timer Activated Recording — Operation."**

Notes

- The VPS button is effective only when the TIMER REC indicator is turned off.
- If the VPS signal was not received on the VTR because it was too weak or because the station failed to transmit, timer recording will be performed without the VPS function regardless of the VPS indication.
- The recording will stop when the VTR receives a VPS programme interruption code during recording, for example, when an urgent news bulletin was inserted. As soon as the interrupted programme resumes, recording will continue.
- The timer title will not be recorded, regardless of the setting in the MODE SET [PAGE 2] menu, when the VPS function is activated.





■ VPS standby mode

The VTR will enter the standby mode for VPS recording far before the turn-on time and remains in the standby mode passed the preset turn-on time until the VPS signal is received to prepare for any change in the actual broadcast time.

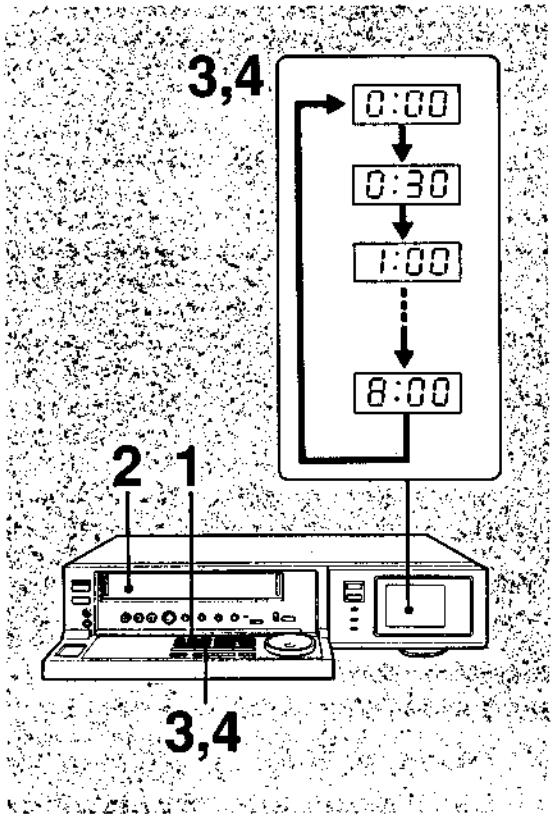
When the VPS timer recording is set for a programme which is expected to start between 4:00 and 23:59, the VTR will enter the standby mode at 0.00 that day and will keep on waiting for the VPS signal until 4:00 of the next day.

When the VPS timer recording is set for a programme which is expected to start between 0:00 and 3:59, the VTR will enter the standby mode at 20:00 the day before the recording day and will keep on waiting for the VPS signal until 4:00 on the next day.

■ If the actual recording time overlaps with the next timer recording programme

There may be cases when the actual broadcast time of two timer recording programmes overlap owing to the shift made by the VPS signal. In this case, the programme that was broadcast first always has priority. The recording of the second programme will begin only after the first programme is over.

Quick Timer Recording



What is Quick Timer Recording?

The quick timer recording function provides a short cut to enter the timer recording mode or to use the timer to turn off the VTR after recording is over.
The timer can be set to operate within 8 hours in units of 30 minutes.

Operation

If you are recording, skip steps 1 to 3.

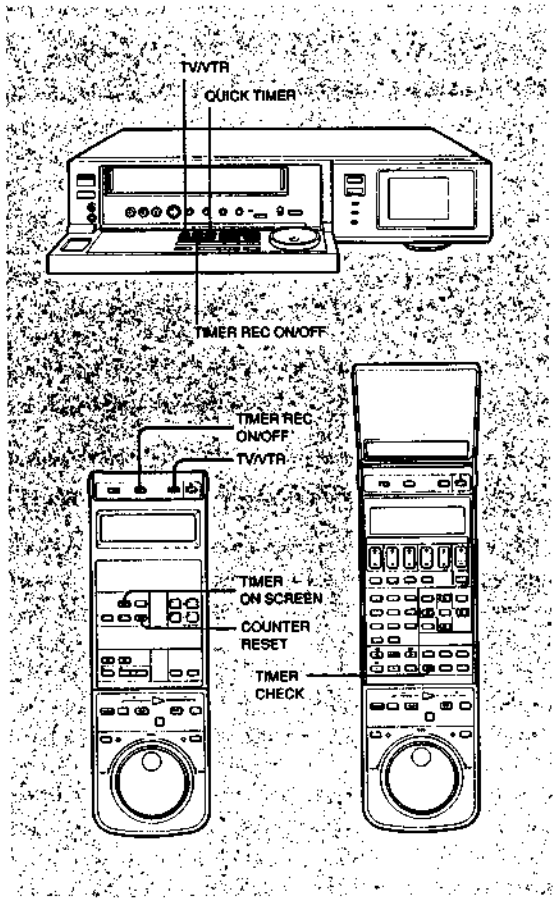
1 **Press INPUT SELECT so that TUNER indicator is turned on.**

2 **Insert a cassette.**

3 **Press QUICK TIMER.**
The TIMER indicator lights in the display window. While 0:00 and programme position number is blinking in the display window, select the desired programme number with PROGRAM +/–.
A cassette with its safety tab removed will be ejected.

4 **Press QUICK TIMER again to start recording.**
Press QUICK TIMER again to set the recording duration within 30 seconds from step 3, otherwise the power will be turned off. Each press of QUICK TIMER changes the indication in the display window in units of 30 minutes.

5 **The recording duration will decrease minute by minute until 0:00 when the VTR is automatically turned off.**



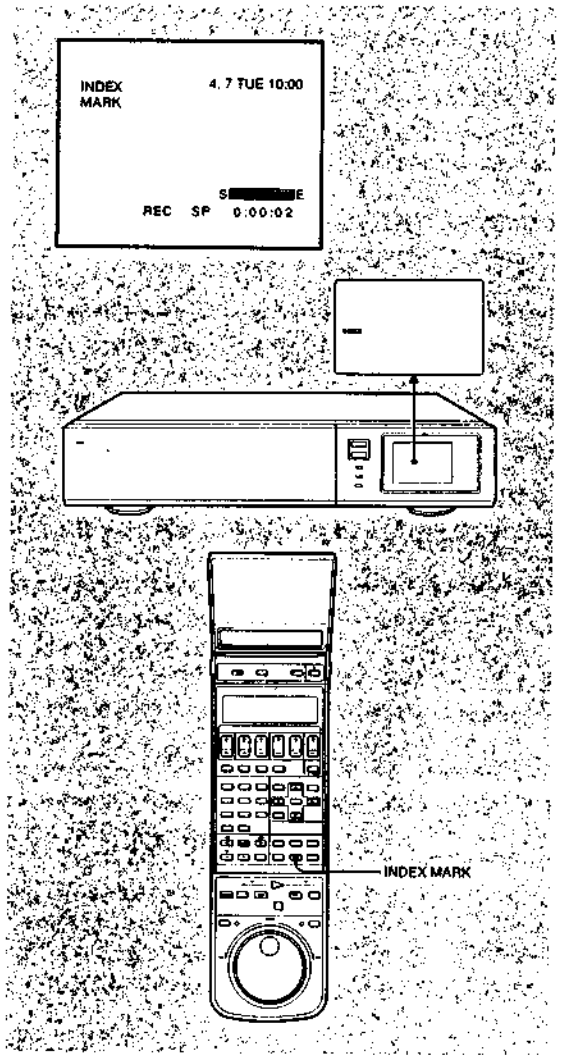
■ Buttons operable during quick timer recording

- **TIMER REC ON/OFF** stops quick timer recording.
- **QUICK TIMER** changes the recording duration.
- **TIMER ON SCREEN** displays the programme list.
- **TIMER CHECK** changes the programme number in the display window.
- **COUNTER RESET** resets the counter to zero.
- **TV/VTR** switches the screen to another programme received on the TV.

If power interruption occurs during quick timer recording
Recording will stop and the VTR will be turned off. If the power interruption lasted for less than three hours and if the power recovered within the quick timer duration, recording will resume from that instant.

If the VTR is in timer recording standby mode
Press TIMER REC ON/OFF to turn off the indicator, then follow steps 4 and 5.

Index Function



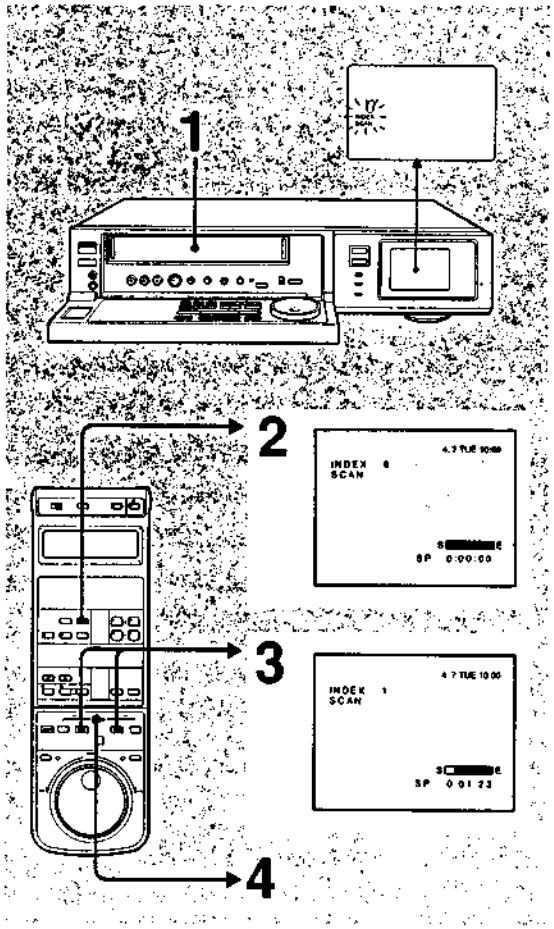
Marking Index Signals

The desired position on a tape can be located easily by detecting the index signals. There are two ways in which to mark index signals: automatic and manual. When the index signal is being marked, INDEX flashes in the display window and the INDEX MARK display will appear on the screen

■ **Automatic index mark**
An index signal is automatically marked on the tape when the VTR starts recording.

■ **Manual index mark**
Index signals can be marked at desired scenes during recording or normal playback. Press INDEX MARK to mark an index.

Notes
- Leave an interval of more than 2 minutes between two index points so that the VTR can detect each INDEX signal accurately.
- The recorded sound will not be heard while marking an index signal. But the audio signal will not be erased.
- Index signals cannot be marked
  - on a tape whose safety tab is removed
  - on an unrecorded portion of the tape.
  - immediately before a point on the tape where the tape speed (LP or SP) changes.



Playing Back from the Index Point — INDEX SCAN

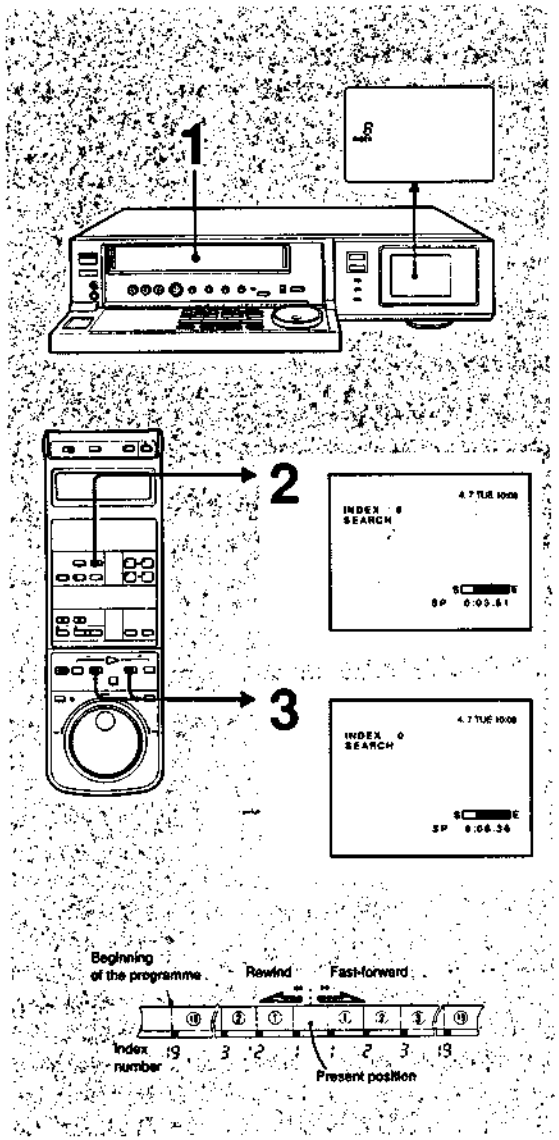
1 **Insert a cassette with index signals marked.**

2 **Press INDEX once.**
INDEX or SCAN indicator blinks alternately in the display window

3 **Press ◀◀ to play back from the previous programme.**
Press ▶▶ to play back from the programme ahead.
The VTR will advance to the next or previous index signal. Then the VTR will play the tape for approximately 10 seconds, and then move to the next index in the selected direction. The index number changes one by one.

4 **Press ▶ when the desired index signal is detected.**

Index Function



Locating an Index — INDEX SEARCH

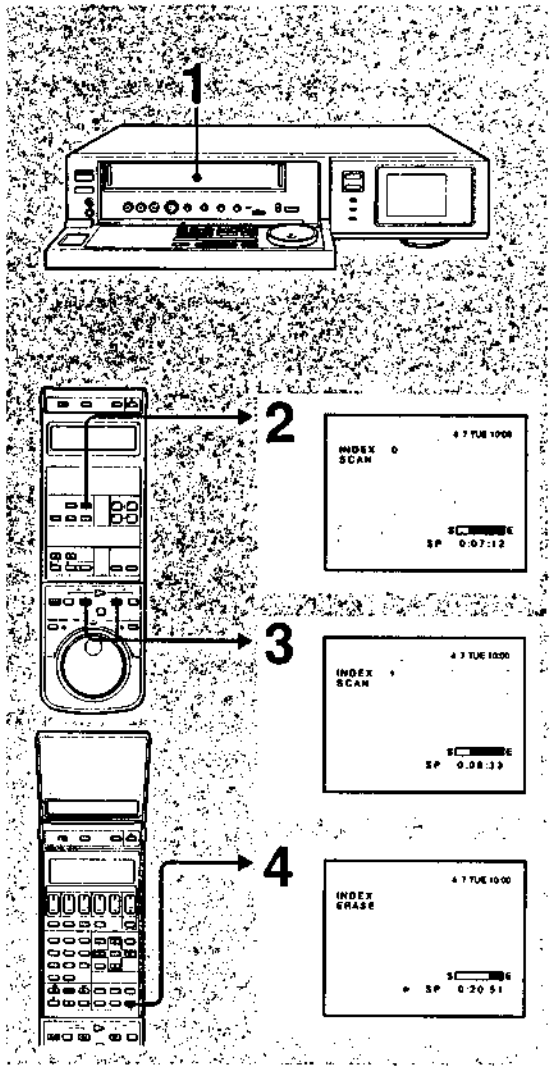
Direct search of the desired index point can be performed by entering the number of how many indexes ahead or behind it is from the current tape position. The VTR counts down how many more indexes should be searched for and displays the sequence in the display window. Up to 19 indexes from the preset position can be searched.

1 **Insert a cassette with index signals marked.**

2 **Press INDEX to show how many indexes should be counted to reach the desired scene.**

3 **Press ◀◀ if the index is behind or ▶▶ if the index is ahead of the current tape position.**
The VTR starts searching and the index number will be counted down to zero.

4 **Playback from the desired point starts.**



Erasing an Index

The index marked on the tape can be erased.

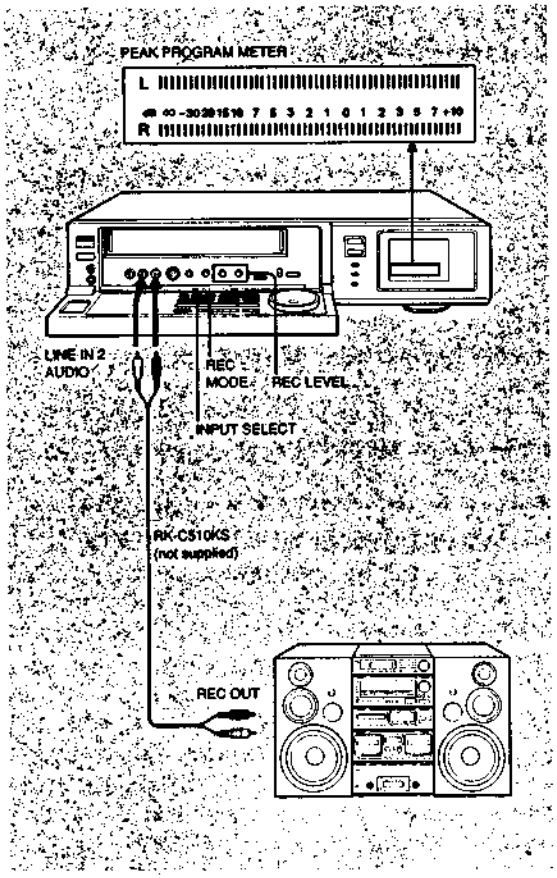
1 **Insert a cassette with index signals marked.**

2 **Press INDEX once.**

3 **Press ◀◀ or ▶▶ to search for the index signal.**
When the VTR detects an index signal, the VTR will play the tape for approximately 10 seconds from the index. If that is the index you want to erase, go to step 4. If that is not the index you want to erase, wait until the desired index is searched.

4 **Press INDEX ERASE while the VTR is in step 3.**
That index signal will be erased. While the index signal is being erased, the recorded sound will not be heard, but it will not be erased. After erasing, the VTR starts searching for an index signal again.

Audio Recording



The hi-fi recording system of this VTR allows recording of high quality stereo sound from an FM tuner, audio system, or other audio equipment.

Before You Begin

- Connect your audio system to the LINE IN 2 AUDIO jacks using the RK-C510KS audio connecting cable (not supplied).
- Set INPUT SELECT to LINE L2.
- Select REC MODE, SP or LP.

Adjusting the Audio Recording Level

Play the recording source. While observing the PEAK PROGRAM METER, adjust the REC LEVEL controls referring to the following guide.

When recording from a conventional record: The right-most element (+10) should light up sometimes.

When recording from a compact disc or PCM processor: The right-most element (+10) should light up only at the highest signal level.

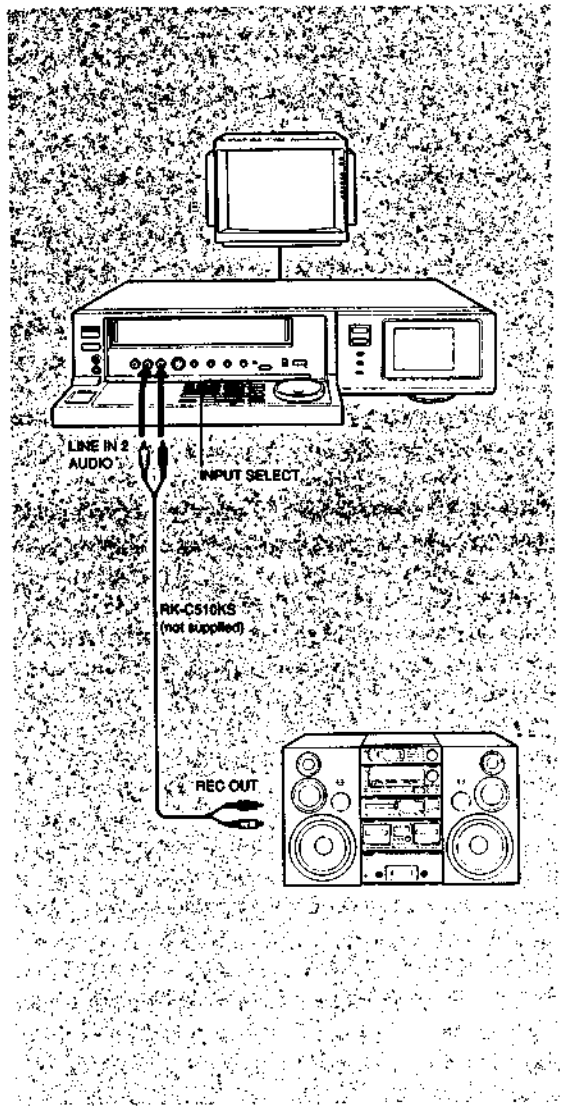
Recording

The recording procedure is the same as "Recording TV Programmes" on page 38.

PCM Recording and Playback

You can perform PCM recording and playback on the video track by connecting a PCM digital audio processor to the LINE IN and OUT VIDEO jacks on this VTR. For details, refer to the instruction manual of the PCM digital audio processor.

Caution
To avoid damaging the speakers due to a wide dynamic range of a hi-fi recorded tape/disc, turn down the volume of the TV before playing back a hi-fi recorded tape/disc.



Simulcast Recording

You can record TV programme and the sound from other equipment such as an FM tuner, simultaneously. The audio signals from the TV receiver are recorded on the normal audio track and those from the connected equipment on the video track.

■ **Before you begin**
- Connect your audio equipment to the EURO-AV (LINE 1) connector or the LINE IN 2 AUDIO jacks.
- The EURO-AV (LINE 3) connector cannot be used for a simulcast recording.
- Press INPUT SELECT on this VTR to indicate SIMUL in the display window.
- Other settings are the same as "Audio recording" on the previous page.

■ **To set SIMUL AUDIO IN**
Select the audio input to which your audio equipment is connected.

1 **Press MENU.**
The main MENU appears.

2 **Move cursor with ▲ or ▼ to MODE SET.**

3 **Press EXE.**
If the MODE SET [PAGE 2] menu appears, move cursor with ▲ or ▼ to PREVIOUS PAGE and press EXE. The MODE SET [PAGE 1] menu appears.

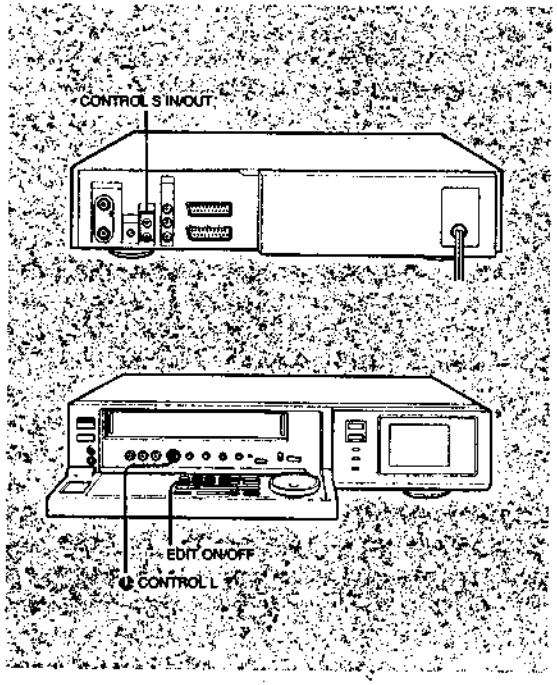
4 **Move cursor with ▲ or ▼ to SIMUL AUDIO IN.**

5 **Move the dot with ◀ or ▶ to L1 or L2 to which your audio equipment is connected.**

6 **Press EXE to store the setting and return to the original screen.**

■ **Operation**
The recording procedure is the same as "Recording TV programmes" on page 38.

Tape Editing



Before You Begin

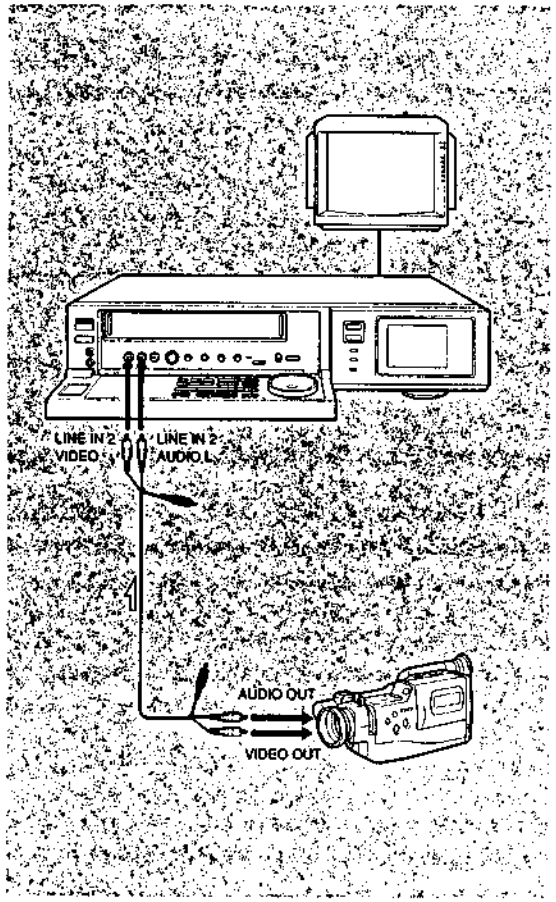
You can create your own video programme by editing with other VTRs. Take a look at the following examples to expand your pleasure in video operation.

■ Use of the Sony control terminals

If your second VTR is equipped with Sony control terminals, CONTROL L or CONTROL S output or input, synchronized editing can be performed. Synchronized editing enables remote control of this VTR's playback/recording start and pause by the other VTR.
See pages 69 through 74.

■ Use of the EDIT mode

The EDIT mode activated by the EDIT ON/OFF button on the VTR enables recording and playback of higher quality pictures during editing. If the other VTR is equipped with this function, turn it on. However, note that even when using the EDIT mode during editing, the quality of the edited tape will have a certain extent of degradation in picture and sound. Avoid using the edited tape for multiple generations of editing.



Editing from another VTR

Using this VTR as a recording VTR and an 8 mm video camera recorder as a playback VTR.

■ Before you begin

- Make connections using the supplied video/audio connecting cable as illustrated
- If the other VTR is a monaural type as shown in the illustration, connect the white plug to LINE IN 2 AUDIO L and leave the red plugs unconnected. This enables the sound to be separated into the right and left channels. If the other VTR is a stereo type, make connections with both the red and white plugs.
- Press INPUT SELECT on this VTR to indicate LINE L1, LINE L2 or LINE L3 to match the jack to which you have connected the other VTR.
- Activate the EDIT mode on both VTRs.
- Select the recording tape speed, SP or LP.

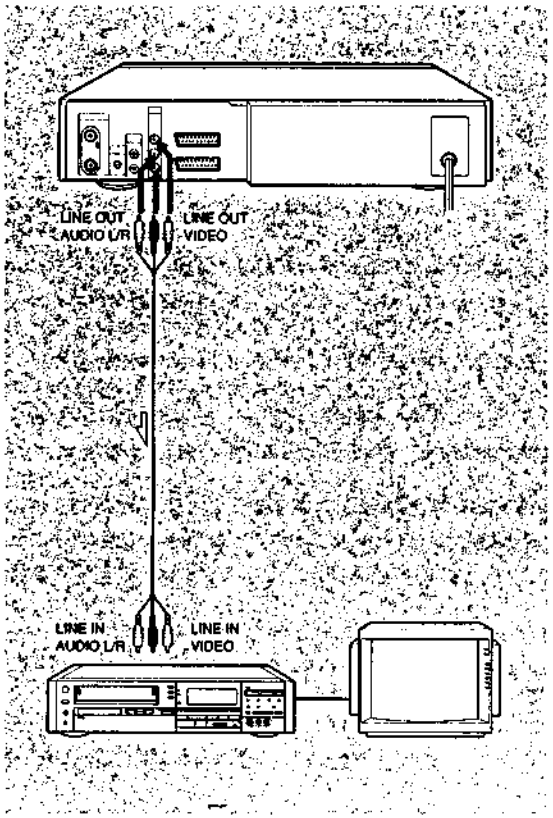
■ Operation

1 **Insert a source tape into the playback VTR. Insert a tape for recording into this VTR.**

2 **Play back on the playback VTR and record with this VTR.**

Note
The → mark indicates the signal flow.

Tape Editing



Editing onto Another VTR

Using this VTR as a playback VTR and another VTR as a recording VTR.

■ **Before You Begin**

- Make connections using the supplied video/audio connecting cable as illustrated. If the other VTR is a monaural type, make connections with the VMC-910MS/920MS video/audio connecting cable (not supplied).
- Press AUDIO MONITOR on the Commander to select the sound to be recorded.
- Press DATA SCREEN on the Commander to erase the data screen.
- Activate the EDIT mode on both VTRs.
- Select the line input on the other VTR.

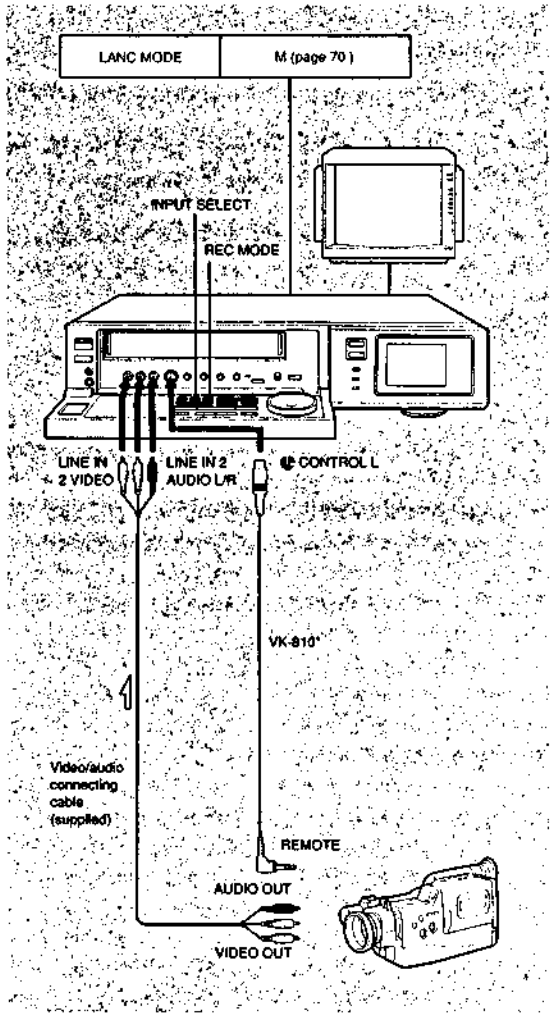
■ **Operation**

1 **Insert a source tape into this VTR. Insert a tape for recording into the recording VTR.**

2 **Play back on this VTR and record with the recording VTR.**

Note
Do not connect the same VTR to both the LINE IN and LINE OUT jacks of this VTR. This may cause hum noise.

Synchronized Editing — Editing with a VTR Equipped with a Sony Control Terminal



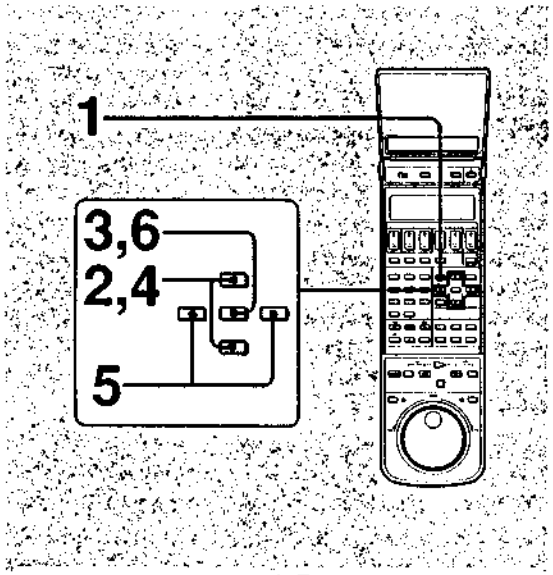
Connecting a VTR Equipped with a CONTROL L Connector

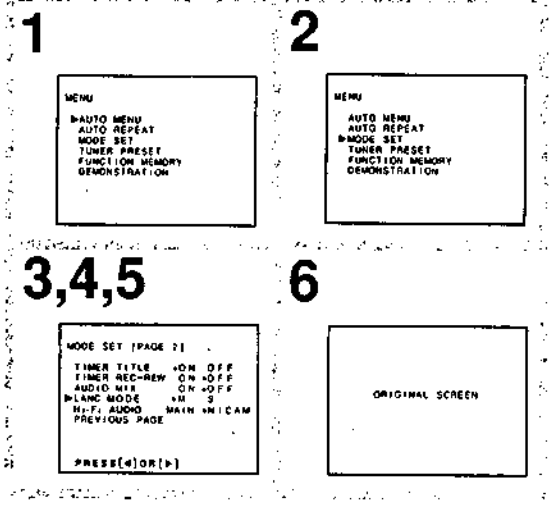
Using this VTR as a recording VTR and another VTR as a playback VTR.

- When the REMOTE connector of the other VTR is a stereo mini-mini plug, use the VK-810 connecting cable (not supplied).
  If it is a 5-pin DIN connector, use the VK-800 connecting cable (not supplied) instead of VK-810.
- If the other VTR is monaural, connect the white plug to LINE IN 2 AUDIO L and leave the red plugs unconnected. This enables the sound to be separated into the right and left channels. Connect nothing to LINE IN 2 AUDIO R.

Notes
- The cable with an* (asterisk) is not supplied.
- The →, mark indicates the signal flow.

Synchronized Editing — Editing with a VTR Equipped with a Sony Control Terminal





*Hi-Fi AUDIO for SLV-715UB only

■ **To set LANC MODE**

When the other VTR is connected via the CONTROL L connector, you may select the LANC MODE which determines if this VTR controls the other VTR via the CONTROL L connector or it is controlled by the other VTR. This is LANC MODE.
To perform synchronized editing using the SYNCHRO EDIT button on this VTR, select LANC MODE M as follows:

1 **Press MENU.**
The main MENU appears.

2 **Move cursor with ▼ or ▲ to MODE SET.**

3 **Press EXE.**
If the MODE SET [PAGE 1] menu appears, move cursor with ▲ or ▼ to NEXT PAGE and press EXE.
The MODE SET [PAGE 2] menu appears.

4 **Move cursor with ▼ or ▲ to LANC MODE.**

5 **Move the dot with ◀ to M when you control the other VTR through this VTR, and to S when you control this VTR through the other VTR.**

6 **Press EXE to store the setting and return to the original screen.**

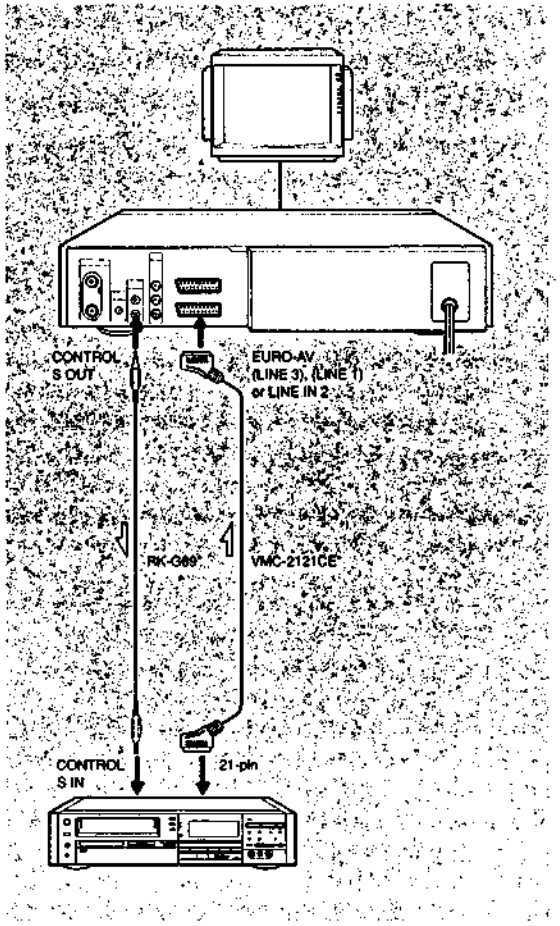
■ **Operation**

See "Synchronized Editing from Another VTR" on page 73.

Using a Sony editing controller RM-E300
You can perform automatic assemble editing of up to 8 programmes. Select the LANC MODE S in the MODE SET [PAGE 2] menu.

About the LANC
LANC stands for Local Application Control Bus System. The LANC connector is used for controlling the tape transport of video equipment and peripherals connected to it. This connector has the same function as the connectors indicated as CONTROL L or REMOTE.

Synchronized Editing — Connection



Connecting a VTR Equipped with a CONTROL S Input Jack

Using this VTR as a recording VTR and another VTR as a playback VTR.

* When connecting the other VTR to LINE IN 2 on the front, use the supplied video /audio connecting cable. If the other VTR is monaural, connect to LINE IN 2 AUDIO L via the white plugs. This enables the sound to be separated into the right and left channels. Leave the red plugs unconnected.

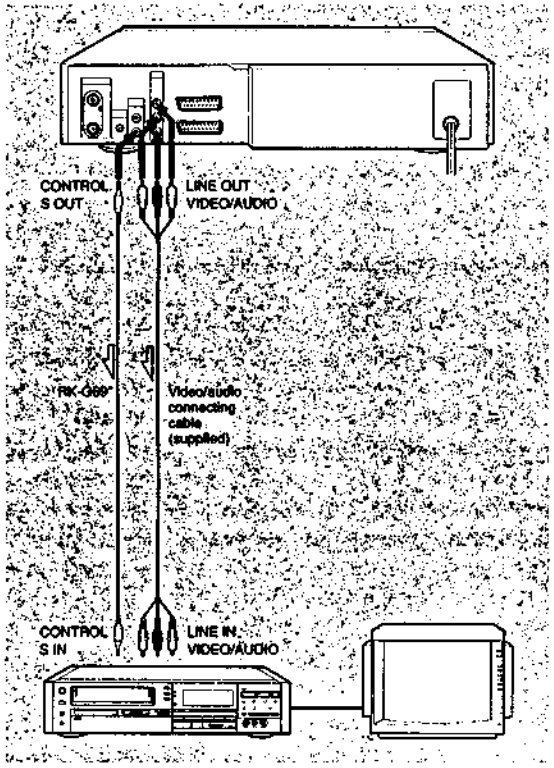
Notes
- The cables with an * (asterisk) are not supplied.
- The → mark indicates the signal flow.

■ **Operation**

See "Synchronized Editing from Another VTR" on page 73.

When a new scene is inserted onto the recorded tape
See "Insert Editing" on page 76.
The edited picture will be distorted at the editing end point.

Synchronized Editing — Connection



Connecting a VTR Equipped with a CONTROL S Input Jack

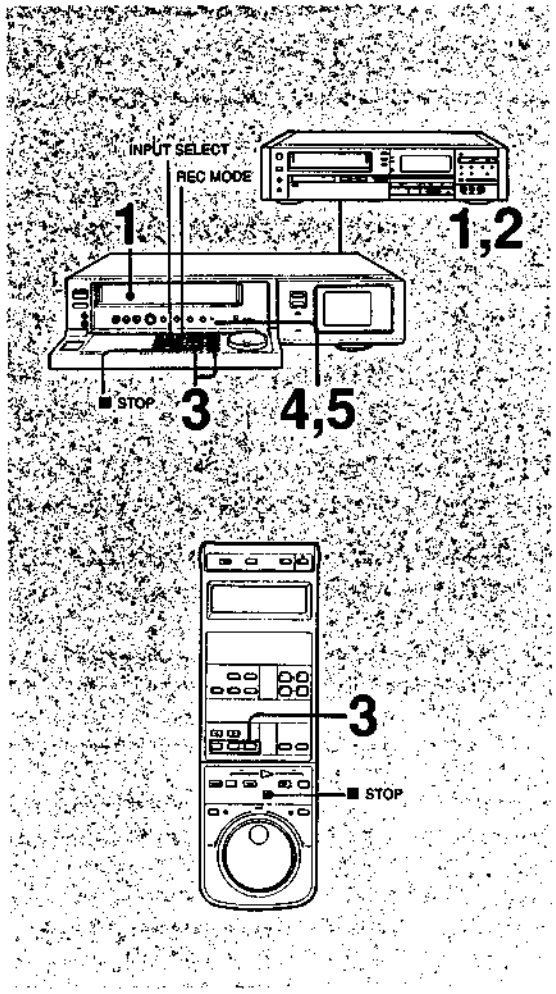
Using this VTR as a playback VTR and another VTR as a recording VTR.

- If the other VTR is monaural, connect the VTR using the VMC-910MS/920MS video/audio connecting cable (not supplied).
- You can also connect the other VTR to EURO-AV (LINE 1) using the VMC-2121CE cable (not supplied).

■ Operation

See "Synchronized Editing onto Another VTR" on page 74.

Synchronized Editing — Operation



Synchronized Editing From Another VTR

Using this VTR as a recording VTR and another VTR as a playback VTR.

■ Before You Begin

- Press INPUT SELECT to indicate LINE L1, LINE L2 or LINE L3 to match the jacks to which you have connected the other VTR.
- Press REC MODE to select the recording tape speed, SP or LP.

■ Operation

1 **Insert a source tape into the playback VTR. Insert a tape for recording into this VTR.**

2 **On the playback VTR, locate the point where you wish to start editing and set the VTR to the playback pause mode.**
If the VTR is equipped with the EDIT switch, set it to ON.

3 **On this VTR, locate the recording starting point and set the VTR to the recording pause mode.**

4 **Press SYNCHRO EDIT.**
Playback and recording will start on each VTR. The EDIT mode will be activated automatically.

5 **To stop editing, press SYNCHRO EDIT.**

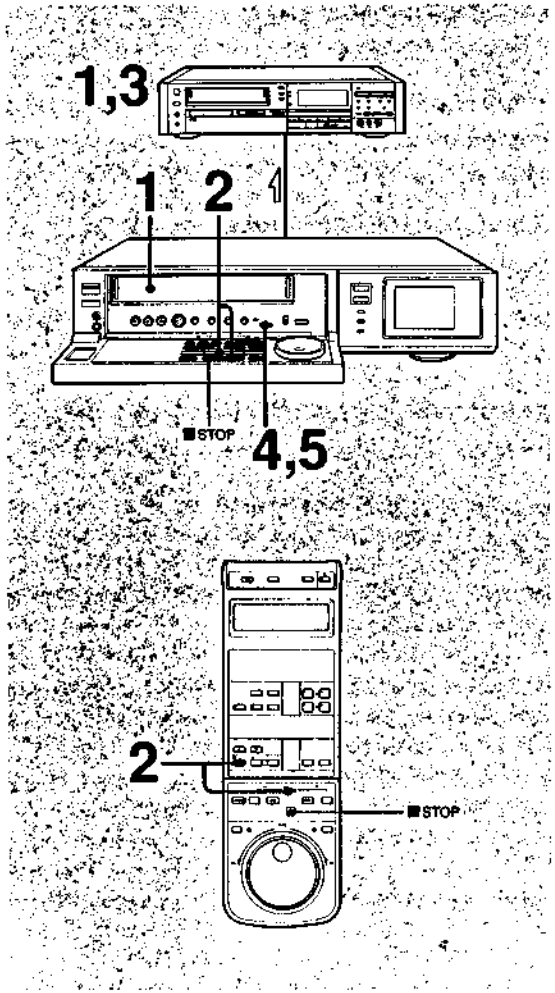
6 **To edit more scenes, repeat steps 2, 4 and 5.**

After editing, press ■ STOP on both VTRs.

Notes

- For considering of the rise time of the player, the recording will start approximately 1 second after the playback pause mode is released.
- When this VTR is used as the recording VTR and the SYNCHRO EDIT indicator lights, if the variable speed picture, such as the slow speed or double speed picture is played back on the playback VTR, the variable speed picture will be recorded

Synchronized Editing — Operation



Synchronized Editing onto Another VTR

Using this VTR as a playback VTR and another VTR as a recording VTR.

■ Operation

1 **Insert a source tape into this VTR. Insert a tape for recording into the recording VTR.**

2 **On this VTR, locate the point where you wish to start editing and set the VTR to the playback pause mode.**

3 **On the recording VTR, locate the recording starting point and set the VTR to the recording pause mode.**

4 **Press SYNCHRO EDIT.**
After a tape is rewound a little, playback will start on this VTR. The recording will start at the assigned recording starting point.
The EDIT mode will be activated automatically.

5 **To stop editing, press SYNCHRO EDIT.**

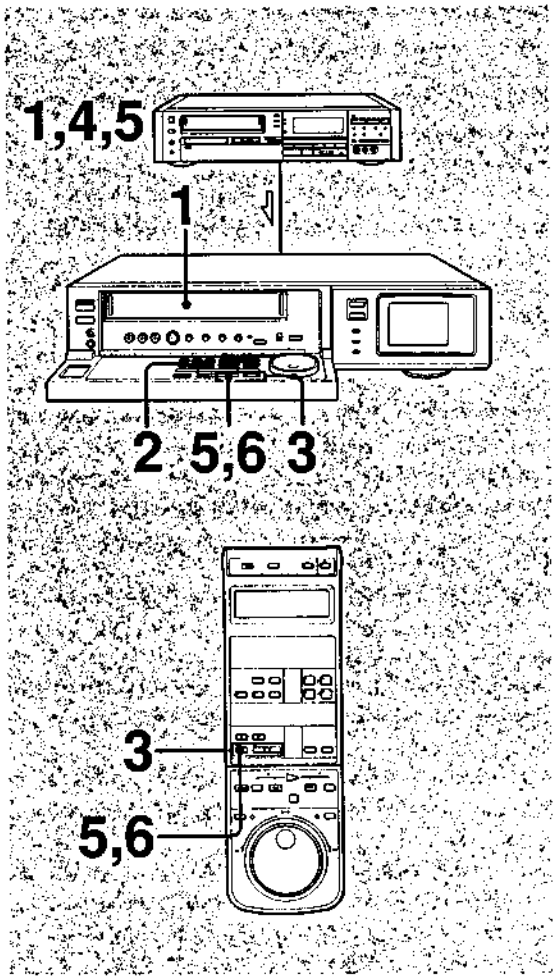
6 **To edit more scenes, repeat steps 2, 4 and 5.**

After editing, press ■ STOP on both VTRs.

When using the synchronized editing function of another Sony VTR
When the VTRs are connected via the CONTROL S jacks, set COMMAND MODE of this VTR to VTR 1 or VTR 2. With VTR 3 setting, this VTR may not be operated.

Note
Do not operate the buttons on the VTRs or Commander during editing. Doing so may cause a malfunction.

Manual Editing — Editing with a VTR not Equipped with a Sony Control Terminal



Using this VTR as a recording VTR and another VTR as a playback VTR.

For connections, see page 69 or 71. The CONTROL L or CONTROL S connection is not necessary.

■ Before You Begin
- Press INPUT SELECT to indicate LINE L1, LINE L2 or LINE L3 to match the jacks to which you have connected the other VTR.
- Press REC MODE to select the recording tape speed, SP or LP.

■ Operation

1 **Insert a source tape into the playback VTR. Insert a tape for recording into this VTR.**

2 **Press EDIT to light the EDIT indicator in the display window.**

3 **On this VTR, locate the recording starting point and set the VTR to the recording pause mode.**

4 **On the playback VTR, locate the point where you wish to start editing and set the VTR to the playback pause mode.**
If the VTR is equipped with the EDIT switch, set it to ON.

5 **Press II PAUSE of both VTRs simultaneously to start editing.**

6 **To stop editing, press II PAUSE of this VTR.**

7 **To edit more scenes, repeat steps 4 to 6.**

After editing, press ■ STOP on both VTRs.

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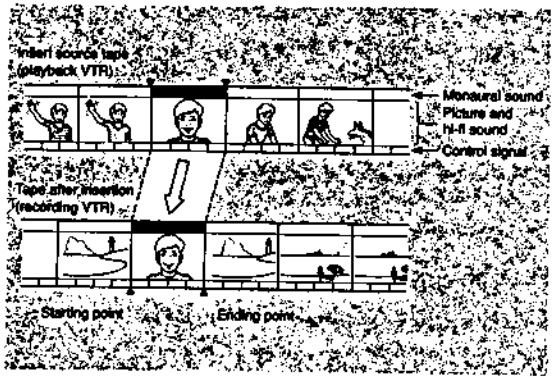
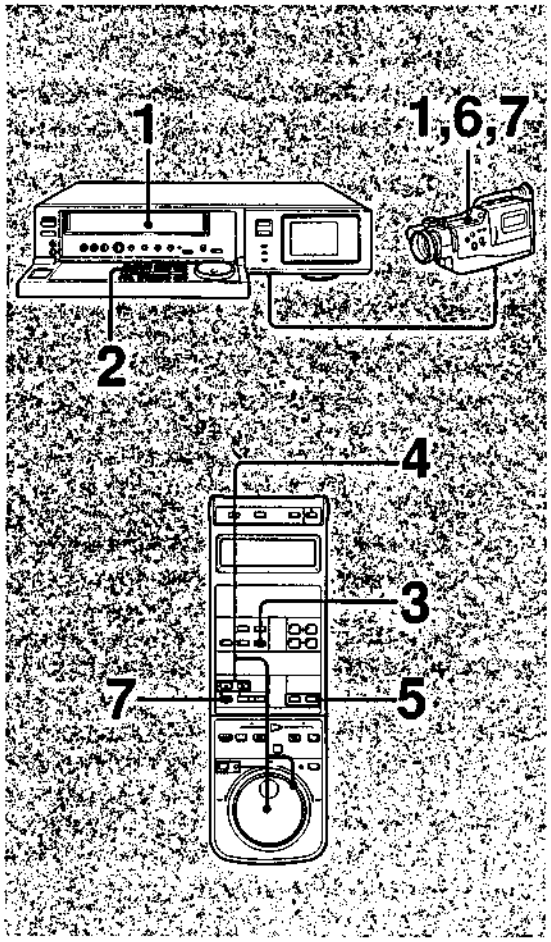
Insert Editing



You can easily insert a new picture and/or sound onto a pre-recorded tape. This editing is useful to replace an unnecessary scene (sound) with another scene (sound).

■ **Before You Begin**

- For connection, see page 69 or 71. (The CONTROL L or CONTROL S connection is not needed.)
- Select the insert source from the equipment connected to EURO-AV (LINE 1), LINE IN 2 and EURO-AV (LINE 3).



■ **Operation**

1 **Insert a source tape into the playback VTR. Insert a tape for recording into this VTR.**

2 **Press EDIT ON/OFF.**
If the playback VTR is equipped with the EDIT switch, set it to ON.

3 **On this VTR, locate the ending point and press COUNTER RESET.**
The counter will show "0H00M00S" and the ending point will be memorized.

4 **On this VTR, locate the starting point and set the VTR to the playback pause mode.**
JOG/SHUTTLE or SHUTTLE EDIT are useful for this operation.

5 **Press AUDIO/VIDEO INSERT.**
For audio insert, press AUDIO.
For video insert, press VIDEO.
For audio and video insert, press AUDIO and then VIDEO or vice versa.
The indicator corresponding to the button pressed will light.

6 **On the playback VTR, locate the starting point where you want to start the insertion and set the VTR to the playback pause mode.**

7 **Press II PAUSE of both VTRs to start the insertion.**
At the ending point (0H00M00S), the insertion will stop automatically.

■ **To stop the insertion temporarily**
Press II PAUSE.

■ **To stop on-going insertion**
Press ■ STOP.

Insert Editing

When the VIDEO INSERT button is pressed
The picture and the sound on the hi-fi audio track will be inserted. (The sound on the normal audio track will be retained.)

When the AUDIO INSERT button is pressed
The sound on the normal audio track will be inserted. (The picture and the sound on the hi-fi audio track will be retained.)

When the VIDEO and AUDIO INSERT buttons are pressed
The picture, sound on the hi-fi audio track and the sound on the normal audio track will be inserted.

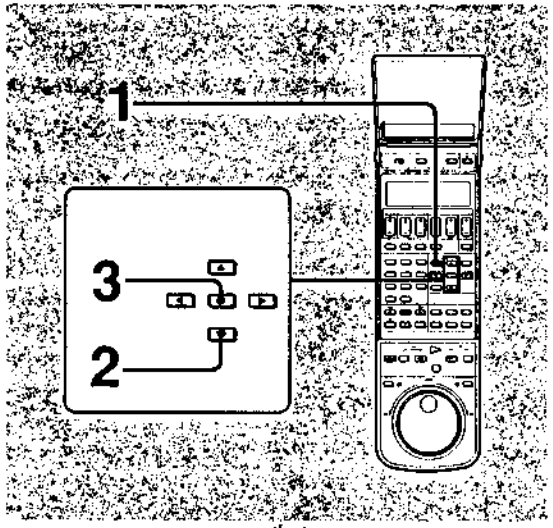
Notes

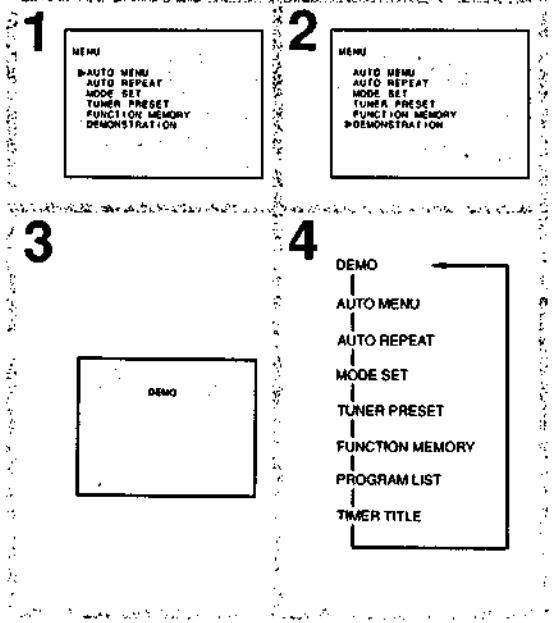
- The insertion cannot be made onto the unrecorded portion of a tape.
- After the insertion, the pre-recorded picture and/or sound will be erased.

■ **When the sound from the microphone is inserted**
When the microphone is connected to the MIC jack, the sound from the microphone is automatically selected and it is recorded on the normal audio track. When VIDEO INSERT is pressed, the sound from the microphone cannot be recorded.

Note
The MIC jack of this VTR is adaptable with the use of a monaural mini plug. If you connect a microphone with a stereo mini plug, use a plug adaptor such as the PC-236MS or the PC-236HMS.

The Menu System





Demonstration Menu

As you have noticed, many of the operations on this VTR are guided by the menu system. All of the menus are explained in sections where and when needed. However, to get an overview of the menu system, check the DEMONSTRATION menu which will give you a quick review of the MENU system.

■ Operation

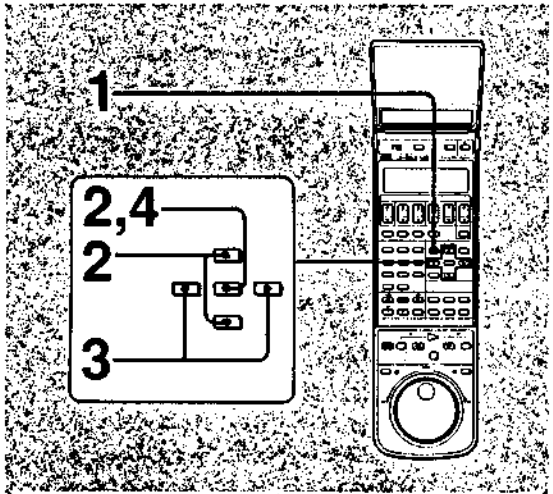
1 **Press MENU.**
The main MENU appears.

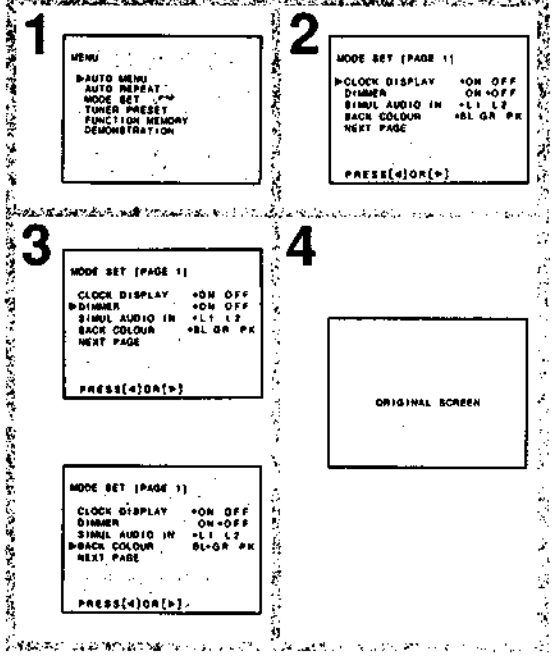
2 **Move cursor with ▲ or ▼ to DEMONSTRATION.**

3 **Press EXE.**

4 **The screen will change automatically as shown in the illustration.**
The DEMONSTRATION menu can be stopped at the desired screen by pressing EXE. Press EXE again to resume the DEMONSTRATION menu sequence. Press any button except for EXE to get out of the DEMONSTRATION mode.

The Menu System





To Dim Out the Display Window

The indications in the display window can be dimmed out when the VTR is in the standby mode.

1 **Press MENU.**
The main MENU appears.

2 **Move cursor with ▲ or ▼ to MODE SET and press EXE.**
If the MODE SET [PAGE 2] menu appears, move cursor with ▲ or ▼ to PREVIOUS PAGE and press EXE.

3 **Move cursor to DIMMER and select ON with ◀ to dim the indication.**

4 **Press EXE to store the setting and return to the original screen.**

To Select the Background Colour on the Screen

You can change the background colour on the screen when no picture is displayed or the MENU display is shown on the screen.

1 **Press MENU.**
The main MENU appears.

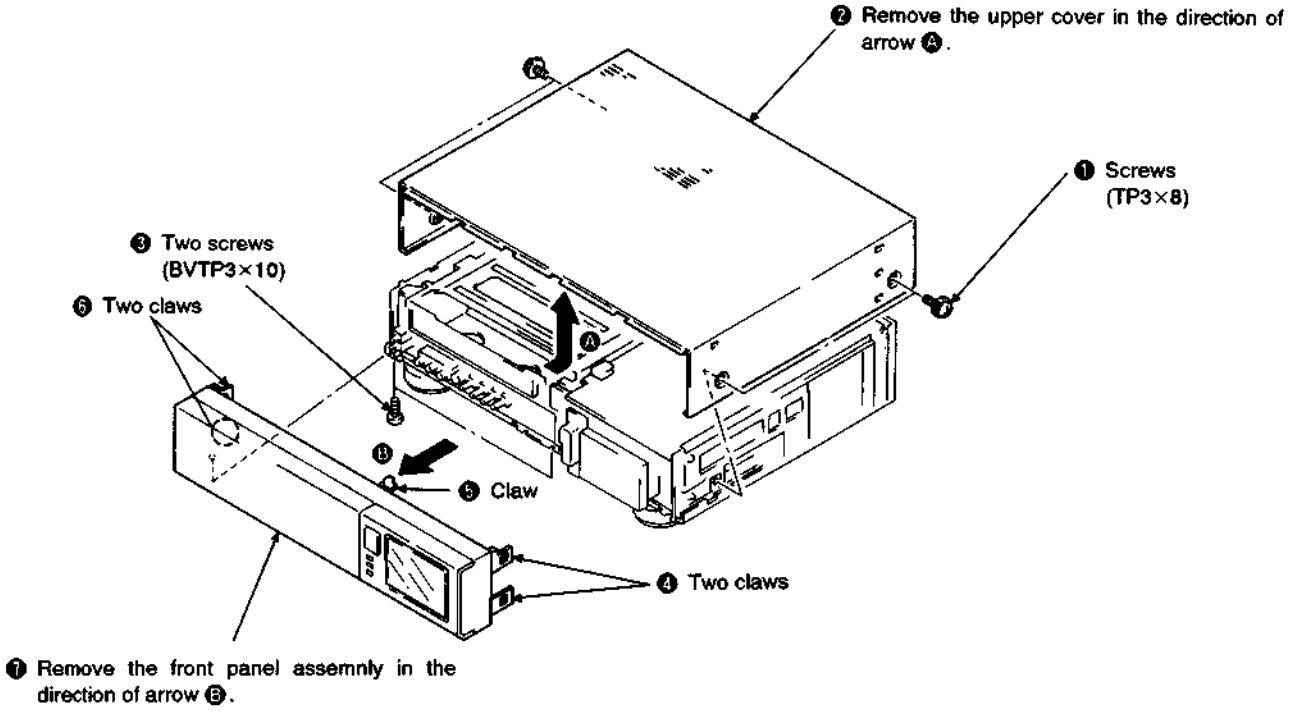
2 **Move cursor with ▲ or ▼ to MODE SET and press EXE.**
If the MODE SET [PAGE 2] menu appears, move cursor to PREVIOUS PAGE and press EXE.

3 **Move cursor to BACK COLOUR and select the desired colour with ◀ or ▶.**
BL.....blue
GR.....green
PK.....pink

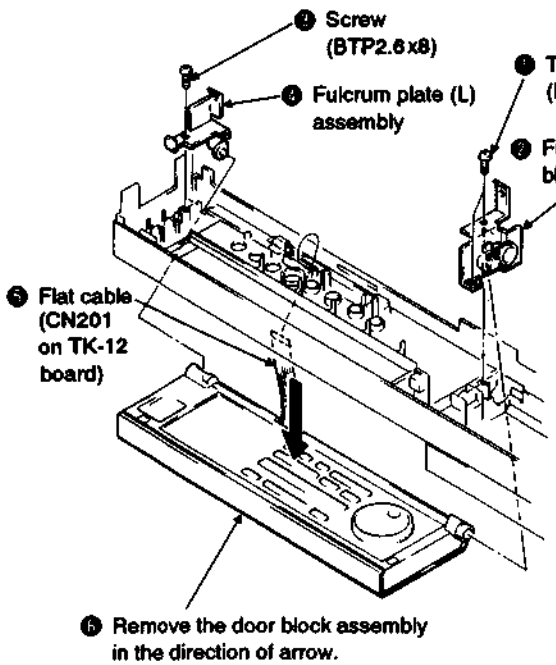
4 **Press EXE to store the setting and return to the original screen.**

SECTION 2
DISASSEMBLY

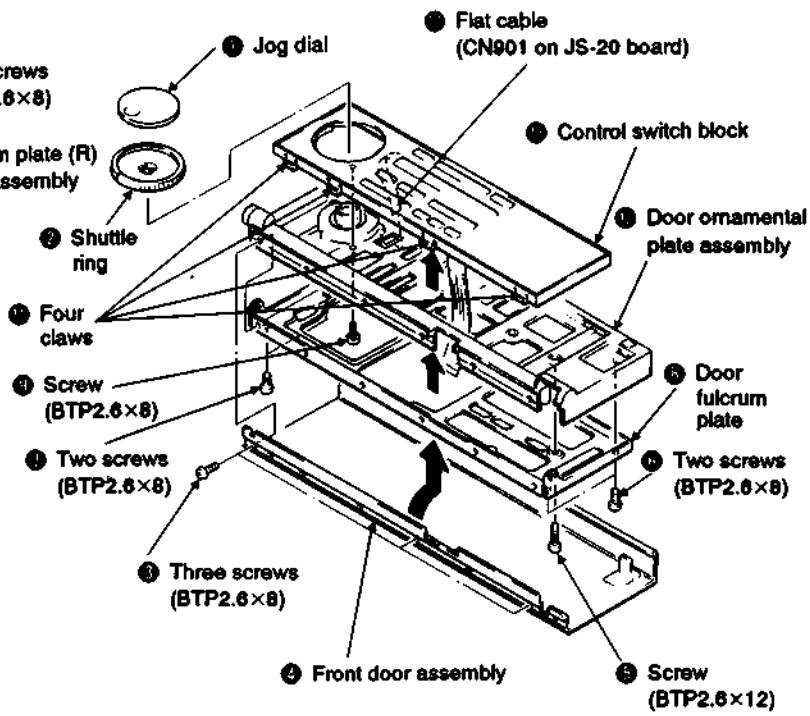
2-1. REMOVAL OF FRONT PANEL AND CABINET ASSEMBLIES



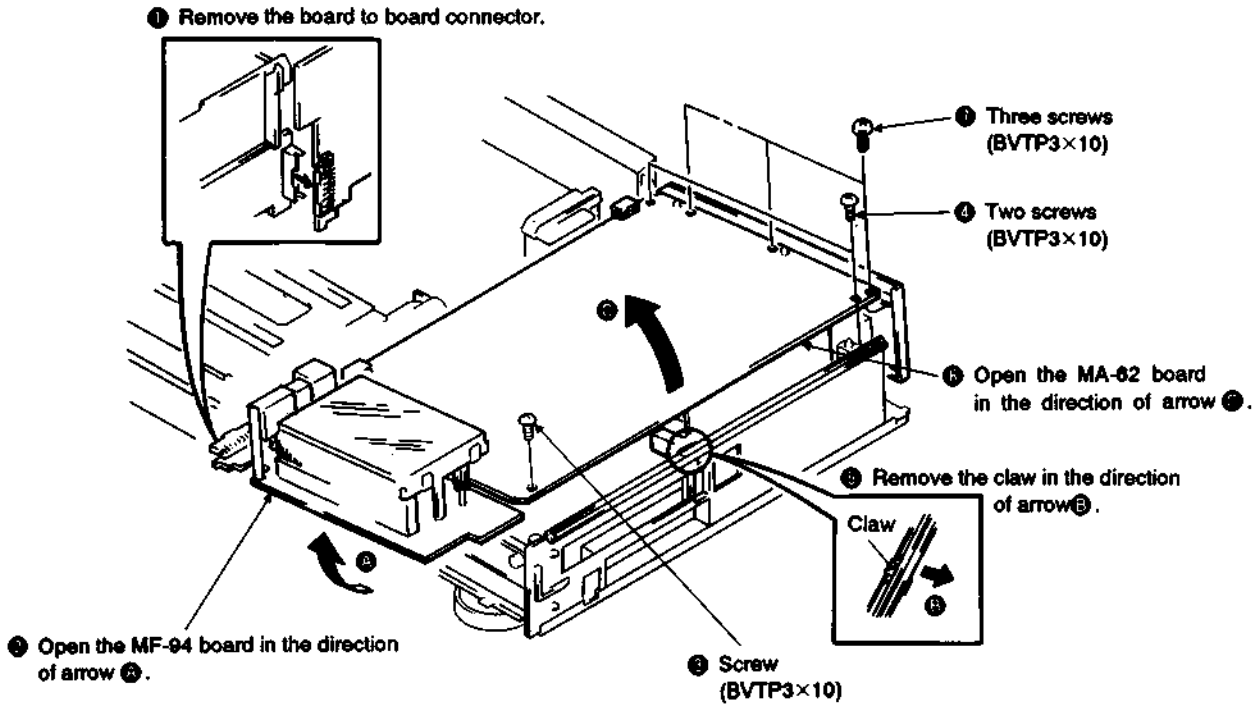
2-2. REMOVAL OF DOOR BLOCK ASSEMBLY



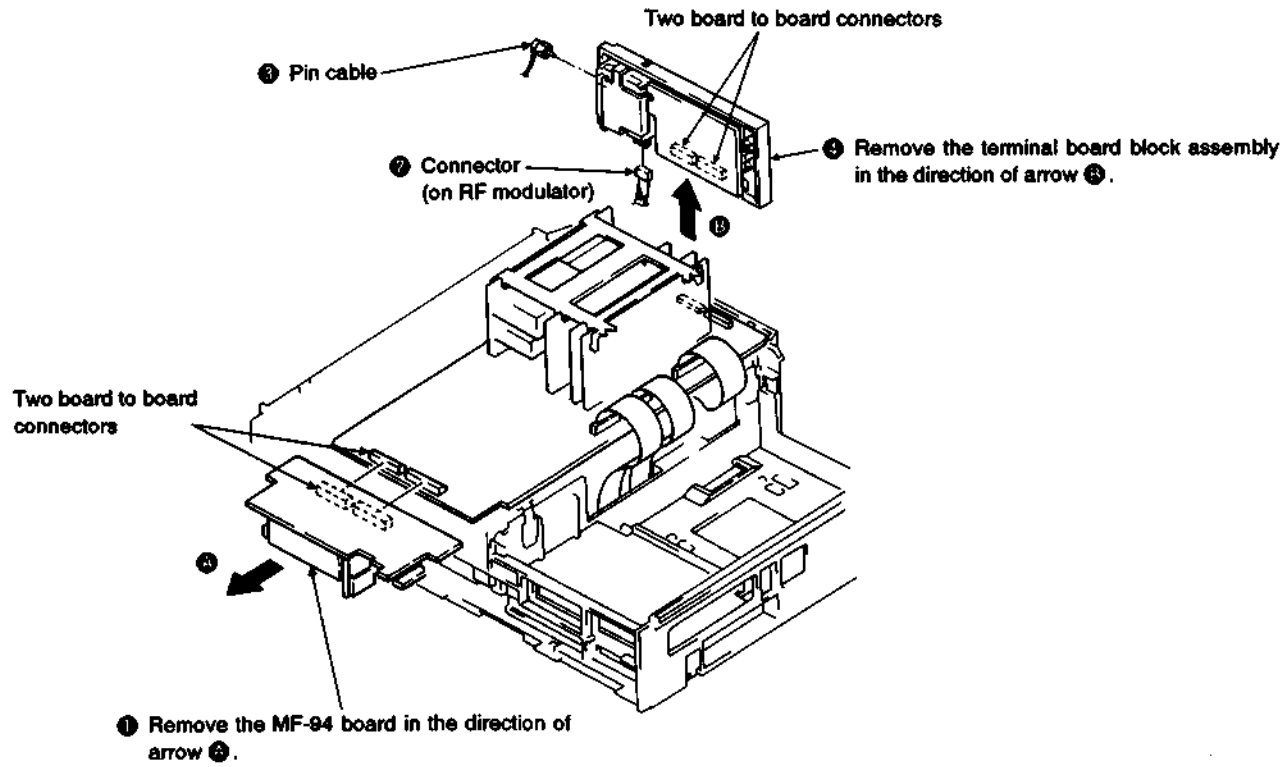
2-3. REMOVAL OF CONTROL SWITCH BLOCK



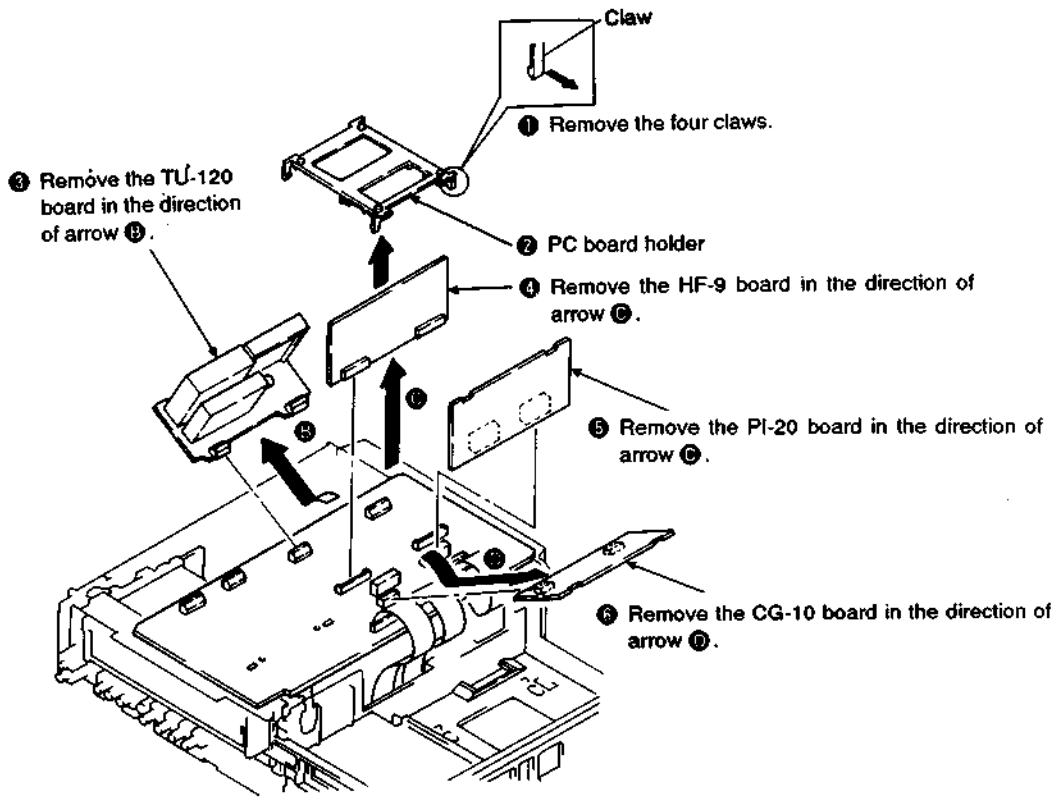
2-4. OPENING OF MA-62 BOARD



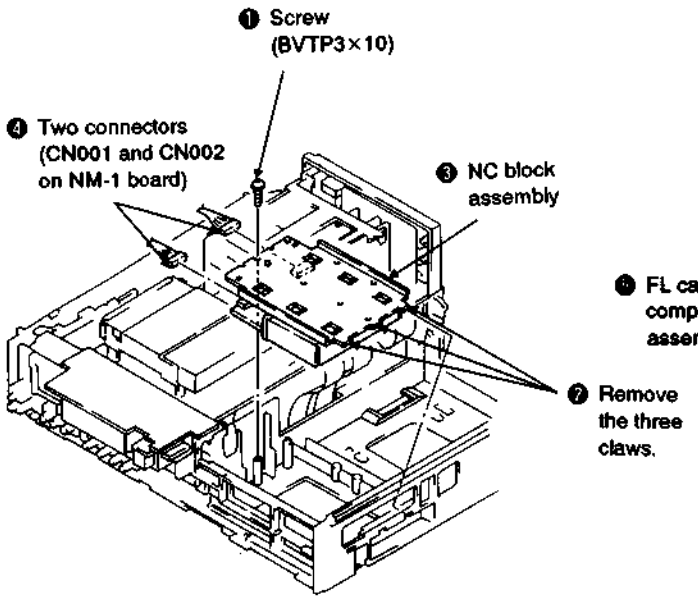
2-5. REMOVAL OF MF-94 BOARD AND TERMINAL BOARD BLOCK ASSEMBLY



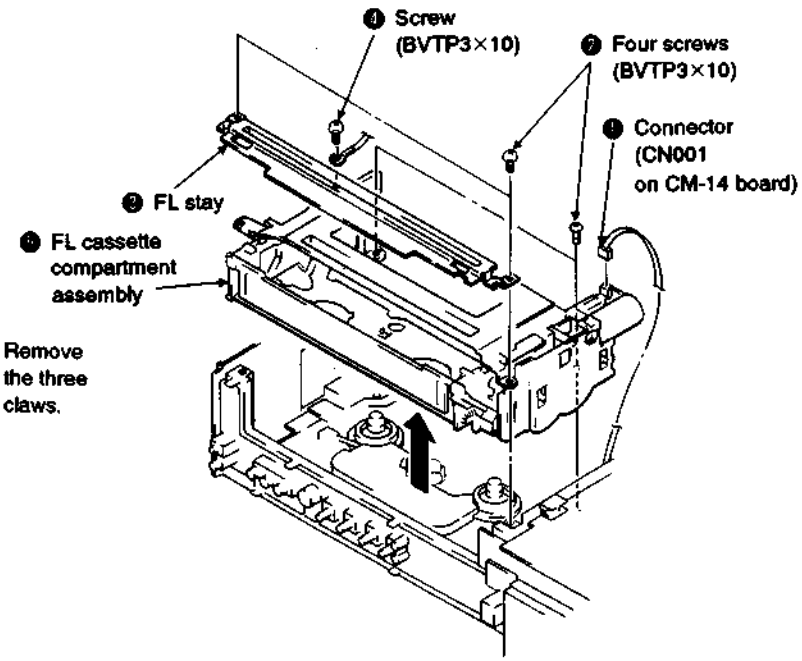
2-6. REMOVAL OF TU-120, HF-9, PI-20, CG-10 BOARDS AND DG BLOCK ASSEMBLY



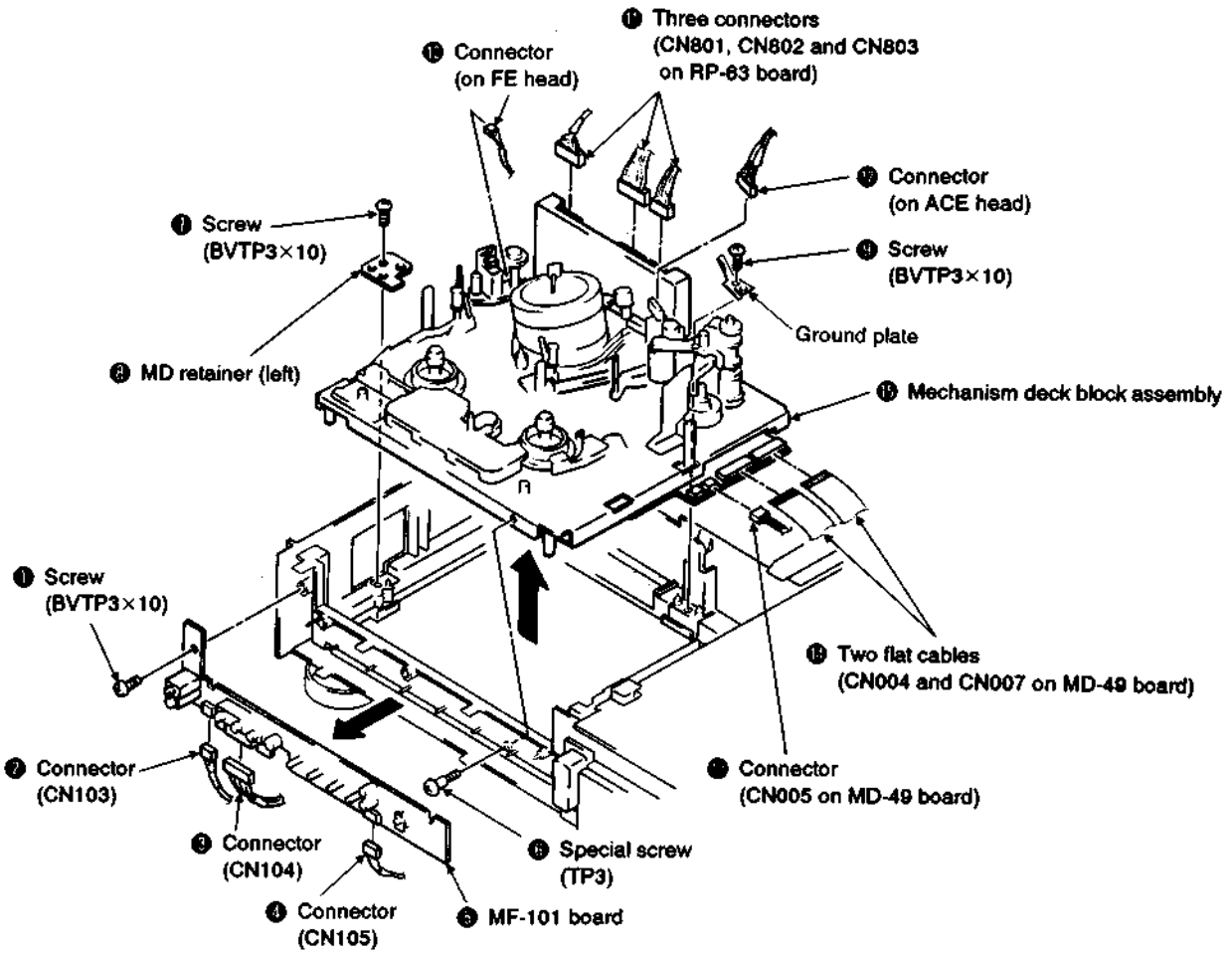
2-7. REMOVAL OF NC BLOCK ASSEMBLY (SLV-715UB ONLY)



