

# CFD-101

## SERVICE MANUAL



*US Model  
Canadian Model  
AEP Model  
E Model  
Australian Model  
Tourist Model  
PX Model*

|            |                                    |            |
|------------|------------------------------------|------------|
| CD Section | Model Name Using Similar Mechanism | CFD-121    |
|            | CD Mechanism Type                  | KSM-213BAN |
|            | Optical Pick-up Name               | KSS-213B/K |
| TC Section | Model Name Using Similar Mechanism | CFD-121    |
|            | Tape Transport Mechanism Type      | MF-121     |

### SPECIFICATIONS

#### AUDIO POWER SPECIFICATIONS (US Model)

##### POWER OUTPUT AND TOTAL

##### HARMONIC DISTORTION

With 3.2-ohm loads, both channels driven from 150 -10,000 Hz; rated 2 W per channel minimum RMS power, with no more than 10 % total harmonic distortion in AC operation.

#### Other Specifications

##### CD player section

###### System

Compact disc digital audio system

###### Laser diode properties

Material: GaAlAs

Wave length: 780 nm

Emission duration: Continuous

Laser output: Less than 44.6  $\mu$ W

(This output is the value measured at a distance of about 200 mm from the objective lens surface on the optical pick-up block with 7 mm aperture.)

###### Spindle speed

200 r/min (rpm) to 500 r/min (rpm) (CLV)

###### Number of channels

2

###### Frequency response

20 - 20,000 Hz  $\pm 1/-2$ dB

###### Wow and flutter

Below measurable limit

#### Radio section

##### Frequency range

|     |                                  |                     |
|-----|----------------------------------|---------------------|
| FM: | Except AEP, G, IT, EA model      | 87.6 - 108 MHz      |
|     | AEP, G, EA model                 | 87.6 - 107 MHz      |
|     | IT model                         | 87.5 - 108 MHz      |
| AM: | US, CND, C&SA model              | 530 - 1,710 kHz     |
|     | AEP, G model                     | 531 - 1,602 kHz     |
|     | E, EA, HK, PX, AUS, JE, TW model | 530 - 1,605 kHz     |
|     | IT model                         | 526.5 - 1,606.5 kHz |

##### IF

FM: 10.7 MHz

AM: 455 kHz

##### Aerials

FM: Telescopic aerial

AM: Built-in ferrite bar aerial

#### Cassette-corder section

##### Recording system

4-track 2 channel stereo

##### Fast winding time

Approx. 115 s (sec.) with Sony cassette C-60

##### Frequency response

TYPE I (normal): 70 - 10,000 Hz

— Continued on next page —

CD RADIO CASSETTE-CORDER  
**SONY®**

## General

### Speaker

Full range: 10 cm dia., 3.2 ohms, cone type (2)

### Outputs

Headphones jack (stereo minijack)  
For 16 - 68 ohms impedance headphones

### Power output (excluding US model)

2.3 W + 2.3 W (at 3.2 ohms, 10 % harmonic distortion)

### Power requirements

120 V AC, 60 Hz (US, CND, TW, C&SA model)  
220 - 230 V AC, 50 Hz (AEP, G, IT model)  
230 - 240 V AC, 50 Hz (AUS model)  
110 - 120 V, 220 - 240 V AC selectable 50/60 Hz (E, EA, HK, PX, JE model)  
9 V DC, 6 R20 (size D) batteries

### Power consumption

AC 25 W (TW model)  
AC 20 W (Except TW model)

### Battery life

For CD radio cassette-corder:

#### FM recording

Sony R20P: approx. 13.5 h  
Sony alkaline LR20: approx. 19 h

#### Tape playback

Sony R20P: approx. 7.5 h  
Sony alkaline LR20: approx. 12 h

#### CD playback

Sony R20P: approx. 2.5 h  
Sony alkaline LR20: approx. 4.5 h

### Dimensions

Approx. 446x165x234 mm (w/h/d)  
(17 5/8 x 6 1/2 x 9 1/4 inches) (incl. projecting parts)

### Mass

Approx. 3.8 kg (8 lb. 6 oz) (incl. batteries)

### Supplied accessory

AC power cord (1)

Design and specifications are subject to change without notice.

### • Abbreviation

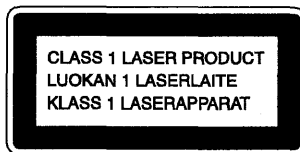
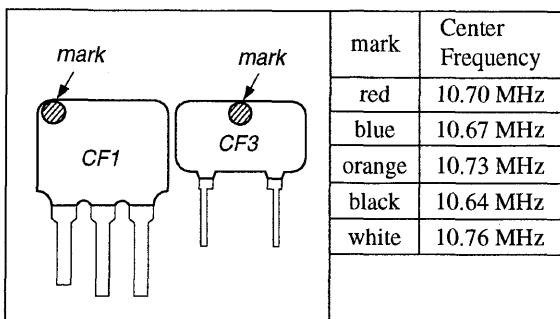
G : German model  
IT : Italian model  
EA : Saudi Arabia model  
CND : Canadian model  
C&SA : Central and South American model  
HK : Hong Kong model  
AUS : Australian model  
JE : Tourist model  
TW : Taiwan model

## HOW TO CHANGE THE CERAMIC FILTERS

This model is used two ceramic filters of CF1 and 3.

You must use same type of color marked ceramic filters in order to meet same specifications.

Therefore, the ceramic filter must change two pieces together since it's supply two pieces in one package as a spare parts.



This appliance is classified as a CLASS 1 LASER product.  
The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

## CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

## Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270°C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

## Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

## NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.

The flexible board is easily damaged and should be handled with care.

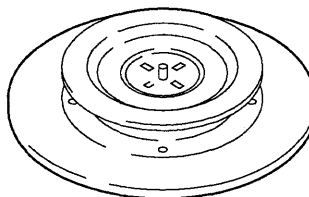
## NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

## CHUCK PLATE JIG ON REPAIRING

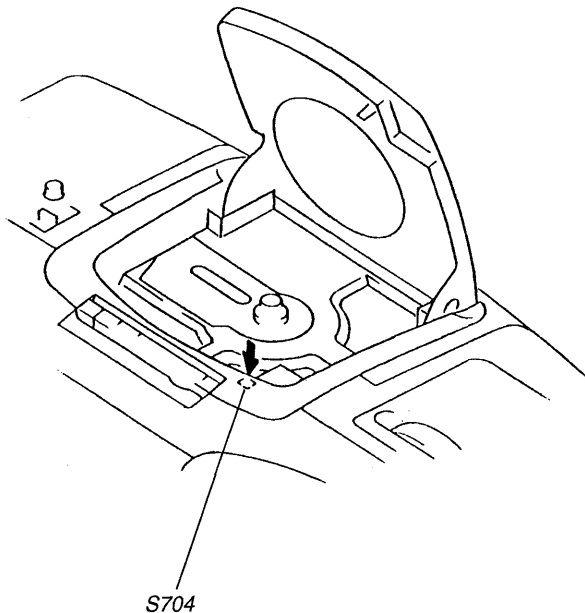
On repairing CD section, playing a disc without the CD lid, use Chuck Plate jig.

- Code number of Chuck Plate jig : X-4918-255-1



### LASER DIODE AND FOCUS SEARCH OPERATION CHECK

1. Open the lid for CD.
2. Push on PUSH SWITCH (S704) as following figure.
3. Confirm the laser diode emission while observing the objecting lens. When there is no emission, Auto Power Control circuit or Optical Pick-up is broken.  
Objective lens moves up and down once for the focus search.



### SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

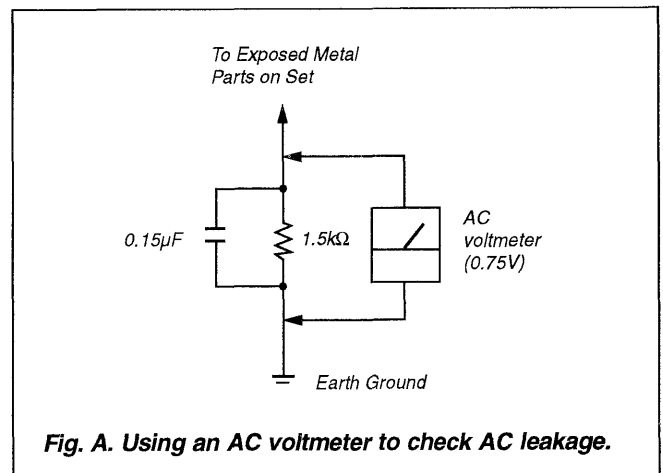
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

### LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes).

Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)



### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  $\Delta$  OR DOTTED LINE WITH MARK  $\Delta$  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

### ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE  $\Delta$  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

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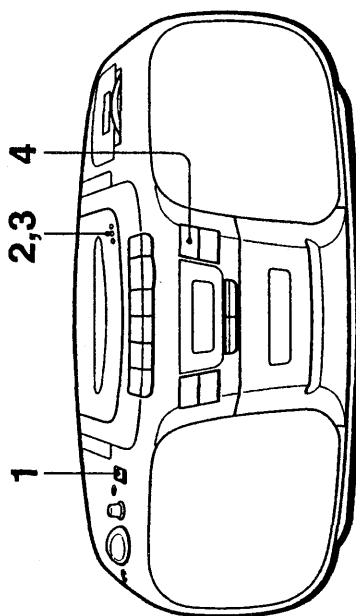
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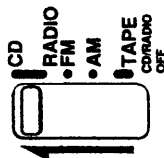
## Playing a CD



Connect the supplied AC power cord (see page 16).

1

Set FUNCTION to CD.



2

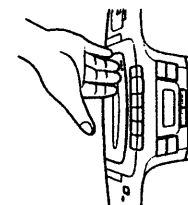
Press OPEN/CLOSE down to open the disc compartment and place the disc on the disc compartment.



With the label side up

3

Close the disc compartment.



## SECTION 1 GENERAL

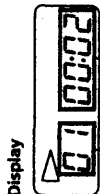
This section extracted from instruction manual.

### Basic Operations

4

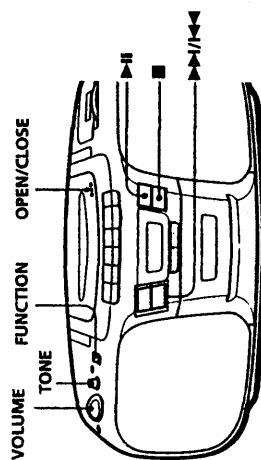


Press **▶||**.  
The player plays all the tracks once.



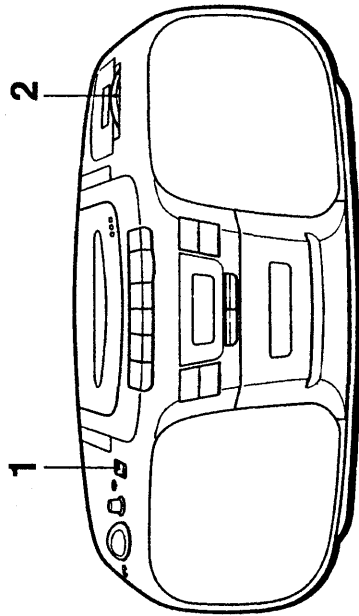
Track number Playing time

Use these buttons for additional operations



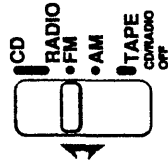
| To                            | Do this                                                       |
|-------------------------------|---------------------------------------------------------------|
| Adjust the volume             | Turn VOLUME.                                                  |
| Adjust the tone               | Turn TONE.                                                    |
| Stop playback                 | Press <b>■</b> .                                              |
| Pause playback                | Press <b>▶  </b> .<br>Press again to resume play after pause. |
| Go to the next track          | Press <b>▶▶</b> .                                             |
| Go back to the previous track | Press <b>◀◀</b> .                                             |
| Remove the CD                 | Press OPEN/CLOSE.                                             |
| Turn off the player           | Set FUNCTION to TAPE (CD/RADIO OFF).                          |

## Listening to the radio



Connect the supplied AC power cord (see page 16).

1



Set FUNCTION to RADIO FM or AM.

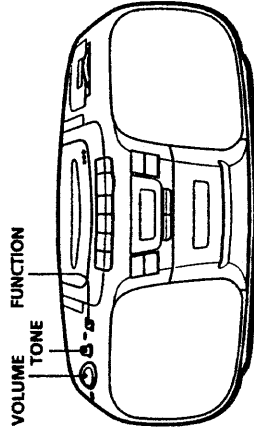
2



Turn TUNING to tune in a radio station.

If the received FM stereo is too weak, the reception becomes monaural.

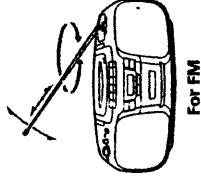
Use these buttons for additional operations



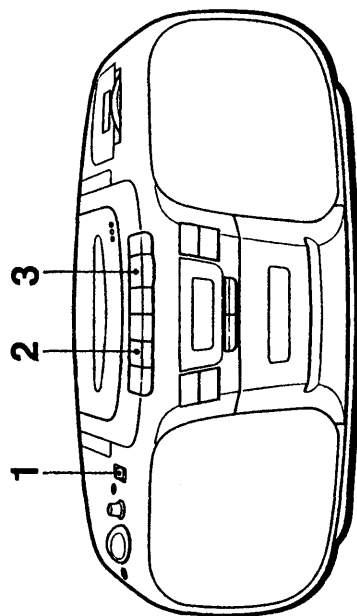
| To                 | Do this                              |
|--------------------|--------------------------------------|
| Adjust the volume  | Turn VOLUME.                         |
| Adjust the tone    | Turn TONE.                           |
| Turn off the radio | Set FUNCTION to TAPE (CD/RADIO OFF). |

### To improve broadcast reception

Reorient the antenna for FM. Reorient the player itself for AM.

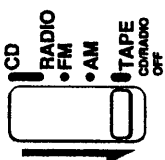


## Playing a tape



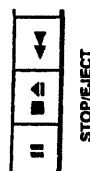
Connect the supplied AC power cord (see page 16).

- 1 Set FUNCTION to TAPE(CD/  
RADIO OFF).



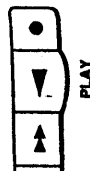
- 2

Press to open the tape compartment and insert a recorded tape. Use TYPE I (normal) tape only. Close the compartment.



- 3

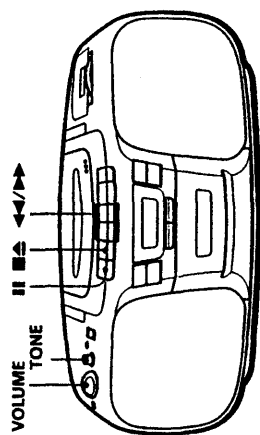
Press .



With the side you want to play facing forward

## Basic Operations

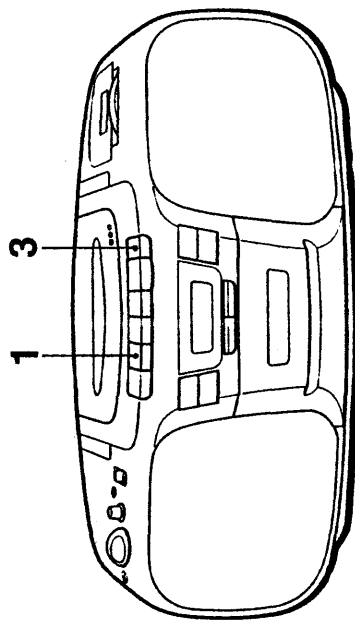
Use these buttons for additional operations



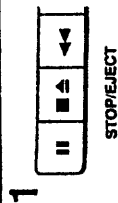
| To                               | Do this                                            |
|----------------------------------|----------------------------------------------------|
| Adjust the volume                | Turn VOLUME.                                       |
| Adjust the tone                  | Turn TONE.                                         |
| Stop play/back                   | Press .                                            |
| Fast-forward or rewind the tape* | Press  or .                                        |
| Pause play/back                  | Press .                                            |
| Eject the cassette               | Press the button again to resume play after pause. |
|                                  | Press .                                            |

\*For the side facing forward

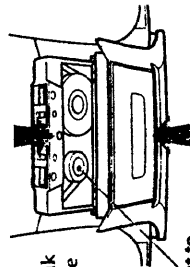
## Recording on a tape



Connect the supplied AC power cord (see page 16).

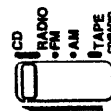


Press **3** to open the tape compartment and insert a blank tape. Use TYPE I (normal) tape only.



With the side you want to record on facing forward

2

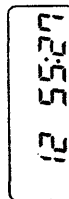


Select the program source you want to record.

To record from the CD player, set FUNCTION to CD and insert a CD (see page 4).

To record from the radio, set FUNCTION to RADIO FM or AM and tune in the station you want (see page 6).

Display

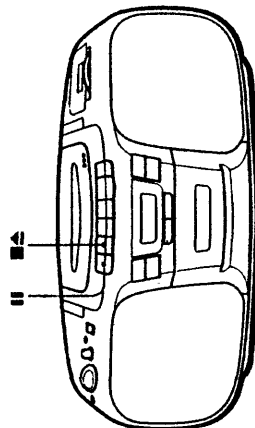


3



Press **3** to start recording. (**3** is depressed automatically).

Use these buttons for additional operations



| To              | Press                                       |
|-----------------|---------------------------------------------|
| Stop recording  | <b>1</b>                                    |
| Pause recording | <b>2</b>                                    |
|                 | Press the button again to resume recording. |

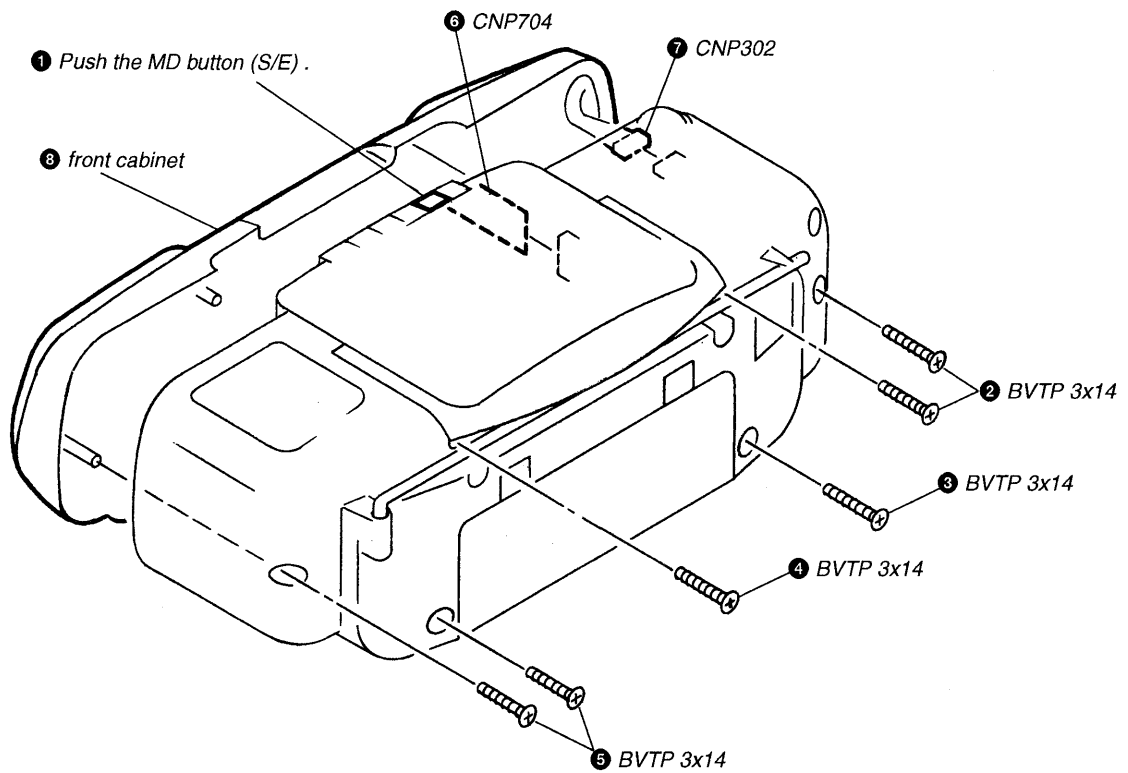
### Tips

- Adjusting the volume or the tone will not affect the recording level.
- For the best results, use the AC power as a power source for recording.
- To erase a recording, proceed as follows:
  - Set FUNCTION to TAPE (CD/RADIO OFF).
  - Press **3**.

