

# JVC

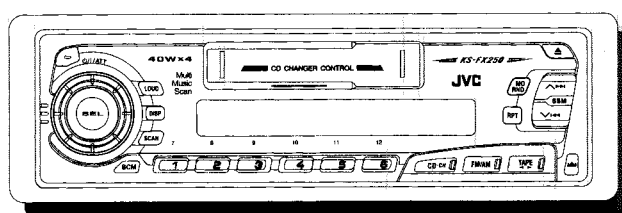
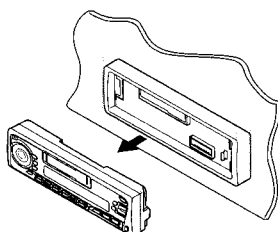
# SERVICE MANUAL

## CASSETTE RECEIVER

# KS-FX250

### Area Suffix


J ---- Northern America



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## Safety precaution

 **CAUTION** Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of performing repair of this system.

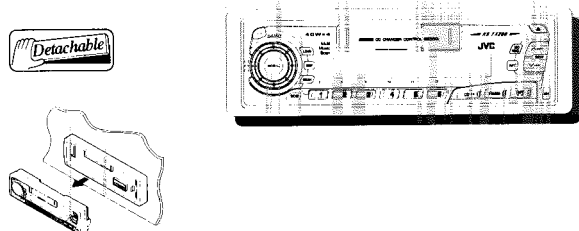
# Instructions



CASSETTE RECEIVER **KS-FX250**

RECEPTOR-REPRODUCTOR DE CASSETTE **KS-FX250**

RADIOCASSETTE **KS-FX250**



For installation and connections, refer to the separate manual.  
Para la instalación y las conexiones, refiérase al manual separado.  
Pour l'installation et les raccordements, se référer au manuel séparé.



## INSTRUCTIONS MANUAL DE INSTRUCCIONES MANUEL D'INSTRUCTIONS

**For customer Use:**  
Enter below the Model No. and Serial No. which are located on the top or bottom of the cabinet. Retain this information for future reference.

Model No. \_\_\_\_\_  
Serial No. \_\_\_\_\_

FSUN3108-631 [J]

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FRANÇAIS

Thank you for purchasing a JVC product. Please read all instructions carefully before operation, to ensure your complete understanding and to obtain the best possible performance from the unit.

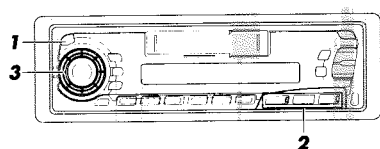
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### BEFORE USE

- For safety...  
• Do not raise the volume level too much, as this will block outside sounds, making driving dangerous.
- Stop the car before performing any complicated operations.
- Temperature inside the car...  
If you have parked the car for a long time in hot or cold weather, wait until the temperature in the car becomes normal before operating the unit.

## BASIC OPERATIONS



**Note:**  
When you use this unit for the first time, set the built-in clock correctly, see page 18.

**1** Turn on the power.



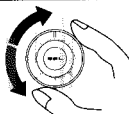
**Note on One-Touch Operation:**  
When you select a source in step 2 below, the power automatically comes on. You do not have to press this button to turn on the power.

**2** Select the source.



To operate the tuner, see pages 4 – 8.  
To operate the tape deck, see pages 9 – 11.  
To operate the CD changer, see pages 21 – 23.  
To operate the external component, see pages 24 – 25.

**3** Adjust the volume.



**4** Adjust the sound as you want (see pages 12 – 17).

### To drop the volume in a moment

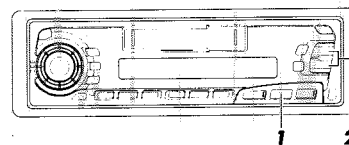
Press  $\phi$ /ATT briefly while listening to any source. "ATT" starts flashing on the display, and the volume level will drop in a moment.  
To resume the previous volume level, press the button briefly again.

### To turn off the power

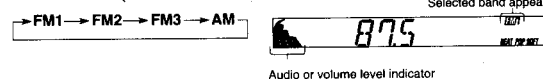
Press  $\phi$ /ATT for more than 1 second.

## RADIO OPERATIONS

### Listening to the radio

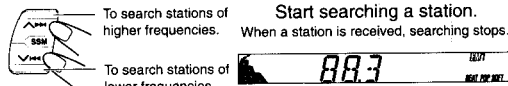


**1** Select the band (FM1, FM2, FM3 or AM).  
You can select any one of FM1, FM2, and FM3 to listen to an FM station.



Selected band appears  
Audio or volume level indicator

**2** Start searching a station.  
When a station is received, searching stops.



To stop searching before a station is received, press the same button you have pressed for searching.

### To tune in a particular frequency manually:

- 1 Press FM/AM to select the band.
- 2 Press and hold  $\blacktriangle$  or  $\blacktriangleright$  until "M" starts flashing on the display. Now you can manually change the frequency while "M" is flashing.
- 3 Press  $\blacktriangle$  or  $\blacktriangleright$  repeatedly until the frequency you want is reached.  
• If you hold down the button, the frequency keeps changing until you release the button.

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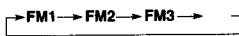
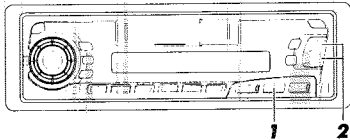
**Storing stations in memory**

You can use one of the following two methods to store broadcasting stations in memory.

- Automatic preset of FM stations: SSM (Strong-station Sequential Memory)
- Manual preset of both FM and AM stations

**FM station automatic preset: SSM**

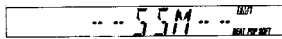
You can preset 6 local FM stations in each FM band (FM1, FM2, and FM3).



Select the FM band number (FM1, FM2 or FM3) you want to store FM stations into.



Press and hold the both buttons for more than 2 seconds.



"SSM" appears, then disappears when automatic preset is over.

Local FM stations with the strongest signals are searched and stored automatically in the band number you have selected (FM1, FM2 or FM3). These stations are preset in the number buttons — No. 1 (lowest frequency) to No. 6 (highest frequency).

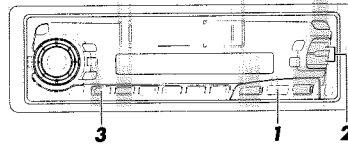
When automatic preset is over, the station stored in number button 1 will be automatically tuned in.

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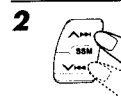
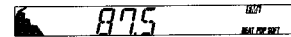
**Manual preset**

You can preset up to 6 stations in each band (FM1, FM2, FM3 and AM) manually.

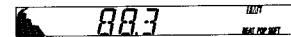
EXAMPLE: Storing an FM station of 88.3 MHz into the preset number 1 of the FM1 band



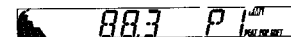
Select the FM1 band.



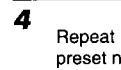
Tune into a station of 88.3 MHz.  
See page 4 to tune into a station.



Press and hold the button for more than 2 seconds.



Preset number "P1" starts flashing for a while.



Repeat the above procedure to store other station into other preset numbers.

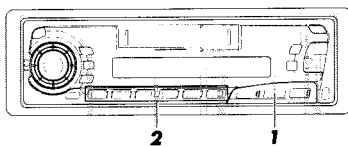
**Notes:**

- A previously preset station is erased when a new station is stored in the same preset number.
- Preset stations are erased when the power supply to the memory circuit is interrupted (for example, during battery replacement). If this occurs, preset the stations again.

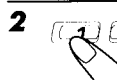
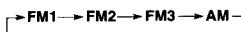
5 6

**Tuning into a preset station**

You can easily tune into a preset station. Remember that you must store stations first. If you have not stored them yet, see pages 5 and 6.



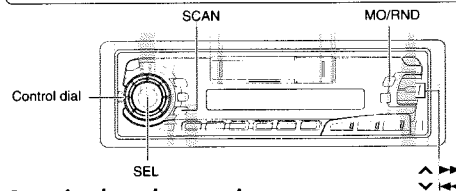
Select the band (FM1, FM2, FM3 or AM) you want.



Select the number (1 – 6) for the preset station you want.

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**Other convenient tuner functions**



**Scanning broadcast stations**

When you press SCAN while listening to the radio, station scanning starts. Each time a broadcast is tuned in, scanning stops for about 5 seconds (tuned frequency number flashes on the display), and you can check what program is now being broadcasted.

If you want to listen to that program, press the same button again to stop scanning.

**Selecting FM reception sound**

When an FM stereo broadcast is hard to receive:

Press MO/RND (mono/random) while listening to an FM stereo broadcast. The sound you hear becomes monaural but reception will be improved.

Lights up when receiving an FM broadcast in stereo.



To restore the stereo effect, press the same button again.

**Changing the AM/FM channel intervals**

When using this unit in an area other than North or South America:

When this unit is shipped from the factory, the channel intervals are set to 10 kHz for AM and 200 kHz for FM. You can change the channel intervals by following the procedure below.

1 Press SEL (select) for more than 2 seconds.

"CLOCK H", "CLOCK M", "SCM LINK", "LEVEL", "AREA", "B.SKIP" or "LINE IN\*" appears on the display.

\* Displayed only when one of the following sources is selected — FM, AM and TAPE.

2 If "AREA" does not appear, press ▲▶▶ or ▼◀◀ until it appears.

3 Press +.

"AREA EU" appears and the channel intervals are set to 9 kHz for AM and 50 kHz for FM (manual tuning) / 100 kHz (for searching) for FM.

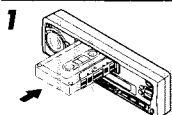
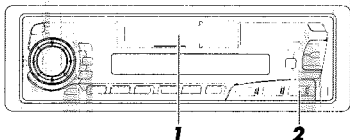
To reset to the factory setting, follow the above step 1 and 2, then press - in step 3 ("AREA US" appears on the display.)

- AREA EU: Select this when used in an area other than North and South America.
- AREA US: Select this when used in North or South America.

7 8

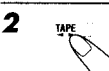
## TAPE OPERATIONS

### Listening to a tape



**1** Insert a cassette.  
The unit turns on and tape play starts automatically. When one side of the tape reaches its end during play, the other side of the tape automatically starts playing. (Auto Reverse)

**Note on One-Touch Operation:**  
When a cassette is already in the cassette compartment, pressing **TAPE** ◀▶ turns on the unit and starts tape play automatically.



**2** Select the tape direction.  
Each time you press the button, the tape direction changes alternatively – forward (TAPE : : ) and reverse (TAPE : : ).

### To stop play and eject the cassette

Press **▲**.  
Tape play stops and the cassette automatically ejects from the cassette compartment. If you change the source to AM/FM or TAPE, the tape play also stops (without ejecting the cassette this time).  
• You can also eject the tape with the unit turned off.

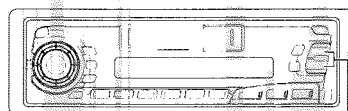
### To fast-forward and rewind a tape

• Press **▲ ▶▶** for more than 1 second to fast-forward the tape. When the tape reaches its end, the tape is reversed and playback starts from the beginning of the other side.  
• Press **▼ ◀◀** for more than 1 second to rewind the tape. When the tape reaches its end, playback of the same side starts.

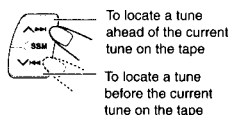
To stop fast-forward and rewind at any position on the tape, press **TAPE** ◀▶. Tape play starts from that position on the tape.

### Finding the beginning of a tune

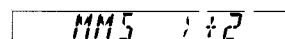
Multi Music Scan allows you to automatically start playback from the beginning of a specified tune. You can specify up to 9 tunes ahead or before the current tune.



#### During playback



Specify how many tunes ahead or before the current tune the tune you want is located.



Each time you set the tune, the number changes up to ±9.

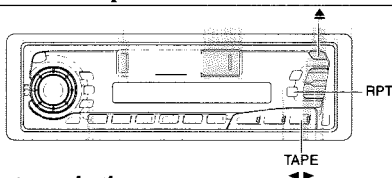
When the beginning of the specified tune is located, playback starts automatically.

#### Notes:

- While locating a specified tune:
  - If the tape is rewound to its beginning, playback starts from the beginning of that side.
  - If the tape is fast forwarded to the end, it is reversed and played from the beginning of the other side.
- In the following cases, the Multi Music Scan function may not operate correctly.
  - Tapes with tunes having long pianissimo passages (very quiet parts) or non-recorded portions during tunes.
  - Tapes with short non-recorded sections.
  - Tapes with high level noise or humming between tunes.

9 10

### Other convenient tape functions



#### Prohibiting tape ejection

You can prohibit the tape ejection and can "lock" a tape in the cassette compartment. Press and hold **TAPE** ◀▶ and ▲ for more than 2 seconds. "NO EJECT" flashes on the display for about 5 seconds, and the tape is "locked."

To cancel the prohibition and "unlock" the tape, press and hold **TAPE** ◀▶ and ▲ for more than 2 seconds again. "EJECT OK" flashes again for about 5 seconds, and this time the tape is "unlock."

#### Skipping the blank portions on the tape

You can skip blank portions between the tunes. (Blank Skip)  
When this function is on, the unit skips blank portions of 15 seconds or more, fast-forwards to the next tune, then starts playing it.

1. Press and hold **SEL** (select) for more than 2 seconds.
2. Select "B. SKIP (blank skip)" with **▲ ▶▶** or **▼ ◀◀**.
3. Select the desired mode with the control dial.

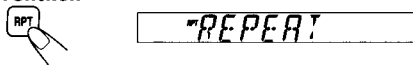
The Blank Skip mode alternates between on and off.

ON ↔ OFF

#### Notes:

When the tape reaches its end while fast-forwarding, the tape direction will be changed automatically.

#### Repeat Function



Press the **RPT** button while a tune you would like to hear over again is being played back. When the tape reaches the end of the tune, the tape is automatically rewound to the beginning of that tune and playback resumes from there. This operation will be repeated till the **RPT** button is pressed again.

#### Notes:

In the following cases, the Multi Music Scan, and Repeat function mechanisms may not operate correctly. These are NOT malfunctions; use the mechanisms to suitably accommodate the materials and situations.

- Tapes with tunes having long pianissimo passages (very quiet parts) or non-recorded portions during tunes.
- Tapes with tunes recorded at low recording levels.
- Tapes with short non-recorded sections.
- Tapes with high level noise or humming between tunes.

11 12

## SOUND ADJUSTMENTS

### Turning on/off the loudness function

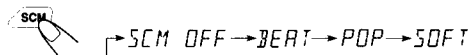
The human ear is less sensitive to low and high frequencies at low volumes. The loudness function can boost these frequencies to produce a well-balanced sound at low volume level. Each time you press **LOUD**, the loudness function turns on/off alternatively.



### Selecting preset sound modes

You can select a preset sound adjustment suitable to the music genre.

Each time you press **SCM**, the sound mode changes as follows.



Indication	For:	Preset values		
		Bass	Treble	Loudness
SCM OFF	(Flat sound)	00	00	On
BEAT	Rock or disco music	+2	00	On
POP	Light music	+4	+1	Off
SOFT	Quiet background music	+1	-3	Off

#### Notes:

- You can adjust the preset sound mode as you like, and store in memory. If you want to adjust and store your original sound mode, see "Storing your own sound adjustments" on page 17.
- To adjust only the bass and treble reinforcement levels as you like, see "Adjusting the sound" on page 13.

### Adjusting the sound

You can adjust the treble/bass sounds and the speaker balance.

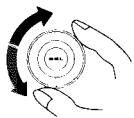


1 Select the item you want to adjust.  
 BAS → TRE → FAD → BAL → VOL

Indication	To do:	Range
BAS (bass)	Adjust the bass	-6 (min.) — +6 (max.)
TRE (treble)	Adjust the treble	-6 (min.) — +6 (max.)
FAD (Fader)*	Adjust the front and rear speaker balance	R6 (rear only) — F6 (front only)
BAL (Balance)	Adjust the left and right speaker balance	L6 (left only) — R6 (right only)
VOL (Volume)	Adjust the volume	00 (min.) — 50 (max.)

Note:  
 \* If you are using a two-speaker system, set the fader level to "00".

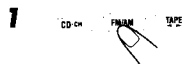
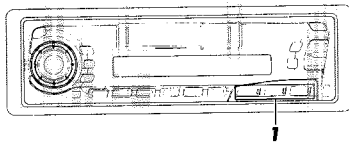
2 Adjust the level.



Note:  
 Normally the control dial work as the volume control buttons. So you do not have to select "VOL" to adjust the volume level.

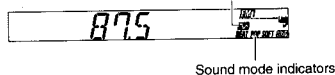
13 14

### Recalling the sound modes



Select the source while the "Link" indicator is lit on the display.  
 The "Link" indicator starts flashing, and the sound mode stored in memory for the selected source is recalled.

Equalization pattern of the selected sound mode appears.



Notes:  
 • You can adjust each sound mode to your preference, and store it in memory. If you want to adjust and store your original sound mode, see "Storing your own sound adjustments" on page 17.  
 • To adjust the bass and treble reinforcement levels or to turn on/off the loudness function temporarily, see page 12 and 13. (Your adjustments will be canceled if another source is selected.)

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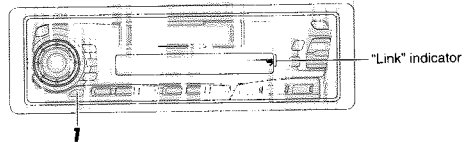
### Using the Sound Control Memory

You can select and store a preset sound adjustment suitable to each playback source. (Advanced SCM)

#### Selecting and storing the sound modes

Once you select a sound mode, it is stored in memory, and will be recalled every time you select the same source. A sound mode can be stored for each of the following sources — FM1, FM2, FM3, AM, Tape, CD-Changer and external components.

- If you do not want to store the sound mode separately for each playback source, but want to use the same sound mode for all the sources, see "Canceling Advanced SCM" on page 16.



1 Select the sound mode you want.  
 Each time you press the button, the sound mode changes as follows:

SCM OFF → BEAT → POP → SOFT

- If the "Link" indicator is lit on the display (with "SCM LINK" set to "LINK ON"—see page 16), the selected sound mode can be stored in memory for the current source, and the effect applies to the current source.
- If the "LINK" indicator is NOT lit on the display (with "SCM LINK" set to "LINK OFF"), the selected sound mode effect applies to any source.

Indication	For:	Preset values		
		Bass	Treble	Loudness
SCM OFF	(Flat sound)	00	00	On
BEAT	Rock or disco music	+2	00	On
POP	Quiet background music	+4	+1	Off
SOFT	Light music	+1	-3	Off

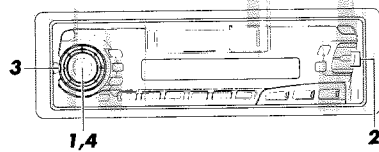
### Canceling Advanced SCM

You can cancel the Advanced SCM (Sound Control Memory), and unlink the sound modes and the playback sources.

When shipped from the factory, a different sound mode can be stored in memory for each source so that you can change the sound modes simply by changing the sources.

LINK ON: Advanced SCM (different SCMs for different sources)

LINK OFF: Conventional SCM (one SCM for all sources)



1 Press and hold SEL for more than 2 seconds. "CLOCK H", "CLOCK M", "SCM LINK", "LEVEL", "AREA", "B.SKIP" or "LINE IN" appears on the display.

\* Displayed only when one of the following sources is selected—FM, AM and TAPE.

2 Select "SCM LINK" if not shown on the display.

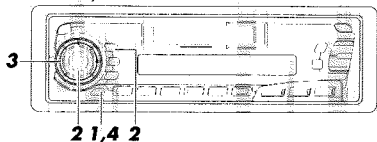
3 Select the desired mode — "LINK ON" or "LINK OFF".

4 Finish the setting.

15 16

### Storing your own sound adjustments

You can adjust the sound modes (BEAT, POP, SOFT: see page 12) as you like and store your own adjustments in memory.



- 1** Call up the sound mode you want to adjust. See page 12 for details.
- 2** To adjust the bass or treble sound level. Select "BAS" or "TRE."  
To turn on or off the loudness function. Each time you press LOUD, the loudness function turns on and off alternately. (→ go to step 4)
- 3** Adjust the bass or treble level. See page 13 for details.
- 4** Press and hold SEL until the sound mode you have selected in step 1 flashes on the display. Your setting is stored in memory.

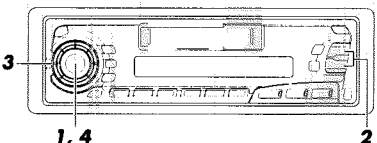
**5** Repeat the same procedure to store other settings.

### To reset to the factory settings

Repeat the same procedure and reassign the preset values listed in the table on page 12.

### Selecting the level display

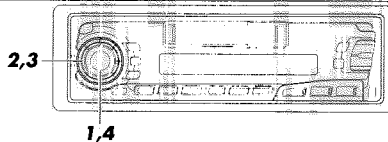
You can select the level display according to your preference. When shipped from the factory, "AUDIO 2" is selected.  
AUDIO1: Shows the audio level indicator.  
AUDIO2: Alternates "AUDIO 1" setting and illumination display.  
OFF: Erases the audio level indicator.



- 1** Press and hold SEL for more than 2 seconds. "CLOCK H", "CLOCK M", "SCM LINK", "LEVEL", "AREA", "B.SKIP" or "LINE IN" appears on the display.  
*\*Displayed only when one of the following sources is selected — FM, AM and TAPE.*
- 2** Select "LEVEL" if not shown on the display.
- 3** Select the desired mode — "AUDIO 1", "AUDIO 2" or "OFF".
- 4** Finish the setting.

### OTHER MAIN FUNCTIONS

#### Setting the clock



- 1** Press and hold the button for more than 2 seconds. "CLOCK H", "CLOCK M", "SCM LINK", "LEVEL", "AREA", "B.SKIP" or "LINE IN" appears on the display.  
*\*Displayed only when one of the following sources is selected — FM, AM and TAPE.*
- 2** **1.** Set the hour.  
1. Select "CLOCK H" if not shown on the display.  
2. Adjust the hour.
- 3** **1.** Set the minute.  
1. Select "CLOCK M."  
2. Adjust the minute.
- 4** Finish the setting.

#### To check the current clock time (changing the display mode)

Press DISP repeatedly. Each time you press the button, the display mode changes as follows.

During tuner operation:	During tape operation:	During CD Changer operation:	During external Component operation:
Frequency ↔ Clock	Elapsed playing time ↔ Clock	Disc number ↔ Clock	LINE IN ↔ Clock

• If the unit is not in use when you press DISP, the power turns on, the clock time is shown for 5 seconds, then the power turns off.

### Detaching the control panel

You can detach the control panel when leaving the car. When detaching or attaching the control panel, be careful not to damage the connectors on the back of the control panel and on the panel holder.

#### How to detach the control panel

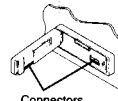
Before detaching the control panel, be sure to turn off the power.

- 1** Unlock the control panel.
- 2** Lift and pull the control panel out of the unit.
- 3** Put the detached control panel into the provided case.

#### How to attach the control panel

- 1** Insert the left side of the control panel into the groove on the panel holder.
- 2** Press the right side of the control panel to fix it to the panel holder.

**Note on cleaning the connectors:**  
If you frequently detach the control panel, the connectors will deteriorate. To minimize this possibility, periodically wipe the connectors with a cotton swab or cloth moistened with alcohol, being careful not to damage the connectors.



Connectors

ENGLISH

## CD CHANGER OPERATIONS

Read this section only when you used with a JVC CD automatic changer (separately purchased).

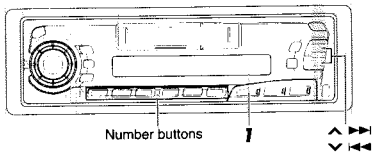
We recommend that you use one of the CH-X series with your unit.

If you have another CD automatic changer, consult your JVC car audio dealer for connections.  
 • For example, if your CD automatic changer is one of the KD-MK series, you need a cord (KS-U15K) for connecting it to this unit.

Before operating your CD automatic changer:

- Refer also to the Instructions supplied with your CD changer.
- If no discs are in the magazine of the CD changer or the discs are inserted upside down, "NO CD" or "NO DISC" will appear on the display. If this happens, remove the magazine and set the discs correctly.
- If "RESET 1 - RESET 8" appears on the display, something is wrong with the connection between this unit and the CD changer. If this happens, check the connection, connect the connecting cord(s) firmly if necessary, then press the reset button of the CD changer.

### Playing CDs



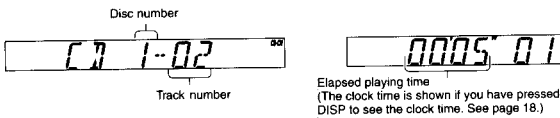
Number buttons

1



Select the CD automatic changer.

Play back starts from the first track of the first disc.  
 All tracks of all discs are played back.



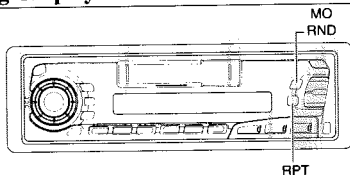
**Note on One-Touch Operation:**

When you press CD-CH, the power automatically comes on. You do not have to press  $\text{O}/\text{I}/\text{ATT}$  to turn on the power.

21

22

### Selecting CD playback modes



#### To play back tracks at random (Random Play)

Each time you press MO/RND (mono/random) while playing a CD, CD random play mode changes as follows:



Mode	RND Indicator	Plays at random
RND1	Lights	All tracks of the current disc, then the tracks of the next disc, and so on.
RND2	Flashes	All tracks of all discs inserted in the magazine.

#### To play back tracks repeatedly (Repeat Play)

Each time you press SCAN/RPT (Scan/Repeat) while playing a CD, CD repeat play mode changes as follows:



Mode	RPT Indicator	Plays repeatedly
RPT1	Lights	The current track (or specified track).
RPT2	Flashes	All tracks of the current disc (or specified disc).

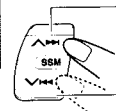
ENGLISH

ENGLISH

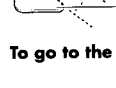
23



### To fast forward or reverse the track

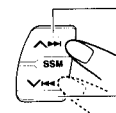


Press and hold  $\blacktriangle\blacktriangleright$ , while playing a CD, to fast forward the track.



Press and hold  $\blacktriangleleft\blacktriangleleft$ , while playing a CD, to reverse the track.

### To go to the next track or the previous track

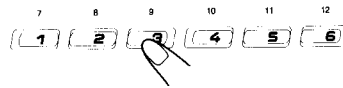


Press  $\blacktriangle\blacktriangleright$  briefly, while playing a CD, to go ahead to the beginning of the next track. Each time you press the button consecutively, the beginning of the next tracks is located and played back.



Press  $\blacktriangleleft\blacktriangleleft$  briefly, while playing a CD, to go back to the beginning of the current track. Each time you press the button consecutively, the beginning of the current tracks is located and played back.

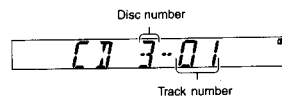
### To go to a particular disc directly



Press the number button corresponding to the disc number to start its playback.

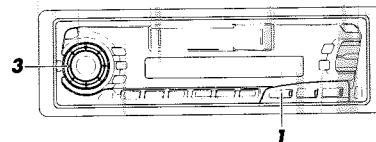
- To select a disc number from 1 - 6: Press 1 (7) - 6 (12) briefly.
- To select a disc number from 7 - 12: Press and hold 1 (7) - 6 (12) for more than 1 second.

Ex. When disc number 3 is selected



## EXTERNAL COMPONENT OPERATIONS

You can connect the external component to the CD changer jack on the rear using the Line Input Adaptor KS-U57 (not supplied).



**Preparations:**

- For connecting the Line Input Adaptor KS-U57 and the external component, refer to the Installation/Connection Manual (separate volume).
- Before operating the external component using the following procedure, select the external input correctly. (See "Selecting the external component to use" on page 25.)

1



Select the external component.

- If "LINE IN" does not appear on the display, see page 25 and select the external input ("LINE IN").

**Note on One-Touch Operation:**

When you press CD-CH, the power automatically comes on. You do not have to press  $\text{O}/\text{I}/\text{ATT}$  to turn on the power.

2

Turn on the connected device and start playing the source.

3

To turn up the volume



Adjust the volume.

To turn down the volume



## MAINTENANCE

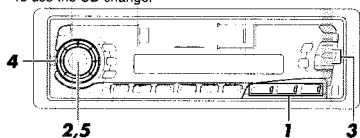
### Selecting the external component to use

You can connect the external component to the CD changer jack on the rear using the Line Input Adaptor KS-U57 (not supplied).

To use the external component as the playback source through this receiver, you need to select which device — CD changer or external component — to use. When shipped from the factory, CD changer is selected as the external component.

LINE IN: To use the external component other than CD changer

CHANGER: To use the CD changer



**1** Change the source to FM, AM or TAPE.

**2** Press and hold SEL for more than 2 seconds. "CLOCK H", "CLOCK M", "SCM LINK", "LEVEL", "AREA", "B.SKIP" or "LINE IN" appears on the display.

**3** Select "LINE IN" if not shown on the display.

**4** Select the desired mode — "LINE IN" or "CHANGER".

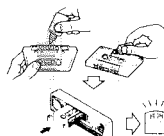
**5** Finish the setting

**Note:**  
• For connecting the Line Input Adaptor KS-U57 and the external component, refer to the Installation/connection Manual (separate volume).

### To extend the lifetime of the unit

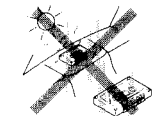
This unit requires very little attention, but you will be able to extend the life of the unit if you follow the instructions below.

