

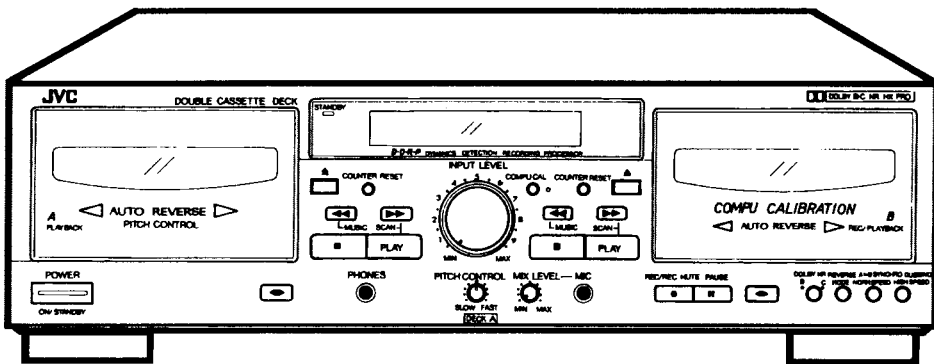
# JVC

## SERVICE MANUAL

### DOUBLE CASSETTE DECK

**TD-W317TN** C/J

**TD-W318BK** A/B/E/EN/G/U/UT



**COMPU LINK**  
 Component

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

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## ■ Safety Precautions

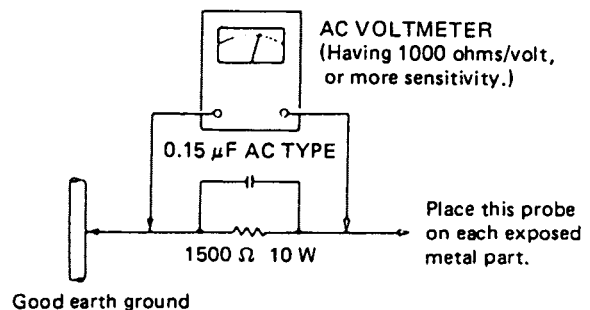
1. The design this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original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

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

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

• Alternate check method

Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 ohms 10W resistor paralleled by a 0.15  $\mu$  F AC type capacitor between an exposed metal part and a known good earth ground. Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each

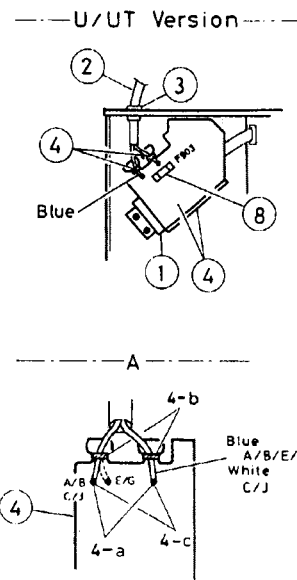
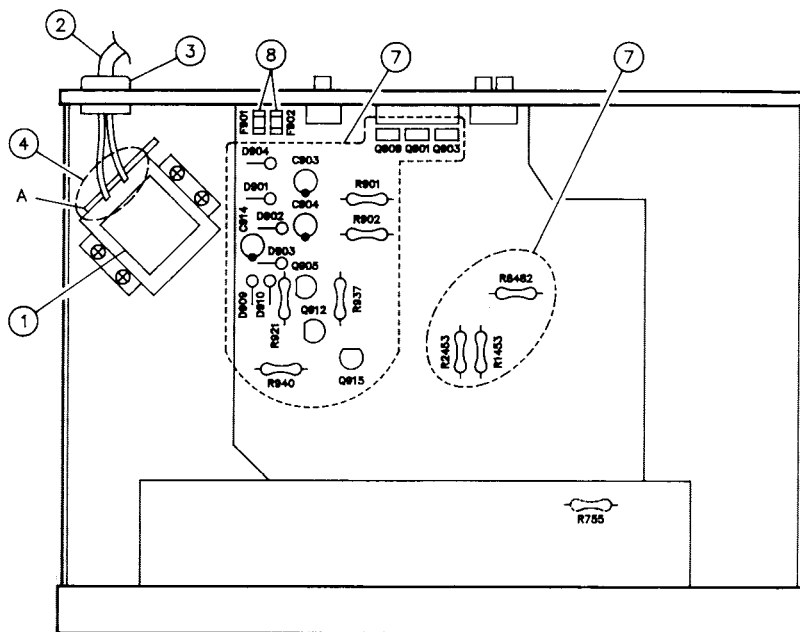


exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC(r.m.s.). This corresponds to 0.5mA AC(r.m.s.).

## ◆ Warning

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

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



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

| Suffix     | Marking      | Description     | Model   |
|------------|--------------|-----------------|---------|
| J          | 5216507      | UL approved No. | TD-W317 |
| C          | VTP52A5-011F |                 | TD-W317 |
| A/B/E/EN/G | VTP52Z5-011F |                 | TD-W318 |
| U/UT       | VTP54G5-001F |                 | TD-W318 |

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

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

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

4. Wiring terminal

- 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.

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

● Parts in parentheses ( ) are inflammables. Make sure of their lift-up condition for the purpose.

● Parts in box are out of JVC's control.

D901 D902 D903 D904 D909 D910 Q901 Q903 Q905 Q909 Q912 Q915 R901 R902 R921 R1453 R2453 R8482 R940 R755 C914


Other parts

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

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

## ■ Features

1. Double auto-reverse mechanism for recording/playback in deck B and playback in deck A
2. COMPU CAL function which automatically sets the flat characteristics and brings out maximum tape performance.
3. Full logic mechanism
4. Dolby\* HX PRO headroom extension
5. Dolby B & C noise reduction system
6. DDRP (Dynamics Detection Recording Processor) compatibility  
 The DDRP function is possible only when used with a suitable JVC CD player.
7. 2-color FL peak level indicator
8. Digital tape counter respectively for deck A and deck B
9. Synchro start (normal-/high-speed) dubbing
10. Auto tape select mechanism (decks A and B)
11. Multi music scan mechanism for either direction  
 "Under License of Staar S.A., Brussels, Belgium"
12. PITCH control
13. Microphone mixing is possible
14. 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

COMPU LINK control system is the convenient system using COMPU LINK-3/SYNCHRO terminals on the rear panel. (See page 4 and 10.)

### **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.

## ■ Specifications

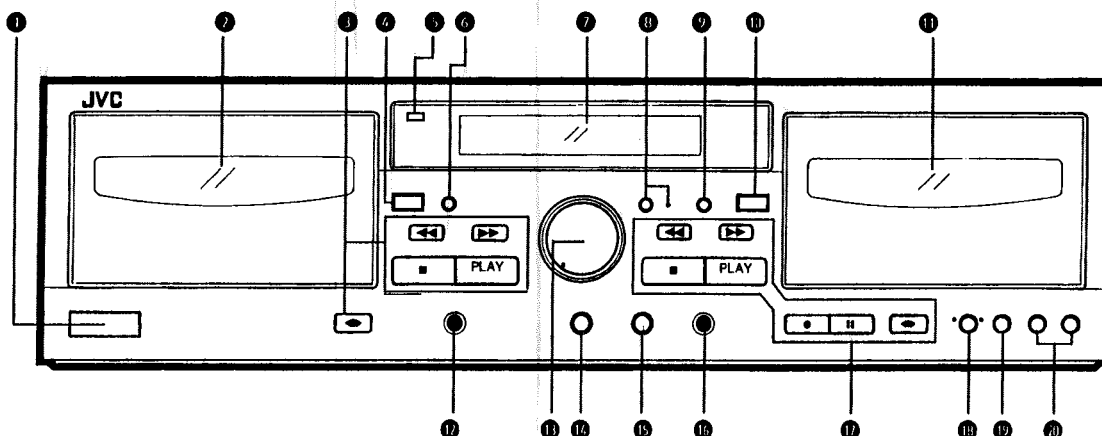
|                     |  |
|---------------------|--|
| Type                | : Double cassette deck   |
| Track system        | : 4-track, 2-channel   |
| Tape speed          | : 4.8 cm/sec (1-7/8 inch/sec) (Normal)<br>9.5 cm/sec (3-3/4 inch/sec) (High)   |
| Frequency response  | : (-20 dB recording)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

|                          |   |
|--------------------------|---|
| Motors                   | : Electric governed DC motor for capstan x 1<br>DC motor for reel x 1<br>DC motor for mechanism drive x 1<br>(For both decks A and B) |
| Fast forward/rewind time | : Approx. 110 sec. with C-60 cassette   |
| Input terminals          |   |
| LINE IN (x1 circuit)     | : Input sensitivity; 80 mV (0 VU)<br>Input impedance; 50 kΩ   |
| MIC x 1 (Monaural)       | : Input sensitivity; 0.4m V (-68dBV)<br>Matching impedance; 600 ~ 10 kΩ   |
| Output terminals         |   |
| LINE OUT (x 1 circuit)   | : Output level; 300 mV (0 VU)<br>Output impedance; 5 kΩ   |
| PHONES x 1               | : Output level; 0.3 mW/8 Ω (0 VU)<br>Matching impedance 8 Ω - 1 kΩ  |
| Other terminals          | : COMPU LINK-3/SYNCHRO x 2  |
| Power requirement        | : AC 240 V, 50 Hz (Australia)<br>AC 230 V, 50 Hz (U.K.)<br>AC 120 V, 60 Hz (U.S.A.)   |
| Power consumption        | : With power switch on 17 W<br>With power switch standby 4.0 W  |
| Dimensions (W x H x D)   | : 435 x 134 x 331 mm<br>(17-3/16" x 5-5/16" x 13-1/16")   |
| Weight                   | : 4.9 kg (10.9 lbs.)  |
| Accessories              | : Pin plug cord ..... 2<br>Remote cable ..... 1   |

Design and specifications are subject to change without notice.

# ■ Instructions (Extraction)

## NAMES OF PARTS AND THEIR FUNCTIONS



**1 POWER switch (ON/STANDBY)**

**2 Cassette holder (deck A)**

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

◀◀ : Press to wind the tape quickly from right to left.

▶▶ : Press to wind the tape quickly from left to right.

PLAY : Press to play the tape.

■ (stop) : Press to stop the tape.

◀▶ (direction) : Press to change the direction of tape travel.

**4 ▲ (eject) button (deck A)**

**5 Power STANDBY Indicator**

Lights when in the power standby mode.

**6 COUNTER RESET button (deck A)**

Press this button to set the digital counter to "0000". Even if the POWER switch is set to STANDBY, the counter value at that time is stored in memory.

**7 Indicators**

**① DDRP indicator**

**② Peak level indicator**

These indicators light according to the level of the signal being recorded or the level of the signal recorded on the tape.

Note:

0 dB : IEC (DIN) STANDARD LEVEL (250 nWb/m)

0 VU : Signal level at 160 nWb/m

□□ : DOLBY NR STANDARD LEVEL

**③ HX PRO indicator**

**④ Digital counter**

The counter reading increases while the tape is running forward and decreases when it is running in reverse. In the Multi Music Scan mode when the ◀◀ (or ▶▶) button is pressed, the number of tunes which will be skipped is displayed.

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

▶▶ : This lights when rewinding the tape from left to right.

◀◀ : This lights when rewinding the tape from right to left.

PLAY : This lights when in the playback.

◀▶ : Indicates the direction of tape travel.

**⑥ DUBBING >>** : ">" lights when in the normal-speed dubbing mode.

">>" lights when in the high-speed dubbing mode.

**⑦ CONT** : Lights when the unit is in the continuous play mode.

**⑧ Mechanism mode indicators (deck B)**

PLAY : Lights when the unit is in the playback and record modes.

◀▶ : Indicates the direction of tape travel.

REC : Lights when the unit is in the record and record-pause modes; blinks during record muting.

|| : Pause Indicator

▶▶ : This lights when rewinding the tape from left to right.

◀◀ : This lights when rewinding the tape from right to left.

**⑨ ↺** : Indicates reverse mode.

**⑩ COMPU CAL button and indicator**

Press this button to automatically set the recording characteristics with the COMPU CAL function. (See page 8.)

**⑪ COUNTER RESET button (deck B)**

**⑫ ▲ (eject) button (deck B)**

**⑬ Cassette holder (deck B)**

**⑭ PHONES jack**

Connects headphones (with an impedance of 8 Ω to 1 kΩ).

**⑮ INPUT LEVEL control**

**⑯ PITCH control (deck A)**

Varies the tape speed in deck A in the range of about ±10%. However, it cannot change the tape speed in the high-speed dubbing.

Turning it counterclockwise toward "SLOW" causes the tape speed to decrease while turning clockwise toward "FAST" causes it to increase. The center click position is for the standard speed. (See page 7.)

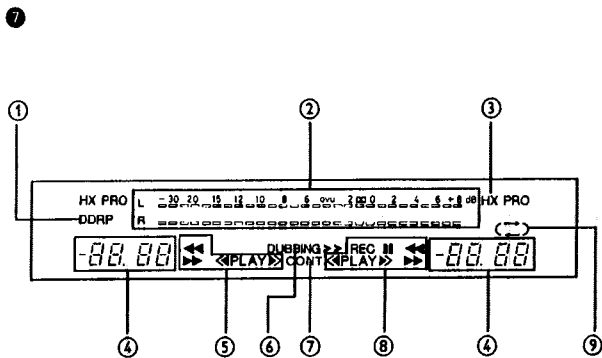
**⑰ Mixing microphone level control**

Adjusts the microphone input level.

**⑱ MIX MIC jack**

Connects a microphone (with an impedance of 600 Ω to 10 kΩ) to this jack.

Sounds from the microphone are monaural.



**① Cassette operation buttons (deck B)**

- ◀▶ : Press to wind the tape quickly from right to left.
- ▶▶ : Press to wind the tape quickly from left to right.
- (stop) : Press to stop the tape. Also press to stop both decks simultaneously during dubbing.
- PLAY : Press to start playback/recording.
- REC/REC MUTE : Press the PLAY button while pressing this button to start recording, and press to leave an appropriate non-recorded section. (See page 9.)
- ⏸ PAUSE : Press to stop the tape temporarily during recording and playback. Press the PLAY button to release the pause mode.
- ◀▶ (direction) : Press to change the direction of tape travel.

**② DOLBY NR button and indicators**

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. Each time the button is pressed the NR mode changes and the indicator lights. (Dolby B NR -> Dolby C NR -> NR OFF -> Dolby B NR ...)

Set to OFF when the Dolby NR system is not used.

**③ REVERSE MODE switch**

Select the single side or full record/playback mode, or the continuous play mode. Each time the button is pressed the mode changes. (▶ -> ◀ -> ◀▶ -> ▶▶ ...) The current mode can be checked with the mechanism mode indicator.

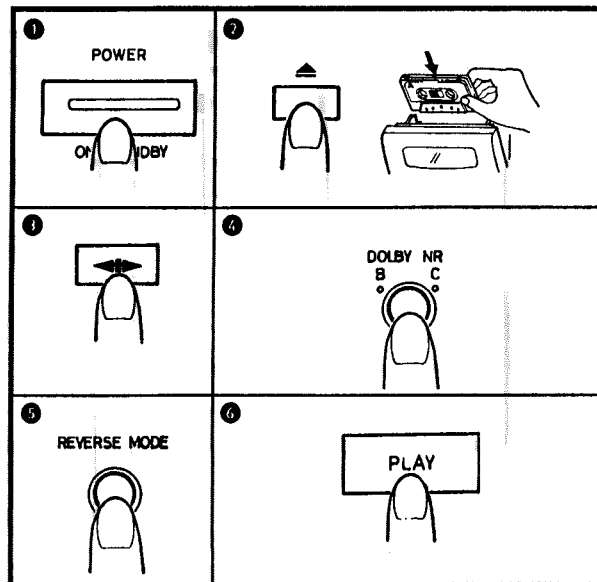
- ◀▶ : For single-side recording or playback.
- ▶▶ : To play or record both sides A and B.
- ◀▶ : To play sides A and B continuously.

**④ A ▶ B SYNCHRO DUBBING buttons**

Press to dub from deck A to deck B.

- NORM SPEED : Press to perform normal-speed dubbing.
- HIGH SPEED : Press to perform high-speed dubbing.

**PLAYBACK**



**Playback of deck A**

Operate in the order of the numbers in the illustration.

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

**Playback of deck B**

Perform steps ② to ⑥ of the above procedure for deck B.

**Microphone mixing during playback**

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

**Continuous play**

First set the REVERSE MODE switch to ◀▶.

Load cassette tapes in both decks and press the PLAY button of the deck to be played first for continuous play of both decks.

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

**Note:**

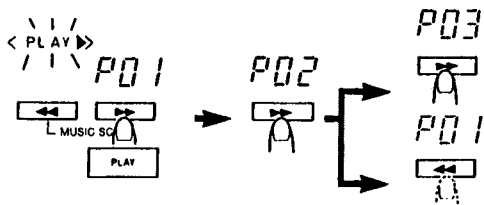
- Use tapes recorded using the same NR mode in decks A and B.

**PITCH control (deck A)**

It is possible to vary the tape speed in deck A in the range of about ±10% in the playback mode. The center click position is for the standard tape speed.

## MULTI MUSIC SCAN

- The multi music scan mechanism of this unit allows you to quickly locate the beginning of a specific tune (up to 99 tunes before or after the current tune).
  - The multi music scan mechanism functions by detecting non-recorded sections between tunes (of more than 4-5 sec.).
  - The illustration shows the forward direction.
- Example of fast forward scan.



### Procedure

1. Press the ►► button during playback.
2. When more than 2 tunes are to be skipped, after procedure 1 press the ►► (or ◀◀) button the number of times you want to skip tunes. The number of tunes to be skipped is displayed in the counter.

### Relation between Multi Music Scan and REVERSE MODE.

⇐ : The multi music scan mechanism operates on one side of the tape only. If the number set is too high (more than there are tunes remaining on that side), the tape stops when the end of the tape is reached.

⇔ : It operates continuously through one cycle of the A and B sides of the tape. If the number set has not been reached, the tape stops at the end of the B side. When the head rotates to play side A from B or B from A, this rotation is counted as one non-recorded section. When a recorded tune continues from side A to B, this tune is recorded as two tunes. In such a case, press the ◀◀ (or ►►) button one extra time.

### Notes:

In the following cases, the mechanism may not operate correctly. This is not a malfunction; use the mechanism according to the type of program.

- Tapes with tunes having long pianissimo passages (very quiet parts) or non-recorded portions during tunes.
- Tapes with short non-recorded sections.

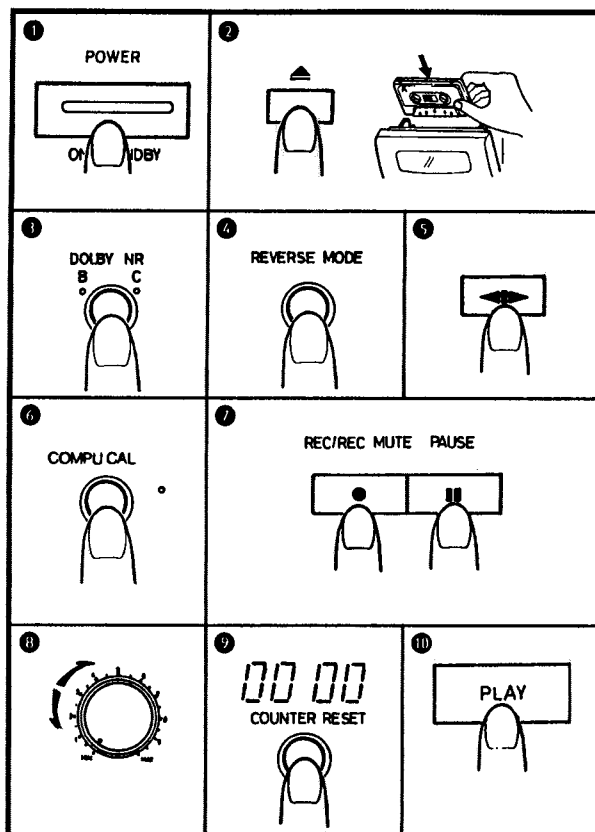
## RECORDING

### 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.

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



- 1 Press the POWER switch to set to ON.
- 2 Load a cassette for recording.
- 3 Set the DOLBY NR switch as required.
- 4 Set the REVERSE MODE switch as desired.
- 5 Select the side to be recorded.
- 6 Press the COMPU CAL button, if required. (See page 8.)
- 7 Press the PAUSE button and the REC/REC MUTE button (record-pause mode). REC and PAUSE indicators light.
- 8 Adjust the recording level. (See page 9.)
- 9 Press to "0000".
- 10 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.

### DDRP (Dynamics Detection Recording Processor) recording

DDRP recording is performed with suitable JVC CD players and the recording level adjustment is performed automatically. Since recording level adjustment is performed automatically for different types of tape (normal, CrO<sub>2</sub> and metal), the adjustment of INPUT LEVEL control is not required. Read the instruction book of your CD player carefully.

## COMPU CALIBRATION (COMPU CAL) FUNCTION

- This unit is equipped with a COMPU CAL function which can automatically set the flat frequency characteristics and optimal tape sensitivity for each tape in approximately 30 seconds. Calibration data is retained for each tape type (Type I, II or IV).
- Calibration data set with COMPU CAL is retained even if the power is turned off (or the power cord is unplugged), and the previous calibration data for the same type of tape as the new tape is recalled each time tapes are changed.
- Performing COMPU CAL operations again replaces existing data with the new data.

### COMPU CAL operation

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

#### Note:

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

### COMPU CAL Errors

- When the COMPU CAL indicator flashes, this indicates a COMPU CAL error.
- Press the ■ (stop) button to stop the error indication.

Care should be taken for the following items as they are the cause of errors.

- 1) Dirty heads                   -Clean the heads.
- 2) Scratches on the tape surface  
  -Replace with an undamaged tape.
- 3) When the tape ends part-way through the operations  
  -Change the tape position.
- 4) In rare cases, tapes may have characteristics which fall outside the COMPU CAL setting range.

- When an error occurs or when COMPU CAL operations are interrupted, calibration data cannot be stored in the memory. If settings were previously performed, the previous setting values are retained.
- After confirming items 1) to 3) above and stopping the error indication if there are no problems, even tapes which experience errors can be recorded on using either ① the unit's preset values or ② previous setting values. (These are the values obtained by opening and closing the cassette holder one time.)

\* Preset value: a standard value corresponding to each type of tape, which allows normal recording. (The preset value condition is in effect when the COMPU CAL indicator is unlit.)

#### Notes:

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



## MICROPHONE MIXING DURING RECORDING

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

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

## RECORDING LEVEL ADJUSTMENT

Adjust the recording level while observing the peak level indicator indication. For example: With metal tape

```
L  -30 20 15 12 10 8 6 ovu 2 0 2 4 6 +8 dB
   | | | | | | | | | | | | | | | | | | | |
R  | | | | | | | | | | | | | | | | | | | |
```

Because of metal tape's higher saturation level, it is OK that "+ 2" lights occasionally.

With normal or chrome tape

```
L  -30 20 15 12 10 8 6 ovu 2 0 2 4 6 +8 dB
   | | | | | | | | | | | | | | | | | | | |
R  | | | | | | | | | | | | | | | | | | | |
```

It is OK that "+ 0" lights occasionally.

- When the recording level is too low, the hiss noise inherent in the tape will be conspicuous.
- When the recording level is too high, exceeding the saturation level, the recording will contain cracking noise and will be distorted.
- If "+ 4" lights too often because the recording level is too high, the recorded sound may be distorted and seem to be breaking up. If only "0" lights infrequently, the level is too low and the recording may contain tape hiss.

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

## 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

1. When the undesired section comes during recording, press the ● REC/REC MUTE button and release it.
2. The REC indicator flashes and a non-recorded section is made during record muting operation. About 4-5 seconds later, the tape automatically stops, and the unit enters the record-pause mode.
3. Press the PLAY button to start recording again.

