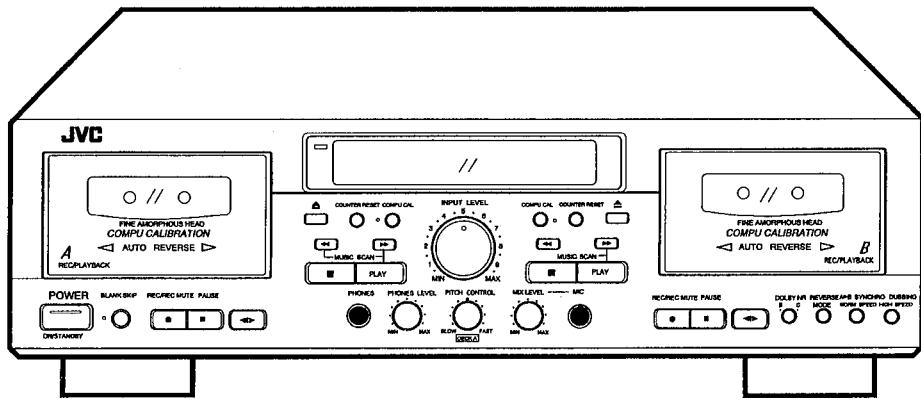


# JVC

# SERVICE MANUAL

## DOUBLE CASSETTE DECK

**TD-W717TN C/J**  
**TD-W718BK A/B/E/EN/G/U/UT**



**COMPU LINK**  
*Component*

Area Suffix	
A	Australia
B	U.K.
C	Canada
E	Continental Europe
EN	North Europe
G	Germany
J	U.S.A.
U	Other Areas
UT	Taiwan

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## ■ Safety Precautions

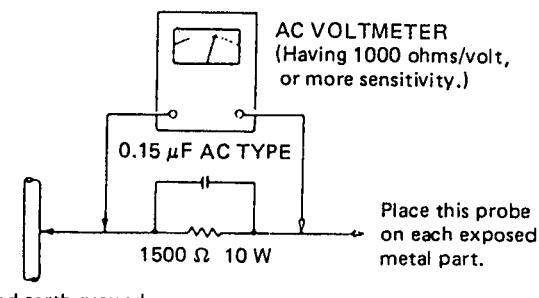
1. The design this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacture's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the product have special safety — related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of service manual. Electrical components having such features are identified by shading and (  $\Delta$  ) on the schematic diagram and by (  $\Delta$  ) on the parts list in the service manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of service manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps , tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after reassembling.
5. Leakage current check (Electrical shock hazard testing)

After re — assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock. Do not use a line isolation transformer during this check.

• Plug the AC line cord directly into the AC outlet. using a "Leakage current tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC(r.m.s.)

• Alternate check method

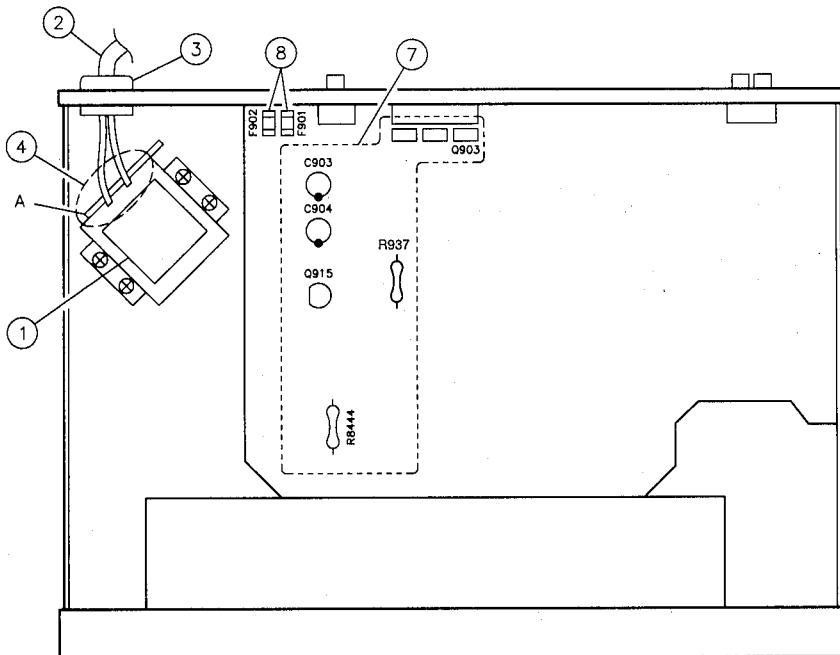
Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 ohms 10W resistor paralleled by a  $0.15 \mu F$  AC type capacitor between an exposed metal part and a known good earth ground. Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC(r.m.s.). This corresponds to 0.5mA AC(r.m.s.).



## ◆ Warning (UK only)

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

## ◆ Important Management Points Regarding Safety (Items Demanding Special Safety Precautions)



1. Securely fix the power transformer while confirming its marking specified in the following.

Suffix	Marking	Description	Model
J	5216508	UL approved No.	TD-W717
C	VTP52A5-021F		TD-W717
A/B/E/EN/G	VTP52Z5-021F		TD-W718
U/UT	VTP52G5-021F		TD-W718

2. Power cord : Make sure of the following markings and inspect exterior scratch and damage.

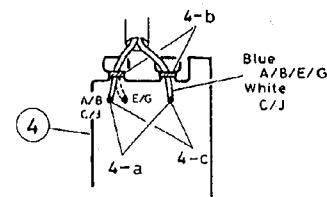
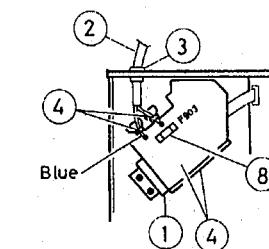
	Power cord	Attachment plug
J	SPT-1	KP-10W or SU-1P
C	SPT-1	KP-10W or SU-1P
E/EN/G	◀ VDE ▶	KP-419C or SE-1
B	BASEC BS6500	KP-610 3A
U/UT	◀ VDE ▶	KP-8H
A	LTSA-2F	KP-560

3. Install the cord bushing by the specified tool while confirming the marking. Bushing : NIFCO 2271

4. Wiring terminal

- a) When installing the power cord, wind it around the terminal by the end before soldering.
- b) Arrange the wires while binding them nearby the terminal.
- c) The end of respective power cords is soldered in the air and the space from others must be 3.2 mm or more in the distance.

— U/UT Version —



7. Since the following parts are heat generation ones, they must not contact with electrolytic capacitors, wires, etc.

- Following parts are inflammables, Make sure of their lift up condition for the purpose.
- Parts in box □ must be controlled.

R901, R902, R921, R923, [R937], R938, R940, R941, R755, R1403, R2403, R1453, R2453, R8432, R8482, R8441, [R8444], R8491, R8494, Q901, [Q903], Q905, Q909, Q912, [Q915], Q8431, Q8481, D901, D902, D903, D904, D909, D910, C914, R945

Other parts

C903 C904 3300μF/25V C/J vrison (VENT TYPE)

- 8. All fuses must securely be connected. In A/B/E/EN/G/U/UT version, F901 and F902 must be specified by the rating of 800 mA shown on the surface as well as by the marking of ⑤ or in U/UT version, F903 must be specified by the rating of 315 mA shown on the surface well as by the marking ⑥ or ⑦.

# ■ Instructions

## INSTRUCTIONS

# TD-W7SD/W717/W718 A/B/J

## DOUBLE CASSETTE DECK

### TROUBLESHOOTING

What appears to be trouble is not always real trouble. Make sure first...

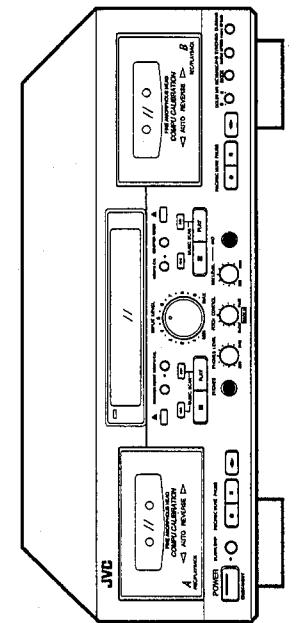
1. Cassette cannot be loaded.
  - Is the cassette positioned correctly?
2. When PLAY button is pressed, tape does not move.
  - Is the tape too loosely wound?
3. Tape runs, but no sound is heard.
  - Are all connections properly and securely made?
  - Is the MONITOR switch of the stereo amplifier set to the TAPE position?
  - Is the VOLUME control of the stereo amplifier set to MIN?
4. Sound quality is poor.
  - Is the DOLBY NR switch set to the right position?
  - Is the head section dirty?
  - Is the record/playback head magnetized?
  - Is the tape worn out?

5. Recording cannot be performed.
  - Are the safety tabs of cassette tape broken?
  - Are all connections properly and securely made?
  - Is the head section dirty?
6. Previous recording is not completely erased.
  - Is the erase head dirty?
7. Since tape speed is irregular, wow and flutter occur.
  - Is the pinch roller or capstan dirty?
  - Is the tape rewound too tight?
8. MUSIC SCAN operation does not function properly.
  - Are the non-recorded sections too short (3 sec. or less), or do they contain high level noise or hum?
9. The BLANK SKIP indicator is lit yet the BLANK SKIP operation does not function properly.
  - Is the other deck operating MUSIC SCAN?
  - BLANK SKIP operation begins after MUSIC SCAN has finished.

### SPECIFICATIONS

Type	Double cassette deck	Heads	AMORPHOUS head for record/playback, 2-gap ferrite head for erasure; combination head x 1
Track system	4-track, 2-channel	(TD-W7SD)	(For both decks A and B)
Tape speed	: 4.8 cm/sec (1-7/8 inch/sec) (Normal) 9.5 cm/sec (3-3/4 inch/sec) (High)	(TD-W717/18)	(METALERM head for record/playback, 2-gap ferrite head for erasure; combination head x 1)
Frequency response	(TD-W7SD) : (>20 dB recording) Type IV tape : 10 - 20,000 Hz (+3dB) Type II tape : 10 - 19,000 Hz (+3dB)	Motors	(For both decks A and B)
	Type I tape : 10 - 19,000 Hz (+3dB)		Electric governed DC motor for capstan x 1
	Type IV tape : 20 - 17,000 Hz (+3dB)		DC motor for reel x 1
	Type II tape : 20 - 16,000 Hz (+3dB)	Fast forward/ rewind time	DC motor for mechanism drive x 1
	Type I tape : 20 - 16,000 Hz (+3dB)	Input terminals	(For both decks A and B)
	Type IV tape : 30 - 15,000 Hz (+3dB)	LINE IN	Approx. 110 sec. with C-60 cassette
S/N ratio	: 58 dB (S = 315 Hz, K3 = 3%, N = A-weighted, Type IV tape)	(x 1 circuit)	LINE OUT
	The S/N is improved by about 15 dB at 500 Hz and by max. 20 dB at 1 kHz - 10 kHz with Dolby C NR on, and improved by 5 dB at 1 kHz and by 10 dB at above 5 kHz with DOLBY B NR on.		(x 1 circuit)
Improvement of MOL	: 4 dB at 10 kHz with Dolby C NR on.	Output level: 300 mV (0 VU)	Output level: 300 mV (0 VU)
Wow and flutter	: 0.083% (WRMS), ±0.2% (DIN/IEC)	Output impedance: 5 kΩ	Output impedance: 5 kΩ
Channel separation	: 40 dB (1 kHz)	PHONES x 1	PHONES x 1
Crosstalk	: 60 dB (1 kHz)	Matching impedance 8 Ω - 1 kΩ	Matching impedance 8 Ω - 1 kΩ
Harmonic distortion	(TD-W7SD) : k3: 0.5% (Type IV tape, 315 Hz, 0 VU) (TD-W717/18) : k3: 0.8% (Type IV tape, 315 Hz, 0 VU)	Other terminals	: COMPU LINK-3/SYNCHRO x 2
Power requirement		Power requirement	: AC 240 V, 50 Hz (Australia) AC 230 V, 50 Hz (U.K.) AC 120 V, 60 Hz (U.S.A.)
Power consumption			: With power switch on 23 W With power switch standby 4.0 W
Dimensions (W x H x D)			: 435 x 134 x 331 mm (17-3/16" x 5-5/16" x 13-1/16")
Weight			: 4.9 kg (10.9 lbs.)
Accessories			: Pin plug cord ..... 1 Remote cable ..... 1

Design and specifications are subject to change without notice.



For Customer Use:
Enter below the Model No. and Serial No. which are located on the rear of the cabinet. Retain this information for future reference.
Model No. _____
Serial No. _____

## INTRODUCTION

### IMPORTANT (In the United Kingdom)

Mains Supply (AC 230V ~, 50 Hz only)

DO NOT cut off the mains plug from this equipment. If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain an appropriate safety approved extension lead or consult your dealer.

BE SURE to replace the fuse only with an identical approved type, as originally fitted and to replace the fuse cover.

If nonetheless the mains plug is cut off ensure to remove the use and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply.

DO NOT make any connection to the terminal which is marked with the letter E or by the safety earth symbol or coloured green or green-and-yellow.

The wires in the mains lead on this product are coloured in accordance with the following code:



As these colours may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

IF IN DOUBT CONSULT A COMPETENT ELECTRICIAN.

Thank you for purchasing a JVC product. Read this instruction book carefully before operating to be sure of getting optimum performance and longer service life from the unit.

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## FEATURES

1. Fine amorphous recording/playback heads (TD-W7SD)
2. Double auto-reverse mechanism for recording/playback In deck A and deck B
3. COMPU CAL function which automatically sets the flat characteristics and brings out maximum tape performance on both decks.
4. Full logic mechanism
5. Dolby® HX PRO headroom extension
6. DOLBY B & C noise reduction system
7. MPX filter linked with the Dolby NR ON/OFF function (TD-W7SD)
8. 2-color FL peak level Indicator
9. 4-digit linear tape counter respectively for deck A and deck B
10. DDP (Dynamics Detection Recording Processor) compatibility
11. Auto tape select mechanism (decks A and B)
12. Multi music scan mechanism for either direction
13. Blank skip function
14. PITCH control (deck A)
15. Microphone mixing is possible
16. COMPU LINK-3 compatible

## AUTO REVERSE OPERATION

The auto reverse operation of this unit turns the tape transport over to the reverse of forward direction automatically when the tape reaches its end during recording or playback.

- Because of cassette shell construction, a tape recorded in the forward direction should be played back in the same direction to obtain stable sound reproduction.
- During recording, auto reverse can be activated only from the forward to the reverse direction. For good sound quality and to avoid accidental erasure of previously recorded material, always start recording with the side A of the tape facing out.

## CAUTIONS

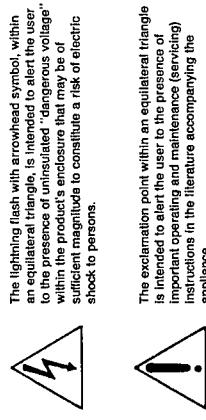
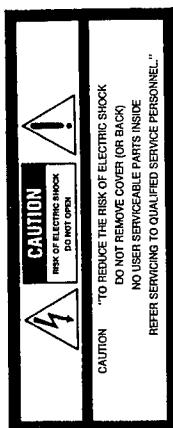
1. Prevention of Electric Shock, Fire Hazards and Damage
  - 1) Even when the POWER switch is set to STANDBY, a very small current will flow. To save power and for safety when not using the unit for an extended period of time, disconnect the power cord from the household AC outlet.
  - 2) Do not handle the power cord with wet hands.
  - 3) When unplugging from the wall outlet, always grasp and pull the plug, not the power cord.
  - 4) Consult your nearest dealer when damage, disconnection, or contact failure is found with the cord.
  - 5) Do not bend the cord sharply, or pull or twist it.
  - 6) Do not modify the power cord in any manner.
  - 7) Do not remove screws to disassemble the unit and do not touch anything inside the unit.
  - 8) AC power cord (For U.S.A., version only)
    - The AC power cord of this unit has certain one-way direction connections to prevent electric shock. Refer to the illustration for correct connection. (Fig. 1)

The only difference between models TD-W717 and TD-W718 is cosmetic one.

- Dolby noise reduction and HX PRO headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX PRO headroom extension "Dolby", the double-D symbol and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

- 9) Do not insert any metallic objects into the unit.
- 10) Unplugging the power cord when there is a possibility of lightning.

Fig. 1



### WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK,  
DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

### INFORMATION FOR U.S.A.)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception,

which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

- 11) If water gets inside the unit, unplug the power cord from the outlet and consult your dealer.
- 12) Do not block the ventilation holes of the unit so that heat can escape. Do not install the unit in a badly ventilated place.
- 13) Be sure to unplug the power cord from the outlet when going out or when the unit is not in use for an extended period of time.
- Installation**
- 1) Avoid placing the unit on or adjacent to an amplifier, to prevent hum from being produced by some types of amplifiers. Move the unit to a place not affected by the amplifier. Keep the unit as far as possible from a TV set.
- 2) Avoid installing the unit in a location subject to ambient temperatures exceeding 40°C (104°F) (e.g. direct sunlight, near heaters, etc.) or less than 0°C (32°F), excessive humidity, dust or vibrations.
- 3) If this set is moved suddenly from a cold place (0°C) to a warm place, it may not function properly because of moisture generated inside the unit. The unit will function properly 30 minutes after being moved.
- Cleaning the cabinet**
- Never use benzine or thinner for cabinet cleaning as they may damage the surface finish.
- 4. Cassette tape**
- 1) Loose tape may become tangled in the tape transport mechanism. Remove slack by winding the tape with a pencil. (Fig. 2)

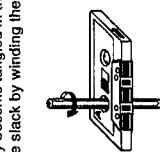


Fig. 2 Turn the pencil to tighten the tape.

- 2) The use of C-120 (120 minutes turn around) or thinner tape is not recommended, since characteristic deterioration may occur.
- 3) To prevent recordings from being erased accidentally, remove the tab(s) with a screwdriver. Reseal the slots with adhesive tape to erase and re-record after the tabs have been broken off.

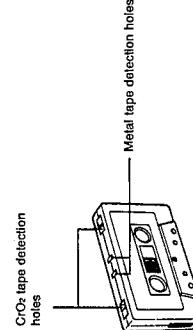
- 5. Auto tape select mechanism (decks A and B)**
- This deck has an Auto Tape Select mechanism which distinguishes between different types of tape from holes in the cassette. After the type of tape has been detected, bias and equalization are set to be suitable for the tape.
- Cassettes with the detection holes:

  - Metal tape (EQ: 70μs) ..... Type IV
  - CrO<sub>2</sub> (chrome) tape (EQ: 70μs) ..... Type II

- Cassettes without the detection holes:

  - Normal tape (EQ: 120μs) ..... Type I

Some earlier types of metal and CrO<sub>2</sub> (chrome) tapes may not be provided with the detection holes. Avoid using such tapes, since correct equalization characteristics cannot be obtained. Also do not use ferrichrome tapes whose characteristics do not match this unit.

- 6. Operations**
- 1) When the POWER switch is turned ON or off (STANDBY) with the deck set to the playback or recording mode, noise may be generated. Before turning the POWER switch ON or off (STANDBY), confirm that the ■ (stop) button has been pressed.
- 2) Many operations of this unit are performed under the control of a microcomputer. Use the unit only after carefully studying the descriptions and cautions in each item. If operations are done incorrectly, the unit may stop functioning correctly. If this happens, turn off the power once, and then turn it on again, so that the unit can function correctly.

## CONNECTIONS

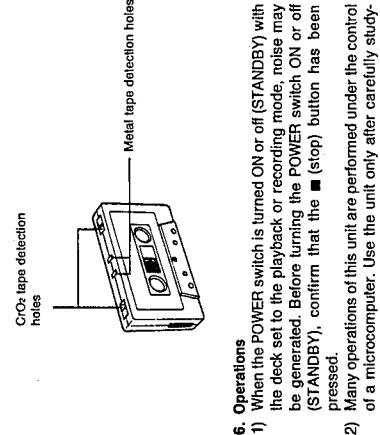
- 4) Do not store cassette tapes where there is a magnetic field (e.g. near a TV, etc.) or in a place subject to high temperatures or humidity.

- 5) Do not switch the power on until all the connections are completed.

- Insert the plugs firmly, or poor contact will result, causing noise.
- When the pin-plug cords are employed, always connect the white plug to the left channel terminal. This helps to avoid reversed connections.

- When using the Compu Link Control System version 3, do not connect the power cord to the SWITCHED AC OUTLET of an amplifier, or receiver. Otherwise, the automatic power on/off (STANDBY) function cannot be carried out.

- 1. Connection to a stereo amplifier**
- Note: When installing the deck, be sure to install at a distance from your amplifier. If they are stacked, noise (hum) may occur.



- 2. Remote cable connection for COMPU LINK**
- By connecting a remote cable, COMPU LINK functions (automatic power on/off (STANDBY), automatic source selection, synchronized recording and DDP recording) can be performed. In this time the provided pin-plug cords must be also connected.
- When making synchronized recording with a CD player, connect the remote cable to the COMPU LINK-3/SYNCHRO jacks.

- Notes:**

1. When making synchronized recordings, only a single deck should be connected to the amplifier.

2. If a component is not a JVC COMPU LINK component, bypass it when making the remote cable connections.

3. This deck can be connected with an amplifier and a CD player which have the COMPU LINK-1/SYNCHRO jacks for COMPU LINK performance. (See page 11 for details.)

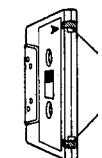
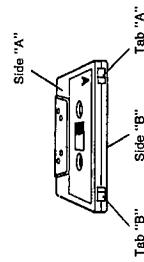
## CASSETTE LOADING

1. Press the ▲ (eject) button to open the cassette holder.
2. Load a cassette as shown.
3. Press the cassette holder to close it. Be sure to obtain the click sound to close the holder securely.



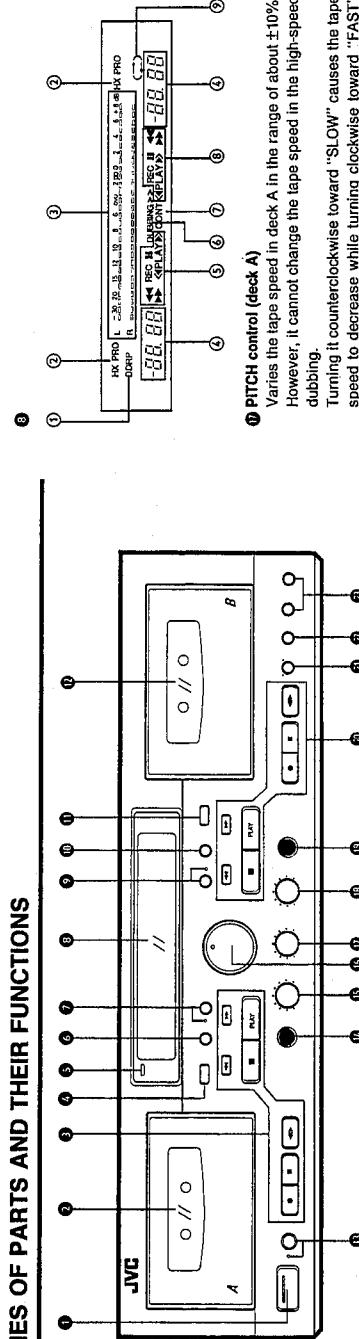
Fig. 3

- Turn the pencil to tighten the tape.**
- 2) The use of C-120 (120 minutes turn around) or thinner tape is not recommended, since characteristic deterioration may occur.
- 3) To prevent recordings from being erased accidentally, remove the tab(s) with a screwdriver. Reseal the slots with adhesive tape to erase and re-record after the tabs have been broken off.



-3-

## **NAMES OF PARTS AND THEIR FUNCTIONS**



- ① POWER switch (ON/STANDBY)**

**② Cassette holder (deck A)**

**③ Cassette operation buttons (deck A)**

  - ▶ : Press to wind the tape quickly from right to left. Press this button during playback to operate MUSIC SCAN.
  - ◀ : Press to wind the tape quickly from left to right. Press this button during playback to operate MUSIC SCAN.
  - (stop) : Press to stop the tape.
  - PLAY : Press to start playback/recording.
  - REC/RECORD MUTE : Press the PLAY button while pressing this button to start recording, and press to leave an appropriate non-recorded section. (See page 10.)
  - PAUSE : Press to stop the tape temporarily during recording and playback. Press the PLAY button to release the pause mode.
  - (direction) : Press to change the direction of tape travel.
  - ④ ▲ (eject) button (deck A)
  - ⑤ Power STANDBY Indicator
  - Lights when in the power standby mode.
  - ⑥ COUNTER RESET button (deck A)
  - Press this button to set the digital counter to '0.00'. Even if the POWER switch is set to STANDBY, the counter value at that time is stored in memory.
  - ⑦ COMPU CAL button and Indicator (deck A)
  - Press this button to automatically set the recording characteristics with the COMPU CAL function. (See page 8.)
  - ⑧ Indicators
    - ① DDRP indicator
    - ② HX PRO indicator
    - ③ Peak level indicator
 These indicators light according to the level of the signal being recorded or the level of the signal recorded on the tape.
  - Note: IEC (DIN) STANDARD LEVEL (250 mVb/m) 0 dB : Signal level at 160 mVb/m 0 VU : SIGNAL NR STANDARD LEVEL

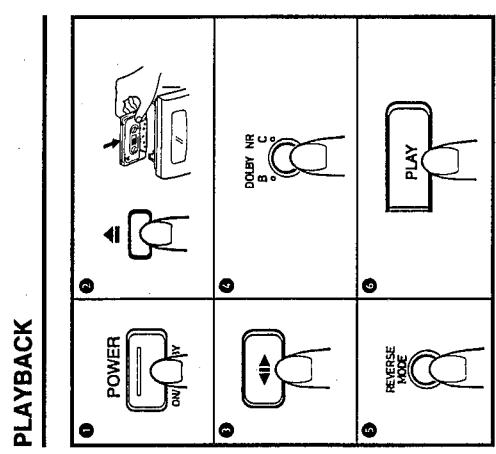
**④ Digital counter**

Normally operates as a 4-digit linear tape counter. During the Music Scan mode, the number of tunes which will be skipped is displayed.

**⑤ Mechanism mode indicators (deck A)**

  - ▶ : This lights when winding the tape from left to right.
  - ◀ : This lights when winding the tape from right to left.
  - REC : Lights when the unit is in the record and record pause modes; blinks during record muting.
  - PLAY : Lights in the pause mode.
  - : This lights when in the playback mode.
  - DUBBING >> : Lights the direction of tape travel.
  - :> : Lights when in the normal-speed dubbing mode.
  - >> : Lights when in the high-speed dubbing mode.
  - CONT : Lights when the unit is in the continuous recording mode.
  - ⑥ Mechanism mode indicators (deck B)
  - Refer to ⑤.
  - ⑦ : Indicates reverse mode.
  - ⑧ COMPU CALL button and Indicator (deck B)
  - Refer to ⑦.
  - ⑨ COUNTER RESET button (deck B)
  - ⑩ EJECT button (deck B)
  - ⑪ Cassette holder (deck B)
  - ⑫ BLANK SKIP button and Indicator
  - When this button is turned ON during playback if a blank (a non-recorded section) of over 15 seconds is detected, the deck automatically skips to the beginning of the next tune and resume playback.
  - ⑬ PHONES JACK
  - Connects headphones (with an impedance of 8 Ω to 1 kΩ).
  - ⑭ PHONES LEVEL control
  - Controls headphones volume.
  - ⑮ INPUT LEVEL control
  - See page 9.

PLAYBACK



- Playback of deck A**  
Operate in the order of the numbers in the illustration.

  - ① Press the POWER switch to set to ON.
  - ② Load a prerecorded cassette with side A facing out.
  - ③ Select the side to be played back.
  - ④ Side A... Forward direction (PLAY →)
  - ⑤ Side B... Reverse direction (◀ PLAY)
  - ⑥ Set the DOLBY NR switch to the same setting as when the tape was recorded.
  - ⑦ Select the REVERSE MODE.
  - ⑧ Press the PLAY button of deck A to start playback.
  - ⑨ When the deck contains a tape, the deck is turned on automatically and the tape is played back by only pressing the PLAY button.

**Playback of deck B**  
Perform steps ② to ⑨ of the above procedure for deck B.

**Microphone mixing during playback**  
By connecting a microphone, microphone mixing with playback sound from deck A or deck B is possible.

**Continuous play**  
First set the REVERSE MODE switch to □. Load cassette tapes in both decks and press the PLAY button of the deck to be played first for continuous play of both decks.

  - At this time, the CNT Indicator lights in the multimode display. When the tape in the deck which plays first reaches the end of side B (in the reverse direction), it automatically switches to the forward direction and enters the standby mode. At the same time, the other deck starts playback. These operations continue between decks A and B.
  - While one deck is playing back, the cassettes in the other one are replaced. This is convenient for long-time playback of background music.

**Note:**

  - Use tapes recorded using the same NR mode in decks A and B.

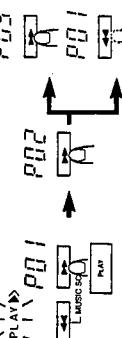
Note:

**PITCH control (deck A)**  
It is possible to vary the tape speed in deck A in the range of about  $\pm 10\%$  in the playback mode. The center click position is for the standard tape speed.

#### MULTI MUSIC SCAN

- The multi music scan mechanism of this unit allows you to quickly locate the beginning of a specific tune (up to 99 tunes before or after the current tune).
- The multi music scan mechanism functions by detecting non-recorded sections between tunes (of more than 4.5 sec.).
- The illustration shows the forward direction.

Example of fast forward scan.



#### Procedure

- Press the **►** button during playback.
- When more than 2 tunes are to be skipped, after procedure 1 press the **►** (or **◀**) button the number of times you want to skip tunes. The number of tunes to be skipped is displayed in the counter.
- Music Scan Operation can be performed on both decks A and B, but not simultaneously.
- Relation between Multi Music Scan and REVERSE MODE.

- ⇒ The multi music scan mechanism operates on one side of the tape only. If the number set is too high (more than there are tunes remaining on that side), the tape stops when the end of the tape is reached.
- ⇒ Operates continuously through one cycle of the A and B sides of the tape. If the number set has not been reached, the tape stops at the end of the B side. When the head rotates to play side A from B or B from A, this rotation is counted as one non-recorded section. When a recorded tune continues from side A to B, this tune is recorded as two tunes. In such a case, press the **◀** (or **►**) button one extra time.

**Notes:**  
In the following cases, the mechanism may not operate correctly. This is not a malfunction; use the mechanism according to the type of program.  
• Tapes with tunes having long pianissimo passages (very quiet parts) or non-recorded portions during tunes.  
• Tapes with short non-recorded sections.

#### BLANK SKIP

- Press the BLANK SKIP button to turn it ON (the indicator lights) before playback. When a blank (a non-recorded section) of over 15 seconds is detected during playback, the deck automatically goes into fast-forward scan mode and resumes playback from the beginning of the next tune.

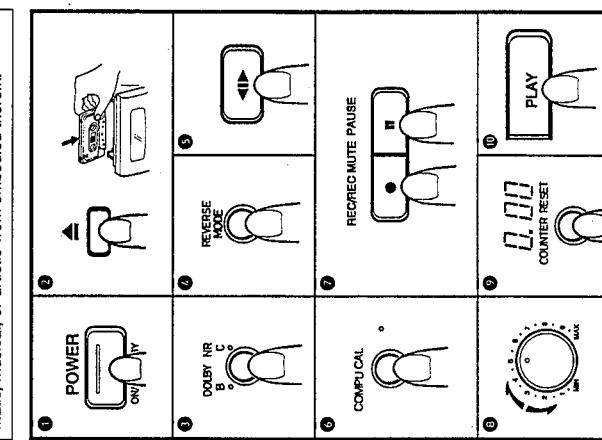
- If the other deck is in Music Scan mode, the BLANK SKIP operation stops momentarily and restarts when the other deck has finished.
- The BLANK SKIP indicator lights even when the BLANK SKIP operation is canceled momentarily, as described in 1.
- Depending on the PITCH control setting, the BLANK SKIP operation may not be performed in deck A even if a tape with a non-recorded portion of over 15 seconds is being played. Reset PITCH control to the center click position and repeat the BLANK SKIP operation.
- Relation between REVERSE MODE and BLANK SKIP Functions
  - ⇒ Operates on one side of the tape only.
  - ⇒ Operates continuously from side A to side B.
  - ⇒ Operates on both sides of the tape.

#### RECORDING

**Example: Deck B**  
Operate in the order of the numbers in the illustration.

- Make sure the safety tab of the cassette has not been broken off.

**It should be noted that it may be unlawful to re-record pre-recorded tapes, records, or discs without the consent of the owner of copyright in the sound or video recording, broadcast or cable programme and in any literary, dramatic, musical, or artistic work embodied therein.**



#### Notes:

- If the other deck is in Music Scan mode, the BLANK SKIP operation stops momentarily and restarts when the other deck has finished.
- The BLANK SKIP indicator is canceled momentarily, as described in 1.
- Depending on the PITCH control setting, the BLANK SKIP operation may not be performed in deck A even if a tape with a non-recorded portion of over 15 seconds is being played. Reset PITCH control to the center click position and repeat the BLANK SKIP operation.
- Relation between REVERSE MODE and BLANK SKIP Functions
  - ⇒ Operates on one side of the tape only.
  - ⇒ Operates continuously from side A to side B.
  - ⇒ Operates on both sides of the tape.