#### To clean the heads



- Clean the heads after every 10 hours of use using a wet-type head cleaning tape (available at an audio store). When the head becomes dirty, you may realize the following symptoms:
  - Sound quality is reduced.
  - Sound level decreases.
  - Sound drops out.
- Do not play dirty or dusty tapes.
- Do not touch the highly-polished head with any metallic or magnetic tools.

#### To keep the tape clean



- Always store the tapes to their storage cases after use.
- Do not store tapes in the following places:
  - Subject to direct sunlight
  - With high humidity
  - At extremely hot temperatures

#### CAUTIONS:

- Do not play the tapes with peeling labels; otherwise, they can damage the unit.
- Tighten tapes to remove slack since loose tape may become entangled with the mechanism.
- Do not leave a cassette in the cassette compartment after use, as the tape may become slack.

The function below is also provided to ensure the longer life of this unit.

#### Ignition key-off Release/ignition key-on play

- When you turn off the ignition key with a cassette in the compartment, the unit automatically releases the tape from its head.
- When you turn on the ignition key with a cassette in the compartment, playback automatically starts.

#### How to Reset your unit

Press and hold both the SEL (Select) and  $\Phi$ /I/ATT (Standby/On/ATT) buttons at the same time for several seconds.

This will reset the built-in microcomputer.

**NOTE:** Your preset adjustments — such as preset channels or sound adjustments — will also be erased.

$\Phi$ /I/ATT  
(Standby/On/ATT)

SEL (Select)



## TROUBLESHOOTING ?!

What appears to be trouble is not always serious. Check the following points before calling a service center.

Symptoms	Causes	Remedies
• A cassette tape cannot be inserted.	You have tried to insert a cassette in the wrong way.	Insert the cassette with the exposed tape facing right.
• Cassette tapes become hot.	This is not a malfunction.	—————
• Tape sound is at very low level and sound quality is degraded.	The tape head is dirty.	Clean it with a head cleaning tape.
• Sound is sometimes interrupted.	Connections are not good.	Check the cords and connections.
• Sound cannot be heard from the speakers.	The volume control is turned to the minimum level.	Adjust it to the optimum level.
	Connections are incorrect.	Check the cords and connections.
• SSM (Strong-station Sequential Memory) automatic preset does not work.	Signals are too weak.	Store stations manually.
• Static noise while listening to the radio.	The antenna is not connected firmly.	Connect the antenna firmly.
• "NO CD" or "NO DISC" appears on the display.	No CD is in the magazine.	Insert CDs into the magazine.
	CDs are inserted incorrectly.	Insert them correctly.
• "RESET 8" appears on the display.	This unit is not connected to a CD changer correctly.	Connect this unit and the CD changer correctly and press the reset button of the CD changer.
• "RESET 1-RESET 7" appears on the display.	—————	Press the reset button of the CD changer.
• The unit does not work at all.	The built-in microcomputer may function incorrectly due to noise, etc.	Press $\Phi$ /I/ATT and SEL at the same time for more than 2 seconds to reset the unit. (The clock setting and preset stations stored in memory are erased.) (See page 26).

## SPECIFICATIONS

### AUDIO AMPLIFIER SECTION

Maximum Power Output:  
Front: 40 watts per channel  
Rear: 40 watts per channel  
Continuous Power Output (RMS):  
Front: 16 watts per channel into 4  $\Omega$ , 40 Hz to 20,000 Hz at no more than 0.8% total harmonic distortion.  
Rear: 16 watts per channel into 4  $\Omega$ , 40 Hz to 20,000 Hz at no more than 0.8% total harmonic distortion.  
Load Impedance: 4  $\Omega$  (4 to 8  $\Omega$  allowance)  
Tone Control Range  
Bass:  $\pm 10$  dB at 100 Hz  
Treble:  $\pm 10$  dB at 10 kHz  
Frequency Response: 40 to 20,000 Hz  
Signal-to-Noise Ratio: 70 dB  
Line-Out Level/Impedance: 2.0 V/20 k $\Omega$  load (250 nWb/m)

### TUNER SECTION

Frequency Range  
FM: 87.5 to 107.9 MHz (with channel interval set to 200 kHz)  
87.5 to 108.0 MHz (with channel interval set to 50 kHz)  
AM: 530 to 1,710 kHz (with channel interval set to 10 kHz)  
531 to 1,602 kHz (with channel interval set to 9 kHz)

[FM Tuner]  
Usable Sensitivity: 11.3 dBf (1.0  $\mu$ V/75  $\Omega$ )  
50 dB Quieting Sensitivity: 16.3 dBf (1.8  $\mu$ V/75  $\Omega$ )  
Alternate Channel Selectivity (400 kHz): 65 dB  
Frequency Response: 40 to 15,000 Hz  
Stereo Separation: 30 dB  
Capture Ratio: 1.5 dB

[AM Tuner]  
Sensitivity: 20  $\mu$ V  
Selectivity: 35 dB

### CASSETTE DECK SECTION

Wow & Flutter: 0.11% (WRMS)  
Fast-Wind Time: 100 sec. (C-60)  
Frequency Response: 30 to 16,000 Hz ( $\pm 3$  dB)  
Signal-to-Noise Ratio: (Normal tape) 56 dB  
Stereo Separation: 40 dB

### GENERAL

Power Requirement  
Operating Voltage: DC 14.4 volts (11 to 16 volts allowance)  
Grounding System: Negative ground  
Allowable Working Temperature: 0°C to +40°C (32°F to 104°F)  
Dimensions (W x H x D)  
Installation Size: 182 x 52 x 150 mm (7-3/16" x 2-1/16" x 5-15/16")  
Panel Size: 188 x 58 x 14 mm (7-7/16" x 2-5/16" x 5/8")  
Mass: 1.4 kg (3.1 lbs) (excluding accessories)

Design and specifications subject to change without notice.


If a kit is necessary for your car, consult your telephone directory for the nearest car audio specialty shop.



**Having TROUBLE with operation?**  
**Please reset your unit**  
Refer to page of How to Reset  
**Still having trouble??**  
USA ONLY  
**Call 1-800-252-5722**  
<http://www.jvcservice.com>  
We can help you!



 EN, SP, FR

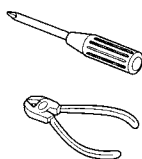
 1199HISFLEJES



# JVC KS-FX250

## Installation/Connection Manual Manual de instalación/conexión Manuel d'installation/raccordement

FSUN3108-T631  
[J]



1199HISFLEJES  
EN, SP, FR

### ENGLISH

- This unit is designed to operate on 12 volts DC, NEGATIVE ground electrical systems.

### INSTALLATION (IN-DASH MOUNTING)

- The following illustration shows a typical installation. However, you should make adjustments corresponding to your specific car. If you have any questions or require information regarding installation kits, consult your JVC car audio dealer or a company supplying kits.

### ESPAÑOL

- Esta unidad está diseñada para funcionar con 12 voltios de CC, con sistemas eléctricos de masa NEGATIVA.

### INSTALACION (MONTAJE EN EL TABLERO DE INSTRUMENTOS)

- La siguiente ilustración muestra una instalación típica. Sin embargo usted deberá efectuar los ajustes correspondientes a su automóvil. Si tiene alguna pregunta o necesita información acerca de las herramientas para instalación, consulte con su concesionario de JVC de equipos de audio para automóviles o a una compañía que suministra tales herramientas.

### FRANÇAIS

- Cet appareil est conçu pour fonctionner sur des sources de courant continu de 12 volts à masse NEGATIVE.

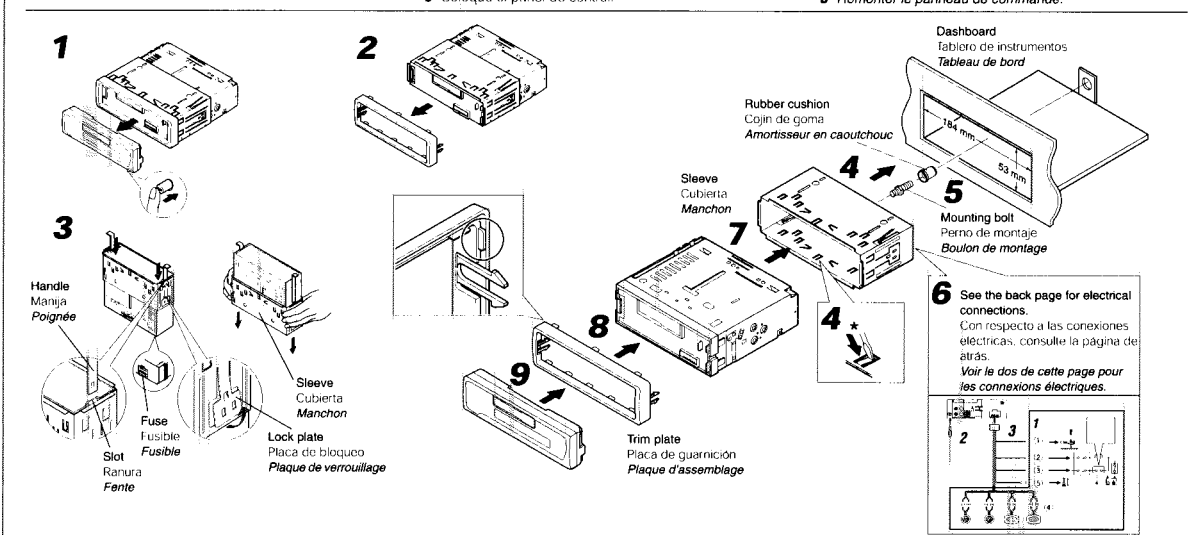
### INSTALLATION (MONTAGE DANS LE TABLEAU DE BORD)

- L'illustration suivante est un exemple d'installation typique. Cependant, vous devez faire les ajustements correspondant à votre voiture particulière. Si vous avez des questions ou avez besoin d'information sur des kits d'installation, consulter votre revendeur d'autoradios JVC ou une compagnie d'approvisionnement.

- Before mounting:** Press ▲ (Control Panel Release button) to detach the control panel.
- Remove the trim plate.
- Remove the sleeve after disengaging the sleeve locks.
  - Stand the unit
    - Note:** When you stand the unit, be careful not to damage the fuse on the rear.
  - Insert the 2 handles between the unit and the sleeve, as illustrated, to disengage the sleeve locks.
  - Remove the sleeve.
    - Note:** Be sure to keep the handles for future use after installing the unit.
- Install the sleeve in the dashboard.
  - After the sleeve is correctly installed in the dashboard, bend the appropriate tabs to hold the sleeve firmly in place, as illustrated.
- Fix the mounting bolt to the rear of the unit's body and place the rubber cushion over the end of the bolt.
- Do the required electrical connections explained on the back of this instructions.
- Slide the unit into the sleeve until it is locked.
- Attach the trim plate.
- Attach the control panel.

- Antes de instalar:** Presione ▲ (botón de liberación del panel de control) para desmontar el panel de control.
- Retire la placa de guarnición.
- Retire la manga después de desenganchar los retenes de la cubierta.
  - Ponga la unidad vertical.
    - Nota:** Al poner la unidad vertical, tenga cuidado de no dañar el fusible provisto en la parte posterior.
  - Inserte las dos asas entre la unidad y la cubierta tal como en la ilustración y desenganche los retenes de la cubierta.
  - Retire la cubierta.
    - Nota:** Después de instalar la unidad, asegurese de guardar las asas para uso futuro.
- Instale la cubierta en el tablero de instrumentos.
  - Después de que la manga esté correctamente instalada en el tablero de instrumentos, doble las lengüetas correspondientes para sostener la cubierta firmemente en su lugar, tal como se muestra.
- Fixe el perno de montaje en la parte trasera del cuerpo de la unidad y coloque el cojin de goma sobre el extremo del perno.
- Realice las conexiones eléctricas requeridas en base a las explicaciones que figuran en la parte de atrás de estas instrucciones.
- Deslice la unidad dentro de la cubierta hasta que quede trabada.
- Coloque la placa de guarnición.
- Coloque el panel de control.

- Avant le montage:** Appuyer sur ▲ (touche de libération du panneau de commande) pour détacher le panneau de commande.
- Retirer la plaque d'assemblage.
- Libérer les verrous du manchon et retirer le manchon.
  - Poser l'appareil à la verticale.
    - Remarque:** Lorsque vous mettez l'appareil à la verticale, faire attention de ne pas endommager le fusible situé sur le fond.
  - Insérer les 2 poignées entre l'appareil et le manchon comme indiqué pour désengager les verrous du manchon.
  - Retirer le manchon.
    - Remarque:** S'assurer de garder les poignées pour une utilisation ultérieure, après l'installation de l'appareil.
- Installer le manchon dans le tableau de bord.
  - Après installation correcte du manchon dans le tableau de bord, plier les bonnes pattes pour maintenir fermement le manchon en place, comme montré.
- Monter le boulon de montage sur l'arrière du corps de l'appareil puis passer l'amortisseur en caoutchouc sur l'extrémité du boulon.
- Réalisez les connexions électriques expliquées au dos de cette page.
- Faire glisser l'appareil dans le manchon jusqu'à ce qu'il soit verrouillé.
- Fixer la plaque d'assemblage.
- Remonter le panneau de commande.



### TROUBLESHOOTING

- The fuse blows.**
  - Are the red and black leads connected correctly?
- Power cannot be turned on.**
  - Is the yellow lead connected?
- No sound from the speakers.**
  - Is the speaker output lead short-circuited?
- Sound is distorted.**
  - Is the speaker output lead grounded?
  - Are the "-" terminals of L and R speakers grounded in common?
- Unit becomes hot.**
  - Is the speaker output lead grounded?
  - Are the "-" terminals of L and R speakers grounded in common?

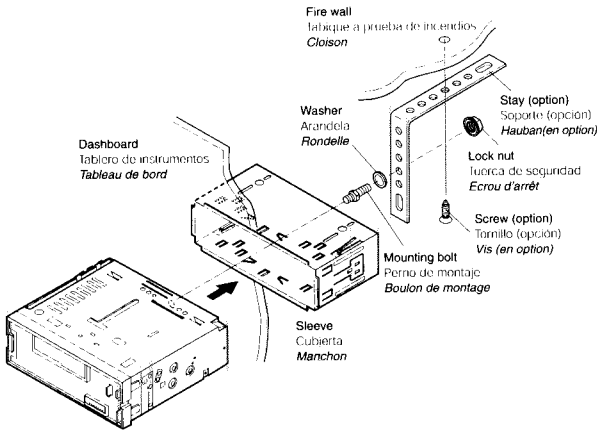
### LOCALIZACION DE AVERIAS

- El fusible se quema.**
  - ¿Están los conductores rojo y negro correctamente conectados?
- No es posible conectar la alimentación.**
  - ¿Está el cable amarillo conectado?
- No sale sonido de los altavoces.**
  - ¿Está el cable de salida del altavoz cortocircuitado?
- El sonido presenta distorsión.**
  - ¿Está el cable de salida del altavoz conectado a masa?
  - ¿Están los terminales "-" de los altavoces L y R conectados a una masa común?
- La unidad se calienta.**
  - ¿Está el cable de salida del altavoz conectado a masa?
  - ¿Están los terminales "-" de los altavoces L y R conectados a una masa común?

### EN CAS DE DIFFICULTÉS

- Le fusible saute.**
  - Les fils rouge et noir sont-ils raccordés correctement?
- L'appareil ne peut pas être mis sous tension.**
  - Le fil jaune est-elle raccordée?
- Pas de son des haut-parleurs.**
  - Le fil de sortie de haut-parleur est-il court-circuité?
- Le son est déformé.**
  - Le fil de sortie de haut-parleur est-il à la masse?
  - Les bornes "-" des haut-parleurs gauche et droit sont-elles mises ensemble à la masse?
- L'appareil devient chaud.**
  - Le fil de sortie de haut-parleur est-il à la masse?
  - Les bornes "-" des haut-parleurs gauche et droit sont-elles mises ensemble à la masse?

- When using the optional stay
- Cuando emplea un soporte opcional
- Lors de l'utilisation du hauban en option

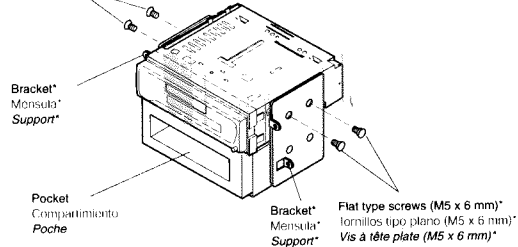


- When installing the unit without using the sleeve
- Instalación de la unidad sin utilizar la cubierta
- Lors de l'installation de l'appareil sans utiliser de manchon

In a Toyota for example, first remove the car radio and install the unit in its place.  
En un Toyota por ejemplo, primero extraiga la radio del automóvil y luego instale la unidad en su lugar.  
Par exemple dans une Toyota, retirer d'abord l'autoradio et installer l'appareil à la place.

Flat type screws (M5 x 6 mm)\*  
Tornillos tipo plano (M5 x 6 mm)\*  
Vis à tête plate (M5 x 6 mm)\*

- \* Not included with this unit.
- \* No suministrado con esta unidad.
- \* Non fourni avec cet appareil.



**Note:** When installing the unit on the mounting bracket, make sure to use the 6 mm-long screws. If longer screws are used, they could damage the unit.

**Nota:** Cuando instala la unidad en la mensula de montaje, asegúrese de utilizar los tornillos de 6 mm de longitud. Si se utilizan tornillos más largos, estos pueden dañar la unidad.

**Remarque:** Lors de l'installation de l'appareil sur le support de montage, s'assurer d'utiliser des vis d'une longueur de 6 mm. Si des vis plus longues sont utilisées, elles peuvent endommager l'appareil.

**Removing the unit**

- Before removing the unit, release the rear section.

- 1 Remove the control panel.
- 2 Remove the trim plate.
- 3 Insert the 2 handles into the slots, as shown. Then, while gently pulling the handles away from each other, slide out the unit. (Be sure to keep the handles after installing it.)

**Extracción de la unidad**

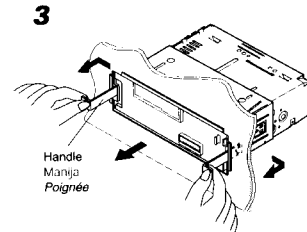
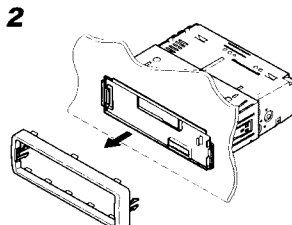
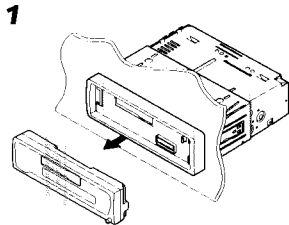
- Antes de extraer la unidad, libere la sección trasera.

- 1 Extraiga el panel de control.
- 2 Retire la placa de guarnición.
- 3 Inserte las 2 manijas entre las ranuras, como se muestra. Luego, separe gentilmente las manijas y extraiga la unidad. (Asegúrese de conservar las manijas después de instalarlo.)

**Retrait de l'appareil**

- Avant de retirer l'appareil, libérer la section arrière.

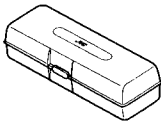
- 1 Retirer le panneau de commande.
- 2 Retirer la plaque d'assemblage.
- 3 Introduire les deux poignées dans les fentes, comme montré. Puis, tout en tirant doucement les poignées écartées, faire glisser l'appareil pour le sortir. (S'assurer de conserver les poignées après l'installation de l'appareil.)



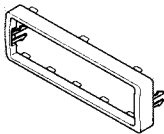
**Parts list for installation and connection**

The following parts are provided with this unit.  
After checking them, please set them correctly.

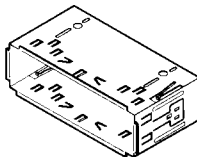
Hard case  
Estuche duro  
Etui de transport



Trim plate  
Placa de guarnición  
Plaque d'assemblage



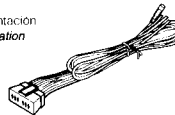
Sleeve  
Cubierta  
Manchon



**Lista de piezas para instalación y conexión**

Con esta unidad se suministran las siguientes piezas.  
Después de inspeccionarlas, colóquelas correctamente.

Power cord  
Cordón de alimentación  
Cordon d'alimentation



Handles  
Manijas  
Poignées



Rubber cushion  
Cojín de goma  
Amortisseur en caoutchouc



**Liste des pièces pour l'installation et raccordement**

Les pièces suivantes sont fournies avec cet appareil.  
Après vérification, veuillez les placer correctement.

Lock nut (M5)  
Tuerca de seguridad (M5)  
Ecrou d'arrêt (M5)



Mounting bolt (M5 x 20 mm)  
Perno de montaje (M5 x 20 mm)  
Boulon de montage (M5 x 20 mm)



Washer (ø5)  
Arandela (ø5)  
Rondelle (ø5)



ENGLISH

**ELECTRICAL CONNECTIONS**

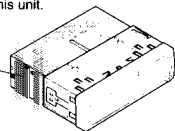
To prevent short circuits, we recommend that you disconnect the battery's negative terminal and make all electrical connections before installing the unit. If you are not sure how to install this unit correctly, have it installed by a qualified technician.

**Note:**

This unit is designed to operate on **12 volts DC, NEGATIVE ground electrical systems**. If your vehicle does not have this system, a voltage inverter is required, which can be purchased at JVC car audio dealers.

- Replace the fuse with one of the specified rating. If the fuse blows frequently, consult your JVC car audio dealer.
- If noise is a problem... This unit incorporates a noise filter in the power circuit. However, with some vehicles, clicking or other unwanted noise may occur. If this happens, connect the unit's rear ground terminal (See connection diagram below.) to the car's chassis using shorter and thicker cords, such as copper braiding or gauge wire. If noise still persists, consult your JVC car audio dealer.
- Maximum input of the speakers should be more than 40 watts at the rear and 40 watts at the front, with an impedance of 4 to 8 ohms.
- **Be sure to ground this unit to the car's chassis.**
- The heat sink becomes very hot after use. Be careful not to touch it when removing this unit.

Heat sink  
Sumidero térmico  
Dissipateur de chaleur



ESPAÑOL

**CONEXIONES ELECTRICAS**

Para evitar cortocircuitos, recomendamos que desconecte el terminal negativo de la batería y que efectúe todas las conexiones eléctricas antes de instalar la unidad. Si usted no está seguro de cómo instalar correctamente la unidad, hágala instalar por un técnico cualificado.

**Nota:**

Esta unidad está diseñada para funcionar con **12 voltios de CC, con sistemas eléctricos de masa NEGATIVA**. Si su vehículo no posee este sistema, será necesario un inversor de tensión, que puede ser adquirido en los concesionarios de JVC de equipos de audio para automóviles.

- Reemplace el fusible por uno con la corriente especificada. Si el fusible se quemase frecuentemente consulte con su concesionario de JVC de equipos de audio para automóviles.
- Si el ruido fuese un problema... Esta unidad tiene un filtro de ruido en el circuito de alimentación. Sin embargo, en algunos vehículos, pueden producirse chasquidos u otros ruidos indeseados. En tal caso conecte el terminal de tierra posterior (Ver diagrama de conexión abajo.) del receptor al chasis del automóvil, utilizando cordones más gruesos y cortos tales como alambre de cobre trenzado o de grueso calibre. Si el ruido persiste, consulte a su concesionario de JVC de equipos de audio para automóvil.
- La entrada máxima de los altavoces traseros debe ser mayor de 40 vatios y la de los delanteros de 40 vatios, con una impedancia de 4 a 8 ohmios.
- **Asegúrese de conectar esta unidad a tierra en el chasis del automóvil.**
- El sumidero térmico estará muy caliente después del uso. Asegúrese de no tocarlo al desmontar esta unidad.

FRANÇAIS

**RACCORDEMENTS ELECTRIQUES**

Pour éviter tout court-circuit, nous vous recommandons de débrancher la borne négative de la batterie et d'effectuer tous les raccordements électriques avant d'installer l'appareil. Si l'on n'est pas sûr de pouvoir installer correctement cet appareil, le faire installer par un technicien qualifié.

**Remarque:**

Cet appareil est conçu pour fonctionner sur des sources de courant continu de 12 volts à masse NEGATIVE. Si votre véhicule n'offre pas ce type d'alimentation, il vous faut un convertisseur de tension, que vous pouvez acheter chez un revendeur d'autoradios JVC.

- Remplacer le fusible par un de la valeur précisée. Si le fusible saute souvent, consultez votre revendeur d'autoradios JVC.
- Si le bruit est un problème... Cet appareil incorpore un filtre de bruit dans le circuit d'alimentation. Cependant, avec certains véhicules, quelques claquements ou autres bruits non désirés risquent de se produire. Si cela arrive, raccorder la borne de masse arrière de l'appareil au châssis de la voiture (voir le schéma de raccordement ci-dessous) en utilisant des cordons les plus gros et les plus courts possibles telle qu'une barre de cuivre ou une tresse. Si le bruit persiste, consultez votre revendeur d'autoradios JVC.
- La puissance admissible des haut-parleurs doit être supérieure à 40 watts à l'arrière et à 40 watts l'avant, avec une impédance de 4 à 8 ohms.
- **S'assurez de raccorder la mise à la masse de cet appareil au châssis de la voiture.**
- Le radiateur devient très chaud après usage. Faire attention de ne pas le toucher en retirant cet appareil.

**Typical Connections / Conexiones típicas / Raccordements typiques**

**Before connecting:** Check the wiring in the vehicle carefully not to fail in connecting this unit. Incorrect connection may cause a serious damage to this unit.

**1** Connect the colored leads of the power cord to the car battery, speakers and automatic antenna (if any) in the following sequence.

- 1) Black: ground
- 2) Yellow: to car battery (constant 12V)
- 3) Red: to an accessory terminal
- 4) Others (except blue with white stripe): to speakers
- 5) Blue with white stripe: to automatic antenna (200mA max.)

**2** Connect the antenna cord.

**3** Finally connect the wiring harness to the unit.

**Antes de la conexión:** Verifique atentamente el conexionado del vehículo para no cometer errores al conectar esta unidad. Una conexión incorrecta podría producir daños graves en la unidad.

**1** Conecte los conductores de color del cable de alimentación a la batería del automóvil, altavoces y antena automática (si la hubiera) en la secuencia siguiente.

- 1) Negro: a tierra.
- 2) Amarillo: a la batería del automóvil (12V constantes)
- 3) Rojo: a un terminal de accesorio
- 4) Otros, excepto azul con rayas blancas: a los altavoces
- 5) Azul con rayas blancas: a la antena automática (200mA max.)

**2** Conecte el cable de antena.

**3** Por último, conecte a la unidad el cableado preformado.

**Avant de commencer la connexion:** vérifiez attentivement le câblage du véhicule pour ne pas connecter incorrectement cet appareil. Une connexion incorrecte peut endommager sérieusement l'appareil.

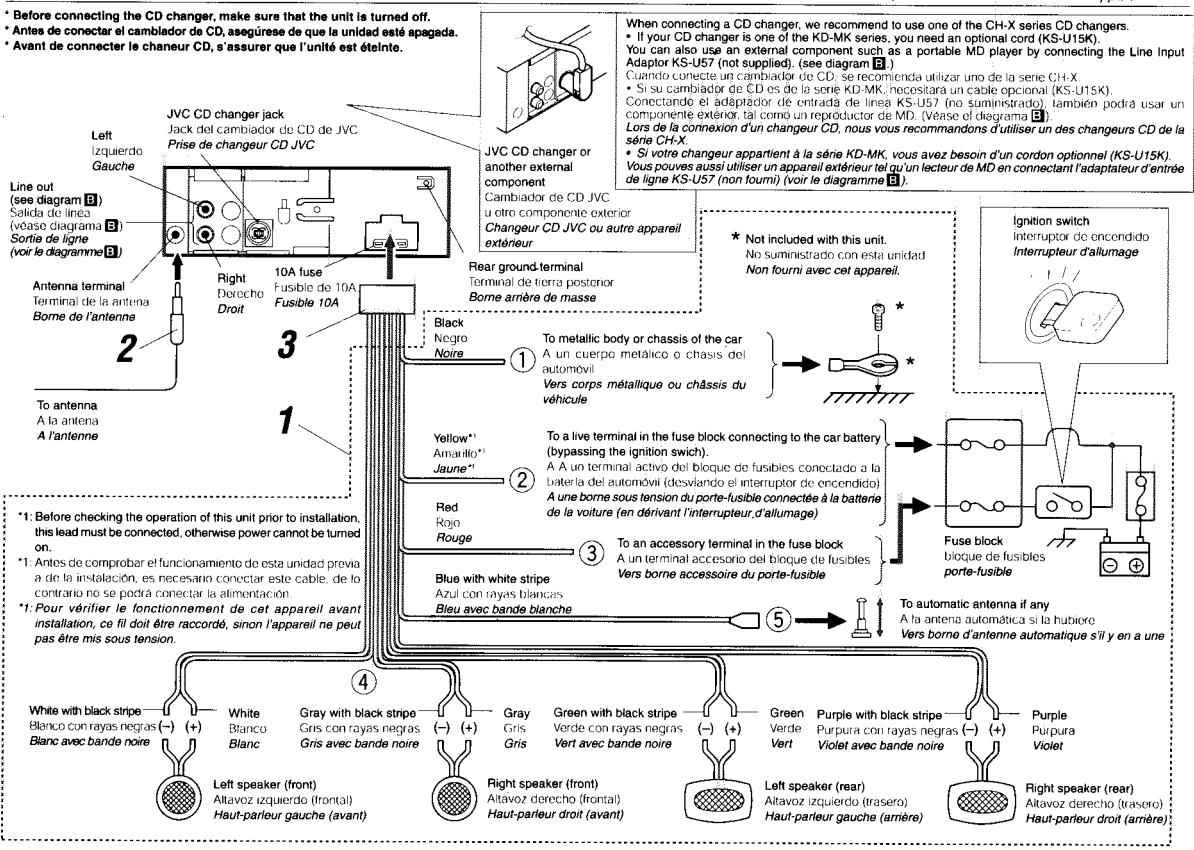
**1** Connectez les fils de couleur du cordon d'alimentation à la batterie de la voiture, aux enceintes et à l'antenne automatique (s'il y en a une) dans l'ordre suivant.