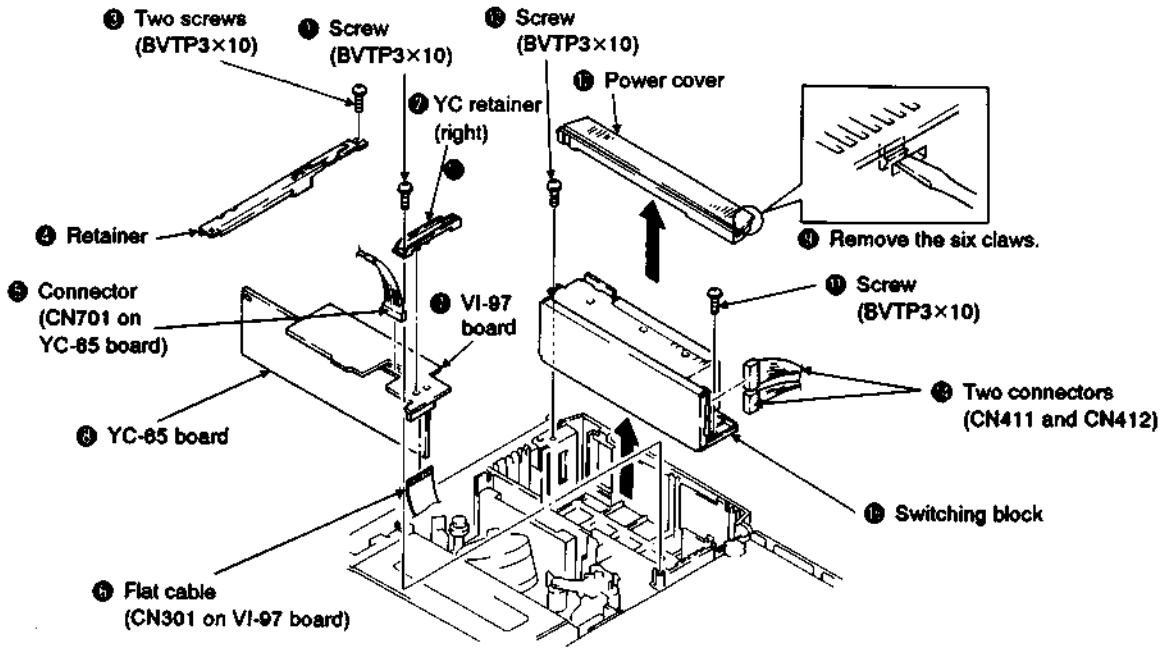
2-8. REMOVAL OF FL CASSETTE COMPARTMENT ASSEMBLY



2-9. REMOVAL OF MF-101 BOARD AND MECHANISM DECK BLOCK ASSEMBLY

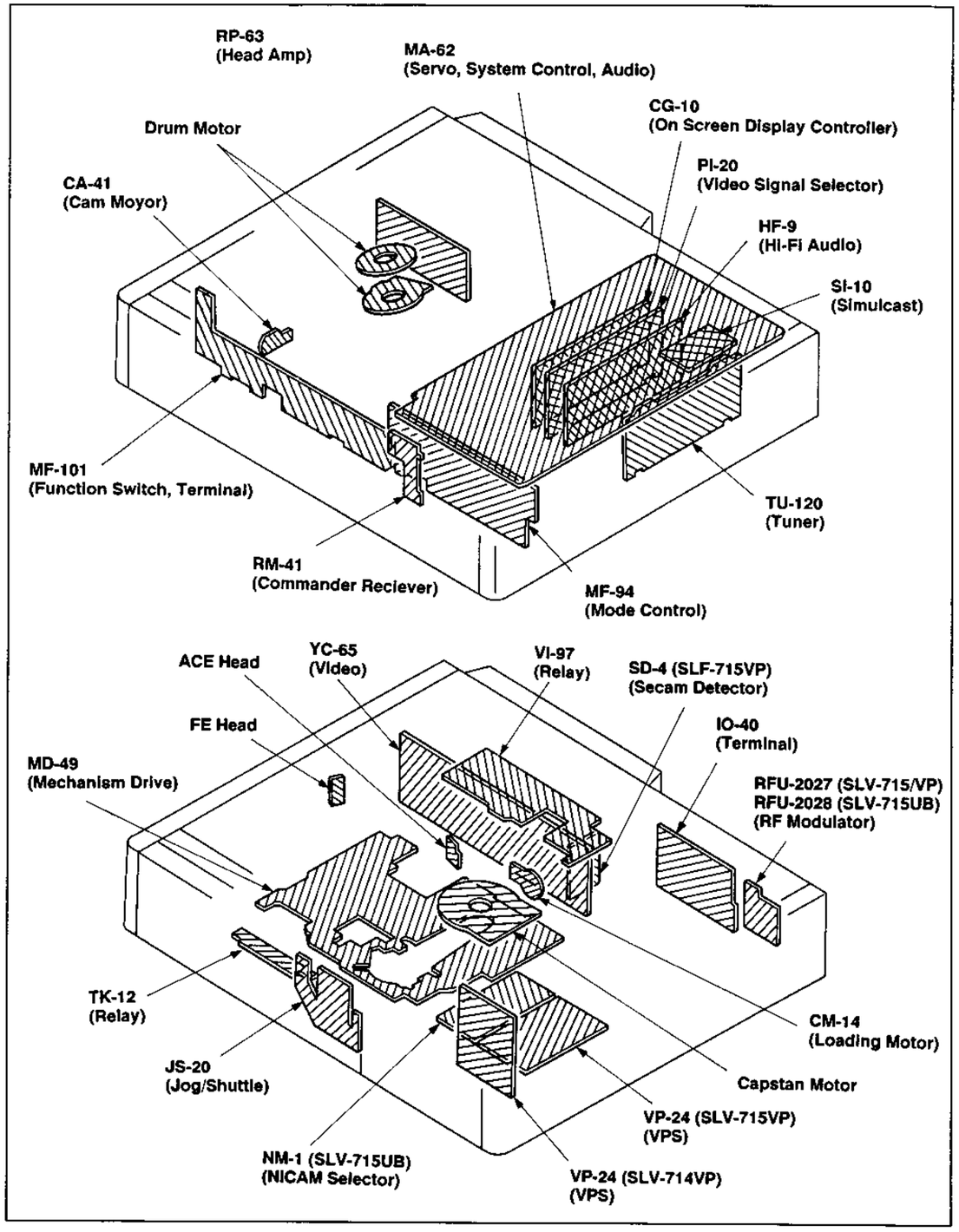


2-10. REMOVAL OF VI-97, YC-65 BOARDS AND SWITCHING BLOCK

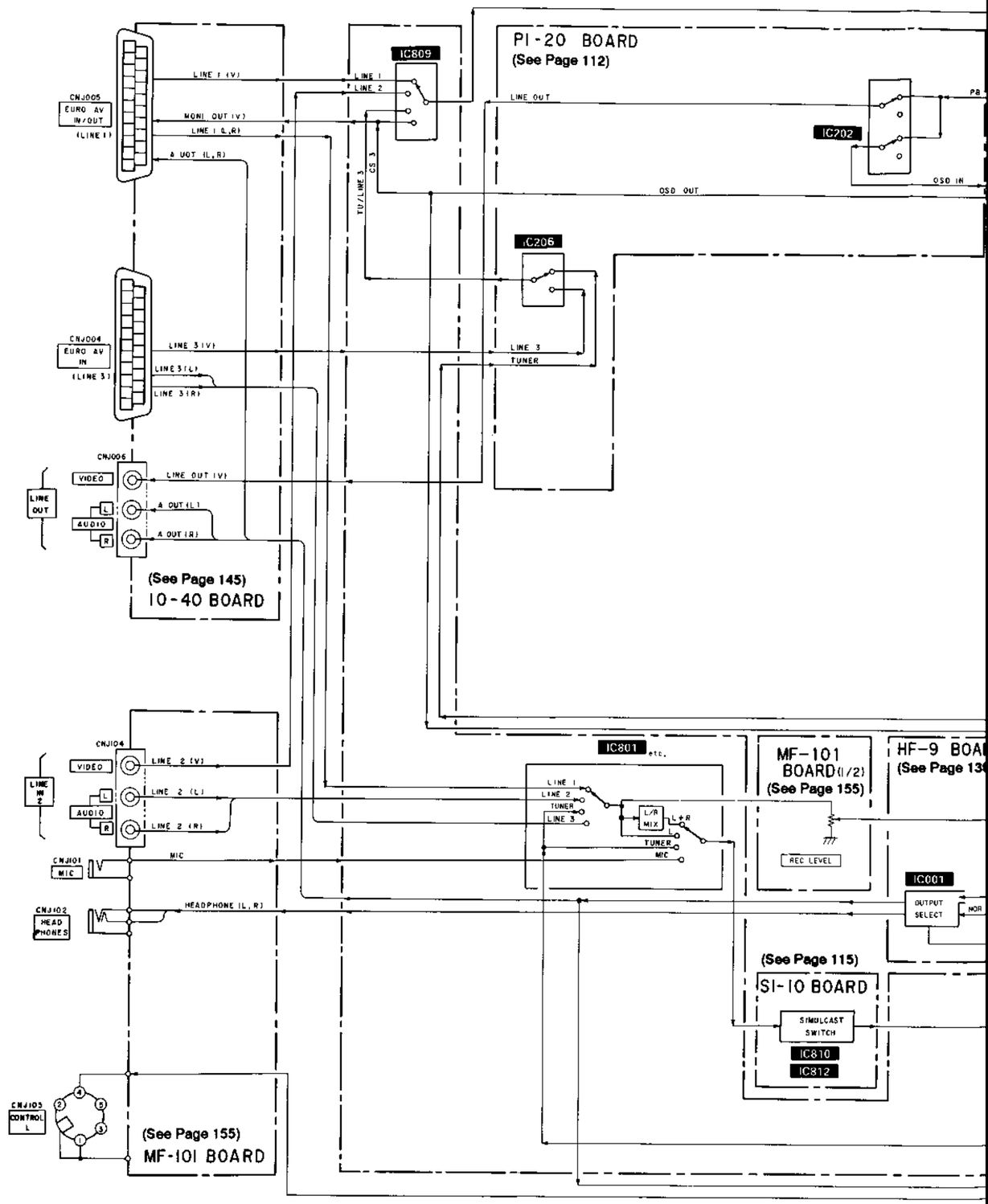


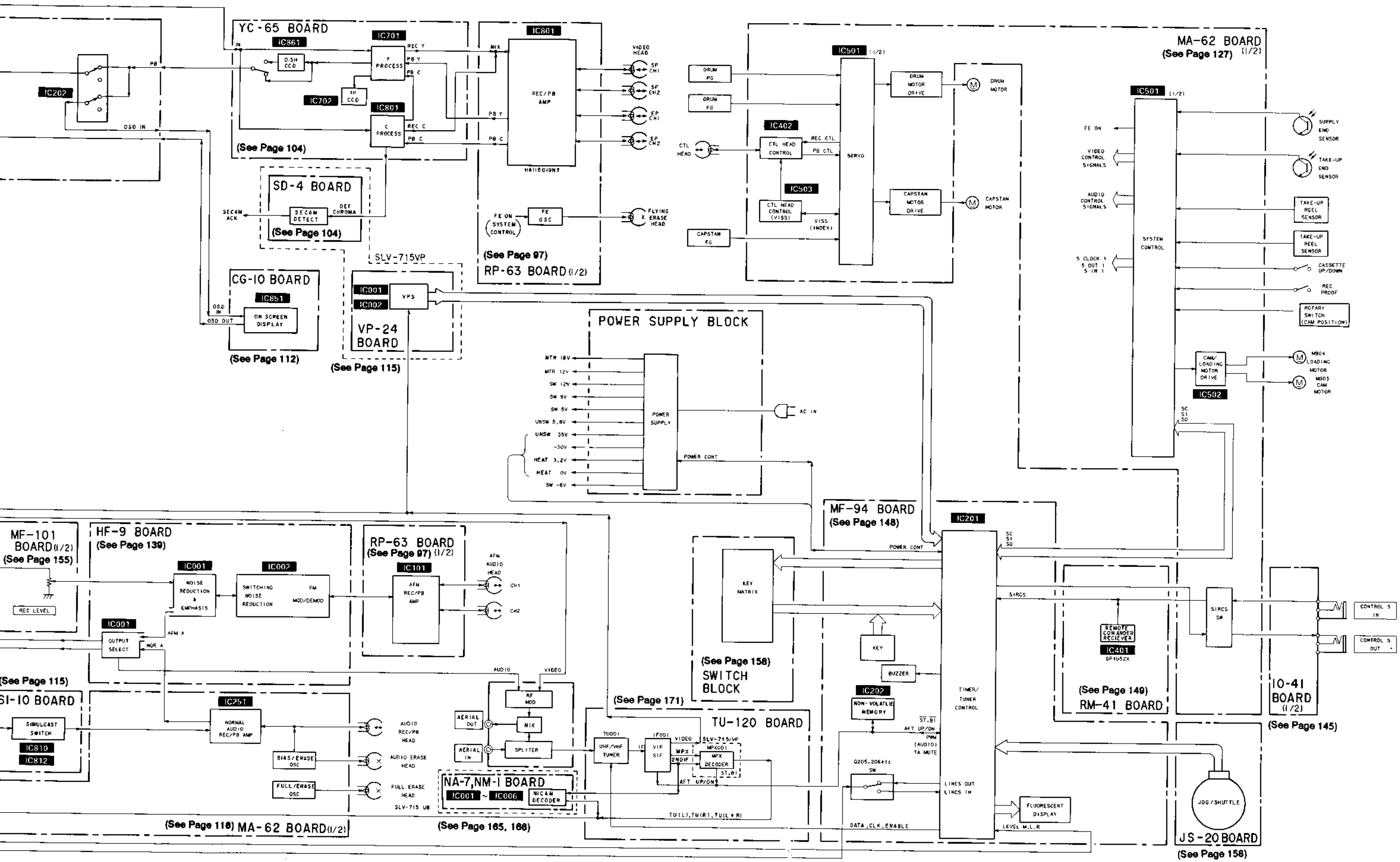
SECTION 3
DIAGRAMS

3-1. CIRCUIT BOARDS LOCATION

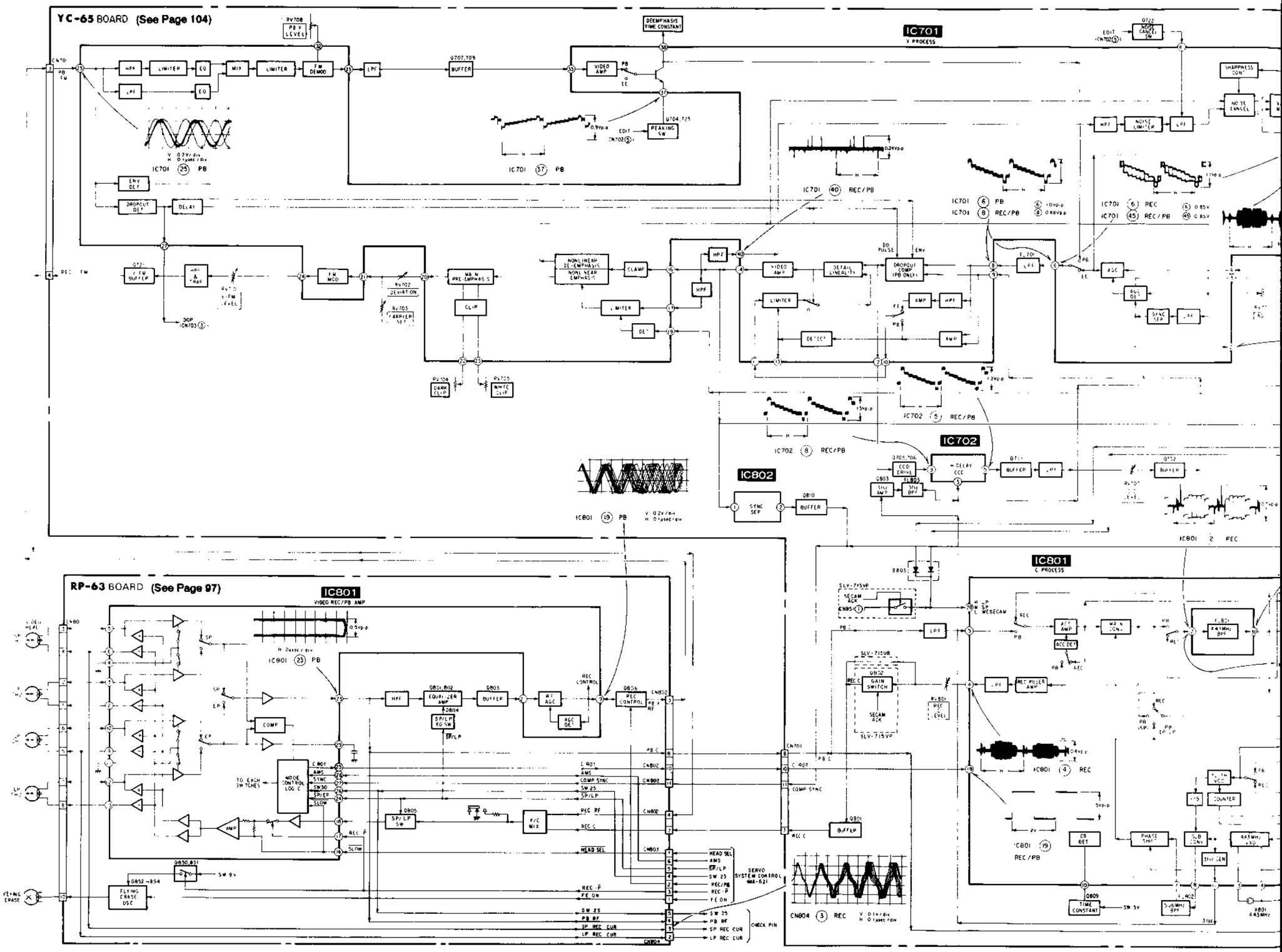


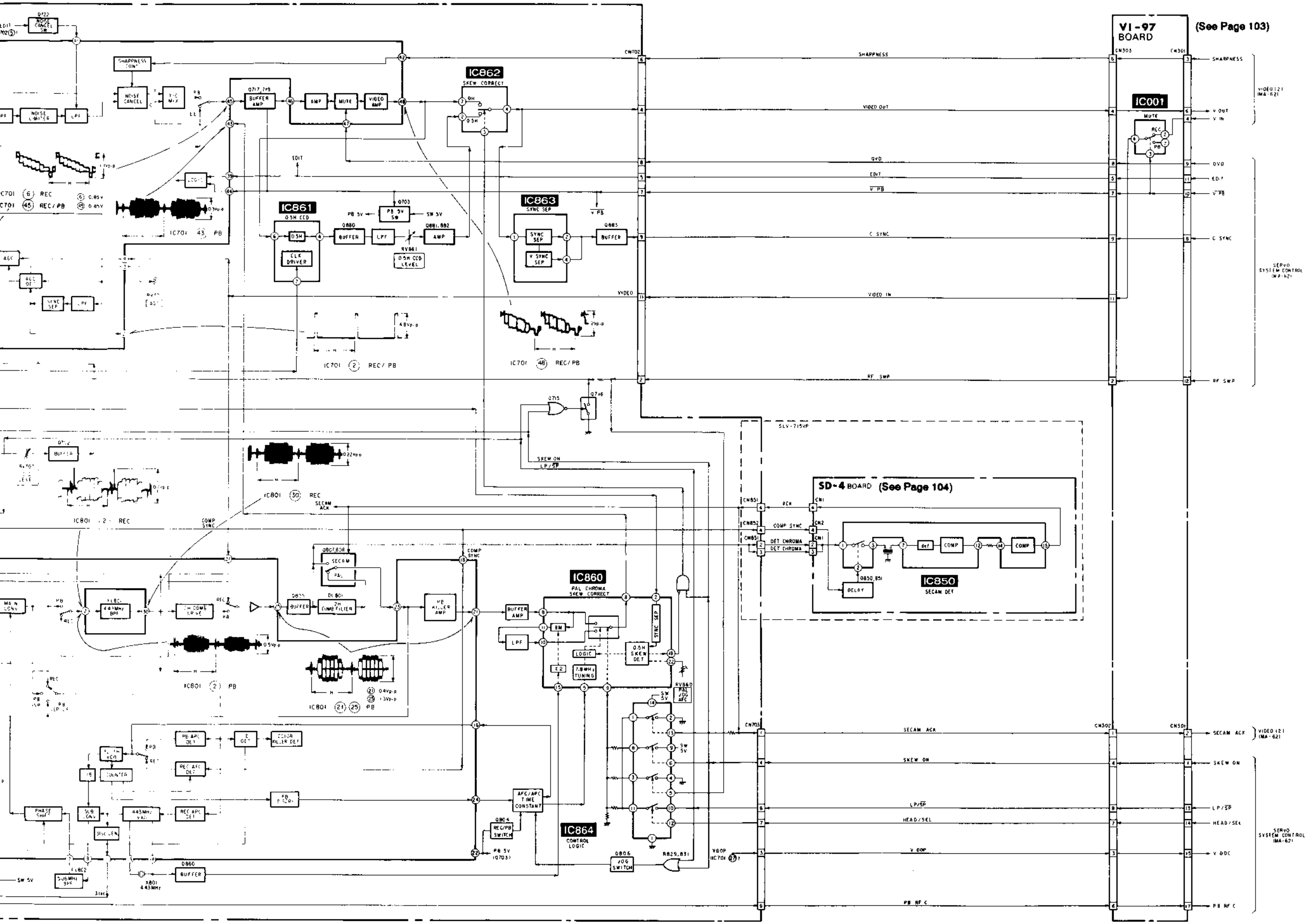
3-2. OVERALL BLOCK DIAGRAM




YC-65 BOARD
IC861
IC701
REC Y
PB Y
PB C
Y PROCESS
0.5H CCD
1H CCD
IC702
IC801
C PROCESS
REC C
PB C
IN
PB
IC202
OSD IN
(See Page 104)
SD-4 BOARD
SECAM DETECT
DET CHROMA
SECAM ACK
(See Page 104)
CG-10 BOARD
IC851
ON SCREEN DISPLAY
OSD IN
OSD OUT
(See Page 112)
SLV-715VP
IC001
IC002
VPS
VP-24 BOARD
(See Page 115)
IC801
MIX
PB Y
PB C
REC/PB AMP
HA118019NT
VIDEO HEAD
SP CH1
SP CH2
EP CH1
EP CH2
FE ON
SYSTEM CONTROL
FE OSC
FLYING ERASE HEAD
(See Page 97)
RP-63 BOARD (1/2)
IC501 (1/2)
DRUM PG
DRUM FG
CTL HEAD
IC402
CTL HEAD CONTROL
REC CTL
PB CTL
SERVO
IC503
CTL HEAD CONTROL (VISS)
VISS (INDEX)
CAPSTAN FG
DRUM MOTOR DRIVE
DRUM MOTOR
CAPSTAN MOTOR DRIVE
CAPSTAN MOTOR
MA-62 BOARD
(See Page 127) (1/2)
IC501 (1/2)
FE ON
VIDEO CONTROL SIGNALS
AUDIO CONTROL SIGNALS
S CLOCK 1
S OUT 1
S IN 1
SYSTEM CONTROL
SUPPLY END SENSOR
TAKE-UP END SENSOR
TAKE-UP REEL SENSOR
TAKE-UP REEL SENSOR
CASSETTE UP/DOWN
REC PROOF
ROTARY SWITCH (CAM POSITION)
CAM/LOADING MOTOR DRIVE
IC502
M904 LOADING MOTOR
M903 CAM MOTOR
SC
S1
S0
POWER SUPPLY BLOCK
MTR 18V
MTR 12V
SW 12V
SW 9V
SW 5V
UNSW 5.8V
UNSW 35V
-30V
HEAT 3.2V
HEAT 0V
SW -6V
POWER SUPPLY
POWER CONT
AC IN
MF-101 BOARD (1/2)
(See Page 155)
REC LEVEL
HF-9 BOARD
(See Page 139)
IC001
NOISE REDUCTION & EMPHASIS
IC002
SWITCHING NOISE REDUCTION
FM MOD/DEMOD
IC001
OUTPUT SELECT
AFM A
NOR A
RP-63 BOARD
(See Page 97) (1/2)
IC101
AFM REC/PB AMP
AFM AUDIO HEAD
CH1
CH2
(See Page 115)
SI-10 BOARD
SIMULCAST SWITCH
IC810
IC812
IC251
NORMAL AUDIO REC/PB AMP
BIAS/ERASE OSC
FULL/ERASE OSC
AUDIO REC/PB HEAD
AUDIO ERASE HEAD
FULL ERASE HEAD
SLV-715 UB
(See Page 116) MA-62 BOARD (1/2)
AUDIO
VIDEO
RF MOD
MIX
SPLITTER
AERIAL OUT
AERIAL IN
NA-7,NM-1 BOARD
IC001 ~ IC006
NICAM DECODER
(See Page 165, 166)
(See Page 171)
TU-120 BOARD
TU001
UHF/VHF TUNER
IF
IF001
VIF SIF
VIDEO
MPX
2ND IF
SLV-715/VP
MPX001
MPX DECODER
ST, BI
AFT UP/ON
TU(L), TU(R), TU(L+R)
DATA, CLK, ENABLE
KEY MATRIX
(See Page 156)
SWITCH BLOCK
MF-94 BOARD
(See Page 148)
IC201
POWER CONT
SC
S1
S0
KEY
BUZZER
IC202
NON-VOLATLIE MEMORY
ST, BI
AFT UP/ON
PWM (AUDIO)
TA MUTE
Q205, 206 etc SW
LINCS OUT
LINCS IN
TIMER/TUNER CONTROL
FLUORESCENT DISPLAY
LEVEL M.L.R
SIRCS
REMOTE COMANDER RECIEVER
IC401
GP1U52X
(See Page 149)
RM-41 BOARD
SIRCS SW
CONTROL S IN
CONTROL S OUT
IO-41 BOARD (1/2)
(See Page 145)
JOG/SHUTTLE
JS-20 BOARD
(See Page 156)

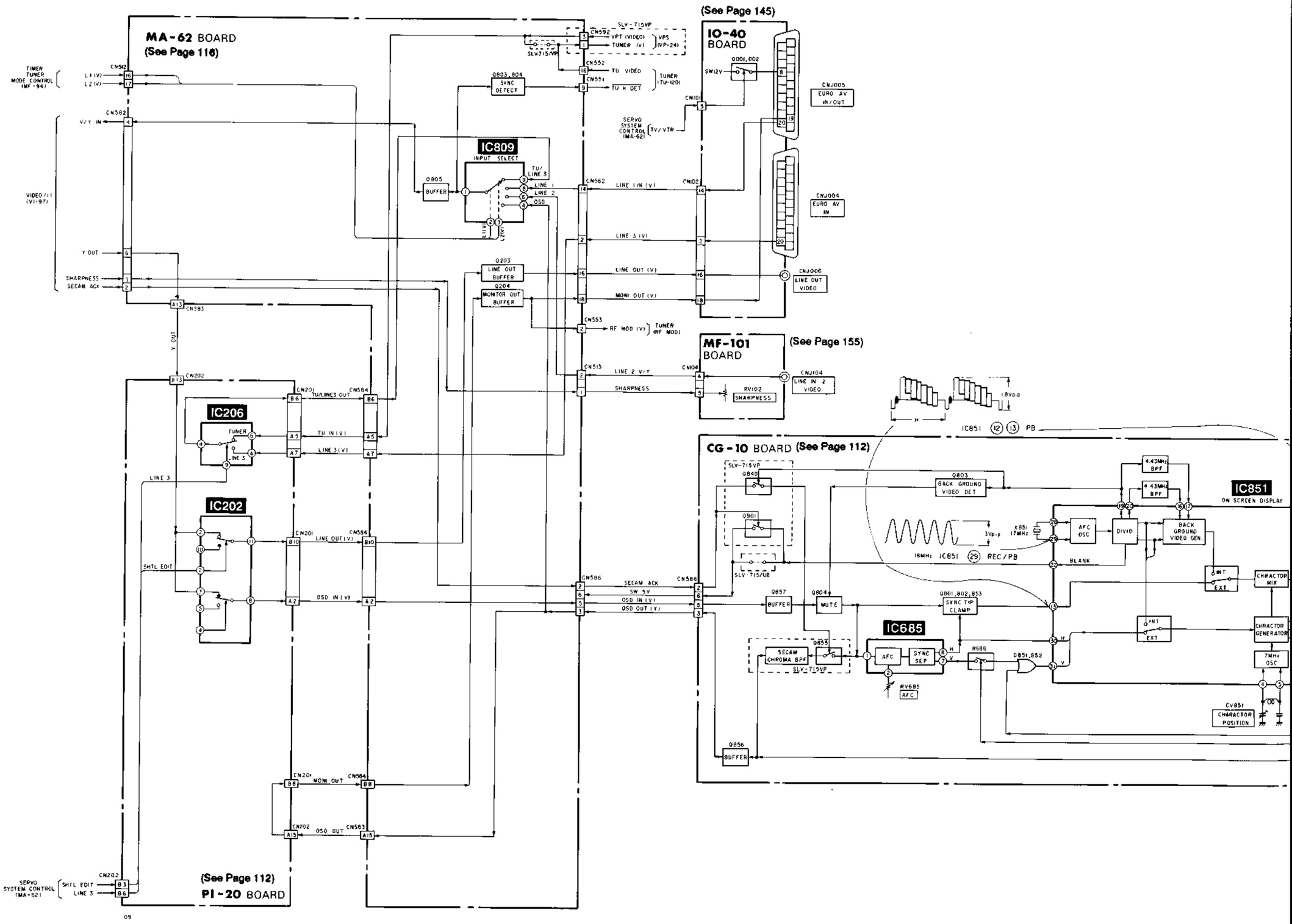
3-3. VIDEO (1) BLOCK DIAGRAM

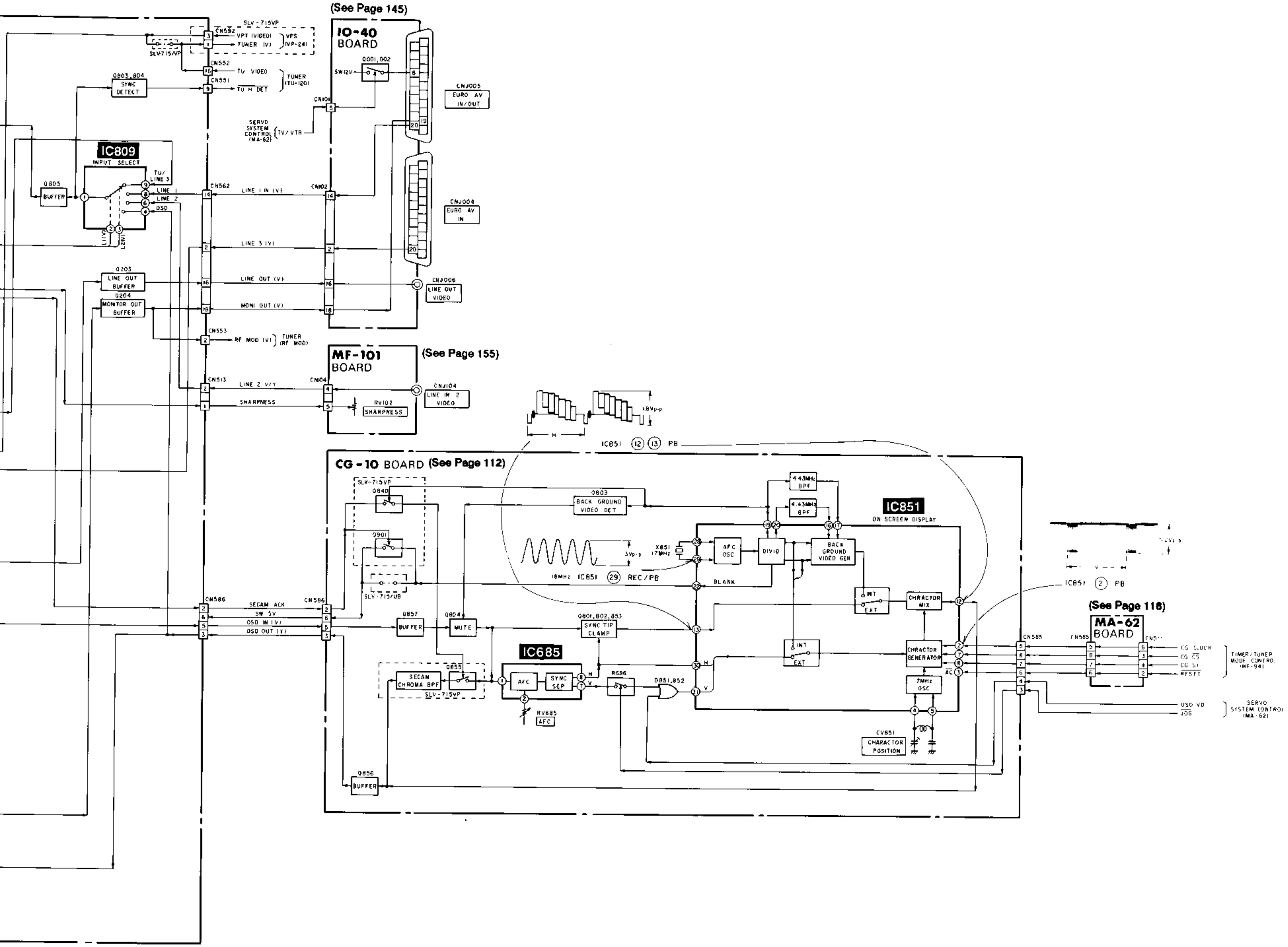




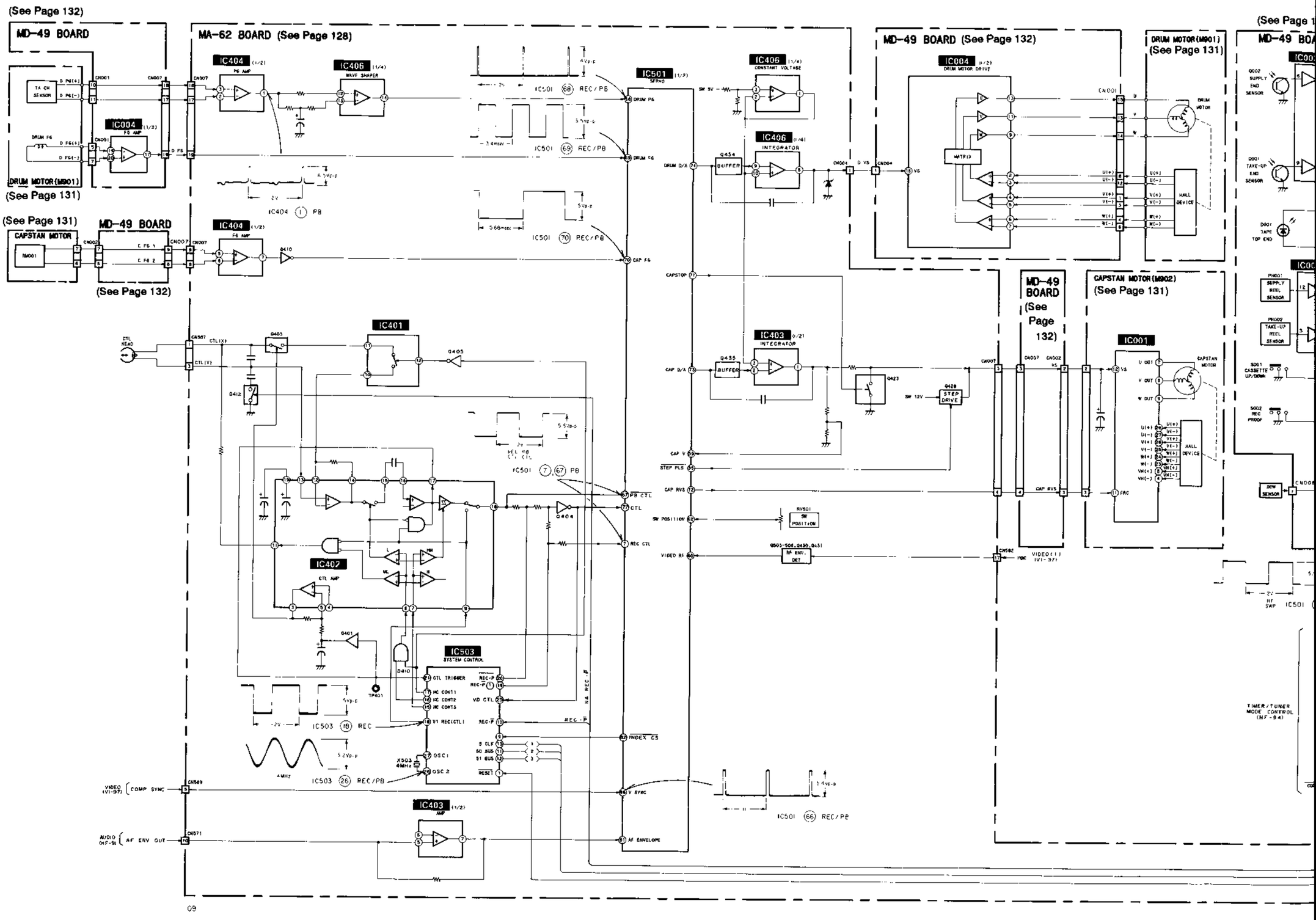
VI-97 BOARD
(See Page 103)
SD-4 BOARD (See Page 104)
IC862
SKEW CORRECT
IC861
0.5H CCD
IC863
SYNC SEP
IC001
MUTE
IC860
PAL CHROMA SKEW CORRECT
IC850
SECAM DET
IC864
CONTROL LOGIC
SHARPNESS
VIDEO OUT
V OUT
V IN
OVD
EDIT
C SYNC
VIDEO IN
RF SWP
SECAM ACK
SKEW ON
LP/SP
HEAD/SEL
V DOP
PB RF C
SERVO SYSTEM CONTROL (MA-62)
VIDEO (2) (MA-62)
CN702
CN703
CN301
CN302
CN303
BUFFER AMP
AMP
MUTE
VIDEO AMP
NOISE CANCEL
SHARPNESS CONT
NOISE LIMITER
LPF
BUFFER
CLK DRIVER
0.5H CCD LEVEL
SYNC SEP
V SYNC SEP
SLV-715VP
DET CHROMA
COMP SYNC
COMP
DELAY
IC701 (6) REC
IC701 (45) REC/PB
IC701 (43) PB
IC701 (2) REC/PB
IC701 (48) REC/PB
IC801 (30) REC
IC801 (2) REC
IC801 (2) PB
IC801 (21) (25) PB
4.43MHz BPF
1H COMB FILTER
PB KILLER AMP
0.5H SKEW DET
LOGIC
7.8MHz TUNING
PAL AFC
PB APC DET
REC APC DET
REC AFC DET
AFC/APC TIME CONSTANT
REC/PB SWITCH
JOG SWITCH
PHASE SHIFT
COUNTER
BUFFER
X801 4.43MHz

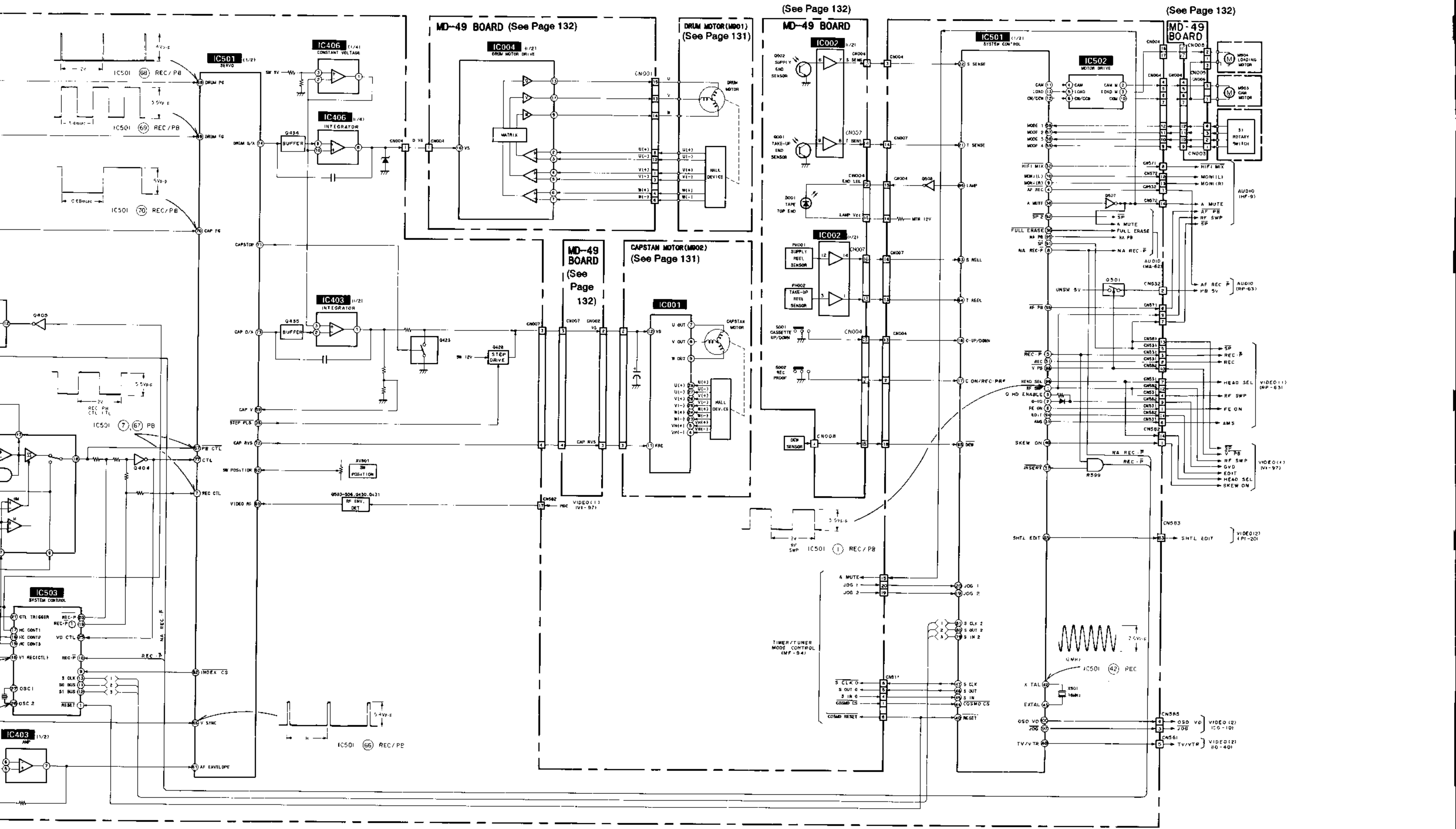
3-4. VIDEO (2) BLOCK DIAGRAM




(See Page 145)
IO-40 BOARD
(See Page 155)
MF-101 BOARD
CG-10 BOARD (See Page 112)
(See Page 118)
MA-62 BOARD
IC809
INPUT SELECT
IC851
ON SCREEN DISPLAY
IC685
BUFFER
SYNC DETECT
LINE OUT BUFFER
MONITOR OUT BUFFER
EURO AV IN/OUT
EURO AV IN
LINE OUT VIDEO
LINE IN 2 VIDEO
SHARPNESS
LINE 1 IN (V)
LINE 3 (V)
LINE OUT (V)
MONI OUT (V)
LINE 2 V/Y
SECAM ACK
SW 5V
OSD IN (V)
OSD OUT (V)
BACK GROUND VIDEO DET
AFC OSC
DIVID
BACK GROUND VIDEO GEN
BLANK
CHRACTOR MIX
CHRACTOR GENERATOR
INT
EXT
SYNC TIP CLAMP
MUTE
SECAM CHROMA BPF
AFC
SYNC SEP
CHARACTOR POSITION
REC/PB
PB

3-5. SERVO, SYSTEM CONTROL BLOCK DIAGRAM




MD-49 BOARD (See Page 132)
DRUM MOTOR(M901) (See Page 131)
(See Page 132)
MD-49 BOARD
(See Page 132)
MD-49 BOARD
IC501
IC406
IC004
IC406
INTEGRATOR
IC403
INTEGRATOR
MD-49 BOARD (See Page 132)
CAPSTAN MOTOR(M902) (See Page 131)
IC001
IC002
IC002
IC501
IC502
IC503
IC403
MATRIX
BUFFER
HALL DEVICE
TIMER/TUNER MODE CONTROL

3-6. SYSTEM CONTROL — VIDEO BLOCK INTERFACE

Signal	I/O	Mode / Pin No.	STOP/ FF/REW	TAPE LOADING	TAPE UNLOADING	PB	PB• PAUSE	SLOW	×2	CUE	REVIEW	REC	REC• PAUSE	INSERT	INSERT• PAUSE
$\overline{V}$•$\overline{PB}$	O	Pin ㊽ of IC501 on MA-62 board	H	H	H	L	L	L	L	L	L	H	H	H*12	H*12
HEAD SEL	O	Pin ㊾ of IC501 on MA-62 board	L	L	L	L	H	*1	H	L	L	H	L	H*12	L
RF SW P (SW25)	O	Pin ① of IC501 on MA-62 board	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2
Q VD/V MUTE	O	Pin ② of IC501 on MA-62 board	L	L	L	*3	*4	*4	*4	*4	*4	L	L	L	L*11
FE ON	O	Pin ⑥ of IC501 on MA-62 board	L	L	L	L	L	L	L	L	L	*5	L	H*12	L
EDIT	O	Pin ㊿ of IC501 on MA-62 board	L	L	L	*6	*6	*6	*6	*6	*6	*6	L	*6	L
AMS	O	Pin ㊶ of IC501 on MA-62 board	L	L	L	L	L	L	L	*7	*7	L	L	L	L
$\overline{SP}$	O	Pin ㊶ of IC501 on MA-62 board	*8	*8	*8	*9	*9	*9	*9	*9	*9	*8	*8	*9	*9
$\overline{SP}$•2	O	Pin ㊷ of IC501 on MA-62 board	*8	*8	*8	*9	*9	*9	*9	*9	*9	*8	*8	*9	*9
LP•HEAD	O	Pin ㊸ of IC501 on MA-62 board	*9	*9	*9	*9	L	L	L	L	L	*9	*9	*9	*9
REC•$\overline{P}$	O	Pin ⑤ of IC501 on MA-62 board	L	L	L	L	L	L	L	L	L	H	L	H	L
REC	O	Pin ㊶ of IC501 on MA-62 board	L	L	L	L	L	L	L	L	L	H	H	H	H
V SYNC	I	Pin ㊽ of IC501 on MA-62 board	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10

*1. "H": when tape stopped. "L": when tape running (for approx. 40 msec).
*2. Sync with drum revolution. 25 Hz 50% DUTY pulse.
*3. "L": normally. "H": when CTL signal is not played back.
*4. V cycle "H" pulse.
*5. "H": when REC start (SP: for approx. 10 sec, LP: for approx. 20 sec)
*6. "L": normally. "H": EDIT mode.
*7. HI-Z (2.5V) in SP mode. "L": LP mode.
*8. According to SP/LP selector. "L": SP mode, "H": LP mode.
*9. According to tape REC mode.

Signal \ Mode	SP	LP
$\overline{SP}$ (Pin ㊶)	L	H
$\overline{SP2}$ (Pin ㊷)	L	L
LP HEAD (Pin ㊸)	L	H

*10. Composite sync signal (positive polarity).
*11. V cycle "H" pulse: when A INS.PAUSE mode.
*12. "L": when A INS or A INS.PAUSE mode.

3-7. SYSTEM CONTROL — SERVO PERIPHERAL CIRCUIT INTERFACE

Signal	Mode I/O	Mode Pin No.	STOP	FF	REW	TAPE LOADING	TAPE UNLOADING	PB	PB• PAUSE	SLOW	×2	CUE	REVIEW	REC	REC• PAUSE	INSERT	INSERT• PAUSE
REC CTL *1	O	Pin ⑦ of IC501 on MA-62 board	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1
CAP STOP	O	Pin ⑪ of IC501 on MA-62 board	H	L	L	L	L	L	H	H	L	L	L	L	H	L	H
$\overline{\text{STEP PLS}}$	O	Pin ㉟ of IC501 on MA-62 board	H	H	H	H	H	H	H	*2	H	H	H	H	H	H	H
CAP V *3	I	Pin ㊴ of IC501 on MA-62 board															
SW POSITION *4	I	Pin ㊷ of IC501 on MA-62 board															
PB CTL	I	Pin ㊶ of IC501 on MA-62 board	H	*6	*6			*1	H/L	*2	*6	*6	*6	*1	H	*1	H
VD CTL	I	Pin ㊶ of IC501 on MA-62 board	H	*6	*6			*1	H/L	*2	*6	*6	*6	*1	H	*1	H
DRUM PG	I	Pin ㊽ of IC501 on MA-62 board	L	*7	*7	*5	*5	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7
DRUM FG	I	Pin ㊽ of IC501 on MA-62 board	L	*8	*8	*5	*5	*8	*8	*8	*8	*8	*8	*8	*8	*8	*8
CAP FG	I	Pin ㊵ of IC501 on MA-62 board	H/L	*6	*6	*5	*5	*6	H/L	*9	*6	*6	*6	*6	H/L	*6	H/L
INDEX $\overline{\text{CS}}$	O	Pin ㊷ of IC501 on MA-62 board	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10	*10
CAP RVS	O	Pin ⑫ of IC501 on MA-62 board	H/L	L	H	L	H	L	L	*2	L	L	H	L	L	L	L
CAP DA *14	O	Pin ⑬ of IC501 on MA-62 board	*11	*11	*11	*11	*11	*12	*11	*11	*12	*12	*12	*12	*11	*12	*11
DRUM DA *14	O	Pin ⑭ of IC501 on MA-62 board	*13	*13	*13	*13	*13	*13	*13	*13	*13	*13	*13	*13	*13	*13	*13
REC•$\overline{\text{P}}$	O	Pin ⑤ of IC501 on MA-62 board	L	L	L	L	L	L	L	L	L	L	L	H	L	H	L
$\overline{\text{INSERT}}$	O	Pin ㊲ of IC501 on MA-62 board	H	H	H	H	H	H	H	H	H	H	H	H	H	L	H

*1. 25 Hz pulse
*2. Tape running pulse
*3. Input terminal for capstan constant voltage driving. Used fro cassette loading/unloading, etc.
*4. Input terminal for switching position adjustment.
*5. Non periodical pulse
*6. Cycle pulse proportional to tape speed.
*7. 25 Hz "H" pulse
*8. 300 Hz pulse
*9. Tape running pulse
*10. 8 msec cycle pulse
*11. Approx. 2 msec cycle "H" or "L" pulse.
*12. Approx. 1.5 msec cycle "H" or "L" pulse.
*13. Approx. 3 msec cycle "H" or "L" pulse.
*14. Tri-state output of "H", "L" and "HI-Z (2.5V)".

3-8. SYSTEM CONTROL — MECHANISM BLOCK INTERFACE

Signal	I/O	Mode / Pin No.	HI-SPEED REW	EJECTED	CASSETTE LOADING	CASSETTE UNLOADING	TAPE LOADING	TAPE UNLOADING	STOP	FF	REW	PB	PB• PAUSE	SLOW	×2	CUE	REVIEW	REC	REC PAUSE
CAM *1	O	Pin ⑪ of IC501 on MA-62 board	L	L	L	L	H	H	L	L	L	L	L	L	L	L	L	L	L
LOAD	O	Pin ⑬ of IC501 on MA-62 board	L	L	H	H	L	L	L	L	L	L	L	L	L	L	L	L	L
CW/CCW	O	Pin ⑫ of IC501 on MA-62 board			H	L	H	L											
MODE 1	I	Pin ⑱ of IC501 on MA-62 board	H	L	L	L	H	H	L	H	H	H	L	L	H	H	H	H	L
MODE 2	I	Pin ⑰ of IC501 on MA-62 board	L	H	H	H	H	H	L	L	L	L	H	H	L	L	L	L	H
MODE 3	I	Pin ⑯ of IC501 on MA-62 board	H	H	H	H	L	L	L	L	L	H	H	H	H	H	L	H	H
MODE 4	I	Pin ⑮ of IC501 on MA-62 board	H	H	H	H	H	H	L	H	H	L	L	L	L	L	L	L	L
REC PRF	I	Pin ⑰ of IC501 on MA-62 board	*2	L	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2	*2
C-UP/DOWN	I	Pin ⑱ of IC501 on MA-62 board	L	H	H→L	L→H	L	L	L	L	L	L	L	L	L	L	L	L	L
T REEL	I	Pin ⑭ of IC501 on MA-62 board	*3	H/L	H/L	H/L	H/L	H/L	H/L	*3	*3	*3	H/L	*3	*3	*3	*3	*3	H/L
S REEL	I	Pin ⑮ of IC501 on MA-62 board	*3	H/L	H/L	H/L	*3	*3	H/L	*3	*3	*3	H/L	*3	*3	*3	*3	*3	H/L
LAMP	O	Pin ⑯ of IC501 on MA-62 board	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4	*4
DEW	I	Pin ⑯ of IC501 on MA-62 board	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5	*5
CAP V	I	Pin ⑲ of IC501 on MA-62 board	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6	*6
CAP STOP	O	Pin ⑪ of IC501 on MA-62 board	L	H	H	H	L	L	H	L	L	L	H	H	L	L	L	L	H
CAP RVS	O	Pin ⑫ of IC501 on MA-62 board	H	H			L	H	H/L	L	H	L	L	L/*9	L	L	H	L	L
CAP DA *8	O	Pin ⑬ of IC501 on MA-62 board																	
T SENS	I	Pin ㉑ of IC501 on MA-62 board	*7	*4	*4	*4	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7
S SENS	I	Pin ㉒ of IC501 on MA-62 board	*7	*4	*4	*4	*7	*7	*7	*7	*7	*7	*7	*7	*7	*7	7	*7	*7

*1. "H": when mechanical mode shifted.
*2. "L": when erasure protection tab is removed, "H": when not removed.
*3. Cycle pulse proportional to reel rotation speed.
*4. Approx. 2 msec cycle "H" pulse.
*5. "H": normally.
*6. Input terminal for capstan constant voltage driving. Used for FF/REW, cassette loading/unloading, etc.
*7. "L": normally. 2 msec cycle "H" pulse: when tape top or end is detected.
*8. Tri-state output of "H", "L" and "HI-Z (2.5V)".
*9. Tape running pulse

3-9. SYSTEM CONTROL — SYSTEM CONTROL PERIPHERAL CIRCUIT INTERFACE

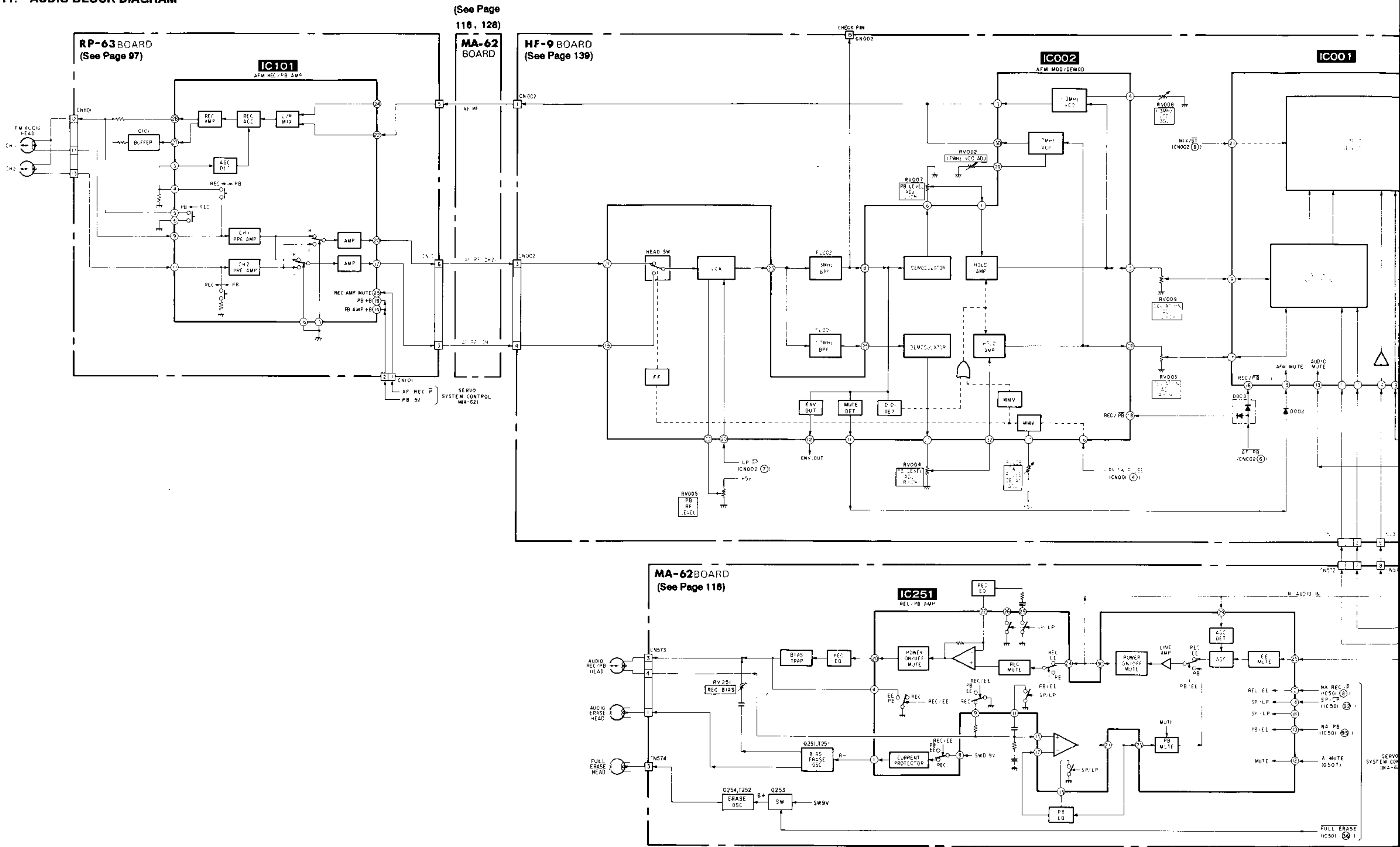
Signal	I/O	Pin No.	Input/output level
$\overline{\text{COSMO•RESET}}$	I	Pin ㊵ of IC501 on MA-62 board	"H": normally. "L": when power failure detected or power failure restored.
$\overline{\text{COSMO•CS}}$	I	Pin ㊹ of IC501 on MA-62 board	Chip select signal from timer micro computer. V cycle "L" pulse.
SI•BUS	I	Pin ㊺ of IC501 on MA-62 board	Serial communication data from timer micro computer. V cycle "L" pulse.
SO•BUS	O	Pin ㊻ of IC501 on MA-62 board	Serial communication data to timer micro computer. V cycle "L" pulse.
S CLK	I	Pin ㊼ of IC501 on MA-62 board	Serial communication clock with timer micro computer. V cycle "L" pulse.
S IN 2	I	Pin ㊾ of IC501 on MA-62 board	Serial communication data from INDEX IC. 8 msec cycle "L" pulse.
S OUT 2	O	Pin ㊿ of IC501 on MA-62 board	Serial communication data to INDEX IC. 8 msec cycle "L" pulse.
S CLK 2	O	Pin (51) of IC501 on MA-62 board	Serial communication clock to INDEX IC. 8 msec cycle "L" pulse.
INDEX $\overline{\text{CS}}$	O	Pin (52) of IC501 on MA-62 board	Chip select signal to INDEX IC. 8 msec cycle "L" pulse.

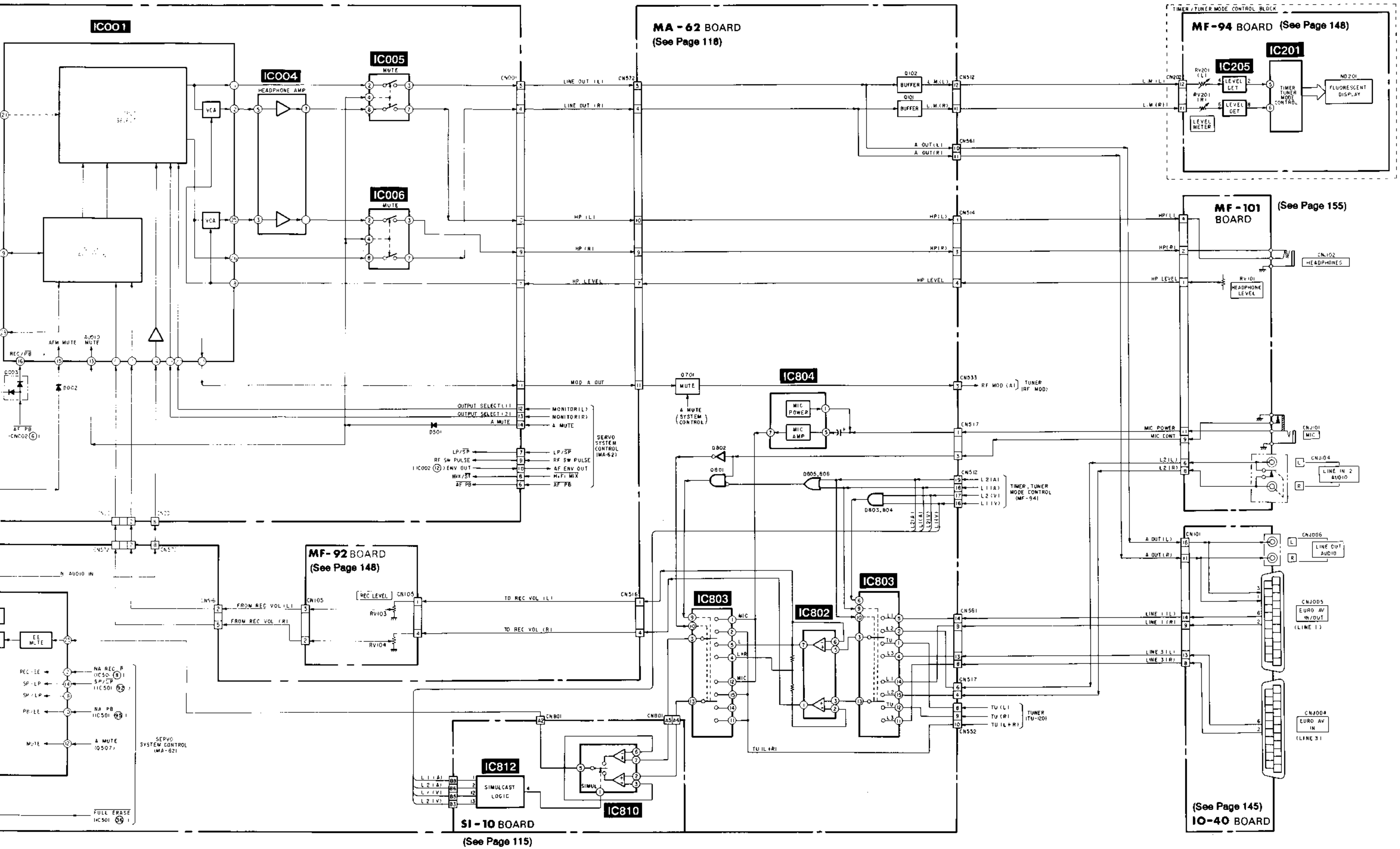
3-10. SYSTEM CONTROL — AUDIO BLOCK INTERFACE

Signal	I/O	Mode: Pin No.	STOP/ FF/REW	TAPE LOADING	TAPE UNLOADING	PB	PB• PAUSE	SLOW	×2	CUE	REVIEW	REC	REC• PAUSE	INSERT	INSERT• PAUSE
$\overline{\text{AF PB}}$	O	Pin (56) of IC501 on MA-62 board	H	H	H	L	L	L	L	L	L	H	H	*1	H
MONI (L)	O	Pin ⑩ of IC501 on MA-62 board	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1
MONI (R)	O	Pin ⑨ of IC501 on MA-62 board	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1	*1
AF ENVELOP	I	Pin (61) of IC501 on MA-62 board													
NA•PB	O	Pin (55) of IC501 on MA-62 board	L	L	L	H	H	H	H	H	H	L	L	*1	L
$\overline{\text{A MUTE}}$	O	Pin (58) of IC501 on MA-62 board	L	L	L	*4	H	H	H	H	H	H	H	H	H
SP•2	O	Pin (62) of IC501 on MA-62 board	*2	*2	*2	*3	*3	*3	*3	*3	*3	*2	*2	*3	*3
REC•$\overline{\text{P}}$	O	Pin ⑤ of IC501 on MA-62 board	L	L	L	L	L	L	L	L	L	H	L	H	L

*1. According to audio monitor
*2. According to SP/LP selector. "L": SP mode, "H": LP mode.
*3. According to tape REC mode. "L": SP mode, "H": LP mode.
*4. "H": when CTL signal is not played back.

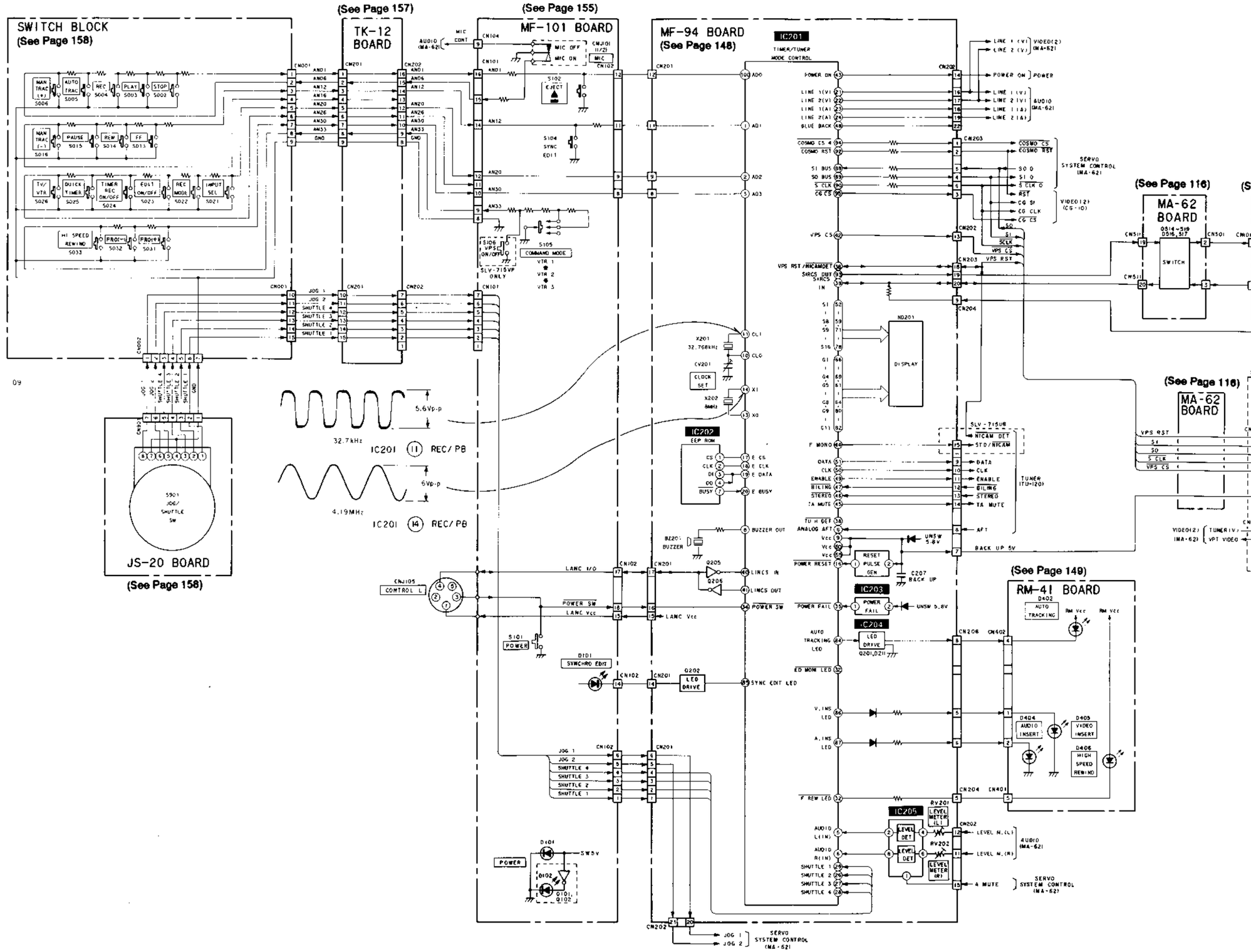
3-11. AUDIO BLOCK DIAGRAM

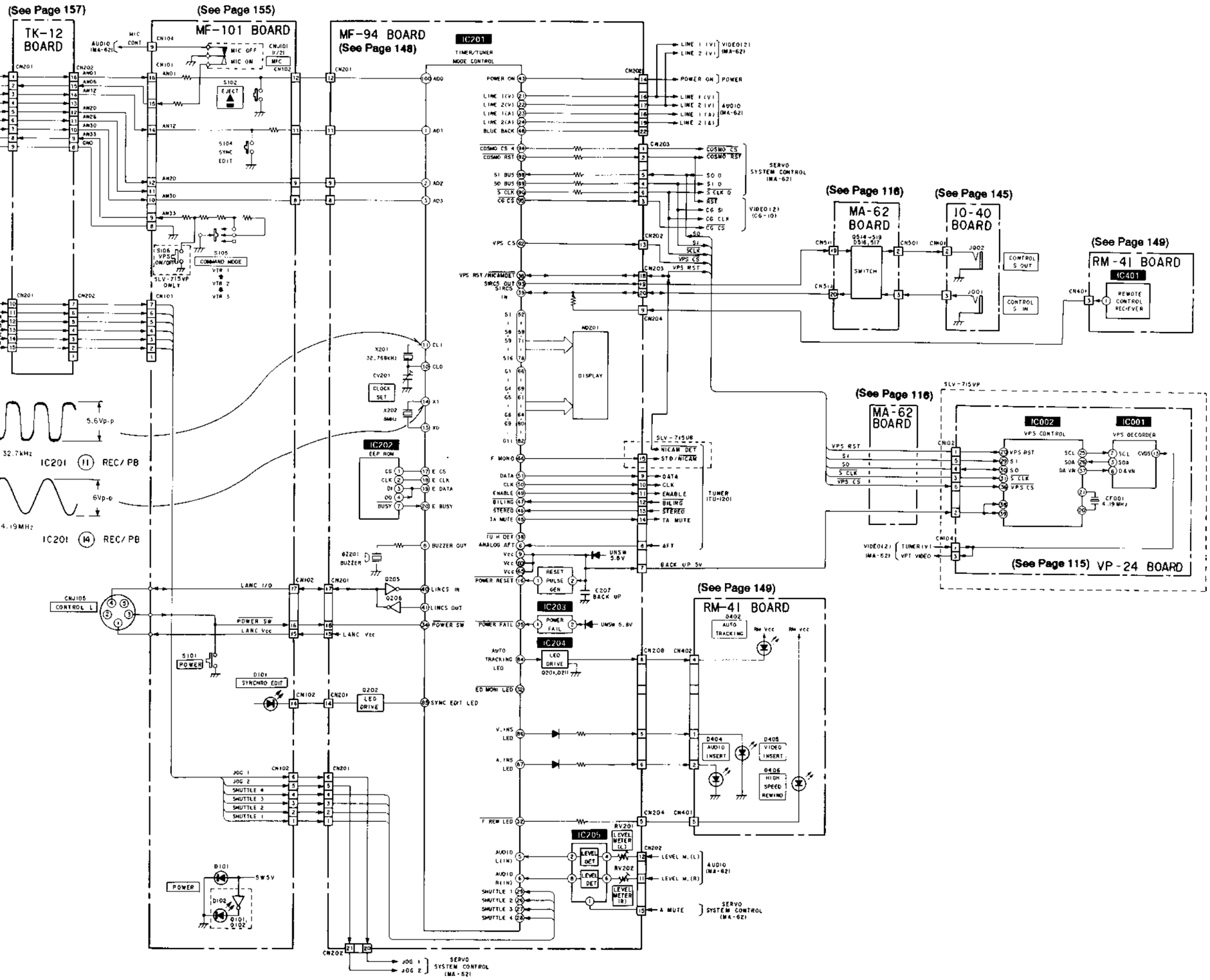




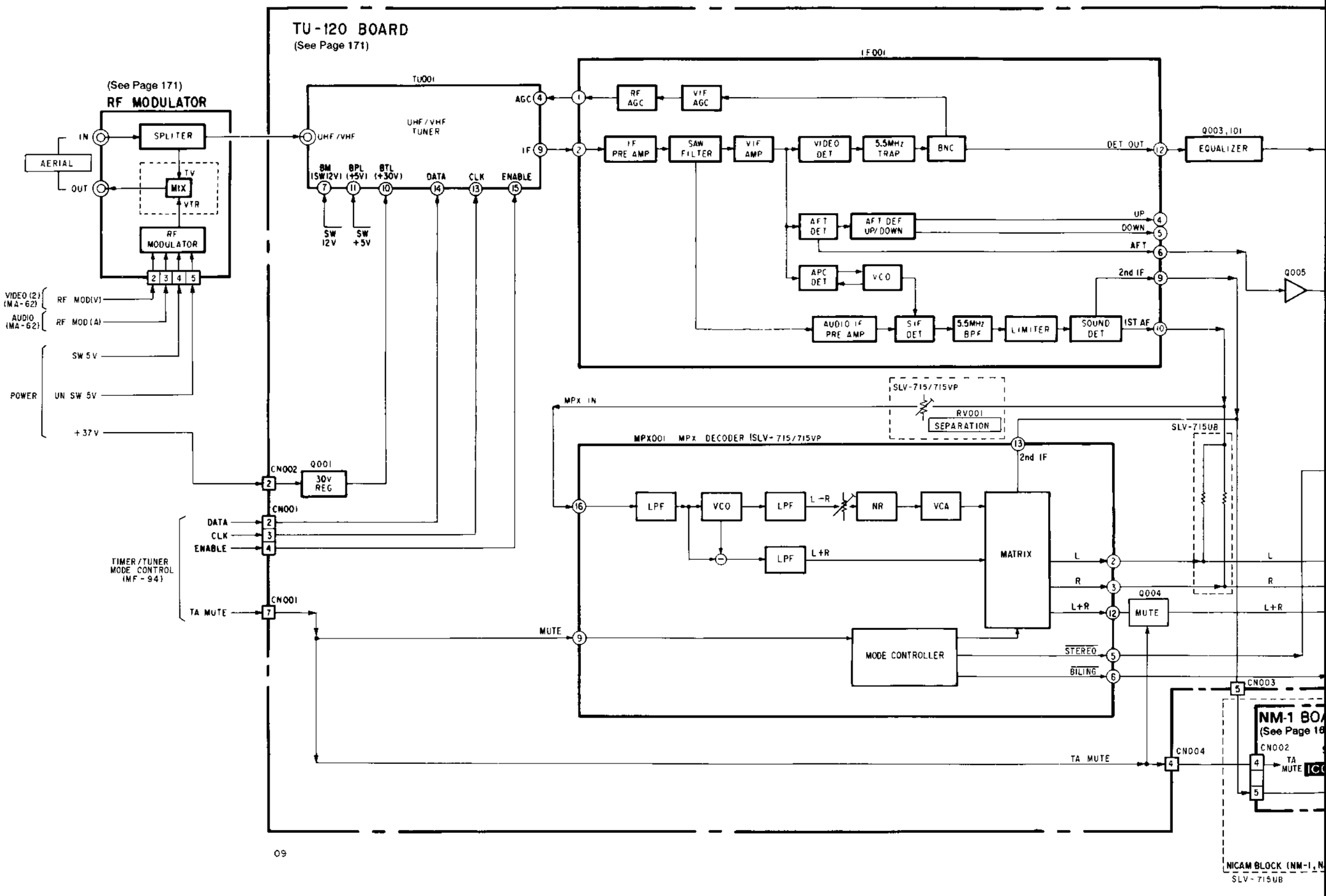
IC001
IC004
HEADPHONE AMP
IC005
MUTE
IC006
MUTE
VCA
REC/PB
AFM MUTE
AUDIO MUTE
D003
D002
AF PB
(CN002 ⑥)
OUTPUT SELECT(1)
OUTPUT SELECT(2)
A MUTE
D501
LP/SP
RF SW PULSE
(IC002 ⑫) ENV OUT
MIX/ST
AF PB
MONITOR(L)
MONITOR(R)
A MUTE
LP/SP
RF SW PULSE
AF ENV OUT
Hi-Fi MIX
AF PB
SERVO SYSTEM CONTROL (MA-62)
LINE OUT (L)
LINE OUT (R)
HP (L)
HP (R)
HP LEVEL
MOD A OUT
CN572
MA-62 BOARD
(See Page 118)
Q102
BUFFER
Q101
BUFFER
L.M.(L)
L.M.(R)
CN512
A OUT(L)
A OUT(R)
CN561
CN514
HP(L)
HP(R)
HP LEVEL
Q701
MUTE
A MUTE (SYSTEM CONTROL)
IC804
MIC POWER
MIC AMP
CN533
RF MOD (A)
TUNER (RF MOD)
CN517
D802
D801
D805,806
D803,804
L2(A)
L1(A)
L2(V)
L1(V)
TIMER, TUNER MODE CONTROL (MF-94)
TIMER/TUNER MODE CONTROL BLOCK
MF-94 BOARD (See Page 148)
IC201
IC205
CN202
RV201 (L)
RV201 (R)
LEVEL DET
LEVEL METER
TIMER TUNER MODE CONTROL
ND201
FLUORESCENT DISPLAY
MF-101 BOARD
(See Page 155)
CNJ102
HEADPHONES
RV101
HEADPHONE LEVEL
MIC POWER
MIC CONT
CNJ101
MIC
L2(L)
L2(R)
CNJ104
LINE IN 2 AUDIO
CN101
A OUT(L)
A OUT(R)
CNJ006
LINE OUT AUDIO
CNJ005
EURO AV IN/OUT
(LINE 1)
LINE 1(L)
LINE 1(R)
LINE 3(L)
LINE 3(R)
CNJ004
EURO AV IN
(LINE 3)
(See Page 145)
IO-40 BOARD
TU (L)
TU (R)
TU (L+R)
TUNER (TU-120)
CN552
IC803
IC802
IC803
MIC
L+R
TU (L+R)
MF-92 BOARD
(See Page 148)
CN105
REC LEVEL
RV103
RV104
FROM REC VOL (L)
FROM REC VOL (R)
TO REC VOL (L)
TO REC VOL (R)
CN516
IN AUDIO IN
EE MUTE
REC/EE
SP/LP
PB/EE
MUTE
NA REC P (IC501 ⑧)
SP/LP (IC501 ㊾)
NA PB (IC501 ㊿)
A MUTE (Q507)
SERVO SYSTEM CONTROL (MA-62)
FULL ERASE (IC501 ㊱)
CN801
IC812
SIMULCAST LOGIC
L1(A)
L2(A)
L1(V)
L2(V)
IC810
SIMUL
SI-10 BOARD
(See Page 115)

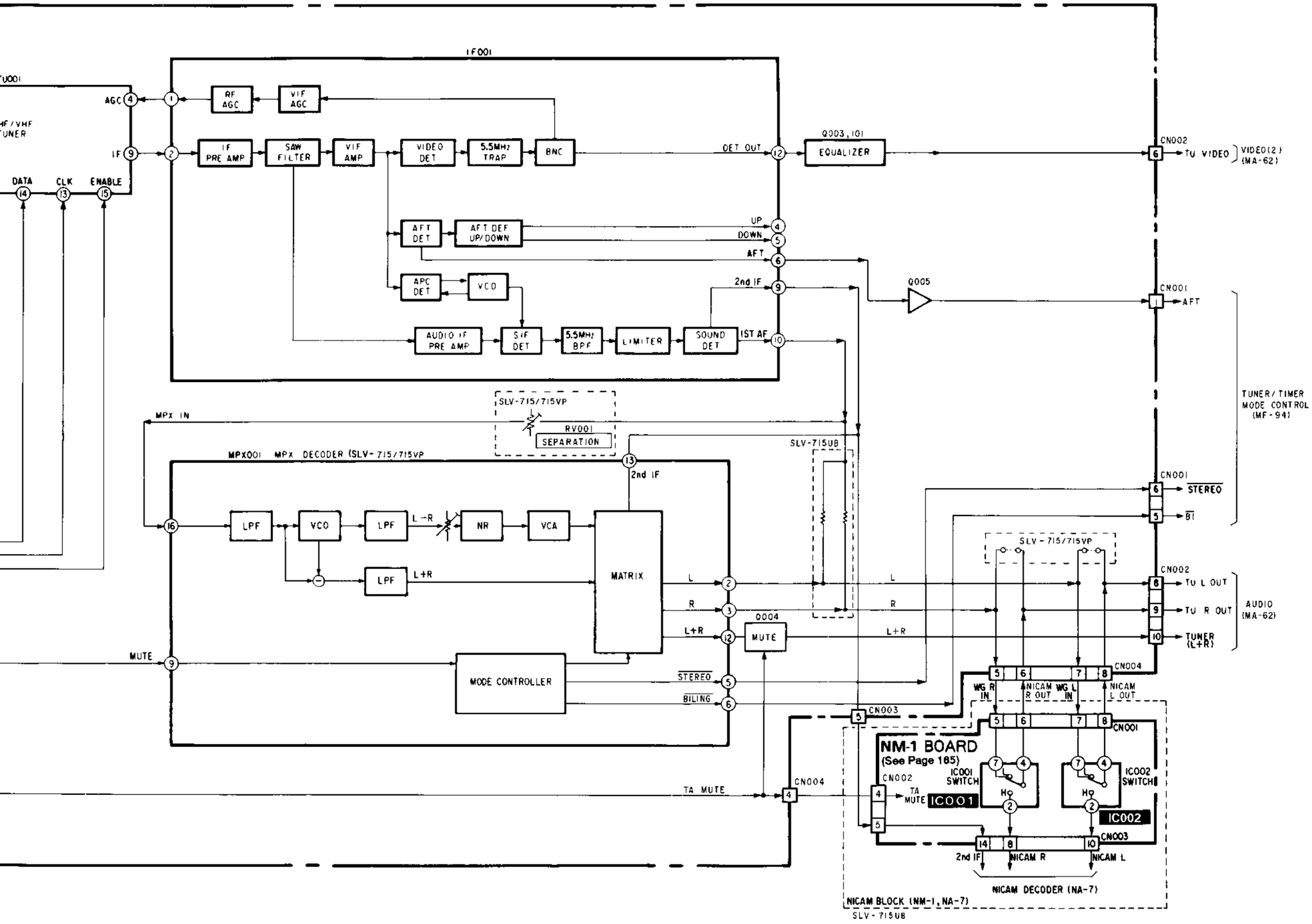
3-12. TIMER, TUNER, MODE CONTROL BLOCK DIAGRAM



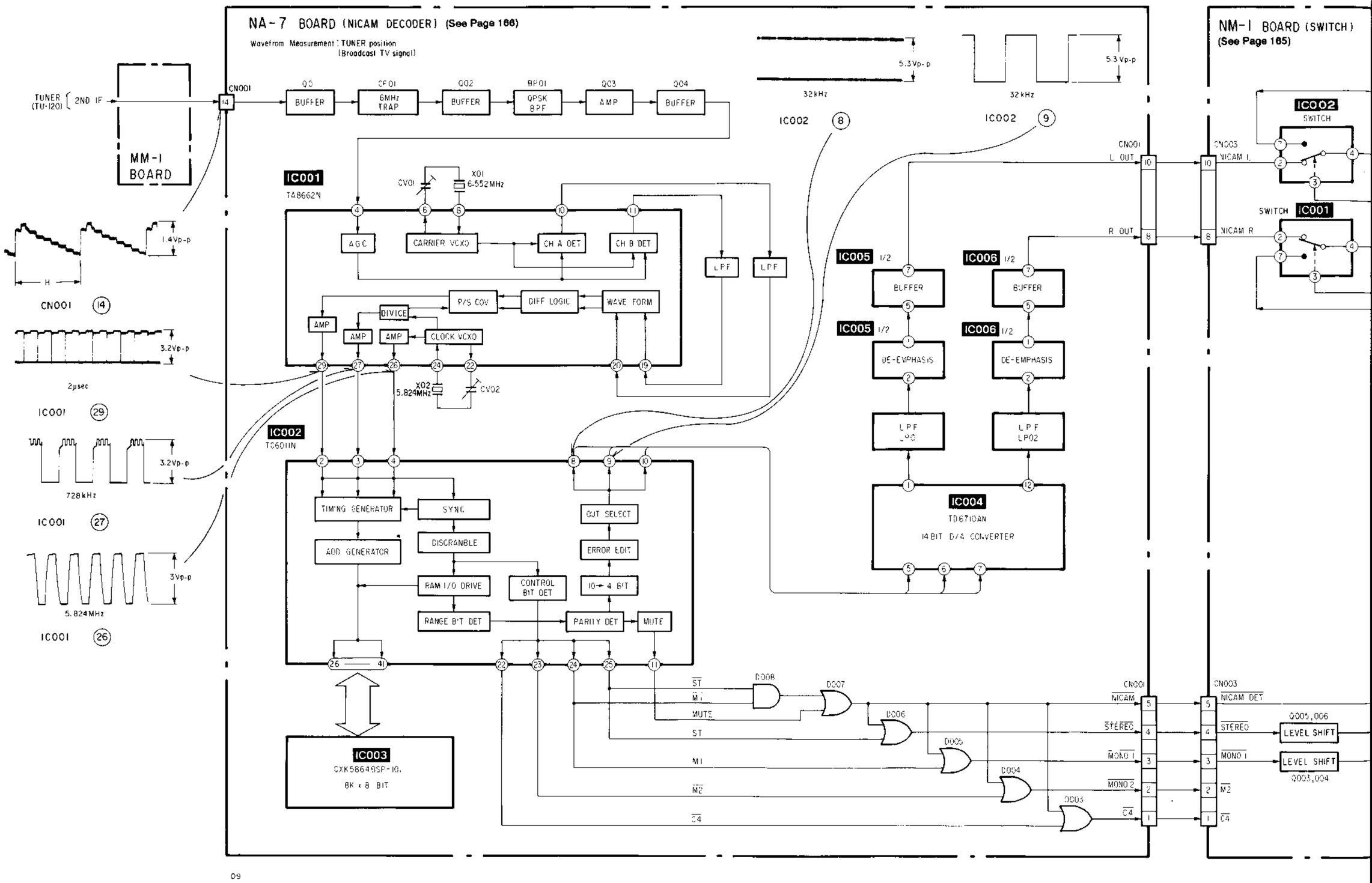

(See Page 157)
TK-12 BOARD
(See Page 155)
MF-101 BOARD
MF-94 BOARD
(See Page 148)
IC201
TIMER/TUNER MODE CONTROL
(See Page 116)
MA-62 BOARD
(See Page 145)
IO-40 BOARD
(See Page 149)
RM-41 BOARD
IC401
REMOTE CONTROL RECEIVER
SLV-715VP
(See Page 116)
MA-62 BOARD
IC002
VPS CONTROL
IC001
VPS RECORDER
(See Page 115) VP-24 BOARD
(See Page 149)
RM-41 BOARD
IC202
EEP ROM
IC203
POWER FAIL
IC204
LED DRIVE
IC205
LEVEL DET
SLV-715UB
NICAM DET
STD/NICAM
TUNER ITU-1201
DISPLAY
SERVO SYSTEM CONTROL (MA-621)
AUDIO (MA-621)
VIDEO (MA-621)
5.6Vp-p
32.7kHz
IC201 (11) REC/PB
6Vp-p
4.19MHz
IC201 (14) REC/PB

3-13. TUNER BLOCK DIAGRAM

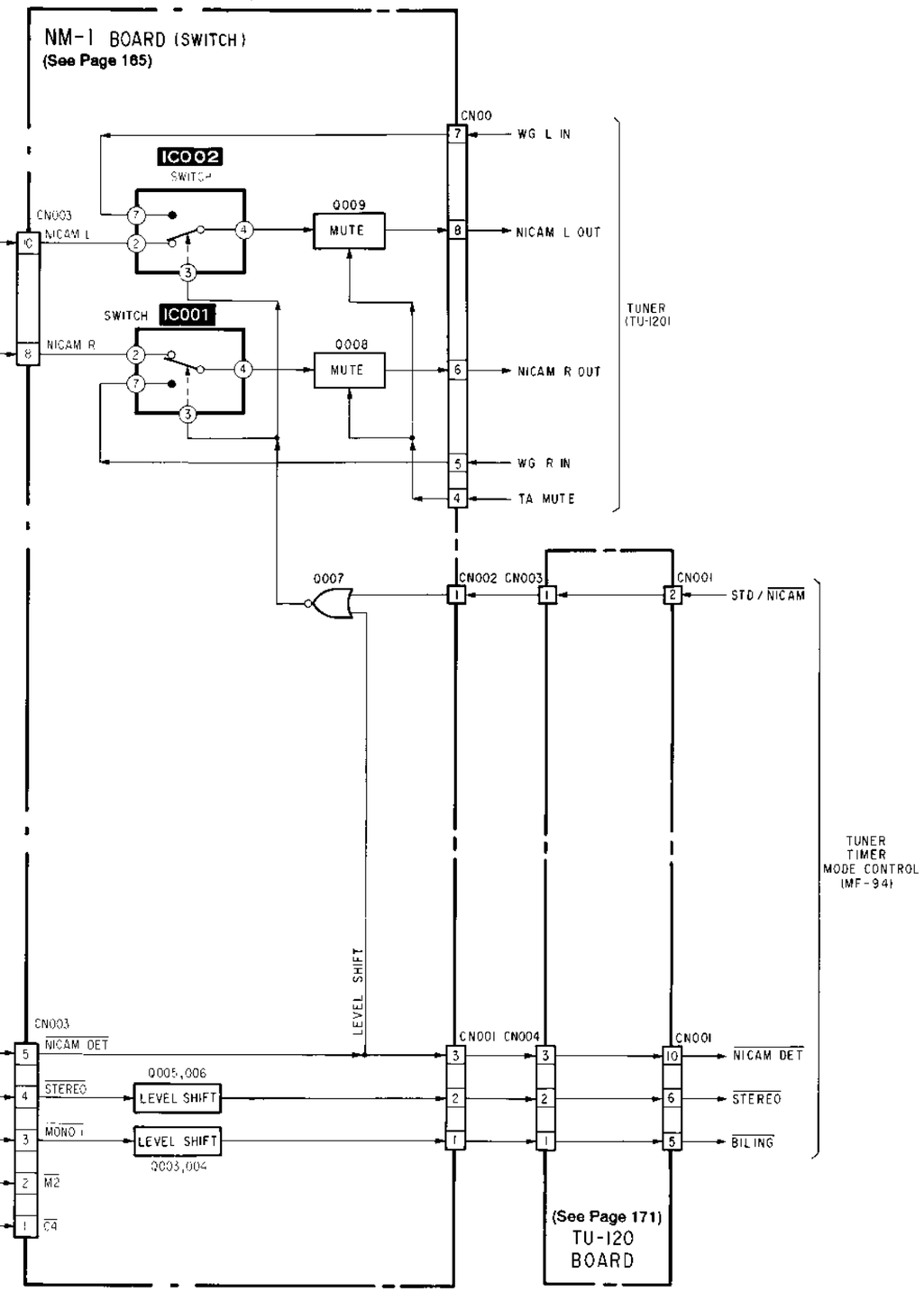



IF001
TU001
AGC
IF
DATA
CLK
ENABLE
RF AGC
VIF AGC
IF PRE AMP
SAW FILTER
VIF AMP
VIDEO DET
5.5MHz TRAP
BNC
DET OUT
Q003, I01
EQUALIZER
CN002
TU VIDEO
VIDEO(2) (MA-62)
AFT DET
AFT DEF UP/DOWN
UP
DOWN
AFT
APC DET
VCO
2nd IF
Q005
CN001
AFT
AUDIO IF PRE AMP
SIF DET
5.5MHz BPF
LIMITER
SOUND DET
1ST AF
SLV-715/715VP
RV001
SEPARATION
MPX IN
MPX001 MPX DECODER (SLV-715/715VP)
SLV-715UB
LPF
VCO
LPF
L-R
NR
VCA
LPF
L+R
MATRIX
L
R
L+R
Q004
MUTE
MODE CONTROLLER
STEREO
BILING
CN001
STEREO
BI
TUNER/TIMER MODE CONTROL (MF-94)
CN002
TU L OUT
TU R OUT
TUNER (L+R)
AUDIO (MA-62)
CN004
WG R IN
NICAM R OUT
WG L IN
NICAM L OUT
CN003
NM-1 BOARD
(See Page 165)
CN001
IC001 SWITCH
IC002 SWITCH
CN002
TA MUTE
IC001
IC002
CN003
2nd IF
NICAM R
NICAM L
NICAM DECODER (NA-7)
NICAM BLOCK (NM-1, NA-7)
SLV-715UB
TA MUTE
CN004

3-14. NICAM BLOCK DIAGRAM (SLV-715UB only)



09



3-15. NICAM (NEAR INSTANTANEOUS COMPAND SYSTEM) (SLV-715UB only)

NICAM, or NICAM 728 which refers to its bit rate,stands for 14-to-10 bit Near Instantaneous Compand System which executes signal processing of PCM, employing the television's PCM sound multiplex broadcast system. By utilizing digital method for TV sound multiplex bradcasting, the following types of broadcasts are accomplished which heretofore were impossible to achieve with analog multiplex broadcasting.