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

1. Keep the ● REC/REC MUTE button pressed continuously as long as you want to make a non-recorded section. By releasing the finger from the button after the above operation, the unit enters the record-pause mode.
2. Press the PLAY button to start recording again.

### 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 ■ 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 ③, 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.

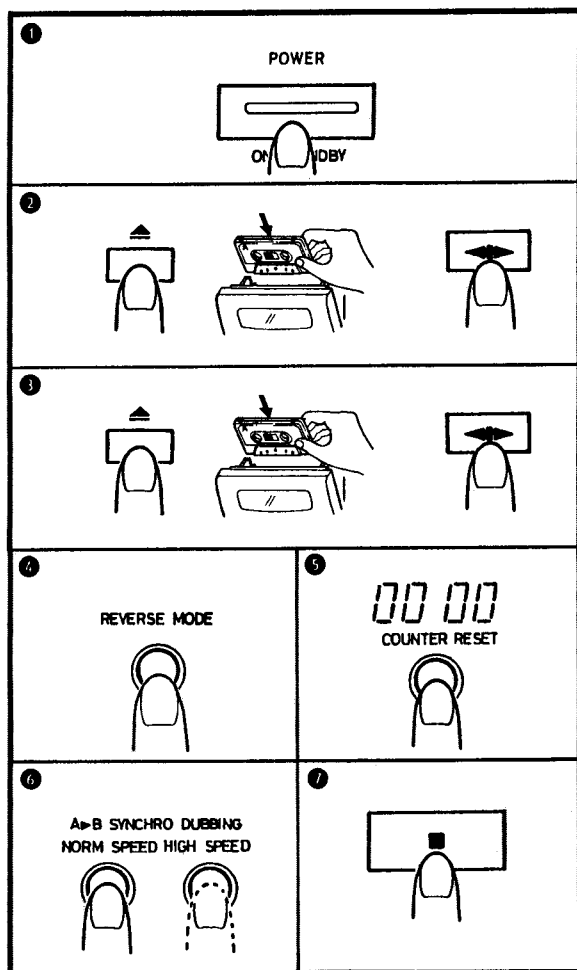
This greatly improves the high-frequency saturation level while reducing the low-frequency signal level variations and distortion.

- 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.

## DUBBING

### • Synchro dubbing

Operate in the order of the numbers in the illustration.



- 1 Press the POWER switch to set to ON.
- 2 Insert a prerecorded tape with side A facing out into deck A, and press the ◀▶ (direction) button to select the travel direction.
- 3 Insert 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 "0000". (Deck B)
- 6 Press the SYNCHRO DUBBING (NORM or HIGH 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 muting

When deck A stops or enters any mode other than the playback mode during dubbing, deck B enters the record mute operation automatically and then enters the record-pause mode.

### • Before pressing the SYNCHRO 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.

### Microphone mixing during dubbing

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

### Tape editing

1. Press the ● REC/REC MUTE button when finished dubbing a tune. Deck B automatically enters the record muting mode and leaves a non-recorded section of about 4-seconds then enters the record-paused 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 SYNCHRO 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.

## 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 white plug to the left channel terminal. This helps to avoid reversed connections.
- When using the Compu Link Control System version 3, do not connect the power cord to the SWITCHED AC OUTLET of an amplifier or receiver. Otherwise, the automatic power on/off (STANDBY) function cannot be carried out.

### 1. Connection to a stereo amplifier

**Note:**

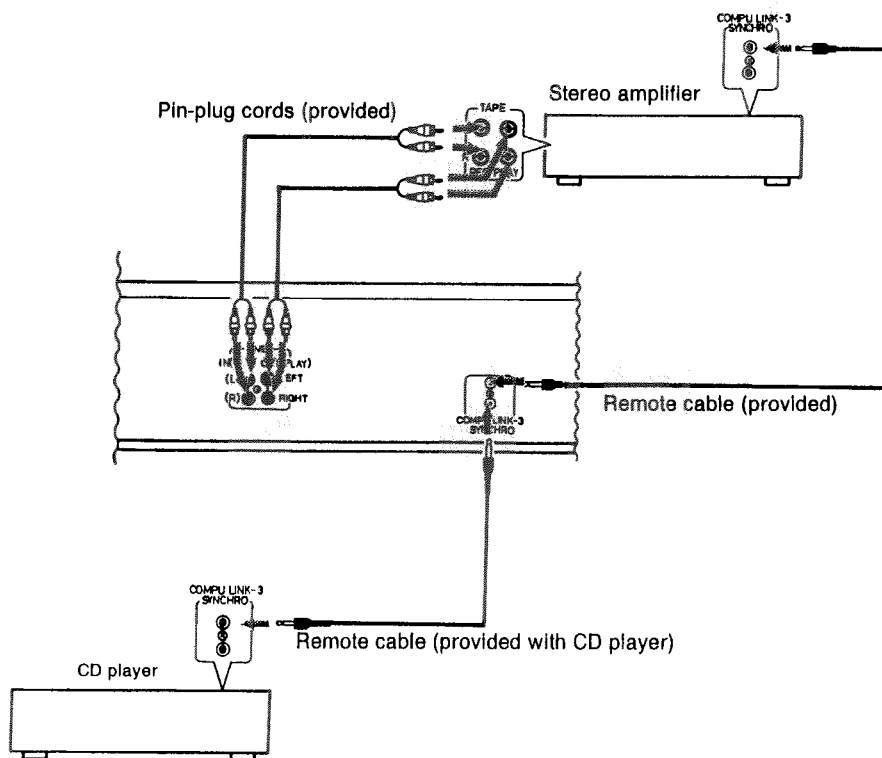
When installing the deck, be sure to install at a distance from your amplifier. If they are stacked, noise (hum) may occur.

### 2. Remote cable connection for COMPU LINK

- By connecting a remote cable, COMPU LINK functions (automatic power on/off (STANDBY), automatic source selection, synchronized recording and 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-1/SYNCHRO or COMPU LINK-3/SYNCHRO jacks.

**Notes:**

1. When making synchronized recordings, only a single deck should be connected to the amplifier.
2. If a component is not a JVC COMPU LINK component, bypass it when making the remote cable connections.
3. This deck can be connected with an amplifier and a CD player which have the COMPU LINK-1/SYNCHRO jacks for COMPU LINK performance. (See page 10 for details.)



# 1 Location of Main Parts

## ■ Top view

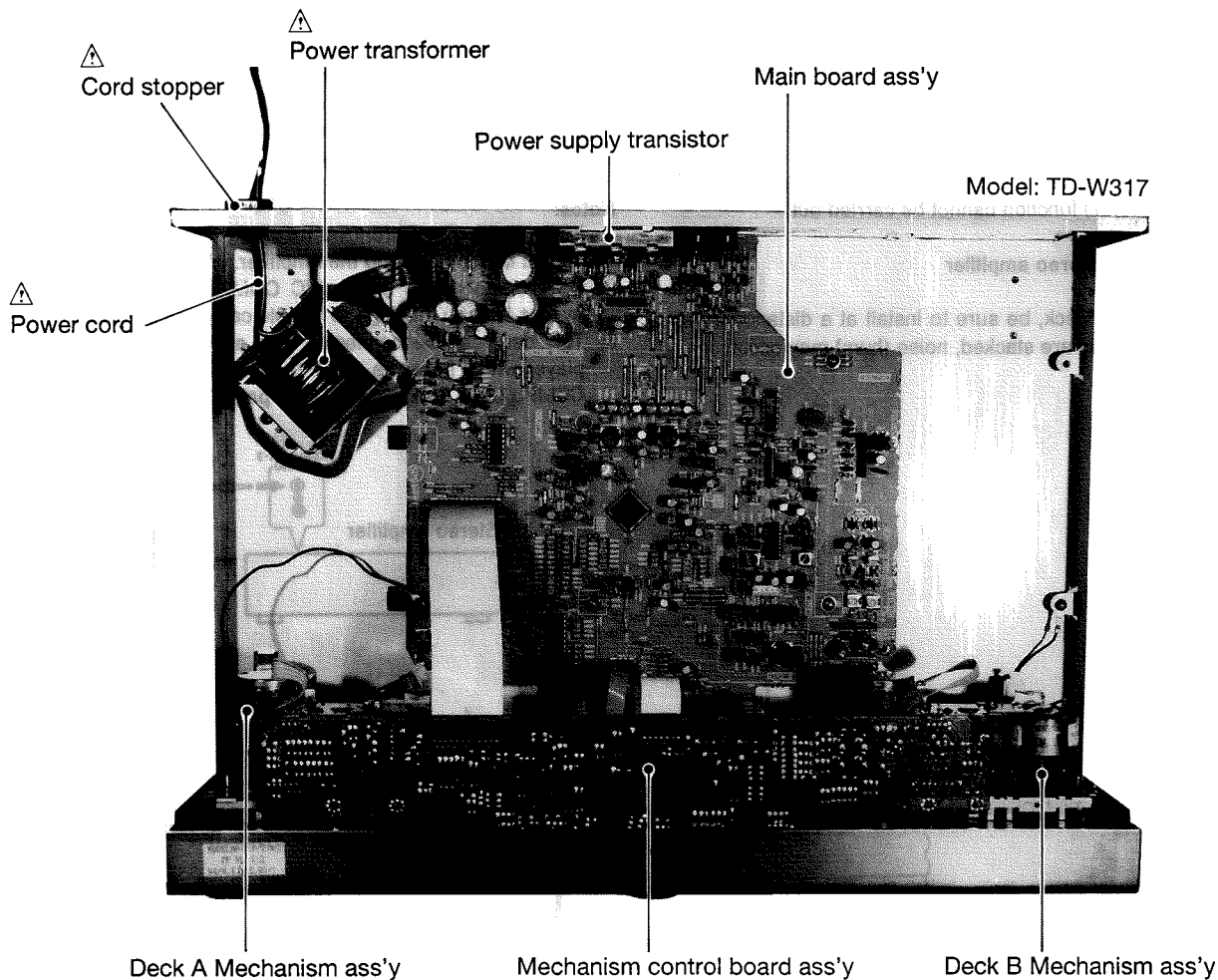


Fig. 1 - 1

## ■ Mechanism

### ◆ Top view

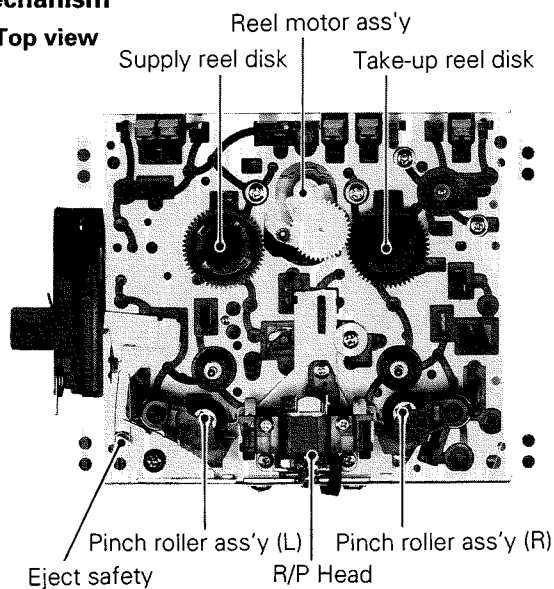


Fig. 1 - 2

### ◆ Bottom view

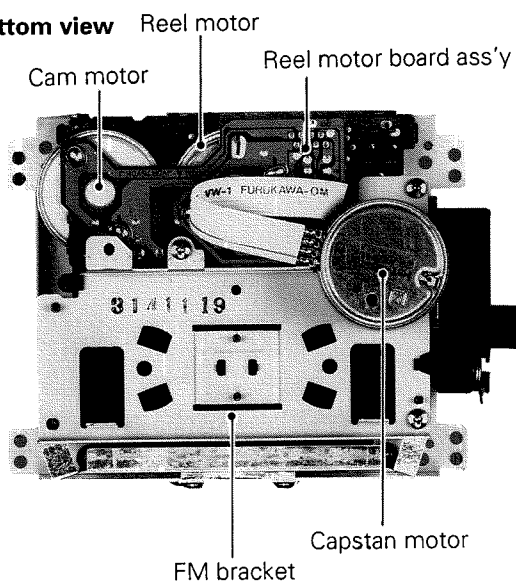


Fig. 1 - 3

## 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 ② retaining the top cover from the back side.
3. To remove the top cover ,slide in direction of allow and lift away (refer to Fig. 2 - 1).

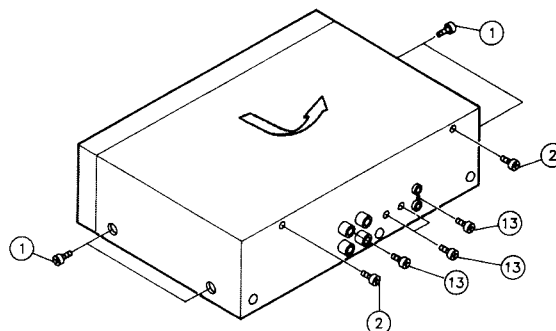


Fig. 2 - 1

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

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

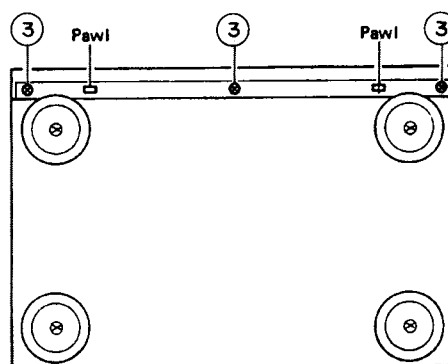
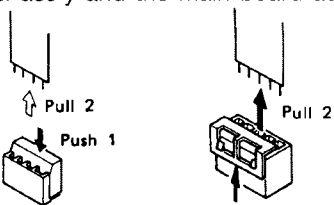


Fig. 2 - 2



Push up with a screwdriver, etc. 1

#### ◆ Mechanism assembly

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

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

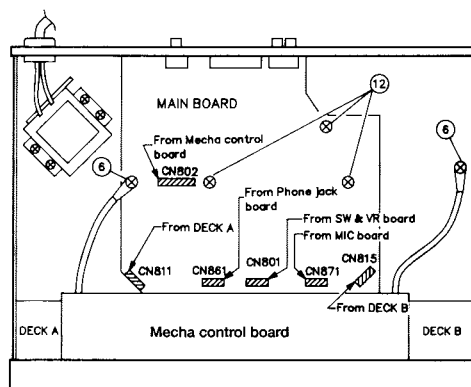


Fig. 2 - 3

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

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

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

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

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

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

Remove two screws ⑥ and remove the two GND wires from Mecha control board ass'y.

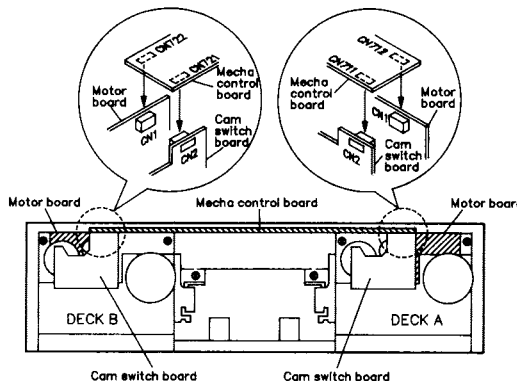


Fig. 2 - 4

◆ **Eject arm ass'y** (Fig. 2 - 5)

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

◆ **Mechanism holder and door ass'y** (Fig. 2 - 8)

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

◆ **Switch & Volume board ass'y** (Fig. 2 - 8)

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

◆ **Headphone jack board ass'y and Mic jack board ass'y** (Fig. 2 - 8)

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

◆ **Key switch board ass'y** (Fig. 2 - 8)

1. Remove one screw ⑩ (Deck A or B) retaining the board ass'y.
2. Do the same for the other side.

◆ **Main board ass'y** (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 rear panel.

◆ **Mechanism control board ass'y** (Fig. 2 - 8)

1. Remove two screws ⑪ retaining the board.

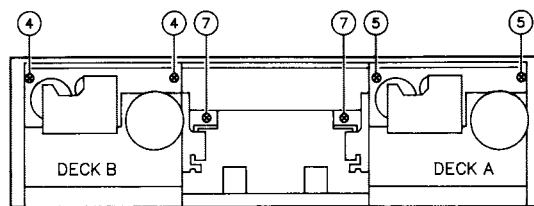


Fig. 2 - 5

How to remove damper

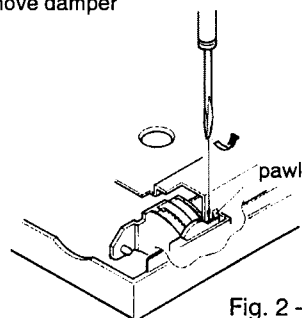


Fig. 2 - 6

How to engage the door and eject spring

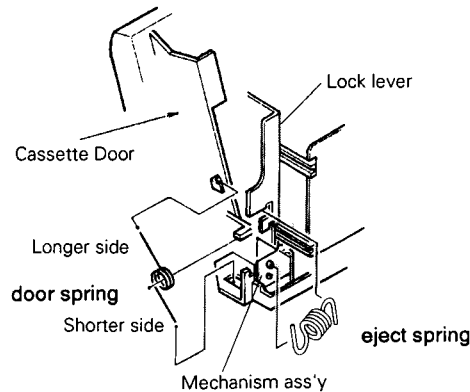


Fig. 2 - 7

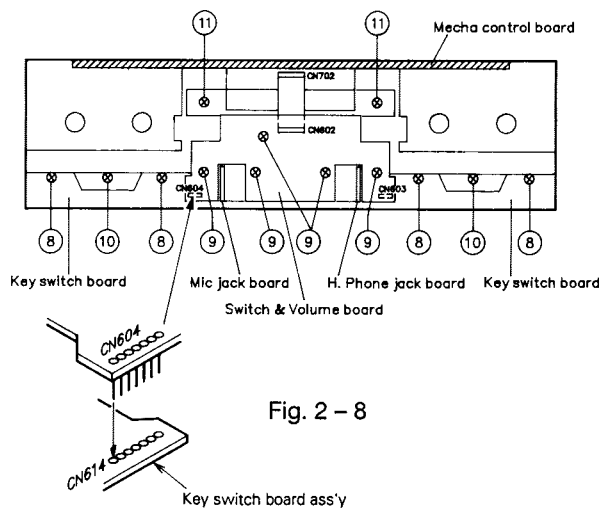


Fig. 2 - 8

● Reassembling procedure of the front panel ass'y

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

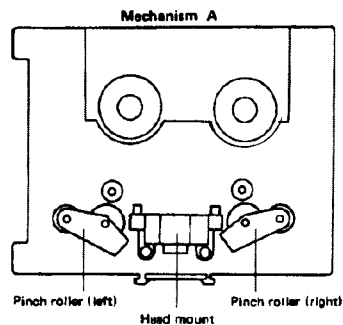


Fig. 2 - 9

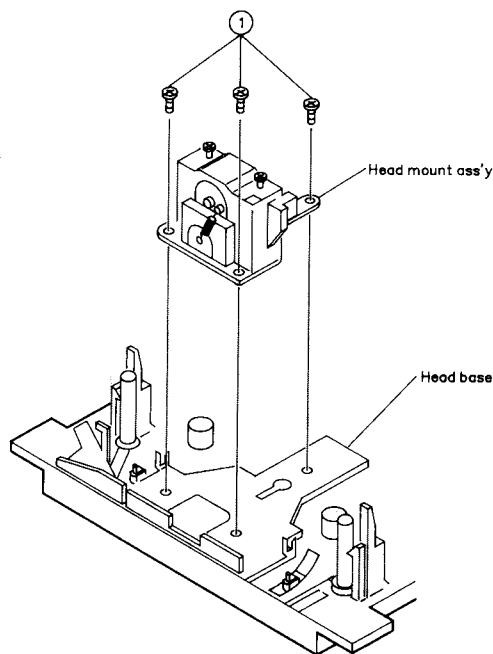


Fig. 2 - 10

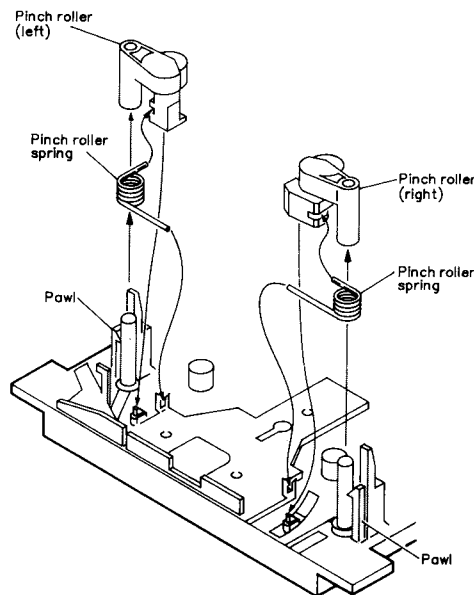


Fig. 2 - 11

◆ **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.

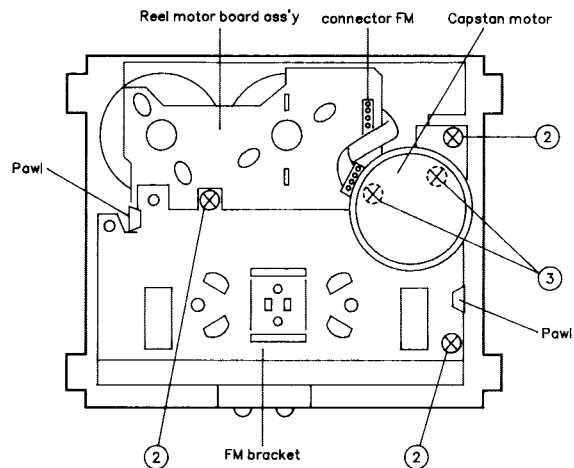


Fig. 2 - 12

◆ **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.

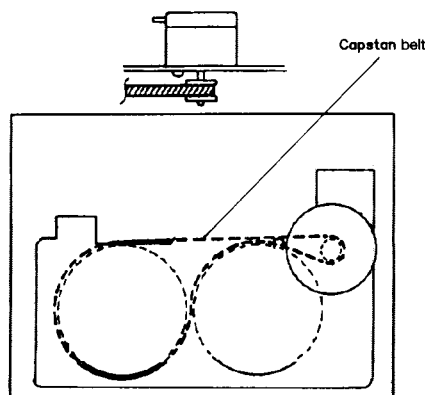


Fig. 2 - 13

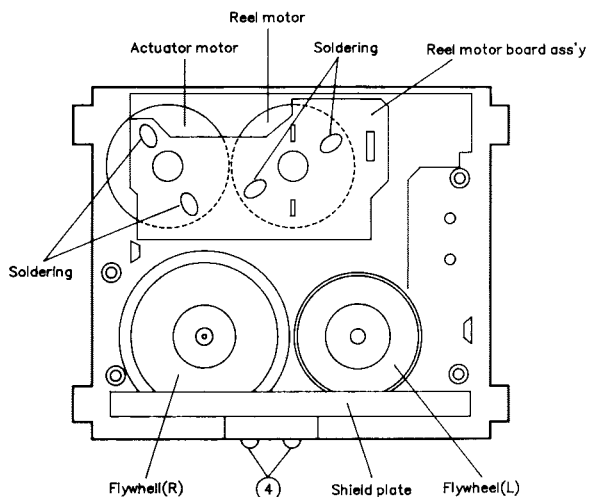


Fig. 2 - 14

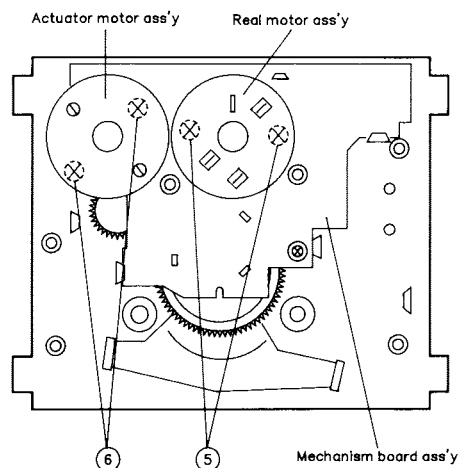


Fig. 2 - 15



◆ **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.