- 1) Noir: à la masse
- 2) Jaune: à la batterie de la voiture (12V constant)
- 3) Rouge: à la prise accessoire
- 4) Autres fils à l'exception du fil bleu à bandes blanches: aux enceintes
- 5) Bleu à bandes blanches: à l'antenne automatique (200mA max.)

**2** Connectez le cordon d'antenne.

**3** Finalement, connectez le faisceau de fils à l'appareil.

- Before connecting the CD changer, make sure that the unit is turned off.
- Antes de conectar el cambiador de CD, asegúrese de que la unidad esté apagada.
- Avant de connecter le changeur CD, s'assurer que l'unité est éteinte.



**PRECAUTIONS on power supply and speaker connections:**

- DO NOT connect the speaker leads of the power cord to the car battery; otherwise, the unit will be seriously damaged.
- Connect the black lead (ground), yellow lead (to car battery, constant 12V), and red lead (to an accessory terminal) correctly.
- BEFORE connecting the speaker leads of the power cord to the speakers, check the speaker wiring in your car.
- If the speaker wiring in your car is as illustrated in Fig. 1 and Fig. 2 below, DO NOT connect the unit using that original speaker wiring. If you do, the unit will be seriously damaged. Redo the speaker wiring so that you can connect the unit to the speakers as illustrated in Fig. 3.
- If the speaker wiring in your car is as illustrated in Fig. 3, you can connect the unit using the original speaker wiring in your car.
- If you are not sure of the speaker wiring of your car, consult your car dealer.

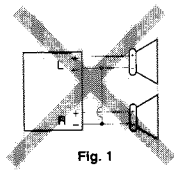


Fig. 1

**PRECAUCIONES sobre las conexiones de la fuente de alimentación y de los altavoces:**

- NO conecte los conductores de altavoz del cable de alimentación a la batería de automóvil, pues podrían producirse graves daños en la unidad.
- Conecte correctamente el conductor negro (a tierra), el conductor amarillo (a la batería del automóvil, 12V constantes), y el conductor rojo (a un terminal de accesorio).
- ANTES de conectar a los altavoces los conductores de altavoz del cable de alimentación, verifique el conexionado de altavoz de su automóvil.
- Si el conexionado de altavoz de su automóvil es como se indica en las Figs. 1 y 2 de abajo, NO conecte la unidad utilizando ese conexionado de altavoz original. Si lo hace, se producirán daños graves en la unidad. Vuelva a efectuar el conexionado de altavoz de manera que pueda conectar la unidad a los altavoces de la manera indicada en la Fig. 3.
- Si el conexionado de altavoz de su automóvil es como se indica en la Fig. 3, podrá conectar la unidad utilizando el conexionado de altavoz original de su automóvil. Si tiene dudas sobre el conexionado de altavoz de su automóvil, consulte con su concesionario.

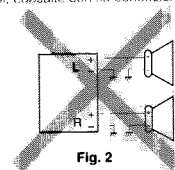


Fig. 2

**PRECAUTIONS sur l'alimentation et la connexion des enceintes:**

- NE CONNECTEZ PAS les fils d'enceintes du cordon d'alimentation à la batterie; sinon, l'appareil serait sérieusement endommagé.
- Connectez correctement le fil noir (à la masse), le fil jaune (à la batterie de la voiture, 12V constant) et le fil rouge (à la prise accessoire).
- AVANT de connecter les fils d'enceintes du cordon d'alimentation aux enceintes, vérifiez le câblage des enceintes de votre voiture.
- Si le câblage des enceintes de votre voiture est réalisé comme montré sur la Fig. 1 ou Fig. 2 ci-dessous, NE CONNECTEZ PAS l'appareil en utilisant ce câblage original d'enceintes. Si vous le faites, l'appareil sera sérieusement endommagé. Recommencez le câblage des enceintes de façon que vous puissiez connecter l'appareil aux enceintes comme montré sur la Fig. 3.
- Si le câblage des enceintes de votre voiture est comme montré sur la Fig. 3, vous pouvez connecter l'appareil en utilisant ce câblage original d'enceintes pour votre voiture.
- Si vous n'êtes pas sûrs du câblage d'enceintes de votre voiture, consultez le concessionnaire de votre voiture.

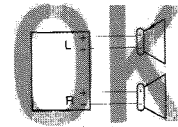
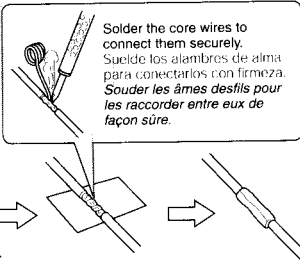
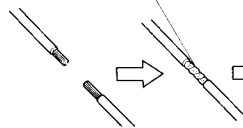


Fig. 3

**Connecting the leads / Conexión de los conductores / Raccordement des fils**

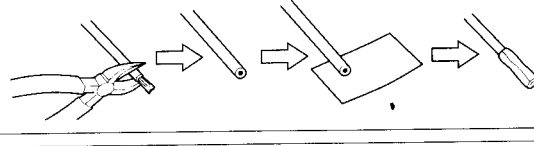
Twist the core wires when connecting. Retuerza los alambres de alma para conectarlos. Torsader les âmes des fils en les raccordant.



Solder the core wires to connect them securely. Suelde los alambres de alma para conectarlos con firmeza. Souder les âmes des fils pour les raccorder entre eux de façon sûre.

**CAUTION / PRECAUCION / PRECAUTION:**

- To prevent short-circuit, cover the terminals of the UNUSED leads with insulating tape.
- Para evitar cortocircuitos, cubra los cables NO UTILIZADOS con cinta aislante.
- Pour éviter les court-circuits, couvrir les bornes des fils qui ne sont PAS utilisés avec de la bande isolante.



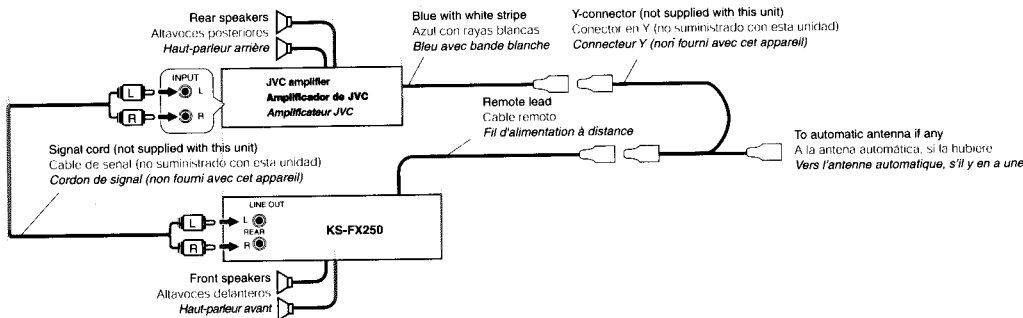
**Connections Adding Other Equipment / Conexiones para añadir otros equipos / Raccordement pour ajouter d'autres appareils**

- You can connect an amplifier and other equipment to upgrade your car stereo system.
- Connect the remote lead (blue with white stripe) to the remote lead of the other equipment so that it can be controlled through this unit.
  - For amplifier only:
    - Connect this unit's line-out terminals to the amplifier's line-in terminals.
    - Disconnect the speakers from this unit, connect them to the amplifier. Leave the speaker leads of this unit unused. (Cover the terminals of the these unused leads with insulating tape, as illustrated above.)

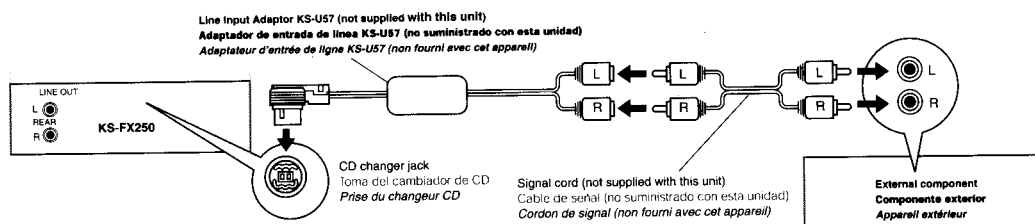
- Usted podrá conectar un amplificador y otros equipos para mejorar el sistema estero de su automóvil.
- Conecte el cable remoto (azul con rayas blancas) al cable remoto del otro equipo para que pueda ser controlado a través de esta unidad.
  - Sólo para el amplificador:
    - Conecte los terminales de salida de línea de esta unidad con los terminales de entrada de línea del amplificador.
    - Desconecte los altavoces de esta unidad y conéctelos al amplificador. Los cables de los altavoces de esta unidad quedan sin usar. (Cubra los terminales de estos cables sin usar con cinta aislante, tal comose indica en la figura de arriba.)

- Vous pouvez connecter un amplificateur ou autre appareil pour améliorer votre système autoradio.
- Connecter le fil d'alimentation à distance (bleu avec des bandes blanches) au fil d'alimentation à distance de l'autre appareil de façon qu'il puisse être contrôlé par cet appareil.
  - Pour l'amplificateur seulement:
    - Raccorder les bornes de sortie ligne de cet appareil aux bornes d'entrée ligne de l'amplificateur.
    - Déconnectez les enceintes de cet appareil et connectez-les à l'amplificateur. Laissez les fils d'enceintes de cet appareil inutilisés. (Recouvrir les extrémités de ces fils inutilisés avec de la bande isolante comme montré ci-dessus.)

**Amplifier / Amplificador / Amplificateur**



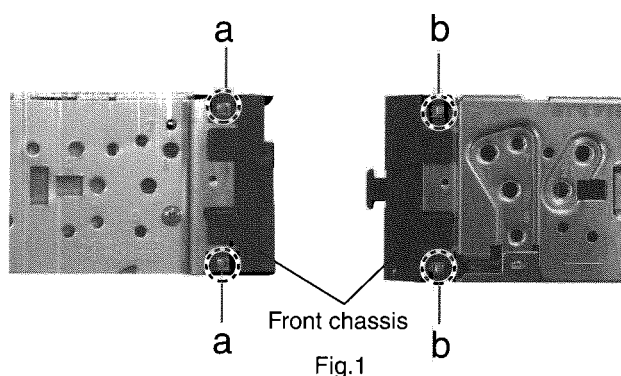
**External component / Componente exterior / Appareil extérieur**



## Disassembly method

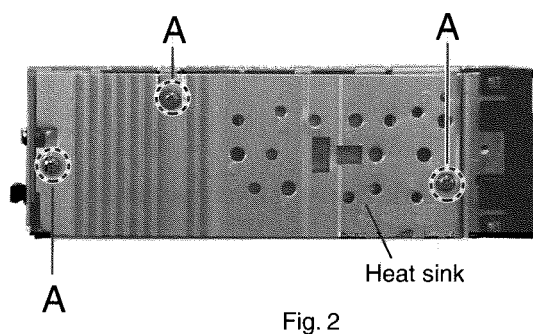
### ■ Removing the front chassis (See Fig.1)

1. Insert a screwdriver to the joints a on the side of the front chassis and two joints b on the right side, then detach the front chassis toward the front side.



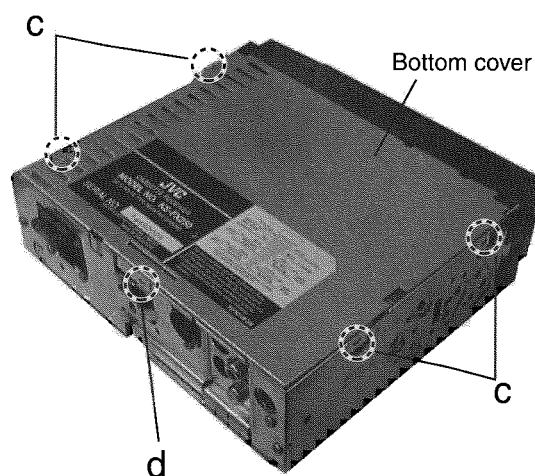
### ■ Removing the heat sink (See Fig.2)

1. Remove the three screws A attaching the heat sink on the left side of the body, and remove the heat sink.



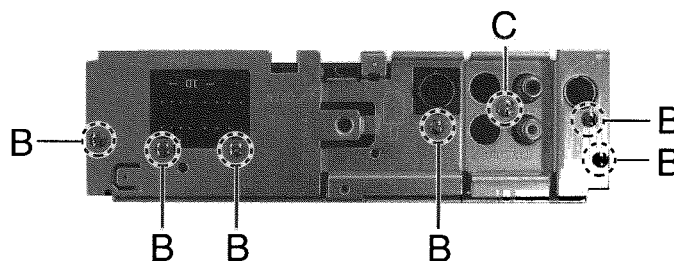
### ■ Removing the bottom cover (See Fig.3)

1. Removing the front chassis.
2. Removing the heat sink.
3. Turn the body upside down.
4. Insert a screwdriver to the two joints c and two joints d on both sides of the body and the joint d on the back of the body, then detach the bottom cover from the body.



### ■ Removing the rear panel (See Fig.4 and 5)

1. Remove the front chassis.
2. Remove the heat sink.
3. Remove the bottom cover.
4. Remove the six screws B attaching the rear panel and one screws C attaching the pine jack on the back of the body.



■ **Removing the main amplifier board assembly**

(See Fig. 5)

1. Remove the front chassis.
2. Remove the bottom cover.
3. Remove the rear pan.
4. Remove the two screws D attaching the main amplifier board assembly on the top cover.
5. Disconnect connector CP701 on the main amplifier board assembly from the cassette mechanism assembly.

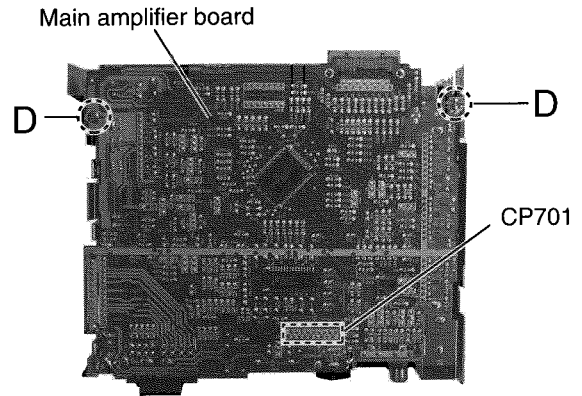


Fig.5

■ **Removing the Cassette mechanism assembly**

(See Fig.6)

1. Remove the front chassis.
2. Remove the bottom cover.
3. Remove the main amplifier board assembly.
4. Remove the four screws E attaching the cassette mechanism assembly from the top cover.

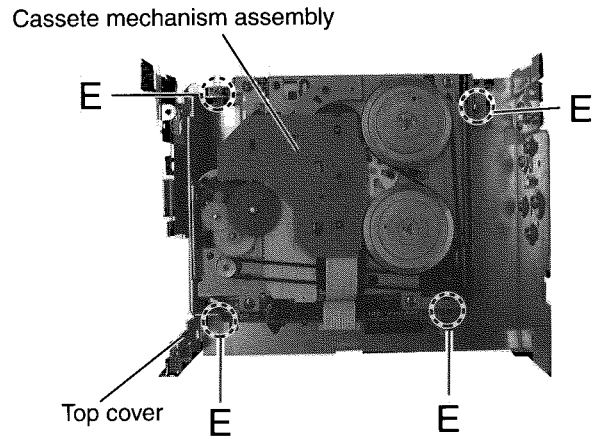


Fig. 6

■ **Removing the control switch board**

(See Fig.7 and 8 )

1. Remove the front panel unit from the main body.
2. Remove the five screws F attaching the rear cover on the back of the front panel unit.
3. Remove the control switch board from the front panel unit.

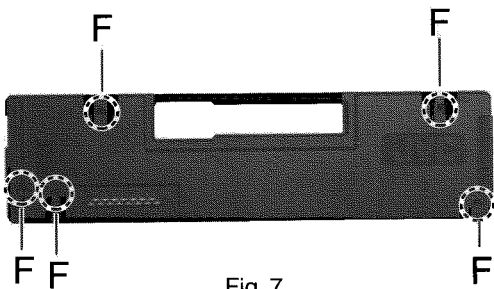


Fig. 7

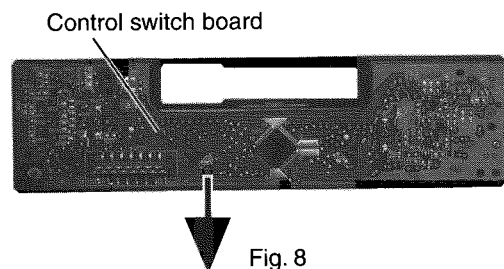


Fig. 8



### <Removal of the cassette mechanism>

#### ■ Removing the head amplifier P.W.B. (See Fig.1 and 2)

1. For the 6pin harness extending from connector CN402 on the head amplifier P.W.B, disconnect it from the head relay P.W.B.
2. Disconnect the card wire from connector CN403 on the head amplifier P.W.B.
3. Remove the screw A attaching the head amplifier P.W.B.
4. Move the tab a as shown in Fig.2 and remove the head amplifier P.W.B. while moving it in the direction of the arrow.

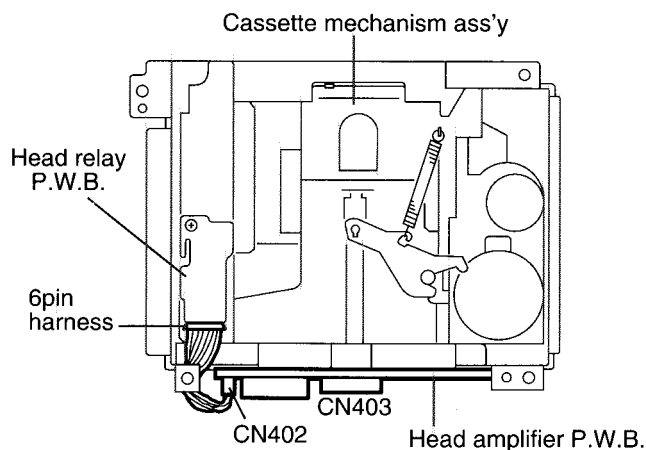


Fig.1

#### ■ Removing the cassette mechanism assembly (See Fig.1 to 3)

1. Disconnect the 6pin harness from connector CN402 and the card wire from CN403 on the head amplifier P.W.B. (Refer to Fig.1 and 2).
2. Remove the four screws B on the bottom of the cassette mechanism.

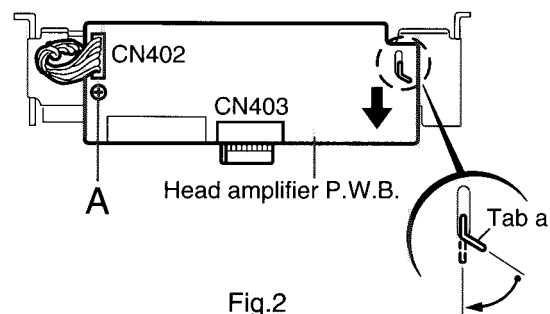


Fig.2

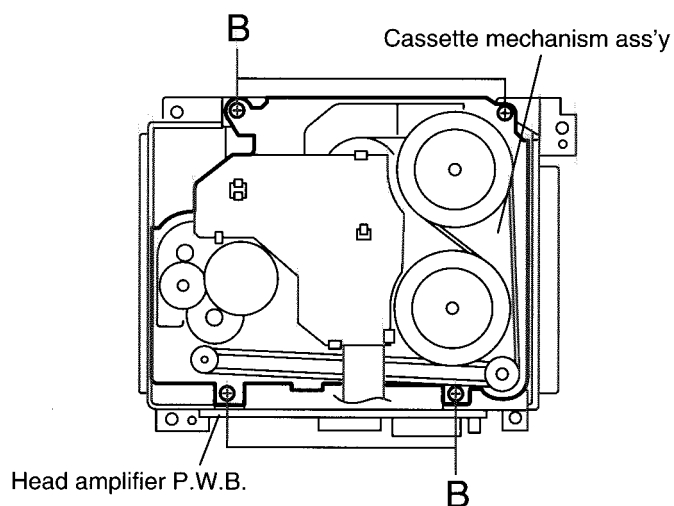


Fig.3

**■ Removing the head relay P.W.B.**  
(See Fig.4)

1. Unsolder the soldering b on the head relay P.W.B.
2. Remove the screw C attaching the head relay P.W.B.
3. Remove the head relay P.W.B. in the direction of the arrow while releasing the two joints c.

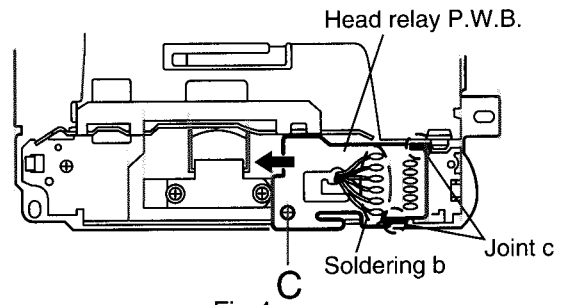


Fig.4

**■ Removing the load arm (See Fig.5)**

1. Remove the E washer attaching the load arm using a pincette or something like that and remove the spring d.
2. Move the part of the load arm marked ※ upwards to release it from the axis of rotation. Then rotate the load arm in the direction of the arrow to remove it from the cach.

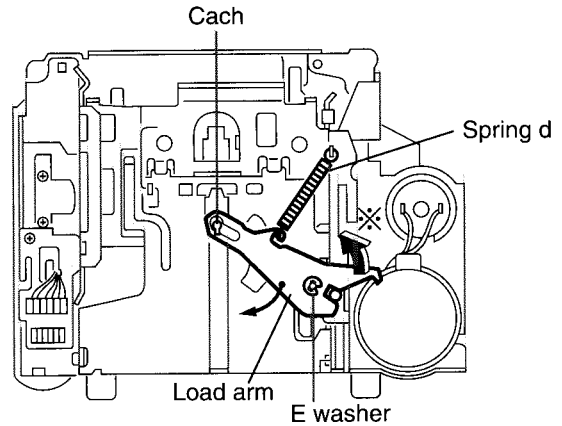


Fig.5

**■ Removing the sub chassis (See Fig.6)**

- Prior to performing the following procedure, remove the head relay P.W.B.
1. Remove the screw D attaching the sub chassis.
  2. Push the tab e in the direction of the arrow to detach the one side of the sub chassis. Then release the sub chassis from the tab f.

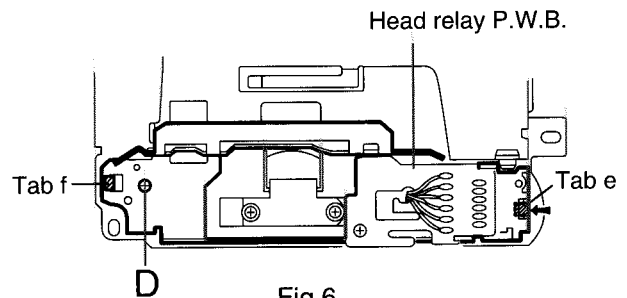


Fig.6

**■ Removing the cassette holder and the holder arm in the eject mode**  
(See Fig.7 and 8)

- Prior to performing the following procedure, remove the head relay P.W.B., the load arm and the sub chassis.
1. Remove the screw E attaching the reinforce bracket.
  2. Remove the reinforce bracket.
  3. Push the tab g fixing the cassette holder in the direction of the arrow and open the cassette holder and the holder arm upward until they stop at an angle of 45 degrees. Move the two joints h to the side and remove the cassette holder and the holder arm from the shaft.

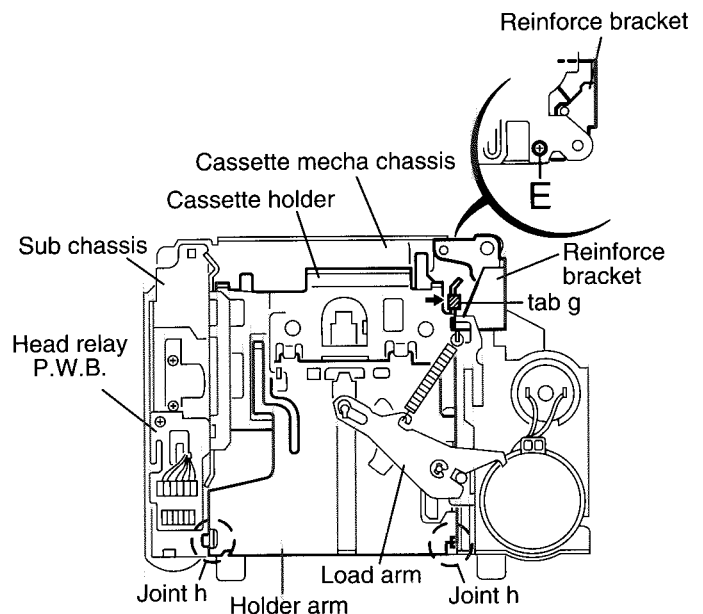


Fig.7

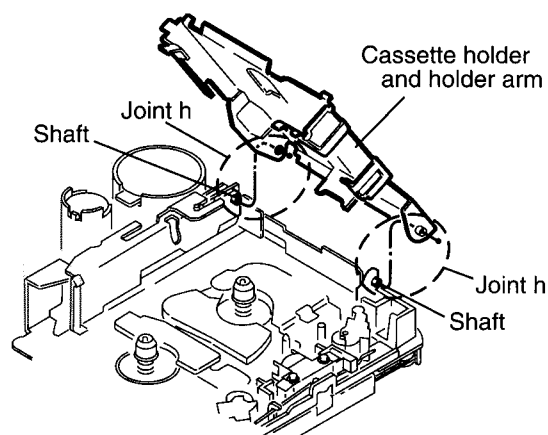


Fig. 8

### ■ Removing the play head (See Fig.9)

- Prior to performing the following procedure, remove the head relay P.W.B. and the sub chassis.

1. Remove the two screws F attaching the play head (The spring under the play head comes off at the same time).

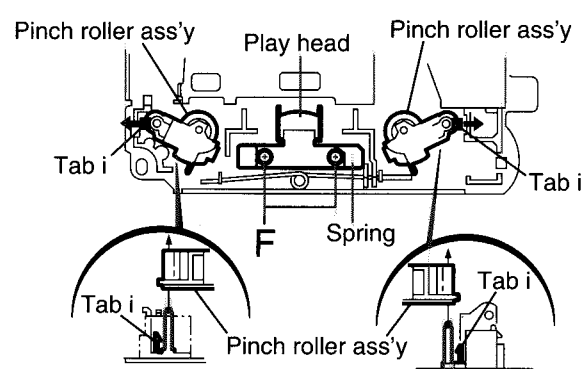


Fig. 9

### ■ Removing the pinch roller ass'y (See Fig.9)

- Prior to performing the following procedure, remove the head relay P.W.B. and the sub chassis.

1. Push each tab i in the direction of the arrow and pull out the pinch rollers on both sides.

### ■ Removing the reel disc P.W.B. (See Fig.10)

1. Unsolder the soldering j on the reel disc P.W.B.
2. Push the seven tabs k on the bottom of the cassette mechanism assembly in the direction of the arrow.

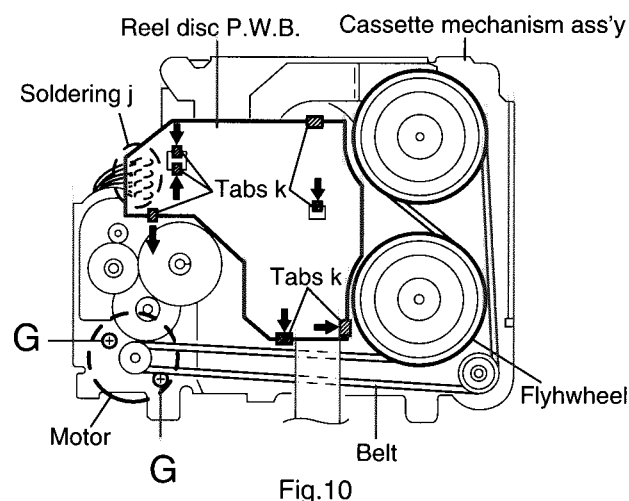


Fig. 10

### ■ Removing the motor and the sub motor (See Fig.10 and 11)

1. Unsolder the two soldering l of the motor and the sub motor.
2. Release the sub motor from the three tabs m. Push the sub motor upward and pull out it.
3. Remove the belt on the bottom of the cassette mechanism assembly and remove the two screws G attaching the motor.

**ATTENTION:** The motors can be detached before removing the load arm.

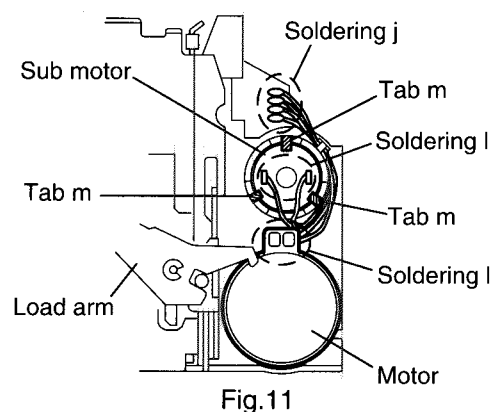


Fig. 11

**■ Removing the flywheel**  
(See Fig.10 and 12)

1. Prior to performing the following procedure, remove the head relay P.W.B, the load arm, the sub chassis, the cassette holder, the holder arm and the reel disc P.W.B.
2. Remove the belt on the bottom of the cassette mechanism ass'y.
3. Remove the slit washer attaching the flywheel on the upper side of the cassette mechanism ass'y and pull out the flywheel downward. Then remove another flywheel in the same way.