1) High quality sound broadcast independent from FM sound (analog).
2) Data broadcast, while retaining the compatibility of receiving equipment. Tackles future diversification to facsimile broadcast, etc.

3-15-1. NICAM Standard

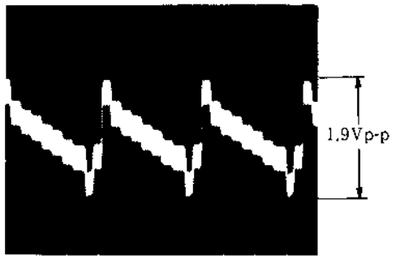
		SYSTEM-B/G Europe, etc.	SYSTEM-2 UK
Analog sound (Conventional mono 1ch TV sound)	Modulation method	FM	
	Sub-carrier frequency	5.5 MHz	6.0 MHz
	Signal level (image: FM)	20:1	10:1
Digital sound (NICAM)	Modulation method	DQPSK	
	Sub-carrier frequency	5.850 MHz	6.552 MHz
	Signal level (image: FM)	100:1	
	Bit rate	728K 6PS	
	Sampling frequency	32 kHz	
	Quantized bit count	14 bit	
	Compression/ expansion	10-to-14 bit ELONGATION COMPAND	
	Digital sound channels	2-CH	

3-15-2. NICAM Receiving System

The RF signal that is input from ANT is selected, amplified, & IF converted by the tuner; and it then enters VIF. At VIF, it is input into the image detection circuit for acquiring FM signal & QPSK signal as intercarrier; as well as into its parallel image detection circuit for reproducing image signal. To acquire QPSK signal of superior quality, quasi-parallel tone method is employed here. The QPSK signal that is output from VIF passes though QPSK DEMOD, PCM decoder, & D/A converter; then enters audio SW block, and is finally output as L, R signals.

3-15-3. Description of NA-7 Board (NICAM Decoder)

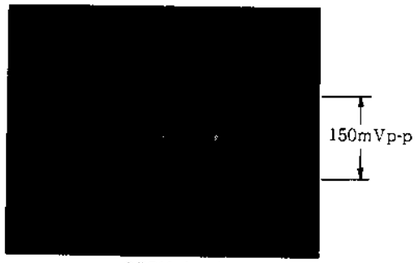
The 2nd IF signal that is output from Pin ⑨ of IF block passes through NM-1 board substrate, and enters Pin ⑭ of CN01 on NA-7 board (Fig. 1.).



2nd IF signal
(Pin ⑭ of CN01)

Fig. 1.

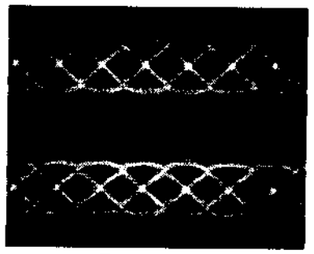
Here, the 2nd IF signal is superimposed with video signal & FM carrier 5.5 MHz [∗6.0 MHz] signal, aside from QPSK signal. After passing through buffer Q01, the Pin ⑭ 2nd IF signal is FM trapped (CF01), and then passes through QPSK BPF (BP01) where its unwanted signal is eliminated. Next, it is undergoes level adjustment by AMP Q03 (about 13 dB), and is then iuput into QPSK demodulation IC IC01, Pin ④ (Fig. 2.).



QPSK signal
(Pin ④ of IC01)

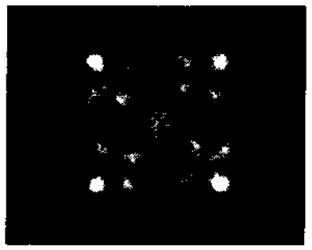
Fig. 2.

The input level at Pin ④ is 150 mVp-p for standerd signal (P/S2=20 dB).
After passing through AGC, the signal that is input from Pin ④ is subject to phase synchronization detection by two VCXO, that is by a signal which is phase synchronized with 2nd IF carrier 5.58 MHz [＊6.552 MHz] and a signal whose phase is 180° different from it; next it is output as eye pattern through Pins ⑩, ⑪ from where it then passes through the prescribed base bank LPF, and is once again input into IC01.
The signal entering Pins ⑲, ⑳ (Fig. 3-1.) passes through wave shaper, difference logic, parallel to serial conversion; and is then output through Pin ㉙ as PCM data.



Eye pattern
(Pin ⑲ of IC01 up,
Pin ⑳ of IC01 down)

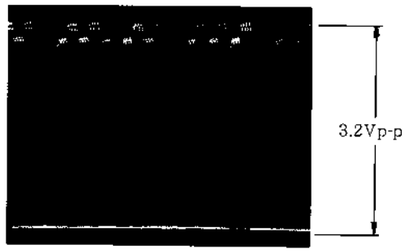
Fig. 3-1.



Eye pattern
(X-Y wave of Fig. 3-1.)

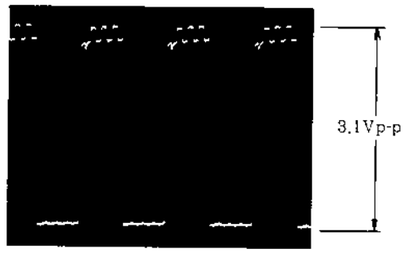
Fig. 3-2.

Similarly, PCM master clock 5.824 MHz is output through Pin㉘, and its 1/8th 728kHz bit clock through Pin ㉗.
The PCM data & clocks that are output through Pins ㉙ (Fig. 6.), ㉗ (Fig. 5.), ㉘ (Fig. 4.) of IC01 are input into the next PCM decoder IC02.



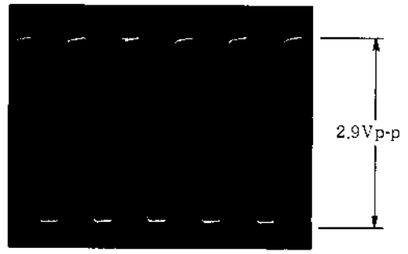
PCM data
(Pin ㉙ of IC01)

Fig. 4.



728 kHz bit clock
(Pin ㉗ of IC01)

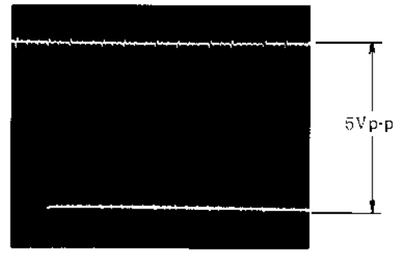
Fig. 5.



5.824 MHz master clock
(Pin ㉘ of IC01)

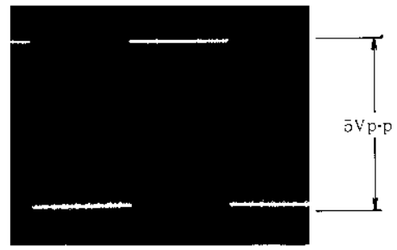
Fig. 6.

The PCM decoder executes various signal processing, like, descramble, deinterleave, range bit detection, 10-to-14 bit elongation, error compensation, muting, and so on.
As a result of the various signal processing executed by IC02, identification signal as well as the shift clock (Fig. 9.), work clock (Fig. 8.), DA data (Fig. 7.), etc. that is needed by D/A converter are output.



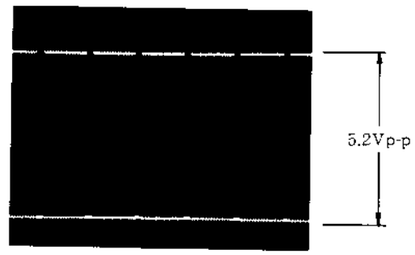
DA data
(Pin ⑩ of IC02)

Fig. 7.



Word clock
(Pin ⑨ of IC02)

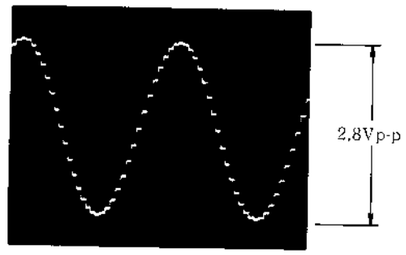
Fig. 8.



Sift clock
(Pin ⑧ of IC02)

Fig. 9.

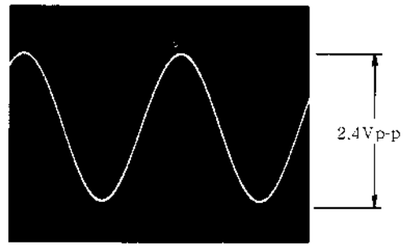
At IC04, the input DA data, after passing through integrator and sample-hold circuit, is convertedinto analog signal by a 14-bit 2ch D/A converter; and is then output through Pin ① Lch (Fig. 10.), Pin ⑫ Rch (Fig. 10.).



D/A audio out
(Pins ①, ⑫ of IC04)

Fig. 10.

After passing through L.P.F., the L, R signal passes through buffer and de-emphasis circuit that is composed of IC05, IC06; and is then output as CN01 Pin ⑩ L (Fig. 11.), Pin ⑧ R (Fig.11.) signal.

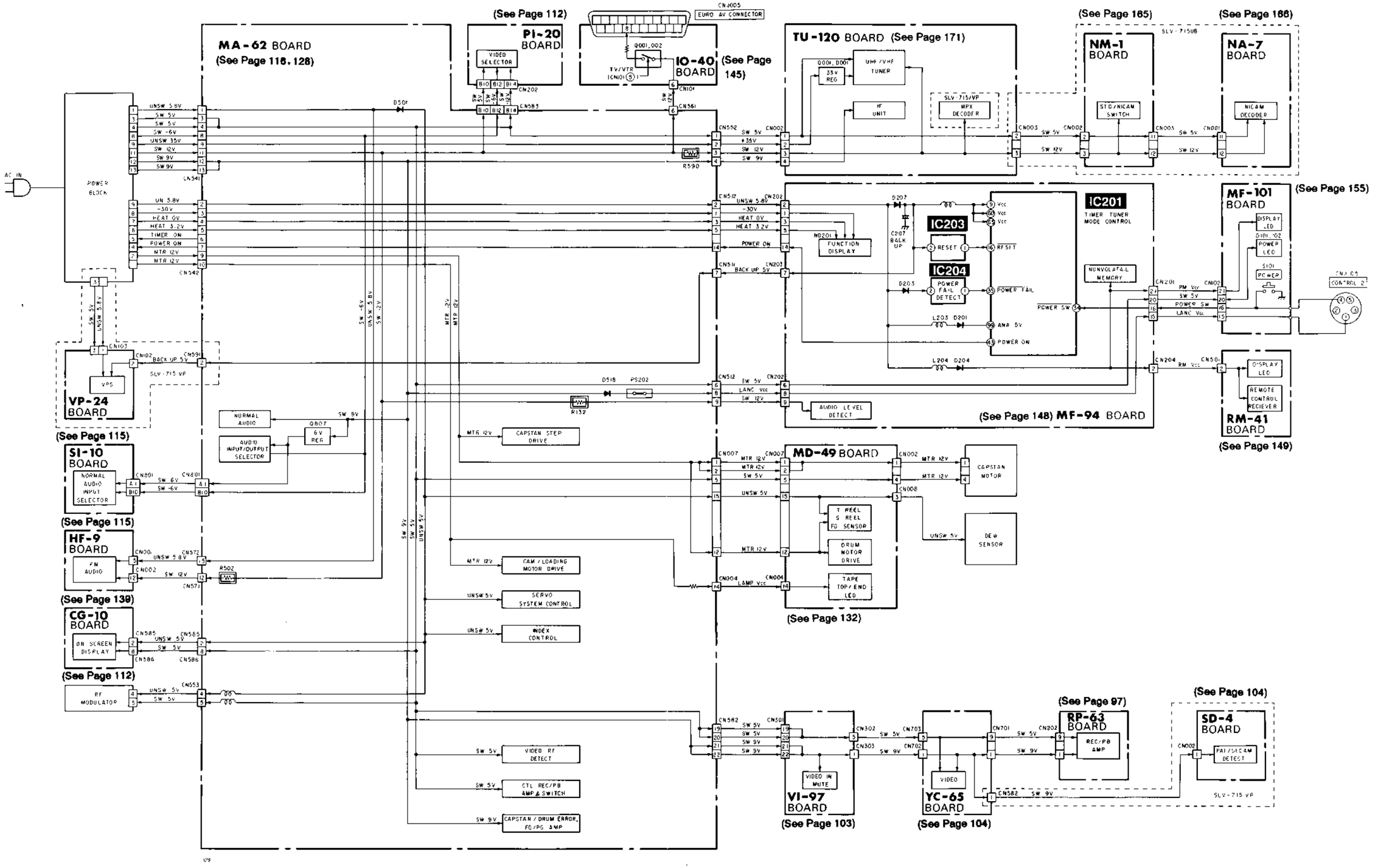


Audio out
(Pins ⑧, ⑩ of IC01)

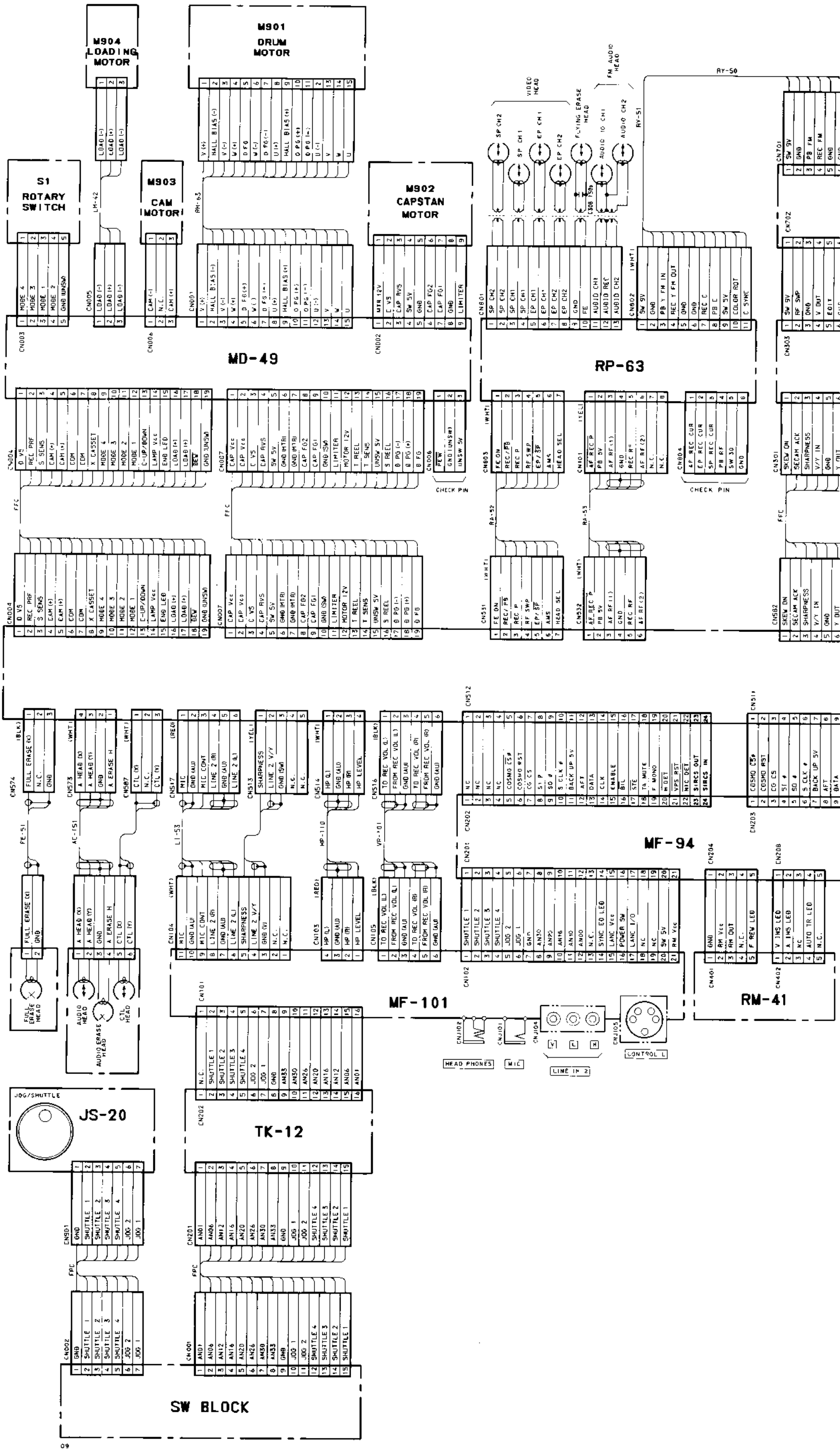
Fig. 11.

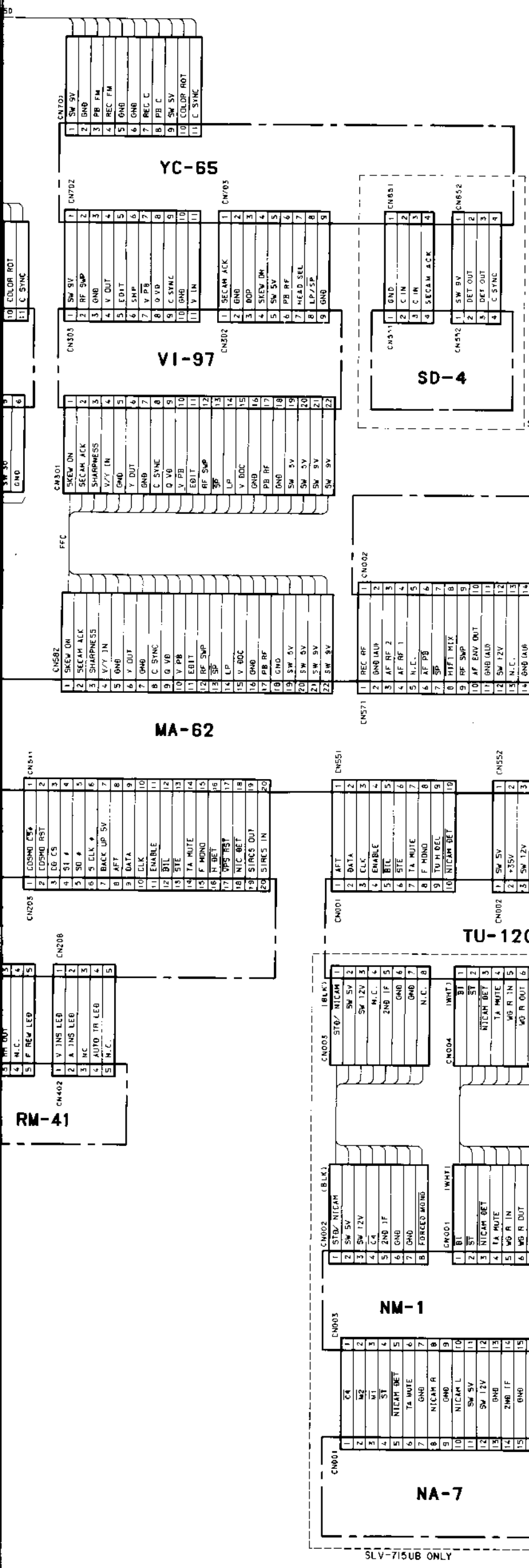
Identification signal is prepared with a combination of ST, M, MUTE signal; and it is then input into IC201 on MF-94 board.
* Frequency shown in [ ] is UK board value.

3-16. POWER BLOCK DIAGRAM



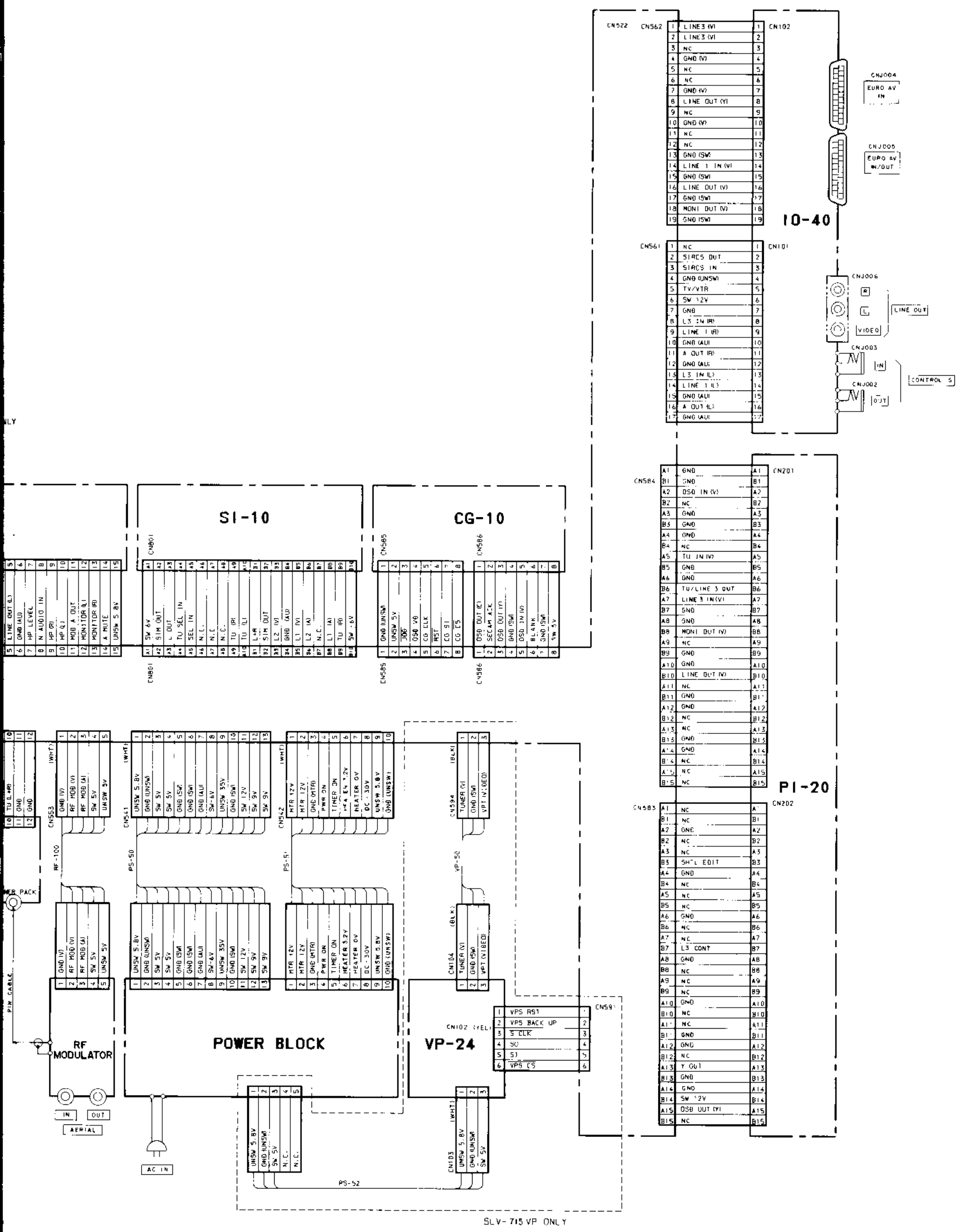
4-1. FRAME SCHEMATIC DIAGRAM




YC-65
VI-97
SD-4
SLV-715VP ONLY
HF- 9
SI-10
CG-10
MA-62
TU-120
TO TUNER PACK
RF MODULATOR
IN
OUT
AERIAL
AC IN
POWER BLOCK
VP-24
PS-52
SLV-715VP ONLY
RM-41
NM-1
NA-7
SLV-715UB ONLY

FRAME FRAME

16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27



FRAME	FRAME

4-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this , the necessary note is printed in each block.)

- **For printed wiring boards.**
- ○— : indicated a lead wire mounted on the component side.
- —— : indicated a lead wire mounted on the conductor side.
- ● : Through hole.
- ■ : Parts mounted on the conductor side.
- : Pattern from the side which enables seeing.
- : Pattern of the rear side.
- Circled numbers refer to waveforms.

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component side)	Parts on the parts face side seen from the pattern face are indicated.

- **For schematic diagrams.**
- Caution when replacing chip parts.
  New parts must be attached after removal of chip.
  Be careful not to heat the minuts side of tantalum capacitor, because it is damaged by the heat.
- All resistors are in ohms, 1/4W unless otherwise noted.
  Chip resistor are 1/10W unless otherwise noted.
  kΩ : 1000Ω , MΩ : 1000kΩ .
- All capacitors are in μF unless otherwise noted. pF: μμF.
  50V or less are not indicated except for electrolytics and tantalums.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- : nonflammable resistor.
- : fusible resistor.
- : panel designation.
- △ : internal component.
- : adjustment for repeair.
- ——— : B+ Line.
- - - - : B- Line.
- : IN/OUT direction of (+, –) B LINE.
- Circled numbers refer to waveforms.
- Voltages are dc between ground and measurement points.
- Readings are taken with a color-bar signal input
- Readings are taken with a digital multimeter (DC10MΩ).
- Voltages are taken with a VOM (Input impedance 10MΩ).
- Voltage variations may be noted due to normal production tolerances.

Note: The components identi- fied by mark ⚠ or dotted line with mark ⚠ are critical for safty.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

RP-63 (REC/PB H

— Ref. No. RP-63 BOAR

A-6727-137-A RP-63 BO
****

D102	8-719-400-18
D801	8-719-400-18
D802	8-719-400-18
D803	8-719-400-18
IC101	8-759-320-55
IC801	8-759-320-52
Q101	8-729-216-22
Q801	8-729-216-22
Q802	8-729-120-28
Q803	8-729-120-28
Q804	8-729-901-01
Q805	8-729-901-01
Q806	8-729-901-01
Q850	8-729-301-98
Q851	8-729-901-0
Q852	8-729-216-23
Q853	8-729-216-23
Q854	8-729-901-0

HEAD AMP HEAD AMP

RP-63 (REC/PB HEAD AMP) PRINTED WIRING BOARD

— Ref. No. RP-63 BOARD: 1000 series —

A-6727-137-A RP-63 BOARD, COMPLETE
****
(Ref. No 1,000 Series)

< DIODE >

D102	8-719-400-18	DIODE	MA152WK
D801	8-719-400-18	DIODE	MA152WK
D802	8-719-400-18	DIODE	MA152WK
D803	8-719-400-18	DIODE	MA152WK

< IC >

IC101	8-759-320-55	IC	HA12115MP
IC801	8-759-320-52	IC	HA118019NT

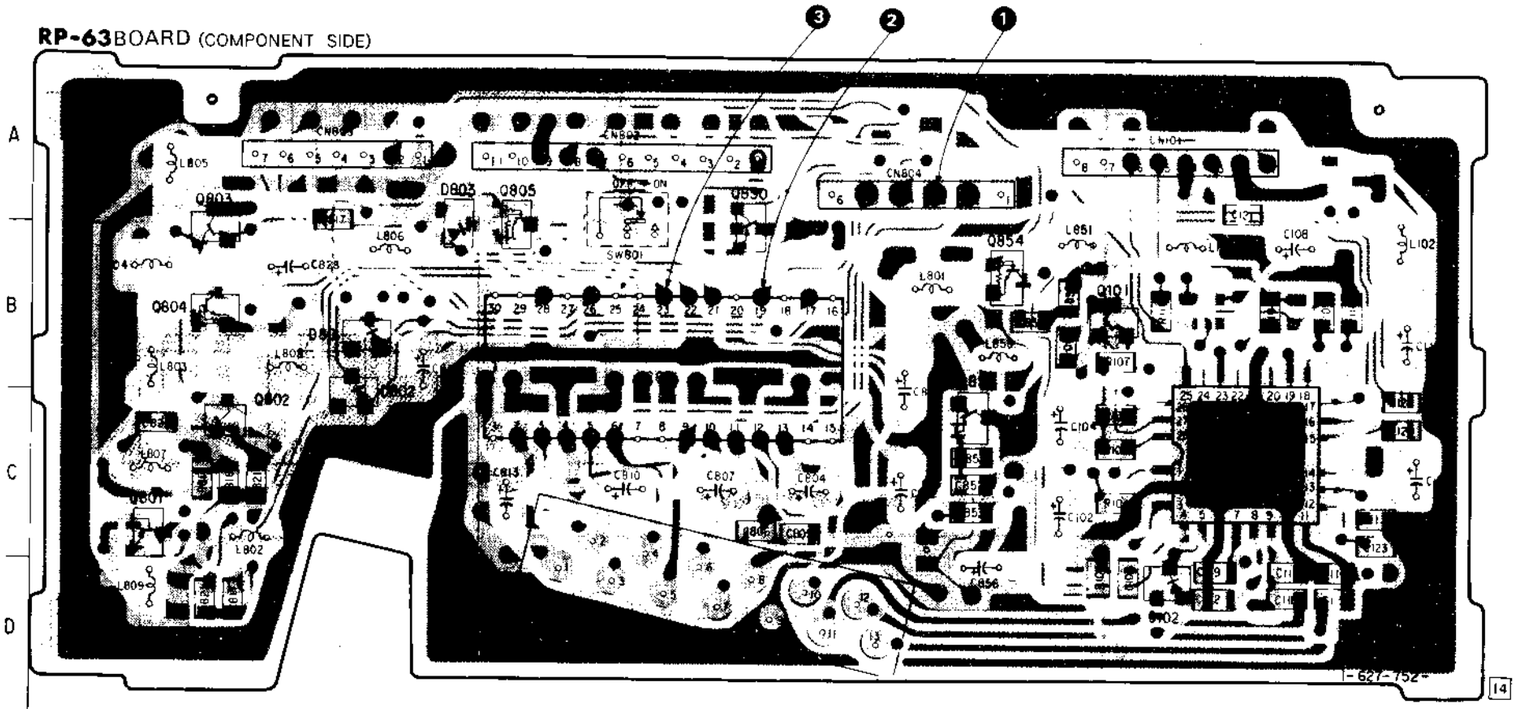
< TRANSISTOR >

Q101	8-729-216-22	TRANSISTOR	2SA1162
Q801	8-729-216-22	TRANSISTOR	2SA1162
Q802	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q803	8-729-120-28	TRANSISTOR	2SC1623-L5L6
Q804	8-729-901-01	TRANSISTOR	DTC144EK
Q805	8-729-901-01	TRANSISTOR	DTC144EK
Q806	8-729-901-01	TRANSISTOR	DTC144EK
Q850	8-729-301-98	TRANSISTOR	2SB1000A-L
Q851	8-729-901-01	TRANSISTOR	DTC144EK
Q852	8-729-216-22	TRANSISTOR	2SA1162
Q853	8-729-216-22	TRANSISTOR	2SA1162
Q854	8-729-901-01	TRANSISTOR	DTC144EK

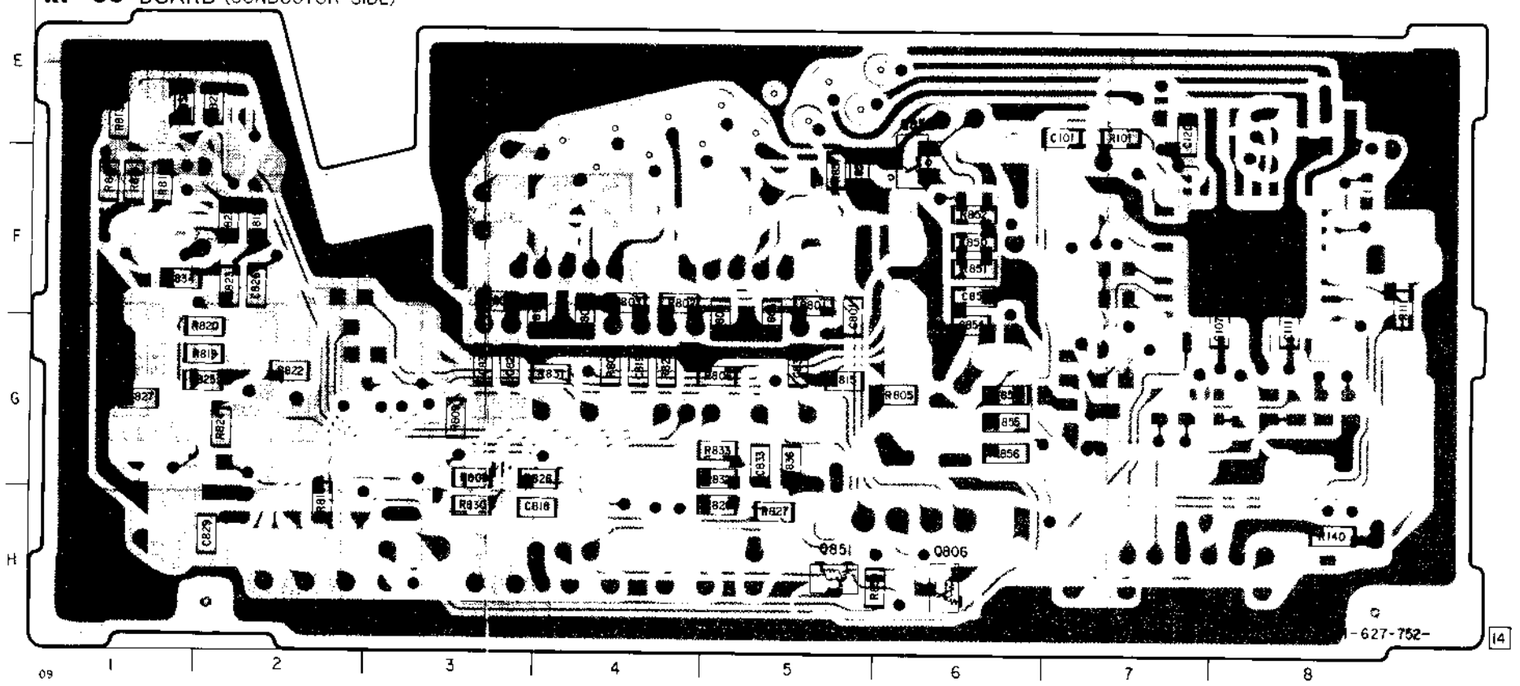
RP-63 BOARD

D102	D-7
D801	B-2
D802	B-2
D803	A-3
IC101	C-8
IC801	B-4
Q101	B-7
Q801	C-1
Q802	C-2
Q803	B-2
Q804	B-2
Q805	A-3
Q806	H-6
Q850	A-5
Q851	H-5
Q852	F-6
Q853	C-6
Q854	B-5

RP-63 BOARD (COMPONENT SIDE)

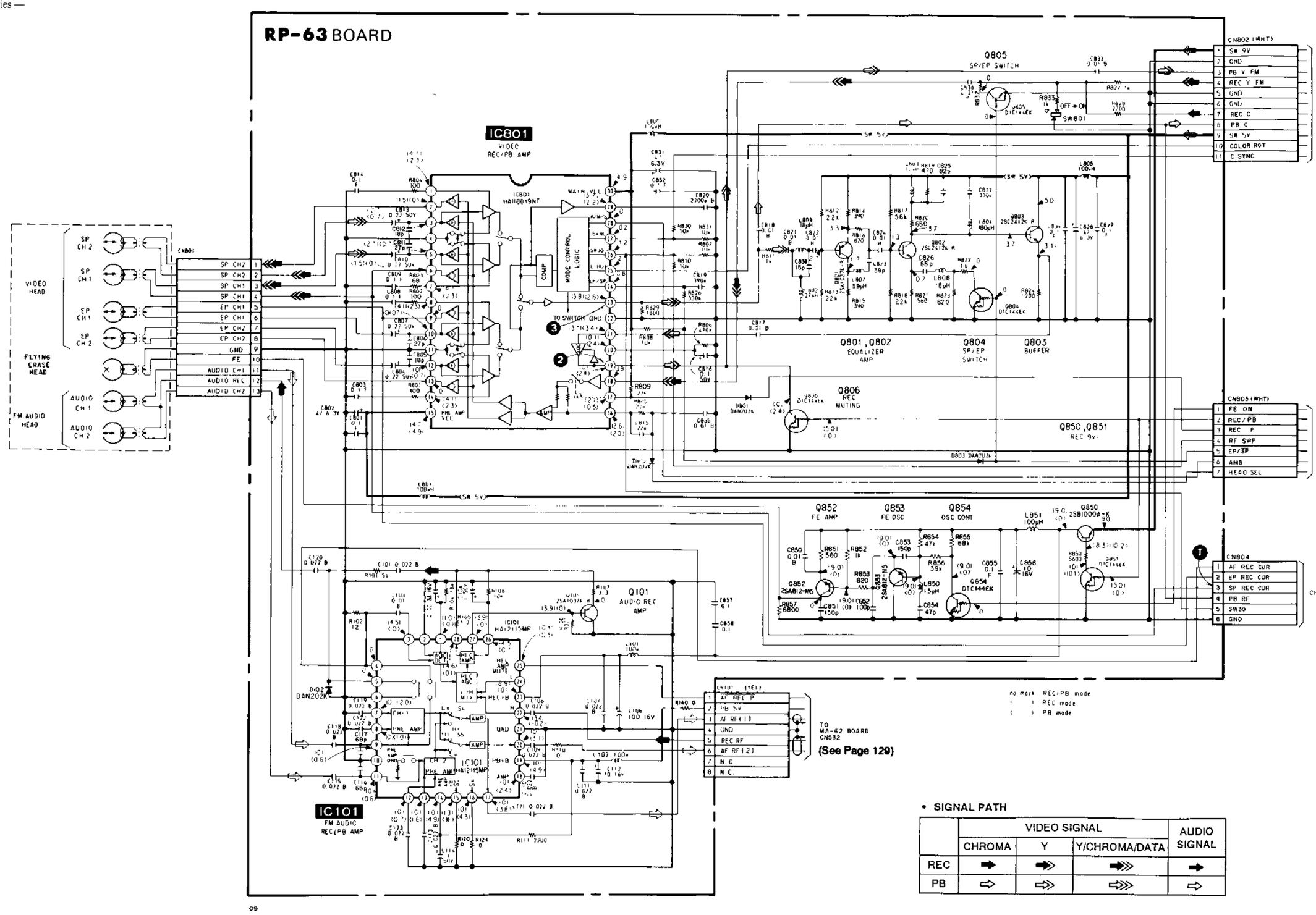


RP-63 BOARD (CONDUCTOR SIDE)



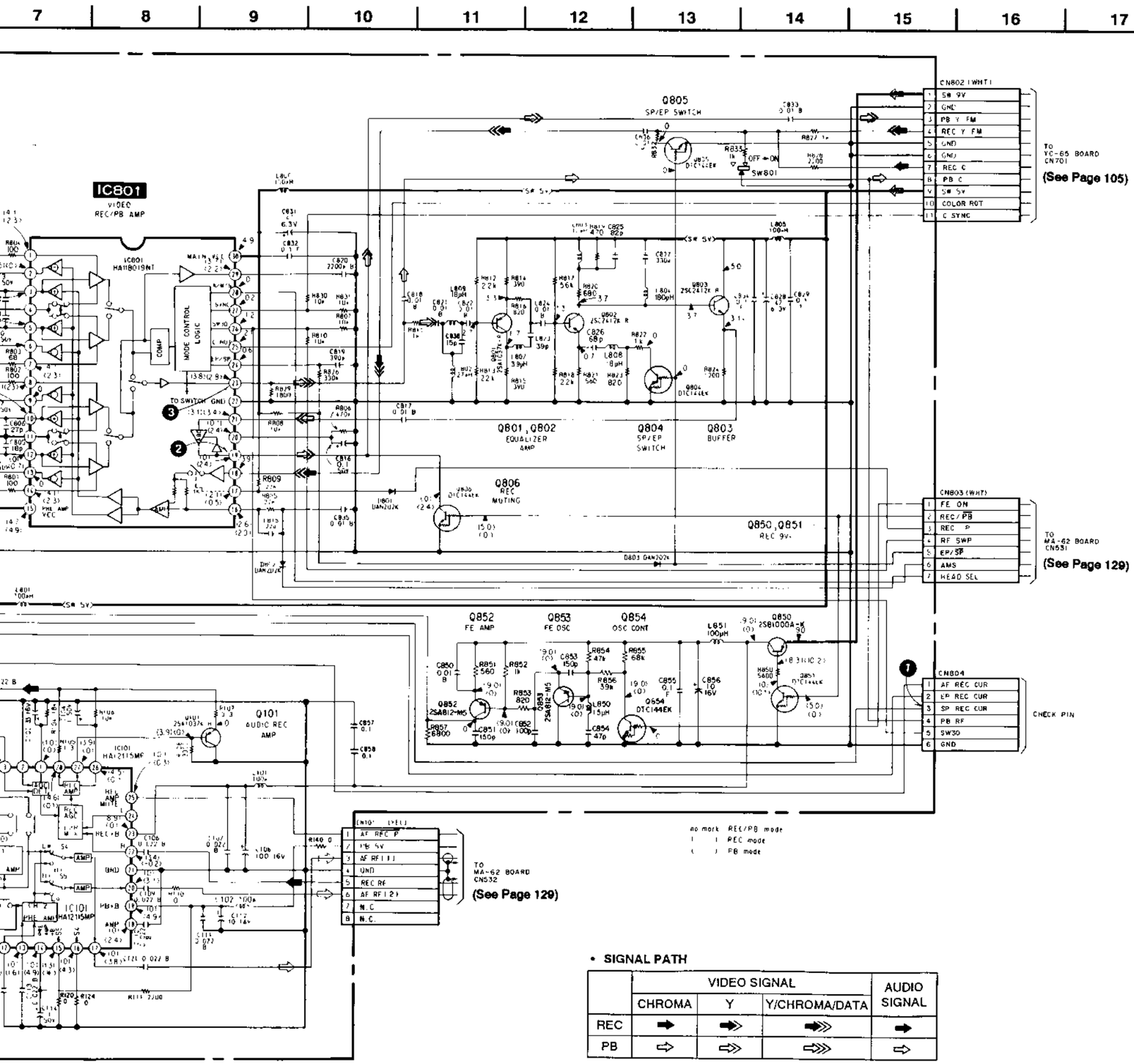
— Ref. No. RP-63 BOARD: 1000 series —

RP-63 BOARD

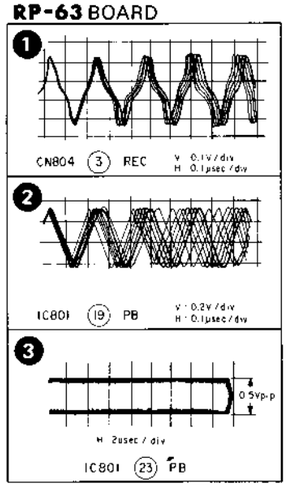


• SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC	➡	➡	➡	➡
PB	⇨	⇨	⇨	⇨



RP-63 BOARD



- SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC	➡	➡	➡	➡
PB	⇨	⇨	⇨	⇨

* A-6727-277-A YC-65 BOARD, COMPLETE (SLV-715/UB)
****
* A-6727-281-A YC-65 BOARD, COMPLETE (SLV-715VP)
****
(Ref. No 2,000 Series)

< DIODE >

D705	8-719-104-34	DIODE	1S2835-T1
D801	8-719-400-18	DIODE	MA152WK
D803	8-719-400-18	DIODE	MA152WK

< IC >

IC701	8-759-420-07	IC	AN3231K
IC702	8-752-321-89	IC	CXL5003P
IC801	8-759-320-78	IC	HA118016NT
IC802	8-759-822-05	IC	LA7213
IC860	8-759-420-53	IC	AN3592K
IC861	8-759-991-54	IC	MSM6989RS
IC862	8-752-006-12	IC	CX20061
IC863	8-759-822-05	IC	LA7213
IC864	8-759-000-49	IC	MC14066BCP

< TRANSISTOR >

Q702	8-729-216-22	TRANSISTOR	2SA1162
Q703	8-729-901-47	TRANSISTOR	DTA143EK
Q704	8-729-901-01	TRANSISTOR	DTC144EK
Q705	8-729-100-66	TRANSISTOR	2SC1623
Q706	8-729-216-22	TRANSISTOR	2SA1162
Q707	8-729-100-66	TRANSISTOR	2SC1623
Q709	8-729-100-66	TRANSISTOR	2SC1623
Q711	8-729-216-22	TRANSISTOR	2SA1162
Q715	8-729-901-01	TRANSISTOR	DTC144EK
Q716	8-729-901-01	TRANSISTOR	DTC144EK
Q717	8-729-100-66	TRANSISTOR	2SC1623
Q719	8-729-216-22	TRANSISTOR	2SA1162
Q721	8-729-100-66	TRANSISTOR	2SC1623
Q722	8-729-901-01	TRANSISTOR	DTC144EK
Q723	8-729-901-01	TRANSISTOR	DTC144EK
Q801	8-729-100-66	TRANSISTOR	2SC1623
Q802	8-729-901-01	TRANSISTOR	DTC144EK (SLV-715VP)
Q803	8-729-100-66	TRANSISTOR	2SC1623
Q804	8-729-900-53	TRANSISTOR	DTC114EK
Q805	8-729-216-22	TRANSISTOR	2SA1162
Q806	8-729-901-01	TRANSISTOR	DTC144EK
Q807	8-729-100-66	TRANSISTOR	2SC1623 (SLV-715VP)
Q808	8-729-100-66	TRANSISTOR	2SC1623
Q809	8-729-100-66	TRANSISTOR	2SC1623
Q810	8-729-901-04	TRANSISTOR	DTA114EK
Q811	8-729-216-22	TRANSISTOR	2SA1162
Q812	8-729-100-66	TRANSISTOR	2SC1623
Q852	8-729-901-01	TRANSISTOR	DTC144EK (SLV-715VP)
Q860	8-729-809-77	TRANSISTOR	2SC3142-J4
Q862	8-729-901-01	TRANSISTOR	DTC144EK
Q880	8-729-100-66	TRANSISTOR	2SC1623
Q881	8-729-100-66	TRANSISTOR	2SC1623
Q882	8-729-216-22	TRANSISTOR	2SA1162
Q883	8-729-100-66	TRANSISTOR	2SC1623

YC-65 (VIDEO PROCESS), SD-4 (SECAM DETECTOR), VI-97 (RELAY) PRINTED WIRING BOARDS

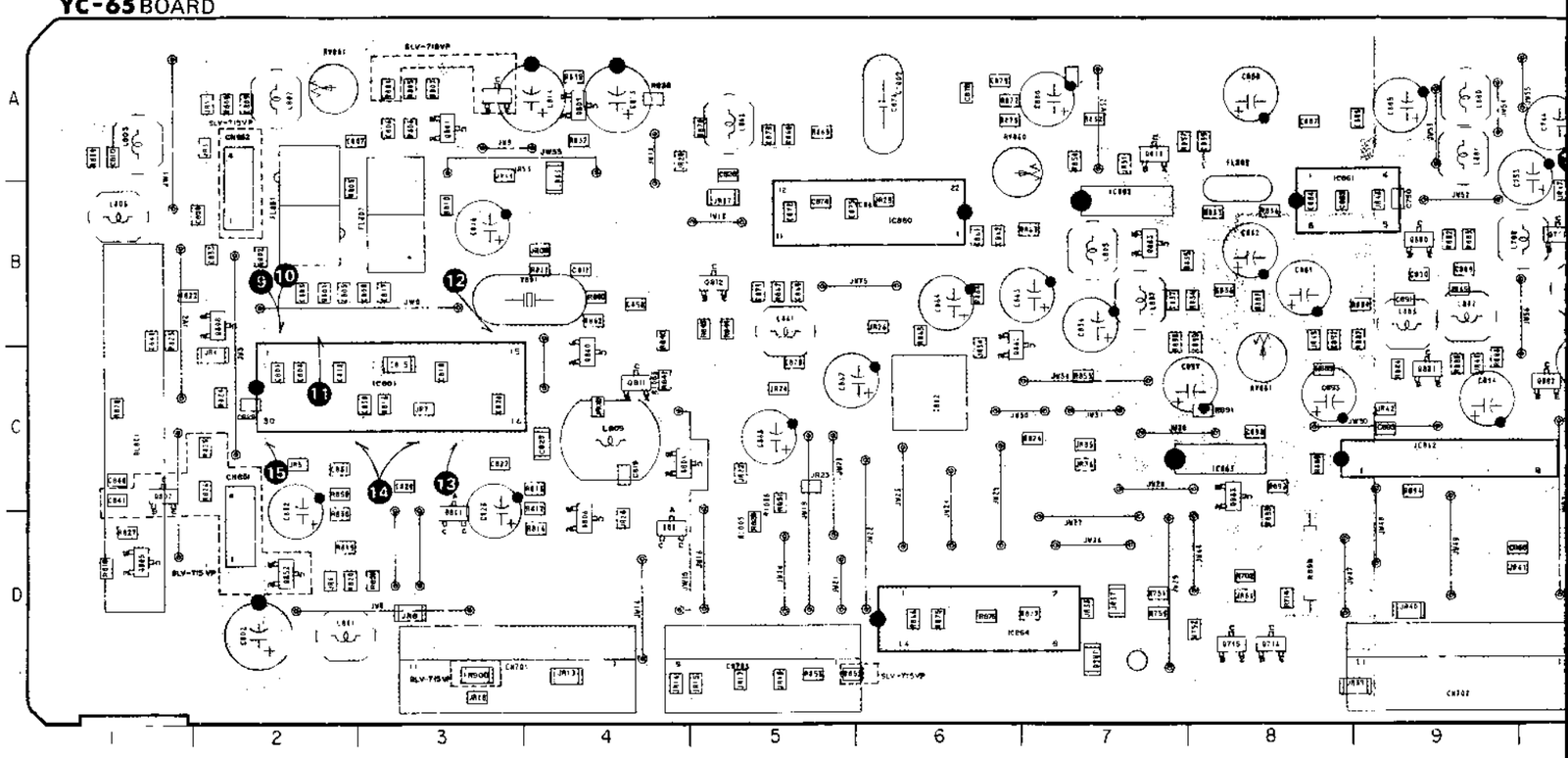
— Ref. No. YC-65 BOARD: 2000 series, VI-97 BOARD: 1000 series, SD-4 BOARD: 6000 series —

YC-65 BOARD
D705 D-11
D801 D-3
D803 D-4

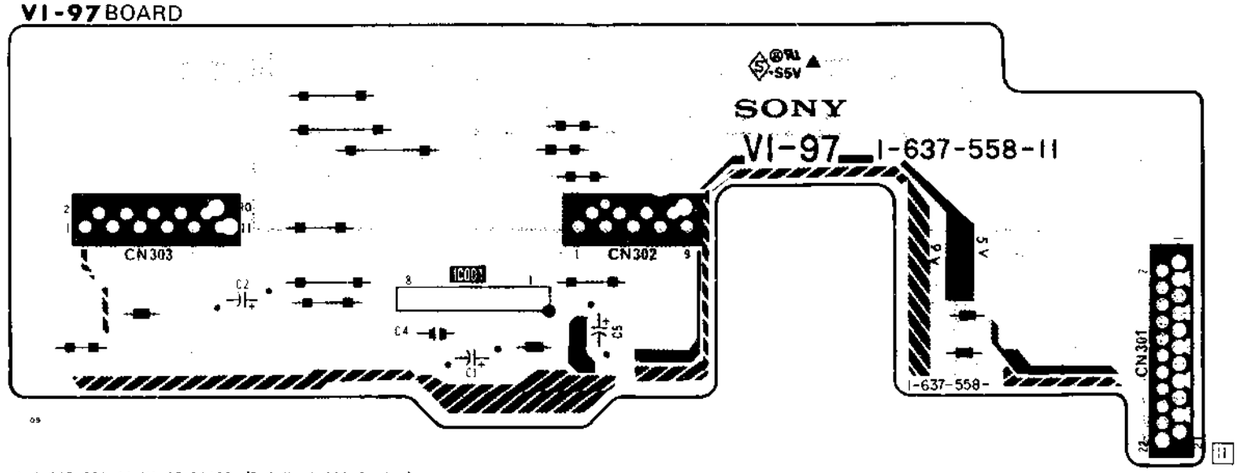
IC701 C-13
IC702 A-10
IC801 C-3
IC802 B-7
IC860 B-6
IC861 A-8
IC862 C-9
IC863 C-8
IC864 D-6

Q702 B-11
Q703 D-11
Q704 D-12
Q705 A-11
Q706 A-11
Q707 D-14
Q709 D-13
Q711 B-10
Q715 D-8
Q716 D-8
Q717 D-11
Q719 D-11
Q721 D-12
Q722 D-11
Q723 D-12
Q801 A-3
Q802 A-3
Q803 B-2
Q804 C-4
Q805 D-1
Q806 D-4
Q807 C-1
Q808 B-2
Q809 A-4
Q810 A-7
Q811 C-4
Q812 B-5
Q852 D-2
Q860 B-4
Q862 B-6
Q880 B-9
Q881 C-9
Q882 C-10
Q883 C-8

YC-65 BOARD



VI-97 BOARD



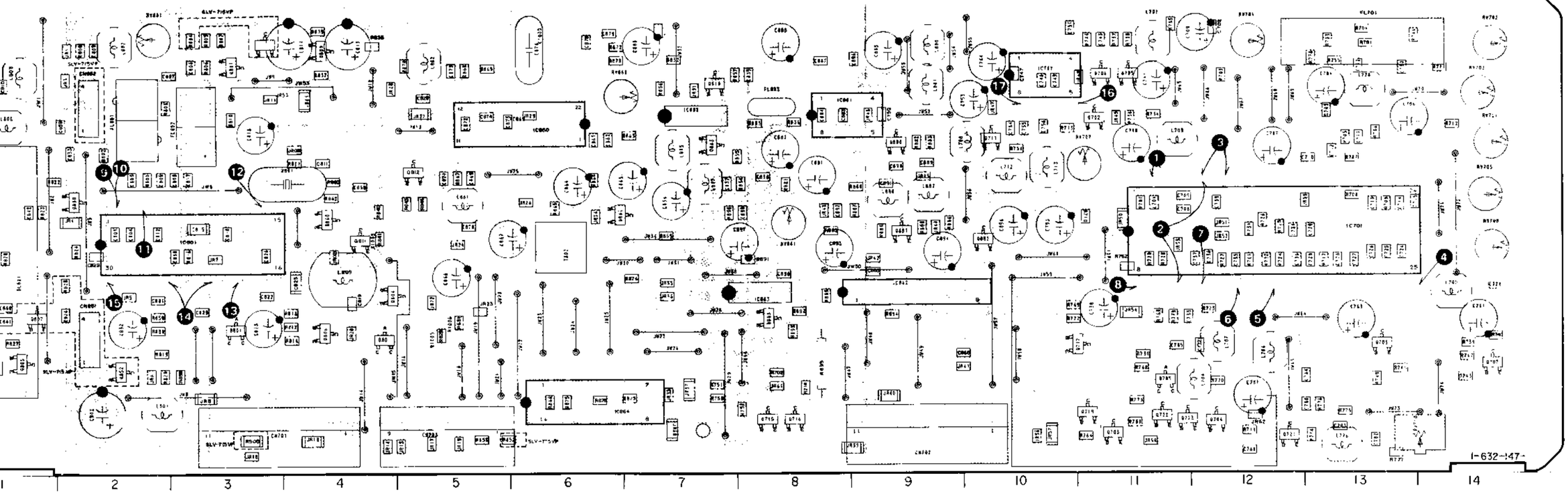
* 1-637-558-11 VI-97 BOARD (Ref. No 1,000 Series)
****

< IC >

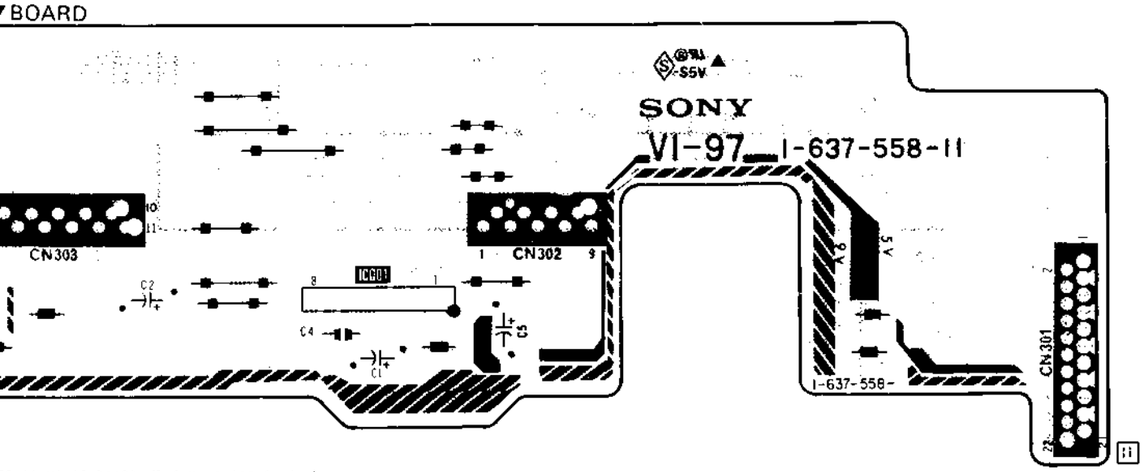
IC001 8-759-800-81 IC LA7016

ARD: 2000 series, VI-97 BOARD: 1000 series, SD-4 BOARD: 6000 series —

65 BOARD



7 BOARD

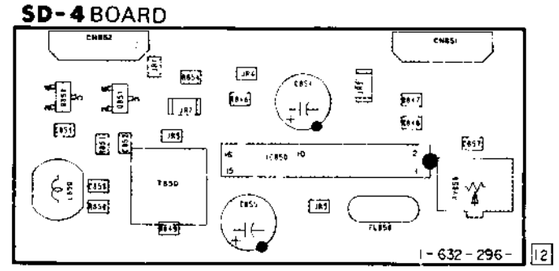


58-11 VI-97 BOARD (Ref. No 1,000 Series)
****

< IC >

8-759-800-81 IC LA7016

SD-4 BOARD



*1-632-296-12 SD-4 BOARD (SLV-715VP)
********** (Ref. No. 5000 series)

IC

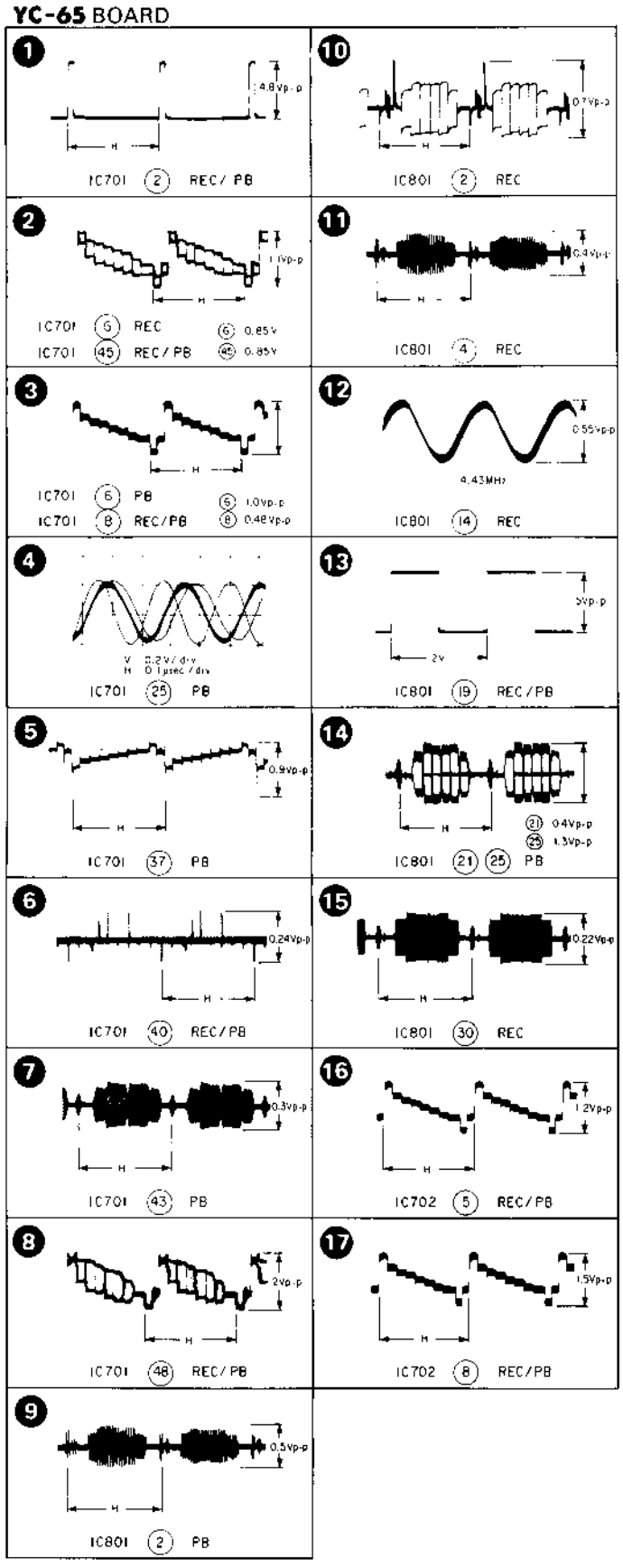
IC850 8-759-904-95 IC BA7077

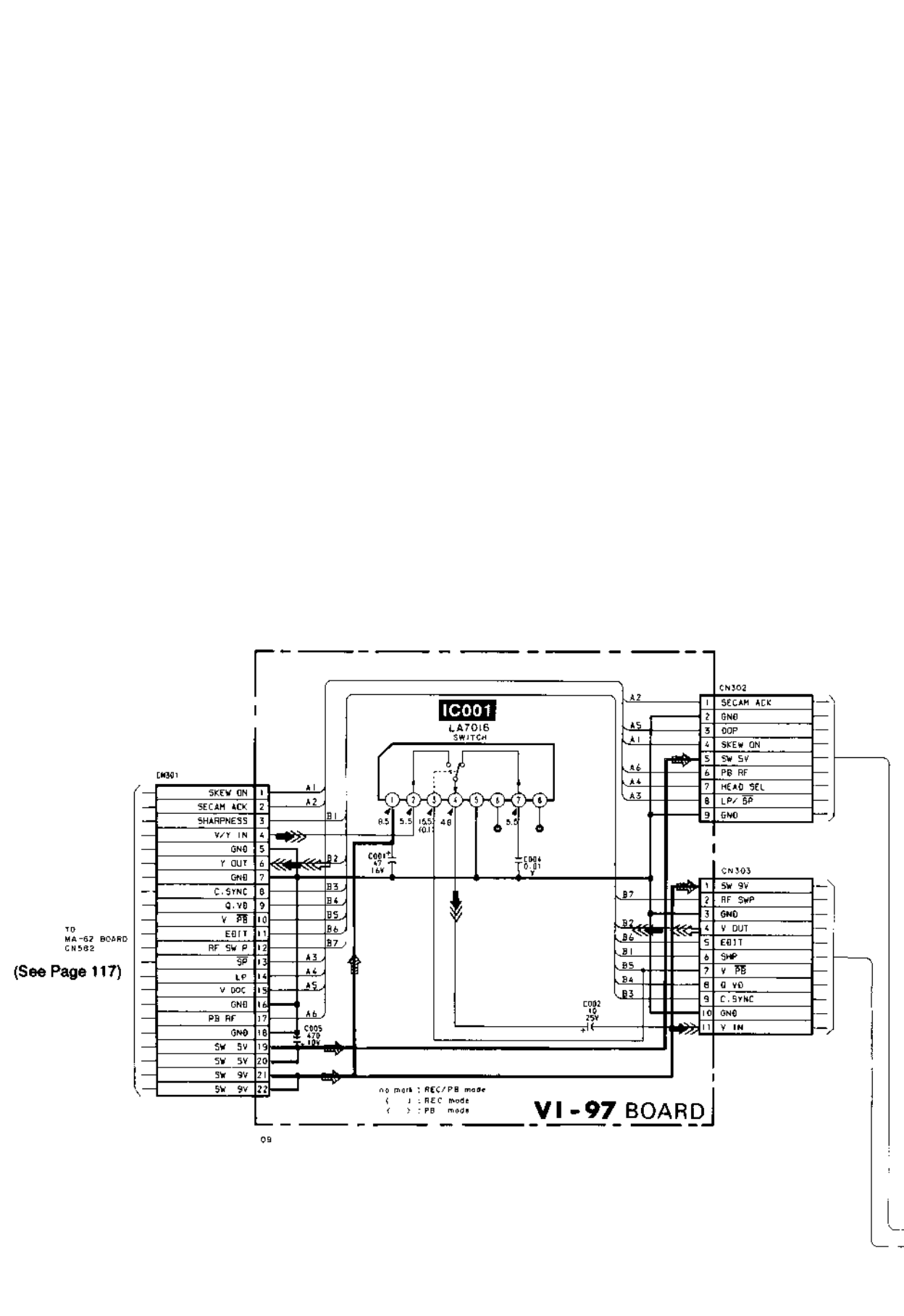
TRANSISTOR

Q850 8-729-901-81 TRANSISTOR 2SC2412K
Q851 8-729-901-81 TRANSISTOR 2SC2412K

— Ref. No. YC-65 BOARD: 2000 series, VI-97 BOARD: 1000 series, SD-4 BOARD: 6000 series —

YC-65 BOARD





SD-4 BOARD

no mark : REC / PB mode

SLV-715VP

IC850 BA7007 SECAM DET

IC801 HA118016NT CHROMA PROCESS

IC861 MSM6989RS 0.5H CCD 3.3

IC862 CX20061 SWITCH

IC860 AN3592K 0.5H SKEW DET

IC864 MC14066BCP SWITCH

Q851 AMP

Q850 AMP

Q852 AMP

Q803 AN2072K

Q807 Q808 REC / PB SWITCH

Q805 BUFFER

Q801 BUFFER

Q802 SECAM KILLER

Q804 Q806 REC / PB SWITCH

Q809 SWITCH

Q860 AMP

Q880 BUFFER

Q881 Q882 AMP

Q862 SWITCH

Q803 3.4cc AMP

Q810 SWITCH

Q883 BUFFER

Q811 BUFFER

Q812 AMP

Q717 AMP

CN852: SW 9V, DET OUT, DET OUT, C SYNC

CN851: GND, C IN, C IN, SECAM ACK

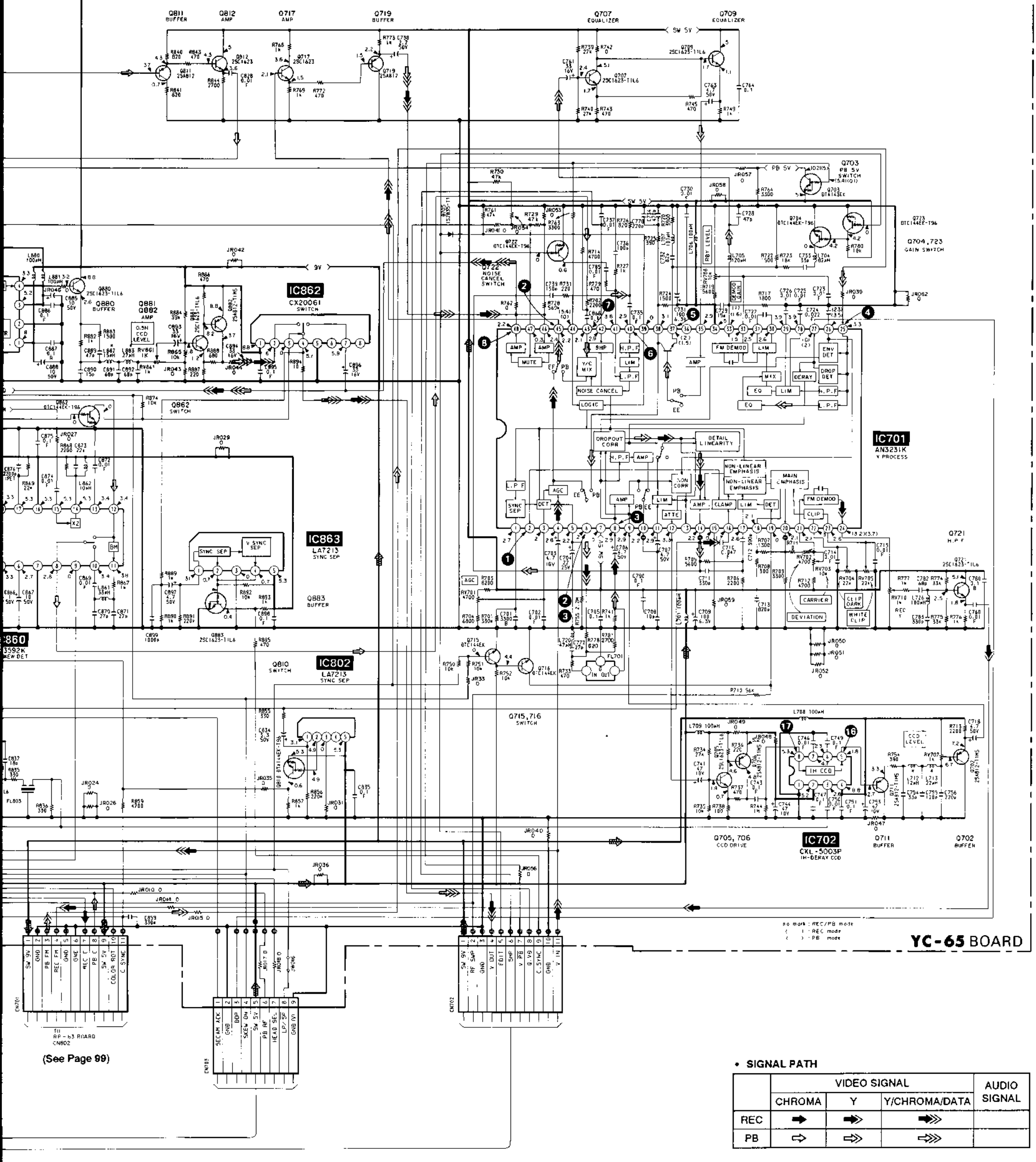
CN701: SW 9V, GND, PB FM, REC FM, GND, GND, REC C, PB C, SW 5V, COLOR ROT, C SYNC

CN702: SECAM ACK, GND, DOP, SKEW DN, SW 5V, PB RF, HEAD SEL, LP/SP, GND/WI

TO RP 63 BOARD CN802

(See Page 99)