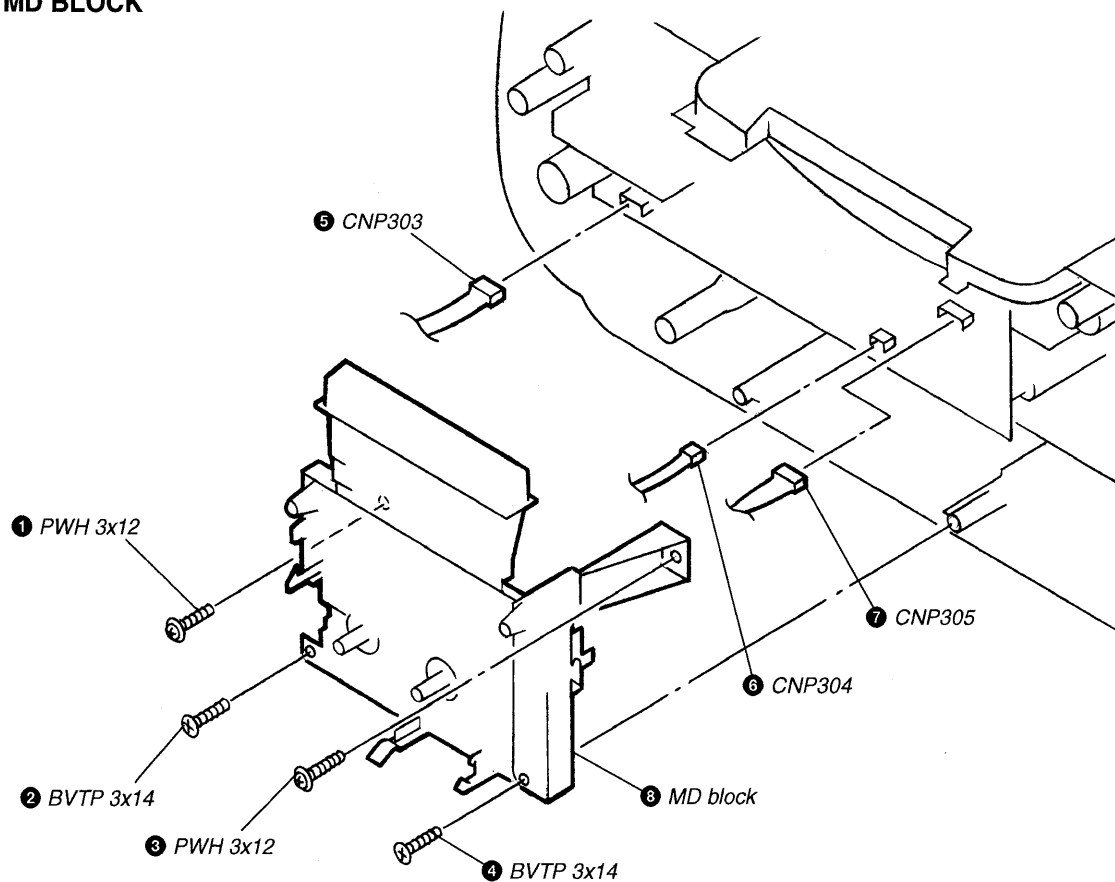
## SECTION 2 DISASSEMBLY

**Note :** Follow the disassembly procedure in the numerical order givin.

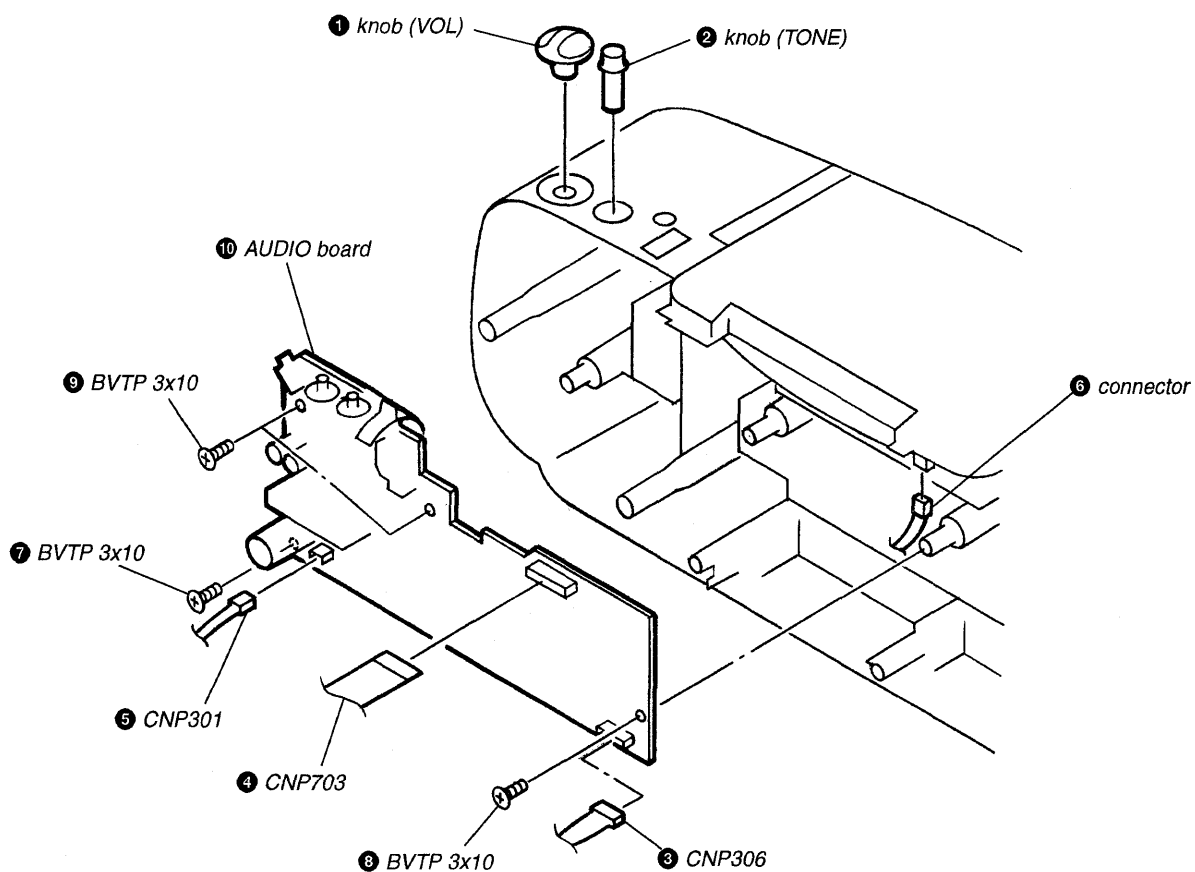
### 2-1. FRONT CABINET



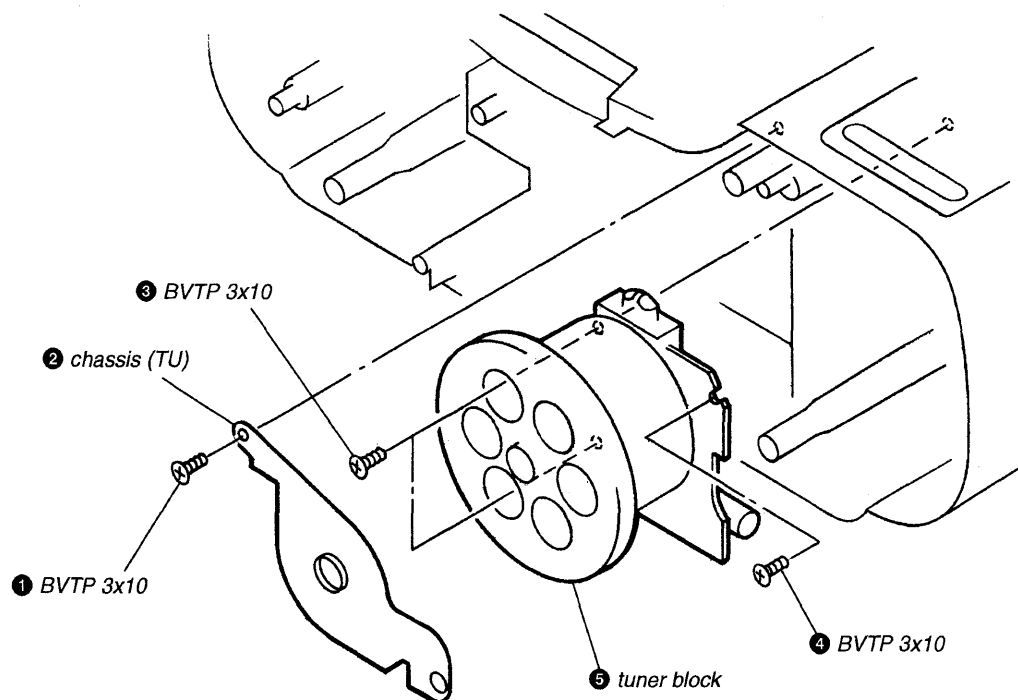
### 2-2. MD BLOCK



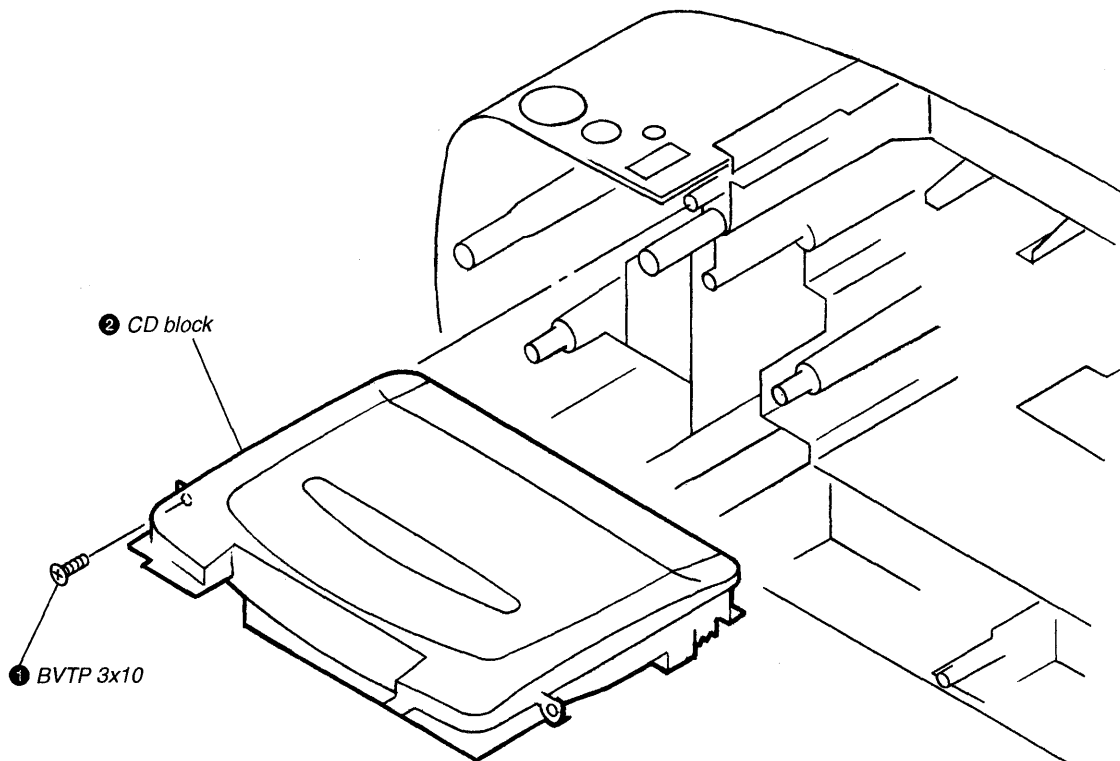
## 2-3. AUDIO BOARD



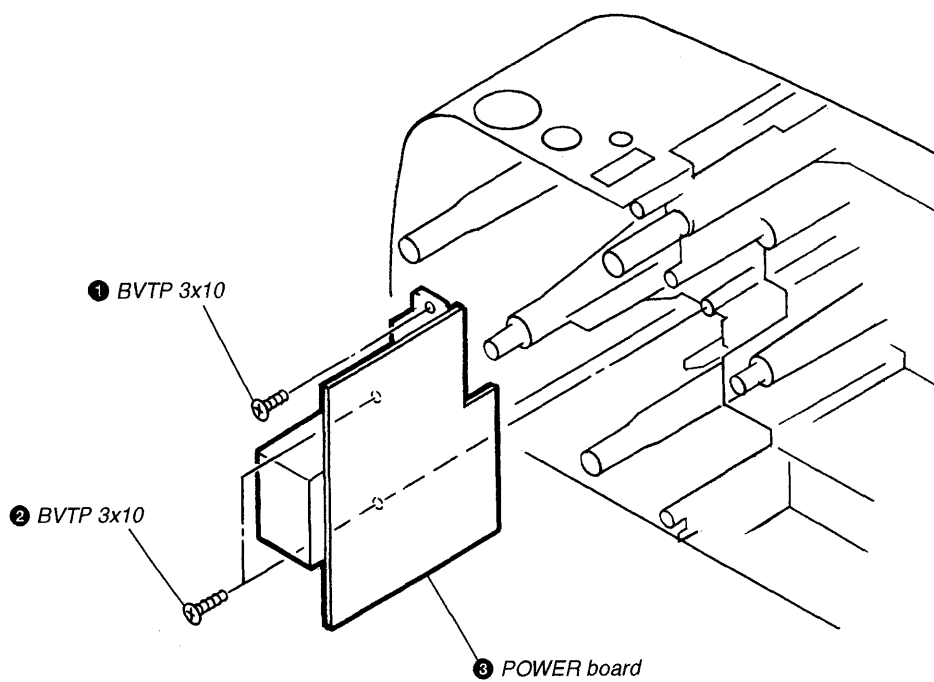
## 2-4. TUNER BLOCK



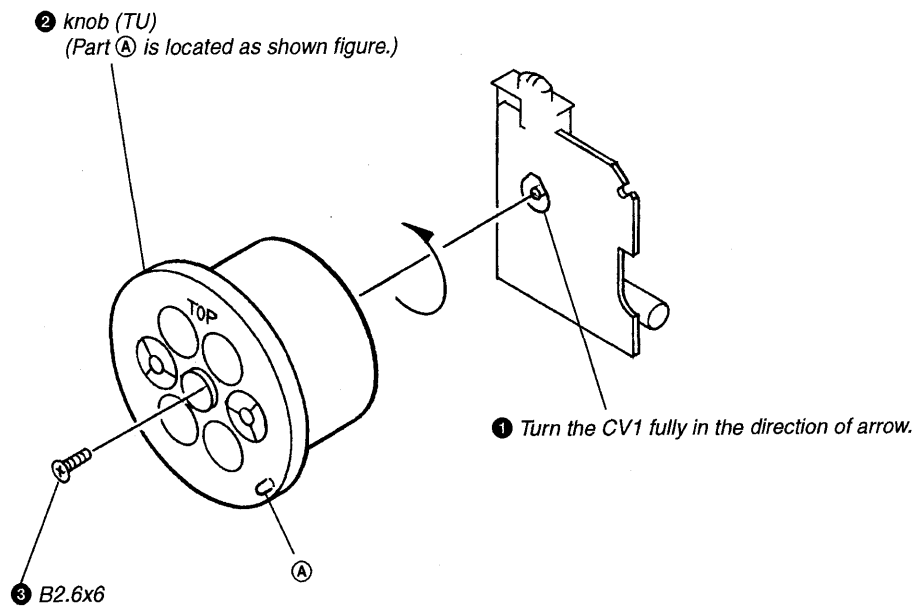
## 2-5. CD BLOCK



## 2-6. POWER BOARD



## 2-7. KNOB (TU) SETTING



## SECTION 3 MECHANICAL ADJUSTMENTS

### PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab :
 

|                      |              |
|----------------------|--------------|
| record/playback head | pinch roller |
| erase head           | rubber belts |
| capstan              | idlers       |
2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head magnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

### Torque Measurement

| Mode                | Torque Meter | Meter Reading                                     |
|---------------------|--------------|---------------------------------------------------|
| FWD                 | CQ-102C      | 30–70 g • cm<br>(0.42–0.97 oz • inch)             |
| FWD<br>Back Tension | CQ-102C      | 1.5–5.5 g • cm<br>(0.021–0.076 oz • inch)         |
| FF                  | CQ-201B      | more than 60 g • cm<br>(more than 0.83 oz • inch) |
| REW                 | CQ-201B      | more than 60 g • cm<br>(more than 0.83 oz • inch) |

### Tape Tension Measurement

| Mode | Tension meter | Meter Reading                          |
|------|---------------|----------------------------------------|
| FWD  | CQ-403A       | more than 100 g<br>(more than 3.53 oz) |

## SECTION 4 ELECTRICAL ADJUSTMENTS

### 4-1. TAPE RECORDER SECTION 0 dB = 0.775 V

#### • Standard Output Level

| Output terminal     | HP OUT          |
|---------------------|-----------------|
| load impedance      | 32 $\Omega$     |
| output signal level | 0.25 V (–10 dB) |

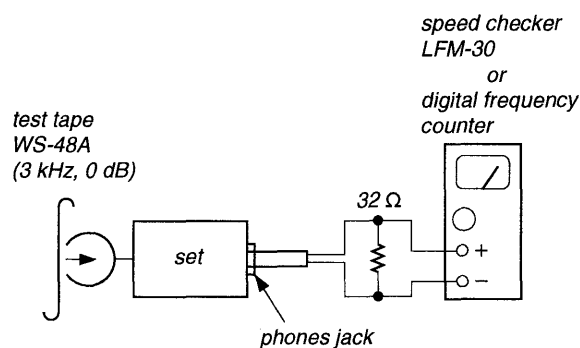
#### • Test Tape

| Type     | Signal          | Used for                |
|----------|-----------------|-------------------------|
| WS-48A   | 3 kHz, 0 dB     | tape speed adjustment   |
| P-4-A063 | 6.3 kHz, –10 dB | head azimuth adjustment |

### Tape Speed Adjustment

#### Procedure :

Mode: playback

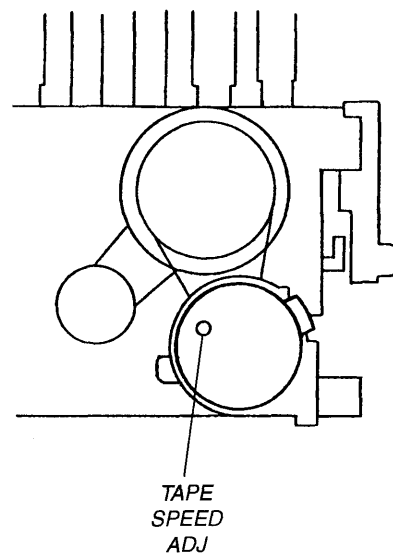


#### Adjustment Value :

| Speed checker    | Digital frequency counter |
|------------------|---------------------------|
| – 0.5 to + 0.5 % | 2,985 to 3,015 Hz         |

Frequency difference between the beginning and the end of the tape should be within  $\pm 1.5$  % (45 Hz).

#### Adjustment Location:

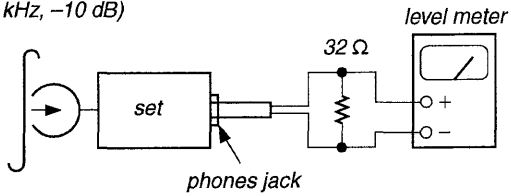


## REC/PB Head Azimuth Adjustment

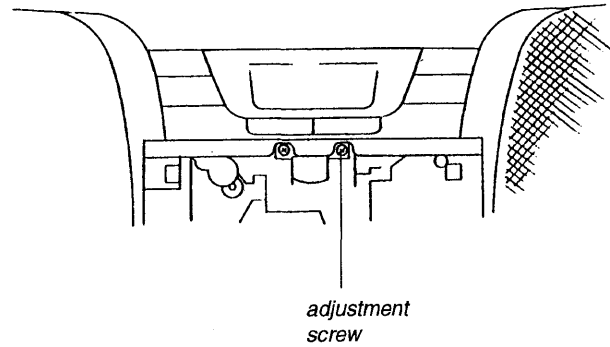
### Procedure :

1. Mode : playback

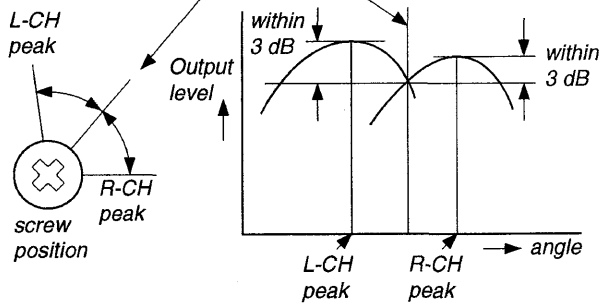
test tape  
P-4-A063  
(6.3 kHz, -10 dB)



Adjustment Location : record/playback head



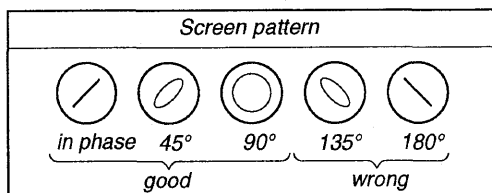
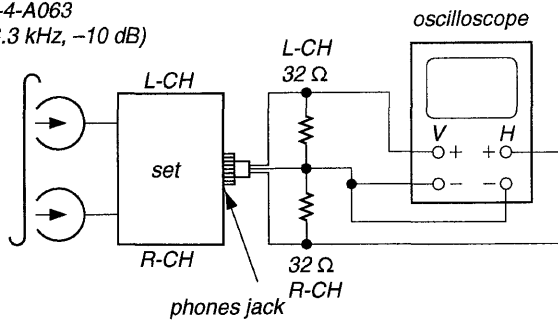
2. Turn the adjustment screw for the maximum output levels. If these levels do not match. Turn the adjustment screw until both of output levels match together within 3 dB.



3. Phase Check

Mode : playback

test tape  
P-4-A063  
(6.3 kHz, -10 dB)



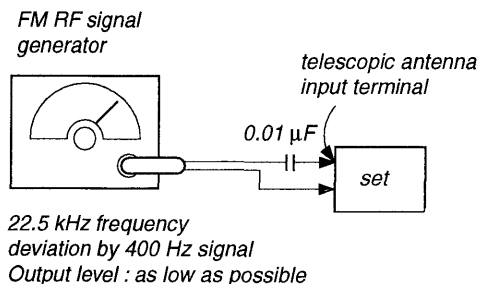
**Note :** Finish the screw adjustment with a turn in the clockwise direction.  
After the adjustment, lock the adjustment screw.

## 4-2. TUNER SECTION 0 dB = 1 $\mu$ V

### • FM Section

Setting :

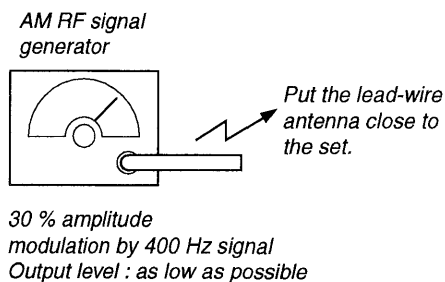
FUNCTION switch : FM



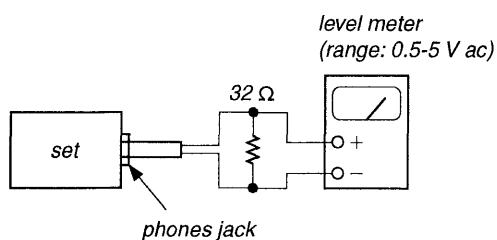
### • AM Section

Setting :

FUNCTION switch : AM



### • Connecting Level Meter (FM and AM)



- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

### FM FREQUENCY COVERAGE ADJUSTMENT

Adjust for a maximum reading on level meter.

| L2                                             | CT2                                               |
|------------------------------------------------|---------------------------------------------------|
| 86.5 MHz (87.0 MHz)<br><87.35 MHz> [87.35 MHz] | 109.5 MHz (108.3 MHz)<br><108.25 MHz> [107.8 MHz] |

### FM TRACKING ADJUSTMENT

Adjust for a maximum reading on level meter.

| L1                                             | CT1                                               |
|------------------------------------------------|---------------------------------------------------|
| 86.5 MHz (87.0 MHz)<br><87.35 MHz> [87.35 MHz] | 109.5 MHz (108.3 MHz)<br><108.25 MHz> [107.8 MHz] |

### AM FREQUENCY COVERAGE ADJUSTMENT

Adjust for a maximum reading on level meter.

| L4                | CT4                                    |
|-------------------|----------------------------------------|
| 520 kHz <516 kHz> | 1,780 kHz <1,630 kHz><br>((1,680 kHz)) |

### AM TRACKING ADJUSTMENT

Adjust for a maximum reading on level meter.

| L3      | CT3       |
|---------|-----------|
| 620 kHz | 1,400 kHz |

### AM IF ADJUSTMENT

Adjust for a maximum reading on level meter.

| CFT1   |
|--------|
| 455kHz |

( ) : AEP, German model

< > : Italian model

[ ] : Saudi Arabia model

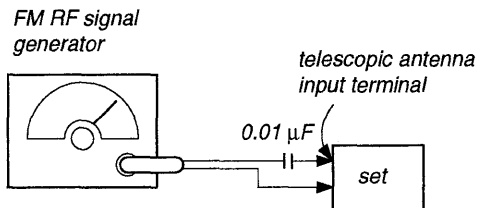
(( )) : Except US, Canadian, Central and South American,  
Italian model

**Adjustment Location :** See page 16.

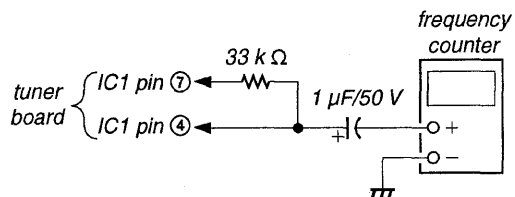
## FM VCO Adjustment

### Setting :

FUNCTION switch : FM



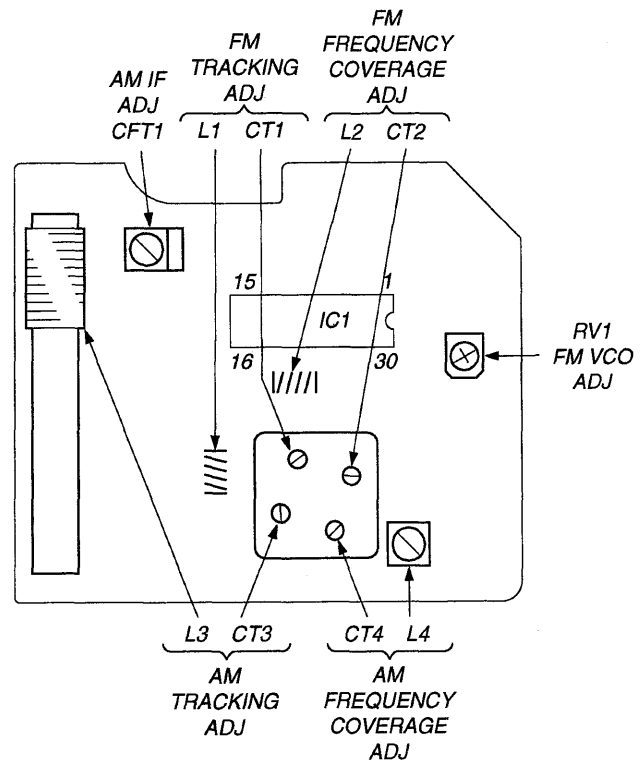
Carrier frequency : 98.0 MHz  
 Output level : 100 dB (0.1 V)  
 Mode : mono  
 Modulation : 400 Hz, 22.5 kHz deviation (30 %)



### Procedure :

1. Connect frequency counter between IC1 pin ⑦ and pin ④.
2. Tune the set to 98.0 MHz.
3. Adjust RV1 for 76.0 kHz  $\pm$  500 Hz reading on the frequency counter.