ATTENTION: When reassembling, make sure to use a new slit washer.

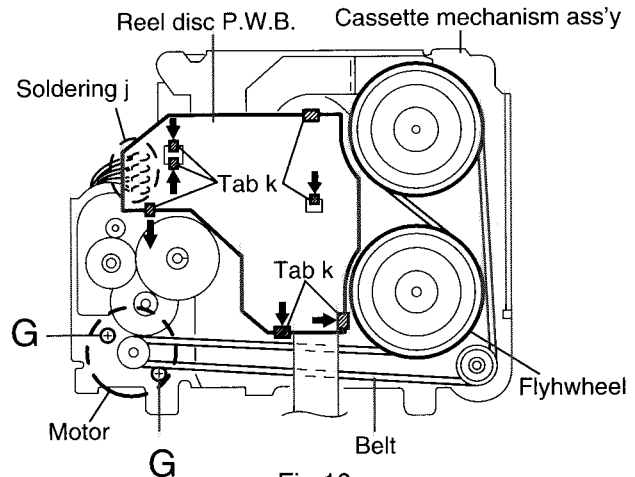


Fig.10

**■ Removing the reel disc ass'y( I )**  
(See Fig.12 to 14)

- Prior to performing the following procedure, remove the head relay P.W.B, the load arm, the sub chassis, the cassette holder and the holder arm.
1. Disengage the part n inside of the reel driver which engages with the shaft, using a pincette or something like that. Then remove the reel driver from the shaft.
  2. Remove the reel driver spring and the reel table.

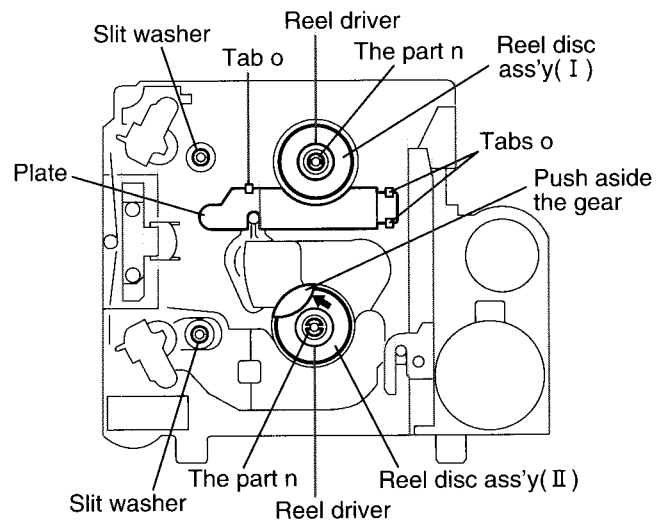


Fig.12

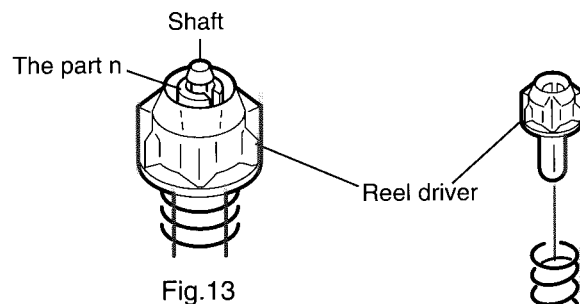


Fig.13

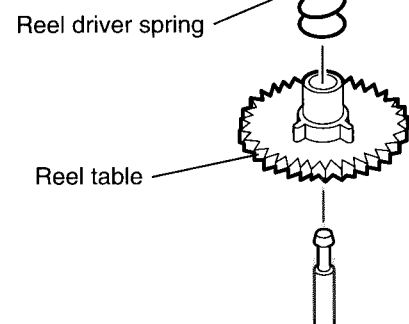


Fig.14

■ **Removing the reel disc ass'y( II )**  
(See Fig.12 to 15)

ATTENTION: Prior to performing the following procedure, remove the reel disc ( I ).

1. Release the plate from the three tabs.
2. Push aside the gear over the reel table using a pincette or something like that.
3. Remove the reel disc ass'y ( II ) as with the reel disc ass'y ( I ).

ATTENTION: Do not break the front panel tab fitted to the metal cover.

Push aside the gear and reattach the reel disc Ass'y( I ).

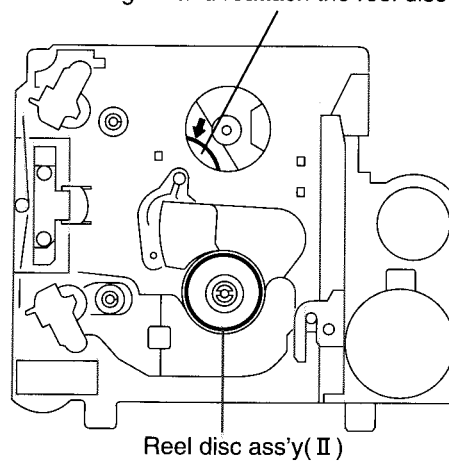


Fig.15

## Adjustment method

### ■ Test instruments required for adjustment

1. Digital oscilloscope(100MHz)
2. Frequency Counter meter
3. Electric voltmeter
4. Wow & flutter meter
5. Test Tapes  
MC-109C ..... for TAPA CURL confirmation  
(without Padd type)  
VT724 ..... for DOLBY level measurement  
VT739 ..... For playback frequency measurement  
VT712 .... For wow flutter & tape speed measurement  
VT703 ..... For head azimuth measurement
6. Torque gauge ..... Cassette type for CTG-N  
(mechanism adjustment)

### ■ Measuring conditions(Amplifier section)

- Power supply voltage ..... DC14.4V (10.5 - 16V)  
Load impedance ..... 4 (2Speakers connection)  
Line out ..... 20k

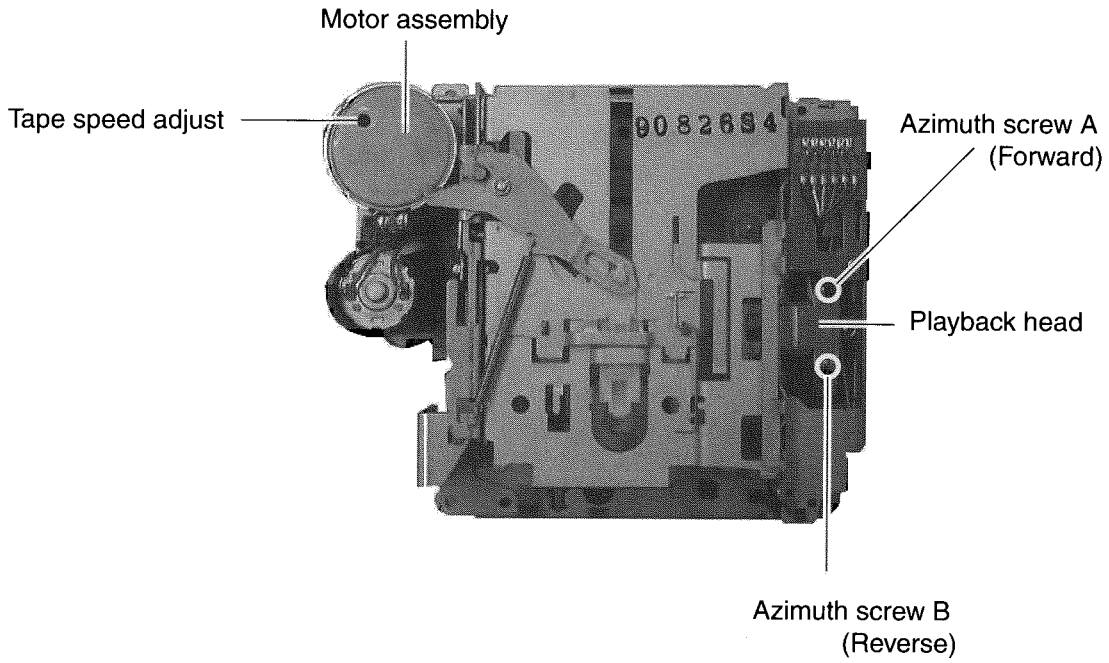
### ■ Standard volume position

Balance and Bass,Treble volume .Fader  
:Center(Indication"0")  
Loudness,Dolby NR,Sound,Cruise:Off  
Volume position is about 2V at speaker output with  
following conditions.Playback the test tape VT721.

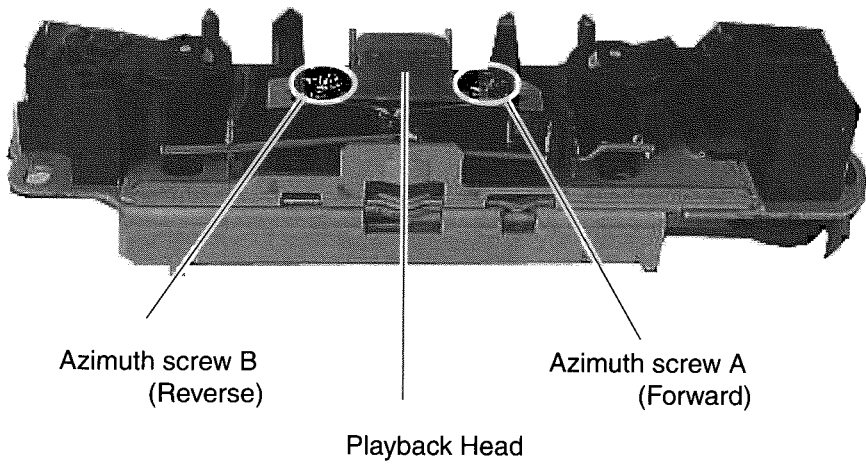
- |                |   |
|----------------|---|
| AM mode        | 1000kHz/62dB,INT/400Hz,30%<br>modulation signal on receiving. |
| FM mono mode   | 97.5MHz/66dB,INT/400Hz,22.5kHz<br>deviation pilot off mono    |
| FM stereo mode | 1kHz,67.5kHz dev. pilot7.5kHz dev.                            |
| Output level   | 0dB(1 V,50 /open terminal)                                    |

■ Arrangement of adjusting & test points

Cassette mechanism  
(Surface)



Head section view



### ■ Information for using a car audio service jig

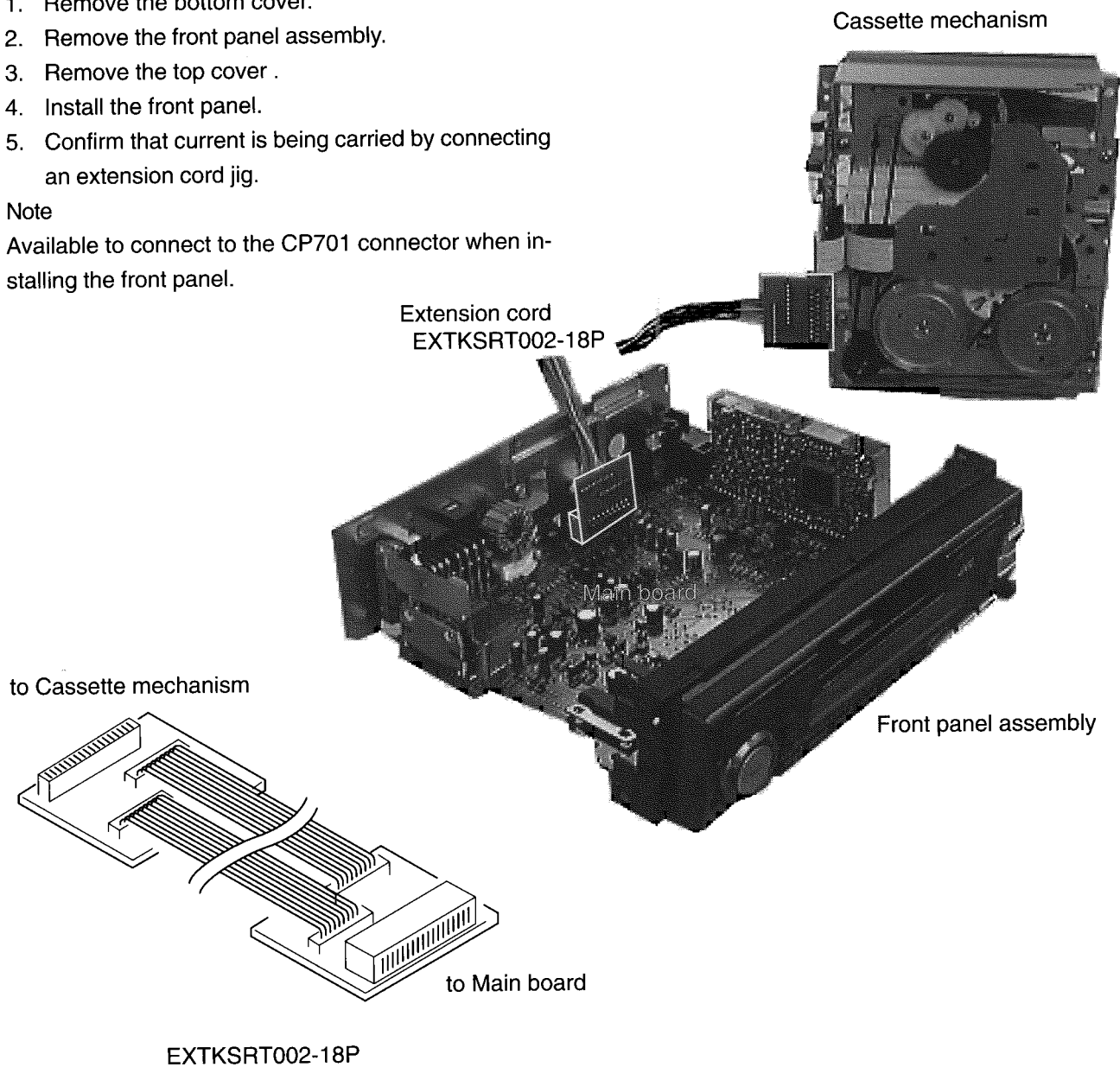
1. We're advancing efforts to make our extension cords common for all car audio products.  
Please use this type of extension cord as follows.
2. As a U-shape type top cover is employed, this type of extension cord is needed to check operation of the mechanism assembly after disassembly.
3. Extension cord : EXTKSRT002-18P ( 18 pin extension cord ) For connection between mechanism assembly and main board assembly.  
Check for mechanism driving section such as motor ,etc..

### ■ Disassembly method

1. Remove the bottom cover.
2. Remove the front panel assembly.
3. Remove the top cover .
4. Install the front panel.
5. Confirm that current is being carried by connecting an extension cord jig.

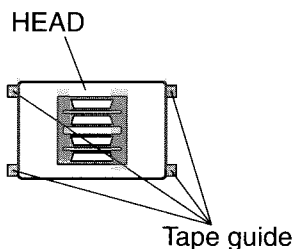
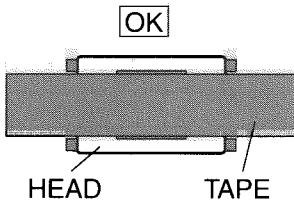
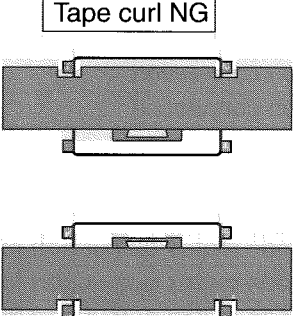
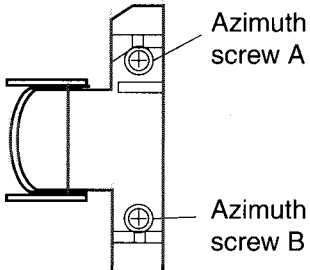
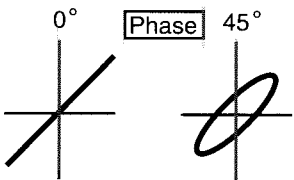
**Note**

Available to connect to the CP701 connector when installing the front panel.





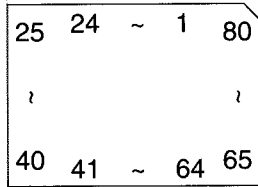
■ Mechanism adjustment section

Item	Adjusting & Confirmation Methods	Adjust	Std. Value
<p>1. Tape running adjustment</p> <p>2. Azimuth adjustment confirmation</p>	<p>a) At Forward playmode, using mirror tape, make adjustment with Azimuth screw A and Azimuth screw B, without curl of 4 parts of head tape guide.</p> <p>b) At Reverse play mode, using mirror tape, make adjustment with Azimuth screw A and Azimuth screw B, without tape curl of 4 parts of head guide.</p> <p>c) At Forward / Reverse play mode, make confirmation of no tape curl of 4 parts of head tape guide.</p> <p>a) At forward play mode, make adjustment of peak of Lch / Rch output with Azimuth screw A. * For Oscilloscope litharge corrugation, set 45° as standard.</p> <p>b) At Reverse play mode, make adjustment of peak of Lch / Rch output with Azimuth screw B. * For Oscilloscope litharge corrugation, set 45° as standard.</p> <p>c) With AC volt meter confirm the difference of output for 4ch between Lch / Rch at forward play mode and Lch / Rch Reverse play mode being within 3.0dB.</p> <p>d) After operation, make confirmation of Lch / Rch azimuth output being within 1.0dB from adjustment value.</p> <div style="text-align: center;">  </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>OK</p> </div> <div style="text-align: center;">  <p>Tape curl NG</p> </div> </div>	<div style="text-align: right;">  </div> <div style="text-align: center; margin-top: 50px;">  </div>	
<p>2. Tape Speed and Wow &amp; Flutter</p>	<p>1. Check to see if the reading of the frequency counter &amp; W ow flutter meter is within 2940-3090 Hz( FWD/REV ), and less than 0.35% ( JIS RMS ).</p> <p>2. In case of out of specification, adjust the motor with a built-in volume resistor .</p>	<p>Built-in volume resistor</p>	<p>Tape Speed 2940-3090Hz Wow&amp;Flutter Less than 0.35% (JIS RMS)</p>
<p>3. Playback Frequency response</p>	<p>1. Play the test tape ( VT724 : 1kHz ) back and set the volume position at 2V .</p> <p>2. Play the test tape ( VT739 )back and confirm 0±3dB at 1kHz/ 10kHz and -4+2dB at 1kHz/63Hz.</p> <p>3. When 10kHz is out of specification, it will be necessary to read adjust the azimuth.</p>		<p>Speaker out 1kHz/10kHz : 0dB±3dB, 63Hz/1kHz : -4dB+2dB,</p>

## Description of major ICs

### ■ LC72366-9598 (IC701) : SYSTEM CPU

#### 1. Pin layout



#### 2. Pin function

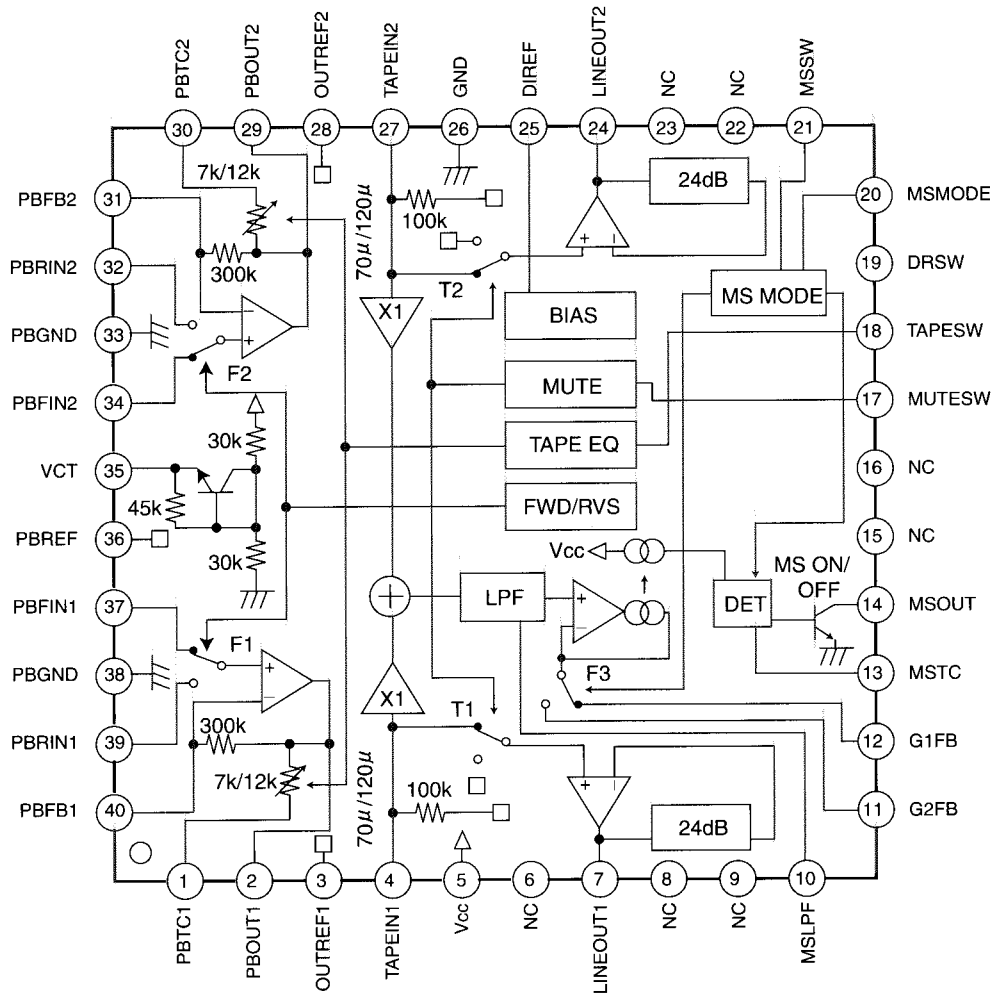
Pin No.	Symbol	I/O	Function
1	XIN	I	Crystal oscillator input port
2	GND	-	Connect to GND
3	J-BUS SI	I	Data input for J-BUS information
4	J-BUS SO	O	Data output for J-BUS information
5	J-BUS SCK	O	Clock output for J-BUS information
6	J-BUS I/O	O	Switching signal output for J-BUS information I/O, H:Out L:In
7	NC	-	None connection
8	LCD SO	O	Data output for LCD driver
9	LCD SCK	O	Information clock output for LCD driver data
10	LCD CE	O	Chip enable output for LCD driver
11	DIMMERIN	-	None connection
12	EVOL SO	O	Data output for electrical volume
13	EVOL SCK	O	Clock output for electrical volume information
14	NC	-	Non connection
15	TUNER ILLUM	-	Non connection
16	TAPE ILLUM	-	Non connection
17	CD ILLUM	-	Non connection
18	DIMMEROUT	-	Non connection
19	NC	-	Non connection
20	OPEN	-	Non connection
21	NC	-	Non connection
22	NC	-	Non connection
23	NC	-	Non connection
24	NC	-	Non connection
25	KS1	-	Non connection
26	KS0	O	Diode matrix output port for initial establishing
27	K3	I	Diode matrix output port for initial establishing
28	K2	I	Diode matrix output port for initial establishing
29	K1	-	Non connection
30	K0	I	Diode matrix output port for initial establishing
31	Vdd	-	5V power supply port (+B)
32	TEST	I	Turn on all light indicator of LCD, L: All light a LED indicator
33	FF/REW MODE	O	FF/REW mode select signal output
34	SEEK/STOP	O	H:Auto seek, L: Stop Use both as IF count REQ and Seek/Stop
35	MONO	O	Forced monaural output port, H:Turn on Forced monaural
36	RADIO/TAPE	-	Non connection
37	BEEP LEVEL	-	Non connection
38	PWR-CNT	O	"H" : Turn on power
39	ACC	-	Non connection
40	KICK	-	Non connection

### ■ LC72366-9598 (IC701) : SYSTEM CPU

Pin No.	Port Name	I/O	Function
41	MOTOR	O	Main motor output, H:Transport L: Stop
42	SUBMO+	O	Sub-motor output(+), Loading direction to transport output
43	SUBMO-	O	Sub-motor output(-), Eject direction to transport output
44	BEEP	-	Non connection
45	TAPE IN	I	Switch for detecting to input cassette, L: Cassette in
46	STANDBY	I	Switch for detecting standby position
47	REEL	I	Switch for detecting tape end position
48	MODE	I	Detecting mode position input
49	F/R	I	Switch for detecting forward/reverse , H:FWD L:REV
50	MS	I	MS input port,
51	SD/ST	I	Station detector, Stereo signal input, H:SD
52	DETACH	O	Front panel detect
53	ENC1	I	Connect to encoder 1
54	ENC2	I	Connect to encoder 2
55	J-BUS INT	I	Cut in signal detecting port from J-Bus information
56	REMOCON	-	Non connection
57	FM/AM	O	FM/AM mode switching signal port, H:FM L:AM
58	DOLBY	-	Non connection
59	NC	-	Non connection
60	MUTE	O	Mute output port, L:Mute
61	MEM DET	I	Back-up power supply detecting port, H:input L:no input
62	LEVELMETER	I	Pressure voice level voltage input for level meter.
63	S.METER	I	S meter voltage input
64	KEY2	I	Key 2 input port
65	KEY1	I	Key 1 input port
66	KEY0	I	Key 0 input port
67	ACCDT	I	Hold port for Acc detecting, L: Hold mode
68	SENSE	I	Voltage sensor port
69	AM IF COUNT	-	Non connection
70	FM IF COUNT	I	FM frequency detecting
71	NC	-	Non connection
72	NC	-	Non connection
73	Vdd	-	5V power supply (+B)
74	AM OSC	I	Non connection
75	FM OSC	I	FM limited signal input
76	VSS	-	Ground port for power supply
77	NC	-	Non connection
78	E0	O	Error signal output port for PLL
79	TEST1	-	Test port for LSI, To connect ground
80	XOUT	O	4.5MHz crystal oscillator output

■ CXA2559Q (IC401) : Playback equalizer

1. Pin layout & Block diagram

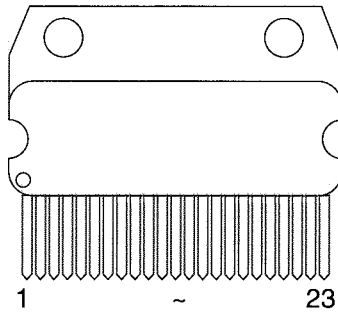


2. Pin functions

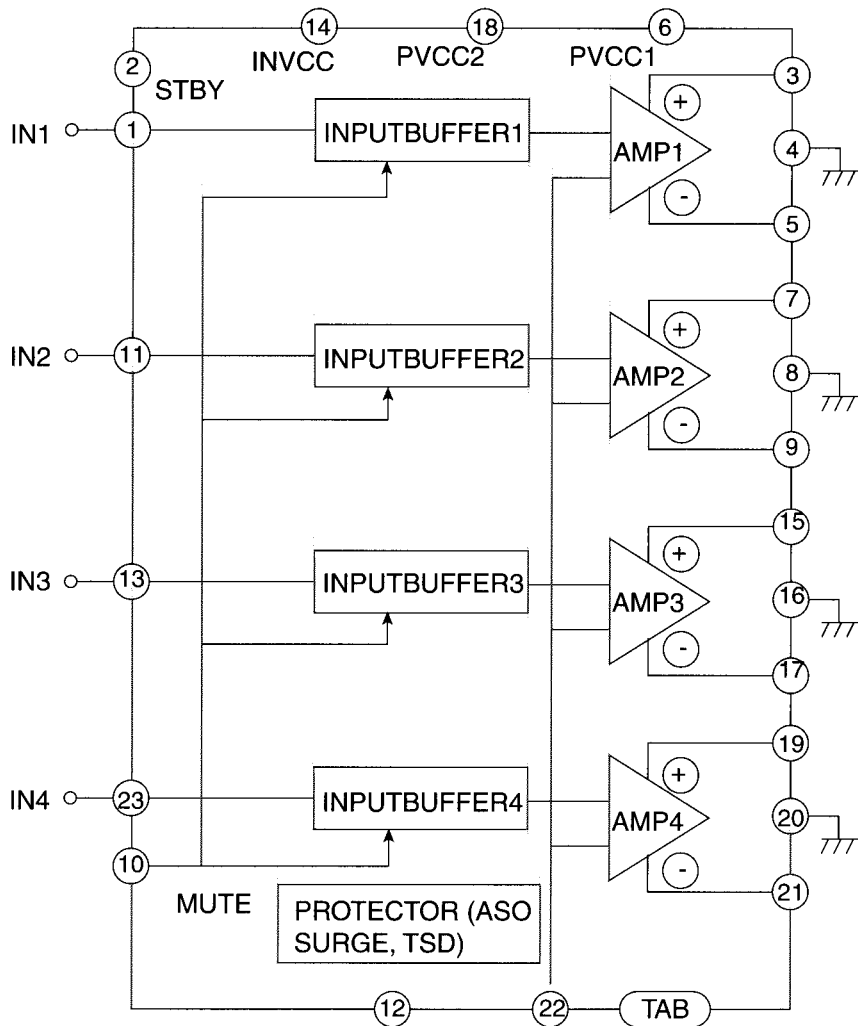
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	PBTC1	-	Playback equalizer amplifier capacitance.	21	MSSW	I	Music sensor control. L:MS ON H:MS OFF
2	PBOUT1	O	Playback equalizer amplifier output.	22	NC	-	Not connected.
3	OUTREF1	O	Output reference.	23	NC	-	Not connected.
4	TAPEIN1	I	TAPE input.	24	LINEOUT2	O	Line output.
5	Vcc	-	Power supply.	25	DIREF	-	Resistance for setting the reference current.
6	NC	-	Not connected.	26	GND	-	Ground.
7	LINEOUT1	O	Line output.	27	TAPEIN2	I	TAPE input.
8	NC	-	Not connected.	28	OUTREF2	O	Output reference.
9	NC	-	Not connected.	29	PBOUT2	O	Playback equalizer amplifier output.
10	MSLPF	-	Cut-off frequency adjustment of the m/s LPF.	30	PBTC2	-	Playback equalizer amplifier capacitance.
11	G2FB	-	Music signal interval detection level setting.	31	PBF2	I	Playback equalizer amplifier feedback.
12	G1FB	-	Music signal interval detection level setting.	32	PBRIN2	I	Playback equalizer amplifier input.
13	MSTC	-	Time constant for det. the music signal interval.	33	PBGND	-	Playback equalizer amplifier ground.
14	MSOUT	O	Music sensor output.	34	PBFIN2	I	Playback equalizer amplifier input.
15	NC	-	Not connected.	35	VCT	O	Center.
16	NC	-	Not connected.	36	PBREF	O	Playback equalizer amplifier reference.
17	MUTESW	I	Mute function control. L:Mute off H:Mute on	37	PBFIN1	I	Playback equalizer amplifier input.
18	TAPESW	I	Playback equalizer amplifier control.	38	PBGND	-	Playback equalizer amplifier ground.
19	DRSW	I	Head select control. L:FWD H:REV	39	PBRIN1	I	Playback equalizer amplifier input.
20	MSMODE	I	Music sensor mode control. L:G1 H:G2	40	PBF1	I	Playback equalizer amplifier feedback.

