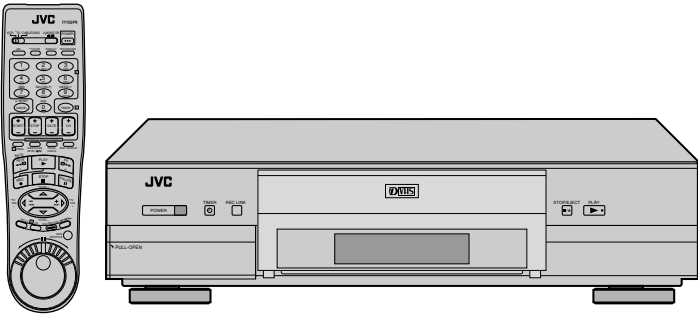


JVC

SERVICE MANUAL

D-VHS DIGITAL RECORDER

HM-DH30000U



HM-DH30000U

SPECIFICATIONS

GENERAL

Power requirement	: AC 120 V~, 60 Hz
Power consumption	
Power on	: 55 W
Power off	: 18 W
Temperature	
Operating	: 5°C to 40°C (41°F to 104°F)
Storage	: -20°C to 60°C (-4°F to 140°F)
Operating position	: Horizontal only
Dimensions (W x H x D)	: 435 mm x 105 mm x 383 mm (17-3/16" x 4-3/16" x 15-1/8")
Weight	: 5.7 kg (12.6 lbs)
Maximum recording time	
D-VHS (HS)	: 210 min. with DF-420 video cassette
D-VHS (STD)	: 420 min. with DF-420 video cassette
D-VHS (LS3)	: 1260 min. with DF-420 video cassette
S-VHS/VHS (SP)	: 210 min. with ST-210 video cassette
S-VHS/VHS (EP)	: 630 min. with ST-210 video cassette

VIDEO/AUDIO (D-VHS)

Video format	: MPEG2 standard
Audio format	: Encode MPEG1 Layer2 Decode MPEG1 Layer2 Dolby Digital
Track composition	
Tape speed	: 33.4 mm/sec (HS mode) 16.67 mm/sec (STD mode) 5.55 mm/sec (LS3 mode)
Head azimuth	: ±30 deg
Drum rotation	: 1800 rpm
Tracking system	: CTL track system
Recording specification	
Main data input rate	: 28.2 Mbps (HS mode) 14.1 Mbps (STD mode) 4.7 Mbps (LS3 mode)
Interface	: IEEE1394 compliant DTCF digital copy protection compatible

VIDEO/AUDIO (S-VHS/VHS)

Format	: S-VHS/VHS NTSC standard
Signal system	: NTSC-type color signal and EIA monochrome signal, 525 lines/60 fields
Recording/Playback system	: DA-4 (Double Azimuth) head helical scan system
Signal-to-noise ratio	: 45 dB
Frequency range	
Normal audio	: 70 Hz to 10,000 Hz
Hi-Fi audio	: 20 Hz to 20,000 Hz

TUNER

Tuning system	: Frequency-synthesized tuner
Channel coverage	
VHF	: Channels 2-13
UHF	: Channels 14-69
CATV	: 113 Channels

TIMER

Clock reference	: Quartz
Program capacity	: 1-year programmable timer/24 programs
Memory backup time	: Approx. 60 min.

CONNECTORS

Input/Output	: i.LINK IN/OUT, DV IN x 2 (4-pin, S200) RCA connectors (IN x 3, OUT x 2) S-video connectors (IN x 3, OUT x 2) Component video OUT (Y, Pb/Cb, Pr/Cr) x 1 Digital OUT (optical) x 1
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ACCESSORIES

Provided accessories	: Infrared remote control unit, "AA" battery x 2, Audio cable, RF cable (F-type), S-video cable (4-pin), Controller
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*Specifications shown are for SP mode unless specified otherwise.
E. & O.E. Design and specifications subject to change without notice.*

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S40895-03

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Important Safety Precautions

Prior to shipment from the factory, JVC products are strictly inspected to conform with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

● Precautions during Servicing

1. Locations requiring special caution are denoted by labels and inscriptions on the cabinet, chassis and certain parts of the product. When performing service, be sure to read and comply with these and other cautionary notices appearing in the operation and service manuals.

2. Parts identified by the  symbol and shaded () parts are critical for safety.
Replace only with specified part numbers.

Note: Parts in this category also include those specified to comply with X-ray emission standards for products using cathode ray tubes and those specified for compliance with various regulations regarding spurious radiation emission.

3. Fuse replacement caution notice.
Caution for continued protection against fire hazard.
Replace only with same type and rated fuse(s) as specified.

4. Use specified internal wiring. Note especially:
1) Wires covered with PVC tubing
2) Double insulated wires
3) High voltage leads

5. Use specified insulating materials for hazardous live parts. Note especially:
1) Insulation Tape 3) Spacers 5) Barrier
2) PVC tubing 4) Insulation sheets for transistors

6. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.) wrap ends of wires securely about the terminals before soldering.

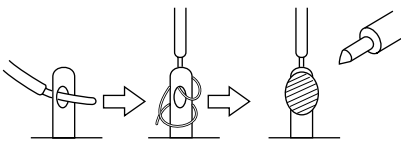


Fig.1

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

8. Check that replaced wires do not contact sharp edged or pointed parts.

9. When a power cord has been replaced, check that 10-15 kg of force in any direction will not loosen it.

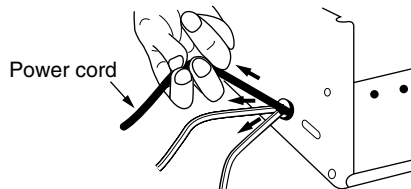


Fig.2

10. Also check areas surrounding repaired locations.

11. Products using cathode ray tubes (CRTs)
In regard to such products, the cathode ray tubes themselves, the high voltage circuits, and related circuits are specified for compliance with recognized codes pertaining to X-ray emission. Consequently, when servicing these products, replace the cathode ray tubes and other parts with only the specified parts. Under no circumstances attempt to modify these circuits. Unauthorized modification can increase the high voltage value and cause X-ray emission from the cathode ray tube.

12. Crimp type wire connector

In such cases as when replacing the power transformer in sets where the connections between the power cord and power transformer primary lead wires are performed using crimp type connectors, if replacing the connectors is unavoidable, in order to prevent safety hazards, perform carefully and precisely according to the following steps.

1) **Connector part number :** E03830-001

2) **Required tool :** Connector crimping tool of the proper type which will not damage insulated parts.

3) **Replacement procedure**

(1) Remove the old connector by cutting the wires at a point close to the connector.

Important : Do not reuse a connector (discard it).

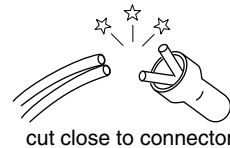


Fig.3

(2) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.

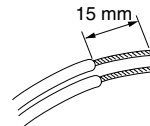


Fig.4

(3) Align the lengths of the wires to be connected. Insert the wires fully into the connector.

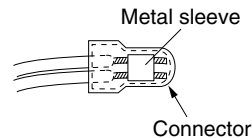


Fig.5

(4) As shown in Fig.6, use the crimping tool to crimp the metal sleeve at the center position. Be sure to crimp fully to the complete closure of the tool.

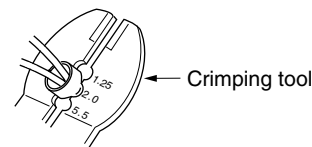


Fig.6

(5) Check the four points noted in Fig.7.

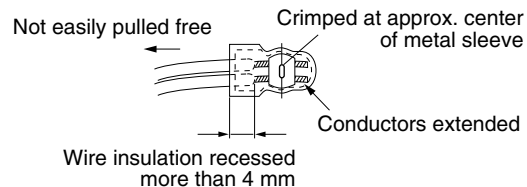


Fig.7

● Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions. Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

1. Insulation resistance test

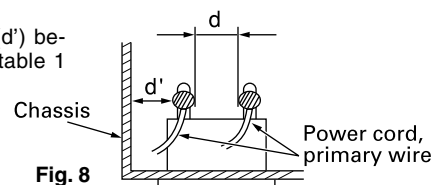
Confirm the specified insulation resistance or greater between power cord plug prongs and externally exposed parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

2. Dielectric strength test

Confirm specified dielectric strength or greater between power cord plug prongs and exposed accessible parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

3. Clearance distance

When replacing primary circuit components, confirm specified clearance distance (d), (d') between soldered terminals, and between terminals and surrounding metallic parts. See table 1 below.

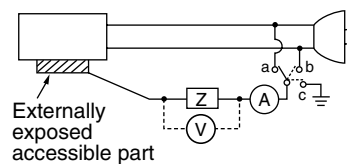


4. Leakage current test

Confirm specified or lower leakage current between earth ground/power cord plug prongs and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).

Measuring Method : (Power ON)

Insert load Z between earth ground/power cord plug prongs and externally exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See figure 9 and following table 2.

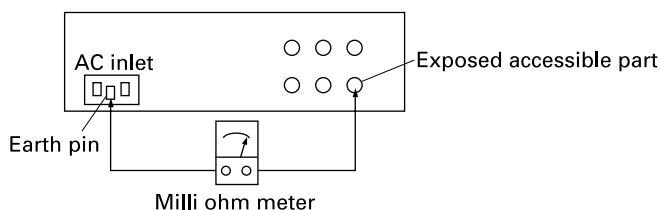


5. Grounding (Class 1 model only)

Confirm specified or lower grounding impedance between earth pin in AC inlet and externally exposed accessible parts (Video in, Video out, Audio in, Audio out or Fixing screw etc.).

Measuring Method:

Connect milli ohm meter between earth pin in AC inlet and exposed accessible parts. See figure 10 and grounding specifications.



Grounding Specifications

Region	Grounding Impedance (Z)
USA & Canada	$Z \leq 0.1 \text{ ohm}$
Europe & Australia	$Z \leq 0.5 \text{ ohm}$

Fig. 10

AC Line Voltage	Region	Insulation Resistance (R)	Dielectric Strength	Clearance Distance (d), (d')
100 V	Japan	$R \geq 1 \text{ M}\Omega/500 \text{ V DC}$	AC 1 kV 1 minute	$d, d' \geq 3 \text{ mm}$
100 to 240 V			AC 1.5 kV 1 minute	$d, d' \geq 4 \text{ mm}$
110 to 130 V	USA & Canada	$1 \text{ M}\Omega \leq R \leq 12 \text{ M}\Omega/500 \text{ V DC}$	AC 1 kV 1 minute	$d, d' \geq 3.2 \text{ mm}$
110 to 130 V 200 to 240 V	Europe & Australia	$R \geq 10 \text{ M}\Omega/500 \text{ V DC}$	AC 3 kV 1 minute (Class II)	$d \geq 4 \text{ mm}$
			AC 1.5 kV 1 minute (Class I)	$d' \geq 8 \text{ mm (Power cord)}$ $d' \geq 6 \text{ mm (Primary wire)}$

Table 1 Specifications for each region

AC Line Voltage	Region	Load Z	Leakage Current (i)	a, b, c
100 V	Japan		$i \leq 1 \text{ mA rms}$	Exposed accessible parts
110 to 130 V	USA & Canada		$i \leq 0.5 \text{ mA rms}$	Exposed accessible parts
110 to 130 V 220 to 240 V	Europe & Australia		$i \leq 0.7 \text{ mA peak}$ $i \leq 2 \text{ mA dc}$	Antenna earth terminals
			$i \leq 0.7 \text{ mA peak}$ $i \leq 2 \text{ mA dc}$	Other terminals

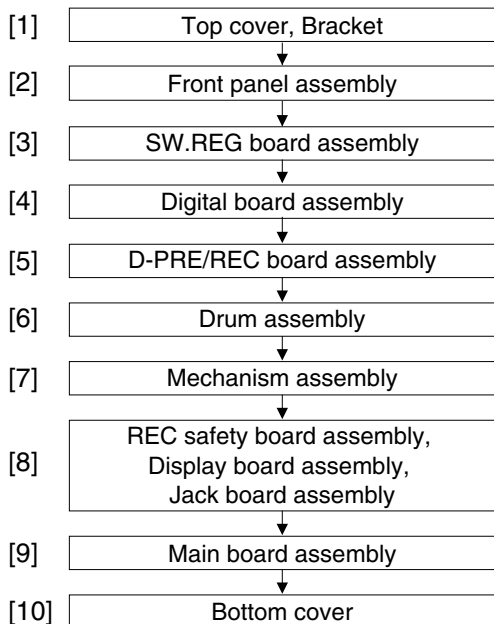
Table 2 Leakage current specifications for each region

Note: These tables are unofficial and for reference only. Be sure to confirm the precise values for your particular country and locality.

SECTION 1 DISASSEMBLY

1.1 Disassembly flow chart

This flowchart lists the disassembling steps for the cabinet parts and P.C. boards in order to gain access to item(s) to be serviced. When reassembling, perform the step(s) in reverse order. Bend, route and dress the flat cables as they were originally laid.



1.2 How to read the disassembly and assembly

<Example>

Step/ LocNo.	Part Name	Fig. No.	Point	Note
[1]	Top cover, Bracket	D1	4(S1a),(S1b),3(L1a), 2(SD1a),(P1a),(W1a), CN1(WR1a), 2(S1c)	<Note 1a>
(1)	(2)	(3)	(4)	(5)

(1) Order of steps in Procedure

When reassembling, perform the step(s) in the reverse order. These numbers are also used as the identification (location) No. of parts Figures.

(2) Part name to be removed or installed.

(3) Fig. No. showing procedure or part location.

(4) Identification of part to be removed, unhooked, unlocked, released, unplugged, unclamped or unsoldered.

P= Spring, W= Washer, S= Screw, L= Locking tab, SD= Solder, CN**(WR**)= Remove the wire (WR**) from the connector (CN**).

Note:

- The bracketed () WR of the connector symbol are assigned nos. in priority order and do not correspond to those on the spare parts list.

(5) Adjustment information for installation

1.3 Disassembly/assembly method

Step/ LocNo.	Part Name	Fig. No.	Point	Note
[1]	Top cover, Bracket	D1	2(S1a), 2(S1b), (S1c), 2(S1d)	
[2]	Front panel assembly	D2	CN8201(WR2a), 2(S2a), 4(L2a), 2(L2b), 3(L2c)	<Note 2a> <Note 2b>
[3]	SW.REG board assembly	D3	CN5302(WR3a), CN5502(WR3b), CN5504(WR3c), CN5303(WR3d), CN5503(WR3e), 2(S3a)	<Note 2a>
[4]	Digital board assembly	D4	CN601(WR4a), CN603(WR4b), CN8803(WR4c), CN9801(WR4d), CN8002(WR4e), 2(S4a), (S4b), Earth plate	<Note 2a> <Note 4a>
[5]	D-PRE/REC board assembly	D5	(S5a), L5a(WR5a), Shield case(PRE), CN606(WR5b), CN3011	<Note 2a> <Note 5a>
[6]	Drum assembly, (Inertia plate), (Roller arm assembly), (Cleaner assembly)	D6	CON1(WR6a), CN1(WR6b), (S6a), (S6b), (S6c), 4(L6a), (P6a), (L6b), (L6c)	<Note 2a> <Note 6a>
[7]	Mechanism assembly	D7	CN1(WR7a), (S7a), (S7b), (S7c), (S7d), S7e(WR7b), 2(L7a)	<Note 2a> <Note 7a>
[8]	REC safety board assembly, Display board assembly, Jack board assembly	D8	(S8a), CN7002(WR8a), 4(L8a), CN7191(WR8b)	<Note 2a> <Note 8a>
[9]	Main board assembly	D9	2(S9a)	
[10]	Bottom cover, (Foot(2)), (Foot assembly)	D10	4(L10a), 4(L10b), (S10a), 2(S10b), 4(L10c), 3(L10d)	

<Note 2a>

- Be careful not to damage the connector and wire etc. during connection and disconnection.
- When connecting the flat wire to the connector, be careful with the wire direction.

<Note 2b>

- When reattaching the Front panel assembly, make sure that the door opener "a" of the Cassette holder assembly is lowered in position prior to the reinstallation.

<Note 4a>

- When securing the screw (S4b), be sure to attach the earth plate together it.

<Note 5a>

- When securing the screw (S5a), be sure to connect the lug wire (WR5a) together it.

<Note 6a>

- When installing the drum assembly, secure the screws (S6a to S6c) in the order of a,b,c.

<Note 7a>

- When it is required to remove the screws (S7a to S7b) retaining the Mechanism assembly, please refer to the "Procedures for Lowering the Cassette holder assembly"(See on page 1-2).
- When reattaching the Mechanism assembly to the Main board assembly, take care not to damage the sensors and switch on the Main board assembly.
- When removing the Mechanism assembly only, unhook the two spacers connecting it with the Main board assembly with pliers from the back side of the Main board assembly first, and then remove the Mechanism assembly.

<Note 8a>

- After removing the REC safety board assembly, remove the display board assembly.

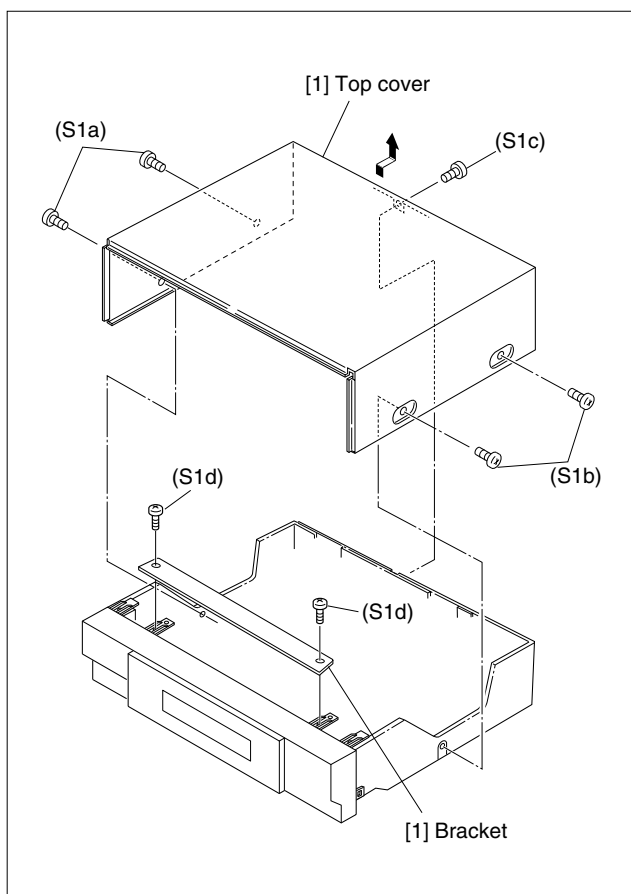
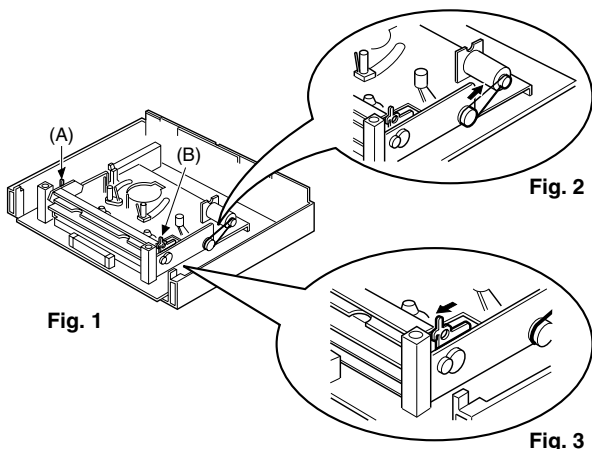


Fig. D1

Procedures for Lowering the Cassette holder assembly

As the mechanism of this unit is integrated with the Housing assembly, the holder must be lowered and the two screws unscrewed when removing the Mechanism assembly.



Turn the loading motor pulley in the direction as indicated by Fig.2. As both (A) and (B) levers are lodged twice, push the levers in the direction as indicated by Fig.3 to release them. When pushing the levers, do it in the order of (A), (B), (B), (A). When the holder has been lowered, turn the pulley until the cassette holder is securely in place without allowing any up/down movement.

Procedures for Lowering the Cassette holder assembly

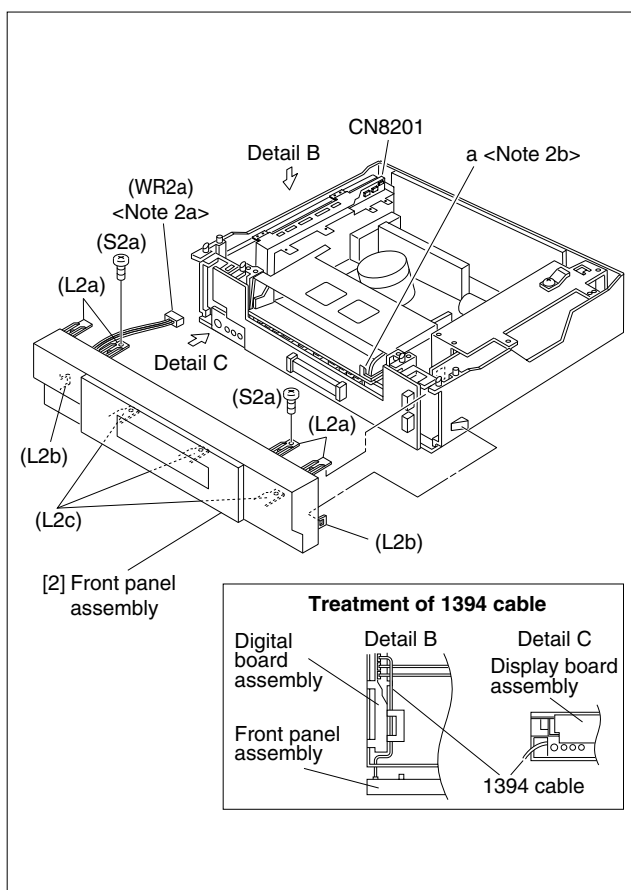


Fig. D2

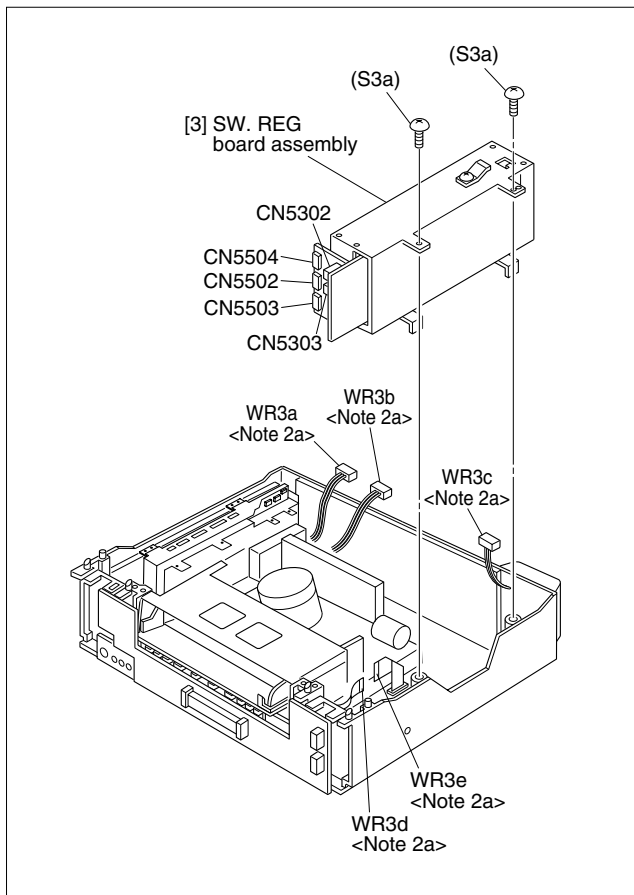


Fig. D3

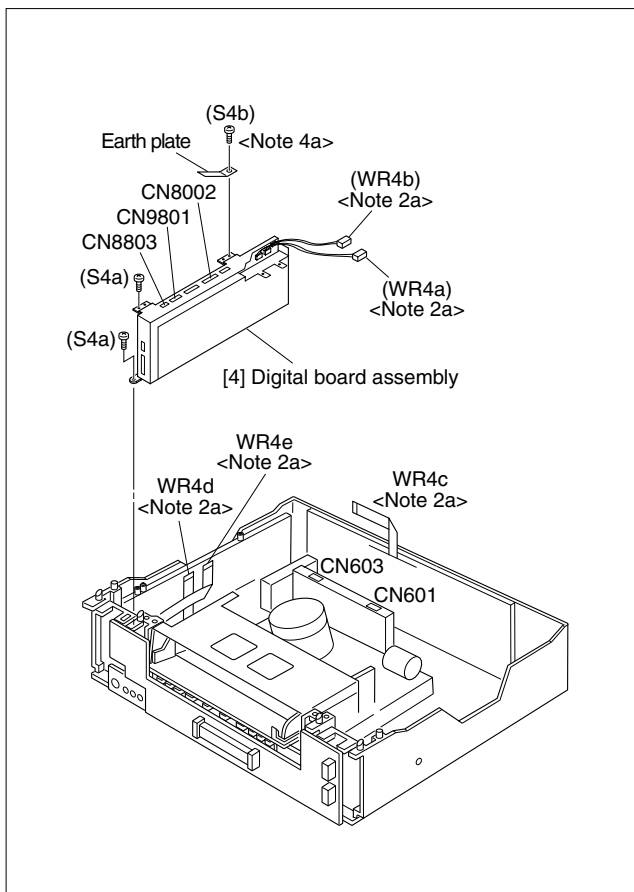


Fig. D4

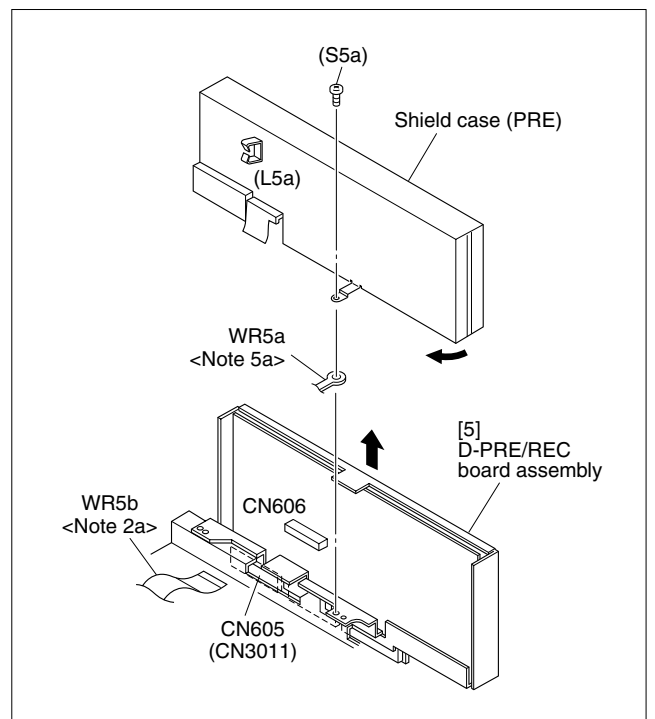


Fig. D5

Note:
When installing the Drum assembly, secure the screws (S6a to S6c) in the order of a, b, c.

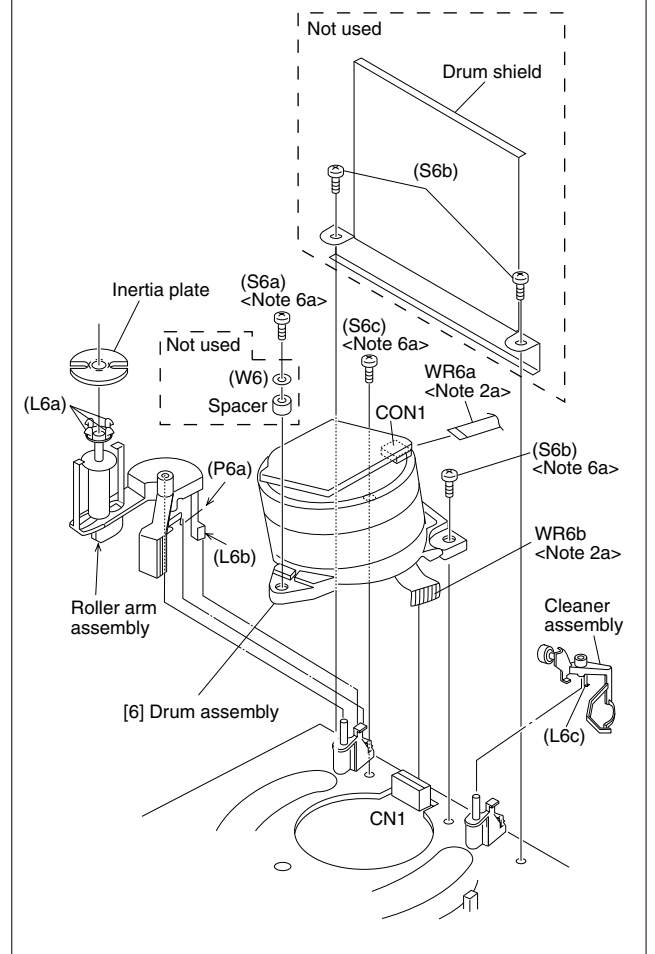


Fig. D6

Note:
When installing the Mechanism assembly, secure the screws (S7a to S7b) in the order of a, b.

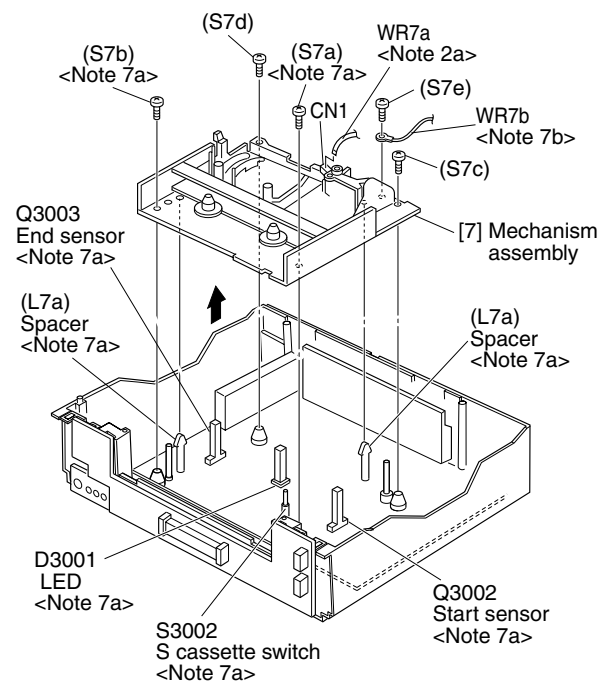


Fig. D7

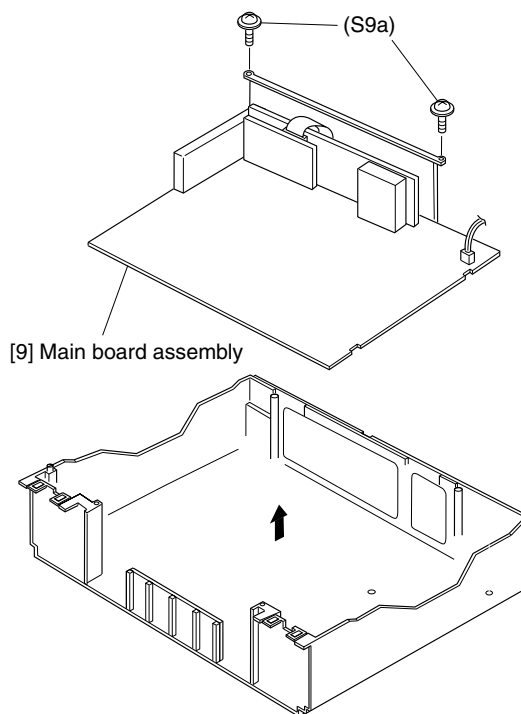


Fig. D9

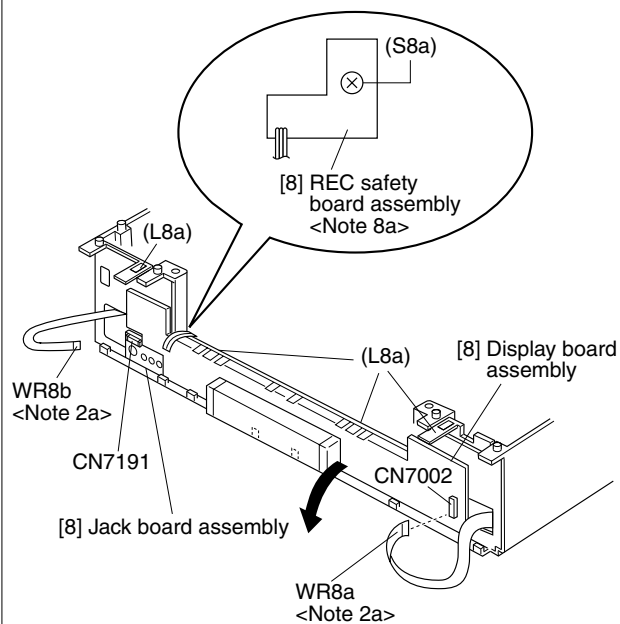


Fig. D8

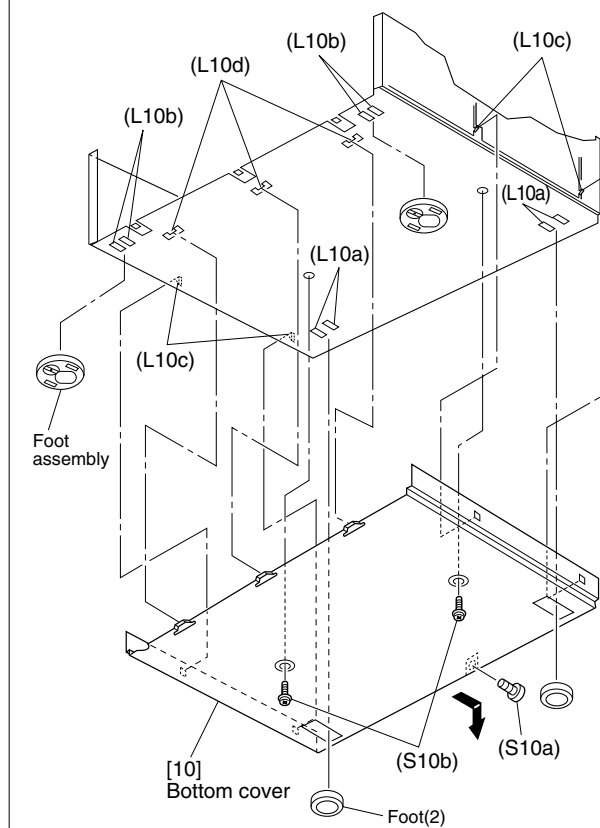


Fig. D10

1.4 Service position

This unit has been designed so that the Mechanism and Main board assemblies can be removed together from the chassis assembly. Before diagnosing or servicing the circuit boards, take out the major parts from the chassis assembly.

1.4.1 How to set the "Service position"

- (1) Refer to the disassembly procedure and perform the disassembly of the major parts before removing the D-PRE/REC board assembly.
- (2) Remove the screws attaching the mechanism assembly with the chassis assembly. Remove the screws attaching the board assembly, if necessary.
- (3) Remove the combined Mechanism and Main board assemblies.
- (4) Connect the wires and connectors of the major parts that have been removed in step (1). (Refer to Fig.1-4-1a.)
- (5) Place the combined Mechanism and Main board assemblies upside down.
- (6) Insert the power cord plug into the power outlet and then proceed with the diagnostics and servicing of the board assembly.

Notes:

- Before inserting the power cord plug into the power outlet, make sure that none of the electrical parts are able to short-circuit between the workbench and the board assembly.
- For the disassembly procedure of the major parts and details of the precautions to be taken, see "1.3 Disassembly/assembly method".
- If there are wire connections from the Main board and Mechanism assemblies to the other major parts, be sure to remove them (including wires connected to the major parts) first before performing step (2).
- When carrying out diagnosis and repair of the Main board assembly in the "Service position", be sure to ground both the Main board and Mechanism assemblies. If they are improperly grounded, there may be noise on the playback picture or FDP counter display may move even when the mechanism is kept in an in-operative status.

- In order to diagnose the playback or recording of the cassette tape, set the Mechanism assembly to the required mode before placing it upside down. If the mechanism mode is changed (including ejection) while it is in an upside down position the tape inside may be damaged.

1.4.2 Precautions for cassette loading in the "Service position"

The REC safety board assembly detects cassette loading as well as cassette tabs. Therefore, after the assembly has been removed in the "Service position", it is required to set the switch manually on the REC safety board assembly when a cassette is loaded.

1.4.3 Cassette loading and ejection methods in the "Service position"

- (1) Insert a cassette halfway in the Cassette holder assembly.
- (2) Set the switch on the REC safety board assembly to on (by pressing the switch).
- (3) As soon as the cassette starts to be loaded, set the switch on the REC safety board assembly to off (by releasing the switch).
- (4) Now the desired operation (recording, playback, fast forward, rewind, etc.) is possible in this status.
- (5) The switch on the REC safety board assembly does not have to be operated when ejecting a tape. But be sure to turn the set to the normal position before ejecting the tape.

Note:

- In the "Service position", the cassette tabs cannot be detected and recording becomes possible even with a cassette with broken tabs such as the alignment tape. Be very careful not to erase important tapes.

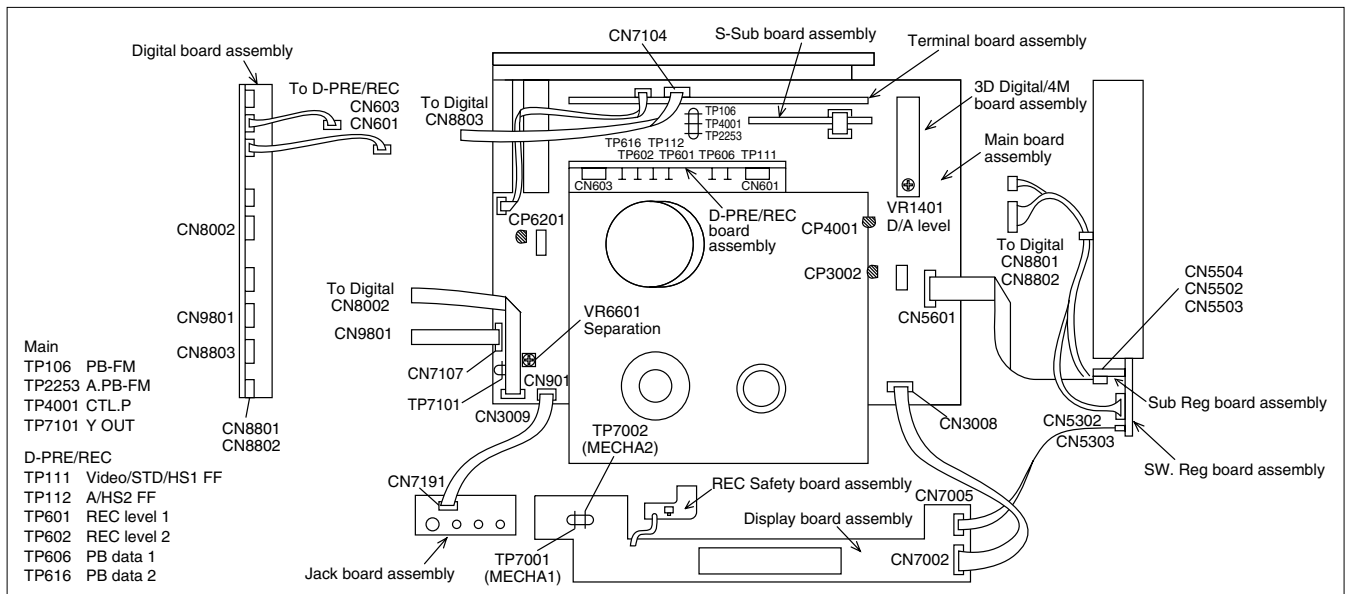


Fig. 1-4-1a

1.5 Mechanism service mode

This model has a unique function to enter the mechanism into every operation mode without loading of any cassette tape. This function is called the "Mechanism service mode".

1.5.1 How to set the "Mechanism service mode"

- (1) Unplug the power cord plug from the power outlet.
- (2) Remove the front panel assembly.
- (3) Connect TP7001(MECHA 1) and TP7002(MECHA 2) on the Display board assembly with a jump wire.
- (4) Insert the power cord plug into the power outlet.
- (5) With lock levers (A) (B) on the left and right of the Cassette holder assembly pulled toward the front, slide the holder in the same direction as the cassette insertion direction. (For the positions of lock levers (A) (B), refer to the "Procedures for lowering the Cassette holder assembly" of 1.3 Disassembly/assembly method.)
- (6) The cassette holder lowers and, when the loading has completed, the mechanism enters the desired mode.

1.6 Jig RCU mode

This unit uses the following two modes for receiving remote control codes.

- 1) User RCU mode : Ordinary mode for use by the user.
- 2) Jig RCU mode : Mode for use in production and servicing.

When using the Jig RCU, it is required to set the VCR to the Jig RCU mode (the mode in which codes from the Jig RCU can be received). As both of the above two modes are stored in the EEPROM, it is required to set the VCR back to the User RCU mode each time that an adjustment is made or to check that the necessary operations have been completed. These modes can be set by the operations described below.

1.6.1 Setting the Jig RCU mode

- (1) Unplug the power cord plug from the power outlet.
- (2) Press and hold the "REC" and "PAUSE" buttons on the VCR simultaneously, while plugging the power cord plug into the power outlet.

When the VCR is set to the Jig RCU mode, the symbols (" : ") in the time display of the FDP are turned off.

1.6.2 Setting the User RCU mode

- (1) Turn off the power.
- (2) Press the "REC" and "PAUSE" buttons of the VCR simultaneously. Alternatively, transmit the code "80" from the Jig RCU.

1.7 Opening on the chassis

The chassis of this VCR has openings for diagnosis of some parts on the board assembly.

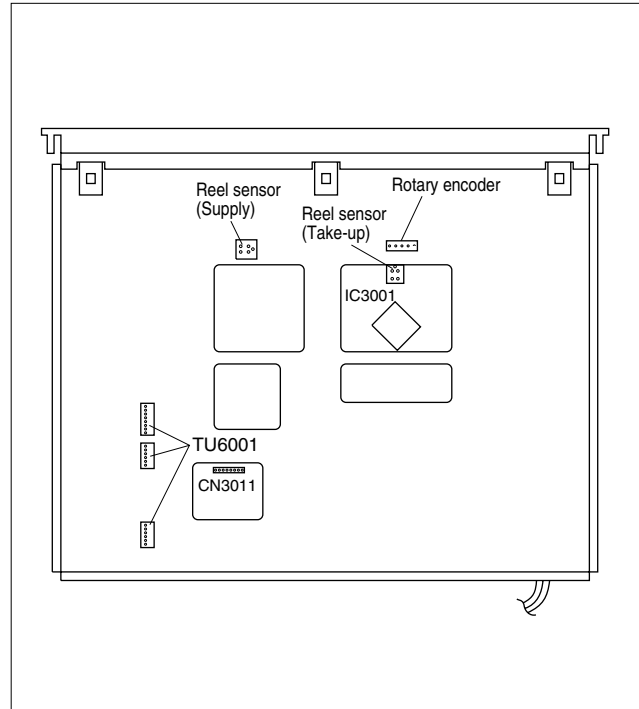


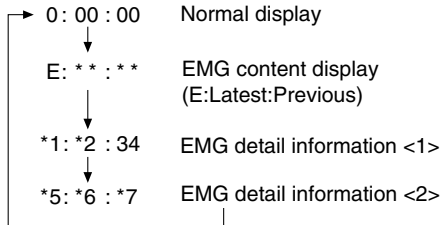
Fig. 1-7-1a

1.8 Emergency display function

This unit has a function for storing the history of the past two emergencies (EMG) and displaying them on each FDP (or OSD). With the status of the VCR and mechanism at the moment an emergency occurred can also be confirmed.

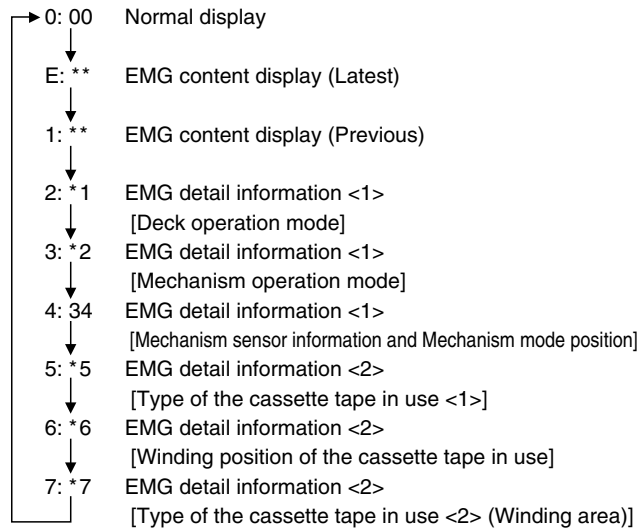
FDP display model

[FDP display]



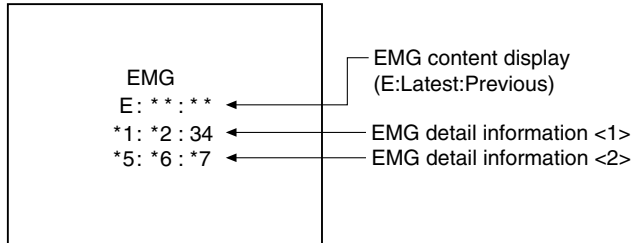
FDP (7segment LED) display model

[FDP display]



OSD display model

[OSD display]



Notes:

- **The EMG detail information <1><2> show the information on the latest EMG.**
It becomes “-- : -- : --” when there is no latest EMG record.
- **When using the Jig RCU, it is required to set the VCR to the Jig RCU mode (the mode in which codes from the Jig RCU can be received).**

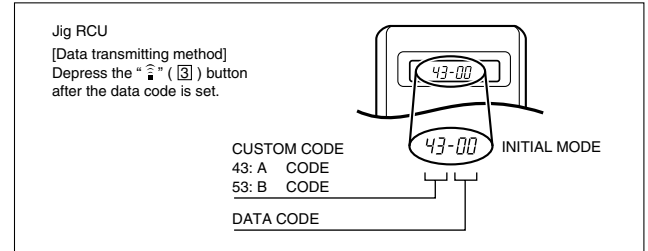
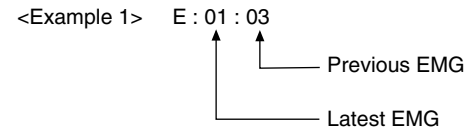


Fig. 1-8a Jig RCU [PTU94023B]

1.8.1 Displaying the EMG information

- (1) Transmit the code “59” from the Jig RCU.

The FDP shows the EMG content in the form of “E: ** : **”.



<Example 2> E : -- : -- ← No EMG record

- (2) Transmit the code “59” from the Jig RCU again.

The FDP shows the EMG detail information <1> in the form of “* 1 : * 2 : 34”.

- * 1 : Deck operation mode at the moment of EMG
- * 2 : Mechanism operation mode at the moment of EMG
- 3— : Mechanism sensor information at the moment of EMG
- 4 : Mechanism mode position at the moment of EMG

- (3) Transmit the code “59” from the Jig RCU once again.

The FDP shows the EMG detail information <2> in the form of “* 5 : * 6 : * 7”.

- * 5 : Type of the cassette tape in use <1> .
- * 6 : Winding position of the cassette tape in use
- * 7 : Type of the cassette tape in use <2> (Winding area)

- (4) Transmit the code “59” from the Jig RCU once again to re-set the display.

Notes:

- **For the OSD display model, all EMG information are showed by transmitting first code from the Jig RCU.**
- **For the EMG content, see “1.8.3 EMG content description”.**
- **For the EMG detail information <1>, see “1.8.4 EMG detail information <1>”.**
- **For the EMG detail information <2>, see “1.8.5 EMG detail information <2>”.**

1.8.2 Clearing the EMG history

- (1) Display the EMG history.
- (2) Transmit the code “36” from the Jig RCU.
- (3) Reset the EMG display.

1.8.3 EMG content description

Note: EMG contents “E08/E09” are for the model with Dynamic Drum (DD).

FDP	CONTENT	CAUSE
E01: Loading EMG	When the mechanism mode cannot be changed to another mode even when the loading motor has rotated for more than 4 seconds in the loading direction, [E:01] is identified and the power is turned off.	1. The mechanism is locked in the middle of mode transition. 2. The mechanism is locked at the loading end due to the encoder position reading error during mode transition. 3. Power is not supplied to the loading MDA.
E02: Unloading EMG	When the mechanism mode cannot be changed to another mode even when the loading motor has rotated for more than 4 seconds in the unloading direction, [E:02] is identified and the power is turned off.	1. The mechanism is locked in the middle of mode transition. 2. The mechanism is locked at the unloading end due to the encoder position reading error during mode transition. 3. Power is not supplied to the loading MDA.
E03: Take Up Reel Pulse EMG	When the take-up reel pulse has not been generated for more than 4 seconds in the capstan rotating mode, [E:03] is identified, the pinch rollers are turned off and stopped, and the power is turned off. However, the reel EMG is not detected in STILL/SLOW modes.	1. The take-up reel pulse is not generated in the FWD transport modes (PLAY/FWD SEARCH/FF, etc.) because; 1) The idler gear is not meshed with the take-up reel gear; 2) The idler gear is meshed with the take-up reel gear, but incapable of winding due to too large mechanical load (abnormal tension); 3) The take-up reel sensor does not output the FG pulse. 2. The supply reel pulse is not generated in the REV transport modes (REV SEARCH/REW, etc.) because; 1) The idler gear is not meshed with the supply reel gear. 2) The idler gear is meshed with the supply reel gear, but incapable of winding due to too large a mechanical load (abnormal tension); 3) The supply reel sensor does not output the FG pulse. 3. Power is not supplied to the reel sensors.
E04: Drum FG EMG	When the drum FG pulse has not been input for more than 3 seconds in the drum rotating mode, [E:04] is identified, the pinch rollers are turned off and stopped, and the power is turned off.	1. The drum could not start or the drum rotation has stopped due to too large a load on the tape, because; 1) The tape tension is abnormally high; 2) The tape is damaged or a foreign object (grease, etc.) adheres to the tape. 2. The drum FG pulse did not reach the System controller CPU because; 1) The signal circuit is disconnected in the middle; 2) The FG pulse generator (hall device) of the drum is faulty. 3. The drum control voltage (DRUM CTL V) is not supplied to the MDA. 4. Power is not supplied to the drum MDA.
E05: Cassette Eject EMG	When the eject operation does not complete in 3 seconds after the start, [E:05] is identified, the pinch rollers are turned off and stopped, and the power is turned off. When the cassette insertion operation does not complete in 3 seconds after the start, the cassette is ejected. In addition, when the operation does not complete within 3 seconds after the start, [E:05] is also identified and the power is turned off immediately.	1. The cassette cannot be ejected due to a failure in the drive mechanism of the housing. 2. When the housing load increases during ejection, the loading motor is stopped because of lack of headroom in its drive torque. Housing load increasing factors: Temperature environment (low temperature, etc.), mechanism wear or failure. 3. The sensor/switch for detecting the end of ejection are not functioning normally. 4. The loading motor drive voltage is lower than specified or power is not supplied to the motor (MDA). 5. When the user attempted to eject a cassette, a foreign object (or perhaps the user's hand) was caught in the opening of the housing.
E06: Capstan FG EMG	When the capstan FG pulse has not been generated for more than 1 second in the capstan rotating mode, [E:06] is identified, the pinch rollers are turned off and stopped, and the power is turned off. However, the capstan EMG is not detected in STILL/SLOW/FF/REW modes.	1. The capstan could not start or the capstan rotation has stopped due to too large a load on the tape, because; 1) The tape tension is abnormally high (mechanical lock); 2) The tape is damaged or a foreign object (grease, etc.) is adhered to the tape (occurrence of tape entangling, etc.). 2. The capstan FG pulse did not reach the System controller CPU because; 1) The signal circuit is disconnected in the middle; 2) The FG pulse generator (MR device) of the capstans is faulty. 3. The capstan control voltage (CAPSTAN CTL V) is not supplied to the MDA. 4. Power is not supplied to the capstan MDA.
E07: SW Power Short-Circuit EMG	When short-circuiting of the SW power supply with GND has lasted for 0.5 second or more, [E:07] is identified, all the motors are stopped and the power is turned off.	1. The SW 5 V power supply circuit is shorted with GND. 2. The SW 12 V power supply circuit is shorted with GND.
E08: DD Initialized (Absolute Position Sensor) EMG	When DD tilting does not complete in 4 seconds, [E:08] is identified, the tilt motor is stopped and the power is turned off.	1. The absolute value sensor is defective. (The soldered parts have separated.) 2. The pull-up resistor at the absolute sensor output is defective. (The soldered parts have separated.) 3. Contact failure or soldering failure of the pins of the connector (board-to-board) to the absolute value sensor. 4. The absolute value sensor data is not sent to the System Controller CPU.
E09: DD FG EMG	When the DD FG pulse is not generated within 2.5 seconds, [E:09] is identified, the tilt motor is stopped and the power is turned off.	1. The FG sensor is defective. (The soldered parts have separated.) 2. The pull-up resistor at the FG sensor output is defective. (The soldered parts have separated.) 3. Contact failure or soldering failure of the pins of the connector (board-to-board) to the FG sensor. 4. The power to the sensor is not supplied. (Connection failure/soldering failure) 5. The FG pulse is not sent to the System Controller CPU. 6. The tilt motor is defective. (The soldered parts have separated.) 7. The drive power to the tilt motor is not supplied. (Connection failure/soldering failure) 8. The tilt motor drive MDA - IC is defective. 9. Auto-recovery of the DD tilting cannot take place due to overrun.
E0A: Supply Reel Pulse EMG	When the supply reel pulse has not been generated for more than 10 seconds in the capstan rotating mode, [E:0A] is identified and the cassette is ejected (but the power is not turned off). However, note that the reel EMG is not detected in the SLOW/STILL mode.	1. The supply reel pulse is not generated in the FWD transport mode (PLAY/FWD SEARCH/FF, etc.) because; 1) PLAY/FWD or SEARCH/FF is started while the tape in the inserted cassette is cut in the middle; 2) A mechanical factor caused tape slack inside and outside the supply reel side of the cassette shell. In this case, the supply reel will not rotate until the tape slack is removed by the FWD transport, so the pulse is not generated until then; 3) The FG pulse output from the supply reel sensor is absent. 2. The take-up reel pulse is not generated in the REV transport mode (REV SEARCH/REW, etc.). 1) REV SEARCH/REW is started when the tape in the inserted cassette has been cut in the middle; 2) A mechanical factor caused tape slack inside and outside the take-up reel side of the cassette shell. In this case, the supply reel will not rotate until the tape slack is removed by the REV transport, so the pulse will not be generated until that time; 3) The FG pulse output from the take-up reel sensor is absent. 3. The power to a reel sensor is not supplied.
EC1 or EU1: Head clog warning	Presupposing the presence of the control pulse output in the PLAY mode, when the value obtained by mixing the two V.FM output channels (without regard to the A.FM output) has remained below a certain threshold level for more than 10 seconds, [E:C1] or [E:U1] is identified and recorded in the emergency history. During the period in which a head clog is detected, the FDP and OSD repeat the “3-second warning display” and “7-second noise picture display” alternately. EMG code : “E:C1” or “E:U1” / FDP : “U:01” / OSD : “Try cleaning tape.” or “Use cleaning cassette.” The head clog warning is reset when the above-mentioned threshold has been exceeded for more than 2 seconds or the mode is changed to another mode than PLAY.	

Table 1-8-3a

1.8.4 EMG detail information <1>

The status (electrical operation mode) of the VCR and the status (mechanism operation mode/sensor information) of the mechanism in the latest EMG can be confirmed based on the figure in EMG detail information <1> .

[FDP/OSD display]

* 1 : * 2 : 34

* 1 : Deck operation mode at the moment of EMG

* 2 : Mechanism operation mode at the moment of EMG

3— : Mechanism sensor information at the moment of EMG

—4 : Mechanism mode position at the moment of EMG

Note:

- For EMG detailed information <1>, the content of the code that is shown on the FDP (or OSD) differs depending on the parts number of the system control microprocessor (IC3001) of the VCR. The system control microprocessor parts number starts with two letters, refer these to the corresponding table.

* 1 : Deck operation mode

[Common table of MN*, HD* and M3*]

Display		Deck operation mode
MN*/M3*	HD*	
00	-	Mechanism being initialized
01	00	STOP with pinch roller pressure off (or tape present with P.OFF)
02	01	STOP with pinch roller pressure on
03	-	POWER OFF as a result of EMG
04	04	PLAY
0C	0E	REC
10	11	Cassette ejected
20	22	FF
21	-	Tape fully loaded, START sensor ON, short FF
22	-	Cassette identification FWD SEARCH before transition to FF (SP x7-speed)
24	26	FWD SEARCH (variable speed) including x2-speed
2C	2E	INSERT REC
40	43	REW
42	-	Cassette identification REV SEARCH before transition to REW (SP x7-speed)
44	47	REV SEARCH (variable speed)
4C	4C	AUDIO DUB
6C	6E	INSERT REC (VIDEO + AUDIO)
84	84	FWD STILL / SLOW
85	85	REV STILL / SLOW
8C	8F	REC PAUSE
8D	-	Back spacing
8E	-	Forward spacing (FWD transport mode with BEST function)
AC	AF	INSERT REC PAUSE
AD	-	INSERT REC back spacing
CC	CD	AUDIO DUB PAUSE
CD	-	AUDIO DUB back spacing
EC	EF	INSERT REC (VIDEO + AUDIO) PAUSE
ED	-	INSERT REC (VIDEO + AUDIO) back spacing

* 2 : Mechanism operation mode

[Common table of MN* and M3*]

Display		Mechanism operation mode
MN*	M3*	
00	00	Command standby (Status without executing command)
02	02	POWER OFF by EMG occurrence
04	04	Moving to the adjacent position in the LOAD direction
06	06	Moving to the adjacent position in the UNLOAD direction
08	08	Cassette ejection being executed / Cassette housing ejection being executed
-	0A	Mode transition to STOP with cassette ejection end
0A	0C	Cassette insertion being executed
0C	0E	Tape being loaded
0E	10	Tape being unloaded
10	12	Mode transition to STOP with pinch roller compression ON
12	14	Mode transition to STOP with pinch roller compression OFF
14	16	Mode transition to STOP with pinch roller compression OFF as a result of POWER OFF
16	18	Mode transition to STOP with pinch roller compression ON as a result of POWER ON
18	1A	Mode transition to PLAY
1A	1C	Mode transition to FWD SEARCH
1C	1E	Mode transition to REC
1E	20	Mode transition to FWD STILL / SLOW
20	22	Mode transition to REV STILL / SLOW
22	24	Mode transition to REV SEARCH
24	26	Mode transition from FF / REW to STOP
26	28	Mode transition to FF
28	2A	Mode transition to REW
2A	2C	4 sec. of REV as a result of END sensor going ON during loading
2C	2E	Short FF / REV as a result of END sensor going ON during unloading
2E	30	Mechanism position being corrected due to overrun
80	80	Mechanism in initial position (Dummy command)

[Table of HD*]

Display		Mechanism operation mode
Display		
00		STOP with pinch roller pressure off
01		STOP with pinch roller pressure on
02		U/L STOP (or tape being loaded)
04		PLAY
05		PLAY (x1-speed playback using JOG)
0E		REC
11		Cassette ejected
22		FF
26		FWD SEARCH (variable speed) including x2-speed
2E		INSERT REC
43		REW
47		REV SEARCH
4C		AUDIO DUB
6E		INSERT REC (VIDEO + AUDIO)
84		FWD STILL/SLOW
85		REV STILL/SLOW
8F		REC PAUSE
AF		INSERT REC PAUSE
C7		REV SEARCH (x1-speed reverse playback using JOG)
CD		AUDIO DUB PAUSE
EF		INSERT REC (VIDEO + AUDIO) PAUSE
F0		Mechanism being initialized
F1		POWER OFF as a result of EMG
F2		Cassette being inserted
F3		Cassette being ejected
F4		Transition from STOP with pinch roller pressure on to STOP with pinch roller pressure off
F5		Transition from STOP with pinch roller pressure on to PLAY
F6		Transition from STOP with pinch roller pressure on to REC
F7		Cassette type detection SEARCH before FF/REW is being executed
F8		Tape being unloaded
F9		Transition from STOP with pinch roller pressure off to STOP with pinch roller pressure on
FA		Transition from STOP with pinch roller pressure off to FF/REW
FB		Transition from STOP with pinch roller pressure off to REC.P (T.REC,etc.)
FC		Transition from STOP with pinch roller pressure off to cassette type detection SEARCH
FD		Short REV being executed after END sensor on during unloading
FE		Tension loosening being executed after tape loading (STOP with pinch roller pressure on)

3- : Mechanism sensor information [Common table of MN*, HD* and M3*]

Display	Mechanism sensor information				
	MN* / HD* S-VHS SW	M3* CASS SW	REC safety SW	Start sensor	End sensor
0-	VHS	Cassette insertion	Tab broken	ON	ON
1-	VHS	Cassette insertion	Tab broken	ON	OFF
2-	VHS	Cassette insertion	Tab broken	OFF	ON
3-	VHS	Cassette insertion	Tab broken	OFF	OFF
4-	VHS	Cassette insertion	Tab present	ON	ON
5-	VHS	Cassette insertion	Tab present	ON	OFF
6-	VHS	Cassette insertion	Tab present	OFF	ON
7-	VHS	Cassette insertion	Tab present	OFF	OFF
8-	S-VHS	Cassette ejection	Tab broken	ON	ON
9-	S-VHS	Cassette ejection	Tab broken	ON	OFF
A-	S-VHS	Cassette ejection	Tab broken	OFF	ON
B-	S-VHS	Cassette ejection	Tab broken	OFF	OFF
C-	S-VHS	Cassette ejection	Tab present	ON	ON
D-	S-VHS	Cassette ejection	Tab present	ON	OFF
E-	S-VHS	Cassette ejection	Tab present	OFF	ON
F-	S-VHS	Cassette ejection	Tab present	OFF	OFF

-4 : Mechanism mode position [Common table of MN*, HD* and M3*]

Display			Mechanism mode position
MN*	HD*	M3*	
-0	-7	-	Initial value
-1	-0	-	EJECT position
-	-	-0	EJECT position (Cassette housing drive mode)
-2	-7	-	Housing operating
-	-	-1	Between EJECT and U / L STOP
-3	-1	-2	U / L STOP position
-	-	-3	Guide arm drive position
-4	-7	-4	Tape being loaded / unloaded (When the pole base is located on the front side of the position just beside the drum)
-5	-2	-5	Tape being loaded / unloaded (When the pole base is located on the rear side of the position just beside the drum)
-6	-7	-6	Pole base compressed position
-7	-3	-F	FF / REW position
-8	-7	-F	Between FF / REW and STOP with pinch roller compression ON
-9	-4	-F	STOP with pinch roller compression OFF
-A	-7	-E	Between STOP with pinch roller compression OFF and REV
-B	-5	-	REV (REV STILL / SLOW) position
-	-	-D	REV position
-	-	-C	Between REV and REV STILL / SLOW
-	-	-B	REV STILL / SLOW position
-C	-7	-	Between REV and FWD
-	-	-A	Between REV STILL / SLOW and FWD STILL / SLOW
-D	-6	-	FWD (FWD STILL / SLOW) position
-	-	-9	FWD STILL / SLOW position
-E	-7	-	Between FWD and PLAY
-	-	-8	Between FWD STILL / SLOW and PLAY
-F	-6	-7	PLAY position

Note:

- In the case of the "HD*" microprocessor, as the display is always "-7" at any intermediate position between modes, the position of transitory EMG may sometimes not be located.

1.8.5 EMG detail information <2>

The type of the cassette tape and the cassette tape winding position can be confirmed based on the figure in EMG detail information <2> .

[FDP/OSD display]

*5 : *6 : *7

- *5 : Type of the cassette tape in use <1>
- *6 : Winding position of the cassette tape in use
- *7 : Type of the cassette tape in use <2> (Winding area)

Note:

- EMG detail information <2> is the reference information stored using the remaining tape detection function of the cassette tape. As a result, it may not identify cassette correctly when a special cassette tape is used or when the tape has variable thickness.

*5 : Cassette tape type <1>

Display	Cassette tape type <1>
00	Cassette type not identified
16	Large reel/small reel (T-0 to T-15/T-130 to T-210) not classified
82	Small reel, thick tape (T-120) identified/thin tape (T-140) identified
84	Large reel (T-0 to T-60) identified
92	Small reel, thick tape (T-130) identified/thin tape (T-160 to T-210) identified
93	Small reel, thick tape/C cassette (T-0 to T-100/C cassette) not classified
C3	Small reel, thick tape/C cassette (T-0 to T-100/C cassette) being classified
D3	Small reel, thick tape/C cassette (T-0 to T-100/C cassette) being classified
E1	C cassette, thick tape (TC-10 to TC-20) identified
E2	Small reel, thick tape (T-0 to T-100) identified
E9	C cassette, thin tape (TC-30 to TC-40) identified
F1	C cassette, thick tape/thin tape (TC-10 to TC-40) not classified

Notes:

- Cassette tape type <1> is identified a few times during mode transition and the identification count is variable depending on the cassette tape type. If an EMG occurs in the middle of identification, the cassette tape type may not be able to be identified.
- If other value than those listed in the above table is displayed, the cassette tape type is not identified.

*6 : Cassette tape winding position

The cassette tape winding position at the moment of EMG is displayed by dividing the entire tape (from the beginning to the end) in 22 sections using a hex number from "00" to "15".

- "00" : End of winding
- "15" : Beginning of winding
- "FF or --" : Tape position not identified

*7 : Cassette tape type <2> (Winding area)

Display	Cassette tape type <2>
00	Cassette type not identified
07	Small reel, thick tape T-5
08 - 0E	C cassette, thick tape TC-10
09 - 15	C cassette, thick tape TC-20P
0A - 0B	Small reel, thick tape T-20
0A - 16	C cassette, thin tape TC-30
0A - 16	C cassette, thin tape TC-40
0D - 0F	Small reel, thick tape T-40
11 - 14	Small reel, thick tape T-60
15 - 18	Small reel, thick tape T-80 / DF-160
17 - 1A	Small reel, thick tape T-90 / DF-180
19 - 1D	Small reel, thick tape T-100
1D - 21	Small reel, thick tape T-120 / DF-240
1E - 1F	Small reel, thin tape T-140
1F - 23	Small reel, thick tape T-130
21 - 23	Small reel, thin tape T-160
21 - 23	Small reel, thin tape T-168
22 - 24	Small reel, thick tape DF-300
22 - 24	Small reel, thin tape T-180 / DF-360
22 - 24	Small reel, thin tape T-210 / DF-420
22 - 23	Large reel T-5
23 - 24	Large reel T-10
25 - 26	Large reel T-20
27 - 29	Large reel T-30
29 - 2B	Large reel T-40
2D - 2F	Large reel T-60

Note:

- The values of cassette tape type <2> in the above table are typical values with representative cassette tapes.

SECTION 2 MECHANISM ADJUSTMENT

2.1 Before starting repair and adjustment

2.1.1 Precautions

- (1) Unplug the power cord plug of the VCR before using your soldering iron.
- (2) Take care not to cause any damage to the conductor wires when plugging and unplugging the connectors.
- (3) Do not randomly handle the parts without identifying where the trouble is.
- (4) Exercise enough care not to damage the lugs, etc. during the repair work.
- (5) When reattaching the front panel assembly, make sure that the door opener of the cassette holder assembly is lowered in position prior to the reinstallation. (See SECTION 1 DISASSEMBLY.)
- (6) When using the Jig RCU, it is required to set the VCR to the Jig RCU mode (the mode in which codes from the Jig RCU can be received). (See SECTION 1 DISASSEMBLY.)

2.1.2 Checking for proper mechanical operations

Enter the mechanism service mode when you want to operate the mechanism when no cassette is loaded. (See SECTION 1 DISASSEMBLY.)

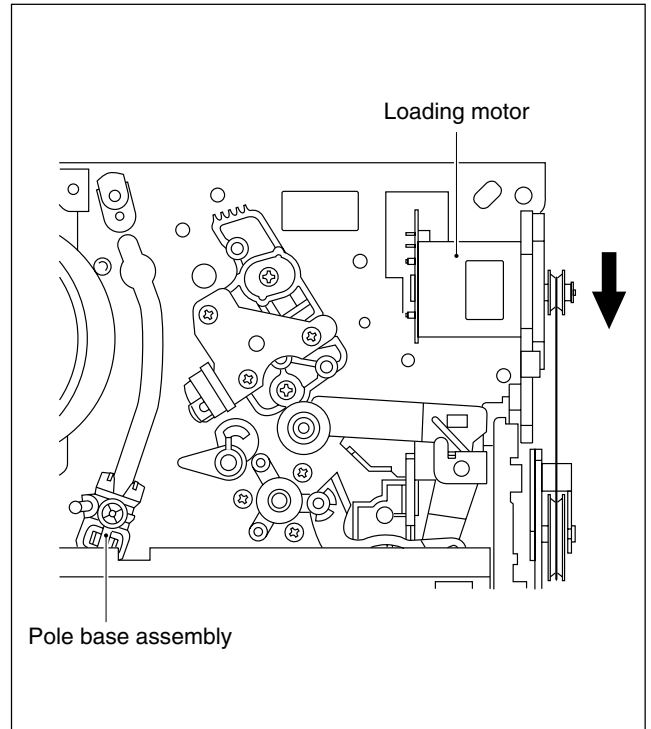


Fig. 2-1-3a

2.1.3 Manually removing the cassette tape

1. In case of electrical failures

If you cannot remove the cassette tape which is loaded because of any electrical failure, manually remove it by taking the following steps.

- (1) Unplug the power cord plug from the power outlet.
- (2) Refer to the disassembly procedure and perform the disassembly of the major parts before removing the drum assembly.
- (3) Unload the pole base assembly by manually turning the loading motor of the mechanism assembly toward the front. In doing so, hold the tape by the hand to keep the slack away from any grease. (See Fig.2-1-3a.)
- (4) Bring the pole base assembly to a pause when it reaches the position where it is hidden behind the cassette tape.
- (5) Move the top guide toward the drum while holding down the lug (A) of the bracket retaining the top guide. Likewise hold part (B) down and remove the top guide. Section (C) of the top guide is then brought under the cassette lid. Then remove the top guide by pressing the whole cassette tape down. (See Fig.2-1-3b.)
- (6) Remove the cassette tape by holding both the slackened tape and the cassette lid.
- (7) Take up the slack of the tape into the cassette. This completes removal of the cassette tape.

Note:

- For the disassembly procedure of the major parts and details of the precautions to be taken, see "SECTION 1 DISASSEMBLY".

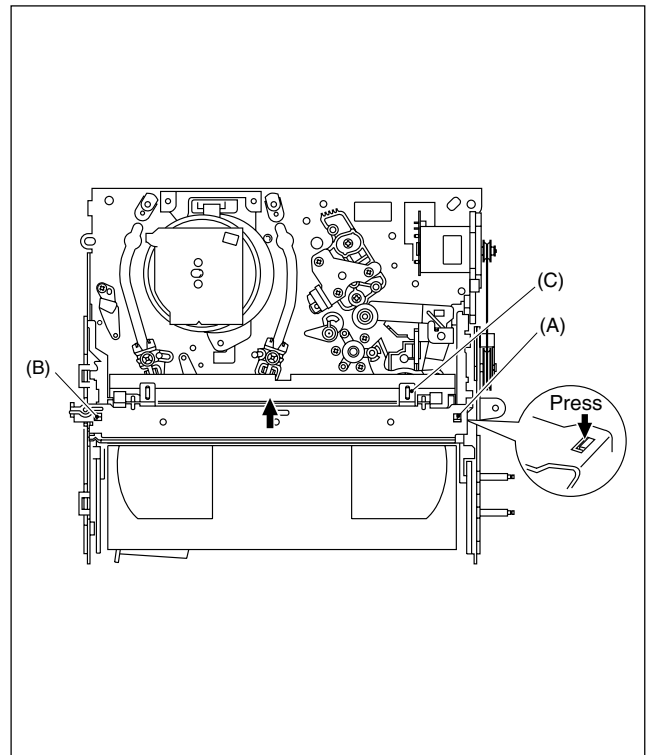


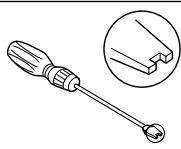
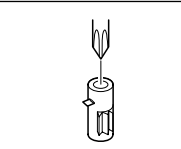
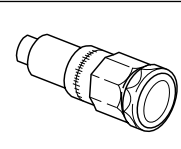
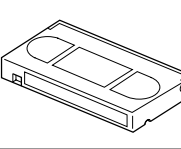
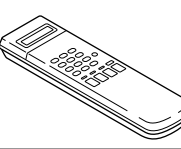
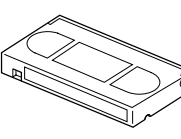
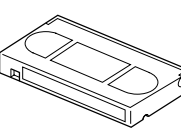
Fig. 2-1-3b

2. In case of mechanical failure

If you cannot remove the cassette tape which is loaded because of any mechanical failure, manually remove it by taking the following steps.

