

JVC

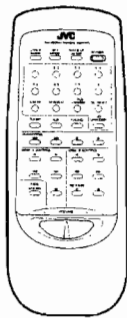
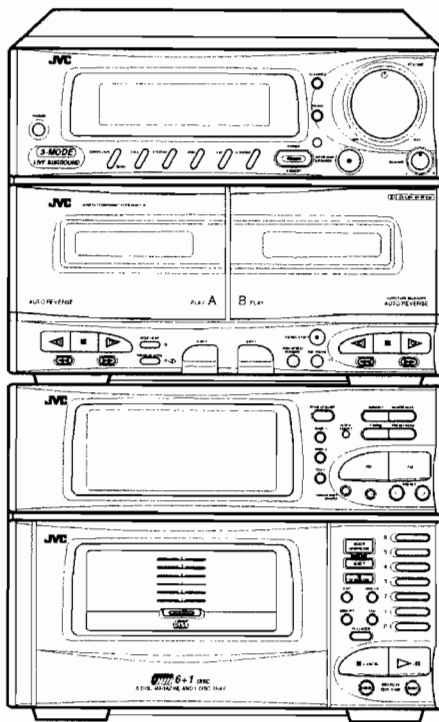
日本ビクター株式会社
サービス部 部品管理課

SERVICE MANUAL

STEREO RECEIVER

CA-C55BK

Pick up	OPTIMA-5
CD signal processor	MN662720RB



Area Suffix

A	...Australia
BS	...the U.K.
C	...Canada
E	...Continental Europe
G	...Germany
GI	...Italy
J	...the U.S.A.
VX	...East Europe
US	...Singapore
UT	...Taiwan
UC	...China
U	...Other Area

COMPACT
disc
DIGITAL AUDIO

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Safety Precautions

1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (Δ) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage current check (Electrical shock hazard testing)
After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
Do not use a line isolation transformer during this check.

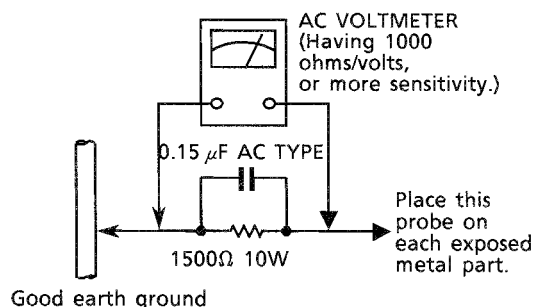
- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA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

- Alternate check method
Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 Ω 10 W resistor paralleled by a 0.15 μ F AC-type capacitor between an exposed metal part and a known good earth ground.

Measure the AC voltage across the resistor with the AC voltmeter.

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor.

Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



Warning

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

Important for Laser Products

1. **CLASS 1 LASER PRODUCT**
2. **DANGER** : Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
3. **CAUTION** : There are no serviceable parts inside the Laser Unit. Do not disassemble the Laser Unit. Replace the complete Laser Unit if it malfunctions.
4. **CAUTION** : The compact disc player uses invisible laser radiation and is equipped with safety switches which prevent emission of radiation when the drawer is open and the safety interlocks have failed or are defeated. It is dangerous to defeat the safety switches.
5. **CAUTION** : If safety switches malfunction, the laser is able to function.
6. **CAUTION** : Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
7. **CAUTION** : The compact disc player provides a laser diode of wavelength 780-790nm and optical output power typical 3mW at the laser diode.

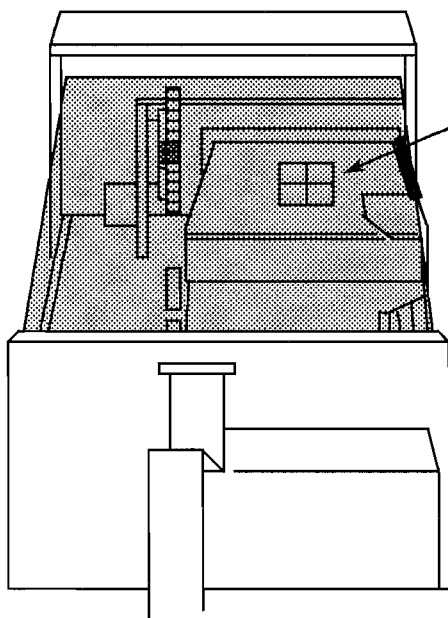
VARNING : Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

VARO : Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.

ADVARSEL : Usynlig laserstrålning ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

ADVARSEL : Usynlig laserstrålning ved åbning, når sikkerhedsbryteren er avslott. unngå utsettelse for stråling.

REPRODUCTION AND POSITION OF LABELS



WARNING LABEL

(Except for the U. S. A.)

DANGER: invisible laser radiation when open and interlock failed or defeated. AVOID DIRECT EXPOSURE TO BEAM. (e)

VARNING: Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen. (s)

ADVARSEL: Usynlig laserstrålning ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling. (d)

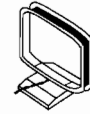
VARO: Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen. (f)

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Getting started

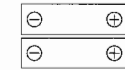
Check to be sure you have all of the following things, which are supplied with the system.



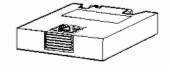
AM Loop Antenna



Remote Controller



Batteries



Magazine



FM Feeder Antenna

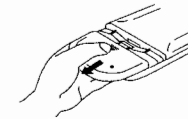


FM Antenna Adaptor

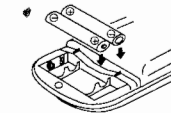
If any are missing, contact your dealer immediately.

How to Put Batteries in the Remote Controller

Match the polarity (+ and -) on the batteries with the + and - markings on the battery compartment.



R03(UM-4)AAA(24F)



CAUTION: Observe Proper Handling of Batteries.

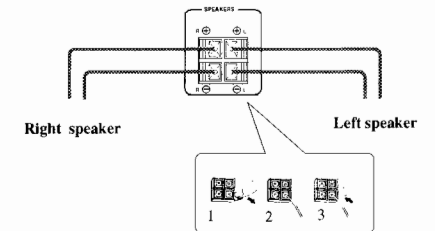
To avoid battery leakage or explosion:

- Remove batteries when the Remote controller will not be used for a long time.
- When you need to replace the batteries, replace both batteries at the same time with new ones.
- Don't use an old battery together with a new one.
- Don't use different types of batteries together.

Connecting the Speakers (Please refer to instructions for speakers as well when you connect speakers.)

For each speaker connect one end of the speaker wire to the speaker terminals on the back of the CA-C55BK and one end to the speaker.

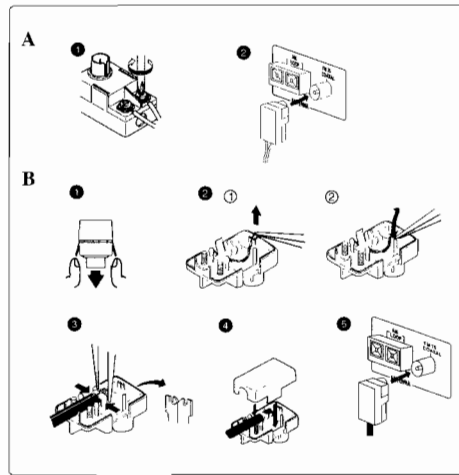
1. Open each terminal.
2. Insert the end of the speaker wire as shown (be sure to remove the insulation at the end of each wire first).
3. Close the terminals to clamp the speaker wires firmly in place.
4. Connect the red (+) and black (-) terminals of the right side speaker to the red (+) and black (-) terminals marked R on the CA-C55BK. Connect the red (+) and black (-) terminals of the left side speaker to the red (+) and black (-) terminals marked L on the CA-C55BK.



IMPORTANT: Match the polarity of the speaker terminals with the polarity of the terminals on the CA-C55BK, red (+) to red (+) and black (-) to black (-). Check your speakers for correct impedance: 8 ohms speakers only.

Connecting the FM and AM Antennas

FM Antenna Connections



A. Using the Supplied Feeder Antenna

- 1 Attach the feeder antenna to the FM connector as shown in the figure.
- 2 Connect the FM connector to the FM 75-ohm COAXIAL terminal.

B. Using FM 75-ohm antenna Cable (Not Supplied)

- 1 Open the claws at both sides and remove the cover.
- 2 Move the conductor wire from ① to ② using tweezers or a similar instrument (only when using coaxial cable).
- 3 Fix the coaxial cable and its core.
- 4 Put on the cover.
- 5 Connect the FM connector on the FM 75-ohm COAXIAL terminal.

Note: Make sure the antenna conductors do not touch any other terminals, connecting cords and power cord in the system. This could cause poor reception.



FM Feeder Antenna

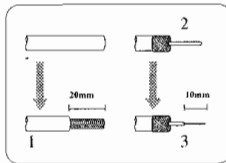
Unfold the loops of the supplied dipole FM feeder antenna and extend them as shown. Fasten them up in the position which gives you the best FM reception.



Outside FM Antenna Wire

If reception is poor, connect the outside antenna.

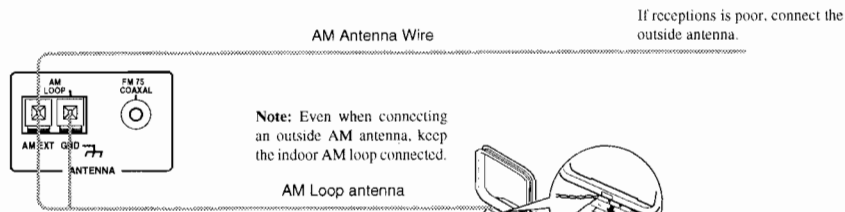
Before attaching a 75 ohm coaxial lead (the kind with a round wire going to an outside antenna), disconnect the supplied dipole indoor antenna.



How to Strip the 75-ohm Coaxial Cable

1. Strip back the outside covering of the 75 ohm coaxial cable to expose the braided metallic mesh.
2. Pull the mesh back over the cable as shown.
3. Strip the insulation about 10 mm back from the central wire.
4. Attach to the supplied antenna adaptor, as shown in the diagram above.

AM Antenna Connections



Note: Even when connecting an outside AM antenna, keep the indoor AM loop connected.

Turn the loop until you have the best reception

Snap the tabs on the loop into the slits of the base to assemble the AM loop.

Connecting the System Control Cards and Connecting Auxiliary Equipment

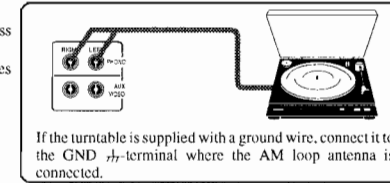
Connect the components exactly as illustration.

CAUTION: First make all connections before plugging the Unit into any AC power outlet.

Turntable

To listen to a record, press the PHONO button.

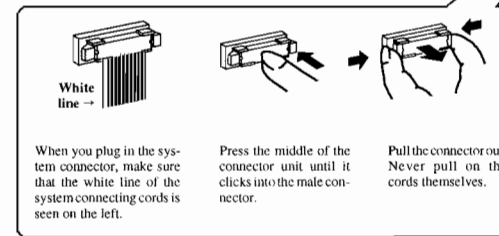
- Use MM-type turntables only.



If the turntable is supplied with a ground wire, connect it to the GND terminal where the AM loop antenna is connected.

VCR, etc.

To listen to these sources, press the AUX/VIDEO button.

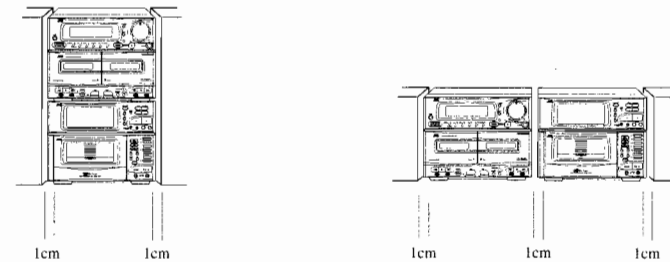


When you plug in the system connector, make sure that the white line of the system connecting cords is seen on the left.

Press the middle of the connector unit until it clicks into the male connector.

Pull the connector out. Never pull on the cords themselves.

Laying Out the System

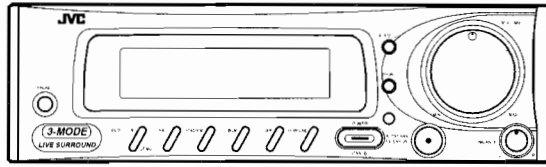


There are two ways to lay out the system as shown above:

- Leave a space of at least 1 cm on both sides of the amplifier and keep the back at least 10 cm from the wall for ventilation.
- If the system does not work well or needs repairing, please take all the components with you to the nearest agent.

Now you can plug the AC power cord into the wall outlet, and your CA-C55BK is at your command!

Using the Amplifier



The Magic of

COMPUPLAY

COMPUPLAY

COMPUPLAY is JVC's feature that lets you control the most used functions of the CA-C55BK with a single touch. This One Touch Operations starts playing a CD, turns on the radio, plays a tape, etc. with a single press of the play button for that function. What One Touch Operation does for you is to turn the power on, then start function you have called for. If the Unit is not ready, such as no CD or tape in place, the Unit still comes on so you can put in a CD or tape. How One Touch Operation works in each case is explained in the section about that function.

Turning the CA-C55BK On

Press the **POWER** button.

The displays come on and the red indicator on **POWER** lights goes out.

- The CA-C55BK comes on ready to do whatever it was doing when the power was last shut off. So if the last thing you were doing was listening to a tape in deck B, you now are ready to listen to a tape again in deck B, or you can change to another source.
- If you were listening to the radio last, the radio comes on playing that last station.

Turning the CA-C55BK Off

Press the **POWER** button again.

The red indicator on the **POWER** button light up and the displays blank, except for the clock display.

- A little power (12 watts) is always consumed even though power is turned off (called standby mode).
- To switch off the Unit completely, unplug the AC power cord from the AC outlet. When you unplug the AC power cord, the clock will rest to AM 12:00 right away, while the tuner preset stations will be erased in a few days.

Adjusting the Volume controls

Volume Control

Turn the **VOLUME** control adjust the volume level of the speakers or headphones.

CAUTION: Always set the **VOLUME** control to **MIN** before turning on a connected source such as a VCR or turntable, or starting any other of the sound sources such as the radio, tape, CD player. Otherwise, if the **VOLUME** control is turned up the sudden blast of sound energy can permanently damage your hearing and/or ruin your speakers.

Balance

Turn the **BALANCE** control to adjust the left-and-right sound balance in the speakers or headphones.

Active Bass Extension

This feature is designed and incorporated to reinforce the bass sound, depending on the volume level to maintain the richness and fullness of the bass. You cannot control it manually.

Press the **ACTIVE BASS EXTENSION** button to light the indicator if you want to use the Active Bass Extension function. To cancel this function, press the **ACTIVE BASS EXTENSION** button again. The indicator will go off.

Listening with Headphones

A standard pair of headphones can be connected at the **PHONES** jack on the front panel. No sound can be heard from the speakers. Be sure to turn down the volume before connecting or putting on headphones as high volume can damage both the headphones and your hearing.

LIVE SURROUND effects:

DANCE CLUB
HALL
STADIUM

Sound Effect Modes


The CA-C55BK has some preset sound effects that give you control of the way your music sounds, so you can tailor it for your room and for the quality of the source. We can give you some idea of how each one affects the music, but the only way to really tell is to try them yourself.


You can use only one effect at a time selecting from the **LIVE SURROUND** or **S.E.A.** effects. Feel free to experiment!

LIVE SURROUND effects

With these effects, the sound coming from only two speakers approaches the quality of sound from four speakers.

DANCE CLUB Increase resonance and bass.
HALL Adds depth and brilliance to the sound, like in a concert hall.
STADIUM Adds clarity and spreads the sound, like in an outdoor stadium.

To get an effect, press the Live Surround preset button (**DANCE CLUB**, **HALL**, or **STADIUM**) on the Unit. "LIVE-S" lights up and the effect you want is pointed with the cursor () on amp display. When using the Remote controller, press the **LIVE-S MODE**, you can cycle through the effects one after another.

To cancel the effect, press the button again. "LIVE-S" and cursor () will go off the amp display. When using the Remote controller, press the **LIVE-S MODE** repeatedly until "LIVE-S" goes off on the amp display.


S.E.A. effects


BGM
CAR
H. PHONE

Preset S.E.A. (Sound Effect Amplifier) effects.

Adjustments of frequency range levels have been preset as three S.E.A. effects.

BGM Used as a back ground music.
CAR Used for recording tapes to listen to in a car.
H. PHONE Used for recording tapes to listen to with headphones.

To get an effect, press the S.E.A. preset button (**BGM**, **CAR**, or **H. PHONE**) on the Unit. "SEA" lights up and the effect you want is pointed with the cursor () on amp display. When using the Remote controller, press the **SEA MODE**, you can cycle through the effects one after another.

To cancel the effect, press the button again. "SEA" and cursor () will go off the amp display. When using the Remote controller, press the **SEA MODE** repeatedly until "SEA" goes off on the amp display.

Sound Effect Demonstration

You may be sometimes unable to decide which sound effect to use for the music you are listening to. In this case, you can use a very helpful function — **Sound Effect Demonstration**

To get the function, hold down the **DEMO** button (the same button as the **DANCE CLUB** button) during play for a few seconds. The Unit briefly demonstrates six sound modes.

To cancel the function, press any Sound Effect Mode button.

Listening to Optional Equipment

By playing the sound from a VCR, Auxiliary equipment or turntable through the CA-C55BK, you can gain control over how the music or program sounds. Once the connected equipment is playing through the CA-C55BK, you can apply the sound effects, make recordings, or listen with the headphones.

- First make sure that the connection between optional equipment and the CA-C55BK has been done correctly.

1. Set the **VOLUME** control to **MIN**.
2. Press the **AUX/VIDEO** button or the **PHONO** button.
The Unit automatically turns on the "AUX" or "PHONO" lights up on the amp display.
3. Start playing the selected equipment.
4. Adjust the **VOLUME** to a proper listening level.
5. Select a desired sound effect mode if you want.

To cancel the setting

Change the source by starting any one of the CA-C55BK's built-in sound sources, such as the radio or CD player.

Advantages in connecting optional equipment

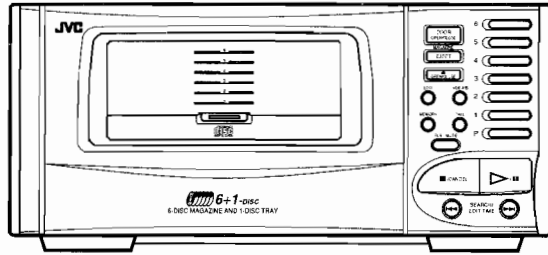
COMPUPLAY



Caution:
Too LOUD!



Using the CD player



Here are the basic things you need to know to play a CD and locate the different selections on it. Each selection is called a track, so when we are talking about locating a track, we are also talking about how you find a certain song or performance. This CD player is called an automatic changer, which can play 6 discs in the supplied magazine and one on the ordinary single tray called PLUS 1 tray.

Basics of Using the CD Player

The quickest way to start a CD is with the One Touch Operation:

- Press the Disc buttons (1 to 6 and P).
 - If no magazine is inserted, the Unit turns on and door opens.
- Press the \triangleright /II button (or \blacktriangleright on the Remote controller) on the CD player.
 - If a CD is already loaded in the inserted magazine or on the PLUS 1 tray, the Unit automatically turns on and starts to play it from track 1.
 - If no CD is loaded, the Unit automatically turns on and the PLUS 1 tray comes out. This is the exactly same as what happens if you press the OPEN/CLOSE \blacktriangle button instead of the \triangleright /II button.



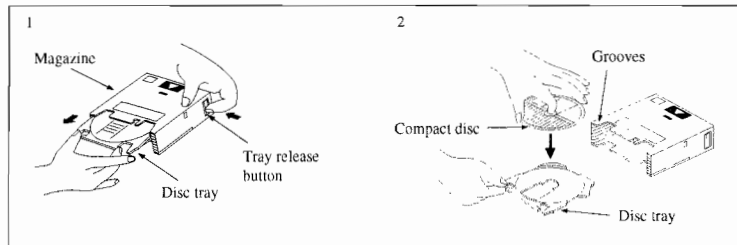
How to use the CD player: from the most basic to advanced

To Prepare Discs

The discs are first loaded into the trays which are then inserted into the magazine. The magazine is then put into the changer. You can also place a disc on the PLUS 1 tray.

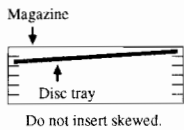
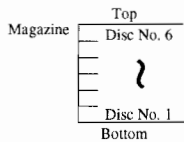
To install discs into the magazine

1. To remove the disc tray from the magazine, slide the disc tray out while holding down the tray release button.
2. Place a disc on the disc tray with its label side up.
3. Line up the disc tray with the grooves in the magazine and push the disc tray right in.
 - It's unnecessary to press the tray release button when inserting the disc tray.



- When inserting or removing a disc tray:
 - Never bend the disc or force it into the magazine. A disc tray inserted skewed may cause a malfunction.
 - The magazine should be held horizontally.
- The openings in the disc trays are for passage of the laser signal. These openings leave a part of the shiny surface of the disc exposed. Do not touch this shiny surface.
- It is impossible to play a disc if it is in upside-down.
- Never place a disc directly in the magazine without using the disc tray.
- If you want to use 8 cm (3 inch) CDs, use an optional magazine designed for these discs — XC-M73.

In the magazine, the disc No.s will be as follows:



To insert the magazine

1. Press the DOOR OPEN/CLOSE button on the unit to open the door.
2. Insert the magazine, with disc loaded, into the changer and push it in gently until it clicks in place.
 - The \blacktriangle mark on the magazine must be facing up.
3. Press the DOOR OPEN/CLOSE button again to close the door.

To remove the magazine, Press the MAGAZINE EJECT button.

CAUTION: The CD player may be damaged if the magazine is pushed in with too much force.

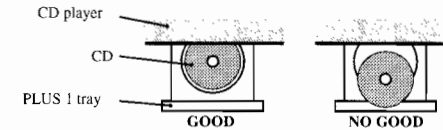
To load a CD on the PLUS 1 tray

1. Press the OPEN/CLOSE \blacktriangle button.
 - The door opens and the PLUS 1 tray comes out automatically.
2. Put a CD, with its label side up, into the tray.
3. Press the OPEN/CLOSE \blacktriangle button or the DOOR OPEN/CLOSE button to close the tray.
 - It is unnecessary to press the OPEN/CLOSE \blacktriangle button to the tray. If you press the \triangleright /II button to start play, the tray closes automatically.

Notes:

- Remove any objects in front of the door, when opening it.
- Do not use your hand to open or close the door.
- When you close the PLUS 1 tray, make sure the magazine is inserted completely.
- Do not operate the Unit while the door is opening or closing.
- When the door is opened, do not press the disc button (1 to 6 and P) or change the source.
- When inserting or removing the magazine, do not operate a CD on the PLUS 1 tray, vice versa. when putting in or out a CD on the PLUS 1 tray, do not operate a CD in the magazine.

ATTENTION: Please set a CD in the right place at the center of the PLUS 1 tray, when you play a CD with the tray. The PLUS 1 tray would cause malfunction, if you set a CD in a wrong place or missed the center of the tray.



To remove a CD from the PLUS 1 tray, press the OPEN/CLOSE \blacktriangle button again.

To Play a CD

1. Prepare discs.
2. Press the \triangleright /II button (or \blacktriangleright on the Remote controller).

The Unit plays the first track on the disc in the PLUS 1 tray. (The current disc number is indicated by the arrow on the display.) If no disc is loaded on the PLUS 1 tray, the Unit automatically skips the empty tray, and finds and plays the discs you have put in the magazine from bottom (Disc No.1) to top (Disc No.6). The indicators for these skipped trays go off. The Unit memorized these empty trays and will skip them next time without searching until the magazine is ejected.

To stop the CD, press the \blacksquare /CANCEL button (or \blacksquare on the Remote controller).

To pause the play, press the \triangleright /II button while the CD is playing.

To Change Discs While Playing

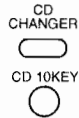
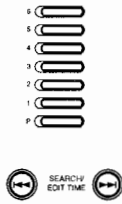
To change discs in the magazine while playing a CD in the PLUS 1 tray.

1. Press the MAGAZINE EJECT button.
 - The door opens and the magazine comes out.
2. Change the discs in the magazine.
3. Push back in the magazine.
4. Press the DOOR OPEN/CLOSE button to close the door.



To change discs in the PLUS 1 tray while playing a CD in the magazine.

1. Press the OPEN/CLOSE \blacktriangle button.
The door opens and the PLUS 1 tray comes out.
 2. Change the discs.
 3. Press the OPEN/CLOSE \blacktriangle button again or the DOOR OPEN/CLOSE button.
The tray goes back and the door closes.
- While playing a CD, do not keep the door opened except changing discs.

How to find a track**To Select the Disc, Track or Passage within a Track****By using the Unit**

1. If the disc with the track you want is not playing, enter the number of disc you want to using the disc buttons (1 to 6 and P) on the rightmost portion of the CD player.
 - Example: for the third disc (from the bottom) in the magazine, press 3.
For the disc on the PLUS 1 tray, press P.
2. Select the number of the track you want using the SEARCH/EDIT TIME \blacktriangleleft or \blacktriangleright button.
The selected track starts playing.
 - Each time you press briefly and release the SEARCH/EDIT TIME \blacktriangleleft or \blacktriangleright button, the track changes by one. Press and release the SEARCH/EDIT TIME \blacktriangleright button to go ahead one track at a time. Press and release the SEARCH/EDIT TIME \blacktriangleleft button to go back one track at a time.
 - Holding down the SEARCH/EDIT TIME \blacktriangleleft or \blacktriangleright button will fast forward or fast reverse the CD so you can quickly find particular passage in the selection you are listening to.

By using the Remote Controller

1. If the disc with the track you want is not playing, first press the CD CHANGER button, then enter the number of disc you want using the numeric keys (1 to 6 and P).
 - Example: for the third disc (from the bottom) in the magazine, press 3.
For the disc on the PLUS1 tray, press P.
2. Press the CD 10KEY.
3. Enter the number of the track you want using the numeric keys.
The selected track starts playing.
 - Example: for track 5, press 5. For track 15, press +10 then 5. For track 20, press +10, then 10.
 - You can also use the \blacktriangleleft or \blacktriangleright button to change tracks. However, you cannot fast forward or reverse forward to locate a particular passage using the Remote controller.

After you have pressed the \blacktriangleright button on the Remote controller, the numeric keys on the Remote controller functions as the disc buttons until you change it.

Intro Scan

You can use two types of intro scan functions (Disc Intro Scan and Track Intro Scan) to search for a desired disc or track.

1. Make sure that the CD is not playing and "CONTINUE" lights up on the CD/tuner display.
If not, stop the CD player and press the PLAY MODE button on the Unit until "CONTINUE" lights up on the CD/tuner display.
2. Press the CD CHANGER on the Remote controller.
3. Press the INTRO on the Remote controller.
Each time you press the button, the intro scan mode changes and lights up on the CD/tuner display in the following sequence:

→ DISC INTRO → → INTRO → → No indication →
4. Press the \blacktriangleright /II button (or \blacktriangleright on the Remote controller).
Disc Intro Scan (when "DISC INTRO" lights up):
Plays the beginning of the first track of each CD for about 15 seconds starting with the disc on the PLUS 1 tray and then disc no. 1 disc through disc no. 6 disc in the magazine.
Track Intro Scan (when only "INTRO" lights up):
Plays the beginning of each track of each CD for about 15 seconds starting with the disc on the PLUS 1 tray and then disc no. 1 disc through disc no. 6 disc in the magazine.

Searching the contents of CDs

5. Press the SEARCH/EDIT TIME \blacktriangleleft button (or \blacktriangleleft on the Remote controller) when the desired track is reached. Intro scan is canceled and normal playback starts from the track.
 - If you press the following buttons instead of the SEARCH/EDIT TIME \blacktriangleleft button, intro scan is also canceled and then:
 - SEARCH/EDIT TIME \blacktriangleright : Continuous play starts from the next track.
 - Disc buttons (1 to 6 and P (PULS 1)): Continuous play start from the first track of the selected disc.

To stop playing, press the ■/CANCEL button (or ■ on the Remote controller).

To exit intro scan mode, press INTRO so that neither "DISC INTRO" nor "INTRO" lights on the display.

Programming the Playing Order of the Tracks

In addition to the high quality sound which makes the CD such a good way to listen to music, you can change the order in which the tracks play.

Random Play

The tracks will play in no special order when you use this mode. Before starting a CD, press the PLAY MODE button repeatedly until "RANDOM" lights up on the CD/tuner display. When all of the tracks have been played, the CD stops.

To stop playing, press the ■/CANCEL button (or ■ on the Remote controller).

To exit random mode, press the PLAY MODE button until "RANDOM" is no longer lighted on the CD/tuner display (the Unit must be in stop mode).

Program Play

You can change the order in which the discs and tracks play, and select only the discs and tracks you want from among those loaded in the magazine and the PLUS 1 tray.

- You can program from either the Unit buttons or the Remote controller, or a combination of both.
- You can program up to 32 steps in any desired order from among the discs in the player. Since a step can be either a single track or an entire disc with many tracks, the total number of selections which will actually play can be much larger than 32.

Programming Procedure:

You can only make or change a program when the CD player is stopped.

By using the Unit

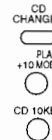
1. Press the PLAY MODE button repeatedly until "PROGRAM" lights up on the CD/tuner display.
2. Select a disc with the disc buttons (1 to 6 and P). As soon as a disc is selected, it is memorized and "AL" lights up on the CD/tuner display. If you want all the tracks on that disc to play as part of the program, skip step 3.
3. To select individual tracks from the selected disc (its number is indicated by the arrow on the display), press the SEARCH/EDIT TIME \blacktriangleleft or \blacktriangleright button.
4. Press the MEMORY button.
5. Repeat steps 2 - 4 until you have entered all the tracks you want to program.
6. Press the \blacktriangleright /II button.
The Unit plays the tracks in the order you have programmed them.

By using the Remote controller

1. Press the CD CHANGER.
2. Press the PLAY MODE repeatedly until "PROGRAM" lights up on the CD/tuner display.
3. Select a disc with the numeric keys (1 to 6 and P).
4. To select individual tracks from the selected disc enter each number by pressing the CD 10KEY and using the numeric keys (1 to 10 and +10).
 - Example: for track 5, press 5. For track 15, press +10 and 5. For track 20, press +10 and 10.
- You can also use the \blacktriangleleft or \blacktriangleright to select tracks.
5. Repeat 1 and 3 - 4 until you have entered all the tracks you want to program.
6. Press the \blacktriangleright .
The Unit plays the tracks in the order you have programmed them.

To stop playing, press the ■/CANCEL (or ■ on the Remote Controller) once.

With programming, you can play back tracks in any order

**How to program**

To delete the program and exit program mode, press the ■/CANCEL button on the Unit repeatedly until all the program steps are deleted, and then press the PLAY MODE button until "CONTINUE" appears on the display.

- ❑ You can skip to a particular program step by pressing the SEARCH/EDIT TIME ◀◀ or ▶▶ button during program play.
- ❑ To play the programmed tracks over and over, press the REPEAT on the remote controller so that "REPEAT" lights up on the display.

Programming Hints



A few Hints to Make Programming Easier

To check the program contents (the Unit must be in stop mode)

- ❑ Each time you press the CALL button on the Unit, the program contents are shown on the CD/tuner display in the programmed order.

To change the program contents

- ❑ Press the CALL button until the CD/tuner display shows the program step to correct. Enter the new disc number and/or track number, which will replace the ones originally showing.
- ❑ To delete a program step, press CALL button until the CD/tuner display shows the program step to delete, then the press ■/CANCEL button.
- ❑ You can use both of these ways to change program steps during programming as well as later.

Repeat a selection or the CDs



Repeating a Selection or the Discs

You can have all the discs, the program or the individual selection currently playing repeat as many times as you like by pressing the REPEAT on the Remote controller.

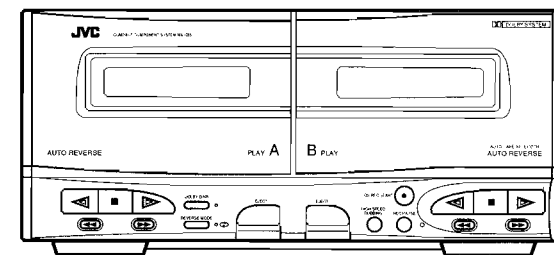
1. Press the CD CHANGER on the Remote controller.
2. Press the REPEAT on the Remote controller.

Each time you press the REPEAT, it cycles from function-off, which turns "REPEAT" out on the CD/tuner display, to "REPEAT" which will repeat all the tracks in order or according to the program you have set, and then to "REPEAT 1" which will repeat the currently playing track.

To exit repeat mode, press the REPEAT so that neither "REPEAT" or "REPEAT 1" lights on the display.

- ❑ Press the REPEAT before or during random play to instruct the CA-C55BK to continue with a different random track selection after the last selection of the last disc is played.

Using the Cassette Deck



Listening to a Tape

Listen to a tape: How to use your cassette deck

- The cassette deck allows you to play, record and dub audio tapes.
- ❑ Most tapes are now recorded with the Dolby NR system, so first check which type of the Dolby NR system has been used on the tape. Only the Dolby B NR is incorporated into the CA-C55BK.
 - ❑ With Automatic Tape Detection, you can listen to type I or II tapes without changing any settings.

One Touch Play

By pressing either the ▷ or ◁ button on either deck A or B, the Unit will come on, and if a tape is in the deck, it will start to play. If no tape is loaded, the Unit will come on and wait for further instructions.



Playback procedure

Regular Play

When the power is already on, you can use this basic procedure:

1. Press the EJECT button for the deck you want to use.
2. When the cassette carrier opens, put the cassette in, with the exposed part of the tape down toward the base of the CA-C55BK.
 - ❑ If the cassette carrier does not open, turn the Unit off, then back on again and press the EJECT button.
3. Close the carrier gently.
4. Press ▷ to play the front side, or ◁ to play the reverse side. The arrow indicator on the pressed button starts blinking and tape play starts.

To stop playing, press the ■ button.

To remove the tape, press the EJECT button.

Fast Left and Fast Right

- ❑ While the tape is stopped, press the ◀◀ button and the tape will wind rapidly onto the left side of the cassette without playing.
- ❑ While the tape is stopped, press ▶▶ and the tape will wind rapidly onto the right side of the cassette without playing.

Music Scan

To find the beginning of a music track during play, use the Music Scan function. Music Scan searches for blank portions that usually separate tracks, then plays the next song.

- ❑ If you use Music Scan on deck A while recording on deck B, recording will stop.

To find the beginning of the current song

Press the ◀◀ or ▶▶ button during play.

- ❑ Make sure that you press the ◀◀ or ▶▶ button in the opposite direction to tape play. Searching stops automatically at the beginning of the current song, and the current song starts automatically.

To find the beginning of the next song

Press the ◀◀ or ▶▶ button during play.

- ❑ Make sure that you press the ◀◀ or ▶▶ button in the same direction as tape play. Searching stops automatically at the beginning of the next song, and the next song starts automatically.

Finding the place you want:

Music Scan

Scan back

Scan forward

The Music Scan works by detecting a 4-second long blank at the beginning of each selection, so it won't work well if your tape has:

- No blank at the beginning of a track
- Noise (often caused by much use or poor quality dubbing) which fills the blank with noise.
- Long, very soft passages or pauses in a selection. The scan will detect these instead of the 4-second long blanks. If this happens, just go ahead and scan again until you reach the selection you want.

Useful Other Features Using the Cassette Deck

More useful things to know:

- Reverse Mode
- Continuous Play



- Dolby



- Use **Reverse Mode** to make the tape automatically reverse at the end of a side and start playing the other side. Press the REVERSE MODE button to change from Reverse Mode on (the indicator is lit) to Reverse Mode off, or from off, to on.
- Continuous Play:** When a tape finishes playing with the Reverse Mode LED on, the Unit always checks to see if a tape is in the other deck. If one is there, it automatically starts playing it. This Continuous Play happens regardless of which deck starts first.
- Press the **DOLBY B NR** button to switch Dolby B Noise Reduction on (the indicator lights up) or off (the indicator goes off). If a tape is recorded with the Dolby B NR system, playing it back with the Dolby NR on will reduce tape noise and improve the clarity of the sound.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Recording

What can you record?

- Tapes
- Radio
- CDs
- Connected source

Copyright

Reduce hiss —
Dolby NR

Recording level


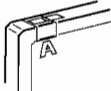
Erasure protection

Recording sound mode

Usable tape type

Recording onto cassette tape from any of the sound sources is easy and the CA-C55BK does most of the work. Just have a tape in deck B, have the source ready, make one or two settings, and you're ready to record. For each source the procedure is a little different and now we'll explain just what to do for each one. If you forget, just come back to the section which has the specific procedures you need. But first, here are a few things to make your recordings better.

Things to Know before You Start recording

- It may be unlawful to record or playback copyrighted material without the consent of the copyright owner.**
- Press the **DOLBY B NR** button — the indicator lights up — to reduce tape hiss, except when dubbing tapes since Dolby NR is inactive in dubbing mode regardless of the setting of DOLBY B NR. The dubbed tape automatically contains the same processing as the source tape.
- The recording level, which is the volume at which the new tape is being made, is automatically set correctly, so it is not affected by the VOLUME control on the CA-C55BK. Thus, you can adjust the sound you are actually listening to without changing the recording level.
- Two small tabs on the back, one for side A and one for side B, can be removed to prevent accidental erasure or re-recording. To record on a cassette with the tabs removed, you must cover the holes with adhesive tape first. However, when a type II tape is used, only cover part of the hole as shown, since the other part of the hole is used to detect the tape type.  
- When recording, you can use the sound effect modes to condition the music as it is recorded. But when recording using CD Direct, Auto Edit or Program Edit, once recording has started, these settings cannot be changed. When recording from cassette deck A to deck B, the sound effects cannot be used, because the signal doesn't go through the amplifier. This method gives you the highest quality dubbed tapes.
- Type I and type II tapes can be used for recording.

CAUTION: If recordings you have made have excessive noise or static, the Unit may be too close to a TV which has been on during the recording. Either turn off the TV or increase the distance between the TV and the CA-C55BK.

Standard recording:
Any source to tape

Standard Recording

This is the basic method for recording any source. The CA-C55BK also has special ways for recording CD to tape, and tape to tape, which save you time and effort, as well as give you some special effects. However, when you need to add a selection to a tape you have made, or are combining selections from several sources on one tape, use the method we describe here; just substitute the source you want, such as tape in deck A, or CD, or radio in this procedure. You can also record from an auxiliary source with this procedure.

Source to tape:
Step by step



To Record Any Sound Source to Tape

Follow these steps to record from any sound source onto a tape in deck B.

1. Insert a blank or erasable tape into deck B.
2. Press the REC PAUSE button.
The REC PAUSE indicator lights up.
3. Press the REVERSE MODE button if you want to record on both sides of the tape.
The REVERSE MODE indicator lights up.
4. Prepare the source, for example, tuning in a radio station, loading CDs, turning on connected equipment.
5. Press either the ▷ button to record on the front side, or the ◁ button to record on the reverse side, on deck B.

To pause any time during recording process

Press the REC PAUSE button again. Then press either the ▷ or ◁ button on deck B to restart recording.

To stop any time during recording process

Press the ■ button on deck B.

CAUTION: During recording, DO NOT change the source or change discs. Otherwise, recording will be interrupted.

CD to tape recording:
Introduction

CD to Tape Recording

There are four ways to record from CD to tape:

- Standard Recording** — Described on the previous page.
- CD Direct Recording** — Everything on the CD goes onto the tape in the order it is on the CD, or according to an order you have set in a program.
- Auto Edit Recording** — Your CA-C55BK figures out which selections to put on which side of the tape, so a selection isn't cut off before it's finished when the tape runs out.
- Program Edit Recording** — First you select tracks to record by using the programming method described on page 11, and then start play and recording simultaneously.

CD Direct Recording:
Step by step



CD Direct Recording

1. Prepare CDs. (See page 8.)
2. Set the sound effect mode if you want.
3. Insert a cassette in deck B to record on.
 - If you want to record on both side of the tape, press the REVERSE MODE button on the cassette deck so that the REVERSE MODE indicator lights up.
4. Press the CD REC START button on the cassette deck.
The Unit plays the CDs (from the disc on the PLUS 1 tray then to the discs in the magazine) and starts recording.

At the end of the tape, the CA-C55BK automatically goes back to the beginning of the last selection and re-records it, this time gently fading out at the end. If you selected the Reverse Mode, the reverse side starts with the last selection on the front side and will be faded out at the end again. (A 10 second blank is created on the beginning of the reverse side.)

When the tapes is finished, the Unit stops the CD and the cassette deck.

To stop any time during the recording process

Press the ■ button on deck B.

For CD Direct Recording using more than one disc, use a blank tape. If you use a pre-recorded tape, pre-recorded sound may be unerasable between newly-recorded tracks.

Auto Edit Recording: Introduction

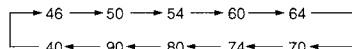
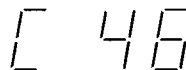
Auto Edit Recording

Using Auto Edit, you can record the CD tracks to fit the tape, so a selection isn't cut off. Auto Edit is one of the best ways to copy all of a CD onto a tape. Auto Edit programs the CD tracks in the numerical order. To prevent the end of the last track on the front side from being cut off, the last track on the front side is selected to fit on the remaining tape length.

Auto Edit Recording: Step by step



1. Prepare CDs. (See page 8.)
2. Set the sound effect mode if you want.
3. Press the EDIT button on the CD player repeatedly until "A. EDIT" lights up on the CD/tuner display.
4. Press the SEARCH/EDIT TIME \lll or \ggg button (\lll or \ggg button on the Remote controller) repeatedly to set the tape length.
 - You can select a different length of tape from ten possibilities programmed into the CA-C55BK: 40, 46, 50, 54, 60, 64, 70, 74, 80, 90. Cycle through these choice using the SEARCH/EDIT TIME \lll or \ggg button (\lll or \ggg on the Remote controller).



5. Press the SIDE A/B button.
6. Select a disc with the disc buttons (1 to 6 and P). The display shows which tracks will go on the front side (A) and which on the reverse side (B). Each time you press the SIDE A/B button, the display switches between A and B.
 - To record both sides of the tape, show the tracks for the front side (A) on the display. To record only on the reverse side (B), show the tracks for the reverse side (B) on display.



7. Insert a blank or erasable cassette in deck B.
 - If you want to record on both sides of the tape, press the REVERSE MODE button on the cassette deck so that the REVERSE MODE indicator lights up.
8. Press the CD REC START button on the cassette deck. The Unit will automatically rewind the tape to the beginning of the front side, create a 10 second blank, turn on the CD and start recording. (A 10 second blank is also created on the beginning of the reverse side.)

To stop any time during the recording process

Press the \blacksquare button on deck B or \blacksquare /CANCEL button on the CD player.

To exit edit mode and delete the program

Press the PLAY MODE button so "A.EDIT" is no longer lighted on the CD/tuner display (the Unit must be in stop mode.)

Using the Auto Edit, you can program up to 16 tracks for each side of the tape, and cannot program a track the number of which on the disc is greater than 31.

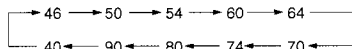
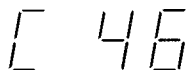
Program Edit Recording: Step by step

Program Edit Recording

Using Program Edit, you can record only the CD tracks you want, and fit them onto the tape. Program Edit is one of the best ways to make a tape of only your favourite songs.



1. Prepare CDs. (See page 8.)
2. Set the sound effect mode if you want.
3. Press the EDIT button on the CD player repeatedly until "P. EDIT" lights up on the CD/tuner display.
4. Press the SEARCH/EDIT TIME \lll or \ggg button (\lll or \ggg button on the Remote controller) repeatedly to set the tape length.
 - You can select a different length of tape from ten possibilities programmed into the CA-C55BK: 40, 46, 50, 54, 60, 64, 70, 74, 80, 90. Cycle through these choices using the SEARCH/EDIT TIME \lll or \ggg button (\lll or \ggg on the Remote controller).



5. Press the SIDE A/B button and select the tracks you want to record on the front side (A). (See "Program Play" on page 11. For Program Edit, however, it is impossible to program all the tracks on a disc as one program step.) The display shows which tracks will go on the front side (A).
 - If the total playing time for the front side (A) exceeds the tape length for this side, the displayed excess playing time blinks. During recording, the last track on this side will be recorded fading out at the end of the tape.
6. Press the SIDE A/B button and select the tracks you want to record on the reverse side (B). (See "Program Play" on page 11. For Program Edit, however, it is impossible to program all the tracks on a disc as one program step.) The display shows which tracks will go on the reverse side (B).
 - If the total playing time for the reverse side (B) exceeds the tape length for this side, the displayed excess playing time blinks. During recording, the last track on this side will be recorded fading out at the end of the tape.
7. Insert a blank or erasable cassette in deck B.
 - If you want to record on both sides of the tape, press the REVERSE MODE button on the cassette deck so that the REVERSE MODE indicator lights up.
8. Press the CD REC START button on the cassette deck. The Unit will automatically rewind the tape to the beginning of the front side, create a 10 second blank, turn on the CD and start recording. (A 10 second blank is also created on the beginning of the reverse side.)

To stop any time during the recording process

Press the \blacksquare button on deck B or \blacksquare /CANCEL button on the CD player.

To exit edit mode and delete the program

Press the PLAY MODE button so "P.EDIT" is no longer lighted on the CD/tuner display (the Unit must be in stop mode.)

- If you choose wrong tracks during programming, press the \blacksquare /CANCEL button on the CD player. Each time you press the button, the last-chosen track is deleted from the program.
- Using the Program Edit, you can program up to 16 tracks for each side of the tape, and cannot program a track the number of which on the disc is greater than 31.
- If you want to make some changes in program after starting recording, make sure that the display is showing the tracks for the front side (A) when you restart recording. If not, press the SIDE A/B button.

Tape to tape dubbing: Introduction

Tape to Tape Recording (Dubbing)

Recording from one tape to another is called dubbing.

You can dub at regular speed for the best possible quality, or with a slight loss in sound quality you can dub at high speed. With high speed it takes only about one-half the time to copy a tape.

- To dub both sides of a tape, start from side A for both deck A and deck B, and press the REVERSE MODE so that the REVERSE MODE indicator lights up.
- It is preferable that the type of tape (Normal or CrO₂) you record from be the same as the type you record onto.

Regular speed dubbing: Step by step

Regular Speed Dubbing

1. Insert a source cassette you want to copy from into deck A from playback.
2. Insert a blank or erasable cassette you want to copy onto into deck B for recording.
3. Press the REC PAUSE button on deck B.
4. Press the \triangleright button (or \triangleleft button) on deck B. Recording starts.
 - To advance the leader tape (the beginning of the tape on which you cannot record), start recording first and wait about 10 seconds before starting deck A.
5. Press the \triangleright button (or \triangleleft button) on deck A. Deck A starts playing.

To stop any time during the dubbing process

Press the \blacksquare button on both deck A and deck B.

**High speed dubbing:
Step by step****High Speed Dubbing**

Although the quality of the dubbed tape is a little less, high speed dubbing is a very convenient way to record from one tape to another.

1. Insert a source cassette you want to copy from into deck A, and a blank or erasable cassette to be copied onto in deck B.
2. For each deck, select the side (A or B) to start with.
To change the side, press the < or > button and then quickly press the ■ button on the same deck.
 - The tape will travel in the direction of the lit arrow indicator on the < or > button for each deck.
3. Press the HIGH SPEED DUBBING button on the cassette deck.
Both decks start, deck A playing and deck B recording.
 - The sound you hear is strange because it is much faster than usual, and you may not want to listen to it. Turn it down with the VOLUME control, or press the FADE MUTING on the Remote controller.
 - You can also listen to another source such as the radio or the CD player, just as if you weren't dubbing.

To stop any time during the dubbing process

Press the ■ button on deck B.

To record selections from several different tapes during high speed dubbing.

When you want to take selections from several different tapes and combine them on one tape during high speed dubbing, follow these steps:

1. Press the ■ button on deck A.
 - This causes deck A to stop, so you can change tapes, and deck B makes a few seconds blank and pauses.
 - If you don't want to make a few seconds blank, press the REC PAUSE button before pressing the ■ button on deck A.
2. Change the tape in deck A.
3. Press the HIGH SPEED DUBBING button to start deck A playing and deck B recording again.

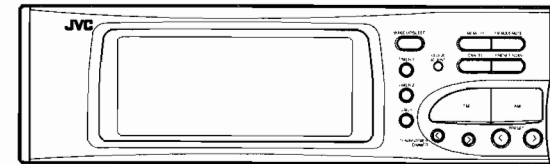
- Dolby NR is inactive in dubbing mode regardless of the setting of DOLBY B NR. The dubbed tape automatically contains the same processing as the source tape.
- You cannot dub using the sound effect modes such as DANCE CLUB, HALL, STADIUM etc.

Recording with the Timer

The Cassette Deck can be set up to record a tape automatically. This is especially useful for recording broadcasts when you are not around, or late at night when you are asleep.

1. Insert a cassette for recording into deck B
2. Set the timer, by following the steps in "Setting the Timers".
3. Select one of the following sources:

TIMER REC SOURCE TUNER	Records TUNER preset stations
TIMER REC SOURCE - - -	Records from the source selected before turning off the Unit.

Using the Tuner**Listening to the Radio**

You can listen to both FM and AM stations. Stations can be turned in manually, automatically, or from preset memory storage.

- Before listening to the radio:
 - Check that both the FM and AM antennas are firmly connected.

One Touch Radio

Just press the FM button to turn on the Unit and start playing the most recent FM station tuned in, or press the AM button to start the most recent AM station tuned in.

- You can switch from any other sound source to the radio by pressing either the FM or AM button.

Tuning in a Station

Press the FM or AM button to turn on the radio. The CD/tuner display shows the station frequency tuned to.

Three ways to select a station

1. Press the TUNING/TIMER/DIMMER < or > button repeatedly to move from frequency to frequency until you find the one you want.
 - OR
 2. Hold down the TUNING/TIMER/DIMMER < or > button, the frequency starts changing on the CD/tuner display. When a station is tuned in, "TUNED" lights up on the display and the frequency stops changing.
 - OR
 3. (Possible only after presetting stations.)
 - Press once and release the PRESET < or > button to go to the next preset station, or hold the PRESET < or > button to cycle through the preset stations: release the button when the preset station you want shows on the CD/tuner display.
- You can also use the Remote controller to tune in preset channels:**
1. Press the TUNER so that you can receive the most recent station tuned in.
 2. Select the station by entering the preset number in the numeric keys of the Remote controller.

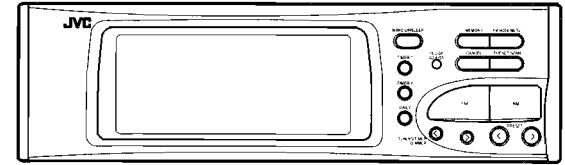
Presetting Stations

You can store up to 40 of your favorite radio stations (FM and AM) in memory, giving you quick, easy access to the stations.

1. Select a band by pressing either the FM or AM button.
2. Press the TUNING/TIMER/DIMMER < or > button to tune in a station.
3. Press the MEMORY button on the Tuner.
 - On the CD/tuner display "MEMORY" will blink for 5 seconds.
 - During these 5 seconds while "MEMORY" is blinking you can assign a channel number to the station and enter it into the memory.
4. Select a channel number by pressing the PRESET < or > button until you find the channel number you want.
5. Press the MEMORY button and the station will be assigned to the channel number showing on the CD/tuner display.
 - If a station has been previously stored using the same channel number, it will be erased and the newly selected station will be stored.
 - If "MEMORY" in the CD/tuner display goes off, start again from step 3.
6. Repeat steps 1 - 5 for each station you want to store in memory with a preset number.

Caution! If the Unit is unplugged or if a power failure occurs, the preset stations stored in memory may be lost.

**Three ways to tune in a station****How to preset FM and AM radio stations**



To cancel the preset stations:

1. Press the CANCEL button.
- On the display, "CANCEL" and "-- --" will blink for 5 seconds. During these 5 seconds while "CANCEL" and "-- --" are blinking you can cancel preset stations.
2. Select a channel number by pressing the PRESET < or > button until you find the channel number of the station you want to cancel.
3. Press the CANCEL button and the station will be erased.



Scanning through Preset Stations

You can scan through your preset radio stations, stopping at any station you want to listen to.

1. Press the PRESET SCAN button.
 - The Unit scans your preset stations, starting with the frequency being received, and moving upward. Each preset station is received for a few seconds with the channel number linking.
2. If you want to listen to one of the preset stations, press the PRESET SCAN button again while the channel number is blinking.

If you do not stop at any station, the Unit will scan through the preset stations once, then return to the station tuned before scanning started.

Receiving in Stereo or Mono

The CA-C55BK can receive broadcasts in either stereo or mono. When "AUTO" lights up on the CD/tuner display, the Unit automatically receives broadcasts in the mode they are transmitted. (When a stereo broadcast is received, "STEREO" lights up on the display.) Usually, leaving the Unit in Auto Mode, with "AUTO" lit, gives you the best reception.

To improve reception in cases like this, press the FM MODE/ MUTE button on the Tuner so that "MONO" on the CD/ tuner display lights up. Although you lose the stereo effect, reception may improve.

To restore automatic stereo detection, press the FM MODE/MUTE button so that "AUTO" lights up.



Using the Timers

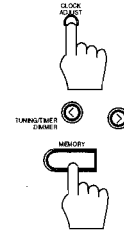
- Four Timers:**
- **TIMER 1, TIMER 2**
 - **DAILY TIMER**
 - **WAKE UP TIMER**
 - **SLEEP TIMER**

The timers let you control recording and playing functions automatically.

Four types of timers are available:

- Timer 1, Timer 2** — unattended recording of radio.
- Daily** — recording of a radio that occurs at the same time every day.
- Wake up Timer** — Wake up to music from any source.
- Sleep Timer** — Fall asleep and have your CA-C55BK turn off automatically after a certain length of time.

IMPORTANT!
Set your clock



Clock Setting

The timers depend on the clock: If the clock is right, the timers will work like you expect, but if the time is incorrect on the clock then the timers will also be incorrect.

Special Notice: The clock must be set, or the timers cannot be set!

So, lets set the clock first.

1. Press the CLOCK ADJUST button.
2. Set the hour by pressing the TUNER/TIMER/DIMMER < or > button. Press the > button increase the hour, and pressing the < button decreases it.
3. Press the MEMORY button.
4. Set the minutes by pressing TUNER/TIMER/DIMMER < or > button. Press the > button increase the minute, and pressing the < button decreases it.
5. Press the MEMORY button again and the clock is set and starts from zero second.

Caution! If there is a power failure, the clock loses its setting, the display shows "AM 12:00", and it must be reset.

Setting Timer 1, Timer 2, and the Daily Timers

With these timers you can make a tape of a radio (or other sound sources) automatically whether or not you are there to start the CA-C55BK. You can also play the sound source at the specified time without recording them. For the timer to work correctly, you need to make sure of two things in addition to setting the time for the sound source and tape recorder to come on:

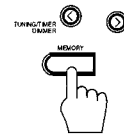
- The tape you want to record onto must be in deck B when you want to record.
- The radio station whose program you want to tape must be the last one played before timer comes.

Follow this procedure to set Timer 1, Timer 2, and the Daily timer:

1. Press the TIMER 1, TIMER 2, or DAILY button to tell the CA-C55BK which timer you are going to set. The corresponding indication (TIMER1, TIMER2, and DAILY) flashes in the CD/tuner display. As long as it is flashing, you can continue with the setting process. If you wait too long, and it stops before you are done, just press the button twice and start over.
2. Set the time you want the sound source to come on and the tape in deck B to start recording.
 - Use the TUNING/TIMER/DIMMER < or > button just like setting the clock.
3. Set the time you want the sound source to shut off and the tape in deck B to stop recording.
 - Use the TUNING/TIMER/DIMMER < or > button just like setting the clock.
4. Select the sound source with the TUNING/TIMER/DIMMER < or > button and press the MEMORY button to store it.
 - Each time you press the TUNING/TIMER/DIMMER < or > button, the unit gives you one of the following settings:

Display	What it means
SOURCE - - - - -	Plays from whichever source was used just before turning off the CA-C55BK.
SOURCE TUNER	Plays an FM or AM broadcast
TIMER REC SOURCE TUNER	Records an FM or AM broadcast
SOURCE - - - CD	Plays a CD
SOURCE TAPE	Plays tape
TIMER REC SOURCE - - - - -	Records from whichever source was used just before turning off the CA-C55BK.

- When you select CD as the source, you can designate the first track to play from the first 20 tracks on the disc in PLUS 1 tray (or the first disc in magazine, if no disc is loaded on the PLUS 1 tray) by pressing the PRESET < or > button.



5. Set the volume level with the TUNER/TIMER/DIMMER < or > button and press the MEMORY button to store it.
- Each time you press the TUNER/TIMER/DIMMER < or > button, the unit gives you one of the following settings:
- | Display | What it means |
|-------------|--|
| VOL - - - - | Volume set to level used before shut the power off |
| VOL - - 0 | Volume off |
| VOL - - A | Volume barely on |
| VOL - - B | Volume at about a 1/4 turn of the volume control |
| VOL - - C | Volume at about a 3/8 turn of the volume control |

These volume settings do not affect your recording because the recording level is automatically set by the Unit. So if you're not home at the designated time, be sure to set the volume level to minimum.

6. Press the TIMER1, TIMER 2, or DAILY button again, and the Unit will memorize the setting. Now the Unit is set to turn on and record the last station set when the Unit was last turned off.
- Notice that the TIMER 1, TIMER 2, or DAILY indicator is lighted up on the display whenever the Timer is set.
7. To cancel the Timer settings, press the TIMER 1, TIMER 2, or DAILY button again; the corresponding indicator on the display goes off.

Note: If the volume control has already been turned half a turn or more when you set the volume level, you may not be able to set it to volume position 0, A, B, or C correctly.

Resetting the Timers

To reset a Timer, press the TIMER 1, TIMER 2, or DAILY button twice. Now the Timer is set again and will use the same start-time stop-time, source, and volume level as before.

To change your selection, press the CANCEL button and enter a new value.

It is very easy, and can be very disappointing, to forget to put in a tape, or to accidentally leave a tape in deck B you don't want recorded over. Although this happens to almost everyone sometimes, we hope it won't happen to you!

Wake up Timer

With this timer you can wake up to music from a CD, tape, or your favorite radio program.

- Press the POWER button to shut the Unit off.
- Press the WAKE UP/SLEEP button — The "WAKE UP" display will light up the CD/tuner display.
 - Each time you press the WAKE UP/SLEEP button the wake-up timer lapse changes in the following order:
 - 0:05 → 0:10 → 0:15 → 0:30 → 0:45 → 1:00 → 1:30 → 2:00 → 3:00 → (every hour) → 12:00 → Wake up timer off → (back to the beginning)
 - The "WAKE UP" indicator remains lit on the display to let you know that Wake Time is set.
- To cancel the WAKE UP timer setting, press the POWER button to turn on the Unit.
 - If you select FM or AM (MW/LW) as the source, the last played station is the one which comes on at the Wake Up time set.
 - The volume when the timer turns on the source is the volume last set when the Unit was turned off. This can be quite a surprise first thing in the morning, so you might want to reset it before going to sleep.
 - If the CD is the source, it starts playing from the first track.

Sleep Timer

Use the sleep timer to turn the Unit off after a certain number of minutes when it is playing. Setting this timer, you can fall asleep to music and know your Unit will turn off by itself rather than play all night.

- You can only set the Sleep Timer when the Unit is on and a source is playing.
- To cancel the Sleep Timer, press the POWER button to turn off the Unit.

To set the Sleep Timer follow this procedure:

- With the Unit on and a source playing, press the WAKE UP/SLEEP button. The "SLEEP" indicator on the display will start blinking.
- Set the length of time you want the source to play before shutting off.
 - Each time you press the WAKE UP/SLEEP button while the "SLEEP" indicator is blinking, it changes the number of minutes shown on the display in this sequence:
 - 0:05 → 0:10 → 0:15 → 0:30 → 0:45 → 1:00 → 1:15 → 1:30 → 1:45 → 2:00 → Sleep timer off → (back to the beginning)
 - The actual time when the Unit will shut off shows in the right hand corner of the CD/tuner display where the clock time is usually displayed.

When the number of minutes you want shows on the display, just wait 5 seconds until the indicator stops blinking, but remains lighted.

The Unit is now set to turn off after the number of minutes you set.

Timer Priority

Since each timer can be set independently, you may have wondered what happens if the settings overlap. Here are the priorities for each timer.

- The Wake Up Timer has priority over Timer 1, Timer 2, or Daily timer. This means that if the start-time for one of the timers occurs before the wake-up time, the Unit will wait until the wake-up time to turn on.
- The Sleep Timer has priority over Timer 1, Timer 2, or Daily timer. This means that if the stop-time for one of the timers occurs before the sleep time, the Unit will wait until the sleep-time before turning itself off.

Checking the Remaining Time

After setting the Wake Up or Sleep Timer, you can check the time remaining until the Unit turns on (Wake Up Timer) or shuts off (Sleep Timer).

- Press the WAKE UP/SLEEP button shows you the remaining time on the CD/tuner display for 5 seconds. Then the display returns to the clock time display (Wake Up Timer) or the radio frequency display (Sleep Timer).

Adjusting the Brightness of the Display

In the stand-by mode, you can adjust the brightness of the clock display. Press the TUNING/TIMER/DIMMER > button makes the display brighter. Press the TUNING/TIMER/DIMMER < button makes the display dimmer.



Using the Remote Controller

How to Use the Remote Controller

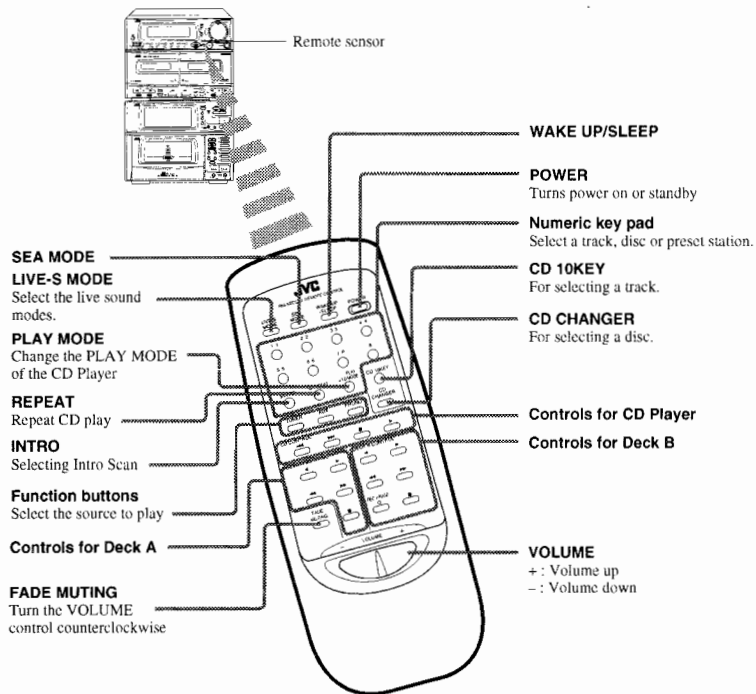
The Remote controller makes it easy to use many of the functions of the CA-C55BK from a distance of up to 23 feet away. You do need to point the remote sensor at the CA-C55BK front panel.

- ❑ Most of the buttons on the Remote controller do just what the ones on the CA-C55BK do.
- ❑ A few function are available only by using the Remote controller, and those are described below.

Using the Numeric Key Pad

The numeric key pad is used to specify a CD, a CD track or the number you have assigned to a preset radio station. To enter a number using the numeric key pad, follow these steps:

- ❑ Before using the numeric key pad, check to see whether the numeric key pad is functioning to operate the CD player or tuner. This is depends on which button on the Remote controller you have pressed before using the numeric key pad. For example, if you press the TUNER before the numeric key pad, it can select a preset station. Pressing the CD CHANGER enable you to select a CD and also to operate the INTRO, REPEAT and PLAY MODE. If you press the CD 10KEY, it can select a CD track.
- ❑ For numbers between 1 and 10, just press the button with the number you want.
- ❑ For numbers from 11 to 20, first press the +10 key, then the one's digit of the number you want — to get 15, first press +10, then 5. For 20, press +10 and 10.
- ❑ For numbers from 21 to 30, press the +10 key twice; then press the one's digit — to get 25, press +10 +10 and 5. For 30, +10 +10 and 10.
- ❑ For number from 31 to 40, press the +10 key three times, then the one's digit of the number you want — to get 32, first press +10 +10 +10 and 2. For 40, press +10 +10 +10 and 10.



Care and Maintenance — General Notes

Compact Discs

Handle your compact discs, cassette tapes, and cassette deck carefully, and they will last a long time.



- Remove the CD from the case by holding it at the edges while pressing the center hole lightly.
- Do not touch the shiny surface of the CD, or bend the CD.



- Put the CD back in its case after use to prevent warping.
- Be careful not to scratch the surface of the CD when placing it back in the case.
- Avoid exposure to direct sunlight, temperature extremes, and moisture.



- A dirty CD may not play correctly. If a CD does become dirty, wipe it with a soft cloth in a straight line from center to edge.

CAUTION: Do not use any solvent (for example, conventional record cleaner, spray thinner, benzine, etc.) to clean a CD.

Moisture Condensation



- Moisture may condense on the lens inside the Unit in the following cases:
- After starting the heating in the room.
 - In a damp room.
 - If the unit is brought directly from a cold to a warm place.
- Should this occur, the Unit may malfunction. In this case, leave the unit turned on for a few hours until the moisture evaporates, unplug the AC power cord, and then plug it in again.

In general, you will have the best performance by keeping your tapes, CDs, and the mechanism clean.

- Store tapes and CDs in their cases, and keep them in cabinets or on shelves.
- Keep the cassette deck tape carriers and the CD tray closed when not in use.

Cassette Tapes



- If the tape is loose in its cassette, take up the slack by inserting a pencil in one of the reels and rotating.
- If the tape is loose, it may get stretched, cut, or caught in the cassette.



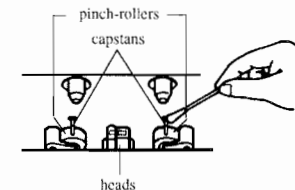
- Do not touch the tape surface.



- Do not store the tape:
 - In dusty places
 - In direct sunlight or heat
 - In moist areas
 - On a TV or speaker
 - Near a magnet

Cassette Deck

- If the heads, capstans, and pinch-rollers of the cassette deck become dirty, the following will occur:
 - Impaired sound quality
 - Discontinuous sound
 - Fading
 - Incomplete erasure
 - Difficulty recording
- Clean the heads, capstans, and pinch-rollers using a cotton swab moistened with alcohol.



- If the heads become magnetized, the Unit will produce noise or loose high frequencies.
- To demagnetize the heads, turn off the Unit, and use a head demagnetizer (available at electronics and record shops).

Troubleshooting

- If you are having a problem with your CA-C55BK, check this list for a possible solution before calling for service.
- If you cannot solve the problem from the hints given here, or the Unit has been physically damaged, call a qualified person, such as your dealer, for service.

Symptom	Possible Cause	ACTION
No sound is heard.	Connections are incorrect, or loose.	Check all connections and make corrections. (See pages 3 - 5.)
Impossible to record.	Cassette record protect tabs are removed.	Cover holes on back edge of cassette with tape.
Hard to listen to broadcasts because of noise.	The antenna is disconnected. The AM loop antenna is too close to the Unit. The FM wire antenna is not properly extended and positioned.	Re-connect the antenna securely. Change the position and direction of the AM loop antenna. Extend FM wire antenna to the best reception position.
The CD sound is discontinuous.	The CD is scratched or dirty.	Clean or replace the CD.
Unable to operate the Remote controller.	The path between the Remote controller and the sensor on the Unit is blocked. The batteries are discharged.	Remove the obstruction. Replace the batteries.
The CD tray cannot be operated.	The main AC power cord is not plugged in.	Plug in the AC power plug.
The CD does not play.	The CD is upside down.	Put the CD in with the label side up.
Operations are disabled.	The built in microprocessor may malfunction due to external electrical interference.	Unplug the Unit then plug it back in.
The cassette carrier cannot be opened.	The Unit was turned off because the timer was operated while the tape was running.	Turn on the Unit.

Specifications

Amplifier/Cassette Deck Section

Amplifier section

Output Power

30 watts per channel, min. RMS, both channels driven, into 8 ohms from 40 Hz to 20 kHz, with no more than 0.9% total harmonic distortion.

Input Sensitivity/Impedance (1 kHz)

AUX/VIDEO 300 mV/47 kohms

PHONO 3 mV/47 kohms

Cassette Deck section

Frequency response

CrO₂: 30 - 16,000 Hz

Normal: 30 - 15,000 Hz

Wow and flutter 0.09% (WRMS)

Dimensions

245 x 183 x 340 mm (W/H/D)
(9-11/16 x 7-1/4 x 13-7/16 inches)

Weight

5.6 kg (12.4 lbs)

CD Automatic Changer/Tuner

CD Automatic Changer section

CD capacity 7 discs

Dynamic Range 96 dB

Signal-to-Noise Ratio 102 dB

Wow and Flutter Unmeasurable

Tuner section

FM Tuner

Tuning Range 87.5 - 108.0 MHz

Usable Sensitivity 0.95 μV/75 ohms (10.8 dBf)

Signal-to Noise Ratio

(IHF-A weighted) MONO 80 dB
STEREO 73 dB

AM Tuner

Tuning Range 530 - 1,710 kHz

Dimensions

245 x 183 x 339 mm (W/H/D)
(9-11/16 x 7-1/4 x 13-3/8 inches)

Weight

4.2 kg (9.3 lbs)

Power Specifications

Power Requirements AC 120 V ~, 60 Hz

Power Consumption 105 watts

Design and specifications subject to change without notice.