16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26



• **SIGNAL PATH**

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC	➡	➡	➡	
PB	⇨	⇨	⇨	

PI-20 (VIDEO SIGNAL SELECTOR), CG-10 (ON SCREEN DISPLAY CONTROLLER) PRINTED WIRING BOARDS

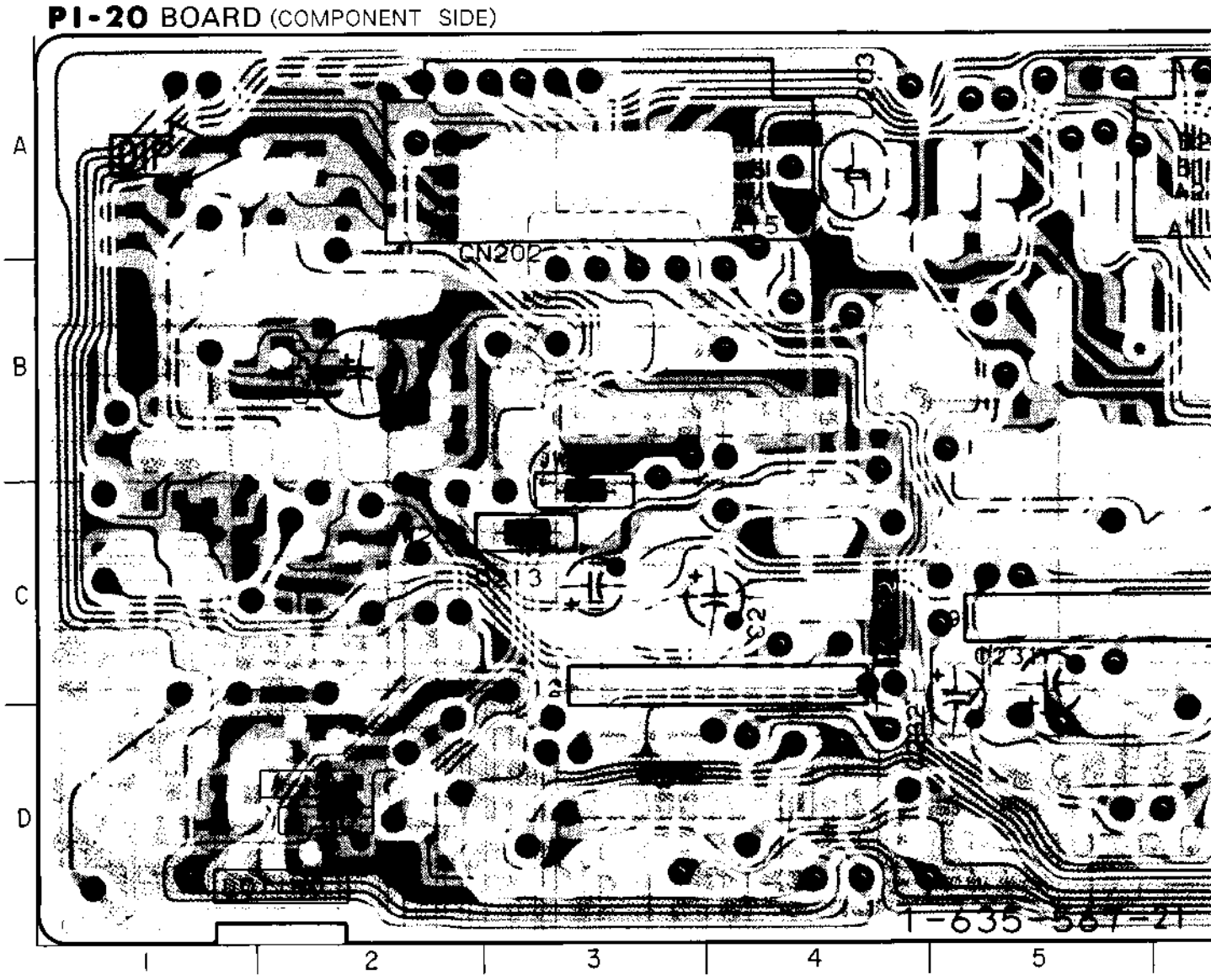
— Ref. No. PI-20 BOARD: 1000 series, CG-10 BOARD: 3000 series —

A-6727-278-A PI-20 BOARD, COMPLETE
****
(Ref. No 1,000 Series)

< IC >

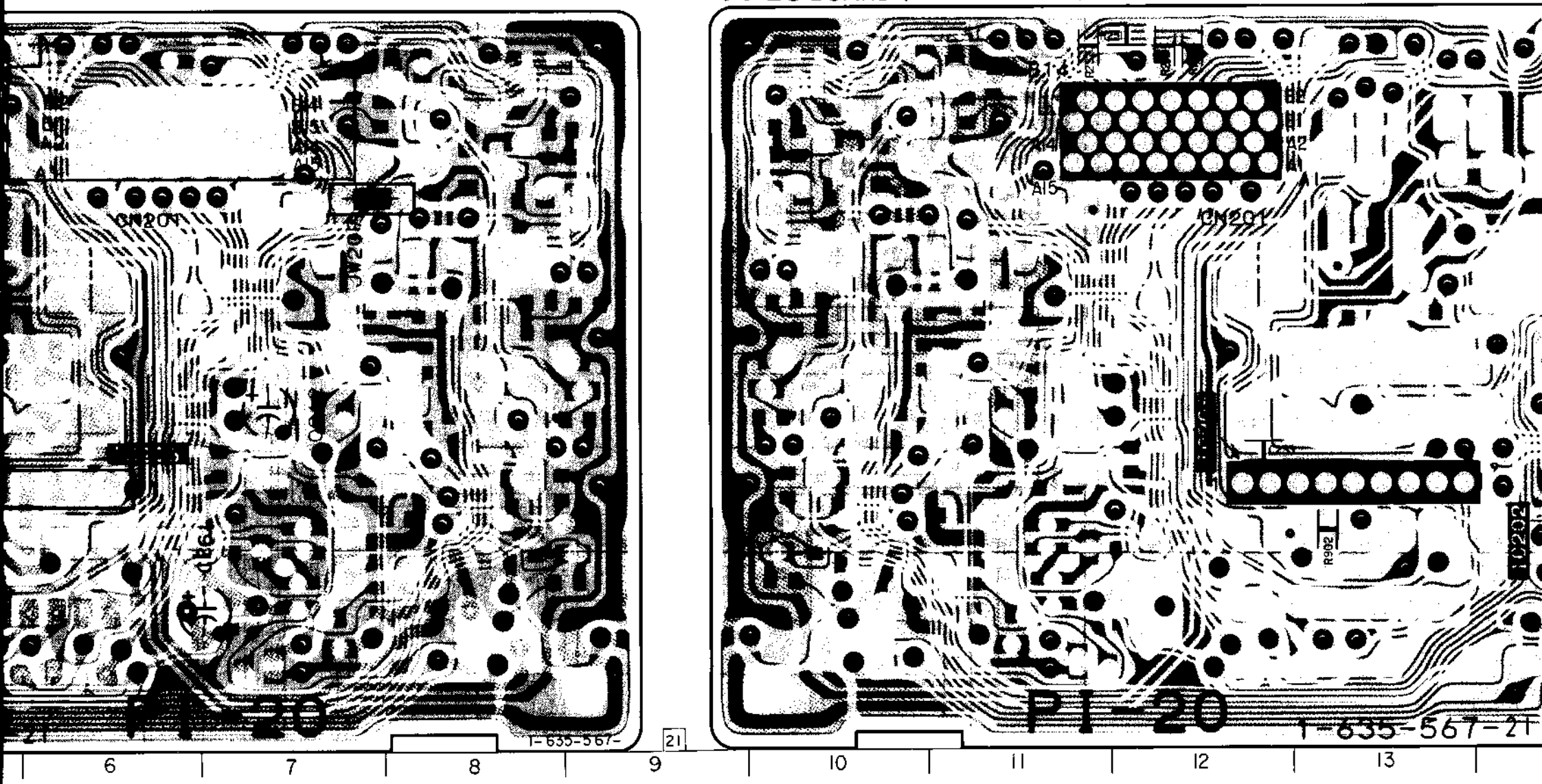
				PI-20 BOARD
IC202	8-759-822-60	IC	LA7222	IC202 D-4
IC206	8-759-511-44	IC	LVA522S	IC206 C-6

PI-20 BOARD (COMPONENT SIDE)



VIDEO VIDEO

PI-20 BOARD (CONDUCTOR SIDE)



* A-6727-279-A CG-10 BOARD, COMPLETE (SLV-715/UB)
****
* A-6727-282-A CG-10 BOARD, COMPLETE (SLV-715VP)
****
(Ref. No 3,000 Series)

< DIODE >

D851	8-719-911-19	DIODE	1SS119
D852	8-719-911-19	DIODE	1SS119

< IC >

IC685	8-759-996-03	IC	LVA519S
IC851	8-759-634-22	IC	M50554-182SP

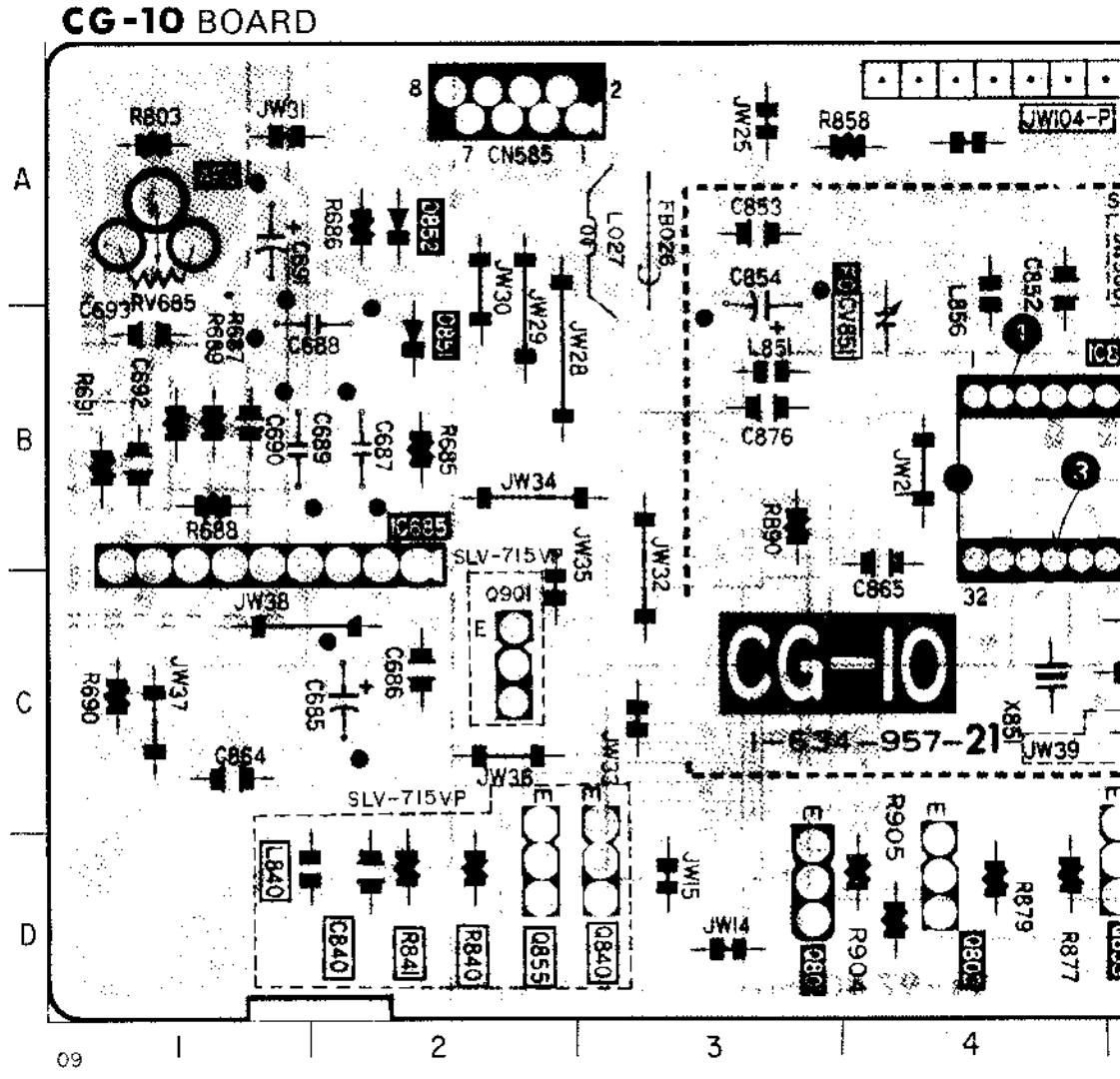
< TRANSISTOR >

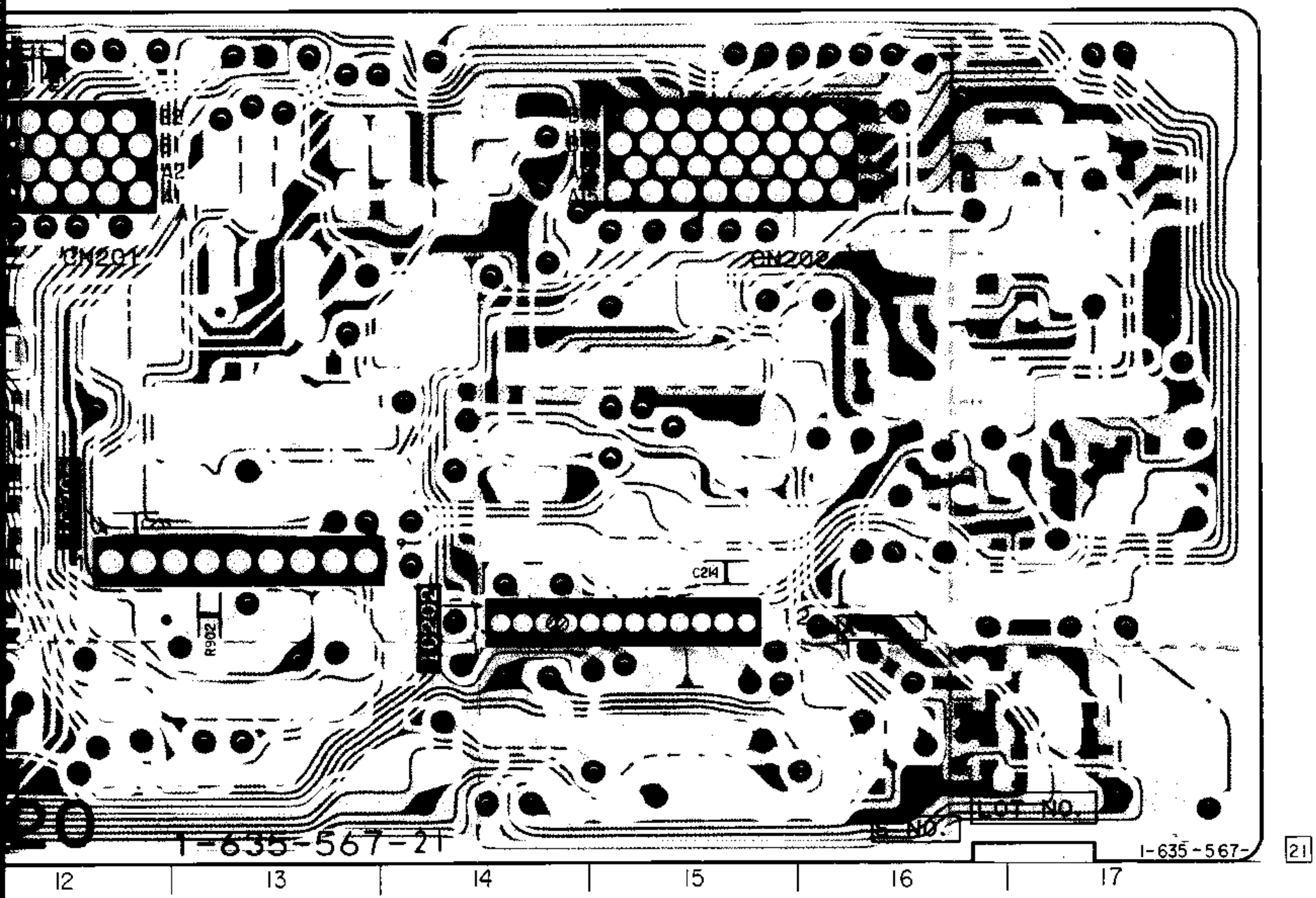
Q801	8-729-900-61	TRANSISTOR	DTA114ES
Q802	8-729-920-70	TRANSISTOR	2SC1740S-QR
Q803	8-729-900-89	TRANSISTOR	DTC144ES
Q804	8-729-900-65	TRANSISTOR	DTA144ES
Q840	8-729-900-61	TRANSISTOR	DTA114ES (SLV-715VP)
Q853	8-729-920-70	TRANSISTOR	2SC1740S-QR
Q855	8-729-423-37	TRANSISTOR	2SC3311A-QRS (SLV-715VP)
Q856	8-729-920-68	TRANSISTOR	2SA933S-QR
Q857	8-729-920-70	TRANSISTOR	2SC1740S-QR
Q901	8-729-900-89	TRANSISTOR	DTC144ES (SLV-715VP)

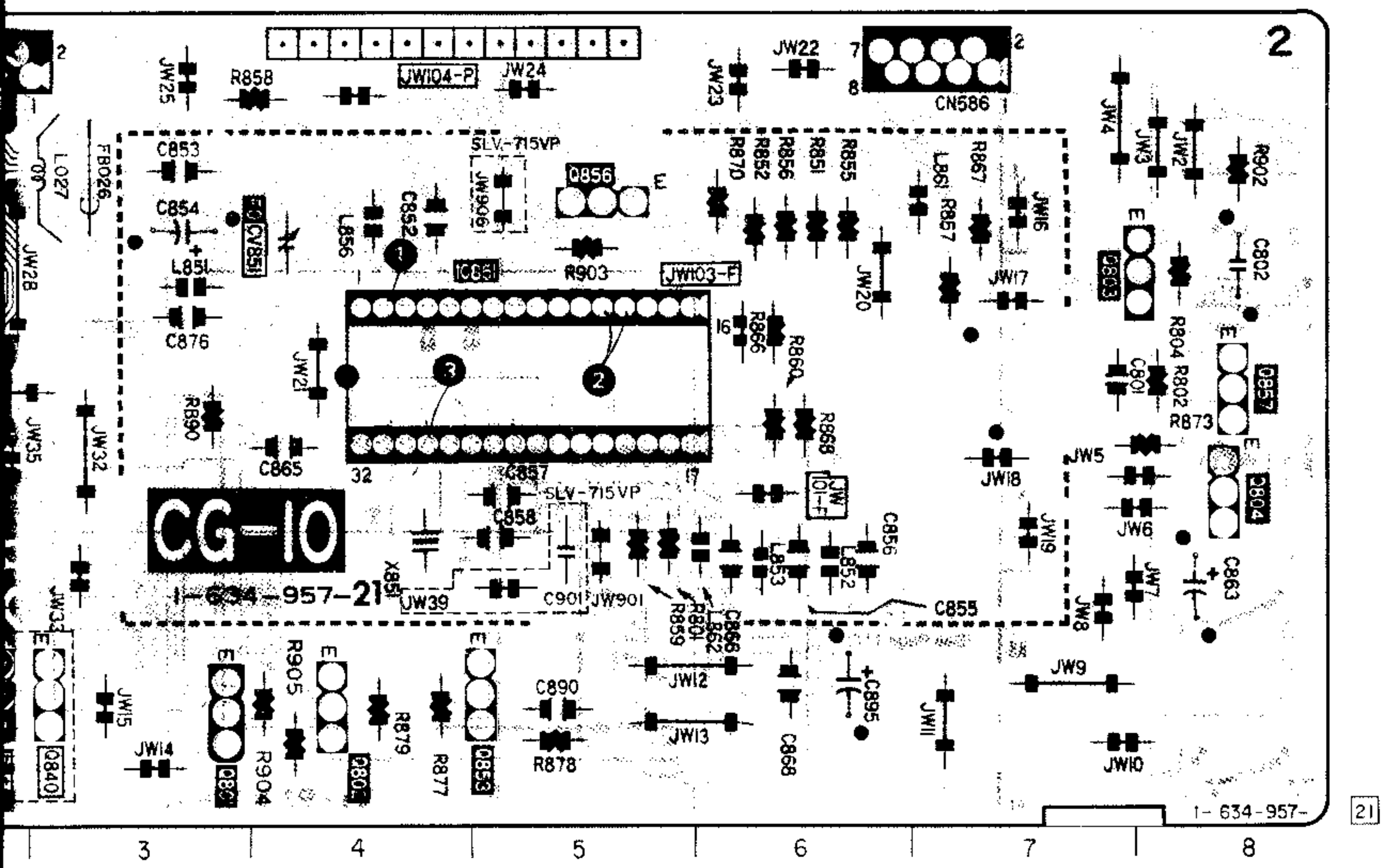
CG-10 BOARD

D851	B-2
D852	A-2
IC685	B-1
IC851	B-5
Q801	D-3
Q802	D-4
Q803	B-8
Q804	C-8
Q840	D-3
Q853	D-5
Q855	D-2
Q856	A-5
Q857	B-8
Q901	C-2

CG-10 BOARD




CN201
CN202
C214
R902
IC202
1-635-567-21
LOT NO.
1-635-567-
21
12
13
14
15
16
17


CG-10
1-634-957-21
1-634-957-
21
SLV-715VP
CN586
Q856
IC851
CV851
JW104-P
JW103-F
JW101-F
R858
JW22
JW23
JW24
JW25
C853
C854
L851
C876
C852
L856
JW906
R903
R870
R852
R856
R851
R855
LB61
R867
R857
JW16
JW17
JW20
JW21
R866
R860
R868
R890
C865
C857
C858
X851
JW39
C901
JW901
R859
R804
L862
C866
L853
L852
C856
C855
JW4
JW3
JW2
R902
Q803
C802
R804
C801
R802
R873
Q857
JW5
JW6
JW18
JW19
Q804
C863
JW7
JW8
JW9
JW10
JW11
JW12
JW13
C868
C895
C890
R878
R877
Q853
R879
Q802
R905
R904
Q840
JW14
JW15
JW32
JW33
JW35
JW28
L027
FB026
3
4
5
6
7
8

— Ref. No. PI-20 BOARD: 1000 series, CG-10 BOARD: 3000 series —

PI-20 BOARD

IC202 OSD SWITCH

IC202 LA7222

CN201

CN202

TO MA-62 BOARD CN584 (See Page 118)

TO MA-62 BOARD CN583 (See Page 118)

IC206 LINE SELECT

IC206 LV4522

CG-10 BOARD

no mark: REC/PB mode

TO MA-62 BOARD CN585 (See Page 118)

IC551 ON SCREEN DISPLAY

IC685 AFC

Q855 SWITCH

Q840 SWITCH

Q901 SWITCH

Q803 BACK GROUND VIDEO DET

Q801,802,853 SYNC TIP CLAMP

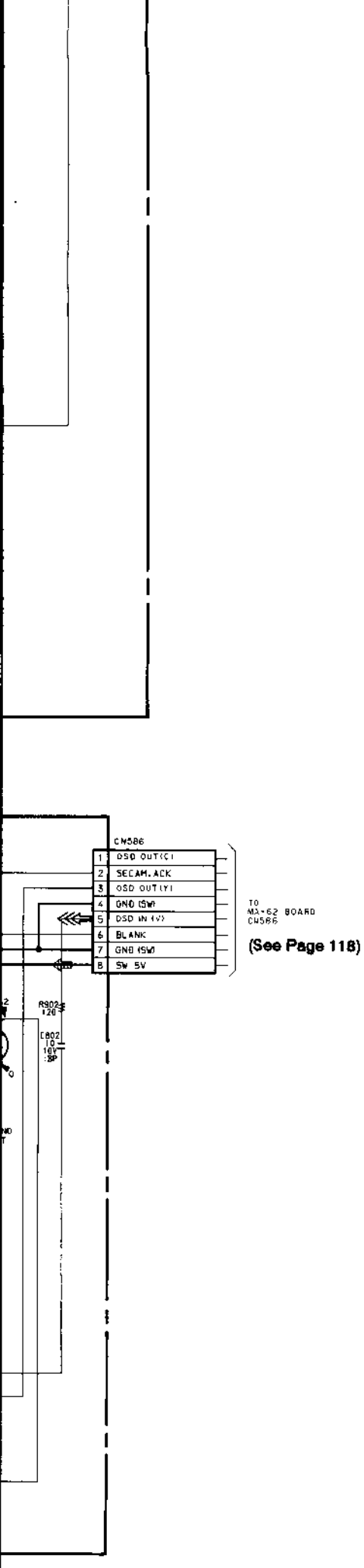
Q856 BUFFER

Q804 MUTE

Q857 BUFFER

• **SIGNAL PATH**

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC			➡⋙	
PB			⇨⋙	

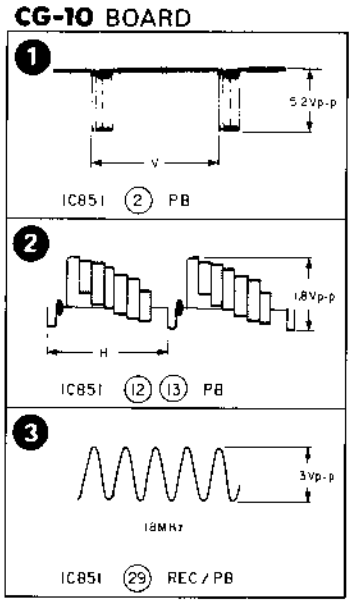


(See Page 118)

• **SIGNAL PATH**

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC				
PB			⇨⋙	

CG-10 BOARD



16 | 17 | 18 | 19

A	AUDIO SIGNAL

A	AUDIO SIGNAL

CG-10 BOARD

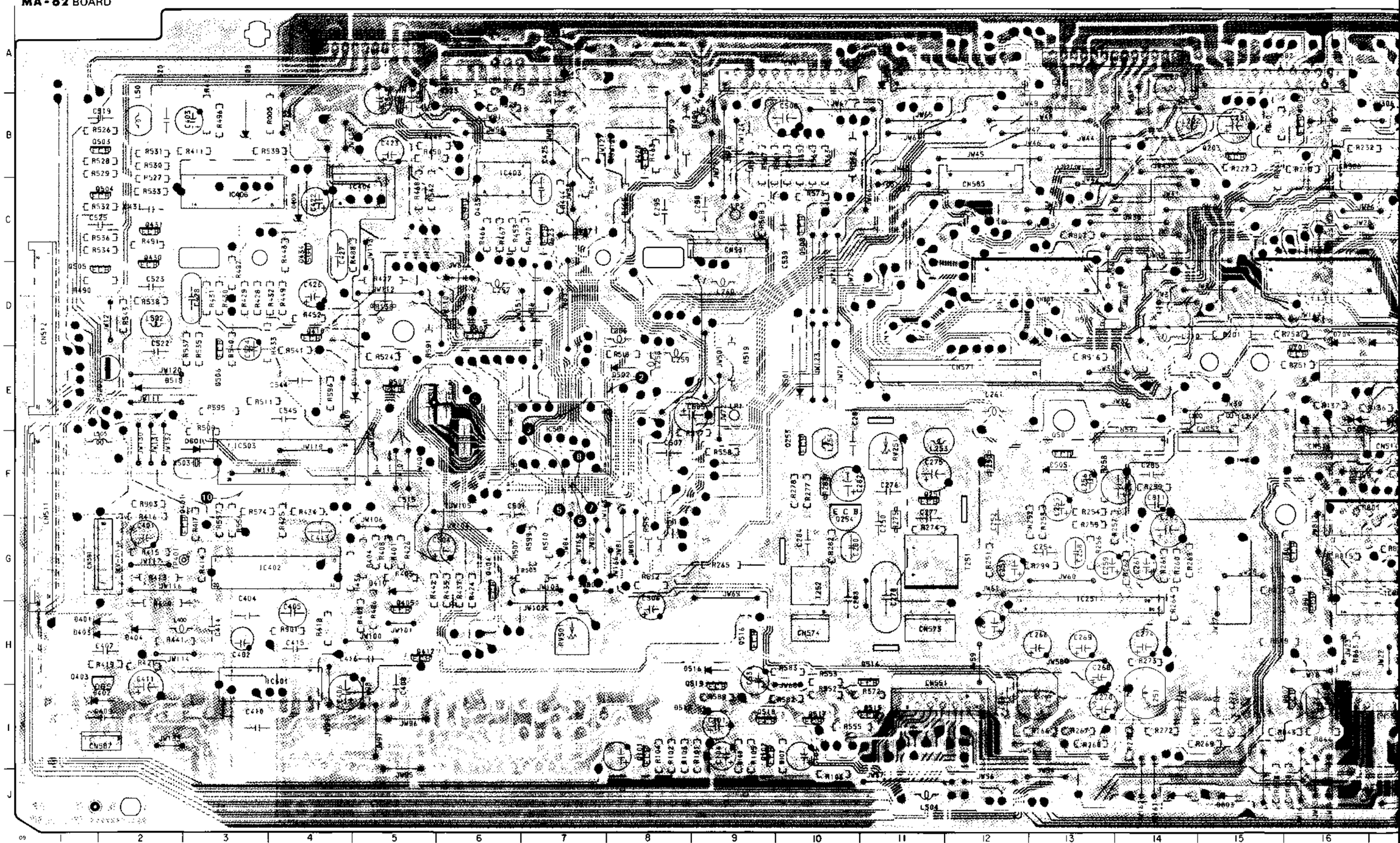
MA-62 (SERVO, SYSTEM CONTROL), SI-10 (SIMULCAST), VP-24 (VPS) PRINTED WIRING BOARDS

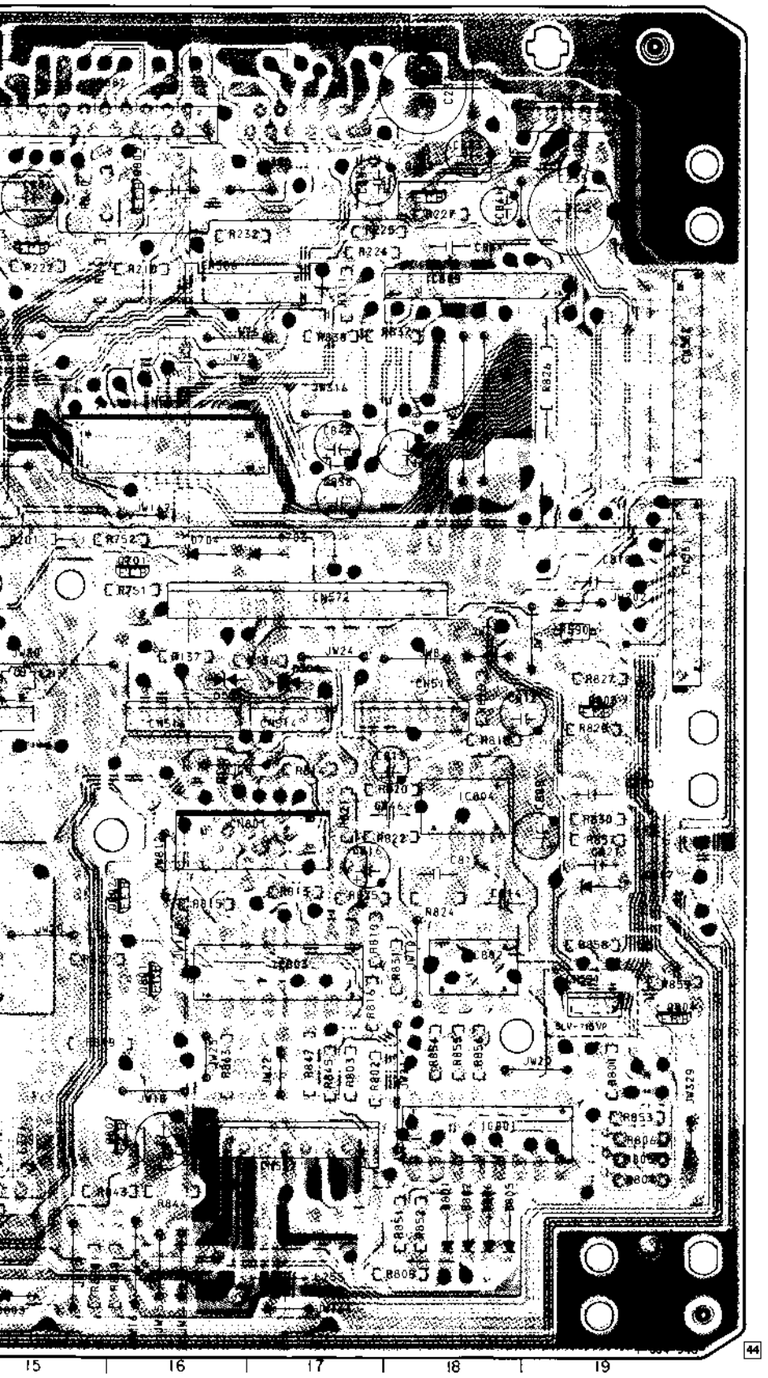
— Ref. No. SI-10 BOARD: 5000 series, MA-62 BOARD: 4000 series —

MA-62 BOARD

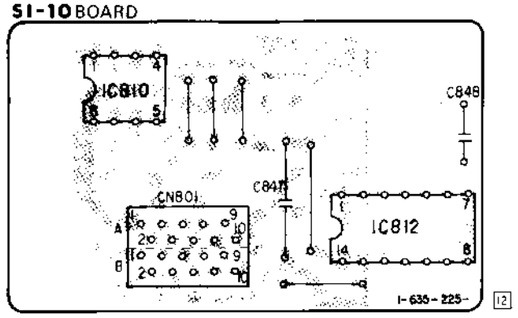
D401	H-1
D402	I-2
D403	H-1
D404	H-2
D409	C-4
D410	H-5
D501	E-10
D502	E-8
D503	E-16
D504	E-17
D505	F-13
D508	B-3
D516	I-9
D517	I-9
D518	E-2
D519	A-4
D601	F-3
D703	E-17
D704	E-16
D801	I-18
D802	I-18
D803	G-15
D804	G-14
D805	I-18
D806	I-18
D807	I-19
D999	B-11
IC251	H-13
IC401	I-3
IC402	G-3
IC403	C-6
IC404	C-5
IC406	C-3
IC501	F-7
IC502	B-6
IC503	F-3
IC801	I-18
IC802	H-18
IC803	H-16
IC804	G-18
IC809	C-18
Q101	I-8
Q102	I-9
Q203	B-15
Q204	B-8
Q251	G-11
Q253	F-10
Q254	G-10
Q401	G-2
Q403	I-2
Q404	H-6
Q405	H-5
Q410	E-5
Q412	H-5
Q423	C-7
Q428	C-8
Q430	D-2
Q431	C-2
Q432	D-4
Q435	C-6
Q501	F-13
Q502	E-6
Q503	B-2
Q504	C-2
Q505	D-2
Q506	E-3
Q507	E-5
Q508	C-10
Q514	I-11
Q515	I-11
Q516	H-9
Q517	I-10
Q518	I-9
Q519	I-9
Q701	E-15
Q801	H-16
Q802	G-16
Q803	F-19
Q804	H-19
Q805	B-15
Q807	I-16

MA-62 BOARD

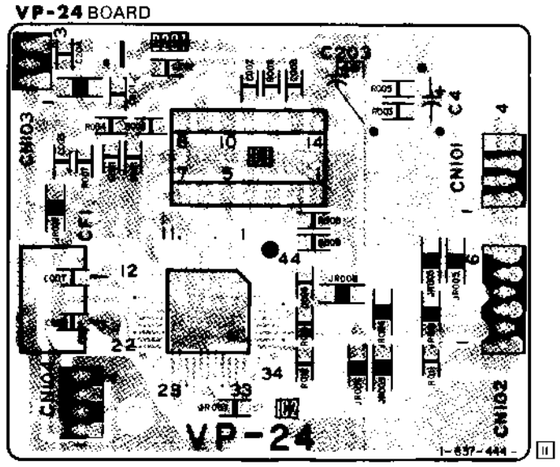




S1-10 BOARD



VP-24 BOARD



\#1-637-446-11 VP-24 BOARD (SLV-715VP)
********** (Ref.No.5000 series)

DIODE

D201 8-719-400-18 DIODE 1S2837

\# A-6717-597-A MA-62 BOARD, COMPLETE (SLV-715VP)
****
\# A-6717-600-A MA-62 BOARD, COMPLETE (SLV-715/UB)
****
(Ref.No 4,000 Series)

\# 1-635-225-11 S1-10 BOARD (Ref.No 4,000 Series)
****

< DIODE >

D401	8-719-911-19	DIODE	1SS119
D402	8-719-911-19	DIODE	1SS119
D403	8-719-911-19	DIODE	1SS119
D404	8-719-911-19	DIODE	1SS119
D409	8-719-101-50	DIODE	RD5.1E-L2
D410	8-719-911-19	DIODE	1SS119
D501	8-719-913-44	DIODE	ERA82-004
D502	8-719-911-19	DIODE	1SS119
D503	8-719-108-12	DIODE	RD9.1EW
D504	8-719-108-12	DIODE	RD9.1EW
D505	8-719-911-19	DIODE	1SS119
D508	8-719-101-47	DIODE	RD4.7E-L2
D516	8-719-911-19	DIODE	1SS119
D517	8-719-911-19	DIODE	1SS119
D518	8-719-200-82	DIODE	11ES2
D519	8-719-109-93	DIODE	RD6.2ES-B2
D601	8-719-109-93	DIODE	RD6.2ES-B2
D703	8-719-911-19	DIODE	1SS119
D704	8-719-911-19	DIODE	1SS119
D801	8-719-911-19	DIODE	1SS119
D802	8-719-911-19	DIODE	1SS119
D803	8-719-911-19	DIODE	1SS119
D804	8-719-911-19	DIODE	1SS119
D805	8-719-911-19	DIODE	1SS119
D806	8-719-911-19	DIODE	1SS119
D807	8-719-911-19	DIODE	1SS119
D999	8-719-911-19	DIODE	1SS119

< IC >

IC251	8-759-805-20	IC	LA7297
IC401	8-759-000-49	IC	MC14066BCP
IC402	8-759-632-58	IC	M52435P
IC403	8-759-008-70	IC	LM358N
IC404	8-759-981-85	IC	RC4556D
IC406	8-759-008-71	IC	LM324N
IC501	8-752-815-90	IC	CXP80624-009Q
IC502	8-759-983-45	IC	BA6238A
IC503	8-759-038-87	IC	MC68HC05P7
IC801	8-759-208-08	IC	TC4052BPHB
IC802	8-759-923-90	IC	BA4560
IC803	8-759-208-08	IC	TC4052BPHB
IC804	8-759-923-90	IC	BA4560
IC809	8-759-822-71	IC	LA7954
IC810	8-759-602-49	IC	M5201P
IC812	8-759-040-70	IC	MC14070BCP

< TRANSISTOR >

Q101	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q102	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q203	8-729-920-68	TRANSISTOR	2SA933S-QR
Q204	8-729-920-68	TRANSISTOR	2SA933S-QR
Q251	8-729-102-14	TRANSISTOR	2SD1021
Q253	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q254	8-729-140-96	TRANSISTOR	2SD774-34
Q401	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q403	8-729-115-10	TRANSISTOR	2SK105A-10
Q404	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q405	8-729-900-89	TRANSISTOR	DTC144ES
Q410	8-729-900-65	TRANSISTOR	DTA144ES
Q412	8-729-900-89	TRANSISTOR	DTC144ES
Q423	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q426	8-729-920-68	TRANSISTOR	2SA933S-QR
Q430	8-729-900-89	TRANSISTOR	DTC144ES
Q431	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q434	8-729-601-47	TRANSISTOR	2SK381-B
Q435	8-729-601-47	TRANSISTOR	2SK381-B
Q501	8-729-900-61	TRANSISTOR	DTA114ES
Q502	8-729-900-61	TRANSISTOR	DTA114ES
Q503	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q504	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q505	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q506	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q507	8-729-900-61	TRANSISTOR	DTA114ES
Q508	8-729-620-05	TRANSISTOR	2SC2603-EF
Q514	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q515	8-729-920-68	TRANSISTOR	2SA933S-QR
Q516	8-729-900-80	TRANSISTOR	DTC114ES
Q517	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q518	8-729-900-89	TRANSISTOR	DTC144ES
Q519	8-729-900-65	TRANSISTOR	DTA144ES
Q701	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q801	8-729-900-89	TRANSISTOR	DTC144ES
Q802	8-729-900-89	TRANSISTOR	DTC144ES
Q803	8-729-920-68	TRANSISTOR	2SA933S-QR
Q804	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q805	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q807	8-729-119-78	TRANSISTOR	2SC2785-HFE

* A-6717-597-A MA-62 BOARD, COMPLETE (SLV-715VP)
****
* A-6717-600-A MA-62 BOARD, COMPLETE (SLV-715/UB)
****
(Ref. No 4,000 Series)

* 1-635-225-11 SI-10 BOARD (Ref. No 4,000 Series)
****

< DIODE >

D401	8-719-911-19	DIODE	1SS119
D402	8-719-911-19	DIODE	1SS119
D403	8-719-911-19	DIODE	1SS119
D404	8-719-911-19	DIODE	1SS119
D409	8-719-101-50	DIODE	RD5.1E-L2
D410	8-719-911-19	DIODE	1SS119
D501	8-719-913-44	DIODE	ERA82-004
D502	8-719-911-19	DIODE	1SS119
D503	8-719-108-12	DIODE	RD9.1EW
D504	8-719-108-12	DIODE	RD9.1EW
D505	8-719-911-19	DIODE	1SS119
D508	8-719-101-47	DIODE	RD4.7E-L2
D516	8-719-911-19	DIODE	1SS119
D517	8-719-911-19	DIODE	1SS119
D518	8-719-200-82	DIODE	11ES2
D519	8-719-109-93	DIODE	RD6.2ES-B2
D601	8-719-109-93	DIODE	RD6.2ES-B2
D703	8-719-911-19	DIODE	1SS119
D704	8-719-911-19	DIODE	1SS119
D801	8-719-911-19	DIODE	1SS119
D802	8-719-911-19	DIODE	1SS119
D803	8-719-911-19	DIODE	1SS119
D804	8-719-911-19	DIODE	1SS119
D805	8-719-911-19	DIODE	1SS119
D806	8-719-911-19	DIODE	1SS119
D807	8-719-911-19	DIODE	1SS119
D999	8-719-911-19	DIODE	1SS119

< IC >

IC251	8-759-805-20	IC	LA7297
IC401	8-759-000-49	IC	MC14066BCP
IC402	8-759-632-58	IC	M52435P
IC403	8-759-008-70	IC	LM358N
IC404	8-759-981-85	IC	RC4556D
IC405	8-759-008-71	IC	LM324N
IC501	8-752-815-90	IC	CXP80624-009Q
IC502	8-759-983-45	IC	BA6238A
IC503	8-759-038-87	IC	MC68HC05P7
IC801	8-759-208-08	IC	TC4052BPHB
IC802	8-759-923-90	IC	BA4560
IC803	8-759-208-08	IC	TC4052BPHB
IC804	8-759-923-90	IC	BA4560
IC809	8-759-822-71	IC	LA7954
IC810	8-759-602-49	IC	M5201P
IC812	8-759-040-70	IC	MC14070BCP

< TRANSISTOR >

Q101	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q102	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q203	8-729-920-68	TRANSISTOR	2SA933S-QR
Q204	8-729-920-68	TRANSISTOR	2SA933S-QR
Q251	8-729-102-14	TRANSISTOR	2SD1021
Q253	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q254	8-729-140-96	TRANSISTOR	2SD774-34
Q401	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q403	8-729-115-10	TRANSISTOR	2SK105A-10
Q404	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q405	8-729-900-89	TRANSISTOR	DTC144ES
Q410	8-729-900-65	TRANSISTOR	DTA144ES
Q412	8-729-900-89	TRANSISTOR	DTC144ES
Q423	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q428	8-729-920-68	TRANSISTOR	2SA933S-QR
Q430	8-729-900-89	TRANSISTOR	DTC144ES
Q431	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q434	8-729-601-47	TRANSISTOR	2SK381-B
Q435	8-729-601-47	TRANSISTOR	2SK381-B
Q501	8-729-900-61	TRANSISTOR	DTA114ES
Q502	8-729-900-61	TRANSISTOR	DTA114ES
Q503	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q504	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q505	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q506	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q507	8-729-900-61	TRANSISTOR	DTA114ES
Q508	8-729-620-05	TRANSISTOR	2SC2603-EF
Q514	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q515	8-729-920-68	TRANSISTOR	2SA933S-QR
Q516	8-729-900-80	TRANSISTOR	DTC114ES
Q517	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q518	8-729-900-89	TRANSISTOR	DTC144ES
Q519	8-729-900-65	TRANSISTOR	DTA144ES
Q701	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q801	8-729-900-89	TRANSISTOR	DTC144ES
Q802	8-729-900-89	TRANSISTOR	DTC144ES
Q803	8-729-920-68	TRANSISTOR	2SA933S-QR
Q804	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q805	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q807	8-729-119-78	TRANSISTOR	2SC2785-HFE

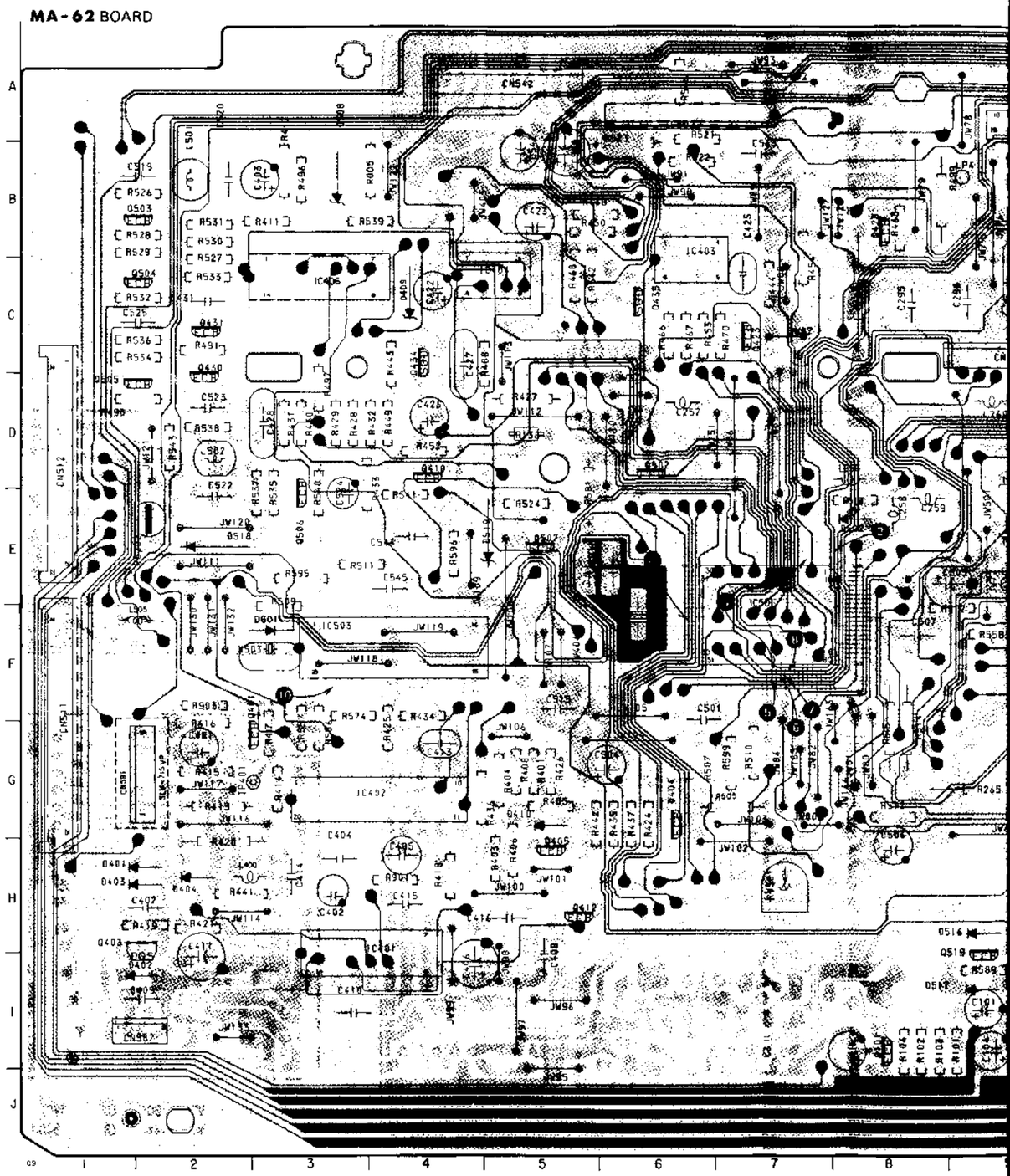
MA-62 (SERVO, SYSTEM CONTROL), SI-10 (SIMULCAST), VP-24 (VPS) PRINTED WIRING BOARDS

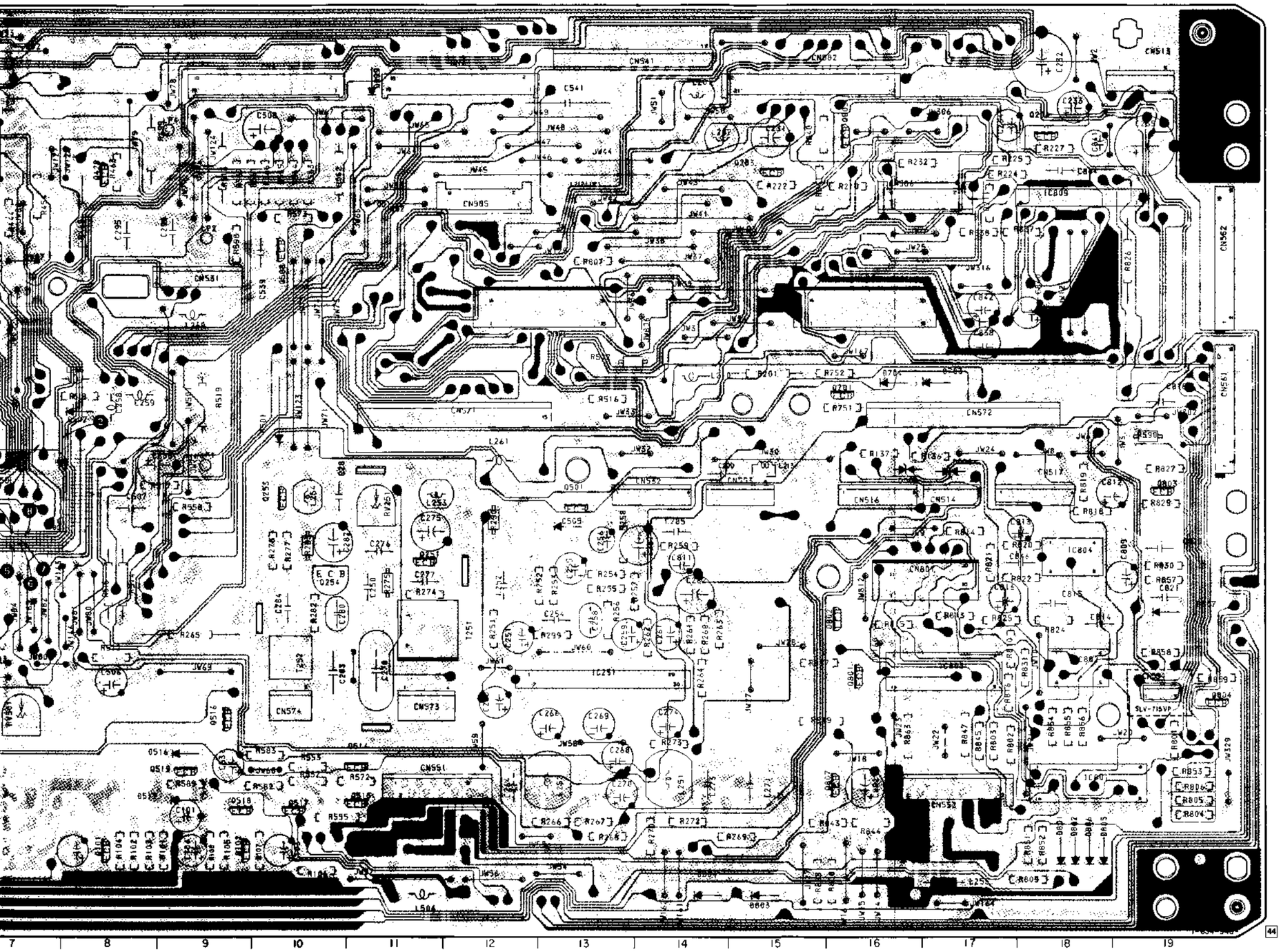
— Ref. No. SI-10 BOARD: 5000 series, MA-62 BOARD: 4000 series —

MA-62 BOARD

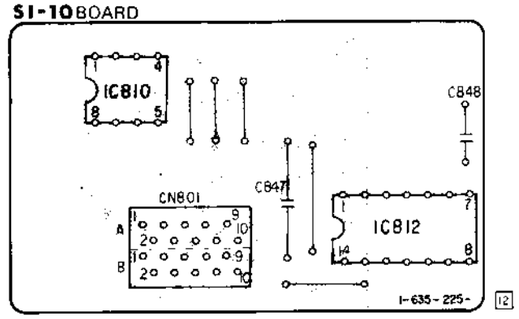
D401	H-1
D402	I-2
D403	H-1
D404	H-2
D409	C-4
D410	H-5
D501	E-10
D502	E-8
D503	E-16
D504	E-17
D505	F-13
D508	B-3
D516	I-9
D517	I-9
D518	E-2
D519	A-4
D601	F-3
D703	E-17
D704	E-16
D801	I-18
D802	I-18
D803	G-15
D804	G-14
D805	I-18
D806	I-18
D807	I-19
D999	B-11
IC251	H-13
IC401	I-3
IC402	G-3
IC403	C-6
IC404	C-5
IC406	C-3
IC501	F-7
IC502	B-6
IC503	F-3
IC801	I-18
IC802	H-18
IC803	H-16
IC804	G-18
IC809	C-18
Q101	I-8
Q102	I-9
Q203	B-15
Q204	B-8
Q251	G-11
Q253	F-10
Q254	G-10
Q401	G-2
Q403	I-2
Q404	H-6
Q405	H-5
Q410	E-5
Q412	H-5
Q423	C-7
Q428	C-8
Q430	D-2
Q431	C-2
Q432	D-4
Q435	C-6
Q501	F-13
Q502	E-6
Q503	B-2
Q504	C-2
Q505	D-2
Q506	E-3
Q507	E-5
Q508	C-10
Q514	I-11
Q515	I-11
Q516	H-9
Q517	I-10
Q518	I-9
Q519	I-9
Q701	E-15
Q801	H-16
Q802	G-16
Q803	F-19
Q804	H-19
Q805	B-15
Q807	I-16

MA-62 BOARD

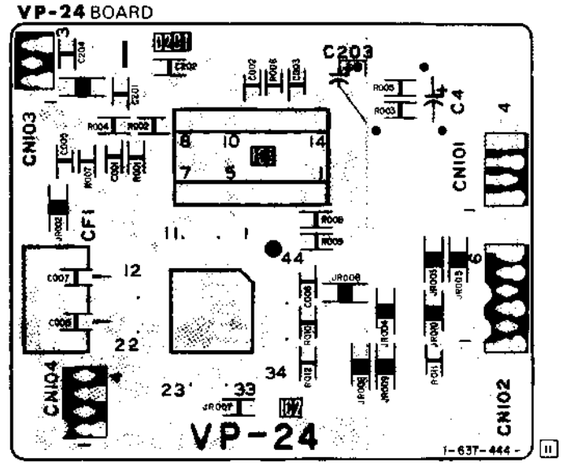




SI-10 BOARD



VP-24 BOARD



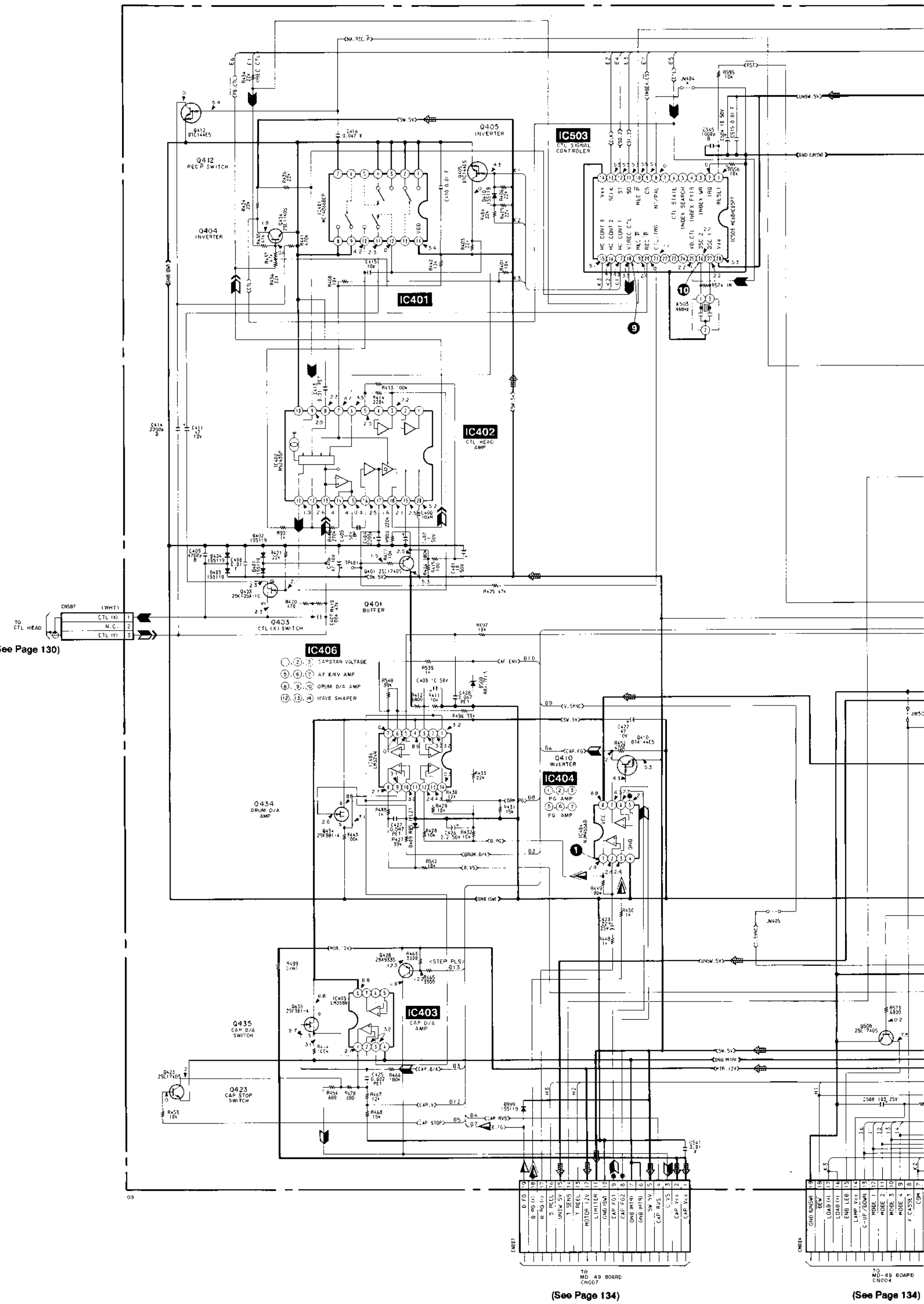
*1-637-446-11 VP-24 BOARD (SLV-715VP)
*********** (Ref. No. 5000 series)

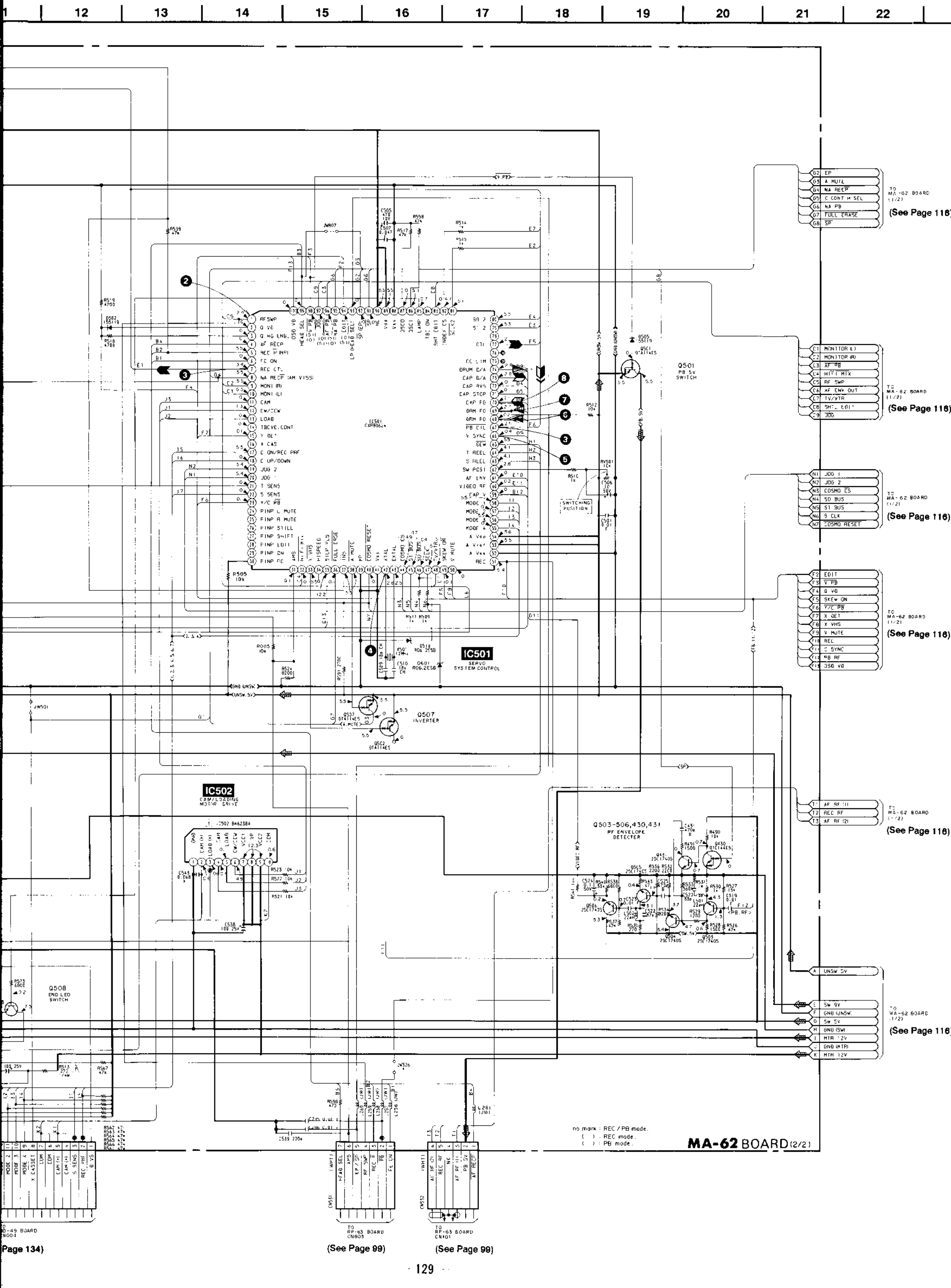
DIODE

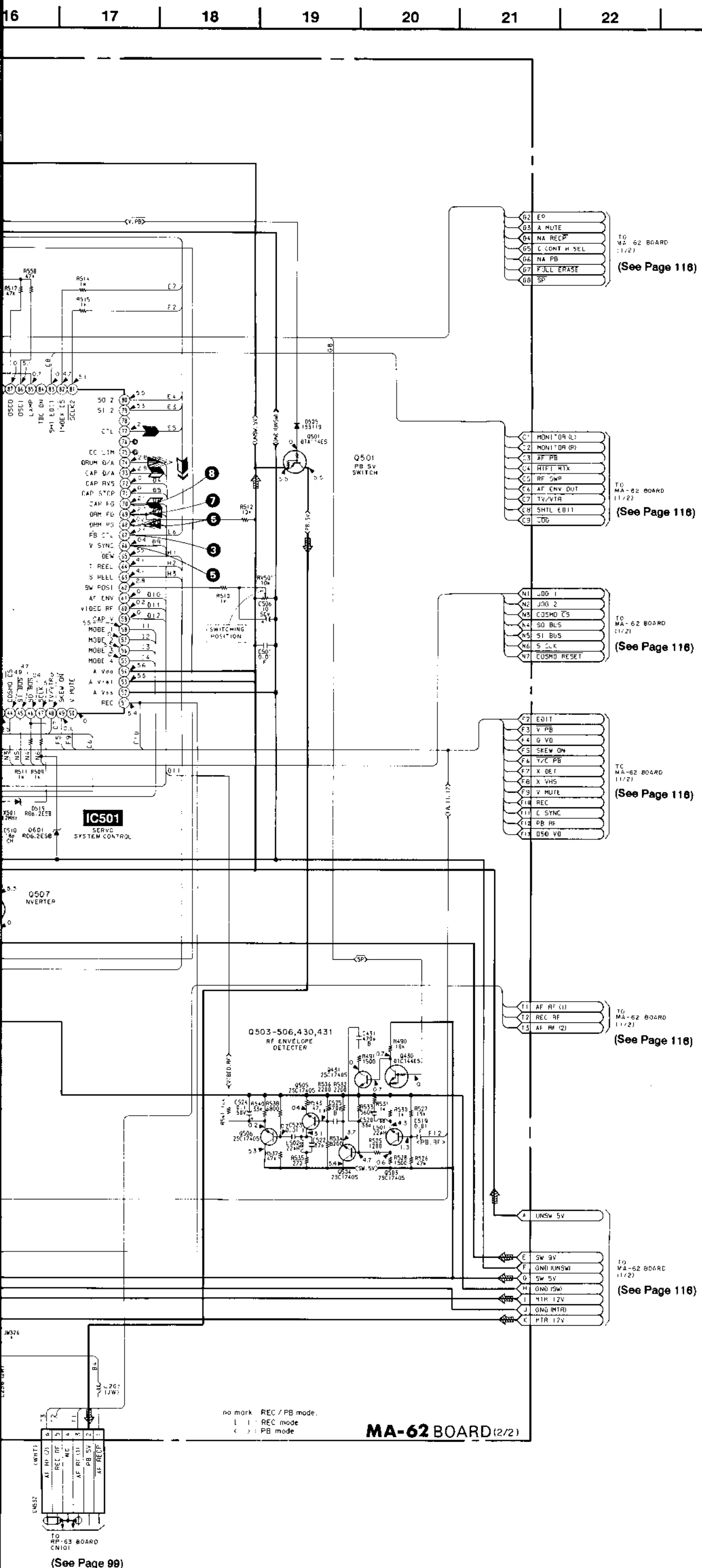
D201 8-719-400-18 DIODE 1S2837

SERVO SYSTEM CONTROL

— Ref. No. MA-62 BOARD: 4000 series —



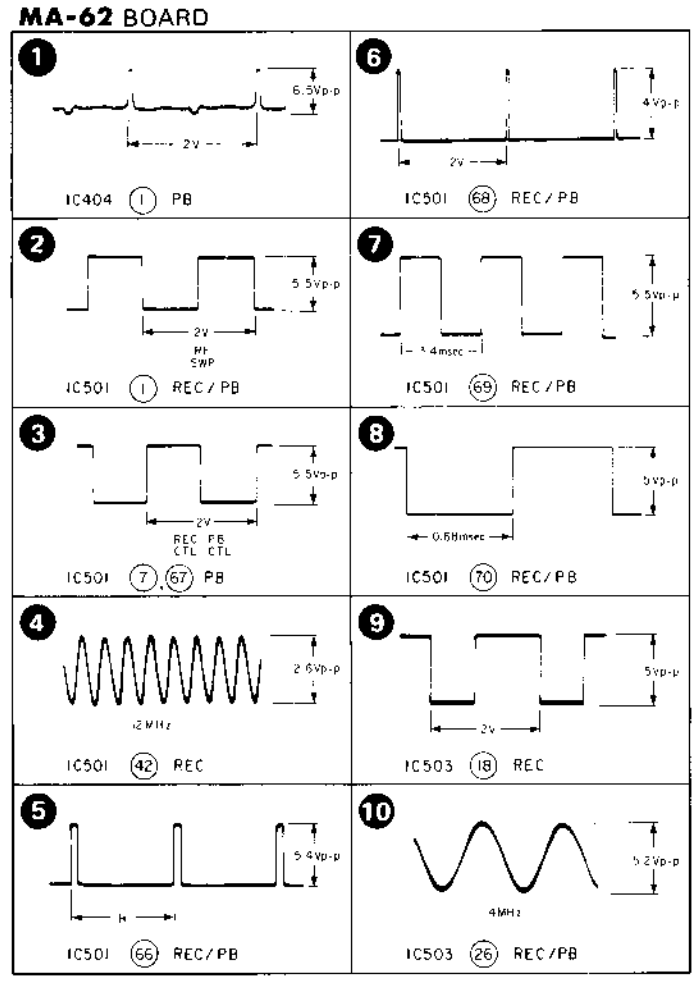

IC501
SERVO
SYSTEM CONTROL
IC502
CAM/LOADING
MOTOR DRIVE
Q501
PB 5V
SWITCH
Q502
Q507
INVERTER
Q503-506,430,431
RF ENVELOPE
DETECTER
Q508
END LED
SWITCH
SWITCHING
POSITION
TO
MA-62 BOARD
(1/2)
(See Page 116)
TO
MD-49 BOARD
(See Page 134)
TO
RP-63 BOARD
(See Page 99)
no mark : REC / PB mode.
( ) : REC mode.
< > : PB mode.
MA-62 BOARD (2/2)



- **SIGNAL PATH**

	REC	REC/PB	PB
Drum speed servo		▶	
Drum phase servo		▶▶	
Drum servo (speed and phase)		▶▶▶	
Capstan speed servo		▶	
Capstan phase servo		▶▶	
Capstan servo (speed and phase)		▶▶▶	
Ref. signal	▶		

MA-62 BOARD

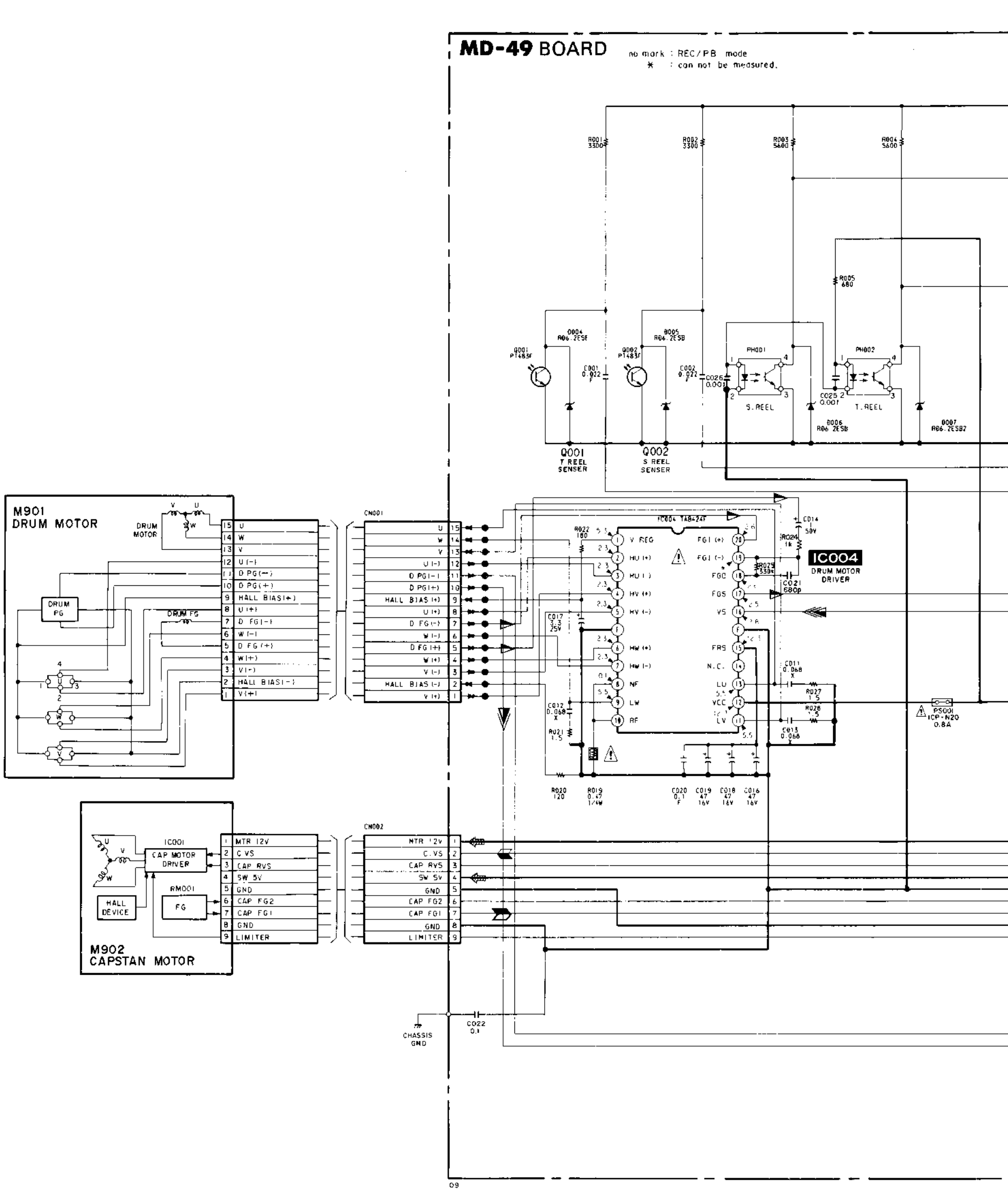


MD-49 (MECHANISM DRIVE) SCHEMATIC DIAGRAM

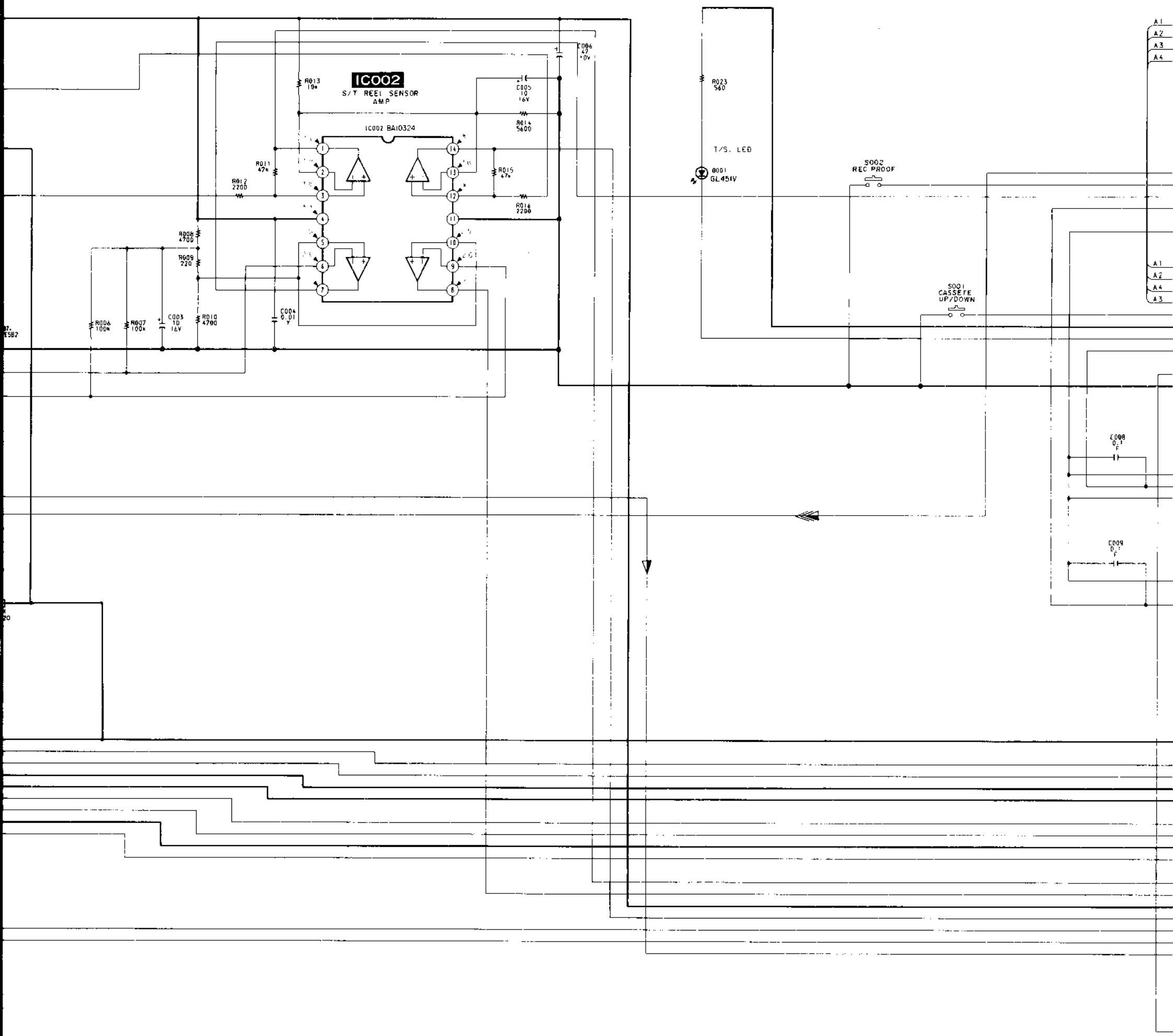
— Ref. No. MD-49 BOARD: 6000 series —

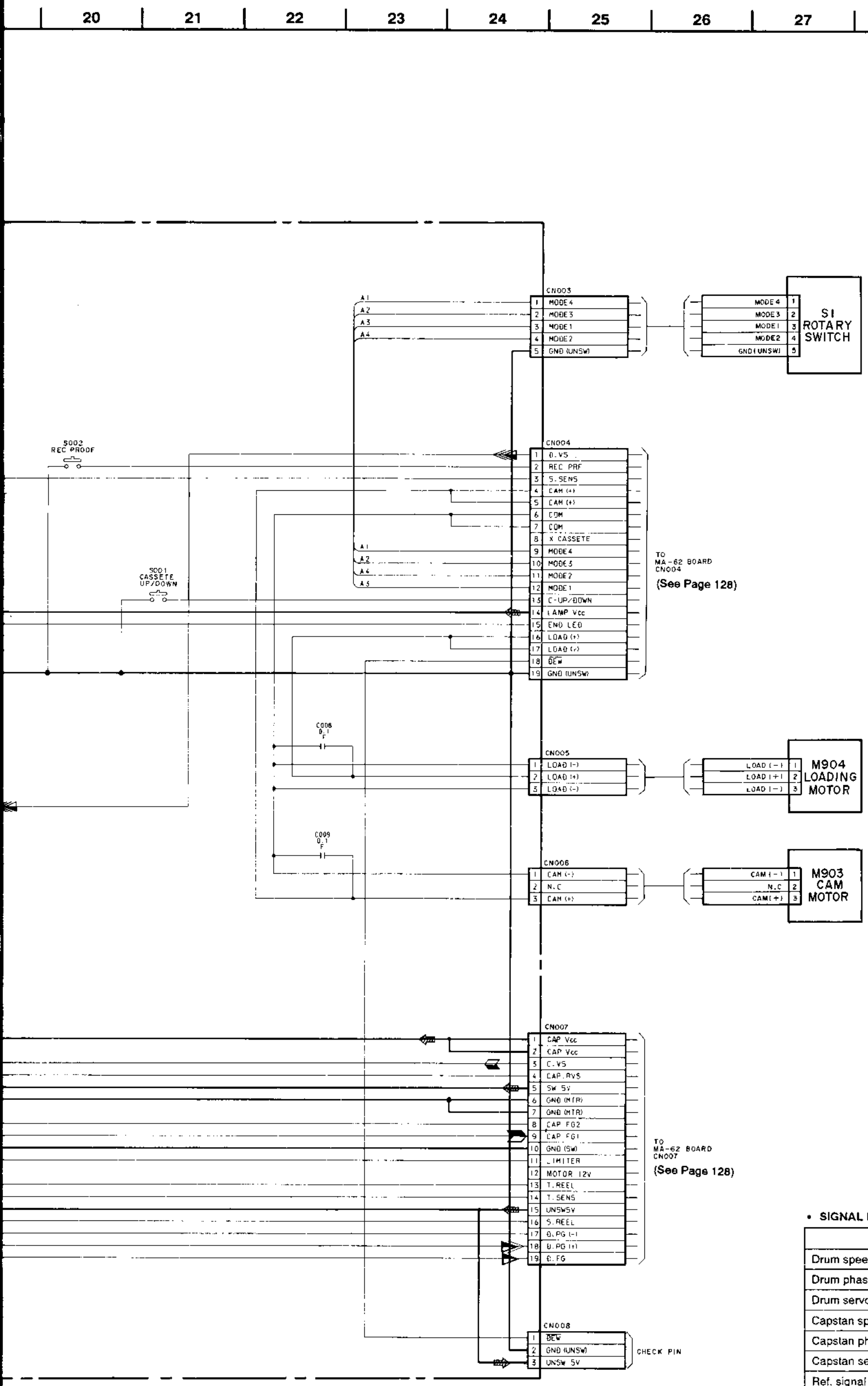
MD-49 BOARD

no mark : REC / PB mode
* : can not be measured.