#### COMPUM CAL Errors

- When the COMPUM CAL indicator flashes, this indicates a COMPUM CAL error.
- Press the **■** (stop) button to stop the error indication.
- Care should be taken for the following items as they are the cause of errors.
  - 1) Dirty heads
  - 2) Scratches on the tape surface
  - 3) When the tape ends part-way through the operations
    - Clean the heads.
    - Replace with an undamaged tape.
  - 4) In rare cases, tapes may have characteristics which fall outside the COMPUM CAL setting range.
    - When an error occurs or when COMPUM CAL operations are interrupted, calibration data cannot be stored in the memory. If settings were previously performed, the previous setting values are retained.
    - After confirming items 1) to 3) above and stopping the error indication if there are no problems, even tapes which experience errors can be recorded on using either ① the unit's preset values or ② previous setting values. (These are the values obtained by opening and closing the cassette holder one time.)
    - Preset value: a standard value corresponding to each type of tape, which allows normal recording. (The preset value condition is in effect when the COMPUM CAL indicator is lit.)

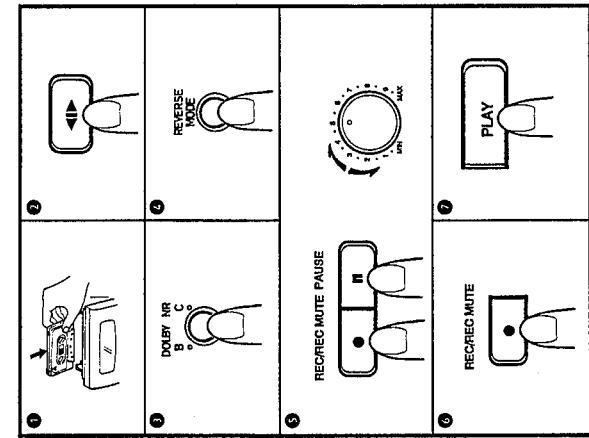
**DDRP (Dynamics Detection Recording Processor) recording**  
DDRP recording is performed with suitable JVC CD players and the recording level adjustment is performed automatically. Since recording level adjustment is performed automatically for different types of tape (Type I, II or IV), the adjustment of INPUT LEVEL control is not required. Read the instruction book of your CD player carefully.

#### COMPUM CAL FUNCTION

- Notes:**
- Since COMPUM CAL operations record a test tone on tapes, previously recorded contents will be erased.
  - Using new tapes and cleaning the heads beforehand are recommended for optimal COMPUM CAL operations.
  - Some variance in characteristics exists even with the same type of tape made by the same manufacturer. Therefore, when precise settings are desired, performing COMPUM CAL operations for each recording is recommended.
  - To delete contents set with COMPUM CAL, simultaneously press the **REC/REC MUTE** and **B** deck COUNTER RESET buttons. This deletes the calibration data for the type of tape currently inserted in the unit. Calibration data for other tape types is not deleted.

- COMPUM CAL operation**
- Insert the tape to be recorded and press the COMPUM CAL button. During the operation, "C" → "Ca" → "CAL" is displayed in the tape counter. When the operation finishes, the tape returns to its starting position, and the COMPUM CAL indicator lights. COMPUM CALIBRATION is now finished.
  - Pressing the **■** (stop) button part-way will interrupt the operations.
  - To recalibrate the unit, press the COMPUM CAL button and wait for the COMPUM CAL indicator to go out. Then, press the COMPUM CAL button again.

**Note:**  
If the tape is near its end, it will automatically stop and an error will be generated during operation. Therefore, be sure to check the time remaining on the tape (more than 2 minutes in the play mode) before starting the operations.

**ALTERNATE CONTINUOUS RECORDING BETWEEN DECK A AND DECK B WITH AUTOMATIC SELECTION**

- ① Load the tapes to be recorded in decks A and B with sides facing out. (Be sure to wind past the leader tapes.)
- ② Press the (direction) buttons to select the tape transport directions of decks A and B.
- ③ Set the DOLBY NR switch as required.
- ④ Set the REVERSE MODE switch to .
- ⑤ Set deck A to the record-pause mode and adjust the recording level.
- ⑥ Set deck B to the record-pause mode. (Press only the REC/REC MUTE button.)
- In this time, the REC and CONT indicators light, and the indicator flashes, showing the direction of the next tape that will be recorded.
- ⑦ Press the PLAY button of deck A; continuous recording starts.
- When recording finishes in one deck and continues in the other, the CONT indicator goes off and the or indicator stops flashing.
- When side B of deck A finishes recording, deck B starts recording automatically. If both decks start recording from the beginning of side A, the continuous recording will be done for about 3 hours with two C-90 tapes. When starting recording from deck B, set deck B to the record (or record-pause) mode first and set deck A to the record-standby mode.

**To cancel the record-standby mode.**  
Press the ■ (stop) button on the deck during record-standby.

**MICROPHONE MIXING DURING RECORDING**

By connecting a microphone, microphone mixing during recording is possible by following the recording procedure. Adjust the microphone input level by setting the record-pause mode and observing the peak level indicators.

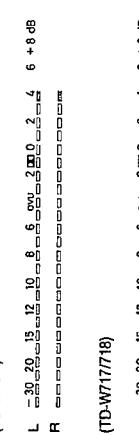
- When the record-pause mode is set and the INPUT LEVEL control is set to MIN, sounds are output only from the microphone, and it can be used as a public address system.

**RECORDING LEVEL ADJUSTMENT**

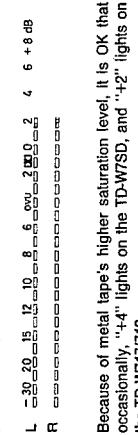
Adjust the recording level while observing the peak level indicator indication. For example.

With Type IV (metal) tape

(TD-W77)



(TD-W77/78)



Because of metal tape's higher saturation level, it is OK that occasionally, +4" lights on the TD-W77D, and +2" lights on the TD-W77/78.

**WITH TYPE I (NORMAL) OR TYPE II (CHROME) TAPE**

- ① Load the tapes to be recorded in decks A and B with sides facing out. (Be sure to wind past the leader tapes.)
- ② Press the (direction) buttons to select the tape transport directions of decks A and B.
- ③ Set the DOLBY NR switch as required.
- ④ Set the REVERSE MODE switch to .
- ⑤ Set deck A to the record-pause mode and adjust the recording level.
- ⑥ Set deck B to the record-standby mode. (Press only the REC/REC MUTE button.)
- In this time, the REC and CONT indicators light, and the or indicator flashes, showing the direction of the next tape that will be recorded.
- ⑦ Press the PLAY button of deck A; continuous recording starts.
- When recording finishes in one deck and continues in the other, the CONT indicator goes off and the or indicator stops flashing.
- When side B of deck A finishes recording, deck B starts recording automatically. If both decks start recording from the beginning of side A, the continuous recording will be done for about 3 hours with two C-90 tapes. When starting recording from deck B, set deck B to the record (or record-pause) mode first and set deck A to the record-standby mode.

It is best to adjust so that the maximum sound level of the source to be recorded reaches the very limit of the saturation level of the tape to be used. The best level varies depending on the type of music and type of tape so it's better to make a test recording, using FM music records, etc.

**Note:**  
The sound quality will change if the positions of the DOLBY NR switch are different in recording and playback.

**AUTOMATIC RECORD MUTING**

This facility is used to eliminate undesired sections and leave an appropriate non-recorded section.

**A. To leave non-recorded sections of about 4.5 seconds automatically**

- 1. When the undesired section comes during recording, press the REC/REC MUTE button and release it.
- 2. The REC indicator flashes and a non-recorded section is made during record muting operation. About 4.5 seconds later, the tape automatically stops, and the unit enters the record-pause mode.
- 3. Press the PLAY button to start recording again.

**B. To leave non-recorded sections of more than 4.5 seconds**

- 1. Keep the REC/REC MUTE button pressed continuously as long as you want to make a non-recorded section. By releasing the finger from the button after the above operation, the unit enters the record-pause mode.
- 2. Press the PLAY button to start recording again.
- 3. Press the PAUSE button to enter the record-pause mode.
- 4. After the REC/REC MUTE button is pressed, press the PLAY button before the unit enters the pause mode to start recording again, or press the PAUSE button to enter the record-pause mode.
- 5. The peak level indicator lights even during record muting according to the input level which can be heard from the speakers or headphones so that recording can be resumed at the exact point on the tape.

**ERASING**

When recording on a prerecorded tape, the previous recording is automatically erased and only the new program is recorded on the tape.

- To erase a tape without making a new recording... Follow the section "RECORDING" but in step ③, set the INPUT LEVEL control to MIN.

**LINEAR TAPE COUNTER OPERATION**

When the power is connected, "000" appears in the display. During tape playback, the digital counter operates as a 4-digit linear tape counter which displays the approximate playback time in minutes and seconds for C-46L, C-80, and C-90 tapes. There is a one-minute error differential between the actual play-back time and the playback time displayed. With C-30, C-46, C-80, and other tapes, this differential is even greater. A different time may also appear for tapes of the same length but with a different thickness.

**DOLBY NR AND DOLBY HX PRO**  
**DOLBY NR System**  
To reduce the hiss inherent in tape recording, use the Dolby NR System when making recordings. When listening to a tape recorded with the Dolby NR System, set the DOLBY NR switch to B or C according to the system selected in the recording mode.

**Note:**  
The sound quality will change if the positions of the DOLBY NR switch are different in recording and playback.

**DOLBY HX PRO headroom extension**

When a source which contains many high-frequency components is recorded, these high-frequency signals have the same function as bias and therefore, the effective bias current changes. This will result in phenomena such as changes in the level of low-frequency signal and subsequent distortion and reduction of the high-frequency saturation level.

Dolby HX PRO headroom extension system controls the bias current so that the effective bias is constant even when there are fluctuations in the high-frequency components of the input signal. This greatly improves the high-frequency saturation level while reducing the low-frequency signal level variations and distortion.

- The dynamic sound recorded with this system sounds the same even when the tape is played back in a deck that does not have Dolby HX PRO.
- This system automatically works when in recording; however, Dolby HX PRO is not a noise reduction system.

## COMPU LINK CONTROL SYSTEM

### COMPU LINK Control System

The Compu Link Control System controls relative operations between components automatically and facilitates various operations. This is a system originated and developed by JVC for facilitating various system operations. There are two versions of this system; version 1 and 3. (For version 1 components, "COMPU LINK-1/SYNCHRO" is marked on the rear panel. For version 3 components, "COMPU LINK-3/SYNCHRO" is marked on the rear panel. This unit belongs to version 3.) The version 3 system controls relative functions between this unit and an amplifier or receiver, in addition to all of the functions of version 1.

#### Automatic Power On/Off (STANDBY) Function (COMPU LINK-3)

This function is available when an amplifier or receiver having a COMPU LINK-3/SYNCHRO terminal is connected. For example, if a deck contains a tape, the deck is turned on automatically and the tape is played back by only pressing the PLAY button. When the amplifier or receiver is switched to STANDBY, the source unit is automatically switched to STANDBY.

#### Automatic Source Selection (COMPU LINK-1, 3)

When the provided remote cables are used for connecting this unit to other components which have COMPU LINK-1 or 3/SYNCHRO terminals, the switch-over of all system components is possible with simple on-touch of the source selector button of JVC's amplifier or receiver.

By doing this, the corresponding component will start playing automatically. The source selector button of the remote control unit or the activation button of the desired component can be also used for this purpose. When the components have been switched over, the previous component will stop playing within five seconds.

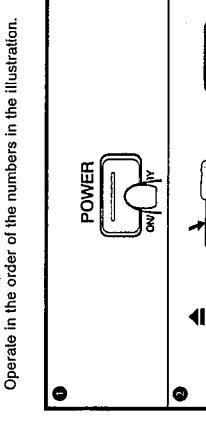
**Synchronized Recording (COMPU LINK-1, 3)**  
Synchronized recording refers to the process in which the recording starts recording in synchronism with the CD player. Perform the synchronized recording as follows:

- Set the cassette deck to the record-pause mode in accordance with the recording procedure on page 8.
- If you want the programmed recording, program the desired tunes in any order you wish to hear.
- Press the PLAY/PAUSE button of the CD player. By so doing, the cassette deck is placed in the record mode and synchronized with the CD player for recording. Synchronized recording thus can be made possible.

**DDRP (Dynamics Detection Recording Processor) recording**  
The DDRP function makes possible fully automatic recording when used with a suitable JVC CD player. When the DDRP button of a suitable JVC CD player is pressed, the recording level is first adjusted automatically, then recording starts; it is not necessary to start recording by the normal procedure.

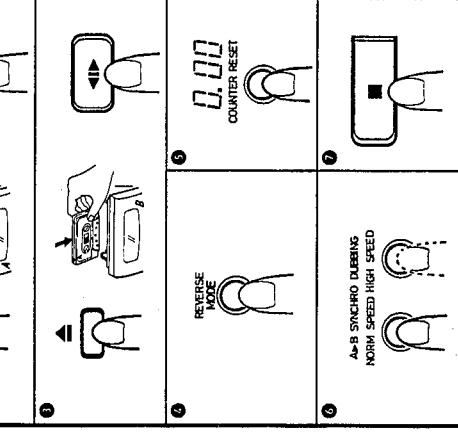
## DUBBING

- Notes:
- Synchronized recording or DDRP recording stops automatically when the CD player stops playing.
  - Synchronized recording does not start, except when the record-pause mode is set by simultaneously pressing the REC/REC MUTE and PAUSE buttons in the stop mode.
  - To cancel synchronized recording or DDRP recording, press the STOP button of the CD player or cassette deck.
  - The source is locked to the CD position during synchronized recording or DDRP recording to avoid accidental stops or switch-over to another component. To switch over to the components, cancel synchronized recording or DDRP recording first.
  - The INPUT LEVEL control does not function during DDRP recording.



- Notes:
- Synchronized dubbing or DDRP dubbing stops automatically when the CD player stops playing.

- Oscillate in the order of the numbers in the illustration.



- Notes:
- Synchronized dubbing or DDRP dubbing stops automatically when the CD player stops playing.

- Operate in the order of the numbers in the illustration.
- Before pressing the SYNCHRO DUBBING button, confirm that both decks are in the stop mode before starting dubbing.
- During dubbing, the same NR mode selected for the playback cassette is applied to the recording cassette, regardless of the position of the NR switch.

- When deck B stops, the dubbing mode is automatically released.
- Syncro record muting
- When deck A stops or enters any mode other than the play-back mode during dubbing, deck B enters the record mode automatically and then enters the record-pause mode.
- Confirm that both decks are in the stop mode before starting dubbing.
- During dubbing and DOLBY NR switch
- During dubbing, the same NR mode selected for the playback cassette is applied to the recording cassette, regardless of the position of the NR switch.
- When the BLANK SKIP button is ON during normal-speed dubbing, the BLANK SKIP function operates in deck A.
- When deck A enters in the BLANK SKIP mode, deck B enters standby status for the record-pause mode after automatic record muting operation.
- When deck A resumes playback, dubbing commences.

- Input level

- Recording is performed at the same level as the playback tape during dubbing regardless of the position of the INPUT LEVEL control.

- Microphone mixing during dubbing

- By connecting a microphone, microphone mixing during dubbing is possible with the playback sounds from deck A. Be sure to perform dubbing at normal speed. When performing microphone mixing during dubbing, use cassettes recorded with NR OFF mode for the deck A.

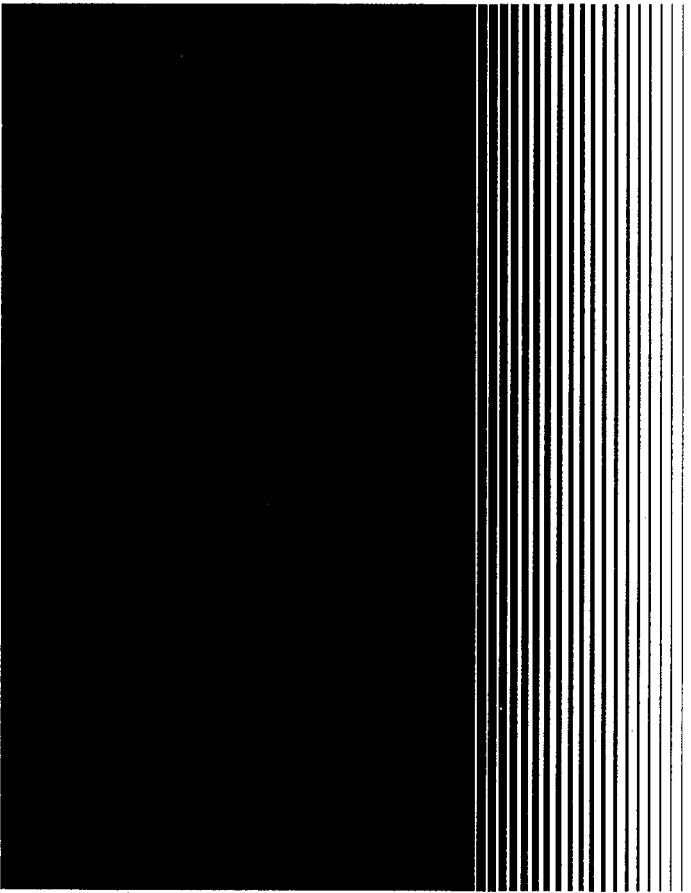
- Tape editing

- Press the REC/REC MUTE button when finished dubbing a tune. Deck B automatically enters the record muting mode and leaves a non-recorded section of about 4-seconds then enters the record-pause mode.
- Press the ■ (stop) button of deck A and search for the next tune you want by using the ▶▶, ▶ or PLAY button. Then stop the cassette just before the beginning of the tune.
- Press the same SYNCHRO DUBBING button pressed before the pause again, and dubbing will start.

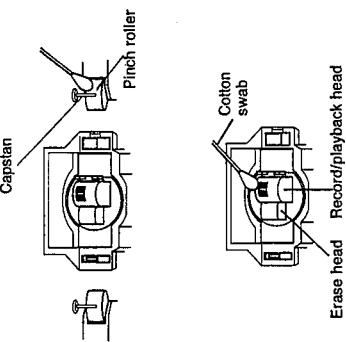
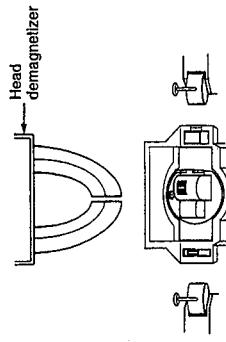
- Notes at dubbing

- Normal-speed dubbing is recommended to obtain good sound quality.
- Television receivers placed close to the deck may cause interference on the recorded signal when the deck is used in the high-speed dubbing mode. If this happens, either turn off the television receiver or use the normal-speed dubbing mode.

**JVC**  
VICTOR COMPANY OF JAPAN, LIMITED



**Demagnetizing the heads**  
Magnetic objects brought close to the head or using the deck for a long period of time results in magnetization of the head, thus noise occurs. When the noise is excessive, high frequencies on the recorded tape may be erased.  
Demagnetize the heads and other metal parts that come into contact with the tape every 20-30 hours of use with a head demagnetizer (available from your audio store).



## Maintenance

### The Importance of cleaning

When the tape is moving, magnetic powder and dust naturally accumulate on the heads, capsian and pinch roller. When they become too dirty:

- tone quality deteriorates.
- the output sound level drops.
- the previous sound is not erased satisfactorily.
- recordings are not satisfactory.

Because of this, clean the heads, etc. every 10 hours of use so that optimum recordings will be made.

### Cleaning the heads, pinch roller and capsian

Wipe the heads, the capsian, etc. with a cotton swab with its tip dipped in alcohol. For effective cleaning, use a cleaning kit available from your audio store. After cleaning, be sure that the cleaning fluid has completely dried before loading a cassette.

# 1 Location of Main Parts

## ■ Top view

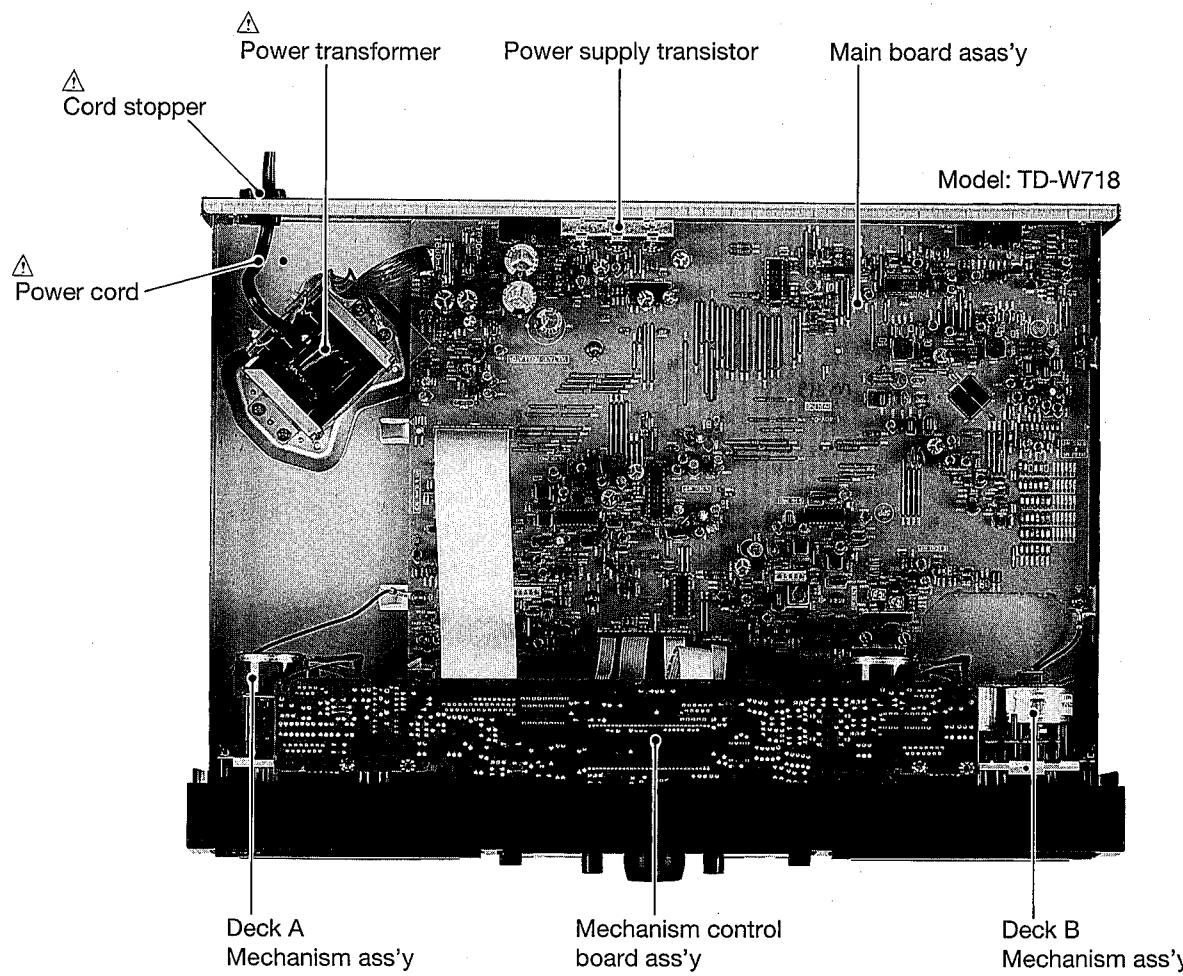


Fig. 1 – 1

## ■ Mechanism

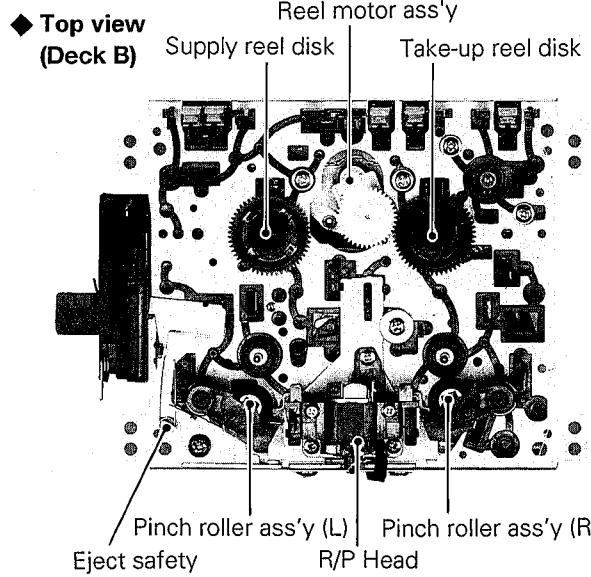


Fig. 1 – 2

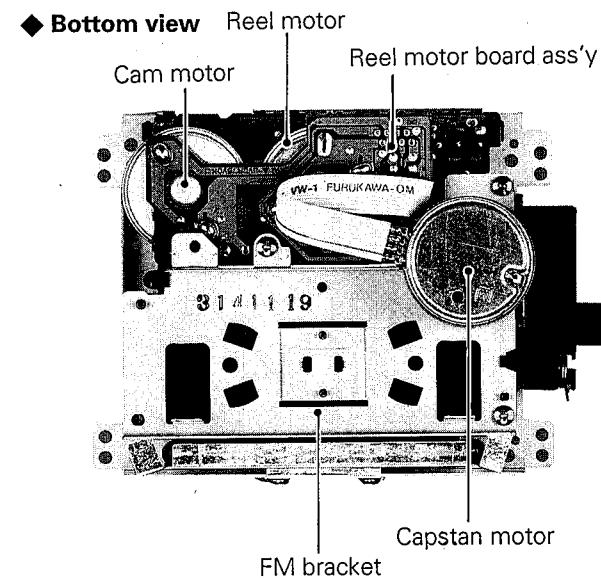


Fig. 1 – 3

## 2 Removal of main parts

### ■ Enclosure Section

#### ◆ Top cover (Fig. 2 - 1)

1. Remove four screws ① retaining the top cover from both side.
2. Remove two screws ② retaining the top cover from the back side.
3. To remove the top cover ,slide in direction of arrow and lift away (refer to Fig. 2 - 1).

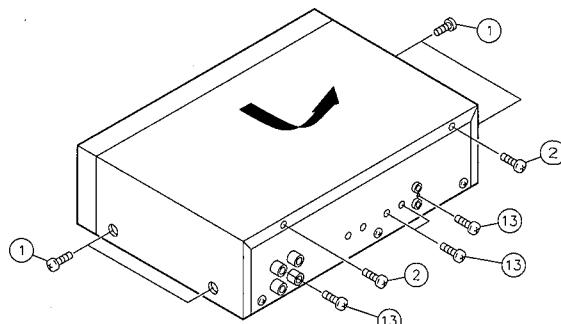


Fig. 2 - 1

#### ◆ Front panel assembly (Fig. 2 - 2)

1. Remove the top cover as described in above.
2. Remove three screws ③ retaining the front panel ass'y from bottom side.
3. Release the front panel ass'y from two pawls in the front and bottom sides and draw it to the front side.
4. Disconnect all connectors between the mechanism ass'y, front panel ass'y and the main board ass'y.

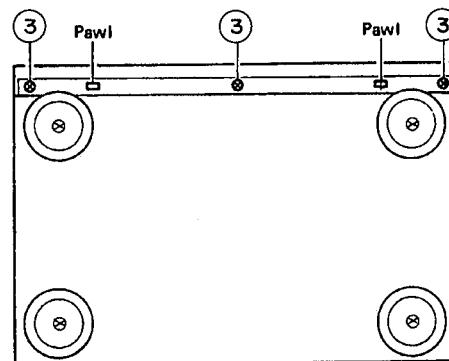
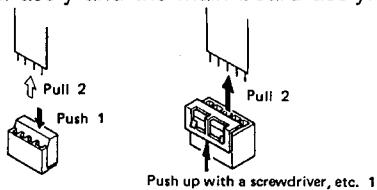


Fig. 2 - 2

#### ◆ Mechanism assembly

★ Although the mechanism assembly can be removed without detaching the front panel ass'y, it is recommended to detach the front panel ass'y to do the work with ease.

1. Remove two screws ④ or two screws ⑤ from the corners of the mechanism. (Fig. 2 - 5)
2. After disconnecting the mechanism control board from the connector of the mechanism board, remove two screws ⑪ to remove the mechanism control board. (Fig. 2-3, 2-4)
3. Open the door and remove the mechanism ass'y.  
(At this time, door lock arm spring and door lock arm are removed together with.)
4. For moving the mechanism ass'y only, disconnect the following wirings.

##### a) Mechanism ass'y side (Fig. 2 - 4)

Top side connector of the cam switch board (CN2).

Connector of the motor board (CN1). (Board to Board connector)

##### b) Main board ass'y side (Fig. 2 - 3)

Disconnect CN802 from Mecha control board, CN801 and CN803 from Switch & Volume board ass'y, CN871 from Mic board ass'y and CN861 from H. Phone jack board ass'y.

Disconnect wire coming from the head mount ass'y CN811 at deck A and CN815 at deck B.

Remove two screws ⑥ and remove the two GND wires from Deck A and Deck B.

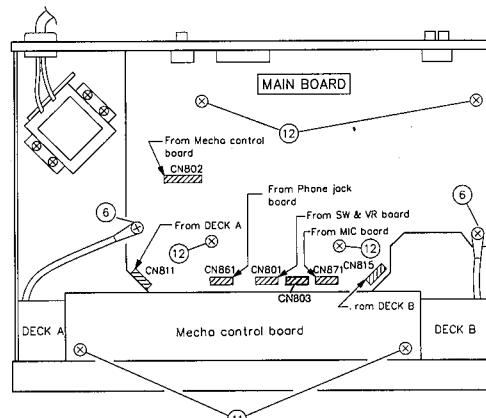


Fig. 2 - 3

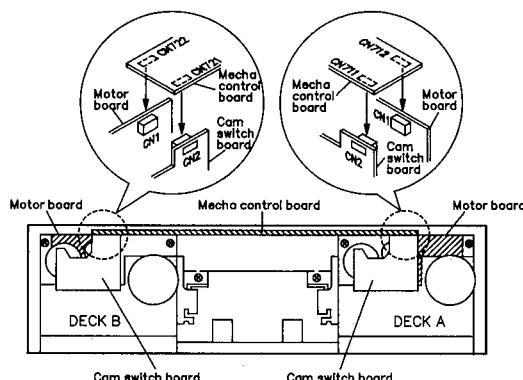


Fig. 2 - 4

### ◆ Eject arm ass'y (Fig. 2 - 5)

1. Remove two screws ⑦ retaining the eject arm ass'y and pull it out.

### ◆ Mechanism holder and door ass'y (Fig.2-6 – Fig.2-8)

1. Remove four screws ⑧ retaining the mechanism holder. (see Fig.2-8)
2. Remove the damper ass'y(for easy reassembling work). Insert an originay( – )screwdriver or the like in to the gap between the damper and the front panel to disengage the pawl , and draw the damper ass'y outwards.(see Fig 2 - 6)
3. Remove the arm shaft of the cassette holder (door ass'y)from the mechanism holder.(The door spring is engaged with the door side by the longer side.) (see Fig. 2 - 7)
4. Remove the eject spring from lock lever and mechanism ass'y. (see Fig. 2 - 7)

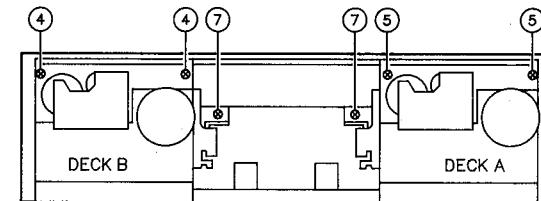


Fig. 2 - 5

#### How to remove damper

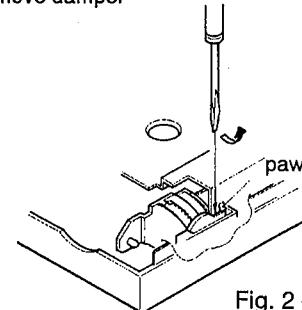


Fig. 2 - 6

#### How to engage the door and eject spring

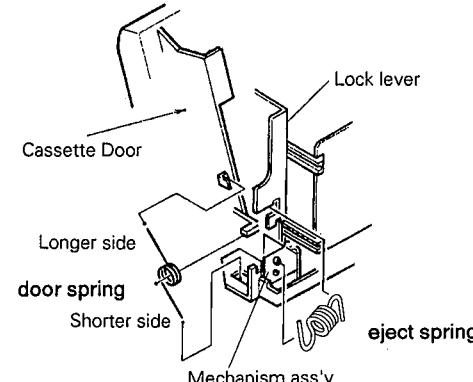


Fig. 2 - 7

### ◆ Switch & Volume board ass'y and Mechanism Control board ass'y (Fig. 2 – 8)

1. After removing the mechanism holder, proceed to the following steps.
2. Pull out the INPUT volume knob.
3. Remove five screws ⑨ retaining the Switch & Volume P.C. board.
4. Remove one screw ⑭ and remove the cap.
5. Lift the board right upwards to remove it since it is connected to the mechanism control key board with connector pins (CN603/CN604).
6. Disconnect CN602 coming from Mechanism control board ass'y (CN702).

### ◆ Headphone jack board ass'y and Mic jack board ass'y (Fig. 2 – 8)

1. After removing the Switch & Volume board ass'y, pull the H. Phone jack board ass'y and Mic jack board ass'y outwards while pushing it down toward the bottom side to remove it.