DX-C55BK

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Description of ICs

■ MN171202JHX(IC901) : System controller

Terminal Layout

VDD	1	64	OSC1
S1	2	63	OSC2
S2	3	62	VSS
S3	4	61	X2
S4	5	60	X1
S5	6	59	KI3
S6	7	58	KI2
S7	8	57	KI1
S8	9	56	KI0
S9	10	55	ACO
S10	11	54	SPK
S11	12	53	TUNER RESET
S12	13	52	STANDBY IND
S13	14	51	DECK RESET
S14	15	50	SOURCE MUTE
S15	16	49	DECK INH
S16	17	48	DCS OUT
VPP	18	47	DCS IN
VOL UP	19	46	INH
VOL DOWN	20	45	REMOCON IN
1G	21	44	PROTECTOR IN
2G	22	43	RESET
3G	23	42	DTAO
4G	24	41	DTAI
5G	25	40	DSTB
6G / KO0	26	39	CSB
7G / KO1	27	38	S.OUT
8G / KO2	28	37	S.STB
9G	29	36	SCK
10G	30	35	
ABX IND	31	34	MODE1
VOL IND	32	33	MODE2

Key Matrix

	KEY IN 0 (Pin56)	KEY IN 1 (Pin57)	KEY IN 2 (Pin58)	KEY IN 3 (Pin59)
KEY OUT 0 (Pin26)	POWER	AUX/VIDEO	PHONO	ABX
KEY OUT 1 (Pin27)	BGM	CAR	H.PHONE	—
KEY OUT 2 (Pin28)	D.CLUB DEMO	HALL	STADIUM	—

Terminal Description

Pin NO.	Symbol	I/O	Function	Pin NO.	Symbol	I/O	Function
1	VDD	—	Power supply	33	MODE2	I	Chip select
2	S1	O	FL segment control	34	MODE1	I	Chip select
3	S2	O	FL segment control	35	—	--	Not used
4	S3	O	FL segment control	36	SCK	O	Clock for data transfer to selectors
5	S4	O	FL segment control	37	S.STB	O	Strobe signal for selectors
6	S5	O	FL segment control	38	S.OUT	O	Data for input selector
7	S6	O	FL segment control	39	CSB	O	Chip select signal
8	S7	O	FL segment control	40	DSTB	O	Strobe signal for equalizer filter
9	S8	O	FL segment control	41	DTAI	O	Data for equalizer filter
10	S9	O	FL segment control	42	DTAO	I	Data from equalizer filter
11	S10	O	FL segment control	43	RESET	I	System reset input
12	S11	O	FL segment control	44	PRT. IN	I	Protector detection
13	S12	O	FL segment control	45	RM. IN	I	Remote control signal input
14	S13	O	FL segment control	46	INH	I	Inhibit signal input
15	S14	O	FL segment control	47	DCS IN	I	Compulink signal input
16	S15	O	FL segment control	48	DCS OUT	O	Compulink signal output
17	S16	O	FL segment control	49	DECK INH	O	Inhibit signal to deck controller
18	VPP	—	Power supply for FL display	50	S.MUTE	O	Source muting
19	VOL UP	O	Main volume control	51	DECK RST	O	Reset signal to deck controller
20	VOL DOWN	O	Main volume control	52	STBY. IND	O	Indication signal
21	1G	O	FL grid control	53	TU.RESET	O	Reset signal to tuner
22	2G	O	FL grid control	54	SPK	O	Speaker relay control signal
23	3G	O	FL grid control	55	ACO	O	Power supply control signal
24	4G	O	FL grid control	56	KI0	I	Key matrix input
25	5G	O	FL grid control	57	KI1	I	Key matrix input
26	6G/KO0	O	FL grid control (Key matrix out)	58	KI2	I	Key matrix input
27	7G/KO1	O	FL grid control (Key matrix out)	59	KI3	I	Key matrix input
28	8G/KO2	O	FL grid control (Key matrix out)	60	X1	--	Not used
29	9G	O	FL grid control	61	X2	--	Not used
30	10G	O	FL grid control	62	VSS	--	GND
31	ABX IND.	O	Indication control	63	OSC2	--	Oscillation terminal
32	VOL IND.	O	Indication control	64	OSC1	--	Oscillation terminal

HD4074008SE07 (IC491) : Deck controller

Terminal Layout

NR LED	1	64	A.FWD LED
NR LED (C)	2	63	A.REV LED
A.SPEED UP	3	62	B.FWD LED
B.SPEED UP	4	61	B.REV LED
MUSIC IN	5	60	REC LED
B.FWD REEL MOTOR	6	59	REV MODE
B.REV REEL MOTOR	7	58	BIAS
B.REV CAM MOTOR	8	57	NR OFF
B.FWD CAM MOTOR	9	56	REC MUTE
A.CAM SW 2	10	55	DCS IN
A.CAM SW 1	11	54	DCS OUT
A.CAM SW 0	12	53	GND
A.PULSE IN	13	52	OSC IN
B.CAM SW 2	14	51	OSC OUT
B.CAM SW 1	15	50	TO VCC
B.CAM SW 0	16	49	RESET IN
B.PULSE IN	17	48	KEY&SW IN 4
POWER OFF IN	18	47	KEY&SW IN 3
GND	19	46	KEY&SW IN 2
A.FWD REEL MOTOR	20	45	KEY&SW IN 1
A.REV REEL MOTOR	21	44	KEY OUT 4
A.REV CAM MOTOR	22	43	KEY OUT 3
A.FWD CAM MOTOR	23	42	KEY OUT 2
NR REC	24	41	KEY OUT 1
A MUTE	25	40	SW OUT 2
B MUTE	26	39	SW OUT 1
PLAY MUTE	27	38	HI-SPEED DUBBING
CAPSTAN MOTOR ON	28	37	HS CrO ₂
REC	29	36	HS METAL
FADE CONTROL	30	35	HS NORMAL
BEQ	31	34	CrO ₂
+5V	32	33	METAL

Key matrix

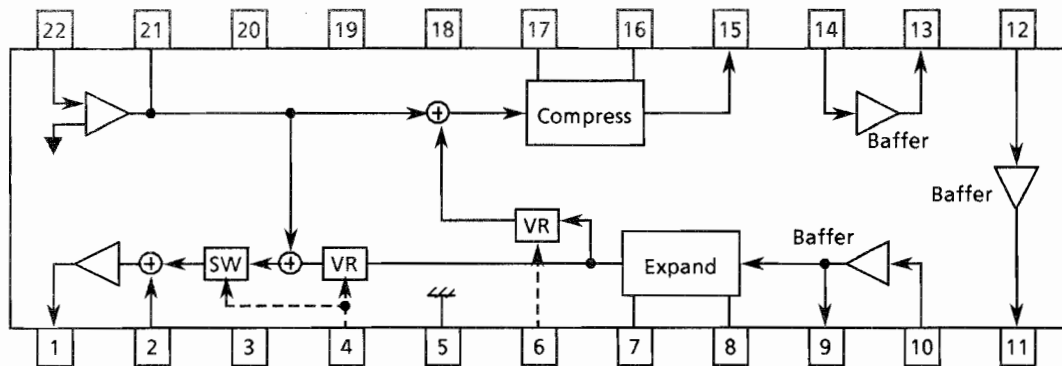
	KEY IN 1 (Pin45)	KEY IN 2 (Pin46)	KEY IN 3 (Pin47)	KEY IN 4 (Pin48)
SW OUT 1 (Pin39)	—	B CrO ₂	METAL	—
SW OUT 2 (Pin40)	BPACK	REV REC	FWD REC	APACK
KEY OUT 1 (Pin41)	A◀	A◀◀	A▶▶	A▶
KEY OUT 2 (Pin42)	B◀	B◀◀	B▶▶	B▶
KEY OUT 3 (Pin43)	A■	B■	REC PAUSE	—
KEY OUT 4 (Pin44)	A▶▶B	DOLBY	REV. MODE	CD REC

Terminal Description

Pin NO.	Symbol	I/O	Function	Pin NO.	Symbol	I/O	Function
1	NR LED	O	Indication control for NR	33	METAL	O	Metal tape , normal speed record
2	NR LED(C)	O	Not used	34	CrO ₂	O	CrO ₂ tape , normal speed record
3	A S UP	O	Reel speed up control (Deck A)	35	HS NORM	O	Normal tape , high speed record
4	B S UP	O	Reel speed up control (Deck B)	36	HS METAL	O	Metal tape , high speed record
5	MUSIC IN	I	Music scan signal input	37	HS CrO ₂	O	CrO ₂ tape , high speed record
6	B FRM	O	Reel control signal for forward (Deck B)	38	HI DUB	O	It is "L" when high speed dubbing
7	B RRM	O	Reel control signal for reverse (Deck B)	39	SW O1	O	Keymatrix output for leaf switches
8	B RCM	O	Cam control signal for reverse (Deck B)	40	SW O2	O	Keymatrix output for leaf switches
9	B FCM	O	Cam control signal for forward (Deck B)	41	KEY O1	O	Key matrix output
10	A CSW2	I	Cam data input	42	KEY O2	O	Key matrix output
11	A CSW1	I	Cam data input	43	KEY O3	O	Key matrix output
12	A CSW0	I	Cam data input	44	KEY O4	O	Key matrix output
13	A.PULS IN	I	Reel pulse input from deck A	45	KEY/SW I1	I	Key matrix input
14	B CSW2	I	Cam data input	46	KEY/SW I2	I	Key matrix input
15	B CSW1	I	Cam data input	47	KEY/SW I3	I	Key matrix input
16	B CSW0	I	Cam data input	48	KEY/SW I4	I	Key matrix input
17	B.PULSE IN	I	Reel pulse input from deck B	49	RESET	I	Reset input
18	P.CONT	I	Inhibit input from system controller	50	TO VCC	--	Connected to VCC
19	GND	--	GND	51	OSC	--	Oscillation terminal
20	A FRM	O	Reel control signal for forward (Deck A)	52	OSC	--	Oscillation terminal
21	A RRM	O	Reel control signal for reverse (Deck A)	53	GND	--	Gnd
22	A RCM	O	Cam control signal for reverse (Deck A)	54	DCS OUT	O	Compulink output
23	A FCM	O	Cam control signal for forward (Deck A)	55	DCS IN	I	Compulink input
24	NR REC	O	It is "H" when recording with NR on	56	REC MUTE	O	Recording mute control
25	A MUTE	O	It is "H" when deck A is not playing	57	NR OFF	O	NR on/off control
26	B MUTE	O	It is "H" when deck B is not playing	58	BIAS	O	Bias on/off control
27	PLAY MU	O	Deck mute	59	REV MODE	O	Indication control for reverse mode
28	CAP CONT	O	Capstan on/off control	60	REC LED	O	Indication control for record
29	REC	O	It is "H" when recording	61	BREV LED	O	Indication control for reverse playback
30	FADE CON	O	It is "H" when recording with fade	62	BFWD LED	O	Indication control for forward playback
31	BEQ	O	Bias /Playback EQ control	63	AREV LED	O	Indication control for reverse playback
32	+5V	--	Power supply	64	AFWD LED	O	Indication control for forward playback

■ BA7725S (IC990) : Echo circuit

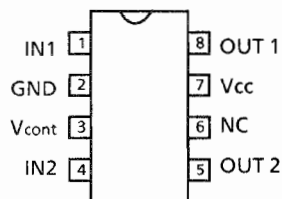
Internal Block Diagram



Terminal Description

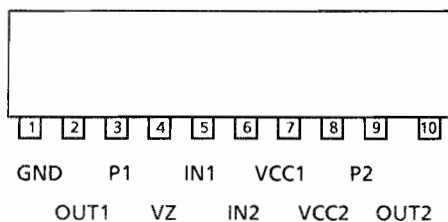
Pin No.	Symbol	Function
1	LINE OUT	Line output
2	LINE IN	Line input
3	NC	Not used
4	ECHO LEV CTRL	Determines echo level. The echo circuit is off when 1 volt is added. The echo level varies according to the voltage from 2 volts to 9 volts.
5	GND	Analog GND
6	LOOP GAIN CTRL	Loop gain control terminal. The gain varies according to the voltage from 2 volts to 9 volts.
7	EXP DET	Detection terminal for expand circuit
8	EXP DET CT	Determines the attack and recovery time of expand circuit
9	EXP BF OUT	Buffer output (Expand circuit side)
10	EXP BF IN	Buffer input (Expand circuit side)
11	DLY BF OUT	Delay buffer output
12	DLY BF IN	Delay buffer input
13	CMP BF OUT	Buffer output (Compress circuit side)
14	CMP BF IN	Buffer input (Compress circuit side)
15	CMP OUT	Compress circuit output
16	CMP DET CT	Determines the attack and recovery time of compress circuit
17	CMP DET	Detection terminal for compress circuit
18	RIPPLE FILTER	A capacitor is connected for ripple elimination filter
19	VCC	Power supply
20	NC	Not used
21	MICAMP OUT	Mic amp output
22	MICAMP IN	Mic amp input

■ LB1639-CV (IC508) : Motor driver



IN1(Pin1)	IN2(Pin4)	OUT1(Pin8)	OUT2(Pin5)	MOTOR
H	L	H	L	Counterclockwise
L	H	L	H	Clockwise
H	H	OFF	OFF	Waiting
L	L	OFF	OFF	Waiting

■ LB1641 (IC451~454) : DC Motor driver



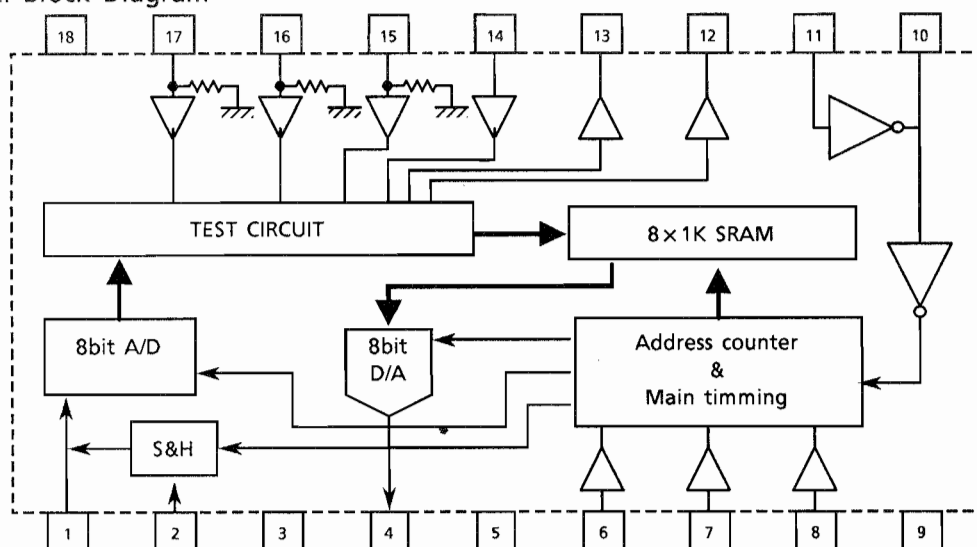
Function

Input		Output		Mode
IN1	IN2	OUT1	OUT2	
0	0	0	0	Brake
1	0	1	0	Forward
0	1	0	1	Reverse
1	1	0	0	Brake

∞ : Hig impedance

■ BU9251S(IC999) : Delay circuit

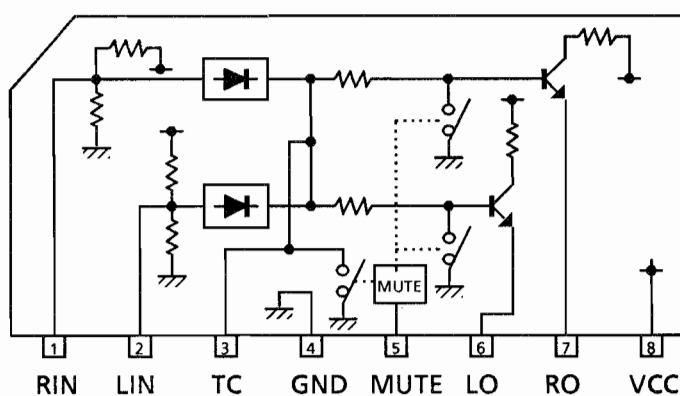
Internal Block Diagram



Terminal description

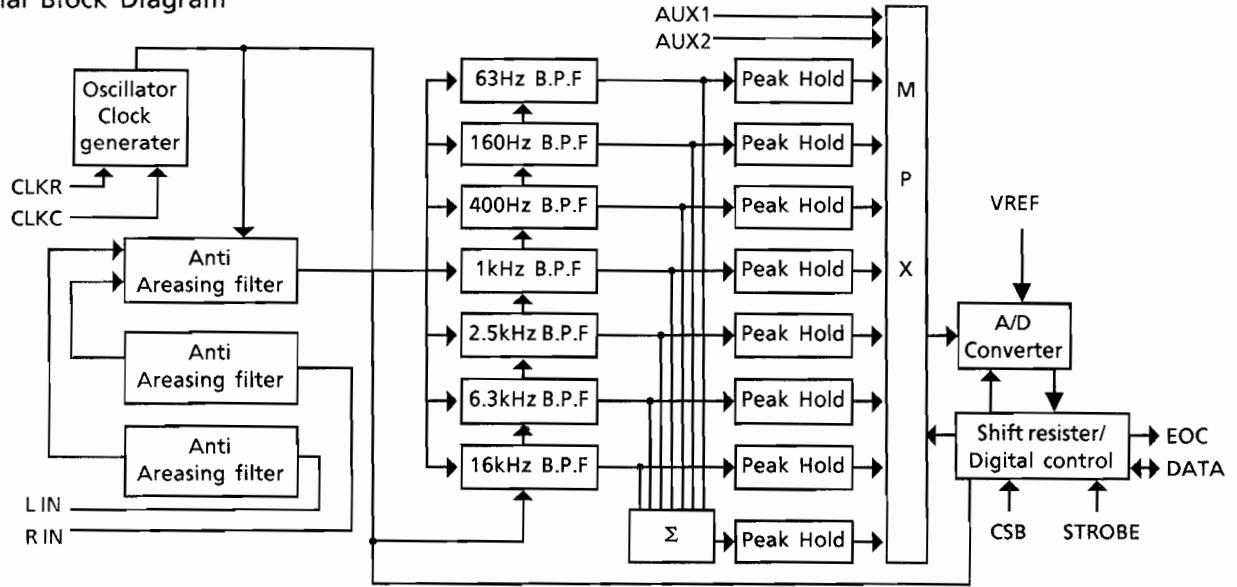
Pin No	Symbol	Function	Pin No	Symbol	Function
1	S&H	A capacitor is connected for sample&hold	10	OSC0	Oscillation terminal
2	AIN	Analog input	11	OSC1	Oscillation terminal
3	GND	GND	12	TDO1	Test terminal
4	AOUT	Analog output	13	TDO0	Test terminal
5	VDD	Power supply	14	TDIN	Test terminal
6	DCNT0	Delay time control	15	TST2	Test mode terminal
7	DCNT1	Delay time control	16	TST1	Test mode terminal
8	DCNT2	Delay time control	17	TST0	Test mode terminal
9	GND	GND	18	VCC	Power supply

■ BA8221N (IC353) : ALC



■ XR1099(IC701) : 7-channel graphic equalizer filter with A/D converter

Internal Block Diagram



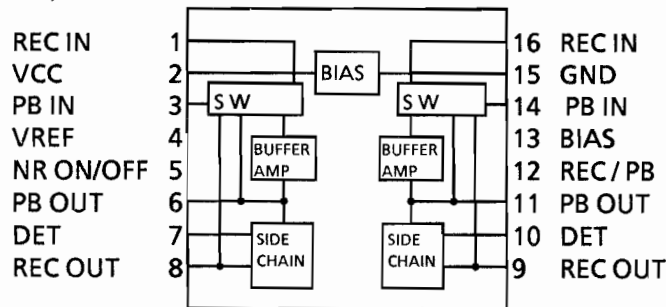
Terminal Layout

CSB	1	16	VDD
STB	2	15	CLKR
DATAI	3	14	CLKC
DATAO	4	13	GND
EOC	5	12	LIN
VREF	6	11	RIN
AUX2	7	10	VSS
AUX1	8	9	TEST

Terminal Description

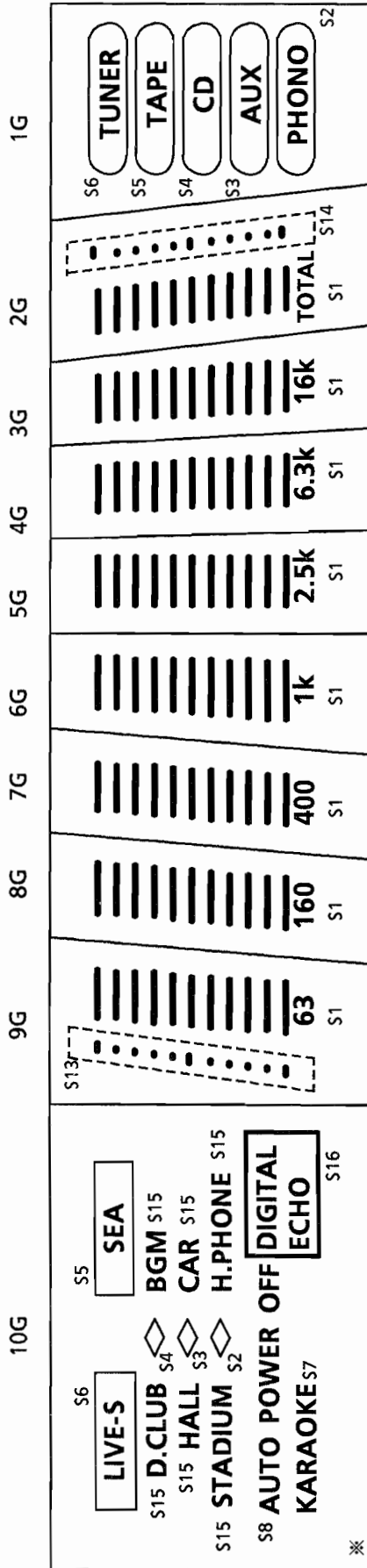
Pin No	Symbol	I/O	Function	Pin No	Symbol	I/O	Function
1	CSB	I	Chip select	8	TEST	I	TEST Terminal
2	STB	I	Strobe signal	19	VSS	--	-5V
3	DATAI	I	Data output	10	RIN	I	Sound signal input
3	DATAO	O	Data input	10	LIN	I	Non connection
4	EOC	--	Not used	11	GND	--	GND
5	VREF	I	A/D converter reference voltage	12	CLKC	--	A capacitor is connected
6	AUX2	I	Non connection	13	CLKR	--	A resistor is connected
7	AUX1	I	Non connection	14	VDD	--	+5V

■ HA12136A (IC352) : NR amplifier



Internal Connection of the Display

■ ELU0001-166 (FL901)



Pin Connection

Pin NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
ELECTRODE	F1	F1	NP	NP	PS2	PS3	PS4	PS5	PS6	PS7	PS8	PS9	PS16	PS10	PS11	PS12	PS13	PS14	PS15	
Pin NO.		20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
ELECTRODE		PS1	NP	NP	NP	NP	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	NP	F2	F2

Note: F: Filament, NP: No pin, G: Grid, P: Anode



Disassembly Procedures

■ Removing the Top cover

1. Remove the 6 screws fixing the side and back of the cover.
2. Remove the top cover.

■ Removing the front panel assembly

1. Remove the Top cover.
2. Disconnect the connectors J103, J502 and J503 on the main volume circuit board.
3. Pull out the main volume knob and remove the nut fixing the main volume to remove the main volume circuit board.
4. Disconnect the flat wires J506 and JB701 on the main circuit board and the connectors J301, J302, P331 and P333 on the cassette deck circuit board.
5. Remove the screws (A) fixing the front panel assembly.
6. Release the 3 hooks (C) to remove the assembly.

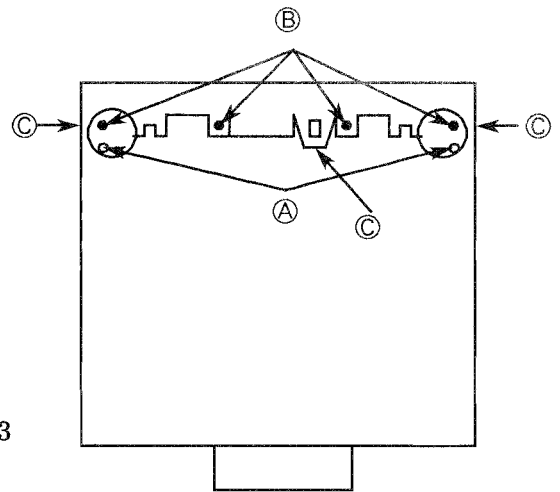


Figure1 Bottom view

■ Removing the heatsink cover

1. Remove the 2 screws (D) fixing the cover to remove it.

■ Removing the rear panel

1. Remove the Top cover.
2. Remove the heatsink cover.
3. Remove the 10 screws (E) fixing the panel to remove it.

■ Removing the power ic

1. Remove the Top cover.
2. Disconnect the connector J502 on the main volume circuit board.
3. Take the heatsink with the regulator circuit board and the amplifier circuit board out.
4. Remove the screws fixing the power ic to separate the amplifier circuit board and the heatsink and unsolder the power ic.

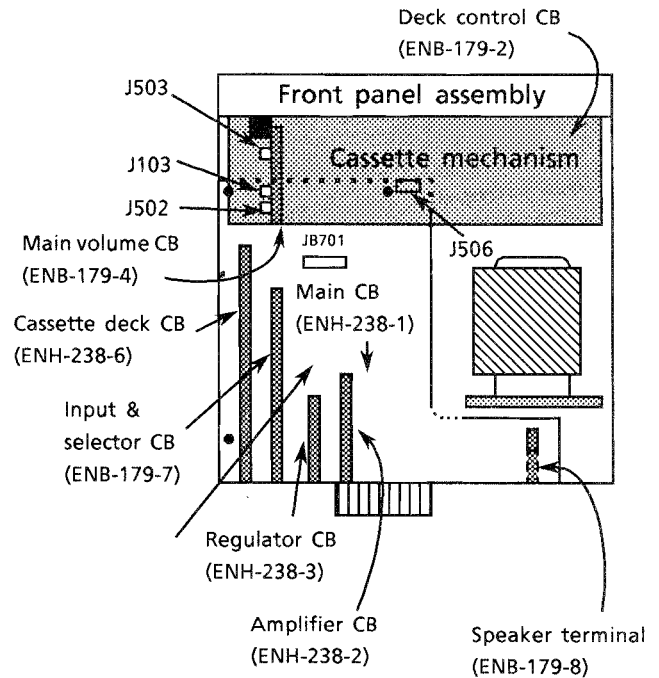


Figure2 Top view

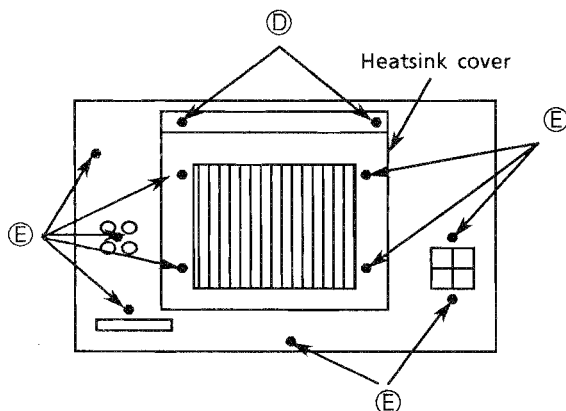


Figure4 Rear

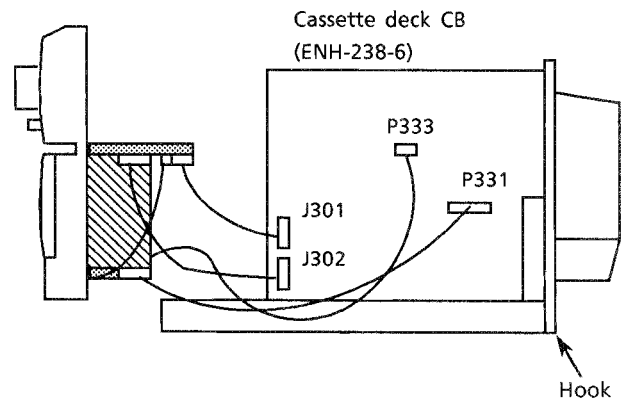


Figure3 Right side

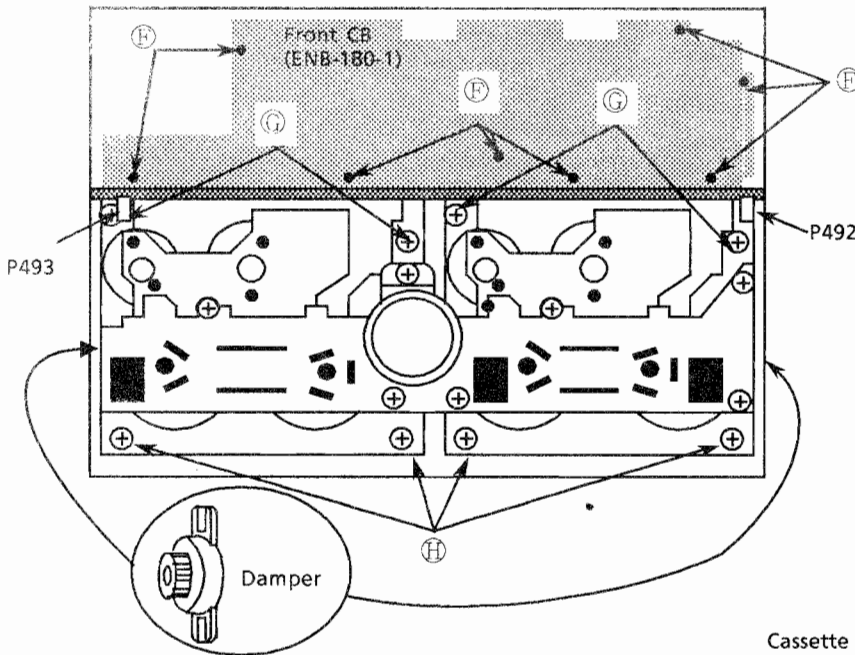


Figure5 Back of the front panel assembly

■ Removing the front CB

1. Remove the top cover.
2. Remove the balance and twin bass knobs.
3. Remove the front panel assembly.
4. Remove the 8 screws ① fixing the circuit board to remove it.

■ Removing the cassette mechanism assembly

1. Remove the top cover.
2. Remove the front panel assembly.
3. Disconnect the connectors P492, P493 on the deck control circuit board (Figure 5).
4. Remove the 8 screws ③ and ④ fixing the assembly.
5. Remove the cassette mechanism assembly.

■ Removing the cassette holders

1. Remove the cassette mechanism assembly.
2. Remove the holder springs (Figure 6).
3. Remove the damper to remove the holder.

■ Removing the cassette lids

1. Open the cassette door to slide the lid up (Figure 7).

■ Removing the deck control circuit board

1. Remove the cassette mechanism assembly.
2. Remove the 2 screws ① fixing the circuit board to pull out the circuit board upward.

■ Removing the deck operation circuit board (ENB-179-3: Figure 6)

1. Remove the cassette mechanism assembly.
2. Remove the cassette holders.
3. Remove the 4 screws ② fixing the holder bracket to remove the bracket (Figure 1).
4. Remove the 3 screws fixing the deck operation circuit board to remove it.

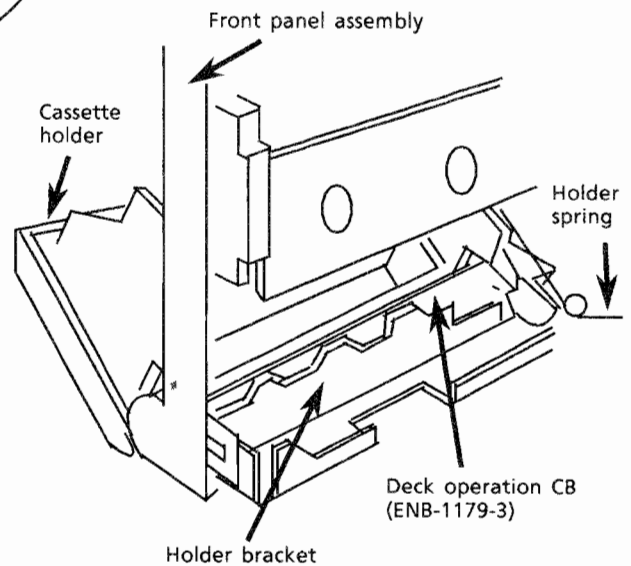


Figure6

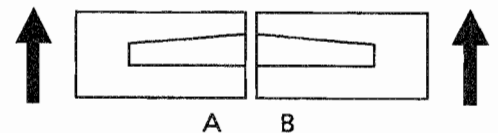


Figure 7

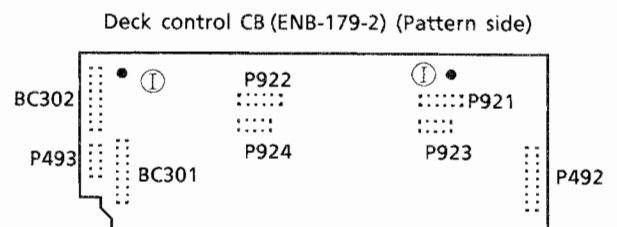


Figure 8

■ Removing the head assembly

1. Remove the cassette mechanism assembly.
2. Disconnect the flexible wire from the relay circuit board (ENB-179-5,6) and remove the FPC holder.
3. Remove the 3 screws ① fixing the head assembly (Fig. 9).

* Installation of the head assembly

When installing the assembly after replacing it, be careful of the direction of the head previously installed (Figure 10).

■ Removing the capstan motor

1. Remove the mechanism assembly.
2. Remove the deck control circuit board.
3. Remove the 7 screws ② fixing the bracket on which the capstan motor is installed (Figure 11).
4. Release the hooks fixing the bracket with the motor.
5. Remove the 2 screws fixing the motor to remove it.

■ Removing the Reel and cam motor

1. Remove the mechanism assembly.
2. Remove the deck control circuit board.
3. Remove the bracket installed the capstan motor (Refer to figure 11).
4. Remove the 4 screws ③ and ④ fixing the motors to remove the reel and cam circuit board with the motors.
5. Unsolder the motors to remove the motors.

Do not add the stress to the motor terminals.

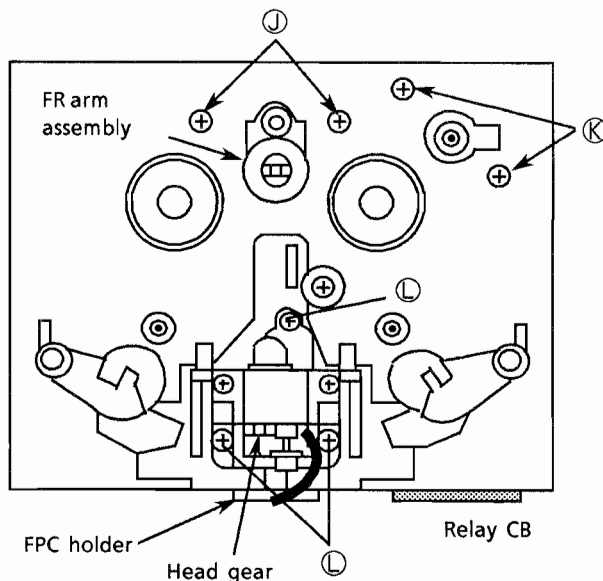


Figure9 Front of the cassette mechanism

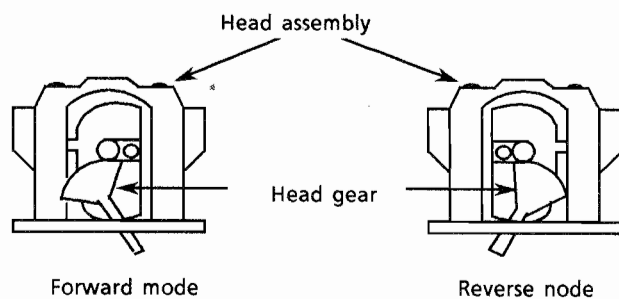


Figure10 Relation between the direction and the head gear

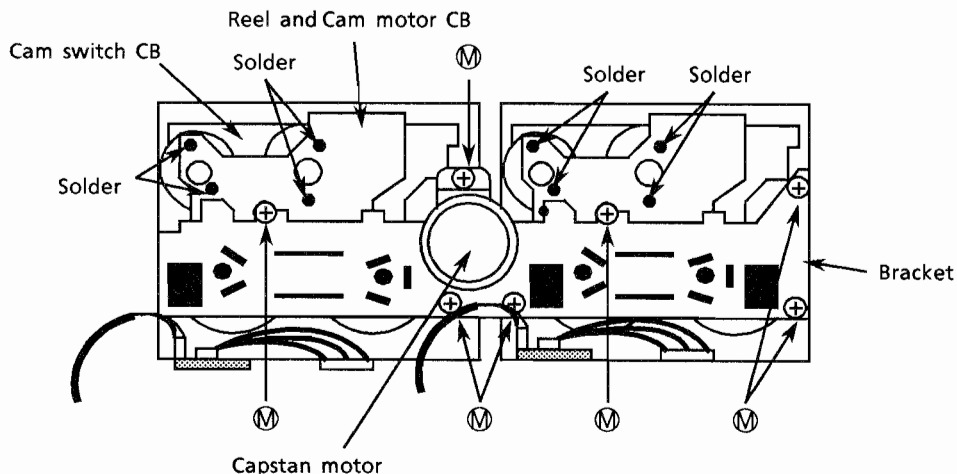


Figure11 cassette mechanism assembly

■ Removing the pinch roller arm assembly

1. Release the hooks holding the assembly to remove it (Figure 12).

■ Removing the flywheel

1. Remove the mechanism assembly.
2. Remove the deck control circuit board.
3. Remove the 7 screws ⑭ fixing the bracket on which the capstan motor is installed (Figure 11) and remove the bracket. The belts become free at the same time.
4. Remove the flywheels.

Installing

Install the flywheels and the belts to the mechanism as shown in figure 13. When putting the belts on the hanger, put the belt B first.

At last, install the bracket with the capstan motor to put the belts on the pulleys (Figure 14).

■ Removing the cam switch circuit board

1. Remove the flywheels.
2. Remove the reel and cam motor circuit board.
3. Release the hook and the screw fixing the cam switch circuit board to remove the circuit board.

- * When installing the cam switch circuit board, assemble the circuit board so that the part ⑮ meets part ⑯ (Figure 15).

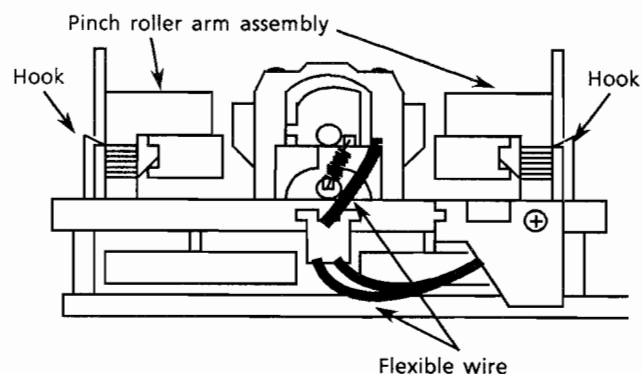


Figure12 Bottom view of the cassette mechanism

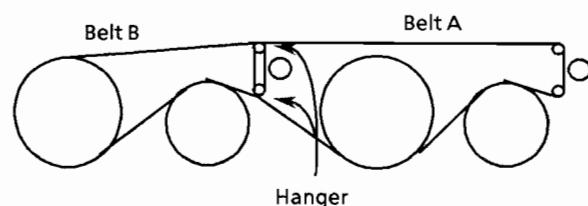


Figure13

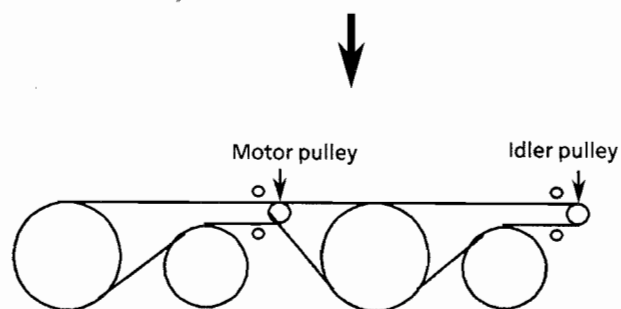


Figure14

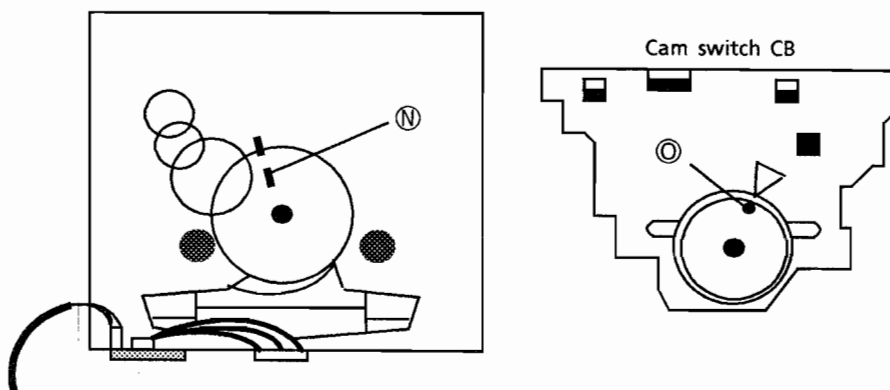


Figure15

Adjustment Procedures (Cassette Deck)

1. Measuring instruments

Audio frequency signal generator (0dbS output at the 600 ohm output terminal from 50Hz to 20KHz)

Electronic voltmeter

Frequency counter

Wow & Flutter meter

Distortion Meter with band pass filter

Attenuator (600 ohm impedance)

A resistor with 600Ω

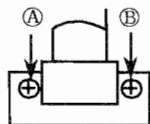
Standard Tape

0dbS = 0.775V

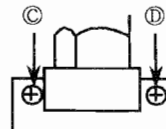
Tape No.	Frequency	Level (Wow & Fkutter)	Purpose
VTT-703L	10kHz	- 10dBs	Head azimuth , Frequency Response
VTT-712	3000Hz	0dbS 0.025%WRMS	Tape Speed , Wow & Flutter
VTT-724	1kHz	- 4dBs	Standard Level
TMT-6447	-	-	Blunk Skip
TMT-6247 , TMT-6237	-	-	Music Scan
TMT-7046	-	-	Recording standard Normal : UR
AC-712	-	-	Recording standard METAL : MA
AC-513	-	-	Recording standard CrO ₂ : SA
TW-2111, TW-2121	-	-	Forward /reverse play torque measuring
TW-2231	-	-	Feed forward /rewind torque measuring
C-120 Tape	-	-	Comfirming the tape running

2. Adjustment and repairing the mechanism

Item	Adjustment method	Standard value	Remarks
Head azimuth	<p>Deck A</p> <ol style="list-style-type: none"> 1. Connect an electronic voltmeter to the DOLBY TP (figure 3) to playback VTT-703L. 2. Adjust screw Ⓐ so that the indication of the voltmeter becomes maximum when PLAY (▶) is pressed. 3. Adjust screw Ⓑ so that the indication of the voltmeter becomes maximum when PLAY (◀) is pressed. <p>Deck B</p> <ol style="list-style-type: none"> 4. Adjust screw Ⓒ so that the indication of the voltmeter becomes maximum when PLAY (▶) is pressed. 5. Adjust screw Ⓓ so that the indication of the voltmeter becomes maximum when PLAY (◀) is pressed. 6. After making the adjustment, apply screw lock to prevent screws Ⓐ, Ⓑ, Ⓒ and Ⓓ coming loose. 	Maximum	<ol style="list-style-type: none"> 1. Refer to figure 1. 2. When the specified characteristic cannot be obtained because of head wear, excessive magnetization, etc., replace the head assembly and adjust the head azimuth. Also, perform the electric adjustment. 3. When there is the difference of more than 3 ~ 4 dB between left and right output levels, replace the head assembly to avoid complaints.
Playback torque	<ol style="list-style-type: none"> 1. Measure the torque in the playback mode by the torqu meter. 	26 ~ 62 g-cm	When the standard torque cannot be obtained, replace the FR arm assembly or motor.
Fast forward torque	<ol style="list-style-type: none"> 1. Measure the torque in the fast forward mode by the torqu meter. 	80 ~ 170 g-cm	When the standard torque cannot be obtained, replace the FR arm assembly or motor.
Rewind torque	<ol style="list-style-type: none"> 1. Measure the torque in the rewind mode by the torqu meter. 	80 ~ 170 g-cm	When the standard torque cannot be obtained, replace the FR arm assembly or motor.
Wow & flutter	<ol style="list-style-type: none"> 1. Connect the wow & flutter meter to the DOLBY TP (figure 3) and play back VTT-712. 2. Its reading should be within 0.2% (WTD). 	—	As a complaint may occur if the wow & flutter fluctuates by 0.1% even though it is allowed in the standard, repairing is required.



Deck A



Deck B

Figure 1

3. Electrical Adjustments (Make the following adjustments after adjusting the head azimuth.)

In principle, the adjustments should be made in the following sequence.

Set the NR switch to OFF and the BEAT CUT switch to "1".

Adjustments marked with an asterisk (*) should always be made after the head is replaced

0dBs = 0.775V.

Item	Adjustment Method	Adjustment Location	Standard Value	Remarks
Tape Speed	1. Connect a frequency counter to the DOLBY TP (figure 3) and play back VTT-712. 2. Normal speed Adjustment 1) Mechanism B Play back deck B to adjust the semi-fixed resistor R400 on ENB-180-2. 2) Mechanism A Play back deck A to confirm that the difference between deck A and deck B is within $\pm 51\text{Hz}$. 3. High-speed check 1) Mechanism B Play back deck B check $6,000\text{Hz} \pm 600\text{Hz}$.	R400	$3,000\text{ Hz} \pm 10\text{Hz}$ $6,000\text{Hz} \pm 600\text{Hz}$	1) Adjust the normal speed first, and perform the high speed adjustment.
Standard level (Playback Level)	1. Connect an electronic voltmeter to the DOLBY TP (figure 3). Play back VTT-724 (1 kHz : -4dBs) to adjust the semi-fixed resistors.	Deck A L: R381 R: R382 Deck B L: R383 R: R384	-5.5dBs (411mV) $\pm 1\text{dB}$	1) The playback level varies when the head is replaced so should be adjusted. Use an electronic voltmeter with an impedance of 100 k Ω or more.
Playback Frequency Response	1. Connect an electronic voltmeter to the DOLBY TP (figure 3). 2. Play VTT-703L (10kHz : -10dBs) and adjust semi-fixed resistors to obtain the standard values.	Deck A L: R361 R: R362 Deck B L: R357 R: R358	-10dBs (245mV)	—
Recording Bias Frequency	1. Connect a frequency counter to the BIAS TP (figure 3), and perform a recording to adjust bias frequency.	L331	$100\text{ kHz} \pm 6\text{ kHz}$	Set the BEAT CUT SWITCH to "1".
Record / Play Frequency Response (Bias current)	1. Supply 1kHz and 12.5kHz with 30mV signals to VCR/PHONO terminals respectively to record them. 2. Connect an electronic voltmeter to the DOLBY TP (figure 3) to confirm the recorded values. 3. If the values are not satisfied, adjust the semi-fixed resistors and record the signal again to confirm the recorded values.	L: R355 R: R356	$0 \pm 2\text{ dB}$ for 12.5 kHz with 1 kHz as the standard.	Refer to figure 2 below. 1) The recording and playback frequency response of a cassette deck are adjusted by adjusting the bias. 2) Perform the adjustment with normal tape and confirm that the values are within the range for metal tape.

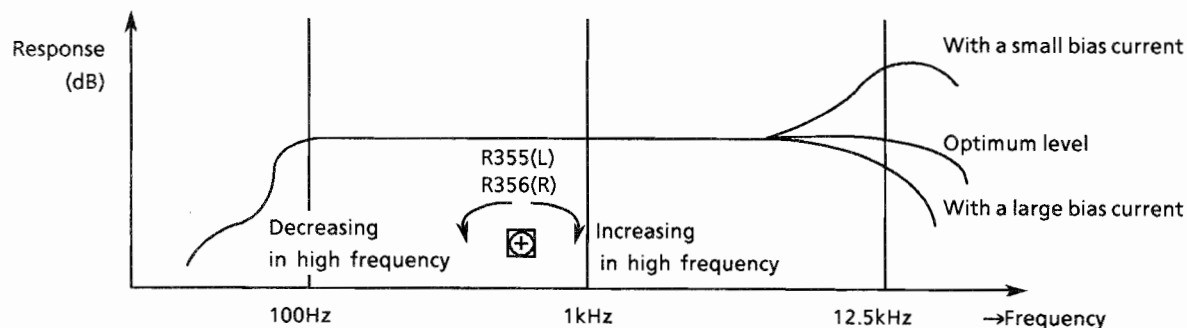


Figure 2

Item	Adjustment Method	Adjustment Location	Standard Value	Remarks
Record / Playback Sensitivity	1. Input a 1 kHz (-8.2dBs: 300mV) signal to VCR / PHONO terminals and record it on the left and right channels . 2. Connect an electronic voltmeter to the DOLBY TP (figure 3) to confirm the values . 3. If the values are not satisfied , adjust the semi-fixed resistors and record the signals again to confirm the values.	L : R351 R : R352	- 5.5dBs (411mV)	Adjust with normal tape and make sure that the left /right level difference is 1.0dB or less
Erase ratio check	1. Record a music source using metal tape. 2. Rewind and erase the recorded section. 3. Comfirm nothing can be heard.	-	-	-
Auto-stop check	Make sure to operate AUTO STOP at the end of tape running and not to operate on the way of the playing.	-	-	-
Music Scan	1. Make sure not to work the music scanning operation at the start of tape wind using TMT-6237. 2. Make sure to work the music scanning operation at the end of tape wind using TMT-6247.	-	-	-

Mechanism controller PCB (ENB-179-2)

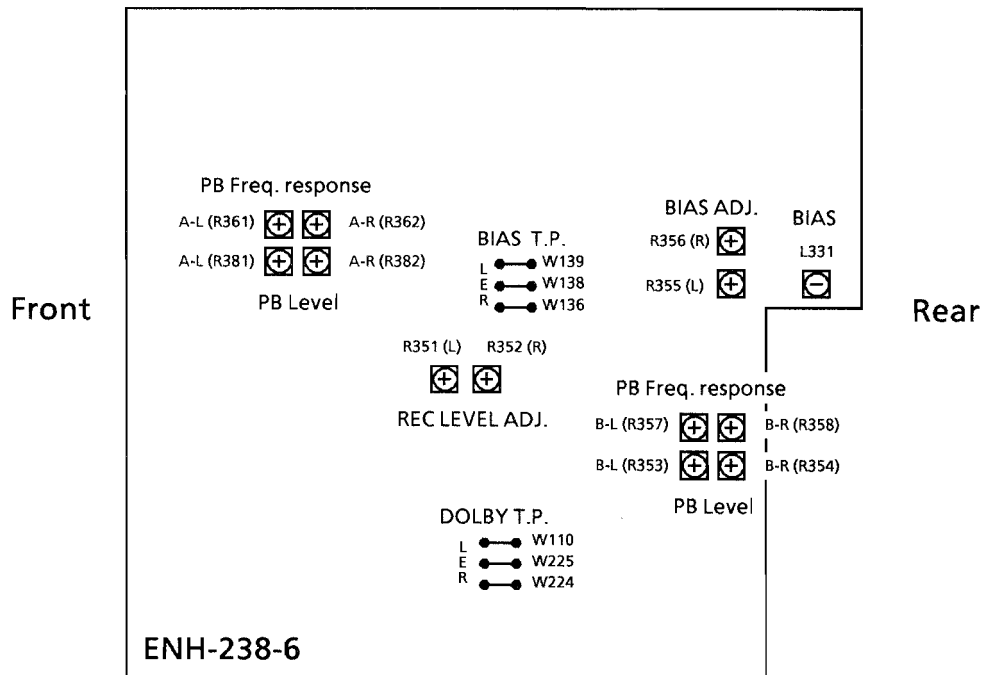
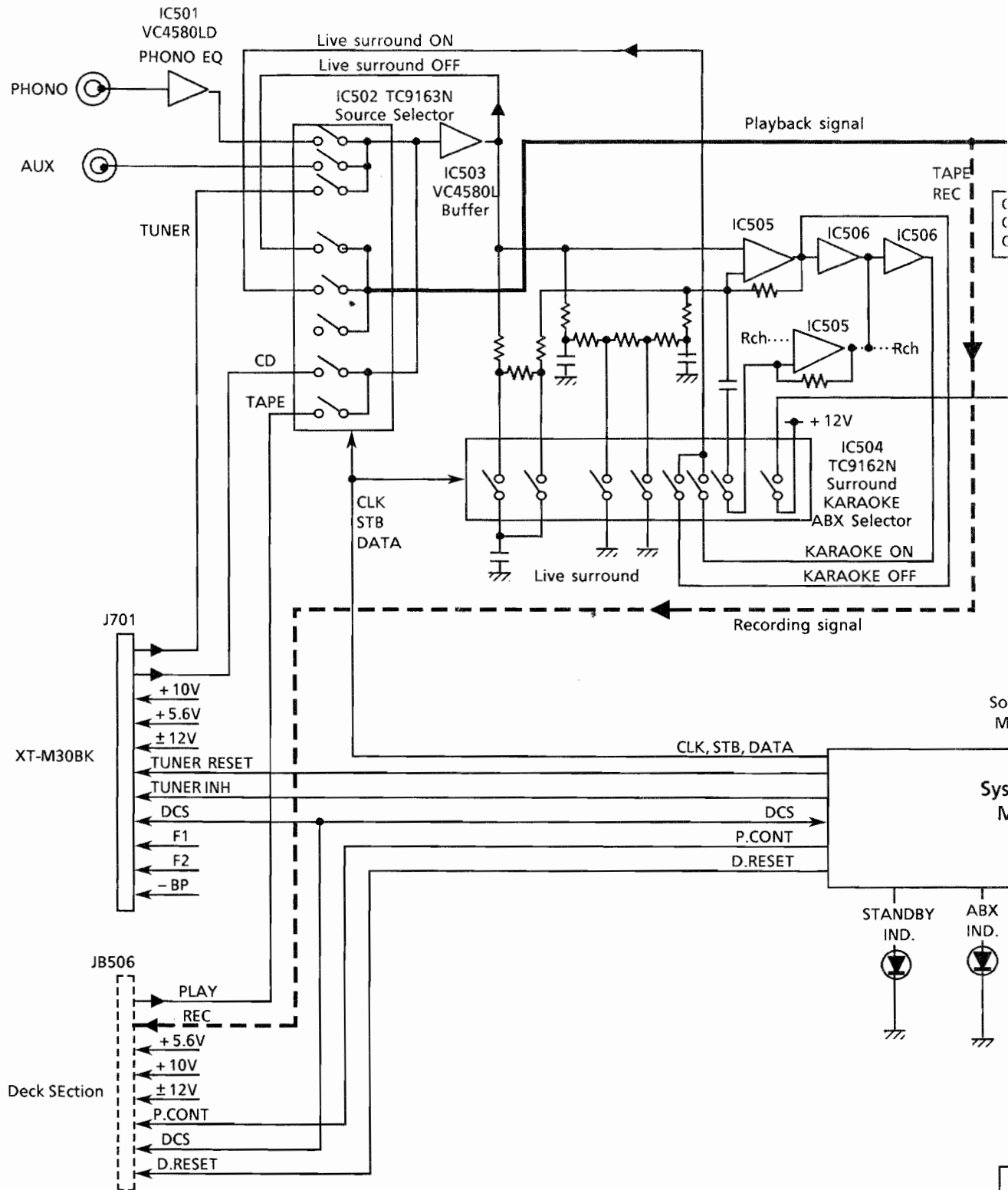
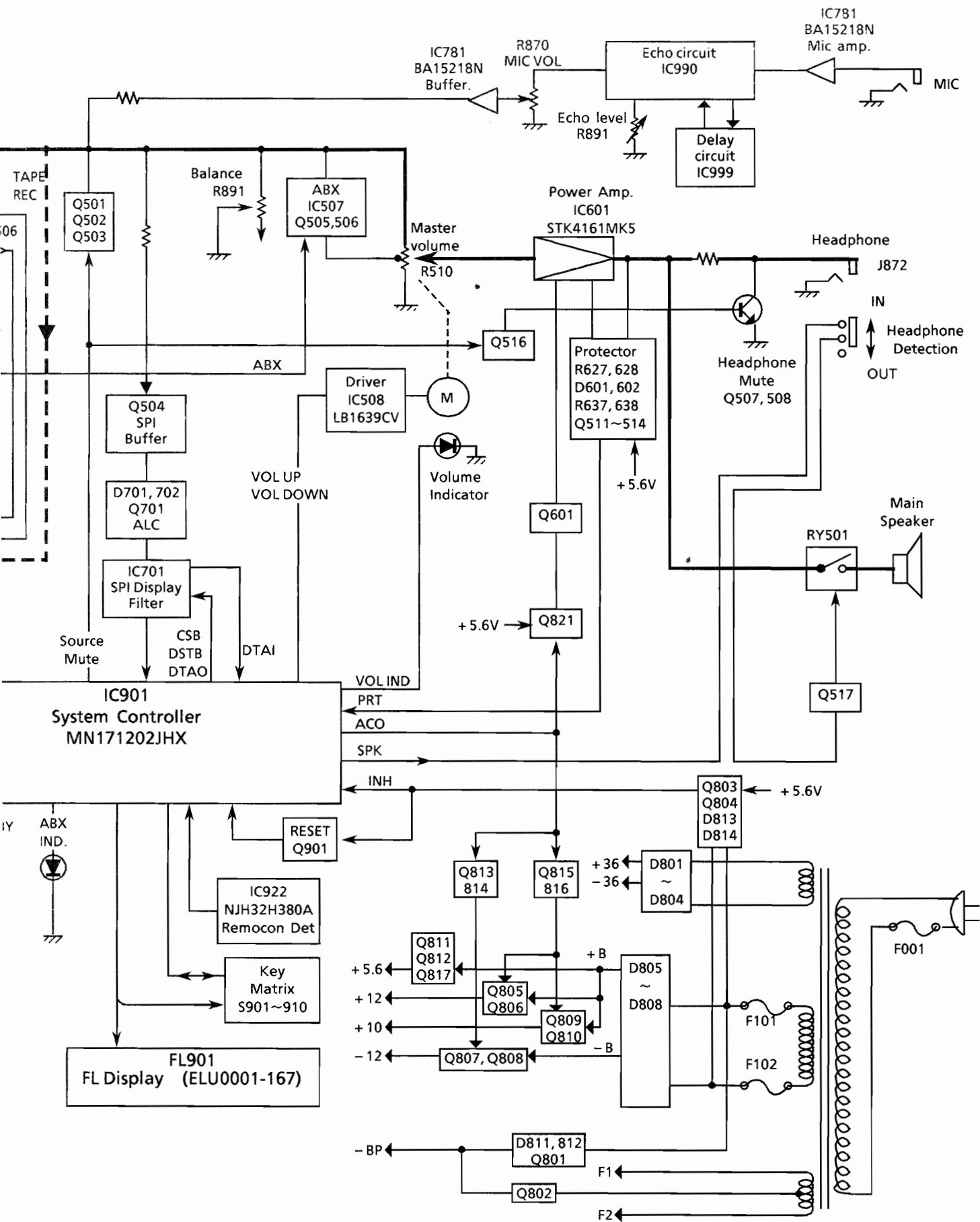


Figure 3

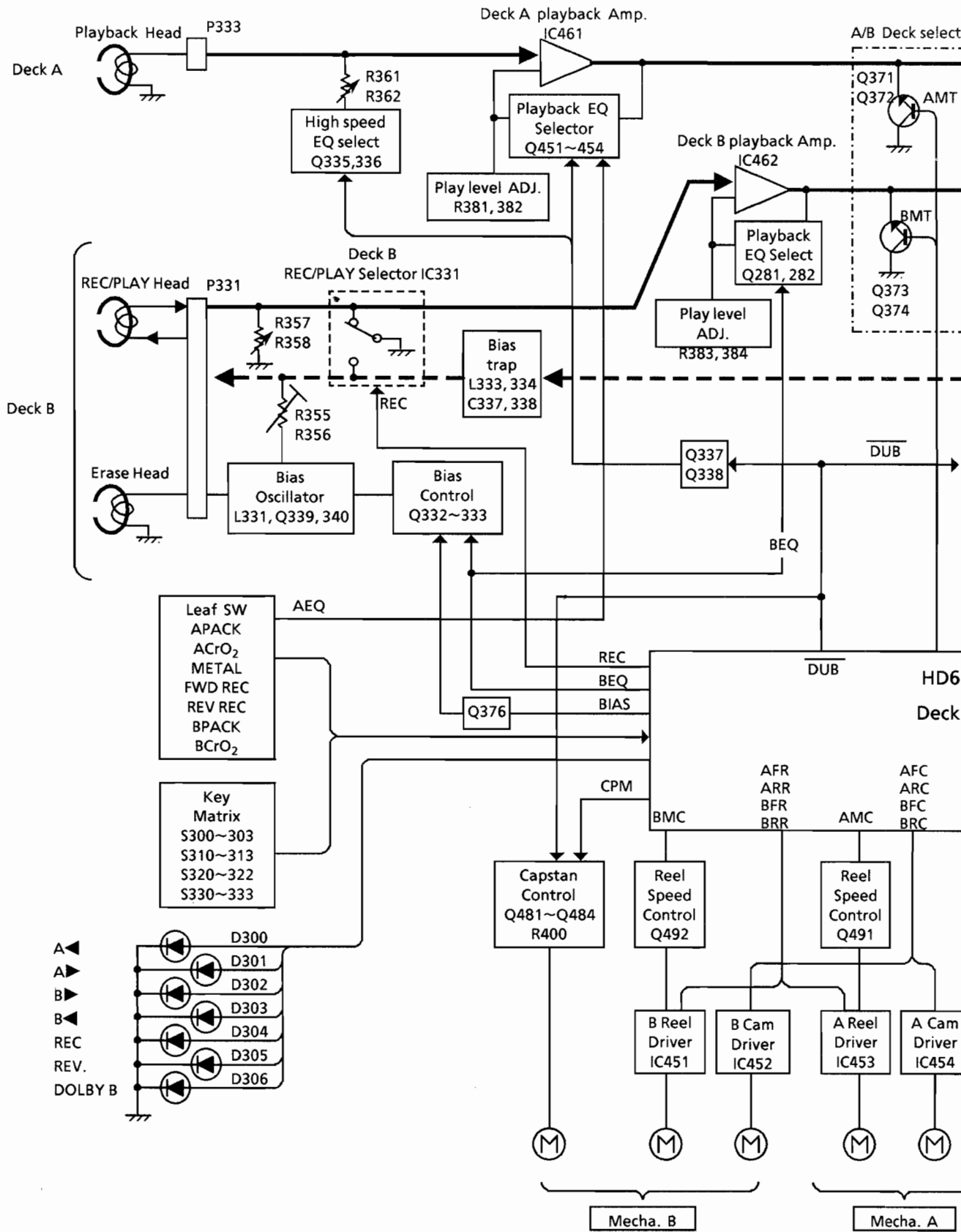
Block Diagram

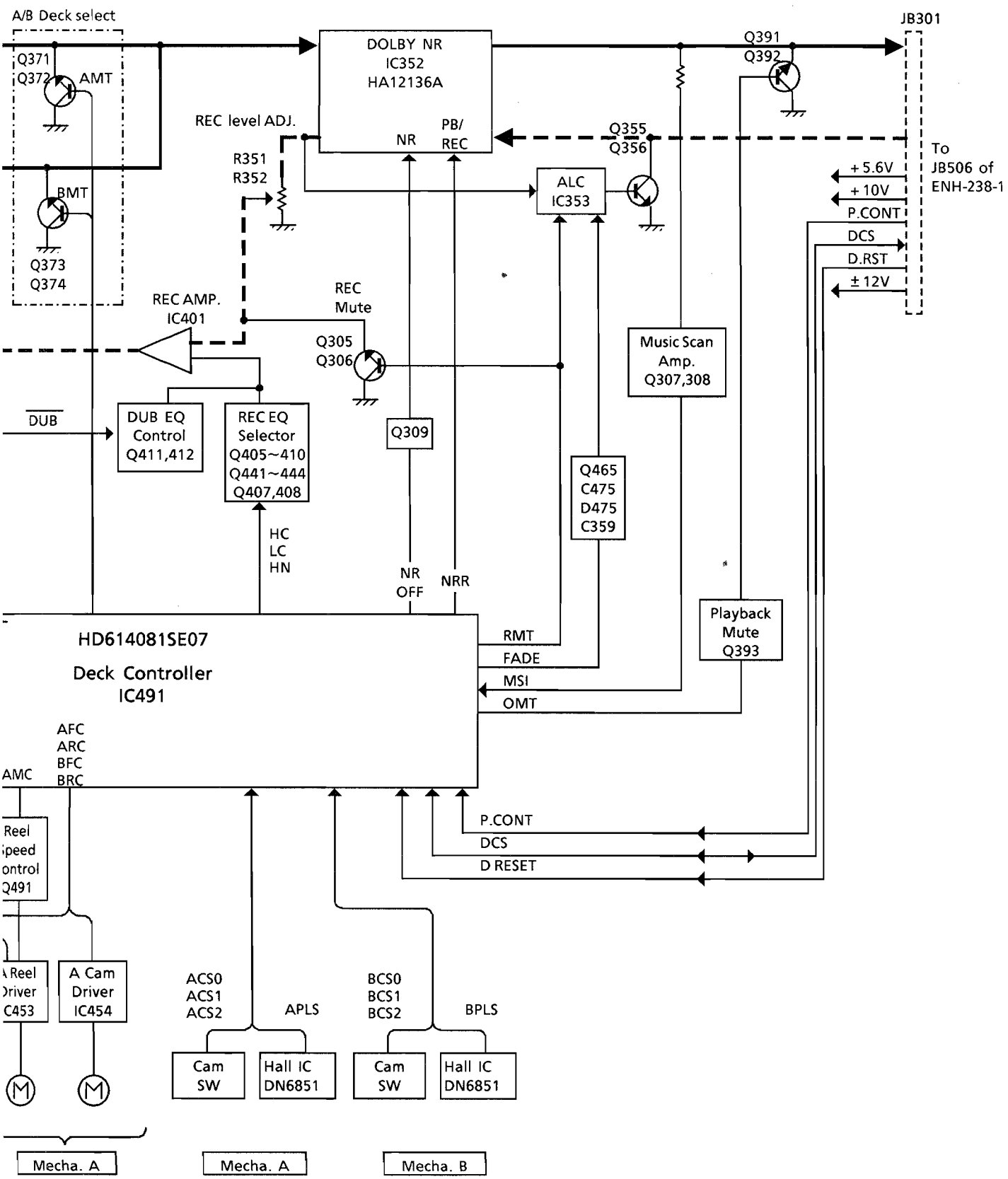
(1) System






(2) Deck





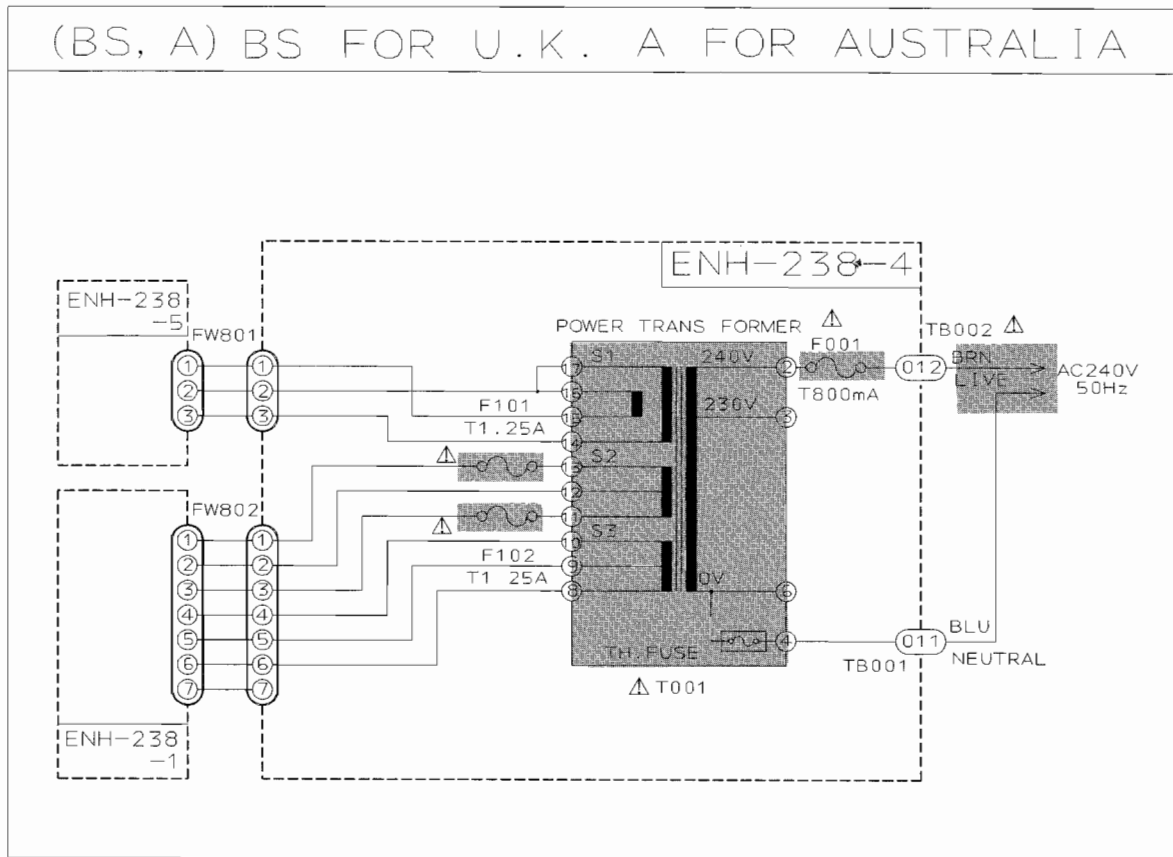
(1) Power Supply Section

Notes:

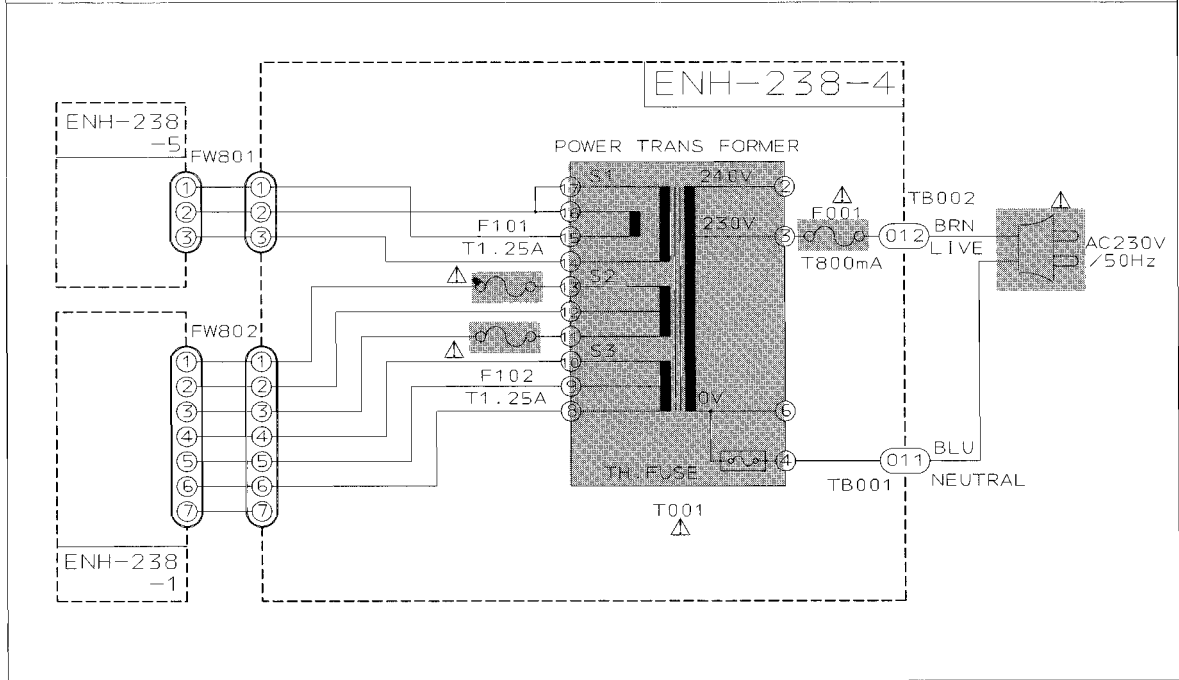
1. indicates +B power supply.
2. indicates -B power supply.
3. indicates main signal path.
4. indicates surround signal path.
5. When replacing the parts in the shaded area () and those marked with Δ , be sure to use the designated parts to ensure safety.