- (1) Unplug the power cable and remove the top cover, front panel assembly and others so that the mechanism assembly is visible. (See SECTION 1 DASSEMBLY.)
- (2) While keeping the tension arm assembly of the mechanism assembly free from tension, pull the tape on the pole base assembly (supply or take-up side) out of the guide roller. (See Fig.2-1-3c.)
- (3) Take the spring of the pinch roller arm assembly off the hook of the press lever assembly, and detach it from the tape. (See Fig.2-1-3d.)
- (4) In the same way as in the electrical failure instructions in 2.1.3-1(5), remove the top guide.
- (5) Raise the cassette tape cover. By keeping it in that position, draw out the cassette tape case from the cassette holder and take out the tape.
- (6) By hanging the pinch roller arm assembly spring back on the hook, take up the slack of the tape into the cassette.

2.1.4 Jigs and tools required for adjustment

Roller driver PTU94002	A/C head positioning tool PTU94010	Torque gauge PUJ48075-2
		
Back tension cassette gauge PUJ48076-2	Jig RCU PTU94023B	
		
Alignment tape (SP, stairstep, NTSC) MHP	Alignment tape (EP, stairstep, NTSC) MHP-L	
		

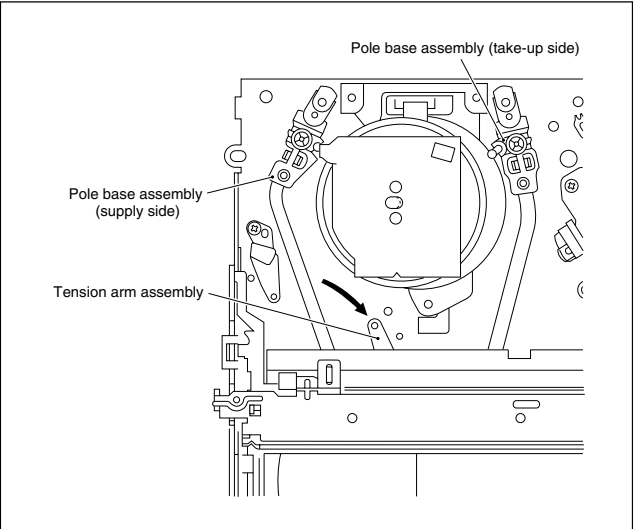


Fig. 2-1-3c

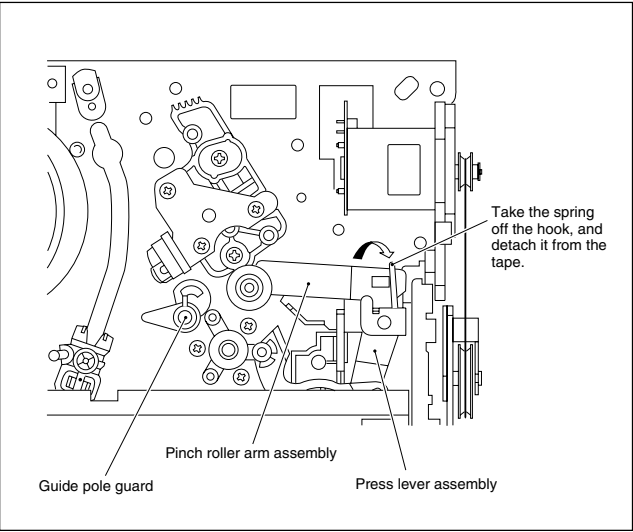


Fig. 2-1-3d

2.1.5 Maintenance and inspection

1. Location of major mechanical parts

In this chapter, the two mechanism speeds are described by comparing the speeds of the standard type and the high-speed FF/REW type.

It is possible to distinguish between these two types of mechanism by the diameters of their capstan pulleys.

The capstan pulley diameter for the standard type is approx. 32 mm.

The capstan pulley diameter for the high-speed FF/REW type is approx. 43 mm.

For information on the different parts used in the two mechanism types, please refer to the “Replacement of major parts”.

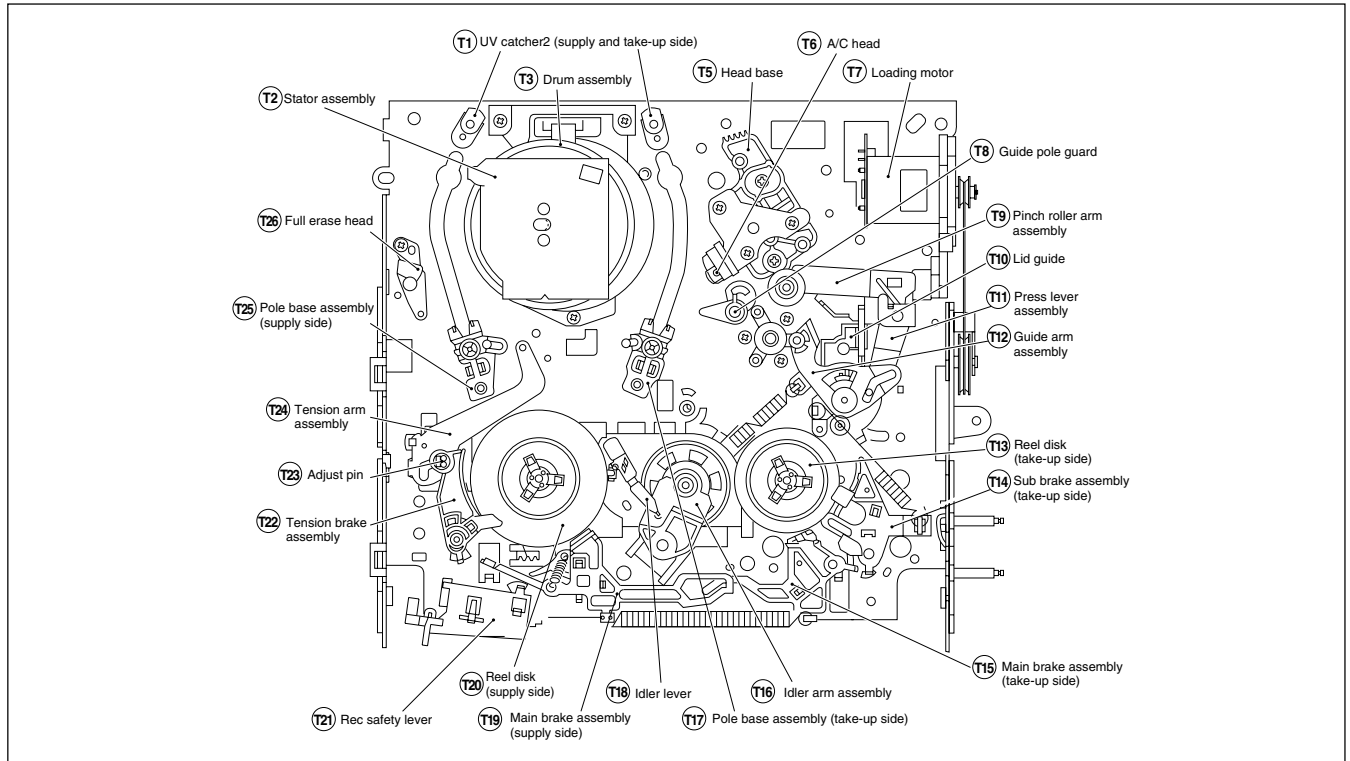


Fig. 2-1-5a Mechanism assembly top side

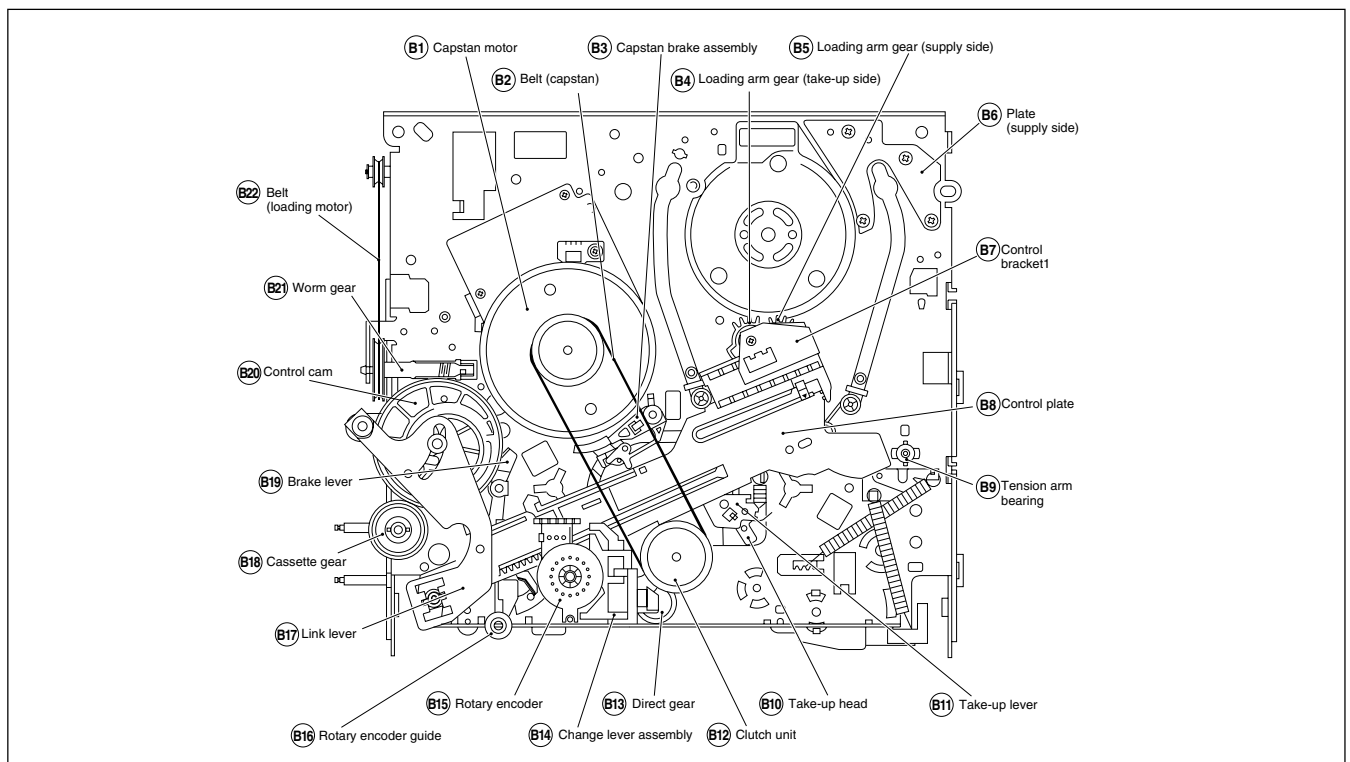


Fig. 2-1-5b Mechanism assembly bottom side

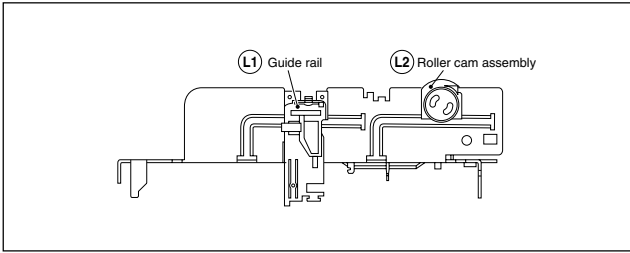


Fig. 2-1-5c Mechanism assembly left side

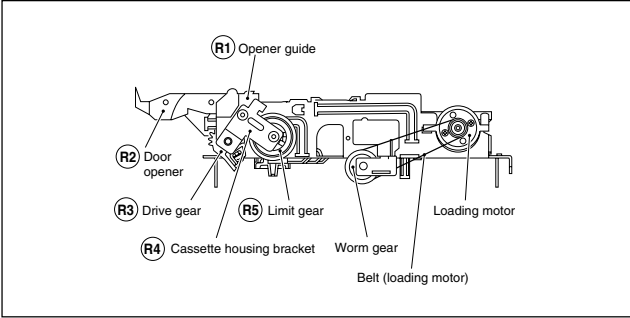


Fig. 2-1-5d Mechanism assembly right side

2. Cleaning

Regular cleaning of the transport system parts is desirable but practically impossible. So make it a rule to carry out cleaning of the tape transport system whenever the machine is serviced.

When the video head, tape guide and/or brush get soiled, the playback picture may appear inferior or at worst disappear, resulting in possible tape damage.

- (1) When cleaning the upper drum (especially the video head), soak a piece of closely woven cloth or Kimu-wipe with alcohol and while holding the cloth onto the upper drum by the fingers, turn the upper drum counterclockwise.

Note:

- **Absolutely avoid sweeping the upper drum vertically as this will cause damage to the video head.**

- (2) To clean the parts of the tape transport system other than the upper drum, use a piece of closely woven cloth or a cotton swab soaked with alcohol.
- (3) After cleaning, make sure that the cleaned parts are completely dry before using the video tape.

3. Lubrication

With no need for periodical lubrication, you have only to lubricate new parts after replacement. If any oil or grease on contact parts is soiled, wipe it off and newly lubricate the parts.

Note:

- **See the “mechanism assembly” diagram of the parts list for the lubricating or greasing spots, and for the types of oil or grease to be used.**

4. Suggested servicing schedule for main components

The following table indicates the suggested period for such service measures as cleaning, lubrication and replacement. In practice, the indicated periods will vary widely according to environmental and usage conditions. However, the indicated components should be inspected when a set is brought for service and the maintenance work performed if necessary. Also note that rubber parts may deform in time, even if the set is not used.

System	Parts Name	Operation Hours	
		~1000H	~2000H
Tape transport	Upper drum assembly	★○	○
	A/C head	★○	★○
	Lower drum assembly	★	★○
	Pinch roller arm assembly	★	★
	Full erase head	★	★
	Tension arm assembly	★	★
	Capstan motor (Shaft)	★	★
	Guide arm assembly	★	★
	Capstan motor		○
Drive	Capstan brake assembly		○
	Main brake assembly		○
	Belt (Capstan)	○	○
	Belt (Loading motor)		○
	Loading motor		○
	Clutch unit		○
	Worm gear		○
	Control plate		○
	Brush	★○	★○
Other	Tension brake assembly	○	○
	Rotary encoder		○

★ : Cleaning

○ : Inspection or replacement if necessary

Table 2-1-5a

5. Disassembling procedure table

The following table indicates the order in which parts are removed for replacement. To replace parts, remove them in the order of 1 to 18 as shown in the table. To install them, reverse the removal sequence.

The symbols and numbers preceding the individual part names represent the numbers in the “Location of major mechanical parts” table. Also, the “T”, “B”, and “T/B” on the right of each part name shows that the particular part is removed from the front, from the back, and from both sides of the mechanism, respectively.

Symbols and numbers	Symbols and numbers		Front (T)/Back (B) of mechanism	Number of removal steps	Guide rail	Roller cam assembly	Cassette housing bracket	Opener guide	Relay gear	Cassette holder assembly	Drive gear	Drive arm	Pinch roller arm assembly	Guide arm assembly	Press lever assembly	UV catcher2	Rotary encoder	Clutch unit	Change lever assembly	Direct gear	Coupling gear	Link lever	Worm gear	Control bracket1	Control plate	Loading arm gear (supply side)	Loading arm gear (take-up side)	Take-up lever	Sub brake assembly (take-up side)	Main brake assembly (take-up side)	Reel disk (take-up side)	Tension brake assembly	Tension arm assembly	Idler lever	Brake lever (*1)
	Removal parts	(Reference items) Replacement parts																																	
L1	2.2.3	Guide rail	T	1																															
L2	2.2.3	Roller cam assembly	T	1																															
R4	2.2.3	Cassette housing bracket	T	1																															
R1	2.2.3	Opener guide	T	2			1																												
R2	2.2.3	Door opener	T	3			1	2																											
—	2.2.3	Relay gear	T	3			1	2																											
R5	2.2.3	Limit gear	T	3			1	2																											
—	2.2.3	Cassette holder assembly	T	6	1	2	3	4	5																										
R3	2.2.3	Drive gear	T	4			1	2	3																										
—	2.2.3	Drive arm	T	8	1	2	3	4	5	6	7																								
T9	2.2.4	Pinch roller arm assembly	T	1																															
T12	2.2.5	Guide arm assembly	T	1																															
T11	2.2.5	Press lever assembly	T	3										1	2																				
T6	2.2.6	A/C head	T	1																															
T7	2.2.7	Loading motor	T	1																															
B1	2.2.8	Capstan motor	T/B	1																															
T1	2.2.9	UV catcher2	T	1																															
T17	2.2.9	Pole base assembly (take-up side)	T/B	2											1																				
T25	2.2.9	Pole base assembly (supply side)	T/B	2											1																				
B15	2.2.10	Rotary encoder	B	1																															
B12	2.2.11	Clutch unit	B	1																															
B14	2.2.12	Change lever assembly	B	3												1	2																		
B13	2.2.12	Direct gear	B	4												1	2	3																	
—	2.2.12	Coupling gear	B	5												1	2	3	4																
—	2.2.12	Clutch gear	B	6												1	2	3	4	5															
B17	2.2.13	Link lever	B	1																															
B18	2.2.14	Cassette gear	B	2																		1													
B20	2.2.14	Control cam	B	2																		1													
B21	2.2.14	Worm gear	B	1																															
T10	-	Lid guide	T/B	5									1	2	3								4												
B7	2.2.15	Control bracket1	B	1																															
B8	2.2.15	Control plate	B	6													1	2	3			4		5											
B5	2.2.16	Loading arm gear (supply side)	B	7													1	2	3			4		5	6										
B4	2.2.16	Loading arm gear (take-up side)	B	8													1	2	3			4		5	6	7									
—	2.2.16	Loading arm gear shaft	B	9													1	2	3			4		5	6	7	8								
B11	2.2.17	Take-up lever	T/B	7													1	2	3			4		5	6										
B10	2.2.17	Take-up head	T/B	8													1	2	3			4		5	6			7							
—	2.2.17	Control plate guide	T/B	8													1	2	3			4		5	6			7							
B3	2.2.18	Capstan brake assembly	T/B	7													1	2	3			4		5	6										
T14	2.2.19	Sub brake assembly(take-up side)	T/B	15	1	2	3	4	5	6	7	8					9	10	11			12		13	14										
T15	2.2.20	Main brake assembly(take-up side)	T/B	16	1	2	3	4	5	6	7	8					9	10	11			12		13	14				15						
T19	2.2.20	Main brake assembly(supply side)	T/B	9	1	2	3	4	5	6	7	8																							
T13	2.2.20	Reel disk (take-up side)	T/B	16	1	2	3	4	5	6	7	8					9	10	11			12		13	14				15						
T22	2.2.21	Tension brake assembly	T/B	9	1	2	3	4	5	6	7	8																							
T20	2.2.21	Reel disk (supply side)	T/B	10	1	2	3	4	5	6	7	8																					9		
T24	2.2.21	Tension arm assembly	T/B	10	1	2	3	4	5	6	7	8																					9		
B9	2.2.21	Tension arm bearing	T/B	10	1	2	3	4	5	6	7	8																					9		
T18	2.2.22	Idler lever	T/B	17	1	2	3	4	5	6	7	8					9	10	11			12		13	14						15	16			
T16	2.2.22	Idler arm assembly	T/B	18	1	2	3	4	5	6	7	8						9	10	11			12		13	14						15	16	17	
B19	-	Brake lever (*1)	T/B	18	1	2	3	4	5	6	7	8						9	10	11			12		13	14			15	16	17				
B16	-	Rotary encoder guide	T/B	19	1	2	3	4	5	6	7	8						9	10	11			12		13	14			15	16	17				18

Table 2-1-5b

Note:

• The parts with marked (★) have different types of mechanisms (standard type or high-speed FF/REW type).

★ 1 : Uses the standard type mechanism only.

★ 2 : Uses the high-speed FF/REW type mechanism only.

2.2 Replacement of major parts

2.2.1 Before starting disassembling (Phase matching between mechanical parts)

The mechanism of this unit is closely linked with the rotary encoder and system controller circuits.

Since the system controller detects the status of mechanical operation in response to phases of the rotary encoder (internal switch positions), the mechanism may not operate properly unless such parts as the rotary encoder, control plate, loading arm gear, control cam, cassette gear, limit gear, relay gear and drive gear are installed in their correct positions.

Especially, this model is not provided with any cassette housing assembly, so that cassette loading and unloading must be accomplished by operation of the cassette holder assembly. The latter is in turn driven by such parts as the drive gear, relay gear and limit gear. Exercise enough care, therefore, to have the phases of all this gear matching one another. (For information on phase matching of the mechanism, see the instructions on how to install individual parts.)

This unit is provided with a mechanism assembly mode. It is therefore necessary to enter this mode for assembling and disassembling procedures.

This mode is usually not in use, manually set it when it is required.

2.2.2 How to set the “Mechanism assembling mode”

Remove the mechanism assembly and place it bottom side up. (See SECTION 1 DISASSEMBLY.) Turn the worm gear toward the front so that the guide hole of the control cam is brought into alignment with the hole at the mechanism assembly chassis. This position renders the mechanism assembling mode operational. Make sure that the control plate is located in alignment with the mark E. (See Fig.2-2-2a.)

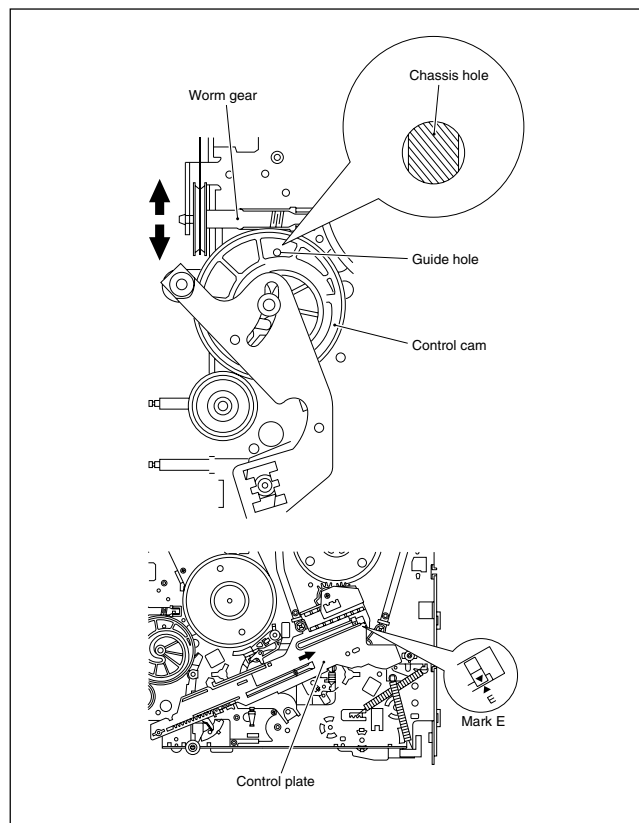


Fig. 2-2-2a

2.2.3 Cassette holder assembly

1. How to remove

- (1) Remove the guide rail and roller cam assembly. (See Fig.2-2-3a.)
- (3) Lugs on the guide rail and one lug on the roller cam assembly

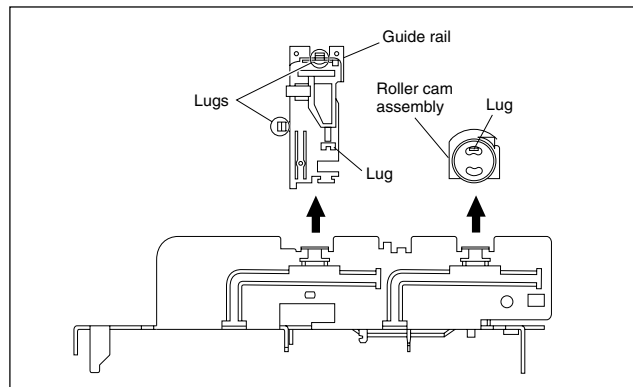


Fig. 2-2-3a

- (2) Remove the two slit washers and remove the cassette housing bracket. (See Fig.2-2-3b.)
- (3) Remove the opener guide, spring(A), door opener, relay gear and limit gear. (See Fig.2-2-3b.)

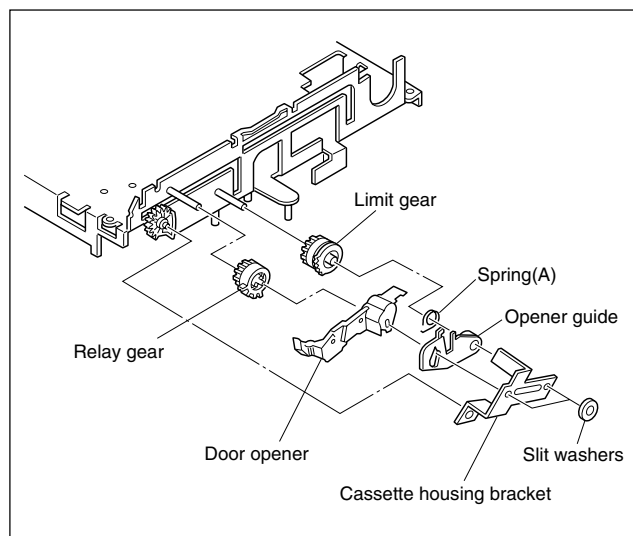


Fig. 2-2-3b

- (4) While swinging the lock levers (R) and (L) of the cassette holder assembly toward the front, slide the cassette holder assembly until its legs come to where the guide rail and the roller cam assembly have been removed (so that the drive arm is upright). (See Fig.2-2-3c.)

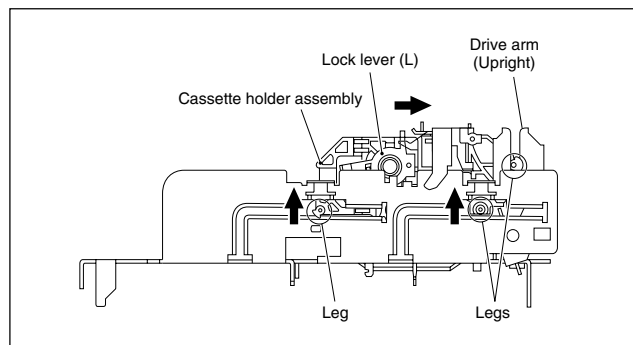


Fig. 2-2-3c

- (5) While holding the left side of the cassette holder, lift the cassette holder assembly so that the three legs on the left side are all released. Then pull the legs (A) and (B) on the right side out of the rail and also pull up the leg (C). (See Fig.2-2-3d and Fig.2-2-3e.)
- (6) Draw out the drive gear, and remove the drive arm.

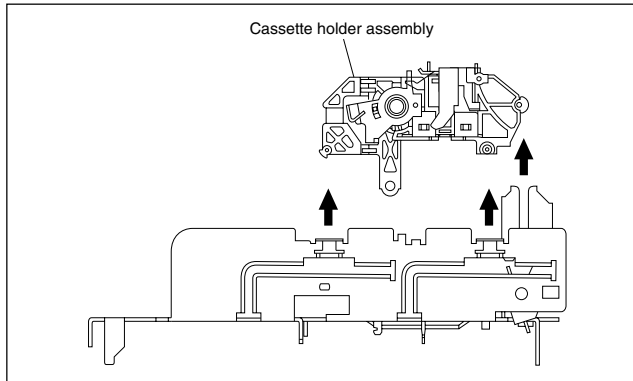


Fig. 2-2-3d

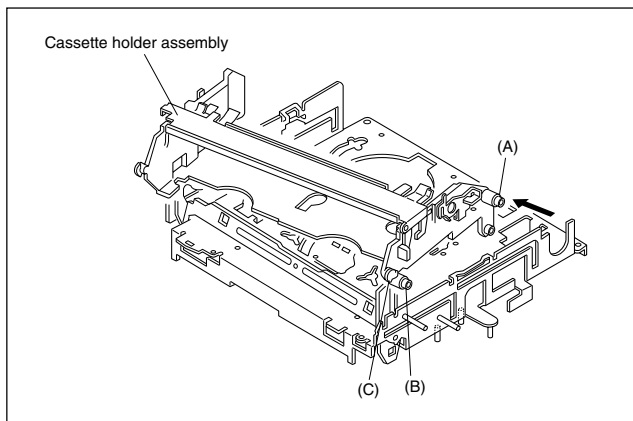


Fig. 2-2-3e

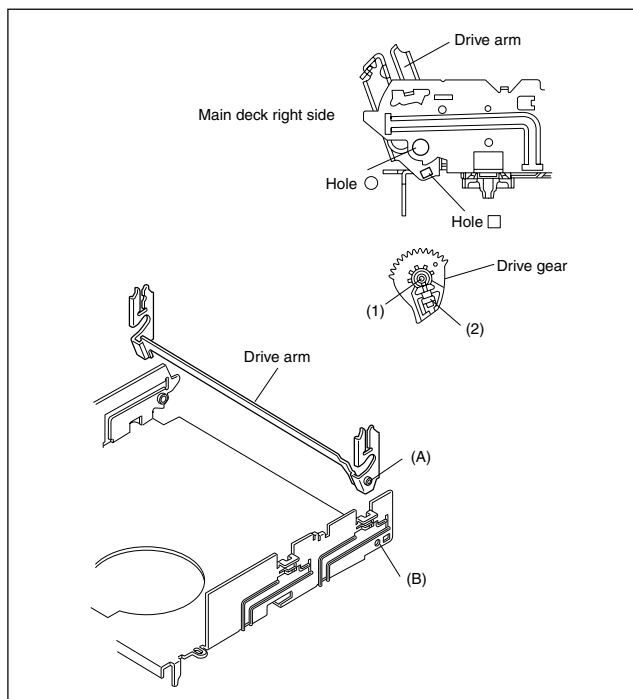


Fig. 2-2-3f

2. How to install (Phase matching)

- (1) Insert the section (A) of the drive arm into the section (B) of the main deck.
- (2) Insert the section (1) of the drive gear into the round hole, and the section (2) into the square hole on the drive arm. (See Fig.2-2-3f.)
- (3) Hold the drive arm upright and fit the leg (C) on the right side of the cassette holder assembly into the groove. (See Fig.2-2-3g.)
- (4) While swinging the lock lever (R) of the cassette holder assembly toward the front, put the legs (A) and (B) into the rail. (See Fig.2-2-3g.)
- (5) Drop the three legs on the left side of the cassette holder assembly into the groove at one time. (See Fig.2-2-3h.)
- (6) Slide the whole cassette holder assembly toward the front to bring it to the eject end position.
- (7) Install the limit gear so that the notch on the outer circumference of the limit gear is brought into alignment with the guide hole on the main deck. (See Fig.2-2-3i.)
- (8) Install so that the notch on the periphery of the relay gear is aligned with the notch of the main deck and that hole A of the relay gear is aligned with the hole B of the limit gear and that hole B of the relay gear is aligned with the hole B of the drive gear. (See Fig.2-2-3i.)
- (9) Install the door opener, opener guide, spring(A) and cassette housing bracket and fasten the two slit washers.

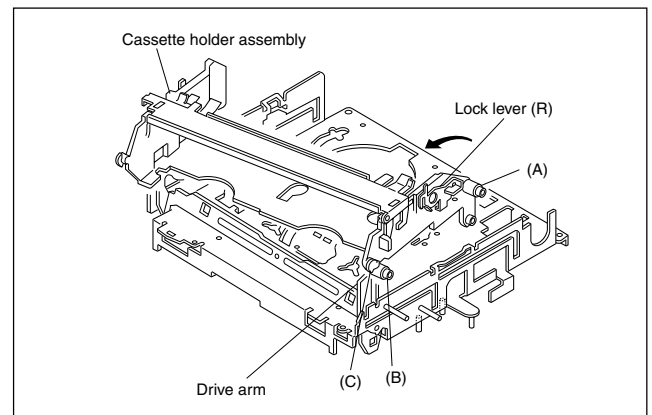


Fig. 2-2-3g

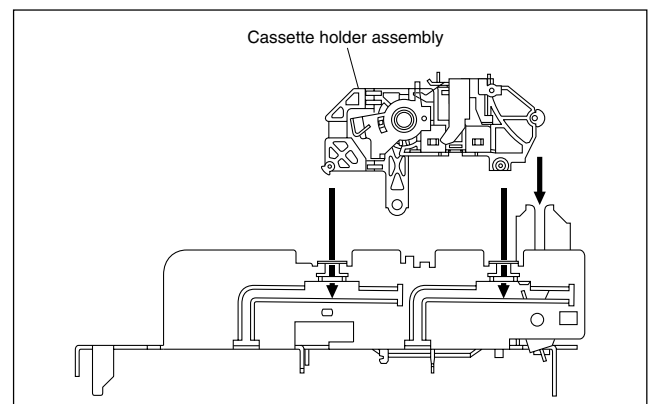


Fig. 2-2-3h

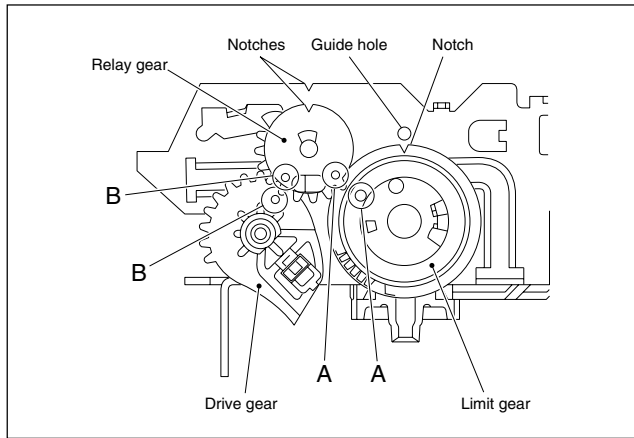


Fig. 2-2-3i

2.2.4 Pinch roller arm assembly

1. How to remove

- (1) Remove the spring from the hook of the press lever assembly.
- (2) Remove the slit washer and remove the pinch roller seat 2. (See Fig.2-2-4a.)
- (3) Remove the pinch roller arm assembly by pulling it up.

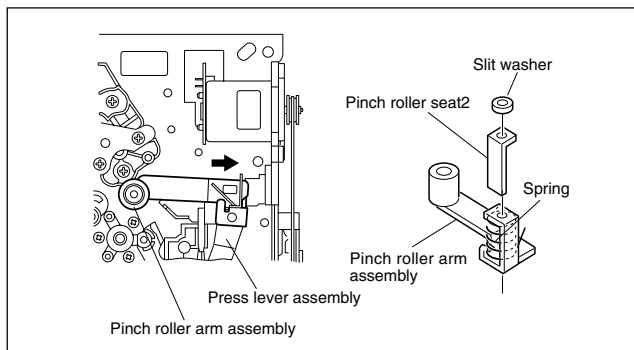


Fig. 2-2-4a

2.2.5 Guide arm assembly and press lever assembly

1. How to remove

- (1) Remove the spring and expand the lug of the lid guide in the arrow-indicated direction. Then remove the guide arm assembly by pulling it up.
- (2) Remove the press lever assembly by pulling it up. (See Fig.2-2-5a.)

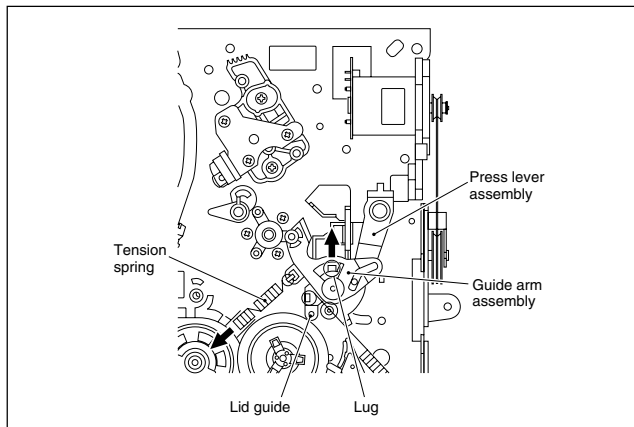


Fig. 2-2-5a

2.2.6 A/C head

1. How to remove

- (1) Remove the two screws (A) and remove the A/C head together with the head base.
- (2) When replacing only the A/C head, remove the three screws (B) while controlling the compression spring.

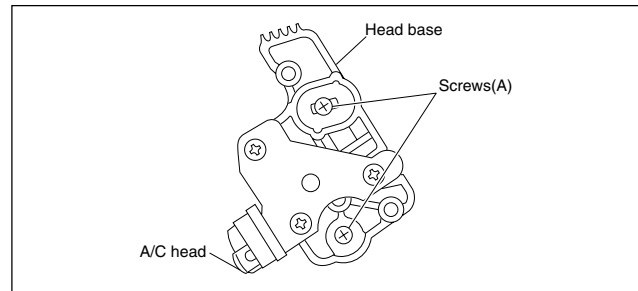


Fig. 2-2-6a

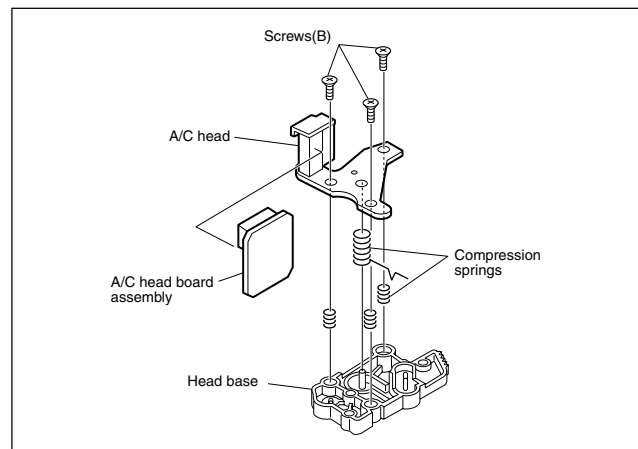


Fig. 2-2-6b

2. How to install

- (1) To make the post-installation adjustment easier, set the temporary level as indicated in Fig.2-2-6c. Also make sure that the screw center (centre) is brought into alignment with the center (centre) position of the slot.

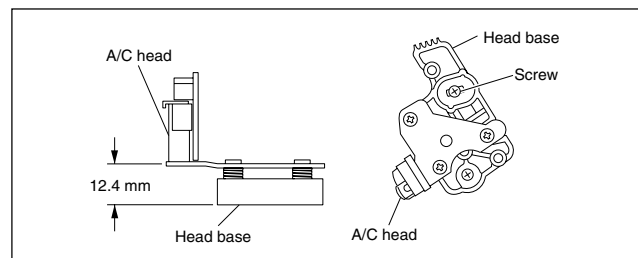


Fig. 2-2-6c

2.2.7 Loading motor

1. How to remove

- (1) Remove the belt wound around the worm gear.
- (2) Open the two lugs of the motor guide and remove the loading motor, loading motor board assembly and motor guide altogether by pulling them up.
- (3) When replacing the loading motor board assembly, take care with the orientation of the loading motor. (Install so that the loading motor label faces upward.)
- (4) When the motor pulley has been replaced, choose the fitting dimension as indicated in Fig.2-2-7a.

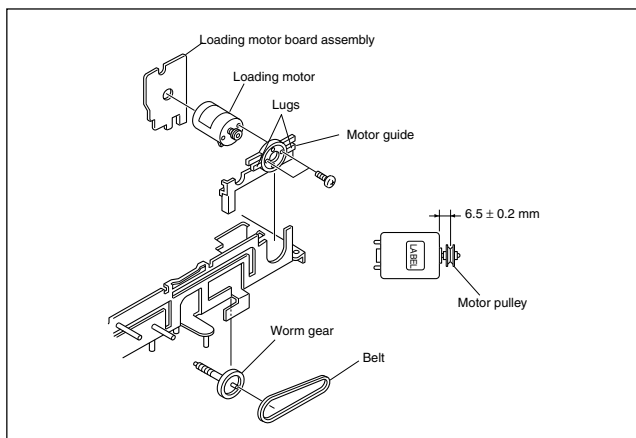


Fig. 2-2-7a

2.2.8 Capstan motor

1. How to remove

- (1) Remove the belt (capstan) on the mechanism assembly back side.
- (2) Remove the three screws (A) and remove the capstan motor.

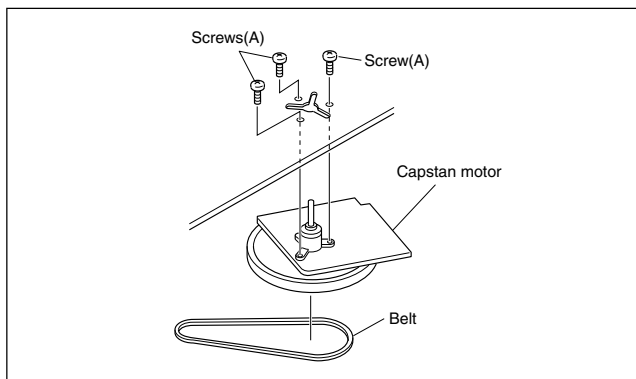


Fig. 2-2-8a

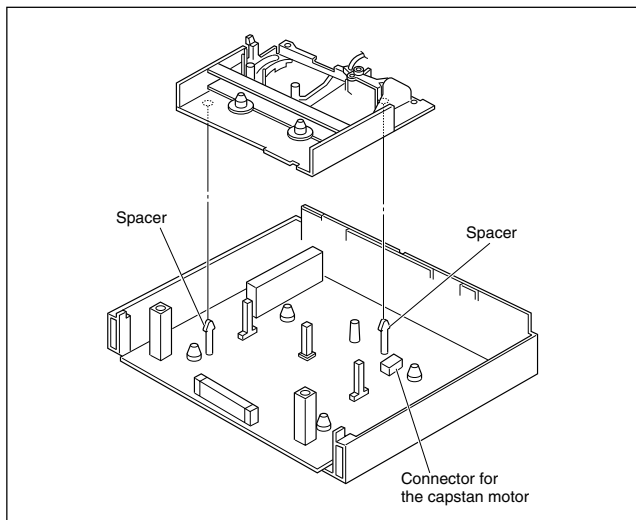


Fig. 2-2-8b

2. How to install (Centering the mounting position)

When the capstan motor has once been removed and then reinstalled out of the initial correct position in the rotational direction, the capstan motor current may be unstable during operation in high or low temperatures. This may result in greater Wow & Flutter and occasionally in power breakdown because of current over - load. Install the capstan motor while following the procedure given below.

(The capstan motor is centrally located when the unit is shipped from the factory.)

- (1) Provisionally tighten the three screws (A) securing the capstan motor.
- (2) Install the mechanism assembly to which the capstan motor is provisionally fastened on the bottom chassis which incorporates the Main board assembly. (No need to tighten the screws for mounting the mechanism.) Make sure that all the connectors for the mechanism assembly and the Main board assembly are correctly installed as indicated in Fig. 2-2-8b.
- (3) Making sure that the connector for the capstan motor is correctly mounted, and securely tighten the three screws (A).

Note:

- **When the capstan motor has been replaced with a new one, perform recording in the EP(or LP) mode for at least 2 minutes at normal temperatures immediately before starting the FF/REW or SEARCH operations (Aging).**

2.2.9 Pole base assembly (supply or take-up side)

1. How to remove

- (1) Remove the UV catcher 2 on the removal side by loosening the screw (A).
- (2) Remove the pole base assembly on the supply side from the mechanism assembly by loosening the screw (B) on the mechanism assembly back side and sliding the pole base assembly toward the UV catcher 2.
- (3) As for the pole base assembly on the take-up side, turn the pulley of the loading motor to lower the cassette holder because the screw (B) is hidden under the control plate. (See the "Procedures for Lowering the Cassette holder assembly" of 1.3 DISASSEMBLY/ASSEMBLY METHOD.) Further turn the motor pulley to move the cassette holder until the screw (B) is no longer under the control plate (in the half-loading position). Then remove it as done for the supply side by removing the screw (B).

Note:

- **After reinstalling the Pole base assembly and the UV catcher2, be sure to perform compatibility adjustment.**

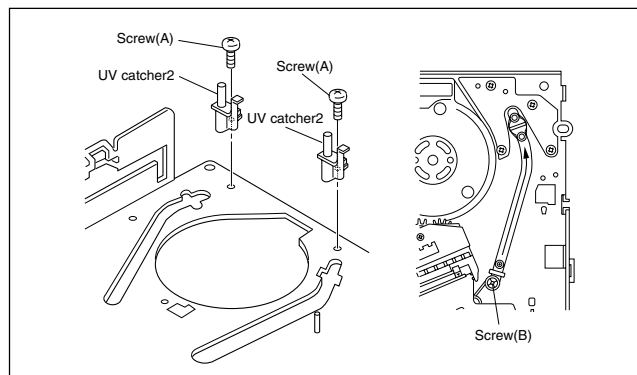


Fig. 2-2-9a

2.2.10 Rotary encoder

1. How to remove

- (1) Remove the screw (A) and remove the rotary encoder by pulling it up. (See Fig. 2-2-10a.)

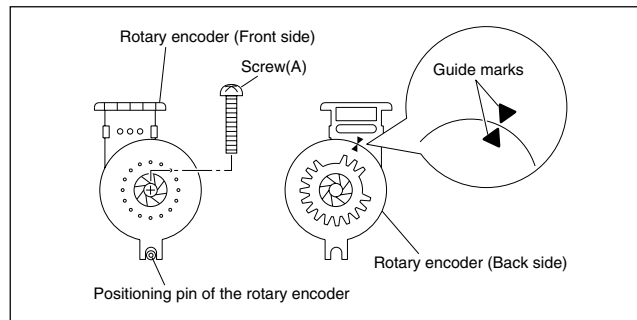


Fig. 2-2-10a

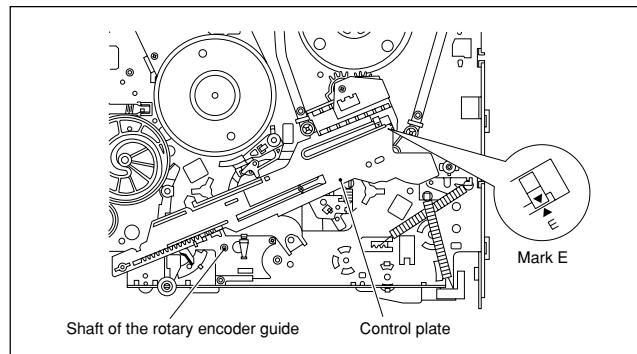


Fig. 2-2-10b

2. How to install (Phase matching)

- (1) Make sure that the mark E of the control plate is in alignment with the mark ▼ of the loading arm gear shaft and bring the guide marks on the rotary encoder into alignment as indicated in Fig.2-2-10a. (See Fig. 2-2-10a and Fig. 2-2-10b.)
- (2) Turn over the rotary encoder with its guide marks kept in alignment and install it by fitting on the shaft of the rotary encoder guide and the positioning pin.
- (3) Tighten the screw (A) to complete the installation.

2.2.11 Clutch unit

- (1) Remove the belt wound around the capstan motor and the clutch unit.
- (2) Remove the slit washer and remove the clutch unit.

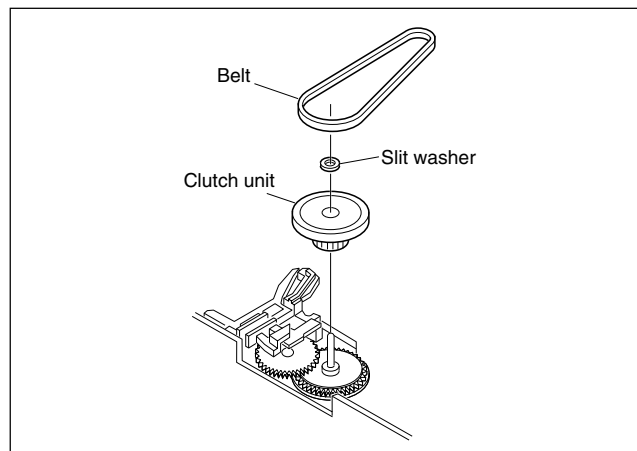


Fig. 2-2-11a

2.2.12 Change lever assembly, direct gear, clutch gear and coupling gear

1. How to remove

- (1) Release the two lugs of the rotary encoder guide in the arrow-indicated direction and remove the change lever assembly.
- (2) Remove the slit washer retaining the direct gear and remove the latter. Take care so as not to lose the washer and spring. (See Fig.2-2-12a.)

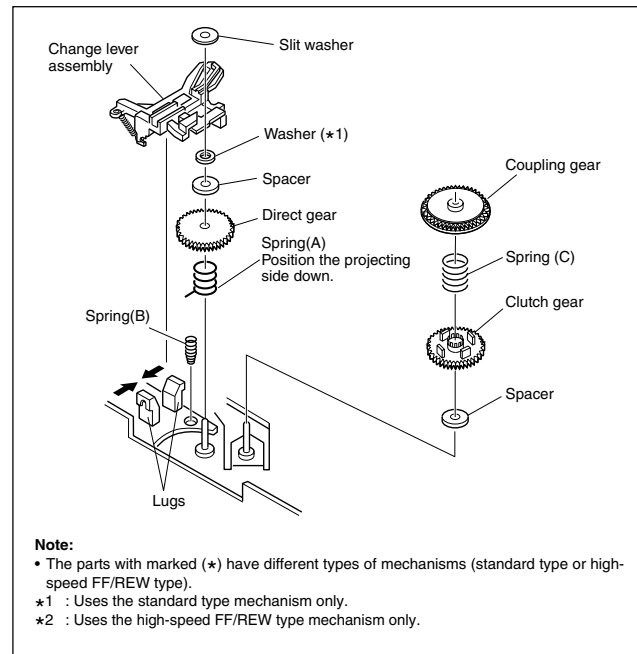


Fig. 2-2-12a

2. How to install

- (1) Install the clutch gear, spring (A), spring (C), direct gear, spacer and others to the individual shafts of the main deck, and finally the slit washer. (See Fig.2-2-12a.)
- (2) Let the spring (B) drops into the rotary encoder guide hole and install the change lever assembly. (Take care not to mistake a direction of the spring.) The point is to slightly lift the coupling gear and catch it from the both sides with the assembly. (See Fig.2-2-12b.)

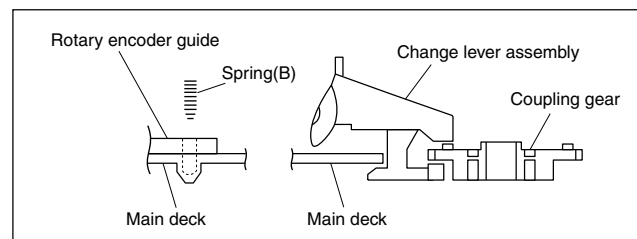


Fig. 2-2-12b

2.2.13 Link lever

1. How to remove

- (1) Remove the two slit washers.
- (2) Remove the link lever by lifting it from the shaft retained by the slit washers. Then swing the link lever counterclockwise and remove it from the locking section of the control plate.

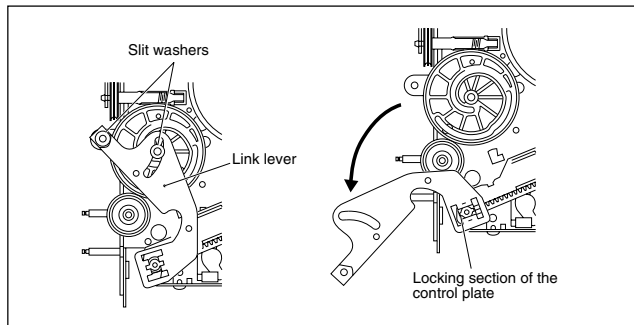


Fig. 2-2-13a

2. How to install (Phase matching)

- (1) Slide the control plate so that its mark E is aligned with the mark ▼ on the loading arm gear shaft. (See Fig.2-2-13b.)
- (2) Rotate the worm gear until the guide hole of the control cam is aligned exactly with the guide hole of the main deck. (See Fig.2-2-13c.)
- (3) Insert the link lever into the locking section of the control plate. (See Fig.2-2-13a.)
- (4) Rotate the link lever clockwise so that it is installed on the shafts in the center (centre) and on the left of the control cam.
- (5) Fasten the slit washers at these two points.

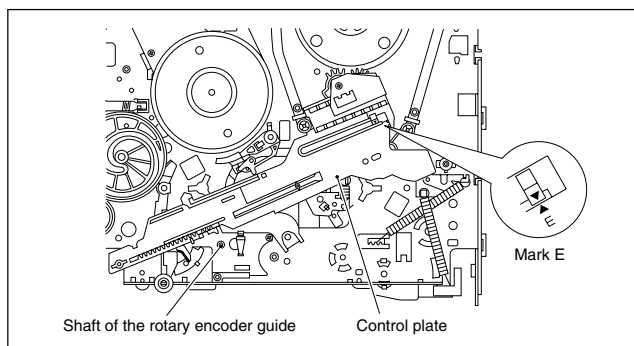


Fig. 2-2-13b

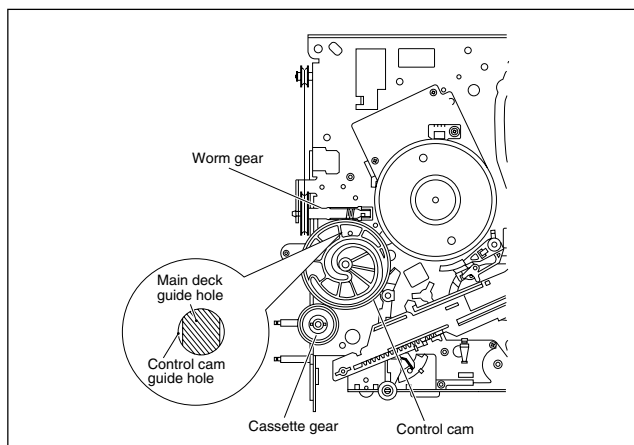


Fig. 2-2-13c

2.2.14 Cassette gear, control cam and worm gear

1. How to remove

- (1) Remove the control cam by lifting it.
- (2) Open the two lugs of the cassette gear outward and pull the latter off.
- (3) Remove the belt wound around the worm gear and the loading motor.
- (4) Open the lug of the lid guide outward and remove the worm gear.

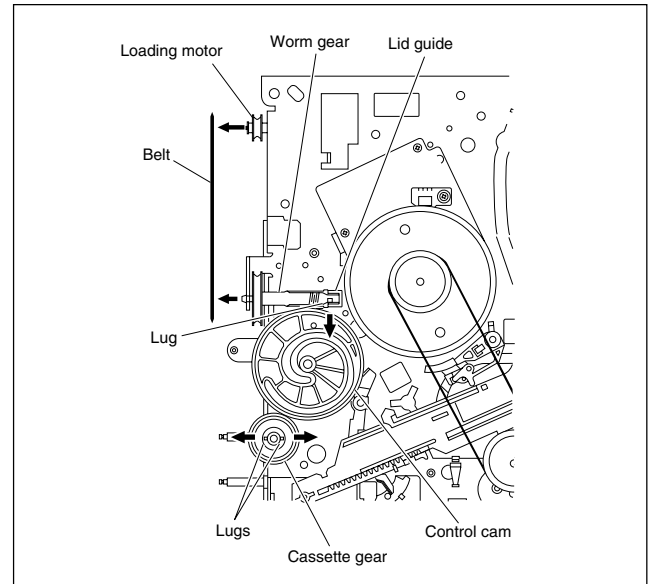


Fig. 2-2-14a

2.2.15 Control plate

1. How to remove

- (1) Remove the screw (A) retaining the control bracket 1 and remove the latter.
- (2) Slide the control plate as indicated by the arrow and remove the control plate. (See Fig.2-2-15a.)

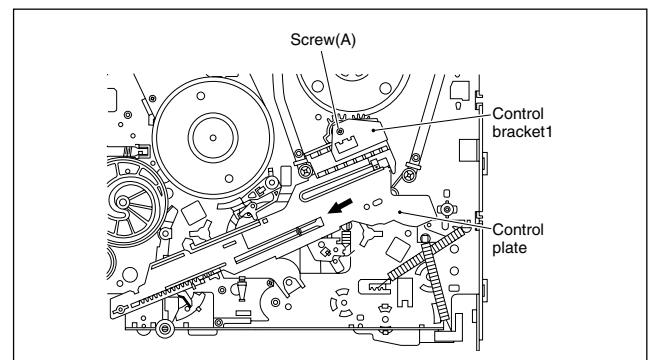


Fig. 2-2-15a

2. How to install (Phase matching)

- (1) Adjust the position of the idler arm assembly pin as indicated in Fig.2-2-15b (to the left of center (centre) of the R section).
- (2) Bring the guide hole of the take-up lever into alignment with the hole at the control plate guide and fix the position by inserting a 1.5 mm hexagonal wrench.

- (3) Install the control plate so that the section A of the loading arm gear shaft fits into the hole (A) of the control plate, the section B of the control plate guide into the hole (B), and the control plate comes under the section C of the rotary encoder guide and the section D of the loading arm gear shaft while press-fit the pole base assembly (supply side) as indicated by the arrow. It is important that the tension arm assembly shaft is positioned closer toward you than the control plate. (See Fig.2-2-15c.)
- (4) Make sure that the mark E of the control plate is in alignment with the mark ▼ of the loading arm gear shaft. (See Fig.2-2-15c.)
- (5) Pull off the hexagonal wrench for positioning.

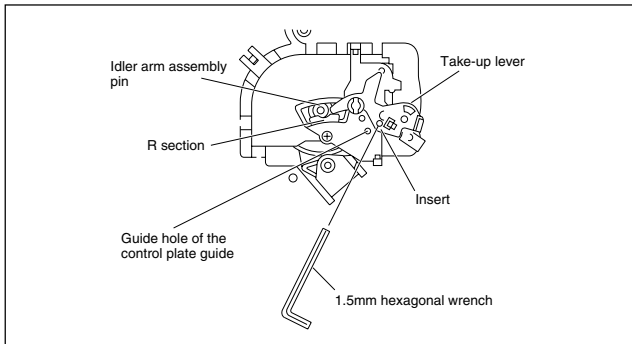


Fig. 2-2-15b

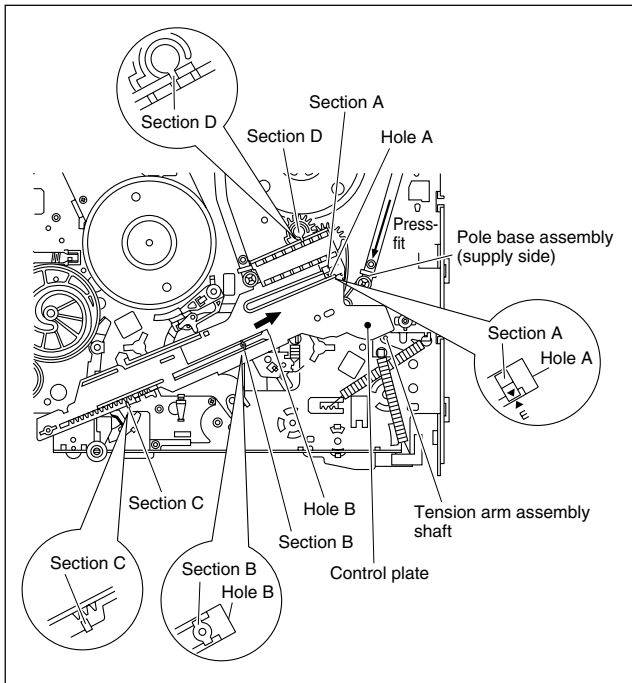


Fig. 2-2-15c

2.2.16 Loading arm gear (supply or take-up side) and loading arm gear shaft

1. How to remove

- (1) Remove the loading arm gear (supply side) by loosening the screw (A). (See Fig. 2-2-16a.)
- (2) Remove the screw (B) and remove the torsion arm from the pole base assembly (take-up side). (See Fig.2-2-16a.)

- (3) Turn the loading arm gear (take-up side) clockwise so that the notch of the loading arm gear (take-up side) is in alignment with the projection of the loading arm gear shaft and lift it. Likewise, turn the loading arm counterclockwise so that the notch is in alignment with the projection and remove the loading arm gear (take-up side). (See Fig.2-2-16a and Fig. 2-2-16b.)
- (4) When removing the loading arm gear shaft, be sure of first removing the screw retaining the drum assembly (on the back side of the loading arm gear shaft). Then remove the screw (C) and remove the loading arm gear shaft by sliding it.

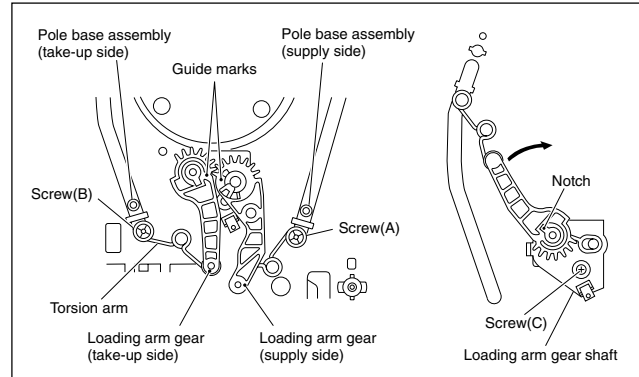


Fig. 2-2-16a

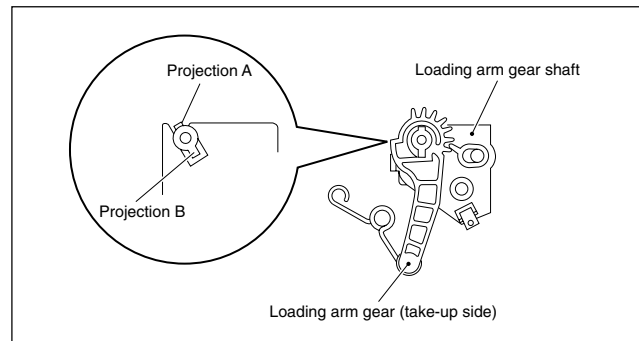


Fig. 2-2-16b

2. How to install

- (1) Align the notch of the loading arm gear (take-up side) to the projection B of the loading arm gear shaft and slip it over. Then rotate it clockwise for alignment with the projection A and slip it down to the bottom. (See Fig.2-2-16b.)
- (2) Then turn the loading arm gear (take-up side) counterclockwise. Hang the torsion arm on the pole base assembly (take-up side) and tighten the screw (B).
- (3) Install the loading arm gear (supply side) so that the guide mark of the loading arm gear (take-up side) is in alignment with the guide mark of the loading arm gear (supply side). Then hang the torsion arm on the pole base assembly (supply side) and tighten the screw (A). (See Fig.2-2-16a.)

2.2.17 Take-up lever, take-up head and control plate guide

- (1) Remove the spring of the take-up lever from the main deck.
- (2) Remove the lug (A) of the take-up lever from the main deck and pull out the take-up lever and the take-up head together.
- (3) Remove the screw (A).
- (4) Align the idler arm assembly pin in the center (centre) of the R section of the control plate guide, remove the control plate guide lugs (B) and (C) from the main deck, and remove the control plate guide.

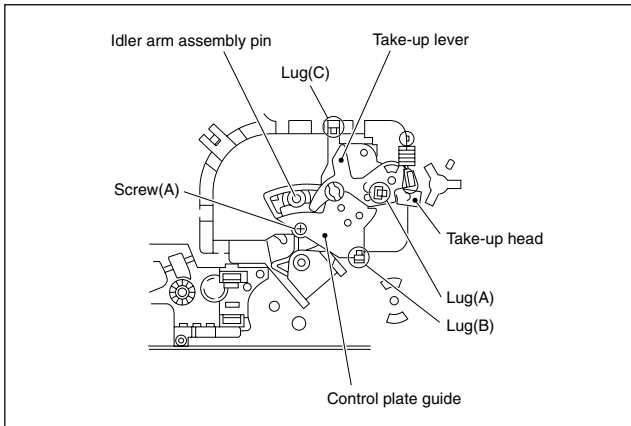


Fig. 2-2-17a

2.2.18 Capstan brake assembly

1. How to remove

- (1) Move the lug (A) of the capstan brake assembly in the arrow-indicated direction so that it comes into alignment with the notch of the main deck. (See Fig. 2-2-18a.)
- (2) Remove the lug (B) of the capstan brake assembly from the main deck and remove the capstan brake assembly.

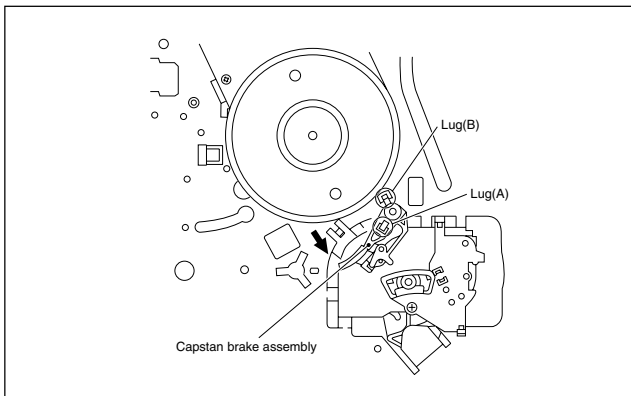


Fig. 2-2-18a

2.2.19 Sub brake assembly (take-up side)

1. How to remove

- (1) Remove the spring attached to the lid guide and sub brake assembly (take-up side).
- (2) Bring the lug (A) of the sub brake assembly (take-up side) into alignment with the notch of the main deck.
- (3) Remove the lugs (B) and (C) of the sub brake assembly (take-up side) from the main deck and remove the sub brake assembly (take-up side).

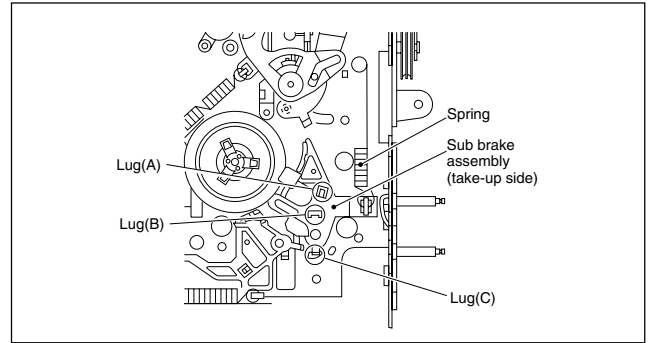


Fig. 2-2-19a

2.2.20 Main brake assembly (take-up side), reel disk (take-up side) and main brake assembly (supply side)

1. How to remove

- (1) Move the main brake assembly (take-up side) in the arrow-indicated direction and remove the reel disk (take-up side).
- (2) Remove the spring attached to the main brake assembly.
- (3) Remove the lug (A) of the main brake assembly (take-up side) and pull out the lug (B) after bringing it into alignment with the main deck notch.
- (4) Remove the lugs (C), (D) and (E) of the main brake assembly (supply side) from the main deck and pull them off. (See Fig.2-2-20a.)
- (5) When installing the main brake assembly (take-up side), slide the brake lever in the direction as indicated by the arrow to prevent it from hitting the projection of the main brake assembly (take-up side). (See Fig.2-2-20b.)

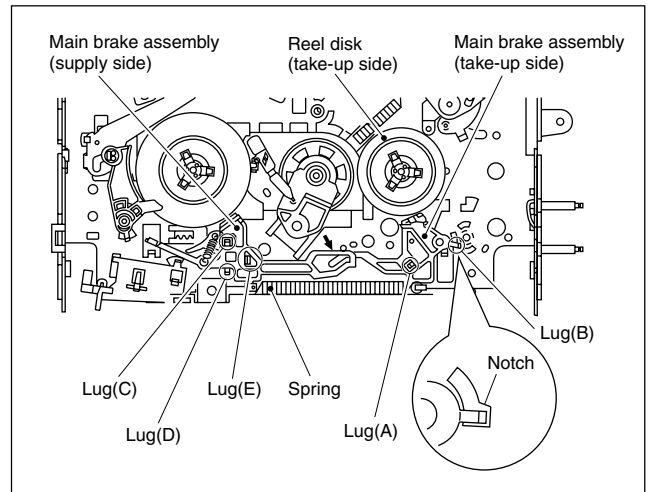


Fig. 2-2-20a

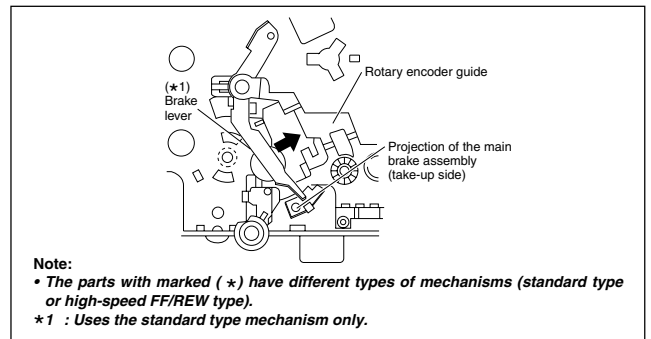


Fig. 2-2-20b

2.2.21 Tension brake assembly, reel disk (supply side) and tension arm assembly

1. How to remove

- (1) Remove the three lugs of the tension brake assembly from the main deck and pull them off.
- (2) Remove the reel disk (supply side) by loosening in the arrow-indicated direction the main brake assembly (supply side).
- (3) Remove the tension spring on the back of the main deck. Then release the lug of the tension arm bearing in the arrow-indicated direction and draw out the tension arm assembly. (See Fig. 2-2-21a.)

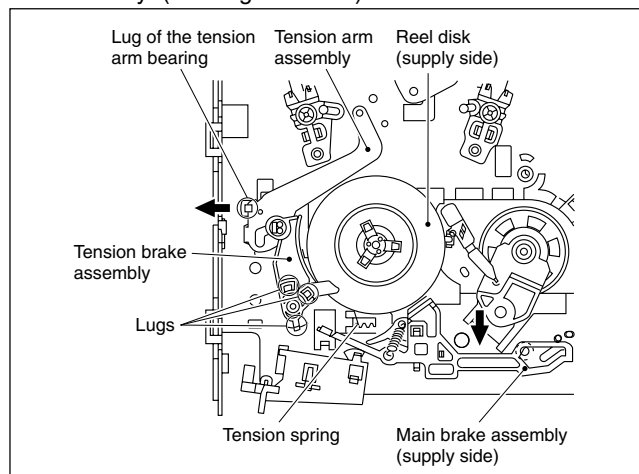


Fig. 2-2-21a

2.2.22 Idler lever, idler arm assembly

1. How to remove

- (1) Remove the lug of the idler lever from the main deck and remove the hook fitted in the idler arm assembly hole by lifting it.
- (2) Remove the slit washer and pull out the idler arm assembly.

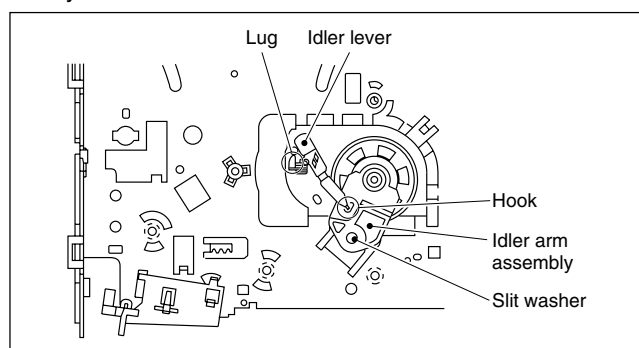


Fig. 2-2-22a

2.2.23 Stator assembly

- (1) Remove the flat cable.
- (2) Remove the two screws (A), (B) and remove the lug wire.
- (3) Remove the stator assembly by lifting in the arrow-indicated direction. (Take care that the brush spring does not jump out.)