### ◆ Key switch board ass'y (Fig. 2 – 8)

1. Remove one screw ⑩ (DeckA or B) retaining the board ass'y.

2. Do the same for the other side.

### ◆ Main board ass'y (see Fig2 – 3, Fig 2 – 1)

1. Remove four screws ⑫ retaining the board.
2. Remove four screws ⑬ retaining the board to the rear panel.

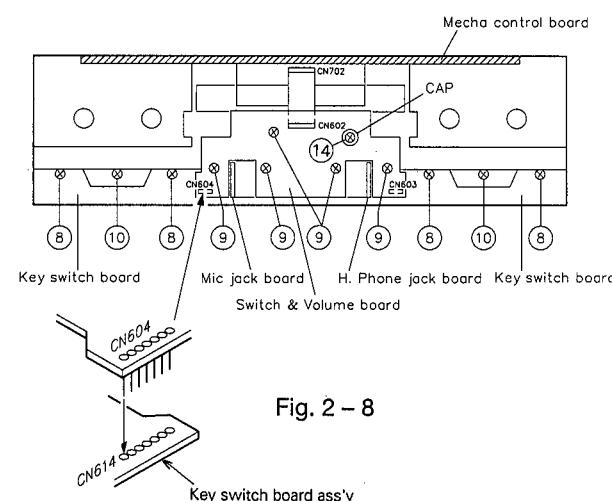


Fig. 2 - 8

● Reassembling procedure of the front panel ass'y

1. Attach the Key switch board ass'y to the panel with two screws.
2. Put the door ass'y and the mechanism holder together with on the front panel.
3. Attach the mechanism holder to the front panel ass'y with two screws.
4. Engage the door spring properly.
5. Install the damper. (Push the pawl side last to engage it.)
6. Install the eject arm ass'y.
7. Attach the Switch & Volume board ass'y to the panel with five screws.
8. Install the mechanism ass'y.
9. Hook the eject spring between lock lever and mechanism ass'y.
10. Attach the Mecha control board ass'y to the panel with two screws.

■ Cassette mechanism section

◆ Head mount assembly (Fig2-9, Fig2-10)

1. Remove three screws ① retaining the head mount ass'y.

◆ Pinch roller assembly (Fig. 2 - 9, Fig. 2 - 11)

1. Remove the pinch roller and pinch roller spring by disengaging the pawl hooking it.
2. For reengaging the pinch roller and pinch roller spring, refer to Fig. 2 - 11.

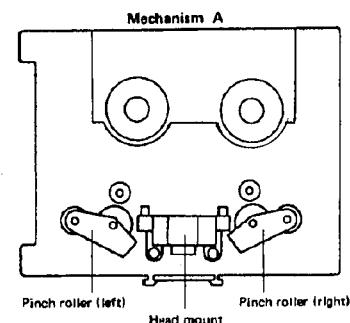


Fig. 2 - 9

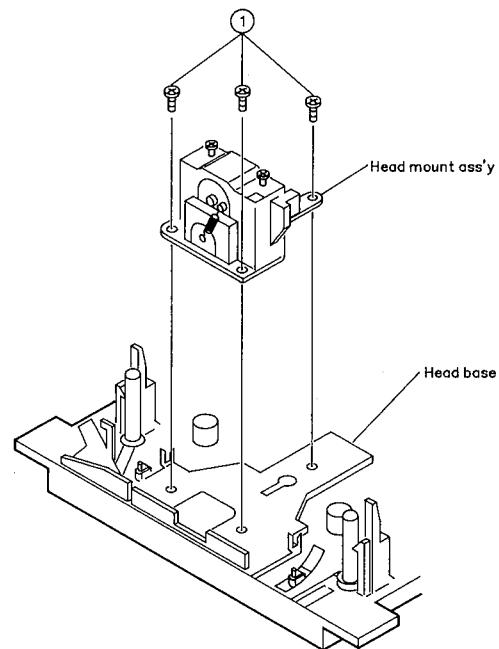


Fig. 2 - 10

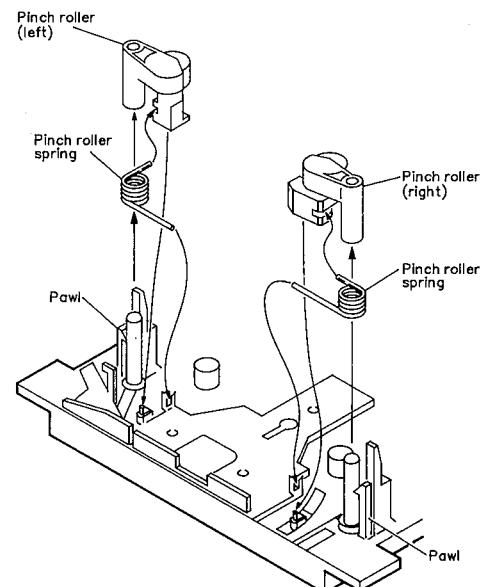


Fig. 2 - 11

### ◆ FM bracket/Capstan motor assembly (Mechanism)

#### A and B)

1. Remove soldering of connector FM on Reel motor board. (Fig. 2 – 12)
2. Remove three screws ② and disengage two pawls, and then the FM bracket and the capstan belt can be removed. (Fig. 2 – 12, 2 – 13)
3. Remove two screws ③ retaining the capstan motor from the FM bracket. (Fig. 2 – 12)
4. For reengaging the capstan belt, refer to Fig. 2 – 13.

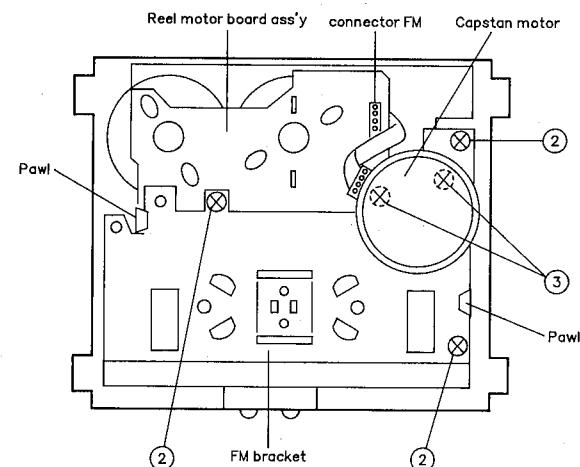


Fig. 2 – 12

### ◆ Flywheel ass'y (Fig. 2 – 14)

1. Remove two screws ④ and remove the shield plate.
2. Pull up the Flywheel (L) and (R) and remove them.

### ◆ Reel motor board (Fig. 2 – 14)

1. Remove four soldering of the Reel motor and Actuator motor and remove the Reel motor board.

### ◆ Reel motor board (Fig. 2 – 15)

1. Remove two screws ⑤ from rear of chassis and remove the Reel motor ass'y toward upward.

### ◆ Actuator motor ass'y (Fig. 2 – 15)

1. Remove two screws ⑥ from rear of chassis and remove the Actuator motor ass'y toward upward.

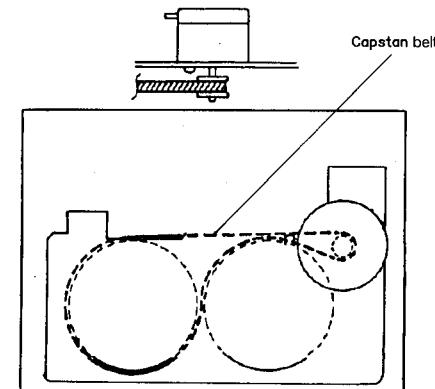


Fig. 2 – 13

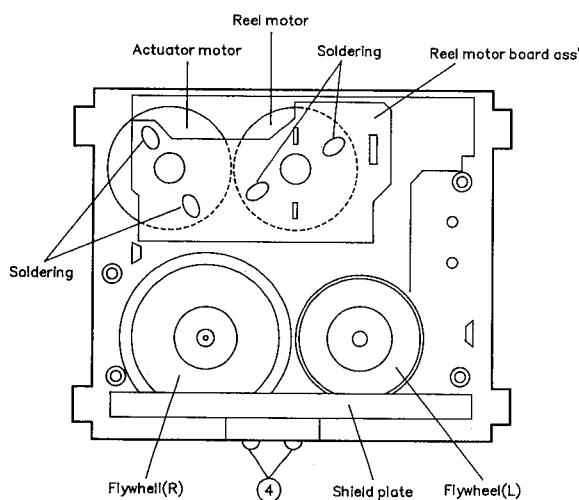


Fig. 2 – 14

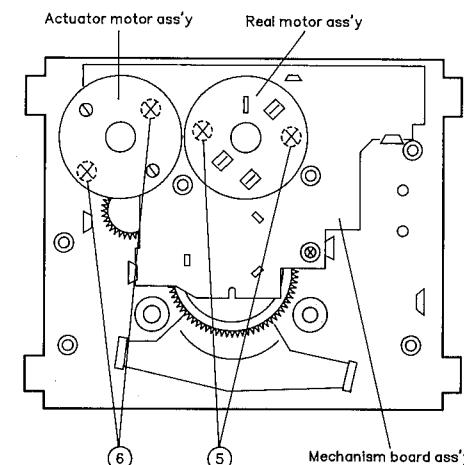


Fig. 2 – 15

### ◆ Mechanism board ass'y (Fig. 2 – 16)

1. Remove one screw ⑦ retaining the board.
2. Release the Mechanism board from five pawls.
3. For gearing between the Mechanism board and Control cam, see the magnified illustration in a circle.

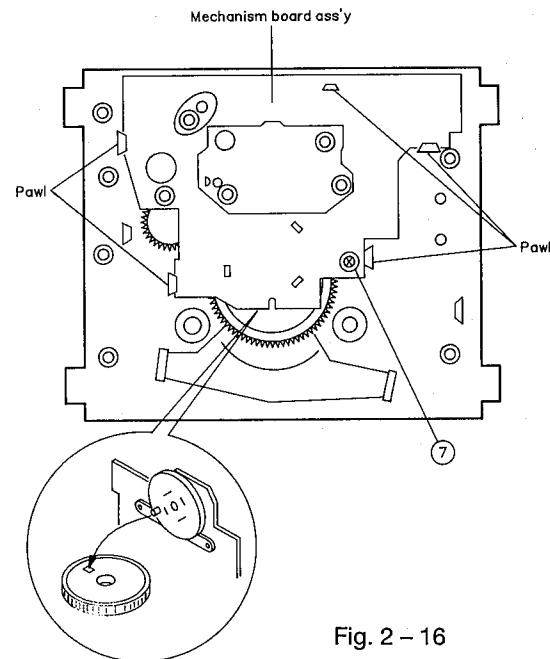


Fig. 2 – 16

### ◆ Control cam (Fig. 2 – 17, 2 – 18)

1. Release the control cam from two pawls. (Fig. 2 – 17)
2. For assembling the control cam, fits ② zone (groove) of control cam to ② position of Pinch lever and ③ zone (groove) to ③ position of Head base shaft. (Fig. 2 – 17, 2 – 18)

### ◆ Actuator gear A and B (small) (Fig. 2 – 17)

1. Release the actuator gear A (small) from one pawl and remove it toward upward.
2. Release the actuator gear B (small) from one pawl and remove it toward upward.

### ◆ Actuator gear (large) (Fig. 2 – 17)

1. After removing the Control cam, actuator gear A (small) and actuator gear B (small), remove the Actuator gear (large).

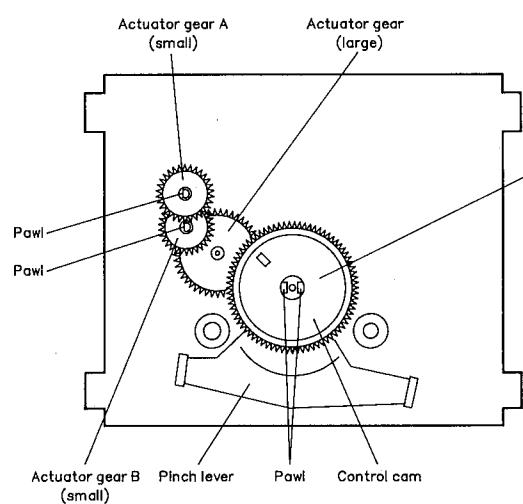


Fig. 2 – 17

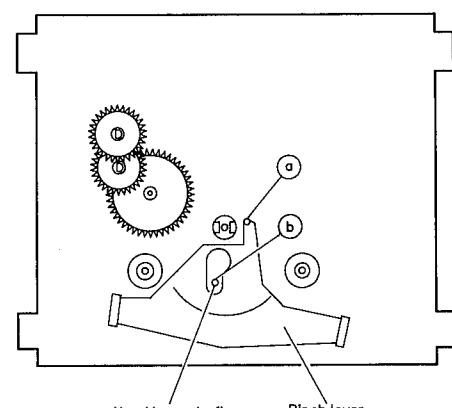
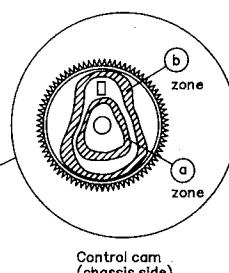


Fig. 2 – 18

## 3 Main Adjustment

### ◆ Measuring instruments required for adjustment

- (1) Low - frequency oscillator(oscillation frequency 50Hz - 20kHz, 0dB output with 600 Ω impedance )
- (2) Attenuator(600 Ω impedance)
- (3) Electronic voltmeter
- (4) Standard tapes
  - VTT712 (3kHz tape speed, wow and flutter measurement)
  - VTT727 (400 Hz) (DOLBY standard level)
  - TMT735 (1 k, 12.5 k), VTT739 (63, 1 k, 10 k) (playback frequency)
  - VTT703 or VTT703L (10 kHz), VTT704 (12.5 kHz) (azimuth)
  - TMT6447, TM6448 (music scan)
- (5) Recording reference tapes
  - AC-224 (Normal), AC-513 (TDK SA) (CrO<sub>2</sub>)
  - AC-712 (TDK MA) (Metal)
- (6) 600 Ω resistors(for attenuator matching)
- (7) Distortion meter(bandpass filter)
- (8) Torque gauge (cassette) for CTG-N, TW2111, TW2121, TW2231 and TW2241, mechanism adjustments

- (9) Wow & flutter gauge
- (10) Frequency counter gauge

(11) M300 gauge

(12) Band pass filter

### ◆ Power supply voltage

Set the line voltage selector switch to 240V/ 230V/ 220V/ 127V/ 120V/ 110V according to your local voltage.

AC240V, 50/60Hz : A version

AC230V, 50/60Hz : B/E/EN/G version

AC120V, 60Hz : C/J version

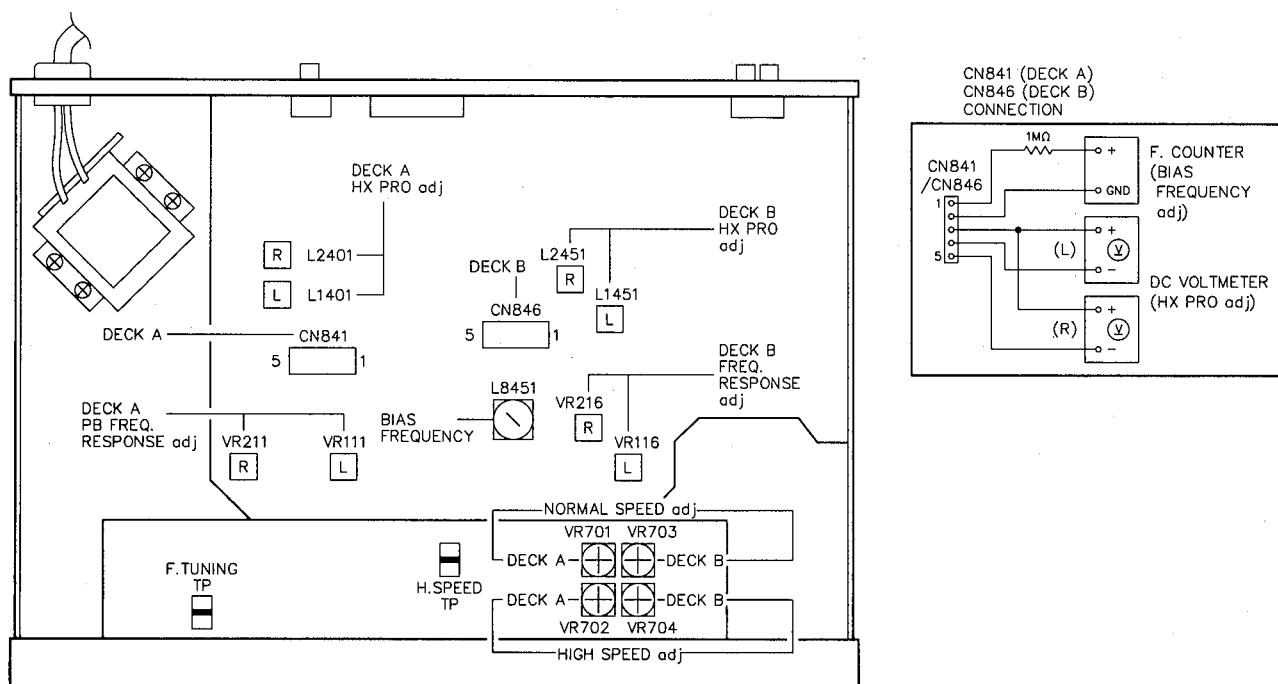
AC230/127/110V, 50/60Hz:U/UT version

- (13) Standard position of the switch and volume knob

Switches and volume knobs Setting position

INPUT LEVEL	:	MAXIMUM
DOLBY NR	:	OFF
REVERSE MODE	:	↔
PITCH CONTROL	:	CENTOR
MIC MIXING LEVEL	:	MAXIMUM
COMPU CAL LED	:	OFF
PHONES LEVEL	:	MAXIMUM
BLANK SKIP	:	OFF

### ◆ Location of Adjustment



## ◆ Compu-Calibration for F.CAL mode(automatically adjustment)

### ◆ F.CAL mode setting procedure

1. Short the F.TUNING TP and GND on mecha control board ass'y.
2. Before set the F. CAL mode, press the Counter Reset key while pressing the STOP key of deck B by reason of cancellation the factory setting level.
3. Press the POWER key while pressing the FF [ ►► ] key of deck A under the power standby mode.

At the same time, [F.CAL] mode is displayed on the deck B counter of FL indicator.

NOTE: When Compu-Calibration is finished normally, [COMPU-CAL] LED light up and result number of calibration is displayed on the counter of FL indicator.

If Compu-Calibration is finished abnormally, [COMPU-CAL] LED blinks and error number of calibration is displayed on the counter of FL indicator.

Then correct the error message and readjust the Compu-Calibration.

Item	Condition	Adjustment
Level meter sensitivity adjustment	Mode:REC/PAUSE at deck B Test signal level: 400Hz or 1kHz,-4dBs Input:LINE IN(L and R)	<ol style="list-style-type: none"> <li>1. Supply a 400Hz or 1kHz signal to both L and R of LINE IN terminals at -4dBs.</li> <li>2. Press the [COMPU-CAL] key of deck B,adjust the level meter sensitivity automatically.</li> <li>3. Confirm that difference level between left and right within 0.3dB.</li> </ol>
Playback level adjustment at decks A and B	Direction:FWD(decks A and B) NR:OFF Test tape:VTT-727	<ol style="list-style-type: none"> <li>1. Load the VTT-727 test tapes to both decks A and B.</li> <li>2. Press the [PLAY] key of deck A and playing back the tape.</li> <li>3. Press the [COMPU-CAL] key of deck A and adjust the playback levels of both decks A and B automatically.</li> </ol>
Recording character adjustment (Bias and REC/PB sensitivity) at decks A and B	Direction:FWD(decks A and B) Recording tape: AC-224(normal) AC-513(CrO2) AC-712(metal) NR: OFF	<ol style="list-style-type: none"> <li>1. Load the AC-224 tapes to both decks A and B.</li> <li>2. Press the [COMPU-CAL] key of deck A,start the recording character adjustment of deck A and then deck B automatically. After while about 50 seconds, adjustment is completed automatically. While adjusting, confirm that all segment is displayed on FL indicator.</li> <li>3. Load the AC-513 tapes to both decks A and B and adjusting as the same manner above step 2. After while about 40 seconds,adjustment is completed automatically.</li> <li>4. Load the AC-712 tapes to both decks A and B and adjusting as the same manner above step 2. After while about 40 seconds,adjusting is completed automatically.</li> </ol> <p>NOTE; When recording the each tapes, do not use while about 3 minutes range of tape start and end winding positions.</p>

If following error messages are indicated on the FL indicator when adjusting the Compu-Calibration, correct these abnormal conditions and readjust the Compu-Calibration.

1. In case the Level meter sensitivity adjustment.

(Error No.)	(Contents of the message)
ER01	No signal
ER02	Over the adjustment range, too much large the input signal level
ER03	Over the adjustment range, too much small the input signal level

2. In case the Playback level adjustment/

ER04	No playback signal
ER05	Over the adjustment range, too much large the playback signal
ER06	Over the adjustment range, too much small the playback signal

3. In case the Recording signal adjustment.

(1) For Lch

ER12	No 400Hz test signal for recording
ER13	No 12.5kHz test signal for recording
ER14	No playback signal (Do not recorded)
ER15	Can not find the recording start position
ER16	Over the adjustment range of 400Hz playback signal level, too much large 400Hz playback signal
ER17	Over the adjustment range of 400Hz playback signal level, too much small 400Hz playback signal
ER18	Too much large 12.5kHz playback signal level compare with 400Hz signal
ER19	Too much small 12.5kHz playback signal level compare with 400Hz signal

(2) For Rch

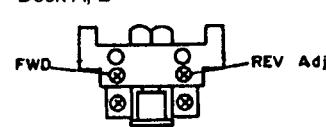
ER22	No 400Hz test signal for recording
ER23	No 12.5kHz test signal for recording
ER24	No playback signal (Do not recorded)
ER25	Can not find the recording start position
ER26	Over the adjustment range of 400Hz playback signal level, too much large 400Hz playback signal
ER27	Over the adjustment range of 400Hz playback signal level, too much small 400Hz playback signal
ER28	Too much large 12.5kHz playback signal level compare with 400Hz signal
ER29	Too much small 12.5kHz playback signal level compare with 400Hz signal

(3) For Lch and Rch

ER30	Compu-Calibration of AC-513 adjustment is started before adjustment of AC-224 is not complete finished
ER31	Compu-Calibration of AC-712 adjustment is started before adjustment of AC-224 is not complete finished

## ◆ Mechanism Adjustment

0dBs = 0.775V

Item	Conditions	Adjustment and Confirmation	Standad value	Adjust point
Adjusting Head azimuth	Test tape :VTT704 (12.5kHz)	<p>1. Connect an electronic voltmeter to the LINE OUT terminals.</p> <p>2. Play back the VTT704 (12.5kHz) test tape.</p> <p>3. Adjust the head angle with the screw (FWD and REV) until the reading of the electronic voltmeter becomes maximum for both channels (phase difference must be "0".)</p> <p>4. Repeat the adjustment in FWD and REV modes as well as for the decks A and B.</p> <p>5. Confirm that difference level between deck A and deck B within 2dB.</p>	Maximum Deck A, B	Screws (FWD, REV) 
Adjusting Tape speed (motor speed)	<p>1. After adjustment of normal speed, then adjust high speed.</p> <p>2. For high speed adjustment, set the deck for play mode and shortcircuit between H. SPEED TP and GND.</p> <p>3. Do not do anything while H. SPEED and TP GND are shortcircuited.</p> <p>Test tape: VTT-712 (3kHz)</p>	<p>1. Connect a frequency counter to the LINEOUT terminals.</p> <p>2. Perform normal speed adjustment first, and then do high speed adjustment.</p> <p>3. Play back the VTT712 test tape.</p> <p>4. Adjust for normal speed Adjust VR701(deck [A]) and VR703 (deck [B]) for normal speed at 3000Hz.</p> <p>5. Adjust for high speed After adjustment of normal speed, adjust VR702 (deck [A]) and VR704 (deck [B]) for high speed at 6000Hz.</p> <p>6. Difference in FWD and REV frequencies must be less than 48Hz.</p>	<p>Normal speed: Deck [A], [B]; 3000 ± 15Hz</p> <p>High speed : Deck [A], [B]; 6000 ± 30Hz</p>	<p>Deck [A] : Normal; VR701 High ; VR702</p> <p>Deck [B] : Normal; VR703 High; VR704</p>
Checking wow and flutter	Test tape: VTT-712 (3kHz)	Connect a wow and flutter meter to LINE OUT terminals. Play back the VTT712 test tape. Check to see if the reading of the meter is less than 0.17% (WRMS).	less than 0.17% (WRMS)	
Checking play back torque	Torque gauge TW2111(FWD) TW2121(REV)	Employ a torque testing cassette tape (TW2111[FWD] / TW2121[REV] for the checking, or remove the cassette cover and use a torque gauge.	27 – 70 g·cm	
Checking fast forward/rewind torque	Torque gauge TW2231(FWD) TW2241(REV)	Measure the torque in the fast forward mode in the same manner as in the above. Test cassette : TW2231 (FWD), TW2241 (REV)	90 – 200 g·cm	

## ◆ Electrical Adjustment Procedure

Item	Check and Adjustment			
1 Cheking DOLBY circuit (Rec.mode) (BIAS-CUT)	Signal input: LINE IN Cal.level: 400Hz, - 8dBs Output terminal TP : NR IC831 ⑤③ &⑧ pin.	DOLBY B (Rec)	Input signal (Frequency, level)	Output raise value,deviation value
			1kHz, cal. - 40dB	+5.7 dB ± 2 dB
			5kHz, Cal. - 20dB	+3.5dB ± 1.5 dB
		DOLBY C (Rec)	1kHz, Cal.	0 dB ± 1.0 dB <sup>0.5</sup>
			1kHz, Cal. - 40	+16.2 dB ± 2 dB <sup>3</sup>
			5kHz, Cal. - 20	+2.9 dB ± 2.5 dB
			1kHz, Cal.	0 dB ± 1 dB

Item	Conditions	Adjustment and Confirmation	Standard	Adjusting
*2 Play back level check	Test tape VTT727 : 400Hz	Play back VTT727. Check that the level at LINE OUT is -4.5 dBs ± 1dB. Difference between Lch and Rch must be less than 1 dB at LINE OUT.	LINE OUT -4.5 dBs ± 1dB Phone Out -14.5 dBs ± 2 dB	
*3 Playback frequency response adjustment	Test tape TMT735:1kHz/12.5kHz VTT739: 1kHz/63Hz	Play back TMT735 test tape, and adjust VR116, VR216 (deck <b>B</b> ) and VR111, VR211 (deck <b>A</b> ) so that deviation of 12.5 kHz to that of 1 kHz is 0 ± 0.5 dB (deck <b>A</b> ) and 0 ± 0.5 dB (deck <b>B</b> ). Then, play back VTT739 test tape to confirm that deviation of 63 Hz to 1kHz is +2 ± 3 dB.	with 12.5kHz as reference, 0 ± 0.5 dB (deck <b>A</b> ) and 0 ± 0.5 dB (deck <b>B</b> ) at 1 kHz 63 Hz (check): +2 ± 3 dB	Deck <b>B</b> L: VR116 R: VR216 Deck <b>A</b> L: VR111 R: VR211
*4 Bias frequency adjustment	Tape : Metal Mode: REC Frequency counter Input impedance : more than 1MΩ (See page18) Deck <b>B</b> TP: CN846 pin 1 Deck <b>A</b> TP: CN841 pin 1	Connect frequency counter to the CN846 (deck <b>B</b> ) and CN841 (deck <b>A</b> ) and adjust L8451 (deck <b>B</b> ) and L8401 (deck <b>A</b> ) so that the counter reads 95 kHz.	95 kHz ± 0.5 kHz	Deck <b>B</b> L8451 Deck <b>A</b> L8401
*5 Slave oscillation (HX PRO) adjustment	DC. Voltmeter Deck <b>A</b> TP: CN841 Deck <b>B</b> TP: CN846	This step must be performed after the bias frequency adjustment. Load a metal tape and set the deck to the recording mode. 1. Adjust for deck <b>A</b> Adjust L1401 and L2401 to minimize respective voltages of CN841 (PIN 3 – 4) at Lch and (PIN 3 – 5) at Rch. 2. Adjust for deck <b>B</b> Adjust L1451 and L2451 to minimize respective voltages of CN846 (PIN 3 – 4) at Lch and (PIN 3 – 5) at Rch.	Minimum	Deck <b>A</b> L: L1401 R: L2401 Deck <b>B</b> L: L1451 R: L2451

Item	Conditions	Adjustment and Confirmation	Standard	Adjusting
6 Input sensitivity level check		<p>1. Supply a 1kHz signal to the LINE IN terminals at -20dBs, confirm that LINE OUT level is -8dBs.</p> <p>2. Supply a 1kHz signal to the MIC input terminals at -66dBs, confirm that LINE OUT level is -8dBs.</p> <p>3. Confirm that difference level between left and right within 2dB at LINE IN terminals and within 3dB at MIC terminals.</p>	LINE IN : -20dBs ± 2 dB MIC: -66 dBs ±3 dB	
*7 REC/PB frequency response check	LINE INPUT LEVEL : Ref. -20dB (-40dBs ± 2dB) MIC INPUT level : Ref. -20dB (-86dBs ± 3dB) NR SWITCH : OFF	<p>This step must be performed after the slave oscillation adjustment.</p> <p>Record the 1 kHz and 12.5 kHz signals at the level of -20 dB (20 dB lower than the reference level).</p> <p>Playing back the recorded signals, check that the level of the 12.5 kHz signal is <math>0 \pm 2</math> dB to the level of the 1 kHz signal.</p>	12.5 kHz level: $0 \pm 2$ dB higher than the 1kHz level.	
8 Recording/ playback sensitivity check		<p>1. Supply a 400Hz signal to the LINE IN terminals record a 400Hz signal at reference level of -20dB.</p> <p>2. Confirm that REC indicator should turn on when LINE OUT level is -28dBs during recording.</p>	Normal, Chrome, Metal: -28dBs ±1 dB	
9 Maximum out put check		Supply 1 kHz signal to the LINE IN terminal in the Rec. monitoring mode, and read non-clipped signal level at the LINE IN terminal.	LINE OUT: more than 5 dBs PHONES OUT: more than -16dBs	
10 Checking record/ playback distortion		<p>1) Record a 1 kHz, -20 dBs signal to LINE IN terminals.</p> <p>2) Play back the recorded part, Check the output with a distortion meter to see if the value conforms to the standard value.</p>	Normal: Less than 2% CrO <sub>2</sub> /Metal: Less than 3%	
11 Checking signal to noise ratio recording playback		<p>1) Record at 1 kHz, -20 dBs signal, Stop the input by disconnecting from the terminal to perform non-signal recording.</p> <p>2) Play back the recorded part. Measure the -8 dBs recording output and the non-signal recording output for comparison using an electronic voltmeter. Check to see if the value conforms to the standard value.</p>	Normal, More than 40 dB Metal, chrome; More than 41 dB	

Item	Conditions	Adjustment and Confirmation	Standard	Adjusting
12 Checking erasing coefficient		<p>1) Apply a 400 Hz, +20 dBs signal to the LINE IN terminals.</p> <p>2) Perform recording with the signal enhanced by 20 dB</p> <p>3) Erase a part of the recording.</p> <p>4) Measure the output difference between the erased part and non- erased part to compare with an electronic voltmeter.</p> <p>For the measurement using a metal tape, connect a band pass filter between the deck and the electronic voltmeter.</p> <pre> graph LR     In1[Input (1 kHz)] --&gt; Tape[Tape deck (recording, erasing)]     Tape --&gt; In2[Input (1 kHz)]     In2 --&gt; BPF[Band pass filter]     BPF --&gt; EV[Electronic voltmeter]     </pre>	More than 55 dB	