Adjustment Location : tuner board (component side)



### 4-3. CD SECTION

#### Notes on Adjustment

1. Perform Traverse adjustment in test mode.  
After adjustment, be sure to release test mode.
2. Perform adjustments in the order given.
3. Use the disc (YEDS-18, Part No. 3-702-101-01) only when so indicated.
4. Short the both sides of R720 on the CD board for stop operation of anti-shock circuit. (See page 20.)

#### • Switch position

FUNCTION switch : CD

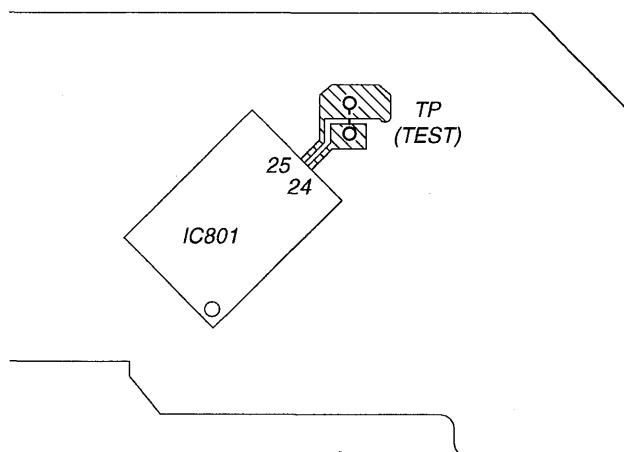
#### • In case of Test Mode

1. Short the solder bridge the TP (TEST) on the CONTROL board.
2. Insert the AC power plug.

#### • Release the Test Mode

Release the shorted solder bridge the TP (TEST), the test mode is released.

— control board (conductor side) —



#### Before Adjustment

Put the set into test mode and perform the following checks. Repair if there are any problems.

#### • Sled Motor Check

Press the  $\triangleright\triangleright\triangleright$ ,  $\triangleleft\triangleleft\triangleleft$  buttons and confirm that the optical pick-up moves smoothly from the innermost to outermost circumference and back smoothly and with no catching or abnormal noises.

$\triangleright\triangleright\triangleright$  : Optical pick-up moves to the outer circumference

$\triangleleft\triangleleft\triangleleft$  : Optical pick-up moves to the inner circumference

#### • Focus Search Check

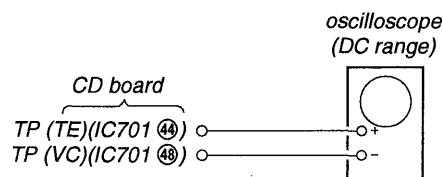
1. Push the  $\triangleright\parallel$  button. (Focus search operation is performed continuously.)
2. Look at the optical pick-up objective lens and confirm that it moves up and down smoothly, with no catching or abnormal noises.
3. Push the  $\square$  button.

Confirm that focus search operation stops. If it does not, push the  $\square$  button again longer.

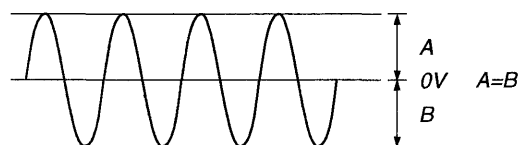
#### Traverse Adjustment

This adjustment is to be done when the optical pick-up block is replaced.

#### Procedure:



1. Connect the oscilloscope between TP (TE) and TP (VC).
2. Put the set into test mode.
3. Push the CD lid to open and insert disc (YEDS-18).
4. Close the CD lid.
5. Press the  $\triangleright\triangleright\triangleright$  and  $\triangleleft\triangleleft\triangleleft$  buttons to move the optical pick-up to the center.
6. Push the  $\triangleright\parallel$  button.
7. Push the  $\square$  button.
8. Push the  $\triangleright\parallel$  button.
9. Adjust RV703 so that the oscilloscope traverse waveform is symmetrical, as shown in the figure below.
10. Release test mode after adjustment is completed.

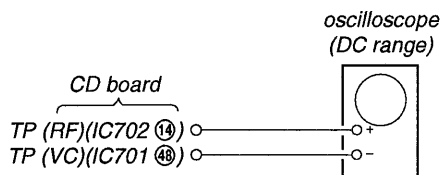


Adjustment Location : See page 20.

## Focus Bias Adjustment

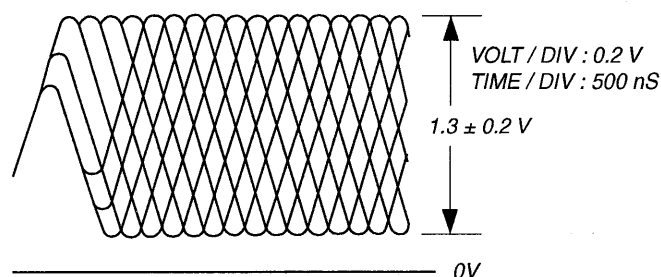
This adjustment is to be done when the optical pick-up block is replaced.

### Procedure :



1. Connect the oscilloscope between TP (RF) and TP (VC).
2. Insert disc (YEDS-18) and push the  $\triangleright \parallel$  button.
3. Adjust RV701 so that the oscilloscope waveform is maximum as shown in the figure below (eye pattern).

### • RF signal reference waveform (eye pattern)



When observing the eye pattern, set the oscilloscope for AC range and raise vertical sensitivity.

**Adjustment Location :** See page 20.

## REFERENCE

### Focus/Tracking Gain Adjustment

A frequency response analyzer is necessary in order to perform this adjustment exactly.

However, this gain has a margin, so even if it is slightly off, there is no problem. Therefore, do not perform this adjustment.

Focus/tracking gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when the 2-axis device operate.

However, as these reciprocate, the adjustment is at the point where both are satisfied.

- When gain is raised, the noise when the 2-axis device operates increases.
- When gain is lowered, it is more susceptible to mechanical shock and skipping occurs more easily.

When gain adjustment is off, the symptoms below appear.

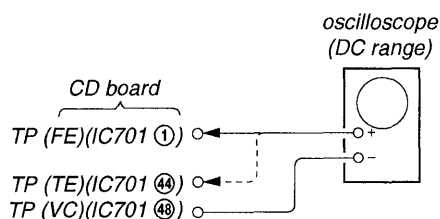
|                                                                                                                                                                                                                                                  | Gain | Focus | Tracking    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|-------------|
| Symptoms                                                                                                                                                                                                                                         |      |       |             |
| • The time until music starts becomes longer for $\square \rightarrow \triangleright \parallel$ on automatic selection. ( $\llcorner \llcorner$ , $\triangleright \triangleright \parallel$ buttons pressed.) (Normally, takes about 2 seconds.) |      | low   | low or high |
| • Music does not start and disc continues to rotate for $\square \rightarrow \triangleright \parallel$ or automatic selection. ( $\llcorner \llcorner$ , $\triangleright \triangleright \parallel$ buttons pressed.)                             |      | —     | low         |
| • Sound is interrupted during PLAY. Or time counter display stops progressing.                                                                                                                                                                   |      | —     | low         |
| • More noise during 2-axis device operation.                                                                                                                                                                                                     |      | high  | high        |

The following is a simple adjustment method.

### —Simple Adjustment—

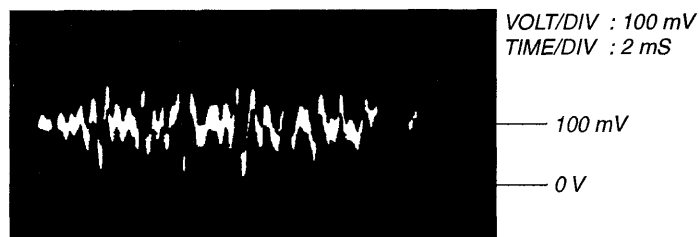
**Note :** Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment. If the positions after the simple adjustment are only a little different, return the controls to the original position.

### Procedure:

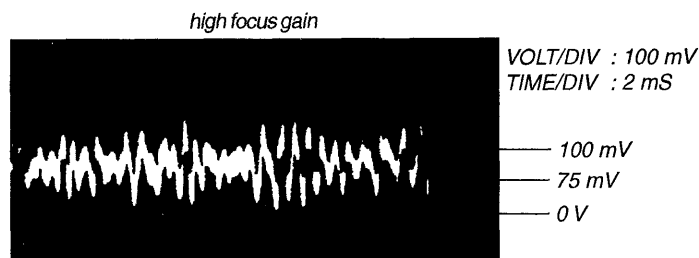
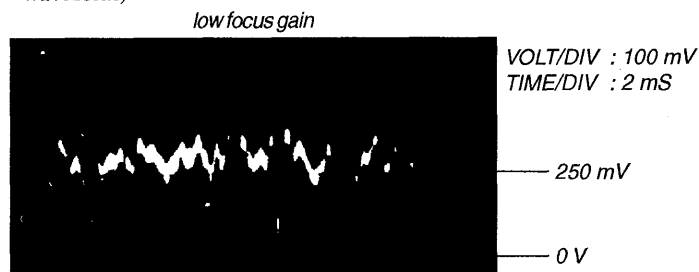


1. Keep the set horizontal.  
If the set not horizontal, this adjustment cannot be performed due to the gravity against the 2-axis device.
2. Insert disc (YEDS-18) and push the ▶ button.
3. Connect the oscilloscope between TP (FE) and TP (VC).
4. Adjustment RV702 so that the waveform is as shown in the figure below. (focus gain adjustment)

### • Correct Example



### • Incorrect Examples (DC level changes more than on adjusted waveform)

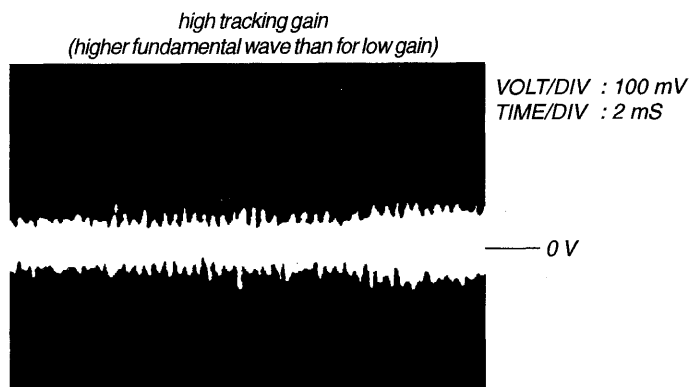
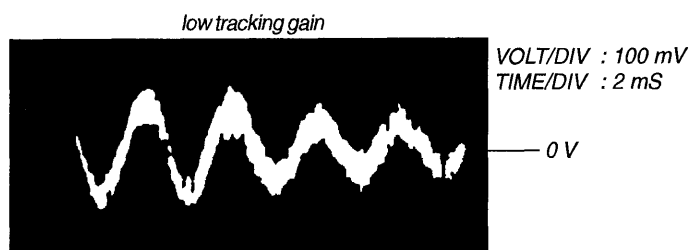


5. Connect the oscilloscope between TP (TE) and TP (VC).
6. Adjust RV704 so that the waveform is as shown in the figure below. (tracking gain adjustment)

### • Correct Example

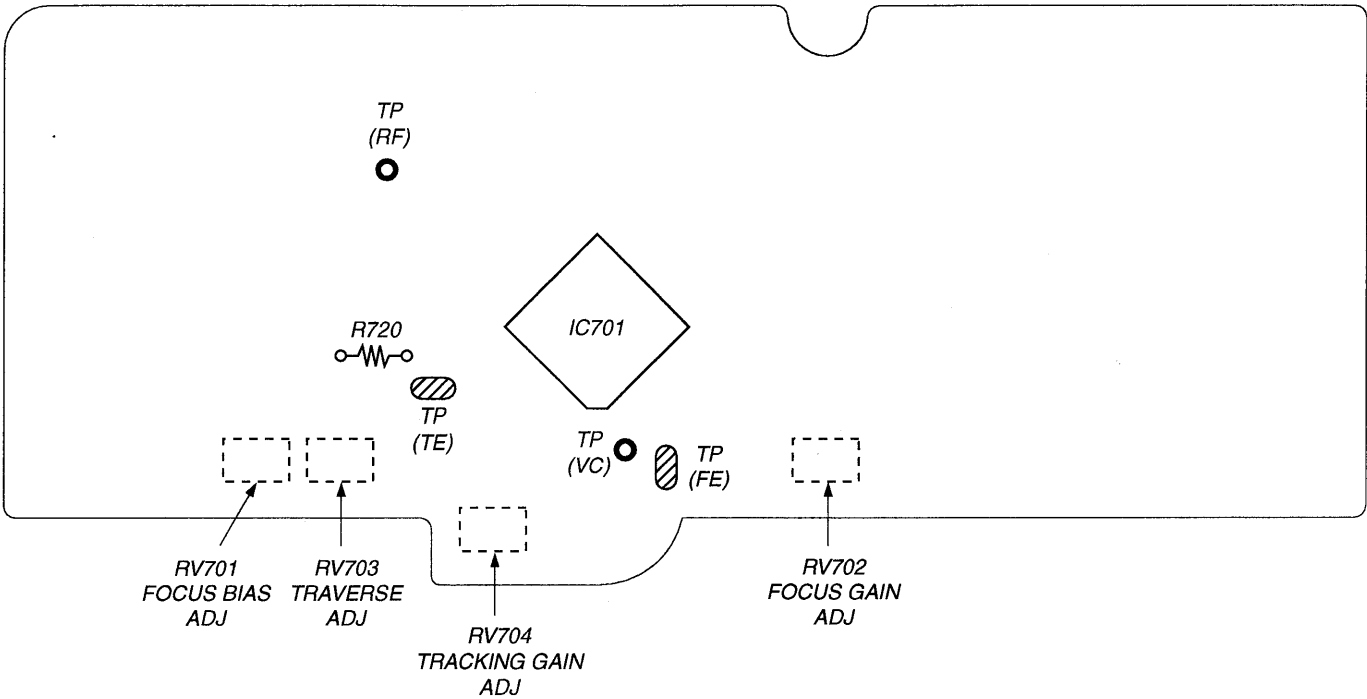


### • Incorrect Examples (fundamental wave appears)



Adjustment Location : See page 20.

Adjustment Location : CD board (conductor side)

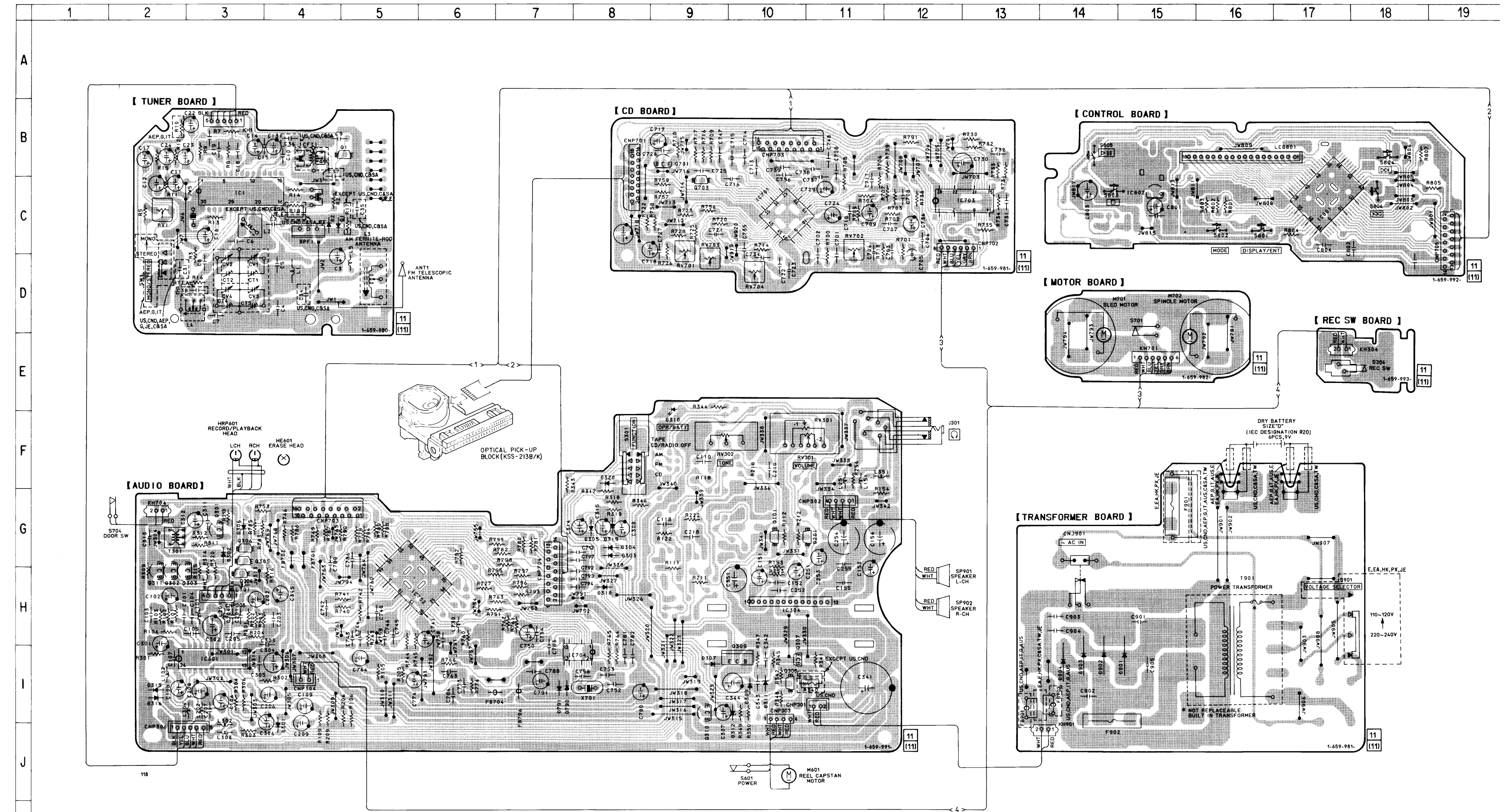


This diagram illustrates the internal components of a portable CD player, shown in an exploded view. The components are labeled as follows:

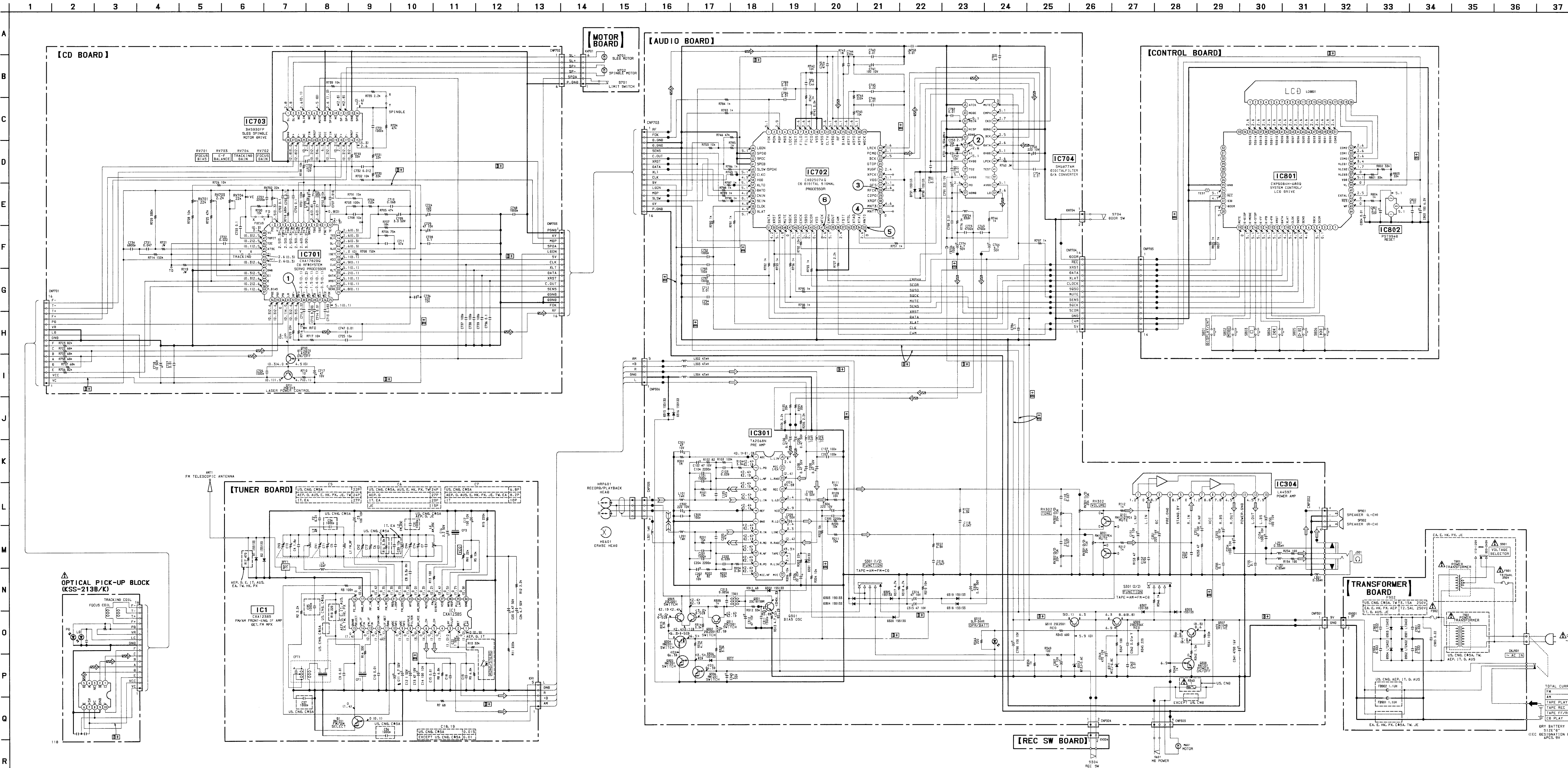
- AUDIO board**: Located at the front left of the device.
- POWER board**: Positioned at the top center.
- MOTOR board**: Located at the top right.
- CD board**: Positioned in the center, below the motor board.
- TUNER board**: Located at the bottom right.
- CONTROL board**: Positioned at the bottom center.
- REC SW board**: Located at the bottom left.

| Ref. No. | Location | Ref. No. | Location |
|----------|----------|----------|----------|
| D1       | C-4      | IC301    | I-3      |
| D2       | C-4      | IC304    | H-10     |
| D301     | I-4      | IC701    | C-10     |
| D302     | G-3      | IC702    | H-5      |
| D303     | G-8      | IC703    | C-12     |
| D304     | G-8      | IC704    | I-8      |
| D305     | G-8      | IC801    | C-17     |
| D306     | G-3      | IC802    | C-15     |
| D307     | I-9      |          |          |
| D309     | I-10     | Q1       | B-5      |
| D310     | E-9      | Q101     | G-10     |
| D311     | I-10     | Q201     | G-10     |
| D312     | I-10     | Q301     | G-3      |
| D315     | I-2      | Q302     | H-2      |
| D316     | I-2      | Q303     | H-2      |
| D318     | H-8      | Q304     | H-3      |
| D319     | G-8      | Q305     | G-3      |
| D320     | F-8      | Q306     | G-3      |
| D790     | I-7      | Q307     | I-10     |
| D791     | I-7      | Q308     | I-10     |
| D901     | I-15     | Q309     | I-10     |
| D902     | I-14     | Q310     | I-9      |
| D903     | I-14     | Q311     | H-2      |
| D904     | I-14     | Q701     | B-9      |
|          |          | Q703     | C-9      |
| IC1      | C-3      |          |          |

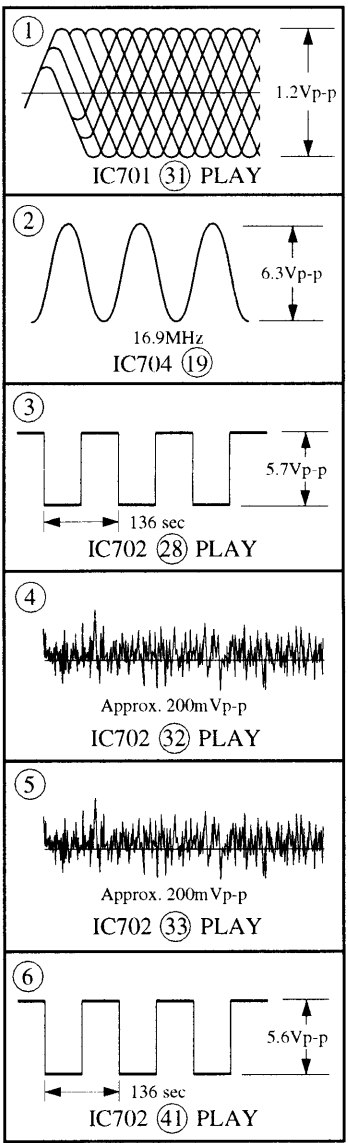
## 5-2. PRINTED WIRING BOARDS



5-3. SCHEMATIC DIAGRAM • Refer to page 30 for IC Block Diagrams.