Notes:

- **Be careful not to lose the brush and spring.**
- **There are some models that do not use the lug wire. Refer to the parts list for these models.**
- **When tightening the screw (B), place the caulked part of the lug terminal near to the shaft of the drum and then tighten it.**
- **After installation, be sure to perform the switching point adjustment according to the electrical adjustment procedure.**

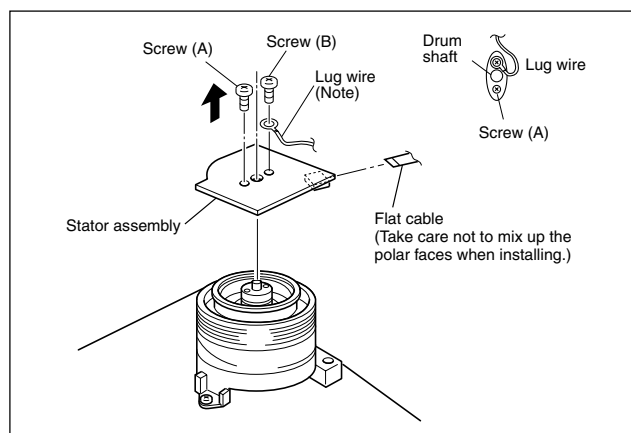


Fig. 2-2-23a

2.2.24 Rotor assembly

1. How to remove

- (1) Remove the stator assembly.
- (2) Remove the two screws (B) and remove the rotor assembly.

2. How to install

- (1) Match the phases of the upper drum assembly and the rotor assembly as indicated in Fig.2-2-24a.
- (2) Place the upper drum assembly hole (a) over the rotor assembly holes (b) (with three holes to be aligned) and tighten the two screws (B). (See Fig.2-2-24a.)

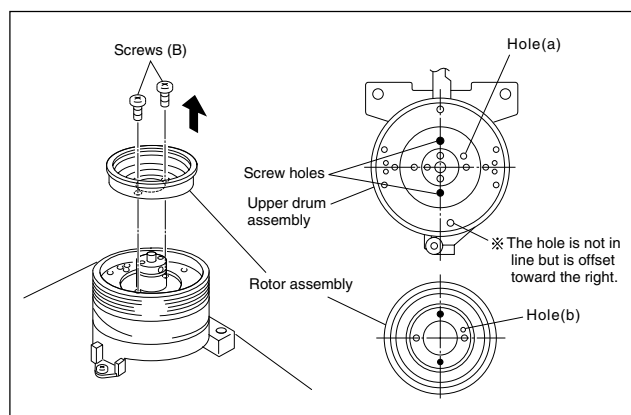


Fig. 2-2-24a

2.2.25 Upper drum assembly

Notes:

- **To replace the upper drum assembly only may not be possible with some models. For upper drum assembly replacement, refer to the parts list. (When the parts number of the upper drum assembly is not listed on the parts list, then this cannot be replaced.)**
- **When replacement is required, control the up- down movement of the brush. Never apply grease.**
- **When replacing the upper drum assembly, replace it together with the washer.**

1. How to remove

- (1) Remove the stator assembly and rotor assembly.
- (2) Loosen the screw of the collar assembly using a 1.5 mm hexagonal wrench and remove the collar assembly. Also remove the brush, spring and cap at one time.
- (3) Remove the upper drum assembly and remove the washer using tweezers.

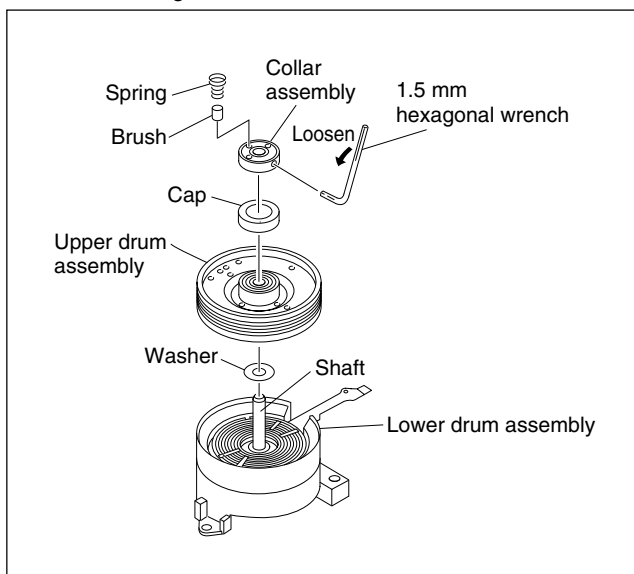


Fig. 2-2-25a

2. How to install

- (1) Clean the coil parts of the lower drum assembly and the newly installed upper drum assembly with an air brush in advance. (See Fig.2-2-25b.)
- (2) Install a new washer and upper drum assembly on the drum shaft. (See Fig.2-2-25a.)
- (3) Install the cap to the upper drum assembly.
- (4) Position the collar assembly as indicated in Fig.2-2-25c while controlling its up- down movement.
- (5) Secure the collar assembly in position with a hexagonal wrench while pressing its top with the fingers.
- (6) After installation, gently turn the upper drum assembly with your hand to make sure that it turns normally. Then install the brush and the spring.
- (7) Install the rotor assembly and stator assembly according to Fig 2-2-23a and 2-2-24a.
- (8) When installation is complete, clean the upper drum assembly and lower drum assembly and carry out the following adjustments.
 - PB switching point adjustment
 - Slow tracking adjustment
 - Compatibility adjustment (Be sure to check for compatibility for the EP (or LP) mode.)

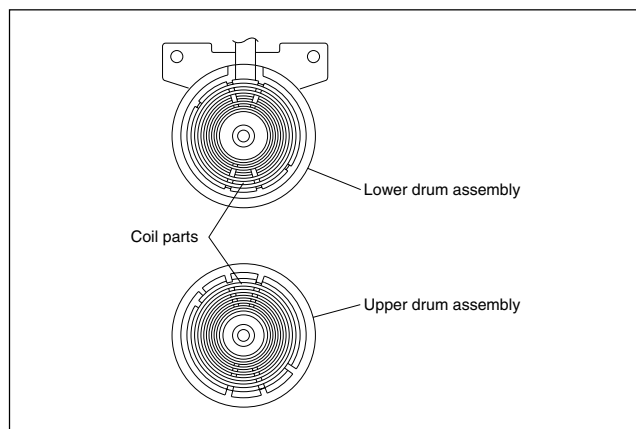


Fig. 2-2-25b

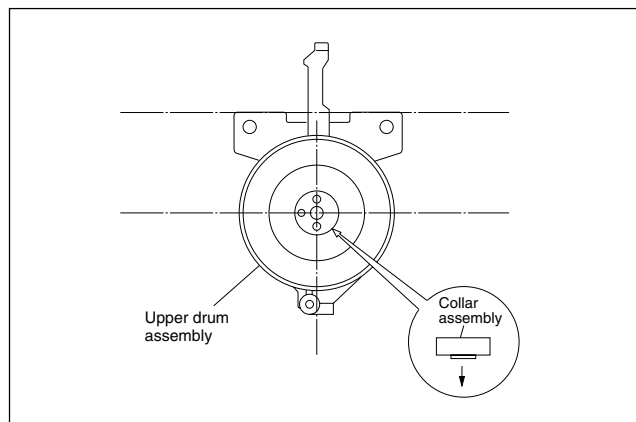


Fig. 2-2-25c

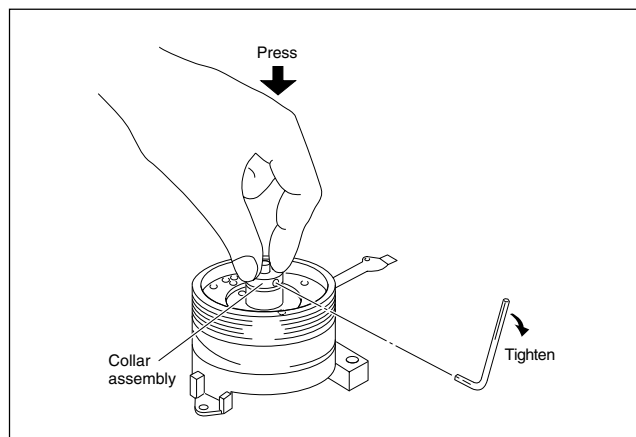


Fig. 2-2-25d

2.3 Compatibility adjustment

Notes:

- **Although compatibility adjustment is very important, it is not necessary to perform this as part of the normal servicing work. It will be required when you have replaced the A/C head, drum assembly or any part of the tape transport system.**
- **To avoid any damage to the alignment tape while performing the compatibility adjustment, get a separate cassette tape (for recording and play back) ready to be used for checking the initial tape running behavior.**
- **Unless otherwise specified, all measuring points and adjustment parts are located on the Main board.**
- **When using the Jig RCU, it is required to set the VCR to the Jig RCU mode (the mode in which codes from the Jig RCU can be received). (See SECTION 1 DISASSEMBLY.)**

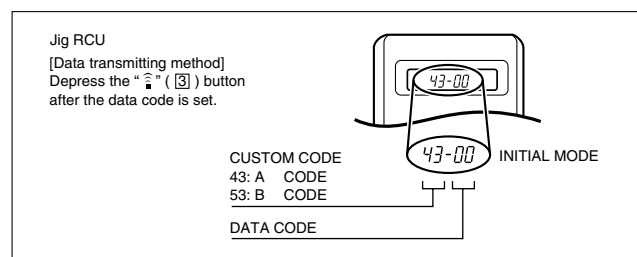


Fig. 2-3a Jig RCU [PTU94023B]

2.3.1 FM waveform linearity

Signal	(A1) (A2)	• Alignment tape(SP, stairstep, NTSC) [MHP] • Alignment tape(EP, stairstep, NTSC) [MHP-L]
Mode	(B)	• PB
Equipment	(C)	• Oscilloscope
Measuring point	(D)	• TP106 (PB. FM)
External trigger	(E)	• TP111 (D.FF)
Adjustment part	(F)	• Guide roller [Mechanism assembly]
Specified value	(G)	• Flat V.PB FM waveform
Adjustment tool	(H)	• Roller driver [PTU94002]

- (1) Play back the alignment tape (A1).
- (2) Apply the external trigger signal to D.FF (E), to observe the V.PB FM waveform at the measuring point (D).
- (3) Set the VCR to the manual tracking mode.
- (4) Make sure that there is no significant level drop of the V.PB FM waveform caused by the tracking operation, with its generally parallel and linear variation ensured. Perform the following adjustments when required. (See Fig. 2-3-1a.)
- (5) Reduce the V.PB FM waveform by the tracking operation. If a drop in level is found on the left side, turn the guide roller of the pole base assembly (supply side) with the roller driver to make the V.PB FM waveform linear. If a drop in level is on the right side, likewise turn the guide roller of the pole base assembly (take-up side) with the roller driver to make it linear. (See Fig. 2-3-1c.)
- (6) Make sure that the V.PB FM waveform varies in parallel and linearly with the tracking operation again. When required, perform fine-adjustment of the guide roller of the

pole base assembly (supply or take-up side).

- (7) Unload the cassette tape once, play back the alignment tape (A1) again and confirm the V.PB FM waveform.
- (8) After adjustment, confirm that the tape wrinkling does not occur at the roller upper or lower limits. (See Fig. 2-3-1d.)

[Perform adjustment step (9) only for the models equipped with SP mode and EP (or LP) mode.]

- (9) Repeat steps (1) to (8) by using the alignment tape (A2).

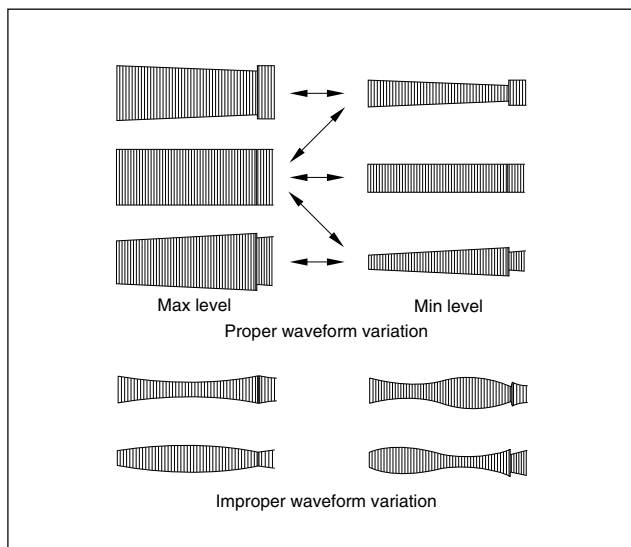


Fig. 2-3-1a

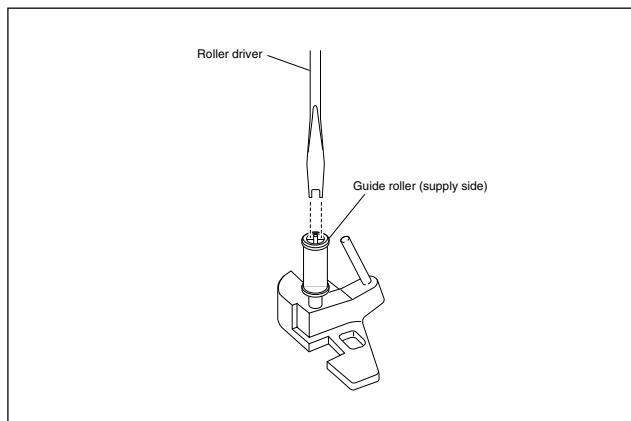


Fig. 2-3-1b

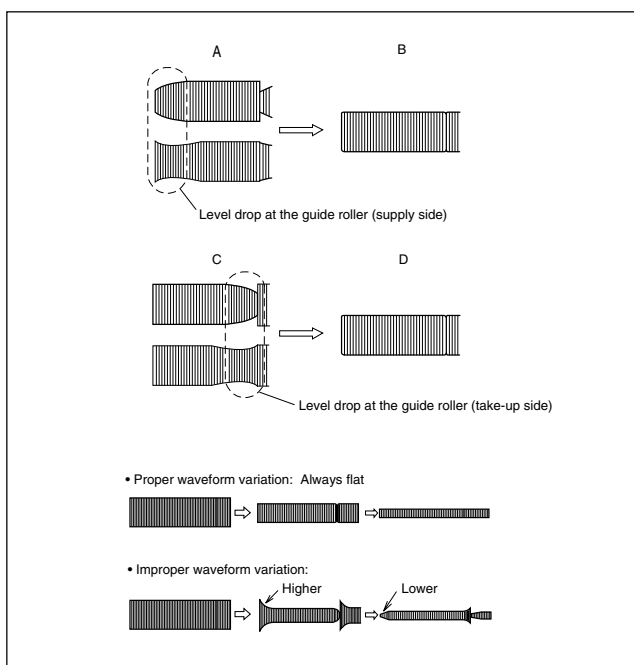


Fig. 2-3-1c

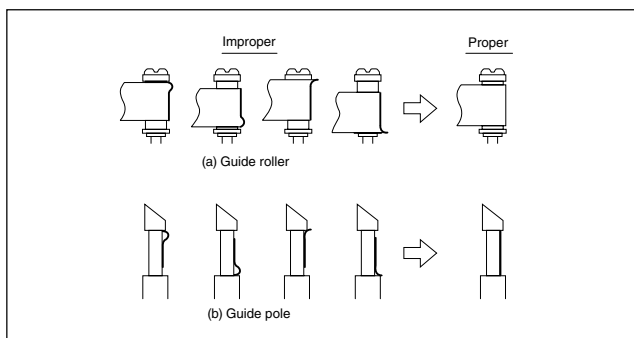


Fig. 2-3-1d

2.3.2 Height and tilt of the A/C head

Note:

- **Set a temporary level of the height of the A/C head in advance to make the adjustment easier after the A/C head has been replaced. (See Fig.2-2-6c.)**

Signal	(A)	• Alignment tape(SP, staircase, NTSC) [MHP]
Mode	(B)	• PB
Equipment	(C)	• Oscilloscope
Measuring point	(D1) (D2)	• AUDIO OUT terminal • TP4001 (CTL. P)
External trigger	(E)	• TP111 (D.FF)
Adjustment part	(F)	• A/C head [Mechanism assembly]
Specified value	(G)	• Maximum waveform

- (1) Play back the alignment tape (A).
- (2) Apply the external trigger signal to D.FF (E), to observe the AUDIO OUT waveform and Control pulse waveform at the measuring points (D1) and (D2) in the ALT mode.
- (3) Set the VCR to the manual tracking mode.

- (4) Adjust the AUDIO OUT waveform and Control pulse waveform by turning the screws (1), (2) and (3) little by little until both waveforms reach maximum. The screw (1) and (3) are for adjustment of tilt and the screw (2) for azimuth.

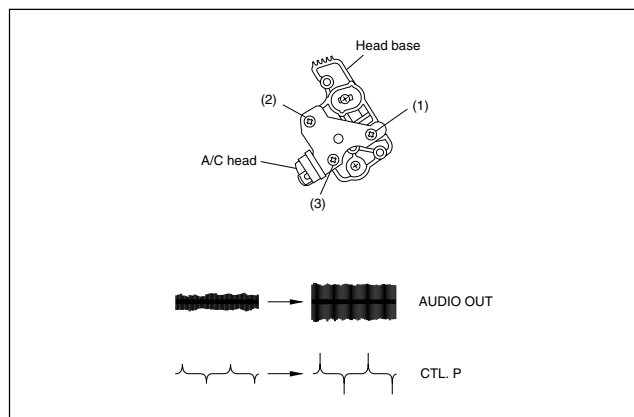


Fig. 2-3-2a

2.3.3 A/C head phase (X-value)

Signal	(A1)	• Alignment tape(SP, staircase, NTSC) [MHP]
Mode	(B)	• PB
Equipment	(C)	• Oscilloscope
Measuring point	(D)	• TP106 (PB-FM)
External trigger	(E)	• TP111 (D.FF)
Adjustment part	(F)	• A/C head base [Mechanism assembly]
Specified value	(G)	• Maximum V.PB FM waveform
Adjustment tool	(H)	• A/C head positioning tool [PTU94010]

- (1) Play back the alignment tape (A1).
- (2) Apply the external trigger signal to D.FF (E), to observe the V.PB FM waveform at the measuring point (D).
- (3) Set the VCR to the manual tracking mode.
- (4) Loosen the screws (4) and (5), then set the A/C head positioning tool to the innermost projected part of the A/C head. (See Fig. 2-3-3a.)
- (5) Turn the A/C head positioning tool fully toward the capstan. Then turn it back gradually toward the drum and stop on the second peak point position of the V.PB FM waveform output level. Then tighten the screws (4) and (5).
- (6) Perform the tracking operation and make sure that the V.PB FM waveform is at its maximum. If it is not at maximum, loosen the screws (4) and (5), and turn the A/C head positioning tool to bring the A/C head to a position, around where the waveform reaches its maximum for the first time. Then tighten the screws (4) and (5).

[Perform adjustment steps (7) to (10) only for 2 Head models equipped with LP mode.]

- (7) Then play back the alignment tape (A2).
- (8) Set the VCR to the manual tracking mode.
- (9) Perform the tracking operation and make sure that the V.PB FM waveform is at its maximum.
- (10) If it is not at maximum, loosen the screws (4) and (5), and turn the A/C head positioning tool to bring the A/C head to a position, around where the waveform reaches its maximum for the first time. Then tighten the screws (4) and (5).

Note:

- After adjusting, always perform the confirmation and re-adjustment of the item 2.3.4.

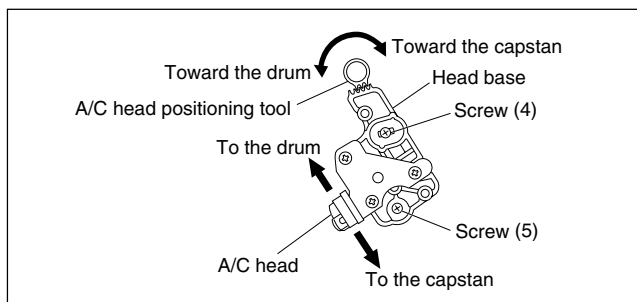


Fig. 2-3-3a

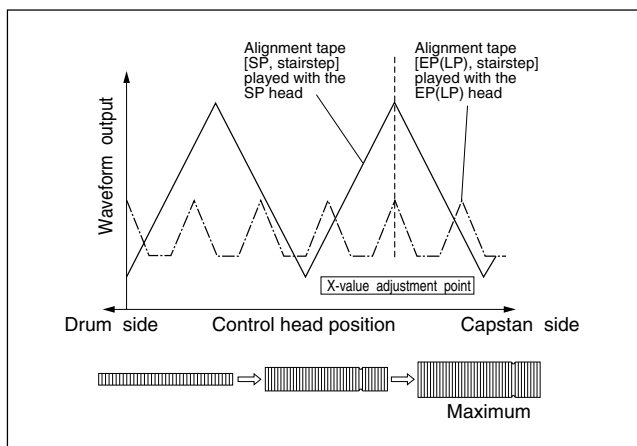


Fig. 2-3-3b

- (4) Set the VCR to the Auto adjust mode by transmitting the code (F) twice from the Jig RCU. When the VCR enters the stop mode, the adjustment is completed.
- (5) If the VCR enters the eject mode, perform adjustment for the audio control head phase (X-value) again.

2.3.5 Tension pole position

Signal	(A)	• Back tension cassette gauge [PUJ48076-2]
Mode	(B)	• PB
Adjustment part	(F)	• Adjust pin [Mechansim assembly]
Specified value	(G)	• 25 - 51 gf•cm (2.45 - 5 × 10 ⁻³ Nm)

- (1) Play back the back tension cassette gauge (A).
- (2) Check that the indicated value on the left side gauge is within the specified value (G).
- (3) If the indicated value is not within the specified value (G), perform the adjustment in a following procedure.
 - 1) Set the VCR to the mechanism service mode. (See SECTION 1 DISASSEMBLY.)
 - 2) Set the VCR to the play back mode and adjust by turning adjustment pin to align the tension arm assembly edge with the main deck hole (A) on the right edge marker. (See Fig. 2-3-5a)

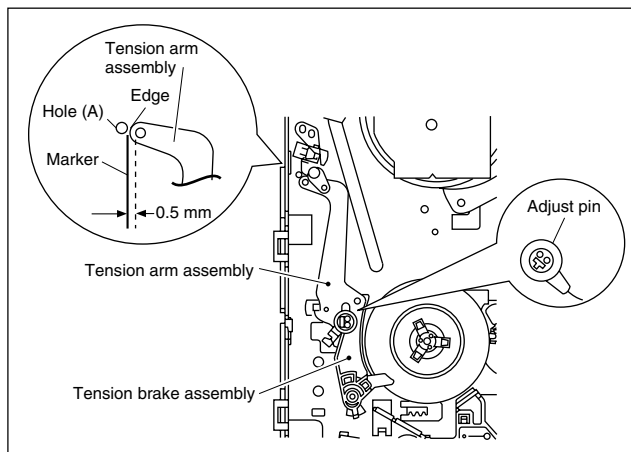


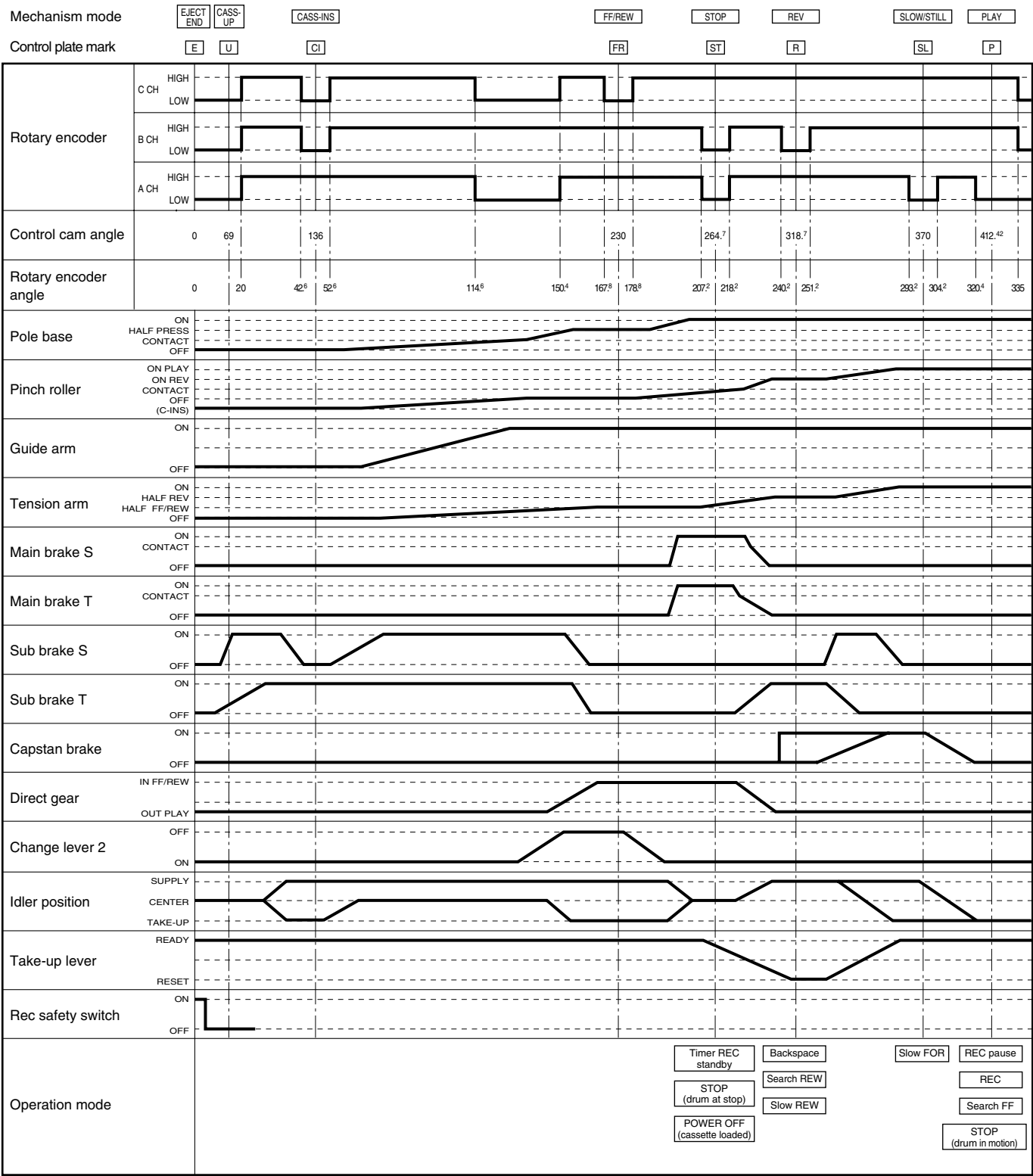
Fig. 2-3-5a

2.3.4 Standard tracking preset

Signal	(A)	• Alignment tape(EP, staircase, NTSC) [MHP-L]
Mode	(B)	• PB → Auto adjust
Equipment	(C)	• Oscilloscope
Measuring point	(D)	• TP106 (PB-FM)
External trigger	(E)	• TP111 (D.FF)
Adjustment part	(F)	• Jig RCU: Code "50"
Specified value	(G)	• STOP mode (Maximum V.PB FM waveform)
Adjustment tool	(H)	• Jig RCU [PTU94023B]

- (1) Play back the alignment tape (A).
- (2) Apply the external trigger signal to D.FF (E), to observe the V.PB FM waveform at the measuring point (D).
- (3) Confirm that the automatic tracking operation is completed.

Mechanism Timing Chart



SECTION 3 ELECTRICAL ADJUSTMENT

3.1 Precaution

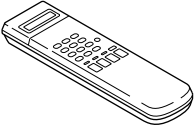
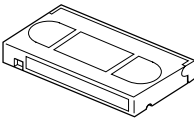
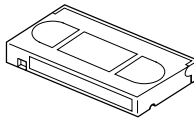
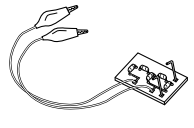
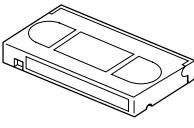
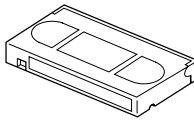
The following adjustment procedures are not only necessary after replacement of consumable mechanical parts or board assemblies, but are also provided as references to be referred to when servicing the electrical circuitry.

In case of trouble with the electrical circuitry, always begin a service by identifying the defective points by using the measuring instruments as described in the following electrical adjustment procedures. After this, proceed to the repair, replacement and/or adjustment. If the required measuring instruments are not available in the field, do not change the adjustment parts (variable resistor, etc.) carelessly.

3.1.1 Required test equipments

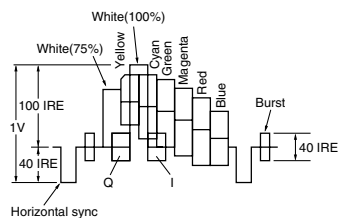
- Color (colour) television or monitor
- Oscilloscope: wide-band, dual-trace, triggered delayed sweep
- Frequency counter
- Audio level meter
- Signal generator: RF / IF sweep / marker
- Signal generator: staircase, color (colour) bar [NTSC]
- Recording tape
- Digit-key remote controller (provided)

3.1.2 Required adjustment tools

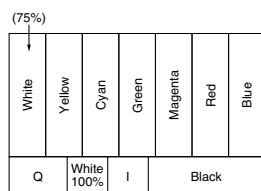
Jig RCU PTU94023B	Alignment tape (SP, staircase, NTSC) MHP	Alignment tape (D-VHS STD, color (colour) bar) MD-1
		
LPF PTU93006	Alignment tape (S-VHS, SP/EP, color (colour) bar) MH-1H	Alignment tape (D-VHS HS, color (colour) bar) MD-1H
		

3.1.3 Color (colour) bar signal, Color (colour) bar pattern

• Color bar signal [NTSC]



• Color bar pattern [NTSC]



3.1.4 Switch settings and standard precautions

The SW settings of the VCR and the standard precautions for the electrical adjustments are as follows.

- **When using the Jig RCU, it is required to set the VCR to the Jig RCU mode (the mode in which codes from the Jig RCU can be received). (See SECTION 1 DISASSEMBLY.)**

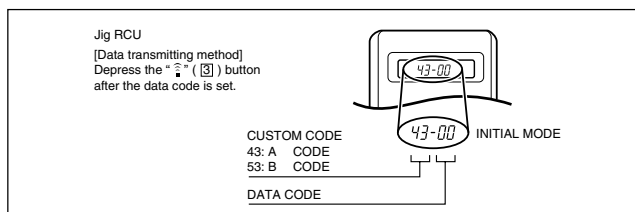


Fig. 3-1-4a Jig RCU [PTU94023B]

- **Set the switches as shown below unless otherwise specified on the relevant adjustment chart. The switches that are not listed below can be set as desired. If the VCR is not equipped with the functions detailed below, setup is not required.**

AUTO PICTURE/VIDEO CALIBRATION/ B.E.S.T./D.S.P.C.	OFF
PICTURE CONTROL/SMART PICTURE	NORMAL/NATURAL
VIDEO STABILIZER	OFF
TBC	ON
Digital 3R	ON
VIDEO NAVIGATION/TAPE MANAGER	OFF

- **If there is a reference to a signal input method in the signal column of the adjustment chart, "Ext. S-input" means the Y/C separated video signal and "Ext. input" means the composite video signal input.**
- **Unless otherwise specified, all measuring points and adjustment parts are located on the D-PRE/REC board.**

3.1.5 EVR Adjustment

Some of the electrical adjustments require the adjustment performed by the EVR system. The main unit have EEPROMs for storing the EVR adjustment data and user setups.

Notes:

- **In the EVR adjustment mode, the value is varied with the channel buttons (+, -). The adjusted data is stored when the setting mode changes (from PB to STOP, when the tape speed is changed, etc.). Take care to identify the current mode of each adjustment item when making an adjustment.**
- **When changing the address setting in the EVR adjustment mode, use the Jig RCU or the remote controller having numeric keypad with which a numeric code can be directly input.**

The remote control code of the Jig RCU corresponds to each of the digit keys on the remote controller as follows.

Digit-key	0	1	2	3	4	5	6	7	8	9
Code	20	21	22	23	24	25	26	27	28	29

- **As the counter indication and remaining tape indication are not displayed FDP during the EVR adjustment mode, check them on the TV monitor screen.**
- **When performing the EVR adjustment, confirm that the FDP indication is changed to the EVR mode, as shown below.**

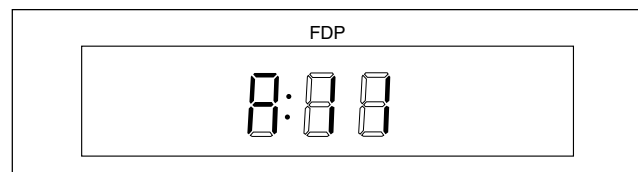


Fig. 3-1-5a EVR mode

3.2 Servo circuit

3.2.1 Switching point

Signal	(A1) (A2)	• Stairstep signal • Alignment tape(SP, stairstep, NTSC) [MHP]
Mode	(B)	• PB • TBC: OFF
Equipment	(C)	• Oscilloscope
Measuring point	(D1) (D2)	• VIDEO OUT terminal (75Ω terminated) • TP106 (PB-FM) [Main board]
External trigger	(E)	• TP111 (D.FF)/slope : -
Adjustment part	(F)	• Jig RCU: Code "51" or "52"
Specified value	(G)	• $8.0 \pm 0.5H$
Adjustment tool	(H)	• Jig RCU [PTU94023B]

- Play back the signal (A1) of the alignment tape (A2).
- Apply the external trigger signal to D.FF (E) to observe the VIDEO OUT waveform and V.PB FM waveform at the measuring points (D1) and (D2).
- Set the VCR to the manual tracking mode.
- Adjust tracking so that the V.PB FM waveform becomes maximum.
- Transmit the code (F) from the Jig RCU to adjust so that the trigger point of the VIDEO OUT waveform is changed from the trailing edge of the V.sync signal becomes the specified value (G).
- Set the VCR to the stop mode or eject mode.

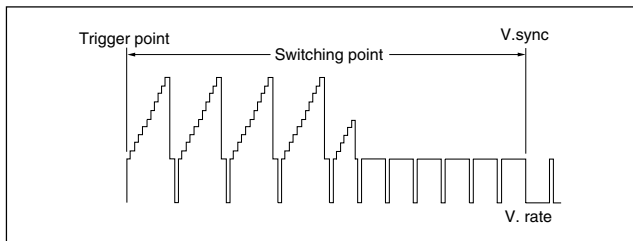


Fig. 3-2-1a Switching point

3.2.2 D-VHS switching point

Signal	(A1) (A2) (A3)	• Color (colour) bar (STD) • Alignment tape [MD-1] (HS) • Alignment tape [MD-1H]
Mode	(B1) (B2) (B3)	• PB • TBC: OFF • D-VHS STD • D-VHS HS
Equipment	(C)	• Oscilloscope
Measuring point	(D)	(STD) • TP606 (PB DATA1) (HS) • TP616 (PB DATA2)
External trigger	(E)	(STD) • TP111 (VIDEO/STD/HS1 FF) (HS) • TP112 (A/HS2 FF)
Adjustment part	(F)	• Jig RCU: Code "51" or "52"
Specified value	(G)	• $230 \pm 20\mu\text{sec}$
Adjustment tool	(H)	• Jig RCU [PTU94023B]

- Play back the signal (A1) of the alignment tape (A2).
- Apply the external trigger signal to D.FF (E) to observe the D-VHS envelope waveform at the measuring point (D).
- Set the VCR to the manual tracking mode.
- Adjust tracking so that the D-VHS envelope waveform becomes maximum.

- Transmit the code (F) from the Jig RCU to adjust so that the duration "a" from the waveform end (Hi/Low switching point of D.FF) to the rising edge of subcode area becomes the specified value (G).
- Set the VCR to the stop mode or eject mode.
- Play back the signal (A1) of the alignment tape (A3).
- Repeat steps (2) to (6) in the mode (B3).

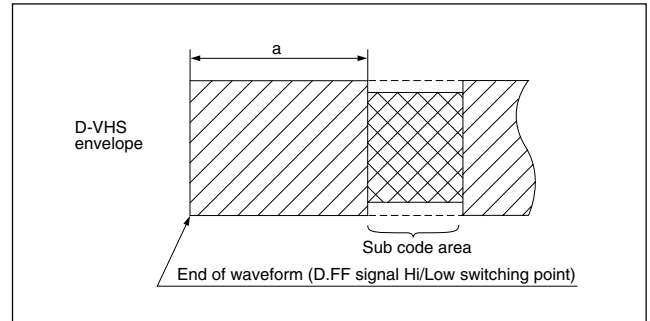


Fig. 3-2-2a D-VHS switching point

3.2.3 Slow tracking preset

Signal	(A1) (A2)	• Ext. input • Color (colour) bar signal [NTSC]
Mode	(B1) (B2)	• VHS SP • VHS EP
Measuring point	(D)	• TV-Monitor
Adjustment part	(F)	• Jig code "71" or "72"
Specified value	(G)	• Minimum noise
Adjustment tool	(H)	• Jig RCU [PTU94023B]

- Record the signal (A2) in the mode (B1), and play back the recorded signal.
- Set the VCR to the manual tracking mode.
- Set the VCR to the FWD slow (+1/6x) mode.
- Transmit the code (F) from the Jig RCU to adjust so that the noise bar becomes the specified value (G) on the TV monitor in the slow mode.
- Set the VCR to the Stop mode.
- Confirm that the noise bar is (G) on the TV monitor in the slow mode.
- Repeat steps (3) to (6) in the REV slow (-1/6x) mode.
- Repeat steps (1) to (7) in the mode (B2).

Note:

- For FWD slow (+1/6x) playback, transmit the code "08" from the Jig RCU to enter the slow playback mode, and transmit the code "D0" for REV slow (-1/6x) mode.

3.3 Video circuit

3.3.1 D/A level

Signal	(A1) (A2) (A3)	• Ext. S-input / Ext. input • Color (colour) bar signal [NTSC] • S-VHS tape
Mode	(B)	• S-VHS • EE
Equipment	(C)	• Oscilloscope
Measuring point	(D)	• VIDEO OUT terminal (75Ω terminated)
Adjustment part	(F)	• VR1401 (D/A LEVEL ADJ) [3D Digital/4M board]
Specified value (Note)	(G)	• 1.00 ± 0.015 Vp-p (reference value)

- Insert the cassette tape (A3) to enter the mode (B).
- Observe the VIDEO OUT waveform at the measuring point (D).
- Check the Y level value when the External S-input (Y/C separated video signal).
- Switch the input signal to the External input (composite video signal), and adjust the adjustment part (F) so that the Y level becomes the same value observed in step (3).

Note:

- The specified value (G) is just a reference value to be obtained when the External S-Video (Y/C separated video) signal is input. In actual adjustment, set it to the value observed in step (3).**

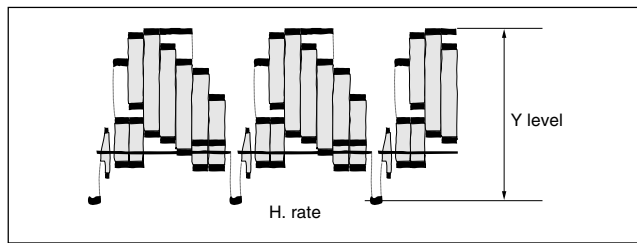


Fig. 3-3-1a D/A level

3.3.2 EE Y/PB Y (S-VHS/VHS) level

Signal	(A1) (A2) (A3)	• Ext. input • Color (colour) bar signal [NTSC] • S-VHS
Mode	(B1) (B2) (B3)	• EE • S-VHS SP • VHS SP
Equipment	(C)	• Oscilloscope
Measuring point	(D)	• TP7101(Y OUT) [Main board]
EVR mode EVR address	(F1) (F2) (F3) (F4)	• Jig code "57" • A : 11 • Jig code "21" twice • Jig code "18" or "19" (Channel +/-)
Specified value	(G)	• 2.05 ± 0.05 Vp-p
Adjustment tool	(H)	• Jig RCU [PTU94023B]

- Insert the cassette tape (A3) to enter the mode (B1).
- Observe the Y OUT waveform at the measuring point (D).
- Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU.
- Set the EVR address to (F2) by transmitting the code (F3) from the Jig RCU.

- Transmit the code (F4) from the Jig RCU to adjust so that the Y level of the Y OUT waveform becomes the specified value (G).
- Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)
- Record the signal (A2) in the mode (B2), and play back the recorded signal.
- Set the VCR to the manual tracking mode.
- Repeat steps (2) to (6) in the mode (B2).
- Record the signal (A2) in the mode (B3), and play back the recorded signal.
- Set the VCR to the manual tracking mode.
- Repeat steps (2) to (6) in the mode (B3).

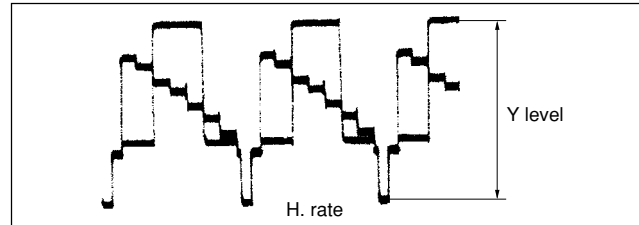


Fig. 3-3-2a EE/PB Y level

3.3.3 REC color (colour) level

Signal	(A1) (A2) (A3)	• Alignment tape(S-VHS, SP/EP, Color(colour) bar) [MH-1H] • Ext. input • Color (colour) bar signal [NTSC]
Mode	(B1) (B2)	• S-VHS SP • S-VHS EP
Equipment	(C)	• Oscilloscope
Measuring point	(D1) (D2)	• TP106 (PB-FM) [Main board] • PB color (colour) output of the LPF
External trigger	(E)	• TP111 (D.FF)
EVR mode EVR address	(F1) (F2) (F3) (F4)	• Jig code "57" • A : 02 • Jig code "20" and "22" • Jig code "18" or "19" (Channel +/-)
Specified value	(G)	• SP: "B" x $125 \pm 5\%$ • EP: "B" x $125 \pm 5\%$
Adjustment tool	(H1) (H2)	• Jig RCU [PTU94023B] • LPF [PTU93006] (See Fig. 3-3-3a.)

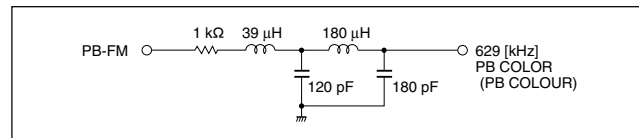


Fig. 3-3-3a LPF

- Connect the adjustment tool (H2) to the measuring point (D1).
- Apply the external trigger signal to D.FF (E) to observe the PB color (colour) waveform at the measuring point (D2).
- Play back the signal (A3) in the mode (B1) of the alignment tape (A1).
- Set the VCR to the manual tracking mode.
- Adjust tracking so that the PB color (colour) waveform becomes maximum. Make a note of the higher PB color (colour) level as "B" at this time.
- Record the signal (A3) in the mode (B1), and play back the recorded signal.

- (7) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU.
- (8) Set the EVR address to (F2) by transmitting the code (F3) from the Jig RCU.
- (9) Transmit the code (F4) from the Jig RCU to adjust so that the higher level channel becomes the specified value (G) of the note "B" level as shown in Fig. 3-3-3b. (Adjust before recording, then confirm it by playing back.)
- (10) After adjustment, record the signal (A3) then playing it back again. At this time, confirm that there is no inverting phenomenon or noise appearing on the playback screen.
- (11) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)
- (12) Repeat steps (3) to (11) in the mode (B2).

Note:

- **After adjusting, always perform the confirmation and re-adjustment of the item 3.4.1.**

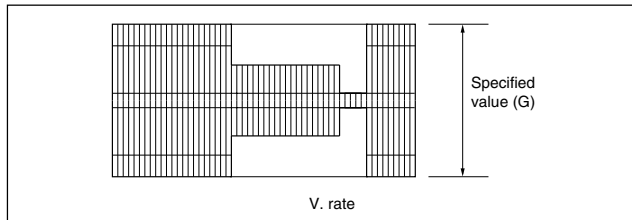


Fig. 3-3-3b REC color (colour) level

3.3.4 Video EQ (Frequency response)

Signal	(A1) (A2)	• Ext. S-input • Video sweep signal
Mode	(B1) (B2) (B3)	• S-VHS SP • S-VHS EP • Picture Control / Smart Picture REC : Normal / Natural PB : Edit / Distinct
Equipment	(C)	• Oscilloscope
Measuring point Frequency marker(D2)	(D1) (D2)	• Y OUT terminal (75Ω terminated) • 3.58 [MHz]
External trigger	(E)	• TP111 (D.FF)
EVR mode EVR address	(F1) (F2) (F3) (F4)	• Jig code "57" • A : 03 • Jig code "20" and "23" • Jig code "18" or "19" (Channel +/-)
Specified value	(G)	• SP: 3.2 ± 0.2 div. (-2 ± 0.5 dB) • EP: 2.8 ± 0.2 div. (-3 ± 0.5 dB)
Adjustment tool	(H)	• Jig RCU [PTU94023B]

- (1) Apply the external trigger signal to D.FF (E) to observe the Y OUT waveform at the measuring point (D1).
- (2) Record the signal (A2) in the mode (B1), and play back the recorded signal.
- (3) Set the VCR to the manual tracking mode.
- (4) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU.
- (5) Set the EVR address to (F2) by transmitting the code (F3) from the Jig RCU.
- (6) Set the slope of the oscilloscope to the channel having higher (D2) marker level of the Y OUT waveform [signal (A2)]. Then set the 100 kHz marker level to the "4" scale on the oscilloscope. In this condition, transmit the code (F4) from the Jig RCU to adjust so that the (D2) marker level reaches the specified value (G).

- (7) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)
- (8) Repeat steps (2) to (7) in the mode (B2).

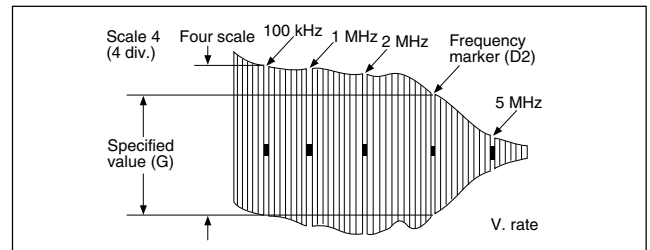


Fig. 3-3-4a Video EQ (Frequency Response)

3.3.5 Auto picture initial setting

Signal	(A1) (A2) (A3)	• Ext. input • Video: Optional • VHS tape
Mode	(B1) (B2)	• VHS • EE → Auto adjust (SP/EP REC → PB)
Adjustment part	(F)	• Jig code "58"
Specified value	(G)	• STOP mode
Adjustment tool	(H)	• Jig RCU [PTU94023B]

- (1) Insert the cassette tape (A3) to set the mode (B1).
- (2) Set the VCR to the Auto adjust mode by transmitting the code (F) from the Jig RCU. When the VCR enters the stop mode, the adjustment is completed. When the VCR enters the eject mode, repeat steps (1) to (2) again.

3.4 Audio circuit

Notes:

- **This adjustment should be done after the "REC color (colour) level adjustment" for the video circuit has been completed.**
- **GND (Ground) should be taken from the Tuner shield case.**

3.4.1 Audio REC FM

Signal	(A1) (A2) (A3)	• Ext. input • Audio: No signal • Video: Color (colour) bar signal [NTSC]
Mode	(B)	• S-VHS EP • TBC: OFF
Equipment	(C)	• Oscilloscope
Measuring point	(D)	• TP2253 (A. PB-FM) [Main board]
External trigger	(E)	• TP111 (D.FF)
EVR mode EVR address	(F1) (F2) (F3) (F4)	• Jig code "57" • A : 30 • Jig code "23" and "20" • Jig code "18" or "19" (Channel +/-)
Specified value	(G1) (G2)	• 500 ± 100 mVp-p • More than 350 mVp-p
Adjustment tool	(H)	• Jig RCU [PTU94023B]

- (1) Apply the external trigger signal to D.FF (E) to observe the Audio PB FM waveform at the measuring point (D).
- (2) Record the signal (A3) with no audio signal input in the mode (B), and play back the recorded signal.
- (3) Set the VCR to the manual tracking mode.

- (4) If the A.PB FM level is not within the specified value (G1), perform the adjustment in a following procedure.
- (5) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU.
- (6) Set the EVR address to (F2) by transmitting the code (F3) from the Jig RCU.
- (7) Transmit the code (F4) from the Jig RCU to adjust so that the A.PB FM level of the higher channel level becomes the specified value (G1). (Adjust before recording, then confirm it by playing back.)
- (8) If the specified value (G1) is not obtained, transmit the code (F4) from the Jig RCU to adjust so that the waveform level of the lower channel level becomes the specified value (G2). (Adjust before recording, then confirm it by playing back.)
- (9) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)

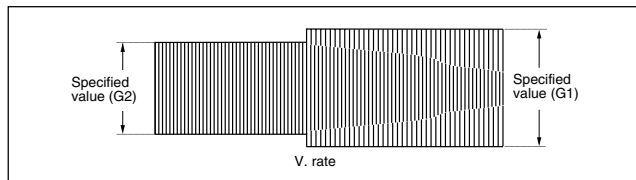


Fig. 3-4-1a Audio REC FM

3.5 Demodulator circuit

Notes:

- **Unless otherwise specified in this demod circuit adjustments, all measuring points and adjustment parts are located on the Main board.**
- **Unless otherwise specified, set an audio multiplex TV signal generator as follows;
RF signal : 70 dBμ / 75Ω, color bar 87.5% modulation.**

3.5.1 Input level

Signal (A)	• RF signal (Audio: mono 300 Hz)
Mode (B)	• Tuner • EE
Equipment (C)	• Audio level meter
Measuring point (D)	• IC6501 pin 26
EVR mode (F1) EVR address (F2) (F3) (F4)	• Jig code "57" • A : 20 • Jig code "22" and "20" • Jig code "18" or "19" (Channel +/-)
Specified value (G)	• 500 ± 10 mVrms
Adjustment tool (H)	• Jig RCU [PTU94023B]

- (1) Set an audio signal mode of the RF signal generator to mono 300 Hz.
- (2) Connect the equipment (C) to the measuring point (D).
- (3) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU.
- (4) Set the EVR address to (F2) by transmitting the code (F3) from the Jig RCU.
- (5) Transmit the code (F4) from the Jig RCU to adjust so that the level of the measuring point (D) becomes the specified value (G).
- (6) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)

3.5.2 Stereo VCO

Signal (A)	• No signal
Mode (B)	• Tuner • EE
Equipment (C)	• Frequency counter
Measuring point (D1)	• IC6501 pin 26
Short point (D2)	• C6505(-) terminal
EVR mode (F1) EVR address (F2) (F3) (F4)	• Jig code "57" • A : 21 • Jig code "22" and "21" • Jig code "18" or "19" (Channel +/-)
Specified value (G)	• 15.73 ± 0.1 kHz
Adjustment tool (H)	• Jig RCU [PTU94023B]

- (1) Connect the short wire between the short point (D2) and the GND (Ground).
- (2) Connect the equipment (C) to the measuring point (D1).
- (3) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU.
- (4) Set the EVR address to (F2) by transmitting the code (F3) from the Jig RCU.
- (5) Transmit the code (F4) from the Jig RCU to adjust so that the frequency of the measuring point (D1) becomes the specified value (G).
- (6) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)
- (7) Disconnect the short wire between the short point (D2) and the GND (Ground).

3.5.3 Stereo filter

Signal (A)	• RF signal (Audio: No signal)
Mode (B)	• Tuner • EE
Equipment (C)	• Oscilloscope
Measuring point (D)	• IC6501 pin 26
EVR mode (F1) EVR address (F2) (F3) (F4)	• Jig code "57" • A : 22 • Jig code "22" twice • Jig code "18" or "19" (Channel +/-)
Specified value (G)	• Minimum level
Adjustment tool (H)	• Jig RCU [PTU94023B]

- (1) Set an audio signal mode of the RF signal generator to no signal.
- (2) Connect the equipment (C) to the measuring point (D).
- (3) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU.
- (4) Set the EVR address to (F2) by transmitting the code (F3) from the Jig RCU.
- (5) Transmit the code (F4) from the Jig RCU to adjust so that the level of the measuring point (D) becomes the specified value (G).
- (6) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)

3.5.4 Separation - 1

Signal	(A)	• RF signal (Audio: L-ch 300 Hz 14% modulated)
Mode	(B)	• Tuner • EE
Equipment	(C)	• Audio level meter
Measuring point	(D)	• IC6501 pin 26
EVR mode	(F1)	• Jig code "57"
EVR address	(F2)	• A : 23
	(F3)	• Jig code "22" and "23"
	(F4)	• Jig code "18" or "19" (Channel +/-)
Specified value	(G)	• Minimum level
Adjustment tool	(H)	• Jig RCU [PTU94023B]

- (1) Set an audio signal mode of the RF signal generator to alternate L-ch 300 Hz 14% modulated.
- (2) Connect the equipment (C) to the measuring point (D).
- (3) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU.
- (4) Set the EVR address to (F2) by transmitting the code (F3) from the Jig RCU.
- (5) Transmit the code (F4) from the Jig RCU to adjust so that the level of the measuring point (D) becomes the specified value (G).
- (6) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)

3.5.5 Separation - 2

Signal	(A)	• RF signal (Audio: L-ch 5 kHz 14% modulated)
Mode	(B)	• Tuner • EE
Equipment	(C)	• Audio level meter
Measuring point	(D)	• IC6501 pin 26
EVR mode	(F1)	• Jig code "57"
EVR address	(F2)	• A : 24
	(F3)	• Jig code "22" and "24"
	(F4)	• Jig code "18" or "19" (Channel +/-)
Specified value	(G)	• Minimum level
Adjustment tool	(H)	• Jig RCU [PTU94023B]

- (1) Set an audio signal mode of the RF signal generator to alternate L-ch 5 kHz 14% modulated.
- (2) Connect the equipment (C) to the measuring point (D).
- (3) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU.
- (4) Set the EVR address to (F2) by transmitting the code (F3) from the Jig RCU.
- (5) Transmit the code (F4) from the Jig RCU to adjust so that the level of the measuring point(D) becomes the specified value (G).
- (6) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)

3.5.6 SAP VCO

Signal	(A)	• No. signal
Mode	(B)	• Tuner • EE
Equipment	(C)	• Frequency counter
Measuring point	(D1)	• IC6501 pin 26
Short point	(D2)	• C6505 (-) terminal
EVR mode	(F1)	• Jig code "57"
EVR address	(F2)	• A : 25
	(F3)	• Jig code "22" and "25"
	(F4)	• Jig code "18" or "19" (Channel +/-)
Specified value	(G)	• 78.67 ± 0.5 kHz
Adjustment tool	(H)	• Jig RCU [PTU94023B]

- (1) Connect the short wire between the short point (D2) and the GND (Ground).
- (2) Connect the equipment (C) to the measuring point (D1).
- (3) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU.
- (4) Set the EVR address to (F2) by transmitting the code (F3) from the Jig RCU.
- (5) Transmit the code (F4) from the Jig RCU to adjust so that the frequency of the measuring point (D1) becomes the specified value (G).
- (6) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)
- (7) Disconnect the short wire between the short point (D2) and the GND (Ground).

3.6 Digital circuit

3.6.1 D-VHS REC level

Signal	(A1) (A2) (A3)	• Ext. input • Optional • DF-300
Mode	(B1) (B2)	• D-VHS STD REC • D-VHS HS REC
Equipment	(C)	• Oscilloscope
Measuring point	(D)	(STD) • TP601 (REC LEVEL1) (HS) • TP602 (REC LEVEL2)
External trigger	(E)	(STD) • TP111 (VIDEO/STD/HS1 FF) (HS) • TP112 (A/HS2 FF)
EVR mode	(F1)	• Jig code "57"
EVR address	(F2)	(STD) • A:08 (HS) • A:09
	(F3)	(STD) • Jig code "20" and "28"
	(F4)	(HS) • Jig code "20" and "29"
		• Jig code "18" or "19" (Channel +/-)
Specified value	(G)	• 100 (105-110) mVp-p
Adjustment tool	(H)	• Jig RCU [PTU94023B]

- (1) Insert the cassette tape (A3) to enter the mode (B1).
- (2) Apply the external trigger signal to D.FF (E) to observe the waveform appeared at the measuring point (D).
- (3) Set the VCR to the EVR mode by transmitting the code (F1) from the Jig RCU.
- (4) Set the EVR address to (F2) by transmitting the code (F3) from the Jig RCU.
- (5) Transmit the code (F4) from the Jig RCU to adjust so that the waveform signal level "a" becomes the specified value (G).

- (6) Release the EVR mode of the VCR by transmitting the code (F1) from the Jig RCU again. (When the EVR mode is released, the adjusted data is memorized.)
- (7) Repeat steps (2) to (6) in the mode (B2).

Notes:

- **GND (Ground) should be taken from the D-PRE/REC board shield case.**
- **The signal level adjustment should be performed by setting the center (centre) of the darkened section on the CRT bright line.**
- **After adjusting, always perform the confirmation and re-adjustment of the item 3.6.2.**

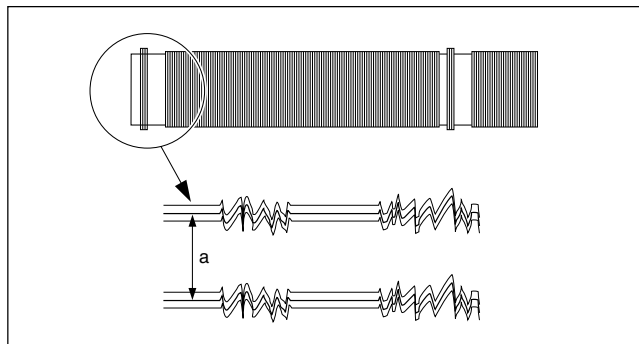


Fig. 3-6-1a D-VHS REC level

3.6.2 PLL f0

Notes:

- **This adjustment should be done after the “D-VHS REC level adjustment” for the Digital circuit has been completed.**
- **Do not connect the probe or any other jig to the TP or shield case of the D-PRE/REC board during adjustment.**
- **If auto adjustment is not completed by the above procedure, re-adjust the adjustment item 3.6.1 again.**

Signal	(A1) (A2) (A3)	• Ext. input • Optional • DF-300
Mode	(B1) (B2)	• D-VHS STD • D-VHS HS
Adjustment point	(F1) (F2)	(STD) • Jig code “96” (HS) • Jig code “91” • Jig code “9B”
Specified value	(G)	• STOP mode
Adjustment tool	(H)	• Jig RCU [PTU94023B]

- (1) Insert the cassette tape (A3) to enter the mode (B1).
- (2) Set the VCR to the Auto adjust mode by transmitting the code (F1) from the Jig RCU. When the VCR enters the stop mode, the adjustment is completed. When the VCR enters the eject mode, insert the cassette tape again.
- (3) Release the Auto adjust mode of the VCR by transmitting the code (F2) from the Jig RCU.
- (4) Repeat steps (2) to (3) in the mode (B2).

SECTION 4 CHARTS AND DIAGRAMS

NOTES OF SCHEMATIC DIAGRAM

Safety precautions

The Components identified by the symbol  are critical for safety. For continued safety, replace safety critical components only with manufacturer's recommended parts.

1. Units of components on the schematic diagram

Unless otherwise specified.

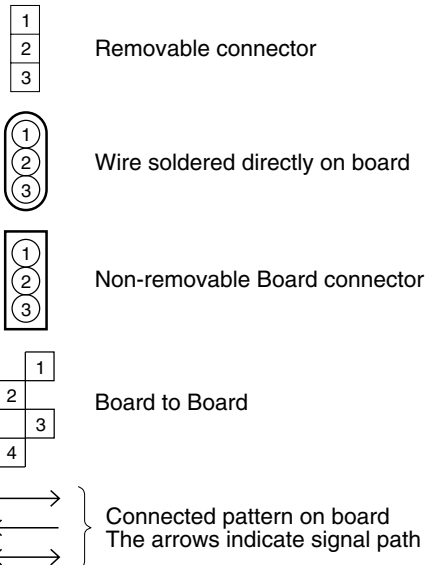
- 1) All resistance values are in ohm, 1/6 W, 1/8 W (refer to parts list).
Chip resistors are 1/16 W.
K or k: k Ω (1000 Ω), M: M Ω (1000k Ω)
- 2) All capacitance values are in μ F, (P: PF).
- 3) All inductance values are in μ H, (m: mH).
- 4) All diodes are 1SS133, MA165 or 1N4148M (refer to parts list).

2. Indications of control voltage

AUX : Active at high

AUX or AUX(L) : Active at low

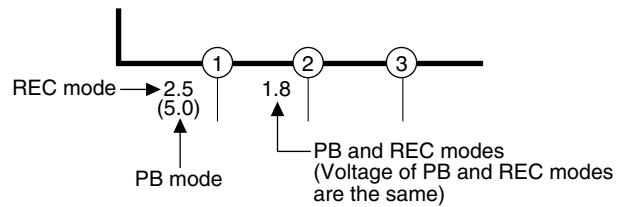
3. Interpreting Connector indications



4. Voltage measurement

- 1) Video circuits
REC : Colour bar signal in SP mode, normal VHS mode
PB : Alignment tape, colour bar SP mode, normal VHS mode
— : Unmeasurable or unnecessary to measure
- 2) Audio circuits
REC : 1KHz, -8 dBs sine wave signal in SP mode, Normal VHS mode
PB : REC then playback it
- 3) Movie Camera circuits
Measured using a correctly illuminated gray scale or colour bar test charts in the E-E mode

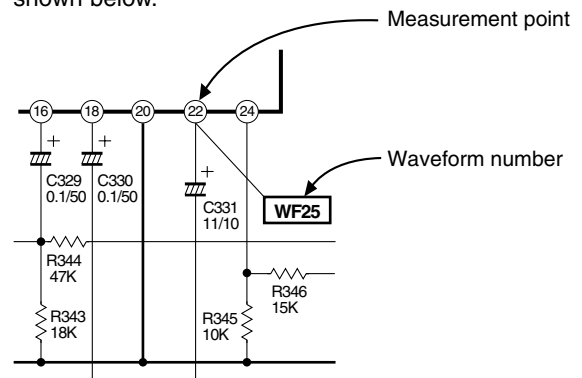
- 4) Indication on schematic diagram
Voltage Indications for REC and PB mode on the schematic diagram are as shown below.



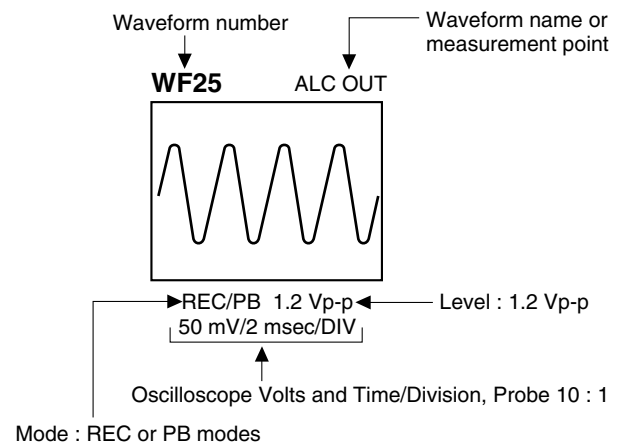
Note: If the voltages are not indicated on the schematic diagram, refer to the voltage charts.

5. Waveform measurement

- 1) Video circuits
REC : Colour bar signal in SP mode, normal VHS mode
PB : Alignment tape, colour bar SP mode, normal VHS mode
- 2) Audio circuits
REC : 1KHz, -8 dBs sine wave signal in SP mode, normal VHS mode
PB : REC then playback it
- 3) Movie Camera circuits
Measured using a correctly illuminated gray scale or colour bar test charts in the E-E mode
- 4) Indication on schematic diagram
Waveform indications on the schematic diagram are as shown below.



5) Waveform indications



6. Signal path Symbols

The arrows indicate the signal path as follows.

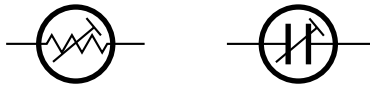
-  Playback signal path
-  Playback and recording signal path
-  Recording signal path (including E-E signal path)
-  Capstan servo path
-  Drum servo path

(Example)

-  R-Y Playback R-Y signal path
-  Y Recording Y signal path

7. Indication of the parts for adjustments

The parts for the adjustments are surrounded with the circle as shown below.



8. Indication of the parts not mounted on the circuit board

“OPEN” is indicated by the parts not mounted on the circuit board.



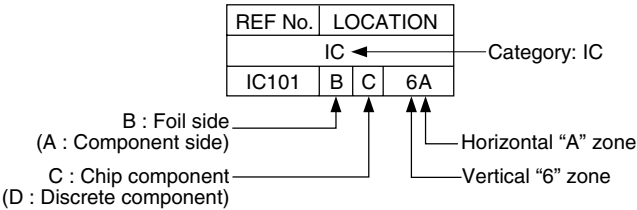
CIRCUIT BOARD NOTES

1. Foil and Component sides

- 1) Foil side (B side) :
Parts on the foil side seen from foil face (pattern face) are indicated.
- 2) Component side (A side) :
Parts on the component side seen from component face (parts face) indicated.

2. Parts location guides

Parts location are indicated by guide scale on the circuit board.



Note:

For general information in service manual, please refer to the Service Manual of GENERAL INFORMATION Edition 4 No. 82054D (January 1994).

4.1 BOARD INTERCONNECTIONS

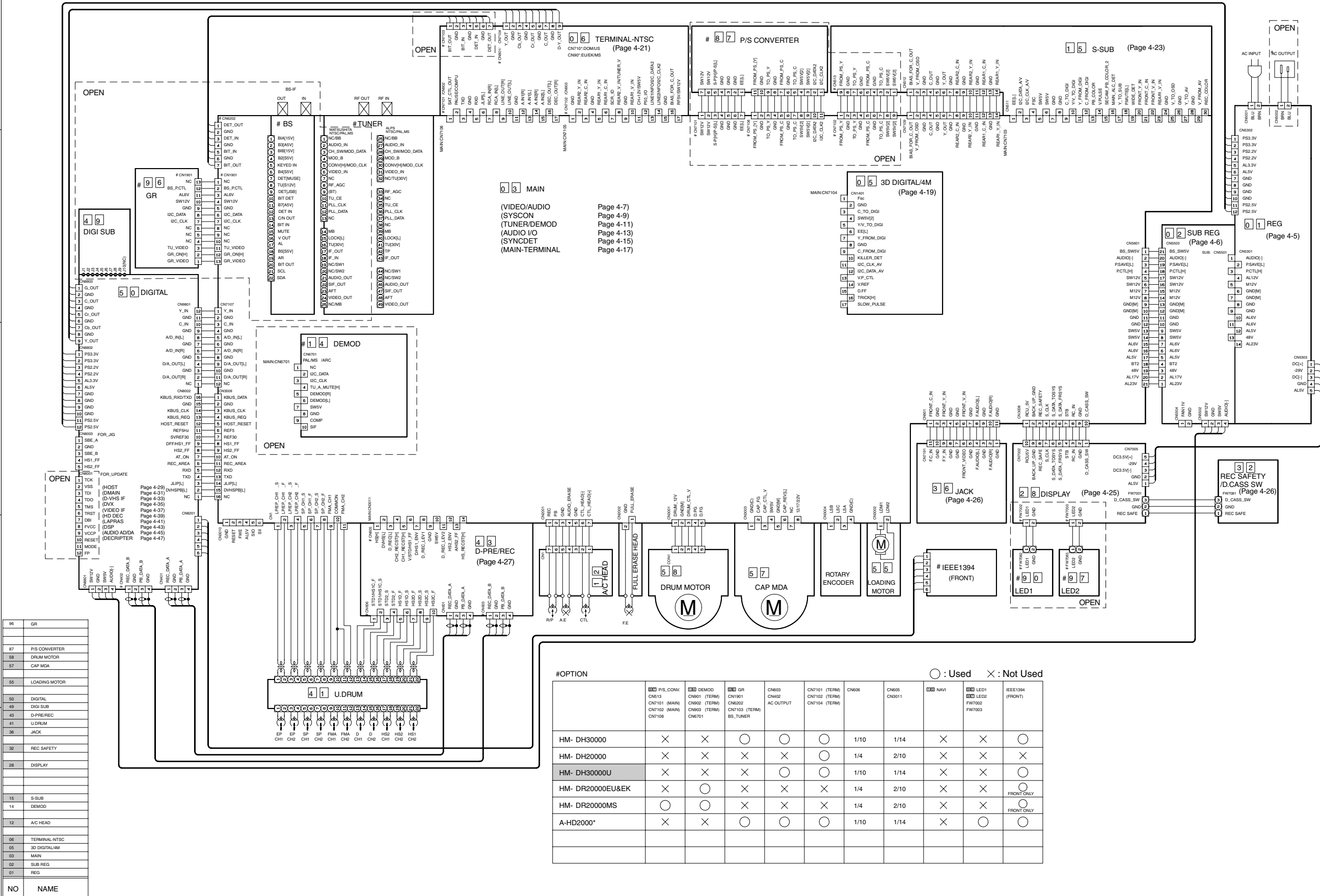
5

4

3

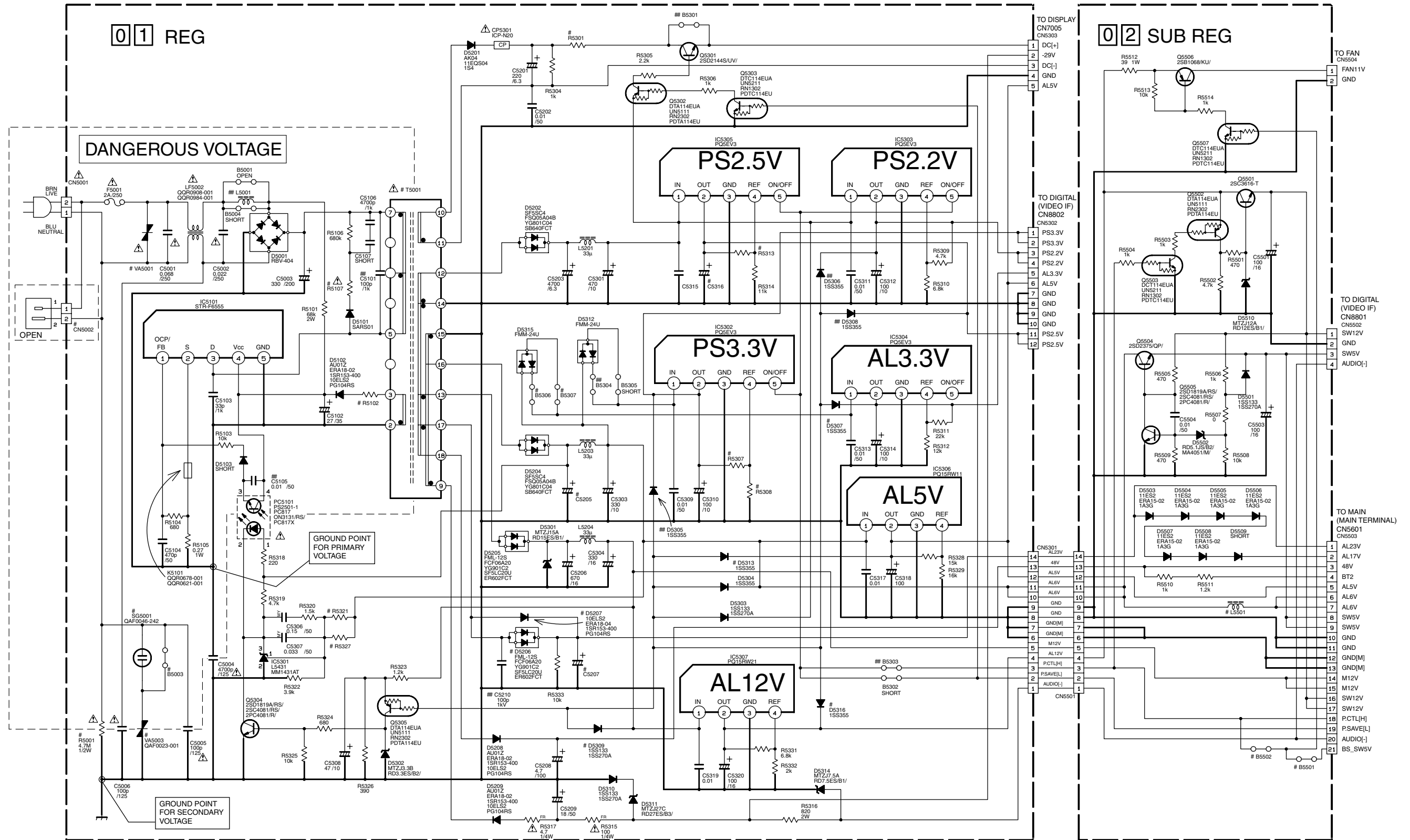
2

1



4.2 REGULATOR AND SUB REGULATOR SCHEMATIC DIAGRAMS

Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only.
When replacing the parts, refer to the Parts List.