## **4** Wiring Connections

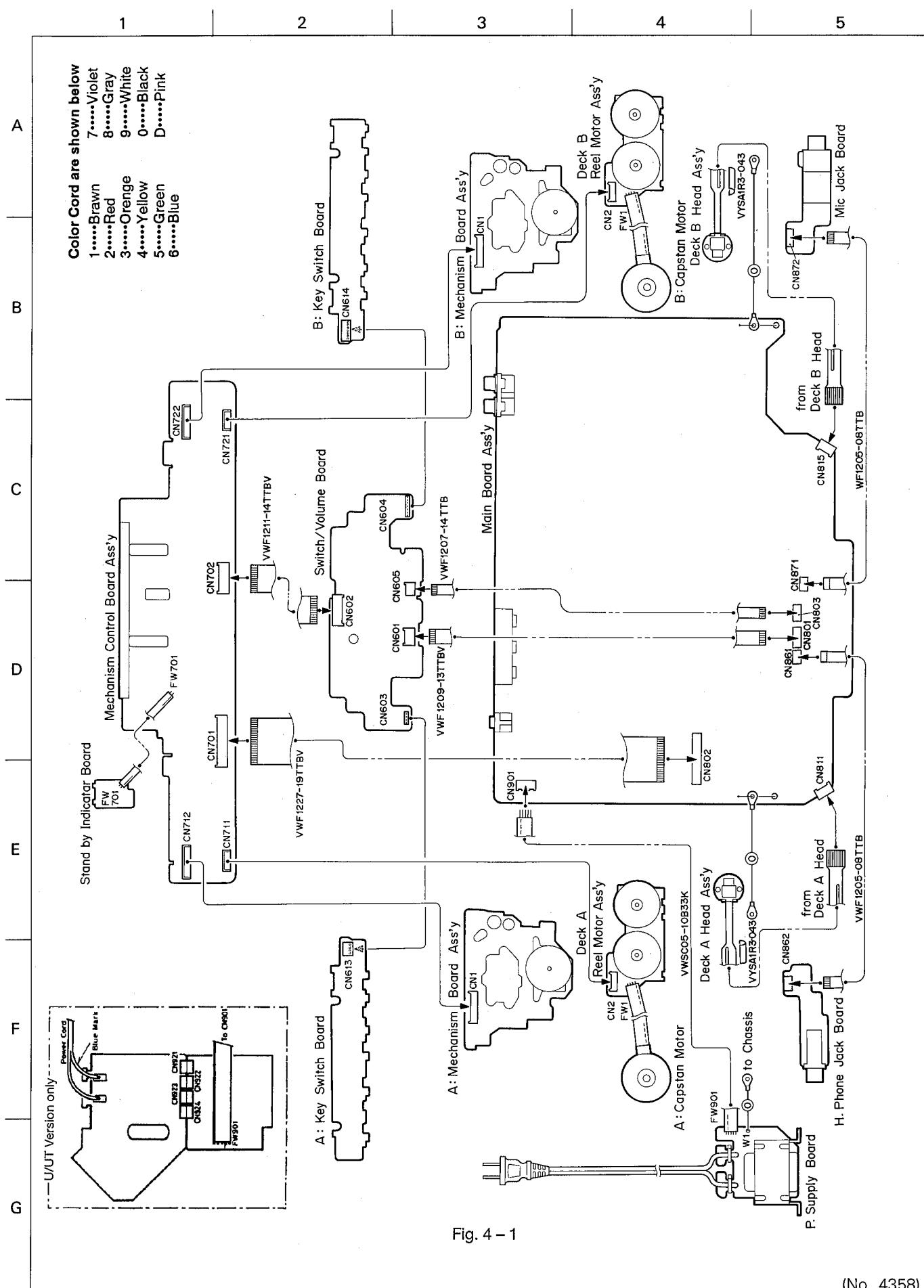


Fig. 4-1

## 5 Block Diagram

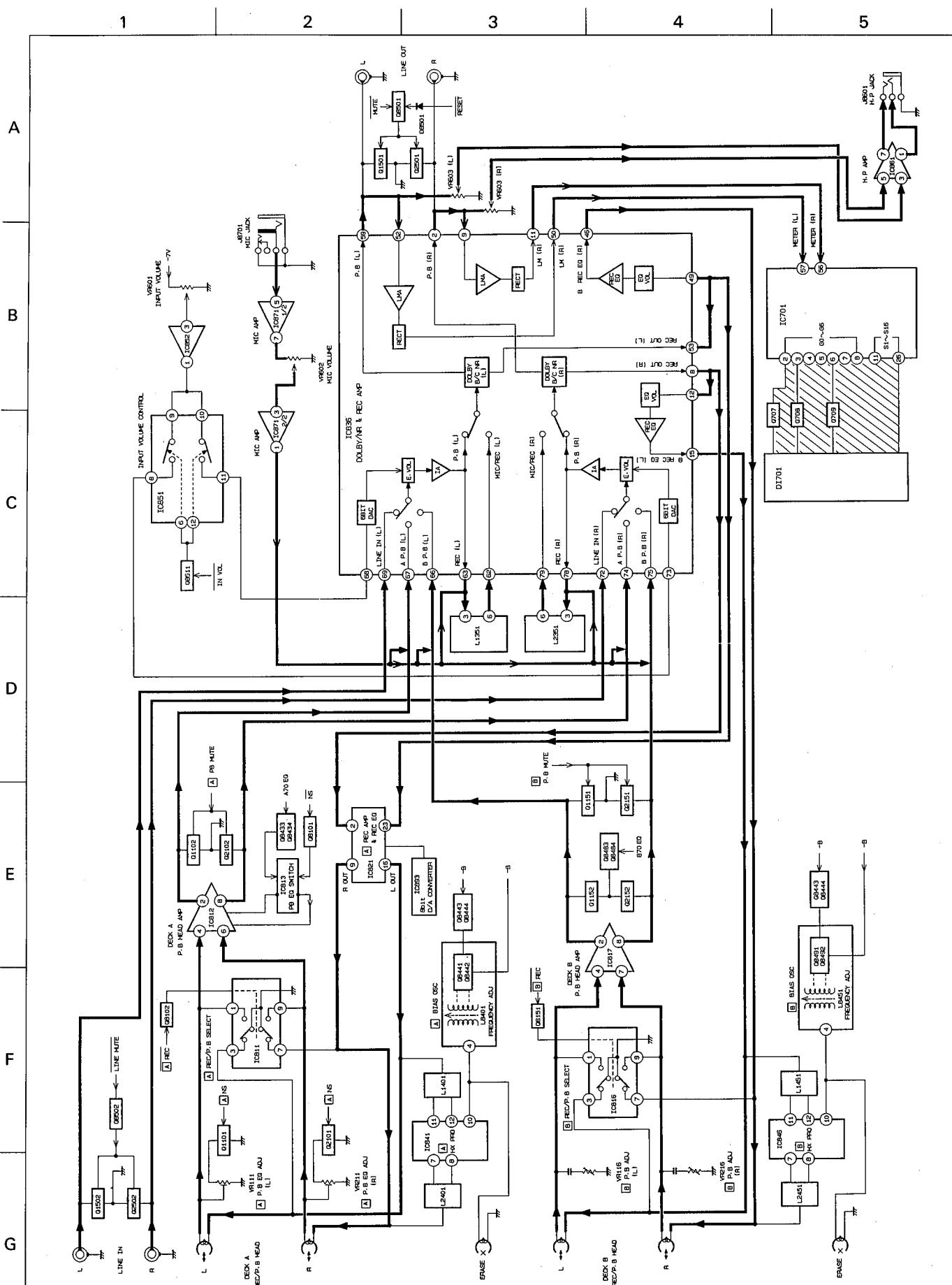


Fig. 5-1



## **6 Standard Schematic Diagrams**

1

2

3

4

5

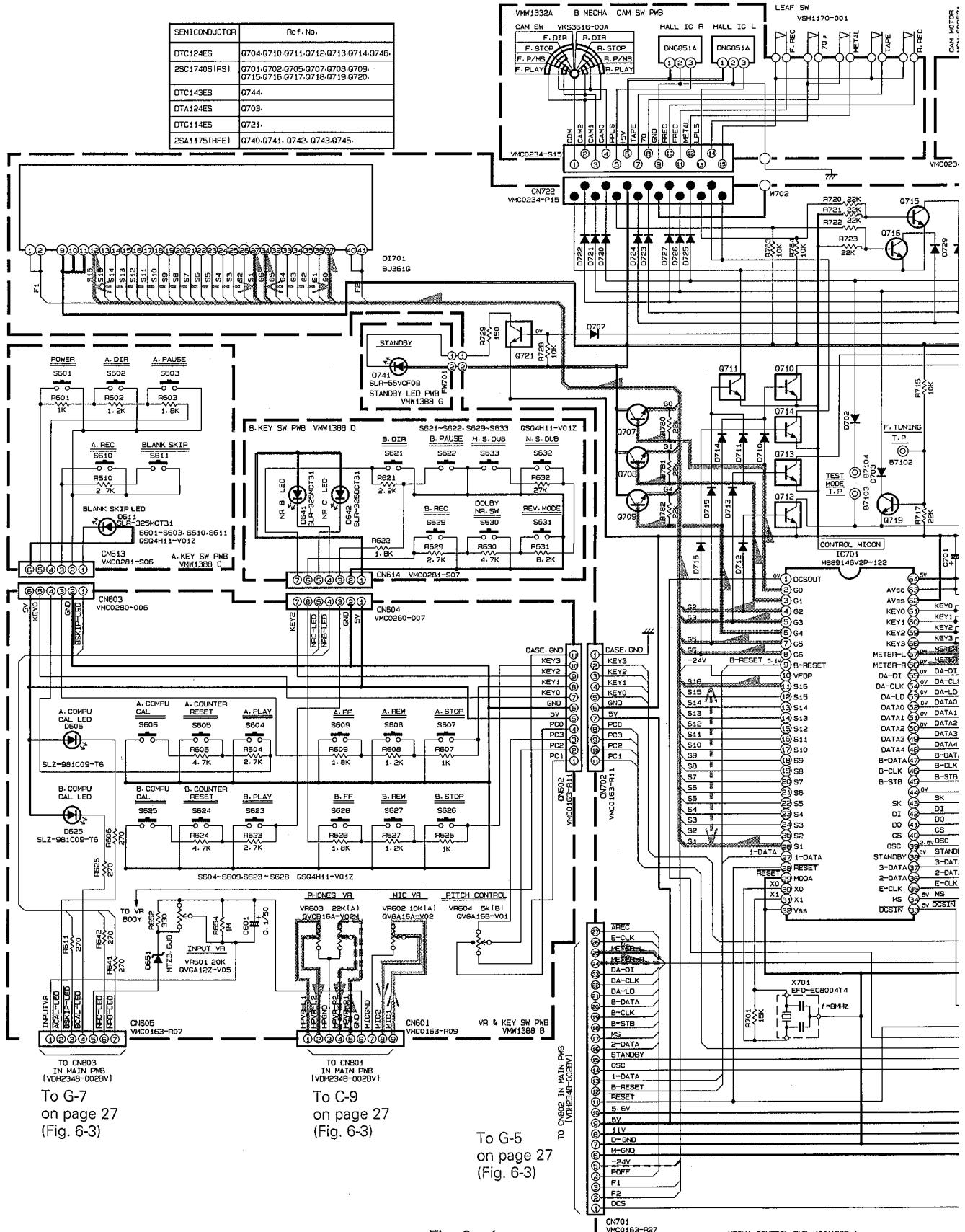
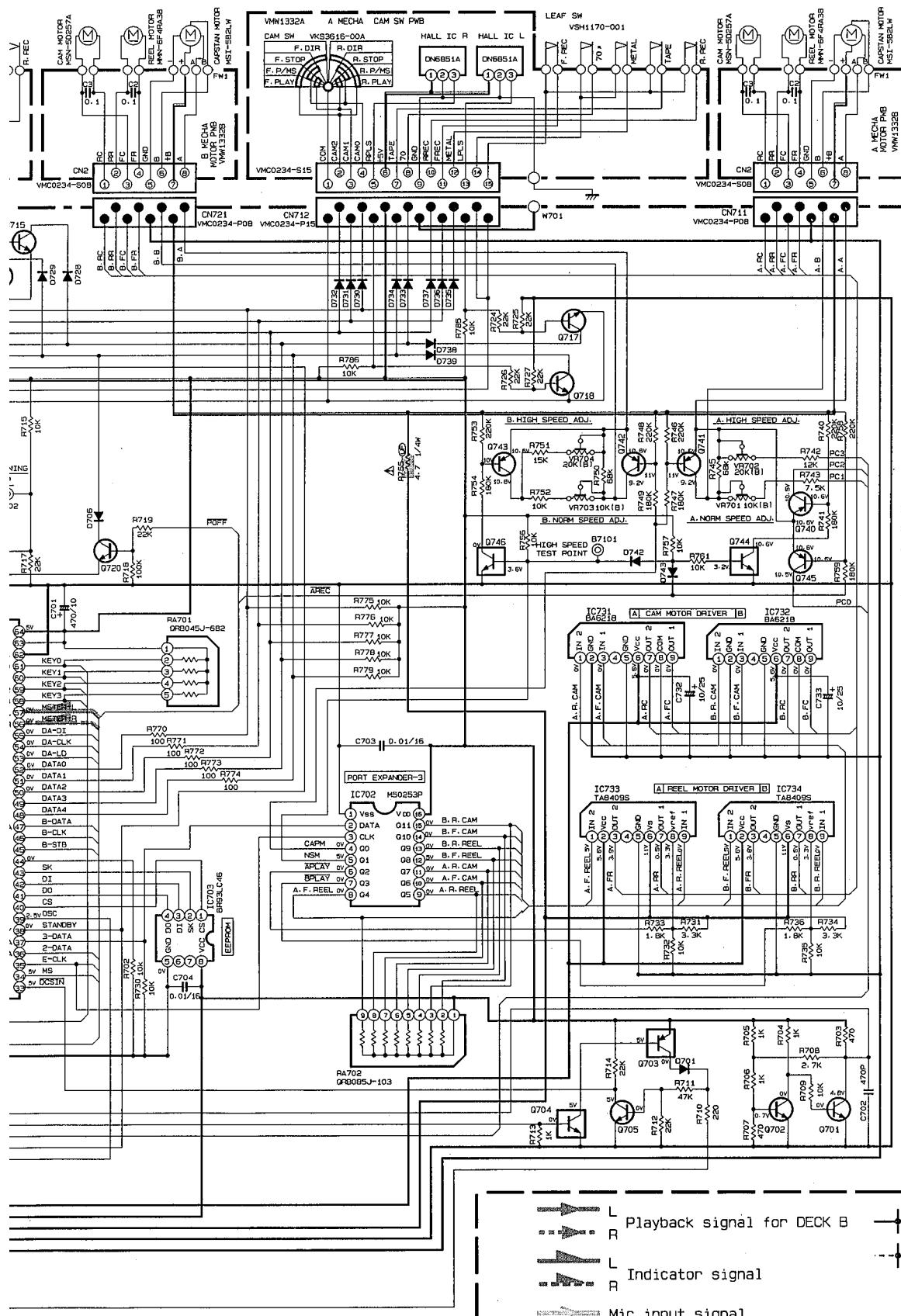


Fig. 6-1



Psarts are safety assurance parts.  
When replacing those parts make  
sure to use the specified one.

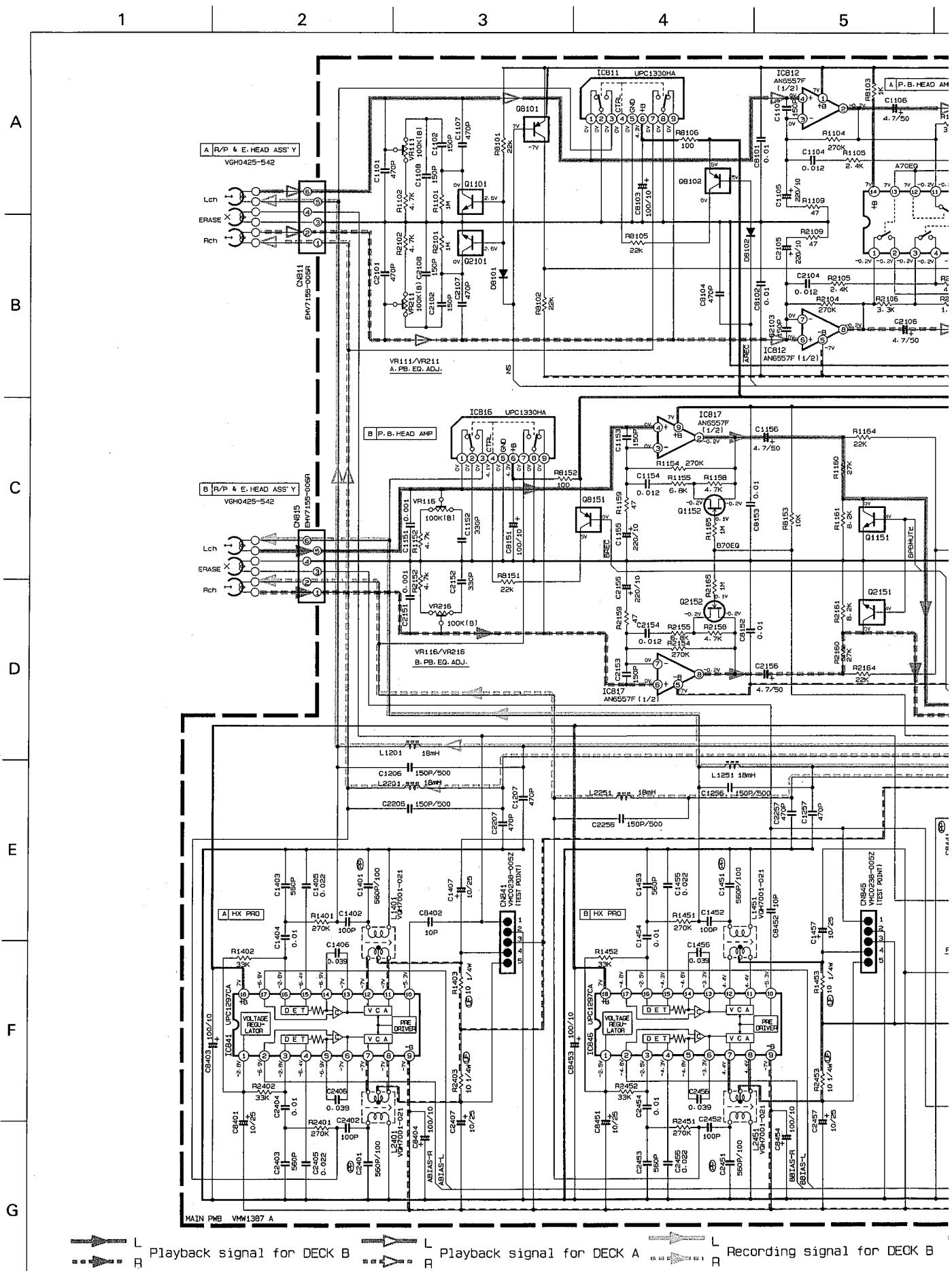
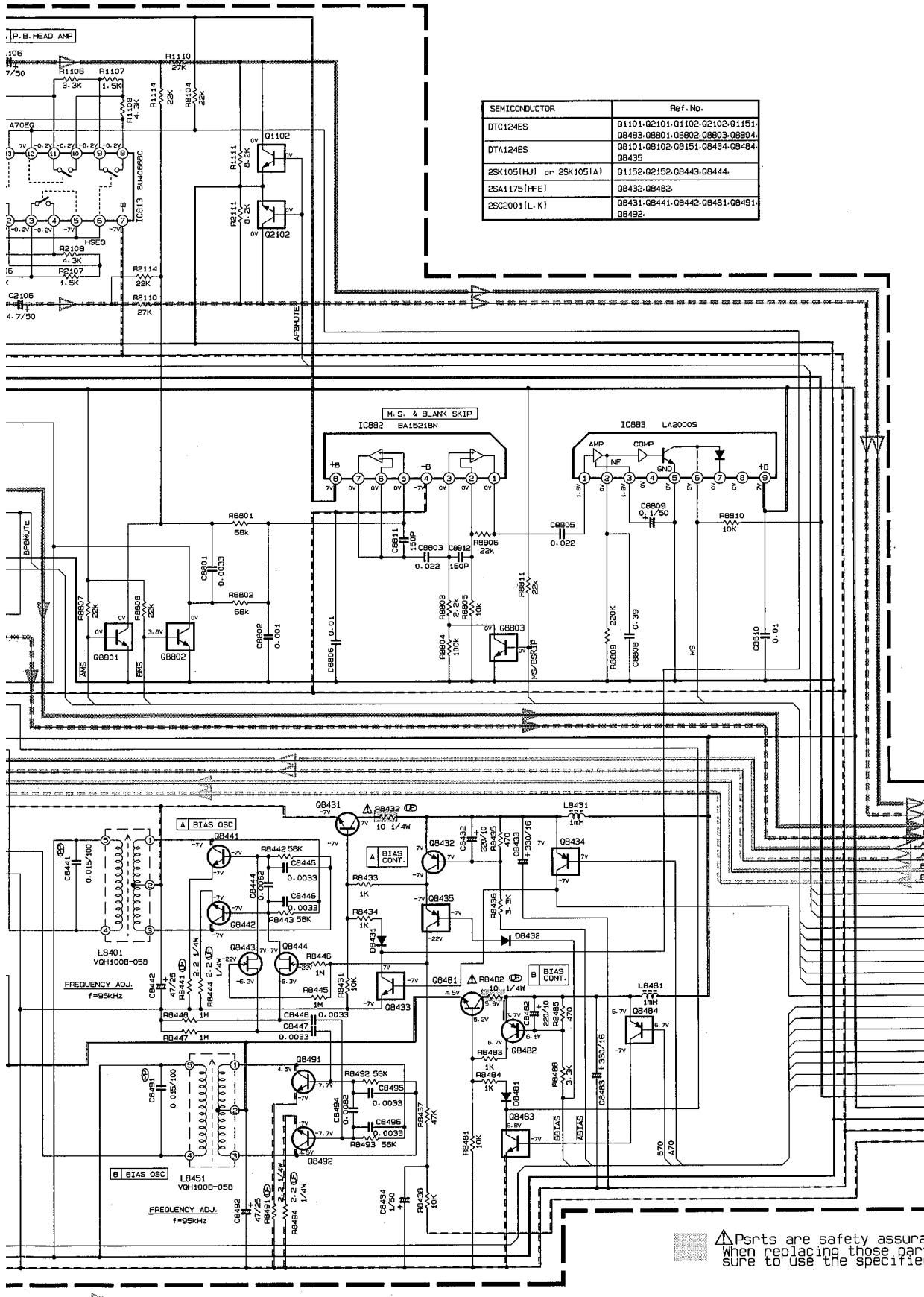


Fig. 6-2



DECK B L Recording signal for DECK A +B Line -B Line

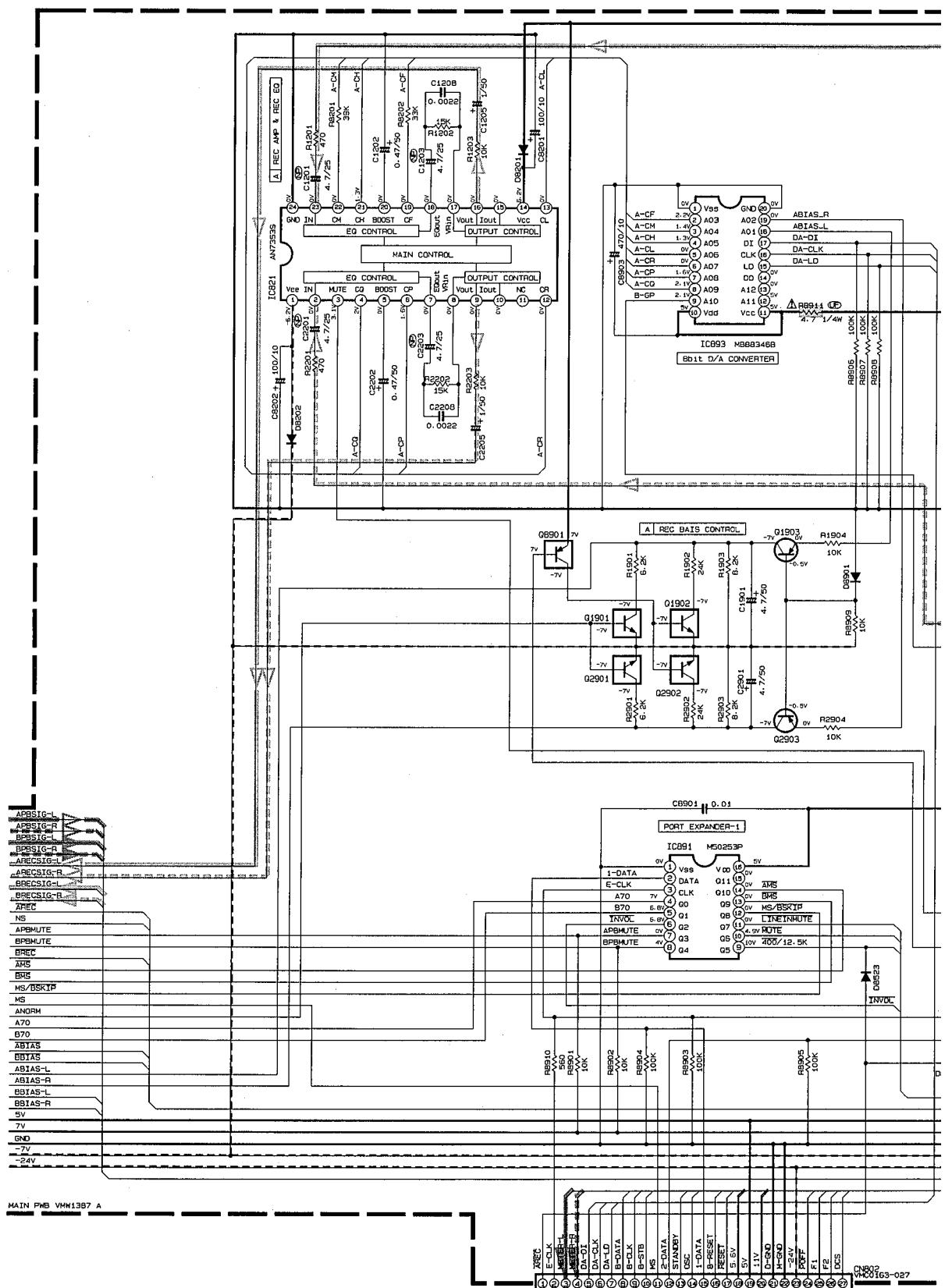
1

2

3

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To before  
page

MAIN PWB VMM1387 A

To G-4

on page 25 (Fig. 6-1).

TO CN701

L Playback signal for DECK B L Playback signal for DECK A L Indicator signal L Recording

6

7

8

9

10

A

B

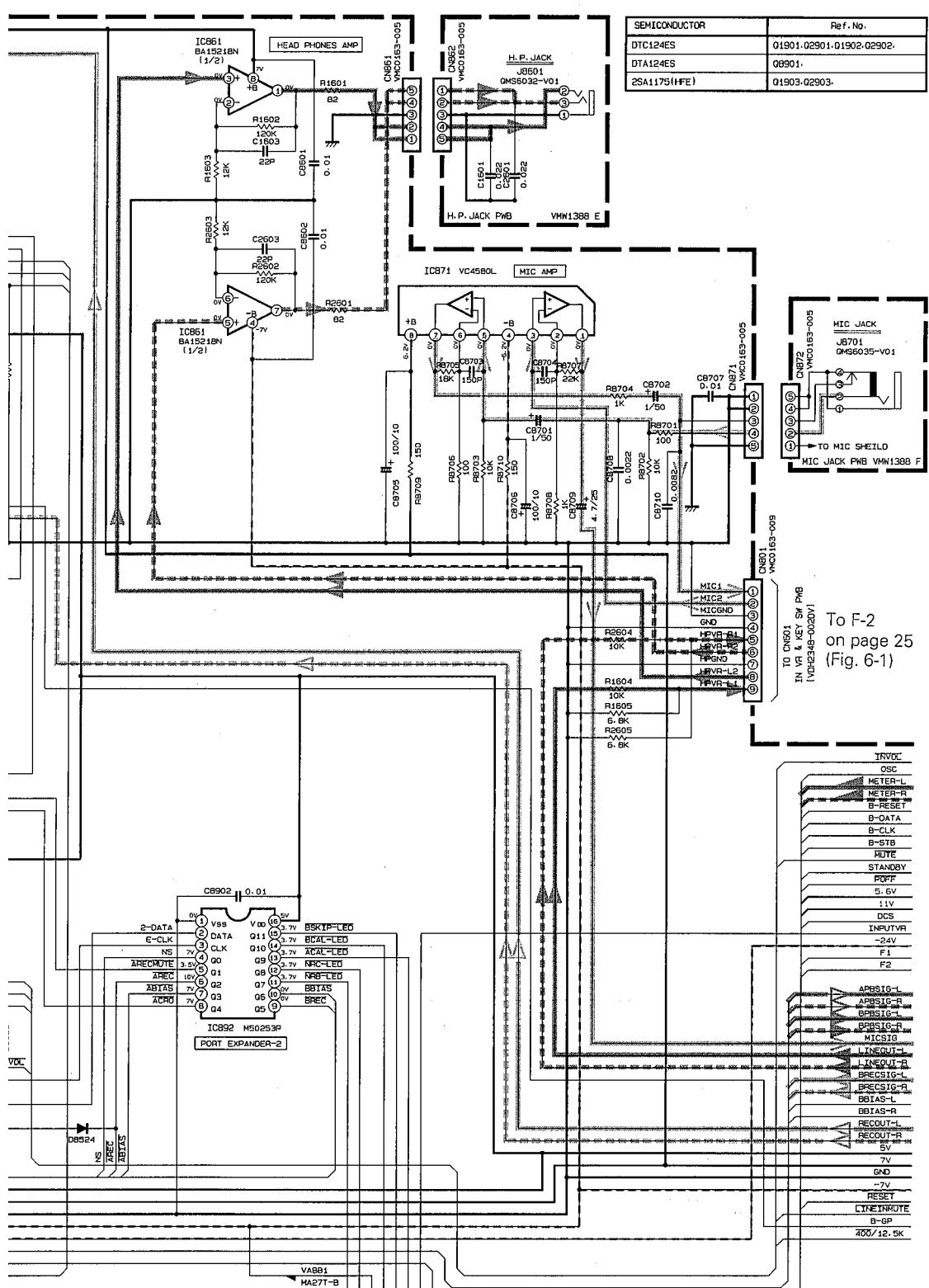
C

D

E

F

G



To F-2  
on page 25  
(Fig. 6-1)

To E-1  
on page 28 or 29

INVDC
OSC
METER-L
METER-R
B-RESET
B-DATA
B-CLK
B-STB
HUISE
STANDBY
POFF
5.6V
11V
DCS
INPUTVR
-24V
F1
F2
APBS16-L
APBS16-R
BPBS16-L
BPBS16-R
MICSIG
LNEQUT-L
LNEQUT-R
BRECSIG-L
BRECSIG-R
BBLAS-L
RECOUT-L
RECOUT-R
5V
7V
GND
-7V
RESET
LNEQINRTE
B-GP
400/12.5K

Psrts are safety assurance parts.  
When replacing those parts make  
sure to use the specified one.

To F-1  
on page 25 (Fig. 6-1)

+B Line -B Line

Recording signal for DECK B L Recording signal for DECK A R

Mic input signal

**C / J Version**

A

B

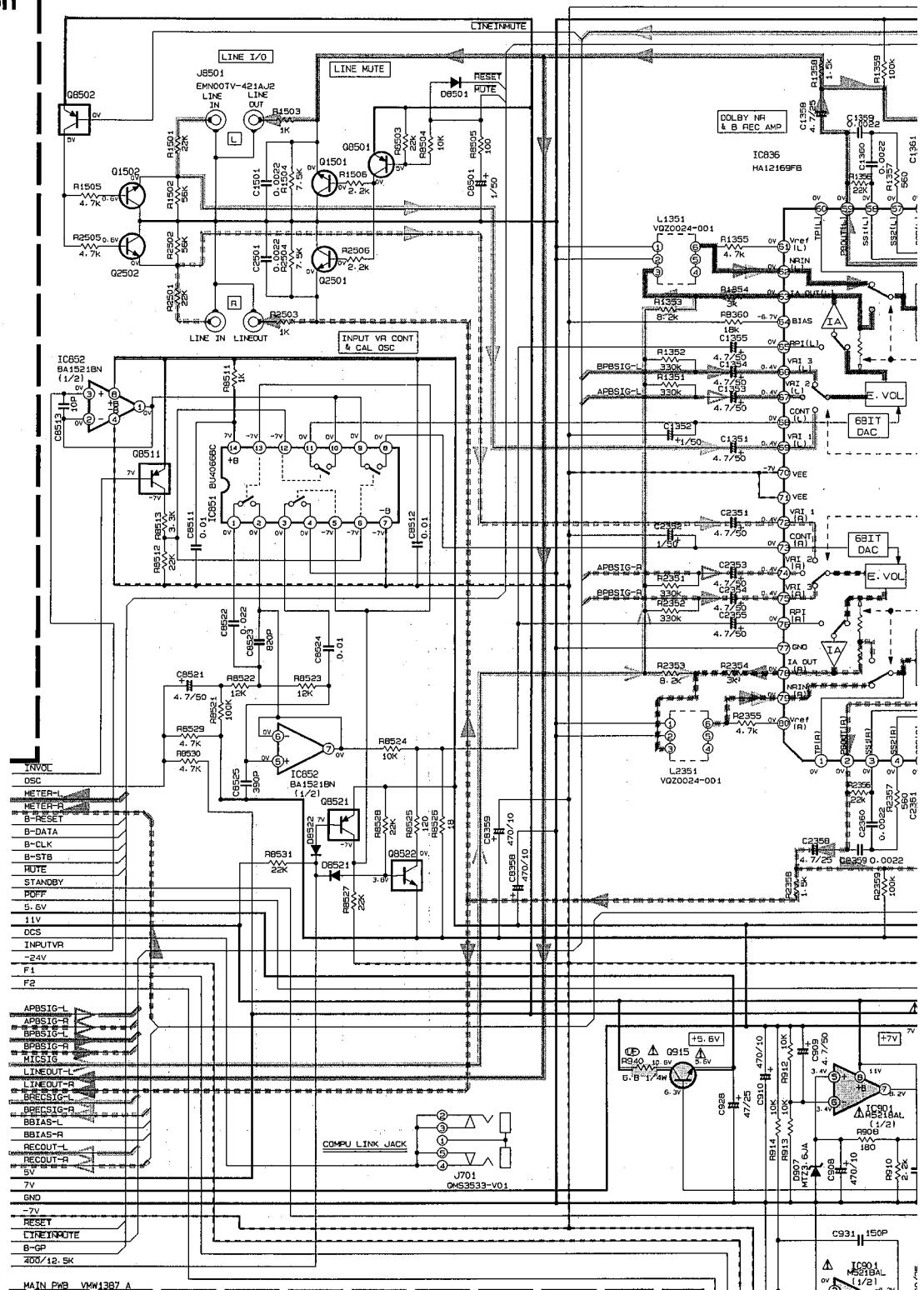
C

D

E

F

G

To E-10  
on page 27

## NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER  
WITHOUT INPUT SIGNAL.  
CONDITION: MODE : NORMAL SPEED DUBBING  
NR SM : OFF  
TAKE : G-METAL  
REV MODE SW : 2.

2. UNLESS OTHERWISE SPECIFIED,  
ALL RESISTORS ARE 1/8W ±1% CARBON RESISTOR.  
ALL CAPACITORS ARE 50V CERAMIC CAPACITOR OR 50V MYLAR CAPACITOR.  
ALL RESISTANCE VALUES ARE IN OHM (Ω).  
ALL CAPACITANCE VALUES ARE IN PF (PF).  
ALL E CAPACITORS ARE SURFACE MOUNT FORM OF CAPACITANCE (F) / RATED VOLTAGE (V).  
ALL DIODES ARE 1SS133 OR HSN104 OR MA165.