• Waveforms



Note :  
• All capacitors are in  $\mu F$  unless otherwise noted. pF :  $\mu F \times 10^{-6}$  W or less are not indicated except for electrolytics and tantalums.  
• All resistors are in  $\Omega$  and 1/4 W or less unless otherwise specified.  
•  $\Delta$  : internal component.

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

Note :  
Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

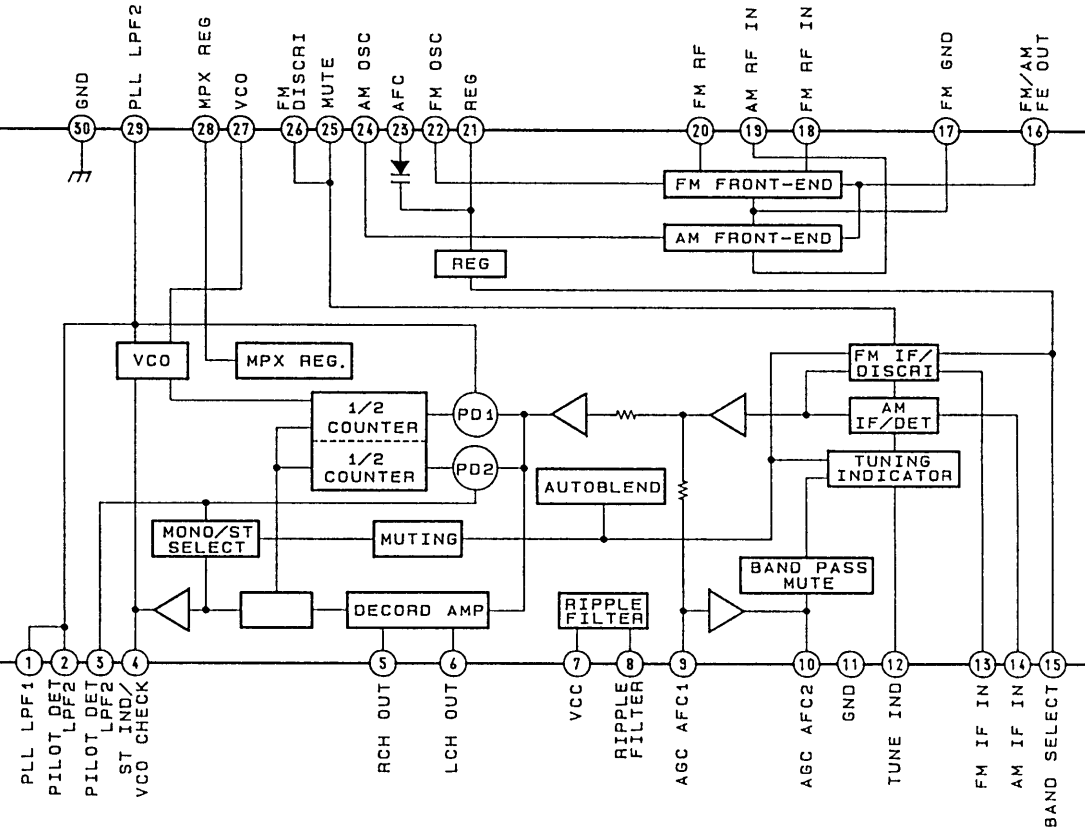
- $\frac{1}{2}W$  : fusible resistor.
- $\frac{1}{2}W$  : 1/2 W.
- $\Delta$  : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark : CD (PLAY)
- ( ) : FM
- < > : TAPE (PB)
- < > : TAPE (REC)
- Voltage are taken with a VOM (input impedance 10M $\Omega$ ). Voltage variations may be noted due to normal production tolerance.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerance.
- Circled numbers refer to waveforms.
- Signal path:
  - ◻ : FM
  - ◻ : PB
  - ◻ : REC
  - ◻ : CD (PLAY)
- Total current is measured with no cassette installed.
- Abbreviation:
  - CND : Canadian model
  - G : German model
  - IT : Italian model
  - SA : Saudi Arabia model
  - TW : Taiwan model
  - AUS : Australian model
  - JE : Tourist model

| TOTAL CURRENT |       |
|---------------|-------|
| FM            | 80mA  |
| AM            | 80mA  |
| TAPE PLAY     | 130mA |
| TAPE REC      | 150mA |
| TAPE FF/REW   | 150mA |
| CD PLAY       | 150mA |

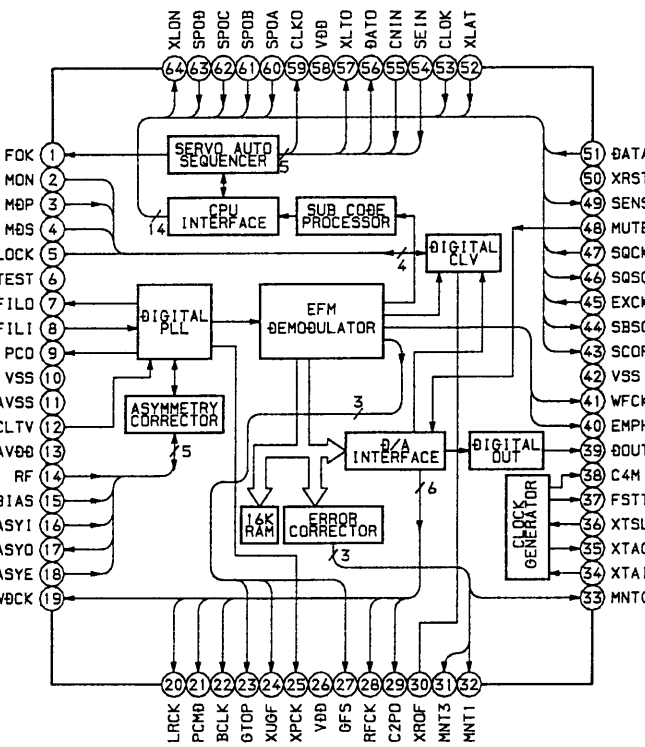
SPK BATTERY  
SIZE 201  
RECC. RECHARGEABLE  
APCS. 5V

• IC Block Diagrams

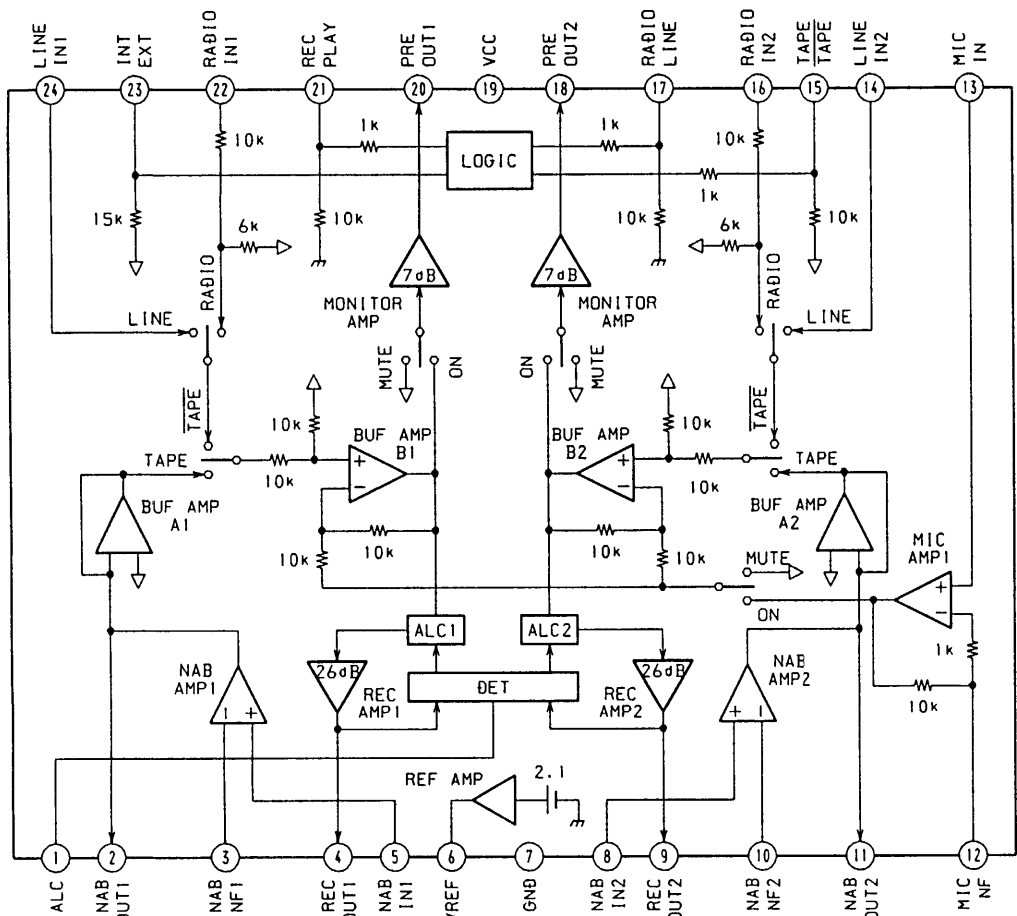
IC1 CXA1238S



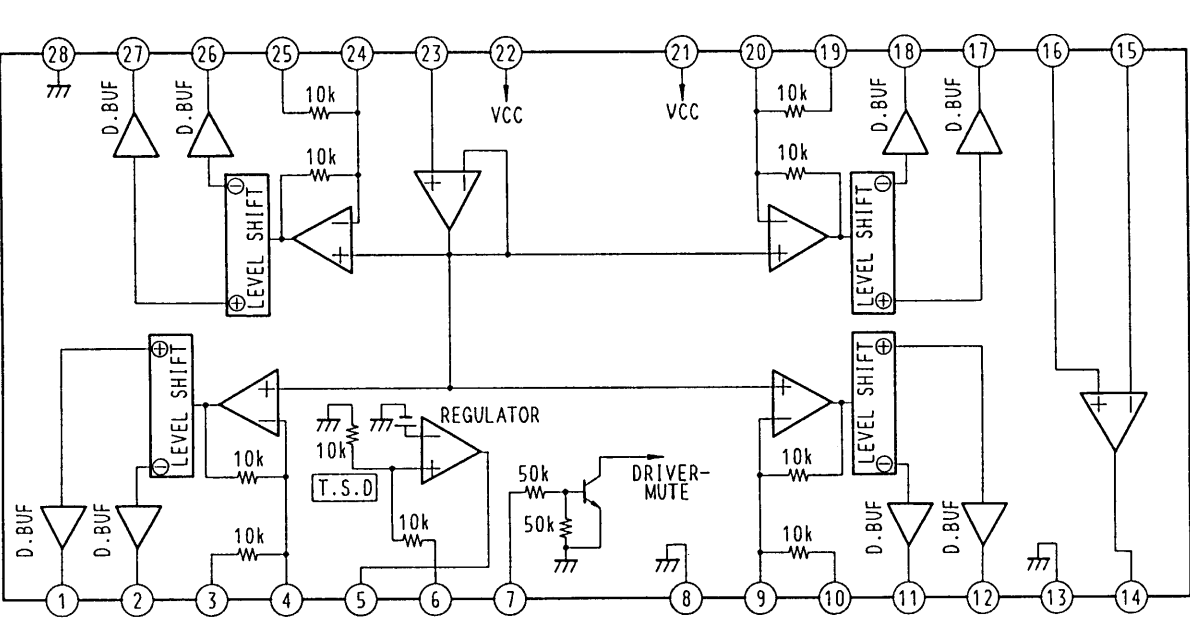
IC702 CXD2507AQ



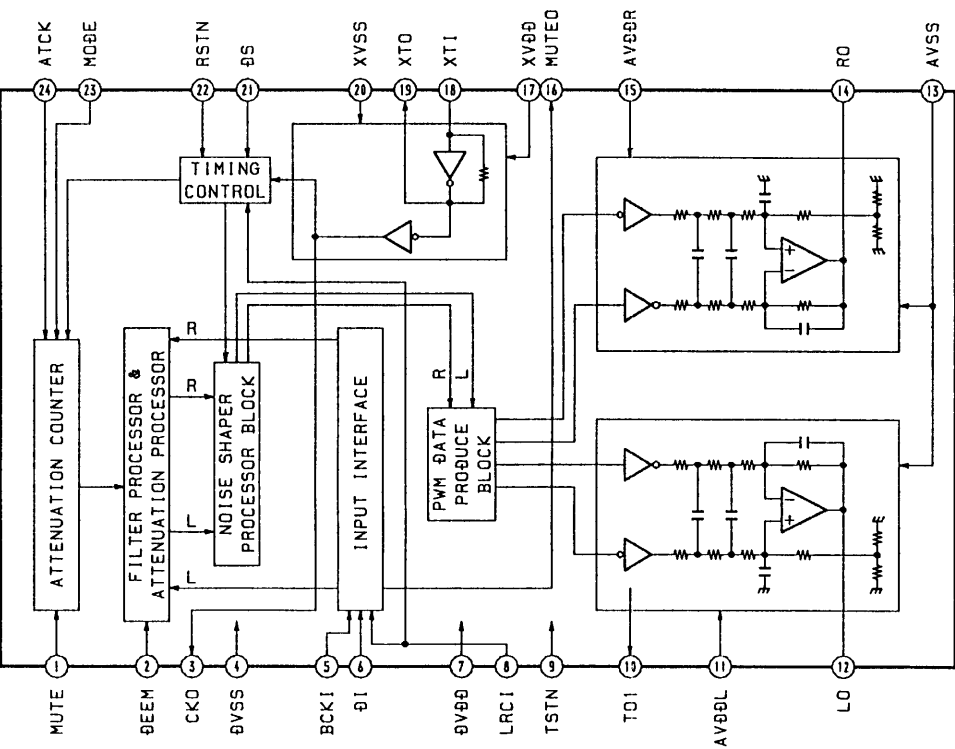
IC301 TA2068N



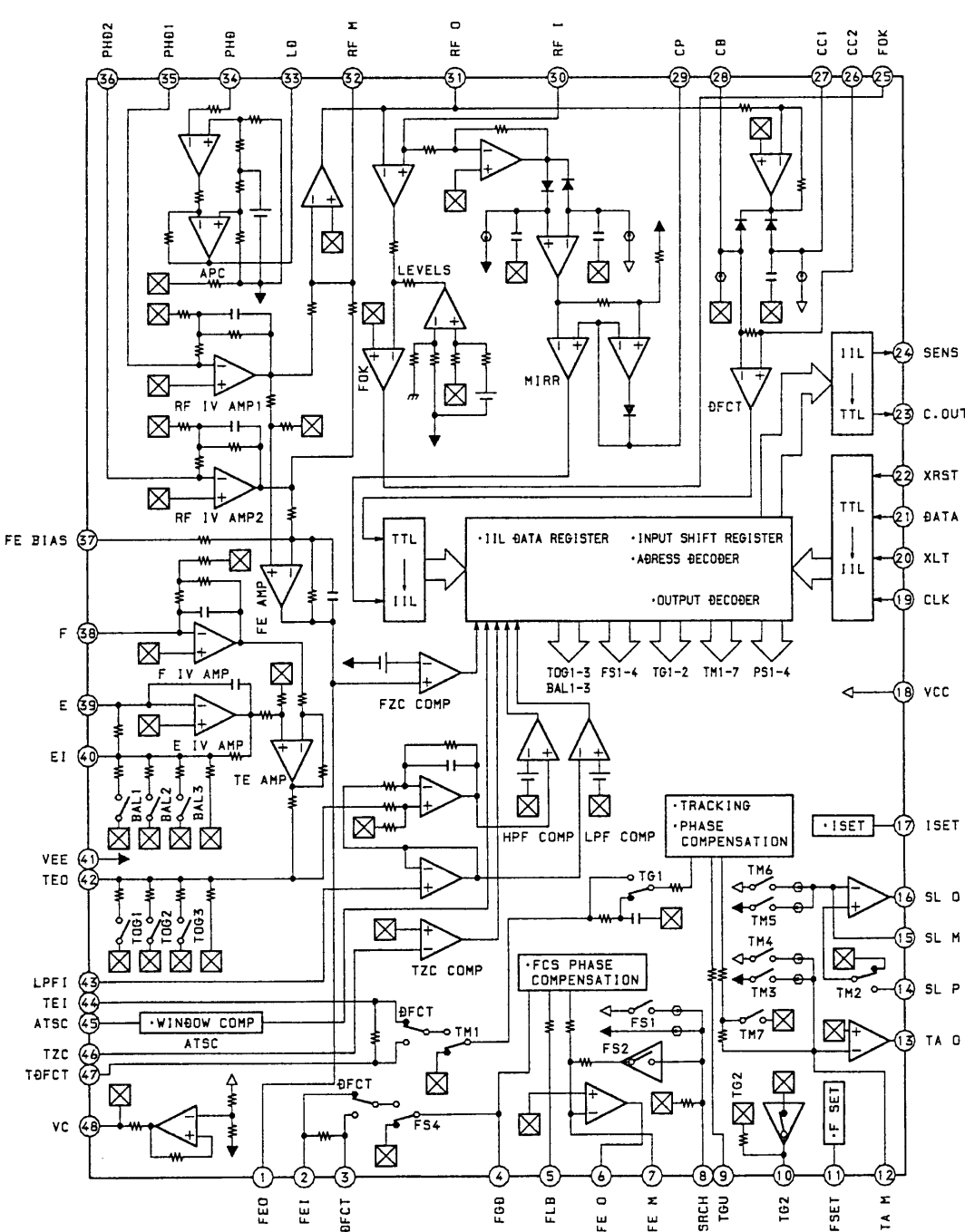
IC703 BA5930FP



IC704 SM5877AM



IC701 CXA1782BQ



5-4. IC PIN DESCRIPTION

• IC801 CXP5084H-680Q (SYSTEM CONTROL/LCD DRIVE)

| Pin No. | Pin Name    | I/O | Pin Description                           |
|---------|-------------|-----|-------------------------------------------|
| 1-3     | NC          | —   | Not used.                                 |
| 4       | SCOR        | I   | SCOR input from DSP (IC702).              |
| 5       | SQCK        | O   | Sub “Q” code clock output                 |
| 6       | NC          | —   | Not used.                                 |
| 7       | SENS        | I   | SENS input from DSP (IC702).              |
| 8       | SQSO        | I   | Sub “Q” code input from DSP (IC702).      |
| 9       | CLOK        | O   | Serial clock output                       |
| 10      | XLAT        | O   | Serial latch output                       |
| 11      | DATA        | O   | Serial data output                        |
| 12      | XRST        | O   | System reset output to DSP (IC702).       |
| 13      | K-FR        | I   | ⏮(REW) key input                          |
| 14      | K-PB        | I   | ▶⏮(PB) key input                          |
| 15      | K-FF        | I   | ▶⏭(FF) key input                          |
| 16      | KSTOP       | I   | □(STOP) key input                         |
| 17      | K-MODE      | I   | MODE key input                            |
| 18      | K-DISP      | I   | DISPLAY/ENT key input                     |
| 19      | MUTE        | O   | Mute output to DSP • D/A (IC702 • IC704). |
| 20      | NC          | —   | Not used.                                 |
| 21      | DOOR        | I   | Door OPEN/CLOSE to switch (S704).         |
| 22      | (CD)        | —   | Ground                                    |
| 23      | REC         | O   | “L” : REC ON                              |
| 24      | TEST        | I   | CD test mode ( “L” : ADJ mode)            |
| 25      | VSS         | —   | Ground                                    |
| 26-34   | NC          | —   | Not used.                                 |
| 35-50   | SEG15-SEG0  | O   | LCD segment output                        |
| 51-54   | COM0-COM3   | O   | LCD common output                         |
| 55-57   | VLCD1-VLCD3 | —   | LCD drive power supply                    |
| 58      | VDD         | —   | Power supply (+5V)                        |
| 59      | VL          | O   | Connected to VLCD3.                       |
| 60      | NC          | —   | Not used.                                 |
| 61      | EXTAL       | I   | Clock input from DSP (IC702).             |
| 62      | RST         | I   | System reset input                        |
| 63      | WP          | —   | Ground                                    |
| 64      | NC          | —   | Not used.                                 |

## SECTION 6 EXPLODED VIEWS

### NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Abbreviation
  - CND : Canadian model
  - G : German model
  - IT : Italian model
  - EA : Saudi Arabia model
  - C&SA : Central and South American model
  - HK : Hong Kong model
  - JE : Tourist model
  - TW : Taiwan model
  - AUS : Australian model

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts  
Example :  