##MARK ELEMENTS ARE NOT MOUNTED

#DIFFERENCE TABLE 1

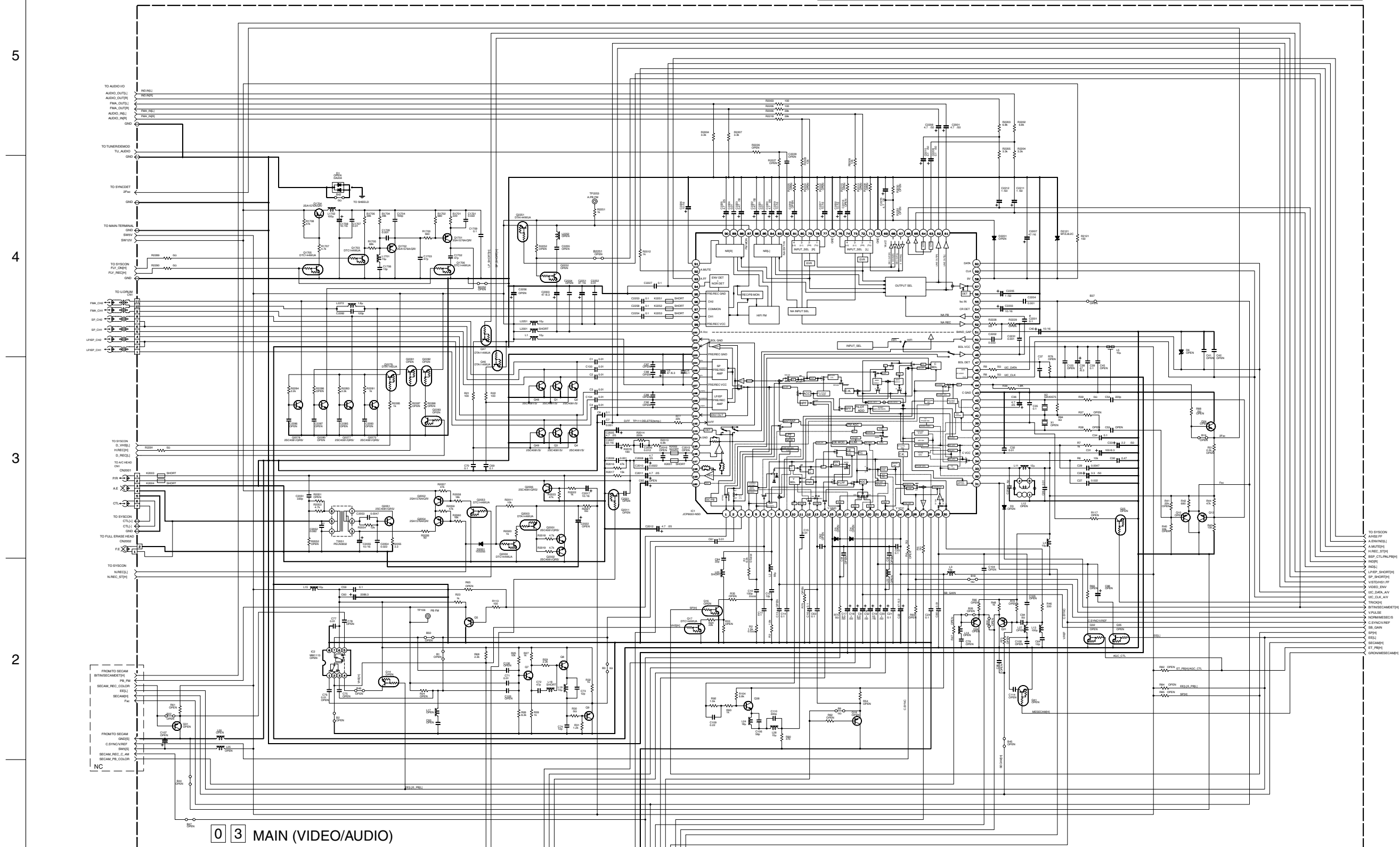
		B5003	B5306	B5307	B5501	B5502	C5205	C5207	C5316	CN5002	D5206	D5207	D5307 D5309 D5313 D5316	L5501	R5001	R5102	R5107	R5301	R5307	R5308	R5313	R5321	R5327	SG5001	T5001	VA5001	VA5003
JPN	HS	YES	YES	NO	YES	NO	4700 /10	220 /35	100 /10	YES	YES	NO	YES	SHORT	NO	1	47 /1/2W	1	13k	6.8k	15k	8.2k	12k	NO	QGS0079-001	QAF0023-431 QAF0024-431 QAF0039-431	NO
	STD	YES	NO	YES	YES	NO	3300 /10	150 /35	330 /10	NO	NO	YES	YES	SHORT	NO	1	47 /1/2W	1	5.6k	3k	13k	5.6k	68k	NO	QGS0079-001		NO
US	HS	YES	NO	YES	NO	YES	3300 /10	150 /35	100 /10	NO	NO	YES	NO	0.22u	YES	56	1/4W FR	1.8	13k	6.8k	15k	5.6k	68k	NO	QGS0106-001		NO
	STD	YES	NO	YES	NO	YES	3300 /10	150 /35	330 /10	NO	NO	YES	NO	0.22u	YES	56	1/4W FR	1.8	5.6k	3k	13k	5.6k	68k	NO	QGS0106-001		NO
US(PH)		NO	NO	YES	NO	YES	3300 /10	150 /35	330 /10	NO	NO	YES	NO	0.22u	YES	56	1/4W FR	1.8	5.6k	3k	13k	5.6k	68k	YES	QGS0106-001	QAF0023-431	YES

NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN uF.

+ ELECTROLYTIC
- CERAMIC
- MYLER
- NON POLAR

4.3 MAIN (VIDEO/AUDIO) SCHEMATIC DIAGRAM

*Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only.
When replacing the parts, refer to the Parts List.*



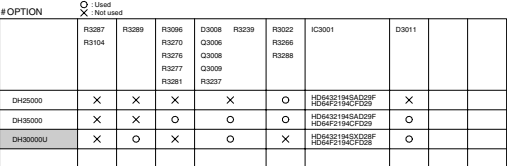
#DIFFERECCE TABLE	
	BS_IN
	C54
HM-DH30000	○
HM-DH20000	OPEN

NOTES UNLESS OTHERWISE SPECIFIED:

ALL RESISTANCE VALUES ARE IN OHMS.	ALL NPN TYPE TRANSISTORS ARE 2SC4081QRS-X,2PC4081(R)
ALL INDUCTANCE VALUES ARE IN H.	ALL PNP TYPE TRANSISTORS ARE 2SA1581A-D,X,2PA1576(R)
ALL CAPACITANCE VALUES ARE IN μ F.	

	ELECTROLYTIC
	CERAMIC
	MYLAR
	NON POLAR

Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only. When replacing the parts, refer to the Parts List.

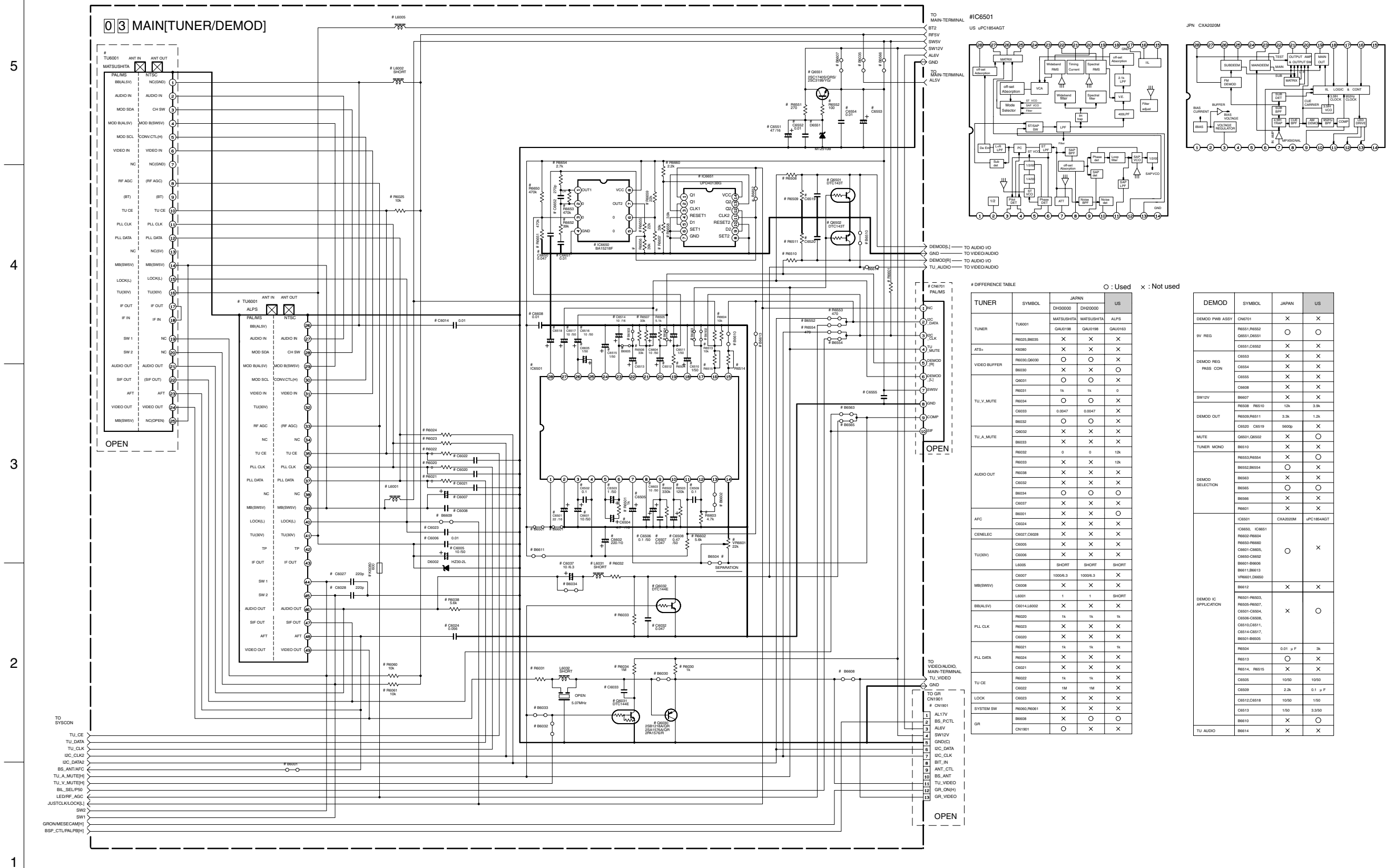


NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μ F.

 ELECTROLYTIC
 CERAMIC
 NON POLAR

4.5 MAIN (TUNER/DEMOD) SCHEMATIC DIAGRAM

*Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only.
When replacing the parts, refer to the Parts List.*

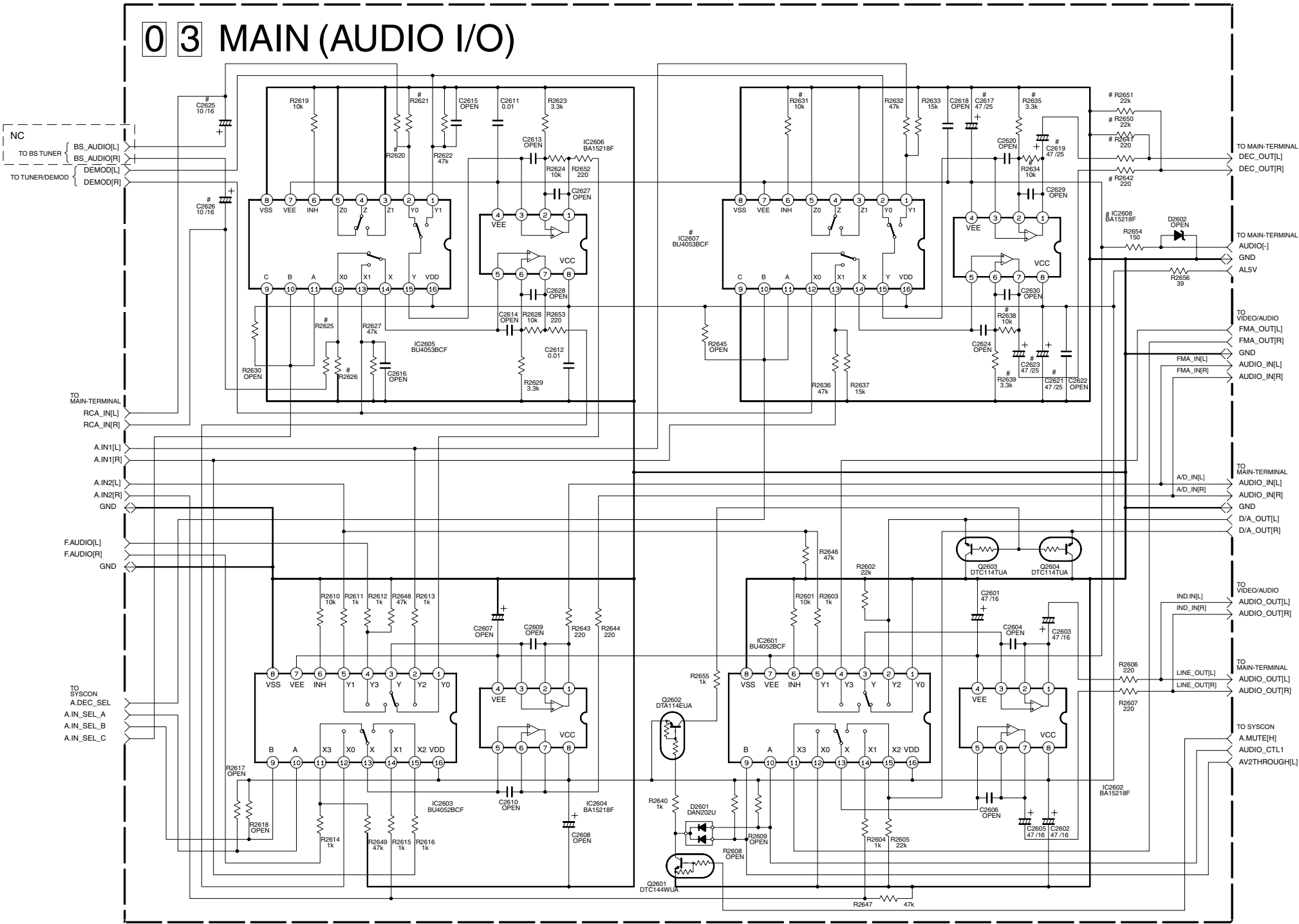


NOTES: UNLESS OTHERWISE SPECIFIED,
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μ F.

 ELECTROLYTIC
 CERAMIC
 MYLAR
 NON POLAR

4.6 MAIN (AUDIO I/O) SCHEMATIC DIAGRAM

Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only.
When replacing the parts, refer to the Parts List.



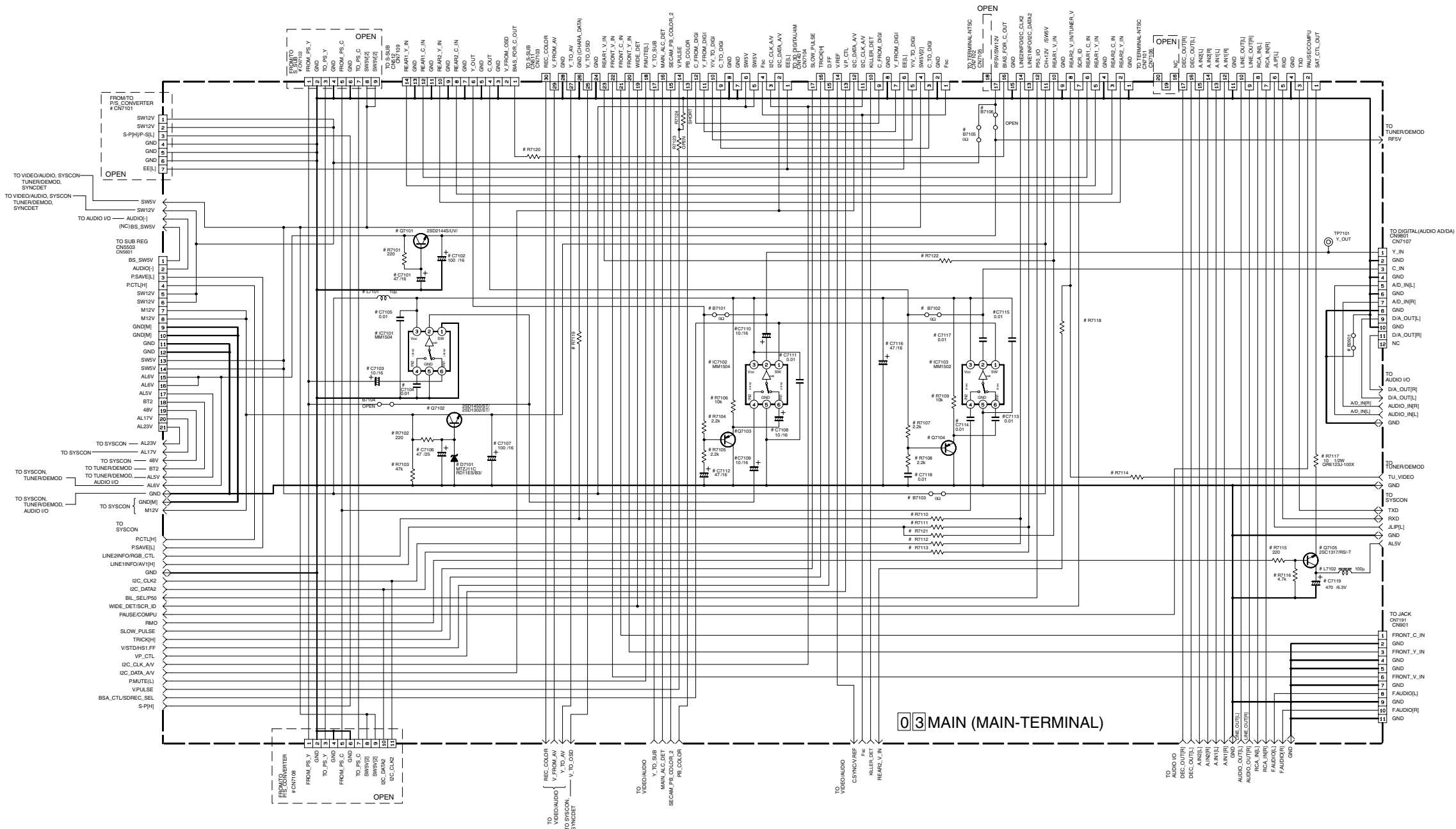
#DIFFERENCE TABLE				O : Used x : Not used						
SYMBOL MODEL	C2625 C2626	R2620 R2625	R2621 R2626	IC2607 IC2608	R2631 R2638 R2642	R2634 R2639 R2650	R2635 R2639 R2641 R2651	C2617 C2621	C2619 C2623	
JPN	O	6.8k	10k				X			
US	X	X	X				X			
EU /EK /MS	X	1k	47k				O			

NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μF.

- ELECTROLYTIC
- CERAMIC
- MYLER
- NON POLAR

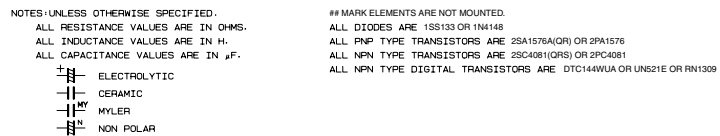
4.8 MAIN (MAIN-TERMINAL) SCHEMATIC DIAGRAM

Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only.
When replacing the parts, refer to the Parts List.



	C7103	C7115	L7101	B7106	R7103	C7119	B7105	B7103	B7101	R7110	R7120	R7112	R7118	B2601	
	C7104	C7116	Q7103	C7101		L7102				R7111		R7113		R7122	
	C7105	C7117	Q7104	C7102		Q7105						R7114			
	C7108	C7118	R7104	C7106		R7115						R7119			
	C7109	C7121	R7105	C7107		R7116						R7121			
	C7110	C7122	R7106	Q7101											
	C7111	C7123	R7107	Q7101											
	C7112	IC7101	R7108	C7102											
	C7113	IC7102	R7109	R7101											
	C7114	IC7103		R7102											
HMA CH00000 A-IC02007	×	×	×	×	○	○	○	○	×	×	×	×	×	×	
HMA CH00000	×	×	×	×	×	○	○	○	×	×	×	×	×	×	
HMA CH00000U	×	×	×	○	○	○	○	○	×	×	×	×	×	×	
HMA CH00000E1MBK	×	○	○	×	×	×	×	×	×	×	×	×	×	×	
HMA CH00000MB	○	○	○	×	×	×	×	×	×	×	×	×	×	×	

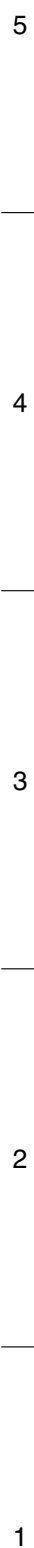
*Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only.
When replacing the parts, refer to the Parts List.*



	IC1402,L1408 C1456,C1457,C1458,	B1401-B1408
4M	○	×
2M	×	○

○ : Used
× : Not used

1 2 3 4 5



*Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only.
When replacing the parts, refer to the Parts List.*

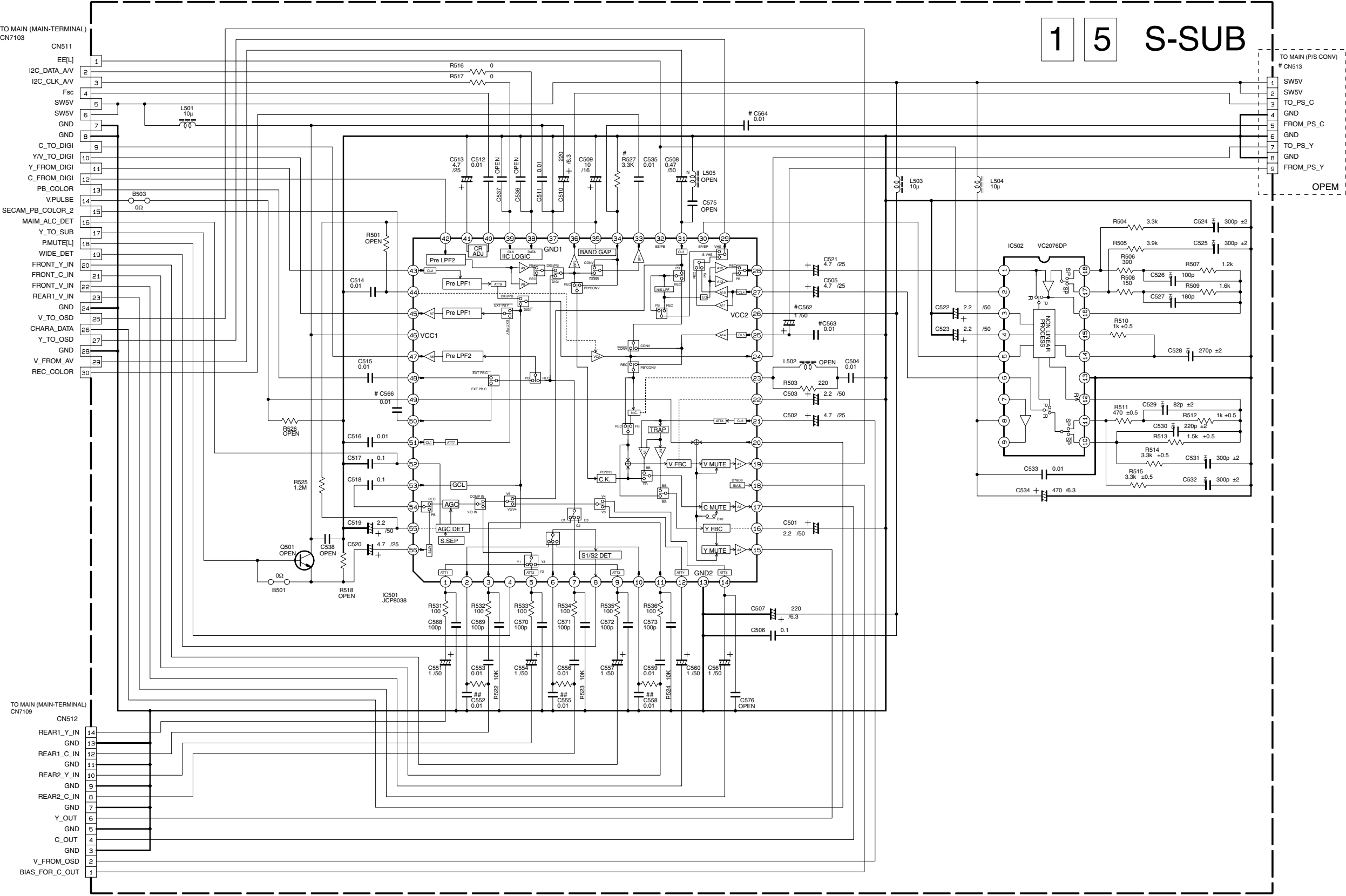
1

NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μ F.

 ELECTROLYTIC
 CERAMIC

4.11 S-SUB SCHEMATIC DIAGRAM

Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only.
When replacing the parts, refer to the Parts List.



# DIFFERENCE TABLE		
	○ : Used	✕ : Not used
MS	○	✕
OTHERS	✕	○

Marked elements may differ depending on the model.
Be sure to check the Parts List.

NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μ F.
ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

5

4



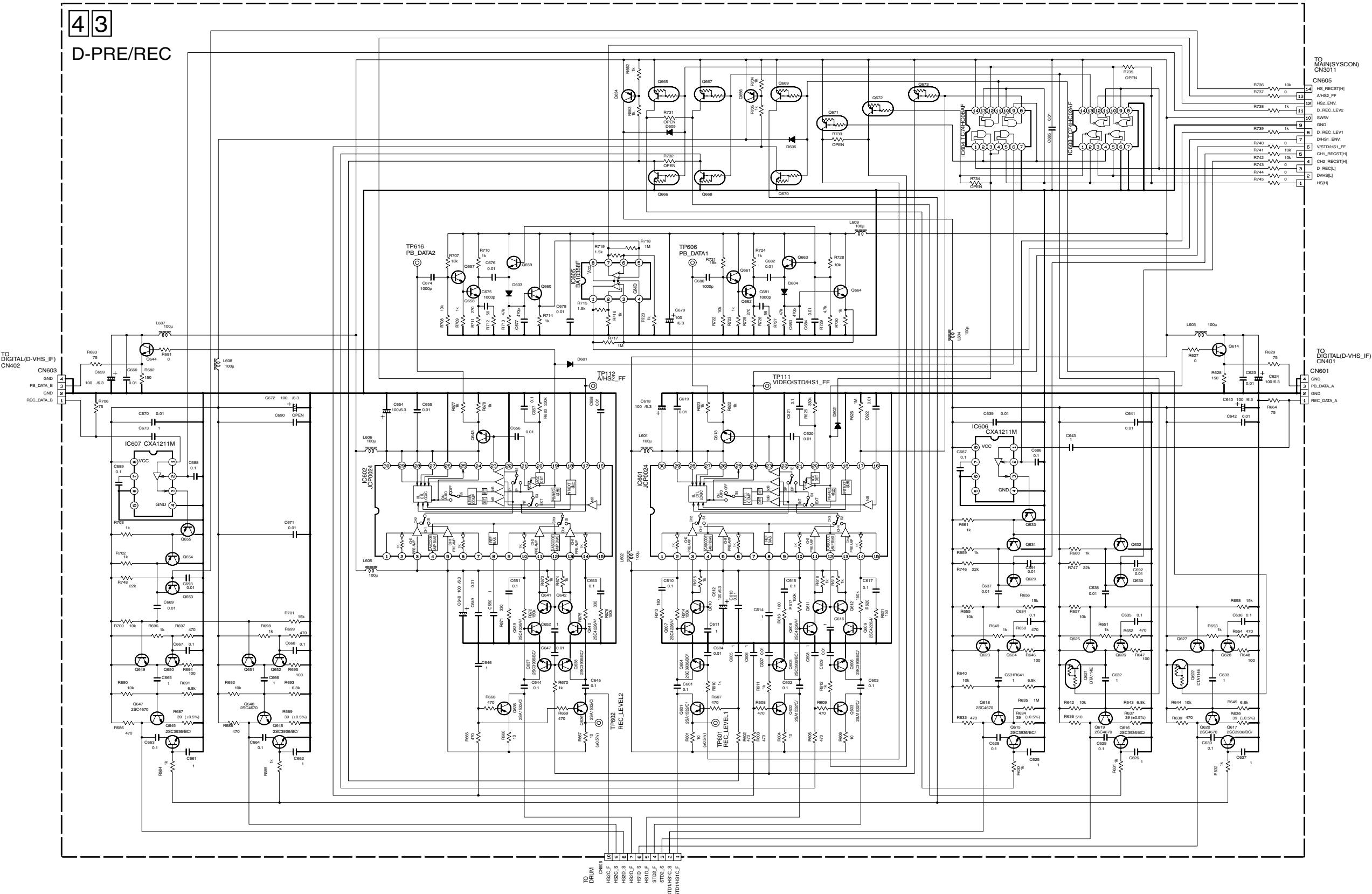
1

A	B	C	D	4-25	4-26	E	F	G	H
---	---	---	---	------	------	---	---	---	---

p10321001a_rev0

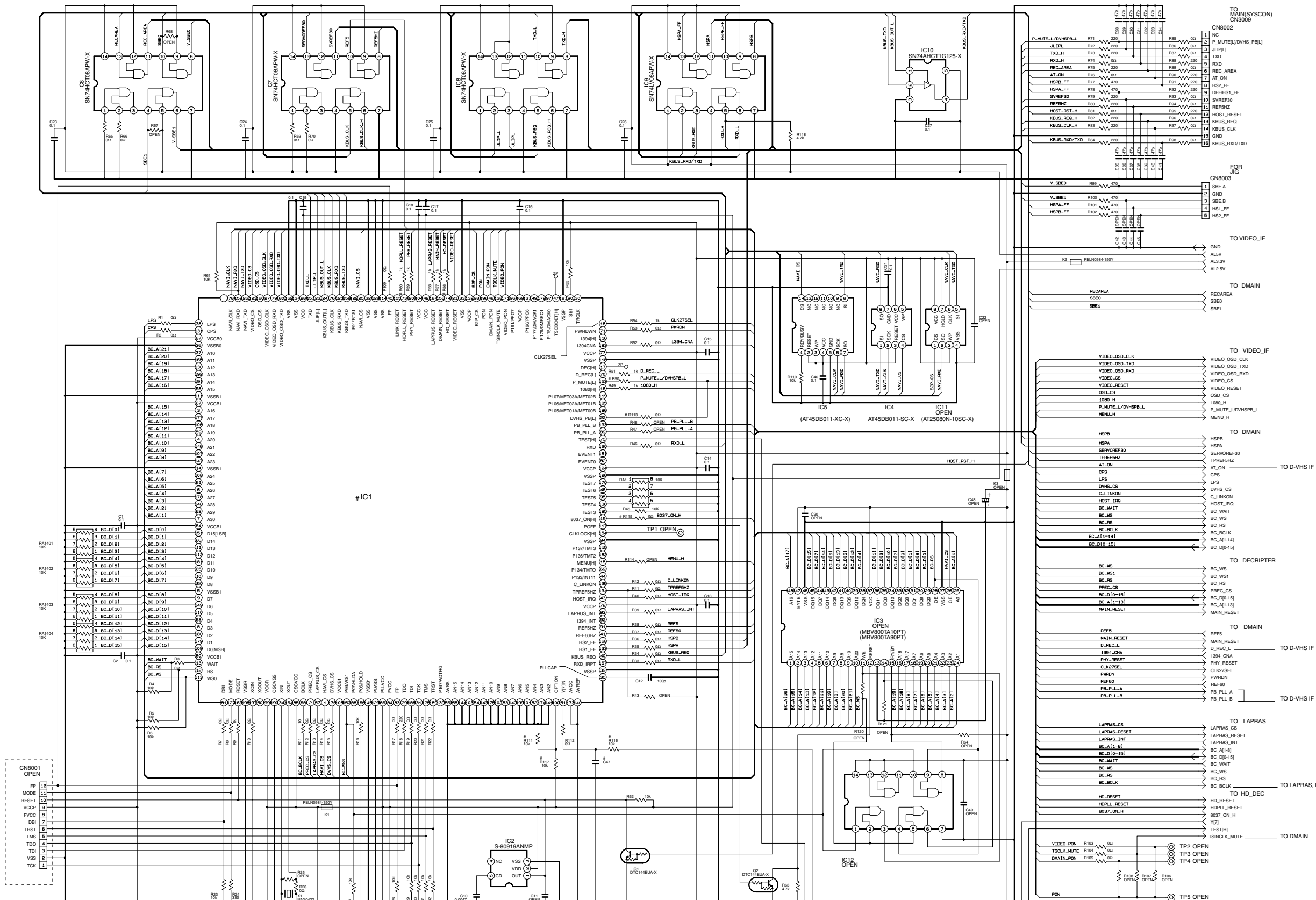
4.13 D-PRE/REC SCHEMATIC DIAGRAM

Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only.
When replacing the parts, refer to the Parts List.



4.14 DIGITAL (HOST) SCHEMATIC DIAGRAM

Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only.
When replacing the parts, refer to the Parts List.

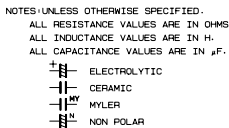


50 DIGITAL (HOST)

# MARKS	Used	Not used
HM-DH30000	X	O
HM-DH25000	O	X

NOTES: UNLESS OTHERWISE SPECIFIED:
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN µF.
ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

*Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only.
When replacing the parts, refer to the Parts List.*



5

4



2

1

A	B	C	D 4-33	4-34	E	F	G	H
---	---	---	--------	------	---	---	---	---

5

4

3

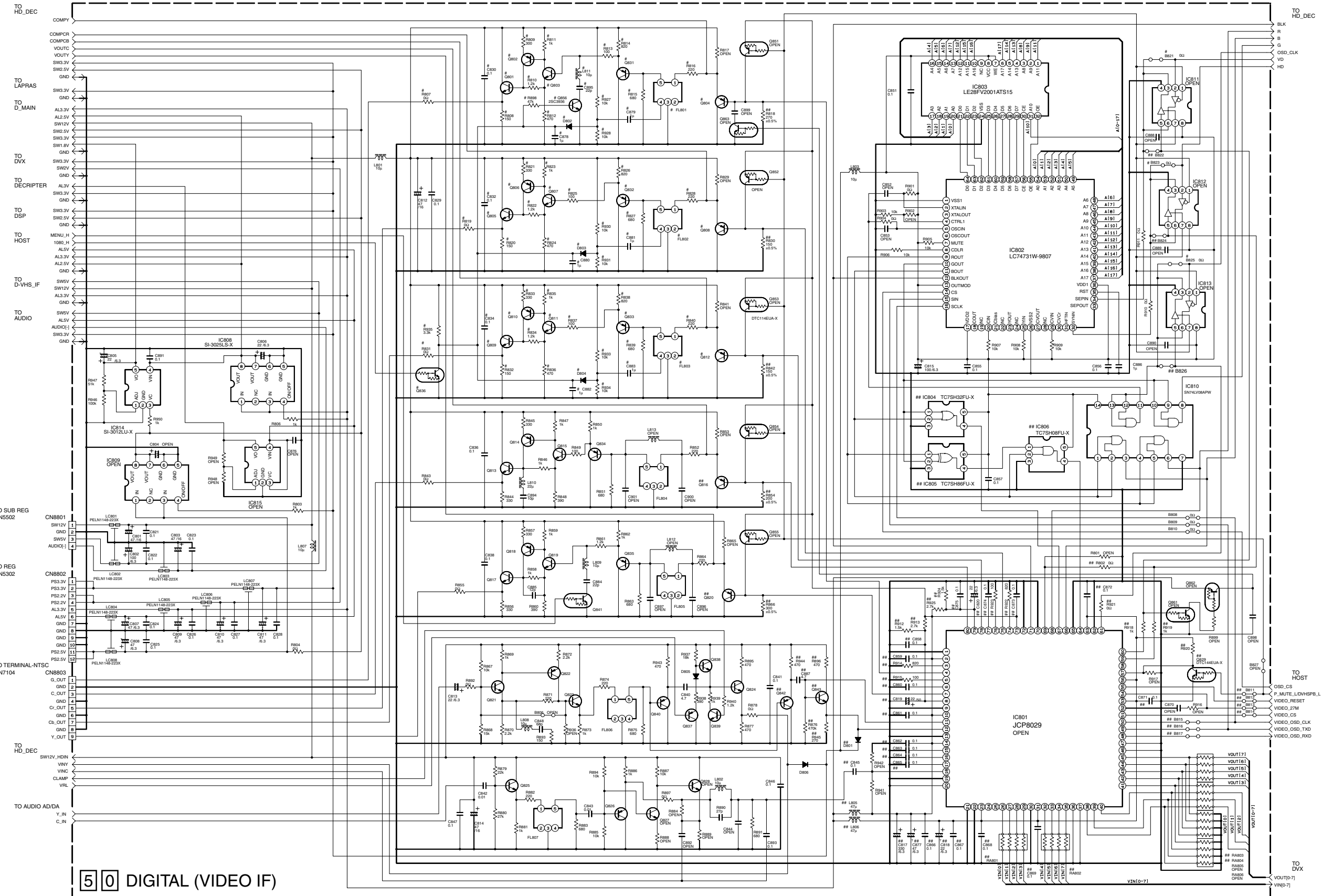
2

1



4.18 DIGITAL (VIDEO IF) SCHEMATIC DIAGRAM

Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only.
When replacing the parts, refer to the Parts List.



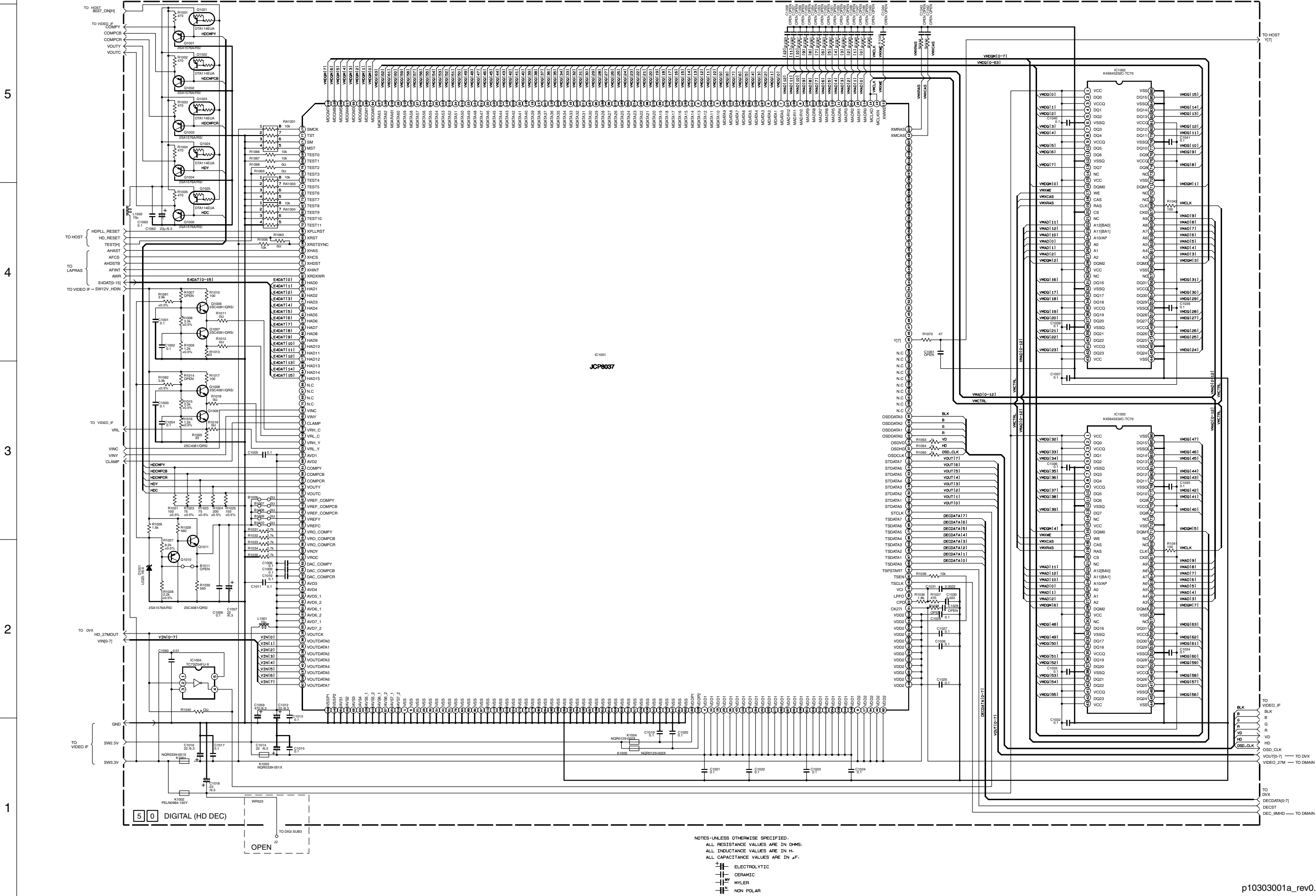
5 0 DIGITAL (VIDEO IF)

MARKS ELEMENTS ARE MOUNTED ONLY HM-DH30000U.
MARKS ELEMENTS ARE MOUNTED ONLY HM-DH25000.

NOTES: UNLESS OTHERWISE SPECIFIED:
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN P.F.
ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

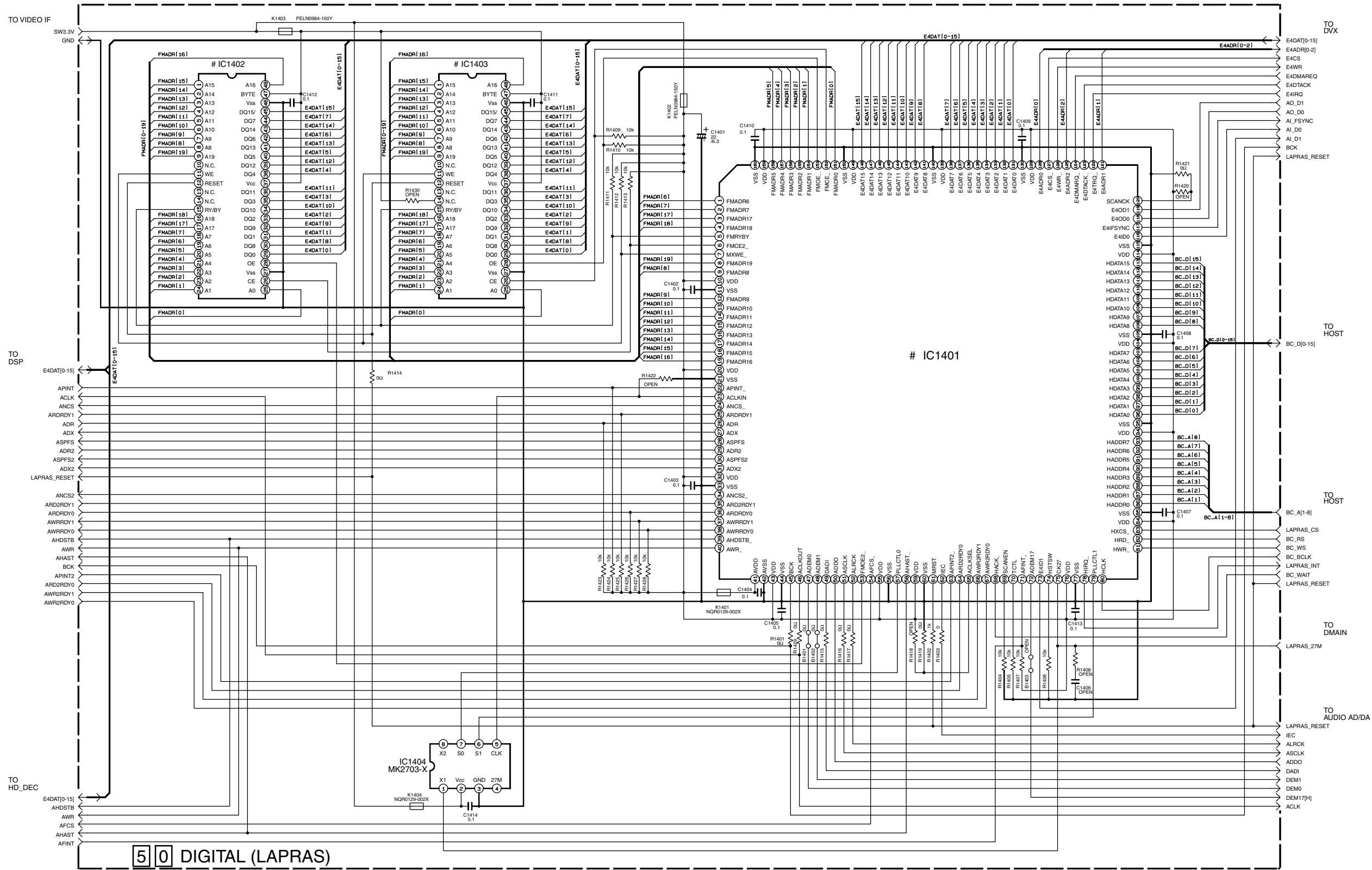
4.19 DIGITAL (HD DEC) SCHEMATIC DIAGRAM

Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only.
When replacing the parts, refer to the Parts List.



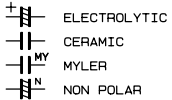
4.20 DIGITAL (LAPRAS) SCHEMATIC DIAGRAM

Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only.
When replacing the parts, refer to the Parts List.



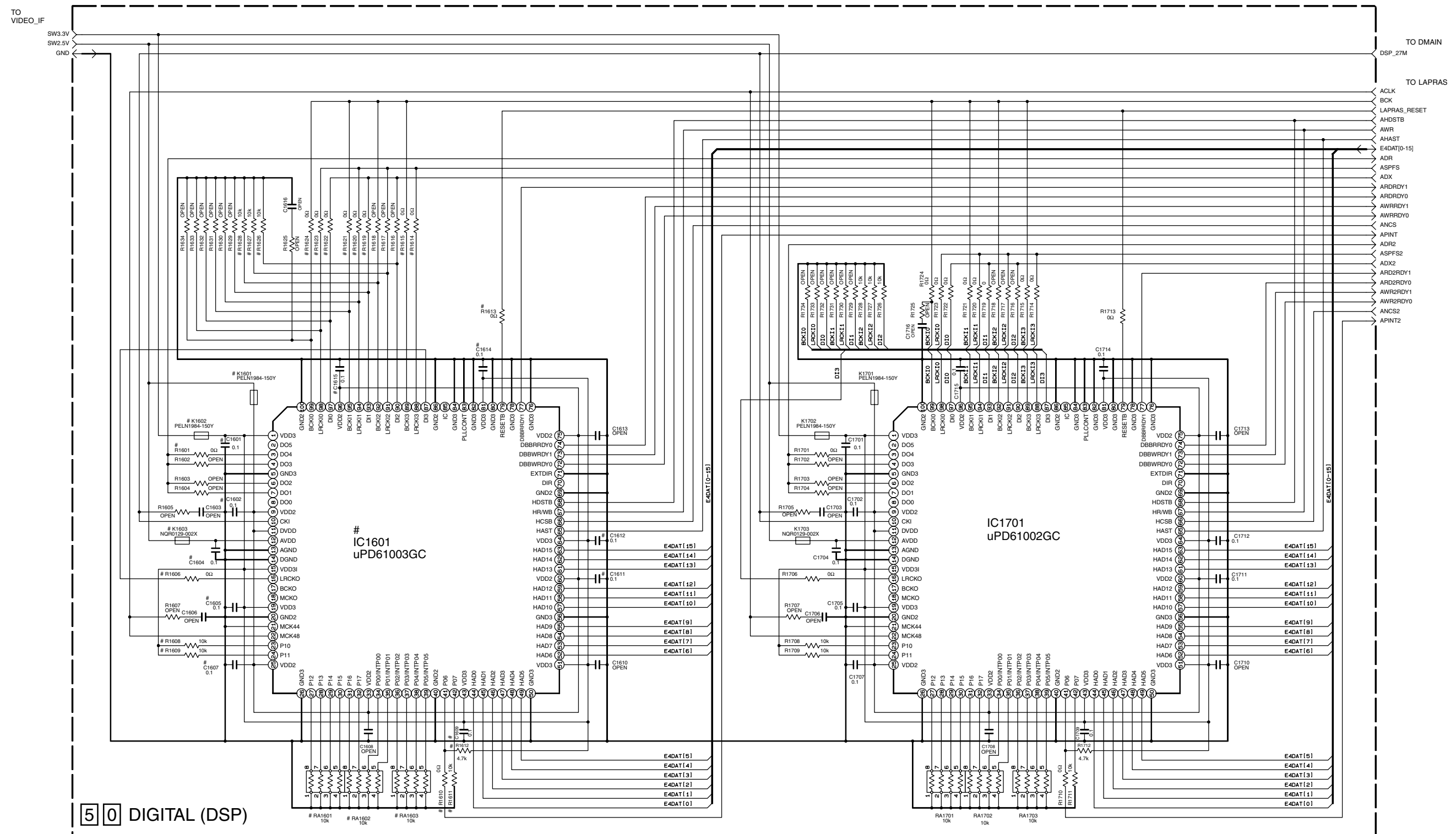
# NOTICE	IC1401	IC1402	IC1403
HM-DH30000U	JCP8034-2	OPEN	SST39VF160-7CEK
HM-DH25000	JCP8034	OPEN	MBV800TA90PT
HM-DH35000	JCP8034-2	MR27V1602E-1STN	SST39VF160-7CEK

NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μ F.



4.21 DIGITAL (DSP) SCHEMATIC DIAGRAM

*Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only.
When replacing the parts, refer to the Parts List.*



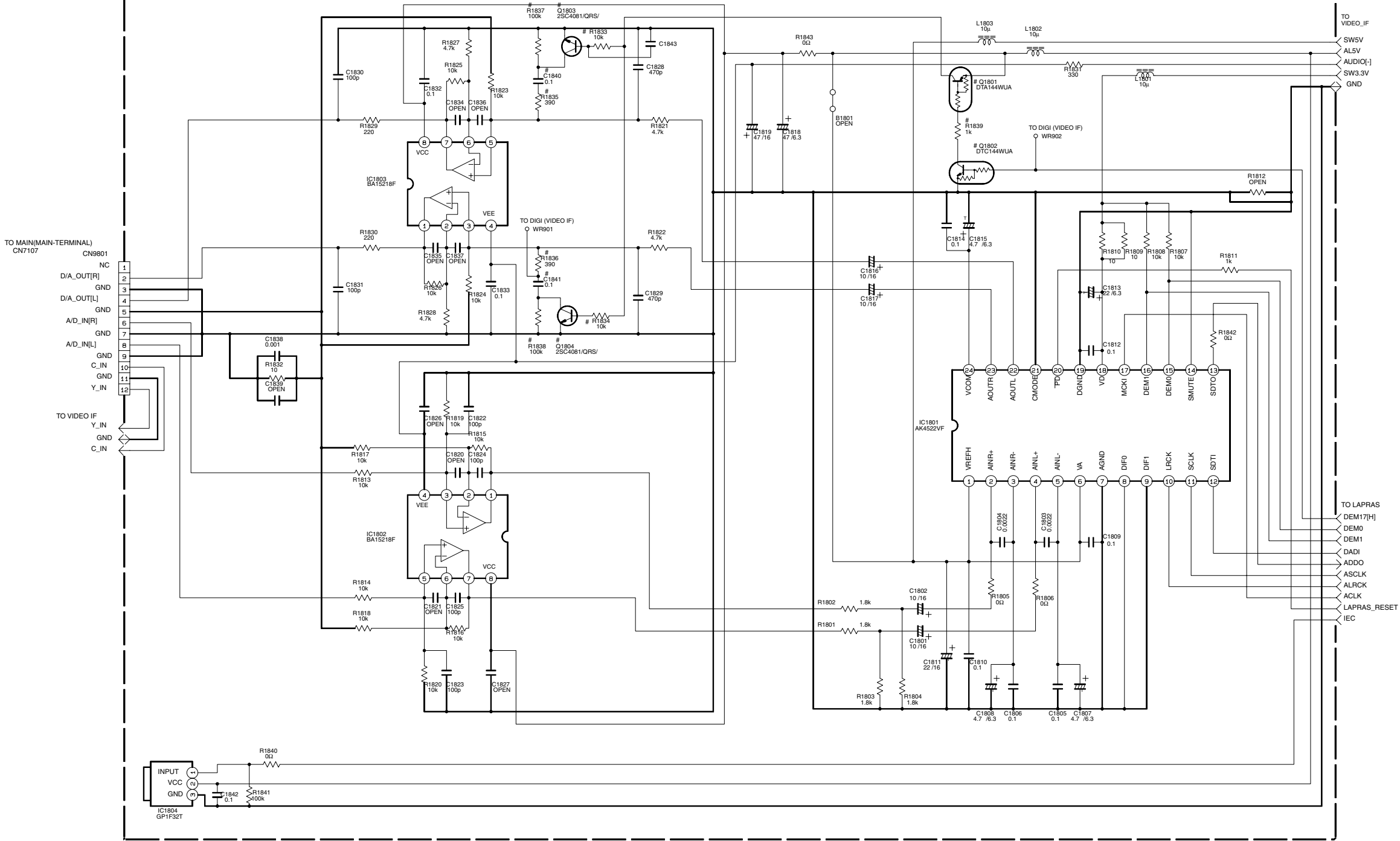
MARKS ELEMENTS ARE MOUNTED ONLY HM-DH30000U.

NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μ F.

	ELECTROLYTIC
	CERAMIC
	MYLER
	NON POLAR

Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only.
When replacing the parts, refer to the Parts List.

5 0 DIGITAL(AUDIO AD/DA)



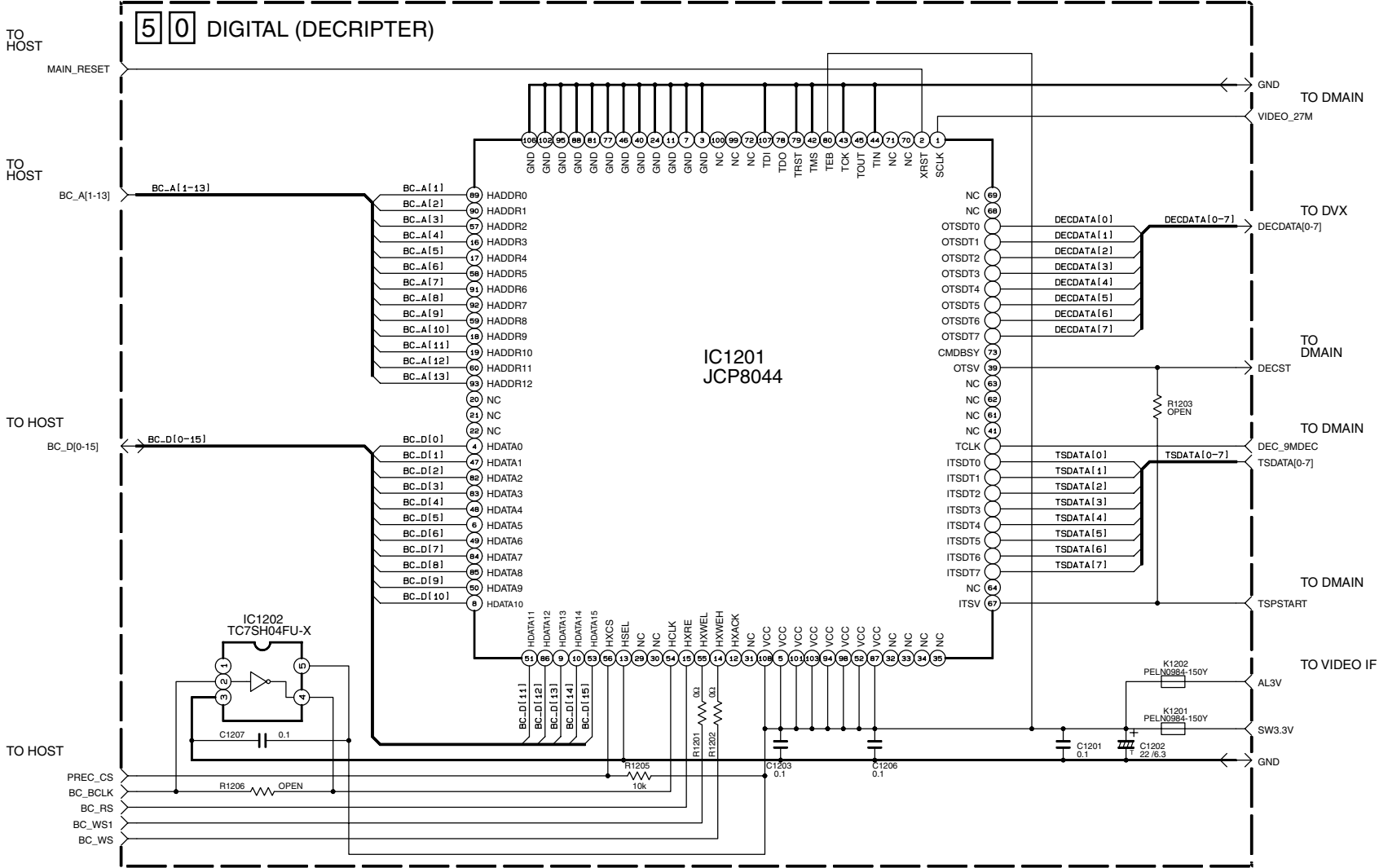
#DIFFERENCE TABLE		O : Used X : Not used	
SYMBOL	MODEL	SYMBOL	MODEL
IC1801 - O1804 R1833 - R1839 C1840 - C1841		IC1804 R1840 R1841 C1842	
JPN /US	X	OPTICAL OUT	O
EU/EK /MS	O	NO	X

NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μ F.

- ELECTROLYTIC
- CERAMIC
- MYLER
- NON POLAR

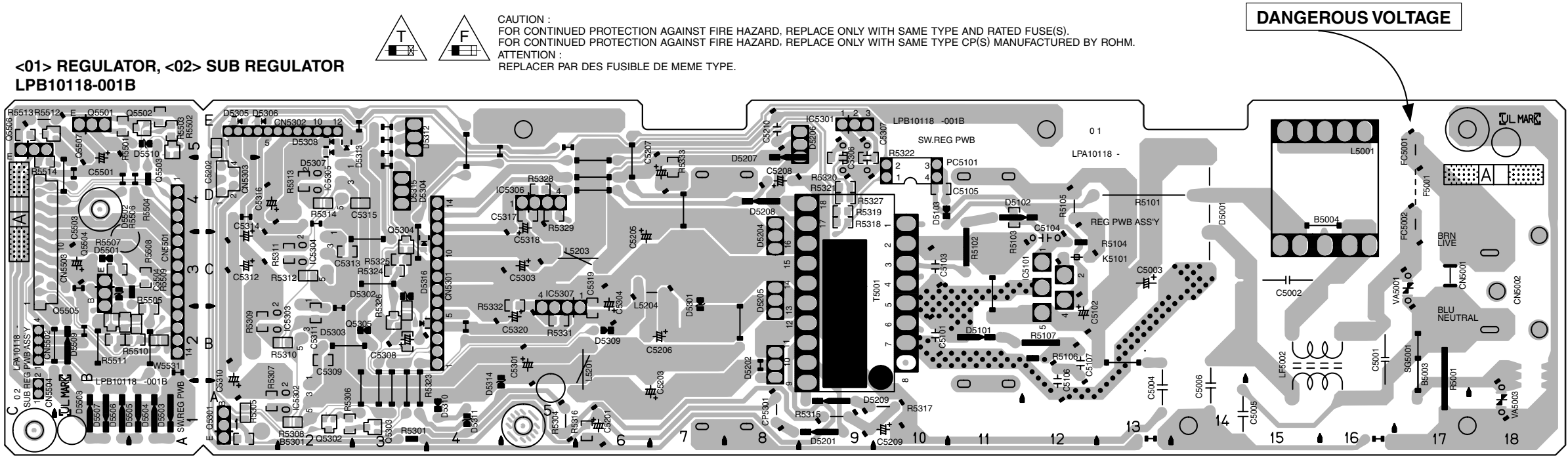
4.23 DIGITAL (DECRYPTER) SCHEMATIC DIAGRAM

Note : The Parts Number, value and rated voltage etc. in the Schematic Diagram are for references only.
When replacing the parts, refer to the Parts List.



NOTES: UNLESS OTHERWISE SPECIFIED.
ALL RESISTANCE VALUES ARE IN OHMS.
ALL INDUCTANCE VALUES ARE IN H.
ALL CAPACITANCE VALUES ARE IN μ F.
ELECTROLYTIC
CERAMIC
MYLER
NON POLAR

4.24 REGULATOR AND SUB REGULATOR CIRCUIT BOARDS



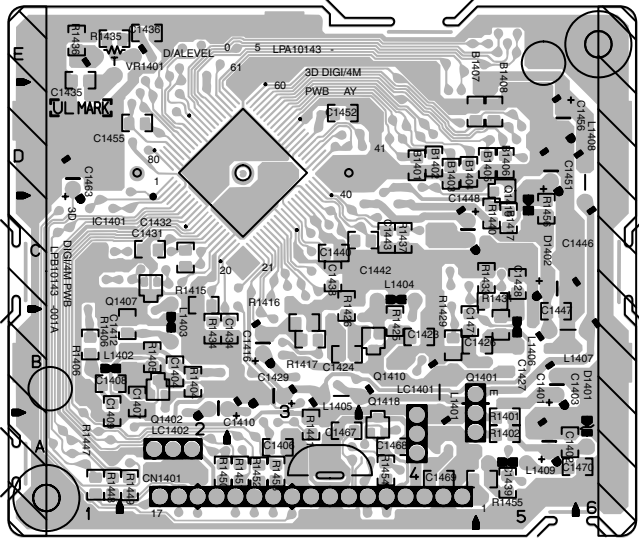
COMPONENT PARTS LOCATION GUIDE <REGULATOR AND SUB REGULATOR>

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR		C5311	B C 2B	D5302	A D 4C	TRANSISTOR		R5318	B C 9D
C5001	A D 17B	C5312	A D 2C	D5303	A D 3B	Q5301	A D 1A	R5319	B C 9D
C5002	A D 16C	C5313	B C 3C	D5304	B C 4C	Q5302	B C 3A	R5320	B C 9D
C5003	A D 14C	C5314	A D 2C	D5305	B C 1E	Q5303	B C 3A	R5321	B C 9D
C5004	A D 14B	C5315	B C 3D	D5306	B C 2E	Q5304	B C 4C	R5322	B C 10D
C5005	A D 15A	C5316	A D 2D	D5307	B C 3E	Q5305	B C 3B	R5323	B C 4B
C5006	A D 14A	C5317	B C 5D	D5308	A D 6B	RESISTOR		R5324	B C 3C
C5101	A D 11B	C5318	A D 5D	D5309	A D 4A	R5001	A D 18A	R5325	B C 3C
C5102	A D 13C	C5319	B C 6B	D5310	A D 4A	R5101	A D 13D	R5326	B C 4B
C5103	A D 11C	C5320	A D 5B	D5311	A D 4A	R5102	A D 11D	R5327	B C 9D
C5104	A D 12C	CONNECTOR		D5312	A D 4E	R5103	B C 12D	R5328	B C 5D
C5105	B C 11D	CN5001	A D 18C	D5313	B C 3E	R5104	A D 13C	R5329	B C 6D
C5106	A D 12A	CN5002	A D 18C	D5314	A D 5A	R5105	A D 13D	R5331	B C 6B
C5107	A D 13B	CN5301	A D 4B	D5315	A D 4D	R5106	A D 12B	R5332	B C 5C
C5201	A D 6A	CN5302	A D 1E	D5316	B C 4B	R5107	A D 12B	R5333	B C 7D
C5202	B C 1E	CN5303	A D 1D	IC		R5301	A D 4A	OTHER	
C5203	A D 7A	DIODE		IC5101	A D 12C	R5304	B C 6A	CP5301	A D 9A
C5205	A D 7D	D5001	A D 14C	IC5301	A D 9E	R5305	B C 1A	F5001	A D 17C
C5206	A D 7B	D5101	A D 11B	IC5302	A D 2A	R5306	B C 3A	FC5001	A D 17C
C5207	A D 7D	D5102	A D 11D	IC5303	A D 2C	R5307	B C 2A	FC5002	A D 17E
C5208	A D 8D	D5103	A D 11D	IC5304	A D 3C	R5308	B C 2A	K5101	A D 12C
C5209	A D 10A	D5201	A D 9A	IC5305	A D 3D	R5309	B C 2B	LF5002	A D 16A
C5210	A D 9E	D5202	A D 9B	IC5306	A D 5D	R5310	B C 2B	PC5101	A D 10D
C5301	A D 5B	D5204	A D 9C	IC5307	A D 6B	R5311	B C 2C	SG5001	A D 17A
C5303	A D 5C	D5205	A D 9B	COIL		R5312	B C 2C	T5001	A D 10D
C5304	A D 6B	D5206	A D 9E	L5001	A D 17C	R5313	B C 2D	VA5001	A D 17C
C5306	A D 9E	D5207	A D 9E	L5201	A D 6A	R5314	B C 2D	VA5003	A D 18A
C5307	A D 10E	D5208	A D 9D	L5203	A D 6C	R5315	A D 10A		
C5308	A D 3B	D5209	A D 10A	L5204	A D 7C	R5316	A D 6A		
C5309	B C 2B	D5301	A D 8C			R5317	A D 10A		
C5310	A D 1A								

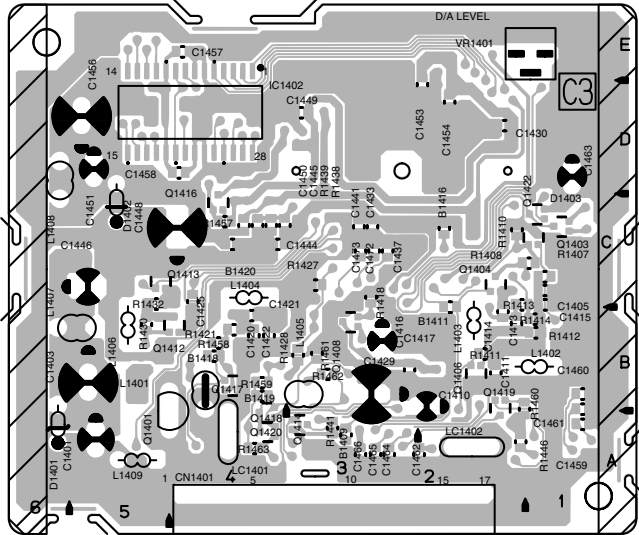
4.25 3D DIGITAL/4M AND S-SUB CIRCUIT BOARDS

<05> 3D DIGITAL/4M
LPB10143-001A

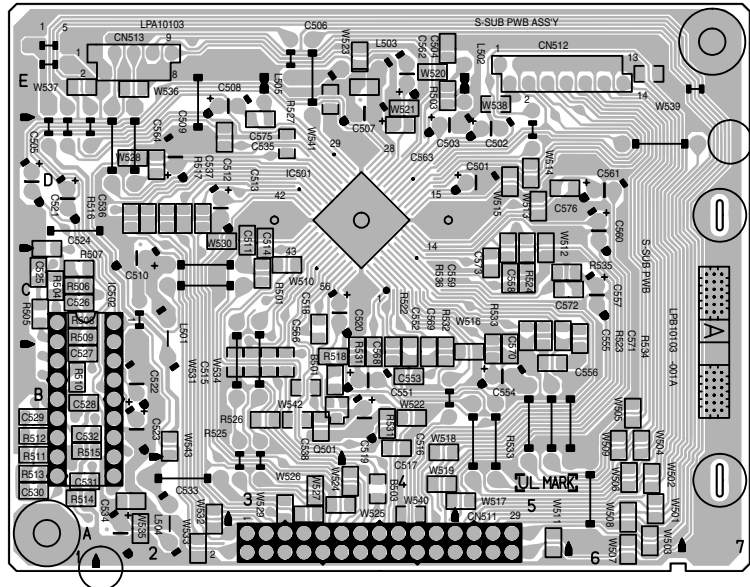
— FOIL SIDE(B)—



— COMPONENT SIDE(A)—



<15> S-SUB
LPB10103-001A



COMPONENT PARTS LOCATION GUIDE
<3D DIGITAL/4M>

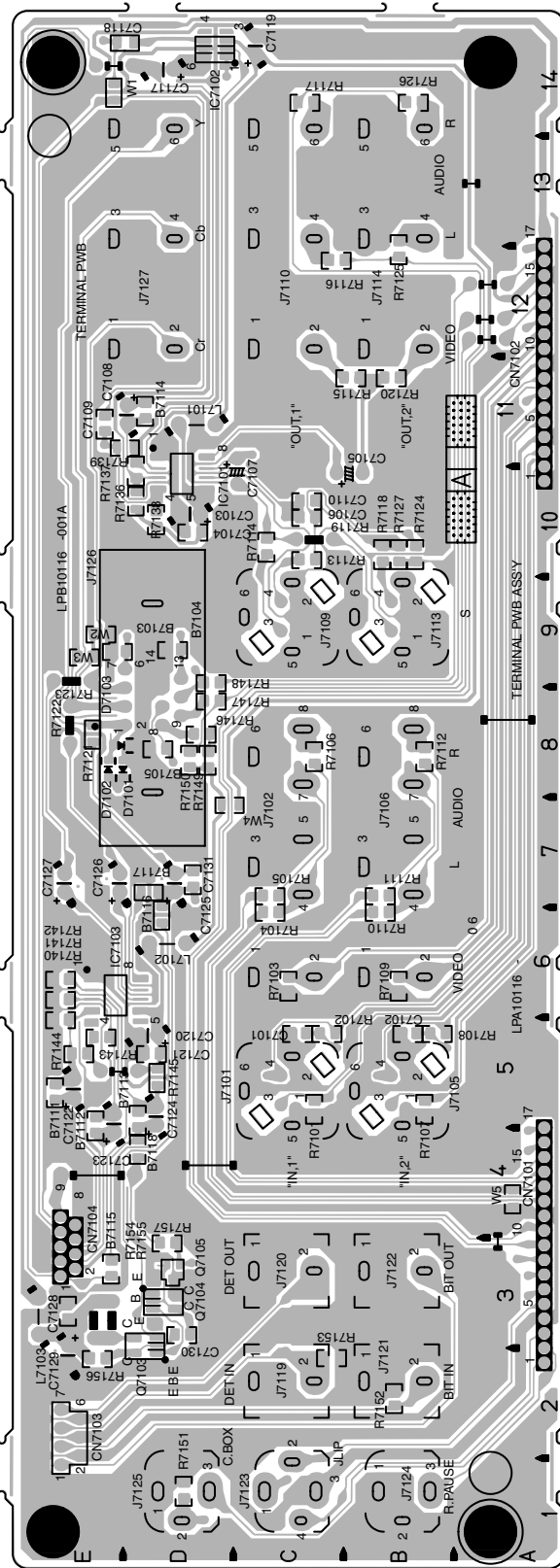
REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR					
C1401	A D 5A	C1460	A C 1B	R1402	B C 5A
C1402	B C 5A	C1461	A C 1B	R1404	B C 2B
C1403	A D 5B	C1462	A C 2A	R1405	B C 1B
C1404	B C 2B	C1463	A D 1D	R1406	A C 1C
C1405	A C 1C	C1464	A C 3A	R1407	A C 1C
C1406	B C 2B	C1465	A C 3A	R1408	A C 2C
C1407	B C 3A	C1466	A C 3A	R1410	A C 1B
C1408	B C 1B	C1467	B C 4A	R1411	A C 2C
C1409	B C 1B	C1468	B C 4A	R1412	A C 2C
C1410	A D 2B	C1469	B C 4A	R1413	A C 2C
C1411	A C 2B	C1470	B C 6A	R1414	A C 2C
C1412	B C 2B	C1471	B C 5B	R1415	B C 3B
C1413	A C 2B	C1472	A C 3C	R1416	B C 3B
C1414	A C 2B	C1473	A C 3C	R1417	A C 3C
C1415	A C 1C			R1418	A C 3C
C1416	A D 3B	CONNECTOR			
C1417	A C 3B	CN1401	A D 5A	R1421	A C 4B
C1420	A C 4B	DIODE			
C1421	A C 4B	D1401	A D 6B	R1425	A C 3C
C1422	A C 4B	D1402	A D 5D	R1426	A C 3C
C1423	B C 4B	D1403	A C 1C	R1427	A C 3C
C1424	B C 3B	IC			
C1425	A C 4C	IC1401	B C 3D	R1428	A C 3B
C1426	B C 5B	IC1402	A C 4D	R1429	A C 3B
C1427	B C 5B	COIL			
C1428	B C 5C	L1401	A D 4B	R1430	A C 5B
C1429	A D 3B	L1402	A D 1B	R1431	A C 5C
C1430	A C 2D	L1403	A D 2B	R1432	B C 5C
C1431	B C 2C	L1404	A D 4C	R1433	B C 2B
C1432	B C 2C	L1405	A D 4B	R1434	B C 1E
C1433	A C 3C	L1406	A D 5B	R1435	B C 1E
C1434	B C 2B	L1407	A D 6B	R1436	B C 4C
C1435	B C 1E	L1408	A D 6C	R1437	A C 4C
C1436	B C 2E	L1409	A D 5A	R1438	A C 4C
C1437	A C 3C	TRANSISTOR			
C1438	B C 3C	Q1401	A D 5B	R1442	A C 2A
C1439	B C 5A	Q1402	B C 2B	R1444	B C 1A
C1440	B C 3C	Q1403	A C 1C	R1447	B C 2A
C1441	A C 3C	Q1404	A C 2C	R1450	B C 2A
C1442	B C 4C	Q1406	A C 2B	R1451	B C 3A
C1443	B C 4C	Q1407	B C 2C	R1452	B C 3A
C1444	A C 4C	Q1408	A C 3B	R1453	B C 3A
C1445	A C 4C	Q1410	A C 4B	R1454	B C 4A
C1446	A D 5C	Q1412	A C 5B	R1455	B C 5C
C1447	B C 5B	Q1413	A C 5C	R1456	A C 4C
C1448	A D 5C	Q1414	A C 3A	R1457	A C 4B
C1449	A C 3D	Q1415	A C 5D	R1458	A C 4B
C1450	A C 4C	Q1416	A C 4C	R1459	A C 1B
C1451	A D 5D	Q1417	A C 4B	R1460	A C 3B
C1452	B C 3D	Q1418	B C 4A	R1461	A C 3B
C1453	A C 2D	Q1419	A C 2B	R1462	A C 4A
C1454	A C 2D	Q1420	A C 4A	R1463	A C 4A
C1455	B C 2D	Q1421	A C 4B	VR1401	A D 1E
C1456	A D 5D	Q1422	A C 1C		
C1457	A C 5D	OTHER			
C1458	A C 5D	LC1401	A D 4A		
C1459	A C 1A	LC1402	A D 2A		
		R1401	B C 5B		