(1) FUSIBLE RESISTOR  
INFRARED CARBON RESISTOR  
NON-POLARIZED ELECTROLYTIC CAPACITOR  
POLYPROPYLENE CAPACITOR

SEMICONDUCTOR	Ref. No.
DTA124ES	08502-08511-08521
DTC124ES	08523
DTC143ES	09113
2SC1740S (RS)	01502-02502-08252-09253-0910
2SC2001L-K1	01501-02501
2SA1176 (HE)	08251-08254-08501
2SD0872 (Q.P.)	0903-0909
2SD0882 (Q.P.)	0901
2SD4681 (B.C.)	0915-0912
2SC8647 (CD)	0905
2SC02144S (VW)	0907-0908

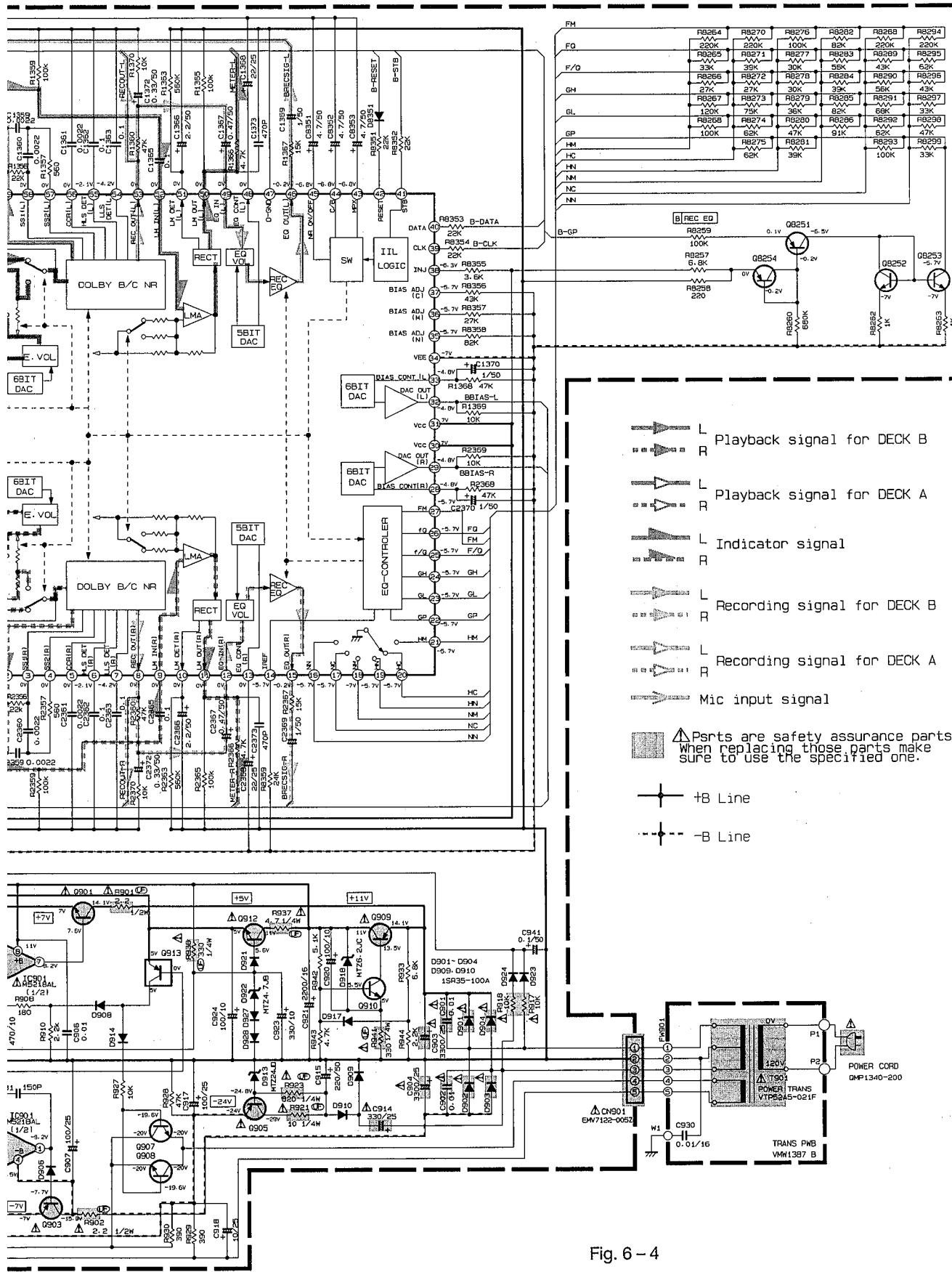


Fig. 6-4

1 2 3 4 5

■ A/B/E/EN/G/U/UT Version

A

B

C

D

E

F

G

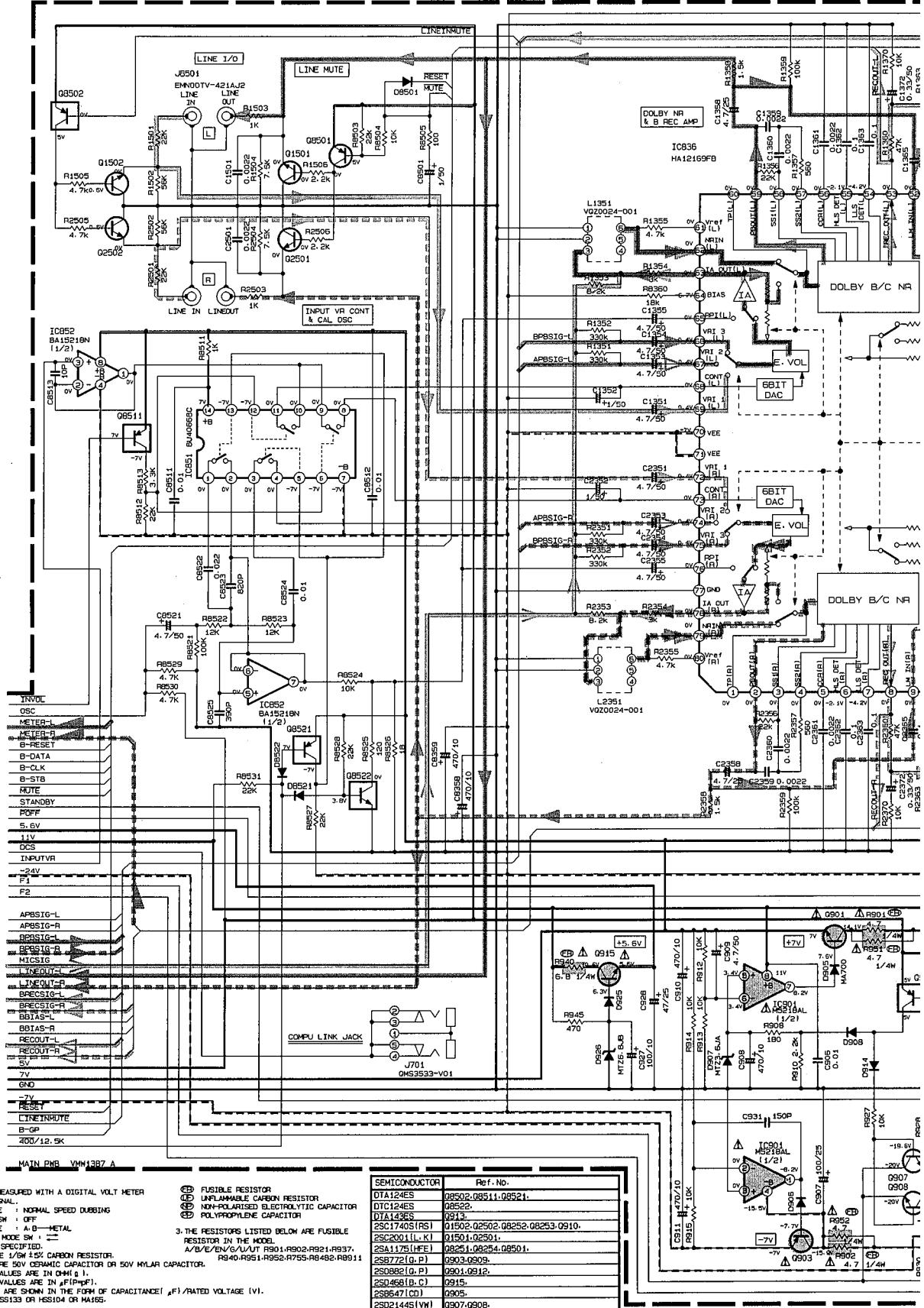
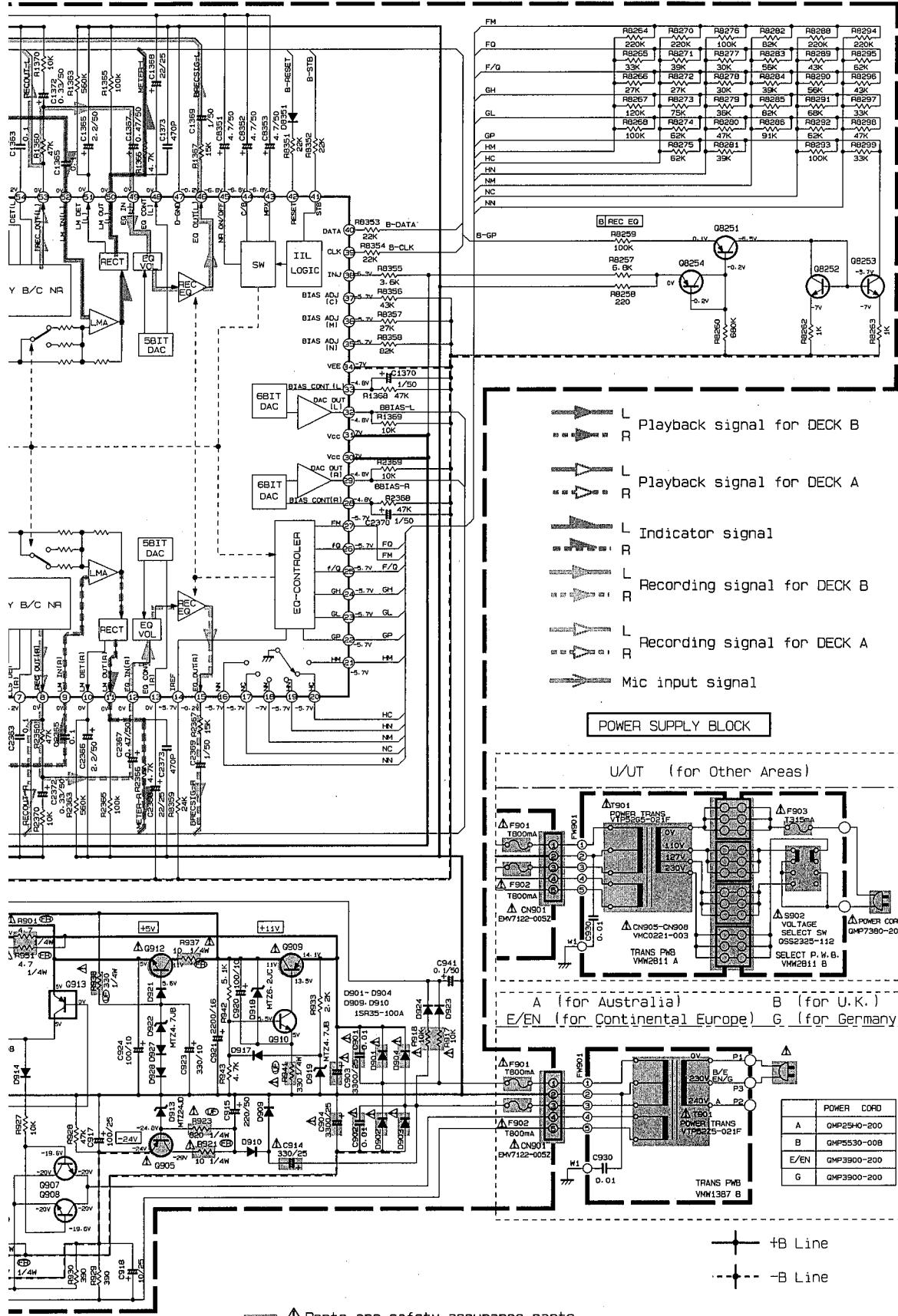


Fig. 6-5



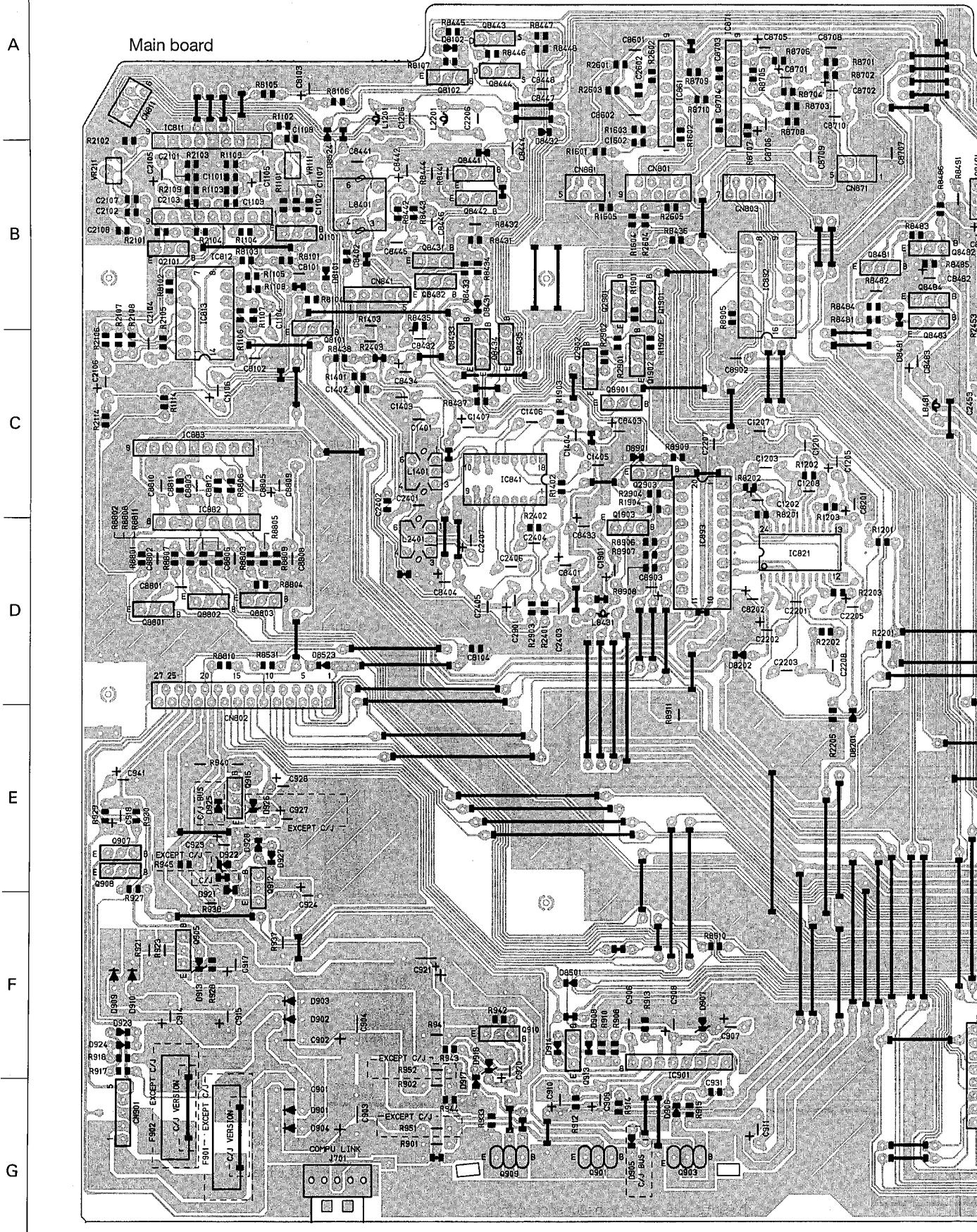
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 Psrts are safety assurance parts  
When replacing those parts make  
sure to use the specified one.

## **7 Location of P.C. Board Parts and Parts List**

1                    2                    3                    4                    5

## ■ Main Board Parts List



Power supply board (Except U/UT Version)

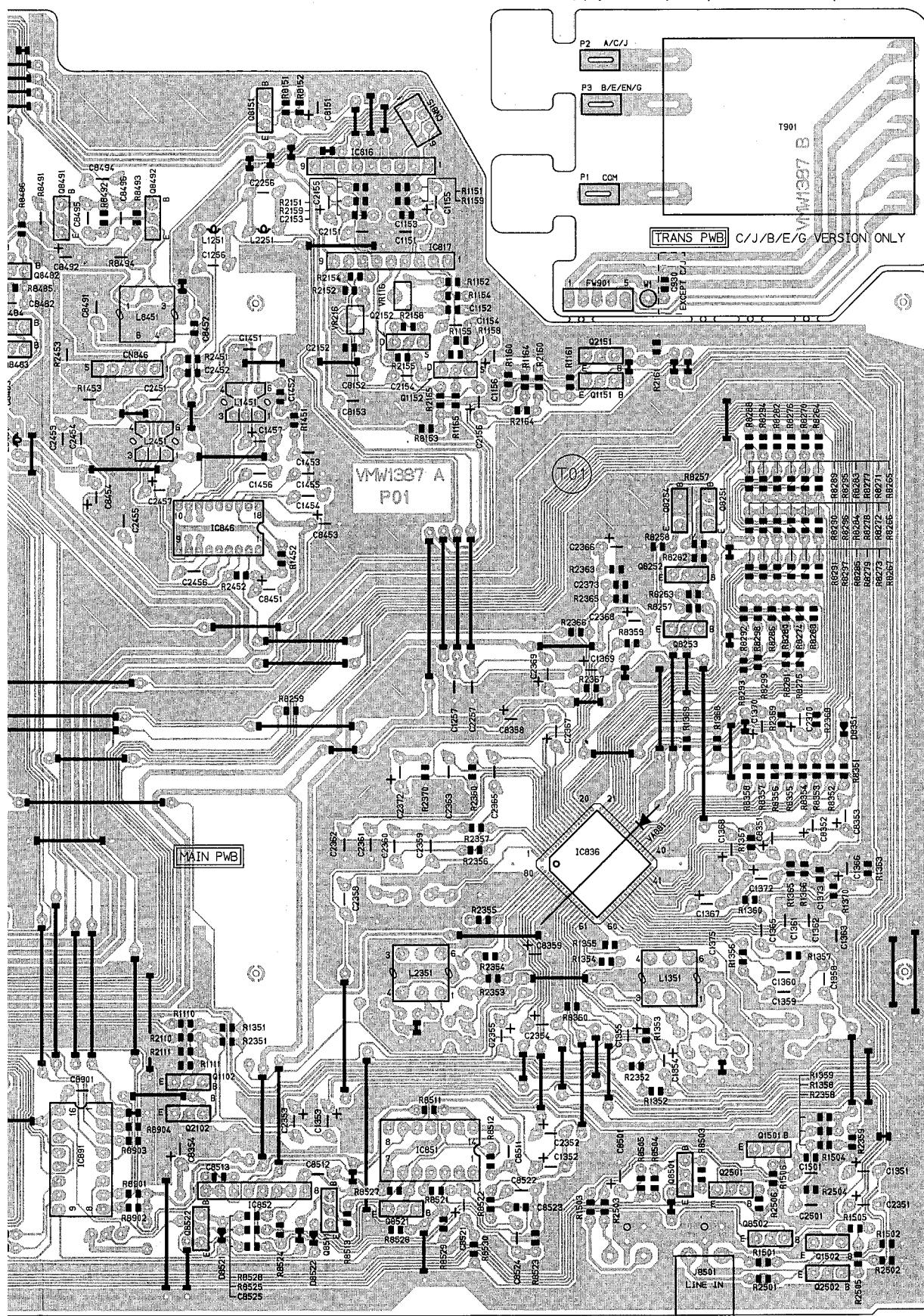


Fig. 7-1



## Main Board Parts List

BLOCK NO. 01111111

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	BLOCK NO. 01111111	SUFFIX
C 901 QCF11HP-103	C..CAPACITOR	.010MF +100:-0%			C1206 QCS3HJ-151ZV	C..CAPACITOR
C 902 QCF11HP-103	C..CAPACITOR	.010MF +100:-0%			C1207 QCS11HJ-471	C..CAPACITOR
A 903 QETB1EM-338N	E..CAPACITOR	330MF 20% 25V			C1208 QFN41HJ-222	M..CAPACITOR
A 904 QETB1EM-338N	E..CAPACITOR	330MF 20% 25V			C1226 QCS11HJ-151ZV	C..CAPACITOR
C 905 QCF11HP-103	C..CAPACITOR	.010MF +100:-0%			C1257 QCS11HJ-471	C..CAPACITOR
C 907 QET41EM-107	E..CAPACITOR	100MF 20% 25V			C1351 QET41HM-475	E..CAPACITOR
C 908 QET41AM-477	E..CAPACITOR	470MF 20% 10V			C1352 QET41HM-105	E..CAPACITOR
C 909 QET41HM-475	E..CAPACITOR	4.7MF 20% 50V			C1353 QET41HM-475	E..CAPACITOR
C 910 QET41AM-477	E..CAPACITOR	470MF 20% 10V			C1354 QET41HM-475	E..CAPACITOR
C 911 QET41AM-107	E..CAPACITOR	470MF 20% 10V			C1355 QET41HM-475	E..CAPACITOR
A C 914 QETC1EM-337ZN	E..CAPACITOR	330MF 20% 25V			C1358 QEN41EM-475	N..CAPACITOR
C 915 QETC1HM-227ZN	E..CAPACITOR	220MF 20% 50V			C1359 QFN41HJ-222	M..CAPACITOR
C 917 QET41EM-107	E..CAPACITOR	100MF 20% 25V			C1360 QFN41HJ-222	M..CAPACITOR
C 918 QET41EM-106	E..CAPACITOR	10MF 20% 25V			C1361 QFN41HJ-222	M..CAPACITOR
C 920 QET41AM-107	E..CAPACITOR	100MF 20% 10V			C1362 QFLC1HJ-104ZM	E..CAPACITOR
C 921 QETB1CM-228N	E..CAPACITOR	2200MF 20% 16V			C1363 QFLC1HJ-104ZM	M..CAPACITOR
C 923 QETC1AM-337ZN	E..CAPACITOR	330MF 20% 10V			C1365 QFLC1HJ-104ZM	M..CAPACITOR
C 924 QET41AM-107	E..CAPACITOR	100MF 20% 10V			C1366 QETC1HM-2225ZN	E..CAPACITOR
C 925 QET41AM-107	E..CAPACITOR	100MF 20% 10V	A,B,E,EN G,U,UT		C1367 QETC1EM-474	E..CAPACITOR
C 927 QET41AM-107	E..CAPACITOR	100MF 20% 10V			C1368 QETC1EM-2226ZN	E..CAPACITOR
C 928 QET1EM-476	E..CAPACITOR	4.7MF 20% 25V			C1369 QET41HM-105	E..CAPACITOR
C 930 QCVB1CM-103Y	C..CAPACITOR	.010MF 20% 16V	A,B,C,E EN,G,J		C1370 QETC1HM-334ZM	E..CAPACITOR
C 931 QCBB1HK-151Y	C..CAPACITOR	150PF 10% 50V			C1373 QCBB1HK-471Y	C..CAPACITOR
C 941 QETC1HM-104ZN	E..CAPACITOR	.10MF 20% 50V			C1401 QFP3AJ-561LM	PP..CAPACITOR
CN801 VMCO163-009	CONNECTOR				C1402 QCBB1HK-101Y	
CN802 VMCO163-027	CONNECTOR				C1403 QCS11HJ-561	C..CAPACITOR
CN803 VMCO163-007	CONNECTOR				C1404 C1-PARTS838594	M..CAPACITOR
CN811 EMV7155-006R	CONNECTOR				C1405 QFLC1HJ-223ZM	M..CAPACITOR
CN841 VMCO238-0052	CONNECTOR				C1406 QFLC1HJ-393ZM	M..CAPACITOR
CN846 VMCO238-0052	CONNECTOR				C1407 QET41EM-106	E..CAPACITOR
CN861 VMCO163-005	CONNECTOR				C1451 QFP3AJ-561ZM	PP..CAPACITOR
CN862 VMCO163-005	CONNECTOR				C1452 QCBB1HK-101Y	E..CAPACITOR
CN871 VMCO163-005	CONNECTOR				C1453 QCS11HJ-561	C..CAPACITOR
CN872 VMCO163-005	CONNECTOR				C1454 C1-PARTS838594	M..CAPACITOR
CN877 QMCO163-005	SOCKET				C1455 QFLC1HJ-223ZM	M..CAPACITOR
CN901 EMV7122-0052	C..CAPACITOR	470PF 10% 50V			C1456 QFLC1HJ-393ZM	M..CAPACITOR
CN902 QMCO163-005	C..CAPACITOR	150PF 10% 50V			C1457 QET41EM-106	E..CAPACITOR
CN903 QMCO163-005	C..CAPACITOR	150PF 10% 50V			C1501 QCY31HK-222Z	C..CAPACITOR
C1101 QCBB1HK-171Y	M..CAPACITOR	.012MF 5% 50V			C1601 QFLC1HJ-223	M..CAPACITOR
C1102 QCBB1HK-151Y	M..CAPACITOR	.012MF 5% 50V			C1603 QCS11HJ-220	M..CAPACITOR
C1103 QEN41HJ-131Y	C..CAPACITOR	150PF 10% 50V			C1604 QEN41HJ-123	M..CAPACITOR
C1104 QEN41HJ-123	M..CAPACITOR	.012MF 5% 50V			C2105 QET41AM-227	E..CAPACITOR
C1105 QET41AM-227	E..CAPACITOR	220MF 20% 10V			C2106 QET41HM-475	E..CAPACITOR
C1106 QET41HM-475	E..CAPACITOR	4.7MF 20% 50V			C2107 QCBB1HK-471Y	C..CAPACITOR
C1107 QCBB1HK-171Y	C..CAPACITOR	470PF 10% 50V			C2108 QCBB1HK-151Y	C..CAPACITOR
C1108 QCBB1HK-151Y	C..CAPACITOR	150PF 10% 50V			C2109 QCBB1HK-102	M..CAPACITOR
C1115 QEN41HJ-102	M..CAPACITOR	1000PF 5% 50V			C2110 QEN41HJ-102	M..CAPACITOR
C1116 QEN41HJ-331Y	C..CAPACITOR	330PF 10% 50V			C2112 QCBB1HK-331Y	C..CAPACITOR
C1117 QCBB1HK-151Y	C..CAPACITOR	150PF 10% 50V			C2113 QCBB1HK-151Y	C..CAPACITOR
C1118 QEN41HJ-123	M..CAPACITOR	.012MF 5% 50V			C2114 QCBB1HK-123	M..CAPACITOR
C1119 QET41AM-475	E..CAPACITOR	4.7MF 20% 50V			C2115 QET41AM-227	E..CAPACITOR
C1201 QEN41EM-475	NP..E..CAPACITOR	4.7MF 20% 50V				
C1202 QET41HM-474	E..CAPACITOR	4.7MF 20% 50V				
C1203 QEN41EM-475	NP..E..CAPACITOR	4.7MF 20% 50V				
C1205 QET41HM-105	E..CAPACITOR	1.0MF 20% 50V				

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	BLOCK NO. 01111111	SUFFIX
C 901 QCF11HP-103	C..CAPACITOR	.010MF +100:-0%			C1206 QCS3HJ-151ZV	C..CAPACITOR
C 902 QCF11HP-103	C..CAPACITOR	.010MF +100:-0%			C1207 QCS11HJ-471	C..CAPACITOR
A 903 QETB1EM-338N	E..CAPACITOR	330MF 20% 25V			C1208 QFN41HJ-222	M..CAPACITOR
A 904 QETB1EM-338N	E..CAPACITOR	330MF 20% 25V			C1226 QCS11HJ-151ZV	C..CAPACITOR
C 905 QCF11HP-103	C..CAPACITOR	.010MF +100:-0%			C1257 QCS11HJ-471	C..CAPACITOR
C 907 QET41EM-107	E..CAPACITOR	100MF 20% 25V			C1351 QET41HM-475	E..CAPACITOR
C 908 QET41AM-477	E..CAPACITOR	470MF 20% 10V			C1352 QET41HM-105	E..CAPACITOR
C 909 QET41HM-475	E..CAPACITOR	4.7MF 20% 50V			C1353 QET41HM-475	E..CAPACITOR
C 910 QET41AM-477	E..CAPACITOR	470MF 20% 10V			C1354 QET41HM-475	E..CAPACITOR
C 911 QET41AM-107	E..CAPACITOR	470MF 20% 10V			C1355 QET41HM-475	E..CAPACITOR
A C 914 QETC1EM-337ZN	E..CAPACITOR	330MF 20% 25V			C1358 QEN41EM-475	N..CAPACITOR
C 915 QETC1HM-227ZN	E..CAPACITOR	220MF 20% 50V			C1359 QFN41HJ-222	M..CAPACITOR
C 917 QET41EM-107	E..CAPACITOR	100MF 20% 25V			C1360 QFN41HJ-222	M..CAPACITOR
C 918 QET41EM-106	E..CAPACITOR	10MF 20% 25V			C1361 QFN41HJ-222	M..CAPACITOR
C 920 QET41AM-107	E..CAPACITOR	100MF 20% 10V			C1362 QFLC1HJ-104ZM	E..CAPACITOR
C 921 QETB1CM-228N	E..CAPACITOR	2200MF 20% 16V			C1363 QFLC1HJ-104ZM	M..CAPACITOR
C 923 QETC1AM-337ZN	E..CAPACITOR	330MF 20% 10V			C1365 QFLC1HJ-104ZM	M..CAPACITOR
C 924 QET41AM-107	E..CAPACITOR	100MF 20% 10V			C1366 QETC1HM-2225ZN	E..CAPACITOR
C 925 QET41AM-107	E..CAPACITOR	100MF 20% 10V	A,B,E,EN G,U,UT		C1367 QETC1EM-474	E..CAPACITOR
C 927 QET41AM-107	E..CAPACITOR	100MF 20% 10V			C1368 QETC1EM-2226ZN	E..CAPACITOR
C 928 QET1EM-476	E..CAPACITOR	4.7MF 20% 25V			C1369 QET41HM-105	E..CAPACITOR
C 930 QCVB1CM-103Y	C..CAPACITOR	.010MF 20% 16V	A,B,C,E EN,G,J		C1370 QETC1HM-334ZM	E..CAPACITOR
C 931 QCBB1HK-151Y	C..CAPACITOR	150PF 10% 50V			C1373 QCBB1HK-471Y	C..CAPACITOR
C 941 QETC1HM-104ZN	E..CAPACITOR	.10MF 20% 50V			C1401 QFP3AJ-561LM	PP..CAPACITOR
CN802 VMCO163-009	CONNECTOR				C1402 QCBB1HK-101Y	
CN803 VMCO163-027	CONNECTOR				C1403 QCS11HJ-561	C..CAPACITOR
CN811 EMV7155-006R	CONNECTOR				C1404 C1-PARTS838594	M..CAPACITOR
CN841 VMCO238-0052	CONNECTOR				C1405 QFLC1HJ-223ZM	M..CAPACITOR
CN846 VMCO238-0052	CONNECTOR				C1406 QFLC1HJ-393ZM	M..CAPACITOR
CN861 VMCO163-005	CONNECTOR				C1407 QET41EM-106	E..CAPACITOR
CN862 VMCO163-005	CONNECTOR				C1451 QFP3AJ-561ZM	PP..CAPACITOR
CN871 VMCO163-005	CONNECTOR				C1452 QCBB1HK-101Y	E..CAPACITOR
CN872 VMCO163-005	CONNECTOR				C1453 QCS11HJ-561	C..CAPACITOR
CN877 QMCO163-005	SOCKET				C1454 C1-PARTS838594	M..CAPACITOR
CN901 EMV7122-0052	C..CAPACITOR	470PF 10% 50V			C1455 QFLC1HJ-223ZM	M..CAPACITOR
CN902 QMCO163-005	C..CAPACITOR	150PF 10% 50V			C1456 QFLC1HJ-393ZM	M..CAPACITOR
CN903 QMCO163-005	C..CAPACITOR	150PF 10% 50V			C1457 QET41EM-106	E..CAPACITOR
CN904 QMCO163-005	C..CAPACITOR	150PF 10% 50V			C1501 QCY31HK-222Z	C..CAPACITOR
CN905 QMCO163-005	C..CAPACITOR	150PF 10% 50V			C1601 QFLC1HJ-223	M..CAPACITOR
CN906 QMCO163-005	C..CAPACITOR	150PF 10% 50V			C1602 QFLC1HJ-393ZM	M..CAPACITOR
CN907 QMCO163-005	C..CAPACITOR	150PF 10% 50V			C1603 QCS11HJ-220	M..CAPACITOR
CN908 QMCO163-005	C..CAPACITOR	150PF 10% 50V			C1604 QEN41HJ-123	M..CAPACITOR
CN909 EMV7122-0052	M..CAPACITOR	1000PF 5% 50V			C2105 QET41AM-227	E..CAPACITOR
CN910 QEN41HJ-131Y	C..CAPACITOR	330PF 10% 50V			C2106 QET41HM-475	E..CAPACITOR
CN911 QEN41HJ-123	C..CAPACITOR	150PF 10% 50V			C2107 QCBB1HK-471Y	C..CAPACITOR
CN912 QEN41HJ-123	M..CAPACITOR	220MF 20% 10V			C2108 QCBB1HK-151Y	C..CAPACITOR
CN913 QEN41HJ-123	E..CAPACITOR	4.7MF 20% 50V			C2109 QCBB1HK-102	M..CAPACITOR
CN914 QEN41HJ-123	M..CAPACITOR	0.12MF 5% 50V			C2110 QCBB1HK-331Y	C..CAPACITOR
CN915 QEN41HJ-123	E..CAPACITOR	4.7MF 20% 50V			C2111 QCBB1HK-331Y	C..CAPACITOR
CN916 QEN41HJ-123	M..CAPACITOR	0.12MF 5% 50V			C2112 QCBB1HK-151Y	C..CAPACITOR
CN917 QEN41HJ-123	E..CAPACITOR	4.7MF 20% 50V			C2113 QCBB1HK-151Y	C..CAPACITOR
CN918 QEN41HJ-123	M..CAPACITOR	0.12MF 5% 50V			C2114 QCBB1HK-123	E..CAPACITOR
CN919 QEN41HJ-123	E..CAPACITOR	4.7MF 20% 50V			C2115 QET41AM-227	E..CAPACITOR
CN920 QEN41EM-475	NP..E..CAPACITOR	4.7MF 20% 50V				
CN921 QET41HM-474	E..CAPACITOR	4.7MF 20% 50V				
CN922 QEN41EM-475	NP..E..CAPACITOR	4.7MF 20% 50V				
CN923 QEN41HM-474	E..CAPACITOR	4.7MF 20% 50V				
CN924 QEN41EM-475	NP..E..CAPACITOR	4.7MF 20% 50V				
CN925 QET41HM-105	E..CAPACITOR	1.0MF 20% 50V				