This is the standard circuit diagram.

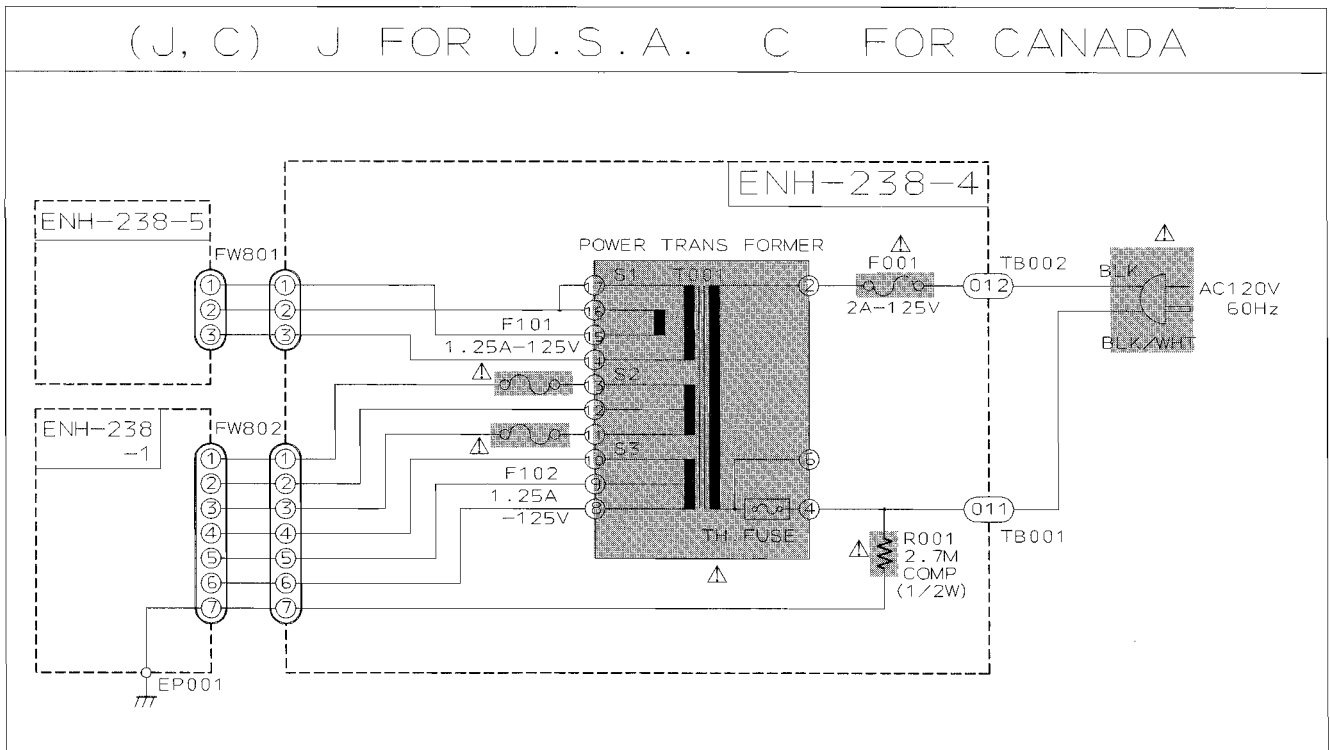
6. The design and contents are subject to change without notice.



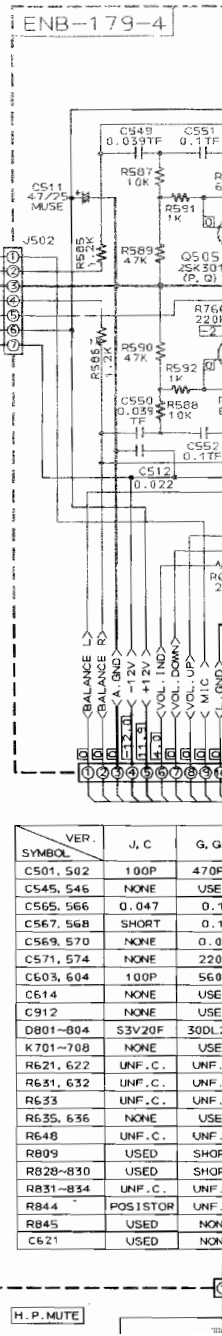
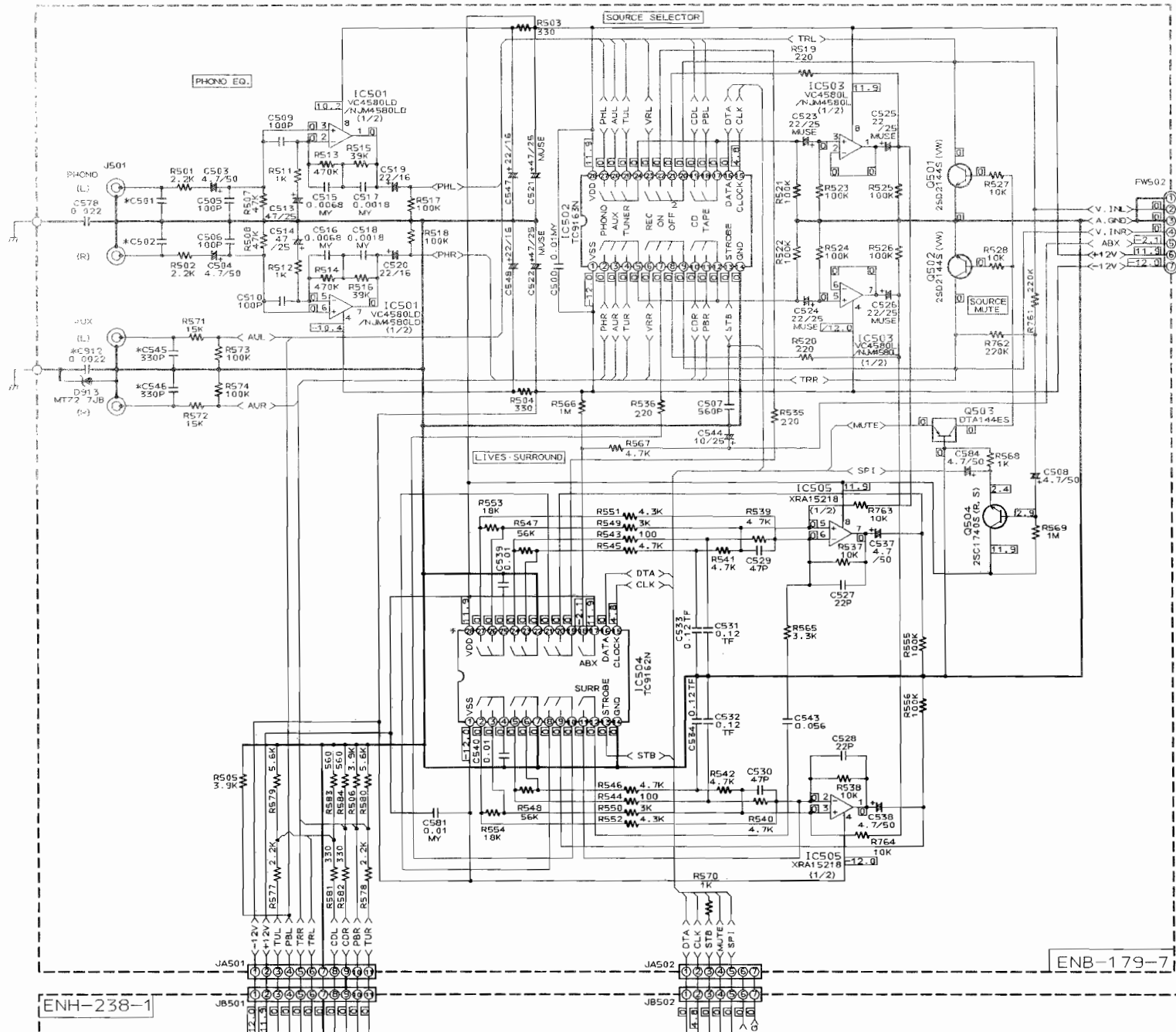
(EN, EF) EN FOR SCANDINAVIA
 EF FOR CONTINENTAL EUROPE
 (G, GI) G FOR GERMANY GI FOR ITALY



(J, C) J FOR U.S.A. C FOR CANADA

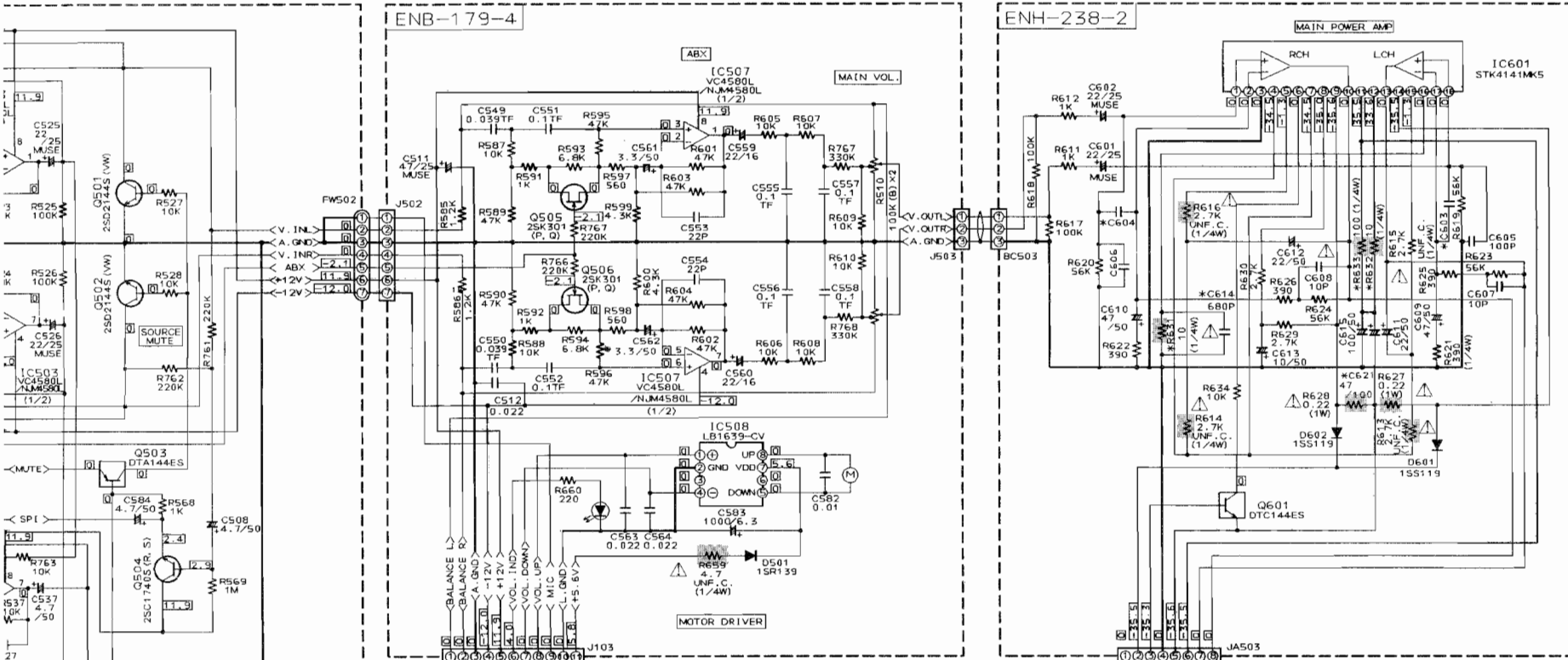


(2) Input & Sound Select, Regulator & Amplifier Section



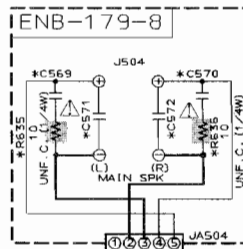
VER.	J, C	G, GI
C501, 502	100P	470P
C545, 546	NONE	USED
C565, 566	0.047	0.1
C567, 568	SHORT	0.1
C569, 570	NONE	0.01
C571, 574	NONE	220P
C603, 604	100P	560P
C614	NONE	USED
C912	NONE	USED
D801-804	S3V20F	30DL2F
K701-708	NONE	USED
R621, 622	UNF. C.	UNF. F.
R651, 632	UNF. C.	UNF. F.
R633	UNF. C.	UNF. F.
R635, 636	NONE	USED
R648	UNF. C.	UNF. F.
R809	USED	SHORT
R828-830	USED	SHORT
R831-834	UNF. C.	UNF. F.
R844	POSISTOR	UNF. C.
R845	USED	NONE
C621	USED	NONE

H. P. MUTE



SYMBOL	VER.	J, C	G, G1	OTHER
C501, 502		100P	470P	100P
C545, 546		NONE	USED	NONE
C565, 566		0.047	0.1	0.1
C567, 568		SHORT	0.1	0.1
C569, 570		NONE	0.01	NONE
C571, 574		NONE	220P	NONE
C603, 604		100P	560P	100P
C614		NONE	USED	NONE
C912		NONE	USED	NONE
DB01-804		S3V20F	30DL2FC	30DL2FC
K701-708		NONE	USED	NONE
R621, 622		UNF. C.	UNF. F.	UNF. F.
R631, 632		UNF. C.	UNF. F.	UNF. F.
R633		UNF. C.	UNF. F.	UNF. F.
R635, 636		NONE	USED	NONE
R648		UNF. C.	UNF. F.	UNF. F.
R809		USED	SHORT	SHORT
RB28-830		USED	SHORT	SHORT
RB31-834		UNF. C.	UNF. F.	UNF. F.
RB44		POSISTOR	UNF. C.	UNF. C.
RB45		USED	NONE	NONE
C621		USED	NONE	NONE

ENB-179-7



H.P. MUTE



JB503

JB504

L601 0.45mH

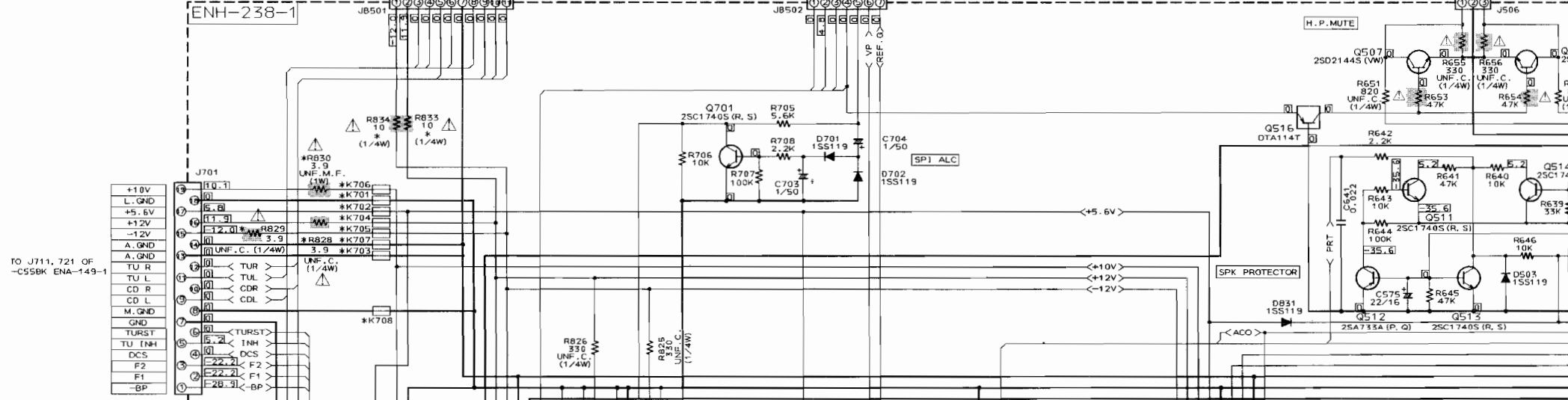
SPX RELAY

RY501 ESK7024-2120

Component	Value	USED	REMARKS
C912	NONE	USED	NONE
D801-804	S3V20F	USED	30DL2FC
K701-708	NONE	USED	NONE
R621, 622	UNF. C.	UNF. F.	UNF. F.
R631, 632	UNF. C.	UNF. F.	UNF. F.
R633	UNF. C.	UNF. F.	UNF. F.
R635, 636	NONE	USED	NONE
R648	UNF. C.	UNF. F.	UNF. F.
R809	USED	SHORT	SHORT
R828-830	USED	SHORT	SHORT
R831-834	UNF. C.	UNF. F.	UNF. F.
R844	POSTISTOR	UNF. C.	UNF. C.
R845	USED	NONE	NONE
C621	USED	NONE	NONE

ENH-238-1

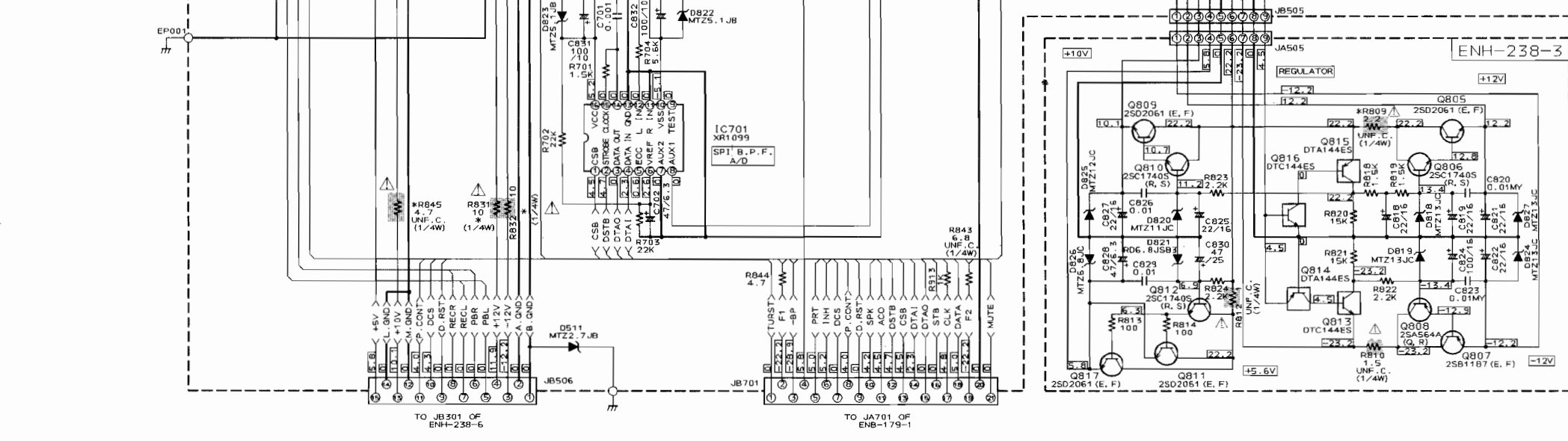
ENB-179-7



TO J711, 721 OF
-CS5BK ENA-149-1

- 1 (+10V)
- 2 L. GND
- 3 (+5.6V)
- 4 (+12V)
- 5 (-12V)
- 6 A. GND
- 7 GND
- 8 M. GND
- 9 GND
- 10 TURST
- 11 TU R
- 12 TU L
- 13 CD R
- 14 CD L
- 15 M. GND
- 16 GND
- 17 TURST
- 18 TU INH
- 19 DCS
- 20 F2
- 21 F1
- 22 BP

ENH-238-3

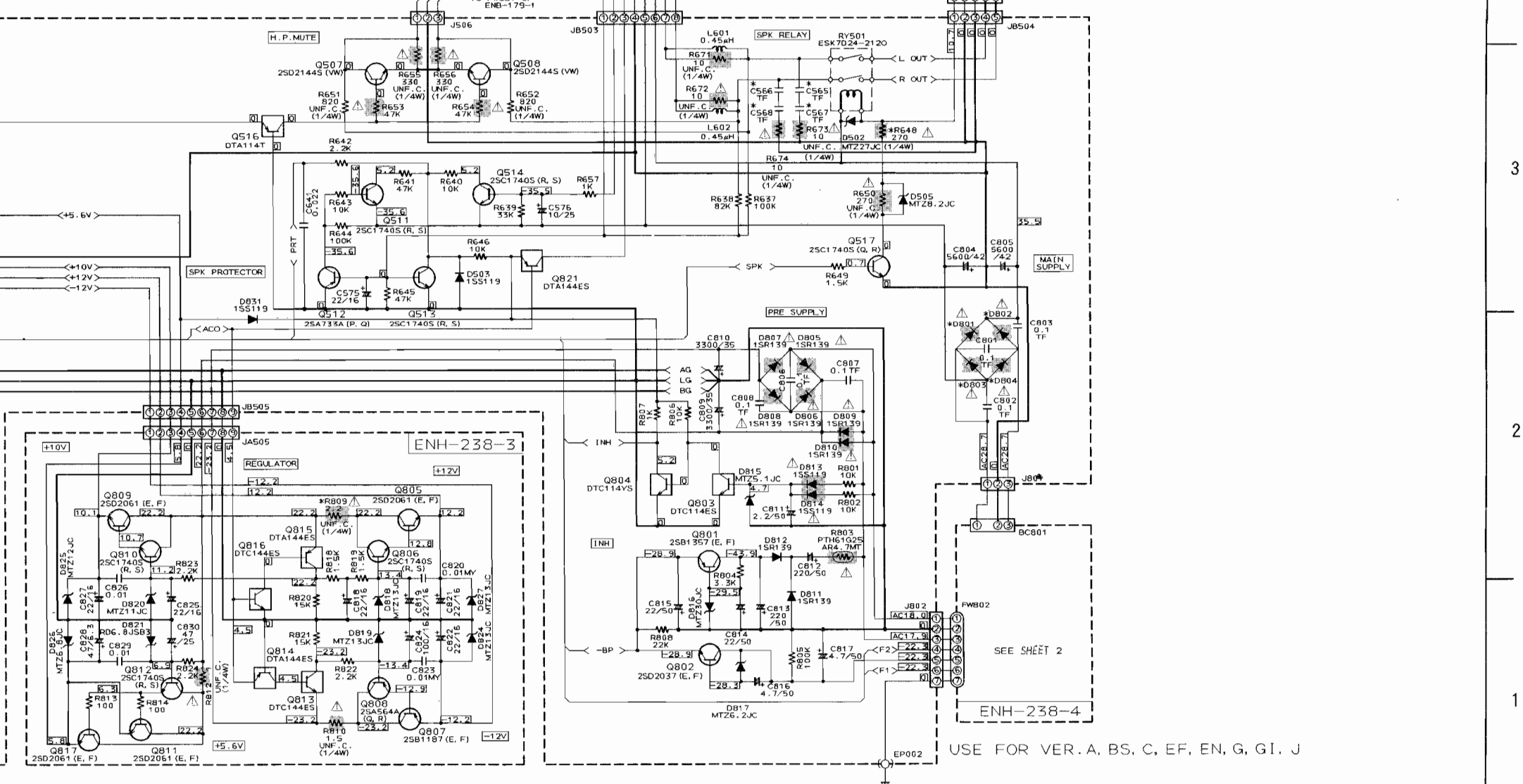
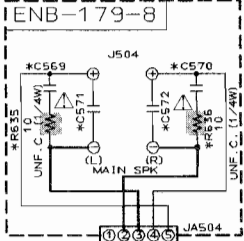


TO JB301 OF
ENH-238-6

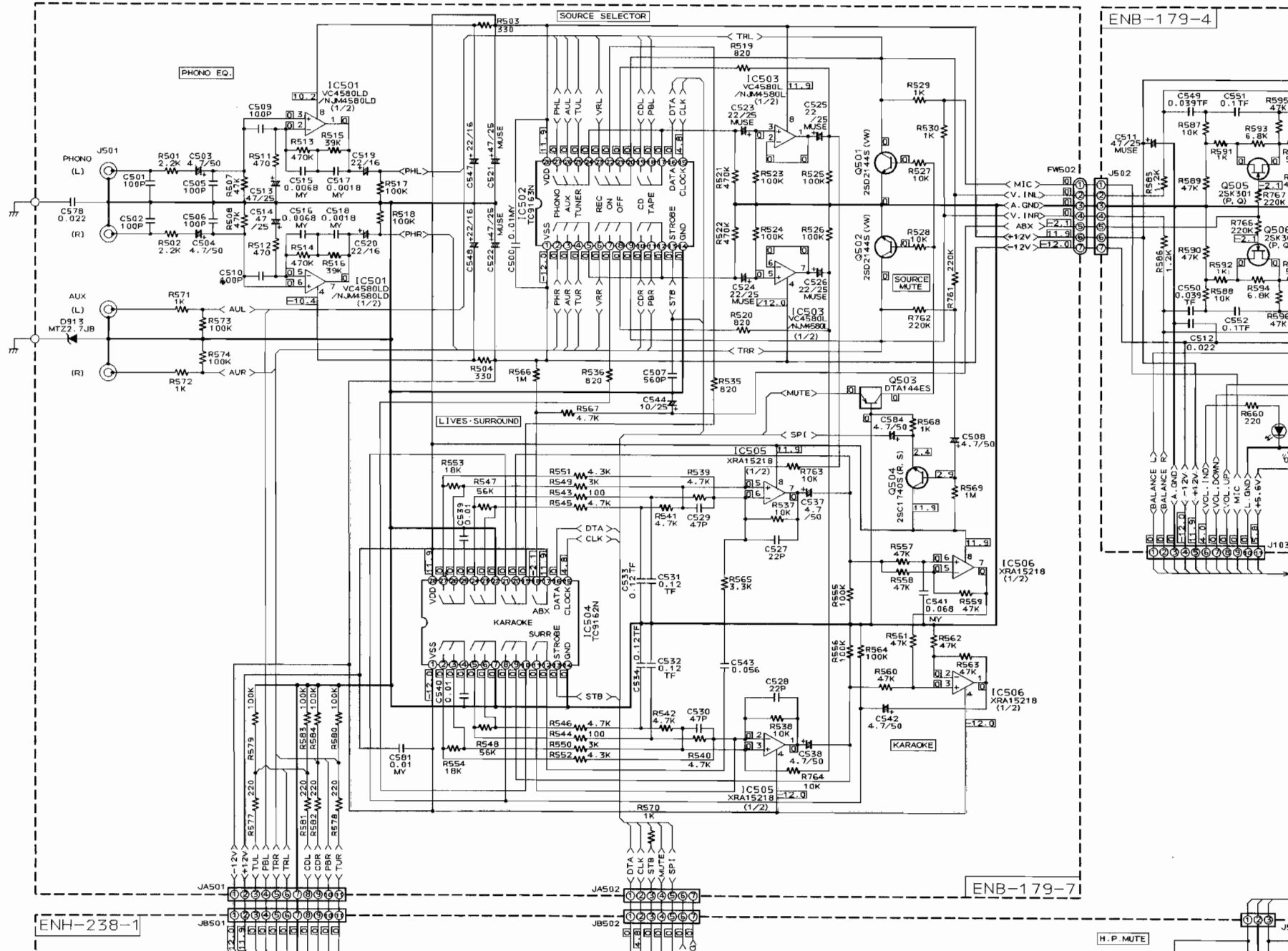
TO JA701 OF
ENB-179-1

C912	NONE	USED	NONE
D801-804	S3V20F	30DL2FC	30DL2FC
K701-708	NONE	USED	NONE
R621, 622	UNF. C.	UNF. F.	UNF. F.
R631, 632	UNF. C.	UNF. F.	UNF. F.
R633	UNF. C.	UNF. F.	UNF. F.
R635, 636	NONE	USED	NONE
R648	UNF. C.	UNF. F.	UNF. F.
R809	USED	SHORT	SHORT
R828-830	USED	SHORT	SHORT
R831-834	UNF. C.	UNF. F.	UNF. F.
R844	POSTISTOR	UNF. C.	UNF. C.
R845	USED	NONE	NONE
C621	USED	NONE	NONE

ENB-179-7

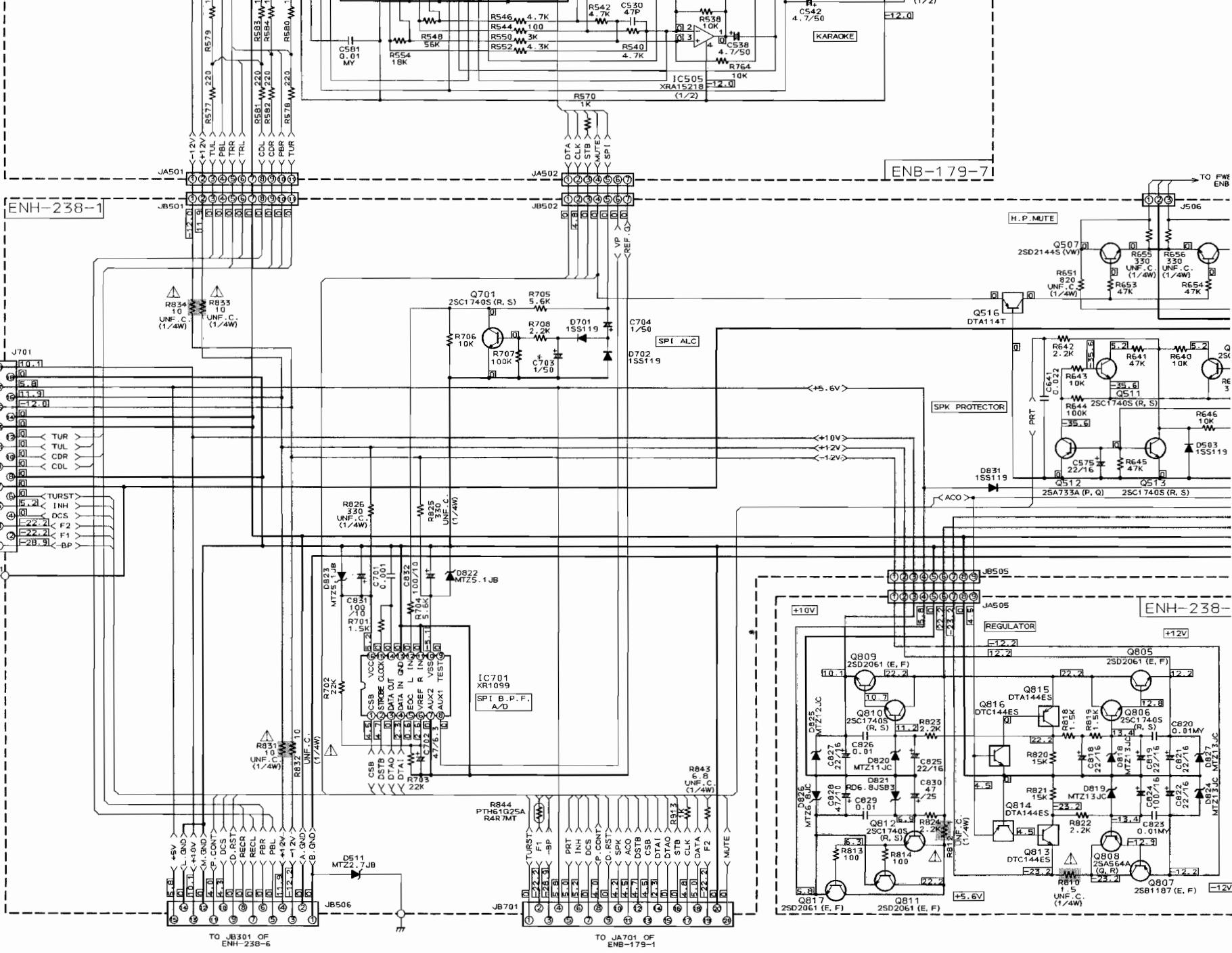


(3) Input & Sound Select, Regulator & Amplifier Section



TO J711, 721 OF
XT-C55BK ENA-149-1

- +10V
- L.GND
- +5.6V
- +12V
- 12V
- A.GND
- A.GND
- TU R
- TU L
- CD R
- CD L
- M.GND
- GND
- TURST
- TU INH
- DCS
- F2
- F1
- BP



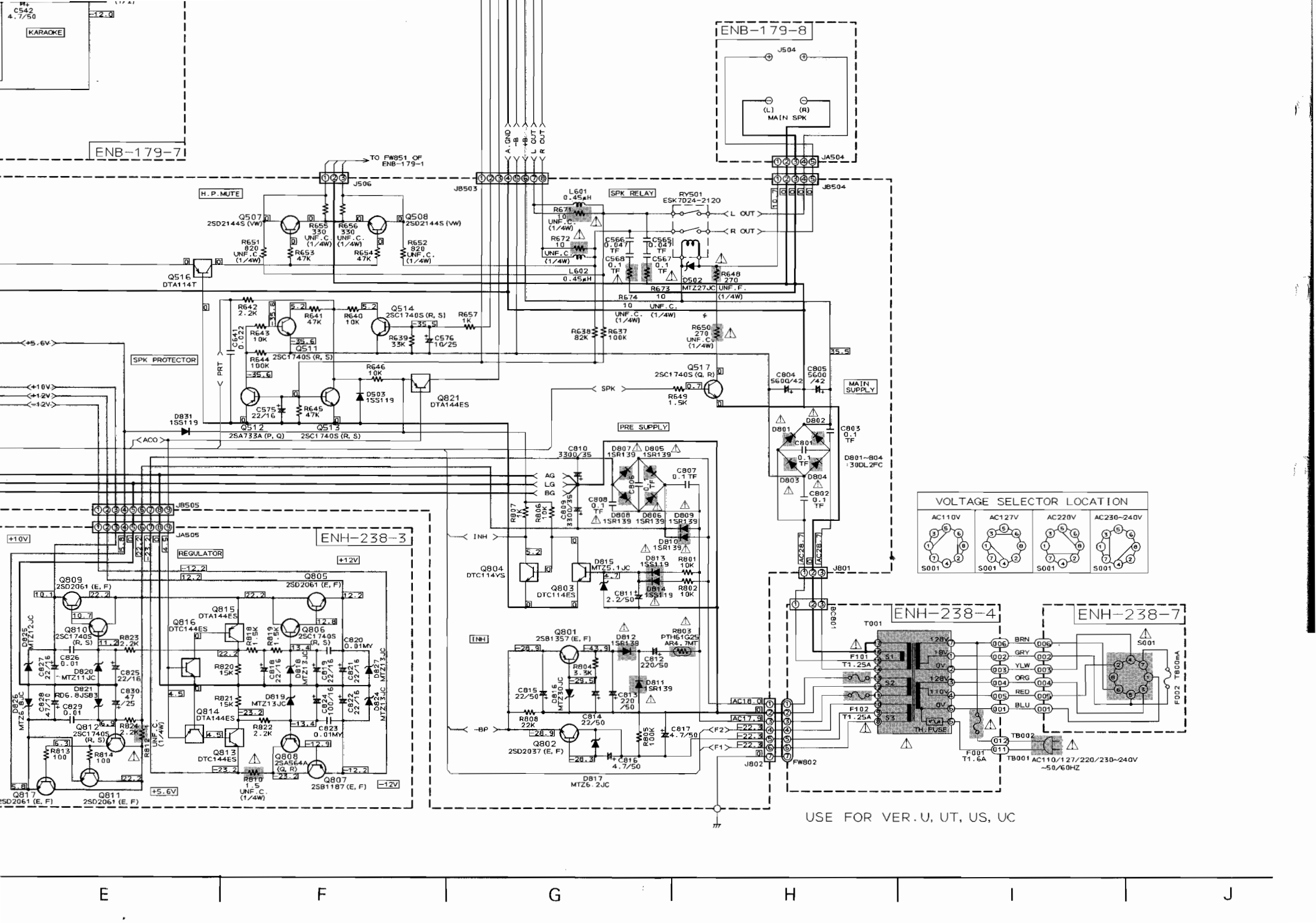
ENH-238-1

ENB-179-71

ENH-238-

TO JB301 OF
ENH-238-6

TO JAT01 OF
ENB-179-1



KARAOKE

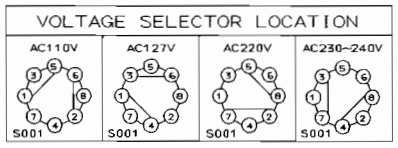
ENB-179-7

ENB-179-8

ENH-238-3

ENH-238-4

ENH-238-7



USE FOR VER. U, UT, US, UC

E

F

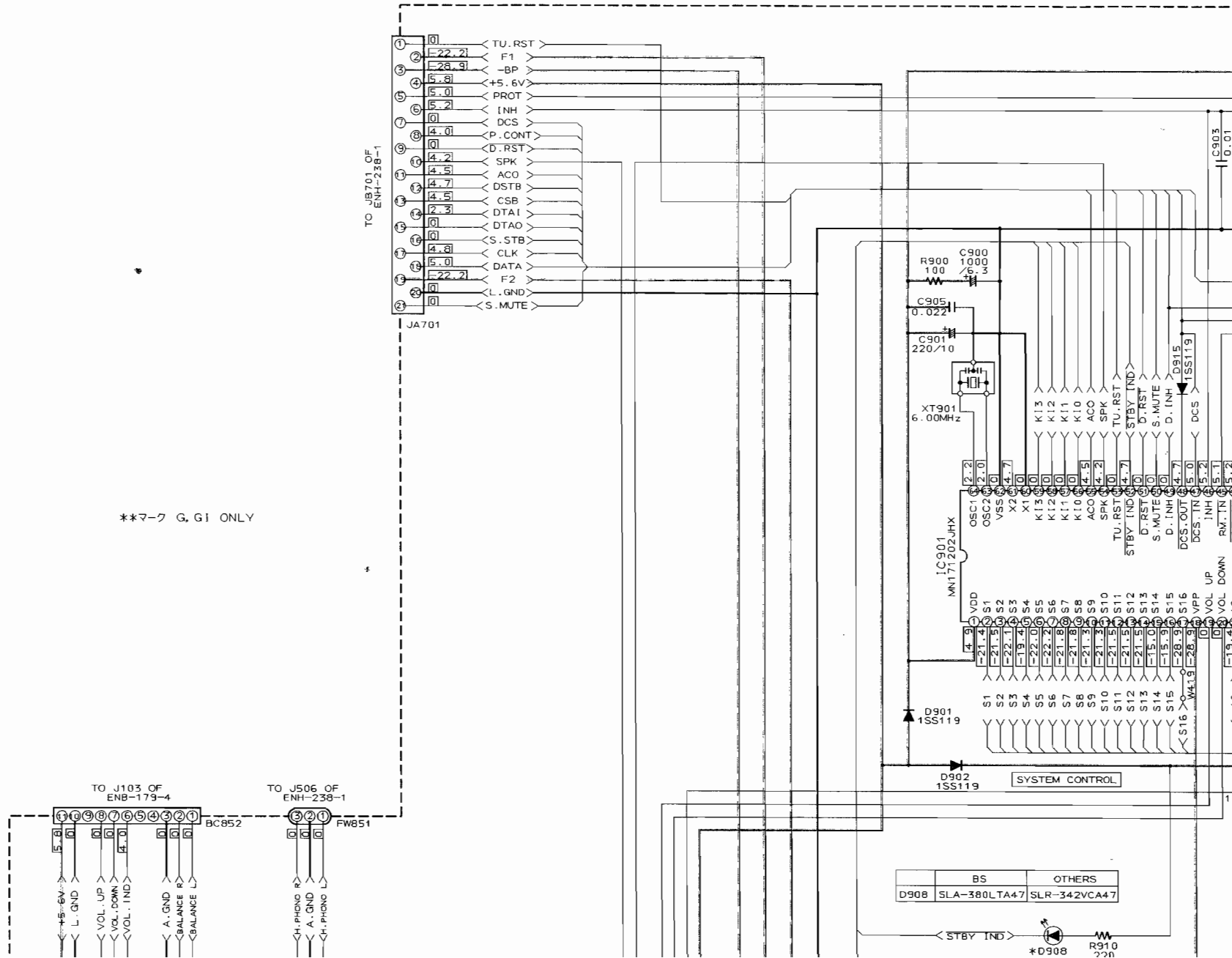
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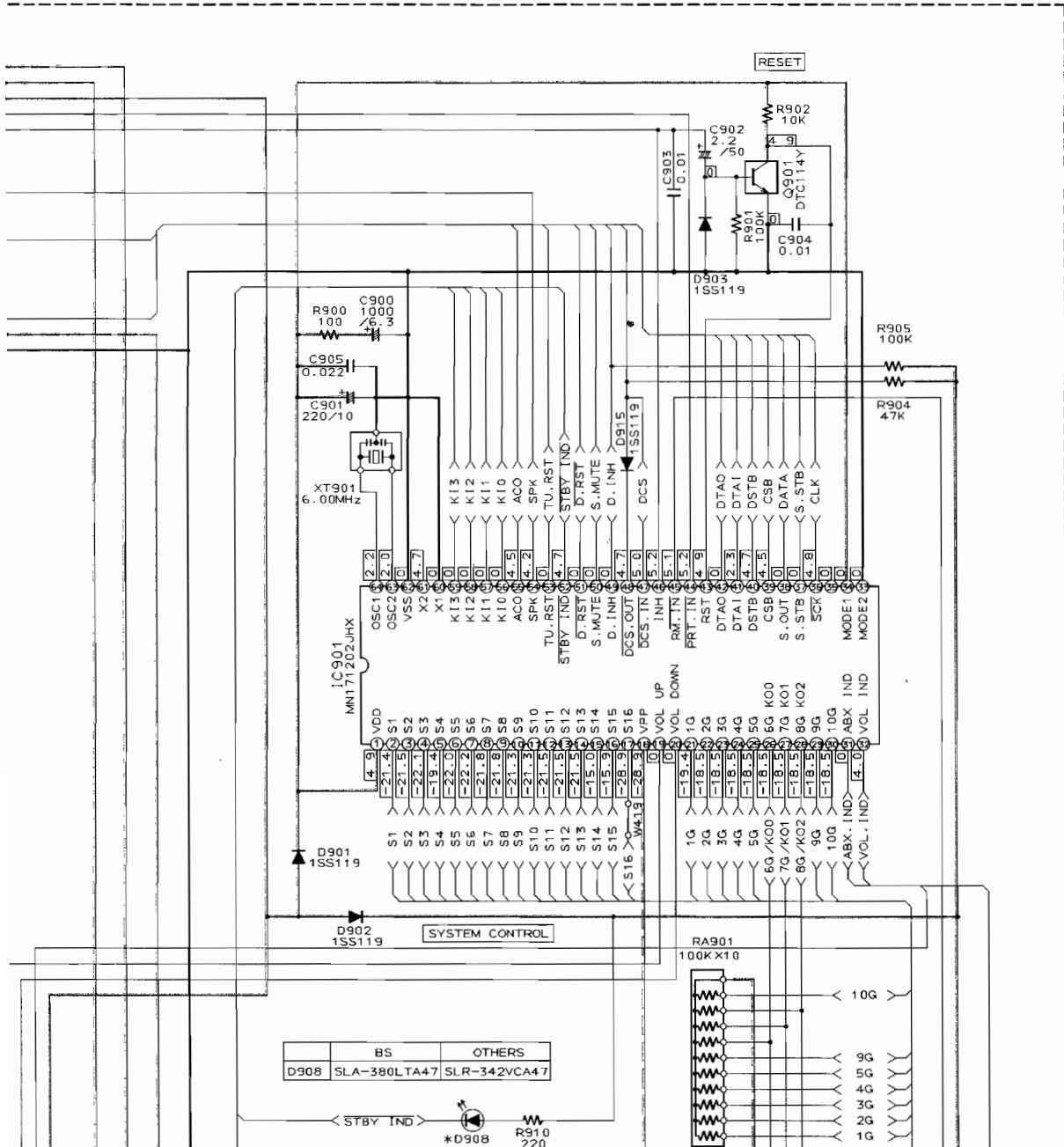
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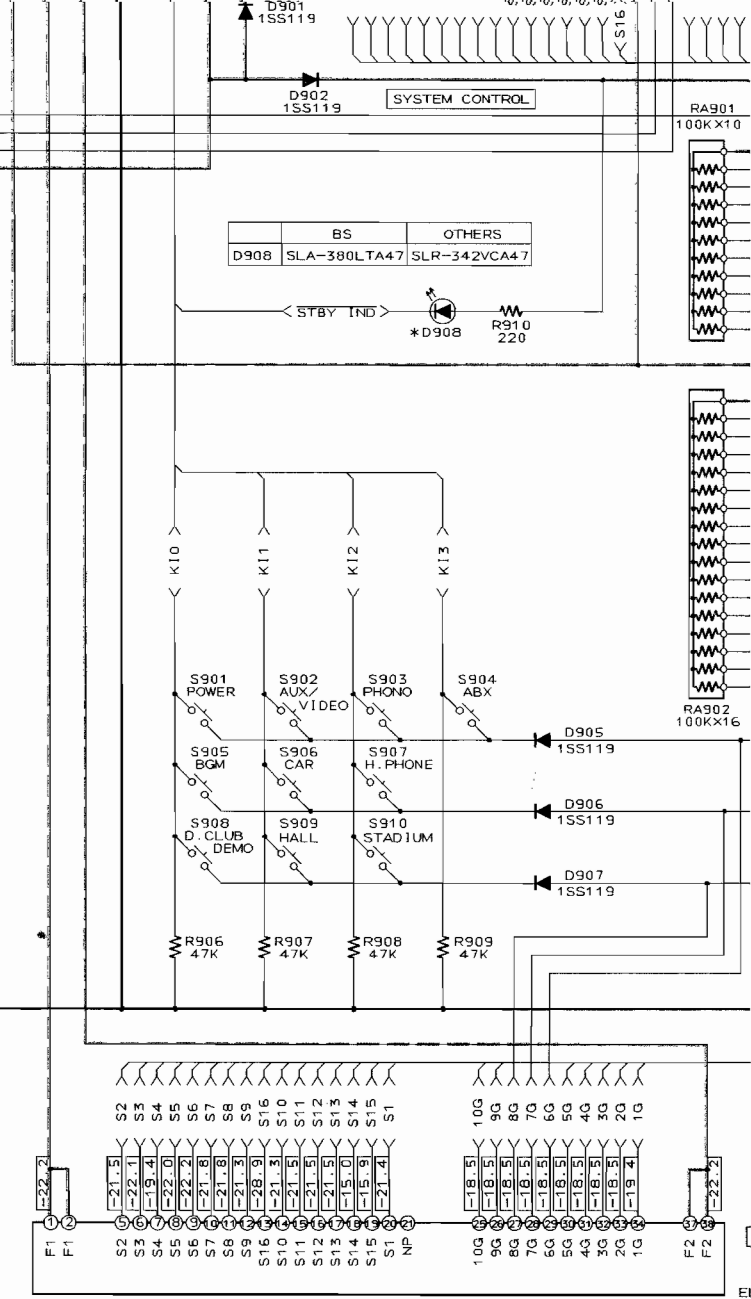
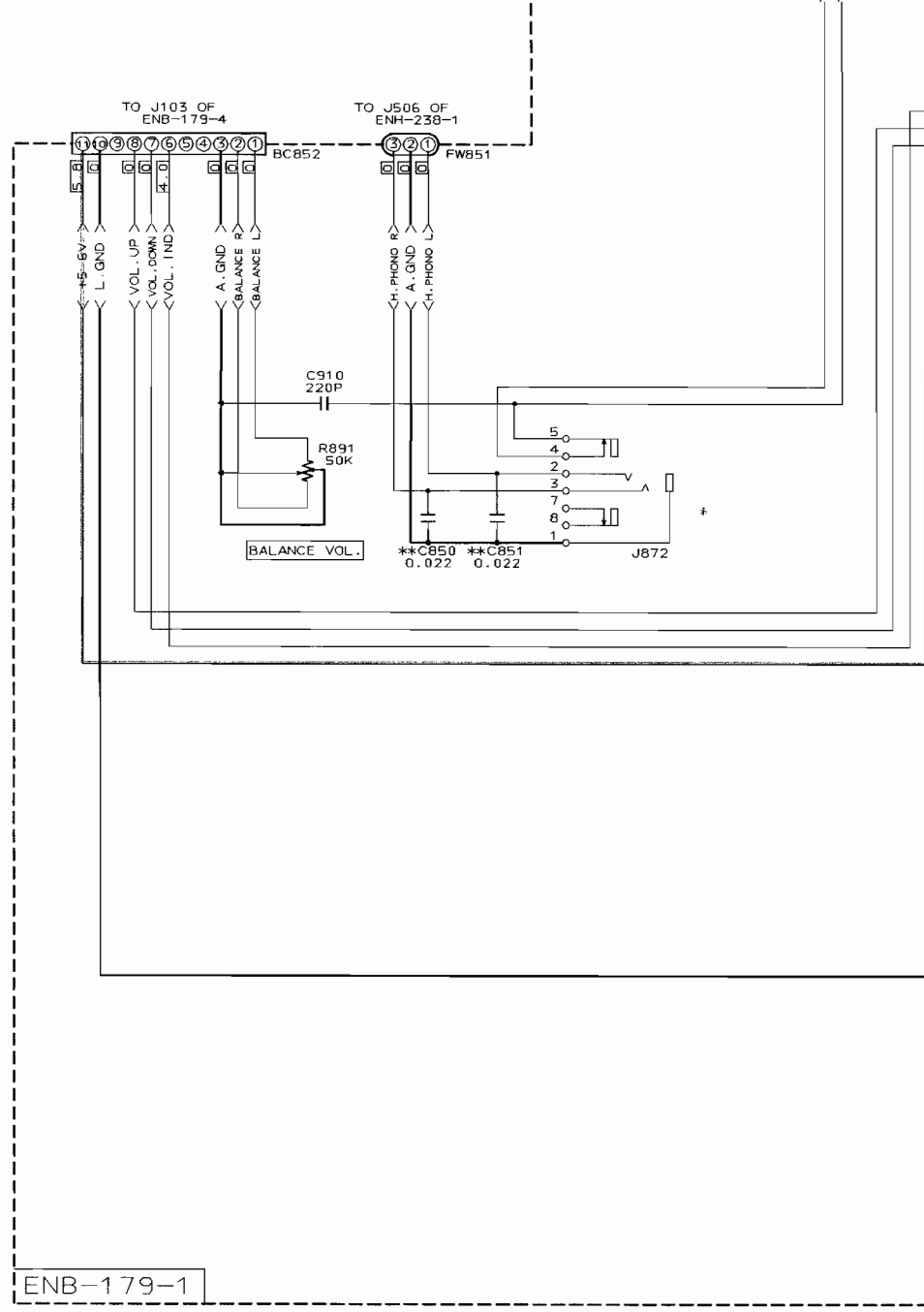
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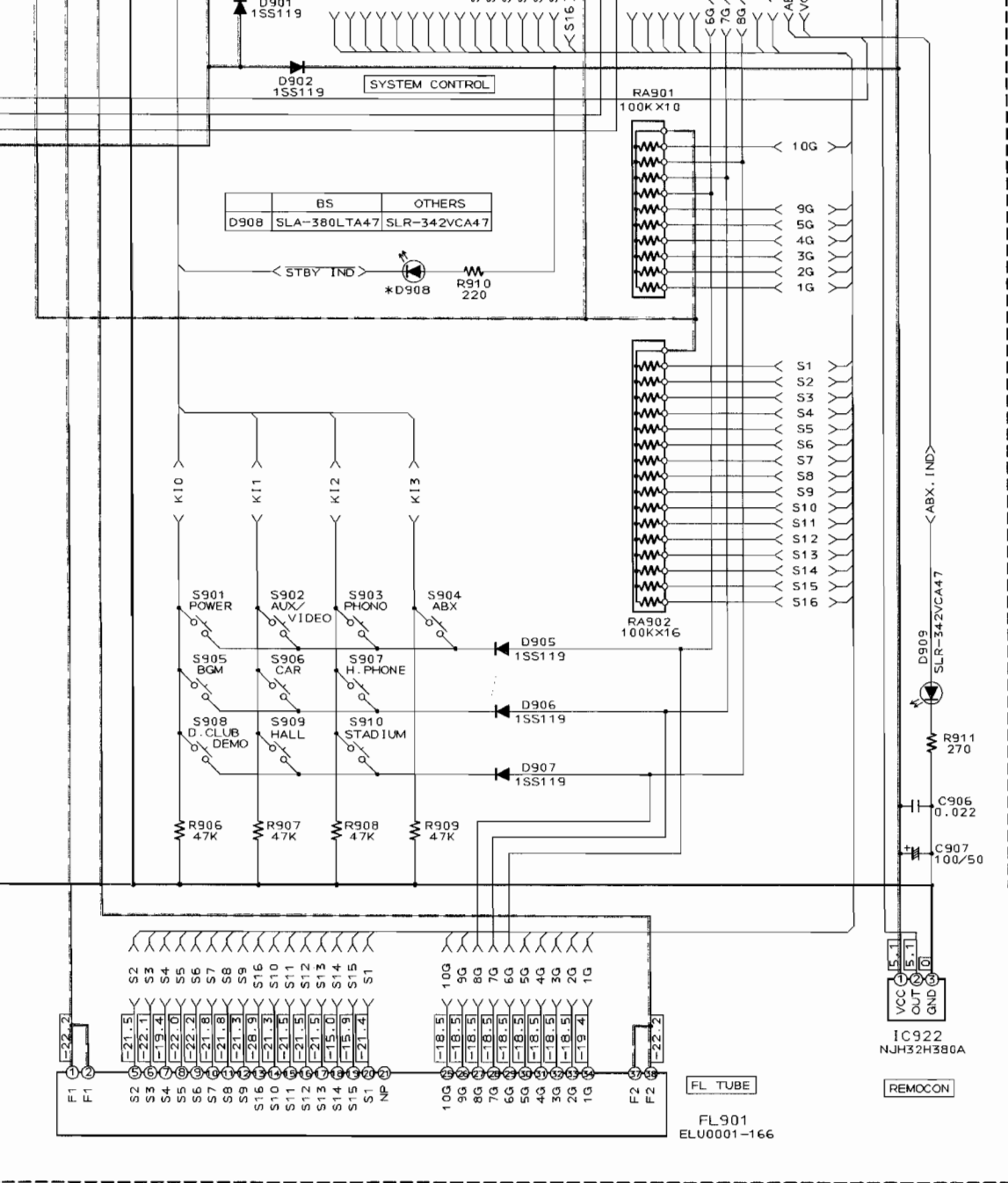
(4) System Control & Digital Echo Section







ENB-179-1



USE FOR VER. A, BS, C, EF, EN, G, GI, J

4

3

2

1

E

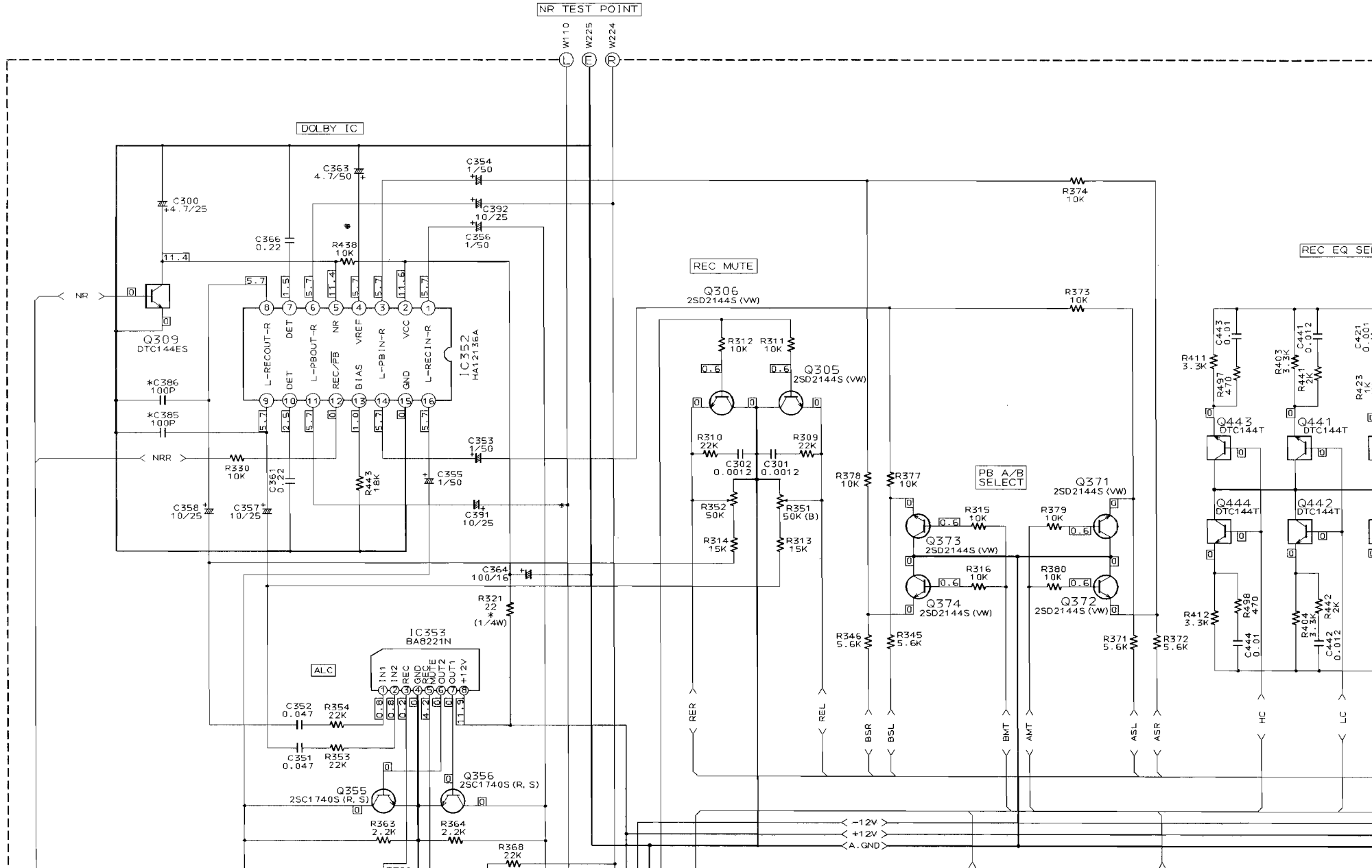
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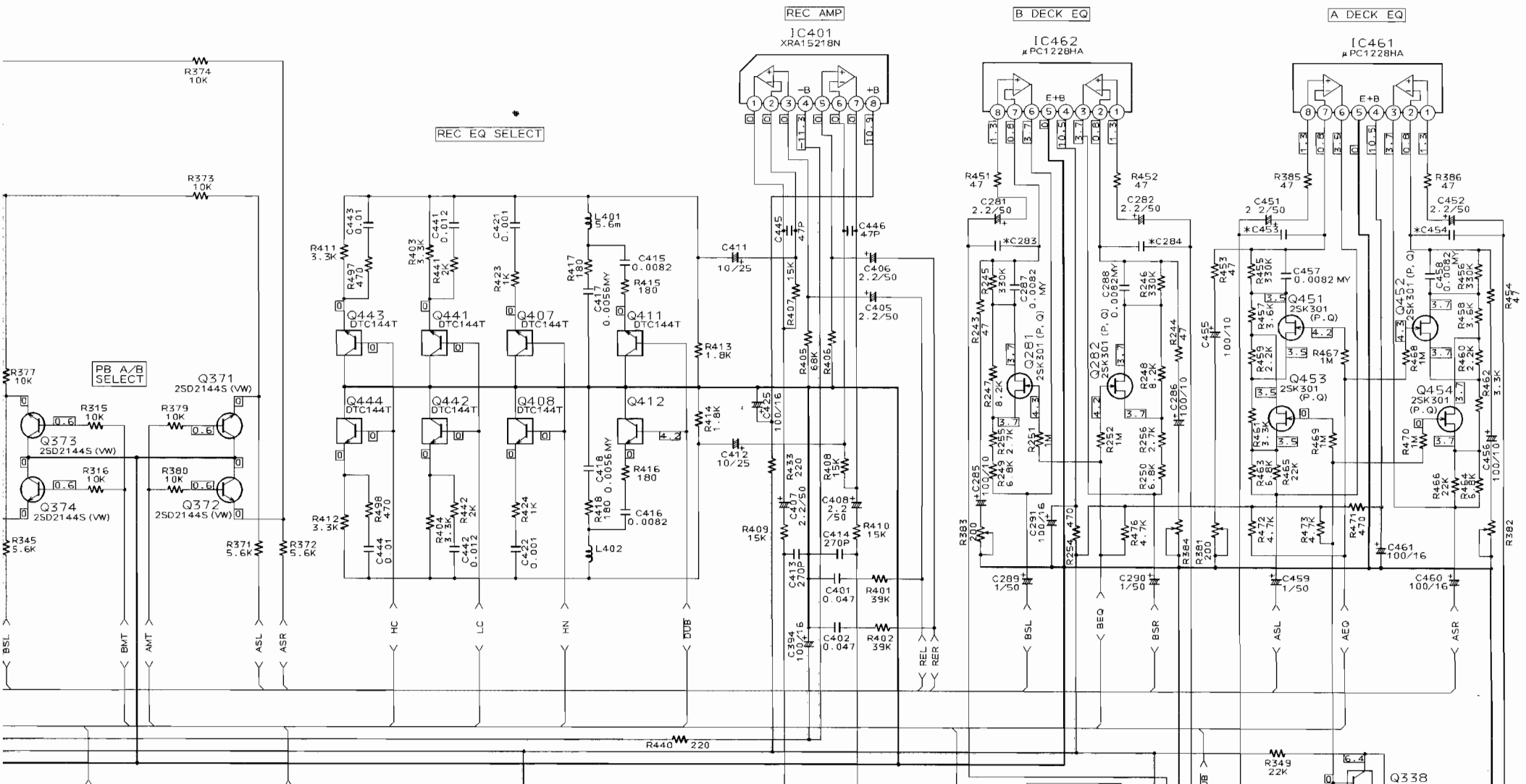
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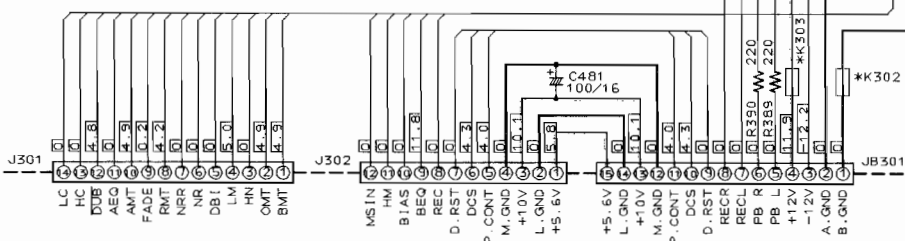
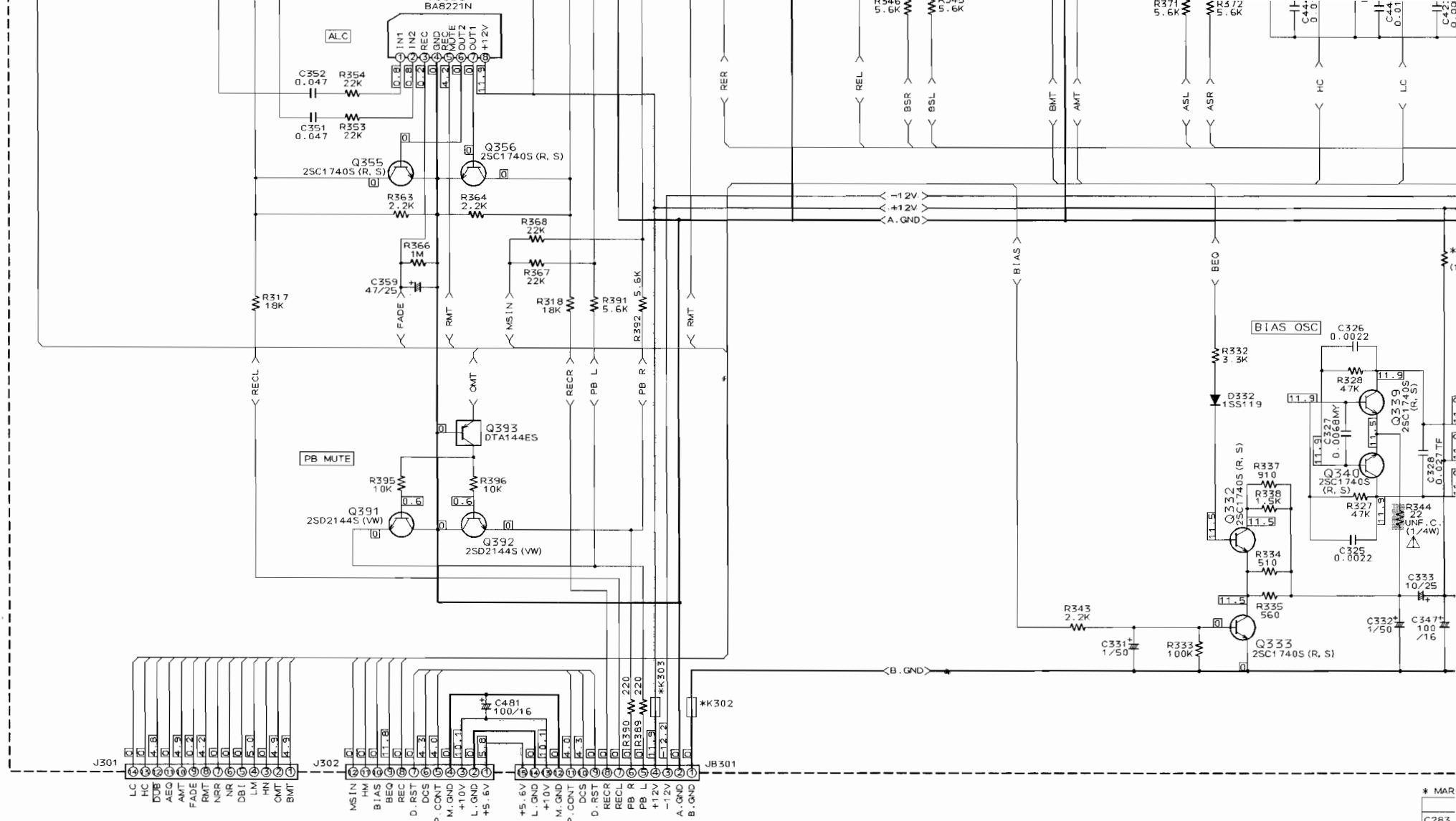
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(6) Deck Audio Section



ENH-238-6





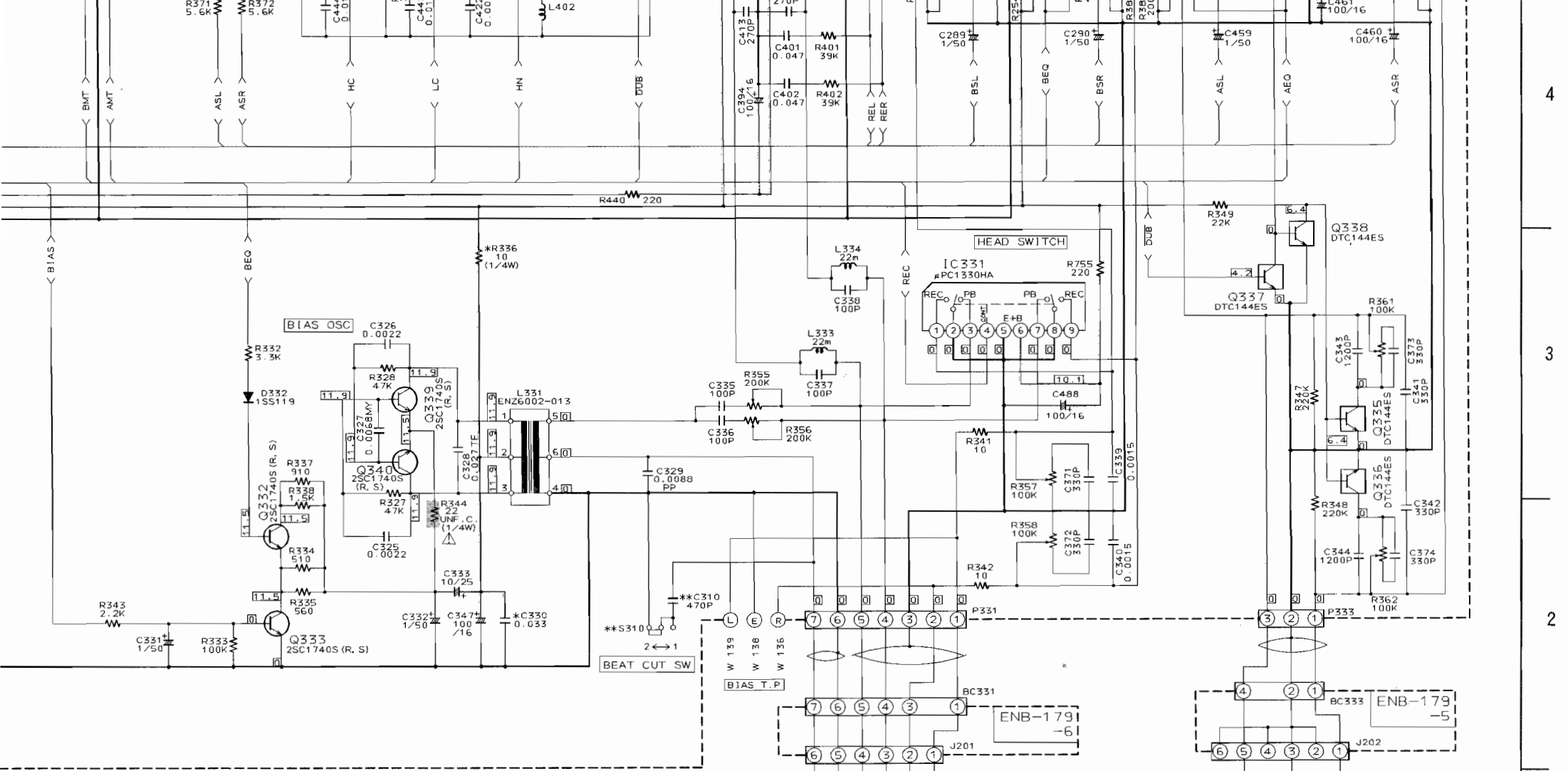
TO BC301 OF
ENB-179-2

TO BC302 OF
ENB-179-2

TO JB506 OF
ENH-238-1

- * MAR
- C283.
- C330
- C385.
- C453.
- R321
- R356
- K302.