COMPONENT PARTS LOCATION GUIDE
<S-SUB>

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR					
C501	A D 5D	C555	B C 5C	R508	B C 1C
C502	A D 5D	C556	B C 5B	R509	B C 1C
C503	A D 4D	C557	A D 6C	R510	B C 1B
C504	B C 4E	C558	B C 5C	R511	B C 1B
C505	A D 1D	C559	B C 5C	R512	B C 1B
C506	B C 4E	C560	A D 6D	R513	B C 1A
C507	A D 4E	C561	A D 6D	R514	B C 1A
C508	A D 2E	C562	A D 4E	R515	B C 1B
C509	A D 2D	C563	B C 4D	R516	B C 2D
C510	A D 2C	C564	B C 2D	R517	B C 2D
C511	B C 3C	C565	B C 4B	R518	B C 3B
C512	B C 2D	C566	B C 4B	R519	B C 4B
C513	A D 2D	C567	B C 5B	R520	B C 5C
C514	B C 3C	C568	B C 5B	R521	B C 5C
C515	B C 3B	C569	B C 5B	R522	B C 5C
C516	B C 4B	C570	B C 5C	R523	B C 5C
C517	B C 4B	C571	B C 5C	R524	B C 5C
C518	B C 3C	C572	B C 5C	R525	B C 3B
C519	A D 4B	C573	B C 5C	R526	B C 3D
C520	A D 3C	C574	B C 3D	R527	B C 4B
C521	1D	C575	B C 3D	R528	B C 4B
C522	A D 2B	C576	B C 5D	R529	B C 4B
C523	A D 2B			R530	B C 5B
C524	B C 1C	CONNECTOR			
C525	B C 1C	CN511	A D 3A	R533	B C 5C
C526	B C 1C	CN512	A D 5E	R534	B C 5C
C527	B C 1B	CN513	A D 1E	R535	B C 5C
C528	B C 1B	IC			
C529	B C 1B	IC501	B C 4D	R536	B C 5C
C530	B C 1A	IC502	A D 1C		
C531	B C 1A	COIL			
C532	B C 1B	L501	A D 2B		
C533	B C 2A	L502	A D 5E		
C534	A D 2A	L503	A D 3E		
C535	B C 2D	L504	A D 2A		
C536	B C 2D	L505	A D 3E		
C537	B C 2D	TRANSISTOR			
C538	B C 3B	Q501	B C 3B		
C539	B C 3B	RESISTOR			
C540	B C 3B	R501	B C 3C		
C541	A D 4B	R503	B C 4E		
C542	B C 4B	R504	B C 1C		
C543	B C 4B	R505	B C 1C		
C544	B C 4B	R506	B C 1C		
C545	A D 5B	R507	B C 1C		

4.26 TERMINAL CIRCUIT BOARD

<06> TERMINAL
LPB10116-001A

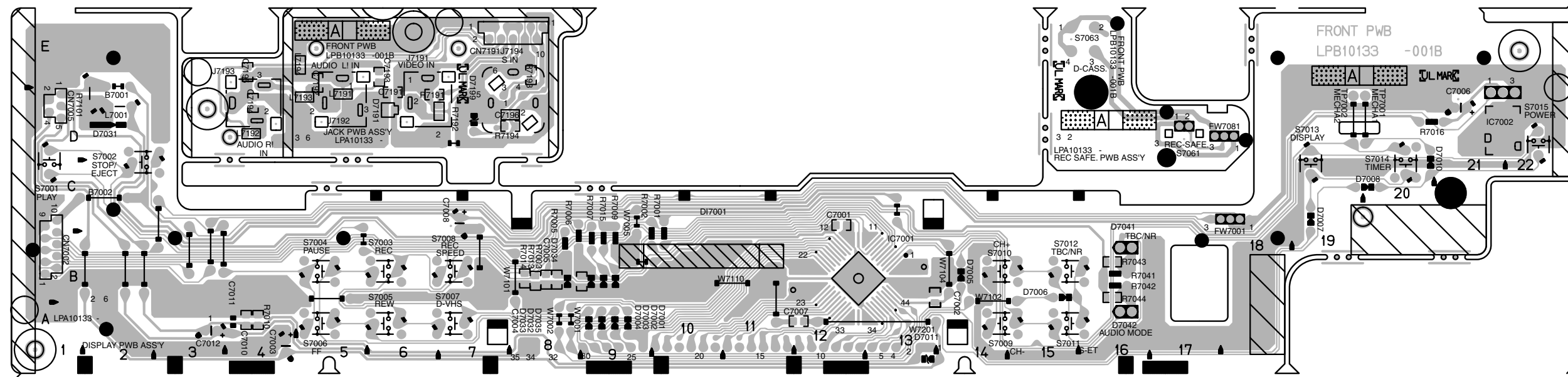


COMPONENT PARTS LOCATION GUIDE
<TERMINAL>

REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR			
C7101	B C 5C	R7105	B C 7C
C7102	B C 5B	R7106	B C 8C
C7103	A D 10D	R7107	B C 5B
C7104	B C 10D	R7108	B C 5B
C7105	A D 10C	R7109	B C 6B
C7106	B C 10C	R7110	B C 6B
C7107	A D 11D	R7111	B C 7B
C7108	A D 11E	R7112	B C 8B
C7109	B C 11E	R7113	B C 10C
C7110	B C 10C	R7114	B C 10C
C7111	A D 14D	R7115	B C 11C
C7112	B C 14E	R7116	B C 12C
C7113	A D 14C	R7117	B C 14C
C7114	A D 14C	R7118	B C 10B
C7115	A D 5D	R7119	A D 10C
C7116	B C 5D	R7120	B C 11B
C7117	A D 5E	R7121	B C 8E
C7118	A D 4E	R7122	A D 8E
C7119	A D 5D	R7123	A D 9E
C7120	A D 7D	R7124	B C 10B
C7121	A D 7E	R7125	B C 12B
C7122	A D 7E	R7126	B C 14B
C7123	B C 3E	R7127	B C 10B
C7124	A D 3E	R7128	B C 10D
C7125	A D 3D	R7129	B C 10D
C7126	B C 3D	R7130	B C 10D
C7127	A D 7D	R7131	B C 11E
CONNECTOR			
CN7101	A D 2A	R7140	B C 5E
CN7102	A D 10A	R7141	B C 6E
CN7103	A D 1E	R7142	B C 6E
CN7104	A D 3E	R7143	B C 5E
DIODE			
D7101	B C 8E	R7144	B C 5E
D7102	B C 8E	R7145	B C 5D
D7103	B C 8E	R7146	B C 8D
IC			
IC7101	B C 10D	R7147	B C 8D
IC7102	B C 14D	R7148	B C 9D
IC7103	B C 6E	R7149	B C 8D
JACK			
J7101	A D 5C	R7150	B C 8D
J7102	A D 7C	R7151	B C 1D
J7103	A D 5B	R7152	B C 2B
J7104	A D 7B	R7153	B C 2C
J7105	A D 9C	R7154	A D 3E
J7106	A D 13C	R7155	A D 3E
J7107	A D 9B	R7156	B C 2E
J7108	A D 13B	R7157	B C 3D
J7109	A D 2C		
J7110	A D 3C		
J7111	A D 2B		
J7112	A D 3B		
J7113	A D 1C		
J7114	A D 1B		
J7115	A D 1D		
J7116	A D 8D		
J7117	A D 13D		
COIL			
L7101	A D 11D		
L7102	A D 6D		
L7103	A D 3E		
TRANSISTOR			
Q7103	B C 3D		
Q7104	B C 3D		
Q7105	B C 3D		
RESISTOR			
R7101	B C 5C		
R7102	B C 5C		
R7103	B C 6C		
R7104	B C 6C		

4.27 DISPLAY, REC SAFETY AND JACK CIRCUIT BOARDS

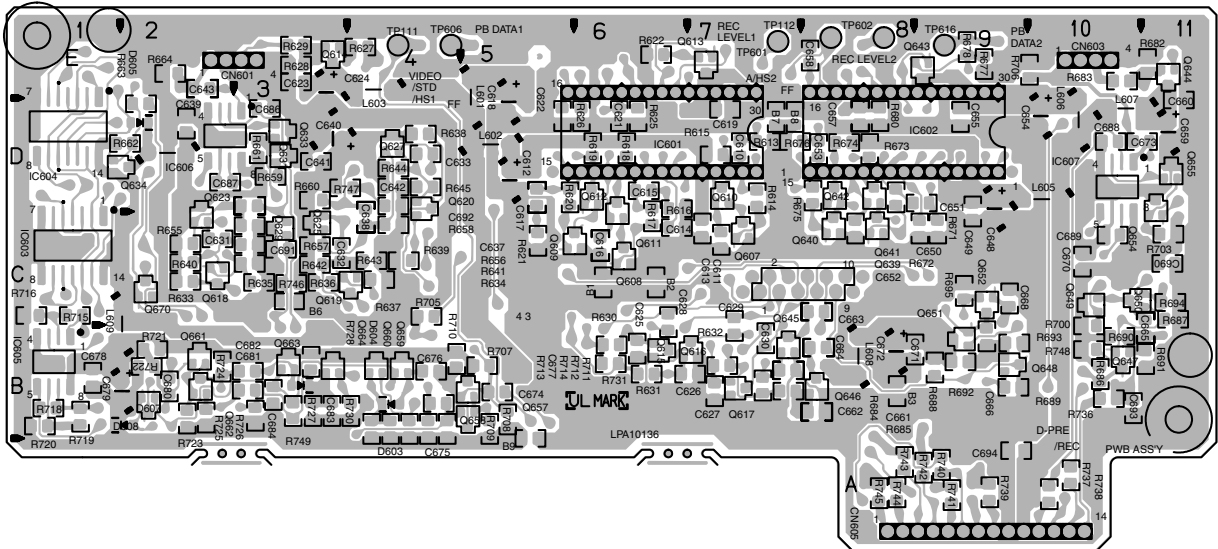
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LPB10133-001B**



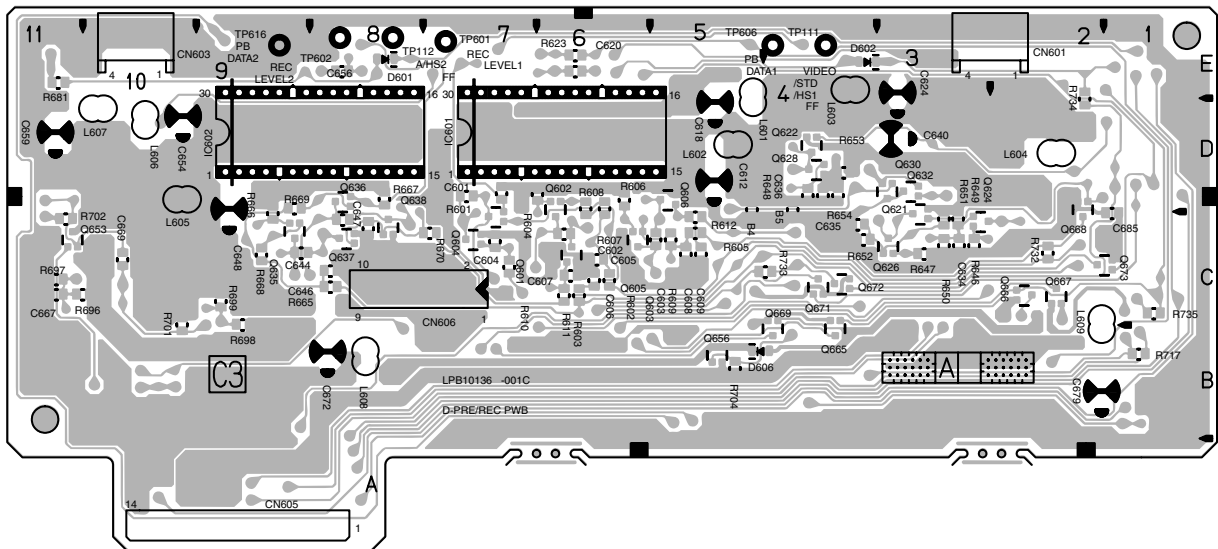
4.28 D-PRE/REC CIRCUIT BOARD

<43> D-PRE/REC
LPB10136-001C

— FOIL SIDE(B)—



— COMPONENT SIDE(A)—



COMPONENT PARTS LOCATION GUIDE

<D-PRE/REC>

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR							
C601	A C 7D	C690	B C 11C	Q650	B C 10C	R666	A C 9C
C602	A C 6C	C691	B C 3C	Q651	B C 9B	R667	A C 8D
C603	A C 5C	C692	B C 4D	Q652	B C 9C	R668	A C 9C
C604	A C 7C	C693	B C 10B	Q653	A C 11C	R669	A C 9D
C605	A C 6C	C694	B C 9A	Q654	B C 11D	R670	A C 7C
C606	A C 6C	CONNECTOR		Q655	B C 11D	R671	B C 9C
C607	A C 6C	CN601	A D 2E	Q656	A C 5B	R672	B C 8D
C608	A C 6C	CN603	A D 10E	Q657	B C 5B	R673	B C 8D
C609	A C 5C	CN605	A D 8A	Q658	B C 5B	R674	B C 8D
C610	B C 7D	CN606	A D 7C	Q659	B C 4B	R675	B C 8D
C611	B C 7C	DIODE		Q660	B C 4B	R676	B C 7D
C612	A D 5D	D601	A C 8E	Q661	B C 2B	R677	B C 9E
C613	B C 7C	D602	A C 4E	Q662	B C 2B	R678	B C 9E
C614	B C 6C	D603	B C 4B	Q663	B C 3B	R680	B C 8D
C615	B C 6D	D604	B C 3B	Q664	B C 3B	R681	A C 11E
C616	B C 6C	D605	B C 2D	Q665	A C 4B	R682	B C 11E
C617	B C 5D	D606	A C 5B	Q666	A C 2C	R683	B C 10E
C618	A D 5E	D607	B C 2B	Q667	A C 2C	R684	B C 7B
C619	B C 7D	D608	B C 2B	Q668	A C 2D	R685	B C 7B
C620	A C 6E	IC		Q669	A C 4B	R686	B C 10B
C621	B C 6D	IC601	A D 7D	Q670	A C 2C	R687	B C 11C
C622	B C 5D	IC602	A D 9D	Q671	A C 4C	R688	B C 9B
C623	B C 3E	IC603	B C 1C	Q672	A C 4C	R689	B C 9B
C624	A D 3E	IC604	B C 1D	Q673	A C 1C	R690	B C 10B
C625	B C 6B	RESISTOR		R691	B C 11B	R692	B C 9B
C626	B C 7B	R601	A C 7D	R693	B C 9B	R694	B C 11C
C627	B C 7B	R602	A C 6C	R695	B C 9C	R696	A C 11C
C628	B C 6C	R603	A C 6C	R697	A C 11C	R698	A C 9C
C629	B C 7B	R604	A C 6D	R699	A C 9C	R700	B C 10B
C630	B C 7B	R605	A C 5C	R701	A C 10C	R702	A C 11C
C631	B C 2C	R606	A C 6D	R703	B C 11C	R704	A C 5B
C632	B C 3C	R607	A C 6D	R705	B C 4C	R706	B C 10E
C633	B C 4D	R608	A C 6D	R707	B C 5B	R708	B C 5B
C634	A C 3C	R609	A C 5C	R709	B C 5B	R710	B C 4B
C635	A C 4C	R610	A C 7C	R711	B C 4B	R712	B C 4B
C636	A C 4D	R611	A C 6C	R713	B C 4B	R714	B C 4B
C637	B C 3D	R612	A C 5C	R715	B C 1C	R716	B C 1C
C638	B C 4C	R613	B C 7D	R717	A C 1B	R718	B C 1B
C639	B C 2D	R614	B C 7D	R719	B C 1B	R720	B C 1B
C640	A D 3D	R615	B C 7D	R721	B C 2B	R722	B C 2B
C641	B C 3D	Q601	A C 7C	R723	B C 2B	R724	B C 2B
C642	B C 4D	Q602	A C 6D	R725	B C 2B	R726	B C 3B
C643	B C 2E	Q603	A C 6C	R727	B C 3B	R728	B C 3B
C644	A C 9C	Q604	A C 7C	R729	B C 4B	R730	B C 4B
C645	A C 8C	Q605	A C 6C	R731	A C 2C	R732	A C 2C
C646	A C 8C	Q606	A C 5D	R733	A C 4C	R734	A C 2D
C647	A C 8C	Q607	B C 7C	R735	A C 1C	R736	B C 10B
C648	A D 9D	Q608	B C 6C	R737	B C 10A	R738	B C 10A
C649	B C 9D	Q609	B C 6C	R739	B C 9A	R740	B C 9A
C650	B C 9C	Q610	B C 7D	R741	B C 9A	R742	B C 9A
C651	B C 9D	Q611	B C 6D	R743	B C 8A	R744	B C 8A
C652	B C 8C	Q612	B C 6D	R745	B C 8A	R746	B C 3C
C653	B C 8D	Q613	B C 7E	R747	B C 3D	R748	B C 10B
C654	A D 10D	Q614	B C 3E	R749	B C 3B		
C655	B C 9D	Q615	B C 6B				
C656	A C 8E	Q616	B C 7B				
C657	B C 8D	Q617	B C 7B				
C658	B C 8E	Q618	B C 2C				
C659	A D 11D	Q619	B C 4C				
C660	B C 11D	Q620	B C 4D				
C661	B C 7B	Q621	A C 3C				
C662	B C 8B	Q622	A C 4D				
C663	B C 8C	Q623	B C 2C				
C664	B C 8B	Q624	A C 3C				
C665	B C 11B	Q625	B C 3C				
C666	B C 9B	Q626	A C 3C				
C667	A C 11C	Q627	B C 4D				
C668	B C 9C	Q628	A C 4D				
C669	A C 10C	Q629	B C 3C				
C670	B C 10C	Q630	A C 3D				
C671	B C 9B	Q631	B C 3D				
C672	A D 8B	Q632	A C 3D				
C673	B C 11D	Q633	B C 3D				
C674	B C 5B	Q634	B C 2D				
C675	B C 4B	Q635	A C 9C				
C676	B C 4B	Q636	A C 8D				
C677	B C 4B	Q637	A C 8C				
C678	B C 1B	Q638	A C 8C				
C679	A D 2B	Q639	B C 8C				
C680	B C 2B	Q640	B C 8C				
C681	B C 3B	Q641	B C 8D				
C682	B C 3B	Q642	B C 8D				
C683	B C 3B	Q643	B C 9E				
C684	B C 3B	Q644	B C 11E				
C685	A C 1C	Q645	B C 7B				
C686	B C 3D	Q646	B C 8B				
C687	B C 2D	Q647	B C 10B				
C688	B C 10D	Q648	B C 9B				
C689	B C 10C	Q649	B C 10C				
				TEST POINT			
				TP111	A D 4E		
				TP112	A D 8E		
				TP601	A D 7E		
				TP602	A D 8E		
				TP606	A D 4E		
				TP616	A D 9E		

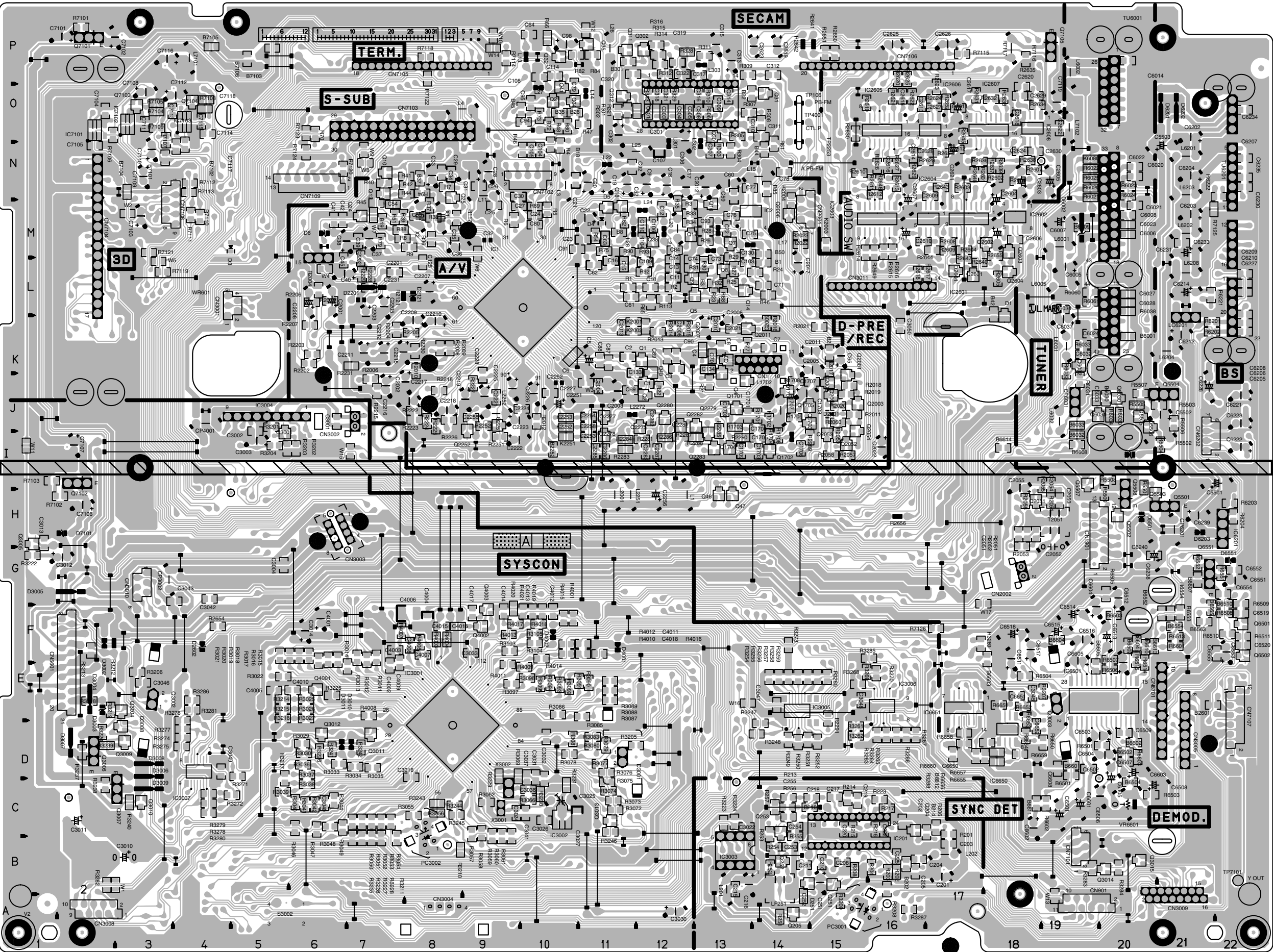
—FOIL SIDE(B)—



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[illegible]

4.30 MAIN CIRCUIT BOARD
<03> MAIN
LPB10135-001C



COMPONENT PARTS LOCATION GUIDE <MAIN>

REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION	REF.NO.	LOCATION
CAPACITOR																	
C1	B C 12K	C304	B C 120	C2827	B C 170	C6520	B C 22F	IC3006	B C 4D	16E	B C 12J	R213	B C 14C	R2615	B C 16M	R3104	B C 10F
C2	B C 11K	C305	A D 120	C2828	B C 170	C6551	A D 22G	IC3007	A C 4D	22H	B C 13J	R214	B C 15C	R2616	B C 16M	R3105	B C 10F
C3	B C 12K	C307	B C 130	C2829	B C 18N	C6552	A D 22G	IC3008	A C 4D	22H	B C 13J	R215	B C 15C	R2617	B C 16M	R3106	B C 10F
C4	B C 13K	C308	B C 130	C2830	B C 18N	C6553	A D 22G	IC3009	A C 4D	22H	B C 13J	R216	B C 15C	R2618	B C 16M	R3107	B C 10F
C5	A D 11K	C309	B C 140	C3001	B C 6J	C6554	A D 22F	IC3010	B C 20E	2601	B C 18M	R217	B C 16C	R2619	B C 150	R3202	B C 5I
C6	B C 10K	C310	B C 140	C3002	A D 5I	C6555	A D 19C	IC3011	B C 20E	2602	B C 18M	R218	B C 16C	R2620	B C 160	R3203	B C 5I
C7	B C 14K	C311	B C 140	C3003	A D 5I	C6556	A D 19C	IC3012	B C 20E	2603	B C 18M	R219	B C 16C	R2621	B C 160	R3204	B C 5I
C8	B C 13K	C312	B C 140	C3004	A D 5I	C6557	A D 19C	IC3013	B C 20E	2604	B C 18M	R220	B C 16C	R2622	B C 160	R3205	B C 5I
C9	A D 12N	C313	A D 13P	C3005	A D 3E	C6558	A D 19C	IC3014	B C 20E	2605	B C 18M	R221	B C 16C	R2623	B C 160	R3206	B C 5I
C10	B C 12N	C314	A D 13P	C3006	A D 3E	C6559	A D 19C	IC3015	B C 20E	2606	B C 18M	R222	B C 16C	R2624	B C 160	R3207	B C 5I
C11	B C 12M	C315	A D 13P	C3007	A D 3E	C6560	A D 19C	IC3016	B C 20E	2607	B C 18M	R223	B C 16C	R2625	B C 160	R3208	B C 5I
C12	B C 12M	C316	A D 13P	C3008	A D 3E	C6561	A D 19C	IC3017	B C 20E	2608	B C 18M	R224	B C 16C	R2626	B C 160	R3209	B C 5I
C13	B C 12L	C318	B C 120	C3022	B C 8D	C6562	A D 19C	IC3018	B C 20E	2609	B C 18M	R225	B C 16C	R2627	B C 160	R3210	B C 5I
C14	B C 12L	C319	B C 12P	C3023	B C 8D	C6563	A D 19C	IC3019	B C 20E	2610	B C 18M	R226	B C 16C	R2628	B C 160	R3211	B C 5I
C15	B C 11L	C320	B C 11P	C3025	B C 9C	C7101	A D 2P	L1	A D 12H	12H	B C 9M	R3010	B C 13N	R2629	B C 160	R3212	B C 5I
C16	B C 11L	C321	B C 11P	C3026	B C 9C	C7102	A D 2P	L2	A D 12H	12H	B C 9M	R3011	B C 13N	R2630	B C 160	R3213	B C 5I
C17	A D 12N	C322	B C 12P	C3027	B C 9C	C7103	A D 2P	L3	A D 12M	12M	B C 9M	R3012	B C 13N	R2631	B C 160	R3214	B C 5I
C18	A D 12N	C323	B C 12P	C3028	B C 9C	C7104	A D 2P	L4	A D 12M	12M	B C 9M	R3013	B C 13N	R2632	B C 160	R3215	B C 5I
C19	A D 11N	C1701	B C 13J	C3030	B C 10D	C7105	A D 2P	L5	A D 12M	12M	B C 9M	R3014	B C 13N	R2633	B C 160	R3216	B C 5I
C20	A D 11N	C1702	B C 13J	C3031	B C 10D	C7106	A D 2P	L6	A D 12M	12M	B C 9M	R3015	B C 13N	R2634	B C 160	R3217	B C 5I
C21	A D 11N	C1703	B C 13J	C3032	B C 10D	C7107	A D 2P	L7	A D 12M	12M	B C 9M	R3016	B C 13N	R2635	B C 160	R3218	B C 5I
C22	A D 11N	C1704	B C 13J	C3033	B C 10D	C7108	A D 2P	L8	A D 12M	12M	B C 9M	R3017	B C 13N	R2636	B C 160	R3219	B C 5I
C23	A D 11M	C1705	B C 14J	C3034	B C 10D	C7109	A D 2P	L9	A D 12M	12M	B C 9M	R3018	B C 13N	R2637	B C 160	R3220	B C 5I
C24	B C 11M	C1706	B C 14J	C3035	B C 10D	C7110	A D 2P	L10	A D 12M	12M	B C 9M	R3019	B C 13N	R2638	B C 160	R3221	B C 5I
C25	B C 9M	C1707	B C 15J	C3040	B C 6C	C7111	A D 3C	L11	A D 12M	12M	B C 9M	R3020	B C 13N	R2639	B C 160	R3222	B C 5I
C26	B C 9M	C1708	A D 14J	C3041	B C 6C	C7112	A D 3C	L12	A D 12M	12M	B C 9M	R3021	B C 13N	R2640	B C 160	R3223	B C 5I
C27	B C 9M	C1709	B C 13J	C3042	B C 6C	C7113	A D 3C	L13	A D 12M	12M	B C 9M	R3022	B C 13N	R2641	B C 160	R3224	B C 5I
C28	A D 8M	C2001	A D 6L	C3043	B C 14G	C7114	B C 40	L14	A D 12M	12M	B C 9M	R3023	B C 13N	R2642	B C 160	R3225	B C 5I
C29	A D 8M	C2002	A D 6L	C3044	B C 14G	C7115	B C 40	L15	A D 12M	12M	B C 9M	R3024	B C 13N	R2643	B C 160	R3226	B C 5I
C30	B C 9M	C2003	A D 11J	C3045	B C 14G	C7116	B C 40	L16	A D 12M	12M	B C 9M	R3025	B C 13N	R2644	B C 160	R3227	B C 5I
C31	A D 9M	C2004	B C 11J	C3046	B C 14G	C7117	A D 3C	L17	A D 12M	12M	B C 9M	R3026	B C 13N	R2645	B C 160	R3228	B C 5I
C32	A D 9M	C2005	B C 11J	C3047	B C 14G	C7118	A D 3C	L18	A D 12M	12M	B C 9M	R3027	B C 13N	R2646	B C 160	R3229	B C 5I
C33	A D 9M	C2006	B C 11J	C3048	B C 14G	C7119	A D 3C	L19	A D 12M	12M	B C 9M	R3028	B C 13N	R2647	B C 160	R3230	B C 5I
C34	B C 8M	C2007	A D 12K	C3049	B C 14G	C7120	A D 3C	L20	A D 12M	12M	B C 9M	R3029	B C 13N	R2648	B C 160	R3231	B C 5I
C35	B C 8M	C2008	A D 12K	C3050	B C 14G	C7121	A D 3C	L21	A D 12M	12M	B C 9M	R3030	B C 13N	R2649	B C 160	R3232	B C 5I
C36	A D 8M	C2009	B C 14K	C4001	A D 6F	CN1	A D 14K	L1	A D 13P	13P	B C 14J	R2650	B C 16M	R3233	B C 160	R3233	B C 5I
C37	A D 7M	C2010	B C 14K	C4002	A D 6F	CN1	A D 14K	L2	A D 13P	13P	B C 14J	R2651	B C 16M	R3234	B C 160	R3234	B C 5I
C38	A D 7M	C2011	B C 14K	C4003	A D 6F	CN1	A D 14K	L3	A D 13P	13P	B C 14J	R2652	B C 16M	R3235	B C 160	R3235	B C 5I
C39	B C 7M	C2012	A D 13N	C4004	B C 5E	CN1	A D 14K	L4	A D 13P	13P	B C 14J	R2653	B C 16M	R3236	B C 160	R3236	B C 5I
C40	A D 7M	C2013	B C 12K	C4005	B C 5E	CN1	A D 14K	L5	A D 13P	13P	B C 14J	R2654	B C 16M	R3237	B C 160	R3237	B C 5I
C41	B C 6M	C2014	B C 11K	C4006	B C 5E	CN1	A D 14K	L6	A D 13P	13P	B C 14J	R2655	B C 16M	R3238	B C 160	R3238	B C 5I
C42	B C 6M	C2015	B C 11K	C4007	B C 5E	CN1	A D 14K	L7	A D 13P	13P	B C 14J	R2656	B C 16M	R3239	B C 160	R3239	B C 5I
C43	B C 6M	C2016	B C 11K	C4008	B C 5E	CN1	A D 14K	L8	A D 13P	13P	B C 14J	R2657	B C 16M	R3240	B C 160	R3240	B C 5I
C44	B C 6M	C2017	A D 14K	C4009	B C 5E	CN1	A D 14K	L9	A D 13P	13P	B C 14J	R2658	B C 16M	R3241	B C 160	R3241	B C 5I
C45	B C 6M	C2018	A D 14K	C4010	B C 5E	CN1	A D 14K	L10	A D 13P	13P	B C 14J	R2659	B C 16M	R3242	B C 160	R3242	B C 5I
C46	B C 6M	C2019	A D 14K	C4011	B C 5E	CN1	A D 14K	L11	A D 13P	13P	B C 14J	R2660	B C 16M	R3243	B C 160	R3243	B C 5I
C47	B C 6M	C2020	A D 14K	C4012	B C 5E	CN1	A D 14K	L12	A D 13P	13P	B C 14J	R2661	B C 16M	R3244	B C 160	R3244	B C 5I
C48	B C 6M	C2021	A D 14K	C4013	B C 5E	CN1	A D 14K	L13	A D 13P	13P	B C 14J	R2662	B C 16M	R3245	B C 160	R3245	B C 5I
C49	B C 6M	C2022	A D 14K	C4014	B C 5E	CN1	A D 14K	L14	A D 13P	13P	B C 14J	R2663	B C 16M	R3246	B C 160	R3246	B C 5I
C50	B C 6M	C2023	A D 14K	C4015	B C 5E	CN1	A D 14K	L15	A D 13P	13P	B C 14J	R2664	B C 16M	R3247	B C 160	R3247	B C 5I
C51	B C 6M	C2024	A D 14K	C4016	B C 5E	CN1	A D 14K	L16	A D 13P	13P	B C 14J	R2665	B C 16M	R3248	B C 160	R3248	B C 5I
C52	B C 6M	C2025	A D 14K	C4017	B C 5E	CN1	A D 14K	L17	A D 13P	13P	B C 14J	R2666	B C 16M	R3249	B C 160	R3249	B C 5I
C53	B C 6M	C2026	A D 14K	C4018	B C 5E	CN1	A D 14K	L18	A D 13P	13P	B C 14J	R2667	B C 16M	R3250	B C 160	R3250	B C 5I
C54	B C 6M	C2027	A D 14K	C4019	B C 5E	CN1	A D 14K	L19	A D 13P	13P	B C 14J	R2668	B C 16M	R3251	B C 160	R3251	B C 5I
C55	B C 6M	C2028	A D 14K	C4020	B C 5E	CN1	A D 14K	L20	A D 13P	13P	B C 14J	R2669	B C 16M	R3252	B C 160	R3252	B C 5I
C56	B C 6M	C2029	A D 14K	C4021	B C 5E	CN1	A D 14K	L21	A D 13P	13P	B C 14J	R2670	B C 16M	R3253	B C 160	R3253	B C 5I
C57	B C 6M	C2030	A D 14K	C4022	B C 5E	CN1	A D 14K	L22	A D 13P	13P	B C 14J	R2671	B C 16M	R3254	B C 160	R3254	B C 5I
C58	B C 6M	C2031	A D 14K	C4023	B C 5E	CN1	A D 14K	L23	A D 13P	13P	B C 14J	R2672	B C 16M	R3255	B C 160	R3255	B C 5I
C59	B C 6M	C2032	A D 14K	C4024	B C 5E	CN1	A D 14K	L24	A D 13P	13P	B C 14J	R2673	B C 16M	R3256	B C 160	R3256	B C 5I
C60	B C 6M	C2033	A D 14K	C4025	B C 5E	CN1	A D 14K	L25	A D 13P	13P	B C 14J	R2674	B C 16M	R3257	B C 160	R3257	B C 5I
C61	B C 6M	C2034	A D 14K	C4026	B C 5E	CN1	A D 14K	L26	A D 13P	13P	B C 14J	R2675	B C 16M	R3258	B C 160	R3258	B C 5I
C62	B C 6M	C2035	A D 14K	C4027	B C 5E	CN1	A D 14K	L27	A D 13P	13P	B C 14J	R2676	B C 16M	R3259	B C 160	R3259	B C 5I
C63	B C 6M	C2036	A D 14K	C4028	B C 5E	CN1	A D 14K	L28	A D 13P	13P	B C 14J	R2677	B C 16M	R3260	B C 160	R3260	B C 5I
C64	B C 6M	C2037	A D 14K	C4029	B C 5E	CN1	A D 14K	L29	A D 13P	13P	B C 14J	R2678	B C 16M	R3261	B C 160	R3261	B C 5I
C65	B C 6M	C2038	A D 14K	C4030	B C 5E	CN1	A D 14K	L30	A D 13P	13P	B C 14J	R2679	B C 16M	R3262	B C 160	R3262	B C 5I
C66	B C 6M	C2039	A D 14K	C4031	B C 5E	CN1	A D 14K	L31	A D 13P	13P	B C 14J	R2680	B C 16M	R3263	B C 160	R3263	B C 5I
C67	B C 6M	C2040	A D 14K	C4032	B C 5E	CN1	A D 14K	L32	A D 13P	13P	B C 14J	R2681	B C 16M	R3264	B C 160	R3264	B C 5I
C68	B C 6M	C2041	A D 14K	C4033	B C 5E	CN1	A D 14K	L33	A D 13P	13P	B C 14J	R2682	B C 16M	R3265	B C 160	R3265	B C 5I
C69	B C 6M	C2042	A D 14K	C4034	B C 5E	CN1	A D 14K	L34	A D 13P	13P	B C 14J	R2683	B C 16M	R3266	B C 160	R3266	B C 5I
C70	B C 6M	C2043	A D 14K	C4035	B C 5E	CN1	A D 14K	L35	A D 13P	13P	B C 14J	R2684	B C 16M	R3267	B C 160	R3267	B C 5I
C71	B C 6M	C2044	A D 14K	C4036	B C 5E	CN1	A D 14K	L36	A D 13P	13P	B C 14J	R2685	B C 16M	R3268	B C 160	R3268	B C 5I
C72	B C 6M	C2045	A D 14K	C4037	B C 5E	CN1	A D 14K	L37	A D 13P	13P	B C 14J	R2686	B C 16M	R3269	B C 160	R3269	B C 5I
C73	B C 6M	C2046	A D 14K	C4038	B C 5E	CN1	A D 14K	L38	A D 13P	13P							

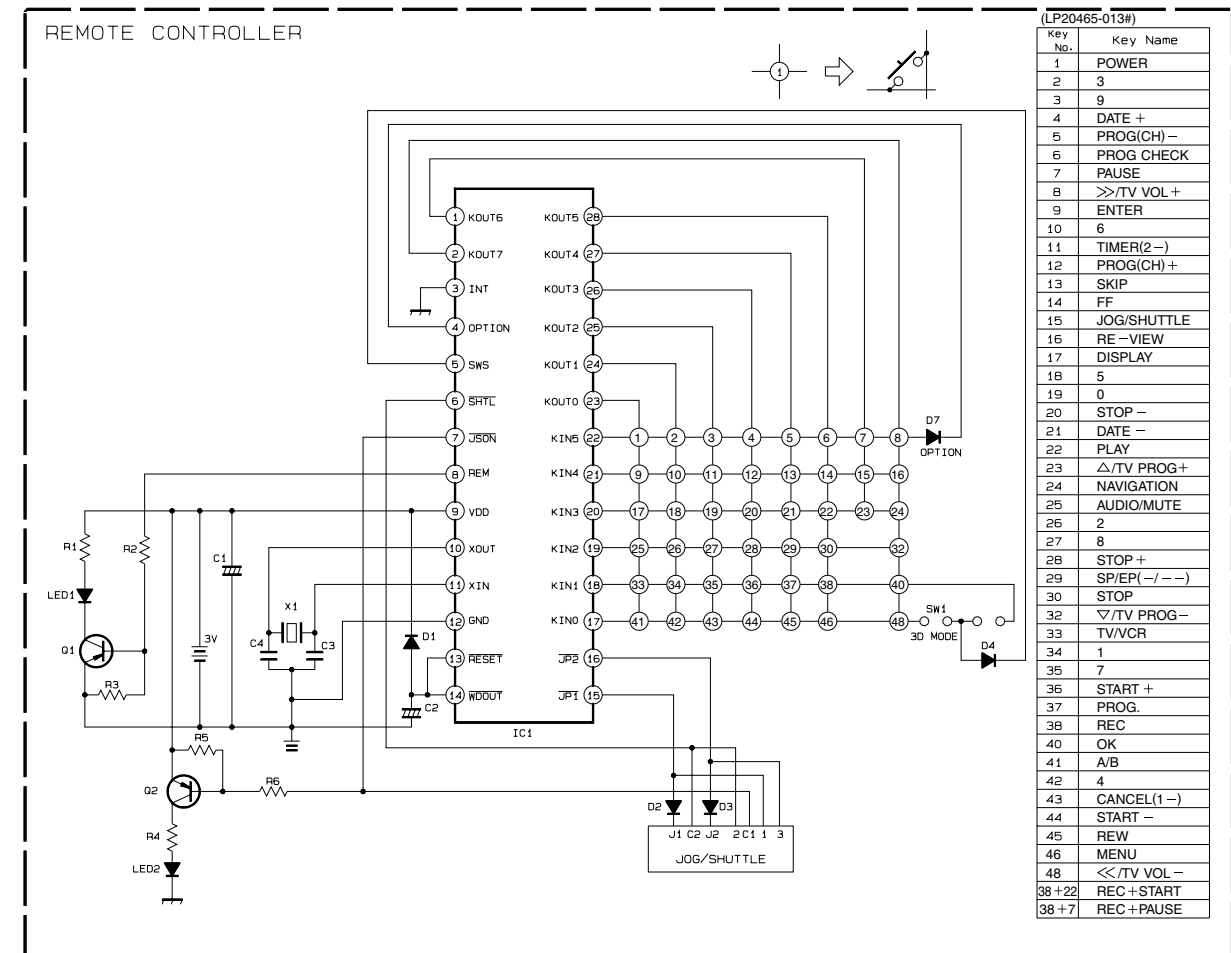
GRID ASSIGNMENT



	7G	6G	5G	4G	3G	2G	1G
P1	1a	1a	1a	1a	1a	1a	1a
P2	1b	1b	1b	1b	1b	1b	1b
P3	1f	1f	1f	1f	1f	1f	1f
P4	1g	1g	1g	1g	1g	1g	1g
P5	1c	1c	1c	1c	1c	1c	1c
P6	1e	1e	1e	1e	1e	1e	1e
P7	1d	1d	1d	1d	1d	1d	1d
P8	1h	1h	1h	1h	col 2	1h	1h
P9	B1	B1	B1		2a	col 1	2a
P10	B2	B2	B2		2b	-	2b
P11	B3	B3	B3		2f	-	2f
P12	B4	B4	B4	S1	2g	-	2g
P13	B5	-	B5	S2	2c	-	2c
P14	B6	-	B6	S3	2e	-	2e
P15	B7	-	B7		2d	-	2d
P16	B8	-	B8			REVIEW	S-VHS
P17	B9	-	B9		-		ET
P18	B10	1j	B10	NORM	-		-
P19	0dB -15	-	+8		-	-	VPS/PDC

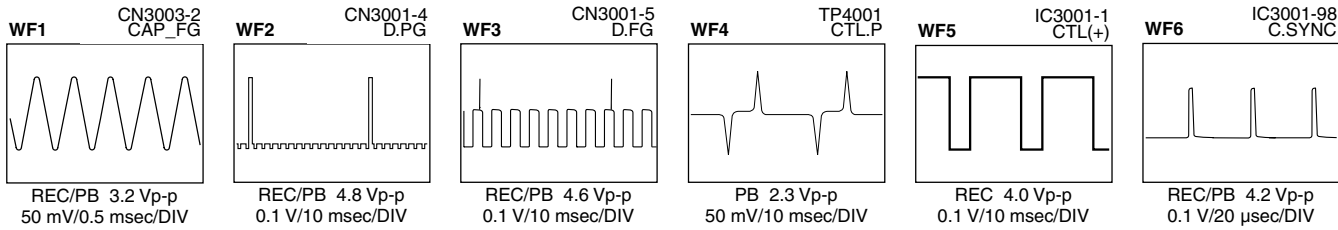
NOTES:

1. All parts shown in this schematic are critical for safety.
2. This schematic is only for reference.
Avoid replacing individual parts.
Replace the entire unit only.

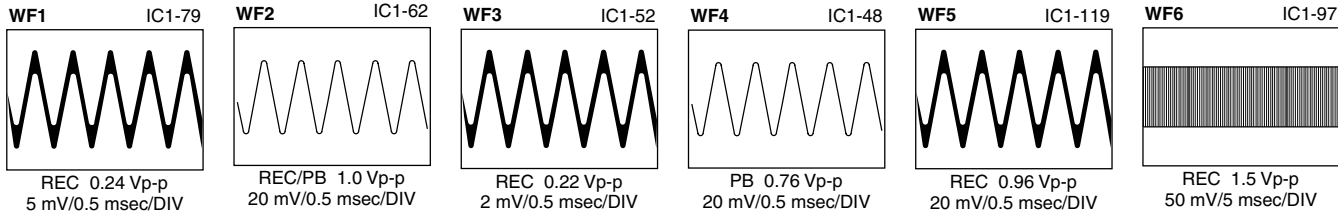


4.34 WAVEFORMS

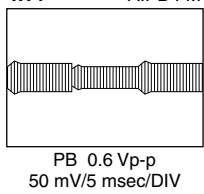
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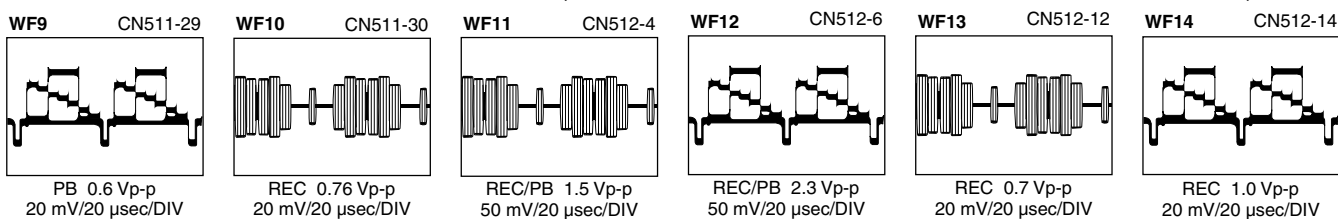
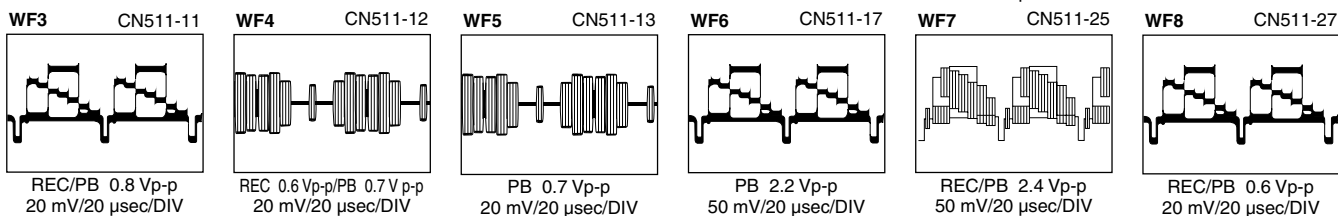
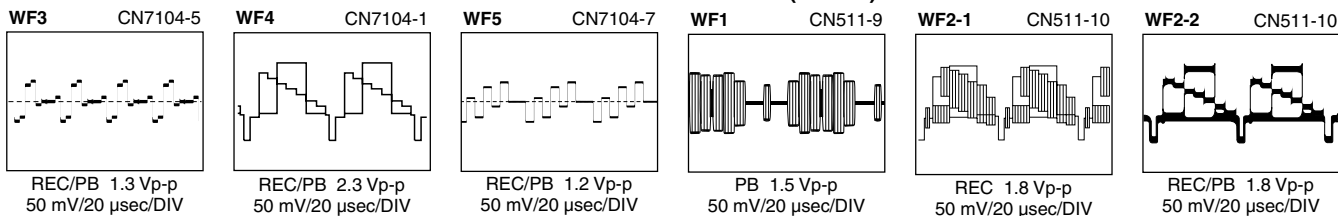
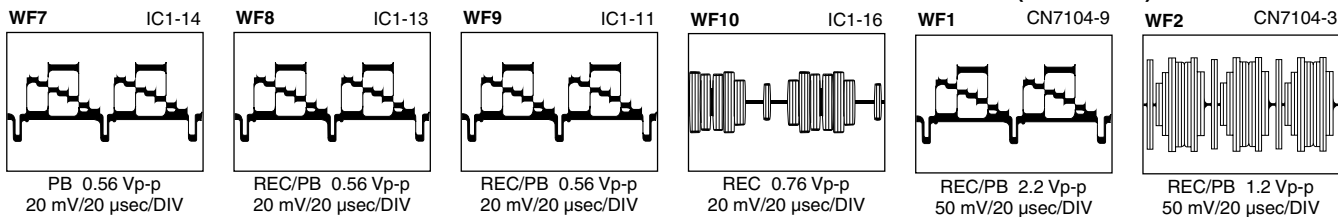
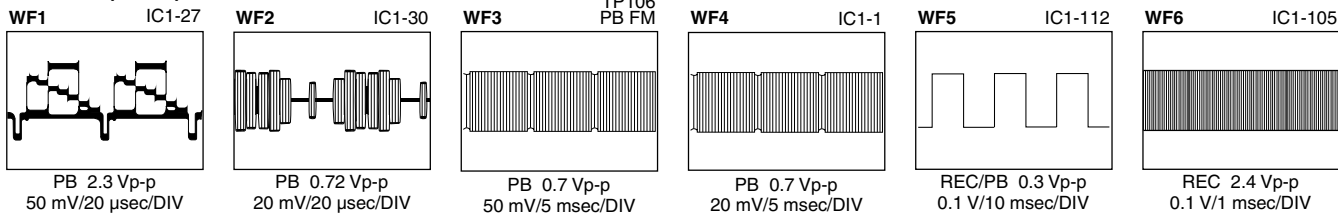
< AUDIO >



WF7 TP2253 A.PB FM



< VIDEO (MAIN) >



< VIDEO (S-SUB) >

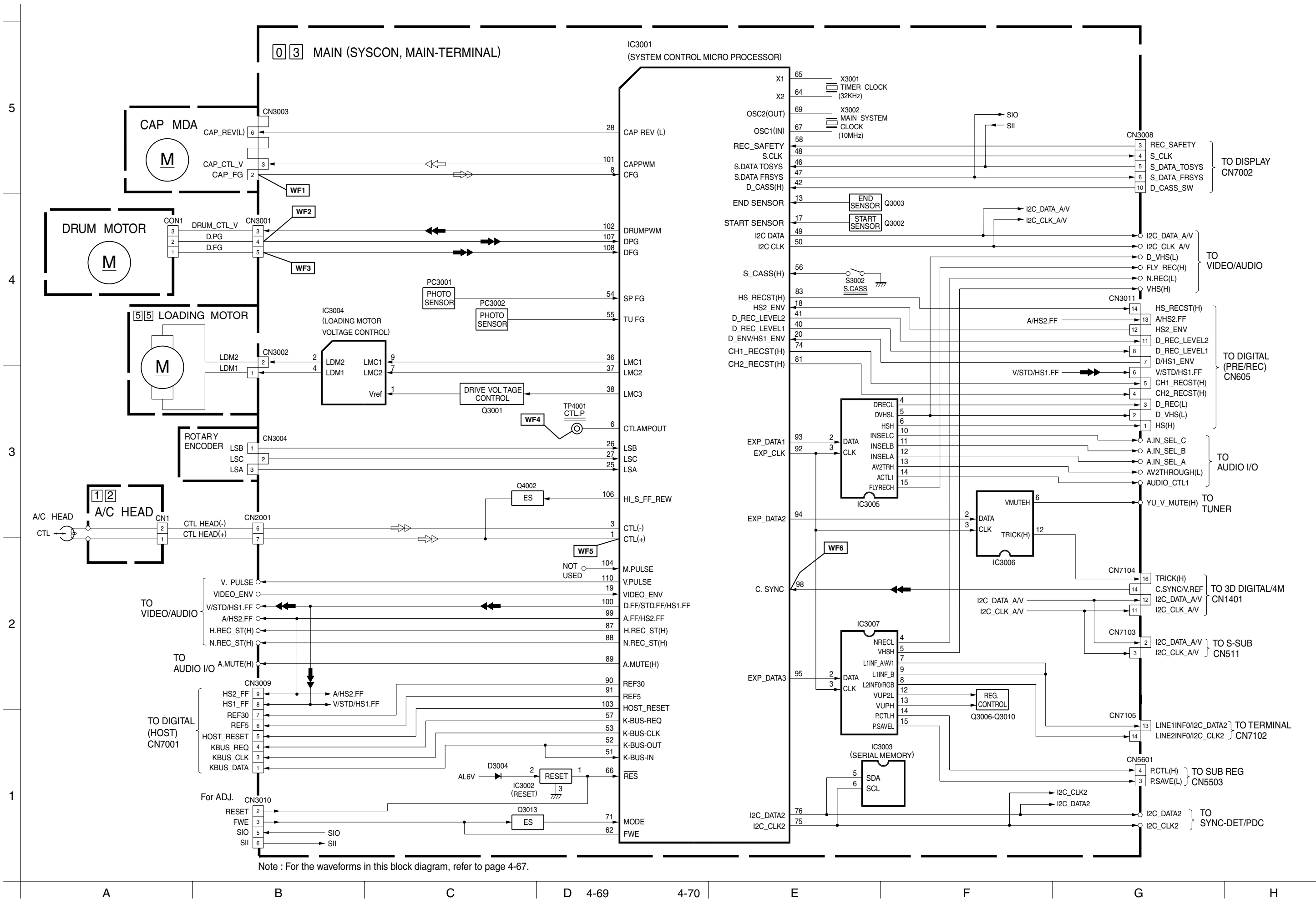
4.35 CPU PIN FUNCTION

<SYSCON IC3001>

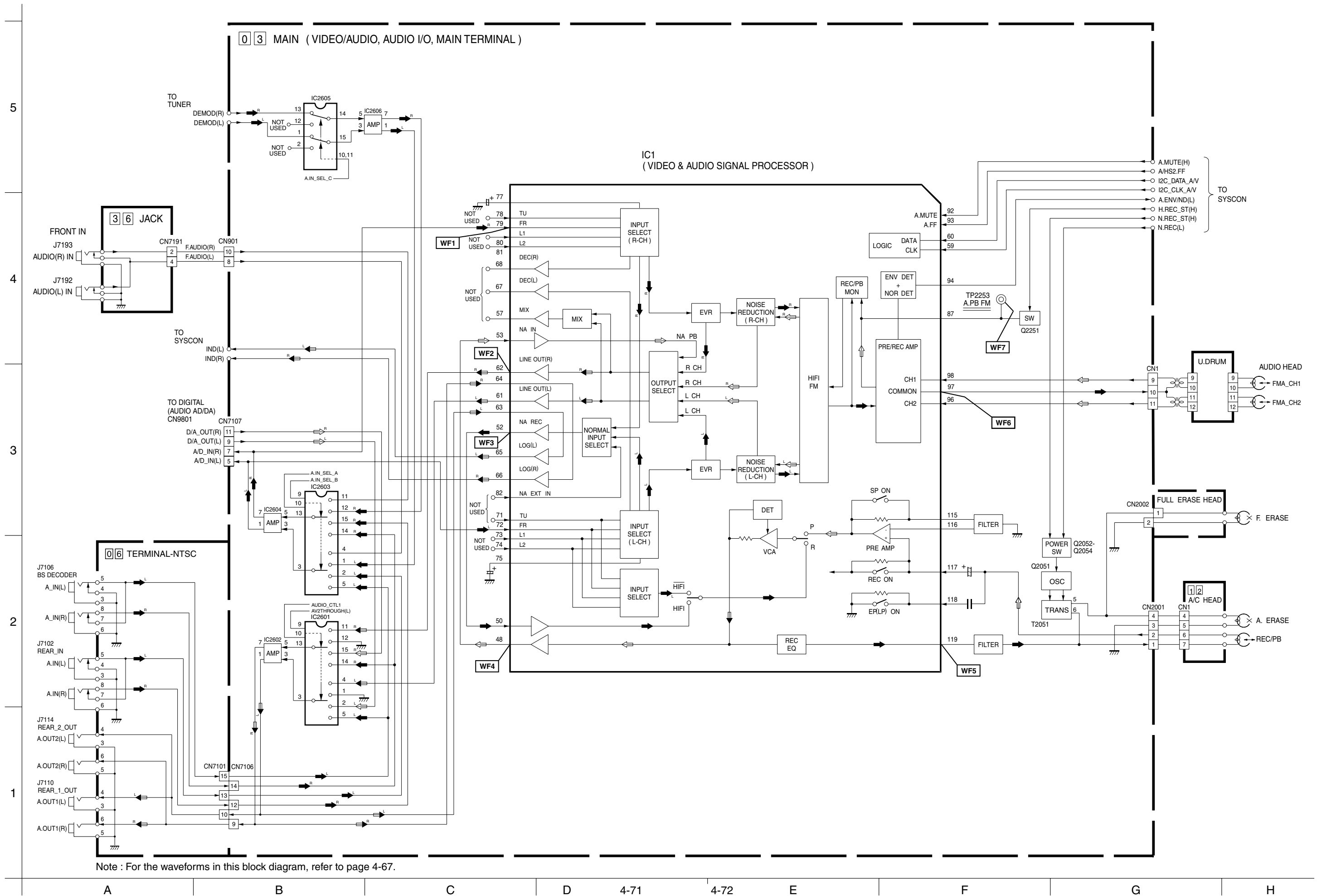
PIN NO.	LABEL	IN/OUT	FUNCTION
1	CTL(+)	IN/OUT	CTL(+) SIGNAL
2	SVSS	-	GND
3	CTL(-)	IN/OUT	CTL(-) SIGNAL
4	CTLBias	-	CTL BIAS VOLTAGE
5	CTLFB	IN	CTL PULSE FEEDBACK
6	CTLAMP OUT	OUT	CTL PULSE OUTPUT
7	CTLSMTIN	IN	CTL PULSE INPUT
8	CFG	IN	CAPSTAN FG PULSE INPUT
9	SVcc	-	SYSTEM POWER
10	Avcc	-	ANALOG POWER
11	LED/RFAGC/LOCK	IN	NC/NC/TUNING PLL LOCK DETECT:L
12	BS_ANT/AFC	IN	NC/TUNING CHECK
13	END SENSOR	IN	END SENSOR
14	IND(L)	IN	AUDIO INPUT(L CH) FOR THE FDP AUDIO INDICATOR
15	IND(R)	IN	AUDIO INPUT(R CH) FOR THE FDP AUDIO INDICATOR
16	A.ENV/ND(L)	IN	AUDIO PB FM ENV. INPUT/NON HI-FI MODEL:L
17	START SENSOR	IN	START SENSOR
18	HS2_ENV	IN	AT DETECTION
19	VIDEO ENV	IN	AUTO TRACKING DETECT/INPUT THE AVERAGE OF PLAYBACK VIDEO SIGNAL
20	D_ENV/HS1_ENV	IN	PB FM INPUT / AT DETECTION
21	NORM/MESEC/S	IN	S-VHS MODE:HAINORMAL MODE:L/MESECAM MODE:L/NC
22	WAI D_DET/SCR_ID	IN	WIDE ASPECT DETECTION/NC
23	Avss	-	GND FOR ANALOG CIRCUIT
24	CTL GAIN	OUT	CONTROL AMP OUT FREQUENCY RESPONSE SWITCHING
25	LSA	IN	MECHANISM MODE DETECT(A)
26	LSB	IN	MECHANISM MODE DETECT(B)
27	LSC	IN	MECHANISM MODE DETECT(C)
28	CAP REV(L)	OUT	CAPSTAN MOTOR REVERSE CONTROL (FWD:H/REV:L)
29	RC	IN	REMOTE CONTROL DATA INPUT
30	PROTECT	IN	DETECTION SIGNAL FOR SWITCHING POWER SUPPLY
31	BILSEL/P50I/OSDCE	IN	NC/CONTROL SIGNAL FOR TV LINK/NC
32	PAUSE/COMPU_IN	IN	REMOTE PAUSE CONTROL/NC
33	COMPU/P50_OUT/TEST	OUT	CONTROL SIGNAL FOR TV LINK/CONTROL SIGNAL FOR TV LINK/MECHA TEST MODE
34	STB	OUT	STROBE SIGNAL
35	POWER_DET	IN	DETECTION SIGNAL FOR POWER DOWN OF AC POWER SUPPLY
36	LMC1	OUT	LOADING MOTOR DRIVE(1)
37	LMC2	OUT	LOADING MOTOR DRIVE(2)
38	LMC3	OUT	LOADING MOTOR DRIVE(3)
39	SB_GAIN	OUT	VOLTAGE CONTROL SIGNAL FOR VIDEO FREQUENCY RESPONSE
40	D_REC_LEVEL1	OUT	LEVEL1 CONTROL SIGNAL OF D-VHS RECORDING
41	D_REC_Level2	OUT	LEVEL2 CONTROL SIGNAL OF D-VHS RECORDING
42	D_CASS(H)	IN	DETECTION SIGNAL FOR D-VHS CASSETTE (DETECTION:H)
43	Vss	-	GND
44	RMO	OUT	REMOTE CONTROL OUTPUT FOR SATELLITE RECEIVER
45	Vcc	-	SYSTEM POWER
46	S.DATA TOSYS	IN	SERIAL DATA TRANSFER OUTPUT FROM THE ON-SCREEN IC TO THE FDP DRIVER
47	S.DATA FRSYS	OUT	SERIAL DATA TRANSFER OUTPUT FROM THE FDP DRIVER TO THE ON-SCREEN IC
48	S.CLK	OUT	SERIAL DATA TRANSMISSION CLOCK FROM THE FDP DRIVER TO THE ON-SCREEN IC
49	I2C DATA	IN/OUT	SERIAL DATA TRANSFER OUTPUT FOR THE VIDEO/AUDIO IC
50	I2C CLK	OUT	SERIAL DATA TRANSFER CLOCK FOR THE VIDEO/AUDIO IC
51	K-BUS_IN	IN	SERIAL DATA INPUT FOR THE D-VHS HOST CPU
52	K-BUS_OUT	OUT	SERIAL DATA OUTPUT FOR THE D-VHS HOST CPU
53	K-BUS_CLK	OUT	SERIAL DATA TRANSMISSION CLOCK FOR THE D-VHS HOST CPU
54	SP FG	IN	DETECTION SIGNAL FOR SUPPLY REEL ROTATION/TAPE REMAIN
55	TU FG	IN	DETECTION SIGNAL FOR TAKE-UP REEL ROTATION/TAPE REMAIN
56	S_CASS(H)	IN	DETECTION SIGNAL FOR S-VHS CASSETTE

PIN NO.	LABEL	IN/OUT	FUNCTION
57	K-BUS_REQ	OUT	REQUEST OF SERIAL DATA FOR THE D-VHS HOST CPU
58	REC SAFETY	IN	REC SAFETY SWITCH DETECT (SW ON:L)
59	JUSTCLK/LN21	-	NC/NC
60	TU_A_MUTE(H)	OUT	TUNER AUDIO MUTE CONTROL (MUTE: H)
61	TU_CE	OUT	CHIP ENABLE OF THE TUNER UNIT
62	FWE	-	NC
63	NMI	-	NC
64	X2	-	TIMER CLOCK(32kHz)
65	X1	-	TIMER CLOCK(32kHz)
66	RES	-	RESET TERMINAL (RESET ON:L)
67	OSC1(IN)	-	MAIN SYSTEM CLOCK (10MHZ)
68	Vss	-	GND
69	OSC2(OUT)	-	MAIN SYSTEM CLOCK (10MHZ)
70	Vcc	-	SYSTEM POWER
71	MODE	-	NC
72	TU_CLK	OUT	CLOCK FOR DATA TRANSFER TO THE TUNER UNIT
73	TU_DATA	OUT	TUNING DATA
74	CH1_RECST(H)	OUT	REC START CONTROL FOR CH1
75	I2C CLK2	OUT	SERIAL DATA TRANSFER CLOCK FOR MEMORY IC
76	I2C DATA2	IN/OUT	SERIAL DATA TRANSFER OUTPUT FOR MEMORY IC
77	AT_ON	OUT	D-VHS LS3 REC TIMING CONTROL
78	SLOW_P	OUT	MEMORY TIMING CONTROL IN THE SLOW MODE
79	FLY_ON (H)	OUT	FLY REC START: FH
80	VP_CTL	OUT	V.PULSE CONTROL V COMPENSATION DURING SPECIAL PLAYBACK
81	CH2_RECST(H)	OUT	REC START CONTROL FOR CH2
82	Vcc	-	SYSTEM POWER
83	HS_RECST(L)	OUT	D-VHS HS RECORDING START
84	Vss	-	GND
85	SP_SHORT(H)	OUT	MODE SELECT
86	LP_SHORT(H)	OUT	MODE SELECT
87	H_REC_ST(H)	OUT	Hi-Fi AUDIO SOUND RECORDING START
88	N_REC_ST(H)	OUT	NORMAL AUDIO SOUND RECORDING START
89	A.MUTE(H)	OUT	AUDIO MUTE CONTROL (MUTE ON: H)
90	REF30	IN	REFERENCE SIGNAL INPUT (30HZ)
91	REF5	IN	REFERENCE SIGNAL INPUT (5HZ)
92	EXP_CLK	OUT	SERIAL DATA TRANSFER CLOCK FOR AUDIO/VIDEO AND TUNER/REG CONTROL
93	EXP_DATA1	IN/OUT	SERIAL DATA TRANSFER OUTPUT FOR AUDIO/VIDEO CONTROL
94	EXP_DATA2	IN/OUT	SERIAL DATA TRANSFER OUTPUT FOR TUNER/REG CONTROL
95	EXP_DATA3	IN/OUT	SERIAL DATA TRANSFER OUTPUT
96	BIT_IN(H)/SECAM_DET	-	NC/NC
97	SYNC_DET	IN	DETECTION OF VIDEO SYNC SIGNAL(DETECTED:H)
98	C.SYNC	IN	COMPOSITE SYNC
99	A.FF/HS2.FF	OUT	AUDIO FF OUTPUT
100	D.FF/STD.FF/HS1.FF	OUT	ROTATION DETECTION SIGNAL FOR DRUM MOTOR/TIMING CONTROL SIGNAL FOR REC
101	CAPPWM	OUT	CAPSTAN MOTOR CONTROL
102	DRUMPWM	OUT	DRUM MOTOR CONTROL
103	HOST_RESET	OUT	RESET CONTROL FOR D-VHS HOST CPU
104	M.PULSE/EDSCE	OUT	NC/NC
105	REC_AREA	OUT	D-VHS REC AREA CTL(STD MODE:H)
106	HI_S_FF_REW	OUT	DETECTION OF HIGH SPEED FF/REW SIGNAL
107	DPG	IN	DRUM PICKUP PULSE INPUT (SWITCHING PULSE)
108	DFG	IN	DRUM FG PULSE INPUT
109	Vcc	-	SYSTEM POWER
110	V.PULSE	OUT	V.PULSE ADDITION TIMING CONTROL
111	Vss	-	GND
112	CTLREF	-	CTL REFERENCE VOLTAGE

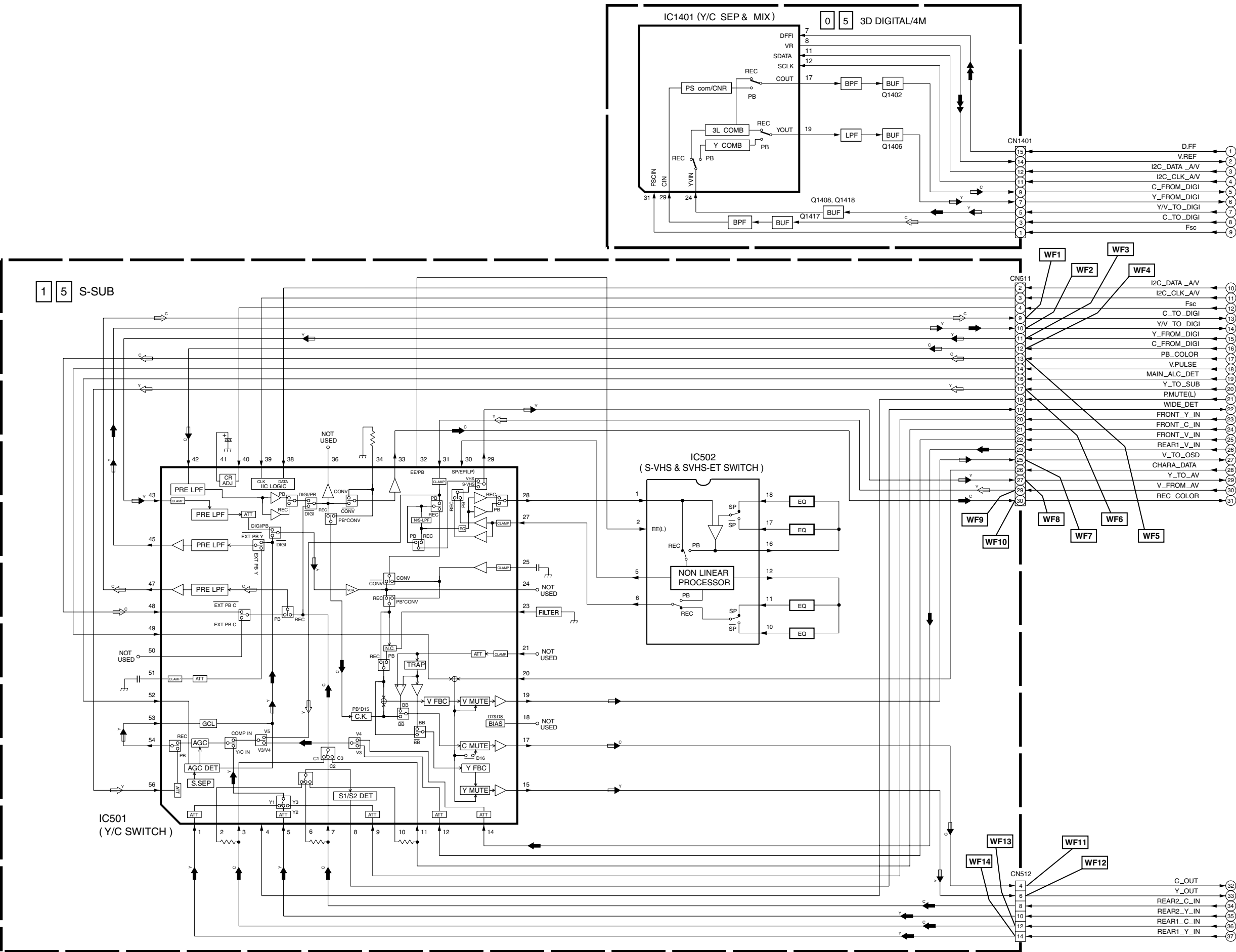
4.36 SYSTEM CONTROL BLOCK DIAGRAM



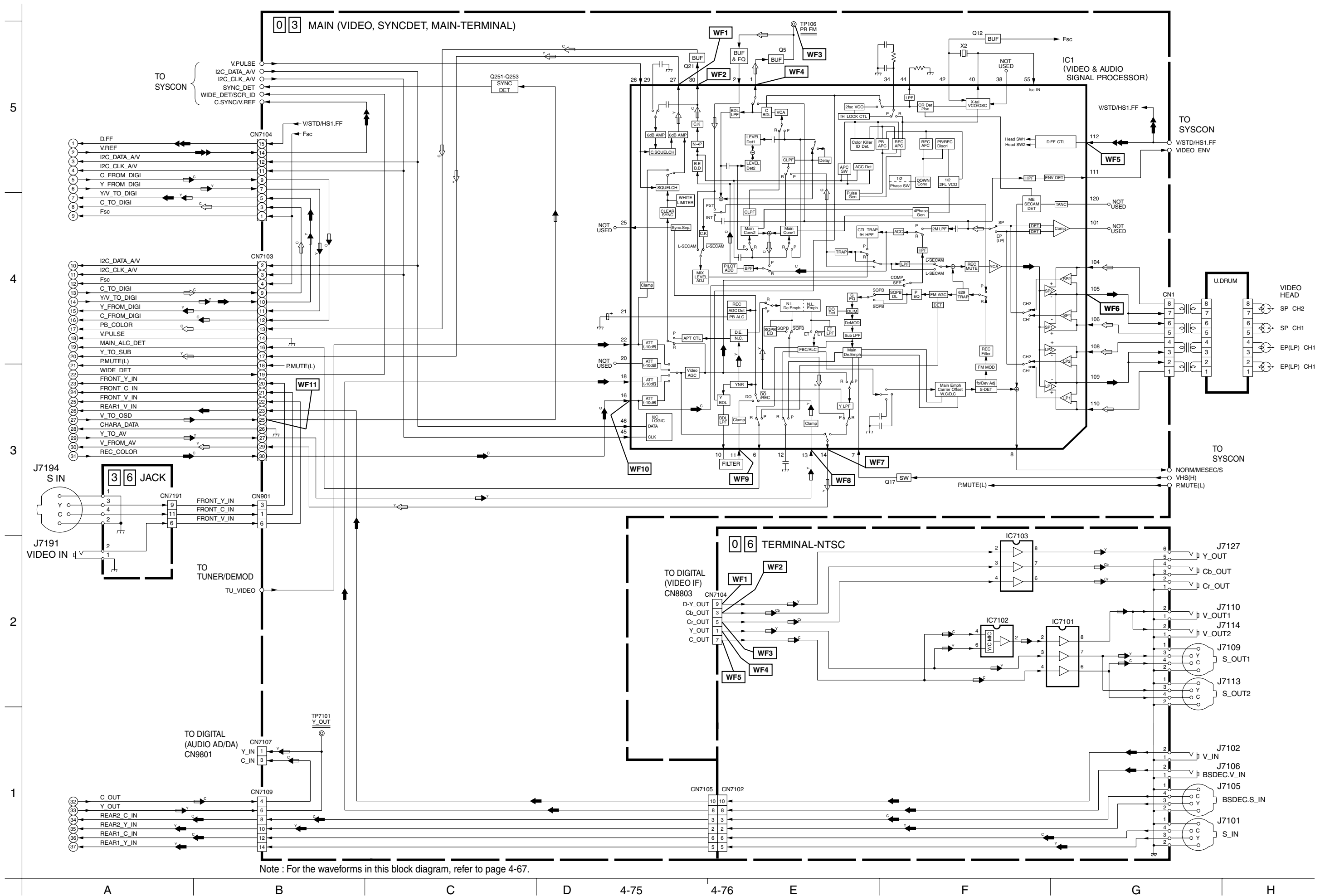
4.37 AUDIO BLOCK DIAGRAM



4.38 VIDEO BLOCK DIAGRAM



Note : For the waveforms in this block diagram, refer to page 4-67.