↑

Parts Color

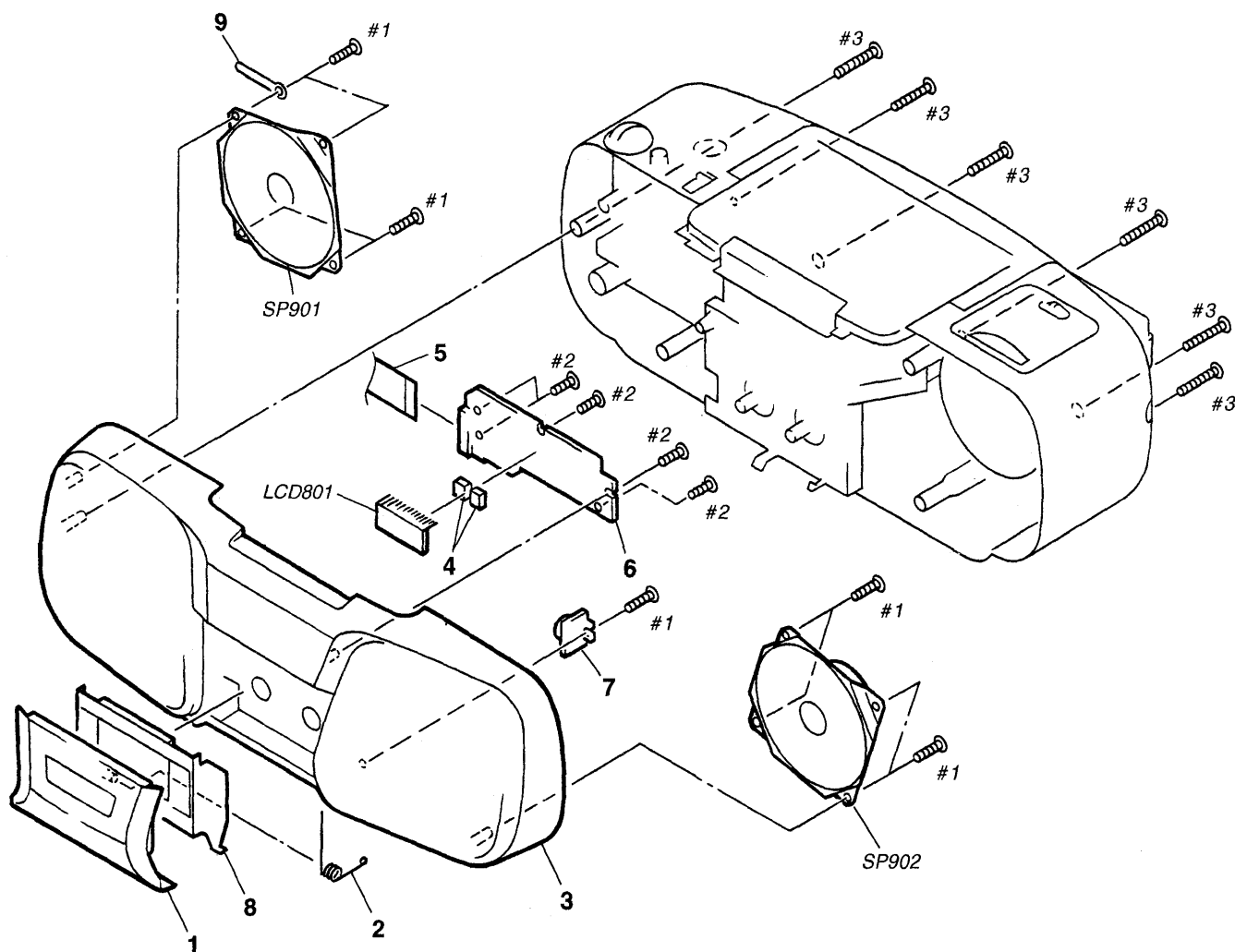
↑

Cabinet's Color
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

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

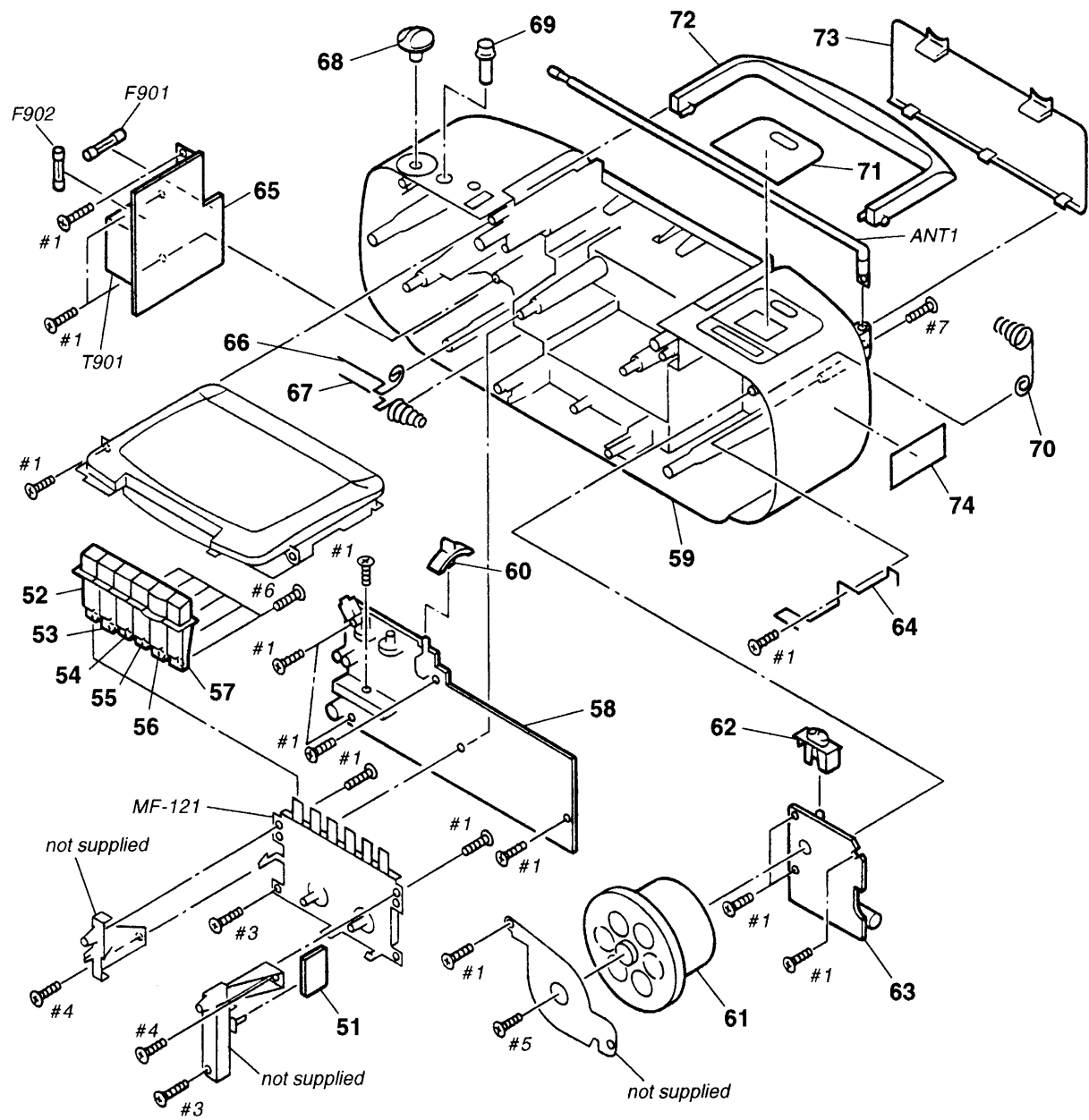
Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

### 6-1. FRONT CABINET SECTION



| Ref. No. | Part No.     | Description                    | Remark | Ref. No. | Part No.     | Description                   | Remark |
|----------|--------------|--------------------------------|--------|----------|--------------|-------------------------------|--------|
| 1        | X-3371-625-1 | CASSETTE ASSY, LID             |        | 7        | 3-351-377-01 | DAMPER                        |        |
| 2        | 3-932-958-01 | SPRING (CASSETTE)              |        | 8        | 3-932-960-01 | HOLDER, CASSETTE              |        |
| 3        | X-3371-624-1 | CABINET (FRONT) SUB ASSY       |        | 9        | 3-703-397-01 | STOPPER, WIRING               |        |
| * 4      | 3-933-475-01 | CUSHION (LCD)                  |        | LCD801   | 1-801-118-31 | DISPLAY PANEL, LIQUID CRYSTAL |        |
| 5        | 1-776-505-11 | WIRE, PARALLEL (FFC) (14 CORE) |        | SP901    | 1-504-727-11 | SPEAKER (10CM) (L-CH)         |        |
| * 6      | 1-659-992-11 | CONTROL BOARD                  |        | SP902    | 1-504-727-11 | SPEAKER (10CM) (R-CH)         |        |

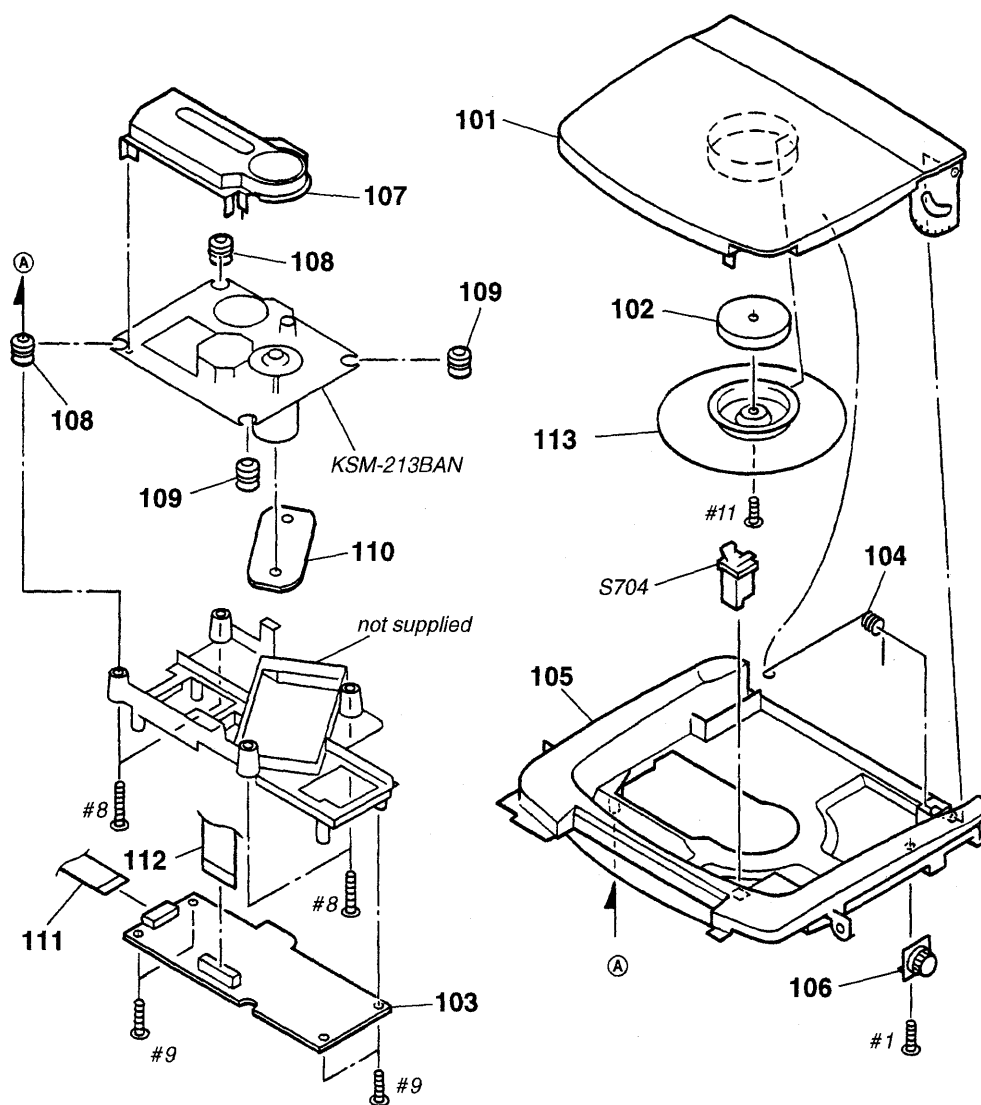
6-2. REAR CABINET SECTION



|                                                                                                                                                    |                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| The components identified by mark $\Delta$ or dotted line with mark. $\Delta$ are critical for safety.<br>Replace only with part number specified. | Les composants identifiés par une marque $\Delta$ sont critiques pour la sécurité.<br>Ne les remplacer que par une pièce portant le numéro spécifié. |
|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|

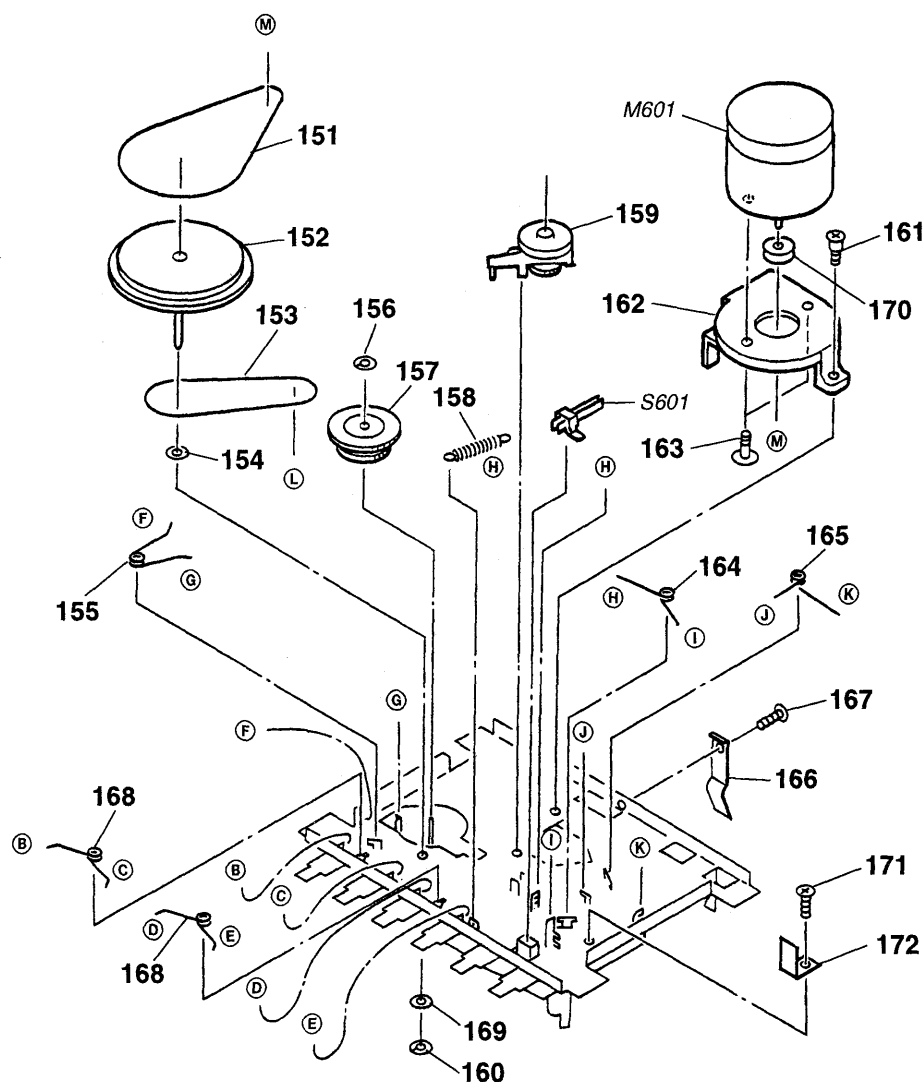
| <u>Ref. No.</u> | <u>Part No.</u> | <u>Description</u>                     | <u>Remark</u> | <u>Ref. No.</u> | <u>Part No.</u> | <u>Description</u>                                        | <u>Remark</u> |
|-----------------|-----------------|----------------------------------------|---------------|-----------------|-----------------|-----------------------------------------------------------|---------------|
| * 51            | 1-659-993-11    | REC SW BOARD                           |               | 64              | 3-932-970-01    | CONTACT (ANT)                                             |               |
| 52              | 3-932-977-01    | BUTTON (PAUSE), MD                     |               | * 65            | 1-659-981-11    | POWER BOARD                                               |               |
| 53              | 3-932-978-01    | BUTTON (S/E), MD                       |               | 66              | 3-932-968-01    | PLATE (+), BATTERY TERMINAL                               |               |
| 54              | 3-932-979-01    | BUTTON (FF), MD                        |               | 67              | 3-932-969-01    | PLATE (-), BATTERY TERMINAL                               |               |
| 55              | 3-932-980-01    | BUTTON (REW), MD                       |               | 68              | 3-910-115-01    | KNOB (VOL)                                                |               |
| 56              | 3-932-981-01    | BUTTON (PLAY), MD                      |               | 69              | 3-910-097-01    | KNOB (TONE)                                               |               |
| 57              | 3-932-982-01    | BUTTON (REC), MD                       |               | 70              | 3-386-979-01    | TERMINAL (+), BATTERY                                     |               |
| * 58            | A-3305-598-A    | AUDIO BOARD, COMPLETE (EXCEPT US,CND)  |               | 71              | 3-932-966-01    | WINDOW (TU) (AEP,G,IT)                                    |               |
| * 58            | A-3305-728-A    | AUDIO BOARD, COMPLETE (US,CND)         |               | 71              | 3-932-966-11    | WINDOW (TU) (EXCEPT AEP,G,IT,JE)                          |               |
| 59              | 3-932-967-01    | CABINET (REAR) (EXCEPT E,EA,HK,PX,JE)  |               | 71              | 3-932-966-21    | WINDOW (TU) (JE)                                          |               |
| 59              | 3-932-967-11    | CABINET (REAR) (E,EA,HK,PX,JE)         |               | 72              | 3-932-984-01    | HANDLE                                                    |               |
| 60              | 3-369-039-01    | KNOB (FUNCTION)                        |               | 73              | 3-911-361-11    | LID, BATTERY CASE                                         |               |
| 61              | 3-932-971-01    | KNOB (TU) (AEP,G)                      |               | * 74            | 4-941-548-01    | LABEL, CLASS (1) (AEP,G,IT,EA)                            |               |
| 61              | 3-932-971-11    | KNOB (TU) (US,CND,C&SA)                |               | ANT1            | 1-501-388-11    | ANTENNA, TÉLESCOPIC                                       |               |
| 61              | 3-932-971-21    | KNOB (TU) (E,AUS,TW,HK,PX)             |               | $\Delta$ F901   | 1-532-235-00    | FUSE, TIME-LAG (T3.15A/250V) (E,EA,HK,PX,JE)              |               |
| 61              | 3-932-971-31    | KNOB (TU) (IT)                         |               | $\Delta$ F902   | 1-532-286-00    | FUSE, TIME-LAG (T2.5A/250V)<br>(EXCEPT US,CND,TW,C&SA)    |               |
| 61              | 3-932-971-61    | KNOB (TU) (EA)                         |               | $\Delta$ F902   | 1-576-107-11    | FUSE, GLASS CYLINDRICAL (T3.15A/250V)<br>(US,CND,TW,C&SA) |               |
| 61              | 3-932-971-71    | KNOB (TU) (JE)                         |               | $\Delta$ T901   | 1-426-631-11    | TRANSFORMER, POWER (US,CND,TW,C&SA)                       |               |
| 62              | 3-932-972-01    | KNOB (MONO ST) (AEP,G,IT)              |               | $\Delta$ T901   | 1-429-471-11    | TRANSFORMER, POWER (AEP,G,IT,AUS)                         |               |
| * 63            | A-3305-593-A    | TUNER BOARD, COMPLETE (AEP,G)          |               | $\Delta$ T901   | 1-429-472-11    | TRANSFORMER, POWER (E,EA,HK,PX,JE)                        |               |
| * 63            | A-3305-682-A    | TUNER BOARD, COMPLETE (JE)             |               |                 |                 |                                                           |               |
| * 63            | A-3305-684-A    | TUNER BOARD, COMPLETE (E,AUS,TW,HK,PX) |               |                 |                 |                                                           |               |
| * 63            | A-3305-686-A    | TUNER BOARD, COMPLETE (US,CND,C&SA)    |               |                 |                 |                                                           |               |
| * 63            | A-3305-688-A    | TUNER BOARD, COMPLETE (EA)             |               |                 |                 |                                                           |               |
| * 63            | A-3305-689-A    | TUNER BOARD, COMPLETE (IT)             |               |                 |                 |                                                           |               |

## 6-3. CD SECTION



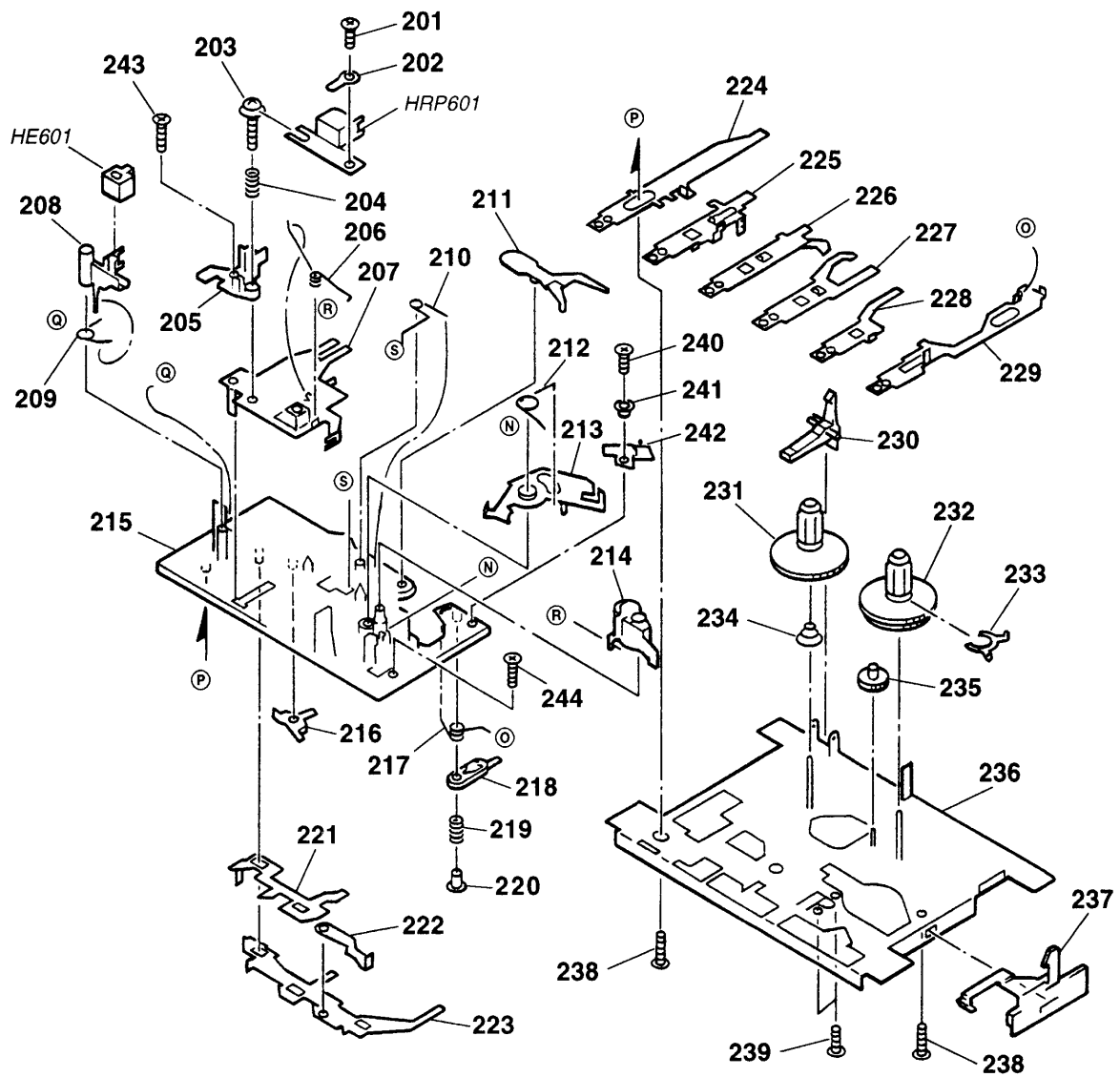
| Ref. No. | Part No.     | Description        | Remark | Ref. No. | Part No.     | Description                    | Remark |
|----------|--------------|--------------------|--------|----------|--------------|--------------------------------|--------|
| 101      | 3-932-976-01 | LID (CD)           |        | 108      | 3-910-095-01 | RUBBER, VIBRATION PROOF        |        |
| 102      | 1-452-732-11 | MAGNET             |        | 109      | 3-910-095-11 | RUBBER, VIBRATION PROOF        |        |
| * 103    | A-3305-595-A | CD BOARD, COMPLETE |        | * 110    | 1-659-983-11 | MOTOR BOARD                    |        |
| 104      | 3-932-974-01 | SPRING (CD)        |        | 111      | 1-769-824-11 | WIRE (FLAT TYPE) (16 CORE)     |        |
| 105      | 3-932-975-01 | CABINET (CD)       |        | 112      | 1-776-503-11 | WIRE, PARALLEL (FFC) (16 CORE) |        |
| 106      | 3-351-377-11 | DAMPER             |        | 113      | 3-923-180-01 | PLATE, CHUCKING                |        |
| 107      | 3-910-116-01 | COVER, CD          |        | S704     | 1-692-960-11 | SWITCH, PUSH (1 KEY) (DOOR SW) |        |