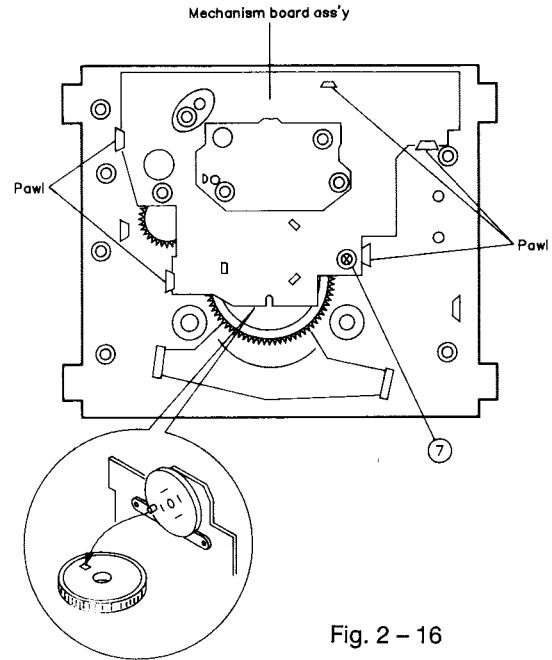


Fig. 2 - 16

◆ **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).

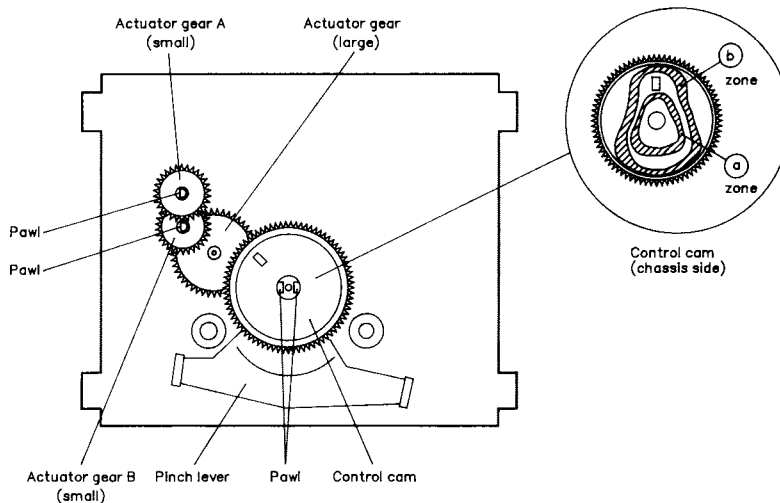


Fig. 2 - 17

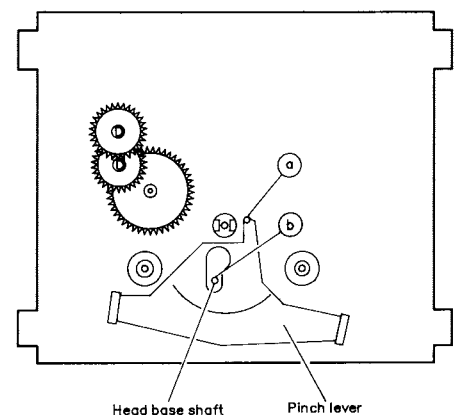


Fig. 2 - 18

### 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
- (4) Standard tapes  
 VTT712 (tape speed, wow and flutter measurement)  
 VTT727 (400Hz reference level)  
 TMT735 (1 k, 12.5 k), VTT739 (63, 1 k, 10 k) (playback frequency)  
 VTT703 or VTT703L (10 kHz), VTT704 (12.5 kHz) (azimuth)  
 TMT6447, TM6448 (music scan)
- (5) Recording reference tapes  
 AC-224 (Normal), AC-513 (TDK SA) (CrO<sub>2</sub>)  
 AC-712 (TDK MA) (Metal)
- (6) 600 Ω resistors(for attenuator matching)
- (7) Distortion meter(bandpass filter)
- (8) Torque gauge (cassette) for CTG-N, TW2111, TW2121, TS2231 and TW2241, mechanism adjustments

- (9) Wow & flutter gauge
- (10) Freequency counter gauge
- (11) M300 gauge
- (12) Band pass filter

#### ◆ Power supply voltage

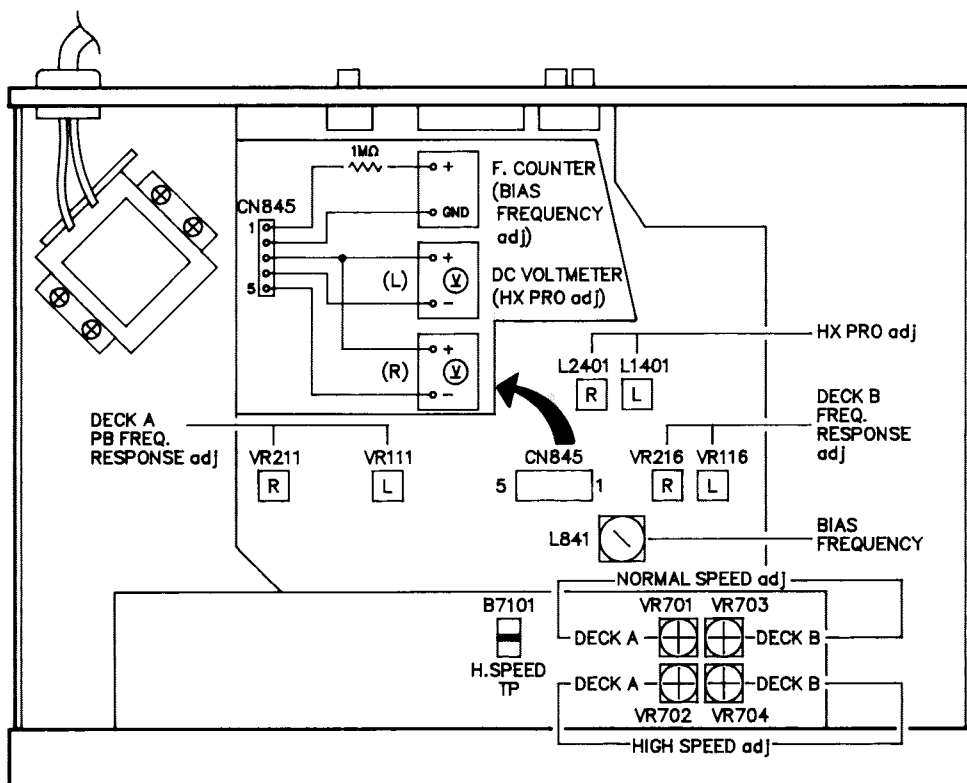
Set the line voltage selector switch to 240V/ 230V/ 220V/ 127V/ 120V/ 110V according to ⇄ your local voltage.

- AC240V, 50/60Hz :A/B version
- AC230V, 50/60Hz :E/EN/G version
- AC120V, 60Hz :C/J version
- AC230/127/110V, 50/60Hz:U/UT version

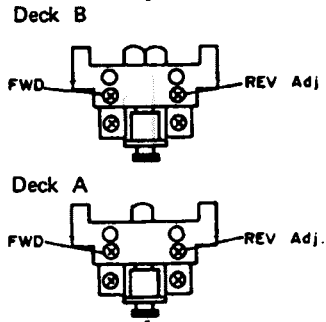
- (13) Standard position of the switch and volume knob

| Switches and volume knobs | Setting position |
|---------------------------|------------------|
| INPUT LEVEL               | : MAXIMUM        |
| DOLBY NR                  | : OFF            |
| REVERSE MODE              | : ⇄              |
| PITCH CONTROL             | : CENTOR         |
| MIC MIXING LEVEL          | : MAXIMUM        |
| COMPU CAL LED             | : OFF            |

#### ◆ Location of Adjustment



◆ Mechanism Adjustment

| Item                                  | Conditions  | Adjustment and Confirmation   | Standad value   | Adjust point   |
|---------------------------------------|---|---|---|--|
| Adjusting Head azimuth                | Test tape :VTT704 (12.5kHz)   | <ol style="list-style-type: none"> <li>1. Connect an electronic voltmeter to the LINE OUT terminals.</li> <li>2. Play back the VTT704 (12.5kHz) test tape.</li> <li>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".)</li> <li>4. Repeat the adjustment in FWD and REV modes as well as for the decks A and B.</li> </ol>   | Maximum   | Screws (FWD, REV)<br><br> |
| Adjusting motor speed                 | <ol style="list-style-type: none"> <li>1. For high speed adjustment, set the deck for play mode and shortcircuit between B7101 and GND.</li> <li>2. Do not do anything while B7101 and GND are shortcircuited.</li> </ol> | <ol style="list-style-type: none"> <li>1. Connect a frequency counter to the LINEOUT terminals.</li> <li>2. Perform normal speed adjustment first, and then do high speed adjustment</li> <li>3. Play back the VTT712 test tape.</li> <li>4. Adjust for deck A :<br/>Adjust VR701 for normal speed at 300Hz, and VR702 for high speed at 600Hz</li> <li>Adjust for deck B :<br/>Adjust VR703 for normal speed at 3000Hz, and VR704 for high speed at 6000Hz.</li> <li>5. Difference in FWD and REV frequencies must be less than 48Hz.</li> </ol> | Normal speed:<br>Deck A, B; 3000 ± 15Hz<br>High speed :<br>Deck A, B; 6000 ± 30Hz | Deck A :<br>Normal; VR701<br>High ; VR702<br>Deck B ;<br>Normal; VR703<br>High; VR704                        |
| Checking wow and flutter              |   | Connect a wow and flutter meter to LINE OUT terminals. Play back the VTT712 test tape. Check to see if the reading of the meter is within 0.17% (WRMS).   | 0.17% (WRMS)  |  |
| Checking play back torque             |   | Employ a torque testing cassette tape (TW2111[FWD] / TW2121[REV] for the checking, or remove the cassette cover and use a torque gauge.   | 27 – 70 gr-cm   |  |
| Checking fast forward – rewind torque |   | Measure the torque in the fast forward mode in the same manner as in the above.<br>Test cassette : TW2231 (FWD), TW2241 (REV)   | 90 – 200gr – cm   |  |

## ◆ Electrical Adjustment Procedure

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

| Item                                      | Conditions  | Adjustment and Confirmation   | Standard  | Adjusting  |
|---|---|---|---|--|
| *2 Play back level check                  | Test tape<br>VTT727 : 400Hz                           | Play back VTT727. Check that the level at LINE OUT is -4.5 dB ± 1dB.<br>Difference between Lch and Rch must be less than 1 dB at LINE OUT.  | LINE OUT<br>-4.5 dB ± 1dB<br>Phone Out<br>-20.5 dB ± 2 dB   |  |
| *3 Playback frequency response adjustment | Test tape<br>TMT735:1kHz/12.5kHz<br>VTT739: 1kHz/63Hz | Play back TMT735 test tape, and adjust VR116, VR216 (deck [B]) and VR111, VR211 (deck [A]) so that deviation of 12.5 kHz to that of 1 kHz is 0.5 ± 0.5 dB (deck [A]) and 0 ± 0.5 dB (deck [B]). Then, play back VTT739 test tape to confirm that deviation of 63 Hz to 1kHz is +2 ± 3 dB. | with 12.5kHz as reference,<br>0.5 ± 0.5 dB (deck [A]) and<br>0 ± 0.5 dB (deck [B]) at<br>1 kHz<br>63 Hz (check):<br>+2 ± 3 dB | Deck [B]<br>L: VR116<br>R: VR216<br>Deck [A]<br>L: VR111<br>R: VR211 |
| *4 Bias frequency adjustment              | Frequency counter<br>TP: CN845 pin 1                  | Connect frequency counter to the CN845 and adjust L8401 so that the counter reads 95 kHz.   | 95 kHz ± 1 kHz  | Deck [B]<br>L8401  |
| *5 Slave oscillation (HX PRO) adjustment  | DC.Voltmeter<br>TP: CN845                             | This step must be performed after the bias frequency adjustment.<br>Load a metal tape and set the deck to the recording mode.<br>Adjust L1401 and L2401 to minimize respective voltages of CN845 (PIN 3 - 4) at Lch and (PIN 3 -5) at Rch.  | Minimum   | Deck [B]<br>L-ch : L1401<br>R-ch : L2401                             |
| 6 Input sensitivity level check           |   | 1. Supply a 1kHz signal to the LINE IN terminals at -20dBs, confirm that LINE OUT level is -8dBs.<br>2. Confirm that difference level between left and right within 2dB.  | LINE IN : -20dBs ± 2 dB   |  |

| Item   | Conditions   | Adjustment and Confirmation  | Standard   | Adjusting |
|--|--|--|--|-----------|
| *7 REC/PB frequency response check                   | <p>LINE INRUT level :<br/>Ref. - 20dB ( - 39dBs<br/>± 2dB)</p> <p>MIC INPUT level :<br/>Ref. -20dB (-88dBs<br/>± 3dB)</p> <p>NR SWITCH : OFF</p> | <p>This step must be performed after the slave oscillation adjustment.</p> <p>Record the 1 kHz and 12.5 kHz sig- nals at the level of - 20 dB (20 dB lower than the reference level).</p> <p>Playing back the recorded signals, check that the level of the 12.5 kHz signal is <math>0 \pm 2</math> dB to the level of the 1 kHz signal.</p>   | <p>12.5 kHz level:<br/><math>0 \pm 2</math> dB<br/>higher than<br/>the 1kHz level.</p>   |           |
|  |  |  |  |           |
| 8 Recording/ playback sensitivity check              |  | <ol style="list-style-type: none"> <li>Supply a 400Hz signal to the LINE IN terminals record a 400Hz signal at reference level of -20dB.</li> <li>Confirm that REC indicator should turn on when LINE OUT level is -28dB during recording.</li> </ol>  | <p>Normal,<br/>Chrome,<br/>Metal:<br/>-28dBs<br/><math>\pm 1</math> dB</p>               |           |
| 9 Maximum out put check                              |  | <p>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</p>  | <p>LINE OUT:<br/>more<br/>than 5 dBs<br/>PHONES<br/>OUT: more<br/>than - 16dBs</p>       |           |
| 10 Checking record/ playback distortion              |  | <ol style="list-style-type: none"> <li>Record a 1 kHz, - 19 dBs signal to LINE IN terminals.</li> <li>Play back the recorded part, Check the output with a distortion meter to see if the value conforms to the standard value.</li> </ol>   | <p>Normal:<br/>Less than<br/>2%<br/>CrO2/Metal:<br/>Less than<br/>3%<br/>Metal tape:</p> |           |
| 11 Checking signal to noise ratio recording playback |  | <ol style="list-style-type: none"> <li>Record a 1 kHz, - 19 dBs signal, Stop the input bu disconnecting from the terminal to perform non-signal recording.</li> <li>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.</li> </ol> | <p>Normal,<br/>More than 40<br/>dB<br/>Metal, chrome;<br/>More than 41<br/>dB</p>        |           |

| Item                            | Conditions | Adjustment and Confirmation   | Standard        | Adjusting |
|---------------------------------|------------|---|-----------------|-----------|
| 12 Checking erasing coefficient |            | 1)Apply a 1 kHz, +20 dBs signal to the LINE IN terminals.<br>2)Perform recording with the signal enhanced by 20 dB<br>3)Erase a part of the recording.<br>4)Measure the output difference between the erased part and non- erased part to compare with an electronic voltmeter.<br>For the measurement using a metal tape, connect a band pass filter between the deck and the electronic voltmeter. <div style="text-align: center; margin-top: 20px;"> <pre>             graph LR                 Input["Input (1 kHz)"] --&gt; TapeDeck["Tape deck (recording, erasing)"]                 TapeDeck --&gt; BPF["Band pass filter"]                 BPF --&gt; Voltmeter["Electronic voltmeter"]                 TapeDeck -.-&gt; Input                 FilterLabel["(1 kHz)"] --- BPF             </pre> </div> | More than 55 dB |           |



# 5 Block Diagram

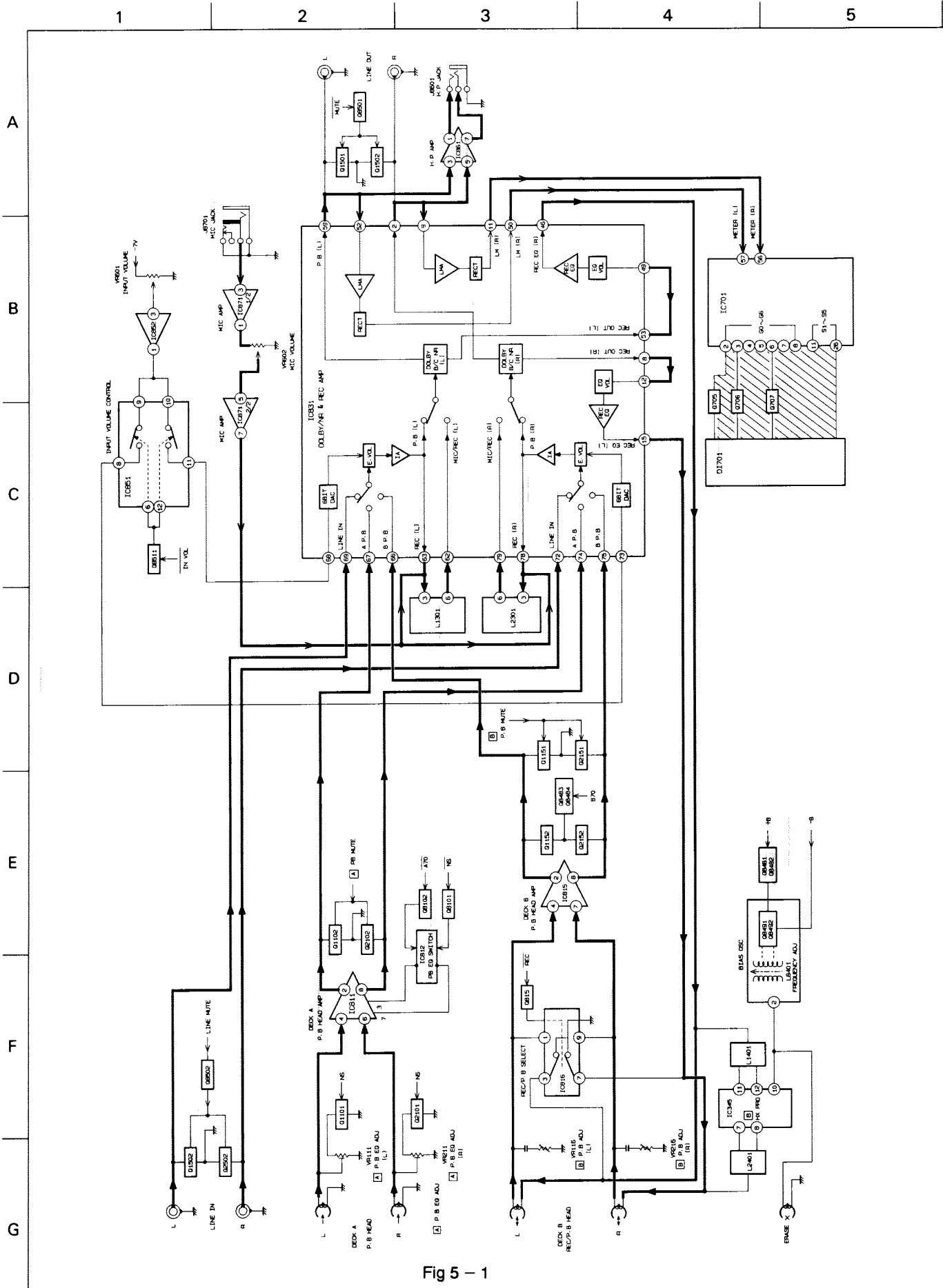


Fig 5 - 1



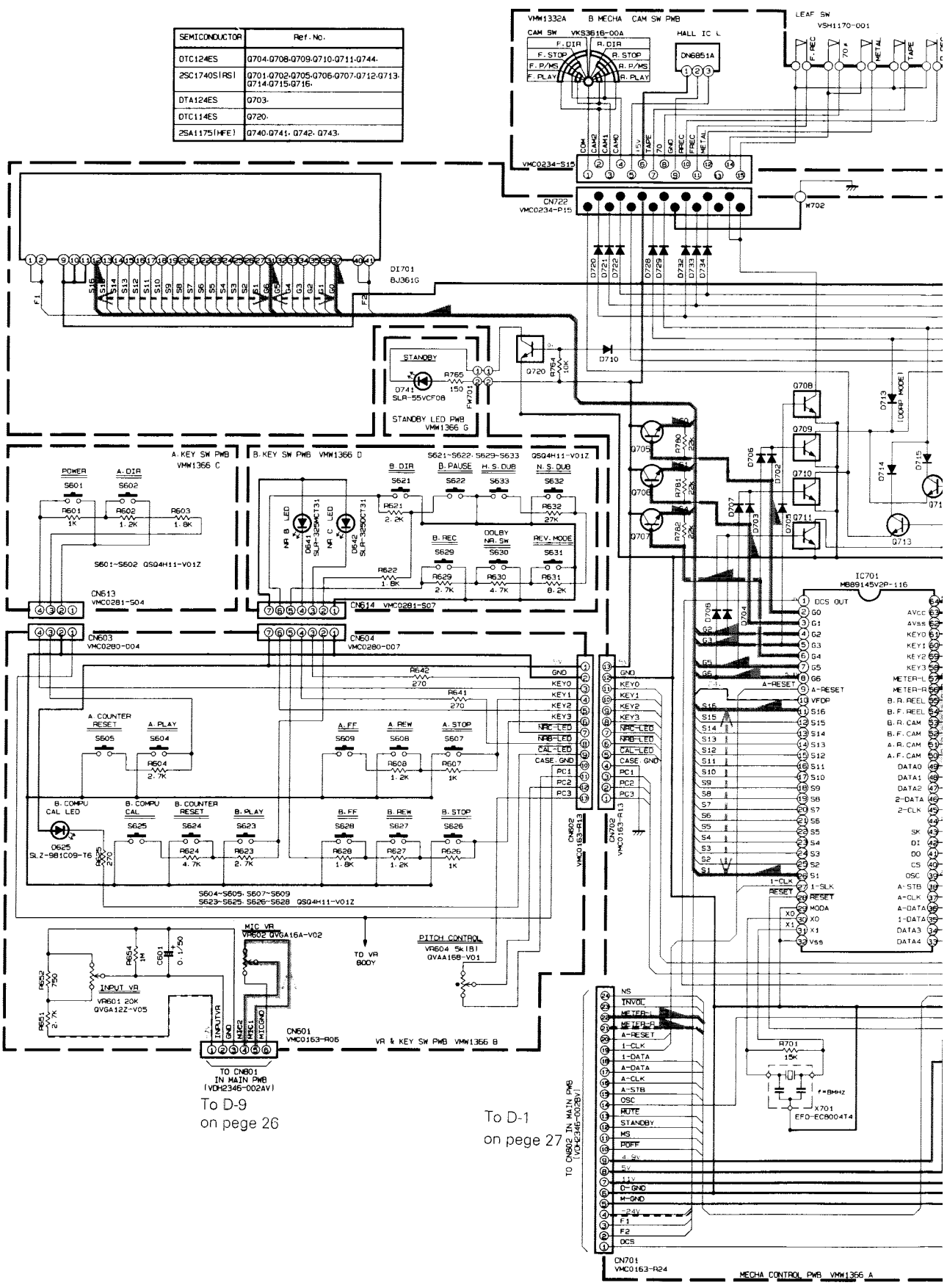


# 6 Standard Schematic Diagrams

1 2 3 4 5

A  
B  
C  
D  
E  
F  
G

| SEMICONDUCTOR | Ref. No.  |
|---------------|---|
| DTC124ES      | Q704-Q708-Q709-Q710-Q711-Q744                     |
| 2SC1740S(RS)  | Q701-Q702-Q705-Q706-Q707-Q712-Q713-Q714-Q715-Q716 |
| DTA124ES      | Q703  |
| DTC114ES      | Q720  |
| 2SA1175(HFE)  | Q740-Q741-Q742-Q743                               |