■ HA13158A (IC301) : Power amp

1. Pin layout

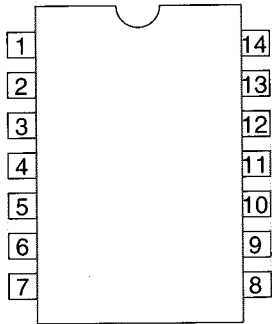


2. Block diagram



■ HD74HC126P (IC801) : Bus buffer

1. Pin layout

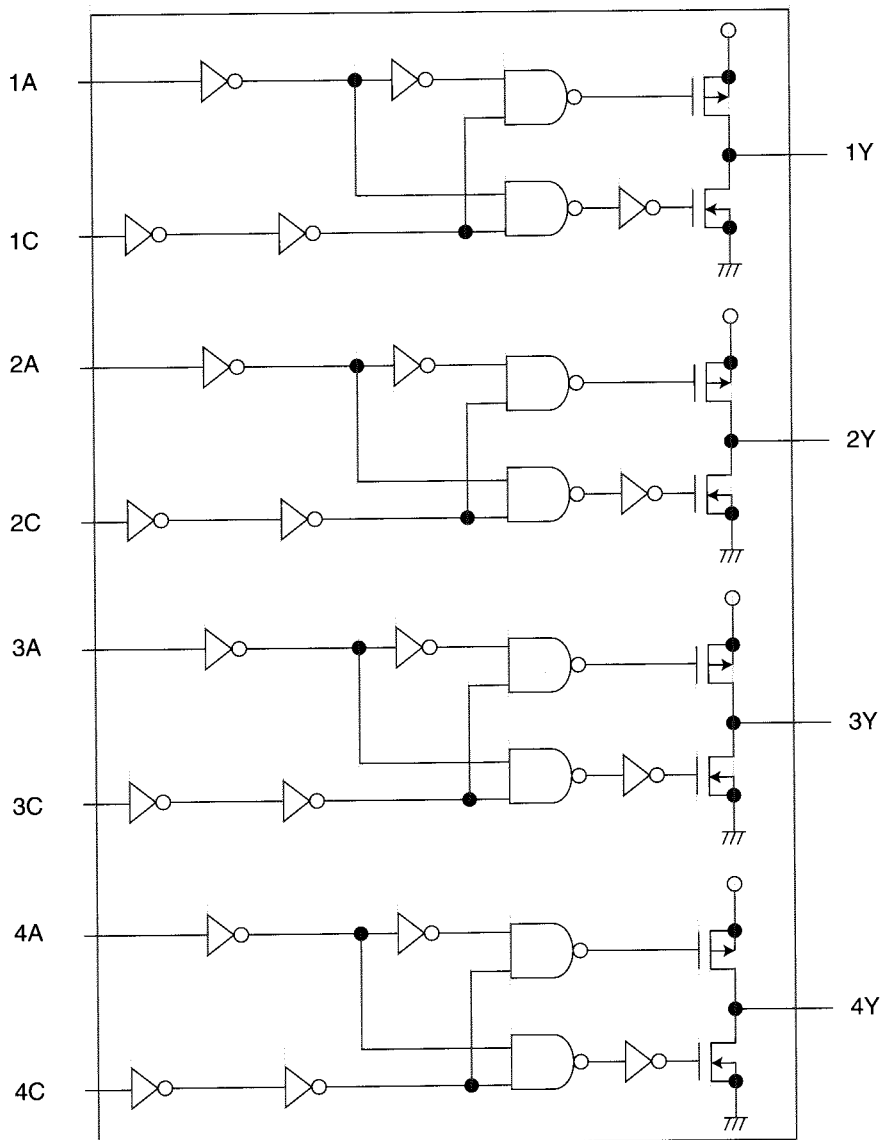


2. Function truth table

Input		Output
C	A	Y
L	X	Z
H	L	L
H	H	H

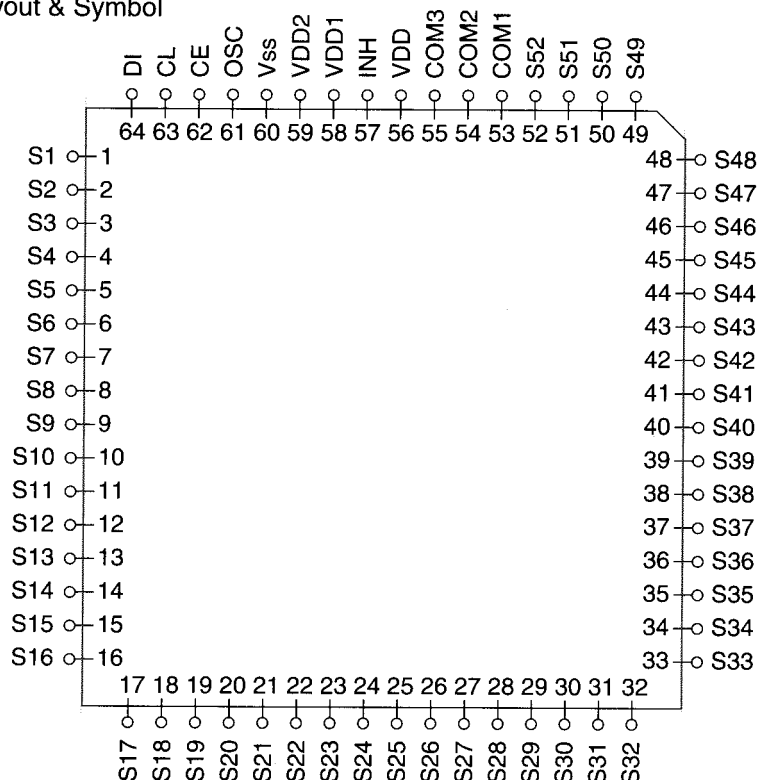
H : High level  
 L : Low level  
 X : "H" or "L"  
 Z : Off condition of 3 state output  
 (High impedance)

3. Block diagram



## ■ LC75823W (IC651) : LCD driver

### 1. Pin Layout & Symbol

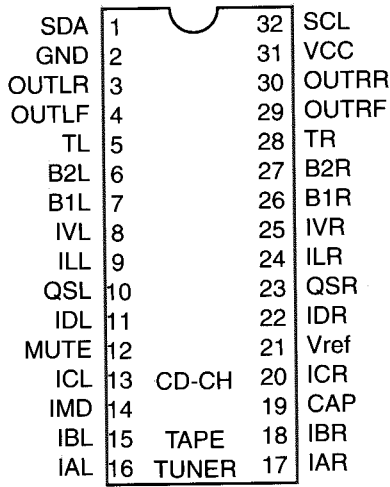


### 2. Pin Function

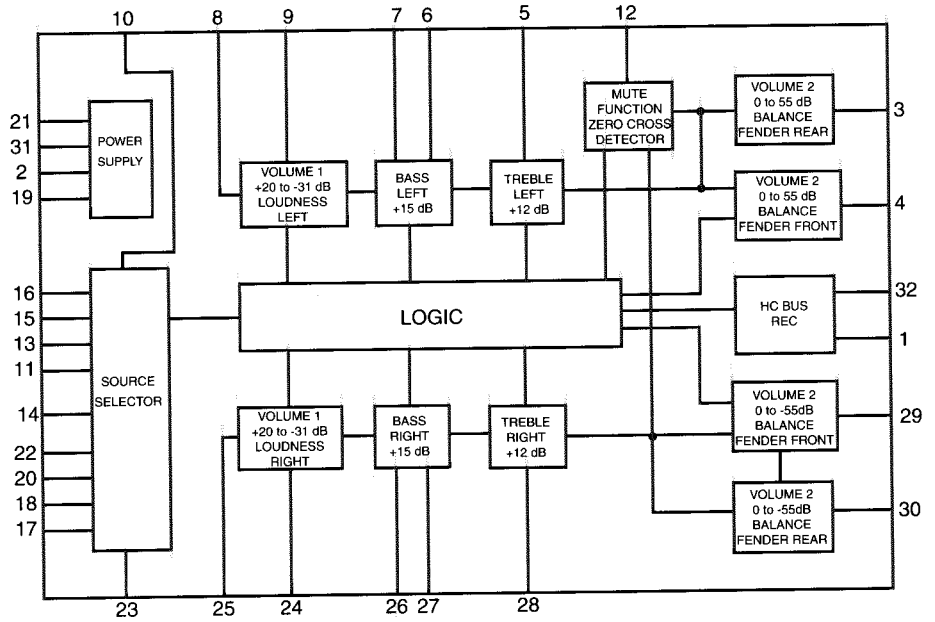
Pin No.	Symbol	I/O	Function
1 to 52	S1 to S52	O	Segment output pins used to display data transferred by serial data input.
53 to 55	COM1 to COM3	O	Common driver output pins. The frame frequency is given by : $t_0 = (f_{osc}/384) \text{Hz}$ .
56	VDD	--	Power supply connection. Provide a voltage of between 4.5 and 6.0V.
57	$\overline{\text{INH}}$	I	Display turning off input pin. $\overline{\text{INT}} = \text{"L"}$ (Vss) ----- off (S1 to S52, COM1 to COM3 = "L") $\overline{\text{INT}} = \text{"H"}$ (VDD) ----- on Serial data can be transferred in display off mode.
58	VDD1	I	Used for applying the LCD drive 2/3 bias voltage externally. Must be connected to VDD2 when a 1/2 bias drive scheme is used.
59	VDD2	I	Used for applying the LCD drive 1/3 bias voltage externally. Must be connected to VDD1 when a 1/2 bias drive scheme is used.
60	Vss	--	Power supply connection. Connect to GND.
61	OSC	I/O	Oscillator connection. An oscillator circuit is formed by connecting an external resistor and capacitor at this pin.
62	CE	I	Serial data interface connection CE : Chip enable
63	CL	I	CL : Sync clock
64	DI	I	DI : Transfer data

TEA6320T-X (IC161) : E. volume

1.Pin Layout



2.Block Diagram



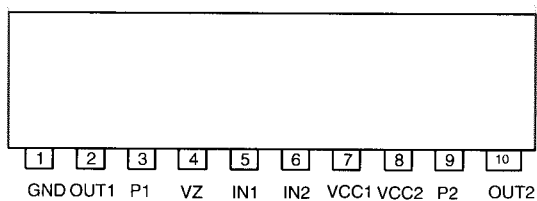
3.Pin Functions

Pin No.	Symbol	I/O	Functions	Pin No.	Symbol	I/O	Functions
1	SDA	I/O	Serial data input/output.	17	IAR	I	Input A right source.
2	GND	-	Ground.	18	IBR	I	Input B right source.
3	OUTLR	O	output left rear.	19	CAP	-	Electronic filtering for supply.
4	OUTLF	O	output left front.	20	ICR	I	Input C right source.
5	TL	I	Treble control capacitor left channel or input from an external equalizer.	21	Vref	-	Reference voltage (0.5Vcc)
6	B2L	-	Bass control capacitor left channel or output to an external equalizer.	22	IDR	-	Not used
7	B1L	-	Bass control capacitor left channel.	23	QSR	O	Output source selector right channel.
8	IVL	I	Input volume 1. left control part.	24	ILR	I	Input loudness right channel.
9	ILL	I	Input loudness. left control part.	25	IVR	I	Input volume 1. right control part.
10	QSL	O	Output source selector. left channel.	26	B1R	-	Bass control capacitor right channel
11	IDL	-	Not used	27	B2R	O	Bass control capacitor right channel or output to an external equalizer.
12	MUTE	-	Not used	28	TR	I	Treble control capacitor right channel or input from an external equalizer.
13	ICL	I	Input C left source.	29	OUTRF	O	Output right front.
14	IMO	-	Not used	30	OUTRR	O	Output right rear.
15	IBL	I	Input B left source.	31	Vcc	-	Supply voltage.
16	IAL	I	Input A left source.	32	SCL	I	Serial clock input.



■ **LB1641 (IC402) : DC Motor Driver**

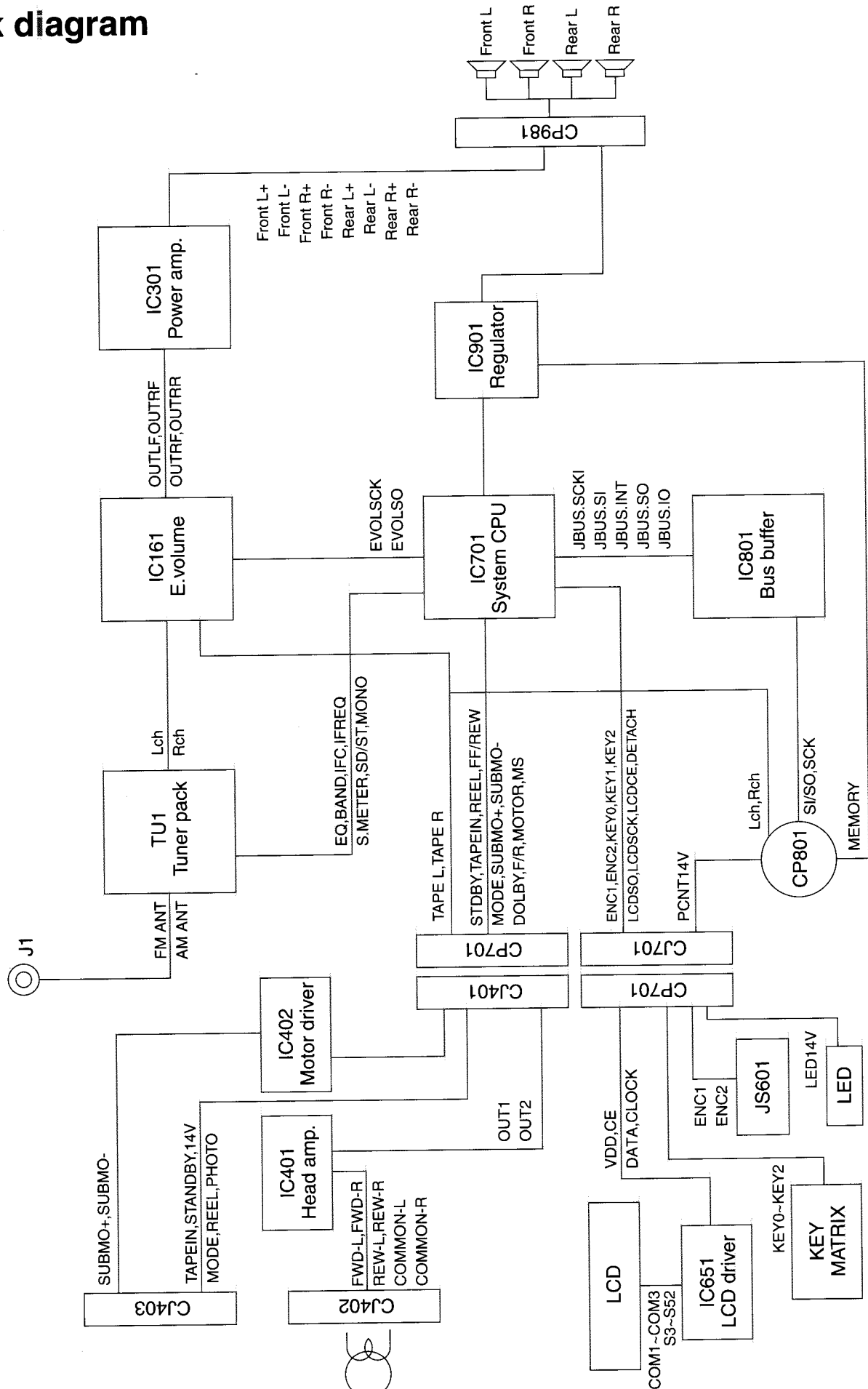
1. Pin Layout



2. Pin Functions

Input		Output		Mode
IN1	IN2	OUT1	OUT2	
0	0	0	0	Brake
1	0	1	0	CLOCKWISE
0	1	0	1	COUNTER-CLOCKWISE
1	1	0	0	Brake