**6-4. MECHANISM DECK SECTION-1**  
**(MF-121)**



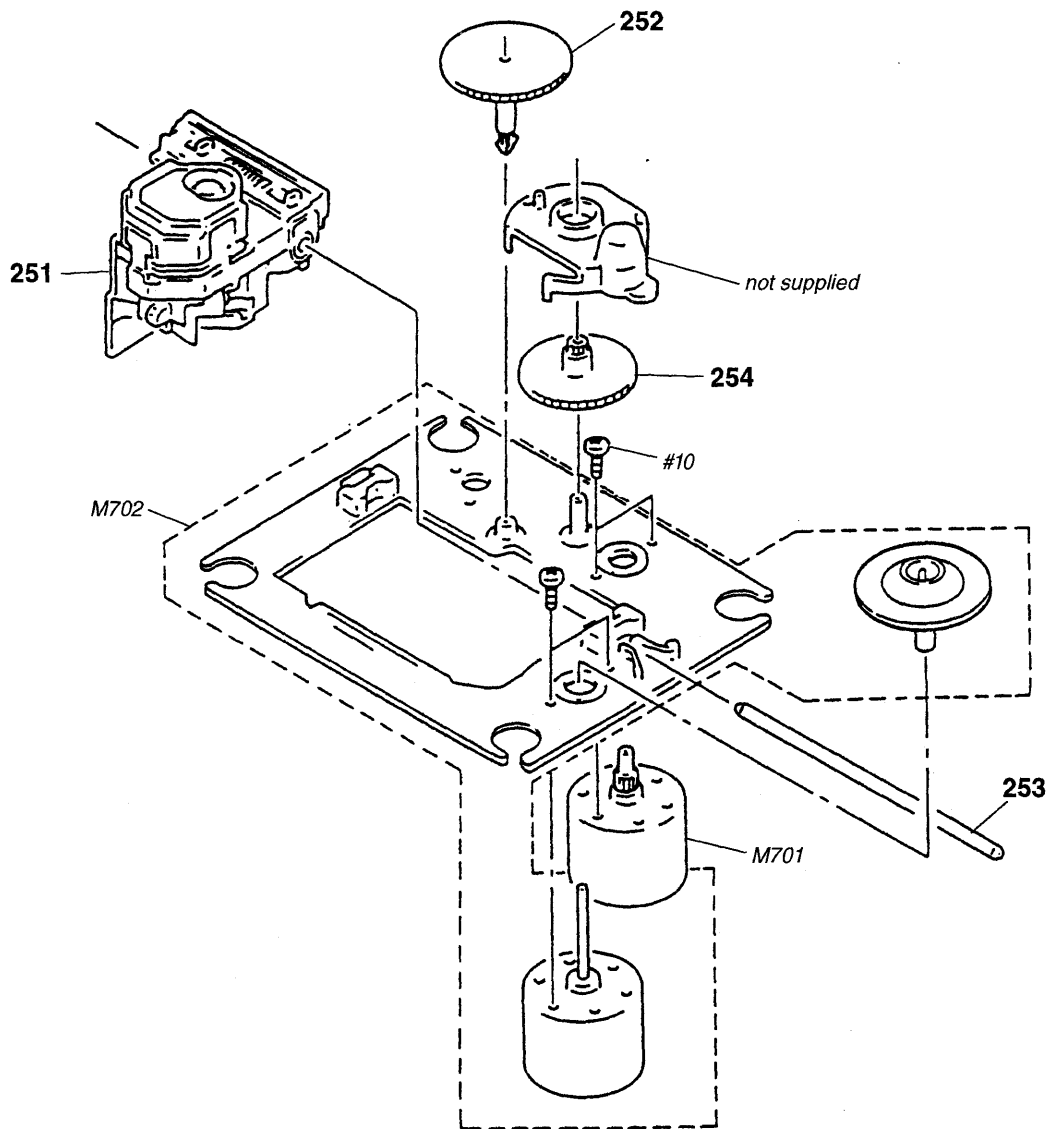
| Ref. No. | Part No.     | Description                   | Remark | Ref. No. | Part No.     | Description                         | Remark |
|----------|--------------|-------------------------------|--------|----------|--------------|-------------------------------------|--------|
| 151      | 3-933-843-01 | BELT, MAIN                    |        | 163      | 3-933-841-01 | SCREW, MOTOR COLLER                 |        |
| 152      | 3-933-834-01 | FLYWHEEL ASSY                 |        | 164      | 3-933-812-01 | SPRING, P.S LEVER                   |        |
| 153      | 3-933-833-01 | BELT, RF                      |        | 165      | 3-933-815-01 | SPRING, REC BUTTON LEVER            |        |
| 154      | 3-933-858-01 | WASHER, P                     |        | 166      | 3-933-846-01 | SPRING, PACK                        |        |
| 155      | 3-933-811-01 | SPRING, E ACTUATOR            |        | 167      | 3-933-849-01 | SCREW (2X3), DELTITE                |        |
| 156      | 3-933-856-01 | CUT, P WASHER                 |        | 168      | 3-933-809-01 | SPRING (A), BUTTON LEVER            |        |
| 157      | 3-933-831-01 | GEAR, CAM                     |        | 169      | 3-933-859-01 | WASHER, P                           |        |
| * 158    | 3-933-817-01 | SPRING (S), PLAY BUTTON LEVER |        | 170      | 3-933-842-01 | PULLEY, MOTOR                       |        |
| 159      | 3-933-832-01 | CLUTCH ASSY, RF               |        | 171      | 3-933-848-01 | SCREW (M2X3), C TAPPING             |        |
| 160      | 3-933-857-01 | CUT, P WASHER                 |        | 172      | 3-928-627-01 | REC SPRING PLATE                    |        |
| 161      | 3-933-844-01 | SCREW, MB                     |        | M601     | 1-698-727-11 | MOTOR (EG-530AD-98) (REEL/CAPSTAN)  |        |
| 162      | 3-933-840-01 | BRACKET, MOTOR                |        | S601     | 1-762-658-11 | SWITCH, LEAF (MSW-1541T) (MD POWER) |        |

**6-5. MECHANISM DECK SECTION-2  
(MF-121)**



| <u>Ref. No.</u> | <u>Part No.</u> | <u>Description</u>     | <u>Remark</u> | <u>Ref. No.</u> | <u>Part No.</u> | <u>Description</u>                        | <u>Remark</u> |
|-----------------|-----------------|------------------------|---------------|-----------------|-----------------|-------------------------------------------|---------------|
| 201             | 3-933-852-01    | SCREW (M2X3), + BIND   |               | * 224           | 3-933-799-01    | LEVER, REC BUTTON                         |               |
| 202             | 3-933-860-01    | PLATE, LUG             |               | 225             | 3-933-800-01    | LEVER, PLAY BUTTON                        |               |
| 203             | 3-933-854-01    | SCREW (M2X7), AZIMUTH  |               | 226             | 3-933-801-01    | LEVER, REW BUTTON                         |               |
| 204             | 3-933-822-01    | SPRING, AZIMUTH        |               | 227             | 3-933-802-01    | LEVER, FF BUTTON                          |               |
| 205             | 3-933-819-01    | BASE, HEAD             |               | * 228           | 3-933-803-01    | LEVER, STOP BUTTON                        |               |
| 206             | 3-933-820-01    | SPRING, PANEL (P)      |               | 229             | 3-933-804-01    | LEVER, PAUSE BUTTON                       |               |
| 207             | 3-933-818-01    | PANEL, HEAD            |               | 230             | 3-933-847-01    | LEVER, RECORD SAFETY                      |               |
| 208             | 3-933-821-01    | ARM, MG                |               | 231             | 3-933-837-01    | REEL ASSY, SUPPLY                         |               |
| 209             | 3-933-816-01    | SPRING, MG ARM         |               | 232             | 3-933-838-01    | REEL ASSY, TAKE UP                        |               |
| 210             | 3-933-823-01    | SPRING, M CONTROL      |               | 233             | 3-933-839-01    | SENSOR                                    |               |
| 211             | 3-933-828-01    | LEVER, SENSING         |               | 234             | 3-933-836-01    | SPRING, BACK TENSION                      |               |
| 212             | 3-933-829-01    | SPRING, GEAR PLATE     |               | 235             | 3-933-835-01    | GEAR, FF                                  |               |
| 213             | 3-933-830-01    | PLATE ASSY, GEAR       |               | * 236           | 3-933-810-01    | CHASSIS ASSY                              |               |
| 214             | 3-933-825-01    | ARM ASSY, PINCH ROLLER |               | 237             | 3-933-845-01    | LEVER, EJECT SLIDE                        |               |
| 215             | 3-933-796-01    | BASE ASSY              |               | 238             | 3-933-850-01    | SCREW (M2X5), P TAPPING BIND              |               |
| 216             | 3-933-814-01    | STOPPER, PR            |               | 239             | 3-933-851-01    | SCREW (M2X4.5), TAPPING                   |               |
| 217             | 3-933-805-01    | SPRING, P CONTROL      |               | 240             | 3-933-824-01    | SCREW (2X3), PS TAPPING                   |               |
| 218             | 3-933-806-01    | LEVER (E), PAUSE       |               | 241             | 3-933-827-01    | COLLER, P ARM                             |               |
| 219             | 3-933-807-01    | SPRING, PAUSE LEVER    |               | * 242           | 3-933-826-01    | ARM, P                                    |               |
| 220             | 3-933-808-01    | STOPPER, PAUSE         |               | 243             | 3-933-853-01    | SCREW (M2X6)                              |               |
| 221             | 3-933-797-01    | ACTUATOR, SWITCH       |               | 244             | 3-933-855-01    | SCREW (M2X8), S TAPPING                   |               |
| * 222           | 3-933-813-01    | LEVER, E KICK          |               | HE601           | 1-500-334-11    | HEAD, E (TC-238) (ERASE)                  |               |
| 223             | 3-933-798-01    | ACTUATOR, PUSH BUTTON  |               | HRP601          | 1-500-333-11    | HEAD, R-P (MS15R-AA2N1) (RECORD/PLAYBACK) |               |

**6-6. OPTICAL PICK-UP BLOCK  
(KSM-213BAN)**



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

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

| Ref. No.     | Part No.     | Description                 |
|--------------|--------------|-----------------------------|
| $\Delta$ 251 | 8-848-367-11 | PICK-UP, OPTICAL KSS-213B/K |
| 252          | 2-626-907-01 | GEAR (A) (S)                |
| 253          | 2-626-908-01 | SHAFT, SLED                 |

Remark

| Ref. No. | Part No.     | Description            |
|----------|--------------|------------------------|
| 254      | 2-627-003-01 | GEAR (B) (RP)          |
| M701     | X-2625-769-1 | MOTOR GEAR ASSY (SLED) |
| M702     | X-2625-770-1 | MOTOR ASSY, SPINDLE    |

Remark

## SECTION 7 ELECTRICAL PARTS LIST

**AUDIO**

**NOTE:**

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS  
All resistors are in ohms.  
METAL: Metal-film resistor.  
METAL OXIDE: Metal oxide-film resistor.  
F: nonflammable
- Abbreviation  
CND : Canadian model  
G : German model  
IT : Italian model  
EA : Saudi Arabia model  
C&SA : Central and South American model  
HK : Hong Kong model  
JE : Tourist model  
TW : Taiwan model  
AUS : Australian model

- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS  
In each case, u :  $\mu$ , for example:  
uA.. :  $\mu$ A.. uPA.. :  $\mu$ PA..  
uPB.. :  $\mu$ PB.. uPC.. :  $\mu$ PC.. uPD.. :  $\mu$ PD..
- CAPACITORS  
uF :  $\mu$ F
- COILS  
uH :  $\mu$ H

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

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

| Ref. No.      | Part No.     | Description                           | Remark   |     |     |  |
|---------------|--------------|---------------------------------------|----------|-----|-----|--|
| *             | A-3305-598-A | AUDIO BOARD, COMPLETE (EXCEPT US,CND) |          |     |     |  |
| *             | A-3305-728-A | AUDIO BOARD, COMPLETE (US,CND)        |          |     |     |  |
| *****         |              |                                       |          |     |     |  |
|               | 7-685-647-79 | SCREW +BVTP 3X10 TYPE2 N-S            |          |     |     |  |
| < CAPACITOR > |              |                                       |          |     |     |  |
| C101          | 1-162-301-11 | CERAMIC                               | 0.0015uF | 20% | 16V |  |
| C102          | 1-104-664-11 | ELECT                                 | 47uF     | 20% | 10V |  |
| C103          | 1-161-020-11 | CERAMIC                               | 0.039uF  | 10% | 16V |  |
| C104          | 1-162-302-11 | CERAMIC                               | 0.0022uF | 20% | 16V |  |
| C105          | 1-162-215-31 | CERAMIC                               | 47PF     | 5%  | 50V |  |
| C106          | 1-124-902-00 | ELECT                                 | 0.47uF   | 20% | 50V |  |
| C107          | 1-162-282-31 | CERAMIC                               | 100PF    | 10% | 50V |  |
| C108          | 1-124-902-00 | ELECT                                 | 0.47uF   | 20% | 50V |  |
| C109          | 1-124-907-11 | ELECT                                 | 10uF     | 20% | 50V |  |
| C110          | 1-162-844-11 | CERAMIC                               | 0.027uF  | 10% | 16V |  |
| C118          | 1-162-847-11 | CERAMIC                               | 0.047uF  | 10% | 16V |  |
| C151          | 1-104-664-11 | ELECT                                 | 47uF     | 20% | 10V |  |
| C152          | 1-162-290-31 | CERAMIC                               | 470PF    | 10% | 50V |  |
| C153          | 1-124-443-00 | ELECT                                 | 100uF    | 20% | 10V |  |
| C154          | 1-124-473-11 | ELECT                                 | 1000uF   | 20% | 10V |  |
| C155          | 1-130-495-00 | MYLAR                                 | 0.1uF    | 5%  | 50V |  |
| C201          | 1-162-301-11 | CERAMIC                               | 0.0015uF | 20% | 16V |  |
| C202          | 1-104-664-11 | ELECT                                 | 47uF     | 20% | 10V |  |
| C203          | 1-161-020-11 | CERAMIC                               | 0.039uF  | 10% | 16V |  |
| C204          | 1-162-302-11 | CERAMIC                               | 0.0022uF | 20% | 16V |  |
| C205          | 1-162-215-31 | CERAMIC                               | 47PF     | 5%  | 50V |  |
| C206          | 1-124-902-00 | ELECT                                 | 0.47uF   | 20% | 50V |  |
| C207          | 1-162-282-31 | CERAMIC                               | 100PF    | 10% | 50V |  |
| C208          | 1-124-902-00 | ELECT                                 | 0.47uF   | 20% | 50V |  |
| C209          | 1-124-907-11 | ELECT                                 | 10uF     | 20% | 50V |  |

| Ref. No. | Part No.     | Description | Remark   |     |     |  |
|----------|--------------|-------------|----------|-----|-----|--|
| C210     | 1-162-844-11 | CERAMIC     | 0.027uF  | 10% | 16V |  |
| C218     | 1-162-847-11 | CERAMIC     | 0.047uF  | 10% | 16V |  |
| C251     | 1-104-664-11 | ELECT       | 47uF     | 20% | 10V |  |
| C252     | 1-162-290-31 | CERAMIC     | 470PF    | 10% | 50V |  |
| C253     | 1-124-443-00 | ELECT       | 100uF    | 20% | 10V |  |
| C254     | 1-124-473-11 | ELECT       | 1000uF   | 20% | 10V |  |
| C255     | 1-130-495-00 | MYLAR       | 0.1uF    | 5%  | 50V |  |
| C301     | 1-104-664-11 | ELECT       | 47uF     | 20% | 10V |  |
| C302     | 1-126-923-11 | ELECT       | 220uF    | 20% | 10V |  |
| C303     | 1-162-282-31 | CERAMIC     | 100PF    | 10% | 50V |  |
| C304     | 1-126-923-11 | ELECT       | 220uF    | 20% | 10V |  |
| C305     | 1-162-302-11 | CERAMIC     | 0.0022uF | 20% | 16V |  |
| C306     | 1-126-233-11 | ELECT       | 22uF     | 20% | 50V |  |
| C307     | 1-104-664-11 | ELECT       | 47uF     | 20% | 10V |  |
| C308     | 1-124-902-00 | ELECT       | 0.47uF   | 20% | 50V |  |
| C311     | 1-162-301-11 | CERAMIC     | 0.0015uF | 20% | 16V |  |
| C312     | 1-104-664-11 | ELECT       | 47uF     | 20% | 10V |  |
| C313     | 1-130-480-11 | FILM        | 0.0056uF | 5%  | 50V |  |
| C314     | 1-104-664-11 | ELECT       | 47uF     | 20% | 10V |  |
| C315     | 1-104-664-11 | ELECT       | 47uF     | 20% | 10V |  |
| C341     | 1-126-937-11 | ELECT       | 4700uF   | 20% | 16V |  |
| C342     | 1-162-306-11 | CERAMIC     | 0.01uF   | 30% | 16V |  |
| C343     | 1-162-306-11 | CERAMIC     | 0.01uF   | 30% | 16V |  |
| C344     | 1-124-472-11 | ELECT       | 470uF    | 20% | 10V |  |
| C345     | 1-126-963-11 | ELECT       | 4.7uF    | 20% | 50V |  |
| C351     | 1-124-120-11 | ELECT       | 220uF    | 20% | 25V |  |
| C712     | 1-162-306-11 | CERAMIC     | 0.01uF   | 30% | 16V |  |
| C740     | 1-162-306-11 | CERAMIC     | 0.01uF   | 30% | 16V |  |
| C741     | 1-124-443-00 | ELECT       | 100uF    | 20% | 10V |  |
| C742     | 1-136-173-00 | FILM        | 0.47uF   | 5%  | 50V |  |
| C743     | 1-162-290-31 | CERAMIC     | 470PF    | 10% | 50V |  |
| C744     | 1-162-286-21 | CERAMIC     | 220PF    | 10% | 50V |  |

# AUDIO

| Ref. No. | Part No.     | Description              | Remark |
|----------|--------------|--------------------------|--------|
| C745     | 1-136-169-00 | FILM 0.22uF 5% 50V       |        |
| C746     | 1-162-306-11 | CERAMIC 0.01uF 30% 16V   |        |
| C750     | 1-126-923-11 | ELECT 220uF 20% 10V      |        |
| C752     | 1-162-199-31 | CERAMIC 10PF 5% 50V      |        |
| C753     | 1-162-199-31 | CERAMIC 10PF 5% 50V      |        |
| C754     | 1-162-306-11 | CERAMIC 0.01uF 30% 16V   |        |
| C758     | 1-162-306-11 | CERAMIC 0.01uF 30% 16V   |        |
| C763     | 1-162-600-11 | CERAMIC 0.0047uF 30% 16V |        |
| C764     | 1-126-963-11 | ELECT 4.7uF 20% 50V      |        |
| C773     | 1-162-600-11 | CERAMIC 0.0047uF 30% 16V |        |
| C774     | 1-126-963-11 | ELECT 4.7uF 20% 50V      |        |
| C780     | 1-124-443-00 | ELECT 100uF 20% 10V      |        |
| C781     | 1-162-306-11 | CERAMIC 0.01uF 30% 16V   |        |
| C782     | 1-162-306-11 | CERAMIC 0.01uF 30% 16V   |        |
| C783     | 1-162-306-11 | CERAMIC 0.01uF 30% 16V   |        |
| C784     | 1-130-495-00 | MYLAR 0.1uF 5% 50V       |        |
| C786     | 1-162-306-11 | CERAMIC 0.01uF 30% 16V   |        |
| C788     | 1-162-306-11 | CERAMIC 0.01uF 30% 16V   |        |
| C789     | 1-162-306-11 | CERAMIC 0.01uF 30% 16V   |        |
| C792     | 1-162-294-31 | CERAMIC 0.001uF 10% 50V  |        |
| C791     | 1-126-923-11 | ELECT 220uF 20% 10V      |        |
| C793     | 1-162-282-31 | CERAMIC 100PF 10% 50V    |        |
| C794     | 1-162-282-31 | CERAMIC 100PF 10% 50V    |        |
| C797     | 1-162-294-31 | CERAMIC 0.001uF 10% 50V  |        |
| JW758    | 1-162-306-11 | CERAMIC 0.01uF 30% 16V   |        |

## < CONNECTOR >

|          |              |                               |
|----------|--------------|-------------------------------|
| * CNP301 | 1-580-154-11 | PIN, CONNECTOR (PC BOARD) 2P  |
| CNP302   | 1-506-986-11 | PIN, CONNECTOR (PC BOARD) 4P  |
| CNP303   | 1-506-986-11 | PIN, CONNECTOR (PC BOARD) 4P  |
| * CNP304 | 1-580-154-11 | PIN, CONNECTOR (PC BOARD) 2P  |
| CNP305   | 1-506-986-11 | PIN, CONNECTOR (PC BOARD) 4P  |
| CNP306   | 1-506-987-11 | PIN, CONNECTOR (PC BOARD) 5P  |
| * CNP703 | 1-695-339-41 | PIN, CONNECTOR (PC BOARD) 16P |
| * CNP704 | 1-695-337-31 | PIN, CONNECTOR (PC BOARD) 14P |