- ** MA
- C310
- S310



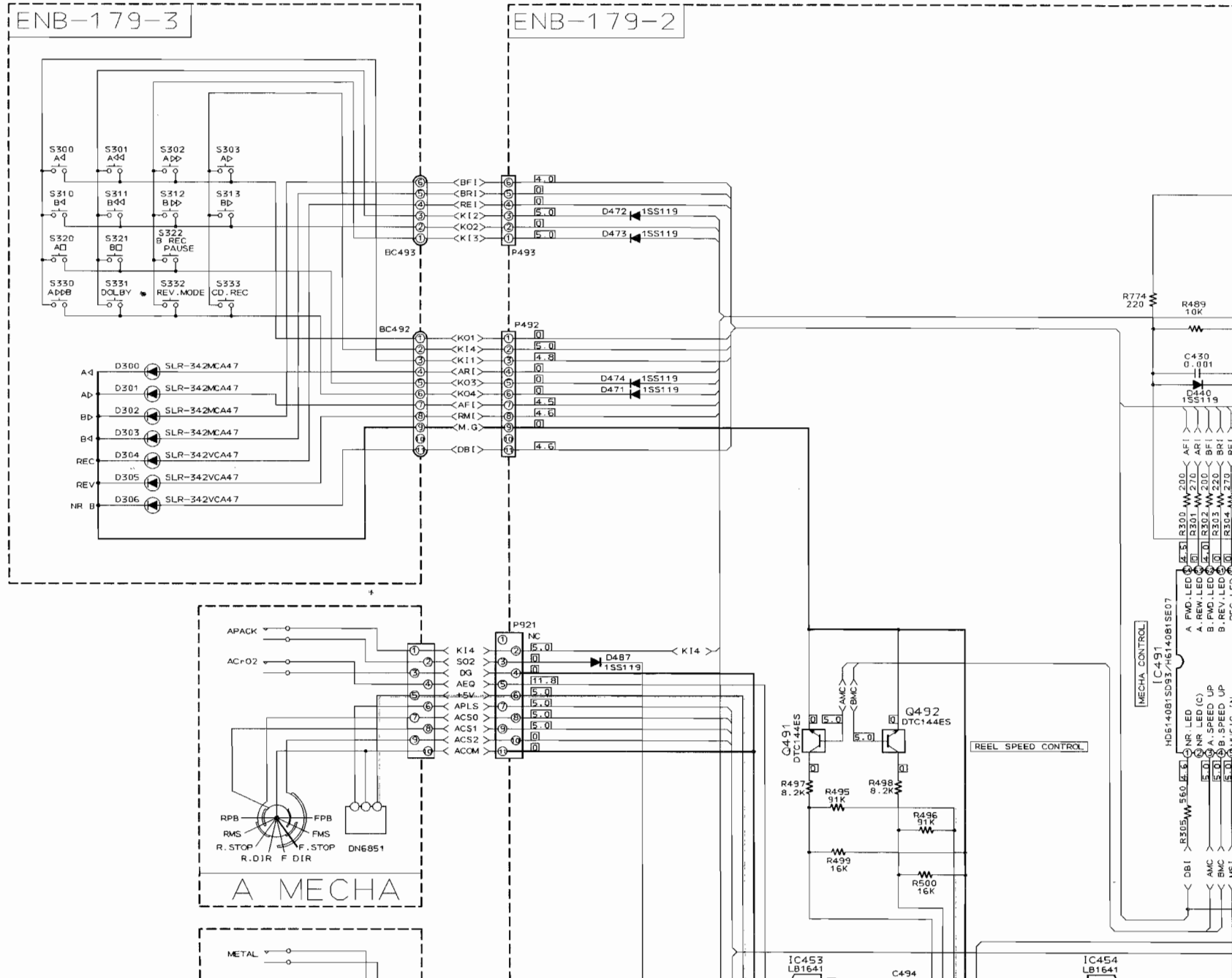
* MARK

	G, G1	J, C	OTHER AREA
C283, 284	470P	100P	100P
C330	0.022	NONE	NONE
C385, 386	USED	NONE	NONE
C453, 454	470P	100P	100P
R321	UNF. F.	UNF. C.	UNF. F.
R356	UNF. F.	UNF. C.	UNF. F.
K302, 303	USED	NONE	NONE

** MARK

	A, BS, EF, FN, G, G1	OTHERS
C310	USED	NONE
S310	USED	NONE

(7) Deck Control Section

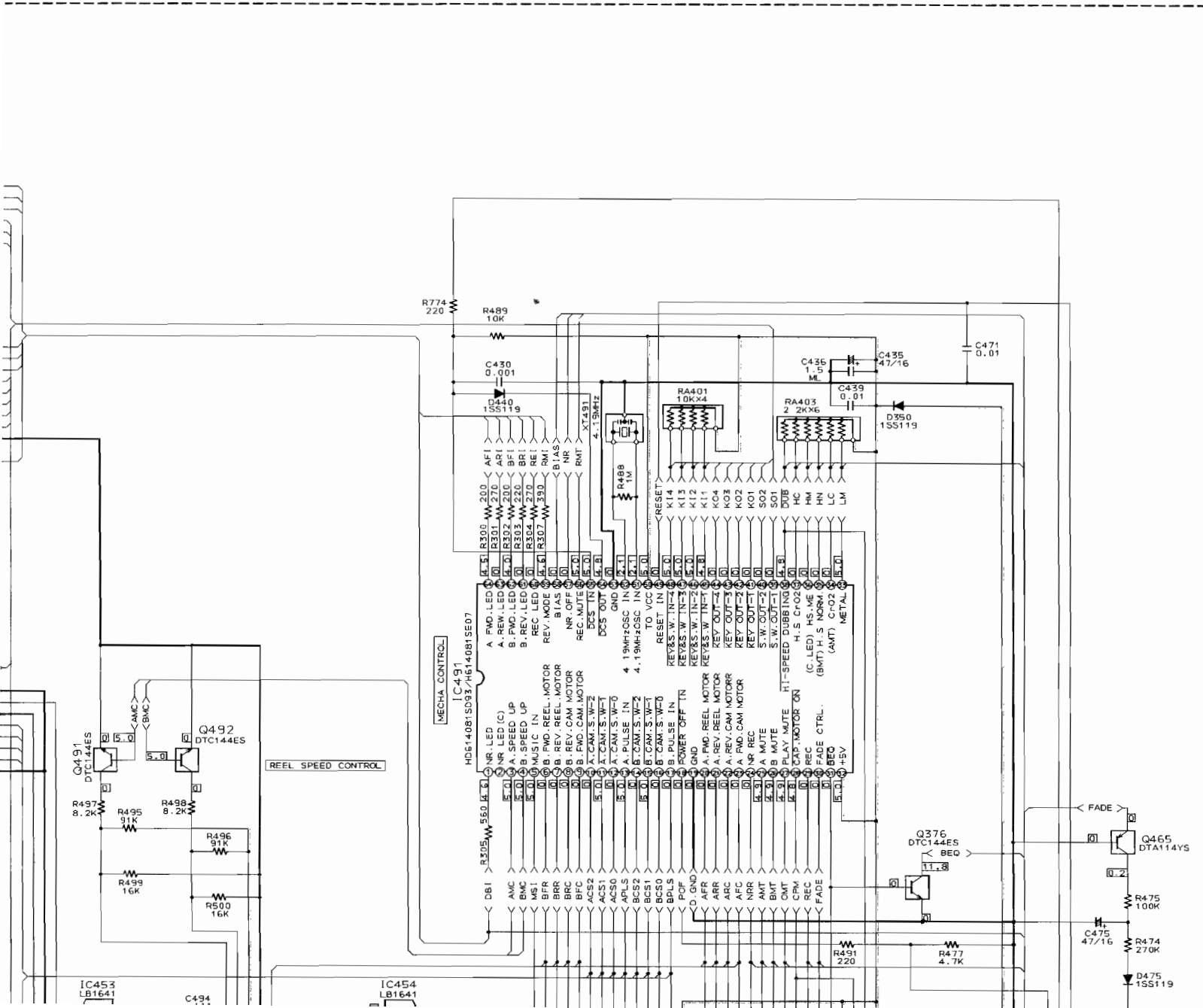


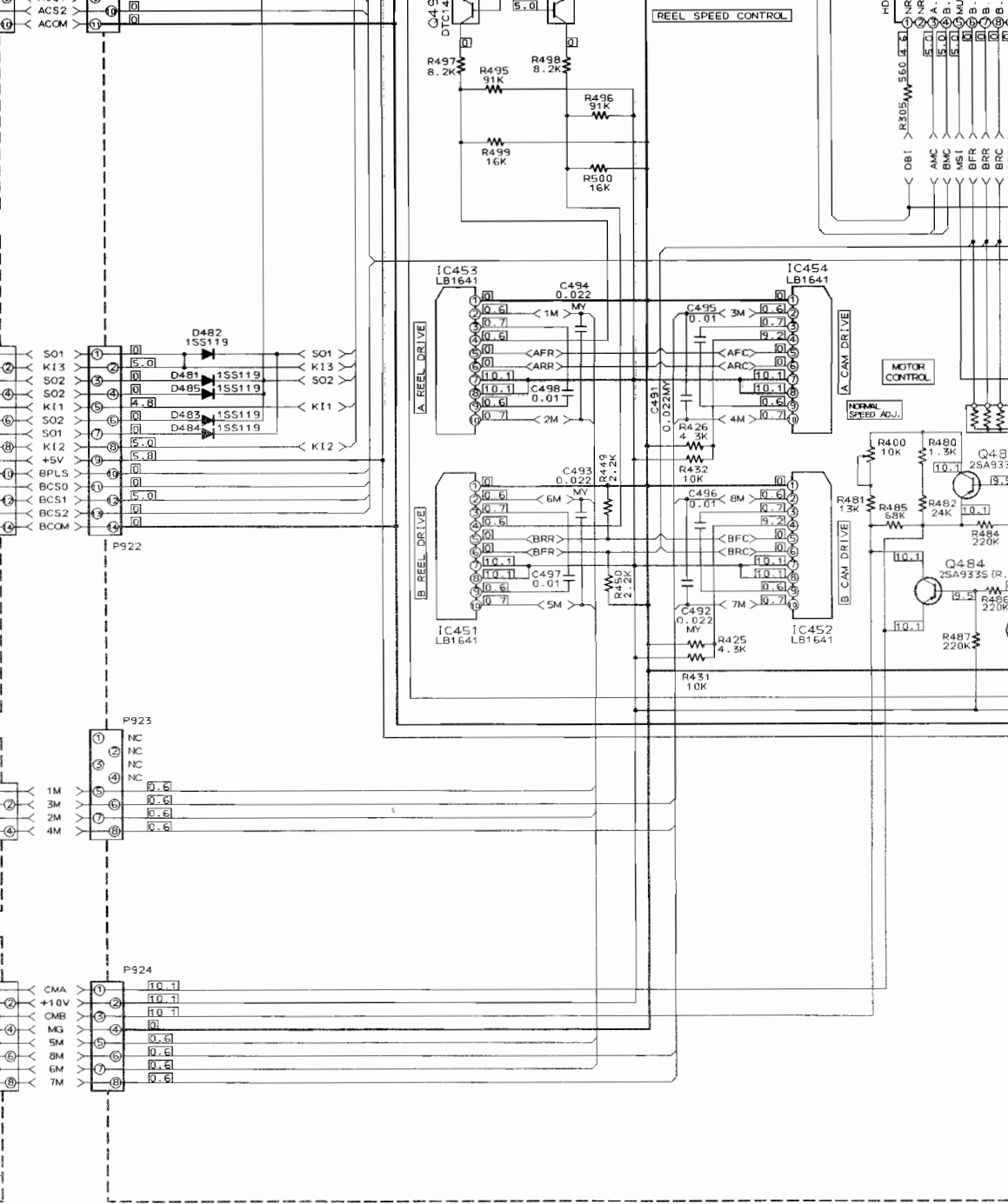
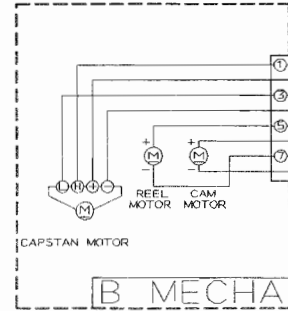
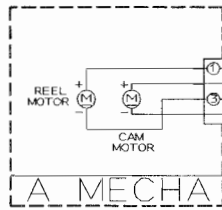
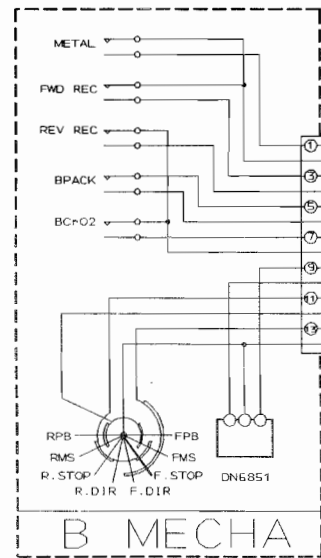
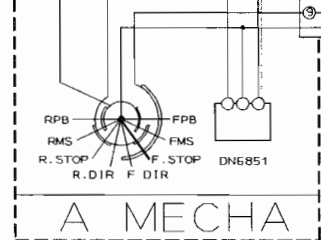
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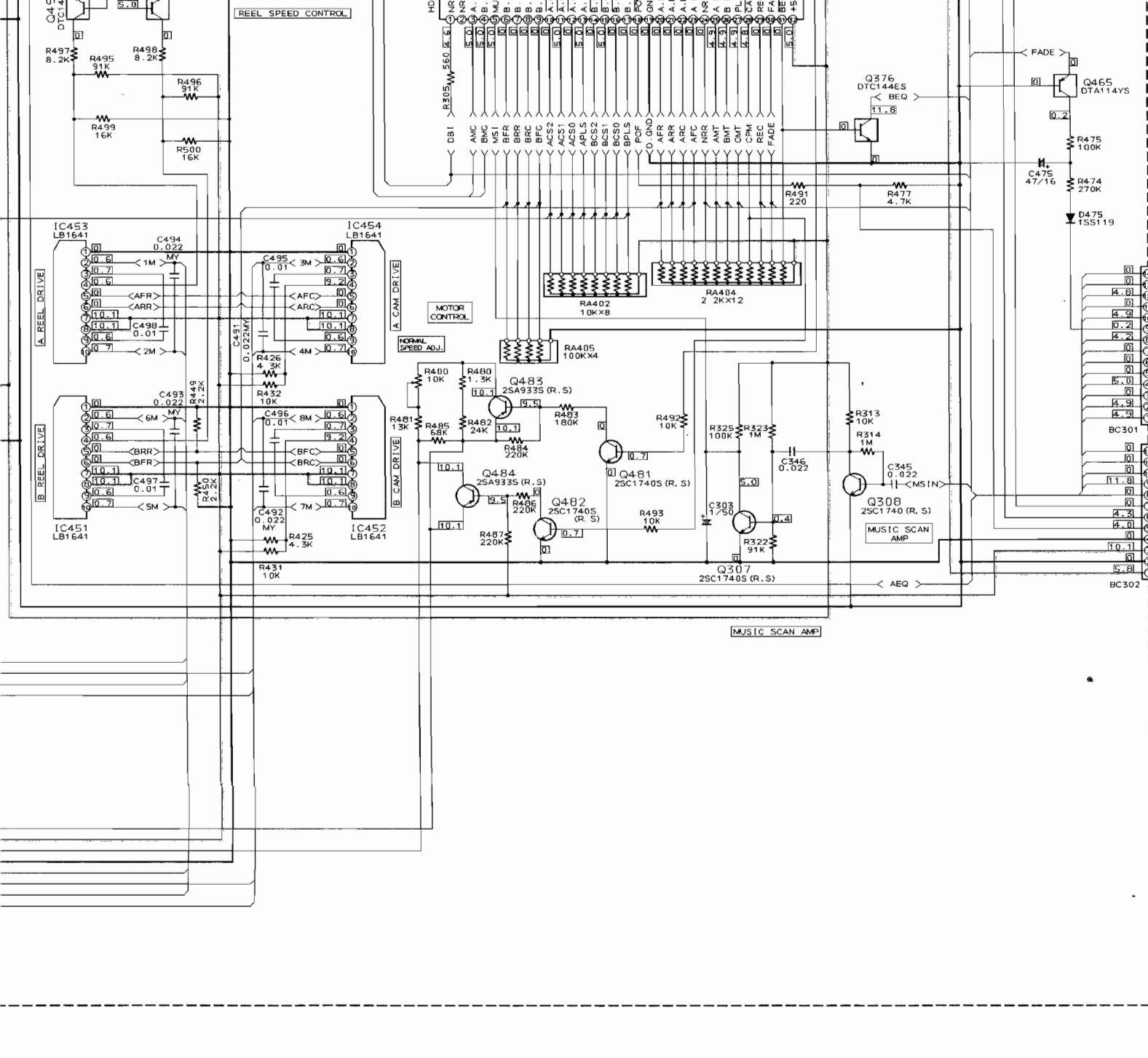
6

5

4







TO J301 OF ENH-238-6

TO J302 OF ENH-238-6

- LC
- HC
- DUB
- AEQ
- AMT
- FADE
- BMT
- NR
- DBI
- LM
- HN
- GMT
- BMT
- BC301
- MSIN
- HM
- BIAS
- BEQ
- REC
- D.RST
- DCS
- F. CONT
- M. GND
- +10V
- L. GND
- +5V
- BC302

E

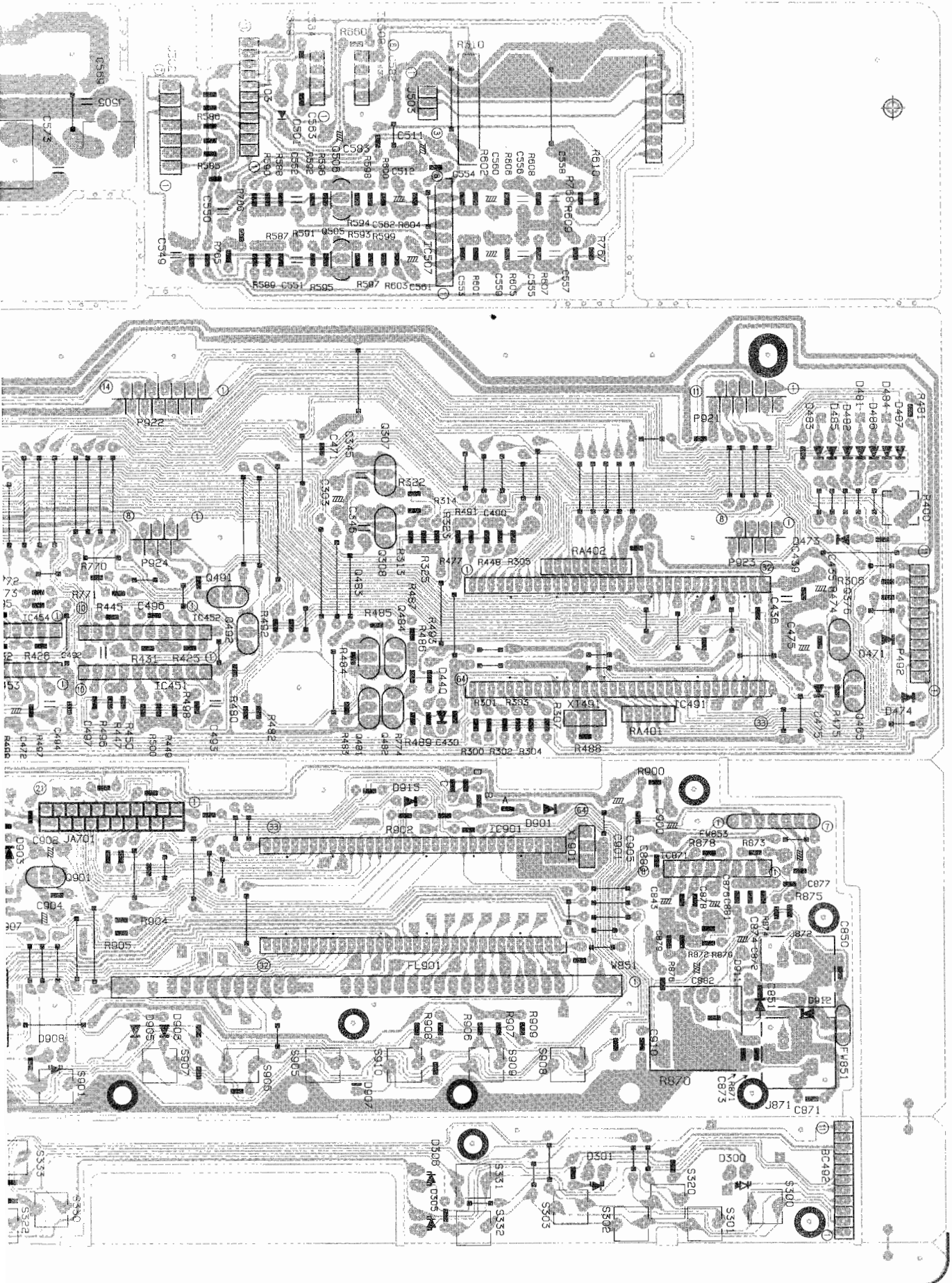
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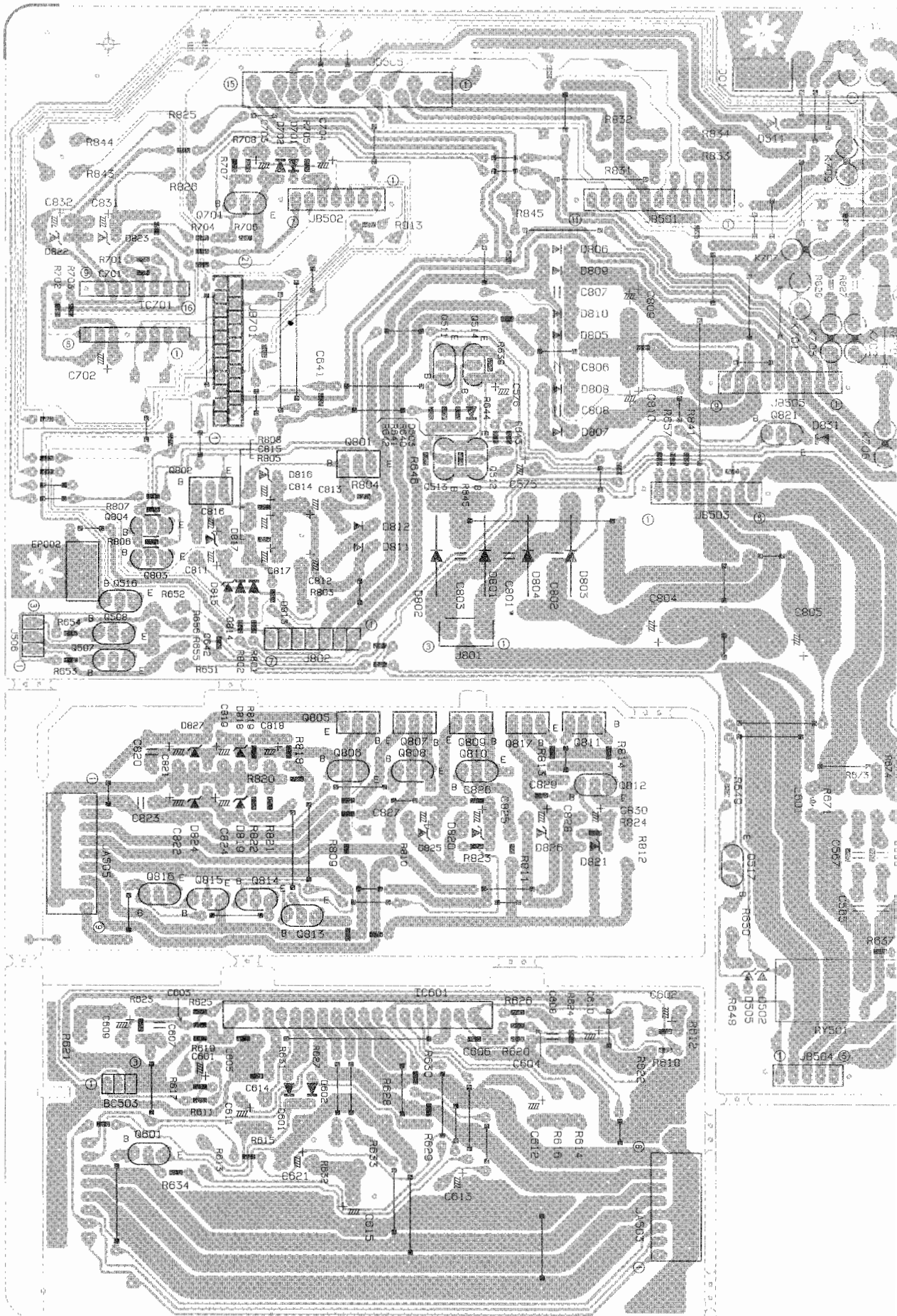
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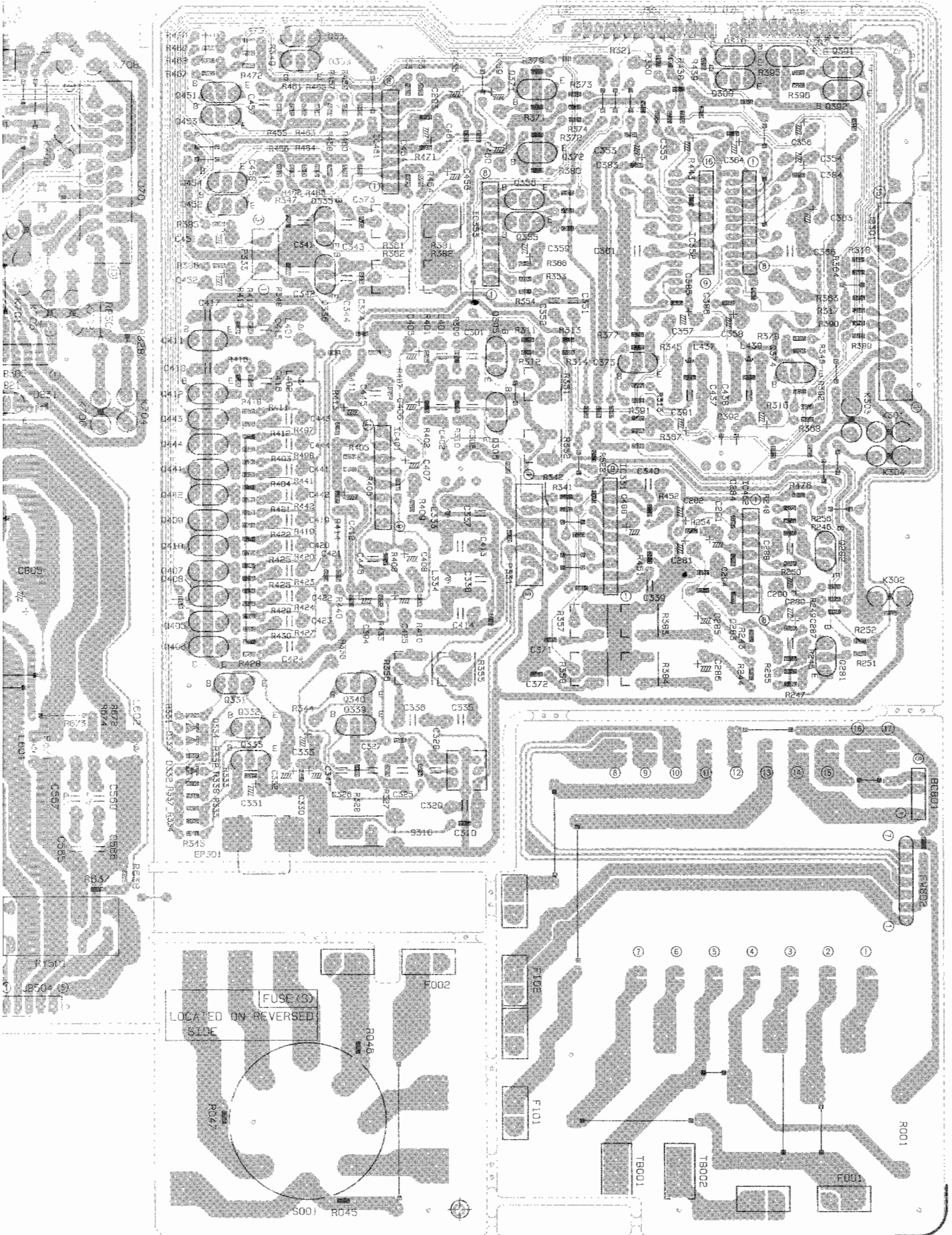
I

J



Deck Regulator & Power Supply P.C. Board (ENN-238)





LOCATED ON REVERSED SIDE

FUSE(S)



XT-C55BK

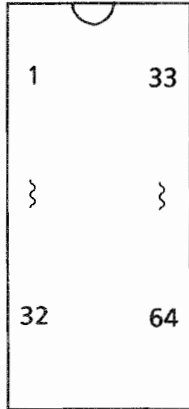
— Contents —

Discription of Major LSIs	3-2
Internal Connections of FL Display	3-13
Disassembly Procedures	3-15
Adjustment Procedures	3-18
Maintenance of Laser Pickup	3-19
Replacement of Laser Pickup	3-19
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Operation check by each switch	3-21
Initial Operation of Mechanism	3-22
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Description of Major LSIs

HD6140895D51 (IC201) : TUNER SYSTEM CONTROLLER

1. Terminal Layout



2. Key Matrix

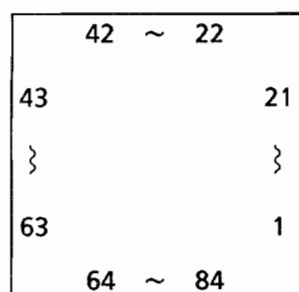
	KEY IN 1	KEY IN 2	KEY IN3	KEY IN4
KEY OUT 1	—	WAKE UP SLEEP	UP	FM
KEY OUT 2	TIMER 1	CLOCK ADJ	DOWN	AM
KEY OUT 3	TIMER 2	CANCEL	PRESET UP	FM MODE
KEY OUT 4	DAILY	MEMORY	PRESET DOWN	P.SCAN

3. Description

Pin No.	symbol	I/O	Description	Pin No.	symbol	I/O	Description
1	15G	O	FL grid control output	33	CLK	O	Clock for PLL synthesizer
2	14G	O	FL grid control output	34	IF DATA	I	Data from PLL synthesizer
3	13G	O	FL grid control output	35	TU DATA	O	Data for PLL synthesizer
4	12G	O	FL grid control output	36	CE	O	Chip enable signal for PLL synthesizer
5	11G	O	FL grid control output	37	TKO8	O	Key matrix output for Tuner section
6	S14	O	FL segment control output	38		--	Not used
7	S15	O	FL segment control output	39		--	Not used
8	S16	O	FL segment control output	40		--	Not used
9	S17	O	FL segment control output	41	TKO4	O	Key matrix output for Tuner section
10	S18	O	FL segment control output	42	TKO3	O	Key matrix output for Tuner section
11	S19	O	FL segment control output	43	TKO2	O	Key matrix output for Tuner section
12	S20	O	FL segment control output	44	TKO1	O	Key matrix output for Tuner section
13	S21	O	FL segment control output	45	TKI4	I	Key matrix input for Tuner section
14	S22	O	FL segment control output	46	TKI3	I	Key matrix input for Tuner section
15	S23	O	FL segment control output	47	TKI2	I	Key matrix input for Tuner section
16	S24	O	FL segment control output	48	TKI1	I	Key matrix input for Tuner section
17	S25	O	FL segment control output	49	/RST	I	Reset signal input
18		--	Not used	50		--	Pull up (+5V)
19	-BP	--	Power supply for FL display	51	OSC1	I/O	Clock oscillation terminal
20		--	Not used	52	OSC2	I/O	Clock oscillation terminal
21		--	Not used	53	GND	--	GND
22	f out	O	Clock frequency	54	/DCS	I/O	Compulink signal
23		--	Pull up (+5V)	55	/DCS	I/O	Compulink signal
24	+5V	--	+5V	56	TU TEST	--	Test mode terminal
25	/STEREO	I	For the indication "STEREO"	57	23G	O	FL grid control output
26	/TUNED	I	For the indication "TUNED"	58	22G	O	FL grid control output
27	/INH	I	Inhibit signal for tuner controller	59	21G	O	FL grid control output
28		--	Not used	60	20G	O	FL grid control output
29	MUTE	O	Muting tuner sound	61	19G	O	FL grid control output
30		--	Not used	62	18G	O	FL grid control output
31		--	Not used	63	17G	O	FL grid control output
32		--	Pull up (+5V)	64	16G	O	FL grid control output

■ MN172412JHS1 (IC970) : CD SYSTEM CONTROLLER

1. Terminal Layout



2. Key Matrix

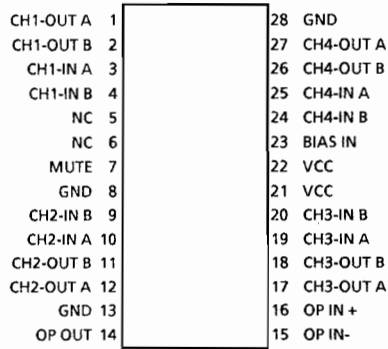
	KEY IN 0	KEY IN 1	KEY IN 2	KEY IN 3
1G	1	2	3	4
2G	5	6	7	8
3G	9	10	+10	—
4G	FD OPEN/CLOSE	D5	D6	—
5G	EDIT	INTRO	CALL	P.MODE
6G	+ 1 TIME ►►	+ 10 TIME ◄◄	SIDE A/B	■/CANCEL
7G	◄ D1	D2	P1	►/
9G	D4	EJECT	P1 OPEN/CLOSE	D3

3. Description

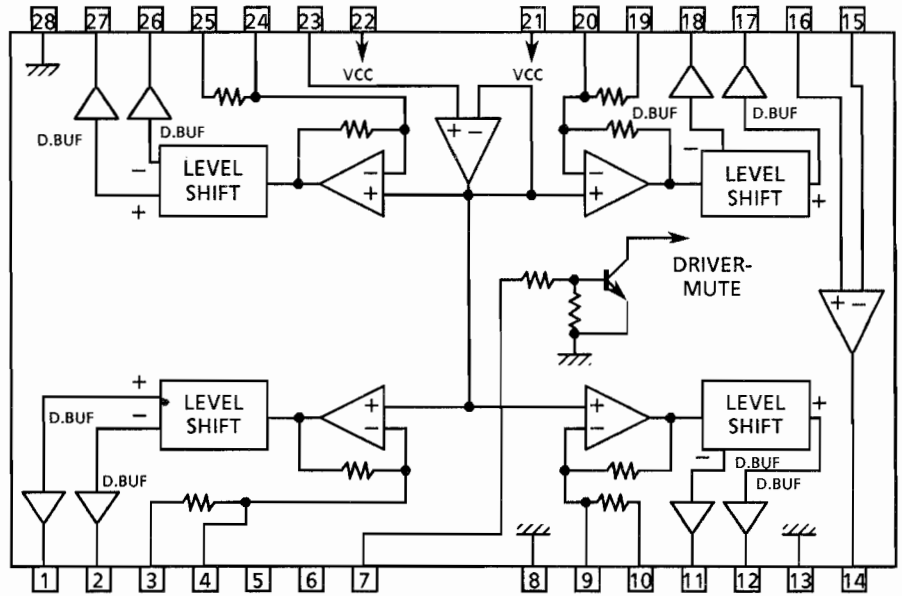
Pin No.	symbol	I/O	Description	Pin No.	symbol	I/O	Description
1	3G	O	FL grid control output	43	MDATA	O	μ-com command data output
2	4G	O	/"	44	P.OFF	O	H : power off, L : power on.
3	5G	O	/"	45	SQCK	O	80-bit Sub Q and 16-bit PCM Peak Level Data
4	6G	O	/"	46	SUBQ	I	Sub-code Q-code input
5	7G	O	/"	47	MLD	O	μ-com command load signal output
6	8G	O	/"	48	STATUS	I	Status signal input
7	9G	O	/"	49	/TLOCK	I	Lock signal for Tracking
8	10G	O	/"	50	/FLOCK	I	Lock signal for Focus
9	DGT13	--	Connected to GND	51	TCIA	--	Connected to GND
10	TEST	I	Pull up	52	IRQ2	--	/"
11	KEY IN0	I	Key matrix input	53	TUNER INH	O	Inhibitsignal for tuner controller
12	KEY IN1	I	/"	54	TBLO	--	Connected to GND
13	KEY IN2	I	/"	55	DCS IN	I	Compulink signal input
14	KEY IN3	I	/"	56	DCS OUT	O	Compulink signal output
15	PLAY LED	--	Not used	57	OPEN/LOAD	O	P1 Open or Load
16	P1 LED	O	P1 indicator signal output	58	CLOSE/UNLOAD	O	P1 Close or Unload driving control signal
17	D1 LED	O	DISC1 indicator signal output	59	SD	O	Load drive speed down output
18	D2 LED	O	DISC2 indicator signal output	60	/PU REST	I	Pick up rest switch input
19	D3 LED	O	DISC3 indicator signal output	61	/LOAD SW	I	Disc load detect signal
20	D4 LED	O	DISC4 indicator signal output	62	/JAB SW	I	JAB switch signal
21	D5 LED	O	DISC5 indicator signal output	63	/MAG IN SW	I	Magazine in signal
22	D6 LED	O	DISC6 indicator signal output	64	UP	O	Lifter driving control signal
23	-VDISP	--	Power supply for FL display	65	DOWN	O	Lifter driving control signal
24	S1	O	FL segment control output	66	FD OPEN	O	Front door open driving control signal
25	S2	O	/"	67	FD CLOSE	O	Front door close driving control signal
26	S3	O	/"	68	RESET	I	Reset signal input
27	S4	O	/"	69	X1	--	Connected to GND
28	S5	O	/"	70	X2	--	Not used
29	S6	O	/"	71	VSS	--	GND
30	S7	O	/"	72	OSC2	O	Clock oscillation output
31	S8	O	/"	73	OSC1	I	Clock oscillation input
32	S9	O	/"	74	VDD	--	Power supply
33	S10	O	/"	75	/UP/DOWN SW	I	Height detect signal
34	S11	O	/"	76	/R&M SW	I	Reset & Memory switch input
35	S12	O	/"	77	/CLOSE SW	I	"L" with tray closed
36	S13	O	/"	78	/OPEN SW	I	"L" with tray opened
37	MS0	I	Mode select	79	/FD CLOSE SW	I	"L" with Front Door closed
38	MS1	I	Mode select	80	/FD OPEN SW	I	"L" with Front Door opened
39	SED15	--	Connected to GND	81	DGT25	--	Connected to GND
40	/RST	O	System Reset signal output	82	DGT24	--	/"
41	MCLK	O	μ-com command clock signal output	83	1G	O	FL grid control output
42	SENSE	I	SENSE signal input	84	2G	O	/"

■ BA6393FP(IC860) : BTL DRIVER

1. Terminal Layout



2. Block Diagram

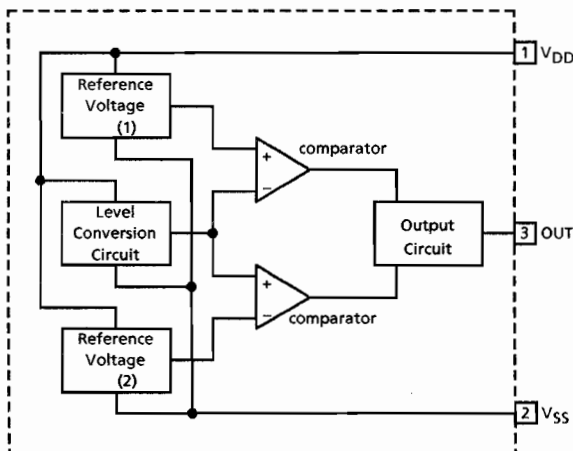


3. Description

Pin No.	Symbol	I/O	Description
1	CH1-OUT A	O	Focus drive output
2	CH1-OUT B		
3	CH1-IN A	I	Focus drive input
4	CH1-IN B	-	Non connection
5,6	NC		
10	CH2-IN A		
19	CH3-IN A		
24	CH4-IN B		
7	MUTE	I	Mute signal input pin
9	CH2-IN B	I	Spindle motor drive input
20	CH3-IN B	I	Feed motor drive input
25	CH4-IN A	I	Tracking drive input

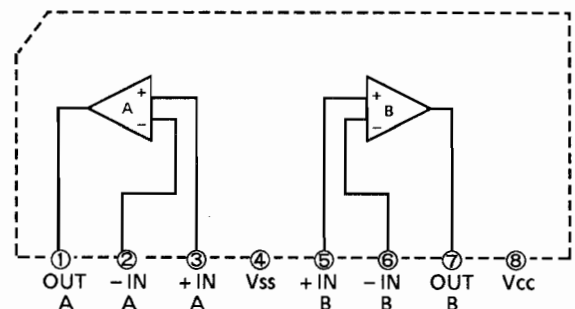
Pin No.	Symbol	I/O	Description
8,13,28	GND	-	GND
11	CH2-OUT B	O	Spindle motor drive output
12	CH2-OUT A		
14	OPOUT	O	OP amp output
15,16	OP IN	I	OP amp input
17	CH3-OUT A	O	Feed motor drive output
18	CH3-OUT B		
21,22	Vcc	-	Power supply
23	BIAS IN	I	Input pin of Bias
26	CH4-OUT B	O	Tracking drive output
27	CH4-OUT A		

■ MN1281(P,Q) (IC971) : Reset IC



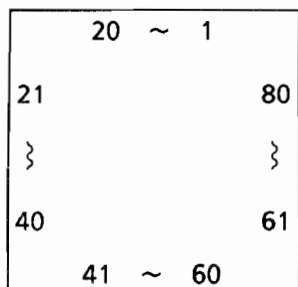
■ M5218AL (IC880/890)

BA15218 (IC940) : Dual OP Amp.

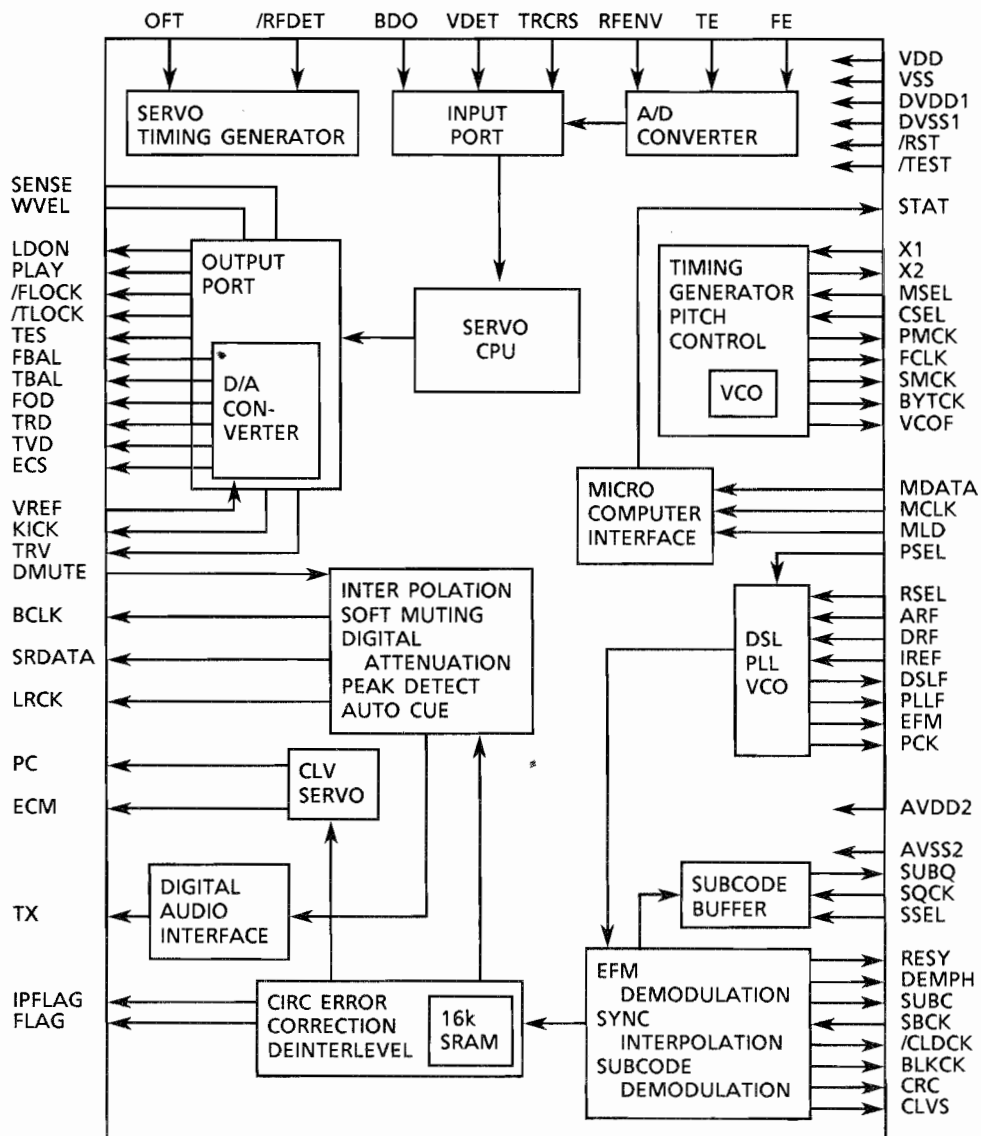


■ MN662720RB (IC810) : DIGITAL SERVO & DIGITAL SIGNAL PROCESSOR

1. Terminal Layout



2. Block Diagram



3. Description

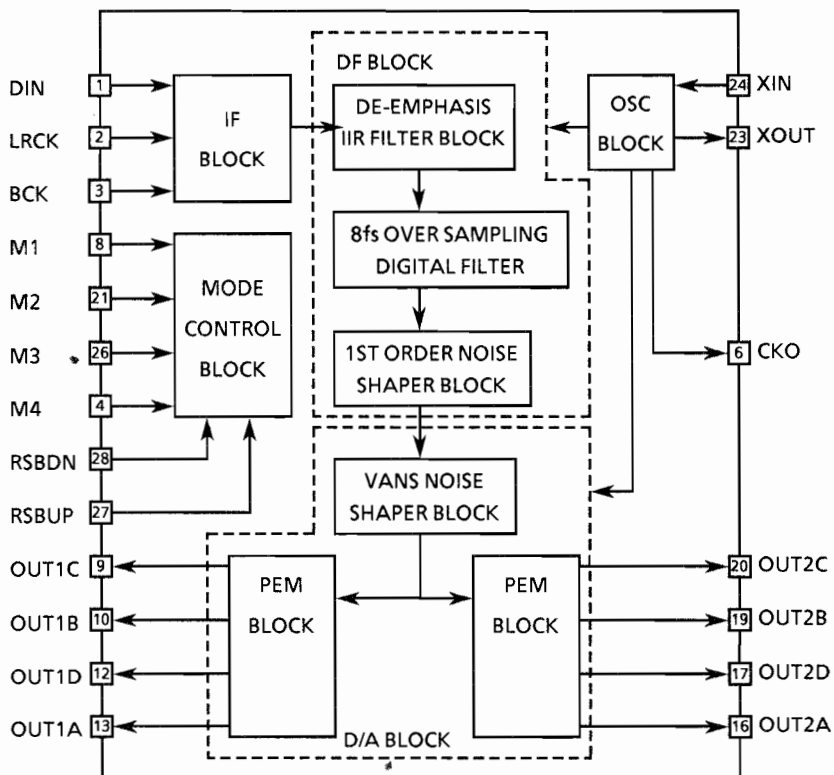
Pin No.	symbol	I/O	Description	Pin No.	symbol	I/O	Description
1	BCLK	O	Bit clock output pin for SRDATA	41	TES	--	Not used
2	LRCK	O	L/R distinction signal	42	PLAY	--	/"
3	SRDATA	O	Serial data output	43	WVEL	--	/"
4	DVDD1	--	Power supply	44	ARF	I	RF signal input
5	DVSS1	--	Connected to GND	45	IREF	I	Reference current input pin
6	TX	--	Not used	46	DRF	I	Bias adjustment pin for DSL
7	MCLK	I	μ -com command clock signal input	47	DSL F	I/O	Loop filter pin for DSL
8	MDATA	I	μ -com command data input	48	PLL F	I/O	Loop filter pin for PLL
9	MLD	I	μ -com command load signal input	49	VCOF	--	Not used
10	SENSE	O	Sense signal output	50	AVDD2	--	Power supply
11	FLOCK	O	Lock signal for Tracking	51	AVSS2	--	Connected to GND
12	TLOCK	O	Lock signal for Focus	52	EFM	--	Not used
13	BLKCK	--	Not used	53	PCK	--	/"
14	SQCK	I	Clock for sub-code Q resister	54	PDO	--	/"
15	SUBQ	O	Sub-code Q-code output	55	SUBC	--	/"
16	DMUTE	--	Connected to GND	56	SBCK	--	Connected to GND
17	STATUS	O	Status signal	57	VSS	--	/"
18	/RST	I	Reset signal input (L:Reset)	58	X1	I	Input of 16.9344MHz X'tal oscillation circuit
19	SMCK	--	Not used	59	X2	--	Not used
20	PMCK	--	Not used	60	VDD	--	Power supply
21	TRV	O	Traverse enforced output	61	BYTCK	--	Not used
22	TVD	O	Traverse drive output	62	CLDCK	--	/"
23	PC	--	Not used	63	FCLK	--	/"
24	ECM	O	Spindle motor drive signal (Enforced output) 3-State	64	IPPLAG	--	/"
25	ECS	O	Spindle motor drive signal (Servo signal)	65	FLAG	--	/"
26	KICK	O	Kick pulse output	66	CLVS	--	/"
27	TRD	O	Tracking drive output	67	CRC	--	/"
28	FOD	O	Focus drive output	68	DEMPH	O	De-emphasis ON signal (H : ON)
29	VREF	I	Reference voltage input pin	69	RESY	--	Not used
30	FBAL	O	Focus Balance adjust signal output	70	RST 2	--	Connected to GND
31	TBAL	O	Tracking Balance adjust signal output	71	/TEST	--	Pull up (+5V)
32	FE	I	Focus error signal input	72	AVDD1	--	Power supply
33	TE	I	Tracking error signal input	73	OUT L	--	Not used
34	RF ENV	I	RF envelope signal input	74	AVSS1	--	Connected to GND
35	VDET	I	Vibration detect signal input	75	OUT R	--	Not used
36	OFT	I	Off track signal input	76	RSEL	--	Pull up (+5V)
37	TRCRS	I	Track cross signal input	77	CSEL	--	Connected to GND
38	/RFDET	I	RF detect signal input	78	PSEL	--	/"
39	BDO	I	BDO input pin	79	MSEL	--	/"
40	LDON	O	Laser ON signal output	80	SSEL	--	Pull up (+5V)

■ MN35502 (IC920) : D / A CONVERTER

1. Terminal Layout

DIN	1	28	RSBDN
LRCK	2	27	RSBUP
BCK	3	26	M3
M4	4	25	DVDD1
DVDD2	5	24	XIN
CKO	6	23	XOUT
DVSS2	7	22	DVSS1
M1	8	21	M2
OUT1C	9	20	OUT2C
OUT1B	10	19	OUT2B
AVDD1	11	18	AVDD2
OUT1D	12	17	OUT2D
OUT1A	13	16	OUT2A
AVSS1	14	15	AVSS2

2. Block Diagram



3. Description

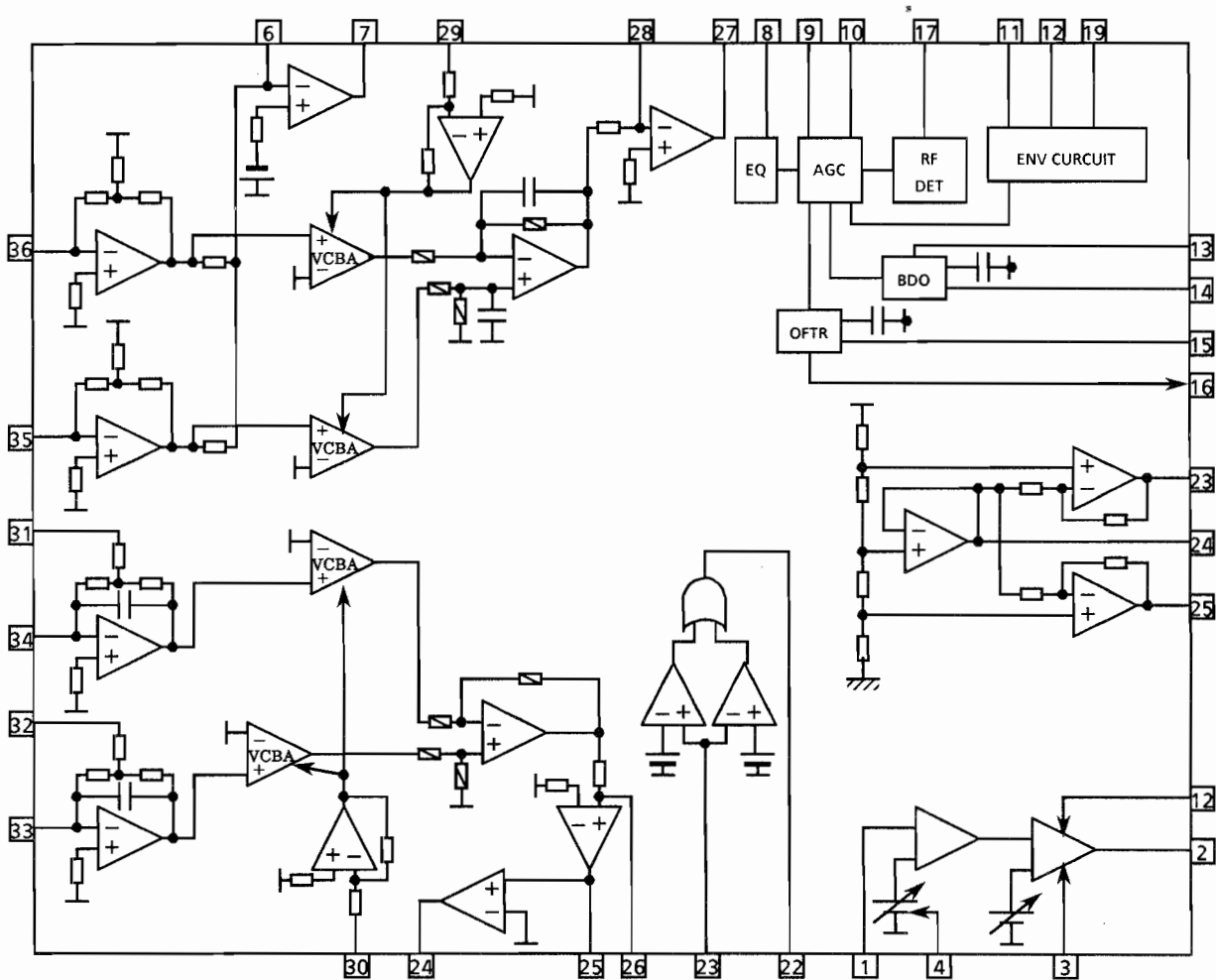
Pin No	Symbol	I/O	Description	Pin No	Symbol	I/O	Description
1	DIN	I	Data input	15	AVSS2	--	Analog ground 2
2	LRCK	I	LR clock input	16	OUT2A	O	2A PEM output
3	BCK	I	Bit clock input	17	OUT2D	O	2D PEM output
4	M4	I	Operational mode control 4	18	AVDD2	--	Analog power supply 2
5	DVDD2	--	Digital power supply 2	19	OUT2B	O	2B PEM output
6	CKO	O	Clock output	20	OUT2C	O	2C PEM output
7	DVSS2	--	Digital ground 2	21	M2	--	Connected to ground
8	M1	--	Connected to ground	22	DVSS1	--	Digital ground pin 1
9	OUT1C	O	1C PEM output	23	XOUT	O	Crystal oscillator output
10	OUT1B	O	1B PEM output	24	XIN	I	Crystal oscillator input
11	AVDD1	--	Analog power supply 1	25	DVDD1	--	Digital power supply 1
12	OUT1D	O	1D PEM output	26	M3	--	Connected to ground
13	OUT1A	O	1A PEM output	27	RSBUP	--	Connected to ground
14	AVSS1	--	Analog ground 1	28	RSBDN	I	Reset signal / Digital Att. control signal input

■ AN8803SB (IC830) : RF & SERVO AMP

1. Terminal Layout

PD	1	36	PDAC
LD	2	35	PDBD
LDON	3	34	PDE
LDP	4	33	PDF
VCC	5	32	PDER
RF-	6	31	PDFR
RF OUT	7	30	TBAL
RF IN	8	29	FBAL
C.AGC	9	28	FE-
ARF	10	27	FE OUT
C.ENV	11	26	TE-
C.EA	12	25	TE OUT
CS BDO	13	24	CROSS
BDO	14	23	TE BPF *
CS BRT	15	22	VDET
OFTR	16	21	LD OFF
/NRFDET	17	20	VREF
GND	18	19	ENV

2. Block Diagram



3. Description

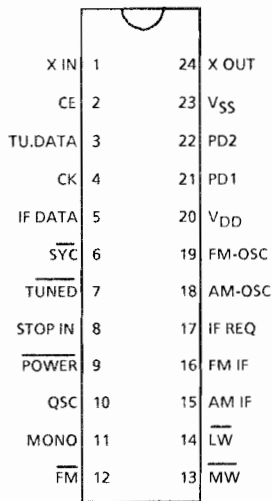
Pin No.	Symbol	I/O	Description
1	PD	--	Connected to GND
2	LD	--	Non connection
3	LD ON	--	Connected to GND
4	LDP	--	Connected to GND
5	VCC	--	Power supply
6	RF-	I	Inverse input pin for RF amp
7	RF OUT	O	RF amp output pin
8	RF IN	I	AGC input pin
9	C.AGC	I/O	Connecting pin of AGC loop filter
10	ARF	O	AGC output pin
11	C.ENV	I/O	A capacitor is connected to this terminal to detect the envelope of RF signal
12	C.EA	I/O	A capacitor is connected to this terminal to detect the envelope of RF signal
13	CS BDO	I/O	A capacitor is connected to detect the lower envelope of the RF signal
14	BDO	O	BDO output pin
15	CS BRT	I/O	A capacitor is connected to detect the lower envelope of the RF signal
16	OFTR	O	Of-track status signal output pin
17	/NRFDET	O	RF detection signal output pin
18	GND	--	GND
19	ENV	O	Envelope output
20	VREF	O	Reference voltage output pin
21	LD OFF	--	Connect to GND
22	VDET	O	Vibration detection signal output pin
23	TE BPF	I	Input pin of tracking error through BPF
24	CROSS	O	Tracking error cross output pin
25	TE OUT	O	Tracking error signal output pin
26	TE-	I	Inverse input pin for tracking error amp
27	FE OUT	O	Output pin of focus error
28	FE-	I	Inverse input pin for focus error amp
29	FBAL	I	Focus balance control pin
30	TBAL	I	Tracking balance control pin
31	PDFR	I/O	E and E I-V amp gain control pin
32	PDER	I/O	F and E I-V amp gain control pin
33	PDF	I	I-V amp input pin
34	PDE	I	I-V amp input pin
35	PD BD	I	I-V amp input pin
36	PD AC	I	I-V amp input pin

■ LC7218 (IC102) : PLL Synthesizer

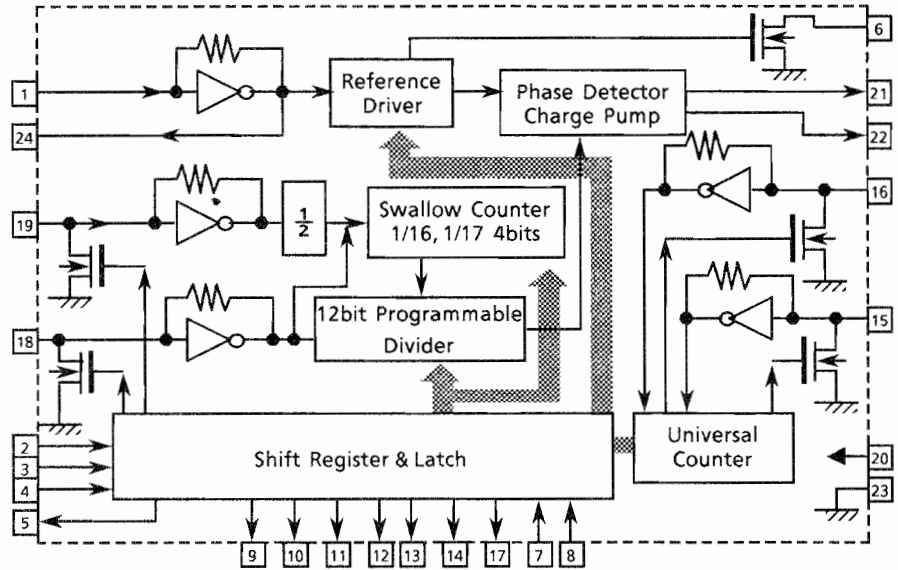
1. The main function descriptions

- (1) It makes the local oscillation frequency by the control data from IC201.
- (2) Decode the control signal and transmit the signal for receiving conditions.
- (3) For the best tuning, count the internal-frequency and transmit the data to IC201.

2. Terminal Layout



3. Block Diagram



4. Description

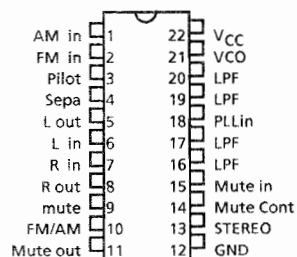
Pin No.	Symbol	I/O	Description
1,24	X in, X out	I/O	Crystal oscillator (7.2MHz).
2	CE	I	Fix the chip enable to "H" when inputting (TU.DATA) and outputting (IF DATA) the serial data.
3	TU.DATA	I	Receive the control data from the controller (IC201).
4	CK	I	This clock is used to synchronize data when transmitting the data of DI and DO.
5	IF DATA	O	Transmit the data from LC7218 to the controller which is synchronized with CL.
6	SYC	—	Not used.
7	TUNED	I	Receive the tuned signal from IC104 (LA1266A).
8	STOP IN	—	Connected to GND
9	POWER	—	Not used.
10	QSC	—	Not used.
11	MONO	O	It is "H" on FM-monaural, "L" on FM-Stereo.
12	FM	O	It is "L" on FM mode.
13	MW	O	It is "L" on MW mode.
14	LW	—	Not used.
15	AM-IF	I	Universal counter input for AM-IF from IC104 (LA1266A).
16	FM-IF	I	Universal counter input for FM-IF from IC104(LA1266A).
17	IF REQ	O	Output the "IF-signal request" to IC104 when the pin-7 (tuned in) goes to "H".
18	AM OSC	I	Input the local oscillator signal of AM.
19	FM OSC	I	Input the local oscillator signal of FM.
20	V _{DD}	—	This is a terminal of power supply.
21	PD1	O	PLL charge pump output: When the local oscillator signal frequency is higher than the reference frequency high level signals will output. When it is lower than the reference frequency, low level signals will output. When it is same as reference frequency signals, it will be floating.
22	PD2	—	Not used.
23	V _{SS}	—	Connected to GND

■ LA3401 (IC105) : FM MPX Detector

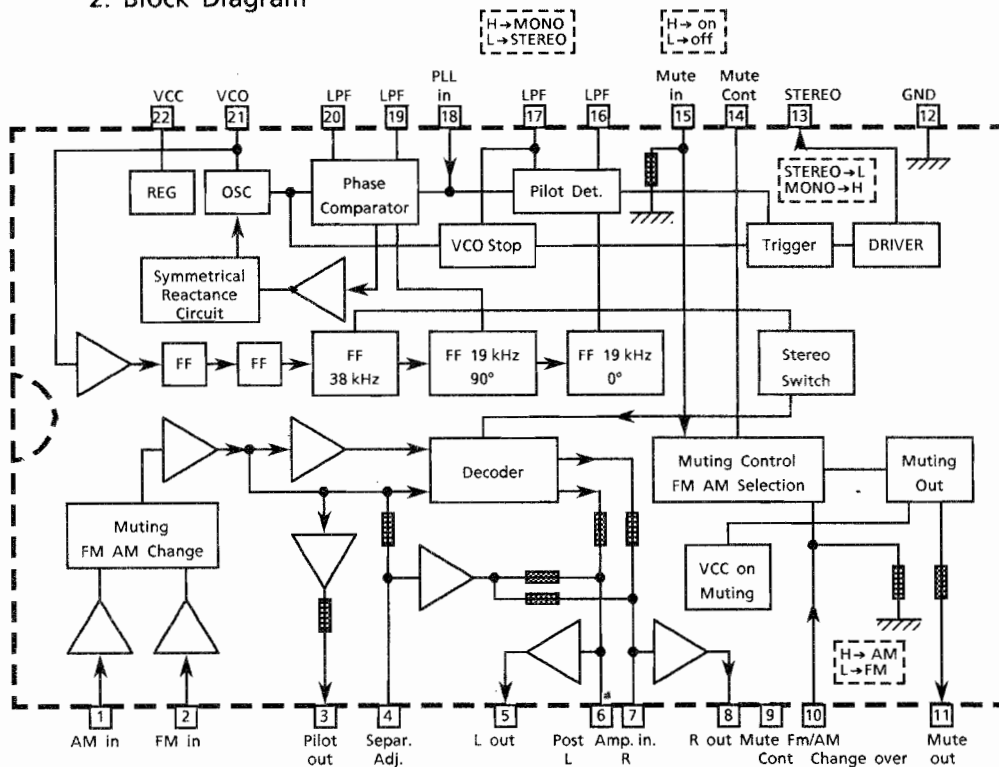
1. The main function descriptions

- (1) Detect the FM Multiplex Signal (Stereo signal).
- (2) When receiving FM Stereo Signal, it outputs the signal for indicator.
- (3) AM/FM Audio Amplifier.

(1) Terminal Layout



2. Block Diagram



3. Description

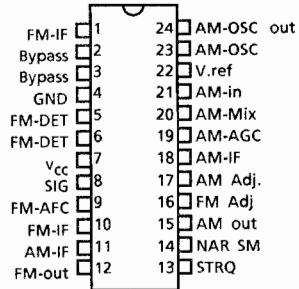
Pin No.	Symbol	I/O	Description
1	AM in	I	This is an input terminal for AM detection signal.
2	FM in	I	This is an input terminal for FM detection signal.
3	Pilot out	O	Output of MPX pilot signal (Connect to Pin18).
4	Sepa. Adj.	---	Separation adjustment.
5	L. out	O	Left channel signal output.
6	L	O	Reversal output of Pin5.
7	R	O	Reversal output of Pin8.
8	R out	O	Right channel signal output
9	Mute Cont	---	The mute time is controlled by the connected capacitor when turning the power switch on.
10	FM /AM	I	Change over the FM /AM input. "H" : AM, "L" : FM
11	Mute out	---	Not use
12	GND	---	Ground terminal.
13	Stereo	O	Stereo indicator output. Stereo : "L", Mono : "H"
14	Mute Cont	---	The mute time is controlled by the connected capacitor when changing over the FM /AM .
15	Mute in	I	Mute signal input. "H" : Mute on, "L" : Mute off.
16	LPF	---	Low pass filter of pilot detector.
17	LPF	---	While this terminal goes to "H", the VCO stop.
18	Pilot in	I	PLL input.
19	LPF	---	Low-pass filter of PLL.
20	LPF	---	Low-pass filter of PLL.
21	VCO	I	Voltage controlled oscillator terminal.
22	V _{CC}	---	Power supply.

■ LA1266A (IC104) : FM AM IF AMP & detector

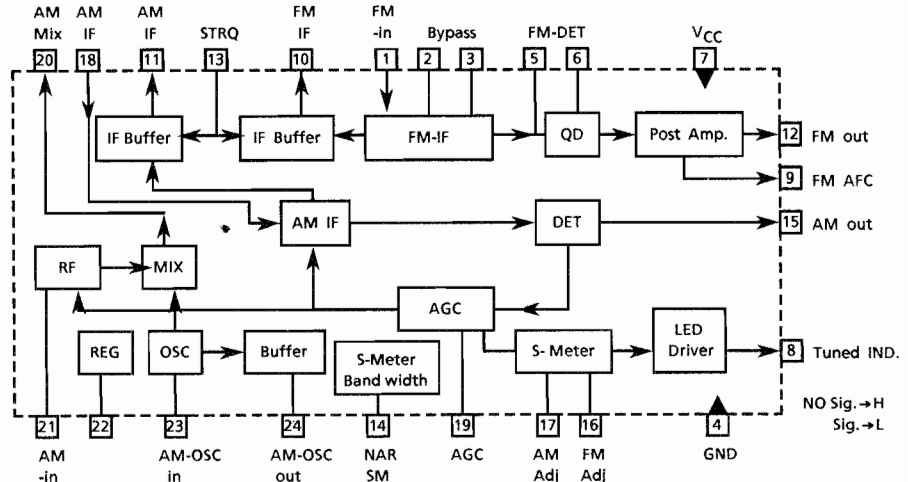
1. The main function descriptions

- (1) Amplify and detect of FM intermodulation frequencies.
- (2) It has local oscillator and mixer for AM, and amplify the AM-IF signal.

2. Top View



3. Block Diagram

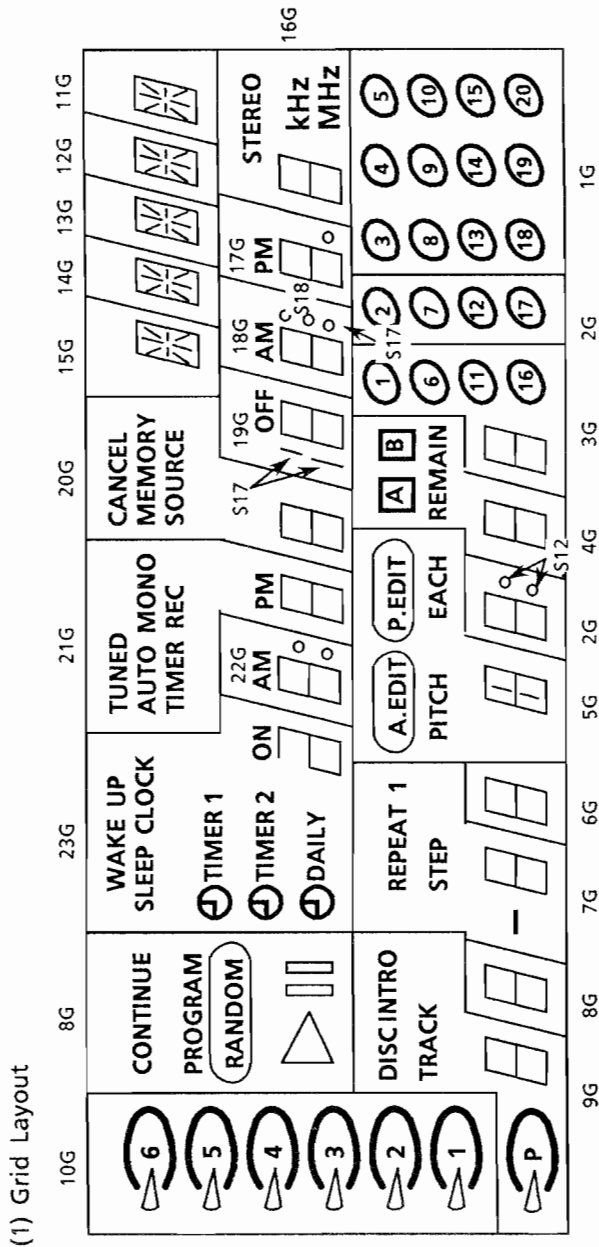


4. Description

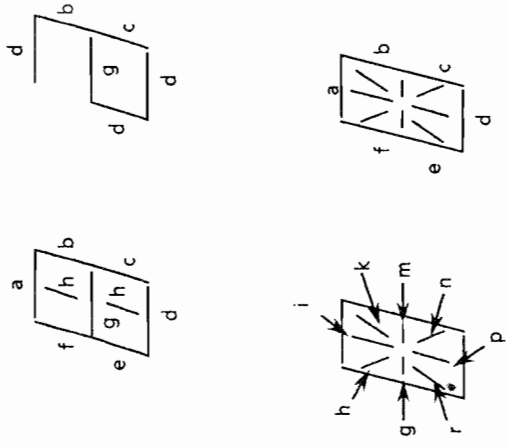
Pin No.	Symbol	I/O	Description
1	FM IF	I	This is an input terminal of FM IF Signal. *
2, 3	Bypass	---	Bypass of FM IF Amp.
4	GND	---	This is the device ground terminal.
5, 6	FM DET	---	FM detect transformer.
7	V _{CC}	---	This is the power supply terminal.
8	SIGNAL	O	Mute drive and signal stop drive output when tuning. Active Low
9	FM AFC	O	This is an output terminal of voltage for FM-AFC.
10	FM IF	O	When the IF REQ signal of IC251(LC7218) applies to pin13, the signal of FM IF outputs.
11	AM IF	O	When the IF REQ signal of IC251(LC7218) applies to pin13, the signal of AM IF outputs.
12	FM out	O	FM detection output.
13	STRQ	I	The IF-signals come out from pin10 (FM-IF) or pin11 (AM-IF) while this terminal goes to "High".
14	NAR SM	---	Control the Band-width of AM signal meter.
15	AM out	O	AM detection output.
16	FM Adj	---	For adjust the stop level (or mute level) of FM.
17	AM Adj	---	For adjust the stop level (or mute level) of AM.
18	AM-IF	I	Input of AM IF Signal.
19	AM-AGC	I	This is an AGC voltage input terminal for AM.
20	AM-MIX	O	This is an output terminal for AM mixer.
21	AM-IN	I	This is an input terminal for AM RF Signal.
22	V.REF	---	Control the Band-width of FM signal meter.
23	AM-OSC	---	This is a terminal of AM Local oscillation circuit.
24	AM-OSC out	O	AM Local Oscillation Signal output.