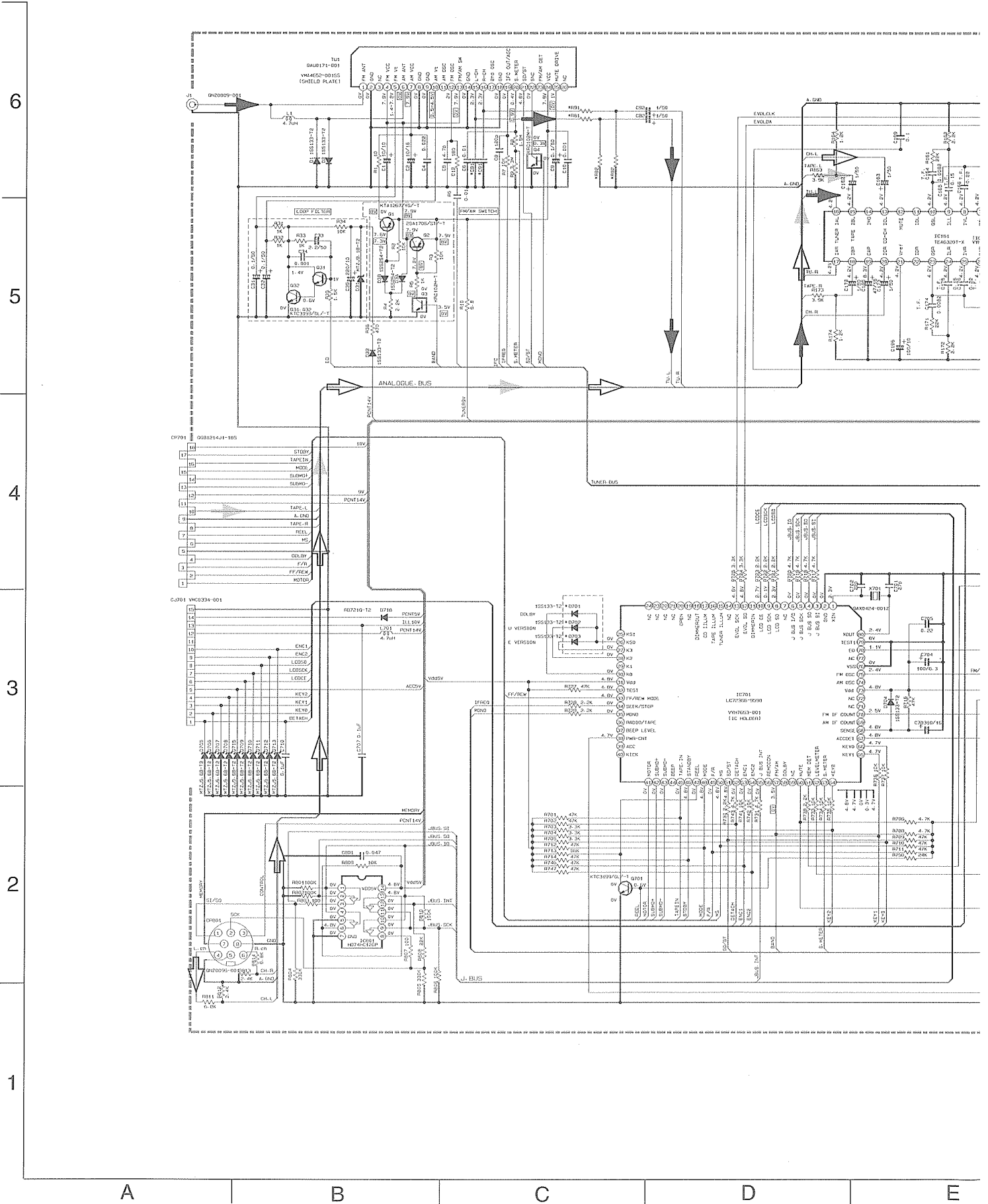
# Block diagram

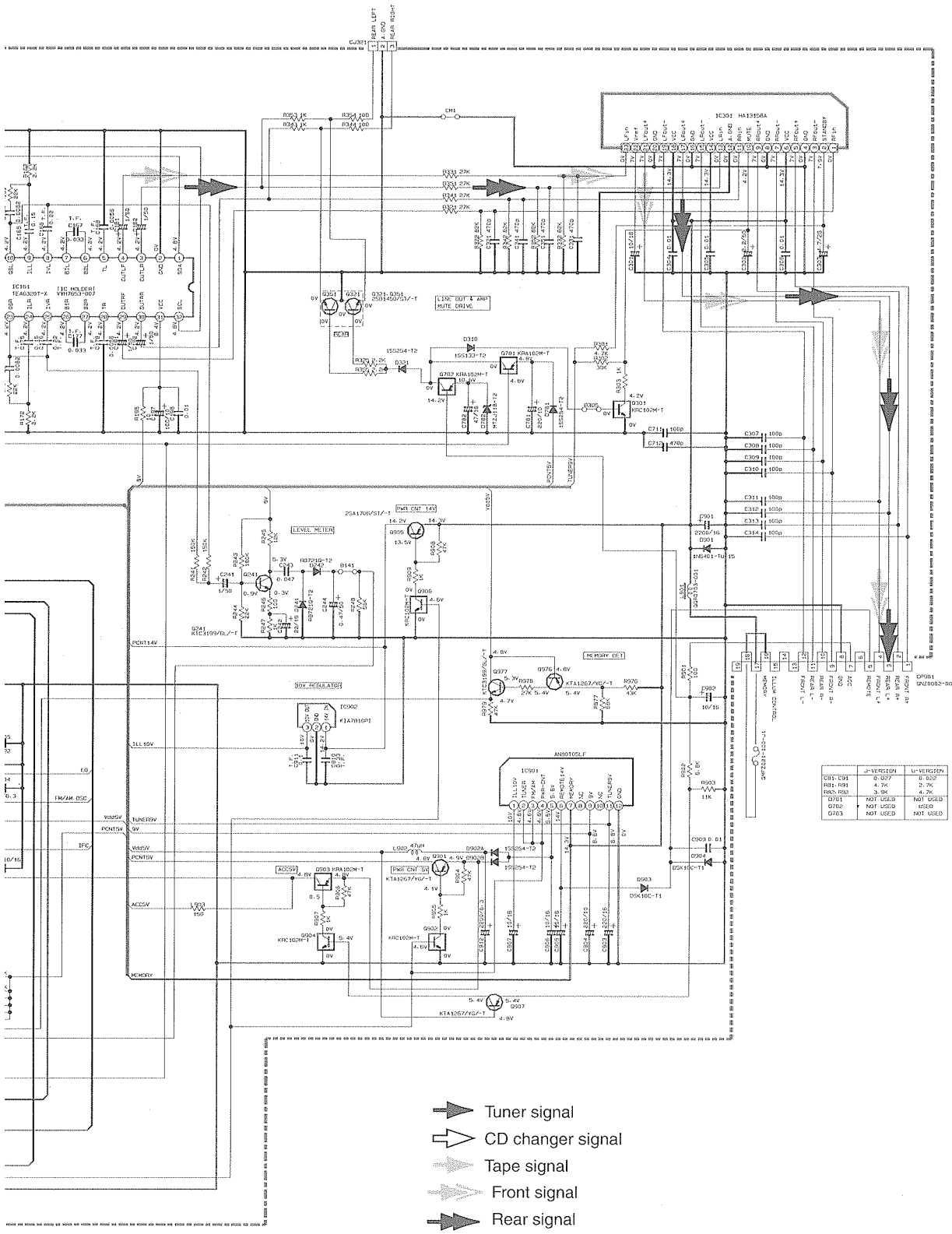




# Standard schematic diagrams

## ■ Tuner & Main amp. section

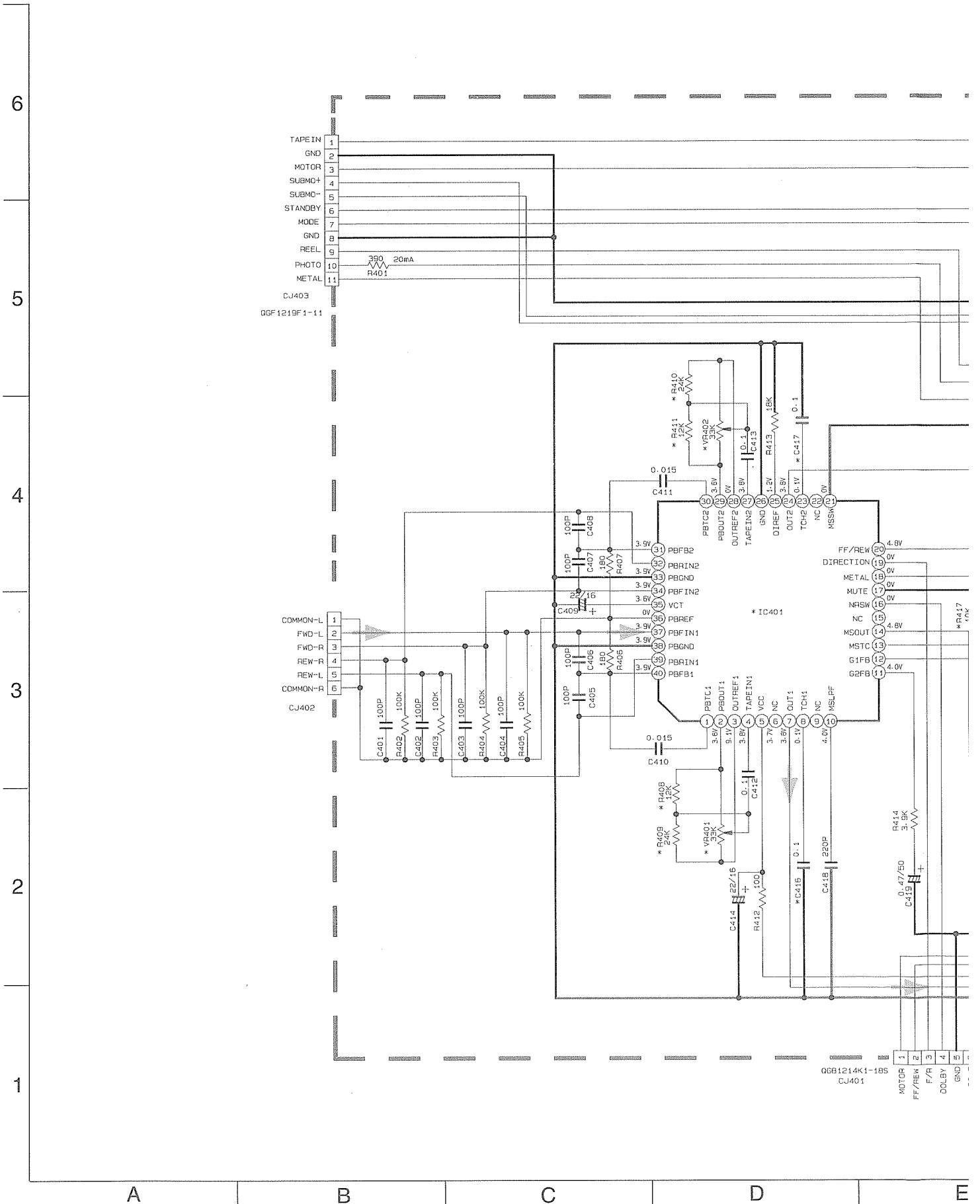




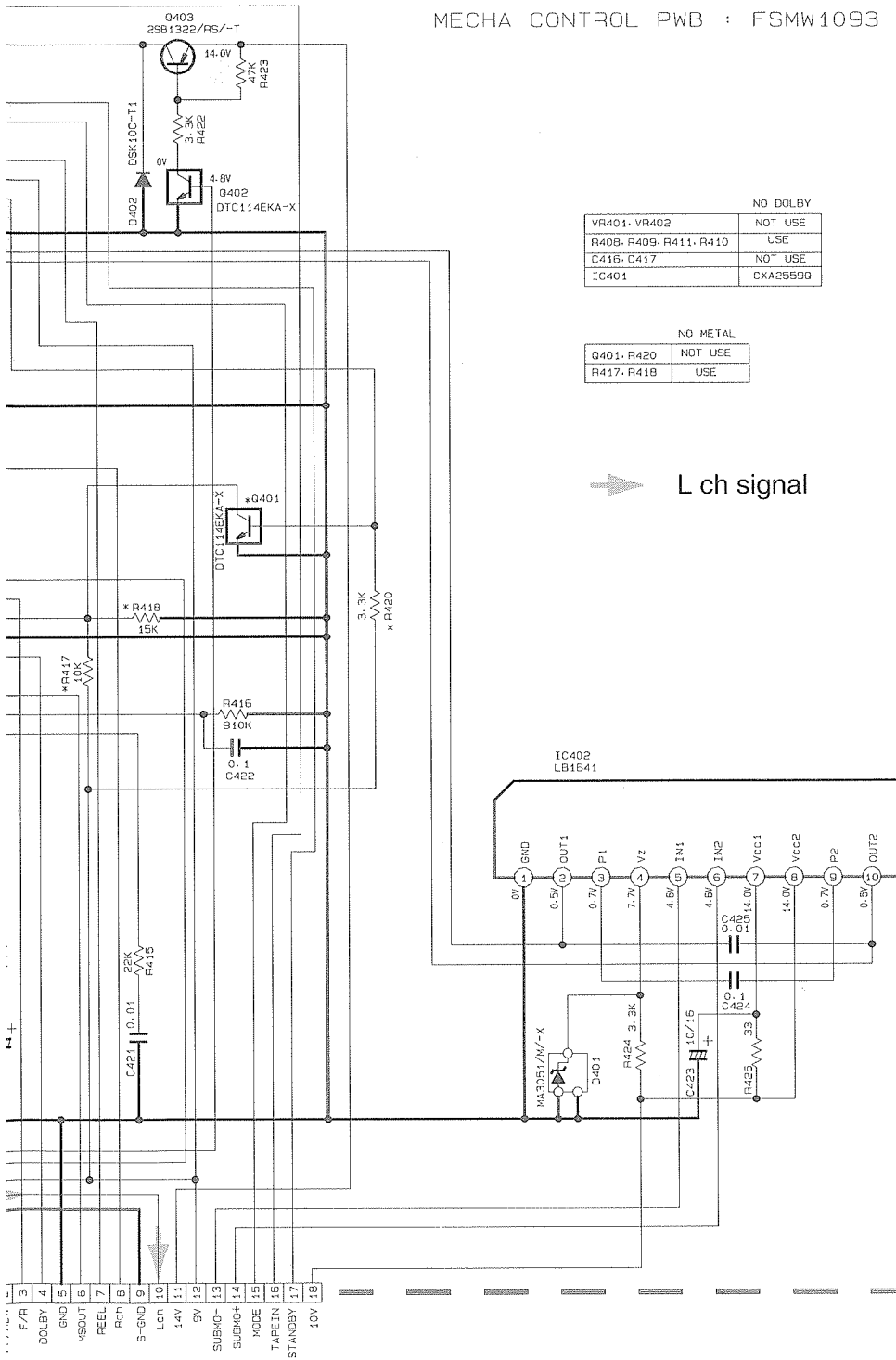
MAIN PWB: FSMW1086

E F G H I

Head amp. & Mecha control section



MECHA CONTROL PWB : FSMW1093

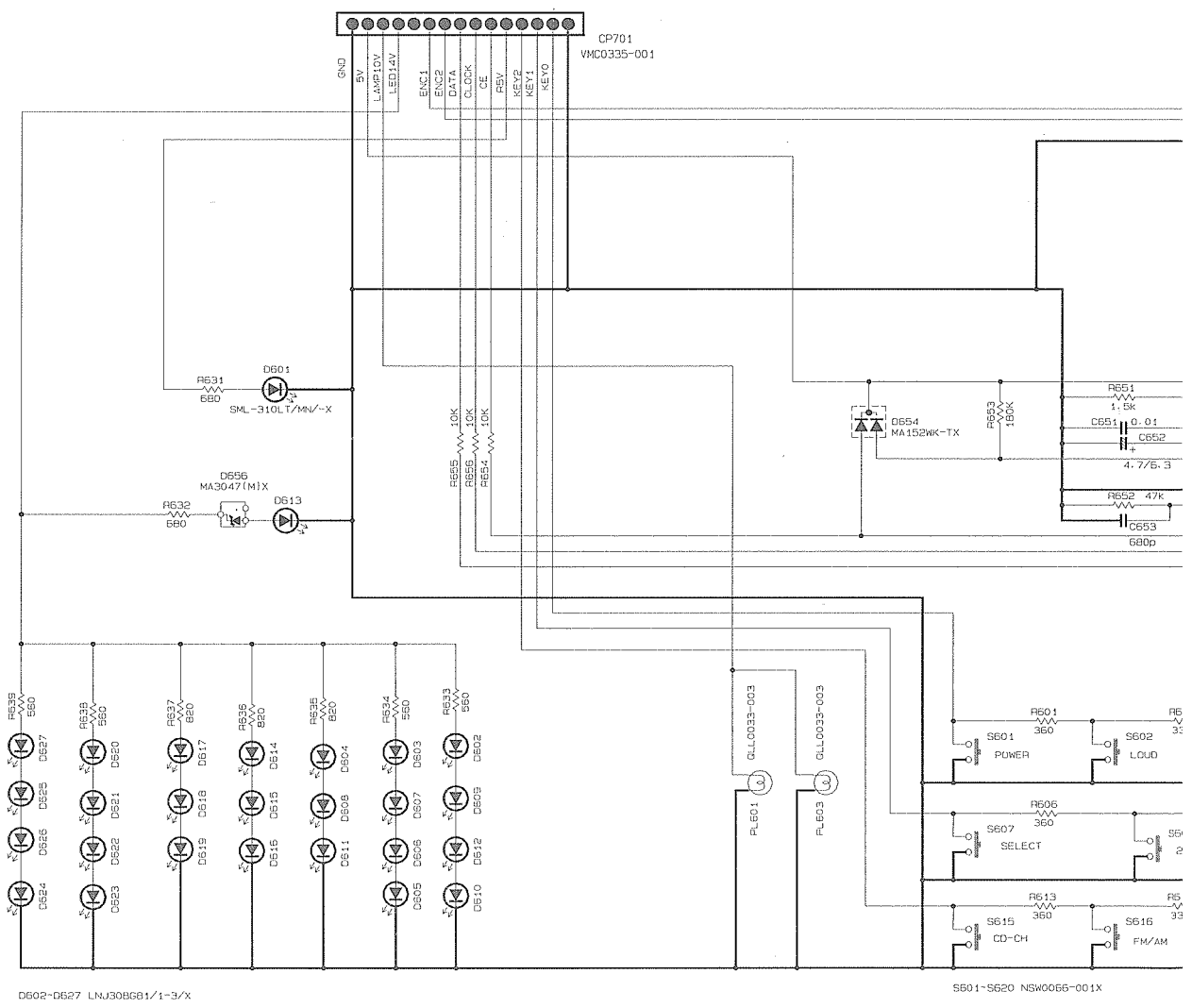
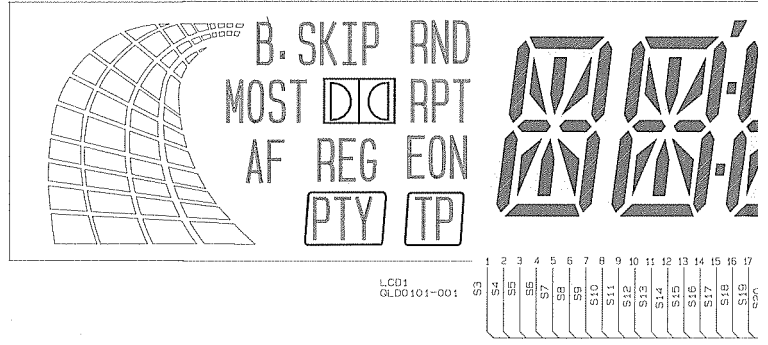


NO DOLBY	
VR401, VR402	NOT USE
R408, R409, R411, R410	USE
C416, C417	NOT USE
IC401	CXA2559Q

NO METAL	
Q401, R420	NOT USE
R417, R418	USE

➔ L ch signal

■ LCD & Key control section



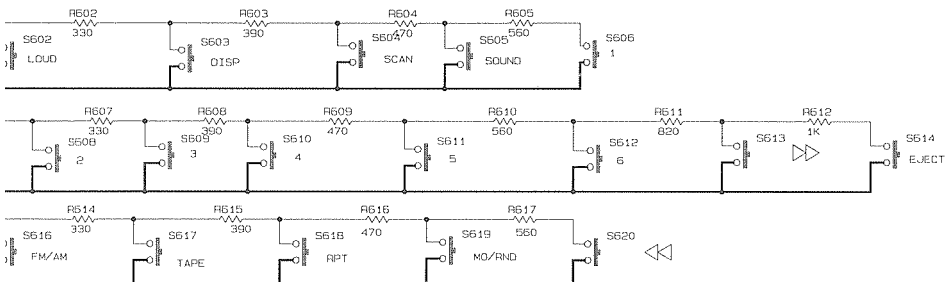
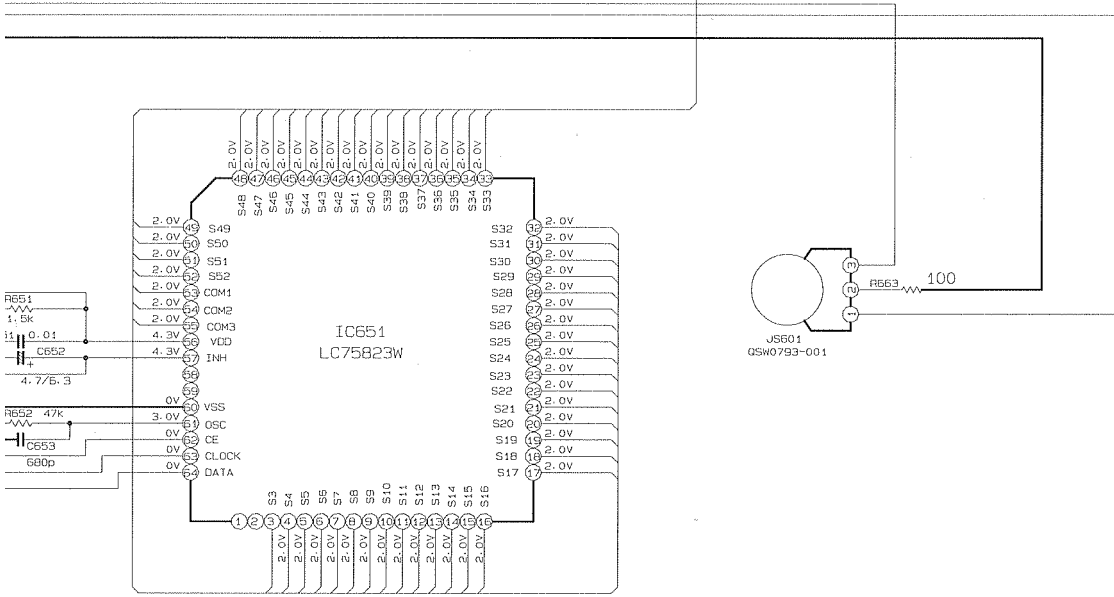
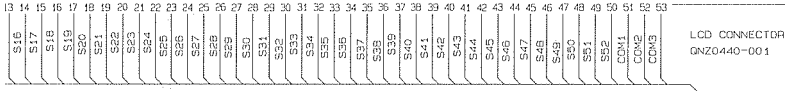
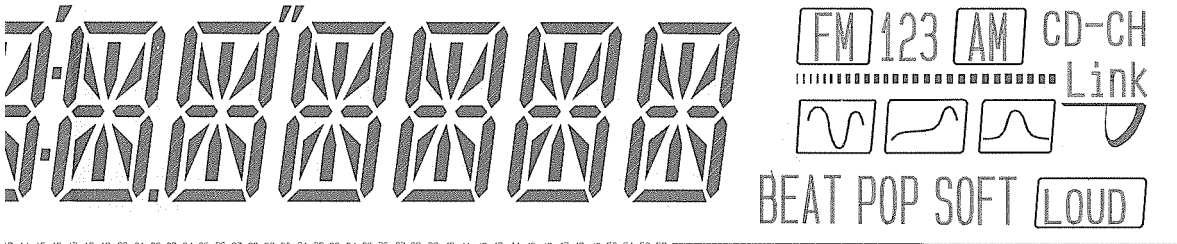
6  
5  
4  
3  
2  
1

A B C D E

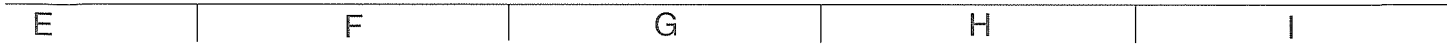


NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL.  
CONDITION - - - FM MODE
2. UNLESS OTHERWISE SPECIFIED:  
ALL RESISTORS ARE 1/4W 5% CARBON RESISTOR OR 1/4W 1/10W 5% METAL GLAZE RESISTOR.  
ALL CAPACITORS ARE 50V CERAMIC CAPACITOR.  
ALL RESISTANCE VALUES ARE IN OHMS (Ω).  
ALL CAPACITANCE VALUES ARE IN μF (μF).  
ALL CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(μF) / RATED VOLTAGE(V).

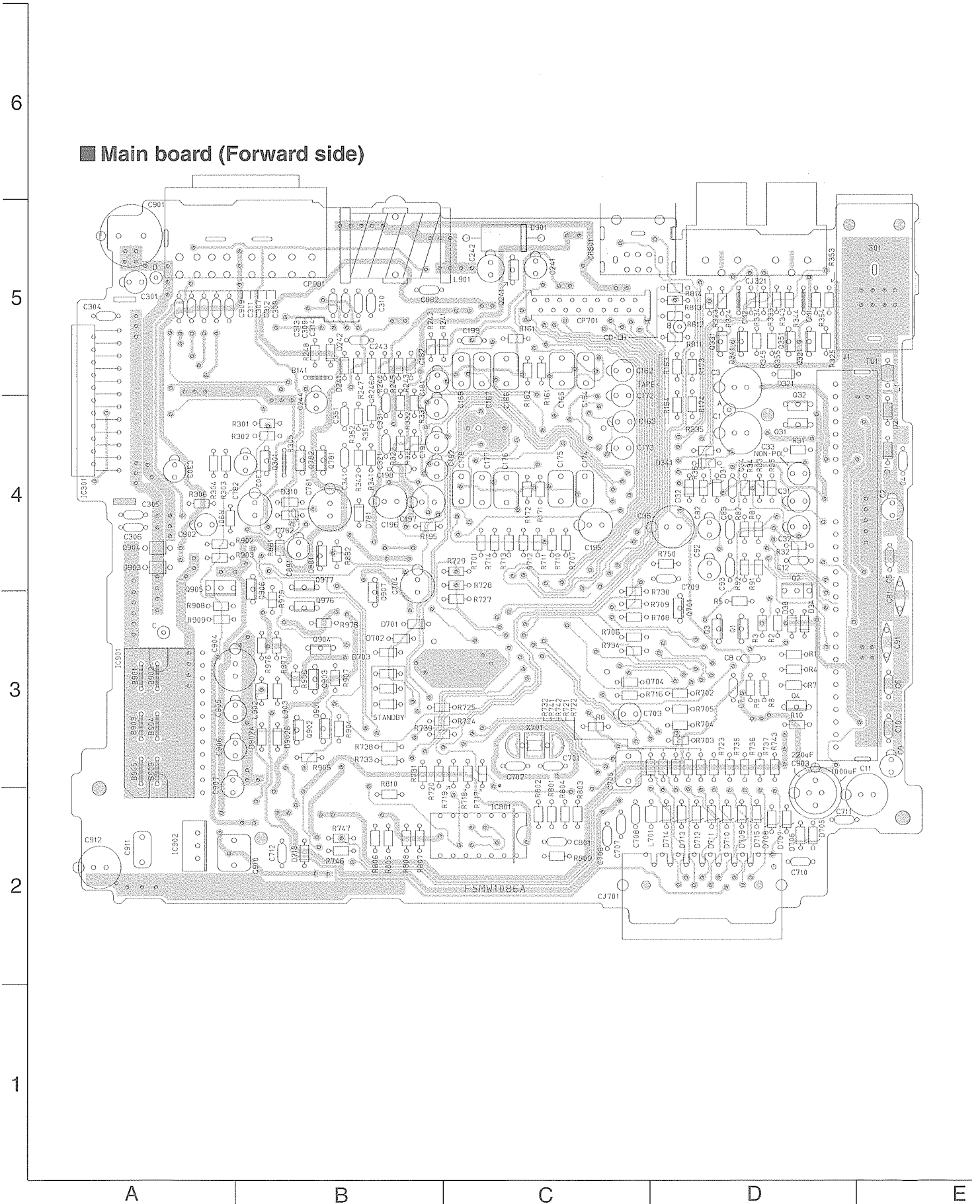


SWITCHBOARD PWB:FSMW1078

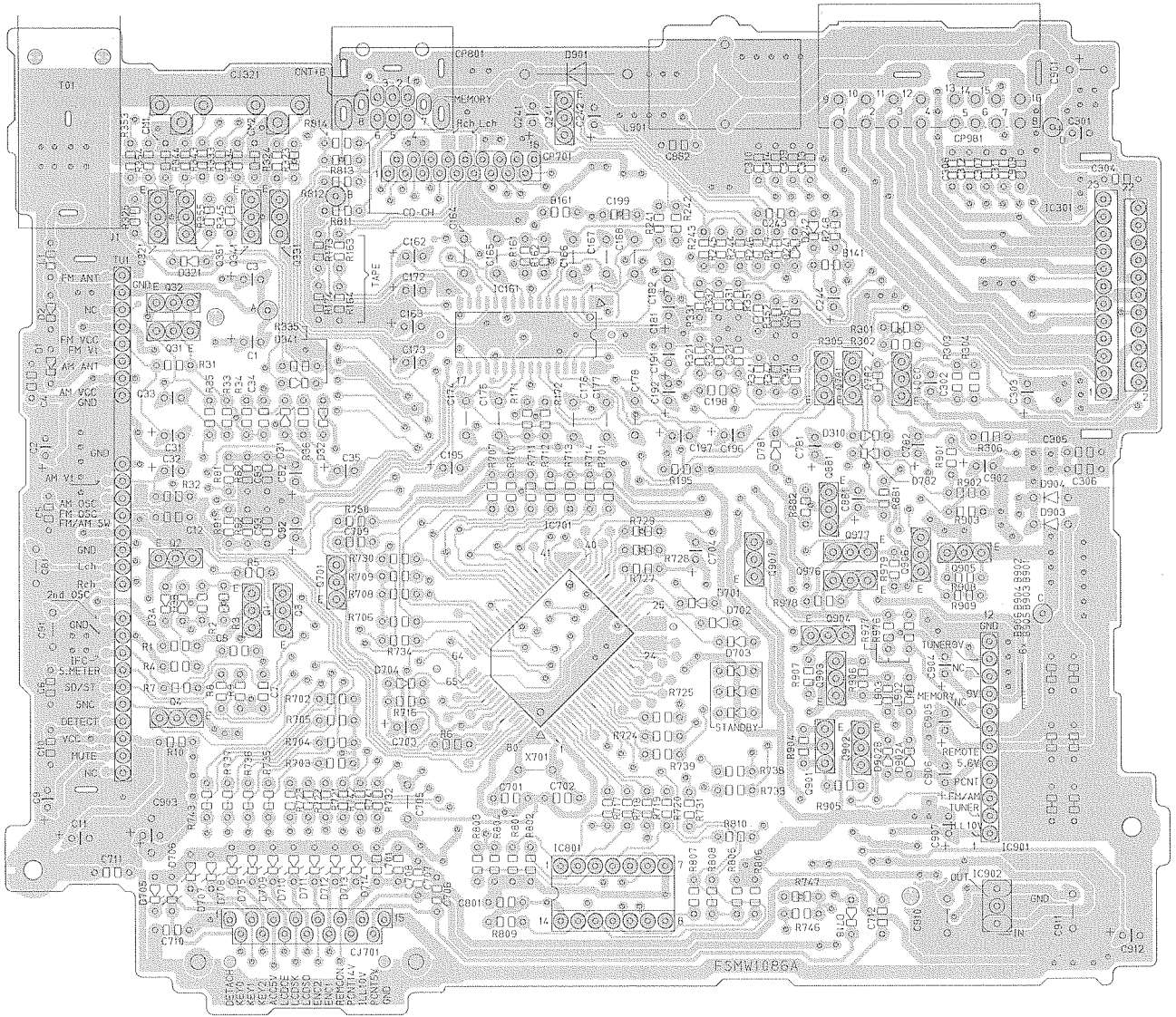


# Printed circuit boards

## ■ Main board (Forward side)



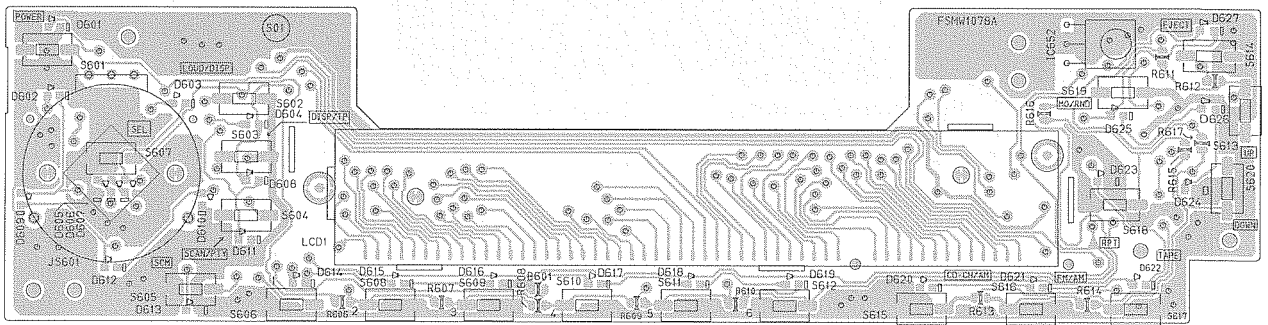
■ Main board (Reverse side)



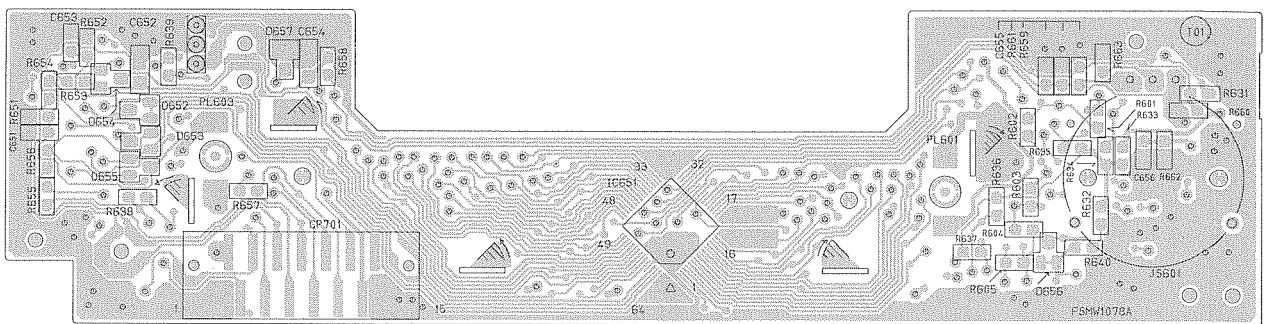


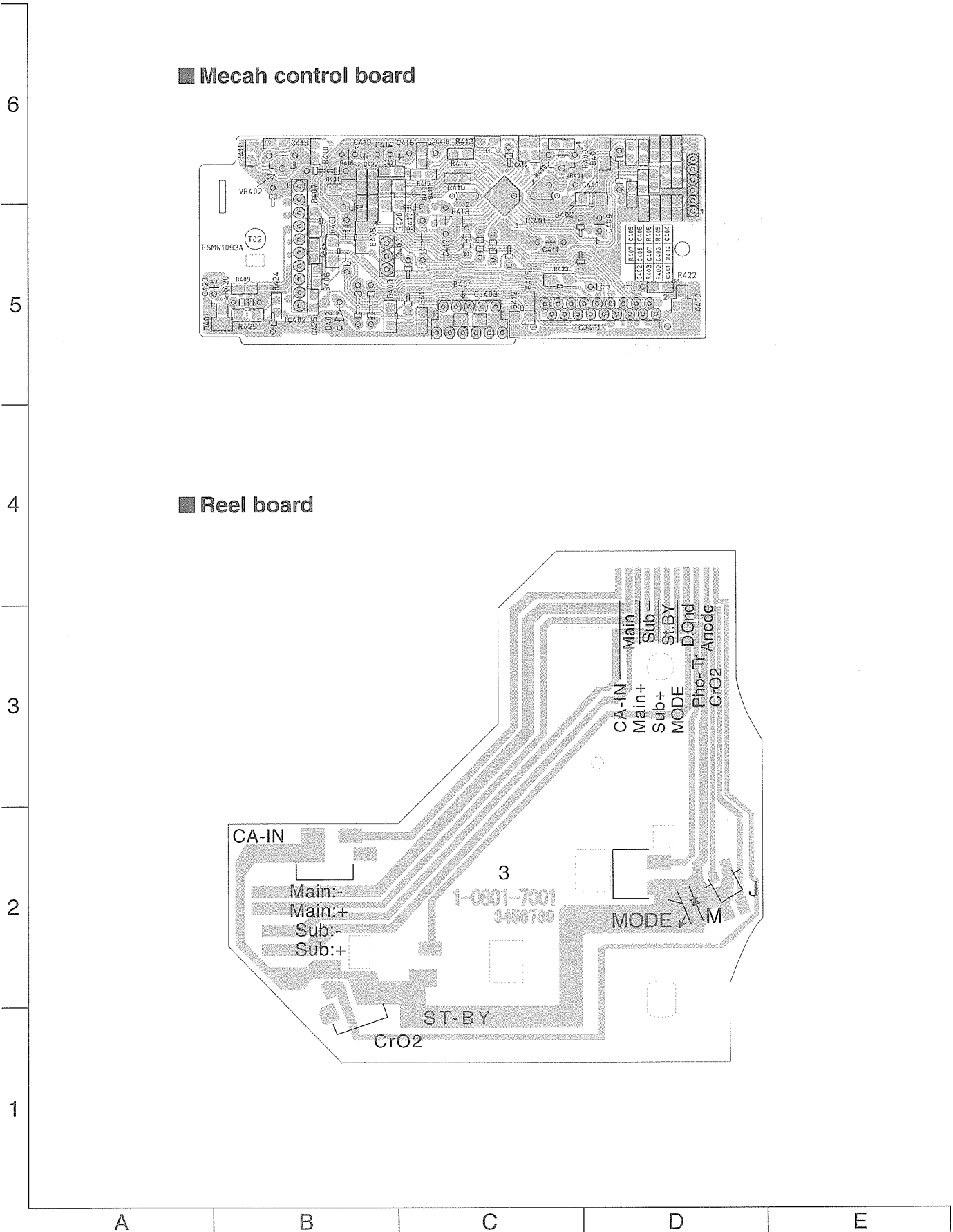
6  
5  
4  
3  
2  
1  
A B C D E

■ Front board (Forward side)



■ Front board (Reverse side)





# PARTS LIST

[ KS-FX250 ]

\* All printed circuit boards and its assemblies are not available as service parts.

