SLV-SE350/SE500/SE600/SE650/SE700/SE800/ SX600/SX700/SX800

RMT-V259/V259A/V259K/V259L/V288/V288A

SERVICE MANUAL

East European Model
SLV-SE500R/SE700R

French Model
SLV-SE600B/SE700B/SE800B/SX700B

German Model
SLV-SE650D/SE700D1/SE800D1/ SX700D/SX800D

Italian Model
SLV-SE600A/SE700D2/SE800D2

Middle East Model
SLV-SE350K/SE500K/SE600N/SE700K/ SE700N/SE800K/SE800N

North European Model
SLV-SE600E/SE700E2/SE800E/ SX600E/SX700E

Spanish Model
SLV-SE700E1

UK Model
SLV-SE700G/SE700I/SE800G

Photo: SLV-SE800

SR MECHANISM

Hi-Fi

- **Refer to the SERVICE MANUAL of VHS MECHANICAL ADJUSTMENTS VI for MECHANICAL ADJUSTMENTS. (9-921-647-11)**

* The abbreviations of SE350, SE500, SE600, SE650, SE700, SE800, SX600, SX700 and SX800 contained in this service manual are indicated when these models are common to all their corresponding models as given below.

Abbreviated model name	SE350	SE500	SE600	SE650	SE700	SE800	SX600	SX700	SX800
All model names SLV-	SE350K	SE500K SE500R	SE600A SE600B SE600E SE600N	SE650D	SE700B, SE700D1 SE700D2, SE700E1 SE700E2, SE700G SE700I, SE700K SE700N.SE700R	SE800B, SE800D1 SE800D2, SE800E SE800G, SE800K SE800N	SX600E	SX700B SX700D SX700E	SX800D

VHS VIDEO CASSETTE RECORDER

SONY®

SPECIFICATIONS

System

Channel coverage
SLV-SE350K, SE500K/R, SE600N, SE700N/K/R, SE800N/K:
PAL (B/G, D/K)
VHF E2 to E12, R1 to R12
UHF E21 to E69, R21 to R69
CATV S1 to S41, S01 to S05
SLV-SE600A/E, SX600E, SE650D, SE700D1/D2/E1/E2, SX700D/E, SE800D1/D2/E, SX800D:
PAL (B/G)
VHF E2 to E12
VHF Italian channel A to H
UHF E21 to E69
CATV S01 to S05, S1 to S20
HYPER S21 to S41
SLV-SE600B, SE700B, SX700B, SE800B:
SECAM (L)
VHF F2 to F12
UHF F21 to F69
CATV B to Q
HYPER S21 to S41
PAL (B/G)
VHF E2 to E12
VHF Italian channel A to H
UHF E21 to E69
CATV S01 to S05, S1 to S20
HYPER S21 to S41
SLV-SE700G/I, SE800G:
PAL (I)
VHF IA to IJ, SA10 to SA13 (SLV-SE700I)
UHF B21 to B69
CATV S01 to S05, S1 to S20 (SLV-SE700I)
HYPER S21 to S41 (SLV-SE700I)

RF output signal
UHF channels 21 to 69
Aerial out
75-ohm asymmetrical aerial socket
Tape speed
SLV-SE350K, SE500K/R, SE600N, SE700N/K/R, SE800N/K:
SP: PAL/MESECAM
23.39 mm/s (recording/playback)
NTSC 33.35 mm/s (playback only)
LP: PAL/MESECAM
11.70 mm/s (recording/playback)
NTSC 16.67 mm/s (playback only)
EP: NTSC 11.12 mm/s (playback only)
SLV-SE600A/E, SX600E, SE650D, SE700D1/D2/E1/E2/G/I, SX700D/E, SE800D1/D2/E/G, SX800D:
SP: PAL 23.39 mm/s (recording/playback)
NTSC 33.35 mm/s (playback only)
LP: PAL 11.70 mm/s (recording/playback)
NTSC 16.67 mm/s (playback only)
EP: NTSC 11.12 mm/s (playback only)
SLV-SE600B, SE700B, SX700B, SE800B:
SP: PAL 23.39 mm/s (recording/playback)
NTSC 33.35 mm/s (playback only)
SECAM 23.39 mm/s (recording/playback)
MESECAM 23.39 mm/s (playback only)
LP: PAL 11.70 mm/s (recording/playback)
NTSC 16.67 mm/s (playback only)
SECAM 11.70 mm/s (recording/playback)
MESECAM 11.70 mm/s (playback only)
EP: NTSC 11.12 mm/s (playback only)

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 splashes 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.

Maximum recording/playback time
    10 hrs. in LP mode (with E300 tape)
Fast-forward and rewind time
    Approx. 1 min (with E180 tape)

Inputs and outputs

⇨ LINE-1 (TV)
    21-pin
    Video input: pin 20
    Audio input: pins 2 and 6
    Video output: pin 19
    Audio output: pins 1 and 3

DECODER/⇦ LINE-2 IN (SLV-SE600B/E, SX600E, SE650D, SE700B/D1/D2/E1/E2/N/K, SX700B/D/E)
⇦ LINE-2 IN (SLV-SE700G, SE700I)
    21-pin
    Video input: pin 20
    Audio input: pins 2 and 6
DECODER/⇦ LINE-3 IN (SLV-SE500K, SE800B/D1/D2/E/N/K, SX800D)
⇦ LINE-3 IN (SLV-SE800G)
    21-pin
    Video input: pin 20
    Audio input: pins 2 and 6
LINE-2-IN (SLV-SE500, SE800, SX800)
    VIDEO IN, phono jack (1)
    Input signal: 1 Vp-p, 75 ohms, unbalanced, sync negative
    AUDIO IN, phono jack (1) (SLV-SE500K/R, SE800N/K)
    AUDIO IN, phono jack (2)
    (EXCEPT SLV-SE500K/R, SE800N/K)
    Input level: 327 mVrms
    Input impedance: more than 47 kilohms
AUDIO OUT (SLV-SE650, SE700, SX700, SE800, SX800)
    Phono jack (2)
    Rated output level: 327mVrms
    Load impedance: 47 kilohms
    Output inpedance: less than10 kilohms
AUDIO OUT (SLV-SE500R)
    Phono jack (1)
    Rated output level: 327 mVrms
    Load impedance: 47 kilohms
    Output impedance: less than 10 kilohms

General

Power requirements
    220 - 240 V AC, 50 Hz
Power consumption
    21 W
Operating temperature
    5ºC to 40ºC
Storage temperature
    –20ºC to 60ºC
Dimensions including projecting parts and controls
    Approx. 430 × 100 × 283 mm (w/h/d)
    (EXCEPT SLV-SE800, SX800)
    Approx. 430 × 100 × 290 mm (w/h/d)
    (SLV-SE800, SX800)
Mass
    Approx. 4.3 kg (EXCEPT SLV-SE800, SX800)
    Approx. 4.4 kg (SLV-SE800, SX800)

Supplied accessories

Remote commander (1)
R6 (size AA) batteries (2)
Aerial cable (1)

Design and specifications are subject to change without notice.

- **Feature Difference**

SLV- / FEATURE	SE350K	SE500K	SE500R	SE600A	SE600B	SE600E	SE600N	SE650D	SE700B	SE700D1
HEAD/CH	2/2	4/4	4/4	4/6	4/6	4/6	4/6	4/6	4/6	4/6
SECAM(REC/PB)	×/×	×/×	×/×	×/×	○/○	×/×	×/×	×/×	○/○	×/×
ME-SECAM(REC/PB)	○/○	○/○	○/○	×/×	×/○	×/×	○/○	×/×	×/○	×/×
EURO INPUT	21pin	21pin × 2	21pin	21pin	21pin × 2	21pin × 2	21pin	21pin × 2	21pin × 2	21pin × 2
RCA FRONT LINE INPUT	×	2pin (B.Y)	2pin (B.Y)	×	×	×	×	×	×	×
ADDITIONAL REAR OUTPUT (AUDIO OUT)	×	×	1pin (B)	×	×	×	×	2pin (R.W)	2pin (R.W)	2pin (R.W)
MODULATOR SYSTEM	G/K	G/K	G/K	G	L/G	G	G/K	G	L/G	G
REMOTE COMMANDER RMT-	V288	V259	V259	V288	V288A	V288	V288	V288	V259A	V259

SLV- / FEATURE	SE700D2	SE700E1	SE700E2	SE700G	SE700I	SE700K	SE700N	SE700R	SE800B	SE800D1
HEAD/CH	4/6	4/6	4/6	4/6	4/6	4/6	4/6	4/6	4/6	4/6
SECAM(REC/PB)	×/×	×/×	×/×	×/×	×/×	×/×	×/×	×/×	○/○	×/×
ME-SECAM(REC/PB)	×/×	×/×	×/×	×/×	×/×	○/○	○/○	○/○	×/○	×/×
EURO INPUT	21pin × 2	21pin × 2	21pin × 2	21pin × 2	21pin × 2	21pin × 2	21pin × 2	21pin	21pin × 2	21pin × 2
RCA FRONT LINE INPUT	×	×	×	×	×	×	×	×	3pin (R.W.Y)	3pin (R.W.Y)
ADDITIONAL REAR OUTPUT (AUDIO OUT)	2pin (R.W)	2pin (R.W)	2pin (R.W)	2pin (R.W)	2pin (R.W)	2pin (R.W)	2pin (R.W)	2pin (R.W)	2pin (R.W)	2pin (R.W)
MODULATOR SYSTEM	G	G	G	I	I	G/K	G/K	G/K	L/G	G
REMOTE COMMANDER RMT-	V259	V259	V259	V259K	V259I	V259	V259	V259	V259L	V259K

SLV- / FEATURE	SE800D2	SE800E	SE800G	SE800K	SE800N	SX600E	SX700B	SX700D	SX700E	SX800D
HEAD/CH	4/6	4/6	4/6	4/6	4/6	4/6	4/6	4/6	4/6	4/6
SECAM(REC/PB)	×/×	×/×	×/×	×/×	×/×	×/×	○/○	×/×	×/×	×/×
ME-SECAM(REC/PB)	×/×	×/×	×/×	○/○	○/○	×/×	×/○	×/×	×/×	×/×
EURO INPUT	21pin × 2	21pin × 2	21pin × 2	21pin × 2	21pin × 2	21pin × 2	21pin × 2	21pin × 2	21pin × 2	21pin × 2
RCA FRONT LINE INPUT	3pin (R.W.Y)	3pin (R.W.Y)	3pin (R.W.Y)	3pin (R.W.Y)	3pin (R.W.Y)	×	×	×	×	3pin (R.W.Y)
ADDITIONAL REAR OUTPUT (AUDIO OUT)	2pin (R.W)	2pin (R.W)	2pin (R.W)	2pin (R.W)	2pin (R.W)	×	2pin (R.W)	2pin (R.W)	2pin (R.W)	2pin (R.W)
MODULATOR SYSTEM	G	G	I	G/K	G/K	G	L/G	G	G	G
REMOTE COMMANDER RMT-	V259K	V259K	V259L	V259	V259	V288	V259L	V259K	V259K	V259

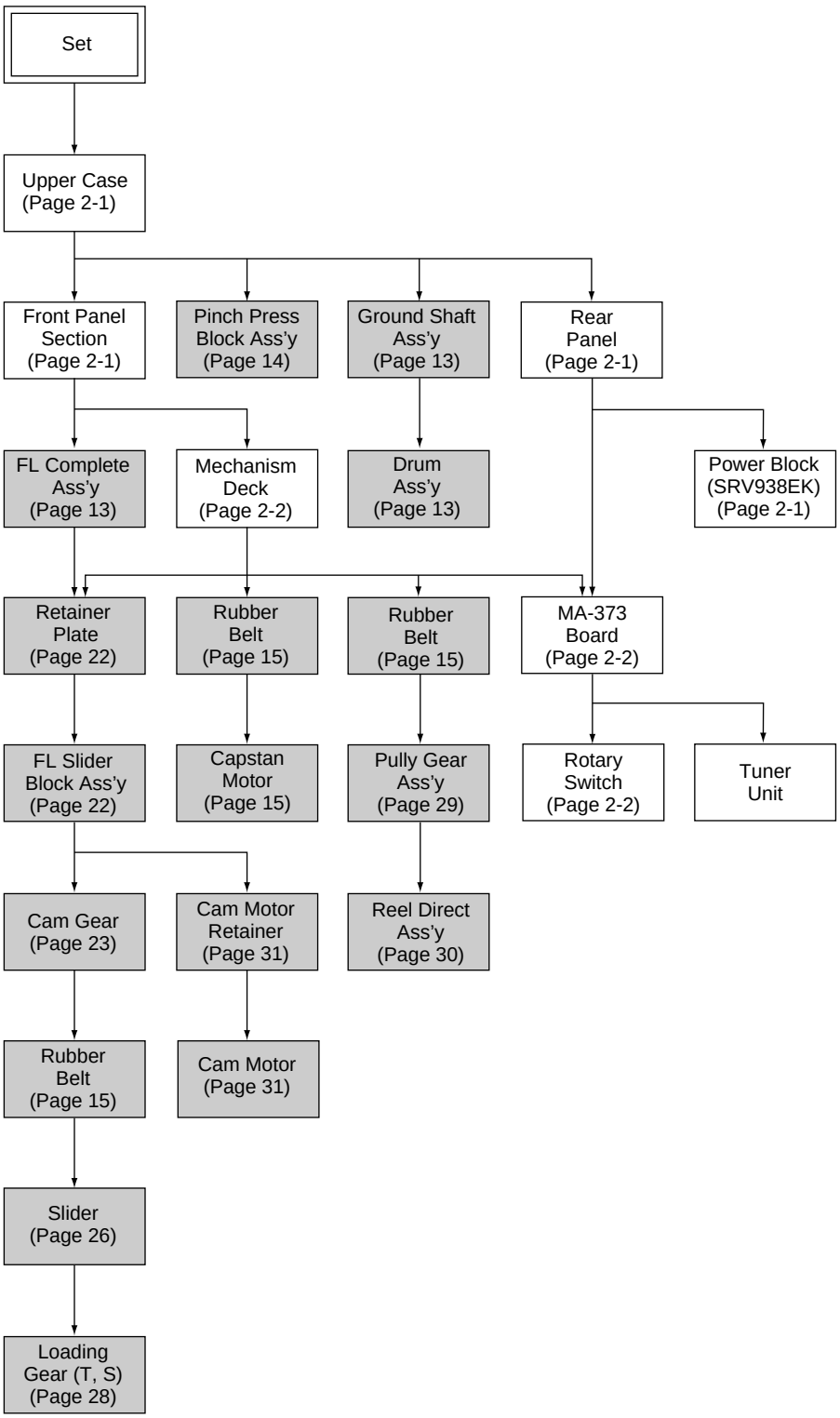
TABLE OF CONTENTS

SERVICE NOTE

1. DISASSEMBLY

• This set can be disassembled in the order shown below.

Note: Pages in ▭ indicated pages in the SERVICE MANUAL.
Pages in ▭ indicated pages in the VHS MECHANICAL ADJUSTMENT MANUAL VI.

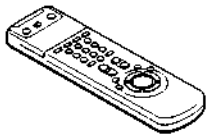


This section is extracted from SLV-SE800N/K instruction manual. (3-868-277-11)

Step 1 : Unpacking

Check that you have received the following items with the VCR:

- Remote commander
- Aerial cable



- R6 (size AA) batteries

Check your model name

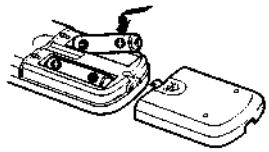
The instructions in this manual are for the 9 models: SLV-SE350K, SE500K, SE500R, SE600N, SE700N, SE700K, SE700R, SE800N, and SE800K. Check your model number by looking at the rear panel of your VCR.
SLV-SE800N is the model used for illustration purposes. Any difference in operation is clearly indicated in the text, for example, "SLV-SE500K only."

Step 2 : Setting up the remote commander

Inserting the batteries

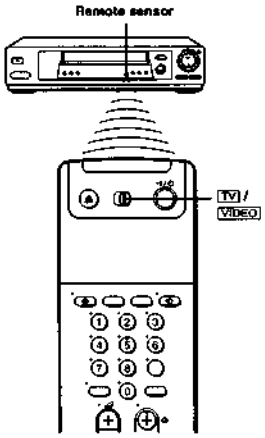
Insert two R6 (size AA) batteries by matching the + and – on the batteries to the diagram inside the battery compartment.

Insert the negative (–) end first, then push in and down until the positive (+) end clicks into position.



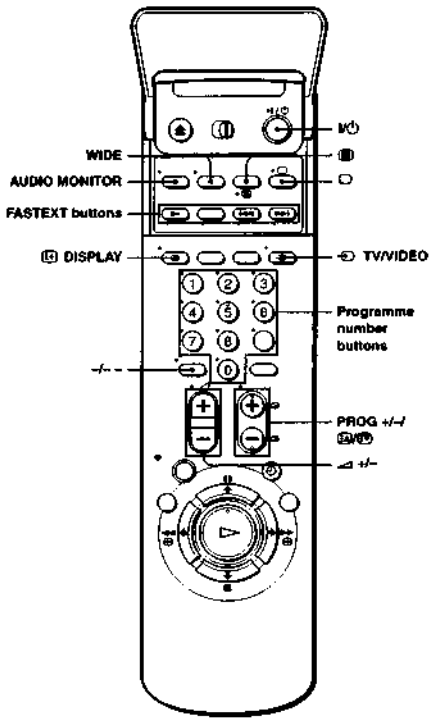
Using the remote commander

You can use this remote commander to operate this VCR and a Sony TV. Buttons on the remote commander marked with a dot (•) can be used to operate your Sony TV. If the TV does not have the ■ symbol near the remote sensor, this remote commander will not operate the TV.



To operate	Set TV / VIDEO to
the VCR	VIDEO and point at the remote sensor at the VCR
a Sony TV	TV and point at the remote sensor at the TV

continued



TV control buttons

To	Press
Set the TV to standby mode	I/⏻
Select an input source: aerial in or line in	TV/VIDEO
Select the TV's programme position	Programme number buttons, –/– –, PROG +/–

To	Press
Adjust the volume of the TV	+/–
Switch to TV (Teletext off)*	(TV)
Switch to Teletext*	(Teletext)
Select the sound	AUDIO MONITOR
Use FASTEXT*	FASTEXT buttons
Call up the on-screen display	DISPLAY
Change the Teletext page*	
Switch to/from wide mode of a Sony wide TV (For other manufactures' wide TVs, see "Controlling other TVs with the remote commander (not available on SLV-SE350K and SE600N)" below.)	WIDE

Notes

- With normal use, the batteries should last about three to six months.
- If you do not use the remote commander for an extended period of time, remove the batteries to avoid possible damage from battery leakage.
- Do not use a new battery together with an old one.
- Do not use different types of batteries together.
- Some buttons may not work with certain Sony TVs.

* not available on SLV-SE350K and SE600N

Controlling other TVs with the remote commander (not available on SLV-SE350K and SE600N)

The remote commander is preprogrammed to control non-Sony TVs. If your TV is listed in the following table, set the appropriate manufacturer's code number.

1 Set TV / VIDEO at the top of the remote commander to TV.

2 Hold down I/⏻, and enter your TV's code number using the programme number buttons. Then release I/⏻.

Now you can use the following TV control buttons to control your TV:

I/⏻, TV/VIDEO, programme number buttons, –/– – (ten's digit), PROG +/–, +/–, (TV), (Teletext), FASTEXT buttons, WIDE*, MENU*, ↑/↓/←/→*, and OK*.

* These buttons may not work with all TVs

continued

Code numbers of controllable TVs

If more than one code number is listed, try entering them one at a time until you find the one that works with your TV.

To switch to wide mode, see the footnotes below this table for the applicable code numbers.

Manufacturer	Code number
Sony	01*1, 02
Akai	68
Ferguson	52
Grundig	10*1, 11*1
Hitachi	24
JVC	33
Loewe	45
Mivar	09, 70
NEC	66
Nokia	15, 16, 69*3

Manufacturer	Code number
Panasonic	17*1, 49
Philips	06*1, 07*1, 08*1
Saba	12, 13
Samsung	22, 23
Sanyo	25
Sharp	29
Telefunken	36
Thomson	43*2
Toshiba	38

*1 Press WIDE to switch the wide picture mode on or off.
*2 Press WIDE, then press +/– to select the wide picture mode you want.
*3 Press WIDE. The menu appears on the TV screen. Then, press ↑/↓/←/→ to select the wide picture you want and press OK.

Tip

- To see if you set your TV's code number correctly, try turning your TV on and off with the I/⏻ button.

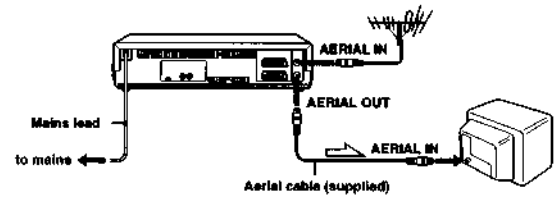
Notes

- If you enter a new code number, the code number previously entered will be erased.
- If the TV uses a different remote control system from the one programmed to work with the VCR, you cannot control your TV with the remote commander.
- When you replace the batteries of the remote commander, the code number may change. Set the appropriate code number every time you replace the batteries.

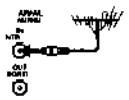
Step 3 : Connecting the VCR

If your TV has a Scart (EURO-AV) connector, see page 10.

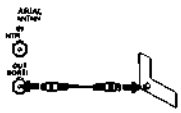
If your TV does not have a Scart (EURO-AV) connector



1 Disconnect the aerial cable from your TV and connect it to AERIAL IN on the rear panel of the VCR.



2 Connect AERIAL OUT of the VCR and the aerial input of your TV using the supplied aerial cable.



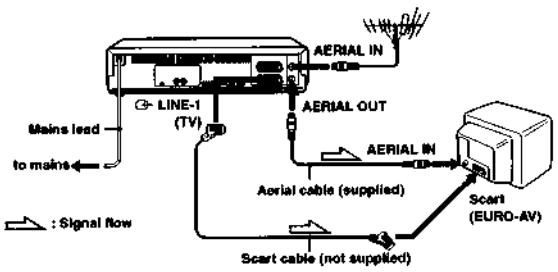
3 Connect the mains lead to the mains.

Note

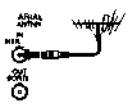
- When you connect the VCR and your TV only with an aerial cable, you have to tune your TV to the VCR (see page 14).

continued

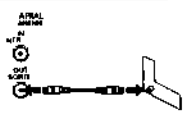
If your TV has a Scart (EURO-AV) connector



1 Disconnect the aerial cable from your TV and connect it to AERIAL IN on the rear panel of the VCR.



2 Connect AERIAL OUT of the VCR and the aerial input of your TV using the supplied aerial cable.



3 Connect LINE-1 (TV) on the VCR and the Scart (EURO-AV) connector on the TV with the optional Scart cable.

This connection improves picture and sound quality. Whenever you want to watch the VCR picture, press ⮌ TV/VIDEO to display the VIDEO indicator in the display window.

4 Connect the mains lead to the mains.

Note

- If the TV is connected to the LINE-1 (TV) connector, setting the RF channel to OFF is recommended. In the OFF position, only the signal from the aerial is output through the AERIAL OUT connector (see page 16).

About the SMARTLINK features (not available on SLV-SE600N and SE700R)

SMARTLINK

If the connected TV complies with SMARTLINK, MEGALOGIC*1, EASYLINK*2, Q-Link*3, EURO VIEW LINK*4, or T-V LINK*5, this VCR automatically runs the SMARTLINK function after you complete the steps on the previous page (the SMARTLINK indicator appears in the VCR's display window when you turn on the TV). You can enjoy the following SMARTLINK features.

- Preset Download
  You can download your TV tuner preset data to this VCR and tune the VCR according to that data in Auto Set Up. This greatly simplifies the Auto Set Up procedure. Be careful not to disconnect the cables or exit the Auto Set Up function during the procedure.
  See "Setting up the VCR with the Auto Set Up function" on page 17.
- TV Direct Rec
  You can easily record what you are watching on the TV. For details, see "Recording what you are watching on the TV (TV Direct Rec) (not available on SLV-SE600N and SE700R)" on page 47.
- One Touch Play
  With One Touch Play, you can start playback automatically without turning on the TV. For details, see "Starting playback automatically with one button (One Touch Play) (not available on SLV-SE600N and SE700R)" on page 43.
- One Touch Menu
  You can turn on the VCR and TV, set the TV to the video channel, and display the VCR's on-screen display automatically by pressing MENU on the remote commander.
- One Touch Timer
  You can turn on the VCR and TV, set the TV to the video channel, and display the timer recording menu (the TIMER METHOD menu, the TIMER menu, or the SHOWVIEW menu) automatically by pressing ⏲ TIMER on the remote commander.
  You can set which timer recording menu is displayed using TIMER OPTIONS in the OPTIONS-2 menu (see page 79).
- Automatic Power Off
  You can have the VCR turn off automatically, if the VCR is not used after you turn off the TV.

*1 "MEGALOGIC" is a registered trademark of Grundig Corporation.
*2 "EASYLINK" is a trademark of Philips Corporation.
*3 "Q-Link" is a trademark of Panasonic Corporation
*4 "EURO VIEW LINK" is a trademark of Toshiba Corporation
*5 "T-V LINK" is a trademark of JVC Corporation.

Note

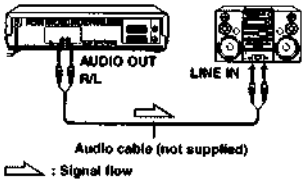
- Not all TVs respond to the functions above.

continued

Additional connections

To a stereo system (SLV-SE700N/K and SE600N only)

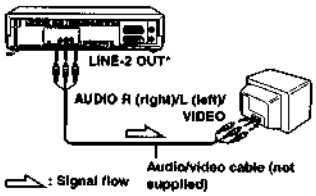
You can improve sound quality by connecting a stereo system to the AUDIO OUT R/L jacks as shown on the right.



To a TV with audio and video jacks (SLV-SE500R, SE700R and SE800K only)

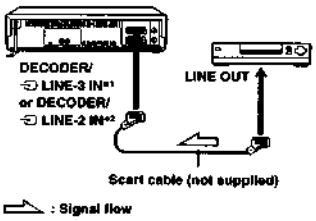
If your TV does not have a Scart (EURO-AV) connector, you can improve sound and picture quality by connecting your TV to the LINE-2 OUT jacks as shown on the right.

* SLV-SE500R has only AUDIO L (left) and VIDEO jacks.



To a satellite or digital tuner with Line Through (not available on SLV-SE350K, SE500R, SE600N and SE700R)

Using the Line Through function, you can watch programmes from a satellite or digital tuner connected to this VCR on the TV even when the VCR is turned off. When you turn on the satellite or digital tuner, this VCR automatically sends the signal from the satellite or digital tuner to the TV without turning itself on.



1 Connect the satellite or digital tuner to the DECODER/LINE-3 IN*1 (or DECODER/LINE-2 IN*2) connector as shown above.

2 Set DECODER/LINE3*1 (or DECODER/LINE2*2) to LINE3*1 (or LINE2*2) in the OPTIONS-2 menu.

3 Set POWER SAVE to OFF in the OPTIONS-2 menu.

4 Turn off the VCR.

To watch a programme, turn on the satellite or digital tuner and the TV.

Note

- You cannot watch programmes on the TV while recording unless you are recording a satellite or digital programme.

*1 SLV-SE500K and SE800N/K only
*2 SLV-SE700N/K only

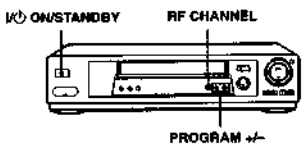
Getting Started

Step 4 : Tuning your TV to the VCR

If your TV has a Scart (EURO-AV) connector, see page 16.

If your TV does not have a Scart (EURO-AV) connector

Follow the steps below so that your TV will properly receive the video signals from your VCR.

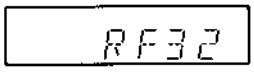


1 ON/STAN I/⏻ — Press I/⏻ ON/STANDBY to turn on the VCR.

2 AUTO ST UP / R CANNL — Press RF CHANNEL on the VCR lightly.

The factory-preset RF channel appears in the display window.

The VCR signal is output through this channel to the TV.

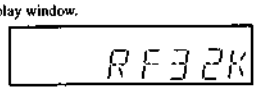


3 Turn on your TV and select a programme position for the VCR picture.

This programme position will now be referred to as the video channel.

4 AUTO ST UP / R CANNL — Press RF CHANNEL.

The TV system appears in the display window.



5 PROGRA – + TRACING — Press PROGRAM +/– (repeatedly) to select the appropriate TV system for your area.

Select "G" for the B/G TV system, or "K" for the D/K TV system.

6 Tune the TV to the same channel shown in the VCR display window so that the picture on the right appears clearly on the TV screen.

Refer to your TV manual for TV tuning instructions.

If you select the wrong TV system in step 5, the picture on the right may not appear. Select the appropriate TV system and tune the TV again.

If the picture does not appear clearly, see "To obtain a clear picture from the VCR" below.

7 AUTO ST UP / R CANNL — Press RF CHANNEL.

You have now tuned your TV to the VCR. Whenever you want to play a tape, set the TV to the video channel.

To check to see if the TV tuning is correct

Set the TV to the video channel and press PROGRAM +/– on the VCR. If the TV screen changes to a different programme each time you press PROGRAM +/–, the TV tuning is correct.

To obtain a clear picture from the VCR

If the screen does not appear clearly in step 6 above, go to step 7 to finish this procedure once. Then start again from step 2. After pressing RF CHANNEL in step 2, press PROGRAM +/– while the RF channel is displayed, so that another RF channel appears. Then tune the TV to the new RF channel so that a clear picture appears.

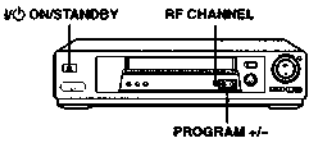
Note

- If you set the wrong TV system, you may have no sound or sound may be distorted.

Getting Started

continued

If your TV has a Scart (EURO-AV) connector

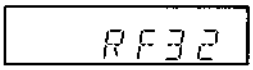


1 Press I/⏻ ON/STANDBY to turn on the VCR.

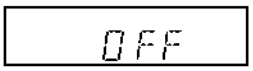
2 Press RF CHANNEL on the VCR lightly.

The factory-preset RF channel appears in the display window.

The VCR signal is output through this channel to the TV.



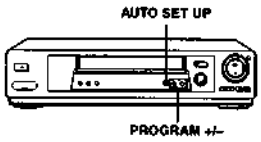
3 Press PROGRAM +/– to set the RF channel to OFF, and press RF CHANNEL again.



RF channel set up is complete.

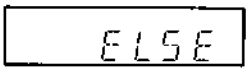
Step 5 : Setting up the VCR with the Auto Set Up function

Before using the VCR for the first time, set up the VCR using the Auto Set Up function. With this function, you can set the language for the on-screen display, TV channels, guide channels for the ShowView system*, and VCR clock* automatically.



1 Hold down AUTO SET UP on the VCR for more than three seconds.

The VCR automatically turns on, and the country abbreviation appears in the display window.



2 Press PROGRAM +/– to select the abbreviation of your country from the table on page 18.

For some countries, there is a selection of languages to choose from.

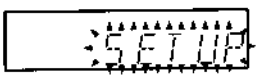
If your country does not appear, select ELSE.

continued

3 Press AUTO SET UP lightly.

The VCR starts searching for all of the receivable channels and presets them according to the TV system you selected in "Tuning your TV to the VCR" on page 14.

If you want to change the order of the channels or disable unwanted programme positions, see "Changing/disabling programme positions" on page 30.



If you use the SMARTLINK connection (not available on SLV-SE600N and SE700R), the Preset Download function starts and the SMARTLINK indicator flashes in the display window during download.

After the search or download is complete, the current time appears in the display window for any stations that transmit a time signal (not available on SLV-SE500R, SE600N and SE700R).

The abbreviations of the countries and languages are as follows:

Abbreviation	Country	Language
CZ	Checho	Czech
HUN	Hungary	Hungarian
PL	Poland	Polish
SK	Slovakia	Slovak
TR	Turkey	Turkish
RUS	Russia	Russian
ELSE	Other countries	English

To cancel the Auto Set Up function

Press AUTO SET UP.

Tip

- If you want to change the language for the on-screen display from the one preset in the Auto Set Up function, see page 24.

Notes

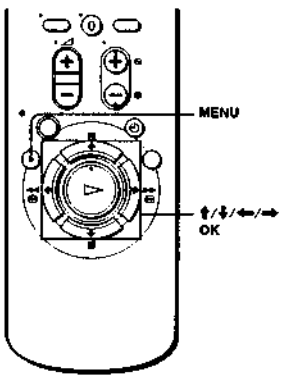
- If you stop the Auto Set Up function during step 3, you must repeat set up from step 1.
- Whenever you operate the Auto Set Up function, some of the settings (ShowView*, timer, etc.) will be reset. If this happens, you have to set them again.

* not available on SLV-SE500R, SE600N and SE700R

Step 6 : Setting the clock

You must set the time and date on the VCR to use the timer features properly.

The Auto Clock Set function (not available on SLV-SE500R, SE600N and SE700R) works only if a station in your area is broadcasting a time signal. If the Auto Set Up function did not set the clock correctly for your local area, try another station for the Auto Clock Set function (see page 22).

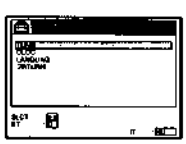


Setting the clock manually

Before you start...

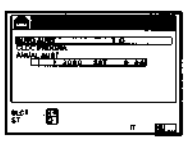
- Turn on the VCR and the TV.
- Set the TV to the video channel.

1 Press MENU, then press ↑/↓ to highlight SETTINGS and press OK.



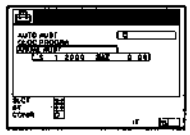
2 Press ↑/↓ to highlight CLOCK, then press OK.

For SLV-SE500R, SE600N and SE700R, only the clock setting menu appears. Skip the next step and go to step 4.

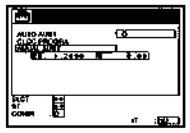


continued

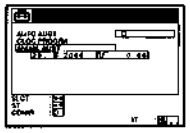
3 Press ↑/↓ to highlight MANUAL ADJUST, then press OK.



4 Press ↑/↓ to set the day.

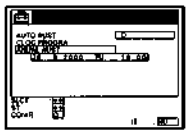


5 Press → to highlight the month and set the month pressing ↑/↓.

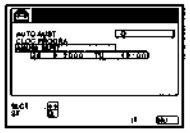


6 Set the year, hour, and minutes in sequence, pressing → to highlight the item to be set, and press ↑/↓ to select the digits.

The day of the week is set automatically.



7 Press OK to start the clock.



8 Press MENU to exit the menu.

Tips

- To change the digits while setting, press ← to return to the item to be changed, and select the digits by pressing ↑/↓.
- If you want to return to the previous menu, highlight RETURN and press OK.

Note

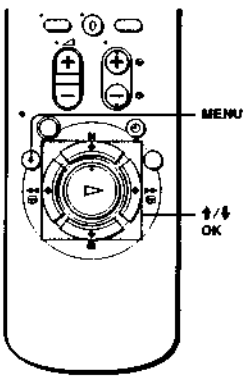
- The menu disappears automatically if you don't proceed for more than a few minutes.

Getting Started

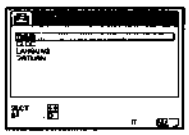
Changing the station for the Auto Clock Set function (not available on SLV-SE500R, SE600N and SE700R)

Before you start...

- Turn on the VCR and the TV.
- Set the TV to the video channel.

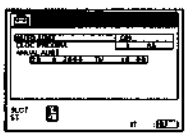


1 Press MENU, then press ↑/↓ to highlight SETTINGS and press OK.

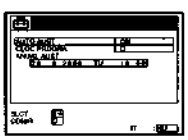


2 Press ↑/↓ to highlight CLOCK, then press OK.

AUTO ADJUST is highlighted.

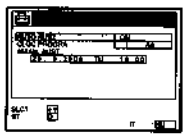


3 Press OK.

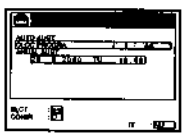


continued

4 Press ↑/↓ to highlight ON, then press OK.



5 Press ↓ to highlight CLOCK PROGRAM, then press OK.



6 Press ↑/↓ repeatedly until the programme position of the station that carries a time signal appears.

If the VCR does not receive a time signal from any station, AUTO ADJUST returns to OFF automatically.

7 Press MENU to exit the menu.

Tips

- If you set AUTO ADJUST to ON, the Auto Clock Set function is activated whenever the VCR is turned off. The time is adjusted automatically by making reference to the time signal from the station whose programme position is displayed in the "CLOCK PROGRAM" row. If you do not need the Auto Clock Set, select OFF.
- If you want to return to the previous menu, highlight RETURN and press OK.

Note

- The menu disappears automatically if you don't proceed for more than a few minutes

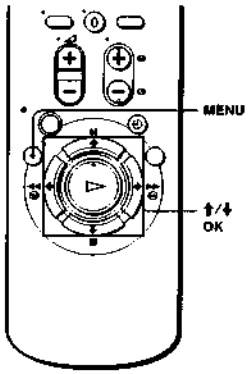
Getting Started

Selecting a language

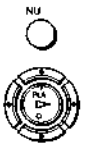
You can change the on-screen display language from the one you selected with the Auto Set Up function.

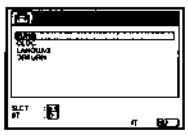
Before you start...

- Turn on the VCR and the TV.
- Set the TV to the video channel.

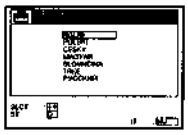


1 Press MENU, then press ↑/↓ to highlight SETTINGS and press OK.





2 Press ↑/↓ to highlight LANGUAGE, then press OK.



3 Press ↑/↓ to highlight the desired language, then press OK.

4 Press MENU to exit the menu.

Tip

- If you want to return to the previous menu, highlight RETURN and press OK.

Note

- The menu disappears automatically if you don't proceed for more than a few minutes.

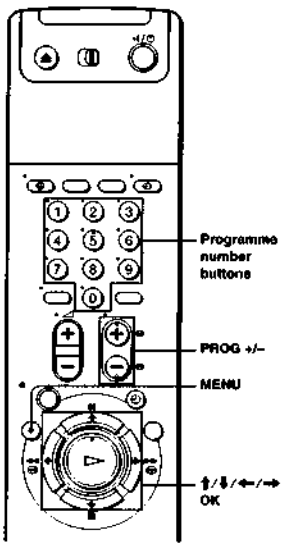
Getting Started

Presetting channels

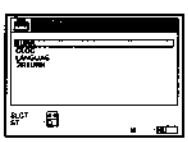
If some channels could not be preset using the Auto Set Up function, you can preset them manually.

Before you start...

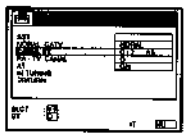
- Turn on the VCR and the TV.
- Set the TV to the video channel.



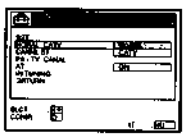
1 Press MENU, then press ↑/↓ to highlight SETTINGS and press OK.



2 Press ↑/↓ to highlight TUNER, then press OK.

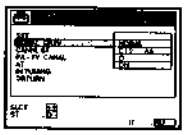


3 Press ↑/↓ to highlight NORMAL/CATV, then press OK.



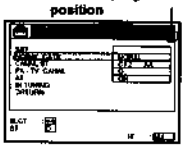
4 Press ↑/↓ to highlight NORMAL, then press OK.

To preset CATV (Cable Television) channels, select CATV.

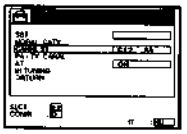


5 Press PROG +/– to select the programme position.

Selected programme position



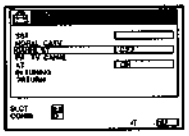
6 Press ↑/↓ to highlight CHANNEL SET, then press OK.



Getting Started

continued

7 Press ↑/↓ repeatedly until the channel you want is displayed.

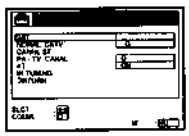


The channels appear in the following order:

B/G TV system		D/K TV system	
Channel number in the CHANNEL SET field	**Receivable Channel**	**Channel number in the CHANNEL SET field**	**Receivable Channel**
C02	E2	C02	R1
C03	E3	C05	R6
C04	E4	C06	R7
C05	E5	C12	R12
C06	E6	C13	R2
C07	E7	C14	R3
C08	E8	C15	R4
C09	E9	C16	R5
C10	E10	C17	R8
C11	E11	C18	R9
C12	E12	C19	R10
C21–C69	E21–E69	C20	R11
S01–S41	S1–S41	C21–C69	R21–R69
S42–S46	S01–S05		

If you know the number of the channel you want, press the programme number buttons. For example, for channel 5, first press "0" and then press "5."

8 If the TV sound is distorted or noisy, press ↑/↓ to highlight SYSTEM and press OK. Then press ↑/↓ to select B/G or D/K so that you get better sound.



9 To preset another programme position, repeat steps 5 through 7.

10 MENU Press MENU to exit the menu.

If the picture is not clear

Normally, the Auto Fine Tuning (AFT) function automatically tunes in channels clearly. However, if the picture is not clear, you may also use the manual tuning function.

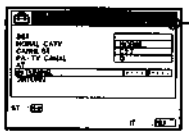
1 Press PROG +/– or the programme number buttons to select the programme position for which you cannot obtain a clear picture.

2 Press MENU, then select SETTINGS and press OK.

3 Select TUNER, then press OK.

4 Select FINE TUNING, then press OK.

The fine tuning meter appears.



5 Press ←/→ to get a clearer picture, then press MENU to exit the menu.

Note that the AFT (Auto Fine Tuning) setting switches to OFF.

Tip

- If you want to return to the previous menu, highlight RETURN and press OK.

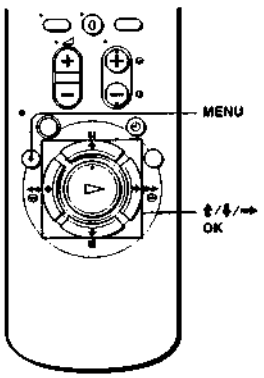
Notes

- The menu disappears automatically if you don't proceed for more than a few minutes.
- When adjusting FINE TUNING, the menu may become difficult to read due to interference from the picture being received.

Changing/disabling programme positions

After setting the channels, you can change the programme positions as you like. If any programme positions are unused or contain unwanted channels, you can disable them.

You can also change the station names (not available on SLV-SE500R, SE600N and SE700R). If the station names are not displayed, you can enter them manually.

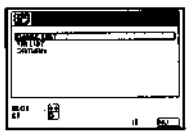


Changing programme positions

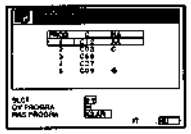
Before you start...

- Turn on the VCR and the TV.
- Set the TV to the video channel.

1 MENU Press MENU, then press ↑/↓ to highlight LISTS and press OK.

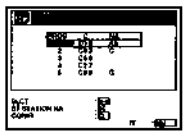


2 Press ↑/↓ to highlight CHANNEL LIST, then press OK.



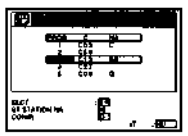
3 Press ↑/↓ to highlight the row which you want to change the programme position, then press →.

To display other pages for programme positions 6 to 60, press ↑/↓ repeatedly.



4 Press ↑/↓ until the selected channel row moves to the desired programme position.

The selected channel is inserted at the new programme position and the intermediate channels are displaced to fill the gap.



5 Press OK to confirm the setting.

6 To change the programme position of another station, repeat steps 3 through 5.

7 MENU Press MENU to exit the menu.

Tip

- If you want to return to the previous menu, highlight RETURN and press OK.

Note

- The menu disappears automatically if you don't proceed for more than a few minutes.

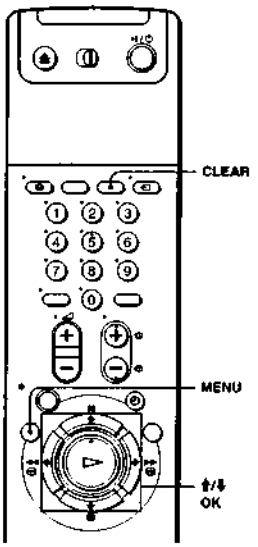
continued

Disabling unwanted programme positions

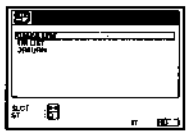
After presetting channels, you can disable unused programme positions. The disabled positions will be skipped later when you press the PROG +/– buttons.

Before you start...

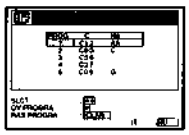
- Turn on the VCR and the TV.
- Set the TV to the video channel.



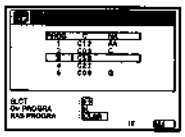
1 Press MENU, then press ↑/↓ to highlight LISTS, and press OK.



2 Press ↑/↓ to highlight CHANNEL LIST, then press OK.

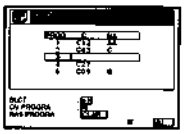


3 Press ↑/↓ to highlight the row which you want to disable.



4 Press CLEAR.

The selected row will be cleared as shown on the right.



5 Repeat steps 3 and 4 for any other programme positions you want to disable.

6 Press MENU to exit the menu.

Tip

- If you want to return to the previous menu, highlight RETURN and press OK.

Notes

- The menu disappears automatically if you don't proceed for more than a few minutes.
- Be sure to select the programme position you want to disable correctly. If you disable a programme position by mistake, you need to reset that channel manually.

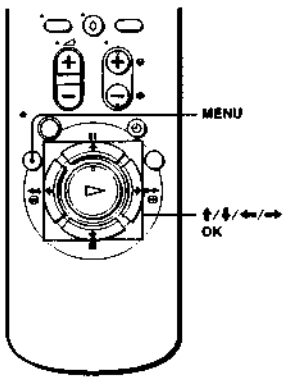
continued

Changing the station names (not available on SLV-SE500R, SE600N and SE700R)

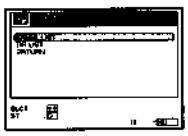
You can change or enter the station names (up to 5 characters). The VCR must receive channel information (for instance, SMARTLINK information) for station names to appear automatically.

Before you start...

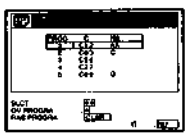
- Turn on the VCR and the TV.
- Set the TV to the video channel.



1 Press MENU, then press ↑/↓ to highlight LISTS and press OK.

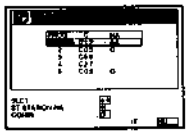


2 Press ↑/↓ to highlight CHANNEL LIST, then press OK.

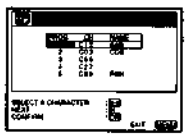


3 Press ↑/↓ to highlight the row which you want to change or enter the station name, then press ➡.

To display other pages for programme positions 6 to 60, press ↑/↓ repeatedly.

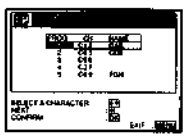


4 Press ➡



5 Enter the station name.

1 Press ↑/↓ to select a character.
Each time you press ↑, the character changes as shown below.
A → B → ... → Z → a → b → ... → z → 0 → 1 → ... → 9 → (symbols) → (blank space) → A



2 Press ➡ to set the next character.
The next space is highlighted
To correct a character, press ⬅/➡ until the character you want to correct is highlighted, then reset it.

You can set up to 5 characters for the station name.

6 Press OK to confirm the new name.

7 Press MENU to exit the menu.

Tip

- If you want to return to the previous menu, highlight RETURN and press OK.

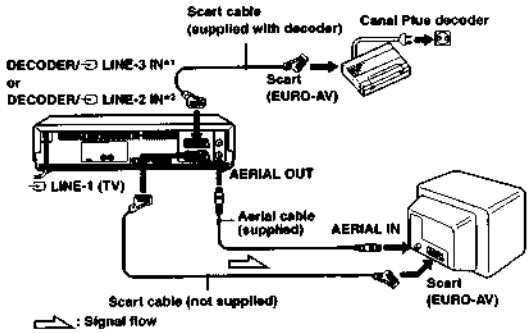
Notes

- The menu disappears automatically if you don't proceed for more than a few minutes.
- If you enter a symbol in step 5, it will appear as a blank space in the display window.

Setting the Canal Plus decoder
(not available on SLV-SE350K, SE500R, SE600N and SE700R)

You can watch or record Canal Plus programmes if you connect a decoder (not supplied) to the VCR.

Connecting a decoder



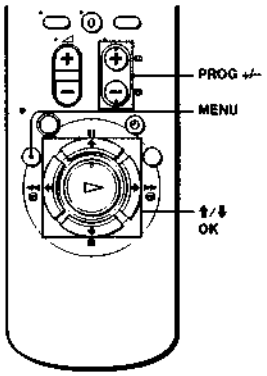
Setting Canal Plus channels

To watch or record Canal Plus programmes, set your VCR to receive the channels using the on-screen display.

In order to set the channels correctly, be sure to follow all of the steps below.

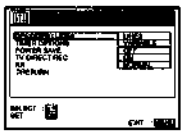
Before you start...

- Turn on the VCR, the TV, and the decoder.
- Set the TV to the video channel.

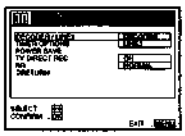


1 Press MENU, then press ↑/↓ to highlight OPTIONS and press OK.

2 Press ↑/↓ to highlight OPTIONS-2, then press OK.

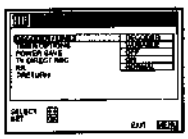


3 Press ↑/↓ to highlight DECODER/LINE3*1 (or DECODER/LINE2*2), then press OK.



continued

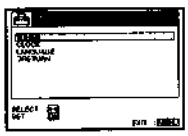
4 Press ↑/↓ to highlight DECODER, then press OK.



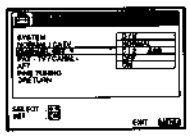
5 Press MENU to exit the menu.

The menu disappears from the TV screen.

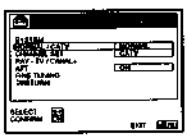
6 Press MENU again. Then press ↑/↓ to highlight SETTINGS and press OK.



7 Press ↑/↓ to highlight TUNER, then press OK.

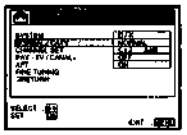


8 Press ↑/↓ to highlight NORMAL/CATV, then press OK.

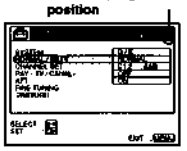


9 Press ↑/↓ to highlight NORMAL, then press OK.

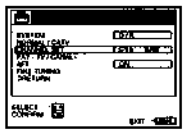
To preset CATV (Cable Television) channels, select CATV.



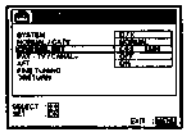
10 Press PROG +/– to select the desired programme position.



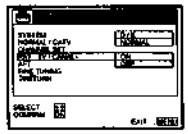
11 Press ↑/↓ to highlight CHANNEL SET, then press OK.



12 Press ↑/↓ to select the Canal Plus channels, then press OK.

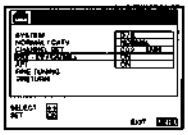


13 Press ↑/↓ to highlight PAY-TV/CANAL+, then press OK.

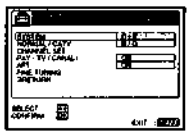


continued

14 Press ↑/↓ to highlight ON, then press OK.



15 If the TV sound is distorted or noisy, press ↑/↓ to highlight SYSTEM and press OK. Then press ↑/↓ to select B/G or D/K so that you get better sound.



16 Press MENU to exit the menu.

MENU

Tip

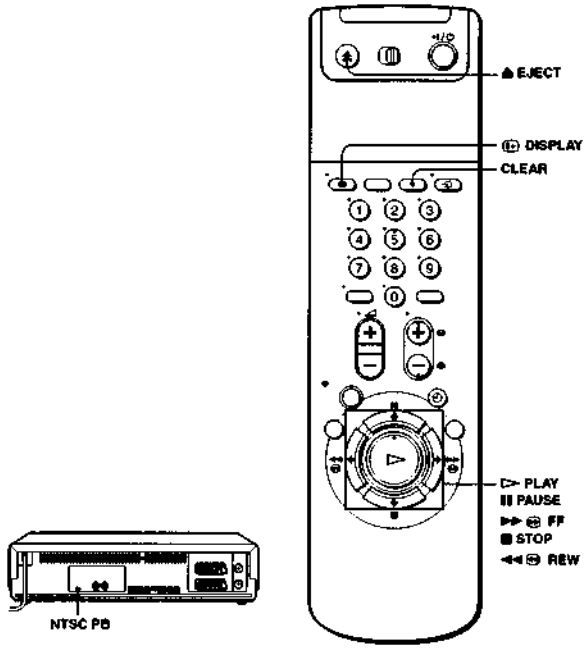
- If you want to return to the previous menu, highlight RETURN and press OK.

Notes

- The menu disappears automatically if you don't proceed for more than a few minutes.
- To superimpose subtitles while watching Canal Plus programmes, make both decoder-VCR and VCR-TV connections using 21-pin Scart cables that are compatible with the RGB signals. You cannot record subtitles on the VCR.
- When you watch Canal Plus programmes through the RFU input of the TV, press ⮌ TV/VIDEO so that the VIDEO indicator appears in the display window.

*1 SLV-SE500K and SE800N/K only
*2 SLV-SE700N/K only

Playing a tape



1 Turn on your TV and set it to the video channel.

2 Insert a tape.

The VCR turns on and starts playing automatically if you insert a tape with its safety tab removed.

continued

3 Press ▷ PLAY.

When the tape reaches the end, it will rewind automatically.

Additional tasks

To	Press
Stop play	■ STOP
Pause play	II PAUSE
Resume play after pause	II PAUSE or ▷ PLAY
Fast-forward the tape	▶▶ FF during stop
Rewind the tape	◀◀ REW during stop
Eject the tape	⏏ EJECT

To set the colour system

If the playback picture has no colour, or streaks appear during playback, set COLOUR SYSTEM in the OPTIONS-1 menu to conform to the system that the tape was recorded in (see page 79). (Normally set the option to AUTO.)

To play an NTSC-recorded tape

Set NTSC PB at the rear of the VCR according to the colour system of your TV.

When your TV is	Set NTSC PB to
PAL only	ON PAL TV
PAL and NTSC	NTSC 4.43

To use the time counter

Press CLEAR at the point on the tape that you want to find later. The counter in the display window resets to "0:00:00." Search for the point afterwards by referring to the counter.

To display the counter on the TV screen, press ⓓ DISPLAY.

Notes

- The counter resets to "0:00:00" whenever a tape is reinserted.
- The counter stops counting when it comes to a portion with no recording.
- The time counter does not appear on the TV screen when using an NTSC-recorded tape.
- Depending on your TV, the following may occur while playing an NTSC-recorded tape:
  - The picture becomes black and white.
  - The picture shakes.
  - No picture appears on the TV screen.
  - Black streaks appear horizontally on the TV screen.
  - The colour density increases or decreases.
- If you play back a tape in the LP or EP mode with the NTSC system, the sound becomes monaural.
- While setting the menu on the TV screen, buttons for playback on the remote commander do not function.
- The picture's colour may be affected when playing a MESECAM-recorded tape in the LP mode.*

* SLV-SE350K only

Starting playback automatically with one button (One Touch Play) (not available on SLV-SE600N and SE700R)

If you use the SMARTLINK connection, you can turn on the VCR and the TV, set the TV to the video channel, and start playback automatically with one button.

1 Insert a tape.

The VCR automatically turns on.

If you insert a tape with its safety tab removed, the TV turns on and switches to the video channel. Playback starts automatically.

2 Press ▷ PLAY.

The TV turns on and switches to the video channel automatically. Playback starts.

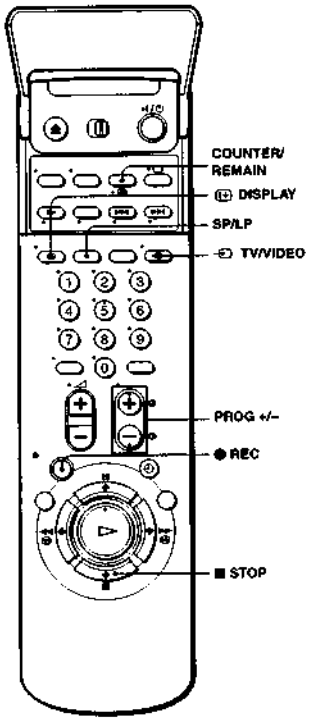
Tip

- When there already is a tape in the VCR, the VCR and the TV turn on, the TV is set to the video channel, and playback starts automatically in one sequence when you press ▷ PLAY.

Note

- When you use the One Touch Play function, leave the TV on or in the standby mode.

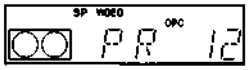
Recording TV programmes



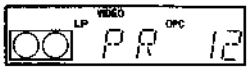
1 Turn on your TV and set it to the video channel.
To record from a decoder, turn it on.

2 Insert a tape with its safety tab in place.

3 PROG +/– — Press PROG +/– to select the programme position or station name*1 you want to record.



4 SP/LP — Press SP/LP to select the tape speed, SP or LP.
LP (Long Play) provides recording time twice as long as SP. However, SP (Standard Play) produces better picture and audio quality.



5 ● REC — Press ● REC to start recording.
The recording indicator lights up red in the display window.

Recording indicator

To stop recording

Press ■ STOP.

To check the remaining time

Press DISPLAY. With the display on, press COUNTER/REMAIN to check the remaining time. Each time you press COUNTER/REMAIN, the time counter and the remaining time appear alternately. The ⏲ indicator indicates the remaining time.

Time counter — Remaining time

In order to get an accurate remaining time indication, be sure TAPE LENGTH in the OPTIONS-1 menu is set according to the tape type you use (see page 79).

To watch another TV programme while recording

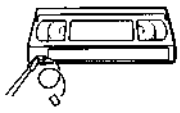
1 Press TV/VIDEO to turn off the VIDEO indicator in the display window.

2 Select another programme position on the TV.

continued

To save a recording

To prevent accidental erasure, break off the safety tab as illustrated. To record on the same tape again, cover the tab hole with adhesive tape.



Safety tab

Tips

- To select a programme position, you can use the programme number buttons on the remote commander. For two-digit numbers, press the –/– – (ten's digit) button followed by the programme number buttons.
- If you connect additional equipment to a LINE connector or jack, you can select the input signal using the INPUT SELECT or PROG +/– buttons.
- The DISPLAY information appears on the TV screen indicating information about the tape, but the information won't be recorded on the tape.
- If you don't want to watch TV while recording, you can turn off the TV. When using a decoder, make sure to leave it on.

Notes

- The DISPLAY information does not appear during still (pause) mode or slow-motion playback.
- The DISPLAY information will not appear while playing an NTSC-recorded tape.
- If a tape has portions recorded in both PAL (MESECAM) and NTSC systems, the time counter reading will not be correct. This discrepancy is due to the difference between the counting cycles of the two video systems.
- You cannot watch a Canal Plus programme while recording another Canal Plus programme.*2
- When you insert a non-standard commercially available tape, the remaining time may not be correct.
- The remaining time is intended for rough measurement only.
- About 30 seconds after the tape begins playback, the tape remaining time will be displayed.
- The station name*1 may not appear if the VCR does not receive station name information signals.

*1 not available on SLV-SE500R, SE600N and SE700R
*2 not available on SLV-SE350K, SE500R, SE600N and SE700R

Recording what you are watching on the TV (TV Direct Rec) (not available on SLV-SE600N and SE700R)

If you use the SMARTLINK connection, you can easily record what you are watching on the TV (other than tapes being played on the VCR).

1 Insert a tape with its safety tab in place.

2 Press ● REC while you are watching a TV programme or external source.
The VCR automatically turns on, then the TV indicator lights up and the VCR starts recording what you are watching on the TV.

Tips

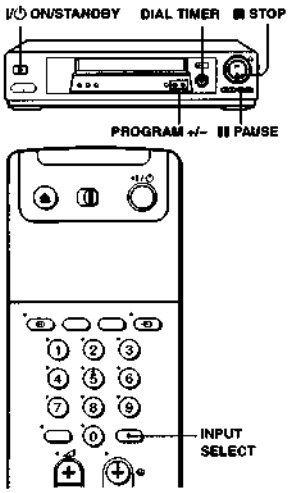
- The TV indicator appears in the display window after you press ● REC in some situations such as:
  – when you are watching a source connected to the TV's line input, or
  – when the TV tuner preset data for the programme position is different from the data in the VCR tuner preset.
- If there is a tape with its safety tab in place in the VCR, the VCR automatically turns on and starts recording what you are watching on the TV when you press ● REC.
- You can turn the TV Direct Rec function ON and OFF in the OPTIONS-2 menu (see page 79).

Notes

- You cannot record what you are watching using this method when the VCR is in the following modes: pause, timer standby, tuner preset, Auto Set Up, and recording.
- When the TV indicator is lit in the display window, do not turn off the TV nor change the TV programme position. When the TV indicator is not lit, the VCR continues recording the programme even if you change the TV programme position on the TV.

Recording TV programmes using the Dial Timer
(SLV-SE800N/K only)

The Dial Timer function allows you to make timer recordings of programmes without turning on your TV. Set the recording timer to record up to eight programmes, including settings made with other timer methods, that will be broadcast within the next month. The recording start time and recording stop time can be set at one minute intervals.



Before you start...

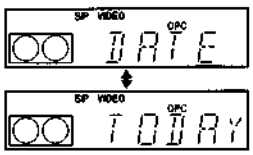
- Insert a tape with its safety tab in place. Make sure the tape is longer than the total recording time.
- To record from a decoder, turn it on.

1 DIAL TIMER

Press DIAL TIMER.

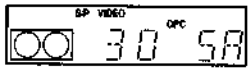
"DATE" and "TODAY" appear alternately in the display window.

If the date and time are not set, "DAY" will appear. See step 2 in the following section, "To set the clock" to set the date and time.



2 DIAL TIMER

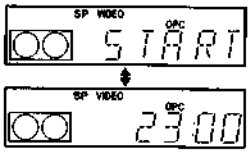
Turn DIAL TIMER to set the recording date.



3 DIAL TIMER

Press DIAL TIMER.

"START" and the current time appear alternately in the display window.



4 DIAL TIMER, PROGRAM +/–, TRACKING

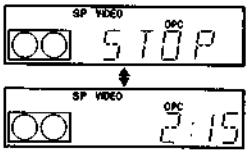
Turn DIAL TIMER to set the recording start time.

You can set the recording start time in 15 minute intervals or adjust the time in one minute intervals by pressing the PROGRAM +/– buttons.

5 DIAL TIMER

Press DIAL TIMER.

"STOP" and the recording stop time appear alternately in the display window.



continued

6 DIAL TIMER, PROGRAM +/–, TRACKING

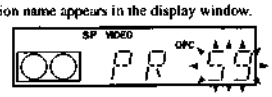
Turn DIAL TIMER to set the recording stop time.

You can set the recording stop time in 15 minute intervals or adjust the time in one minute intervals by pressing the PROGRAM +/– buttons.

7 DIAL TIMER

Press DIAL TIMER.

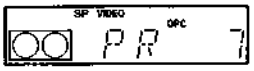
The programme position or station name appears in the display window.



8 DIAL TIMER, INPUT SELECT

Turn DIAL TIMER to set the programme position.

To record from a decoder or other source connected to one or more of the LINE inputs, turn DIAL TIMER or press INPUT SELECT to display the connected line in the display window.



9 DIAL TIMER

Press DIAL TIMER to complete the setting.

"OK" appears in the display window for about five seconds.

The ⏲ indicator appears in the display window and the VCR stands by for recording.

To record from a decoder or other source, leave the connected equipment turned on.

To return to the previous step

To return to the previous step, press the PROGRAM + and – buttons on the VCR at the same time during any of the dial timer settings.

To stop recording

To stop the VCR while recording, press ■ STOP.

To use the VCR after setting the timer

To use the VCR before a recording begins, just press I/⏻. The ⏲ indicator turns off and the VCR turns on. Remember to press I/⏻ to reset the VCR to recording standby after using the VCR.

You can also do the following tasks while the VCR is recording:

- Reset the counter (page 42).
- Display tape information on the TV screen (page 45).
- Check the timer settings (page 68).
- Watch another TV programme (page 45).

To set the clock

1. Turn DIAL TIMER so that "CLOCK" appears in the display window.
2. Press DIAL TIMER.
   "DAY" appears in the display window.
3. Turn DIAL TIMER to set the day.
4. Press DIAL TIMER.
   "MONTH" appears in the display window.
5. Turn and press DIAL TIMER to set the month, and then the year. After you set the year, "CLOCK" appears in the display window again.
6. Turn and press DIAL TIMER to set the hour and minute.
7. When you have finished setting the time, press DIAL TIMER to start the clock.

Tips

- To cancel a Dial Timer setting, press ■ STOP on the VCR while you are making the setting.
- The programme is recorded in the current tape speed mode. To change the tape speed, press SP/LP before you complete the setting in step 9.
- When you are recording a programme in the SP mode and the remaining tape becomes shorter than the recording time, the tape speed is automatically changed to the LP mode. Note that some interference will appear on the picture at the point the tape speed is changed. If you want to keep the tape speed, set AUTO LONG PLAY to OFF in the OPTIONS-1 menu (page 79).
- To check, change, or cancel the programme setting, see "Checking/changing/cancelling timer settings" (page 68).

Notes

- If eight programmes have already been set using the ShowView system or the TIMER menu, "FULL" appears in the display window for about five seconds.
- The ⏲ indicator flashes in the display window when you complete the setting in step 9 with no tape inserted.
- If you set the clock using the Auto Clock Set function and AUTO ADJUST is set to ON, the clock will adjust itself to the incoming time signal regardless of adjustments made with the Dial Timer. Be sure you have set ACS correctly.
- The station name may not appear if the VCR does not receive station name information signals.

continued

About the Demonstration Mode

The DIAL TIMER function has a Demonstration Mode that allows the user, such as a salesperson, to enter more than eight examples of timer settings when demonstrating the use of the DIAL TIMER. It cancels the "FULL" notice which appears if eight programmes have already been set. Do not use the Demonstration Mode for making timer recordings. Doing so may cause the settings to be inaccurate.

To activate the Demonstration Mode

Press ❚❚ (pause) on the VCR while turning the DIAL TIMER. "DEMO" appears in the display window for a few seconds.

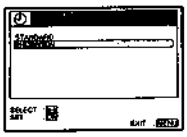
To cancel the Demonstration Mode

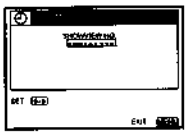
Turn the power off and unplug the mains lead. Although the Demonstration Mode is cancelled, the timer settings entered while using the Demonstration Mode will remain. Be sure to manually cancel the timer settings before you use the Dial Timer or any other timer method after reconnecting the mains lead (see page 68).

1 TIMER

Press ⏲ TIMER.

- When you set TIMER OPTIONS to VARIABLE:
  The TIMER METHOD menu appears on the TV screen. Press ↑/↓ to select SHOWVIEW, then press OK.
- When you set TIMER OPTIONS to SHOWVIEW:
  The SHOWVIEW menu appears on the TV screen.



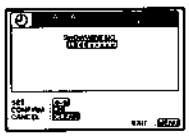


2 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⓪

Press the programme number buttons to enter the ShowView number.

CLEAR

If you make a mistake, press CLEAR and re-enter the correct number.



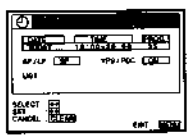
3 INPUT SELECT / CLEAR

Press OK.

The date, start and stop times, programme position or station name, tape speed, and VPS/PDC setting appear on the TV screen

- If "– –" appears in the "PROG." (programme) column (this may happen for local broadcasts), you have to set the appropriate programme position manually.
  Press ↑/↓ to select the desired programme position.
  To record from a decoder or other source connected to one or more of the LINE inputs, press INPUT SELECT to display the connected line in the "PROG." position.
  You will only have to do this operation once for the referred channel. The VCR will then store your setting.

If the information is incorrect, press CLEAR to cancel the setting.



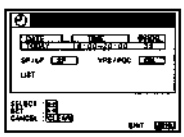
continued

4

If you want to change the date, tape speed, and the VPS/PDC setting:

1 Press ←/→ to highlight the item you want to change.

2 Press ↑/↓ to reset it.



- To record the same programme every day or the same day every week, see "Daily/weekly recording" below.
- To use the VPS/PDC function, set VPS/PDC to ON.
  For details of the VPS/PDC function, see "Timer recording with VPS/PDC signals" below.

5 MENU

Press MENU to exit the menu.

6

Press I/⏻ to turn off the VCR.

The ⏲ indicator appears in the display window and the VCR stands by for recording.

To record from a decoder or other source, leave the connected equipment turned on.

To stop recording

To stop the VCR while recording, press ■ STOP.

Daily/weekly recording

In step 4 above, press ↓ to select the recording pattern. Each time you press ↓, the indication changes as shown below. Press ↑ to change the indication in reverse order.
TODAY → SUN-SAT (Sunday to Saturday) → MON-SAT (Monday to Saturday) → MON-FRI (Monday to Friday) → SAT (every Saturday) ..... → MON (every Monday) → SUN (every Sunday) → 1 month later → (dates count down) → TOMORROW → TODAY

Timer recording with VPS/PDC signals

Some broadcast systems transmit VPS (Video Programme System) or PDC (Programme Delivery Control) signals with their TV programmes. These signals ensure that your timer recordings are made regardless of broadcast delays, early starts, or broadcast interruptions (when the VPS or PDC indicator in the display window is lit).

To use the VPS/PDC function, set VPS/PDC to ON in step 4 above. You can also use the VPS/PDC function for a source connected to one or more of the LINE inputs.

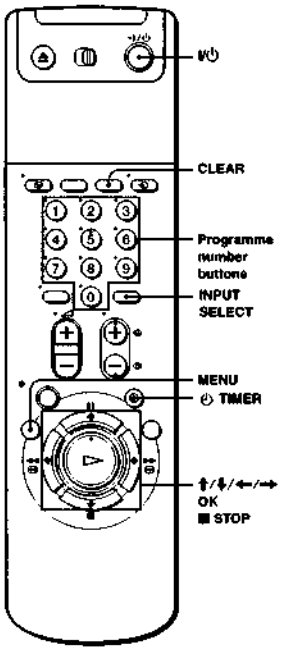
Recording TV programmes using the ShowView system

(not available on SLV-SE500R, SE600N and SE700R)

The ShowView system is the feature that simplifies programming the VCR to make timer recordings. Just enter the ShowView number listed in the TV programme guide. The date, times, and programme position of that programme are set automatically. You can preset a total of eight programmes, including settings made with other timer methods.

Before you start...

- Check that the VCR clock is set to the correct time and date.
- Insert a tape with its safety tab in place. Make sure the tape is longer than the total recording time.
- To record from a decoder, turn it on.
- Turn on your TV and set it to the video channel.
- Set TIMER OPTIONS to SHOWVIEW or VARIABLE in the OPTIONS-2 menu (see page 79).



continued

To record satellite broadcasts

If you connect a satellite tuner and the VCR, you can record satellite programmes.

1 Turn on the satellite tuner.

2 On the satellite tuner, select the satellite programme for which you want to make a timer setting.

3 Follow steps 1 through 6 above.

4 Keep the satellite tuner turned on until the VCR finishes recording the satellite programme for which you have made a timer setting.

To use the VCR after setting the timer

To use the VCR before a recording begins, just press I/⏻. The ⏲ indicator turns off and the VCR switches on. Remember to press I/⏻ to reset the VCR to recording standby after using the VCR.

You can also do the following tasks while the VCR is recording:

- Reset the counter (page 42).
- Display tape information on the TV screen (page 45).
- Check the timer settings (page 68).
- Watch another TV programme (page 45).

Tips

- To set the programme position, you can also use the PROG +/– or programme number buttons.
- To set the programme position with a two digit number, press –/– – (ten's digit) button followed by the programme number buttons.
- To set the line input video source, you can also use the PROG +/– buttons.
- To set the tape speed, you can also use the SP/LP button.
- When you are recording a programme in the SP mode and the remaining tape becomes shorter than the recording time, the tape speed is automatically changed to the LP mode. Note that some interference will appear on the picture at the point the tape speed is changed. If you want to keep the same tape speed, set AUTO LONG PLAY to OFF in the OPTIONS-1 menu (page 79).
- To check, change, or cancel the programme setting, press ←/→ to choose LIST, then press OK in step 4. For details, see step 3 in "Checking/changing/cancelling timer settings" (page 68).

Notes

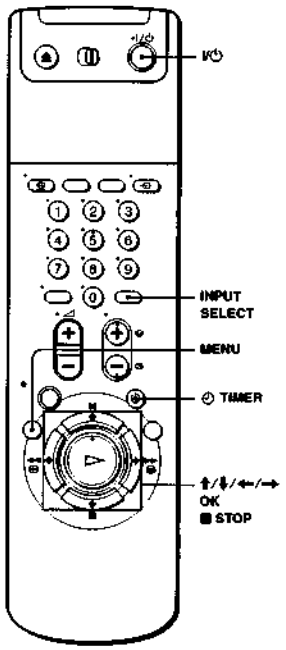
- If the VPS/PDC signal is too weak or the broadcasting station failed to transmit VPS/PDC signals, the VCR will start recording at the set time without using the VPS/PDC function.
- The ⏲ indicator flashes in the display window when you press I/⏻ with no tape inserted.
- When you set TIMER OPTIONS to STANDARD in the OPTIONS-2 menu, the SHOWVIEW menu does not appear on the TV screen. Select SHOWVIEW or VARIABLE.
- The VPS/PDC function is automatically set to OFF for the timer recording of a satellite programme.
- The station name may not appear if the VCR does not receive station name information signals.

Recording TV programmes using the timer

You can preset a total of eight programmes, including settings made with other timer methods.

Before you start...

- Check that the VCR clock is set to the correct time and date.
- Insert a tape with its safety tab in place. Make sure the tape is longer than the total recording time.
- To record from a decoder, turn it on.
- Turn on your TV and set it to the video channel.
- Set TIMER OPTIONS* to STANDARD or VARIABLE in the OPTIONS-2 menu (see page 79).

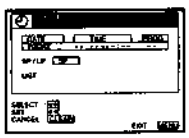


continued

1 TIMER

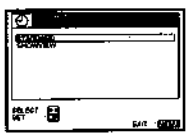
Press ⏲ TIMER.

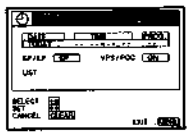
For SLV-SE500R, SE600N and SE700R:
The TIMER menu appears on the TV screen.



For SLV-SE350K, SE500K, SE700N/K and SE800N/K:

- When you set TIMER OPTIONS to VARIABLE:
  The TIMER METHOD menu appears on the TV screen. Press ↑/↓ to select STANDARD, then press OK.
- When you set TIMER OPTIONS to STANDARD:
  The TIMER menu appears on the TV screen.





2

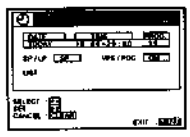
Set the date, start and stop times, programme position or station name*, tape speed, and VPS/PDC function*:

1 Press → to highlight each item in turn.

2 Press ↑/↓ to set each item.

INPUT SELECT

To correct a setting, press ← to return to that setting and reset.



- To record the same programme every day or the same day every week, see "Daily/weekly recording" on page 59.
- To use the VPS/PDC function*, set VPS/PDC to ON. For details about the VPS/PDC function, see "Timer recording with VPS/PDC signals" on page 55.
- To record from a decoder or other source connected to one or more of the LINE inputs, press INPUT SELECT to display the connected line in the "PROG." position.

3 MENU

Press MENU to exit the menu.

4 I/⏻

Press I/⏻ to turn off the VCR.

The ⏲ indicator appears in the display window and the VCR stands by for recording.

To record from a decoder or other source, leave the connected equipment turned on.

To stop recording

To stop the VCR while recording, press ■ STOP.

Daily/weekly recording

In step 2 above, press ↓ to select the recording pattern. Each time you press ↓, the indication changes as shown below. Press ↑ to change the indication in reverse order.
TODAY → SUN-SAT (Sunday to Saturday) → MON-SAT (Monday to Saturday) → MON-FRI (Monday to Friday) → SAT (every Saturday) ..... → MON (every Monday) → SUN (every Sunday) → 1 month later → (dates count down) → TOMORROW → TODAY

To record satellite broadcasts

If you connect a satellite tuner and the VCR, you can record satellite programmes.

1 Turn on the satellite tuner.

2 On the satellite tuner, select the satellite programme for which you want to make a timer setting.

3 Follow steps 1 through 4 above.

4 Keep the satellite tuner turned on until the VCR finishes recording the satellite programme for which you have made a timer setting.