Internal Connections of FL Display

■ ELU0001-169 (FL201)



(1) Grid Layout



(2) Pin Connections

TERMINAL NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
ELECTRODE	F	F	F	NP	NP	NP	22G	21G	20G	19G	18G	17G	16G	15G	14G	13G	12G	11G	P	P	P	P	P	P	P	P	P	P	P	
TERMINAL NO.	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
ELECTRODE	P	NP	P	P	P	P	P	P	P	P	P	P	P	P	P	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	NP	F	F	F

Notes F:Filament G:Grid P:Anode NP:No Pin

CD Section

	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
S1	(6)	DISC	CONTINUE	REPEAT		A.EDIT	A	1	2	3
S2	▷(6)	INTRO	PROGRAM	1		P.EDIT	B	6	7	4
S3	(5)	TRACK	RANDOM	STEP		EACH	REMAIN	11	12	5
S4	▷(5)	a	a	a	a	a	a	a	a	8
S5	(4)	b	b	b	b	b	b	b	b	9
S6	▷(4)	c	c	c	c	c	c	c	c	10
S7	(3)	d	d	d	d	d	d	d	d	13
S8	▷(3)	e	e	e	e	e	e	e	e	14
S9	(2)	f	f	f	f	f	f	f	f	15
S10	▷(2)	g	g	g	g	g	g	g	g	18
S11	(1)	(P)	▶	—		PITCH		16	17	19
S12	▷(1)	▷(P)				h		o	o	20
S13	123456	P						*		

TUNER Section

	23G	22G	21G	20G	19G	18G	17G	16G	15G	14G	13G	12G	11G
S14	d	d	d	d	d	d	d	d	d	d	d	d	d
S15		e	e	e	e	e	e	e	e	e	e	e	e
S16	c	c	c	c	c	c	c	c	c	c	c	c	c
S17	g		TUNED		S17	DP(.)		KHz	r	r	r	r	m
S18	b	:	AUTO	CANCEL		DP(:)	DP(.)	MHz	m	n	n	n	n
S19	⌚ TIMER 1		MONO						j,p	j,p	j,p	j,p	j,p
S20	⌚ TIMER 2	g	g	g	g	g	g	g	g	g,m	g,m	g,m	g
S21	⌚ DAILY	f	f	f	f	f	f	f	f	f	f	f	f
S22	WAKE UP	b	b	b	b	b	b	b	b	b	b	b	b
S23	SLEEP	a	a	a	a	a	a	a	a	a	a	a	a
S24	ON		TIMER REC	MEMORY	OFF				h	h	h	h	h
S25	CLOCK	AM	PM	SOURCE		AM	PM	STEREO	k	k	k	k	k

Disassembly Procedures

■ Removing the Top cover

1. Remove the 2 screws fixing both sides of the Top Cover, and the 4 screws fixing the rear sides.
2. Remove the Top Cover.

■ Removing the CD-Tuner PCB (ENA-149)

1. Remove the Top Cover.
2. Remove the 3 screws ①.
3. Disconnect the connectors. (P201,P903,P904,J711, J721,J901,FW801,FW803,FW831,JB201,JB202)
4. Remove the 2 screws fixing the CD-Tuner PCB.
5. Remove the CD-Tuner PCB.

■ Removing the Front door open/close mecha ass'y

1. Remove the CD-Tuner PCB.
2. Rotate the cam gear ③ backward to open the Front door for 45°.
3. Remove the 2 screws ④,⑤ fixing the Front door open/close mecha ass'y.
4. Remove the Front door open/close mecha ass'y.

■ Removing the Front panel ass'y

1. Remove the screw ⑥.
2. By inserting a thin driver from upside of the mecha ⑦, rotate the gear ⑧ (see fig.-11) counterclockwise to eject the tray. And, shift the tray to remove the fitting after unlocking the bottom of the rail base ass'y.
3. Remove the 2 screws ⑨ fixing bottom of the Front panel ass'y.
4. Remove the hook of open/close mecha lever.
5. Remove the Front panel ass'y.

■ Removing the Front door indicator PCB (ENB-182-2)

1. Remove the 2 screws ⑩.
2. Rotate the cam gear ③ backward to open the Front door.
3. Remove the hook by inserting a thin driver from ⑪ hole to remove the Front door indicator ass'y.
4. Remove the 3 screws fixing the Front door indicator PCB.
5. Remove the Front door indicator PCB.

■ Removing the Changer mecha ass'y

1. Remove the CD-Tuner PCB.
2. Rotate the cam gear ③ backward to open the Front door.
3. By inserting a thin driver from upside of the mecha ⑦, rotate the gear ⑧ (see fig.-11) counterclockwise to eject the tray. And, shift the tray to remove the fitting after unlocking the bottom of the rail base ass'y.
4. Remove the 2 screws ⑫ fixing the Changer mecha ass'y.
5. Slide the Changer mecha ass'y to arrow direction ⑬.
6. Remove the Changer mecha ass'y.

* NOTICE (for reinstalling)

Wire ① should be set as Fig.6.

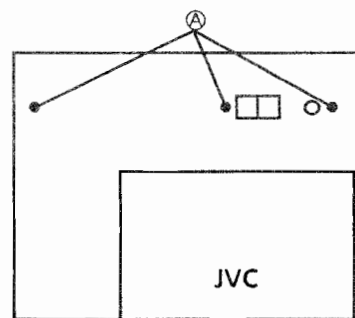


Fig.1

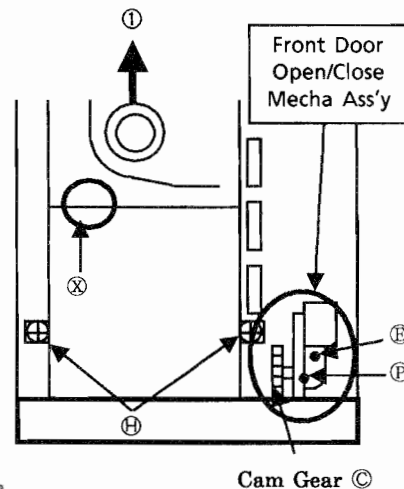


Fig.2

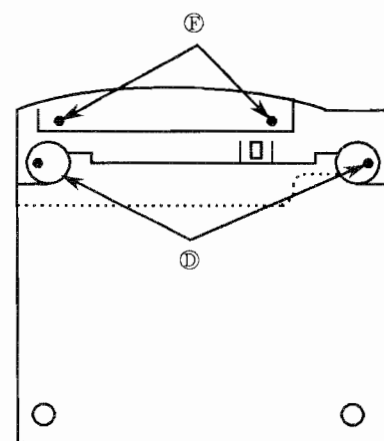


Fig.3

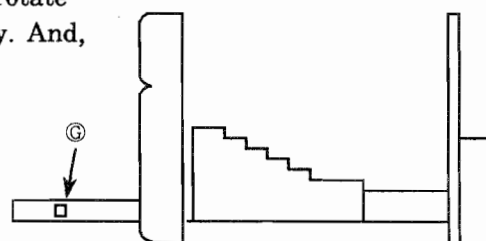


Fig.4

■ Removing the magazine

1. Rotate the lock-lever to arrow direction ②.
2. Pull the magazine.

■ Removing the turntable base

1. Remove the changer mecha ass'y.
2. Turn over the changer mecha ass'y.
3. Remove the 3 screws ①.
- * NOTICE :The left side spring differs from the right side ones.
4. Take out the turntable base.

■ Exchanging the pickup

1. Take out the turntable base.
2. Cut the tie-band
3. Remove the screw ㊸, and remove the feed nut support.
4. Remove the feed screw ass'y.
5. Remove the Screw ㊹, and remove the Pickup with the pickup shaft.
6. Exchange the pickup.

■ Removing the magazine holder

1. Remove the 2 screws fixing the magazine holder.
2. Slide the lift cam backward.
3. Slide the magazine holder backward, and remove the magazine holder to upside.

■ Removing the LIFTER UNIT Ass'y

1. Remove the magazine holder.
2. Lift the LIFTER UNIT Ass'y to the top position.
3. Remove the ELEVATOR ARMS from the CHASSIS BASE and the LIFTER UNIT Ass'y.
4. Remove the LIFTER UNIT Ass'y.

※ The LIFT CAM can be released, After removing the LIFTER UNIT Ass'y

1. When installing the lift cam, Put the cam slider to the position shown in fig 5.
2. Install the changer assembly.
3. Set the power ON to operate the mechanism.
4. Set the power OFF while the disc is playing.
5. Set the power ON again. In this case the unit will be reseted.

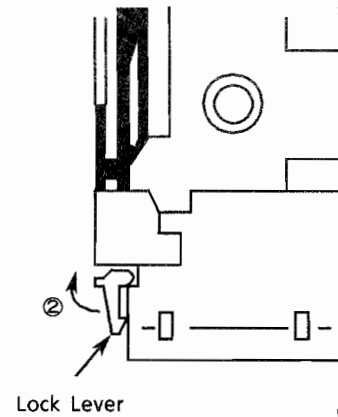


Fig.5

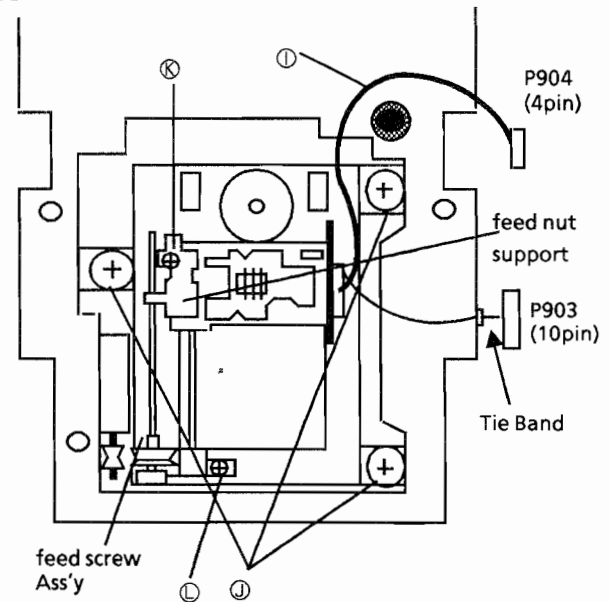


Fig.6

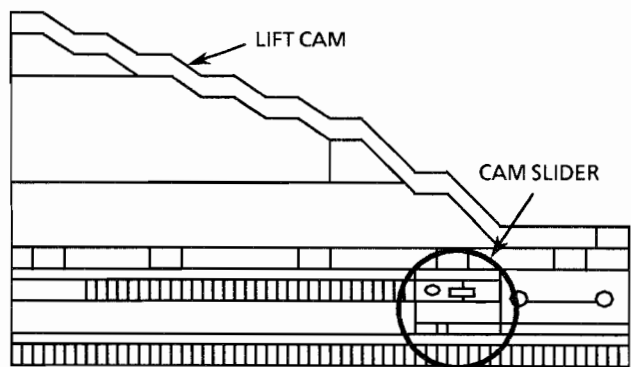


Fig.7

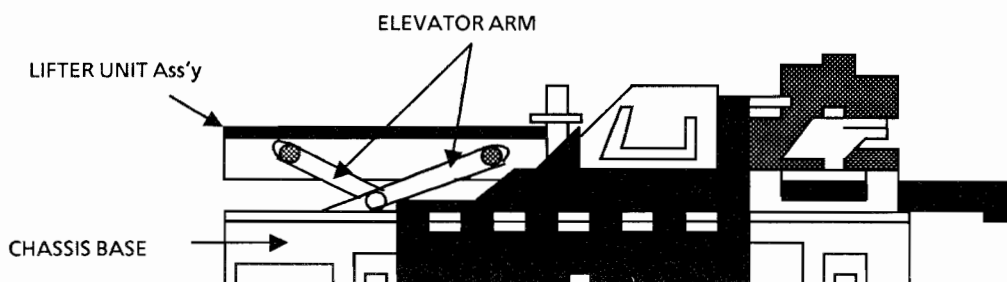


Fig.8

■ Removing the P1 RAIL BASE

1. Remove the magazine holder.
 2. Rotate the gear ② clockwise a little.
 3. Pull out the P1 RAIL BASE.
 4. Pull the P1 TRAY backward.
 5. Remove the screw fixing the open/close sw by inserting a thin driver from ④ hole to remove the Front door indicator ass'y.
 6. Pull the P1 RAIL BASE by pulling up the hook ① slightly.
 7. Remove the P1 RAIL BASE.
- ※ Install gear ③ so that part ① shown in fig.10 is perpendicular to the P1 rail base.

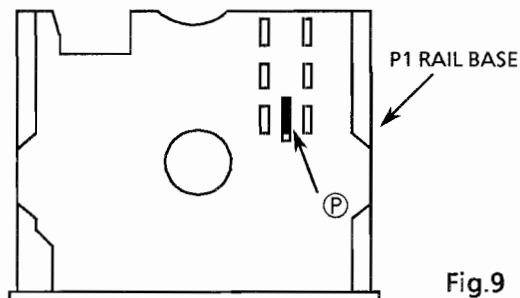


Fig.9

The Gear Position when the P1 Rail Base is pulled out forward.

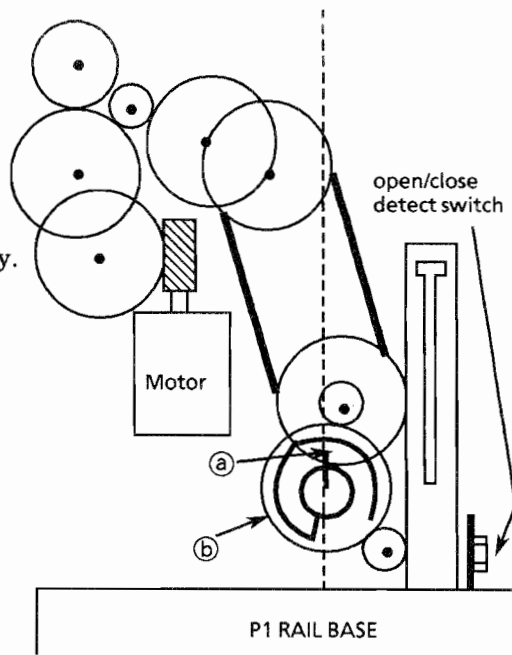


Fig.10

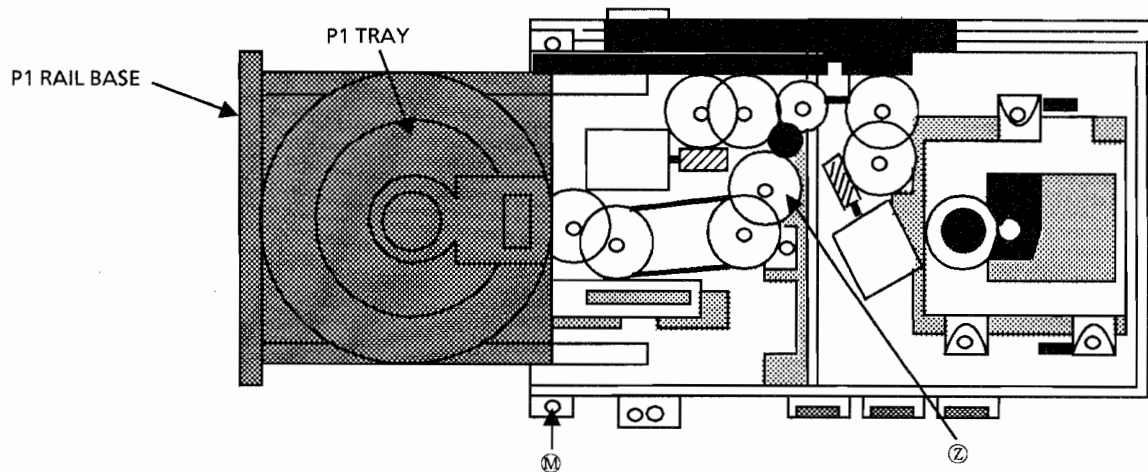


Fig.11

■ Removing the spindle motor

1. Remove the TURN TABLE BASE.
2. Turn over TURN TABLE BASE.
3. Remove the pressed-in turntable.
4. Remove the 2 screws fixing the motor.
5. Remove the spindle motor.

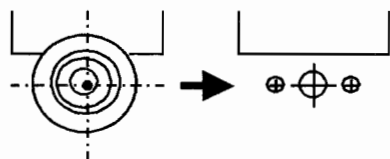


Fig.12

■ Mounting the spindle motor

1. Alternately tighten the 2 screws.
2. Fit the turntable by pressing gently at the centre to obtain a distance of $10.3\text{mm} \pm 0.1\text{mm}$ from the mechanism base to the top of the turntable.

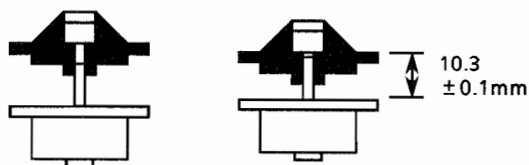
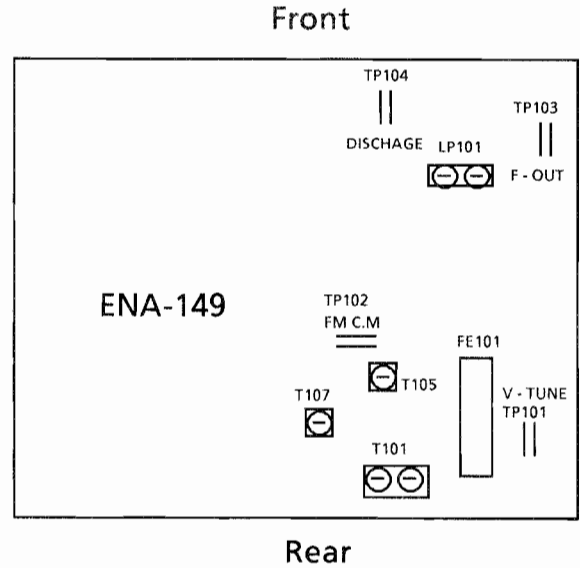
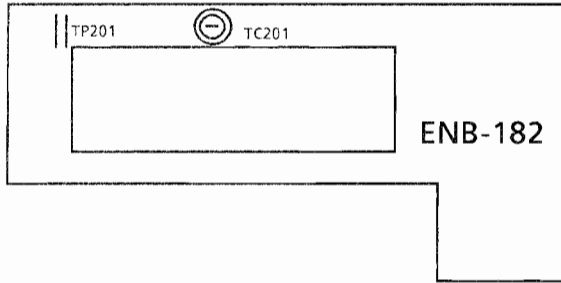


Fig.13

Adjustment Procedures

Tuner section



AM Tuning voltage (Unit : V)

Area	Frequency (MW)	
	531KHz	1710KHz
U.S.A., Canada	1.0 ± 0.2	8.0 ± 0.8

(1) Tuning voltage

Confirm the voltages in the table below at TP101. If the voltages are not satisfied, replace T101 for AM or FE101 for FM.

FM Tuning voltage (Unit : V)

Area	Frequency			
	64.0MHz	74.0MHz	87.5MHz	108MHz
East Europe	—	—	—	—
the U.K., Continental Europe, U.S.A., Canada, Australia, Universal	—	—	1.6 ± 1.0 (V)	8.0 ± 2.0 (V)

AM Tuning voltage (Unit : V)

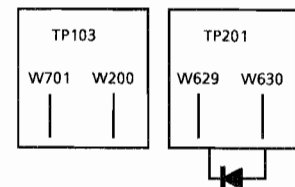
Area	Frequency (MW)							Frequency (LW)		
	522KHz	530KHz	531KHz	1600KHz	1602KHz	1629KHz	1710KHz	144kHz	290kHz	353kHz
East Europe	—	—	—	—	—	—	—	—	—	—
the U.K., Continental Europe	0.9 > 0.7	—	—	—	—	7.5 < 8.3	—	0.8 > 0.4	—	7.7 < 8.9
U.S.A., Canada	—	—	1.0 > 0.8	—	—	—	8.0 < 8.8	—	—	—
Australia	0.9 > 0.7	—	—	—	—	7.5 < 8.3	—	—	—	—
Universal (Chanel space9kHz)	—	—	1.0 > 0.8	—	7.2 < 7.9	—	—	—	—	—
Universal (Chanel space10kHz)	—	1.0 > 0.8	—	7.2 < 7.9	—	—	—	—	—	—

(2) FM center meter

Receive a broadcast by using the function of 'AUTO STOP'.
Adjust T105 (detector coil) so that the voltage at TP102 becomes 0 ± 1.5mV.

(3) Clock Adjustment

- After connecting W629 and W630 with some wire, connect ac power cord into ac outlet.
- Confirm that the display is off and remove the wire.
- Connect a frequency counter to TP103 (W701).
- Adjust TC201 so that the frequency becomes 34952.5 ± 0.15Hz.



例 1S5133 1S2076
1S5119 1S2473

(NOTE) Adjustment is not necessary for CD section.

Maintenance of Laser Pickup

(1) Life of the laser diode (Fig.1)

When the life of the laser diode has expired, the following symptoms will appear.

1. The level of RF output (EFM output: amplitude of eye pattern) will be low.
2. The drive current required by the laser diode will be increased. In such a case, check the life of the laser diode following the flowchart below.

(2) Measurement of laser diode drive current (Fig.2)

Replace the jump wire (W212) shown below with the resistor (1Ω).

Disconnect right lead of R830 and R843 to connect W212, R830 and R843 as followings.

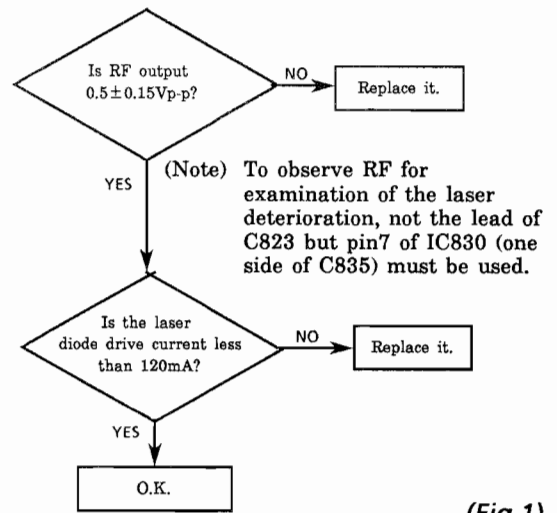
Measure the voltage across the resistor (1Ω) with a milli-voltmeter. When the voltage is more than 120mV, it shows that the life of the laser diode has expired.

(3) Semi-fixed resistor on the APC PC board

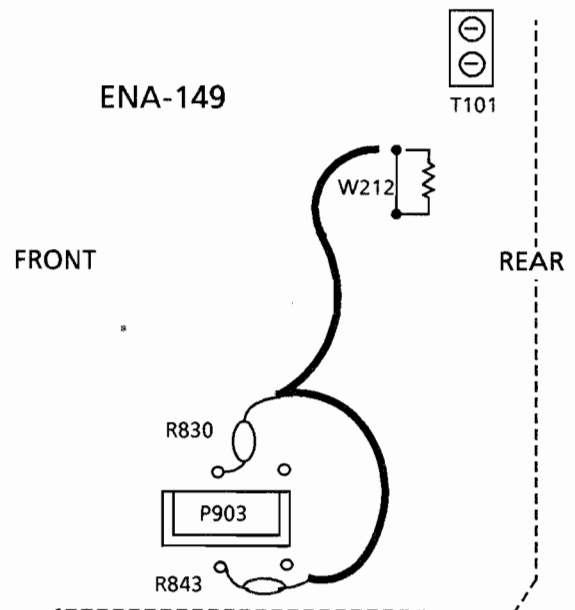
The semi-fixed resistor on the APC printed circuit board which is attached to the pickup is used to adjust the laser power. Since this adjustment should be performed to match the characteristics of the whole optical block, do not touch the semi-fixed resistor.

If the laser power is lower than the specified value, the laser diode is almost worn out, and the laser pickup should be replaced.

If the semi-fixed resistor is adjusted while the pickup is functioning normally, the laser pickup may be damaged due to excessive current.

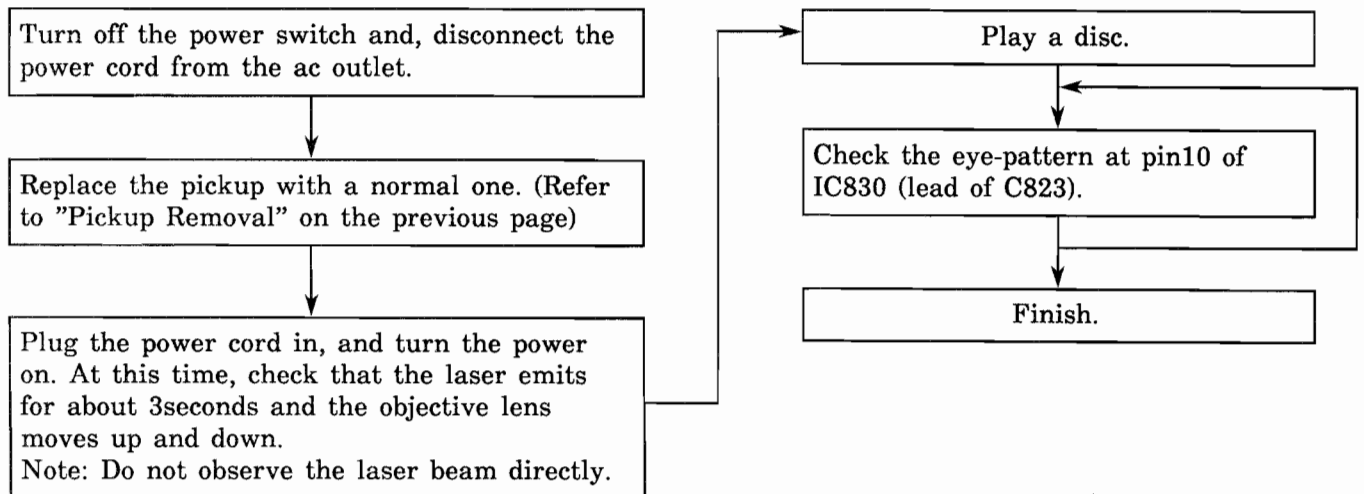


(Fig.1)

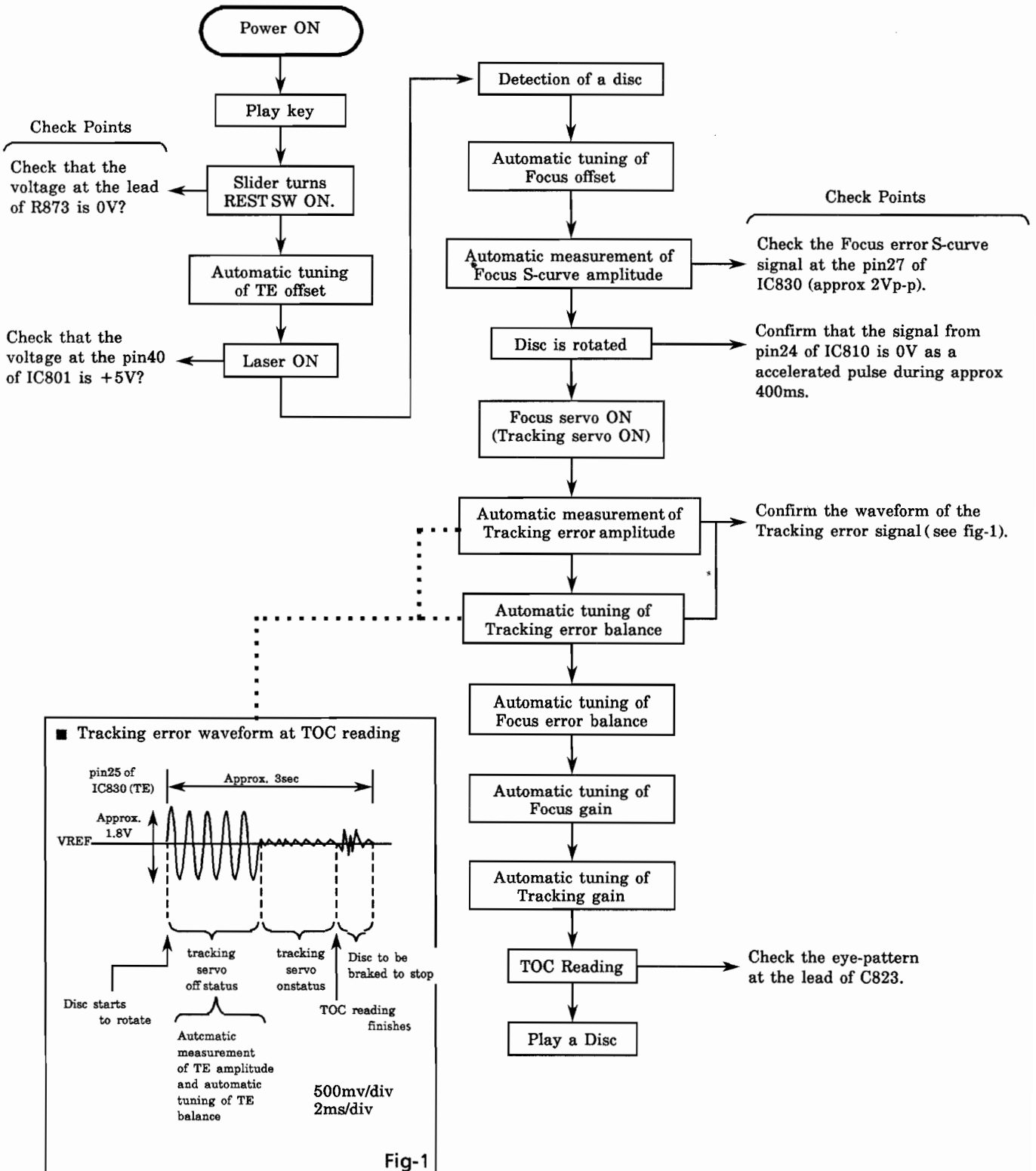


(Fig.2)

Replacement of Laser Pickup



Flow of Functional Operation Until TOC is Read



Operation check by each switch.

SW801 : Single tray open / close detect switch.

When a single tray is ejected, the open signal is "L" and when it is closed, the close signal is "L".

SW802 : Magazine in switch.

When a magazine is inserted, the switch is turned on.

SW803 : JAB switch.

When drive plate comes toward, the switch is turned on. (The switch is turned on momentarily.)

SW803 : Tray load switch.

When the tray of a disc is loaded, the switch is turned on.

SW804 : UP/DOWN switch.

When the mechanism goes up or down, this sw turns on and off alternately.

SW805 : Reset switch.

When the mechanism comes to the point under the initial position, the switch is turned on.

SW805 : Memory switch.

When the power is off in playing a disc, and on again, the switch detect which height the tray should be returned.

SW807 : Pickup rest switch.

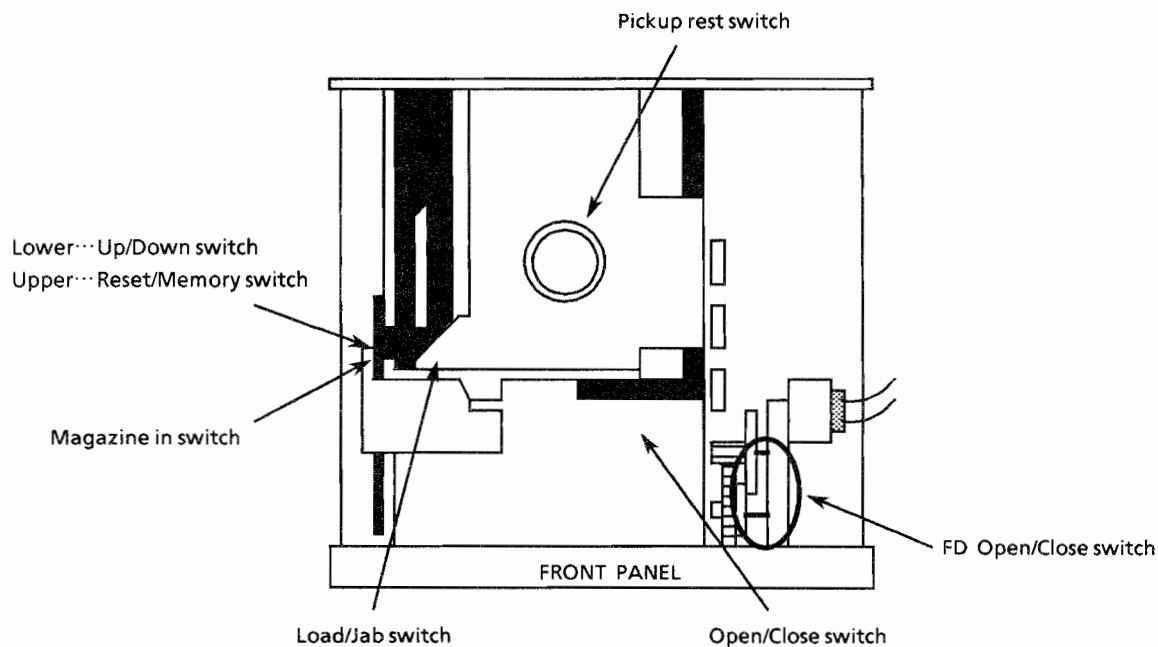
When pickup comes to the initial position, the switch is turned on.

SW251 : FD Close switch.

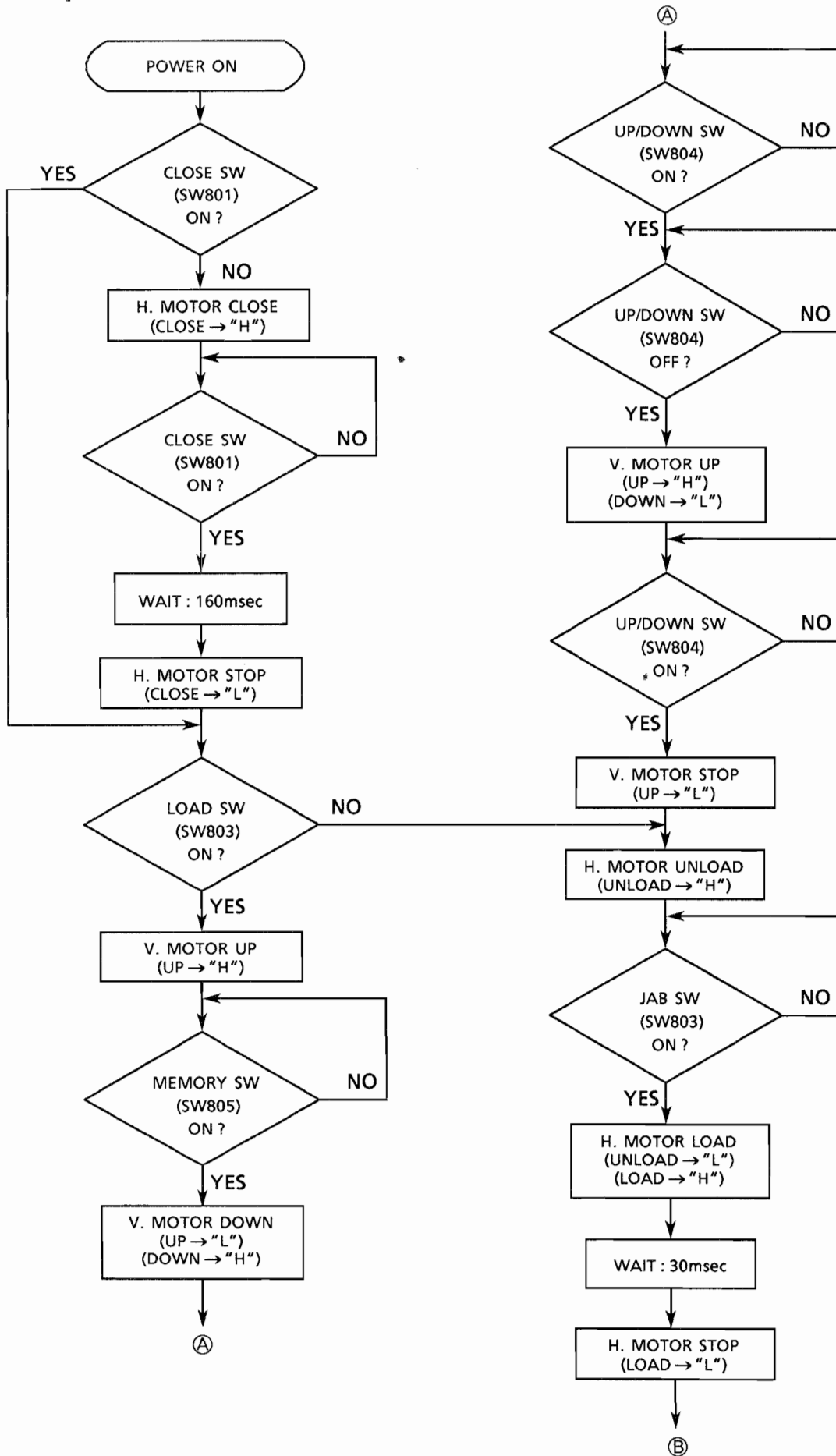
This switch turns on when the front door is closed.

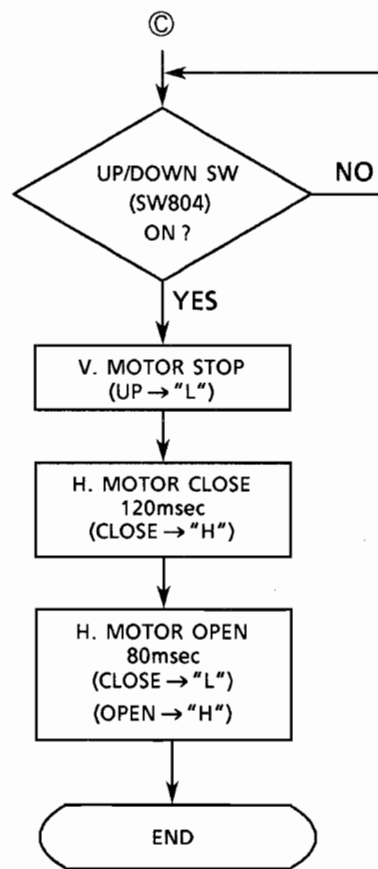
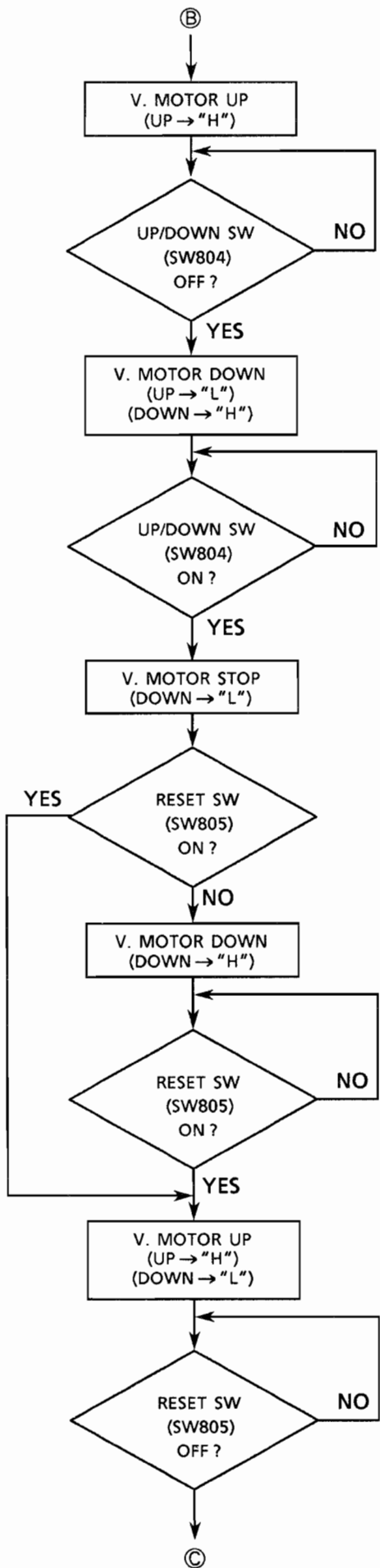
SW252 : FD Open switch.

This switch turns on when the front door is opened.

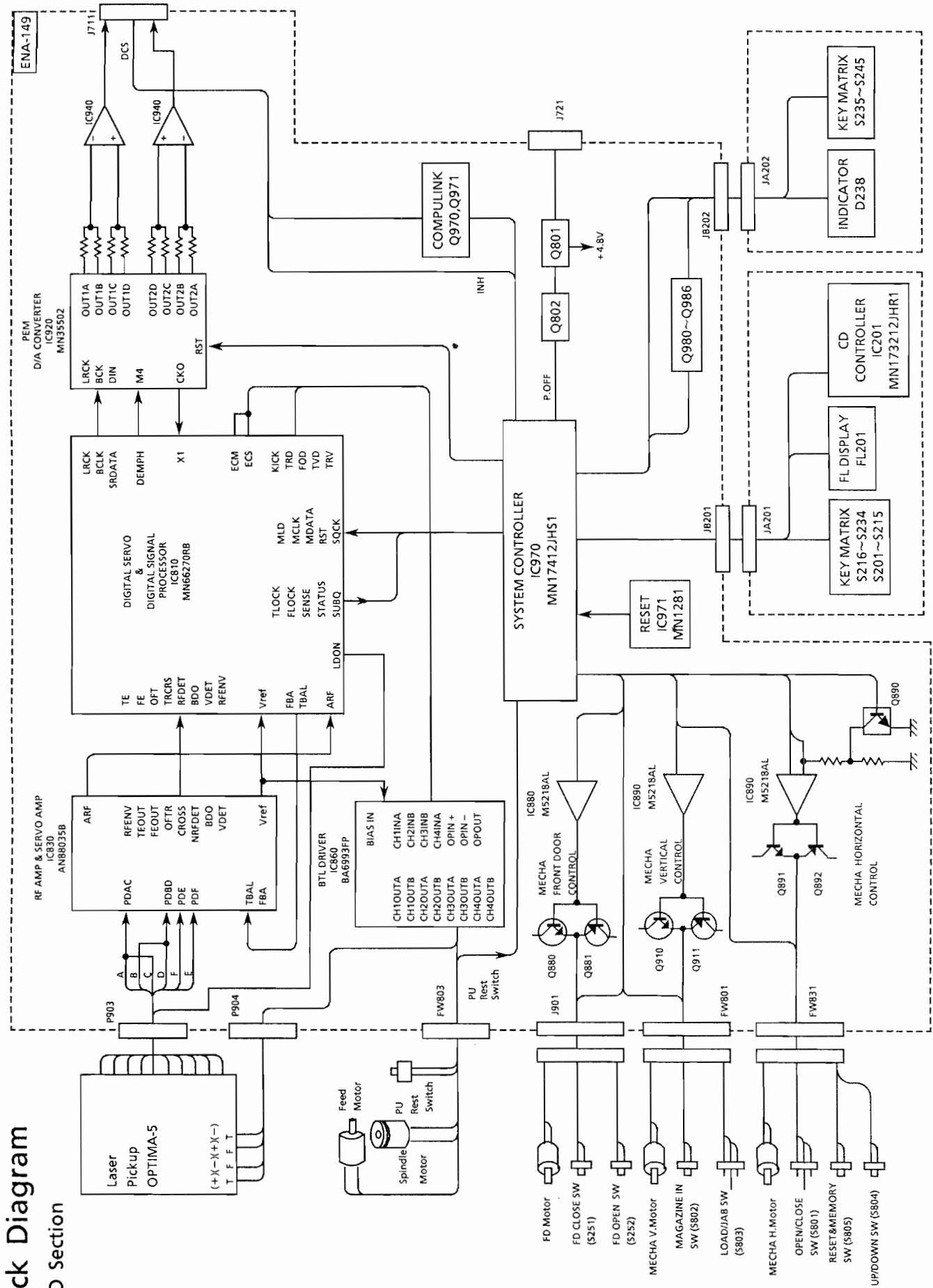


Initial Operation of Mechanism

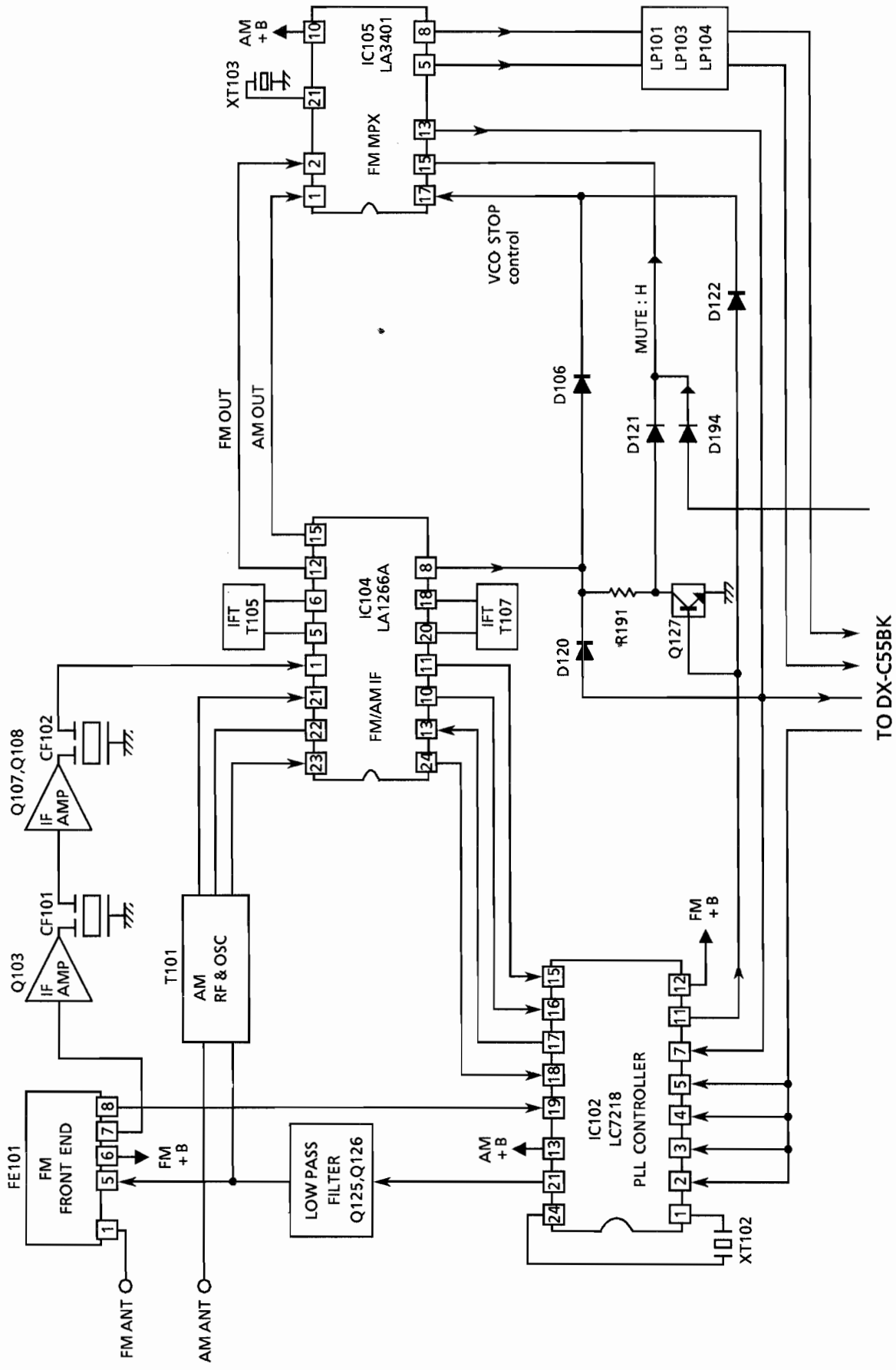




Block Diagram
■ CD Section

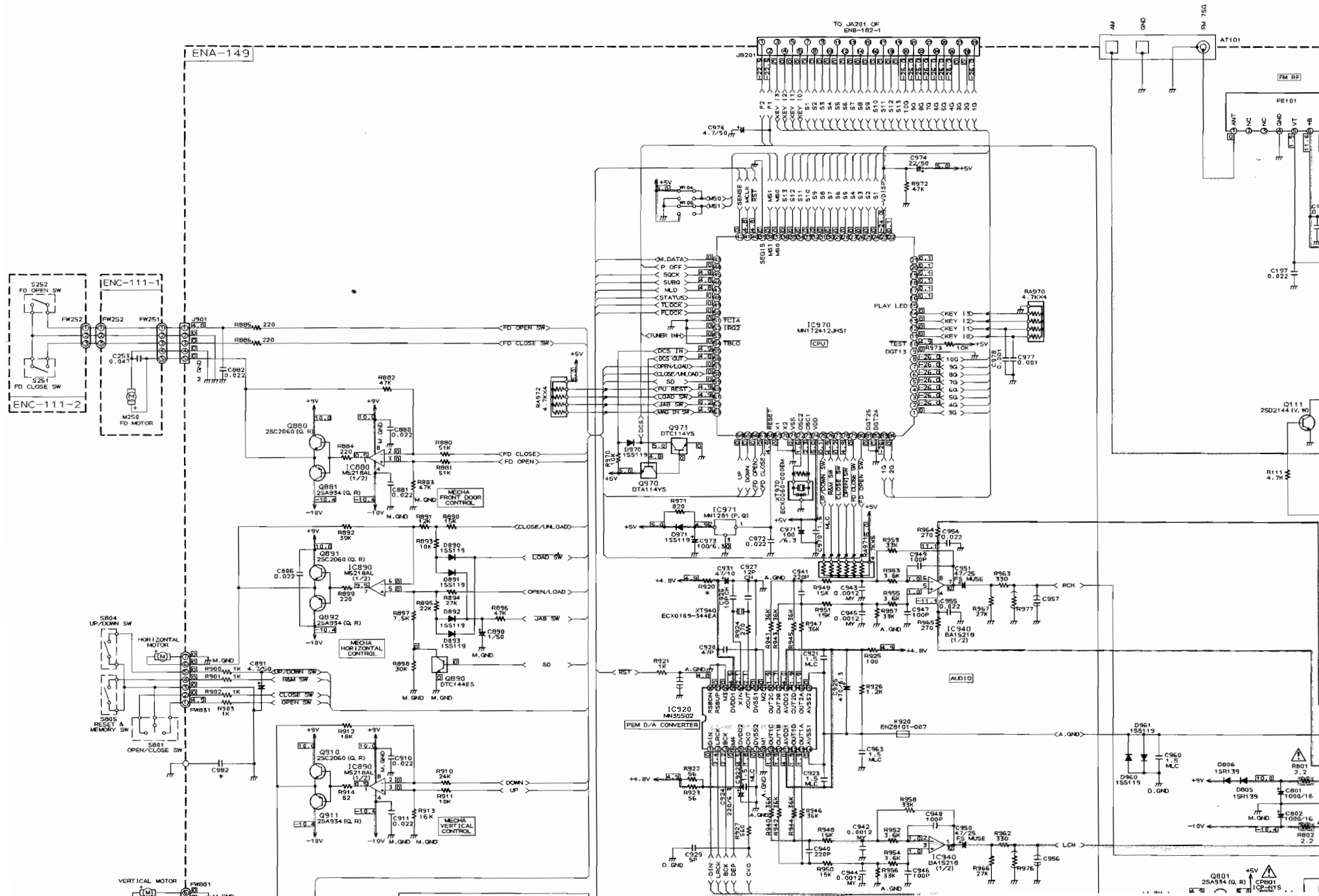


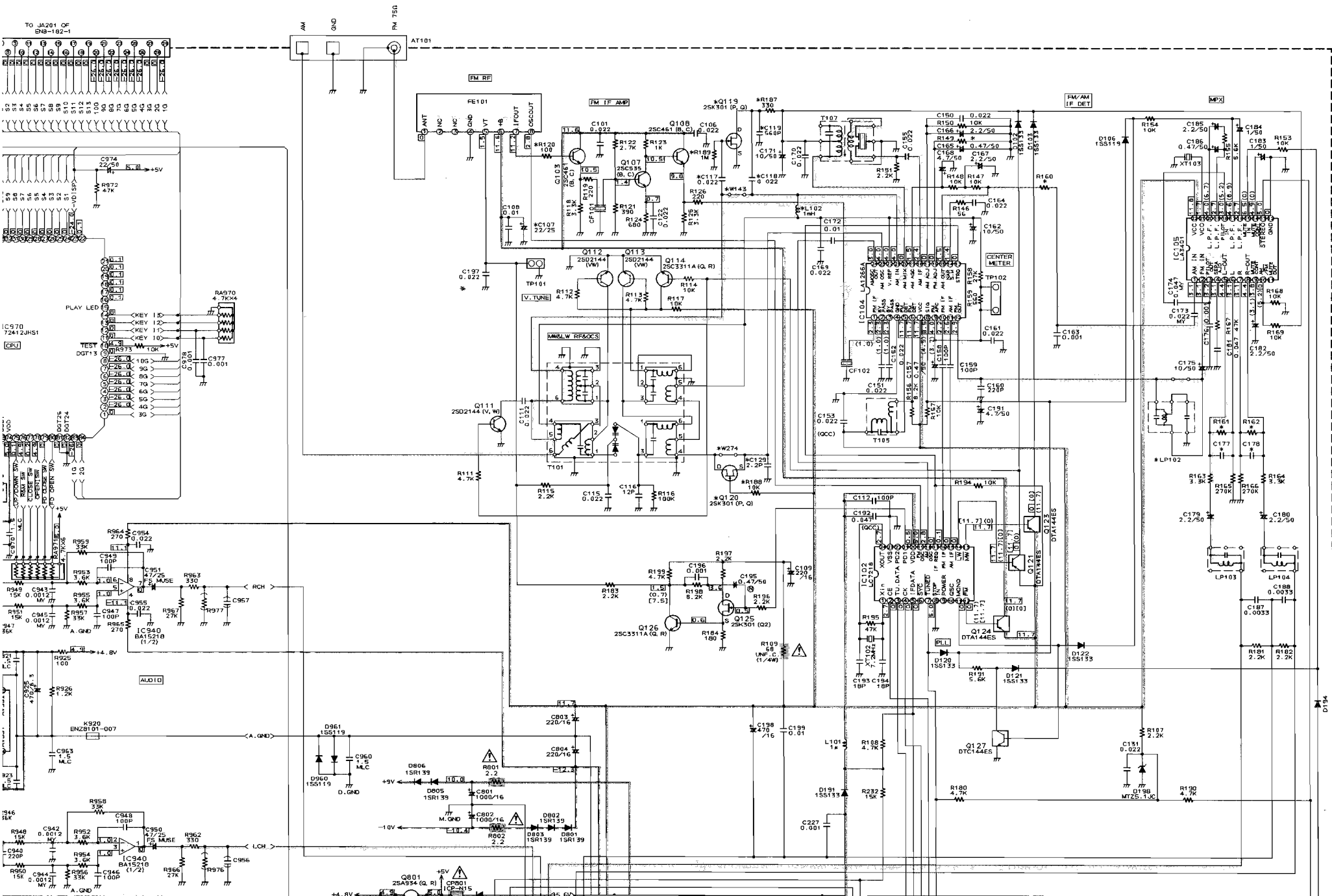
■ Tuner Section

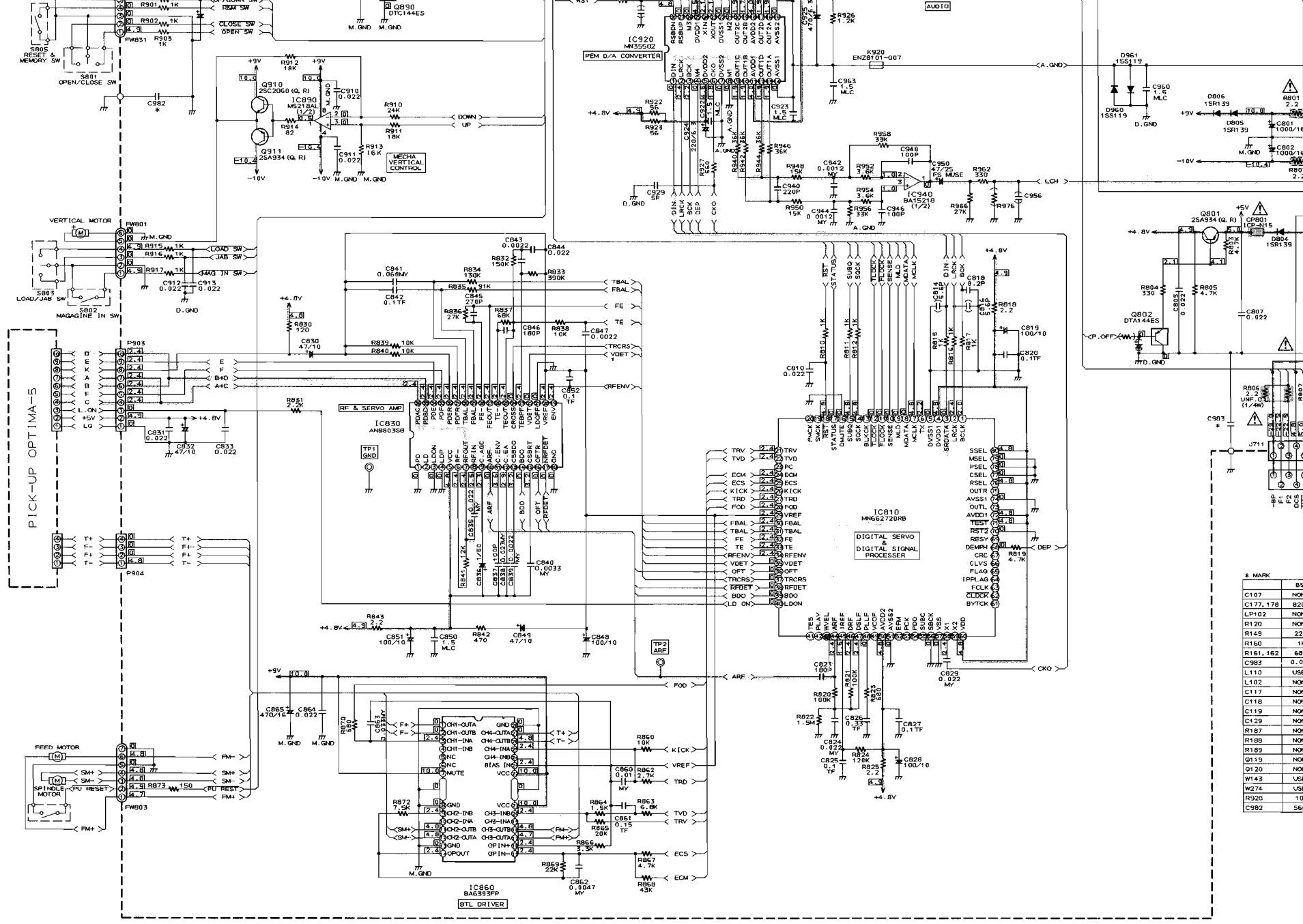


Schematic Diagram

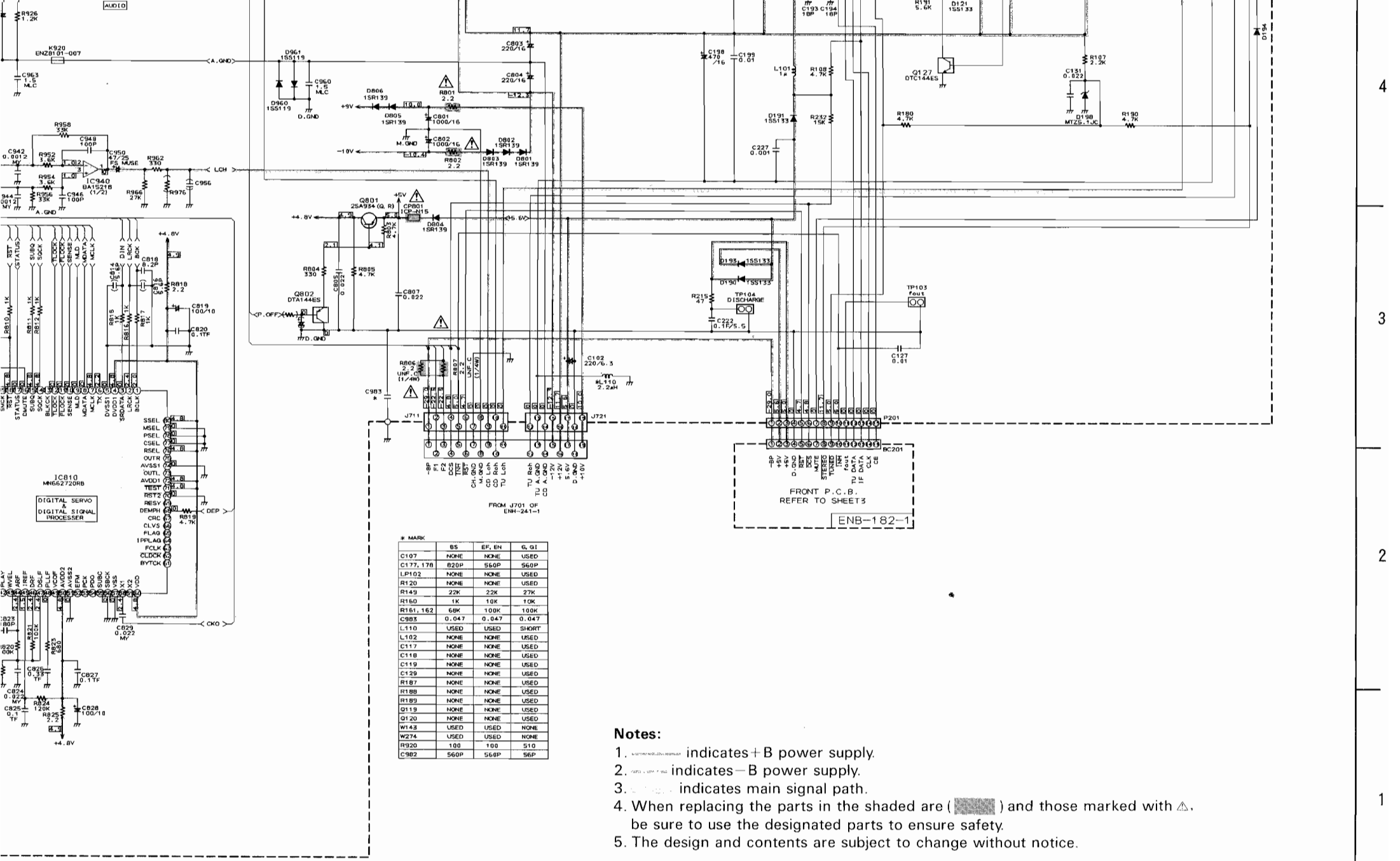
(1) CD&Tuner Section (only for BS,EF,EN,G,GI,)

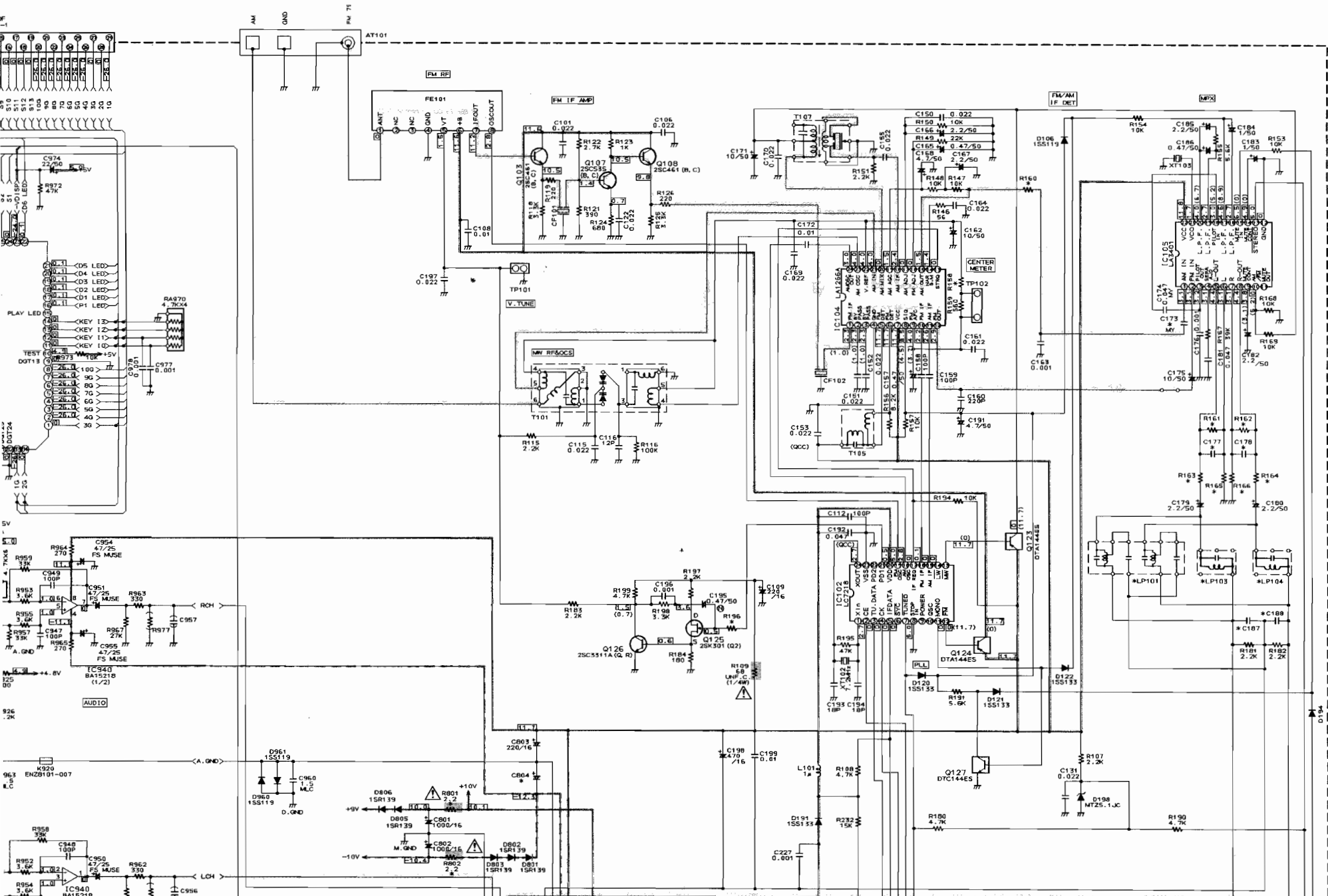


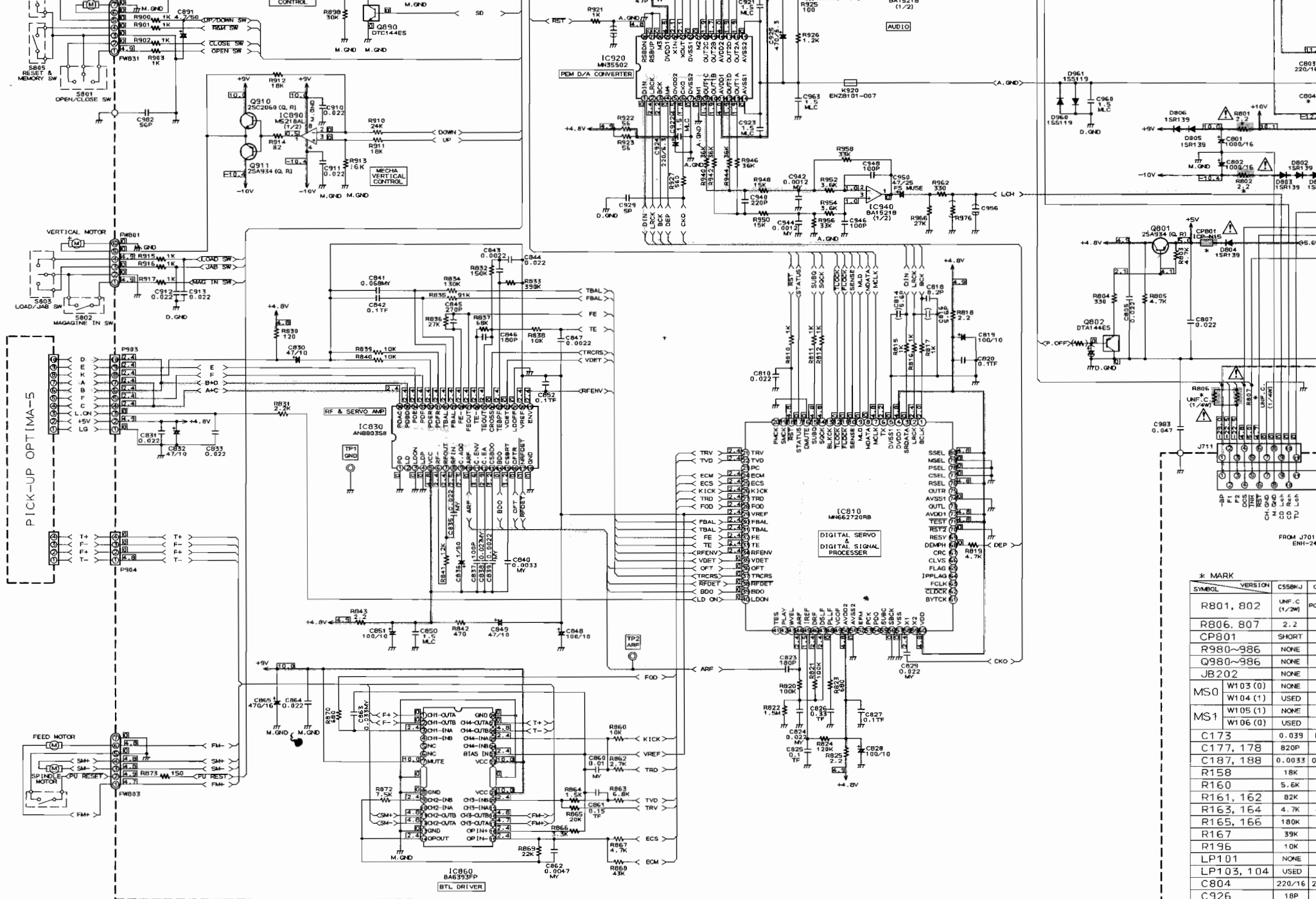




#	MARK	BS
C107	NONE	
C177, 178	820P	
LP102	NONE	
R120	NONE	
R149	22K	
R160	1K	
R161, 162	68K	
C983	0.047	
L110	USED	
L102	NONE	
C117	NONE	
C118	NONE	
C119	NONE	
C129	NONE	
R187	NONE	
R188	NONE	
R189	NONE	
Q115	NONE	
Q120	NONE	
W143	USED	
W274	USED	
R920	100	
C982	560P	