To D-9  
on page 26

To D-1  
on page 27

To CN62 IN MAIN PWB  
100V(AC)02021

CN701  
VMC0163-R24  
MECHA CONTROL PWB VMH1366 A

6

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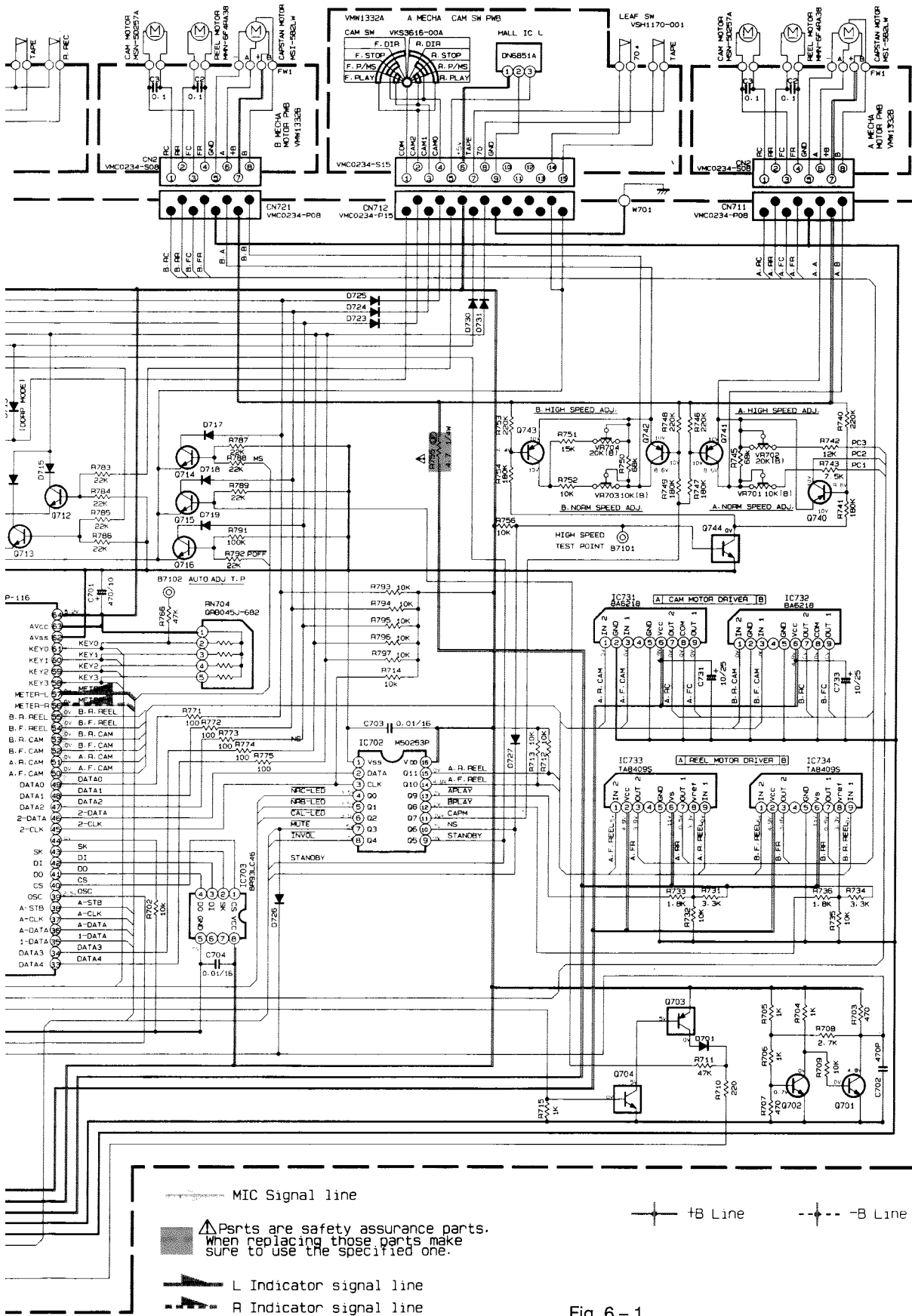
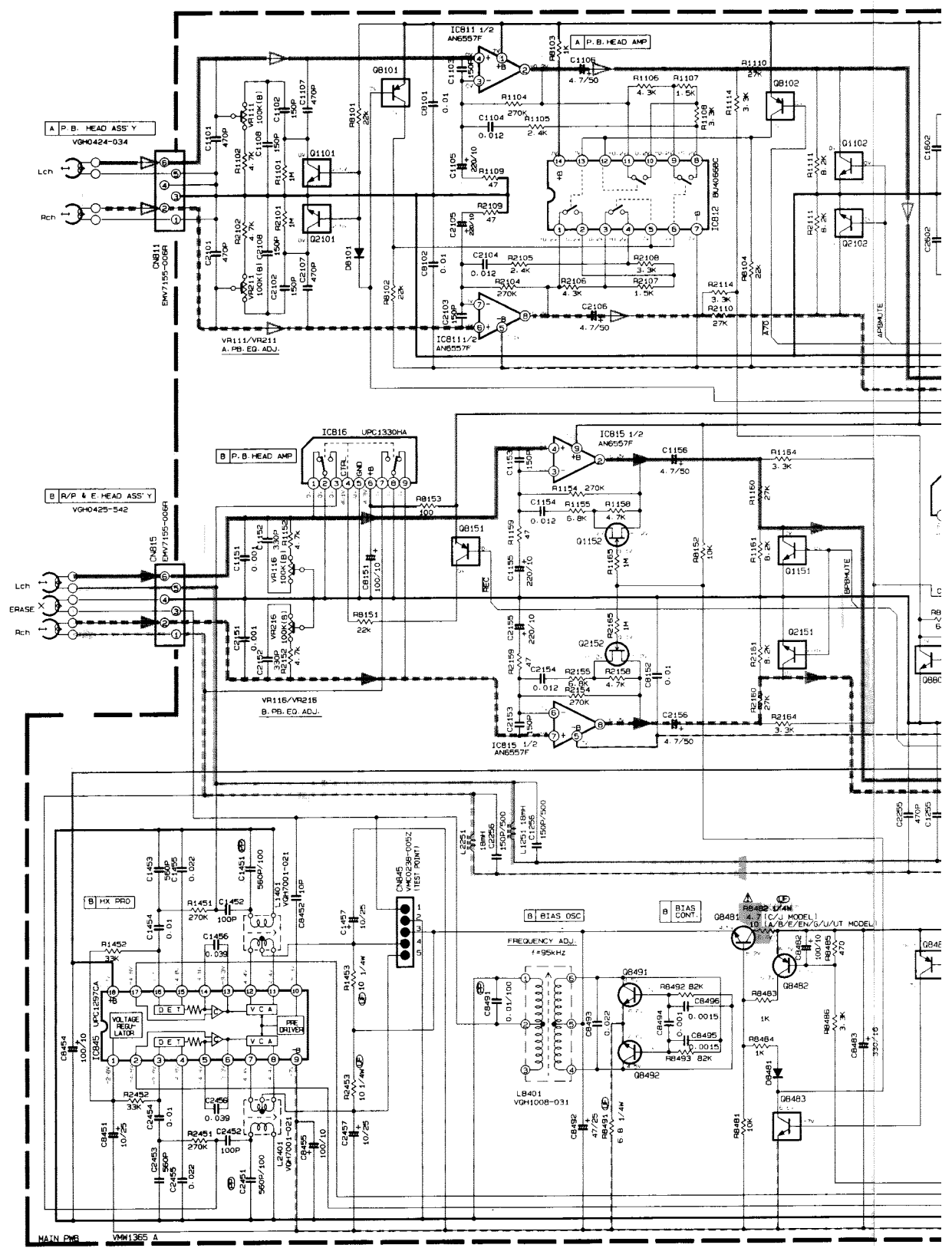


Fig. 6 - 1

1 2 3 4 5

A  
 B  
 C  
 D  
 E  
 F  
 G



- ▶ B:L Playback signal line
- ◀ B:R Playback signal line
- ▶ A:L Playback signal line
- ◀ A:R Playback signal line

MAIN PCB VM1365 A

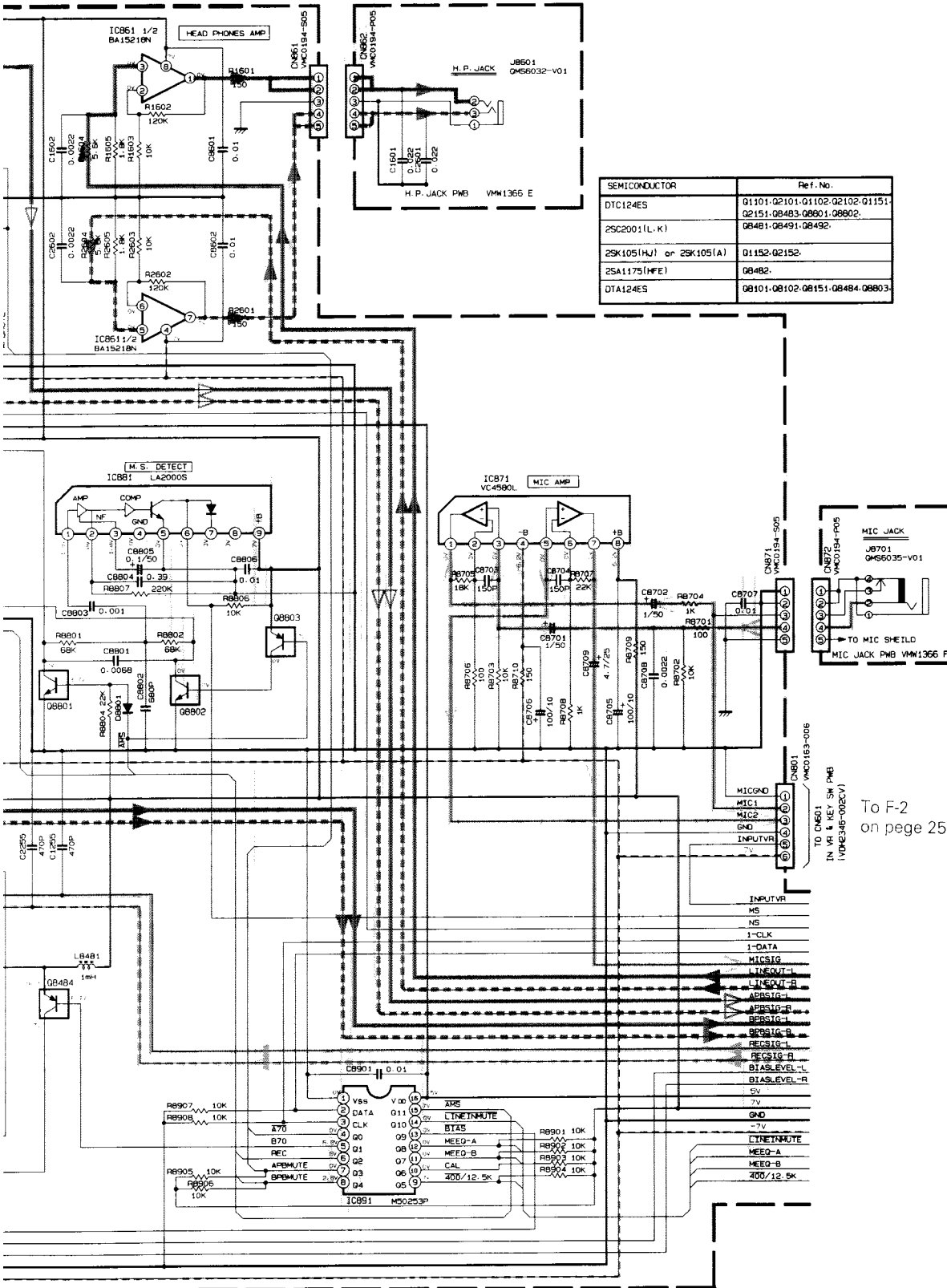
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10



| SEMICONDUCTOR             | Ref. No.   |
|---------------------------|--|
| DTC124ES                  | 01101-02101-01102-02102-01151-02151-08483-08801-08802. |
| 2SC2001(L, K)             | 08481-08491-08492.                                     |
| 2SK105(H, J) or 2SK105(A) | 01152-02152.   |
| 2SA1175(H, F, E)          | 08482.   |
| DTA124ES                  | 08101-08102-08151-08484-08803.                         |

To F-2  
on page 25

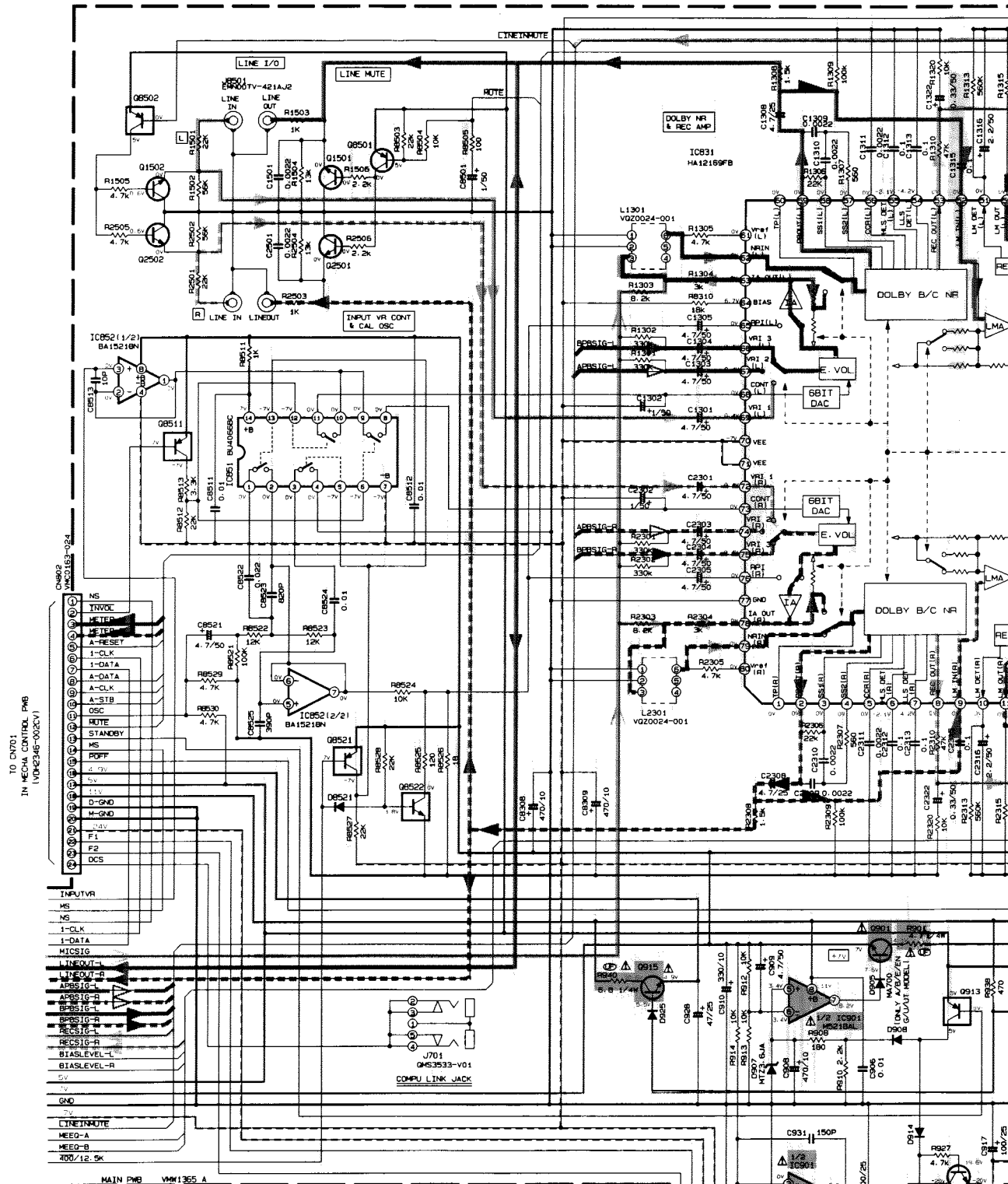
L Recording signal line  
 R Recording signal line  
 MIC Signal line

+B Line  
 -B Line

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

Fig. 6 - 2

To F-4 on page 25



NOTES

- 1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL.  
CONDITION: MODE: NORMAL SPEED DUBBING  
NR SW: OFF  
TAP: A/B—METAL  
REV MODE SW: —
- 2. UNLESS OTHERWISE SPECIFIED,  
ALL RESISTORS ARE 1/8W ±5% CARBON RESISTOR.  
ALL CAPACITORS ARE 50V CERAMIC CAPACITOR OR 50V MYLAR CAPACITOR.  
ALL RESISTANCE VALUES ARE IN OHM (Ω)  
ALL CAPACITANCE VALUES ARE IN PPF (pF).  
ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (pF)/RATED VOLTAGE (V).  
ALL DIODES ARE 1SS133 OR HSS104 OR M105.
- 3. THE RESISTORS LISTED BELOW ARE FUSIBLE RESISTOR IN THE MODEL A/B/E/EN/G/L/U/T R901, R902, R921, R937, R940, R735, R948/2

| SEMICONDUCTOR | Ref. No.          |
|---------------|-------------------|
| DTA124ES      | 06502-06511-06521 |
| DTC124ES      | 06522             |
| 2SA176S1RS    | 01302-02502       |
| 2SC2001(L,K)  | 01501-02501       |
| DTA143ES      | 0913              |
| 2SA1175(HFE)  | 06501             |
| 2SB772(Q,P)   | 0903              |
| 2SC682(Q,P)   | 0901,0909         |
| 2SD468(B,C)   | 0912,0915         |
| 2SB647(CQ)    | 0905              |
| 2SD2144S1VM   | 0907,0908         |

Fig. 6-3

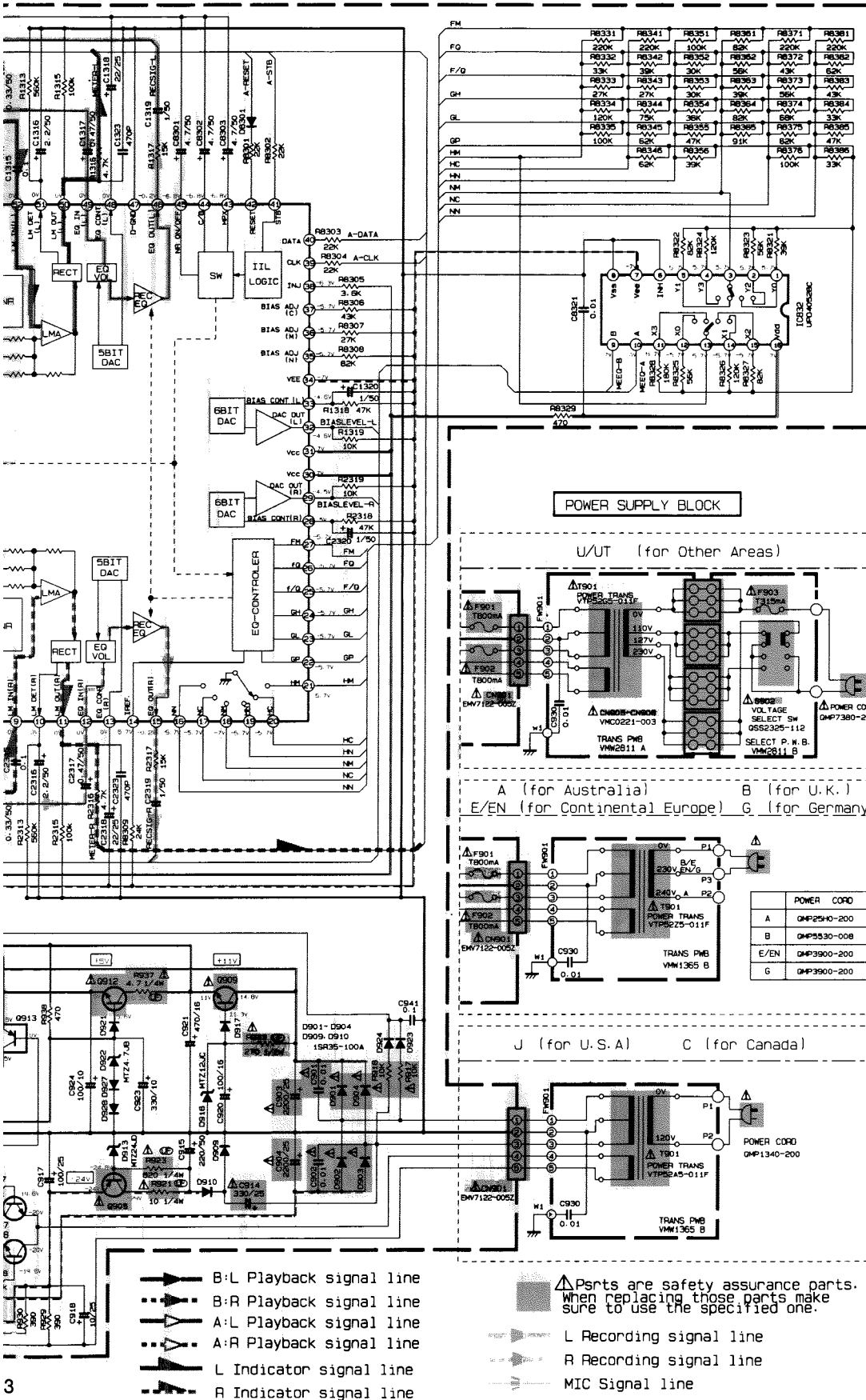
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A  
B  
C  
D  
E  
F  
G

- B:L Playback signal line
- B:R Playback signal line
- A:L Playback signal line
- A:R Playback signal line
- L Indicator signal line
- R Indicator signal line

- ▲ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.
- L Recording signal line
- R Recording signal line
- MIC Signal line