To use the VCR after setting the timer

To use the VCR before a recording begins, just press I/⏻. The ⏲ indicator turns off and the VCR switches on. Remember to press I/⏻ to reset the VCR to recording standby after using the VCR.

You can also do the following tasks while the VCR is recording:

- Reset the counter (page 42).
- Display tape information on the TV screen (page 45).
- Check the timer settings (page 68).
- Watch another TV programme (page 45).

continued

Tips

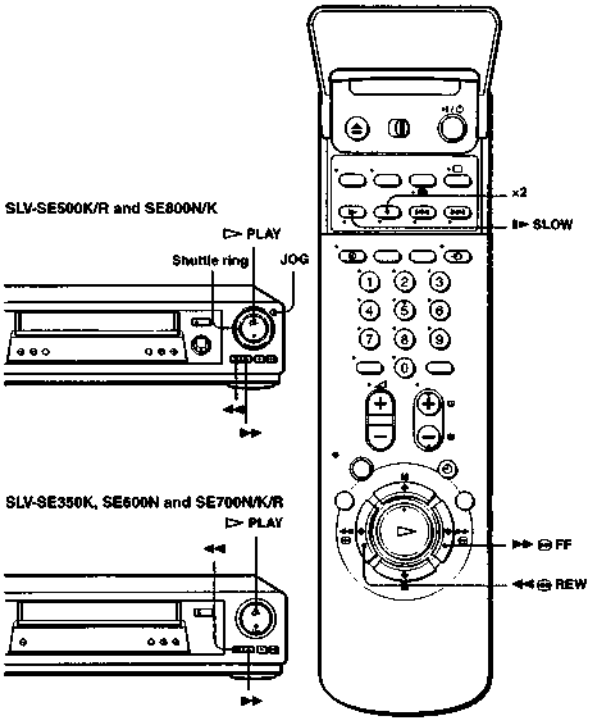
- To set the programme position, you can also use the PROG +/– or programme number buttons.
- To set the programme position with a two digit number, press –/– – (ten's digit) button followed by the programme number buttons.
- To set the line input video source, you can also use the PROG +/– buttons.
- To set the tape speed, you can also use the SP/LP button.
- When you are recording a programme in the SP mode and the remaining tape becomes shorter than the recording time, the tape speed is automatically changed to the LP mode. Note that some interference will appear on the picture at the point the tape speed is changed. If you want to keep the same tape speed, set AUTO LONG PLAY to OFF in the OPTIONS-1 menu (page 79).
- Even if you set TIMER OPTIONS to SHOWVIEW* in the OPTIONS-2 menu, you can set the timer manually. Press MENU to select TIMER, then go to step 2.
- To check, change, or cancel the programme setting, press ◀◀/▶▶ to choose LIST, then press OK in step 2. For details, see step 3 in "Checking/changing/cancelling timer settings" (page 68).

Notes

- When setting the timer with VPS/PDC signals, enter the start and stop times exactly as indicated in the TV programme guide. Otherwise, the VPS/PDC function* won't work.
- If the VPS/PDC signal is too weak or the broadcasting station failed to transmit VPS/PDC signals, the VCR will start recording at the set time without using the VPS/PDC function*.
- The ⏲ indicator flashes in the display window when you press I/⏻ with no tape inserted.
- The VPS/PDC function* is automatically set to OFF for the timer recording of a satellite programme.
- The station name* may not appear if the VCR does not receive station name information signals.

* not available on SLV-SE500R, SE600N and SE700R

Playing/searching at various speeds



Playback options	Operation
View the picture during fast-forward or rewind	During fast-forward, hold down ▶▶ FF/▶▶. During rewind, hold down ◀◀ REW/◀◀.

continued

Playback options	Operation
Play at high speed	• During playback, press ▶▶ FF or ◀◀ REW on the remote commander. • During playback, hold down ▶▶ FF/▶▶ or ◀◀ REW/◀◀. When you release the button, normal playback resumes.
Play at twice the normal speed	During playback, press x2.
Play in slow motion	During playback, press ▮▸ SLOW.
Play frame by frame	During pause, press ▶▶ FF or ◀◀ REW on the remote commander. Hold down ▶▶ FF or ◀◀ REW to play one frame each second.
Rewind and start play	During stop, press ▷ PLAY on the VCR while holding down ◀◀ on the VCR.

To resume normal playback

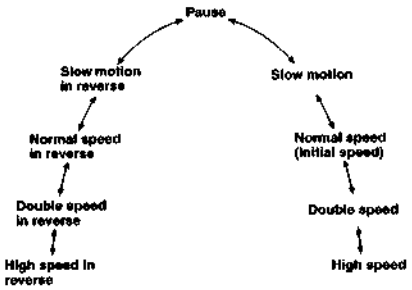
Press ▷ PLAY.

Using the shuttle ring (SLV-SE500K/R and SE800N/K only)

With the shuttle ring, you can operate a variety of playback options. There are two ways for using the shuttle ring, normal mode and jog mode.

To use the shuttle ring in normal mode

During playback or pause, turn the shuttle ring clockwise or anticlockwise. Each change in the shuttle ring position changes the playback mode in the following way.



To use the shuttle ring in jog mode

Use this mode for frame-by-frame playback.

Press JOG to enter the jog mode. The JOG button lights up. If you change to the jog mode during any playback mode, playback pauses so you can see a still picture. Each change in the shuttle ring position shifts the picture one frame. To shift frames in reverse, turn the shuttle ring anticlockwise. The frame shift speed depends on the speed you turn the shuttle ring.

To resume normal mode, press JOG again. The JOG button turns off.

Tip

- Adjust the picture using the TRACKING +/– buttons if:
  - Streaks appear while playing in slow motion.
  - Bands appear at the top or bottom while pausing.
  - The picture shakes while pausing.

  To set tracking to the centre position, press both buttons (+/–) at the same time.

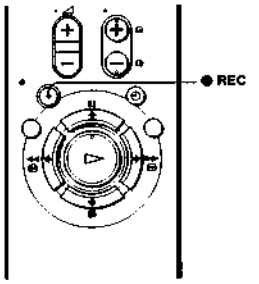
Notes

- The sound is muted during these operations.
- In the LP mode, noise may appear or there may be no colour.
- If the playback mode mark doesn't appear on the TV screen, press DISPLAY.
- The picture may show noise when playing at high speed in reverse *

* SLV-SE350K only

Setting the recording duration time

After you have started recording in the normal way, you can have the VCR stop recording automatically after a specified duration.



1 While recording, press ● REC.

The ⏲ indicator appears in the display window.

2 Press ● REC repeatedly to set the duration time.

Each press advances the time in increments of 30 minutes.

0:30 → 1:00 ····· 5:30 → 6:00 → Normal recording

The tape counter decreases minute by minute to 0:00, then the VCR stops recording and turns off automatically.

To extend the duration

Press ● REC repeatedly to set a new duration time.

To cancel the duration

Press ● REC repeatedly until the ⏲ indicator disappears and the VCR returns to the normal recording mode.

To stop recording

To stop the VCR while recording, press ■ STOP.

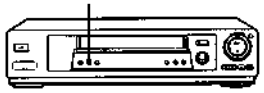
Note

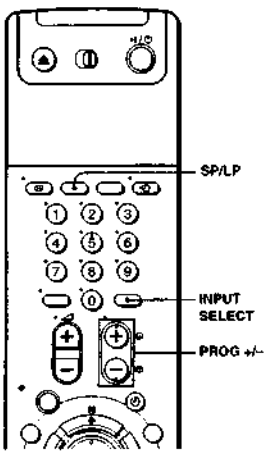
- You cannot display the current tape time in the display window when setting the recording duration time.

Recording programmes using the Synchronized Recording function

Before you start...

- Insert a tape with its safety tab in place. Make sure the tape is longer than the total recording time.
- Set DECODER/LINE3 to LINE3 in the OPTIONS-2 menu (see page 79).





1 Press INPUT SELECT or PROG +/– to display "L3" in the display window.

2 Set the timer on the connected equipment to the time of the programme you want to record, then turn it off.

3 Press SP/LP to select the tape speed.

4 Hold down SYNCHRO REC for more than two seconds.

The SYNCHRO REC button lights up and the VCR stands by for recording.

The VCR automatically turns on and starts recording when it receives an input signal from the connected equipment.

The VCR automatically stops recording when the tape reaches the end or when the connected equipment stops transmitting an input signal.

To cancel the Synchronized Recording function

Press SYNCHRO REC. The SYNCHRO REC button turns off.

To stop recording

Press ■ STOP while recording.

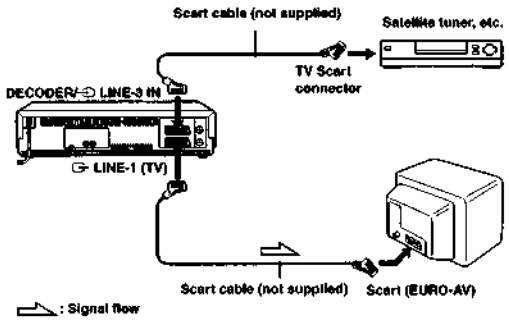
Synchronized Recording (SLV-SE500K and SE800N/K only)

You can set the VCR to automatically record programmes from equipment such as a satellite tuner by connecting the equipment to the DECODER/LINE-3 IN connector. The connected equipment must have a timer function for this feature to work.

When the connected equipment turns on, the VCR also automatically turns on and starts recording a programme from DECODER/LINE-3 IN.

How to connect for Synchronized Recording

Connect the DECODER/LINE-3 IN connector of the VCR to the TV Scart connector of the satellite tuner. Then connect the LINE-1 (TV) connector to the TV.



continued

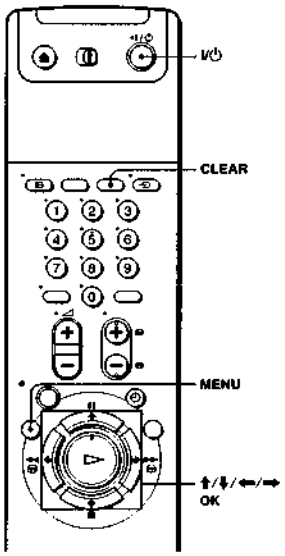
Notes

- This function may not work with some types of satellite tuners.
- Some TVs or other equipment with timer functions will automatically turn off if no operation is performed within a certain amount of time. In this case, the Synchronized Recording also stops automatically.
- When the connected equipment turns on while the SYNCHRO REC button is lit, recording starts automatically.
- If the settings for timer recording and Synchronized Recording overlap, the programme that starts first has priority and the second programme starts recording only after the first programme has finished.
- The Auto Clock Set function does not work while the VCR stands by for Synchronized Recording.

Checking/changing/cancelling timer settings

Before you start...

- Turn on your TV and set it to the video channel.



1 Press I/⏻ to turn on the VCR.

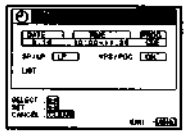
2 Press MENU, then press ↑/↓ to highlight LISTS and press OK.

3 Press ↑/↓ to highlight TIMER LIST, then press OK.

- If you want to change or cancel a setting, go on to the next step.
- If you do not need to change or cancel the settings, press MENU, then turn off the VCR to return to recording standby.

4 Press ↑/↓ to select the setting you want to change or cancel, then press OK.

The selected setting appears in the TIMER menu.



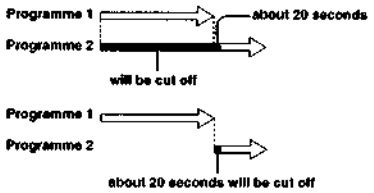
5
- To change the setting, press ←/→ to highlight the item you want to change, then press ↑/↓ to reset it.
- To cancel the setting, press CLEAR.

6 Press MENU to exit the menu.

If any settings remain, turn off the VCR to return to recording standby.

When the timer settings overlap

The programme that starts first has priority and the second programme starts recording only after the first programme has finished. If the programmes start at the same time, the programme listed first in the menu has priority.



Tip

- In step 6 above, you can check the TIMER LIST by selecting LIST and pressing OK. Press MENU to exit the TIMER LIST

Recording stereo and bilingual programmes (not available on SLV-SE350K, SE500K/R and SE700R)

In ZWEITON (German stereo) system

This VCR automatically receives and records stereo and bilingual programmes based on the ZWEITON system. When a stereo or bilingual programme is received, the STEREO indicator appears in the display window.

To select bilingual sound while recording

Press AUDIO MONITOR to select the sound you want.

To listen to	On-screen display	Display window
Main	MAIN	STEREO
Sub	SUB	STEREO
Main and sub	MAIN/SUB	STEREO

In NICAM system (SLV-SE600N, SE700N, and SE800N only)

This VCR receives and records stereo and bilingual programmes based on the NICAM system (The NICAM indicator appears). When a stereo or bilingual programme is received, the STEREO indicator appears in the display window.

To record a NICAM programme, HIFI AUDIO in the OPTIONS-1 menu should be set to NICAM (initial setting). To check the menu setting, see page 78 for details.

To select the sound while recording

Press AUDIO MONITOR to select the sound you want.

Stereo programmes

To listen to	On-screen display	Display window
Stereo	STEREO	STEREO
Standard sound*	No indicator	No indicator

* Usually the mixed sound of left and right channels (monaural)

Bilingual programmes

To listen to	On-screen display	Display window
Main	MAIN	STEREO
Sub	SUB	STEREO
Main and sub	MAIN/SUB	STEREO
Standard sound*	No indicator	No indicator

* Usually the main sound (monaural)

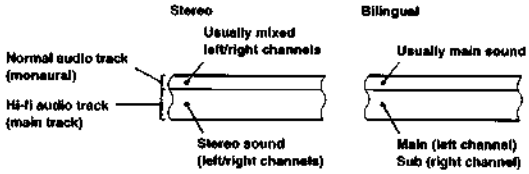
Selecting the sound during playback

Press AUDIO MONITOR to select the sound you want.

To listen to	On-screen display	Display window
Stereo/main and sub (left and right channels)	STEREO	STEREO
Left channel/main	LCH	STEREO
Right channel/sub	RCH	STEREO
Standard sound	No indicator	No indicator

How sound is recorded on a video tape

The VCR records sound onto two separate tracks. Hi-fi audio is recorded onto the main track along with the picture. Monaural sound is recorded onto the normal audio track along the edge of the tape.



Notes

- To listen to playback sounds in stereo, you must use the Scart or AUDIO OUT connections
- When you play a tape recorded in monaural, the sound is heard in monaural regardless of the AUDIO MONITOR setting.
- If the AUDIO MONITOR button does not function, check that AUDIO MIX in the OPTIONS-1 menu is set to OFF (see page 78).
- If HIFI AUDIO* is set to STANDARD, the standard sound will be recorded on both the hi-fi and normal audio tracks. Pressing AUDIO MONITOR will not change the sound.

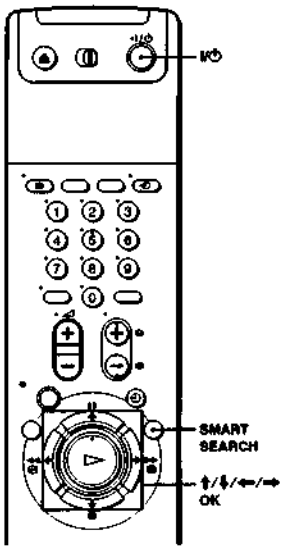
* SLV-SE600N, SE700N, and SE800N only

Searching using the Smart Search function

If you record multiple programmes on a tape, use the Smart Search function to see what has been recorded on your tape. You can see information such as date, time, and programme position of programmes recorded on a tape. You can also start playback directly from the selected programme using the SMART SEARCH screen.

All programmes are listed on the screen, regardless of how the programme was recorded.

The data of the last tape inserted into the VCR is automatically stored in memory. If you want to recall the latest data screen, select LATEST DATA in the SMART SEARCH screen (see page 73).



Before you start...

- Turn on your TV and set it to the video channel.

1 After recording, press I/⏻ to turn on the VCR.

2 Press SMART SEARCH.

3 Press ↑/↓/←/→ to select the programme you want to start viewing.

3 Press ↑/↓ to highlight LATEST DATA.

If you want to reset the latest data screen, highlight NO DATA and press OK, then record a programme.

4 Press OK.

The latest data stored in the VCR's memory is displayed.

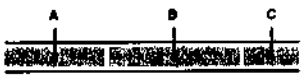
Tips

- You can store information for up to 24 programmes on a single list.
- While recording, you can display the SMART SEARCH screen using the SMART SEARCH button. If you decide to stop recording, press SMART SEARCH to make the SMART SEARCH screen disappear first. Then press ■ STOP.

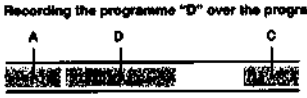
Notes

- You cannot use this function unless the clock is set.
- Depending on the tape, the total or remaining time may not appear correctly.
- If many short programmes are recorded on a tape, multiple programmes may be included in a single block. In this case, only the latest programme information will appear in the SMART SEARCH screen.
- Blank time is measured from the end of the last recorded programme to the end of the tape. However, if you eject the tape and then make a new recording on the same tape, the original recorded programme(s) is displayed as a blank space.
- If no information is stored in the VCR's memory, LATEST DATA does not appear in the SMART SEARCH screen.
- The station name* may not appear if the VCR does not receive station name information signals.
- If you start recording a programme "D" from the middle of a previously recorded programme "A" and into another previously recorded programme "B," the Smart Search information for the second programme "B," which is recorded over, is deleted.

Originally recorded programmes



Recording the programme "D" over the programme "A" and "B"



* not available on SLV-SE500R, SE600N and SE700R

4 Press OK.

The VCR starts searching, and playback starts automatically from the beginning of the selected programme.

To stop searching

Press ■ STOP.

To exit the SMART SEARCH screen

Press SMART SEARCH.

To record in a blank space

Blank space on the tape will appear as a blank row in the SMART SEARCH screen. Select the last blank row in step 3, then press OK. The VCR rewinds/fast-forwards the tape to the beginning of the blank space, then stops. Start recording. Note that "BLANK TIME" and the remaining time indication only refers to the length of the last blank space.

To recall the latest data screen after you remove the tape

You can display the data of the last tape used to record a programme, even after you have removed the tape.

If you reinsert the tape and record additional programmes, be sure to select LATEST DATA. Otherwise, all of the data for the tape is deleted.

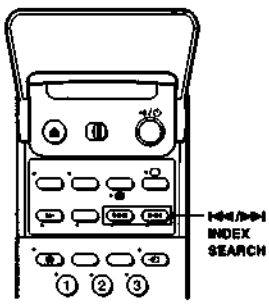
1 Reinsert the last tape that you used to record a programme.

2 Press SMART SEARCH.

continued

Searching using the index function

The VCR automatically marks the tape with an index signal at the point where each recording begins. Use these signals as references to find a specific recording.

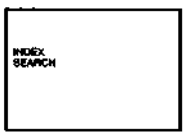


1 Insert an indexed tape into the VCR.

2 Press ⏮/⏭ INDEX SEARCH.

- To search ahead, press ⏭ INDEX SEARCH.
- To search backwards, press ⏮ INDEX SEARCH.

The VCR starts searching, and playback starts automatically from that point.



To stop searching

Press ■ STOP.

Note

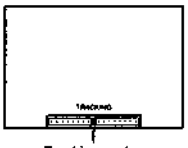
- No index signal will be added when recording starts from recording pause. However, an index signal will be marked if you change the programme position during recording pause.

Adjusting the picture

Adjusting the tracking

Although the VCR automatically adjusts the tracking when playing a tape (the ▦ indicator flashes in the display window, then turns off), distortion may occur if the recording is in poor condition. In this case, manually adjust the tracking.

During playback, press TRACKING +/– to display the tracking meter. The distortion should disappear as you press one of the two buttons (the ▦ indicator lights up). To resume automatic tracking adjustments, eject the tape and re-insert it.



Tracking meter

About the Reality Regenerator (RR) function (not available on SLV-SE350K and SE600N)

The Reality Regenerator (RR) function automatically restores the picture to its original quality during playback.

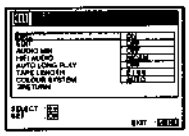
To use the RR function, press RR. The RR button lights up. You can set RR to NORMAL or HIGH in the OPTIONS-2 menu (see page 79).

To turn it off, press RR. The RR button turns off.

RR

About the Optimum Picture Control (OPC) function

The Optimum Picture Control (OPC) function automatically improves recording and playback quality by adjusting the VCR to the condition of the video heads and tape. To maintain better picture quality, we recommend that you set OPC to ON in the OPTIONS-1 menu (the OPC indicator lights up in the display window). For details, see page 78.



OPC playback

The OPC function automatically works on all types of tapes, including rental tapes and tapes that were not recorded with OPC.

OPC recording

Whenever you insert a tape and start recording for the first time, the VCR adjusts to the tape using the OPC function (the OPC indicator flashes rapidly). This adjustment is retained until the tape is ejected.

To deactivate the OPC function

Set OPC to OFF in the OPTIONS-1 menu. The OPC indicator in the display window turns off.

Tip

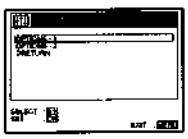
- To set tracking to the centre position, press the TRACKING + and – buttons at the same time.

Notes

- You can adjust the tracking for an NTSC-recorded tape but the tracking meter won't be displayed.
- With the Auto Long Play function on, the OPC function will work only in SP mode. If the tape speed automatically switches from SP to LP, the OPC function turns off. If, however, the entire programme is recorded in LP mode, the OPC function will work.
- There is a delay of about ten seconds before the VCR actually starts recording while the VCR analyses the tape. To avoid the delay, first set the VCR to recording pause (the OPC indicator flashes slowly) and press ● REC to have the VCR analyse the tape (the OPC indicator flashes rapidly) and return to recording pause. After the OPC indicator stops flashing, press ▮▮ PAUSE to start recording immediately.
  If you want to start recording quickly without using the OPC function, first set the VCR to recording pause (the OPC indicator flashes slowly) and press ▮▮ PAUSE again to start recording.

Changing menu options

1 Press MENU, then select OPTIONS and press OK.



2 Press ↑/↓ to highlight OPTIONS-1 or OPTIONS-2, then press OK.

3 Press ↑/↓ to select the option, then press OK.

4 Press ↑/↓ to change the setting, then press OK.

5 Press MENU to return to the original screen.

Menu choices

Initial settings are indicated in bold print.

OPTIONS-1

Menu option	Set this option to
OPC	• **ON** to switch on the OPC (Optimum Picture Control) function and improve picture quality. • OFF to switch off OPC.
EDIT	• ON to minimize picture deterioration when editing. • **OFF** to turn off EDIT.
AUDIO MIX*1	• ON to listen to the hi-fi and normal audio tracks at the same time. The AUDIO MONITOR button will not function. • **OFF** to listen to the hi-fi and normal audio tracks separately. Select the sound using the AUDIO MONITOR button. If you press ⏏ EJECT or turn the VCR off, AUDIO MIX will be reset to OFF. For details, see page 71.
HIFI AUDIO*2	• **NICAM** to record NICAM broadcasts on the hi-fi audio track. • STANDARD to record standard sound on the hi-fi audio track. For details, see page 70.

Menu option	Set this option to
AUTO LONG PLAY	• ON to change the timer recording tape speed automatically to the LP mode when the remaining tape length becomes shorter than the recording time. Note that for AUTO LONG PLAY to work correctly, the TAPE LENGTH setting must be accurate. • **OFF** to keep the set tape speed.
TAPE LENGTH	• **E180** to use an E-180 or shorter type tape. • E195 to use an E-195 type tape. • E240 to use an E-240 type tape. • E300 to use an E-300 type tape.
COLOUR SYSTEM	• **AUTO** to set the colour system automatically. • PAL to play back a tape recorded in the PAL colour system. • MESECAM to play back a tape recorded in the MESECAM colour system. If you press ⏏ EJECT or turn the VCR off, COLOUR SYSTEM will be reset to AUTO.

OPTIONS-2

Menu option	Set this option to
DECODER/LINE2*3	• DECODER to use the DECODER/LINE-2 IN*3 connector as the Canal Plus decoder connector. • **LINE2***3 to use the DECODER/LINE-2 IN*3 connector as the line input connector.
DECODER/LINE3*4	• DECODER to use the DECODER/LINE-3 IN*4 connector as the Canal Plus decoder connector. • **LINE3***4 to use the DECODER/LINE-3 IN*4 connector as the line input connector.
TIMER OPTIONS*5	• **VARIABLE** to display the TIMER METHOD menu for selecting STANDARD or SHOWVIEW when pressing the ◴ TIMER button. • STANDARD to display the TIMER menu when pressing the ◴ TIMER button. • SHOWVIEW to display the SHOWVIEW menu when pressing the ◴ TIMER button. For details, see page 53 and 57.
POWER SAVE	• ON to turn off the indicators in the display window to conserve the VCR's power. • **OFF** to turn on the indicators in the display window while the VCR is standing by.
TV DIRECT REC*6	• **ON** to activate the TV Direct Rec function. • OFF to deactivate it.
RR*7	• **NORMAL** for normal everyday use. • HIGH for well-used video tapes such as rented tapes. Select this option when NORMAL does not improve the picture quality.

continued

Notes

- When you set a timer recording, the indicators in the display window remain on, even though POWER SAVE is set to ON.
- With the EDIT option ON, the OPC function does not work.

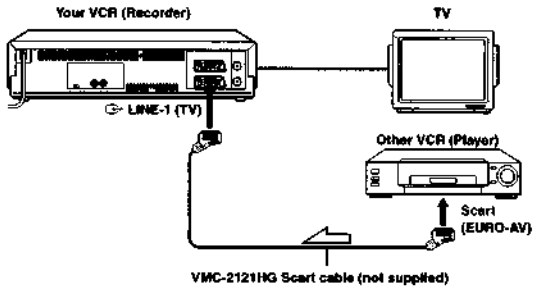
*1 not available on SLV-SE350K and SE500K/R
*2 SLV-SE600N, SE700N and SE800N only
*3 SLV-SE700N/K only
*4 SLV-SE500K and SE800N/K only
*5 not available on SLV-SE500R, SE600N and SE700R
** not available on SLV-SE600N and SE700R
*7 not available on SLV-SE350K and SE600N

Connecting to a VCR or stereo system

How to connect to record on this VCR

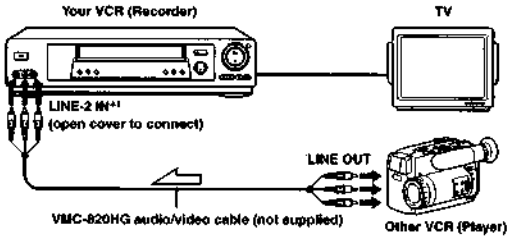
Connect the line outputs of the other VCR to the LINE IN connector or jacks of this VCR. Refer to the examples A through C and choose the connection that best suits your VCR.

Example A



: Signal flow

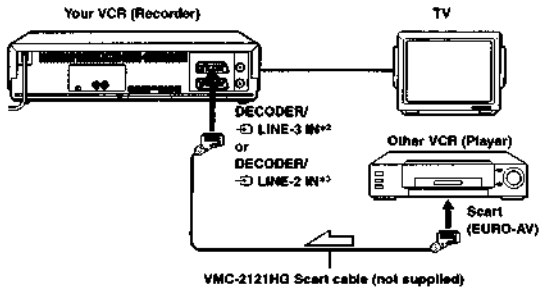
Example B



: Signal flow

continued

Example C



: Signal flow

How to connect to a stereo system (SLV-SE500K/R and SE800N/K only)

Connect the LINE-2 IN AUDIO L/R jacks on this VCR to the audio output jacks on the stereo system, using the RK-C510HG audio cable (not supplied).

Notes

- Make sure you connect the plugs to jacks of the same colour.
- If the other VCR is a monaural type, leave the red plugs unconnected.
- If you connect this VCR to both the LINE IN and LINE OUT jacks of the other VCR, select the input correctly to prevent a humming noise.
- If the other VCR does not have a Scart (EURO-AV) connector, use the VMC-2106HG cable instead and connect the cable to the line out jacks of the other VCR.
- When you connect another VCR to the DECODER/LINE-3 IN*2 (or DECODER/LINE-2 IN*3) connector, set DECODER/LINE3*2 (or DECODER/LINE2*3) to LINE3*2 (or LINE2*3) in the OPTIONS-2 menu.

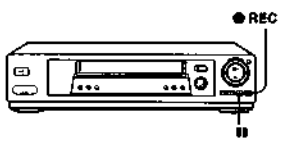
*1 SLV-SE500K/R and SE800N/K only. (AUDIO R (right) jack is not available on SLV-SE500K/R.)
*2 SLV-SE500K and SE800N/K only
*3 SLV-SE700N/K only

Basic editing

(when recording on this VCR)

Before you start editing

- Turn on your TV and set it to the video channel.
- Press INPUT SELECT to display the connected line in the display window.
- Press SP/LP to select the tape speed, SP or LP.
- On this VCR, set EDIT to ON in the OPTIONS-1 menu. If the other VCR has a similar function, turn it on as well.



1 Insert a source tape with its safety tab removed into the other (playback) VCR. Search for the point to start playback and set it to playback pause.
2 Insert a tape with its safety tab in place into this (recording) VCR. Search for the point to start recording and press ❚❚ (pause).
3 Press ● REC on this VCR to set it to recording pause.
4 To start editing, press the ❚❚ (pause) buttons on both VCRs at the same time.

To stop editing

Press the ■ STOP buttons on both VCRs.

Tip

- To cut out unwanted scenes while editing, press ❚❚ (pause) on this VCR when an unwanted scene begins. When it ends, press ❚❚ (pause) again to resume recording.

Note

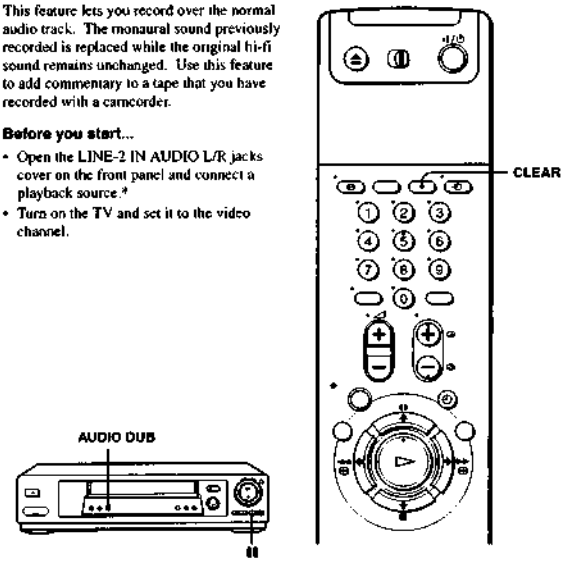
- If you start editing following the procedure above, the VCR won't start recording with the OPC function. To record a tape with the OPC function, press ● REC again during recording pause in step 3 so the VCR analyses the tape. Then, press ❚❚ (pause) after the OPC indicator stops flashing to start recording. If you press ❚❚ (pause) before the OPC indicator stops flashing, the OPC function is cancelled.

Audio dubbing
(SLV-SE500K/R and SE800N/K only)

This feature lets you record over the normal audio track. The monaural sound previously recorded is replaced while the original hi-fi sound remains unchanged. Use this feature to add commentary to a tape that you have recorded with a camcorder.

Before you start...

- Open the LINE-2 IN AUDIO L/R jacks cover on the front panel and connect a playback source.*
- Turn on the TV and set it to the video channel.



1 Insert a source tape into your stereo system (or the playback VCR). Search for the point to start playback and set it to playback pause.

2 Insert a prerecorded tape with its safety tab in place into this (recording) VCR. Search for the start of the section to be replaced and press ❚❚ (pause).

The VCR enters pause mode.

3 Press AUDIO DUB.

The programme position changes to "L2," and the ⊖ indicator appears in the display window.

4 To start editing, press the ❚❚ (pause) buttons on this VCR and the stereo system (or other VCR) at the same time.

After you use this feature, the audio in playback mode is automatically set to monaural.

To stop editing

Press ■ STOP on this VCR and the stereo system (or other VCR).

To listen to both the hi-fi and normal audio (not available on SLV-SE350K and SE500K/R)

Set AUDIO MIX to ON in the OPTIONS-1 menu (page 78). Use this feature to listen to dubbed audio over the original hi-fi audio. When AUDIO MIX is set to ON, the AUDIO MONITOR button does not function.

Remember to reset AUDIO MIX to OFF after playing the tape.

Note

- If you eject the tape or turn the VCR off, AUDIO MIX is automatically set to OFF.

* SLV-SE500K/R does not have the AUDIO R (right) jack.

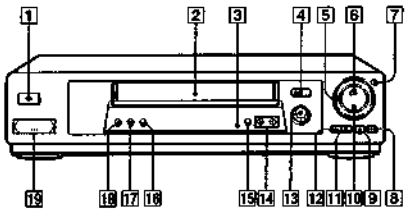
Editing

Index to parts and controls

Refer to the pages indicated in parentheses ( ) for details.

Front panel

SLV-SE500K/R and SE800N/K

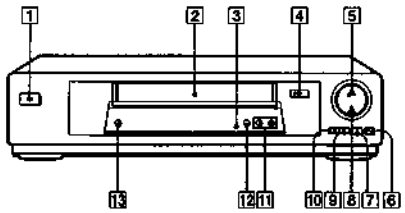


1 I/⏻ ON/STANDBY switch (14)
2 Tape compartment
3 Remote sensor (5)
4 ⏏ EJECT button (42)
5 Shuttle ring (62)
6 ▷ PLAY button (42) (62)
7 JOG button (63)
8 ● REC (record) button (45) (64) (83)
9 ❚❚ (pause) button (42) (83)
10 ■ STOP button (42) (83)
11 ▶▶ (fast-forward) button (42) (61)
12 ◀◀ (rewind) button (42) (61)
13 DIAL TIMER*1 (48)
14 PROGRAM/TRACKING +/– buttons (17) (63) (76)
15 AUTO SET UP/ RF (Radio Frequency) CHANNEL button (14) (17)
16 AUDIO DUB button (84)
17 SYNCHRO REC button*2 (66)
18 RR (Reality Regenerator) button (76)
19 LINE-2 IN VIDEO/AUDIO L (left)/R (right) jacks*3 (covered) (81) (82)

*1 not available on SLV-SE500K/R
*2 not available on SLV-SE500R
*3 AUDIO R (right) jack is not available on SLV-SE500K/R

Additional Information

SLV-SE350K, SE600N and SE700N/K/R

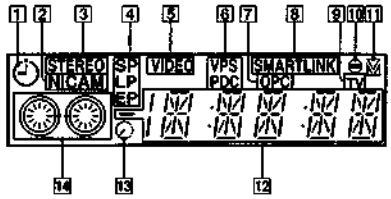


1 I/⏻ ON/STANDBY switch/indicator (14)
2 Tape compartment
3 Remote sensor (5)
4 ⏏ EJECT button (42)
5 ▷ PLAY button (42) (62)
6 ● REC (record) button (45) (64) (83)
7 ❚❚ (pause) button (42) (83)
8 ■ STOP button (42) (83)
9 ▶▶ (fast-forward) button (42) (61)
10 ◀◀ (rewind) button (42) (61)
11 PROGRAM/TRACKING +/– buttons (17) (63) (76)
12 AUTO SET UP/ RF (Radio Frequency) CHANNEL button (14) (17)
13 RR (Reality Regenerator) button* (76)

* not available on SLV-SE350K and SE600N

continued

Display window



1 Timer indicator (50) (55) (59)
2 NICAM indicator*1 (70)
3 STEREO indicator*1 (70)
4 Tape speed indicators (45)
5 VIDEO indicator (10) (45)
6 VPS (Video Programme System)/PDC (Programme Delivery Control) indicator*3 (55)
7 OPC (Optimum Picture Control) indicator (76)
8 SMARTLINK indicator*4 (11)
9 TV indicator*4 (47)
10 Audio dubbing indicator*1 (84)
11 Tracking indicator (76)
12 Time counter/clock/line/programme position indicator (42) (45) (83)
13 Remaining time indicator (45)
14 Tape/recording indicator (45)

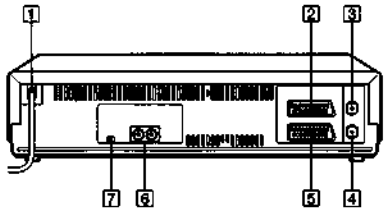
*1 SLV-SE600N, SE700N and SE800N only
*2 not available on SLV-SE350K, and SE500K/R
*3 not available on SLV-SE500R, SE600N and SE700R
*4 not available on SLV-SE600N and SE700R
*5 SLV-SE500K/R and SE800N/K only

Additional Information

continued

Rear panel

SLV-SE350K, SE500K, SE600N, SE700N/K, and SE800N

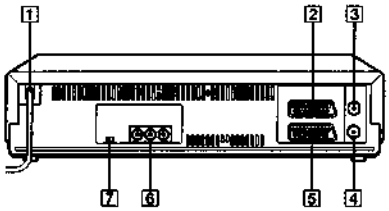


1 Mains lead (9) (10)
2 DECODER/-⮌ LINE-2 IN
DECODEUR/-⮌ ENTREE LIGNE-2 connector*1 (36) (82)

DECODER/-⮌ LINE-3 IN
DECODEUR/-⮌ ENTREE LIGNE-3 connector*2 (12) (36) (65) (82)
3 AERIAL IN
ANTENNE ENTREE connector (9) (10)
4 AERIAL OUT
ANTENNE SORTIE connector (9) (10)
5 ⮎ LINE-1 (TV)
⮎ LIGNE-1 (TV) connector (10) (36)
6 AUDIO OUT R (right)/L (left)
SORTIE AUDIO D/G jacks*3 (12)
7 NTSC PB (Play Back) switch (42)

*1 SLV-SE700N/K only
*2 SLV-SE500K and SE800N only
*3 SLV-SE700N/K and SE800N only

SLV-SE500R, SE700R and SE800K



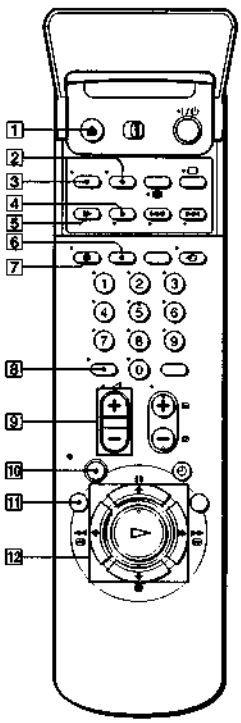
1 Mains lead (9) (10)
2 DECODER/-⮌ LINE-3 IN
DECODEUR/-⮌ ENTREE LIGNE-3 connector*1 (12) (36) (65) (82)
3 AERIAL IN
ANTENNE ENTREE connector (9) (10)
4 AERIAL OUT
ANTENNE SORTIE connector (9) (10)
5 ⮎ LINE-1 (TV)
⮎ LIGNE-1 (TV) connector (10) (36)
6 AUDIO OUT R (right)/L (left)/VIDEO jacks*2 (12)
7 NTSC PB (Play Back) switch (42)

*1 SLV-SE800K only
*2 AUDIO R (right) jack is not available on SLV-SE500R.

Additional Information

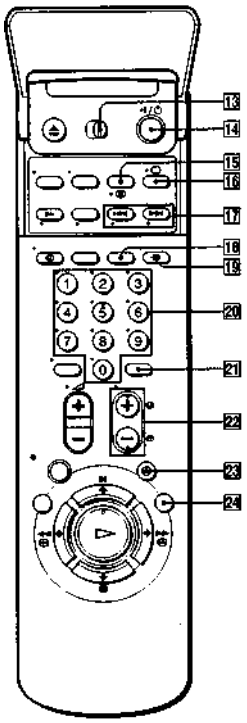
continued

Remote commander



1 ⏏ EJECT button (42)
2 WIDE button (*for TV*) (7)
3 AUDIO MONITOR button (70)
4 ×2 button*1 (62)
5 ▶▪ SLOW button*1 (62)
6 SP (Standard Play)/LP (Long Play) button (45)
7 ⓘ DISPLAY button (45)
8 -/-- (ten's digit) button (6) (46)
9 🔊 (volume) +/- buttons (*for TV*) (7)
10 ● REC (record) button (45) (64)
11 MENU button (19) (68)
12 ⏸ PAUSE/↑ button (19) (42)
■ STOP/↓ button (19) (42)
◀◀ REW (rewind)/⬅ button (42) (61)
▶▶ FF (fast-forward)/➡ button (42) (61)
▷ PLAY/OK button (19) (42)

*1 FASTEXT buttons (*for TV*) (not available on SLV-SE350K and SE600N)



13 TV / VIDEO remote control switch (5)

14 I/⏻ (on/standby) switch (6) (55)

15 COUNTER/REMAIN button (45)

(Teletext) button*2 (*for TV*) (7)

16 TV power on/TV mode select button*2 (*for TV*) (6)

17 ⏮/⏭ INDEX SEARCH buttons*1 (75)

18 CLEAR button (42) (54) (69)

19 TV/VIDEO button (6) (10) (45)

20 Programme number buttons (6) (46)

21 INPUT SELECT button (46) (58) (83)

22 PROG (programme) +/– buttons (6) (27) (45)

Teletext page access buttons*1 (*for TV*) (7)

23 TIMER button (54) (58)

24 SMART SEARCH button (72)

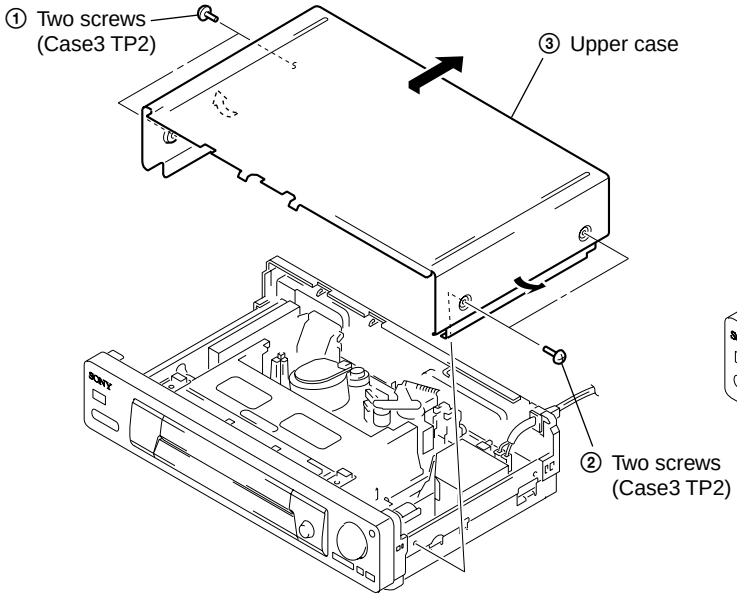
*1 FASTEXT buttons (*for TV*) (not available on SLV-SE350K and SE600N)

*2 not available on SLV-SE350K and SE600N

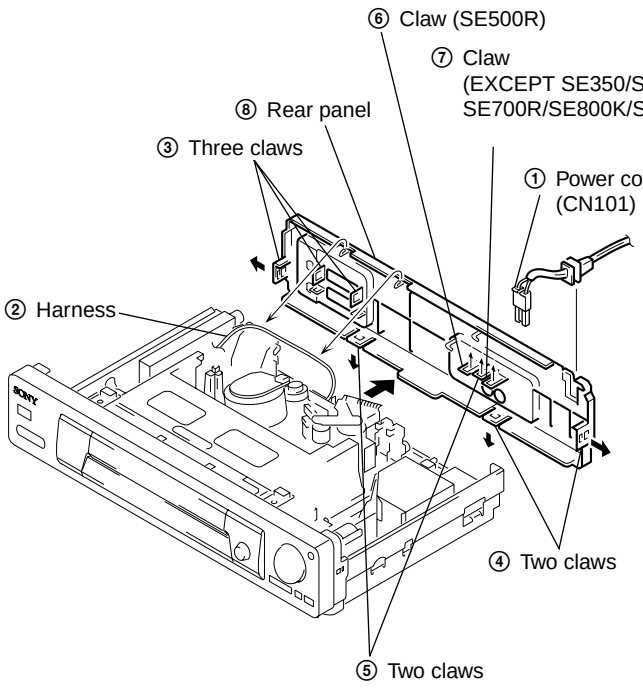
SECTION 2
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

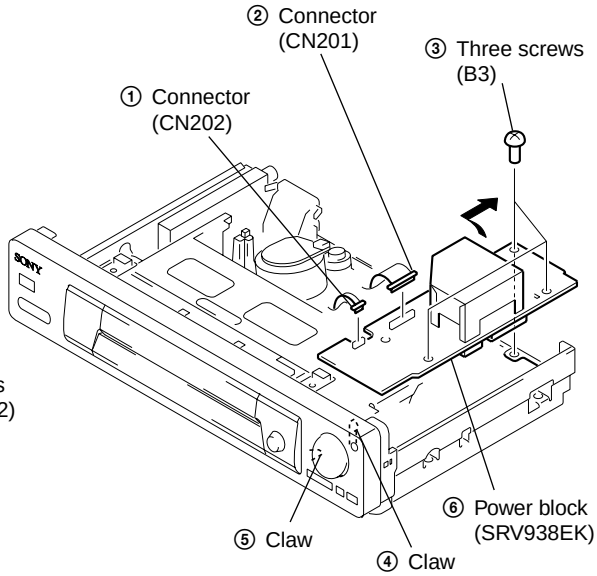
2-1. UPPER CASE REMOVAL



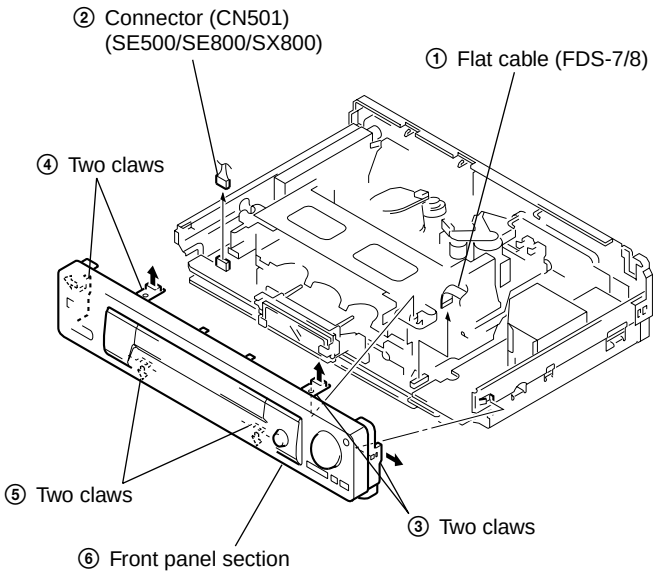
2-2. REAR PANEL REMOVAL



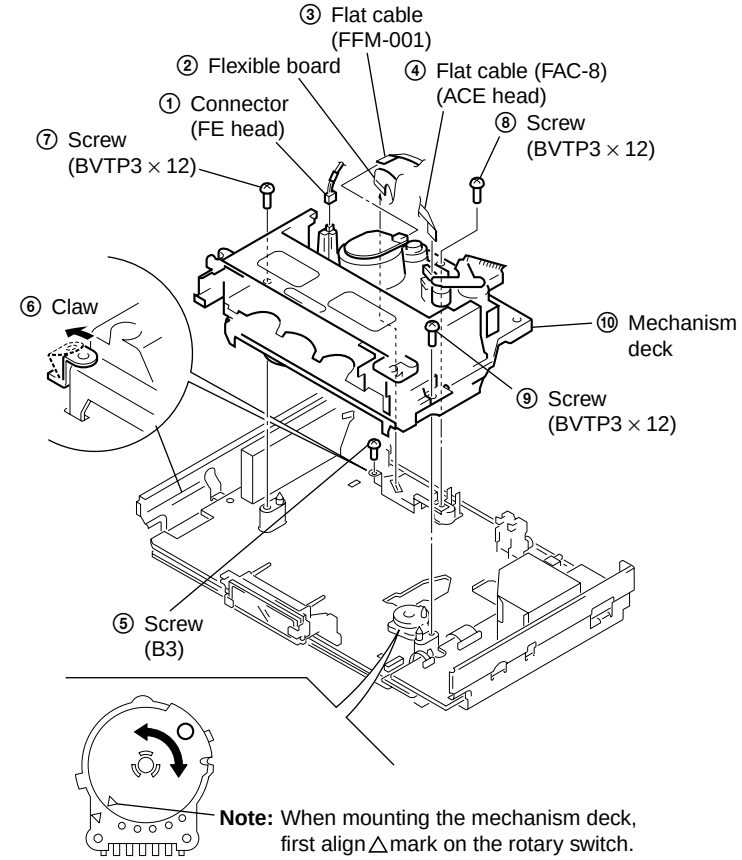
2-3. POWER BLOCK (SRV938EK) REMOVAL



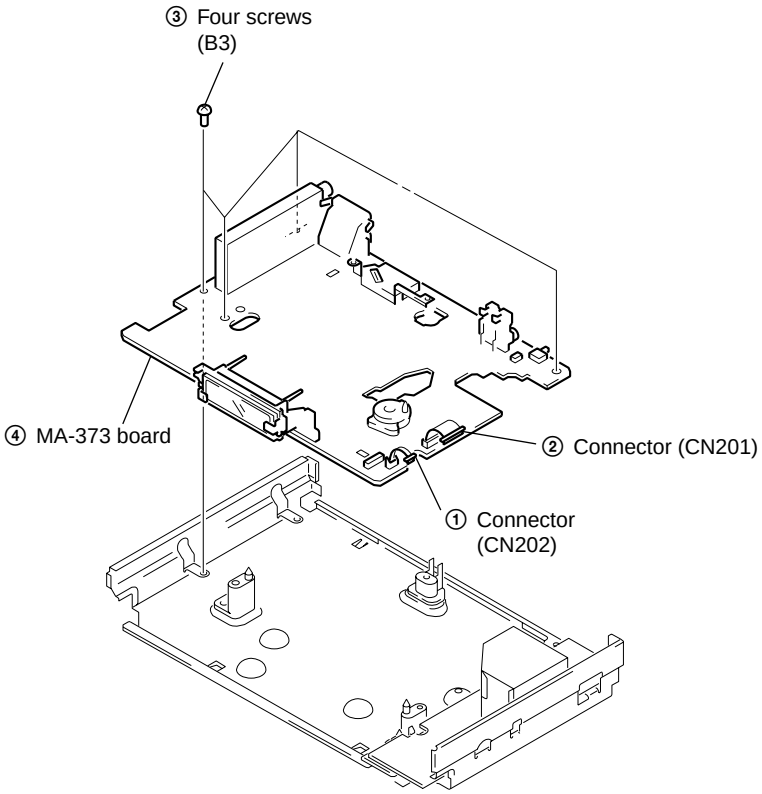
2-4. FRONT PANEL SECTION REMOVAL



2-5. MECHANISM DECK REMOVAL



2-6. MA-373 BOARD REMOVAL



2-7. INTERNAL VIEWS

Drum assembly (M901) (DZH-92D)
1-772-361-11 (SE350)
Drum assembly (M901) (DZH-93D)
1-772-362-11 (SE500)
Drum assembly (M901) (DZH-0B5A)
1-772-364-11 (EXCEPT SE350/SE500/SE600B/SE700B/SE800B/SX700B)
Drum assembly (M901) (DZH-0B6A)
1-772-365-11 (SE600B/SE700B/SE800B/SX700B)

ACE head assembly
A-6775-791-A

FE head
1-500-144-11

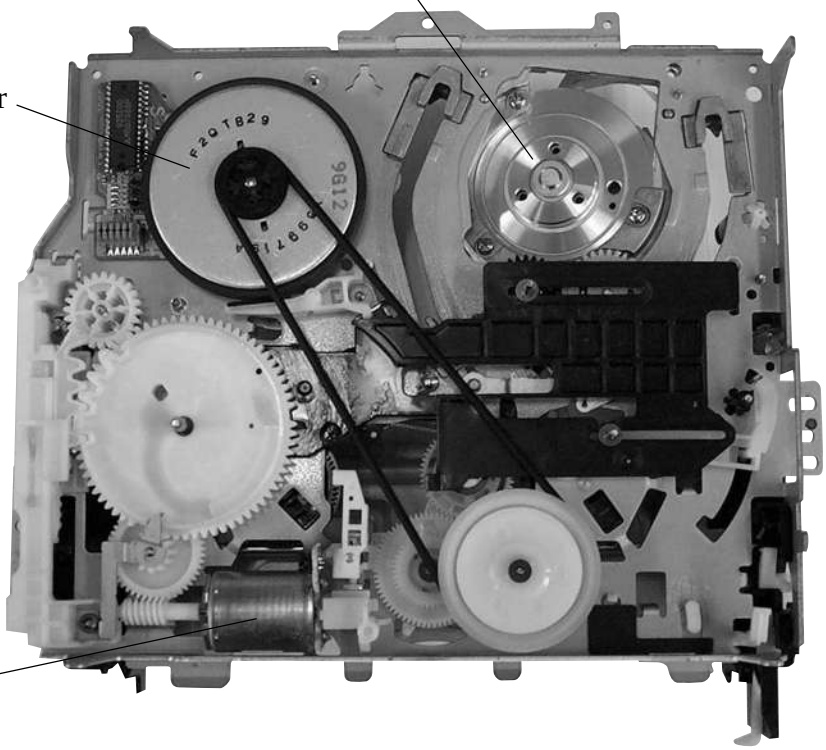
Q001
Tape end sensor
8-729-043-84

Q002
Tape top sensor
8-729-043-84

D001
Tape top/end LED
8-719-048-26

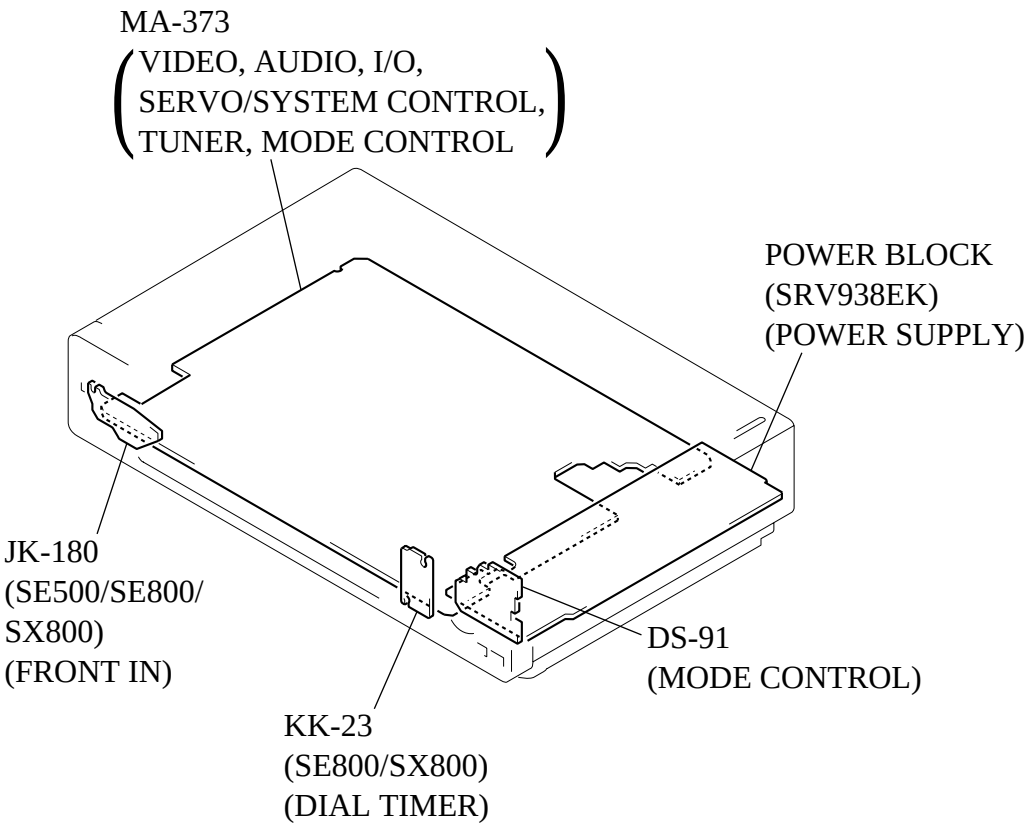
Drum assembly (M901) (DZH-92D)
1-772-361-11 (SE350)
Drum assembly (M901) (DZH-93D)
1-772-362-11 (SE500)
Drum assembly (M901) (DZH-0B5A)
1-772-364-11 (EXCEPT SE350/SE500/SE600B/SE700B/SE800B/SX700B)
Drum assembly (M901) (DZH-0B6A)
1-772-365-11 (SE600B/SE700B/SE800B/SX700B)

M902
Capstan motor
1-698-971-11



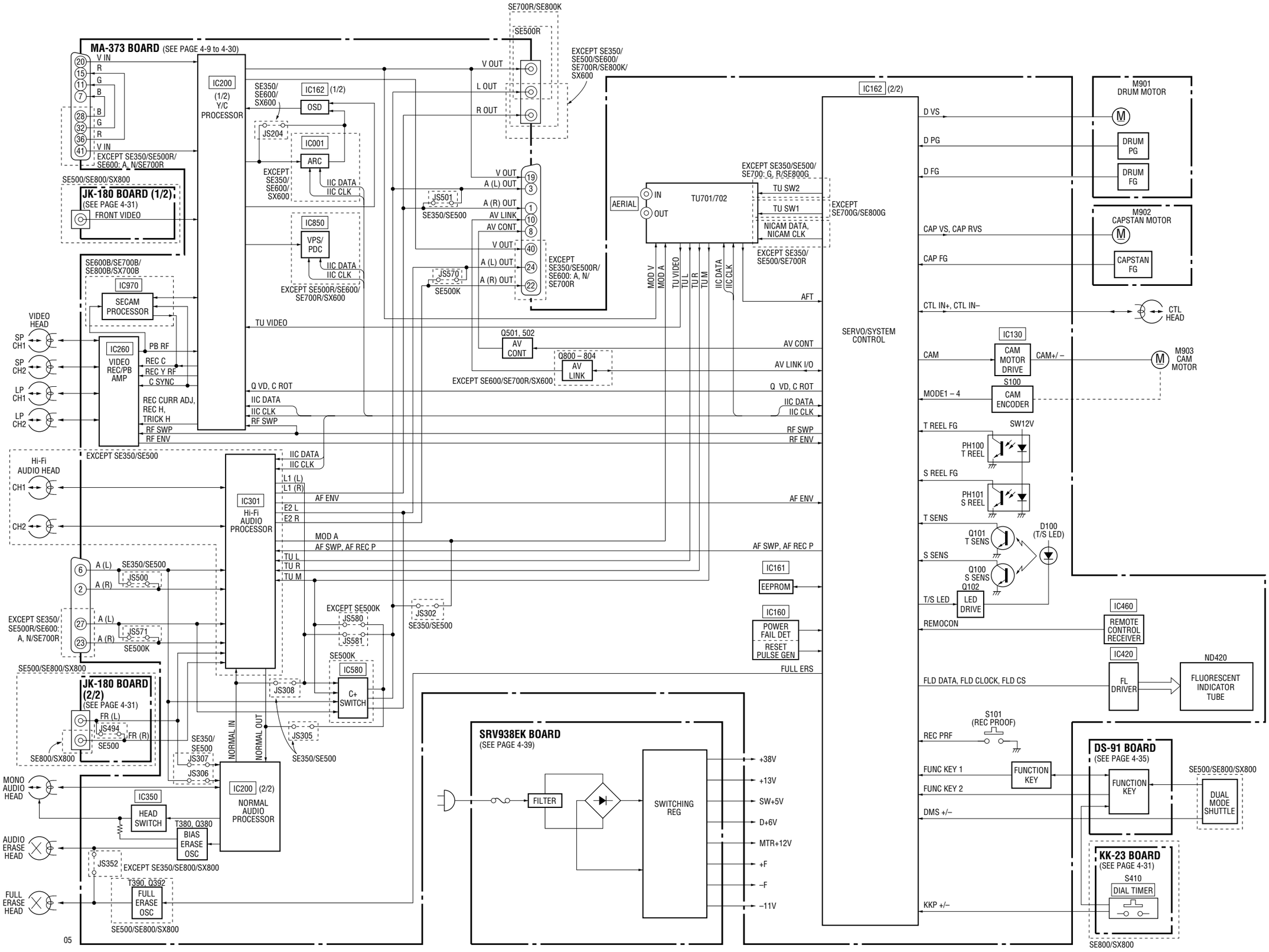
M903
Cam motor assembly
X-3947-577-1

2-8. CIRCUIT BOARDS LOCATION

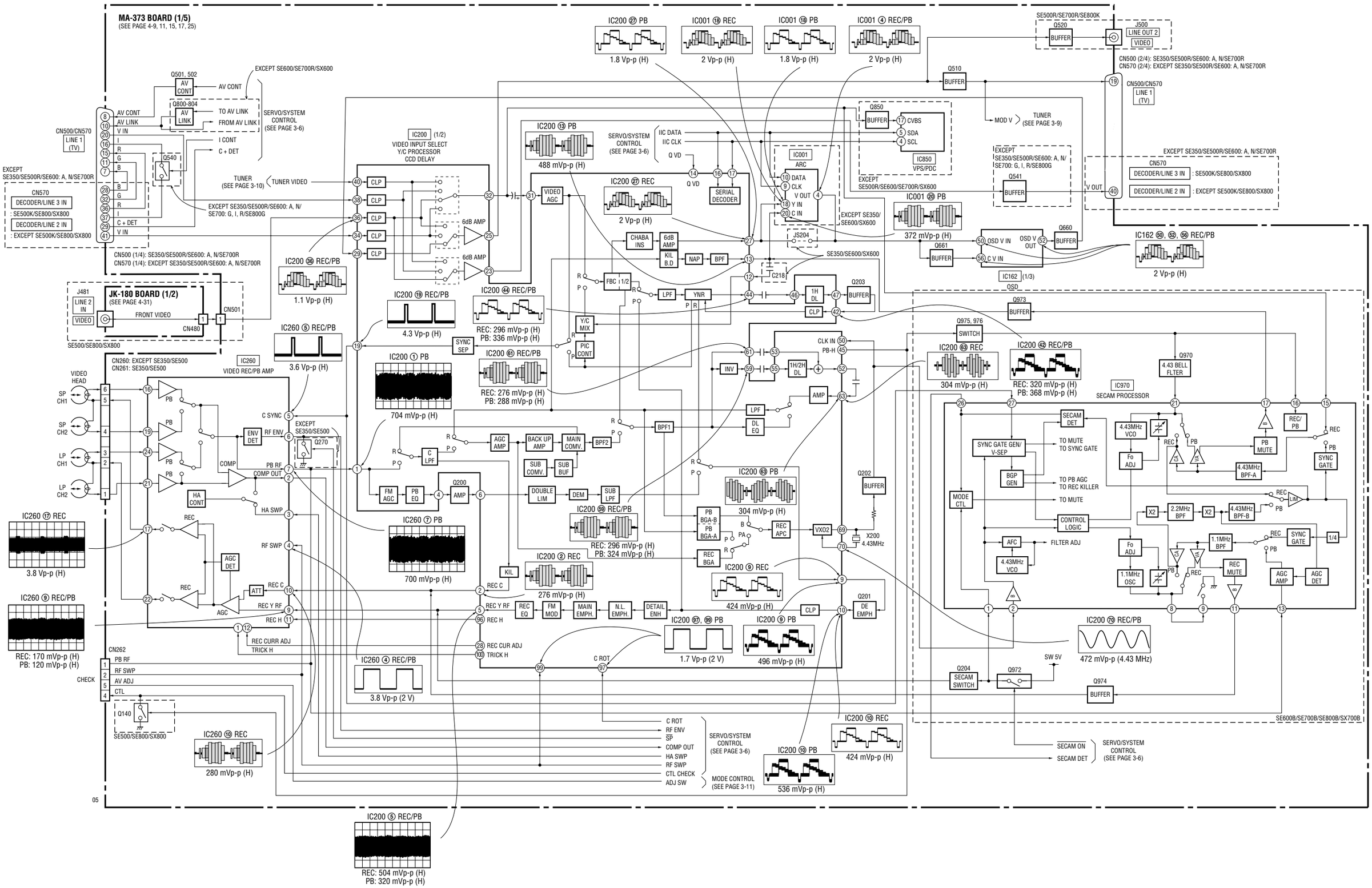


SECTION 3
BLOCK DIAGRAMS

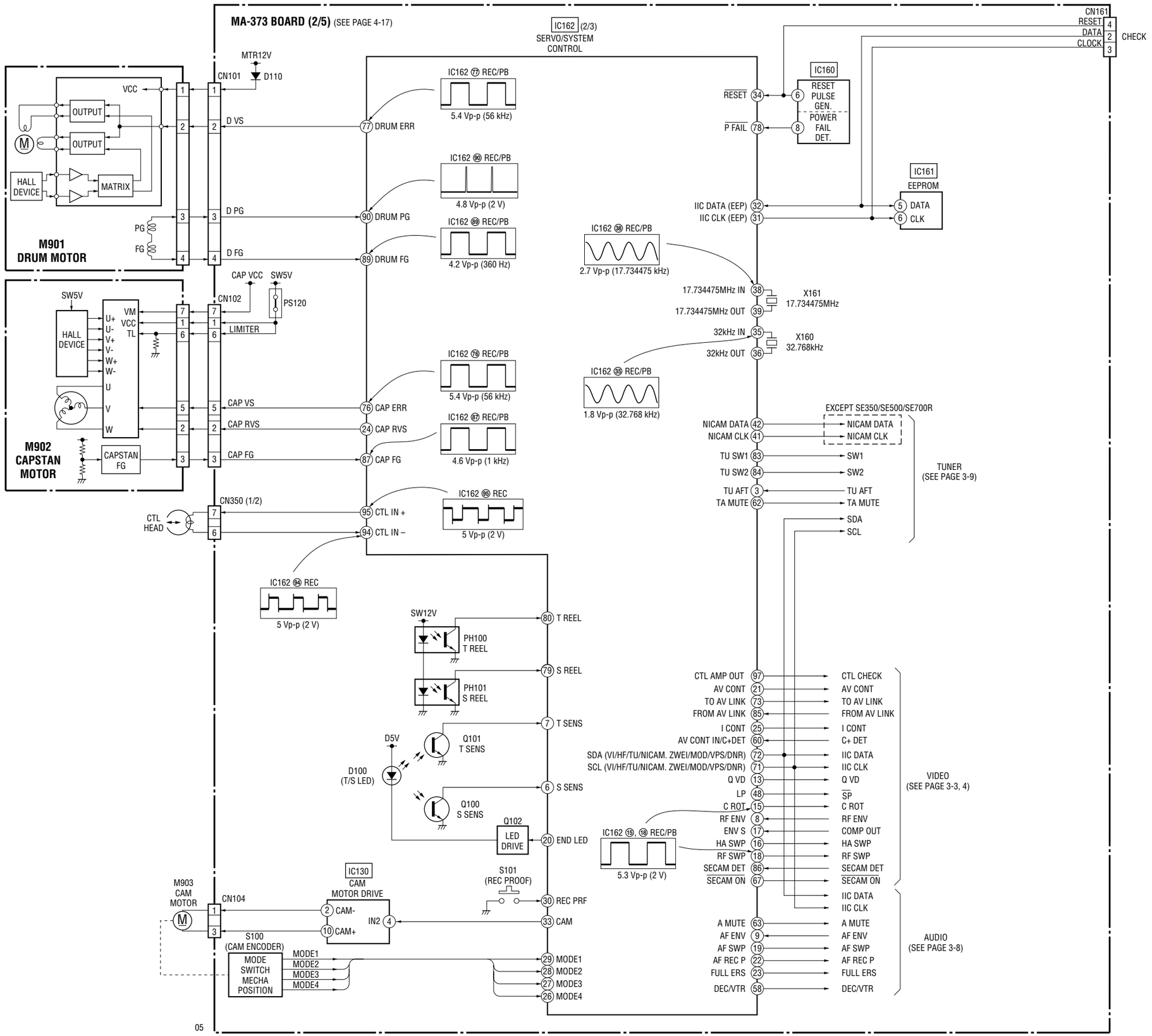
3-1. OVERALL BLOCK DIAGRAM



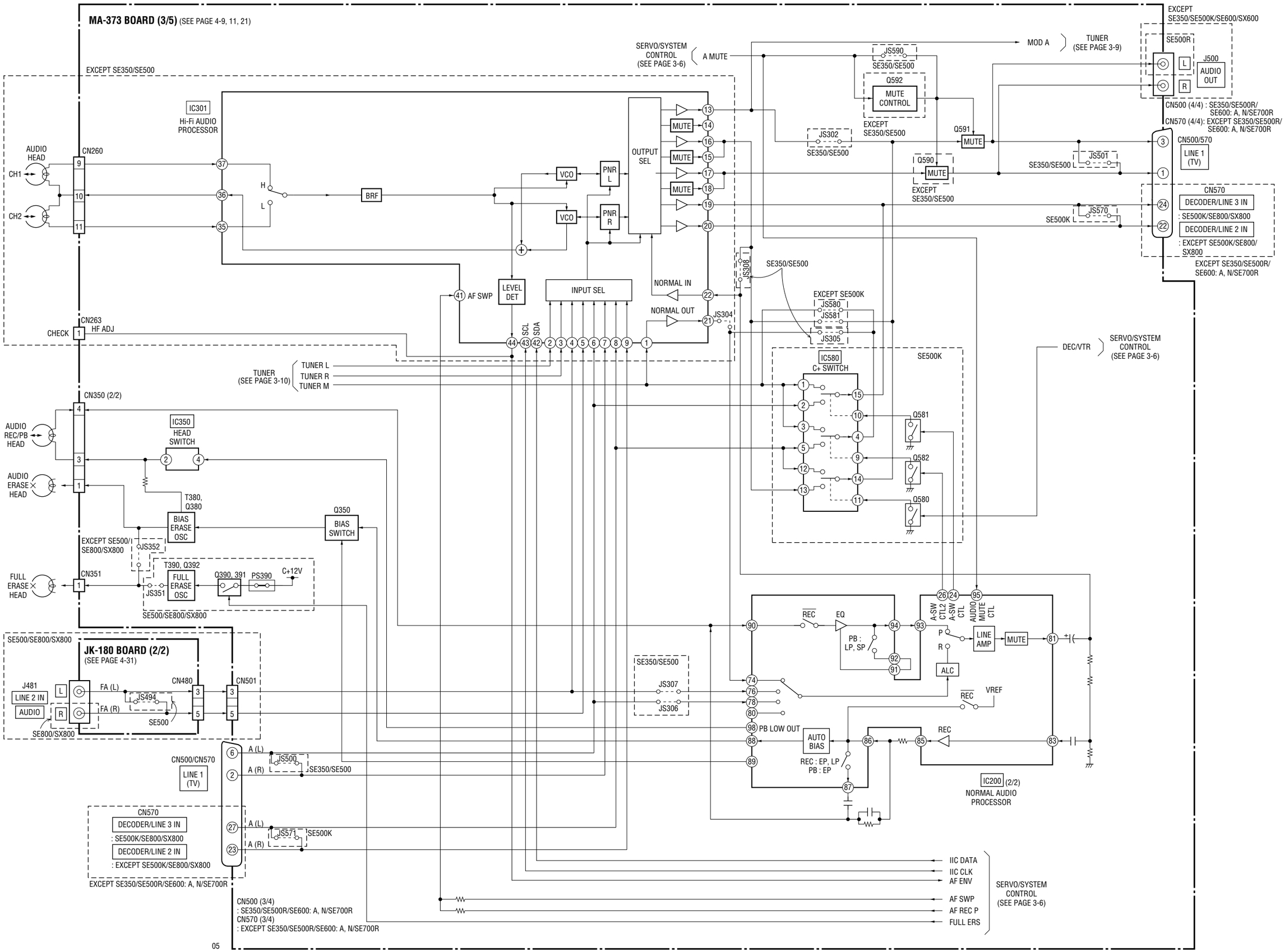
3-2. VIDEO BLOCK DIAGRAM



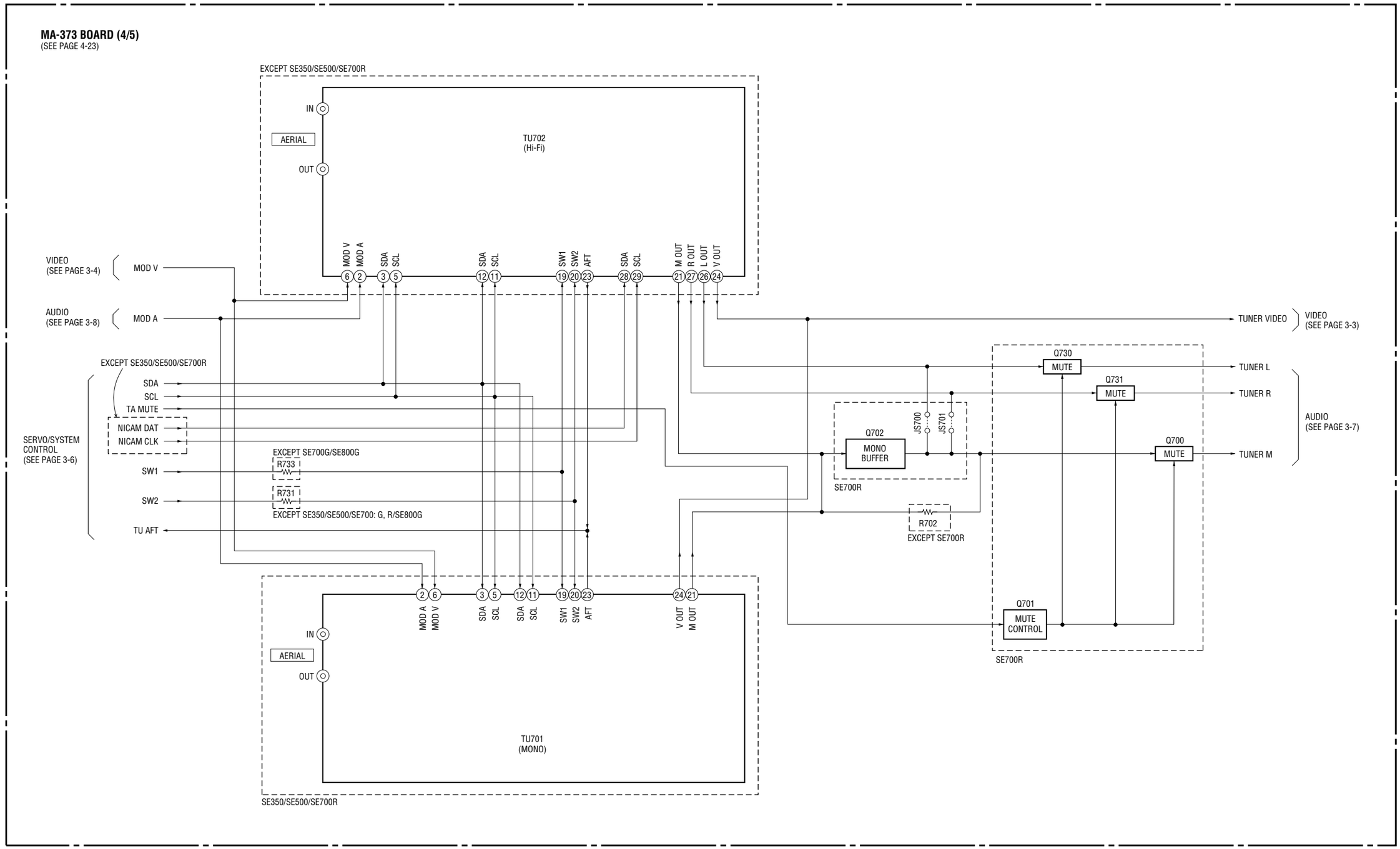
3-3. SERVO/SYSTEM CONTROL BLOCK DIAGRAM



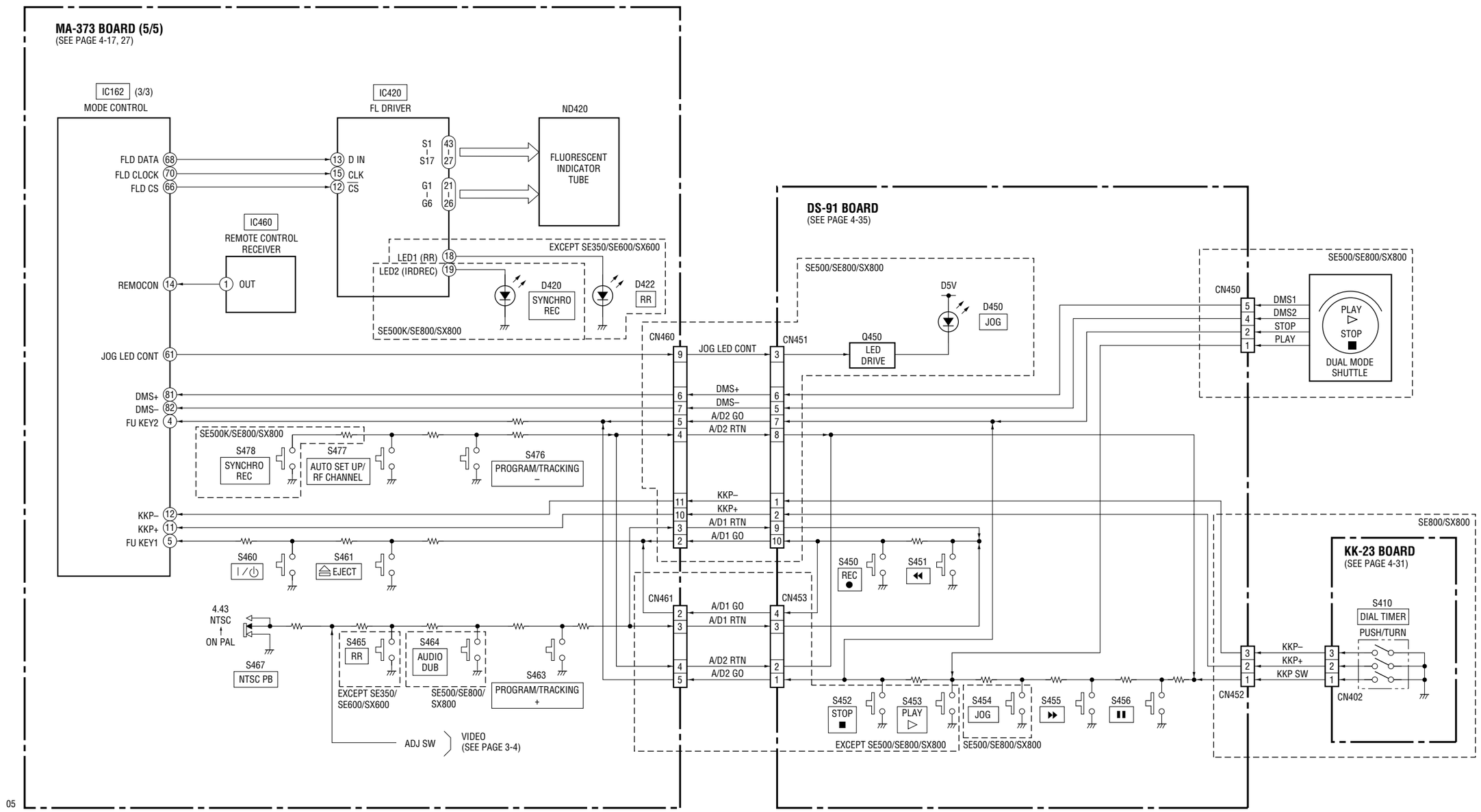
3-4. AUDIO BLOCK DIAGRAM



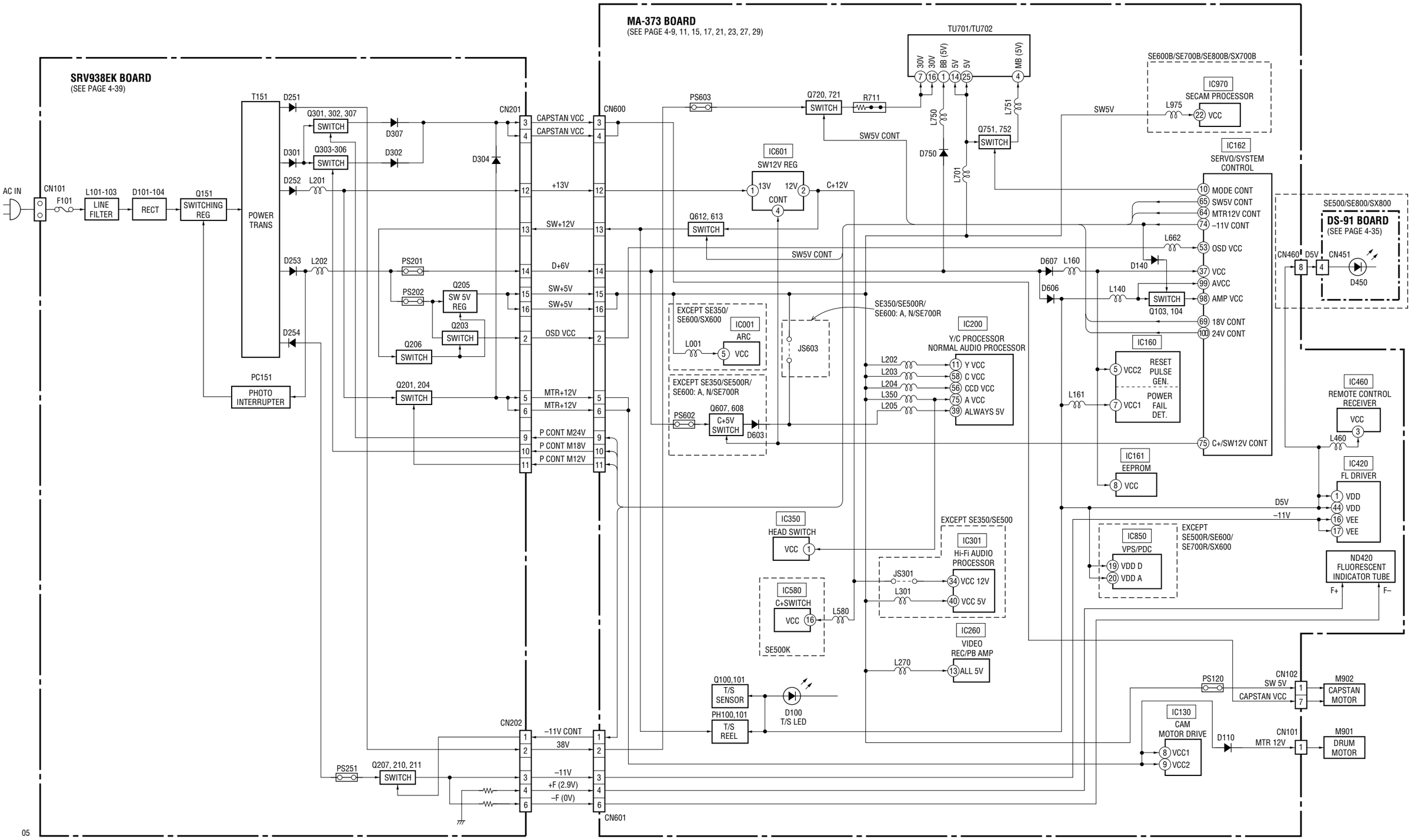
3-5. TUNER BLOCK DIAGRAM



3-6. MODE CONTROL BLOCK DIAGRAM



3-7. POWER BLOCK DIAGRAM



SECTION 4
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 board:

- ○——— : indicates a lead wire mounted on the component side.
- ●——— : indicates a lead wire mounted on the printed side.
- ▒▒▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

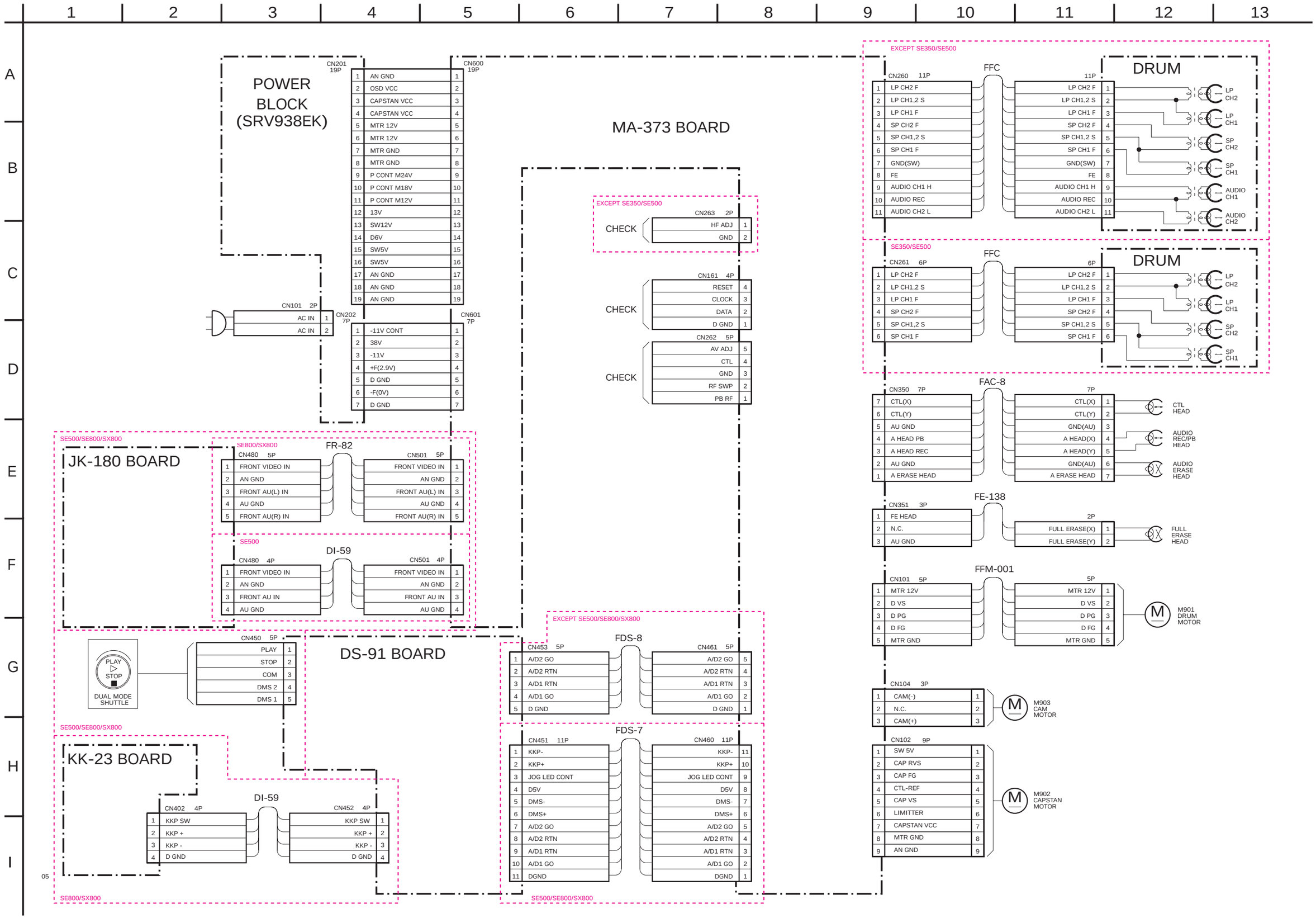
For schematic Diagram:

- Caution when replacing chip parts.
  New parts must be attached after removal of chip.
  Be careful not to heat the minus side of tantalum capacitor, because it is damaged by the heat.
- All resistors are in ohms, 1/4 W (Chip resistors : 1/10 W) unless otherwise specified.
  kΩ : 1000Ω, MW : 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 repair.
- B + : B+ Line.
- B − : B– Line.
- Circled numbers refer to waveforms.
- Voltages are dc between measurement point.
- Readings are taken with a color-bar signal input.
- Readings are taken with a digital multimeter (DC 10MW).
- Voltage variations may be noted due to normal production tolerances.