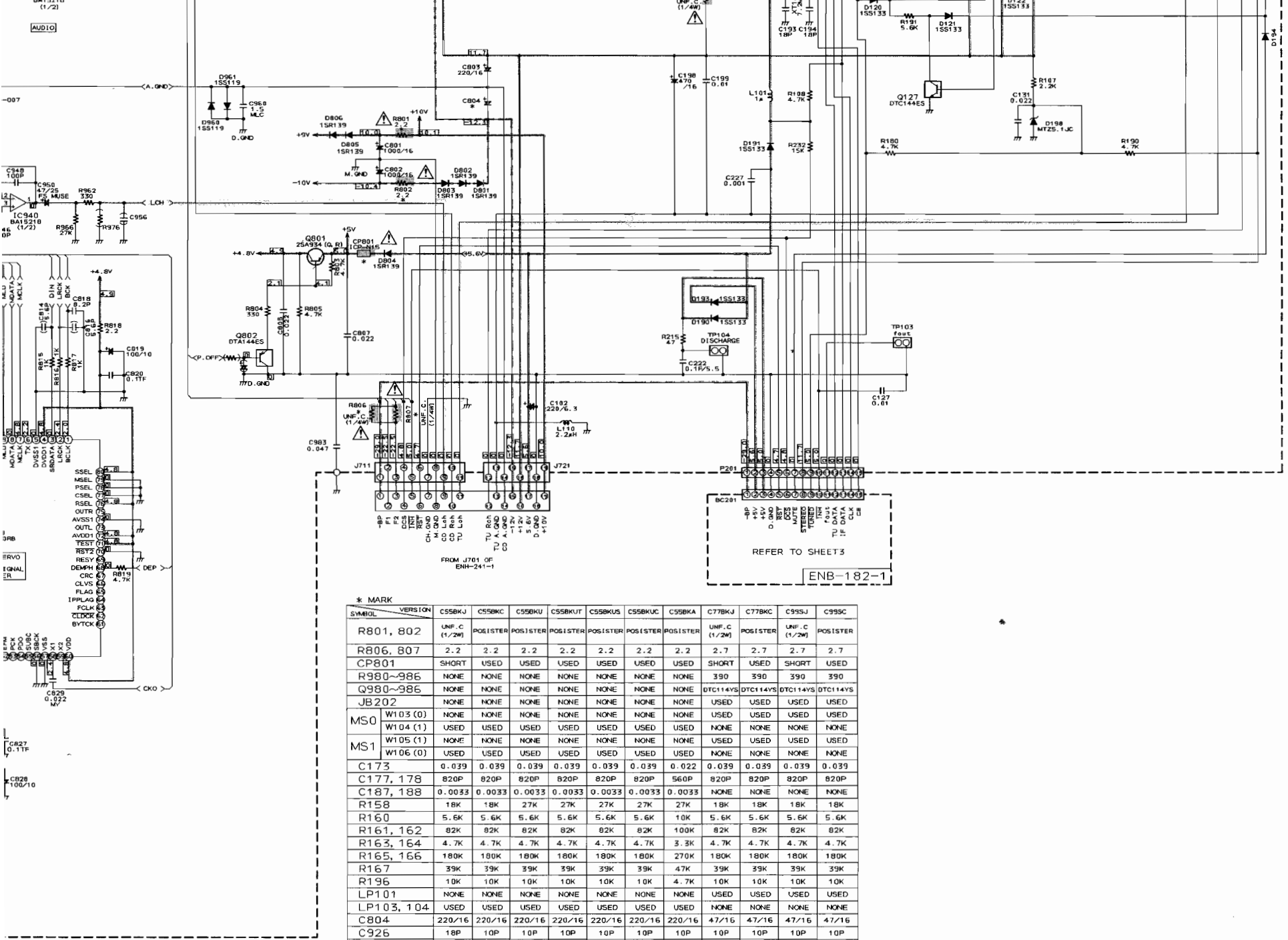






* MARK

SYMBOL	VERSION	C558KJ	C
R801, 802		UNF.C (1/2W)	PO
R806, 807	2.2		
CP801			SHORT
R980~986	NONE		
Q980~986	NONE		
JB202	NONE		
MS0	W103 (0)	NONE	
	W104 (1)	USED	
	W105 (1)	NONE	
MS1	W106 (0)	USED	
C173		0.039	0
C177, 178		820P	8
C187, 188		0.0033	0
R158		18K	
R160		5.6K	5
R161, 162		82K	
R163, 164		4.7K	4
R165, 166		180K	
R167		39K	
R196		10K	
LP101		NONE	
LP103, 104		USED	
C804		220/16	2
C926		18P	
C927		18P	
XT940		KL	



* MARK

SYMBOL	VERSION	C55BKJ	C55BKC	C55BKU	C55BKUT	C55BKUS	C55BKUC	C55BKA	C77BKJ	C77BKC	C95SJ	C95SC
R801, 802	UNF.C (1/2W)	POSTER	POSTER	POSTER	POSTER	POSTER	POSTER	POSTER	UNF.C (1/2W)	POSTER	UNF.C (1/2W)	POSTER
R806, 807	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.7	2.7	2.7	2.7	2.7
CP801	SHORT	USED	USED	USED	USED	USED	USED	SHORT	USED	USED	USED	USED
R980~986	NONE	NONE	NONE	NONE	NONE	NONE	NONE	390	390	390	390	390
Q980~986	NONE	NONE	NONE	NONE	NONE	NONE	NONE	DTC114YS	DTC114YS	DTC114YS	DTC114YS	DTC114YS
JB202	NONE	NONE	NONE	NONE	NONE	NONE	NONE	USED	USED	USED	USED	USED
MS0	W103 (0)	NONE	NONE	NONE	NONE	NONE	NONE	USED	USED	USED	USED	USED
	W104 (1)	USED	USED	USED	USED	USED	USED	NONE	NONE	NONE	NONE	NONE
	W105 (1)	NONE	NONE	NONE	NONE	NONE	NONE	USED	USED	USED	USED	USED
MS1	W106 (0)	USED	USED	USED	USED	USED	USED	NONE	NONE	NONE	NONE	NONE
	W106 (0)	USED	USED	USED	USED	USED	USED	NONE	NONE	NONE	NONE	NONE
C173	0.039	0.039	0.039	0.039	0.039	0.039	0.022	0.039	0.039	0.039	0.039	0.039
C177, 178	820P	820P	820P	820P	820P	820P	560P	820P	820P	820P	820P	820P
C187, 188	0.0033	0.0033	0.0033	0.0033	0.0033	0.0033	0.0033	NONE	NONE	NONE	NONE	NONE
R158	18K	18K	27K	27K	27K	27K	27K	18K	18K	18K	18K	18K
R160	5.6K	5.6K	5.6K	5.6K	5.6K	5.6K	10K	5.6K	5.6K	5.6K	5.6K	5.6K
R161, 162	82K	82K	82K	82K	82K	82K	100K	82K	82K	82K	82K	82K
R163, 164	4.7K	4.7K	4.7K	4.7K	4.7K	4.7K	3.3K	4.7K	4.7K	4.7K	4.7K	4.7K
R165, 166	180K	180K	180K	180K	180K	180K	270K	180K	180K	180K	180K	180K
R167	39K	39K	39K	39K	39K	39K	47K	39K	39K	39K	39K	39K
R196	10K	10K	10K	10K	10K	10K	4.7K	10K	10K	10K	10K	10K
LP101	NONE	NONE	NONE	NONE	NONE	NONE	NONE	USED	USED	USED	USED	USED
LP103, 104	USED	USED	USED	USED	USED	USED	USED	NONE	NONE	NONE	NONE	NONE
C804	220/16	220/16	220/16	220/16	220/16	220/16	220/16	47/16	47/16	47/16	47/16	47/16
C926	18P	10P	10P	10P	10P	10P	10P	10P	10P	10P	10P	10P
C927	18P	12P	12P	12P	12P	12P	12P	12P	12P	12P	12P	12P
XT940	KL	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA

E

F

G

H

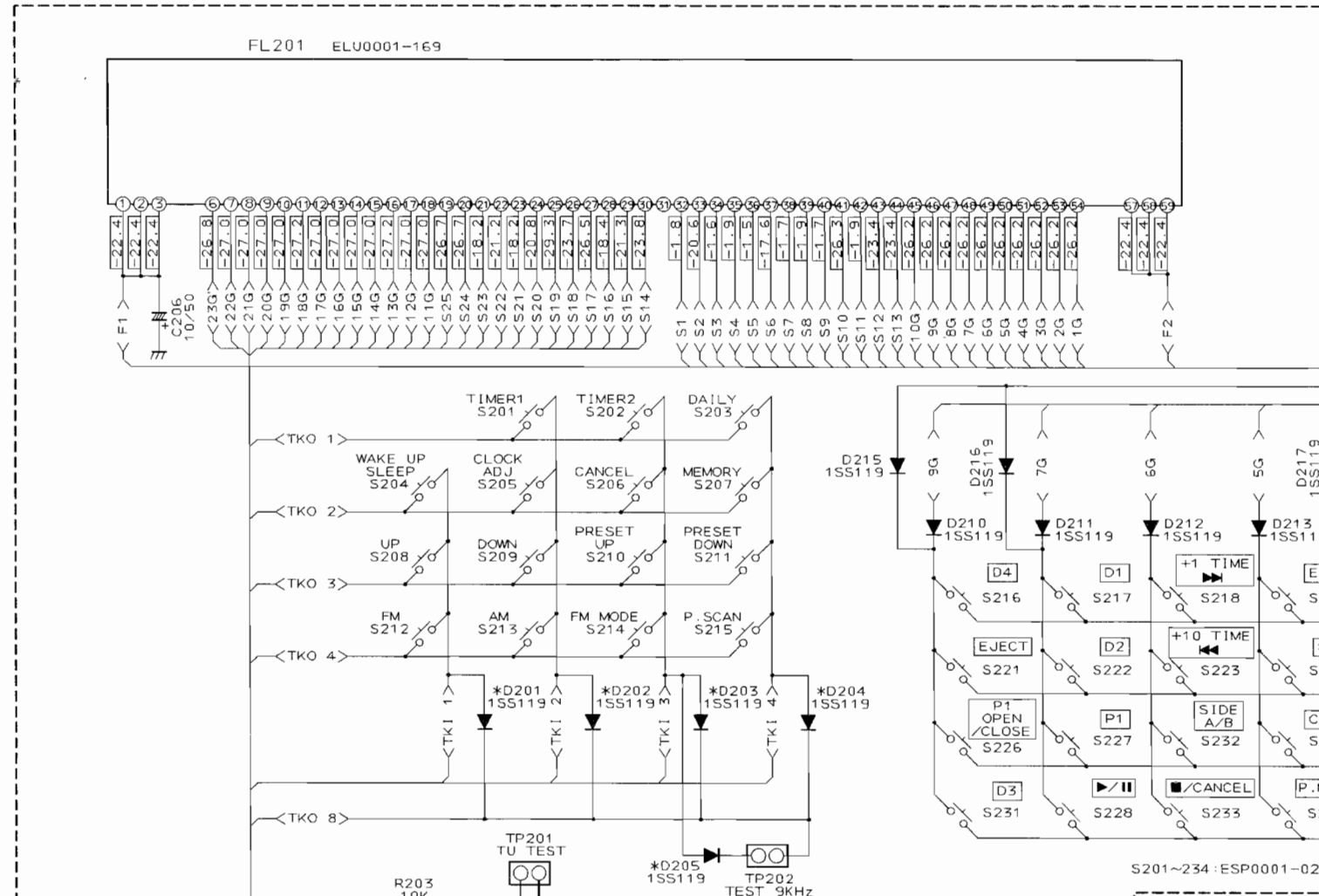
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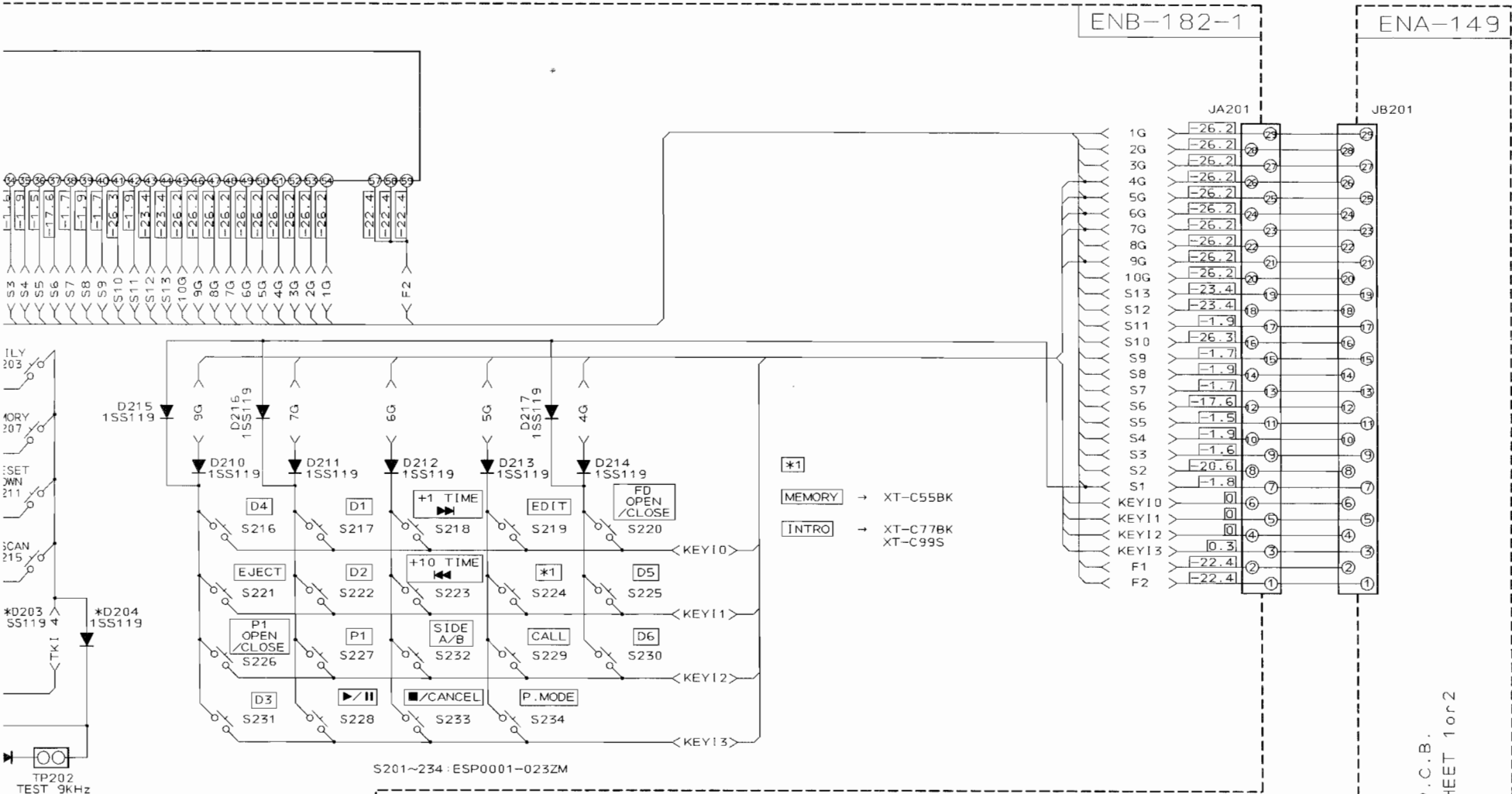
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(3) System Control & Front Section

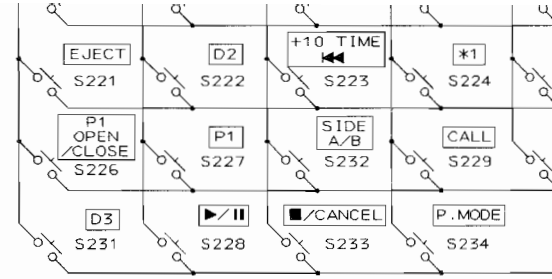
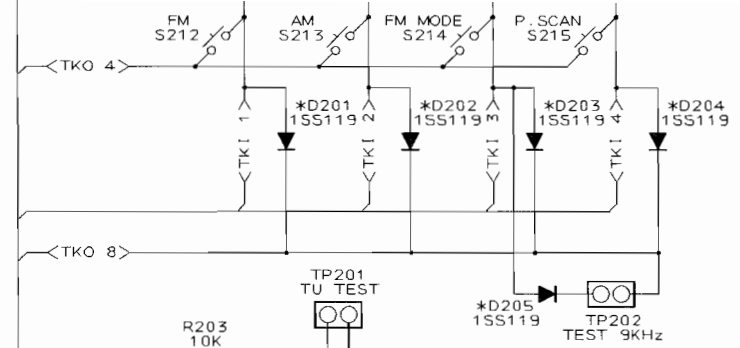
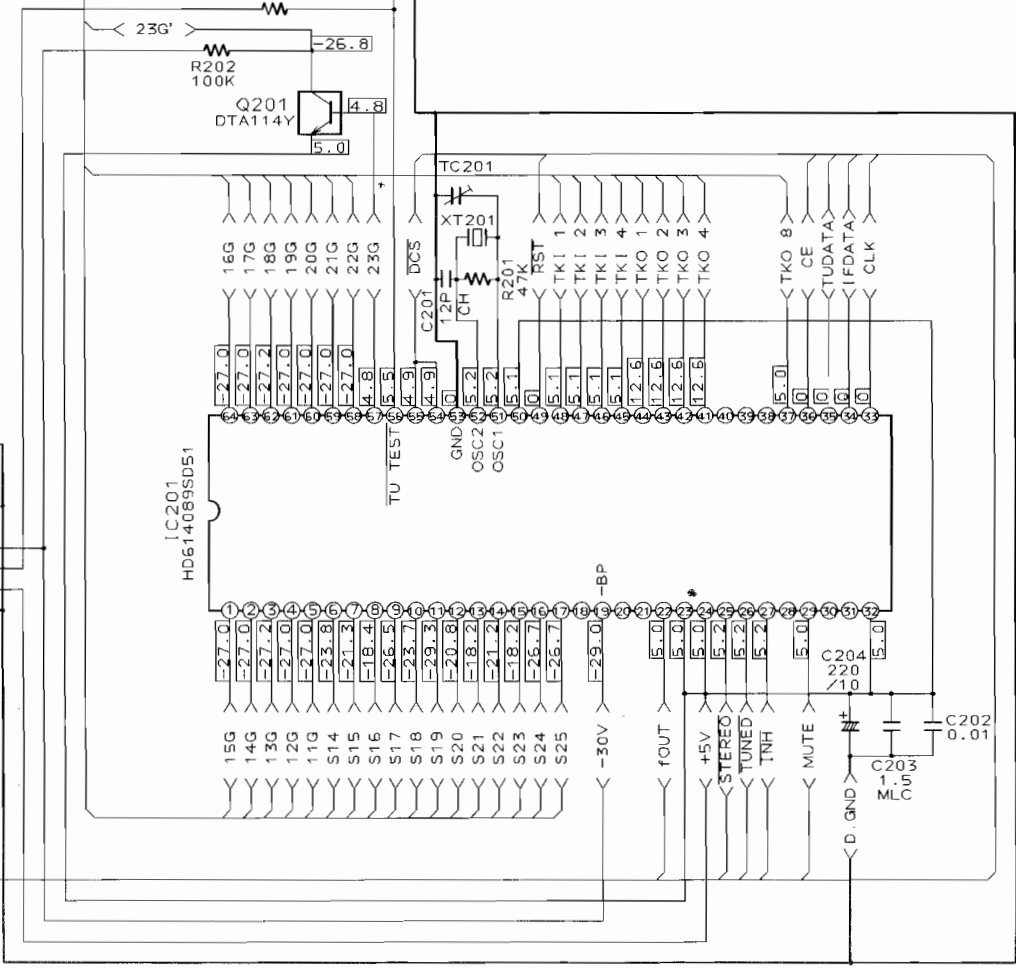
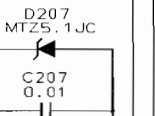
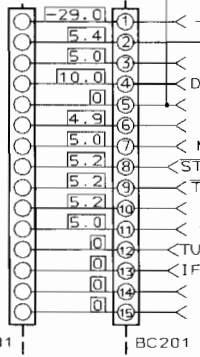
*MARK

	J	C	U	E	A	BS	G	GI
D201	NONE	NONE	USED	NONE	NONE	NONE	NONE	NONE
D202	USED	USED	NONE	NONE	NONE	NONE	NONE	NONE
D203	NONE	NONE	USED	NONE	USED	NONE	NONE	NONE
D204	USED	USED	NONE	NONE	NONE	NONE	NONE	USED
D205	USED	USED	NONE	NONE	NONE	NONE	NONE	NONE



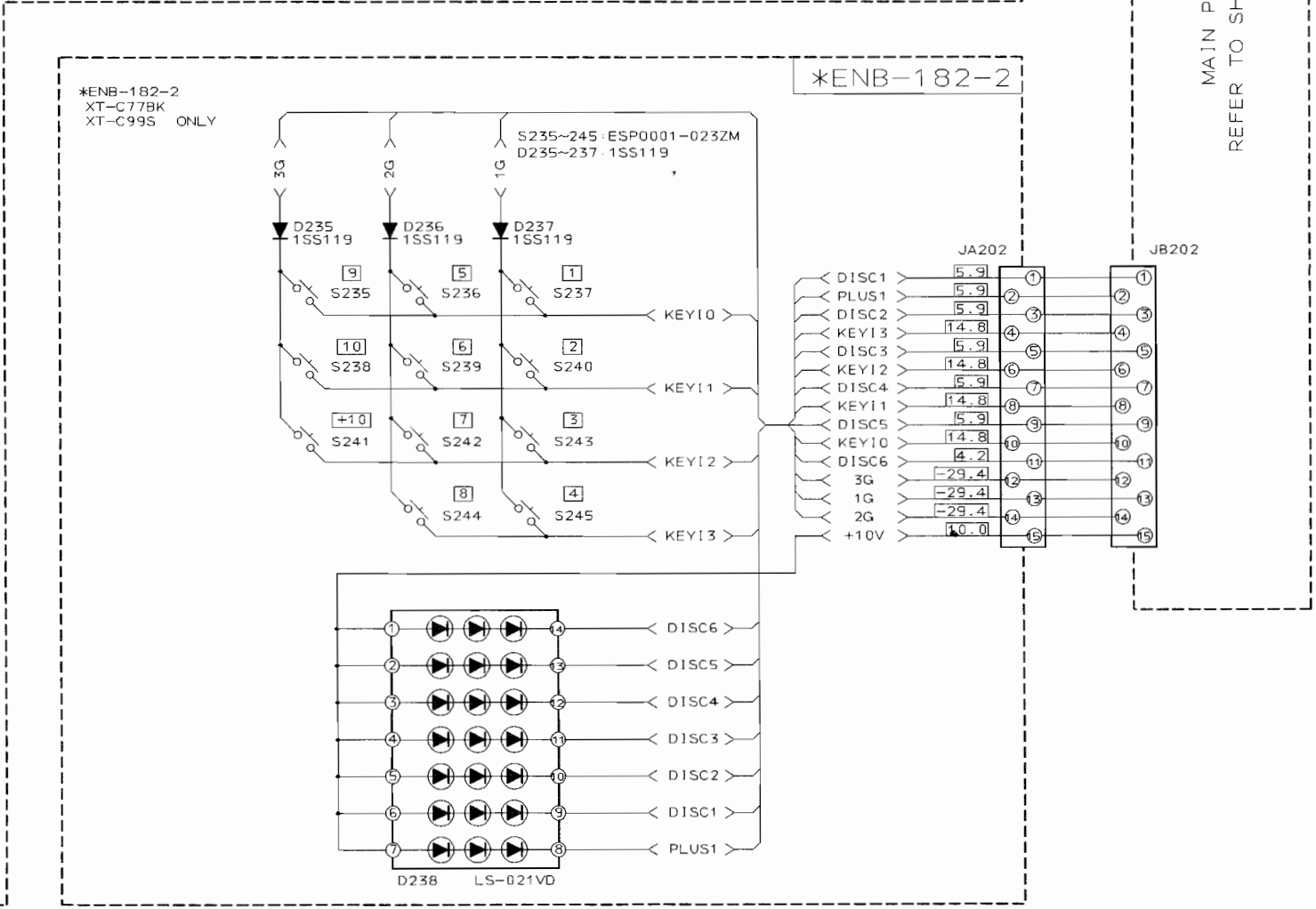
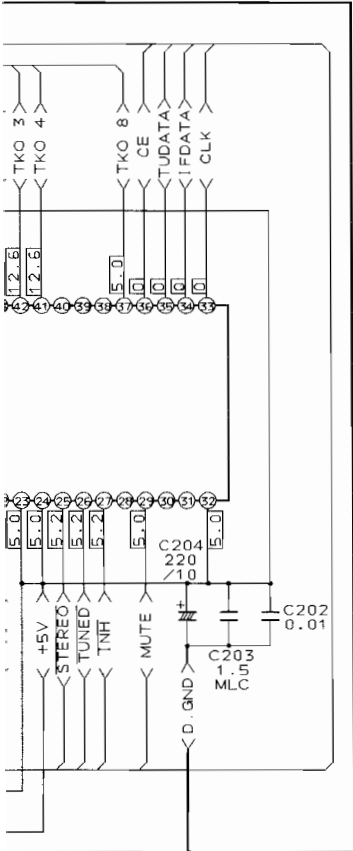
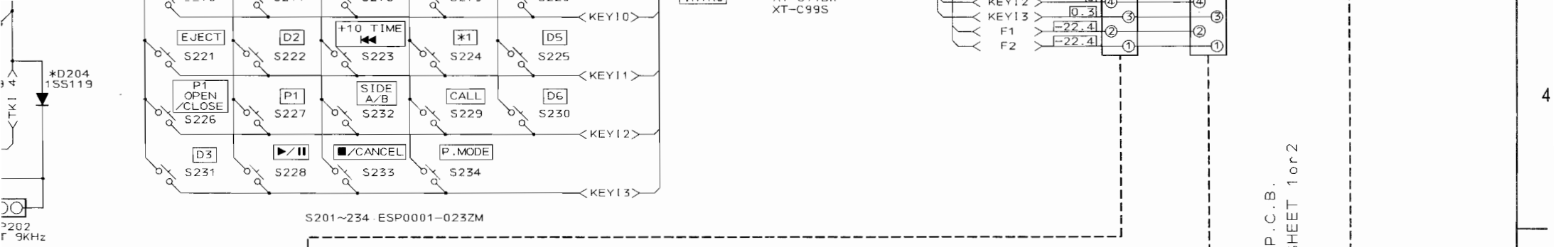


ENA-149
 MAIN P.C.B.
 REFER TO SHEET 1or2
 J201



S201~234:ESP0001-023ZM

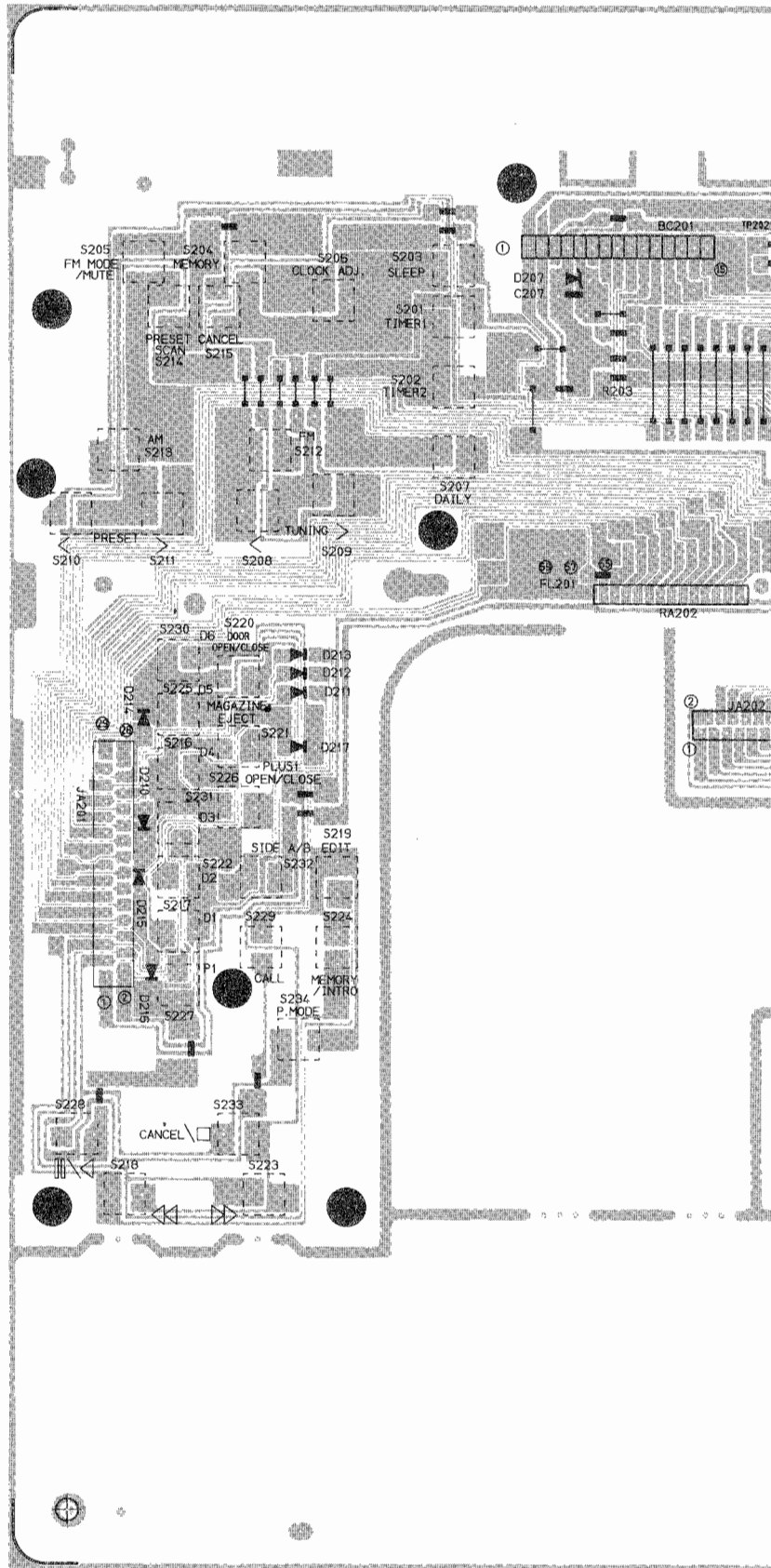
*ENB-182-2
 XT-C77BK
 XT-C995 ONLY

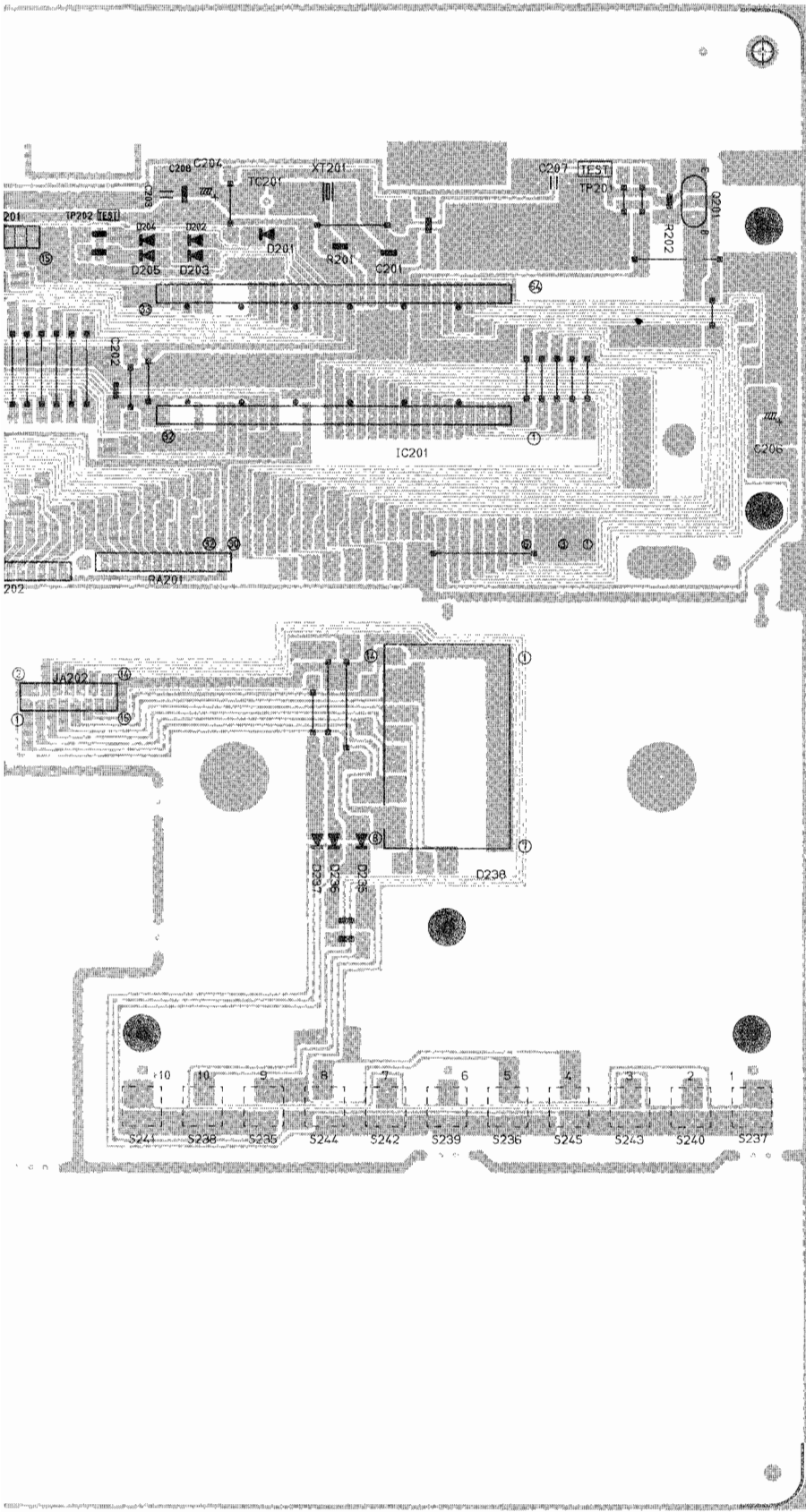


MAIN P.C.B.
 REFER TO SHEET 1or2

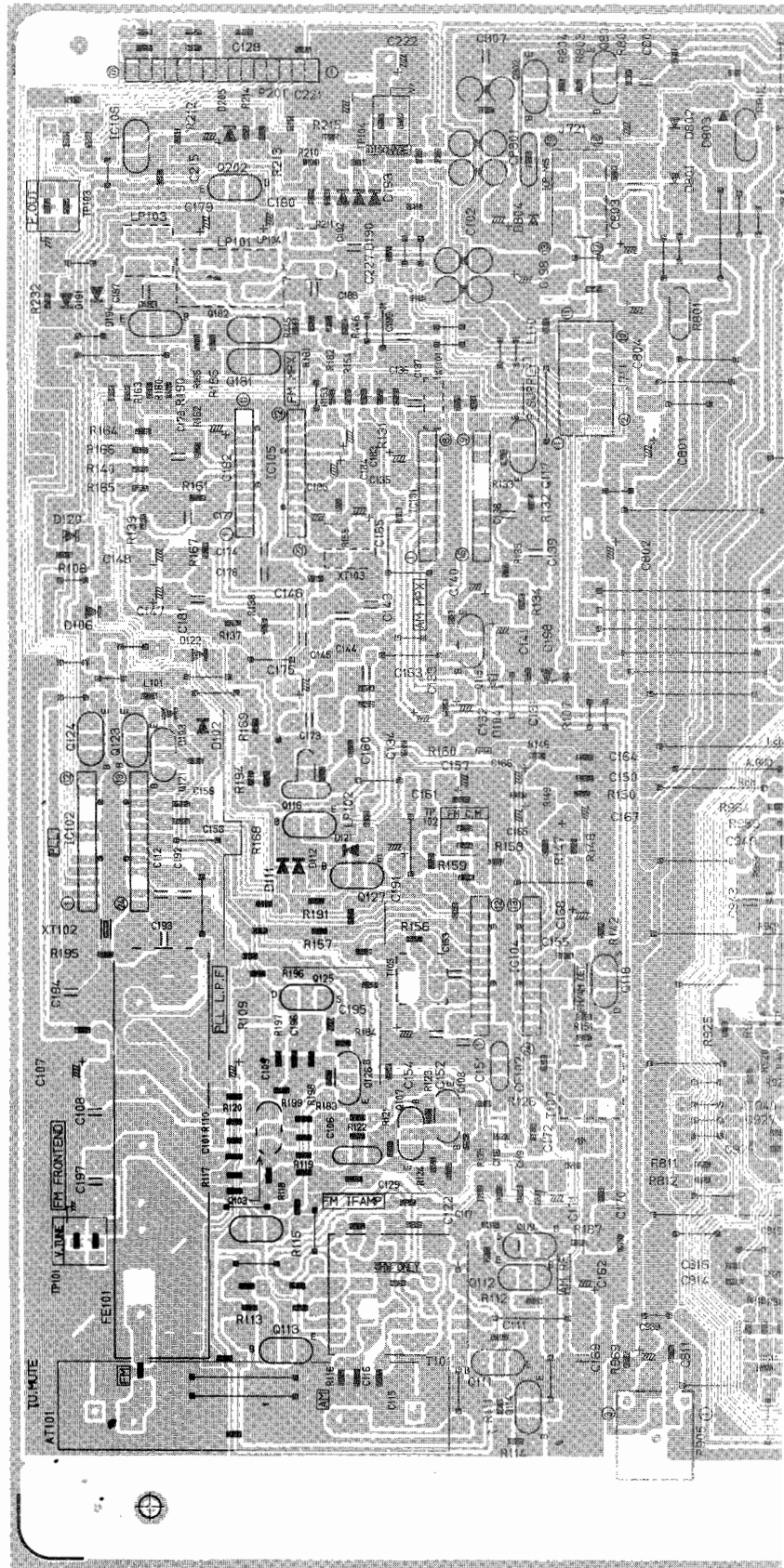
Printed Circuit Board

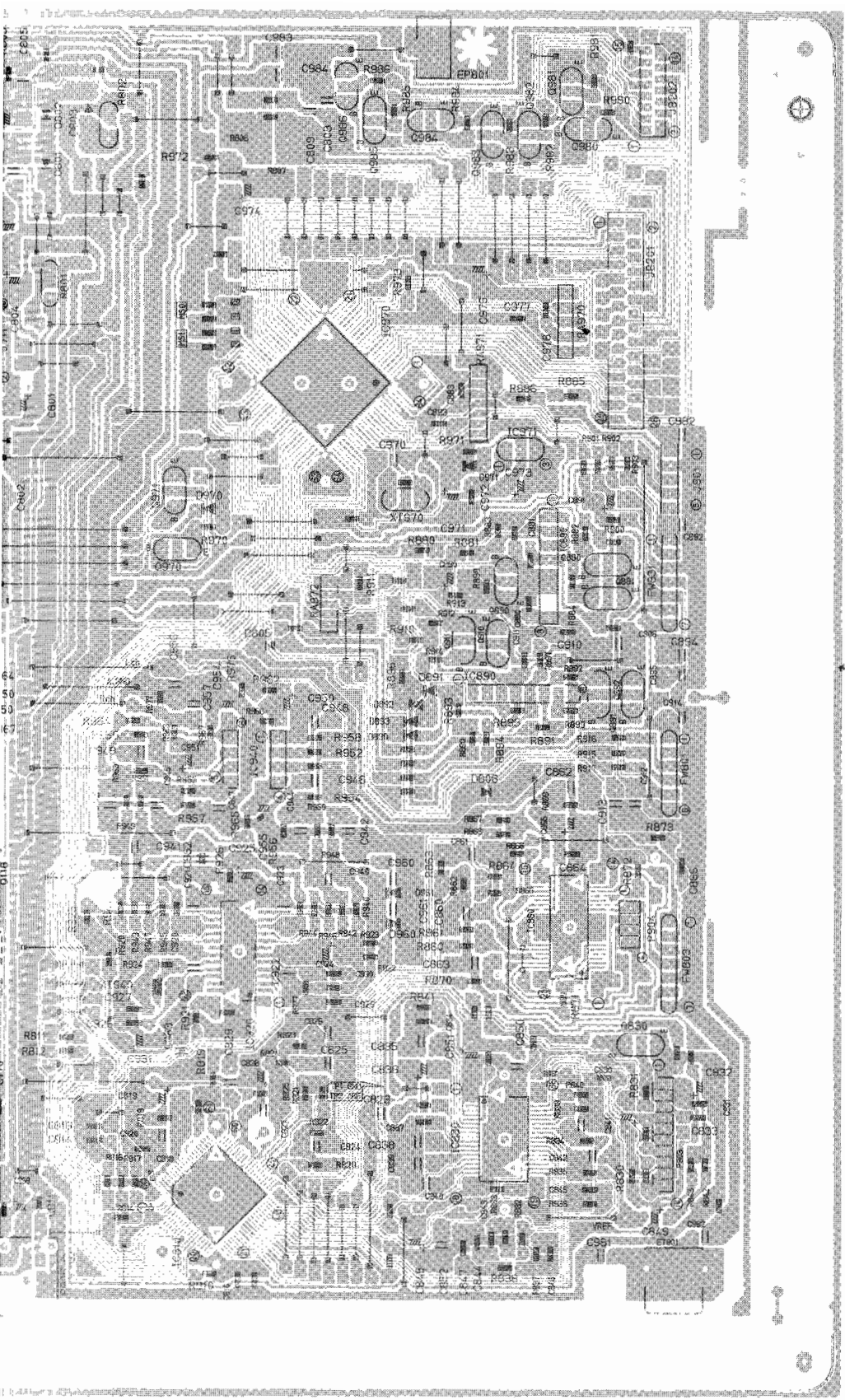
■ System Controller & Front P.C. Board (ENB-182)





CD&Tuner P.C.Board (ENA-149)





DX-C55BK

< PARTS LIST >

Note : All printed circuit boards and its assemblies are not available as service parts.

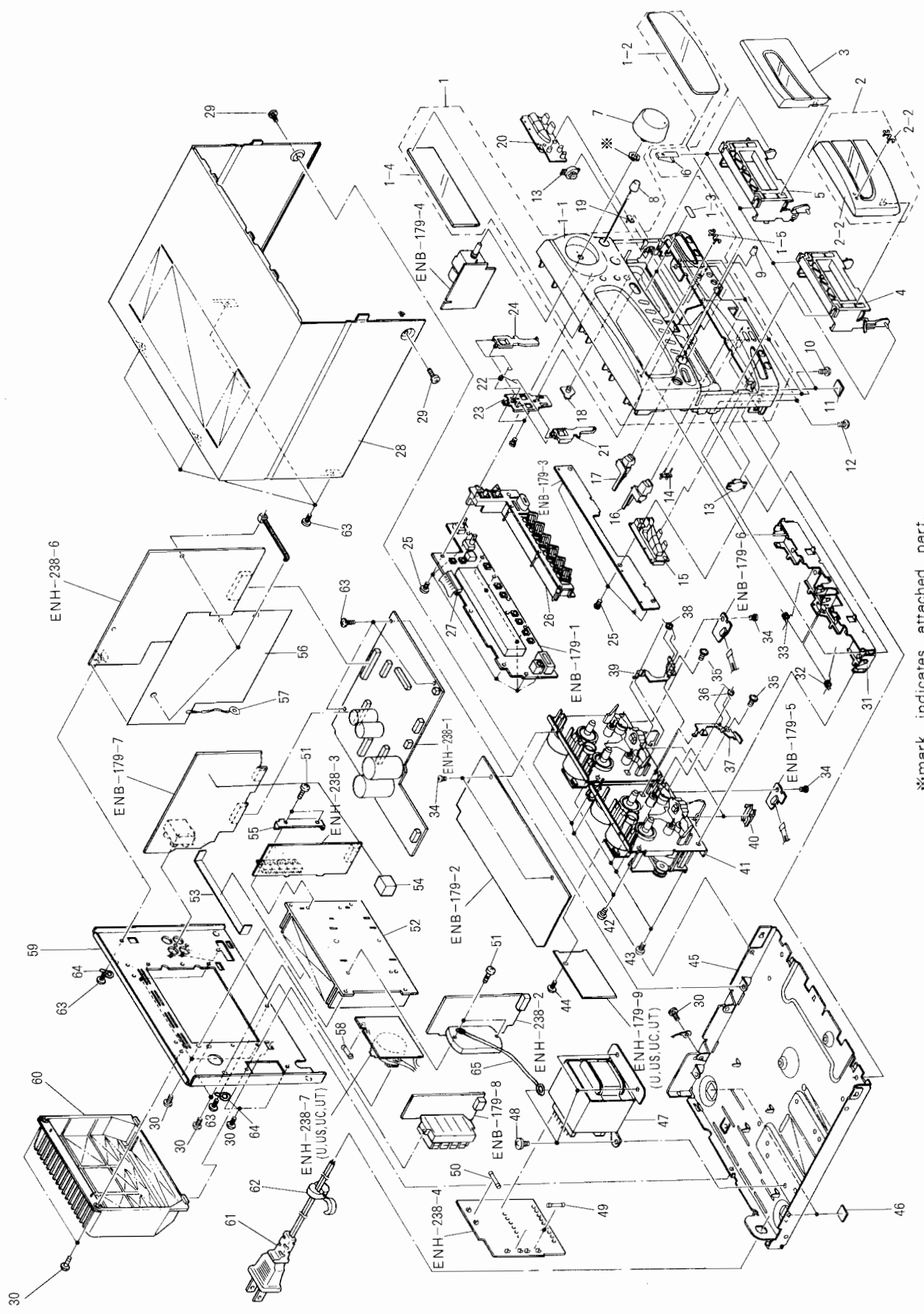
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General Exploded View and Parts List

Symbol No.

M	1	M	M
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※mark indicates attached part.

Symbol No.

M	1	M	M
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Parts List

Item	Part Number	Part Name	Q'ty	Description	Areas
1	EFP-DXC55BKU (S)	FRONT PANEL ASSY	1		U
	EFP-DXC55BKU (S)	FRONT PANEL ASSY	1		UC
	EFP-DXC55BKU (S)	FRONT PANEL ASSY	1		US
	EFP-DXC55BKU (S)	FRONT PANEL ASSY	1		UT
	EFP-DXC55BKE (S)	FRONT PANEL ASSY	1		A
	EFP-DXC55BKE (S)	FRONT PANEL ASSY	1		BS
	EFP-DXC55BKE (S)	FRONT PANEL ASSY	1		C
	EFP-DXC55BKE (S)	FRONT PANEL ASSY	1		EF
	EFP-DXC55BKE (S)	FRONT PANEL ASSY	1		EN
	EFP-DXC55BKE (S)	FRONT PANEL ASSY	1		G
1-1	EFP-DXC55BKE (S)	FRONT PANEL ASSY	1		GI
	EFP-DXC55BKJ (S)	FRONT PANEL ASSY	1		J
	E102808-003SM	FRONT PANEL	1		U
	E102808-003SM	FRONT PANEL	1		UC
	E102808-003SM	FRONT PANEL	1		US
	E102808-003SM	FRONT PANEL	1		UT
	E102808-004SM	FRONT PANEL	1		A
	E102808-004SM	FRONT PANEL	1		BS
	E102808-004SM	FRONT PANEL	1		C
	E102808-004SM	FRONT PANEL	1		EF
1-2	E102808-004SM	FRONT PANEL	1		EN
	E102808-004SM	FRONT PANEL	1		G
	E102808-004SM	FRONT PANEL	1		GI
	E102808-004SM	FRONT PANEL	1		J
	E208055-001	WINDOW SCREEN	1		A
	E208055-001	WINDOW SCREEN	1		BS
	E208055-001	WINDOW SCREEN	1		C
	E208055-001	WINDOW SCREEN	1		EF
	E208055-001	WINDOW SCREEN	1		EN
	E208055-001	WINDOW SCREEN	1		G
	E208055-001	WINDOW SCREEN	1		GI
	E208055-001	WINDOW SCREEN	1		U
	E208055-001	WINDOW SCREEN	1		UC
	E208055-001	WINDOW SCREEN	1		US
	E208055-001	WINDOW SCREEN	1		UT
1-3	E208055-002SM	WINDOW SCREEN	1		J
	E69777-003	REFLECTION PLATE	2		
	E70561-038	FL SCREEN	1		J
	E406971-221	JVC MARK	1		
	E208049-003SA	CASSETTE LID ASSY	1	DECK A	
2-1	E208049-003SM	CASSETTE LID	1	DECK A	
	E406971-221	JVC MARK	1	DECK A	
	E208052-002	CASSETTE LID ASSY	1	DECK B	
	E207972-002	CASSETTE HOLDER	1	DECK A	
	E207973-002	CASSETTE HOLDER	1	DECK B	
6	E406713-001	CASSETTE SPRING	4		
	E308673-002	VOLUME KNOB ASSY	1		
	E75737-013	KNOB	1		
	E407233-003	KNOB	1		U
	E407233-003	KNOB	1		UC
10	E407233-003	KNOB	1		US
	E407233-003	KNOB	1		UT
11	SBST3006CC	SCREW	4		
12	E75896-001	SPACER	2	FRONT FOOT	
	SBST3008CC	SCREW	2		

⚠	Item	Part Number	Part Name	Q'ty	Description	Areas
	13	E304434-005	DAMPER ASSY	2		
	14	E407960-001	INDICATOR	1		
	15	E208043-002SS	PUSH BUTTON ASSY	1		
	16	E308817-001	EJECT BUTTON	1	DECK A	
	17	E308818-001	EJECT BUTTON	1	DECK B	
	18	E407431-001SM	REMOTE LENS	1		
	19	E407961-001	INDICATOR	1		
	20	E208046-002SS	PUSH BUTTON ASSY	1		
	21	E308681-001	EJECT LEVER	1	DECK A	
	22	E407798-002	SPRING	1		
	23	E308683-002	EJECT GUIDE	1		
	24	E308682-001	EJECT LEVER	1	DECK B	
	25	SDSF2608Z	SCREW	11		
	26	E208041-001	PUSH BUTTON ASSY	1		
	27	EW121K-27TT	FLAT WIRE	1	FC901	
	28	E208069-002 (S)	METAL COVER	1		
	29	SDSG3006M	SCREW	2		
	30	E73273-003	SPECIAL SCREW	8		U
		E73273-003	SPECIAL SCREW	2		UC
		E73273-003	SPECIAL SCREW	2		
		E73273-003	SPECIAL SCREW	2		US
	31	E207974-003SS	HOLDER BRACKET	1		UT
	32	E408058-001	HOLDER SPRING	1	DECK A	
	33	E408122-001	HOLDER SPRING	1	DECK B	
	34	SPST2604Z	SCREW	4		
	35	SBSF3006Z	SCREW	2		
	36	E407801-002	SPRING	1	DECK A	
	37	E407799-001	EJECT SAFTY	1	DECK A	
	38	E407802-002	SPRING	1	DECK B	
	39	E407800-001	EJECT SAFTY	1	DECK B	
	40	VKS3655-002	HOLDER	2		
	41	-----	CASSETTE MECHANISM ASSY	1	SEE PAGE 4-7	
	42	SBST3006C	SCREW	4		
	43	SBSF3008C	SCREW	4		
	44	SBSG3006N	SCREW	1		U
		SBSG3006N	SCREW	1		UC
		SBSG3006N	SCREW	1		US
		SBSG3006N	SCREW	1		UT
	45	E102616-004SS	CHASSIS BASE	1		
	46	E75896-006	FELT SPACER	2	REAR FOOT	
⚠	47	ETP1070-35EA	POWER TRANSFORMER	1	T001	A
⚠		ETP1070-35EA	POWER TRANSFORMER	1	T001	EF
⚠		ETP1070-35EA	POWER TRANSFORMER	1	T001	EN
⚠		ETP1070-35EA	POWER TRANSFORMER	1	T001	G
⚠		ETP1070-35EA	POWER TRANSFORMER	1	T001	GI
⚠		ETP1070-35EABS	POWER TRANSFORMER	1	T001	BS
⚠		ETP1070-35JAJ	POWER TRANSFORMER	1	T001	C
⚠		ETP1070-35JAJ	POWER TRANSFORMER	1	T001	J
⚠		ETP1070-35FA	POWER TRANSFORMER	1	T001	U
⚠		ETP1070-35FA	POWER TRANSFORMER	1	T001	UC
⚠		ETP1070-35FA	POWER TRANSFORMER	1	T001	US
⚠		ETP1070-35FA	POWER TRANSFORMER	1	T001	UT
	48	E65389-002	SPECIAL SCREW	4		
⚠	49	QMF0007-1R25J1	FUSE	2	F101 , F102 (1.25A / 125V)	J

⚠	Item	Part Number	Part Name	Q'ty	Description	Areas
⚠		QMF0007-1R25J1	FUSE	2	F101 , F102 (1.25A / 125V)	C
⚠		QMF51E2-1R2J1BS	FUSE	2	F101 , F102 (T1.25A / 250V)	BS
⚠		QMF51E2-1R25	FUSE	2	F101 , F102 (T1.25A / 250V)	A
⚠		QMF51E2-1R25	FUSE	2	F101 , F102 (T1.25A / 250V)	EF
⚠		QMF51E2-1R25	FUSE	2	F101 , F102 (T1.25A / 250V)	EN
⚠		QMF51E2-1R25	FUSE	2	F101 , F102 (T1.25A / 250V)	G
⚠		QMF51E2-1R25	FUSE	2	F101 , F102 (T1.25A / 250V)	GI
⚠		QMF51E2-1R25	FUSE	2	F101 , F102 (T1.25A / 250V)	U
⚠		QMF51E2-1R25	FUSE	2	F101 , F102 (T1.25A / 250V)	UC
⚠		QMF51E2-1R25	FUSE	2	F101 , F102 (T1.25A / 250V)	US
⚠	50	QMF51E2-1R25	FUSE	2	F101 , F102 (T1.25A / 250V)	UT
⚠		QMF0007-2R0J1	FUSE	1	F001 (2A / 125V)	J
⚠		QMF0007-2R0J1	FUSE	1	F001 (2A / 125V)	C
⚠		QMF51E2-R80SBS	FUSE	1	F001 (T800mA / 250V)	BS
⚠		QMF51E2-R80J1	FUSE	1	F001 (T800mA / 250V)	A
⚠		QMF51E2-R80J1	FUSE	1	F001 (T800mA / 250V)	EF
⚠		QMF51E2-R80J1	FUSE	1	F001 (T800mA / 250V)	EN
⚠		QMF51E2-R80J1	FUSE	1	F001 (T800mA / 250V)	G
⚠		QMF51E2-R80J1	FUSE	1	F001 (T800mA / 250V)	GI
⚠		QMF51E2-1R6J1	FUSE	1	F001 (T1.6A / 250V)	U
⚠	51	QMF51E2-1R6J1	FUSE	1	F001 (T1.6A / 250V)	UC
⚠		QMF51E2-1R6J1	FUSE	1	F001 (T1.6A / 250V)	US
⚠		QMF51E2-1R6J1	FUSE	1	F001 (T1.6A / 250V)	UT
	52	SBSG3014CC	SCREW	4		
	52	E308819-001	HEAT SINK	1		
	53	EXO150010H09S11	FELT SPACER	1		
	54	E306805-126SM	SPACER	1		
	55	E406969-001SM	LEAF SPRING	1		
	56	E308948-001	SHIELD PLATE	1	SP001	
	57	EWT021-019	TERMINAL WIRE	1		
⚠	58	QMF51E2-R80J1	FUSE	1	F002 (T800mA / 250V)	U
⚠		QMF51E2-R80J1	FUSE	1	F002 (T800mA / 250V)	UC
⚠		QMF51E2-R80J1	FUSE	1	F002 (T800mA / 250V)	US
⚠		QMF51E2-R80J1	FUSE	1	F002 (T800mA / 250V)	UT
	59	E208057-004SM	REAR PANEL	1		UC
		E208057-011SM	REAR PANEL	1		US
		E208057-011SM	REAR PANEL	1		UT
		E208057-011SM	REAR PANEL	1		U
		E208057-012SM	REAR PANEL	1	MADE IN JAPAN	J
		E208057-005SM	REAR PANEL	1	MADE IN MALAYSIA	J
		E208057-013SM	REAR PANEL	1		C
		E208057-014SM	REAR PANEL	1		EF
		E208057-014SM	REAR PANEL	1		EN
		E208057-015SM	REAR PANEL	1		A
		E208057-015SM	REAR PANEL	1		BS
	60	E208057-016SM	REAR PANEL	1		G
		E208057-016SM	REAR PANEL	1		GI
		E207356-001SM	REAR COVER	1		A
		E207356-001SM	REAR COVER	1		BS
		E207356-001SM	REAR COVER	1		C
		E207356-001SM	REAR COVER	1		EF
		E207356-001SM	REAR COVER	1		EN
		E207356-001SM	REAR COVER	1		G
		E207356-001SM	REAR COVER	1		GI
		E207356-001SM	REAR COVER	1		U

⚠	Item	Part Number	Part Name	Q'ty	Description	Areas
		E207356-001SM	REAR COVER	1		UC
		E207356-001SM	REAR COVER	1		US
		E207356-001SM	REAR COVER	1		UT
		E207356-002SM	REAR COVER	1		J
⚠	61	QMP25F0-244	POWER CORD	1		A
⚠		QMP5530-0085BS	POWER CORD	1		BS
⚠		QMP1D00-200H	POWER CORD	1		J
⚠		QMP1D00-200H	POWER CORD	1		C
⚠		QMP3900-200	POWER CORD	1		EF
⚠		QMP3900-200	POWER CORD	1		EN
⚠		QMP3900-200	POWER CORD	1		G
⚠		QMP3900-200	POWER CORD	1		GI
⚠		QMP3900-200	POWER CORD	1		US
⚠		QMP7520-200	POWER CORD	1		U
⚠		QMP7520-200	POWER CORD	1		UC
⚠		QMP7520-200	POWER CORD	1		UT
⚠	62	QHS3876-162BS	CORD STOPPER	1		BS
⚠		QHS3876-162	CORD STOPPER	1		A
⚠		QHS3876-162	CORD STOPPER	1		C
⚠		QHS3876-162	CORD STOPPER	1		EF
⚠		QHS3876-162	CORD STOPPER	1		EN
⚠		QHS3876-162	CORD STOPPER	1		G
⚠		QHS3876-162	CORD STOPPER	1		GI
⚠		QHS3876-162	CORD STOPPER	1		J
⚠		QHS3876-162	CORD STOPPER	1		U
⚠		QHS3876-162	CORD STOPPER	1		UC
⚠		QHS3876-162	CORD STOPPER	1		US
⚠		QHS3876-162	CORD STOPPER	1		UT
	63	SBSG3008CC	SCREW	7		
	64	52868-3	LUG	2	LU001,LU002	Except J, C
	65	EWT021-047	TERMINAL WIRE	1	TW001	C
		EWT021-047	TERMINAL WIRE	1	TW001	J
	66	SBSF2606Z	SCREW	2		
	67	SBSG3008CC	SCREW	2		Except J, C
		E73273-003	SPECIAL SCREW	2		J, C
	—	E75804-001	CAUTION LABEL	1		C
	—	E45858-002	CSA LABEL	1		C
	—	QZL1031-101	SEV LABEL	1		EF
	—	E70027-001	APPROVAL LABEL	1		EN
	—	E407619-024	FTZ LABEL	1		G
	—	E75803-001	CAUTION LABEL	1		J
	—	E308522-037	RATING LABEL	1		UT

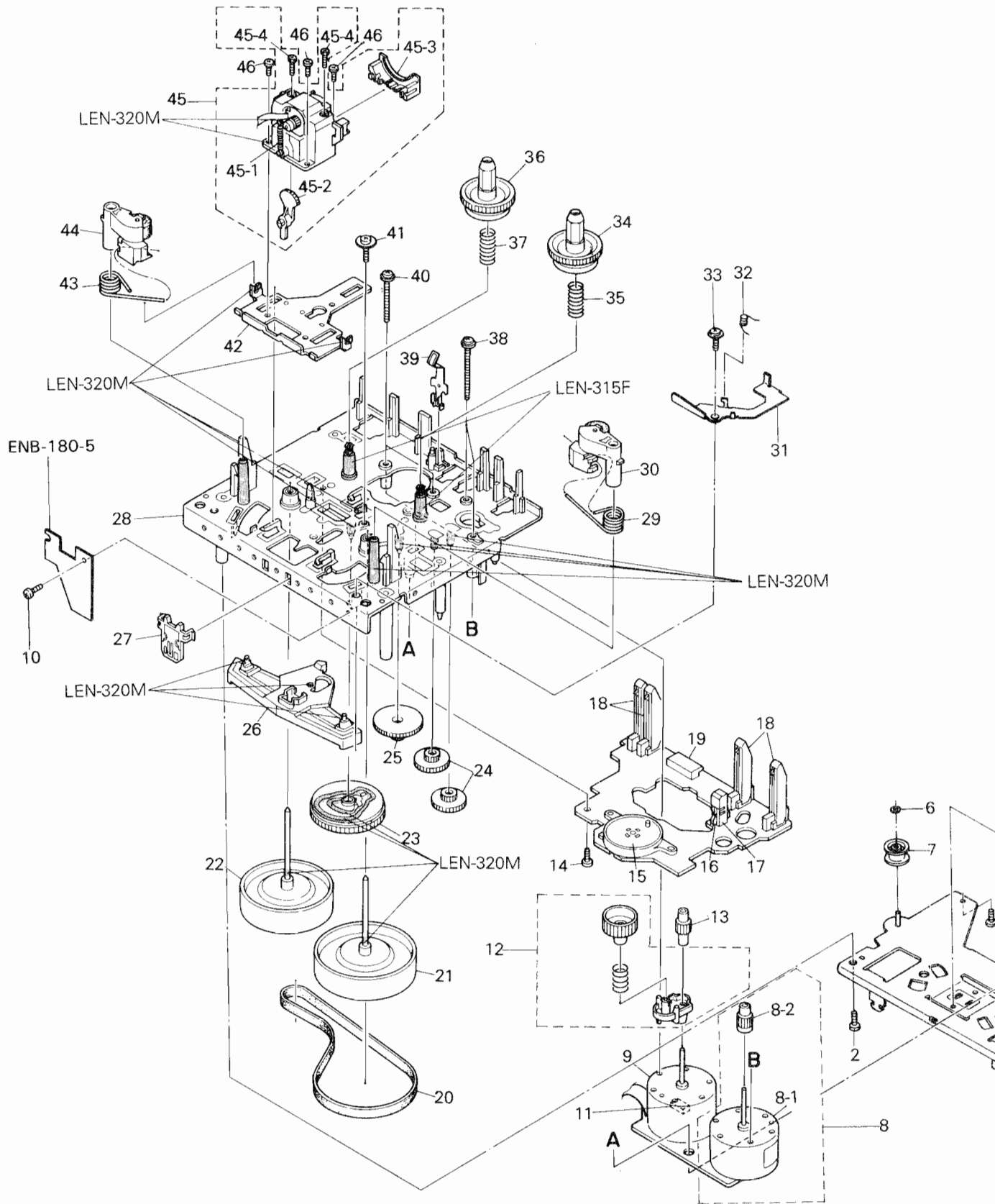
⚠ SAFETY PARTS

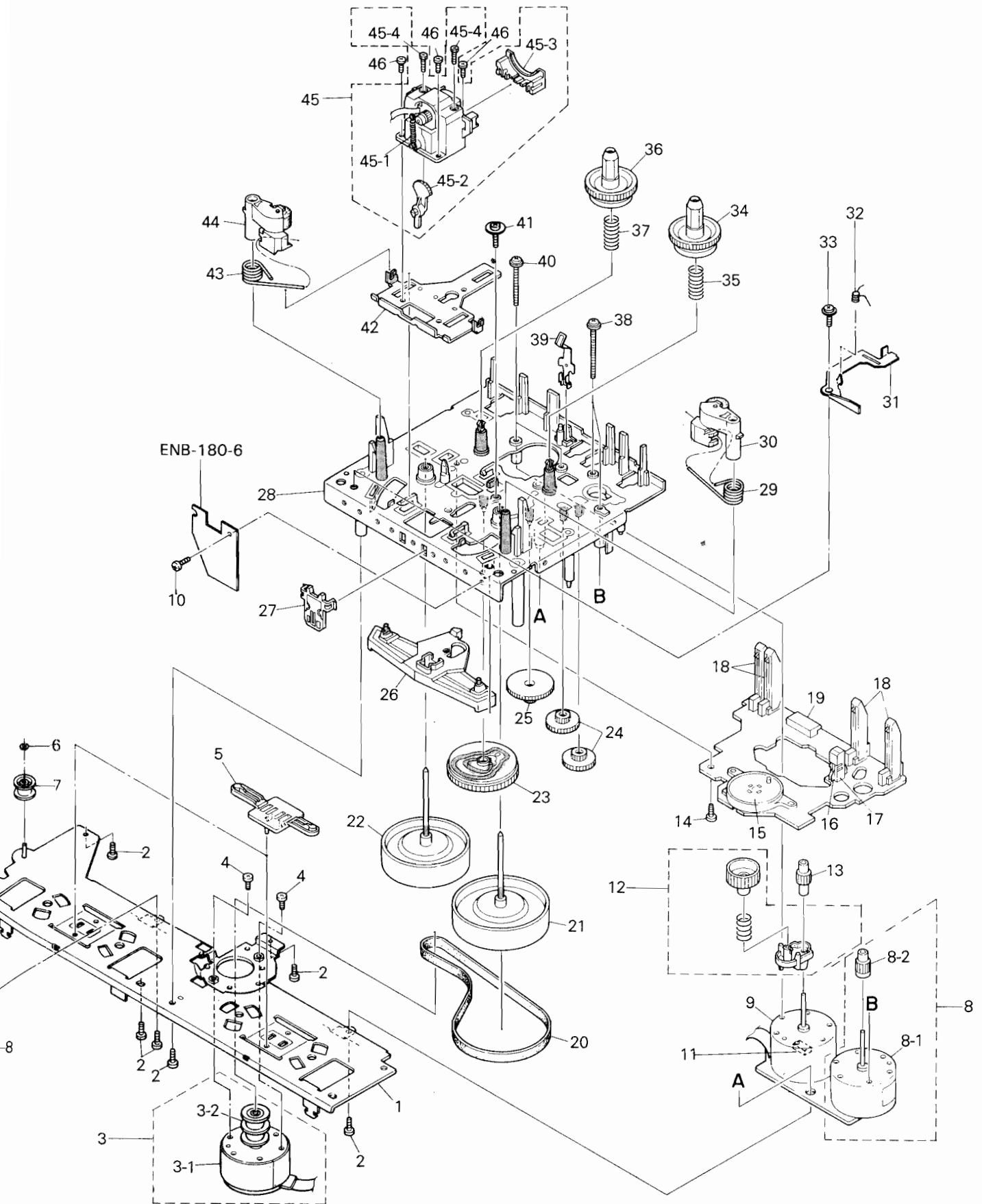
The Marks for Designated Areas

J the U.S.A. C Canada A Australia BS the U.K.
 EN Scandinavia EF Continental Europe G Germany GI Italy
 UC China US Singapore UT Taiwan U Universal Type

No mark indicates all areas.

