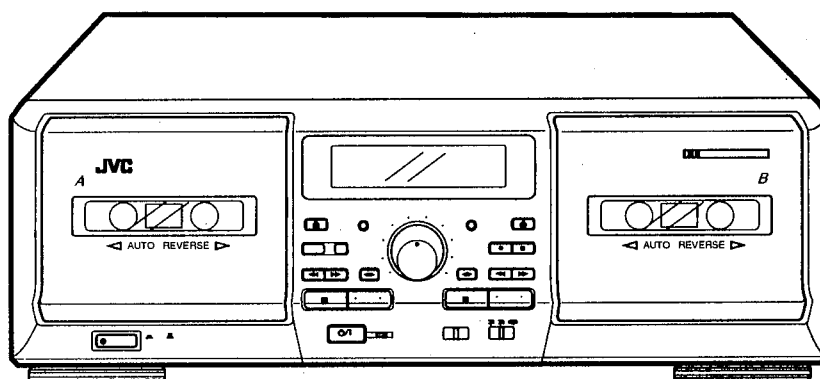


JVC

SERVICE MANUAL

DOUBLE CASSETTE DECK

TD-W5TH B/C/E/EN/G/J/U/UT



COMPU LINK
Component

Area Suffix

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

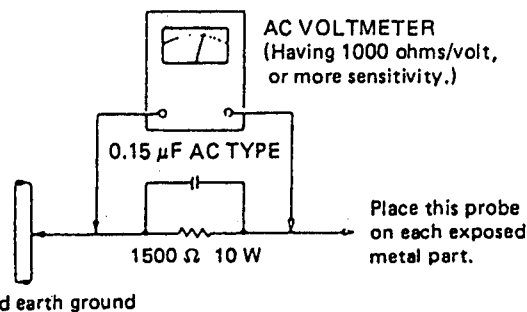
1. The design this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original 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 (▲) on the schematic diagram and 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

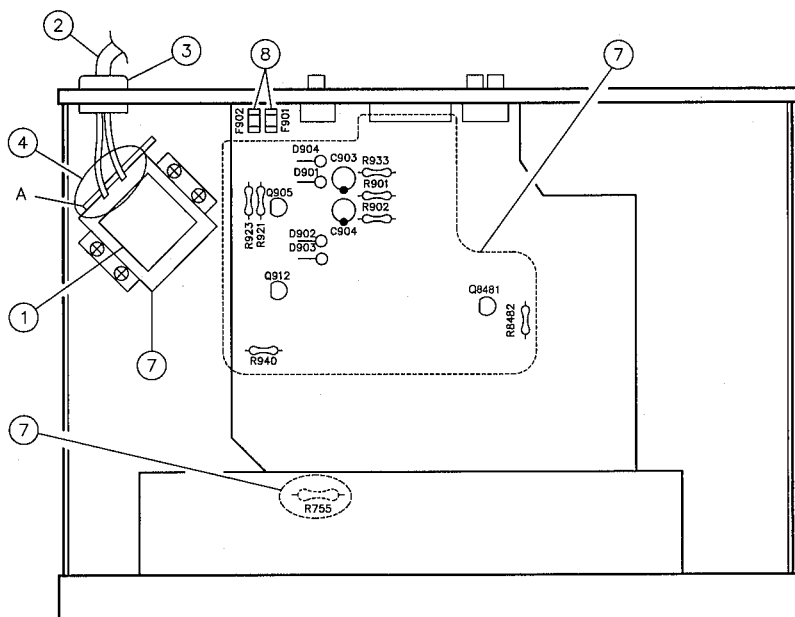
Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 ohms 10W resistor paralleled by a 0.15 μ F AC type capacitor between an exposed metal part and a known good earth ground. Measure the AC voltage 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
J/C	5216507	UL approved No.
B/E/EN/G	VTP52Z5-011F	
U/UT	VTP54G5-011F	

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

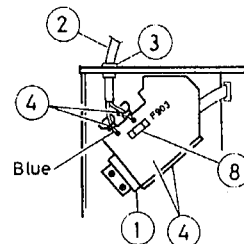
	Power cord	Attachment plug
J	SPT-1	KP-10W or SU-1P
C	SPT-1	KP-10W or SU-1P
E/EN/G	<VDE>	KP-419C or SE-1
B	BASEC BS6500	KP-610 3A or SE-5 3A
U/UT	<VDE>	KP-8K

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

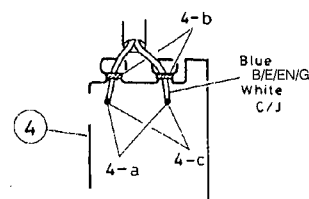
4. Wiring terminal

- When installing the power cord, wind it around the terminal by the end before soldering.
- Arrange the wires while binding them nearby the terminal.
- 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.

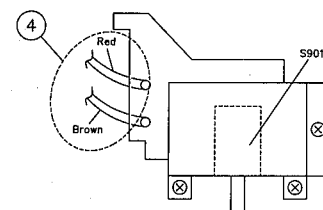
-----U/UT Version-----



-----A-----



-----B/E/EN/G 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 by JVC.

D901 D902 D903 D904 Q905 Q912 R755 R901
R902 R921 R923 R933 R940 R8482 C914 Q8481
TRANS

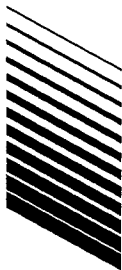
Other parts

C903 C904 2200uF/25V C/J version (VENT TYPE)

8. All fuses must securely be connected.

In B/E/EN/G/U/UT version, F901 and F902 must be specified by the rating of T800 mA shown on the surface as by the marking of  or . In U/UT version, F903 must be specified by the rating of T315 mA shown on the surface as well as by the marking of .

Instructions



JVC

SPECIFICATIONS

Type : Double cassette deck
Track system : 4-track, 2-channel
Tape speed : 4.8 cm/sec (1-7/8 inch/sec) (Normal)
Frequency response : 9.5 cm/sec (3-3/4 inch/sec) (High)
Type IV tape : 20-17,000 Hz
Type II tape : 30-16,000 Hz (±3dB)
Type I tape : 20-16,000 Hz (±3dB)
Type I tape : 30-15,000 Hz (±3dB)
S/N ratio : 58 dB (S = 315 Hz, K3 = 3%)
N = A-weighted, Type IV tape
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.
Improvement of : 4 dB at 10 kHz with Dolby C NR on.
MOL : 0.08% (WRMS), ±0.2% (DIN/IEC)
Wow and flutter : 40 dB (1 kHz)
Channel separation : 60 dB (1 kHz)
Cross-talk : k3; 0.8% (Type IV tape, 315 Hz, 0 VU)
Harmonic distortion : Deck A; METAFERM head for playback
Heads : x 1
Deck B; METAFERM head for recording/playback, 2-gap ferrite head for erasure; combination head x 1

Motors : Electric governed DC motor for capstan x 1
DC motor for reel x 1
DC motor for mechanism drive x 1
(For both decks A and B)
Fast forward/rewind : Approx. 110 sec. with C-60 cassette tape
Input terminals : Input sensitivity; 80 mV (0 VU)
LINE IN (x 1 circuit) : Input impedance; 50 kΩ
Output terminals : Output level; 300 mV (0 VU)
LINE OUT (x 1 circuit) : Output impedance; 5 kΩ
Other terminals : COMPU LINK-SYNCHRO x 2
Power requirement : AC 230 V, 50 Hz (B version)
AC 120 V, 60 Hz (J version)
Power consumption : With power on 15 W
With power standby 4.3 W
Dimensions : 400 x 127 x 360 mm
(15-3/4" x 5" x 14-3/16")
Mass : 4.6 kg (10.2 lbs.)
Accessories : Pin plug cord 2
Remote cable 1
Design and specifications are subject to change without notice.

TD-W5THBKB/J

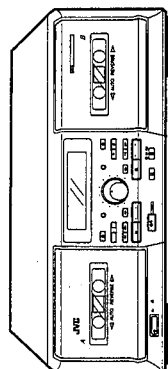
DOUBLE CASSETTE DECK

DOUBLE CASSETTE DECK

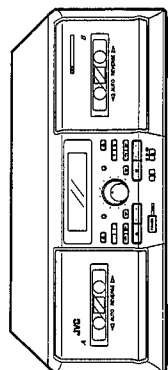
TD-W5THBK B/J

Area suffix
B U.K.
J U.S.A.

COMPU LINK
Component

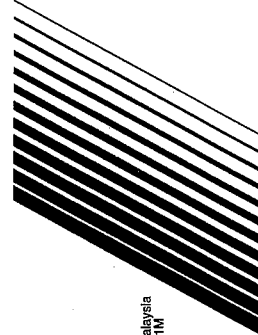


(B version)



(J version)

INSTRUCTIONS



JVC
VICTOR COMPANY OF JAPAN, LIMITED

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. _____

Printed in Malaysia
VNN2359-671M

© 1997 VICTOR COMPANY OF JAPAN, LIMITED

CAUTION
PREVENT ELECTRIC SHOCK
DO NOT OPEN

CAUTION
TO REDUCE THE RISK OF ELECTRIC SHOCK
DO NOT REMOVE COVER (OR BACK)
NO USER SERVICEABLE PARTS INSIDE
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING:
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK,
DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOIS-
TURE.

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

IMPORTANT (in the United Kingdom)
Mains Supply (AC 230 V ~, 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 fuse 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:

Blue to N
(Neutral) or Black
Brown to L
(Live) or Red

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.

Please study this instruction manual carefully before starting to operate the unit, in order to use the unit correctly. We take no responsibility for any problems resulting from misuse of this unit by operating this equipment other than instructed in this manual.

WARNING (in the United Kingdom)
Pre-recorded tapes, records or discs should not be re-recorded without the consent of the owners of copyright in the sound recording and in any copyright musical or literary work embodied in that recording as this constitutes an infringement of copyright.

determined by tuning 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.

INTRODUCTION

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.

CONTENTS

Features	3
Cautions	3
Connections	3
Cassette loading	5
Names of parts and their functions	5
Auto reverse operation	6
Playback	7
Recording	7
Compu link control system	8
Dubbing	10
Troubleshooting	11
Specifications	11
Back cover	11

FEATURES

- Double cassette mechanism for recording/playback and playback
Recording/playback mechanism in deck B and playback mechanism in deck A both with reverse head system.
 - Full logic mechanism
 - Dolby® HX PRO headroom extension
 - Dolby B & C noise reduction system
 - DDRP (Dynamics Detection Recording Processor) compatibility
The DDRP function is possible only when used with a suitable JVC CD player.
 - 2-color FL peak level indicator
 - Digital tape counter respectively for deck A and deck B
 - Synchro start (normal/high-speed) dubbing
 - Auto tape select mechanism (decks A and B)
 - COMPU LINK-3 compatible
- Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen. "DOLBY", the double-D symbol and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

COMPU LINK control system is the convenient system using COMPU LINK-3/SYNCHRO terminals on the rear panel. (See page 5 and 9.)

CAUTIONS

- Prevention of Electric Shocks, 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. (For the J version)
- Set the ① POWER switch to the OFF position when not in use. (For the B version)
- Do not handle the power cord with wet hands.
- When unplugging from the wall outlet, always grasp and pull the plug, not the power cord.
- Consult your nearest dealer when damage, disconnection, or contact failure is found with the cord.
- Do not bend the cord sharply, or pull or twist it.
- Do not modify the power cord in any manner.
- Do not remove screws to disassemble the unit and do not touch anything inside the unit.
- AC power cord (For the J 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)



Fig. 1

(For CANADA)
CAUTION
TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

(Pour le CANADA)
ATTENTION
POUR EVITER LES CHOCS ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

- Do not insert any metallic objects into the unit.
- Unplug the power cord when there is a possibility of lightning.
- If water gets inside the unit, unplug the power cord from the outlet and consult your dealer.
- Do not block the ventilation holes of the unit so that heat can escape. Do not install the unit in a badly ventilated place.
- 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.

D.D.R.P.
DYNAMICS DETECTION
RECORDING PROCESSOR

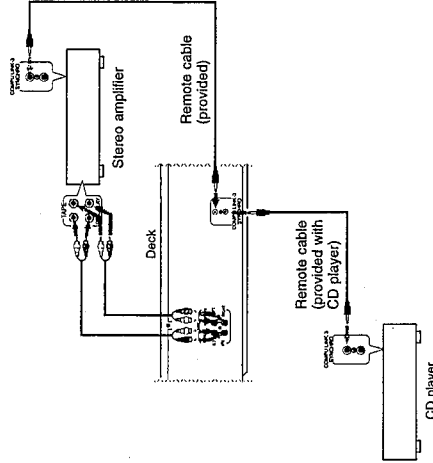
This product can be combined with a DDRP (DYNAMICS DETECTION RECORDING PROCESSOR) system (compact disc player + cassette deck, etc.) to enable setting the optimum recording level automatically. Refer to these instructions for details.

CONNECTIONS

- 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 while 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. In the B version, turn the deck $\text{\textcircled{P}}$ POWER switch ON. Otherwise, the automatic power on/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.

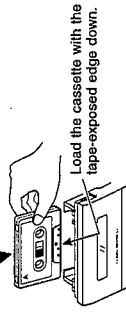


- Notes:**
- When making synchronized recordings, only a single deck should be connected to the amplifier.
 - If a component is not a JVC COMPU LINK component, bypass it when making the remote cable connections.
 - This deck can be connected with an amplifier and a CD player which have the COMPU LINK-1/SYNCHRO jacks for COMPU LINK performance. (See page 9 for details.)

- 2. Remote cable connection for COMPU LINK**
- By connecting a remote cable, COMPU LINK functions (automatic power on/STANDBY, automatic source selection, synchronized recording and DDRP 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.

CASSETTE LOADING

- Setting the $\text{\textcircled{P}}$ POWER switch to OFF during playback or recording may cause a malfunction. Always stop playback before setting the $\text{\textcircled{P}}$ POWER switch to OFF.



- Press the Δ (eject) button to open the cassette holder.
- Load a cassette as shown.
- Press the cassette holder to close it. Be sure to obtain the click sound to close the holder securely.

Notes for the B version:

- If the $\text{\textcircled{P}}$ POWER switch is set to OFF when not in stop mode, you might not be able to remove the cassette. If this happens, switch the power on again before attempting to remove the cassette.

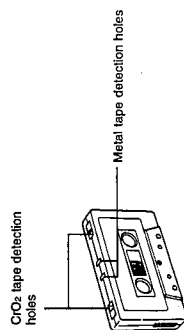
- Do not store cassette tapes where there is a magnetic field (e.g. near a TV, etc.) or in a place subject to high temperatures or humidity.

5. 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:
 - CrO₂ (chrome) tape (EQ: 70 μ s) Type IV
 - CrO₂ (chrome) tape (EQ: 70 μ s) Type II
 - Normal tape (EQ: 120 μ s) Type I

Some earlier types of metal and CrO₂ (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 ferrochrome tapes whose characteristics do not match this unit.



6. Operations

- Noise may be generated if the $\text{\textcircled{P}}$ POWER switch is switched OFF with the deck set to playback or recording mode. Before switching the $\text{\textcircled{P}}$ POWER switch OFF, confirm that the $\blacksquare$ (stop) button has been pressed. (B version)
- 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, for the J version, unplug the power cord and for the B version, set the $\text{\textcircled{P}}$ POWER switch to $\blacksquare$ OFF, so that the unit can function correctly.

2. Installation

- Avoid placing the unit on or adjacent to an amplifier, to prevent turn 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.
- Avoid installing the unit in a location subject to ambient temperatures exceeding 40 $^{\circ}\text{C}$ (104 $^{\circ}\text{F}$) (e.g. direct sunlight, near heaters, etc.) or less than 0 $^{\circ}\text{C}$ (32 $^{\circ}\text{F}$), excessive humidity, dust or vibrations.
- If this set is moved suddenly from a cold place (0 $^{\circ}\text{C}$) 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.

3. Cleaning the cabinet

Never use benzine or thinner for cabinet cleaning as they may damage the surface finish.

4. Cassette tape

- Loose tape may become tangled in the tape transport mechanism. Remove slack by winding the tape with a pencil. (Fig. 2)

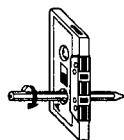


Fig. 2

Turn the pencil to tighten the tape.

- The use of C-120 (120 minutes turn around) or thinner tape is not recommended, since characteristic deterioration may occur.
- 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.

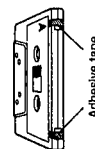
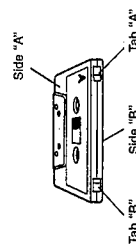
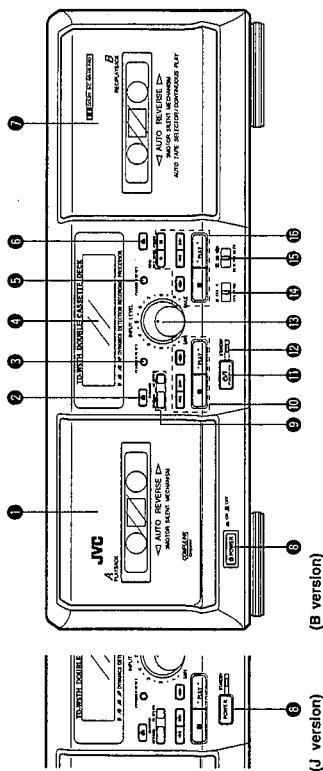


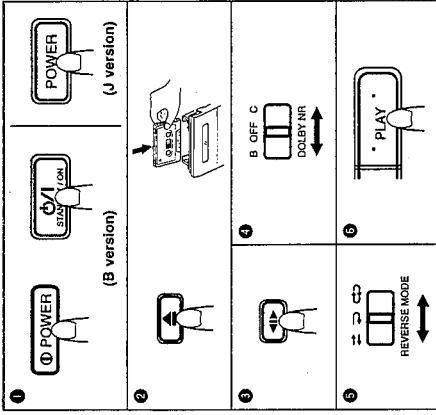
Fig. 3

NAMES OF PARTS AND THEIR FUNCTIONS



- 1 **Cassette holder (deck A)**
- 2 **⏏ (eject) button (deck A)**
- 3 **COUNTER RESET button (deck A)**
Press this button to set the digital counter to "00:00".
Even if the ⏏ (STANDBY/ON) is set to STANDBY, the counter value at that time is stored in memory.
- 4 **Indicators**
These indicators light according to the level of the signal being recorded or the level of the signal recorded on the tape.
Note:
0 dB : IEC (DIN) STANDARD LEVEL (250 nWb/m)
0 VU : Signal level at 160 nWb/m
- 5 **Dubbing mode indicators**
: Lights when in the normal-speed dubbing mode.
: Lights when in the high-speed dubbing mode.
"DUB >"
"DUB >>"
- 6 **Digital counter**
The counter reading increases while the tape is running from left to right and decreases when it is running from right to left.
- 7 **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.
: This lights when in the playback and record modes.
: This lights when the unit is in the record and record-pause modes; blinks during record muling.
: Pause indicator
: This lights when winding the tape from left to right.
: This lights when winding the tape from right to left.
: Indicates reverse mode.
- 8 **⏏ (eject) button (deck B)**
- 9 **COUNTER RESET button (deck B)**
- 10 **⏏ (eject) button (deck B)**
- 11 **POWER switch (ON/Standby) (J version)**
- 12 **POWER switch (ON/Standby) (B version)**
- 13 **DUBBING buttons**
Press to dub from deck A to deck B.
• NORMAL : Press to perform normal-speed dubbing.
• HI-SPEED : Press to perform high-speed dubbing.
- 14 **Cassette operation buttons (deck A)**
: Press to wind the tape quickly from right to left.
: Press to wind the tape quickly from left to right.
: Press to stop the tape.
: Press to play the tape.
: Press to change the direction of tape travel.
- 15 **⏏ switch (STANDBY/ON) (B version)**
- 16 **Power (STANDBY) Indicator**
Lights when in the power standby mode.
- 17 **DOLBY NR switch**
Set to B or C for recording using the Dolby NR system or for playing back a tape that was recorded using the Dolby NR system.
- 18 **REVERSE MODE switch**
Set to OFF when the Dolby NR system is not used.
Select the single side or full record/playback mode, or the continuous play mode.
: For single-side recording or playback.
: To play or record both sides A and B.
: To play sides A and B continuously.

PLAYBACK



Playback of deck A

Operate in the order of the numbers in the illustration.

- 1 Turn the power on.
- 2 Load a prerecorded cassette with side A facing out.
- 3 Select the side to be played back.
Side A... Forward direction (▶)
Side B... Reverse direction (◀)
- 4 Set the DOLBY NR switch to the same setting as when the tape was recorded.
- 5 Select the REVERSE MODE switch as desired.
- 6 Press the PLAY button of deck A to start playback.

When the deck contains a tape, it can be played back by just pressing the PLAY button in the B version only when the ⏏ (STANDBY/ON) switch is set to ON and the ⏏ switch is at STANDBY. In the J version, the tape can be played back by pressing the PLAY button only when the POWER switch is set to STANDBY.

Playback of deck B

Perform steps 1 to 6 of the above procedure for deck B.

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.

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 cassette in the other one can be 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.

AUTO REVERSE OPERATION

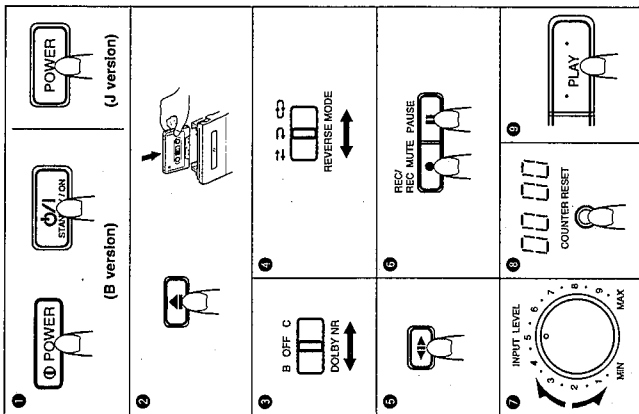
The auto reverse operation of this unit turns the tape transport over to the reverse of forward direction automatically when the tape reaches its end during recording or playback.

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.

RECORDING

Deck B only
Operate in the order of the numbers in the illustration.
• Make sure the safety tab of the cassette has not been broken off.



- Turn the power on.
- Load a cassette for recording.
- Set the DOLBY NR switch as required.
- Set the REVERSE MODE switch as desired.
- Select the side to be recorded.
- Press the **II** PAUSE button and **●** REC/REC MUTE button (record-pause mode).
- Adjust the recording level. (See the right column.)
- Press to "00 00".
- Press the **PLAY** button to start recording.

Notes:
• When the safety tabs are removed from a cassette tape, the tape cannot be recorded even if you try. Make sure that both tabs are still in place when performing full recording.
• When the tape is played or recorded in the reverse direction (side B), only side B is played back or recorded and then the tape stops automatically.

AUTOMATIC RECORD MUTING (DECK B)

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**

- When the undesired section comes during recording, press the **●** REC/REC MUTE button and release it.
- 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.
- Press the **PLAY** button to start recording again.

- B. To leave non-recorded sections of more than 4-5 seconds**

- 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.
- Press the **PLAY** button to start recording again.