MECHANISM DRIVE **MECHANISM DRIVE**


IC002
S/T REEL SENSOR AMP
IC002 BA10324
R013 10k
C006 47 10v
C005 10 16V
R014 5600
R011 47k
R012 220Ω
R015 47k
R016 220Ω
R008 470Ω
R009 220
R006 100k
R007 100k
C003 10 16V
R010 470Ω
C004 0.01
R023 560
T/S. LED
0001 GL451V
S002 REC PROOF
S001 CASSETE UP/DOWN
C008 0.1 F
C009 0.1 F
A1
A2
A3
A4



- **SIGNAL PATH**

	REC	REC/PB	PB
Drum speed servo		▷	
Drum phase servo		▷▷	
Drum servo (speed and phase)		▷▷▷	
Capstan speed servo		▷	
Capstan phase servo			
Capstan servo (speed and phase)			
Ref. signal			

MD-49 (MECHANISM DRIVE) PRINTED WIRING BOARD

— Ref. No. MD-49 BOARD: 6000 series —

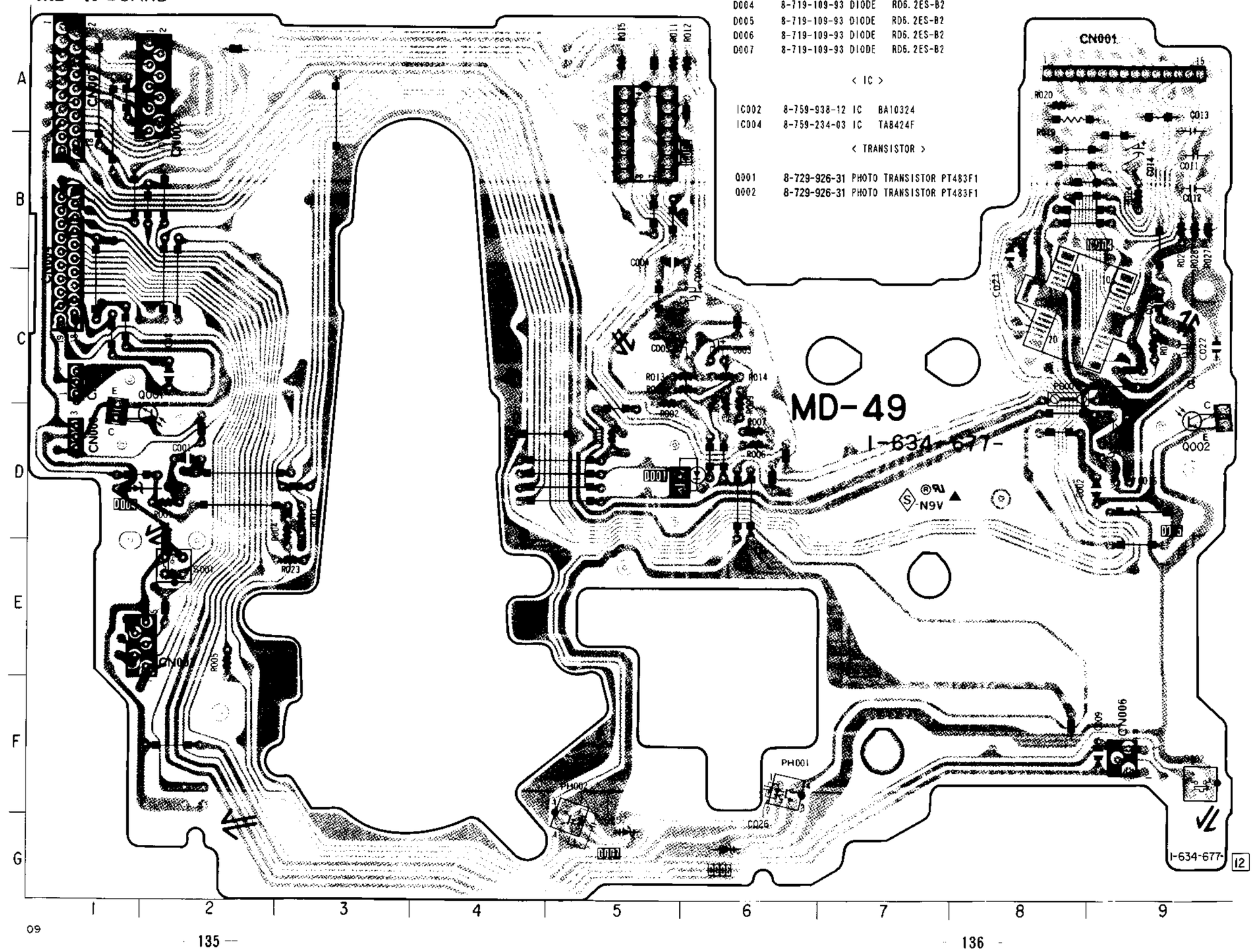
MD-49 BOARD

D001 D-5
D002 C-2
D003 C-2
D004 D-1
D005 D-9

IC002 A-5
IC004 C-8

Q001 C-1
Q002 C-9

MD-49 BOARD



A-6754-228-A MD-49 BOARD, COMPLETE
****
(Ref. No 6,000 Series)

< DIODE >

D001	8-719-974-65	DIODE	GL451V
D004	8-719-109-93	DIODE	RD6.2ES-B2
D005	8-719-109-93	DIODE	RD6.2ES-B2
D006	8-719-109-93	DIODE	RD6.2ES-B2
D007	8-719-109-93	DIODE	RD6.2ES-B2

< IC >

IC002	8-759-938-12	IC	BA10324
IC004	8-759-234-03	IC	TA8424F

< TRANSISTOR >

Q001	8-729-926-31	PHOTO TRANSISTOR PT483F1
Q002	8-729-926-31	PHOTO TRANSISTOR PT483F1

HF-9 (AUDIO) PRINTED WIRING BOARD

— Ref. No. HF-9 BOARD: 7000 series —

A-6713-377-A HF-9 BOARD, COMPLETE

****

(Ref. No 7,000 Series)

< DIODE >

D001	8-719-911-19	DIODE	1SS119
D002	8-719-911-19	DIODE	1SS119
D003	8-719-104-34	DIODE	1S2835

< IC >

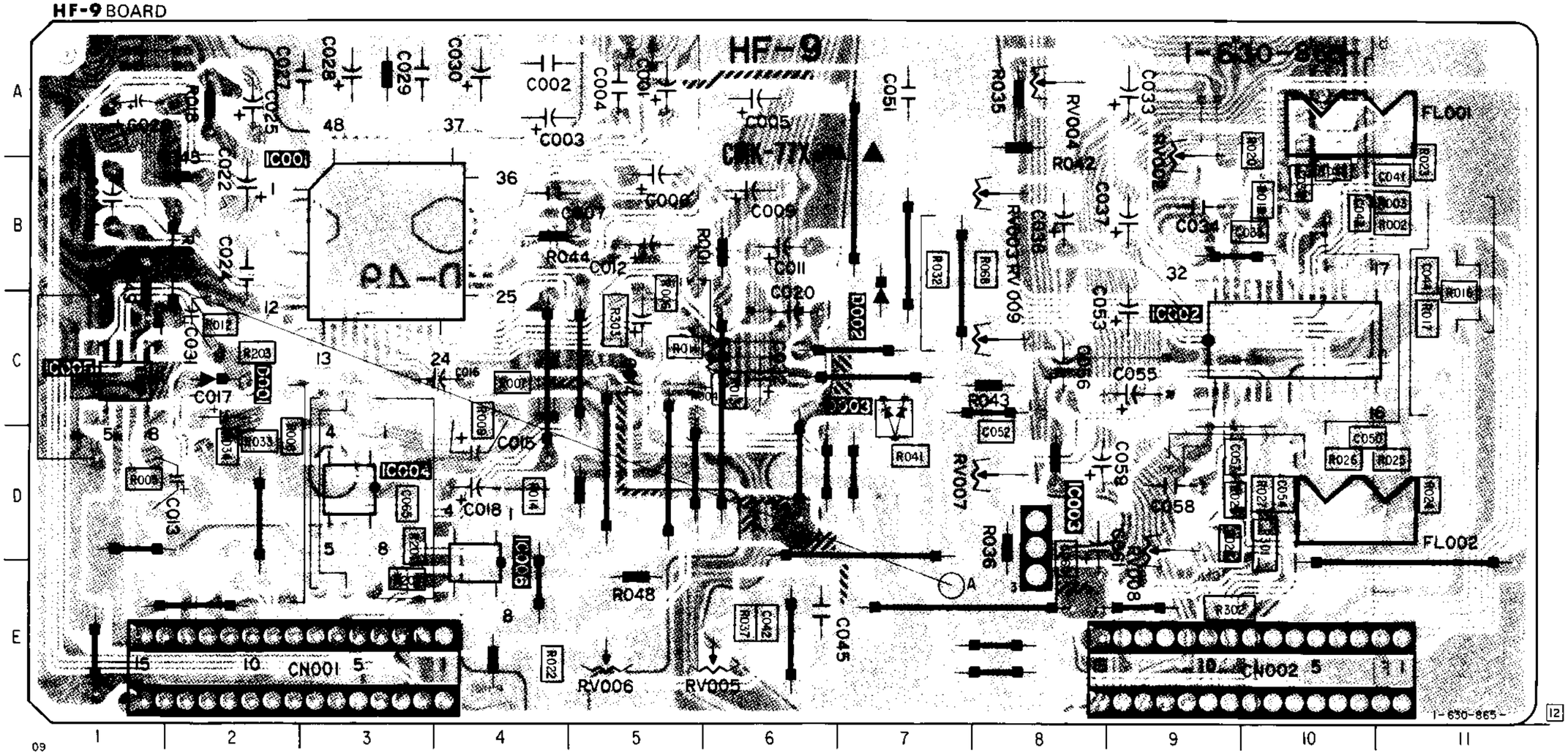
IC001	8-759-420-18	IC	AN3972FC
IC002	8-759-420-15	IC	AN3932S
IC003	8-759-982-21	IC	RC78L05A
IC004	8-759-924-46	IC	BA4560F
IC005	8-759-946-44	IC	TK15120M
IC006	8-759-946-44	IC	TK15120M

HF-9 BOARD

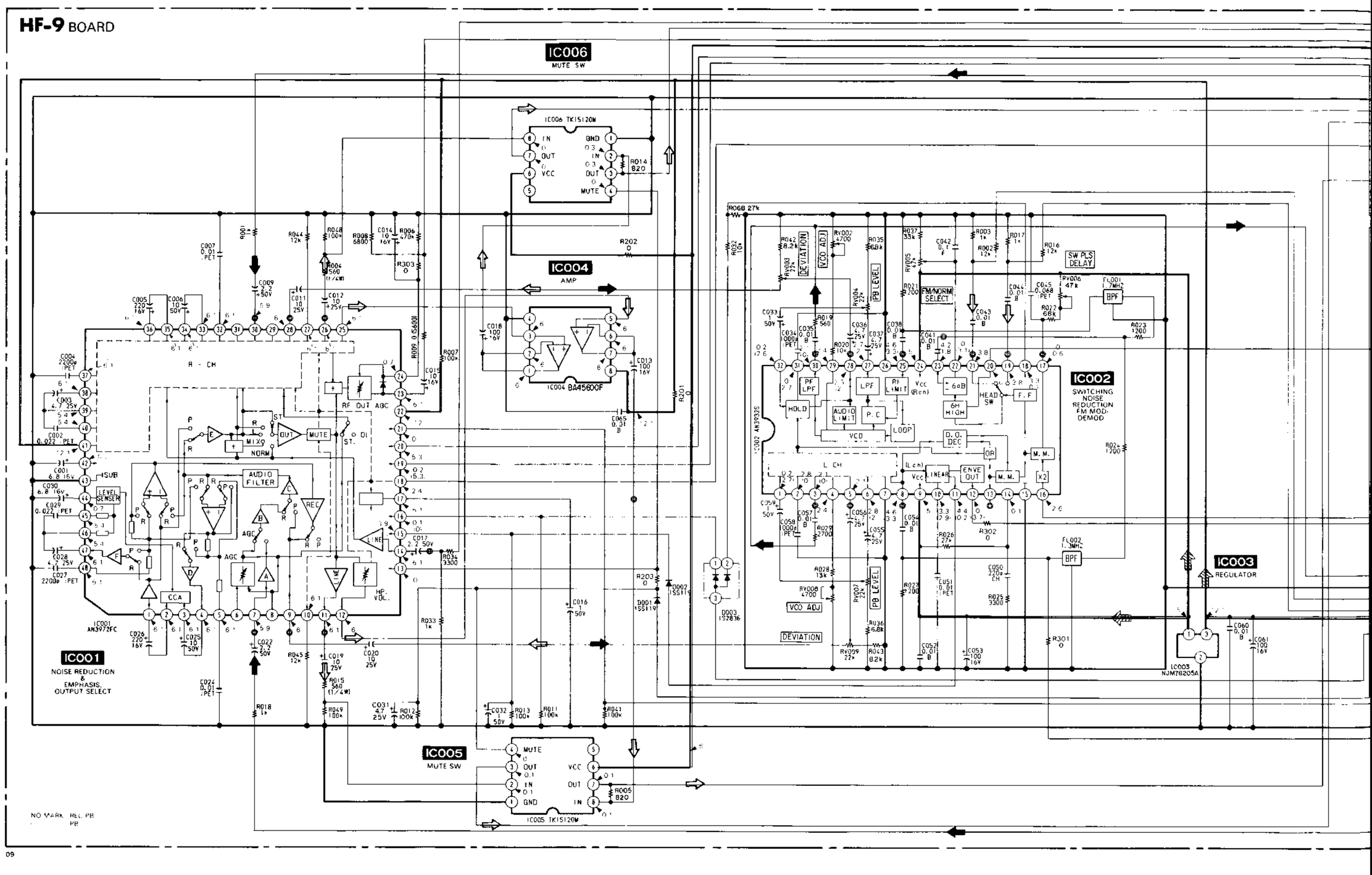
D001 C-2
D002 C-7
D003 C-7

IC001 B-3
IC002 C-10
IC003 D-8
IC004 D-3
IC005 C-1
IC006 D-4

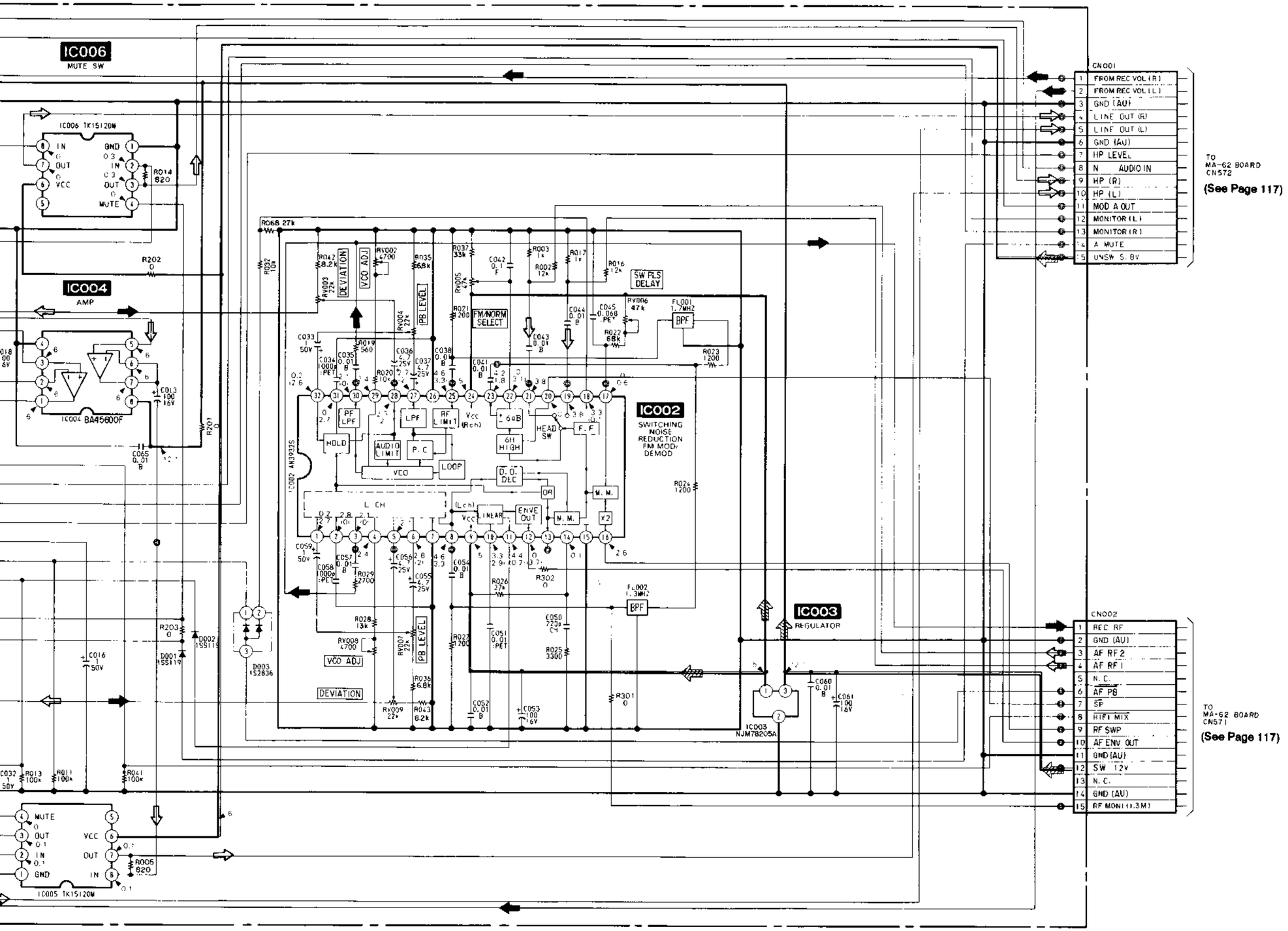
HF-9 BOARD



— Ref. No. HF-9 BOARD: 7000 series —



7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22



- **SIGNAL PATH**

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC				➡
PB				⇨

* A-6756-101-A IO-40 BOARD, COMPLETE
****
(Ref. No 8,000 Series)

< DIODE >

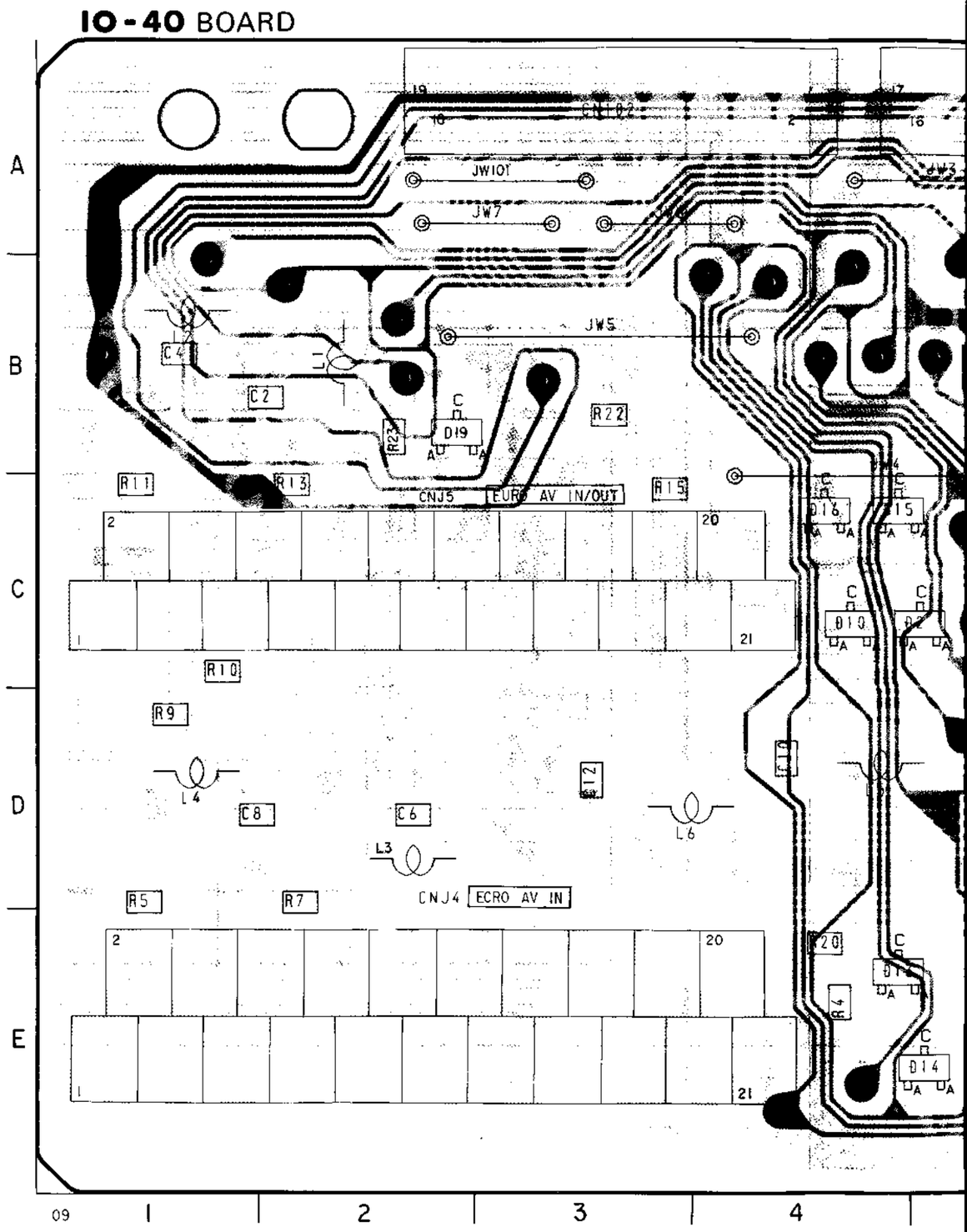
D001	8-719-106-08	DIODE	RD6.2M-B2
D002	8-719-106-08	DIODE	RD6.2M-B2
D006	8-719-106-08	DIODE	RD6.2M-B2
D007	8-719-106-08	DIODE	RD6.2M-B2
D008	8-719-106-08	DIODE	RD6.2M-B2
D009	8-719-106-08	DIODE	RD6.2M-B2
D010	8-719-106-08	DIODE	RD6.2M-B2
D013	8-719-106-08	DIODE	RD6.2M-B2
D014	8-719-106-08	DIODE	RD6.2M-B2
D015	8-719-106-08	DIODE	RD6.2M-B2
D016	8-719-106-08	DIODE	RD6.2M-B2
D019	8-719-106-88	DIODE	RD15M-B1

< TRANSISTOR >

Q001	8-729-901-06	TRANSISTOR	DTA144EK
Q002	8-729-901-01	TRANSISTOR	DTC144EK

IO-40 (TERMINAL) PRINTED WIRING BOARD

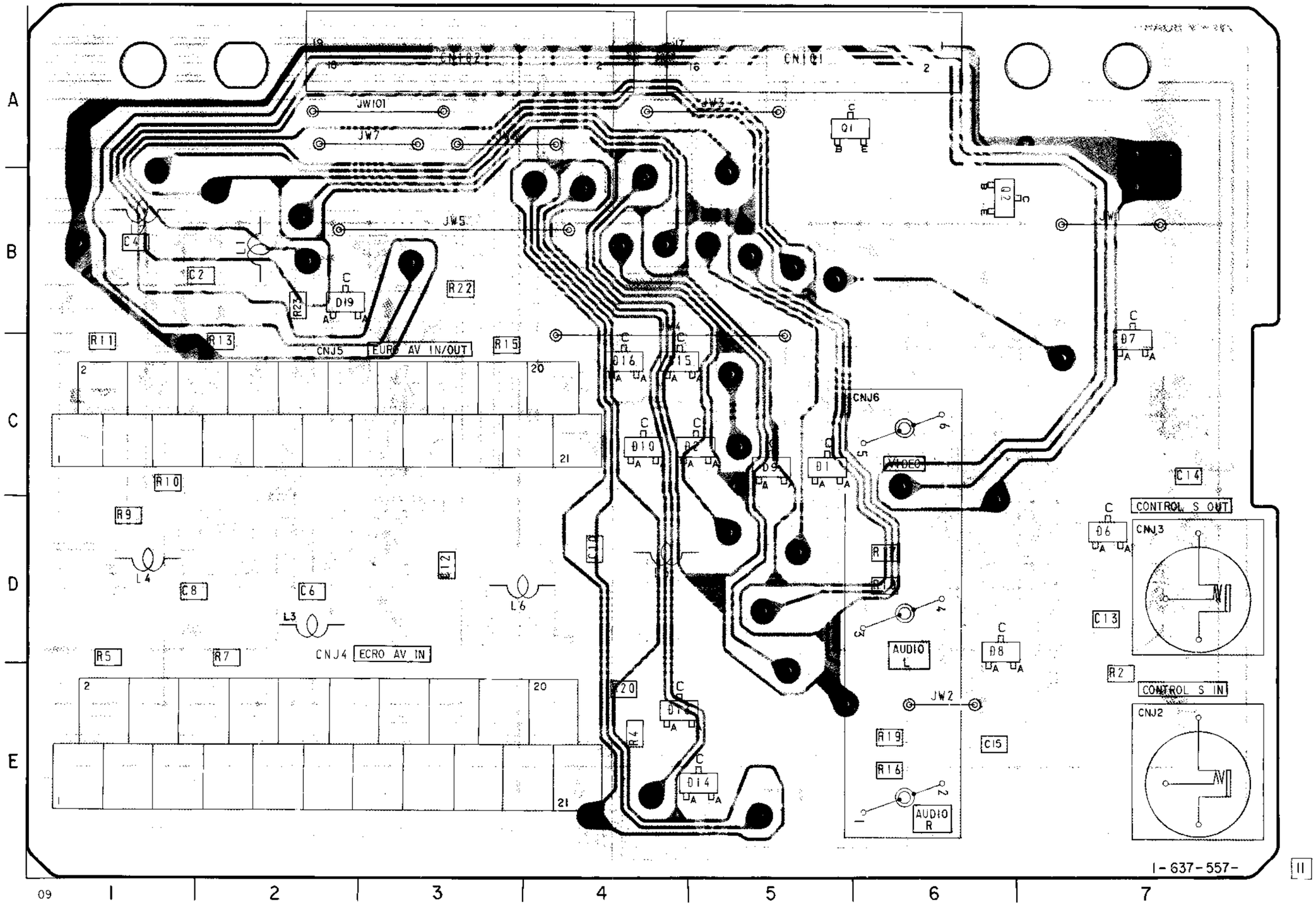
— Ref. No. IO-40 BOARD: 8000 series —



IO-40 (TERMINAL) PRINTED WIRING BOARD

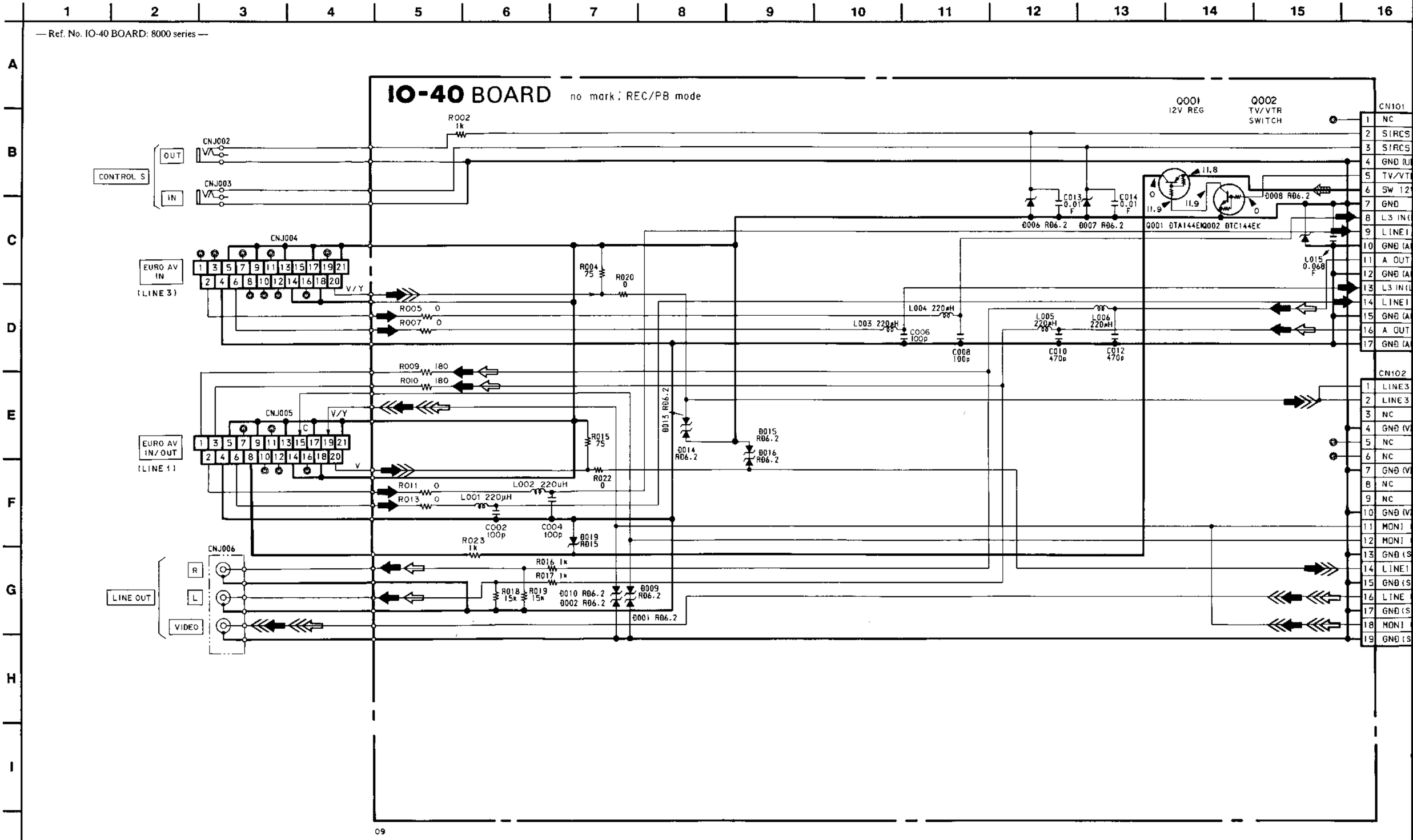
— Ref. No. IO-40 BOARD: 8000 series —

IO-40 BOARD

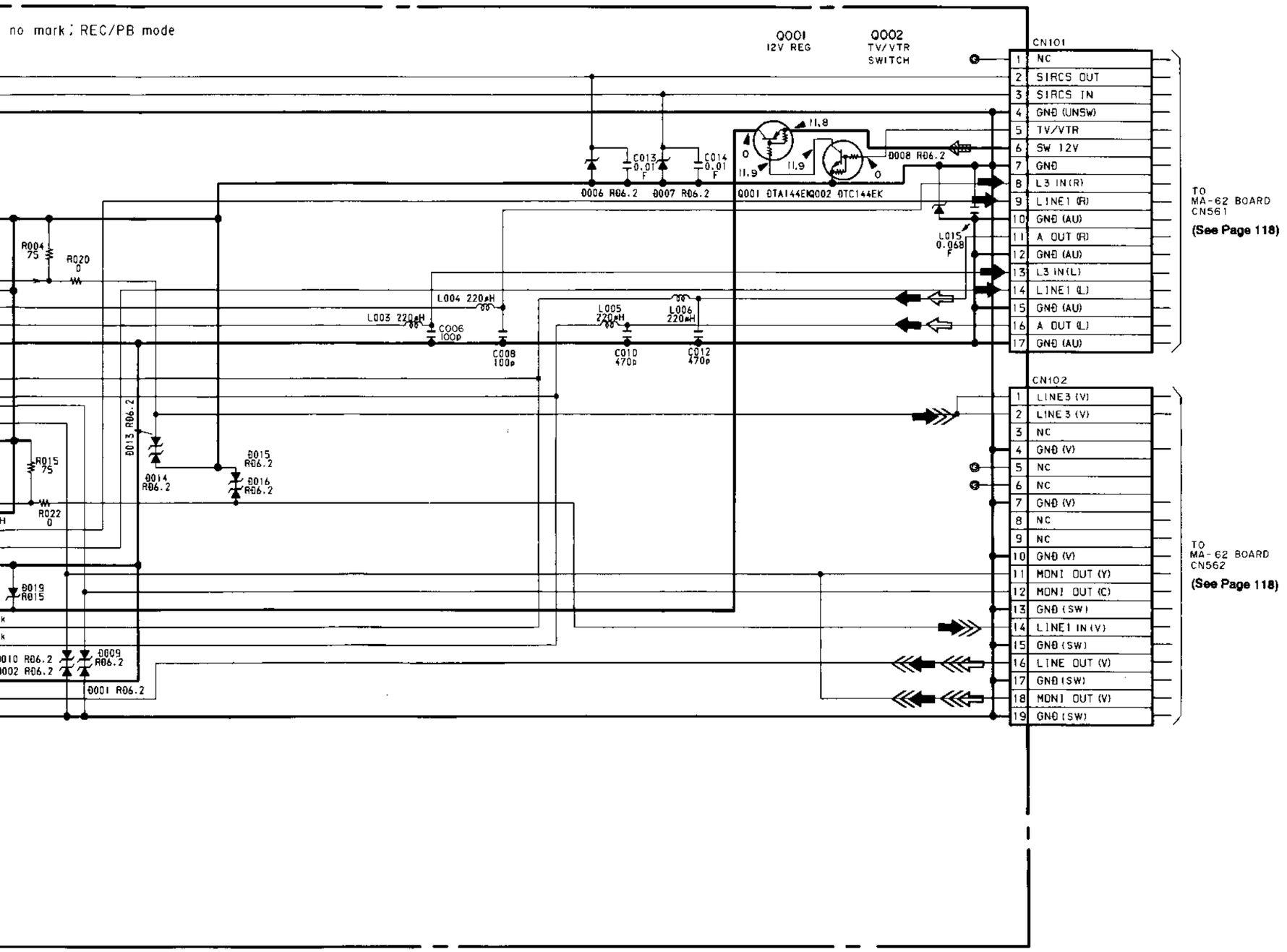


IO-40 (TERMINAL) SCHEMATIC DIAGRAM

— Ref. No. IO-40 BOARD: 8000 series —



7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22

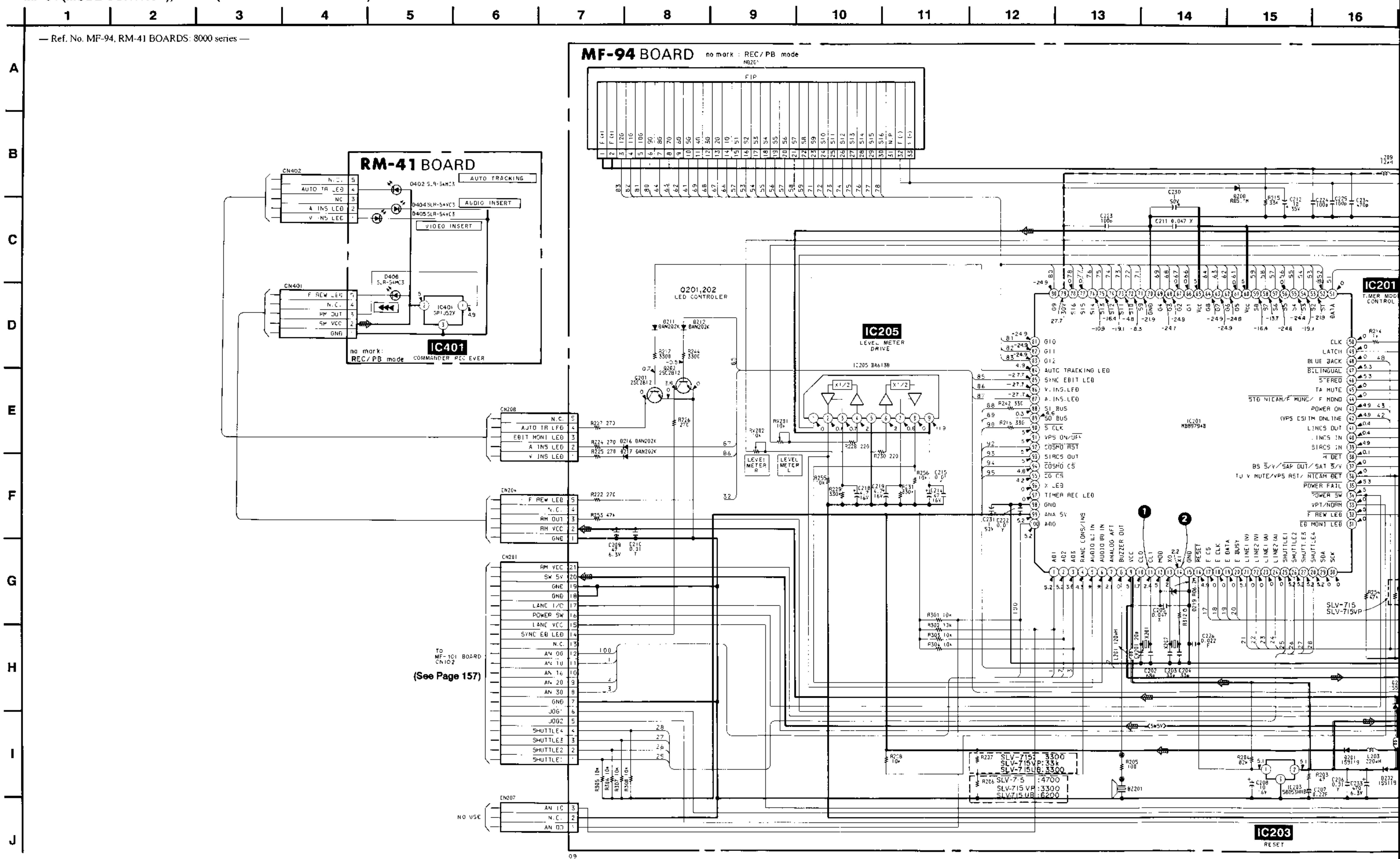


- **SIGNAL PATH**

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC			➡	➡
PB			⇨	⇨

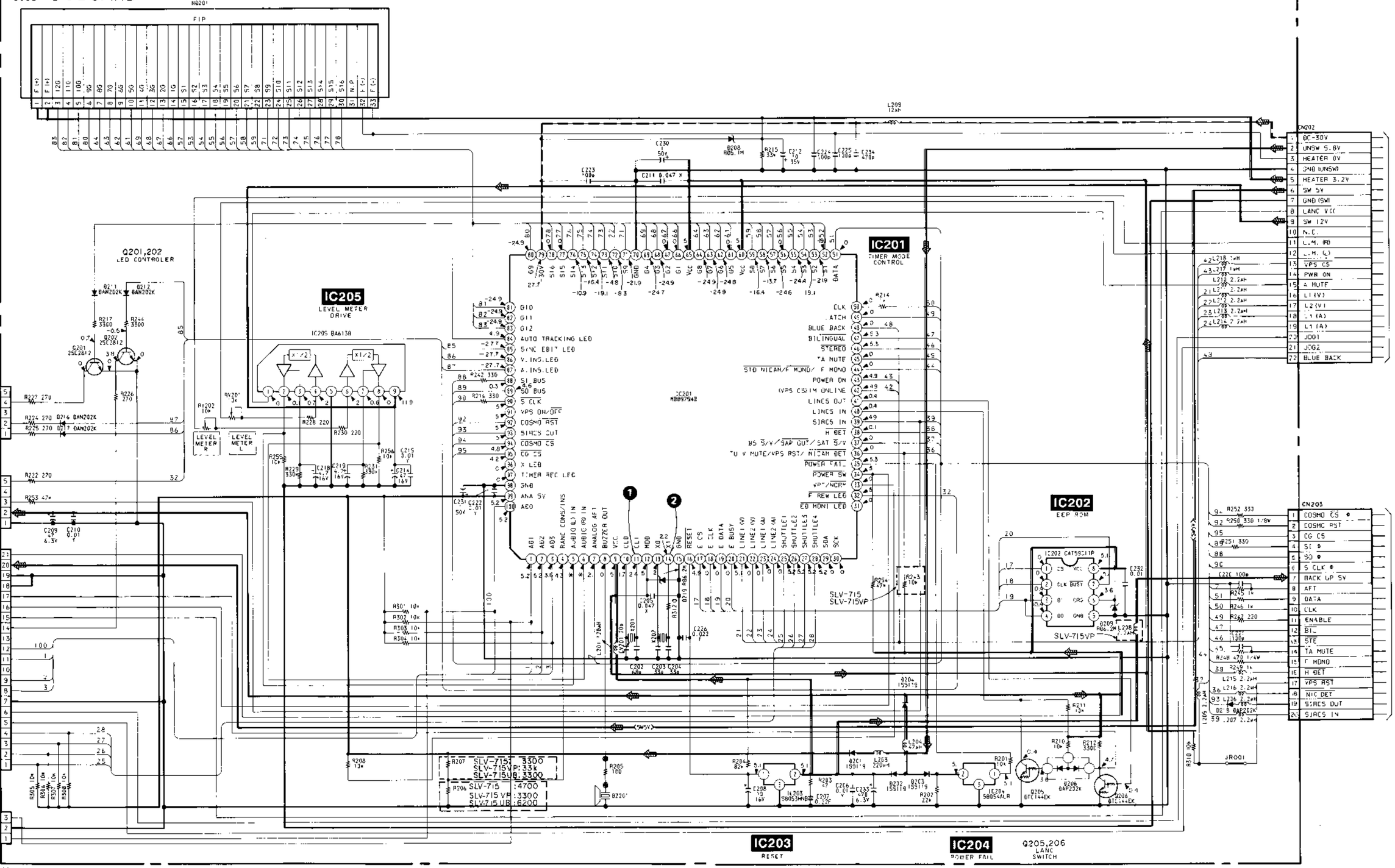
MF-94 (MODE CONTROL), RM-41 (COMMANDER RECIEVER) SCHEMATIC DIAGRAMS

— Ref. No. MF-94, RM-41 BOARDS: 8000 series —



MF-94 BOARD

no mark : REC/PB mode

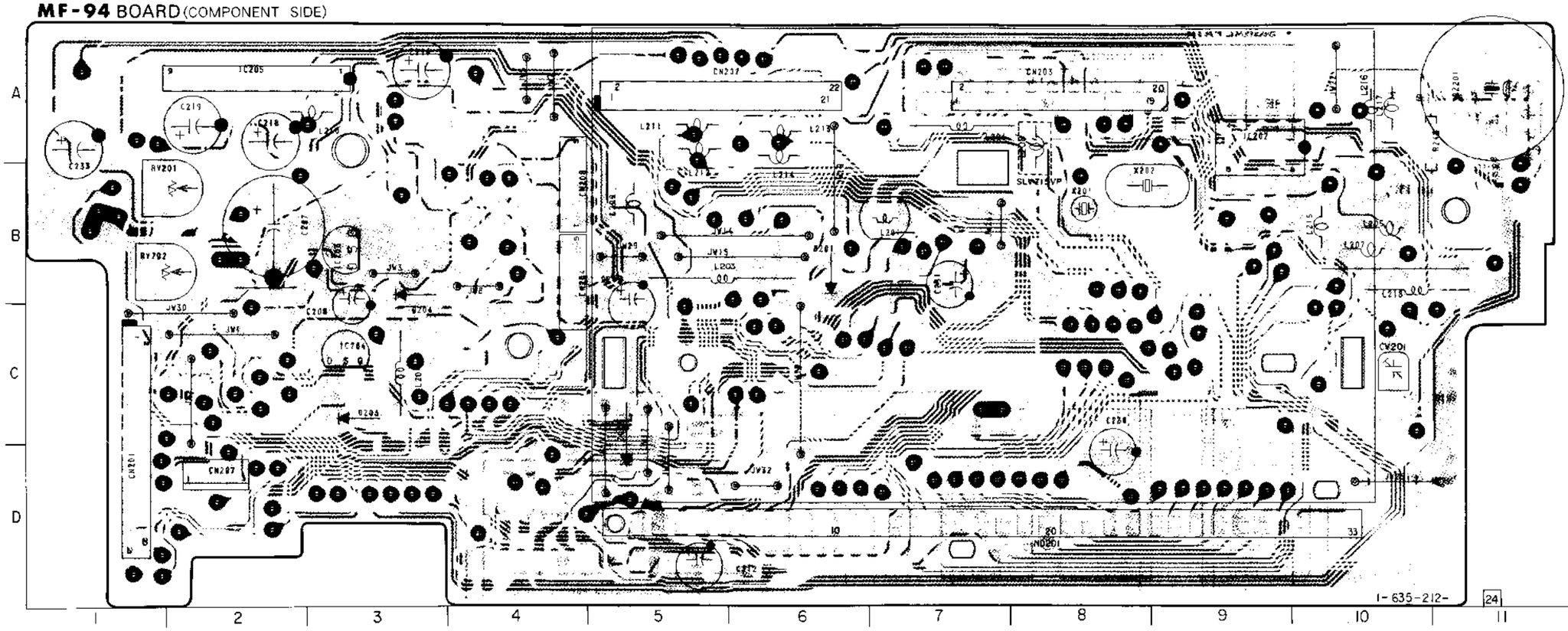


MF-94 (MODE CONTROL), RM-41 (COMMANDER RECIEVER) PRINTED WIRING BOARDS

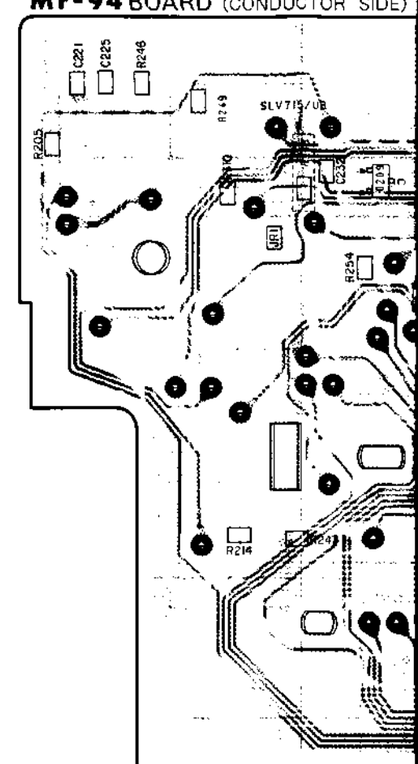
— Ref. No. MF-94, RM-41 BOARDS: 8000 series —

- **For printed wiring boards.**
- ⊗ : Through hole.

MF-94 BOARD (COMPONENT SIDE)



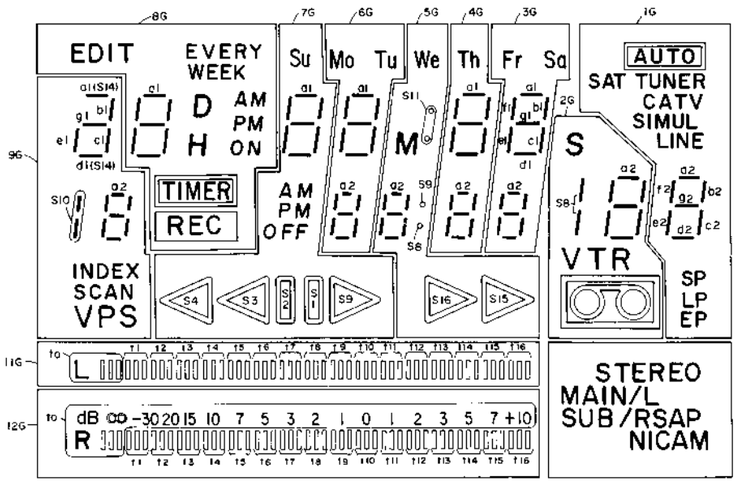
MF-94 BOARD (CONDUCTOR SIDE)



09

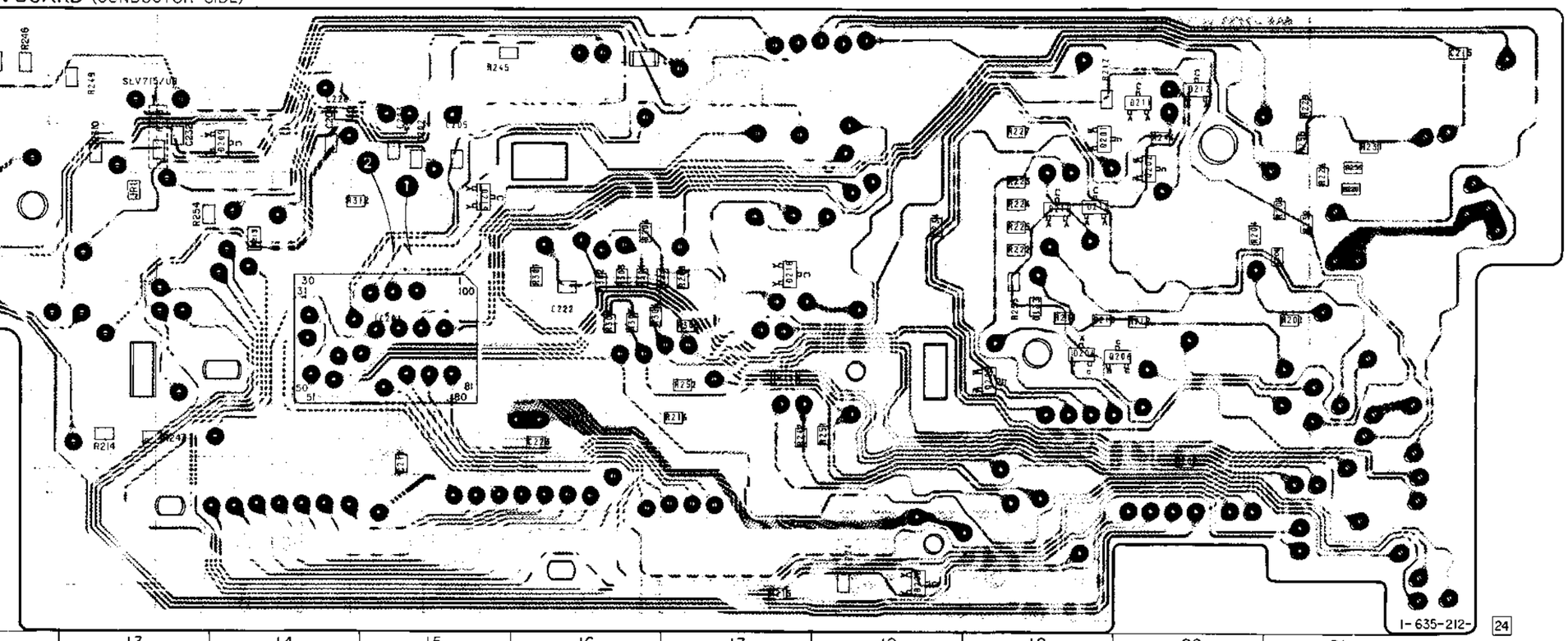
MF-94 BOARD

D201	B-6
D202	D-5
D203	C-3
D204	B-3
D206	C-19
D208	D-18
D209	A-14
D211	A-20
D212	A-20
D216	B-19
D217	B-19
D218	B-17
D219	B-15
IC201	C-15
IC202	A-9
IC203	B-3
IC204	C-3
IC205	A-2
Q201	A-19
Q202	B-20
Q205	C-19
Q206	C-10



	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
S1	t1	t1		d2	**H**	▯	d2	d2	d2	d2	d2	d2
S2	t2	t2		e2	**D**	▯	e2	e2	e2	e2	e2	e2
S3	t3	t3		c2	**AM**	◁	c2	c2	c2	c2	c2	c2
S4	t4	t4		g2	**PM**	◁	g2	g2	g2	g2	g2	g2
S5	t5	t5		f2	**ON**	**OFF**	f2	f2	f2	f2	f2	f2
S6	t6	t6		b2	**REC**	**PM**	b2	b2	b2	b2	b2	b2
S7	t7	t7		a2	**TIMER**	**AM**	a2	a2	a2	a2		a2
S8	t8	t8		**SCAN**	**EVERY WEEK**	**Su**	**Tu**	.	**Th**	**Fr**	/	**SP**
S9	t9	t9	**STEREO**	**VPS**	**EDIT**	▷	**Mo**	:		**Sa**	**VTR**	**LP**
S10	t10	t10		/	d1	d1	d1	**M**	d1	d1	**S**	**LINE**
S11	t11	t11	**SUB/R**	e1	e1	e1	e1	:	e1	e1		**SIMUL**
S12	t12	t12	**NICAM**	c1	c1	c1	c1		c1	c1		**CATV**
S13	t13	t13		g1	g1	g1	g1		g1	g1		**TUNER**
S14	t14	t14		a1, d1	f1	f1	f1	**We**	f1	f1		**AUTO**
S15	t15	t15	**SAP**	b1	b1	b1	b1	▷	b1	b1		**SAT**
S16	t16	t16	**MAIN/L**	**INDEX**	a1	a1	a1	▷	a1	a1	⊡	**EP**

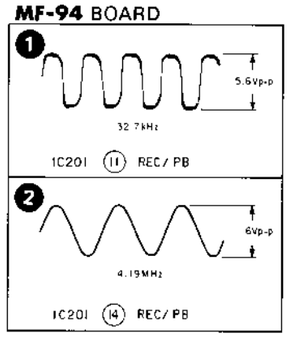
4 BOARD (CONDUCTOR SIDE)



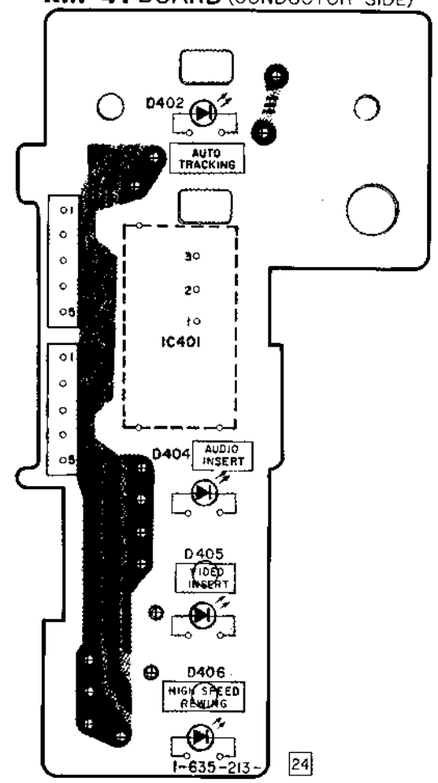
13 14 15 16 17 18 19 20 21

	2G	1G
	d2	d2
	e2	e2
	c2	c2
	g2	g2
	f2	f2
	b2	b2
		a2
	/	SP
	VTR	LP
	S	LINE
		SIMUL
		CATV
		TUNER
		AUTO
		SAT
		EP

MF-94 BOARD



RM-41 BOARD (CONDUCTOR SIDE)



\# A-6756-033-A MF-94 BOARD, COMPLETE (SLV-715)
****
\# A-6756-042-A MF-94 BOARD, COMPLETE (SLV-715VP)
****
\# A-6756-052-A MF-94 BOARD, COMPLETE (SLV-715UB)
****
(Ref.No 8,000 Series)

\# 1-635-213-24 RM-41 BOARD (Ref.No 8,000 Series)
****

< DIODE >

D201	8-719-911-19	DIODE	1SS119
D202	8-719-911-19	DIODE	1SS119
D203	8-719-911-19	DIODE	1SS119
D204	8-719-911-19	DIODE	1SS119
D205	8-719-104-34	DIODE	1S2836
D208	8-719-105-82	DIODE	RD5.1M-B2
D209	8-719-106-08	DIODE	RD6.2M-B2
D211	8-719-400-18	DIODE	MA152WK
D212	8-719-400-18	DIODE	MA152WK
D216	8-719-400-18	DIODE	MA152WK
D217	8-719-400-18	DIODE	MA152WK
D218	8-719-104-34	DIODE	DAP202K-T-146
D219	8-719-106-08	DIODE	RD6.2M-B2
D402	8-719-955-04	DIODE	PY5504S-1 (YEL) (AUTO TRACKING)
D404	8-719-940-99	DIODE	SLR-34VC3 (AUDIO INSERT)
D405	8-719-940-99	DIODE	SLR-34VC3 (VIDEO INSERT)
D406	8-719-940-82	DIODE	SLR-34MC3

< IC >

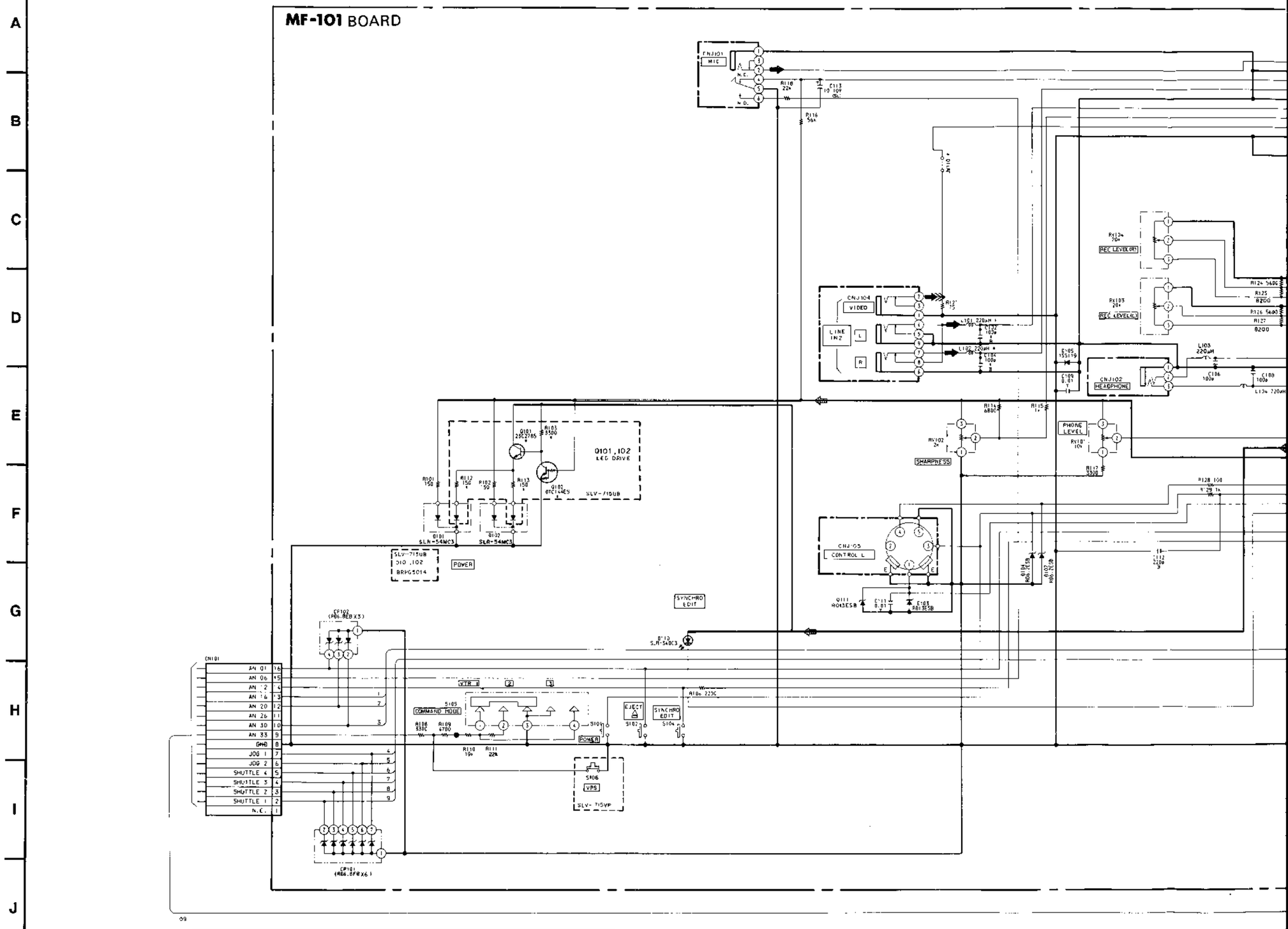
IC201	8-759-504-10	IC	MB89794B-PAL
IC202	8-759-748-54	IC	CAT35C202P
IC203	8-759-502-50	IC	S-8053HNB
IC204	8-759-947-53	IC	S-8054ALR
IC205	8-759-961-38	IC	BA6138

< TRANSISTOR >

Q201	8-729-230-49	TRANSISTOR	2SC2712-YG
Q202	8-729-230-49	TRANSISTOR	2SC2712-YG
Q205	8-729-901-01	TRANSISTOR	DTC144EK
Q206	8-729-901-01	TRANSISTOR	DTC144EK

MF-101 (FUNCTION SWITCH), TK-12 (RELAY), JS-20 (JOG/SHUTTLE), SWITCH BLOCK SCHEMATIC DIAGRAMS

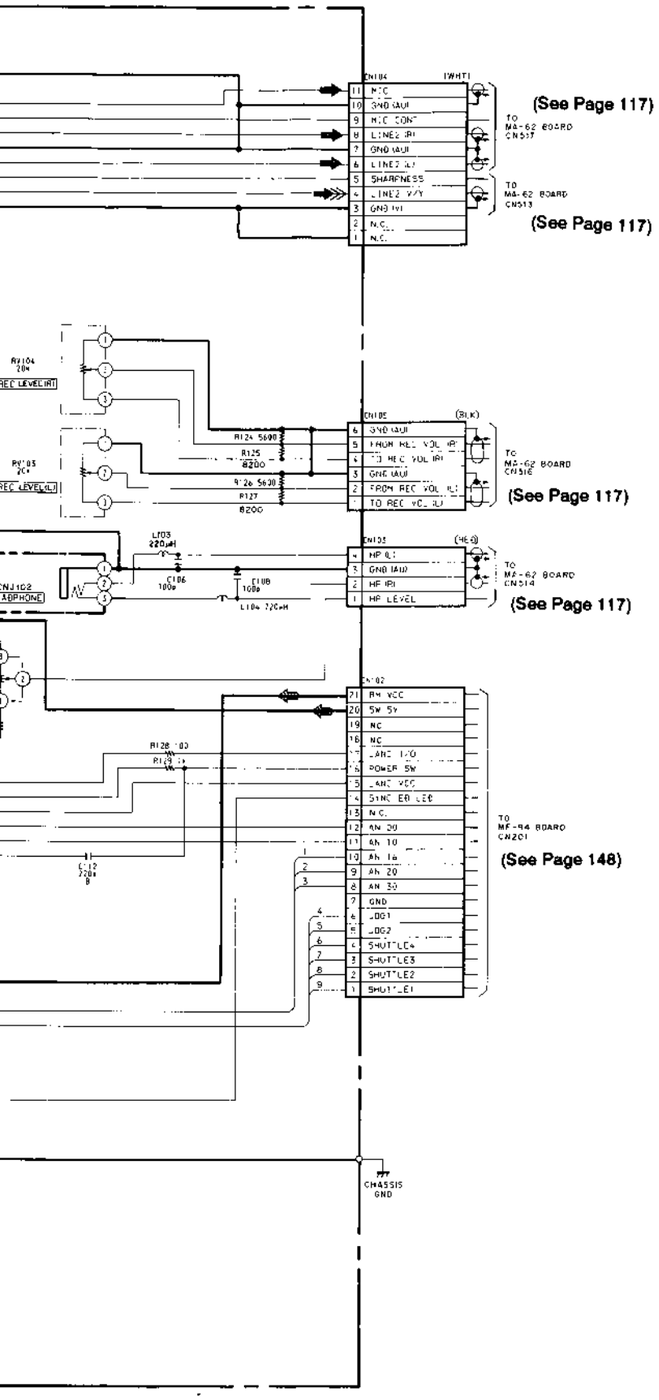
— Ref. No. TK-12 BOARD: 6000 series, JS-20, MF-101 BOARD: 80000 series —

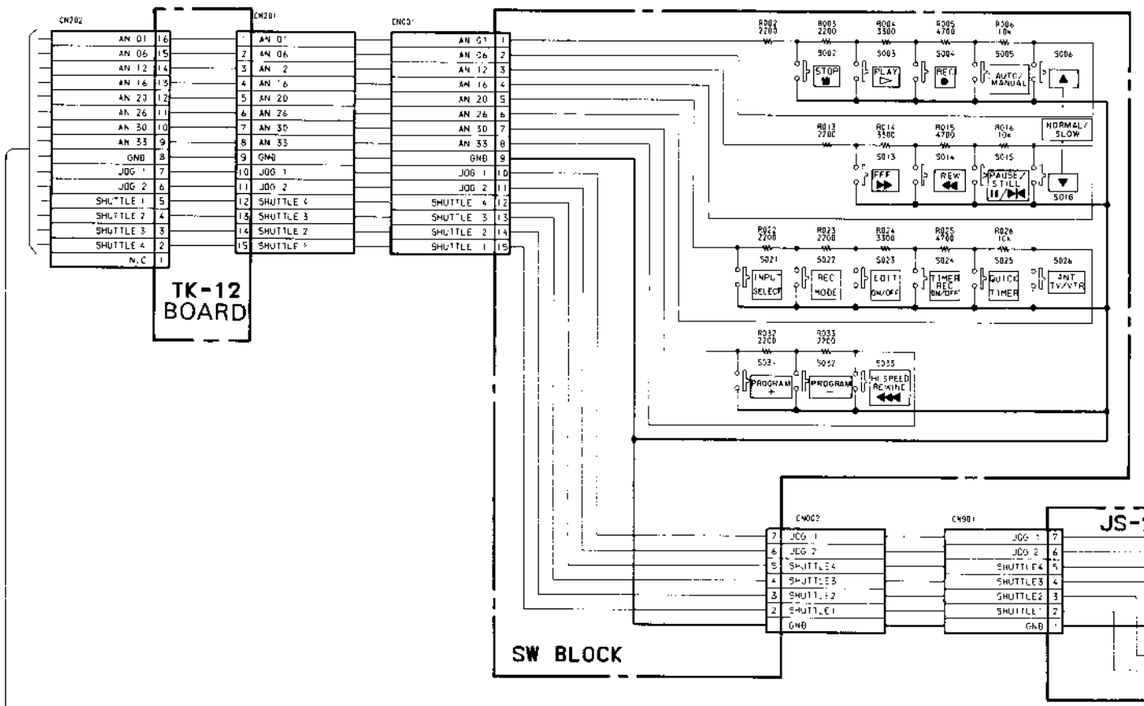


FUNCTION SW FUNCTION SW

• **SIGNAL PATH**

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC			➡⋙	➡
PB				





MF-101 (FUNCTION SWITCH), TK-12 (RELAY), JS-20 (JOG/SHUTTLE), SWITCH BLOCK PRINTED WIRING BOARDS

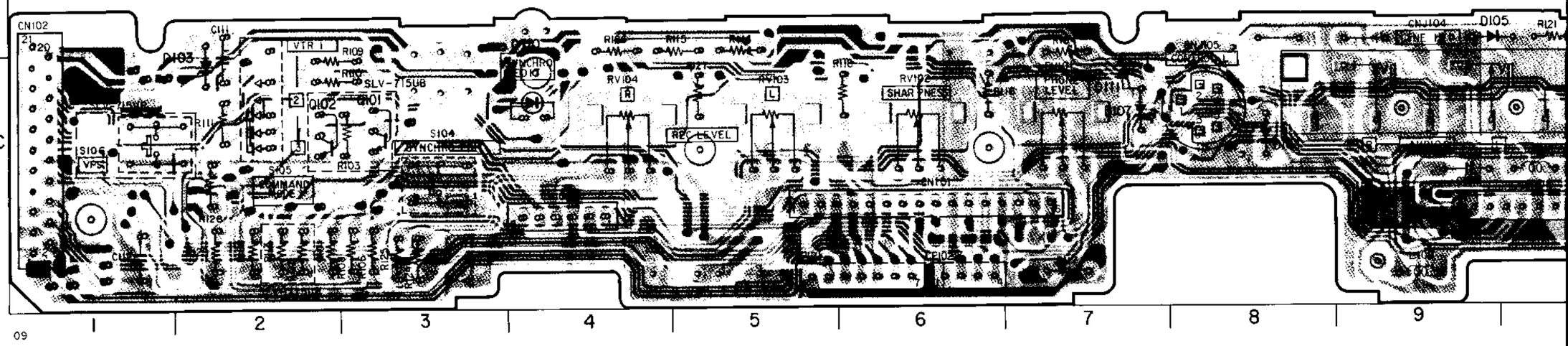
— Ref. No. TK-12 BOARD: 6000 series, JS-20, MF-101 BOARD: 80000 series —

MF-101 BOARD

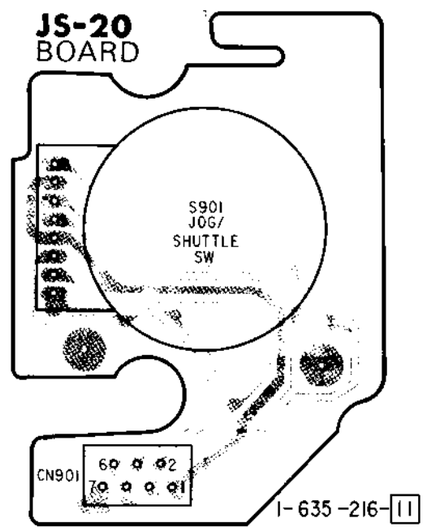
D101 A-12
D102 A-12
D103 B-2
D104 C-8
D105 B-10
D107 C-7
D110 C-4
D111 C-7

Q101 C-3
Q102 C-2

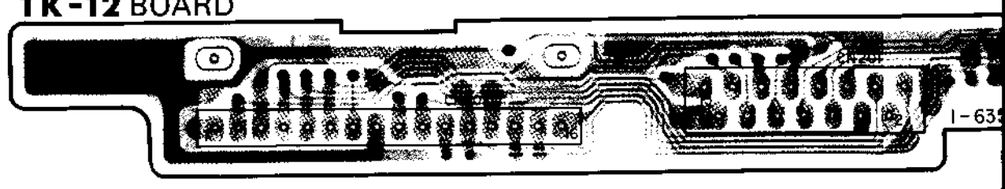
MF-101 BOARD



JS-20 BOARD



TK-12 BOARD



* A-6756-034-A MF-101 BOARD, COMPLETE (SLV-715)
****
* A-6756-043-A MF-101 BOARD, COMPLETE (SLV-715VP)
****
* A-6756-051-A MF-101 BOARD, COMPLETE (SLV-715UB)
****
(Ref.No 8,000 Series)

< DIODE >

D101	8-719-955-04	DIODE	PY5504S-1 (YEL) (SLV-715/VP)
D101	8-719-988-92	LED	BRPG5014X-K (SLV-715UB)
D102	8-719-955-04	DIODE	PY5504S-1 (YEL) (SLV-715/VP)
D102	8-719-988-92	LED	BRPG5014X-K (SLV-715UB)
D103	8-719-110-36	DIODE	RD13ES-B2
D104	8-719-109-93	DIODE	RD6.2ES-B2
D105	8-719-911-19	DIODE	1SS119
D107	8-719-109-93	DIODE	RD6.2ES-B2
D110	8-719-946-30	DIODE	SLR-34DC3
D111	8-719-110-36	DIODE	RD13ES-B2

< TRANSISTOR >

Q101	8-729-119-78	TRANSISTOR	2SC2785-HFE (SLV-715UB)
Q102	8-729-900-89	TRANSISTOR	DTC144ES (SLV-715UB)

WIRING BOARDS

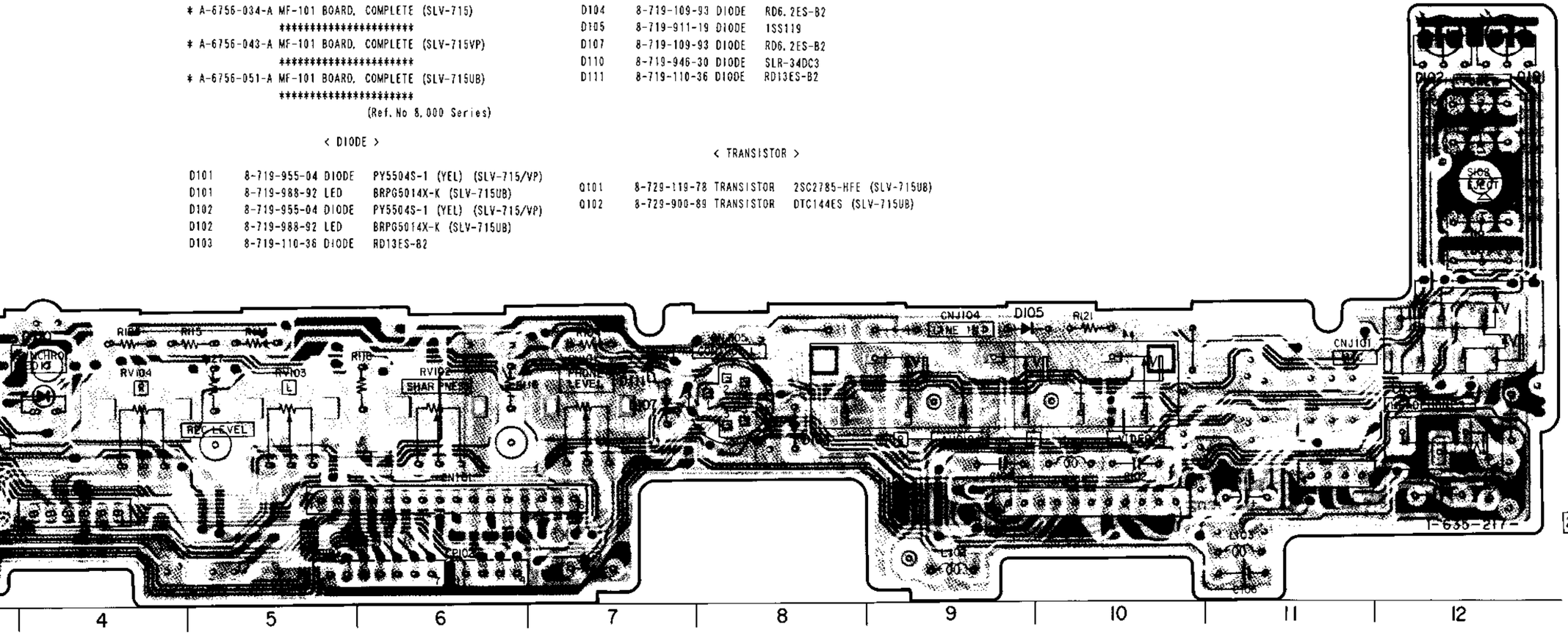
* A-6756-034-A MF-101 BOARD, COMPLETE (SLV-715)
****
* A-6756-043-A MF-101 BOARD, COMPLETE (SLV-715VP)
****
* A-6756-051-A MF-101 BOARD, COMPLETE (SLV-715UB)
****
(Ref. No 8,000 Series)

< DIODE >

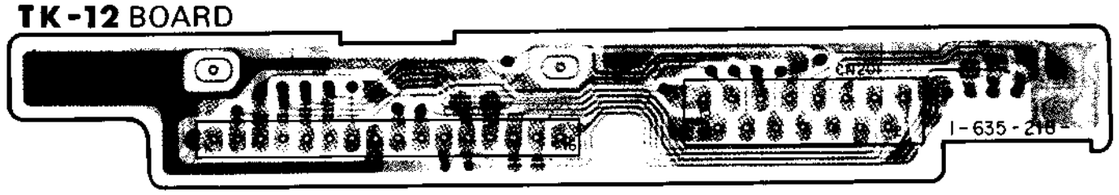
D101	8-719-955-04 DIODE	PY5504S-1 (YEL) (SLV-715/VP)
D101	8-719-988-92 LED	BRPG5014X-K (SLV-715UB)
D102	8-719-955-04 DIODE	PY5504S-1 (YEL) (SLV-715/VP)
D102	8-719-988-92 LED	BRPG5014X-K (SLV-715UB)
D103	8-719-110-36 DIODE	RD13ES-B2
D104	8-719-109-93 DIODE	RD6.2ES-B2
D105	8-719-911-19 DIODE	1SS119
D107	8-719-109-93 DIODE	RD6.2ES-B2
D110	8-719-946-30 DIODE	SLR-34DC3
D111	8-719-110-36 DIODE	RD13ES-B2

< TRANSISTOR >

Q101	8-729-119-78 TRANSISTOR	2SC2785-HFE (SLV-715UB)
Q102	8-729-900-89 TRANSISTOR	DTC144ES (SLV-715UB)



TK-12 BOARD



16-11

NA-7 (NICAM DECODER), NM-1 (NICAM SELECTOR) PRINTED WIRING BOARDS (SLV-715UB only)

— Ref. No. NA-7 BOARD: 3000 series, NM-1 BOARD: 8000 series —

*A-6721-376-A NA-7 BOARD, COMPLETE (SLV-715UB)
********** (Ref. No. 9000 series)

DIODE

D001	8-719-801-52	DIODE 1SS190-TE85L	
D002	8-719-801-52	DIODE 1SS190-TE85L	
D003	8-719-400-18	DIODE 1S2837-T1	
D004	8-719-400-18	DIODE 1S2837-T1	
D005	8-719-400-18	DIODE 1S2837-T1	
D006	8-719-400-18	DIODE 1S2837-T1	
D007	8-719-400-18	DIODE 1S2837-T1	
D008	8-719-104-34	DIODE 1S2835-T1	

IC

IC001	8-759-231-09	IC TA8662N
IC002	8-759-231-28	IC TC6011N
IC003	8-752-331-22	IC CXK5864BSP-10L
IC004	8-759-231-29	IC TD6710AN
IC005	8-759-900-72	IC NE5532P
IC006	8-759-900-72	IC NE5532P

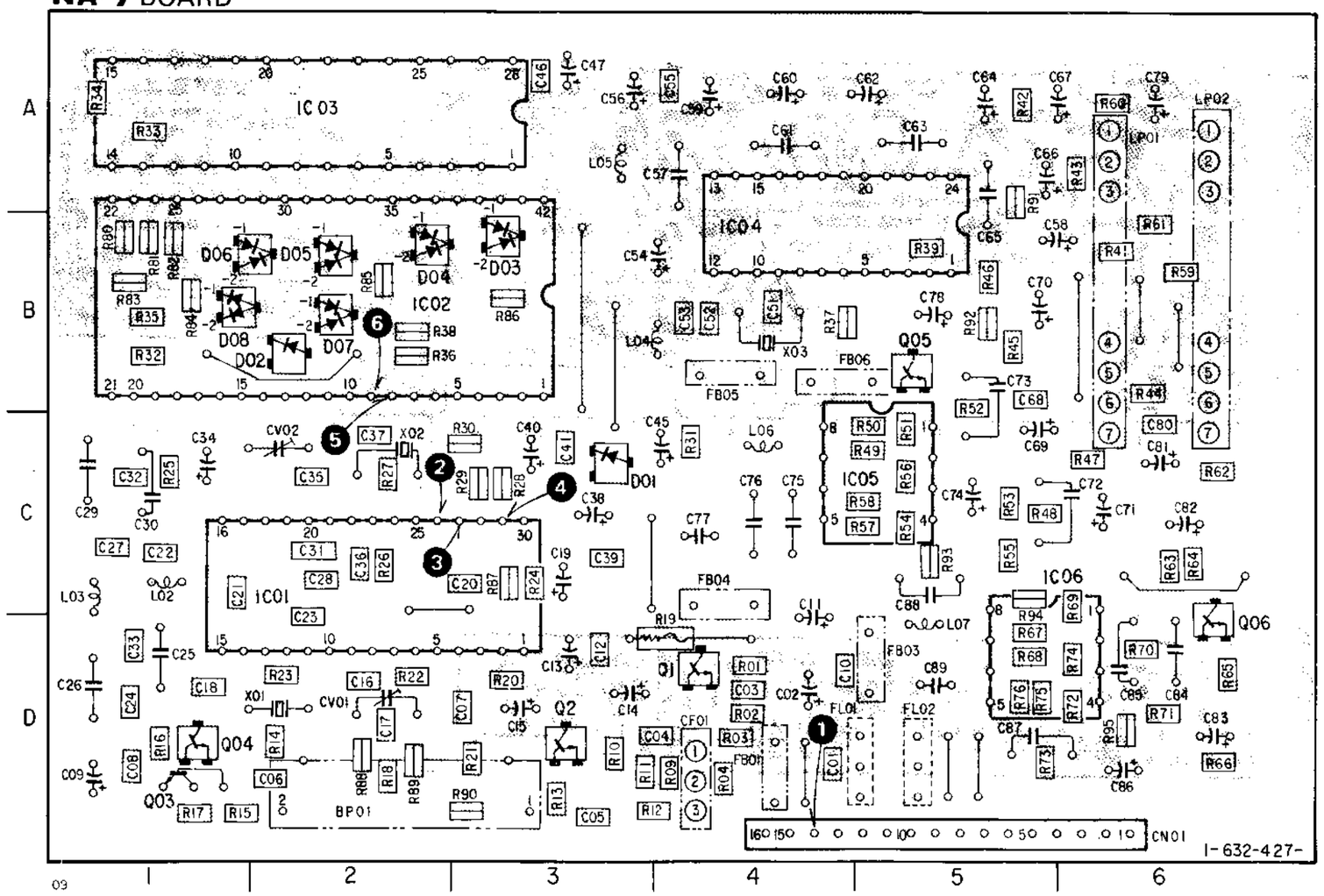
TRANSISTOR

Q001	8-729-100-66	TRANSISTOR 2SC1623-L6
Q002	8-729-100-66	TRANSISTOR 2SC1623-L6
Q003	8-729-104-80	TRANSISTOR 2SC3355
Q004	8-729-100-66	TRANSISTOR 2SC1623-L6
Q005	8-729-100-66	TRANSISTOR 2SC1623-L6
Q006	8-729-100-66	TRANSISTOR 2SC1623-L6