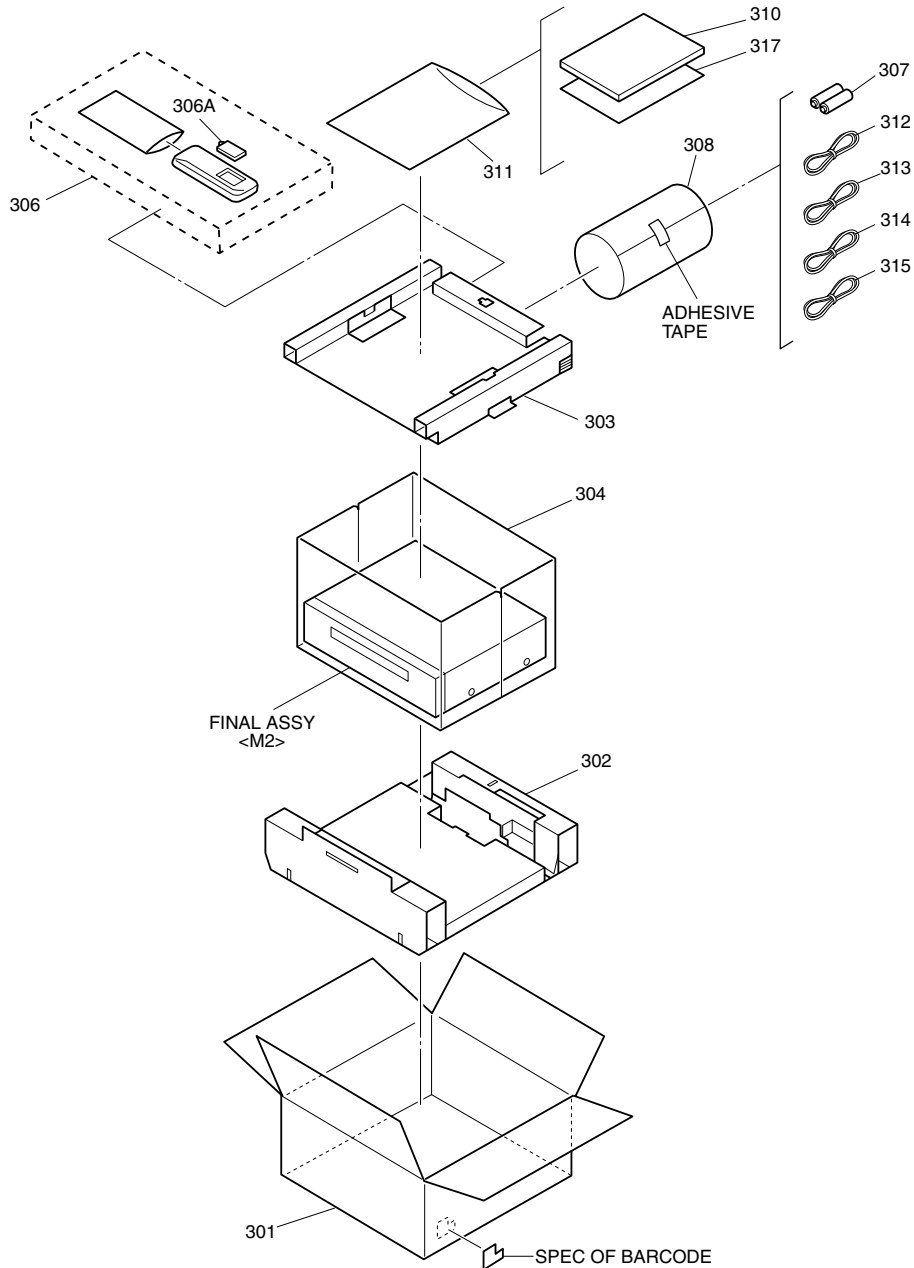
SECTION 5 PARTS LIST

SAFETY PRECAUTION

Parts identified by the  symbol are critical for safety. Replace only with specified part numbers.

5.1 PACKING AND ACCESSORY ASSEMBLY <M1>

The instruction manual to be provided with this product will differ according to the destination.



 REF No. PART No. PART NAME, DESCRIPTION

PACKING AND ACCESSORY ASSEMBLY <M1>

301	LP30930-001A	PACKING CASE
302	LP30933-001A	CUSHION(BOTTOM)
303	LP30934-001A	CUSHION(TOP)
304	PQM30021-105	POLY BAG
306	LP20465-013A	REMOTE CONTROLLER
306A	LP40254-009A	COVER(BATTERY)

 REF No. PART No. PART NAME, DESCRIPTION

307	-	BATTERY,X2("AA"TYPE)
308	QPC02202230P	POLY BAG
	310	LPT0542-001A INST BOOK(EN)
	310	LPT0542-002A INST BOOK(FR)
311	QPC02503530P	POLY BAG
312	PEAC0294-04	RF CABLE
313	QAM0004-002	S CABLE
314	QAM0207-001	AUDIO CABLE
315	QAL0095-004	LED CABLE ASSY (Controller)
317	BT-51028-1	REGIST.CARD

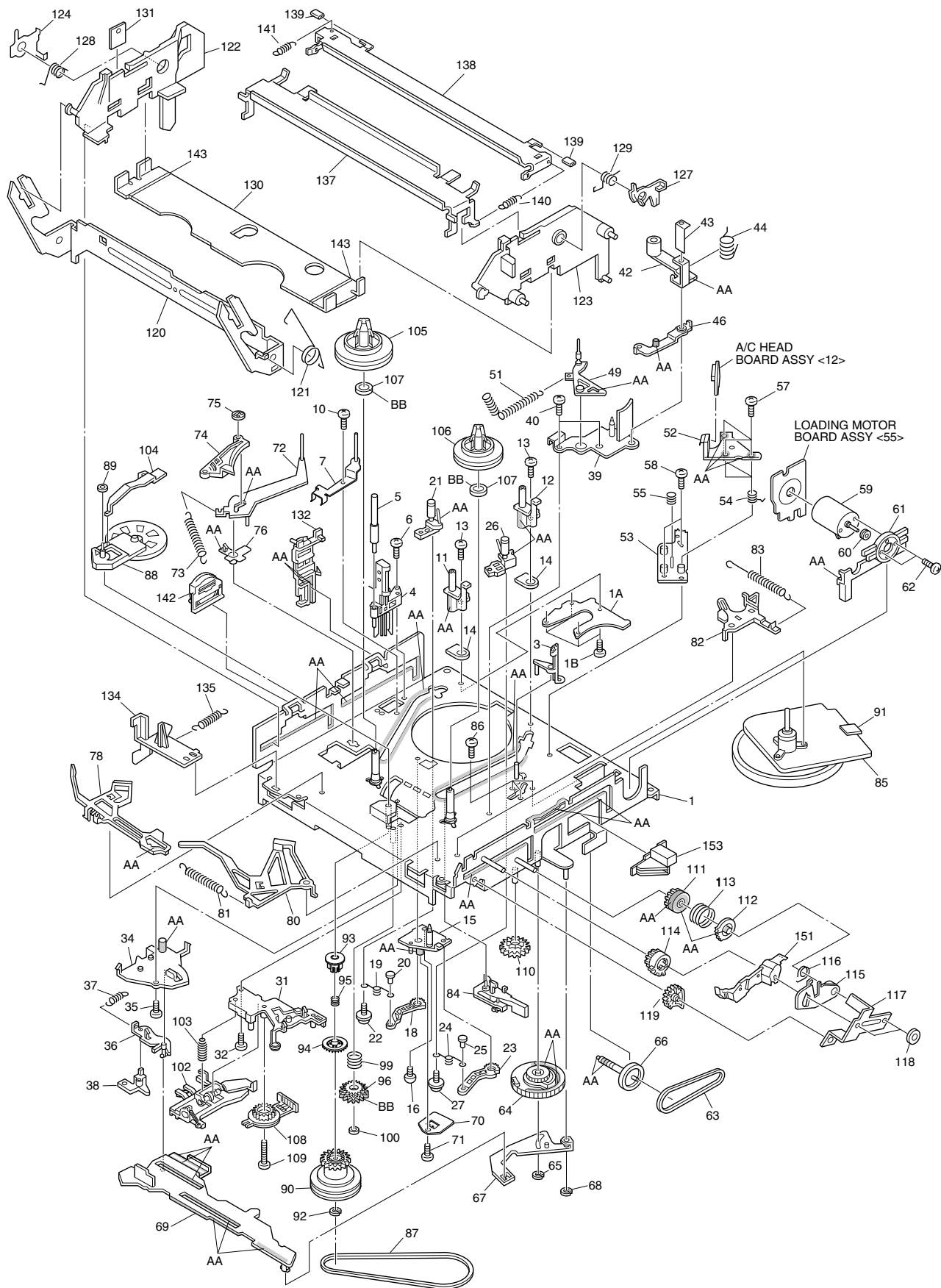
BEWARE OF BOGUS PARTS

This exploded view diagram illustrates the assembly of a device chassis. The components are organized into several main sections:

- Top Section:** Includes the **STICKER(2)**, **SC1**, **SC2**, **SC3**, **ET1 (Incl. 03)**, **S-SUB BOARD ASSY <15>**, **3D DIGITAL/4M BOARD ASSY <05>**, **RATING LABEL (SIRIAL)**, **PATENT LABEL**, **SHEET (CAUTION)**, **SW. REG BOARD ASSY <01>**, and **SUB REG BOARD ASSY <02>**.
- Central Section:** Features the **MAIN BOARD ASSY <03>**, **D-PRE/REC BOARD ASSY <43>**, **DIGITAL BOARD ASSY <50>**, **REC SAFETY BOARD ASSY <32>**, **JACK BOARD ASSY <36>**, **DISPLAY BOARD ASSY <28>**, **STICKER(1)**, **501**, **501A**, **501B**, **501C**, **501D**, **501E**, **501F**, **501G**, **501H**, **501I**, **501J**, **501K**, **501L**, **501M**, **501N**, **501O**, **501P**, **501Q**, **501R**, **501S**, **501T**, **501U**, **501V**, **501W**, **501X**, **501Y**, **501Z**, **502**, **503**, **504**, **505**, **506**, **507**, **508**, **509**, **510**, **511**, **512**, **513**, **514**, **515**, **516**, **517**, **518**, **518A**, **518B**, **518C**, **519**, **520**, **521**, **522**, **523**, **524**, **525**, **526**, **527**, **528**, **529**, **530**, **531**, **532**, **533**, **534**, **535**, **536**, **537**, **538**, **539**, **540**, **541**, **542**, **543**, **544**, **545**, **546**, **547**, **548**, **549**, **550**, **551**, **552**, **553**, **554**, **555**, **556**, **557**, **558**, **559**, **560**, **561**, **562**, **563**, **564**, **565**, **566**, **567**, **568**, **569**, **570**, **571**, **572**, **573**, **574**, **575**, **576**, **577**, **578**, **579**, **580**, **581**, **582**, **583**, **584**, **585**, **586**, **587**, **588**, **589**, **590**, **591**, **592**, **593**, **594**, **595**, **596**, **597**, **598**, **599**, **600**, **601**, **602**, **603**, **604**, **605**, **606**, **607**, **608**, **609**, **610**, **611**, **612**, **613**, **614**, **615**, **616**, **617**, **618**, **619**, **620**, **621**, **622**, **623**, **624**, **625**, **626**, **627**, **628**, **629**, **630**, **631**, **632**, **633**, **634**, **635**, **636**, **637**, **638**, **639**, **640**, **641**, **642**, **643**, **644**, **645**, **646**, **647**, **648**, **649**, **650**, **651**, **652**, **653**, **654**, **655**, **656**, **657**, **658**, **659**, **660**, **661**, **662**, **663**, **664**, **665**, **666**, **667**, **668**, **669**, **670**, **671**, **672**, **673**, **674**, **675**, **676**, **677**, **678**, **679**, **680**, **681**, **682**, **683**, **684**, **685**, **686**, **687**, **688**, **689**, **690**, **691**, **692**, **693**, **694**, **695**, **696**, **697**, **698**, **699**, **700**, **701**, **702**, **703**, **704**, **705**, **706**, **707**, **708**, **709**, **710**, **711**, **712**, **713**, **714**, **715**, **716**, **717**, **718**, **719**, **720**, **721**, **722**, **723**, **724**, **725**, **726**, **727**, **728**, **729**, **730**, **731**, **732**, **733**, **734**, **735**, **736**, **737**, **738**, **739**, **740**, **741**, **742**, **743**, **744**, **745**, **746**, **747**, **748**, **749**, **750**, **751**, **752**, **753**, **754**, **755**, **756**, **757**, **758**, **759**, **760**, **761**, **762**, **763**, **764**, **765**, **766**, **767**, **768**, **769**, **770**, **771**, **772**, **773**, **774**, **775**, **776**, **777**, **778**, **779**, **780**, **781**, **782**, **783**, **784**, **785**, **786**, **787**, **788**, **789**, **790**, **791**, **792**, **793**, **794**, **795**, **796**, **797**, **798**, **799**, **800**, **801**, **802**, **803**, **804**, **805**, **806**, **807**, **808**, **809**, **810**, **811**, **812**, **813**, **814**, **815**, **816**, **817**, **818**, **819**, **820**, **821**, **822**, **823**, **824**, **825**, **826**, **827**, **828**, **829**, **830**, **831**, **832**, **833**, **834**, **835**, **836**, **837**, **838**, **839**, **840**, **841**, **842**, **843**, **844**, **845**, **846**, **847**, **848**, **849**, **850**, **851**, **852**, **853**, **854**, **855**, **856**, **857**, **858**, **859**, **860**, **861**, **862**, **863**, **864**, **865**, **866**, **867**, **868**, **869**, **870**, **871**, **872**, **873**, **874**, **875**, **876**, **877**, **878**, **879**, **880**, **881**, **882**, **883**, **884**, **885**

#	△	REF No.	PART No.	PART NAME, DESCRIPTION	#	△	REF No.	PART No.	PART NAME, DESCRIPTION
*****					554			LP30312-001B	BRACKET(CHASSIS)
FINAL ASSEMBLY <M2>					555			QYTDSF3010Z	SCREW,X2
△		501	LP10353-003C	FRONT PANEL ASSY	556			LP40407-001A	KNOB ASSY,X2
		501A	LP20968-006A	CASSETTE DOOR	557			LP40370-001E	ROLLER ARM ASSY
		501B	PQ46448	TORSION SPRING	557A			PDM4311A-1	ROLLER ASSY
		501E	LP20970-003A	DOOR(JACK)	558			PQ44230	INERTIA PLATE
		501F	PU60109	CATCHER	559			QPH00702410	POLY SHEET,DOOR
		501G	LP20969-001A	DOOR	560			QYTDSF3010Z	SCREW,X2 FRONT PANEL
		501J	QZW0063-001	MAGNET LATCH,X2	WR2			QUQ112-0722CG	FFC WIRE,A/C HEAD CN2001
		501K	QZW0055-003	DAMPER	WR3			QUQ212-0524CG	FFC WIRE,DRUM CN3001
		501L	QYTDSF3010Z	SCREW	WR4			QUQ112-1012CG	FFC WIRE,DISPLAY CN3008
△		502	PQ11922-52-13	TOP COVER	WR5			QUQ112-1115CG	FFC WIRE,JACK CN901
		503	QYTDSF3010R	SCREW,X4 TOP COVER(SIDE)	WR7			QUQ212-2111CG	FFC WIRE,MAIN CN5503
		504	QYTDSF3010M	SCREW,TOP COVER(REAR)	WR8			QUQ210-1622CC	FFC WIRE,MAIN CN8002
		505	LP21000-001A	DRUM SUB ASSY	WR9			QUQ112-1212CG	FFC WIRE,MAIN CN9801
		505E	LP40323-001A	CONTACT	WR10			WJN0051-001A	E-SH C WIRE C-C,DIGITAL CN601
		505F	LP30004-014A	COMPRESSION SPRING	WR11			WJN0051-002A	E-SH C WIRE C-C,DIGITAL CN603
		506	PDZ0179-1-4	ROTOR ASSY	WR12			QJJ001-046634	SIN CR C-C WIRE,DIGITAL CN5502
		507	QYSPSP3006Z	SCREW,X2	WR13			QJJ001-127231	SIN CR C-C WIRE,DIGITAL CN5302
△		508	QAR0119-001	STATOR ASSY	WR14			QUQ212-0510CG	FFC WIRE,DISPLAY CN5303
		509	QYSPSPH2606Z	SCREW,X2	WR15			QUQ210-0932CC	FFC WIRE,DIGITAL CN7104
		510	QYTDST2610Z	SCREW,X3 DRUM	WR16			WJN0049-001A	E-SH C WIRE C-C,FRONT
△		511	LP10140-008B	BOTTOM CHASSIS	WR17			QUB220-13RLRL	GND WIRE,PRE/REC
△		512	PQ11921-1-4	BOTTOM COVER					
		513	QYTDSF3010Z	SCREW,X2					
		514	QYTDSF3010M	SCREW,DIGITAL					
		515	QYTDSF3010M	SCREW,TERMINAL					
		516	QYTPSFG3010Z	SCREW,X2 TERMINAL					
		518	LP40369-001D	CLEANER ASSY					
		518A	PQ46418-1-2	CLEANER ROLLER					
		518B	PQ46419-1-2	CLEANER					
		518C	LP30407-001D	CLEANER ARM					
		520	LP30806-001A	WINDOW(DOOR)					
		521	QYLSF2040D	SCREW					
		522	LP40588-002A	MARK(D-VHS)					
		523	LP20993-002D	COVER ASSY(FRONT)					
		524	LP40692-001A	WINDOW(IR)					
		525	LP40695-001A	EARTH PLATE(1394)					
		526	QYTDSF2608Z	SCREW,X2 WR16					
		527	PQ46617C	FOOT ASSY,X2					
		528	PQ35504	FOOT(2),X2					
△		530	QMPD190-170-K	POWER CORD					
		531	LP40700-001A	SPECIAL SCREW,MECHA					
		532	QYTDSF4012Z	SCREW,MECHA					
		533	LP40226-001A	PC SUPPORT,X2					
		535	QYTDSF3010Z	SCREW,X2 MECHA					
		536	LP20941-001A	SHIELD CASE(PRE)					
		537	QYTDST2606Z	SCREW,PRE/REC					
		539	QYTDST2606Z	SCREW,MAIN					
		540	QQR0917-001	CORE FILTER					
		541	PQ41556	EARTH PLATE					
		542	QYTDSF3010Z	SCREW,X3 DIGITAL					
		543	QYTDSF3010Z	SCREW,X2 REG					
		544	QYTDSF3010Z	SCREW,REC SAFETY					
		545	PU59311	WIRE CLAMP					
		546	PU43192-4	BINDER					
		548	QAR0174-001	FAN MOTOR					
		549	LP40587-001A	SPECIAL SCREW,X4					
		550	LP20838-002B	COVER(FAN)					

5.3 MECHANISM ASSEMBLY <M4>



Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-P	AA
Oil	COSMO-HV56	BB

NOTE: The section marked in **AA** and **BB** indicate lubrication and greasing areas.

#	△	REF No.	PART No.	PART NAME, DESCRIPTION	#	△	REF No.	PART No.	PART NAME, DESCRIPTION

MECHANISM ASSEMBLY <M4>									
1			LP20884-002F	MAIN DECK ASSY	73			LP30003-010A	TENSION SPRING
1A			LP40275-002B	PLATE(S)	74			LP40109-003D	TENSION BRAKE ASSY
1B			QYTDST2606Z	SCREW,X4	75			PQ46302-1-3	ADJUST PIN
3			LP30492-002B	GIDE POLE GUARD	76			LP30232-002A	TENSION ARM BEARING
4			NAH0001-001	FULL ERASE HEAD	78			LP40532-009B	MAIN BRAKE ASSY (SUPPLY)
5			LP40098-001B	GUIDE POLE(SUPPLY)	80			LP40111-014C	MAIN BRAKE ASSY (TAKE UP)
6			QYTDST2608Z	SCREW	81			LP30003-029A	TENSION SPRING
7			LP40637-002A	TENSION STUD BASE ASSY	82			LP40112-001F	SUB BRAKE ASSY(TAKE UP)
10			QYTDST2606Z	SCREW	83			LP40357-001B	TENSION SPRING
11			LP30409-002C	UV CATCHER 2(SUPPLY)	84			LP40461-001A	CAPSTAN BRAKE ASSY
12			LP30409-002C	UV CATCHER 2(TAKE UP)	85			QAR0132-001	CAPSTAN MOTOR
13			QYTPST2606Z	SCREW,X2	86			QYTDSF2606M	SCREW,X3
14			PQ40919-10	SPACER,X2	87			LP30005-008A	BELT,CAPSTAN MOTOR
15			LP30223-003C	LOADING ARM GEAR SHAFT	88			LP40114-011B	IDLER ARM ASSY
16			QYTDST2606Z	SCREW	89			LP30016-001A	SLIT WASHER
18			LP30224-001B	LOADING ARM GEAR(SUPPLY)	90			LP40593-003B	CLUTCH UNIT 3
19			LP40099-001A	TORSION ARM	91			LP30002-097A	SPACER,CAPSTAN MOTOR
20			LP40100-001A	PIN	92			PQM30017-47	SLIT WASHER
21			LP40101-007A	POLE BASE ASSY(SUPPLY)	93			LP30696-002A	CLUTCH GEAR 4
22			QYSPSTG2606Z	SCREW	94			LP30697-003A	COUPLING GEAR
23			LP40103-002B	LOADING ARM GEAR(TAKE UP)	95			LP40554-002A	COMPRESSION SPRING
24			LP40099-001A	TORSION ARM	96			LP40442-001A	DIRECT GEAR
25			LP40100-001A	PIN	99			LP40483-002A	COMPRESSION SPRING
26			LP40104-008A	POLE BASE ASSY(TAKE UP)	100			LP30016-001A	SLIT WASHER
27			QYSPSTG2606Z	SCREW	102			LP40484-003B	CHANGE LEVER ASSY
31			LP20233-004B	ROTARY ENCODER GUIDE	103			LP40512-002B	COMPRESSION SPRING
32			QYTPST2606Z	SCREW	104			LP30236-002C	IDLER LEVER
34			LP30226-004E	CONTROL PLATE GUIDE	105			LP20237-003B	REEL DISK (SUPPLY)
35			QYTPST2605Z	SCREW	106			LP20238-003B	REEL DISK (TAKE UP)
36			LP30249-003B	TAKE UP LEVER	107			LP30017-015A	SPACER,X2
37			LP30003-006A	TENSION SPRING	108			QSW0554-003	ROTARY ENCODER
38			LP40119-002A	TAKE UP HEAD	109			LP40746-001A	SPECIAL SCREW
39			LP20234-004B	LID GUIDE	110			LP30237-002B	CASSETTE GEAR
40			QYTDST2606Z	SCREW,X2	111			LP30239-002G	LIMIT GEAR(1)
42			LP40105-003A	PINCH ROLLER ARM ASSY	112			LP30240-002G	LIMIT GEAR(2)
43			LP40753-001A	PINCH ROLLER SHEET 3	113			LP40136-001E	TORSION SPRING
44			LP40148-002A	TORSION SPRING	114			LP30242-002B	RELAY GEAR
46			LP40149-001C	PRESS LEVER ASSY	115			LP30339-002E	OPENER GUIDE
49			LP40106-007A	GUIDE ARM ASSY	116			LP40545-001A	TORSION SPRING
51			LP40134-002A	TENSION SPRING	117			LP40214-001B	C.H.BRACKET
52			QAH0010-005	AC HEAD	118			PQM30017-47	SLIT WASHER,X2
53			LP30228-001C	HEAD BASE	119			LP30243-002A	DRIVE GEAR
54			LP30004-013A	COMPRESSION SPRING,X3	120			LP20240-001G	DRIVE ARM
55			LP40236-001A	COMPRESSION SPRING	121			LP40137-001A	TORSION SPRING
57			LP40213-002B	SPECIAL SCREW,X3	122			LP10081-002L	SIDE HOLDER(L)
58			QYTDST2608Z	SCREW,X2	123			LP10082-002U	SIDE HOLDER(R)
59			QAR0023-001	LOADING MOTOR	124			LP30255-006B	LOCK LEVER(L)
60			PQ43546-1-2	MOTOR PULLEY	127			LP30256-001H	LOCK LEVER(R)
61			LP30230-003D	MOTOR GUIDE	128			LP40168-001A	TORSION SPRING(L)
62			QYTPSP3003Z	SCREW,X2	129			LP40218-001B	TORSION SPRING(R)
63			LP30005-003A	BELT,LOADING MOTOR	130			LP30257-001G	CASSETTE HOLDER
64			LP20791-002D	CONTROL CAM	131			PQ40919-30	SPACER,EARTH PLATE
65			PQM30017-24	SLIT WASHER	132			LP30244-002G	GUIDE RAIL
66			LP40120-001A	WORM GEAR	134			LP30245-002F	REC SAFETY LEVER
67			LP40107-002A	LINK LEVER ASSY	135			LP30003-004A	TENSION SPRING
68			PQM30017-24	SLIT WASHER	137			LP20578-001C	TOP GUIDE
69			LP10284-002E	CONTROL PLATE	138			LP30500-001C	HOLD PLATE
70			LP40379-001B	CONTROL BRACKET(1)	139			LP40450-003A	PAD,X2
71			QYTDSF2608M	SCREW	140			LP30003-025B	TENSION SPRING
72			LP40108-002A	TENSION ARM ASSY	141			LP30003-024A	TENSION SPRING
					142			LP40481-003A	ROLLER CAM ASSY
					143			LP30019-014A	PAD,X2
					151			LP20324-003B	DOOR OPENER
					153			LP30493-001B	START SENSOR CAP

5.4 ELECTRICAL PARTS LIST

#	△ REF No.	PART No.	PART NAME, DESCRIPTION

SW.REG BOARD ASSEMBLY <01>			
PW1		LPA10118-02B1	SW.REG BOARD ASSY
IC5101		STR-F6555	IC
IC5301		L5431	IC
		or MM1431AT	IC
		or UTCTL431	IC
IC5302		PQ5EV3	IC
IC5303		PQ5EV3	IC
IC5304		PQ5EV3	IC
IC5305		PQ5EV3	IC
IC5306		PQ15RW11	IC
IC5307		PQ15RW21	IC
Q5301		2SD2144S/UV/-T	TRANSISTOR
Q5302		DTA114EU	TRANSISTOR
		or PDA114EU	TRANSISTOR
		or RN2302	TRANSISTOR
		or UN5111	TRANSISTOR
Q5303		DTC114EU	TRANSISTOR
		or PDTC114EU	TRANSISTOR
		or UN5211	TRANSISTOR
		or RN1302	TRANSISTOR
Q5304		2SD1819A/RS/-X	TRANSISTOR
		or 2PC4081/R/-X	TRANSISTOR
		or 2SC4081/RS/-X	TRANSISTOR
Q5305		DTA114EU	TRANSISTOR
		or PDA114EU	TRANSISTOR
		or UN5111	TRANSISTOR
		or RN2302	TRANSISTOR
D5001		D3SBA60	BRIDGE DIODE
D5101		SARS01	DIODE
D5102		AU01Z	FR DIODE
		or ERA18-02-T2	FR DIODE
		or PG104RS	FR DIODE
		or 10ELS2	FR DIODE
		or 1SR153-400-T2	FR DIODE
D5103		QUY153-050Y	IM BUS WIRE
D5201		AK04	DIODE
		or 1S4	SB DIODE
		or 11EQS04	SB DIODE
D5202		SB640FCT	SB DIODE
		or FSQ05A04B	SB DIODE
		or YG801C04	SB DIODE
		or SF5SC4	SB DIODE
D5204		SB640FCT	SB DIODE
		or FSQ05A04B	SB DIODE
		or SF5SC4	SB DIODE
		or YG801C04	SB DIODE
D5205		FML-12S	FR DIODE
		or ER602FCT	FR DIODE
		or YG901C2	FR DIODE
		or FCF06A20	FR DIODE
		or SF5LC20U	FR DIODE
D5207		10ELS2	FR DIODE
		or 1SR153-400-T2	FR DIODE
		or ERA18-02-T2	FR DIODE
		or PG104RS	FR DIODE
D5208		AU01Z	FR DIODE
		or ERA18-02-T2	FR DIODE

#	△ REF No.	PART No.	PART NAME, DESCRIPTION
		or PG104RS	FR DIODE
		or 1SR153-400-T2	FR DIODE
		or 10ELS2	FR DIODE
D5209		AU01Z	FR DIODE
		or PG104RS	FR DIODE
		or 1SR153-400-T2	FR DIODE
		or 10ELS2	FR DIODE
		or ERA18-02-T2	FR DIODE
D5301		MTZJ15A	ZENER DIODE
		or RD15ES/B1/-T2	ZENER DIODE
D5302		MTZJ3.3B	ZENER DIODE
		or RD3.3ES/B2/-T2	ZENER DIODE
D5303		1SS133	DIODE
		or 1SS270A	DIODE
D5304		1SS355	DIODE
D5310		1SS133	DIODE
		or 1SS270A	DIODE
D5311		MTZJ27C	ZENER DIODE
		or RD27ES/B3/-T2	ZENER DIODE
D5312		FMM-24U	DIODE
D5314		MTZJ7.5A	ZENER DIODE
		or RD7.5ES/B1/-T2	ZENER DIODE
D5315		FMM-24U	DIODE
△ R5001		QRZ9046-475Z	RESISTOR 4.7MΩ,1/2W
R5101		QRG02GJ-683	OMF RESISTOR 68kΩ,2W
R5102		QRE141J-560Y	RESISTOR 56Ω,1/4W
R5103		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W
R5104		QRE141J-681Y	RESISTOR 680Ω,1/4W
R5105		QRT01DJ-R27X	MF RESISTOR 0.27Ω,1W
R5106		QRE141J-684Y	RESISTOR 680kΩ,1/4W
△ R5107		QRZ9052-470Y	FUSI RESISTOR 47Ω,1/4W
R5301		QRE141J-1R8Y	RESISTOR 1.8Ω,1/4W
R5304		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R5305		NRSA02J-222X	MG RESISTOR 2.2kΩ,1/10W
R5306		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R5307		NRVA02D-133X	CMF RESISTOR 13kΩ,1/10W
R5308		NRVA02D-682X	CMF RESISTOR 6.8kΩ,1/10W
R5309		NRVA02D-472X	CMF RESISTOR 4.7kΩ,1/10W
R5310		NRVA02D-682X	CMF RESISTOR 6.8kΩ,1/10W
R5311		NRVA02D-223X	CMF RESISTOR 22kΩ,1/10W
R5312		NRVA02D-123X	CMF RESISTOR 12kΩ,1/10W
R5313		NRVA02D-153X	CMF RESISTOR 15kΩ,1/10W
R5314		NRVA02D-113X	CMF RESISTOR 11kΩ,1/10W
△ R5315		QRZ9005-101X	FUSI RESISTOR 100Ω,1/4W
R5316		QRL02DJ-821X	OMF RESISTOR 820Ω,2W
△ R5317		QRZ9006-4R7X	FUSI RESISTOR 4.7Ω,1/4W
R5318		NRSA02J-221X	MG RESISTOR 220Ω,1/10W
R5319		NRSA02J-472X	MG RESISTOR 4.7kΩ,1/10W
R5320		NRSA02J-152X	MG RESISTOR 1.5kΩ,1/10W
R5321		NRVA02D-562X	CMF RESISTOR 5.6kΩ,1/10W
R5322		NRVA02D-392X	CMF RESISTOR 3.9kΩ,1/10W
R5323		NRSA02J-122X	MG RESISTOR 1.2kΩ,1/10W
R5324		NRSA02J-681X	MG RESISTOR 680Ω,1/10W
R5325		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W
R5326		NRSA02J-391X	MG RESISTOR 390Ω,1/10W
R5327		NRVA02D-563X	CMF RESISTOR 56kΩ,1/10W
R5328		NRVA02D-153X	CMF RESISTOR 15kΩ,1/10W
R5329		NRVA02D-163X	CMF RESISTOR 16kΩ,1/10W
R5331		NRVA02D-682X	CMF RESISTOR 6.8kΩ,1/10W
R5332		NRVA02D-202X	CMF RESISTOR 2kΩ,1/10W
R5333		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W

#	△	REF No.	PART No.	PART NAME, DESCRIPTION	#	△	REF No.	PART No.	PART NAME, DESCRIPTION		
			B5003	QUY160-100Y	IM BUS WIRE			SD2	LP20943-001A	SHIELD COVER(REG)	
			B5004	QUY160-100Y	IM BUS WIRE			FC5001	QNG0006-001Z	FUSE CLIP,F5001	
			B5302	QUY160-100Y	IM BUS WIRE			FC5002	QNG0006-001Z	FUSE CLIP,F5001	
			B5305	QUY153-050Y	IM BUS WIRE		△	LF5002	QQR0908-001	LINE FILTER	
			B5307	QUY153-050Y	IM BUS WIRE		△	VA5001	QAF0023-431Z	VARISTOR	
△			C5001	QFZ9073-683	F CAPACITOR	0.068μF,250V		△	CN5001	QGA7901C3-02	CONNECTOR,(1-2)AC IN
△			C5002	QFZ9051-223	F CAPACITOR	0.022μF,250V		CN5301	QGB2530K1-14	CONNECTOR,(1-14)SUB REG	
			C5003	QEZO516-337	E CAPACITOR	330μF,200V		CN5302	QGA2001F1-12	CONNECTOR,(1-12)DIGITAL	
△			C5004	QCZ9094-472	CAPACITOR	0.0047μF,125V		CN5303	QGF1207C1-05	FPC CONNECTOR,(1-5)DISPLAY	
△			C5005	QCZ9071-101	CAPACITOR	100pF,250V		△	CP5301	ICP-N20	CIRCUIT PROTECTOR
△			C5006	QCZ9071-101	CAPACITOR	100pF,250V		△	F5001	QMF51N2-2R0J1	FUSE T2.0A,AC250V
			C5102	QEMT1VM-276	E CAPACITOR	27μF,35V					
			C5103	QCZO302-330Z	CAPACITOR	33pF,1kV					
			C5104	QFLC1HJ-471Z	F CAPACITOR	470pF,50V					
			C5106	QCZO212-472	CAPACITOR	0.0047μF,1kV					
			C5107	QUY153-050Y	IM BUS WIRE		*****				
			C5201	QEMU0JM-227	E CAPACITOR	220μF,6.3V					
			C5202	NCB21HK-103X	CAPACITOR	0.01μF,50V					
			C5203	QECPOJM-478	E CAPACITOR	4700μF,6.3V					
			C5205	QECPP1AM-338	E CAPACITOR	3300μF,10V					
			C5206	QECPP1CM-687	E CAPACITOR	680μF,16V					
			C5207	QECPP1VM-157	E CAPACITOR	150μF,35V					
			C5208	QETN2AM-475	E CAPACITOR	4.7μF,100V					
			C5209	QEMU1HM-186	E CAPACITOR	18μF,50V					
			C5301	QETN1AM-477	E CAPACITOR	470μF,10V					
			C5303	QETN1AM-337	E CAPACITOR	330μF,10V					
			C5304	QETN1CM-337	E CAPACITOR	330μF,16V					
			C5306	QFVF1HJ-154Z	F CAPACITOR	0.15μF,50V					
			C5307	QFLC1HJ-333Z	F CAPACITOR	0.033μF,50V					
			C5308	QETN1EM-476	E CAPACITOR	47μF,25V					
			C5309	NCB21HK-102X	CAPACITOR	0.001μF,50V					
			C5310	QETN1AM-107	E CAPACITOR	100μF,10V					
			C5311	NCB21HK-102X	CAPACITOR	0.001μF,50V					
			C5312	QETN1AM-107	E CAPACITOR	100μF,10V					
			C5313	NCB21HK-102X	CAPACITOR	0.001μF,50V					
			C5314	QETN1AM-107	E CAPACITOR	100μF,10V					
			C5315	NCB21HK-102X	CAPACITOR	0.001μF,50V					
			C5316	QETN1AM-107	E CAPACITOR	100μF,10V					
			C5317	NCB21HK-102X	CAPACITOR	0.001μF,50V					
			C5318	QETN1AM-107	E CAPACITOR	100μF,10V					
			C5319	NCB21HK-102X	CAPACITOR	0.001μF,50V					
			C5320	QETN1AM-107	E CAPACITOR	100μF,10V					
			L5201	PELN0966-330L	COIL	33μH					
			L5203	PELN0966-330L	COIL	33μH					
			L5204	PELN1184	COIL	33μH					
			K5101	QQR0678-001Z	FERRITE BEAD						
△			PC5101	PS2501-1	PH COUPLER						
△			T5001	QQS0106-001	SW TRANSFORMER						
			CL1	PU59311-2	WIRE CLAMP						
			ET1	PQ44695-1-1	EARTH PLATE,X2						
			HS1	PEME0889-01-01	HEAT SINK,IC5101						
			HS2	QZW0059-001	HEAT SINK,D5202,4,5						
			HS4	QZW0047-002	HEAT SINK,IC5302						
			HS5	QZW0047-002	HEAT SINK,IC5305						
△			OT1	LP40768-001A	SPACER,SHIELD CASE						
			OT2	QYTDST3006Z	SCREW,X7 SHIELD CASE						
			OT4	QYTDST3006Z	SCREW,X2 EARTH PLATE						
			OT5	QYTDST3010Z	SCREW,IC5101						
			OT6	QYTDST3008Z	SCREW,X3 D5202,4,5						
			OT7	QYTDST3008Z	SCREW,X3 IC5302,3,5						
			SD1	LP20942-001A	SHIELD CASE(REG)						

#	△ REF No.	PART No.	PART NAME, DESCRIPTION
D5510		MTZJ12A	ZENER DIODE
		or RD12ES/B1/-T2	ZENER DIODE
R5501		NRSA02J-471X	MG RESISTOR 470Ω,1/10W
R5502		NRSA02J-473X	MG RESISTOR 47kΩ,1/10W
R5503		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R5504		QRE141J-102Y	RESISTOR 1kΩ,1/4W
R5505		NRSA02J-471X	MG RESISTOR 470Ω,1/10W
R5506		QRE141J-102Y	RESISTOR 1kΩ,1/4W
R5507		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R5508		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W
R5509		NRSA02J-471X	MG RESISTOR 470Ω,1/10W
R5510		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R5511		NRSA02J-122X	MG RESISTOR 1.2kΩ,1/10W
R5512		QRE123J-390X	RESISTOR 39Ω,1/2W
R5513		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W
R5514		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
B5502		QUY160-100Y	IM BUS WIRE
C5501		QETN1CM-107	E CAPACITOR 100μF,16V
C5503		QETN1CM-107	E CAPACITOR 100μF,16V
C5504		NCB21HK-103X	CAPACITOR 0.01μF,50V
L5501		QQL231J-R22Y	COIL 0.22μH
CN5501		QGB2530J1-14	CONNECTOR,(1-14)SW.REG
CN5502		QGA2001F1-04	CONNECTOR,(1-4)DIGITAL
CN5503		QGF1207F1-21	FPC CONNECTOR,(1-21)MAIN
CN5504		QGA2001F1-02	CONNECTOR,(1-2)

MAIN BOARD ASSEMBLY <03>

PW1	LPA10135-03D	MAIN BOARD ASSY
IC1	JCP8022-NSD-2	IC
IC2601	BU4052BCF	IC
IC2602	BA15218F-XE	IC
IC2603	BU4052BCF	IC
IC2604	BA15218F-XE	IC
IC2605	BU4053BCF	IC
IC2606	BA15218F-XE	IC
IC3001	HD6432194SXD28F	IC(MCU)
IC3002	S-80727AN-DQ-X	IC
	or R3111H271A	IC
	or S-80827ANUP-W	IC
IC3003	AT24C08-10PC	IC
	or 24LC08B/P	IC
IC3004	BA6956AN	IC
IC3005	BU2090FS	IC
IC3006	BU2090FS	IC
IC3007	BU2090FS	IC
IC6501	UPC1854AGT	IC
Q1	2SC4081/S/-X	TRANSISTOR
Q2	2SC4081/S/-X	TRANSISTOR
Q3	2SC4081/S/-X	TRANSISTOR
Q4	2SC4081/S/-X	TRANSISTOR
Q5	2SA1576A/QR/-X	TRANSISTOR
	or 2PA1576/R/-X	TRANSISTOR
Q7	2SC4081/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
Q8	2SC4081/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
Q9	2SA1576A/QR/-X	TRANSISTOR

#	△ REF No.	PART No.	PART NAME, DESCRIPTION
		or 2PA1576/R/-X	TRANSISTOR
Q12		2SA1576A/QR/-X	TRANSISTOR
		or 2PA1576/R/-X	TRANSISTOR
Q17		DTC144WU	TRANSISTOR
		or PDTC144WU	TRANSISTOR
		or UN521E	TRANSISTOR
		or RN1309	TRANSISTOR
Q21		2SA1576A/QR/-X	TRANSISTOR
		or 2PA1576/R/-X	TRANSISTOR
Q38		2SC4081/QRS/-X	TRANSISTOR
		or 2PC4081/R/-X	TRANSISTOR
Q46		DTA114WU	TRANSISTOR
Q47		DTA114WU	TRANSISTOR
Q48		2SC4081/S/-X	TRANSISTOR
Q49		2SC4081/S/-X	TRANSISTOR
Q251		DTC144WU	TRANSISTOR
Q252		2SA1576A/QR/-X	TRANSISTOR
Q253		2SC4081/QRS/-X	TRANSISTOR
Q1701		2SA1576A/QR/-X	TRANSISTOR
Q1702		2SA1576A/QR/-X	TRANSISTOR
Q1703		DTC144WU	TRANSISTOR
		or PDTC144WU	TRANSISTOR
		or RN1309	TRANSISTOR
		or UN521E	TRANSISTOR
Q1704		2SA1576A/QR/-X	TRANSISTOR
Q1705		DTC144WU	TRANSISTOR
		or PDTC144WU	TRANSISTOR
		or RN1309	TRANSISTOR
		or UN521E	TRANSISTOR
Q1706		DTC144WU	TRANSISTOR
		or PDTC144WU	TRANSISTOR
		or RN1309	TRANSISTOR
		or UN521E	TRANSISTOR
Q2001		2SC4081/QRS/-X	TRANSISTOR
		or 2SD1819A/QRS/-X	TRANSISTOR
		or 2PC4081/R/-X	TRANSISTOR
Q2002		2SC4081/QRS/-X	TRANSISTOR
		or 2PC4081/R/-X	TRANSISTOR
		or 2SD1819A/QRS/-X	TRANSISTOR
Q2003		DTA144WU	TRANSISTOR
		or PDTA144WU	TRANSISTOR
		or RN2309	TRANSISTOR
		or UN511E	TRANSISTOR
Q2004		DTC144WU	TRANSISTOR
		or PDTC144WU	TRANSISTOR
		or RN1309	TRANSISTOR
		or UN521E	TRANSISTOR
Q2006		2SC4081/QRS/-X	TRANSISTOR
		or 2SD1819A/QRS/-X	TRANSISTOR
		or 2PC4081/R/-X	TRANSISTOR
Q2051		2SC4081/QRS/-X	TRANSISTOR
		or 2SD1819A/QRS/-X	TRANSISTOR
		or 2PC4081/R/-X	TRANSISTOR
Q2052		2SA1576A/QR/-X	TRANSISTOR
		or 2PA1576/R/-X	TRANSISTOR
		or 2SB1218A/QR/-X	TRANSISTOR
Q2053		DTC144WU	TRANSISTOR
		or PDTC144WU	TRANSISTOR
		or RN1309	TRANSISTOR
		or UN521E	TRANSISTOR
Q2054		2SA1576A/QR/-X	TRANSISTOR

#	△	REF No.	PART No.	PART NAME, DESCRIPTION	#	△	REF No.	PART No.	PART NAME, DESCRIPTION
			or 2SB1218A/QR/-X	TRANSISTOR				or RN1311	TRANSISTOR
			or 2PA1576/R/-X	TRANSISTOR	Q3012			UN521E	TRANSISTOR
Q2251			DTA144WU	TRANSISTOR				or DTC144WU	TRANSISTOR
			or PDTA144WU	TRANSISTOR				or RN1309	TRANSISTOR
			or RN2309	TRANSISTOR				or PDTC144WU	TRANSISTOR
			or UN511E	TRANSISTOR	Q3013			UN521E	TRANSISTOR
Q2275			2SC4081/QRS/-X	TRANSISTOR				or DTC144WU	TRANSISTOR
			or 2SD1819A/QRS/-X	TRANSISTOR				or PDTC144WU	TRANSISTOR
			or 2PC4081/R/-X	TRANSISTOR				or RN1309	TRANSISTOR
Q2277			2SC4081/QRS/-X	TRANSISTOR	Q3014			UN521E	TRANSISTOR
			or 2PC4081/R/-X	TRANSISTOR				or DTC144WU	TRANSISTOR
			or 2SD1819A/QRS/-X	TRANSISTOR				or RN1309	TRANSISTOR
Q2278			2SC4081/QRS/-X	TRANSISTOR				or PDTC144WU	TRANSISTOR
			or 2SD1819A/QRS/-X	TRANSISTOR	Q3015			UN5211	TRANSISTOR
			or 2PC4081/R/-X	TRANSISTOR				or DTC114EU	TRANSISTOR
Q2279			DTA114EU	TRANSISTOR				or RN1302	TRANSISTOR
			or PDTA114EU	TRANSISTOR				or PDTC114EU	TRANSISTOR
			or RN2302	TRANSISTOR	Q4001			UN5211	TRANSISTOR
			or UN5111	TRANSISTOR				or DTC114EU	TRANSISTOR
Q2601			DTC144WU	TRANSISTOR				or PDTC114EU	TRANSISTOR
			or PDTC144WU	TRANSISTOR				or RN1302	TRANSISTOR
			or RN1309	TRANSISTOR	Q4002			UN5211	TRANSISTOR
			or UN521E	TRANSISTOR				or DTC114EU	TRANSISTOR
Q2602			DTA114EU	TRANSISTOR				or PDTC114EU	TRANSISTOR
			or PDTA114EU	TRANSISTOR				or RN1302	TRANSISTOR
			or UN5111	TRANSISTOR	Q4003			UN5211	TRANSISTOR
			or RN2302	TRANSISTOR				or DTC114EU	TRANSISTOR
Q2603			DTC114TU	TRANSISTOR				or RN1302	TRANSISTOR
			or PDTC114TU	TRANSISTOR				or PDTC114EU	TRANSISTOR
			or RN1311	TRANSISTOR	Q6501			DTC143TU	TRANSISTOR
			or UN5215	TRANSISTOR	Q6502			DTC143TU	TRANSISTOR
Q2604			DTC114TU	TRANSISTOR	Q6551			2SC1740S/QRS/-T	TRANSISTOR
			or PDTC114TU	TRANSISTOR				or 2SC3199/YG/-T	TRANSISTOR
			or UN5215	TRANSISTOR	Q7105			2SC1317/RS/-T	TRANSISTOR
			or RN1311	TRANSISTOR	D251			DA204U	DIODE
Q3001			2SD1819A/QRS/-X	TRANSISTOR	D2001			1SS355	DIODE
			or 2SC4081/QRS/-X	TRANSISTOR	D2121			MTZJ8.2C	ZENER DIODE
			or 2PC4081/R/-X	TRANSISTOR	D2601			DAN202U	DIODE
Q3002			PTZ-NV16	PHOTO TRANSISTOR	D3001			LNB2301L01VI	LE DIODE
			or PTZ-NV16A	PHOTO TRANSISTOR	D3002			1SS133	DIODE
Q3003			PTZ-NV16	PHOTO TRANSISTOR	D3003			RD39ES/B3/-T2	ZENER DIODE
			or PTZ-NV16A	PHOTO TRANSISTOR				or MTZJ39C	ZENER DIODE
Q3004			2SD1819A/QRS/-X	TRANSISTOR	D3004			11ES2	DIODE
			or 2PC4081/R/-X	TRANSISTOR				or 1A3G	DIODE
			or 2SC4081/QRS/-X	TRANSISTOR	D3005			11ES2	DIODE
Q3005			2SD1819A/QRS/-X	TRANSISTOR				or 1A3G	DIODE
			or 2SC4081/QRS/-X	TRANSISTOR	D3006			11ES2	DIODE
			or 2PC4081/R/-X	TRANSISTOR				or 1A3G	DIODE
Q3006			2SB1256	TRANSISTOR	D3007			11ES2	DIODE
Q3007			2SB1256	TRANSISTOR				or 1A3G	DIODE
Q3008			UN5111	TRANSISTOR	D3008			11ES2	DIODE
			or RN2302	TRANSISTOR				or 1A3G	DIODE
			or DTA114EU	TRANSISTOR	D3009			11ES2	DIODE
			or PDTA114EU	TRANSISTOR				or 1A3G	DIODE
Q3009			DTC114TU	TRANSISTOR	D3010			QUY153-050Y	IM BUS WIRE
			or PDTC114TU	TRANSISTOR	D3011			1SS133	DIODE
			or UN5215	TRANSISTOR	D4001			QUY153-050Y	IM BUS WIRE
			or RN1311	TRANSISTOR	D4002			QUY153-050Y	IM BUS WIRE
Q3010			DTC114TU	TRANSISTOR	D6002			HZ30-2L-T2	ZENER DIODE
			or PDTC114TU	TRANSISTOR				or HZ30-2LTD	Z DIODE (M)
			or UN5215	TRANSISTOR	D6551			MTZJ10B	ZENER DIODE

#	△ REF No.	PART No.	PART NAME, DESCRIPTION	#	△ REF No.	PART No.	PART NAME, DESCRIPTION
R1		NRVA02D-622X	CMF RESISTOR 6.2kΩ,1/10W	R2017		NRSA02J-153X	MG RESISTOR 15kΩ,1/10W
R2		NRVA02D-152X	CMF RESISTOR 1.5kΩ,1/10W	R2018		NRSA02J-472X	MG RESISTOR 4.7kΩ,1/10W
R3		NRSA02J-471X	MG RESISTOR 470Ω,1/10W	R2019		NRSA02J-472X	MG RESISTOR 4.7kΩ,1/10W
R5		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W	R2020		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R6		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R2021		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R7		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R2022		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R8		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W	R2023		NRSA02J-473X	MG RESISTOR 47kΩ,1/10W
R9		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W	R2053		NRSA02J-472X	MG RESISTOR 4.7kΩ,1/10W
R21		NRSA02J-101X	MG RESISTOR 100Ω,1/10W	R2054		NRSA02J-123X	MG RESISTOR 12kΩ,1/10W
R22		NRSA02J-101X	MG RESISTOR 100Ω,1/10W	R2055		NRSA02J-3R3X	MG RESISTOR 3.3Ω,1/10W
R23		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R2056		NRSA02J-820X	MG RESISTOR 82Ω,1/10W
R25		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R2057		NRSA02J-473X	MG RESISTOR 47kΩ,1/10W
R26		NRSA02J-822X	MG RESISTOR 8.2kΩ,1/10W	R2058		NRSA02J-183X	MG RESISTOR 18kΩ,1/10W
R27		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R2059		NRSA02J-473X	MG RESISTOR 47kΩ,1/10W
R28		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R2060		NRSA02J-183X	MG RESISTOR 18kΩ,1/10W
R29		NRSA02J-222X	MG RESISTOR 2.2kΩ,1/10W	R2121		QRE141J-151Y	RESISTOR 150Ω,1/4W
R30		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W	R2202		NRSA02J-682X	MG RESISTOR 6.8kΩ,1/10W
R31		NRSA02J-122X	MG RESISTOR 1.2kΩ,1/10W	R2203		NRSA02J-682X	MG RESISTOR 6.8kΩ,1/10W
R32		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R2204		NRSA02J-332X	MG RESISTOR 3.3kΩ,1/10W
R34		NRSA02J-223X	MG RESISTOR 22kΩ,1/10W	R2205		NRSA02J-332X	MG RESISTOR 3.3kΩ,1/10W
R36		NRSA02J-182X	MG RESISTOR 1.8kΩ,1/10W	R2206		NRSA02J-101X	MG RESISTOR 100Ω,1/10W
R39		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W	R2207		NRSA02J-332X	MG RESISTOR 3.3kΩ,1/10W
R42		NRSA02J-681X	MG RESISTOR 680Ω,1/10W	R2218		NRSA02J-393X	MG RESISTOR 39kΩ,1/10W
R44		NRSA02J-473X	MG RESISTOR 47kΩ,1/10W	R2223		NRSA02J-123X	MG RESISTOR 12kΩ,1/10W
R45		NRSA02J-153X	MG RESISTOR 15kΩ,1/10W	R2228		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R46		NRSA02J-331X	MG RESISTOR 330Ω,1/10W	R2251		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R48		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R2281		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R68		NRSA02J-222X	MG RESISTOR 2.2kΩ,1/10W	R2283		NRSA02J-222X	MG RESISTOR 2.2kΩ,1/10W
R70		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W	R2284		NRSA02J-222X	MG RESISTOR 2.2kΩ,1/10W
R77		NRSA02J-223X	MG RESISTOR 22kΩ,1/10W	R2285		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R90		NRSA02J-471X	MG RESISTOR 470Ω,1/10W	R2289		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R92		NRSA02J-152X	MG RESISTOR 1.5kΩ,1/10W	R2290		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R93		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R2291		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R94		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W	R2601		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W
R104		NRSA02J-682X	MG RESISTOR 6.8kΩ,1/10W	R2602		NRSA02J-223X	MG RESISTOR 22kΩ,1/10W
R113		NRSA02J-101X	MG RESISTOR 100Ω,1/10W	R2603		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R251		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R2604		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R252		NRSA02J-152X	MG RESISTOR 1.5kΩ,1/10W	R2605		NRSA02J-223X	MG RESISTOR 22kΩ,1/10W
R253		NRSA02J-123X	MG RESISTOR 12kΩ,1/10W	R2606		NRSA02J-221X	MG RESISTOR 220Ω,1/10W
R254		NRSA02J-822X	MG RESISTOR 8.2kΩ,1/10W	R2607		NRSA02J-221X	MG RESISTOR 220Ω,1/10W
R255		NRSA02J-223X	MG RESISTOR 22kΩ,1/10W	R2610		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W
R256		NRSA02J-104X	MG RESISTOR 100kΩ,1/10W	R2611		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R257		NRSA02J-331X	MG RESISTOR 330Ω,1/10W	R2612		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R1701		NRSA02J-221X	MG RESISTOR 220Ω,1/10W	R2613		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R1702		NRSA02J-681X	MG RESISTOR 680Ω,1/10W	R2614		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R1703		NRSA02J-561X	MG RESISTOR 560Ω,1/10W	R2615		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R1704		NRSA02J-393X	MG RESISTOR 39kΩ,1/10W	R2616		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R1705		NRSA02J-683X	MG RESISTOR 68kΩ,1/10W	R2619		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W
R1706		NRSA02J-393X	MG RESISTOR 39kΩ,1/10W	R2621		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W
R1707		NRSA02J-472X	MG RESISTOR 4.7kΩ,1/10W	R2622		NRSA02J-473X	MG RESISTOR 47kΩ,1/10W
R1708		NRSA02J-473X	MG RESISTOR 47kΩ,1/10W	R2623		NRSA02J-332X	MG RESISTOR 3.3kΩ,1/10W
R2003		NRSA02J-101X	MG RESISTOR 100Ω,1/10W	R2624		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W
R2004		NRSA02J-332X	MG RESISTOR 3.3kΩ,1/10W	R2626		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W
R2006		NRSA02J-393X	MG RESISTOR 39kΩ,1/10W	R2627		NRSA02J-473X	MG RESISTOR 47kΩ,1/10W
R2009		NRSA02J-123X	MG RESISTOR 12kΩ,1/10W	R2628		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W
R2011		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R2629		NRSA02J-332X	MG RESISTOR 3.3kΩ,1/10W
R2012		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R2632		NRSA02J-473X	MG RESISTOR 47kΩ,1/10W
R2013		NRSA02J-682X	MG RESISTOR 6.8kΩ,1/10W	R2633		NRSA02J-153X	MG RESISTOR 15kΩ,1/10W
R2014		NRSA02J-224X	MG RESISTOR 220kΩ,1/10W	R2636		NRSA02J-473X	MG RESISTOR 47kΩ,1/10W
R2015		NRSA02J-181X	MG RESISTOR 180Ω,1/10W	R2637		NRSA02J-153X	MG RESISTOR 15kΩ,1/10W
R2016		NRSA02J-473X	MG RESISTOR 47kΩ,1/10W	R2640		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W

#	△	REF No.	PART No.	PART NAME, DESCRIPTION	#	△	REF No.	PART No.	PART NAME, DESCRIPTION
R2643			NRSA02J-221X	MG RESISTOR 220Ω, 1/10W	R3076			NRSA02J-101X	MG RESISTOR 100Ω, 1/10W
R2644			NRSA02J-221X	MG RESISTOR 220Ω, 1/10W	R3077			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R2646			NRSA02J-473X	MG RESISTOR 47kΩ, 1/10W	R3078			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R2647			NRSA02J-473X	MG RESISTOR 47kΩ, 1/10W	R3079			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R2648			NRSA02J-473X	MG RESISTOR 47kΩ, 1/10W	R3080			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R2649			NRSA02J-473X	MG RESISTOR 47kΩ, 1/10W	R3081			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R2652			NRSA02J-221X	MG RESISTOR 220Ω, 1/10W	R3083			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R2653			NRSA02J-221X	MG RESISTOR 220Ω, 1/10W	R3085			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R2654			NRSA02J-151X	MG RESISTOR 150Ω, 1/10W	R3086			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R2655			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W	R3087			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R2656			QRE141J-390Y	RESISTOR 39Ω, 1/4W	R3088			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R3011			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W	R3089			NRSA02J-101X	MG RESISTOR 100Ω, 1/10W
R3012			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W	R3090			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R3013			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W	R3091			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R3014			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W	R3092			NRSA02J-101X	MG RESISTOR 100Ω, 1/10W
R3015			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W	R3093			NRSA02J-101X	MG RESISTOR 100Ω, 1/10W
R3016			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W	R3094			NRSA02J-101X	MG RESISTOR 100Ω, 1/10W
R3017			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W	R3095			NRSA02J-101X	MG RESISTOR 100Ω, 1/10W
R3018			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W	R3097			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R3019			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W	R3103			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R3020			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W	R3105			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R3021			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W	R3201			NRSA02J-103X	MG RESISTOR 10kΩ, 1/10W
R3025			NRSA02J-222X	MG RESISTOR 2.2kΩ, 1/10W	R3202			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W
R3026			NRSA02J-222X	MG RESISTOR 2.2kΩ, 1/10W	R3203			NRSA02J-103X	MG RESISTOR 10kΩ, 1/10W
R3027			NRSA02J-222X	MG RESISTOR 2.2kΩ, 1/10W	R3204			NRSA02J-222X	MG RESISTOR 2.2kΩ, 1/10W
R3029			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W	R3205			NRSA02J-181X	MG RESISTOR 180Ω, 1/10W
R3030			NRSA02J-0R0X	MG RESISTOR 0Ω, 1/10W	R3206			NRSA02J-183X	MG RESISTOR 18kΩ, 1/10W
R3033			NRSA02J-0R0X	MG RESISTOR 0Ω, 1/10W	R3207			NRSA02J-183X	MG RESISTOR 18kΩ, 1/10W
R3034			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W	R3208			NRSA02J-181X	MG RESISTOR 180Ω, 1/10W
R3035			NRSA02J-0R0X	MG RESISTOR 0Ω, 1/10W	R3209			NRSA02J-273X	MG RESISTOR 27kΩ, 1/10W
R3036			NRSA02J-222X	MG RESISTOR 2.2kΩ, 1/10W	R3210			NRSA02J-181X	MG RESISTOR 180Ω, 1/10W
R3037			NRSA02J-222X	MG RESISTOR 2.2kΩ, 1/10W	R3211			NRSA02J-273X	MG RESISTOR 27kΩ, 1/10W
R3038			NRSA02J-0R0X	MG RESISTOR 0Ω, 1/10W	R3212			QRE141J-474Y	RESISTOR 470kΩ, 1/4W
R3039			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W	R3213			NRSA02J-334X	MG RESISTOR 330kΩ, 1/10W
R3040			NRSA02J-103X	MG RESISTOR 10kΩ, 1/10W	R3214			NRSA02J-103X	MG RESISTOR 10kΩ, 1/10W
R3041			NRSA02J-103X	MG RESISTOR 10kΩ, 1/10W	R3215			NRSA02J-103X	MG RESISTOR 10kΩ, 1/10W
R3042			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W	R3216			NRSA02J-103X	MG RESISTOR 10kΩ, 1/10W
R3044			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W	R3217			NRSA02J-562X	MG RESISTOR 5.6kΩ, 1/10W
R3046			NRSA02J-101X	MG RESISTOR 100Ω, 1/10W	R3218			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W
R3047			NRSA02J-101X	MG RESISTOR 100Ω, 1/10W	R3219			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W
R3048			NRSA02J-101X	MG RESISTOR 100Ω, 1/10W	R3220			NRSA02J-104X	MG RESISTOR 100kΩ, 1/10W
R3049			NRSA02J-101X	MG RESISTOR 100Ω, 1/10W	R3222			NRSA02J-103X	MG RESISTOR 10kΩ, 1/10W
R3050			NRSA02J-101X	MG RESISTOR 100Ω, 1/10W	R3223			NRSA02J-152X	MG RESISTOR 1.5kΩ, 1/10W
R3051			NRSA02J-101X	MG RESISTOR 100Ω, 1/10W	R3224			NRSA02J-152X	MG RESISTOR 1.5kΩ, 1/10W
R3052			NRSA02J-101X	MG RESISTOR 100Ω, 1/10W	R3226			NRSA02J-104X	MG RESISTOR 100kΩ, 1/10W
R3053			NRSA02J-101X	MG RESISTOR 100Ω, 1/10W	R3227			NRSA02J-103X	MG RESISTOR 10kΩ, 1/10W
R3054			NRSA02J-0R0X	MG RESISTOR 0Ω, 1/10W	R3228			NRSA02J-103X	MG RESISTOR 10kΩ, 1/10W
R3055			NRSA02J-0R0X	MG RESISTOR 0Ω, 1/10W	R3229			NRSA02J-105X	MG RESISTOR 1MΩ, 1/10W
R3056			NRSA02J-0R0X	MG RESISTOR 0Ω, 1/10W	R3230			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W
R3057			NRSA02J-101X	MG RESISTOR 100Ω, 1/10W	R3231			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W
R3058			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W	R3235			NRSA02J-332X	MG RESISTOR 3.3kΩ, 1/10W
R3059			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W	R3236			NRSA02J-332X	MG RESISTOR 3.3kΩ, 1/10W
R3060			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W	R3237			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W
R3061			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W	R3238			NRSA02J-472X	MG RESISTOR 4.7kΩ, 1/10W
R3062			NRSA02J-103X	MG RESISTOR 10kΩ, 1/10W	R3239			NRSA02J-222X	MG RESISTOR 2.2kΩ, 1/10W
R3066			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W	R3240			NRSA02J-222X	MG RESISTOR 2.2kΩ, 1/10W
R3069			NRSA02J-101X	MG RESISTOR 100Ω, 1/10W	R3241			NRSA02J-103X	MG RESISTOR 10kΩ, 1/10W
R3072			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W	R3243			NRSA02J-104X	MG RESISTOR 100kΩ, 1/10W
R3073			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W	R3244			NRSA02J-104X	MG RESISTOR 100kΩ, 1/10W
R3074			NRSA02J-102X	MG RESISTOR 1kΩ, 1/10W	R3245			NRSA02J-104X	MG RESISTOR 100kΩ, 1/10W
R3075			NRSA02J-101X	MG RESISTOR 100Ω, 1/10W	R3246			NRSA02J-104X	MG RESISTOR 100kΩ, 1/10W

#	△ REF No.	PART No.	PART NAME, DESCRIPTION	#	△ REF No.	PART No.	PART NAME, DESCRIPTION
R3247		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R6507		NRSA02J-333X	MG RESISTOR 33kΩ,1/10W
R3248		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R6508		NRSA02J-392X	MG RESISTOR 3.9kΩ,1/10W
R3249		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R6509		NRSA02J-122X	MG RESISTOR 1.2kΩ,1/10W
R3250		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R6510		NRSA02J-392X	MG RESISTOR 3.9kΩ,1/10W
R3251		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R6511		NRSA02J-122X	MG RESISTOR 1.2kΩ,1/10W
R3252		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R6551		NRSA02J-271X	MG RESISTOR 270Ω,1/10W
R3254		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R6552		NRSA02J-101X	MG RESISTOR 100Ω,1/10W
R3255		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R6553		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R3256		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R6554		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R3257		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R7115		NRSA02J-221X	MG RESISTOR 220Ω,1/10W
R3258		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R7116		NRSA02J-472X	MG RESISTOR 4.7kΩ,1/10W
R3259		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R7117		QRE123J-100X	RESISTOR 10Ω,1/2W
R3261		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R7118		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R3262		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R7122		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R3263		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R7124		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R3264		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	B3		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R3265		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	B8		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R3267		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	B18		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R3268		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	B42		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R3269		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	B6001		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R3271		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	B6030		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R3272		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	B6034		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R3273		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	B6501		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R3274		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	B6502		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R3275		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	B6503		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R3278		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	B6504		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R3279		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	B6565		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R3280		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	B6608		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R3282		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	B6609		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R3283		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	B6610		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R3284		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	B7101		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R3289		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W	B7102		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R4003		NRSA02J-561X	MG RESISTOR 560Ω,1/10W	B7103		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R4004		NRSA02J-561X	MG RESISTOR 560Ω,1/10W	B7105		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R4005		NRSA02J-562X	MG RESISTOR 5.6kΩ,1/10W	C1		NCB21HK-103X	CAPACITOR 0.01μF,50V
R4007		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	C2		NCB21HK-103X	CAPACITOR 0.01μF,50V
R4008		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W	C3		NCB21HK-103X	CAPACITOR 0.01μF,50V
R4009		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	C4		NCB21HK-103X	CAPACITOR 0.01μF,50V
R4010		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	C5		QETN1CM-476	E CAPACITOR 47μF,16V
R4011		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	C6		NCB11EK-104X	CAPACITOR 0.1μF,25V
R4012		NRSA02J-222X	MG RESISTOR 2.2kΩ,1/10W	C8		NCB21EK-104X	CAPACITOR 0.1μF,25V
R4013		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	C9		QEKJ1HM-225	E CAPACITOR 2.2μF,50V
R4014		NRSA02J-182X	MG RESISTOR 1.8kΩ,1/10W	C10		NDC21HG-151X	CAPACITOR 150pF,50V
R4015		NRSA02J-562X	MG RESISTOR 5.6kΩ,1/10W	C11		NCB21EK-104X	CAPACITOR 0.1μF,25V
R4017		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	C12		NDC21HJ-7R0X	CAPACITOR 7pF,50V
R4018		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	C14		NCB21EK-104X	CAPACITOR 0.1μF,25V
R4019		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	C15		NCB21HK-103X	CAPACITOR 0.01μF,50V
R4020		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	C16		NCB21EK-104X	CAPACITOR 0.1μF,25V
R4021		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	C17		QEKJ1HM-335	E CAPACITOR 3.3μF,50V
R6020		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	C18		QEKJ1HM-105	E CAPACITOR 1μF,50V
R6021		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	C19		QEKJ1CM-106	E CAPACITOR 10μF,16V
R6022		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	C20		QEKJ1HM-105	E CAPACITOR 1μF,50V
R6031		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W	C21		NCB21EK-104X	CAPACITOR 0.1μF,25V
R6032		NRSA02J-123X	MG RESISTOR 12kΩ,1/10W	C22		QEKJ0JM-476	E CAPACITOR 47μF,6.3V
R6033		NRSA02J-123X	MG RESISTOR 12kΩ,1/10W	C23		NCB21EK-104X	CAPACITOR 0.1μF,25V
R6501		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	C24		NCB21EK-104X	CAPACITOR 0.1μF,25V
R6502		NRSA02J-334X	MG RESISTOR 330kΩ,1/10W	C25		NDC21HJ-4R0X	CAPACITOR 4pF,50V
R6503		NRSA02J-124X	MG RESISTOR 120kΩ,1/10W	C26		NCB21HK-103X	CAPACITOR 0.01μF,50V
R6504		NRSA02J-302X	MG RESISTOR 3kΩ,1/10W	C27		NCB21HK-223X	CAPACITOR 0.022μF,50V
R6505		NRSA02J-512X	MG RESISTOR 5.1kΩ,1/10W	C28		QEKJ1HM-335	E CAPACITOR 3.3μF,50V
R6506		NRSA02J-333X	MG RESISTOR 33kΩ,1/10W	C29		NCB21HK-472X	CAPACITOR 0.0047μF,50V