- C. To leave non-recorded section of less than 4-seconds**

When the undesired section comes during recording...
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 **II** PAUSE button to enter the record-pause mode.

- 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 6, set the **INPUT LEVEL** control to **MIN**.

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

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/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 **STANDBY**, the source unit is automatically switched **STANDBY**. (In the **B** version, it is necessary to turn the deck **II** POWER switch ON.)

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 one-touch of the source selector button of JVC's amplifier or receiver.

By doing this, the corresponding component will start playing automatically.

The source select 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 deck starts recording in synchronism with the CD player. Perform the synchronized recording as follows:

1. Set the cassette deck to the record-pause mode in accordance with the recording procedures on page 8.
2. If you want the programmed recording, program the desired tunes in any order you wish to hear.
3. 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.

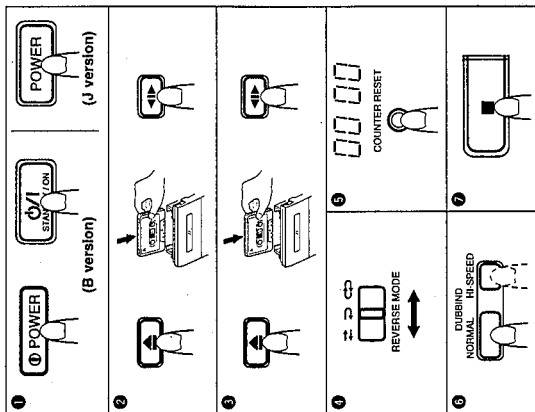
DDRP (Dynamics Detection Recording Processor) recording
The DDRP function makes possible fully automatic recording when used with a suitable JVC CD player. When the DDRP button of a suitable JVC CD player is pressed, the recording level is first adjusted automatically, then recording starts; it is not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

Notes:

- Synchronized recording or DDRP recording stops automatically when the CD player stops playing.
- To cancel synchronized recording or DDRP recording, press the STOP button of the CD player or cassette deck.
- 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.
- 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 the components, cancel synchronized recording or DDRP recording first.
- The INPUT LEVEL control does not function during DDRP recording.

DUBBING

- **Synchro dubbing**
Operate in the order of the numbers in the illustration.



1. Turn the power on.
2. Load a prerecorded tape with side A facing out into deck A, and press the ◀▶ (direction) button to select the travel direction.
3. Load the blank tape with side A facing out into deck B, and press the ◀▶ (direction) button to select the side to be recorded.
4. Select the REVERSE MODE.
5. Press to "00 00". (Deck B)
6. Press the DUBBING (NORMAL or HI-SPEED) button to start dubbing.
7. Press the ■ (stop) button of deck B to stop dubbing.

When deck B stops, the dubbing mode is automatically released.

- **Synchro record muling**
When deck A stops or enters any mode other than the playback mode during dubbing, deck B enters the record mule operation automatically and then enters the record-pause mode.
- **Before pressing the DUBBING button**
Confirm that deck B is in the stop mode before starting dubbing.

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.

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

1. Press the ● REC/REC MUTE button when finished dubbing a tune. Deck B automatically enters the record muling mode and leaves a non-recorded section of about 4-seconds then enters the record-pause mode.
2. 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.
3. Press the same DUBBING button pressed before the pause again, and dubbing will start.

Notes at dubbing

1. Normal-speed dubbing is recommended to obtain good sound quality.
2. 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.

MAINTENANCE

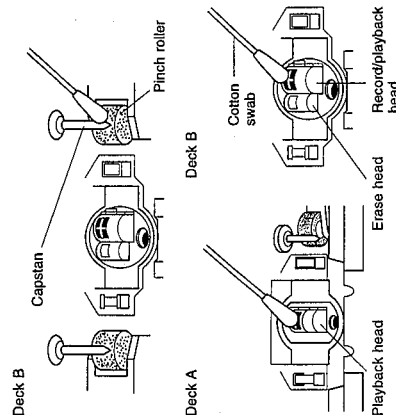
The importance of cleaning

When the tape is moving, magnetic powder and dust naturally accumulate on the heads, capstan 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 capstan



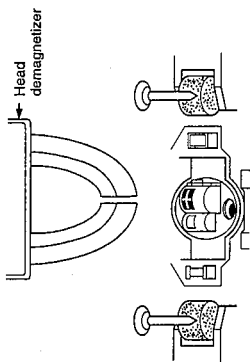
Wipe the heads, the capstan, etc. with a cotton swab with its tip dipped in alcohol. For effective cleaning, use a cleaning kit available from your audio store. After cleaning, be sure that the cleaning fluid has completely dried before loading a cassette.

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).

Example: Deck B



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?
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?

1 Location of Main Parts

■ Top view

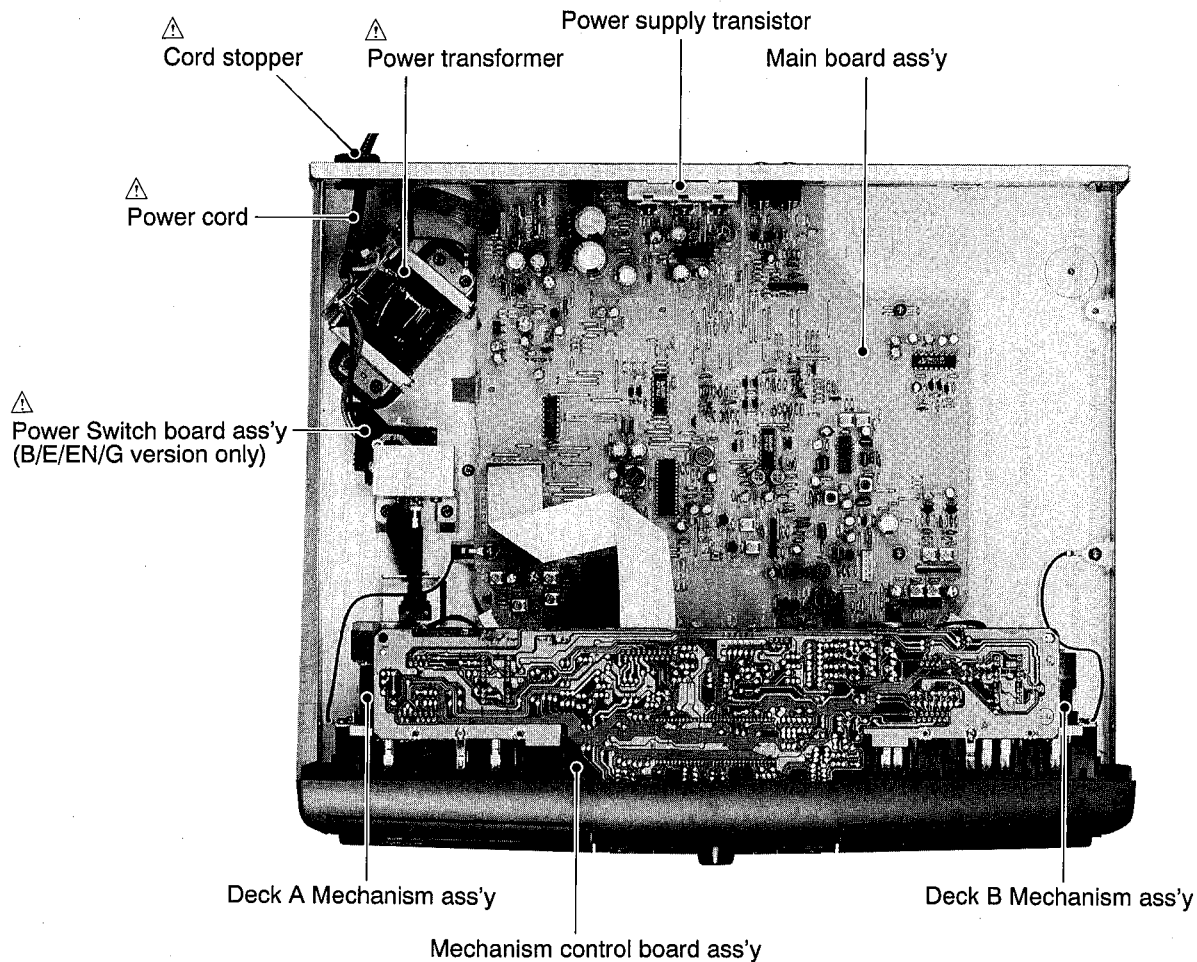


Fig. 1 - 1

■ Mechanism

◆ Top view

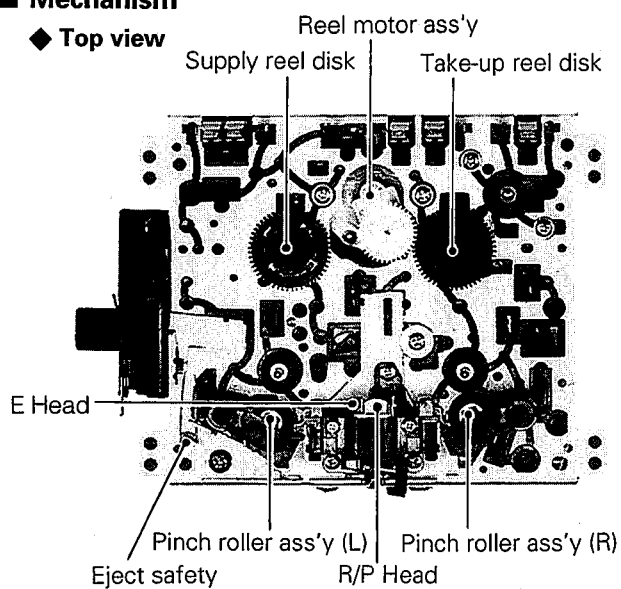


Fig. 1 - 2

◆ Bottom view

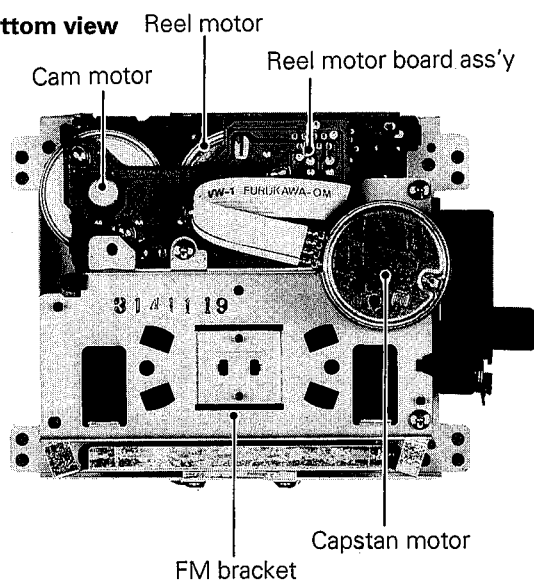


Fig. 1 - 3

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 ① 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).

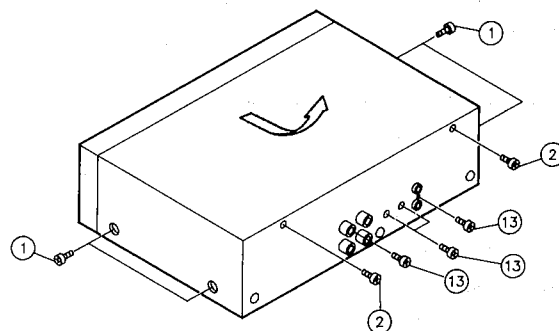


Fig. 2-1

◆ Front panel assembly (Fig. 2-2 to Fig. 2-3)

1. Remove the top cover as described in above.
2. Remove three screws ③ retaining the front panel assembly from bottom side.
3. Remove two screws ⑥ remove the two GND wire from mechanism assembly A and B.
4. Disconnect all connectors between the mechanism assembly, front panel assembly and the main board assembly.
5. Remove three screws ⑮ retaining the power switch assembly unit and remove switch assembly with switch arm from switch lever (B/E/EN/G VERSION).
6. Release the front panel assembly from two pawls in the front and bottom sides and draw it to the front side.

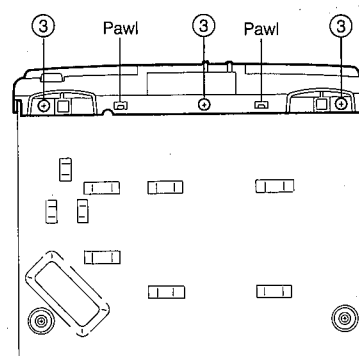
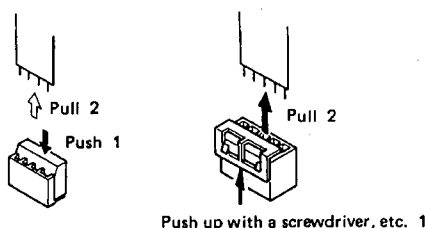


Fig. 2-2



◆ Mechanism assembly

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

1. Remove four screws ④ and four screws ⑤ from the corners of the mechanism. (Fig. 2-5)
2. Remove one screw ⑭ retain the FL holder, and disconnect CN702 from mechanism board.
3. Top side connector of the cam switch board (CN2). Connector of the motor board (CN1). (Board to board connector) (See Fig. 2-4 and Fig. 2-8)
4. Open the door and remove the mechanism assembly. (At this time, door lock arm spring and door lock arm are removed together with.)

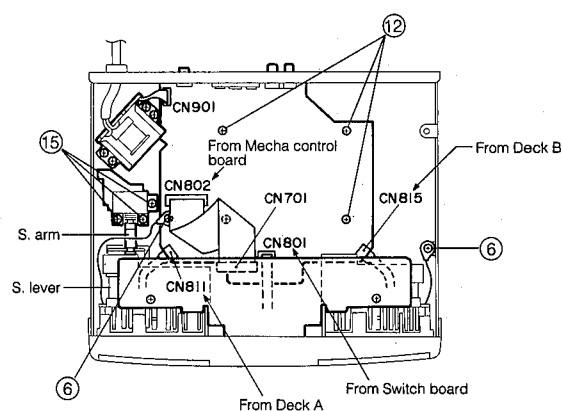


Fig. 2-3

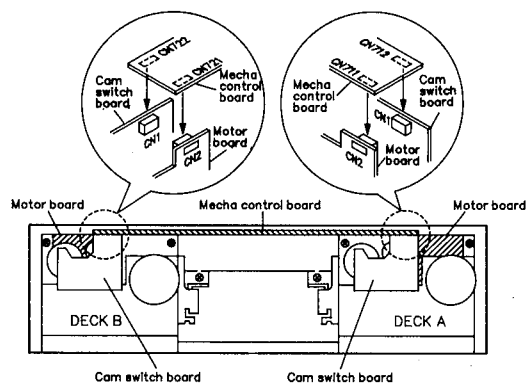


Fig. 2-4

◆ Eject arm assembly (Fig. 2-8)

1. Remove two screws ⑦ retaining the eject arm assembly and pull it out.

◆ Mechanism holder and door assembly (Fig. 2-8)

1. Remove the mechanism holder.
2. Remove the arm shaft the cassette holder (door assembly) from the mechanism holder. (The door spring is engaged with the door side by longer side.) (see Fig. 2-7)
3. Remove the eject spring from lock lever and mechanism assembly. (see Fig. 2-7)

◆ Damper assembly (Fig. 2-6)

1. Remove the damper assembly (for easy reassembling work.)
Insert an ordinary (–) screwdriver or the like in to the gap between the damper and the front panel to disengage the pawl, and draw the damper assembly outwards. (Fig. 2-6)

2. Remove the arm shaft of the cassette holder (door assembly) from the mechanism holder. (The door spring is engaged with the door side by the longer side.) (see Fig. 2-7)
3. Remove the eject spring from lock lever and mechanism assembly. (see Fig. 2-7)

◆ Key switch board assembly (Fig. 2-8)

1. After removing mechanism holder, proceed to the following steps.
2. Pull out the INPUT volume knob.
3. Remove six screws ⑨ retaining the Switch & Volume P. C. board, and lift up it to remove input volume knob with CN602.
4. Remove one screw ⑩ retaining the DOLBY NR and reverse switch and then control button.

◆ Main board assembly (see Fig. 2-3, Fig. 2-1)

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

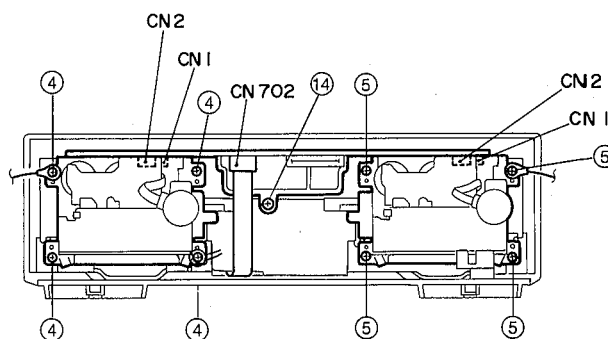


Fig. 2-5

How to remove damper

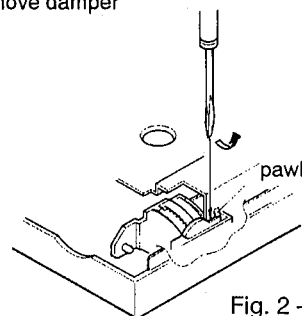


Fig. 2-6

How to engage the door and eject spring

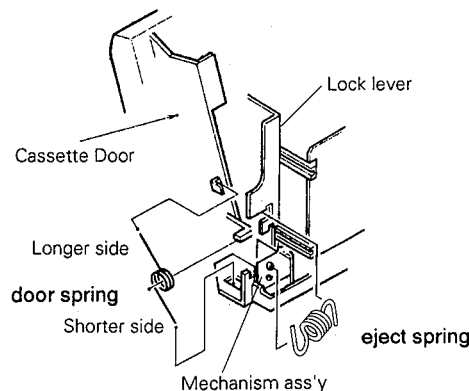


Fig. 2-7

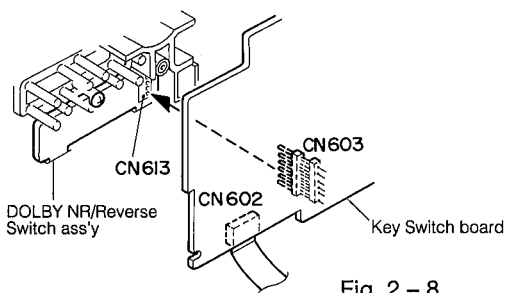
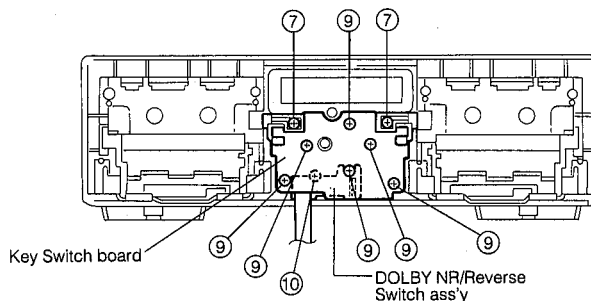


Fig. 2-8

● Reassembling procedure of the front panel ass'y

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

■ 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.

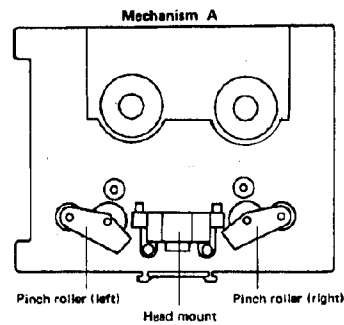


Fig. 2 - 9

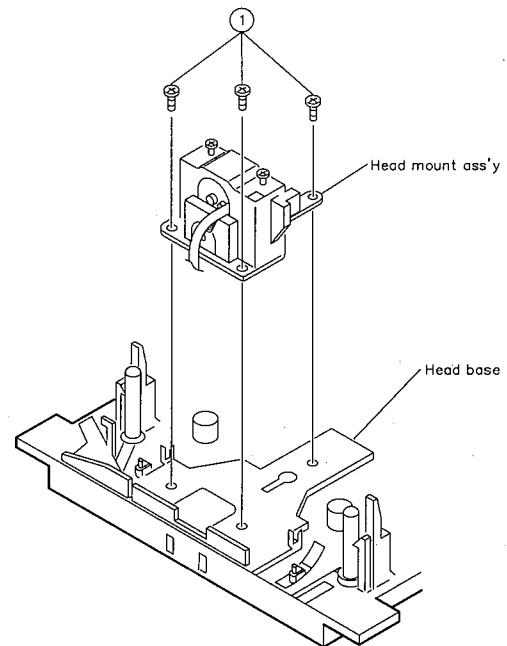


Fig. 2 - 10

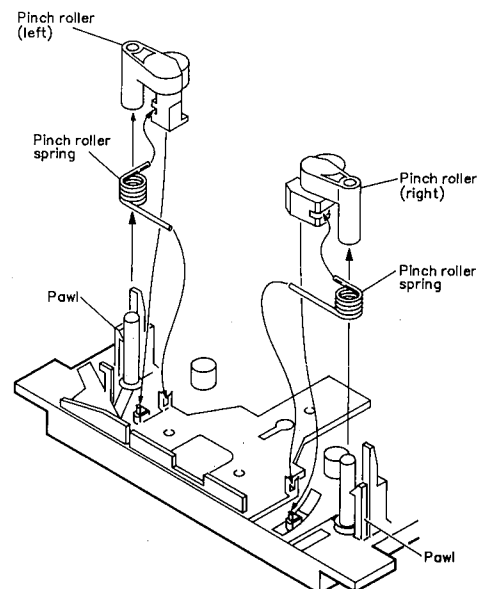


Fig. 2 - 11

◆ 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.

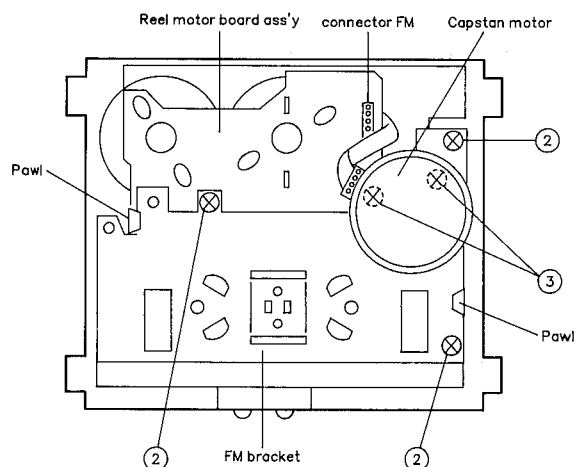


Fig. 2 - 12

◆ 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.