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.

4-1. FRAME SCHEMATIC DIAGRAM

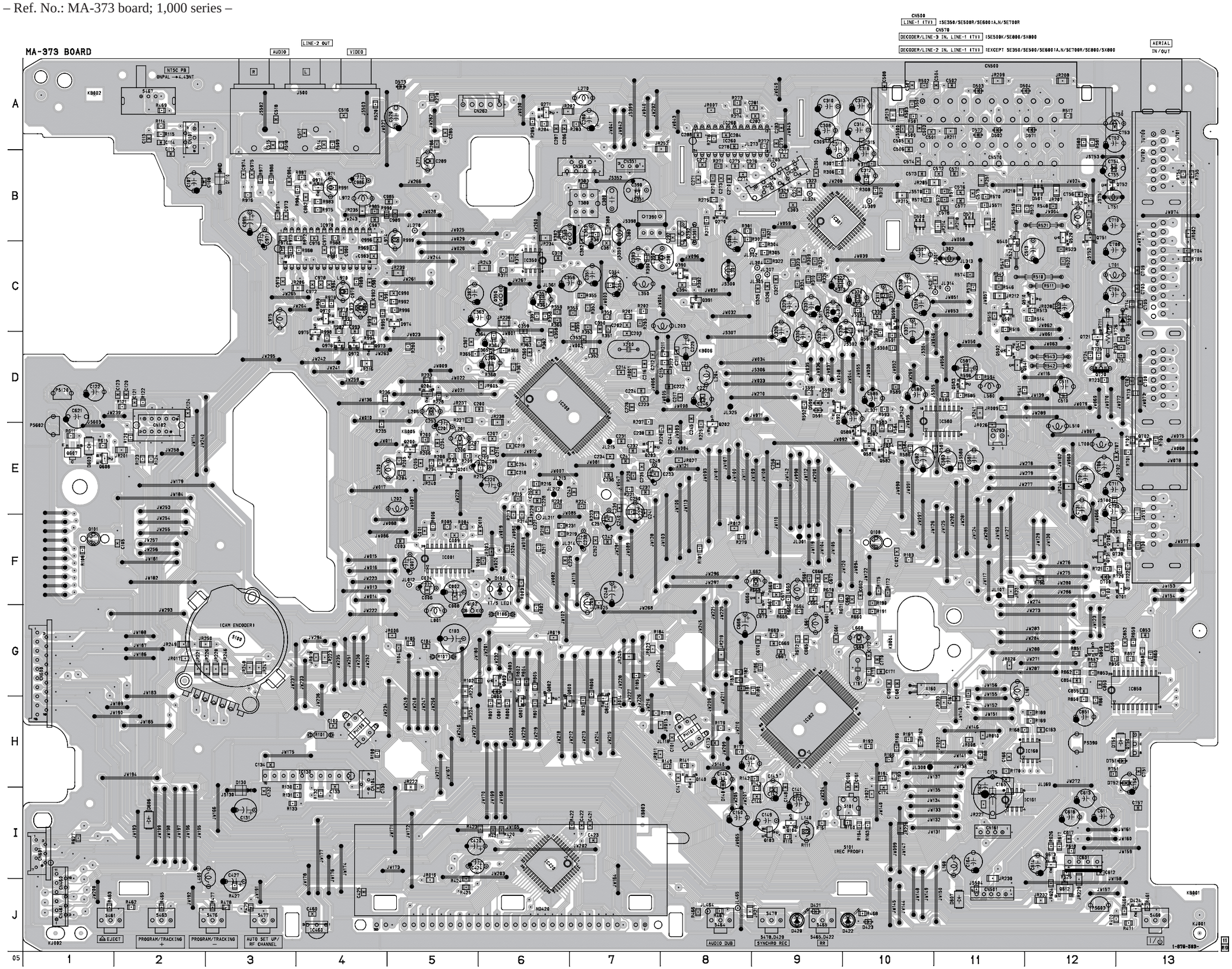


There are few cases that the part isn't mounted in this model is printed on this diagram.

4-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

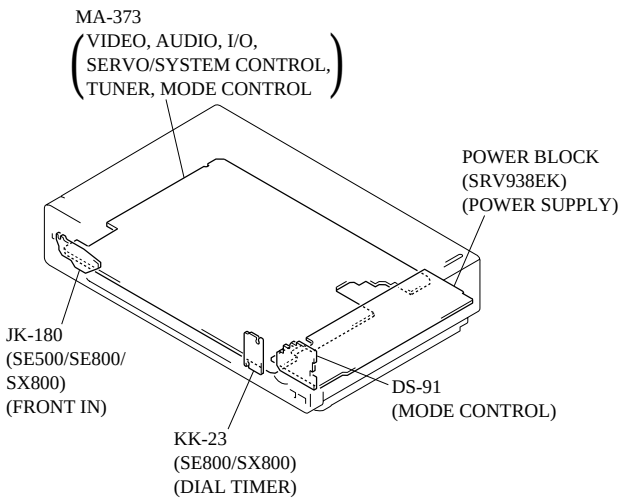
MA-373 (VIDEO, AUDIO, I/O, SERVO/SYSTEM CONTROL, TUNER, MODE CONTROL) PRINTED WIRING BOARD

– Ref. No.: MA-373 board; 1,000 series –



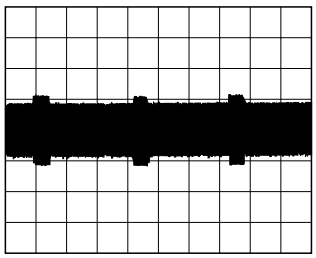
MA-373 BOARD

CN101	A-2	Q100	F-10
CN102	E-2	Q101	F-1
CN104	H-4	Q102	F-5
CN161	I-11	Q103	I-9
CN260	B-9	Q104	I-9
CN261	B-9	Q140	H-8
CN262	A-6	Q200	E-5
CN263	E-11	Q201	E-5
CN350	B-7	Q202	E-8
CN351	B-7	Q203	E-7
CN460	J-1	Q204	D-5
CN461	J-1	Q270	B-8
CN500	A-11	Q350	C-6
CN501	J-11	Q380	B-6
CN570	B-11	Q390	C-8
CN600	G-1	Q391	C-8
CN601	I-1	Q392	B-8
		Q501	C-11
D100	F-6	Q502	D-11
D110	B-3	Q510	C-11
D140	I-8	Q520	B-12
D420	J-9	Q540	C-11
D421	J-9	Q541	D-11
D422	J-10	Q580	E-10
D423	J-10	Q581	E-10
D424	J-13	Q582	E-10
D500	B-10	Q583	D-11
D501	B-12	Q590	C-10
D502	A-11	Q591	D-10
D503	A-11	Q592	D-9
D504	A-11	Q607	E-1
D570	B-11	Q608	E-1
D571	A-12	Q612	J-12
D572	A-11	Q613	I-12
D573	A-5	Q660	F-8
D590	D-9	Q661	G-9
D591	D-9	Q700	F-12
D603	E-1	Q701	F-13
D606	I-2	Q702	E-13
D607	J-11	Q720	D-12
D700	F-12	Q721	D-12
D702	C-13	Q730	F-13
D750	H-13	Q731	F-12
D800	G-6	Q751	B-12
		Q752	B-13
IC001	F-5	Q800	G-6
IC130	H-4	Q801	H-6
IC160	H-12	Q802	G-6
IC161	I-11	Q803	G-6
IC162	H-9	Q804	H-7
IC200	D-6	Q850	G-12
IC260	A-6	Q970	C-4
IC301	B-9	Q972	D-4
IC350	C-6	Q973	D-4
IC420	I-6	Q974	C-5
IC460	J-4	Q975	D-4
IC580	D-11	Q976	D-4
IC601	I-12		
IC850	G-13		
IC970	B-4		



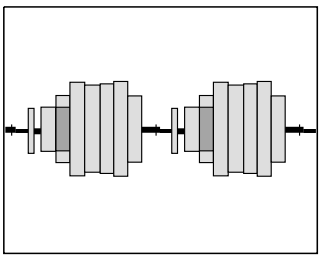
• Waveforms

❶ IC260 ⑰ REC



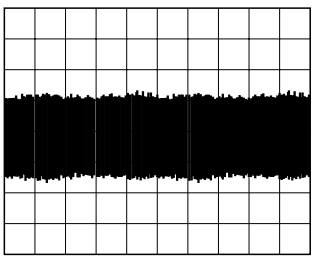
3.8 Vp-p (H)

❷ IC260 ⑩ REC



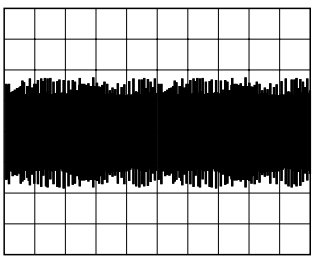
280 mVp-p (H)

❸ IC260 ⑨ REC/PB



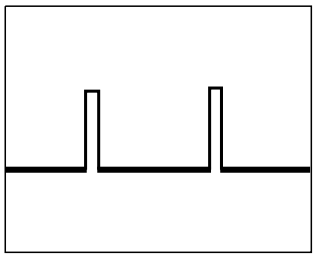
REC : 170 mVp-p (H)
PB : 120 mVp-p (H)

❹ IC260 ⑦ PB



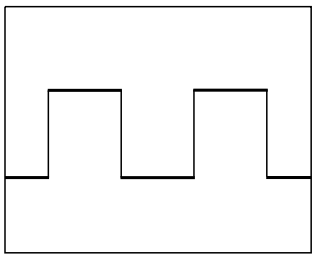
700 mVp-p (H)

❺ IC260 ⑤ REC/PB



3.6 Vp-p (H)

❻ IC260 ④ REC/PB



3.8 Vp-p (2 V)

MA-373 (HEAD AMP) SCHEMATIC DIAGRAM **• See page 4-5 for printed wiring board.**

– Ref. No.: MA-373 board; 1,000 series –

MA-373 BOARD (1/9)

CN261 6P

1	LP CH2 F	1
2	LP CH1.2 S	2
3	LP CH1 F	3
4	SP CH2 F	4
5	SP CH1.2 S	5
6	SP CH1 F	6

SE350/SE500

CN260 11P

1	LP CH2 F	1
2	LP CH1.2 S	2
3	LP CH1 F	3
4	SP CH2 F	4
5	SP CH1.2 S	5
6	SP CH1 F	6
7	GND(SW)	7
8	FE	8
9	AUDIO CH1 H	9
10	AUDIO REC	10
11	AUDIO CH2 L	11

LP CH2, LP CH1, SP CH2, SP CH1, AUDIO CH1, AUDIO CH2

CN263 2P

CHECK	GND	2
	HF_ADJ	1

EXCEPT SE350/SE500

*R272 1.8k:SE350 2.2k:EXCEPT SE350/SE500 2.7k:SE500

*R271 470:EXCEPT SE350/SE500 560:SE350/SE500

L270 100uH

C280 100u 16V

C279 0.1u

C278 0.022u

C271 0.01u

C272 0.1u

C275 0.01u

C276 0.1u

C281 0.01u

C282 0.01u

C283 0.01u

C284 0.22u

C285 0.01u

C288 100p

C289 18p

R270 *

R271 *

R272 *

R273 0

R274 *

R275 47k

R276 *

R277 22k

R278 22k

R279 22k

R280 100k

R283 0

R284 0

R286 100

JL260, JL261, JL262, JL263, JL264, JL265, JL266

JL267, JL268, JL269, JL270, JL271, JL272, JL273, JL283

B+

IC260

VIDEO REC/PB AMP

IC260
LA70001:SE350
LA70011:EXCEPT SE350

5	13	Vcc	
	14	R4/P5	REC_CURRENT_ADJ2
	15	R1.6/P0	REC_CURRENT ADJ1
	16	R3.9/P2	REC_AGC_FILT
	17	R3.9/P2	SP_L_IN
	18	R3.9/P2	REC_SP_OUT
	19	R2.5/P0	PB FILT
	20	R3.9/P2	SP_H_IN
	21	GND	
	22	R1.2/P2	EP_L_IN
	23	R1.2/P2	EP_OUT
	24	R1.2/P2	PB FELT
	1		EP_H_IN
	2	R2.8/P2.5	REC_CURRENT_ADJ2
	3	R4.3/P0.1	REC/MUTE/PB
	4	R3.5/P0.5	REC_C_IN
	5	R3.5/P0	REC_Y_IN
	6	R0.1/P1.7	GND
	7	R0/P2.1	PB_OUT
	8	0.3	ENVDET_OUT
	9	1.4-2.2	H_SYNC
	10	SW30 0	HA(EP/SP)
	11	R0.3/P0.6	COMP_OUT
	12	4.3	TRICK_H

EXCEPT SE350

*R274 4.7k:SE500 5.6k:EXCEPT SE500

EXCEPT SE350/SE500

Q270 PDTC144EK-115 SWITCH

*R270 470:EXCEPT SE500 560:SE500

*R276 8.2k:SE500 10k:EXCEPT SE350/SE500 15k:SE350

CN262 5P

1	PB RF	CHECK
2	RF SWP	
3	GND	
4	CTL	
5	AV ADJ	

REC_CURR_ADJ, REC_H, REC_C, REC_Y_RF, PB_RF, COMP_SYNC, TRICK_H

1 MA-373 BOARD (2/9) (SEE PAGE 4-11)

$\overline{SP}$, RF_ENV, RF_SWP, HA_SWP, COMP_OUT, CTL_CHECK

2 MA-373 BOARD (4/9) (SEE PAGE 4-17)

ADJSW

3 MA-373 BOARD (8/9) (SEE PAGE 4-27)

SW5V, ANGND

4 MA-373 BOARD (9/9) (SEE PAGE 4-30)

AUDIOCH1, AUDIOREC, AUDIOCH2, AFENV, ANGND

5 MA-373 BOARD (5/9) (SEE PAGE 4-21)

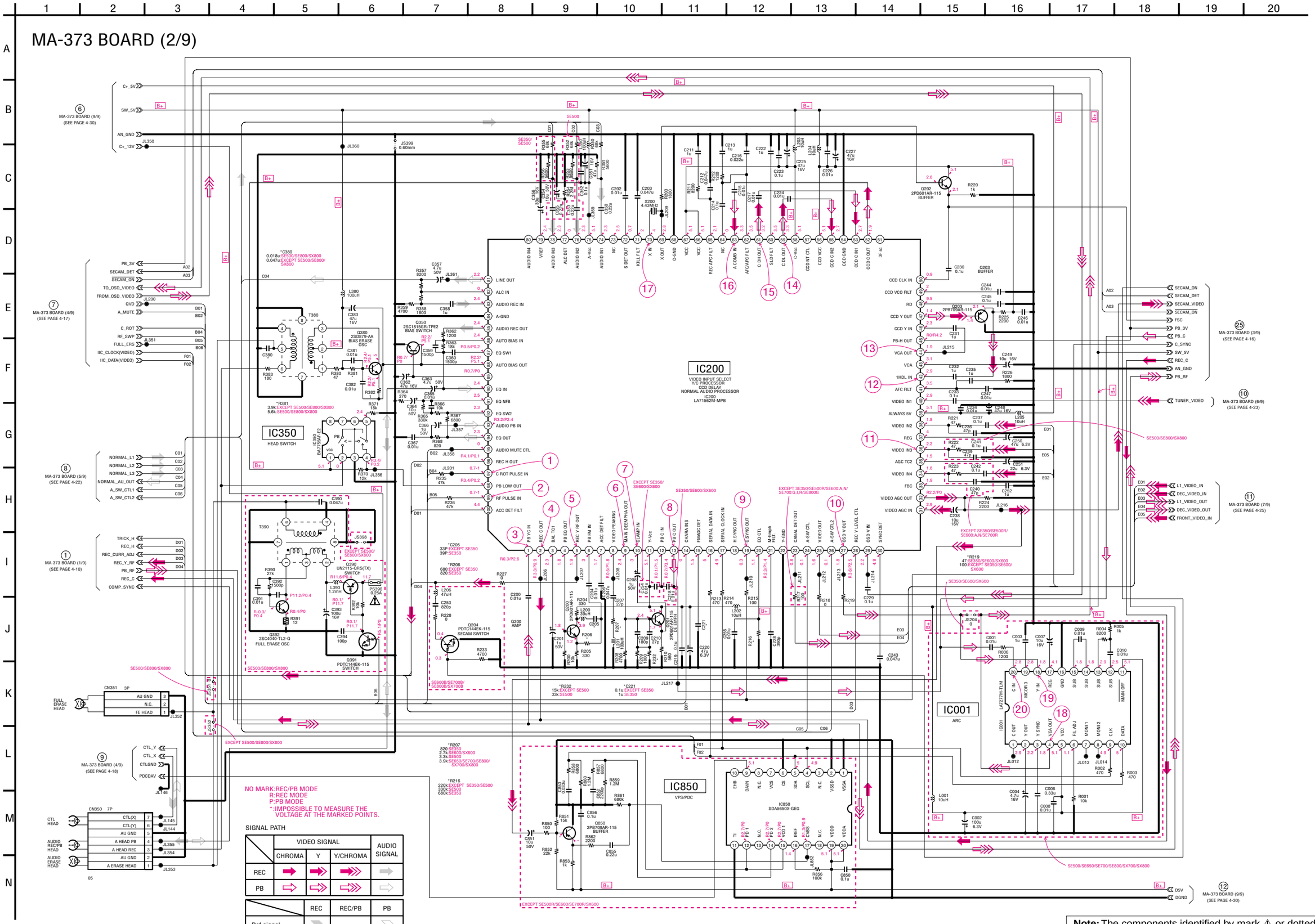
NO MARK:REC/PB MODE
R:REC MODE
P:PB MODE
*:IMPOSSIBLE TO MEASURE THE VOLTAGE AT THE MARKED POINTS.

SIGNAL PATH

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

MA-373 (VIDEO, AUDIO) SCHEMATIC DIAGRAM • See page 4-5 for printed wiring board.

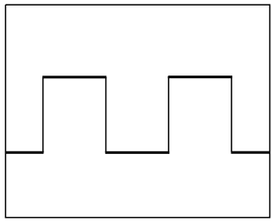
– Ref. No.: MA-373 board; 1,000 series –



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

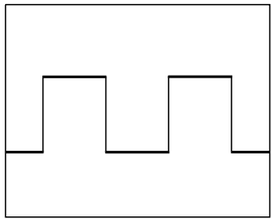
• **Waveforms**

❶ IC200 ㊼ PB



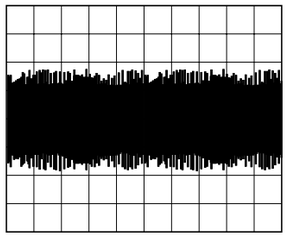
1.7 Vp-p (2 V)

❷ IC200 ㊾ PB



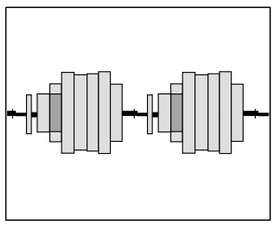
1.7 Vp-p (2 V)

❸ IC200 ① PB



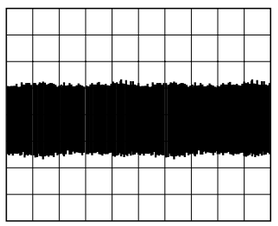
704 mVp-p (H)

❹ IC200 ② REC



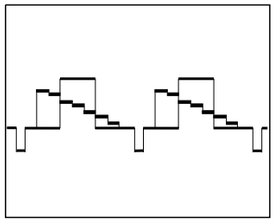
276 mVp-p (H)

❺ IC200 ⑤ REC/PB



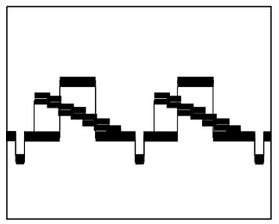
REC : 504 mVp-p (H)
PB : 320 mVp-p (H)

❻ IC200 ⑨ REC



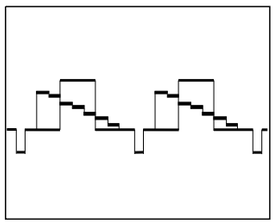
424 mVp-p (H)

❻ IC200 ⑨ PB



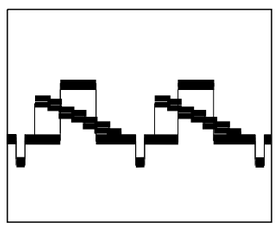
496 mVp-p (H)

❼ IC200 ⑩ REC



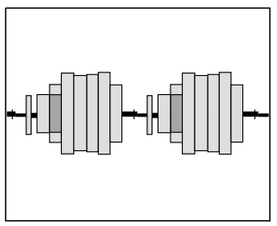
424 mVp-p (H)

❼ IC200 ⑩ PB



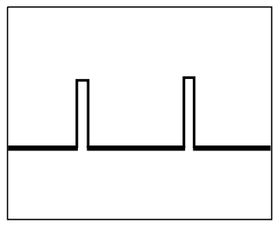
536 mVp-p (H)

❽ IC200 ⑬ PB



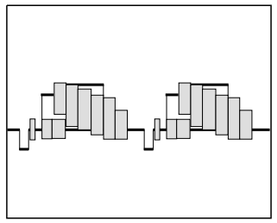
488 mVp-p (H)

❾ IC200 ⑲ REC/PB



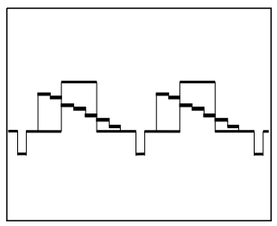
4.3 Vp-p (H)

❿ IC200 ㉗ REC



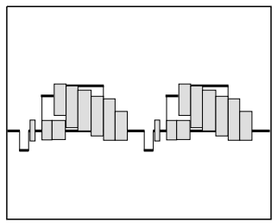
2 Vp-p (H)

❿ IC200 ㉗ PB



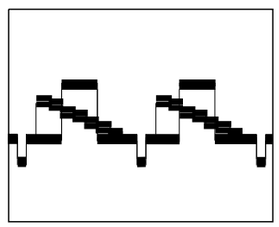
1.8 Vp-p (H)

⓫ IC200 ㊱ REC/PB



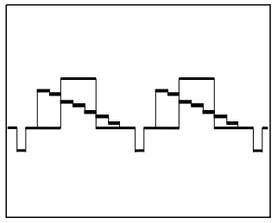
1.1 Vp-p (H)

⓬ IC200 ㊷ REC/PB



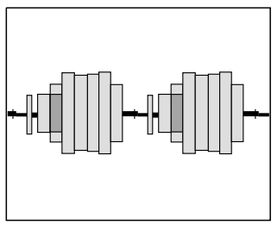
REC : 320 mVp-p (H)
PB : 368 mVp-p (H)

⓭ IC200 ㊹ REC/PB



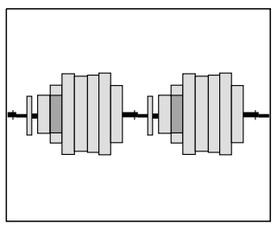
REC : 296 mVp-p (H)
PB : 336 mVp-p (H)

⓮ IC200 ㊾ REC/PB



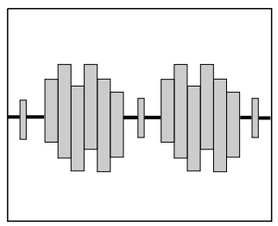
REC : 296 mVp-p (H)
PB : 324 mVp-p (H)

⓯ IC200 ㊶ REC/PB



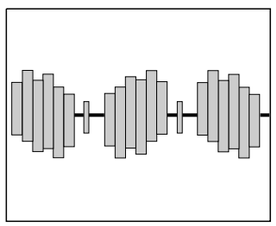
REC : 276 mVp-p (H)
PB : 288 mVp-p (H)

⓰ IC200 ㊸ REC



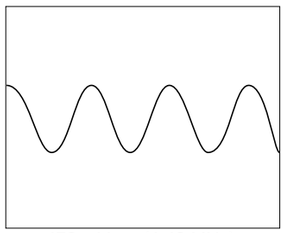
304 mVp-p (H)

⓰ IC200 ㊸ PB



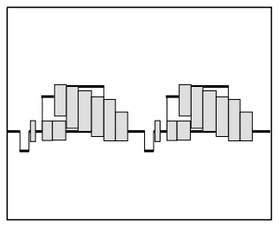
304 mVp-p (H)

⓱ IC200 ㊿ REC/PB



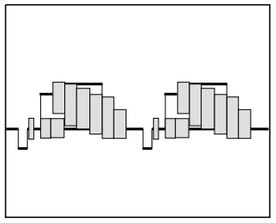
472 mVp-p (4.43 MHz)

⓲ IC001 ④ REC/PB



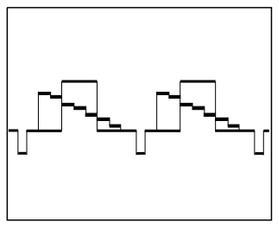
2 Vp-p (H)

⓳ IC001 ⑱ REC



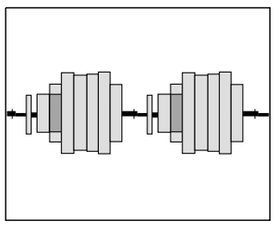
2 Vp-p (H)

⓳ IC001 ⑱ PB



1.8 Vp-p (H)

⓴ IC001 ⑳ PB



372 mVp-p (H)

MA-373 (SECAM) SCHEMATIC DIAGRAM • See page 4-5 for printed wiring board.

– Ref. No.: MA-373 board; 1,000 series –

MA-373 BOARD (3/9)

SE600B/SE700B/SE800B/SX700B

IC970 SECAM PROCESSOR

Q970 4.3MHz BELL FILTER

Q973 2PD601AR-115 BUFFER

Q974 2PD601AR-115 BUFFER

Q975 PDTA114EK-115 SWITCH

Q976 PDTC144EK-115 SWITCH

Q972 PDTA114EK-115 SWITCH

C_SYNC
SECAM_DET
SECAM_VIDEO
SW_5V
PB_3V
SECAM_ON
SECAM_ON
PB_C
AN_GND
PB_RF
REC_C
FSC

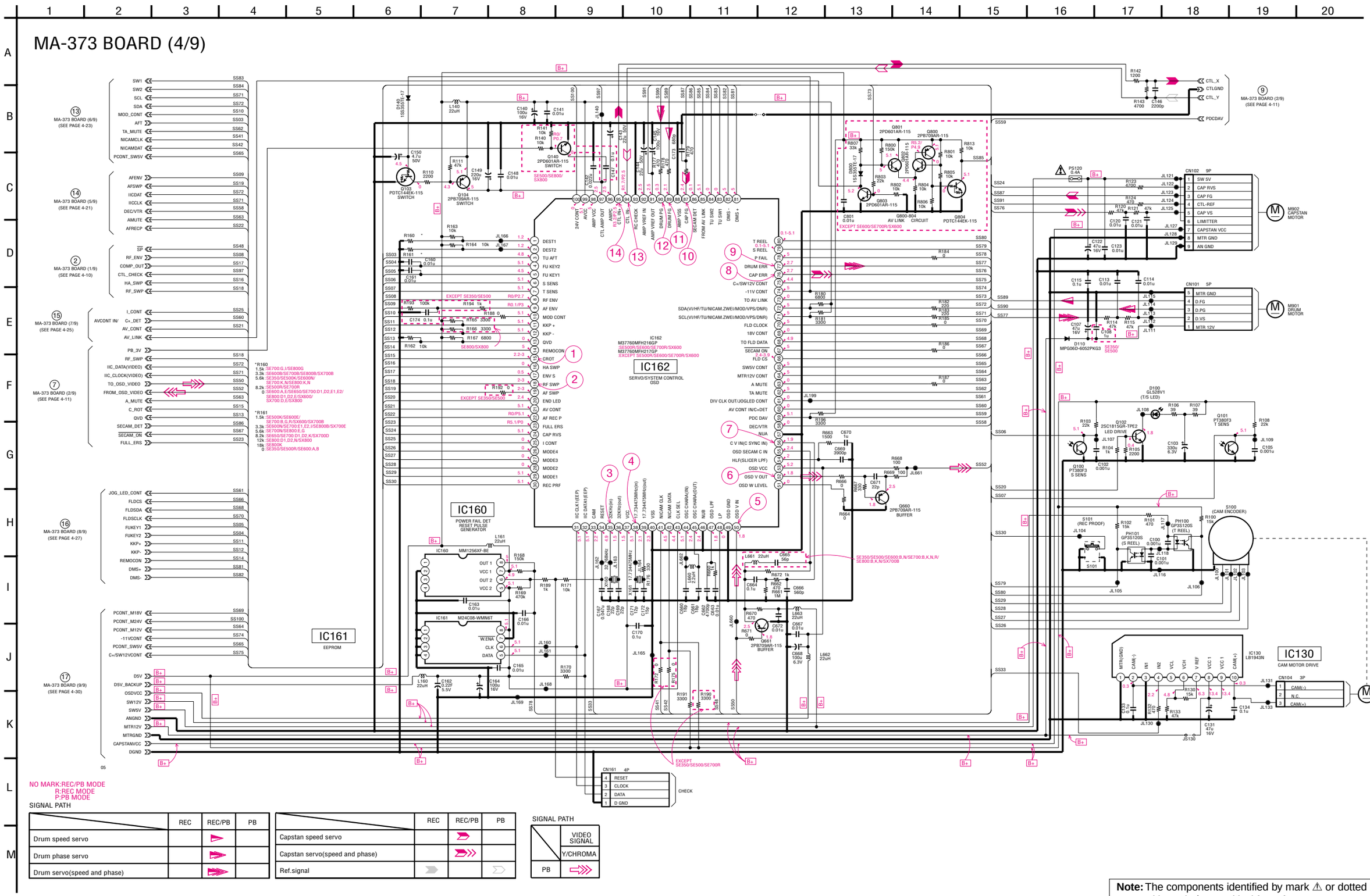
25 MA-373 BOARD (2/9) (SEE PAGE 4-12)

NO MARK:REC/PB MODE
R:REC MODE
P:PB MODE

SIGNAL PATH

	VIDEO SIGNAL	
	CHROMA	Y/CHROMA
REC	→	→→→
PB	⇨	⇨⇨⇨

MA-373 (SERVO/SYSTEM CONTROL) SCHEMATIC DIAGRAM • **See page 4-5 for printed wiring board and page 4-19 for waveforms.**
– Ref. No.: MA-373 board; 1,000 series –

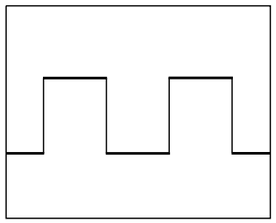


Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

SERVO/SYSTEM CONTROL
MA-373 (4/9)

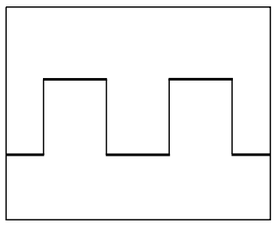
• Waveforms

❶ IC162 ⑮ REC/PB



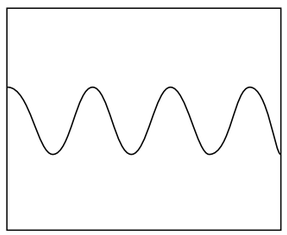
5.3 Vp-p (2 V)

❷ IC162 ⑱ REC/PB



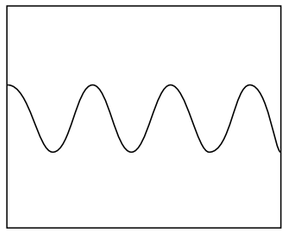
5.3 Vp-p (2 V)

❸ IC162 ㉟ REC/PB



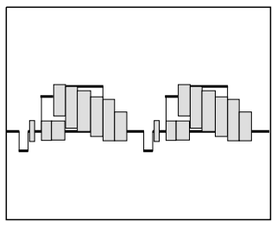
1.8 Vp-p (32.768 kHz)

❹ IC162 ㊳ REC/PB



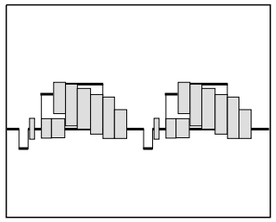
2.7 Vp-p (17.734475 MHz)

❺ IC162 ㊿ REC/PB



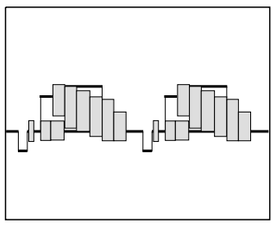
2 Vp-p (H)

❻ IC162 ㊷ REC/PB



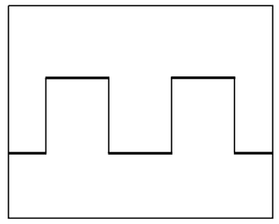
2 Vp-p (H)

❼ IC162 ㊻ REC/PB



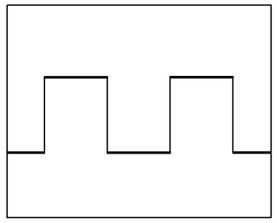
2 Vp-p (H)

❽ IC162 ㊻ REC/PB



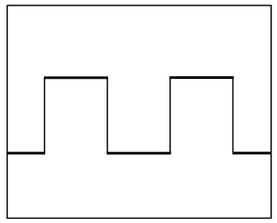
5.4 Vp-p (56 kHz)

❾ IC162 ㊼ REC/PB



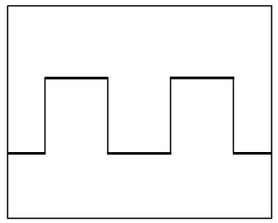
5.4 Vp-p (56 kHz)

❿ IC162 ㊼ REC/PB



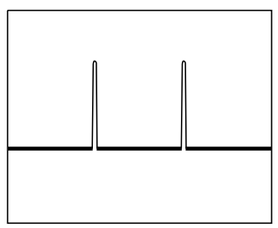
4.6 Vp-p (1 kHz)

⓫ IC162 ㊾ REC/PB



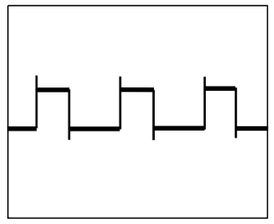
4.2 Vp-p (360 Hz)

⓬ IC162 ㊿ REC/PB



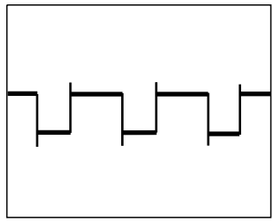
4.8 Vp-p (2 V)

⓭ IC162 ㊹ REC



5 Vp-p (2 V)

⓮ IC200 ㊺ REC



5 Vp-p (2 V)

MA-373 BOARD (5/9)

IC301
Hi-Fi AUDIO PROCESSOR
IC301
TDA9605H/N2,518

IC580
C+ SWITCH

NO MARK:REC/PB MODE
R:REC MODE
P:PB MODE
*:IMPOSSIBLE TO MEASURE THE VOLTAGE AT THE MARKED POINTS.

SIGNAL PATH

	AUDIO SIGNAL
REC	⇨
PB	⇦

MA-373 (TUNER) SCHEMATIC DIAGRAM • See page 4-5 for printed wiring board.

– Ref. No.: MA-373 board; 1,000 series –

MA-373 BOARD (6/9)

SE350/SE500/SE700R

EXCEPT SE350/SE500/SE700R

TU701

TU702

IN

AERIAL

OUT

BB(5V) MOD A SDA MB(5V) SCL MOD V 30V RF AGC N.C. N.C. SCL SDA N.C. 5V N.C. 30V IF IF SW1 SW2 M OUT SIF AFT V OUT 5V

BB(5V) MOD A SDA MB(5V) SCL MOD V 30V RF AGC N.C. N.C. SCL SDA N.C. 5V N.C. 30V TP IF SW1 SW2 M OUT SIF AFT V OUT 5V L R SDA SCL N.C.

JL752 JL754 JL753 JL705 JL707 JL709

R755 100 R754 100 R705 220 R704 100 R732 470 R730 470

B+

21 MA-373 BOARD (7/9) (SEE PAGE 4-25) — MOD_VIDEO

10 MA-373 BOARD (2/9) (SEE PAGE 4-12) — TUNER_VIDEO

22 MA-373 BOARD (9/9) (SEE PAGE 4-30) — AN_GND, C+_12V, SW_30V, SW_5V, D_6V

13 MA-373 BOARD (4/9) (SEE PAGE 4-17) — NICAMDAT, NICAMCLK, SW2, SW1, SCL, SDA, MOD_CONT, AFT, PCONT_SW5V, TA_MUTE

19 MA-373 BOARD (5/9) (SEE PAGE 4-21) — MOD_AUDIO, TUNER_M, TUNER_R, TUNER_L

EXCEPT SE350/SE500/SE700G/R/SE800G

R731 470

R733 470

EXCEPT SE700G/SE800G

EXCEPT SE350/SE500/SE700R

C710 22u 50V

EXCEPT SE350/SE500/SE700R

C711 47u 16V

JS702

JS752

Q752 2PB709AR-115

R756 10k

R757 1k

Q751,752 SWITCH

Q751 PDTC144EK-115

L751 10uH

C754 470u 6.3V

C755 0.1u

EXCEPT SE350/SE500

C731 10u 50V

C730 10u 50V

C701 10u 50V

JS700 0

JS701 0

L700 JW

JL706

R701 10k

R702 0

EXCEPT SE700R

SE700R

Q700,730,731 MUTE

Q731 2PD601AR-115

Q700 2PD601AR-115

Q730 2PD601AR-115

R722 1k

R721 1k

R720 1k

R700 2200

Q701 2PB709AR-115

D700 1SS355-17

Q701 MUTE CONTROL

SE700R

05

R703 100

Q702 2PB709AR-115 MONO BUFFER

SE700R

Q720,721 SWITCH

R723 100k

R724 3300

R726 100k

Q720 2SA1309A-QR/STA

R725 22k

Q721 2PD601AR-115

36.8 36 36.7 0.7 0

JL701

L701 2.2uH

D702 MTZJ-T-77-33

R711 470

C704 10u 50V

C705 0.01u

R714 470k

C708 47u 16V

C709 0.01u

JL700

R713 100

C702 2200p

D750 S1G-G2P

L750 2.2uH

C757 0.01u

C752 100u 16V

C753 0.1u

Q752 2PB709AR-115 5 4.8 4.1

Q751,752 SWITCH 5.1 0.1

Q751 PDTC144EK-115

NO MARK:REC/PB MODE

*:IMPOSSIBLE TO MEASURE THE VOLTAGE AT THE MARKED POINTS.

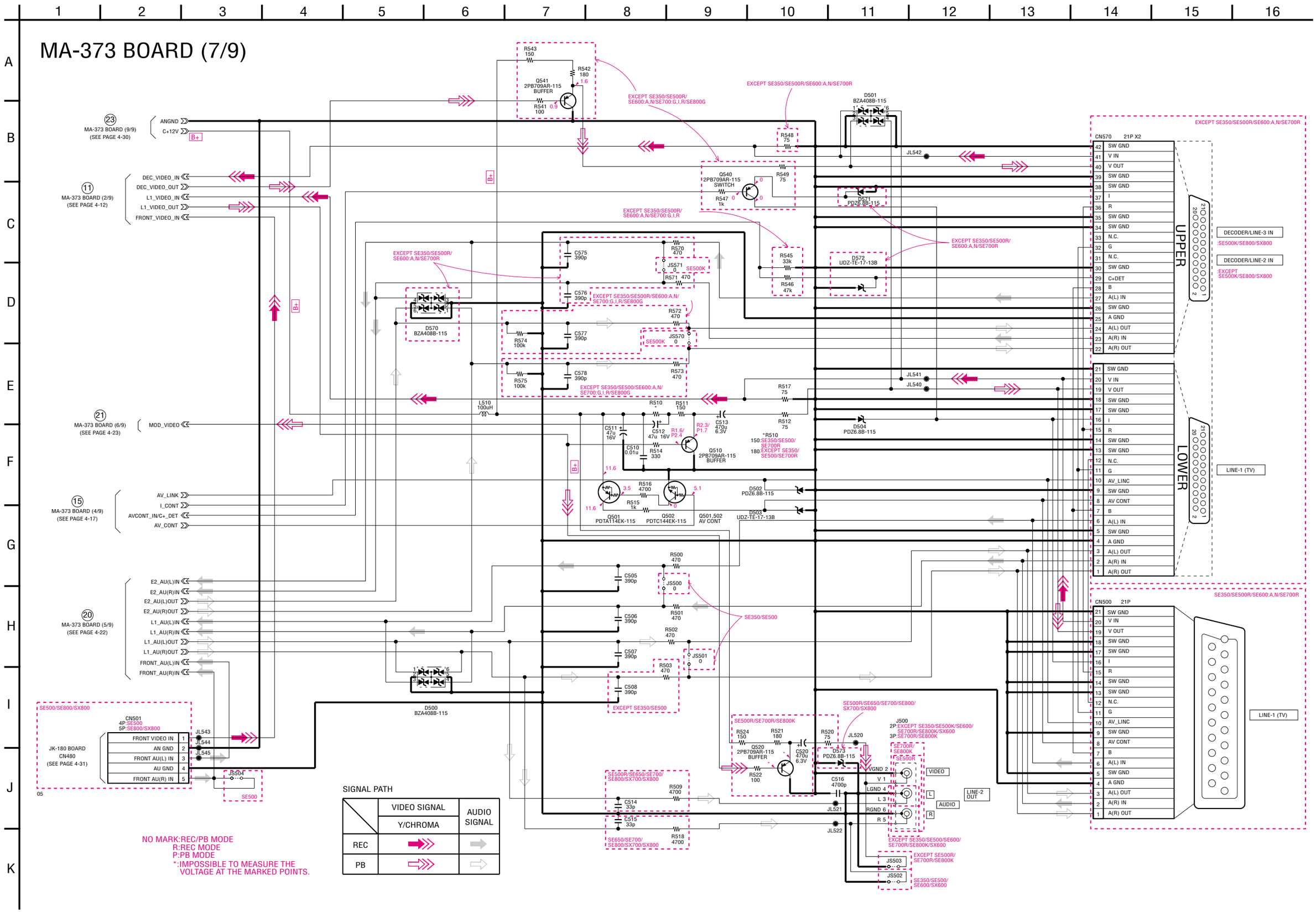
SIGNAL PATH

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

MA-373 (I/O) SCHEMATIC DIAGRAM **• See page 4-5 for printed wiring board.**

– Ref. No.: MA-373 board; 1,000 series –

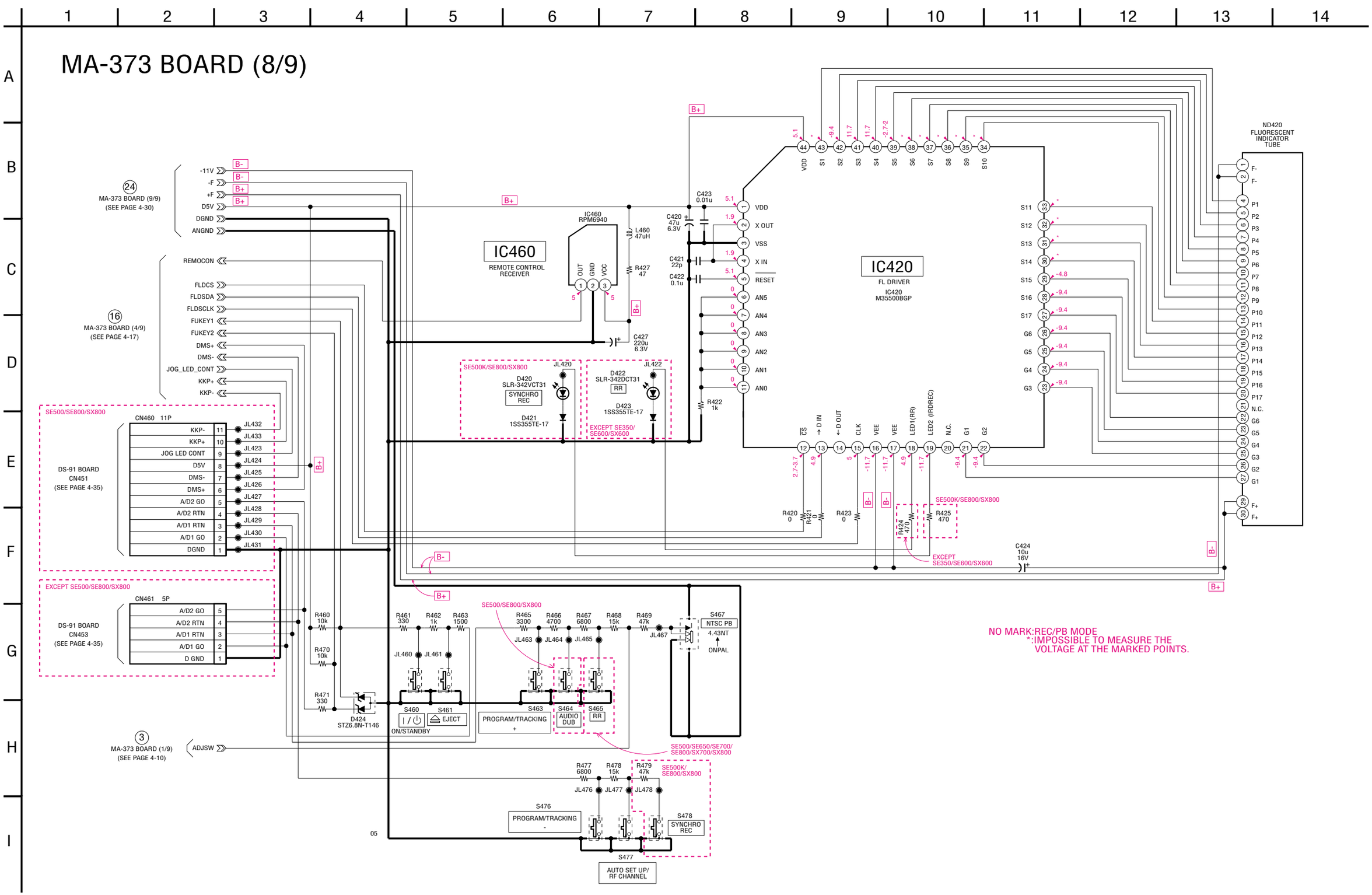
MA-373 BOARD (7/9)



MA-373 (MODE CONTROL) SCHEMATIC DIAGRAM **• See page 4-5 for printed wiring board.**

– Ref. No.: MA-373 board; 1,000 series –

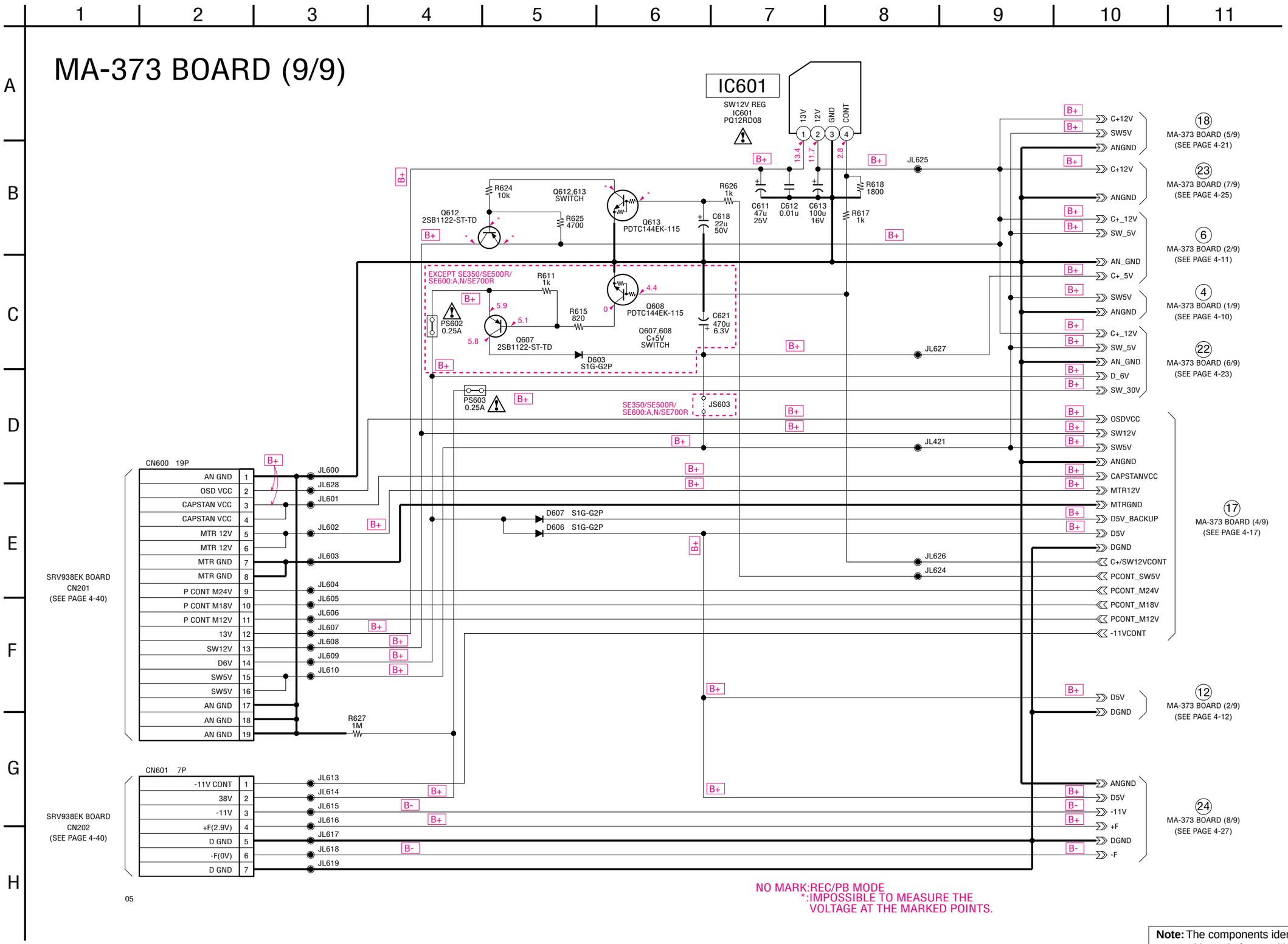
MA-373 BOARD (8/9)



NO MARK:REC/PB MODE
*:IMPOSSIBLE TO MEASURE THE VOLTAGE AT THE MARKED POINTS.

MODE CONTROL
MA-373 (8/9)

MA-373 (POWER SUPPLY) SCHEMATIC DIAGRAM • **See page 4-5 for printed wiring board and page 4-19 for waveforms.**
– Ref. No.: MA-373 board; 1,000 series –

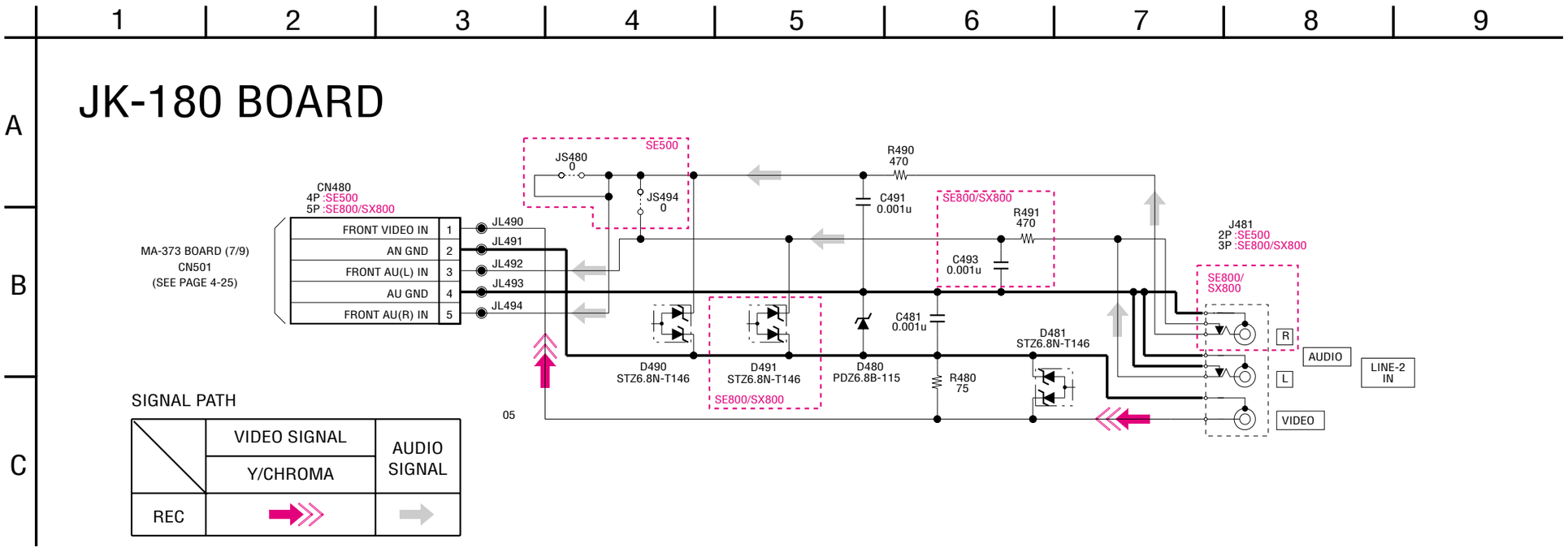


Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

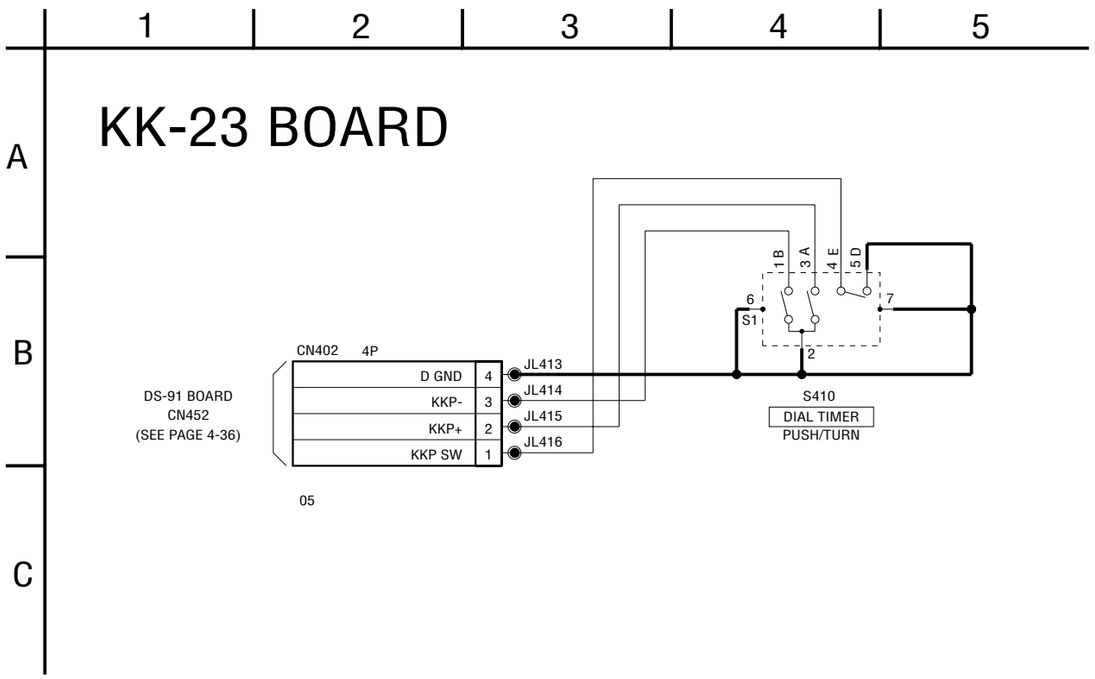
JK-180 (FRONT IN), KK-23 (DIAL TIMER) SCHEMATIC DIAGRAMS

– Ref. No.:JK-180 board, KK-23 board; 1,000 series –

–SLV-SE500/SE800/SX800 –



–SLV-SE800/SX800 –

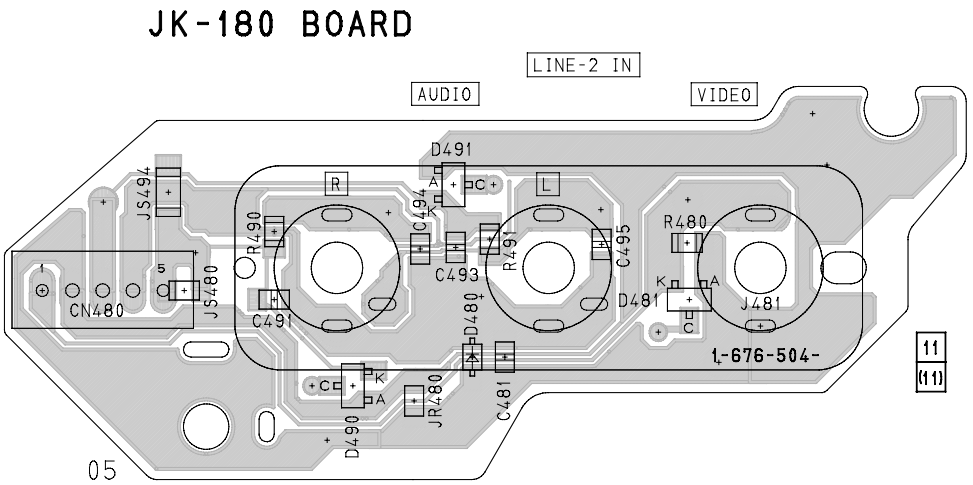


JK-180 (FRONT IN), KK-23 (DIAL TIMER) PRINTED WIRING BOARDS

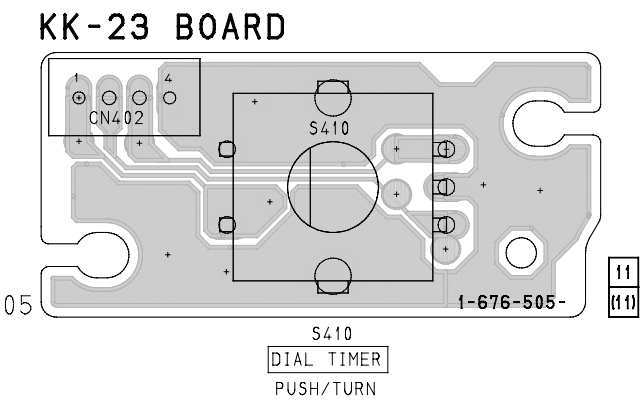
– Ref. No.: JK-180 board, KK-23 board; 1,000 series –

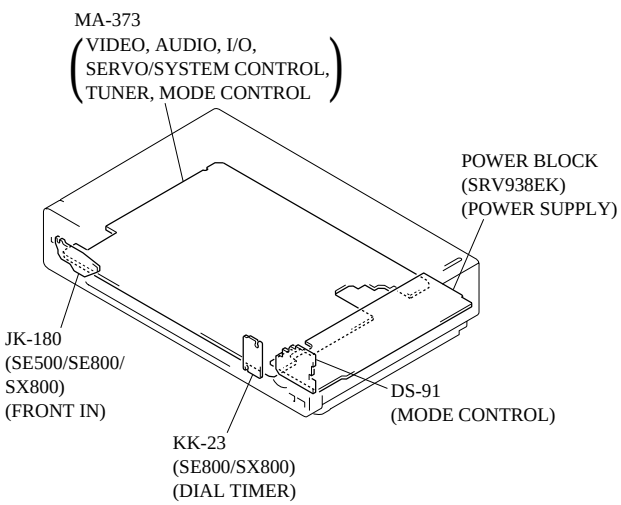
There are few cases that the part isn't mounted in this model is printed on this diagram.

–SLV-SE500/SE800/SX800 –



–SLV-SE800/SX800 –

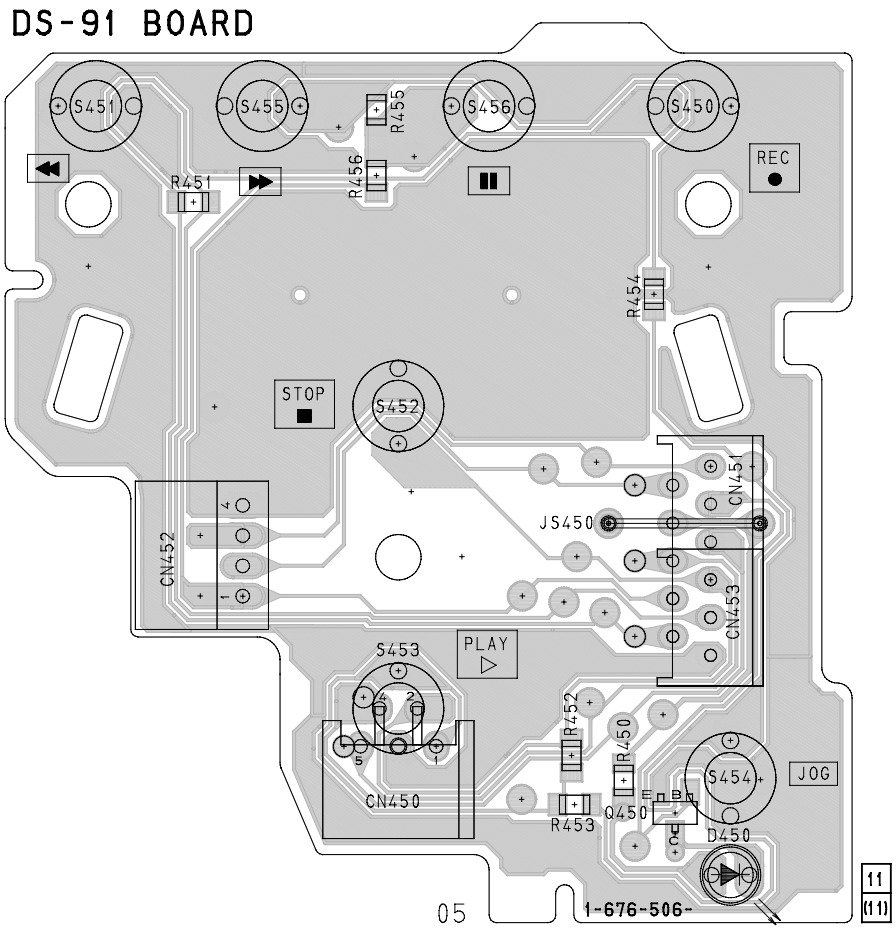


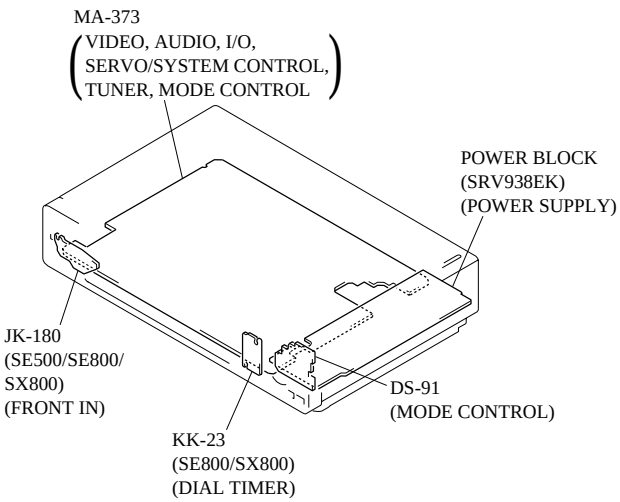


DS-91 (MODE CONTROL) PRINTED WIRING BOARD

– Ref. No.: DS-91 board; 1,000 series –

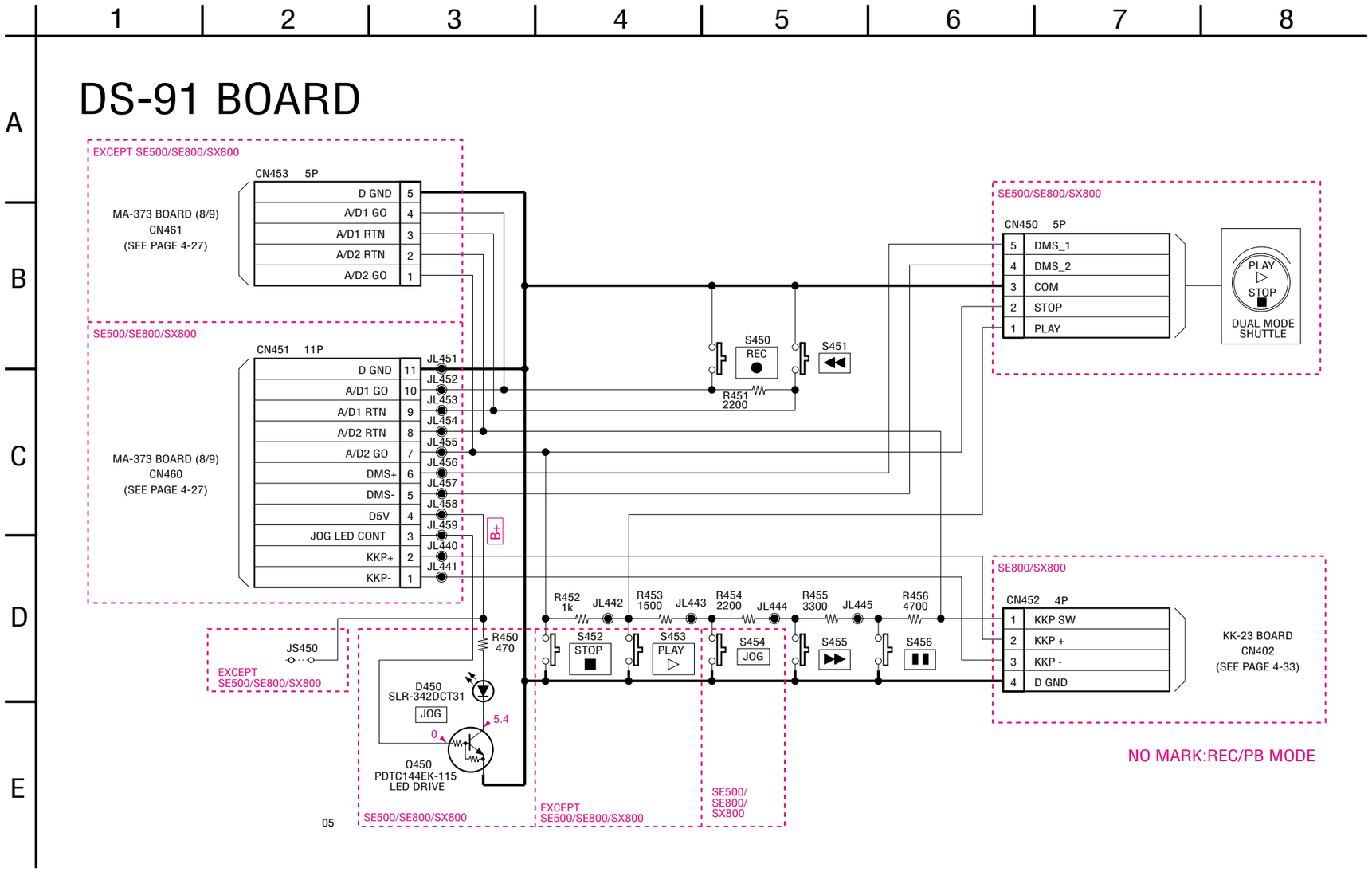
There are few cases that the part isn't mounted in this model is printed on this diagram.