#	△	REF No.	PART No.	PART NAME, DESCRIPTION		#	△	REF No.	PART No.	PART NAME, DESCRIPTION	
C30			NCB21CK-474X	CAPACITOR	0.47μF,16V	C2055			QEKJ1CM-106	E CAPACITOR	10μF,16V
C31			QEKJ0JM-107	E CAPACITOR	100μF,6.3V	C2201			NCB21EK-104X	CAPACITOR	0.1μF,25V
C32			QCB1HK-103	CAPACITOR	0.01μF,50V	C2202			NCB21EK-333X	CAPACITOR	0.033μF,25V
C33			QEKJ1HM-225	E CAPACITOR	2.2μF,50V	C2203			QEKJ1CM-106	E CAPACITOR	10μF,16V
C34			NCB21EK-104X	CAPACITOR	0.1μF,25V	C2204			QDGB1HK-102Y	CAPACITOR	0.001μF,50V
C35			NCB21EK-104X	CAPACITOR	0.1μF,25V	C2205			QEKJ1HM-105	E CAPACITOR	1μF,50V
C36			QEKJ1EM-475	E CAPACITOR	4.7μF,25V	C2207			QEKJ1CM-476	E CAPACITOR	47μF,16V
C37			QEKJ1HM-105	E CAPACITOR	1μF,50V	C2208			QETN1HM-475	E CAPACITOR	4.7μF,50V
C38			QEKJ0JM-476	E CAPACITOR	47μF,6.3V	C2209			QEKJ1HM-104	E CAPACITOR	0.1μF,50V
C39			NCB21EK-104X	CAPACITOR	0.1μF,25V	C2210			QEKJ1HM-104	E CAPACITOR	0.1μF,50V
C40			QEKJ1CM-106	E CAPACITOR	10μF,16V	C2211			QEKJ1HM-105	E CAPACITOR	1μF,50V
C54			NDC21HJ-221X	CAPACITOR	220pF,50V	C2212			QEKJ1HM-105	E CAPACITOR	1μF,50V
C59			NCB21EK-104X	CAPACITOR	0.1μF,25V	C2215			QEKJ1EM-475	E CAPACITOR	4.7μF,25V
C60			QEKJ0JM-227	E CAPACITOR	220μF,6.3V	C2217			QEKJ1CM-106	E CAPACITOR	10μF,16V
C61			NCB21HK-103X	CAPACITOR	0.01μF,50V	C2219			QEKJ1CM-106	E CAPACITOR	10μF,16V
C63			NCB21EK-104X	CAPACITOR	0.1μF,25V	C2220			QEKJ1EM-475	E CAPACITOR	4.7μF,25V
C64			NDC21HJ-120X	CAPACITOR	12pF,50V	C2221			NCB21HK-103X	CAPACITOR	0.01μF,50V
C69			NCB21EK-104X	CAPACITOR	0.1μF,25V	C2222			QEKJ1HM-474	E CAPACITOR	0.47μF,50V
C70			NCB21EK-104X	CAPACITOR	0.1μF,25V	C2223			QEKJ1HM-474	E CAPACITOR	0.47μF,50V
C71			NCB21HK-103X	CAPACITOR	0.01μF,50V	C2224			NCB21HK-103X	CAPACITOR	0.01μF,50V
C72			NDC21HJ-470X	CAPACITOR	47pF,50V	C2225			QEKJ1EM-475	E CAPACITOR	4.7μF,25V
C73			NDC21HJ-120X	CAPACITOR	12pF,50V	C2226			QEKJ1CM-106	E CAPACITOR	10μF,16V
C74			NDC21HJ-7R0X	CAPACITOR	7pF,50V	C2227			NCB21CK-104X	CAPACITOR	0.1μF,16V
C77			NCB21HK-103X	CAPACITOR	0.01μF,50V	C2231			NCB21HK-102X	CAPACITOR	0.001μF,50V
C80			NCB21HK-103X	CAPACITOR	0.01μF,50V	C2251			QETN1CM-476	E CAPACITOR	47μF,16V
C84			NDC21HJ-220X	CAPACITOR	22pF,50V	C2252			QCB1HK-103	CAPACITOR	0.01μF,50V
C94			NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W	C2253			NCB21CK-104X	CAPACITOR	0.1μF,16V
C106			NDC21HJ-560X	CAPACITOR	56pF,50V	C2254			NCB21CK-104X	CAPACITOR	0.1μF,16V
C109			NCB21CK-224X	CAPACITOR	0.22μF,16V	C2258			NCB21CK-104X	CAPACITOR	0.1μF,16V
C110			NCB21HK-331X	CAPACITOR	330pF,50V	C2282			NDC21HJ-121X	CAPACITOR	120pF,50V
C133			NCB21HK-103X	CAPACITOR	0.01μF,50V	C2601			QETN1CM-476	E CAPACITOR	47μF,16V
C134			NCB21HK-103X	CAPACITOR	0.01μF,50V	C2602			QETN1CM-476	E CAPACITOR	47μF,16V
C251			QEKJ1HM-225	E CAPACITOR	2.2μF,50V	C2603			QETN1CM-476	E CAPACITOR	47μF,16V
C252			NCB21HK-103X	CAPACITOR	0.01μF,50V	C2605			QETN1CM-476	E CAPACITOR	47μF,16V
C253			NCB21HK-471X	CAPACITOR	470pF,50V	C2611			NCB21HK-103X	CAPACITOR	0.01μF,50V
C255			NCB21CK-104X	CAPACITOR	0.1μF,16V	C2612			NCB21HK-103X	CAPACITOR	0.01μF,50V
C1701			NCB21EK-223X	CAPACITOR	0.022μF,25V	C3001			NCB21EK-104X	CAPACITOR	0.1μF,25V
C1702			NDC21HJ-470X	CAPACITOR	47pF,50V	C3002			NCB21HK-103X	CAPACITOR	0.01μF,50V
C1703			NDC21HJ-470X	CAPACITOR	47pF,50V	C3003			QEKJ1HM-106	E CAPACITOR	10μF,50V
C1704			NDC21HJ-101X	CAPACITOR	100pF,50V	C3004			NCB21CK-473X	CAPACITOR	0.047μF,16V
C1705			NCB21HK-102X	CAPACITOR	0.001μF,50V	C3010			QEZ0244-229	EDL CAPACITOR	0.0022F,5.5V
C1706			NDC21HJ-150X	CAPACITOR	15pF,50V	C3011			QETN0JM-108	E CAPACITOR	1000μF,6.3V
C1707			NCB21EK-103X	CAPACITOR	0.01μF,25V	C3012			QEKJ0JM-476	E CAPACITOR	47μF,6.3V
C1708			QEKJ1CM-106	E CAPACITOR	10μF,16V	C3013			NCB21HK-103X	CAPACITOR	0.01μF,50V
C1709			NCB21EK-104X	CAPACITOR	0.1μF,25V	C3014			QEKJ0JM-476	E CAPACITOR	47μF,6.3V
C2001			QETN1HM-475	E CAPACITOR	4.7μF,50V	C3016			NCB21CK-473X	CAPACITOR	0.047μF,16V
C2002			QEKJ1CM-106	E CAPACITOR	10μF,16V	C3022			NCB21CK-473X	CAPACITOR	0.047μF,16V
C2003			QEKJ0JM-476	E CAPACITOR	47μF,6.3V	C3024			NDC21HJ-120X	CAPACITOR	12pF,50V
C2005			QEKJ1EM-475	E CAPACITOR	4.7μF,25V	C3026			NCB21HK-103X	CAPACITOR	0.01μF,50V
C2006			NCB21HK-123X	CAPACITOR	0.012μF,50V	C3027			NBE20JM-106X	T CAPACITOR	10μF,6.3V
C2007			QERF1CM-226	E CAPACITOR	22μF,16V	C3030			QEKJ0JM-476	E CAPACITOR	47μF,6.3V
C2008			QEKJ1EM-475	E CAPACITOR	4.7μF,25V	C3031			NCB21CK-473X	CAPACITOR	0.047μF,16V
C2009			NCB21HK-102X	CAPACITOR	0.001μF,50V	C3032			NCB21CK-473X	CAPACITOR	0.047μF,16V
C2010			NCB21HK-222X	CAPACITOR	0.0022μF,50V	C3033			NCB21CK-473X	CAPACITOR	0.047μF,16V
C2011			QEKJ1EM-475	E CAPACITOR	4.7μF,25V	C3036			NDC21HJ-180X	CAPACITOR	18pF,50V
C2012			QEKJ1EM-475	E CAPACITOR	4.7μF,25V	C3037			NDC21HJ-120X	CAPACITOR	12pF,50V
C2017			QEKJ1CM-106	E CAPACITOR	10μF,16V	C3040			NCB21CK-473X	CAPACITOR	0.047μF,16V
C2051			NCB21HK-331X	CAPACITOR	330pF,50V	C3041			NDC21HJ-100X	CAPACITOR	10pF,50V
C2052			QFLC1HJ-823Z	F CAPACITOR	0.082μF,50V	C3042			NCB21CK-105X	CAPACITOR	1μF,16V
C2053			NCB21HK-472X	CAPACITOR	0.0047μF,50V	C3043			NCB21CK-105X	CAPACITOR	1μF,16V
C2054			NCB21EK-223X	CAPACITOR	0.022μF,25V	C3047			NCB21CK-473X	CAPACITOR	0.047μF,16V

#	△	REF No.	PART No.	PART NAME, DESCRIPTION	#	△	REF No.	PART No.	PART NAME, DESCRIPTION	
C3048			NCB21CK-473X	CAPACITOR	0.047μF,16V	X3002		QAX0527-001	CRYSTAL RESONATOR	
C3049			NCB21CK-473X	CAPACITOR	0.047μF,16V	S3002		QSW0695-001	PUSH SWITCH,S.CASS SW	
C4002			NCB21HK-103X	CAPACITOR	0.01μF,50V	K2001		NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
C4003			NCB21HK-102X	CAPACITOR	0.001μF,50V	K2002		NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
C4004			NBE20JM-226X	T CAPACITOR	22μF,6.3V	K2003		NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
C4006			NBE40JM-476X	T CAPACITOR	47μF,6.3V	K2004		NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
C4008			NCB21CK-105X	CAPACITOR	1μF,16V	K2251		NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
C4009			NCB21HK-563X	CAPACITOR	0.056μF,50V	K2252		NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
C4010			NCB21EK-223X	CAPACITOR	0.022μF,25V	K2253		NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
C4011			NCB21EK-104X	CAPACITOR	0.1μF,25V	PC3001		GP3S123	IC(PHOTO SENSOR	
C4012			NCB21CK-105X	CAPACITOR	1μF,16V	PC3002		GP3S123	IC(PHOTO SENSOR	
C4013			NCB21HK-563X	CAPACITOR	0.056μF,50V	T2051		PELN0832	OSC TRANSFORMER	
C4014			NDC21HJ-101X	CAPACITOR	100pF,50V	TU6001		QAU0163-001	TUNER	
C4015			NCB21HK-331X	CAPACITOR	330pF,50V	ET1		PQ21623-1-5	EARTH PLATE(RF)	
C4016			NCB21HK-681X	CAPACITOR	680pF,50V	LF251		PELN0806	LC TRAP	
C4017			NCB21HK-222X	CAPACITOR	0.0022μF,50V	SD1		LP30720-001A	SHIELD CASE(PRE/REC)	
C4018			NDC21HJ-101X	CAPACITOR	100pF,50V	OT1		QYTD5F3010Z	SCREW,X2 TERMINAL	
C6501			QETN1CM-226	E CAPACITOR	22μF,16V	WR100		QUQ112-1413CG	FFC WIRE,S-SUB	
C6502			NCB21EK-104X	CAPACITOR	0.1μF,25V	CN1		QGF1028C1-11	FPC CONNECTOR,(1-11)U.DRUM	
C6503			QEKJ1HM-105	E CAPACITOR	1μF,50V	CN901		QGF1207C1-11	FPC CONNECTOR,(1-11)FRONT JAC	
C6504			QEKJ1EM-475	E CAPACITOR	4.7μF,25V	CN2001		QGF1207C1-07	FPC CONNECTOR,(1-7)A/C HEAD	
C6505			QETN1HM-106	E CAPACITOR	10μF,50V	CN2002		QGB2532J1-02	CONNECTOR,(1-2)FE HEAD	
C6506			QEKJ1HM-104	E CAPACITOR	0.1μF,50V	CN3001		QGF1207C1-05	FPC CONNECTOR,(1-5)DRUM MDA	
C6507			NCB21EK-473X	CAPACITOR	0.047μF,25V	CN3002		QGB2532J1-02	CONNECTOR,(1-2)LOADING MOTOR	
C6508			QETN1HM-474	E CAPACITOR	0.47μF,50V	CN3003		QGB2015M2-08	CONNECTOR,(1-8)CAPSTAN MOTOR	
C6509			NCB21EK-104X	CAPACITOR	0.1μF,25V	CN3004		QGB2534J2-04	CONNECTOR,(1-4)ROTARY ENCODER	
C6510			QEKJ1HM-105	E CAPACITOR	1μF,50V	CN3008		QGF1207C1-10	FPC CONNECTOR,(1-10)DISPLAY	
C6511			QEKJ1HM-105	E CAPACITOR	1μF,50V	CN3009		QGF1016C3-16	FFC/FPC CONNECTOR,(1-16)DIGITAL	
C6512			QEKJ1HM-105	E CAPACITOR	1μF,50V	CN3010		QGF1207C1-06	FPC CONNECTOR,(1-6)SYS UPDATE	
C6513			QETN1HM-335	E CAPACITOR	3.3μF,50V	CN3011		QGB2024K1-14S	CONNECTOR,(1-14)PRE/REC	
C6514			QETN1HM-106	E CAPACITOR	10μF,50V	CN5601		QGF1201C2-21	FPC CONNECTOR,(1-21)SW REG	
C6515			QETN1HM-105	E CAPACITOR	1μF,50V	CN7105		QGB2024K1-17S	CONNECTOR,(1-17)TERMINAL	
C6516			QEKJ1HM-106	E CAPACITOR	10μF,50V	CN7106		QGB2024K1-17S	CONNECTOR,(1-17)TERMINAL	
C6517			QEKJ1HM-106	E CAPACITOR	10μF,50V	CN7107		QGF1207C1-12	FPC CONNECTOR,(1-12)DIGITAL	
C6518			QETN1HM-105	E CAPACITOR	1μF,50V	CN7109		QGF1207C1-14	FPC CONNECTOR,(1-14)S-SUB	
C7119			QETJ0JM-477	E CAPACITOR	470μF,6.3V	△ CP3002		ICP-N25	CIRCUIT PROTECTOR	
L1			QQL29BJ-100Z	COIL	10μH	△ CP4001		ICP-N25	CIRCUIT PROTECTOR	
L2			QQL231J-101Y	COIL	100μH					
L3			QQL29BJ-100Z	COIL	10μH					
L4			QQL29BJ-100Z	COIL	10μH					
L5			QQL29BJ-100Z	COIL	10μH					
L11			QQL01BJ-120Z	COIL	12μH					
L13			QQL231J-101Y	COIL	100μH					
L15			QQL29BJ-100Z	COIL	10μH					
L18			QUY153-050Y	IM BUS WIRE						
L19			QQL231J-100Y	COIL	10μH					
L20			QUY153-050Y	IM BUS WIRE						
L24			QQL231J-180Y	COIL	18μH					
L28			QQL231J-150Y	COIL	15μH					
L1701			QQL071J-150Y	COIL	15μH					
L1702			QQL29BJ-100Z	COIL	10μH					
L2001			QUY153-050Y	IM BUS WIRE						
L2251			QQL29BJ-100Z	COIL	10μH					
L2272			QQL231J-1R8Y	COIL	1.8μH					
L6001			QUY153-050Y	IM BUS WIRE						
L6005			QUY153-050Y	IM BUS WIRE						
L6031			QUY153-050Y	IM BUS WIRE						
L6032			QUY153-050Y	IM BUS WIRE						
L7102			QQL29BJ-101Z	COIL	100μH					
X2			QAX0575-001	CRYSTAL RESONATOR						
X3001			QAX0444-001	CRYSTAL RESONATOR						

#	△	REF No.	PART No.	PART NAME, DESCRIPTION	
X3002			QAX0527-001	CRYSTAL RESONATOR	
S3002			QSW0695-001	PUSH SWITCH,S.CASS SW	
K2001			NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
K2002			NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
K2003			NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
K2004			NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
K2251			NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
K2252			NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
K2253			NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
PC3001			GP3S123	IC(PHOTO SENSOR	
PC3002			GP3S123	IC(PHOTO SENSOR	
T2051			PELN0832	OSC TRANSFORMER	
TU6001			QAU0163-001	TUNER	
ET1			PQ21623-1-5	EARTH PLATE(RF)	
LF251			PELN0806	LC TRAP	
SD1			LP30720-001A	SHIELD CASE(PRE/REC)	
OT1			QYTD5F3010Z	SCREW,X2 TERMINAL	
WR100			QUQ112-1413CG	FFC WIRE,S-SUB	
CN1			QGF1028C1-11	FPC CONNECTOR,(1-11)U.DRUM	
CN901			QGF1207C1-11	FPC CONNECTOR,(1-11)FRONT JAC	
CN2001			QGF1207C1-07	FPC CONNECTOR,(1-7)A/C HEAD	
CN2002			QGB2532J1-02	CONNECTOR,(1-2)FE HEAD	
CN3001			QGF1207C1-05	FPC CONNECTOR,(1-5)DRUM MDA	
CN3002			QGB2532J1-02	CONNECTOR,(1-2)LOADING MOTOR	
CN3003			QGB2015M2-08	CONNECTOR,(1-8)CAPSTAN MOTOR	
CN3004			QGB2534J2-04	CONNECTOR,(1-4)ROTARY ENCODER	
CN3008			QGF1207C1-10	FPC CONNECTOR,(1-10)DISPLAY	
CN3009			QGF1016C3-16	FFC/FPC CONNECTOR,(1-16)DIGITAL	
CN3010			QGF1207C1-06	FPC CONNECTOR,(1-6)SYS UPDATE	
CN3011			QGB2024K1-14S	CONNECTOR,(1-14)PRE/REC	
CN5601			QGF1201C2-21	FPC CONNECTOR,(1-21)SW REG	
CN7105			QGB2024K1-17S	CONNECTOR,(1-17)TERMINAL	
CN7106			QGB2024K1-17S	CONNECTOR,(1-17)TERMINAL	
CN7107			QGF1207C1-12	FPC CONNECTOR,(1-12)DIGITAL	
CN7109			QGF1207C1-14	FPC CONNECTOR,(1-14)S-SUB	
△ CP3002			ICP-N25	CIRCUIT PROTECTOR	
△ CP4001			ICP-N25	CIRCUIT PROTECTOR	

3D DIGITAL/4M BOARD ASSEMBLY <05>			
PW1	LPA10143-02A	3D DIGITAL/4M BOARD ASSY	
IC1401	JCP8026	IC	
IC1402	MN47V77S-XE	IC	
Q1401	2SC1317/RS/-T	TRANSISTOR	
Q1402	2SA1576A/QR/-X	TRANSISTOR	
	or 2PA1576/R/-X	TRANSISTOR	
Q1403	2SA1576A/QR/-X	TRANSISTOR	
	or 2PA1576/R/-X	TRANSISTOR	
Q1406	2SA1576A/QR/-X	TRANSISTOR	
	or 2PA1576/R/-X	TRANSISTOR	
Q1407	2SA1576A/QR/-X	TRANSISTOR	
	or 2PA1576/R/-X	TRANSISTOR	
Q1408	2SC4081/S/-X	TRANSISTOR	
Q1410	2SC4081/QRS/-X	TRANSISTOR	
	or 2PC4081/R/-X	TRANSISTOR	
Q1412	2SC4081/QRS/-X	TRANSISTOR	
	or 2PC4081/R/-X	TRANSISTOR	

3D DIGITAL/4M BOARD ASSEMBLY <05>

PW1	LPA10143-02A	3D DIGITAL/4M BOARD ASSY
IC1401	JCP8026	IC
IC1402	MN47V77S-XE	IC
Q1401	2SC1317/RS/-T	TRANSISTOR
Q1402	2SA1576A/QR/-X	TRANSISTOR
	or 2PA1576/R/-X	TRANSISTOR
Q1403	2SA1576A/QR/-X	TRANSISTOR
	or 2PA1576/R/-X	TRANSISTOR
Q1406	2SA1576A/QR/-X	TRANSISTOR
	or 2PA1576/R/-X	TRANSISTOR
Q1407	2SA1576A/QR/-X	TRANSISTOR
	or 2PA1576/R/-X	TRANSISTOR
Q1408	2SC4081/S/-X	TRANSISTOR
Q1410	2SC4081/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
Q1412	2SC4081/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR

#	△	REF No.	PART No.	PART NAME, DESCRIPTION		#	△	REF No.	PART No.	PART NAME, DESCRIPTION	
Q1413			2SA1576A/QR/-X	TRANSISTOR		C1407			NDC21HJ-680X	CAPACITOR	68pF,50V
			or 2PA1576/R/-X	TRANSISTOR		C1408			NDC21HJ-330X	CAPACITOR	33pF,50V
Q1417			2SA1576A/QR/-X	TRANSISTOR		C1410			QEKJ1EM-475	E CAPACITOR	4.7μF,25V
			or 2PA1576/R/-X	TRANSISTOR		C1411			NCF21EZ-104X	CAPACITOR	0.1μF,25V
Q1418			2SA1576A/QR/-X	TRANSISTOR		C1412			NDC21HJ-680X	CAPACITOR	68pF,50V
			or 2PA1576/R/-X	TRANSISTOR		C1413			NDC21HJ-330X	CAPACITOR	33pF,50V
Q1419			DTC124TU	TRANSISTOR		C1415			NCF21EZ-104X	CAPACITOR	0.1μF,25V
D1401			RD4.3ES/B2/-T2	ZENER DIODE		C1416			QEKJ1CM-106	E CAPACITOR	10μF,16V
			or MTZJ4.3B	ZENER DIODE		C1417			NCF21EZ-104X	CAPACITOR	0.1μF,25V
D1402			1SS133	DIODE		C1421			NDC21HJ-330X	CAPACITOR	33pF,50V
			or 1N4148M	DIODE		C1422			NDC21HJ-680X	CAPACITOR	68pF,50V
R1401			NRSA02J-271X	MG RESISTOR	270Ω, 1/10W	C1423			NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1402			NRSA02J-101X	MG RESISTOR	100Ω, 1/10W	C1424			NCB21HK-103X	CAPACITOR	0.01μF,50V
R1404			NRSA02J-182X	MG RESISTOR	1.8kΩ, 1/10W	C1425			NCB21HK-103X	CAPACITOR	0.01μF,50V
R1406			NRSA02J-471X	MG RESISTOR	470Ω, 1/10W	C1426			NDC21HJ-390X	CAPACITOR	39pF,50V
R1407			NRSA02J-272X	MG RESISTOR	2.7kΩ, 1/10W	C1428			NDC21HJ-220X	CAPACITOR	22pF,50V
R1410			NRSA02J-241X	MG RESISTOR	240Ω, 1/10W	C1429			QEKJ0JM-337	E CAPACITOR	330μF,6.3V
R1411			NRSA02J-152X	MG RESISTOR	1.5kΩ, 1/10W	C1430			NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1413			NRSA02J-471X	MG RESISTOR	470Ω, 1/10W	C1432			NCF21CZ-105X	CAPACITOR	1μF,16V
R1414			NRSA02J-821X	MG RESISTOR	820Ω, 1/10W	C1433			NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1415			NRSA02J-221X	MG RESISTOR	220Ω, 1/10W	C1435			NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1416			NRSA02J-104X	MG RESISTOR	100kΩ, 1/10W	C1436			NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1417			NRSA02J-101X	MG RESISTOR	100Ω, 1/10W	C1437			NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1418			NRSA02J-471X	MG RESISTOR	470Ω, 1/10W	C1438			NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1421			NRSA02J-331X	MG RESISTOR	330Ω, 1/10W	C1439			NCF21CZ-105X	CAPACITOR	1μF,16V
R1426			NRSA02J-821X	MG RESISTOR	820Ω, 1/10W	C1440			NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1427			NRSA02J-333X	MG RESISTOR	33kΩ, 1/10W	C1441			NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1428			NRSA02J-393X	MG RESISTOR	39kΩ, 1/10W	C1442			NCF21CZ-105X	CAPACITOR	1μF,16V
R1429			NRSA02J-152X	MG RESISTOR	1.5kΩ, 1/10W	C1444			NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1430			NRSA02J-222X	MG RESISTOR	2.2kΩ, 1/10W	C1445			NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1431			NRSA02J-821X	MG RESISTOR	820Ω, 1/10W	C1446			QEKJ0JM-107	E CAPACITOR	100μF,6.3V
R1432			NRSA02J-182X	MG RESISTOR	1.8kΩ, 1/10W	C1447			NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1433			NRSA02J-510X	MG RESISTOR	51Ω, 1/10W	C1448			QEKJ0JM-337	E CAPACITOR	330μF,6.3V
R1434			NRSA02J-153X	MG RESISTOR	15kΩ, 1/10W	C1449			NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1435			NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W	C1451			QEKJ1EM-475	E CAPACITOR	4.7μF,25V
R1436			NRSA02J-392X	MG RESISTOR	3.9kΩ, 1/10W	C1452			NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1437			NRSA02J-392X	MG RESISTOR	3.9kΩ, 1/10W	C1453			NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1438			NRSA02J-473X	MG RESISTOR	47kΩ, 1/10W	C1454			NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1439			NRSA02J-273X	MG RESISTOR	27kΩ, 1/10W	C1455			NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1440			NRSA02J-473X	MG RESISTOR	47kΩ, 1/10W	C1456			QEKJ0JM-337	E CAPACITOR	330μF,6.3V
R1446			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	C1457			NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1447			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	C1458			NCF21EZ-104X	CAPACITOR	0.1μF,25V
R1448			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	C1459			NDC21HJ-470X	CAPACITOR	47pF,50V
R1449			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	C1460			NDC21HJ-470X	CAPACITOR	47pF,50V
R1450			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	C1461			NDC21HJ-470X	CAPACITOR	47pF,50V
R1452			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	C1462			NDC21HJ-470X	CAPACITOR	47pF,50V
R1453			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	C1463			QEKJ0JM-336	E CAPACITOR	33μF,6.3V
R1455			NRSA02J-681X	MG RESISTOR	680Ω, 1/10W	C1465			NDC21HJ-470X	CAPACITOR	47pF,50V
R1458			NRSA02J-561X	MG RESISTOR	560Ω, 1/10W	C1466			NDC21HJ-470X	CAPACITOR	47pF,50V
R1459			NRSA02J-681X	MG RESISTOR	680Ω, 1/10W	C1467			NDC21HJ-470X	CAPACITOR	47pF,50V
R1460			NRSA02J-273X	MG RESISTOR	27kΩ, 1/10W	C1468			NDC21HJ-470X	CAPACITOR	47pF,50V
R1462			NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W	C1471			NCF21EZ-104X	CAPACITOR	0.1μF,25V
VR1401			QVZ3521-103Z	V RESISTOR,D/A LEVEL		C1472			NCF21EZ-104X	CAPACITOR	0.1μF,25V
B1417			NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W	C1473			NCF21EZ-104X	CAPACITOR	0.1μF,25V
B1419			NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W	L1401			QQL29BJ-100Z	COIL	10μH
C1401			QEKJ1CM-336	E CAPACITOR	33μF,16V	L1402			QQL071J-6R8Y	COIL	6.8μH
C1402			NCB21HK-103X	CAPACITOR	0.01μF,50V	L1403			QQL071J-6R8Y	COIL	6.8μH
C1403			QEKJ0JM-337	E CAPACITOR	330μF,6.3V	L1404			QQL071J-6R8Y	COIL	6.8μH
C1404			NCF21EZ-104X	CAPACITOR	0.1μF,25V	L1405			QQL29BJ-100Z	COIL	10μH
C1405			NCF21EZ-104X	CAPACITOR	0.1μF,25V	L1406			QQL071J-330Y	COIL	33μH
C1406			NCB21HK-103X	CAPACITOR	0.01μF,50V	L1407			QQL29BJ-100Z	COIL	10μH

#	△ REF No.	PART No.	PART NAME, DESCRIPTION	
L1408		QQL29BJ-4R7Z	COIL	4.7μH
LC1401		QQR0521-013Z	NOISE FILTER	
LC1402		QQR0521-010Z	NOISE FILTER	
SD1		LP30706-001C	SHIELD FRAME(S-VHS)	
SD2		LP30684-001A	SHIELD CASE(S-VHS)	
CN1401		QGG2502K1-17	HEADER PIN	

TERMINAL BOARD ASSEMBLY <06>

PW1	LPA10116-03C	TERMINAL BOARD ASSY	
IC7101	BA7623F	IC	
IC7102	MM1511XN	IC	
IC7103	BA7623F	IC	
R7101	NRSA02J-750X	MG RESISTOR	75Ω,1/10W
R7102	NRSA02J-750X	MG RESISTOR	75Ω,1/10W
R7103	NRSA02J-750X	MG RESISTOR	75Ω,1/10W
R7104	NRSA02J-101X	MG RESISTOR	100Ω,1/10W
R7105	NRSA02J-101X	MG RESISTOR	100Ω,1/10W
R7106	NRSA02J-101X	MG RESISTOR	100Ω,1/10W
R7107	NRSA02J-750X	MG RESISTOR	75Ω,1/10W
R7108	NRSA02J-750X	MG RESISTOR	75Ω,1/10W
R7109	NRSA02J-750X	MG RESISTOR	75Ω,1/10W
R7110	NRSA02J-101X	MG RESISTOR	100Ω,1/10W
R7111	NRSA02J-101X	MG RESISTOR	100Ω,1/10W
R7112	NRSA02J-101X	MG RESISTOR	100Ω,1/10W
R7113	NRSA02J-750X	MG RESISTOR	75Ω,1/10W
R7114	NRSA02J-750X	MG RESISTOR	75Ω,1/10W
R7115	NRSA02J-750X	MG RESISTOR	75Ω,1/10W
R7116	NRSA02J-101X	MG RESISTOR	100Ω,1/10W
R7117	NRSA02J-101X	MG RESISTOR	100Ω,1/10W
R7118	NRSA02J-750X	MG RESISTOR	75Ω,1/10W
R7119	QRE141J-750Y	RESISTOR	75Ω,1/4W
R7120	NRSA02J-750X	MG RESISTOR	75Ω,1/10W
R7121	NRSA02J-750X	MG RESISTOR	75Ω,1/10W
R7122	QRE141J-750Y	RESISTOR	75Ω,1/4W
R7123	QRE141J-750Y	RESISTOR	75Ω,1/4W
R7125	NRSA02J-101X	MG RESISTOR	100Ω,1/10W
R7126	NRSA02J-101X	MG RESISTOR	100Ω,1/10W
R7151	NRSA02J-101X	MG RESISTOR	100Ω,1/10W
B7111	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
B7112	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
B7113	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
B7114	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
B7117	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
B7118	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
C7101	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
C7102	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
C7103	QEKJ0JM-107	E CAPACITOR	100μF,6.3V
C7104	NCB21HK-103X	CAPACITOR	0.01μF,50V
C7105	QETL0JM-108	E CAPACITOR	1000μF,6.3V
C7106	NCB21HK-103X	CAPACITOR	0.01μF,50V
C7107	QETL0JM-108	E CAPACITOR	1000μF,6.3V
C7109	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
C7110	NCB21HK-103X	CAPACITOR	0.01μF,50V
C7117	QEKJ1CM-106	E CAPACITOR	10μF,16V
C7118	NCB21HK-103X	CAPACITOR	0.01μF,50V
C7119	QEKJ0JM-476	E CAPACITOR	47μF,6.3V

#	△ REF No.	PART No.	PART NAME, DESCRIPTION	
C7120		QEKJ0JM-107	E CAPACITOR	100μF,6.3V
C7121		NCB21HK-103X	CAPACITOR	0.01μF,50V
C7125		QETJ0JM-477	E CAPACITOR	470μF,6.3V
C7126		QETJ0JM-477	E CAPACITOR	470μF,6.3V
C7127		QETJ0JM-477	E CAPACITOR	470μF,6.3V
L7101		QUY153-050Y	IM BUS WIRE	
L7102		QUY153-050Y	IM BUS WIRE	
J7101		QND0009-001	S JACK,S-IN1	
J7102		QNN0364-002	PIN JACK,RCA IN1	
J7105		QND0009-001	S JACK,S-IN2	
J7106		QNN0364-002	PIN JACK,RCA IN2	
J7109		QND0009-001	S JACK,S-OUT1	
J7110		QNN0363-002	PIN JACK,RCA OUT1	
J7113		QND0009-001	S JACK,S-OUT2	
J7114		QNN0363-002	PIN JACK,RCA OUT2	
J7123		PEMC1190	MINI JACK,JLIP	
J7124		PU60659	MINI JACK,R.PAUSE	
J7125		PU60659	MINI JACK,C.BOX	
J7127		QNN0363-003	PIN JACK,YCBCR	
△ TB1		LP30826-004C	TERMINAL BOARD ASSY	
OT3		QYTDSF3010Z	SCREW,X4	
OT4		QYTDSF3010M	SCREW,X2	
CN7101		QGB2024J1-17S	CONNECTOR,(1-17)MAIN	
CN7102		QGB2024J1-17S	CONNECTOR,(1-17)MAIN	
CN7104		QGF1016F5-09	FFC/FPC CONNECTOR,(1-9)DIGITAL	

A/C HEAD BOARD ASSEMBLY <12>

PW1	LPA10010-01A1	A/C HEAD BOARD ASSY
CN1	QGF1208F1-07	FPC CONNECTOR

S-SUB BOARD ASSEMBLY <15>

PW1	LPA10103-05A	S-SUB BOARD ASSY	
IC501	JCP8038	IC	
IC502	VC2076DP	IC	
R503	NRSA02J-221X	MG RESISTOR	220Ω,1/10W
R504	NRSA02J-362X	MG RESISTOR	3.6kΩ,1/10W
R505	NRSA02J-392X	MG RESISTOR	3.9kΩ,1/10W
R506	NRSA02J-391X	MG RESISTOR	390Ω,1/10W
R507	NRSA02J-122X	MG RESISTOR	1.2kΩ,1/10W
R508	NRSA02J-151X	MG RESISTOR	150Ω,1/10W
R509	NRSA02J-162X	MG RESISTOR	1.6kΩ,1/10W
R510	NRVA02D-102X	CMF RESISTOR	1kΩ,1/10W
R511	NRVA02D-471X	CMF RESISTOR	470Ω,1/10W
R512	NRVA02D-102X	CMF RESISTOR	1kΩ,1/10W
R513	NRVA02D-152X	CMF RESISTOR	1.5kΩ,1/10W
R514	NRVA02D-332X	CMF RESISTOR	3.3kΩ,1/10W
R515	NRVA02D-332X	CMF RESISTOR	3.3kΩ,1/10W
R516	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
R517	NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W
R522	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W
R523	NRSA02J-103X	MG RESISTOR	10kΩ,1/10W

#	△	REF No.	PART No.	PART NAME, DESCRIPTION	#	△	REF No.	PART No.	PART NAME, DESCRIPTION	
R524			NRSA02J-103X	MG RESISTOR	10kΩ,1/10W	BK1		LP40077-001A	BRACKET(BOARD)	
R525			NRSA02J-125X	MG RESISTOR	1.2MΩ,1/10W	CN511		QGG2503K2-30	HEADER PIN,(1-30)MAIN	
R527			NRSA02J-332X	MG RESISTOR	3.3kΩ,1/10W	CN512		QGF1209F2-14	FFC/FPC CONNE,(1-14)MAIN	
R531			NRSA02J-101X	MG RESISTOR	100Ω,1/10W					
R532			NRSA02J-101X	MG RESISTOR	100Ω,1/10W					
R533			NRSA02J-101X	MG RESISTOR	100Ω,1/10W					
R534			NRSA02J-101X	MG RESISTOR	100Ω,1/10W					
R535			NRSA02J-101X	MG RESISTOR	100Ω,1/10W					
R536			NRSA02J-101X	MG RESISTOR	100Ω,1/10W					
B501			NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W					
B503			NRSA02J-0R0X	MG RESISTOR	0Ω,1/10W	PW1		LPA10133-01B1	DISPLAY BOARD ASSY	
C501			QEKJ1HM-225	E CAPACITOR	2.2μF,50V	IC7001		UPD16315GB-3BS	IC	
C502			QEKJ1EM-475	E CAPACITOR	4.7μF,25V	IC7002		GP1U281X	IR DETECT UNIT	
C503			QEKJ1HM-225	E CAPACITOR	2.2μF,50V			or PNA4652M00XB	IR DETECT UNIT	
C504			NCB21EK-104X	CAPACITOR	0.1μF,25V	D7001		1SS133	DIODE	
C505			QEKJ1EM-475	E CAPACITOR	4.7μF,25V			or 1SS270A	DIODE	
C506			NCB21EK-104X	CAPACITOR	0.1μF,25V	D7002		1SS133	DIODE	
C507			QEKJ0JM-227	E CAPACITOR	220μF,6.3V			or 1SS270A	DIODE	
C508			QEPF1HM-474	NP E CAPACITOR	0.47μF,50V	D7003		1SS133	DIODE	
C509			QEKJ1CM-106	E CAPACITOR	10μF,16V			or 1SS270A	DIODE	
C510			QEKJ0JM-227	E CAPACITOR	220μF,6.3V	D7004		1SS133	DIODE	
C511			NCB21HK-103X	CAPACITOR	0.01μF,50V			or 1SS270A	DIODE	
C512			NCB21HK-103X	CAPACITOR	0.01μF,50V	D7005		1SS133	DIODE	
C513			QEKJ1EM-475	E CAPACITOR	4.7μF,25V			or 1SS270A	DIODE	
C514			NCB21HK-103X	CAPACITOR	0.01μF,50V	D7006		1SS133	DIODE	
C515			NCB21HK-103X	CAPACITOR	0.01μF,50V			or 1SS270A	DIODE	
C516			NCB21HK-103X	CAPACITOR	0.01μF,50V	D7007		1SS133	DIODE	
C517			NCF21EZ-104X	CAPACITOR	0.1μF,25V			or 1SS270A	DIODE	
C518			NCB21EK-104X	CAPACITOR	0.1μF,25V	D7008		1SS133	DIODE	
C519			QEKJ1HM-225	E CAPACITOR	2.2μF,50V			or 1SS270A	DIODE	
C520			QERF1EM-475	E CAPACITOR	4.7μF,25V	D7010		1SS133	DIODE	
C521			QEKJ1EM-475	E CAPACITOR	4.7μF,25V			or 1SS270A	DIODE	
C522			QEKJ1HM-225	E CAPACITOR	2.2μF,50V	D7011		RD9.1ES/B2/-T2	ZENER DIODE	
C523			QEKJ1HM-225	E CAPACITOR	2.2μF,50V	D7041		SLR-342MC3F	LE DIODE	
C524			NDC21HG-301X	CAPACITOR	300pF,50V	D7042		SLR-342MC3F	LE DIODE	
C525			NDC21HG-301X	CAPACITOR	300pF,50V	R7001		QRE141J-103Y	RESISTOR	10kΩ,1/4W
C526			NDC21HJ-101X	CAPACITOR	100pF,50V	R7002		QRE141J-103Y	RESISTOR	10kΩ,1/4W
C527			NDC21HJ-181X	CAPACITOR	180pF,50V	R7003		NRSA02J-823X	MG RESISTOR	82kΩ,1/10W
C528			NDC21HG-271X	CAPACITOR	270pF,50V	R7005		QRE141J-472Y	RESISTOR	4.7kΩ,1/4W
C529			NDC21HG-820X	CAPACITOR	82pF,50V	R7006		QRE141J-472Y	RESISTOR	4.7kΩ,1/4W
C530			NDC21HG-221X	CAPACITOR	220pF,50V	R7007		QRE141J-102Y	RESISTOR	1kΩ,1/4W
C531			NDC21HG-301X	CAPACITOR	300pF,50V	R7009		QRE141J-103Y	RESISTOR	10kΩ,1/4W
C532			NDC21HG-301X	CAPACITOR	300pF,50V	R7010		NRSA02J-103X	MG RESISTOR	10kΩ,1/10W
C533			NCB21HK-103X	CAPACITOR	0.01μF,50V	R7013		NRSA02J-333X	MG RESISTOR	33kΩ,1/10W
C534			QETJ0JM-477	E CAPACITOR	470μF,6.3V	R7014		NRSA02J-333X	MG RESISTOR	33kΩ,1/10W
C535			NCB21HK-103X	CAPACITOR	0.01μF,50V	R7015		QRE141J-102Y	RESISTOR	1kΩ,1/4W
C551			QEKJ1HM-105	E CAPACITOR	1μF,50V	R7016		QUY153-050Y	IM BUS WIRE	
C552			NCB21HK-103X	CAPACITOR	0.01μF,50V	R7043		NRSA02J-331X	MG RESISTOR	330Ω,1/10W
C553			NCB21HK-103X	CAPACITOR	0.01μF,50V	R7044		NRSA02J-331X	MG RESISTOR	330Ω,1/10W
C554			QEKJ1HM-105	E CAPACITOR	1μF,50V	R7101		QUY153-050Y	IM BUS WIRE	
C555			NCB21HK-103X	CAPACITOR	0.01μF,50V	B7001		QUY153-050Y	IM BUS WIRE	
C556			NCB21HK-103X	CAPACITOR	0.01μF,50V	C7001		NCB21EK-104X	CAPACITOR	0.1μF,25V
C557			QEKJ1HM-105	E CAPACITOR	1μF,50V	C7002		NCB21EK-104X	CAPACITOR	0.1μF,25V
C558			NCB21HK-103X	CAPACITOR	0.01μF,50V	C7003		QEKJ1HM-106	E CAPACITOR	10μF,50V
C559			NCB21HK-103X	CAPACITOR	0.01μF,50V	C7004		NDC21HJ-330X	CAPACITOR	33pF,50V
C560			QEKJ1HM-105	E CAPACITOR	1μF,50V	C7005		NDC21HJ-330X	CAPACITOR	33pF,50V
C561			QEKJ1HM-105	E CAPACITOR	1μF,50V	C7006		QEKJ0JM-227	E CAPACITOR	220μF,6.3V
C563			NCB21HK-103X	CAPACITOR	0.01μF,50V	C7008		QEKJ0JM-227	E CAPACITOR	220μF,6.3V
L501			QQL29BJ-100Z	COIL	10μH	C7010		NCB21HK-473X	CAPACITOR	0.047μF,50V
L503			QQL29BJ-100Z	COIL	10μH	C7011		QCFB1HZ-473	CAPACITOR	0.047μF,50V
L504			QQL29BJ-100Z	COIL	10μH	L7001		QUY153-050Y	IM BUS WIRE	

# ▲ REF No.	PART No.	PART NAME, DESCRIPTION
S7001	QSW0381-001Z	TACT SWITCH,PLAY
S7002	QSW0381-001Z	TACT SWITCH,STOP/EJECT
S7003	QSW0381-001Z	TACT SWITCH,REC
S7004	QSW0381-001Z	TACT SWITCH,PAUSE
S7005	QSW0381-001Z	TACT SWITCH,REW
S7006	QSW0381-001Z	TACT SWITCH,FF
S7007	QSW0381-001Z	TACT SWITCH,D-VHS
S7008	QSW0381-001Z	TACT SWITCH,REC SPEED
S7009	QSW0381-001Z	TACT SWITCH,CH-
S7010	QSW0381-001Z	TACT SWITCH,CH+
S7011	QSW0381-001Z	TACT SWITCH,S-ET
S7012	QSW0381-001Z	TACT SWITCH,TBC/NR
S7013	QSW0381-001Z	TACT SWITCH,DISPLAY
S7014	QSW0381-001Z	TACT SWITCH,TIMER
S7015	QSW0381-001Z	TACT SWITCH,POWER
DI7001	QLF0078-001	FL TUBE
HD1	PQM30038-2-2	LED HOLDER,D7041
HD2	PQM30038-2-2	LED HOLDER,D7042
HD3	LP30428-001A	FDP HOLDER(L),DI7001
HD4	LP30429-001A	FDP HOLDER(R),DI7001
CN7002	QGF1201C2-10	FPC CONNECTOR,(1-10)MAIN
CN7005	QGF1201C1-05	FPC CONNECTOR,(1-5)SW.REG

REC SAFETY BOARD ASSEMBLY <32>

PW3	LPA10133-01B3	REC SAFETY BOARD ASSY
S7061	QSW0602-004	PUSH SWITCH
S7063	QSW0695-001	PUSH SWITCH,D.CASS SW
FW7081	QUM033-07A4A4	PARA RIBON WIRE

JACK BOARD ASSEMBLY <36>

PW2	LPA10133-01B2	JACK BOARD ASSY
D7199	RD9.1ES/B2/-T2	ZENER DIODE
R7191	NRSA02J-750X	MG RESISTOR 75Ω,1/10W
R7192	NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R7193	NRSA02J-750X	MG RESISTOR 75Ω,1/10W
R7194	NRSA02J-820X	MG RESISTOR 82Ω,1/10W
C7196	NCB21EK-103X	CAPACITOR 0.01μF,25V
L7191	NRSA02J-101X	MG RESISTOR 100Ω,1/10W
L7192	NRSA02J-101X	MG RESISTOR 100Ω,1/10W
L7193	NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
L7194	NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
J7191	QNN0371-004	PIN JACK,VIDEO IN
J7192	QNN0372-003	PIN JACK,AUDED IN(L)
J7193	QNN0372-002	PIN JACK,AUDIO IN(R)
J7194	QND0010-001	S JACK,S VIDEO
CN7191	QGF1207C1-11	FPC CONNECTOR,(1-11)MAIN

# ▲ REF No.	PART No.	PART NAME, DESCRIPTION

D-PRE/REC BOARD ASSEMBLY <43>

PW1	LPA10136-02A	D-PRE/REC BOARD ASSY
IC601	JCP0024	IC
IC602	JCP0024	IC
IC603	TC74HC02AF	IC
IC604	TC74HC08AF	IC
IC605	BA10358F-XE	IC
IC606	CXA1211M	IC
IC607	CXA1211M	IC
Q601	2SA1532/C/-X	TRANSISTOR
Q602	2SA1532/C/-X	TRANSISTOR
Q603	2SA1532/C/-X	TRANSISTOR
Q604	2SC3936/BC/-X	TRANSISTOR
Q605	2SC3936/BC/-X	TRANSISTOR
Q606	2SC3936/BC/-X	TRANSISTOR
Q607	2SC4226/4/-X	TRANSISTOR
Q608	2SC4226/4/-X	TRANSISTOR
Q609	2SC4226/4/-X	TRANSISTOR
Q610	2SC4081/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
	or 2SD1819A/QRS/-X	TRANSISTOR
Q611	2SC4081/QRS/-X	TRANSISTOR
	or 2SD1819A/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
Q612	2SC4081/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
	or 2SD1819A/QRS/-X	TRANSISTOR
Q613	2SC4081/QRS/-X	TRANSISTOR
	or 2SD1819A/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
Q614	2SC4081/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
	or 2SD1819A/QRS/-X	TRANSISTOR
Q615	2SC3936/BC/-X	TRANSISTOR
Q616	2SC3936/BC/-X	TRANSISTOR
Q617	2SC3936/BC/-X	TRANSISTOR
Q618	2SC4670	TRANSISTOR
Q619	2SC4670	TRANSISTOR
Q620	2SC4670	TRANSISTOR
Q621	DTA114EU	TRANSISTOR
	or PDTA114EU	TRANSISTOR
	or RN2302	TRANSISTOR
	or UN5111	TRANSISTOR
Q622	DTA114EU	TRANSISTOR
	or RN2302	TRANSISTOR
	or UN5111	TRANSISTOR
	or PDTA114EU	TRANSISTOR
Q623	2SC4081/QRS/-X	TRANSISTOR
	or 2SD1819A/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
Q624	2SC4081/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
	or 2SD1819A/QRS/-X	TRANSISTOR
Q625	2SC4081/QRS/-X	TRANSISTOR
	or 2SD1819A/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR
Q626	2SC4081/QRS/-X	TRANSISTOR
	or 2PC4081/R/-X	TRANSISTOR

#	△	REF No.	PART No.	PART NAME, DESCRIPTION	#	△	REF No.	PART No.	PART NAME, DESCRIPTION
			or 2SD1819A/QRS/-X	TRANSISTOR				or 2SB1218A/QR/-X	TRANSISTOR
Q627			2SC4081/QRS/-X	TRANSISTOR	Q654			2SA1576A/QR/-X	TRANSISTOR
			or 2SD1819A/QRS/-X	TRANSISTOR				or 2SB1218A/QR/-X	TRANSISTOR
			or 2PC4081/R/-X	TRANSISTOR				or 2PA1576/R/-X	TRANSISTOR
Q628			2SC4081/QRS/-X	TRANSISTOR	Q655			2SA1576A/QR/-X	TRANSISTOR
			or 2PC4081/R/-X	TRANSISTOR				or 2PA1576/R/-X	TRANSISTOR
			or 2SD1819A/QRS/-X	TRANSISTOR				or 2SB1218A/QR/-X	TRANSISTOR
Q629			2SA1576A/QR/-X	TRANSISTOR	Q656			2SA1576A/QR/-X	TRANSISTOR
			or 2PA1576/R/-X	TRANSISTOR				or 2SB1218A/QR/-X	TRANSISTOR
			or 2SB1218A/QR/-X	TRANSISTOR				or 2PA1576/R/-X	TRANSISTOR
Q630			2SA1576A/QR/-X	TRANSISTOR	Q661			2SC4081/QRS/-X	TRANSISTOR
			or 2PA1576/R/-X	TRANSISTOR				or 2SD1819A/QRS/-X	TRANSISTOR
			or 2SB1218A/QR/-X	TRANSISTOR				or 2PC4081/R/-X	TRANSISTOR
Q631			2SA1576A/QR/-X	TRANSISTOR	Q662			2SC4081/QRS/-X	TRANSISTOR
			or 2SB1218A/QR/-X	TRANSISTOR				or 2PC4081/R/-X	TRANSISTOR
			or 2PA1576/R/-X	TRANSISTOR				or 2SD1819A/QRS/-X	TRANSISTOR
Q632			2SA1576A/QR/-X	TRANSISTOR	Q663			2SC4081/QRS/-X	TRANSISTOR
			or 2PA1576/R/-X	TRANSISTOR				or 2SD1819A/QRS/-X	TRANSISTOR
			or 2SB1218A/QR/-X	TRANSISTOR				or 2PC4081/R/-X	TRANSISTOR
Q633			2SA1576A/QR/-X	TRANSISTOR	Q664			2SC4081/QRS/-X	TRANSISTOR
			or 2SB1218A/QR/-X	TRANSISTOR				or 2PC4081/R/-X	TRANSISTOR
			or 2PA1576/R/-X	TRANSISTOR				or 2SD1819A/QRS/-X	TRANSISTOR
Q634			2SA1576A/QR/-X	TRANSISTOR	Q665			DTA144WU	TRANSISTOR
			or 2PA1576/R/-X	TRANSISTOR				or PDTA144WU	TRANSISTOR
			or 2SB1218A/QR/-X	TRANSISTOR				or RN2309	TRANSISTOR
Q635			2SA1532/C/-X	TRANSISTOR				or UN511E	TRANSISTOR
Q636			2SA1532/C/-X	TRANSISTOR	Q666			DTC144WU	TRANSISTOR
Q637			2SC3936/BC/-X	TRANSISTOR				or PDTC144WU	TRANSISTOR
Q638			2SC3936/BC/-X	TRANSISTOR				or RN1309	TRANSISTOR
Q639			2SC4226/4/-X	TRANSISTOR				or UN521E	TRANSISTOR
Q640			2SC4226/4/-X	TRANSISTOR	Q667			DTA144WU	TRANSISTOR
Q641			2SC4081/QRS/-X	TRANSISTOR				or PDTA144WU	TRANSISTOR
			or 2SD1819A/QRS/-X	TRANSISTOR				or UN511E	TRANSISTOR
			or 2PC4081/R/-X	TRANSISTOR				or RN2309	TRANSISTOR
Q642			2SC4081/QRS/-X	TRANSISTOR	Q668			DTC144WU	TRANSISTOR
			or 2PC4081/R/-X	TRANSISTOR				or PDTC144WU	TRANSISTOR
			or 2SD1819A/QRS/-X	TRANSISTOR				or RN1309	TRANSISTOR
Q643			2SC4081/QRS/-X	TRANSISTOR				or UN521E	TRANSISTOR
			or 2SD1819A/QRS/-X	TRANSISTOR	Q669			DTA144WU	TRANSISTOR
			or 2PC4081/R/-X	TRANSISTOR				or PDTA144WU	TRANSISTOR
Q644			2SC4081/QRS/-X	TRANSISTOR				or RN2309	TRANSISTOR
			or 2PC4081/R/-X	TRANSISTOR				or UN511E	TRANSISTOR
			or 2SD1819A/QRS/-X	TRANSISTOR	Q670			DTC144WU	TRANSISTOR
Q645			2SC3936/BC/-X	TRANSISTOR				or PDTC144WU	TRANSISTOR
Q646			2SC3936/BC/-X	TRANSISTOR				or RN1309	TRANSISTOR
Q647			2SC4670	TRANSISTOR				or UN521E	TRANSISTOR
Q648			2SC4670	TRANSISTOR	Q671			DTA144WU	TRANSISTOR
Q649			2SC4081/QRS/-X	TRANSISTOR				or RN2309	TRANSISTOR
			or 2SD1819A/QRS/-X	TRANSISTOR				or UN511E	TRANSISTOR
			or 2PC4081/R/-X	TRANSISTOR				or PDTA144WU	TRANSISTOR
Q650			2SC4081/QRS/-X	TRANSISTOR	Q672			DTA144WU	TRANSISTOR
			or 2PC4081/R/-X	TRANSISTOR				or PDTA144WU	TRANSISTOR
			or 2SD1819A/QRS/-X	TRANSISTOR				or UN511E	TRANSISTOR
Q651			2SC4081/QRS/-X	TRANSISTOR				or RN2309	TRANSISTOR
			or 2SD1819A/QRS/-X	TRANSISTOR	Q673			DTA144WU	TRANSISTOR
			or 2PC4081/R/-X	TRANSISTOR				or PDTA144WU	TRANSISTOR
Q652			2SC4081/QRS/-X	TRANSISTOR				or RN2309	TRANSISTOR
			or 2PC4081/R/-X	TRANSISTOR				or UN511E	TRANSISTOR
			or 2SD1819A/QRS/-X	TRANSISTOR	D601			1SS355	DIODE
Q653			2SA1576A/QR/-X	TRANSISTOR	D602			1SS355	DIODE
			or 2PA1576/R/-X	TRANSISTOR	D604			1SS355	DIODE

#	△ REF No.	PART No.	PART NAME, DESCRIPTION	#	△ REF No.	PART No.	PART NAME, DESCRIPTION
D605		1SS355	DIODE	R661		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
D606		1SS355	DIODE	R662		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
D607		DA204U	DIODE	R663		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
D608		1SS355	DIODE	R664		NRSA02J-750X	MG RESISTOR 75Ω,1/10W
R601		NRVA02D-100X	CMF RESISTOR 10Ω,1/10W	R665		NRSA02J-471X	MG RESISTOR 470Ω,1/10W
R602		NRSA02J-471X	MG RESISTOR 470Ω,1/10W	R666		NRSA02J-100X	MG RESISTOR 10Ω,1/10W
R603		NRSA02J-471X	MG RESISTOR 470Ω,1/10W	R667		NRVA02D-100X	CMF RESISTOR 10Ω,1/10W
R604		NRSA02J-100X	MG RESISTOR 10Ω,1/10W	R668		NRSA02J-471X	MG RESISTOR 470Ω,1/10W
R605		NRSA02J-471X	MG RESISTOR 470Ω,1/10W	R669		NRSA02J-471X	MG RESISTOR 470Ω,1/10W
R606		NRSA02J-100X	MG RESISTOR 10Ω,1/10W	R670		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R607		NRSA02J-471X	MG RESISTOR 470Ω,1/10W	R671		NRSA02J-331X	MG RESISTOR 330Ω,1/10W
R608		NRSA02J-471X	MG RESISTOR 470Ω,1/10W	R672		NRSA02J-154X	MG RESISTOR 150kΩ,1/10W
R609		NRSA02J-471X	MG RESISTOR 470Ω,1/10W	R673		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R610		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R674		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R611		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R675		NRSA02J-154X	MG RESISTOR 150kΩ,1/10W
R612		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R676		NRSA02J-331X	MG RESISTOR 330Ω,1/10W
R613		NRSA02J-181X	MG RESISTOR 180Ω,1/10W	R677		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R614		NRSA02J-154X	MG RESISTOR 150kΩ,1/10W	R678		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R615		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R680		NRSA02J-334X	MG RESISTOR 330kΩ,1/10W
R616		NRSA02J-181X	MG RESISTOR 180Ω,1/10W	R681		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W
R617		NRSA02J-154X	MG RESISTOR 150kΩ,1/10W	R682		NRSA02J-151X	MG RESISTOR 150Ω,1/10W
R618		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R683		NRSA02J-750X	MG RESISTOR 75Ω,1/10W
R619		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R684		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R620		NRSA02J-154X	MG RESISTOR 150kΩ,1/10W	R685		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R621		NRSA02J-151X	MG RESISTOR 150Ω,1/10W	R686		NRSA02J-471X	MG RESISTOR 470Ω,1/10W
R622		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R687		NRVA02D-330X	CMF RESISTOR 33Ω,1/10W
R623		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R688		NRSA02J-471X	MG RESISTOR 470Ω,1/10W
R625		NRSA02J-334X	MG RESISTOR 330kΩ,1/10W	R689		NRVA02D-330X	CMF RESISTOR 33Ω,1/10W
R627		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W	R690		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W
R628		NRSA02J-151X	MG RESISTOR 150Ω,1/10W	R691		NRSA02J-682X	MG RESISTOR 6.8kΩ,1/10W
R629		NRSA02J-750X	MG RESISTOR 75Ω,1/10W	R692		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W
R630		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R693		NRSA02J-682X	MG RESISTOR 6.8kΩ,1/10W
R631		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R694		NRSA02J-101X	MG RESISTOR 100Ω,1/10W
R632		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R695		NRSA02J-101X	MG RESISTOR 100Ω,1/10W
R633		NRSA02J-471X	MG RESISTOR 470Ω,1/10W	R696		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R634		NRVA02D-330X	CMF RESISTOR 33Ω,1/10W	R697		NRSA02J-471X	MG RESISTOR 470Ω,1/10W
R636		NRSA02J-511X	MG RESISTOR 510Ω,1/10W	R698		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R637		NRVA02D-330X	CMF RESISTOR 33Ω,1/10W	R699		NRSA02J-471X	MG RESISTOR 470Ω,1/10W
R638		NRSA02J-471X	MG RESISTOR 470Ω,1/10W	R700		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W
R639		NRVA02D-330X	CMF RESISTOR 33Ω,1/10W	R701		NRSA02J-153X	MG RESISTOR 15kΩ,1/10W
R640		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R702		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R641		NRSA02J-682X	MG RESISTOR 6.8kΩ,1/10W	R703		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R642		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R704		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R643		NRSA02J-682X	MG RESISTOR 6.8kΩ,1/10W	R705		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R644		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R706		NRSA02J-750X	MG RESISTOR 75Ω,1/10W
R645		NRSA02J-682X	MG RESISTOR 6.8kΩ,1/10W	R714		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R646		NRSA02J-101X	MG RESISTOR 100Ω,1/10W	R715		NRSA02J-152X	MG RESISTOR 1.5kΩ,1/10W
R647		NRSA02J-101X	MG RESISTOR 100Ω,1/10W	R716		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R648		NRSA02J-101X	MG RESISTOR 100Ω,1/10W	R719		NRSA02J-152X	MG RESISTOR 1.5kΩ,1/10W
R649		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R720		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R650		NRSA02J-471X	MG RESISTOR 470Ω,1/10W	R721		NRSA02J-183X	MG RESISTOR 18kΩ,1/10W
R651		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R722		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W
R652		NRSA02J-471X	MG RESISTOR 470Ω,1/10W	R723		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R653		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R724		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R654		NRSA02J-471X	MG RESISTOR 470Ω,1/10W	R725		NRSA02J-271X	MG RESISTOR 270Ω,1/10W
R655		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R726		NRSA02J-560X	MG RESISTOR 56Ω,1/10W
R656		NRSA02J-153X	MG RESISTOR 15kΩ,1/10W	R727		NRSA02J-473X	MG RESISTOR 47kΩ,1/10W
R657		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W	R728		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W
R658		NRSA02J-153X	MG RESISTOR 15kΩ,1/10W	R730		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W
R659		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R736		NRSA02J-103X	MG RESISTOR 10kΩ,1/10W
R660		NRSA02J-102X	MG RESISTOR 1kΩ,1/10W	R737		NRSA02J-0R0X	MG RESISTOR 0Ω,1/10W

#	△	REF No.	PART No.	PART NAME, DESCRIPTION		#	△	REF No.	PART No.	PART NAME, DESCRIPTION	
R738			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	C644			NCB21EK-104X	CAPACITOR	0.1μF,25V
R739			NRSA02J-102X	MG RESISTOR	1kΩ, 1/10W	C645			NCB21EK-104X	CAPACITOR	0.1μF,25V
R740			NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W	C646			NCB21AK-105X	CAPACITOR	1μF,10V
R741			NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W	C647			NCB21HK-103X	CAPACITOR	0.01μF,50V
R742			NRSA02J-103X	MG RESISTOR	10kΩ, 1/10W	C648			QEKJ0JM-107	E CAPACITOR	100μF,6.3V
R743			NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W	C649			NCB21HK-103X	CAPACITOR	0.01μF,50V
R744			NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W	C650			NCB21AK-105X	CAPACITOR	1μF,10V
R745			NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W	C651			NCB21EK-104X	CAPACITOR	0.1μF,25V
R746			NRSA02J-223X	MG RESISTOR	22kΩ, 1/10W	C652			NCB21AK-105X	CAPACITOR	1μF,10V
R747			NRSA02J-223X	MG RESISTOR	22kΩ, 1/10W	C653			NCB21EK-104X	CAPACITOR	0.1μF,25V
R748			NRSA02J-223X	MG RESISTOR	22kΩ, 1/10W	C654			QEKJ0JM-107	E CAPACITOR	100μF,6.3V
R749			NRSA02J-101X	MG RESISTOR	100Ω, 1/10W	C655			NCB21HK-103X	CAPACITOR	0.01μF,50V
B1			NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W	C656			NCB21HK-103X	CAPACITOR	0.01μF,50V
B2			NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W	C657			NCB21EK-104X	CAPACITOR	0.1μF,25V
B3			NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W	C658			NCB21HK-103X	CAPACITOR	0.01μF,50V
B4			NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W	C659			QEKJ0JM-107	E CAPACITOR	100μF,6.3V
B5			NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W	C660			NCB21HK-103X	CAPACITOR	0.01μF,50V
B6			NRSA02J-0R0X	MG RESISTOR	0Ω, 1/10W	C661			NCB21AK-105X	CAPACITOR	1μF,10V
C601			NCB21EK-104X	CAPACITOR	0.1μF,25V	C662			NCB21AK-105X	CAPACITOR	1μF,10V
C602			NCB21EK-104X	CAPACITOR	0.1μF,25V	C663			NCB21EK-104X	CAPACITOR	0.1μF,25V
C603			NCB21EK-104X	CAPACITOR	0.1μF,25V	C664			NCB21EK-104X	CAPACITOR	0.1μF,25V
C604			NCB21HK-103X	CAPACITOR	0.01μF,50V	C665			NCB21AK-105X	CAPACITOR	1μF,10V
C605			NCB21AK-105X	CAPACITOR	1μF,10V	C666			NCB21AK-105X	CAPACITOR	1μF,10V
C606			NCB21AK-105X	CAPACITOR	1μF,10V	C667			NCB21EK-104X	CAPACITOR	0.1μF,25V
C607			NCB21HK-103X	CAPACITOR	0.01μF,50V	C668			NCB21EK-104X	CAPACITOR	0.1μF,25V
C608			NCB21AK-105X	CAPACITOR	1μF,10V	C669			NCB21HK-103X	CAPACITOR	0.01μF,50V
C609			NCB21HK-103X	CAPACITOR	0.01μF,50V	C670			NCB21HK-103X	CAPACITOR	0.01μF,50V
C610			NCB21EK-104X	CAPACITOR	0.1μF,25V	C671			NCB21HK-103X	CAPACITOR	0.01μF,50V
C611			NCB21AK-105X	CAPACITOR	1μF,10V	C672			QEKJ0JM-107	E CAPACITOR	100μF,6.3V
C612			QEKJ0JM-107	E CAPACITOR	100μF,6.3V	C673			NCB21AK-105X	CAPACITOR	1μF,10V
C613			NCB21HK-103X	CAPACITOR	0.01μF,50V	C674			NCB21HK-102X	CAPACITOR	0.001μF,50V
C614			NCB21AK-105X	CAPACITOR	1μF,10V	C678			NCB21HK-103X	CAPACITOR	0.01μF,50V
C615			NCB21EK-104X	CAPACITOR	0.1μF,25V	C679			QEKJ0JM-107	E CAPACITOR	100μF,6.3V
C616			NCB21AK-105X	CAPACITOR	1μF,10V	C680			NCB21HK-102X	CAPACITOR	0.001μF,50V
C617			NCB21EK-104X	CAPACITOR	0.1μF,25V	C681			NCB21HK-102X	CAPACITOR	0.001μF,50V
C618			QEKJ0JM-107	E CAPACITOR	100μF,6.3V	C682			NCB21HK-103X	CAPACITOR	0.01μF,50V
C619			NCB21HK-103X	CAPACITOR	0.01μF,50V	C683			NDC21HJ-471X	CAPACITOR	470pF,50V
C620			NCB21HK-103X	CAPACITOR	0.01μF,50V	C684			NCB21HK-103X	CAPACITOR	0.01μF,50V
C621			NCB21EK-104X	CAPACITOR	0.1μF,25V	C685			NCB21AK-105X	CAPACITOR	1μF,10V
C622			NCB21HK-103X	CAPACITOR	0.01μF,50V	C686			NCB21EK-104X	CAPACITOR	0.1μF,25V
C623			NCB21HK-103X	CAPACITOR	0.01μF,50V	C687			NCB21EK-104X	CAPACITOR	0.1μF,25V
C624			QEKJ0JM-107	E CAPACITOR	100μF,6.3V	C688			NCB21EK-104X	CAPACITOR	0.1μF,25V
C625			NCB21AK-105X	CAPACITOR	1μF,10V	C689			NCB21EK-104X	CAPACITOR	0.1μF,25V
C626			NCB21AK-105X	CAPACITOR	1μF,10V	C691			NCB21HK-103X	CAPACITOR	0.01μF,50V
C627			NCB21AK-105X	CAPACITOR	1μF,10V	C692			NCB21HK-103X	CAPACITOR	0.01μF,50V
C628			NCB21EK-104X	CAPACITOR	0.1μF,25V	C693			NCB21HK-103X	CAPACITOR	0.01μF,50V
C629			NCB21EK-104X	CAPACITOR	0.1μF,25V	C694			NCB21HK-103X	CAPACITOR	0.01μF,50V
C630			NCB21EK-104X	CAPACITOR	0.1μF,25V	L601			QQL29BJ-100Z	COIL	10μH
C631			NCB21AK-105X	CAPACITOR	1μF,10V	L602			QQL29BJ-100Z	COIL	10μH
C632			NCB21AK-105X	CAPACITOR	1μF,10V	L603			QQL29BJ-100Z	COIL	10μH
C633			NCB21AK-105X	CAPACITOR	1μF,10V	L604			QQL29BJ-101Z	COIL	100μH
C634			NCB21EK-104X	CAPACITOR	0.1μF,25V	L605			QQL29BJ-100Z	COIL	10μH
C635			NCB21EK-104X	CAPACITOR	0.1μF,25V	L606			QQL29BJ-100Z	COIL	10μH
C636			NCB21EK-104X	CAPACITOR	0.1μF,25V	L607			QQL29BJ-100Z	COIL	10μH
C637			NCB21HK-103X	CAPACITOR	0.01μF,50V	L608			QQL29BJ-101Z	COIL	100μH
C638			NCB21HK-103X	CAPACITOR	0.01μF,50V	L609			QQL29BJ-100Z	COIL	10μH
C639			NCB21HK-103X	CAPACITOR	0.01μF,50V	SD1			LP20940-001A	SHIELD FRAME(PRE)	
C640			QEKJ0JM-107	E CAPACITOR	100μF,6.3V	CN601			QGA2001F1-04	CONNECTOR,(1-4)DIGITAL	
C641			NCB21HK-103X	CAPACITOR	0.01μF,50V	CN603			QGA2001F1-04	CONNECTOR,(1-4)DIGITAL	
C642			NCB21HK-103X	CAPACITOR	0.01μF,50V	CN605			QGB2024J1-14S	CONNECTOR,(1-14)MAIN	
C643			NCB21AK-105X	CAPACITOR	1μF,10V	CN606			QGF1202C1-10	FPC CONNECTOR,(1-10)U.DRUM	