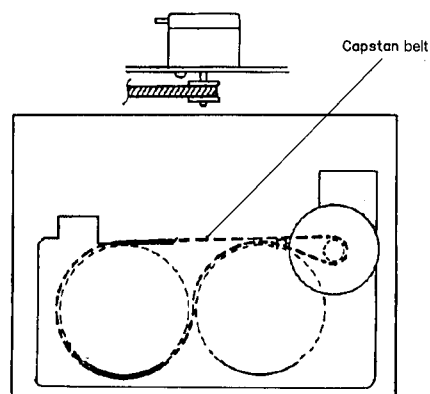


Fig. 2 - 13

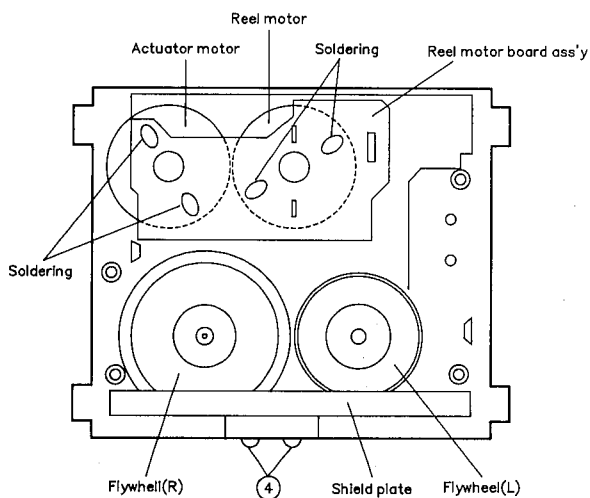


Fig. 2 - 14

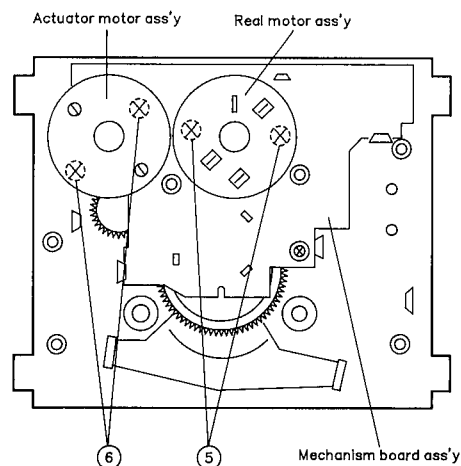


Fig. 2 - 15

◆ 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.

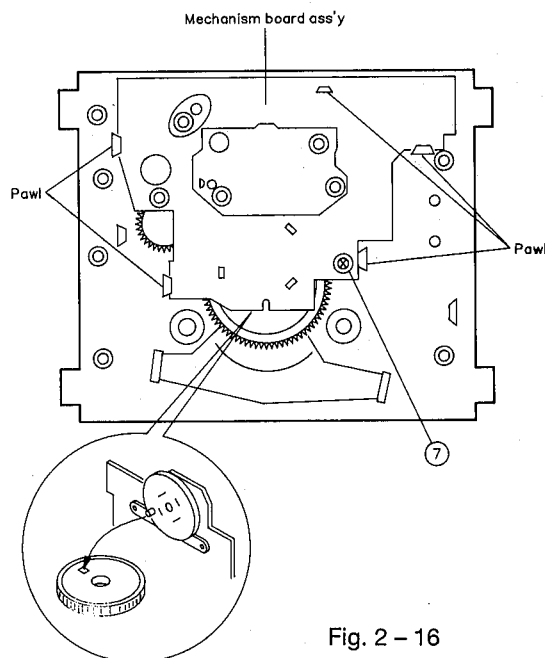


Fig. 2 - 16

◆ 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 ① zone (groove) of control cam to ① position of Pinch lever and ② zone (groove) to ② 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).

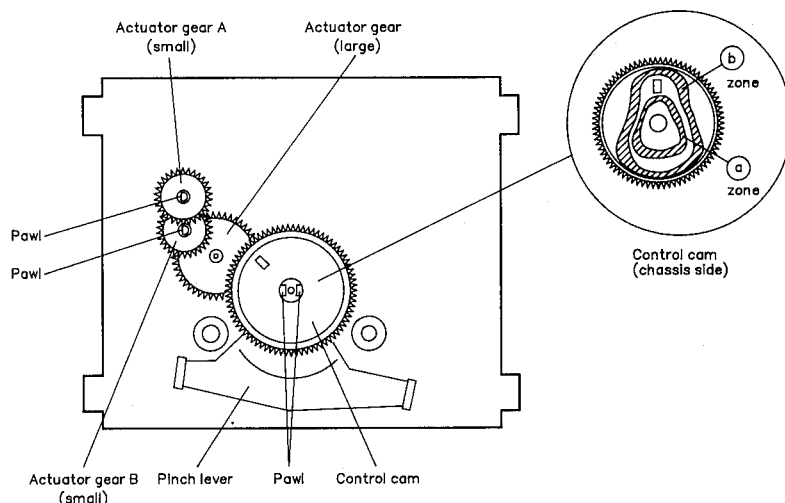


Fig. 2 - 17

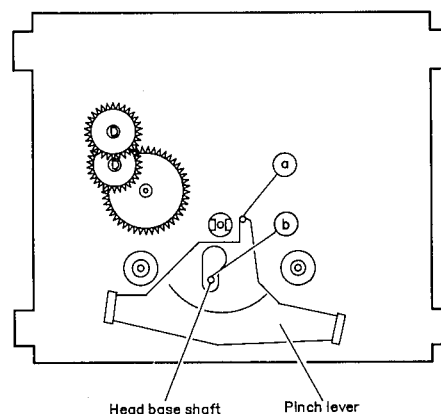


Fig. 2 - 18

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 and oscilloscope
- (4) Standard tapes
VT712 or VTT712 (tape speed, wow and flutter measurement)
VT727 or VTT727 (400Hz reference level)
VT742 (63Hz, 1kHz, 12.5kHz) (play back frequency)
VT705 or VTT704 (12.5kHz) (azimuth)
- (5) Recording reference tapes
AC-225 (Normal), AC-514 (TDK SA) (CrO₂)
AC-713 (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 meter

(10) Frequency counter

(11) M300 gauge

(12) Band pass filter

◆ Power supply voltage (your local voltage)

AC230V, 50Hz : 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

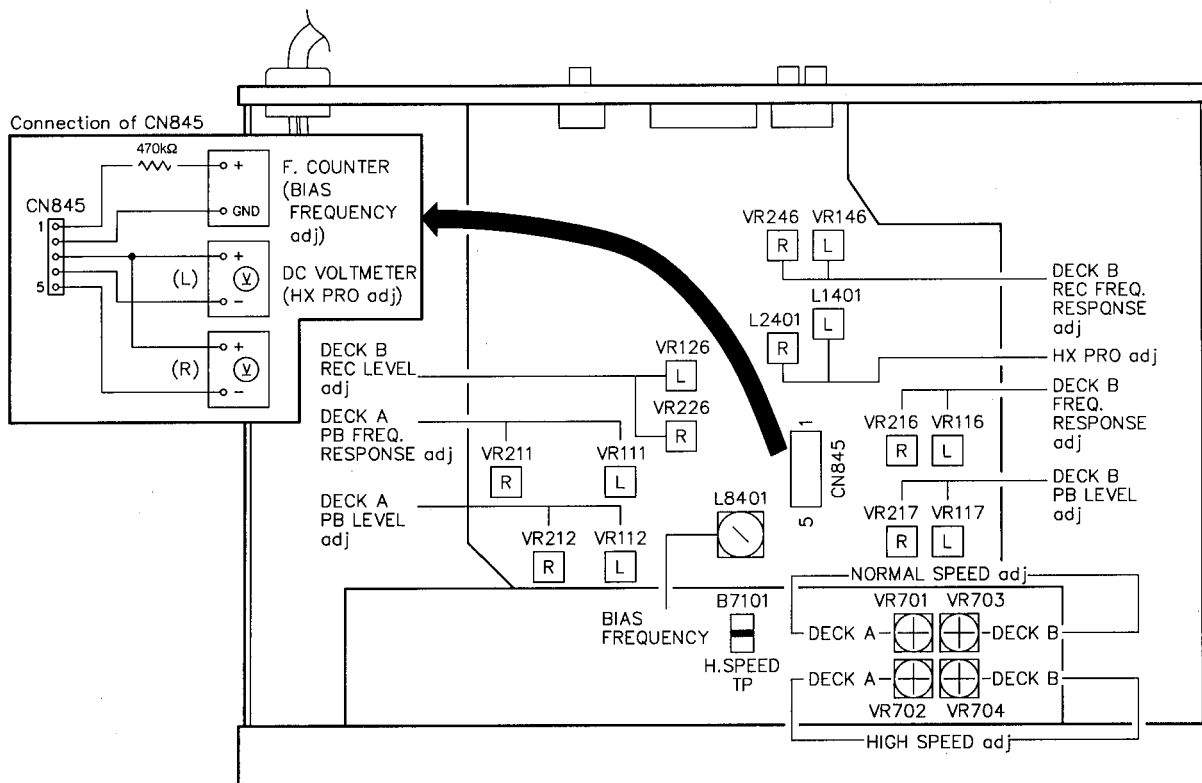
DOLBY NR : OFF

REVERSE MODE : 

(14) Standard level (0 dBs) is 0.775 V unless otherwise specified.

(15) The reference value of recording input level is LINE IN level of a signal whose LINE OUT level is -8 dBs.

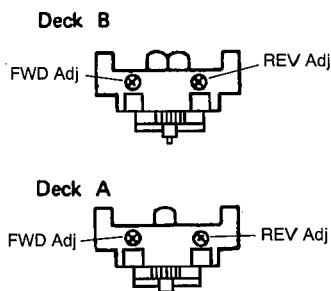
◆ Location of Adjustment



◆ Mechanism Adjustment

* Adjustments required after head replacement are marked with an asterisk(*).

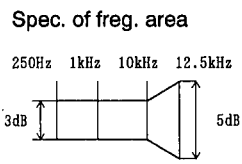
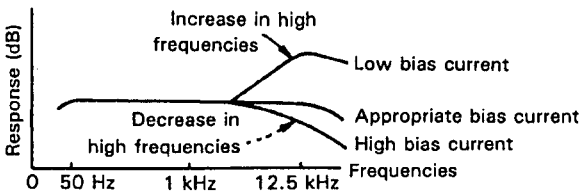
Before using test tapes, tape transporting past should be demagnetized.

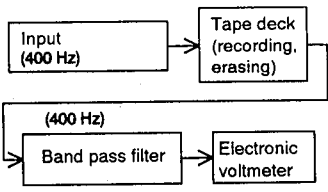
Item	Conditions	Adjustment and Confirmation	Standad value	Adjust point
* Adjusting Head azimuth	Test tape : VT705 or VTT704 (12.5kHz)	1. Connect an electronic voltmeter to the LINE OUT terminals. 2. Play back the VT705 (12.5kHz) test tape. 3. Adjust the head angle with the screw (FWD and REV) until the reading of the electronic voltmeter becomes maximum for both channels (phase difference must be "0".) 4. Repeat the adjustment in FWD and REV modes as well as for the decks A and B.	Maximum	Screws (FWD, REV) 
Adjusting tape speed (motor speed)	1. Test tape : VT712 or VTT712 (3kHz) After adjustment of normal speed, then adjust high speed. 2. For high speed adjustment, set the deck for play mode and shortcircuit between B7101 and GND.	1. Connect a frequency counter to the LINEOUT terminals. 2. Perform normal speed adjustment first, and then do high speed adjustment 3. Play back the VT712 test tape. 4. Adjust for deck A : Adjust VR701 for normal speed at 3000Hz, and VR702 for high speed at 6000Hz Adjust for deck B : Adjust VR703 for normal speed at 3000Hz, and VR704 for high speed at 6000Hz. 5. Difference in FWD and REV frequencies must be less than 48Hz.	Normal speed: Deck A , B ; $3000 \pm 15\text{Hz}$ High speed : Deck A , B ; $6000 \pm 30\text{Hz}$	Deck A : Normal; VR701 High ; VR702 Deck B ; Normal; VR703 High; VR704
Checking wow and flutter	Test tape : VT712 or VTT712 (3kHz)	Connect a wow and flutter meter to LINE OUT terminals. Play back the VT712 test tape. Check to see if the reading of the meter is within 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.	$2.6 \times 10^{-3} \sim 6.9 \times 10^{-3} \text{ N/m}$ (27 ~ 70 g/cm)	
Checking back tension	Torque gauge: TW2111 (FWD) TW2121 (REV)	Employ a torque testing cassette tape (TW2111[FWD]/TW2121[REV]) for the checking, play the torque gauge and read the back tension value to confirm that the back tension is 1 ~ 5 g·cm	$0.1 \times 10^{-3} \sim 0.39 \times 10^{-3} \text{ N/m}$ (1 ~ 4 g·cm)	
Checking FF/REW time	Tape : AC-225	Play back AC-225 tape in FF/REW mode, check that the FF/REW time during tape running from begin to end.	less than 120sec	

◆ 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 $\pm$ 2 dB
			5kHz, Cal. - 20dB	+3.5dB $\pm$ 1.5 dB
		DOLBY C (Rec)	1kHz, Cal.	0 dB $\pm$ ^{0.5} _{1.0} dB
			1kHz, Cal. - 40	+16.2 dB $\pm$ ³ ₂ dB
			5kHz, Cal. - 20	+2.9 dB $\pm$ 2.5 dB
			1kHz, Cal.	0 dB $\pm$ 1 dB

Item	Conditions	Adjustment and Confirmation	Standard	Adjusting
*2 Play back level adjust- ment	Test tape : VT727 or VTT727 400Hz	Play back VT727 in FWD mode, then confirm that the level at LINE OUT is -4.5 dBs $\pm$ 0.5 dB. Adjust VR112/VR212 and VR117/VR217 so that LINE OUT level becomes -4.5 dBs. Difference level between Lch and Rch must less than 0.5 dB at LINE OUT. Confirm that difference playback level between FWD and REV modes within 1.5dB	LINE OUT -4.5 Bs $\pm$ 0.5 dB	Deck  L : VR117 R : VR217 Deck  L : VR112 R : VR212
*3 Playback frequency response adjustment	Test tape VT742 (63Hz, 1kHz, 12.5kHz)	Play back VT742 test tape, and adjust VR116, VR216 (deck ) and VR111, VR211 (deck ) so that deviation of 12.5 kHz to that of 1 kHz is 0.5 $\pm$ 0.5 dB (deck ) and 0 $\pm$ 0.5 dB (deck ) Then, play back VT742 test tape to confirm that deviation of 63 Hz to 1kHz is +2 $\pm$ 3 dB.	Difference level of 12.5 kHz from 1 kHz within 0 $\pm$ 0.5 dB (deck ) and 0.5 $\pm$ 0.5 dB (deck ) Difference level of 63 Hz from 1 kHz within +2 $\pm$ 3 dB.	Deck  L : VR116 R : VR216 Deck  L : VR111 R : VR211
*4 Bias frequency adjustment	Frequency counter TP: CN845 pin 1 Tape : Metal Mode: REC Frequency counter Input impedance: more than 470k Ω (see page 16)	Connect frequency counter to the pin 1 of CN845 and adjust L8401 so that the counter reads 95 kHz.	95 kHz $\pm$ 1 kHz	Deck  L8401
*5 Slave oscillation (HX PRO) adjustment	DC.Voltmeter TP: CN845 Lch (pin 3 - 4) Rch (pin 3 - 5)	This step must be performed after the bias frequency adjustment. Load a metal tape and set the deck to the recording mode. Adjust L1401 and L2401 to minimize respective DC voltage of CN845 (pin 3 - 4) at Lch and (pin 3 - 5) at Rch.	Minimum	Deck  L : L1401 R : L2401

Item	Conditions	Adjustment and Confirmation	Standard	Adjusting
6 Checking recording bias current (Value appearing here are just for reference)	Measuring point: Both ends of 100 Ω resistor connected to the R/P head terminal	Connect 100 Ω resistor to the R/P head in series, and measure voltage at both ends of the resistor to check to see if measured voltage meets the following requirements on both channels. - In recording with metal tape, the bias current is 1300 μA (1.3 mA). - In recording with CrO₂ tape, the bias current is 730 μA (0.73 mA). - In recording with normal tape, the bias current is 590 μA (0.59 mA).	Reference values Metal tape: 1300 μ A CrO ₂ tape: 730 μ A Normal tape: 590 μ A	
7 Input sensitivity level check		1.) Supply at 1kHz signal to the LINE IN terminals at -19 dBs, confirm that LINE OUT level is -8 dBs. 2.) Confirm that difference level between left and right within 2dB.	LINE IN : -19 dBs $\pm$ 2 dB	
*8 REC/PB frequency response adjustment	LINE INPUT level: Ref. -20 dB (-40 dBs $\pm$ 2 dB) NR switch : OFF 	This step must be performed after the slave oscillation adjustment. Record the 1.25 kHz and 12.5 kHz signals at the level of -20 dB (20 dB lower than the reference level). Playing back the recorded signals, adjust VR146 and VR246 so that the level of the 12.5 kHz signal is 0 $\pm$ 0.5 dB to the level of the 1.25 kHz. 	12.5 kHz level: 0 $\pm$ 0.5 dB higher than the 1 kHz level.	Deck  L : VR146 R : VR246
*9 REC/PB sensitivity adjustment	NR switch : Off TAPE switch: Normal LINE INPUT level: Ref. -20 dB	1) Apply 400 Hz signal to the LINE IN terminals, record 400 Hz signal at -20 dB input for both (L and R) channels on a normal tape. 2) While recording the recorded signal and play it back, adjust VR126(L) and VR226(R) so that difference between the recording/playback level and the reference level is -28 dBs $\pm$ 0.5 dB on both channels.	Normal: -28 dBs $\pm$ 0.5 dB CrO ₂ /Metal: -28 dBs $\pm$ 0.5 dB (Difference level between L and R within 0.5 dB)	Deck  L : VR126 R : VR226

Item	Conditions	Adjustment and Confirmation	Standard	Adjusting
10 Checking dubbing calibration	Test Tape : VT742 Normal Tape : AC-225	1. Insert test tape VT742 into deck [A] and AC-225 into deck [B]. 2. Dubbing the 1kHz signal of VT742 to AC-225 during high speed mode. 3. Playback the dubbing part of AC-225 (deck [B]) and confirm that output level of 1 kHz is -28 dBs +1.5/-2 dB on both channels through the band pass filter.	-28 dBs +1.5/-2 dB (Difference level between L and R within 3 dB)	
11 Maximum output 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 8 dBs	
12 Checking record/playback distortion		1) Record a 1 kHz, -20 dB signal to LINE IN terminals. 2) Play back the recorded part, Check the output with a distortion meter to see if the value conforms to the standard value.	Normal: Less than 2% CrO ₂ /Metal: Less than 3%	
13 Checking signal to noise ratio recording playback		1) Record a 1 kHz, -20 dB signal, Stop the input by disconnecting from the terminal to perform non-signal recording. 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.	Normal, More than 40 dB CrO ₂ /Metal More than 41 dB	
14 Checking erasing coefficient		1. Apply a 400 Hz, +20 dB signal to the LINE terminals. 2. Perform recording with the signal enhanced by 20 dB. 3. Erase a part of the recording. 4. Measure the output difference between the erased part and non-erased part to compare with an electronic voltmeter. For the measurement using a metal tape, connect a band pass filter between the deck and the electronic voltmeter.	Line out: More than 55 dB 	

Item	Conditions	Adjustment and Confirmation	Standard	Adjusting																														
15 Checking MPX filter effect	Signal input: LINE IN Input LEVEL: Maximum	1. Connect an electronic voltmeter and oscilloscope to the LINE OUT terminals. 2. Set the INPUT volume to the maximum position. 3. Supply 1 kHz and 19kHz signals refetence level to the LINE IN terminals respectively in record/pause mode. 4. While recording monitor the 1kHz and 19kHz signals respectively, confirm that level difference between 19 kHz signal to 1 kHz signal is more than 30 dB.	19 kHz level: -30 dB (including 18.99 ~ 19.01 kHz) lower than 1 kHz signal																															
16 Checking peak indicator Calibration	Operation mode: REC/PAUSE Input frequency:1 kHz Signal input:LINE IN LINE OUT:-4 dBs (Indicator reads at 0 position)	1. Connect an electronic voltmeter to the LINE OUT terminals. 2. Supply the 1 kHz reference signal (-4 dBs) to the LINE IN terminals. 3. While rising the input signal level gradually, check the signal level at the LINE OUT so that each peak indicator is turned on with the output level specified on the right.	<table><tr><th>Indicator</th><th>Signal level (LINE OUT)</th></tr><tr><td>- 30</td><td>- 34 dBs ± 5 dB</td></tr><tr><td>- 20</td><td>- 24 dBs ± 4 dB</td></tr><tr><td>- 15</td><td>- 19 dBs ± 3 dB</td></tr><tr><td>- 12</td><td>- 16 dBs ± 3 dB</td></tr><tr><td>- 10</td><td>- 14 dBs ± 2 dB</td></tr><tr><td>- 8</td><td>- 12 dBs ± 2 dB</td></tr><tr><td>- 6</td><td>- 10 dBs ± 2 dB</td></tr><tr><td>- 4</td><td>- 8 dBs ± 1 dB</td></tr><tr><td>- 2</td><td>- 6 dBs ± 2 dB</td></tr><tr><td>0</td><td>- 4 dBs ± 2 dB</td></tr><tr><td>+ 2</td><td>- 2 dBs ± 2 dB</td></tr><tr><td>+ 4</td><td>0 dBs ± 2 dB</td></tr><tr><td>+ 6</td><td>+ 2 dBs ± 2 dB</td></tr><tr><td>+ 8</td><td>+ 4 dBs ± 2 dB</td></tr></table>	Indicator	Signal level (LINE OUT)	- 30	- 34 dBs ± 5 dB	- 20	- 24 dBs ± 4 dB	- 15	- 19 dBs ± 3 dB	- 12	- 16 dBs ± 3 dB	- 10	- 14 dBs ± 2 dB	- 8	- 12 dBs ± 2 dB	- 6	- 10 dBs ± 2 dB	- 4	- 8 dBs ± 1 dB	- 2	- 6 dBs ± 2 dB	0	- 4 dBs ± 2 dB	+ 2	- 2 dBs ± 2 dB	+ 4	0 dBs ± 2 dB	+ 6	+ 2 dBs ± 2 dB	+ 8	+ 4 dBs ± 2 dB	
Indicator	Signal level (LINE OUT)																																	
- 30	- 34 dBs ± 5 dB																																	
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- 15	- 19 dBs ± 3 dB																																	
- 12	- 16 dBs ± 3 dB																																	
- 10	- 14 dBs ± 2 dB																																	
- 8	- 12 dBs ± 2 dB																																	
- 6	- 10 dBs ± 2 dB																																	
- 4	- 8 dBs ± 1 dB																																	
- 2	- 6 dBs ± 2 dB																																	
0	- 4 dBs ± 2 dB																																	
+ 2	- 2 dBs ± 2 dB																																	
+ 4	0 dBs ± 2 dB																																	
+ 6	+ 2 dBs ± 2 dB																																	
+ 8	+ 4 dBs ± 2 dB																																	