DS-91 (MODE CONTROL) SCHEMATIC DIAGRAM

– Ref. No.: DS-91 board; 1,000 series –



SRV938EK (POWER SUPPLY) PRINTED WIRING BOARD

– Ref. No.: SRV938EK board; 2,000 series –

SRV938EK BOARD

CN101 A-1
CN201 A-5
CN202 A-6

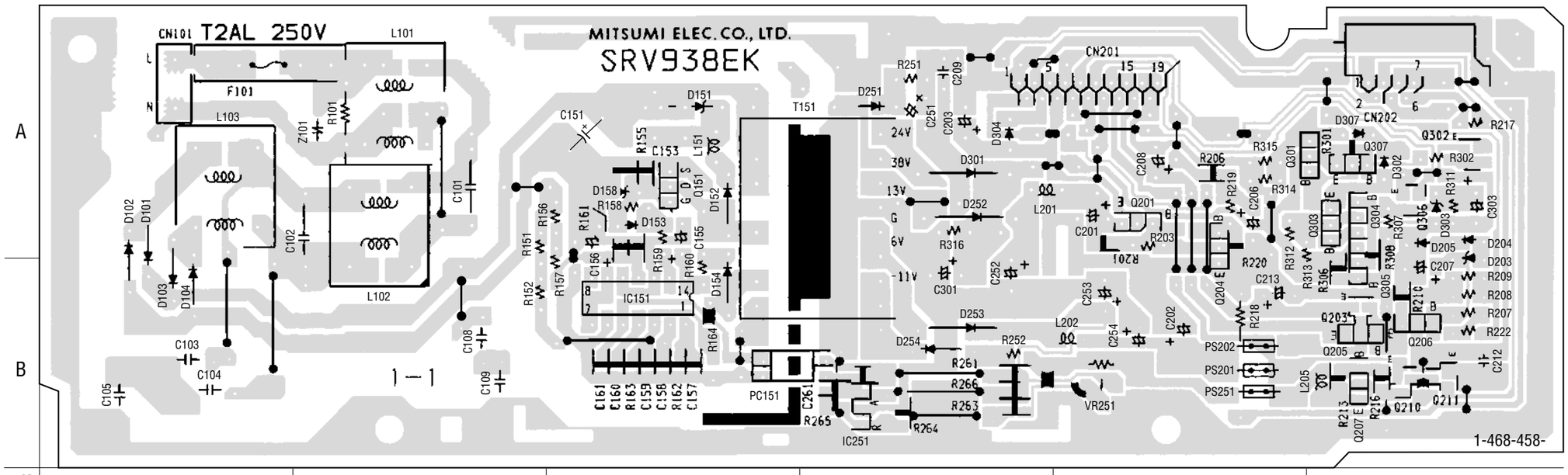
D101 B-1
D102 B-1
D103 B-1
D104 B-1
D151 A-3
D152 A-3
D153 A-3
D154 B-3
D158 A-3
D203 B-6
D204 A-6
D205 A-6
D251 A-4
D252 A-4
D253 B-4
D254 B-4
D301 A-4
D302 A-6
D303 A-6
D304 A-4
D307 A-6

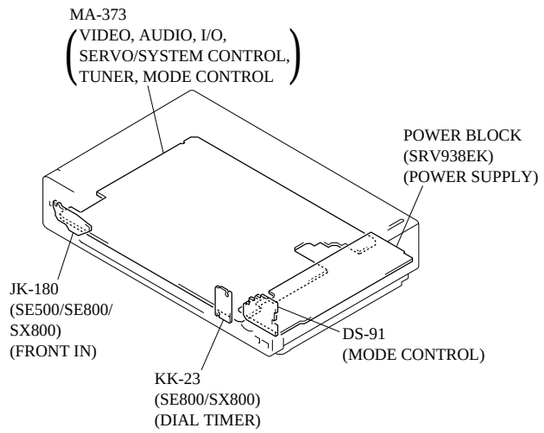
IC151 B-3
IC251 B-4

Q151 A-3
Q201 A-5
Q203 B-6
Q204 B-5
Q205 B-6
Q206 B-6
Q207 B-6
Q210 B-6
Q211 B-6
Q301 A-5
Q302 A-6
Q303 A-6
Q304 A-6
Q305 B-6
Q306 A-6
Q307 A-6

There are few cases that the part isn't mounted in this model is printed on this diagram.

SRV938EK BOARD

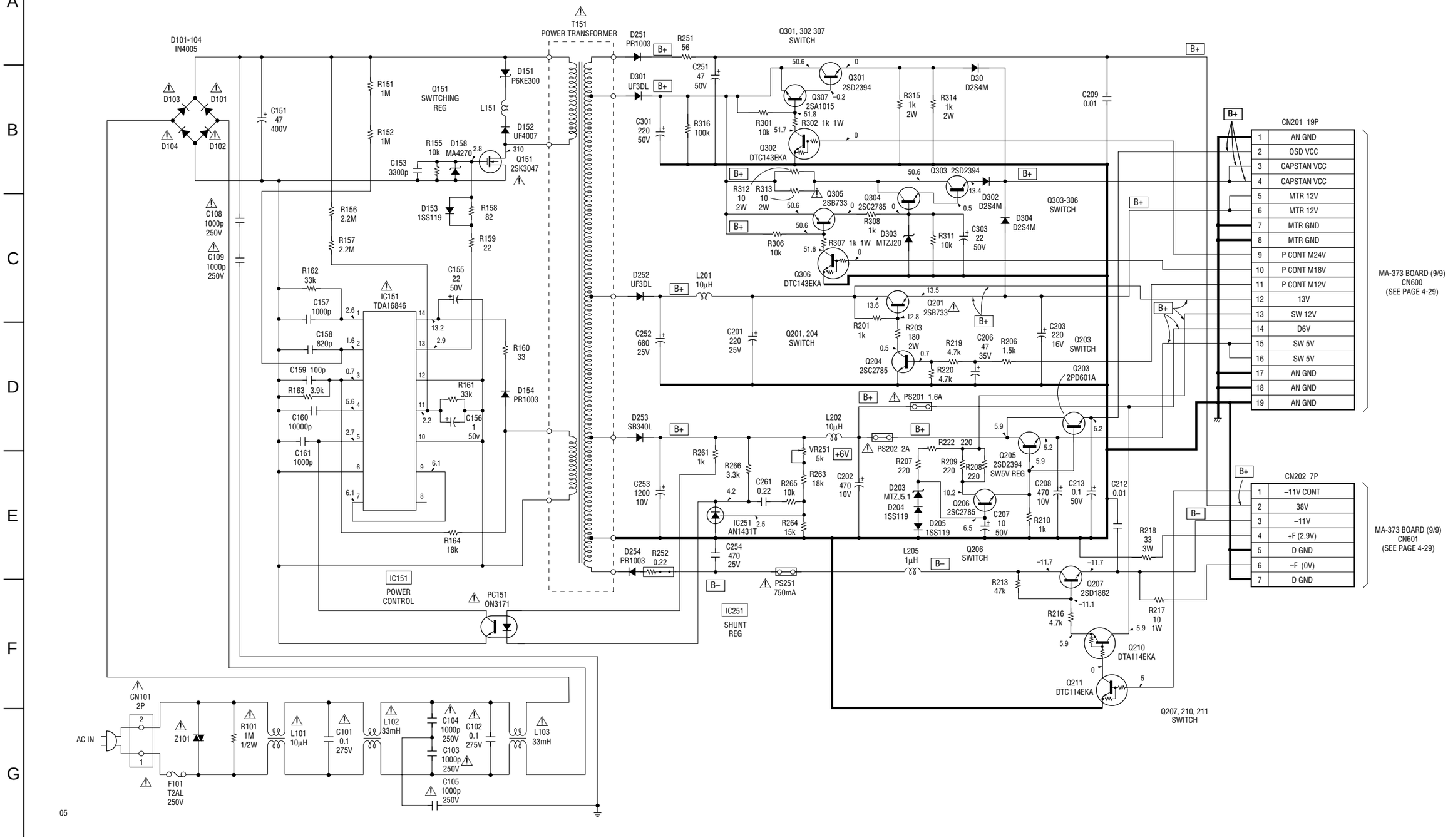




SRV938EK (POWER SUPPLY) SCHEMATIC DIAGRAM

– Ref. No.: SRV938EK board; 2,000 series –

SRV938EK BOARD



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

5-1. SYSTEM CONTROL – VIDEO BLOCK INTERFACE (MA-373 BOARD IC162)

Signal	Pin No.	I/O	STOP/ FF/ REW	TAPE LOADING	TAPE UNLOADING	PB	REC	REC • PAUSE
RF SWP	MA-373 IC162⑱	O	*1	*1	*1	*1	*1	*1
QVD	MA-373 IC162⑬	O	L	L	L	*2	L	L
C V IN	MA-373 IC162㊺	I	*3	*3	*3	*3	*3	*3

∗1. 25 Hz pulse with 50% duty cycle. Synchronized with rotation of drum.
∗2. Normally “L”. “H” when video signal is not generated.
∗3. Composite sync signal (positive polarity).

5-2. SYSTEM CONTROL – SERVO PERIPHERAL CIRCUIT INTERFACE (MA-373 BOARD IC162)

Signal	Pin No.	I/O	STOP	FF	REW	TAPE LOADING	TAPE UNLOADING	PB	REC
CTL IN+	MA-373 IC162㊺	I/O	*7	*7	*7	*7	*7	*7	*1
DRUM PG	MA-373 IC162㊿	I	*3	*3	*3	*3	*3	*3	*3
DRUM FG	MA-373 IC162㊾	I	*4	*4	*4	*4	*4	*4	*4
CAP FG	MA-373 IC162㊼	I	H/L	*2	*2	*5	*5	*2	*2
CAP RVS	MA-373 IC162㉔	O	H/L	L	H	L	H	L	L
CAP ERR	MA-373 IC162㊻	O	L	*6	*6	*6	*6	*6	*6
DRUM ERR	MA-373 IC162㊼	O	*6	*6	*6	*6	*6	*6	*6

∗1. 25 Hz pulse.
∗2. Pulse of period in proportion to tape speed.
∗3. 25 Hz “H” pulse.
∗4. 330 Hz pulse.
∗5. Unstable period pulse.
∗6. DC voltage 1 to 5V
∗7. Hi-Z (2.5V)

5-3. SYSTEM CONTROL – MECHANISM BLOCK INTERFACE (MA-373 BOARD IC162)

Signal	Pin No.	I/O	EJECTED	CASSETTE LOADING	CASSETTE UNLOADING	TAPE THREAD-ING	TAPE UNTHREAD-ING	STOP	FF	REW	PB	REC
CAM	MA-373 IC162㉝	O	M	H/M	L/M	H/M	L/M	M	M	M	M	M
MODE 1	MA-373 IC162㉙	I	H	–	–	L	L	H	H	H	H	H
MODE 2	MA-373 IC162㉘	I	H	–	–	L	L	H	H	H	L	L
MODE 3	MA-373 IC162㉗	I	L	–	–	H	H	H	L	L	L	L
MODE 4	MA-373 IC162㉖	I	L	–	–	H	H	L	H	H	L	L
REC PRF	MA-373 IC162㉚	I	L	*1	*1	*1	*1	*1	*1	*1	*1	*1
T REEL	MA-373 IC162㊱	I	H/L	H/L	H/L	H/L	H/L	H/L	*2	*2	*2	*2
S REEL	MA-373 IC162㊴	I	H/L	H/L	H/L	*2	*2	H/L	*2	*2	*2	*2
END LED	MA-373 IC162⑳	O	L	L	L	*3	*3	*3	*3	*3	*3	*3
T SENS	MA-373 IC162⑦	I	*3	*3	*3	*4	*4	*4	*4	*4	*4	*4
S SENS	MA-373 IC162⑥	I	*3	*3	*3	*4	*4	*4	*4	*4	*4	*4

∗1. “L” when erasing protection tab is bent. “H” when not bent.
∗2. Pulse of period in proportion to reel rotating speed.
∗3. Approx. 2 msec period “H” pulse.
∗4. Normally “L”. 2 msec period “H” pulse when tape top or tape end is detected.

5-4. SYSTEM CONTROL – SYSTEM CONTROL PERIPHERAL CIRCUIT INTERFACE (MA-373 BOARD IC162)

Signal	Pin No.	I/O	I/O Level
RESET	MA-373 IC162㉞	I	Normally “H”, “L” when service interruption is detected or restored.
NICAM DATA	MA-373 IC162㊷	O	Serial communication data to Tuner.
NICAM CLK	MA-373 IC162㊶	O	Serial communication clock to with Tuner.

5-5. SYSTEM CONTROL – AUDIO BLOCK INTERFACE (MA-373 BOARD IC162)

Signal	Pin No.	I/O	STOP/ FF/ REW	TAPE LOADING	TAPE UNLOADING	PB	REC	PB • PAUSE
A MUTE	MA-373 IC162㊸	O	L	L	L	L	L	H

5-6. SERVO/SYSTEM CONTROL MICROPROCESSOR PIN FUNCTION (MA-373 BOARD IC162)

Pin No.	Pin Name	I/O	Function
1	DEST1	I	Destination identification input 1
2	DEST2	I	Destination identification input 2
3	TU AFT	I	AFT input from TUNER for station selection
4	FU KEY2	I	Function key input (9 keys)
5	FU KEY1	I	Function key input (9 keys)
6	S SENS	I	Tape end sensor input
7	T SENS	I	Tape top sensor input
8	RF ENV	I	Video RF envelope input
9	AF ENV	I	HiFi envelope input
10	MOD CONT	O	RF modulator ON/OFF control
11	KKP +	I	KKP 2-phase pulse B input
12	KKP -	I	KKP 2-phase pulse A input
13	QVD	O	Pseudo VO output
14	REMOCON	I	Remote control SIRCS signal input
15	CROT	O	Head azimuth information
16	HA SW	O	SP/EP head switching signal
17	ENV S	I	Identification signal of SP/EP head output comparison & detection
18	RF SWP	O	Video RF switching pulse output
19	AF SWP	O	HiFi switching pulse output
20	END LED	O	End sensor LED output
21	AV CONT	O	EURO 21 pin AV CONT signal output
22	AF REC P	O	HiFi record control signal
23	FULL ERS	O	Full erase control signal for A DUB
24	CAP RVS	O	Inverted capstan signal
25	I CONT	O	EURO 21 pin-I CONT signal output
26	MODE 4	I	Cam encode data 4
27	MODE 3	I	Cam encode data 3
28	MODE 2	I	Cam encode data 2
29	MODE 1	I	Cam encode data 1
30	REC PRF	I	Safety tab detection input
31	IIC CLK1 (EEP)	O	IIC clock (EEPROM control)
32	IIC DATA1 (EEP)	I/O	IIC data (EEPROM control)
33	CAM	O	Cam motor control signal
34	RESET	I	Reset input
35	32kHz (in)	I	Sub clock input
36	32kHz (out)	O	Sub clock output
37	VCC	–	Power supply input terminal (high speed mode: 4.0 to 5.5V, low speed mode: 2.6 to 5.5V)
38	17.734475MHz (in)	I	Main clock input
39	17.734475MHz (out)	O	Main clock output
40	VSS	–	Ground terminal
41	NICAM CLK	O	Clock for NICAM-ZWEI control
42	NICAM DATA	O	Data for NICAM-ZWEI control
43	CLK SEL	I	Selection of oscillation clock when reset is canceled “L”: sub clock, “H”: main & sub clocks
44	OSC CHARA (IN)	I/O	Clock input for OSD character size
45	OSC CHARA (OUT)	I/O	Clock output for OSD character size
46	NUB	–	Connected to Ground
47	OSD LPF	I/O	External filter that doubles the FSC, is connected to this terminal
48	LP	O	“L” at SP, “H” at EP/LP

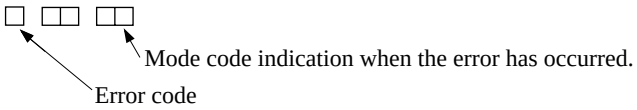
Pin No.	Pin Name	I/O	Function
49	OSD GND	–	Ground terminal of OSD/slicer
50	OSD V IN	I	Video signal input for OSD overlay
51	OSD W LEVEL	I	OSD white level input
52	OSD V OUT	O	OSD video signal output
53	OSD VCC	–	Power supply input terminal for OSD/slicer (4.75 V to 5.25 V)
54	HLF (SLICER LPF)	I/O	LPF connection terminal for slicer/AFC (This terminal is used as the HLF terminal when C. Video is input to pin-56.)
55	OSD SECAM C IN	I	Color signal input for SECAM OSD
56	C V IN (C SYNC IN)	I	Video signal input for tuner’s station selection, OSD and servo sync signal detection (after passing filter)
57	NUA	–	Connected to Ground
58	DEC/VTR	O	Decoder/VTR switching
59	PDC DAV	I	PDC/VPS signal reception identification input
60	AV CONT IN/C+DET	I	CANAL + connection identification input
61	DIV CLK OUT/JOGLED CONT	O	Terminal of using JOG LED output or adjustment made output of clock dividing frequency
62	TA MUTE	O	Tuner audio mute signal output
63	A MUTE	O	Audio mute signal output
64	MTR12V CONT	O	Motor 12 V power control signal
65	SW5V CONT	O	SW 5 V power control signal
66	FLD CS	O	Chip selection signal for display tube driver
67	SECAM ON	O	SECAM ON signal/surround audio control (switched by destination)
68	TO FLD DATA	O	Serial data out CH0 (FLD)
69	18V CONT	O	18 V power control signal
70	FLD CLOCK	O	Serial clock CH0 (FLD)
71	SCL (VI/HF/TU/NICAM. ZWEI/MOD/VPS/DNR)	I/O	IIC clock (video/HiFi/tuner/ARC/modulator/VPS control)
72	SDA (VI/HF/TU/NICAM. ZWEI/MOD/VPS/DNR)	I/O	IIC data (video/HiFi/tuner/ARC/modulator/VPS control)
73	TO AV LINK	O	AV-LINK data output for communication
74	-14V CONT	O	Power save control
75	C+5V CONT	O	Power save control
76	CAP ERR	O	Capstan error output
77	DRUM ERR	O	Drum error output
78	P FAIL	I	Power failure detection input
79	S REEL	I	Supply reel sensor input
80	T REEL	I	Take up reel sensor input
81	DMS +	I	DMS 2-phase pulse 1 input
82	DMS -	I	DMS 2-phase pulse 2 input
83	TU SW1	O	Tuner system BG/L selection signal
84	TU SW2	O	Tuner system BGL/L selection signal
85	FROM AV LINK	I	AV-LINK data input for communication
86	SECAM DET	I	SECAM identification input
87	CAP FG	I	Capstan FG input
88	AMP VSS	–	Ground terminal for analog amplifier (connected to Vss)
89	DRUM FG	I	Drum FG input
90	DRUM PG	I	Drum PG input
91	AMP VREF OUT	–	Analog amplifier reference power supply output terminal
92	AMP VREF IN	–	Analog amplifier reference power supply output terminal
93	RC CHECK	I	“No use (Fix to ““L”” on the outside for the terminal only for the input)”

Pin No.	Pin Name	I/O	Function
94	CTL IN-	I/O	CTL signal input/output terminal
95	CTL IN+	I/O	CTL signal input/output terminal
96	AMPC	–	CTL amplifier AC Ground terminal
97	CTL AMP OUT	O	CTL amplifier output
98	AMP VCC	–	Power supply input terminal for analog amplifier (connected to Vcc)
99	AVCC	–	Power supply input and reference voltage input to A-D converter
100	24V CONT	O	24 V power control signal

SECTION 6
ERROR CODES

6-1. ERROR CODE INDICATION

- Error codes are indicated using the lower 5 digits in the fluorescent display tube.
  "At this time, Colon ":"between character is not indicated."



ERROR CODE

0	No error
1	Cam encoder error Loading direction
2	Cam encoder error Unloading direction
3	T reel error
4	S reel error
5	Capstan error
6	Drum error
7	Error on initializing
8	Cassette loading error
9	Reserve

MODE CODE

0	Power-on eject	10	FWD x1	20	REW play
1	Power-on initial	11	FWD x2	21	Cas. loading
2	Power-off elect	12	CUE	22	Tape loading
3	Power-off stop	13	PB-pause	23	Power-off loading
4	FF	14	RVS-pause	24	Mecha. error (Power on)
5	REW	15	RVS x1	25	Power-on eject initial
6	REC	16	RVS x2	26	Power-off eject initial
7	REC-pause	17	REV	27	APC REC
8	Power-on stop	18	Power-off initial	28	Cas. loading
9	PB	19	Mecha. error (Power off)		(No auto PB check)

SECTION 7
ADJUSTMENTS

During the adjustment, see the Parts Arrangement Diagram for Adjustments on Page 7-6.

7-1. MECHANICAL ADJUSTMENTS

Refer to the SERVICE MANUAL of VHS MECHANICAL ADJUSTMENT VI.

7-2. ELECTRICAL ADJUSTMENTS

2-1. PRE-ADJUSTMENT PREPARATIONS

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

2-1-1. Instruments to be Used

1) Color TV
2) Oscilloscope 1 or 2 phenomena, band more than 30 MHz, delay mode, as provided.
3) NTSC pattern generator
4) PAL pattern generator
5) Digital voltmeter
6) Audio level meter
7) Audio noise meter
8) Audio generator
9) Attenuator
10) Alignment tape
    Part Code: 8-192-605-36 KRV-51P (PAL)
    Part Code: 8-192-605-32 KRV-51N2 (NTSC)

2-1-2. Connection

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

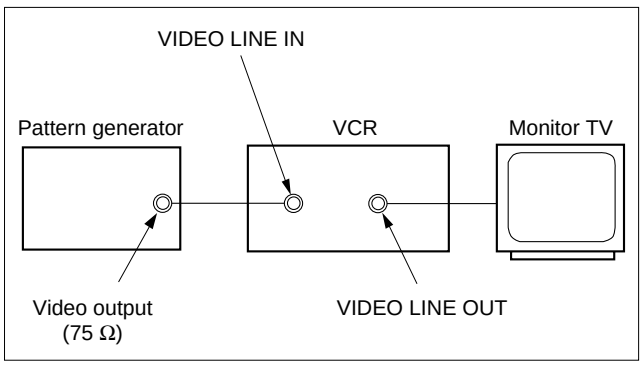


Fig. 7-2-1

2-1-3. Set-up of Adjustment

In this adjustment, PAL or NTSC pattern generator is connected with LINE input signal terminal. When checking with 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 0.3 V, respectively, and that the level ratio of the burst signal and "red" signal are 0.30: 0.66. Fig. 7-2-2. shows video signals (color bars) used in adjusting the video section.

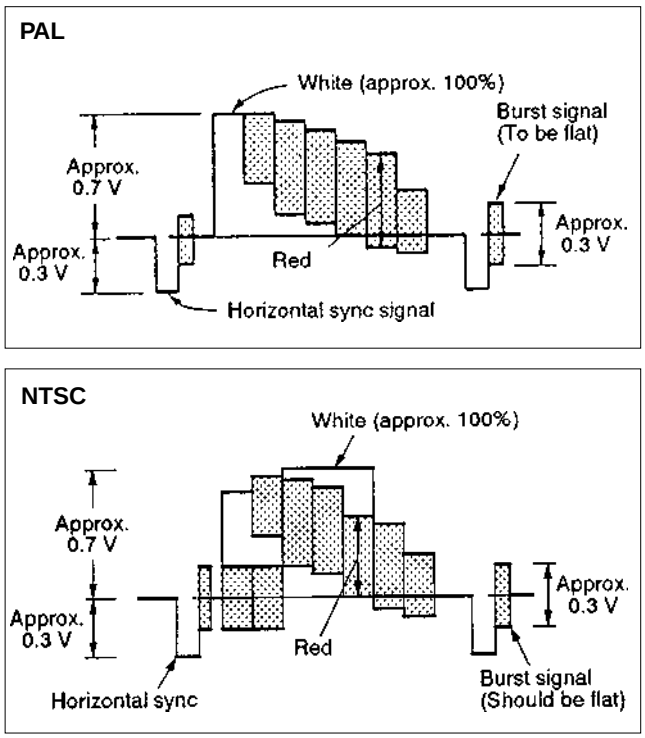


Fig. 7-2-2

2-1-4. Alignment Tapes [Alignment Tape (KRV-51N2/KRV-51P)]

	Mode	Time	Video signal	Audio signal (HiFi/Normal)
1	SP	Seven minutes	Color bar	400 Hz
2	SP	Three minutes	Monoscope	
3	EP	Seven minutes	Color bar	
4	EP	Three minutes	Monoscope	

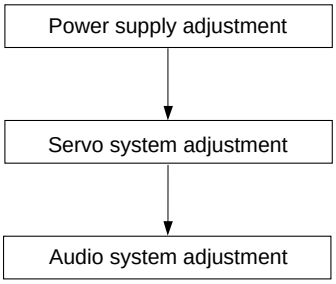
2-1-5. Specified I/O Level and Impedance

Input/output terminal

Video inputs	LINE IN : phono jack 1 Vp-p, 75 Ω, unbalanced, sync negative
Audio inputs	LINE IN : phono jacks 47 kW, –7.5 dBs (0 dBs = 0.775 Vrms) More than 10 kW, –4 dBs
Video outputs	LINE OUT: phono jack 1 Vp-p, 75 Ω, unbalanced, sync negative
Audio outputs	LINE OUT: phono jacks –7.5 dBs at load impedance 47 kΩ Output impedance : less than 10 Ω

2-1-6. Adjusting Sequence

Make the electrical adjustment in the following sequence.



2-2. POWER SUPPLY ADJUSTMENTS

2-2-1. Power Supply Check (SRV938EK BOARD)

Mode	E-E
Measuring Instrument	Digital voltmeter
MTR12 V check	
Measurement Point	Pin ⑤, ⑥ of CN201
Specified Value	13.5 ±0.4 V
D6 V check	
Measurement Point	Pin ⑭ of CN201
Specified Value	5.9 ± 0.2 V
+13 V check	
Measurement Point	Pin ⑫ of CN201
Specified Value	13.6 ± 0.5 V
+38 V check	
Measurement Point	Pin ② of CN202
Specified Value	35.0 ± 3.5 V
SW 5 Vcheck	
Measurement Point	Pin ⑮, ⑯ of CN201
Specified Value	5.2 ± 0.2 V
+F, –F check	
Measurement Point	Pin ④, ⑥ of CN202
Specified Value	$2.9\ ^{+0.6}_{-0.3}$ V
–11 V check	
Measurement Point	Pin ③ of CN202
Specified Value	–11.5 ± 1.0 V

Checking Method:

1) Confirm that each voltage meets its specified value.

2-2-2. +6 V Adjustment (SRV938EK BOARD)

Mode	REC or PB
Measuring Instrument	Digital voltmeter
Measurement Point	Pin ⑭ of CN201
Adjusting Element	VR251
Specified Value	5.9 ± 0.2 V

2-3. SERVO SYSTEM ADJUSTMENT

2-3-1. RF Switching Position Adjustment (MA-373 BOARD)

Purpose:

Adjust the interval between A ch and B ch of tape playback output.

Improve the interchangeability with other tapes and sets.

When it is out of order, the interval appears on the screen, the screen is disturbed.

Mode	PB
Signal	Alignment tape SP mode color bar
Measurement Point	CH1: Pin ① of CN262 CH2: Pin ② of CN262 (RF SWP)
Measuring Instrument	Oscilloscope
Specified Value	6.5 ± 0.5 H (416 ± 32 µsec) PAL 6.5 ± 0.5 H (410 ± 32 µsec) NTSC

Adjusting Method:

1) During playback, connect MA-373 board CN262 pin ③ and the pin ⑤ for about 1 second to activate the RF switching position adjustment mode.
2) Check appear “A P” on FL display.
3) Using the channel + and – buttons, adjust to 6.5 ± 0.5 H.
4) Press the pause button.

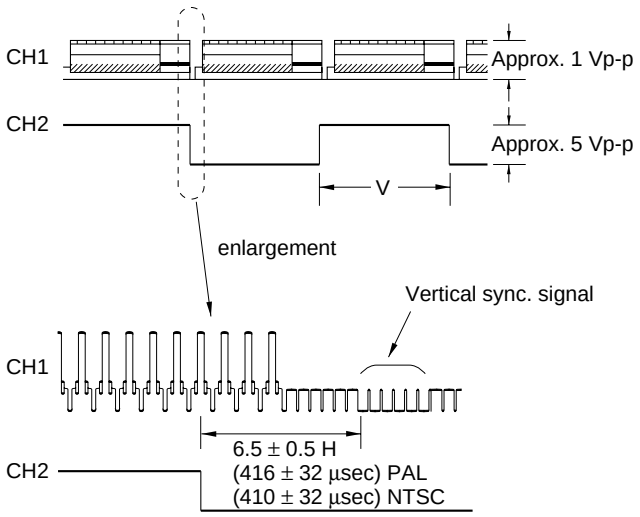


Fig. 7-2-3.

2-4. AUDIO SYSTEM ADJUSTMENTS

• Adjust both Lch and Rch.

[Connection]

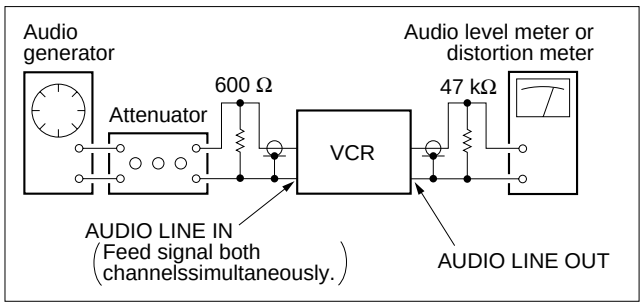


Fig. 7-2-4.

2-4-1. Hi-Fi Audio System Adjustment (EXCEPT SLV-SE350/SE500)

• Set switches and knobs to the following positions to make adjustment unless otherwise specified.
INPUT SELECT switch ..... LINE
AUDIO MONITOR ..... STEREO

[Adjustment Sequence]

1. **AF Switching Position Adjustment**
2. **Frequency Response Check**
3. **Overall Level Characteristic and Distortion Factor Check**
4. **Overall S/N Check**

1. AF Switching Position Adjustment (MA-373 BOARD)

Purpose:

Adjust the interval between A CH and B CH of tape playback output. Improve the interchangeability with other tapes and sets. When it is out of order, noisy sound is increased and big noise is heard.

Mode	PB
Signal	Alignment tape SP mode color bar
Measurement point	CH1: Pin ② of CN262 CH2: Pin ① of CN263
Measuring Instrument	Oscilloscope
Specified Value	Fig. 7-2-5

Adjusting Method:

1) During playback, connect MA-373 board CN262 pin ③ and the pin ⑤ for about 1 second to activate the RF switching position adjustment mode.
2) Press the record button to activate the AF switching position adjustment mode.
3) Check appear “A H” on FL display.
4) Using the channels + and – buttons, minimize a chipped portion. At this time, confirm that a noisy sound is not heard.
5) Press the pause button.

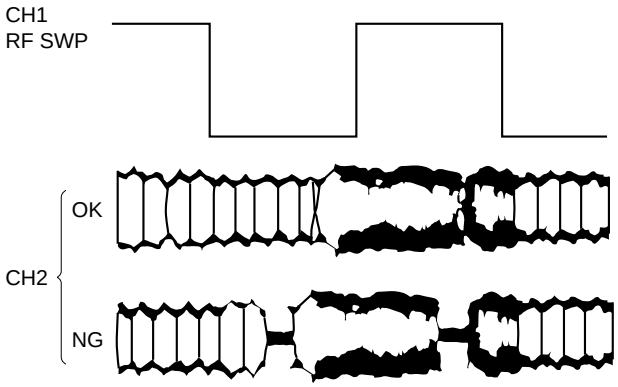


Fig. 7-2-5.

2. Frequency Response Check

Purpose:

Confirm that the frequency characteristic is within the specification.

Mode	REC and PB (SP, LP mode)
Signal	400 Hz, –26.3 dBs 30 Hz, –26.3 dBs 20 kHz, –26.3 dBs
Measurement point	Audio output terminal
Measurement equipment	Audio level meter
Specified value	0 ± 3 dB

Note: Tape path adjustment must have been completed.

Confirmation Method:

1) Supply a signal of 400 Hz, –26.3 dBs to both L and R channels of 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 –26.3 dBs.
4) Make recording.
5) Set an audio line input signal to 30 Hz and make recording.
6) Set an audio line input signal to 20 kHz and make recording.
7) Playback a recorded portion, and measure output levels at 400 Hz and 30 Hz and 20 kHz.
8) Confirm that the 30 Hz and 20 kHz playback output level within a range of the 400 Hz playback output level 0 ± 3 dB.

3. Overall Level Characteristic and Distortion Factor Check

Purpose:
Check the record level, play level, and distortion factor against the reference input.

Mode	REC and PB (SP mode)
Signal	400 Hz, –6.3 dBs
Measurement point	Audio output terminal
Measurement equipment	Audio level meter and distortion factor meter
Specified value	Playback level: –6.3 ± 2.0 dBs Distortion factor: 1% or less

Confirmation Method:
1) Supply an audio signal of 400 Hz, –6.3 dBs simultaneously to both L and R channels of Audio Line Input.
2) Make recording
3) Play back a recorded portion.
4) Confirm that a playback level is –6.3 ± 2.0 dBs.
5) Confirm that a distortion factor is within 1%.

4. Overall S/N Check

Purpose:
Confirm that the S/N is within the specification.

Mode	REC and PB (SP mode)
Signal	Short
Measurement point	Audio output terminal
Measurement equipment	Audio noise meter
Specified value	–67.5 dBs or less

Confirmation Method:
1) Connect both L and R channels of audio line input to the GND.
2) Start recording.
3) Play the recorded part to confirm that the noise is below –67.5 dBs.

2-4-2. Normal Audio System Adjustment

- Make adjustment in the SP mode, unless otherwise specified. Use a normal VHS cassette for an adjustment tape.
- Set AUDIO MONITOR to normal.

[Adjustment Sequence]
1. **ACE Head Adjustment**
2. **E-E Output Level Check**
3. **Frequency Response Check**
4. **Overall Level Characteristic and Distortion Factor Check**
5. **Overall S/N Check**

1. ACE Head Adjustment

Refer to the SERVICE MANUAL of VHS MECHANICAL ADJUSTMENT VI.

2. E-E Output Level Check (SLV-SE350/SE500)

Purpose:
Confirm that the output level against the reference input is within the specification.

Mode	E-E
Signal	L, R: 400 Hz, –6.3 dBs
Measurement point	Audio output terminal
Measurement equipment	Audio level meter
Specified value	–6.3 ± 2.0 dBs

Confirmation Method:
1) Simultaneously input a signal of 400 Hz, –6.3 dBs to both L and R channels of Audio Line Input.
2) Confirm that the audio output level is –6.3 ± 2.0 dBs. (This level only can appear with mono models)

3. Frequency Response Check

Purpose:
Confirm that the frequency characteristic is within the specification.

Mode	REC and PB (SP mode)
Signal	400 Hz, –26.3 dBs 7 kHz, –26.3 dBs
Measurement point	Audio output terminal
Measurement equipment	Audio level meter
Specified value	0 ± 3 dB

Tape path adjustment must have been completed.

Confirmation Method:
1) Supply a signal of 400 Hz, –26.3 dBs to both L and R channels of 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 –26.3 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 level within a range of the 400 Hz playback output level 0 ± 3 dB.

4. Overall Level Characteristic and Distortion Factor Check

Purpose:
Check the record level, play level, and distortion factor against the reference input.

Mode	REC and PB (SP mode)
Signal	400 Hz, –6.3 dBs
Measurement point	Audio output terminal
Measurement equipment	Audio level meter and distortion factor meter
Specified value	Playback level: –6.3 ± 3.0 dBs Distortion factor: 4% or less

Confirmation Method:
1) Supply an audio signal of 400 Hz, –6.3 dBs simultaneously to both L and R channels of Audio Line Input.
2) Make recording
3) Play back a recorded portion.
4) Confirm that a playback level is –6.3 ± 3.0 dBs.
5) Confirm that a distortion factor is within 4%.

5. Overall S/N Check

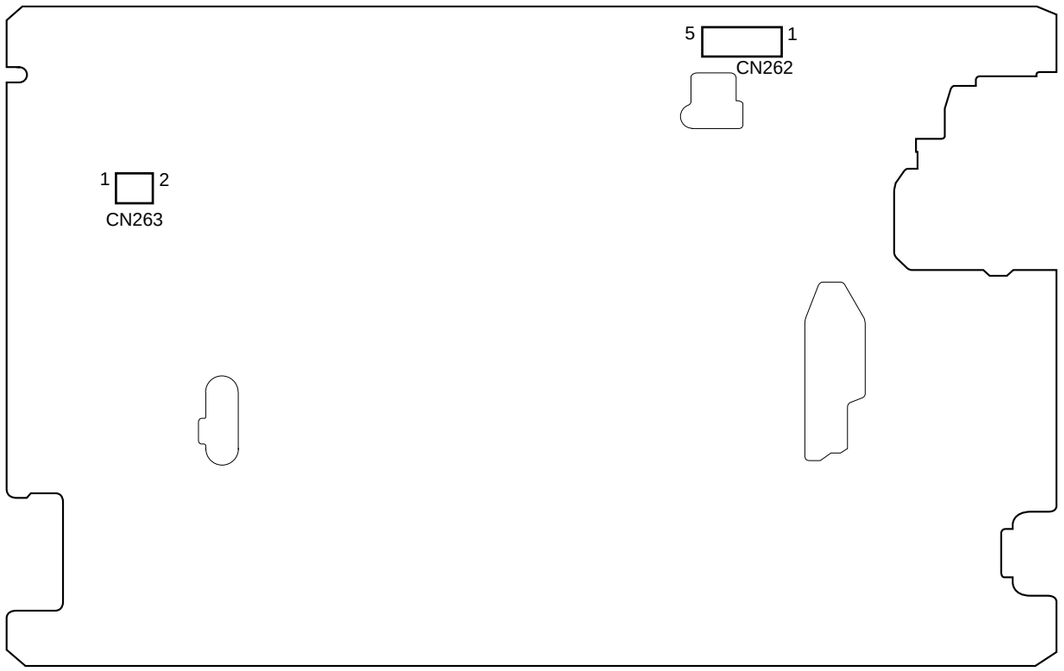
Purpose:
Confirm that the S/N is within the specification.

Mode	REC and PB (SP mode)
Signal	Short
Measurement point	Audio output terminal
Measurement equipment	Audio noise meter
Specified value	–45.5 dBs or less

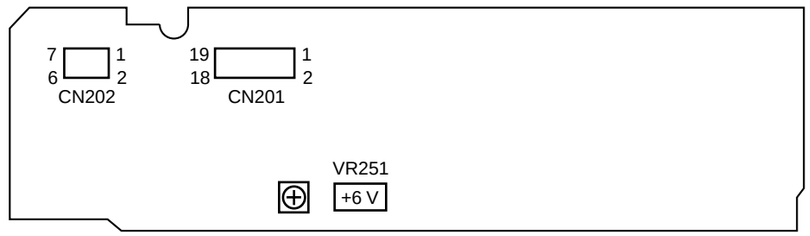
Confirmation Method:
1) Connect both L and R channels of audio line input to the GND.
2) Start recording.
3) Play the recorded part to confirm that the noise is below –45.5 dBs.

2-5. PARTS ARRANGEMENT DIAGRAM FOR ADJUSTMENTS

MA-373 BOARD (Side A)



SRV938EK BOARD (Side A)



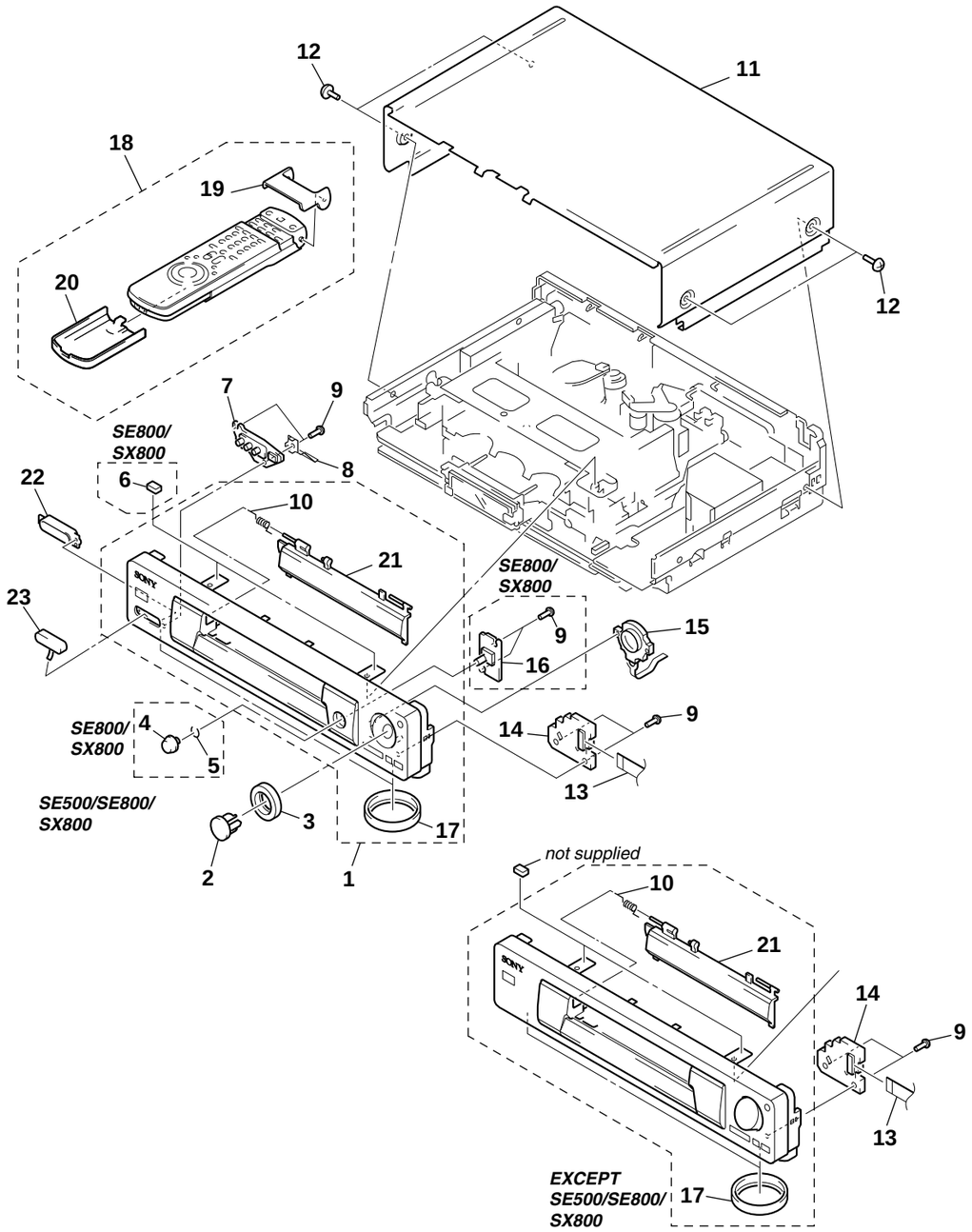
SECTION 8
REPAIR PARTS LIST

8-1. EXPLODED VIEWS

NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- 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 and accessories and packing materials are given in the last of the electrical parts list.

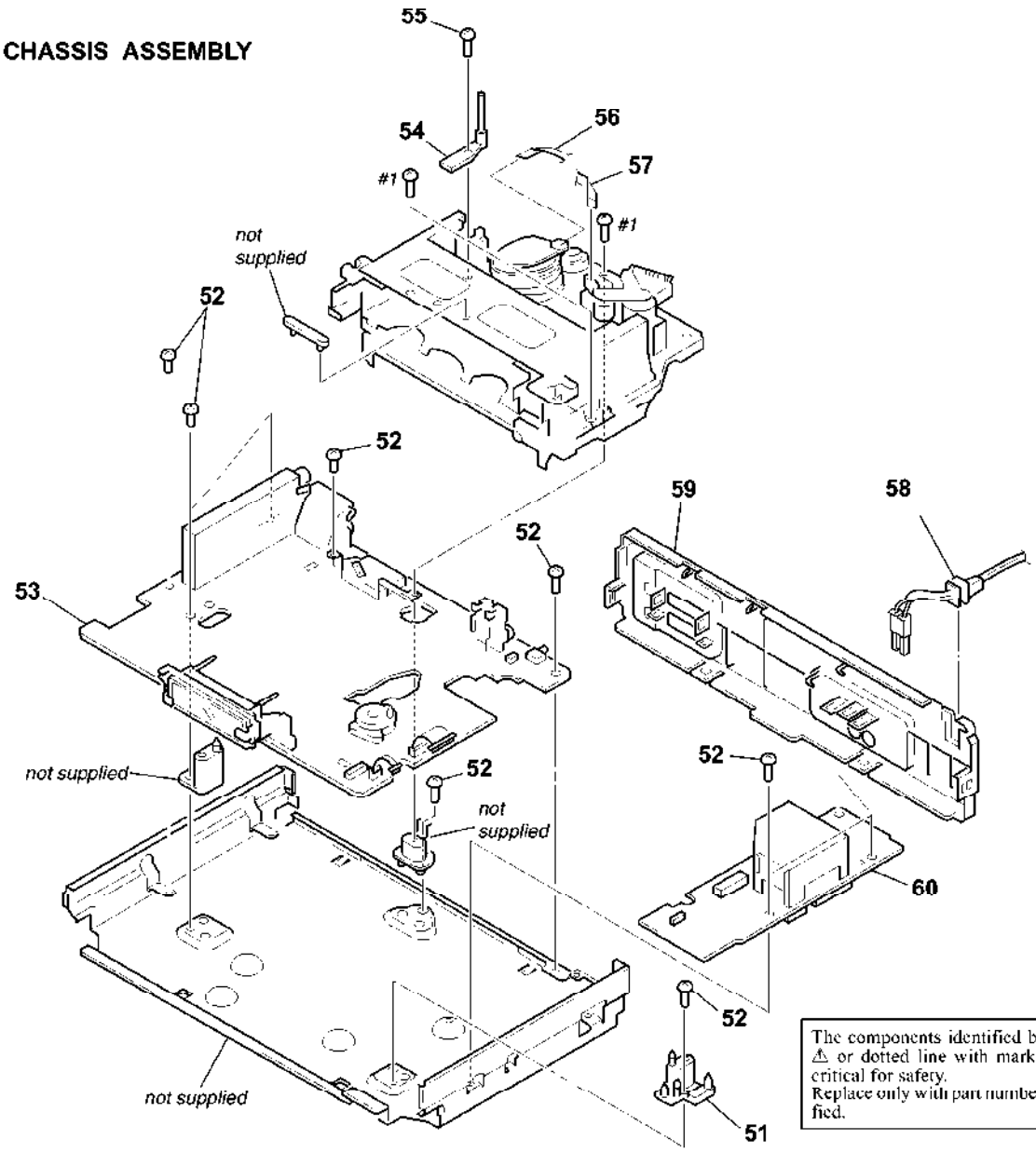
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

8-1-1. FRONT PANEL AND CABINET ASSEMBLIES



Ref. No.	Part No.	Description	Remark
1	X-3950-127-1	PANEL ASSY, FRONT (SE350)	
1	X-3950-128-1	PANEL ASSY, FRONT (SE500R)	
1	X-3950-129-1	PANEL ASSY, FRONT (SE500K)	
1	X-3950-130-1	PANEL ASSY, FRONT (SE600: A, E)	
1	X-3950-132-1	PANEL ASSY, FRONT (SX600)	
1	X-3950-133-1	PANEL ASSY, FRONT (SE650)	
1	X-3950-134-1	PANEL ASSY, FRONT (SE700G) (BLACK)	
1	X-3950-135-1	PANEL ASSY, FRONT (SE700: D1, D2, E1, E2)	
1	X-3950-139-1	PANEL ASSY, FRONT (SE700: G, I) (GRAY)	
1	X-3950-141-1	PANEL ASSY, FRONT (SX700: D, E)	
1	X-3950-143-1	PANEL ASSY, FRONT (SE700R)	
1	X-3950-144-1	PANEL ASSY, FRONT (SE700N)	
1	X-3950-145-1	PANEL ASSY, FRONT (SE700K)	
1	X-3950-146-1	PANEL ASSY, FRONT (SE600N)	
1	X-3950-147-1	PANEL ASSY, FRONT (SE800N)	
1	X-3950-148-1	PANEL ASSY, FRONT (SE800K)	
1	X-3950-165-1	PANEL ASSY, FRONT (H) (SE800: D1, D2, E)	
1	X-3950-168-1	PANEL ASSY, FRONT (SE800B)	
1	X-3950-169-1	PANEL ASSY, FRONT (SE800G)	
1	X-3950-170-1	PANEL ASSY, FRONT (SX800)	
1	X-3950-201-1	PANEL ASSY, FRONT (SE700B)	
1	X-3950-202-1	PANEL ASSY, FRONT (SX700B)	
1	X-3950-203-1	PANEL ASSY, FRONT (SE600B)	
2	3-057-802-01	BUTTON (H), CENTER (SE800: D1, D2, E, G)	
2	3-057-802-11	BUTTON (H), CENTER (SE500/SE800: K, N)	
2	3-057-802-21	BUTTON (H), CENTER (SE800B)	
2	3-057-802-31	BUTTON (H), CENTER (SX800)	
3	3-057-801-01	RING (H), CHANGE SPEED (SE800: B, D1, D2, E, G)	
3	3-057-801-11	RING (H), CHANGE SPEED (SE500/SE800: K, N)	
3	3-057-801-21	RING (H), CHANGE SPEED (SX800)	
4	3-057-803-01	DIAL, KK (SE800: B, D1, D2, E, G)	
4	3-057-803-11	DIAL, KK (SE800: K, N/SX800)	
5	3-055-077-01	SPRING, ETR (P5) (SE800/SX800)	
6	3-978-737-11	CUSHION (FP), RUBBER (SE800: B, D1, D2, E, G/SX800)	
* 7	A-6794-749-A	JK-180 BOARD, COMPLETE (SE800: B, D1, D2, E, G/SX800)	
* 7	A-6794-752-A	JK-180 BOARD, COMPLETE (SE800: K, N)	
* 7	A-6794-755-A	JK-180 BOARD, COMPLETE (SE500)	
8	3-057-807-01	PLATE, JK EARTH (SE500/SE800/SX800)	
9	4-921-277-41	SCREW (B2.6X8), TAPPING, BIND	
10	3-953-432-01	SPRING (GE), FL	
11	3-057-808-21	CASE, UPPER (SE700: G, I/SX600/SX700) (GRAY)	
11	3-057-808-31	CASE, UPPER (SE350/SE500/SE600/SE650/ SE700: B, D1, D2, E1, E2, G, K, N, R/ SE800: K, N) (BLACK)	
11	3-058-350-21	CASE, UPPER (SE800: B, D1, D2, E, G)	
11	3-058-350-31	CASE, UPPER (SX800)	
12	3-363-099-01	SCREW (CASE 3 TP2) (EXCEPT SE700: G, I/ SE800: B, D1, D2, E, G/SX600/SX700) (BLACK)	
12	3-363-099-11	SCREW (CASE 3 TP2) (SE700: G, I/ SE800: B, D1, D2, E, G/SX600/SX700) (GRAY)	
13	1-792-020-11	CABLE, FLAT (FDS-7) (SE500/SE800/SX800)	
13	1-792-021-11	CABLE, FLAT (FDS-8) (EXCEPT SE500/SE800/SX800)	
* 14	A-6794-748-A	DS-91 BOARD, COMPLETE (SE350/SE600/SE650/SE700/SX600/SX700)	
* 14	A-6794-751-A	DS-91 BOARD, COMPLETE (SE800: B, D1, D2, E, G/SX800)	
* 14	A-6794-754-A	DS-91 BOARD, COMPLETE (SE800: K, N)	
* 14	A-6794-756-A	DS-91 BOARD, COMPLETE (SE500)	
15	1-762-844-31	SWITCH, ROTARY (SE500/SE800/SX800)	
* 16	A-6794-750-A	KK-23 BOARD, COMPLETE (SE800: B, D1, D2, E, G/SX800)	
* 16	A-6794-753-A	KK-23 BOARD, COMPLETE (SE800: K, N)	
17	3-053-395-01	INSULATOR	
18	1-418-010-11	COMMANDER, STANDARD (RMT-V259) (SE500/SE700: D1, D2, E1, E2, K, N, R/ SE800: K, N/SX800)	
18	1-418-010-21	COMMANDER, STANDARD (RMT-V259A) (SE700B)	
18	1-418-780-11	COMMANDER, STANDARD (RMT-V288) (SE350/SE600: A, E, N/SE650/SX600)	
18	1-418-780-21	COMMANDER, STANDARD (RMT-V288A) (SE600B)	
18	1-418-782-11	COMMANDER, STANDARD (RMT-V259K) (SE700: G, I/SE800: D1, D2, E/SX700: D, E)	
18	1-418-782-21	COMMANDER, STANDARD (RMT-V259L) (SE800: B, G/SX700B)	
19	3-709-430-01	COVER, REMOTE CONTROL (for RMT-V288/ V288A/V259/V259A) (EXCEPT SE700: G, I/ SE800: B, D1, D2, E, G/SX700)	
19	3-709-430-11	COVER, REMOTE CONTROL (for RMT-V259L/V259K) (SE700: G, I/SE800: B, D1, D2, E, G/SX700)	
20	3-709-431-01	COVER, REMOTE CONTROL BATTERY (for RMT-V288/288A/V259/V259A) (EXCEPT SE700: G, I/SE800: B, D1, D2, E, G/SX700)	
20	3-709-431-11	COVER, REMOTE CONTROL BATTERY (for RMT-V259L/V259K) (SE700: G, I/SE800: B, D1, D2, E, G/SX700)	
22	3-057-795-11	HOLDER, JK (SE800: K, N/SX800)	
22	3-057-795-21	HOLDER, JK (SE500)	
23	3-057-796-11	CAP, JK (SE500/SE800: K, N/SX800)	

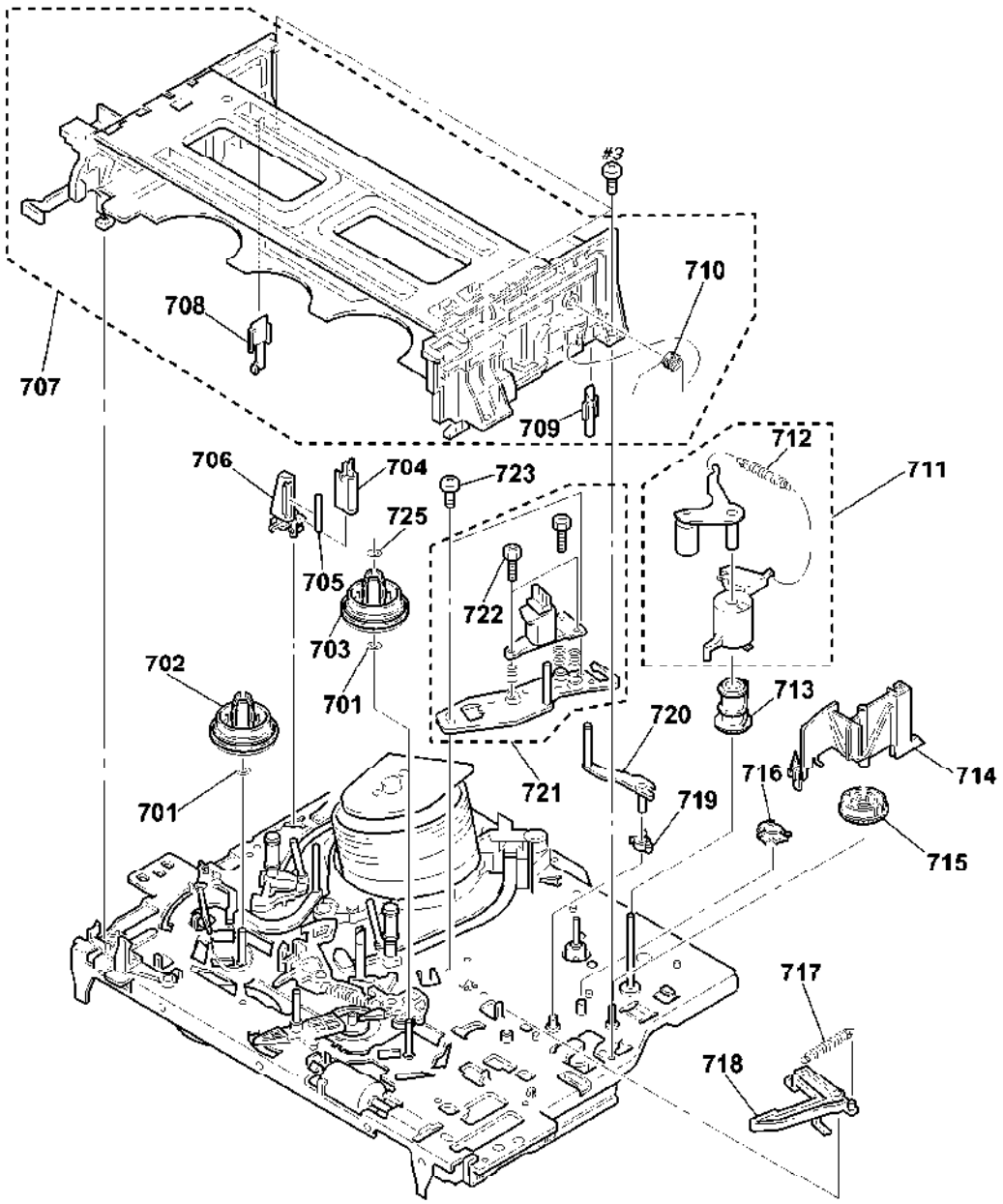
8-1-2. CHASSIS ASSEMBLY



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	3-057-805-01	BASE, MD (R), KS	
52	3-970-608-21	SUMITITE (B3), +BV	
* 53	A-6713-579-A	MA-373 BOARD, COMPLETE (SE700B/SX700B)	
* 53	A-6713-580-A	MA-373 BOARD, COMPLETE (SE800B)	
* 53	A-6713-581-A	MA-373 BOARD, COMPLETE (SE800K)	
* 53	A-6713-582-A	MA-373 BOARD, COMPLETE (SE800G)	
* 53	A-6713-583-A	MA-373 BOARD, COMPLETE (SE700G)	
* 53	A-6713-584-A	MA-373 BOARD, COMPLETE (SE600B)	
* 53	A-6713-585-A	MA-373 BOARD, COMPLETE (SE500R)	
* 53	A-6713-586-A	MA-373 BOARD, COMPLETE (SE700R)	
* 53	A-6713-587-A	MA-373 BOARD, COMPLETE (SE350)	
* 53	A-6713-588-A	MA-373 BOARD, COMPLETE (SE500K)	
* 53	A-6713-589-A	MA-373 BOARD, COMPLETE (SE600A)	
* 53	A-6713-590-A	MA-373 BOARD, COMPLETE (SE600E/SX600)	
* 53	A-6713-591-A	MA-373 BOARD, COMPLETE (SE650/SE700: D1, D2/SX700D)	
* 53	A-6713-592-A	MA-373 BOARD, COMPLETE (SE700: E1, E2/SX700E)	
* 53	A-6713-593-A	MA-373 BOARD, COMPLETE (SE700I)	
* 53	A-6713-594-A	MA-373 BOARD, COMPLETE (SE800: D1, D2/SX800)	
* 53	A-6713-595-A	MA-373 BOARD, COMPLETE (SE800N)	
* 53	A-6713-596-A	MA-373 BOARD, COMPLETE (SE800E)	
* 53	A-6713-597-A	MA-373 BOARD, COMPLETE (SE700N)	
* 53	A-6713-598-A	MA-373 BOARD, COMPLETE (SE700K)	
* 53	A-6713-599-A	MA-373 BOARD, COMPLETE (SE600N)	
54	X-3949-549-1	TGO ASSY (MSR)	
55	3-979-112-01	SCREW SW (+) BVTP 3X10	
56	1-792-022-11	CABLE, FLAT (FFM-001)	
57	1-792-018-11	CABLE, FLAT (FAC-8)	
⚠ 58	1-782-012-11	CORD, POWER	
59	3-057-809-01	PANEL, REAR (SE650/SE700: B, D1, D2, E1, E2, K, N/SX700)	
59	3-057-809-11	PANEL, REAR (SE500R)	
59	3-057-809-21	PANEL, REAR (SE500K)	
59	3-057-809-31	PANEL, REAR (SE800G)	
59	3-057-809-41	PANEL, REAR (SE800K)	
59	3-057-809-51	PANEL, REAR (SE700: G, I)	
59	3-057-809-61	PANEL, REAR (SE350/SE600: A, N)	
59	3-057-809-71	PANEL, REAR (SE600: B, E/SX600)	
59	3-057-809-81	PANEL, REAR (SE700R)	
59	3-057-809-91	PANEL, REAR (SE800: B, D1, D2, E, N/SX800)	
60	1-468-458-11	POWER BLOCK (SRV938EK)	

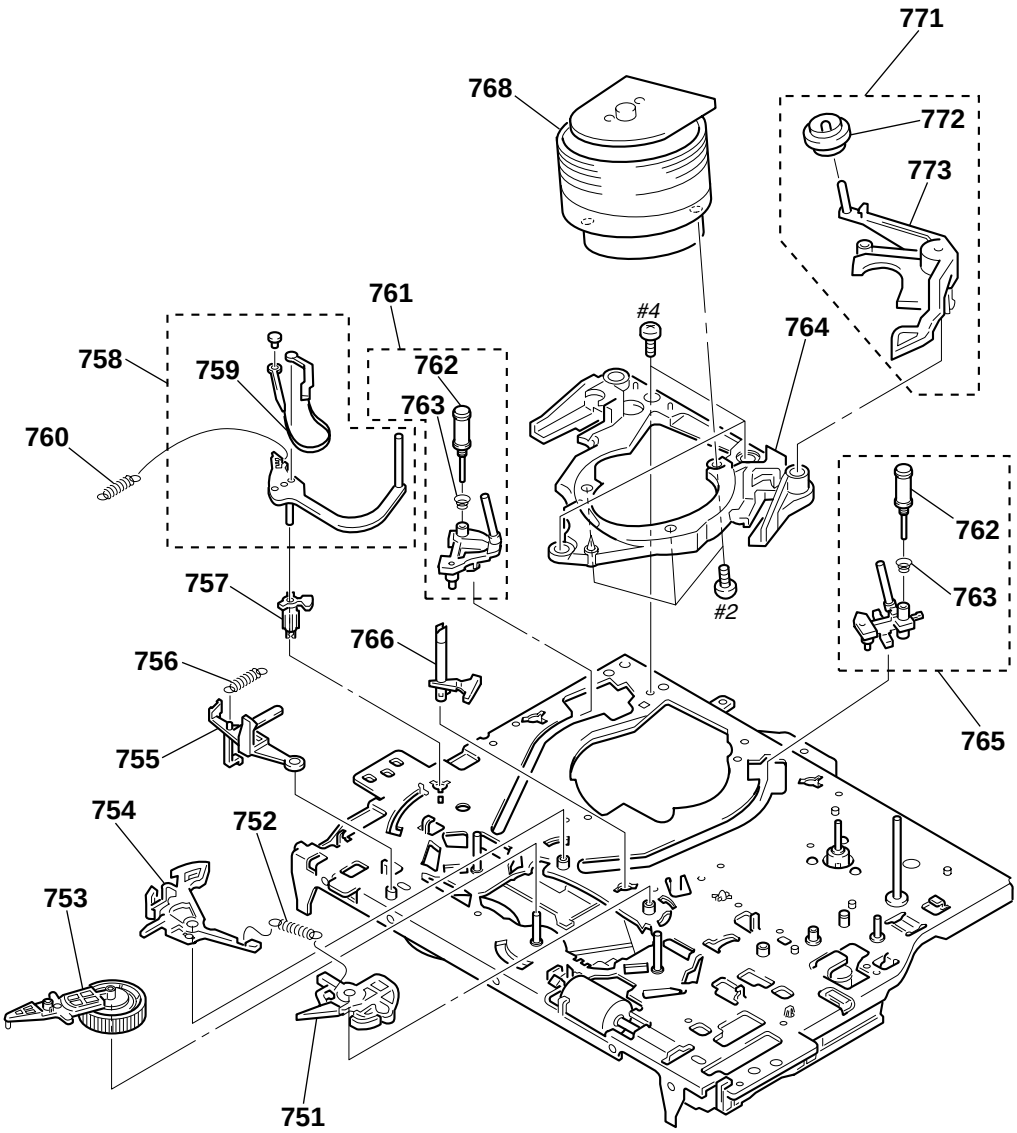
8-1-3. MECHANISM CHASSIS ASSEMBLY (1)



Ref. No.	Part No.	Description	Remark
701	3-977-509-01	WASHER, THRUST	
702	3-977-507-01	TABLE, REEL (S)	
703	3-977-508-01	TABLE, REEL (T)	
704	1-500-144-11	HEAD, FE	
705	3-977-495-01	SHAFT TG2	
706	3-977-494-01	HOLDER, FEH	
707	A-6759-619-B	FL COMPLETE ASSY	
708	3-977-535-01	PLATE, LUMINOUS (END SENSOR)	
709	3-977-536-01	PLATE, LUMINOUS (TOP SENSOR)	
710	3-970-471-01	SPRING (DECK OPEN), TORSION	
711	A-6759-863-B	PRESS BLOCK ASSY, PINCH	
712	3-958-455-01	SPRING (PINCH), TENSION	

Ref. No.	Part No.	Description	Remark
713	3-977-447-01	GEAR, ELEVATOR	
714	3-977-514-01	OPENER, LID	
715	3-977-441-03	GEAR, PINCH PRESSING	
716	3-977-445-02	GEAR, TG8 ARM DRIVING	
717	3-977-465-01	SPRING, EXTENSION (RVS BRAKE)	
718	X-3947-582-1	ARM ASSY, RVS BRAKE	
720	X-3947-590-1	TG8 ASSY	
721	A-6775-791-A	HEAD BLOCK ASSY, ACE FFC	
722	3-974-556-11	+HEXA TT 2.6X9 (TAPER)	
723	3-979-508-01	SCREW +HEXA TP SW 3X8	
725	3-977-443-01	WASHER, STOPPER	

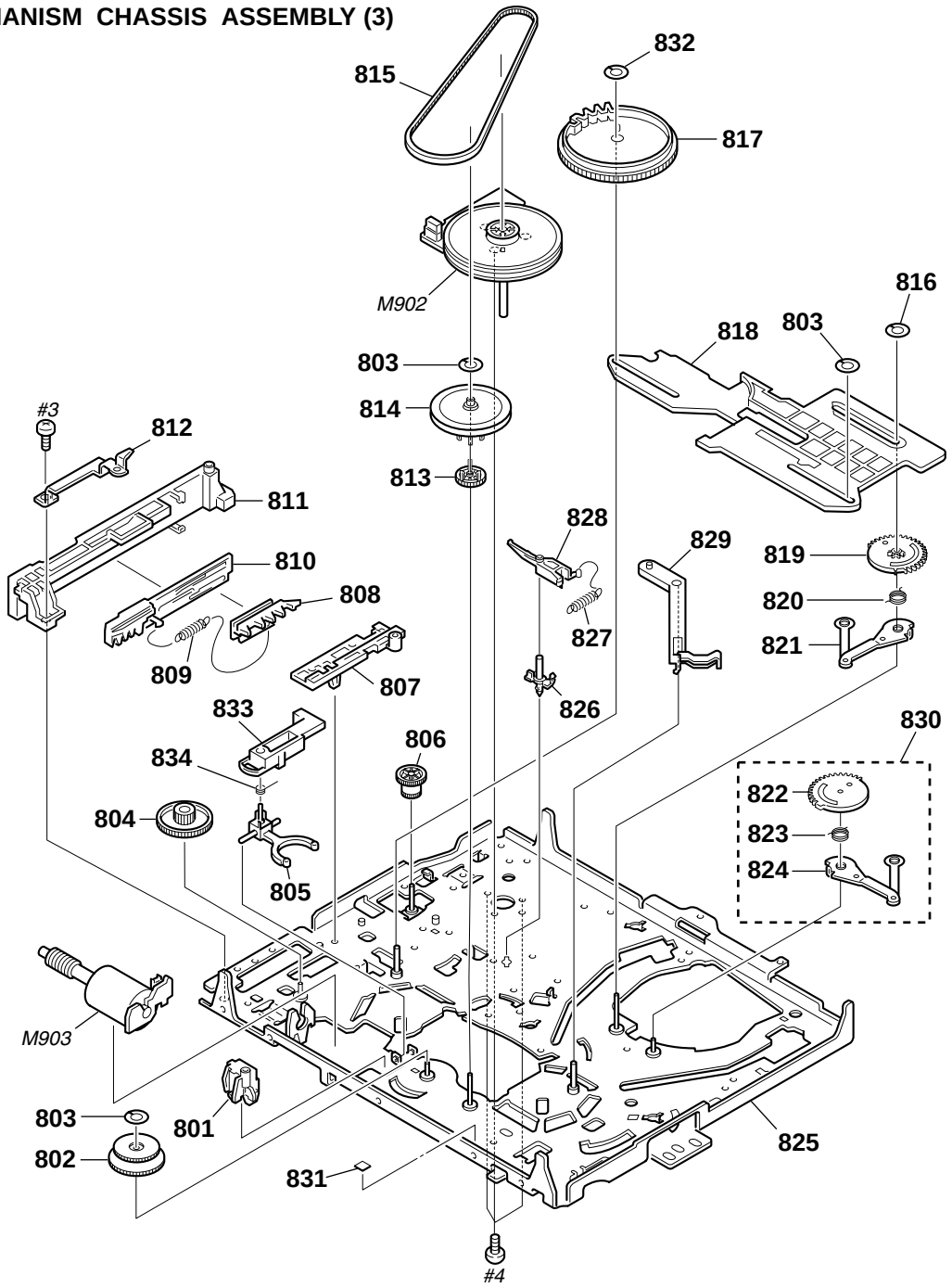
8-1-4. MECHANISM CHASSIS ASSEMBLY (2)



Ref. No.	Part No.	Description	Remark
751	X-3949-363-1	BRAKE ASSY, MAIN (T)	
752	3-053-882-01	SPRING, TENS (MAIN BRAKE)	
753	X-3947-573-1	ARM ASSY, PENDULUM	
754	X-3949-362-1	BRAKE ASSY, MAIN (S)	
755	3-977-513-02	LEVER, REC. PROOF	
756	3-976-767-01	SPRING, TENS. (REC. PROOF)	
757	3-977-487-01	BOSS, TG1 FULCRUM	
758	X-3950-427-1	TG1 ASSY (SD)	
759	X-3950-373-1	BAND ASSY, TG1 (SD)	
760	3-977-488-01	SPRING (POWER TENSION)	
761	A-6750-324-A	SHUTTLE (S) BLOCK ASSY	
762	X-3948-050-1	ROLLER ASSY, GUIDE	
763	3-965-178-01	SPRING	

Ref. No.	Part No.	Description	Remark
764	3-969-632-04	BASE, DRUM	
765	A-6750-328-E	SHUTTLE (T) BLOCK ASSY	
766	3-977-501-01	PLATE, LUMINOUS	
768	1-772-361-11	DRUM ASSY, DZH-92D (SE350)	
768	1-772-362-11	DRUM ASSY, DZH-93D (SE500)	
768	1-772-364-11	DRUM ASSY, DZH-0B5A (EXCEPT SE350/ SE500/SE600B/SE700B/SE800B/SX700B)	
768	1-772-365-11	DRUM ASSY, DZH-0B6A (SE600B/SE700B/SE800B/SX700B)	
771	A-6746-074-G	ROLLER BLOCK ASSY, HC	
772	X-3947-255-1	ROLLER ASSY, HC	
773	3-975-724-07	ARM, HC	

8-1-5. MECHANISM CHASSIS ASSEMBLY (3)



Ref. No.	Part No.	Description	Remark
801	3-977-437-01	RETAINER, CAM MOTOR	
802	X-3949-364-1	ASSY, REEL DIRECT SELECT (B)	
803	3-977-443-01	WASHER, STOPPER	
804	3-977-438-01	WORM - WHEEL	
805	3-053-887-01	ARM, LIMITTER SELECTION	
806	3-977-444-01	GEAR, PINCH TRANSMISSION	
807	3-977-515-01	GUIDE, FL SLIDER	
808	3-977-517-01	PLATE, SLIDE, FL	
809	3-977-519-01	SPRING, TENS. (LIMIT, FL)	
810	3-977-518-02	PLATE, LIMITTER, FL	
811	3-977-516-01	HOLDER, FL SLIDER	
812	3-977-877-01	PLATE, RETAINER	
813	3-977-504-01	GEAR, CLUTCH	
814	X-3949-365-1	GEAR ASSY PULLEY (B)	
815	3-977-510-01	BELT, RUBBER	
816	3-056-824-01	WASHER, STOPPER	
817	3-977-439-01	GEAR, CAM	
818	3-053-878-01	SLIDER (B)	

Ref. No.	Part No.	Description	Remark
819	3-977-455-01	GEAR, LOADING (T)	
820	3-977-456-03	SPRING, TORSION (LOAD T)	
821	X-3947-579-1	LEVER ASSY, LOADING (T)	
822	3-977-451-01	GEAR, LOADING (S)	
823	3-977-452-01	SPRING, TORSION (LOAD S)	
824	X-3947-578-1	LEVER ASSY, LOADING (S)	
825	X-3947-576-2	CHASSIS ASSY, MECHANICAL	
826	3-977-468-01	SHAFT, CAPSTAN BRAKE	
827	3-977-467-02	SPRING, CAP BRAKE	
828	X-3947-583-1	BRAKE ASSY, CAPSTAN	
829	3-977-489-01	ARM, TG1 DRIVING	
830	A-6759-616-A	GEAR BLOCK ASSY, LOADING (S)	
831	3-989-917-01	SPACER (REC PROOF)	
832	3-056-952-11	WASHER, STOPPER	
833	3-053-888-01	BASE, DIRECT SELECT (B)	
834	3-053-889-01	SPRING, TORSLON (DIRECT SELECT)	
M902	1-698-971-11	MOTOR, DC (CAPSTAN)	
M903	X-3947-577-1	MOTOR ASSY, CAM	

8-2. ELECTRICAL PARTS LIST

NOTE:

- 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 and -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
- Not all of the parts for POWER BLOCK (SRV938EK) are listed.

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.