● +B Line    ● -B Line





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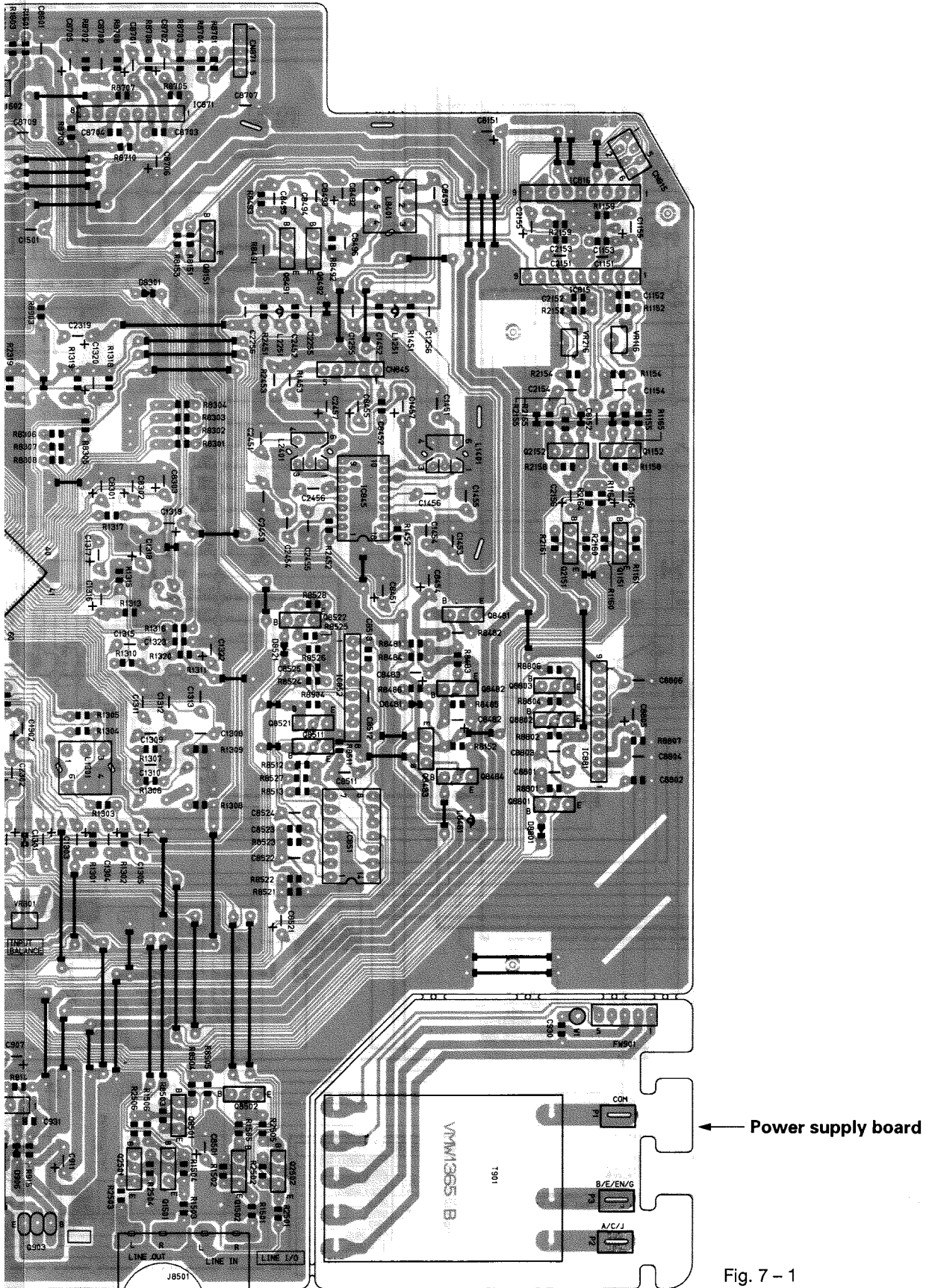


Fig. 7 - 1



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

● Main Board Parts List

BLOCK NO. 01111111

BLOCK NO. 01111111

| 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     | 2200PF 20% 25V   |        |
| C 904 | QETB1EM-228N  | E. CAPACITOR     | 2200PF 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     | 4.70MF 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     | 4.70MF 20% 16V   |        |
| C 923 | QETC1AM-337ZN | E. CAPACITOR     | 330MF 20% 10V    |        |
| C 924 | QET41AM-107   | E. CAPACITOR     | 100MF 20% 10V    |        |
| C 928 | QET41EM-476   | E. CAPACITOR     | 4.7MF 20% 25V    |        |
| C 930 | QCVB1CM-103Y  | C. CAPACITOR     | .010MF 20% 16V   |        |
| C 931 | QCBBIHK-151Y  | C. CAPACITOR     | 150PF 10% 50V    |        |
| C 941 | QFV41HJ-104ZM | FILM CAPACITOR   | .10MF 5% 50V     |        |
| CN801 | VMC0163-006   | CONNECTOR        |                  |        |
| CN802 | VMC0163-024   | CONNECTOR        |                  |        |
| CN811 | EMV7155-006R  | CONNECTOR        |                  |        |
| CN815 | EMV7155-006R  | CONNECTOR        |                  |        |
| CN845 | VMC0238-005Z  | CONNECTOR        |                  |        |
| CN861 | VMC0194-S05   | CONNECTOR        |                  |        |
| CN862 | VMC0194-P05   | CONNECTOR        |                  |        |
| CN871 | VMC0194-S05   | CONNECTOR        |                  |        |
| CN872 | VMC0194-P05   | CONNECTOR        |                  |        |
| CN901 | EMV7122-005Z  | SOCKET           |                  |        |
| C1101 | QCBBIHK-471Y  | C. CAPACITOR     | 4.70PF 10% 50V   |        |
| C1102 | QCBBIHK-151Y  | C. CAPACITOR     | 150PF 10% 50V    |        |
| C1103 | QCBBIHK-151Y  | C. CAPACITOR     | 150PF 10% 50V    |        |
| C1104 | QFN41HJ-123   | M. CAPACITOR     | .012MF 5% 50V    |        |
| C1105 | QET41AM-227   | E. CAPACITOR     | 220MF 20% 10V    |        |
| C1106 | QET41HM-475   | E. CAPACITOR     | 4.7MF 20% 50V    |        |
| C1107 | QCBBIHK-471Y  | C. CAPACITOR     | 4.70PF 10% 50V   |        |
| C1108 | QCBBIHK-151Y  | C. CAPACITOR     | 150PF 10% 50V    |        |
| C1151 | QFN41HJ-102   | M. CAPACITOR     | 1000PF 5% 50V    |        |
| C1152 | QCBBIHK-331Y  | C. CAPACITOR     | 330PF 10% 50V    |        |
| C1153 | QCBBIHK-151Y  | C. CAPACITOR     | 150PF 10% 50V    |        |
| C1154 | QFN41HJ-123   | M. CAPACITOR     | .012MF 5% 50V    |        |
| C1155 | QET41AM-227   | E. CAPACITOR     | 220MF 20% 10V    |        |
| C1255 | QCS41HJ-471   | C. CAPACITOR     | 4.70PF 5% 50V    |        |
| C1256 | QCS2HJ-151ZV  | FILM CAPACITOR   | 150PF 5% 500V    |        |
| C1301 | QET41HM-475   | E. CAPACITOR     | 4.7MF 20% 50V    |        |
| C1302 | QET41HM-105   | E. CAPACITOR     | 1.0MF 20% 50V    |        |
| C1303 | QET41HM-475   | E. CAPACITOR     | 4.7MF 20% 50V    |        |
| C1304 | QET41HM-475   | E. CAPACITOR     | 4.7MF 20% 50V    |        |
| C1305 | QET41HM-475   | E. CAPACITOR     | 4.7MF 20% 50V    |        |
| C1308 | QEN41EM-475   | NP. E. CAPACITOR | 4.7MF 20% 25V    |        |
| C1309 | QFN41HJ-222   | M. CAPACITOR     | 2200PF 5% 50V    |        |

| REF.  | PARTS NO.      | PARTS NAME       | REMARKS          | SUFFIX |
|-------|----------------|------------------|------------------|--------|
| C1310 | QFN41HJ-222    | M. CAPACITOR     | 2200PF 5% 50V    |        |
| C1311 | QFN41HJ-222    | M. CAPACITOR     | 2200PF 5% 50V    |        |
| C1312 | QFV41HJ-104ZM  | FILM CAPACITOR   | .10MF 5% 50V     |        |
| C1313 | QFV41HJ-104ZM  | FILM CAPACITOR   | .10MF 5% 50V     |        |
| C1315 | QFLC1HJ-104ZM  | M. CAPACITOR     | .10MF 5% 50V     |        |
| C1316 | QETC1HM-225ZN  | E. CAPACITOR     | 2.2MF 20% 50V    |        |
| C1317 | QET41HM-474    | E. CAPACITOR     | .47MF 20% 50V    |        |
| C1318 | QETC1EM-226ZN  | E. CAPACITOR     | 22MF 20% 25V     |        |
| C1319 | QET41HM-105    | E. CAPACITOR     | 1.0MF 20% 50V    |        |
| C1320 | QET41HM-105    | E. CAPACITOR     | 1.0MF 20% 50V    |        |
| C1322 | QETC1HM-334ZM  | E. CAPACITOR     | .33MF 20% 50V    |        |
| C1323 | QCBBIHK-471Y   | C. CAPACITOR     | 4.70PF 10% 50V   |        |
| C1451 | QFP32AJ-561ZM  | PP. CAPACITOR    | 560PF 5% 100V    |        |
| C1452 | QCBBIHK-101Y   | C. CAPACITOR     | 100PF 10% 50V    |        |
| C1453 | QCS1HJ-561     | C. CAPACITOR     | 560PF 5% 50V     |        |
| C1454 | C1-PARTS858594 | M. CAPACITOR     | .010MF 5% 50V    |        |
| C1455 | QFLC1HJ-223ZM  | M. CAPACITOR     | .022MF 5% 50V    |        |
| C1456 | QFLC1HJ-393ZM  | M. CAPACITOR     | .039MF 5% 50V    |        |
| C1457 | QET41EM-106    | E. CAPACITOR     | 10MF 20% 25V     |        |
| C1501 | QCY31HK-222Z   | C. CAPACITOR     | 2200PF 10% 50V   |        |
| C1601 | QCY11HP-223    | C. CAPACITOR     | .022MF +100: -0% |        |
| C1602 | QCY31HK-222Z   | C. CAPACITOR     | 2200PF 10% 50V   |        |
| C2101 | QCBBIHK-471Y   | C. CAPACITOR     | 4.70PF 10% 50V   |        |
| C2102 | QCBBIHK-151Y   | C. CAPACITOR     | 150PF 10% 50V    |        |
| C2103 | QCBBIHK-151Y   | C. CAPACITOR     | 150PF 10% 50V    |        |
| C2104 | QFN41HJ-123    | M. CAPACITOR     | .012MF 5% 50V    |        |
| C2105 | QET41AM-227    | E. CAPACITOR     | 220MF 20% 10V    |        |
| C2106 | QET41HM-475    | E. CAPACITOR     | 4.7MF 20% 50V    |        |
| C2107 | QCBBIHK-471Y   | C. CAPACITOR     | 4.70PF 10% 50V   |        |
| C2108 | QCBBIHK-151Y   | C. CAPACITOR     | 150PF 10% 50V    |        |
| C2151 | QFN41HJ-102    | M. CAPACITOR     | 1000PF 5% 50V    |        |
| C2152 | QCBBIHK-331Y   | C. CAPACITOR     | 330PF 10% 50V    |        |
| C2153 | QCBBIHK-151Y   | C. CAPACITOR     | 150PF 10% 50V    |        |
| C2154 | QFN41HJ-123    | M. CAPACITOR     | .012MF 5% 50V    |        |
| C2155 | QET41AM-227    | E. CAPACITOR     | 220MF 20% 10V    |        |
| C2156 | QET41HM-475    | E. CAPACITOR     | 4.7MF 20% 50V    |        |
| C2255 | QCS1HJ-471     | C. CAPACITOR     | 4.70PF 5% 50V    |        |
| C2256 | QCS2HJ-151ZV   | FILM CAPACITOR   | 150PF 5% 500V    |        |
| C2301 | QET41HM-475    | E. CAPACITOR     | 4.7MF 20% 50V    |        |
| C2302 | QET41HM-105    | E. CAPACITOR     | 1.0MF 20% 50V    |        |
| C2303 | QET41HM-475    | E. CAPACITOR     | 4.7MF 20% 50V    |        |
| C2304 | QET41HM-475    | E. CAPACITOR     | 4.7MF 20% 50V    |        |
| C2305 | QET41HM-475    | E. CAPACITOR     | 4.7MF 20% 50V    |        |
| C2308 | QEN41EM-475    | NP. E. CAPACITOR | 4.7MF 20% 25V    |        |
| C2309 | QFN41HJ-222    | M. CAPACITOR     | 2200PF 5% 50V    |        |
| C2310 | QFN41HJ-222    | M. CAPACITOR     | 2200PF 5% 50V    |        |
| C2312 | QFV41HJ-104ZM  | FILM CAPACITOR   | .10MF 5% 50V     |        |
| C2313 | QFV41HJ-104ZM  | FILM CAPACITOR   | .10MF 5% 50V     |        |
| C2315 | QFLC1HJ-104ZM  | M. CAPACITOR     | .10MF 5% 50V     |        |
| C2316 | QETC1HM-225ZN  | E. CAPACITOR     | 2.2MF 20% 50V    |        |
| C2317 | QET41HM-474    | E. CAPACITOR     | .47MF 20% 50V    |        |
| C2318 | QETC1EM-226ZN  | E. CAPACITOR     | 22MF 20% 25V     |        |
| C2319 | QET41HM-105    | E. CAPACITOR     | 1.0MF 20% 50V    |        |
| C2320 | QET41HM-105    | E. CAPACITOR     | 1.0MF 20% 50V    |        |

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

| REF.  | PARTS NO.      | PARTS NAME       | REMARKS         | SUFFIX |
|-------|----------------|------------------|-----------------|--------|
| C2322 | QET1HK-3342M   | E. CAPACITOR     | .33MF 20% 50V   |        |
| C2323 | QCB1HK-471Y    | C. CAPACITOR     | 470PF 10% 50V   |        |
| C2451 | QFP32AJ-5612M  | PP. CAPACITOR    | 560PF 5% 100V   |        |
| C2452 | QCB1HK-101Y    | C. CAPACITOR     | 100PF 10% 50V   |        |
| C2453 | QCS11HJ-561    | C. CAPACITOR     | 560PF 5% 50V    |        |
| C2454 | C1-PARTS838594 | M. CAPACITOR     | .010MF 5% 50V   |        |
| C2455 | QFLC1HJ-2232M  | M. CAPACITOR     | .022MF 5% 50V   |        |
| C2456 | QFLC1HJ-3932M  | M. CAPACITOR     | .039MF 5% 50V   |        |
| C2501 | QET41EM-106    | E. CAPACITOR     | 10MF 20% 25V    |        |
| C2502 | QCY31HK-222Z   | C. CAPACITOR     | 2200PF 10% 50V  |        |
| C2601 | QCF11HP-223    | C. CAPACITOR     | .022MF +100:-0% |        |
| C2602 | QCY31HK-222Z   | C. CAPACITOR     | 2200PF 10% 50V  |        |
| C8101 | QCF11HP-103    | C. CAPACITOR     | .010MF +100:-0% |        |
| C8102 | QCF11HP-103    | C. CAPACITOR     | .010MF +100:-0% |        |
| C8151 | QET41AM-107    | E. CAPACITOR     | 100MF 20% 10V   |        |
| C8152 | QCF11HP-103    | C. CAPACITOR     | .010MF +100:-0% |        |
| C8301 | QET41HM-475    | E. CAPACITOR     | 4.7MF 20% 50V   |        |
| C8302 | QET41HM-475    | E. CAPACITOR     | 4.7MF 20% 50V   |        |
| C8303 | QET41HM-475    | E. CAPACITOR     | 4.7MF 20% 50V   |        |
| C8308 | QET41AM-477    | E. CAPACITOR     | 470MF 20% 10V   |        |
| C8309 | QET41AM-477    | E. CAPACITOR     | 470MF 20% 10V   |        |
| C8321 | QCF11HP-103    | C. CAPACITOR     | .010MF +100:-0% |        |
| C8451 | QET41EM-106    | E. CAPACITOR     | 10PF 5% 50V     |        |
| C8452 | QCS11HJ-100    | C. CAPACITOR     | 100MF 20% 10V   |        |
| C8454 | QET41AM-107    | E. CAPACITOR     | 100MF 20% 10V   |        |
| C8482 | QET41AM-107    | E. CAPACITOR     | 100MF 20% 10V   |        |
| C8483 | QETC1CM-3372M  | E. CAPACITOR     | 330MF 20% 16V   |        |
| C8491 | QFP32AJ-1032M  | PP. CAPACITOR    | .010MF 5% 100V  |        |
| C8492 | QET41EM-476    | E. CAPACITOR     | 47MF 20% 25V    |        |
| C8493 | QFLC1HJ-2232M  | M. CAPACITOR     | .022MF 5% 50V   |        |
| C8494 | QFN41HJ-102    | M. CAPACITOR     | 1000PF 5% 50V   |        |
| C8495 | QFN81HJ-152    | M. CAPACITOR     | 1500PF 5% 50V   |        |
| C8496 | QFN81HJ-152    | M. CAPACITOR     | 1500PF 5% 50V   |        |
| C8501 | QET41HM-105    | E. CAPACITOR     | 1.0MF 20% 50V   |        |
| C8511 | QCF11HP-103    | C. CAPACITOR     | .010MF +100:-0% |        |
| C8512 | QCF11HP-103    | C. CAPACITOR     | .010MF +100:-0% |        |
| C8513 | QCS11HJ-100    | C. CAPACITOR     | 10PF 5% 50V     |        |
| C8521 | QET41HM-475    | E. CAPACITOR     | 4.7MF 20% 50V   |        |
| C8522 | QFLC1HJ-2232M  | M. CAPACITOR     | .022MF 5% 50V   |        |
| C8523 | QCB1HK-821Y    | C. CAPACITOR     | 820PF 10% 50V   |        |
| C8524 | C1-PARTS838594 | M. CAPACITOR     | .010MF 5% 50V   |        |
| C8525 | QCB1HK-391Y    | C. CAPACITOR     | 390PF 10% 50V   |        |
| C8601 | QCF11HP-103    | C. CAPACITOR     | .010MF +100:-0% |        |
| C8602 | QCF11HP-103    | C. CAPACITOR     | .010MF +100:-0% |        |
| C8701 | QET41HM-105    | E. CAPACITOR     | 1.0MF 20% 50V   |        |
| C8702 | QET41HM-105    | E. CAPACITOR     | 1.0MF 20% 50V   |        |
| C8703 | QCB1HK-151Y    | C. CAPACITOR     | 150PF 10% 50V   |        |
| C8704 | QCB1HK-151Y    | C. CAPACITOR     | 150PF 10% 50V   |        |
| C8705 | QET41AM-107    | E. CAPACITOR     | 100MF 20% 10V   |        |
| C8706 | QET41AM-107    | E. CAPACITOR     | 100MF 20% 10V   |        |
| C8707 | QCF11HP-103    | C. CAPACITOR     | .010MF +100:-0% |        |
| C8708 | QFN41HJ-222    | M. CAPACITOR     | 2200PF 5% 50V   |        |
| C8709 | QFN41EM-475    | NP. E. CAPACITOR | 4.7MF 20% 25V   |        |
| C8801 | C1-PARTS848694 | M. CAPACITOR     | 6800PF 5% 50V   |        |

| REF.    | PARTS NO.      | PARTS NAME       | REMARKS         | SUFFIX      |
|---------|----------------|------------------|-----------------|-------------|
| C8802   | QCB1HK-681Y    | C. CAPACITOR     | 6800PF 10% 50V  |             |
| C8803   | QFN41HJ-102    | M. CAPACITOR     | 1000PF 5% 50V   |             |
| C8804   | QFV71HJ-5942M  | F. ILM CAPACITOR | .39MF 5% 50V    |             |
| C8805   | QETC1HM-1042N  | E. CAPACITOR     | .10MF 20% 50V   |             |
| C8806   | QCF11HP-103    | C. CAPACITOR     | .010MF +100:-0% |             |
| C8901   | QCF11HP-103    | C. CAPACITOR     | .010MF +100:-0% |             |
| A D 901 | 1SR35-100      | SI DIODE         |                 |             |
| A D 902 | 1SR35-100      | SI DIODE         |                 |             |
| A D 903 | 1SR35-100      | SI DIODE         |                 |             |
| A D 904 | 1SR35-100      | SI DIODE         |                 |             |
| D 905   | MA700          | ZENER DIODE      |                 | A, B, E, EN |
| D 905   | MAT00-TA       | ZENER DIODE      |                 | G, U, UT    |
| D 906   | 1SS133         | SI DIODE         |                 |             |
| A D 907 | MT73.6JA       | ZENER DIODE      |                 |             |
| D 908   | 1SS133         | SI DIODE         |                 |             |
| A D 909 | 1SR35-100      | SI DIODE         |                 |             |
| A D 910 | 1SR35-100      | SI DIODE         |                 |             |
| A D 913 | MT224JD        | ZENER DIODE      |                 |             |
| D 914   | 1SS133         | SI DIODE         |                 |             |
| D 917   | 1SS133         | SI DIODE         |                 |             |
| A D 918 | MT1213C        | ZENER DIODE      |                 |             |
| D 921   | 1SS133         | SI DIODE         |                 |             |
| A D 922 | MT74.7JB       | ZENER DIODE      |                 |             |
| D 923   | 1SS133         | SI DIODE         |                 |             |
| D 924   | 1SS133         | SI DIODE         |                 |             |
| D 925   | 1SS133         | SI DIODE         |                 |             |
| D 928   | 1SS133         | SI DIODE         |                 |             |
| D8101   | 1SS133         | SI DIODE         |                 |             |
| D8301   | 1SS133         | SI DIODE         |                 |             |
| D8481   | 1SS133         | SI DIODE         |                 |             |
| D8521   | 1SS133         | SI DIODE         |                 |             |
| D8801   | 1SS133         | SI DIODE         |                 |             |
| A HS901 | VMH4011-201    | HEAT SINK        |                 |             |
| IC811   | AM6557F        | IC               |                 |             |
| IC812   | BU4066B        | IC               |                 |             |
| IC815   | AM6557F        | IC               |                 |             |
| IC816   | UPC1330HA      | IC               |                 |             |
| IC831   | HA12169FB      | IC               |                 |             |
| IC832   | UPD4052BC      | IC               |                 |             |
| IC845   | UPC1297CA      | IC               |                 |             |
| IC851   | BU4066B        | IC               |                 |             |
| IC852   | BA15218N       | IC               |                 |             |
| IC861   | BA15218N       | IC               |                 |             |
| IC871   | VC4580L        | IC               |                 |             |
| IC881   | LA2000S        | IC               |                 |             |
| IC891   | M50253P        | IC               |                 |             |
| IC901   | M5218AL        | IC               |                 |             |
| J 701   | QMS3533-V01    | JACK             |                 |             |
| J8501   | EMN001V-421AJ2 | PIN JACK         |                 |             |
| J8701   | GMS6032-V01    | JACK             |                 |             |
| L1251   | GMS6035-V01    | JACK             |                 |             |
| L1301   | VGP0001-183    | INDUCTOR         |                 |             |
| L1301   | VGZ0024-001    | FILTER           |                 |             |
| L1401   | VQH7001-021    | OSC. COIL (BIAS) |                 |             |