4 Wiring Connections

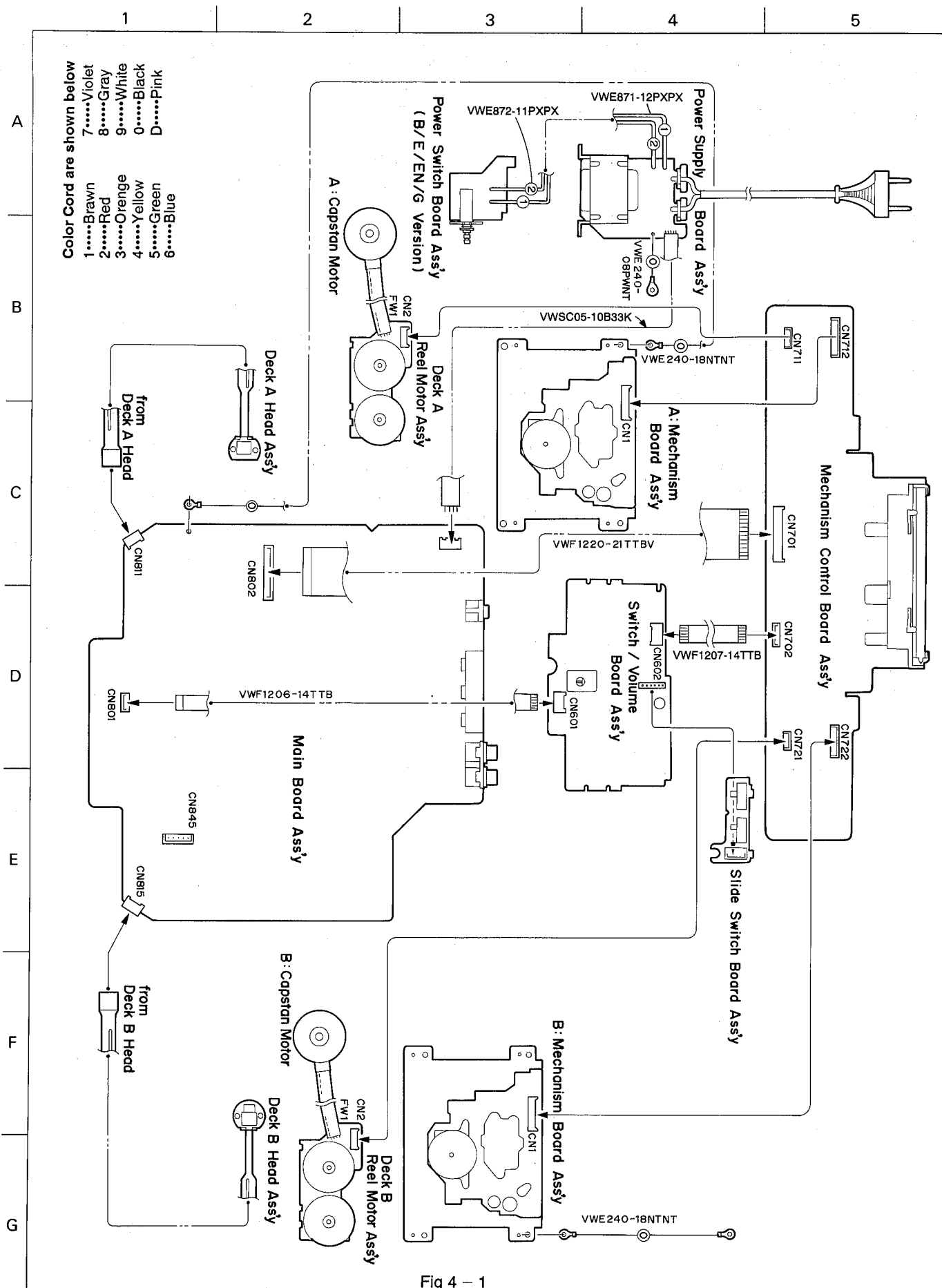


Fig 4 - 1

5 Block Diagram

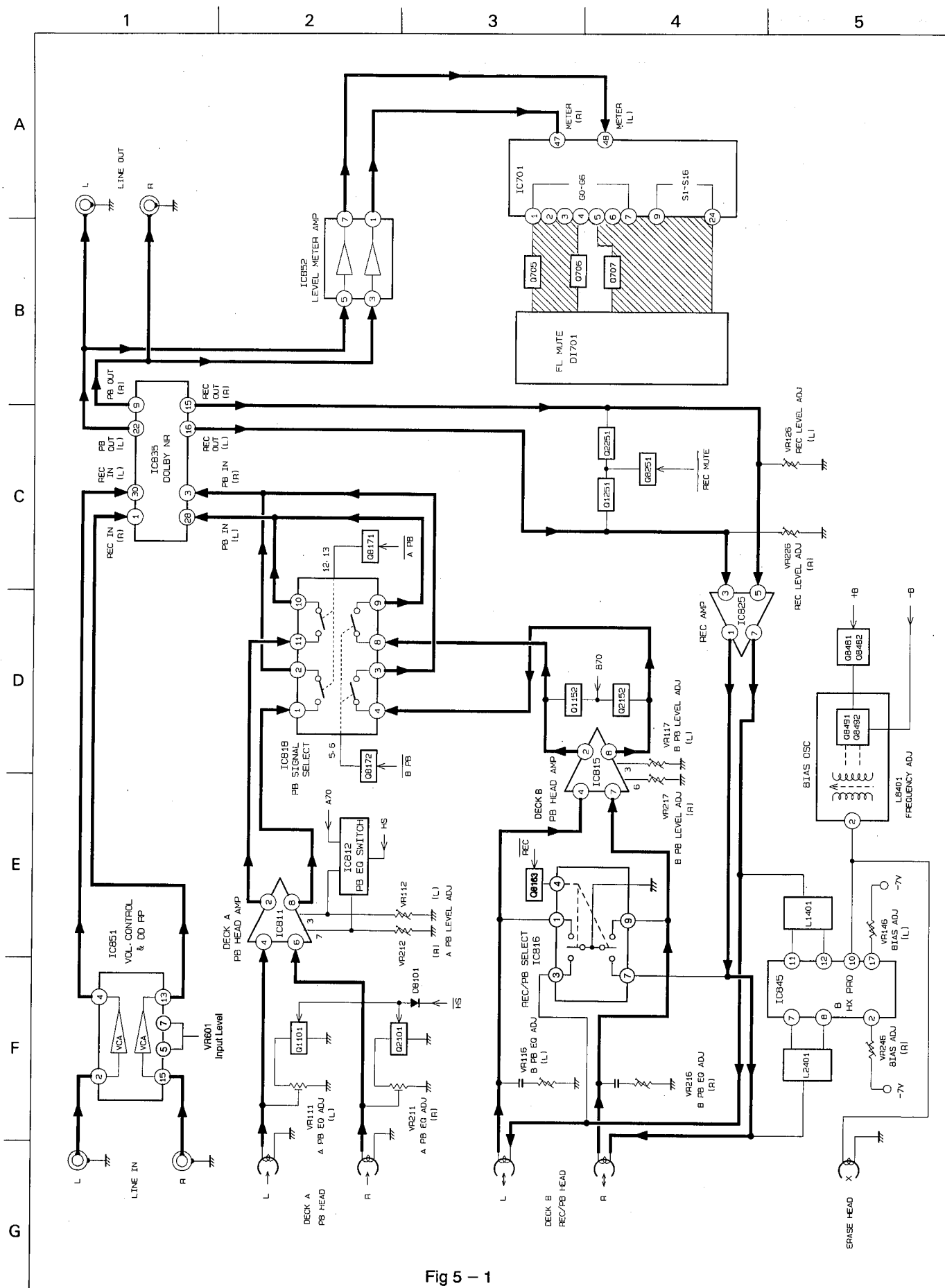
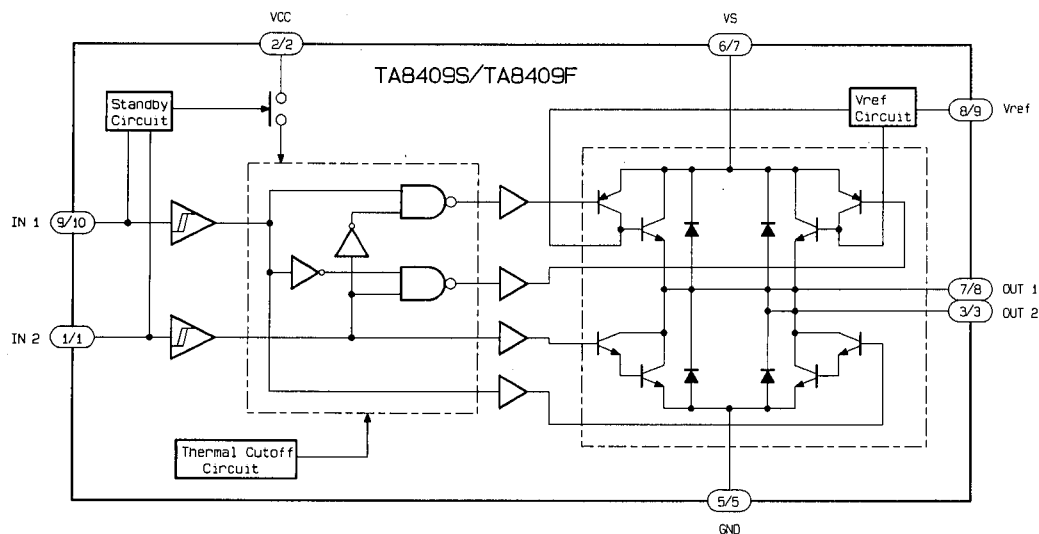


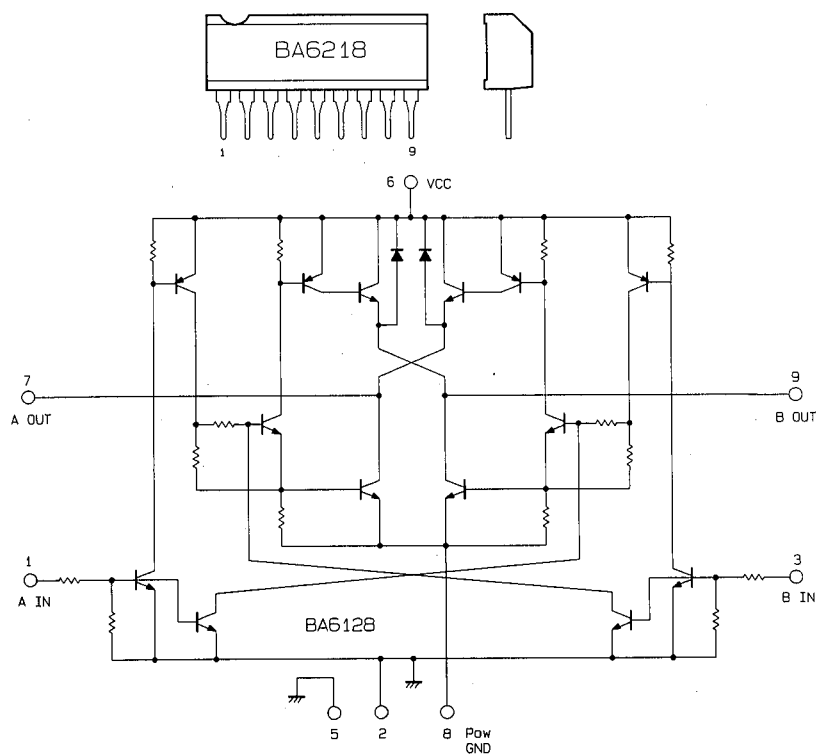
Fig 5 – 1

6 IC Block Diagrams

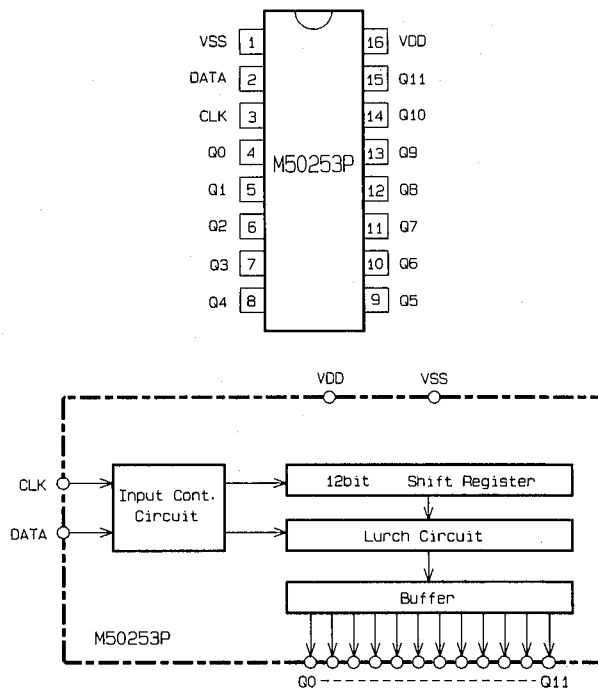
◆ IC733/IC734 (TA8409S)



◆ IC731/IC732 (BA6128)



◆ IC891 (M50253P)



IC PIN FUNCTION

◆ IC701 (MB88514B-1730T) : MAIN MICOM

PIN NO.	SIGNAL NAME	IN/OUT	DESCRIPTION	
1 ~ 7	G0 ~ G6	OUT	FL GRID & DYNAMIC SCAN INPUT SELECT OUTPUT	
8	CAPM	OUT	CAPSTAN MOTOR ON/OFF CONTROL OUTPUT. REC/PAUSE, REC/PB, PAUSE, PB: L	
9~ 24	S16 ~ S1	OUT	FL SEGMENT OUTPUT	
25	EX	—	MICOM SYSTEM CLOCK (8MHz)	
26	X	—	MICOM SYSTEM CLOCK (8MHz)	
27	RESET	IN/OUT	RESET INPUT (L – RESET)	
28	NSM	OUT	TAPE SPEED CONTROL, HIGH SPEED DUB MODE: L	
29	DATA	OUT	DATA OUTPUT (PORT EXPANDER) IC891	
30	CLK	OUT	CLOCK OUTPUT (PORT EXPANDER) IC891	
31	STBY	OUT	STANDBY MODE INDICATE OUTPUT. STANDBY MODE: H	
32	Vss	—	GND	
33	A.F.CAM	OUT	A MECHA CAM MOTOR OUTPUT (F, S → F, P : H)	*1
34	A.R.CAM	OUT	A MECHA CAM MOTOR OUTPUT (R, S → R, P : H)	*2
35	A.F.REEL	OUT	A MECHA REEL MOTOR OUTPUT (L REEL → R REEL: H)	
36	A.R.REEL	OUT	A MECHA REEL MOTOR OUTPUT (R REEL → L REEL: H)	
37	B.F.CAM	OUT	B MECHA CAM MOTOR OUTPUT (F, S → F, P : H)	*1
38	B.R.CAM	OUT	B MECHA CAM MOTOR OUTPUT (R, S → R, P : H)	*2
39	B.F.REEL	OUT	B MECHA REEL MOTOR OUTPUT (L → R : H)	*3
40	B.R.REEL	OUT	B MECHA REEL MOTOR OUTPUT (R → L : H)	*3
41	DCSIN	IN	DCS SIGNAL INPUT (DCS: L)	
42	DCS OUT	OUT	DCS SIGNAL OUTPUT (DCS: L)	
43	A Vss	—	GND (A/D CONVERTER)	
44	A VR –	—	GND	
45	A VR +	—	5 V	
46	A Vcc	IN	4.7 V (A/D CONVERTER)	
47	METER-R	IN	R CH LEVEL METER SIGNAL (ANALOG INPUT)	
48	METER-L	IN	L CH LEVEL METER SIGNAL (ANALOG INPUT)	
49	KEY3	IN	B MECHA OP SW INPUT (ANALOG INPUT)	
50	KEY2	IN	B MECHA OP SW INPUT (ANALOG INPUT)	
51	KEY1	IN	A MECHA OP SW INPUT (ANALOG INPUT)	
52	KEY0	IN	A MECHA OP SW INPUT (ANALOG INPUT)	
53	B. PLAY	OUT	B MECHA REEL MOTOR VOLTAGE SWITCH OUTPUT. PB MODE: H	
54	A. PLAY	OUT	A MECHA REEL MOTOR VOLTAGE SWITCH OUTPUT. PB MODE: H	
55	B.CPLS	OUT	B MECHA CONTROL PULSE OUTPUT	
56	A.CPLS	OUT	A MECHA CONTROL PULSE OUTPUT	
57	DATA5	IN	DYNAMIC SCAN SIGNAL INPUT	
58	DATA4	IN	DYNAMIC SCAN SIGNAL INPUT	
59	DATA3	IN	DYNAMIC SCAN SIGNAL INPUT	
60	DATA2	IN	DYNAMIC SCAN SIGNAL INPUT	
61	DATA1	IN	DYNAMIC SCAN SIGNAL INPUT	
62	DATA0	IN	DYNAMIC SCAN SIGNAL INPUT	
63	NC	—	—	
64	Vdd	IN	5 V	

NOTE: *1 F. S – F. STOP, F. P – F. PLAY
 *2 R. S – R. STOP, R. P – R. PLAY
 *3 L – LEFT R – RIGHT

◆ IC891 (M50253P) : PORT EXPANDER

PIN NO.	SIGNAL NAME	IN/OUT	DESCRIPTION
1	Vss	—	GND
2	DATA	IN	SERIAL DATA INPUT (IC701)
3	CLK	IN	SERIAL CLOCK INPUT (IC701)
4	APB	OUT	A MECHA PB CONTROL OUTPUT (PB: L)
5	BPB	OUT	B MECHA PB CONTROL OUTPUT (PB: L)
6	MUTE	OUT	LINE OUT MUTE CONTROL OUTPUT (MUTE: L)
7	REC	OUT	B MECHA HEAD R/P CONTROL OUTPUT (REC MODE: L)
8	BIAS	OUT	B MECHA BIAS OSC CONTROL OUTPUT (REC MODE: L)
9	RECMUTE	OUT	LINE OUT REC MUTE CONTROL OUTPUT (REC MUTE: L)
10	NRREC	OUT	NR SWITCH REC CONTROL OUTPUT (NR: L)
11	DUB	OUT	NR SWITCH DUB CONTROL OUTPUT (DUB: L)
12	HS	OUT	TAPE SPEED CONTROL OUTPUT (H SPEED: L)
13	NS	OUT	TAPE SPEED CONTROL OUTPUT (N SPEED: L)
14	DDRP	OUT	DDRP CONTROL OUTPUT (DDRP: L)
15	DDRPSEL	OUT	DDRP SELECT CONTROL OUTPUT (DDRP: H)
16	VDD	IN	5V

7 Standard Schematic Diagrams

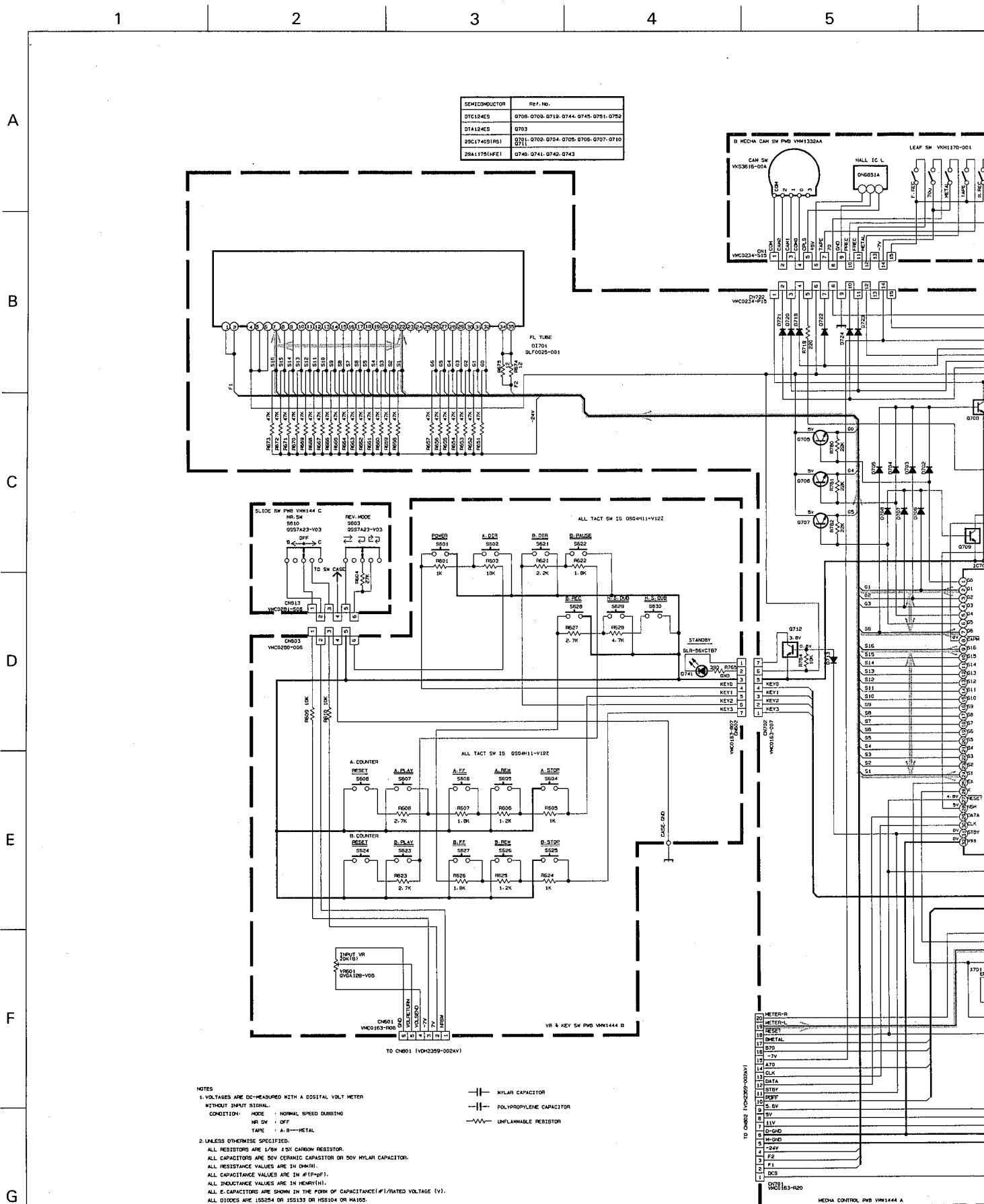
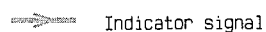