Ref. No.	Part No.	Description	Remark
*	A-6794-748-A	DS-91 BOARD, COMPLETE (SE350/SE600/SE650/SE700/SX600/SX700)	
*	A-6794-751-A	DS-91 BOARD, COMPLETE (SE800: B, D1, D2, E, G/SX800)	
*	A-6794-754-A	DS-91 BOARD, COMPLETE (SE800: K, N)	
*	A-6794-756-A	DS-91 BOARD, COMPLETE (SE500)	
		********** (Ref.No. 1,000 Series)	
		< CONNECTOR >	
	CN450 1-784-447-11	CONNECTOR, FFC/FPC 5P	(SE500/SE800/SX800)
	CN451 1-563-614-31	HOUSING, CONNECTOR 11P	(SE500/SE800/SX800)
*	CN452 1-568-942-11	PIN, CONNECTOR 4P (SE800/SX800)	
	CN453 1-691-064-31	HOUSING, CONNECTOR 5P	(EXCEPT SE500/SE800/SX800)
		< DIODE >	
	D450 8-719-056-06	DIODE SLR-342DCT31 (JOG)	(SE500/SE800/SX800)
		< TRANSISTOR >	
	Q450 8-729-043-29	TRANSISTOR PDTC144EK-115	(SE500/SE800/SX800)
		< RESISTOR >	
	R450 1-216-041-00	METAL CHIP 470 5% 1/10W	(SE500/SE800/SX800)
	R451 1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
	R452 1-216-049-91	RES, CHIP 1K 5% 1/10W	
	R453 1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
	R454 1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
	R455 1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
	R456 1-216-065-91	RES, CHIP 4.7K 5% 1/10W	
		< SWITCH >	
	S450 1-771-410-21	SWITCH, TACT (REC ●)	
	S451 1-771-410-21	SWITCH, TACT (◀◀)	
	S452 1-771-410-21	SWITCH, TACT (STOP ■)	(EXCEPT SE500/SE800/SX800)
	S453 1-771-410-21	SWITCH, TACT (PLAY ▷)	(EXCEPT SE500/SE800/SX800)
	S454 1-771-410-21	SWITCH, TACT (JOG) (SE500/SE800/SX800)	
	S455 1-771-410-21	SWITCH, TACT (▶▶)	
	S456 1-771-410-21	SWITCH, TACT (❚❚)	
*	A-6794-749-A	JK-180 BOARD, COMPLETE (SE800: B, D1, D2, E, G/SX800)	
*	A-6794-752-A	JK-180 BOARD, COMPLETE (SE800: K, N)	
*	A-6794-755-A	JK-180 BOARD, COMPLETE (SE500)	
		********** (Ref.No. 1,000 Series)	
		< CAPACITOR >	
	C481 1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
	C491 1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
	C493 1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	(SE800/SX800)
		< DIODE >	
	D480 8-719-070-59	DIODE PDZ6.8B-115	
	D481 8-719-067-40	DIODE STZ6.8N-T146	
	D490 8-719-067-40	DIODE STZ6.8N-T146	
	D491 8-719-067-40	DIODE STZ6.8N-T146 (SE800/SX800)	
		< JACK >	
	J481 1-774-509-11	JACK, PIN 3P (LINE-2 IN) (SE800/SX800)	
	J481 1-774-510-11	JACK, PIN 2P (LINE-2 IN) (SE500)	
		< SHORT >	
	JS480 1-216-295-91	SHORT 0 (SE500)	
	JS494 1-216-296-91	SHORT 0 (SE500)	
		< RESISTOR >	
	R480 1-216-022-00	METAL CHIP 75 5% 1/10W	
	R490 1-216-041-00	METAL CHIP 470 5% 1/10W	
	R491 1-216-041-00	METAL CHIP 470 5% 1/10W	(SE800/SX800)

Ref. No.	Part No.	Description	Remark
*	A-6794-750-A	KK-23 BOARD, COMPLETE (SE800: B, D1, D2, E, G/SX800)	
*	A-6794-753-A	KK-23 BOARD, COMPLETE (SE800: K, N)	
		********** (Ref.No. 1,000 Series)	
		< SWITCH >	
S410	1-418-156-11	ENCODER, ROTARYRY (DIAL TIMER)	
*	A-6713-579-A	MA-373 BOARD, COMPLETE (SE700B/SX700B)	
*	A-6713-580-A	MA-373 BOARD, COMPLETE (SE800B)	
*	A-6713-581-A	MA-373 BOARD, COMPLETE (SE800K)	
*	A-6713-582-A	MA-373 BOARD, COMPLETE (SE800G)	
*	A-6713-583-A	MA-373 BOARD, COMPLETE (SE700G)	
*	A-6713-584-A	MA-373 BOARD, COMPLETE (SE600B)	
*	A-6713-585-A	MA-373 BOARD, COMPLETE (SE500R)	
*	A-6713-586-A	MA-373 BOARD, COMPLETE (SE700R)	
*	A-6713-587-A	MA-373 BOARD, COMPLETE (SE350)	
*	A-6713-588-A	MA-373 BOARD, COMPLETE (SE500K)	
*	A-6713-589-A	MA-373 BOARD, COMPLETE (SE600A)	
*	A-6713-590-A	MA-373 BOARD, COMPLETE (SE600E/SX600)	
*	A-6713-591-A	MA-373 BOARD, COMPLETE (SE650/SE700: D1, D2/SX700D)	
*	A-6713-592-A	MA-373 BOARD, COMPLETE (SE700: E1, E2/SX700E)	
*	A-6713-593-A	MA-373 BOARD, COMPLETE (SE700I)	
*	A-6713-594-A	MA-373 BOARD, COMPLETE (SE800: D1, D2/SX800)	
*	A-6713-595-A	MA-373 BOARD, COMPLETE (SE800N)	
*	A-6713-596-A	MA-373 BOARD, COMPLETE (SE800E)	
*	A-6713-597-A	MA-373 BOARD, COMPLETE (SE700N)	
*	A-6713-598-A	MA-373 BOARD, COMPLETE (SE700K)	
*	A-6713-599-A	MA-373 BOARD, COMPLETE (SE600N)	
		********** (Ref.No. 1,000 Series)	
	3-057-806-01	BASE, FL (EXCEPT SE800: B, D1, D2, E, G/SX800)	
	3-057-806-11	BASE, FL (SE800: B, D1, D2, E, G/SX800)	
	3-058-480-01	HOLDER, FLO (EXCEPT SE800: B, D1, D2, E, G/SX800)	
	3-058-480-11	HOLDER, FLO (SE800: B, D1, D2, E, G/SX800)	
*	3-960-273-01	SPACER, TOP END	
*	3-960-274-01	SPACER, LED	
		< CAPACITOR >	
C001	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V (SE500/SE650/SE700/SE800/SX700/SX800)	
C002	1-124-584-00	ELECT 100uF 20% 10V (SE500/SE650/SE700/SE800/SX700/SX800)	
C003	1-109-982-11	CERAMIC CHIP 1uF 10% 10V (SE500/SE650/SE700/SE800/SX700/SX800)	
C004	1-124-259-11	ELECT 4.7uF 20% 16V (SE500/SE650/SE700/SE800/SX700/SX800)	
C006	1-110-501-11	CERAMIC CHIP 0.33uF 10% 16V (SE500/SE650/SE700/SE800/SX700/SX800)	
C007	1-126-157-11	ELECT 10uF 20% 16V (SE500/SE650/SE700/SE800/SX700/SX800)	
C008	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V (SE500/SE650/SE700/SE800/SX700/SX800)	
C009	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V (SE500/SE650/SE700/SE800/SX700/SX800)	
C010	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V (SE500/SE650/SE700/SE800/SX700/SX800)	
C100	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C101	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C102	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C103	1-128-057-11	ELECT 330uF 20% 6.3V	
C105	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C107	1-104-664-11	ELECT 47uF 20% 16V	
C108	1-127-573-91	CERAMIC CHIP 1uF 10% 16V (SE350/SE500)	
C113	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	
C114	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	
C115	1-163-038-91	CERAMIC CHIP 0.1uF 25V	
C120	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	
C121	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	
C122	1-104-664-11	ELECT 47uF 20% 16V	
C123	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	
C131	1-124-589-11	ELECT 47uF 20% 16V	
C133	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C134	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C140	1-126-933-11	ELECT 100uF 20% 16V	
C141	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	
C142	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C143	1-126-965-11	ELECT 22uF 20% 50V	
C144	1-126-965-11	ELECT 22uF 20% 50V	
C145	1-126-933-11	ELECT 100uF 20% 16V	
C146	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V	
C147	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V (SE500/SE800/SX800)	
C148	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	
C149	1-126-934-11	ELECT 220uF 20% 16V	
C150	1-126-963-11	ELECT 4.7uF 20% 50V	
C160	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	
C161	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	
C162	1-104-905-11	CAPACITOR 0.22F 5.5V	
C163	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	
C164	1-125-972-91	ELECT 100uF 20% 16V	
C165	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	
C166	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	
C167	1-163-809-11	CERAMIC CHIP 0.047uF 10% 25V	
C168	1-163-235-11	CERAMIC CHIP 22PF 5% 50V	
C169	1-163-235-11	CERAMIC CHIP 22PF 5% 50V	
C170	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C171	1-163-229-11	CERAMIC CHIP 12PF 5% 50V	
C172	1-163-231-11	CERAMIC CHIP 15PF 5% 50V	
C173	1-163-007-11	CERAMIC CHIP 680PF 10% 50V	
C174	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V (EXCEPT SE350/SE500)	
C200	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	
C201	1-126-160-11	ELECT 1uF 20% 50V	
C202	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	
C203	1-163-809-11	CERAMIC CHIP 0.047uF 10% 25V	
C204	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	
C205	1-163-239-11	CERAMIC CHIP 33PF 5% 50V (EXCEPT SE350)	
C205	1-163-241-11	CERAMIC CHIP 39PF 5% 50V (SE350)	
C206	1-163-809-11	CERAMIC CHIP 0.047uF 10% 25V	
C207	1-163-237-11	CERAMIC CHIP 27PF 5% 50V	
C208	1-126-160-11	ELECT 1uF 20% 50V	
C209	1-163-257-11	CERAMIC CHIP 180PF 5% 50V	

Ref. No.	Part No.	Description			Remark
C210	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C211	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C212	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C213	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C214	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C215	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C216	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C217	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C218	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
					(SE350/SE600/SX600)
C219	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C220	1-124-589-11	ELECT	47uF	20%	16V
C221	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
					(SE350)
C221	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
					(EXCEPT SE350)
C222	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C223	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C224	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C225	1-124-589-11	ELECT	47uF	20%	16V
C226	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C227	1-104-664-11	ELECT	47uF	20%	16V
C228	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C229	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C230	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C231	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C232	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C233	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C234	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C235	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C236	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C237	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C238	1-126-157-11	ELECT	10uF	20%	16V
C239	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
					(SE500/SE800/SX800)
C240	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
		(EXCEPT SE350/SE500R/SE600: A, N/SE700R)			
C241	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
					(SE500/SE800/SX800)
C242	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
		(EXCEPT SE350/SE500R/SE600: A, N/SE700R)			
C243	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C244	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C245	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C246	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C247	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C248	1-124-589-11	ELECT	47uF	20%	16V
C249	1-126-157-11	ELECT	10uF	20%	16V
C250	1-124-589-11	ELECT	47uF	20%	16V
C251	1-126-153-11	ELECT	22uF	20%	6.3V
C252	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C253	1-163-139-00	CERAMIC CHIP	820PF	5%	50V
					(SE600B/SE700B/SE800B/SX700B)
C254	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
		(SE500/SE650/SE700/SE800/SX700/SX800)			
C255	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C271	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
					(EXCEPT SE350)
C272	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
					(EXCEPT SE350)
C275	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C276	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C278	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C279	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C280	1-126-933-11	ELECT	100uF	20%	16V
C281	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C282	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C283	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C284	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C285	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C288	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C289	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
C303	1-163-038-91	CERAMIC CHIP	0.1uF		25V
					(EXCEPT SE350/SE500)
C304	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
					(EXCEPT SE350/SE500)
C306	1-104-664-11	ELECT	47uF	20%	16V
					(EXCEPT SE350/SE500)
C307	1-104-664-11	ELECT	47uF	20%	16V
					(EXCEPT SE350/SE500)
C308	1-126-964-11	ELECT	10uF	20%	50V
					(EXCEPT SE350/SE500)
C309	1-163-020-00	CERAMIC CHIP	0.0082uF	10%	50V
					(EXCEPT SE350/SE500)
C310	1-119-799-11	ELECT	47uF	20%	16V
					(EXCEPT SE350/SE500)
C311	1-126-964-11	ELECT	10uF	20%	50V
					(EXCEPT SE350/SE500)
C312	1-126-961-11	ELECT	2.2UF	20%	50V
					(EXCEPT SE350/SE500)
C313	1-126-964-11	ELECT	10uF	20%	50V
					(EXCEPT SE350/SE500)
C314	1-119-799-11	ELECT	47uF	20%	16V
					(EXCEPT SE350/SE500)
C315	1-163-020-00	CERAMIC CHIP	0.0082uF	10%	50V
					(EXCEPT SE350/SE500)
C316	1-126-964-11	ELECT	10uF	20%	50V
					(EXCEPT SE350/SE500)
C317	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
					(EXCEPT SE350/SE500)
C318	1-126-964-11	ELECT	10uF	20%	50V
					(EXCEPT SE350/SE500)
C319	1-124-261-00	ELECT	10uF	20%	50V
					(EXCEPT SE350/SE500)
C320	1-126-964-11	ELECT	10uF	20%	50V
					(EXCEPT SE350/SE500)
C322	1-126-964-11	ELECT	10uF	20%	50V
					(EXCEPT SE350/SE500)
C323	1-163-038-91	CERAMIC CHIP	0.1uF		25V
					(EXCEPT SE350/SE500)
C324	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
					(EXCEPT SE350/SE500)
C325	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
					(EXCEPT SE350/SE500)
C326	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
					(EXCEPT SE350/SE500)
C327	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
					(EXCEPT SE350/SE500)
C328	1-126-960-11	ELECT	1uF	20%	50V
					(SE800/SX800)
C329	1-126-960-11	ELECT	1uF	20%	50V
					(SE800/SX800)
C330	1-126-960-11	ELECT	1uF	20%	50V
					(EXCEPT SE350/SE500)
C331	1-126-960-11	ELECT	1uF	20%	50V
					(EXCEPT SE350/SE500)

Ref. No.	Part No.	Description			Remark
C332	1-126-960-11	ELECT	1uF	20%	50V
					(EXCEPT SE350/SE500/SE600: A, N/SE700R)
C333	1-126-960-11	ELECT	1uF	20%	50V
					(EXCEPT SE350/SE500/SE600: A, N/SE700R)
C336	1-126-964-11	ELECT	10uF	20%	50V
					(EXCEPT SE350/SE500)
C337	1-124-261-00	ELECT	10uF	20%	50V
					(EXCEPT SE350/SE500R/SE600: A, N/ SE700: G, I, R/SE800G)
C338	1-124-261-00	ELECT	10uF	20%	50V
					(EXCEPT SE350/SE500/SE600: A, N/ SE700: G, I, R/SE800G)
C350	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C351	1-104-664-11	ELECT	47uF	20%	16V
C352	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C353	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
					(SE500)
C354	1-126-964-11	ELECT	10uF	20%	50V
C355	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
					(SE350/SE500)
C356	1-126-966-11	ELECT	33uF	20%	16V
C357	1-126-963-11	ELECT	4.7uF	20%	50V
C358	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C359	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
C360	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
C362	1-104-664-11	ELECT	47uF	20%	16V
C363	1-126-963-11	ELECT	4.7uF	20%	50V
C364	1-126-964-11	ELECT	10uF	20%	50V
C365	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C366	1-126-960-11	ELECT	1uF	20%	50V
C367	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C380	1-137-374-11	MYLAR	0.047uF	5%	50V
					(SE350/SE600/SE650/SE700/SX600/SX700)
C380	1-137-440-11	MYLAR	0.018uF	5%	50V
					(SE500/SE800/SX800)
C381	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C382	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C383	1-124-589-11	ELECT	47uF	20%	16V
C390	1-137-397-11	MYLAR	0.047uF	5%	100V
					(SE500/SE800/SX800)
C391	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
					(SE500/SE800/SX800)
C392	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
					(SE500/SE800/SX800)
C393	1-126-933-11	ELECT	100uF	20%	16V
					(SE500/SE800/SX800)
C394	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
					(SE500/SE800/SX800)
C420	1-124-589-11	ELECT	47uF	20%	16V
C421	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C422	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C423	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C424	1-126-157-11	ELECT	10uF	20%	16V
C427	1-124-635-00	ELECT	220uF	20%	6.3V
C505	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C506	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C507	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C508	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
					(EXCEPT SE350/SE500)
C510	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C511	1-104-664-11	ELECT	47uF	20%	16V
C512	1-104-664-11	ELECT	47uF	20%	16V
C513	1-126-935-11	ELECT	470uF	20%	6.3V

Ref. No.	Part No.	Description			Remark
C514	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
					(SE500R/SE650/SE700/SE800/SX700/SX800)
C515	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
					(SE650/SE700/SE800/SX700/SX800)
C516	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C520	1-126-935-11	ELECT	470uF	20%	6.3V
					(SE500R/SE700R/SE800K)
C575	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
					(EXCEPT SE350/SE500R/SE600: A, N/SE700R)
C576	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
					(EXCEPT SE350/SE500R/SE600: A, N/SE700R)
C577	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
					(EXCEPT SE350/SE500R/SE600: A, N/ SE700: G, I, R/SE800G)
C578	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
					(EXCEPT SE350/SE500/SE600: A, N/ SE700: G, I, R/SE800G)
C580	1-126-964-11	ELECT	10uF	20%	50V
					(SE500K)
C581	1-126-964-11	ELECT	10uF	20%	50V
					(SE500K)
C582	1-124-261-00	ELECT	10uF	20%	50V
					(SE500K)
C583	1-126-964-11	ELECT	10uF	20%	50V
					(SE500K)
C584	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
					(SE500K)
C585	1-126-964-11	ELECT	10uF	20%	50V
					(SE500K)
C586	1-126-964-11	ELECT	10uF	20%	50V
					(SE500K)
C587	1-124-261-00	ELECT	10uF	20%	50V
					(SE500K)
C611	1-104-664-11	ELECT	47uF	20%	25V
C612	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C613	1-126-933-11	ELECT	100uF	20%	16V
C618	1-126-965-11	ELECT	22uF	20%	50V
C621	1-126-935-11	ELECT	470uF	20%	6.3V
					(EXCEPT SE350/SE500R/SE600: A, N/SE700R)
C660	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
C661	1-163-233-11	CERAMIC CHIP	18PF	5%	50V
C662	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C663	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C664	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C665	1-163-245-11	CERAMIC CHIP	56PF	5%	50V
					(SE350/SE500/SE600: B, N/SE700: B, K, N, R/SE800: B, K, N/SX700B)
C666	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C667	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C668	1-124-584-00	ELECT	100uF	20%	10V
C669	1-163-016-00	CERAMIC CHIP	0.0039uF	10%	50V
C670	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C671	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C672	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C701	1-126-964-11	ELECT	10uF	20%	50V
C702	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C704	1-126-964-11	ELECT	10uF	20%	50V
C705	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C708	1-104-664-11	ELECT	47uF	20%	16V
C709	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C710	1-126-965-11	ELECT	22uF	20%	50V
					(EXCEPT SE350/SE500/SE700R)
C711	1-104-664-11	ELECT	47uF	20%	16V
					(EXCEPT SE350/SE500/SE700R)

Ref. No.	Part No.	Description	Remark
C730	1-126-964-11	ELECT 10uF 20% 50V	(EXCEPT SE350/SE500)
C731	1-126-964-11	ELECT 10uF 20% 50V	(EXCEPT SE350/SE500)
C752	1-126-933-11	ELECT 100uF 20% 16V	
C753	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C754	1-126-935-11	ELECT 470uF 20% 6.3V	
C755	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C757	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	
C801	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	(EXCEPT SE600/SE700R/SX600)
C850	1-163-038-91	CERAMIC CHIP 0.1uF 25V	(EXCEPT SE500R/SE600/SE700R/SX600)
C851	1-126-964-11	ELECT 10uF 20% 50V	(EXCEPT SE500R/SE600/SE700R/SX600)
C852	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V	(EXCEPT SE500R/SE600/SE700R/SX600)
C853	1-163-989-11	CERAMIC CHIP 0.033uF 10% 25V	(EXCEPT SE500R/SE600/SE700R/SX600)
C855	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V	(EXCEPT SE500R/SE600/SE700R/SX600)
C856	1-163-038-91	CERAMIC CHIP 0.1uF 25V	(EXCEPT SE500R/SE600/SE700R/SX600)
C970	1-163-259-91	CERAMIC CHIP 220PF 5% 50V	(SE600B/SE700B/SE800B/SX700B)
C971	1-124-257-00	ELECT 2.2uF 20% 50V	(SE600B/SE700B/SE800B/SX700B)
C972	1-163-017-00	CERAMIC CHIP 0.0047uF 5% 50V	(SE600B/SE700B/SE800B/SX700B)
C973	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	(SE600B/SE700B/SE800B/SX700B)
C974	1-109-982-11	CERAMIC CHIP 1uF 10% 10V	(SE600B/SE700B/SE800B/SX700B)
C975	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	(SE600B/SE700B/SE800B/SX700B)
C976	1-163-259-91	CERAMIC CHIP 220PF 5% 50V	(SE600B/SE700B/SE800B/SX700B)
C977	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	(SE600B/SE700B/SE800B/SX700B)
C978	1-163-017-00	CERAMIC CHIP 0.0047uF 5% 50V	(SE600B/SE700B/SE800B/SX700B)
C979	1-163-255-11	CERAMIC CHIP 150PF 5% 50V	(SE600B/SE700B/SE800B/SX700B)
C980	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	(SE600B/SE700B/SE800B/SX700B)
C981	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	(SE600B/SE700B/SE800B/SX700B)
C982	1-163-007-11	CERAMIC CHIP 680PF 10% 50V	(SE600B/SE700B/SE800B/SX700B)
C983	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	(SE600B/SE700B/SE800B/SX700B)
C984	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	(SE600B/SE700B/SE800B/SX700B)
C985	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	(SE600B/SE700B/SE800B/SX700B)
C986	1-126-157-11	ELECT 10uF 20% 16V	(SE600B/SE700B/SE800B/SX700B)
C987	1-107-823-11	CERAMIC CHIP 0.47uF 10% 16V	(SE600B/SE700B/SE800B/SX700B)
C988	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	(SE600B/SE700B/SE800B/SX700B)
C991	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	(SE600B/SE700B/SE800B/SX700B)
C992	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	(SE600B/SE700B/SE800B/SX700B)
C993	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	(SE600B/SE700B/SE800B/SX700B)
C994	1-163-021-91	CERAMIC CHIP 0.01uF 10% 50V	(SE600B/SE700B/SE800B/SX700B)
C995	1-124-584-00	ELECT 100uF 20% 10V	(SE600B/SE700B/SE800B/SX700B)
C996	1-163-227-11	CERAMIC CHIP 10PF 0.50PF 50V	(SE600B/SE700B/SE800B/SX700B)
		< CONNECTOR >	
CN101	1-695-328-11	HOUSING, CONNECTOR 5P	
CN102	1-779-723-11	CONNECTOR, BOARD TO BOARD 9P	
* CN104	1-766-716-11	CONNECTOR, BOARD TO BOARD 3P	
* CN161	1-506-469-11	PIN, CONNECTOR 4P	
CN260	1-784-490-11	CONNECTOR, FFC/FPC 11P	(EXCEPT SE350/SE500)
CN261	1-793-919-11	CONNECTOR, FFC/FPC 6P (SE350/SE500)	
* CN262	1-560-893-00	PIN, CONNECTOR 5P	
* CN263	1-560-890-00	PIN, CONNECTOR 2P (EXCEPT SE350/SE500)	
CN350	1-784-486-11	CONNECTOR, FFC/FPC 7P	
CN351	1-506-468-11	PIN, CONNECTOR 3P	
CN460	1-691-043-21	HOUSING, CONNECTOR 11P	(SE500/SE800/SX800)
CN461	1-695-328-11	HOUSING, CONNECTOR 5P	(SE350/SE600/SE650/SE700/SX600/SX700)
CN500	1-793-918-11	CONNECTOR, SQUARE TYPE 21P	(LINE-1 (TV)) (SE350/SE500R/SE600: A, N/SE700R)
CN501	1-506-469-11	PIN, CONNECTOR 4P (SE500)	
* CN501	1-568-954-11	PIN, CONNECTOR 5P (SE800/SX800)	
CN570	1-793-917-11	CONNECTOR, SQUARE TYPE 21P	(DECODER/LINE-2 IN, LINE-1 (TV)) (EXCEPT SE350/SE500/SE600: A, N/SE700R/SE800/SX800)
CN570	1-793-917-11	CONNECTOR, SQUARE TYPE 21P	(DECODER/LINE-3 IN, LINE-1 (TV)) (SE500K/SE800/SX800)
CN600	1-778-674-21	CONNECTOR, BOARD TO BOARD 19P	
CN601	1-793-673-11	CONNECTOR, BOARD TO BOARD 7P	
		< DIODE >	
D100	8-719-048-26	DIODE GL528V1 (T/S LED)	
D110	8-719-200-82	DIODE MPG06D-6052PKG3	
D140	8-719-988-61	DIODE 1SS355TE-17	
D420	8-719-045-62	DIODE SLR-342VCT31 (SYNCHRO REC)	(SE500K/SE800/SX800)
D421	8-719-988-61	DIODE 1SS355TE-17 (SE500K/SE800/SX800)	
D422	8-719-056-06	DIODE SLR-342DCT31 (RR)	(SE500/SE650/SE700/SE800/SX700/SX800)
D423	8-719-988-61	DIODE 1SS355TE-17	(SE500/SE650/SE700/SE800/SX700/SX800)
D424	8-719-067-40	DIODE STZ6.8N-T146	
D500	8-719-071-50	DIODE BZA408B-115	
D501	8-719-071-50	DIODE BZA408B-115	
D502	8-719-070-59	DIODE PDZ6.8B-115	
D503	8-719-977-40	DIODE UDZ-TE-17-13B	
D504	8-719-070-59	DIODE PDZ6.8B-115	
D570	8-719-071-50	DIODE BZA408B-115	(EXCEPT SE350/SE500R/SE600: A, N/SE700R)
D571	8-719-070-59	DIODE PDZ6.8B-115	(EXCEPT SE350/SE500R/SE600: A, N/SE700R)
D572	8-719-977-40	DIODE UDZ-TE-17-13B	(EXCEPT SE350/SE500R/SE600: A, N/SE700R)

Ref. No.	Part No.	Description	Remark
D573	8-719-070-59	DIODE PDZ6.8B-115 (SE500R/SE650/SE700/SE800/SX700/SX800)	
D590	8-719-988-61	DIODE 1SS355TE-17	
D591	8-719-988-61	DIODE 1SS355TE-17 (SE350/SE500)	
D603	8-719-075-84	DIODE S1G-G2P (EXCEPT SE350/SE500R/SE600: A, N/SE700R)	
D606	8-719-075-84	DIODE S1G-G2P	
D607	8-719-075-84	DIODE S1G-G2P	
D700	8-719-988-61	DIODE 1SS355TE-17 (SE700R)	
D702	8-719-982-26	DIODE MTZJ-T-77-33	
D750	8-719-075-84	DIODE S1G-G2P	
D800	8-719-988-61	DIODE 1SS355TE-17 (EXCEPT SE600/SE700R/SX600)	
		< IC >	
IC001	8-759-566-07	IC LA7277M-TLM (SE500/SE650/SE700/SE800/SX700/SX800)	
IC130	8-759-645-07	IC LB1943N	
IC160	8-759-248-87	IC MM1256XF-BE	
IC161	8-759-575-72	IC M24C08-WMN6T	
IC162	8-759-673-31	IC M37760MFH216GP (SE500R/SE600/SE700R/SX600)	
IC162	8-759-673-32	IC M37760MFH217GP (EXCEPT SE500R/SE600/SE700R/SX600)	
IC200	8-759-638-71	IC LA71562M-MPB	
IC260	8-759-549-79	IC LA70001 (SE350)	
IC260	8-759-564-36	IC LA70011 (EXCEPT SE350)	
IC301	8-759-638-55	IC TDA9605H/N2, 518 (EXCEPT SE350/SE500)	
IC350	8-759-499-30	IC BA7755AF-E2	
IC420	8-759-547-59	IC M35500BGP	
IC460	8-749-015-48	IC RPM6940	
IC580	8-759-009-07	IC MC14053BFEL (SE500K)	
⚠IC601	8-759-438-18	IC PQ12RD08	
IC850	8-759-484-61	IC SDA5650X-GEG (EXCEPT SE500R/SE600/SE700R/SX600)	
IC970	8-759-438-17	IC LA7337 (SE600B/SE700B/SE800B/SX700B)	
		< JACK >	
* J500	1-779-924-11	JACK, PIN 2P (LINE-2 OUT) (SE500R)	
J500	1-784-412-11	JACK, PIN 3P (LINE-2 OUT) (SE700R/SE800K)	
J500	1-784-414-11	JACK, PIN 2P (LINE-2 OUT) (EXCEPT SE350/SE500/SE600/SE700R/SE800K/SX600)	
		< SHORT >	
JR001	1-216-295-91	SHORT 0	
JR002	1-216-295-91	SHORT 0	
JR003	1-216-295-91	SHORT 0	
JR004	1-216-295-91	SHORT 0 (SE500K)	
JR005	1-216-295-91	SHORT 0	
JR006	1-216-295-91	SHORT 0	
JR007	1-216-295-91	SHORT 0	
JR008	1-216-295-91	SHORT 0	
JR009	1-216-295-91	SHORT 0	
JR010	1-216-295-91	SHORT 0	
JR011	1-216-295-91	SHORT 0	
JR012	1-216-295-91	SHORT 0	

Ref. No.	Part No.	Description	Remark
JR013	1-216-295-91	SHORT 0	
JR014	1-216-295-91	SHORT 0	
JR016	1-216-295-91	SHORT 0	
JR017	1-216-295-91	SHORT 0	
JR018	1-216-295-91	SHORT 0	
JR019	1-216-295-91	SHORT 0	
JR020	1-216-295-91	SHORT 0	
JR021	1-216-295-91	SHORT 0	
JR022	1-216-295-91	SHORT 0	
JR023	1-216-295-91	SHORT 0	
JR026	1-216-295-91	SHORT 0	
JR027	1-216-295-91	SHORT 0	
JR028	1-216-295-91	SHORT 0	
JR201	1-216-296-91	SHORT 0	
JR202	1-216-296-91	SHORT 0	
JR203	1-216-296-91	SHORT 0	
JR204	1-216-296-91	SHORT 0	
JR205	1-216-296-91	SHORT 0	
JR206	1-216-296-91	SHORT 0 (SE600B/SE700B/SE800B/SX700B)	
JR207	1-216-296-91	SHORT 0	
JR208	1-216-296-91	SHORT 0	
JR209	1-216-296-91	SHORT 0	
JR210	1-216-296-91	SHORT 0	
JR211	1-216-296-91	SHORT 0	
JR212	1-216-296-91	SHORT 0	
JR213	1-216-296-91	SHORT 0	
JR214	1-216-296-91	SHORT 0	
JR215	1-216-296-91	SHORT 0	
JR216	1-216-296-91	SHORT 0 (SE600B/SE700B/SE800B/SX700B)	
JR217	1-216-296-91	SHORT 0	
JR218	1-216-296-91	SHORT 0	
JR219	1-216-296-91	SHORT 0	
JR220	1-216-296-91	SHORT 0	
JR221	1-216-296-91	SHORT 0	
JR222	1-216-296-91	SHORT 0	
JR223	1-216-296-91	SHORT 0 (SE600B/SE700B/SE800B/SX700B)	
JR224	1-216-296-91	SHORT 0	
JR225	1-216-296-91	SHORT 0	
JR226	1-216-296-91	SHORT 0	
JR227	1-216-295-91	SHORT 0	
JR228	1-216-296-91	SHORT 0	
JR229	1-216-296-91	SHORT 0	
JR230	1-216-296-91	SHORT 0 (SE500/SE700R/SE800/SX800)	
JR231	1-216-296-91	SHORT 0	
JR232	1-216-296-91	SHORT 0	
JR233	1-216-296-91	SHORT 0	
JR234	1-216-296-91	SHORT 0	
JR235	1-216-296-91	SHORT 0	
JR236	1-216-296-91	SHORT 0	
JR237	1-216-296-91	SHORT 0	
JR238	1-216-296-91	SHORT 0	
JR239	1-216-296-91	SHORT 0 (SE600B/SE700B/SE800B/SX700B)	
JR240	1-216-296-91	SHORT 0	
JR241	1-216-296-91	SHORT 0 (SE500K)	
JR242	1-216-296-91	SHORT 0 (SE500K)	
JR243	1-216-296-91	SHORT 0	
JR244	1-216-296-91	SHORT 0	
JR245	1-216-296-91	SHORT 0	

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
JR246	1-216-296-91	SHORT 0	
JR247	1-216-296-91	SHORT 0	
JR248	1-216-296-91	SHORT 0 (SE500/SE800/SX800)	
JR249	1-216-296-91	SHORT 0	
JR250	1-216-296-91	SHORT 0	
JR251	1-216-296-91	SHORT 0	
JR252	1-216-296-91	SHORT 0	
JS204	1-216-295-91	SHORT 0 (SE350/SE600/SX600)	
JS302	1-216-295-91	SHORT 0 (SE350/SE500)	
JS308	1-216-295-91	SHORT 0 (SE350/SE500)	
JS351	1-216-295-91	SHORT 0 (SE500/SE800/SX800)	
JS500	1-216-295-91	SHORT 0 (SE350/SE500)	
JS501	1-216-295-91	SHORT 0 (SE350/SE500)	
JS504	1-216-295-91	SHORT 0 (SE500)	
JS570	1-216-295-91	SHORT 0 (SE500K)	
JS571	1-216-295-91	SHORT 0 (SE500K)	
JS580	1-216-295-91	SHORT 0 (EXCEPT SE500K)	
JS581	1-216-295-91	SHORT 0 (EXCEPT SE500K)	
JS590	1-216-295-91	SHORT 0 (SE350/SE500)	
JS591	1-216-295-91	SHORT 0 (EXCEPT SE350/SE500)	
JS700	1-216-295-91	SHORT 0 (SE700R)	
JS701	1-216-296-91	SHORT 0 (SE700R)	
		< COIL >	
L001	1-414-934-21	INDUCTOR 10uH (SE500/SE650/SE700/SE800/SX700/SX800)	
L140	1-414-936-21	INDUCTOR 22uH	
L160	1-414-936-21	INDUCTOR 22uH	
L161	1-414-936-21	INDUCTOR 22uH	
L200	1-414-946-21	INDUCTOR 39uH	
L201	1-414-940-21	INDUCTOR 100uH	
L202	1-414-934-21	INDUCTOR 10uH	
L203	1-414-934-21	INDUCTOR 10uH	
L204	1-414-934-21	INDUCTOR 10uH	
L205	1-414-934-21	INDUCTOR 10uH	
L206	1-414-938-21	INDUCTOR 47uH (SE600B/SE700B/SE800B/SX700B)	
L270	1-414-940-21	INDUCTOR 100uH	
L271	1-414-930-21	INDUCTOR 2.2uH	
L301	1-414-940-21	INDUCTOR 100uH (EXCEPT SE350/SE500)	
L350	1-414-940-21	INDUCTOR 100uH	
L380	1-414-940-21	INDUCTOR 100uH	
L390	1-410-687-11	INDUCTOR 1.2mH (SE500/SE800/SX800)	
L460	1-414-938-21	INDUCTOR 47uH	
L510	1-414-940-21	INDUCTOR 100uH	
L580	1-414-940-21	INDUCTOR 100uH (SE500K)	
L660	1-414-930-21	INDUCTOR 2.2uH	
L661	1-414-936-21	INDUCTOR 22uH (SE350/SE500/SE600: B, N/SE700: B, K, N, R/SE800: B, K, N/SX700B)	
L662	1-414-936-21	INDUCTOR 22uH	
L663	1-414-936-21	INDUCTOR 22uH	
L701	1-414-930-21	INDUCTOR 2.2uH	
L750	1-414-930-21	INDUCTOR 2.2uH	
L751	1-414-934-21	INDUCTOR 10uH	
L970	1-414-933-21	INDUCTOR 6.8uH (SE600B/SE700B/SE800B/SX700B)	
L971	1-414-945-21	INDUCTOR 27uH (SE600B/SE700B/SE800B/SX700B)	
L972	1-414-938-21	INDUCTOR 47uH (SE600B/SE700B/SE800B/SX700B)	
L973	1-414-938-21	INDUCTOR 47uH (SE600B/SE700B/SE800B/SX700B)	
L975	1-414-934-21	INDUCTOR 10uH (SE600B/SE700B/SE800B/SX700B)	
		< FLUORESCENT INDICATOR TUBE >	
ND420	1-517-832-11	INDICATOR TUBE, FLUORESCENT	
		< PHOTO INTERRUPTER >	
PH100	8-749-015-86	PHOTO INTERRUPTER GP3S120S	
PH101	8-749-015-86	PHOTO INTERRUPTER GP3S120S	
		< IC LINK >	
⚠PS120	1-532-605-00	LINK, IC (0.4A)	
⚠PS390	1-532-727-11	LINK, IC (0.25A) (SE500/SE800/SX800)	
⚠PS602	1-532-727-11	LINK, IC (0.25A) (EXCEPT SE350/SE500R/SE600: A, N/SE700R)	
⚠PS603	1-532-727-11	LINK, IC (0.25A)	
		< TRANSISTOR >	
Q100	8-729-043-84	TRANSISTOR PT380F3	
Q101	8-729-043-84	TRANSISTOR PT380F3	
Q102	8-729-281-53	TRANSISTOR 2SC1815GR-TPE2	
Q103	8-729-043-29	TRANSISTOR PDTC144EK-115	
Q104	8-729-216-22	TRANSISTOR 2PB709AR-115	
Q140	8-729-422-33	TRANSISTOR 2PD601AR-115 (SE500/SE800/SX800)	
Q200	8-729-422-33	TRANSISTOR 2PD601AR-115	
Q201	8-729-422-33	TRANSISTOR 2PD601AR-115	
Q202	8-729-422-33	TRANSISTOR 2PD601AR-115	
Q203	8-729-216-22	TRANSISTOR 2PB709AR-115	
Q204	8-729-043-29	TRANSISTOR PDTC144EK-115 (SE600B/SE700B/SE800B/SX700B)	
Q270	8-729-043-29	TRANSISTOR PDTC144EK-115 (EXCEPT SE350/SE500)	
Q350	8-729-281-53	TRANSISTOR 2SC1815GR-TPE2	
Q380	8-729-802-91	TRANSISTOR 2SD879-AA	
Q390	8-729-900-51	TRANSISTOR UN2115-QRS (TX) (SE500/SE800/SX800)	
Q391	8-729-043-29	TRANSISTOR PDTC144EK-115 (SE500/SE800/SX800)	
Q392	8-729-012-31	TRANSISTOR 2SC4040-TL2-Q (SE500/SE800/SX800)	
Q501	8-729-043-32	TRANSISTOR PDTA114EK-115	
Q502	8-729-043-29	TRANSISTOR PDTC144EK-115	
Q510	8-729-216-22	TRANSISTOR 2PB709AR-115	
Q520	8-729-216-22	TRANSISTOR 2PB709AR-115 (SE500R/SE700R/SE800K)	
Q540	8-729-216-22	TRANSISTOR 2PB709AR-115 (EXCEPT SE350/SE500R/SE600: A, N/SE700: G, I, R/SE800G)	
Q541	8-729-216-22	TRANSISTOR 2PB709AR-115 (EXCEPT SE350/SE500R/SE600: A, N/SE700: G, I, R/SE800G)	

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
Q580	8-729-043-29	TRANSISTOR PDTC144EK-115 (SE500K)	
Q581	8-729-043-29	TRANSISTOR PDTC144EK-115 (SE500K)	
Q582	8-729-043-29	TRANSISTOR PDTC144EK-115 (SE500K)	
Q583	8-729-422-33	TRANSISTOR 2PD601AR-115 (SE500K)	
Q590	8-729-422-33	TRANSISTOR 2PD601AR-115	(EXCEPT SE350/SE500)
Q591	8-729-422-33	TRANSISTOR 2PD601AR-115	
Q592	8-729-216-22	TRANSISTOR 2PB709AR-115	(EXCEPT SE350/SE500)
Q607	8-729-804-41	TRANSISTOR 2SB1122-ST-TD	(EXCEPT SE350/SE500R/SE600: A, N/SE700R)
Q608	8-729-043-29	TRANSISTOR PDTC144EK-115	(EXCEPT SE350/SE500R/SE600: A, N/SE700R)
Q612	8-729-804-41	TRANSISTOR 2SB1122-ST-TD	
Q613	8-729-043-29	TRANSISTOR PDTC144EK-115	
Q660	8-729-216-22	TRANSISTOR 2PB709AR-115	
Q661	8-729-216-22	TRANSISTOR 2PB709AR-115	
Q700	8-729-422-33	TRANSISTOR 2PD601AR-115 (SE700R)	
Q701	8-729-216-22	TRANSISTOR 2PB709AR-115 (SE700R)	
Q702	8-729-216-22	TRANSISTOR 2PB709AR-115 (SE700R)	
Q720	8-729-119-76	TRANSISTOR 2SA1309A-QRSTA	
Q721	8-729-422-33	TRANSISTOR 2PD601AR-115	
Q730	8-729-422-33	TRANSISTOR 2PD601AR-115 (SE700R)	
Q731	8-729-422-33	TRANSISTOR 2PD601AR-115 (SE700R)	
Q751	8-729-043-29	TRANSISTOR PDTC144EK-115	
Q752	8-729-216-22	TRANSISTOR 2PB709AR-115	
Q800	8-729-216-22	TRANSISTOR 2PB709AR-115	(EXCEPT SE600/SE700R/SX600)
Q801	8-729-422-33	TRANSISTOR 2PD601AR-115	(EXCEPT SE600/SE700R/SX600)
Q802	8-729-422-33	TRANSISTOR 2PD601AR-115	(EXCEPT SE600/SE700R/SX600)
Q803	8-729-422-33	TRANSISTOR 2PD601AR-115	(EXCEPT SE600/SE700R/SX600)
Q804	8-729-043-29	TRANSISTOR PDTC144EK-115	(EXCEPT SE600/SE700R/SX600)
Q850	8-729-216-22	TRANSISTOR 2PB709AR-115	(EXCEPT SE500R/SE600/SE700R/SX600)
Q970	8-729-216-22	TRANSISTOR 2PB709AR-115	(SE600B/SE700B/SE800B/SX700B)
Q972	8-729-043-32	TRANSISTOR PDTA114EK-115	(SE600B/SE700B/SE800B/SX700B)
Q973	8-729-422-33	TRANSISTOR 2PD601AR-115	(SE600B/SE700B/SE800B/SX700B)
Q974	8-729-422-33	TRANSISTOR 2PD601AR-115	(SE600B/SE700B/SE800B/SX700B)
Q975	8-729-043-32	TRANSISTOR PDTA114EK-115	(SE600B/SE700B/SE800B/SX700B)
Q976	8-729-043-29	TRANSISTOR PDTC144EK-115	(SE600B/SE700B/SE800B/SX700B)
		< RESISTOR >	
R001	1-208-806-11	METAL CHIP 10K 0.5% 1/10W	(SE500/SE650/SE700/SE800/SX700/SX800)
R002	1-216-041-00	METAL CHIP 470 5% 1/10W	(SE500/SE650/SE700/SE800/SX700/SX800)
R003	1-216-041-00	METAL CHIP 470 5% 1/10W	(SE500/SE650/SE700/SE800/SX700/SX800)
R004	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	(SE500/SE650/SE700/SE800/SX700/SX800)
R005	1-216-049-91	RES, CHIP 1K 5% 1/10W	(SE500/SE650/SE700/SE800/SX700/SX800)
R006	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	(SE500/SE650/SE700/SE800/SX700/SX800)
R100	1-216-077-91	RES, CHIP 15K 5% 1/10W	
R101	1-249-413-11	CARBON 470 5% 1/4W	
R102	1-216-077-91	RES, CHIP 15K 5% 1/10W	
R103	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R104	1-216-049-91	RES, CHIP 1K 5% 1/10W	
R105	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R106	1-249-400-11	CARBON 39 5% 1/4W	
R107	1-249-400-11	CARBON 39 5% 1/4W	
R108	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R110	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R111	1-216-089-91	RES, CHIP 47K 5% 1/10W	
R114	1-216-089-91	RES, CHIP 47K 5% 1/10W	
R115	1-216-089-91	RES, CHIP 47K 5% 1/10W	
R120	1-216-089-91	RES, CHIP 47K 5% 1/10W	
R121	1-216-089-91	RES, CHIP 47K 5% 1/10W	
R123	1-216-065-91	RES, CHIP 4.7K 5% 1/10W	
R124	1-216-041-00	METAL CHIP 470 5% 1/10W	
R130	1-216-077-91	RES, CHIP 15K 5% 1/10W	
R132	1-216-041-00	METAL CHIP 470 5% 1/10W	
R133	1-216-089-91	RES, CHIP 47K 5% 1/10W	
R140	1-216-073-00	METAL CHIP 10K 5% 1/10W	(SE500/SE800/SX800)
R141	1-216-073-00	METAL CHIP 10K 5% 1/10W	(SE500/SE800/SX800)
R142	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R143	1-216-065-91	RES, CHIP 4.7K 5% 1/10W	
R160	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	(SE700: G, I/SE800G)
R160	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R160	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	(SE350/SE500K/SE600N/ SE700: K, N/SE800: K, N)
R160	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	(SE500R/SE700R)
R160	1-216-295-91	SHORT 0	(SE600: A, E/SE650/SE700: D1, D2, E1, E2 /SE800: D1, D2, E/SX600/SX700: D, E/SX800)
R161	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	(SE500K/SE600E/SE700: B, G, R/ SX600/SX700B)
R161	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	(SE600N/SE700: E1, E2, I/SE800B/SX700E)
R161	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	(SE700N/SE800: E, G)
R161	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	(SE650/SE700: D1, D2, K/SX700D)
R161	1-216-075-00	METAL CHIP 12K 5% 1/10W	(SE800: D1, D2, N/SX800)
R161	1-216-079-00	METAL CHIP 18K 5% 1/10W	(SE800K)
R161	1-216-295-91	SHORT 0	(SE350/SE500R/SE600: A, B)
R162	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R163	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R164	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R165	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	(SE800/SX800)
R166	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	(SE800/SX800)
R167	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R168	1-216-101-00	METAL CHIP 150K 5% 1/10W	

Ref. No.	Part No.	Description			Remark
R169	1-216-113-00	METAL CHIP	470K	5%	1/10W
R170	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R171	1-216-073-00	METAL CHIP	10K	5%	1/10W
R172	1-216-295-91	SHORT	0		
			(EXCEPT SE350/SE500/SE700R)		
R175	1-216-295-91	SHORT	0		
			(EXCEPT SE350/SE500/SE700R)		
R176	1-216-037-00	METAL CHIP	330	5%	1/10W
R177	1-216-041-00	METAL CHIP	470	5%	1/10W
R178	1-216-041-00	METAL CHIP	470	5%	1/10W
R179	1-216-041-00	METAL CHIP	470	5%	1/10W
R180	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R181	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R182	1-216-033-00	METAL CHIP	220	5%	1/10W
R183	1-216-033-00	METAL CHIP	220	5%	1/10W
R184	1-216-295-91	SHORT	0		
R185	1-216-295-91	SHORT	0		
R186	1-216-295-91	SHORT	0		
R187	1-216-295-91	SHORT	0		
R188	1-216-295-91	SHORT	0		
R189	1-216-049-91	RES, CHIP	1K	5%	1/10W
R190	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
			(EXCEPT SE350/SE500/SE700R)		
R191	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R192	1-216-295-91	SHORT	0 (EXCEPT SE350/SE500)		
R193	1-216-097-91	RES, CHIP	100K	5%	1/10W
					(EXCEPT SE350/SE500)
R194	1-216-049-91	RES, CHIP	1K	5%	1/10W
					(EXCEPT SE350/SE500)
R196	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R200	1-216-073-00	METAL CHIP	10K	5%	1/10W
R203	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R204	1-216-037-00	METAL CHIP	330	5%	1/10W
R205	1-216-037-00	METAL CHIP	330	5%	1/10W
R206	1-216-045-00	METAL CHIP	680	5%	1/10W
					(EXCEPT SE350)
R206	1-216-047-91	RES, CHIP	820	5%	1/10W
					(SE350)
R207	1-216-047-91	RES, CHIP	820	5%	1/10W
					(SE350)
R207	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
					(SE600/SX600)
R207	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
					(SE500)
R207	1-216-063-91	RES, CHIP	3.9K	5%	1/10W
					(SE650/SE700/SE800/SX700/SX800)
R208	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R209	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R210	1-216-043-91	RES, CHIP	560	5%	1/10W
R211	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R212	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R213	1-216-041-00	METAL CHIP	470	5%	1/10W
R214	1-216-041-00	METAL CHIP	470	5%	1/10W
R215	1-216-025-91	RES, CHIP	100	5%	1/10W
R216	1-216-105-91	RES, CHIP	220K	5%	1/10W
					(EXCEPT SE350/SE500)
R216	1-216-109-00	METAL CHIP	330K	5%	1/10W
					(SE500)
R216	1-216-117-00	METAL CHIP	680K	5%	1/10W
					(SE350)

Ref. No.	Part No.	Description			Remark
R217	1-216-025-91	RES, CHIP	100	5%	1/10W
					(EXCEPT SE350/SE500R/SE600: A, N/ SE700: G, I, R/SE800G)
R218	1-216-295-91	SHORT	0		
R219	1-216-017-91	RES, CHIP	47	5%	1/10W
					(SE350/SE600/SX600)
R219	1-216-025-91	RES, CHIP	100	5%	1/10W
					(EXCEPT SE350/SE600/SX600)
R220	1-216-049-91	RES, CHIP	1K	5%	1/10W
R221	1-216-017-91	RES, CHIP	47	5%	1/10W
R222	1-216-017-91	RES, CHIP	47	5%	1/10W
					(SE500/SE800/SX800)
R223	1-216-017-91	RES, CHIP	47	5%	1/10W
					(EXCEPT SE350/SE500R/SE600: A, N/SE700R)
R224	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R225	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R226	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R227	1-216-295-91	SHORT	0		
R228	1-216-295-91	SHORT	0		
					(SE600B/SE700B/SE800B/SX700B)
R232	1-216-077-91	RES, CHIP	15K	5%	1/10W
					(EXCEPT SE500)
R232	1-216-085-00	METAL CHIP	33K	5%	1/10W
					(SE500)
R233	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
					(SE600B/SE700B/SE800B/SX700B)
R235	1-216-089-91	RES, CHIP	47K	5%	1/10W
R236	1-216-089-91	RES, CHIP	47K	5%	1/10W
R270	1-216-041-00	METAL CHIP	470	5%	1/10W
					(EXCEPT SE350/SE500)
R270	1-216-043-91	RES, CHIP	560	5%	1/10W
					(SE500)
R271	1-216-041-00	METAL CHIP	470	5%	1/10W
					(EXCEPT SE350/SE500)
R271	1-216-043-91	RES, CHIP	560	5%	1/10W
					(SE350/SE500)
R272	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
					(SE350)
R272	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
					(EXCEPT SE350/SE500)
R272	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
					(SE500)
R273	1-216-295-91	SHORT	0		
R274	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
					(SE500)
R274	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
					(EXCEPT SE500)
R275	1-216-089-91	RES, CHIP	47K	5%	1/10W
					(EXCEPT SE350/SE500)
R276	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
					(SE500)
R276	1-216-073-00	METAL CHIP	10K	5%	1/10W
					(EXCEPT SE350/SE500)
R276	1-216-077-91	RES, CHIP	15K	5%	1/10W
					(SE350)
R277	1-216-081-00	METAL CHIP	22K	5%	1/10W
R278	1-216-081-00	METAL CHIP	22K	5%	1/10W
R279	1-216-081-00	METAL CHIP	22K	5%	1/10W
R280	1-216-097-91	RES, CHIP	100K	5%	1/10W
R283	1-216-295-91	SHORT	0		
R284	1-216-295-91	SHORT	0		
R286	1-216-025-91	RES, CHIP	100	5%	1/10W
R301	1-216-073-00	METAL CHIP	10K	5%	1/10W
					(EXCEPT SE350/SE500)

Ref. No.	Part No.	Description			Remark
R302	1-216-079-00	METAL CHIP	18K	5%	1/10W (EXCEPT SE350/SE500)
R304	1-216-049-91	RES, CHIP	1K	5%	1/10W (EXCEPT SE350/SE500)
R305	1-216-049-91	RES, CHIP	1K	5%	1/10W (EXCEPT SE350/SE500)
R306	1-216-083-00	METAL CHIP	27K	5%	1/10W (EXCEPT SE350/SE500)
R307	1-216-057-00	METAL CHIP	2.2K	5%	1/10W (EXCEPT SE350/SE500)
R308	1-208-820-11	METAL CHIP	39K	0.5%	1/10W (EXCEPT SE350/SE500)
R309	1-216-079-00	METAL CHIP	18K	5%	1/10W (EXCEPT SE350/SE500)
R310	1-216-079-00	METAL CHIP	18K	5%	1/10W (EXCEPT SE350/SE500)
R311	1-216-057-00	METAL CHIP	2.2K	5%	1/10W (EXCEPT SE350/SE500)
R312	1-216-083-00	METAL CHIP	27K	5%	1/10W (EXCEPT SE350/SE500)
R313	1-216-133-00	METAL CHIP	3.3M	5%	1/10W (EXCEPT SE350/SE500)
R315	1-216-033-00	METAL CHIP	220	5%	1/10W (EXCEPT SE350/SE500)
R316	1-216-033-00	METAL CHIP	220	5%	1/10W (EXCEPT SE350/SE500)
R322	1-216-295-91	SHORT	0 (EXCEPT SE350/SE500)		
R323	1-216-065-91	RES, CHIP	4.7K	5%	1/10W (SE800/SX800)
R324	1-216-065-91	RES, CHIP	4.7K	5%	1/10W (SE800/SX800)
R325	1-216-079-00	METAL CHIP	18K	5%	1/10W (EXCEPT SE350/SE500/SE600: A, N/SE700R)
R326	1-216-079-00	METAL CHIP	18K	5%	1/10W (EXCEPT SE350/SE500/SE600: A, N/SE700R)
R329	1-216-041-00	METAL CHIP	470	5%	1/10W (EXCEPT SE350/SE500)
R350	1-216-093-91	RES, CHIP	68K	5%	1/10W
R351	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R352	1-216-093-91	RES, CHIP	68K	5%	1/10W (SE500)
R353	1-216-067-00	METAL CHIP	5.6K	5%	1/10W (SE500)
R354	1-216-129-00	METAL CHIP	2.2M	5%	1/10W
R355	1-216-093-91	RES, CHIP	68K	5%	1/10W (SE350/SE500)
R356	1-216-067-00	METAL CHIP	5.6K	5%	1/10W (SE350/SE500)
R357	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R358	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R359	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R362	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R363	1-216-079-00	METAL CHIP	18K	5%	1/10W
R364	1-216-035-00	METAL CHIP	270	5%	1/10W
R365	1-216-109-00	METAL CHIP	330K	5%	1/10W
R366	1-216-073-00	METAL CHIP	10K	5%	1/10W
R367	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R368	1-216-047-91	RES, CHIP	820	5%	1/10W
R370	1-216-075-00	METAL CHIP	12K	5%	1/10W
R371	1-216-079-00	METAL CHIP	18K	5%	1/10W
R380	1-216-017-91	RES, CHIP	47	5%	1/10W
R381	1-216-063-91	RES, CHIP	3.9K	5%	1/10W (EXCEPT SE500/SE800/SX800)

Ref. No.	Part No.	Description			Remark
R381	1-216-067-00	METAL CHIP	5.6K	5%	1/10W (SE500/SE800/SX800)
R382	1-217-671-11	METAL CHIP	1	5%	1/10W
R383	1-216-031-00	METAL CHIP	180	5%	1/10W
R390	1-216-083-00	METAL CHIP	27K	5%	1/10W (SE500/SE800/SX800)
R391	1-249-394-11	CARBON	12	5%	1/4W (SE500/SE800/SX800)
R392	1-216-073-00	METAL CHIP	10K	5%	1/10W (SE500/SE800/SX800)
R420	1-216-295-91	SHORT	0		
R421	1-216-295-91	SHORT	0		
R422	1-216-049-91	RES, CHIP	1K	5%	1/10W
R423	1-216-295-91	SHORT	0		
R424	1-216-041-00	METAL CHIP	470	5%	1/10W (EXCEPT SE350/SE600/SX600)
R425	1-216-041-00	METAL CHIP	470	5%	1/10W (SE500K/SE800/SX800)
R427	1-216-017-91	RES, CHIP	47	5%	1/10W
R460	1-216-073-00	METAL CHIP	10K	5%	1/10W
R461	1-216-037-00	METAL CHIP	330	5%	1/10W
R462	1-216-049-91	RES, CHIP	1K	5%	1/10W
R463	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R465	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R466	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R467	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R468	1-216-077-91	RES, CHIP	15K	5%	1/10W
R469	1-216-089-91	RES, CHIP	47K	5%	1/10W
R470	1-216-073-00	METAL CHIP	10K	5%	1/10W
R471	1-216-037-00	METAL CHIP	330	5%	1/10W
R477	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R478	1-216-077-91	RES, CHIP	15K	5%	1/10W
R479	1-216-089-91	RES, CHIP	47K	5%	1/10W (SE500K/SE800/SX800)
R500	1-216-041-00	METAL CHIP	470	5%	1/10W
R501	1-216-041-00	METAL CHIP	470	5%	1/10W
R502	1-216-041-00	METAL CHIP	470	5%	1/10W
R503	1-216-041-00	METAL CHIP	470	5%	1/10W (EXCEPT SE350/SE500)
R509	1-216-065-91	RES, CHIP	4.7K	5%	1/10W (SE500R/SE650/SE700/SE800/SX700/SX800)
R510	1-249-407-11	CARBON	150	5%	1/4W (SE350/SE500/SE700R)
R510	1-249-408-11	CARBON	180	5%	1/4W (EXCEPT SE350/SE500/SE700R)
R511	1-249-407-11	CARBON	150	5%	1/4W
R512	1-216-022-00	METAL CHIP	75	5%	1/10W
R514	1-216-037-00	METAL CHIP	330	5%	1/10W
R515	1-216-049-91	RES, CHIP	1K	5%	1/10W
R516	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R517	1-216-022-00	METAL CHIP	75	5%	1/10W
R518	1-216-065-91	RES, CHIP	4.7K	5%	1/10W (SE650/SE700/SE800/SX700/SX800)
R520	1-216-022-00	METAL CHIP	75	5%	1/10W (SE500R/SE700R/SE800K)
R521	1-249-408-11	CARBON	180	5%	1/4W (SE500R/SE700R/SE800K)
R522	1-216-025-91	RES, CHIP	100	5%	1/10W (SE500R/SE700R/SE800K)
R524	1-249-407-11	CARBON	150	5%	1/4W (SE500R/SE700R/SE800K)

Ref. No.	Part No.	Description			Remark
R541	1-216-025-91	RES, CHIP	100	5%	1/10W (EXCEPT SE350/SE500R/SE600: A, N/SE700: G, I, R/SE800G)
R542	1-249-408-11	CARBON	180	5%	1/4W (EXCEPT SE350/SE500R/SE600: A, N/SE700: G, I, R/SE800G)
R543	1-249-407-11	CARBON	150	5%	1/4W (EXCEPT SE350/SE500R/SE600: A, N/SE700: G, I, R/SE800G)
R545	1-216-085-00	METAL CHIP	33K	5%	1/10W (EXCEPT SE350/SE500R/SE600: A, N/SE700: G, I, R)
R546	1-216-089-91	RES, CHIP	47K	5%	1/10W (EXCEPT SE350/SE500R/SE600: A, N/SE700: G, I, R)
R547	1-216-049-91	RES, CHIP	1K	5%	1/10W (EXCEPT SE350/SE500R/SE600: A, N/SE700: G, I, R/SE800G)
R548	1-216-022-00	METAL CHIP	75	5%	1/10W (EXCEPT SE350/SE500R/SE600: A, N/SE700R)
R549	1-216-022-00	METAL CHIP	75	5%	1/10W (EXCEPT SE350/SE500R/SE600: A, N/SE700: G, I, R/SE800G)
R570	1-216-041-00	METAL CHIP	470	5%	1/10W (EXCEPT SE350/SE500R/SE600: A, N/SE700R)
R571	1-216-041-00	METAL CHIP	470	5%	1/10W (EXCEPT SE350/SE500R/SE600: A, N/SE700R)
R572	1-216-041-00	METAL CHIP	470	5%	1/10W (EXCEPT SE350/SE500R/SE600: A, N/SE700: G, I, R/SE800G)
R573	1-216-041-00	METAL CHIP	470	5%	1/10W (EXCEPT SE350/SE500/SE600: A, N/SE700: G, I, R/SE800G)
R574	1-216-097-91	RES, CHIP	100K	5%	1/10W (EXCEPT SE350/SE500R/SE600: A, N/SE700: G, I, R/SE800G)
R575	1-216-097-91	RES, CHIP	100K	5%	1/10W (EXCEPT SE350/SE500/SE600: A, N/SE700: G, I, R/SE800G)
R580	1-216-049-91	RES, CHIP	1K	5%	1/10W (SE350/SE500)
R580	1-216-295-91	SHORT	0 (EXCEPT SE350/SE500)		
R581	1-216-065-91	RES, CHIP	4.7K	5%	1/10W (SE350/SE500)
R582	1-216-073-00	METAL CHIP	10K	5%	1/10W (SE500K)
R583	1-216-073-00	METAL CHIP	10K	5%	1/10W (SE500K)
R584	1-216-073-00	METAL CHIP	10K	5%	1/10W (SE500K)
R585	1-216-097-91	RES, CHIP	100K	5%	1/10W (SE500K)
R586	1-216-097-91	RES, CHIP	100K	5%	1/10W (SE500K)
R587	1-216-097-91	RES, CHIP	100K	5%	1/10W (SE500K)
R590	1-216-049-91	RES, CHIP	1K	5%	1/10W
R591	1-216-049-91	RES, CHIP	1K	5%	1/10W (EXCEPT SE350/SE500)
R592	1-216-049-91	RES, CHIP	1K	5%	1/10W (EXCEPT SE350/SE500)
R593	1-216-097-91	RES, CHIP	100K	5%	1/10W (SE500K)
R594	1-216-073-00	METAL CHIP	10K	5%	1/10W (SE500K)
R595	1-216-057-00	METAL CHIP	2.2K	5%	1/10W (SE500K)
R596	1-216-077-91	RES, CHIP	15K	5%	1/10W (SE500K)
R611	1-216-049-91	RES, CHIP	1K	5%	1/10W (EXCEPT SE350/SE500R/SE600: A, N/SE700R)
R615	1-216-047-91	RES, CHIP	820	5%	1/10W (EXCEPT SE350/SE500R/SE600: A, N/SE700R)
R617	1-216-049-91	RES, CHIP	1K	5%	1/10W
R618	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R624	1-216-073-00	METAL CHIP	10K	5%	1/10W
R625	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R626	1-216-049-91	RES, CHIP	1K	5%	1/10W
R627	1-216-121-91	RES, CHIP	1M	5%	1/10W
R660	1-216-049-91	RES, CHIP	1K	5%	1/10W
R661	1-216-121-91	RES, CHIP	1M	5%	1/10W
R662	1-216-041-00	METAL CHIP	470	5%	1/10W
R663	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R664	1-216-295-91	SHORT	0		
R666	1-216-295-91	SHORT	0		
R667	1-216-037-00	METAL CHIP	330	5%	1/10W
R668	1-216-025-91	RES, CHIP	100	5%	1/10W
R669	1-216-025-91	RES, CHIP	100	5%	1/10W
R670	1-216-041-00	METAL CHIP	470	5%	1/10W
R671	1-216-295-91	SHORT	0		
R672	1-216-049-91	RES, CHIP	1K	5%	1/10W (SE350/SE500/SE600: B, N/SE700: B, K, N, R/SE800: B, K, N/SX700B)
R700	1-216-057-00	METAL CHIP	2.2K	5%	1/10W (SE700R)
R701	1-216-073-00	METAL CHIP	10K	5%	1/10W (SE700R)
R702	1-216-295-91	SHORT	0 (EXCEPT SE700R)		
R703	1-216-025-91	RES, CHIP	100	5%	1/10W (SE700R)
R704	1-216-025-91	RES, CHIP	100	5%	1/10W
R705	1-216-033-00	METAL CHIP	220	5%	1/10W
R711	1-212-897-00	FUSIBLE	470	5%	1/4W
R713	1-216-025-91	RES, CHIP	100	5%	1/10W
R714	1-216-113-00	METAL CHIP	470K	5%	1/10W
R720	1-216-049-91	RES, CHIP	1K	5%	1/10W (SE700R)
R721	1-216-049-91	RES, CHIP	1K	5%	1/10W (SE700R)
R722	1-216-049-91	RES, CHIP	1K	5%	1/10W (SE700R)
R723	1-216-097-91	RES, CHIP	100K	5%	1/10W
R724	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R725	1-216-081-00	METAL CHIP	22K	5%	1/10W
R726	1-216-097-91	RES, CHIP	100K	5%	1/10W
R730	1-216-041-00	METAL CHIP	470	5%	1/10W (EXCEPT SE350/SE500/SE700R)
R731	1-216-041-00	METAL CHIP	470	5%	1/10W (EXCEPT SE350/SE500/SE700: G, R/SE800G)
R732	1-216-041-00	METAL CHIP	470	5%	1/10W (EXCEPT SE350/SE500/SE700R)
R733	1-216-041-00	METAL CHIP	470	5%	1/10W (EXCEPT SE700G/SE800G)
R754	1-216-025-91	RES, CHIP	100	5%	1/10W
R755	1-216-025-91	RES, CHIP	100	5%	1/10W
R756	1-216-073-00	METAL CHIP	10K	5%	1/10W
R757	1-216-049-91	RES, CHIP	1K	5%	1/10W

Ref. No.	Part No.	Description	Remark
R800	1-216-101-00	METAL CHIP 150K 5% 1/10W	(EXCEPT SE600/SE700R/SX600)
R801	1-216-073-00	METAL CHIP 10K 5% 1/10W	(EXCEPT SE600/SE700R/SX600)
R802	1-216-073-00	METAL CHIP 10K 5% 1/10W	(EXCEPT SE600/SE700R/SX600)
R803	1-216-081-00	METAL CHIP 22K 5% 1/10W	(EXCEPT SE600/SE700R/SX600)
R804	1-216-073-00	METAL CHIP 10K 5% 1/10W	(EXCEPT SE600/SE700R/SX600)
R805	1-216-073-00	METAL CHIP 10K 5% 1/10W	(EXCEPT SE600/SE700R/SX600)
R806	1-216-073-00	METAL CHIP 10K 5% 1/10W	(EXCEPT SE600/SE700R/SX600)
R807	1-216-085-00	METAL CHIP 33K 5% 1/10W	(EXCEPT SE600/SE700R/SX600)
R813	1-216-073-00	METAL CHIP 10K 5% 1/10W	(EXCEPT SE600/SE700R/SX600)
R850	1-216-025-91	RES, CHIP 100 5% 1/10W	(EXCEPT SE500R/SE600/SE700R/SX600)
R851	1-216-077-91	RES, CHIP 15K 5% 1/10W	(EXCEPT SE500R/SE600/SE700R/SX600)
R852	1-216-081-00	METAL CHIP 22K 5% 1/10W	(EXCEPT SE500R/SE600/SE700R/SX600)
R853	1-216-049-91	RES, CHIP 1K 5% 1/10W	(EXCEPT SE500R/SE600/SE700R/SX600)
R856	1-216-097-91	RES, CHIP 100K 5% 1/10W	(EXCEPT SE500R/SE600/SE700R/SX600)
R857	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	(EXCEPT SE500R/SE600/SE700R/SX600)
R858	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	(EXCEPT SE500R/SE600/SE700R/SX600)
R859	1-216-123-11	METAL CHIP 1.2M 5% 1/10W	(EXCEPT SE500R/SE600/SE700R/SX600)
R860	1-216-123-11	METAL CHIP 1.2M 5% 1/10W	(EXCEPT SE500R/SE600/SE700R/SX600)
R861	1-216-117-00	METAL CHIP 680K 5% 1/10W	(EXCEPT SE500R/SE600/SE700R/SX600)
R862	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	(EXCEPT SE500R/SE600/SE700R/SX600)
R968	1-216-101-00	METAL CHIP 150K 5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R969	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R970	1-216-085-00	METAL CHIP 33K 5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R971	1-216-085-00	METAL CHIP 33K 5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R972	1-216-083-00	METAL CHIP 27K 5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R973	1-216-105-91	RES, CHIP 220K 5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R974	1-216-081-00	METAL CHIP 22K 5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R975	1-216-295-91	SHORT 0	(SE600B/SE700B/SE800B/SX700B)
R976	1-216-059-00	METAL CHIP 2.7K 5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R977	1-216-089-91	RES, CHIP 47K 5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R978	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R979	1-216-073-00	METAL CHIP 10K 5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R980	1-216-097-91	RES, CHIP 100K 5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R981	1-216-083-00	METAL CHIP 27K 5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R982	1-216-089-91	RES, CHIP 47K 5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R983	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R985	1-216-041-00	METAL CHIP 470 5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R986	1-216-089-91	RES, CHIP 47K 5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R988	1-216-077-91	RES, CHIP 15K 5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R989	1-216-049-91	RES, CHIP 1K 5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R990	1-216-295-91	SHORT 0	(SE600B/SE700B/SE800B/SX700B)
R993	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R994	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R995	1-216-073-00	METAL CHIP 10K 5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R996	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R997	1-216-073-00	METAL CHIP 10K 5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R998	1-216-073-00	METAL CHIP 10K 5% 1/10W	(SE600B/SE700B/SE800B/SX700B)
R999	1-216-295-91	SHORT 0	(SE600B/SE700B/SE800B/SX700B)
		< SWITCH >	
S100	1-771-155-11	SWITCH, ROTARY (CAM ENCODER)	
S101	1-571-958-11	SWITCH, PUSH (1 KEY) (REC PROOF)	
S460	1-771-574-21	SWITCH, TACTILE (**I**/⏻)	
S461	1-771-574-21	SWITCH, TACTILE (⏏ EJECT)	
S463	1-771-574-21	SWITCH, TACTILE (PROGRAM/TRACKING +)	
S464	1-771-574-21	SWITCH, TACTILE (AUDIO DUB)	(SE500/SE800/SX800)
S465	1-771-574-21	SWITCH, TACTILE (RR)	(SE500/SE650/SE700/SE800/SX700/SX800)
S467	1-571-588-11	SWITCH, SLIDE (NTSC PB)	
S476	1-771-574-21	SWITCH, TACTILE (PROGRAM/TRACKING -)	
S477	1-771-574-21	SWITCH, TACTILE	(AUTO SET UP/RF CHANNEL)
S478	1-771-574-21	SWITCH, TACTILE (SYNCHRO REC)	(SE500K/SE800/SX800)
		< TRANSFORMER >	
T380	1-433-479-11	TRANSFORMER, BIAS OSCILLATION	(EXCEPT SE500/SE800/SX800)
T380	1-433-538-11	TRANSFORMER, BIAS OSCILLATION	(SE500/SE800/SX800)
T390	1-433-537-11	TRANSFORMER, BIAS OSCILLATION	(SE500/SE800/SX800)
		< TUNER >	
TU701	1-693-480-11	TUNER, IF (BTF-2MC422)	(SE350/SE500/SE700R)
TU702	1-693-436-51	TUNER, IF (BTF-3WC428)	(SE600: E, N/SE700: E1, E2, I, N/ SE800: E, N/SX600/SX700E)

Ref. No.	Part No.	Description		Remark
TU702	1-693-437-51	TUNER, IF (BTF-3WU604) (SE700G/SE800G)		
TU702	1-693-438-51	TUNER, IF (BTF-3WC446) (SE600B/SE700B/SE800B/SX700B)		
TU702	1-693-439-61	TUNER, IF (BTF-3WC429) (SE600A/SE650/SE700: D1, D2, K/ SE800: D1, D2, K/SX700D/SX800)		
		< VIBRATOR >		
X160	1-579-463-11	VIBRATOR, CRYSTAL (32.768kHz)		
X161	1-781-717-21	VIBRATOR, CRYSTAL (17.734475MHz)		
X200	1-579-608-21	VIBRATOR, CRYSTAL (4.43MHz)		
	1-468-458-11	POWER BLOCK (SRV938EK) ********** (Ref.No. 2,000 Series)		
		< CAPACITOR >		
⚠C101	9-885-001-69	METAL	0.1uF	
⚠C102	9-885-001-69	METAL	0.1uF	
⚠C103	9-885-001-70	CERAMIC	1000PF	250V
⚠C104	9-885-001-70	CERAMIC	1000PF	250V
⚠C105	9-885-001-70	CERAMIC	1000PF	250V
⚠C108	9-885-001-70	CERAMIC	1000PF	250V
⚠C109	9-885-001-70	CERAMIC	1000PF	250V
C151	9-885-001-81	ELECT	47uF	400V
C153	1-163-015-91	CERAMIC CHIP	3300PF	
C155	1-126-965-91	ELECT	22uF	50V
C156	1-126-960-91	ELECT	1uF	50V
C157	1-163-009-91	CERAMIC CHIP	1000PF	
C158	1-163-273-91	CERAMIC CHIP	820PF	
C159	1-163-251-91	CERAMIC CHIP	100PF	
C160	1-163-021-91	CERAMIC CHIP	10000PF	
C161	1-163-009-91	CERAMIC CHIP	1000PF	
C201	9-885-001-91	ELECT	220uF	25V
C202	1-126-925-91	ELECT	470uF	10V
C203	1-126-934-91	ELECT	220uF	16V
C206	1-126-947-91	ELECT	47uF	35V
C207	1-126-964-91	ELECT	10uF	50V
C208	1-126-925-91	ELECT	470uF	10V
C209	1-163-021-91	CERAMIC	0.01uF	50V
C212	1-163-021-91	CERAMIC	0.01uF	50V
C213	1-126-956-91	ELECT	0.1uF	50V
C251	1-126-967-91	ELECT	47uF	50V
C252	1-111-065-11	ELECT	680uF	25V
C253	1-111-016-91	ELECT	1200uF	10V
C254	9-885-001-92	ELECT	470uF	25V
C261	1-164-489-91	CERAMIC CHIP	0.22uF	16V
C301	1-111-118-91	ELECT	220uF	50V
C303	1-126-965-91	ELECT	22uF	50V
		< CONNECTOR >		
⚠CN101	1-580-230-11	CONNECTOR		
CN201	1-778-675-21	CONNECTOR 19P		
CN202	1-793-674-21	CONNECTOR 7P		
		< DIODE >		
⚠D101	9-880-927-01	DIODE 1N4005		
⚠D102	9-880-927-01	DIODE 1N4005		

Ref. No.	Part No.	Description	Remark
⚠D103	9-880-927-01	DIODE 1N4005	
⚠D104	9-880-927-01	DIODE 1N4005	
D151	9-885-001-77	DIODE P6KE300	
D152	9-885-001-78	DIODE UF4007	
D153	9-885-001-79	DIODE 1SS119	
D154	9-885-001-80	DIODE PR1003	
D158	9-880-991-01	DIODE MA4270	
D203	9-885-001-86	DIODE MTZJ5.1	
D204	9-885-001-79	DIODE 1SS119	
D205	9-885-001-79	DIODE 1SS119	
D251	9-885-001-80	DIODE PR1003	
D252	9-885-001-87	DIODE UF3DL	
D253	9-885-001-88	DIODE SB340L	
D254	9-885-001-80	DIODE PR1003	
D301	9-885-001-87	DIODE UF3DL	
D302	9-885-001-89	DIODE D2S4M	
D303	9-885-001-90	DIODE MTZJ20	
D304	9-885-001-89	DIODE D2S4M	
D307	9-885-001-89	DIODE D2S4M	
		< FUSE >	
⚠F101	9-885-001-72	FUSE (T2AL/250V)	
		< IC >	
⚠IC151	9-885-001-74	IC TDA16846	
IC251	9-885-001-82	IC AN1431T	
		< LINE FILTER/COIL >	
⚠L101	9-885-001-67	LINE FILTER 10uH	
⚠L102	9-885-001-68	LINE FILTER 33mH	
⚠L103	9-885-001-68	LINE FILTER 33mH	
L201	9-885-001-93	CHOKE COIL 10uH	
L202	9-885-001-93	CHOKE COIL 10uH	
L205	9-885-001-94	CHOKE COIL 1uH	
		< PHOTO COUPLER >	
⚠PC151	9-885-001-75	COUPLER, PHOTO ON3171	
		< IC LINK >	
⚠PS201	1-533-592-21	LINK, IC (1.6A)	
⚠PS202	1-533-593-21	LINK, IC (2A)	
⚠PS251	1-533-589-21	LINK, IC (750mA)	
		< TRANSISTOR >	
⚠Q151	9-885-001-73	TRANSISTOR 2SK3047	
⚠Q201	8-729-141-01	TRANSISTOR 2SB733	
Q203	8-729-030-98	TRANSISTOR 2PD601A	
Q204	8-729-139-97	TRANSISTOR 2SC2785	
Q205	8-729-018-99	TRANSISTOR 2SD2394	
Q206	8-729-139-97	TRANSISTOR 2SC2785	
Q207	9-885-001-83	TRANSISTOR 2SD1862	
Q210	8-729-043-32	TRANSISTOR DTA114EKA	
Q211	8-729-043-29	TRANSISTOR DTC114EKA	
Q301	8-729-018-99	TRANSISTOR 2SD2394	
Q302	9-885-001-84	TRANSISTOR DTC143EKA	
Q303	8-729-018-99	TRANSISTOR 2SD2394	