Cassette Mechanism Ass'y and Parts List





Parts List (Cassette Mechanism Ass'y)

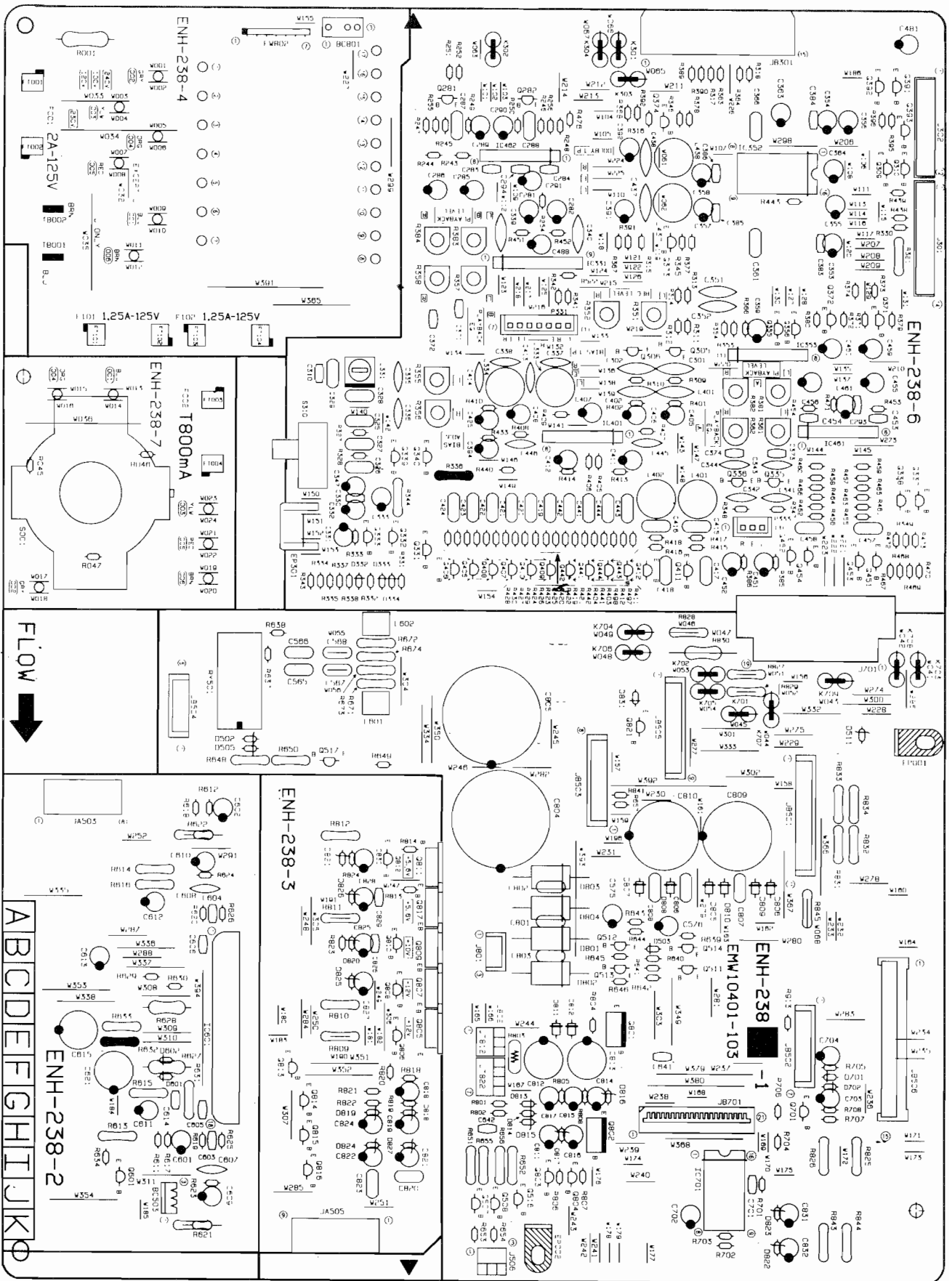
Symbol No. M 2 M M

Item	Part Number	Part Name	Q'ty	Description	Areas
1	VKM3775-00A	FM BRACKET	1		
2	SDSF2608Z	SCREW	7		
3	MSI5U2LWA-SA1	DC MOTOR ASSY	1		
3-1	MSI-5U2LWA	DC MOTOR	1		
3-2	VKR4632-004	MOTOR PULLEY	1		
4	SPSP2603Z	SCREW	2		
5	VKS5327-004	PLATE	2		
6	WDL163525-4	WASHER	1		
7	VKR4631-005	IDLER PULLEY	1		
8	MSN5D257A-SA1	DC MOTOR ASSY	2		
8-1	MSN-5D257A	DC MOTOR	2		
8-2	VKS5433-001	MOTOR GEAR	2		
9	MMN-6F4RA38	DC MOTOR	2		
10	SDST2604Z	SCREW	2		
11	VMC0234-R08	CONNECTOR	2		
12	VKS5430-00C	FR ARM	2		
13	VKS5432-001	REEL MOTOR GEAR	2		
14	SDST2612Z	SCREW	2		
15	VKS3616-00A	CAM SWITCH	2		
16	DN6851-HI	HALL I.C.	2		
17	VKS3630-001	I.C. HOLDER	2		
18	VSH1170-001	LEAF SWITCH	7		
19	VMC0234-R11	CONNECTOR	1	A MECHA	
	VMC0234-R14	CONNECTOR	1	B MECHA	
20	VKB3001-061	DRIVE BELT	1	A MECHA	
	VKB3001-062	DRIVE BELT	1	B MECHA	
21	VKF3184-00H	FLYWHEEL	2	RIGHT	
22	VKF3186-00H	FLYWHEEL	2	LEFT	
23	VKS2224-001	CONTROL CAM	2		
24	VKS5454-001	ACTUATER GEAR (2)	4		
25	VKS5455-001	ACTUATER GEAR (3)	2		
26	VKS3627-001	PINCHROLLER LEVER	2		
27	VKS3655-002	F.P.C. HOLDER	2		
28	VKS1134-00B	CHASSIS BASE	2		
29	VKW5045-003	PINCHROLLER SPRING	2	RIGHT	
30	VKP4227-00B	PINCH ROLLER	2	RIGHT	
31	E407799-001	EJECT SAFETY	1	A MECHA	
	E407800-001	EJECT SAFETY	1	B MECHA	
32	E407801-002	SPRING	1	A MECHA	
	E407802-002	SPRING	1	B MECHA	
33	SBSF3006Z	SCREW	2		
34	VKS5428-00B	T-UP REEL ASSY	2		
35	VKW5043-001	TENSION SPRING	2		
36	VKS3617-002	T-UP REEL ASSY	2		
37	VKW5043-001	TENSION SPRING	2		
38	VKZ4705-002	SCREW	4		
39	VKY4670-001	CASSETEE SPRING	2		
40	VKZ4705-001	SCREW	4		
41	VKZ4708-001	SPECIAL SCREW	2		
42	VKM3632-001	HEAD BASE	2		
43	VKW5046-003	PINCH ROLLER SPRING	2	LEFT	
44	VKP4229-00B	PINCH ROLLER	2	LEFT	
45	VKS3626-00D	HEAD MOUNT ASS'Y	1	A MECHA	
	VKS3629-00D	HEAD MOUNT ASS'Y	1	B MECHA	
45-1	VKW5063-003	HEAD SPRING	2		
45-2	VKS3614-001	TURN OVER GEAR	2		
45-3	VKS3654-001	HEAD MOUNT COVER	2		
45-4	VKZ4629-003	SCREW	4		
46	SDST2004Z	SCREW	6		

Printed Circuit Board Ass'y and Parts List

■ ENH-238 □ Deck, Regulator & Power Controller PC Board Ass'y

Note: ENH-238 □ varies according to the areas employed. See note (1) when placing an order.



Note (1)

PC Board Ass'y	Version	Designated Areas
ENH-238 B	J	the U.S.A.
ENH-238 C	C	Canada
ENH-238 D	U	Universal Type China Singapore Taiwan
	UC	
	US	
	UT	
ENH-238 E	A	Australia
ENH-238 F	EN EF	Scandinavia Continental Europe
ENH-238 G BS	BS	the U.K.
ENH-238 H	G GI	Germany Italy

TRANSISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q281	2SK301(P,Q)	F.E.T. MATSUSHITA	
	Q282	2SK301(P,Q)	F.E.T. MATSUSHITA	
	Q305	2SD2144S(VW)	SI. TRANSISTROHM	
	Q306	2SD2144S(VW)	SI. TRANSISTROHM	
	Q309	DTC144ES	DIGITAL TRAROHM	
	Q332	2SC1740S(R,S)	SI. TRANSISTROHM	
	Q333	2SC1740S(R,S)	SI. TRANSISTROHM	
	Q335	DTC144ES	DIGITAL TRAROHM	
	Q336	DTC144ES	DIGITAL TRAROHM	
	Q337	DTC144ES	DIGITAL TRAROHM	
	Q338	DTC144ES	DIGITAL TRAROHM	
	Q339	2SC1740S(R,S)	SI. TRANSISTROHM	
	Q340	2SC1740S(R,S)	SI. TRANSISTROHM	
	Q355	2SC1740S(R,S)	SI. TRANSISTROHM	
	Q356	2SC1740S(R,S)	SI. TRANSISTROHM	
	Q371	2SD2144S(VW)	SI. TRANSISTROHM	
	Q372	2SD2144S(VW)	SI. TRANSISTROHM	
	Q373	2SD2144S(VW)	SI. TRANSISTROHM	
	Q374	2SD2144S(VW)	SI. TRANSISTROHM	
	Q391	2SD2144S(VW)	SI. TRANSISTROHM	
	Q392	2SD2144S(VW)	SI. TRANSISTROHM	
	Q393	DTA144ES	DIGITAL TRAROHM	
	Q407	DTC144TS	DIGITAL TRAROHM	
	Q408	DTC144TS	DIGITAL TRAROHM	
	Q411	DTC144TS	DIGITAL TRAROHM	
	Q412	DTC144TS	DIGITAL TRAROHM	
	Q441	DTC144TS	DIGITAL TRAROHM	
	Q442	DTC144TS	DIGITAL TRAROHM	
	Q443	DTC144TS	DIGITAL TRAROHM	
	Q444	DTC144TS	DIGITAL TRAROHM	
	Q451	2SK301(P,Q)	F.E.T. MATSUSHITA	
	Q452	2SK301(P,Q)	F.E.T. MATSUSHITA	
	Q453	2SK301(P,Q)	F.E.T. MATSUSHITA	
	Q454	2SK301(P,Q)	F.E.T. MATSUSHITA	
	Q507	2SD2144S(VW)	SI. TRANSISTROHM	
	Q508	2SD2144S(VW)	SI. TRANSISTROHM	
	Q511	2SC1740S(R,S)	SI. TRANSISTROHM	
	Q512	2SA733A(P,K)	SI. TRANSIST	
	Q513	2SC1740S(R,S)	SI. TRANSISTROHM	
	Q514	2SC1740S(R,S)	SI. TRANSISTROHM	
	Q516	DTA114TS	DIGITAL TRAROHM	
	Q517	2SC1740S(R,S)	SI. TRANSISTROHM	
	Q601	DTC144ES	DIGITAL TRAROHM	
	Q701	2SC1740S(R,S)	SI. TRANSISTROHM	
	Q801	2SB1357(E,F)	SI. TRANSISTROHM	
	Q802	2SD2037(E,F)	SI. TRANSISTROHM	
	Q803	DTC114ES	DIGITAL TRAROHM	
	Q804	DTC114YS	DIGITAL TRAROHM	
	Q805	2SD2061(E,F)	SI. TRANSIST	
	Q806	2SC1740S(R,S)	SI. TRANSISTROHM	
	Q807	2SB1187(E,F)	SI. TRANSIST	
	Q808	2SA564A(Q,R)	SI. TRANSIST	
	Q809	2SD2061(E,F)	SI. TRANSIST	
	Q810	2SC1740S(R,S)	SI. TRANSISTROHM	
	Q811	2SD2061(E,F)	SI. TRANSIST	
	Q812	2SC1740S(R,S)	SI. TRANSISTROHM	
	Q813	DTC144ES	DIGITAL TRAROHM	
	Q814	DTA144ES	DIGITAL TRAROHM	
	Q815	DTA144ES	DIGITAL TRAROHM	
	Q816	DTC144ES	DIGITAL TRAROHM	
	Q817	2SD2061(E,F)	SI. TRANSIST	
	Q821	DTA144ES	DIGITAL TRAROHM	

Δ : S/A/P/E/T/Y : P/A/R/T/S

I. C. S.

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC331	UPC1330HA	I.C(MONO-ANNEC	
	IC352	HA12136A	I.C(MONO-ANHITACHI	
	IC353	BA8221N	I.C(MONO-ANROHM	
	IC401	BA15218N	I.C(MONO-ANROHM	
	IC461	UPC1228HA	I.C(MONO-ANNEC	
	IC462	UPC1228HA	I.C(MONO-ANNEC	
	IC601	STK4141MK5	I.C(HYBRID)SANYO	
	IC701	XR1099CP	I.C(MONO-ANEXAR JAPAN	

DIODES

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	D332	1SS119	SI. DIODE	
	D502	MTZ27JC	ZENER DIODEROHM	
	D503	1SS119	SI. DIODE	
	D505	MTZ8.2JC	ZENER DIODEROHM	A
	D505	MTZ8.2JC	ZENER DIODEROHM	BS
	D505	MTZ8.2JC	ZENER DIODEROHM	EN
	D505	MTZ8.2JC	ZENER DIODEROHM	EF
	D505	MTZ8.2JC	ZENER DIODEROHM	G
	D505	MTZ8.2JC	ZENER DIODE ROHM	GI
	D505	MTZ8.2JC	ZENER DIODEROHM	U
	D505	MTZ8.2JC	ZENER DIODEROHM	UC
	D505	MTZ8.2JC	ZENER DIODEROHM	US
	D505	MTZ8.2JC	ZENER DIODEROHM	UT
	D511	MTZ2.7JB	ZENER DIODEROHM	
	D601	1SS119	SI. DIODE	
	D602	1SS119	SI. DIODE	
	D701	1SS119	SI. DIODE	
	D702	1SS119	SI. DIODE	
	Δ D801	30DL2FC	SI. DIODE NIHONINTER	A
	Δ D801	30DL2FC	SI. DIODE NIHONINTER	BS
	Δ D801	S3V20F	SI. DIODE SINDENGEN	C
	Δ D801	30DL2FC	SI. DIODE NIHONINTER	EF
	Δ D801	30DL2FC	SI. DIODE NIHONINTER	EN
	Δ D801	30DL2FC	SI. DIODE NIHONINTER	G
	Δ D801	30DL2FC *	SI. DIODE NIHONINTER	GI
	Δ D801	S3V20F	SI. DIODE SINDENGEN	J
	Δ D801	30DL2FC	SI. DIODE NIHONINTER	U
	Δ D801	30DL2FC	SI. DIODE NIHONINTER	UC
	Δ D801	30DL2FC	SI. DIODE NIHONINTER	US
	Δ D801	30DL2FC	SI. DIODE NIHONINTER	UT
	Δ D802	30DL2FC	SI. DIODE NIHONINTER	A
	Δ D802	30DL2FC	SI. DIODE NIHONINTER	BS
	Δ D802	S3V20F	SI. DIODE SINDENGEN	C
	Δ D802	30DL2FC	SI. DIODE NIHONINTER	EF
	Δ D802	30DL2FC	SI. DIODE NIHONINTER	EN
	Δ D802	30DL2FC	SI. DIODE NIHONINTER	G
	Δ D802	30DL2FC	SI. DIODE NIHONINTER	GI
	Δ D802	S3V20F	SI. DIODE SINDENGEN	J
	Δ D802	30DL2FC	SI. DIODE NIHONINTER	U
	Δ D802	30DL2FC	SI. DIODE NIHONINTER	UC
	Δ D802	30DL2FC	SI. DIODE NIHONINTER	US
	Δ D802	30DL2FC	SI. DIODE NIHONINTER	UT
	Δ D803	30DL2FC	SI. DIODE NIHONINTER	A
	Δ D803	30DL2FC	SI. DIODE NIHONINTER	BS
	Δ D803	S3V20F	SI. DIODE SINDENGEN	C
	Δ D803	30DL2FC	SI. DIODE NIHONINTER	EF
	Δ D803	30DL2FC	SI. DIODE NIHONINTER	EN
	Δ D803	30DL2FC	SI. DIODE NIHONINTER	G
	Δ D803	30DL2FC	SI. DIODE NIHONINTER	GI
	Δ D803	S3V20F	SI. DIODE SINDENGEN	J
	Δ D803	30DL2FC	SI. DIODE NIHONINTER	U
	Δ D803	30DL2FC	SI. DIODE NIHONINTER	UC
	Δ D803	30DL2FC	SI. DIODE NIHONINTER	US
	Δ D803	30DL2FC	SI. DIODE NIHONINTER	UT
	Δ D804	30DL2FC	SI. DIODE NIHONINTER	A
	Δ D804	30DL2FC	SI. DIODE NIHONINTER	BS
	Δ D804	S3V20F	SI. DIODE SINDENGEN	C
	Δ D804	30DL2FC	SI. DIODE NIHONINTER	EF
	Δ D804	30DL2FC	SI. DIODE NIHONINTER	EN
	Δ D804	30DL2FC	SI. DIODE NIHONINTER	G
	Δ D804	30DL2FC	SI. DIODE NIHONINTER	GI
	Δ D804	S3V20F	SI. DIODE SINDENGEN	J
	Δ D804	30DL2FC	SI. DIODE NIHONINTER	U
	Δ D804	30DL2FC	SI. DIODE NIHONINTER	UC
	Δ D804	30DL2FC	SI. DIODE NIHONINTER	US
	Δ D804	30DL2FC	SI. DIODE NIHONINTER	UT
	Δ D805	1SR139-200	SI. DIODE ROHM	
	D806	1SR139-200	SI. DIODE ROHM	
	D807	1SR139-200	SI. DIODE ROHM	
	D808	1SR139-200	SI. DIODE ROHM	
	D809	1SR139-200	SI. DIODE ROHM	
	D810	1SR139-200	SI. DIODE ROHM	
	D811	1SR139-200	SI. DIODE ROHM	
	D812	1SR139-200	SI. DIODE ROHM	
	D813	1SS119	SI. DIODE	

Δ : S/A/P/E/T/Y : P/A/R/T/S

RESISTORS

OTHERS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R805	QRD167J-104	100K 1/6W CARBON RES	IS
	R806	QRD167J-103	10K 1/6W CARBON RES	IS
	R807	QRD167J-102	1K 1/6W CARBON RES	IS
	R808	QRD167J-223	22K 1/6W CARBON RES	IS
Δ	R809	QRD14CJ-2R2S	2.2 1/4W UNF. CARBON	R C
Δ	R809	QRD14CJ-2R2S	2.2 1/4W UNF. CARBON	R J
Δ	R810	QRD14CJ-1R5S	1.5 1/4W UNF. CARBON	
Δ	R812	QRD14CJ-1R0S	1 1/4W CARBON RES	IS
	R813	QRD161J-101	100 1/6W CARBON RES	IS
	R814	QRD161J-101	100 1/6W CARBON RES	IS
	R818	QRD167J-152	1.5K 1/6W CARBON RES	IS
	R819	QRD167J-152	1.5K 1/6W CARBON RES	IS
	R820	QRD167J-153	15K 1/6W CARBON RES	IS
	R821	QRD167J-153	15K 1/6W CARBON RES	IS
	R822	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R823	QRD167J-222	2.2K 1/6W CARBON RES	IS
	R824	QRD167J-222	2.2K 1/6W CARBON RES	IS
Δ	R825	QRD14CJ-331S	330 1/4W UNF. CARBON	R
Δ	R826	QRD14CJ-331S	330 1/4W UNF. CARBON	R
Δ	R828	QRD14CJ-3R9S	3.9 1/4W UNF. CARBON	R C
Δ	R828	QRD14CJ-3R9S	3.9 1/4W UNF. CARBON	R J
Δ	R829	QRD14CJ-3R9S	3.9 1/4W UNF. CARBON	R C
Δ	R829	QRD14CJ-3R9S	3.9 1/4W UNF. CARBON	R J
Δ	R830	QRX012J-3R9AM	3.9 1W CARBON RES	IS C
Δ	R830	QRX012J-3R9AM	3.9 1W CARBON RES	IS J
Δ	R831	QRZ0077-100	10 1/4W FUSIBLE RE	SI A
Δ	R831	QRZ0077-100	10 1/4W FUSIBLE RE	SI BS
Δ	R831	QRD14CJ-100S	10 1/4W UNF. CARBON	C
Δ	R831	QRZ0077-100	10 1/4W FUSIBLE RE	SI EF
Δ	R831	QRZ0077-100	10 1/4W FUSIBLE RE	SI EN
Δ	R831	QRZ0077-100	10 1/4W FUSIBLE RE	SI G
Δ	R831	QRZ0077-100	10 1/4W FUSIBLE RE	GI
Δ	R831	QRD14CJ-100S	10 1/4W UNF. CARBON	J
Δ	R831	QRZ0077-100	10 1/4W FUSIBLE RE	SI U
Δ	R831	QRZ0077-100	10 1/4W FUSIBLE RE	SI UC
Δ	R831	QRZ0077-100	10 1/4W FUSIBLE RE	SI US
Δ	R831	QRZ0077-100	10 1/4W FUSIBLE RE	SI UT
Δ	R832	QRZ0077-100	10 1/4W FUSIBLE RE	SI A
Δ	R832	QRZ0077-100	10 1/4W FUSIBLE RE	SI BS
Δ	R832	QRD14CJ-100S	10 1/4W UNF. CARBON	C
Δ	R832	QRZ0077-100	10 1/4W FUSIBLE RE	SI EF
Δ	R832	QRZ0077-100	10 1/4W FUSIBLE RE	SI EN
Δ	R832	QRZ0077-100	10 1/4W FUSIBLE RE	SI G
Δ	R832	QRZ0077-100	10 1/4W FUSIBLE RE	GI
Δ	R832	QRD14CJ-100S	10 1/4W UNF. CARBON	J
Δ	R832	QRZ0077-100	10 1/4W FUSIBLE RE	SI U
Δ	R832	QRZ0077-100	10 1/4W FUSIBLE RE	SI UC
Δ	R832	QRZ0077-100	10 1/4W FUSIBLE RE	SI US
Δ	R832	QRZ0077-100	10 1/4W FUSIBLE RE	SI UT
Δ	R832	QRZ0077-100	10 1/4W FUSIBLE RE	SI A
Δ	R832	QRZ0077-100	10 1/4W FUSIBLE RE	SI BS
Δ	R834	QRD14CJ-100S	10 1/4W UNF. CARBON	C
Δ	R834	QRZ0077-100	10 1/4W FUSIBLE RE	SI EF
Δ	R834	QRZ0077-100	10 1/4W FUSIBLE RE	SI EN
Δ	R834	QRZ0077-100	10 1/4W FUSIBLE RE	SI G
Δ	R834	QRZ0077-100	10 1/4W FUSIBLE RE	GI
Δ	R834	QRD14CJ-100S	10 1/4W UNF. CARBON	J
Δ	R834	QRZ0077-100	10 1/4W FUSIBLE RE	SI U
Δ	R834	QRZ0077-100	10 1/4W FUSIBLE RE	SI UC
Δ	R834	QRZ0077-100	10 1/4W FUSIBLE RE	SI US
Δ	R834	QRZ0077-100	10 1/4W FUSIBLE RE	SI UT
Δ	R843	QRD14CJ-6R8S	6.8 1/4W UNF. CARBON	R
Δ	R844	PTH61G25AR4R7M	4.7 POSITIVE T	A
Δ	R844	PTH61G25AR4R7M	4.7 POSITIVE T	BS
Δ	R844	QRD14CJ-4R7S	4.7 1/4W UNF. CARBON	R C
Δ	R844	PTH61G25AR4R7M	4.7 POSITIVE T	EF
Δ	R844	PTH61G25AR4R7M	4.7 POSITIVE T	EN
Δ	R844	PTH61G25AR4R7M	4.7 POSITIVE T	G
Δ	R844	PTH61G25AR4R7M	4.7 POSITIVE T	GI
Δ	R844	QRD14CJ-4R7S	4.7 1/4W UNF. CARBON	R J
Δ	R844	PTH61G25AR4R7M	4.7 POSITIVE T	U
Δ	R844	PTH61G25AR4R7M	4.7 POSITIVE T	UC
Δ	R844	PTH61G25AR4R7M	4.7 POSITIVE T	US
Δ	R844	PTH61G25AR4R7M	4.7 POSITIVE T	UT
Δ	R845	QRD14CJ-4R7S	4.7 1/4W UNF. CARBON	R C
Δ	R845	QRD14CJ-4R7S	4.7 1/4W UNF. CARBON	R J
Δ	R913	QRD167J-102	1K 1/6W CARBON RES	IS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	K303	ENZ8101-007	INDUCTOR	GI
	K701	ENZ8101-007	INDUCTOR	G
	K701	ENZ8101-007	INDUCTOR	GI
	K702	ENZ8101-007	INDUCTOR	G
	K702	ENZ8101-007	INDUCTOR	GI
	K702	ENZ8101-007	INDUCTOR	G
	K703	ENZ8101-007	INDUCTOR	GI
	K703	ENZ8101-007	INDUCTOR	G
	K704	ENZ8101-007	INDUCTOR	GI
	K704	ENZ8101-007	INDUCTOR	G
	K705	ENZ8101-007	INDUCTOR	GI
	K705	ENZ8101-007	INDUCTOR	G
	K706	ENZ8101-007	INDUCTOR	GI
	K706	ENZ8101-007	INDUCTOR	G
	K707	ENZ8101-007	INDUCTOR	GI
	K707	ENZ8101-007	INDUCTOR	G
	K708	ENZ8101-007	INDUCTOR	GI
	K708	ENZ8101-007	INDUCTOR	G
	L331	ENZ6002-012J2	OSCILLATOR COIL	
	L333	EQL2106-223	INDUCTOR	
	L334	EQL2106-223	INDUCTOR	
	L401	EQL2106-562	INDUCTOR	
	L402	EQL2106-562	INDUCTOR	
	L437	EQL2106-223	INDUCTOR	
	L438	EQL2106-223	INDUCTOR	
	L601	EQL0011-R45J1	INDUCTOR	
	L602	EQL0011-R45J1	INDUCTOR	
	P331	EMV5133-007K	PLUG(7PIN)	
	P333	EMV5133-003	CONNECT TERMINAL(3PIN)	
	S001	QSR8001-E01U	ROTARY SWITCH	U
	S001	QSR8001-E01U	ROTARY SWITCH	UC
	S001	QSR8001-E01U	ROTARY SWITCH	US
	S001	QSR8001-E01U	ROTARY SWITCH	UT
	S310	QSS7A12-E01	SLIDE SWITCH	A
	S310	QSS7A12-E01	SLIDE SWITCH	BS
	S310	QSS7A12-E01	SLIDE SWITCH	EF
	S310	QSS7A12-E01	SLIDE SWITCH	EN
	S310	QSS7A12-E01	SLIDE SWITCH	G
	S310	QSS7A12-E01	SLIDE SWITCH	GI
	BC503	EWS293-012S	SOCKET WIRE(3PIN)	
	BC801	EWS243-066	SOCKET WIRE ASSY(3PIN)	
	EP001	EMZ4002-001Z	EARTH PLATE	
	EP002	EMZ4002-001Z	EARTH PLATE	C
	EP002	EMZ4002-001Z	EARTH PLATE	J
	EP301	E70225-001	EARTH PLATE	
	FL001	E67132-T1R6	FUSE LABEL	U
	FL001	E67132-T1R6	FUSE LABEL	UC
	FL001	E67132-T1R6	FUSE LABEL	US
	FL001	E67132-T1R6	FUSE LABEL	UT
	FT001	VMZ0087-001	FUSE CLIP 1.M	
	FT002	VMZ0087-001	FUSE CLIP 1.M	
	FT003	VMZ0087-001	FUSE CLIP 1.M	U
	FT003	VMZ0087-001	FUSE CLIP 1.M	UC
	FT003	VMZ0087-001	FUSE CLIP 1.M	US
	FT003	VMZ0087-001	FUSE CLIP 1.M	UT
	FT004	VMZ0087-001	FUSE CLIP 1.M	U
	FT004	VMZ0087-001	FUSE CLIP 1.M	UC
	FT004	VMZ0087-001	FUSE CLIP 1.M	US
	FT004	VMZ0087-001	FUSE CLIP 1.M	UT
	FT101	VMZ0087-001	FUSE CLIP 1.M	
	FT102	VMZ0087-001	FUSE CLIP 1.M	
	FT103	VMZ0087-001	FUSE CLIP 1.M	
	FT104	VMZ0087-001	FUSE CLIP 1.M	
	FW802	EWR37B-13LST	CORD(7PIN)	
	JA503	EMV7125-008R	MALE CONNECTOR(8PIN)	
	JA505	EMV7125-009R	CONNECT TERMINAL(9PIN)	
	JB301	EMV7140-L15R	CONNECT TERMINAL(15PIN)	
	JB501	EMV5125-011	MALE CONNECTOR(11PIN)	
	JB502	EMV5125-007	MALE CONNECTOR(7PIN)	
	JB503	EMV5125-008	MALE CONNECTOR(8PIN)	
	JB504	EMV5125-005	CONNECT TERMINAL(5PIN)	
	JB505	EMV5125-009	CONNECT TERMINAL(9PIN)	
	JB506	EMV5140-015	CONNECT TERMINAL(15PIN)	
	JB701	EMV7123-021	CONNECT TERMINAL(21PIN)	
	JT812	EMV7122-103	CONNECT TERMINAL(3PIN)	
	JT822	EMV7122-004	CONNECT TERMINAL(4PIN)	
	RY501	ESK7D24-212D	RELAY	
	TB001	EMZ4001-001	TAB	
	TB002	EMZ4001-001	TAB	
	WR005	QWE881-24RR	VINYL WIRE	U
	WR005	QWE881-24RR	VINYL WIRE	UC
	WR005	QWE881-24RR	VINYL WIRE	US
	WR005	QWE881-24RR	VINYL WIRE	UT
	WR006	QWE882-26RR	VINYL WIRE	U
	WR006	QWE882-26RR	VINYL WIRE	UC
	WR006	QWE882-26RR	VINYL WIRE	US
	WR006	QWE882-26RR	VINYL WIRE	UT
	WR007	QWE883-22RR	VINYL WIRE	U
	WR007	QWE883-22RR	VINYL WIRE	UC
	WR007	QWE883-22RR	VINYL WIRE	US
	WR007	QWE883-22RR	VINYL WIRE	UT
	WR008	QWE884-26RR	VINYL WIRE	U
	WR008	QWE884-26RR	VINYL WIRE	UC
	WR008	QWE884-26RR	VINYL WIRE	US
	WR008	QWE884-26RR	VINYL WIRE	UT
	WR009	QWE886-24RR	VINYL WIRE	U
	WR009	QWE886-24RR	VINYL WIRE	UC
	WR009	QWE886-24RR	VINYL WIRE	US
	WR009	QWE886-24RR	VINYL WIRE	UT
	WR010	QWE888-20RR	VINYL WIRE	U
	WR010	QWE888-20RR	VINYL WIRE	UC
	WR010	QWE888-20RR	VINYL WIRE	US
	WR010	QWE888-20RR	VINYL WIRE	UT

OTHERS

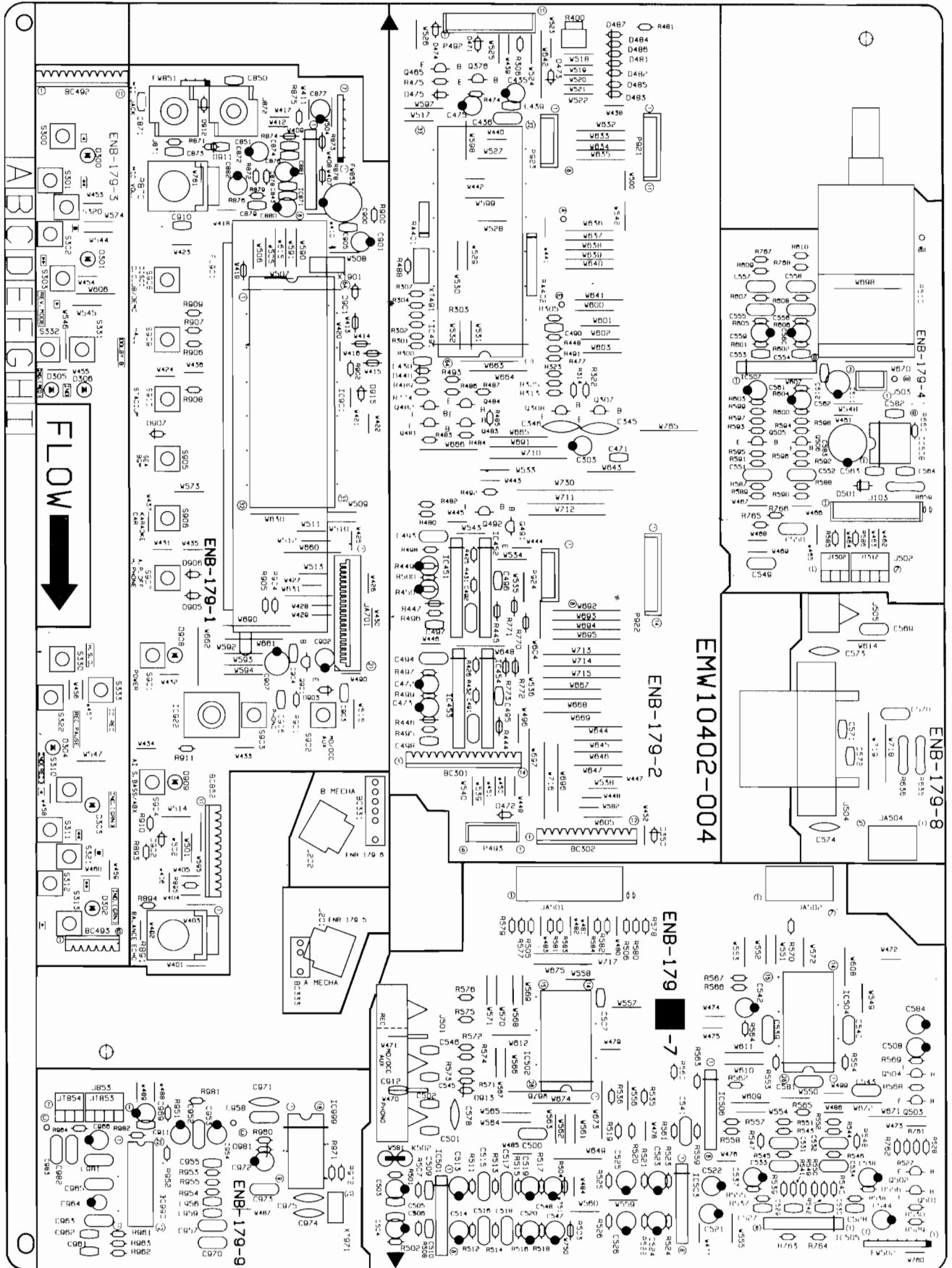
Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	J301	EMV5142-914	CONNECT TERMINAL(14PIN)	
	J302	EMV5142-912	CONNECT TERMINAL(12PIN)	
	J506	EMV7122-103	CONNECT TERMINAL(3PIN)	
	J701	EMV7127-019	CONNECT TERMINAL(19PIN)	
	J801	EMV5133-003	CONNECT TERMINAL(3PIN)	
	K302	ENZ8101-007	INDUCTOR	G
	K302	ENZ8101-007	INDUCTOR	GI
	K303	ENZ8101-007	INDUCTOR	G

Δ : SAFETY PARTS

Δ : SAFETY PARTS

■ ENB-179 □ Source Selector, Deck & System Controller PC Board Ass'y

Note : ENB-179 □ varies according to the areas employed. See note (1) when placing an order.



DIODES

Note (1)

PC Board Ass'y	Version	Designated Areas
ENB-179 B	J	the U.S.A.
ENB-179 C	C	Canada
ENB-179 D	U UC US UT	Universal Type China Singapore Taiwan
ENB-179 E	A EN EF	Australia Scandinavia Continental Europe
ENB-179 F	BS	the U.K.
ENB-179 G	G GI	Germany Italy

TRANSISTORS

ITEM	PART NUMBER	DESCRIPTION	AREA
Q307	2SC1740S(R,S)	SI.TRANSISTROHM	
Q308	2SC1740S(R,S)	SI.TRANSISTROHM	
Q376	DTC144ES	DIGITAL TRAROHM	
Q465	DTA114YS	DIGITAL TRAROHM	
Q481	2SC1740S(R,S)	SI.TRANSISTROHM	
Q482	2SC1740S(R,S)	SI.TRANSISTROHM	
Q483	2SA933S(R,S)	SI.TRANSIST	
Q484	2SA933S(R,S)	SI.TRANSIST	
Q491	DTC144ES	DIGITAL TRAROHM	
Q492	DTC144ES	DIGITAL TRAROHM	
Q501	2SD2144S(VW)	SI.TRANSISTROHM	
Q502	2SD2144S(VW)	SI.TRANSISTROHM	
Q503	DTA144ES	DIGITAL TRAROHM	
Q504	2SC1740S(R,S)	SI.TRANSISTROHM	
Q505	2SK301(P,Q)	F.E.T. MATSUSHITA	
Q506	2SK301(P,Q)	F.E.T. MATSUSHITA	
Q901	DTC114YS	DIGITAL TRAROHM	

I. C. S.

ITEM	PART NUMBER	DESCRIPTION	AREA
IC451	LB1641	I.C(DIGI-OTSANYO	
IC452	LB1641	I.C(DIGI-OTSANYO	
IC453	LB1641	I.C(DIGI-OTSANYO	
IC454	LB1641	I.C(DIGI-OTSANYO	
IC491	HD614081SE07	I.C(MICRO-CHITACHI	
IC501	NJM4580LD	I.C(MONO-ANDAINICHI	
IC502	TC9163N	I.C(DIGI-MOTOSHIBA	
IC503	NJM4580L	I.C(MONO-AN	
IC504	TC9162N	I.C(DIGI-MOTOSHIBA	
IC505	BA15218N	I.C(MONO-ANROHM	U
IC506	BA15218N	I.C(MONO-ANROHM	UC
IC506	BA15218N	I.C(MONO-ANROHM	US
IC506	BA15218N	I.C(MONO-ANROHM	UT
IC507	NJM4580L	I.C(MONO-AN	
IC508	LB1639-CV	I.C(DIGI-OTSANYO	
IC871	BA15218N	I.C(MONO-ANROHM	U
IC871	BA15218N	I.C(MONO-ANROHM	UC
IC871	BA15218N	I.C(MONO-ANROHM	US
IC871	BA15218N	I.C(MONO-ANROHM	UT
IC901	MN171202JHX	I.C(MICRO-CMATSUSHITA	
IC922	NJH32H380A	I.C(M) DAINICHI	
IC990	BA7725S	I.C(M) ROHM	U
IC990	BA7725S	I.C(M) ROHM	UC
IC990	BA7725S	I.C(M) ROHM	US
IC990	BA7725S	I.C(M) ROHM	UT
IC999	BU9251S	I.C(M) ROHM	U
IC999	BU9251S	I.C(M) ROHM	UC
IC999	BU9251S	I.C(M) ROHM	US
IC999	BU9251S	I.C(M) ROHM	UT

△ : SAFETY PARTS

ITEM	PART NUMBER	DESCRIPTION	AREA
D300	SLR-342MCA47	L.E.D. ROHM	
D301	SLR-342MCA47	L.E.D. ROHM	
D302	SLR-342MCA47	L.E.D. ROHM	
D303	SLR-342MCA47	L.E.D. ROHM	
D304	SLR-342VC3F	L.E.D. ROHM	
D305	SLR-342VC3F	L.E.D. ROHM	
D306	SLR-342VC3F	L.E.D. ROHM	
D350	1SS119	SI.DIODE	
D440	1SS119	SI.DIODE	
D471	1SS119	SI.DIODE	
D472	1SS119	SI.DIODE	
D473	1SS119	SI.DIODE	
D474	1SS119	SI.DIODE	
D475	1SS119	SI.DIODE	
D481	1SS119	SI.DIODE	
D482	1SS119	SI.DIODE	
D483	1SS119	SI.DIODE	
D484	1SS119	SI.DIODE	
D485	1SS119	SI.DIODE	
D487	1SS119	SI.DIODE	
D501	1SR139-200	SI.DIODE ROHM	
D901	1SS119	SI.DIODE	
D902	1SS119	SI.DIODE	
D903	1SS119	SI.DIODE	
D905	1SS119	SI.DIODE	
D906	1SS119	SI.DIODE	
D907	1SS119	SI.DIODE	
D908	SLR-342VC3F	L.E.D. ROHM	A
D908	SLA-380LT	L.E.D. ROHM	BS
D908	SLR-342VC3F	L.E.D. ROHM	C
D908	SLR-342VC3F	L.E.D. ROHM	EF
D908	SLR-342VC3F	L.E.D. ROHM	EN
D908	SLR-342VC3F	L.E.D. ROHM	G
D908	SLR-342VC3F	L.E.D. ROHM	GI
D908	SLR-342VC3F	L.E.D. ROHM	J
D908	SLR-342VC3F	L.E.D. ROHM	U
D908	SLR-342VC3F	L.E.D. ROHM	UC
D908	SLR-342VC3F	L.E.D. ROHM	US
D908	SLR-342VC3F	L.E.D. ROHM	UT
D909	SLR-342VC3F	L.E.D. ROHM	
D911	1SS119	SI.DIODE	U
D911	1SS119	SI.DIODE	UC
D911	1SS119	SI.DIODE	US
D911	1SS119	SI.DIODE	UT
D912	1SS119	SI.DIODE	U
D912	1SS119	SI.DIODE	UC
D912	1SS119	SI.DIODE	US
D912	1SS119 *	SI.DIODE	UT
D913	MT22.7JB	ZENER DIODEROHM	
D915	1SS119	SI.DIODE	
D981	MTZ5.1JC	ZENER DIODEROHM	U
D981	MTZ5.1JC	ZENER DIODEROHM	UC
D981	MTZ5.1JC	ZENER DIODEROHM	US
D981	MTZ5.1JC	ZENER DIODEROHM	UT

CAPACITORS

ITEM	PART NUMBER	DESCRIPTION	AREA
C303	QEK51HM-105G	1MF 50V AL E.CAPAC	IT
C345	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
C346	QCF21HP-223A	0.022MF 50V CER.CAPACI	TO
C430	QCBB1HK-102Y	1000PF 50V CER.CAPACI	TO
C435	QETB1CM-476	47MF 16V AL E.CAPAC	IT
C436	QCZ0202-155	1.5MF 25V CER.RESIST	OR
C439	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	TO
C471	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	TO
C475	QETB1CM-476	47MF 16V AL E.CAPAC	IT
C491	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	CI
C492	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	CI
C493	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	CI
C494	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	CI
C495	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	TO
C496	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	TO
C497	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	TO
C498	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	TO
C500	QFLB1HJ-103	0.01MF 50V MYLAR CAPA	CI
C501	QCBB1HK-101Y	100PF 50V CER.CAPACI	TO A
C501	QCBB1HK-101Y	100PF 50V CER.CAPACI	TO BS
C501	QCBB1HK-101Y	100PF 50V CER.CAPACI	TO C
C501	QCBB1HK-101Y	100PF 50V CER.CAPACI	TO EF
C501	QCBB1HK-101Y	100PF 50V CER.CAPACI	TO EN
C501	QCBB1HK-471Y	470PF 50V CER.CAPACI	TO G
C501	QCBB1HK-471Y	470PF 50V CER.CAPACI	GI
C501	QCBB1HK-101Y	100PF 50V CER.CAPACI	TO J
C501	QCBB1HK-101Y	100PF 50V CER.CAPACI	TO U
C501	QCBB1HK-101Y	100PF 50V CER.CAPACI	TO UC
C501	QCBB1HK-101Y	100PF 50V CER.CAPACI	TO US
C501	QCBB1HK-101Y	100PF 50V CER.CAPACI	TO UT
C502	QCBB1HK-101Y	100PF 50V CER.CAPACI	TO A
C502	QCBB1HK-101Y	100PF 50V CER.CAPACI	TO BS
C502	QCBB1HK-101Y	100PF 50V CER.CAPACI	TO C
C502	QCBB1HK-101Y	100PF 50V CER.CAPACI	TO EF
C502	QCBB1HK-101Y	100PF 50V CER.CAPACI	TO EN
C502	QCBB1HK-471Y	470PF 50V CER.CAPACI	TO G
C502	QCBB1HK-471Y	470PF 50V CER.CAPACI	GI

△ : SAFETY PARTS

CAPACITORS

Table with columns: ITEM, PART NUMBER, DESCRIPTION, AREA. Lists capacitor specifications such as 0.47MF 50V AL E.CAPAC.

RESISTORS

Table with columns: ITEM, PART NUMBER, DESCRIPTION, AREA. Lists resistor specifications such as 91K 1/6W CARBON RES.

RESISTORS

Table with columns: ITEM, PART NUMBER, DESCRIPTION, AREA. Lists resistor specifications such as 200 1/6W CARBON RES.

Δ :SAFETY PARTS

Δ :SAFETY PARTS

RESISTORS

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	R961	QRD167J-103	10K 1/6W CARBON RES	IS US
	R961	QRD167J-103	10K 1/6W CARBON RES	IS UT
	R962	QRD167J-103	10K 1/6W CARBON RES	IS U
	R962	QRD167J-103	10K 1/6W CARBON RES	IS UC
	R962	QRD167J-103	10K 1/6W CARBON RES	IS US
	R962	QRD167J-103	10K 1/6W CARBON RES	IS UT
	R963	QRD167J-103	10K 1/6W CARBON RES	IS U
	R963	QRD167J-103	10K 1/6W CARBON RES	IS UC
	R963	QRD167J-103	10K 1/6W CARBON RES	IS US
	R963	QRD167J-103	10K 1/6W CARBON RES	IS UT
	R964	QRD167J-471	470 1/6W CARBON RES	IS U
	R964	QRD167J-471	470 1/6W CARBON RES	IS UC
	R964	QRD167J-471	470 1/6W CARBON RES	IS US
	R964	QRD167J-471	470 1/6W CARBON RES	IS UT
	R971	QRD161J-105	1M 1/6W CARBON RES	IS U
	R971	QRD161J-105	1M 1/6W CARBON RES	IS UC
	R971	QRD161J-105	1M 1/6W CARBON RES	IS US
	R971	QRD161J-105	1M 1/6W CARBON RES	IS UT
	R972	QRD167J-682	6.8K 1/6W CARBON RES	IS U
	R972	QRD167J-682	6.8K 1/6W CARBON RES	IS UC
	R972	QRD167J-682	6.8K 1/6W CARBON RES	IS US
	R972	QRD167J-682	6.8K 1/6W CARBON RES	IS UT
	R981	QRD161J-331	330 1/6W CARBON RES	IS U
	R981	QRD161J-331	330 1/6W CARBON RES	IS UC
	R981	QRD161J-331	330 1/6W CARBON RES	IS US
	R981	QRD161J-331	330 1/6W CARBON RES	IS UT
	R982	QRD167J-223	22K 1/6W CARBON RES	IS U
	R982	QRD167J-223	22K 1/6W CARBON RES	IS UC
	R982	QRD167J-223	22K 1/6W CARBON RES	IS US
	R982	QRD167J-223	22K 1/6W CARBON RES	IS UT
	RA401	QRB049J-103	10K 1/10W RESISTOR	
	RA402	QRB089J-103	10K 1/10W NETWORK RE	SI

OTHERS

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	S910	ESP0001-023ZJ5	TACT SWITCH(STADIUM)	
	BC301	EWS32E-A912	SOCKET WIRE ASSY(14PIN)	
	BC302	EWS32C-A912	SOCKET WIRE ASSY(12PIN)	
	BC331	EWS247-012J	SOCKET WIRE ASSY(7PIN)	
	BC333	EWS243-065J	SOCKET WIRE ASSY(3PIN)	
	BC492	EWS32B-A916	SOCKET WIRE ASSY(11PIN)	
	BC493	EWS266-F216	SOCKET WIRE ASSY(6PIN)	
	BC852	EWS26B-F213	SOCKET WIRE(11PIN)	
	BK901	E308331-001SM	FL HOLDER	
	FL901	ELU0001-166	FL TUBE	
	FS901	E306805-014	FELT SPACER	
	FW502	EWR37D-13LS	CORD(7PIN)	
	FW851	EWR33D-30LS	FLAT WIRE ASSY(3PIN)	
	FW853	EWR37D-25LS	FLAT WIRE(7PIN)	U
	FW853	EWR37D-25LS	FLAT WIRE(7PIN)	UC
	FW853	EWR37D-25LS	FLAT WIRE(7PIN)	US
	FW853	EWR37D-25LS	FLAT WIRE(7PIN)	UT
	JA501	EMV7125-011R	MALE CONNECTOR(11PIN)	
	JA502	EMV7125-007R	CONNECT TERMINAL(7PIN)	
	JA504	EMV7125-005R	CONNECT TERMINAL(5PIN)	
	JA701	EMV7123-021	CONNECT TERMINAL(21PIN)	
	JT502	EMV7122-103	CONNECT TERMINAL(3PIN)	
	JT512	EMV7122-004	CONNECT TERMINAL(4PIN)	
	JT853	EMV7122-004	CONNECT TERMINAL(4PIN)	U
	JT853	EMV7122-004	CONNECT TERMINAL(4PIN)	UC
	JT853	EMV7122-004	CONNECT TERMINAL(4PIN)	US
	JT853	EMV7122-004	CONNECT TERMINAL(4PIN)	UT
	JT854	EMV7122-103	CONNECT TERMINAL(3PIN)	U
	JT854	EMV7122-103	CONNECT TERMINAL(3PIN)	UC
	JT854	EMV7122-103	CONNECT TERMINAL(3PIN)	US
	JT854	EMV7122-103	CONNECT TERMINAL(3PIN)	UT
	XT491	ECX0004-194KM	CERAMIC RESONATOR	
	XT901	ECX0060-000EM	CERAMIC RESONATOR	
	XT971	ECX0000-400KS	CERAMIC RESONATOR	U
	XT971	ECX0000-400KS	CERAMIC RESONATOR	UC
	XT971	ECX0000-400KS	CERAMIC RESONATOR	US
	XT971	ECX0000-400KS	CERAMIC RESONATOR	UT

OTHERS

△	ITEM	PART NUMBER	DESCRIPTION	AREA
		QWE350-08RR	VINYL WIRE	U
		QWE350-08RR	VINYL WIRE	UC
		QWE350-08RR	VINYL WIRE	US
		QWE350-08RR	VINYL WIRE	UT
	J103	EMV5109-011A	MALE CONNECTOR(11PIN)	
	J201	EMV7155-106R	CONNECT TERMINAL	
	J202	EMV7155-106R	CONNECT TERMINAL	
	J501	EMN00TV-414AJ2	4P PIN JACK	
	J503	EMV5109-003A	MALE CONNECTOR(3PIN)	
	J504	EMB90TV-404A	SPEAKER TERMINAL	A
	J504	EMB90TV-404A	SPEAKER TERMINAL	BS
	J504	EMB90TV-404A	SPEAKER TERMINAL	C
	J504	EMB90TV-404A	SPEAKER TERMINAL	EF
	J504	EMB90TV-404A	SPEAKER TERMINAL	EN
	J504	EMB90TV-403A	SPEAKER TERMINAL	G
	J504	EMB90TV-403A	SPEAKER TER	GI
	J504	EMB90TV-404A	SPEAKER TERMINAL	J
	J504	EMB90TV-404A	SPEAKER TERMINAL	U
	J504	EMB90TV-404A	SPEAKER TERMINAL	UC
	J504	EMB90TV-404A	SPEAKER TERMINAL	US
	J504	EMB90TV-404A	SPEAKER TERMINAL	UT
	J871	QMS3R20-E40S	HEADPHONE JACK	U
	J871	QMS3R20-E40S	HEADPHONE JACK	UC
	J871	QMS3R20-E40S	HEADPHONE JACK	US
	J871	QMS3R20-E40S	HEADPHONE JACK	UT
	J872	QMS3R20-E40S	HEADPHONE JACK	
	P492	EMV5142-911	CONNECT TERMINAL(11PIN)	
	P493	EMV5109-006A	CONNECT TERMINAL(6PIN)	
	P921	VMC0234-P11	CONNECT TERMINAL(11PIN)	
	P922	VMC0234-P14	CONNECT TERMINAL(14PIN)	
	P923	VMC0234-P08	CONNECT TERMINAL(8PIN)	
	P924	VMC0234-P08	CONNECT TERMINAL(8PIN)	
	S300	ESP0001-023ZJ5	TACT SWITCH(A ◀)	
	S301	ESP0001-023ZJ5	TACT SWITCH(A ◀◀)	
	S302	ESP0001-023ZJ5	TACT SWITCH(A ▶▶)	
	S303	ESP0001-023ZJ5	TACT SWITCH(A ▶)	
	S310	ESP0001-023ZJ5	TACT SWITCH(B ◀)	
	S311	ESP0001-023ZJ5	TACT SWITCH(B ◀◀)	
	S312	ESP0001-023ZJ5	TACT SWITCH(B ▶▶)	
	S313	ESP0001-023ZJ5	TACT SWITCH(B ▶)	
	S320	ESP0001-023ZJ5	TACT SWITCH(A STOP)	
	S321	ESP0001-023ZJ5	TACT SWITCH(B STOP)	
	S322	ESP0001-023ZJ5	TACT SWITCH(B REC PAUSE)	
	S330	ESP0001-023ZJ5	TACT SWITCH(A ▶▶B)	
	S331	ESP0001-023ZJ5	TACT SWITCH(DOLBY)	
	S332	ESP0001-023ZJ5	TACT SWITCH(REV. MODE)	
	S333	ESP0001-023ZJ5	TACT SWITCH(CORREC)	
	S901	ESP0001-023ZJ5	TACT SWITCH(POWER)	
	S902	ESP0001-023ZJ5	TACT SWITCH(AUX/VIDEO)	
	S903	ESP0001-023ZJ5	TACT SWITCH(PHONO)	
	S904	ESP0001-023ZJ5	TACT SWITCH(AIS BASS/ABX)	
	S905	ESP0001-023ZJ5	TACT SWITCH(SEA/BGM)	
	S906	ESP0001-023ZJ5	TACT SWITCH(KARAOKE/CAR)	
	S907	ESP0001-023ZJ5	TACT SWITCH(A.P.OFF/H.PHONE)	
	S908	ESP0001-023ZJ5	TACT SWITCH(D.CLUB/DEMO)	
	S909	ESP0001-023ZJ5	TACT SWITCH(HALL)	

△ : SAFETY PARTS

△ : SAFETY PARTS

Accessories List

Symbol No.

M	3	M	M
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Item	Part Number	Part Name	Q'ty	Description	Areas
1	E30580-2056A	INSTRUCTION BOOK	1		J
	E30580-2057A	INSTRUCTION BOOK	1		A
	E30580-2057ABS	INSTRUCTION BOOK	1		BS
	E30580-2058A	INSTRUCTION BOOK	1		C
	E30580-2058A	INSTRUCTION BOOK	1		EF
	E30580-2058A	INSTRUCTION BOOK	1		G
	E30580-2059A	INSTRUCTION BOOK	1		EN
	E30580-2060A	INSTRUCTION BOOK	1		U
	E30580-2060A	INSTRUCTION BOOK	1		UC
	E30580-2060A	INSTRUCTION BOOK	1		US
2	E30580-2060A	INSTRUCTION BOOK	1		UT
	BT-51006-1	REGISTER CARD	1		J
	BT-20025K	WARRANTY CARD	1		C
	BT-20134	WARRANTY CARD	1		G
	BT20060	WARRANTY CARD	1		BS
6	BT-20044G	SAFETY INSTRUCTION SHEET	1		J
	BT20071A	SERVICE CENTER LIST	1		C
	BT-56001-1	AUDIO WARRANTY CARD	1		A
	BT-20066A	EEC AGENCY	1		BS
	E43486-340A	SAFETY SHEET	1		BS
11	E43486-519A	CAUTION SHEET	1		
	ENZ2203-001	SIEMENS PLUG	1		U
	ENZ2203-001	SIEMENS PLUG	1		UC
	ENZ2202-001	SIEMENS PLUG	1		US
12	ENZ2203-001	SIEMENS PLUG	1		UT
	E03614-004	BIUT-IN ANTENNA	1		A
	E03614-004	BIUT-IN ANTENNA	1		BS
	E03614-004	BIUT-IN ANTENNA	1		C
13	E03614-004	BIUT-IN ANTENNA	1		EF
	E03614-004	BIUT-IN ANTENNA	1		EN
	E03614-004	BIUT-IN ANTENNA	1		J
	E03614-004	BIUT-IN ANTENNA	1		U
	E03614-004	BIUT-IN ANTENNA	1		UC
14	E03614-004	BIUT-IN ANTENNA	1		US
	E03614-004	BIUT-IN ANTENNA	1		UT
	E67007-001	ANTENNA WIRE	1		G
	EWf102-040	FLAT WIRE ASSY	1		A
	EWf102-040	FLAT WIRE ASSY	1		BS
	EWf102-040	FLAT WIRE ASSY	1		EF
	EWf102-040	FLAT WIRE ASSY	1		EN
	EWf102-040	FLAT WIRE ASSY	1		G
	EWf102-040	FLAT WIRE ASSY	1		GI
	EWf102-040	FLAT WIRE ASSY	1		U
15	EWf102-040	FLAT WIRE ASSY	1		UC
	EWf102-040	FLAT WIRE ASSY	1		US
	EWf102-040	FLAT WIRE ASSY	1		UT
	EQB4001-015	LOOP ANTENNA	1		
	EMZ2001-014	ADAPTOR PLUG	1		A
16	EMZ2001-014	ADAPTOR PLUG	1		BS
	EMZ2001-014	ADAPTOR PLUG	1		C
	EMZ2001-014	ADAPTOR PLUG	1		
	EMZ2001-014	ADAPTOR PLUG	1		EF
	EMZ2001-014	ADAPTOR PLUG	1		EN
	EMZ2001-014	ADAPTOR PLUG	1		J
	EMZ2001-014	ADAPTOR PLUG	1		U
	EMZ2001-014	ADAPTOR PLUG	1		UC

△	Item	Part Number	Part Name	Q'ty	Description	Areas
	17	EMZ2001-014	ADAPTOR PLUG	1		US
		EMZ2001-014	ADAPTOR PLUG	1		UT
		R06PRPA-2STSA	BATTERY	1		J
		R06PRPA-2STSA	BATTERY	1		C
		UM-3(DJ)-2PSA	BATTERY	1		A
		UM-3(DJ)-2PSA	BATTERY	1		BS
		UM-3(DJ)-2PSA	BATTERY	1		EF
		UM-3(DJ)-2PSA	BATTERY	1		EN
		UM-3(DJ)-2PSA	BATTERY	1		G
		UM-3(DJ)-2PSA	BATTERY	1		U
	18	UM-3(DJ)-2PSA	BATTERY	1		UC
		UM-3(DJ)-2PSA	BATTERY	1		US
		UM-3(DJ)-2PSA	BATTERY	1		UT
	19	RM-SEC55U	REMOTE CONTROLLER	1		
		E26072-020	MAGAZINE	1		
	20	E26078-001	TRAY	6		
	21	QPGA025-03505B	POLY BAG	1		

△ SAFETY PARTS

The Marks for Designated Areas

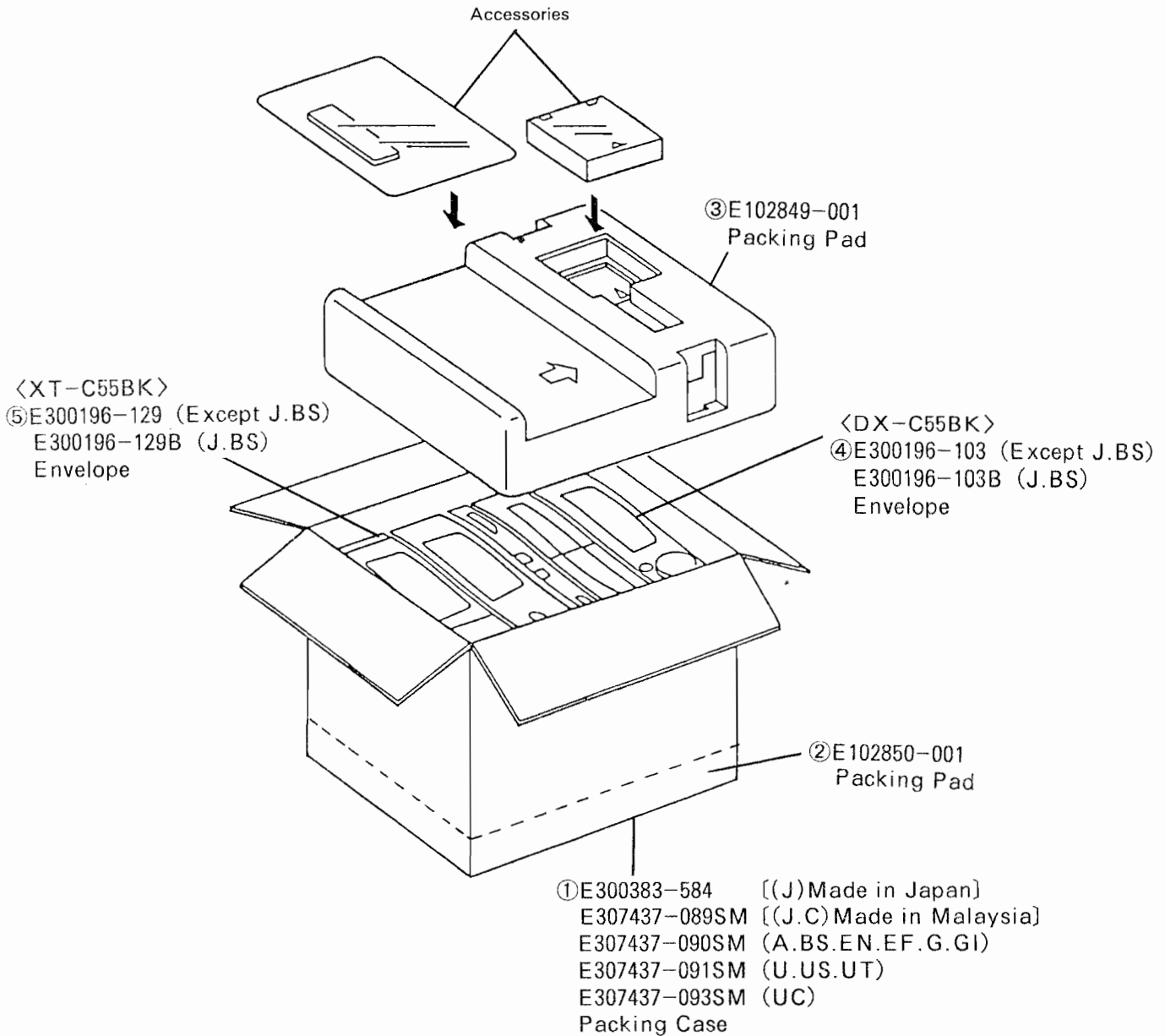
J the U.S.A. C Canada A Australia BS the U.K.
 EN Scandinavia EF Continental Europe G Germany GI Italy
 UC China US Singapore UT Taiwan U Universal Type

No mark indicates all areas.

Packing Materials and Part Numbers

Symbol No.

M	4	M	M
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The Marks for Designated Areas					
J	the U.S.A.	C	Canada
A	Australia	BS	the U.K.
EN	Scandinavia	EF	Continental Europe
G	Germany	GI	Italy
US	Singapore	UT	Taiwan
UC	China	U	Universal Type
No mark indicates all areas.					

XT-C55BK

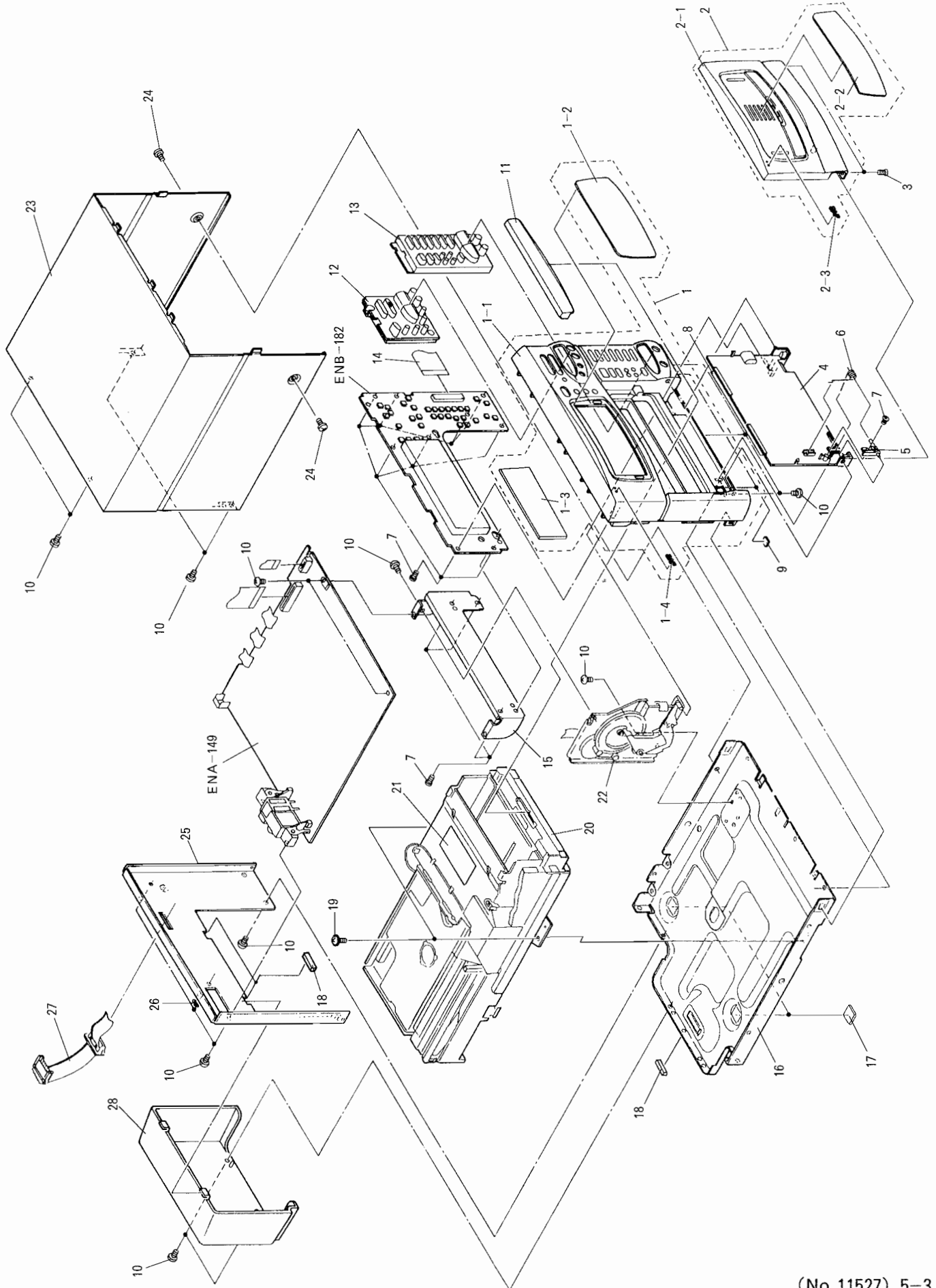
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■ ENB-182 <input type="checkbox"/> System Controller & Front PC Board Ass'y	5-17

General Exploded View and Parts List

Symbol No.

M	5	M	M
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Parts List

Item	Part Number	Part Name	Q'ty	Description	Area
1	EFP-XTC55BKE(S)	FRONT PANEL ASSY	1		
1	EFP-XTC55BKJ(S)	FRONT PANEL ASSY	1		
1-1	E102811-007SM	FRONT PANEL	1		
1-2	E308822-001	WINDOW SCREEN	1		Except J
	E308822-002SM	WINDOW SCREEN	1		J
1-3	E70561-259SM	FL SCREEN	1		J
1-4	E406971-221	JVC MARK	1		
2	E102813-007SA	DOOR PANEL ASSY	1		
2-1	E102813-007SM	DOOR PANEL	1		
2-2	E308824-004SM	WINDOW SCREEN	1		
2-3	E406971-221	JVC MARK	1		
3	SSSF2606M	TAPPING SCREW	2		
4	E208068-002	BACK PANEL	1		
5	E308844-002SM	DOOR HINGE	1		
6	E407966-001	SPRING	1		
7	SDSF2608Z	SCREW	14		
8	E73660-078	PROTECT SHEET	1		
9	E75896-001	SPACER	2		
10	SBSG3008CC	TAPPING SCREW	17		
11	E208070-001	FITTING	1		
12	E208071-002SM	PUSH BUTTON	1		Except EF,EN,G,BS,GI
	E208071-003SM	PUSH BUTTON	1		EF,EN,G,BS,GI
13	E208074-002SM	PUSH BUTTON	1		
14	EWR129K-27TT	FFC CABLE	1	FC201	
15	E308821-001	STAY BKT	1		
16	E102810-001	CHASSIS BASE	1		
17	E75896-006	FELT SPACER	2		
18	E306805-128SM	FELT SPACER	3		
19	GBSG3008Z	TAPPING SCREW	2		
20	-----	CD CHANGER MECHANISM ASSY	1	See page 5-7	
21	E406507-001	CAUTION LABEL	1		Except J
22	-----	DOOR MECHANISM ASSY	1	See page 5-5	
23	E208069-006(S)	METAL COVER	1		
24	SDSG3006M	SCREW	2		
25	E208065-007SM	REAR PANEL	1		UC
	E208065-003SM	REAR PANEL	1	Made in Malasia	J
	E208065-013SM	REAR PANEL	1	Made in Japan	J
	E208065-014SM	REAR PANEL	1		A,C,EF,EN
	E208065-015SM	REAR PANEL	1		BS
	E208065-016SM	REAR PANEL	1		U,US,UT
	E208065-021SM	REAR PANEL	1		G,GI
26	52868-3	LUG	1		Except J,C
27	EWP902-042	FLAT WIRE ASSY	1		
28	E208067-001	REAR COVER	1		
-	E61029-005	NUMBER LABEL	1		Except J
-	E30570-001	NUMBER LABEL	1		J
-	E70891-001	CLASS 1 LABEL	1		Except J,C

⚠ : Safety parts

The Marks for Designated Areas

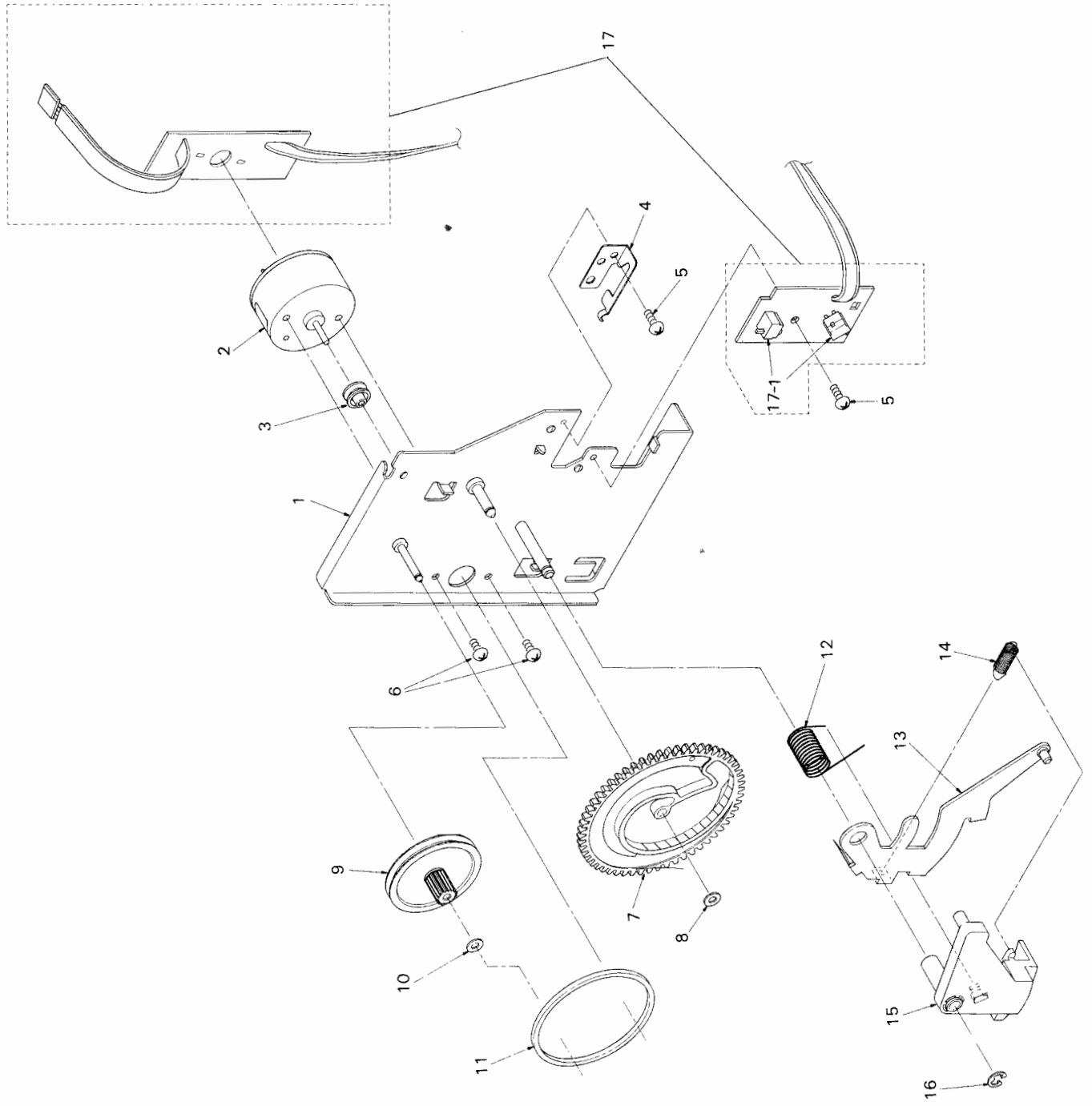
A	Australia	C	Canada	EF	Continental Euroe	EN	Scandinavia
G	Germany	GI	Italy	J	the U.S.A.	U	Universal Type
UC	China	US	Singapore	UT	Taiwan	BS	the U.K.