Fig. 7-1





6

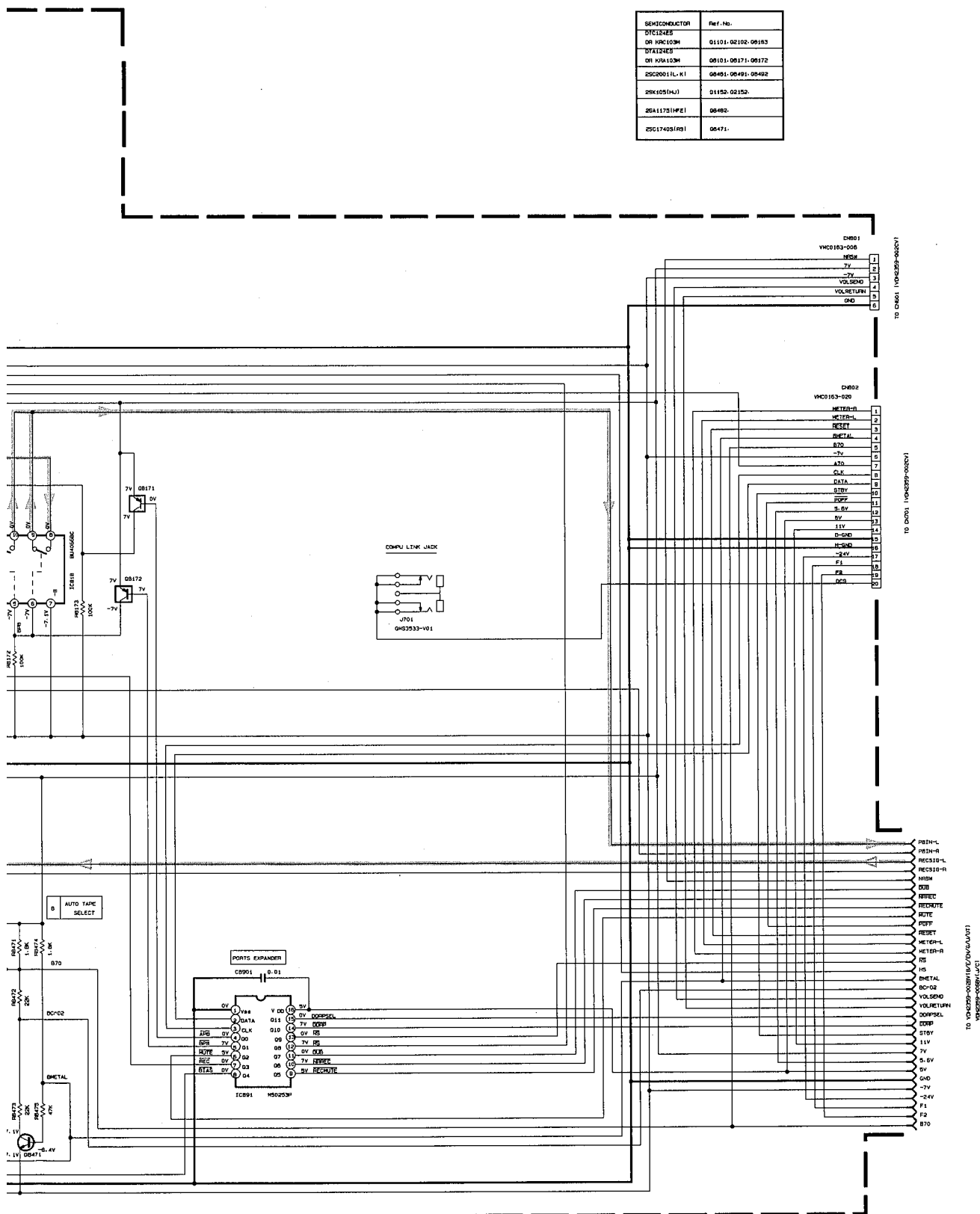
7

8

9

10

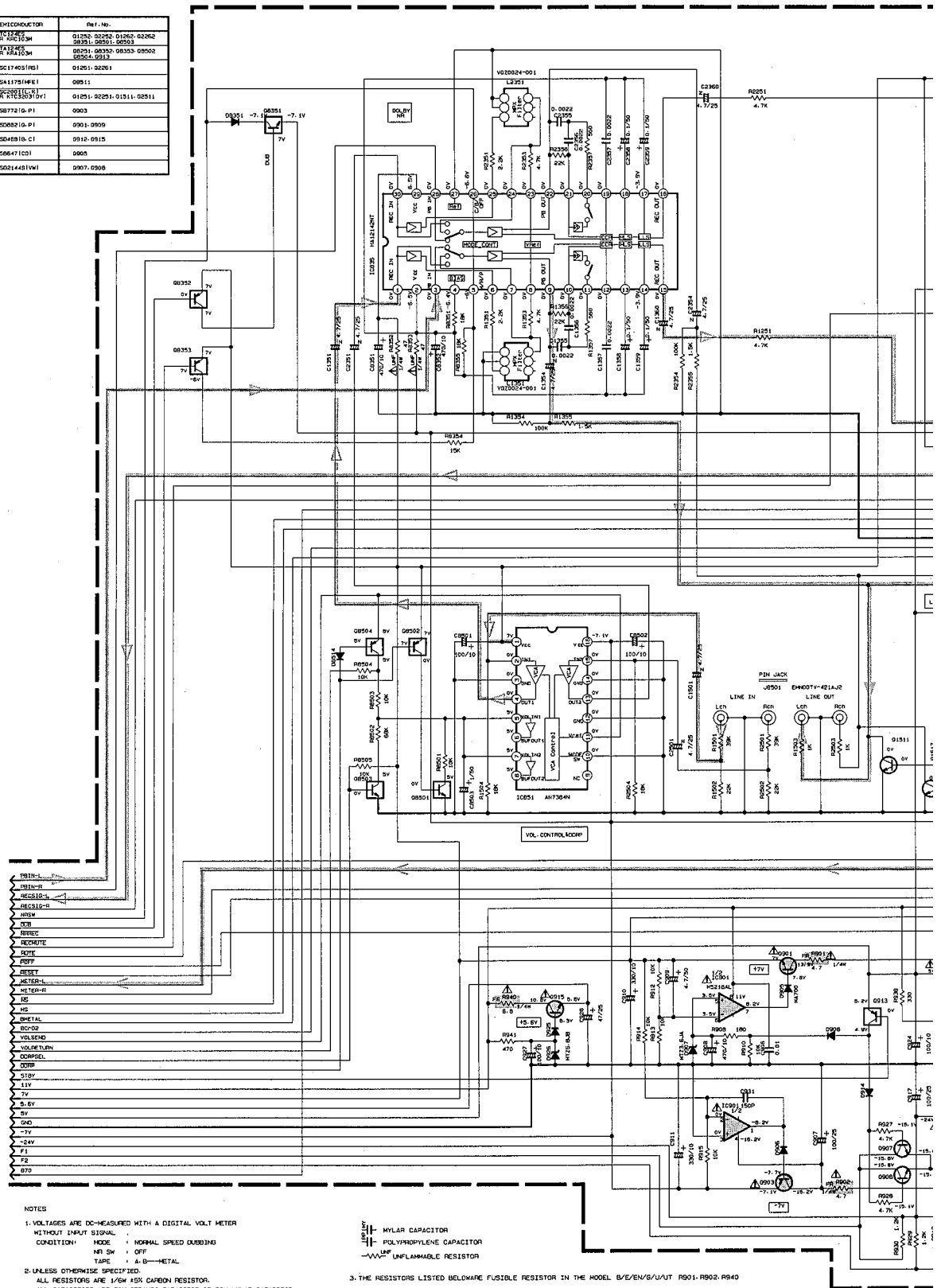
SEMI-CONDUCTOR	Ref. No.
DT124ES	
OR VNC103H	01101, 02102, 00103
DT124ES	
OR VNC103H	00101, 00171, 00172
2SC2001(L, K1)	00401, 00491, 00492
2SK105(H, J)	01152, 02152
2SA1175(H, P, E1)	00402
2SC1740S(R, B1)	00471



Playback signal
Recording signal

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

SEMICONDUCTOR	Ref. No.
01C1242	01242-02042-01265-02262
01H0103M	00301-00501-00503
01H1845	00351-00352-00353-00502
01H1845M	00502-00503
25C17405(M)	01201-00201
25A175104E1	00511
25C2501(L,R)	01251-02251-01511-02511
OR RYC3203(V)	
25B772 (Q,P)	0003
250082 (Q,P)	0001-0009
25D48810-C	0012-0015
250647 (CD)	0005
25D214481(W)	0007-0008



NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL.

CONDITION: MODE: NORMAL SPEED DUBBING
M1 ON: OFF
TAPE: A-B—METAL

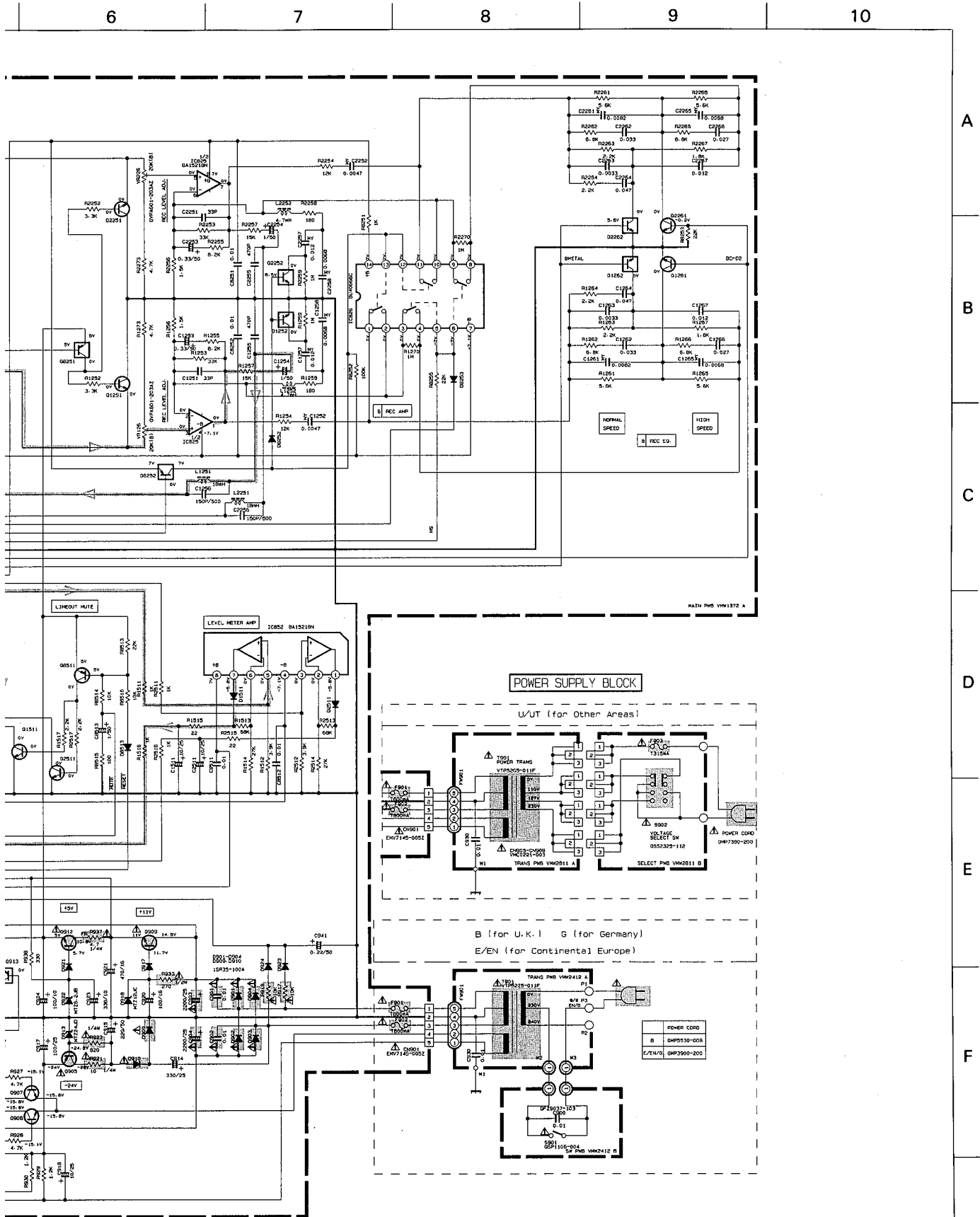
2. UNLESS OTHERWISE SPECIFIED:

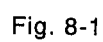
ALL RESISTORS ARE 1/8W 45K CARBON RESISTOR.
ALL CAPACITORS ARE 50V CERAMIC CAPACITOR OR 50V MYLAR CAPACITOR.
ALL CAPACITANCE VALUES ARE IN OHM (Ω).
ALL CAPACITANCE VALUES ARE IN μF (μF).
ALL INDUCTANCE VALUES ARE IN HENRY (H).
ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).
ALL DIODES ARE 1N5024 OR 1N5133 OR 1N5104 OR M4165.

MYLAR CAPACITOR
POLYPROPYLENE CAPACITOR
UNFLAMMABLE RESISTOR

3. THE RESISTORS LISTED BELOW ARE FUSIBLE RESISTOR IN THE MODEL B/E/EN/V/S/U/UT R901-R902-R940

Playback signal line
Indicator signal line
Recording signal line





● Main Board Parts List

BLOCK NO. 01					SUFFIX
REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	
C 901	QCF11HP-103	C. CAPACITOR	.010MF +100:-0%		
C 902	QCF11HP-103	C. CAPACITOR	.010MF +100:-0%		
C 903	QETB1EM-228N	E. CAPACITOR	2200MF 20% 25V		
C 904	QETB1EM-228N	E. CAPACITOR	2200MF 20% 25V		
C 906	QCF11HP-103	C. CAPACITOR	.010MF +100:-0%		
C 907	QET41EM-107	E. CAPACITOR	100MF 20% 25V		
C 908	QET41AM-477	E. CAPACITOR	470MF 20% 10V		
C 909	QET41HM-475	E. CAPACITOR	4.7MF 20% 50V		
C 910	QETC1AM-337ZN	E. CAPACITOR	330MF 20% 10V		
C 911	QETC1AM-337ZN	E. CAPACITOR	330MF 20% 10V		
C 914	QETC1EM-337ZN	E. CAPACITOR	330MF 20% 25V		
C 915	QETC1HM-227ZN	E. CAPACITOR	220MF 20% 50V		
C 917	QET41EM-107	E. CAPACITOR	100MF 20% 25V		
C 918	QET41EM-106	E. CAPACITOR	10MF 20% 25V		
C 920	QET41CM-107	E. CAPACITOR	100MF 20% 16V		
C 921	QET41CM-477	E. CAPACITOR	470MF 20% 16V		
C 923	QETC1AM-337ZN	E. CAPACITOR	330MF 20% 10V		
C 924	QET41AM-107	E. CAPACITOR	100MF 20% 10V		
C 927	QET41AM-107	E. CAPACITOR	100MF 20% 10V		
C 927	QET41AM-107	E. CAPACITOR	100MF 20% 10V		
C 928	QET41EM-476	E. CAPACITOR	47MF 20% 25V		
C 930	QCVB1CM-103Y	E. CAPACITOR	.010MF 20% 16V		
C 931	QCB81HK-151Y	E. CAPACITOR	150PF 10% 50V		
C 941	QETC1HM-2242M	E. CAPACITOR	.22MF 20% 50V		
CN801	VMC0163-006	CONNECTOR			
CN802	VMC0163-020	CONNECTOR			
CN811	EMV7155-006R	CONNECTOR			
CN815	EMV7155-006R	CONNECTOR			
CN845	VMC0238-005Z	CONNECTOR			
CN901	EMV7145-005Z	SOCKET			
C1101	QCB81HK-471Y	C. CAPACITOR	470PF 10% 50V		
C1102	QCB81HK-151Y	C. CAPACITOR	150PF 10% 50V		
C1103	QCB81HK-151Y	C. CAPACITOR	150PF 10% 50V		
C1104	QFLC1HJ-1032M	M. CAPACITOR	.010MF 5% 50V		
C1105	QET41AM-227	E. CAPACITOR	220MF 20% 10V		
C1106	QET41HM-475	E. CAPACITOR	4.7MF 20% 50V		
C1107	QCB81HK-471Y	C. CAPACITOR	470PF 10% 50V		
C1108	QCB81HK-151Y	C. CAPACITOR	150PF 10% 50V		
C1151	QFLC1HJ-1022M	M. CAPACITOR	1000PF 5% 50V		
C1152	QCB81HK-331Y	C. CAPACITOR	330PF 10% 50V		
C1153	QCB81HK-151Y	C. CAPACITOR	150PF 10% 50V		
C1154	QFLC1HJ-1232M	M. CAPACITOR	.012MF 5% 50V		
C1155	QET41AM-227	E. CAPACITOR	220MF 20% 10V		
C1156	QET41HM-475	E. CAPACITOR	4.7MF 20% 50V		
C1169	QCB81HK-271Y	C. CAPACITOR	270PF 10% 50V		
C1251	QCS11HJ-330	C. CAPACITOR	33PF 5% 50V		
C1252	QFLC1HJ-4722M	M. CAPACITOR	4700PF 5% 50V		
C1253	QETC1HM-334ZN	E. CAPACITOR	.33MF 20% 50V		
C1254	QET41HM-105	E. CAPACITOR	1.0MF 20% 50V		
C1255	QCS11HJ-471	C. CAPACITOR	470PF 5% 50V		
C1256	QCS32HJ-1512V	C. CAPACITOR	150PF 5% 50V		
C1257	QFLC1HJ-1232M	M. CAPACITOR	.012MF 5% 50V		
C1258	QFLC1HJ-6822M	M. CAPACITOR	6800PF 5% 50V		
C1261	QFLC1HJ-8822M	M. CAPACITOR	8200PF 5% 50V		
C1262	QCC31EM-3332V	C. CAPACITOR	.033MF 20% 25V		

BLOCK NO. 02				
REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C1263	QC741HK-332	C. CAPACITOR	3300PF 10% 50V	
C1264	QCC11EM-473V	C. CAPACITOR	.047MF 20% 25V	
C1265	QFLC1HJ-6822M	M. CAPACITOR	6800PF 5% 50V	
C1266	QCC31EM-2732V	C. CAPACITOR	.027MF 20% 25V	
C1267	QCC11EM-123V	C. CAPACITOR	.012MF 20% 25V	
C1351	QEN41EM-475	NP.E. CAPACITOR	4.7MF 20% 25V	
C1354	QEN41EM-475	NP.E. CAPACITOR	4.7MF 20% 25V	
C1355	QFN41HJ-222	M. CAPACITOR	2200PF 5% 50V	
C1356	QFN41HJ-222	M. CAPACITOR	2200PF 5% 50V	
C1357	QFN41HJ-222	M. CAPACITOR	2200PF 5% 50V	
C1358	QETC1HM-104ZN	E. CAPACITOR	.10MF 20% 50V	
C1359	QETC1HM-104ZN	E. CAPACITOR	.10MF 20% 50V	
C1360	QEN41EM-475	NP.E. CAPACITOR	4.7MF 20% 25V	
C1451	QFP32AJ-5612M	PP. CAPACITOR	560PF 5% 100V	
C1452	QCB81HK-101Y	C. CAPACITOR	100PF 10% 50V	
C1453	QCS11HJ-561	C. CAPACITOR	560PF 5% 50V	
C1454	QFN81HJ-103	M. CAPACITOR	.010MF 5% 50V	
C1455	QFLC1HJ-2232M	M. CAPACITOR	.022MF 5% 50V	
C1456	QFLC1HJ-3932M	M. CAPACITOR	.039MF 5% 50V	
C1457	QET41EM-106	E. CAPACITOR	10MF 20% 25V	
C1501	QEN41EM-475	NP.E. CAPACITOR	4.7MF 20% 25V	
C1511	QET41EM-106	E. CAPACITOR	10MF 20% 25V	
C2101	QCB81HK-471Y	C. CAPACITOR	470PF 10% 50V	
C2102	QCB81HK-151Y	C. CAPACITOR	150PF 10% 50V	
C2103	QCB81HK-151Y	C. CAPACITOR	150PF 10% 50V	
C2104	QFLC1HJ-1032M	M. CAPACITOR	.010MF 5% 50V	
C2105	QET41AM-227	E. CAPACITOR	220MF 20% 10V	
C2106	QET41HM-475	E. CAPACITOR	4.7MF 20% 50V	
C2107	QCB81HK-471Y	C. CAPACITOR	470PF 10% 50V	
C2108	QCB81HK-151Y	C. CAPACITOR	150PF 10% 50V	
C2151	QFLC1HJ-1022M	M. CAPACITOR	1000PF 5% 50V	
C2152	QCB81HK-331Y	C. CAPACITOR	330PF 10% 50V	
C2153	QCB81HK-151Y	C. CAPACITOR	150PF 10% 50V	
C2154	QFLC1HJ-1232M	M. CAPACITOR	.012MF 5% 50V	
C2155	QET41AM-227	E. CAPACITOR	220MF 20% 10V	
C2156	QET41HM-475	E. CAPACITOR	4.7MF 20% 50V	
C2169	QCB81HK-271Y	C. CAPACITOR	270PF 10% 50V	
C2251	QCS11HJ-330	C. CAPACITOR	33PF 5% 50V	
C2252	QFLC1HJ-4722M	M. CAPACITOR	4700PF 5% 50V	
C2253	QETC1HM-334ZN	E. CAPACITOR	.33MF 20% 50V	
C2254	QET41HM-105	E. CAPACITOR	1.0MF 20% 50V	
C2255	QCS11HJ-471	C. CAPACITOR	470PF 5% 50V	
C2256	QCS32HJ-1512V	C. CAPACITOR	150PF 5% 500V	
C2257	QFLC1HJ-1232M	M. CAPACITOR	.012MF 5% 50V	
C2258	QFLC1HJ-6822M	M. CAPACITOR	6800PF 5% 50V	
C2261	QFLC1HJ-8222M	M. CAPACITOR	8200PF 5% 50V	
C2262	QCC31EM-3332V	C. CAPACITOR	.033MF 20% 25V	
C2263	QC741HK-332	C. CAPACITOR	3300PF 10% 50V	
C2264	QCC11EM-473V	C. CAPACITOR	.047MF 20% 25V	
C2265	QFLC1HJ-6822M	M. CAPACITOR	6800PF 5% 50V	
C2266	QCC31EM-2732V	C. CAPACITOR	.027MF 20% 25V	
C2351	QEN41EM-475	NP.E. CAPACITOR	4.7MF 20% 25V	
C2354	QEN41EM-475	NP.E. CAPACITOR	4.7MF 20% 25V	
C2355	QFN41HJ-222	M. CAPACITOR	2200PF 5% 50V	