## Areas suffix

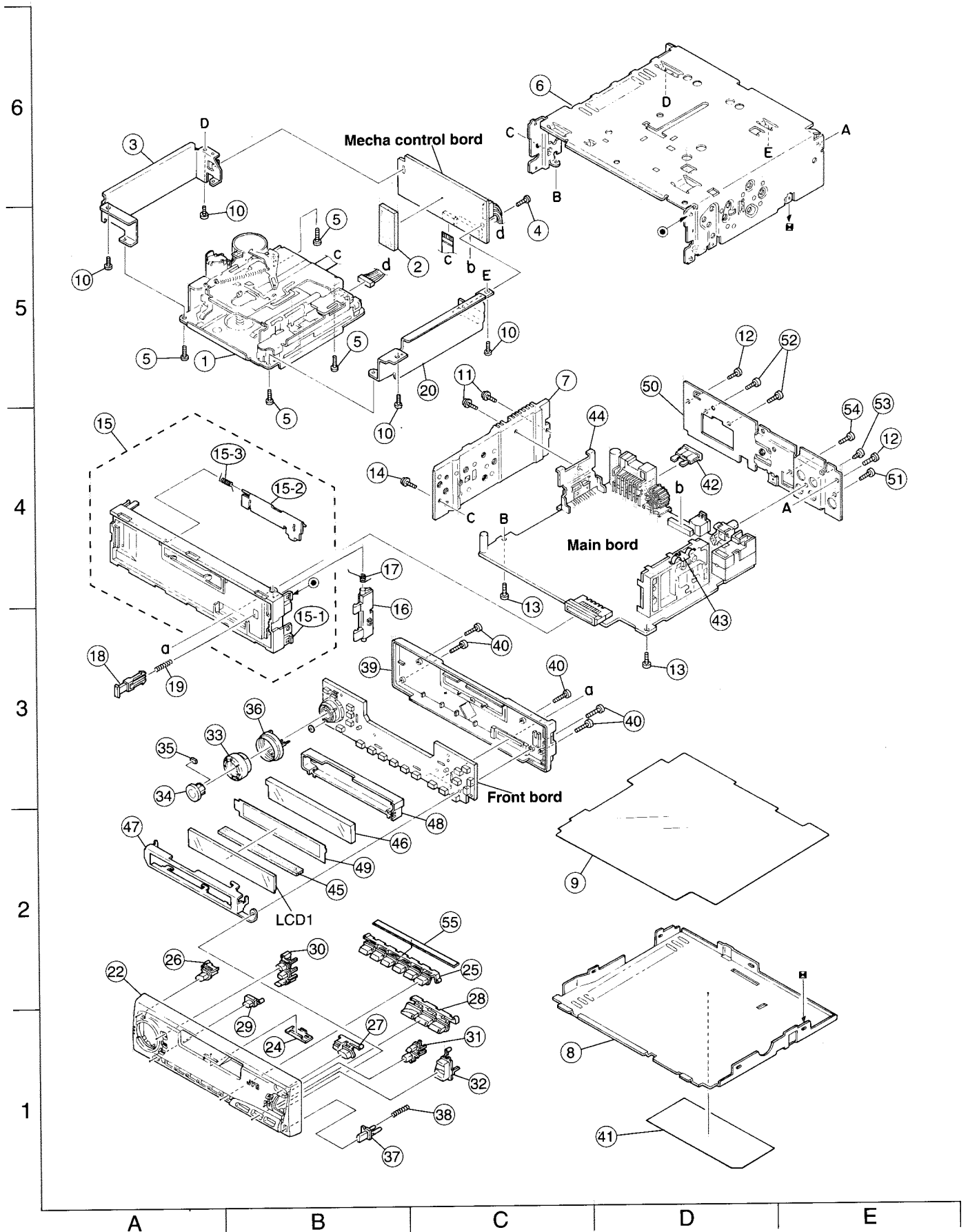
J ----- Northern America

## - Contents -

Exploded view of general assembly and parts list .....	3-2
Cassette mechanism assembly and parts list .....	3-4
Electrical parts list .....	3-9
Packing materials and accessories parts list .....	3-13

# Exploded view of general assembly and parts list

Block No. M 1 M M





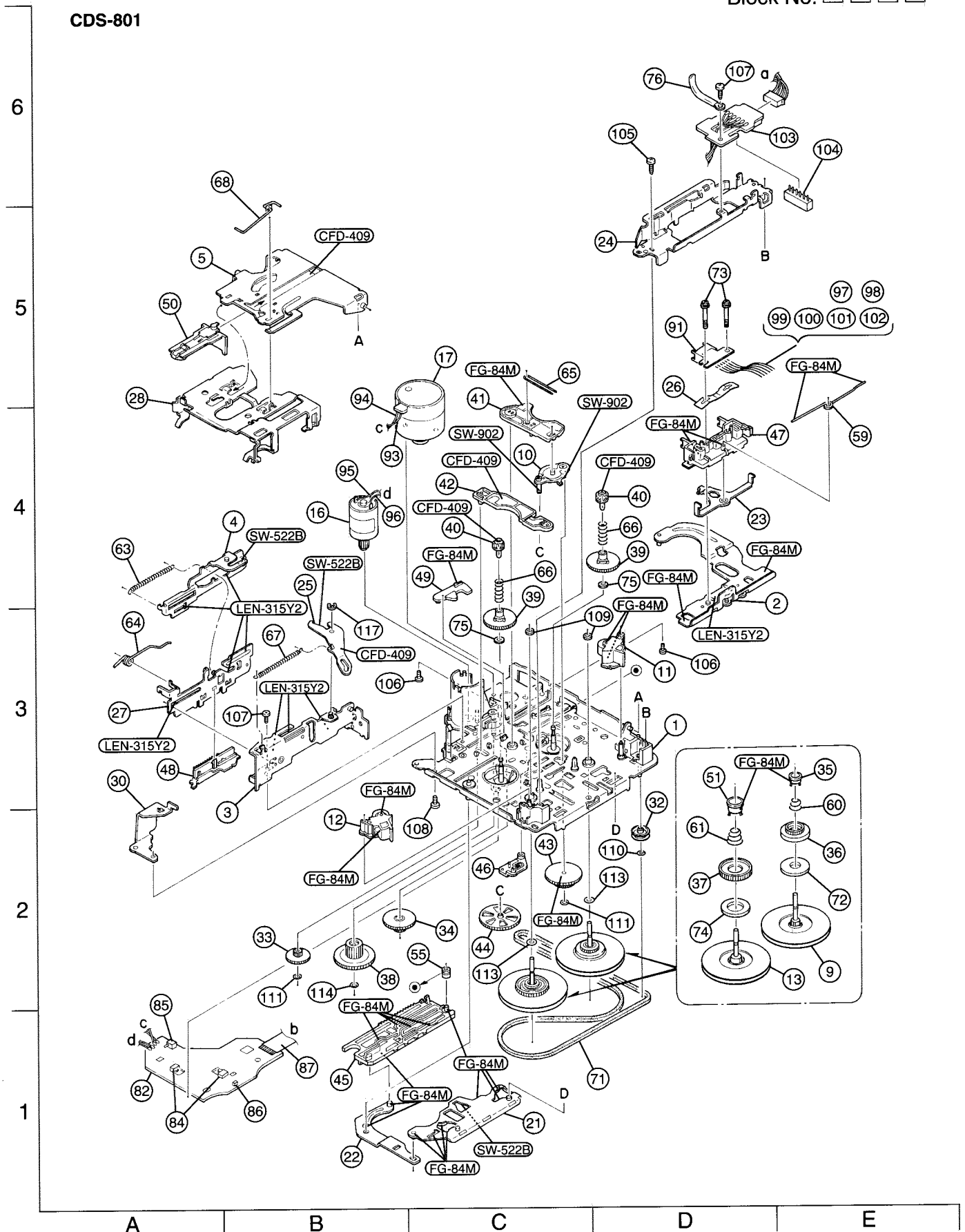
■ Parts list (General assembly)

BLOCK NO. <span style="border: 1px solid black; padding: 0 5px;">M1MM</span>							
△	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	1	-----	CASSETTE MECHA	CDS-801	1		
	2	FSYH4036-050	SPACER		1		
	3	FSKL2001-001	MECHA BKT(L)	LEFT BKT	1		
	4	QYSDST2606Z	SCREW	PCB+MECHA	1		
	5	QYSDST2606Z	SCREW	MECHA+M.BKT	4		
	6	FSJC1056-001	TOP CHASSIS		1		
	7	FSMH3001-001	SIDE PANEL		1		
	8	FSKM3011-002	BOTTOM COVER		1		
	9	FSMA3004-003	INSULATOR		1		
	10	QYSDST2604Z	SCREW	CHASSIS+MECHA B	4		
	11	FSKZ4005-001	SCREW	CHASSIS+SIDE PA	2		
	12	QYSDST2606Z	SCREW	CHASSIS+REAR BK	2		
	13	QYSDST2606Z	SCREW	CHASSIS+MAIN PW	2		
	14	FSKZ4005-001	SCREW	SIDE PANEL+IC B	1		
	15	ZCKSFX250J-FB	FRONT CHASS ASS		1		
	15-1	FSJC1052-001	FRONT CAHSSIS		1		
	15-2	FSJC3014-003	CASSETTE LID	CH-CONTROL	1		
	15-3	VKW4947-002	DOOR SPRING		1		
	16	FSKS3010-001	LOCK LEVER		1		
	17	FSKW4005-003	TORSION SPRING		1		
	18	FSXP3026-002	RLS KNOB		1		
	19	FSKW3002-004	COMP.SPRING		1		
	20	FSKL2002-001	MECHA BKT(R)	RIGHT BKT	1		
	22	ZCKSFX250J-NPA	FRONT PANEL ASS		1		
	24	FSJK3014-001	LIGHT LENS		1		
	25	FSXP2045-002	PRESET BUTTON	1-6	1		
	26	FSXP3053-002	POWER BUTTON		1		
	27	FSXP3064-001	EJECT BUTTON		1		
	28	FSXP2038-001	D.FUNC BUTTON		1		
	29	FSXP4006-001	SCM BUTTON	SCM	1		
	30	FSXP2041-001	PUSH BUTTON(L)		1		
	31	FSXP3062-001	PUSH BUTTON(R)		1		
	32	FSXP2043-001	UP DOWN BUTTON		1		
	33	FSXK3003-005	VOL.KNOB	JOG DIAL	1		
	34	FSXP3061-001	SEL BUTTON		1		
	35	FSYH4036-032	SAPCER	FOR SEL BUTTON	1		
	36	FSJK3027-001	RIM LENS		1		
	37	FSXP3063-001	DETACH BUTTON		1		
	38	FSKW3002-012	COMP. SPRING	FOR DETACH BUTT	1		
	39	FSJC1051-001	REAR COVER		1		
	40	VKZ4777-001	MINI SCREW	F.PANEL+REAR CO	5		
	41	FSYN3108-006	NAME PLATE		1		
	42	QMFZ021-100-J1	FUSE		1		
	43	VMA4652-001SS	EARTH PLATE		1		
	44	FSKL4018-00B	IC BRACKET		1		
	45	QN20440-001	RUBBER CONNE		1		
	46	FSJK3033-001	LCD LENS		1		
	47	FSYH3021-001	LCD CASE		1		
	48	FSKS3020-001	LENS CASE		1		
	49	FSYH4075-001	SHEET		1		
	50	FSKM3010-011	REAR BRACKET		1		
	51	QYSDST2606Z	SCREW	REAR BKT+ANT JA	1		
	52	QYSDST2606Z	SCREW	REAR BKT+16P CN	2		
	53	QYSDSF3006Z	SCREW	REAR BKT+PIN JA	1		
	54	QYSDST2606Z	SCREW	REAR BKT+CD IN	1		
	55	FSYH4036-031	BUTTON SHEET	PRESET BUTTON	1		
	LCD 1	QLD0101-001	LCD MODULE		1		

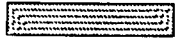


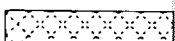

# Cassette mechanism assembly and parts list

Block No. **M** **2** **M** **M**

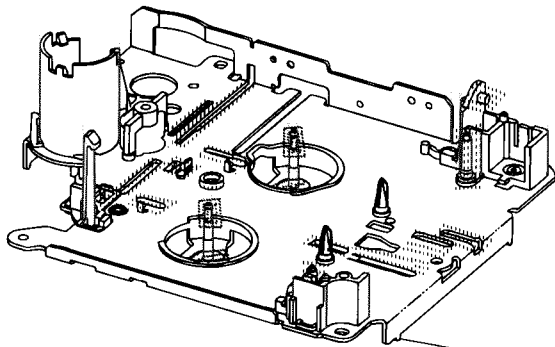
CDS-801



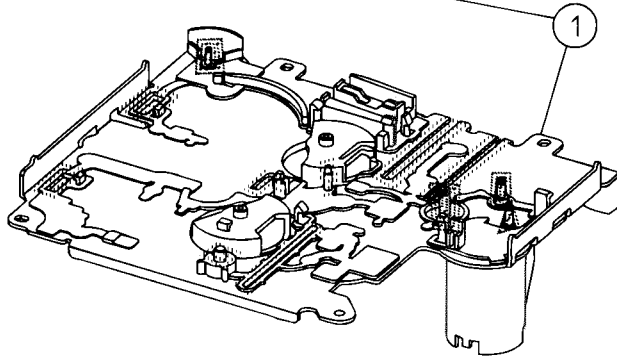
# Grease point 1/2

	SW-902
	SW-522B
	FG-84M
	CFD-409
	LEN-315Y2

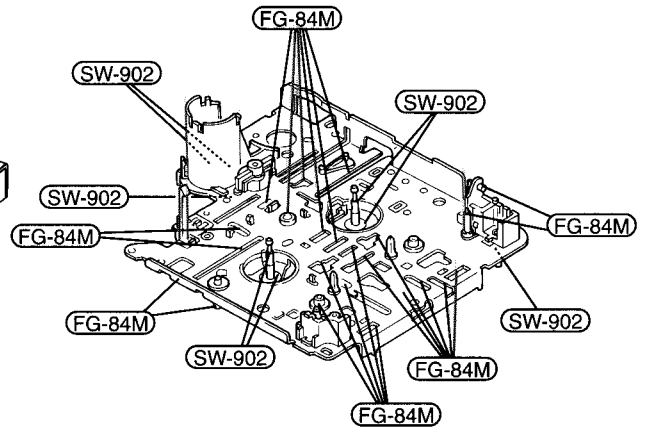
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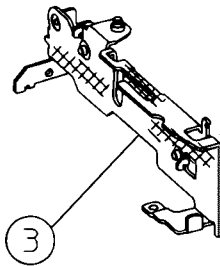
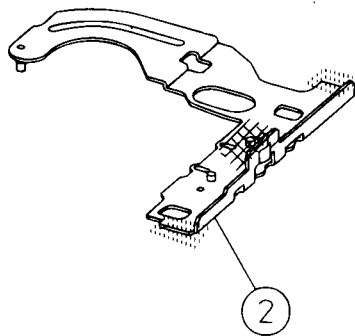
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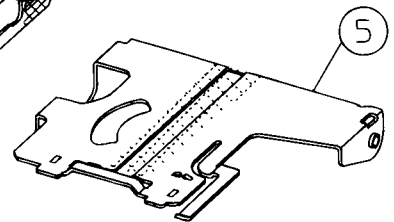
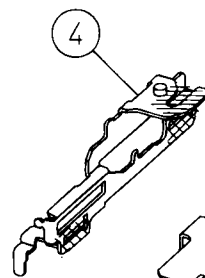
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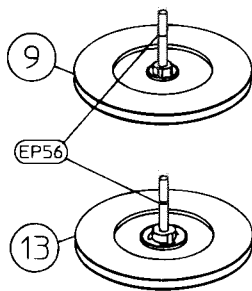
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2

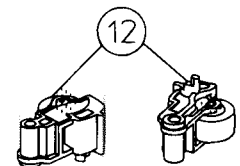
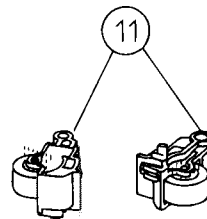
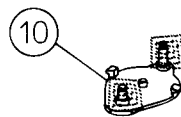


1



EP56

13



A

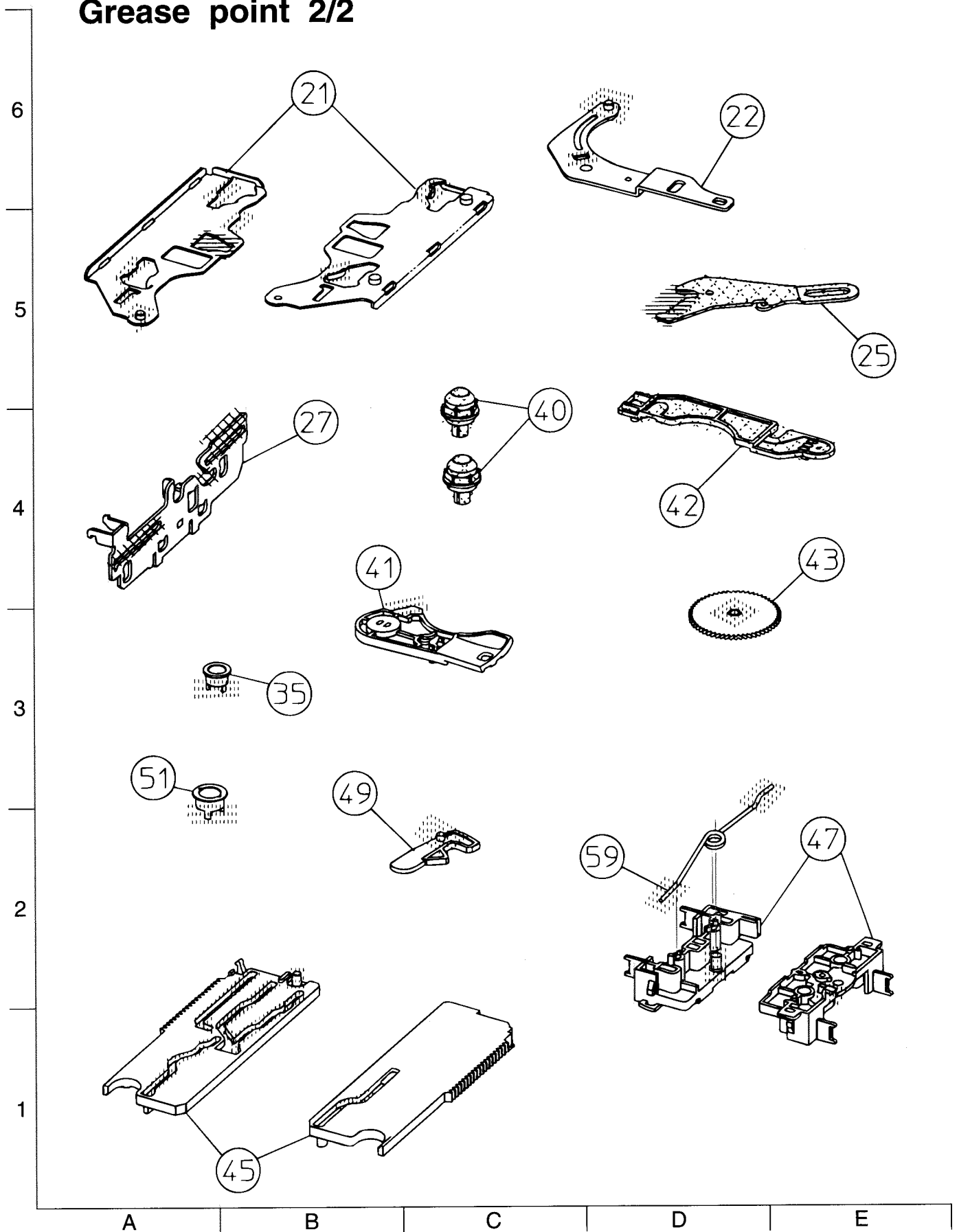
B

C

D

E

### Grease point 2/2



### ■ Parts list (Cassette mechanism)

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△	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR	
	1	X-0801-1003S	MAIN CHASSIS AS		1			
	2	X-0801-1002S	SLIDE CHASSIS A		1			
	3	X-0801-1008S	SIDE BKT ASS'Y		1			
	4	X-0801-1010S	EJECT CAM LIMIT		1			
	5	X-0801-1013S	CASSETTE HANGER		1			
	9	1-0801-6002S	FLYWHEEL ASSY F		1			
	10	X-0801-2003S	GEAR BASE ASS'Y		1			
	11	X-0801-2021S	PINCH ARM F ASS		1			
	12	X-0801-2022S	PINCH ARM R ASS		1			
	13	1-0801-6003S	FLYWHEEL ASSY R		1			
	16	X-0801-7006S	SUB MOTOR ASS'Y		1			
	17	X-0801-7057S	MAIN MOTOR ASSY		1			
	21	1-0801-1003S	DIRECTION PLATE		1			
	22	1-0801-1004S	DIRECTION LINK		1			
	23	1-0801-1005S	PINCH SPG ARM		1			
	24	1-0801-1006S	CASSETTE GUIDE		1			
	25	1-0801-1007S	LOAD ARM		1			
	26	1-0801-1009S	HEAD SUPT SPG		1			
	27	1-0801-1011S	EJECT CAM PLATE		1			
	28	1-0801-1012S	CASSETTE HOLDER		1			
	30	1-0801-1020S	REINFORCE BRKT		1			
	32	1-0101-2056S	IDLE PULLEY(A1)		1			
	33	1-0801-2004S	REDUCTION GEARA		1			
	34	1-0801-2005S	REDUCTION GEARB		1			
	35	1-0801-2006S	SPG HOLDER F		1			
	36	1-0801-2007S	FRICTION GEARPL		1			
	37	1-0801-2008S	FRICTION GEARFF		1			
	38	1-0801-2009S	MODE GEAR		1			
	39	1-0801-2010S	REEL SPINDLE		2			
	40	1-0801-2011S	REEL DRIVER		2			
	41	1-0801-2014S	GEAR BASE ARM		1			
	42	1-0801-2015S	GEAR BASE LINK		1			
	43	1-0801-2016S	TAKE UP GEAR		1			
	44	1-0801-2017S	REFLECTOR GEAR		1			
	45	1-0801-2018S	MODE RACK		1			
	46	1-0801-2019S	MODE SW ACTUATR		1			
	47	1-0801-2020S	TAPE GUIDE		1			
	48	1-0801-2023S	LOAD RACK		1			
	49	1-0801-2024S	RACK LINK		1			
	50	1-0801-2025S	CASSETTE CATCH		1			
	51	1-0801-2030S	SPG HOLDER R		1			
	55	1-0801-3005S	RACK COLLAR		1			
	59	1-0801-4001S	PINCH ARM SPG		1			
	60	1-0801-4002S	TU SPG		1			
	61	1-0801-4003S	FF SPG		1			
	63	1-0801-4005S	EJECTCAM PLT SP		1			
	64	1-0801-4006S	HOLDER CUSH SPG		1			
	65	1-0801-4007S	GEAR BASE SPG		1			
	66	1-0801-4008S	REEL DRIVER SPG		2			
	67	1-0801-4009S	LOAD ARM SPG		1			
	68	1-0801-4011S	HOLDER STAB SPG		1			
	71	1-0801-5001S	BELT		1			
	72	1-0801-5002S	FELT	7.5*18.5*1.0	1			
	73	1-0801-5003S	AZIMUTH SCR		2			

BLOCK NO.

REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
74	1-0801-5004S	FELT	11*18.5*1.0	1		
75	1-0801-5005S	REEL WASHER		2		
76	21732-6280-36S	LUG PLATE		1		
82	1-0801-7001S	REEL PCB DL		1		
84	1-0801-7003S	SW(MATSUSHITA)	(ESE22MH2L)	2		
85	1-0801-7005S	SW	(ALPS SPPB64)	1		
86	1-0801-7024S	PHOTO SENSOR	(ON2170-QR FS)	1		
87	1-0801-7026S	FLAT CABLE 10P		1		
91	1-0801-7014S	HEAD	(MITSUMIP-5544)	1		
93	10801-7009-0S	M.MOTOR WIRE	BLACK	1		
94	10801-7009-1S	M.MOTOR WIRE	RED	1		
95	10801-7010-0S	S.MOTOR WIRE	ORANGE	1		
96	10801-7010-1S	S.MOTOR WIRE	BROWN	1		
97	10801-7015-0S	HEAD WIRE BLACK		1		
98	10801-7015-1S	HEAD WIRE BROWN		1		
99	10801-7015-2S	HEAD WIRE RED		1		
100	10801-7015-3S	HEAD WIRE ORANG		1		
101	10801-7015-4S	HEAD WIRE YELLO		1		
102	10801-7015-5S	HEAD WIRE WHITE		1		
103	1-0801-7016S	HEAD PCB		1		
104	1-0801-7025S	CONN S6B-PH-K-S		1		
105	21382-3060-C2S	+PLAIN B-TYPE	M2.3*6.0	1		
106	2-1032-0025-C2S	+SCREW PLAIN	M2*2.5	2		
107	21332-0035-P1S	S-TYPE PRECISIO	M2*3.5	2		
108	21112-6035-C2S	+SCREW PLAIN	M2.6*3.5	1		
109	2-1816-0032-E8S	LMW-S	1.6*3.2*0.35	2		
110	21812-0032-D2S	PSW-S	1.2*3.2*0.25	1		
111	1-0036-5024S	PSW-S(REEL B)	1.5*3.2*0.25	2		
113	2-1821-0040-D1S	PSW	2.1*4.0*0.25	2		
114	21821-0040-D2S	PSW-S	2.1*4.0*0.25	1		
117	2-1711-5040-16S	E-RING	1.5	1		

# Electrical parts list

■ Main board

BLOCK NO. 01111111				BLOCK NO. 01111111							
A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C	1	GER41CM-106	E CAPACITOR	10MF 20X 16V		C	311	GCBB1HK-101Y	C CAPACITOR	100PF 10X 50V	
C	2	GER41CM-106	E CAPACITOR	10MF 20X 16V		C	312	GCBB1HK-101Y	C CAPACITOR	100PF 10X 50V	
C	4	QDV81HK-223Y	C CAPACITOR			C	313	GCBB1HK-101Y	C CAPACITOR	100PF 10X 50V	
C	5	QDV81HK-4R7Y	C CAPACITOR			C	314	GCBB1HK-101Y	C CAPACITOR	100PF 10X 50V	
C	6	QDV81CM-103Y	C CAPACITOR			C	321	GCBB1HK-471Y	C CAPACITOR	470PF 10X 50V	
C	8	GCBB1HK-121Y	E CAPACITOR	120PF 10X 50V		C	331	GCBB1HK-471Y	C CAPACITOR	470PF 10X 50V	
C	9	GER41HM-104Z	E CAPACITOR	-10MF 20X 50V		C	341	GCBB1HK-471Y	C CAPACITOR	470PF 10X 50V	
C	10	GDGB1HK-102Y	C RESISTOR	180 5X 1/4W		C	351	GDUB1HJ-270Y	C CAPACITOR	470PF 10X 50V	
C	12	GER141J-181Y	C RESISTOR	-10MF 20X 50V		C	701	GDUB1HJ-270Y	C CAPACITOR	470PF 10X 50V	
C	31	GER41HM-104Z	E CAPACITOR	-10MF 20X 50V		C	702	QDCB1HJ-220Y	C CAPACITOR		
C	32	GER41HM-104Z	E CAPACITOR	-10MF 20X 50V		C	703	GER41CM-106	E CAPACITOR	10MF 20X 16V	
C	33	GEQ1HM-225Z	E CAPACITOR	2.2MF 20X 50V		C	704	GERFOJM-107Z	TF CAPACITOR	100MF 20X 6.3V	
C	34	GDGB1HK-102Y	C CAPACITOR	2.2MF 20X 50V		C	705	GFV81HJ-224Z	TF CAPACITOR	-22MF 5X 50V	
C	35	GER41AM-227	C CAPACITOR	220MF 20X 10V		C	707	GCFB1HZ-104Y	C CAPACITOR	-10MF +80:-20X	
C	81	GDY11EK-273Z	C CAPACITOR	1.0MF 20X 50V		C	709	GCFF1HZ-473	C CAPACITOR	-0.47MF +80:-20X	
C	82	GER41HM-105	E CAPACITOR	1.0MF 20X 50V		C	710	GCFF1HZ-104Y	C CAPACITOR	-10MF +80:-20X	
C	91	QDX11EK-273Z	E CAPACITOR	1.0MF 20X 50V		C	711	GCBB1HK-101Y	C CAPACITOR	100PF 10X 50V	
C	92	GER41HM-105	E CAPACITOR	1.0MF 20X 50V		C	712	GCBB1HK-471Y	C CAPACITOR	470PF 10X 50V	
C	162	GER41HM-105	E CAPACITOR	1.0MF 20X 50V		C	781	GER41AM-227	E CAPACITOR	220MF 20X 10V	
C	163	GER41HM-105	E CAPACITOR	1.0MF 20X 50V		C	782	GER41CM-476	E CAPACITOR	4.7MF 20X 16V	
C	164	QFLA1HJ-822Z	M CAPACITOR	8200PF 5X 50V		C	801	GCFF1HZ-473	C CAPACITOR	-0.47MF +80:-20X	
C	165	GFV61HJ-154Z	TF CAPACITOR	-15MF 5X 50V		C	901	GEF0337-22B	E CAPACITOR	2200MF	
C	166	GFV61HJ-224Z	TF CAPACITOR	-22MF 5X 50V		C	902	GER41CM-106	E CAPACITOR	10MF 20X 16V	
C	167	GFV61HJ-333Z	TF CAPACITOR	-0.33MF 5X 50V		C	903	GER41AM-227	E CAPACITOR	220MF 20X 10V	
C	168	QFLK1HJ-562Z	M CAPACITOR	5600PF 5X 50V		C	904	GER41AM-227	E CAPACITOR	220MF 20X 10V	
C	173	GER41HM-105	E CAPACITOR	1.0MF 20X 50V		C	905	GER41CM-106	E CAPACITOR	10MF 20X 16V	
C	174	QFLA1HJ-822Z	M CAPACITOR	1.0MF 20X 50V		C	906	GER41CM-106	E CAPACITOR	10MF 20X 16V	
C	175	QFLA1HJ-822Z	M CAPACITOR	1.0MF 20X 50V		C	907	GER41CM-106	E CAPACITOR	10MF 20X 16V	
C	176	GFV61HJ-154Z	TF CAPACITOR	-15MF 5X 50V		C	909	GDYB1CM-103Y	C CAPACITOR	10MF 20X 16V	
C	177	GFV61HJ-224Z	TF CAPACITOR	-22MF 5X 50V		C	910	GFV11HJ-334AZ	TF CAPACITOR	-33MF 5X 50V	
C	178	GFV61HJ-333Z	TF CAPACITOR	-0.33MF 5X 50V		C	911	GFV61HJ-104Z	TF CAPACITOR	-10MF 5X 50V	
C	179	QFLK1HJ-562Z	M CAPACITOR	5600PF 5X 50V		C	912	GE20423-22B	E CAPACITOR	2200MF	
C	181	GER41HM-105	E CAPACITOR	1.0MF 20X 50V		CJ321	QNN0170-001	PIN JACK (CREEL)			
C	182	GER41HM-105	E CAPACITOR	1.0MF 20X 50V		CJ701	VMC0334-001	CONNECTOR			
C	191	GER41HM-105	E CAPACITOR	1.0MF 20X 50V		CM	1	QVY150-050Y	BUS WIRE		
C	192	GER41HM-105	E CAPACITOR	1.0MF 20X 50V		CP701	QGB1214J1-18S	CONNECTOR			
C	195	GER41CM-476	E CAPACITOR	47MF 20X 16V		CP801	QNS0093-001	CONNECTOR			
C	196	GER41AM-107	E CAPACITOR	100MF 20X 10V		CP981	QNC0002-001	16P CONNECTOR			
C	197	GER41AM-107	E CAPACITOR	100MF 20X 10V		D	1	1SS133-T2	SI DIODE IM		
C	198	QDYB1CM-103Y	C CAPACITOR	100MF 20X 10V		D	2	1SS133-T2	SI DIODE IM		
C	199	GCBB1HK-101Y	C CAPACITOR	1.0MF +80:-20X		D	3A	1SS254-T2	SI DIODE		
C	211	GER41HM-105	E CAPACITOR	1.0MF 20X 50V		D	3B	1SS254-T2	SI DIODE		
C	242	GERF1CM-226Z	E CAPACITOR	22MF 20X 16V		D	31	MTZJ9-1C-T2	Z DIODE I/M		
C	243	GCFF1HZ-473	C CAPACITOR	-0.47MF +80:-20X		D	32	1SS133-T2	SI DIODE IM		
C	244	GERF1HM-474Z	E CAPACITOR	-4.7MF 20X 50V		D	241	RB721G-T2	S-B DIODE		
C	301	GER41CM-106	E CAPACITOR	10MF 20X 16V		D	242	RB721G-T2	S-B DIODE		
C	302	GERF1HM-225Z	E CAPACITOR	4.7MF 20X 25V		D	310	1SS133-T2	SI DIODE IM		
C	303	GERF1EM-475Z	E CAPACITOR	4.7MF 20X 25V		D	321	1SS254-T2	SI DIODE		
C	304	QDYB1CM-103Y	C CAPACITOR	100PF 10X 50V		D	7A	1SS133-T2	SI DIODE IM		
C	305	QDYB1CM-103Y	C CAPACITOR	100PF 10X 50V		D	7B	1SS133-T2	SI DIODE IM		
C	306	QDYB1CM-103Y	C CAPACITOR	100PF 10X 50V		D	703	MTZJ5-68-T2	ZENER DIODE		
C	307	GCBB1HK-101Y	C CAPACITOR	100PF 10X 50V		D	706	MTZJ5-68-T2	ZENER DIODE		
C	308	GCBB1HK-101Y	C CAPACITOR	100PF 10X 50V		D	707	MTZJ5-68-T2	ZENER DIODE		
C	309	GCBB1HK-101Y	C CAPACITOR	100PF 10X 50V		D	708	MTZJ5-68-T2	ZENER DIODE		
C	310	GCBB1HK-101Y	C CAPACITOR	100PF 10X 50V		D	709	MTZJ5-68-T2	ZENER DIODE		
C	310	GCBB1HK-101Y	C CAPACITOR	100PF 10X 50V		D	710	MTZJ5-68-T2	ZENER DIODE		