BLOCK NO. 0111111				BLOCK NO. 0111111
▲ REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C2156 QET41HM-475	E..CAPACITOR	4.7MF 20% 50V		
C2201 QEN41EM-475	N.P.E..CAPACITOR	4.7MF 20% 50V		
C2202 QET41HM-474	E..CAPACITOR	.4.7MF 20% 50V		
C2203 QEN41EM-475	E..CAPACITOR	4.7MF 20% 50V		
C2205 QET41HM-105	E..CAPACITOR	1.0MF 20% 50V		
C2206 QCS32HJ-1512V	C..CAPACITOR	150PF 5% 500V		
C2207 QCS11HJ-471	C..CAPACITOR	470PF 5% 50V		
C2208 QFN41HJ-222	M..CAPACITOR	2200PF 5% 500V		
C2206 QCS32HJ-1512V	C..CAPACITOR	150PF 5% 500V		
C2257 QCS11HJ-471	C..CAPACITOR	470PF 5% 500V		
C2351 QET41HM-475	E..CAPACITOR	4.7MF 20% 50V		
C2352 QET41HM-105	E..CAPACITOR	1.0MF 20% 50V		
C2353 QET41HM-475	E..CAPACITOR	4.7MF 20% 50V		
C2354 QET41HM-475	E..CAPACITOR	4.7MF 20% 50V		
C2355 QET41HM-475	E..CAPACITOR	4.7MF 20% 50V		
C2358 QEN61EM-475	N.P.E..CAPACITOR	4.7MF 20% 50V		
C2359 QFN41HJ-222	M..CAPACITOR	2200PF 5% 500V		
C2360 QFN41HJ-222	M..CAPACITOR	2200PF 5% 500V		
C2361 QFN41HJ-222	M..CAPACITOR	2200PF 5% 500V		
C2362 QFLC1HJ-1042M	M..CAPACITOR	10MF 5% 50V		
C2363 QFLC1HJ-1042M	M..CAPACITOR	10MF 5% 50V		
C2364 QFLC1HJ-1042M	M..CAPACITOR	10MF 5% 50V		
C2365 QFLC1HJ-1042M	M..CAPACITOR	10MF 5% 50V		
C2366 QETC1HM-2252N	E..CAPACITOR	2.2MF 20% 50V		
C2367 QETC1HM-105	E..CAPACITOR	4.7MF 20% 50V		
C2368 QETC1EM-2262N	E..CAPACITOR	22MF 20% 25V		
C2369 QET41HM-105	E..CAPACITOR	1.0MF 20% 50V		
C2370 QET41HM-105	E..CAPACITOR	1.0MF 20% 50V		
C2372 QETC1HM-3342M	E..CAPACITOR	33MF 20% 50V		
C2368 QETC1EM-2262N	E..CAPACITOR	22MF 20% 25V		
C2373 QET41HM-471Y	E..CAPACITOR	1.0MF 20% 50V		
C2374 QETC1HM-5612M	E..CAPACITOR	560PF 5% 100V		
C2401 QFP32AJ-5612M	P..CAPACITOR	560PF 5% 100V		
C2402 QCBB1HK-101Y	C..CAPACITOR	100PF 10% 50V		
C2403 QCS11HJ-561	C..CAPACITOR	560PF 5% 50V		
C2404 QCS11HJ-561	C..CAPACITOR	0.10MF 5% 50V		
C2405 QFLC1HJ-2232M	M..CAPACITOR	0.22MF 5% 50V		
C2406 QFLC1HJ-3932M	M..CAPACITOR	0.39MF 5% 50V		
C2406 QFLC1HJ-3932M	M..CAPACITOR	0.39MF 5% 50V		
C2407 QET41EM-106	E..CAPACITOR	10MF 20% 25V		
C2451 QFP32AJ-5612M	P..CAPACITOR	560PF 5% 100V		
C2452 QCBB1HK-101Y	C..CAPACITOR	100PF 10% 50V		
C2453 QCS11HJ-561	C..CAPACITOR	560PF 5% 50V		
C2454 C1-PARTS38594	M..CAPACITOR	0.02MF 5% 50V		
C2455 QFLC1HJ-2232M	M..CAPACITOR	0.22MF 5% 50V		
C2456 QFLC1HJ-3932M	M..CAPACITOR	0.39MF 5% 50V		
C2457 QET41EM-106	E..CAPACITOR	10MF 20% 25V		
C2501 QG31HK-2222	C..CAPACITOR	2200PF 10% 50V		
C2601 QCF11HP-223	C..CAPACITOR	0.022MF +100:-0%		
C2603 QCS11HJ-220	C..CAPACITOR	22PF 5% 50V		
C2901 QET41HM-475	E..CAPACITOR	4.7MF 20% 50V		
C8101 QCF11HP-103	E..CAPACITOR	.010MF +100:-0%		
C8102 QCF11HP-103	E..CAPACITOR	.010MF +100:-0%		
C8103 QET41AM-107	E..CAPACITOR	100MF 20% 10V		
C8104 QCBBIHK-471Y	C..CAPACITOR	470PF 10% 50V		
C8151 QET41AM-107	E..CAPACITOR	100MF 20% 10V		
C8152 QCF11HP-103	C..CAPACITOR	.010MF +100:-0%		
C8153 QCF11HP-103	C..CAPACITOR	.010MF +100:-0%		
C8201 QET41AM-107	E..CAPACITOR	100MF 20% 10V		

A	REF.	PARTS NO.	PARTS NAME	REMARKS	BLOCK NO. <u>     </u>	SUFFIX
D 906	QFC11HJ-232M	M..CAPACITOR	•020MF 5% 50V			
C 880	QCF11HP-103	C..CAPACITOR	•010MF +100:-0%			
C 880	QFV71HJ-394ZM	FILM CAPACITOR	-39MF 5% 50V			
C 880	QETC1HM-104ZN	E..CAPACITOR	-10MF 20% 50V			
C 880	QCF11HP-103	C..CAPACITOR	•010MF +100:-0%			
C 881	QCBB1HK-151Y	C..CAPACITOR	150PF 10% 50V			
C 881	QCBB1HK-151Y	C..CAPACITOR	150PF 10% 50V			
C 890	QCF11HP-103	C..CAPACITOR	•010MF +100:-0%			
C 890	QCF11HP-103	C..CAPACITOR	•010MF +100:-0%			
C 890	QE141AM-477	E..CAPACITOR	470MF 20% 10V			
A D 901	1SR35-100	SI DIODE				
A D 902	1SR35-100	SI DIODE				
A D 903	1SR35-100	SI DIODE				
A D 904	1SR35-100	SI DIODE				
D 905	MA700	ZENER DIODE				
D 906	ISS133	SI DIODE				
A D 907	MT23-6JA	ZENER DIODE				
A D 908	ISS133	SI DIODE				
A D 909	1SR35-100	SI DIODE				
A D 910	1SR35-100	SI DIODE				
A D 913	MT224JD	ZENER DIODE				
D 917	ISS133	SI DIODE				
D 918	MT26-2JC	ZENER DIODE				
D 919	MT24-7JB	ZENER DIODE				
D 921	ISS133	SI DIODE				
A D 923	MT24-7JB	ZENER DIODE				
D 924	ISS133	SI DIODE				
D 925	ISS133	SI DIODE				
D 925	ISS133	SI DIODE				
D 926	MT26-8JB	ZENER DIODE				
D 927	ISS133	SI DIODE				
D 928	ISS133	SI DIODE				
D 8101	ISS133	SI DIODE				
D 8102	ISS133	SI DIODE				
D 8201	ISS133	SI DIODE				
D 8202	ISS133	SI DIODE				
D 8351	ISS133	SI DIODE				
D 8523	ISS133	SI DIODE				
D 8524	ISS133	SI DIODE				
D 8481	ISS133	SI DIODE				
D 8501	ISS133	SI DIODE				
D 8521	ISS133	SI DIODE				
D 8522	ISS133	SI DIODE				
D 8523	ISS133	SI DIODE				
D 8524	ISS133	SI DIODE				
D 8901	ISS133	SI DIODE				
A HS901	VMH4011-201	HEAT SINK	R/P SWITCH			
IC811	UPC1330HA	IC	PB HEAD AMP.			
IC812	AM6557F	IC	EQ SWITCH			
IC813	BU066B	IC				

A	REF.	PARTS NO.	PARTS NAME	REMARKS	BLOCK NO. <u>     </u>	SUFFIX
C 880	QFC11HJ-232M	M..CAPACITOR	•020MF 5% 50V			
C 880	QCF11HP-103	FILM CAPACITOR	•010MF +100:-0%			
C 880	QFV71HJ-394ZM	E..CAPACITOR	-39MF 5% 50V			
C 880	QETC1HM-104ZN	E..CAPACITOR	-10MF 20% 50V			
C 880	QCF11HP-103	C..CAPACITOR	•010MF +100:-0%			
C 881	QCBB1HK-151Y	C..CAPACITOR	150PF 10% 50V			
C 881	QCBB1HK-151Y	C..CAPACITOR	150PF 10% 50V			
C 890	QCF11HP-103	C..CAPACITOR	•010MF +100:-0%			
C 890	QCF11HP-103	C..CAPACITOR	•010MF +100:-0%			
C 890	QE141AM-477	E..CAPACITOR	470MF 20% 10V			
A D 901	1SR35-100	SI DIODE				
A D 902	1SR35-100	SI DIODE				
A D 903	1SR35-100	SI DIODE				
A D 904	1SR35-100	SI DIODE				
D 905	MA700	ZENER DIODE				
D 906	ISS133	SI DIODE				
A D 907	MT23-6JA	ZENER DIODE				
A D 908	ISS133	SI DIODE				
A D 909	1SR35-100	SI DIODE				
A D 910	1SR35-100	SI DIODE				
A D 913	MT224JD	ZENER DIODE				
D 917	ISS133	SI DIODE				
D 918	MT26-2JC	ZENER DIODE				
D 919	MT24-7JB	ZENER DIODE				
D 921	ISS133	SI DIODE				
A D 923	MT24-7JB	ZENER DIODE				
D 924	ISS133	SI DIODE				
D 925	ISS133	SI DIODE				
D 925	ISS133	SI DIODE				
D 926	MT26-8JB	ZENER DIODE				
D 927	ISS133	SI DIODE				
D 928	ISS133	SI DIODE				
D 8101	ISS133	SI DIODE				
D 8102	ISS133	SI DIODE				
D 8201	ISS133	SI DIODE				
D 8202	ISS133	SI DIODE				
D 8351	ISS133	SI DIODE				
D 8523	ISS133	SI DIODE				
D 8524	ISS133	SI DIODE				
D 8481	ISS133	SI DIODE				
D 8501	ISS133	SI DIODE				
D 8521	ISS133	SI DIODE				
D 8522	ISS133	SI DIODE				
D 8523	ISS133	SI DIODE				
D 8524	ISS133	SI DIODE				
D 8901	ISS133	SI DIODE				
A HS901	VMH4011-201	HEAT SINK	R/P SWITCH			
IC811	UPC1330HA	IC	PB HEAD AMP.			
IC812	AM6557F	IC	EQ SWITCH			
IC813	BU066B	IC				

BLOCK NO. [01] [11111]

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	BLOCK NO. [01] [11111]	BLOCK NO. [01] [11111]
Q1901	DTC124ES	TRANSISTOR			R 917 QRD161J-103	CARBON RESISTOR 10K 5% 1/6W
Q1902	DTC124ES	TRANSISTOR			R 918 QRD161J-103	CARBON RESISTOR 10K 5% 1/6W
Q1903	2SA1175	TRANSISTOR			R 921 QRD161J-100SX	CARBON RESISTOR 10K 5% 1/4W
Q2102	DTC124ES	TRANSISTOR			R 921 QRD20077-100X	FUSE RESISTOR 10
Q2151	DTC124ES	TRANSISTOR			R 923 QRD161J-821SX	FUSE RESISTOR 10
Q2152	2SK105 (E/F/H)	TRANSISTOR (FET)			R 923 QRD161J-821SX	CARBON RESISTOR 820 5% 1/4W
Q2501	ZSC2001 (L,K)	TRANSISTOR			R 923 QRD161J-821	CARBON RESISTOR 820 5% 1/6W
Q2502	ZSC1740S (R,S)	TRANSISTOR			R 927 QRD161J-103	CARBON RESISTOR 10K 5% 1/6W
Q2901	DTC124ES	TRANSISTOR			R 928 QRD161J-473	CARBON RESISTOR 4.7K 5% 1/6W
Q2902	DTC124ES	TRANSISTOR			R 929 QRD161J-391	CARBON RESISTOR 390 5% 1/6W
Q2903	2SA1175	TRANSISTOR			R 930 QRD161J-391	CARBON RESISTOR 390 5% 1/6W
Q8101	DTA124ES	TRANSISTOR			R 930 QRD161J-391	CARBON RESISTOR 390 5% 1/6W
Q8102	DTA124ES	TRANSISTOR			R 933 QRD161J-222	CARBON RESISTOR 2.2K 5% 1/6W
Q8151	DTC124ES	TRANSISTOR			R 933 QRD161J-222	CARBON RESISTOR 2.2K 5% 1/6W
Q8251	2SA1175	TRANSISTOR			R 933 QRD161J-682	CARBON RESISTOR 6.8K 5% 1/6W
Q8252	ZSC1740S (R,S)	TRANSISTOR			R 937 QRD20077-100X	FUSE RESISTOR 10
Q8253	ZSC1740S (R,S)	TRANSISTOR			R 937 QRD161J-4R7X	UNF.C. RESISTOR 4.7 5% 1/4W
Q8254	2SA1175	TRANSISTOR			R 938 QRD161J-331SX	CARBON RESISTOR 330 5% 1/4W
Q8431	ZSC2001 (L,K)	TRANSISTOR			R 940 QRD161J-6R8X	CARBON RESISTOR 6.8 5% 1/4W
Q8432	2SA1175	TRANSISTOR			R 940 QRD161J-6R8	FUSE RESISTOR 6.8 5% 1/4W
Q8433	DTC124ES	TRANSISTOR			R 941 QRD161J-331SX	CARBON RESISTOR 330 5% 1/4W
Q8434	DTA124ES	TRANSISTOR			R 942 QRD161J-512	CARBON RESISTOR 5.1K 5% 1/6W
Q8441	ZSC2001 (L,K)	TRANSISTOR			R 943 QRD161J-472	CARBON RESISTOR 6.7K 5% 1/6W
Q8442	ZSC2001 (L,K)	TRANSISTOR			R 944 QRD161J-222	CARBON RESISTOR 2.2K 5% 1/6W
Q8443	ZSC105 (E,F,H)	TRANSISTOR (FET)			R 944 QRD161J-222	CARBON RESISTOR 2.2K 5% 1/6W
Q8444	2SK105 (E,F,H)	TRANSISTOR (FET)			R 945 QRD161J-471	CARBON RESISTOR 4.70 5% 1/6W
Q8481	ZSC2001 (L,K)	TRANSISTOR			R 945 QRD161J-471	CARBON RESISTOR 4.70 5% 1/6W
Q8482	2SA1175	TRANSISTOR			R 951 QRD20077-4R7X	FUSE RESISTOR 4.7 1/0W
Q8483	DTC124ES	TRANSISTOR			R 952 QRD20077-4R7X	CARBON RESISTOR 4.7 1/0W
Q8484	DTA124ES	TRANSISTOR			R 952 QRD161J-105	CARBON RESISTOR 4.7 1/0W
Q8491	ZSC2001 (L,K)	TRANSISTOR			R 1101 QRD161J-105	CARBON RESISTOR 1.0M 5% 1/6W
Q8492	ZSC2001 (L,K)	TRANSISTOR			R 1102 QRD161J-472	CARBON RESISTOR 4.7K 5% 1/6W
Q8501	2SA1175	TRANSISTOR			R 1104 QRD161J-274	CARBON RESISTOR 270K 5% 1/6W
Q8502	DTC124ES	TRANSISTOR			R 1105 QRD161J-242	CARBON RESISTOR 2.4K 5% 1/6W
Q8801	DTC124ES	TRANSISTOR			R 1106 QRD161J-332	CARBON RESISTOR 3.3K 5% 1/6W
Q8802	DTC124ES	TRANSISTOR			R 1107 QRD161J-152	CARBON RESISTOR 1.5K 5% 1/6W
Q8803	DTC124ES	TRANSISTOR			R 1108 QRD161J-432	CARBON RESISTOR 4.3K 5% 1/6W
Q8804	DTC124ES	TRANSISTOR			R 1109 QRD161J-470	CARBON RESISTOR 47 5% 1/6W
Q8805	2SA1175	TRANSISTOR			R 1110 QRD161J-273	CARBON RESISTOR 27K 5% 1/6W
Q8806	DTC124ES	TRANSISTOR			R 1111 QRD161J-822	CARBON RESISTOR 8.2K 5% 1/6W
Q8901	DTC124ES	TRANSISTOR			R 1114 QRD161J-223	CARBON RESISTOR 22K 5% 1/6W
A R 901	QRZ0077-4R7X	FUSE RESISTOR	4.7	G,U,UT A,B,E,EN	R 1152 QRD161J-472	CARBON RESISTOR 4.7K 5% 1/6W
A R 901	QRZ0077-4R7X	FUSE RESISTOR	4.7	G,U,UT A,B,E,EN	R 1154 QRD161J-274	CARBON RESISTOR 270K 5% 1/6W
A R 902	QRD12CJ-2R2SX	CARBON RESISTOR	2.2	C,J	R 1155 QRD161J-682	CARBON RESISTOR 6.8K 5% 1/6W
A R 902	QRZ0077-4R7X	FUSE RESISTOR	4.7	G,U,UT A,B,E,EN	R 1158 QRD161J-472	CARBON RESISTOR 4.7K 5% 1/6W
A R 902	QRZ0077-4R7X	FUSE RESISTOR	4.7	G,U,UT A,B,E,EN	R 1159 QRD161J-470	CARBON RESISTOR 4.7 5% 1/6W
A R 908	QRD161J-181	CARBON RESISTOR	180	1/0W	R 1160 QRD161J-273	CARBON RESISTOR 27K 5% 1/6W
R 910	QRD12CJ-222	CARBON RESISTOR	2.2	5% 1/2W	R 1161 QRD161J-822	CARBON RESISTOR 8.2K 5% 1/6W
R 912	QRD161J-103	CARBON RESISTOR	10K	5% 1/6W	R 1164 QRD161J-223	CARBON RESISTOR 22K 5% 1/6W
R 913	QRD161J-103	CARBON RESISTOR	10K	5% 1/6W	R 1165 QRD161J-105	CARBON RESISTOR 1.0M 5% 1/6W
R 914	QRD161J-103	CARBON RESISTOR	10K	5% 1/6W	R 1201 QRD161J-471	CARBON RESISTOR 4.70 5% 1/6W
R 915	QRD161J-103	CARBON RESISTOR	10K	5% 1/6W	R 1202 QRD161J-153	CARBON RESISTOR 15K 5% 1/6W

## BLOCK NO. 01111111

## BLOCK NO. 01111111

Α	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	Α	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	
R1203	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			R2160	GRD161J-273	CARBON RESISTOR	27K 5% 1/6W			
R1351	GRD161J-334	CARBON RESISTOR	330K 5% 1/6W			R2161	GRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W			
R1352	GRD161J-334	CARBON RESISTOR	330K 5% 1/6W			R2164	GRD161J-223	CARBON RESISTOR	2.2K 5% 1/6W			
R1353	GRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W			R2201	GRD161J-471	CARBON RESISTOR	1.0M 5% 1/6W			
R1354	GRD161J-302	CARBON RESISTOR	3.0K 5% 1/6W			R2202	GRD161J-153	CARBON RESISTOR	4.70 5% 1/6W			
R1355	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W			R2203	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			
R1356	GRD161J-223	CARBON RESISTOR	22K 5% 1/6W			R2251	GRD161J-334	CARBON RESISTOR	330K 5% 1/6W			
R1357	GRD161J-561	CARBON RESISTOR	560 5% 1/6W			R2352	GRD161J-334	CARBON RESISTOR	330K 5% 1/6W			
R1358	GRD161J-152	CARBON RESISTOR	1.5K 5% 1/6W			R2353	GRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W			
R1359	GRD161J-104	CARBON RESISTOR	100K 5% 1/6W			R2355	GRD161J-502	CARBON RESISTOR	3.0K 5% 1/6W			
R1360	GRD161J-473	CARBON RESISTOR	47K 5% 1/6W			R2356	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W			
R1361	GRD161J-564	CARBON RESISTOR	560K 5% 1/6W			R2357	GRD161J-561	CARBON RESISTOR	560 5% 1/6W			
R1365	GRD161J-104	CARBON RESISTOR	100K 5% 1/6W			R2358	GRD161J-152	CARBON RESISTOR	1.5K 5% 1/6W			
R1366	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W			R2359	GRD161J-104	CARBON RESISTOR	100K 5% 1/6W			
R1367	GRD161J-153	CARBON RESISTOR	15K 5% 1/6W			R2360	GRD161J-473	CARBON RESISTOR	4.7K 5% 1/6W			
R1368	GRD161J-473	CARBON RESISTOR	4.7K 5% 1/6W			R2363	GRD161J-64	CARBON RESISTOR	560K 5% 1/6W			
R1369	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			R2365	GRD161J-104	CARBON RESISTOR	100K 5% 1/6W			
R1370	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			R2366	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W			
R1401	GRD161J-274	CARBON RESISTOR	270K 5% 1/6W			R2367	GRD161J-153	CARBON RESISTOR	100K 5% 1/6W			
R1402	GRD161J-333	CARBON RESISTOR	33K 5% 1/6W			R2368	GRD161J-473	CARBON RESISTOR	4.7K 5% 1/6W			
Α	R1403	GRD14CJ-100SX	CARBON RESISTOR	10 5% 1/4W		R2369	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			
R1403	GRD161J-274	CARBON RESISTOR	270K 5% 1/6W			R2370	GRD161J-64	CARBON RESISTOR	560K 5% 1/6W			
R1451	GRD161J-333	CARBON RESISTOR	33K 5% 1/6W			R2371	GRD161J-104	CARBON RESISTOR	100K 5% 1/6W			
Α	R1453	GRD14CJ-100SX	CARBON RESISTOR	10 5% 1/4W		R2372	GRD161J-473	CARBON RESISTOR	4.7K 5% 1/6W			
R1501	GRD161J-223	CARBON RESISTOR	22K 5% 1/6W			R2373	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			
R1502	GRD161J-563	CARBON RESISTOR	56K 5% 1/6W			R2401	GRD161J-774	CARBON RESISTOR	270K 5% 1/6W			
R1503	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W			R2402	GRD161J-100SX	CARBON RESISTOR	33K 5% 1/6W			
R1504	GRD161J-752	CARBON RESISTOR	7.5K 5% 1/6W			Α	R2403	GRD14CJ-100SX	CARBON RESISTOR	10 5% 1/4W		
R1505	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W			R2451	GRD161J-274	CARBON RESISTOR	270K 5% 1/6W			
R1506	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W			R2452	GRD161J-333	CARBON RESISTOR	33K 5% 1/6W			
R1601	GRD161J-820	CARBON RESISTOR	82 5% 1/6W			R2501	GRD161J-223	CARBON RESISTOR	10 5% 1/4W			
R1602	GRD161J-124	CARBON RESISTOR	120K 5% 1/6W			R2502	GRD161J-63	CARBON RESISTOR	56K 5% 1/6W			
R1603	GRD161J-123	CARBON RESISTOR	12K 5% 1/6W			R2503	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W			
R1604	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			R2504	GRD161J-752	CARBON RESISTOR	7.5K 5% 1/6W			
R1605	GRD161J-682	CARBON RESISTOR	6.8K 5% 1/6W			R2505	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W			
R1901	GRD161J-622	CARBON RESISTOR	6.2K 5% 1/6W			R2506	GRD161J-223	CARBON RESISTOR	22K 5% 1/6W			
R1902	GRD161J-243	CARBON RESISTOR	24K 5% 1/6W			R2601	GRD161J-820	CARBON RESISTOR	82 5% 1/6W			
R1903	GRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W			R2602	GRD161J-124	CARBON RESISTOR	1.0K 5% 1/6W			
R1904	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			R2603	GRD161J-123	CARBON RESISTOR	12K 5% 1/6W			
R2101	GRD161J-105	CARBON RESISTOR	1.0M 5% 1/6W			R2604	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			
R2102	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W			R2605	GRD161J-63	CARBON RESISTOR	56K 5% 1/6W			
R2104	GRD161J-274	CARBON RESISTOR	270K 5% 1/6W			R2901	GRD161J-622	CARBON RESISTOR	82 5% 1/6W			
R2105	GRD161J-242	CARBON RESISTOR	2.4K 5% 1/6W			R2902	GRD161J-124	CARBON RESISTOR	1.0K 5% 1/6W			
R2106	GRD161J-332	CARBON RESISTOR	3.3K 5% 1/6W			R2903	GRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W			
R2107	GRD161J-152	CARBON RESISTOR	1.5K 5% 1/6W			R2904	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			
R2108	GRD161J-432	CARBON RESISTOR	4.3K 5% 1/6W			R8101	GRD161J-223	CARBON RESISTOR	22K 5% 1/6W			
R2109	GRD161J-470	CARBON RESISTOR	4.7 5% 1/6W			R8102	GRD161J-223	CARBON RESISTOR	22K 5% 1/6W			
R2110	GRD161J-273	CARBON RESISTOR	27K 5% 1/6W			R8103	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W			
R2111	GRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W			R8104	GRD161J-723	CARBON RESISTOR	22K 5% 1/6W			
R2114	GRD161J-223	CARBON RESISTOR	22K 5% 1/6W			R8105	GRD161J-213	CARBON RESISTOR	22K 5% 1/6W			
R2115	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W			R8106	GRD161J-101	CARBON RESISTOR	100 5% 1/6W			
R2116	GRD161J-274	CARBON RESISTOR	270K 5% 1/6W			R8115	GRD161J-203	CARBON RESISTOR	22K 5% 1/6W			
R2117	GRD161J-682	CARBON RESISTOR	6.8K 5% 1/6W			R8152	GRD161J-101	CARBON RESISTOR	100 5% 1/6W			
R2118	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W			R8153	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W			
R2119	GRD161J-470	CARBON RESISTOR	4.7 5% 1/6W			R8201	GRD161J-393	CARBON RESISTOR	39K 5% 1/6W			

BLOCK NO. 01111111				BLOCK NO. 01111111	
PARTS NO.	PARTS NAME	REMARKS	SUFFIX	PARTS NO.	PARTS NAME
△	REF.	PARTS NO.	PARTS NAME	REMARKS	
R8202	GRD161J-1333	CARBON RESISTOR 33K 5% 1/6W		R8433	QRD161J-102
R8257	GRD167J-632	CARBON RESISTOR 6.8K 5% 1/6W		R8434	QRD161J-102
R8258	GRD161J-221	CARBON RESISTOR 220 5% 1/6W		R8435	QRD161J-471
R8259	GRD161J-104	CARBON RESISTOR 100K 5% 1/6W		R8436	QRD161J-332
R8260	GRD161J-684	CARBON RESISTOR 680K 5% 1/6W		R8437	QRD161J-473
R8262	GRD161J-102	CARBON RESISTOR 1.0K 5% 1/6W		R8438	QRD161J-103
R8263	GRD161J-102	CARBON RESISTOR 1.0K 5% 1/6W		R8441	QRD14CJ-2R2SX
R8264	GRD161J-224	CARBON RESISTOR 220K 5% 1/6W		R8442	QRD161J-563
R8265	GRD161J-333	CARBON RESISTOR 33K 5% 1/6W		R8443	QRD161J-563
R8266	GRD161J-273	CARBON RESISTOR 27K 5% 1/6W		R8444	QRD14CJ-2RSX
R8267	GRD161J-124	CARBON RESISTOR 120K 5% 1/6W		R8445	QRD161J-105
R8268	GRD161J-104	CARBON RESISTOR 100K 5% 1/6W		R8446	QRD161J-105
R8270	GRD161J-224	CARBON RESISTOR 220K 5% 1/6W		R8447	QRD161J-105
R8271	GRD161J-393	CARBON RESISTOR 39K 5% 1/6W		R8448	QRD161J-105
R8272	GRD161J-273	CARBON RESISTOR 27K 5% 1/6W		R8481	QRD161J-103
R8273	GRD161J-753	CARBON RESISTOR 75K 5% 1/6W		△ R8482	QRD14CJ-100SX
R8274	GRD161J-623	CARBON RESISTOR 62K 5% 1/6W		△ R8482	QRD0077-100X
R8275	GRD161J-223	CARBON RESISTOR 62K 5% 1/6W		R8483	QRD161J-102
R8276	GRD161J-104	CARBON RESISTOR 100K 5% 1/6W		R8484	QRD161J-102
R8277	GRD161J-303Y	CARBON RESISTOR 30K 5% 1/6W		R8485	QRD161J-471
R8278	GRD161J-303Y	CARBON RESISTOR 30K 5% 1/6W		R8486	QRD161J-332
R8279	GRD161J-363	CARBON RESISTOR 36K 5% 1/6W		R8491	QRD14CJ-2RSX
R8280	GRD161J-473	CARBON RESISTOR 47K 5% 1/6W		R8492	QRD161J-563
R8281	GRD161J-393	CARBON RESISTOR 39K 5% 1/6W		R8493	QRD161J-563
R8282	GRD161J-823	CARBON RESISTOR 82K 5% 1/6W		R8494	QRD14CJ-2RSX
R8283	GRD161J-563	CARBON RESISTOR 56K 5% 1/6W		R8503	QRD161J-223
R8284	GRD161J-393	CARBON RESISTOR 39K 5% 1/6W		R8504	QRD161J-103
R8285	GRD161J-823	CARBON RESISTOR 82K 5% 1/6W		R8505	QRD161J-102
R8286	GRD161J-913	CARBON RESISTOR 91K 5% 1/6W		R8511	QRD161J-102
R8287	GRD161J-224	CARBON RESISTOR 220K 5% 1/6W		R8512	QRD161J-223
R8288	GRD161J-433	CARBON RESISTOR 43K 5% 1/6W		R8513	QRD161J-332
R8289	GRD161J-563	CARBON RESISTOR 56K 5% 1/6W		R8521	QRD161J-104
R8290	GRD161J-563	CARBON RESISTOR 56K 5% 1/6W		R8522	QRD161J-123
R8291	GRD161J-683	CARBON RESISTOR 68K 5% 1/6W		R8523	QRD161J-123
R8292	GRD161J-623	CARBON RESISTOR 62K 5% 1/6W		R8524	QRD161J-123
R8293	GRD161J-104	CARBON RESISTOR 100K 5% 1/6W		R8525	QRD161J-121
R8294	GRD161J-224	CARBON RESISTOR 220K 5% 1/6W		R8526	QRD161J-180
R8295	GRD161J-623	CARBON RESISTOR 62K 5% 1/6W		R8527	QRD161J-223
R8296	GRD161J-433	CARBON RESISTOR 68K 5% 1/6W		R8528	QRD161J-223
R8297	GRD161J-333	CARBON RESISTOR 33K 5% 1/6W		R8529	QRD161J-472
R8298	GRD161J-473	CARBON RESISTOR 47K 5% 1/6W		R8530	QRD161J-472
R8299	GRD161J-333	CARBON RESISTOR 33K 5% 1/6W		R8531	QRD161J-223
R8300	GRD161J-223	CARBON RESISTOR 22K 5% 1/6W		R8701	QRD161J-101
R8301	GRD161J-223	CARBON RESISTOR 22K 5% 1/6W		R8702	QRD161J-103
R8302	GRD161J-223	CARBON RESISTOR 22K 5% 1/6W		R8703	QRD161J-103
R8303	GRD161J-223	CARBON RESISTOR 22K 5% 1/6W		R8704	QRD161J-102
R8304	GRD161J-223	CARBON RESISTOR 22K 5% 1/6W		R8705	QRD161J-183
R8305	GRD161J-473	CARBON RESISTOR 47K 5% 1/6W		R8706	QRD161J-101
R8306	GRD161J-183	CARBON RESISTOR 18K 5% 1/6W		R8707	QRD161J-223
R8307	GRD161J-103	CARBON RESISTOR 10K 5% 1/6W		R8708	QRD161J-102
R8308	GRD14CJ-100SX	CARBON RESISTOR 10 5% 1/4W	C,J G,U,UT A,B,E,EN	R8709	QRD161J-151
A R8432	GRZ0077-100X	FUSI.RESISTOR 10 5% 1/4W	A,B,E,EN	R8710	QRD161J-151
A R8432	GRZ0077-100X	FUSI.RESISTOR 10 5% 1/4W	A,B,E,EN	R8801	QRD161J-683
A R8432	GRZ0077-100X	FUSI.RESISTOR 10 5% 1/4W	A,B,E,EN	R8802	QRD161J-683