BLOCK NO. 01

A REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C2356	QFN41HJ-222	M-CAPACITOR	2200PF 5% 50V	
C2357	QFN41HJ-222	M-CAPACITOR	2200PF 5% 50V	
C2358	QETC1HM-104ZN	E-CAPACITOR	10MF 20% 50V	
C2359	QETC1HM-104ZN	E-CAPACITOR	10MF 20% 50V	
C2360	QEN41EM-475	NP-E-CAPACITOR	4.7MF 20% 25V	
C2351	QFP32AJ-561ZM	PP-CAPACITOR	560PF 5% 100V	
C2452	QCB81HK-101Y	C-CAPACITOR	100PF 10% 50V	
C2453	QCS11HJ-561	C-CAPACITOR	560PF 5% 50V	
C2454	QFN81HJ-103	M-CAPACITOR	0.10MF 5% 50V	
C2455	QFLC1HJ-223ZM	M-CAPACITOR	0.022MF 5% 50V	
C2456	QFLC1HJ-393ZM	M-CAPACITOR	0.039MF 5% 50V	
C2457	QET41EM-106	E-CAPACITOR	10MF 20% 25V	
C2501	QEN41EM-475	NP-E-CAPACITOR	4.7MF 20% 25V	
C2511	QET41EM-106	E-CAPACITOR	10MF 20% 25V	
C8101	QCF11HP-103	C-CAPACITOR	0.010MF +100%:-0%	
C8102	QCF11HP-103	C-CAPACITOR	0.010MF +100%:-0%	
C8151	QET41EM-106	E-CAPACITOR	10MF 20% 25V	
C8152	QCF11HP-103	C-CAPACITOR	0.010MF +100%:-0%	
C8251	QCF11HP-103	C-CAPACITOR	0.010MF +100%:-0%	
C8252	QCF11HP-103	C-CAPACITOR	0.010MF +100%:-0%	
C8351	QET41AM-477	E-CAPACITOR	470MF 20% 10V	
C8352	QET41AM-477	E-CAPACITOR	470MF 20% 10V	
C8451	QET41EM-106	E-CAPACITOR	10MF 20% 25V	
C8452	QCS11HJ-100	E-CAPACITOR	10PF 5% 50V	
C8453	QET41HM-105	E-CAPACITOR	1.0MF 20% 50V	
C8454	QET41AM-107	E-CAPACITOR	100MF 20% 10V	
C8455	QET41AM-107	E-CAPACITOR	100MF 20% 10V	
C8481	QET41HM-475	E-CAPACITOR	4.7MF 20% 50V	
C8482	QET41AM-107	E-CAPACITOR	100MF 20% 10V	
C8483	QETC1EM-337ZN	E-CAPACITOR	330MF 20% 25V	
C8491	QFP32AJ-103ZM	PP-CAPACITOR	0.010MF 5% 100V	
C8492	QET41EM-476	E-CAPACITOR	47MF 20% 25V	
C8493	QFLC1HJ-223ZM	M-CAPACITOR	0.022MF 5% 50V	
C8494	QFN41HJ-102	M-CAPACITOR	1000PF 5% 50V	
C8495	QFLC1HJ-152ZM	M-CAPACITOR	1500PF 5% 50V	
C8496	QFLC1HJ-152ZM	M-CAPACITOR	1500PF 5% 50V	
C8501	QET41AM-107	E-CAPACITOR	100MF 20% 10V	
C8502	QET41AM-107	E-CAPACITOR	100MF 20% 10V	
C8503	QET41HM-105	E-CAPACITOR	1.0MF 20% 50V	
C8511	QCF11HP-103	C-CAPACITOR	0.010MF +100%:-0%	
C8512	QCF11HP-103	C-CAPACITOR	0.010MF +100%:-0%	
C8513	QET41HM-105	E-CAPACITOR	1.0MF 20% 50V	
C8901	QCF11HP-103	C-CAPACITOR	0.010MF +100%:-0%	
D 901	1SR35-100A-T2	SI DIODE		
D 902	1SR35-100A-T2	SI DIODE		
D 903	1SR35-100A-T2	SI DIODE		
D 904	1SR35-100A-T2	SI DIODE		
D 905	MA700A	S-B DIODE		
D 906	MA700A	S-B DIODE		
D 907	MTZ3.6JA	ZENER DIODE		
D 908	1SR133	SI DIODE		
D 909	1SR35-100A-T2	SI DIODE		
D 910	1SR35-100A-T2	SI DIODE		
D 913	MTZ24JD	ZENER DIODE		

BLOCK NO. 01

A REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
D 914	1SR133	SI DIODE		
D 917	1SR133	SI DIODE		
D 918	MTZ12JC	ZENER DIODE		
D 921	1SR133	SI DIODE		
D 922	MTZ6.2JB	ZENER DIODE		
D 923	1SR133	SI DIODE		
D 924	1SR133	SI DIODE		
D 925	1SR133	SI DIODE		
D 925	1SR133	SI DIODE		
D 926	MTZ6.8JB	ZENER DIODE		
D 926	MTZ6.8JB	ZENER DIODE		
D1511	1SR133	SI DIODE		
D2511	1SR133	SI DIODE		
D8101	1SR133	SI DIODE		
D8252	1SR133	SI DIODE		
D8253	1SR133	SI DIODE		
D8351	1SR133	SI DIODE		
D8451	1SR133	SI DIODE		
D8452	1SR133	SI DIODE		
D8481	1SR133	SI DIODE		
D8513	1SR133	SI DIODE		
D8514	1SR133	SI DIODE		
HS901	VMH4011-201	HEAT SINK		
IC811	AN6557F	IC		
IC812	BU4066BC	IC		
IC815	AN6557F	IC		
IC816	UPC1330HA	IC		
IC818	BU4066BC	IC		
IC825	BA15218N	IC		
IC826	BU4066BC	IC		
IC835	HA12142NT	IC		
IC845	UPC1297CA	IC		
IC851	AN7384N	IC		
IC852	BA15218N	IC		
IC891	M50253P	IC		
IC901	M5218AL	IC		
J 701	QMS3533-V01	JACK		
J8501	EMN00TV-421AJ2	PIN JACK		
L1251	VQP0001-183	INDUCTOR		
L1252	VQP0001-472ZS	INDUCTOR		
L1351	VQZ0024-001	FILTER		
L1401	VQH7001-021	OSC COIL(BIAS)		
L2251	VQP0001-183	INDUCTOR		
L2252	VQP0001-472ZS	INDUCTOR		
L2351	VQZ0024-001	FILTER		
L2401	VQH7001-021	OSC COIL(BIAS)		
L8401	VQH1008-031	OSC COIL(BIAS)		
P 1	VMZ0034-001	TAB		
P 2	VMZ0034-001	TAB		
Q 901	2SD882(P,Q)	TRANSISTOR		
Q 903	2SB772(Q,P)	TRANSISTOR		
Q 905	2SB647(CD)	TRANSISTOR		
Q 907	2SD2144S(VW)	TRANSISTOR		
Q 908	2SD2144S(VW)	TRANSISTOR		
Q 909	2SD882(P,Q)	TRANSISTOR		

BLOCK NO. 001

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
Q 912	2SD468(C)	TRANSISTOR		
Q 913	DTA124ES	TRANSISTOR		
Q 915	2SD468(C)	TRANSISTOR		
Q1101	DTA124ES	TRANSISTOR		
Q1152	2SK105(E,F,H)	TRANSISTOR(FET)		
Q1251	2SC2001(L,K)	TRANSISTOR		
Q1252	DTA124ES	TRANSISTOR		
Q1261	2SC1740S(R,S)	TRANSISTOR		
Q1262	DTA124ES	TRANSISTOR		
Q1511	2SC2001(L,K)	TRANSISTOR		
Q2101	DTA124ES	TRANSISTOR		
Q2152	2SK105(E,F,H)	TRANSISTOR(FET)		
Q2251	2SC2001(L,K)	TRANSISTOR		
Q2252	DTA124ES	TRANSISTOR		
Q2261	2SC1740S(R,S)	TRANSISTOR		
Q2262	DTA124ES	TRANSISTOR		
Q2511	2SC2001(L,K)	TRANSISTOR		
Q8101	DTA124ES	TRANSISTOR		
Q8163	DTA124ES	TRANSISTOR		
Q8171	DTA124ES	TRANSISTOR		
Q8172	DTA124ES	TRANSISTOR		
Q8251	DTA124ES	TRANSISTOR		
Q8252	DTA124ES	TRANSISTOR		
Q8351	DTA124ES	TRANSISTOR		
Q8352	DTA124ES	TRANSISTOR		
Q8353	DTA124ES	TRANSISTOR		
Q8471	2SC1740S(R,S)	TRANSISTOR		
Q8481	2SC2001(L,K)	TRANSISTOR		
Q8482	2SA1175	TRANSISTOR		
Q8491	2SC2001(L,K)	TRANSISTOR		
Q8492	2SC2001(L,K)	TRANSISTOR		
Q8501	DTA124ES	TRANSISTOR		
Q8502	DTA124ES	TRANSISTOR		
Q8503	DTA124ES	TRANSISTOR		
Q8504	DTA124ES	TRANSISTOR		
Q8511	2SA1175	TRANSISTOR		
A R 901	QRZ0077-4R7X	FUSE RESISTOR	4.7 1/0W	B,E,EN,G
A R 901	QRZ0077-4R7X	FUSE RESISTOR	4.7 1/0W	U,UT
A R 901	QRD14CJ-4R7SX	CARBON RESISTOR	4.7 5% 1/4W	C,J
A R 902	QRZ0077-4R7X	FUSE RESISTOR	4.7 1/0W	U,UT
A R 902	QRZ0077-4R7X	FUSE RESISTOR	4.7 1/0W	B,E,EN,G
A R 902	QRD14CJ-4R7SX	CARBON RESISTOR	4.7 5% 1/4W	C,J
A R 908	QRD161J-181	CARBON RESISTOR	180 5% 1/6W	
R 910	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 912	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 913	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 914	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 915	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 917	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 918	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
A R 921	QRD14CJ-100SX	CARBON RESISTOR	10 5% 1/4W	C,J
A R 921	QRZ0077-100X	FUSE RESISTOR	100 1/0W	U,UT
A R 921	QRZ0077-100X	FUSE RESISTOR	100 1/0W	B,E,EN,G
A R 923	QRD14CJ-821SX	CARBON RESISTOR	820 5% 1/4W	
R 927	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	

BLOCK NO. 002

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R 928	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R 929	QRD161J-122	CARBON RESISTOR	1.2K 5% 1/6W	
R 930	QRD161J-122	CARBON RESISTOR	1.2K 5% 1/6W	
A R 933	QRD12CJ-271SX	UNF.C.RESISTOR	270 5% 1/2W	C,J
A R 933	QRD14CJ-4R7SX	CARBON RESISTOR	4.7 5% 1/4W	U,UT
A R 937	QRZ0077-4R7X	FUSE RESISTOR	4.7 1/0W	B,E,EN,G
A R 937	QRZ0077-4R7X	FUSE RESISTOR	4.7 1/0W	U,UT
R 938	QRD161J-331	CARBON RESISTOR	330 5% 1/6W	
A R 940	QRD14CJ-6R8SX	CARBON RESISTOR	6.8 5% 1/4W	C,J
A R 940	QRH144J-6R8	FUSE RESISTOR	6.8 1/0W	U,UT
A R 940	QRH144J-6R8	FUSE RESISTOR	6.8 1/0W	B,E,EN,G
R 941	QRD161J-471	CARBON RESISTOR	470 5% 1/6W	
R1101	QRD161J-105	CARBON RESISTOR	1.0M 5% 1/6W	
R1102	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R1104	QRD161J-274	CARBON RESISTOR	270K 5% 1/6W	
R1105	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
R1106	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R1107	QRD161J-202	CARBON RESISTOR	2.0K 5% 1/6W	
R1108	QRD161J-362	CARBON RESISTOR	3.6K 5% 1/6W	
R1109	QRD161J-150	CARBON RESISTOR	15 5% 1/6W	
R1110	QRD161J-333	CARBON RESISTOR	33K 5% 1/6W	
R1111	QRD161J-123	CARBON RESISTOR	12K 5% 1/6W	
R1152	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R1154	QRD161J-274	CARBON RESISTOR	270K 5% 1/6W	
R1155	QRD167J-682	CARBON RESISTOR	6.8K 5% 1/6W	
R1158	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R1159	QRD161J-150	CARBON RESISTOR	15 5% 1/6W	
R1160	QRD161J-333	CARBON RESISTOR	33K 5% 1/6W	
R1161	QRD161J-123	CARBON RESISTOR	12K 5% 1/6W	
R1165	QRD161J-105	CARBON RESISTOR	1.0M 5% 1/6W	
R1251	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R1252	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
R1253	QRD161J-333	CARBON RESISTOR	33K 5% 1/6W	
R1254	QRD161J-123	CARBON RESISTOR	12K 5% 1/6W	
R1255	QRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W	
R1256	QRD161J-152	CARBON RESISTOR	1.5K 5% 1/6W	
R1257	QRD161J-153	CARBON RESISTOR	15K 5% 1/6W	
R1258	QRD161J-181	CARBON RESISTOR	180 5% 1/6W	
R1259	QRD161J-105	CARBON RESISTOR	1.0M 5% 1/6W	
R1261	QRD167J-562	CARBON RESISTOR	5.6K 5% 1/6W	
R1262	QRD167J-682	CARBON RESISTOR	6.8K 5% 1/6W	
R1263	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R1264	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R1265	QRD167J-562	CARBON RESISTOR	5.6K 5% 1/6W	
R1266	QRD167J-682	CARBON RESISTOR	6.8K 5% 1/6W	
R1267	QRD161J-182	CARBON RESISTOR	1.8K 5% 1/6W	
R1270	QRD161J-105	CARBON RESISTOR	1.0M 5% 1/6W	
R1273	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R1351	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R1353	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R1354	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
R1355	QRD161J-152	CARBON RESISTOR	1.5K 5% 1/6W	
R1356	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R1357	QRD161J-561	CARBON RESISTOR	560 5% 1/6W	
R1451	QRD161J-274	CARBON RESISTOR	270K 5% 1/6W	

BLOCK NO. 01

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R1452	QRD161J-333	CARBON RESISTOR	33K 5% 1/6W	
R1453	QRD14CJ-100SX	CARBON RESISTOR	10 5% 1/4W	
R1501	QRD161J-393	CARBON RESISTOR	39K 5% 1/6W	
R1502	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R1503	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R1504	QRD161J-183	CARBON RESISTOR	18K 5% 1/6W	
R1511	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R1512	QRD161J-392	CARBON RESISTOR	3.9K 5% 1/6W	
R1513	QRD161J-683	CARBON RESISTOR	68K 5% 1/6W	
R1514	QRD161J-273	CARBON RESISTOR	27K 5% 1/6W	
R1515	QRD161J-220	CARBON RESISTOR	22 5% 1/6W	
R1516	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R1517	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R2101	QRD161J-105	CARBON RESISTOR	1.0M 5% 1/6W	
R2102	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R2103	QRD161J-274	CARBON RESISTOR	270K 5% 1/6W	
R2105	QRD161J-332	CARBON RESISTOR	3.3K 5% 1/6W	
R2106	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R2107	QRD161J-202	CARBON RESISTOR	2.0K 5% 1/6W	
R2108	QRD161J-362	CARBON RESISTOR	3.6K 5% 1/6W	
R2109	QRD161J-150	CARBON RESISTOR	15 5% 1/6W	
R2110	QRD161J-333	CARBON RESISTOR	33K 5% 1/6W	
R2111	QRD161J-123	CARBON RESISTOR	12K 5% 1/6W	
R2152	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R2154	QRD161J-274	CARBON RESISTOR	270K 5% 1/6W	
R2155	QRD161J-682	CARBON RESISTOR	6.8K 5% 1/6W	
R2158	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R2159	QRD161J-150	CARBON RESISTOR	15 5% 1/6W	
R2160	QRD161J-333	CARBON RESISTOR	33K 5% 1/6W	
R2161	QRD161J-123	CARBON RESISTOR	12K 5% 1/6W	
R2165	QRD161J-105	CARBON RESISTOR	1.0M 5% 1/6W	
R2251	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R2252	QRD161J-332	CARBON RESISTOR	3.3K 5% 1/6W	
R2253	QRD161J-333	CARBON RESISTOR	33K 5% 1/6W	
R2254	QRD161J-123	CARBON RESISTOR	12K 5% 1/6W	
R2255	QRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W	
R2256	QRD161J-152	CARBON RESISTOR	1.5K 5% 1/6W	
R2257	QRD161J-153	CARBON RESISTOR	15K 5% 1/6W	
R2258	QRD161J-181	CARBON RESISTOR	180 5% 1/6W	
R2259	QRD161J-105	CARBON RESISTOR	1.0M 5% 1/6W	
R2261	QRD161J-562	CARBON RESISTOR	5.6K 5% 1/6W	
R2262	QRD161J-682	CARBON RESISTOR	6.8K 5% 1/6W	
R2263	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R2264	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R2265	QRD161J-562	CARBON RESISTOR	5.6K 5% 1/6W	
R2266	QRD161J-682	CARBON RESISTOR	6.8K 5% 1/6W	
R2270	QRD161J-105	CARBON RESISTOR	1.0M 5% 1/6W	
R2273	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R2275	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R2353	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R2354	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
R2355	QRD161J-152	CARBON RESISTOR	1.5K 5% 1/6W	
R2356	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R2357	QRD161J-561	CARBON RESISTOR	560 5% 1/6W	

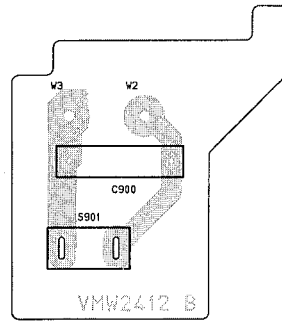
BLOCK NO. 02

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R2451	QRD161J-274	CARBON RESISTOR	270K 5% 1/6W	
R2452	QRD161J-333	CARBON RESISTOR	33K 5% 1/6W	
R2453	QRD14CJ-100SX	CARBON RESISTOR	10 5% 1/4W	
R2501	QRD161J-393	CARBON RESISTOR	39K 5% 1/6W	
R2502	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R2503	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R2504	QRD161J-183	CARBON RESISTOR	18K 5% 1/6W	
R2511	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R2512	QRD161J-392	CARBON RESISTOR	3.9K 5% 1/6W	
R2513	QRD161J-683	CARBON RESISTOR	68K 5% 1/6W	
R2514	QRD161J-273	CARBON RESISTOR	27K 5% 1/6W	
R2515	QRD161J-220	CARBON RESISTOR	22 5% 1/6W	
R2516	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R2517	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R2518	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R2519	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
R2520	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R2521	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R2522	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R2523	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R2524	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
R2525	QRD161J-183	CARBON RESISTOR	18K 5% 1/6W	
R2526	QRD145J-470S	CARBON RESISTOR	47 5% 1/4W	
R2527	QRD145J-470S	CARBON RESISTOR	47 5% 1/4W	
R2528	QRD161J-153	CARBON RESISTOR	15K 5% 1/6W	
R2529	QRD161J-183	CARBON RESISTOR	18K 5% 1/6W	
R2530	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R2531	QRD161J-362	CARBON RESISTOR	3.6K 5% 1/6W	
R2532	QRD161J-302	CARBON RESISTOR	3.0K 5% 1/6W	
R2533	QRD161J-182	CARBON RESISTOR	1.8K 5% 1/6W	
R2534	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R2535	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R2536	QRD161J-183	CARBON RESISTOR	18K 5% 1/6W	
R2537	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R2538	QRD161J-362	CARBON RESISTOR	3.6K 5% 1/6W	
R2539	QRD161J-302	CARBON RESISTOR	3.0K 5% 1/6W	
R2540	QRD161J-182	CARBON RESISTOR	1.8K 5% 1/6W	
R2541	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R2542	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R2543	QRD161J-182	CARBON RESISTOR	1.8K 5% 1/6W	
R2544	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R2545	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R2546	QRD14CJ-4R7SX	CARBON RESISTOR	4.7 5% 1/4W	
R2547	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R2548	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R2549	QRD161J-471	CARBON RESISTOR	470 5% 1/6W	
R2550	QRD161J-332	CARBON RESISTOR	3.3K 5% 1/6W	
R2551	QRD14CJ-6R8SX	CARBON RESISTOR	6.8 5% 1/4W	
R2552	QRD161J-823	CARBON RESISTOR	82K 5% 1/6W	
R2553	QRD161J-823	CARBON RESISTOR	82K 5% 1/6W	
R2554	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R2555	QRD161J-683	CARBON RESISTOR	68K 5% 1/6W	
R2556	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R2557	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R2558	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R2559	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R2560	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R8514	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R8515	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
R8516	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
VR111	QVPA601-104A	V.RESISTOR	A.PB EQ ADJ	
VR112	QVPA601-101	V.RESISTOR	A.PB LEVEL ADJ	
VR116	QVPA601-104A	V.RESISTOR	B.PB EQ ADJ	
VR117	QVPA601-101	V.RESISTOR	B.PB LEVEL ADJ	
VR126	QVPA601-203A	V.RESISTOR	B.REC LEVEL ADJ	
VR146	QVPA601-203A	V.RESISTOR	BIAS ADJ	
VR211	QVPA601-104A	V.RESISTOR	A.PB EQ ADJ	
VR212	QVPA601-101	V.RESISTOR	A.PB LEVEL ADJ	
VR216	QVPA601-104A	V.RESISTOR	B.PB EQ ADJ	
VR217	QVPA601-101	V.RESISTOR	B.PB LEVEL ADJ	
VR226	QVPA601-203A	V.RESISTOR	B.REC LEVEL ADJ	
VR246	QVPA601-203A	V.RESISTOR	BIAS ADJ	
Z 901	VMZ0087-001Z	FUSE CLIP	F901	B,E,EN,G
Z 901	VMZ0087-001Z	FUSE CLIP	F901	U,UT
Z 902	VMZ0087-001Z	FUSE CLIP	F902	U,UT
Z 902	VMZ0087-001Z	FUSE CLIP	F902	B,E,EN,G
Z 903	VMZ0087-001Z	FUSE CLIP	F901	U,UT
Z 903	VMZ0087-001Z	FUSE CLIP	F901	B,E,EN,G
Z 904	VMZ0087-001Z	FUSE CLIP	F902	U,UT
Z 904	VMZ0087-001Z	FUSE CLIP	F902	B,E,EN,G

■ Power Switch B/E/EN/G

(Power switch)



(Power supply)

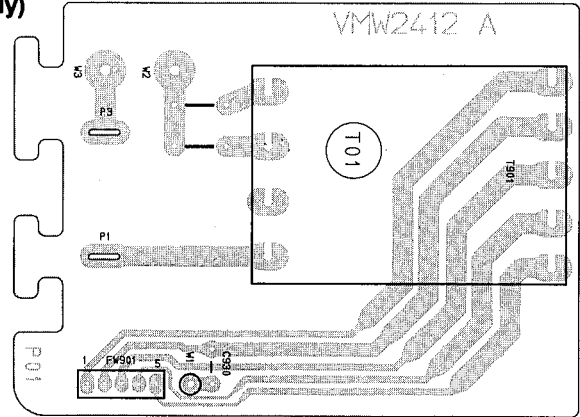


Fig. 8-2

● Power Switch B/E/EN/G Parts List

BLOCK NO. 03					
REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	
C 900	QFZ9037-103	M.CAPACITOR	.010MF	B,E,EN,G	
C 930	QCF11HP-103	C.CAPACITOR	.010MF +100:-0%	B,E,EN,G	
P 1	VMZ0034-001	TAB	FOR POWER CORD	B,E,EN,G	
P 3	VMZ0034-001	TAB	FOR POWER CORD	B,E,EN,G	
S 901	QSP1106-004	PUSH SWITCH		B,E,EN,G	

■ Power supply board U/UT only

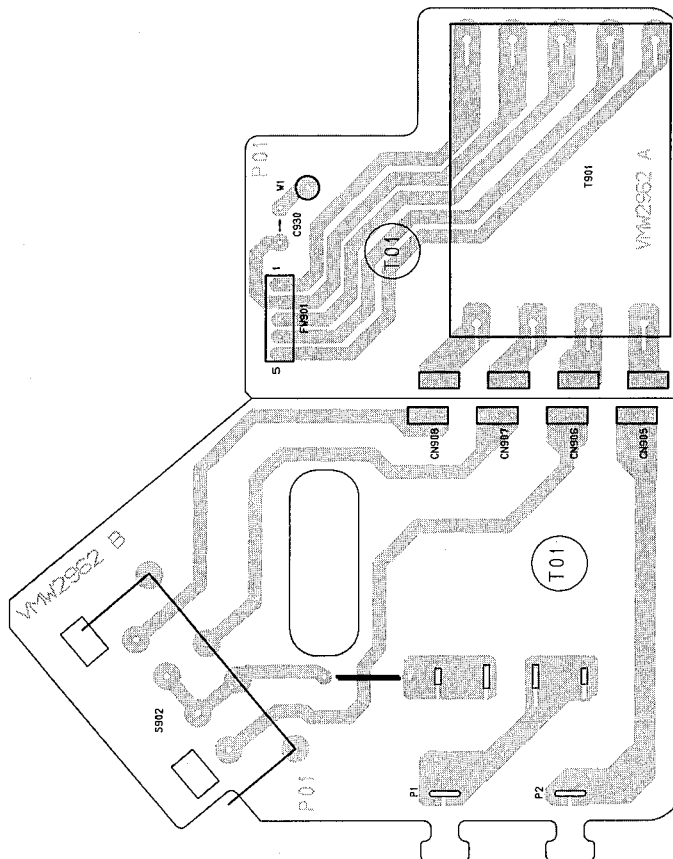


Fig. 8-3

● Power supply board Parts List (U/UT only)