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| A | REF.  | PARTS NO.     | PARTS NAME      | REMARKS      | SUFFIX |
|---|-------|---------------|-----------------|--------------|--------|
|   | R2320 | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |
|   | R2451 | QRD161J-274   | CARBON RESISTOR | 270K 5% 1/6W |        |
|   | R2452 | QRD161J-333   | CARBON RESISTOR | 33K 5% 1/6W  |        |
|   | R2501 | QRD14CJ-100SX | CARBON RESISTOR | 10 5% 1/4W   |        |
|   | R2501 | QRD161J-223   | CARBON RESISTOR | 22K 5% 1/6W  |        |
|   | R2502 | QRD161J-563   | CARBON RESISTOR | 56K 5% 1/6W  |        |
|   | R2504 | QRD161J-102   | CARBON RESISTOR | 1.0K 5% 1/6W |        |
|   | R2504 | QRD161J-133Y  | CARBON RESISTOR | 13K 5% 1/6W  |        |
|   | R2505 | QRD161J-472   | CARBON RESISTOR | 4.7K 5% 1/6W |        |
|   | R2506 | QRD161J-222   | CARBON RESISTOR | 2.2K 5% 1/6W |        |
|   | R2601 | QRD161J-151   | CARBON RESISTOR | 150 5% 1/6W  |        |
|   | R2602 | QRD161J-124   | CARBON RESISTOR | 120K 5% 1/6W |        |
|   | R2603 | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |
|   | R2604 | QRD161J-562   | CARBON RESISTOR | 5.6K 5% 1/6W |        |
|   | R2605 | QRD161J-182   | CARBON RESISTOR | 1.8K 5% 1/6W |        |
|   | R8101 | QRD161J-223   | CARBON RESISTOR | 22K 5% 1/6W  |        |
|   | R8102 | QRD161J-223   | CARBON RESISTOR | 22K 5% 1/6W  |        |
|   | R8103 | QRD161J-102   | CARBON RESISTOR | 1.0K 5% 1/6W |        |
|   | R8104 | QRD161J-223   | CARBON RESISTOR | 22K 5% 1/6W  |        |
|   | R8151 | QRD161J-223   | CARBON RESISTOR | 22K 5% 1/6W  |        |
|   | R8152 | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |
|   | R8153 | QRD161J-101   | CARBON RESISTOR | 100 5% 1/6W  |        |
|   | R8301 | QRD161J-223   | CARBON RESISTOR | 22K 5% 1/6W  |        |
|   | R8302 | QRD161J-223   | CARBON RESISTOR | 22K 5% 1/6W  |        |
|   | R8303 | QRD161J-223   | CARBON RESISTOR | 22K 5% 1/6W  |        |
|   | R8304 | QRD161J-223   | CARBON RESISTOR | 22K 5% 1/6W  |        |
|   | R8305 | QRD161J-362   | CARBON RESISTOR | 3.6K 5% 1/6W |        |
|   | R8306 | QRD161J-433   | CARBON RESISTOR | 43K 5% 1/6W  |        |
|   | R8307 | QRD161J-273   | CARBON RESISTOR | 27K 5% 1/6W  |        |
|   | R8308 | QRD161J-823   | CARBON RESISTOR | 82K 5% 1/6W  |        |
|   | R8309 | QRD161J-243   | CARBON RESISTOR | 24K 5% 1/6W  |        |
|   | R8310 | QRD161J-183   | CARBON RESISTOR | 18K 5% 1/6W  |        |
|   | R8321 | QRD161J-393   | CARBON RESISTOR | 39K 5% 1/6W  |        |
|   | R8322 | QRD161J-823   | CARBON RESISTOR | 82K 5% 1/6W  |        |
|   | R8323 | QRD161J-563   | CARBON RESISTOR | 56K 5% 1/6W  |        |
|   | R8324 | QRD161J-124   | CARBON RESISTOR | 120K 5% 1/6W |        |
|   | R8325 | QRD161J-563   | CARBON RESISTOR | 56K 5% 1/6W  |        |
|   | R8326 | QRD161J-124   | CARBON RESISTOR | 120K 5% 1/6W |        |
|   | R8327 | QRD161J-823   | CARBON RESISTOR | 82K 5% 1/6W  |        |
|   | R8328 | QRD161J-184   | CARBON RESISTOR | 180K 5% 1/6W |        |
|   | R8329 | QRD161J-471   | CARBON RESISTOR | 470 5% 1/6W  |        |
|   | R8331 | QRD161J-224   | CARBON RESISTOR | 220K 5% 1/6W |        |
|   | R8332 | QRD161J-333   | CARBON RESISTOR | 33K 5% 1/6W  |        |
|   | R8333 | QRD161J-273   | CARBON RESISTOR | 27K 5% 1/6W  |        |
|   | R8334 | QRD161J-124   | CARBON RESISTOR | 120K 5% 1/6W |        |
|   | R8335 | QRD161J-104   | CARBON RESISTOR | 100K 5% 1/6W |        |
|   | R8341 | QRD161J-224   | CARBON RESISTOR | 220K 5% 1/6W |        |
|   | R8342 | QRD161J-393   | CARBON RESISTOR | 39K 5% 1/6W  |        |
|   | R8343 | QRD161J-273   | CARBON RESISTOR | 27K 5% 1/6W  |        |
|   | R8344 | QRD161J-753   | CARBON RESISTOR | 75K 5% 1/6W  |        |
|   | R8345 | QRD161J-623   | CARBON RESISTOR | 62K 5% 1/6W  |        |
|   | R8346 | QRD161J-623   | CARBON RESISTOR | 62K 5% 1/6W  |        |
|   | R8351 | QRD161J-104   | CARBON RESISTOR | 100K 5% 1/6W |        |
|   | R8352 | QRD161J-303Y  | CARBON RESISTOR | 30K 5% 1/6W  |        |
|   | R8353 | QRD161J-303Y  | CARBON RESISTOR | 30K 5% 1/6W  |        |

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| A | REF.  | PARTS NO.     | PARTS NAME      | REMARKS      | SUFFIX |
|---|-------|---------------|-----------------|--------------|--------|
|   | R1316 | QRD161J-472   | CARBON RESISTOR | 4.7K 5% 1/6W |        |
|   | R1317 | QRD161J-153   | CARBON RESISTOR | 15K 5% 1/6W  |        |
|   | R1318 | QRD161J-473   | CARBON RESISTOR | 4.7K 5% 1/6W |        |
|   | R1319 | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |
|   | R1320 | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |
|   | R1451 | QRD161J-274   | CARBON RESISTOR | 270K 5% 1/6W |        |
|   | R1452 | QRD161J-333   | CARBON RESISTOR | 33K 5% 1/6W  |        |
|   | R1453 | QRD14CJ-100SX | CARBON RESISTOR | 10 5% 1/4W   |        |
|   | R1501 | QRD161J-223   | CARBON RESISTOR | 22K 5% 1/6W  |        |
|   | R1502 | QRD161J-563   | CARBON RESISTOR | 56K 5% 1/6W  |        |
|   | R1503 | QRD161J-102   | CARBON RESISTOR | 1.0K 5% 1/6W |        |
|   | R1504 | QRD161J-133Y  | CARBON RESISTOR | 13K 5% 1/6W  |        |
|   | R1505 | QRD161J-472   | CARBON RESISTOR | 4.7K 5% 1/6W |        |
|   | R1506 | QRD161J-222   | CARBON RESISTOR | 2.2K 5% 1/6W |        |
|   | R1601 | QRD161J-151   | CARBON RESISTOR | 150 5% 1/6W  |        |
|   | R1602 | QRD161J-124   | CARBON RESISTOR | 120K 5% 1/6W |        |
|   | R1603 | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |
|   | R1604 | QRD161J-562   | CARBON RESISTOR | 5.6K 5% 1/6W |        |
|   | R1605 | QRD161J-182   | CARBON RESISTOR | 1.8K 5% 1/6W |        |
|   | R2101 | QRD161J-105   | CARBON RESISTOR | 1.0M 5% 1/6W |        |
|   | R2102 | QRD161J-472   | CARBON RESISTOR | 4.7K 5% 1/6W |        |
|   | R2104 | QRD161J-274   | CARBON RESISTOR | 270K 5% 1/6W |        |
|   | R2105 | QRD161J-242   | CARBON RESISTOR | 2.4K 5% 1/6W |        |
|   | R2106 | QRD161J-432   | CARBON RESISTOR | 4.3K 5% 1/6W |        |
|   | R2107 | QRD161J-152   | CARBON RESISTOR | 1.5K 5% 1/6W |        |
|   | R2108 | QRD161J-332   | CARBON RESISTOR | 3.3K 5% 1/6W |        |
|   | R2109 | QRD161J-470   | CARBON RESISTOR | 47 5% 1/6W   |        |
|   | R2110 | QRD161J-273   | CARBON RESISTOR | 27K 5% 1/6W  |        |
|   | R2111 | QRD161J-822   | CARBON RESISTOR | 8.2K 5% 1/6W |        |
|   | R2114 | QRD161J-332   | CARBON RESISTOR | 3.3K 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-470   | CARBON RESISTOR | 47 5% 1/6W   |        |
|   | R2160 | QRD161J-273   | CARBON RESISTOR | 27K 5% 1/6W  |        |
|   | R2161 | QRD161J-822   | CARBON RESISTOR | 8.2K 5% 1/6W |        |
|   | R2164 | QRD161J-332   | CARBON RESISTOR | 3.3K 5% 1/6W |        |
|   | R2165 | QRD161J-105   | CARBON RESISTOR | 1.0M 5% 1/6W |        |
|   | R2301 | QRD161J-334   | CARBON RESISTOR | 330K 5% 1/6W |        |
|   | R2302 | QRD161J-334   | CARBON RESISTOR | 330K 5% 1/6W |        |
|   | R2303 | QRD161J-822   | CARBON RESISTOR | 8.2K 5% 1/6W |        |
|   | R2304 | QRD161J-302   | CARBON RESISTOR | 3.0K 5% 1/6W |        |
|   | R2305 | QRD161J-472   | CARBON RESISTOR | 4.7K 5% 1/6W |        |
|   | R2306 | QRD161J-223   | CARBON RESISTOR | 22K 5% 1/6W  |        |
|   | R2307 | QRD161J-561   | CARBON RESISTOR | 560 5% 1/6W  |        |
|   | R2308 | QRD161J-152   | CARBON RESISTOR | 1.5K 5% 1/6W |        |
|   | R2309 | QRD161J-104   | CARBON RESISTOR | 100K 5% 1/6W |        |
|   | R2310 | QRD161J-473   | CARBON RESISTOR | 47K 5% 1/6W  |        |
|   | R2313 | QRD161J-564   | CARBON RESISTOR | 560K 5% 1/6W |        |
|   | R2315 | QRD161J-104   | CARBON RESISTOR | 100K 5% 1/6W |        |
|   | R2316 | QRD161J-472   | CARBON RESISTOR | 4.7K 5% 1/6W |        |
|   | R2317 | QRD161J-153   | CARBON RESISTOR | 15K 5% 1/6W  |        |
|   | R2318 | QRD161J-473   | CARBON RESISTOR | 47K 5% 1/6W  |        |
|   | R2319 | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |



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| A | REF.  | PARTS NO.    | PARTS NAME      | REMARKS       | SUFFIX |
|---|-------|--------------|-----------------|---------------|--------|
|   | R8709 | QRD161J-151  | CARBON RESISTOR | 150 5% 1/6W   |        |
|   | R8710 | QRD161J-151  | CARBON RESISTOR | 150 5% 1/6W   |        |
|   | R8801 | QRD161J-683  | CARBON RESISTOR | 68K 5% 1/6W   |        |
|   | R8802 | QRD161J-683  | CARBON RESISTOR | 68K 5% 1/6W   |        |
|   | R8804 | QRD161J-223  | CARBON RESISTOR | 22K 5% 1/6W   |        |
|   | R8806 | QRD161J-103  | CARBON RESISTOR | 10K 5% 1/6W   |        |
|   | R8807 | QRD161J-224  | CARBON RESISTOR | 220K 5% 1/6W  |        |
|   | R8901 | QRD161J-103  | CARBON RESISTOR | 10K 5% 1/6W   |        |
|   | R8902 | QRD161J-103  | CARBON RESISTOR | 10K 5% 1/6W   |        |
|   | R8903 | QRD161J-103  | CARBON RESISTOR | 10K 5% 1/6W   |        |
|   | R8904 | QRD161J-103  | CARBON RESISTOR | 10K 5% 1/6W   |        |
|   | R8905 | QRD161J-103  | CARBON RESISTOR | 10K 5% 1/6W   |        |
|   | R8906 | QRD161J-103  | CARBON RESISTOR | 10K 5% 1/6W   |        |
|   | R8907 | QRD161J-103  | CARBON RESISTOR | 10K 5% 1/6W   |        |
|   | R8908 | QRD161J-103  | CARBON RESISTOR | 10K 5% 1/6W   |        |
|   | VR111 | QVPA601-104A | V-RESISTOR      |               |        |
|   | VR116 | QVPA601-104A | V-RESISTOR      |               |        |
|   | VR211 | QVPA601-104A | V-RESISTOR      |               |        |
|   | VR216 | QVPA601-104A | V-RESISTOR      |               |        |
|   | Z 702 | VMA4633-001  | SHIELD          |               |        |
|   | Z 831 | VVH7237-003  | IC HOLDER       |               |        |
|   | Z 901 | VMZ0087-001Z | FUSE CLIP       | FOR F901,F902 |        |
|   | Z 902 | VMZ0087-001Z | FUSE CLIP       | FOR F901,F902 |        |
|   | Z 903 | VMZ0087-001Z | FUSE CLIP       | FOR F901,F902 |        |
|   | Z 904 | VMZ0087-001Z | FUSE CLIP       | FOR F901,F902 |        |

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| A | REF.  | PARTS NO.     | PARTS NAME       | REMARKS      | SUFFIX      |
|---|-------|---------------|------------------|--------------|-------------|
|   | R8354 | QRD161J-363   | CARBON RESISTOR  | 36K 5% 1/6W  |             |
|   | R8355 | QRD161J-473   | CARBON RESISTOR  | 47K 5% 1/6W  |             |
|   | R8356 | QRD161J-393   | CARBON RESISTOR  | 39K 5% 1/6W  |             |
|   | R8361 | QRD161J-823   | CARBON RESISTOR  | 82K 5% 1/6W  |             |
|   | R8362 | QRD161J-563   | CARBON RESISTOR  | 56K 5% 1/6W  |             |
|   | R8363 | QRD161J-393   | CARBON RESISTOR  | 39K 5% 1/6W  |             |
|   | R8364 | QRD161J-823   | CARBON RESISTOR  | 82K 5% 1/6W  |             |
|   | R8365 | QRD161J-913   | CARBON RESISTOR  | 91K 5% 1/6W  |             |
|   | R8371 | QRD161J-224   | CARBON RESISTOR  | 220K 5% 1/6W |             |
|   | R8372 | QRD161J-433   | CARBON RESISTOR  | 43K 5% 1/6W  |             |
|   | R8373 | QRD161J-563   | CARBON RESISTOR  | 56K 5% 1/6W  |             |
|   | R8374 | QRD161J-683   | CARBON RESISTOR  | 68K 5% 1/6W  |             |
|   | R8375 | QRD161J-623   | CARBON RESISTOR  | 62K 5% 1/6W  |             |
|   | R8376 | QRD161J-104   | CARBON RESISTOR  | 100K 5% 1/6W |             |
|   | R8381 | QRD161J-224   | CARBON RESISTOR  | 220K 5% 1/6W |             |
|   | R8382 | QRD161J-623   | CARBON RESISTOR  | 62K 5% 1/6W  |             |
|   | R8383 | QRD161J-433   | CARBON RESISTOR  | 43K 5% 1/6W  |             |
|   | R8384 | QRD161J-333   | CARBON RESISTOR  | 33K 5% 1/6W  |             |
|   | R8385 | QRD161J-473   | CARBON RESISTOR  | 47K 5% 1/6W  |             |
|   | R8386 | QRD161J-333   | CARBON RESISTOR  | 33K 5% 1/6W  |             |
|   | R8481 | QRD161J-103   | CARBON RESISTOR  | 10K 5% 1/6W  |             |
|   | R8482 | QRZ0077-100X  | CARBON RESISTOR  | 4.7 5% 1/4W  |             |
|   | R8482 | QRD14CJ-4R7SX | UNF. C. RESISTOR | 4.7 5% 1/4W  | A, B, E, EN |
|   | R8482 | QRZ0077-100X  | UNF. C. RESISTOR | 4.7 5% 1/4W  | C, J        |
|   | R8483 | QRD161J-102   | CARBON RESISTOR  | 1.0K 5% 1/6W | G, U, UT    |
|   | R8484 | QRD161J-102   | CARBON RESISTOR  | 1.0K 5% 1/6W |             |
|   | R8485 | QRD161J-471   | CARBON RESISTOR  | 470 5% 1/6W  |             |
|   | R8486 | QRD167J-332   | CARBON RESISTOR  | 3.3K 5% 1/6W |             |
|   | R8491 | QRD14CJ-6R8SX | CARBON RESISTOR  | 6.8 5% 1/4W  |             |
|   | R8492 | QRD161J-823   | CARBON RESISTOR  | 82K 5% 1/6W  |             |
|   | R8493 | QRD161J-823   | CARBON RESISTOR  | 82K 5% 1/6W  |             |
|   | R8503 | QRD161J-223   | CARBON RESISTOR  | 22K 5% 1/6W  |             |
|   | R8504 | QRD161J-103   | CARBON RESISTOR  | 10K 5% 1/6W  |             |
|   | R8505 | QRD161J-101   | CARBON RESISTOR  | 100 5% 1/6W  |             |
|   | R8511 | QRD161J-102   | CARBON RESISTOR  | 1.0K 5% 1/6W |             |
|   | R8512 | QRD161J-223   | CARBON RESISTOR  | 22K 5% 1/6W  |             |
|   | R8513 | QRD167J-332   | CARBON RESISTOR  | 3.3K 5% 1/6W |             |
|   | R8521 | QRD161J-104   | CARBON RESISTOR  | 100K 5% 1/6W |             |
|   | R8522 | QRD161J-123   | CARBON RESISTOR  | 12K 5% 1/6W  |             |
|   | R8523 | QRD161J-123   | CARBON RESISTOR  | 12K 5% 1/6W  |             |
|   | R8524 | QRD161J-103   | CARBON RESISTOR  | 10K 5% 1/6W  |             |
|   | R8525 | QRD161J-121   | CARBON RESISTOR  | 120 5% 1/6W  |             |
|   | R8526 | QRD161J-180   | CARBON RESISTOR  | 18 5% 1/6W   |             |
|   | R8527 | QRD161J-223   | CARBON RESISTOR  | 22K 5% 1/6W  |             |
|   | R8528 | QRD161J-223   | CARBON RESISTOR  | 22K 5% 1/6W  |             |
|   | R8529 | QRD161J-472   | CARBON RESISTOR  | 4.7K 5% 1/6W |             |
|   | R8530 | QRD161J-472   | CARBON RESISTOR  | 4.7K 5% 1/6W |             |
|   | R8701 | QRD161J-101   | CARBON RESISTOR  | 100 5% 1/6W  |             |
|   | R8702 | QRD161J-103   | CARBON RESISTOR  | 10K 5% 1/6W  |             |
|   | R8703 | QRD161J-103   | CARBON RESISTOR  | 10K 5% 1/6W  |             |
|   | R8704 | QRD161J-102   | CARBON RESISTOR  | 1.0K 5% 1/6W |             |
|   | R8705 | QRD161J-183   | CARBON RESISTOR  | 18K 5% 1/6W  |             |
|   | R8706 | QRD161J-101   | CARBON RESISTOR  | 100 5% 1/6W  |             |
|   | R8707 | QRD161J-223   | CARBON RESISTOR  | 22K 5% 1/6W  |             |
|   | R8708 | QRD161J-102   | CARBON RESISTOR  | 1.0K 5% 1/6W |             |



■ Power Supply Board (U/UT only)

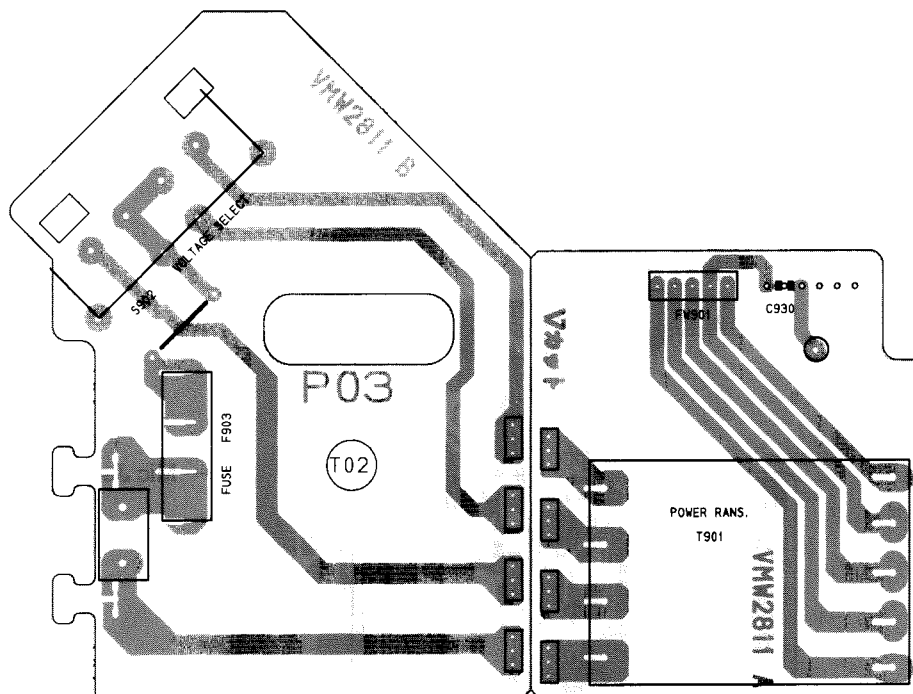


Fig. 7 - 2

● Power Supply Board Parts List

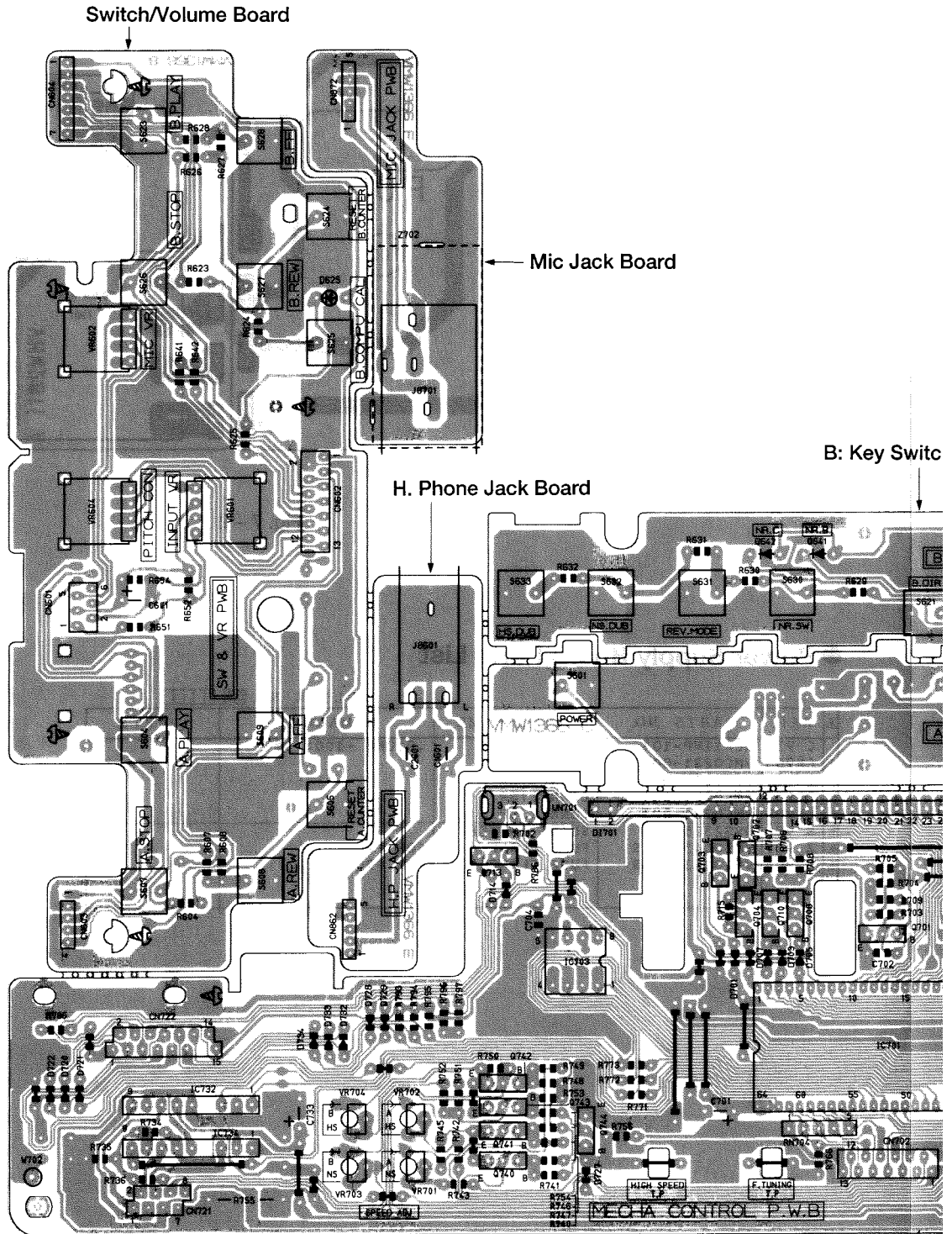
BLOCK NO. 0311111

| REF.    | PARTS NO.    | PARTS NAME   | REMARKS         | SUFFIX |
|---------|--------------|--------------|-----------------|--------|
| C 930   | QCF11HP-103  | C. CAPACITOR | .010MF +100:-0% |        |
| △ CN905 | VMC0221-003  | CONNECTOR    |                 |        |
| △ CN906 | VMC0221-003  | CONNECTOR    |                 |        |
| △ CN907 | VMC0221-003  | CONNECTOR    |                 |        |
| △ CN908 | VMC0221-003  | CONNECTOR    |                 |        |
| △ S 902 | QSS2325-112  | SLIDE SWITCH |                 |        |
| △ Z 905 | VMZ0043-001S | FUSE CLAMP   | FOR F903        |        |
| △ Z 906 | VMZ0043-001S | FUSE CLAMP   | FOR F903        |        |