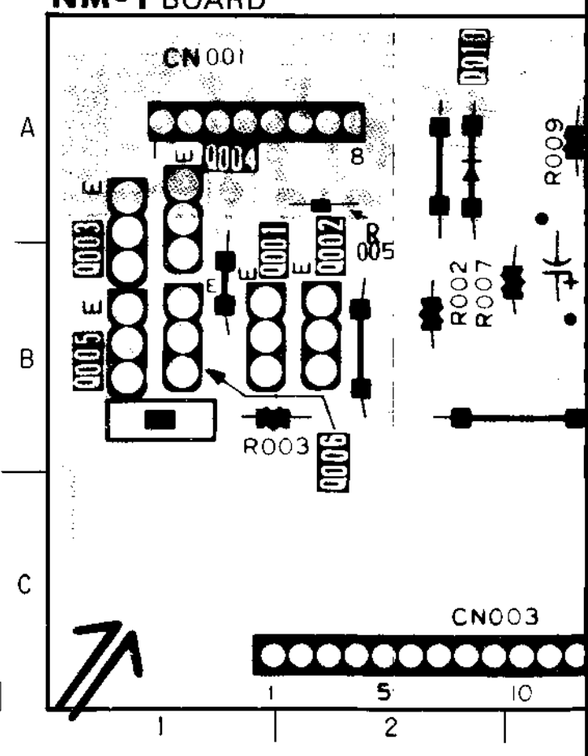
NA-7 BOARD

D001	C-3
D002	D-2
D003	B-3
D004	B-2
D005	B-2
D006	B-2
D007	B-2
D008	B-1
IC001	C-2
IC002	B-1
IC003	A-1
IC004	A-4
IC005	C-5
IC006	D-5
Q001	D-4
Q002	D-3
Q003	D-1
Q004	D-1
Q005	B-5
Q006	D-6

NA-7 BOARD



NM-1 BOARD

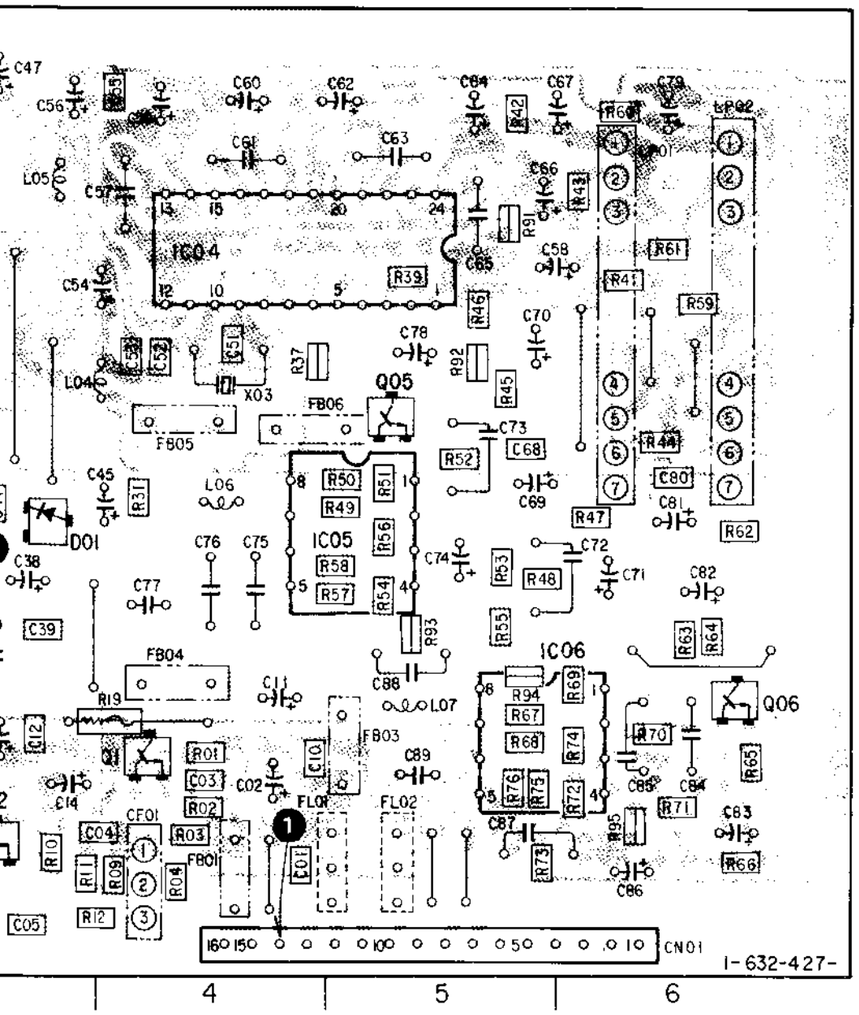


IC

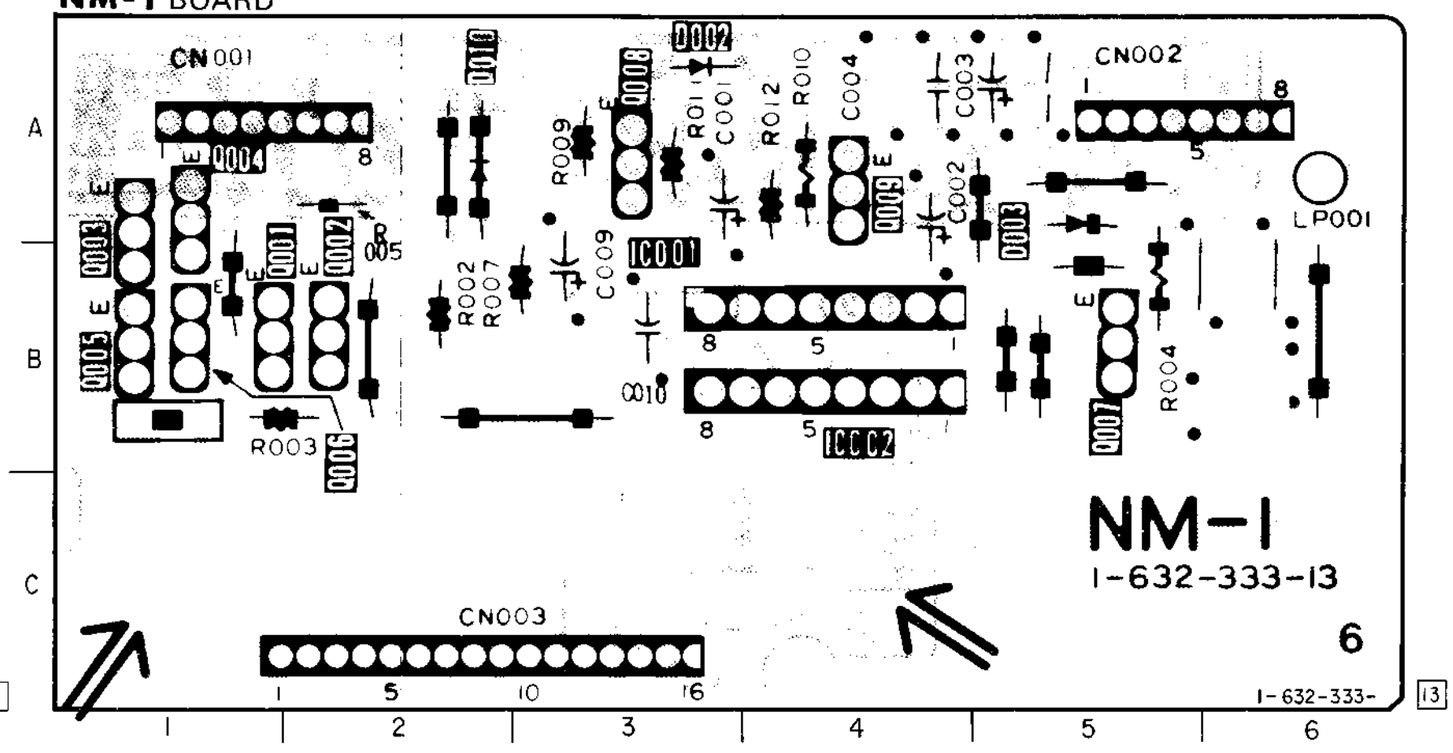
31-09	IC TA8662N	
31-28	IC TC6011N	
31-22	IC CXK5864BSP-10L	
31-29	IC TD6710AN	
00-72	IC NE5532P	
00-72	IC NE5532P	

TRANSISTOR

Q001	8-729-100-66	TRANSISTOR 2SC1623-L6
Q002	8-729-100-66	TRANSISTOR 2SC1623-L6
Q003	8-729-104-80	TRANSISTOR 2SC3355
Q004	8-729-100-66	TRANSISTOR 2SC1623-L6
Q005	8-729-100-66	TRANSISTOR 2SC1623-L6
Q006	8-729-100-66	TRANSISTOR 2SC1623-L6



NM-1 BOARD



NM-1 BOARD

D002	A-3
D003	A-5
D010	A-2
IC001	B-4
IC002	B-4
Q001	B-2
Q002	B-2
Q003	A-1
Q004	A-1
Q005	B-1
Q006	B-1
Q007	B-5
Q008	A-3
Q009	A-4

*1-632-333-11 NM-1 BOARD (SLV-715UB)
********** (Ref. No. 10000 series)

DIODE

D002	8-719-911-19	DIODE 1SS119
D003	8-719-911-19	DIODE 1SS119
D010	8-719-911-19	DIODE 1SS119

IC

IC001	8-759-800-81	IC LA7016
IC002	8-759-800-81	IC LA7016

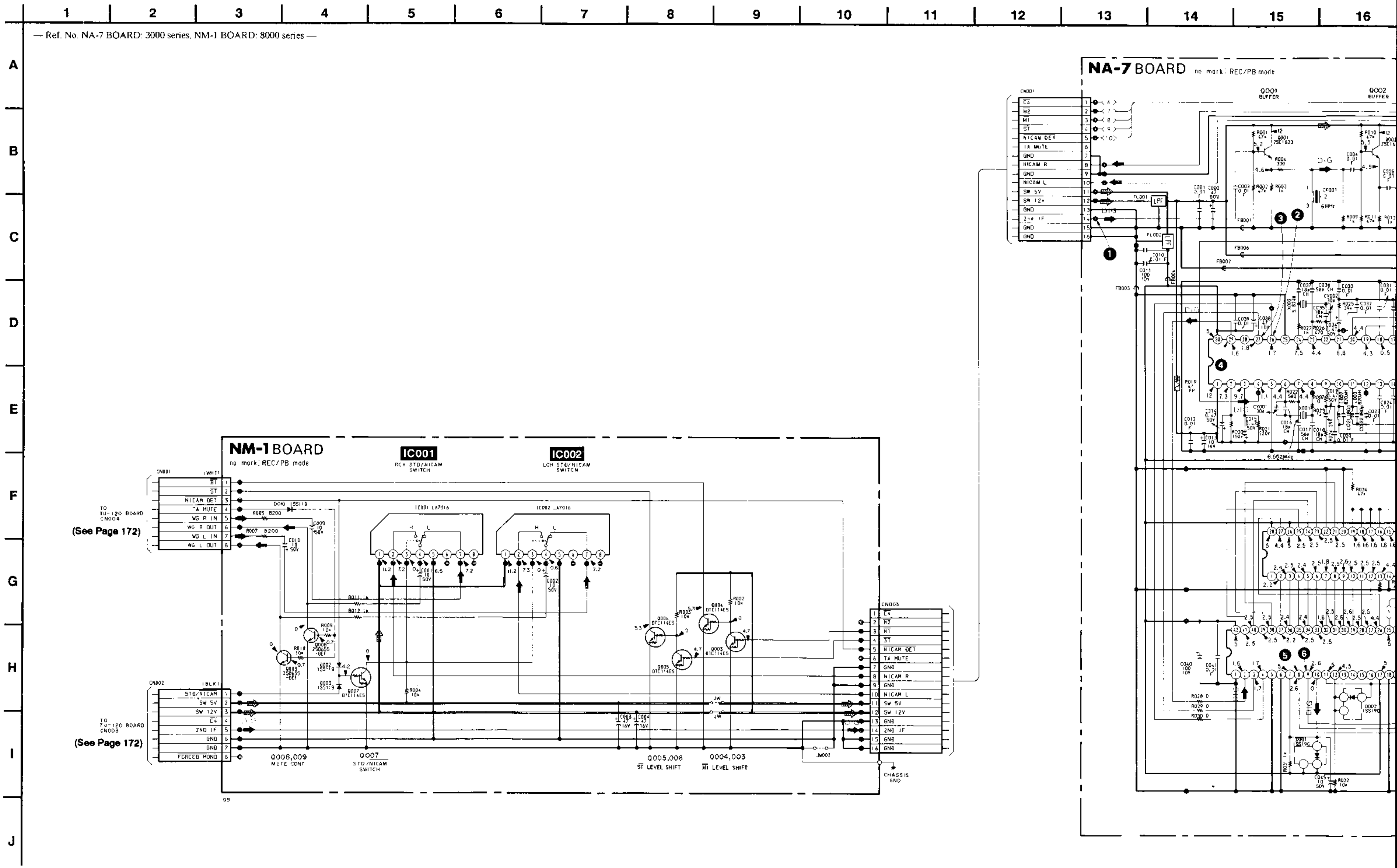
TRANSISTOR

Q003	8-729-900-80	TRANSISTOR DTC114ES
Q004	8-729-900-80	TRANSISTOR DTC114ES
Q005	8-729-900-80	TRANSISTOR DTC114ES
Q006	8-729-900-80	TRANSISTOR DTC114ES
Q007	8-729-900-80	TRANSISTOR DTC114ES
Q008	8-729-303-37	TRANSISTOR 2SD655E
Q009	8-729-303-37	TRANSISTOR 2SD655E

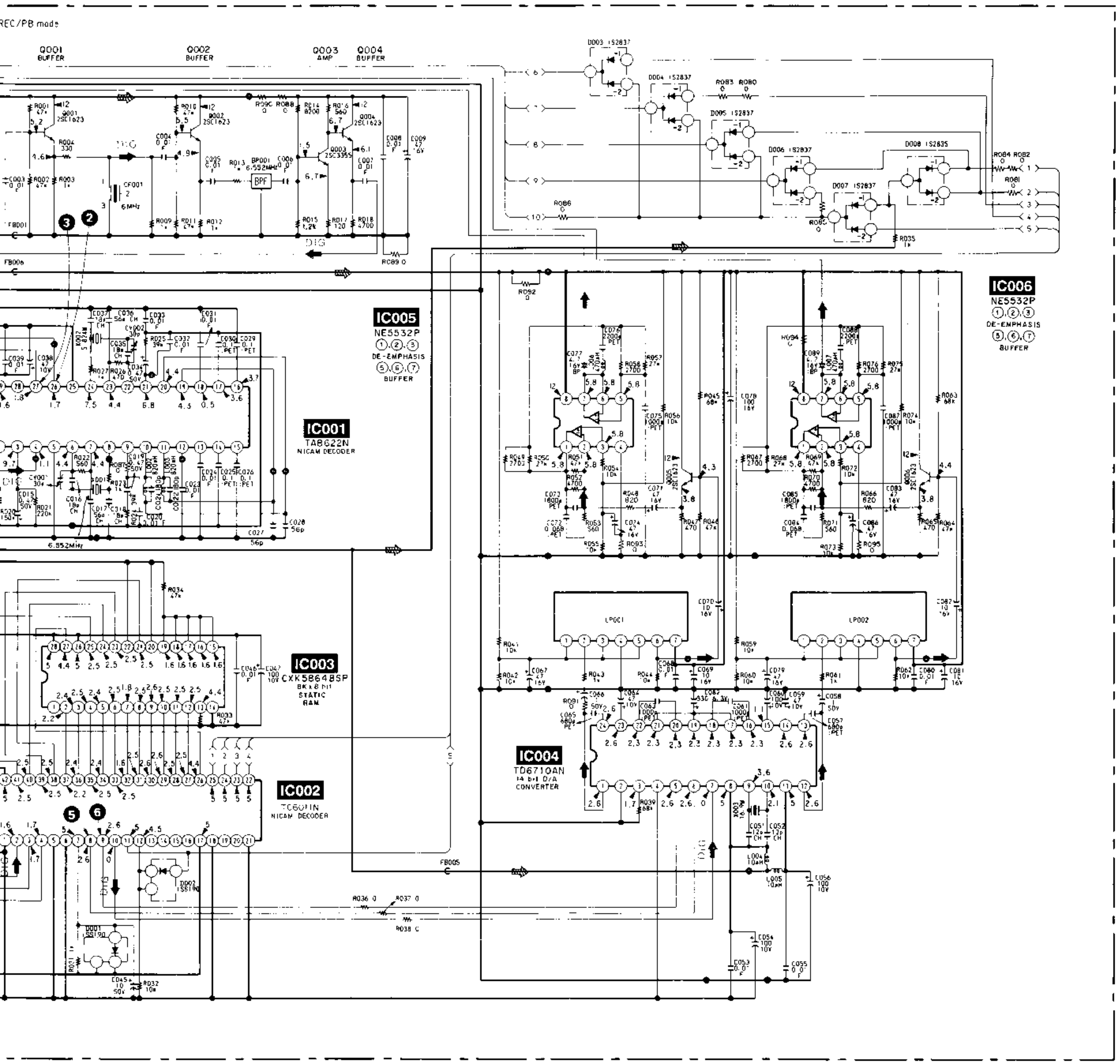
NICAM NICAM

NA-7 (NICAM DECODER), NM-1 (NICAM SELECTOR) SCHEMATIC DIAGRAMS (SLV-715UB only)

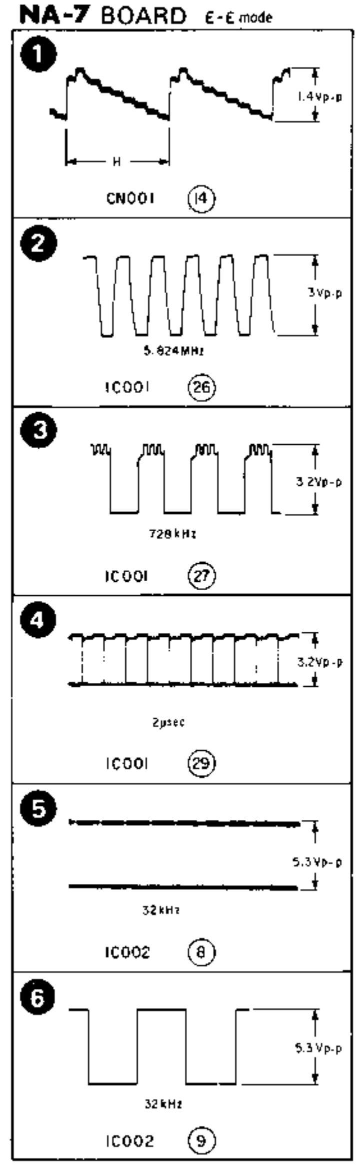
— Ref. No. NA-7 BOARD: 3000 series, NM-1 BOARD: 8000 series —



15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30



NA-7 BOARD E-E mode



• SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC				➡
PB				

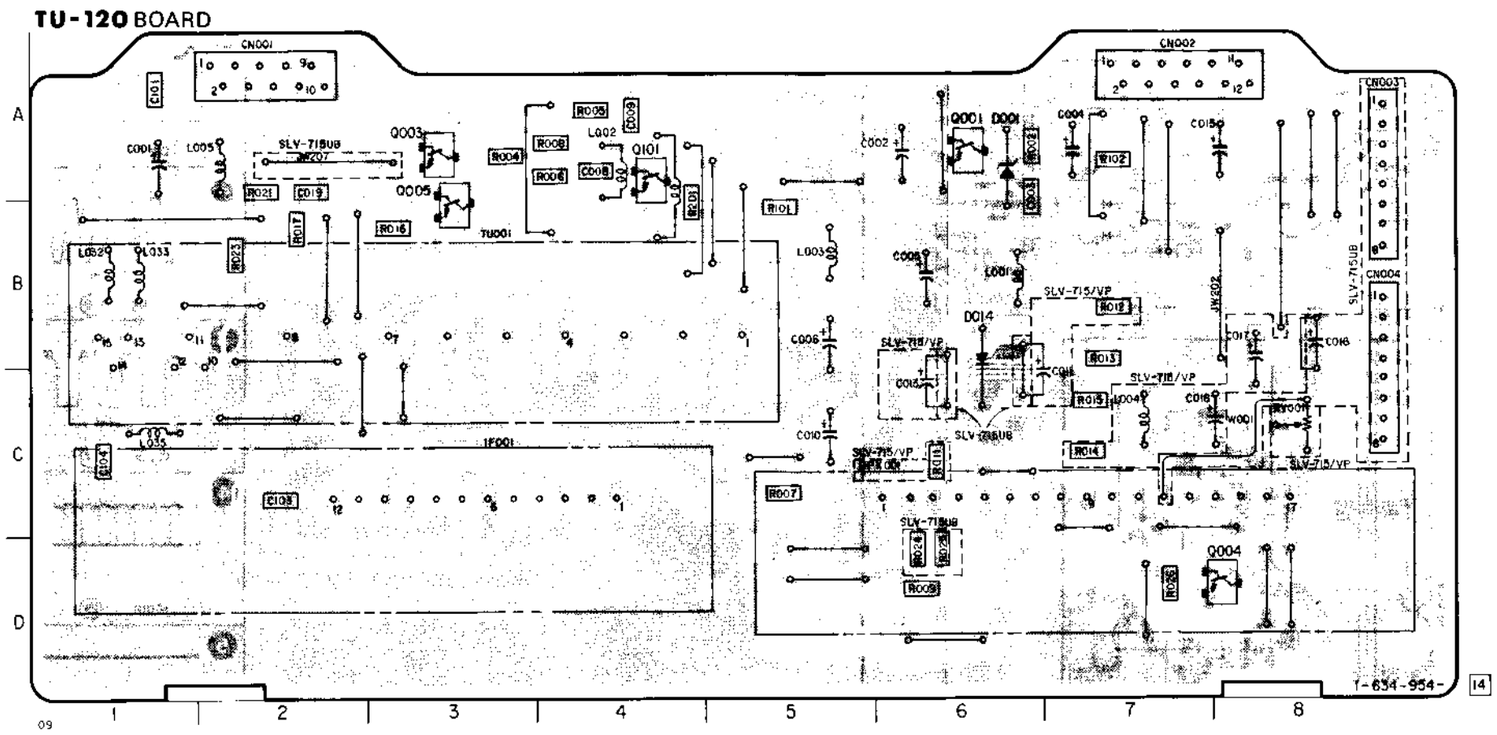
TU-120 (TUNER) PRINTED WIRING BOARD

— Ref. No. TU-120 BOARD: 11000 series —

TU-120 BOARD

D001 A-6
D014 B-6

Q001 A-6
Q003 A-3
Q004 D-8
Q005 A-3
Q101 A-4



A-6721-369-A TU-120 BOARD, COMPLETE (SLV-715)
****
A-6721-372-A TU-120 BOARD, COMPLETE (SLV-715VP)
****
A-6721-375-A TU-120 BOARD, COMPLETE (SLV-715UB)
****
(Ref. No 11,000 Series)

< DIODE >

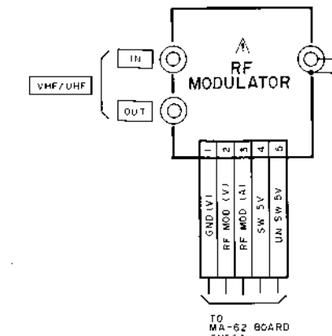
D001	8-719-110-78	DIODE	RD33ES-B2
D014	8-719-911-19	DIODE	1SS119

< TRANSISTOR >

Q001	8-729-120-28	TRANSISTOR	2SC2412K-R
Q003	8-729-120-28	TRANSISTOR	2SC2412K-R
Q004	8-729-900-98	TRANSISTOR	DTC143TK
Q005	8-729-120-28	TRANSISTOR	2SC2412K-R
Q101	8-729-120-28	TRANSISTOR	2SC2412K-R

TU-120 (TUNER) SCHEMATIC DIAGRAM

— Ref. No. TU-120 BOARD: 11000 series —



(See Page 118)

• SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA/DATA	
REC			➠	➡
PB				

TU-120 BOARD no mark : REC/PB mode

RF MODULATOR

IN

OUT

VHF/UHF

GND (V)
RF MOD (V)
RF MOD (A)
SW 5V
UN SW 5V

TO MA-62 BOARD CN553

(See Page 118)

TU001

BU (NC)
BT (NC)
BH (NC)
AGC
BL (NC)
NC
BM (SW12V)
NC
IF
BTL (+33V)
BPL (+5V)
LOCK (NC)
CLK
DATA
ENABLE

Q001 REG

Q001 2SC2412

Q001 LA33B5B

Q005 BUFFER

Q005 2SC2412

Q010 2SC2412

Q015 2SC2412

Q101,103 EQUALIZER

Q004 MUTE SWITCH

Q004 DTC143TC

CN001

AFT
DATA
CLK
ENABLE
BTL
STE
TA MUTE
F.MONO
TU MODEL
NICAM DET

TO MA-62 BOARD CN551

(See Page 118)

CN002

SW 5V
+35V
SW 12V
SW 9V
GND (V)
TU VIDEO
GND (AU)
TU (L)
TU (R)
TU (L+R)
GND (V)
GND (V)

TO MA-62 BOARD CN552

(See Page 117)

IF001

GND
RF AGC
IF IN
VCC (9V)
AFT UP
AFT DWN
AFT
——
——
2nd IF
1st AF
——
DET OUT

NPX001

GND
L/MAIN
R/SUB
F.MONO
STEREO
BILING
——
——
TA MUTE
——
——
L+R/MAIN
2nd IF
——
VCC (12V)
1st IF IN
GND

CN003

STD/NICAM
SW 5V
SW 12V
NC
2nd IF
GND
GND
NC

TO NM-1 BOARD CN002

(See Page 185)

CN004

ST
ST
NICAM DET
TA MUTE
WG R IN
WG R OUT
WG L IN
WG L OUT

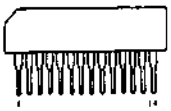
TO NM-1 BOARD CN001

(See Page 185)

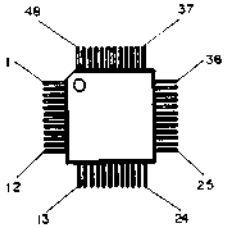
O SIGNAL		AUDIO SIGNAL
	Y/CHROMA/DATA	
	➡	➡

4-3. SEMICONDUNTOR

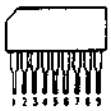
AN3916



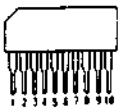
AN3972FC



BA6138
LA7954
LVA519A
LVA522S

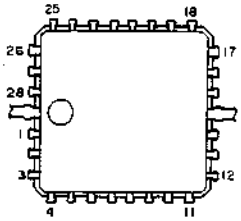


BA6238A

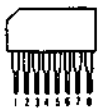


BA7077

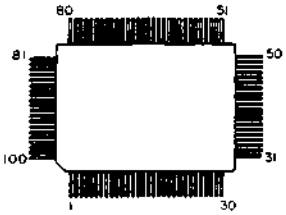
CAT35C202P
HA12115MP



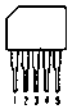
CX20061
LA7016



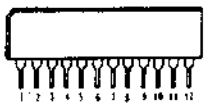
CXP80624
MB89794B



LA7213

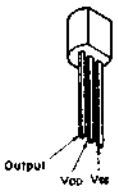


LA7222

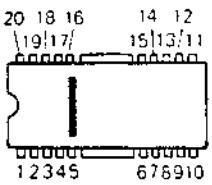


LA7297

RC78L05A
S-8053ALR
S-8053HNB



TA8424F



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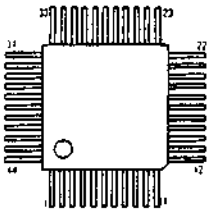


2SA1115
2SC1740
2SC2603
DTA114ES
DTA144ES
DTC114ES
DTA144ES

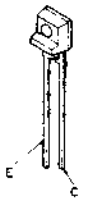
2SA1309
2SD1020TP
2SC3311

2SA933S

2SK381

FMS1

PT4831F1S



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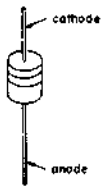
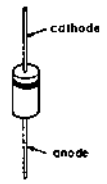
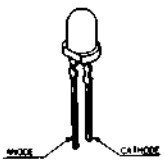
1SS119
1SS133
ERA82
RD13ES
RD6.2ES
UZ-33BSB



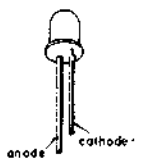
RD4.7EL
RD5.1EL
UZ-6.2BSB



SLR-34DC3



SLR-DC3
SLR-MC3
SLR-54VC3



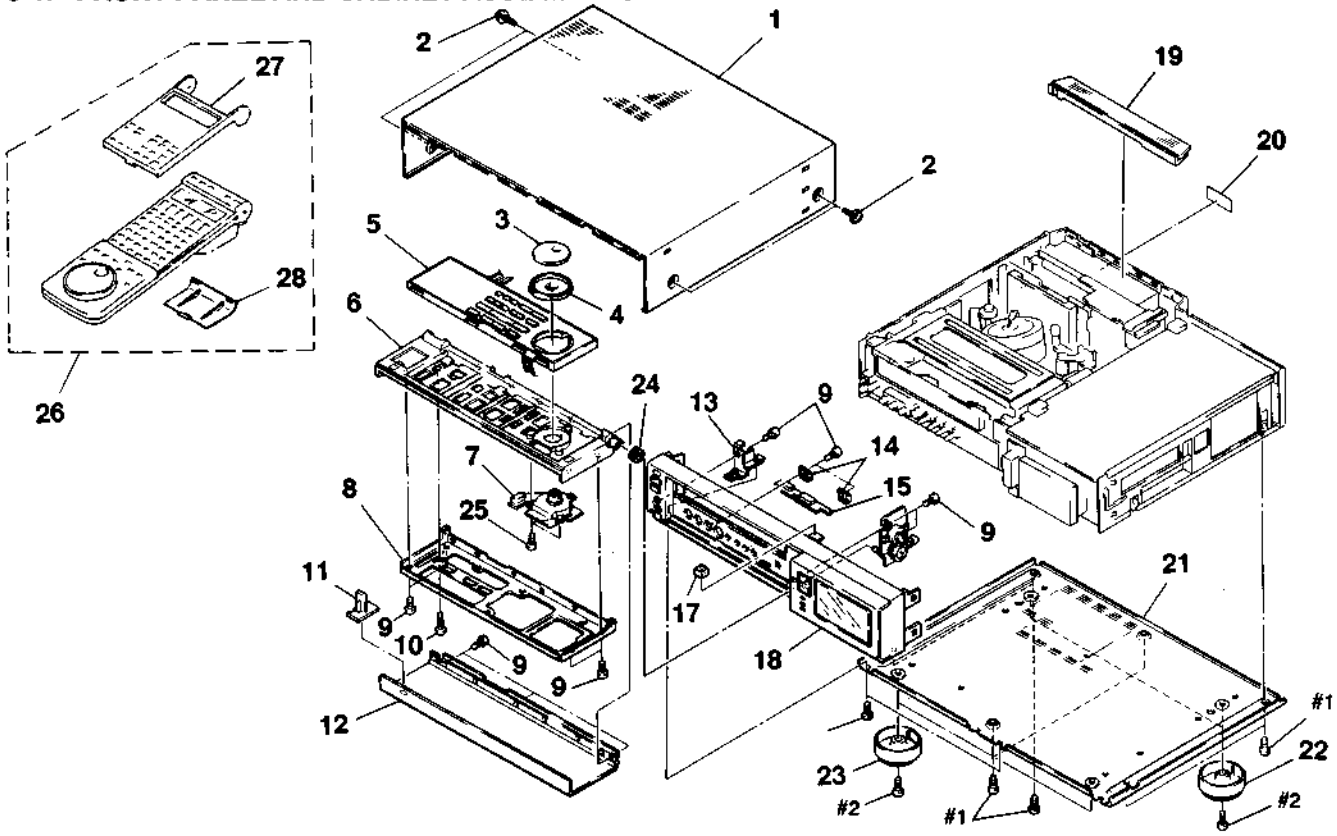
SECTION 5
EXPLODED VIEWS

NOTE:
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

Hardware (# mark) list is given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

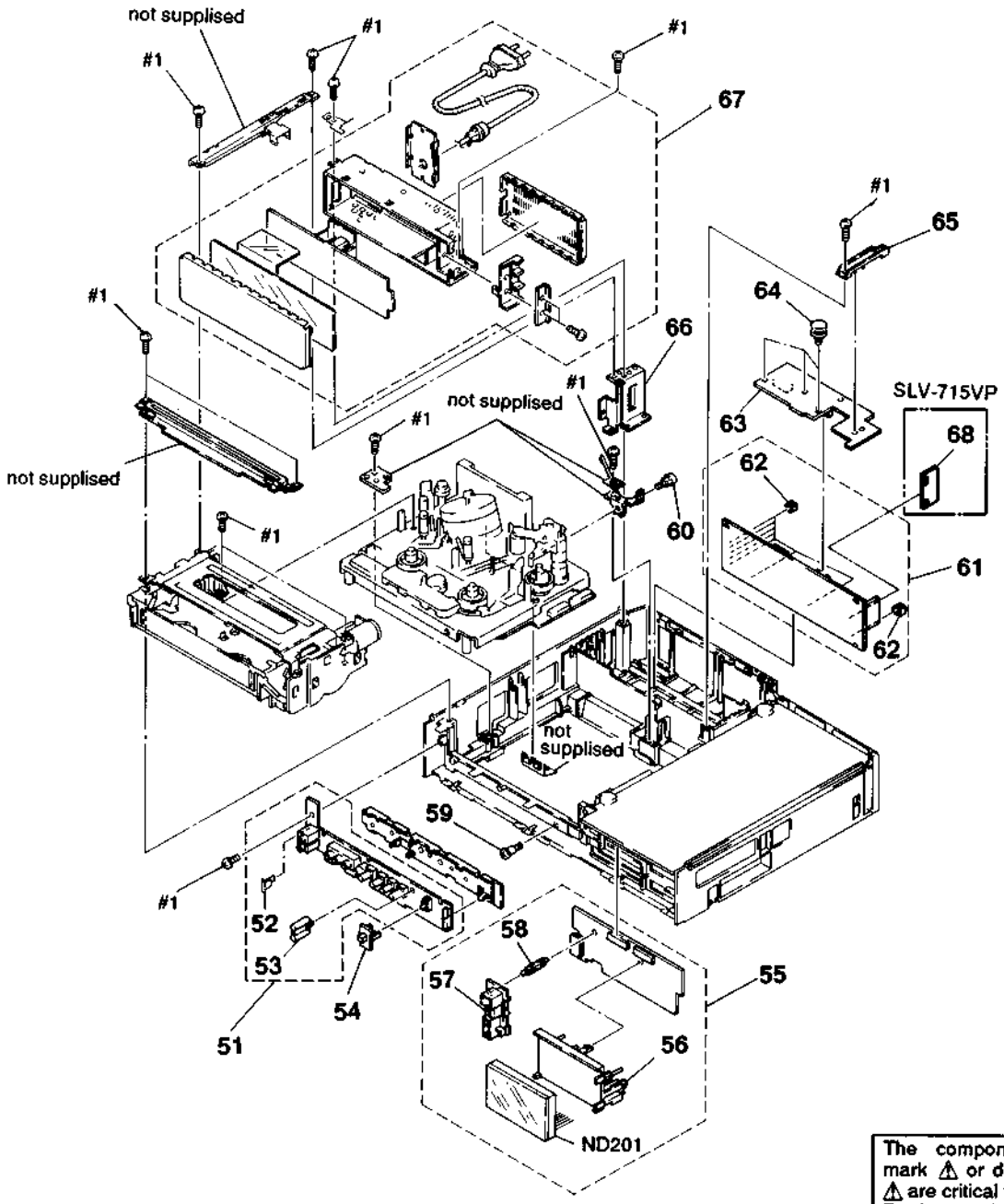
5-1. FRONT PANEL AND CABINET ASSEMBLIES



Ref. No.	Part No.	Description	Remark
1	3-743-670-51	COVER, UPPER	
2	3-710-901-21	SCREW (3X8), TAPPING	
3	3-744-018-11	DIAL, JOG	
4	3-744-019-21	RING, SHUTTLE	
5	1-466-346-31	SWITCH BLOCK, CONTROL	
6	X-3743-546-1	PLATE ASSY, ORNAMENTAL, DOOR	
7	* 1-635-216-11	JS-20 BOARD	
8	* 3-743-699-01	PLATE, FULCRUM, DOOR	
9	4-921-277-11	SCREW (B2.6X8), TAPPING, BIND	
10	4-921-277-21	SCREW (B2.6X12), TAPPING, BIND	
11	3-743-650-01	COVER, POWER LAMP	
12	X-3940-340-1	DOOR ASSY, FRONT (SLV-715)	
	X-3940-343-1	DOOR ASSY, FRONT (SLV-715VP)	
	X-3940-344-1	DOOR ASSY, FRONT (SLV-715UB)	
13	X-3743-536-1	PLATE (L) ASSY, FULCRUM	
14	* 3-743-640-11	RETAINER, PC BOARD	
15	* 1-635-218-21	TK-12 BOARD	

Ref. No.	Part No.	Description	Remark
16	A-6759-519-A	PLATE (R) BLOCK ASSY, FULCRUM	
17	9-911-841-XX	CUSHION (B)	
18	X-3940-339-1	PANEL ASSY, FRONT (SLV-715/UB)	
	X-3940-342-1	PANEL ASSY, FRONT (SLV-715VP)	
19	3-743-644-11	COVER, POWER	
20	* 3-941-608-01	LABEL, MODEL NUMBER (SLV-715)	
	* 3-941-609-01	LABEL, MODEL NUMBER (SLV-715VP)	
	* 3-941-611-01	LABEL, MODEL NUMBER (SLV-715UB)	
21	3-743-671-01	PLATE, BOTTOM	
22	3-749-328-01	FOOT	
23	3-940-667-11	FOOT	
24	* 3-744-012-02	RING, GEAR	
25	3-744-068-01	SCREW (2.6), TAPPING	
26	1-465-751-11	REMOTE COMMANDER (RMT-V5D)	
27	3-749-148-11	COVER, TIMER	
28	3-744-080-00	COVER, BATTERY	

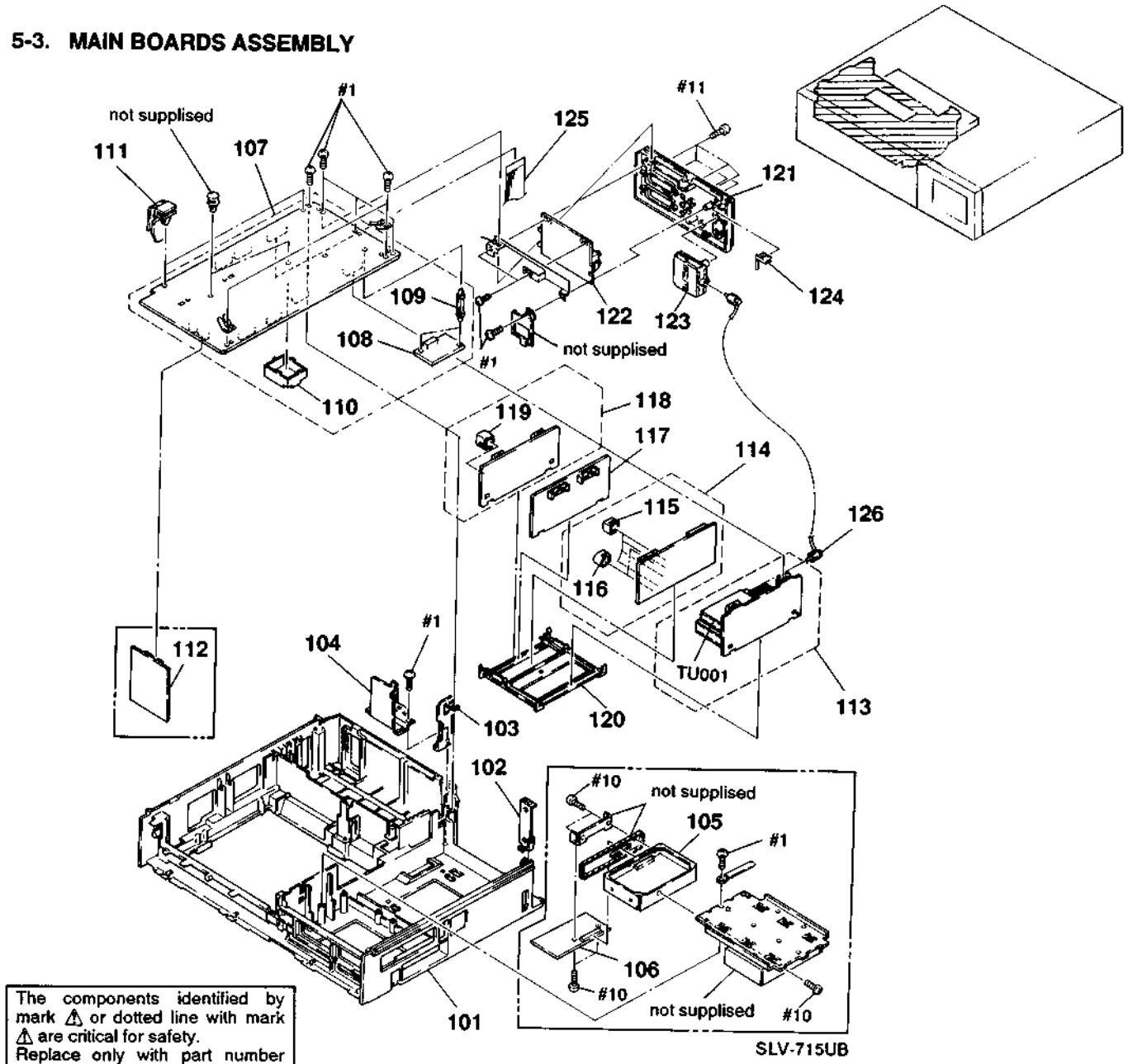
5-2. POWER SUPPLY BLOCK ASSEMBLY



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
51	A-6756-034-A	MF-101 BOARD, COMPLETE (SLV-715)	
	A-6756-043-A	MF-101 BOARD, COMPLETE (SLV-715VP)	
	A-6756-051-A	MF-101 BOARD, COMPLETE (SLV-715UB)	
52	* 3-749-306-01	PLATE GROUND, MF	
53	* 3-744-056-01	COVER, LED	
54	3-743-636-11	KNOB, SLIDE	
55	A-6756-033-A	MF-94 BOARD, COMPLETE (SLV-715)	
	A-6756-042-A	MF-94 BOARD, COMPLETE (SLV-715VP)	
	A-6756-052-A	MF-94 BOARD, COMPLETE (SLV-715UB)	
56	* 3-743-637-01	HOLDER, FL	
57	1-635-213-24	RM-41 BOARD	
58	* 3-682-419-51	HOLDER, PCB	
59	3-741-948-01	SCREW (3), SPECIAL (+) TAPPING	
60	3-736-055-01	SCREW (3X8), TAPPING	
61	A-6727-277-A	YC-65 BOARD, COMPLETE (SLV-715/UB)	
	A-6727-281-A	YC-65 BOARD, COMPLETE (SLV-715VP)	
62	3-729-971-01	COVER, VOLUME	
63	* 1-637-558-11	VI-97 BOARD	
64	3-682-057-21	SPACER (SMALL)	
65	* 3-743-641-01	RETAINER (RIGHT), YC	
66	* 3-743-643-01	BRACKET (LEFT), POWER	
67	⚠ 1-413-601-21	SWITCHING BLOCK (POWER BLOCK) (SLV-715)	
	⚠ 1-413-608-21	SWITCHING BLOCK (POWER BLOCK) (SLV-715VP)	
67	⚠ 1-413-609-21	SWITCHING BLOCK (POWER BLOCK) (SLV-715UB)	
68	A-6727-305-A	SD-4 BOARD, COMPLETE (SLV-715VP)	
ND201	1-519-633-11	INDICATION TUBE, FLUORESCENT	

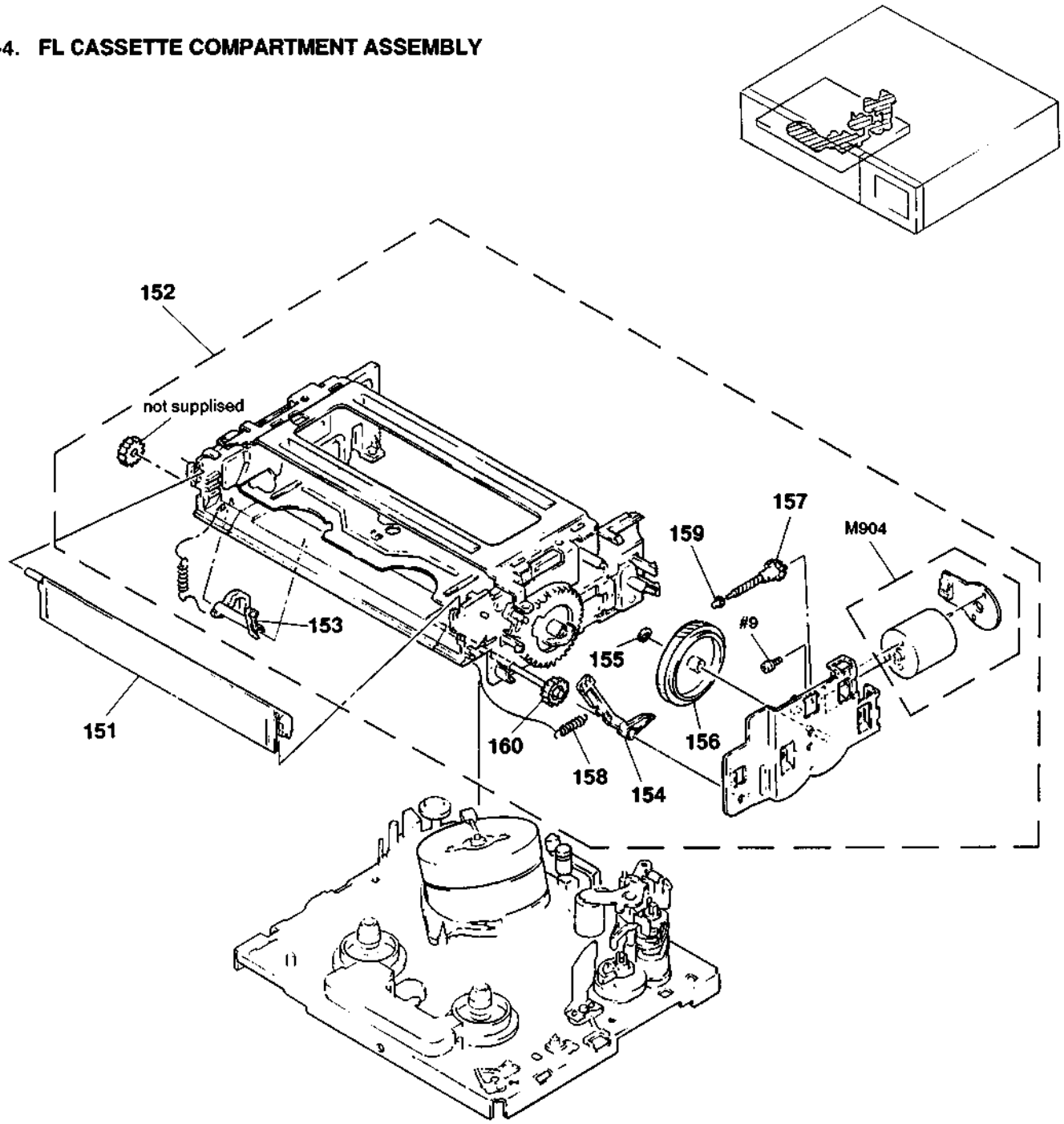
5-3. MAIN BOARDS ASSEMBLY



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

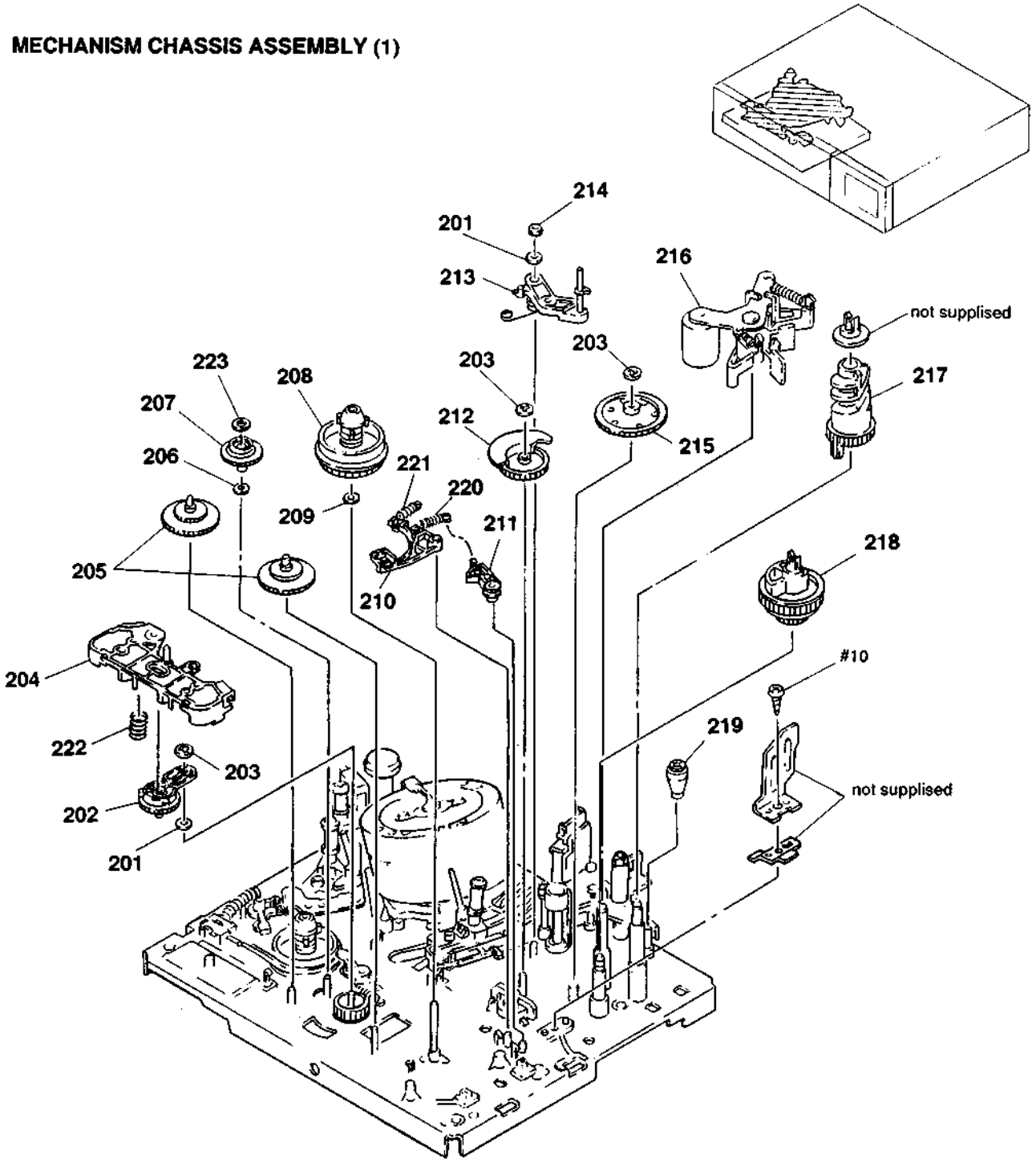
Ref. No.	Part No.	Description	Remark
101	A-6771-254-A	FRAME BLOCK ASSY	
102	* 3-743-676-01	PLATE (RIGHT), GROUND, MA	
103	* 3-743-675-01	PLATE (LEFT), GROUND, MA	
104	* 3-743-642-01	BRACKET (RIGHT), POWER	
105	* A-6721-376-A	NA-7 BOARD, COMPLETE (SLV-715UB)	
106	* 1-632-333-11	MM-1 BOARD (SLV-715UB)	
107	A-6717-597-A	MA-62 BOARD, COMPLETE (SLV-715VP)	
	A-6717-600-A	MA-62 BOARD, COMPLETE (SLV-715/UB)	
108	* 1-635-225-11	SI-10 BOARD	
109	* 3-682-419-51	HOLDER, PCB	
110	* 3-743-679-01	CASE, SHIELD, AU	
111	* 3-743-678-01	HINGE, PC BOARD	
112	* 1-637-444-11	VP-24 BOARD (SLV-715VP)	
113	A-6721-369-A	TU-120 BOARD, COMPLETE (SLV-715)	
	A-6721-372-A	TU-120 BOARD, COMPLETE (SLV-715VP)	
113	A-6721-375-A	TU-120 BOARD, COMPLETE (SLV-715UB)	
114	A-6713-377-A	HF-9 BOARD, COMPLETE	
115	3-729-971-01	COVER, VOLUME	
116	3-738-216-01	COVER, VOLUME	
117	A-6727-278-A	PI-20 BOARD, COMPLETE	
118	A-6727-279-A	CG-10 BOARD, COMPLETE (SLV-715/UB)	
	A-6727-282-A	CG-10 BOARD, COMPLETE (SLV-715VP)	
119	* 3-738-015-11	COVER (DIA-6) CARBON VR	
120	* 3-743-673-01	HOLDER, PC BOARD	
121	3-940-827-01	TERMINAL BOARD (PAL)	
122	* A-6754-215-A	IO-40 BOARD, COMPLETE	
123	⚠ 1-466-328-31	MODULATOR, RF (RFU-2027) (SLV-715/VP)	
	⚠ 1-466-347-31	MODULATOR, RF (RFU-2028) (SLV-715UB)	
124	* 3-743-677-01	PLATE, GROUND, RF	
125	1-575-746-11	WIRE, FLAT TYPE (22 CORE) (MA BOARD TO VI BOARD)	
126	1-558-924-41	CABLE, PIN	
TU001	⚠ 1-465-260-11	TUNER, ET (BTP-2C401) (SLV-715/VP)	
TU001	⚠ 1-465-262-11	TUNER, ET (SLV-715UB)	

5-4. FL CASSETTE COMPARTMENT ASSEMBLY



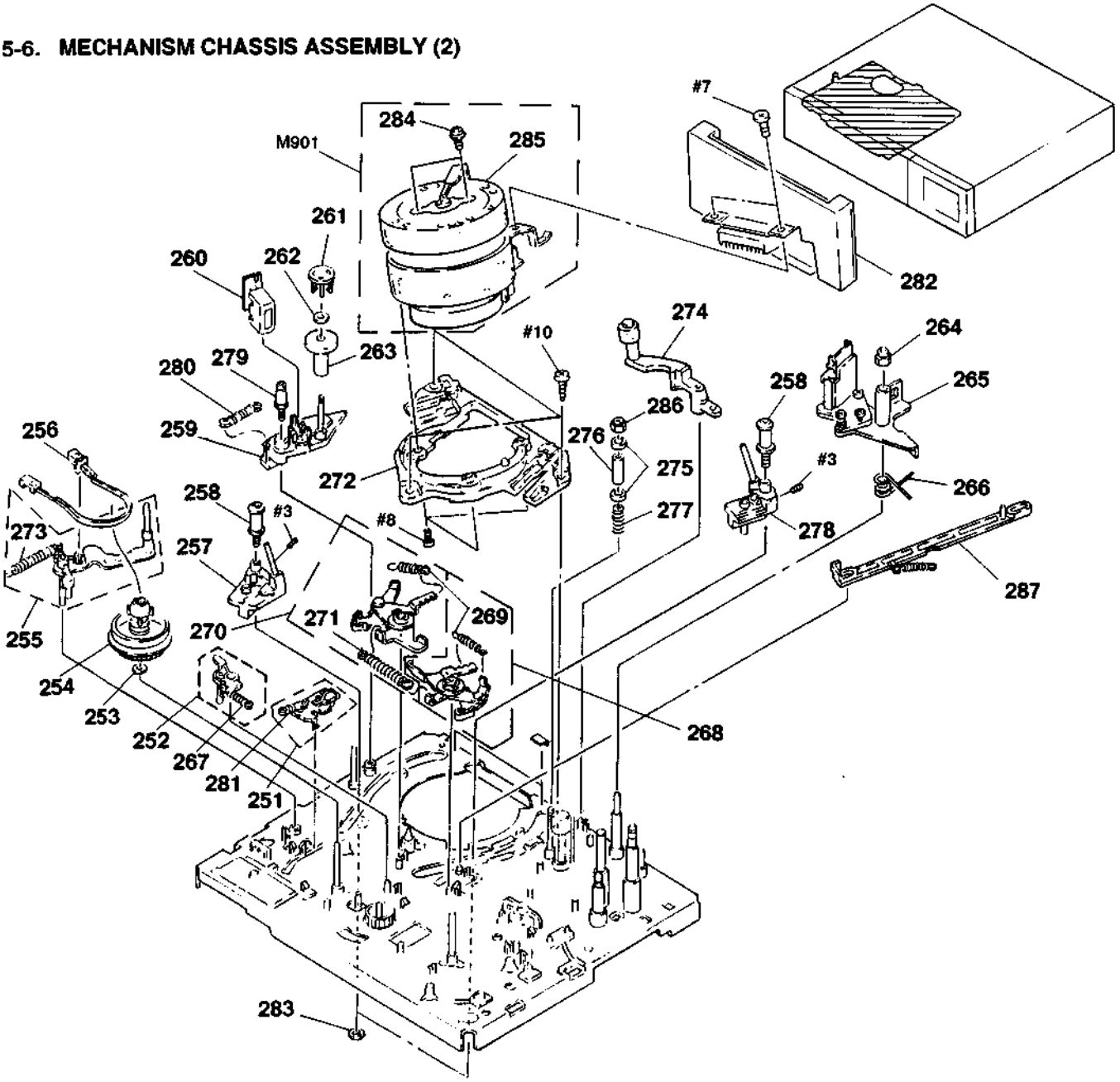
Ref. No.	Part No.	Description	Remark
151	X-3940-341-1	DOOR ASSY, FL	
152	A-6751-426-A	FL BLOCK ASSY (F3)	
153	3-736-163-01	LEVER, ERASING PROTECTION	
154	3-736-167-01	ARM, DOOR SWITCHING	
155	3-696-510-01	WASHER (3), STOPPER	
156	3-736-164-01	WHEEL (FL), WORM	
157	3-736-100-01	GEAR (FL), WORM	
158	3-738-285-01	SPRING, TENSION	
159	3-716-144-02	RETAINER, WORM	
160	X-3727-775-2	GEAR (RIGHT) ASSY, MIDWAY	
M904	X-3727-784-1	MOTOR ASSY (LOADING MOTOR)	

5-5. MECHANISM CHASSIS ASSEMBLY (1)



Ref. No.	Part No.	Description	Remark
201	3-701-438-11	WASHER, 2.5	
202	X-3727-776-1	ARM ASSY, PENDULUM	
203	3-669-595-00	WASHER (2), STOPPER	
204	3-736-172-02	RELEASE, LOCK, REEL	
205	X-3727-795-1	GEAR ASSY, RELAY	
206	3-736-074-01	RETAINER (SMALL), THRUST	
207	3-736-037-01	GEAR, REW	
208	X-3727-798-1	TABLE ASSY, REEL	
209	3-738-212-21	RETAINER, THRUST, REEL TABLE	
210	X-3727-764-1	BRAKE ASSY, T SOFT	
211	3-736-105-01	ARM, REV BRAKE	
212	3-736-143-01	GEAR, RVS CAM	
213	X-3729-911-1	ARM ASSY, RVS	
214	3-736-740-01	NUT (M2X0.25), NYLON	
215	3-736-116-01	GEAR, COMMUNICATION	
216	X-3727-770-1	PINCH ROLLER BLOCK ASSY	
217	3-736-136-01	CAM, ELEVATOR	
218	3-943-700-01	GEAR (LO), PRESS CAM	
219	3-738-250-01	SCREW, AC ADJUSTMENT	
220	3-743-608-02	SPRING (REV BRAKE), TENSION	
221	3-736-024-01	SPRING, TENSION	
222	3-736-020-11	SPRING, COMPRESSION	
223	3-736-069-01	RETAINER, SPRING	

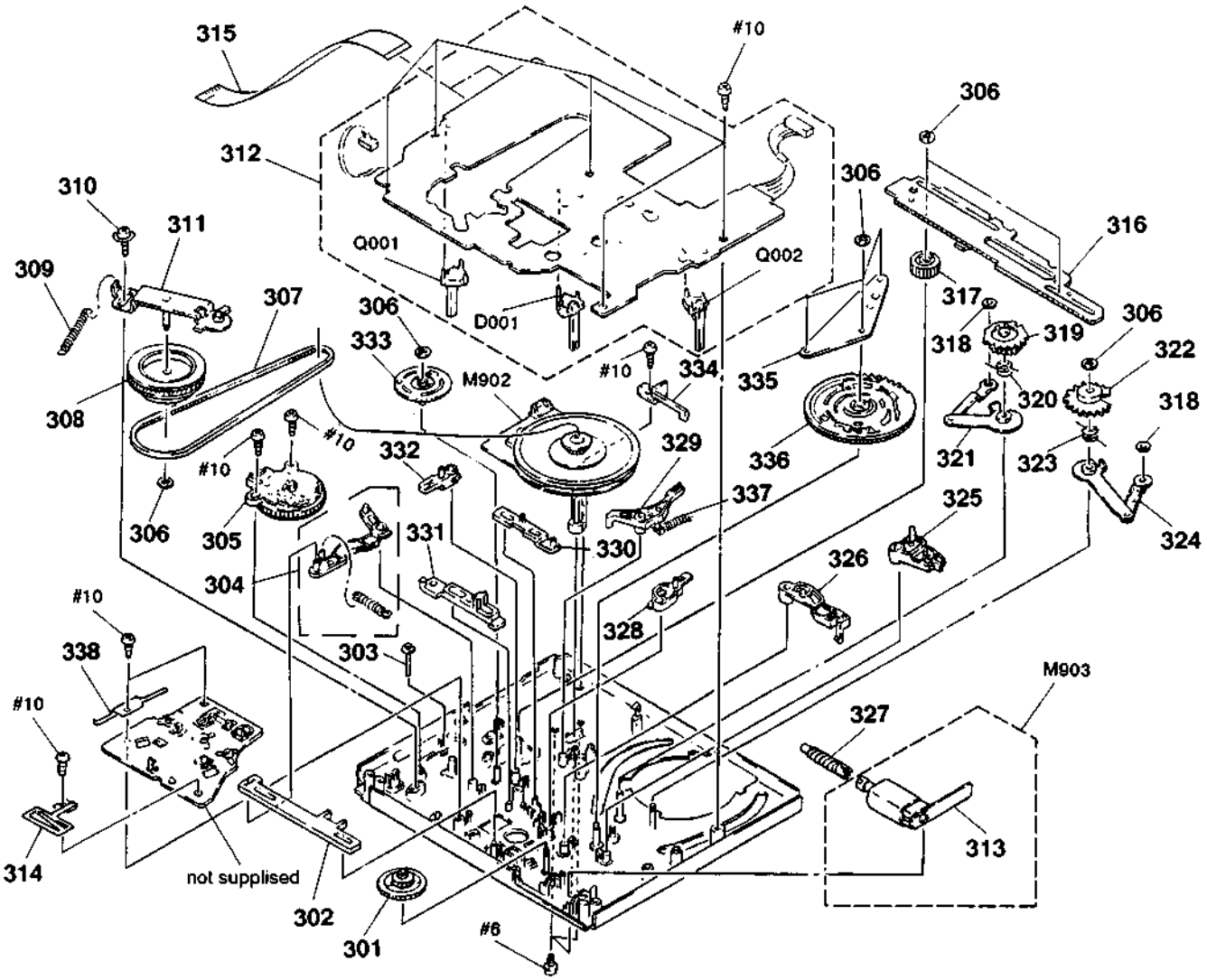
5-6. MECHANISM CHASSIS ASSEMBLY (2)



Ref. No.	Part No.	Description	Remark
251	A-6759-451-A	TAKE-UP BLOCK ASSY, S	
252	X-3727-773-1	ARM ASSY, S SOFT BRAKE	
253	3-738-212-21	RETAINER, THRUST, REEL TABLE	
254	X-3729-935-3	TABLE ASSY, REEL, SUPPLY	
255	X-3727-772-1	ARM ASSY, TENSION REGULATOR	
256	X-3727-797-1	BAND ASSY, TENSION REGULATOR	
257	X-3727-786-1	SHUTTLE (LEFT) ASSY	
258	X-3733-301-1	ROLLER ASSY, GUIDE	
259	X-3727-767-1	BASE ASSY, STABILIZER	
260	1-543-647-11	HEAD, FE (FULL ERASE HEAD)	
261	3-736-082-01	RETAINER, TS THRUST	
262	3-741-925-01	RING, RETAINING	
263	X-3727-771-1	STABILIZER ASSY, TAPE	
264	3-942-867-01	NUT, AC HEIGHT ADJUSTMENT	
265	A-6761-129-A	HEAD BLOCK ASSY, ACE	
266	3-736-042-01	SPRING, TORSION	
267	3-736-047-01	SPRING (S SOFT), TENSION	
268	X-3729-926-1	BRAKE ASSY (2), T	
269	3-738-220-01	SPRING (MAIN BRAKE 2), TENSION	

Ref. No.	Part No.	Description	Remark
270	X-3729-925-1	BRAKE ASSY (2), S	
271	3-738-221-01	SPRING (MAIN BRAKE 1), TENSION	
272	X-3727-791-2	BASE ASSY, DRUM	
273	3-733-389-11	SPRING, TENSION	
274	A-6747-267-A	ARM BLOCK ASSY (S), C ROLLER	
275	3-736-733-01	FLANGE, 7 GUIDE	
276	3-736-730-01	SLEEVE, #7 GUIDE	
277	3-749-099-01	SPRING (#7 GUIDE), COMPRESSION	
278	X-3727-787-1	SHUTTLE (RIGHT) ASSY	
279	X-3727-788-1	ROLLER ASSY, GUIDE, #2	
280	3-736-745-01	SPRING	
281	3-738-284-01	SPRING, TENSION	
282	A-6727-137-A	RP-63 BOARD, COMPLETE	
283	3-736-073-01	SLIDER, POLYETHYLENE	
284	2-643-205-01	SCREW (PSW) 3X8	
285	1-550-536-11	DRUM ASSY, ROTARY UPPER (DZR-17-R)	
286	3-942-866-01	NUT (M3) (3X0.5), NYLON	
287	* X-3743-517-1	LEVER ASSY(S), RELEASE, C ROLLER	
M901	1-550-535-11	DRUM ASSY (DZH-17A-R)	

5-7. MECHANISM CHASSIS ASSEMBLY (3)



Ref. No.	Part No.	Description	Remark
301	3-736-015-01	WHEEL (CAM), WORM	
302	3-736-158-01	PLATE, SLIDE, PENDULUM	
303	3-736-091-01	PIN, SWITCH	
304	X-3729-924-1	ARM ASSY, PENDULUM FUNCTION	
305	1-571-920-11	SWITCH, ROTARY	
306	3-669-595-00	WASHER (2), STOPPER	
307	3-736-013-01	BELT, TIMING	
308	X-3727-782-1	PULLEY ASSY	
309	3-736-089-01	SPRING, TENSION	
310	3-733-386-01	SCREW (3X8), WASHER	
311	X-3727-761-1	ARM ASSY, ADJUSTMENT	
312	A-6754-228-A	MOUNTED PCB (ALS), MD-49	
313	* 1-633-460-11	CA-41 BOARD (ON CAM MOTOR)	
314	* 3-744-024-01	PLATE, GROUND, MD	
315	1-575-745-11	WIRE, FLAT TYPE (19 CORE) (MA BOARD TO MD BOARD)	
316	3-736-177-01	PLATE, SLIDE, MODE	
317	3-733-394-01	GEAR, RVS RELAY	
318	3-736-073-01	SLIDER, POLYETHYLENE	
319	3-736-148-01	GEAR (RIGHT), THREADING	
320	3-736-092-01	SPRING (RIGHT), TORSION	
321	X-3727-777-1	ARM (RIGHT) ASSY, THREADING	

Ref. No.	Part No.	Description	Remark
322	3-736-147-01	GEAR (LEFT), THREADING	
323	3-736-040-01	SPRING (LEFT), TORSION	
324	X-3727-778-1	ARM (LEFT) ASSY, THREADING	
325	3-736-142-01	ARM, TENSION REGULATOR FUNCTION	
326	3-736-140-01	ARM, S TAKE-UP	
327	3-733-395-01	GEAR (CAM), WORM	
328	3-733-397-01	ARM, BRAKE FUNCTION	
329	X-3727-769-1	BRAKE ASSY, CAP	
330	3-733-398-01	PLATE, SLIDE, BRAKE	
331	3-736-103-01	PLATE, SLIDE, LIMITER	
332	3-736-016-01	ARM, LIMITER FUNCTION	
333	3-736-170-01	GEAR, RK8 CAM	
334	3-736-744-01	RETAINER, ROTOR	
335	3-733-396-01	HOLDER, CAM GEAR	
336	3-736-176-01	GEAR, CAM	
337	3-738-237-01	SPRING (CAP BRAKE), TENSION	
338	3-741-950-01	SPRING (AT), LEAF, SC GROUND	
D001	8-719-985-00	DIODE GL451VS1 (LED)	
M902	8-835-395-01	MOTOR, DC U-26G (CAPSTAN MOTOR)	
M903	X-3733-302-1	MOTOR ASSY (CAM MOTOR)	
Q001	8-729-926-31	PHOTO TRANSISTOR PT484F1S	
Q002	8-729-926-31	PHOTO TRANSISTOR PT484F1S	

SECTION 6
ELECTRICAL PARTS LIST

CG

NOTE:

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- Items marked "＊" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: μ , for example:
  uA...: μA..., uPA...: μPA...,
  uPB...: μPB..., uPC...: μPC...,
  uPD...: μPD...
- CAPACITORS
  uF : μF
- COILS
  uH : μH

Ref. No.	Part No.	Description			Remark
	＊ A-6727-279-A	CG-10 BOARD, COMPLETE (SLV-715/UB)			
		**********			
	＊ A-6727-282-A	CG-10 BOARD, COMPLETE (SLV-715VP)			
		**********			
		(Ref. No 3,000 Series)			
	＊ 3-738-015-01	COVER, (DIA. 6) CARBON VR			
		< CAPACITOR >			
C685	1-124-126-00	ELECT	47uF	20% 10V	
C686	1-162-306-11	CERAMIC	0.01uF	20% 16V	
C687	1-102-980-00	CERAMIC	270PF	5% 50V	
C688	1-102-980-00	CERAMIC	270PF	5% 50V	
C689	1-164-083-11	CERAMIC	680PF	10% 50V	
C690	1-130-487-00	MYLAR	0.022uF	5% 50V	
C691	1-124-903-11	ELECT	1uF	20% 50V	
C692	1-162-306-11	CERAMIC	0.01uF	20% 16V	
C693	1-162-291-31	CERAMIC	560PF	10% 50V	
C801	1-161-061-11	CERAMIC	0.068uF	10% 50V	
C802	1-124-287-00	ELECT	10uF	20% 10V	
C840	1-162-211-11	CERAMIC	33PF	5% 50V	(SLV-715VP)
C852	1-162-209-31	CERAMIC	27PF	5% 50V	
C853	1-162-306-11	CERAMIC	0.01uF	20% 16V	
C854	1-124-584-00	ELECT	100uF	20% 10V	
C855	1-162-199-31	CERAMIC	10PF	5% 50V	
C856	1-162-201-31	CERAMIC	12PF	5% 50V	
C857	1-162-203-31	CERAMIC	15PF	5% 50V	
C858	1-162-205-31	CERAMIC	18PF	5% 50V	
C863	1-124-903-11	ELECT	1uF	20% 50V	
C864	1-162-217-31	CERAMIC	56PF	5% 50V	
C865	1-162-306-11	CERAMIC	0.01uF	20% 16V	
C866	1-162-306-11	CERAMIC	0.01uF	20% 16V	
C868	1-162-306-11	CERAMIC	0.01uF	20% 16V	
C876	1-162-306-11	CERAMIC	0.01uF	20% 16V	
C890	1-162-306-11	CERAMIC	0.01uF	20% 16V	
C895	1-124-126-00	ELECT	47uF	20% 10V	
C901	1-162-294-11	CERAMIC	1000PF	10% 50V	(SLV-715VP)
		< CONNECTOR >			
CN585	1-568-073-11	CONNECTOR (RECEPTALE) 8P			
CN586	1-568-073-11	CONNECTOR (RECEPTALE) 8P			
		< TRIMMER >			
CV851	1-141-245-00	CAP, TRIMMER 30PF			
		< DIODE >			
D851	8-719-911-19	DIODE 1SS119			
D852	8-719-911-19	DIODE 1SS119			
		< IC >			
IC685	8-759-996-03	IC LVA519S			
IC851	8-759-634-22	IC M50554-182SP			
		< INDUCTOR >			
JW026	1-410-397-21	FERRITE BEAD INDUCTOR			
JW027	1-410-324-11	INDUCTOR 4.7UH			
		< COIL >			
L840	1-410-515-11	INDUCTOR 300uH			(SLV-715VP)
L851	⚠ 1-410-521-11	INDUCTOR 100uH			
L852	1-410-521-11	INDUCTOR 100uH			
L853	1-410-521-11	INDUCTOR 100uH			
L856	1-410-423-11	INDUCTOR 22uH			
L861	1-410-521-11	INDUCTOR 100uH			
L862	1-410-521-11	INDUCTOR 100uH			

CG HF-9

Ref. No.	Part No.	Description	Remark
		< TRANSISTOR >	
Q801	8-729-900-61	TRANSISTOR DTA114ES	
Q802	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q803	8-729-900-89	TRANSISTOR DTC144ES	
Q804	8-729-900-65	TRANSISTOR DTA144ES	
Q840	8-729-900-61	TRANSISTOR DTA114ES (SLV-715VP)	
Q853	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q855	8-729-423-37	TRANSISTOR 2SC3311A-QRS (SLV-715VP)	
Q856	8-729-920-68	TRANSISTOR 2SA933S-QR	
Q857	8-729-920-70	TRANSISTOR 2SC1740S-QR	
Q901	8-729-900-89	TRANSISTOR DTC144ES (SLV-715VP)	
		< RESISTOR >	
R685	1-249-429-11	CARBON 10K 5% 1/4W	
R686	1-249-429-11	CARBON 10K 5% 1/4W	
R687	1-249-422-11	CARBON 2.7K 5% 1/4W	
R688	1-249-434-11	CARBON 27K 5% 1/4W	
R689	1-249-430-11	CARBON 12K 5% 1/4W	
R690	1-247-903-00	CARBON 1M 5% 1/4W	
R691	1-249-414-11	CARBON 560 5% 1/4W	
R801	1-249-425-11	CARBON 4.7K 5% 1/4W	
R802	1-249-437-11	CARBON 47K 5% 1/4W	
R803	1-249-425-11	CARBON 4.7K 5% 1/4W	
R804	1-249-441-11	CARBON 100K 5% 1/4W	
R840	1-249-429-11	CARBON 10K 5% 1/4W (SLV-715VP)	
R841	1-249-429-11	CARBON 10K 5% 1/4W (SLV-715VP)	
R851	1-249-423-11	CARBON 3.3K 5% 1/4W	
R852	1-249-424-11	CARBON 3.9K 5% 1/4W	
R855	1-249-421-11	CARBON 2.2K 5% 1/4W	
R856	1-249-416-11	CARBON 820 5% 1/4W	
R857	1-249-422-11	CARBON 2.7K 5% 1/4W	
R858	1-249-429-11	CARBON 10K 5% 1/4W	
R859	1-249-423-11	CARBON 3.3K 5% 1/4W	
R860	1-249-421-11	CARBON 2.2K 5% 1/4W	
R866	1-249-413-11	CARBON 470 5% 1/4W	
R867	1-249-417-11	CARBON 1K 5% 1/4W	
R868	1-249-424-11	CARBON 3.9K 5% 1/4W	
R870	1-249-413-11	CARBON 470 5% 1/4W	
R873	1-249-416-11	CARBON 820 5% 1/4W	
R877	1-249-435-11	CARBON 33K 5% 1/4W	
R878	1-249-426-11	CARBON 5.6K 5% 1/4W	
R879	1-249-413-11	CARBON 470 5% 1/4W	
R890	1-249-441-11	CARBON 100K 5% 1/4W	
R901	1-249-417-11	CARBON 1k 5% 1/4W (SLV-715VP)	
R902	1-249-406-11	CARBON 120 5% 1/4W	
R903	1-249-413-11	CARBON 470 5% 1/4W	
R904	1-249-429-11	CARBON 10K 5% 1/4W	
R905	1-249-429-11	CARBON 10K 5% 1/4W	

Ref. No.	Part No.	Description	Remark
		< VARIABLE RESISTOR >	
RV685	1-238-015-11	RES, ADJ, CARBON 4.7K	
		< CRYSTAL >	
X851	1-577-289-11	VIBRATOR, CRYSTAL (17.7MHz)	

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\# A-6713-377-A HF-9 BOARD, COMPLETE

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(Ref. No 7,000 Series)

		< CAPACITOR >		
C001	1-124-239-00	ELECT	6.9uF 20%	10V
C002	1-130-487-00	MYLAR	0.022uF 5%	50V
C003	1-123-369-00	ELECT	4.7uF 20%	25V
C004	1-130-475-00	MYLAR	0.0022uF 5%	50V
C005	1-124-120-11	ELECT	220uF 20%	25V
C006	1-124-907-11	ELECT	10uF 20%	50V
C007	1-130-483-00	MYLAR	0.01uF 5%	50V
C009	1-123-381-00	ELECT	2.2uF 20%	100V
C011	1-123-356-00	ELECT	10uF 20%	16V
C012	1-123-356-00	ELECT	10uF 20%	16V
C013	1-126-101-11	ELECT	100uF 20%	16V
C014	1-126-157-11	ELECT	10uF 20%	16V
C015	1-126-157-11	ELECT	10uF 20%	16V
C016	1-124-903-11	ELECT	1uF 20%	50V
C017	1-124-257-00	ELECT	2.2uF 20%	50V
C018	1-126-101-11	ELECT	100uF 20%	16V
C019	1-123-356-00	ELECT	10uF 20%	16V
C020	1-123-356-00	ELECT	10uF 20%	16V
C022	1-123-381-00	ELECT	2.2uF 20%	100V
C024	1-130-483-00	MYLAR	0.01uF 5%	50V
C025	1-124-907-11	ELECT	10uF 20%	50V
C026	1-124-120-11	ELECT	220uF 20%	25V
C027	1-130-475-00	MYLAR	0.0022uF 5%	50V
C028	1-123-369-00	ELECT	4.7uF 20%	25V
C029	1-130-487-00	MYLAR	0.022uF 5%	50V
C030	1-124-239-00	ELECT	6.9uF 20%	10V
C031	1-126-163-11	ELECT	4.7uF 20%	50V
C032	1-126-301-11	ELECT	1uF 20%	50V
C033	1-123-380-00	ELECT	1uF 20%	50V
C034	1-130-471-00	MYLAR	0.001uF 5%	50V
C035	1-164-232-11	CERAMIC CHIP	0.01uF	50V
C036	1-123-369-00	ELECT	4.7uF 20%	25V
C037	1-123-369-00	ELECT	4.7uF 20%	25V
C038	1-164-232-11	CERAMIC CHIP	0.01uF	50V
C041	1-164-232-11	CERAMIC CHIP	0.01uF	50V