BLOCK NO. 01111111

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R 31	GRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
R 32	GRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
R 33	GRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
R 34	GRE141J-103Y	C RESISTOR	10K 5% 1/4W	
R 35	GRE141J-152Y	C RESISTOR	1.5K 5% 1/4W	
R 36	GRE141J-671Y	C RESISTOR	470 5% 1/4W	
R 81	GRE141J-672Y	C RESISTOR	3.9K 5% 1/4W	
R 82	GRE141J-392Y	C RESISTOR	4.3K 5% 1/4W	
R 91	GRE141J-472Y	C RESISTOR	3.9K 5% 1/4W	
R 92	GRE141J-392Y	C RESISTOR	4.3K 5% 1/4W	
R 161	GRE141J-223Y	C RESISTOR	22K 5% 1/4W	
R 162	GRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
R 163	GRE141J-392Y	C RESISTOR	5.1K 5% 1/4W	
R 164	GRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
R 171	GRE141J-223Y	C RESISTOR	22K 5% 1/4W	
R 172	GRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
R 173	GRE141J-392Y	C RESISTOR	5.1K 5% 1/4W	
R 174	GRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
R 195	GRE141J-100Y	C RESISTOR	10 5% 1/4W	
R 241	GRE141J-154Y	C RESISTOR	150K 5% 1/4W	
R 242	GRE141J-154Y	C RESISTOR	150K 5% 1/4W	
R 243	GRE141J-184Y	C RESISTOR	180K 5% 1/4W	
R 244	GRE141J-223Y	C RESISTOR	22K 5% 1/4W	
R 245	GRE141J-123Y	C RESISTOR	12K 5% 1/4W	
R 246	GRE141J-101Y	C RESISTOR	100 5% 1/4W	
R 247	GRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
R 248	GRE141J-563Y	C RESISTOR	56K 5% 1/4W	
R 301	GRE141J-472Y	C RESISTOR	47K 5% 1/4W	
R 302	GRE141J-303Y	C RESISTOR	47K 5% 1/4W	
R 303	GRE141J-302Y	C RESISTOR	470 5% 1/4W	
R 321	GRE141J-273Y	C RESISTOR	27K 5% 1/4W	
R 322	GRE141J-823Y	C RESISTOR	82K 5% 1/4W	
R 325	GRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
R 331	GRE141J-273Y	C RESISTOR	27K 5% 1/4W	
R 332	GRE141J-823Y	C RESISTOR	82K 5% 1/4W	
R 341	GRE141J-273Y	C RESISTOR	27K 5% 1/4W	
R 342	GRE141J-823Y	C RESISTOR	82K 5% 1/4W	
R 343	GRE141J-102Y	C RESISTOR	820 5% 1/4W	
R 344	GRE141J-101Y	C RESISTOR	100 5% 1/4W	
R 351	GRE141J-273Y	C RESISTOR	27K 5% 1/4W	
R 352	GRE141J-823Y	C RESISTOR	82K 5% 1/4W	
R 353	GRE141J-102Y	C RESISTOR	820 5% 1/4W	
R 354	GRE141J-101Y	C RESISTOR	100 5% 1/4W	
R 355	GRE141J-252Y	C RESISTOR	2.2K 5% 1/4W	
R 701	GRE141J-473Y	C RESISTOR	47K 5% 1/4W	
R 702	GRE141J-473Y	C RESISTOR	47K 5% 1/4W	
R 703	GRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
R 704	GRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
R 705	GRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
R 706	GRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
R 708	GRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
R 709	GRE141J-473Y	C RESISTOR	47K 5% 1/4W	
R 710	GRE141J-473Y	C RESISTOR	47K 5% 1/4W	
R 711	GRE141J-473Y	C RESISTOR	47K 5% 1/4W	
R 712	GRE141J-473Y	C RESISTOR	47K 5% 1/4W	

BLOCK NO. 01111111

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
D 711	MTZJ5.6B-T2	ZENER DIODE		
D 712	MTZJ5.6B-T2	ZENER DIODE		
D 713	MTZJ5.6B-T2	ZENER DIODE		
D 715	MTZJ5.6B-T2	ZENER DIODE		
D 718	RB7210-T2	S.B. DIODE		
D 781	1SS254-T2	SI DIODE		
D 782	MTZJ11B-T2	ZENER DIODE		
D 901	1N5401-TU-15	DIODE		
D 903	DSK10C-T1	DIODE		
D 904	DSK10C-T1	DIODE		
D902A	1SS254-T2	SI DIODE		
D902B	1SS254-T2	SI DIODE		
IC161	TEA6320T-X	IC		
IC301	HA13158A	IC		
IC701	LC72366-9598	IC		
IC801	HD74HC126P	IC		
IC901	AN80T05LF	IC		
IC902	KIA7810PI	10V REGULATOR		
J 1	GNZ0009-001	CAR ANT JACK		
J 1	GGL231K-4R7Y	INDUCTOR		
L 701	GGL231K-4R7Y	INDUCTOR		
L 901	QGR0703-001	CHOKO COIL		
L 902	GGL231K-470Y	INDUCTOR		
L 903	GRE141J-351Y	INDUCTOR	150 5% 1/4W	
Q 1	KTA1267/YG/-T	TRANSISTOR		
Q 2	2SA1706/ST/-T	TRANSISTOR		
Q 3	KRC102M-T	D.TR-I.M		
Q 4	KRC102M-T	D.TR-I.M		
Q 31	KTC3199/GL/-T	TRANSISTOR		
Q 32	KTC3199/GL/-T	TRANSISTOR		
Q 241	KTC3199/GL/-T	TRANSISTOR		
Q 301	KRC102M-T	D.TR-I.M		
Q 321	2SD1450/ST/-T	TRANSISTOR		
Q 351	2SD1450/ST/-T	TRANSISTOR		
Q 701	KTC3199/GL/-T	TRANSISTOR		
Q 781	KRA102M-T	D.TR-I.M		
Q 782	KRA102M-T	D.TR-I.M		
Q 901	KTA1267/YG/-T	TRANSISTOR		
Q 902	KRC102M-T	D.TR-I.M		
Q 903	KRA102M-T	D.TR-I.M		
Q 904	KRC102M-T	D.TR-I.M		
Q 905	2SA1706/ST/-T	TRANSISTOR		
Q 906	KRC102M-T	D.TR-I.M		
Q 976	KTA1267/YG/-T	TRANSISTOR		
Q 977	KTC3199/GL/-T	TRANSISTOR		
R 1	GRE141J-100Y	C RESISTOR	10 5% 1/4W	
R 2	GRE141J-103Y	C RESISTOR	10K 5% 1/4W	
R 3	GRE141J-103Y	C RESISTOR	10K 5% 1/4W	
R 4	GRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
R 5	GRE141J-103Y	C RESISTOR	1.0K 5% 1/4W	
R 6	GDYB10M-103Y	C CAPACITOR		
R 7	GRE141J-103Y	C RESISTOR	10K 5% 1/4W	
R 8	GRE141J-155Y	C RESISTOR	1.5M 5% 1/4W	
R 9	GRE141J-335Y	C RESISTOR	3.3M 5% 1/4W	
R 10	GRE141J-683Y	C RESISTOR	6.8 5% 1/4W	



■ Front board

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R 713	GRE141J-563V	C RESISTOR	56K 5% 1/4W	
R 714	GRE141J-473V	C RESISTOR	47K 5% 1/4W	
R 715	GRE141J-473V	C RESISTOR	47K 5% 1/4W	
R 716	GRE141J-473V	C RESISTOR	47K 5% 1/4W	
R 717	GRE141J-472V	C RESISTOR	4.7K 5% 1/4W	
R 718	GRE141J-472V	C RESISTOR	4.7K 5% 1/4W	
R 719	GRE141J-472V	C RESISTOR	4.7K 5% 1/4W	
R 720	GRE141J-472V	C RESISTOR	4.7K 5% 1/4W	
R 721	GRE141J-222V	C RESISTOR	2.2K 5% 1/4W	
R 722	GRE141J-222V	C RESISTOR	2.2K 5% 1/4W	
R 723	GRE141J-222V	C RESISTOR	2.2K 5% 1/4W	
R 724	GRE141J-332V	C RESISTOR	3.3K 5% 1/4W	
R 725	GRE141J-332V	C RESISTOR	3.3K 5% 1/4W	
R 726	GRE141J-473V	C RESISTOR	47K 5% 1/4W	
R 727	GRE141J-473V	C RESISTOR	47K 5% 1/4W	
R 728	GRE141J-222V	C RESISTOR	2.2K 5% 1/4W	
R 729	GRE141J-222V	C RESISTOR	2.2K 5% 1/4W	
R 730	GRE141J-222V	C RESISTOR	2.2K 5% 1/4W	
R 731	GRE141J-472V	C RESISTOR	4.7K 5% 1/4W	
R 732	GRE141J-103V	C RESISTOR	10K 5% 1/4W	
R 733	GRE141J-103V	C RESISTOR	10K 5% 1/4W	
R 734	GRE141J-103V	C RESISTOR	10K 5% 1/4W	
R 735	GRE141J-103V	C RESISTOR	10K 5% 1/4W	
R 736	GRE141J-103V	C RESISTOR	10K 5% 1/4W	
R 737	GRE141J-103V	C RESISTOR	10K 5% 1/4W	
R 738	GRE141J-103V	C RESISTOR	10K 5% 1/4W	
R 739	GRE141J-222V	C RESISTOR	2.2K 5% 1/4W	
R 740	GRE141J-103V	C RESISTOR	10K 5% 1/4W	
R 741	GRE141J-103V	C RESISTOR	10K 5% 1/4W	
R 742	GRE141J-103V	C RESISTOR	10K 5% 1/4W	
R 743	GRE141J-472V	C RESISTOR	4.7K 5% 1/4W	
R 744	GRE141J-473V	C RESISTOR	47K 5% 1/4W	
R 745	GRE141J-473V	C RESISTOR	47K 5% 1/4W	
R 746	GRE141J-473V	C RESISTOR	47K 5% 1/4W	
R 747	GRE141J-473V	C RESISTOR	47K 5% 1/4W	
R 748	GRE141J-243V	C RESISTOR	24K 5% 1/4W	
R 801	GRE141J-104V	C RESISTOR	100K 5% 1/4W	
R 802	GRE141J-104V	C RESISTOR	100K 5% 1/4W	
R 803	GRE141J-101V	C RESISTOR	100 5% 1/4W	
R 804	GRE141J-334V	C RESISTOR	330K 5% 1/4W	
R 805	GRE141J-334V	C RESISTOR	330K 5% 1/4W	
R 806	GRE141J-104V	C RESISTOR	100K 5% 1/4W	
R 807	GRE141J-101V	C RESISTOR	100 5% 1/4W	
R 808	GRE141J-223V	C RESISTOR	22K 5% 1/4W	
R 809	GRE141J-103V	C RESISTOR	10K 5% 1/4W	
R 810	GRE141J-104V	C RESISTOR	100K 5% 1/4W	
R 811	GRE141J-682V	C RESISTOR	6.8K 5% 1/4W	
R 812	GRE141J-682V	C RESISTOR	6.8K 5% 1/4W	
R 813	GRE141J-242V	C RESISTOR	2.4K 5% 1/4W	
R 814	GRE141J-682V	C RESISTOR	6.8K 5% 1/4W	
R 901	GRE141J-101V	C RESISTOR	100 5% 1/4W	
R 902	GRE141J-682V	C RESISTOR	6.8K 5% 1/4W	
R 903	GRE141J-113V	C RESISTOR	11K 5% 1/4W	
R 904	GRE141J-473V	C RESISTOR	47K 5% 1/4W	
R 905	GRE141J-473V	C RESISTOR	47K 5% 1/4W	
R 906	GRE141J-102V	C RESISTOR	10K 5% 1/4W	
R 907	GRE141J-473V	C RESISTOR	47K 5% 1/4W	
R 908	GRE141J-102V	C RESISTOR	10K 5% 1/4W	
R 909	GRE141J-473V	C RESISTOR	47K 5% 1/4W	
R 976	GRE141J-333V	C RESISTOR	33K 5% 1/4W	
R 977	GRE141J-683V	C RESISTOR	68K 5% 1/4W	
R 978	GRE141J-273V	C RESISTOR	27K 5% 1/4W	
R 979	GRE141J-473V	C RESISTOR	47K 5% 1/4W	
TU 1	GAU0171-001	TUNER		
X 701	GAX0406-001Z	CRYSTAL		

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C 651	NCB21HK-103X	C CAPACITOR		
C 652	NBE20JM-475X	TS E CAPACITOR		
C 653	NCB21HK-681X	C CAPACITOR		
CP701	VMC0335-001	C CONNECTOR		
D 601	SML310L7PMN/-X	LED		
D 602	LNJ308G81/1-3/7X	LED		
D 603	LNJ308G81/1-3/7X	LED		
D 604	LNJ308G81/1-3/7X	LED		
D 605	LNJ308G81/1-3/7X	LED		
D 606	LNJ308G81/1-3/7X	LED		
D 607	LNJ308G81/1-3/7X	LED		
D 608	LNJ308G81/1-3/7X	LED		
D 609	LNJ308G81/1-3/7X	LED		
D 610	LNJ308G81/1-3/7X	LED		
D 611	LNJ308G81/1-3/7X	LED		
D 612	LNJ308G81/1-3/7X	LED		
D 613	LNJ308G81/1-3/7X	LED		
D 614	LNJ308G81/1-3/7X	LED		
D 615	LNJ308G81/1-3/7X	LED		
D 616	LNJ308G81/1-3/7X	LED		
D 617	LNJ308G81/1-3/7X	LED		
D 618	LNJ308G81/1-3/7X	LED		
D 619	LNJ308G81/1-3/7X	LED		
D 620	LNJ308G81/1-3/7X	LED		
D 621	LNJ308G81/1-3/7X	LED		
D 622	LNJ308G81/1-3/7X	LED		
D 623	LNJ308G81/1-3/7X	LED		
D 624	LNJ308G81/1-3/7X	LED		
D 625	LNJ308G81/1-3/7X	LED		
D 626	LNJ308G81/1-3/7X	LED		
D 627	LNJ308G81/1-3/7X	LED		
D 654	MA152WK-X	SI DIODE		
D 656	MA30477M/-X	ZENER DIODE		
IC651	LC75823W	IC		
JS601	GS0793-001	ROTARY ENCODER		
PL601	GLL0033-003	LAMP	BLUE CAP	
PL603	GLL0033-003	LAMP	BLUE CAP	
R 601	NRS02J-361X	MG RESISTOR		
R 602	NRS02J-331X	MG RESISTOR		
R 603	NRS02J-391X	MG RESISTOR		
R 604	NRS02J-471X	MG RESISTOR		
R 605	NRS02J-561X	MG RESISTOR		
R 606	NRS02J-361X	MG RESISTOR		
R 607	NRS02J-351X	MG RESISTOR		
R 608	NRS02J-391X	MG RESISTOR		
R 609	NRS02J-471X	MG RESISTOR		
R 610	NRS02J-561X	MG RESISTOR		
R 611	NRS02J-821X	MG RESISTOR		
R 612	NRS02J-102X	MG RESISTOR		
R 613	NRS02J-361X	MG RESISTOR		
R 614	NRS02J-331X	MG RESISTOR		
R 615	NRS02J-391X	MG RESISTOR		
R 616	NRS02J-471X	MG RESISTOR		
R 617	NRS02J-561X	MG RESISTOR		
R 651	NRS02J-681X	MG RESISTOR		

■ Mecha control board

BLOCK NO. 021		BLOCK NO. 022		BLOCK NO. 023	
REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	
R 632	NRSA02J-681X	MG RESISTOR			
R 633	NRSA02J-561X	M.G. RESISTOR			
R 634	NRSA02J-561X	MG RESISTOR			
R 635	NRSA02J-821X	MG RESISTOR			
R 636	NRSA02J-821X	MG RESISTOR			
R 637	NRSA02J-821X	MG RESISTOR			
R 638	NRSA02J-561X	MG RESISTOR			
R 639	NRSA02J-561X	MG RESISTOR			
R 640	NRSA02J-152X	MG RESISTOR			
R 651	NRSA02J-473X	MG RESISTOR			
R 653	NRSA02J-184X	MG RESISTOR			
R 654	NRSA02J-103X	MG RESISTOR			
R 655	NRSA02J-103X	MG RESISTOR			
R 656	NRSA02J-103X	MG RESISTOR			
R 663	NRSA02J-101X	MG RESISTOR			
S 601	NSW0066-001X	TACT SW			
S 602	NSW0066-001X	TACT SW			
S 603	NSW0066-001X	TACT SW			
S 604	NSW0066-001X	TACT SW			
S 605	NSW0066-001X	TACT SW			
S 606	NSW0066-001X	TACT SW			
S 607	NSW0066-001X	TACT SW			
S 608	NSW0066-001X	TACT SW			
S 609	NSW0066-001X	TACT SW			
S 610	NSW0066-001X	TACT SW			
S 611	NSW0066-001X	TACT SW			
S 612	NSW0066-001X	TACT SW			
S 613	NSW0066-001X	TACT SW			
S 614	NSW0066-001X	TACT SW			
S 615	NSW0066-001X	TACT SW			
S 616	NSW0066-001X	TACT SW			
S 617	NSW0066-001X	TACT SW			
S 618	NSW0066-001X	TACT SW			
S 619	NSW0066-001X	TACT SW			
S 620	NSW0066-001X	TACT SW			
C 401	NCB21HK-471X	C CAPACITOR			
C 402	NCB21HK-471X	C CAPACITOR			
C 403	NCB21HK-101X	C CAPACITOR			
C 404	NCB21HK-101X	C CAPACITOR			
C 405	NCB21HK-101X	C CAPACITOR			
C 406	NCB21HK-101X	C CAPACITOR			
C 407	NCB21HK-101X	C CAPACITOR			
C 408	NCB21HK-101X	C CAPACITOR			
C 409	GERF1CM-262	E CAPACITOR			
C 410	GFV61HJ-1532	TF CAPACITOR			
C 411	GFV61HJ-1532	TF CAPACITOR			
C 412	NCB21EK-104X	C CAPACITOR			
C 413	NCB21EK-104X	C CAPACITOR			
C 414	GERF1CM-262	E CAPACITOR			
C 415	NCB21HK-103X	C CAPACITOR			
C 416	GERF1HM-4742	E CAPACITOR			
C 421	NCB21HK-103X	C CAPACITOR			
C 422	NCB21EK-104X	C CAPACITOR			
C 423	GERF1CM-106	E CAPACITOR			
C 424	NCB21EK-104X	C CAPACITOR			
C 425	NCB21EK-103X	C CAPACITOR			
CN401	GGB1214KI-18S	CONNECTOR			
CN402	VMP3501-001	WIRE CONNECTOR			
CN403	GGF1219F1-10S	CONNECTOR			
D 401	MAS047/H/-X	ZENER DIODE			
D 402	DSK10C-T1	DIODE			
IC401	CXA2559Q	IC			
IC402	LB1641	IC			
Q 402	DTC114EKA-X	TR			
Q 403	2SB1322/RS/-T	TRANSISTOR			
R 401	NRS181J-391X	MG RESISTOR			
R 402	NRS02J-104X	MG RESISTOR			
R 403	NRS02J-104X	MG RESISTOR			
R 404	NRS02J-104X	MG RESISTOR			
R 405	NRS02J-104X	MG RESISTOR			
R 406	NRS02J-181X	MG RESISTOR			
R 407	NRS02J-181X	MG RESISTOR			
R 408	NRS02J-123X	MG RESISTOR			
R 409	NRS02J-243X	MG RESISTOR			
R 410	NRS02J-243X	MG RESISTOR			
R 411	NRS02J-123X	MG RESISTOR			
R 412	NRS02J-101X	MG RESISTOR			
R 413	NRS02J-183X	MG RESISTOR			
R 414	NRS02J-392X	MG RESISTOR			
R 415	NRS02J-223X	MG RESISTOR			
R 416	NRS02J-914X	MG RESISTOR			
R 417	NRS02J-103X	MG RESISTOR			
R 418	NRS02J-153X	MG RESISTOR			
R 422	NRS02J-332X	MG RESISTOR			
R 423	NRS181J-473X	MG RESISTOR			
R 424	NRS02J-332X	MG RESISTOR			
R 425	NRS181J-330X	MG RESISTOR			
R 426	QY150-050Y	BUS WIRE			

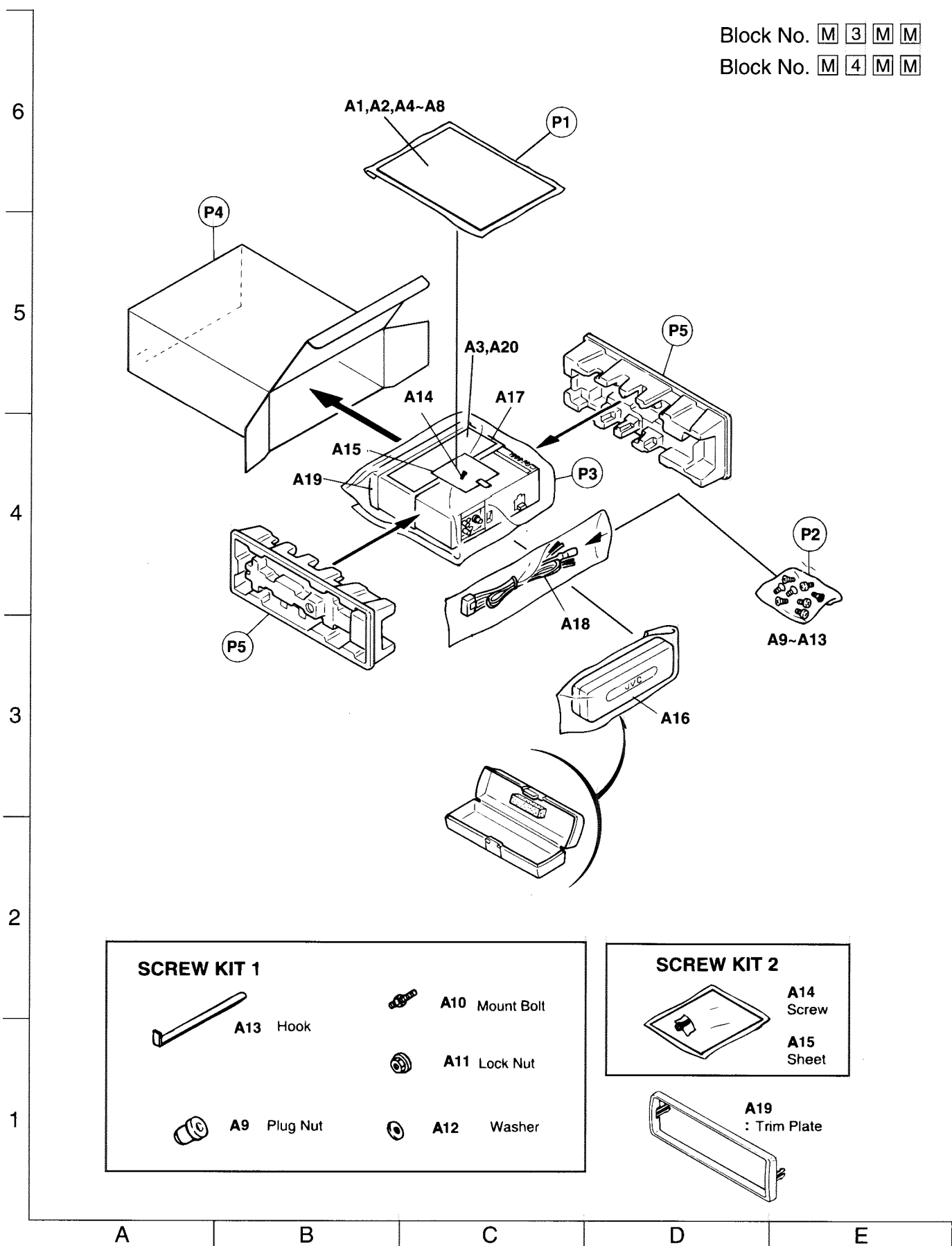
# Packing materials and accessories parts list

Block No. 






M	3	M	M
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Block No. 

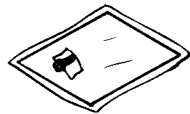
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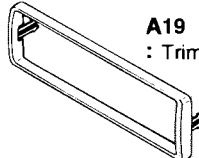


**SCREW KIT 1**

 A13 Hook	 A10 Mount Bolt
 A9 Plug Nut	 A11 Lock Nut
	 A12 Washer

**SCREW KIT 2**

	A14 Screw
	A15 Sheet

 A19 : Trim Plate

■ Packing parts list

BLOCK NO. M3MM							
△	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
P	1	QPA01703505P	POLY BAG	INSTRUCTIONS	1		
P	2	QPA00801205	POLY BAG		1		
P	3	VPE3005-064	POLY BAG		1		
P	4	FSPE3001-160	CATON		1		
P	5	FSPH1018-002	PAPER CUSHION	LEFT/RIGHT SIDE	2		

■ Accessories parts list

BLOCK NO. M4MM							
△	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
A	1	FSUN3108-632	INSTRUCTIONS		1		
A	2	FSUN3108-T631	INSTALL MANUAL		1		
A	3	LV41417-001A	CAUTION		1		
A	4	LVT0328-001B	TROUBLE SHOOTIN		1		
A	5	BT-51018-1	WARRANTY CARD		1		
A	6	BT-52001-4S	WARRANTY CARD		1		
A	7	BT-51020-2	J=REGIST CARD		1		
A	8	BT-20071B-S	JVC CENTER LIST		1		
A	9	VKZ4027-202	PLUG NUT		1		
A	10	VKH4871-001SS	MOUNT BOLT		1		
A	11	VKZ4328-001	LOCK NUT	FOR M5	1		
A	12	WNS5000Z	WASHER		1		
A	13	FSKL4010-002	HOOK		2		
A	14	VKZ4777-001	MINI SCREW	THEFT PREVENTIO	1		
A	15	FSYA4001-001	SHEET		1		
A	16	FSJB3001-00A	HARD CASE		1		
A	17	FSKM2004-002	MOUNTING SLEEVE		1		
A	18	QAM0013-005	16P CORD ASSY		1		
A	19	FSJD2034-001	TRIM PLATE		1		
A	20	LV41679-001A	CAUTION SHEET		1		
KIT	1	KDGS717K-SCREW1	SCREW PARTS KIT	(A9-A13)	1		
KIT	2	KDGS727J-SCREW2	SCREW PARTS KIT	(A14-A15)	1		

<<MEMO>>


KS-FX250

**JVC**

VICTOR COMPANY OF JAPAN, LIMITED

MOBILE ELECTRONICS DIVISION, 10-1, 1Chome, Ohwatari-machi, maebashi-city, Japan

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