#	△ REF No.	PART No.	PART NAME, DESCRIPTION

DIGITAL BOARD ASSEMBLY <50>			
PW1		LPA10125-03D	DIGITAL BOARD ASSY
IC1		M32120FC-109WG	IC(MCU)
IC2		S-80919ANMP-W	IC
IC4		AT45DB011-SC-X	IC
IC5		AT45DB011-XC-X	IC
IC6		SN74HCT08APW	IC
IC7		SN74HCT08APW	IC
IC8		SN74HCT08APW	IC
IC9		SN74LV08APW	IC
IC10		SN74AHCT1G125	IC(DIGITAL)
IC201		JCP8052	IC
IC202		K4S161622D-TC80	IC
		or HY57V161610DTC8	IC
IC203		NAX0373-001X	CXO
IC204		TC7SH08FU	IC(DIGITAL)
		or SN74AHC1G08K	IC
IC205		TC7SHU04FU	IC(DIGITAL)
IC206		BA10358F-XE	IC
IC207		SN74LVCU04APW	IC(DIGITAL)
IC208		SN74LVCU04APW	IC(DIGITAL)
IC209		SN74LVCU04APW	IC(DIGITAL)
IC210		TC7SHU04FU	IC(DIGITAL)
IC213		TC7SH04FU	IC(DIGITAL)
IC214		TC7SH08FU	IC(DIGITAL)
		or SN74AHC1G08K	IC
IC402		TLC2932	IC
IC404		TLC2932	IC
IC405		SN74LV74APW	IC
IC406		TC7SH04FU	IC(DIGITAL)
		or SN74AHC1G04K	IC
IC601		DVXCEL-BA1	IC(DIGITAL)
IC602		K4S161622D-TC80	IC
		or HY57V161610DTC8	IC
IC603		K4S161622D-TC80	IC
		or HY57V161610DTC8	IC
IC604		K4S161622D-TC80	IC
		or HY57V161610DTC8	IC
IC605		K4S161622D-TC80	IC
		or HY57V161610DTC8	IC
IC606		TC7SHU04FU	IC(DIGITAL)
IC607		TC7SH04FU	IC(DIGITAL)
		or SN74AHC1G04K	IC
IC802		LC74731W-9807	IC(MICRO C ROM)
IC803		LE28FV2001ATS15	IC
IC808		SI-3025LS-X	IC
		or SI-3025LSA-X	IC
IC810		SN74LV08APW	IC
IC814		SI-3012LU-X	IC
IC1001		JCP8037-2	IC
IC1002		K4S643232C-TC80	IC
		or K4S643232C-TC70	IC
		or KM432S2030CT-G7	IC
IC1003		K4S643232C-TC80	IC
		or K4S643232C-TC70	IC
		or KM432S2030CT-G7	IC
IC1004		TC7SZ04FU	IC
IC1201		JCP8044	IC

#	△ REF No.	PART No.	PART NAME, DESCRIPTION
IC1202		TC7SH04FU	IC(DIGITAL)
IC1401		JCP8034-2	IC
IC1403		SST39VF160-9CEK	IC(MICRO C ROM)
		or MBM29LV160TE70N	IC
		or SST39VF160-7CEK	IC(MICRO C ROM)
IC1404		MK2703	IC
IC1601		UPD61003GC-A01	IC
IC1701		UPD61002GC-A01	IC(DIGITAL)
IC1801		AK4522VF	IC
IC1802		BA15218F-XE	IC
IC1803		BA15218F-XE	IC
IC1804		GP1F32T	OPT
Q1		DTC144EU	TRANSISTOR
		or PDTC144EU	TRANSISTOR
		or RN1304	TRANSISTOR
		or UN5213	TRANSISTOR
Q401		DTC114EU	TRANSISTOR
		or PDTC114EU	TRANSISTOR
		or RN1302	TRANSISTOR
		or UN5211	TRANSISTOR
Q402		UMT2N	PAIR TRANSISTOR
Q403		UMX2N	PAIR TRANSISTOR
Q404		UMT2N	PAIR TRANSISTOR
Q405		2SC3930/C/-X	TRANSISTOR
Q406		2SC4081/QRS/-X	TRANSISTOR
		or 2PC4081/R/-X	TRANSISTOR
		or 2SD1819A/QRS/-X	TRANSISTOR
Q407		2SC3930/C/-X	TRANSISTOR
Q408		2SA1532/C/-X	TRANSISTOR
Q409		2SC4670	TRANSISTOR
		or 2SC5632	TRANSISTOR
Q410		UMT2N	PAIR TRANSISTOR
Q411		UMX2N	PAIR TRANSISTOR
Q412		UMT2N	PAIR TRANSISTOR
Q413		2SC3930/C/-X	TRANSISTOR
Q414		2SC4081/QRS/-X	TRANSISTOR
		or 2SD1819A/QRS/-X	TRANSISTOR
		or 2PC4081/R/-X	TRANSISTOR
Q415		2SC3930/C/-X	TRANSISTOR
Q416		2SA1532/C/-X	TRANSISTOR
Q417		2SC4670	TRANSISTOR
		or 2SC5632	TRANSISTOR
Q418		2SC4081/QRS/-X	TRANSISTOR
		or 2PC4081/R/-X	TRANSISTOR
		or 2SD1819A/QRS/-X	TRANSISTOR
Q419		DTC114EU	TRANSISTOR
		or PDTC114EU	TRANSISTOR
		or RN1302	TRANSISTOR
		or UN5211	TRANSISTOR
Q420		2SC4081/QRS/-X	TRANSISTOR
		or 2SD1819A/QRS/-X	TRANSISTOR
		or 2PC4081/R/-X	TRANSISTOR
Q421		2SA1532/C/-X	TRANSISTOR
Q422		2SC3930/C/-X	TRANSISTOR
Q423		2SC4081/QRS/-X	TRANSISTOR
		or 2PC4081/R/-X	TRANSISTOR
		or 2SD1819A/QRS/-X	TRANSISTOR
Q424		2SC4081/QRS/-X	TRANSISTOR
		or 2SD1819A/QRS/-X	TRANSISTOR
		or 2PC4081/R/-X	TRANSISTOR
Q425		2SA1532/C/-X	TRANSISTOR

#	△	REF No.	PART No.	PART NAME, DESCRIPTION	#	△	REF No.	PART No.	PART NAME, DESCRIPTION
			Q426	2SC3930/C/-X				or 2SD1819A/QRS/-X	TRANSISTOR
			Q427	UMT2N				or 2PC4081/R/-X	TRANSISTOR
			Q428	UMT2N			Q826	2SA1576A/QRS/-X	TRANSISTOR
			Q801	2SC4081/QRS/-X				or 2PA1576/R/-X	TRANSISTOR
				or 2PC4081/R/-X				or 2SB1218A/QR/-X	TRANSISTOR
				or 2SD1819A/QRS/-X			Q831	2SA1576A/QRS/-X	TRANSISTOR
			Q802	2SA1576A/QR/-X				or 2PA1576/R/-X	TRANSISTOR
				or 2SB1218A/QR/-X				or 2SB1218A/QR/-X	TRANSISTOR
				or 2PA1576/R/-X			Q832	2SA1576A/QRS/-X	TRANSISTOR
			Q803	2SC4081/QRS/-X				or 2SB1218A/QR/-X	TRANSISTOR
				or 2PC4081/R/-X				or 2PA1576/R/-X	TRANSISTOR
				or 2SD1819A/QRS/-X			Q833	2SA1576A/QRS/-X	TRANSISTOR
			Q805	2SC4081/QRS/-X				or 2PA1576/R/-X	TRANSISTOR
				or 2PC4081/R/-X				or 2SB1218A/QR/-X	TRANSISTOR
				or 2SD1819A/QRS/-X			Q834	2SA1576A/QRS/-X	TRANSISTOR
			Q806	2SA1576A/QR/-X				or 2SB1218A/QR/-X	TRANSISTOR
				or 2SB1218A/QR/-X				or 2PA1576/R/-X	TRANSISTOR
				or 2PA1576/R/-X			Q835	2SA1576A/QRS/-X	TRANSISTOR
			Q807	2SC4081/QRS/-X				or 2PA1576/R/-X	TRANSISTOR
				or 2PC4081/R/-X				or 2SB1218A/QR/-X	TRANSISTOR
				or 2SD1819A/QRS/-X			Q836	DTC144WU	TRANSISTOR
			Q809	2SC4081/QRS/-X				or PDT144WU	TRANSISTOR
				or 2PC4081/R/-X				or RN1309	TRANSISTOR
				or 2SD1819A/QRS/-X				or UN521E	TRANSISTOR
			Q810	2SA1576A/QR/-X			Q837	2SA1576A/QRS/-X	TRANSISTOR
				or 2SB1218A/QR/-X				or 2SB1218A/QR/-X	TRANSISTOR
				or 2PA1576/R/-X				or 2PA1576/R/-X	TRANSISTOR
			Q811	2SC4081/QRS/-X			Q838	2SC4081/QRS/-X	TRANSISTOR
				or 2PC4081/R/-X				or 2PC4081/R/-X	TRANSISTOR
				or 2SD1819A/QRS/-X				or 2SD1819A/QRS/-X	TRANSISTOR
			Q813	2SC4081/QRS/-X			Q839	2SC4081/QRS/-X	TRANSISTOR
				or 2PC4081/R/-X				or 2SD1819A/QRS/-X	TRANSISTOR
				or 2SD1819A/QRS/-X				or 2PC4081/R/-X	TRANSISTOR
			Q814	2SA1576A/QR/-X			Q840	2SA1576A/QRS/-X	TRANSISTOR
				or 2PA1576/R/-X				or 2PA1576/R/-X	TRANSISTOR
				or 2SB1218A/QR/-X				or 2SB1218A/QR/-X	TRANSISTOR
			Q815	2SC4081/QRS/-X			Q1001	2SA1576A/QRS/-X	TRANSISTOR
				or 2SD1819A/QRS/-X				or 2PA1576/R/-X	TRANSISTOR
				or 2PC4081/R/-X				or 2SB1218A/QR/-X	TRANSISTOR
			Q817	2SC4081/QRS/-X			Q1002	2SA1576A/QRS/-X	TRANSISTOR
				or 2SD1819A/QRS/-X				or 2SB1218A/QR/-X	TRANSISTOR
				or 2PC4081/R/-X				or 2PA1576/R/-X	TRANSISTOR
			Q818	2SA1576A/QR/-X			Q1003	2SA1576A/QRS/-X	TRANSISTOR
				or 2PA1576/R/-X				or 2PA1576/R/-X	TRANSISTOR
				or 2SB1218A/QR/-X				or 2SB1218A/QR/-X	TRANSISTOR
			Q819	2SC4081/QRS/-X			Q1004	2SA1576A/QRS/-X	TRANSISTOR
				or 2SD1819A/QRS/-X				or 2SB1218A/QR/-X	TRANSISTOR
				or 2PC4081/R/-X				or 2PA1576/R/-X	TRANSISTOR
			Q821	2SC4081/QRS/-X			Q1005	2SA1576A/QRS/-X	TRANSISTOR
				or 2SD1819A/QRS/-X				or 2PA1576/R/-X	TRANSISTOR
				or 2PC4081/R/-X				or 2SB1218A/QR/-X	TRANSISTOR
			Q822	2SA1576A/QRS/-X			Q1006	2SC4081/QRS/-X	TRANSISTOR
				or 2PA1576/R/-X				or 2SD1819A/QRS/-X	TRANSISTOR
				or 2SB1218A/QR/-X				or 2PC4081/R/-X	TRANSISTOR
			Q823	2SC4081/QRS/-X			Q1007	2SC4081/QRS/-X	TRANSISTOR
				or 2SD1819A/QRS/-X				or 2PC4081/R/-X	TRANSISTOR
				or 2PC4081/R/-X				or 2SD1819A/QRS/-X	TRANSISTOR
			Q824	2SC4081/QRS/-X			Q1008	2SC4081/QRS/-X	TRANSISTOR
				or 2PC4081/R/-X				or 2SD1819A/QRS/-X	TRANSISTOR
				or 2SD1819A/QRS/-X				or 2PC4081/R/-X	TRANSISTOR
			Q825	2SC4081/QRS/-X			Q1009	2SC4081/QRS/-X	TRANSISTOR

#	△ REF No.	PART No.	PART NAME, DESCRIPTION		#	△ REF No.	PART No.	PART NAME, DESCRIPTION	
		or 2PC4081/R/-X	TRANSISTOR		R47		NRSA63J-101X	MG RESISTOR	100Ω,1/16W
		or 2SD1819A/QRS/-X	TRANSISTOR		R49		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
Q1010		2SA1576A/QR/-X	TRANSISTOR		R51		NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
		or 2PA1576/R/-X	TRANSISTOR		R52		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
Q1011		2SC4081/QRS/-X	TRANSISTOR		R53		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
		or 2SB1218A/QR/-X	TRANSISTOR		R54		NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
		or 2PC4081/R/-X	TRANSISTOR		R55		NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
		or 2SD1819A/QRS/-X	TRANSISTOR		R56		NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
D201		UDZ2.2B	ZENER DIODE		R57		NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
D202		UDZ3.0B	ZENER DIODE		R58		NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
D203		MA304	VARI CAP DIODE		R59		NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
D802		1SS355	DIODE		R60		NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
D803		1SS355	DIODE		R61		NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
D804		1SS355	DIODE		R62		NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
D805		1SS355	DIODE		R65		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
D806		1SS355	DIODE		R66		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
D1001		UDZ5.1B	ZENER DIODE		R69		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R1		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R70		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R2		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R71		NRSA63J-221X	MG RESISTOR	220Ω,1/16W
R3		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R72		NRSA63J-221X	MG RESISTOR	220Ω,1/16W
R4		NRSA63J-103X	MG RESISTOR	10kΩ,1/16W	R73		NRSA63J-221X	MG RESISTOR	220Ω,1/16W
R5		NRSA63J-103X	MG RESISTOR	10kΩ,1/16W	R74		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R6		NRSA63J-103X	MG RESISTOR	10kΩ,1/16W	R75		NRSA63J-221X	MG RESISTOR	220Ω,1/16W
R7		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R76		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R8		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R77		NRSA63J-471X	MG RESISTOR	470Ω,1/16W
R9		NRSA63J-102X	MG RESISTOR	1kΩ,1/16W	R78		NRSA63J-471X	MG RESISTOR	470Ω,1/16W
R10		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R79		NRSA63J-221X	MG RESISTOR	220Ω,1/16W
R11		NRSA63J-100X	MG RESISTOR	10Ω,1/16W	R80		NRSA63J-221X	MG RESISTOR	220Ω,1/16W
R12		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R81		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R13		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R82		NRSA63J-221X	MG RESISTOR	220Ω,1/16W
R14		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R83		NRSA63J-221X	MG RESISTOR	220Ω,1/16W
R15		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R84		NRSA63J-221X	MG RESISTOR	220Ω,1/16W
R16		NRSA63J-103X	MG RESISTOR	10kΩ,1/16W	R85		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R17		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R86		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R18		NRSA63J-221X	MG RESISTOR	220Ω,1/16W	R87		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R19		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R88		NRSA63J-221X	MG RESISTOR	220Ω,1/16W
R20		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R89		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R21		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R90		NRSA63J-221X	MG RESISTOR	220Ω,1/16W
R22		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R91		NRSA63J-221X	MG RESISTOR	220Ω,1/16W
R23		NRSA63J-103X	MG RESISTOR	10kΩ,1/16W	R92		NRSA63J-221X	MG RESISTOR	220Ω,1/16W
R24		NRSA63J-331X	MG RESISTOR	330Ω,1/16W	R93		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R25		NRSA63J-105X	MG RESISTOR	1MΩ,1/16W	R94		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R26		NRSA63J-221X	MG RESISTOR	220Ω,1/16W	R95		NRSA63J-221X	MG RESISTOR	220Ω,1/16W
R27		NRSA63J-103X	MG RESISTOR	10kΩ,1/16W	R96		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R28		NRSA63J-103X	MG RESISTOR	10kΩ,1/16W	R97		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R29		NRSA63J-103X	MG RESISTOR	10kΩ,1/16W	R98		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R30		NRSA63J-103X	MG RESISTOR	10kΩ,1/16W	R99		NRSA63J-471X	MG RESISTOR	470Ω,1/16W
R31		NRSA63J-103X	MG RESISTOR	10kΩ,1/16W	R100		NRSA63J-471X	MG RESISTOR	470Ω,1/16W
R32		NRSA63J-103X	MG RESISTOR	10kΩ,1/16W	R101		NRSA63J-471X	MG RESISTOR	470Ω,1/16W
R33		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R102		NRSA63J-471X	MG RESISTOR	470Ω,1/16W
R34		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R103		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R35		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R104		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R36		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R105		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R37		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R109		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R38		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R110		NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R39		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R112		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R40		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R113		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R41		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R115		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R42		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R116		NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R45		NRSA63J-103X	MG RESISTOR	10kΩ,1/16W	R117		NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R46		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W	R118		NRSA63J-472X	MG RESISTOR	4.7kΩ,1/16W

#	△	REF No.	PART No.	PART NAME, DESCRIPTION	#	△	REF No.	PART No.	PART NAME, DESCRIPTION
R201			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W	R404			NRSA63J-101X	MG RESISTOR 100Ω, 1/16W
R202			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W	R405			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W
R203			NRSA63J-220X	MG RESISTOR 22Ω, 1/16W	R406			NRSA63J-101X	MG RESISTOR 100Ω, 1/16W
R204			NRVA63D-392X	CMF RESISTOR 3.9kΩ, 1/16W	R407			NRSA63J-471X	MG RESISTOR 470Ω, 1/16W
R205			NRVA63D-682X	CMF RESISTOR 6.8kΩ, 1/16W	R408			NRSA63J-222X	MG RESISTOR 2.2kΩ, 1/16W
R206			NRSA63J-331X	MG RESISTOR 330Ω, 1/16W	R409			NRSA63J-471X	MG RESISTOR 470Ω, 1/16W
R208			NRVA63D-822X	CMF RESISTOR 8.2kΩ, 1/16W	R410			NRSA63J-152X	MG RESISTOR 1.5kΩ, 1/16W
R209			NRSA63J-220X	MG RESISTOR 22Ω, 1/16W	R411			NRSA63J-152X	MG RESISTOR 1.5kΩ, 1/16W
R211			NRSA63J-470X	MG RESISTOR 47Ω, 1/16W	R412			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W
R212			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R413			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W
R213			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R414			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W
R214			NRSA63J-393X	MG RESISTOR 39kΩ, 1/16W	R415			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W
R215			NRSA63J-473X	MG RESISTOR 47kΩ, 1/16W	R420			NRSA63J-392X	MG RESISTOR 3.9kΩ, 1/16W
R216			NRSA63J-821X	MG RESISTOR 820Ω, 1/16W	R421			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W
R217			NRSA63J-104X	MG RESISTOR 100kΩ, 1/16W	R422			NRSA63J-472X	MG RESISTOR 4.7kΩ, 1/16W
R218			NRSA63J-470X	MG RESISTOR 47Ω, 1/16W	R423			NRSA63J-471X	MG RESISTOR 470Ω, 1/16W
R219			NRSA63J-105X	MG RESISTOR 1MΩ, 1/16W	R424			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W
R220			NRSA63J-473X	MG RESISTOR 47kΩ, 1/16W	R425			NRSA63J-122X	MG RESISTOR 1.2kΩ, 1/16W
R221			NRSA63J-473X	MG RESISTOR 47kΩ, 1/16W	R426			NRSA63J-681X	MG RESISTOR 680Ω, 1/16W
R222			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R427			NRSA63J-681X	MG RESISTOR 680Ω, 1/16W
R224			NRSA63J-102X	MG RESISTOR 1kΩ, 1/16W	R428			NRSA63J-151X	MG RESISTOR 150Ω, 1/16W
R226			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W	R429			NRSA63J-471X	MG RESISTOR 470Ω, 1/16W
R227			NRVA63D-103X	CMF RESISTOR 10kΩ, 1/16W	R430			NRSA63J-102X	MG RESISTOR 1kΩ, 1/16W
R228			NRSA63J-512X	MG RESISTOR 5.1kΩ, 1/16W	R431			NRSA63J-101X	MG RESISTOR 100Ω, 1/16W
R229			NRSA63J-560X	MG RESISTOR 56Ω, 1/16W	R432			NRSA63J-750X	MG RESISTOR 75Ω, 1/16W
R230			NRSA63J-560X	MG RESISTOR 56Ω, 1/16W	R435			NRSA63J-222X	MG RESISTOR 2.2kΩ, 1/16W
R231			NRSA63J-560X	MG RESISTOR 56Ω, 1/16W	R436			NRSA63J-101X	MG RESISTOR 100Ω, 1/16W
R232			NRSA63J-560X	MG RESISTOR 56Ω, 1/16W	R437			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W
R233			NRSA63J-512X	MG RESISTOR 5.1kΩ, 1/16W	R438			NRSA63J-101X	MG RESISTOR 100Ω, 1/16W
R234			NRSA63J-560X	MG RESISTOR 56Ω, 1/16W	R439			NRSA63J-471X	MG RESISTOR 470Ω, 1/16W
R235			NRSA63J-560X	MG RESISTOR 56Ω, 1/16W	R440			NRSA63J-222X	MG RESISTOR 2.2kΩ, 1/16W
R236			NRSA63J-560X	MG RESISTOR 56Ω, 1/16W	R441			NRSA63J-471X	MG RESISTOR 470Ω, 1/16W
R237			NRSA63J-560X	MG RESISTOR 56Ω, 1/16W	R442			NRSA63J-152X	MG RESISTOR 1.5kΩ, 1/16W
R238			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R443			NRSA63J-152X	MG RESISTOR 1.5kΩ, 1/16W
R240			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R444			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W
R241			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R445			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W
R242			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R446			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W
R245			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R447			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W
R246			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R452			NRSA63J-392X	MG RESISTOR 3.9kΩ, 1/16W
R250			NRSA63J-394X	MG RESISTOR 390kΩ, 1/16W	R453			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W
R251			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W	R454			NRSA63J-472X	MG RESISTOR 4.7kΩ, 1/16W
R253			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W	R455			NRSA63J-471X	MG RESISTOR 470Ω, 1/16W
R254			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R456			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W
R255			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R457			NRSA63J-122X	MG RESISTOR 1.2kΩ, 1/16W
R256			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R458			NRSA63J-681X	MG RESISTOR 680Ω, 1/16W
R259			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R459			NRSA63J-681X	MG RESISTOR 680Ω, 1/16W
R261			NRSA63J-221X	MG RESISTOR 220Ω, 1/16W	R460			NRSA63J-151X	MG RESISTOR 150Ω, 1/16W
R262			NRVA63D-151X	CMF RESISTOR 150Ω, 1/16W	R461			NRSA63J-471X	MG RESISTOR 470Ω, 1/16W
R263			NRSA63J-101X	MG RESISTOR 100Ω, 1/16W	R462			NRSA63J-102X	MG RESISTOR 1kΩ, 1/16W
R264			NRVA63D-151X	CMF RESISTOR 150Ω, 1/16W	R463			NRSA63J-101X	MG RESISTOR 100Ω, 1/16W
R265			NRVA63D-151X	CMF RESISTOR 150Ω, 1/16W	R464			NRSA63J-750X	MG RESISTOR 75Ω, 1/16W
R266			NRSA63J-221X	MG RESISTOR 220Ω, 1/16W	R465			NRSA63J-391X	MG RESISTOR 390Ω, 1/16W
R267			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W	R466			NRSA63J-153X	MG RESISTOR 15kΩ, 1/16W
R268			NRSA63J-105X	MG RESISTOR 1MΩ, 1/16W	R467			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W
R272			NRSA63J-104X	MG RESISTOR 100kΩ, 1/16W	R468			NRSA63J-563X	MG RESISTOR 56kΩ, 1/16W
R273			NRSA63J-104X	MG RESISTOR 100kΩ, 1/16W	R469			NRSA63J-331X	MG RESISTOR 330Ω, 1/16W
R274			NRSA63J-221X	MG RESISTOR 220Ω, 1/16W	R470			NRSA63J-272X	MG RESISTOR 2.7kΩ, 1/16W
R275			NRSA63J-391X	MG RESISTOR 390Ω, 1/16W	R471			NRSA63J-331X	MG RESISTOR 330Ω, 1/16W
R276			NRSA63J-221X	MG RESISTOR 220Ω, 1/16W	R472			NRSA63J-681X	MG RESISTOR 680Ω, 1/16W
R277			NRSA63J-391X	MG RESISTOR 390Ω, 1/16W	R473			NRSA63J-101X	MG RESISTOR 100Ω, 1/16W
R403			NRSA63J-222X	MG RESISTOR 2.2kΩ, 1/16W	R474			NRSA63J-101X	MG RESISTOR 100Ω, 1/16W

#	△ REF No.	PART No.	PART NAME, DESCRIPTION	#	△ REF No.	PART No.	PART NAME, DESCRIPTION
R475		NRSA63J-562X	MG RESISTOR 5.6kΩ,1/16W	R647		NRSA63J-750X	MG RESISTOR 75Ω,1/16W
R476		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W	R648		NRSA63J-750X	MG RESISTOR 75Ω,1/16W
R477		NRSA63J-471X	MG RESISTOR 470Ω,1/16W	R649		NRSA63J-750X	MG RESISTOR 75Ω,1/16W
R478		NRSA63J-333X	MG RESISTOR 33kΩ,1/16W	R650		NRSA63J-750X	MG RESISTOR 75Ω,1/16W
R479		NRSA63J-562X	MG RESISTOR 5.6kΩ,1/16W	R651		NRSA63J-750X	MG RESISTOR 75Ω,1/16W
R480		NRSA63J-750X	MG RESISTOR 75Ω,1/16W	R652		NRSA63J-750X	MG RESISTOR 75Ω,1/16W
R481		NRSA63J-391X	MG RESISTOR 390Ω,1/16W	R653		NRSA63J-750X	MG RESISTOR 75Ω,1/16W
R482		NRSA63J-153X	MG RESISTOR 15kΩ,1/16W	R654		NRSA63J-750X	MG RESISTOR 75Ω,1/16W
R483		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R657		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R484		NRSA63J-563X	MG RESISTOR 56kΩ,1/16W	R803		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R485		NRSA63J-331X	MG RESISTOR 330Ω,1/16W	R804		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R486		NRSA63J-272X	MG RESISTOR 2.7kΩ,1/16W	R806		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R487		NRSA63J-331X	MG RESISTOR 330Ω,1/16W	R807		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R488		NRSA63J-681X	MG RESISTOR 680Ω,1/16W	R808		NRSA63J-151X	MG RESISTOR 150Ω,1/16W
R489		NRSA63J-101X	MG RESISTOR 100Ω,1/16W	R809		NRSA63J-301X	MG RESISTOR 300Ω,1/16W
R490		NRSA63J-101X	MG RESISTOR 100Ω,1/16W	R810		NRSA63J-122X	MG RESISTOR 1.2kΩ,1/16W
R491		NRSA63J-562X	MG RESISTOR 5.6kΩ,1/16W	R811		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R492		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W	R812		NRSA63J-471X	MG RESISTOR 470Ω,1/16W
R493		NRSA63J-471X	MG RESISTOR 470Ω,1/16W	R813		NRSA63J-681X	MG RESISTOR 680Ω,1/16W
R494		NRSA63J-333X	MG RESISTOR 33kΩ,1/16W	R814		NRSA63J-821X	MG RESISTOR 820Ω,1/16W
R495		NRSA63J-562X	MG RESISTOR 5.6kΩ,1/16W	R815		NRSA63J-681X	MG RESISTOR 680Ω,1/16W
R496		NRSA63J-750X	MG RESISTOR 75Ω,1/16W	R816		NRSA63J-221X	MG RESISTOR 220Ω,1/16W
R497		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R819		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R601		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R820		NRSA63J-151X	MG RESISTOR 150Ω,1/16W
R603		NRSA63J-105X	MG RESISTOR 1MΩ,1/16W	R821		NRSA63J-331X	MG RESISTOR 330Ω,1/16W
R604		NRSA63J-470X	MG RESISTOR 47Ω,1/16W	R822		NRSA63J-122X	MG RESISTOR 1.2kΩ,1/16W
R605		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R823		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R607		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R824		NRSA63J-471X	MG RESISTOR 470Ω,1/16W
R608		NRSA63J-750X	MG RESISTOR 75Ω,1/16W	R825		NRSA63J-101X	MG RESISTOR 100Ω,1/16W
R609		NRSA63J-750X	MG RESISTOR 75Ω,1/16W	R826		NRSA63J-821X	MG RESISTOR 820Ω,1/16W
R610		NRSA63J-750X	MG RESISTOR 75Ω,1/16W	R827		NRSA63J-681X	MG RESISTOR 680Ω,1/16W
R612		NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W	R828		NRSA63J-221X	MG RESISTOR 220Ω,1/16W
R613		NRSA63J-203X	MG RESISTOR 20kΩ,1/16W	R831		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R614		NRSA63J-203X	MG RESISTOR 20kΩ,1/16W	R832		NRSA63J-151X	MG RESISTOR 150Ω,1/16W
R616		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R833		NRSA63J-331X	MG RESISTOR 330Ω,1/16W
R618		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R834		NRSA63J-122X	MG RESISTOR 1.2kΩ,1/16W
R619		NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W	R835		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R620		NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W	R836		NRSA63J-471X	MG RESISTOR 470Ω,1/16W
R622		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R837		NRSA63J-101X	MG RESISTOR 100Ω,1/16W
R623		NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W	R838		NRSA63J-821X	MG RESISTOR 820Ω,1/16W
R625		NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W	R839		NRSA63J-681X	MG RESISTOR 680Ω,1/16W
R626		NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W	R840		NRSA63J-221X	MG RESISTOR 220Ω,1/16W
R628		NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W	R843		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R629		NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W	R844		NRSA63J-331X	MG RESISTOR 330Ω,1/16W
R630		NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W	R845		NRSA63J-331X	MG RESISTOR 330Ω,1/16W
R631		NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W	R846		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R632		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R847		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R633		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W	R848		NRSA63J-391X	MG RESISTOR 390Ω,1/16W
R634		NRSA63J-750X	MG RESISTOR 75Ω,1/16W	R849		NRSA63J-101X	MG RESISTOR 100Ω,1/16W
R635		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W	R850		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R636		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	R851		NRSA63J-681X	MG RESISTOR 680Ω,1/16W
R637		NRSA63J-750X	MG RESISTOR 75Ω,1/16W	R852		NRSA63J-221X	MG RESISTOR 220Ω,1/16W
R638		NRSA63J-750X	MG RESISTOR 75Ω,1/16W	R855		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R639		NRSA63J-750X	MG RESISTOR 75Ω,1/16W	R856		NRSA63J-331X	MG RESISTOR 330Ω,1/16W
R640		NRSA63J-750X	MG RESISTOR 75Ω,1/16W	R857		NRSA63J-331X	MG RESISTOR 330Ω,1/16W
R641		NRSA63J-750X	MG RESISTOR 75Ω,1/16W	R858		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R642		NRSA63J-750X	MG RESISTOR 75Ω,1/16W	R859		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R643		NRSA63J-750X	MG RESISTOR 75Ω,1/16W	R860		NRSA63J-391X	MG RESISTOR 390Ω,1/16W
R644		NRSA63J-750X	MG RESISTOR 75Ω,1/16W	R861		NRSA63J-122X	MG RESISTOR 1.2kΩ,1/16W
R645		NRSA63J-750X	MG RESISTOR 75Ω,1/16W	R862		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W
R646		NRSA63J-750X	MG RESISTOR 75Ω,1/16W	R863		NRSA63J-681X	MG RESISTOR 680Ω,1/16W

#	△	REF No.	PART No.	PART NAME, DESCRIPTION	#	△	REF No.	PART No.	PART NAME, DESCRIPTION
R864			NRSA63J-221X	MG RESISTOR 220Ω, 1/16W	R1012			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W
R867			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R1013			NRSA63J-330X	MG RESISTOR 33Ω, 1/16W
R868			NRSA63J-153X	MG RESISTOR 15kΩ, 1/16W	R1015			NRSA63J-332X	MG RESISTOR 3.3kΩ, 1/16W
R869			NRSA63J-102X	MG RESISTOR 1kΩ, 1/16W	R1016			NRSA63J-122X	MG RESISTOR 1.2kΩ, 1/16W
R870			NRSA63J-222X	MG RESISTOR 2.2kΩ, 1/16W	R1017			NRSA63J-101X	MG RESISTOR 100Ω, 1/16W
R871			NRSA63J-221X	MG RESISTOR 220Ω, 1/16W	R1018			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W
R872			NRSA63J-222X	MG RESISTOR 2.2kΩ, 1/16W	R1019			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W
R873			NRSA63J-102X	MG RESISTOR 1kΩ, 1/16W	R1020			NRSA63J-330X	MG RESISTOR 33Ω, 1/16W
R874			NRSA63J-221X	MG RESISTOR 220Ω, 1/16W	R1021			NRVA63D-101X	CMF RESISTOR 100Ω, 1/16W
R875			NRSA63J-681X	MG RESISTOR 680Ω, 1/16W	R1022			NRVA63D-750X	CMF RESISTOR 75Ω, 1/16W
R877			NRSA63J-471X	MG RESISTOR 470Ω, 1/16W	R1023			NRVA63D-750X	CMF RESISTOR 75Ω, 1/16W
R878			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W	R1024			NRVA63D-201X	CMF RESISTOR 200Ω, 1/16W
R879			NRSA63J-223X	MG RESISTOR 22kΩ, 1/16W	R1025			NRVA63D-151X	CMF RESISTOR 150Ω, 1/16W
R880			NRSA63J-273X	MG RESISTOR 27kΩ, 1/16W	R1026			NRSA63J-152X	MG RESISTOR 1.5kΩ, 1/16W
R881			NRSA63J-102X	MG RESISTOR 1kΩ, 1/16W	R1027			NRVA63D-822X	CMF RESISTOR 8.2kΩ, 1/16W
R882			NRSA63J-221X	MG RESISTOR 220Ω, 1/16W	R1028			NRVA63D-222X	CMF RESISTOR 2.2kΩ, 1/16W
R883			NRSA63J-681X	MG RESISTOR 680Ω, 1/16W	R1029			NRSA63J-561X	MG RESISTOR 560Ω, 1/16W
R885			NRSA63J-272X	MG RESISTOR 2.7kΩ, 1/16W	R1030			NRSA63J-561X	MG RESISTOR 560Ω, 1/16W
R886			NRSA63J-102X	MG RESISTOR 1kΩ, 1/16W	R1031			NRSA63J-272X	MG RESISTOR 2.7kΩ, 1/16W
R890			NDC31HJ-270X	CAPACITOR 27pF, 50V	R1032			NRSA63J-272X	MG RESISTOR 2.7kΩ, 1/16W
R891			NRSA63J-681X	MG RESISTOR 680Ω, 1/16W	R1033			NRSA63J-272X	MG RESISTOR 2.7kΩ, 1/16W
R892			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W	R1034			NRSA63J-272X	MG RESISTOR 2.7kΩ, 1/16W
R893			NRSA63J-151X	MG RESISTOR 150Ω, 1/16W	R1035			NRSA63J-272X	MG RESISTOR 2.7kΩ, 1/16W
R894			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R1036			NRSA63J-182X	MG RESISTOR 1.8kΩ, 1/16W
R895			NRSA63J-471X	MG RESISTOR 470Ω, 1/16W	R1037			NRSA63J-471X	MG RESISTOR 470Ω, 1/16W
R897			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W	R1039			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W
R901			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W	R1041			NRSA63J-101X	MG RESISTOR 100Ω, 1/16W
R903			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R1042			NRSA63J-101X	MG RESISTOR 100Ω, 1/16W
R904			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W	R1060			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W
R905			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R1061			NRSA63D-392X	MG RESISTOR 3.9kΩ, 1/16W
R906			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R1062			NRSA63D-392X	MG RESISTOR 3.9kΩ, 1/16W
R907			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R1063			NRSA63J-102X	MG RESISTOR 1kΩ, 1/16W
R908			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R1064			NRSA63J-102X	MG RESISTOR 1kΩ, 1/16W
R909			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R1065			NRSA63J-102X	MG RESISTOR 1kΩ, 1/16W
R910			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W	R1066			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W
R911			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W	R1067			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W
R927			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R1068			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W
R928			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R1069			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W
R930			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R1070			NRSA63J-470X	MG RESISTOR 47Ω, 1/16W
R931			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R1201			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W
R933			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R1202			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W
R934			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R1205			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W
R935			NRSA63J-332X	MG RESISTOR 3.3kΩ, 1/16W	R1401			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W
R937			NRSA63J-183X	MG RESISTOR 18kΩ, 1/16W	R1402			NRSA63J-102X	MG RESISTOR 1kΩ, 1/16W
R938			NRSA63J-391X	MG RESISTOR 390Ω, 1/16W	R1403			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W
R939			NRSA63J-102X	MG RESISTOR 1kΩ, 1/16W	R1404			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W
R940			NRSA63J-122X	MG RESISTOR 1.2kΩ, 1/16W	R1405			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W
R943			NRSA63J-471X	MG RESISTOR 470Ω, 1/16W	R1406			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W
R946			NRVA63D-104X	CMF RESISTOR 100kΩ, 1/16W	R1407			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W
R947			NRVA63D-513X	CMF RESISTOR 51kΩ, 1/16W	R1409			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W
R950			NRSA63J-102X	MG RESISTOR 1kΩ, 1/16W	R1410			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W
R1001			NRSA63J-471X	MG RESISTOR 470Ω, 1/16W	R1411			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W
R1002			NRSA63J-471X	MG RESISTOR 470Ω, 1/16W	R1412			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W
R1003			NRSA63J-471X	MG RESISTOR 470Ω, 1/16W	R1413			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W
R1004			NRSA63J-471X	MG RESISTOR 470Ω, 1/16W	R1414			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W
R1005			NRSA63J-471X	MG RESISTOR 470Ω, 1/16W	R1415			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W
R1006			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W	R1416			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W
R1008			NRSA63J-332X	MG RESISTOR 3.3kΩ, 1/16W	R1417			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W
R1009			NRSA63J-122X	MG RESISTOR 1.2kΩ, 1/16W	R1419			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W
R1010			NRSA63J-101X	MG RESISTOR 100Ω, 1/16W	R1421			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W
R1011			NRSA63J-0R0X	MG RESISTOR 0Ω, 1/16W	R1423			NRSA63J-103X	MG RESISTOR 10kΩ, 1/16W

#	△ REF No.	PART No.	PART NAME, DESCRIPTION	#	△ REF No.	PART No.	PART NAME, DESCRIPTION
R1424		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	R1819		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R1425		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	R1820		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R1426		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	R1821		NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W
R1427		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	R1822		NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W
R1428		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	R1823		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R1429		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R1824		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R1601		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R1825		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R1606		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R1826		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W
R1608		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	R1827		NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W
R1609		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	R1828		NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W
R1610		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R1829		NRSA63J-221X	MG RESISTOR 220Ω,1/16W
R1611		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	R1830		NRSA63J-221X	MG RESISTOR 220Ω,1/16W
R1612		NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W	R1831		NRSA63J-331X	MG RESISTOR 330Ω,1/16W
R1613		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R1832		NRSA63J-100X	MG RESISTOR 10Ω,1/16W
R1614		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R1840		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R1615		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R1841		NRSA63J-104X	MG RESISTOR 100kΩ,1/16W
R1619		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R1842		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R1620		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	R1843		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R1621		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	RA1		NRZ0040-103X	NETWORK RESISTOR 10kΩ
R1622		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	RA201		NRZ0040-103X	NETWORK RESISTOR 10kΩ
R1623		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	RA202		NRZ0040-103X	NETWORK RESISTOR 10kΩ
R1624		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	RA203		NRZ0040-103X	NETWORK RESISTOR 10kΩ
R1626		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	RA204		NRZ0040-0R0X	NETWORK RESISTOR 0Ω
R1627		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	RA205		NRZ0040-0R0X	NETWORK RESISTOR 0Ω
R1628		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	RA206		NRZ0040-0R0X	NETWORK RESISTOR 0Ω
R1701		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	RA207		NRZ0040-0R0X	NETWORK RESISTOR 0Ω
R1706		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	RA208		NRZ0040-0R0X	NETWORK RESISTOR 0Ω
R1708		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	RA209		NRZ0040-0R0X	NETWORK RESISTOR 0Ω
R1709		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	RA210		NRZ0040-0R0X	NETWORK RESISTOR 0Ω
R1710		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	RA601		NRZ0040-0R0X	NETWORK RESISTOR 0Ω
R1711		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	RA602		NRZ0040-0R0X	NETWORK RESISTOR 0Ω
R1712		NRSA63J-472X	MG RESISTOR 4.7kΩ,1/16W	RA603		NRZ0040-472X	NETWORK RESISTOR 4.7kΩ
R1713		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	RA604		NRZ0040-472X	NETWORK RESISTOR 4.7kΩ
R1714		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	RA605		NRZ0040-472X	NETWORK RESISTOR 4.7kΩ
R1715		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	RA606		NRZ0040-472X	NETWORK RESISTOR 4.7kΩ
R1719		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	RA607		NRZ0040-472X	NETWORK RESISTOR 4.7kΩ
R1720		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	RA608		NRZ0040-472X	NETWORK RESISTOR 4.7kΩ
R1721		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	RA609		NRZ0040-472X	NETWORK RESISTOR 4.7kΩ
R1722		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	RA610		NRZ0040-0R0X	NETWORK RESISTOR 0Ω
R1723		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	RA611		NRZ0040-0R0X	NETWORK RESISTOR 0Ω
R1724		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	RA612		NRZ0040-472X	NETWORK RESISTOR 4.7kΩ
R1726		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	RA613		NRZ0040-472X	NETWORK RESISTOR 4.7kΩ
R1727		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	RA1001		NRZ0040-103X	NETWORK RESISTOR 10kΩ
R1728		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	RA1003		NRZ0040-103X	NETWORK RESISTOR 10kΩ
R1801		NRSA63J-182X	MG RESISTOR 1.8kΩ,1/16W	RA1004		NRZ0040-103X	NETWORK RESISTOR 10kΩ
R1802		NRSA63J-182X	MG RESISTOR 1.8kΩ,1/16W	RA1401		NRZ0040-103X	NETWORK RESISTOR 10kΩ
R1803		NRSA63J-182X	MG RESISTOR 1.8kΩ,1/16W	RA1402		NRZ0040-103X	NETWORK RESISTOR 10kΩ
R1804		NRSA63J-182X	MG RESISTOR 1.8kΩ,1/16W	RA1403		NRZ0040-103X	NETWORK RESISTOR 10kΩ
R1805		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	RA1404		NRZ0040-103X	NETWORK RESISTOR 10kΩ
R1806		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W	RA1601		NRZ0040-103X	NETWORK RESISTOR 10kΩ
R1807		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	RA1602		NRZ0040-103X	NETWORK RESISTOR 10kΩ
R1808		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	RA1603		NRZ0040-103X	NETWORK RESISTOR 10kΩ
R1809		NRSA63J-100X	MG RESISTOR 10Ω,1/16W	RA1701		NRZ0040-103X	NETWORK RESISTOR 10kΩ
R1810		NRSA63J-100X	MG RESISTOR 10Ω,1/16W	RA1702		NRZ0040-103X	NETWORK RESISTOR 10kΩ
R1811		NRSA63J-102X	MG RESISTOR 1kΩ,1/16W	RA1703		NRZ0040-103X	NETWORK RESISTOR 10kΩ
R1813		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	B202		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R1814		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	B203		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R1815		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	B207		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R1816		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	B208		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R1817		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	B209		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W
R1818		NRSA63J-103X	MG RESISTOR 10kΩ,1/16W	B210		NRSA63J-0R0X	MG RESISTOR 0Ω,1/16W

#	△	REF No.	PART No.	PART NAME, DESCRIPTION		#	△	REF No.	PART No.	PART NAME, DESCRIPTION	
B211			NRSA63J-0R0X	MG RESISTOR	0Ω, 1/16W	C204			NBE20JM-226X	T CAPACITOR	22μF,6.3V
B213			NRSA63J-0R0X	MG RESISTOR	0Ω, 1/16W	C205			NCB31CK-104X	CAPACITOR	0.1μF,16V
B214			NRSA63J-0R0X	MG RESISTOR	0Ω, 1/16W	C206			NBE20JM-226X	T CAPACITOR	22μF,6.3V
B401			NRSA63J-0R0X	MG RESISTOR	0Ω, 1/16W	C207			NCB31CK-104X	CAPACITOR	0.1μF,16V
B402			NRSA63J-0R0X	MG RESISTOR	0Ω, 1/16W	C208			NCB31CK-104X	CAPACITOR	0.1μF,16V
B808			NRSA63J-0R0X	MG RESISTOR	0Ω, 1/16W	C209			NCB31CK-104X	CAPACITOR	0.1μF,16V
B809			NRSA63J-0R0X	MG RESISTOR	0Ω, 1/16W	C210			NCB31CK-104X	CAPACITOR	0.1μF,16V
B810			NRSA63J-0R0X	MG RESISTOR	0Ω, 1/16W	C211			NCB31CK-104X	CAPACITOR	0.1μF,16V
B821			NRSA63J-0R0X	MG RESISTOR	0Ω, 1/16W	C212			NCB31CK-104X	CAPACITOR	0.1μF,16V
B823			NRSA63J-0R0X	MG RESISTOR	0Ω, 1/16W	C213			NCB31CK-104X	CAPACITOR	0.1μF,16V
B825			NRSA63J-0R0X	MG RESISTOR	0Ω, 1/16W	C214			NCB31CK-104X	CAPACITOR	0.1μF,16V
B1006			NRSA63J-0R0X	MG RESISTOR	0Ω, 1/16W	C215			NCB31CK-104X	CAPACITOR	0.1μF,16V
B1007			NRSA63J-0R0X	MG RESISTOR	0Ω, 1/16W	C216			NCB31CK-104X	CAPACITOR	0.1μF,16V
B1008			NRSA63J-0R0X	MG RESISTOR	0Ω, 1/16W	C217			NBE20JM-226X	T CAPACITOR	22μF,6.3V
B1009			NRSA63J-0R0X	MG RESISTOR	0Ω, 1/16W	C218			NCB31CK-104X	CAPACITOR	0.1μF,16V
B1010			NRSA63J-0R0X	MG RESISTOR	0Ω, 1/16W	C219			NDC31HJ-100X	CAPACITOR	10pF,50V
B1401			NRSA63J-0R0X	MG RESISTOR	0Ω, 1/16W	C220			NCF31AZ-105X	CAPACITOR	1μF,10V
B1402			NRSA63J-0R0X	MG RESISTOR	0Ω, 1/16W	C221			NDC31HJ-100X	CAPACITOR	10pF,50V
C1			NCB31CK-104X	CAPACITOR	0.1μF,16V	C222			NDC31HJ-120X	CAPACITOR	12pF,50V
C2			NCB31CK-104X	CAPACITOR	0.1μF,16V	C223			NDC31HJ-120X	CAPACITOR	12pF,50V
C3			NCB31CK-104X	CAPACITOR	0.1μF,16V	C224			NCB31CK-104X	CAPACITOR	0.1μF,16V
C4			NDC31HJ-100X	CAPACITOR	10pF,50V	C225			NCF31AZ-105X	CAPACITOR	1μF,10V
C5			NDC31HJ-100X	CAPACITOR	10pF,50V	C226			NCB31HK-102X	CAPACITOR	0.001μF,50V
C6			NCB31CK-104X	CAPACITOR	0.1μF,16V	C227			NCB31HK-103X	CAPACITOR	0.01μF,50V
C7			NCB31CK-104X	CAPACITOR	0.1μF,16V	C228			NCB31EK-103X	CAPACITOR	0.01μF,25V
C8			NCB31CK-104X	CAPACITOR	0.1μF,16V	C229			NCB31EK-103X	CAPACITOR	0.01μF,25V
C9			NCB31CK-104X	CAPACITOR	0.1μF,16V	C230			NDC31HJ-4R0X	CAPACITOR	4pF,50V
C10			NCB31HK-472X	CAPACITOR	0.0047μF,50V	C232			NCB31HK-102X	CAPACITOR	0.001μF,50V
C12			NDC31HJ-101X	CAPACITOR	100pF,50V	C233			NCF31AZ-105X	CAPACITOR	1μF,10V
C13			NCB31CK-104X	CAPACITOR	0.1μF,16V	C234			NCB31EK-103X	CAPACITOR	0.01μF,25V
C14			NCB31CK-104X	CAPACITOR	0.1μF,16V	C235			NCB31EK-103X	CAPACITOR	0.01μF,25V
C15			NCB31CK-104X	CAPACITOR	0.1μF,16V	C236			NCB31EK-103X	CAPACITOR	0.01μF,25V
C16			NCB31CK-104X	CAPACITOR	0.1μF,16V	C237			NCB31CK-473X	CAPACITOR	0.047μF,16V
C17			NCB31CK-104X	CAPACITOR	0.1μF,16V	C238			NDC31HJ-101X	CAPACITOR	100pF,50V
C18			NCB31CK-104X	CAPACITOR	0.1μF,16V	C239			NDC31HJ-120X	CAPACITOR	12pF,50V
C19			NCB31CK-104X	CAPACITOR	0.1μF,16V	C240			NDC31HJ-120X	CAPACITOR	12pF,50V
C21			NCB31CK-104X	CAPACITOR	0.1μF,16V	C241			NCB31CK-104X	CAPACITOR	0.1μF,16V
C23			NCB31CK-104X	CAPACITOR	0.1μF,16V	C242			NCB31CK-104X	CAPACITOR	0.1μF,16V
C24			NCB31CK-104X	CAPACITOR	0.1μF,16V	C243			NDC31HJ-271X	CAPACITOR	270pF,50V
C25			NCB31CK-104X	CAPACITOR	0.1μF,16V	C244			NCF31AZ-105X	CAPACITOR	1μF,10V
C26			NCB31CK-104X	CAPACITOR	0.1μF,16V	C245			NDC31HJ-271X	CAPACITOR	270pF,50V
C27			NCB31CK-104X	CAPACITOR	0.1μF,16V	C246			NCF31AZ-105X	CAPACITOR	1μF,10V
C28			NDC31HJ-470X	CAPACITOR	47pF,50V	C247			NCB31CK-104X	CAPACITOR	0.1μF,16V
C29			NDC31HJ-470X	CAPACITOR	47pF,50V	C248			NCB31CK-104X	CAPACITOR	0.1μF,16V
C30			NDC31HJ-470X	CAPACITOR	47pF,50V	C249			NCB31EK-103X	CAPACITOR	0.01μF,25V
C31			NDC31HJ-470X	CAPACITOR	47pF,50V	C250			NCB31EK-103X	CAPACITOR	0.01μF,25V
C32			NDC31HJ-470X	CAPACITOR	47pF,50V	C254			NCB31EK-103X	CAPACITOR	0.01μF,25V
C33			NDC31HJ-470X	CAPACITOR	47pF,50V	C255			NDC31HJ-100X	CAPACITOR	10pF,50V
C34			NDC31HJ-470X	CAPACITOR	47pF,50V	C256			NDC31HJ-100X	CAPACITOR	10pF,50V
C35			NDC31HJ-470X	CAPACITOR	47pF,50V	C257			NCB31EK-103X	CAPACITOR	0.01μF,25V
C36			NDC31HJ-470X	CAPACITOR	47pF,50V	C258			NBE20JM-226X	T CAPACITOR	22μF,6.3V
C37			NDC31HJ-470X	CAPACITOR	47pF,50V	C404			NCB31CK-104X	CAPACITOR	0.1μF,16V
C38			NDC31HJ-470X	CAPACITOR	47pF,50V	C407			NEA70JM-476X	E CAPACITOR	47μF,6.3V
C39			NDC31HJ-470X	CAPACITOR	47pF,50V	C408			NCB31EK-103X	CAPACITOR	0.01μF,25V
C40			NDC31HJ-470X	CAPACITOR	47pF,50V	C409			NCB21CK-105X	CAPACITOR	1μF,16V
C41			NDC31HJ-470X	CAPACITOR	47pF,50V	C410			NEA70JM-476X	E CAPACITOR	47μF,6.3V
C46			NCB31CK-104X	CAPACITOR	0.1μF,16V	C411			NCB31EK-103X	CAPACITOR	0.01μF,25V
C47			NCB30JK-105X	CAPACITOR	1μF,6.3V	C412			NCB31CK-104X	CAPACITOR	0.1μF,16V
C201			NEA70JM-476X	E CAPACITOR	47μF,6.3V	C413			NDC31HJ-150X	CAPACITOR	15pF,50V
C202			NBE20JM-226X	T CAPACITOR	22μF,6.3V	C414			NCB31EK-153X	CAPACITOR	0.015μF,25V
C203			NCB31CK-104X	CAPACITOR	0.1μF,16V	C415			NCF31AZ-105X	CAPACITOR	1μF,10V

#	△ REF No.	PART No.	PART NAME, DESCRIPTION	#	△ REF No.	PART No.	PART NAME, DESCRIPTION
C416		NCB31CK-104X	CAPACITOR 0.1μF,16V	C637		NDC31HJ-470X	CAPACITOR 47pF,50V
C417		NEA71CM-476X	E CAPACITOR 47μF,16V	C638		NDC31HJ-470X	CAPACITOR 47pF,50V
C422		NCB31CK-104X	CAPACITOR 0.1μF,16V	C639		NDC31HJ-470X	CAPACITOR 47pF,50V
C425		NEA70JM-476X	E CAPACITOR 47μF,6.3V	C640		NDC31HJ-470X	CAPACITOR 47pF,50V
C426		NCB21CK-105X	CAPACITOR 1μF,16V	C641		NDC31HJ-470X	CAPACITOR 47pF,50V
C427		NEA70JM-476X	E CAPACITOR 47μF,6.3V	C642		NDC31HJ-470X	CAPACITOR 47pF,50V
C428		NCB31EK-103X	CAPACITOR 0.01μF,25V	C643		NDC31HJ-470X	CAPACITOR 47pF,50V
C429		NCB31CK-104X	CAPACITOR 0.1μF,16V	C644		NDC31HJ-470X	CAPACITOR 47pF,50V
C430		NDC31HJ-150X	CAPACITOR 15pF,50V	C645		NDC31HJ-470X	CAPACITOR 47pF,50V
C431		NCB31EK-153X	CAPACITOR 0.015μF,25V	C646		NDC31HJ-470X	CAPACITOR 47pF,50V
C432		NCF31AZ-105X	CAPACITOR 1μF,10V	C647		NDC31HJ-470X	CAPACITOR 47pF,50V
C433		NCB31CK-104X	CAPACITOR 0.1μF,16V	C648		NDC31HJ-470X	CAPACITOR 47pF,50V
C434		NEA71CM-476X	E CAPACITOR 47μF,16V	C649		NDC31HJ-470X	CAPACITOR 47pF,50V
C436		NCB31CK-104X	CAPACITOR 0.1μF,16V	C650		NDC31HJ-470X	CAPACITOR 47pF,50V
C437		NBE20JM-226X	T CAPACITOR 22μF,6.3V	C651		NDC31HJ-470X	CAPACITOR 47pF,50V
C438		NCB31EK-103X	CAPACITOR 0.01μF,25V	C652		NDC31HJ-470X	CAPACITOR 47pF,50V
C439		NCB31CK-104X	CAPACITOR 0.1μF,16V	C653		NDC31HJ-470X	CAPACITOR 47pF,50V
C441		NCB31EK-103X	CAPACITOR 0.01μF,25V	C654		NCB31CK-104X	CAPACITOR 0.1μF,16V
C442		NEA71CM-476X	E CAPACITOR 47μF,16V	C655		NCB31EK-103X	CAPACITOR 0.01μF,25V
C443		NCB31EK-103X	CAPACITOR 0.01μF,25V	C656		NCB31CK-104X	CAPACITOR 0.1μF,16V
C444		NCB21EK-104X	CAPACITOR 0.1μF,25V	C657		NCB31EK-103X	CAPACITOR 0.01μF,25V
C446		NCB31CK-104X	CAPACITOR 0.1μF,16V	C658		NCB31CK-104X	CAPACITOR 0.1μF,16V
C447		NBE20JM-226X	T CAPACITOR 22μF,6.3V	C659		NCB31EK-103X	CAPACITOR 0.01μF,25V
C448		NCB31EK-103X	CAPACITOR 0.01μF,25V	C660		NCB31CK-104X	CAPACITOR 0.1μF,16V
C449		NCB31CK-104X	CAPACITOR 0.1μF,16V	C661		NCB31EK-103X	CAPACITOR 0.01μF,25V
C451		NEA71CM-476X	E CAPACITOR 47μF,16V	C662		NBSH0GM-477X	OS E CAPACITOR 470μF,4V
C452		NCB31EK-103X	CAPACITOR 0.01μF,25V	C801		NEA71CM-476X	E CAPACITOR 47μF,16V
C453		NCB21EK-104X	CAPACITOR 0.1μF,25V	C802		NEA70JM-107X	E CAPACITOR 100μF,6.3V
C601		NCB31CK-104X	CAPACITOR 0.1μF,16V	C803		NEA71CM-476X	E CAPACITOR 47μF,16V
C602		NBE20JM-226X	T CAPACITOR 22μF,6.3V	C805		NBE20JM-226X	T CAPACITOR 22μF,6.3V
C603		NBE20JM-226X	T CAPACITOR 22μF,6.3V	C806		NBE20JM-226X	T CAPACITOR 22μF,6.3V
C604		NCB31CK-104X	CAPACITOR 0.1μF,16V	C807		NEA70JM-476X	E CAPACITOR 47μF,6.3V
C605		NBE20JM-226X	T CAPACITOR 22μF,6.3V	C808		NBE40JM-476X	T CAPACITOR 47μF,6.3V
C606		NBE20JM-226X	T CAPACITOR 22μF,6.3V	C809		NBE40JM-476X	T CAPACITOR 47μF,6.3V
C607		NCB31CK-104X	CAPACITOR 0.1μF,16V	C810		NBE40JM-476X	T CAPACITOR 47μF,6.3V
C608		NCB31CK-104X	CAPACITOR 0.1μF,16V	C811		NBE40JM-476X	T CAPACITOR 47μF,6.3V
C609		NCB31CK-104X	CAPACITOR 0.1μF,16V	C812		NEA71CM-476X	E CAPACITOR 47μF,16V
C610		NCB31CK-104X	CAPACITOR 0.1μF,16V	C813		NEA70JM-226X	E CAPACITOR 22μF,6.3V
C611		NCB31CK-104X	CAPACITOR 0.1μF,16V	C814		NEA71CM-476X	E CAPACITOR 47μF,16V
C612		NCB31CK-104X	CAPACITOR 0.1μF,16V	C815		NEA70JM-107X	E CAPACITOR 100μF,6.3V
C613		NCB31CK-104X	CAPACITOR 0.1μF,16V	C821		NCB31CK-104X	CAPACITOR 0.1μF,16V
C614		NCB31CK-104X	CAPACITOR 0.1μF,16V	C822		NCB31CK-104X	CAPACITOR 0.1μF,16V
C615		NCB31CK-104X	CAPACITOR 0.1μF,16V	C823		NCB31CK-104X	CAPACITOR 0.1μF,16V
C616		NCB31CK-104X	CAPACITOR 0.1μF,16V	C824		NCB31CK-104X	CAPACITOR 0.1μF,16V
C617		NCB31CK-104X	CAPACITOR 0.1μF,16V	C825		NCB31CK-104X	CAPACITOR 0.1μF,16V
C618		NCB31CK-104X	CAPACITOR 0.1μF,16V	C826		NCB31CK-104X	CAPACITOR 0.1μF,16V
C619		NCB31CK-104X	CAPACITOR 0.1μF,16V	C827		NCB31CK-104X	CAPACITOR 0.1μF,16V
C620		NCB31CK-104X	CAPACITOR 0.1μF,16V	C828		NCB31CK-104X	CAPACITOR 0.1μF,16V
C621		NCB31CK-104X	CAPACITOR 0.1μF,16V	C829		NCB31CK-104X	CAPACITOR 0.1μF,16V
C622		NCB31CK-104X	CAPACITOR 0.1μF,16V	C830		NCB31CK-104X	CAPACITOR 0.1μF,16V
C623		NCB31CK-104X	CAPACITOR 0.1μF,16V	C832		NCB31CK-104X	CAPACITOR 0.1μF,16V
C624		NCB31CK-104X	CAPACITOR 0.1μF,16V	C834		NCB31CK-104X	CAPACITOR 0.1μF,16V
C625		NCB31CK-104X	CAPACITOR 0.1μF,16V	C836		NCB31CK-104X	CAPACITOR 0.1μF,16V
C626		NCB31CK-104X	CAPACITOR 0.1μF,16V	C838		NCB31CK-104X	CAPACITOR 0.1μF,16V
C627		NCB31CK-104X	CAPACITOR 0.1μF,16V	C840		NCB20JM-475X	CAPACITOR 4.7μF,6.3V
C628		NCB31CK-104X	CAPACITOR 0.1μF,16V	C841		NCB31CK-104X	CAPACITOR 0.1μF,16V
C629		NDC31HJ-100X	CAPACITOR 10pF,50V	C842		NCB31EK-103X	CAPACITOR 0.01μF,25V
C630		NDC31HJ-100X	CAPACITOR 10pF,50V	C843		NCB31EK-103X	CAPACITOR 0.01μF,25V
C631		NCB31CK-104X	CAPACITOR 0.1μF,16V	C846		NCB31CK-104X	CAPACITOR 0.1μF,16V
C635		NDC31HJ-470X	CAPACITOR 47pF,50V	C847		NCB31CK-104X	CAPACITOR 0.1μF,16V
C636		NDC31HJ-470X	CAPACITOR 47pF,50V	C848		NDC31HJ-680X	CAPACITOR 68pF,50V

#	△	REF No.	PART No.	PART NAME, DESCRIPTION		#	△	REF No.	PART No.	PART NAME, DESCRIPTION	
C851			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1206			NCB31CK-104X	CAPACITOR	0.1μF,16V
C855			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1207			NCB31CK-104X	CAPACITOR	0.1μF,16V
C856			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1401			NBE20JM-226X	T CAPACITOR	22μF,6.3V
C857			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1402			NCB31CK-104X	CAPACITOR	0.1μF,16V
C878			NCF31AZ-105X	CAPACITOR	1μF,10V	C1403			NCB31CK-104X	CAPACITOR	0.1μF,16V
C879			NCF31AZ-105X	CAPACITOR	1μF,10V	C1404			NCB31CK-104X	CAPACITOR	0.1μF,16V
C880			NCF31AZ-105X	CAPACITOR	1μF,10V	C1405			NCB31CK-104X	CAPACITOR	0.1μF,16V
C881			NCF31AZ-105X	CAPACITOR	1μF,10V	C1407			NCB31CK-104X	CAPACITOR	0.1μF,16V
C882			NCF31AZ-105X	CAPACITOR	1μF,10V	C1408			NCB31CK-104X	CAPACITOR	0.1μF,16V
C883			NCF31AZ-105X	CAPACITOR	1μF,10V	C1409			NCB31CK-104X	CAPACITOR	0.1μF,16V
C886			NCB21CK-105X	CAPACITOR	1μF,16V	C1410			NCB31CK-104X	CAPACITOR	0.1μF,16V
C891			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1411			NCB31CK-104X	CAPACITOR	0.1μF,16V
C893			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1413			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1001			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1414			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1002			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1601			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1003			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1602			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1004			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1604			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1005			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1605			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1006			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1607			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1007			NBE20JM-226X	T CAPACITOR	22μF,6.3V	C1609			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1008			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1611			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1009			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1612			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1010			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1614			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1011			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1615			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1012			NBE20JM-226X	T CAPACITOR	22μF,6.3V	C1701			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1013			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1702			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1014			NBE20JM-226X	T CAPACITOR	22μF,6.3V	C1704			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1015			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1705			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1016			NBE20JM-226X	T CAPACITOR	22μF,6.3V	C1707			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1017			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1709			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1018			NBE20JM-226X	T CAPACITOR	22μF,6.3V	C1711			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1019			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1712			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1020			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1714			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1021			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1715			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1022			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1801			NEA71CM-106X	E CAPACITOR	10μF,16V
C1023			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1802			NEA71CM-106X	E CAPACITOR	10μF,16V
C1024			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1803			NCB21HK-222X	CAPACITOR	0.0022μF,50V
C1025			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1804			NCB21HK-222X	CAPACITOR	0.0022μF,50V
C1026			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1805			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1027			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1806			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1028			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1807			NBE20JM-475X	T CAPACITOR	4.7μF,6.3V
C1030			NCB31EK-223X	CAPACITOR	0.022μF,25V	C1808			NBE20JM-475X	T CAPACITOR	4.7μF,6.3V
C1031			NCB31HK-222X	CAPACITOR	0.0022μF,50V	C1809			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1032			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1810			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1033			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1811			NEA71CM-226X	E CAPACITOR	22μF,16V
C1034			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1812			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1035			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1813			NBE20JM-226X	T CAPACITOR	22μF,6.3V
C1036			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1814			NCB31CK-104X	CAPACITOR	0.1μF,16V
C1037			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1815			NBE20JM-475X	T CAPACITOR	4.7μF,6.3V
C1038			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1816			NEA71CM-106X	E CAPACITOR	10μF,16V
C1039			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1817			NEA71CM-106X	E CAPACITOR	10μF,16V
C1040			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1818			NEA70JM-476X	E CAPACITOR	47μF,6.3V
C1041			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1819			NEA71CM-476X	E CAPACITOR	47μF,16V
C1059			QETJ0JM-477	E CAPACITOR	470μF,6.3V	C1822			NDC31HJ-101X	CAPACITOR	100pF,50V
C1060			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1823			NDC31HJ-101X	CAPACITOR	100pF,50V
C1062			NBE20JM-226X	T CAPACITOR	22μF,6.3V	C1824			NDC31HJ-101X	CAPACITOR	100pF,50V
C1063			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1825			NDC31HJ-101X	CAPACITOR	100pF,50V
C1064			NBSH0GM-477X	OS E CAPACITOR	470μF,4V	C1828			NDC31HJ-471X	CAPACITOR	470pF,50V
C1201			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1829			NDC31HJ-471X	CAPACITOR	470pF,50V
C1202			NBE20JM-226X	T CAPACITOR	22μF,6.3V	C1830			NDC31HJ-101X	CAPACITOR	100pF,50V
C1203			NCB31CK-104X	CAPACITOR	0.1μF,16V	C1831			NDC31HJ-101X	CAPACITOR	100pF,50V

#	△ REF No.	PART No.	PART NAME, DESCRIPTION		#	△ REF No.	PART No.	PART NAME, DESCRIPTION	
C1832		NCB31CK-104X	CAPACITOR	0.1μF,16V	K217		NQR0129-002X	FERRITE BEAD	
C1833		NCB31CK-104X	CAPACITOR	0.1μF,16V	K219		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
C1838		NCB31HK-102X	CAPACITOR	0.001μF,50V	K220		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
C1842		NCB31CK-104X	CAPACITOR	0.1μF,16V	K221		PELN0984-150Y	NOISE FILTER	
L201		NQL144K-100X	COIL	10μH	K225		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
L202		NQR0444-001X	COIL		K601		NQR0129-002X	FERRITE BEAD	
L203		NQR0444-001X	COIL		K602		PELN0984-150Y	NOISE FILTER	
L401		NQL144K-100X	COIL	10μH	K603		NQR0339-001X	FERRITE BEAD	
L402		NQL144K-100X	COIL	10μH	K604		NQR0339-001X	FERRITE BEAD	
L403		NQL024J-8R2X	COIL	8.2μH	K1001		NQR0339-001X	FERRITE BEAD	
L404		NQL144K-100X	COIL	10μH	K1002		PELN0984-150Y	NOISE FILTER	
L405		NQL144K-100X	COIL	10μH	K1003		NQR0339-001X	FERRITE BEAD	
L406		NQL144K-100X	COIL	10μH	K1004		NQR0129-002X	FERRITE BEAD	
L407		NQL024J-8R2X	COIL	8.2μH	K1005		NQR0129-002X	FERRITE BEAD	
L408		NQL144K-100X	COIL	10μH	K1201		PELN0984-150Y	NOISE FILTER	
L409		NQL144K-100X	COIL	10μH	K1401		NQR0129-002X	FERRITE BEAD	
L411		NQL144K-100X	COIL	10μH	K1402		PELN0984-150Y	NOISE FILTER	
L412		NQL144K-100X	COIL	10μH	K1403		PELN0984-150Y	NOISE FILTER	
L414		NQL144K-100X	COIL	10μH	K1404		NQR0129-002X	FERRITE BEAD	
L601		NQL144K-100X	COIL	10μH	K1601		PELN0984-150Y	NOISE FILTER	
L801		NQL144K-100X	COIL	10μH	K1602		PELN0984-150Y	NOISE FILTER	
L802		NQL024J-100X	COIL	10μH	K1603		NQR0129-002X	FERRITE BEAD	
L803		NQL144K-100X	COIL	10μH	K1701		PELN0984-150Y	NOISE FILTER	
L807		NQL144K-100X	COIL	10μH	K1702		PELN0984-150Y	NOISE FILTER	
L808		NQL024J-100X	COIL	10μH	K1703		NQR0129-002X	FERRITE BEAD	
L1001		NQL144K-100X	COIL	10μH	J202		QNZ0486-001	D CONNECTOR	
L1002		NQL144K-100X	COIL	10μH	OT1		LP40728-001A	SHEET(DIGITAL)	
L1801		NQL144K-100X	COIL	10μH	OT2		LP40769-001A	SPACER,X3	
L1802		NQL144K-100X	COIL	10μH	SD1		LP20971-001A	SHIELD FRAME(D-VHS)	
L1803		NQL144K-100X	COIL	10μH	SD2		LP20972-001A	SHIELD COVER(D-VHS)	
LC801		PELN1148-223X	NOISE FILTER		SD3		LP20973-001A	SHIELD COVER(D-VHS)	
LC802		PELN1148-223X	NOISE FILTER		FL401		NQR0336-001X	LOW PASS FILTER	
LC803		PELN1148-223X	NOISE FILTER		FL402		NQR0336-001X	LOW PASS FILTER	
LC804		PELN1148-223X	NOISE FILTER		FL801		NQR0393-001X	LOW PASS FILTER	
LC805		PELN1148-223X	NOISE FILTER		FL802		NQR0393-001X	LOW PASS FILTER	
LC806		PELN1148-223X	NOISE FILTER		FL803		NQR0393-001X	LOW PASS FILTER	
LC807		PELN1148-223X	NOISE FILTER		FL804		NQR0392-001X	LOW PASS FILTER	
LC808		PELN1148-223X	NOISE FILTER		FL805		NQR0392-001X	LOW PASS FILTER	
X1		NAX0422-001X	CRYSTAL RESONATOR		FL806		NQR0392-001X	LOW PASS FILTER	
X201		NAX0423-001X	CRYSTAL RESONATOR		FL807		NQR0392-001X	LOW PASS FILTER	
X202		QAX0541-001	CRYSTAL RESONATOR		CN401		QGA2001F2-04V	CONNECTOR,(1-4)D-PRE/REC	
X203		NAX0336-001X	CRYSTAL RESONATOR		CN402		QGA2001F2-04V	CONNECTOR,(1-4)D-PRE/REC	
X601		NAX0338-001X	CRYSTAL RESONATOR		CN8002		QGF1016F2-16W	FFC/FPC CONNECTOR,(1-16)MAIN	
K1		PELN0984-150Y	NOISE FILTER		CN8003		QGF1016F2-05W	FFC/FPC CONNECTOR,(1-5)	
K2		PELN0984-150Y	NOISE FILTER		CN8201		QGA1201C2-06X	CONNECTOR,(1-6)FRONT 1394	
K201		PELN0984-150Y	NOISE FILTER		CN8801		QGA2001F2-04V	CONNECTOR,(1-4)SUB REG	
K202		PELN0984-150Y	NOISE FILTER		CN8802		QGA2001F2-12V	CONNECTOR,(1-12)SW.REG	
K203		PELN0984-150Y	NOISE FILTER		CN8803		QGF1016F2-09W	FFC/FPC CONNECTOR,(1-9)TERMINAL	
K204		NQR0129-002X	FERRITE BEAD		CN9801		QGF1224F1-12X	FFC/FPC CONNECTOR,(1-12)MAIN	
K205		NQR0129-002X	FERRITE BEAD						
K206		NQR0129-002X	FERRITE BEAD						
K207		NQR0129-002X	FERRITE BEAD						
K208		NQR0129-002X	FERRITE BEAD						
K209		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W					
K210		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W					
K211		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W					
K212		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W					
K213		NQR0129-002X	FERRITE BEAD						
K214		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W					
K215		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W					
K216		NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W					

LOADING MOTOR BOARD ASSEMBLY <55>

PW2	LPA10010-01A2	LOADING MOTOR BOARD ASSY
CN1	QGB2533K1-02	CONNECTOR