Ref. No.	Part No.	Description			Remark
C042	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C043	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C044	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C045	1-130-493-00	MYLAR	0.068uF	5%	50V
C050	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C051	1-130-483-00	MYLAR	0.01uF	5%	50V
C052	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C053	1-124-122-11	ELECT	100uF	20%	50V
C054	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C055	1-123-369-00	ELECT	4.7uF	20%	25V
C056	1-123-369-00	ELECT	4.7uF	20%	25V
C057	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C058	1-130-471-00	MYLAR	0.001uF	5%	50V
C059	1-123-380-00	ELECT	1uF	20%	50V
C060	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C061	1-126-101-11	ELECT	100uF	20%	16V
C065	1-163-038-00	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
CN001	* 1-563-258-11	SOCKET, CONNECTOR 15P			
CN002	* 1-563-258-11	SOCKET, CONNECTOR 15P			
		< DIODE >			
D001	8-719-911-19	DIODE 1SS119			
D002	8-719-911-19	DIODE 1SS119			
D003	8-719-104-34	DIODE 1S2835			
		< FILTER >			
FL001	1-236-569-11	BPF (1.7MHz)			
FL002	1-236-570-11	BPF (1.3MHz)			
		< IC >			
IC001	8-759-420-18	IC AN3972FC			
IC002	8-759-420-15	IC AN3932S			
IC003	8-759-982-21	IC RC78L05A			
IC004	8-759-924-46	IC BA4560F			
IC005	8-759-946-44	IC TK15120M			
IC006	8-759-946-44	IC TK15120M			
		< RESISTOR >			
R001	1-249-417-11	CARBON	1K	5%	1/4W
R002	1-216-075-00	METAL CHIP	12K	5%	1/10W
R003	1-216-049-00	METAL CHIP	1K	5%	1/10W
R004	1-214-723-00	METAL	560	1%	1/4W
R005	1-216-047-00	METAL CHIP	820	5%	1/10W
R006	1-216-113-00	METAL CHIP	470K	5%	1/10W
R007	1-216-097-00	METAL CHIP	100K	5%	1/10W
R008	1-216-069-00	METAL CHIP	6.8K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R009	1-216-295-00	METAL CHIP	0	5%	1/10W
R011	1-216-097-00	METAL CHIP	100K	5%	1/10W
R012	1-216-097-00	METAL CHIP	100K	5%	1/10W
R013	1-216-097-00	METAL CHIP	100K	5%	1/10W
R014	1-216-047-00	METAL CHIP	820	5%	1/10W
R015	1-214-723-00	METAL	560	1%	1/4W
R016	1-216-075-00	METAL CHIP	12K	5%	1/10W
R017	1-216-049-00	METAL CHIP	1K	5%	1/10W
R018	1-249-417-11	CARBON	1K	5%	1/4W
R019	1-216-043-00	METAL CHIP	560	5%	1/10W
R020	1-216-073-00	METAL CHIP	10K	5%	1/10W
R021	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R022	1-216-093-00	METAL CHIP	68K	5%	1/10W
R023	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R024	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R025	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R026	1-216-083-00	METAL CHIP	27K	5%	1/10W
R027	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R028	1-216-076-00	METAL GLAZE	13K	5%	1/10W
R029	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R032	1-216-073-00	METAL CHIP	10K	5%	1/10W
R033	1-216-049-00	METAL CHIP	1K	5%	1/10W
R034	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R035	1-249-427-11	CARBON	6.8K	5%	1/4W
R036	1-249-427-11	CARBON	6.8K	5%	1/4W
R037	1-216-085-00	METAL CHIP	33K	5%	1/10W
R041	1-216-097-00	METAL CHIP	100K	5%	1/10W
R042	1-249-428-11	CARBON	8.2K	5%	1/4W
R043	1-249-428-11	CARBON	8.2K	5%	1/4W
R044	1-249-430-11	CARBON	12K	5%	1/4W
R045	1-249-430-11	CARBON	12K	5%	1/4W
R048	1-249-441-11	CARBON	100K	5%	1/4W
R049	1-249-441-11	CARBON	100K	5%	1/4W
R068	1-216-083-00	METAL CHIP	27K	5%	1/10W
R201	1-216-295-00	METAL CHIP	0	5%	1/10W
R202	1-216-295-00	METAL CHIP	0	5%	1/10W
R203	1-216-295-00	METAL CHIP	0	5%	1/10W
R301	1-216-296-00	METAL CHIP	0	5%	1/8W
R302	1-216-296-00	METAL CHIP	0	5%	1/8W
R303	1-216-296-00	METAL CHIP	0	5%	1/8W
		< VARIABLE RESISTOR >			
RV002	1-230-522-11	RES, ADJ, METAL 4.7K			
RV003	1-238-167-11	RES, ADJ, CARBON 22K			
RV004	1-238-167-11	RES, ADJ, CARBON 22K			
RV005	1-230-498-11	RES, ADJ, CARBON 47K			
RV006	1-230-498-11	RES, ADJ, CARBON 47K			
RV007	1-238-167-11	RES, ADJ, CARBON 22K			

HF-9 IO-40 JS-20

Ref.No.	Part No.	Description			Remark
RV008	1-230-522-11	RES, ADJ, METAL 4.7K			
RV009	1-238-167-11	RES, ADJ, CARBON 22K			

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* A-6756-101-A IO-40 BOARD, COMPLETE
****
(Ref.No 8,000 Series)

< CAPACITOR >

C002	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C004	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C006	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C008	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C010	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C012	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C013	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C014	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C015	1-163-833-00	CERAMIC CHIP	0.068uF		25V

< CONNECTOR >

CN101	1-569-773-11	CONNECTOR, BOARD TO BOARD 17P
CN102	1-569-774-11	CONNECTOR, BOARD TO BOARD 19P

< JACK >

CNJ002	1-507-792-31	JACK (CONTROL S IN)
CNJ003	1-507-792-31	JACK (CONTROL S OUT)
CNJ004	1-561-534-41	SOCKET 21P (EURO AV IN)
CNJ005	1-561-534-41	SOCKET 21P (EURO AV IN/OUT)
CNJ006	1-565-727-11	JACK, PIN 3P (LINE OUT)

< DIODE >

D001	8-719-106-08	DIODE RD6.2M-B2
D002	8-719-106-08	DIODE RD6.2M-B2
D006	8-719-106-08	DIODE RD6.2M-B2
D007	8-719-106-08	DIODE RD6.2M-B2
D008	8-719-106-08	DIODE RD6.2M-B2
D009	8-719-106-08	DIODE RD6.2M-B2
D010	8-719-106-08	DIODE RD6.2M-B2
D013	8-719-106-08	DIODE RD6.2M-B2
D014	8-719-106-08	DIODE RD6.2M-B2
D015	8-719-106-08	DIODE RD6.2M-B2
D016	8-719-106-08	DIODE RD6.2M-B2
D019	8-719-106-88	DIODE RD15M-B1

< COIL >

L001	1-410-336-11	INDUCTOR 220uH
L002	1-410-336-11	INDUCTOR 220uH
L003	1-410-336-11	INDUCTOR 220uH
L004	1-410-336-11	INDUCTOR 220uH
L005	1-410-336-11	INDUCTOR 220uH
L006	1-410-336-11	INDUCTOR 220uH

< TRANSISTOR >

Q001	8-729-901-06	TRANSISTOR	DTA144EK
Q002	8-729-901-01	TRANSISTOR	DTC144EK

< RESISTOR >

R002	1-216-049-00	METAL CHIP	1K	5%	1/10W
R004	1-216-022-00	METAL CHIP	75	5%	1/10W
R005	1-216-295-00	METAL CHIP	0	5%	1/10W
R007	1-216-295-00	METAL CHIP	0	5%	1/10W
R009	1-216-031-00	METAL CHIP	180	5%	1/10W
R010	1-216-031-00	METAL CHIP	180	5%	1/10W
R011	1-216-295-00	METAL CHIP	0	5%	1/10W
R013	1-216-295-00	METAL CHIP	0	5%	1/10W
R015	1-216-022-00	METAL CHIP	75	5%	1/10W
R016	1-216-049-00	METAL CHIP	1K	5%	1/10W
R017	1-216-049-00	METAL CHIP	1K	5%	1/10W
R018	1-216-077-00	METAL CHIP	15K	5%	1/10W
R019	1-216-077-00	METAL CHIP	15K	5%	1/10W
R020	1-216-295-00	METAL CHIP	0	5%	1/10W
R022	1-216-295-00	METAL CHIP	0	5%	1/10W
R023	1-216-049-00	METAL CHIP	1K	5%	1/10W

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* 1-635-216-11 JS-20 BOARD (Ref.No 8,000 Series)
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< CONNECTOR >

CN901	* 1-563-610-11	CONNECTOR, FLEXIBLE 7P

< SWITCH >

S901	1-572-384-11	SWITCH, ROTARY (JOG/SHUTTLE)

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Ref. No.	Part No.	Description			Remark
	* A-6717-597-A	MA-62 BOARD, COMPLETE (SLV-715VP)			
		**********			
	* A-6717-600-A	MA-62 BOARD, COMPLETE (SLV-715/UB)			
		**********			
		(Ref. No 4,000 Series)			
	* 1-635-225-11	SI-10 BOARD (Ref. No 4,000 Series)			
		**********			
	9-911-839-XX	RETAINER (B), MICROPHONE			
	* 3-682-419-41	HOLDER, P.C.B			
	* 3-743-679-01	CASE, SHIELD, AU			
	9-911-840-XX	CUSHION, RUBBER			
		< CAPACITOR >			
C101	1-124-907-11	ELECT	10uF	20%	50V
C102	1-124-907-11	ELECT	10uF	20%	50V
C103	1-124-907-11	ELECT	10uF	20%	50V
C104	1-124-907-11	ELECT	10uF	20%	50V
C200	1-162-294-31	CERAMIC	0.001uF	10%	50V
C231	1-124-477-11	ELECT	47uF	20%	25V
C232	1-124-471-00	ELECT	1000uF	20%	6.3V
C233	1-124-477-11	ELECT	47uF	20%	25V
C234	1-124-443-00	ELECT	100uF	20%	10V
C235	1-124-471-00	ELECT	1000uF	20%	6.3V
C250	1-109-675-11	MICA	120PF	1%	500V
C251	1-124-126-00	ELECT	47uF	20%	10V
C252	1-164-083-11	CERAMIC	680PF	10%	50V
C254	1-102-123-00	CERAMIC	0.0033uF	10%	50V
C255	1-124-903-11	ELECT	1uF	20%	50V
C256	1-124-902-00	ELECT	0.47uF	20%	50V
C257	1-124-126-00	ELECT	47uF	20%	10V
C258	1-130-484-00	MYLAR	0.012uF	5%	50V
C259	1-126-160-11	ELECT	1uF	20%	50V
C261	1-126-233-11	ELECT	22uF	20%	50V
C262	1-124-126-00	ELECT	47uF	20%	10V
C264	1-102-978-00	CERAMIC	220PF	5%	50V
C265	1-124-903-11	ELECT	1uF	20%	50V
C266	1-124-126-00	ELECT	47uF	20%	10V
C268	1-124-903-11	ELECT	1uF	20%	50V
C269	1-126-160-11	ELECT	1uF	20%	50V
C270	1-124-903-11	ELECT	1uF	20%	50V
C271	1-161-057-00	CERAMIC	0.033uF	10%	50V
C273	1-161-056-00	CERAMIC	0.027uF	10%	25V
C274	1-126-163-11	ELECT	4.7uF	20%	50V
C275	1-124-126-00	ELECT	47uF	20%	10V
C276	1-164-087-11	CERAMIC	0.0015uF	10%	50V
C277	1-161-051-00	CERAMIC	0.01uF	10%	50V
C278	1-136-561-11	FILM	0.0068uF	10%	400V
C280	1-130-483-00	MYLAR	0.01uF	5%	50V

Ref. No.	Part No.	Description			Remark
C281	1-161-056-00	CERAMIC	0.027uF	10%	25V
C282	1-124-126-00	ELECT	47uF	20%	10V
C283	1-137-075-11	FILM	0.068uF	5%	100V
C284	1-164-087-11	CERAMIC	0.0015uF	10%	50V
C285	1-162-290-31	CERAMIC	470PF	10%	50V
C295	1-161-379-00	CERAMIC	0.01uF	20%	25V
C298	1-161-379-00	CERAMIC	0.01uF	20%	25V
C401	1-124-907-11	ELECT	10uF	20%	50V
C402	1-124-903-11	ELECT	1uF	20%	50V
C403	1-124-907-11	ELECT	10uF	20%	50V
C404	1-161-043-00	CERAMIC	0.0022uF	10%	50V
C405	1-124-499-11	ELECT, NONPOLAR	1uF	20%	50V
C406	1-124-126-00	ELECT	47uF	20%	10V
C407	1-164-070-11	CERAMIC	100PF	5%	50V
C408	1-164-096-11	CERAMIC	0.01uF		50V
C409	1-164-093-11	CERAMIC	0.0047uF	10%	25V
C410	1-164-096-11	CERAMIC	0.01uF		50V
C411	1-124-126-00	ELECT	47uF	20%	10V
C413	1-130-483-00	MYLAR	0.01uF	5%	50V
C414	1-102-121-00	CERAMIC	2200PF	10%	50V
C415	1-102-947-00	CERAMIC	10PF	5%	50V
C416	1-162-847-11	CERAMIC	0.047uF	20%	16V
C422	1-124-126-00	ELECT	47uF	20%	10V
C423	1-126-233-11	ELECT	22uF	20%	50V
C425	1-130-487-00	MYLAR	0.022uF	5%	50V
C426	1-124-925-11	ELECT	2.2uF	20%	100V
C427	1-130-491-00	MYLAR	0.047uF	5%	50V
C428	1-130-491-00	MYLAR	0.047uF	5%	50V
C431	1-162-290-31	CERAMIC	470PF	10%	50V
C501	1-164-096-11	CERAMIC	0.01uF		50V
C504	1-124-907-11	ELECT	10uF	20%	50V
C505	1-124-472-11	ELECT	470uF	20%	10V
C506	1-124-907-11	ELECT	10uF	20%	50V
C507	1-101-006-00	CERAMIC	0.047uF		50V
C508	1-124-478-11	ELECT	100uF	20%	25V
C509	1-102-953-00	CERAMIC	18PF	5%	50V
C510	1-102-953-00	CERAMIC	18PF	5%	50V
C515	1-164-096-11	CERAMIC	0.01uF		50V
C519	1-164-096-11	CERAMIC	0.01uF		50V
C520	1-162-211-31	CERAMIC	33PF	5%	50V
C522	1-164-068-11	CERAMIC	82PF	5%	50V
C523	1-164-096-11	CERAMIC	0.01uF		50V
C524	1-124-463-00	ELECT	0.1uF	20%	50V
C525	1-162-290-31	CERAMIC	470PF	10%	50V
C531	1-124-925-11	ELECT	2.2uF	20%	100V
C538	1-124-478-11	ELECT	100uF	20%	25V
C539	1-102-978-00	CERAMIC	220PF	5%	50V
C541	1-161-379-00	CERAMIC	0.01uF	20%	25V
C542	1-124-477-11	ELECT	47uF	20%	25V

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Ref. No.	Part No.	Description			Remark
C543	1-162-849-11	CERAMIC	0.068uF	20%	16V
C544	1-102-074-00	CERAMIC	0.001uF	10%	50V
C545	1-102-074-00	CERAMIC	0.001uF	10%	50V
C601	1-162-199-31	CERAMIC	10PF	5%	50V
C802	1-124-907-11	ELECT	10uF	20%	50V
C809	1-124-907-11	ELECT	10uF	20%	50V
C811	1-124-907-11	ELECT	10uF	20%	50V
C812	1-124-927-11	ELECT	4.7uF	20%	100V
C813	1-124-903-11	ELECT	1uF	20%	50V
C814	1-102-973-00	CERAMIC	100PF	5%	50V
C815	1-162-211-31	CERAMIC	33PF	5%	50V
C816	1-124-907-11	ELECT	10uF	20%	50V
C818	1-161-379-00	CERAMIC	0.01uF	20%	25V
C820	1-162-835-11	CERAMIC	0.0047uF	10%	16V
C821	1-164-085-11	CERAMIC	0.001uF	10%	50V
C822	1-124-927-11	ELECT	4.7uF	20%	100V
C827	1-164-096-11	CERAMIC	0.01uF		50V
C838	1-126-157-11	ELECT	10uF	20%	16V
C840	1-126-157-11	ELECT	10uF	20%	16V
C841	1-126-157-11	ELECT	10uF	20%	16V
C842	1-126-157-11	ELECT	10uF	20%	16V
C844	1-164-096-11	CERAMIC	0.01uF		50V
C846	1-164-096-11	CERAMIC	0.01uF		50V
C847	1-162-306-11	CERAMIC	0.01uF	20%	16V
C848	1-162-306-11	CERAMIC	0.01uF	20%	16V

< CONNECTOR >

CN004	1-563-596-11	CONNECTOR, FLEXIBLE 19P	
CN007	1-563-596-11	CONNECTOR, FLEXIBLE 19P	
CN511	1-568-093-21	CONNECTOR (PLUG) 20P	
CN512	1-568-094-21	CONNECTOR (PLUG) 22P	
CN513	1-506-468-11	CONNECTOR 3P, MALE	
CN514	1-506-469-11	CONNECTOR 4P, MALE	
CN516	1-506-471-11	CONNECTOR 6P, MALE	
CN517	1-506-471-11	CONNECTOR 6P, MALE	
CN531	1-506-472-11	CONNECTOR 7P, MALE	
CN532	1-506-471-11	CONNECTOR 6P, MALE	
CN541	1-506-478-11	CONNECTOR 13P, MALE	
CN542	* 1-568-787-11	PIN, CONNECTOR 10P	
CN551	1-568-088-21	CONNECTOR (PLUG) 10P	
CN552	1-568-089-21	CONNECTOR (PLUG) 12P	
CN553	1-506-470-11	CONNECTOR 5P, MALE	
CN561	1-569-695-21	CONNECTOR, BOARD TO BOARD 17P	
CN562	1-569-696-21	CONNECTOR, BOARD TO BOARD 19P	
CN571	* 1-506-744-11	PIN, CONNECTOR 15P	
CN572	* 1-506-744-11	PIN, CONNECTOR 15P	
CN573	* 1-560-892-00	PIN, CONNECTOR 4P	
CN574	* 1-560-891-00	PIN, CONNECTOR 3P	
CN582	1-563-599-11	CONNECTOR, FLEXIBLE 22P	
CN583	1-569-763-11	CONNECTOR, BOARD TO BOATD 30P	
CN584	1-569-763-11	CONNECTOR, BOARD TO BOATD 30P	
CN585	1-568-087-21	CONNECTOR (PLUG) 8P	
CN586	1-568-087-21	CONNECTOR (PLUG) 8P	
CN587	1-506-468-11	CONNECTOR 3P, MALE	
CN591	1-566-119-11	CONNECTOR, BOARD TO BOATD 6P (SLV-715VP)	
CN594	* 1-566-824-11	PIN, CONNECTOR (PC BOARD) (SLV-715VP)	
CN801	1-569-761-11	CONNECTOR, BOARD TO BOATD 20P	

< DIODE >

D401	8-719-911-19	DIODE	1SS119
D402	8-719-911-19	DIODE	1SS119
D403	8-719-911-19	DIODE	1SS119
D404	8-719-911-19	DIODE	1SS119
D409	8-719-101-50	DIODE	RD5.1E-L2
D410	8-719-911-19	DIODE	1SS119
D501	8-719-913-44	DIODE	ERA82-004
D502	8-719-911-19	DIODE	1SS119
D503	8-719-108-12	DIODE	RD9.1EW
D504	8-719-108-12	DIODE	RD9.1EW
D505	8-719-911-19	DIODE	1SS119
D508	8-719-101-47	DIODE	RD4.7E-L2
D516	8-719-911-19	DIODE	1SS119
D517	8-719-911-19	DIODE	1SS119
D518	8-719-200-82	DIODE	11ES2
D519	8-719-109-93	DIODE	RD6.2ES-B2
D601	8-719-109-93	DIODE	RD6.2ES-B2
D703	8-719-911-19	DIODE	1SS119
D704	8-719-911-19	DIODE	1SS119
D801	8-719-911-19	DIODE	1SS119
D802	8-719-911-19	DIODE	1SS119
D803	8-719-911-19	DIODE	1SS119
D804	8-719-911-19	DIODE	1SS119
D805	8-719-911-19	DIODE	1SS119
D806	8-719-911-19	DIODE	1SS119
D807	8-719-911-19	DIODE	1SS119
D999	8-719-911-19	DIODE	1SS119

< IC >

IC251	8-759-805-20	IC	LA7297
IC401	8-759-000-49	IC	MC14066BCP
IC402	8-759-632-58	IC	M52435P
IC403	8-759-008-70	IC	LM358N
IC404	8-759-981-85	IC	RC4556D
IC406	8-759-008-71	IC	LM324N
IC501	8-752-815-90	IC	CXP80624-009Q
IC502	⚠ 8-759-983-45	IC	BA6238A
IC503	8-759-038-87	IC	MC68HC05P7
IC801	8-759-208-08	IC	TC4052BPHB

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description				Remark
IC802	8-759-923-90	IC	BA4560			
IC803	8-759-208-08	IC	TC4052BPH8			
IC804	8-759-923-90	IC	BA4560			
IC809	8-759-822-71	IC	LA7954			
IC810	8-759-602-49	IC	M5201P			
IC812	8-759-040-70	IC	MC14070BCP			
		< INDUCTOR >				
JW062	1-410-316-11	INDUCTOR 1UH				
JW168	1-124-907-11	ELECT	10MF	20%	50V	
		< COIL >				
L201	1-408-409-00	INDUCTOR 10uH				
L202	1-408-409-00	INDUCTOR 10uH				
L210	1-410-521-11	INDUCTOR 100uH				
L213	1-410-521-11	INDUCTOR 100uH				
L251	1-410-067-21	INDUCTOR 4.7mH				
L252	1-412-092-11	INDUCTOR, SMALL TYPE				
L253	1-410-687-11	INDUCTOR 1.2mH				
L254	1-408-426-00	INDUCTOR 270uH				
L400	1-410-509-11	INDUCTOR 10uH				
L501	1-408-413-00	INDUCTOR 22uH				
L502	1-408-413-00	INDUCTOR 22uH				
L504	1-410-501-11	INDUCTOR 2.2uH				
L505	1-410-501-11	INDUCTOR 2.2uH				
		< IC LINK >				
PS202	⚠ 1-532-605-00	LINK, IC (0.4A) ICP-N10				
		< TRANSISTOR >				
Q101	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q102	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q203	8-729-920-68	TRANSISTOR	2SA933S-QR			
Q204	8-729-920-68	TRANSISTOR	2SA933S-QR			
Q251	8-729-102-14	TRANSISTOR	2SD1021			
Q253	8-729-119-76	TRANSISTOR	2SA1175-HFE			
Q254	⚠ 8-729-140-96	TRANSISTOR	2SD774-34			
Q401	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q403	8-729-115-10	TRANSISTOR	2SK105A-10			
Q404	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q405	8-729-900-89	TRANSISTOR	DTC144ES			
Q410	8-729-900-65	TRANSISTOR	DTA144ES			
Q412	8-729-900-89	TRANSISTOR	DTC144ES			
Q423	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q428	8-729-920-68	TRANSISTOR	2SA933S-QR			
Q430	8-729-900-89	TRANSISTOR	DTC144ES			
Q431	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q434	8-729-601-47	TRANSISTOR	2SK381-B			
Q435	8-729-601-47	TRANSISTOR	2SK381-B			
Q501	8-729-900-61	TRANSISTOR	DTA114ES			
Q502	8-729-900-61	TRANSISTOR	DTA114ES			
Q503	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q504	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q505	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q506	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q507	8-729-900-61	TRANSISTOR	DTA114ES			
Q508	8-729-620-05	TRANSISTOR	2SC2603-EF			
Q514	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q515	8-729-920-68	TRANSISTOR	2SA933S-QR			
Q516	8-729-900-80	TRANSISTOR	DTC114ES			
Q517	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q518	8-729-900-89	TRANSISTOR	DTC144ES			
Q519	8-729-900-65	TRANSISTOR	DTA144ES			
Q701	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q801	8-729-900-89	TRANSISTOR	DTC144ES			
Q802	8-729-900-89	TRANSISTOR	DTC144ES			
Q803	8-729-920-68	TRANSISTOR	2SA933S-QR			
Q804	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q805	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q807	⚠ 8-729-119-78	TRANSISTOR	2SC2785-HFE			
		< RESISTOR >				
R005	1-249-429-11	CARBON	10K	5%	1/4W	
R101	1-249-435-11	CARBON	33K	5%	1/4W	
R102	1-249-441-11	CARBON	100K	5%	1/4W	
R103	1-249-417-11	CARBON	1K	5%	1/4W	
R104	1-249-423-11	CARBON	3.3K	5%	1/4W	
R105	1-249-423-11	CARBON	3.3K	5%	1/4W	
R106	1-249-441-11	CARBON	100K	5%	1/4W	
R107	1-249-435-11	CARBON	33K	5%	1/4W	
R108	1-249-417-11	CARBON	1K	5%	1/4W	
R136	1-249-413-11	CARBON	470	5%	1/4W	
R137	1-249-413-11	CARBON	470	5%	1/4W	
R138	⚠ 1-249-385-11	CARBON	2.2	5%	1/6W	
R201	1-249-417-11	CARBON	1K	5%	1/4W	
R210	1-249-405-11	CARBON	100	5%	1/4W	
R211	1-249-405-11	CARBON	100	5%	1/4W	
R222	1-249-410-11	CARBON	270	5%	1/4W	
R224	1-249-406-11	CARBON	120	5%	1/4W	
R225	1-249-405-11	CARBON	100	5%	1/4W	
R227	1-249-403-11	CARBON	68	5%	1/4W	
R232	1-247-804-11	CARBON	75	5%	1/4W	
R252	1-249-393-11	CARBON	10	5%	1/4W	
R253	1-249-416-11	CARBON	820	5%	1/4W	
R254	1-249-411-11	CARBON	330	5%	1/4W	
R255	1-247-885-00	CARBON	180K	5%	1/4W	
R256	1-249-429-11	CARBON	10K	5%	1/4W	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

MA-62 **SI-10**

Ref. No.	Part No.	Description			Remark
R257	1-249-437-11	CARBON	47K	5%	1/4W
R258	1-249-439-11	CARBON	68K	5%	1/4W
R259	1-249-419-11	CARBON	1.5K	5%	1/4W
R260	1-247-903-00	CARBON	1M	5%	1/4W
R261	1-247-895-00	CARBON	470K	5%	1/4W
R262	1-249-438-11	CARBON	56K	5%	1/4W
R263	1-249-432-11	CARBON	18K	5%	1/4W
R264	1-249-427-11	CARBON	6.8K	5%	1/4W
R265	1-249-429-11	CARBON	10K	5%	1/4W
R266	1-249-429-11	CARBON	10K	5%	1/4W
R267	1-249-429-11	CARBON	10K	5%	1/4W
R268	1-249-429-11	CARBON	10K	5%	1/4W
R269	1-249-405-11	CARBON	120	5%	1/4W
R270	1-249-422-11	CARBON	2.7K	5%	1/4W
R272	1-249-414-11	CARBON	560	5%	1/4W
R273	1-249-427-11	CARBON	6.8K	5%	1/4W
R274	1-249-434-11	CARBON	27K	5%	1/4W
R275	⚠ 1-249-387-11	CARBON	3.3	5%	1/4W
R277	1-249-429-11	CARBON	10K	5%	1/4W
R278	1-249-425-11	CARBON	4.7K	5%	1/4W
R282	1-249-429-11	CARBON	10K	5%	1/4W
R283	⚠ 1-249-387-11	CARBON	3.3	5%	1/4W
R299	1-249-436-11	CARBON	39K	5%	1/4W
R401	1-249-429-11	CARBON	10K	5%	1/4W
R403	1-249-433-11	CARBON	22K	5%	1/4W
R404	1-249-433-11	CARBON	22K	5%	1/4W
R405	1-249-433-11	CARBON	22K	5%	1/4W
R406	1-249-433-11	CARBON	22K	5%	1/4W
R408	1-249-429-11	CARBON	10K	5%	1/4W
R411	1-249-429-11	CARBON	10K	5%	1/4W
R412	1-249-427-11	CARBON	6.8K	5%	1/4W
R413	1-249-441-11	CARBON	100K	5%	1/4W
R414	1-247-887-00	CARBON	220K	5%	1/4W
R415	1-249-405-11	CARBON	100	5%	1/4W
R416	1-247-885-00	CARBON	180K	5%	1/4W
R417	1-249-429-11	CARBON	10K	5%	1/4W
R418	1-247-889-00	CARBON	270K	5%	1/4W
R419	1-249-437-11	CARBON	47K	5%	1/4W
R420	1-249-413-11	CARBON	470	5%	1/4W
R421	1-249-433-11	CARBON	22K	5%	1/4W
R424	1-249-433-11	CARBON	22K	5%	1/4W
R425	1-249-437-11	CARBON	47K	5%	1/4W
R426	1-249-433-11	CARBON	22K	5%	1/4W
R427	1-249-436-11	CARBON	39K	5%	1/4W
R428	1-249-429-11	CARBON	10K	5%	1/4W
R429	1-249-429-11	CARBON	10K	5%	1/4W
R430	1-249-430-11	CARBON	12K	5%	1/4W
R431	1-249-431-11	CARBON	15K	5%	1/4W
R432	1-249-429-11	CARBON	10K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R433	1-249-433-11	CARBON	22K	5%	1/4W
R434	1-249-433-11	CARBON	22K	5%	1/4W
R435	1-249-437-11	CARBON	47K	5%	1/4W
R436	1-249-433-11	CARBON	22K	5%	1/4W
R437	1-249-437-11	CARBON	47K	5%	1/4W
R441	1-247-895-00	CARBON	470K	5%	1/4W
R442	1-249-429-11	CARBON	10K	5%	1/4W
R443	1-249-441-11	CARBON	100K	5%	1/4W
R444	1-249-441-11	CARBON	100K	5%	1/4W
R448	1-249-417-11	CARBON	1K	5%	1/4W
R449	1-247-885-00	CARBON	180K	5%	1/4W
R450	1-249-417-11	CARBON	1K	5%	1/4W
R452	1-249-425-11	CARBON	4.7K	5%	1/4W
R453	1-249-429-11	CARBON	10K	5%	1/4W
R454	1-249-415-11	CARBON	680	5%	1/4W
R463	1-249-423-11	CARBON	3.3K	5%	1/4W
R465	1-249-423-11	CARBON	3.3K	5%	1/4W
R466	1-247-885-00	CARBON	180K	5%	1/4W
R467	1-249-430-11	CARBON	12K	5%	1/4W
R468	1-249-431-11	CARBON	15K	5%	1/4W
R470	1-249-415-11	CARBON	680	5%	1/4W
R488	1-249-417-11	CARBON	1K	5%	1/4W
R490	1-249-429-11	CARBON	10K	5%	1/4W
R491	1-249-419-11	CARBON	1.5K	5%	1/4W
R496	1-249-435-11	CARBON	33K	5%	1/4W
R497	1-249-429-11	CARBON	10K	5%	1/4W
R502	⚠ 1-249-385-11	CARBON	2.2	5%	1/6W
R505	1-249-429-11	CARBON	10K	5%	1/4W
R509	1-249-417-11	CARBON	1K	5%	1/4W
R510	1-249-417-11	CARBON	1K	5%	1/4W
R511	1-249-417-11	CARBON	1K	5%	1/4W
R512	1-249-429-11	CARBON	10K	5%	1/4W
R513	1-247-705-11	CARBON	270	5%	1/4W
R514	1-249-417-11	CARBON	1K	5%	1/4W
R515	1-249-417-11	CARBON	1K	5%	1/4W
R516	1-249-429-11	CARBON	10K	5%	1/4W
R517	1-249-437-11	CARBON	47K	5%	1/4W
R518	1-249-425-11	CARBON	4.7K	5%	1/4W
R519	1-249-425-11	CARBON	4.7K	5%	1/4W
R521	1-249-429-11	CARBON	10K	5%	1/4W
R522	1-249-429-11	CARBON	10K	5%	1/4W
R523	1-249-429-11	CARBON	10K	5%	1/4W
R524	1-249-428-11	CARBON	8.2K	5%	1/4W
R526	1-249-437-11	CARBON	47K	5%	1/4W
R527	1-249-431-11	CARBON	15K	5%	1/4W
R528	1-249-419-11	CARBON	1.5K	5%	1/4W
R529	1-249-418-11	CARBON	1.2K	5%	1/4W
R530	1-249-417-11	CARBON	1K	5%	1/4W
R531	1-249-417-11	CARBON	1K	5%	1/4W

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description				Remark
R532	1-249-421-11	CARBON	2.2K	5%	1/4W	
R533	1-247-897-11	CARBON	560K	5%	1/4W	
R534	1-249-428-11	CARBON	8.2K	5%	1/4W	
R535	1-249-410-11	CARBON	270	5%	1/4W	
R536	1-249-421-11	CARBON	2.2K	5%	1/4W	
R537	1-249-437-11	CARBON	47K	5%	1/4W	
R538	1-249-427-11	CARBON	6.8K	5%	1/4W	
R539	1-249-417-11	CARBON	1K	5%	1/4W	
R540	1-249-435-11	CARBON	33K	5%	1/4W	
R541	1-249-429-11	CARBON	10K	5%	1/4W	
R542	1-249-432-11	CARBON	18K	5%	1/4W	
R543	1-249-401-11	CARBON	47	5%	1/4W	
R548	1-249-436-11	CARBON	39K	5%	1/4W	
R552	1-249-429-11	CARBON	10K	5%	1/4W	
R553	1-249-417-11	CARBON	1K	5%	1/4W	
R555	1-249-441-11	CARBON	100K	5%	1/4W	
R556	1-249-437-11	CARBON	47K	5%	1/4W	
R557	1-249-437-11	CARBON	47K	5%	1/4W	
R558	1-249-437-11	CARBON	47K	5%	1/4W	
R561	1-249-437-11	CARBON	47K	5%	1/4W	
R562	1-249-437-11	CARBON	47K	5%	1/4W	
R563	1-249-437-11	CARBON	47K	5%	1/4W	
R564	1-249-437-11	CARBON	47K	5%	1/4W	
R565	1-249-437-11	CARBON	47K	5%	1/4W	
R566	1-249-437-11	CARBON	47K	5%	1/4W	
R567	1-249-437-11	CARBON	47K	5%	1/4W	
R572	1-249-405-11	CARBON	100	5%	1/4W	
R573	1-249-427-11	CARBON	6.8K	5%	1/4W	
R574	1-247-903-00	CARBON	1M	5%	1/4W	
R582	1-247-891-00	CARBON	330K	5%	1/4W	
R583	1-247-887-00	CARBON	220K	5%	1/4W	
R589	1-249-421-11	CARBON	2.2K	5%	1/4W	
R590	⚠1-249-377-11	CARBON	0.47	5%	1/4W	F
R591	1-249-422-11	CARBON	2.7K	5%	1/4W	
R595	1-249-429-11	CARBON	10K	5%	1/4W	
R596	1-249-429-11	CARBON	10K	5%	1/4W	
R598	1-249-413-11	CARBON	470	5%	1/4W	
R599	1-249-437-11	CARBON	47K	5%	1/4W	
R751	1-249-414-11	CARBON	560	5%	1/4W	
R752	1-249-423-11	CARBON	3.3K	5%	1/4W	
R801	1-249-428-11	CARBON	8.2K	5%	1/4W	
R802	1-249-428-11	CARBON	8.2K	5%	1/4W	
R803	1-249-425-11	CARBON	4.7K	5%	1/4W	
R804	1-249-425-11	CARBON	4.7K	5%	1/4W	
R805	1-249-428-11	CARBON	8.2K	5%	1/4W	
R806	1-249-428-11	CARBON	8.2K	5%	1/4W	
R807	1-249-429-11	CARBON	10K	5%	1/4W	
R808	1-249-441-11	CARBON	100K	5%	1/4W	

Ref. No.	Part No.	Description				Remark
R809	1-249-441-11	CARBON	100K	5%	1/4W	
R810	1-249-435-11	CARBON	33K	5%	1/4W	
R813	1-249-432-11	CARBON	18K	5%	1/4W	
R814	1-249-441-11	CARBON	100K	5%	1/4W	
R815	1-249-437-11	CARBON	47K	5%	1/4W	
R816	1-249-436-11	CARBON	39K	5%	1/4W	
R817	1-249-437-11	CARBON	47K	5%	1/4W	
R818	1-249-435-11	CARBON	33K	5%	1/4W	
R819	1-249-434-11	CARBON	27K	5%	1/4W	
R820	1-249-427-11	CARBON	6.8K	5%	1/4W	
R821	1-249-430-11	CARBON	12K	5%	1/4W	
R822	1-249-417-11	CARBON	1K	5%	1/4W	
R824	1-247-883-00	CARBON	150K	5%	1/4W	
R825	1-249-413-11	CARBON	470	5%	1/4W	
R826	1-249-419-11	CARBON	1.5K	5%	1/4W	
R827	1-247-903-00	CARBON	1M	5%	1/4W	
R828	1-249-419-11	CARBON	1.5K	5%	1/4W	
R829	1-249-422-11	CARBON	2.7K	5%	1/4W	
R830	1-249-429-11	CARBON	10K	5%	1/4W	
R831	1-249-435-11	CARBON	33K	5%	1/4W	
R837	1-249-417-11	CARBON	1K	5%	1/4W	
R838	1-249-417-11	CARBON	1K	5%	1/4W	
R840	1-249-413-11	CARBON	470	5%	1/4W	
R841	1-249-417-11	CARBON	1K	5%	1/4W	
R843	1-249-428-11	CARBON	8.2K	5%	1/4W	
R844	1-249-433-11	CARBON	22K	5%	1/4W	
R845	1-249-433-11	CARBON	22K	5%	1/4W	
R847	1-249-429-11	CARBON	10K	5%	1/4W	
R849	1-249-429-11	CARBON	10K	5%	1/4W	
R851	1-249-437-11	CARBON	47K	5%	1/4W	
R852	1-249-437-11	CARBON	47K	5%	1/4W	
R853	1-249-437-11	CARBON	47K	5%	1/4W	
R854	1-249-437-11	CARBON	47K	5%	1/4W	
R855	1-249-437-11	CARBON	47K	5%	1/4W	
R856	1-249-437-11	CARBON	47K	5%	1/4W	
R857	1-249-424-11	CARBON	3.9K	5%	1/4W	
R858	1-249-417-11	CARBON	1K	5%	1/4W	
R859	1-249-441-11	CARBON	100K	5%	1/4W	
R863	1-249-441-11	CARBON	100K	5%	1/4W	
R901	1-249-417-11	CARBON	1K	5%	1/4W	
R903	1-247-887-00	CARBON	220K	5%	1/4W	

< VARIABLE RESISTOR >

RV251	1-238-021-11	RES, ADJ, CARBON 220K
RV501	1-238-016-11	RES, ADJ, CARBON 10K

< TRANSFORMER >

T251	1-433-352-11	TRANSFORMER, BIAS OSCILLATION

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Replace only with part number specified.

MA-62 SI-10 MD-49

Ref. No.	Part No.	Description			Remark
T252	1-406-349-11	TRANSFORMER, OSCILLATION			
		< CRYSTAL >			
X501	1-578-774-11	VIBRATOR, CRYSTAL (12MHz)			
X503	1-577-358-21	VIBRATOR, CERAMIC (4MHz)			
**********					
	A-6754-228-A	MD-49 BOARD, COMPLETE			
		**********			
		(Ref. No 6,000 Series)			
*	2-387-601-01	CUSHION, RUBBER			
		< CAPACITOR >			
C001	1-161-494-00	CERAMIC	0.022uF		25V
C002	1-161-494-00	CERAMIC	0.022uF		25V
C003	1-126-157-11	ELECT	10uF	20%	16V
C004	1-161-379-00	CERAMIC	0.01uF	20%	25V
C005	1-126-157-11	ELECT	10uF	20%	16V
C006	1-124-589-11	ELECT	47uF	20%	16V
C008	1-164-159-11	CERAMIC	0.1uF		50V
C009	1-164-159-11	CERAMIC	0.1uF		50V
C011	1-162-849-11	CERAMIC	0.068uF	10%	16V
C012	1-162-849-11	CERAMIC	0.068uF	10%	16V
C013	1-162-849-11	CERAMIC	0.068uF	10%	16V
C014	1-126-160-11	ELECT	1uF	20%	50V
C016	1-124-589-11	ELECT	47uF	20%	16V
C017	1-126-162-11	ELECT	3.3uF	20%	50V
C018	1-124-589-11	ELECT	47uF	20%	16V
C019	1-124-589-11	ELECT	47uF	20%	16V
C020	1-164-159-11	CERAMIC	0.1uF		50V
C021	1-162-292-31	CERAMIC	680PF	10%	50V
C022	1-161-379-00	CERAMIC	0.01uF	20%	25V
C025	1-163-205-00	CERAMIC CHIP	0.001uF	5%	50V
C026	1-163-205-00	CERAMIC CHIP	0.001uF	5%	50V
		< CONNECTOR >			
CN001	1-506-494-11	PIN, CONNECTOR 15P			
CN002	1-569-335-11	CONNECTOR, BOARD TO BOARD 9P			
CN003	1-569-334-11	CONNECTOR, BOARD TO BOARD 5P			
CN004	1-563-622-21	CONNECTOR, FLEXIBLE 19P			
CN005	1-506-482-11	CONNECTOR 3P, MALE			
CN006	1-569-333-11	CONNECTOR, BOARD TO BOARD 3P			
CN007	1-563-622-21	CONNECTOR, FLEXIBLE 19P			
		< DIODE >			
D001	8-719-974-65	DIODE GL451V			
D004	8-719-109-93	DIODE RD6.2ES-B2			
D005	8-719-109-93	DIODE RD6.2ES-B2			
D006	8-719-109-93	DIODE RD6.2ES-B2			
D007	8-719-109-93	DIODE RD6.2ES-B2			
		< IC >			
IC002	8-759-938-12	IC BA10324			
IC004	⚠ 8-759-234-03	IC TA8424F			
		< PHOTO INTERUPTER >			
PH001	8-759-144-33	PHOTO SENSOR PS6002			
PH002	8-759-144-33	PHOTO SENSOR PS6002			
		< IC LINK >			
PS001	⚠ 1-532-685-00	LINK, IC (ICP-N20) 0.8A			
		< TRANSISTOR >			
Q001	8-729-926-31	PHOTO TRANSISTOR PT483F1			
Q002	8-729-926-31	PHOTO TRANSISTOR PT483F1			
		< RESISTOR >			
R001	1-249-423-11	CARBON	3.3K	5%	1/4W
R002	1-249-423-11	CARBON	3.3K	5%	1/4W
R003	1-249-426-11	CARBON	5.6K	5%	1/4W
R004	1-249-426-11	CARBON	5.6K	5%	1/4W
R005	1-249-415-11	CARBON	680	5%	1/4W
R006	1-249-441-11	CARBON	100K	5%	1/4W
R007	1-249-441-11	CARBON	100K	5%	1/4W
R008	1-249-425-11	CARBON	4.7K	5%	1/4W
R009	1-249-409-11	CARBON	220	5%	1/4W
R010	1-249-425-11	CARBON	4.7K	5%	1/4W
R011	1-249-437-11	CARBON	47K	5%	1/4W
R012	1-249-421-11	CARBON	2.2K	5%	1/4W
R013	1-249-429-11	CARBON	10K	5%	1/4W
R014	1-249-426-11	CARBON	5.6K	5%	1/4W
R015	1-249-437-11	CARBON	47K	5%	1/4W
R016	1-249-421-11	CARBON	2.2K	5%	1/4W
R019	1-249-377-11	CARBON	0.47	5%	1/4W F
R020	1-249-406-11	CARBON	120	5%	1/4W
R021	1-249-383-11	CARBON	1.5	5%	1/6W
R022	1-249-408-11	CARBON	180	5%	1/4W
R023	1-249-414-11	CARBON	560	5%	1/4W
R024	1-249-417-11	CARBON	1K	5%	1/4W
R025	1-247-891-00	CARBON	330K	5%	1/4W
R027	1-249-383-11	CARBON	1.5	5%	1/6W
R028	1-249-383-11	CARBON	1.5	5%	1/6W
		< SWITCH >			
S001	1-570-953-11	SWITCH, PUSH (1 KEY)			

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

MF-94 RM-41

Ref.No.	Part No.	Description			Remark
	* A-6756-033-A	MF-94 BOARD, COMPLETE (SLV-715)			
		**********			
	* A-6756-042-A	MF-94 BOARD, COMPLETE (SLV-715VP)			
		**********			
	* A-6756-052-A	MF-94 BOARD, COMPLETE (SLV-715UB)			
		**********			
		(Ref.No 8,000 Series)			
	* 1-535-213-24	RM-41 BOARD (Ref.No 8,000 Series)			
		**********			
	* 3-682-419-51	HOLDER, P.C.B			
	* 3-743-637-01	HOLDER, FL			
	* 3-744-061-01	COVER, LAMP			
		< BUZZER >			
BZ201	1-529-080-11	BUZZER, PIEZOELECTRIC			
		< CAPACITOR >			
C202	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C203	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C204	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C205	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C206	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C207	1-125-486-11	DUBLE LAYERS	0.22F		5.5V
C208	1-126-157-11	ELECT	10uF	20%	16V
C209	1-126-164-11	ELECT	47uF	20%	6.3V
C210	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C211	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C212	1-126-096-11	ELECT	10uF	20%	35V
C214	1-124-589-11	ELECT	47uF	20%	16V
C215	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C218	1-126-163-11	ELECT	4.7uF	20%	50V
C219	1-126-163-11	ELECT	4.7uF	20%	50V
C220	1-163-181-00	CERAMIC CHIP	100PF	5%	50V
C221	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C222	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C223	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C224	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C225	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C226	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C230	1-126-160-11	ELECT	1uF	20%	50V
C231	1-126-160-11	ELECT	1uF	20%	50V
C232	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C233	1-124-472-11	ELECT	470uF	20%	10V
C234	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
		< CONNECTOR >			
CN201	1-569-814-11	CONNECTOR, BOARD TO BOARD 21P			
CN202	1-568-080-11	CONNECTOR (RECEPTALE) 22P			
CN203	1-568-079-11	CONNECTOR (RECEPTALE) 20P			
CN204	* 1-569-666-11	PIN, CONNECTOR (PC BOARD) 5P			
CN207	1-506-468-11	CONNECTOR 3P, MALE			
CN208	* 1-569-666-11	PIN, CONNECTOR (PC BOARD) 5P			
CN401	* 1-565-042-11	HOUSING, CONNECTOR (PC BOARD) 5P			
CN402	* 1-565-042-11	HOUSING, CONNECTOR (PC BOARD) 5P			
		< TRIMMER >			
CV201	1-141-291-11	CAP, TRIMMER 20PF			
		< DIODE >			
D201	8-719-911-19	DIODE	1SS119		
D202	8-719-911-19	DIODE	1SS119		
D203	8-719-911-19	DIODE	1SS119		
D204	⚠ 8-719-911-19	DIODE	1SS119		
D205	8-719-104-34	DIODE	1S2836		
D208	⚠ 8-719-105-82	DIODE	RD5.1M-B2		
D209	8-719-105-08	DIODE	RD6.2M-B2		
D211	8-719-400-18	DIODE	MA152WK		
D212	8-719-400-18	DIODE	MA152WK		
D216	8-719-400-18	DIODE	MA152WK		
D217	8-719-400-18	DIODE	MA152WK		
D218	8-719-104-34	DIODE	DAP202K-T-146		
D219	8-719-105-08	DIODE	RD6.2M-B2		
D402	8-719-955-04	DIODE	PY5504S-1 (YEL) (AUTO TRACKING)		
D404	8-719-940-99	DIODE	SLR-34VC3 (AUDIO INSERT)		
D405	8-719-940-99	DIODE	SLR-34VC3 (VIDEO INSERT)		
D406	8-719-940-82	DIODE	SLR-34MC3 (◀◀◀)		
		< IC >			
IC201	8-759-504-10	IC	M889794B-PAL		
IC202	8-759-748-54	IC	CAT35C202P		
IC203	8-759-502-50	IC	S-8053HNB		
IC204	8-759-947-53	IC	S-8054ALR		
IC205	8-759-961-38	IC	BA6138		
IC401	1-466-131-21	IC	GP1U52X		
		< JUMPER RESISTOR >			
JR001	1-216-295-00	METAL CHIP	0	5%	1/10W
		< COIL >			
L201	1-408-422-00	INDUCTOR 120uH			
L203	1-410-336-11	INDUCTOR 220uH			
L204	1-410-517-11	INDUCTOR 47uH			
L205	1-410-501-11	INDUCTOR 2.2uH			
L206	1-410-501-11	INDUCTOR 2.2uH			
L207	1-410-501-11	INDUCTOR 2.2uH			

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Replace only with part number specified.

Ref. No.	Part No.	Description				Remark
S002	1-570-953-11	SWITCH, PUSH (1 KEY)				
**********						
*	A-6756-034-A	MF-101 BOARD, COMPLETE (SLV-715)				
		**********				
*	A-6756-043-A	MF-101 BOARD, COMPLETE (SLV-715VP)				
		**********				
*	A-6756-051-A	MF-101 BOARD, COMPLETE (SLV-715UB)				
		**********				
		(Ref. No 8,000 Series)				
*	3-744-056-01	COVER, LED				
*	3-749-306-01	PLATE, GROUND, MF				
	3-831-441-XX	SPACER				
		< CAPACITOR >				
C102	1-162-282-31	CERAMIC	100PF	10%	50V	
C104	1-162-282-31	CERAMIC	100PF	10%	50V	
C106	1-162-282-31	CERAMIC	100PF	10%	50V	
C108	1-162-282-31	CERAMIC	100PF	10%	50V	
C109	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C111	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C112	1-162-286-31	CERAMIC	220PF	10%	50V	
C113	1-126-157-11	ELECT	10uF	20%	16V	
		< CONNECTOR >				
CN101	1-569-669-11	CONNECTOR, BOARD TO BOARD 16P				
CN102	1-569-815-11	CONNECTOR, BOARD TO BOARD 21P				
CN103	1-506-483-21	CONNECTOR 4P, MALE				
CN104	1-506-490-21	PIN, CONNECTOR 11P				
CN105	1-506-485-11	CONNECTOR 6P, MALE				
CNJ101	1-562-808-11	JACK (MIC)				
CNJ102	1-565-669-21	JACK, SMALL TYPE (HEADPHONE)				
CNJ104	1-565-735-21	JACK, PIN 3P (LINE IN 2)				
CNJ105	1-568-611-11	SOCKET, DIN (SMALL TYPE) 5P (CONTROL L)				
		< COMPOSITION CIRCUIT BLOCK >				
CP101	1-233-220-11	COMPOSITION CIRCUIT BLOCK				
CP102	1-232-656-11	COMPOSITION CIRCUIT BLOCK				
		< DIODE >				
D101	8-719-955-04	DIODE	PY5504S-1 (YEL) (SLV-715/VP)			
D101	8-719-988-92	LED	SRPG5014X-K (SLV-715UB)			
D102	8-719-955-04	DIODE	PY5504S-1 (YEL) (SLV-715/VP)			
D102	8-719-988-92	LED	SRPG5014X-K (SLV-715UB)			
D103	8-719-110-36	DIODE	RD13ES-B2			
D104	8-719-109-93	DIODE	RD6.2ES-B2			
D105	8-719-911-19	DIODE	1SS119			
D107	8-719-109-93	DIODE	RD6.2ES-B2			
D110	8-719-946-30	DIODE	SLR-34DC3			
D111	8-719-110-36	DIODE	RD13ES-B2			
		< COIL >				
L101	1-410-336-11	INDUCTOR 220uH				
L102	1-410-336-11	INDUCTOR 220uH				
L103	1-410-336-11	INDUCTOR 220uH				
L104	1-410-336-11	INDUCTOR 220uH				
		< TRANSISTOR >				
Q101	8-729-119-78	TRANSISTOR	2SC2785-HFE (SLV-715UB)			
Q102	8-729-900-89	TRANSISTOR	DTC144ES (SLV-715UB)			
		< RESISTOR >				
R101	1-249-407-11	CARBON	150	5%	1/4W	
R102	1-249-407-11	CARBON	150	5%	1/4W	
R103	1-249-423-11	CARBON	3.3K	5%	1/4W	(SLV-715UB)
R104	1-249-433-11	CARBON	22K	5%	1/4W	
R106	1-249-421-11	CARBON	2.2K	5%	1/4W	
R108	1-249-423-11	CARBON	3.3K	5%	1/4W	
R109	1-249-425-11	CARBON	4.7K	5%	1/4W	
R110	1-249-429-11	CARBON	10K	5%	1/4W	
R111	1-249-433-11	CARBON	22K	5%	1/4W	
R112	1-249-407-11	CARBON	150	5%	1/4W	(SLV-715UB)
R113	1-249-407-11	CARBON	150	5%	1/4W	(SLV-715UB)
R114	1-249-427-11	CARBON	6.8K	5%	1/4W	
R115	1-249-417-11	CARBON	1K	5%	1/4W	
R116	1-249-438-11	CARBON	56K	5%	1/4W	
R117	1-249-423-11	CARBON	3.3K	5%	1/4W	
R118	1-249-433-11	CARBON	22K	5%	1/4W	
R121	1-247-804-11	CARBON	75	5%	1/4W	
R124	1-249-426-11	CARBON	5.6K	5%	1/4W	
R125	1-249-428-11	CARBON	8.2K	5%	1/4W	
R126	1-249-426-11	CARBON	5.6K	5%	1/4W	
R127	1-249-428-11	CARBON	8.2K	5%	1/4W	
R128	1-249-405-11	CARBON	100	5%	1/4W	
R129	1-249-417-11	CARBON	1K	5%	1/4W	
		< VARIABLE RESISTOR >				
RV101	1-238-420-11	RES, VAR, CARBON 10K (PHONE LEVEL)				
RV102	1-241-061-11	RES, VAR, CARBON 2K (SHARPNESS)				
RV103	1-241-062-11	RES, VAR, CARBON 20K (REC LEVEL L)				
RV104	1-241-062-11	RES, VAR, CARBON 20K (REC LEVEL R)				
		< SWITCH >				
S101	1-571-977-11	SWITCH, TACTIL (POWER)				
S102	1-571-977-11	SWITCH, TACTIL (EJECT)				
S104	1-571-977-11	SWITCH, TACTIL (SYNCHRO EDIT)				
S105	1-570-854-11	SWITCH, SLIDE (COMMANDE MODE)				
S106	1-571-977-11	SWITCH, TACTIL (VPS) (SLV-715VP)				

Ref.No.	Part No.	Description	Remark
L208	1-410-501-11	INDUCTOR 2.2uH (SLV-715VP)	
L209	1-410-361-21	INDUCTOR 12uH	
L210	1-410-501-11	INDUCTOR 2.2uH	
L211	1-410-501-11	INDUCTOR 2.2uH	
L212	1-410-501-11	INDUCTOR 2.2uH	
L213	1-410-501-11	INDUCTOR 2.2uH	
L214	1-410-501-11	INDUCTOR 2.2uH	
L215	1-410-501-11	INDUCTOR 2.2uH	
L216	1-410-501-11	INDUCTOR 2.2uH	
L217	1-410-316-11	INDUCTOR 1uH	
L218	1-410-316-11	INDUCTOR 1uH	
		< INDICATION TUBE >	
ND201	1-519-633-11	INDICATION TUBE, FLUORESCENT	
		< TRANSISTOR >	
Q201	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q202	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q205	8-729-901-01	TRANSISTOR DTC144EK	
Q206	8-729-901-01	TRANSISTOR DTC144EK	
		< RESISTOR >	
R201	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R202	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R203	1-216-017-00	METAL CHIP 47 5% 1/10W	
R204	1-216-095-00	METAL CHIP 82K 5% 1/10W	
R205	1-216-025-00	METAL CHIP 100 5% 1/10W	
R206	1-216-065-00	METAL CHIP 4.7K 5% 1/10W (SLV-715)	
R206	1-216-068-00	METAL CHIP 6.2K 5% 1/10W (SLV-715VP)	
R206	1-216-063-00	METAL CHIP 3.3K 5% 1/10W (SLV-715VP)	
R207	1-216-061-00	METAL CHIP 3.3K 5% 1/10W (SLV-715/UB)	
R207	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R208	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R210	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R211	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R212	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R213	1-216-001-00	METAL CHIP 10 5% 1/10W	
R214	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R215	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R216	1-216-037-00	METAL CHIP 330 5% 1/10W	
R217	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R222	1-216-035-00	METAL CHIP 270 5% 1/10W	
R224	1-216-035-00	METAL CHIP 270 5% 1/10W	
R225	1-216-035-00	METAL CHIP 270 5% 1/10W	
R226	1-216-035-00	METAL CHIP 270 5% 1/10W	
R227	1-216-035-00	METAL CHIP 270 5% 1/10W	
R228	1-216-033-00	METAL CHIP 220 5% 1/10W	
R229	1-216-109-00	METAL CHIP 330K 5% 1/10W	

Ref.No.	Part No.	Description			Remark
R230	1-216-033-00	METAL CHIP	220	5%	1/10W
R231	1-216-109-00	METAL CHIP	330K	5%	1/10W
R242	1-216-037-00	METAL CHIP	330	5%	1/10W
R243	1-216-073-00	METAL CHIP	10K	5%	1/10W
R244	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R245	1-216-049-00	METAL CHIP	1K	5%	1/10W
R246	1-216-049-00	METAL CHIP	1K	5%	1/10W
R247	1-216-033-00	METAL CHIP	220	5%	1/10W
R248	1-249-413-11	CARBON	470	5%	1/4W
R249	1-216-049-00	METAL CHIP	1K	5%	1/10W
R250	1-216-186-00	METAL GLAZE	330	5%	1/8W
R251	1-216-037-00	METAL CHIP	330	5%	1/10W
R252	1-216-037-00	METAL CHIP	330	5%	1/10W
R253	1-216-089-00	METAL CHIP	47K	5%	1/10W
R254	1-216-089-00	METAL CHIP	47K	5%	1/10W
R255	1-216-073-00	METAL CHIP	10K	5%	1/10W
R256	1-216-073-00	METAL CHIP	10K	5%	1/10W
R301	1-216-073-00	METAL CHIP	10K	5%	1/10W
R302	1-216-073-00	METAL CHIP	10K	5%	1/10W
R303	1-216-073-00	METAL CHIP	10K	5%	1/10W
R304	1-216-073-00	METAL CHIP	10K	5%	1/10W
R305	1-216-073-00	METAL CHIP	10K	5%	1/10W
R306	1-216-073-00	METAL CHIP	10K	5%	1/10W
R307	1-216-073-00	METAL CHIP	10K	5%	1/10W
R308	1-216-073-00	METAL CHIP	10K	5%	1/10W
R310	1-216-073-00	METAL CHIP	10K	5%	1/10W
R312	1-216-295-00	METAL CHIP	0	5%	1/10W
		< VARIABLE RESISTOR >			
RV201	1-241-080-11	RES, ADJ, CARBON 10K			
RV202	1-241-080-11	RES, ADJ, CARBON 10K			
		< CRYSTAL >			
X201	1-567-098-00	CRYSTAL			
X202	1-579-223-11	OSCILLATOR, CERAMIC			

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A-6727-278-A PI-20 BOARD, COMPLETE

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(Ref.No 1,000 Series)

		< CAPACITOR >			
C214	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C231	1-126-157-11	ELECT	10uF	20%	16V
C232	1-126-157-11	ELECT	10uF	20%	16V
C233	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C250	1-124-589-11	ELECT	47uF	20%	16V
C261	1-124-287-00	ELECT	10uF	20%	10V

PI-20 RP-63

Ref. No.	Part No.	Description			Remark
		< CONNECTOR >			
CN201	1-569-816-11	CONNECTOR, BOARD TO BOARD 30P			
CN202	1-569-816-11	CONNECTOR, BOARD TO BOARD 30P			
		< IC >			
IC202	8-759-822-60	IC LA7222			
IC206	8-759-511-44	IC LVA522S			
		< COIL >			
L203	1-408-421-00	INDUCTOR	100uH		
		< RESISTOR >			
R212	1-216-081-00	METAL CHIP	22K	5% 1/10W	
R218	1-216-081-00	METAL CHIP	22K	5% 1/10W	
R251	1-216-073-00	METAL CHIP	10K	5% 1/10W	
R252	1-216-073-00	METAL CHIP	10K	5% 1/10W	
R902	1-216-025-00	METAL CHIP	100	5% 1/10W	

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A-6727-137-A RP-63 BOARD, COMPLETE

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(Ref. No 1,000 Series)

		< CAPACITOR >			
C101	1-163-037-11	CERAMIC CHIP	0.022uF	10% 25V	
C102	1-124-242-00	ELECT	33uF	20% 25V	
C103	1-164-232-11	CERAMIC CHIP	0.01uF	50V	
C104	1-126-301-11	ELECT	1uF	20% 50V	
C106	1-163-037-11	CERAMIC CHIP	0.022uF	10% 25V	
C107	1-163-037-11	CERAMIC CHIP	0.022uF	10% 25V	
C108	1-124-455-00	ELECT	100uF	20% 16V	
C109	1-163-037-11	CERAMIC CHIP	0.022uF	10% 25V	
C110	1-163-037-11	CERAMIC CHIP	0.022uF	10% 25V	
C111	1-163-037-11	CERAMIC CHIP	0.022uF	10% 25V	
C112	1-126-157-11	ELECT	10uF	20% 16V	
C113	1-163-037-11	CERAMIC CHIP	0.022uF	10% 25V	
C114	1-126-301-11	ELECT	1uF	20% 50V	
C115	1-163-037-11	CERAMIC CHIP	0.022uF	10% 25V	
C116	1-163-113-00	CERAMIC CHIP	68PF	5% 50V	
C117	1-163-113-00	CERAMIC CHIP	68PF	5% 50V	
C118	1-163-037-11	CERAMIC CHIP	0.022uF	10% 25V	
C119	1-163-037-11	CERAMIC CHIP	0.022uF	10% 25V	
C120	1-163-037-11	CERAMIC CHIP	0.022uF	10% 25V	
C121	1-163-037-11	CERAMIC CHIP	0.022uF	10% 25V	
C122	1-163-037-11	CERAMIC CHIP	0.022uF	10% 25V	
C123	1-163-037-11	CERAMIC CHIP	0.022uF	10% 25V	
C801	1-163-038-00	CERAMIC CHIP	0.1uF	25V	
C802	1-126-154-11	ELECT	47uF	20% 6.3V	
C803	1-163-038-00	CERAMIC CHIP	0.1uF	25V	
C804	1-124-464-11	ELECT	0.22uF	20% 50V	
C805	1-163-099-00	CERAMIC CHIP	18PF	5% 50V	
C806	1-163-103-00	CERAMIC CHIP	27PF	5% 50V	
C807	1-124-464-11	ELECT	0.22uF	20% 50V	
C808	1-163-038-00	CERAMIC CHIP	0.1uF	25V	
C809	1-163-038-00	CERAMIC CHIP	0.1uF	25V	
C810	1-124-464-11	ELECT	0.22uF	20% 50V	
C811	1-163-103-00	CERAMIC CHIP	27PF	5% 50V	
C812	1-163-099-00	CERAMIC CHIP	18PF	5% 50V	
C813	1-124-464-11	ELECT	0.22uF	20% 50V	
C814	1-163-038-00	CERAMIC CHIP	0.1uF	25V	
C815	1-162-945-11	CERAMIC CHIP	22PF	5% 50V	
C816	1-124-463-00	ELECT	0.1uF	20% 50V	
C817	1-164-232-11	CERAMIC CHIP	0.01uF	50V	
C818	1-164-232-11	CERAMIC CHIP	0.01uF	50V	
C819	1-163-131-00	CERAMIC CHIP	390PF	5% 50V	
C820	1-164-161-11	CERAMIC CHIP	0.0022uF	10% 100V	
C821	1-164-232-11	CERAMIC CHIP	0.01uF	50V	
C822	1-164-232-11	CERAMIC CHIP	0.01uF	50V	
C823	1-163-107-00	CERAMIC CHIP	39PF	5% 50V	
C824	1-164-232-11	CERAMIC CHIP	0.01uF	50V	
C825	1-163-115-00	CERAMIC CHIP	82PF	5% 50V	
C826	1-163-113-00	CERAMIC CHIP	68PF	5% 50V	
C827	1-163-129-00	CERAMIC CHIP	330PF	5% 50V	
C828	1-126-154-11	ELECT	47uF	20% 6.3V	
C829	1-163-038-00	CERAMIC CHIP	0.1uF	25V	
C831	1-126-154-11	ELECT	47uF	20% 6.3V	
C832	1-163-038-00	CERAMIC CHIP	0.1uF	25V	
C833	1-164-232-11	CERAMIC CHIP	0.01uF	50V	
C834	1-163-038-00	CERAMIC CHIP	0.1uF	25V	
C835	1-164-232-11	CERAMIC CHIP	0.01uF	50V	
C836	1-164-232-11	CERAMIC CHIP	0.01uF	50V	
C838	1-163-097-00	CERAMIC CHIP	15PF	5% 50V	
C850	1-164-232-11	CERAMIC CHIP	0.01uF	50V	
C851	1-163-121-00	CERAMIC CHIP	150PF	5% 50V	
C852	1-163-117-00	CERAMIC CHIP	100PF	5% 50V	
C853	1-163-121-00	CERAMIC CHIP	150PF	5% 50V	
C854	1-163-109-00	CERAMIC CHIP	47PF	5% 50V	
C855	1-163-038-00	CERAMIC CHIP	0.1uF	25V	
C856	1-126-157-11	ELECT	10uF	20% 16V	
C857	1-163-038-00	CERAMIC CHIP	0.1uF	25V	
C858	1-163-038-00	CERAMIC CHIP	0.1uF	25V	
		< CONNECTOR >			
CN101	1-506-487-11	CONNECTOR 8P, MALE			
CN801	1-565-759-11	CONNECTOR, BOARD TO BOARD 13P			
CN802	1-506-490-21	PIN, CONNECTOR 11P			
CN803	1-506-486-11	PIN, CONNECTOR 7P			

Ref. No.	Part No.	Description			Remark
CN804	* 1-564-031-00	PIN. CONNECTOR 6P			
		< DIODE >			
D102	8-719-400-18	DIODE MA152WK			
D801	8-719-400-18	DIODE MA152WK			
D802	8-719-400-18	DIODE MA152WK			
D803	8-719-400-18	DIODE MA152WK			
		< IC >			
IC101	8-759-320-55	IC HA12115MP			
IC801	8-759-320-52	IC HA118019NT			
		< COIL >			
L101	1-408-982-11	INDUCTOR 100uH			
L102	1-408-982-11	INDUCTOR 100uH			
L801	1-408-982-11	INDUCTOR 100uH			
L802	1-408-975-21	INDUCTOR 27uH			
L803	1-408-970-21	INDUCTOR 10uH			
L804	1-408-985-21	INDUCTOR 180uH			
L805	1-408-982-11	INDUCTOR 100uH			
L806	1-408-982-11	INDUCTOR 100uH			
L807	1-408-977-21	INDUCTOR 39uH			
L808	1-408-973-21	INDUCTOR 18uH			
L809	1-408-973-21	INDUCTOR 18uH			
L850	1-408-972-21	INDUCTOR 15uH			
L851	1-408-982-11	INDUCTOR 100uH			
		< TRANSISTOR >			
Q101	8-729-216-22	TRANSISTOR 2SA1162			
Q801	8-729-216-22	TRANSISTOR 2SA1162			
Q802	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q803	8-729-120-28	TRANSISTOR 2SC1623-L5L6			
Q804	8-729-901-01	TRANSISTOR DTC144EK			
Q805	8-729-901-01	TRANSISTOR DTC144EK			
Q806	8-729-901-01	TRANSISTOR DTC144EK			
Q850	8-729-301-98	TRANSISTOR 2SB1000A-L			
Q851	8-729-901-01	TRANSISTOR DTC144EK			
Q852	8-729-216-22	TRANSISTOR 2SA1162			
Q853	8-729-216-22	TRANSISTOR 2SA1162			
Q854	8-729-901-01	TRANSISTOR DTC144EK			
		< RESISTOR >			
R101	1-216-019-00	METAL CHIP	56	5%	1/10W
R102	1-216-003-11	METAL GLAZE	12	5%	1/10W
R104	1-216-079-00	METAL CHIP	18K	5%	1/10W
R105	1-216-304-11	METAL CHIP	3.3	5%	1/10W
R106	1-216-073-00	METAL CHIP	10K	5%	1/10W
R107	1-216-304-11	METAL CHIP	3.3	5%	1/10W
R108	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R110	1-216-295-00	METAL CHIP	0	5%	1/10W
R111	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R120	1-216-295-00	METAL CHIP	0	5%	1/10W
R124	1-216-295-00	METAL CHIP	0	5%	1/10W
R140	1-216-295-00	METAL CHIP	0	5%	1/10W
R141	1-216-011-00	METAL CHIP	27	5%	1/10W
R801	1-216-025-00	METAL CHIP	100	5%	1/10W
R802	1-216-025-00	METAL CHIP	100	5%	1/10W
R803	1-216-021-00	METAL CHIP	68	5%	1/10W
R804	1-216-025-00	METAL CHIP	100	5%	1/10W
R805	1-216-081-00	METAL CHIP	22K	5%	1/10W
R806	1-216-113-00	METAL CHIP	470K	5%	1/10W
R807	1-216-073-00	METAL CHIP	10K	5%	1/10W
R808	1-216-073-00	METAL CHIP	10K	5%	1/10W
R809	1-216-081-00	METAL CHIP	22K	5%	1/10W
R810	1-216-073-00	METAL CHIP	10K	5%	1/10W
R811	1-216-049-00	METAL CHIP	1K	5%	1/10W
R812	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R813	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R814	1-216-039-00	METAL CHIP	390	5%	1/10W
R815	1-216-039-00	METAL CHIP	390	5%	1/10W
R816	1-216-047-00	METAL CHIP	820	5%	1/10W
R817	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R818	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R819	1-216-041-00	METAL CHIP	470	5%	1/10W
R820	1-216-045-00	METAL CHIP	680	5%	1/10W
R821	1-216-043-00	METAL CHIP	560	5%	1/10W
R822	1-216-049-00	METAL CHIP	1K	5%	1/10W
R823	1-216-047-00	METAL CHIP	820	5%	1/10W
R824	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R826	1-216-109-00	METAL CHIP	330K	5%	1/10W
R827	1-216-049-00	METAL CHIP	1K	5%	1/10W
R828	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R829	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R830	1-216-073-00	METAL CHIP	10K	5%	1/10W
R831	1-216-073-00	METAL CHIP	10K	5%	1/10W
R832	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R833	1-216-049-00	METAL CHIP	1K	5%	1/10W
R850	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R851	1-216-043-00	METAL CHIP	560	5%	1/10W
R852	1-216-049-00	METAL CHIP	1K	5%	1/10W
R853	1-216-047-00	METAL CHIP	820	5%	1/10W
R854	1-216-089-00	METAL CHIP	47K	5%	1/10W
R855	1-216-093-00	METAL CHIP	68K	5%	1/10W
R856	1-216-748-11	METAL CHIP	39K	5%	1/10W
R857	1-216-069-00	METAL CHIP	6.8K	5%	1/10W

RP-63 TK-12 TU-120

Ref. No.	Part No.	Description	Remark
		< SWITCH >	
SW801	1-570-856-11	SWITCH, SLIDE	

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	# 1-635-218-21	TK-12 BOARD	
		**********	
		< CONNECTOR >	
CN201	1-563-618-11	CONNECTOR, FLEXIBLE 15P	
CN202	1-569-672-11	CONNECTOR, BOARD TO BOARD 16P	

****

	A-6721-369-A	TU-120 BOARD, COMPLETE (SLV-715)	
		**********	
	A-6721-372-A	TU-120 BOARD, COMPLETE (SLV-715VP)	
		**********	
	A-6721-375-A	TU-120 BOARD, COMPLETE (SLV-715UB)	
		**********	
		(Ref. No 11,000 Series)	
		< CAPACITOR >	
C001	1-124-477-11	ELECT 47uF 20% 25V	
C002	1-126-163-11	ELECT 4.7uF 20% 50V	
C003	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C004	1-126-233-11	ELECT 22uF 20% 50V	
C005	1-126-103-11	ELECT 470uF 20% 16V	
C006	1-124-927-11	ELECT 4.7uF 20% 100V	
C008	1-163-103-00	CERAMIC CHIP 27PF 5% 50V	
C009	1-163-123-00	CERAMIC CHIP 180PF 5% 50V	
C010	1-124-477-11	ELECT 47uF 20% 25V	
C011	1-124-477-11	ELECT 47uF 20% 16V (SLV-715/VP)	
C013	1-124-477-11	ELECT 47uF 20% 16V (SLV-715/VP)	
C015	1-124-907-11	ELECT 10uF 20% 50V	
C016	1-124-907-11	ELECT 10uF 20% 50V	
C017	1-124-907-11	ELECT 10uF 20% 50V	
C018	1-124-477-11	ELECT 47uF 20% 25V	
C019	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V	
C101	1-163-001-11	CERAMIC CHIP 220PF 10% 50V	
C104	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V	
		< CONNECTOR >	
CN001	1-568-074-11	CONNECTOR (RECEPTALE) 10P	
CN002	1-568-075-11	CONNECTOR (RECEPTALE) 12P	
CN003	1-506-487-11	PIN, CONNECTOR 8P (SLV-715UB)	
CN004	1-506-487-11	PIN, CONNECTOR 8P (SLV-715UB)	
		< DIODE >	
D001	⚠ 8-719-110-78	DIODE RD33ES-B2	
D014	8-719-911-19	DIODE 1SS119	
		< IF BLOCK >	
IF001	⚠ 1-466-145-11	IF BLOCK (IFX-389) (SLV-715VP)	
IF001	⚠ 1-466-166-11	IF BLOCK (IFX-395C) (SLV-715UB)	
IF001	⚠ 1-466-167-11	IF BLOCK (IFX-389C) (SLV-715)	
		< JUMPER RESISTOR >	
JR007	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR009	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR101	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR201	1-216-295-00	METAL CHIP 0 5% 1/10W	
		< COIL >	
L001	1-408-417-00	INDUCTOR 47uH	
L002	1-408-413-00	INDUCTOR 22uH	
L003	1-408-409-00	INDUCTOR 10uH	
L004	1-408-409-00	INDUCTOR 10uH (SLV-715/VP)	
L005	1-408-409-00	INDUCTOR 10uH	
L032	1-410-316-11	INDUCTOR 1uH	
L033	1-410-316-11	INDUCTOR 1uH	
L035	1-410-316-11	INDUCTOR 1uH	
		< DECORDER BLOCK >	
MPX001	⚠ 1-466-144-11	DECORDER BLOCK (MPL-389) (SLV-715/VP)	
		< TRANSISTOR >	
Q001	⚠ 8-729-120-28	TRANSISTOR 2SC2412K-R	
Q003	8-729-120-28	TRANSISTOR 2SC2412K-R	
Q004	8-729-900-98	TRANSISTOR DTC143TK	
Q005	8-729-120-28	TRANSISTOR 2SC2412K-R	
Q101	8-729-120-28	TRANSISTOR 2SC2412K-R	
		< RESISTOR >	
R002	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R004	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R005	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R006	1-216-025-00	METAL CHIP 100 5% 1/10W	
R008	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R009	1-216-073-00	METAL CHIP 10K 5% 1/10W (SLV-715/VP)	
R009	1-216-295-00	METAL CHIP 0 5% 1/10W (SLV-715UB)	
R011	1-216-073-00	METAL CHIP 10K 5% 1/10W (SLV-715/VP)	
R012	1-216-057-00	METAL CHIP 2.2K 5% 1/10W (SLV-715/VP)	
R013	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R014	1-216-057-00	METAL CHIP 2.2K 5% 1/10W (SLV-715/VP)	
R015	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R016	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	
R017	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	
R021	1-216-049-00	METAL CHIP 1K 5% 1/10W	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description				Remark
R023	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R024	1-216-295-00	METAL CHIP	0	5%	1/10W	(SLV-715UB)
R025	1-216-295-00	METAL CHIP	0	5%	1/10W	(SLV-715UB)
R026	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R102	1-216-049-00	METAL CHIP	1K	5%	1/10W	
		< VARIABLE RESISTOR >				
RV001	1-241-080-11	RES, ADJ, CARBON 10K				(SLV-715/VP)
		< TUNER >				
TU001	⚠ 1-465-260-11	TUNER, ET (BTP-2C401)				(SLV-715/VP)
TU001	⚠ 1-465-262-11	TUNER, ET (BTP-2U601)				(SLV-715UB)
**********						
	* 1-637-558-11	VI-97 BOARD (Ref. No 1,000 Series)				
		**********				
		< CAPACITOR >				
C001	1-124-589-11	ELECT	47uF	20%	16V	
C002	1-126-096-11	ELECT	10uF	20%	35V	
C004	1-161-379-00	CERAMIC	0.01uF	20%	25V	
C005	1-126-103-11	ELECT	470uF	20%	16V	
		< CONNECTOR >				
CN301	1-563-599-11	CONNECTOR, FLEXIBLE 22P				
CN302	1-569-335-11	CONNECTOR, BOARD TO BOARD 9P				
CN303	1-569-735-11	CONNECTOR, BOARD TO BOARD 11P				
		< IC >				
IC001	8-759-800-81	IC LA7016				
**********						
	* A-6727-277-A	YC-65 BOARD, COMPLETE				(SLV-715/UB)
		**********				
	* A-6727-281-A	YC-65 BOARD, COMPLETE				(SLV-715VP)
		**********				
		(Ref. No 2,000 Series)				
	3-729-971-01	COVER, VOLUME				
		< CAPACITOR >				
C701	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V	
C702	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C703	1-126-151-11	ELECT, NONPOLAR	4.7uF	20%	16V	
C704	1-126-233-11	ELECT	22uF	20%	50V	
C705	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C706	1-124-927-11	ELECT	4.7uF	20%	100V	
C707	1-124-927-11	ELECT	4.7uF	20%	100V	
C708	1-163-093-00	CERAMIC CHIP	10PF	5%	50V	

Ref. No.	Part No.	Description				Remark
C709	1-124-442-00	ELECT	330uF	20%	6.3V	
C710	1-163-035-00	CERAMIC CHIP	0.047uF		50V	
C711	1-163-129-00	CERAMIC CHIP	330PF	5%	50V	
C712	1-163-131-00	CERAMIC CHIP	390PF	5%	50V	
C713	1-163-139-00	CERAMIC CHIP	820PF	5%	50V	
C714	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C715	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C716	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C718	1-124-927-11	ELECT	4.7uF	20%	100V	
C723	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C724	1-163-033-00	CERAMIC CHIP	0.022uF		50V	
C725	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C726	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C727	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C728	1-163-109-00	CERAMIC CHIP	47PF	5%	50V	
C729	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C730	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C731	1-124-443-00	ELECT	100uF	20%	10V	
C732	1-163-115-00	CERAMIC CHIP	82PF	5%	50V	
C733	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C734	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	
C735	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C736	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C737	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C738	1-124-925-11	ELECT	2.2uF	20%	100V	
C739	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C741	1-124-126-00	ELECT	47uF	20%	10V	
C743	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C744	1-124-126-00	ELECT	47uF	20%	10V	
C746	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C747	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C749	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C750	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C751	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C753	1-124-126-00	ELECT	47uF	20%	10V	
C754	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C755	1-163-119-00	CERAMIC CHIP	120PF	5%	50V	
C756	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C760	1-164-232-11	CERAMIC CHIP	0.01uF		50V	
C761	1-124-034-51	ELECT	33uF	20%	16V	
C763	1-124-927-11	ELECT	4.7uF	20%	100V	
C764	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C770	1-163-125-00	CERAMIC CHIP	220PF	5%	50V	
C772	1-163-103-00	CERAMIC CHIP	27PF	5%	50V	
C780	1-163-038-00	CERAMIC CHIP	0.1uF		25V	
C782	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C783	1-163-129-00	CERAMIC CHIP	330PF	5%	50V	
C785	1-164-232-11	CERAMIC CHIP	0.01uF		50V	

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YC-65

Ref. No.	Part No.	Description			Remark
C790	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C801	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C802	1-124-442-00	ELECT	330uF	20%	6.3V
C803	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C804	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C805	1-163-033-00	CERAMIC CHIP	0.022uF		50V
C806	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C807	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C808	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C809	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C810	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C811	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C812	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C813	1-124-443-00	ELECT	100uF	20%	10V
C814	1-124-443-00	ELECT	100uF	20%	10V
C815	1-164-330-21	CERAMIC CHIP	0.22uF	10%	16V
C816	1-124-927-11	ELECT	4.7uF	20%	100V
C817	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C818	1-163-036-00	CERAMIC CHIP	0.068uF		50V
C819	1-164-492-11	CERAMIC CHIP	0.15uF	10%	16V
C820	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C823	1-124-927-11	ELECT	4.7uF	20%	100V
C825	1-163-077-00	CERAMIC CHIP	0.1uF	10%	25V
C826	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C827	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C828	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C829	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C830	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C831	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C832	1-124-903-11	ELECT	1uF	20%	50V
C833	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C834	1-123-382-00	ELECT	3.3uF	20%	100V
C835	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C836	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C837	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C840	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C842	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C858	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C859	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C861	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C862	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C863	1-124-903-11	ELECT	1uF	20%	50V
C864	1-124-126-00	ELECT	47uF	20%	10V
C866	1-124-903-11	ELECT	1uF	20%	50V
C867	1-124-907-11	ELECT	10uF	20%	50V
C868	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C869	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C870	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C871	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C872	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C873	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C874	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C875	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C876	1-108-796-11	MYLAR	0.0022uF	5%	50V
C877	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C878	1-163-213-00	CERAMIC CHIP	0.0022uF	5%	50V
C879	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C880	1-124-903-11	ELECT	1uF	20%	50V
C881	1-124-907-11	ELECT	10uF	20%	50V
C882	1-123-382-00	ELECT	3.3uF	20%	100V
C883	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C884	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C885	1-124-907-11	ELECT	10uF	20%	50V
C886	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C887	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C888	1-124-907-11	ELECT	10uF	20%	50V
C889	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C890	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C891	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C892	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C893	1-124-034-51	ELECT	33uF	20%	16V
C894	1-124-034-51	ELECT	33uF	20%	16V
C895	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C896	1-124-034-51	ELECT	33uF	20%	16V
C897	1-124-927-11	ELECT	4.7uF	20%	100V
C898	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C899	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V