## < DIODE >

|      |              |                       |
|------|--------------|-----------------------|
| D301 | 8-719-991-33 | DIODE 1SS133T-77      |
| D302 | 8-719-991-33 | DIODE 1SS133T-77      |
| D303 | 8-719-991-33 | DIODE 1SS133T-77      |
| D304 | 8-719-991-33 | DIODE 1SS133T-77      |
| D305 | 8-719-991-33 | DIODE 1SS133T-77      |
| D306 | 8-719-991-33 | DIODE 1SS133T-77      |
| D307 | 8-719-991-33 | DIODE 1SS133T-77      |
| D309 | 8-719-991-33 | DIODE 1SS133T-77      |
| D310 | 8-719-938-69 | LED GL3PR8 (OPR/BATT) |
| D311 | 8-719-109-97 | DIODE RD6.8ES-B2      |
| D312 | 8-719-109-89 | DIODE RD5.6ESB2       |
| D315 | 8-719-991-33 | DIODE 1SS133T-77      |

| Ref. No.         | Part No.     | Description               | Remark |
|------------------|--------------|---------------------------|--------|
| D316             | 8-719-991-33 | DIODE 1SS133T-77          |        |
| D318             | 8-719-991-33 | DIODE 1SS133T-77          |        |
| D319             | 8-719-991-33 | DIODE 1SS133T-77          |        |
| D320             | 8-719-991-33 | DIODE 1SS133T-77          |        |
| D790             | 8-719-991-33 | DIODE 1SS133T-77          |        |
| D791             | 8-719-991-33 | DIODE 1SS133T-77          |        |
| < FERRITE BEAD > |              |                           |        |
| FB704            | 1-410-515-11 | INDUCTOR 33uH             |        |
| FB706            | 1-410-509-11 | INDUCTOR 10uH             |        |
| < IC >           |              |                           |        |
| IC301            | 8-759-264-71 | IC TA2068N                |        |
| IC304            | 8-759-820-22 | IC LA4597                 |        |
| IC702            | 8-752-372-94 | IC CXD2507AQ              |        |
| IC704            | 8-759-426-44 | IC SM5877AM               |        |
| < JACK >         |              |                           |        |
| J301             | 1-566-891-11 | JACK ( )                  |        |
| < CABLE HOLDER > |              |                           |        |
| * KH704          | 1-573-287-11 | HOLDER, CABLE 2P          |        |
| < COIL >         |              |                           |        |
| L101             | 1-414-142-11 | INDUCTOR 1uH              |        |
| L102             | 1-410-509-11 | INDUCTOR 10uH             |        |
| L151             | 1-414-138-11 | INDUCTOR 0.33uH           |        |
| L201             | 1-414-142-11 | INDUCTOR 1uH              |        |
| L202             | 1-410-509-11 | INDUCTOR 10uH             |        |
| L251             | 1-414-138-11 | INDUCTOR 0.33uH           |        |
| L301             | 1-414-142-11 | INDUCTOR 1uH              |        |
| L302             | 1-410-517-11 | INDUCTOR 47uH             |        |
| L303             | 1-410-517-11 | INDUCTOR 47uH             |        |
| L304             | 1-410-517-11 | INDUCTOR 47uH             |        |
| L351             | 1-414-138-11 | INDUCTOR 0.33uH           |        |
| < TRANSISTOR >   |              |                           |        |
| Q101             | 8-729-206-28 | TRANSISTOR RN1210         |        |
| Q201             | 8-729-206-28 | TRANSISTOR RN1210         |        |
| Q301             | 8-729-281-53 | TRANSISTOR 2SC1815-GR     |        |
| Q302             | 8-729-011-92 | TRANSISTOR 2SC2001TP-K1K2 |        |
| Q303             | 8-729-011-92 | TRANSISTOR 2SC2001TP-K1K2 |        |
| Q304             | 8-729-206-72 | TRANSISTOR RN2201TPE4     |        |
| Q305             | 8-729-206-57 | TRANSISTOR RN1201TPE4     |        |
| Q306             | 8-729-206-57 | TRANSISTOR RN1201TPE4     |        |
| Q307             | 8-729-119-76 | TRANSISTOR 2SA1175-HFE    |        |
| Q308             | 8-729-206-57 | TRANSISTOR RN1201TPE4     |        |

| Ref. No.     | Part No.     | Description | Remark         |    |      | Ref. No.              | Part No.     | Description                       | Remark |    |      |
|--------------|--------------|-------------|----------------|----|------|-----------------------|--------------|-----------------------------------|--------|----|------|
| Q309         | 8-729-021-82 | TRANSISTOR  | 2SD2396K       |    |      | R343                  | 1-249-415-11 | CARBON                            | 680    | 5% | 1/4W |
| Q310         | 8-729-011-92 | TRANSISTOR  | 2SC2001TP-K1K2 |    |      | R344                  | 1-247-815-00 | CARBON                            | 220    | 5% | 1/4W |
| Q311         | 8-729-011-92 | TRANSISTOR  | 2SC2001TP-K1K2 |    |      | R345                  | 1-247-815-00 | CARBON                            | 220    | 5% | 1/4W |
| < RESISTOR > |              |             |                |    |      | R346                  | 1-249-417-11 | CARBON                            | 1K     | 5% | 1/4W |
| R101         | 1-249-431-11 | CARBON      | 15K            | 5% | 1/4W | R347                  | 1-247-807-11 | CARBON                            | 100    | 5% | 1/4W |
| R102         | 1-249-404-00 | CARBON      | 82             | 5% | 1/4W | R348                  | 1-249-417-11 | CARBON                            | 1K     | 5% | 1/4W |
| R103         | 1-249-441-11 | CARBON      | 100K           | 5% | 1/4W | R349                  | 1-247-807-11 | CARBON                            | 100    | 5% | 1/4W |
| R104         | 1-249-423-11 | CARBON      | 3.3K           | 5% | 1/4W | R350                  | 1-249-417-11 | CARBON                            | 1K     | 5% | 1/4W |
| R105         | 1-249-436-11 | CARBON      | 39K            | 5% | 1/4W | R727                  | 1-249-421-11 | CARBON                            | 2.2K   | 5% | 1/4W |
| R106         | 1-249-421-11 | CARBON      | 2.2K           | 5% | 1/4W | R740                  | 1-249-423-11 | CARBON                            | 3.3K   | 5% | 1/4W |
| R109         | 1-249-429-11 | CARBON      | 10K            | 5% | 1/4W | R741                  | 1-249-417-11 | CARBON                            | 1K     | 5% | 1/4W |
| R111         | 1-249-429-11 | CARBON      | 10K            | 5% | 1/4W | R742                  | 1-249-429-11 | CARBON                            | 10K    | 5% | 1/4W |
| R112         | 1-249-417-11 | CARBON      | 1K             | 5% | 1/4W | R743                  | 1-247-903-00 | CARBON                            | 1M     | 5% | 1/4W |
| R122         | 1-249-427-11 | CARBON      | 6.8K           | 5% | 1/4W | R744                  | 1-247-887-00 | CARBON                            | 220K   | 5% | 1/4W |
| R153         | 1-249-401-11 | CARBON      | 47             | 5% | 1/4W | R745                  | 1-249-429-11 | CARBON                            | 10K    | 5% | 1/4W |
| R154         | 1-247-807-11 | CARBON      | 100            | 5% | 1/4W | R746                  | 1-249-437-11 | CARBON                            | 47K    | 5% | 1/4W |
| R201         | 1-249-431-11 | CARBON      | 15K            | 5% | 1/4W | R749                  | 1-249-417-11 | CARBON                            | 1K     | 5% | 1/4W |
| R202         | 1-249-404-00 | CARBON      | 82             | 5% | 1/4W | R751                  | 1-249-417-11 | CARBON                            | 1K     | 5% | 1/4W |
| R203         | 1-249-441-11 | CARBON      | 100K           | 5% | 1/4W | R753                  | 1-249-429-11 | CARBON                            | 10K    | 5% | 1/4W |
| R204         | 1-249-423-11 | CARBON      | 3.3K           | 5% | 1/4W | R766                  | 1-249-417-11 | CARBON                            | 1K     | 5% | 1/4W |
| R205         | 1-249-436-11 | CARBON      | 39K            | 5% | 1/4W | R776                  | 1-249-417-11 | CARBON                            | 1K     | 5% | 1/4W |
| R206         | 1-249-421-11 | CARBON      | 2.2K           | 5% | 1/4W | R780                  | 1-249-417-11 | CARBON                            | 1K     | 5% | 1/4W |
| R209         | 1-249-429-11 | CARBON      | 10K            | 5% | 1/4W | R781                  | 1-249-417-11 | CARBON                            | 1K     | 5% | 1/4W |
| R211         | 1-249-429-11 | CARBON      | 10K            | 5% | 1/4W | R782                  | 1-249-417-11 | CARBON                            | 1K     | 5% | 1/4W |
| R212         | 1-249-417-11 | CARBON      | 1K             | 5% | 1/4W | R783                  | 1-249-417-11 | CARBON                            | 1K     | 5% | 1/4W |
| R222         | 1-249-427-11 | CARBON      | 6.8K           | 5% | 1/4W | R784                  | 1-249-417-11 | CARBON                            | 1K     | 5% | 1/4W |
| R253         | 1-249-401-11 | CARBON      | 47             | 5% | 1/4W | R785                  | 1-249-417-11 | CARBON                            | 1K     | 5% | 1/4W |
| R254         | 1-247-807-11 | CARBON      | 100            | 5% | 1/4W | R786                  | 1-249-417-11 | CARBON                            | 1K     | 5% | 1/4W |
| R301         | 1-247-903-00 | CARBON      | 1M             | 5% | 1/4W | R787                  | 1-249-417-11 | CARBON                            | 1K     | 5% | 1/4W |
| R302         | 1-249-402-11 | CARBON      | 56             | 5% | 1/4W | R788                  | 1-249-417-11 | CARBON                            | 1K     | 5% | 1/4W |
| R303         | 1-247-863-00 | CARBON      | 22K            | 5% | 1/4W | R789                  | 1-249-417-11 | CARBON                            | 1K     | 5% | 1/4W |
| R304         | 1-249-429-11 | CARBON      | 10K            | 5% | 1/4W | R790                  | 1-249-417-11 | CARBON                            | 1K     | 5% | 1/4W |
| R306         | 1-249-429-11 | CARBON      | 10K            | 5% | 1/4W | R792                  | 1-249-429-11 | CARBON                            | 10K    | 5% | 1/4W |
| R309         | 1-249-417-11 | CARBON      | 1K             | 5% | 1/4W | R793                  | 1-249-417-11 | CARBON                            | 1K     | 5% | 1/4W |
| R311         | 1-249-403-11 | CARBON      | 68             | 5% | 1/4W | R795                  | 1-249-417-11 | CARBON                            | 1K     | 5% | 1/4W |
| R312         | 1-249-435-11 | CARBON      | 33K            | 5% | 1/4W | R796                  | 1-249-417-11 | CARBON                            | 1K     | 5% | 1/4W |
| R313         | 1-249-389-11 | CARBON      | 4.7            | 5% | 1/4W | R797                  | 1-249-417-11 | CARBON                            | 1K     | 5% | 1/4W |
| R314         | 1-249-423-11 | CARBON      | 3.3K           | 5% | 1/4W | R798                  | 1-249-417-11 | CARBON                            | 1K     | 5% | 1/4W |
| R315         | 1-249-423-11 | CARBON      | 3.3K           | 5% | 1/4W | R799                  | 1-249-417-11 | CARBON                            | 1K     | 5% | 1/4W |
| R316         | 1-249-425-11 | CARBON      | 4.7K           | 5% | 1/4W | < VARIABLE RESISTOR > |              |                                   |        |    |      |
| R317         | 1-249-425-11 | CARBON      | 4.7K           | 5% | 1/4W | RV301                 | 1-223-403-11 | RES, VAR, CARBON 20K/20K (VOLUME) |        |    |      |
| R318         | 1-249-425-11 | CARBON      | 4.7K           | 5% | 1/4W | RV302                 | 1-241-745-11 | RES, VAR, CARBON 20K/20K (TONE)   |        |    |      |
| R319         | 1-249-429-11 | CARBON      | 10K            | 5% | 1/4W | < SWITCH >            |              |                                   |        |    |      |
| R320         | 1-249-423-11 | CARBON      | 3.3K           | 5% | 1/4W | S301                  | 1-571-345-11 | SWITCH, LEVER SLIDE (FUNCTION)    |        |    |      |
| △R340        | 1-249-381-11 | CARBON      | 1              | 5% | 1/4W |                       |              |                                   |        |    |      |
| R341         | 1-249-441-11 | CARBON      | 100K           | 5% | 1/4W |                       |              |                                   |        |    |      |
| R342         | 1-249-419-11 | CARBON      | 1.5K           | 5% | 1/4W |                       |              |                                   |        |    |      |

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

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

## AUDIO

## CD

| Ref. No.        | Part No.     | Description                    | Remark           |
|-----------------|--------------|--------------------------------|------------------|
| < TRANSFORMER > |              |                                |                  |
| T301            | 1-433-268-00 | TRANSFORMER, BIAS OSCILLATOR   |                  |
| < VIBRATOR >    |              |                                |                  |
| X701            | 1-579-345-11 | VIBRATOR, CERAMIC (16.9344MHz) |                  |
| *****           |              |                                |                  |
| *               | A-3305-595-A | CD BOARD, COMPLETE             |                  |
| *****           |              |                                |                  |
| < CAPACITOR >   |              |                                |                  |
| C701            | 1-162-302-11 | CERAMIC                        | 0.0022uF 30% 16V |
| C702            | 1-136-165-00 | FILM                           | 0.1uF 5% 50V     |
| C703            | 1-136-165-00 | FILM                           | 0.1uF 5% 50V     |
| C704            | 1-136-165-00 | FILM                           | 0.1uF 5% 50V     |
| C705            | 1-131-375-00 | TANTALUM                       | 4.7uF 10% 10V    |
| C706            | 1-130-489-00 | MYLAR                          | 0.033uF 5% 50V   |
| C707            | 1-130-486-00 | MYLAR                          | 0.018uF 10% 50V  |
| C708            | 1-162-199-31 | CERAMIC                        | 10PF 5% 50V      |
| C709            | 1-126-962-11 | ELECT                          | 3.3uF 20% 50V    |
| C710            | 1-136-163-00 | FILM                           | 0.068uF 5% 50V   |
| C711            | 1-162-215-31 | CERAMIC                        | 47PF 5% 50V      |
| C713            | 1-130-489-00 | MYLAR                          | 0.033uF 5% 50V   |
| C714            | 1-162-306-11 | CERAMIC                        | 0.01uF 30% 16V   |
| C715            | 1-130-489-00 | MYLAR                          | 0.033uF 5% 50V   |
| C716            | 1-136-169-00 | FILM                           | 0.22uF 5% 50V    |
| C717            | 1-104-664-11 | ELECT                          | 47uF 20% 10V     |
| C718            | 1-124-907-11 | ELECT                          | 10uF 20% 50V     |
| C721            | 1-130-491-00 | MYLAR                          | 0.047uF 5% 50V   |
| C722            | 1-161-494-00 | CERAMIC                        | 0.022uF 25V      |
| C723            | 1-136-165-00 | FILM                           | 0.1uF 5% 50V     |
| C724            | 1-126-923-11 | ELECT                          | 220uF 20% 10V    |
| C725            | 1-162-199-31 | CERAMIC                        | 10PF 5% 50V      |
| C726            | 1-162-294-31 | CERAMIC                        | 0.001uF 10% 50V  |
| C727            | 1-162-306-11 | CERAMIC                        | 0.01uF 30% 16V   |
| C728            | 1-164-159-21 | CERAMIC                        | 0.1uF 50V        |
| C729            | 1-104-664-11 | ELECT                          | 47uF 20% 10V     |
| C730            | 1-124-472-11 | ELECT                          | 470uF 20% 10V    |
| C731            | 1-162-294-31 | CERAMIC                        | 0.001uF 10% 50V  |
| C732            | 1-130-484-00 | MYLAR                          | 0.012uF 5% 50V   |
| C734            | 1-162-305-11 | CERAMIC                        | 0.0068uF 30% 16V |
| C736            | 1-126-923-11 | ELECT                          | 220uF 20% 10V    |
| C737            | 1-162-282-31 | CERAMIC                        | 100PF 10% 50V    |
| C738            | 1-162-282-31 | CERAMIC                        | 100PF 10% 50V    |
| C739            | 1-162-282-31 | CERAMIC                        | 100PF 10% 50V    |
| C747            | 1-130-483-00 | MYLAR                          | 0.01uF 5% 50V    |
| C748            | 1-162-294-31 | CERAMIC                        | 0.001uF 10% 50V  |
| C796            | 1-164-159-21 | CERAMIC                        | 0.1uF 50V        |

| Ref. No.       | Part No.     | Description                   | Remark       |
|----------------|--------------|-------------------------------|--------------|
| < CONNECTOR >  |              |                               |              |
| CNP701         | 1-770-168-11 | CONNECTOR, FFC/FPC 16P        |              |
| * CNP702       | 1-580-167-11 | PIN, CONNECTOR (PC BOARD) 6P  |              |
| * CNP703       | 1-695-339-41 | PIN, CONNECTOR (PC BOARD) 16P |              |
| < IC >         |              |                               |              |
| IC701          | 8-752-069-56 | IC CXA1782BQ                  |              |
| IC703          | 8-759-336-75 | IC BA5930FP                   |              |
| < TRANSISTOR > |              |                               |              |
| Q701           | 8-729-801-84 | TRANSISTOR 2SB1013-4          |              |
| Q703           | 8-729-900-74 | TRANSISTOR DTC143TS           |              |
| < RESISTOR >   |              |                               |              |
| R700           | 1-249-429-11 | CARBON                        | 10K 5% 1/4W  |
| R701           | 1-249-441-11 | CARBON                        | 100K 5% 1/4W |
| R702           | 1-247-896-11 | CARBON                        | 510K 5% 1/4W |
| R703           | 1-249-441-11 | CARBON                        | 100K 5% 1/4W |
| R704           | 1-247-883-00 | CARBON                        | 150K 5% 1/4W |
| R705           | 1-249-437-11 | CARBON                        | 47K 5% 1/4W  |
| R706           | 1-247-876-11 | CARBON                        | 75K 5% 1/4W  |
| R707           | 1-249-432-11 | CARBON                        | 18K 5% 1/4W  |
| R708           | 1-247-883-00 | CARBON                        | 150K 5% 1/4W |
| R709           | 1-247-862-11 | CARBON                        | 20K 5% 1/4W  |
| R710           | 1-249-393-11 | CARBON                        | 10 5% 1/4W   |
| R714           | 1-247-883-00 | CARBON                        | 150K 5% 1/4W |
| R716           | 1-249-430-11 | CARBON                        | 12K 5% 1/4W  |
| R717           | 1-249-429-11 | CARBON                        | 10K 5% 1/4W  |
| R718           | 1-247-899-11 | CARBON                        | 680K 5% 1/4W |
| R720           | 1-247-891-00 | CARBON                        | 330K 5% 1/4W |
| R722           | 1-249-439-11 | CARBON                        | 68K 5% 1/4W  |
| R723           | 1-249-440-11 | CARBON                        | 82K 5% 1/4W  |
| R725           | 1-249-437-11 | CARBON                        | 47K 5% 1/4W  |
| R726           | 1-249-429-11 | CARBON                        | 10K 5% 1/4W  |
| R728           | 1-249-429-11 | CARBON                        | 10K 5% 1/4W  |
| R730           | 1-249-435-11 | CARBON                        | 33K 5% 1/4W  |
| R731           | 1-247-863-00 | CARBON                        | 22K 5% 1/4W  |
| R732           | 1-249-429-11 | CARBON                        | 10K 5% 1/4W  |
| R733           | 1-249-435-11 | CARBON                        | 33K 5% 1/4W  |
| R734           | 1-249-437-11 | CARBON                        | 47K 5% 1/4W  |
| R735           | 1-249-421-11 | CARBON                        | 2.2K 5% 1/4W |
| R738           | 1-249-429-11 | CARBON                        | 10K 5% 1/4W  |
| R739           | 1-249-429-11 | CARBON                        | 10K 5% 1/4W  |
| R756           | 1-249-440-11 | CARBON                        | 82K 5% 1/4W  |
| R757           | 1-249-439-11 | CARBON                        | 68K 5% 1/4W  |
| R758           | 1-249-439-11 | CARBON                        | 68K 5% 1/4W  |
| R759           | 1-249-439-11 | CARBON                        | 68K 5% 1/4W  |
| R791           | 1-249-431-11 | CARBON                        | 15K 5% 1/4W  |

|    |         |       |       |
|----|---------|-------|-------|
| CD | CONTROL | MOTOR | POWER |
|----|---------|-------|-------|

| Ref. No.                   | Part No.     | Description                     | Remark |
|----------------------------|--------------|---------------------------------|--------|
| < VARIABLE RESISTOR >      |              |                                 |        |
| RV701                      | 1-230-497-11 | RES, ADJ, CARBON 22K            |        |
| RV702                      | 1-230-497-11 | RES, ADJ, CARBON 22K            |        |
| RV703                      | 1-241-783-11 | RES, ADJ, CERMET 2.2K           |        |
| RV704                      | 1-230-497-11 | RES, ADJ, CARBON 22K            |        |
| *****                      |              |                                 |        |
| *                          | 1-659-992-11 | CONTROL BOARD                   | *****  |
| *****                      |              |                                 |        |
| *                          | 3-933-475-01 | CUSHION (LCD)                   |        |
| < CAPACITOR >              |              |                                 |        |
| C801                       | 1-124-257-00 | ELECT 2.2uF 20% 50V             |        |
| C802                       | 1-162-306-11 | CERAMIC 0.01uF 30% 16V          |        |
| C803                       | 1-126-177-11 | ELECT 100uF 20% 10V             |        |
| C804                       | 1-162-306-11 | CERAMIC 0.01uF 30% 16V          |        |
| < CONNECTOR >              |              |                                 |        |
| * CNP705                   | 1-695-375-31 | PIN, CONNECTOR (PC BOARD) 14P   |        |
| < IC >                     |              |                                 |        |
| IC801                      | 8-752-872-47 | IC CXP5084H-680Q                |        |
| IC802                      | 8-759-256-72 | IC PST994D                      |        |
| < LIQUID CRYSTAL DISPLAY > |              |                                 |        |
| LCD801                     | 1-801-118-31 | DISPLAY PANEL, LIQUID CRYSTAL   |        |
| < RESISTOR >               |              |                                 |        |
| R801                       | 1-249-435-11 | CARBON 33K 5% 1/4W              |        |
| R802                       | 1-249-435-11 | CARBON 33K 5% 1/4W              |        |
| R803                       | 1-249-435-11 | CARBON 33K 5% 1/4W              |        |
| R804                       | 1-249-417-11 | CARBON 1K 5% 1/4W               |        |
| R805                       | 1-249-417-11 | CARBON 1K 5% 1/4W               |        |
| R807                       | 1-249-417-11 | CARBON 1K 5% 1/4W               |        |
| < SWITCH >                 |              |                                 |        |
| S801                       | 1-572-199-11 | SWITCH, KEY BOARD (DISPLAY/ENT) |        |
| S802                       | 1-572-199-11 | SWITCH, KEY BOARD (MODE)        |        |
| S803                       | 1-572-199-11 | SWITCH, KEY BOARD (□)           |        |
| S804                       | 1-572-199-11 | SWITCH, KEY BOARD (▷▷II)        |        |
| S805                       | 1-572-199-11 | SWITCH, KEY BOARD (▷III)        |        |
| S806                       | 1-572-199-11 | SWITCH, KEY BOARD (II<<I)       |        |
| *****                      |              |                                 |        |

| Ref. No.         | Part No.     | Description                                                          | Remark |
|------------------|--------------|----------------------------------------------------------------------|--------|
| *                | 1-659-983-11 | MOTOR BOARD                                                          | *****  |
| < SWITCH >       |              |                                                                      |        |
| S701             | 1-571-936-11 | SWITCH, LEAF (LIMIT SWITCH)                                          | *****  |
| *****            |              |                                                                      |        |
| *                | 1-659-981-11 | POWER BOARD                                                          | *****  |
| *****            |              |                                                                      |        |
|                  | 1-533-217-31 | HOLDER, FUSE                                                         |        |
| < CAPACITOR >    |              |                                                                      |        |
| C901             | 1-101-005-00 | CERAMIC 22000PF 50V                                                  |        |
| C902             | 1-101-005-00 | CERAMIC 22000PF 50V                                                  |        |
| C903             | 1-101-005-00 | CERAMIC 22000PF 50V                                                  |        |
| C904             | 1-101-005-00 | CERAMIC 22000PF 50V                                                  |        |
| C905             | 1-136-169-00 | FILM 0.22uF 5% 50V                                                   |        |
| < AC INLET >     |              |                                                                      |        |
| △ CNJ901         | 1-526-838-11 | INLET, AC 2P (~ AC IN)<br>(AEP,E,G,IT,AUS,EA,HK,PX,JE)               |        |
| △ CNJ901         | 1-526-818-11 | INLET, AC (~ AC IN) (TW,C&SA)                                        |        |
| △ CNJ901         | 1-540-009-11 | INLET, AC (~ AC IN) (US,CND)                                         |        |
| < DIODE >        |              |                                                                      |        |
| D901             | 8-719-031-53 | DIODE LT2A02                                                         |        |
| D902             | 8-719-031-53 | DIODE LT2A02                                                         |        |
| D903             | 8-719-031-53 | DIODE LT2A02                                                         |        |
| D904             | 8-719-031-53 | DIODE LT2A02                                                         |        |
| < FUSE >         |              |                                                                      |        |
| △ F901           | 1-532-235-00 | FUSE, TIME-LAG (T3.15A/250V) (E,EA,HK,PX,JE)                         |        |
| △ F902           | 1-532-286-00 | FUSE, TIME-LAG (T2.5A/250V)<br>(EXCEPT US,CND,TW,C&SA)               |        |
| △ F902           | 1-576-107-11 | FUSE, GLASS CYLINDERICAL (T3.15A/250V)<br>(US,CND,TW,C&SA)           |        |
| < FERRITE BEAD > |              |                                                                      |        |
| FB901            | 1-410-397-21 | FERRITE BEAD INDUCTOR 1.1uH<br>(US,CND,AEP,IT,G,AUS)                 |        |
| FB902            | 1-410-397-21 | FERRITE BEAD INDUCTOR 1.1uH<br>(US,CND,AEP,IT,G,AUS)                 |        |
| < CABLE HOLDER > |              |                                                                      |        |
| * KH901          | 1-573-287-11 | HOLDER, CABLE 2P                                                     |        |
| < SWITCH >       |              |                                                                      |        |
| △ S901           | 1-572-290-11 | SWITCH, POWER (VOLTAGE CHANGE)<br>(VOLTAGE SELECTOR) (E,EA,HK,PX,JE) |        |

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portant le numéro spécifié.