BLOCK NO. 04					
REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	
C 930	QCF11HP-103	C.CAPACITOR	.010MF +100:-0%	U,UT	
CN905	VMC0221-003	CONNECTOR		U,UT	
CN906	VMC0221-003	CONNECTOR		U,UT	
CN907	VMC0221-003	CONNECTOR		U,UT	
CN908	VMC0221-003	CONNECTOR		U,UT	
P 1	VMZ0034-002	TAB		U,UT	
P 2	VMZ0034-002	TAB		U,UT	
S 902	QFF2325-112	SLIDE SWITCH	1100PF	U,UT	
Z 905	VMZ0043-001S	CABLE CLAMP	F903	U,UT	
Z 906	VMZ0043-001S	CABLE CLAMP	F903	U,UT	

1

2

3

4

5

■ Sub Board

A

◆ Key switch board

B

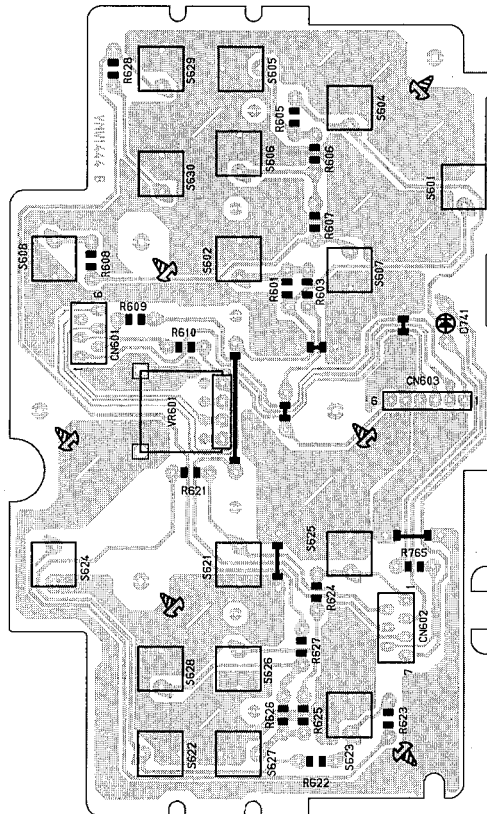
C

D

E

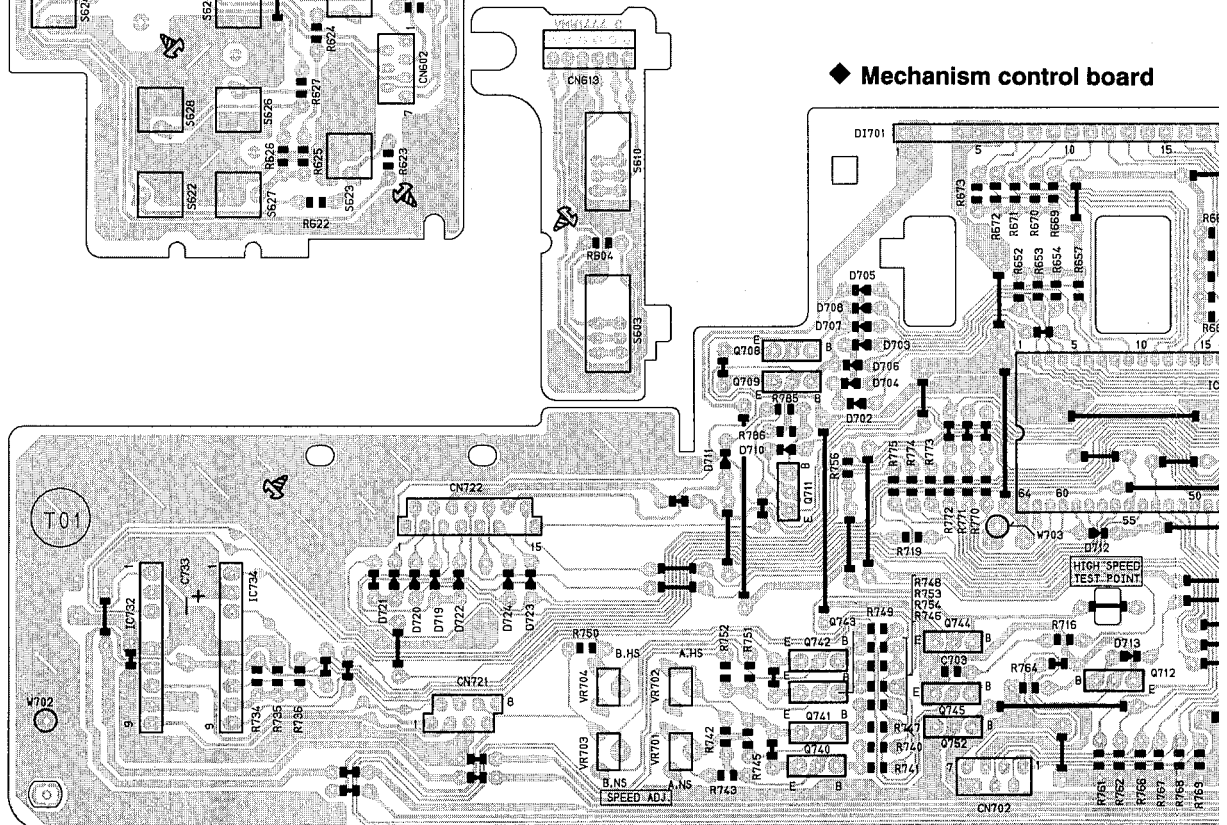
F

G



◆ H. phone Jack board

◆ Mechanism control board



6

7

8

9

10

d

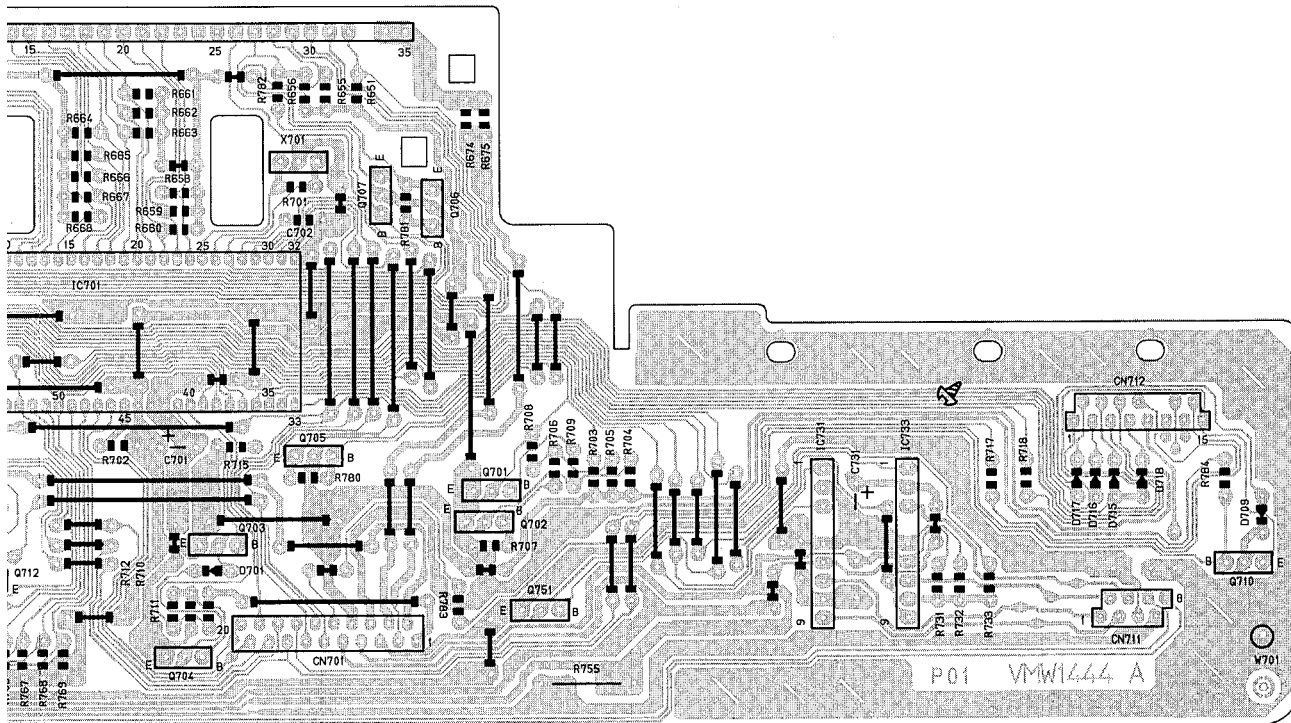


Fig. 8-4

● Sub Board Parts List

BLOCK NO. 02

A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C	701	QET41AM-107	E. CAPACITOR	100MF 20% 10V	
C	702	QCB81HK-471Y	C. CAPACITOR	470PF 10% 50V	
C	703	QCB81HK-471Y	C. CAPACITOR	470PF 10% 50V	
C	731	QEK41EM-106	E. CAPACITOR	10MF 20% 25V	
C	733	QEK41EM-106	E. CAPACITOR	10MF 20% 25V	
CN	601	VMC0163-R06	CONNECTOR		
CN	602	VMC0163-R07	CONNECTOR		
CN	603	VMC0280-006	CONNECTOR		
CN	613	VMC0281-S06	CONNECTOR		
CN	701	VMC0163-R20	CONNECTOR		
CN	702	VMC0163-007	CONNECTOR		
CN	711	VMC0234-P08	CONNECTOR		
CN	712	VMC0234-P15	CONNECTOR		
CN	721	VMC0234-P08	CONNECTOR		
CN	722	VMC0234-P15	CONNECTOR		
D	701	1SS133	SI DIODE		
D	702	1SS133	SI DIODE		
D	703	1SS133	SI DIODE		
D	704	1SS133	SI DIODE		
D	705	1SS133	SI DIODE		
D	706	1SS133	SI DIODE		
D	707	1SS133	SI DIODE		
D	708	1SS133	SI DIODE		
D	709	1SS133	SI DIODE		
D	710	1SS133	SI DIODE		
D	711	1SS133	SI DIODE		
D	712	1SS133	SI DIODE		
D	713	1SS133	SI DIODE		
D	715	1SS133	SI DIODE		
D	716	1SS133	SI DIODE		
D	717	1SS133	SI DIODE		
D	718	1SS133	SI DIODE		
D	719	1SS133	SI DIODE		
D	720	1SS133	SI DIODE		
D	721	1SS133	SI DIODE		
D	722	1SS133	SI DIODE		
D	723	1SS133	SI DIODE		
D	724	1SS133	SI DIODE		
D	741	SLR-56VCTB7	LED		
D	701	QLF0025-001	FL. TUBE		
IC	701	MB88514B-1730T	IC		
IC	731	BA6218	IC	A. CAM MOTOR	
IC	732	BA6218	IC	B. CAM MOTOR	
IC	733	TA8409S	IC	A. REEL MOTOR	
IC	734	TA8409S	IC	B. REEL MOTOR	
Q	701	2SC1740S(R-S)	TRANSISTOR		
Q	702	2SC1740S(R-S)	TRANSISTOR		
Q	703	2TA124ES	TRANSISTOR		
Q	704	2SC1740S(R-S)	TRANSISTOR		
Q	705	2SC1740S(R-S)	TRANSISTOR		
Q	706	2SC1740S(R-S)	TRANSISTOR		
Q	707	2SC1740S(R-S)	TRANSISTOR		
Q	708	DTC124ES	TRANSISTOR		
Q	709	DTC124ES	TRANSISTOR		
Q	710	2SC1740S(R-S)	TRANSISTOR		

BLOCK NO. 02

A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
Q	711	2SC1740S(R-S)	TRANSISTOR		
Q	712	DTC124ES	TRANSISTOR		
Q	740	2SA1175	TRANSISTOR		
Q	741	2SA1175	TRANSISTOR		
Q	742	2SA1175	TRANSISTOR		
Q	743	2SA1175	TRANSISTOR		
Q	744	DTC124ES	TRANSISTOR		
Q	745	DTC124ES	TRANSISTOR		
Q	751	DTC124ES	TRANSISTOR		
Q	752	DTC124ES	TRANSISTOR		
R	601	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R	603	QRD161J-183	CARBON RESISTOR	18K 5% 1/6W	
R	604	QRD161J-273	CARBON RESISTOR	27K 5% 1/6W	
R	605	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R	606	QRD161J-122	CARBON RESISTOR	1.2K 5% 1/6W	
R	607	QRD161J-182	CARBON RESISTOR	1.8K 5% 1/6W	
R	608	QRD161J-272	CARBON RESISTOR	2.7K 5% 1/6W	
R	609	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R	610	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R	621	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R	622	QRD161J-182	CARBON RESISTOR	1.8K 5% 1/6W	
R	623	QRD161J-272	CARBON RESISTOR	2.7K 5% 1/6W	
R	624	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R	625	QRD161J-122	CARBON RESISTOR	1.2K 5% 1/6W	
R	626	QRD161J-182	CARBON RESISTOR	1.8K 5% 1/6W	
R	627	QRD161J-272	CARBON RESISTOR	2.7K 5% 1/6W	
R	628	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R	651	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R	652	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R	653	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R	654	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R	655	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R	656	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R	657	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R	658	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R	659	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R	660	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R	661	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R	662	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R	663	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R	664	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R	665	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R	666	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R	667	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R	668	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R	669	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R	670	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R	671	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R	672	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R	673	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R	674	QRD161J-120	CARBON RESISTOR	12 5% 1/6W	
R	675	QRD161J-120	CARBON RESISTOR	12 5% 1/6W	
R	701	QRD161J-153	CARBON RESISTOR	15K 5% 1/6W	
R	702	QRD161J-221	CARBON RESISTOR	220 5% 1/6W	
R	703	QRD161J-471	CARBON RESISTOR	470 5% 1/6W	

BLOCK NO. 02111111

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R 704	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 705	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 706	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 707	QRD161J-471	CARBON RESISTOR	470 5% 1/6W	
R 708	QRD161J-272	CARBON RESISTOR	2.7K 5% 1/6W	
R 709	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 710	QRD161J-221	CARBON RESISTOR	220 5% 1/6W	
R 711	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
R 712	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R 715	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R 716	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 717	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R 718	QRD161J-221	CARBON RESISTOR	220 5% 1/6W	
R 719	QRD161J-221	CARBON RESISTOR	220 5% 1/6W	
R 731	QRD161J-332	CARBON RESISTOR	3.3K 5% 1/6W	
R 732	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 733	QRD161J-182	CARBON RESISTOR	1.8K 5% 1/6W	
R 734	QRD161J-332	CARBON RESISTOR	3.3K 5% 1/6W	
R 735	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 736	QRD161J-182	CARBON RESISTOR	1.8K 5% 1/6W	
R 740	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W	
R 741	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W	
R 742	QRD161J-153	CARBON RESISTOR	15K 5% 1/6W	
R 743	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 745	QRD161J-683	CARBON RESISTOR	68K 5% 1/6W	
R 746	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W	
R 747	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W	
R 748	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W	
R 749	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W	
R 750	QRD161J-683	CARBON RESISTOR	68K 5% 1/6W	
R 751	QRD161J-153	CARBON RESISTOR	15K 5% 1/6W	
R 752	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 753	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W	
R 754	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W	
R 755	QRH144J-4R7	FUSE RESISTOR	4.7 1/0W	U,UT
R 755	QRD14CJ-4R7SX	CARBON RESISTOR	4.7 5% 1/4W	C,J
R 755	QRH144J-4R7	FUSE RESISTOR	4.7 1/0W	B,E,EN,G
R 756	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 761	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R 762	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R 764	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R 765	QRD161J-391	CARBON RESISTOR	390 5% 1/6W	
R 766	QRD161J-682	CARBON RESISTOR	6.8K 5% 1/6W	
R 767	QRD161J-682	CARBON RESISTOR	6.8K 5% 1/6W	
R 768	QRD161J-682	CARBON RESISTOR	6.8K 5% 1/6W	
R 769	QRD161J-682	CARBON RESISTOR	6.8K 5% 1/6W	
R 770	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
R 771	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
R 772	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
R 773	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
R 774	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
R 775	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
R 780	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R 781	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R 782	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	

BLOCK NO. 02111111

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R 783	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R 784	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R 785	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
R 786	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
S 601	QS04H11-V12Z	TACT SWITCH		
S 602	QS04H11-V12Z	TACT SWITCH		
S 603	QSS7A23-V03	SLIDE SWITCH	REV.MODE SW	
S 604	QS04H11-V12Z	TACT SWITCH		
S 605	QS04H11-V12Z	TACT SWITCH		
S 606	QS04H11-V12Z	TACT SWITCH		
S 607	QS04H11-V12Z	TACT SWITCH		
S 608	QS04H11-V12Z	TACT SWITCH		
S 610	QSS7A23-V03	SLIDE SWITCH	DOLBY NR SW	
S 621	QS04H11-V12Z	TACT SWITCH		
S 622	QS04H11-V12Z	TACT SWITCH		
S 623	QS04H11-V12Z	TACT SWITCH		
S 624	QS04H11-V12Z	TACT SWITCH		
S 625	QS04H11-V12Z	TACT SWITCH		
S 626	QS04H11-V12Z	TACT SWITCH		
S 627	QS04H11-V12Z	TACT SWITCH		
S 628	QS04H11-V12Z	TACT SWITCH		
S 629	QS04H11-V12Z	TACT SWITCH		
S 630	QS04H11-V12Z	TACT SWITCH		
VR601	QVGA12B-V06	V RESISTOR	INPUT VR	
VR701	QVPE612-103ZM	SEMI.V.RESISTOR	A.NORM SPEED AD	
VR702	QVPE612-203ZM	SEMI.V.RESISTOR	A.HIGH SPEED AD	
VR703	QVPE612-103ZM	SEMI.V.RESISTOR	B.NORM SPEED AD	
VR704	QVPE612-203ZM	SEMI.V.RESISTOR	B.HIGH SPEED AD	
X 701	EFO-EC8004T4	CERAMIC RESONAT	(F=8MHZ)	
Z 701	VYH3988-001	FL HOLDER	ABS	

9 Exploded view of Enclosure Component Parts

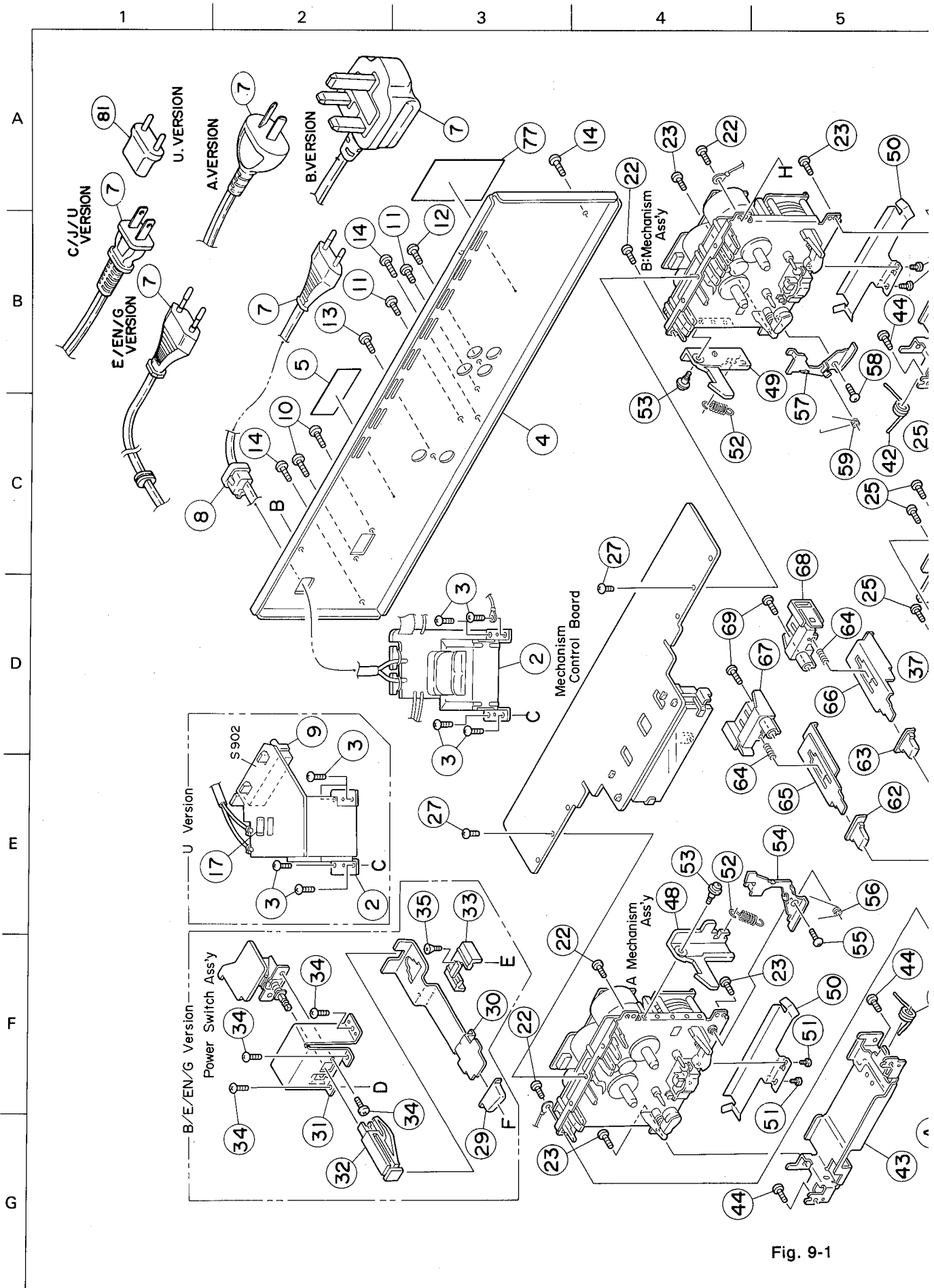
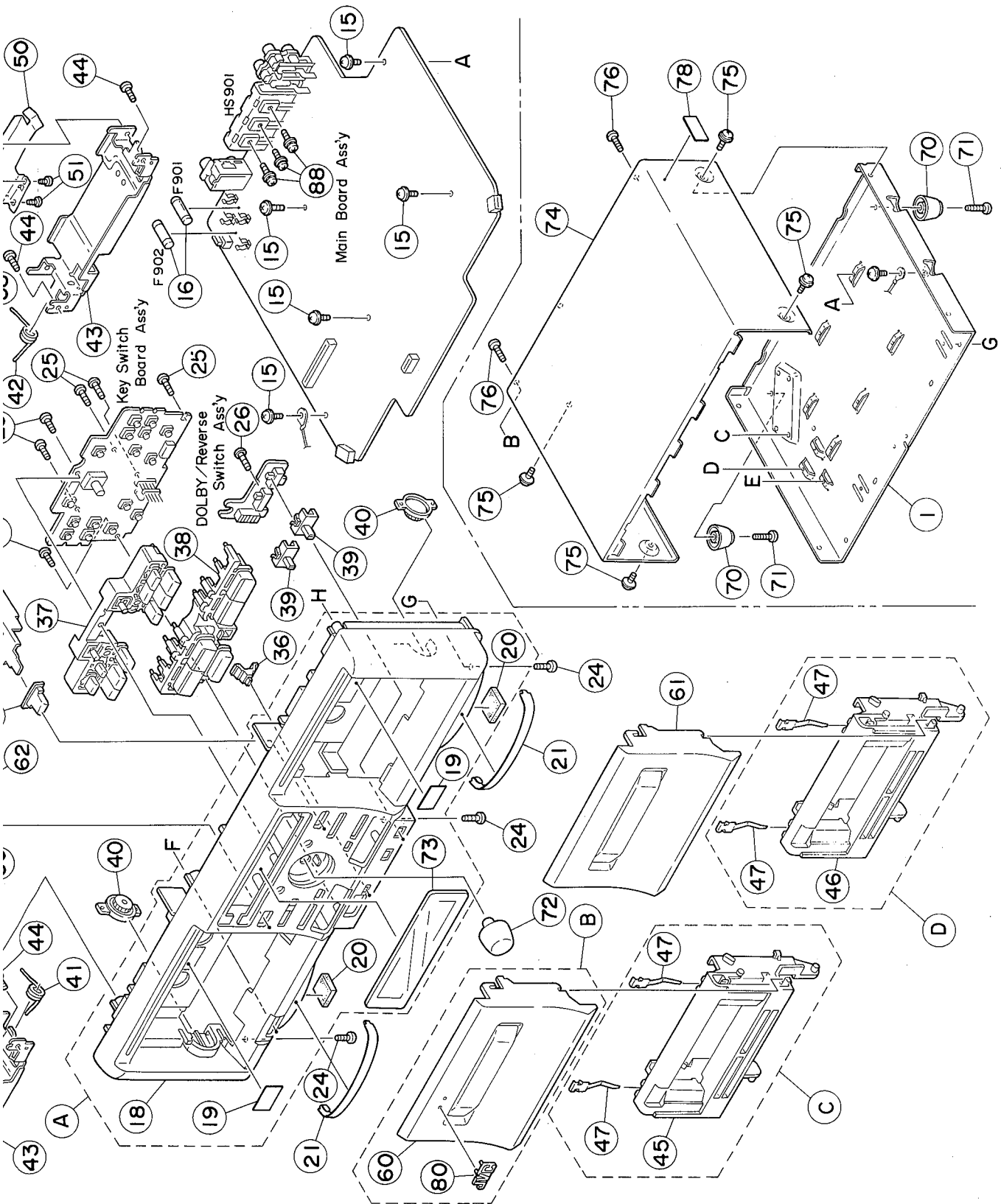