< CONNECTOR >

CN701	1-506-490-21	PIN, CONNECTOR 11P
CN702	1-506-490-21	PIN, CONNECTOR 11P
CN703 *	1-564-019-31	PIN, CONNECTOR 9P

< DIODE >

D705	8-719-104-34	DIODE 1S2835-T1
D801	8-719-400-18	DIODE MA152WK
D803	8-719-400-18	DIODE MA152WK

< DELAY LINE >

DL801	1-415-602-11	DELAY LINE, GLASS

< FILTER >

FL701	1-236-312-11	FILTER, BAND PASS
FL801	1-239-915-11	FILTER, BAND PASS
FL802	1-236-311-11	FILTER, BAND PASS
FL803	1-527-849-00	FILTER, CERAMIC

Ref. No.	Part No.	Description			Remark
		< IC >			
IC701	8-759-420-07	IC AN3231K			
IC702	8-752-321-89	IC CXL5003P			
IC801	8-759-320-78	IC HA118016NT			
IC802	8-759-822-05	IC LA7213			
IC860	8-759-420-53	IC AN3592K			
IC861	8-759-991-54	IC MSM6989RS			
IC862	8-752-006-12	IC CX20061			
IC863	8-759-822-05	IC LA7213			
IC864	8-759-000-49	IC MC14066BCP			
		< JUMPER RESISTOR >			
JR001	1-216-295-00	METAL CHIP	0	5%	1/10W
JR003	1-216-295-00	METAL CHIP	0	5%	1/10W
JR004	1-216-296-00	METAL CHIP	0	5%	1/8W
JR005	1-216-295-00	METAL CHIP	0	5%	1/10W
JR006	1-216-295-00	METAL CHIP	0	5%	1/10W
JR007	1-216-295-00	METAL CHIP	0	5%	1/10W
JR008	1-216-296-00	METAL CHIP	0	5%	1/8W
JR009	1-216-296-00	METAL CHIP	0	5%	1/8W
JR010	1-216-295-00	METAL CHIP	0	5%	1/10W
JR011	1-216-295-00	METAL CHIP	0	5%	1/10W
JR012	1-216-295-00	METAL CHIP	0	5%	1/10W
JR013	1-216-296-00	METAL CHIP	0	5%	1/8W
JR014	1-216-295-00	METAL CHIP	0	5%	1/10W
JR015	1-216-295-00	METAL CHIP	0	5%	1/10W
JR017	1-216-295-00	METAL CHIP	0	5%	1/10W
JR019	1-216-295-00	METAL CHIP	0	5%	1/10W
JR020	1-216-295-00	METAL CHIP	0	5%	1/10W
JR021	1-216-295-00	METAL CHIP	0	5%	1/10W
JR022	1-216-295-00	METAL CHIP	0	5%	1/10W
JR023	1-216-295-00	METAL CHIP	0	5%	1/10W
JR024	1-216-295-00	METAL CHIP	0	5%	1/10W
JR026	1-216-295-00	METAL CHIP	0	5%	1/10W
JR027	1-216-296-00	METAL CHIP	0	5%	1/8W
JR028	1-216-295-00	METAL CHIP	0	5%	1/10W
JR029	1-216-295-00	METAL CHIP	0	5%	1/10W
JR030	1-216-295-00	METAL CHIP	0	5%	1/10W
JR031	1-216-295-00	METAL CHIP	0	5%	1/10W
JR033	1-216-295-00	METAL CHIP	0	5%	1/10W
JR034	1-216-295-00	METAL CHIP	0	5%	1/10W
JR035	1-216-295-00	METAL CHIP	0	5%	1/10W
JR036	1-216-295-00	METAL CHIP	0	5%	1/10W
JR037	1-216-296-00	METAL CHIP	0	5%	1/8W
JR039	1-216-296-00	METAL CHIP	0	5%	1/8W
JR040	1-216-296-00	METAL CHIP	0	5%	1/8W
JR041	1-216-295-00	METAL CHIP	0	5%	1/10W
JR042	1-216-295-00	METAL CHIP	0	5%	1/10W
JR043	1-216-295-00	METAL CHIP	0	5%	1/10W
JR044	1-216-295-00	METAL CHIP	0	5%	1/10W
JR045	1-216-295-00	METAL CHIP	0	5%	1/10W
JR046	1-216-295-00	METAL CHIP	0	5%	1/10W
JR047	1-216-295-00	METAL CHIP	0	5%	1/10W
JR048	1-216-295-00	METAL CHIP	0	5%	1/10W
JR049	1-216-295-00	METAL CHIP	0	5%	1/10W
JR050	1-216-296-00	METAL CHIP	0	5%	1/8W
JR051	1-216-295-00	METAL CHIP	0	5%	1/10W
JR052	1-216-295-00	METAL CHIP	0	5%	1/10W
JR053	1-216-295-00	METAL CHIP	0	5%	1/10W
JR054	1-216-296-00	METAL CHIP	0	5%	1/8W
JR055	1-216-295-00	METAL CHIP	0	5%	1/10W
JR056	1-216-295-00	METAL CHIP	0	5%	1/10W
JR057	1-216-296-00	METAL CHIP	0	5%	1/8W
JR058	1-216-295-00	METAL CHIP	0	5%	1/10W
JR059	1-216-295-00	METAL CHIP	0	5%	1/10W
JR060	1-216-296-00	METAL CHIP	0	5%	1/8W
JR061	1-216-295-00	METAL CHIP	0	5%	1/10W
JR062	1-216-295-00	METAL CHIP	0	5%	1/10W
JR063	1-216-296-00	METAL CHIP	0	5%	1/8W
JR064	1-216-295-00	METAL CHIP	0	5%	1/10W
		< COIL >			
L701	1-407-169-XX	INDUCTOR 100uH			
L704	1-408-981-21	INDUCTOR 82uH			
L705	1-408-983-21	INDUCTOR 120uH			
L706	1-407-169-XX	INDUCTOR 100uH			
L707	1-407-169-XX	INDUCTOR 100uH			
L708	1-407-169-XX	INDUCTOR 100uH			
L712	1-408-971-21	INDUCTOR 12uH			
L713	1-408-974-21	INDUCTOR 22uH			
L720	1-408-978-21	INDUCTOR 47uH			
L726	1-408-985-21	INDUCTOR 180uH			
L802	1-408-987-21	INDUCTOR 330uH			
L803	1-408-948-00	INDUCTOR 220uH			
L805	1-408-970-21	INDUCTOR 10uH			
L806	1-408-969-21	INDUCTOR 8.2uH			
L807	1-408-969-21	INDUCTOR 8.2uH			
L809	1-407-499-00	INDUCTOR 3.9mH			
L861	1-408-976-21	INDUCTOR 33uH			
L862	1-408-970-21	INDUCTOR 10uH			
L882	1-408-972-21	INDUCTOR 15uH			
L883	1-408-975-21	INDUCTOR 27uH			
		< TRANSISTOR >			
Q702	8-729-216-22	TRANSISTOR 2SA1162			
Q703	8-729-901-47	TRANSISTOR DTA143EK			
Q704	8-729-901-01	TRANSISTOR DTC144EK			

YC-65

Ref. No.	Part No.	Description		Remark
Q705	8-729-100-66	TRANSISTOR	2SC1623	
Q706	8-729-216-22	TRANSISTOR	2SA1162	
Q707	8-729-100-66	TRANSISTOR	2SC1623	
Q709	8-729-100-66	TRANSISTOR	2SC1623	
Q711	8-729-216-22	TRANSISTOR	2SA1162	
Q715	8-729-901-01	TRANSISTOR	DTC144EK	
Q716	8-729-901-01	TRANSISTOR	DTC144EK	
Q717	8-729-100-66	TRANSISTOR	2SC1623	
Q719	8-729-216-22	TRANSISTOR	2SA1162	
Q721	8-729-100-66	TRANSISTOR	2SC1623	
Q722	8-729-901-01	TRANSISTOR	DTC144EK	
Q723	8-729-901-01	TRANSISTOR	DTC144EK	
Q801	8-729-100-66	TRANSISTOR	2SC1623	
Q802	8-729-901-01	TRANSISTOR	DTC144EK	(SLV-715VP)
Q803	8-729-100-66	TRANSISTOR	2SC1623	
Q804	8-729-900-53	TRANSISTOR	DTC114EK	
Q805	8-729-216-22	TRANSISTOR	2SA1162	
Q806	8-729-901-01	TRANSISTOR	DTC144EK	
Q807	8-729-100-66	TRANSISTOR	2SC1623	(SLV-715VP)
Q808	8-729-100-66	TRANSISTOR	2SC1623	
Q809	8-729-100-66	TRANSISTOR	2SC1623	
Q810	8-729-901-04	TRANSISTOR	DTA114EK	
Q811	8-729-216-22	TRANSISTOR	2SA1162	
Q812	8-729-100-66	TRANSISTOR	2SC1623	
Q852	8-729-901-01	TRANSISTOR	DTC144EK	(SLV-715VP)
Q860	8-729-809-77	TRANSISTOR	2SC3142-J4	
Q862	8-729-901-01	TRANSISTOR	DTC144EK	
Q880	8-729-100-66	TRANSISTOR	2SC1623	
Q881	8-729-100-66	TRANSISTOR	2SC1623	
Q882	8-729-216-22	TRANSISTOR	2SA1162	
Q883	8-729-100-66	TRANSISTOR	2SC1623	

< RESISTOR >

Ref. No.	Part No.	Description			
R701	1-216-109-00	METAL CHIP	330K	5%	1/10W
R702	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R703	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R704	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R705	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R706	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R707	1-216-052-00	METAL CHIP	1.3K	5%	1/10W
R708	1-216-036-00	METAL CHIP	300	5%	1/10W
R709	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R710	1-216-091-00	METAL CHIP	56K	5%	1/10W
R711	1-216-295-00	METAL CHIP	0	5%	1/10W
R712	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R713	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R714	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R717	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R719	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R720	1-216-063-00	METAL CHIP	3.9K	5%	1/10W
R722	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R723	1-216-079-00	METAL CHIP	18K	5%	1/10W
R724	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R725	1-216-039-00	METAL CHIP	390	5%	1/10W
R726	1-216-047-00	METAL CHIP	820	5%	1/10W
R727	1-216-049-00	METAL CHIP	1K	5%	1/10W
R728	1-216-115-00	METAL CHIP	560K	5%	1/10W
R729	1-216-089-00	METAL CHIP	47K	5%	1/10W
R730	1-216-089-00	METAL CHIP	47K	5%	1/10W
R731	1-216-033-00	METAL CHIP	220	5%	1/10W
R733	1-216-041-00	METAL CHIP	470	5%	1/10W
R734	1-216-083-00	METAL CHIP	27K	5%	1/10W
R735	1-216-073-00	METAL CHIP	10K	5%	1/10W
R736	1-216-033-00	METAL CHIP	220	5%	1/10W
R737	1-216-041-00	METAL CHIP	470	5%	1/10W
R738	1-216-025-00	METAL CHIP	100	5%	1/10W
R739	1-216-083-00	METAL CHIP	27K	5%	1/10W
R740	1-216-083-00	METAL CHIP	27K	5%	1/10W
R741	1-216-049-00	METAL CHIP	1K	5%	1/10W
R742	1-216-295-00	METAL CHIP	0	5%	1/10W
R743	1-216-041-00	METAL CHIP	470	5%	1/10W
R744	1-216-121-00	METAL CHIP	1M	5%	1/10W
R745	1-216-041-00	METAL CHIP	470	5%	1/10W
R749	1-216-049-00	METAL CHIP	1K	5%	1/10W
R750	1-216-073-00	METAL CHIP	10K	5%	1/10W
R751	1-216-073-00	METAL CHIP	10K	5%	1/10W
R752	1-216-073-00	METAL CHIP	10K	5%	1/10W
R754	1-216-039-00	METAL CHIP	390	5%	1/10W
R755	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R761	1-216-089-00	METAL CHIP	47K	5%	1/10W
R762	1-216-295-00	METAL CHIP	0	5%	1/10W
R763	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R764	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R768	1-216-049-00	METAL CHIP	1K	5%	1/10W
R769	1-216-049-00	METAL CHIP	1K	5%	1/10W
R772	1-216-041-00	METAL CHIP	470	5%	1/10W
R773	1-216-049-00	METAL CHIP	1K	5%	1/10W
R774	1-216-085-00	METAL CHIP	33K	5%	1/10W
R775	1-216-085-00	METAL CHIP	33K	5%	1/10W
R776	1-216-049-00	METAL CHIP	1K	5%	1/10W
R777	1-216-049-00	METAL CHIP	1K	5%	1/10W
R778	1-216-044-00	METAL CHIP	620	5%	1/10W
R779	1-216-041-00	METAL CHIP	470	5%	1/10W
R780	1-216-073-00	METAL CHIP	10K	5%	1/10W
R781	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R801	1-216-049-00	METAL CHIP	1K	5%	1/10W
R802	1-216-049-00	METAL CHIP	1K	5%	1/10W

Ref. No.	Part No.	Description				Remark
R803	1-216-041-00	METAL CHIP	470	5%	1/10W	
R804	1-216-049-00	METAL CHIP	1K	5%	1/10W	(SLV-715VP)
R805	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R806	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R807	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R808	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R809	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R810	1-216-045-00	METAL CHIP	680	5%	1/10W	
R811	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R812	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R813	1-216-041-00	METAL CHIP	470	5%	1/10W	
R814	1-216-045-00	METAL CHIP	680	5%	1/10W	
R816	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R818	1-216-039-00	METAL CHIP	390	5%	1/10W	
R819	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R820	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R822	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R823	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R824	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R828	1-216-035-00	METAL CHIP	270	5%	1/10W	
R829	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R830	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R831	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R832	1-216-033-00	METAL CHIP	220	5%	1/10W	
R833	1-216-037-00	METAL CHIP	330	5%	1/10W	
R834	1-216-059-00	METAL CHIP	2.7K	5%	1/10W	
R835	1-216-037-00	METAL CHIP	330	5%	1/10W	
R836	1-216-037-00	METAL CHIP	330	5%	1/10W	
R837	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R838	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R839	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R840	1-216-047-00	METAL CHIP	820	5%	1/10W	
R841	1-216-047-00	METAL CHIP	820	5%	1/10W	
R843	1-216-041-00	METAL CHIP	470	5%	1/10W	
R844	1-216-059-00	METAL CHIP	2.7K	5%	1/10W	
R852	1-216-049-00	METAL CHIP	1K	5%	1/10W	(SLV-715VP)
R853	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R855	1-216-037-00	METAL CHIP	330	5%	1/10W	
R856	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R857	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R858	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R859	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R860	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R862	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R863	1-216-075-00	METAL CHIP	12K	5%	1/10W	
R864	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R865	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R866	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R867	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R868	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R869	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R870	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R872	1-216-033-00	METAL CHIP	220	5%	1/10W	
R873	1-216-103-00	METAL CHIP	180K	5%	1/10W	
R874	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R875	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R876	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R877	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R880	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R881	1-216-037-00	METAL CHIP	330	5%	1/10W	
R882	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R883	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	
R884	1-216-748-11	METAL CHIP	39K	5%	1/10W	
R885	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R886	1-216-041-00	METAL CHIP	470	5%	1/10W	
R887	1-216-033-00	METAL CHIP	220	5%	1/10W	
R888	1-216-045-00	METAL CHIP	680	5%	1/10W	
R889	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R890	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R891	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R892	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R893	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R894	1-216-001-00	METAL CHIP	10	5%	1/10W	
R895	1-249-413-11	CARBON	470	5%	1/4W	
R900	1-216-143-00	METAL CHIP	2.2	5%	1/4W	(SLV-715VP)

< VARIABLE RESISTOR >

RV701	1-237-723-11	RES, ADJ, CARBON 4.7K
RV702	1-237-723-11	RES, ADJ, CARBON 4.7K
RV703	1-230-523-11	RES, ADJ, METAL 10K
RV704	1-238-167-11	RES, ADJ, CARBON 22K
RV705	1-238-167-11	RES, ADJ, CARBON 22K
RV707	1-238-166-11	RES, ADJ, CARBON 1K
RV708	1-230-523-11	RES, ADJ, METAL 10K
RV710	1-230-494-11	RES, ADJ, CARBON 1K
RV801	1-238-166-11	RES, ADJ, CARBON 1K
RV860	1-230-527-11	RES, ADJ, METAL 100K
RV861	1-238-166-11	RES, ADJ, CARBON 1K

< COIL >

T802	1-409-467-11	COIL (TRAP 7.8K)

< CRYSTAL >

X801	1-577-651-11	VIBRATOR, CRYSTAL (4.43MHz)

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NA-7

Ref. No.	Part No.	Description			Remark
	*A-6721-376-A	NA-7 BOARD, COMPLETE (SLV-715UB)			
		********** (Ref. No. 9000 series)			
		FILTER			
BP001	1-236-238-11	FILTER, BAND PASS			
		CAPACITOR			
C001	1-164-232-11	CERAMIC CHIP 0.01MF		50V	
C002	1-124-477-11	ELECT 47MF	20%	16V	
C003	1-164-232-11	CERAMIC CHIP 0.01MF		50V	
C004	1-164-232-11	CERAMIC CHIP 0.01MF		50V	
C005	1-164-232-11	CERAMIC CHIP 0.01MF		50V	
C006	1-164-232-11	CERAMIC CHIP 0.01MF		50V	
C007	1-164-232-11	CERAMIC CHIP 0.01MF		50V	
C008	1-164-232-11	CERAMIC CHIP 0.01MF		50V	
C009	1-124-477-11	ELECT 47MF	20%	16V	
C010	1-164-232-11	CERAMIC CHIP 0.01MF		50V	
C011	1-124-443-00	ELECT 100MF	20%	10V	
C012	1-164-232-11	CERAMIC CHIP 0.01MF		50V	
C013	1-126-157-11	ELECT 10MF	20%	16V	
C014	1-124-465-00	ELECT 0.47MF	20%	50V	
C015	1-124-465-00	ELECT 0.47MF	20%	50V	
C016	1-163-099-00	CERAMIC CHIP 18PF	5%	50V	
C017	1-163-245-11	CERAMIC CHIP 56PF	5%	50V	
C018	1-163-099-00	CERAMIC CHIP 18PF	5%	50V	
C019	1-124-465-00	ELECT 0.47MF	20%	50V	
C020	1-164-232-11	CERAMIC CHIP 0.01MF		50V	
C021	1-163-123-00	CERAMIC CHIP 180PF	5%	50V	
C022	1-163-123-00	CERAMIC CHIP 180PF	5%	50V	
C023	1-164-232-11	CERAMIC CHIP 0.01MF		50V	
C024	1-164-232-11	CERAMIC CHIP 0.01MF		50V	
C025	1-130-495-00	MYLAR 0.1MF	5%	50V	
C026	1-130-495-00	MYLAR 0.1MF	5%	50V	
C027	1-163-245-11	CERAMIC CHIP 56PF	5%	50V	
C028	1-163-245-11	CERAMIC CHIP 56PF	5%	50V	
C029	1-130-495-00	MYLAR 0.1MF	5%	50V	
C030	1-130-495-00	MYLAR 0.1MF	5%	50V	
C031	1-163-059-00	CERAMIC CHIP 0.01MF		50V	
C032	1-164-232-11	CERAMIC CHIP 0.01MF		50V	
C033	1-164-232-11	CERAMIC CHIP 0.01MF		50V	
C034	1-124-465-00	ELECT 0.47MF	20%	50V	
C035	1-163-099-00	CERAMIC CHIP 18PF	5%	50V	
C036	1-163-245-11	CERAMIC CHIP 56PF	5%	50V	
C037	1-163-099-00	CERAMIC CHIP 18PF	5%	50V	
C038	1-124-126-00	ELECT 47MF	20%	10V	
C039	1-164-232-11	CERAMIC CHIP 0.01MF		50V	
C040	1-124-443-00	ELECT 100MF	20%	10V	
C041	1-164-232-11	CERAMIC CHIP 0.01MF		50V	
C045	1-123-875-11	ELECT 10MF	20%	50V	
C046	1-164-232-11	CERAMIC CHIP 0.01MF		50V	
C047	1-124-443-00	ELECT 100MF	20%	10V	
C051	1-163-095-00	CERAMIC CHIP 12PF	5%	50V	
C052	1-163-095-00	CERAMIC CHIP 12PF	5%	50V	
C053	1-164-232-11	CERAMIC CHIP 0.01MF		50V	
C054	1-124-443-00	ELECT 100MF	20%	10V	
C055	1-164-232-11	CERAMIC CHIP 0.01MF		50V	
C056	1-124-443-00	ELECT 100MF	20%	10V	
C057	1-130-469-00	MYLAR 680PF	5%	50V	
C058	1-126-301-11	ELECT 1MF	20%	50V	
C059	1-124-126-00	ELECT 47MF	20%	10V	
C060	1-124-443-00	ELECT 100MF	20%	10V	
C061	1-130-471-00	MYLAR 0.001MF	5%	50V	
C062	1-124-442-00	ELECT 330MF	20%	6.3V	
C063	1-130-471-00	MYLAR 0.001MF	5%	50V	
C064	1-124-126-00	ELECT 47MF	20%	10V	
C065	1-130-469-00	MYLAR 680PF	5%	50V	
C066	1-126-301-11	ELECT 1MF	20%	50V	
C067	1-124-477-11	ELECT 47MF	20%	16V	
C068	1-164-232-11	CERAMIC CHIP 0.01MF		50V	
C069	1-126-157-11	ELECT 10MF	20%	16V	
C070	1-126-157-11	ELECT 10MF	20%	16V	
C071	1-124-477-11	ELECT 47MF	20%	16V	
C072	1-130-493-00	MYLAR 0.068MF	5%	50V	
C073	1-130-474-00	MYLAR 0.0018MF	5%	50V	
C074	1-124-477-11	ELECT 47MF	20%	16V	
C075	1-130-471-00	MYLAR 0.001MF	5%	50V	
C076	1-130-475-00	MYLAR 0.0022MF	5%	50V	
C077	1-126-151-11	ELECT 4.7MF	20%	16V	
C078	1-126-101-11	ELECT 100MF	20%	16V	
C079	1-124-477-11	ELECT 47MF	20%	16V	
C080	1-164-232-11	CERAMIC CHIP 0.01MF		50V	
C081	1-126-157-11	ELECT 10MF	20%	16V	

Ref. No.	Part No.	Description				Remark
C082	1-126-157-11	ELECT	10MF	20%	16V	
C083	1-124-477-11	ELECT	47MF	20%	16V	
C084	1-130-493-00	MYLAR	0.068MF	5%	50V	
C085	1-130-474-00	MYLAR	0.0018MF	5%	50V	
C086	1-124-477-11	ELECT	47MF	20%	16V	
C087	1-130-471-00	MYLAR	0.001MF	5%	50V	
C088	1-130-475-00	MYLAR	0.0022MF	5%	50V	
C089	1-126-151-11	ELECT	4.7MF	20%	16V	
		FILTER				
CF001	1-409-333-00	TRAP, CERAMIC (6.0MHZ)				
		CONNECTOR				
CN001	1-580-554-11	CONNECTOR, BOARD TO BOARD 16P				
		VARIABLE CAPACITOR				
CV001	1-141-245-00	TRIMMER, CERAMIC 30PF				
CV002	1-141-245-00	TRIMMER, CERAMIC 30PF				
		DIODE				
D001	8-719-801-52	DIODE 1SS190-TE85L				
D002	8-719-801-52	DIODE 1SS190-TE85L				
D003	8-719-400-18	DIODE 1S2837-T1				
D004	8-719-400-18	DIODE 1S2837-T1				
D005	8-719-400-18	DIODE 1S2837-T1				
D006	8-719-400-18	DIODE 1S2837-T1				
D007	8-719-400-18	DIODE 1S2837-T1				
D008	8-719-104-34	DIODE 1S2835-T1				
		FERRITE BEAD INDUCTOR				
FB001	1-410-397-21	FERRITE BEAD INDUCTOR				
FB002	1-410-397-21	FERRITE BEAD INDUCTOR				
FB003	1-410-397-21	FERRITE BEAD INDUCTOR				
FB004	1-410-397-21	FERRITE BEAD INDUCTOR				
FB005	1-410-397-21	FERRITE BEAD INDUCTOR				
FB006	1-410-397-21	FERRITE BEAD INDUCTOR				

Ref. No.	Part No.	Description				Remark
		FILTER				
FL001	1-236-071-11	ENCAPSULATED COMPONENT				
FL002	1-236-071-11	ENCAPSULATED COMPONENT				
		IC				
IC001	8-759-231-09	IC TA8662N				
IC002	8-759-231-28	IC TC6011N				
IC003	8-752-331-22	IC CXK5864BSP-10L				
IC004	8-759-231-29	IC TD6710AN				
IC005	8-759-900-72	IC NE5532P				
IC006	8-759-900-72	IC NE5532P				
		COIL				
L002	1-410-072-21	INDUCTOR	820UH			
L003	1-410-072-21	INDUCTOR	820UH			
L004	1-408-970-21	INDUCTOR	10UH			
L005	1-408-970-21	INDUCTOR	10UH			
L006	1-408-989-21	INDUCTOR	470UH			
L007	1-408-989-21	INDUCTOR	470UH			
		FILTER				
LP001	1-236-356-11	FILTER, LOW PASS				
LP002	1-236-356-11	FILTER, LOW PASS				
		TRANSISTOR				
Q001	8-729-100-66	TRANSISTOR 2SC1623-L6				
Q002	8-729-100-66	TRANSISTOR 2SC1623-L6				
Q003	8-729-104-80	TRANSISTOR 2SC3355				
Q004	8-729-100-66	TRANSISTOR 2SC1623-L6				
Q005	8-729-100-66	TRANSISTOR 2SC1623-L6				
Q006	8-729-100-66	TRANSISTOR 2SC1623-L6				
		RESISTOR				
R001	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R002	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R003	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

NA-7

Ref. No.	Part No.	Description				Remark
R004	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R009	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R010	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R011	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R012	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R013	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R014	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R015	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R016	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R017	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R018	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R019	1-212-873-11	FUSIBLE	47	5%	1/4W	F
R020	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R021	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R022	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R023	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R024	1-216-748-11	METAL GLAZE	39K	5%	1/10W	
R025	1-216-748-11	METAL GLAZE	39K	5%	1/10W	
R026	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R027	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R028	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R029	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R030	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R031	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R032	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R033	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R034	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R035	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R036	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R037	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R038	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R039	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R041	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R042	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R043	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R044	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R045	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R046	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R047	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R048	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R049	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R050	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R051	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R052	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R053	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R054	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R055	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R056	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R057	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R058	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R059	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R060	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R061	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R062	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R063	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R064	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R065	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R066	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R067	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R068	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R069	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R070	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R071	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R072	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R073	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R074	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R075	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R076	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R080	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R081	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R082	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R083	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R084	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R085	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R086	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R087	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R088	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R089	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R090	1-216-296-00	METAL GLAZE	0	5%	1/8W	
R091	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R092	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R093	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R094	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R095	1-216-295-00	METAL GLAZE	0	5%	1/10W	

CRYSTAL

X001	1-577-251-11	VIBRATOR, CRYSTAL	6.552MHZ
X002	1-577-252-11	VIBRATOR, CRYSTAL	5.824MHZ
X003	1-577-253-11	VIBRATOR, CERAMIC	16.9MHZ

Ref. No.	Part No.	Description				Remark
	*1-632-333-11	NM-1 BOARD (SLV-715UB)				
		********** (Ref. No. 10000 series)				
		CAPACITOR				
C001	1-123-875-11	ELECT	10MF	20%	50V	
C002	1-123-875-11	ELECT	10MF	20%	50V	
C003	1-124-589-11	ELECT	47MF	20%	16V	
C004	1-124-589-11	ELECT	47MF	20%	16V	
C009	1-123-875-11	ELECT	10MF	20%	50V	
C010	1-123-875-11	ELECT	10MF	20%	50V	
		CONNECTOR				
CN001	1-506-487-11	PIN, CONNECTOR 8P				
CN002	1-506-487-11	PIN, CONNECTOR 8P				
CN003	1-580-555-11	CONNECTOR, BOARD TO BOARD 16P				
		DIODE				
D002	8-719-911-19	DIODE 1SS119				
D003	8-719-911-19	DIODE 1SS119				
D010	8-719-911-19	DIODE 1SS119				
		IC				
IC001	8-759-800-81	IC LA7016				
IC002	8-759-800-81	IC LA7016				
		TRANSISTOR				
Q003	8-729-900-80	TRANSISTOR DTC114ES				
Q004	8-729-900-80	TRANSISTOR DTC114ES				
Q005	8-729-900-80	TRANSISTOR DTC114ES				
Q006	8-729-900-80	TRANSISTOR DTC114ES				
Q007	8-729-900-80	TRANSISTOR DTC114ES				
Q008	8-729-303-37	TRANSISTOR 2SD655E				
Q009	8-729-303-37	TRANSISTOR 2SD655E				
		RESISTOR				
R002	1-249-429-11	METAL	10K	5%	1/4W	
R003	1-249-429-11	METAL	10K	5%	1/4W	
R004	1-249-429-11	METAL	10K	5%	1/4W	
R005	1-249-428-11	METAL	8.2K	5%	1/4W	
R007	1-249-428-11	METAL	8.2K	5%	1/4W	
R009	1-249-429-11	METAL	10K	5%	1/4W	
R010	1-249-429-11	METAL	10K	5%	1/4W	
R011	1-249-417-11	METAL	1K	5%	1/4W	
R012	1-249-417-11	METAL	1K	5%	1/4W	
	*1-632-296-12	SD-4 BOARD (SLV-715VP)				
		********** (Ref. No. 5000 series)				
		CAPACITOR				
C850	1-130-474-11	MYLAR	0.0018MF	5%	50V	
C851	1-163-125-11	CERAMIC CHIP	220PF	5%	50V	
C852	1-164-505-11	CERAMIC CHIP	2.2MF		25V	
C854	1-124-906-11	ELECT	4.7MF	20%	50V	
C855	1-124-892-11	ELECT	47MF	20%	10V	
C857	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
		CONNECTOR				
CN851	1-564-782-11	PIN, CONNECTOR 4P				
CN852	1-564-782-11	PIN, CONNECTOR 4P				
		FILTER				
FL850	1-527-943-11	FILTER, CERAMIC 4.16MHZ				
		IC				
IC850	8-759-904-95	IC BA7077				
		COIL				
L850	1-410-450-11	INDUCTOR 3.9MMH				
		TRANSISTOR				
Q850	8-729-901-81	TRANSISTOR 2SC2412K				
Q851	8-729-901-81	TRANSISTOR 2SC2412K				

SD-4 VP-24

Ref. No.	Part No.	Description				Remark
		RESISTOR				
R846	1-216-065-11	METAL GLAZE	4.7K	5%	1/10W	
R847	1-216-057-11	METAL GLAZE	2.2K	5%	1/10W	
R848	1-216-057-11	METAL GLAZE	2.2K	5%	1/10W	
R849	1-216-073-11	METAL GLAZE	10K	5%	1/10W	
R850	1-216-057-11	METAL GLAZE	2.2K	5%	1/10W	
R851	1-216-083-11	METAL GLAZE	27K	5%	1/10W	
R854	1-216-109-11	METAL GLAZE	330K	5%	1/10W	
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	*1-637-446-11	VP-24 BOARD (SLV-715VP)				
		********** (Ref. No. 5000 series)				
		CAPACITOR				
C001	1-164-044-11	CERAMIC CHIP	0.1MF	20%	50V	
C002	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V	
C003	1-163-035-00	CERAMIC CHIP	0.047MF	20%	50V	
C004	1-124-589-11	ELECT	47MF	20%	16V	
C005	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	
C003	1-163-035-00	CERAMIC CHIP	0.047MF	20%	50V	
C007	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C008	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	
C201	1-163-035-00	CERAMIC CHIP	0.047MF	20%	50V	
C202	1-163-035-00	CERAMIC CHIP	0.047MF	20%	50V	
C203	1-124-589-11	ELECT	47MF	20%	16V	
C204	1-163-035-00	CERAMIC CHIP	0.047MF	20%	50V	
		OSCILLATOR				
CF001	1-567-160-21	OSCILLATOR, CERAMIC 4.19MHZ				
		CONNECTOR				
CN102	1-563-528-11	CONNECTOR, BOARD TO BOARD 6P				
CN103	1-566-824-11	PIN, CONNECTOR (PC BOARD) 3P				
CN104	1-506-483-21	PIN, CONNECTOR 4P				
		DIODE				
D201	8-719-400-18	DIODE 1S2837				

Ref. No.	Part No.	Description				Remark
		RESISTOR				
JR001	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR002	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR003	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR004	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR005	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR006	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR007	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JR008	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR009	1-216-296-00	METAL GLAZE	0	5%	1/8W	
JR010	1-216-296-00	METAL GLAZE	0	5%	1/8W	
		RESISTOR				
R001	1-216-119-00	METAL GLAZE	820K	5%	1/10W	
R002	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R003	1-216-119-00	METAL GLAZE	820K	5%	1/10W	
R004	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R005	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R006	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R007	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R008	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R009	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R010	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R011	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R012	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
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Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**********	
5	1-466-346-31	SWITCH BLOCK, CONTROL	
67	⚠ 1-413-601-21	SWITCHING BLOCK (POWER BLOCK) (SLV-715)	
67	⚠ 1-413-608-21	SWITCHING BLOCK (POWER BLOCK) (SLV-715VP)	
67	⚠ 1-413-609-21	SWITCHING BLOCK (POWER BLOCK) (SLV-715UB)	
106	* 1-632-333-11	NM-1 BOARD (SLV-715UB)	
112	* 1-637-444-11	VP-24 BOARD (SLV-715VP)	
123	⚠ 1-466-328-31	MODULATOR, RF (RFU-2027) (SLV-715/VP)	
123	⚠ 1-466-347-31	MODULATOR, RF (RFU-2028) (SLV-715UB)	
125	1-575-746-11	WIRE, FLAT TYPE (22 CORE)	
126	1-558-924-41	CABLE, PIN	
260	1-543-647-11	HEAD, FE (FULL ERASE HEAD)	
285	1-550-536-11	DRUM ASSY, ROTARY UPPER (DZR-17-R)	
305	1-571-920-11	SWITCH, ROTARY	
313	* 1-633-460-11	CA-41 BOARD (ON CAM MOTOR)	
315	1-575-745-11	WIRE, FLAT TYPE (19 CORE)	
D001	8-719-985-00	DIODE GL451VS1 (LED)	
M901	1-550-535-11	DRUM ASSY (DZH-17A-R)	
M902	8-835-395-01	MOTOR, DC U-26G (CAPSTAN MOTOR)	
M903	X-3733-302-1	MOTOR ASSY (CAM MOTOR)	
M904	X-3727-784-1	MOTOR ASSY (LOADING MOTOR)	
ND-201	1-519-633-11	INDICATION TUBE, FLUORESCENT	
Q001	8-729-926-31	PHOTO TRANSISTOR PT484F1S	
Q002	8-729-926-31	PHOTO TRANSISTOR PT484F1S	
TU001	⚠ 1-465-260-11	TUNER, ET (BTP-2C401) (SLV-715/VP)	
TU001	⚠ 1-465-262-11	TUNER, ET (SLV-715UB)	

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ACCESSORY & PACKING MATERIAL

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	A-6761-129-A	HEAD BLOCK ASSY, ACE
	1-465-751-11	REMOTE COMMANDER (RMT-V58)
	1-551-513-00	CABLE, COAXAL ASSY
	1-556-893-21	CORD ASSY, COAXIAL
	1-575-334-11	CORD, CONNECTION
	3-695-308-01	DRIVER, VOLUME
	3-744-025-01	CUSHION (UPPER)
	3-744-026-01	CUSHION (LOWER)
	3-752-916-11	MANUAL, INSTRUCTION (SLV-715UB) (ENGLISH)
	3-752-916-41	MANUAL, INSTRUCTION (SLV-715VP) (GERMAN/FRENCH/DUTCH/ITALIAN)
	3-752-916-51	MANUAL, INSTRUCTION (SLV-715) (ITALIAN/PORTUGUESE)
*	3-941-607-01	INDIVIDUAL CARTON

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Ref. No.	Part No.	Description	Remark
		HARDWARE LIST	
		**********	
# 1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3	
# 2	7-682-547-04	SCREW +BVTT 3X6 (S)	
# 3	7-621-732-08	SET-SCT, HEX. 2X3 FLAT POINT	
# 4	7-624-102-04	STOP RING 1.5, TYPE -E	
# 5	7-627-552-08	SCREW, PRECISION +P 1.7X2.5	
# 6	7-628-254-00	SCREW +PS 2.6X5	
# 7	7-682-546-04	SCREW +P 3X5	
# 8	7-682-548-04	SCREW +P 3X8	
# 9	7-682-645-01	SCREW +PS 3X4	
#10	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#11	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3	
#12	7-621-255-25	SCREW +PTT 2X4 (S)	

****

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

SECTION 7
ELECTRICAL ADJUSTMENTS

During the adjustment, see the Parts Arrangement Diagram relevant to the adjustment on page 220.

7-1. PRE-ADJUSTMENT PREPARATIONS

Necessary items and indications for total adjustment of electric circuit of this machine will be described in this chapter.

7-1-1. Instruments to be Used

1) Color TV
2) Oscilloscope 1 or 2 phenomena, band more than 15 MHz, delay mode, as provided.
3) Frequency counter (min, 8 digits)
4) PAL pattern generator
5) SECAM pattern generator (SLV-715VP only)
6) Digital voltmeter
7) Audio level meter
8) Audio generator
9) Attenuator
10) Distortion factor meter
11) Voice multiple signal generator
12) Alignment tape
    Part code: H7099052H (MH-2)
13) HiFi alignment tape

7-1-2. Connection

Unless otherwise specified, connect and adjust the measuring instruments as shown in the following diagram.

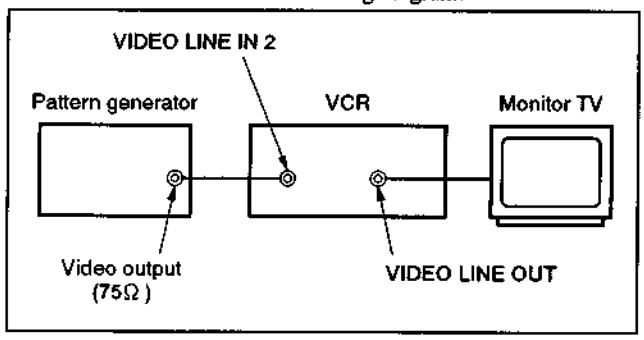


Fig. 7-1.

7-1-3. Setup for Adjustment

In this adjustment, PAL pattern generator is connected with LINE 1 input signal terminal. When check to tuner, connected AERIAL terminal. Check that the amplitudes of video signal SYNC signal, of picture portions, and of burst signals are flat at approximately 0.3, 0.7 and 0.3V, respectively, and that the level ratio of the burst signal and "red" signal are 0.30:0.66. Fig. 7-2. shows video signals (color bars) used in adjusting the video section.

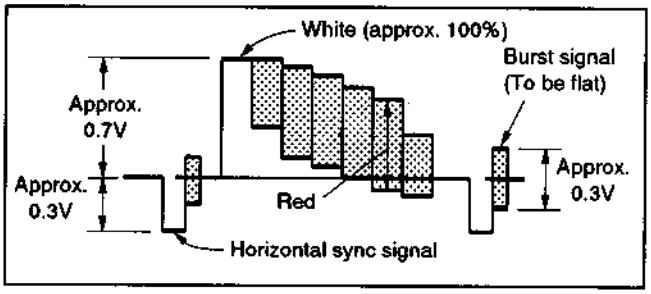


Fig. 7-2.

7-1-4. Alignment Tape (MH-2)

	Time	Video signal	Audio signal
1	10 min	Stair-step	6 kHz
2	5 min	———	3 kHz
3	10 min	Color bar	1 kHz
4	3 min	RF sweep	———

Table 7-1.

7-1-5. Specified I/O Level and Impedance

Input/output terminal

Video inputs — LINE IN: phono jacks
EURO-AV: 21-pin (Pin ⑳) 1 Vp-p, 75Ω, unbalanced, sync negative

Audio inputs — LINE IN: phono jacks
47 kΩ, –7.5 dBs (0 dBs=0.775 Vrms)
EURO-AV: 21-pin (Pin ② and ⑥)
More than 10 kΩ, –4 dBs

Video outputs — LINE OUT: phono jack
EURO-AV: 21-pin (Pin ⑲) 1 Vp-p, 75Ω, unbalanced sync negative

Audio outputs — LINE OUT: phono jack
–7.5 dBs at load
impedance 47 kΩ
Output impedance: less than 10 kΩ
EURO-AV: 21-pin (Pins ① and ③)
Output impedance: less than 1 kΩ
–4 dBs with 10 kΩ load

7-1-6. Operating Method When the Front Panel Removed

When adjust with the front panel (SW BLOCK, JOG/SHUTTLE, JS-20 board and TK-12 board) removed, connect the resisters as shown below and operate with the remote commander.

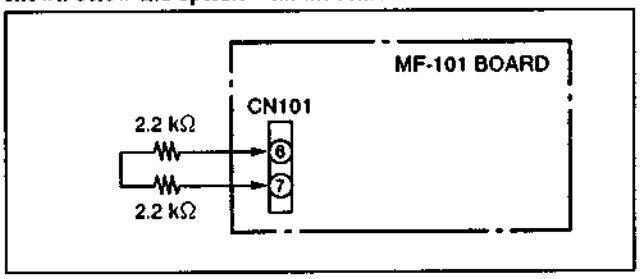
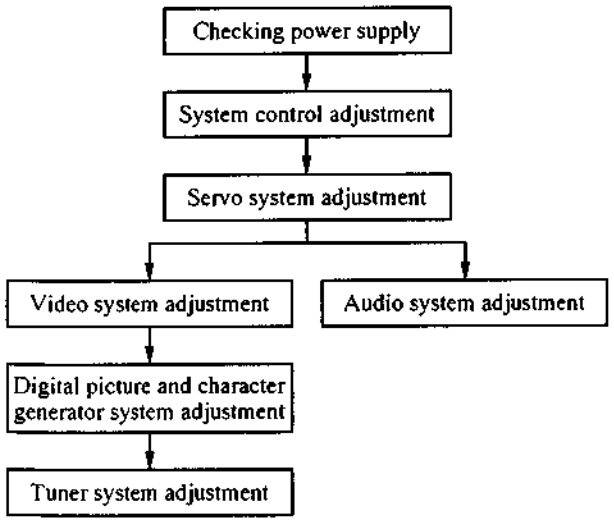


Fig. 7-3.

7-1-7. Adjusting Sequence

Make the electrical adjustment in the following sequence.



7-2. POWER SUPPLY CHECK (POWER BLOCK)

Mode	E-E
Measuring instrument	Digital voltmeter
UNSW 5.8V check	
Measurement point	Pin ① of CN411
Specified value	5.8 ± 0.25 Vdc
UNSW –30V check	
Measurement point	Pin ③ of CN412
Specified value	–30.0 ± 2.5 Vdc
UNSW 37V check	
Measurement point	Pin ⑨ of CN411
Specified value	37.0 ± 3.0 Vdc
SW 5V check	
Measurement point	Pin ③ of CN411
Specified value	$5.00^{+0.15}_{-0.10}$ Vdc
SW 9V check	
Measurement point	Pin ⑬ of CN411
Specified value	9.0 ± 0.3 Vdc
SW 12V check	
Measurement point	Pin ⑪ ofCN411
Specified value	12.0 ± 0.3 Vdc
MTR 12V check	
Measurement point	Pin ⑩ of CN412
Specified value	12.0 ± 0.3 Vdc
HEATER 3.2V check	
Measurement point	+: Pin ⑤ of CN412 –: Pin ④ of CN412
Specified value	3.2 ± 0.2V

Checking method:

1) Confirm that each voltage meets its specified value.

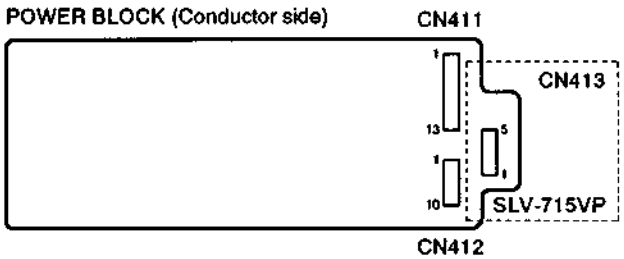


Fig. 7-4.

7-3. SYSTEM CONTROL ADJUSTMENT

7-3-1. Clock Adjustment (MF-94 Board)

Measurement Point	Pin ⑧ of IC201
Measuring Instrument	Interval counter
Adjusting Element	CV201
Specified Value	0.1249995 ± 0.0000005 sec

Connection:

1) Connect the connecting point of R109 and R110 on the MF-101 board to ground.

Adjusting method:

1) Pass a 9-state binary counter through Pin ⑧ of IC201 to divide the 4096 Hz frequency nine times and transform to 8 Hz. Measure the cycle.
2) Adjust CV001 so that an 8 Hz cycle equals 0.1249995 ± 0.0000005 sec.

Note: Do not adjust CV001 except when replacing microcomputers.

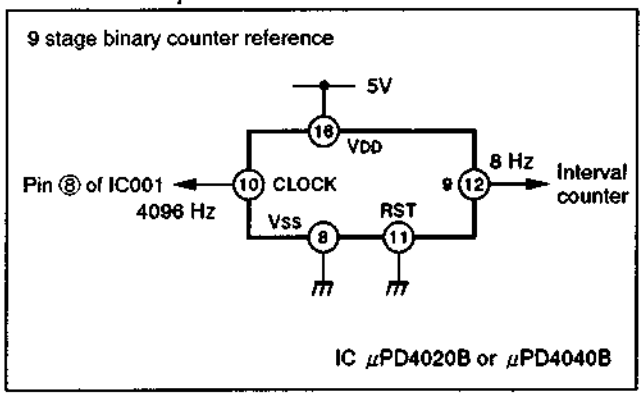


Fig. 7-5.

7-4. SERVO SYSTEM ADJUSTMENT

7-4-1. Switching Position Adjustment (MA-62 Board)

Mode	PB
Signal	Alignment tape: SP stair-step section
Measurement Point	CH1: Pin ⑱ of CN562 CH2: Pin ⑫ of CN582 (RF SWP)
Measuring Instrument	Oscilloscope
Adjusting Element	RV501
Specified Value	6.5 ± 0.5H (416 ± 32 μsec)

Adjusting method:

1) Once set to STOP mode, then to PB mode.
2) Check that the switching position is 6.5 ± 0.5H. (416 ± 32 μsec)
   If not meet the specified value, turn RV501 and repeat steps 1) to 2).

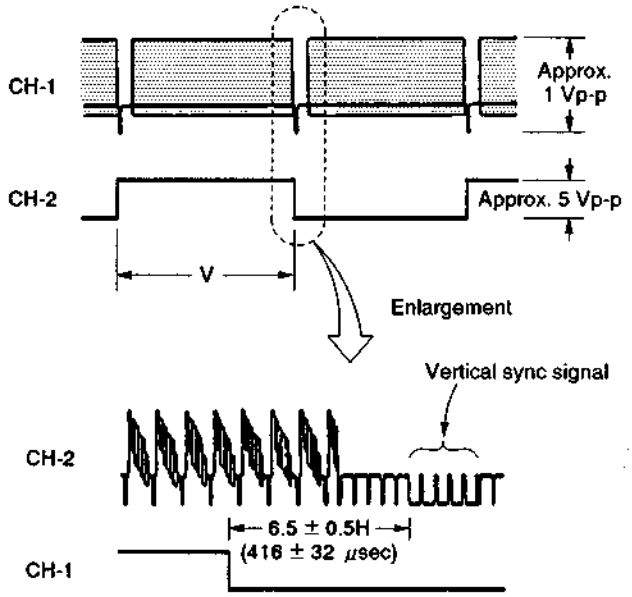


Fig. 7-6.

7-5. VIDEO SYSTEM ADJUSTMENTS

Adjust the video system in the following sequence as a rule. The color video signal supplied from the pattern generator is used as a video input signal for video system adjustment in the recording mode.
Make sure that sync and color burst signals meet requirements specified at setup of adjustment shown in Fig. 7-2.

[Adjusting sequence]

7-5-1. Playback Y Signal Level Adjustment
7-5-2. Y Signal NR Level Adjustment
7-5-3. Sync AGC Adjustment
7-5-4. Sync Tip Carrier Set and Deviation Adjustment
7-5-5. White Clip, Dark Clip Adjustment
7-5-6. Recording Y Signal Level Adjustment
7-5-7. Recording Chroma Level Adjustment
7-5-8. PAL JOG AFC Adjustment
7-5-9. 0.5H CCD Level Adjustment
7-5-10. SECAM Discrimination Adjustment

7-5-1. Playback Y Signal Level Adjustment (YC-65 Board)

Mode	PB
Signal	Alignment tape: SP color bar section
Measurement Point	VIDEO LINE OUT terminal
Measuring Instrument	Oscilloscope
Adjusting Element	RV708
Specified Value	1.00 ± 0.05 Vp-p

Note: 1) Make this adjustment with the EDIT ON/OFF button set to off.
2) VIDEO LINE OUT terminal must be terminated at 75Ω ± 1%.

Adjusting method:
1) With RV708, adjust the VIDEO signal level to 1.00 ± 0.05 Vp-p.

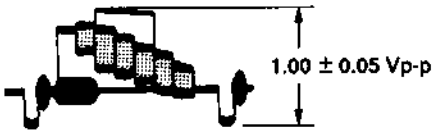


Fig. 7-7.

7-5-2. Y Signal NR Level Adjustment (YC-65 Board)

Mode	PB
Signal	Alignment tape: SP color bar section
Measurement Point	Pin ⑩ of IC701
Measuring Instrument	Oscilloscope
Adjusting Element	RV707
Specified Value	Less than 30 mVp-p

Adjusting method:
1) Adjust to eliminate level differences for each H step with RV707.

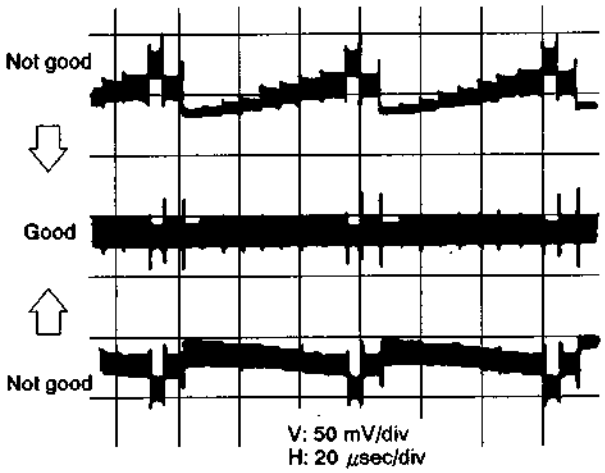


Fig. 7-8.

7-5-3. Sync AGC Adjustment (YC-65 Board)

Mode	E-E
Signal	Color bar
Measurement Point	VIDEO LINE OUT terminal
Measuring Instrument	Oscilloscope
Adjusting Element	RV701
Specified Value	1.00 ± 0.05 Vp-p

Note: VIDEO LINE OUT terminal must be terminates at 75Ω .

Adjusting method:
1) With RV701, adjust the VIDEO signal level to 1.00 ± 0.05 Vp-p.

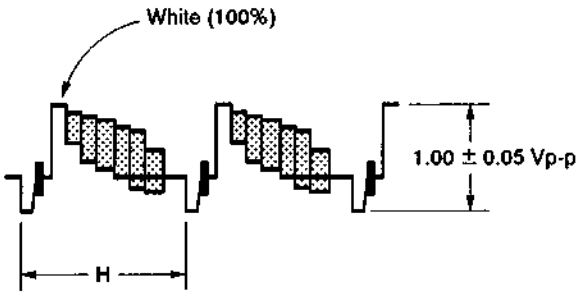


Fig. 7-9. SYNC AGC adjustment

7-5-4. Sync Tip Carrier Set and Deviation Adjustment (YC-65 Board)

Before starting the adjustment, be sure to check that recording Y signal level adjustment has been completed.

Sync tip carrier set	
Mode	E-E
Signal	No signal (Note 2)
Measurement Point	Pin ㉔ of IC701
Measuring Instrument	Frequency counter
Adjusting Element	RV703
Specified Value	3.80 ± 0.05 MHz
Deviation adjustment	
Mode	REC and PB
Signal	Color bar
Measurement Point	VIDEO LINE OUT terminal
Measuring Instrument	Oscilloscope
Adjusting Element	RV702
Specified Value	1.00 ± 0.05 Vp-p

Note 1) VIDEO LINE OUT terminal must be terminated at 75Ω.
2) To make no signal input, insert a shorting plug into VIDEO LINE IN 2 terminal.

Adjusting method:

1) Make a no signal state and select the E-E made.
2) Connect the frequency counter to the Pin ㉔ of IC701 and adjust to 3.80 ± 0.05 MHz with RV703.
3) Input the color bar signal to make recording.
4) Playback the recorded tape portion and check that the playback Y signal level is 1.00 ± 0.05 Vp-p.

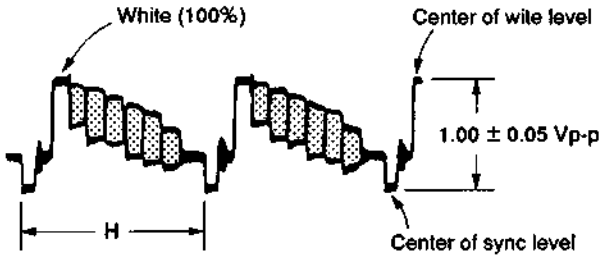


Fig. 7-10. Deviation adjustment

5) When the specified value is not met, input the color bar signal to select the E-E mode. Adjust RV702 to correct a playback Y signal level error, and then, repeat the steps 1) through 4) above.

7-5-5. White Clip and Dark Clip Adjustments (YC-65 Board)

Mode	E-E
Signal	Color bar
Measurement Point	Pin ⑳ of IC701
Measuring Instrument	Oscilloscope
Adjusting Element	White clip: RV705 Dark clip: RV704
Specified Value	White clip: 180 ± 10% Dark clip: 40 ± 10%

Adjusting method:

1) With RV705, adjust the white clip level to 180 ± 10% of the white level (100%).
2) With RV704, adjust the dark clip level to 40 ± 10% of the white level (100%).

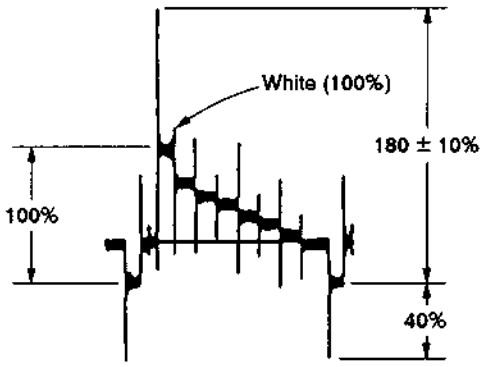


Fig. 7-11.

7-5-6. Recording Y Signal Level Adjustment (YC-65 Board/RP-63 Board)

Mode	RE
Signal	No signal
Measurement Point	Pin ③ of CN804 (RP-63 board)
Measuring Instrument	Oscilloscope
Adjusting Element	RV710 (YC-65 board)
Specified Value	1.7 ± 0.1 Vp-p

Adjusting method:

1) With RV710, adjust the Y REC RF signal level to 1.00 ± 0.05 Vp-p.

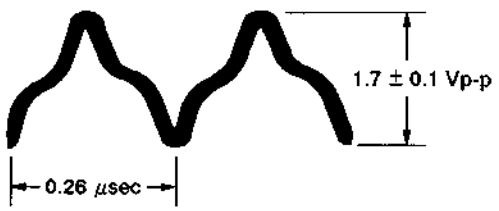


Fig. 7-12.

7-5-7. Recording Chroma Level Adjustment (YC-65 Board)

Mode	E-E
Signal	Color bar
Measurement Point	Pin ⑦ of CN701
Measuring Instrument	Oscilloscope
Adjusting Element	RV801
Specified Value	100 ± 10 mVp-p

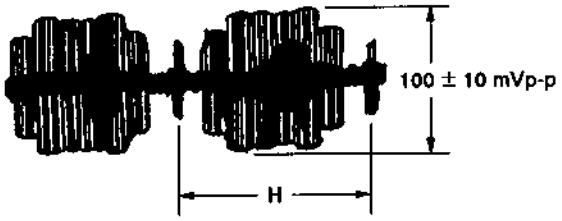


Fig. 7-13.

7-5-8. PAL JOG AFC Adjustment (YC-65 Board)

Mode	E-E
Signal	Color bar
Measurement Point	Pin ⑲ of IC860
Measuring Instrument	Digital voltmeter
Adjusting Element	RV860
Specified Value	2.65 ± 0.05 Vdc

Adjusting method:

1) Adjust RV860 so that the voltage at Pin ⑲ of IC860 become 2.65 ± 0.05 Vdc.
   At this time confirm that the cycle of delta wave at Pin ⑳ of IC860 is 32 μsec.

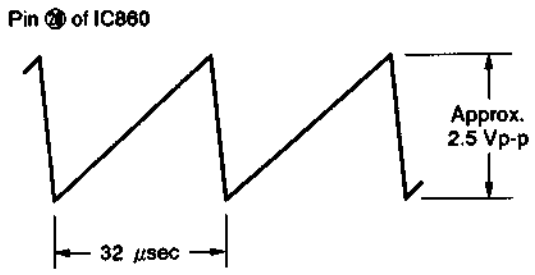


Fig. 7-14.

7-5-9. 0.5H CCD Level Adjustment (YC-65 Board)

Mode	E-E
Signal	Color bar
Measurement Point	Pin ② of IC802
Measuring Instrument	Oscilloscope
Adjusting Element	RV861
Specified Value	Same signal level with Pin ⑦ of IC802.

Adjusting method:

1) Measure the signal level at Pin ⑦ of IC802. (Approx. 2 Vp-p)
2) Adjust RV861 so that the signal levels at Pins ② and ⑦ of IC802 become same.

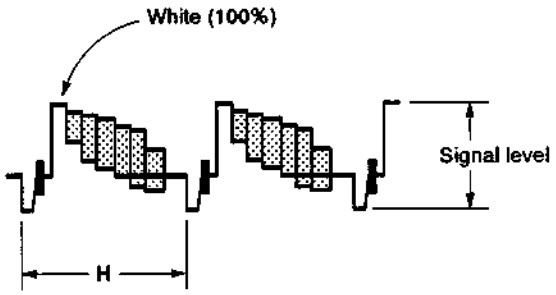


Fig. 7-15.

7-5-10. SECAM Discrimination Adjustment (SD-4 Board) (SLV-715VP Only)

Mode	E-E
Signal	SECAM Color bar
Measurement Point	Pin ⑨ of IC850
Measuring Instrument	Oscilloscope
Adjusting Element	RV850
Specified Value	4.5 ± 0.1 Vp-p

Adjusting method:

1) Adjust RV850 so that the amplitude of 1/2 fH waveform becomes 4.5 ± 0.1 Vp-p.

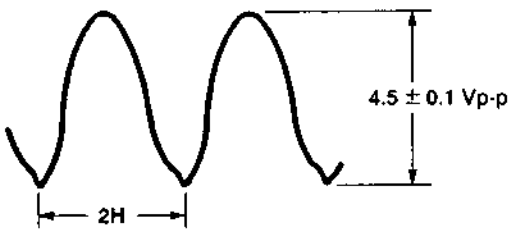


Fig. 7-16.

7-6. ON SCREEN DISPLAY ADJUSTMENTS

7-6-1. Character Generator Clock Check (CG-10 Board)

Mode	E-E
Signal	No signal
Measurement Point	Pin ㉘ of IC851
Measuring Instrument	Frequency counter
Specified Value	17.734476 MHz ± 100 Hz

Note: Attach 10 kΩ register to tip of the probe.

Checking method:

1) Confirm that the clock oscillation frequency is 17.734476 MHz ± 100 Hz.

7-6-2. AFC Adjustment (CG-10 Board)

Mode	E-E
Signal	No signal
Measurement Point	Pin ⑧ of IC685
Measuring Instrument	Oscilloscope
Adjusting Element	RV685
Specified Value	15625 ± 50 Hz

Connection:

1) Connect Pins ① and ⑨ of IC685 with 1 kΩ resistance.

Adjusting method:

1) Adjust RV685 so that the oscillation frequency is 15625 ± 50 Hz.

7-6-3. Character Position confirmation (CG-10 board)

Mode	Playback
Signal	Alignment tape, color bar or stair case
Measurement Point	Pin ⑤ of IC851 (Note 1)
Measurement Equipment	Frequency counter
Specified Value	7.00 ± 0.02 MHz
Adjusting Element	CV851

Note : Connect a probe of high input impedance (1 MΩ or more) and low capacity (10 pF or less) to the measurement point through 1 kΩ resistor.

Confirmation Method:

1) Adjust to 7.00 ± 0.02 MHz with CV851.
2) Make sure that tracking indication appears at the nearly center of the width when manual tracking ON.

7-7. AUDIO SYSTEM ADJUSTMENTS

- Adjust the audio system in the LP mode, unless otherwise specified.
  Use the alignment tape.
- Adjust both Lch and Rch.

[Connection]

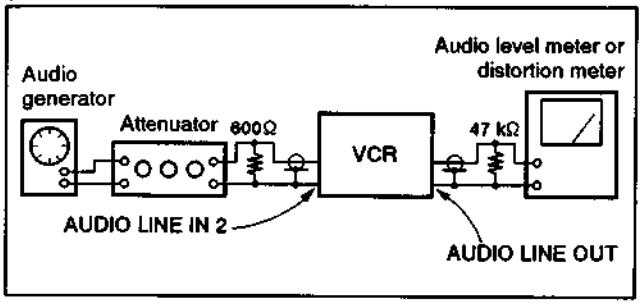


Fig. 7-24.

7-7-1. HI-FI Audio System Adjustment

- Set switches and knobs to the following positions to make adjustment unless otherwise specified.
  INPUT SELECT switch.....LINE 2
  REC LEVEL knob.....Set to –21 dBs.
  (Pins ① and ② of CN572 on MA-62 board)
- When perform the adjustment after removing the PI-20 board, connect Pin (A13) of CN583 and Pin (B10) of CN584 on the MA-62 board with jumper wire.
- When the tuner block is obstructive for adjustment, remove it.

[Adjusting sequence]

1. VCO fo adjustment
2. Switching pulse portion adjustment
3. Playback RF level adjustment
4. Playback level adjustment
5. AFM deviation adjustment
6. Level meter adjustment

1. VCO fo adjustment (HF-9 board)

Mode	Recording
Signal	No signal
Measuring instrument	Frequency counter
1.3 MHz Adjustment	
Measurement point	Pin ③ of IC002
Adjusting element	RV008
Specified value	1.4 MHz ± 2 kHz
1.7 MHz Adjustment	
Measurement point	Pin ㉚ of IC002
Adjusting element	RV002
Specified value	1.8 MHz ± 2 kHz

Note: Connect the frequency counter through a probe of high input impedance (more than 10 MΩ) and low capacity (10 pF or less).

Checking method:
1) Connect the frequency counter to each measurement point.
2) Confirm that each frequency meet its specified value.

2. Switching pulse portion adjustment (HF-9 board)

Mode	PB
Signal	Alignment tape (HiFi 400 Hz)
Measurement Point	CH1: Pin ⑨ of CN571 (MA-62 board) CH2: Pin ⑮ of CN571 (MA-62 board)
Measuring Instrument	Oscilloscope
Adjusting Element	RV006
Specified Value	Fig. 7-25.

Adjusting method:
1) Adjust RV006 for no dropout.
   (Turn and adjust RV006 to the mid-rotation of no dropout range.)

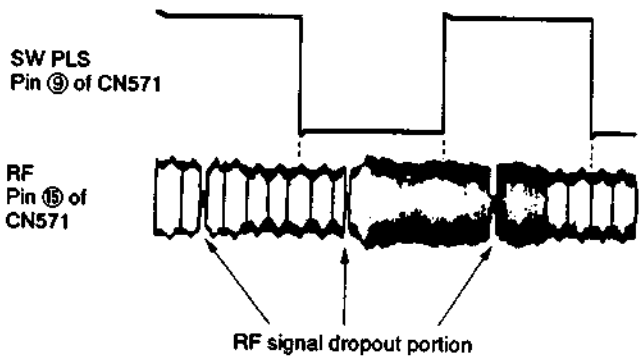


Fig. 7-25.

3. Playback RF level adjustment (HF-9 board)

Mode	PB
Signal	Alignment tape (MH-2): Stair-step section
Measurement Point	Pin ⑪ of IC002
Measuring Instrument	Oscilloscope (DC range)
Adjusting Element	RV005
Specified Value	50 mVp-p

Connection:

1) Remove CN532 on MA-62 board, and input sine waveform of 1.4 MHz ± 2 kHz, 70 mVp-p to Pins ③ and ④ of CN571 from the signal generator.

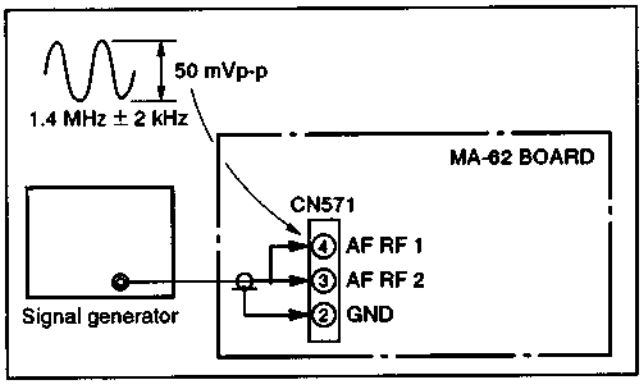


Fig. 7-26.

2) Connect the headset to the headphone terminal, and monitor the playback sound.

Adjusting method:

1) Turn RV005 fully counterclockwise (○) seeing from the soldering side of MA-62 board.
2) Confirm that the level at Pin ⑪ of IC002 is "L" (0V) and there is no playback sound.
3) Turn RV005 slowly clockwise (○) until the level at Pin ⑪ of IC002 becomes "H" (3.3V or more). Then, confirm that the audio signal of 6 kHz is played back.

4. Playback level adjustment (HF-9 board)

Mode	PB
Signal	Alignment tape (HiFi 400 Hz)
Measurement Point	Lch: AUDIO LINE OUT L Rch: AUDIO LINE OUT R
Measuring Instrument	Audio level meter
Adjusting Element	Lch: RV007 Rch: RV004
Specified Value	–7.5 ± 0.1 dBs

Adjusting method:

1) Adjust a playback level to –7.5 ± 0.1 dBs for both L and R channels with RV007 and RV004, respectively.

5. AFM deviation adjustment (HF-9 board)

Mode	Recording and Playback
Signal	400 Hz, –7.5 dB: AUDIO LINE IN 2 L, R
Measurement Point	Lch: AUDIO LINE OUT L Rch: AUDIO LINE OUT R
Measuring Instrument	Audio level meter
Adjusting Element	Lch: RV009 Rch: RV003
Specified Value	–7.5 ± 0.5 dBs

Adjusting method:

1) Confirm the 400 Hz signal level at Pins ② (Lch) and ① (Rch) of CN572 on the MA-62 board is –21 ± 0.1 dBs.
2) Record the signals.
3) Play back the recorded portion.
4) Confirm that the AUDIO LINE OUT level meets the specification.
   If not, turn RV009 (Lch) or RV003 (Rch), and repeat steps 2) to 4).

6. Level meter adjustment (MF-94 board)

Mode	E-E
Signal	1 KHz, –7.5 dBs: AUDIO LINE IN 2 L, R
Measurement Point	REC level meter
Measuring Instrument	
Adjusting Element	Lch: RV201 Rch: RV202
Specified Value	0 dB

Adjusting method:

1) Adjust the REC level controls (L/R) so that the signal level at AUDIO LINE OUT is –6.5 ± 0.1 dBs.
2) Adjust RV201 (Lch) and RV202 (Rch) so that the REC level meters (L/R) indicate 0 dB, respectively.

7-7-2. Normal Audio System Adjustment

- Make adjustment in the SP mode, unless otherwise specified. Use a normal VHS cassette for an adjustment tape.
- Make adjustment with the switches set to the following positions.
  INPUT SELECT.....LINE 2
- Set the AUDIO MONITOR mode to NORMAL on the menu screen.

[Adjusting sequence]

1. ACE head adjustment.....See Mechanism Block Adjustment
2. E-E output level check
3. Recording bias adjustment
4. Overall level characteristic and distortion factor check
5. Overall S/N check

1. ACE head adjustment

See "Mechanism Block Adjustment".

2. E-E output level check

Mode	E-E
Signal	L, R : 400 Hz, –7.5 dBs
Measurement Point	AUDIO LINE OUT L or R
Adjusting Element	Audio level meter
Specified Value	–7.5 ± 2 dBs

Confirming method:

1) Simultaneously input a signal of 400 Hz, –7.5 dBs to both L and R channels of Audio Line Input.
2) Confirm that the audio output level is –7.5 ± 2 dBs.

3. Recording bias adjustment (MA-62 board)

Mode	REC and PB
Signal	400 Hz, –30 dBs 7 kHz, –30 dBs
Measurement Point	AUDIO LINE OUT L or R
Measuring Instrument	Audio level meter
Adjusting Element	RV251
Specified Value	0 ± 1 dB

Adjusting method:

1) Supply a signal of 400 Hz, –30 dBs to Audio Line Input.
2) Connect the audio level meter to the Audio Line Output.
3) Adjust the attenuator so that the audio level meter will indicate –30 dBs.
4) Make recording in the SP mode.
5) Set an audio line input signal to 7 kHz and make recording.
6) Playback a recorded portion, and measure output levels at 400 Hz and 7 kHz.
7) Confirm that the 7 kHz playback output levels within a range of the 400 Hz playback output level 0 ± 1 dB. When beyond this range, adjust RV251 and repeat the steps 1) through 7) above.

4. Overall level characteristic and distortion factor check

Mode	REC and PB
Signal	400 Hz, –7.5 dBs
Measurement Point	AUDIO LINE OUT L or R
Measuring Instrument	Audio level meter and distortion factor gauge
Specified Value	Playback level: –7.5 ± 2 dBs Distortion factor: 4% or less

Confirming method:

1) Supply an audio signal of 400 Hz, –7.5dBs simultaneously to both L and R channels of Audio Line Input.
2) Make recording.
3) Playback a recorded portion.
4) Confirm that a playback level is –7.5 ± 2 dBs.
5) Confirm that a distortion factor is within 4%.

5. Overall S/N check

Mode	REC and PB
Signal	400 Hz, –7.5 dBs, and no signal
Measurement Point	AUDIO LINE OUT L
Measuring Instrument	Audio level meter
Specified Value	38 dB or more

Confirming method:

1) Supply a signal of 400 Hz simultaneously to both L and R channels of Audio Line Input.
   Adjust the attenuator so that the L channel audio line output level will be –7.5 dBs.
2) Make recording.
3) With the REC mode held, make the no signal state. (Short an input for both L and R)
4) Playback a recorded portion, and confirm that there is a level difference of 38 dB or more between 400 Hz portion and no signal portion (immediately after a 400 Hz signal).

7-8. TUNER SYSTEM ADJUSTMENTS

7-8-1. RF AGC Adjustment (IF001 Unit/TU-120 Board)

Signal	Broadcast TV signal
Adjusting Element	VR of IF001 unit (Fig. 7-27.)

Adjusting method:

1) Adjust the monitor TV to a maximum contrast.
2) Turn the VR to make snow noise visible.
3) Turn the VR in an opposite direction and set it to the point where the snow noise disappears.
4) Receive each channel and confirm that there are no beat picture corruption snow noise due to cross modulation.

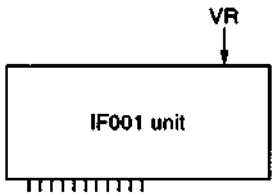


Fig. 7-27.

7-8-2. Receive Separation Adjustment (TU-120 Board) (SLV-715VP)

Signal	Stereo Lch: 400 Hz, 100% modulation Rch: No modulation
Connection Point	AUDIO LINE OUT R
Measuring Instrument	Oscilloscope
Adjusting Element	RV001

Setting of switches:

- RV103 (MF-101 board).....Center click
- RV104 (MF-104 board).....Center click

Adjusting method:

1) Set the sound multiplex signal generator in the Stereo mode, and set only Lch to 400 Hz, 100% modulation.
2) Connect the oscilloscope to the Rch of Audio Line Output.
3) Adjust rv001 to minimize Rch output.
   When this is done, do not fully turn RV001.
   (The "STEREO" indication must be illuminated).

7-9. NAICAM SYSTEM ADJUSTMENTS (SLV-715UB)

7-9-1. Eye Pattern Adjustment (NA-7 Board)

Mode	NAICAM ch received
Signal	Color bar
Measurement Point	CH1: Pin ⑲ of IC001 CH2: Pin ⑳ of IC001
Measuring Instrument	Oscilloscope (X-Y mode)
Adjusting Element	CV01

Adjusting method:

1) Confirm that waveform as OK in Fig observed clearly and with out tilt.

Fig. 7-28.

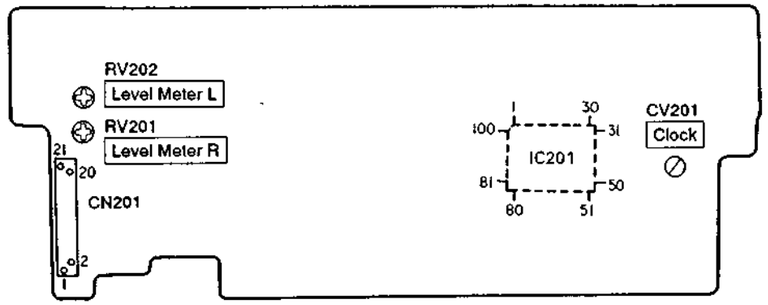
7-9-2. VCO Adjustment (NA-7 Board)

Mode	NICAM ch received
Signal	no-signal
Measurement Point	Pin ㉘ of IC001
Measuring Instrument	Frequency counter
Adjusting Element	CV02
Specified Value	5.824 MHz ± 30 Hz

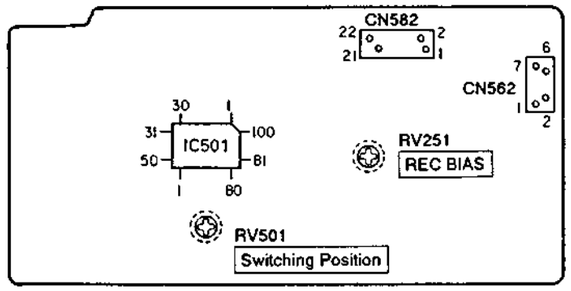
Note: Shorted Pins ⑫ and ㉑ of IC001.

7-10. ADJUSTMENT PARTS ARRANGEMENT DIAGRAM

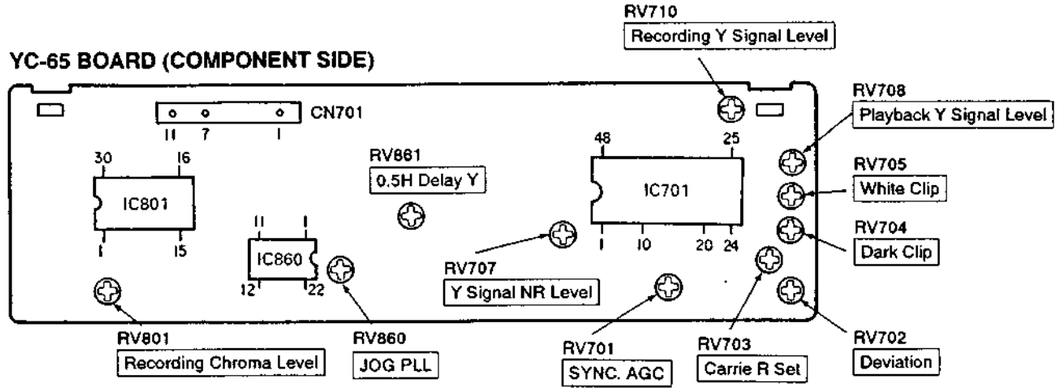
MF-94 BOARD (COMPONENT SIDE)



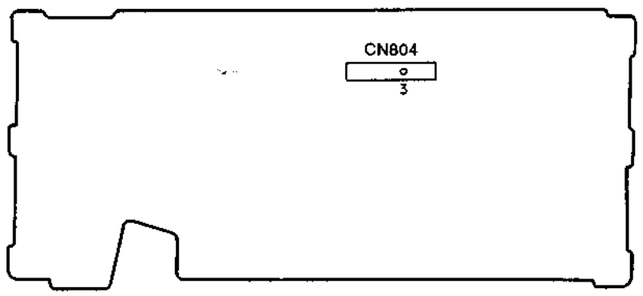
MA-62 BOARD (CONDUCTOR SIDE)



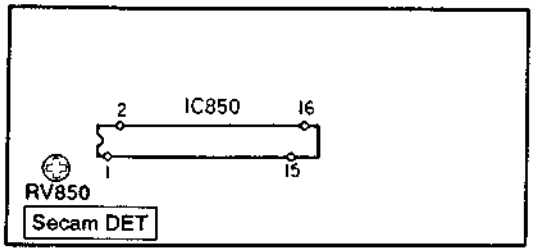
YC-65 BOARD (COMPONENT SIDE)



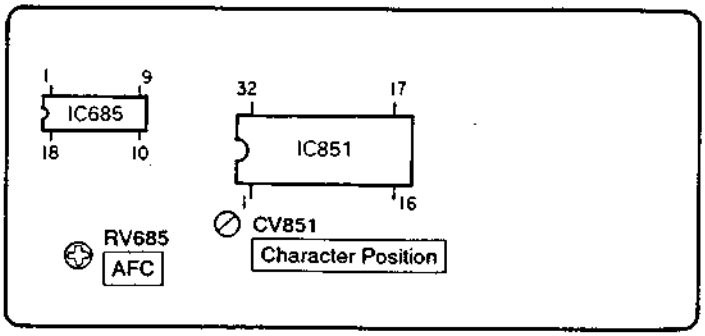
RP-63 BOARD (COMPONENT SIDE)



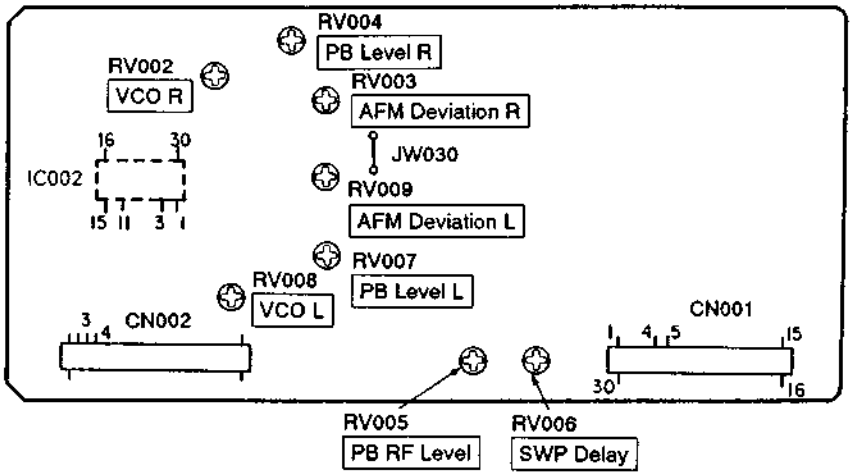
SD-4 BOARD (COMPONENT SIDE)



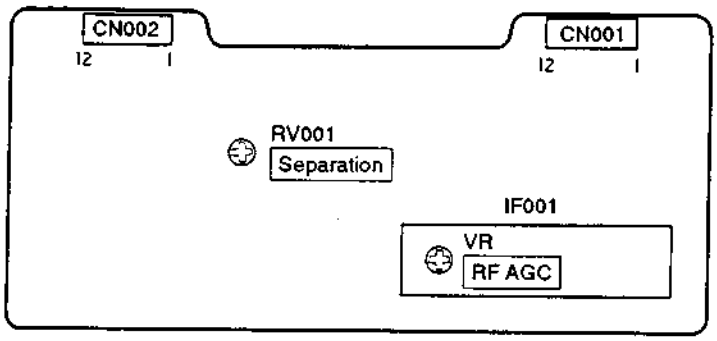
CG-10 BOARD (COMPONENT SIDE)



HF-9 BOARD (COMPONENT SIDE)



TU-120 BOARD (COMPONENT SIDE)



MA-7 BOARD (COMPONENT SIDE)