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

POWER BLOCK

Ref. No.	Part No.	Description		Remark
Q304	8-729-139-97	TRANSISTOR 2SC2785		
⚠Q305	8-729-141-01	TRANSISTOR 2SB733		
Q306	9-885-001-84	TRANSISTOR DTC143EKA		
Q307	9-885-001-85	TRANSISTOR 2SA1015		
		< RESISTOR >		
⚠R101	9-885-001-71	CARBON	1M	1/2W
R151	1-247-903-91	CARBON	1M	1/4W
R152	1-247-903-91	CARBON	1M	1/4W
R155	1-216-073-21	RES, CHIP	10K	1/10W
R156	1-259-880-91	CARBON	2.2M	1/4W
R157	1-259-880-91	CARBON	2.2M	1/4W
R158	1-247-805-91	CARBON	82	1/4W
R159	1-249-397-11	CARBON	22	1/4W F
R160	1-247-795-91	CARBON	33	1/4W
R161	1-216-085-21	RES, CHIP	33K	1/10W
R162	1-216-085-21	RES, CHIP	33K	1/10W
R163	1-216-063-21	RES, CHIP	3.9K	1/10W
R164	1-247-861-91	CARBON	18K	1/4W
R201	1-216-049-21	RES, CHIP	1K	1/10W
R203	1-216-452-21	METAL	180	2W
R206	1-216-053-21	RES, CHIP	1.5K	1/10W
R207	1-247-615-91	CARBON	220	1/4W
R208	1-247-615-91	CARBON	220	1/4W
R209	1-247-615-91	CARBON	220	1/4W
R210	1-216-049-21	RES, CHIP	1K	1/10W
R213	1-216-089-21	RES, CHIP	47K	1/10W
R216	1-216-065-21	RES, CHIP	4.7K	1/10W
R217	1-215-857-81	METAL	10	1W
R218	1-215-908-81	METAL	33	3W
R219	1-247-847-91	CARBON	4.7K	1/4W
R220	1-216-065-21	RES, CHIP	4.7K	1/10W
R222	1-247-615-91	CARBON	220	1/4W
R251	1-249-402-11	CARBON	56	1/4W F
R261	1-216-049-21	RES, CHIP	1K	1/10W
R263	1-216-079-21	RES, CHIP	18K	1/10W
R264	1-216-077-21	RES, CHIP	15K	1/10W
R265	1-216-073-21	RES, CHIP	10K	1/10W
R266	1-216-061-21	RES, CHIP	3.3K	1/10W
R301	1-216-073-21	RES, CHIP	10K	1/10W
R302	1-215-869-81	METAL	1K	1W
R306	1-216-073-21	RES, CHIP	10K	1/10W
R307	1-215-869-81	METAL	1K	1W
R308	1-216-049-21	RES, CHIP	1K	1/10W
R311	1-247-885-91	CARBON	10K	1/4W
R312	1-215-880-81	METAL	10	2W
R313	1-215-880-81	METAL	10	2W
R314	1-215-892-81	METAL	1K	2W
R315	1-215-892-81	METAL	1K	2W
R316	1-247-879-91	CARBON	100K	1/4W
		< TRANSFORMER >		
⚠T151	9-885-001-76	TRANSFORMER, POWER		
		< VARIABLE RESISTOR >		
VR251	1-241-629-11	VARIABLE RESISTOR	5K	

Ref. No.	Part No.	Description	Remark
		< VARISTOR >	
⚠Z101	9-880-928-01	VARISTOR ERZV10D751	
		MISCELLANEOUS	
		**********	
13	1-792-020-11	CABLE, FLAT (FDS-7) (SE500/SE800/SX800)	
13	1-792-021-11	CABLE, FLAT (FDS-8) (EXCEPT SE500/SE800/SX800)	
15	1-762-844-31	SWITCH, ROTARY (SE500/SE800/SX800)	
56	1-792-022-11	CABLE, FLAT (FFM-001)	
57	1-792-018-11	CABLE, FLAT (FAC-8)	
⚠58	1-782-012-11	CORD, POWER	
704	1-500-144-11	HEAD, FE	
721	A-6775-791-A	HEAD BLOCK ASSY, ACE FFC	
768	1-772-361-11	DRUM ASSY, DZH-92D (SE350)	
768	1-772-362-11	DRUM ASSY, DZH-93D (SE500)	
768	1-772-364-11	DRUM ASSY, DZH0B5A (EXCEPT SE350/ SE500/SE600B/SE700B/SE800B/SX700B)	
768	1-772-365-11	DRUM ASSY, DZH0B6A (SE600B/SE700B/SE800B/SX700B)	
M902	1-698-971-11	MOTOR, DC (CAPSTAN)	
M903	X-3947-577-1	MOTOR ASSY, CAM	
		**********	
		HARDWARE LIST	
		**********	
#1	7-685-648-79	SCREW +BVTP 3X12 TYPE2	
#2	7-682-147-01	SCREW +P 3X6	
#3	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#4	7-685-133-19	SCREW (DIA. 2.6) (IT3B)	
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-696-593-11	CORD, CONNECTION (PAL) (1.5m)	
⚠	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (SE700: G, I/SE800G)	
	3-868-269-11	MANUAL, INSTRUCTION (FRENCH) (SE800:D2, E)	
	3-868-269-21	MANUAL, INSTRUCTION (SPANISH)(SE800E)	
	3-868-269-31	MANUAL, INSTRUCTION (GERMAN) (SE800: D1, D2, E/SX800)	
	3-868-269-41	MANUAL, INSTRUCTION (ITALIAN) (SE800D2/SX800)	
	3-868-269-51	MANUAL, INSTRUCTION (DUTCH) (SE800: D2, E/SX800)	
	3-868-269-61	MANUAL, INSTRUCTION (PORTUGUESE) (SE800E)	
	3-868-269-71	MANUAL, INSTRUCTION (GREEK) (SE800D2)	
	3-868-270-11	MANUAL, INSTRUCTION (SWEDISH) (SE800E)	
	3-868-270-21	MANUAL, INSTRUCTION (DANISH) (SE800E)	
	3-868-270-31	MANUAL, INSTRUCTION (FINNISH) (SE800E)	
	3-868-271-11	MANUAL, INSTRUCTION (FRENCH) (SE800B)	
	3-868-272-11	MANUAL, INSTRUCTION (ENGLISH) (SE800G)	
	3-868-273-11	MANUAL, INSTRUCTION (FRENCH) (SE600E/SE700: D2, E2/SX700: D, E)	
	3-868-273-21	MANUAL, INSTRUCTION (SPANISH) (SE600E/SE700E1/SX600/SX700E)	

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Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
	3-868-273-31	MANUAL, INSTRUCTION (GERMAN) (SE600: A, E/SE650/SE700: D1, D2, E2/SX700: D, E)	
	3-868-273-41	MANUAL, INSTRUCTION (ITALIAN)	(SE600A/SE700D2/SX700D)
	3-868-273-51	MANUAL, INSTRUCTION (DUTCH)	(SE600: A, E/SE700: D2, E2/SX700: D, E)
	3-868-273-61	MANUAL, INSTRUCTION (PORTUGUESE)	(SE700E1/SX700E)
	3-868-273-71	MANUAL, INSTRUCTION (GREEK)	(SE600A/SE700D2)
	3-868-274-11	MANUAL, INSTRUCTION (SWEDISH)	(SE600E/SE700E2/SX600/SX700E)
	3-868-274-21	MANUAL, INSTRUCTION (DANISH)	(SE600E/SE700E2/SX600/SX700E)
	3-868-274-31	MANUAL, INSTRUCTION (FINNISH)	(SE600E/SE700E2/SX600/SX700E)
	3-868-275-11	MANUAL, INSTRUCTION (ENGLISH)	(SE700: G, I)
	3-868-277-11	MANUAL, INSTRUCTION (ENGLISH) (SE350/SE500/SE600N/SE700: K, N, R/SE800: K, N)	
	3-868-277-21	MANUAL, INSTRUCTION (CZECH)	(SE350/SE500K/SE600N/SE700K/SE800K)
	3-868-277-31	MANUAL, INSTRUCTION (POLISH)	(SE350/SE500K/SE600N/SE700N/SE800N)
	3-868-277-41	MANUAL, INSTRUCTION (HUNGARIAN)	(SE350/SE500K/SE600N/SE700N/SE800N)
	3-868-277-51	MANUAL, INSTRUCTION (RUSSIAN)	(SE500R/SE700R/SE800K)
	3-868-352-11	MANUAL, INSTRUCTION (FRENCH)	(SE600B/SE700B/SX700B)

9-921-751-11

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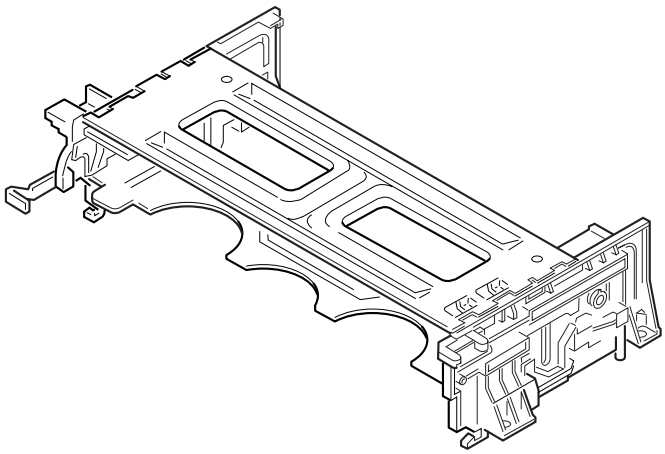
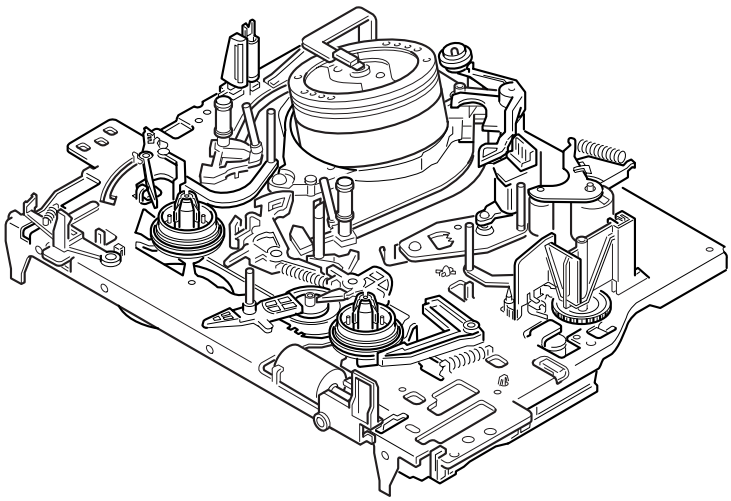
VHS MECHANICAL ADJUSTMENT MANUAL VI

S MECHANISM

VHS

Please use with the service manual.





VHS TAPE TRANSPORT MECHANISM DECK

MICROFILM

SONY

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3-3	PINCHI PRESS BLOCK ASS'Y	×	×	×	×	O	O	O	×
3-3	TG8 ASSEMBLY	×	×	×	×	×	×	O	×
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3-19	PULLEY GEAR ASSEMBLY	×	O	×	×	×	×	×	×
3-11	PENDULUM ARM ASSEMBLY	×	O	×	×	×	×	×	×

O: ADJUST
△: CHECK
×: NOT REQUIRED

1. PREPARATION FOR MECHANISM CHECKS, ADJUSTMENTS AND REPLACEMENT

For removal of the cabinet, printed wiring boards and others, please refer to the service manual “DISASSEMBLY”.

1-1. LOADING AND THREADING PROCEDURE WHEN THE POWER TURNS OFF

1-1-1. LOADING AND THREADING PROCEDURE WITH HANDS

1) Turn cam motor in the arrow Ⓐdirection until loading and threading are end.

1-1-2. LOADING AND THREADING PROCEDURE WITH REGULATED DC POWER SUPPLY

1) Applying approx. +9V (300mA) to cam motor with regulated DC power supply makes it loading and threading.

Note : When loading and threading without cassette, claws are caught in four positions as following figure (in the order ①-②-③-④).
So release them with hands.

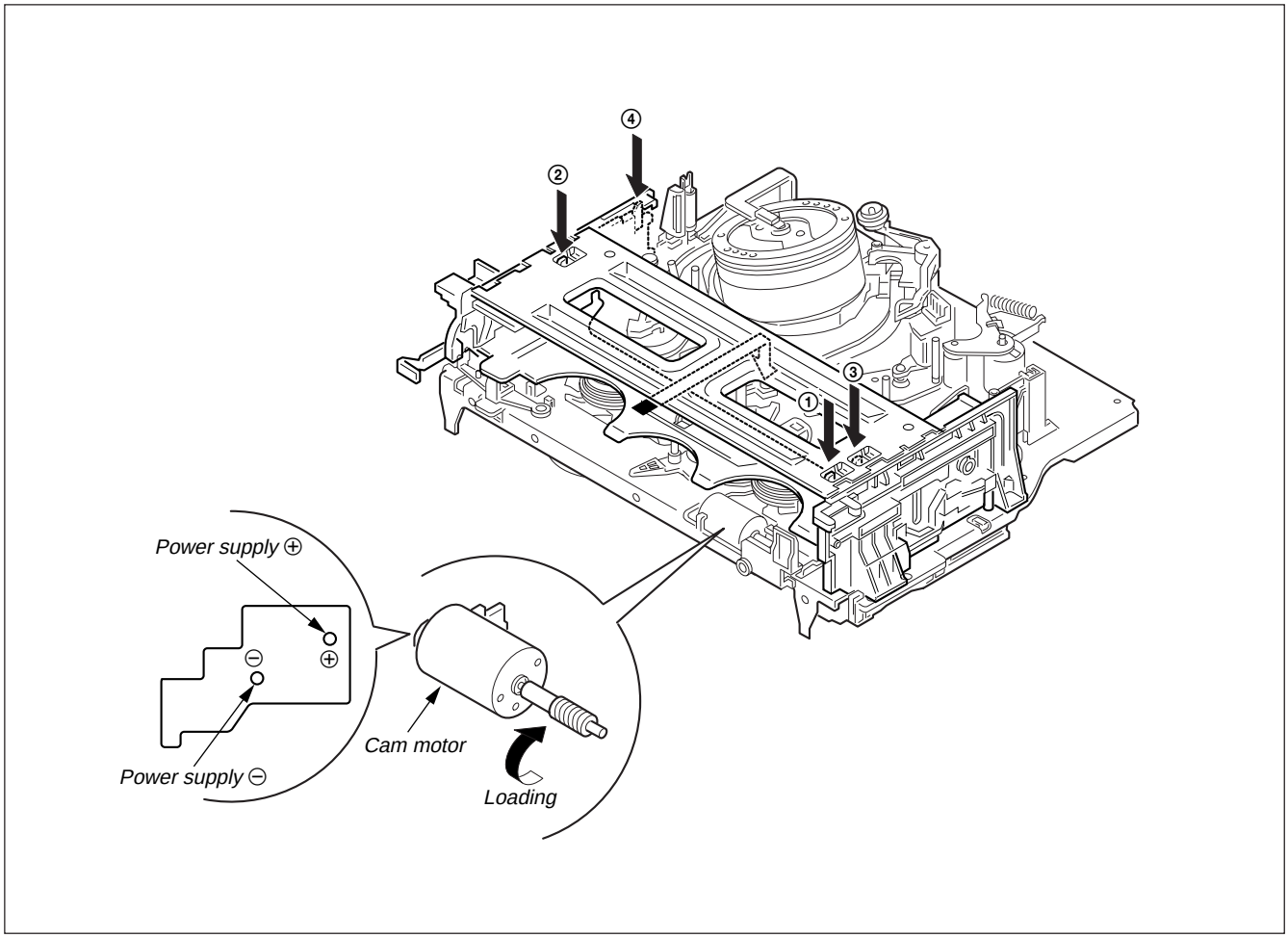


Fig. 1-1

1-2. UNLOADING AND UNTHREADING PROCEDURE WHEN THE POWER TURNS OFF

1-2-1. UNLOADING AND UNTHREADING PROCEDURE WITH HANDS

1) Turn cam motor in the arrow Ⓑdirection until unthreading is end.
2) Turn capstan motor in the arrow Ⓒdirection to take up tape in cassette.
3) Turn cam motor in the arrow Ⓑdirection until unloading is end.

1-2-2. UNLOADING AND UNTHREADING PROCEDURE WITH REGULATED DC POWER SUPPLY

1) Apply approx. +5V (300mA) to contrary polarities of cam motor.
2) Unthreading operation begins, tape guides return to their initial positions (Unthreading operation is end but tape remains), then stop cam motor by turning power off.

Note : When unloading begins and cassette lid is closed, turn cam motor in the arrow Ⓐdirection to open tape guard.

3) Turn capstan motor in the arrow Ⓒdirection to take up tape in cassette.

Note : Take care that tape is not caught at pinch roller.

4) Check that tape is no loosened completely, and apply approx. +5V (300mA) to contrary polarities of cam motor with regulated DC power supply.

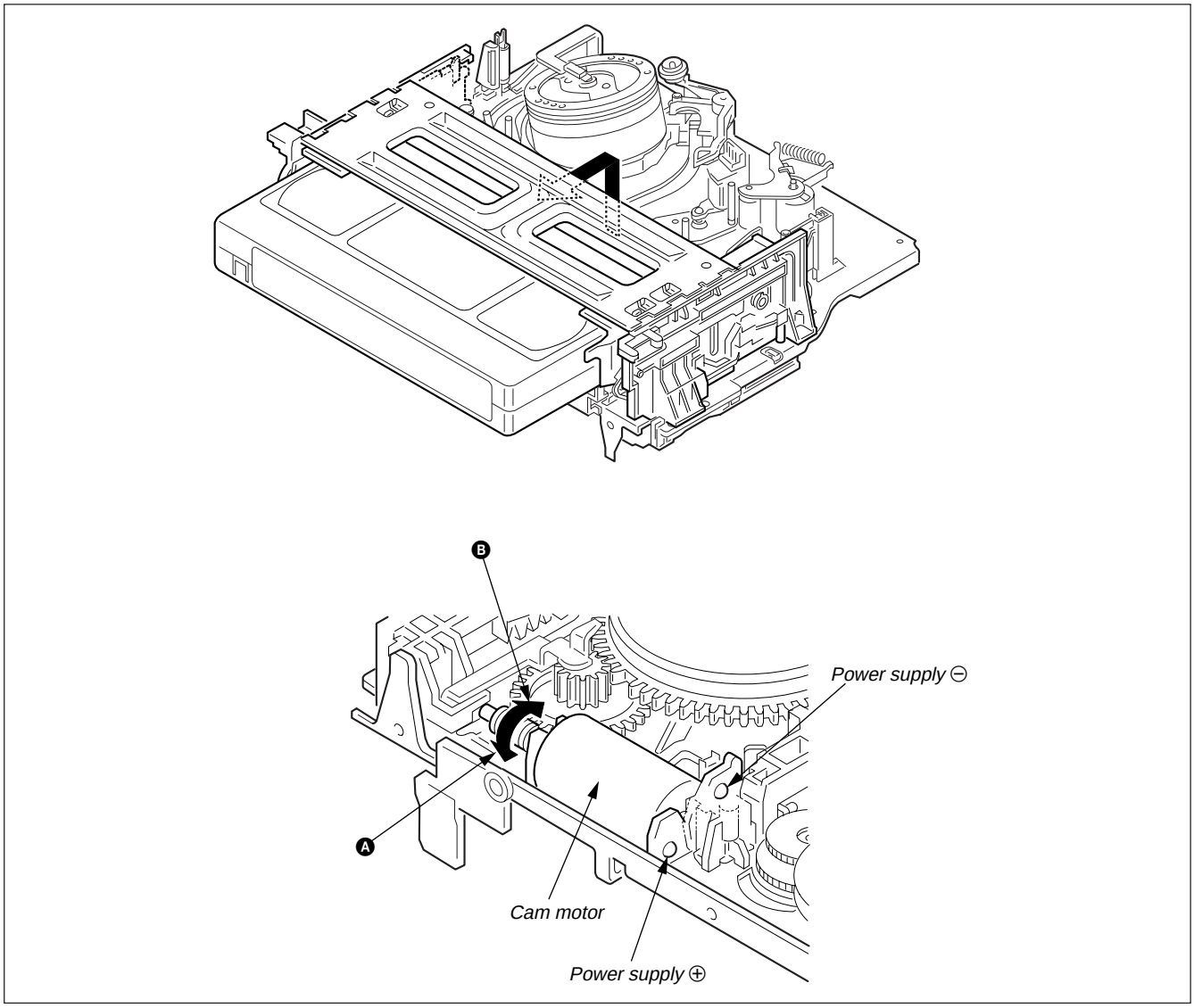


Fig. 1-2

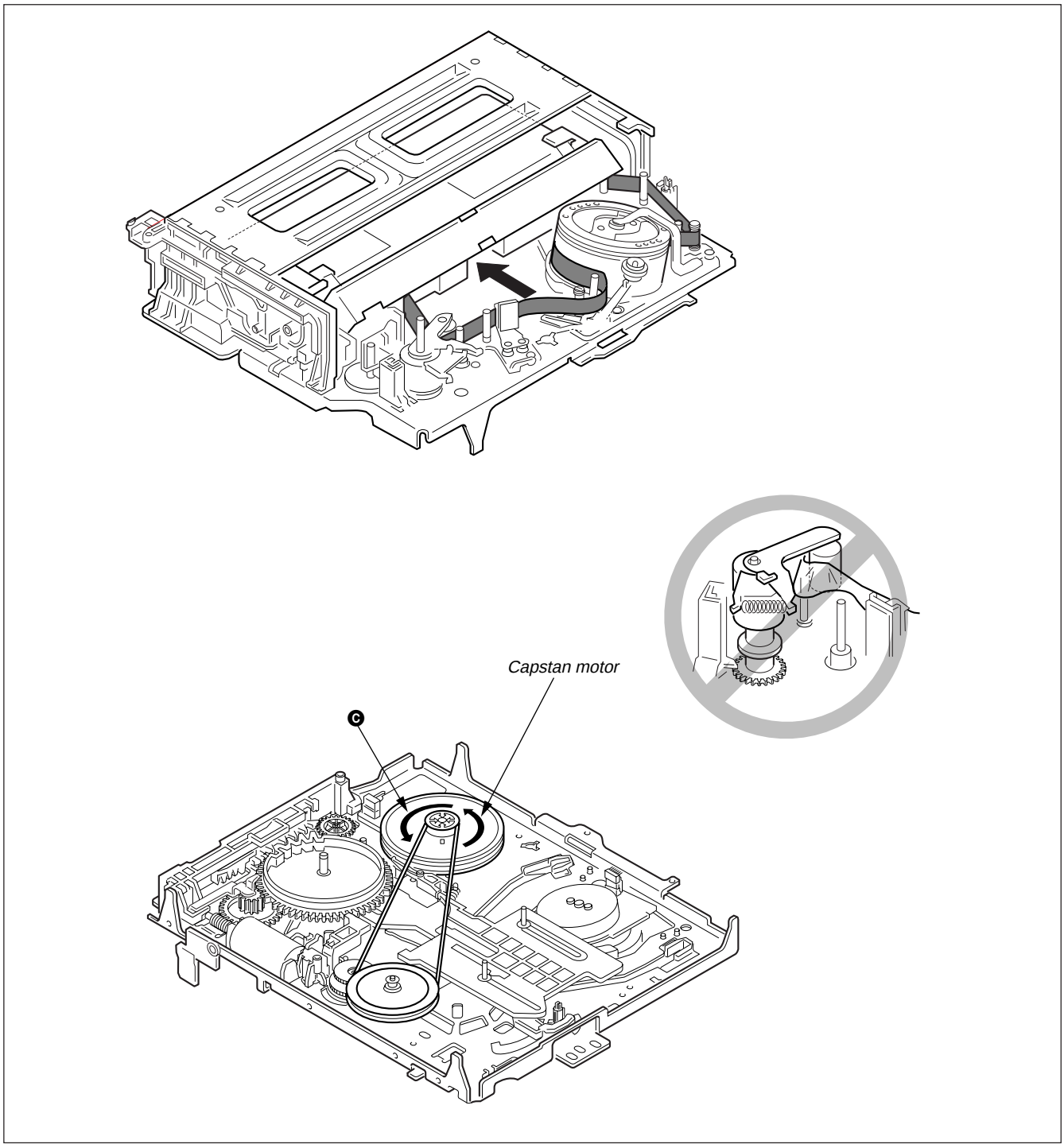


Fig. 1-3

1-3. HOW TO COMPLETE THREADING WITHOUT CASSETTE COMPARTMENT

Note 1 : Put the FL block assembly removed the FL top plate on the bottom not to put dust or grease the top sensor and the end sensor luminous plates or not to scratch them.

1) Pull out AC plug from wall outlet.
2) Shade near the end and top sensors with a black masking tape or the like.
3) Connect AC plug to wall outlet.

Note 2 : In this condition, some modes can not be set.
To make loading in this condition, set the video cassette tape without REC proof claw, pull the REC proof lever once and release it.
On loading without video cassette tape, it is necessary to deceive the microcomputer by turning the reel (T) table with hand.
Fast forward and rewind are not available.

Note 3 : After above mentioned operation, be sure to return the mode in the following order.

4) Pull out AC plug from wall outlet to reset the system control microcomputer.
5) Remove the tape near the end and top sensors.

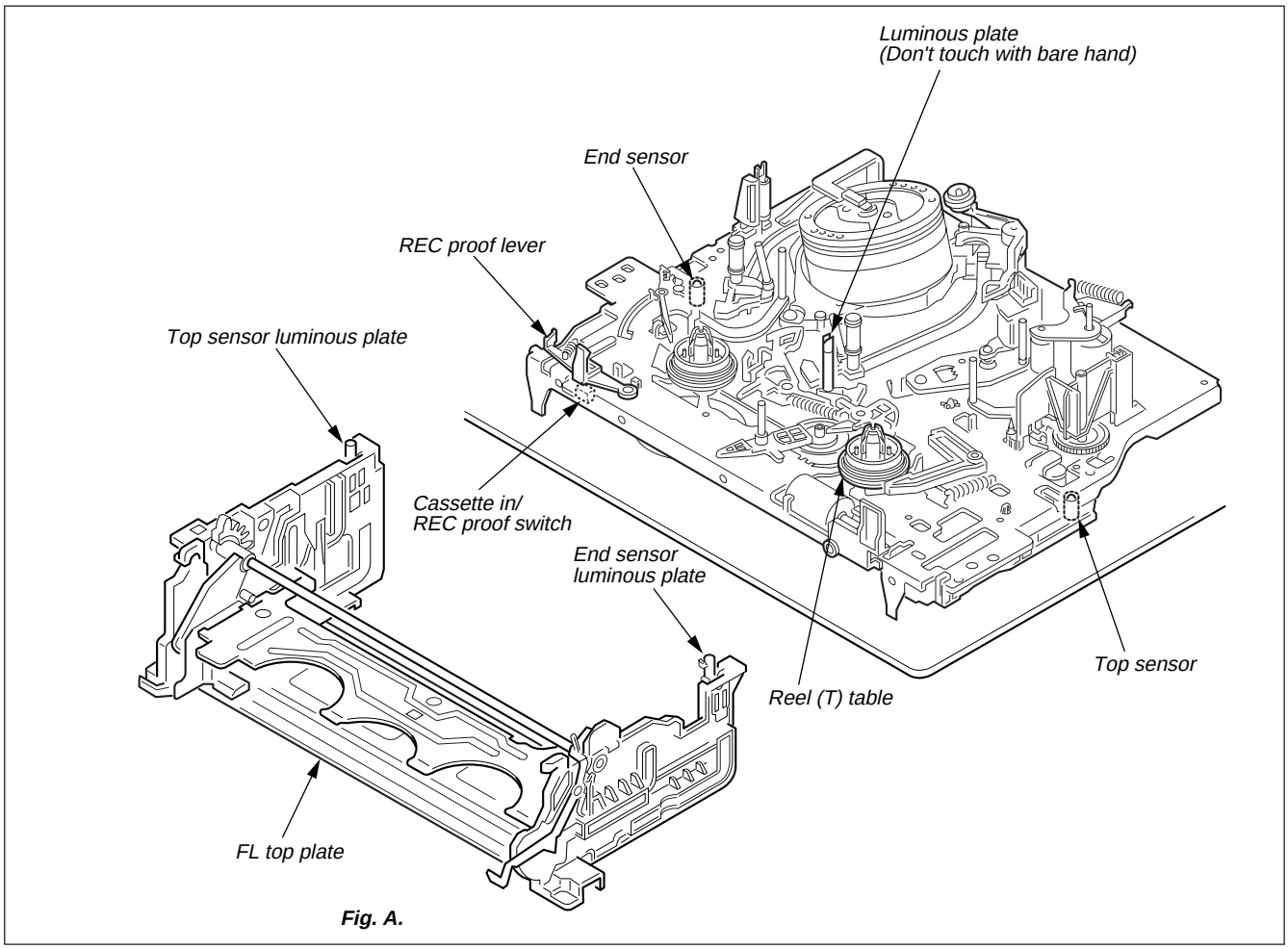


Fig. A.

Fig. 1-4

2. PERIODIC CHECK AND REPLACEMENT

In order to obtain the best performance from this unit and make full use of its capabilities, and to extend the life of the unit and tapes, it is recommended that the following periodic checks and maintenance be performed.

* The following must be done after every repair regardless of how many hours the user has operated the machine.

2-1. CLEANING OF ROTATING HEAD DISK ASSEMBLY

1) Press a chamois cloth (Jig Ref. No. J-4) which has been dipped in cleaning fluid (Jig Ref. No. J-3) lightly against the rotating drum assembly, then do the cleaning by slowly rotating the rotating head disk by the hand. (Never try to clean by using the motor to turn it.)
2) Never try to clean by moving the chamois cloth at a vertical angle to the head tip. There is a very great danger of damaging the head tip if this is done.

2-2. CLEANING OF THE TAPE MOVEMENT SYSTEM

1) Clean the surfaces which the tape contacts during its movement (tape guide, drum assembly surface, capstan, pinch roller, etc.) with a chamois cloth that has been dipped in cleaning fluid.

2-3. CLEANING THE DRIVE SYSTEM

1) Clean the driving parts with a cloth that has been dipped in cleaning fluid.

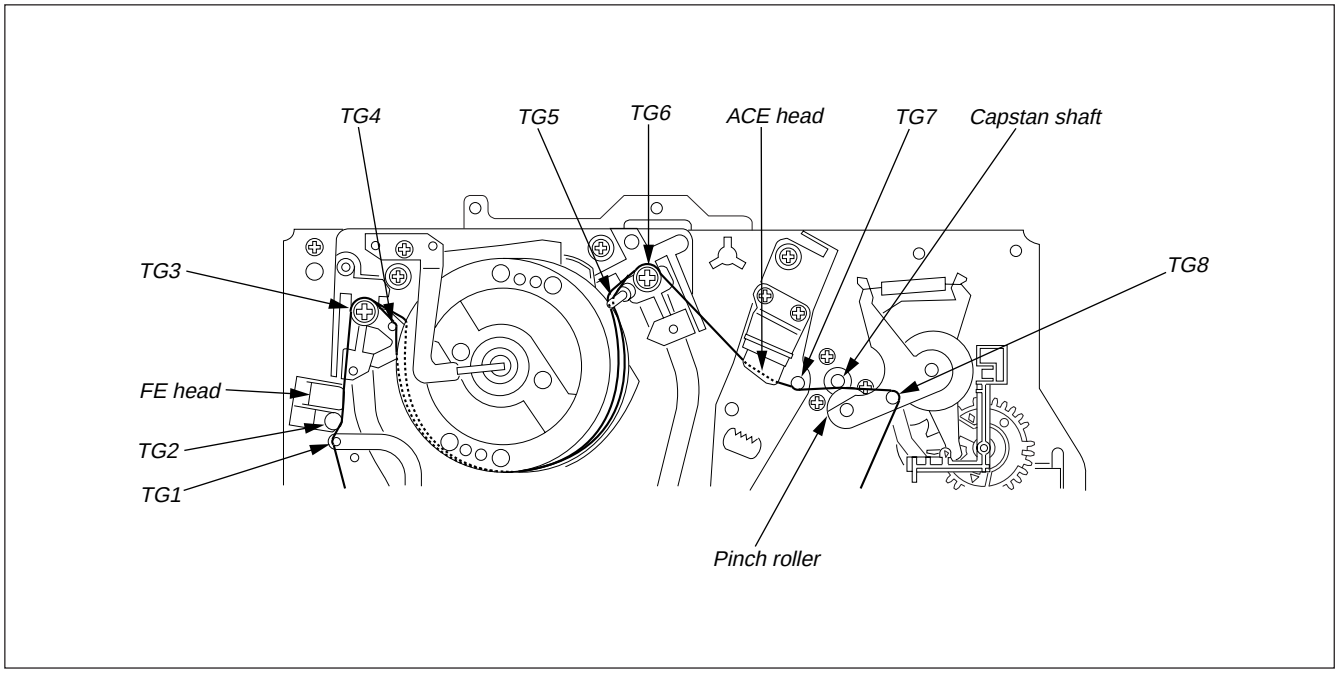


Fig. 2-1 Parts requiring cleaning

2-4. PERIODIC CHECK ITEMS

Perform the maintenance and check listed on the table below, according to users' operating hours.

Maintenance & Check \ Operating Hours (H)		500	1,000	1,500	2,000	2,500	3,000	3,500	4,000	4,500	5,000	Remarks
Tape Transportation System	Cleaning of tape transportation system	○	○	○	○	○	○	○	○	○	○	This cleaning must be done whenever a repair is made.
	Cleaning and degaussing of ACE assembly	○	○	○	○	○	○	○	○	○	○	
	Cleaning and degaussing of upper drum assembly	○	○	○	○	○	○	○	○	○	○	The life of the head varies, depending on operational conditions and method.
Performance Confirmation	Abnormal sound	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	Adjust or replace the section which causes abnormal sound.
	Measurement of FWD back tension	—	☆	—	☆	—	☆	—	☆	—	☆	Confirmation must be made according to 4-1-1. Specified value : Adjust to 5.0504 to 6.5214mN•m (51.5 to 66.5g•cm) (without TC assembly*) or 3.7755 to 5.0994mN•m (38.5 to 52.0g•cm)(with TC assembly*)
	Confirmation of brake system	—	☆	—	☆	—	☆	—	☆	—	☆	Confirmation must be made according to section.
	Confirmation of record and playback functions	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	Perform the confirmation whenever repair is made.
	Measurement of forward torque	☆	☆	☆	☆	☆	☆	☆	☆	☆	☆	Adjust to 4.9033 to 8.8259mN•m (50 to 90 g•cm)

○ : Cleaning ☆ : Confirmation

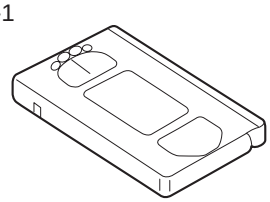
Note : On overhaul
When overhauling the unit, replace parts as indicated in the above table.

2-5. TOOLS AND FIXTURES REQUIRED FOR SERVICING

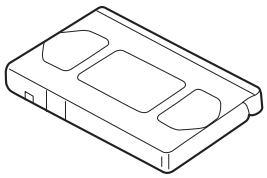
Ref. No.	Name		Part No.	Caved Jig No.	Remarks
J-1	Torque Measurement Cassette VHT-103S		J-6090-072-A		For FWD & back tension torque measurement.
	Torque Measurement Cassette VHT-404S		J-6082-012-A		For CUE and REVIEW torque measurement.
J-2	Alignment Tape	KRV-52NE* (NTSC)	8-192-605-41		Tape path, Audio azimuth, X-value adjustments
		KRV-51N2 (NTSC)	8-192-605-32		Electrical adjustments, Operation checks
		KRV-52PL (PAL)	8-192-605-46		Tape path, Audio azimuth, X-value adjustments
		KRV-51P (PAL)	8-192-605-36		Electrical adjustments, Operation checks
J-3	Cleaning fluid		Y-2031-001-0	—	
J-4	Chamois Leather		2-034-697-00	—	
J-5	Dental Mirror (With Handle) Dental Mirror (Mirror)		J-6080-029-A J-6080-030-1	SL-5052	Tape path and tape traveling adjustments or checks.
J-6	FLOIL SG-646		7-651-000-44		Net. 20g
J-7	Diamond Oil NT-68		7-661-018-18		
J-8	Screw Lock G (1401B)		7-432-114-11		
J-9	X-value adjusting driver		J-6090-073-A		X-value adjustment

* Be sure to use KRV-52NE having version number.

J-1

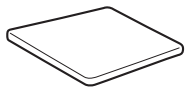


J-2

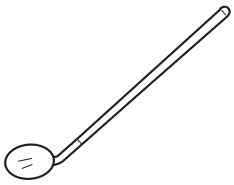


J-3

J-4



J-5

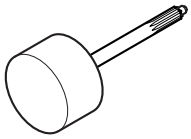


J-6

J-7

J-8

J-9



3. MAINLY MECHANICAL PARTS REPLACEMENT

Notes:
For the removal of cabinets, printed circuit boards or the like, please refer to the "DISASSEMBLY" section on the service manual of the respective models.
To assemble the mechanical parts which are disassembled in the following sections, perform the disassembly steps in reverse, unless otherwise specified.
When replacing greased parts, grease them in the same way.
Do not oil, grease or touch with bare hands the surfaces that contacts tape of guides and brake shoes.
Install gears to engage each other.
Basically, disassembling and assembling should be done in the unthreading-end condition.

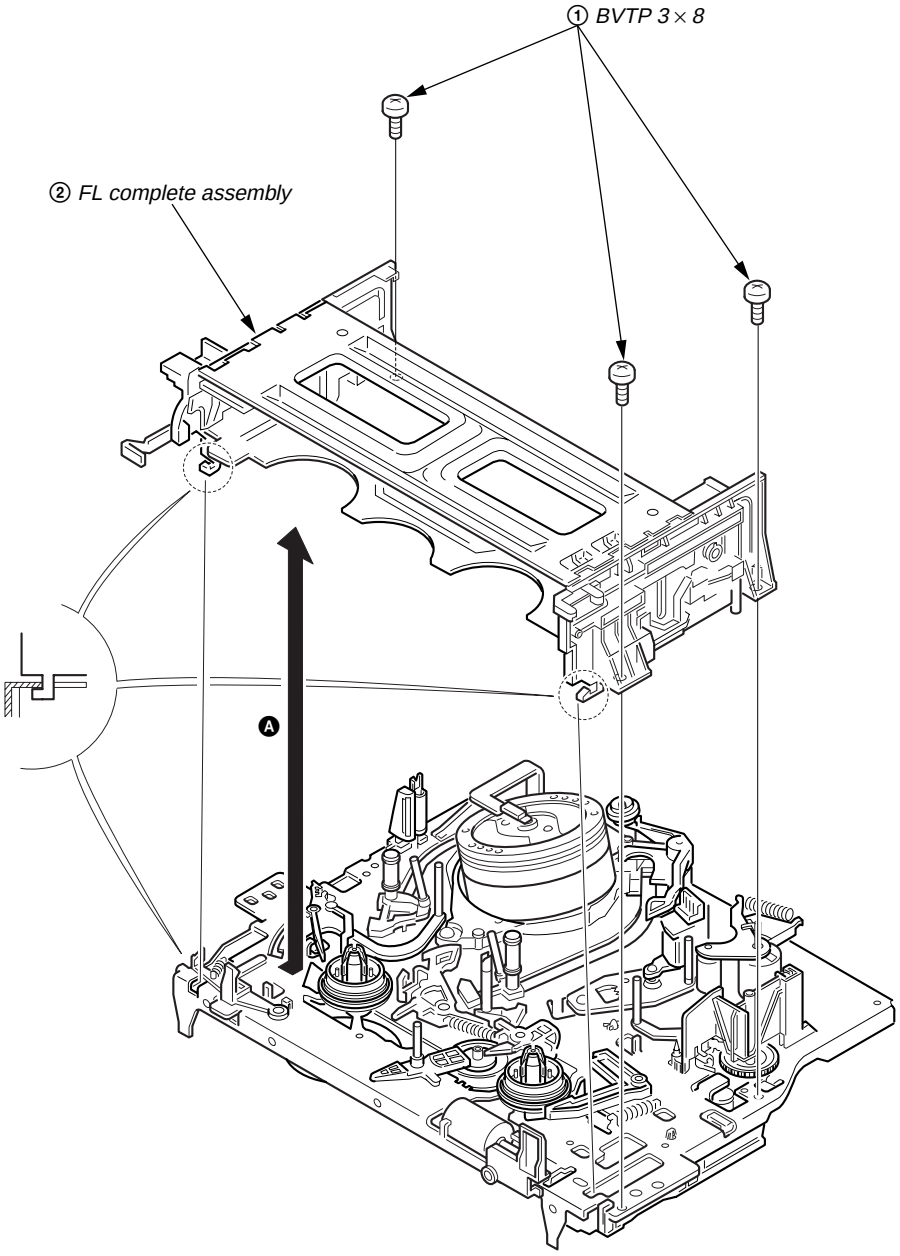
3-1. FL COMPLETE ASSEMBLY

1) Remove screws (BVTP3 × 8) ①.
2) Remove FL complete assembly ② in the arrow Ⓐdirection.

Note : Be careful not to damage claws on the bottom and front.

3) Remove torsion spring (deck open) ③.
4) Remove luminous plate (top sensor) ④ and luminous plate (end sensor) ⑤.

[Note on Mounting]
- When mounting FL complete assembly, first insert claws on the bottom and front not to damage.
- Keep clean top sensor and end sensor luminous plates.



Screw tightening torque
① : 0.7845 ± 0.0784N•m (8.0 ± 0.8kg•cm)

Fig. 3-1

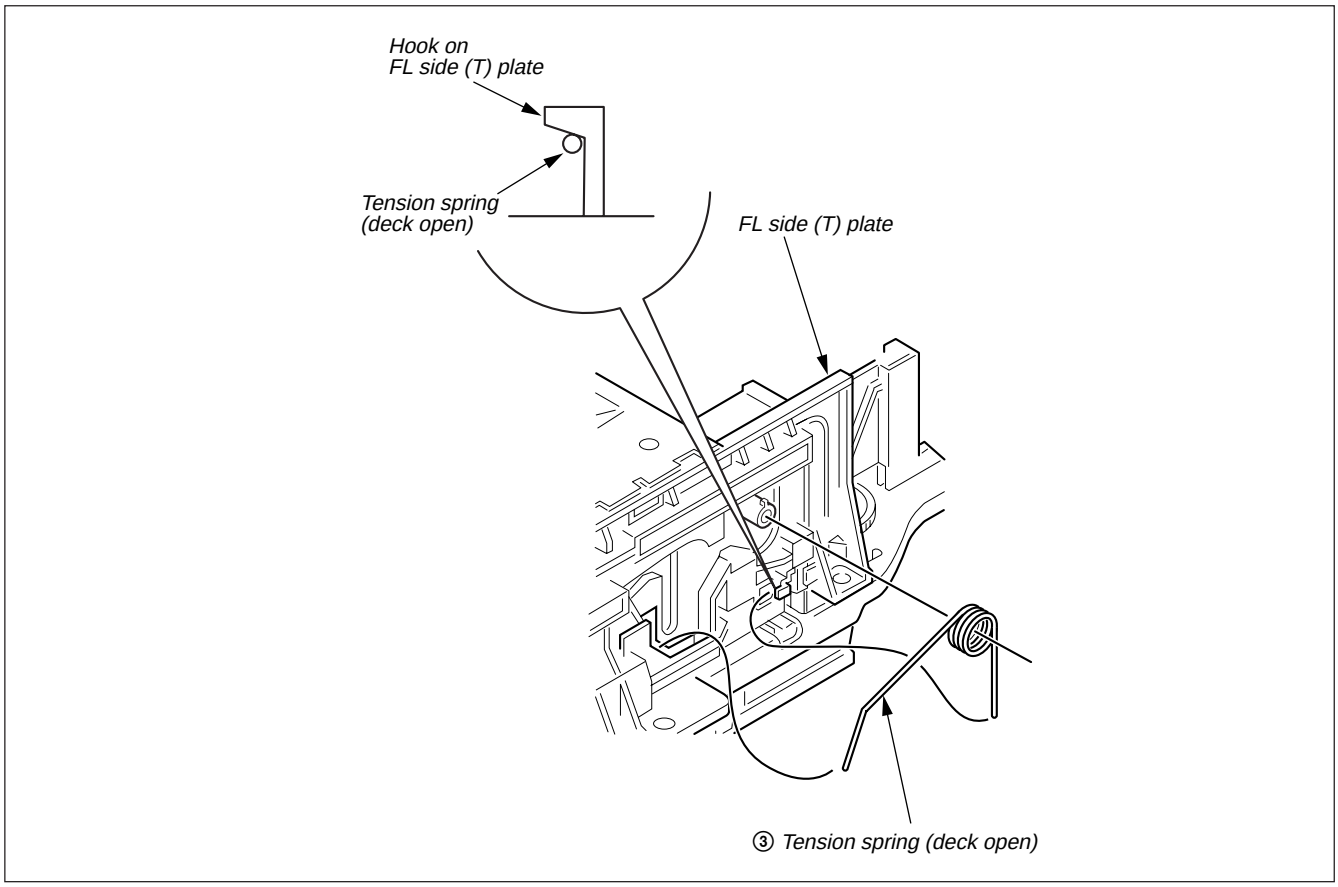

Hook on
FL side (T) plate
Tension spring
(deck open)
FL side (T) plate
③ Tension spring (deck open)

Fig. 3-2

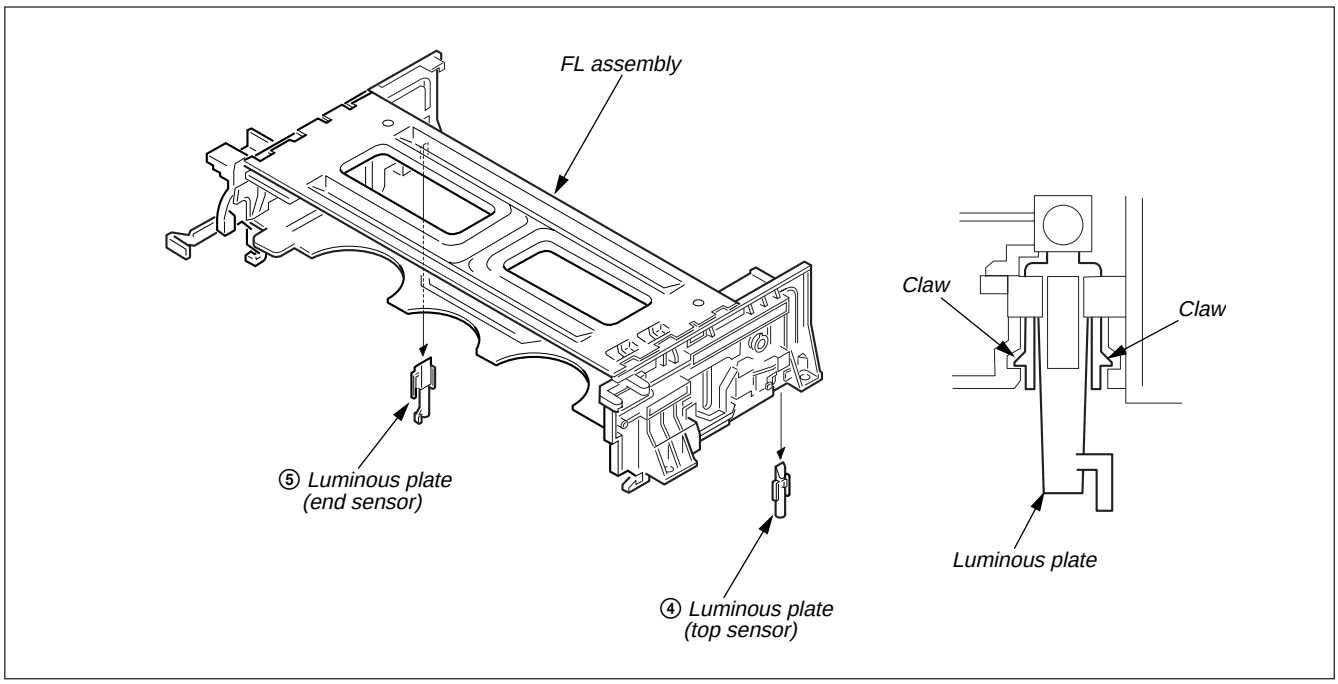

FL assembly
⑤ Luminous plate
(end sensor)
④ Luminous plate
(top sensor)
Claw
Claw
Luminous plate

Fig. 3-3

3-2. DRUM ASSEMBLY

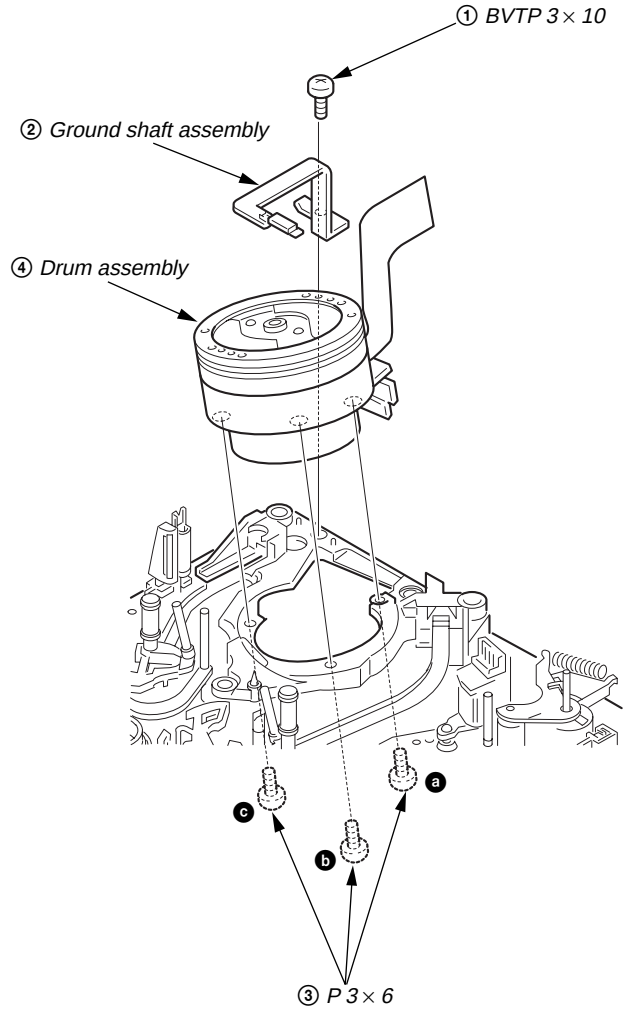
1) Remove screw (BVTP3 × 8) ①.
2) Remove ground shaft assembly ② not to touch its tip with bare hand.
3) Remove screws ③ to remove drum assembly ④.

[Notes on Mounting]

- Don't touch head chips and tip of ground shaft assembly with bare hand.
- Keep clean the surface that contacts tape of drum assembly.
- Tighten screw ③ in the order ⓐⓑⓒ

[Adjusting after Mounting]

- 4-1. Tape path adjustment



Screw tightening torque
①, ③ : 0.4413 ± 0.0490N•m (4.5 ± 0.5kg•cm)

Fig. 3-4

3-3. PINCH PRESS BLOCK ASSEMBLY, TG8 ASSEMBLY AND THEIR PERIPHERY

1) Remove pinch press block assembly ① while releasing its tip from the claw of lid opener ②.
2) Remove lid opener ② while releasing claw in the arrow Ⓐ direction from mechanical chassis.
3) Remove elevator gear ③.
4) Remove TG8 assembly ④, TG8 arm gear ⑤ and TG8 arm driving gear ⑥.
5) Then remove pinch pressing gear ⑦.

[Notes on Mounting]

- When attaching pinch pressing gear ⑦ and elevator gear ③, be sure to adjust their phases as shown in Fig. A.
- Apply grease to elevator gear ⑦ and pinch shaft as shown in Fig. B.
- Don't touch surface of pinch roller with bare hand.

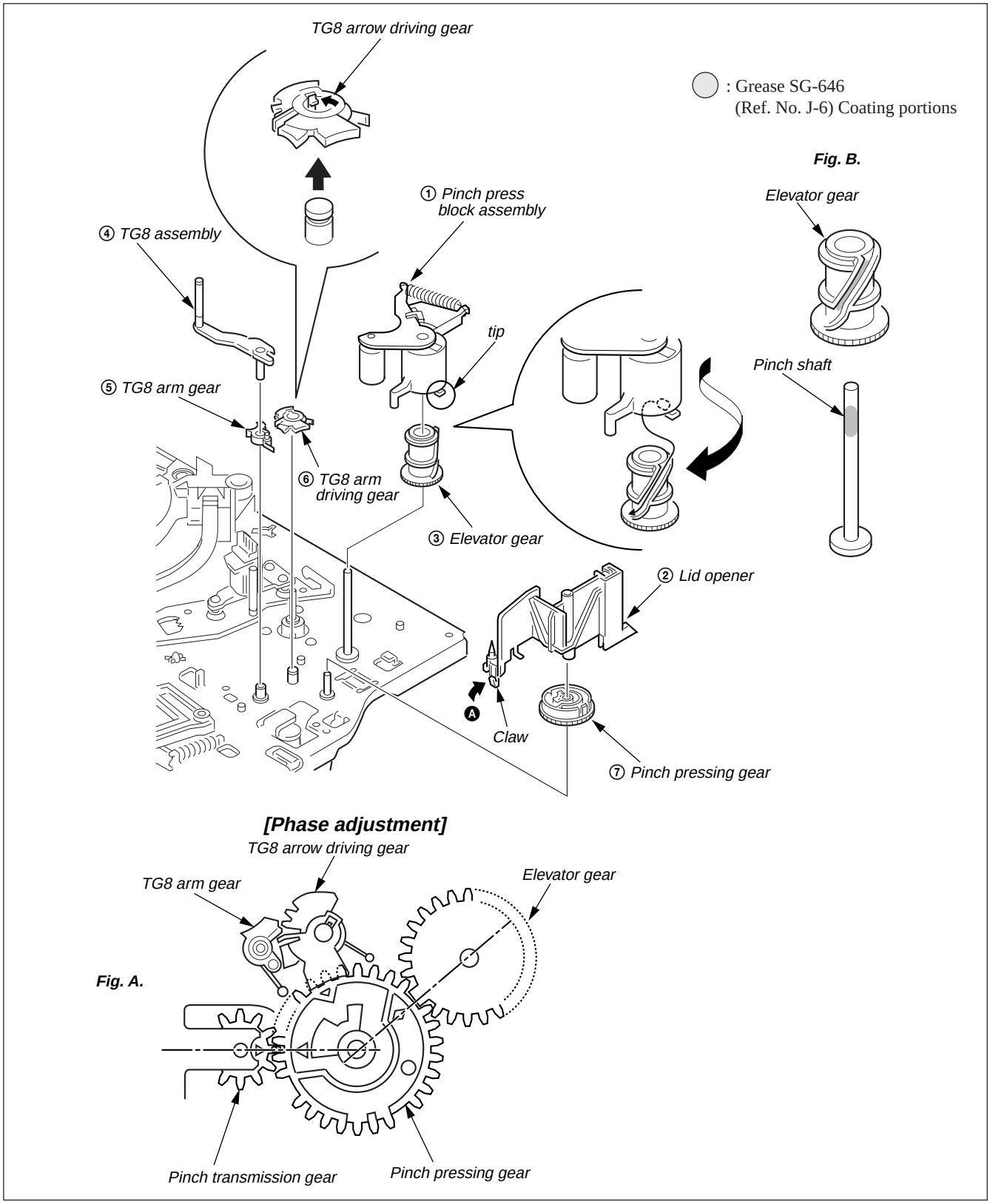


Fig. 3-5

3-4. RUBBER BELT, CAPSTAN MOTOR

1) Remove rubber belt ①.
2) Remove screws ② to pull out capstan motor ③.

[Notes on Mounting]
- Attach rubber belt not to twist it.
- Don't touch capstan motor with bare hand to keep clean capstan motor.
- Tighten screws ② in the order ⓐⓑⓒ

[Adjustment after Mounting]
- 4-1. Tape path adjustment.

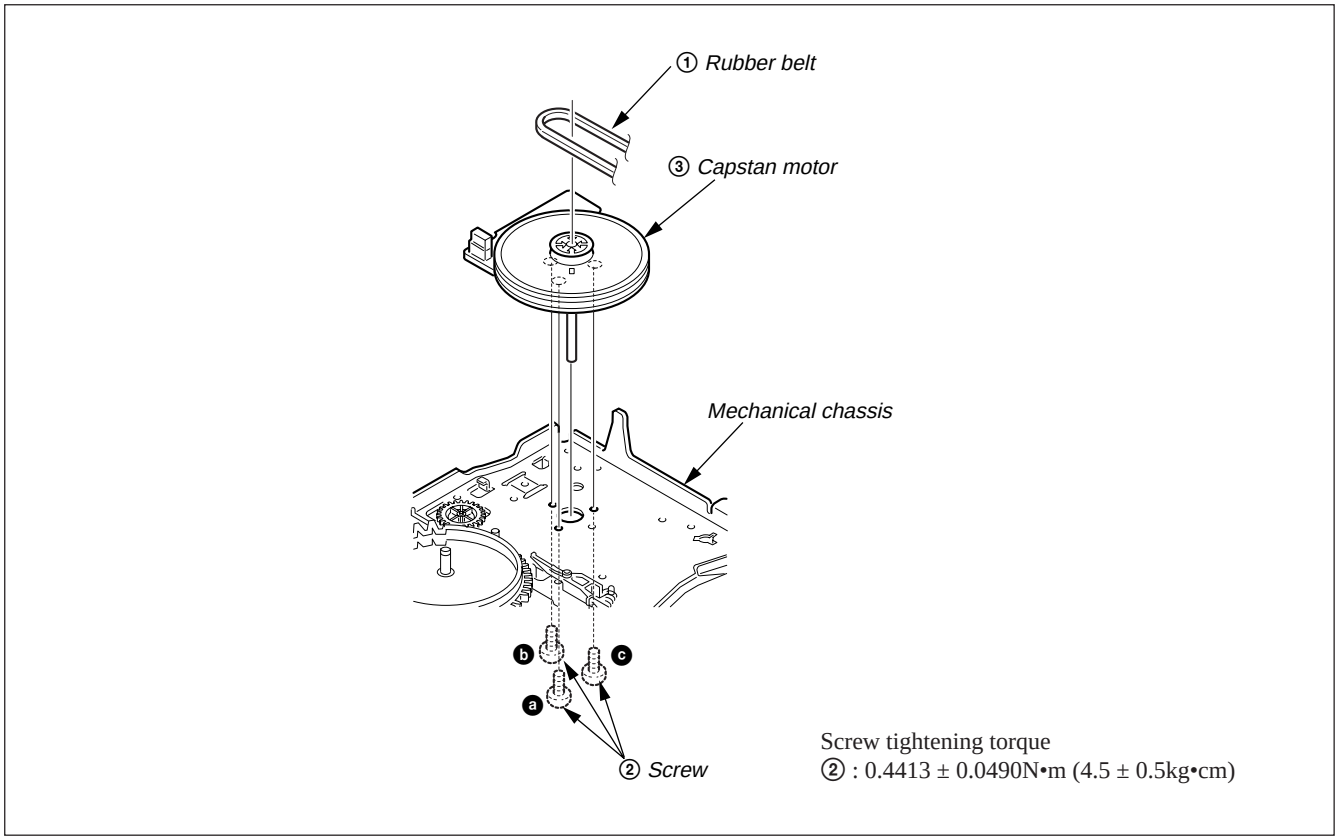


Fig. 3-6

3-5. ACE HEAD BLOCK ASSEMBLY

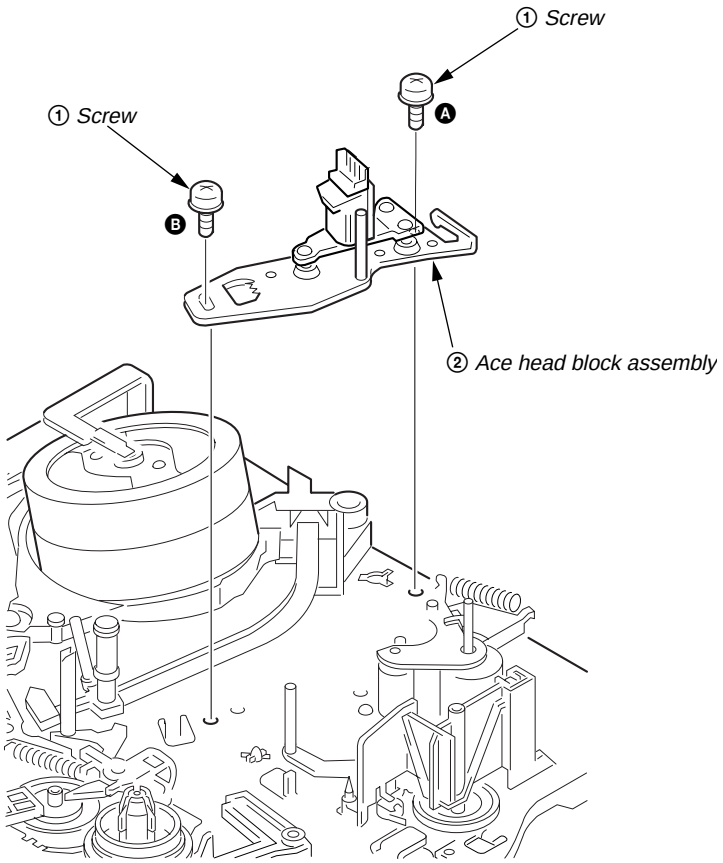
1) Remove screws ① to remove ACE head block assembly ②.

[Notes on Mounting]

- Don't touch capstan motor with bare hand to keep clean capstan motor.
- On tightening screws ①, first, tighten in the order Ⓐ Ⓑ next loosen Ⓑ180 degrees or more and perform adjustments. After adjustments tighten with torque screwdriver (torque; 0.29 ± 0.29 N•m (3.0 ± 0.3kg•cm)).

[Adjustment after Mounting]

- 4-1. Tape path adjustment.



Screw tightening torque
① : 0.7845 ± 0.0784N•m (8.0 ± 0.8kg•cm)

Fig. 3-7

3-6. FEH ASSEMBLY

1) While putting the boss out from mechanical chassis, turn FEH assembly ① in the arrow Ⓐ direction and pull out FEH assembly above.
2) Slide FE head ② out from FEH holder not to break claw (Recorder only).
3) Remove TG2 shaft ③ by pushing with a screwdriver covered with cloth or the like not to scratch the surface.

[Note on Mounting]
• Don't touch FE head and TG2 shaft with bare hand.

[Adjustment after Mounting]
• 4-1. Tape path adjustment.

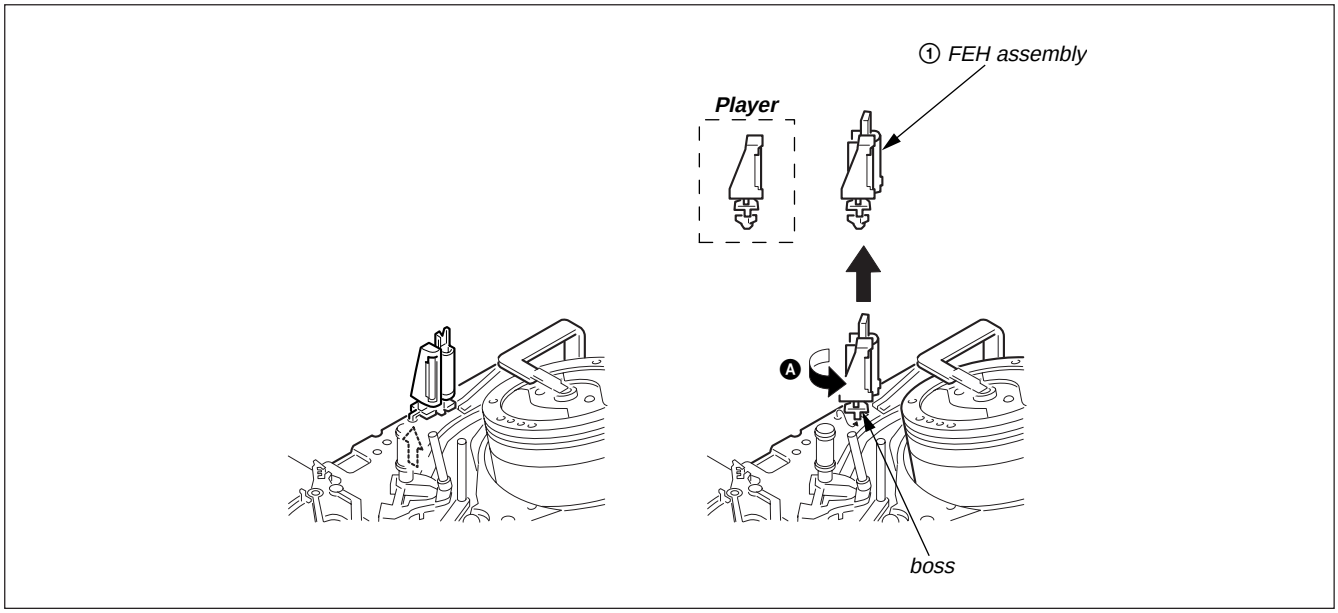


Fig. 3-8

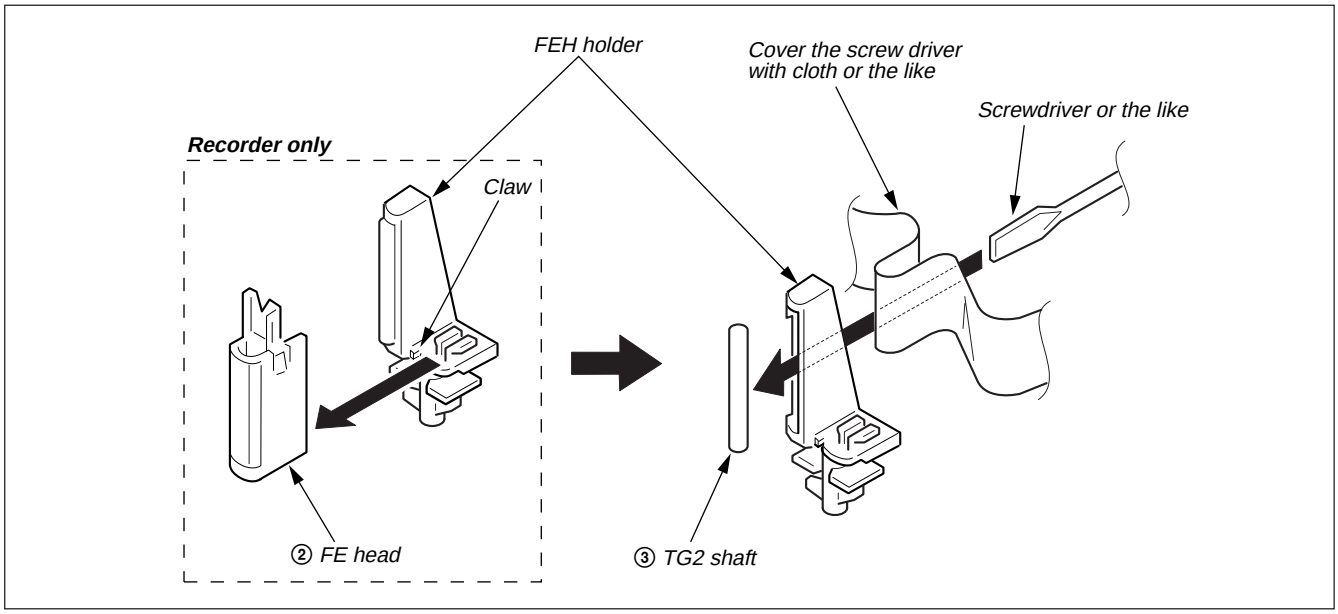


Fig. 3-9

3-7. REC PROOF LEVER

1) Remove FL complete assembly. (Refer to 3-1.)
2) Remove tension spring (REC proof) ①.
3) Remove REC proof lever ② in the arrow Ⓑ by pushing claw in the arrow Ⓐ direction.

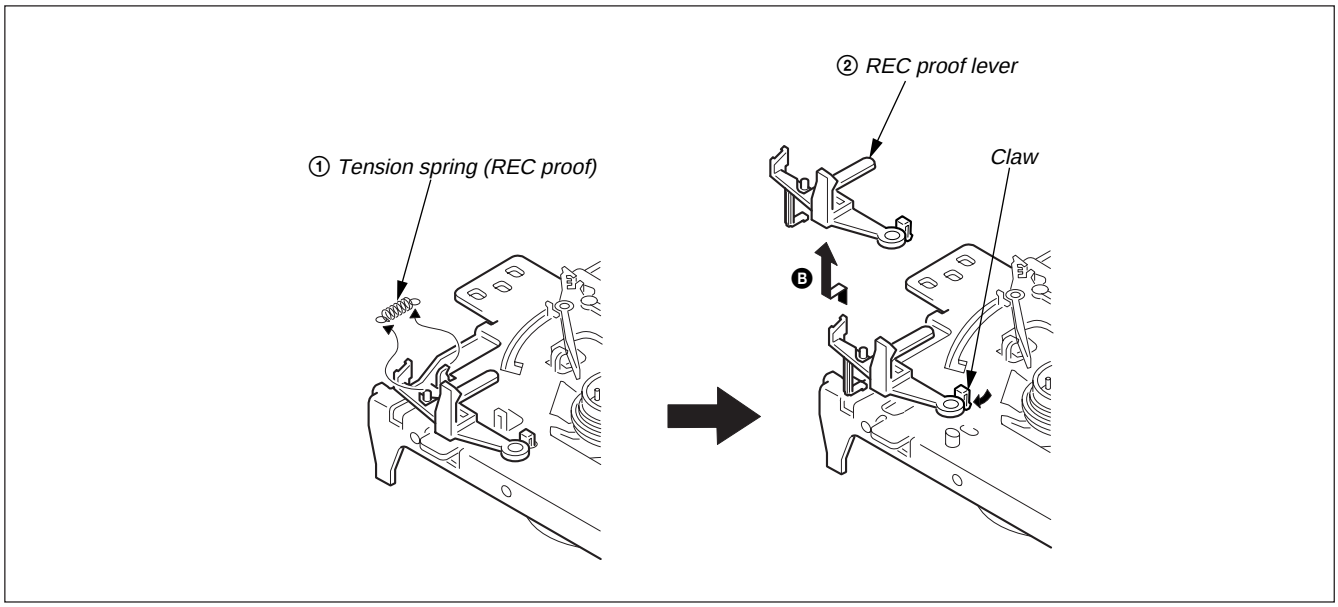


Fig. 3-10

3-8. RVS BRAKE ARM ASSEMBLY

1) Remove FL complete assembly. (Refer to 3-1.)
2) Remove extension spring (RVS brake) ①.
3) Turn RVS brake arm assembly ② in the arrow Ⓐ direction and remove it in the arrow Ⓑ

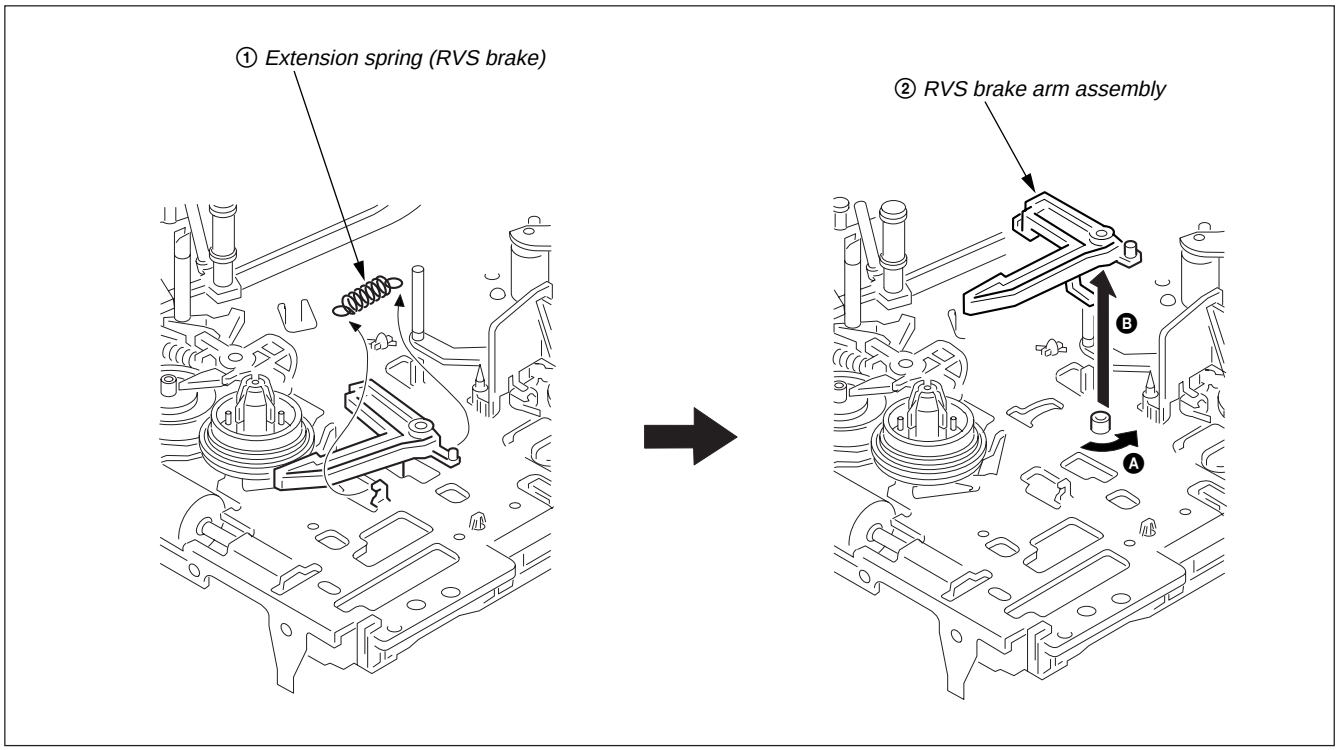


Fig. 3-11

3-9. MAIN (S) AND MAIN (T) BRAKE ASSEMBLIES

1) Remove FL complete assembly. (Refer to 3-1.)
2) Remove extension spring (main brake) ①.
3) Turn main (S) brake assembly ② in the arrow Ⓐdirection and remove it in the arrow Ⓑ
4) Turn main (T) brake assembly ③ in the arrow Ⓒdirection and remove it in the arrow Ⓓ

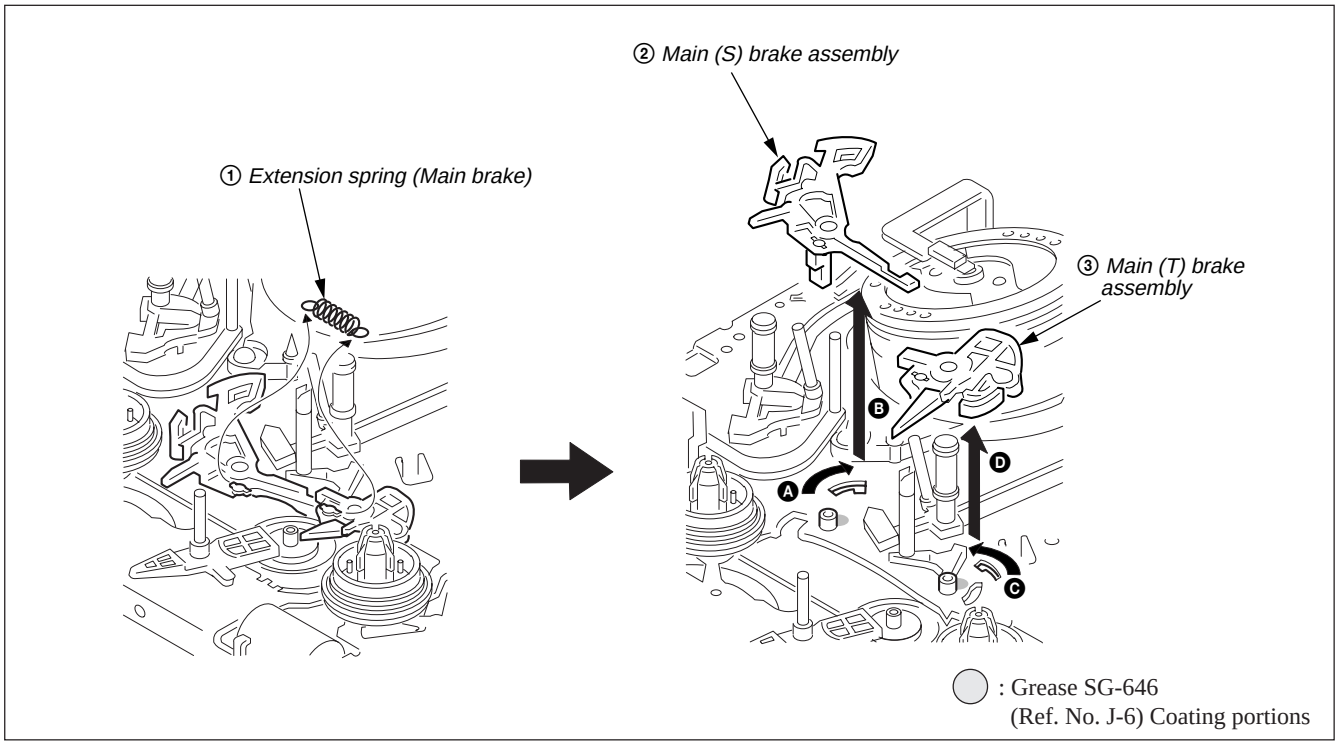


Fig. 3-12

3-10. REEL (T) TABLE (BLACK)

1) Remove FL complete assembly. (Refer to 3-1.)
2) Remove stopper washer ① to pull reel (T) table ② out.
3) Remove thrust washer ③.