1 2 3 4 5

■ Sub Board

A  
B  
C  
D  
E  
F  
G





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

### ● Sub Board Parts List

BLOCK NO. 02111111

| A REF. | PARTS NO.      | PARTS NAME  | REMARKS        | SUFFIX |
|--------|----------------|-------------|----------------|--------|
| C 601  | QEK41HM-104    | E-CAPACITOR | .10MF 20% 50V  |        |
| C 701  | QET41AM-477    | E-CAPACITOR | 470MF 20% 10V  |        |
| C 702  | QCB1HK-471Y    | C-CAPACITOR | 470PF 10% 50V  |        |
| C 703  | QCVB1CM-103Y   | C-CAPACITOR | .010MF 20% 16V |        |
| C 704  | QCVB1CM-103Y   | C-CAPACITOR | .010MF 20% 16V |        |
| C 731  | QEK41EM-106    | E-CAPACITOR | 10MF 20% 25V   |        |
| C 733  | QEK41EM-106    | E-CAPACITOR | 10MF 20% 25V   |        |
| CN601  | VMC0163-R06    | CONNECTOR   |                |        |
| CN602  | VMC0163-R13    | CONNECTOR   |                |        |
| CN603  | VMC0280-004    | CONNECTOR   |                |        |
| CN604  | VMC0280-007    | CONNECTOR   |                |        |
| CN613  | VMC0281-S04    | CONNECTOR   |                |        |
| CN614  | VMC0281-S07    | CONNECTOR   |                |        |
| CN701  | VMC0163-R24    | CONNECTOR   |                |        |
| CN702  | VMC0163-R13    | CONNECTOR   |                |        |
| CN711  | VMC0234-P08    | CONNECTOR   |                |        |
| CN712  | VMC0234-P15    | CONNECTOR   |                |        |
| CN721  | VMC0234-P08    | CONNECTOR   |                |        |
| CN722  | VMC0234-P15    | CONNECTOR   |                |        |
| D 625  | SLZ-981C09-T6  | LED         |                |        |
| D 641  | SLR-325MCT31   | LED         |                |        |
| D 642  | SLR-325DCT31   | LED         |                |        |
| 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 710  | 1SS133         | SI DIODE    |                |        |
| D 713  | 1SS133         | SI DIODE    |                |        |
| D 714  | 1SS133         | SI DIODE    |                |        |
| D 715  | 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 725  | 1SS133         | SI DIODE    |                |        |
| D 726  | 1SS133         | SI DIODE    |                |        |
| D 727  | 1SS133         | SI DIODE    |                |        |
| D 728  | 1SS133         | SI DIODE    |                |        |
| D 729  | 1SS133         | SI DIODE    |                |        |
| D 730  | 1SS133         | SI DIODE    |                |        |
| D 731  | 1SS133         | SI DIODE    |                |        |
| D 732  | 1SS133         | SI DIODE    |                |        |
| D 733  | 1SS133         | SI DIODE    |                |        |
| D 734  | 1SS133         | SI DIODE    |                |        |
| D 741  | SLR-55VCF08    | LED         |                |        |
| D1701  | BJ361G         | FL TUBE     |                |        |
| IC701  | MBB9145V2P-116 | IC          |                |        |

BLOCK NO. 02111111

| A REF. | PARTS NO.     | PARTS NAME      | REMARKS      | SUFFIX |
|--------|---------------|-----------------|--------------|--------|
| IC702  | M50253P       | IC              |              |        |
| IC703  | BR93LC46      | IC              |              |        |
| IC731  | BA6218        | IC              |              |        |
| IC732  | BA6218        | IC              |              |        |
| IC733  | TAB409S       | IC              |              |        |
| Q 701  | 25C1740S(R,S) | TRANSISTOR      |              |        |
| Q 702  | 25C1740S(R,S) | TRANSISTOR      |              |        |
| Q 703  | D1A124ES      | TRANSISTOR      |              |        |
| Q 704  | D1C124ES      | TRANSISTOR      |              |        |
| Q 705  | 25C1740S(R,S) | TRANSISTOR      |              |        |
| Q 706  | 25C1740S(R,S) | TRANSISTOR      |              |        |
| Q 707  | 25C1740S(R,S) | TRANSISTOR      |              |        |
| Q 708  | D1C124ES      | TRANSISTOR      |              |        |
| Q 709  | D1C124ES      | TRANSISTOR      |              |        |
| Q 710  | D1C124ES      | TRANSISTOR      |              |        |
| Q 711  | D1C124ES      | TRANSISTOR      |              |        |
| Q 712  | 25C1740S(R,S) | TRANSISTOR      |              |        |
| Q 713  | 25C1740S(R,S) | TRANSISTOR      |              |        |
| Q 714  | 25C1740S(R,S) | TRANSISTOR      |              |        |
| Q 715  | 25C1740S(R,S) | TRANSISTOR      |              |        |
| Q 716  | 25C1740S(R,S) | TRANSISTOR      |              |        |
| Q 720  | D1C144ES      | TRANSISTOR      |              |        |
| Q 740  | 25A117S       | TRANSISTOR      |              |        |
| Q 741  | 25A117S       | TRANSISTOR      |              |        |
| Q 742  | 25A117S       | TRANSISTOR      |              |        |
| Q 743  | 25A117S       | TRANSISTOR      |              |        |
| Q 744  | D1C124ES      | TRANSISTOR      |              |        |
| R 601  | GRD161J-102   | CARBON RESISTOR | 1.0K 5% 1/6W |        |
| R 602  | GRD161J-122   | CARBON RESISTOR | 1.2K 5% 1/6W |        |
| R 603  | GRD161J-182   | CARBON RESISTOR | 1.8K 5% 1/6W |        |
| R 604  | GRD161J-272   | CARBON RESISTOR | 2.7K 5% 1/6W |        |
| R 607  | GRD161J-102   | CARBON RESISTOR | 1.0K 5% 1/6W |        |
| R 608  | GRD161J-122   | CARBON RESISTOR | 1.2K 5% 1/6W |        |
| R 621  | GRD161J-222   | CARBON RESISTOR | 2.2K 5% 1/6W |        |
| R 622  | GRD161J-182   | CARBON RESISTOR | 1.8K 5% 1/6W |        |
| R 623  | GRD161J-272   | CARBON RESISTOR | 2.7K 5% 1/6W |        |
| R 624  | GRD161J-472   | CARBON RESISTOR | 4.7K 5% 1/6W |        |
| R 625  | GRD161J-271   | CARBON RESISTOR | 270 5% 1/6W  |        |
| R 626  | GRD161J-102   | CARBON RESISTOR | 1.0K 5% 1/6W |        |
| R 627  | GRD161J-122   | CARBON RESISTOR | 1.2K 5% 1/6W |        |
| R 628  | GRD161J-182   | CARBON RESISTOR | 1.8K 5% 1/6W |        |
| R 629  | GRD161J-272   | CARBON RESISTOR | 2.7K 5% 1/6W |        |
| R 630  | GRD161J-472   | CARBON RESISTOR | 4.7K 5% 1/6W |        |
| R 631  | GRD161J-822   | CARBON RESISTOR | 8.2K 5% 1/6W |        |
| R 632  | GRD161J-273   | CARBON RESISTOR | 27K 5% 1/6W  |        |
| R 641  | GRD161J-271   | CARBON RESISTOR | 270 5% 1/6W  |        |
| R 642  | GRD161J-271   | CARBON RESISTOR | 270 5% 1/6W  |        |
| R 651  | GRD161J-272   | CARBON RESISTOR | 2.7K 5% 1/6W |        |
| R 652  | GRD161J-751   | CARBON RESISTOR | 750 5% 1/6W  |        |
| R 654  | GRD161J-105   | CARBON RESISTOR | 1.0M 5% 1/6W |        |
| R 701  | GRD161J-153   | CARBON RESISTOR | 15K 5% 1/6W  |        |
| R 702  | GRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |
| R 703  | GRD161J-471   | CARBON RESISTOR | 470 5% 1/6W  |        |
| R 704  | GRD161J-102   | CARBON RESISTOR | 1.0K 5% 1/6W |        |

BLOCK NO. 02

| REF.    | PARTS NO.     | PARTS NAME      | REMARKS      | SUFFIX |
|---------|---------------|-----------------|--------------|--------|
| R 794   | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |
| R 795   | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |
| R 796   | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |
| R 797   | QRD161J-103   | CARBON RESISTOR | 10K 5% 1/6W  |        |
| RN704   | QRB045J-682   | R-NETWORK       | 6.8K 5% 1/4W |        |
| S 601   | QS04H11-V01   | TACT SWITCH     |              |        |
| S 602   | QS04H11-V01   | TACT SWITCH     |              |        |
| S 604   | QS04H11-V01   | TACT SWITCH     |              |        |
| S 605   | QS04H11-V01   | TACT SWITCH     |              |        |
| S 607   | QS04H11-V01   | TACT SWITCH     |              |        |
| S 608   | QS04H11-V01   | TACT SWITCH     |              |        |
| S 609   | QS04H11-V01   | TACT SWITCH     |              |        |
| S 621   | QS04H11-V01   | TACT SWITCH     |              |        |
| S 622   | QS04H11-V01   | TACT SWITCH     |              |        |
| S 623   | QS04H11-V01   | TACT SWITCH     |              |        |
| S 624   | QS04H11-V01   | TACT SWITCH     |              |        |
| S 625   | QS04H11-V01   | TACT SWITCH     |              |        |
| S 626   | QS04H11-V01   | TACT SWITCH     |              |        |
| S 627   | QS04H11-V01   | TACT SWITCH     |              |        |
| S 628   | QS04H11-V01   | TACT SWITCH     |              |        |
| S 629   | QS04H11-V01   | TACT SWITCH     |              |        |
| S 630   | QS04H11-V01   | TACT SWITCH     |              |        |
| S 631   | QS04H11-V01   | TACT SWITCH     |              |        |
| S 632   | QS04H11-V01   | TACT SWITCH     |              |        |
| S 633   | QS04H11-V01   | TACT SWITCH     |              |        |
| A T 755 | QRD14CJ-4R7SX | UNF.C.RESISTOR  | 4.7 5% 1/4W  | C,J    |
| VR601   | QVGA12Z-V05   | V.RESISTOR      |              |        |
| VR602   | QVGA16A-V02   | V.RESISTOR      |              |        |
| VR604   | QVAA16B-V01   | V.RESISTOR      |              |        |
| VR701   | QVPE612-103ZM | SEMI.V.RESISTOR |              |        |
| VR702   | QVPE612-203ZM | SEMI.V.RESISTOR |              |        |
| VR703   | QVPE612-103ZM | SEMI.V.RESISTOR |              |        |
| VR704   | QVPE612-203ZM | SEMI.V.RESISTOR |              |        |
| X 701   | EFD-EC800A4   | CERAMIC RESONAT |              |        |
| Z 701   | VVH3844-001   | FL HOLDER       |              |        |

BLOCK NO. 02

| REF.  | PARTS NO.   | PARTS NAME      | REMARKS      | SUFFIX   |
|-------|-------------|-----------------|--------------|----------|
| 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-103 | CARBON RESISTOR | 10K 5% 1/6W  |          |
| R 713 | QRD161J-103 | CARBON RESISTOR | 10K 5% 1/6W  |          |
| R 714 | QRD161J-103 | CARBON RESISTOR | 10K 5% 1/6W  |          |
| R 715 | QRD161J-102 | CARBON RESISTOR | 1.0K 5% 1/6W |          |
| R 731 | QRD167J-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 | QRD167J-332 | CARBON RESISTOR | 3.3K 5% 1/6W |          |
| R 735 | QRD161J-103 | CARBON RESISTOR | 10K 5% 1/6W  |          |
| R 743 | QRD161J-752 | CARBON RESISTOR | 7.5K 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-184 | CARBON RESISTOR | 180K 5% 1/6W |          |
| R 748 | QRD161J-224 | CARBON RESISTOR | 220K 5% 1/6W |          |
| R 749 | QRD161J-184 | CARBON RESISTOR | 180K 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-184 | CARBON RESISTOR | 180K 5% 1/6W |          |
| R 755 | QRH144J-4R7 | FUSI.RESISTOR   | 4.7 5% 1/4W  | A,B,E,EN |
| R 756 | QRD161J-103 | CARBON RESISTOR | 10K 5% 1/6W  | G,U,UT   |
| R 764 | QRD161J-103 | CARBON RESISTOR | 10K 5% 1/6W  |          |
| R 765 | QRD161J-151 | CARBON RESISTOR | 150 5% 1/6W  |          |
| R 766 | QRD161J-473 | CARBON RESISTOR | 47K 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  |          |
| 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  |          |
| R 787 | QRD161J-223 | CARBON RESISTOR | 22K 5% 1/6W  |          |
| R 788 | QRD161J-223 | CARBON RESISTOR | 22K 5% 1/6W  |          |
| R 789 | QRD161J-223 | CARBON RESISTOR | 22K 5% 1/6W  |          |
| R 791 | QRD161J-104 | CARBON RESISTOR | 100K 5% 1/6W |          |
| R 792 | QRD161J-223 | CARBON RESISTOR | 22K 5% 1/6W  |          |
| R 793 | QRD161J-103 | CARBON RESISTOR | 10K 5% 1/6W  |          |

# 8 Exploded View of Enclosure Component Parts

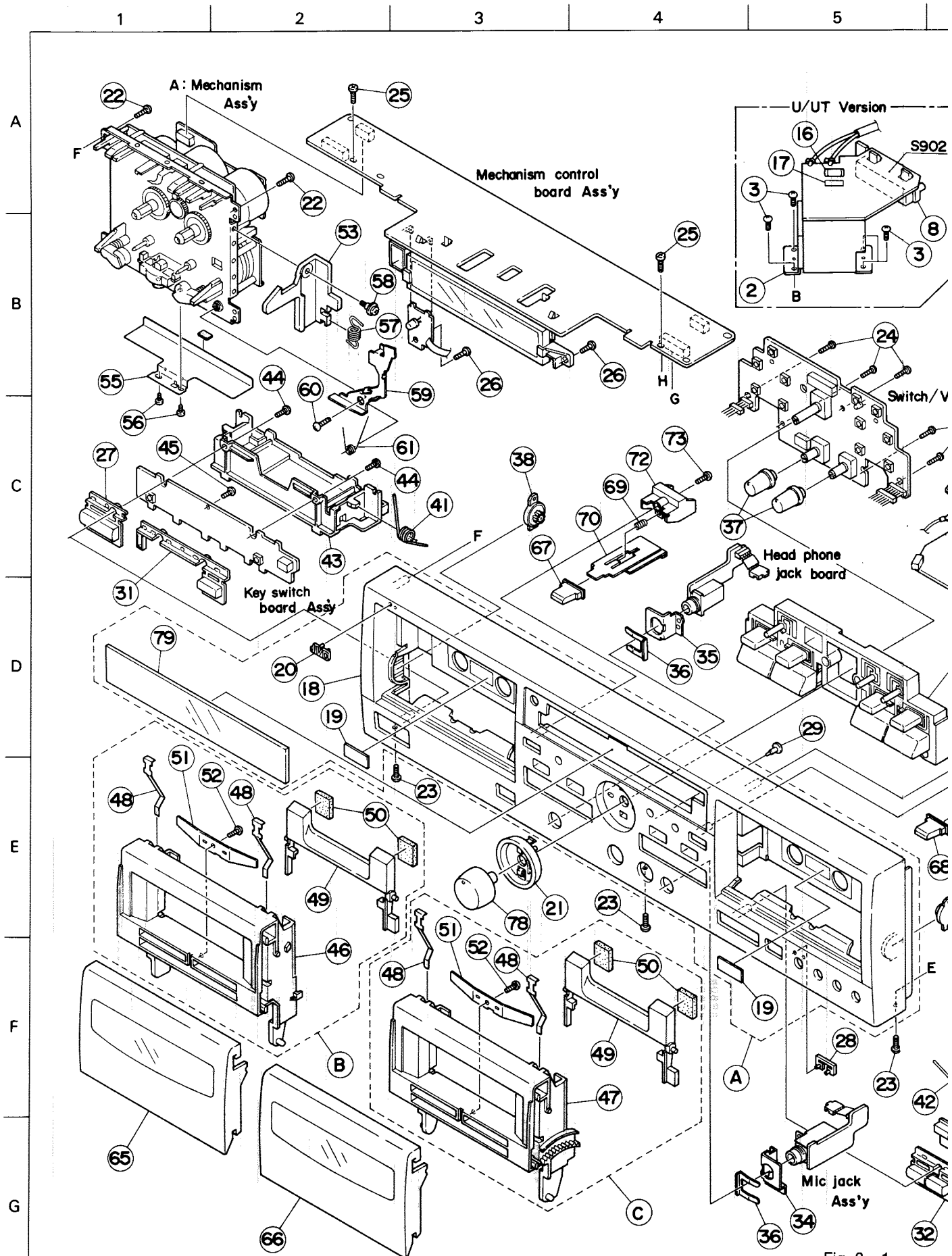


Fig. 8 - 1

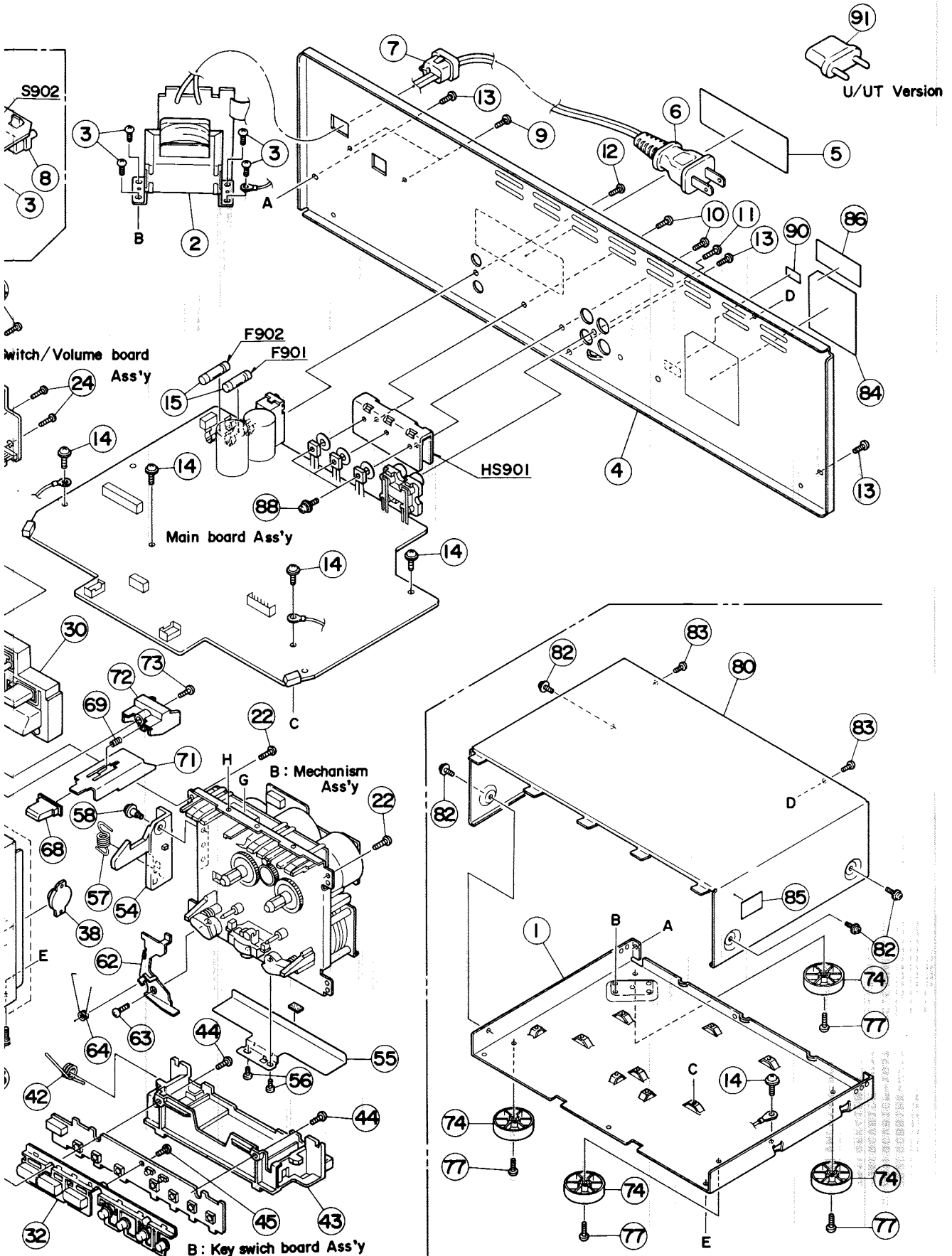
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● Enclosure Component Parts List