## POWER

## REC SW

## TUNER

| Ref. No.                  | Part No.     | Description                            | Remark |
|---------------------------|--------------|----------------------------------------|--------|
| < TRANSFORMER >           |              |                                        |        |
| △ T901                    | 1-426-631-11 | TRANSFORMER, POWER (US,CND,TW,C&SA)    |        |
| △ T901                    | 1-429-471-11 | TRANSFORMER, POWER (AEP,G,IT,AUS)      |        |
| △ T901                    | 1-429-472-11 | TRANSFORMER, POWER (E,EA,HK,PX,JE)     |        |
| *****                     |              |                                        |        |
| *                         | 1-659-993-11 | REC SW BOARD                           |        |
| *****                     |              |                                        |        |
| < CABLE HOLDER >          |              |                                        |        |
| * KH304                   | 1-573-287-11 | HOLDER, CABLE 2P                       |        |
| < SWITCH >                |              |                                        |        |
| S304                      | 1-571-936-11 | SWITCH, LEAF (REC SW)                  |        |
| *****                     |              |                                        |        |
| *                         | A-3305-593-A | TUNER BOARD, COMPLETE (AEP,G)          |        |
| *                         | A-3305-682-A | TUNER BOARD, COMPLETE (JE)             |        |
| *                         | A-3305-684-A | TUNER BOARD, COMPLETE (E,AUS,TW,HK,PX) |        |
| *                         | A-3305-686-A | TUNER BOARD, COMPLETE (US,CND,C&SA)    |        |
| *                         | A-3305-688-A | TUNER BOARD, COMPLETE (EA)             |        |
| *                         | A-3305-689-A | TUNER BOARD, COMPLETE (IT)             |        |
| *****                     |              |                                        |        |
| < BPF >                   |              |                                        |        |
| BPF1                      | 1-236-711-21 | FILTER, BAND PASS (EXCEPT JE)          |        |
| BPF1                      | 1-239-507-11 | FILTER, BAND PASS (JE)                 |        |
| < CAPACITOR >             |              |                                        |        |
| C2                        | 1-162-306-11 | CERAMIC 0.01uF 30% 16V                 |        |
| C3                        | 1-124-443-00 | ELECT 100uF 20% 10V                    |        |
| C4                        | 1-162-190-31 | CERAMIC 1.8PF 20% 50V                  |        |
| C5                        | 1-162-207-31 | CERAMIC 22PF 5% 50V                    |        |
| (US,CND,C&SA)             |              |                                        |        |
| C5                        | 1-162-208-31 | CERAMIC 24PF 5% 50V                    |        |
| (AEP,E,G,AUS,TW,HK,PX,JE) |              |                                        |        |
| C5                        | 1-162-209-31 | CERAMIC 27PF 5% 50V                    |        |
| (IT,EA)                   |              |                                        |        |
| C6                        | 1-102-951-00 | CERAMIC 15PF 5% 50V                    |        |
| (JE)                      |              |                                        |        |
| C6                        | 1-102-960-00 | CERAMIC 24PF 5% 50V                    |        |
| (US,CND,C&SA)             |              |                                        |        |
| C6                        | 1-102-961-00 | CERAMIC 27PF 5% 50V                    |        |
| (AEP,E,G,AUS,TW,HK,PX)    |              |                                        |        |
| C6                        | 1-102-958-00 | CERAMIC 20PF 5% 50V                    |        |
| (IT,EA)                   |              |                                        |        |
| C7                        | 1-162-197-31 | CERAMIC 6.8PF 10% 50V                  |        |
| (US,CND,C&SA)             |              |                                        |        |
| C7                        | 1-162-198-31 | CERAMIC 8.2PF 10% 50V                  |        |
| (AEP,E,G,AUS,TW,HK,PX,JE) |              |                                        |        |

| Ref. No.                   | Part No.     | Description                               | Remark |
|----------------------------|--------------|-------------------------------------------|--------|
| C7                         | 1-162-199-31 | CERAMIC 10PF 5% 50V                       |        |
| (IT,EA)                    |              |                                           |        |
| C8                         | 1-162-193-31 | CERAMIC 3.3PF 10% 50V                     |        |
| C9                         | 1-162-306-11 | CERAMIC 0.01uF 30% 16V                    |        |
| C10                        | 1-162-306-11 | CERAMIC 0.01uF 30% 16V                    |        |
| C11                        | 1-126-963-11 | ELECT 4.7uF 20% 50V                       |        |
| C12                        | 1-124-903-11 | ELECT 1uF 20% 50V                         |        |
| C13                        | 1-104-664-11 | ELECT 47uF 20% 10V                        |        |
| C14                        | 1-124-443-00 | ELECT 100uF 20% 10V                       |        |
| C15                        | 1-162-306-11 | CERAMIC 0.01uF 30% 16V                    |        |
| C16                        | 1-126-961-11 | ELECT 2.2uF 20% 50V                       |        |
| C17                        | 1-124-443-00 | ELECT 100uF 20% 10V                       |        |
| C18                        | 1-161-053-00 | CERAMIC 0.015uF 10% 50V                   |        |
| (US,CND,C&SA)              |              |                                           |        |
| C18                        | 1-162-839-11 | CERAMIC 0.01uF 10% 16V                    |        |
| (EXCEPT US,CND,C&SA)       |              |                                           |        |
| C19                        | 1-161-053-00 | CERAMIC 0.015uF 10% 50V                   |        |
| (US,CND,C&SA)              |              |                                           |        |
| C19                        | 1-162-839-11 | CERAMIC 0.01uF 10% 16V                    |        |
| (EXCEPT US,CND,C&SA)       |              |                                           |        |
| C22                        | 1-124-903-11 | ELECT 1uF 20% 50V                         |        |
| C23                        | 1-124-902-00 | ELECT 0.47uF 20% 50V                      |        |
| C24                        | 1-126-963-11 | ELECT 4.7uF 20% 50V                       |        |
| C31                        | 1-162-294-31 | CERAMIC 0.001uF 10% 50V                   |        |
| (US,CND,AEP,G,C&SA,JE)     |              |                                           |        |
| C34                        | 1-162-294-31 | CERAMIC 0.001uF 10% 50V                   |        |
| (US,CND,C&SA)              |              |                                           |        |
| C35                        | 1-162-294-31 | CERAMIC 0.001uF 10% 50V                   |        |
| (US,CND,C&SA)              |              |                                           |        |
| C36                        | 1-162-294-31 | CERAMIC 0.001uF 10% 50V                   |        |
| (US,CND,C&SA)              |              |                                           |        |
| C37                        | 1-162-294-31 | CERAMIC 0.001uF 10% 50V                   |        |
| (US,CND,C&SA)              |              |                                           |        |
| C38                        | 1-162-199-31 | CERAMIC 10PF 5% 50V                       |        |
| (IT,EA)                    |              |                                           |        |
| < FILTER >                 |              |                                           |        |
| CF1                        | 1-760-238-71 | FILTER, CERAMIC                           |        |
| CF3                        | 1-760-238-71 | FILTER, CERAMIC                           |        |
| < ENCAPSULATED COMPONENT > |              |                                           |        |
| CFT1                       | 1-239-724-11 | ENCAPSULATED COMPONENT                    |        |
| < VARIABLE CAPACITOR >     |              |                                           |        |
| CT1                        | 1-151-695-11 | CAP, VAR (TUNING) (EXCEPT US,CND,C&SA,JE) |        |
| CT2                        | 1-151-695-11 | CAP, VAR (TUNING) (EXCEPT US,CND,C&SA,JE) |        |
| CT3                        | 1-151-695-11 | CAP, VAR (TUNING) (EXCEPT US,CND,C&SA,JE) |        |
| CT4                        | 1-151-695-11 | CAP, VAR (TUNING) (EXCEPT US,CND,C&SA,JE) |        |
| CV1                        | 1-151-695-11 | CAP, VAR (TUNING) (EXCEPT US,CND,C&SA,JE) |        |

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## TUNER

| Ref. No. | Part No.     | Description                               | Remark | Ref. No. | Part No.     | Description                                  | Remark                    |
|----------|--------------|-------------------------------------------|--------|----------|--------------|----------------------------------------------|---------------------------|
| CV2      | 1-151-695-11 | CAP, VAR (TUNING) (EXCEPT US,CND,C&SA,JE) |        | R9       | 1-249-427-11 | CARBON                                       | 6.8K 5% 1/4W              |
| CV3      | 1-151-695-11 | CAP, VAR (TUNING) (EXCEPT US,CND,C&SA,JE) |        | R10      | 1-249-435-11 | CARBON                                       | 33K 5% 1/4W               |
| CV4      | 1-151-695-11 | CAP, VAR (TUNING) (EXCEPT US,CND,C&SA,JE) |        |          |              |                                              | (AEP,G,IT)                |
| CT1      | 1-151-696-11 | CAP, VAR (TUNING) (US,CND,C&SA)           |        | R11      | 1-247-887-00 | CARBON                                       | 220K 5% 1/4W              |
| CT2      | 1-151-696-11 | CAP, VAR (TUNING) (US,CND,C&SA)           |        | R12      | 1-249-421-11 | CARBON                                       | 2.2K 5% 1/4W              |
|          |              |                                           |        | R13      | 1-247-807-11 | CARBON                                       | 100 5% 1/4W               |
| CT3      | 1-151-696-11 | CAP, VAR (TUNING) (US,CND,C&SA)           |        |          |              |                                              |                           |
| CT4      | 1-151-696-11 | CAP, VAR (TUNING) (US,CND,C&SA)           |        | R14      | 1-249-411-11 | CARBON                                       | 330 5% 1/4W               |
| CV1      | 1-151-696-11 | CAP, VAR (TUNING) (US,CND,C&SA)           |        | R15      | 1-247-887-00 | CARBON                                       | 220K 5% 1/4W              |
| CV2      | 1-151-696-11 | CAP, VAR (TUNING) (US,CND,C&SA)           |        | R16      | 1-249-423-11 | CARBON                                       | 3.3K 5% 1/4W              |
| CV3      | 1-151-696-11 | CAP, VAR (TUNING) (US,CND,C&SA)           |        |          |              |                                              | (US,CND,C&SA)             |
| CV4      | 1-151-696-11 | CAP, VAR (TUNING) (US,CND,C&SA)           |        | R17      | 1-249-413-11 | RES,CARBON                                   | 470 5% 1/4W               |
| CT1      | 1-151-697-11 | CAP, VAR (TUNING) (JE)                    |        |          |              |                                              | (EXCEPT US,CND,E,C&SA,JE) |
| CT2      | 1-151-697-11 | CAP, VAR (TUNING) (JE)                    |        | R18      | 1-249-409-11 | RES,CARBON                                   | 220 5% 1/4W               |
| CT3      | 1-151-697-11 | CAP, VAR (TUNING) (JE)                    |        |          |              |                                              | (EXCEPT US,CND,E,C&SA,JE) |
| CT4      | 1-151-697-11 | CAP, VAR (TUNING) (JE)                    |        |          |              | < VARIABLE RESISTOR >                        |                           |
| CV1      | 1-151-697-11 | CAP, VAR (TUNING) (JE)                    |        | RV1      | 1-241-765-11 | RES, ADJ, CARBON 22K                         |                           |
| CV2      | 1-151-697-11 | CAP, VAR (TUNING) (JE)                    |        |          |              | < SWITCH >                                   |                           |
| CV3      | 1-151-697-11 | CAP, VAR (TUNING) (JE)                    |        |          |              |                                              |                           |
| CV4      | 1-151-697-11 | CAP, VAR (TUNING) (JE)                    |        | SW1      | 1-692-928-11 | SWITCH, SLIDE (MONO/STEREO) (AEP,G,IT)       |                           |
|          |              | < DIODE >                                 |        |          |              | *****                                        |                           |
| D1       | 8-719-991-33 | DIODE 1SS133T-77                          |        |          |              | MISCELLANEOUS                                |                           |
| D2       | 8-719-991-33 | DIODE 1SS133T-77                          |        |          |              | *****                                        |                           |
|          |              | < IC >                                    |        | 5        | 1-776-505-11 | WIRE, PARALLEL (FFC) (14 CORE)               |                           |
| IC1      | 8-752-050-20 | IC CXA1238S                               |        | 102      | 1-452-732-11 | MAGNET                                       |                           |
|          |              | < CABLE HOLDER >                          |        | 111      | 1-769-824-11 | WIRE (FLAT TYPE) (16 CORE)                   |                           |
| * KH1    | 1-565-386-11 | HOLDER, CABLE 5P                          |        | 112      | 1-776-503-11 | WIRE, PARALLEL (FFC) (16 CORE)               |                           |
|          |              | < COIL >                                  |        | △ 251    | 8-848-367-11 | PICK-UP, OPTICAL KSS-213B/K                  |                           |
| L1       | 1-406-998-11 | COIL, AIR-CORE                            |        | ANT1     | 1-501-388-11 | ANTENNA, TELESCOPIC                          |                           |
| L2       | 1-409-999-11 | COIL, AIR-CORE (JE)                       |        | △ F901   | 1-532-235-00 | FUSE, TIME-LAG (T3.15A/250V) (E,EA,HK,PX,JE) |                           |
| L2       | 1-422-230-11 | COIL, AIR-CORE (EXCEPT AEP,G,IT,EA,JE)    |        | △ F902   | 1-532-286-00 | FUSE, TIME-LAG (T2.5A/250V)                  |                           |
| L2       | 1-411-387-11 | COIL, AIR-CORE (AEP,G)                    |        |          |              | (EXCEPT US,CND,TW,C&SA)                      |                           |
| L2       | 1-406-957-11 | COIL (WITH CORE) (IT,EA)                  |        | △ F902   | 1-576-107-11 | FUSE, GLASS CYLINDRICAL (T3.15A/250V)        |                           |
|          |              |                                           |        |          |              | (US,CND,TW,C&SA)                             |                           |
| L3       | 1-402-577-11 | ANTENNA, FERRITE-ROD (MW) (US,CND,C&SA)   |        | HE601    | 1-500-334-11 | HEAD, E (TC-238) (ERASE)                     |                           |
| L3       | 1-402-577-31 | ANTENNA, FERRITE-ROD (MW)                 |        | HRP601   | 1-500-333-11 | HEAD, R-P (MS15R-AA2N1) (RECORD/PLAYBACK)    |                           |
|          |              | (EXCEPT US,CND,C&SA)                      |        | M601     | 1-698-727-11 | MOTOR (EG-530AD-98) (REEL/CAPSTAN)           |                           |
| L4       | 1-406-040-00 | COIL (OSC)                                |        | M701     | X-2625-769-1 | MOTOR GEAR ASSY (SLED)                       |                           |
| L5       | 1-410-509-11 | INDUCTOR 10uH                             |        | M702     | X-2625-770-1 | MOTOR ASSY, SPINDLE                          |                           |
|          |              | < TRANSISTOR >                            |        | S601     | 1-762-658-11 | SWITCH, LEAF (MSW-1541T) (MD POWER)          |                           |
| Q1       | 8-729-206-57 | TRANSISTOR RN1201TPE4                     |        | S704     | 1-692-960-11 | SWITCH, PUSH (1 KEY) (DOOR SW)               |                           |
|          |              | < RESISTOR >                              |        | SP901    | 1-504-727-11 | SPEAKER (10CM) (L-CH)                        |                           |
|          |              |                                           |        | SP902    | 1-504-727-11 | SPEAKER (10CM) (R-CH)                        |                           |
| R2       | 1-249-421-11 | CARBON 2.2K 5% 1/4W                       |        | △ T901   | 1-426-631-11 | TRANSFORMER, POWER (US,CND,TW,C&SA)          |                           |
| R3       | 1-249-441-11 | CARBON 100K 5% 1/4W                       |        | △ T901   | 1-429-471-11 | TRANSFORMER, POWER (AEP,G,IT,AUS)            |                           |
| R5       | 1-249-429-11 | CARBON 10K 5% 1/4W                        |        |          |              |                                              |                           |
| R7       | 1-249-403-11 | CARBON 68 5% 1/4W                         |        | △ T901   | 1-429-472-11 | TRANSFORMER, POWER (E,EA,HK,PX,JE)           |                           |
| R8       | 1-249-427-11 | CARBON 6.8K 5% 1/4W                       |        |          |              | *****                                        |                           |

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|----------|--------------|---------------------------------------------------------------|--------|
|          |              | ACCESSORIES & PACKING MATERIALS                               |        |
|          |              | *****                                                         |        |
| △        | 1-551-983-00 | CORD, POWER (E)                                               |        |
| △        | 1-557-287-11 | CORD, POWER (TW,C&SA)                                         |        |
| △        | 1-569-007-11 | ADAPTOR, CONVERSION 2P (E)                                    |        |
| △        | 1-569-008-11 | ADAPTOR, CONVERSION 2P (EA,PX)                                |        |
| △        | 1-690-952-21 | CORD, POWER (US,CND)                                          |        |
| △        | 1-696-819-11 | CORD, POWER (AUS)                                             |        |
| △        | 1-769-412-11 | CORD, POWER (AEP,G,IT,EA,HK,PX)                               |        |
| △        | 1-770-019-11 | ADAPTOR, CONVERSION PLUG 3P (HK)                              |        |
|          | 3-810-647-01 | MANUAL, INSTRUCTION (JAPANESE) (JE)                           |        |
|          | 3-810-647-11 | MANUAL, INSTRUCTION (ENGLISH,GERMAN)<br>(AEP,E,G,EA,HK,PX,JE) |        |
|          | 3-810-647-21 | MANUAL, INSTRUCTION (FRENCH,SPANISH)<br>(AEP,E,EA,PX,JE)      |        |
|          | 3-810-647-31 | MANUAL, INSTRUCTION (DUTCH,SWEDISH,<br>PORTUGUESE) (AEP)      |        |
|          | 3-810-647-41 | MANUAL, INSTRUCTION (ITALIAN) (IT)                            |        |
|          | 3-810-647-51 | MANUAL, INSTRUCTION (ENGLISH)<br>(US,CND,AUS,TW,C&SA)         |        |
|          | 3-810-647-61 | MANUAL, INSTRUCTION (FRENCH) (CND)                            |        |
|          | 3-810-647-71 | MANUAL, INSTRUCTION (SPANISH) (C&SA)                          |        |
|          | 3-810-647-81 | MANUAL, INSTRUCTION (CHINESE) (TW,HK)                         |        |
| *        | 3-932-831-01 | CUSHION (L)                                                   |        |
| *        | 3-932-832-01 | CUSHION (R)                                                   |        |
| *        | 3-932-838-01 | INDIVIDUAL CARTON (US)                                        |        |
| *        | 3-932-839-01 | INDIVIDUAL CARTON (CND,AUS,TW)                                |        |
| *        | 3-932-840-01 | INDIVIDUAL CARTON (E,EA,C&SA,HK,PX)                           |        |
| *        | 3-932-841-01 | INDIVIDUAL CARTON (AEP,G,IT)                                  |        |
|          |              | *****                                                         |        |

| Ref. No. | Part No.     | Description                    | Remark |
|----------|--------------|--------------------------------|--------|
|          |              | *****                          |        |
|          |              | HARDWARE LIST                  |        |
|          |              | *****                          |        |
| #1       | 7-685-647-79 | SCREW +BVTP 3X10 TYPE2 N-S     |        |
| #2       | 7-685-134-19 | SCREW +P 2.6X8 TYPE2 NON-SLIT  |        |
| #3       | 7-685-649-79 | SCREW +BVTP 3X14 TYPE2 N-S     |        |
| #4       | 7-685-648-79 | SCREW, TAPPING                 |        |
| #5       | 7-621-773-95 | SCREW +B 2.6X6                 |        |
| #6       | 7-621-255-25 | SCREW +BVTT 2X4 (S)            |        |
| #7       | 7-682-548-04 | SCREW +B 3X8                   |        |
| #8       | 7-685-138-19 | SCREW +P 2.6X16 TYPE2 NON-SLIT |        |
| #9       | 7-685-135-19 | SCREW +P 2.6X10 TYPE2 NON-SLIT |        |
| #10      | 7-621-255-15 | SCREW +P 2X3                   |        |
| #11      | 7-685-533-19 | SCREW +BTP 2.6X6 TYPE2 N-S     |        |

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

Les composants identifiés par une  
marque △ sont critiques pour  
la sécurité.  
Ne les remplacer que par une pièce  
portant le numéro spécifié.