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R8202	GRD161J-1333	CARBON RESISTOR 33K 5% 1/6W			R8433	QRD161J-102	CARBON RESISTOR 1.0K 5% 1/6W		
R8257	GRD167J-632	CARBON RESISTOR 6.8K 5% 1/6W			R8434	QRD161J-102	CARBON RESISTOR 1.0K 5% 1/6W		
R8258	GRD161J-221	CARBON RESISTOR 220 5% 1/6W			R8435	QRD161J-471	CARBON RESISTOR 4.7K 5% 1/6W		
R8259	GRD161J-104	CARBON RESISTOR 100K 5% 1/6W			R8436	QRD161J-332	CARBON RESISTOR 3.3K 5% 1/6W		
R8260	GRD161J-684	CARBON RESISTOR 680K 5% 1/6W			R8437	QRD161J-473	CARBON RESISTOR 4.7K 5% 1/6W		
R8262	GRD161J-102	CARBON RESISTOR 1.0K 5% 1/6W			R8438	QRD161J-103	CARBON RESISTOR 1.0K 5% 1/6W		
R8263	GRD161J-102	CARBON RESISTOR 1.0K 5% 1/6W			R8441	QRD14CJ-2R2SX	CARBON RESISTOR 2.2 5% 1/4W		
R8264	GRD161J-224	CARBON RESISTOR 220K 5% 1/6W			R8442	QRD161J-563	CARBON RESISTOR 5.6K 5% 1/6W		
R8265	GRD161J-333	CARBON RESISTOR 33K 5% 1/6W			R8443	QRD161J-563	CARBON RESISTOR 5.6K 5% 1/6W		
R8266	GRD161J-273	CARBON RESISTOR 27K 5% 1/6W			R8444	QRD14CJ-2RSX	CARBON RESISTOR 2.2 5% 1/4W		
R8267	GRD161J-124	CARBON RESISTOR 120K 5% 1/6W			R8445	QRD161J-105	CARBON RESISTOR 1.0M 5% 1/6W		
R8268	GRD161J-104	CARBON RESISTOR 100K 5% 1/6W			R8446	QRD161J-105	CARBON RESISTOR 1.0M 5% 1/6W		
R8270	GRD161J-224	CARBON RESISTOR 220K 5% 1/6W			R8447	QRD161J-105	CARBON RESISTOR 1.0M 5% 1/6W		
R8271	GRD161J-393	CARBON RESISTOR 39K 5% 1/6W			R8448	QRD161J-105	CARBON RESISTOR 1.0M 5% 1/6W		
R8272	GRD161J-273	CARBON RESISTOR 27K 5% 1/6W			R8481	QRD161J-103	CARBON RESISTOR 1.0K 5% 1/6W		
R8273	GRD161J-753	CARBON RESISTOR 75K 5% 1/6W			△ R8482	QRD0077-100SX	CARBON RESISTOR 1.0 5% 1/4W	C,J G,U,UT A,B,E,EN	
R8274	GRD161J-623	CARBON RESISTOR 62K 5% 1/6W			R8482	QRD0077-100X	FUSI. RESISTOR 1.0 5% 1/4W		
R8275	GRD161J-223	CARBON RESISTOR 62K 5% 1/6W			R8483	QRD161J-102	CARBON RESISTOR 1.0 5% 1/6W		
R8276	GRD161J-104	CARBON RESISTOR 100K 5% 1/6W			R8484	QRD161J-102	CARBON RESISTOR 1.0 5% 1/6W		
R8277	GRD161J-303Y	CARBON RESISTOR 30K 5% 1/6W			R8485	QRD161J-471	CARBON RESISTOR 4.70 5% 1/6W		
R8278	GRD161J-303Y	CARBON RESISTOR 30K 5% 1/6W			R8486	QRD161J-332	CARBON RESISTOR 4.70 5% 1/6W		
R8279	GRD161J-363	CARBON RESISTOR 36K 5% 1/6W			R8491	QRD14CJ-2RSX	CARBON RESISTOR 2.2 5% 1/4W		
R8280	GRD161J-473	CARBON RESISTOR 47K 5% 1/6W			R8492	QRD161J-563	CARBON RESISTOR 5.6K 5% 1/6W		
R8281	GRD161J-393	CARBON RESISTOR 39K 5% 1/6W			R8493	QRD161J-563	CARBON RESISTOR 5.6K 5% 1/6W		
R8282	GRD161J-823	CARBON RESISTOR 82K 5% 1/6W			R8494	QRD14CJ-2RSX	CARBON RESISTOR 2.2 5% 1/4W		
R8283	GRD161J-563	CARBON RESISTOR 56K 5% 1/6W			R8503	QRD161J-223	CARBON RESISTOR 2.2K 5% 1/6W		
R8284	GRD161J-393	CARBON RESISTOR 39K 5% 1/6W			R8504	QRD161J-103	CARBON RESISTOR 10K 5% 1/6W		
R8285	GRD161J-823	CARBON RESISTOR 82K 5% 1/6W			R8505	QRD161J-102	CARBON RESISTOR 100 5% 1/6W		
R8286	GRD161J-913	CARBON RESISTOR 91K 5% 1/6W			R8511	QRD161J-102	CARBON RESISTOR 1.0K 5% 1/6W		
R8287	GRD161J-224	CARBON RESISTOR 220K 5% 1/6W			R8512	QRD161J-223	CARBON RESISTOR 2.2K 5% 1/6W		
R8288	GRD161J-433	CARBON RESISTOR 43K 5% 1/6W			R8513	QRD161J-332	CARBON RESISTOR 3.3K 5% 1/6W		
R8289	GRD161J-563	CARBON RESISTOR 56K 5% 1/6W			R8521	QRD161J-104	CARBON RESISTOR 100K 5% 1/6W		
R8290	GRD161J-563	CARBON RESISTOR 56K 5% 1/6W			R8522	QRD161J-123	CARBON RESISTOR 12K 5% 1/6W		
R8291	GRD161J-683	CARBON RESISTOR 68K 5% 1/6W			R8523	QRD161J-123	CARBON RESISTOR 12K 5% 1/6W		
R8292	GRD161J-623	CARBON RESISTOR 62K 5% 1/6W			R8524	QRD161J-123	CARBON RESISTOR 12K 5% 1/6W		
R8293	GRD161J-104	CARBON RESISTOR 100K 5% 1/6W			R8525	QRD161J-121	CARBON RESISTOR 12K 5% 1/6W		
R8294	GRD161J-224	CARBON RESISTOR 220K 5% 1/6W			R8526	QRD161J-180	CARBON RESISTOR 180K 5% 1/6W		
R8295	GRD161J-623	CARBON RESISTOR 62K 5% 1/6W			R8527	QRD161J-223	CARBON RESISTOR 220K 5% 1/6W		
R8296	GRD161J-433	CARBON RESISTOR 68K 5% 1/6W			R8528	QRD161J-223	CARBON RESISTOR 220K 5% 1/6W		
R8297	GRD161J-333	CARBON RESISTOR 33K 5% 1/6W			R8529	QRD161J-472	CARBON RESISTOR 4.7K 5% 1/6W		
R8298	GRD161J-473	CARBON RESISTOR 47K 5% 1/6W			R8530	QRD161J-472	CARBON RESISTOR 4.7K 5% 1/6W		
R8299	GRD161J-333	CARBON RESISTOR 33K 5% 1/6W			R8531	QRD161J-223	CARBON RESISTOR 4.7K 5% 1/6W		
R8300	GRD161J-223	CARBON RESISTOR 22K 5% 1/6W			R8701	QRD161J-101	CARBON RESISTOR 100K 5% 1/6W		
R8301	GRD161J-223	CARBON RESISTOR 22K 5% 1/6W			R8702	QRD161J-103	CARBON RESISTOR 100K 5% 1/6W		
R8302	GRD161J-223	CARBON RESISTOR 22K 5% 1/6W			R8703	QRD161J-103	CARBON RESISTOR 10K 5% 1/6W		
R8303	GRD161J-223	CARBON RESISTOR 22K 5% 1/6W			R8704	QRD161J-102	CARBON RESISTOR 10K 5% 1/6W		
R8304	GRD161J-223	CARBON RESISTOR 22K 5% 1/6W			R8705	QRD161J-183	CARBON RESISTOR 18K 5% 1/6W		
R8305	GRD161J-473	CARBON RESISTOR 47K 5% 1/6W			R8706	QRD161J-101	CARBON RESISTOR 100K 5% 1/6W		
R8306	GRD161J-433	CARBON RESISTOR 43K 5% 1/6W			R8707	QRD161J-223	CARBON RESISTOR 220K 5% 1/6W		
R8307	GRD161J-273	CARBON RESISTOR 27K 5% 1/6W			R8708	QRD161J-102	CARBON RESISTOR 10K 5% 1/6W		
R8308	GRD161J-823	CARBON RESISTOR 82K 5% 1/6W			R8709	QRD161J-151	CARBON RESISTOR 150 5% 1/6W		
R8309	GRD161J-333	CARBON RESISTOR 33K 5% 1/6W			R8710	QRD161J-151	CARBON RESISTOR 150 5% 1/6W		
R8310	GRD161J-473	CARBON RESISTOR 47K 5% 1/6W			R8801	QRD161J-683	CARBON RESISTOR 68K 5% 1/6W		
R8311	GRD161J-223	CARBON RESISTOR 22K 5% 1/6W			R8802	QRD161J-683	CARBON RESISTOR 68K 5% 1/6W		



## ■ Power Supply Board (U/UT only)

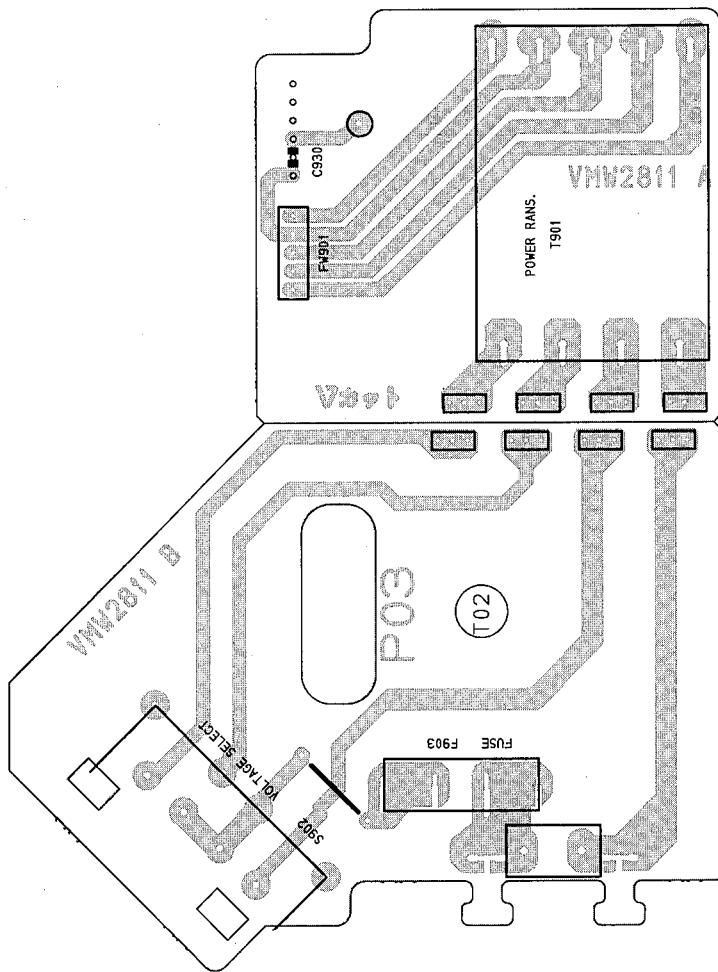


Fig. 7-2

## ● Power Supply Board Parts List

BLOCK NO. 01			
REF.	PARTS NO.	PARTS NAME	REMARKS
R8803	QRD161J-222	CARBON RESISTOR 2.2K 5% 1/6W	
R8804	QRD161J-104	CARBON RESISTOR 10K 5% 1/6W	
R8805	QRD161J-103	CARBON RESISTOR 10K 5% 1/6W	
R8806	QRD161J-223	CARBON RESISTOR 22K 5% 1/6W	
R8807	QRD161J-223	CARBON RESISTOR 22K 5% 1/6W	
R8808	QRD161J-223	CARBON RESISTOR 22K 5% 1/6W	
R8809	QRD161J-224	CARBON RESISTOR 220K 5% 1/6W	
R8810	QRD161J-103	CARBON RESISTOR 10K 5% 1/6W	
R8811	QRD161J-223	CARBON RESISTOR 22K 5% 1/6W	
R8901	QRD161J-103	CARBON RESISTOR 10K 5% 1/6W	
R8902	QRD161J-103	CARBON RESISTOR 10K 5% 1/6W	
R8903	QRD161J-104	CARBON RESISTOR 10K 5% 1/6W	
R8904	QRD161J-104	CARBON RESISTOR 10K 5% 1/6W	
R8905	QRD161J-104	CARBON RESISTOR 100K 5% 1/6W	
R8906	QRD161J-104	CARBON RESISTOR 100K 5% 1/6W	
R8907	QRD161J-104	CARBON RESISTOR 100K 5% 1/6W	
R8908	QRD161J-104	CARBON RESISTOR 100K 5% 1/6W	
R8909	QRD161J-103	CARBON RESISTOR 10K 5% 1/6W	
R8910	QRD161J-103	CARBON RESISTOR 10K 5% 1/6W	
R8911	QRD14CJ-4R7SX	UNIF. C. RESISTOR 4.7 5% 1/4W	C,J G,U,UT A,B,E,EN G,U,UT A,B,E,EN
R8912	GRZ0077-4R7X	FUSE RESISTOR 4.7 1/4W	
TUB	QXTG109-010	FUSE RESISTOR 4.7 1/0W	
TUB	QXTG109-010	GLASS TUBE FOR Q912	
VAS81	MA27T-B	DIODE V-RESISTOR FOR Q912	
VR111	QVPA601-104A	PB LEVEL ADJ. B	
VR116	QVPA601-104A	PB LEVEL ADJ. B	
VR211	QVPA601-104A	PB LEVEL ADJ. B	
VR216	QVPA601-104A	PB LEVEL ADJ. B	
Z702	WMA4633-001	SHIELD V-RESISTOR FOR F901,F902	A,B,E,EN G,U,UT
A Z 901	VMZ0087-001Z	FUSE CLIP FOR F901,F902	A,B,E,EN G,U,UT
A Z 901	VMZ0087-001Z	FUSE HOLDER FOR F901,F902	G,U,UT
A Z 902	VMZ0087-001Z	FUSE CLIP FOR F901,F902	A,B,E,EN G,U,UT
A Z 903	VMZ0087-001Z	FUSE CLIP FOR F901,F902	A,B,E,EN G,U,UT
A Z 903	VMZ0087-001Z	FUSE HOLDER FOR F901,F902	A,B,E,EN G,U,UT
A Z 904	VMZ0087-001Z	FUSE CLIP FOR F901,F902	A,B,E,EN G,U,UT
A Z 904	VMZ0087-001Z	FUSE HOLDER FOR F901,F902	A,B,E,EN G,U,UT
C 930	QCF11RH-103	C.CAPACITOR	.010MF +100:-0%
A CN905	VMC0221-003	CONNECTOR	U,UT
A CN906	VMC0221-003	CONNECTOR	U,UT
A CN907	VMC0221-003	CONNECTOR	U,UT
A CN908	VMC0221-003	CONNECTOR	U,UT
A S 902	QSS232-112	SLIDE SWITCH	U,UT
A TAB	VMZ0034-002	TAB	FOR POWER CORD
A TAB	VMZ0034-002	TAB	FOR POWER CORD
A Z 905	VMZ0043-001S	FUSE CLAMP	FOR F903
A Z 905	VMZ0043-001S	FUSE CLAMP	FOR F903
A Z 906	VMZ0043-001S	FUSE CLAMP	FOR F903
A Z 906	VMZ0043-001S	FUSE CLAMP	FOR F903

BLOCK NO. 03

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
A Z 901	VMZ0087-001Z	FUSE CLIP		
A Z 901	VMZ0087-001Z	FUSE HOLDER		
A Z 902	VMZ0087-001Z	FUSE CLIP		
A Z 903	VMZ0087-001Z	FUSE CLIP		
A Z 904	VMZ0087-001Z	FUSE HOLDER		
A Z 904	VMZ0087-001Z	FUSE CLIP		
C 930	QCF11RH-103	C.CAPACITOR	.010MF +100:-0%	U,UT
A CN905	VMC0221-003	CONNECTOR		U,UT
A CN906	VMC0221-003	CONNECTOR		U,UT
A CN907	VMC0221-003	CONNECTOR		U,UT
A CN908	VMC0221-003	CONNECTOR		U,UT
A S 902	QSS232-112	SLIDE SWITCH		U,UT
A TAB	VMZ0034-002	TAB	FOR POWER CORD	
A TAB	VMZ0034-002	TAB	FOR POWER CORD	
A Z 905	VMZ0043-001S	FUSE CLAMP	FOR F903	
A Z 905	VMZ0043-001S	FUSE CLAMP	FOR F903	
A Z 906	VMZ0043-001S	FUSE CLAMP	FOR F903	
A Z 906	VMZ0043-001S	FUSE CLAMP	FOR F903	

## ■ Mecha Board

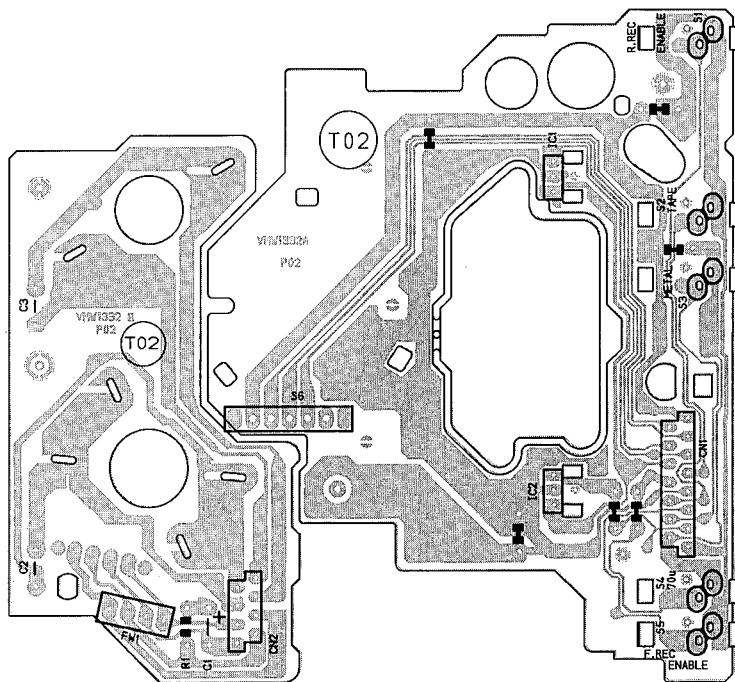


Fig. 7-3

## ● Mecha Board Parts List

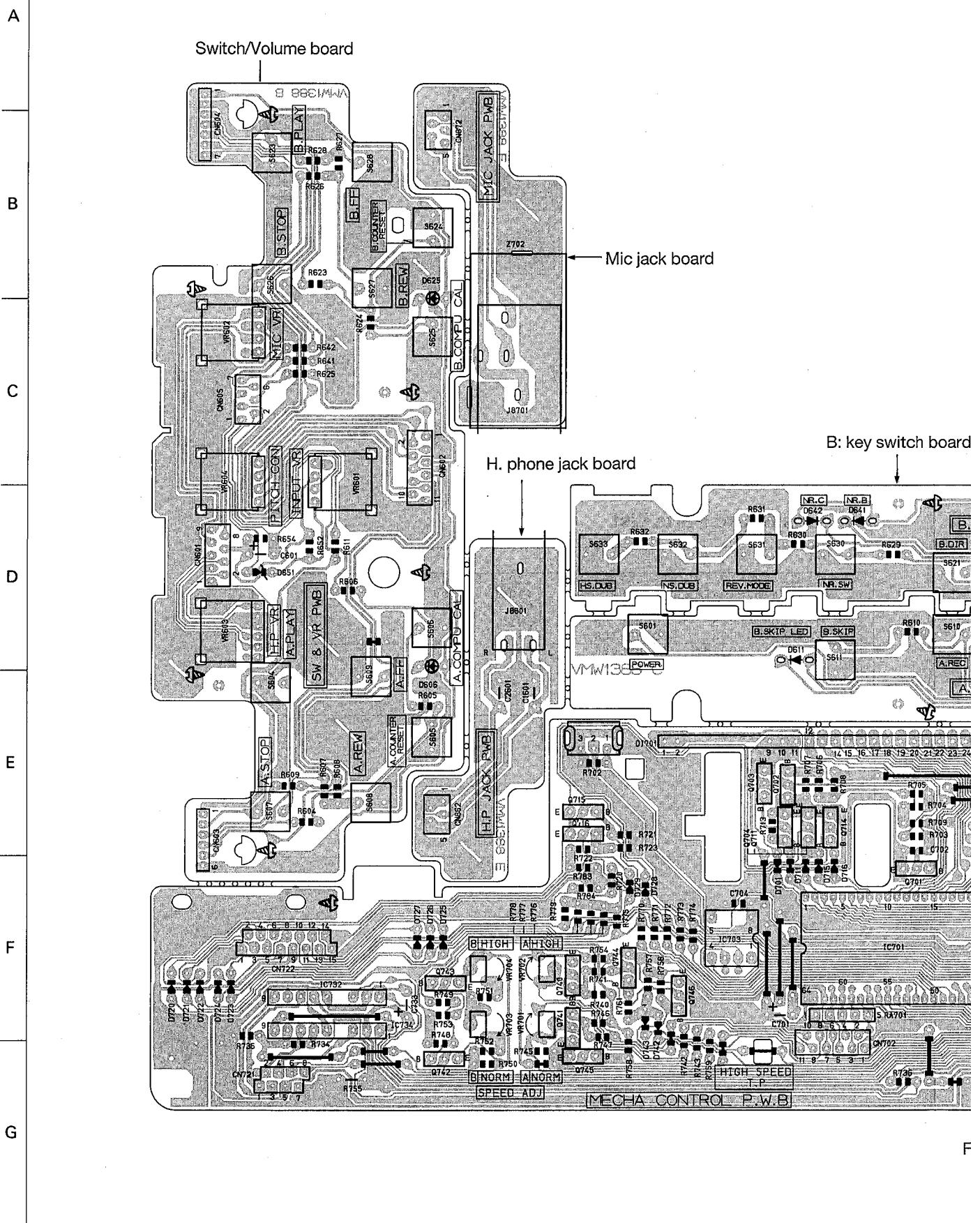
BLOCK NO. 04 | | | | |

A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C	2	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
C	3	QFV41HJ-104ZM	TF CAPACITOR	.10MF 5% 50V	
CAMSW		VKS3616-00A	CAM SW UNIT	S6	
CN	1	VMC0234-R15	CONNECTOR	CN1	
CN	2	VMC0234-R08	CONNECTOR	CN2	
HOLDE		VKS3630-001MM	IC HOLDER	FOR IC 2	
HOLDE		VKS3630-001MM	IC HOLDER	FOR IC 1	
IC	1	DN6851-HI	HALL IC		
IC	2	DN6851-HI	HALL IC		
S	1	MXS00220MVLO	CASSETTE SWITCH		
S	2	MXS00220MVLO	CASSETTE SWITCH		
S	3	MXS00220MVLO	CASSETTE SWITCH		
S	4	MXS00220MVLO	CASSETTE SWITCH		
S	5	MXS00220MVLO	CASSETTE SWITCH		

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## ■ Sub Board



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h board

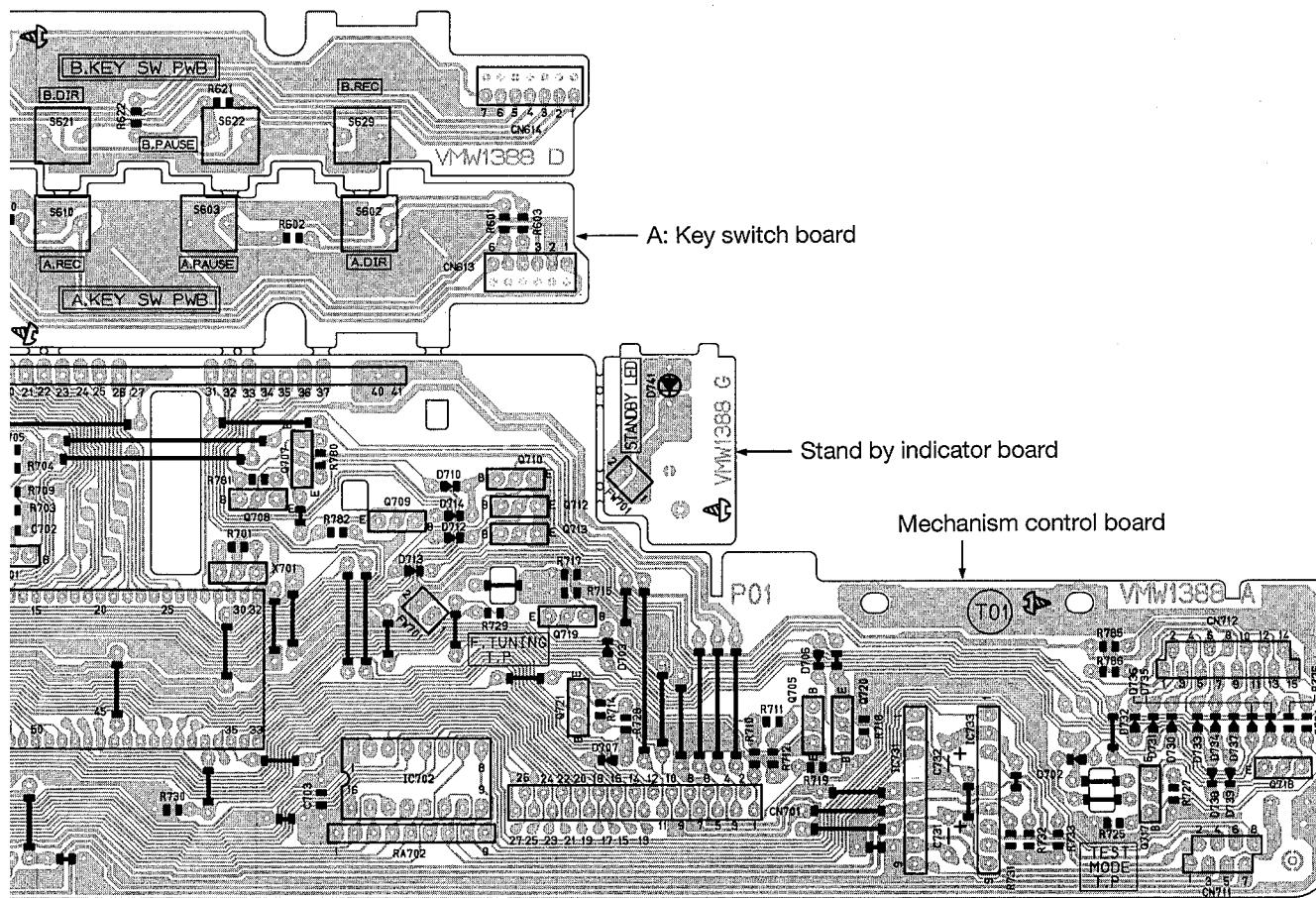


Fig. 7-4

## ● Sub Board Parts List

▲ REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	BLOCK NO. ②
C 601	QETC1HM-104Z-N	E-CAPACITOR	-10MF 20% 50V		
C 701	QET41AM-477	E-CAPACITOR	4.70MF 20% 10V		
C 702	QCBB1HK-471Y	C-CAPACITOR	4.70PF 10% 50V		
C 703	QCVB1CM-103Y	C-CAPACITOR	.010MF 20% 1.6V		
C 704	QCVB1CM-103Y	C-CAPACITOR	.010MF 20% 1.6V		
C 732	QEKA1EM-106	E-CAPACITOR	10MF 20% 25V		
C 733	QET41EM-106	E-CAPACITOR	10MF 20% 25V		
CN 601	VMCO163-R09	CONNECTOR			
CN 602	VMCO163-R11	CONNECTOR			
CN 603	VMCO280-006	CONNECTOR			
CN 604	VMCO280-007	CONNECTOR			
CN 605	VMCO163-R07	CONNECTOR			
CN 613	VMCO281-S06	CONNECTOR			
CN 614	VMCO281-S07	CONNECTOR			
CN 701	VMCO163-R27	CONNECTOR			
CN 702	VMCO163-R11	CONNECTOR			
CN 711	VMCO234-P08	CONNECTOR			
CN 712	VMCO234-P15	CONNECTOR			
CN 721	VMCO234-P08	CONNECTOR			
CN 722	VMCO234-P15	CONNECTOR			
D 606	SL7-981C09-T6	LED			
D 611	SLR-325MCT31	LED			
D 625	SL7-981C09-T6	LED			
D 641	SLR-325MCT31	LED			
D 642	SLR-325MCT31	LED			
D 651	MTZ-6JB	ZENER DIODE			
D 701	ISS133	SI DIODE			
D 702	ISS133	SI DIODE			
D 703	ISS133	SI DIODE			
D 704	ISS133	SI DIODE			
D 705	ISS133	SI DIODE			
D 707	ISS133	SI DIODE			
D 710	ISS133	SI DIODE			
D 711	ISS133	SI DIODE			
D 712	ISS133	SI DIODE			
D 713	ISS133	SI DIODE			
D 714	ISS133	SI DIODE			
D 715	ISS133	SI DIODE			
D 716	ISS133	SI DIODE			
D 720	ISS133	SI DIODE			
D 721	ISS133	SI DIODE			
D 722	ISS133	SI DIODE			
D 723	ISS133	SI DIODE			
D 724	ISS133	SI DIODE			
D 725	ISS133	SI DIODE			
D 726	ISS133	SI DIODE			
D 727	ISS133	SI DIODE			
D 728	ISS133	SI DIODE			
D 729	ISS133	SI DIODE			
D 730	ISS133	SI DIODE			
D 736	ISS133	SI DIODE			
D 737	ISS133	SI DIODE			
D 738	ISS133	SI DIODE			
D 739	ISS133	SI DIODE			
D 741	SLR-55VCF08	LED			
D 742	ISS133	SI DIODE			