[Note on Mounting]

• Before attaching, confirm the oil is applied at the top of reel (T) shaft.

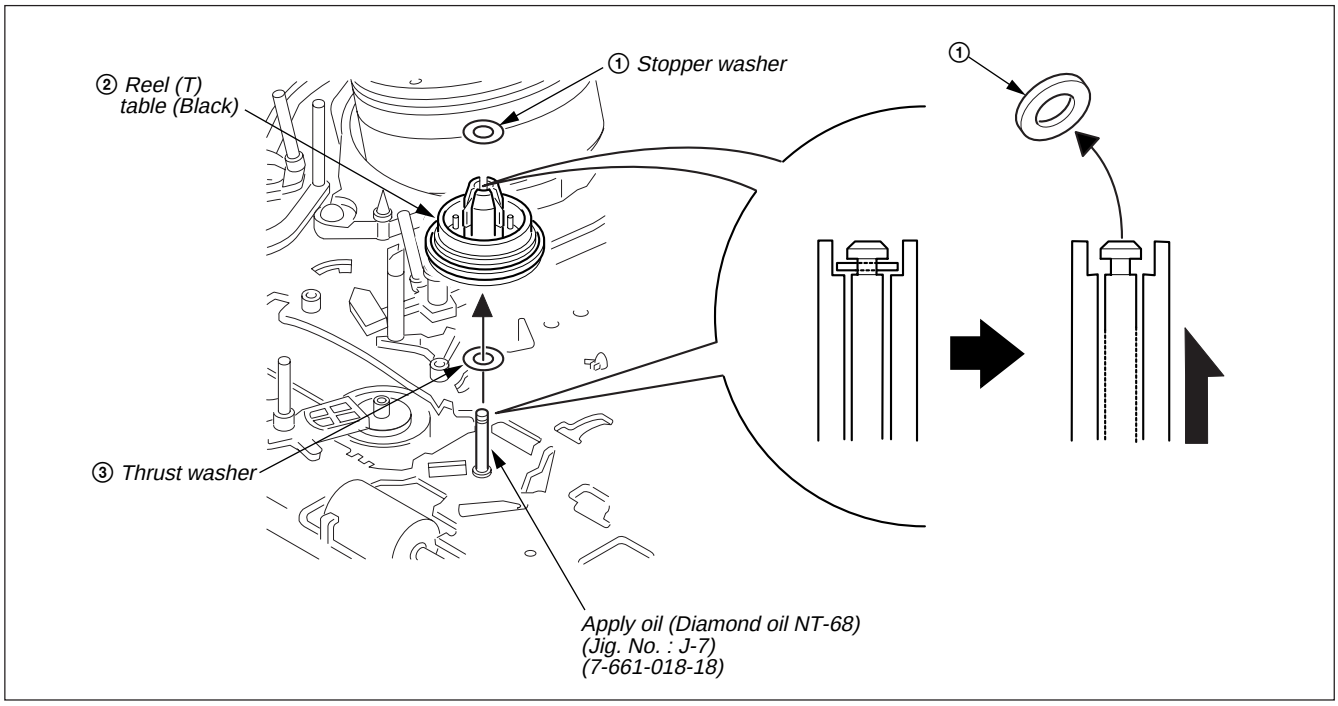


Fig. 3-13

3-11. PENDULUM ARM ASSEMBLY

1) Remove FL complete assembly. (Refer to 3-1.)
2) Remove main (S) and main (T) brake assemblies. (Refer to 3-10.)
3) While releasing claws from the pendulum arm shaft in the arrow A direction, pull out pendulum arm assembly ①.

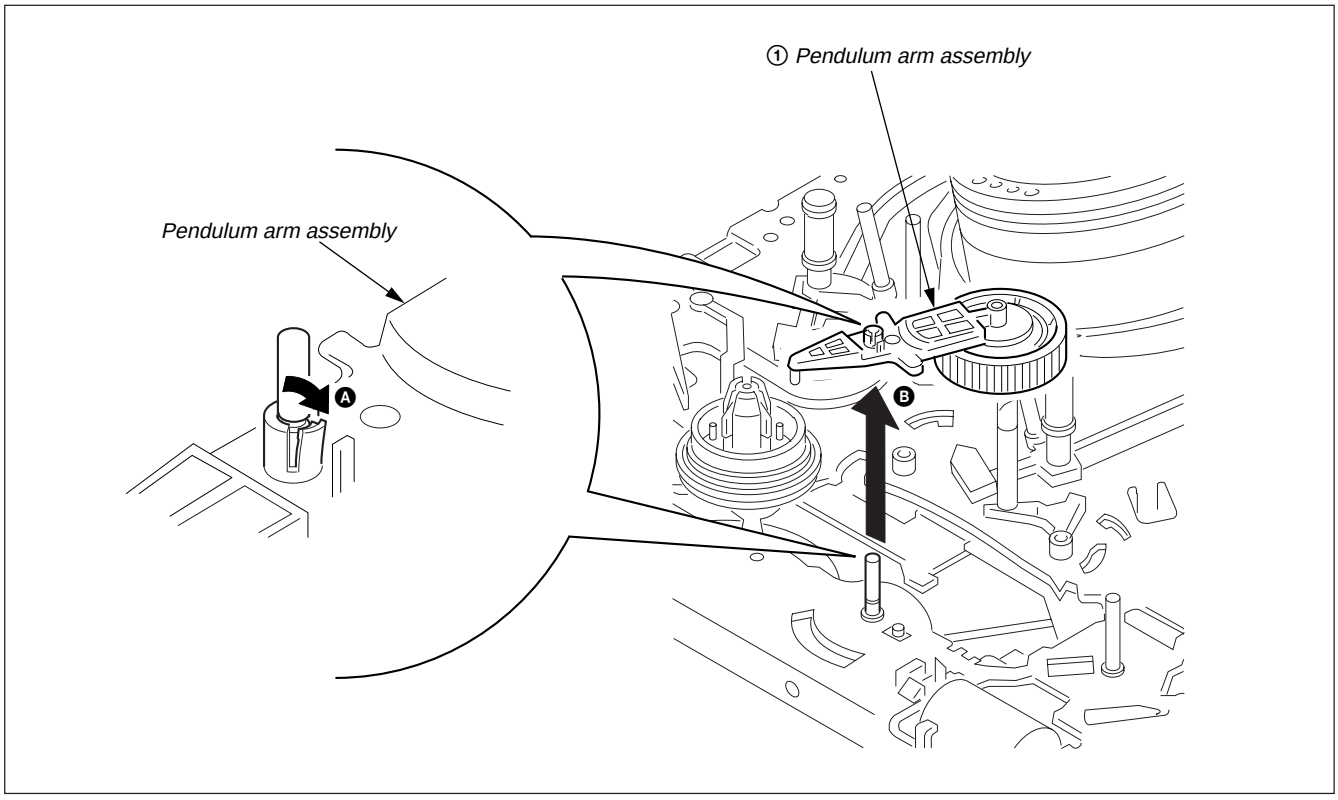


Fig. 3-14

3-12. FL SLIDER BLOCK ASSEMBLY

1) Remove FL complete assembly. (Refer to 3-1.)
2) Set the mechanism deck upside down.
3) Remove a screw (BVTP 3 × 8) ① and then retainer plate ② is getting out of place.
4) Slide FL slider block assembly ③ off in the arrow Ⓐ direction and raise it up.

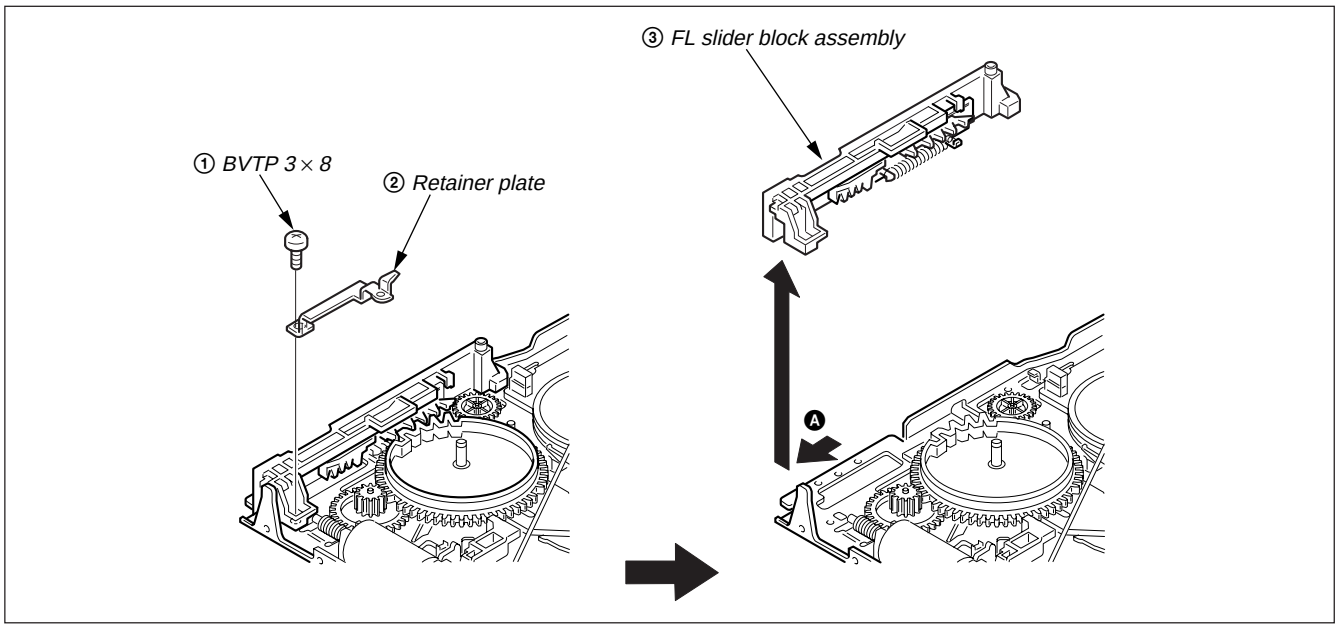


Fig. 3-15

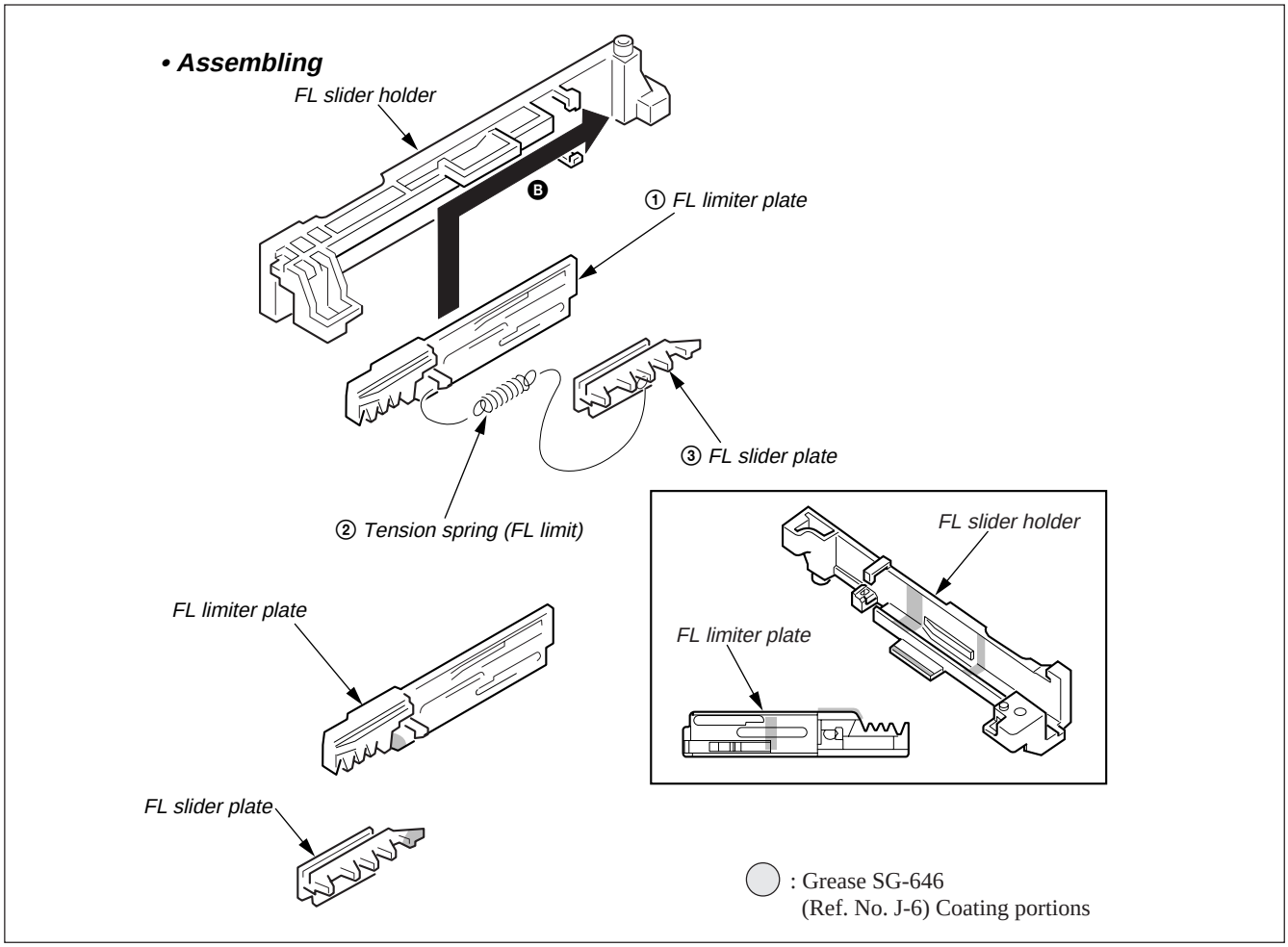


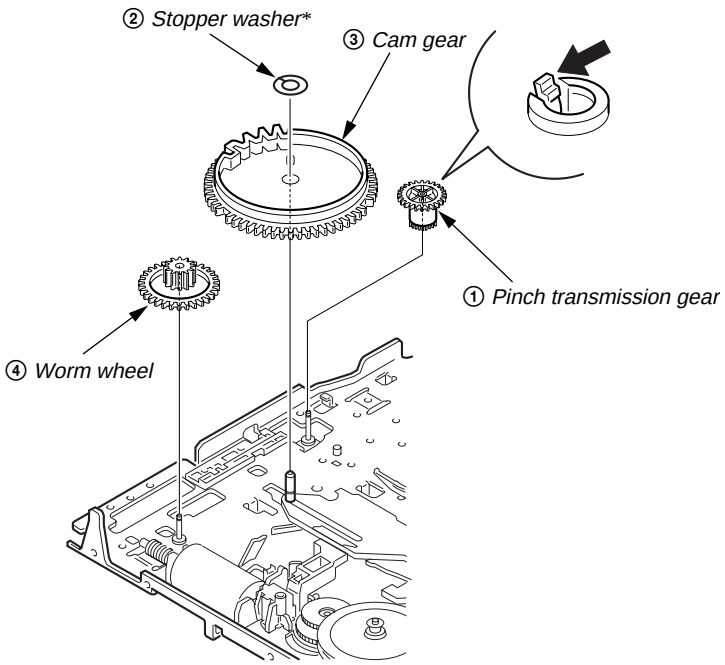
Fig. 3-16

3-13. PINCH TRANSMISSION GEAR, CAM GEAR, WORM WHEEL

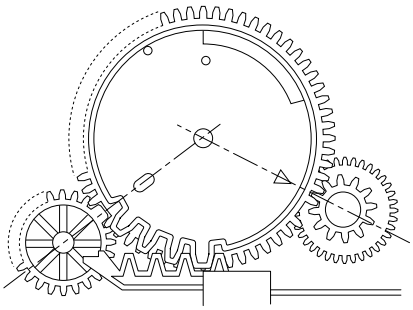
1) Remove FL complete assembly. (Refer to 3-1.)
2) Remove FL slider block assembly. (Refer to 3-13.)
3) Remove pinch transmission gear ① by putting off its claw from shaft.
4) Remove stopper washer ②* to pull out cam gear ③.
5) Remove worm wheel ③ by putting off its claw from shaft.

[Note on Mounting]

- Before attaching cam gear ③, confirm that the specified locations are coated with grease SG-646 (Ref. No. J-6).
- Adjust the phase of gears each other.

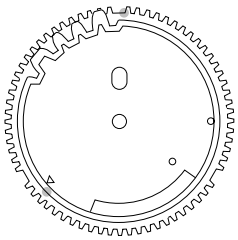


• Phase adjustment

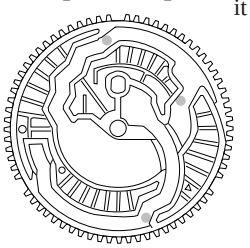


: Grease SG-646 (Ref. No. J-6) Coating portions

[Top]



[Bottom]



* Once remove stopper washer ②, don't use it again. Replace it with new one.

Fig. 3-17

3-14. CAPSTAN BRAKE ASSEMBLY, CAPSTAN BRAKE SHAFT

1) Remove rubber belt. (Refer to 3-5.)
2) Remove cap brake spring ①.
3) Remove capstan brake assembly ② by putting off claw of capstan brake shaft ③.
4) Set the mechanical chassis bottom side down.
5) While pushing the boss of capstan brake shaft ③, turn it clockwise to remove it.

[Note on Mounting]

• Don't touch shoe of capstan brake assembly with bare hand.

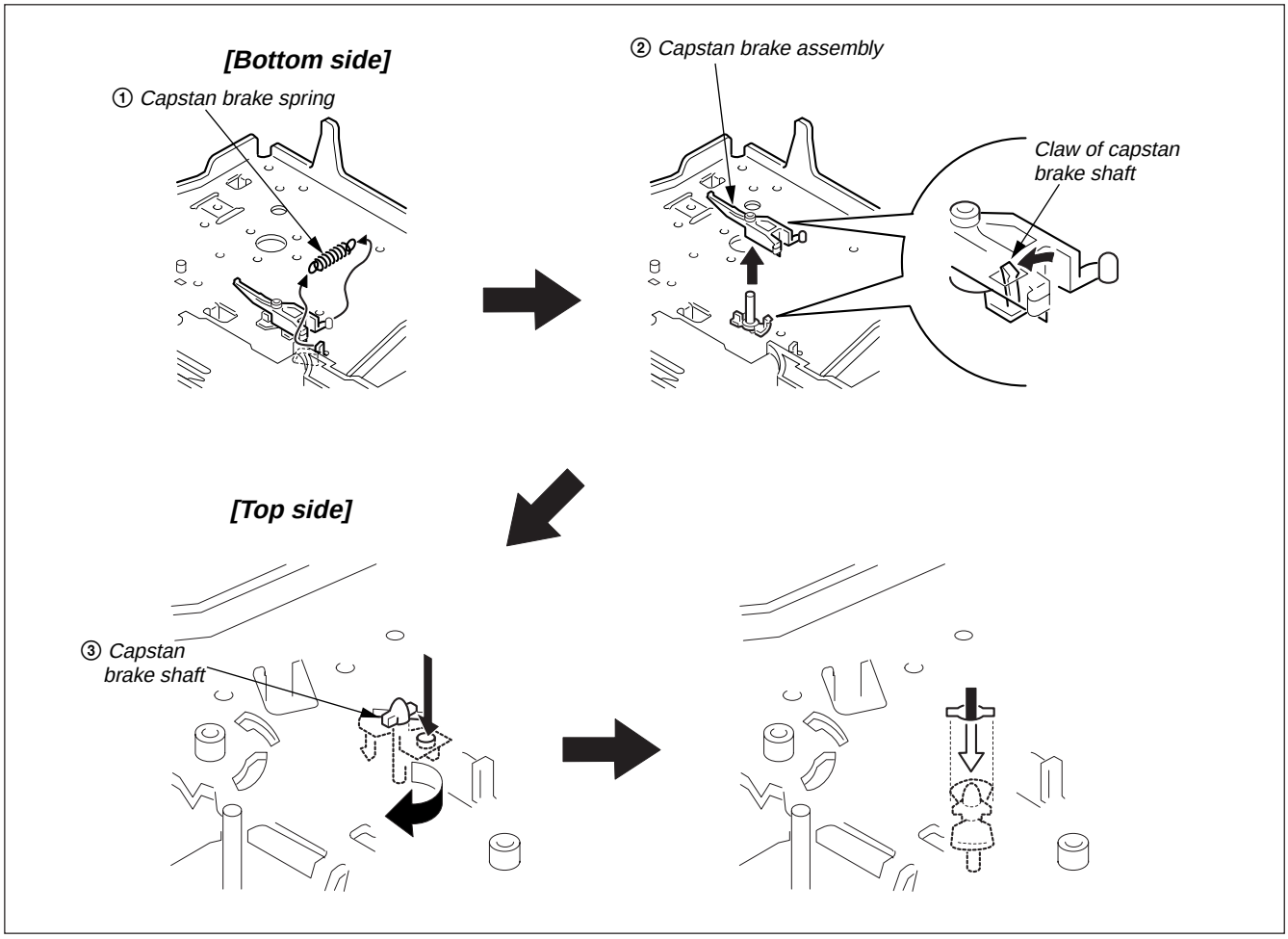


Fig. 3-18

3-15. FL SLIDER GUIDE

1) Remove FL complete assembly. (Refer to 3-1.)
2) Remove FL slider block assembly. (Refer to 3-13.)
3) Remove FL slider guide ① while pushing claws in the arrow Ⓐ direction.

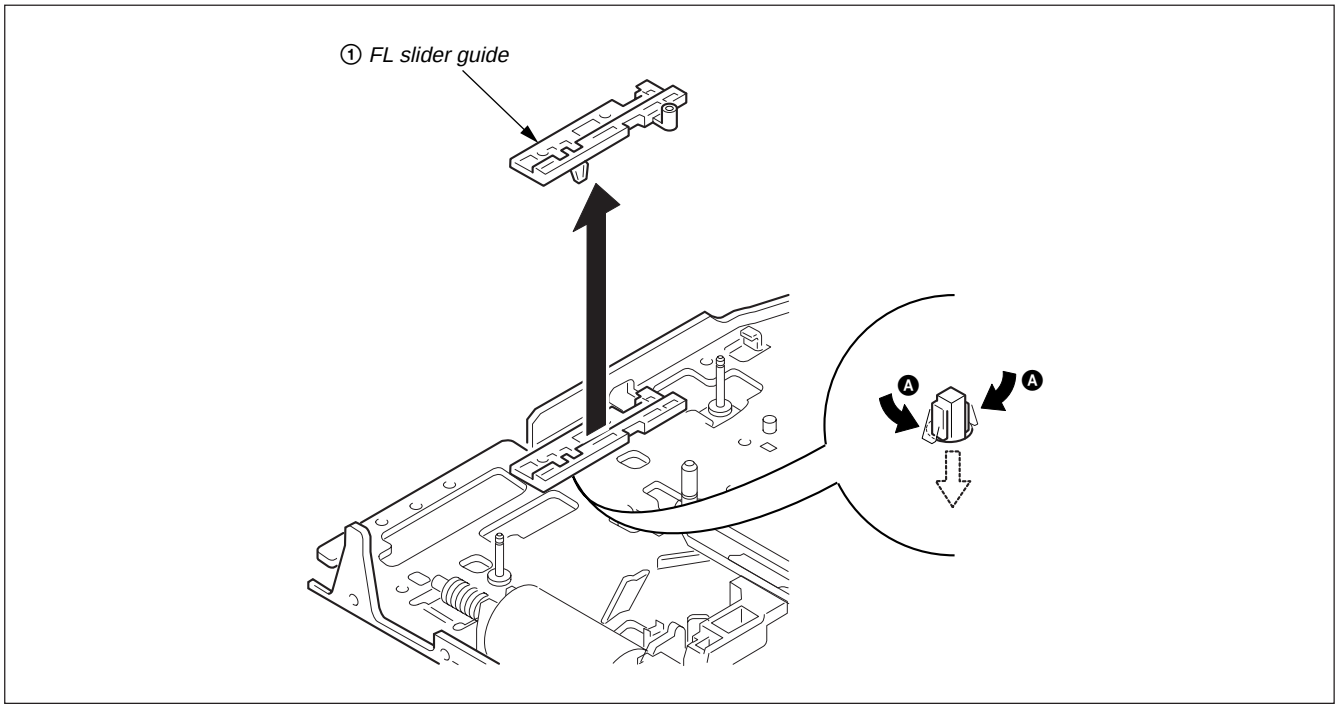


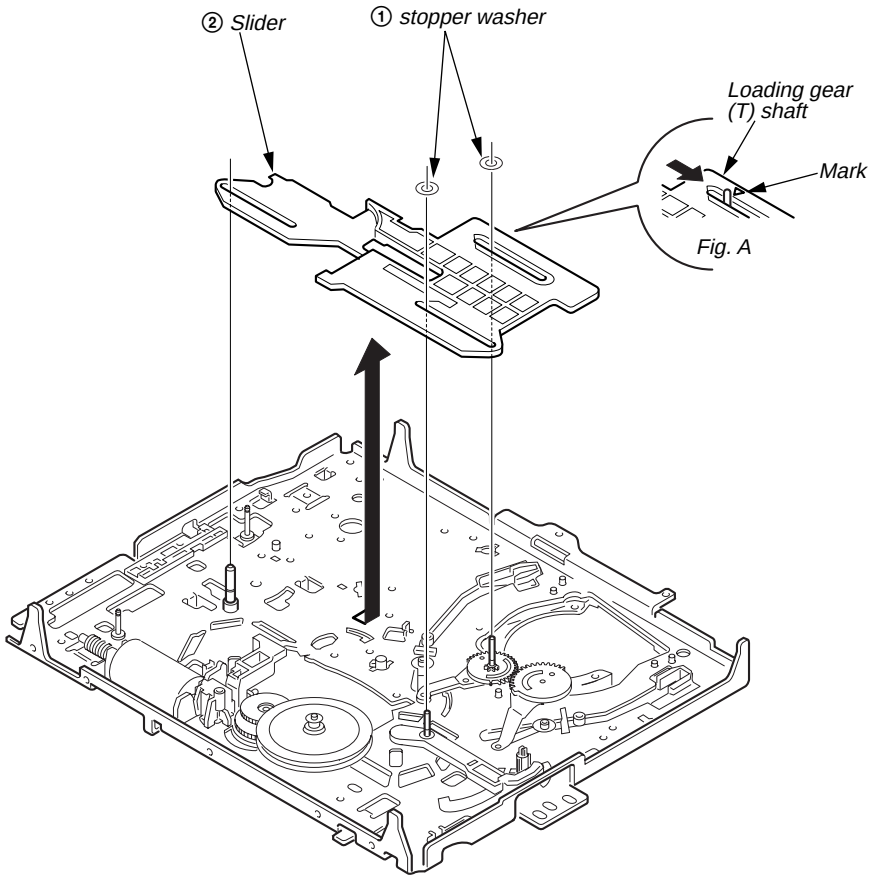
Fig. 3-19

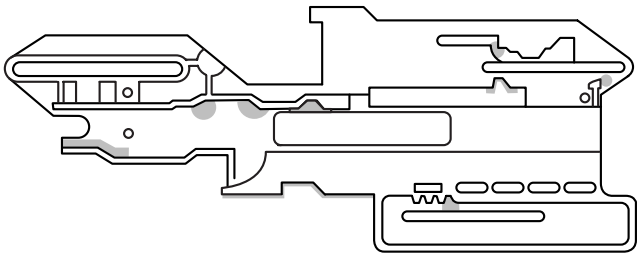
3-16. SLIDER

1) Remove FL complete assembly. (Refer to 3-1.)
2) Remove rubber belt. (Refer to 3-5.)
3) Remove FL slider block assembly. (Refer to 3-13.)
4) Remove cam gear. (Refer to 3-14.)
5) Remove stopper washers ① and remove slider ② in the arrow direction.

[Note on Mounting]

- Before attaching slider ②, confirm the specified locations are coated with grease SG-646 (Ref. No. J-6).
- When attaching slider ②, adjust "△" mark on slider to loading gear (T) shaft as shown in Fig. A.





: Grease SG-646
(Ref. No. J-6) Coating portions

Fig. 3-20

3-17. TG1 DRIVING ARM

1) Remove FL complete assembly. (Refer to 3-1.)
2) Remove rubber belt. (Refer to 3-5.)
3) Remove FL slider block assembly. (Refer to 3-13.)
4) Remove cam gear. (Refer to 3-14.)
5) Remove slider. (Refer to 3-17.)
6) Remove spring (power tension) ① from TG1 driving arm ②.
7) Remove TG1 driving arm ② by turning it in the arrow Ⓐto Ⓑdirection.

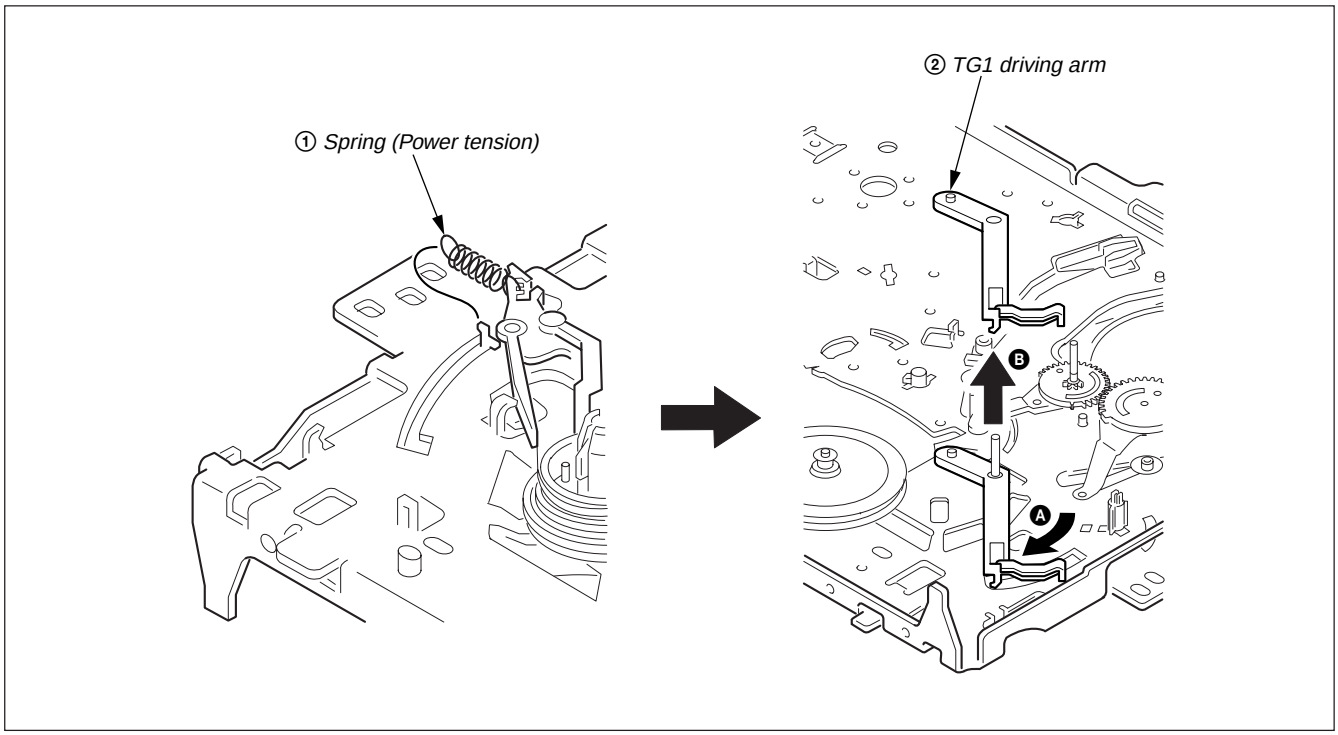


Fig. 3-21

3-18. LOADING (T) AND LOADING (S) GEAR ASSEMBLIES

1) Remove FL complete assembly. (Refer to 3-1.)
2) Remove rubber belt. (Refer to 3-5.)
3) Remove FL slider block assembly. (Refer to 3-13.)
4) Remove cam gear. (Refer to 3-14.)
5) Remove slider. (Refer to 3-17.)
6) Remove loading (T) gear assembly ① and loading (S) gear assembly ② in the arrow direction.

[Note on Mounting]

• When attaching them, be sure to adjust the phase each other.

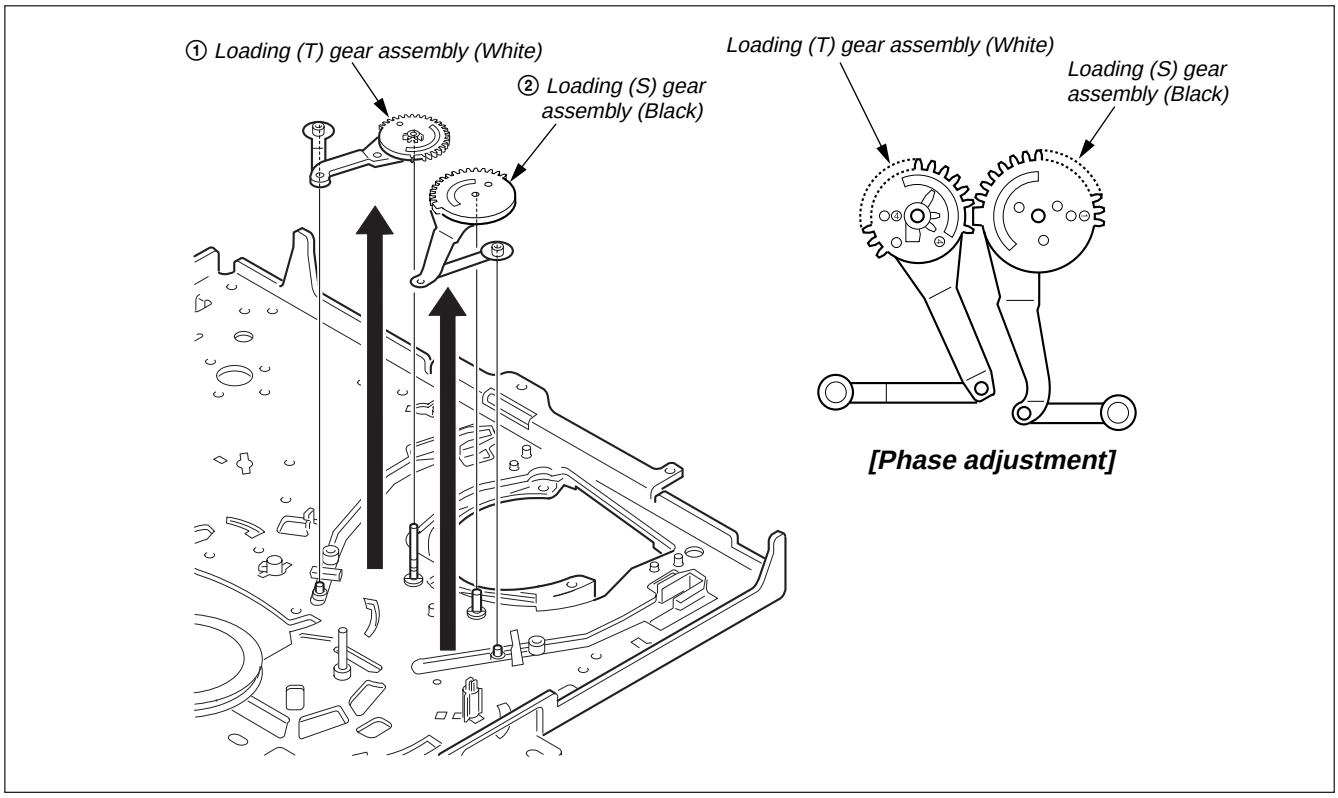


Fig. 3-22

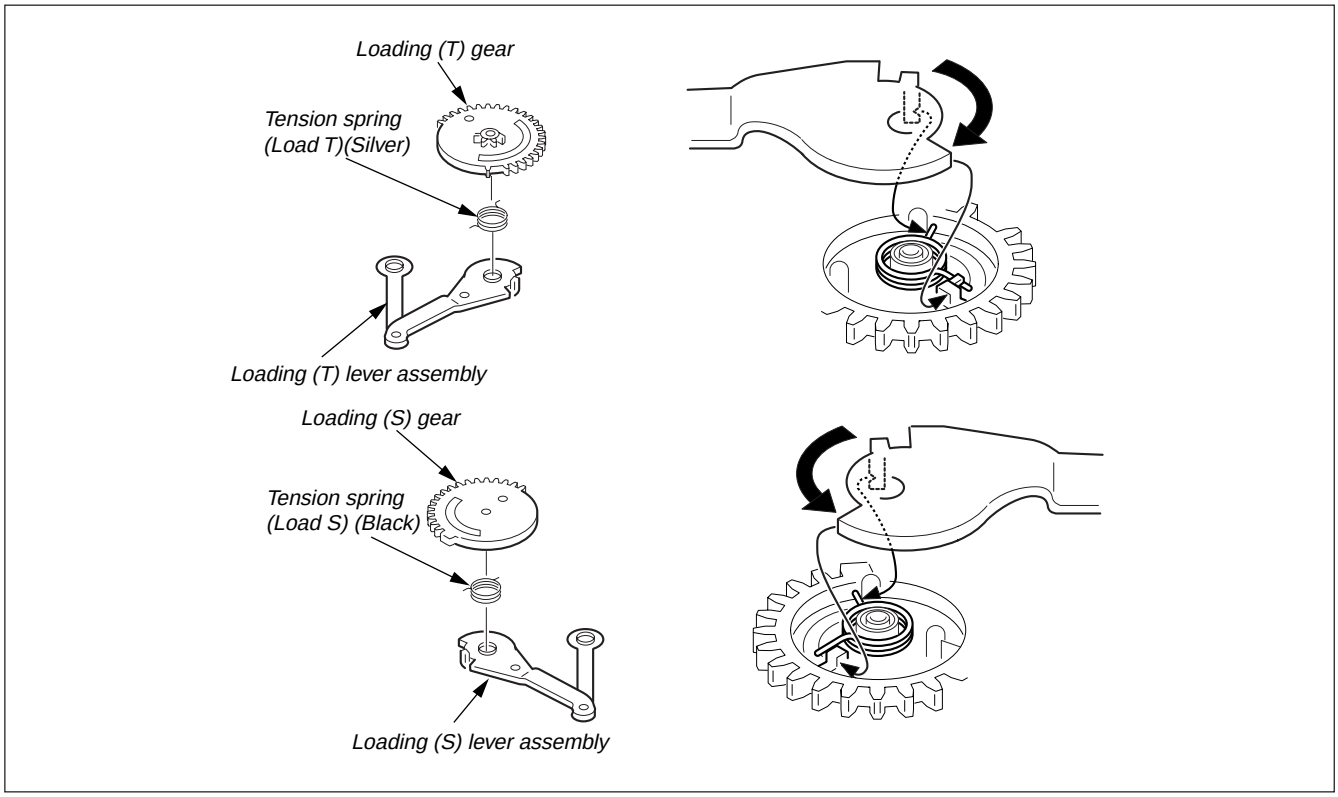


Fig. 3-23

3-19. PULLEY GEAR ASSEMBLY, CLUTCH GEAR

1) Remove rubber belt. (Refer to 3-5.)
2) Remove stopper washer ①.
3) Remove pulley gear assembly ② with clutch gear ③.

[Note on Mounting]
• When attaching them, don't insert strongly.

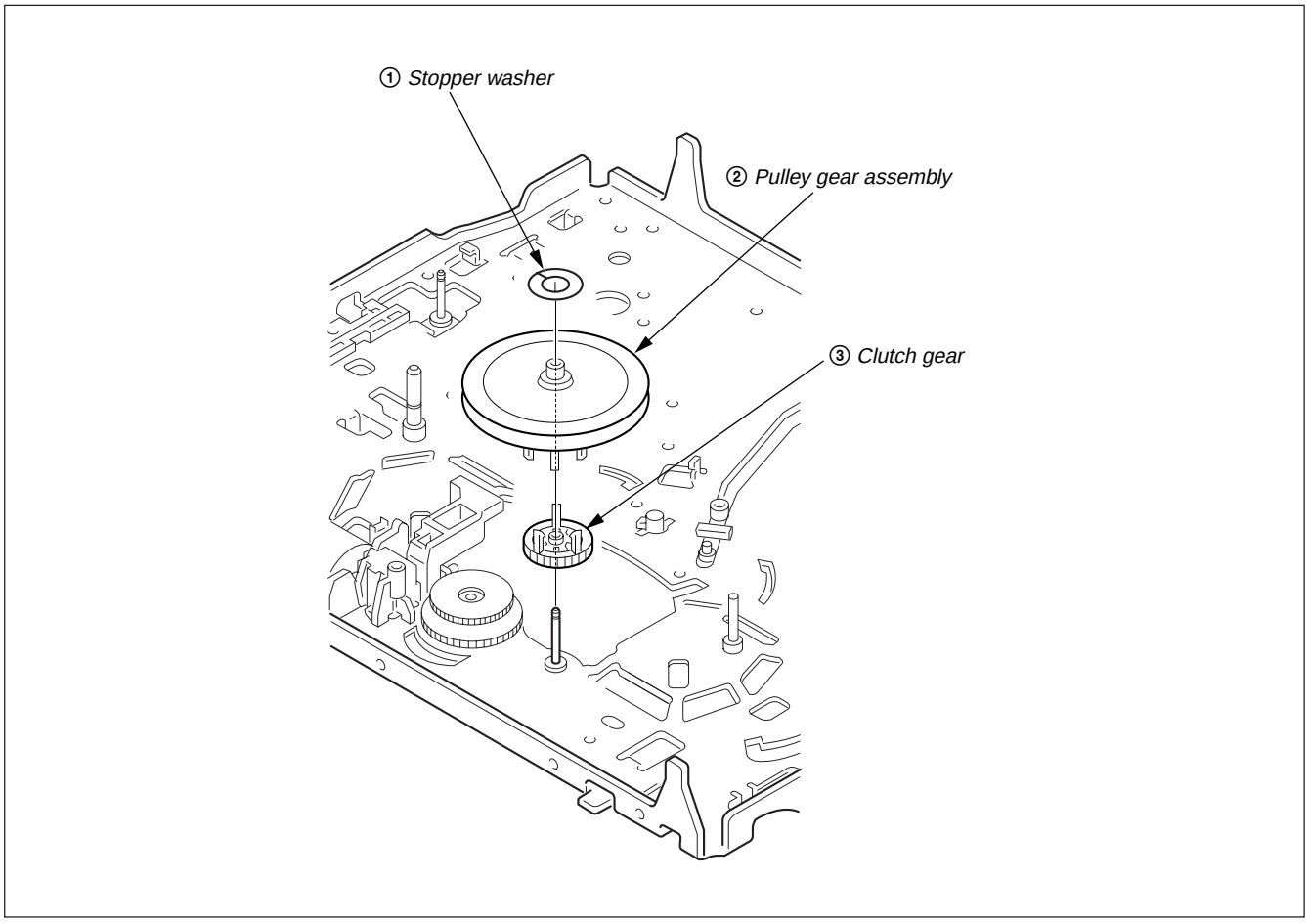


Fig. 3-24

3-20. REEL DIRECT ASSEMBLY

1) Remove rubber belt. (Refer to 3-5.)
2) Remove pulley gear assembly with clutch gear. (Refer to 3-20.)
3) Remove stopper washer ① and reel direct assembly ②.

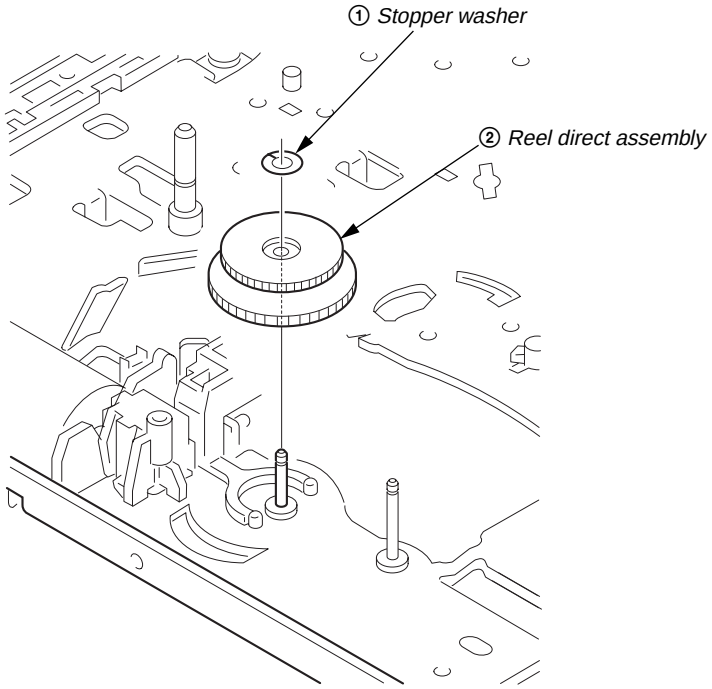


Fig. 3-25

3-21. CASSETTE GUIDE PLATE

1) Remove a screw (P 3 × 8) 1 and remove cassette guide plate ②.

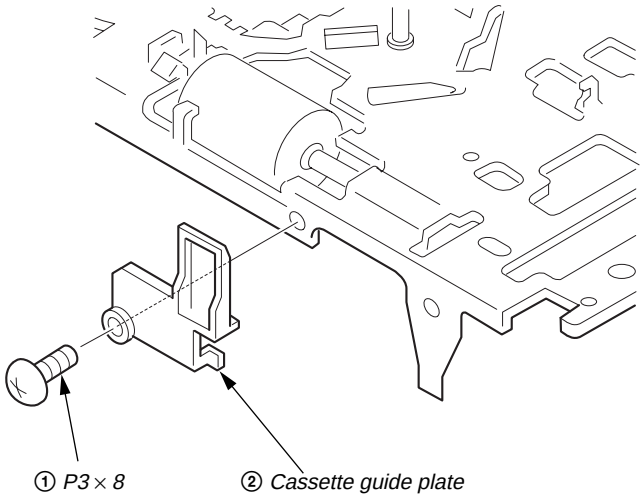


Fig. 3-26

3-22. CAM MOTOR ASSEMBLY, LIMITER SELECTION ARM

1) Remove FL complete assembly. (Refer to 3-1.)
2) Remove rubber belt. (Refer to 3-5.)
3) Remove FL slider block assembly. (Refer to 3-13.)
4) Remove worm wheel. (Refer to 3-14.)
5) Remove pulley gear assembly with clutch gear. (Refer to 3-20.)
6) Remove and reel direct assembly. (Refer to 3-21.)
7) Remove cam motor retainer ① in the arrow Ⓑwhile pushing its claw in the arrow Ⓐdirection.
8) Then cam motor assembly ② is out of place.
9) Remove the boss of limiter selection arm ③ from the hole on the mechanical chassis by pushing in the arrow Ⓒdirection and push it in the arrow D direction and remove it in the arrow Ⓔdirection.

[Note on Mounting]

• Before attaching cam motor assembly ②, confirm the specified locations are coated with grease SG-646 (Ref. No. J-6).

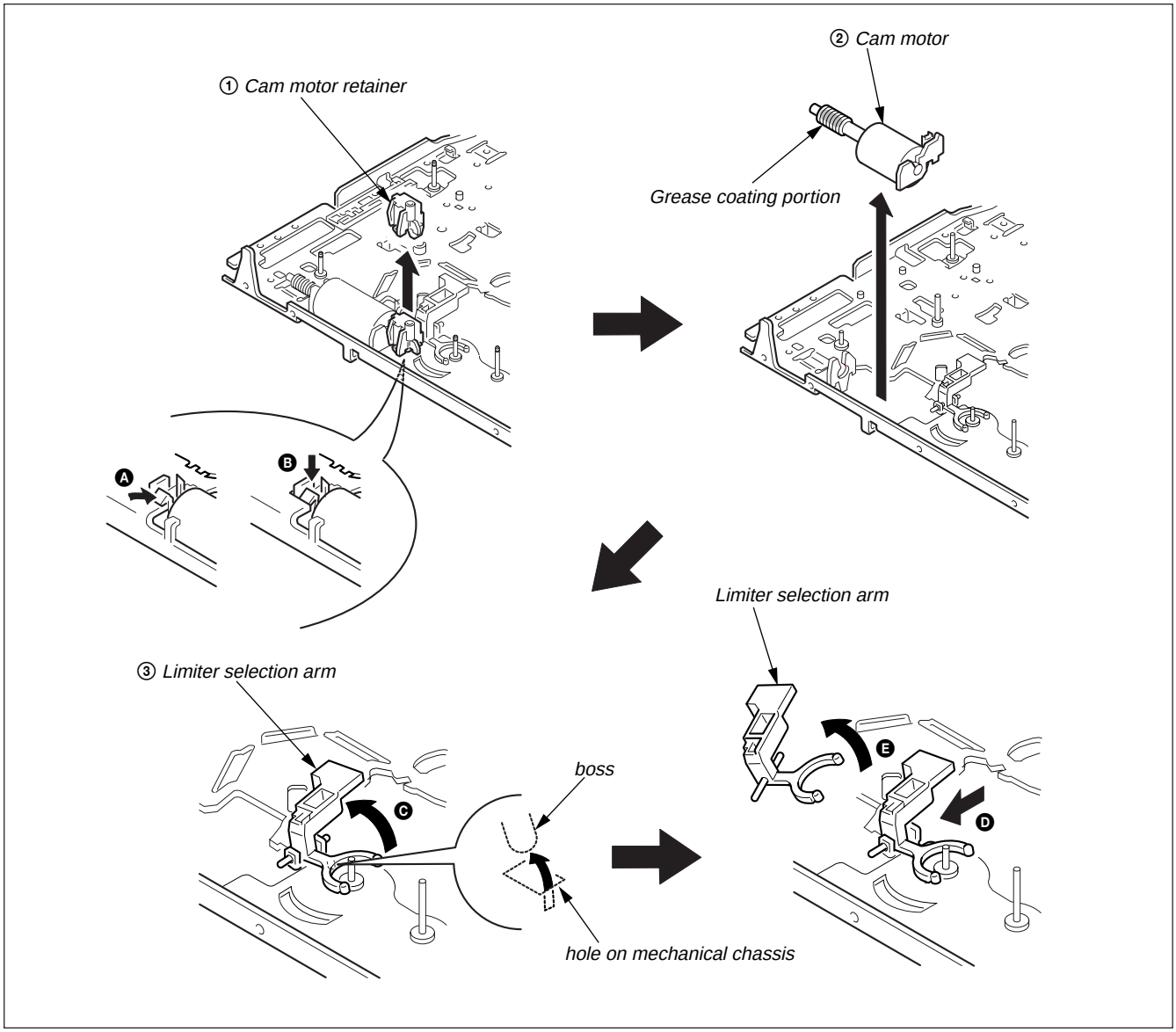


Fig. 3-27

3-23. DRUM BASE, HC ROLLER BLOCK ASSEMBLY

1) Remove the drum assembly. (Refer to 3-2.)
2) Remove screws BVTP 3 × 8 ①.
3) Remove drum base ②.
4) Pull out HC roller assembly ③ straight in the arrow Ⓐ direction.

[Note on Mounting]

• Before attaching drum base ②, confirm the specified locations are coated with grease SG-646 (Ref. No. J-6).
• Tightening screws ① in the order ⓐ to ⓑ to ⓒ

[Adjustment after Mounting]

• 4-1. Tape path adjustment

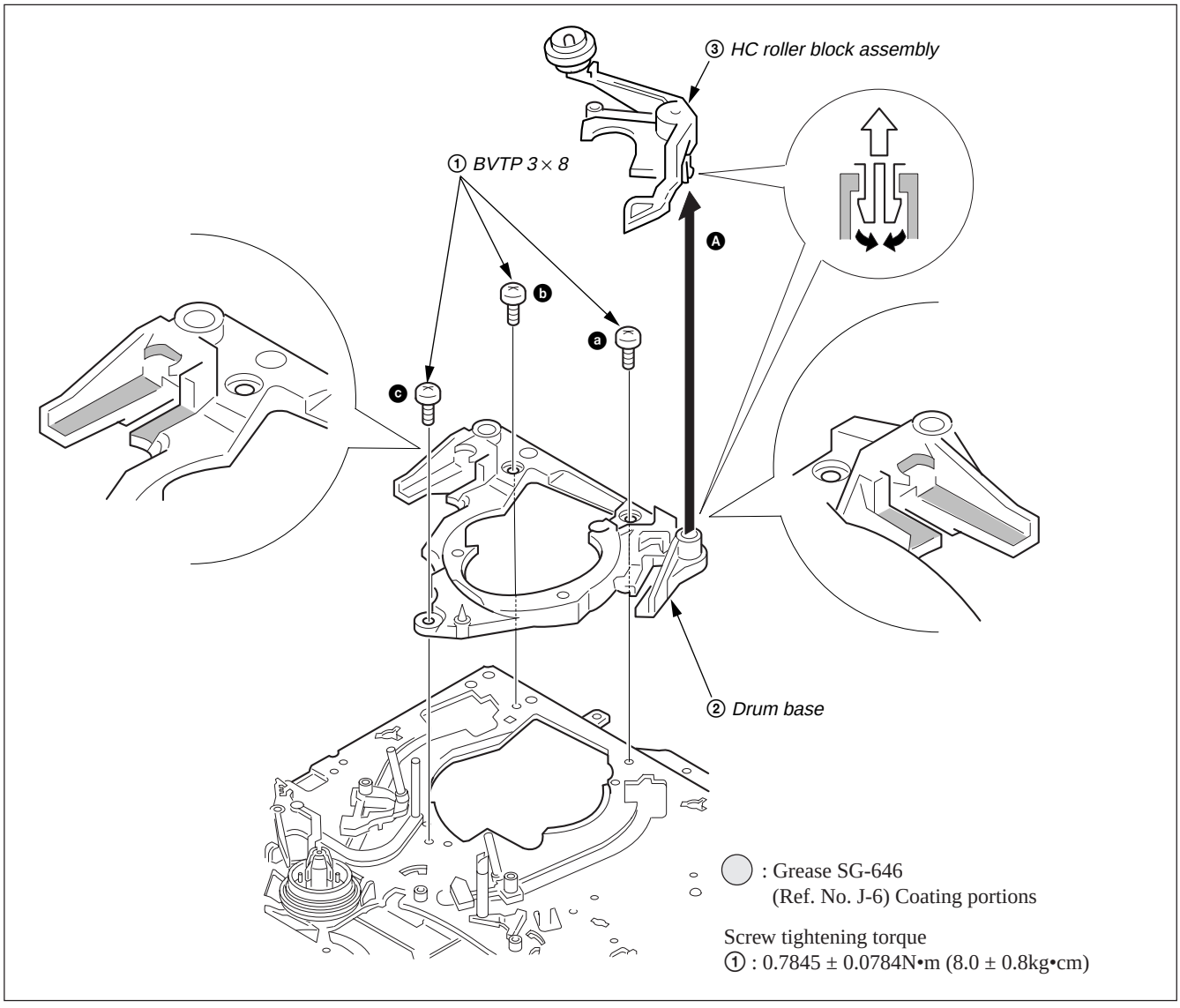


Fig. 3-28

3-24. SHUTTLE (S) AND SHUTTLE (T) BLOCK ASSEMBLIES

1. Guide Roller Assemblies

1) Turn them counterclockwise, then they are out of place, also springs.

[Note on Mounting]

Don't touch the surface that contacts tape with bare hand.

[Adjustment after Mounting]

• 4-1. Tape path adjustment

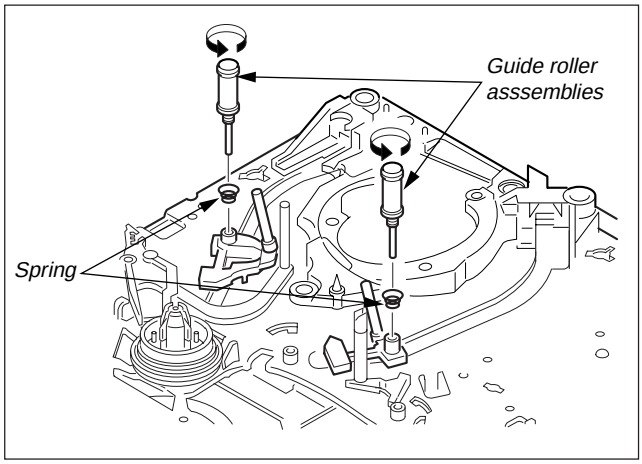


Fig. 3-29

2. Shuttle (S) and Shuttle (T) Assemblies

1) Remove FL complete assembly. (Refer to 3-1.)
2) Remove the drum assembly. (Refer to 3-2.)
3) Remove rubber belt. (Refer to 3-5.)
4) Remove FL slider block assembly. (Refer to 3-13.)
5) Remove cam gear. (Refer to 3-14.)
6) Remove slider. (Refer to 3-17.)
7) Remove loading (T) gear assembly and loading (S) gear assembly. (Refer to 3-19.)
8) Remove drum base. (Refer to 3-24.)
9) Remove shuttle (S) or shuttle (T) assembly by slide them backward.

[Note on Mounting]

Don't touch the surface that contacts tape with bare hand.

[Adjustment after Mounting]

• 4-1. Tape path adjustment

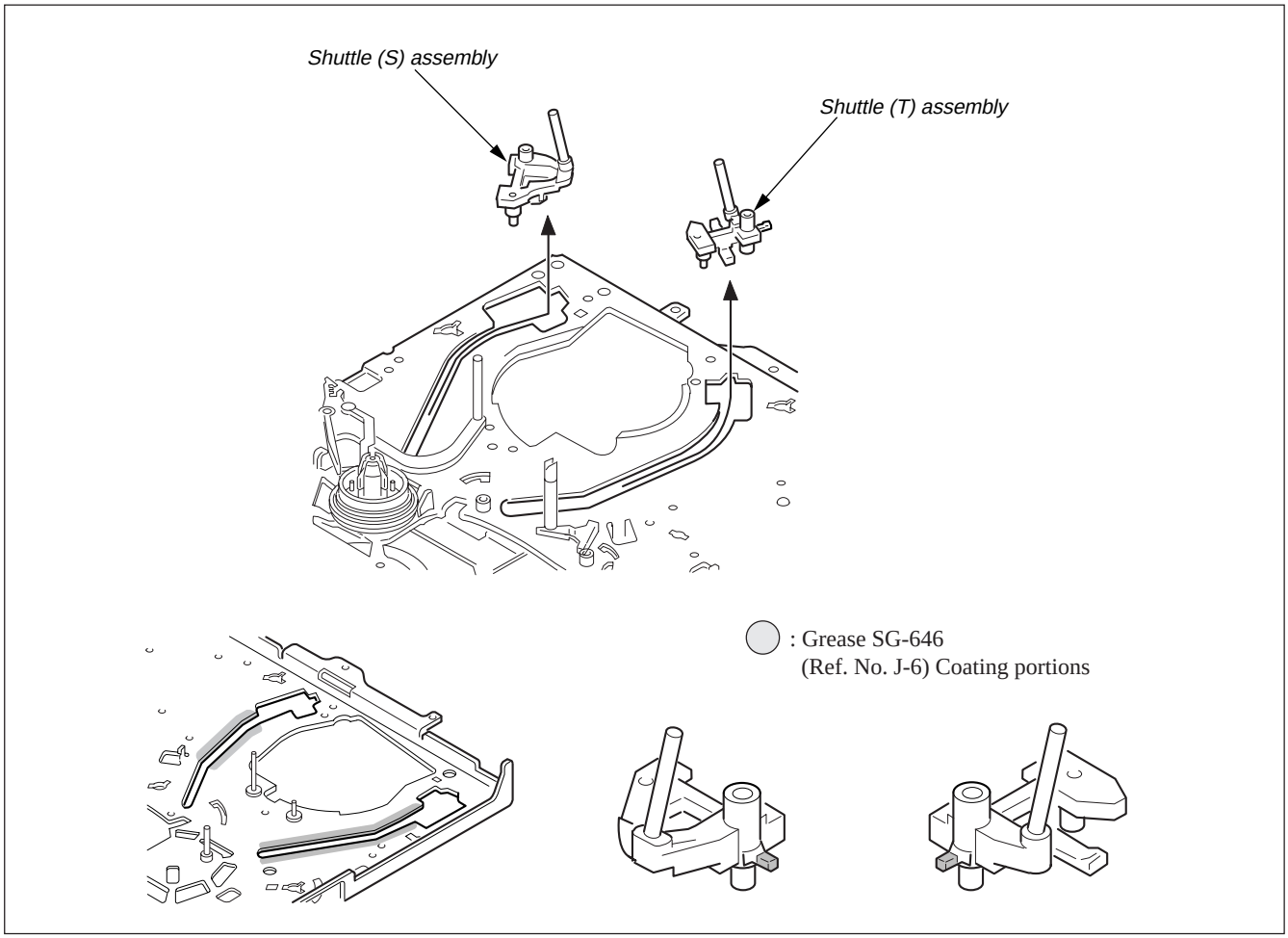


Fig. 3-30

3-25. TG1 ASSEMBLY, REEL (S) TABLE

1) Remove FL complete assembly. (Refer to 3-1.)
2) Remove spring (power tension) ① from TG1 driving arm.
3) While spreading claws on the bottom in the arrows Ⓐdirection, pull TG1 assembly ② out.
4) While spreading claws on the top in the arrows Ⓑdirection, pull reel (S) table ③ out.
5) Remove thrust washer ④.

[Note on Mounting]
Don't touch the surface that contacts tape and the braking surface of TG1 assembly with bare hand.

[Adjustment after Mounting]
• 4-1. Tape path adjustment

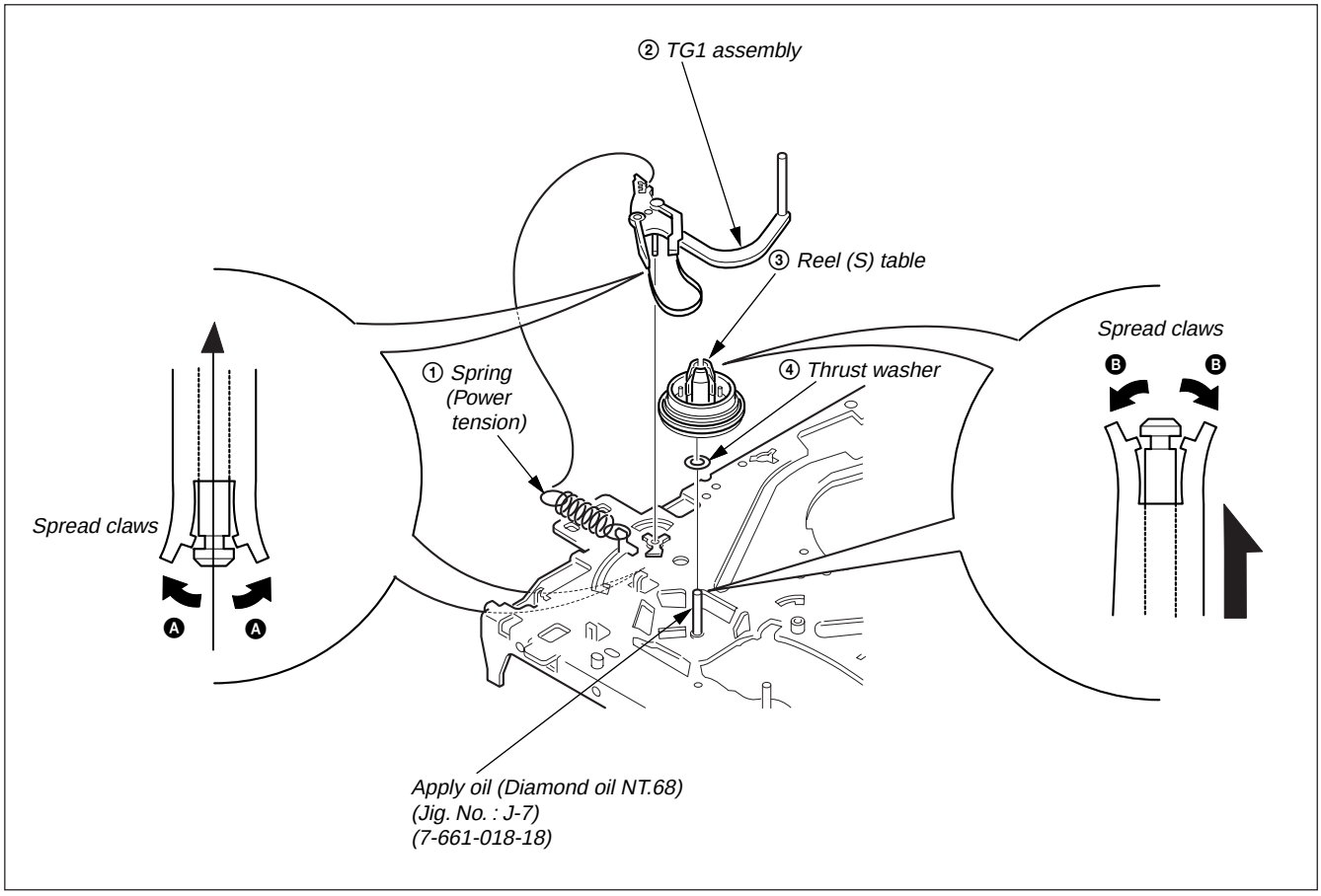


Fig. 3-31

3-26. TG1 FULCRUM BOSS

1) Remove FL complete assembly. (Refer to 3-1.)
2) Remove TG1 assembly. (Refer to 3-26.)
3) Turn TG1 fulcrum boss counterclockwise and pull it out.

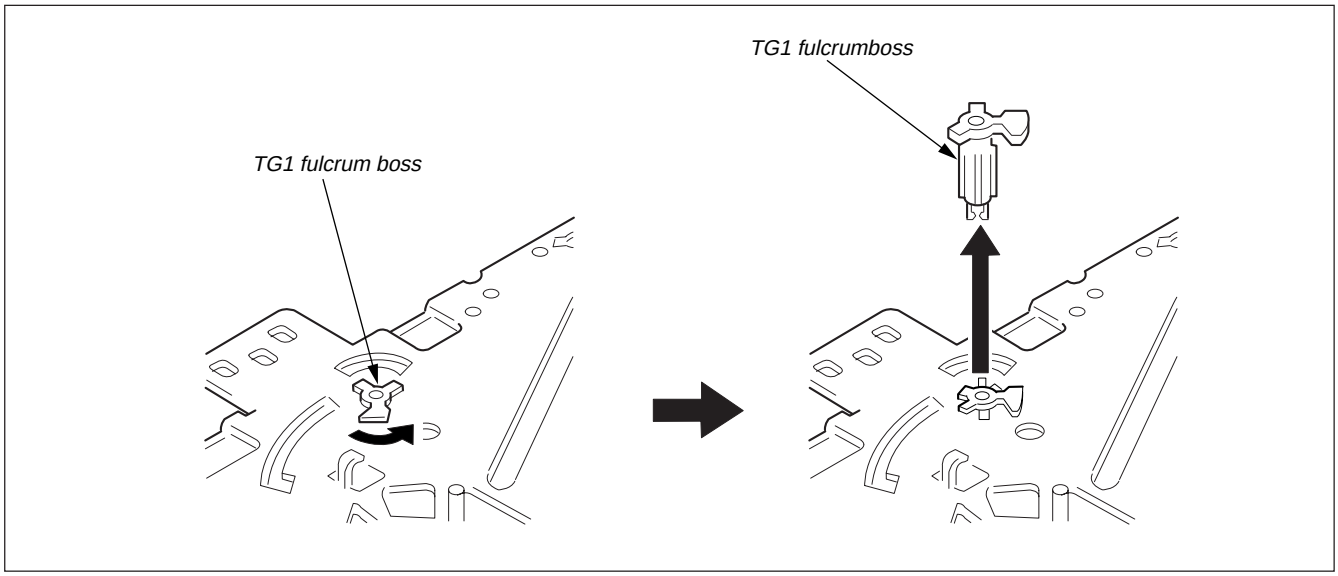


Fig. 3-32

3-27. LUMINOUS PLATE

1) Remove main (T) brake assembly. (Refer to 3-10.)
2) Turn luminous plate clockwise while raising a portion slightly and pull out it.

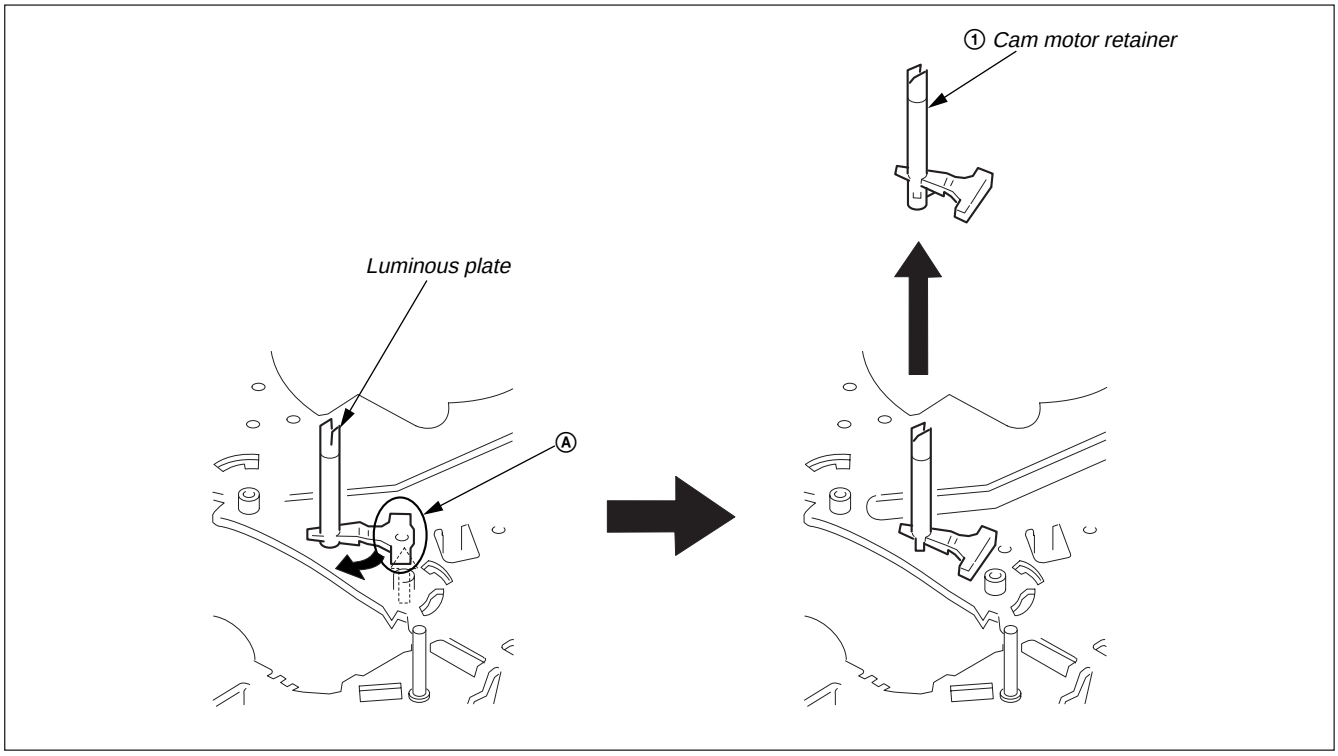


Fig. 3-33

4. ADJUSTMENT

4-1. TAPE PATH ADJUSTMENT

The "Tape path" refers to the route of the tape from the supply reel disk to the take-up reel disc via the video heads.
Each component part of the tape transport system particularly the surface of parts which make direct contact with the tape must always be kept clean, free of dust, oil, scratches and so forth.
The tape path system is factory pre-adjusted, when parts of the tape transport system are replaced, be sure to make the required adjustments as precisely as possible in order to ensure stable tape transport.

4-1-1. TENSION REGULATOR (TG1) POSITION/ TENSION ADJUSTMENT (Fig. 4-1)

Purpose: stabilizes contact of the video head and the tape to maintain the tension of the tape so that it feeds at a constant level.

• Position adjustment

Mode	Threading is completed without a cassette loaded (Playback)
Adjustment locations	Eccentric pin of TG1 band assembly

[Adjustment Method]

1) Allow the unit to go through the threading procedure without a cassette loaded.
2) Set the unit to play back, then turn the eccentric pin so that the tip of tension arm goes to the left side line carved on the mechanical chassis. (Fig. A)
3) After adjustment, go through the loading procedure once more without a cassette loaded, then check the position of the tension arm.

• Tension adjustment

Mode	Playback (SP)
Measuring instrument/tool	Torque cassette VHT-103S (Ref. No. J-1)
Adjustment locations	Position for hooking the tension spring
Specified value	5.05 to 6.52 mN•m (51.5 to 66.5g•cm) (without TC assembly) 3.78 to 5.10 mN•m (38.5 to 52.0g•cm) (with TC assembly)

[Adjustment Method]

1) Playback the torque cassette.
2) Check that the center value deviation reading on the torque cassette meets with the standards.
3) When the reading is higher than the standards : Move the spring toward direction Ⓐ
   When the reading is less than the standards : Move the spring toward direction Ⓑ

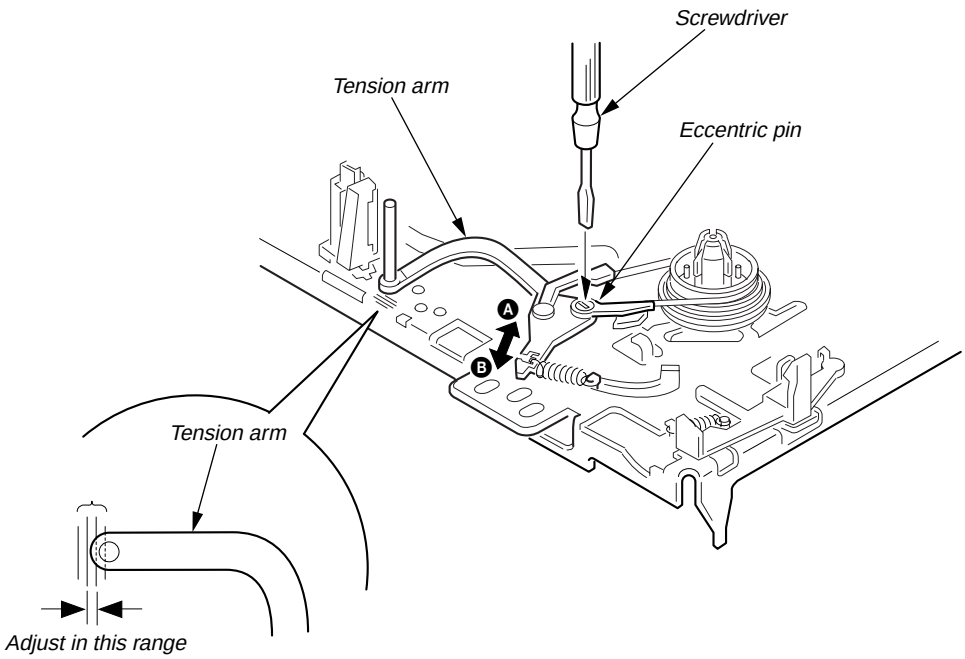


Fig. A

Fig. 4-1

4-1-2. CHECKING THE TENSION AND TORQUE

Purpose : To check that the tension, torque and compression force of the tape take-up section and mobile sections to ensure smooth tape run and achieve standard VTR performance.
If the tape transport is not smooth or problems occur in relation to the tape transport speed, perform the following check.