Fig. 9-1

	6	7	8	9	10
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● Enclosure Component Parts List

BLOCK NO. M1MM

REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
A	ZCTDW5THJ-FB	FRONT PANEL ASS	NO.18-20,73	1	C,J	
	ZCTDW5THK-FB	FRONT PANEL ASS	NO.18-20,73	1	B,E,EN,G	
	ZCTDW5THU-FB	FRONT PANEL ASS	NO.18-20,73	1	U,UT	
B	ZCTDW5THK-CL-A	CASSETTE LID AS	NO.60,80 DECK-A	1		
C	ZCTDW217K-CH-A	CASSETTE HOLDER	NO.45,47 DECK-A	1		
D	ZCTDW217K-CH-B	CASSETTE HOLDER	NO.46-47 DECK-B	1		
1	VKL1447-001	CHASSIS BASE		1		
2	VTP52A5-011F	POWER TRANS.		1	C,J	
	VTP52Z5-011F	POWER TRANS.		1	B,E,EN,G	
	VTP52G5-011F	POWER TRANS.		1	U,UT	
3	SBST3006Z	SCREW	FOR POWER TRANS	4		
4	VJC2592-001	REAR PANEL		1	B,E,EN,G	
	VJC2592-001	REAR PANEL		1	C,J	
	VJC2592-002	REAR PANEL		1	U,UT	
5	VND4999-001	FCC LABEL (3)		1	C,J	
6	LE40210-001A	CAUTION LABEL		1	UT	
7	QMP1340-200	POWER CORD		1	C,J	
	QMP3900-200	POWER CORD		1	E,EN,G	
	QMP5530-008BS	POWER CORD		1	B	
	QMP7380-200	POWER CORD		1	U,UT	
8	QHS3771-108	CORD STOPPER		1		
9	VKS5011-001	VOLTAGE CONTACT	S902	1	U,UT	
10	SBSF3008M	SCREW	FOR V.SELECTORU	2	U,UT	
11	SBSF3008M	SCREW	FOR HEAT SINK	2		
12	SBSF3008M	SCREW	FOR PIN JACK	1		
13	SBSF3008M	SCREW	FOR DCS JACK	1		
14	SBST3006M	SCREW	FOR REAR+CHASSI	3		
15	GBST3006Z	SCREW	FOR MAIN P.C.BO	4		
16	QMF51E2-R80SBS	FUSE		2	B	
	QMF51E2-R80SBS	FUSE		2	E,EN,G,U,UT	
17	QMF51A2-R315	FUSE		1	U,UT	
18	VJG1480-001	FRONT PANEL		1	B,E,EN,G	
	VJG1480-002UL	FRONT PANEL		1	C,J	
	VJG1480-003	FRONT PANEL		1	U,UT	
19	VJD4024-002	REFLECTION PLAT		2		
20	E406855-006SM	SPACER	FOR FRONT FOOT	2		
21	E310174-001	RING	FOR FRONT FOOT	2		
22	SBSF3010Z	SCREW	FOR MECHANISM	4		
23	SBST3006Z	SCREW	MECHA + M. HOL	4		
24	SBST3006M	SCREW	FOR FRONT PANEL	3		
25	SBSF2610Z	SCREW	FOR SLIDE PCB	6		
26	SBSF2610Z	SCREW		1		
27	SDST2604Z	SCREW	FOR FL.PWB+MECH	2		
29	VXP5356-001	POWER BUTTON		1	B,E,EN,G	
30	VKL7875-001	REMOTE BRACKET		1	B,E,EN,G	
31	VYH8119-001	SW BRACKET		1	B,E,EN,G	
32	VKS5569-001	REMOTE BAR		1	B,E,EN,G	
33	VKS5570-001	SLIDER		1	B,E,EN,G	
34	SBST3006Z	SCREW		4	B,E,EN,G	
35	SSST3008Z	SCREW		1	B,E,EN,G	
36	VJK4509-001	LED LENS	STANDBY	1		
37	VXP2136-002	MECHA BUTTON-A	DUB--M.SCAN	1		
38	VXP2137-001	MECHA BUTTON-B		1	B,E,EN,G	
	VXP2137-002	MECHA BUTTON-B		1	C,J,U,UT	
39	VXS4398-001	SLIDE KNOB	REV.MODE DOLBY	2		

BLOCK NO. M1MM

REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
40	VYH7779-00B	DUMPER ASS'Y		2		
41	VKW3006-243	TORSION SPRING	A-HOLDER	1		
42	VKW3006-244	TORSION SPRING	B-HOLDER	1		
43	VYH3985-001	MECHA HOLDER	EGC T1 AB MECHA	2		
44	SBSF2610Z	SCREW	FOR MECHANISM B	4		
45	VJT2317-007	CASSETTE HOLDER	FOR A-MECHA	1		
46	VJT2317-008	CASSETTE HOLDER	FOR B-MECHA	1		
47	VKY4180-001	CASSETTE SPRING		4		
48	VYH7941-005	LOCK LEVER(L)	FOR A MECHA	1		
49	VYH7941-006	LOCK LEVER(R)	FOR B MECHA	1		
50	VMA4643-001	SHIELD	FOR MESA	2		
51	SDST2603Z	SCREW	FOR MECHA+SHIEL	4		
52	VKW5199-001	TENSION SPRING	FOR LOCK LEVER	2		
53	VKZ4749-001	SPECIAL SCREW	FOR LOCK L+MECH	2		
54	VKL7293-001	EJECT SAFTY(R)	EGC	1		
55	SBSF3010Z	SCREW	FOR E.SAFTY(R)	1		
56	VKW5069-002	TORSION SPRING	FOR E.SAFTY(R)	1		
57	VKL7663-001	EJECT SAFTY(L)	EGC	1		
58	SBSF3010Z	SCREW	FOR E.SAFTY(L)	1		
59	VKW5104-003	TORSION SPRING	FOR E.SAFTY(L)	1		
60	VJT3391-00A	C.LID ASSY-L		1		
61	VJT3391-00B	C.LID ASSY-R		1		
62	VXP5289-005	EJECT BUTTON(L)	EJECT	1		
63	VXP5289-006	EJECT BUTTON(R)	FOR EJECT B-MEC	1		
64	VKW3001-077	C.SPRING	FOR EJECT	2		
65	VKL7876-001	REMOTE ARM-A	A-MECHA EGC TO.	1		
66	VKL7877-001	REMOTE ARM-B	B-MECHA EGC TO.	1		
67	VYH8157-001	BUTTON HOLDER-A	A-MECHA ABS	1		
68	VYH8159-001	BUTTON HOLDER-B	B-MECHA ABS	1		
69	SBSF2610Z	SCREW	FOR B.H.+F.P.	2		
70	VJF4057-001	FOOT ASS'Y	ABS CHIYODA STD	2		
71	SBST3012Z	SCREW	FOR FOOT	2		
72	VXL3028-001	KNOB	INPUT VOLUME	1		
73	VJE3027-001	FINDER		1		
74	VJG1481-001	TOP COVER	FINAL BEND	1		
75	E406308-001	SPECIAL SCREW	TOP COVER SIDE	4		
76	SBST3006M	SCREW	FOR TOP COVER	2		
77	VYN2359-M002PA	NAME PLATE		1	B	
	VYN2359-M006PA	NAME PLATE		1	C,J	
	VYN2359-M007PA	NAME PLATE		1	U,UT	
	VYN2359-M005PA	NAME PLATE		1	E,EN,G	
78	VYN2356-010	NAME PLATE		1	UT	
80	PQ45130-1-1	JVC MARK		1		
81	V04062-001	CONTI.PLUG		1	U,UT	
82	DPSP3008Z	SCREW	FOR Q901,903,90	3		
88	GBST3006Z	SCREW		1		
△ HS901	VMH4011-201	HEAT SINK		1		
△ S.902	QSS2325-112	SLIDE SWITCH		1		

10 Exploded View of Mechanism Component Parts

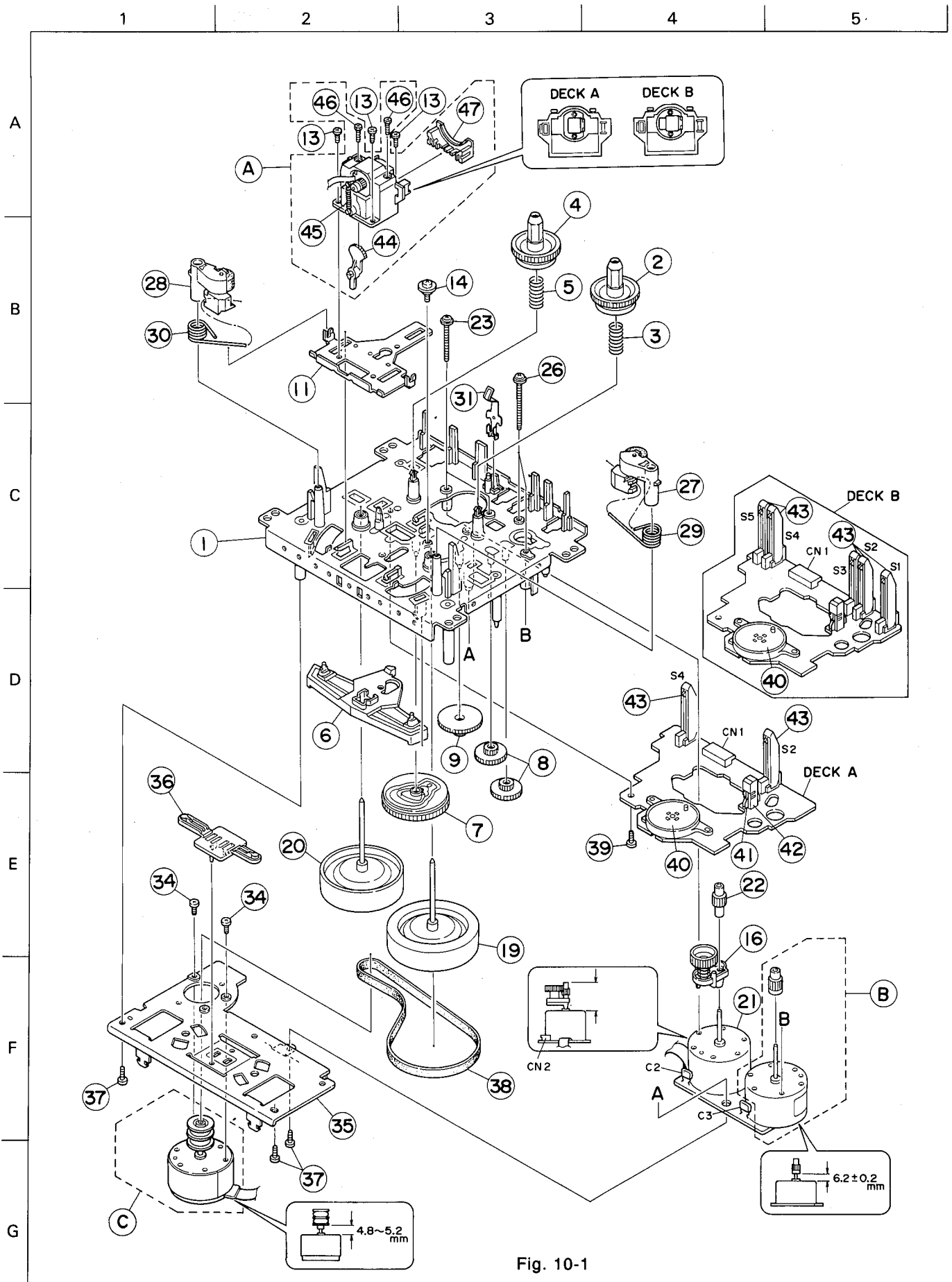


Fig. 10-1

● Mechanism Component Parts List

BLOCK NO. **M2MM**

△	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	A	VKS3626-00E	H.MOUNT ASS'Y	A MECHA	1		
		VKS3629-00E	H.MOUNT ASS'Y	B MECHA.	1		
	B	MSN5D257A-SA1	DC MOTOR ASS'Y		1		
	C	MSI5B2LW-SA2	CAPSTAN MOTOR		1		
	1	VKS1126-00B	CHASSIS B ASS'Y		1		
	2	VKS5428-00B	T-UP REEL ASSY		1		
	3	VKW5043-001	B.T. SPRING		1		
	4	VKS3617-002	REEL		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	SDSR2004Z	SCREW		3		
	14	VKZ4708-001	SPECIAL SCREW		1		
	16	VKS5430-00CMM	FR ARM ASS'Y		1		
	19	VKF3195-00A	FLYWHEEL(R) ASSY		1		
	20	VKF3197-00A	FLYWHEEL(L) ASSY		1		
	21	MMN-6F4RA38	D.C.MOTOR	FOR REEL, MOTOR	1		
	22	VKS5432-001	REEL MOT. GEAR	GEAR KIT S	1		
	23	VKZ4705-001	SCREW		2		
	26	VKZ4705-002	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)	FOR PINCH (R)	1		
	30	VKW5046-003	P.R. SP.(L)	FOR PINCH (L)	1		
	31	VKY4670-001	CASSETTE SPRING	PRESS KIT S	1		
	34	SPSP2603Z	SCREW		2		
	35	VKM3636-002	FM. BRACKET		1		
	36	VKS5327-005MM	THRUST PLATE		1		
	37	SBSF2608Z	SCREW		3		
	38	VKB3001-068	BELT		1		
	39	SDST2612Z	SCREW		1		
	40	VKS3616-00A	CAM SW UNIT	S6	1		
	41	DN6851-HI	HALL IC		1		
	42	VKS3630-001MM	IC HOLDER	IC1	1		
	43	MXS00220MVLO	CASSETTE SWITCH	S1,S2,S3,S4,S5	5		
		MXS00220MVLO	CASSETTE SWITCH	A MECHA	2		
	44	VKS3614-001	TURN OVER GEAR		1		
	45	VKW5126-001	HEAD SPRING		1		
	46	VKZ4730-001	SPECIAL SCREW		2		
	47	VKS3654-001	HEAD MT. COVER		1		
C	2	QFV41HJ-104ZM	TF CAPACITOR	C2,C3	2		
CN	1	VMC0234-R15	CONNECTOR	CN1	1		
CN	2	VMC0234-R08	CONNECTOR	CN2	1		

11 Packing Illustration and packing parts list

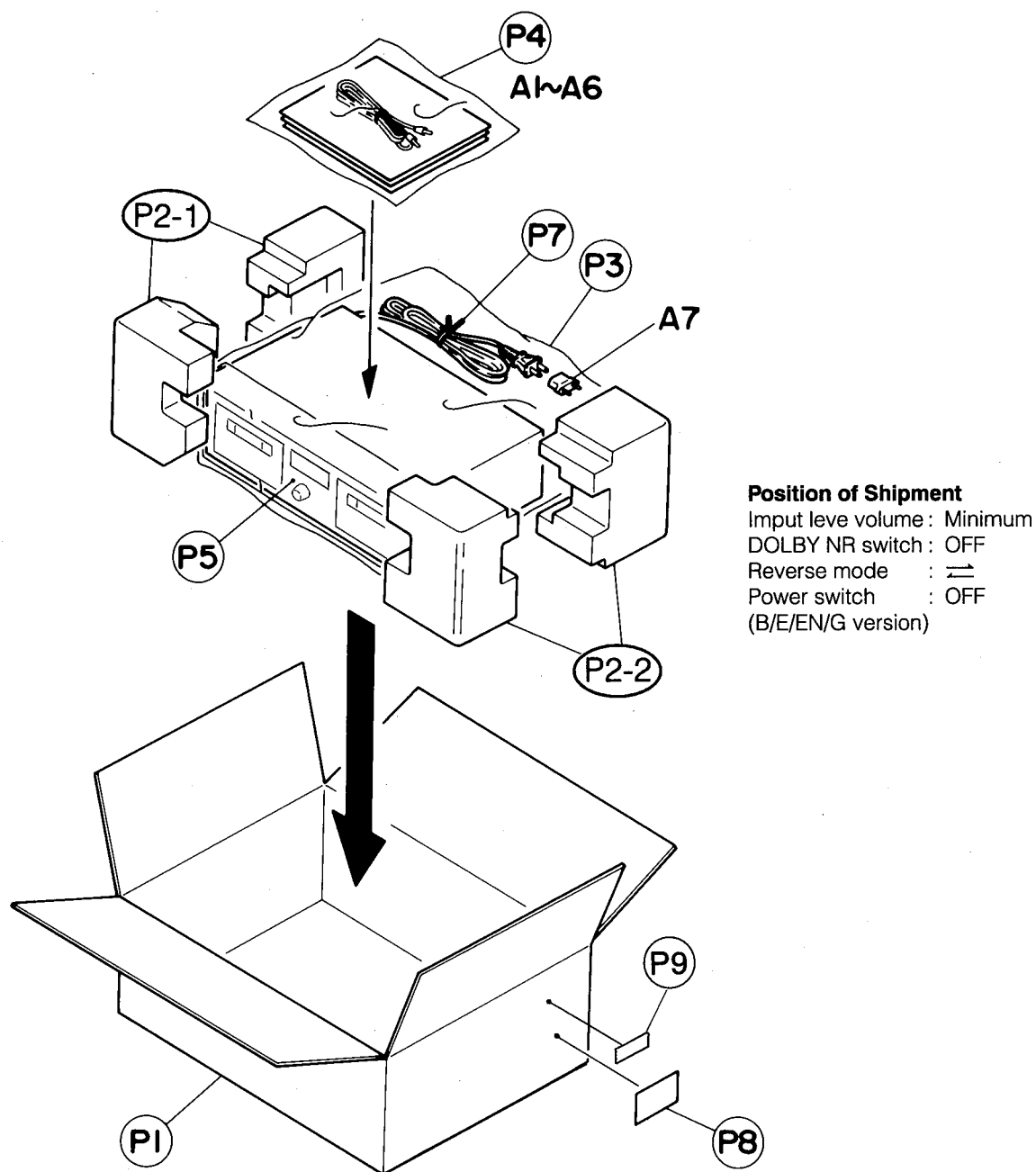


Fig. 11-1

● Packing Parts List

BLOCK NO. M3MM

REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
P 1	VPC2359-M001	CARTON		1	U,UT	
	VPC2359-M001	CARTON		1	B,E,EN,G	
	VPC2359-M002	CARTON		1	C,J	
P 2-1	VPH2482-201	CUSHION (L)		1		
P 2-2	VPH2482-202	CUSHION (R)		1		
P 3	E309758-017	POLY BAG		1		
P 4	VPE3005-007	POLY BAG	FOR INSTRUCTION	1		
P 7	Q04141H	WIRE CLAMP		1		
P 8	-----	CARTON LABEL		1		
P 9	VYN2359-010	NAME PLATE		1	UT	

● Accessories

BLOCK NO. M4MM IIII

△	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	A 1	VMP0039-00D	PIN CORD		1		
	A 2	VNN2359-121M	INSTRUCTIONS		1	U,UT	
		VNN2359-671M	INSTRUCTIONS		1	B,J	
		VNN2359-671M	INSTRUCTIONS		1	J	
		VNN2359-661M	INSTRUCTIONS		1	U,UT	
		VNN2359-661M	INSTRUCTIONS		1	C,E,EN,G	
		VNN2359-271M	INSTRUCTIONS		1	EN	
	A 3	BT-52002-1	WARRANTY CARD		1	C	
		BT-54003-1	WARRANTY CARD		1	B	
		BT-20047F	WARRANTY CARD		1	J	
		BT-20134	WARRANTY CARD		1	G	
	A 4	BT-20071B	SVC CENTER LIST		1	C	
		BT-20066A	SERVICE NETWORK		1	B	
		BT-20137	SERVICE NETWORK		1	J	
	A 5	EWP805-012	REMOTE WIRE		1		
	A 6	E43486-340A	SAFETY I.SHEET		1	B	
		BT-20044G	SAFETY INST.		1	C,J	
	A 7	V04062-001	CONTI.PLUG		1	U,UT	

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