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

BLOCK NO. 1111

| △ | REF. | PARTS NO.      | PARTS NAME       | REMARKS         | QTY | SUFFIX       | CLR |
|---|------|----------------|------------------|-----------------|-----|--------------|-----|
|   | A    | ZCTDW317J-FTN  | FRONT PANEL ASSY | NO. 18-20,79    | 1   |              | TN  |
|   |      | ZCTDW318K-FB   | FRONT PANEL ASSY | NO. 18-20,79    | 1   |              | BK  |
|   | B    | ZCTDW317K-CH-A | CASSETTE HOLDER  | NO. 46,48-52    | 1   |              |     |
|   | C    | ZCTDW317K-CH-B | CASSETTE HOLDER  | NO. 47-52       | 1   |              |     |
|   | 1    | VKL1333-009    | CHASSIS BASE     |                 | 1   |              |     |
| △ | 2    | VTP5275-011F   | POWER TRANS.     |                 | 1   | A,E,EN,G,B   |     |
| △ |      | VTP52A5-011F   | POWER TRANS.     |                 | 1   | C,J          |     |
| △ |      | VTP52G5-011F   | POWER TRANS.     |                 | 1   | U,UT         |     |
|   | 3    | SBST3006Z      | SCREW            | FOR POWER TRANS | 4   |              |     |
|   | 4    | VJC2410-053    | REAR PANEL       |                 | 1   | A,B,E,EN,G   | BK  |
|   |      | VJC2410-054    | REAR PANEL       |                 | 1   | U,UT         | BK  |
|   |      | VJC2410-051    | REAR PANEL       |                 | 1   | J,C          | TN  |
|   | 5    | VND4999-001    | FCC LABEL (3)    |                 | 1   | J            |     |
| △ | 6    | QMP2560-244    | POWER CORD       |                 | 1   | A            |     |
| △ |      | QMP5530-008BS  | POWER CORD       |                 | 1   | B            |     |
| △ |      | QMP1340-200    | POWER CORD       |                 | 1   | C,J          |     |
| △ |      | QMP3900-200    | POWER CORD       |                 | 1   | E,EN,G       |     |
| △ |      | QMP7380-200    | POWER CORD       |                 | 1   | U,UT         |     |
|   | 7    | QHS3771-108    | CORD STOPPER     |                 | 1   |              |     |
|   | 8    | VKS5011-001    | VOLTAGE CONTACT  |                 | 1   | U,UT         |     |
|   | 9    | SBSF3008M      | SCREW            | FOR V.SELECTOR  | 2   | U,UT         |     |
|   | 10   | SBSF3008M      | SCREW            | FOR HEAT SINK   | 2   |              |     |
|   | 11   | SBSF3008M      | SCREW            | FOR PIN JACK    | 1   |              |     |
|   | 12   | SBSF3008M      | SCREW            | FOR DCS JACK    | 1   |              |     |
|   | 13   | SBST3006M      | SCREW            | FOR REAR+CHASSI | 3   |              |     |
|   | 14   | GBST3006Z      | SCREW            | FOR MAIN P.C.BO | 5   |              |     |
| △ | 15   | QMF51E2-R80SBS | FUSE             | F901,F902       | 1   | A,E,EN,G,U,J |     |
| △ |      | QMF51E2-R80SBS | FUSE             | F901,F902       | 1   | B            |     |
| △ | 16   | QMF51A2-R315   | FUSE             | F903            | 1   | U,UT         |     |
|   | 17   | VND4003-074    | FUSE LABEL       |                 | 1   | U,UT         |     |
|   | 18   | VJG1320-007    | FRONT PANEL      |                 | 1   | A,B,E,EN     | BK  |
|   |      | VJG1320-007    | FRONT PANEL      |                 | 1   | G,U,UT       | BK  |
|   |      | VJG1320-006UL  | FRONT PANEL      |                 | 1   | C,J          | TN  |
|   | 19   | VJD4024-002    | REFLECTION PLAT  |                 | 2   |              |     |
|   | 20   | VJD5429-001    | JVC MARK         |                 | 1   |              |     |
|   | 21   | VYH7943-002    | RING             |                 | 1   |              | BK  |
|   |      | VYH7943-001    | RING             |                 | 1   |              | TN  |
|   | 22   | SBSF3010Z      | SCREW            | FOR MECHANISM   | 4   |              |     |
|   | 23   | SBST3006M      | SCREW            | FOR FRONT PANEL | 3   |              |     |
|   | 24   | SBSF2610Z      | SCREW            | SWITCH/VOLUME B | 5   |              |     |
|   | 25   | SDST2604Z      | SCREW            | FOR FL.PWB+MECH | 2   |              |     |
|   | 26   | SBSF2610Z      | SCREW            | FOR FL.HOL+F.P. | 2   |              |     |
|   | 27   | VXP5288-002    | PUSH BUTTON      | POWER           | 1   |              | BK  |
|   |      | VXP5288-001    | PUSH BUTTON      | POWER           | 1   |              | TN  |
|   | 28   | VJK4436-001    | LENS             |                 | 1   |              |     |
|   | 29   | VJK4437-001    | LENS             |                 | 1   |              |     |
|   | 30   | VXP2098-004    | MECHA BUTTON     | A,B PLAY/STOP   | 1   |              | BK  |
|   |      | VXP2098-003    | MECHA BUTTON     | A,B PLAY/STOP   | 1   |              | TN  |
|   | 31   | VXP3688-004    | MECHA BUTTON     | A DIRECTION     | 1   |              | BK  |
|   |      | VXP3688-003    | MECHA BUTTON     | A DIRECTION     | 1   |              | TN  |
|   | 32   | VXP3689-002    | MECHA BUTTON     | B REC/PAUSE/DOL | 1   |              | BK  |
|   |      | VXP3689-001    | MECHA BUTTON     | B REC/PAUSE/DOL | 1   |              | TN  |
|   | 34   | VKL7265-003    | JACK BRACKET     | FOR H.P.JACK    | 1   |              |     |
|   | 35   | VKL7264-003    | MIC BRACKET      | FPR P.H. JACK   | 1   |              |     |
|   | 36   | VKL6752-001    | SNAP PLATE       |                 | 2   |              |     |

BLOCK NO. M1MM | | | |

| △ | REF. | PARTS NO.      | PARTS NAME      | REMARKS         | QTY | SUFFIX | CLR |
|---|------|----------------|-----------------|-----------------|-----|--------|-----|
|   | 37   | VXL4424-002    | KNOB            | BALANC/H.PHONE/ | 2   |        | BK  |
|   |      | VXL4424-001    | KNOB            | P.CNT/MIX LEVEL | 1   |        | TN  |
|   | 38   | VYH7779-00B    | DUMPER ASS'Y    |                 | 2   |        |     |
|   | 41   | VKW3006-236    | TORSION SPRING  | A-HOLDER        | 1   |        |     |
|   | 42   | VKW3006-237    | TORSION SPRING  | B-HOLDER        | 1   |        |     |
|   | 43   | VYH2300-001    | MECHA HOLDER    | FOR A B MECHA   | 2   |        |     |
|   | 44   | SBSF2610Z      | SCREW           | FOR MECHANISM B | 4   |        |     |
|   | 45   | SBSF2610Z      | SCREW           | FOR A B PWB     | 2   |        |     |
|   | 46   | VJT2317-007    | CASSETTE HOLDER | FOR A-MECHA     | 1   |        |     |
|   | 47   | VJT2317-008    | CASSETTE HOLDER | FOR B-MECHA     | 1   |        |     |
|   | 48   | VKY4180-001    | CASSETTE SPRING |                 | 4   |        |     |
|   | 49   | VJD3867-001    | C.STABILIZER    |                 | 2   |        |     |
|   | 50   | VYTS491-001    | PAD             |                 | 4   |        |     |
|   | 51   | VKY4635-002    | SPRING PLATE    |                 | 2   |        |     |
|   | 52   | SBSF2608Z      | SCREW           | FOR S.PLATE     | 2   |        |     |
|   | 53   | VYH7941-003    | LOCK LEVER(L)   | FOR A MECHA     | 1   |        |     |
|   | 54   | VYH7941-004    | LOCK LEVER(R)   | FOR B MECHA     | 1   |        |     |
|   | 55   | VMA4643-001    | SHIELD          | FOR MESA        | 2   |        |     |
|   | 56   | SDST2603Z      | SCREW           | FOR MECHA+SHIEL | 4   |        |     |
|   | 57   | VKW5199-001    | TORSHION SPRING | LOCK ARM        | 2   |        |     |
|   | 58   | VKZ4749-001    | SPECIAL SCREW   | FOR LOCK L+MECH | 2   |        |     |
|   | 59   | VKL7293-001    | EJECT SAFTY(R)  | EGC             | 1   |        |     |
|   | 60   | SBSF3010Z      | SCREW           | FOR E.SAFTY(R)  | 1   |        |     |
|   | 61   | VKW5069-002    | TORSION SPRING  | FOR E.SAFTY(R)  | 1   |        |     |
|   | 62   | VKL7663-001    | EJECT SAFTY(L)  | EGC             | 1   |        |     |
|   | 63   | SBSF3010Z      | SCREW           | FOR E.SAFTY(L)  | 1   |        |     |
|   | 64   | VKW5104-003    | TORSION SPRING  | FOR E.SAFTY(L)  | 1   |        |     |
|   | 65   | VJT2349-006    | CASSETTE LID    | FOR A MECHA     | 1   |        | BK  |
|   |      | VJT2349-005    | CASSETTE LID    | FOR A MECHA     | 1   |        | TN  |
|   | 66   | VJT2349-004    | CASSETTE LID    | FOR B MECHA     | 1   |        | BK  |
|   |      | VJT2349-002    | CASSETTE LID    | FOR B MECHA     | 1   |        | TN  |
|   | 67   | VXP5289-003    | PUSH BUTTON     | EJECT           | 1   |        | BK  |
|   |      | VXP5289-001    | PUSH BUTTON     | EJECT           | 1   |        | TN  |
|   | 68   | VXP5289-004    | PUSH BUTTON     |                 | 1   |        | BK  |
|   |      | VXP5289-002    | PUSH BUTTON     |                 | 1   |        | TN  |
|   | 69   | VKW3001-077    | C.SPRING        |                 | 2   |        |     |
|   | 70   | VKL7262-002    | REMOTE ARM      | FOR A-MECHA     | 1   |        |     |
|   | 71   | VKL7263-002    | REMOTE ARM      | FOR B-MECHA     | 1   |        |     |
|   | 72   | VYH7773-001    | BUTTON HOLDER   |                 | 2   |        |     |
|   | 73   | SBSF2610Z      | SCREW           | FOR B.H.+F.P.   | 2   |        |     |
|   | 74   | E406379-008SS  | FOOT ASS'Y      |                 | 4   |        | BK  |
|   |      | VJF4039-00E    | FOOT ASS'Y      |                 | 4   |        | TN  |
|   | 77   | SBST3008Z      | SCREW           | FOR FOOT        | 4   |        |     |
|   | 78   | VXL3025-002    | KNOB            | INPUT VOLUME    | 1   |        | BK  |
|   |      | VXL3025-001    | KNOB            | INPUT VOLUME    | 1   |        | TN  |
|   | 79   | VJK3652-002    | FINDER LENS     |                 | 1   |        | BK  |
|   |      | VJK3652-001    | FINDER LENS     |                 | 1   |        | TN  |
|   | 80   | VJC1964-202SX  | TOP COVER       |                 | 1   |        | BK  |
|   |      | VJC1964-201SX  | TOP COVER       |                 | 1   |        | TN  |
|   | 82   | VKZ4614-001    | SPECIAL SCREW   |                 | 4   |        |     |
|   | 83   | SBST3006M      | SCREW           | FOR TOP COVER   | 2   |        |     |
|   | 84   | VYN2347-M003PA | NAME PLATE      |                 | 1   | A      |     |
|   |      | VYN2347-M002PA | NAME PLATE      |                 | 1   | B      |     |
|   |      | VYN2346-M104PA | NAME PLATE      |                 | 1   | C      |     |

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

| △ | REF.  | PARTS NO.      | PARTS NAME    | REMARKS        | QTY | SUFFIX | CLR |
|---|-------|----------------|---------------|----------------|-----|--------|-----|
|   |       | VYN2347-M005PA | NAME PLATE    |                | 1   | E,EN   |     |
|   |       | VYN2347-M008PA | NAME PLATE    |                | 1   | G      |     |
|   |       | VYN2346-M006PA | NAME PLATE    |                | 1   | J      |     |
|   |       | VYN2347-M007PA | NAME PLATE    |                | 1   | U,UT   |     |
|   | 85    | VYN2347-901    | NAME PLATE    |                | 1   | UT     |     |
|   | 86    | VND4992-001    | ORIGN LABEL   |                | 1   | UT     |     |
|   | 88    | DPSP3008Z      | SCREW         | FOR TRANSISTOR | 3   |        |     |
|   | 90    | E407097-001    | HYATT L.LABEL |                | 1   | J      |     |
|   | 91    | V04062-001     | CONTI.PLUG    |                | 1   | UT,U   |     |
|   | HS901 | VMH4011-201    | HEAT SINK     | Q901,Q903,Q909 | 1   |        |     |
| △ | S 902 | QSS2325-112    | SLIDE SWITCH  |                | 1   | U,UT   |     |

# 9 Exploded View of Mechanism Component Parts

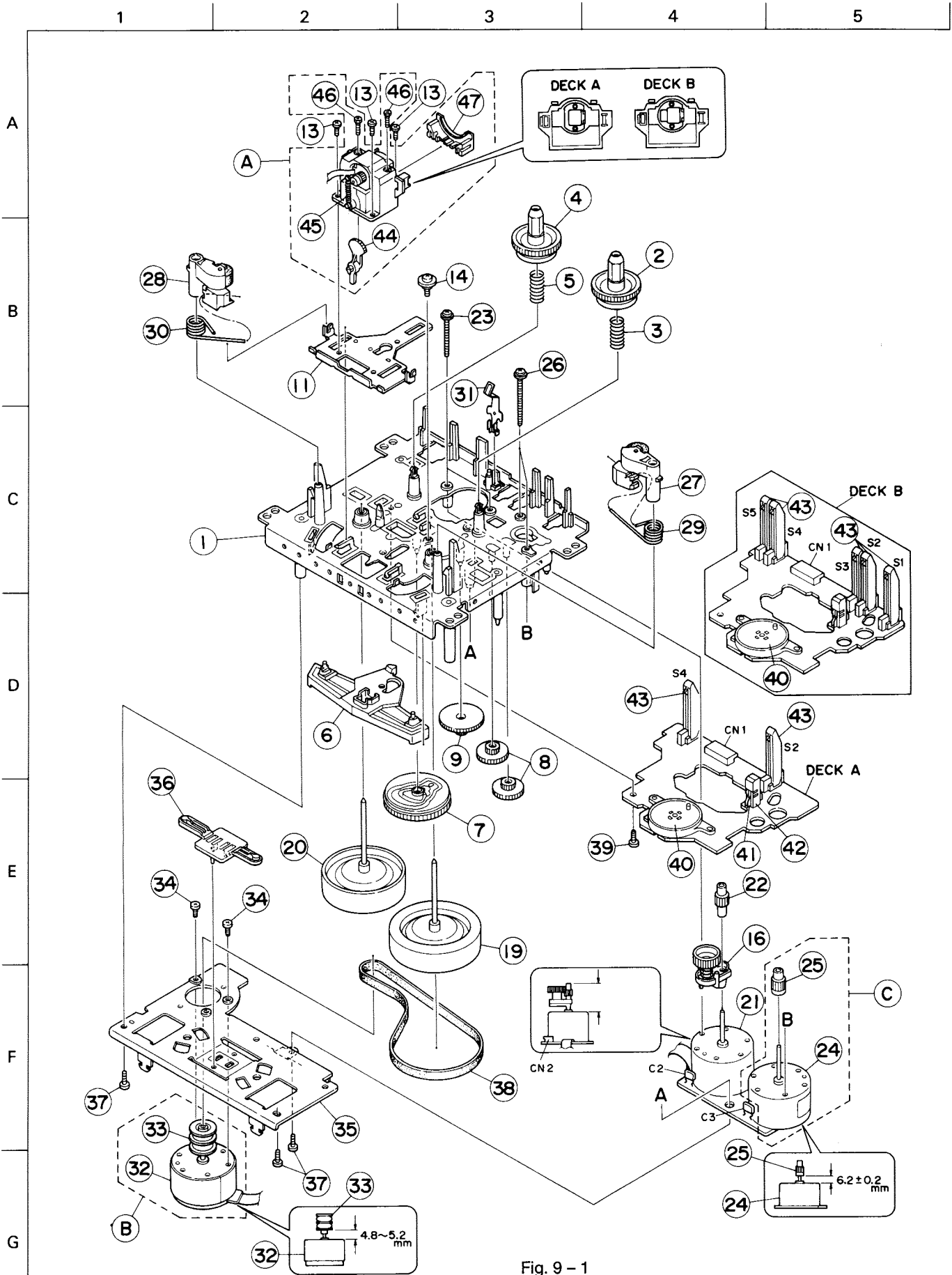


Fig. 9 - 1

● Mechanism Component Parts List

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

BLOCK NO. M2MM | | | |

| △ | REF. | PARTS NO.     | PARTS NAME      | REMARKS         | QTY          | SUFFIX | CLR |
|---|------|---------------|-----------------|-----------------|--------------|--------|-----|
|   | A    | VKS3629-00E   | HEAD MOUNT ASSY | DECK B          | 1            |        |     |
|   |      | VKS3626-00E   | HEAD MOUNT ASSY | DECK A          | 1            |        |     |
|   | B    | MSI5B2LW-SA2  | DC MOTOR ASS'Y  | NO. 32-33       | 1            |        |     |
|   | C    | MSN5D257A-SA1 | DC MOTOR ASS'Y  | NO. 24-25       | 1            |        |     |
|   | 1    | VKS1126-00B   | CHASSIS B ASS'Y |                 | 1            |        |     |
|   | 2    | VKS5428-00B   | 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       | PRESS KIT S     | 1            |        |     |
|   | 13   | SDST2004Z     | SCREW           |                 | 3            |        |     |
|   | 14   | VKZ4708-001   | SPECIAL SCREW   |                 | 1            |        |     |
|   | 16   | VKS5430-00CMM | FR ARM ASS'Y    |                 | 1            |        |     |
|   | 19   | VKF3195-00A   | FLYWHEEL(R)ASS' |                 | 1            |        |     |
|   | 20   | VKF3197-00A   | FLYWHEEL(L)ASS' |                 | 1            |        |     |
|   | 21   | MMN-6F4RA38   | D.C.MOTOR       | FOR REEL,MOTOR  | 1            |        |     |
|   | 22   | VKS5432-001   | REEL MOT. GEAR  | GEAR KIT S      | 1            |        |     |
|   | 23   | VKZ4705-001   | SPECIAL SCREW   |                 | 2            |        |     |
|   | 24   | MSN-5D257A    | D.C.MOTOR       | FOR ACT,MOTOR K | 1            |        |     |
|   | 25   | VKS5433-001   | ACT.MOTOR GEAR  | GEAR KIT S      | 1            |        |     |
|   | 26   | VKZ4705-002   | SPECIAL SCREW   |                 | 2            |        |     |
|   | 27   | VKP4227-00B   | PINCH R.(R) ASY |                 | 1            |        |     |
|   | 28   | VKP4229-00B   | PINCH R.(L) ASY |                 | 1            |        |     |
|   | 29   | VKW5045-003   | P.R. SP.(R)     | FOR PINCH (R)   | 1            |        |     |
|   | 30   | VKW5046-003   | P.R. SP.(L)     | FOR PINCH (L)   | 1            |        |     |
|   | 31   | VKY4670-001   | CASSETTE SPRING | PRESS KIT S     | 1            |        |     |
|   | 32   | MSI-5B2LW     | D.C.MOTOR       | FOR CAP,MOTOR K | 1            |        |     |
|   | 33   | VKR4632-003MM | MOTOR PULLEY    |                 | 1            |        |     |
|   | 34   | SPSP2603Z     | SCREW           |                 | 2            |        |     |
|   | 35   | VKM3636-002   | FM. BRACKET     | PRESS KIT S     | 1            |        |     |
|   | 36   | VKS5327-005MM | THRUST PLATE    |                 | 1            |        |     |
|   | 37   | SDSF2608Z     | SCREW           |                 | 3            |        |     |
|   | 38   | VKB3001-067   | 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 | S2,S4,DECK A    | 2            |        |     |
|   | 44   | VKS3614-001   | TURN OVER GEAR  |                 | 1            |        |     |
|   | 45   | VKW5063-003   | HEAD SPRING     |                 | 1            |        |     |
|   | 46   | VKZ4629-003   | SPECIAL SCREW   |                 | 2            |        |     |
|   | 47   | VKS3654-001   | HEAD MT. COVER  |                 | 1            |        |     |
|   | C    | 2             | QFV41HJ-104ZM   | TF.CAPACITOR    | .10MF 5% 50V |        |     |
|   | C    | 3             | QFV31HJ-104     | TF.CAPACITOR    | .10MF 5% 50V |        |     |
|   | CN   | 1             | VMC0234-R15     | CONNECTOR       | CN1          |        |     |
|   | CN   | 2             | VMC0234-R08     | CONNECTOR       | CN2          |        |     |

# 10 Packing Illustration and packing parts list

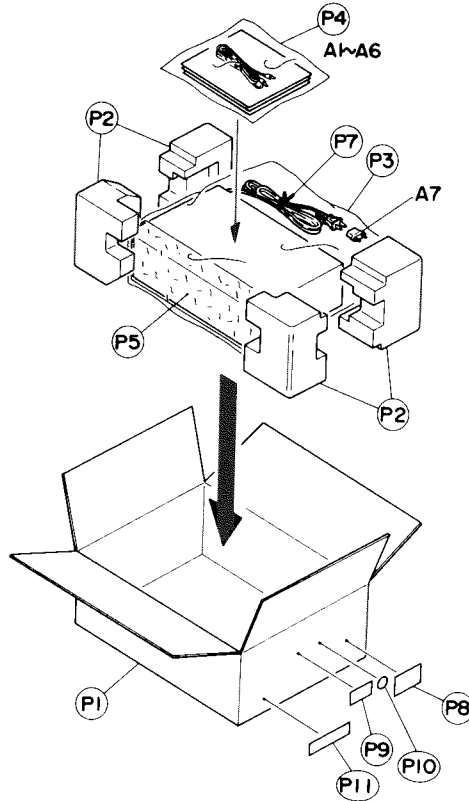


Fig. 10 - 1

## ● Packing Parts List

BLOCK NO. M3MM

| REF. | PARTS NO.    | PARTS NAME      | REMARKS         | QTY | SUFFIX | CLR |
|------|--------------|-----------------|-----------------|-----|--------|-----|
| P 1  | VPC2347-M002 | CARTON          | TD-W318         | 1   |        |     |
|      | VPC2346-M002 | CARTON          | TD-W317         | 1   |        |     |
| P 2  | TDWR803-NZ   | CUSHION ASS'Y   |                 | 1   |        |     |
| P 3  | E300196-031B | ENVELOPE        | FOR DECK UNIT   | 1   |        |     |
| P 4  | VPE3005-007  | POLY BAG        | FOR INSTRUCTION | 1   |        |     |
| P 5  | VPK3001-012  | SHEET           | FOR FRONT       | 1   |        |     |
| P 7  | Q04141H      | WIRE CLAMP      | FOR POWER CORD  | 1   |        |     |
| P 8  | -----        | SIRIAL TICKET   |                 | 1   |        |     |
| P 9  | -----        | EAN/UPC LABEL   |                 | 1   |        |     |
| P 10 | QZLA001-011  | MARK            |                 | 1   | E, EN  |     |
|      | QZLA001-012  | GREEN POINT LAB |                 | 1   | G      |     |
| P 11 | VND4909-001  | VOLTAGE LABEL   |                 | 1   | U, UT  |     |

## ● Accessories

BLOCK NO. M3MM

| REF. | PARTS NO.   | PARTS NAME      | REMARKS | QTY | SUFFIX            | CLR |
|------|-------------|-----------------|---------|-----|-------------------|-----|
| A 1  | VMP0039-000 | PIN CORD        |         | 1   |                   |     |
| A 2  | VNN2346-271 | INSTRUCTIONS    |         | 1   | G, EN             |     |
|      | VNN2346-661 | INSTTACIONS     |         | 1   | C, E, EN, G, U, J |     |
|      | VNN2346-671 | INSTRACIONS     |         | 1   | A, B, J           |     |
| A 3  | BT-20066A   | WARRANTY CARD   |         | 1   | B                 |     |
|      | BT-20025M   | WARRANTY CARD   |         | 1   | C                 |     |
|      | BT-20134    | WARRANTY CARD   |         | 1   | G                 |     |
|      | BT-51006-1  | WARRANTY CARD   |         | 1   | J                 |     |
|      | BT20060     | WARRANTY CARD   |         | 1   | B                 |     |
|      | BT-56001-1  | WARRANTY CARD   |         | 1   | A                 |     |
| A 4  | BT-20071B   | SVC CENTER LIST |         | 1   | C                 |     |
|      | BT-56002-1  | SERVIS CENTER L |         | 1   | A                 |     |
| A 5  | BT-20044G   | SAFETY INST.    |         | 1   | J                 |     |
|      | E43486-340A | SAFETY I. SHEET |         | 1   | B                 |     |
| A 6  | EWP805-001E | REMOTE WIRE     |         | 1   |                   |     |
| A 7  | V04062-001  | CONTI.PLUG      |         | 1   | U, UT             |     |

# JVC

VICTOR COMPANY OF JAPAN, LIMITED

AUDIO PRODUCTS DIVISION, MAEBASHI PLANT 10-1, 1-chome, Ohwatari-machi, Maebashi-city, 371, Japan

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