Mode	Each operation mode
Measuring instrument	Torque cassette VHT-103S, VHT-404S

Item	VTR operation mode	Reel to be measured	Measurement value
Review torque	Review	S reel	12.7 to 19.6 mN•m (130 to 200 g•cm)
Take-up torque	Playback	T reel	4.41 to 10.8 mN•m (45 to 110g•cm)
Back tension torque	Playback	S reel	See section 4-1-1.

4-1-3. X-VALUE ADJUSTMENT (Using the tape having the version No.)

Purpose: To obtain compatibility with other VCRs.

Precaution: Before starting to adjust X-value, set the tracking control at the center position. To set the tracking control at the center position for the VCRs equipped with the [▲] and [▼] tracking control keys, press both the [▲] and [▼] tracking control keys at the same time. For the VCRs not equipped with the tracking control keys, deactivate the automatic tracking control by pressing the tracking [AUTO/MANUAL] key on the remote control unit during threading operation (after a tape is inserted but before the VCR starts playing back the tape).

Mode	Playback
Signal	Alignment tape: KRV-52NE (NTSC)/ 52PL(PAL)
Measuring instrument	Oscilloscope TIME/DIV: 2ms Trigger source: CH2 Trigger slope: +
Measuring point	CH1: Connector PB RF pin for RF PC board check CH2: Connector RF SWP pin for RF PC board check
Adjustment locations	ACE base assembly

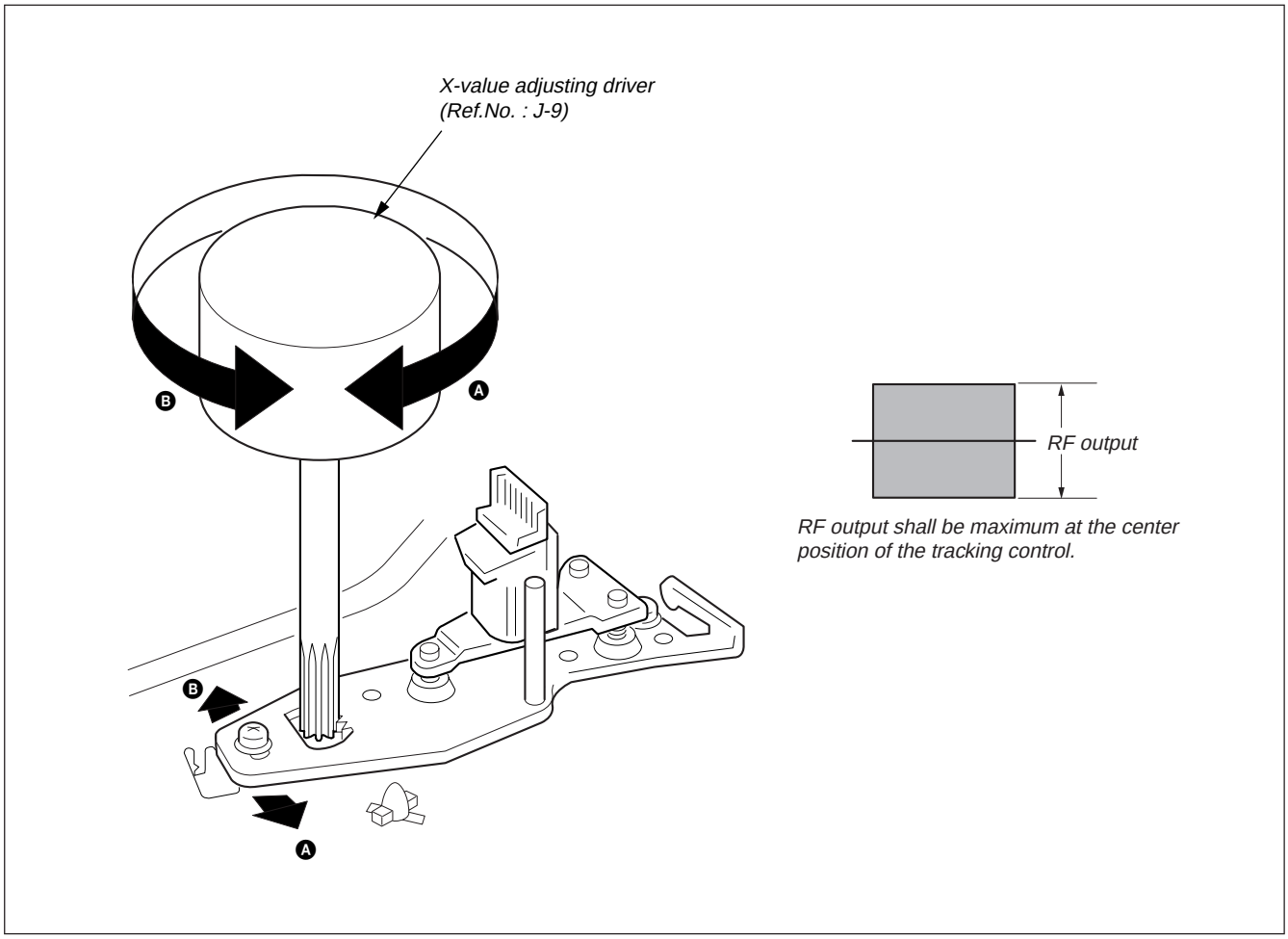


Fig. 4-2

[Adjustment Method]

Set the tracking control at the center position. For the VCRs equipped with standard gap video heads, set the ACE head position with X-value adjusting driver where a maximum RF output is obtained. For the VCRs equipped with wide gap video heads, set the ACE head position with X-value adjusting driver both where a maximum RF output is obtained and where the RF output decreases immediately when the ▼ tracking control key is pressed.

* TYPE OF DRUM

DZH-68D	DZH-89A
DZH-71D	DZH-90A
DZH-77A	DZH-91A
DZH-78A	DZH-92A
DZH-78B	

1. Adjusting X-value
(Using the tape having the version No.)

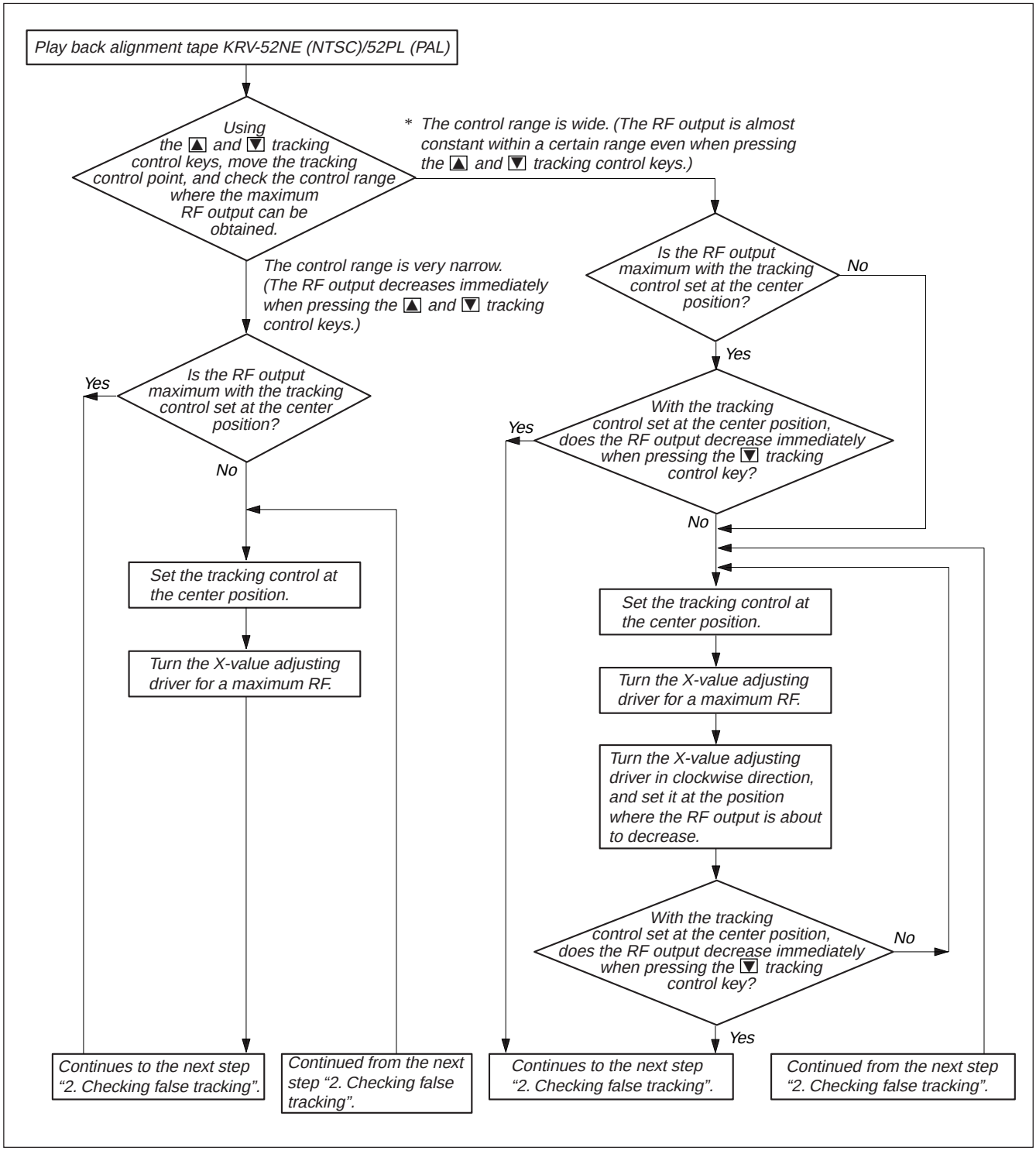


Table. 4-1

2. Checking false tracking
(Using the tape having the version No.)

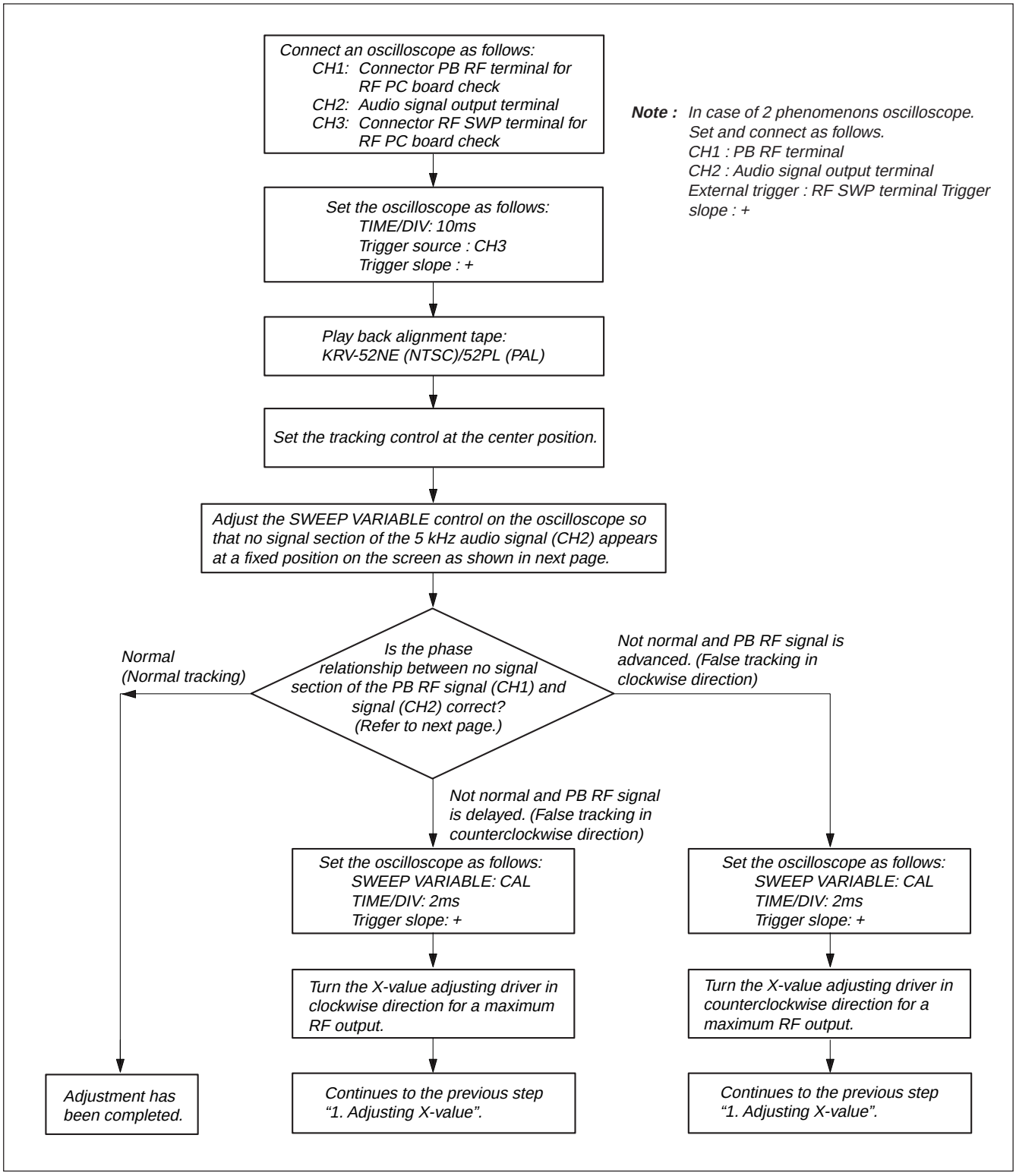


Table. 4-2

Using the tape having the version No.

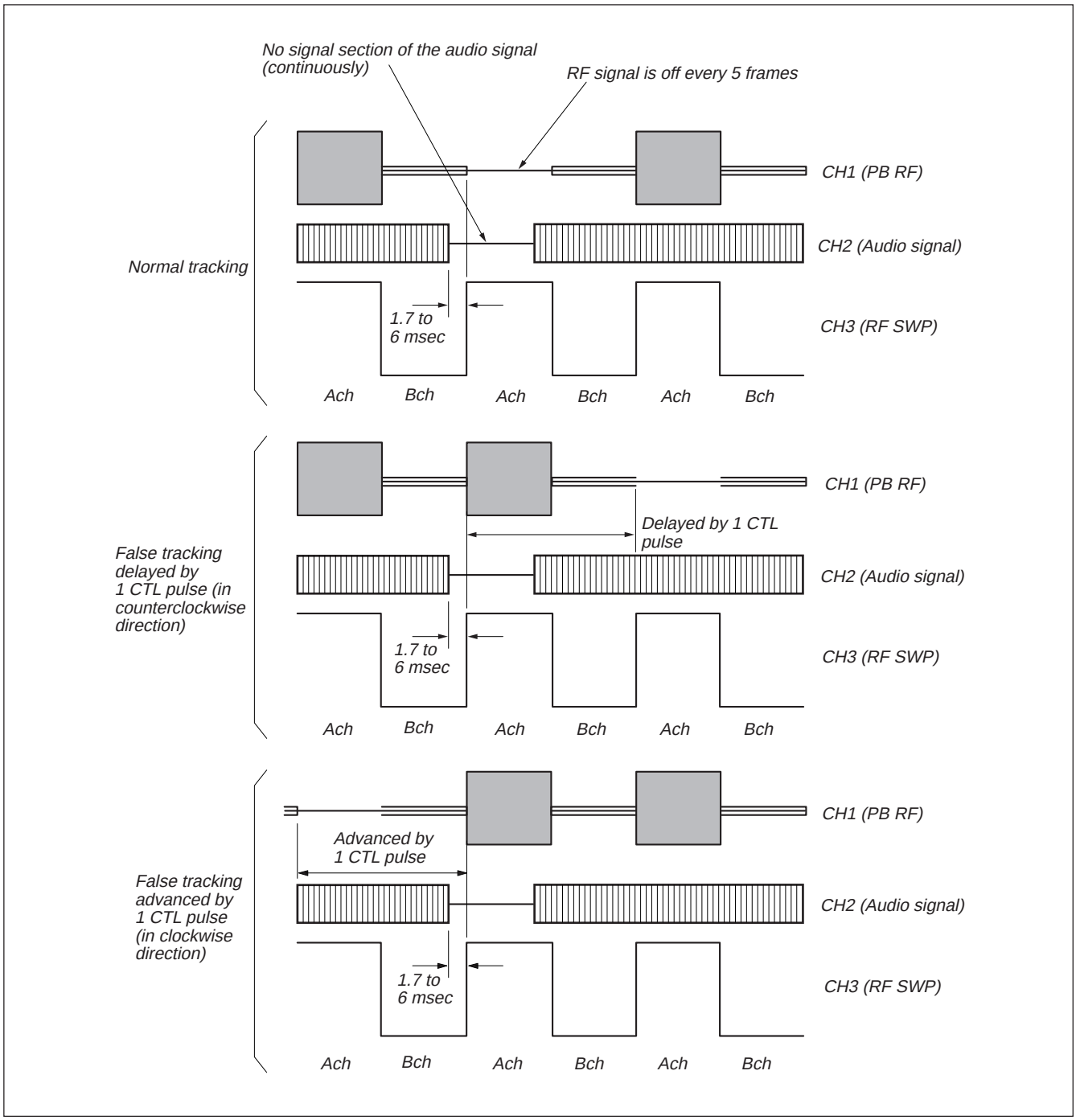


Table. 4-3

[Adjustment Method (*For the VCRs Equipped with Narrow Gap Video Heads)]

Set the tracking control at the center position. Set the ACE head position with X-value adjusting driver both where a maximum RF output is obtained and where the RF output decreases immediately when the ▲ tracking control key is pressed.

* TYPE OF DRUM
DZH-98A

1. Adjusting X-value
(Using the tape having the version No.)

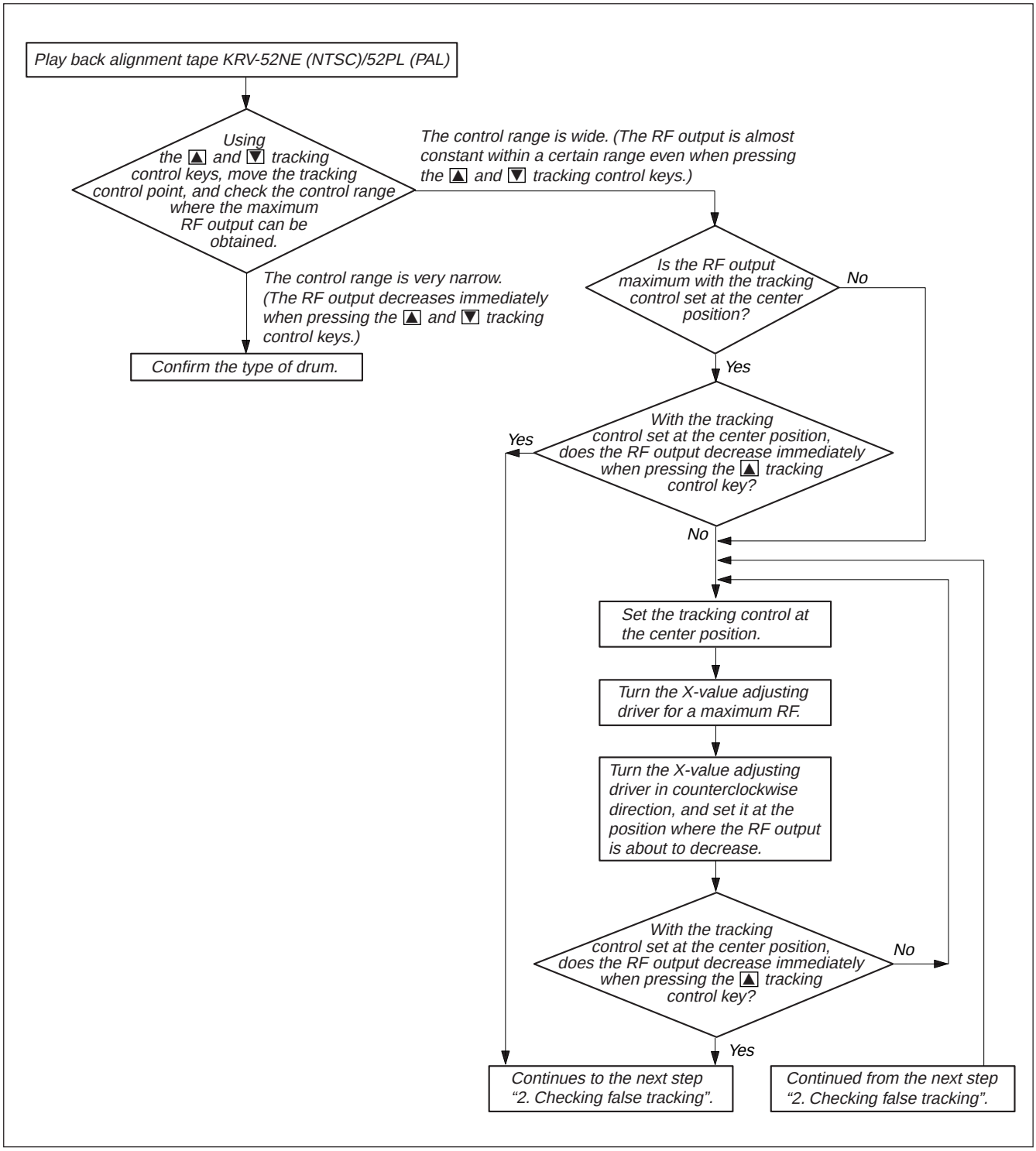


Table. 4-4

2. Checking false tracking
(Using the tape having the version No.)

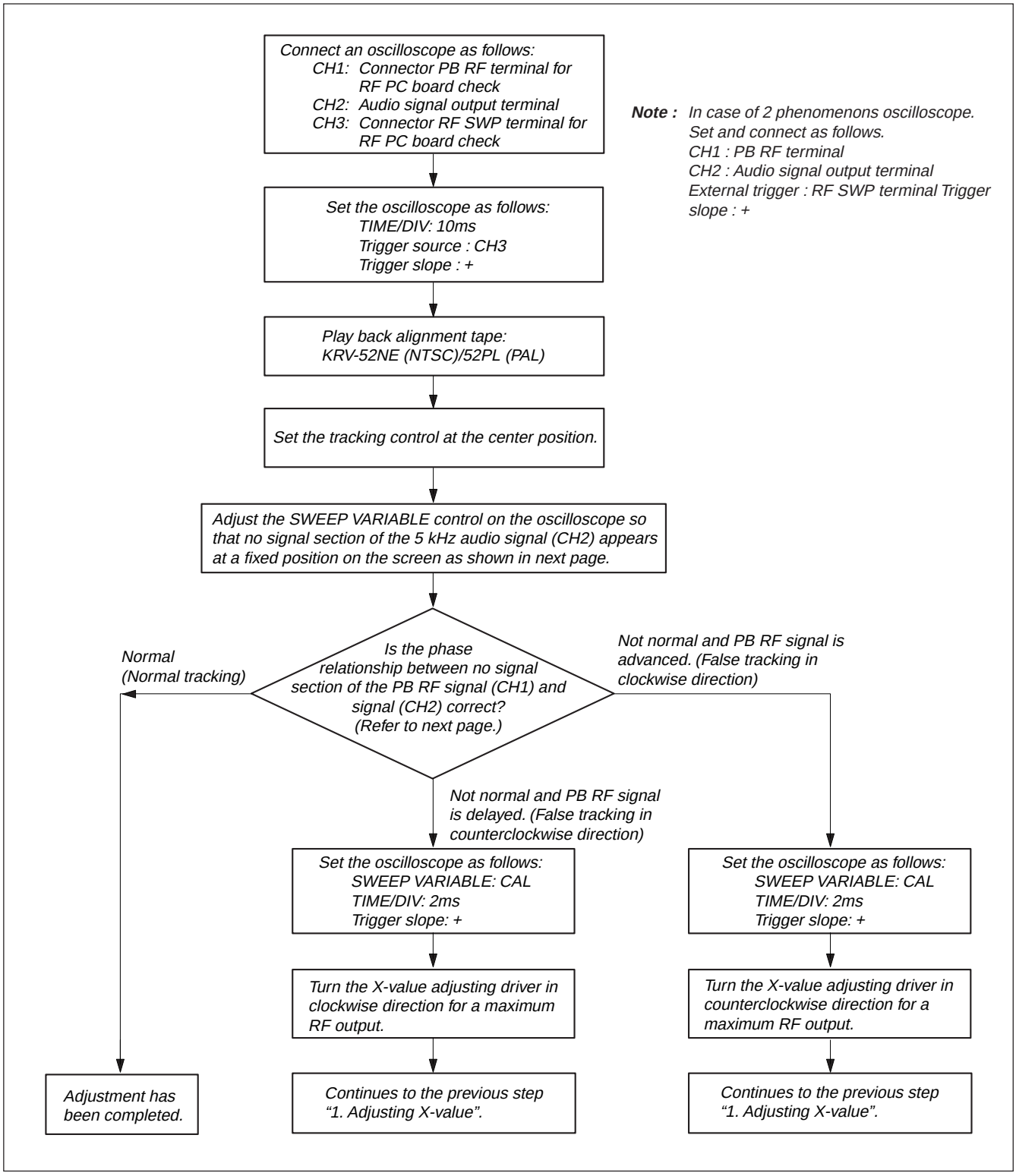


Table. 4-5

Using the tape having the version No.

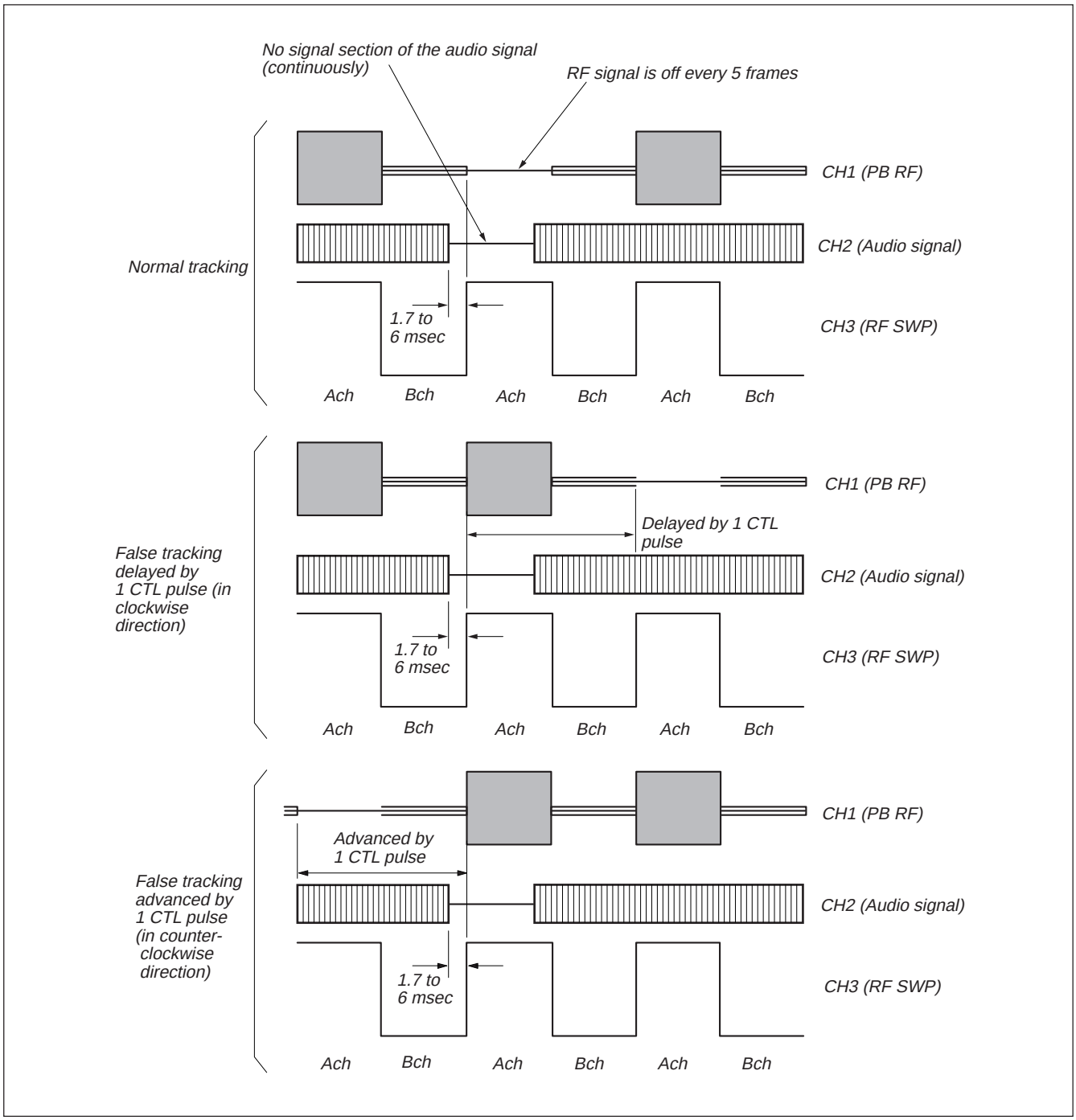


Table. 4-6

Reference

• X-VALUE ADJUSTMENT
(Using KRV-52NE having no version No.)

Purpose : To obtain compatibility with other VCRs.

Precaution : Before starting to adjust X-value, set the tracking control at the center position. To set the tracking control at the center position for the VCRs equipped with the ▲ and ▼ tracking control keys. Press both the ▲ and ▼ tracking control keys at the same time. For the VCRs not equipped with the tracking control keys, deactivate the automatic tracking control by pressing the tracking AUTO/MANUAL key on the remote control unit during threading operation (after a tape is inserted but before the VCR starts playing back the tape).

Mode	Playback
Signal	Alignment tape: KRV-52NE (For NTSC having no version No.)
Measuring instrument	Oscilloscope TIME/DIV: 2ms Trigger source: CH2 Trigger slope: +
Measuring point	CH1: Connector PB RF pin for RF PC board check CH2 : Connector RF SWP pin for RF PC board check
Adjustment locations	ACE base assembly

[Adjustment Method]

Set the tracking control at the center position. For the VCRs equipped with standard gap video heads, set the X-value adjustment screw where a maximum RF output is obtained. For the VCRs equipped with wide gap video heads, set the X-value adjustment screw both where a maximum RF output is obtained and where the RF output decreases immediately when the ▼ tracking control key is pressed.

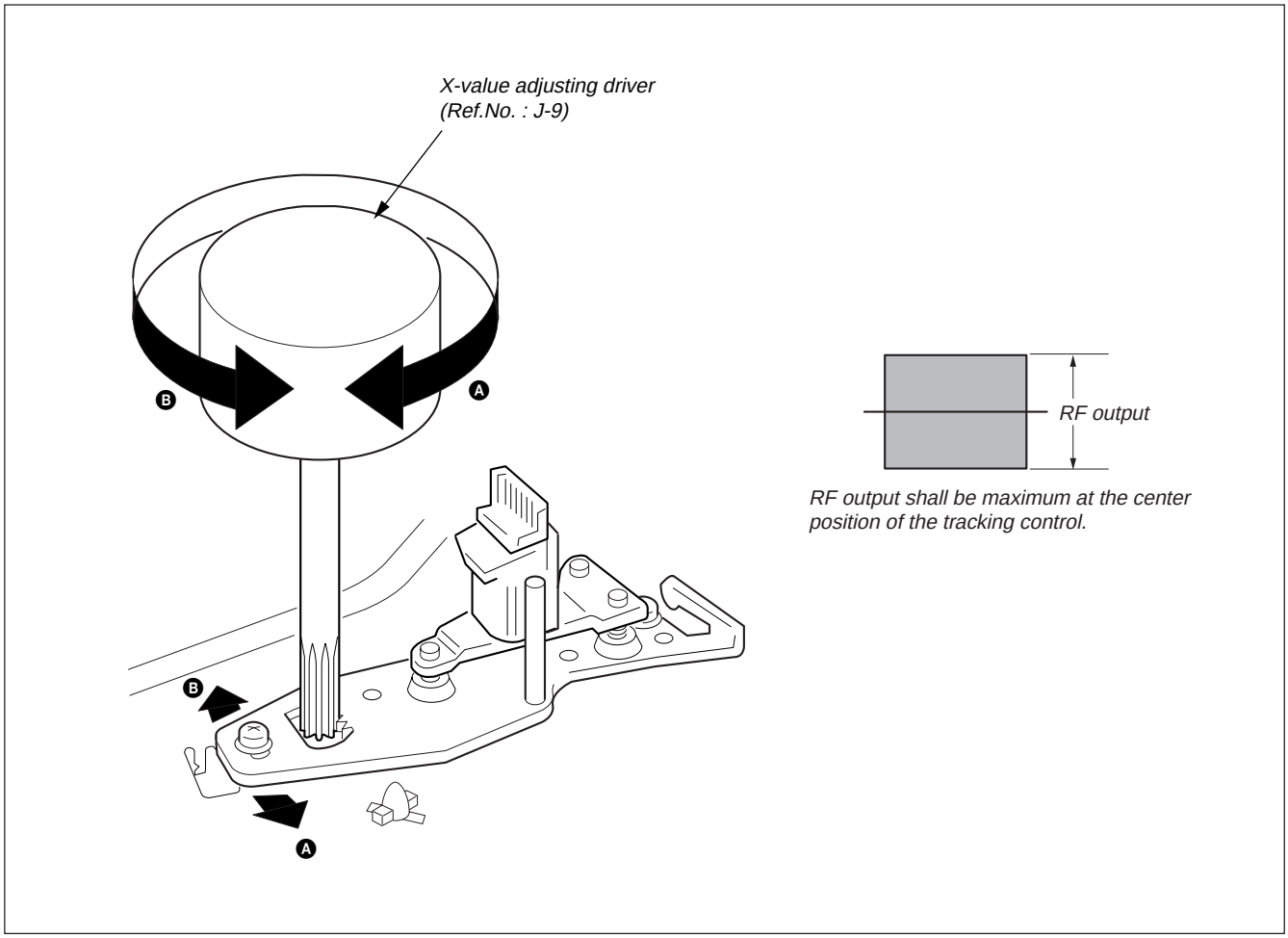


Fig. 4-3

X-VALUE ADJUSTMENT
(Using the tape having no version No.)

* TYPE OF DRUM

DZH-68D	DZH-89A
DZH-71D	DZH-90A
DZH-77A	DZH-91A
DZH-78A	DZH-92A
DZH-78B	

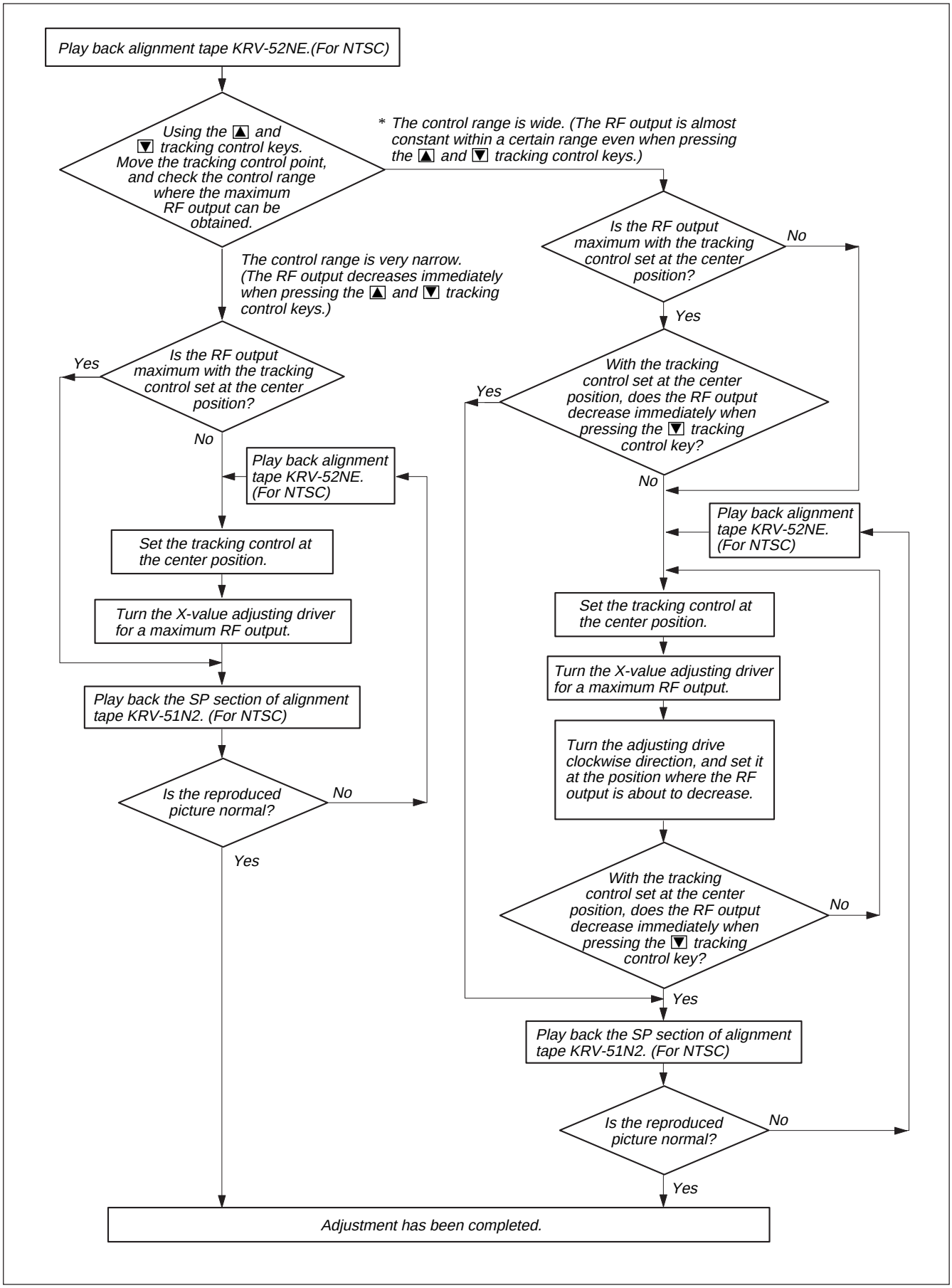


Table. 4-7

[Adjustment Method (*For the VCRs Equipped with Narrow Gap Video Heads)]

Set the tracking control at the center position. Set the ACE head position with X-value adjusting driver both where a maximum RF output is obtained and where the RF output decreases immediately when the ▲ tracking control key is pressed.

* TYPE OF DRUM
DZH-98A

Using the tape having the version No.

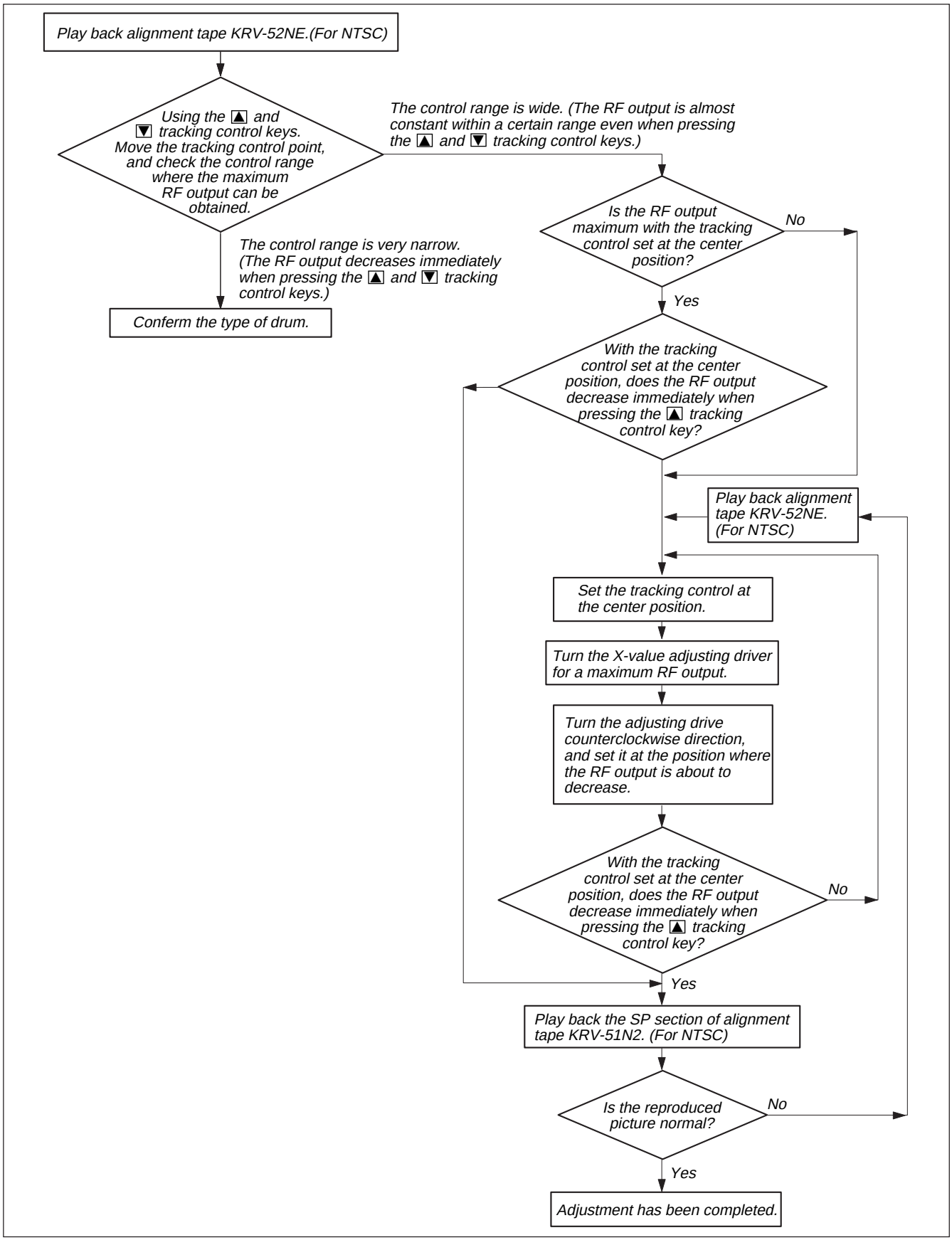


Table. 4-9

4-1-4. HEIGHT ADJUSTMENT OF GUIDE ROLLERS NO. 3 AND NO. 6

Mode	Playback
Signal	Alignment tape: KRV-52NE (NTSC)/52PL (PAL)
Measuring instrument	Oscilloscope TIME/DIV: 2ms Trigger source: CH2 Trigger slope: +
Measuring point	CH1: Connector PB RF pin for RF PC board check CH2: Connector RF SWP pin for RF PC board check
Adjustment locations	Height adjustment screw for No. 3 tape guide roller Height adjustment screw for No. 6 tape guide roller

[Adjustment Method]

The following adjustment shall be carried out after completed Section 4-1-2. X-VALUE ADJUSTMENT.

1) Deactivate the automatic tracking control, and set the tracking control at the center position. To set the tracking control at the center position for the VCRs equipped with the ▲ and ▼ tracking control keys, press both the ▲ and ▼ tracking control keys at the same time. For the VCRs not equipped with the tracking control keys, deactivate the automatic tracking control by pressing the tracking AUTO/MANUAL key on the remote control unit during threading operation (after a tape is inserted but before the VCR starts playing back the tape).
2) Check if the RF output changes in amplitude by pressing the tracking control key. The RF output should change periodically (changes from a minimum amplitude to a maximum amplitude, and to the minimum amplitude again).

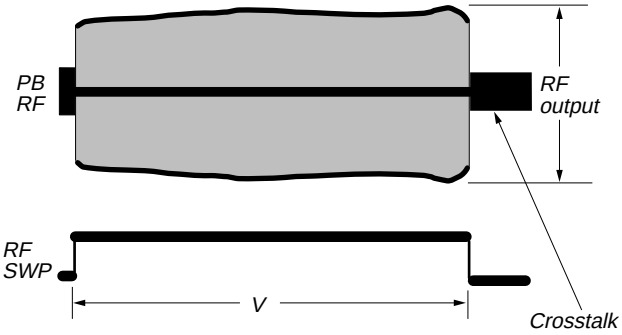


Fig. 4-4

3) Turn the height adjustment screws of tape guide rollers No. 3 and No. 6 so that the RF output envelope becomes as flat as possible.
4) Press the ▲ tracking control key, and check that both the beginning and end of the RF output change together the same in amplitude.
5) Press the ▼ tracking control key, and check that both the beginning and end of the RF output change together the same in amplitude.

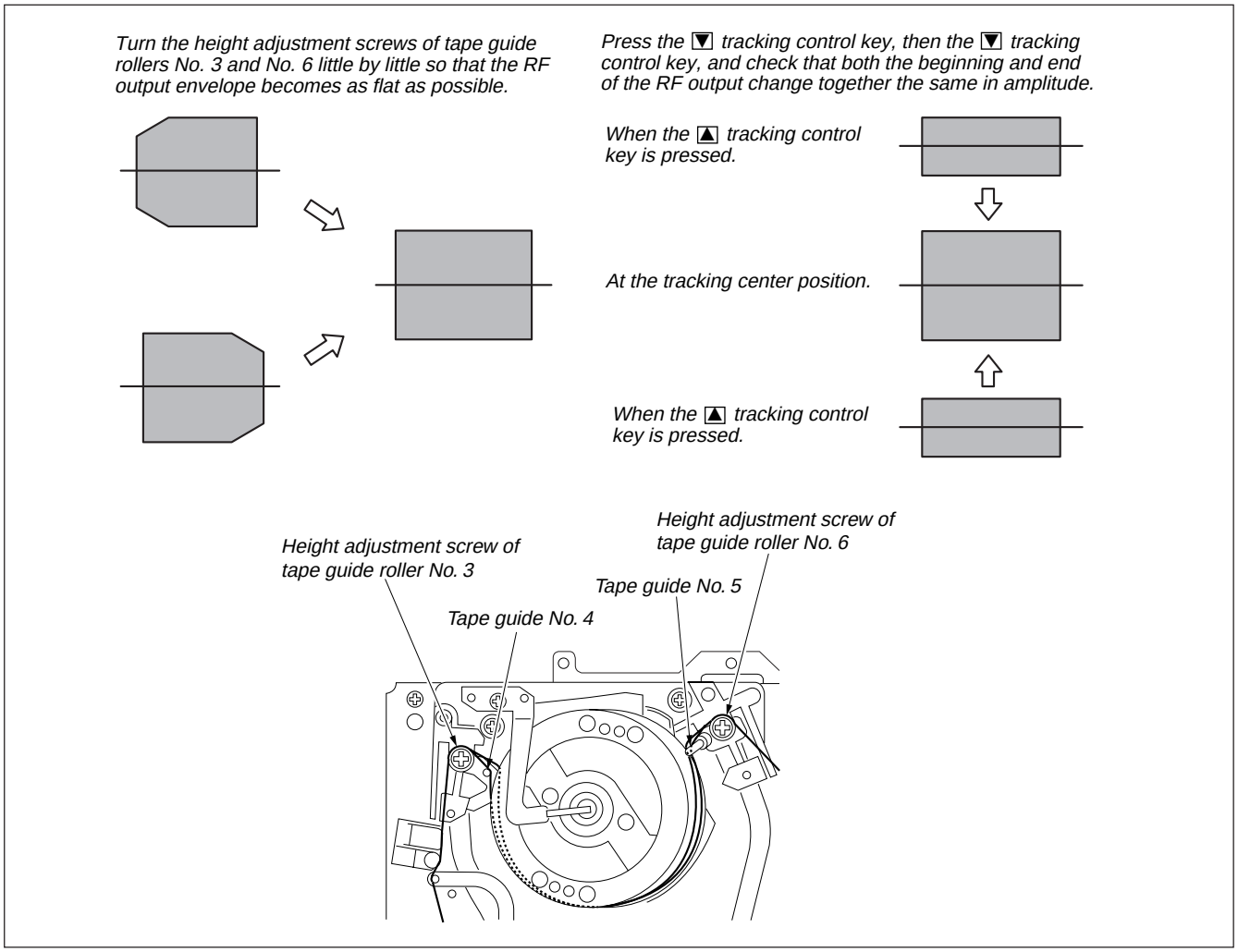


Fig. 4-5

4-1-5. ACE HEAD ASSEMBLY HEIGHT AND AZIMUTH ADJUSTMENT

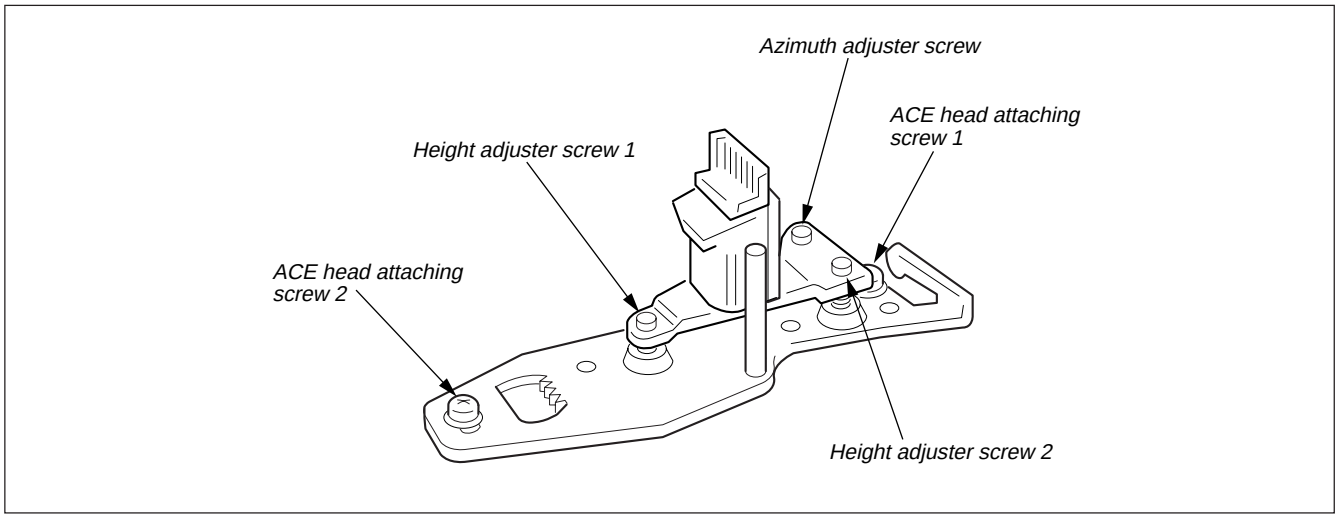


Fig. 4-6

Mode	Playback
Signal	Alignment tape: (5kHz) KRV-52NE (NTSC)/52PL (PAL)
Measuring instrument	Oscilloscope
Measuring point	Audio output terminal
Adjustment locations	Azimuth adjuster screw, Height adjuster screws 1 and 2.

[Adjustment Method]

1) Adjust the height as shown in the figure with turning the height adjuster screws 1 and 2, and the azimuth adjuster screw in the same direction, the same degree gradually.

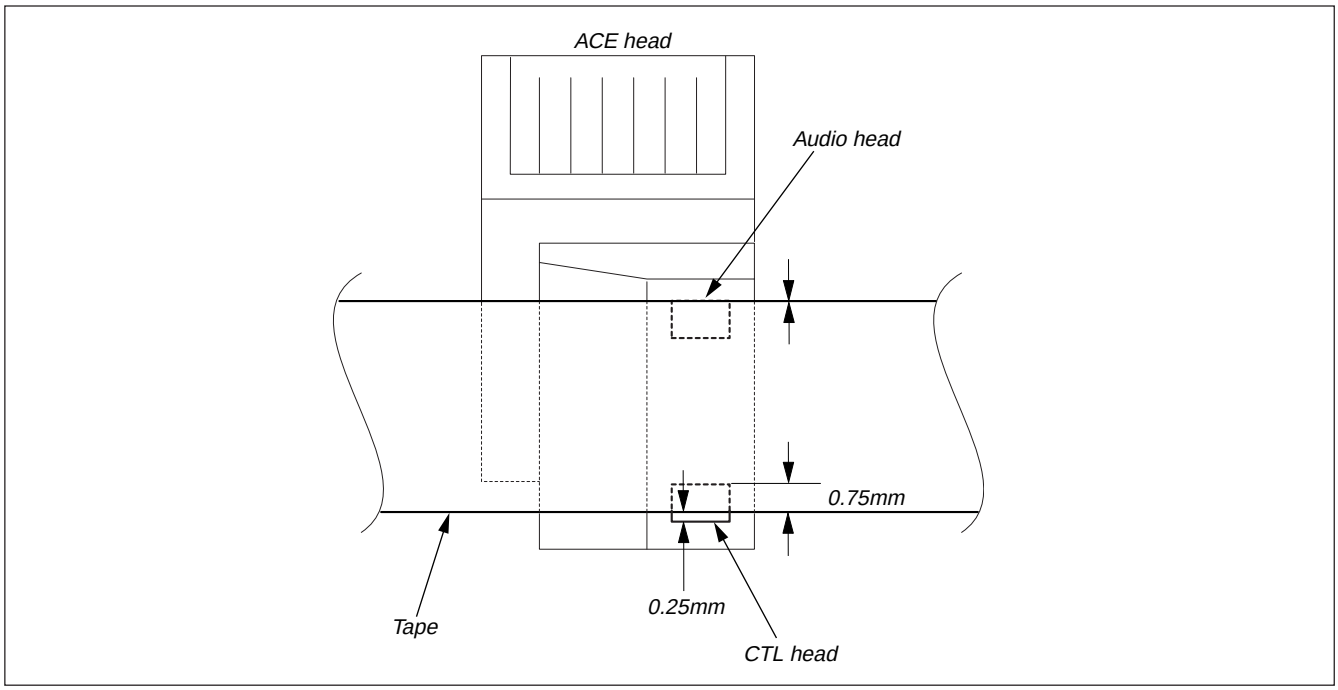


Fig. 4-7

2) Alternately adjust the azimuth adjuster screw to make A maximum and B minimum. (To maintain even audio output at maximum with minimum deviation.)
3) Perform section 4-1-2. X-VALUE ADJUSTMENT.
4) Tighten ACE head attaching screw 2. (Torque: More than 0.29 N•m (3.0 kg•cm)).

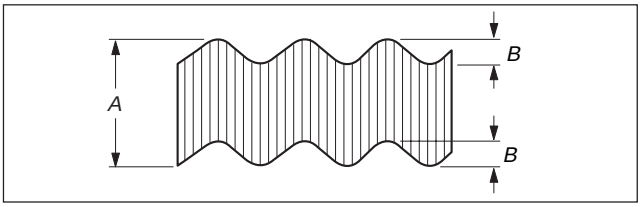


Fig. 4-8

4-1-6. X-VALUE FINE ADJUSTMENT

The procedure is the same as the item 4-1-3. Please refer to pages 37 to 46.

4-1-7. HEIGHT ADJUSTMENT OF GUIDE ROLLER NO. 8

Note : Applicable to the set having TG8 height adjusting screw as shown in the figure. Do not adjust when TG8 height adjusting screw is not attached.

Mode	Playback
Signal	Any signal on thin tape (T-160 or the like) near the tape top.
Adjustment location	TG8 height adjusting screw

[Adjustment Method]

1) Confirm there is no wrinkles of tape between TG8 and capstan and no tape curl at the upper or the lower flanges of TG8 during 10 seconds CUE running.
2) When there is curls or wrinkles, adjust with TG8 height adjusting screw.
3) Confirm there is no wrinkles of tape between TG8 and capstan and no tape curl at the upper or the lower flanges of TG8 during 8 seconds REV running.
4) When there is curls or wrinkles, adjust with TG8 height adjusting screw.

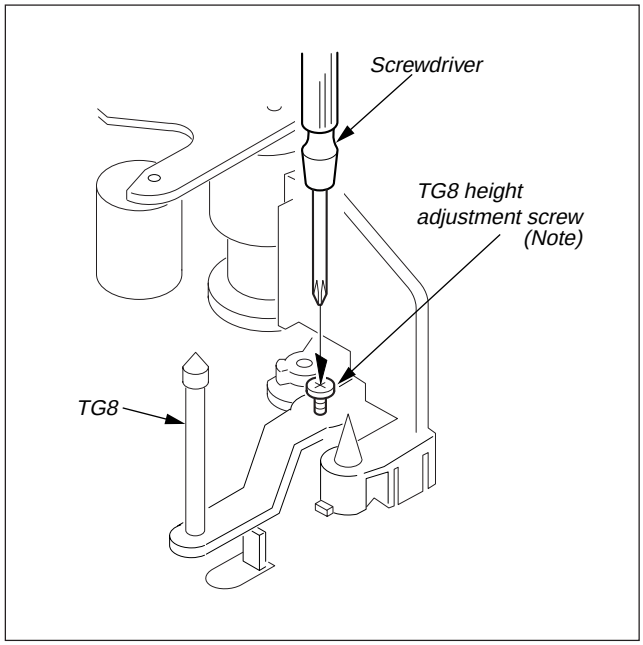


Fig. 4-9

4-1-8. CHECKING THE LINEARITY AND FLUCTUATION OF THE RF OUTPUT

1) Set the RF output to the maximum level using the tracking buttons.

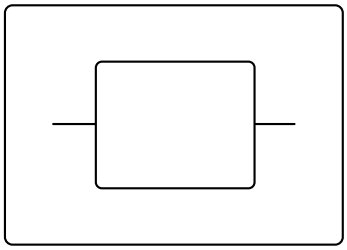


Fig. 4-10-1

2) Perform fine adjustment of the voltage level range of the oscilloscope, adjust the RF output deviation to within 6 gradations.

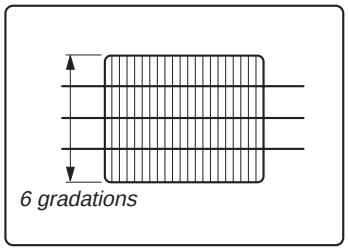


Fig. 4-10-2

3) Press the tracking buttons and adjust the maximum amplitude of the RF output to within 4 gradations.
4) At this time, check if the minimum amplitude is more than 2 gradations.

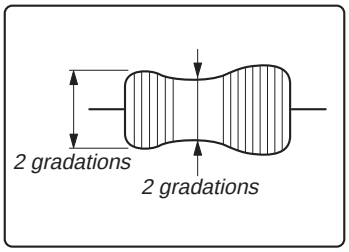


Fig. 4-10-3

5) Check that RF output fluctuation between minimum and maximum levels is within 13%.

5. EXPLODED VIEWS

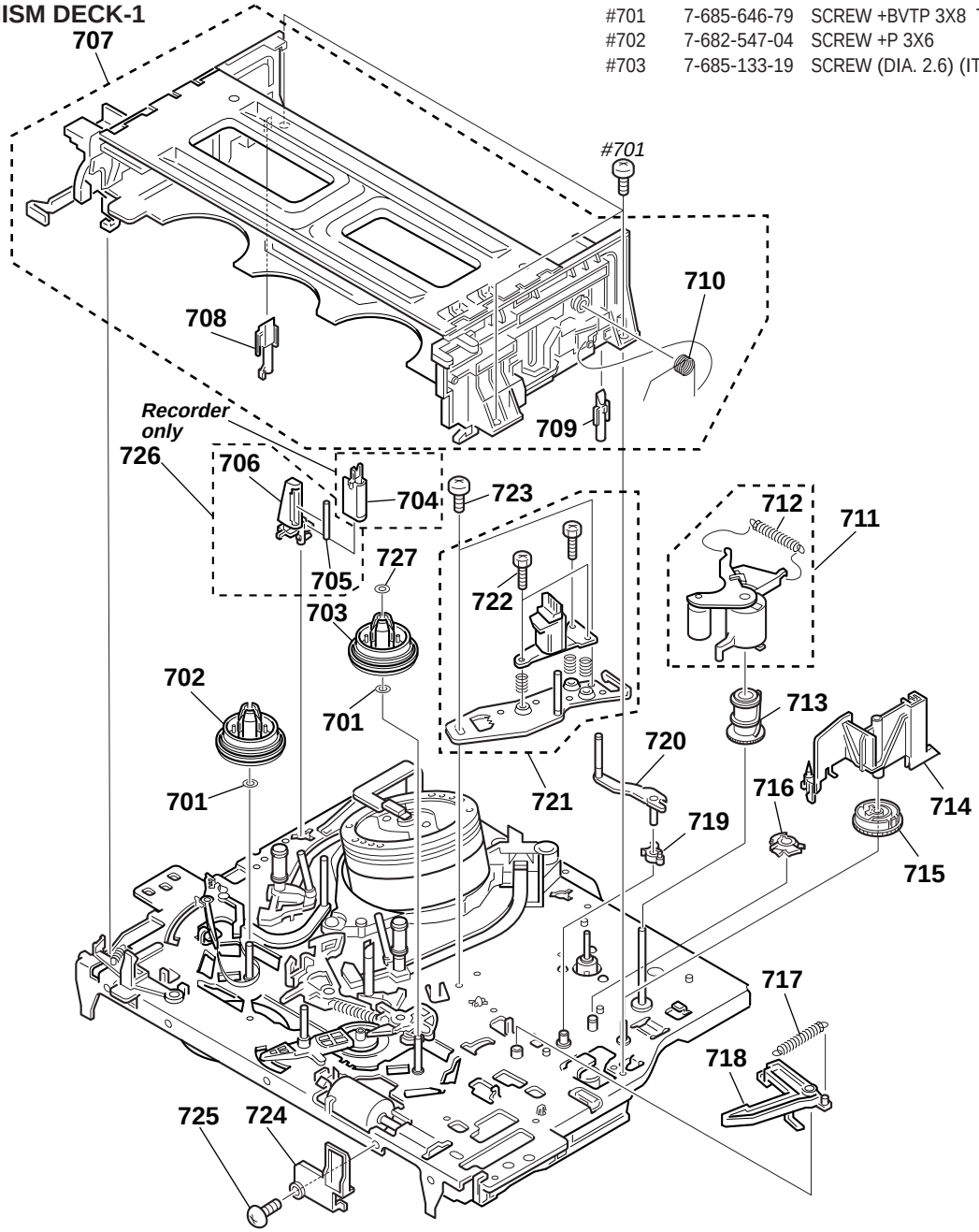
Note:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- 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 LIST
****

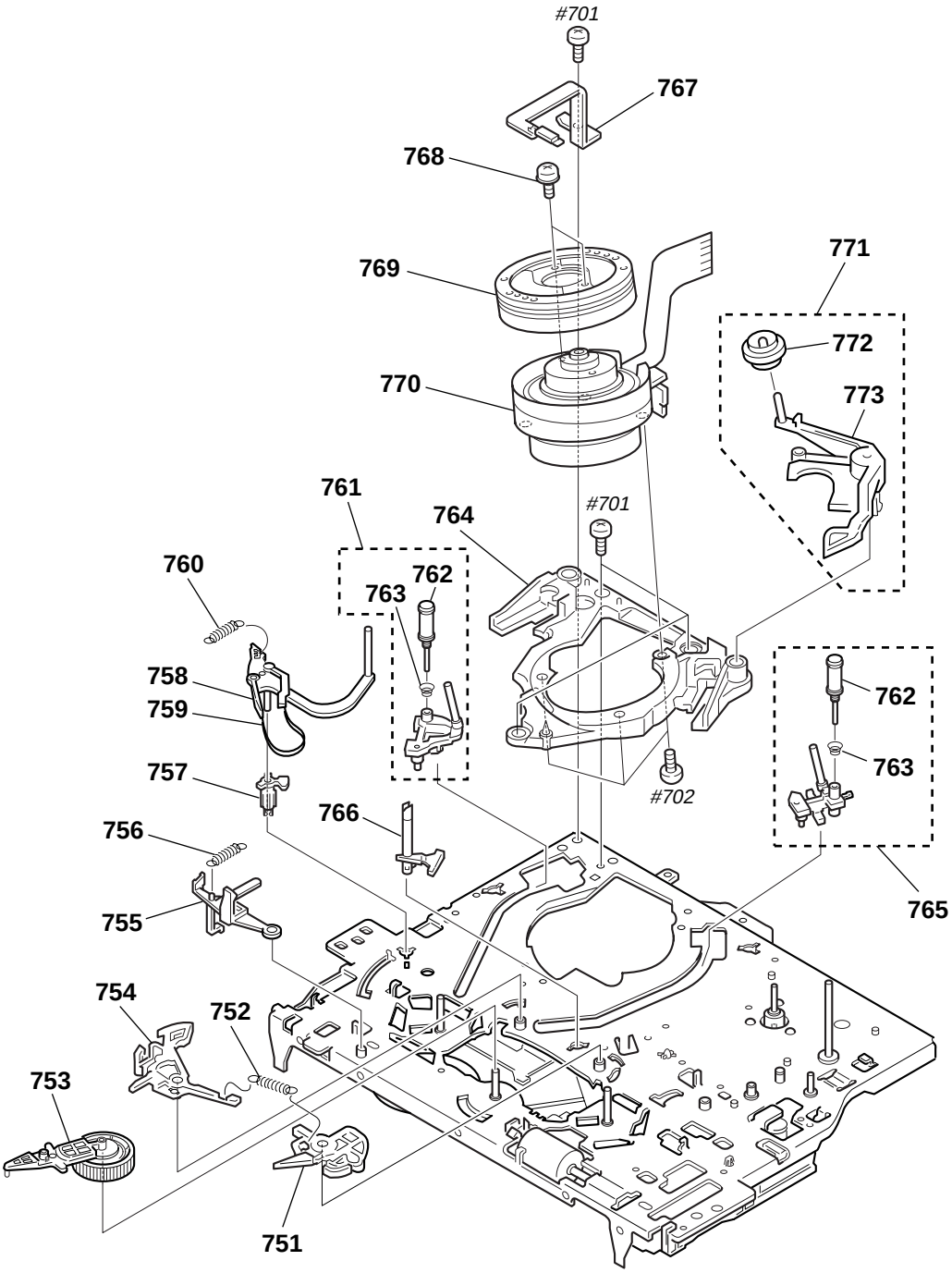
#701	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3
#702	7-682-547-04	SCREW +P 3X6
#703	7-685-133-19	SCREW (DIA. 2.6) (IT3B)

5-1. MECHANISM DECK-1



Ref. No.	Part No.	Description	Remarks
701	3-977-509-01	WASHER, THRUST	
702	3-977-507-01	TABLE, REEL (S) (GRAY)	
703	3-977-508-01	TABLE, REEL (T) (BLACK)	
704	1-500-144-11	HEAD, FE (RECORDER)	
705	3-977-495-01	SHAFT TG2 (RECORDER)	
706	3-977-494-01	HOLDER, FEH (RECORDER)	
707	A-6759-619-A	FL COMPLETE ASSY BOARD, COMPLETE	
708	3-977-535-01	PLATE, LUMINOUS(END SENSOR)	
709	3-977-536-01	PLATE, LUMINOUS(TOP SENSOR)	
710	3-970-471-01	SPRING (DECK OPEN), TORSION	
711	A-6759-615-A	PRESS BLOCK ASSY, PINCH	
712	3-958-455-01	SPRING (PINCH), TENSION	
713	3-977-447-01	GEAR, ELEVATOR	
714	3-977-514-01	OPENER, LID	
715	3-977-441-01	GEAR, PINCH PRESSING	
716	3-977-445-01	GEAR, TG8 ARM DRIVING	
717	3-977-465-01	SPRING,EXTENSION(RVS BRAKE)	
718	X-3947-582-1	ARM ASSY, RVS BRAKE	
719	3-977-446-01	GEAR, TG8 ARM	
720	X-3947-590-1	TG8 ASSY	
721	A-6759-620-A	HEAD BLOCK ASSY, ACE (TDK)	
722	3-974-556-01	+ HEXA TT 2.6X9 (TAPER)	
723	3-979-508-01	SCREW	
724	3-978-485-01	PLATE, GUIDE CASSETTE	
725	3-696-519-01	+P IT3 SCREW 3X8	
726	X-3947-817-1	FEH, ASSY (PLAYER)	
727	3-977-443-01	WASHER, STOPPER	

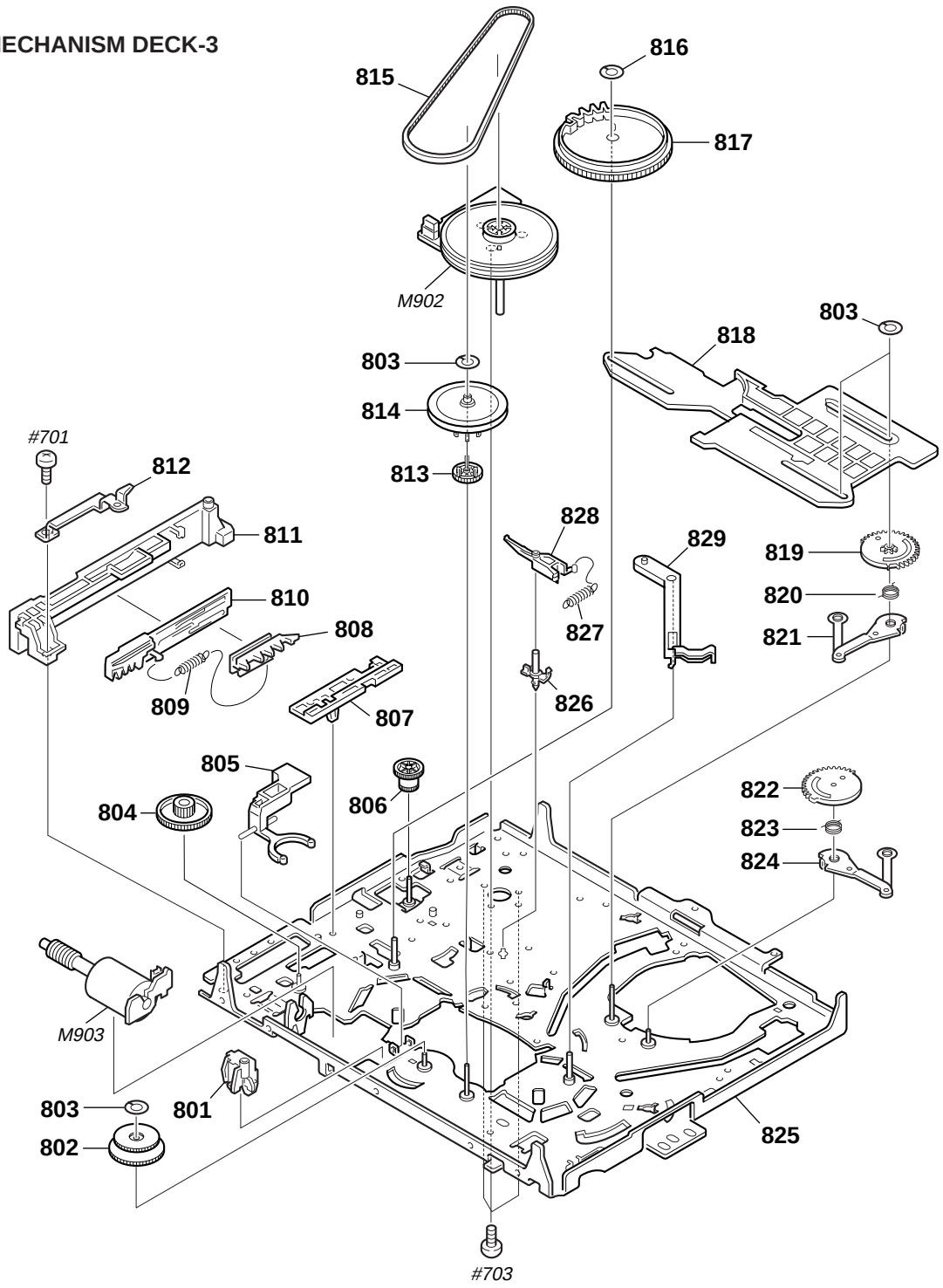
5-2. MECHANISM DECK-2



Ref. No.	Part No.	Description	Remarks
751	X-3947-581-1	BRAKE ASSY,MAIN(T)	
752	3-977-462-01	SPRING,EXTENTION. (MAIN BRAKE)	
753	X-3947-573-1	ARM ASSY, PENDULUM	
754	X-3947-580-1	BRAKE ASSY, MAIN(S)	
755	3-977-513-01	LEVER, REC. PROOF	
756	3-976-767-01	SPRING, TENS. (REC. PROOF)	
757	3-977-487-01	BOSS, TG1 FULCRUM	
758	X-3947-587-1	TG1 ASSY	
759	X-3947-589-1	BAND ASSY, TG1	
760	3-977-488-01	SPRING (POWER TENSION)	
761	A-6750-324-A	SHUTTLE (S) BLOCK ASSY	
762	X-3944-378-1	ROLLER ASSY, GUIDE	

Ref. No.	Part No.	Description	Remarks
763	3-965-178-01	SPRING	
764	3-969-629-01	BASE, DRUM	
765	A-6750-325-A	SHUTTLE (T) BLOCK ASSY	
766	3-977-501-01	PLATE, LUMINOUS	
767	X-3943-899-8	GROUND ASSY, SHAFT	
768	2-643-205-01	SCREW	
769	Refer to the service manual for each model.		
770	Refer to the service manual for each model.		
771	A-6759-614-A	ROLLER BLOCK ASSY, HC	
772	X-3947-255-1	ROLLER ASSY, HC	
773	3-977-537-01	ARM, HC ROLLER	

5-3. MECHANISM DECK-3



Ref. No.	Part No.	Description	Remarks
* 801	3-977-437-01	RETAINER,CAM MOTOR	
802	X-3947-584-1	ASSY, REEL DIRECT	
803	3-977-443-01	WASHER, STOPPER	
804	3-977-438-01	WORM - WHEEL	
805	3-977-506-01	ARM, LIMITTER SELECTION	
806	3-977-444-01	GEAR, PINCH TRANSMISSION	
807	3-977-515-01	GUIDE, FL SLIDER	
808	3-977-517-01	PLATE, SLIDE, FL	
809	3-977-519-01	SPRING, TENS. (LIMIT, FL)	
810	3-977-518-01	PLATE, LIMITTER, FL	
811	3-977-516-01	HOLDER, FL SLIDER	
812	3-977-877-01	PLATE, RETAINER	
813	3-977-504-01	GEAR, CLUTCH	
814	X-3947-585-1	GEAR ASSY, PULLEY	
815	3-977-510-01	BELT, RUBBER	
816	3-977-440-01	WASHER, STOPPER	

Ref. No.	Part No.	Description	Remarks
817	3-977-439-01	GEAR, CAM	
818	3-977-442-01	SLIDER	
819	3-977-455-01	GEAR, LOADING(T)	
820	3-977-456-01	SPRING, TORSION (LOAD T)	
821	X-3947-579-1	LEVER ASSY, LOADING(T)	
822	3-977-451-01	GEAR, LOADING(S)	
823	3-977-452-01	SPRING, TORSION (LOAD S)	
824	X-3947-578-1	LEVER ASSY, LOADING(S)	
825	X-3947-576-1	CHASSIS ASSY, MECHANICAL	
826	3-977-468-01	SHAFT, CAPSTAN BRAKE	
827	3-977-467-01	SPRING, CAP BRAKE	
828	X-3947-583-1	BRAKE ASSY, CAPSTAN	
829	3-977-489-01	ARM, TG1 DRIVING	
M902	1-698-971-11	MOTOR, DC	
M903	X-3947-577-1	MOTOR ASSY, CAM	

9-921-647-11

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