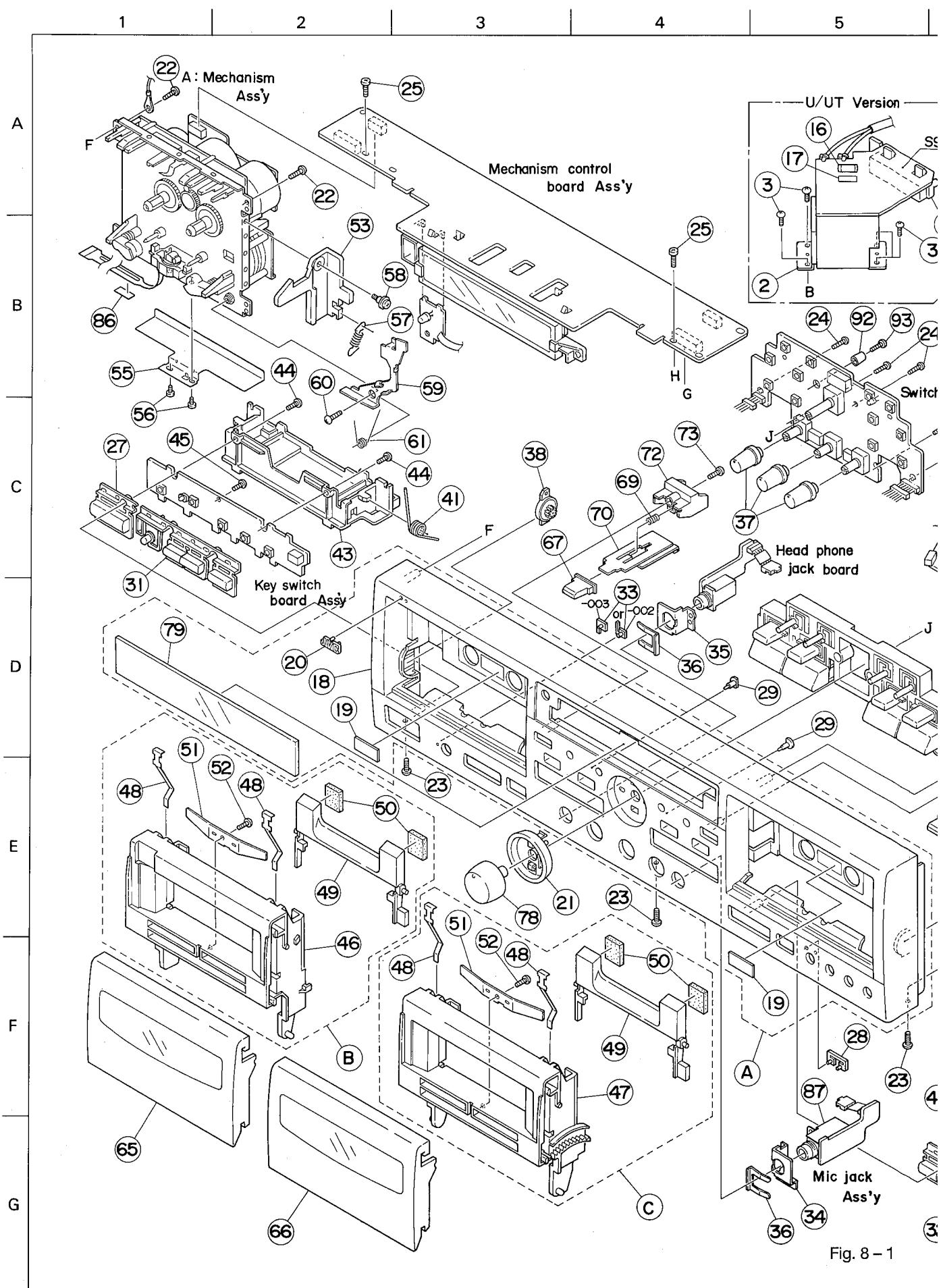
▲ REF.	PARTS NO.	PARTS NAME	PARTS NO.	PARTS NAME	REMARKS	BLOCK NO. ②
D 743	JSS1133	SI DIODE	DI701	BJ361G	SYSTEM CPU	
			IC701	M889146V2P-122	PORT EXPANDER	
			IC702	M50253P		
			IC703	BR93LC46		
			IC731	BA6218	A CAM MOTOR DRI	
			IC732	BA6218	B CAM MOTOR DRI	
			IC733	TA8409S	A REEL MOTOR DR	
			IC734	TA8409S	B REEL MOTOR DR	
Q 701	2SC1740S(R,S)	TRANSISTOR	Q 702	2SC1740S(R,S)	TRANSISTOR	
			Q 703	DTA124ES	TRANSISTOR	
			Q 704	DTC124ES	TRANSISTOR	
			Q 705	2SC1740S(R,S)	TRANSISTOR	
			Q 707	2SC1740S(R,S)	TRANSISTOR	
			Q 708	2SC1740S(R,S)	TRANSISTOR	
			Q 709	2SC1740S(R,S)	TRANSISTOR	
			Q 710	DTC124ES	TRANSISTOR	
			Q 711	DTC124ES	TRANSISTOR	
			Q 712	DTC124ES	TRANSISTOR	
			Q 713	DTC124ES	TRANSISTOR	
			Q 714	DTC124ES	TRANSISTOR	
			Q 715	2SC1740S(R,S)	TRANSISTOR	
			Q 716	2SC1740S(R,S)	TRANSISTOR	
			Q 717	2SC1740S(R,S)	TRANSISTOR	
			Q 718	2SC1740S(R,S)	TRANSISTOR	
			Q 719	2SC1740S(R,S)	TRANSISTOR	
			Q 720	2SC1740S(R,S)	TRANSISTOR	
			Q 721	DTC114ESTP	TRANSISTOR	
			Q 740	2SA1175	TRANSISTOR	
			Q 741	2SA1175	TRANSISTOR	
			Q 742	2SA1175	TRANSISTOR	
			Q 743	2SA1175	TRANSISTOR	
			Q 744	DTC143ES	TRANSISTOR	
			Q 745	2SA1175	TRANSISTOR	
R 601	QRD161J-102	CARBON RESISTOR	R 601	QRD161J-102	1.0K 5% 1/6W	
R 602	GRD161J-102	CARBON RESISTOR	R 602	GRD161J-102	1.2K 5% 1/6W	
R 603	QRD161J-182	CARBON RESISTOR	R 603	QRD161J-182	1.8K 5% 1/6W	
R 604	GRD161J-272	CARBON RESISTOR	R 604	GRD161J-272	2.7K 5% 1/6W	
R 605	GRD161J-72	CARBON RESISTOR	R 605	GRD161J-72	4.7K 5% 1/6W	
R 606	QRD161J-271	CARBON RESISTOR	R 606	QRD161J-271	270 5% 1/6W	
R 607	GRD161J-102	CARBON RESISTOR	R 607	GRD161J-102	1.0K 5% 1/6W	
R 608	QRD161J-122	CARBON RESISTOR	R 608	QRD161J-122	1.2K 5% 1/6W	
R 609	GRD161J-182	CARBON RESISTOR	R 609	GRD161J-182	1.8K 5% 1/6W	
R 610	QRD161J-772	CARBON RESISTOR	R 610	QRD161J-772	27K 5% 1/6W	
R 611	GRD161J-271	CARBON RESISTOR	R 611	GRD161J-271	270 5% 1/6W	
R 621	QRD161J-222	CARBON RESISTOR	R 621	QRD161J-222	2.2K 5% 1/6W	
R 622	GRD161J-182	CARBON RESISTOR	R 622	GRD161J-182	1.8K 5% 1/6W	
R 623	QRD161J-272	CARBON RESISTOR	R 623	QRD161J-272	2.7K 5% 1/6W	
R 624	GRD161J-572	CARBON RESISTOR	R 624	GRD161J-572	4.7K 5% 1/6W	
R 625	QRD161J-271	CARBON RESISTOR	R 625	QRD161J-271	270 5% 1/6W	
R 626	GRD161J-102	CARBON RESISTOR	R 626	GRD161J-102	1.0K 5% 1/6W	
R 627	QRD161J-122	CARBON RESISTOR	R 627	QRD161J-122	1.2K 5% 1/6W	
R 628	GRD161J-182	CARBON RESISTOR	R 628	GRD161J-182	1.8K 5% 1/6W	
R 629	QRD161J-272	CARBON RESISTOR	R 629	QRD161J-272	2.7K 5% 1/6W	
R 630	GRD161J-271	CARBON RESISTOR	R 630	GRD161J-271	270 5% 1/6W	
R 631	QRD161J-472	CARBON RESISTOR	R 631	QRD161J-472	4.7K 5% 1/6W	
R 632	GRD161J-822	CARBON RESISTOR	R 632	GRD161J-822	8.2K 5% 1/6W	
R 633	QRD161J-273	CARBON RESISTOR	R 633	QRD161J-273	2.7K 5% 1/6W	
R 641	GRD161J-271	CARBON RESISTOR	R 641	GRD161J-271	270 5% 1/6W	

BLOCK NO. 02

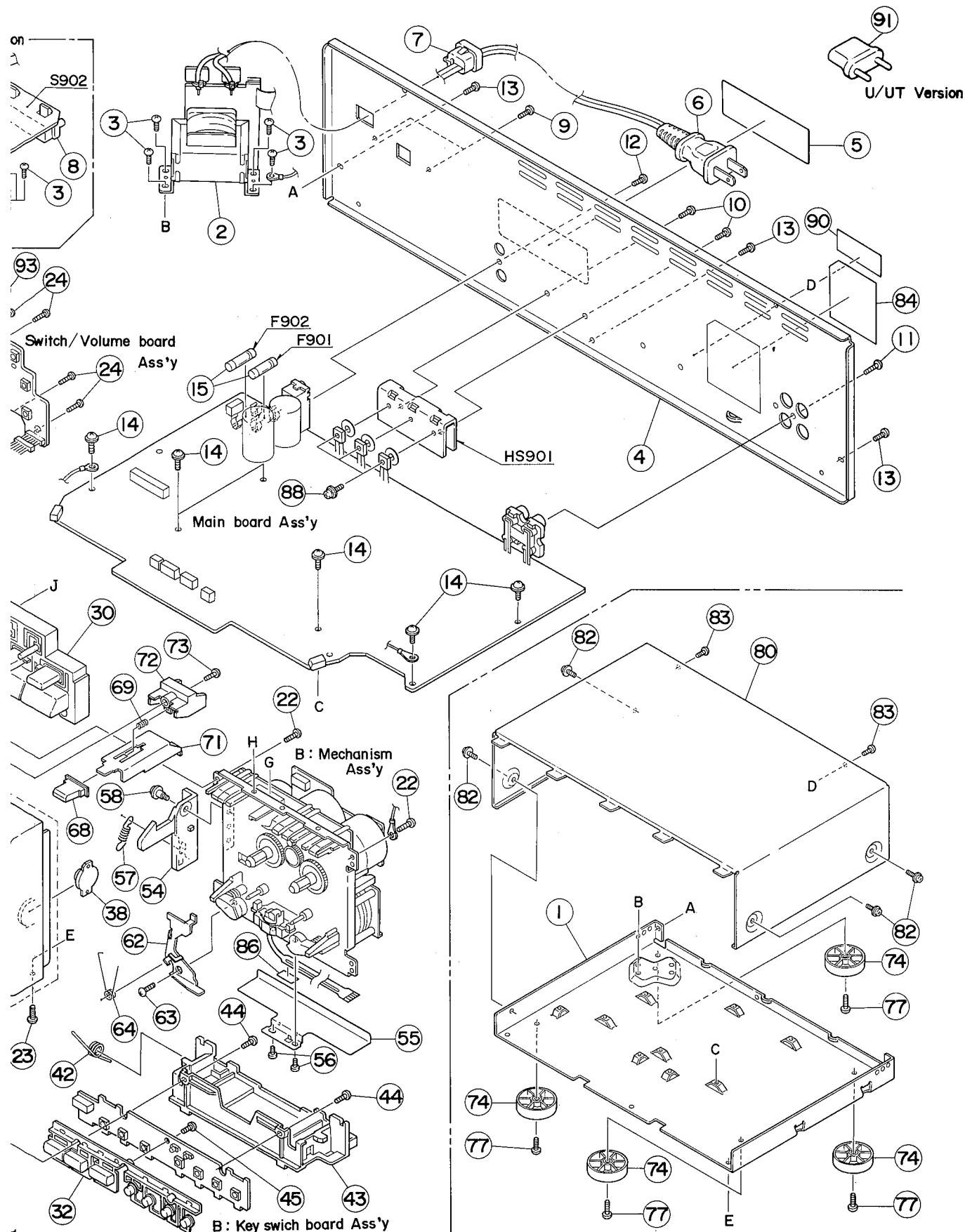
LOCK NO. 02

A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	REF.	PARTS NO.	PARTS NAME	REMARKS	SUR FIX
A	R 642	QRD161J-271	CARBON RESISTOR	270 5% 1/6W		R 770	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
	R 652	QRD161J-331	CARBON RESISTOR	330 5% 1/6W		R 771	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
	R 654	QRD161J-105	CARBON RESISTOR	1.0M 5% 1/6W		R 772	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
	R 701	QRD161J-155	CARBON RESISTOR	15K 5% 1/6W		R 773	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
	R 702	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W		R 774	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
	R 703	QRD161J-471	CARBON RESISTOR	470 5% 1/6W		R 775	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 704	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		R 776	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 705	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		R 777	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 706	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		R 778	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 707	QRD161J-471	CARBON RESISTOR	470 5% 1/6W		R 779	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 708	QRD161J-272	CARBON RESISTOR	2.7K 5% 1/6W		R 780	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
	R 709	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W		R 781	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
	R 710	QRD161J-221	CARBON RESISTOR	220 5% 1/6W		R 782	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
	R 711	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W		R 783	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 712	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W		R 784	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 713	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		R 785	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 714	QRD161J-103	CARBON RESISTOR	22K 5% 1/6W		R 786	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 715	QRD161J-203	CARBON RESISTOR	10K 5% 1/6W		RA701	QBRO405J-682	R-NETWORK	6.8K 5% 1/4W	
	R 717	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W		RA702	QBRO85J-103	R-NETWORK	10K 5% 1/8W	
	R 718	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W		S 601	QSQAH11-V01Z			
	R 719	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W		S 602	QSQAH11-V01Z	TACT SWITCH	A DIRECTION	
	R 720	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W		S 603	QSQAH11-V01Z	TACT SWITCH	A PAUSE	
	R 721	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W		S 604	QSQAH11-V01Z	TACT SWITCH	A PLAY	
	R 722	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W		S 605	QSQAH11-V01Z	TACT SWITCH	A COUNTER RESET	
	R 723	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W		S 606	QSQAH11-V01Z	TACT SWITCH	A COUNTER CALIBRA	
	R 724	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W		S 607	QSQAH11-V01Z	TACT SWITCH	A STOP	
	R 725	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W		S 608	QSQAH11-V01Z	TACT SWITCH	A REW	
	R 726	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W		S 609	QSQAH11-V01Z	TACT SWITCH	A FF	
	R 727	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W		S 610	QSQAH11-V01Z	TACT SWITCH	B REC	
	R 728	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W		S 611	QSQAH11-V01Z	TACT SWITCH	BLANK SKIP	
	R 729	QRD161J-151	CARBON RESISTOR	22K 5% 1/6W		S 621	QSQAH11-V01Z	TACT SWITCH	B DIRECTION	
	R 730	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W		S 622	QSQAH11-V01Z	TACT SWITCH	B PAUSE	
	R 731	QRD161J-332	CARBON RESISTOR	3.3K 5% 1/6W		S 623	QSQAH11-V01Z	TACT SWITCH	B PLAY	
	R 732	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W		S 624	QSQAH11-V01Z	TACT SWITCH	B COUNTER RESET	
	R 733	QRD161J-182	CARBON RESISTOR	1.8K 5% 1/6W		S 625	QSQAH11-V01Z	TACT SWITCH	B CONPU. CALIBR	
	R 734	QRD161J-332	CARBON RESISTOR	3.3K 5% 1/6W		S 626	QSQAH11-V01Z	TACT SWITCH	B STOP	
	R 735	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W		S 627	QSQAH11-V01Z	TACT SWITCH	B REW	
	R 736	QRD161J-182	CARBON RESISTOR	1.8K 5% 1/6W		S 628	QSQAH11-V01Z	TACT SWITCH	B FF	
	R 740	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W		S 629	QSQAH11-V01Z	TACT SWITCH	B REC	
	R 741	QRD161J-184	CARBON RESISTOR	180K 5% 1/6W		S 630	QSQAH11-V01Z	TACT SWITCH	DOLBY NR	
	R 742	QRD161J-123	CARBON RESISTOR	12K 5% 1/6W		S 631	QSQAH11-V01Z	TACT SWITCH	REV MODE	
	R 743	QRD161J-752	CARBON RESISTOR	7.5K 5% 1/6W		S 632	QSQAH11-V01Z	TACT SWITCH	N-SPEED DUBBING	
	R 745	QRD161J-683	CARBON RESISTOR	6.8K 5% 1/6W		S 633	QSQAH11-V01Z	TACT SWITCH	H-SPEED DUBBING	
	R 746	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W		VR601	QVGAI22-V05	V-RESISTOR		
	R 747	QRD161J-184	CARBON RESISTOR	180K 5% 1/6W		VR602	QVGAI6A-V02	V-RESISTOR		
	R 748	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W		VR603	QVGAI6A-V02M	V-RESISTOR		
	R 749	QRD161J-184	CARBON RESISTOR	180K 5% 1/6W		VR604	QVGAI6B-V01	V-RESISTOR		
	R 750	QRD161J-683	CARBON RESISTOR	6.8K 5% 1/6W		VR701	QVP612-1031M	SEMI-V-RESISTOR		
	R 751	QRD161J-155	CARBON RESISTOR	10K 5% 1/6W		VR702	QVP612-2031M	SEMI-V-RESISTOR		
	R 752	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W		VR703	QVP612-2031M	SEMI-V-RESISTOR		
	R 753	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W		VR704	QVP612-2031M	SEMI-V-RESISTOR		
	R 754	QRD161J-184	CARBON RESISTOR	180K 5% 1/6W		X 701	EFO-EC8004T4	CERAMIC RESONAT		
A	R 755	QRD14CJ-4R7SX	UNF.C-RESISTOR	4.7 5% 1/4W	C-J	Z 701	YH3844-003	FL HOLDER		
A	R 755	QRH144J-4R7	FUSI-RESISTOR	4.7 5% 1/4W	G,U,UT					
A	R 756	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	A,B,E,N					
	R 757	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W						
	R 758	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W						
	R 759	QRD161J-184	CARBON RESISTOR	180K 5% 1/6W						
	R 761	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W						

## 8 Exploded View of Enclosure Component Parts



6 7 8 9 10



## ● Enclosure Component Parts List

BLOCK NO. M1MM

REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
A	ZCTDW717J-FTN ZCTDW718K-FB	FRONT PANEL FRONT PANEL ASS	NO.18-20,79 NO.18-20,79	1 1		TN BK
B	ZCTDW317K-CH-A	CASSETTE HOLDER	NO.46,48-52	1		
C	ZCTDW317K-CH-B	CASSETTE HOLDER	NO.47-52 DECK B	1		
1	VKL1333-009	CHASSIS BASE		1		
2	VTP52Z5-021FBS VTP52A5-021F VTP52G5-021F	POWER TRANS POWER TRANS POWER TRANS		1 1 1	A,B,E,EN,G C,J U,UT	
3	SBST3006Z	SCREW	FOR POWER TRANS	4		
4	VJC2410-038	REAR PANEL	A/B/E/EN/G	1	A,B,E,EN,G	BK
5	VJC2410-036 VJC2410-039 VND4999-001	REAR PANEL REAR PANEL FCC LABEL (3)		1 1 1	C,J U,UT J	TN BK
6	QMP2560-244 QMP5530-008BS	POWER CORD POWER CORD		1 1	A B	
7	QMP1340-200 QMP7380-200 QMP3900-200	POWER CORD POWER CORD POWER CORD		1 1 1	C,J U,UT E,EN,G	
8	QHS3771-108 VKS5011-001	CORD STOPPER VOLTAGE CONTACT		1 1		
9	SBSF3008M	SCREW	FOR V.SELECTOR	2	U,UT	
10	SBSF3008M	SCREW	FOR HEAT SINK	2		
11	SBSF3008M	SCREW	FOR PIN JACK	1		
12	SBSF3008M	SCREW	FOR DCS JACK	1		
13	SBST3006M	SCREW	FOR REAR+CHASSI	3		
14	GBST3006Z	SCREW	FOR MAIN P.C.BO	6		
15	QMF51E2-R80SBS QMF51E2-R80SBS	FUSE	FOR F901,F902	2	G,U,UT B	
16	QMF51E2-R80SBS QMF51A2-R315	FUSE	FOR F901,F902	2	A,E,EN	
17	QMF51A2-R315	FUSE	FOR F903	1	U,UT	
18	VND4003-074 VJG1320-020UL VJG1320-021 VJG1320-021	FUSE LABEL FRONT PANEL FRONT PANEL FRONT PANEL		1 1 1 1	C,J A,B,E,EN G,U,UT	TN BK BK
19	VJD4024-002	REFLECTION PLAT		2		
20	VJD5429-001SS	JVC MARK		1		
21	VYH7943-001 VYH7943-002	RING		1		
22	SBSF3010Z	RING		1		
23	SBST3006M	SCREW	FOR MECHANISM	4		
		SCREW	FOR F.P.+CHASSI	3		
24	SBSF2610Z	SCREW	FOR FRONT PWB	5		
25	SDST2604Z	SCREW	FOR FL.PWB+MECH	2		
27	VXP5288-002 VXP5288-001	PUSH BUTTON	FOR POWER	1		
28	VJK4436-001	PUSH BUTTON	FOR POWER	1		
		LENS		1		
29	VJK4437-001	LENS		2		
30	VXP2098-007 VXP2098-008	MECHA BUTTON	AB PLAY/STOP	1		
31	VXP3688-002 VXP3688-001	MECHA BUTTON	AB PLAY/STOP	1		
		MECHA BUTTON	A REC/PAUSE	1		
		MECHA BUTTON	A REC/PAUSE	1		
32	VXP3689-002 VXP3689-001	MECHA BUTTON	B REC/PAUSE/DOL	1		
33	VJK4436-003 VJK4436-002	LENS	B REC/PAUSE/DOL	1		
34	VJK4436-004 VKL7265-004	LENS	-002 OR -003	1		
		JACK BRACKET	-002 OR -003	1		
			FOR MIC JACK	1		
35	VKL7264-003	JACK BRACKET	FPR P.H. JACK	1		
36	VKL6752-001	SNAP PLATE		2		
37	VXL4424-002 VXL4424-001	KNOB	PHONE/PITCH/MIX	3		
38	VYH7779-00B	KNOB	PHONE/PITCH/MIX	3		
		DUMPER ASS'Y		2		
41	VWK3006-236	TORSION SPRING	FOR A-HOLDER	1		
42	VWK3006-237	TORSION SPRING	FOR B-HOLDER	1		
43	VYH2300-002	MECHA HOLDER	FOR A B MECHA	2		
44	SBSF2610Z	SCREW	FOR MECHANISM B	4		
45	SBSF2610Z	SCREW	FOR A B PWB	2		

BLOCK NO. M1MM

REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
46	VJT2317-007	CASSETTE HOLDER	FOR A-MECHA	1		
47	VJT2317-008	CASSETTE HOLDER	FOR B-MECHA	1		
48	VKY4180-001	CASSETTE SPRING		4		
49	VJD3867-002	C. STABILIZER		2		
50	VYTS491-001	PAD		4		
51	VKY4635-002	SPRING PLATE	FOR S.PLATE	2		
52	SBSF2608Z	SCREW	FOR A MECHA	1		
53	VYH7941-005	LOCK LEVER(L)	FOR B MECHA	1		
54	VYH7941-006	LOCK LEVER(R)	FOR MECHA	2		
55	VMA4643-001	SHIELD				
56	SDST2603Z	SCREW	FOR MECHA+SHIEL	4		
57	VKW5199-001	TENSION SPRING		2		
58	VKZ4749-001	SPECIAL SCREW	FOR LOCK L+MECH	2		
59	VKL7293-001	EJECT SAFTY(R)	EGC	1		
60	SBSF3010Z	SCREW	FOR E.SAFTY(R)	1		
61	VKW5069-002	TORSION SPRING	FOR E.SAFTY(R)	1		
62	VKL7663-001	EJECT SAFTY(L)	EGC	1		
63	SBSF3010Z	SCREW	FOR E.SAFTY(L)	1		
64	VKW5104-003	TORSION SPRING	FOR E.SAFTY(L)	1		
65	VJT2349-001	CASSETTE LID	FOR A MECHA	1		TN
66	VJT2349-003	CASSETTE LID	FOR A MECHA	1		BK
67	VJT2349-002	CASSETTE LID	FOR B MECHA	1		TN
68	VJT2349-004	CASSETTE LID	FOR B MECHA	1		BK
69	VXP5289-001	PUSH BUTTON	FOR EJECT	1		TN
70	VXP5289-003	PUSH BUTTON	FOR EJECT	1		BK
71	VXP5289-002	OPERAT.BUTTON	FOR EJECT	1		
72	VXP5289-004	PUSH BUTTON	FOR EJECT	1		
73	VXP5289-007	C.SPRING		2		
74	VKL7262-002	REMOTE ARM	FOR A-MECHA	1		
75	VKL7263-002	REMOTE ARM	FOR B-MECHA	1		
76	VYH7773-001	BUTTON HOLDER		2		
77	SBSF2610Z	SCREW	FOR B.H.+F.P.	2		
78	VJF4039-00E	FOOT ASS'Y		4	C,J	TN
79	E406379-008SS	FOOT ASS'Y		4	A,B,E,EN,G	BK
80	VJF4039-00F	FOOT ASS'Y		4	U,UT	BK
81	SBST3008Z	SCREW				
82	VXL3025-001	KNOB	FOR FOOT	4		
83	VXL3025-002	KNOB	INPUT VOLUME	1		
84	VJK3652-001	FINDER LENS	INPUT VOLUME	1		
85	VJK3652-003	FINDER LENS		1		
86	VJC1964-202	TOP COVER		1		
87	VJC1964-201	TOP COVER		1		
88	VKZ4614-001	SPECIAL SCREW		4		
89	SBST3006M	SCREW	FOR TOP COVER	2		
90	VYN2349-M003PA	NAME PLATE		1	A	
91	VYN2348-M104PA	NAME PLATE		1	C	
92	VYN2349-M002PA	NAME PLATE		1	B	
93	VYN2349-M007PA	NAME PLATE	FOR U VERSION	1	U,UT	
94	VYN2349-M005PA	NAME PLATE		1	E,EN	
95	VYN2348-M006PA	NAME PLATE	FOR J VERSION	1	J	
96	VYN2349-M108PA	NAME PLATE	FOR G VERSION	1	G	
97	VYSA1R3-043	SPACER	FOR HEAD WIRE	2		
98	VMA4633-001	SHIELD PLATE	FOR Z702	1		
99	DPSP3008Z	SCREW	Q901,Q903,Q909	3		
100	E407097-001	HYATT L.LABEL		1	J	
101	V04062-001	CONTI.PLUG		1	U,UT	
102	VYH7979-001	CAP		1		
103	SBSF2610Z	SCREW	FOR CAP	1		
104	VMH4011-201	HEAT SINK		1		
105	HS901					

## 9 Exploded View of Mechanism Component Parts

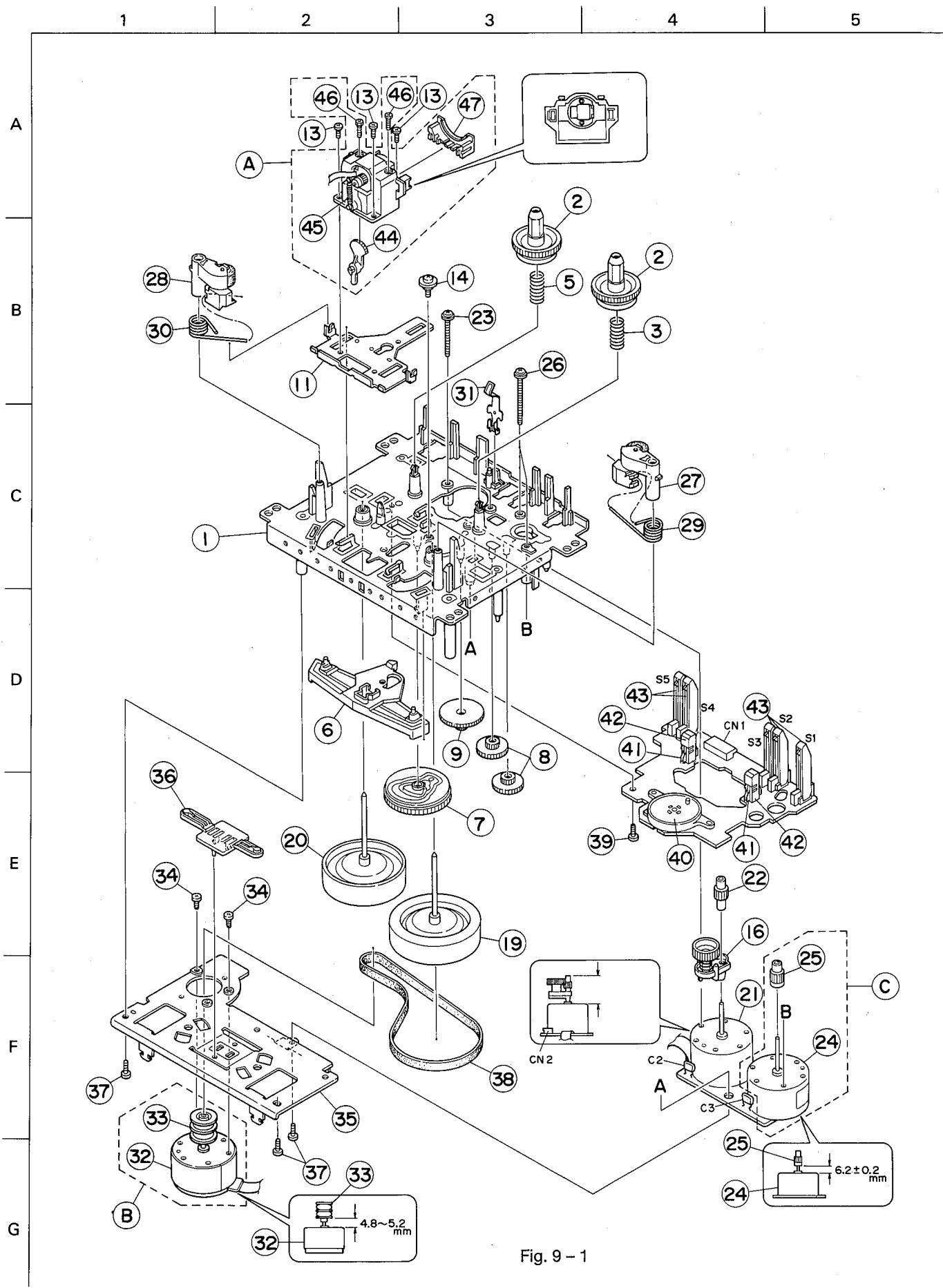


Fig. 9 - 1

● Mechanism Component Parts List

BLOCK NO. M2MM

△	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	A	VKS3629-00E	H.MOUNT ASS'Y	NO.44-47	1		
	B	BSI5B2LW-SA2	DC MOTOR ASS'Y	NO.32-33	1		
	C	MSN5D257A-SA1	DC MOTOR ASS'Y	NO.24-25	1		
1		VKS1126-00B	CHASSIS B ASS'Y		1		
2		VKS5428-00C	T-UP REEL ASSY		2		
	3	VKW5043-001	B.T. SPRING		1		
	5	VKW5043-001	B.T. SPRING		1		
	6	VKS3627-002	PINCH LEVER		1		
	7	VKS2224-002	CONTROL CAM		1		
	8	VKS5454-001	ACT GEAR(2)		2		
	9	VKS5455-001	ACT GEAR(3)		1		
	11	VKM3632-001	HEAD BASE		1		
	13	SDST2004Z	SCREW		3		
	14	VKZ4708-001	SPECIAL SCREW		1		
	16	VKS5430-00CMM	FR ARM ASS'Y		1		
	19	VKF3195-00A	FLYWHEEL(R)ASS'		1		
	20	VKF3197-00A	FLYWHEEL(L)ASS'		1		
	21	MMN-6F4RA38	D.C.MOTOR		1		
	22	VKS5432-001	REEL MOT. GEAR		1		
	23	VKZ4705-001	SPECIAL SCREW		2		
	24	MSN-5D257A	D.C.MOTOR		1		
	25	VKS5433-001	ACT.MOTOR GEAR		1		
	26	VKZ4705-002	SPECIAL SCREW		2		
	27	VKP4227-00B	PINCH R.(R) ASY		1		
	28	VKP4229-00B	PINCH R.(L) ASY		1		
	29	VKW5045-003	P.R. SP.(R)		1		
	30	VKW5046-003	P.R. SP.(L)		1		
	31	VKY4670-001	CASSETTE SPRING		1		
	32	MSI-5B2LW	D.C.MOTOR		1		
	33	VKR4632-003MM	MOTOR PULLEY		1		
	34	SPSP2603Z	SCREW		2		
	35	VKM3636-002	FM. BRACKET		1		
	36	VKS5327-005MM	THRUST PLATE		1		
	37	SBSF2608Z	SCREW		3		
	38	VKB3001-067	BELT		1		
	39	SDST2612Z	SCREW		1		
	40	VKS3616-00A	CAM SW UNIT		1		
	41	DN6851-H1	HALL IC		2		
	42	VKS3630-001MM	IC HOLDER		2		
	43	MXS00220MVLO	CASSETTE SWITCH		5		
	44	VKS3614-001	TURN OVER GEAR		1		
	45	VKW5063-003	HEAD SPRING		1		
	46	VKZ4629-003	SPECIAL SCREW		2		
	47	VKS3654-001	HEAD MT. COVER		1		
C	2	QFV41HJ-104ZM	TF CAPACITOR		2		
	CN 1	VMC0234-R15	CONNECTOR		1		
	CN 2	VMC0234-R08	CONNECTOR		1		



## 10 Packing Illustration and packing parts list

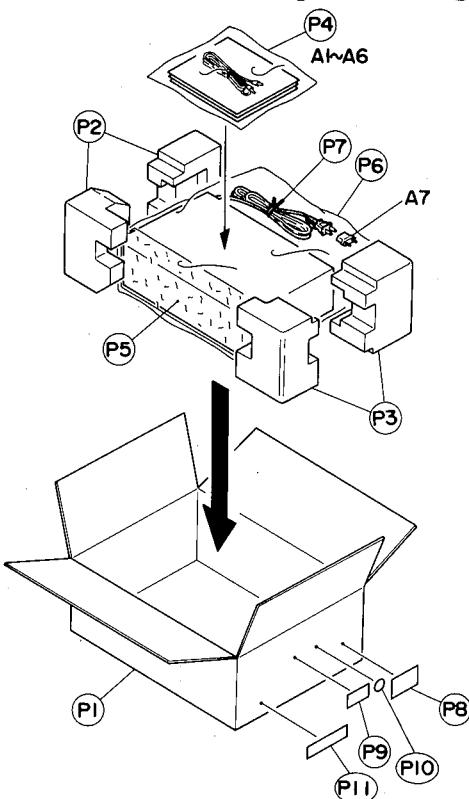


Fig. 10-1

### ● Packing Parts List

BLOCK NO. M3MM

REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
P 1	VPC2348-M002	PACKING CASE		1		TN
P 2	VPC2349-M002	CARTON		1		BK
P 3	VPH2472-001	CUSHION (L)		1		
P 4	VPH2472-002	CUSHION (R)		1		
P 5	VPE3005-007	POLY BAG	FOR INSTRUCTION	1		
P 6	VPK3001-012	SHEET		1		
P 7	E300196-031B	ENVELOPE	FOR SET UNIT	1		
P 8	Q04141H	WIRE CLAMP	FOR POWER CORD	1		
P 9	-----	SIRIAL TICKET		1		
P 10	-----	EAN/UPC LABEL		1		
P 11	QZLA001-011	MARK		1	E,ENG	
	VND4247-005	VOLTAGE LABEL		1	U,UT	

### ● Accessories

BLOCK NO. M3MM

REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
A 1	VMP0039-00D	PIN CORD		1		
A 2	VNN2348-271M	INSTRUCTIONS		1	EN	
	VNN2348-661M	INSTRUCTIONS		1	C,E,EN,G,U,J	
	VNN2348-671M	INSTRUCTIONS		1	A,B,J	
A 3	BT-56001-1	WARRANTY CARD		1	A	
	BT-20134	WARRANTY CARD		1	G	
	BT-20047F	WARRANTY CARD		1	J	
	BT20060	WARRANTY CARD		1	B	
	BT-52002-1	WARRANTY CARD		1	C	
	BT-20066A	WARRANTY CARD		1	B	
A 4	BT-20137	SERVICE NETWORK		1	J	
	BT-20071B	SVC CENTER LIST		1	C	
	BT-56002-1	SERVIS CENTER L		1	A	
A 5	E43486-340A	SAFETY I.SHEET		1	B	
	BT-20044G	SAFETY INST		1	J	
A 6	EWL805-012	1P PLUG CORD(JE)	FOR REMOTE	1		
A 7	V04062-001	CONTI.PLUG		1	U,UT	

**JVC**

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