No mark indicates all area.

Door Mechanism Ass'y and Parts List

Symbol No.

M	6	M	M
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M M

Symbol No.

M 6 M M

■ Parts List (Door Mechanism Ass'y)

⚠	Item	Part Number	Part Name	Q'ty	Description	Area
	1	E308833-001	MECHA BASE	1		
	2	RF-500TB-12560	DC MOTOR	1		
	3	VKR4207-003	MOTOR PULLEY	1		
	4	E408037-001	ACTUATOR	1		
	5	SDST2605Z	SCREW	1		
	6	SPSK2625Z	SCREW	2		
	7	E308829-001	DRIVE CAM	1		
	8	WDL316035-2	SLIT WASHER	1		
	9	VKR4677-002	IDLER GEAR	1		
	10	WDL214035-2	WASHER	1		
	11	E407150-001	CD BELT	1		
	12	E407982-001	SPRING	1		
	13	E308830-001	LEVER (A) ASSY	1		
	14	E407981-001	SPRING	1		
	15	E308832-001	LEVER (B)	1		
	16	REE3000X	'E' WASHER	1		
	17	ENC-111A	PRINTED WIRING BOARD ASSY	1		
	17-1	QSP2K11-E04	PUSH SWITCH	2		

⚠ : Safety Parts

The Marks for Designated Areas

J the U.S.A. C Canada No mark indicates all area.

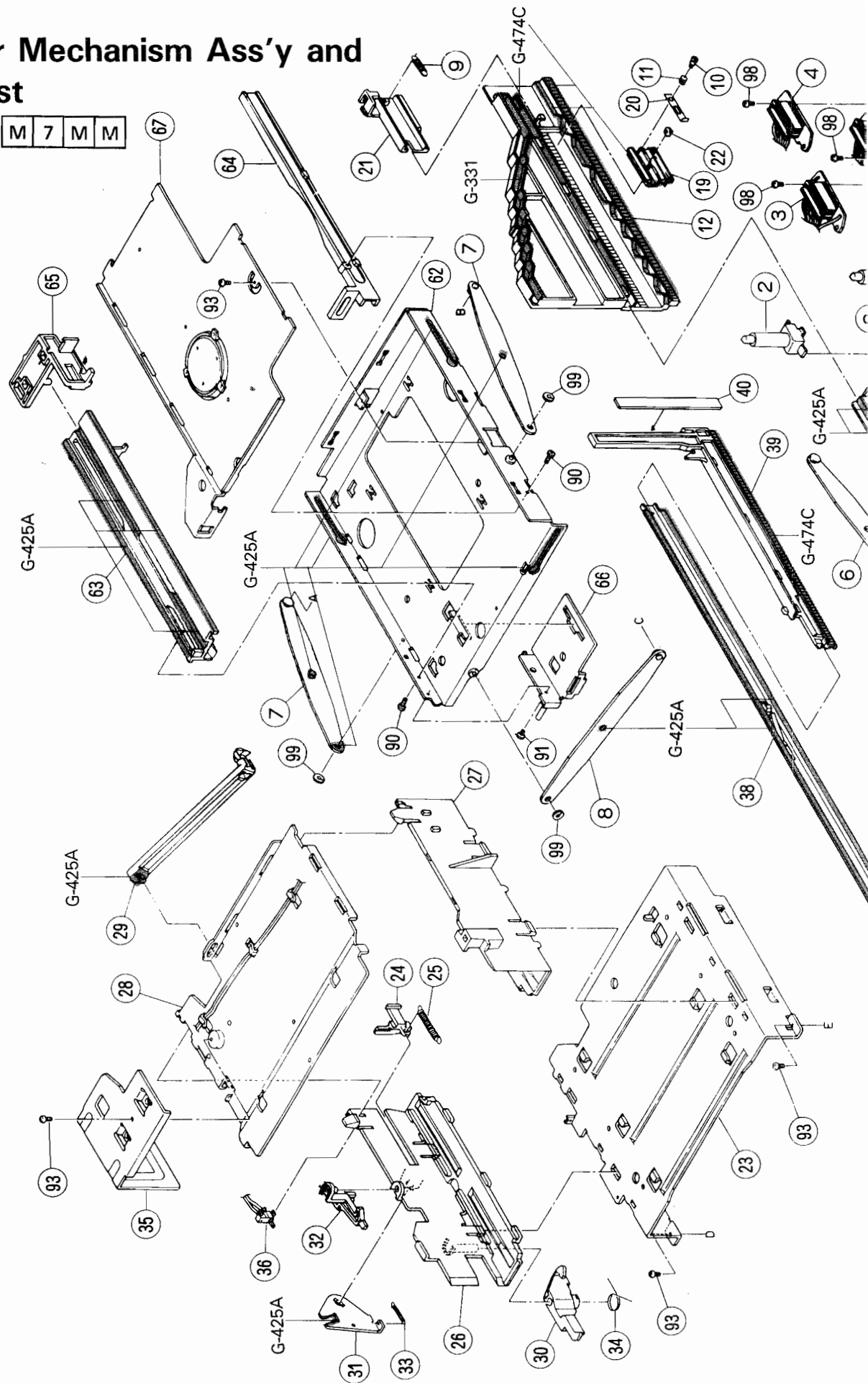


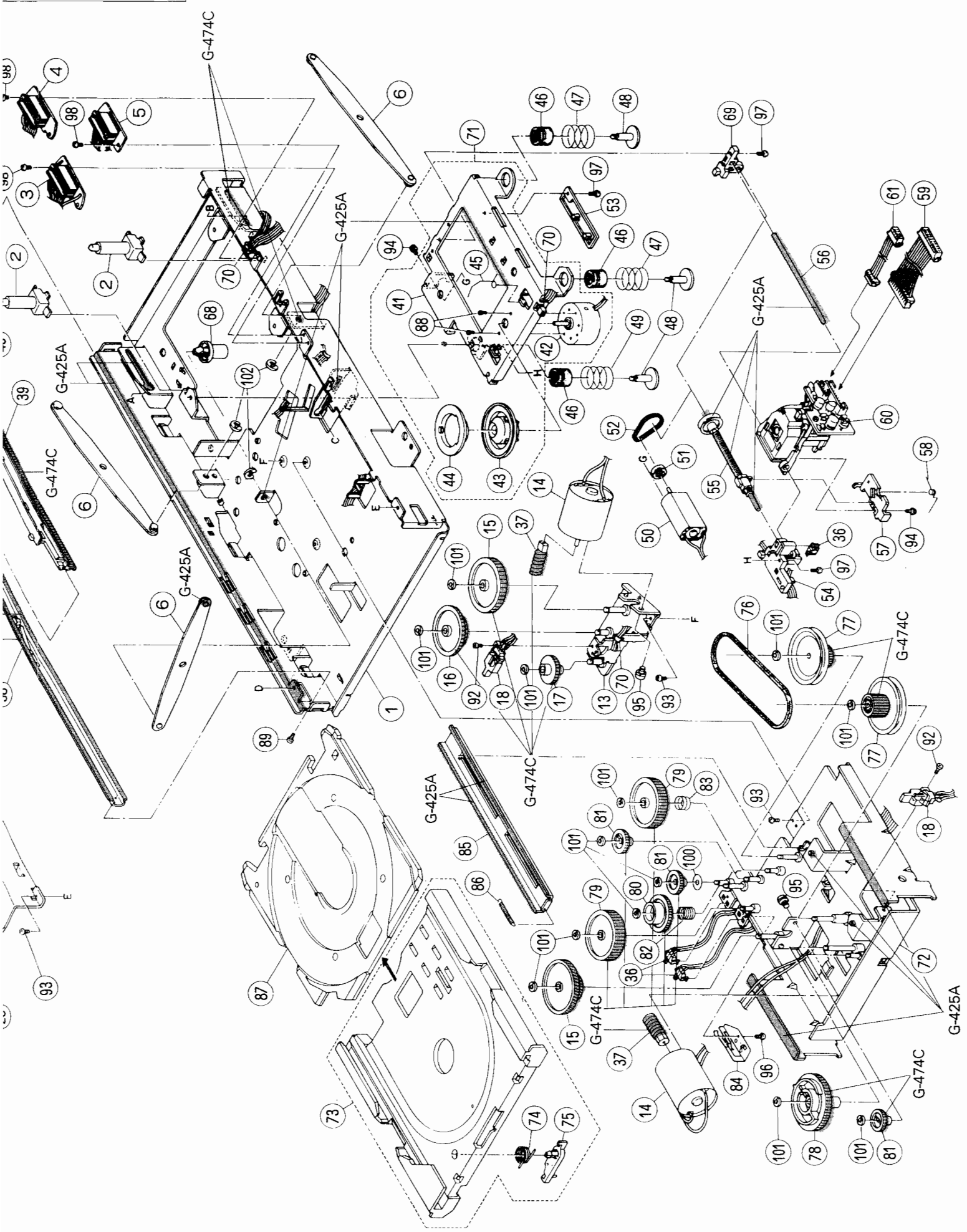
Changer Mechanism Ass'y and Parts List

Symbol No.

M	7	M	M
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Grease G-425A : EBS0006-018B
 G-474C : EBS0006-019B





Symbol No.

M	7	M	M
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Parts List (Changer Mechansim Ass'y)

Item	Part Number	Part Name	Q'ty	Description	Area
1	30100101T	CHASSIS BASE	1		
2	30050115T	GUIDE BOSS	2		
3	300501302T	PRINTED WIRING BOARD ASSY	1		
4	301001301T	PRINTED WIRING BOARD ASSY	1		
5	300501304T	PRINTED WIRING BOARD ASSY	1		
6	301002502T	ELEVATOR ARM ASSY	3		
7	301002503T	ELEVATOR ARM ASSY	2		
8	301002504T	FRONT ARM ASSY	1		
9	30100221T	LEVER SPRING	1		
10	30100222T	SCREW	1		
11	30100223T	SPRING	1		
12	30100202T	LIFT CAM	1		
13	301002501T	MOTOR BRACKET	1		
14	RF-370C-15370	DC MOTOR	2		
15	30100210T	ELEVATOR GEAR	2		
16	30100211T	ELEVATOR GEAR	1		
17	30100212T	ELEVATOR GEAR	1		
18	640101167T	LEAF SWITCH	1		
19	30100204T	CAM SLIDER	1		
20	30100205T	SPRING PLATE	1		
21	30100206T	CAM LEVER	1		
22	30100207T	CAM ROLLER	1		
23	30100301T	GUIDE BASE	1		
24	30100311T	SLIDE LEVER	1		
25	30100312T	LEVER SPRING	1		
26	301003703T	GUIDE ARM	1	LEFT	
27	30050303T	GUIDE ARM	1	RIGHT	
28	30100305T	GUIDE COVER	1		
29	30100309T	LEVER SPRING	1		
30	30100310T	RELEASE LEVER	1		
31	30100308T	KICK LEVER	1		
32	30100307T	LOCK LEVER	1		
33	30100309T	LEVER SPRING	1		
34	30100313T	LEVER SPRING	1		
35	301003706T	STABILIZER	1		
36	64020403T	PUSH SWITCH	4		
37	30050508T	ELEVATOR GEAR	2		
38	301005501T	UPPER RAIL	1		
39	30100504T	SLIDE GEAR	1		
40	30100505T	GEAR PLATE	1		
41	30050738T	TURN TABLE BASE	1		
42	60020705T	DC MOTOR	1		
43	30050729T	TURNTABLE	1		
44	30050713T	LOCK RING	1		
45	30050742T	SPRING	1		
46	30050721T	FLOATING RUBBER	3		
47	30050715T	FLOATING SPRING	2		
48	30050743T	SCREW	3		
49	30050740T	SPRING	1		
50	60021102T	DC MOTOR	1		
51	30050709T	MOTOR PULLEY	1		
52	30050714T	CAPSTAN BELT	1		
53	30050737T	ARM SUPPORT	1		
54	30050724T	SHAFT HOLDER	1		
55	300507303T	SCREW	1		

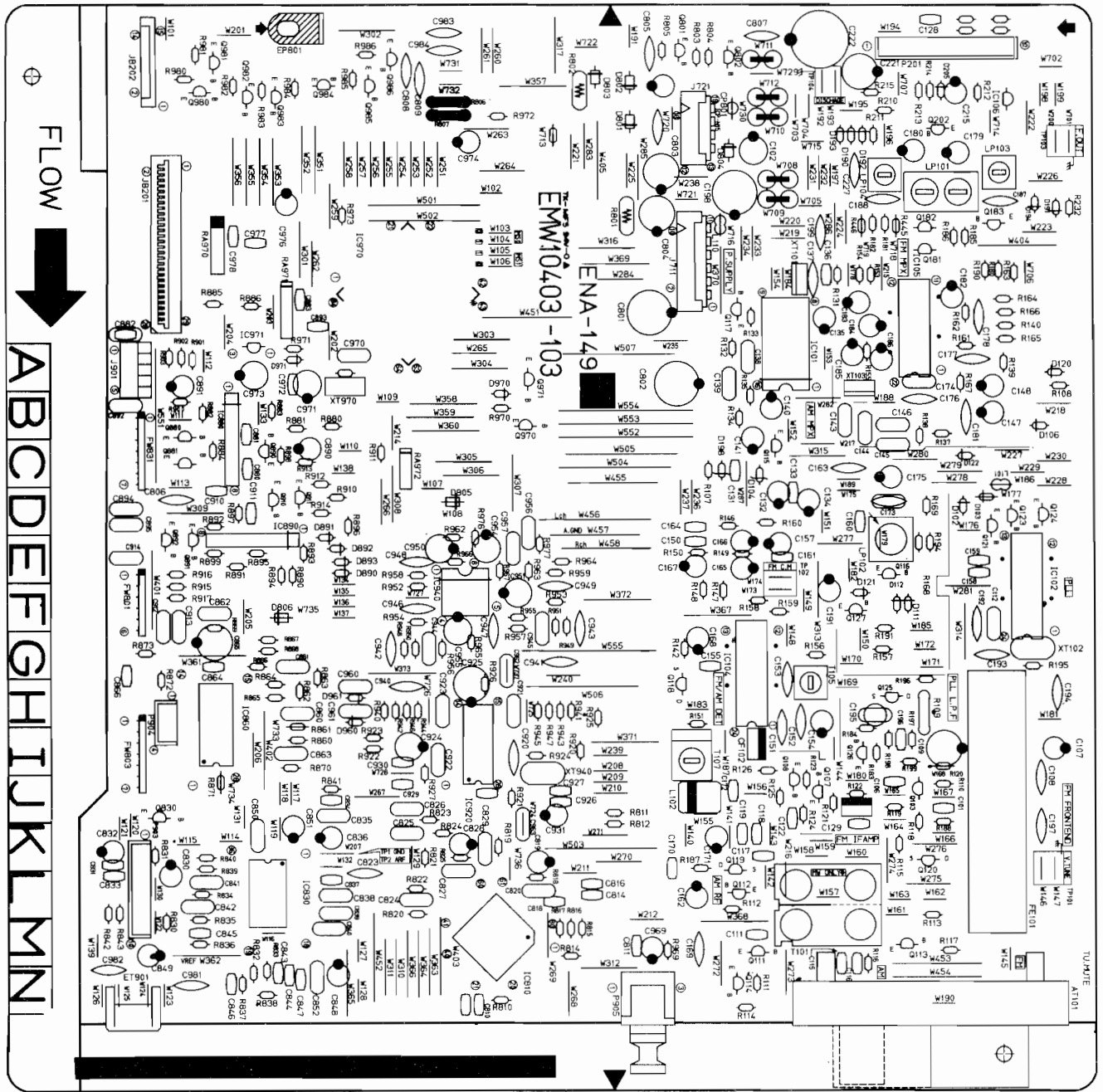
△	Item	Part Number	Part Name	Q'ty	Description	Area
	56	30050728T	DRIVE SHAFT	1		
	57	30050735T	LOCK HOLDER	1		
	58	30050739T	SPRING	1		
	59	EWS26A-B428	SOCKET WIRE ASSY	1		
	60	OPTIMA-5S	OPTICAL PICK-UP	1		
	61	EWS264-B434	SOCKET WIRE ASSY	1	4PIN	
	62	301008503T	RAIL BASE ASSY	1		
	63	30100802T	SLIDE RAIL	1	LEFT	
	64	30100803T	SLIDE RAIL	1	RIGHT	
	65	30100804T	HOOK LEVER	1		
	66	301008502T	LP BRACKET ASSY	1		
	67	301008301T	MAGNET HOLDER	1		
	68	30050114T	ARM SUPPORT	1		
	69	30050725T	JOINT HOLDER	1		
	70	12030105T	TIE BAND	4		
	71	300507305	PLUS BASE ASSY	1		
	72	301004502T	MOUNT BASE	1		
	73	301004301T	RAIL BASE ASSY	1		
	74	30100415T	STOPPER SPRING	1		
	75	30050416T	STOPPER BASE	1		
	76	30100411T	LOADING BELT	1		
	77	30100403T	FEED GEAR	2		
	78	30100404T	FEED GEAR	1		
	79	30100515T	FEED GEAR	2		
	80	30100506T	FEED GEAR	1		
	81	30100516T	FEED GEAR	3		
	82	30100413T	GEAR SPRING	1		
	83	30100412T	GEAR SPRING	1		
	84	30100414T	ACTUATOR	1		
	85	30100409T	SLIDE RAIL	1		
	86	30100410T	RAIL SPRING	1		
	87	E26554-004	CD TRAY	1		
	88	SPSK1722M	SCREW	2		
	89	9C0420253T	SCREW	1		
	90	9C0820601T	SCREW	1		
	91	9C1220301T	SCREW	1		
	92	9C0420403T	SCREW	2		
	93	9P0420031T	SCREW	6		
	94	9P0220031T	SCREW	2		
	95	9P0230041T	SCREW	2		
	96	9P1120032T	TAPPING SCREW	1		
	97	9P0420051T	SCREW	3		
	98	9P0420041T	SCREW	3		
	99	9W0640040T	WASHER	3		
	100	9W0113080T	WASHER	2		
	101	9W0250110T	WASHER	14		
	102	REE3000X	'E' WASHER	3		

△ : Safety Parts

Printed Circuit Board Ass'y and Parts List

■ ENA-149 □ CD & Tuner PC Board Ass'y

Note : ENA-149 □ varies according to the areas employed. See note (1) when placing an order.



Note (1)

PC Board Ass'y	Version	Designated Areas
ENA-149 A	J	the U.S.A.
ENA-149 B	U	Universal Type
	UC	China
	US	Singapore
	UT	Taiwan
ENA-149 C	A	Australia
ENA-149 D	EF	Continental Europe
	EN	Scandinavia

ENA-149 E	G	Germany
ENA-149 F	BS	the U.K.
ENA-149 G	GI	Italy
ENA-149 K	C	Canada

TRANSISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q103	2SC461(B,C)	SI.TRANSIST HITACHI	
	Q107	2SC535(B,C)	SI.TRANSIST	
	Q108	2SC461(B,C)	SI.TRANSIST HITACHI	
	Q111	2SD2144S(VW)	SI.TRANSIST ROHM	BS
	Q111	2SD2144S(VW)	SI.TRANSIST ROHM	EF
	Q111	2SD2144S(VW)	SI.TRANSIST ROHM	EN
	Q111	2SD2144S(VW)	SI.TRANSIST ROHM	G
	Q111	2SD2144S(VW)	SI.TRANSIST ROHM	GI
	Q112	2SD2144S(VW)	SI.TRANSIST ROHM	BS
	Q112	2SD2144S(VW)	SI.TRANSIST ROHM	EF
	Q112	2SD2144S(VW)	SI.TRANSIST ROHM	EN
	Q112	2SD2144S(VW)	SI.TRANSIST ROHM	G
	Q112	2SD2144S(VW)	SI.TRANSIST ROHM	GI
	Q113	2SD2144S(VW)	SI.TRANSIST ROHM	BS
	Q113	2SD2144S(VW)	SI.TRANSIST ROHM	EF
	Q113	2SD2144S(VW)	SI.TRANSIST ROHM	EN
	Q113	2SD2144S(VW)	SI.TRANSIST ROHM	G
	Q113	2SD2144S(VW)	SI.TRANSIST ROHM	GI
	Q114	2SC3311A(Q,R)	SI.TRANSIST MATSUSHITA	BS
	Q114	2SC3311A(Q,R)	SI.TRANSIST MATSUSHITA	EF
	Q114	2SC3311A(Q,R)	SI.TRANSIST MATSUSHITA	EN
	Q114	2SC3311A(Q,R)	SI.TRANSIST MATSUSHITA	G
	Q114	2SC3311A(Q,R)	SI.TRANSIST MATSUSHITA	GI
	Q119	2SK301(P,Q)	F.E.T. MATSUSHITA	G
	Q119	2SK301(P,Q)	F.E.T. MATSUSHITA	GI
	Q120	2SK301(P,Q)	F.E.T. MATSUSHITA	G
	Q120	2SK301(P,Q)	F.E.T. MATSUSHITA	GI
	Q121	DTA144ES	DIGITAL TRA ROHM	BS
	Q121	DTA144ES	DIGITAL TRA ROHM	EF
	Q121	DTA144ES	DIGITAL TRA ROHM	EN
	Q121	DTA144ES	DIGITAL TRA ROHM	G
	Q121	DTA144ES	DIGITAL TRA ROHM	GI
	Q123	DTA144ES	DIGITAL TRA ROHM	
	Q124	DTA144ES	DIGITAL TRA ROHM	
	Q125	2SK301(Q2)	F.E.T.	
	Q126	2SC3311A(Q,R)	SI.TRANSIST MATSUSHITA	
	Q127	DTC144ES	DIGITAL TRA ROHM	
	Q801	2SA934(Q,R)	SI.TRANSIST ROHM	
	Q802	DTA144ES	DIGITAL TRA ROHM	
	Q880	2SC2060(Q,R)	SI.TRANSIST ROHM	
	Q881	2SA934(Q,R)	SI.TRANSIST ROHM	
	Q890	DTC144ES	DIGITAL TRA ROHM	
	Q891	2SC2060(Q,R)	SI.TRANSIST ROHM	
	Q892	2SA934(Q,R)	SI.TRANSIST ROHM	
	Q910	2SC2060(Q,R)	SI.TRANSIST ROHM	
	Q911	2SA934(Q,R)	SI.TRANSIST ROHM	
	Q970	DTA114YS	DIGITAL TRA ROHM	
	Q971	DTC114YS	DIGITAL TRA ROHM	

I. C. S.

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC102	LC7218	I.C.(DIGI-MO	
	IC104	LA1266A	I.C.(MONO-AN SANYO	
	IC105	LA3401	I.C.(MONO-AN SANYO	
	IC810	MN662720RB	I.C.(DIGI-MO MATSUSHITA	
	IC830	AN8803SB	I.C.(MONO-AN MATSUSHITA	
	IC860	BA6393FP	I.C.(MONO-AN ROHM	
	IC880	MS218AL	I.C.(MONO-AN MITSUBISHI	
	IC890	MS218AL	I.C.(MONO-AN MITSUBISHI	
	IC920	MN35502	I.C.(DIGI-MO MATSUSHITA	
	IC940	BA15218	I.C.(MONO-AN ROHM	
	IC970	MN172412JHS1	I.C.(MICRO-C MATSUSHITA	
	IC971	MN1281(P,Q)	I.C.(DIGI-MO MATSUSHITA	

DIODES

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	D102	1SS133	SI.DIODE ROHM	BS
	D102	1SS133	SI.DIODE ROHM	EF
	D102	1SS133	SI.DIODE ROHM	EN
	D102	1SS133	SI.DIODE ROHM	G
	D102	1SS133	SI.DIODE ROHM	GI
	D103	1SS133	SI.DIODE ROHM	BS
	D103	1SS133	SI.DIODE ROHM	EF
	D103	1SS133	SI.DIODE ROHM	EN
	D103	1SS133	SI.DIODE ROHM	G
	D103	1SS133	SI.DIODE ROHM	GI
	D106	1SS133	SI.DIODE ROHM	
	D120	1SS133	SI.DIODE ROHM	
	D121	1SS133	SI.DIODE ROHM	
	D122	1SS133	SI.DIODE ROHM	
	D190	1SS133	SI.DIODE ROHM	

DIODES

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	D191	1SS133	SI.DIODE ROHM	
	D193	1SS133	SI.DIODE ROHM	
	D194	1SS133	SI.DIODE ROHM	
	D198	MTZ5.1JC	ZENER DIODE ROHM	
	D801	1SR139-200	SI.DIODE ROHM	
	D802	1SR139-200	SI.DIODE ROHM	
	D803	1SR139-200	SI.DIODE ROHM	
	D804	1SR139-200	SI.DIODE ROHM	
	D890	1SS119	SI.DIODE	
	D891	1SS119	SI.DIODE	
	D892	1SS119	SI.DIODE	
	D893	1SS119	SI.DIODE	
	D960	1SS119	SI.DIODE	
	D961	1SS119	SI.DIODE	
	D970	1SS119	SI.DIODE	
	D971	1SS119	SI.DIODE	

CAPACITORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C101	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C102	QETB0JM-227	220MF 6.3V E.CAPACITO	
	C106	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C107	QETB1EM-226	22MF 25V E.CAPACITO	G
	C107	QETB1EM-226	22MF 25V E.CAPACITO	GI
	C108	QCF21HP-103A	0.01MF 50V CER.CAPACI	
	C109	QETB1CM-227	220MF 16V AL E.CAPAC	
	C111	QCHB1EZ-223	0.022MF 25V CER.CAPACI	BS
	C111	QCHB1EZ-223	0.022MF 25V CER.CAPACI	EF
	C111	QCHB1EZ-223	0.022MF 25V CER.CAPACI	EN
	C111	QCHB1EZ-223	0.022MF 25V CER.CAPACI	G
	C111	QCHB1EZ-223	0.022MF 25V CER.CAPACI	GI
	C112	QCS21HJ-101A	100PF 50V CER.CAPACI	
	C115	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C116	QCT30CH-120Y	12PF 50V CER.CAPACI	
	C117	QCHB1EZ-223	0.022MF 25V CER.CAPACI	G
	C117	QCHB1EZ-223	0.022MF 25V CER.CAPACI	GI
	C118	QCHB1EZ-223	0.022MF 25V CER.CAPACI	G
	C118	QCHB1EZ-223	0.022MF 25V CER.CAPACI	GI
	C119	QCSB1HK-561Y	560PF 50V CER.CAPACI	G
	C119	QCSB1HK-561Y	560PF 50V CER.CAPACI	GI
	C122	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C127	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	
	C129	QCT30UJ-2R2Y	2.2PF 50V CER.CAPACI	G
	C129	QCT30UJ-2R2Y	2.2PF 50V CER.CAPACI	GI
	C131	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C150	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C151	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C152	QCF21HP-223A	0.022MF 50V CER.CAPACI	
	C153	QCC21EM-223	0.022MF 25V CER.CAPACI	
	C155	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C157	QETB1HM-474	0.47MF 50V ELECTRO	
	C158	QCSB1HK-101Y	100PF 50V CER.CAPACI	
	C159	QCSB1HK-101Y	100PF 50V CER.CAPACI	
	C160	QCSB1HK-221Y	220PF 50V CER.CAPACI	
	C161	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C162	QETB1HM-106	10MF 50V E.CAPACITO	
	C163	QCF31HP-102Z	1000PF 50V CER.CAPACI	
	C164	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C165	QETB1HM-474	0.47MF 50V ELECTRO	
	C166	QETB1HM-225	2.2MF 50V E.CAPACITO	
	C167	QETB1HM-225	2.2MF 50V E.CAPACITO	
	C168	QETB1HM-475E	4.7MF 50V E.CAPACITO	
	C169	QCZ0205-155	1.5MF 25V C.CAPACITO	BS
	C169	QCZ0205-155	1.5MF 25V C.CAPACITO	EF
	C169	QCZ0205-155	1.5MF 25V C.CAPACITO	EN
	C169	QCZ0205-155	1.5MF 25V C.CAPACITO	G
	C169	QCZ0205-155	1.5MF 25V C.CAPACITO	GI
	C170	QCHB1EZ-223	0.022MF 25V CER.CAPACI	
	C171	QETB1HM-106	10MF 50V E.CAPACITO	
	C172	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	
	C173	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	A
	C173	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	BS
	C173	QFLB1HJ-393	0.039MF 50V MYLAR CAPA	C
	C173	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	EF
	C173	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	EN
	C173	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	G
	C173	QFLB1HJ-223	0.022MF 50V MYLAR CAPA	GI
	C173	QFLB1HJ-393	0.039MF 50V MYLAR CAPA	J
	C173	QFLB1HJ-393	0.039MF 50V MYLAR CAPA	U
	C173	QFLB1HJ-393	0.039MF 50V MYLAR CAPA	UC
	C173	QFLB1HJ-393	0.039MF 50V MYLAR CAPA	US
	C173	QFLB1HJ-393	0.039MF 50V MYLAR CAPA	UT
	C174	QFLB1HK-473	0.047MF 50V MYLAR CAPA	
	C175	QETB1HM-106	10MF 50V E.CAPACITO	
	C176	QCY21HK-102	1000PF 50V CER.CAPACI	
	C177	QCS21HJ-561	560PF 50V CER.CAPACI	A
	C177	QCS21HJ-821	820PF 50V CER.CAPACI	BS
	C177	QCS21HJ-821	820PF 50V CER.CAPACI	C
	C177	QCS21HJ-561	560PF 50V CER.CAPACI	EF

Δ : SAFETY PARTS

Δ : SAFETY PARTS

CAPACITORS

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	C177	QCS21HJ-561	560PF	50V	CER. CAPACI	EN
	C177	QCS21HJ-561	560PF	50V	CER. CAPACI	G
	C177	QCS21HJ-561	560PF	50V	CER. CAPACI	GI
	C177	QCS21HJ-821	820PF	50V	CER. CAPACI	J
	C177	QCS21HJ-821	820PF	50V	CER. CAPACI	UC
	C177	QCS21HJ-821	820PF	50V	CER. CAPACI	U
	C177	QCS21HJ-821	820PF	50V	CER. CAPACI	US
	C177	QCS21HJ-821	820PF	50V	CER. CAPACI	UT
	C178	QCS21HJ-561	560PF	50V	CER. CAPACI	A
	C178	QCS21HJ-821	820PF	50V	CER. CAPACI	BS
	C178	QCS21HJ-821	820PF	50V	CER. CAPACI	C
	C178	QCS21HJ-561	560PF	50V	CER. CAPACI	EF
	C178	QCS21HJ-561	560PF	50V	CER. CAPACI	EN
	C178	QCS21HJ-561	560PF	50V	CER. CAPACI	G
	C178	QCS21HJ-561	560PF	50V	CER. CAPACI	GI
	C178	QCS21HJ-821	820PF	50V	CER. CAPACI	J
	C178	QCS21HJ-821	820PF	50V	CER. CAPACI	UC
	C178	QCS21HJ-821	820PF	50V	CER. CAPACI	US
	C178	QCS21HJ-821	820PF	50V	CER. CAPACI	UT
	C179	QETB1HM-225	2.2MF	50V	E. CAPACITO	
	C180	QETB1HM-225	2.2MF	50V	E. CAPACITO	
	C181	QCF21HP-473A	0.047MF	50V	CER. CAPACI	
	C182	QETB1HM-225	2.2MF	50V	E. CAPACITO	
	C183	QETB1HM-105	1MF	50V	AL E. CAPAC	
	C184	QETB1HM-105	1MF	50V	AL E. CAPAC	
	C185	QETB1HM-225	2.2MF	50V	E. CAPACITO	
	C186	QETB1HM-474	0.47MF	50V	ELECTRO	
	C187	QCY31HK-332Z	3300PF	50V	CER. CAPACI	
	C188	QCY31HK-332Z	3300PF	50V	CER. CAPACI	
	C191	QETB1HM-475E	4.7MF	50V	E. CAPACITO	
	C192	QCC21EM-475	0.047MF	25V	CER. CAPACI	
	C193	QCS21HJ-180A	18PF	50V	CER. CAPACI	
	C194	QCS21HJ-180A	18PF	50V	CER. CAPACI	
	C195	QEN51HM-474	0.47MF	50V	NP E. CAPAC	
	C196	QCGB1HK-102	1000PF	50V	CER. CAPACI	
	C197	QCF21HP-223A	0.022MF	50V	CER. CAPACI	
	C198	QETB1CM-477M	470MF	16V	E. CAPACITO	
	C199	QCF21HP-103A	0.01MF	50V	CER. CAPACI	
	C222	QEA40HZ-10AB			E. CAPACITO	
	C227	QCF21HP-103A	0.01MF	50V	CER. CAPACI	
	C801	QETB1CM-108M	1000MF	16V	ELECTRO	
	C802	QETB1CM-108M	1000MF	16V	ELECTRO	
	C803	QETB1CM-227	220MF	16V	AL E. CAPAC	
	C804	QETB1CM-227	220MF	16V	AL E. CAPAC	
	C805	QCF21HP-223A	0.022MF	50V	CER. CAPACI	
	C806	QCF21HP-223A	0.022MF	50V	CER. CAPACI	
	C807	QCF21HP-223A	0.022MF	50V	CER. CAPACI	
	C810	QCHB1EZ-223	0.022MF	25V	CER. CAPACI	
	C818	QCT30CH-8R2Y	8.2PF	50V	CER. CAPACI	
	C819	QETB1AM-107	100MF	10V	AL E. CAPAC	
	C820	QFV81HJ-104	0.1MF	50V	THIN FILM	
	C823	QCS21HJ-181A	180PF	50V	CER. CAPACI	
	C824	QFLB1HJ-223	0.022MF	50V	MYLAR CAPA	
	C825	QFV81HJ-104	0.1MF	50V	THIN FILM	
	C826	QFV81HJ-354	0.35MF	50V	TF. CAPACIT	
	C827	QFV81HJ-104	0.1MF	50V	THIN FILM	
	C828	QETB1AM-107	100MF	10V	AL E. CAPAC	
	C829	QFLB1HJ-223	0.022MF	50V	MYLAR CAPA	
	C830	QETB1AM-476	47MF	10V	E. CAPACITO	
	C831	QCHB1EZ-223	0.022MF	25V	CER. CAPACI	
	C832	QETB1AM-476	47MF	10V	E. CAPACITO	
	C833	QCHB1EZ-223	0.022MF	25V	CER. CAPACI	
	C834	QCSB1HK-3R9	3.9PF	50V	CER. CAPACI	
	C835	QFLB1HJ-223	0.022MF	50V	MYLAR CAPA	
	C836	QETB1HM-105	1MF	50V	AL E. CAPAC	
	C837	QCBB1HK-101Y	100PF	50V	CER. CAPACI	
	C838	QFLB1HJ-273	0.027MF	50V	MYLAR CAPA	
	C839	QFLB1HJ-222	2200PF	50V	MYLAR CAPA	
	C840	QFLB1HJ-332	3300PF	50V	MYLAR CAPA	
	C841	QFLB1HJ-683	0.068MF	50V	MYLAR CAPA	
	C842	QFV81HJ-104	0.1MF	50V	THIN FILM	
	C843	QCXB1CM-222	2200PF	16V	CER. CAPACI	
	C844	QCHB1EZ-223	0.022MF	25V	CER. CAPACI	
	C845	QCBB1HK-271Y	270PF	50V	CER. CAPACI	
	C846	QCBB1HK-181Y	180PF	50V	CER. CAPACI	
	C847	QCXB1CM-222	2200PF	16V	CER. CAPACI	
	C848	QETB1AM-107	100MF	10V	AL E. CAPAC	
	C849	QETB1AM-476	47MF	10V	E. CAPACITO	
	C850	QZ0202-155	1.5MF	25V	CER. RESIST	
	C851	QETB1AM-107	100MF	10V	AL E. CAPAC	
	C852	QFV81HJ-104	0.1MF	50V	THIN FILM	
	C860	QFLB1HJ-103	0.01MF	50V	MYLAR CAPA	
	C861	QFV81HJ-154	0.15MF	50V	THIN FILM	
	C862	QFLB1HJ-472	4700PF	50V	MYLAR CAPA	
	C863	QFLB1HJ-333	0.033MF	50V	MYLAR CAPA	
	C864	QCHB1EZ-223	0.022MF	25V	CER. CAPACI	
	C865	QETB1AM-477	470MF	10V	E. CAPACITO	
	C880	QCHB1EZ-223	0.022MF	25V	CER. CAPACI	
	C881	QCHB1EZ-223	0.022MF	25V	CER. CAPACI	
	C882	QCHB1EZ-223	0.022MF	25V	CER. CAPACI	
	C890	QETB1HM-105	1MF	50V	AL E. CAPAC	
	C891	QETB1HM-475E	4.7MF	50V	E. CAPACITO	
	C910	QCHB1EZ-223	0.022MF	25V	CER. CAPACI	
	C911	QCHB1EZ-223	0.022MF	25V	CER. CAPACI	

Δ : SAFETY PARTS

CAPACITORS

Δ	ITEM	PART NUMBER	DESCRIPTION			AREA
	C912	QCHB1EZ-223	0.022MF	25V	CER. CAPACI	
	C913	QCHB1EZ-223	0.022MF	25V	CER. CAPACI	
	C920	QCS21HJ-470	47PF	50V	CER. CAPACI	
	C921	QCZ0202-155	1.5MF	25V	CER. RESIST	
	C922	QCZ0202-155	1.5MF	25V	CER. RESIST	
	C923	QCZ0202-155	1.5MF	25V	CER. RESIST	
	C924	QETB0JM-227	220MF	6.3V	E. CAPACITO	
	C925	QETB0JM-477	470MF	6.3V	AL E. CAPAC	
	C926	QCT30CH-100Y	10PF	50V	CER. CAPACI	A
	C926	QCT30CH-100Y	10PF	50V	CER. CAPACI	BS
	C926	QCT30CH-100Y	10PF	50V	CER. CAPACI	C
	C926	QCT30CH-100Y	10PF	50V	CER. CAPACI	EF
	C926	QCT30CH-100Y	10PF	50V	CER. CAPACI	EN
	C926	QCT30CH-100Y	10PF	50V	CER. CAPACI	G
	C926	QCT30CH-100Y	10PF	50V	CER. CAPACI	GI
	C926	QCT30CH-180Y	18PF	50V	CER. CAPACI	J
	C926	QCT30CH-100Y	10PF	50V	CER. CAPACI	UC
	C926	QCT30CH-100Y	10PF	50V	CER. CAPACI	US
	C926	QCT30CH-100Y	10PF	50V	CER. CAPACI	UT
	C927	QCT30CH-120Y	12PF	50V	CER. CAPACI	A
	C927	QCT30CH-120Y	12PF	50V	CER. CAPACI	BS
	C927	QCT30CH-120Y	12PF	50V	CER. CAPACI	C
	C927	QCT30CH-120Y	12PF	50V	CER. CAPACI	EF
	C927	QCT30CH-120Y	12PF	50V	CER. CAPACI	EN
	C927	QCT30CH-120Y	12PF	50V	CER. CAPACI	G
	C927	QCT30CH-120Y	12PF	50V	CER. CAPACI	GI
	C927	QCT30CH-180Y	18PF	50V	CER. CAPACI	J
	C927	QCT30CH-100Y	10PF	50V	CER. CAPACI	UC
	C927	QCT30CH-100Y	10PF	50V	CER. CAPACI	US
	C927	QCT30CH-100Y	10PF	50V	CER. CAPACI	UT
	C942	QFLB1HJ-122	1200PF	50V	MYLAR CAPA	
	C943	QFLB1HJ-122	1200PF	50V	MYLAR CAPA	
	C944	QFLB1HJ-122	1200PF	50V	MYLAR CAPA	
	C945	QFLB1HJ-122	1200PF	50V	MYLAR CAPA	
	C946	QCY21HK-101	100PF	50V	CER. CAPACI	
	C947	QCY21HK-101	100PF	50V	CER. CAPACI	
	C948	QCY21HK-101	100PF	50V	CER. CAPACI	
	C949	QCY21HK-101	100PF	50V	CER. CAPACI	
	C950	EEZ2505-476	47MF		AL E. CAPAC	
	C951	EEZ2505-476	47MF		AL E. CAPAC	
	C954	EEZ2505-476	47MF		AL E. CAPAC	
	C955	EEZ2505-476	47MF		AL E. CAPAC	
	C960	QCZ0202-155	1.5MF	25V	CER. RESIST	
	C963	QCZ0202-155	1.5MF	25V	CER. RESIST	
	C970	QCZ0202-155	1.5MF	25V	CER. RESIST	
	C971	QETCOJM-107ZM	100MF	6.3V	E. CAPACITO	
	C972	QCHB1EZ-223	0.022MF	25V	CER. CAPACI	
	C973	QETCOJM-107ZM	100MF	6.3V	E. CAPACITO	
	C974	QETB1HM-226E	22MF	50V	E. CAPACITO	
	C976	QETB1HM-475E	4.7MF	50V	E. CAPACITO	
	C977	QCGB1HK-102	1000PF	50V	CER. CAPACI	
	C978	QCGB1HK-102	1000PF	50V	CER. CAPACI	
	C982	QCS21HJ-560	56PF	50V	CER. CAPACI	A
	C982	QCS21HJ-560	56PF	50V	CER. CAPACI	BS
	C982	QCS21HJ-560	56PF	50V	CER. CAPACI	C
	C982	QCS21HJ-560	56PF	50V	CER. CAPACI	EF
	C982	QCS21HJ-560	56PF	50V	CER. CAPACI	EN
	C982	QCS21HJ-561	560PF	50V	CER. CAPACI	G
	C982	QCS21HJ-561	560PF	50V	CER. CAPACI	GI
	C982	QCS21HJ-560	56PF	50V	CER. CAPACI	J
	C982	QCS21HJ-560	56PF	50V	CER. CAPACI	UC
	C982	QCS21HJ-560	56PF	50V	CER. CAPACI	US
	C982	QCS21HJ-560	56PF	50V	CER. CAPACI	UT
	C983	QCF21HP-473A	0.047MF	50V	CER. CAPACI	

Δ : SAFETY PARTS

RESISTORS

ITEM	PART NUMBER	DESCRIPTION	AREA
R187	QRD161J-331	330 1/6W CARBON RES	GI
R188	QRD161J-103	10K 1/6W CARBON RES	G
R188	QRD161J-103	10K 1/6W CARBON RES	GI
R189	QRD161J-105	1M 1/6W CARBON RES	G
R189	QRD161J-105	1M 1/6W CARBON RES	GI
R190	QRD161J-472	4.7K 1/6W CARBON RES	
R191	QRD167J-562	5.6K 1/6W CARBON RES	
R194	QRD161J-103	10K 1/6W CARBON RES	
R195	QRD161J-473	47K 1/6W CARBON RES	
R196	QRD161J-472	4.7K 1/6W CARBON RES	A
R196	QRD161J-222	2.2K 1/6W CARBON RES	BS
R196	QRD161J-103	10K 1/6W CARBON RES	C
R196	QRD161J-222	2.2K 1/6W CARBON RES	EF
R196	QRD161J-222	2.2K 1/6W CARBON RES	EN
R196	QRD161J-222	2.2K 1/6W CARBON RES	G
R196	QRD161J-222	2.2K 1/6W CARBON RES	GI
R196	QRD161J-103	10K 1/6W CARBON RES	J
R196	QRD161J-103	10K 1/6W CARBON RES	U
R196	QRD161J-103	10K 1/6W CARBON RES	UC
R196	QRD161J-103	10K 1/6W CARBON RES	US
R196	QRD161J-103	10K 1/6W CARBON RES	UT
R197	QRD161J-222	2.2K 1/6W CARBON RES	
R198	QRD167J-332	3.3K 1/6W CARBON RES	A
R198	QRD167J-822	8.2K 1/6W CARBON RES	BS
R198	QRD167J-332	3.3K 1/6W CARBON RES	C
R198	QRD167J-822	8.2K 1/6W CARBON RES	EF
R198	QRD167J-822	8.2K 1/6W CARBON RES	EN
R198	QRD167J-822	8.2K 1/6W CARBON RES	G
R198	QRD167J-822	8.2K 1/6W CARBON RES	GI
R198	QRD167J-332	3.3K 1/6W CARBON RES	J
R198	QRD167J-332	3.3K 1/6W CARBON RES	U
R198	QRD167J-332	3.3K 1/6W CARBON RES	UC
R198	QRD167J-332	3.3K 1/6W CARBON RES	US
R198	QRD167J-332	3.3K 1/6W CARBON RES	UT
R199	QRD161J-472	4.7K 1/6W CARBON RES	
R215	QRD161J-470	47 1/6W CARBON RES	
R232	QRD167J-153	15K 1/6W CARBON RES	
R801	PTH61G30BD2R2N	FUSIBLE RE	A
R801	PTH61G30BD2R2N	FUSIBLE RE	BS
R801	PTH61G30BD2R2N	FUSIBLE RE	C
R801	PTH61G30BD2R2N	FUSIBLE RE	EF
R801	PTH61G30BD2R2N	FUSIBLE RE	EN
R801	PTH61G30BD2R2N	FUSIBLE RE	G
R801	PTH61G30BD2R2N	FUSIBLE RE	GI
R801	QRD12CJ-2R2SX	2.2 1/2W CARBON RES	J
R801	PTH61G30BD2R2N	FUSIBLE RE	U
R801	PTH61G30BD2R2N	FUSIBLE RE	UC
R801	PTH61G30BD2R2N	FUSIBLE RE	US
R801	PTH61G30BD2R2N	FUSIBLE RE	UT
R802	PTH61G30BD2R2N	FUSIBLE RE	A
R802	PTH61G30BD2R2N	FUSIBLE RE	BS
R802	PTH61G30BD2R2N	FUSIBLE RE	C
R802	PTH61G30BD2R2N	FUSIBLE RE	EF
R802	PTH61G30BD2R2N	FUSIBLE RE	EN
R802	PTH61G30BD2R2N	FUSIBLE RE	G
R802	PTH61G30BD2R2N	FUSIBLE RE	GI
R802	QRD12CJ-2R2SX	2.2 1/2W CARBON RES	J
R802	PTH61G30BD2R2N	FUSIBLE RE	U
R802	PTH61G30BD2R2N	FUSIBLE RE	UC
R802	PTH61G30BD2R2N	FUSIBLE RE	US
R802	PTH61G30BD2R2N	FUSIBLE RE	UT
R803	QRD161J-472	4.7K 1/6W CARBON RES	
R804	QRD161J-331	330 1/6W CARBON RES	
R805	QRD161J-472	4.7K 1/6W CARBON RES	
R806	QRD14CJ-2R2SX	2.2 1/4W UNF. CARBON	
R807	QRD14CJ-2R2SX	2.2 1/4W UNF. CARBON	
R810	QRD167J-102	1K 1/6W CARBON RES	
R811	QRD167J-102	1K 1/6W CARBON RES	
R812	QRD167J-102	1K 1/6W CARBON RES	
R815	QRD167J-102	1K 1/6W CARBON RES	
R816	QRD167J-102	1K 1/6W CARBON RES	
R817	QRD167J-102	1K 1/6W CARBON RES	
R818	QRD161J-2R2	2.2 1/6W CARBON RES	
R819	QRD161J-472	4.7K 1/6W CARBON RES	
R820	QRD161J-104	100K 1/6W CARBON RES	
R821	QRD161J-104	100K 1/6W CARBON RES	
R822	QRD167J-155	1.5M 1/6W CARBON RES	
R823	QRD161J-681	680 1/6W CARBON RES	
R824	QRD161J-124	120K 1/6W CARBON RES	
R825	QRD161J-2R2	2.2 1/6W CARBON RES	
R830	QRD167J-121	120 1/6W CARBON RES	
R831	QRD161J-222	2.2K 1/6W CARBON RES	
R832	QRD167J-154	150K 1/6W CARBON RES	
R833	QRD161J-394	390K 1/6W CARBON RES	
R834	QRD167J-134	130K 1/6W CARBON RES	
R835	QRD161J-913	91K 1/6W CARBON RES	
R836	QRD161J-273	27K 1/6W CARBON RES	
R837	QRD161J-683	68K 1/6W CARBON RES	
R838	QRD161J-103	10K 1/6W CARBON RES	
R839	QRD161J-103	10K 1/6W CARBON RES	
R840	QRD161J-103	10K 1/6W CARBON RES	
R841	QRD161J-123	12K 1/6W CARBON RES	
R842	QRD167J-471	470 1/6W CARBON RES	
R843	QRD161J-2R2	2.2 1/6W CARBON RES	
R860	QRD161J-103	10K 1/6W CARBON RES	

△ : SAFETY PARTS

RESISTORS

ITEM	PART NUMBER	DESCRIPTION	AREA
R862	QRD167J-272	2.7K 1/6W CARBON RES	
R863	QRD167J-682	6.8K 1/6W CARBON RES	
R864	QRD167J-152	1.5K 1/6W CARBON RES	
R865	QRD161J-203	20K 1/6W CARBON RES	
R866	QRD167J-332	3.3K 1/6W CARBON RES	
R867	QRD161J-472	4.7K 1/6W CARBON RES	
R868	QRD167J-433	43K 1/6W CARBON RES	
R869	QRD167J-223	22K 1/6W CARBON RES	
R870	QRD161J-681	680 1/6W CARBON RES	
R872	QRD161J-752	7.5K 1/6W CARBON RES	
R873	QRD167J-151	150 1/6W CARBON RES	
R880	QRD161J-513	51K 1/6W CARBON RES	
R881	QRD161J-513	51K 1/6W CARBON RES	
R882	QRD161J-473	47K 1/6W CARBON RES	
R883	QRD161J-473	47K 1/6W CARBON RES	
R884	QRD161J-221	220 1/6W CARBON RES	
R885	QRD161J-221	220 1/6W CARBON RES	
R886	QRD161J-221	220 1/6W CARBON RES	
R890	QRD167J-153	15K 1/6W CARBON RES	
R891	QRD161J-123	12K 1/6W CARBON RES	
R892	QRD161J-393	39K 1/6W CARBON RES	
R893	QRD161J-103	10K 1/6W CARBON RES	
R894	QRD161J-273	27K 1/6W CARBON RES	
R895	QRD167J-223	22K 1/6W CARBON RES	
R896	QRD161J-473	47K 1/6W CARBON RES	
R897	QRD161J-752	7.5K 1/6W CARBON RES	
R898	QRD161J-303Y	30K 1/6W CARBON RES	
R899	QRD161J-221	220 1/6W CARBON RES	
R900	QRD167J-102	1K 1/6W CARBON RES	
R901	QRD167J-102	1K 1/6W CARBON RES	
R902	QRD167J-102	1K 1/6W CARBON RES	
R903	QRD167J-102	1K 1/6W CARBON RES	
R910	QRD161J-243	24K 1/6W CARBON RES	
R911	QRD161J-183	18K 1/6W CARBON RES	
R912	QRD161J-183	18K 1/6W CARBON RES	
R913	QRD161J-163	16K 1/6W CARBON RES	
R914	QRD161J-820	82 1/6W CARBON RES	
R915	QRD167J-102	1K 1/6W CARBON RES	
R916	QRD167J-102	1K 1/6W CARBON RES	
R917	QRD167J-102	1K 1/6W CARBON RES	
R920	QRD167J-511	510 1/6W CARBON RES	A
R920	QRD167J-511	510 1/6W CARBON RES	BS
R920	QRD167J-511	510 1/6W CARBON RES	C
R920	QRD167J-511	510 1/6W CARBON RES	EF
R920	QRD167J-511	510 1/6W CARBON RES	EN
R920	QRD161J-101	100 1/6W CARBON RES	G
R920	QRD161J-101	100 1/6W CARBON RES	GI
R920	QRD167J-511	510 1/6W CARBON RES	J
R920	QRD167J-511	510 1/6W CARBON RES	U
R920	QRD167J-511	510 1/6W CARBON RES	UC
R920	QRD167J-511	510 1/6W CARBON RES	US
R920	QRD167J-511	510 1/6W CARBON RES	UT
R924	QRD161J-271	270 1/6W CARBON RES	
R925	QRD161J-101	100 1/6W CARBON RES	
R926	QRD161J-122	1.2K 1/6W CARBON RES	
R927	QRD161J-561	560 1/6W CARBON RES	
R940	QRD161J-363	36K 1/6W CARBON RES	
R941	QRD161J-363	36K 1/6W CARBON RES	
R942	QRD161J-363	36K 1/6W CARBON RES	
R943	QRD161J-363	36K 1/6W CARBON RES	
R944	QRD161J-363	36K 1/6W CARBON RES	
R945	QRD161J-363	36K 1/6W CARBON RES	
R946	QRD161J-363	36K 1/6W CARBON RES	
R947	QRD161J-363	36K 1/6W CARBON RES	
R948	QRD167J-153	15K 1/6W CARBON RES	
R949	QRD167J-153	15K 1/6W CARBON RES	
R950	QRD167J-153	15K 1/6W CARBON RES	
R951	QRD167J-153	15K 1/6W CARBON RES	
R952	QRD161J-362	3.6K 1/6W CARBON RES	
R953	QRD161J-362	3.6K 1/6W CARBON RES	
R954	QRD161J-362	3.6K 1/6W CARBON RES	
R955	QRD161J-362	3.6K 1/6W CARBON RES	
R956	QRD161J-333	33K 1/6W CARBON RES	
R957	QRD161J-333	33K 1/6W CARBON RES	
R958	QRD161J-333	33K 1/6W CARBON RES	
R959	QRD161J-333	33K 1/6W CARBON RES	
R962	QRD161J-331	330 1/6W CARBON RES	
R963	QRD161J-331	330 1/6W CARBON RES	
R964	QRD161J-271	270 1/6W CARBON RES	
R965	QRD161J-271	270 1/6W CARBON RES	
R966	QRD161J-273	27K 1/6W CARBON RES	
R967	QRD161J-273	27K 1/6W CARBON RES	
R970	QRD161J-103	10K 1/6W CARBON RES	
R971	QRD161J-821	820 1/6W CARBON RES	
R972	QRD161J-473	47K 1/6W CARBON RES	
R973	QRD161J-103	10K 1/6W CARBON RES	
RA970	QRB045J-472M	4.7K 1/8W NETWORK RE	
RA971	QRB069J-472	4.7K 1/10W NETWORK RE	
RA972	QRB049J-472	4.7K 1/10W NETWORK RE	

△ : SAFETY PARTS

OTHERS

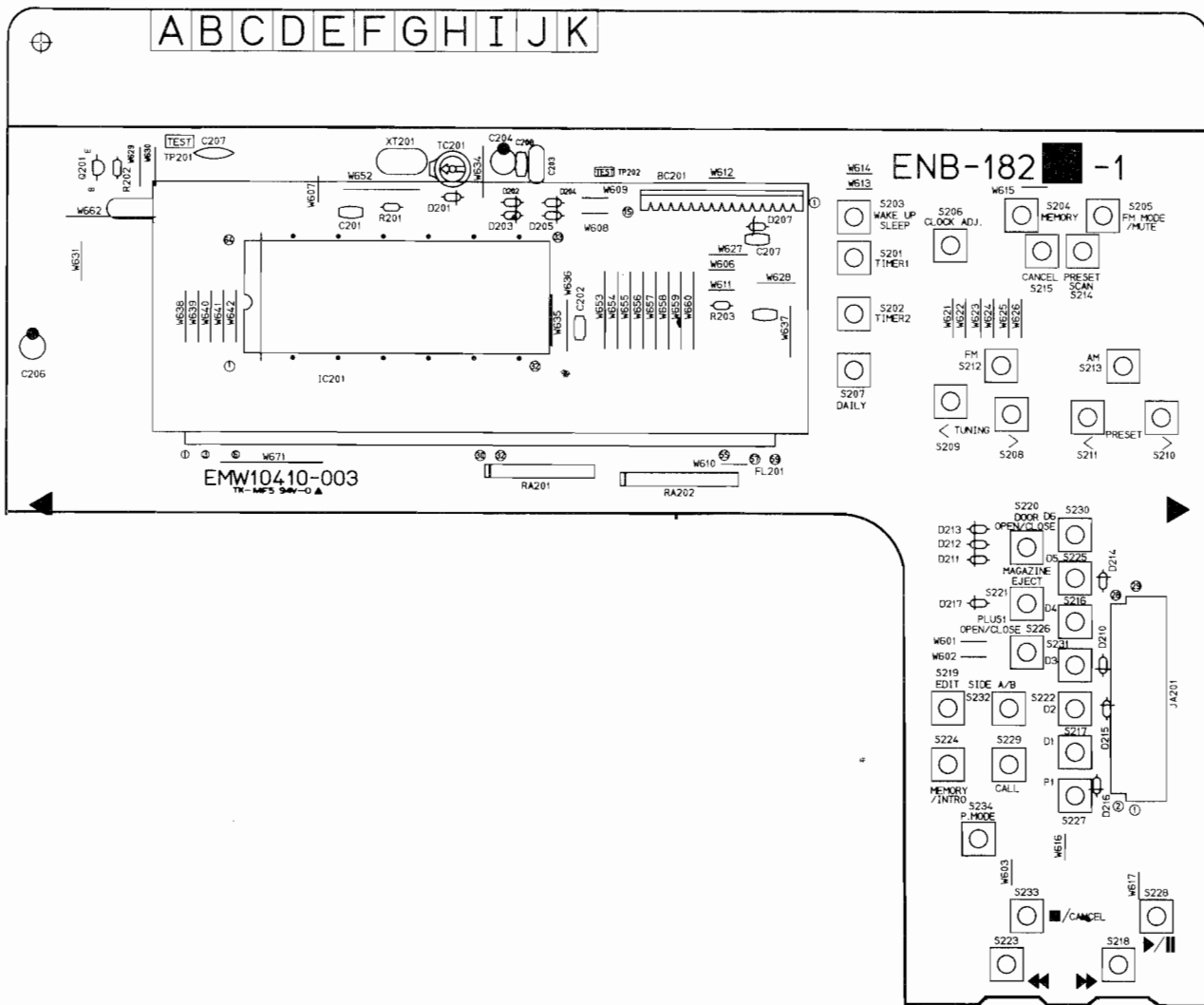
Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
		E308963-001SM	SHIELD BKT	
		VYH7653-001	SPRING	
		VYH7653-002	I.C.SOCKET	
		E3400-431	FELT SPACER	G
		ENA-149G	TU&CD C.B.	GI
		E3400-431	FELT SPACER	GI
	J711	EMV7141-011	CONNECT TER 11PIN	
	J721	EMV7141-008M	CONNECT TER 8PIN	
	J901	EMV7122-005	MALE CONNEC 5PIN	
	K920	EN28101-007	INDUCTOR	
	L101	EQL4007-1R0T	INDUCTOR	
	L102	EQL3001-102K	INDUCTOR	G
	L102	EQL3001-102K	INDUCTOR	GI
	L110	EQL4004-2R2	INDUCTOR	
	P201	EMV5109-015A	PLUG ASSY 15PIN	
	P903	EMV5109-010A	CONNECT TER 10PIN	
	P904	EMV5109-004A	MALE CONNEC 4PIN	
	T101	EQR7121-004	RF COIL	A
	T101	EQR7121-002	RF COIL	BS
	T101	EQR7121-004	RF COIL	C
	T101	EQR7121-002	RF COIL	EF
	T101	EQR7121-002	RF COIL	EN
	T101	EQR7121-002	RF COIL	G
	T101	EQR7121-002	RF COIL	GI
	T101	EQR7121-004	RF COIL	J
	T101	EQR7121-004	RF COIL	U
	T101	EQR7121-004	RF COIL	UC
	T101	EQR7121-004	RF COIL	US
	T101	EQR7121-004	RF COIL	UT
	T105	EQT2140-017	I.F.TRANSFO	
	T107	ECB1560-010	CERAMIC FIL	
	AT101	EMB41YV-302K	ANTENNA TER	
	CF101	ECB2123-006R	CERAMIC FIL	A
	CF101	ECB2118-007R	CERAMIC FIL	BS
	CF101	ECB2123-006R	CERAMIC FIL	C
	CF101	ECB2118-007R	CERAMIC FIL	EF
	CF101	ECB2118-007R	CERAMIC FIL	EN
	CF101	ECB2118-007R	CERAMIC FIL	G
	CF101	ECB2118-007R	CERAMIC FIL	GI
	CF101	ECB2123-006R	CERAMIC FIL	J
	CF101	ECB2123-006R	CERAMIC FIL	U
	CF101	ECB2123-006R	CERAMIC FIL	UC
	CF101	ECB2123-006R	CERAMIC FIL	US
	CF101	ECB2123-006R	CERAMIC FIL	UT
	CF102	ECB2123-006R	CERAMIC FIL	A
	CF102	ECB2118-007R	CERAMIC FIL	BS
	CF102	ECB2123-006R	CERAMIC FIL	C
	CF102	ECB2118-007R	CERAMIC FIL	EF
	CF102	ECB2118-007R	CERAMIC FIL	EN
	CF102	ECB2118-007R	CERAMIC FIL	G
	CF102	ECB2118-007R	CERAMIC FIL	GI
	CF102	ECB2123-006R	CERAMIC FIL	J
	CF102	ECB2123-006R	CERAMIC FIL	U
	CF102	ECB2123-006R	CERAMIC FIL	UC
	CF102	ECB2123-006R	CERAMIC FIL	US
	CF102	ECB2123-006R	CERAMIC FIL	UT
Δ	CP801	ICP-N15	I.C.PROTECT	A
Δ	CP801	ICP-N15	I.C.PROTECT	BS
Δ	CP801	ICP-N15	I.C.PROTECT	C
Δ	CP801	ICP-N15	I.C.PROTECT	EF
Δ	CP801	ICP-N15	I.C.PROTECT	EN
Δ	CP801	ICP-N15	I.C.PROTECT	G
Δ	CP801	ICP-N15	I.C.PROTECT	GI
Δ	CP801	ICP-N15	I.C.PROTECT	U
Δ	CP801	ICP-N15	I.C.PROTECT	UC
Δ	CP801	ICP-N15	I.C.PROTECT	US
Δ	CP801	ICP-N15	I.C.PROTECT	UT
	EP801	EMZ4002-001Z	EARTH PLATE	
	ET901	E70225-001	EARTH PLATE	
	FE101	EAF2203-004	FRONT END	A
	FE101	EAF2203-004	FRONT END	BS
	FE101	EAF2203-004	FRONT END	C
	FE101	EAF2203-004	FRONT END	EF
	FE101	EAF2203-004	FRONT END	EN
	FE101	EAF2203-005	FRONT END	G
	FE101	EAF2203-005	FRONT END	GI
	FE101	EAF2203-004	FRONT END	J
	FE101	EAF2203-004	FRONT END	U
	FE101	EAF2203-004	FRONT END	UC
	FE101	EAF2203-004	FRONT END	US
	FE101	EAF2203-004	FRONT END	UT
	FW801	EWR36B-16KST	FLAT WIRE A6PIN	
	FW803	EWR37B-16KST	FLAT WIRE A7PIN	
	FW831	EWR37B-16KST	FLAT WIRE A7PIN	
	JB201	EMV7123-029	MALE CONNEC 29PIN	
	LP102	EQF0102-001	LOWPASS FIL	G
	LP102	EQF0102-001	LOWPASS FIL	GI
	LP103	EQF0101-010	LOWPASS FIL	
	LP104	EQF0101-010	LOWPASS FIL	
	XT102	ECX0007-200KC	CRYSTAL	
	XT103	ECX0000-456KR	CERAMIC RES	
	XT940	ECX0169-344KL	CRYSTAL	A
	XT940	ECX0169-344EA	CRYSTAL	BS
	XT940	ECX0169-344EA	CRYSTAL	C

OTHERS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	XT940	ECX0169-344EA	CRYSTAL	EF
	XT940	ECX0169-344EA	CRYSTAL	EN
	XT940	ECX0169-344EA	CRYSTAL	G
	XT940	ECX0169-344EA	CRYSTAL	GI
	XT940	ECX0169-344KL	CRYSTAL	J
	XT940	ECX0169-344EA	CRYSTAL	U
	XT940	ECX0169-344EA	CRYSTAL	UC
	XT940	ECX0169-344EA	CRYSTAL	US
	XT940	ECX0169-344EA	CRYSTAL	UT
	XT970	ECX0060-000EM	CERAMIC RES	

■ ENB-183 □ System Controller & Front PC Board Ass'y

Note : ENB-183 □ varies according to the areas employed. See note (1) when placing an order.



Note (1)

PC Board Ass'y	Version	Designated Areas
ENB-182 A	J	the U.S.A.
ENB-182 B	C	Canada
ENB-182 C	U UC US UT	Universal Type China Singapore Taiwan
ENB-182 D	EF EN	Continental Europe Scandinavia

ENB-182 E	A	Australia
ENB-182 F	BS	the U.K.
ENB-182 G	G	Germany
ENB-182 H	GI	Italy

TRANSISTORS

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q201	DTA114YS	DIGITAL TRA ROHM	

I. C. S.

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC201	HD614089SD51	I.C.(MICRO-C HITACHI	

DIODES

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	D201	1SS119	SI.DIODE	U
	D201	1SS119	SI.DIODE	UC
	D201	1SS119	SI.DIODE	US
	D201	1SS119	SI.DIODE	UT
	D202	1SS119	SI.DIODE	C
	D202	1SS119	SI.DIODE	J
	D203	1SS119	SI.DIODE	A
	D203	1SS119	SI.DIODE	U
	D203	1SS119	SI.DIODE	UC
	D203	1SS119	SI.DIODE	US
	D203	1SS119	SI.DIODE	UT
	D204	1SS119	SI.DIODE	C
	D204	1SS119	SI.DIODE	GI
	D204	1SS119	SI.DIODE	J
	D205	1SS119	SI.DIODE	C
	D205	1SS119	SI.DIODE	J
	D207	MTZ5.1JC	ZENER DIODE ROHM	
	D210	1SS119	SI.DIODE	
	D211	1SS119	SI.DIODE	
	D212	1SS119	SI.DIODE	
	D213	1SS119	SI.DIODE	
	D214	1SS119	SI.DIODE	
	D215	1SS119	SI.DIODE	
	D216	1SS119	SI.DIODE	
	D217	1SS119	SI.DIODE	

CAPACITORS

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	C201	QCT30CH-120Y	12PF 50V CER.CAPACI	
	C202	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	
	C203	QC20205-155	1.5MF 25V C.CAPACITO	
	C204	QETB1AM-227	220MF 10V E.CAPACITO	
	C206	QETB1HM-106	10MF 50V E.CAPACITO	
	C207	QCVB1CM-103Y	0.01MF 16V CER.CAPACI	

RESISTORS

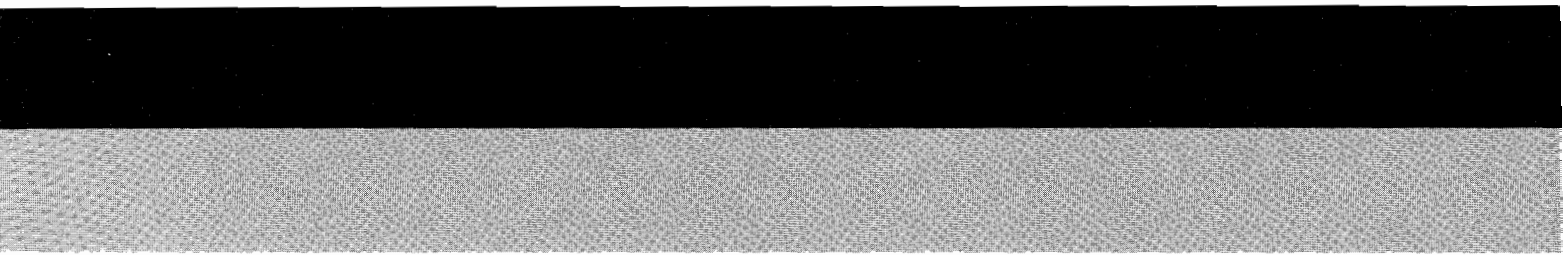
△	ITEM	PART NUMBER	DESCRIPTION	AREA
	R201	QRD161J-473	47K 1/6W CARBON RES	
	R202	QRD161J-104	100K 1/6W CARBON RES	
	R203	QRD161J-103	10K 1/6W CARBON RES	
	RA201	QRB119J-104	100K 1/10W NETWORK RE	
	RA202	QRB129J-104	100K 1/10W NETWORK RE	

OTHERS

△	ITEM	PART NUMBER	DESCRIPTION	AREA
		E307978-001SMJ	FL HOLDER	
		E306805-014	FELT SPACER	
	S201	ESP0001-023M	TACT SWITCH TIMER 1	
	S202	ESP0001-023M	TACT SWITCH TIMER 2	
	S203	ESP0001-023M	TACT SWITCH DAILY	
	S204	ESP0001-023M	TACT SWITCH WAKE UP/SLEEP	
	S205	ESP0001-023M	TACT SWITCH CLOCK ADJ	
	S206	ESP0001-023M	TACT SWITCH CANCEL	
	S207	ESP0001-023M	TACT SWITCH MEMORY	
	S208	ESP0001-023M	TACT SWITCH UP	
	S209	ESP0001-023M	TACT SWITCH DOWN	
	S210	ESP0001-023M	TACT SWITCH PRESET UP	
	S211	ESP0001-023M	TACT SWITCH PRESET DOWN	
	S212	ESP0001-023M	TACT SWITCH FM	
	S213	ESP0001-023M	TACT SWITCH AM	
	S214	ESP0001-023M	TACT SWITCH FM MODE	
	S215	ESP0001-023M	TACT SWITCH P.SCAN	
	S216	ESP0001-023M	TACT SWITCH D4	
	S217	ESP0001-023M	TACT SWITCH D1	
	S218	ESP0001-023M	TACT SWITCH + 1 TIME	
	S219	ESP0001-023M	TACT SWITCH EDIT	
	S220	ESP0001-023M	TACT SWITCH FD OPEN/CLOSE	
	S221	ESP0001-023M	TACT SWITCH EJECT	
	S222	ESP0001-023M	TACT SWITCH D2	
	S223	ESP0001-023M	TACT SWITCH + 10 TIME	
	S224	ESP0001-023M	TACT SWITCH MEMORY	
	S225	ESP0001-023M	TACT SWITCH D5	
	S226	ESP0001-023M	TACT SWITCH P1 OPEN/CLOSE	
	S227	ESP0001-023M	TACT SWITCH P1	
	S228	ESP0001-023M	TACT SWITCH SIDE/A/B	
	S229	ESP0001-023M	TACT SWITCH CALL	
	S230	ESP0001-023M	TACT SWITCH D6	
	S231	ESP0001-023M	TACT SWITCH D3	
	S232	ESP0001-023M	TACT SWITCH PLAY/PAUSE	
	S233	ESP0001-023M	TACT SWITCH STOP/CANCEL	
	S234	ESP0001-023M	TACT SWITCH P.MODE	
	BC201	EWS26F-F220	SOCKET WIRE 15PIN	
	FL201	ELU0001-169	FLUORESCENT	
	JA201	EMV7123-029R	PIN CONNECT 29PIN	
	TC201	ENZ1003-015	TRIMMER CAP	
	XT201	ECX4194-304CF	CRYSTAL	

△ : SAFETY PARTS

△ : SAFETY PARTS



JVC

VICTOR COMPANY OF JAPAN, LIMITED
AUDIO DIVISION, 1644, SHIMOTSURUMA, YAMATO-SHI, KANAGAWA-KEN, 242, JAPAN