MZ-1

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model
Tourist Model

MiniDisc MD WALKMAN

SPECIFICATIONS

System

Audio playing system
MiniDisc digital audio system
Laser diode properties
Material: GaAlAs
Wavelength: λ = 780 nm
Emission duration: continuous
Laser output: less than 44.6 μW
(This output is the value measured at a distance of 200 mm from the lens surface on the optical pick-up block.)
Revolutions 400 rpm to 900 rpm (CLV)
Error correction Advanced Cross Interleave Reed Solomon Code (ACIRC)
Sampling frequency
44.1 kHz
Modulation system
EFM (Eight to Fourteen Modulation)
Number of channels
2 stereo channels
Frequency response
20 to 20,000 Hz ± 1 dB
Wow and Flutter
Below measurable limit

Inputs

	Jack Type	Rated Input	Minimum Input
Microphone	Stereo mini-jack	1.38 mV	0.55 mV
Line In	Stereo mini-jack	245 mV	100 mV

Model Name Using Similar Mechanism	NEW
Mechanism Type	MT-MZ1-106
Optical Pickup Block Type	KMS130B

Outputs

	Jack Type	Rated Output	Maximum Output Level	Load Impedance
Head-phones	Stereo mini-jack	—	5 mW + 5 mW	16 Ω
Line Out	Stereo mini-jack	245 mV	—	10 kΩ

General

Power requirements
- BP-MZ1 Rechargeable Battery (supplied)
- Sony AC Power Adaptor (supplied) connected at the DC IN 10.5 V jack: 120 V AC, 60 Hz (US, Canadian model)
  240 V AC, 50 Hz (UK model)
  220-230 V AC, 50 Hz (AEP model)
  100-240 V AC, 50/60 Hz (Other models)
- DCC-E1105L Sony Car Battery Cord (not supplied) connected at the DC IN 10.5 V jack: 12 V car battery

—Continued next page—

PORTABLE MINIDISK RECORDER

SONY®

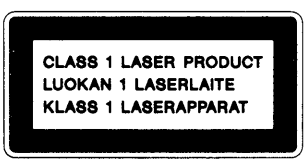
Battery operation time
60 minutes of consecutive recording with fully charged BP-MZ1
Lithium battery life
Approximately 6 months
Dimensions Approximately 114 × 43 × 139 mm (w/h/d) (4 1/2 × 1 3/4 × 5 1/2 in.)
Weight Approximately 690 g (1lb 8oz) incl. rechargeable battery

Accessories

Supplied
- AC-MZ1 AC Power Adaptor (1)
- BP-MZ1 Rechargeable Battery (1)
- CR-2025 Lithium Battery (1)
- Stereo Headphones (1)
- MDW-60 Recordable MiniDisc (1)
- Line Cable (stereo mini-plug-2 phono plugs) (1)
- Carrying Case (1)

Design and specifications subject to change without notice.

Note
This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.



This MiniDisc Recorder is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the bottom exterior.

SAFETY-RELATED COMPONENT WARNING!!

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

TABLE OF CONTENTS

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

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

Welcome !

Welcome to the world of the MiniDisc ! The Sony MiniDisc Recorder is the result of Sony's on-going commitment to leadership in audio-video technology. Here are some of the capabilities and features you'll discover with the new MiniDisc Recorder.

Quick Random Access
You can access any music track or phrase without waiting for reeling time.

Digital Sound
MiniDiscs play with nearly the same noiseless, high-fidelity sound as CDs.

Recordability
You can record up to 74 minutes of digital audio on one ultra-compact (2.5-inch) MD.

Digital/Analog Recording
Record from either digital or analog audio sources.

Title Function
This feature lets you label your own recordings, so along with premastered discs you can light up disc and track titles while you're playing an MD.

Shock-Resistant Memory
The MiniDisc Recorder protects discs against shocks and vibrations during playback. This means no jitters or skipping while you are jogging or driving.

Hold Function
This feature locks the controls so that none of the buttons are accidentally operated while you're walking or jogging.

What is the MiniDisc?

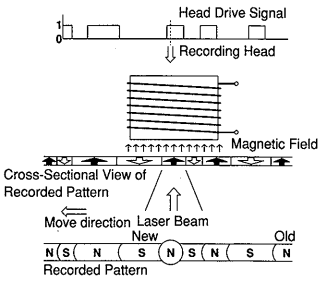
How MiniDiscs work

MiniDiscs (MD) come in two types: premastered (prerecorded) and recordable (blank). Premastered MDs, recorded at music studios, can be played back almost endlessly. However, they can't be recorded on or over like cassette tapes. To record, you use a "recordable MD".

Premastered MDs
Premastered MDs are recorded and played like regular CDs. A laser beam focuses on the pits in the surface of the MD and reflects the information back to the lens in the recorder. The recorder then decodes the signals and plays them back as music.

Recordable MDs
Recordable MDs, which use magneto-optical (MO) technology, can be recorded again and again. The laser inside the recorder applies heat to the MD, demagnetizing the magnetic layer of the MD. (*See illustration below.*) The recorder then applies a magnetic field to the layer. This magnetic field corresponds exactly to the audio signals generated by the connected source. (The north and south polarities equate to digital "1" and "0".) The demagnetized MD adopts the polarity of the magnetic field, resulting in a recorded MD.

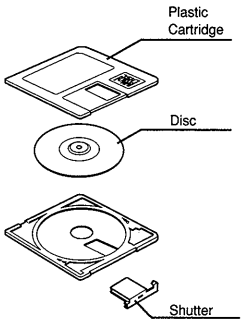
■ Recording Mechanism



How the MiniDisc got so small

The 2.5-inch MiniDisc, encased in a plastic cartridge that looks like a 3.5-inch diskette (*see illustration below*), uses a new digital audio compression technology called ATRAC (Adaptive TRansform Acoustic Coding). To store more sound in less space, ATRAC extracts and encodes only those frequency components actually audible to the human ear.

■ Parts Making Up a MiniDisc



How Quick Random Access and the TOC systems work

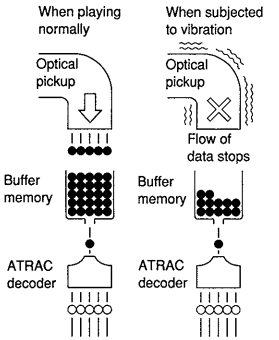
Like CDs, MDs offer instantaneous random access to the beginning of any music track. Premastered MDs are recorded with location addresses corresponding to each music selection. Recordable MDs are manufactured with a "User TOC* Area" to contain the order of the music. The TOC system is similar to the "directory management system" of floppy disks. In other words, starting and ending addresses for all music tracks recorded on the disc are stored in this area. This lets you randomly access the beginning of any track as soon as you enter the track number (AMS), as well as label the location with a track name as you would a file on a diskette.

* TOC is the acronym for Table of Contents.

How the Shock-Resistant Memory works

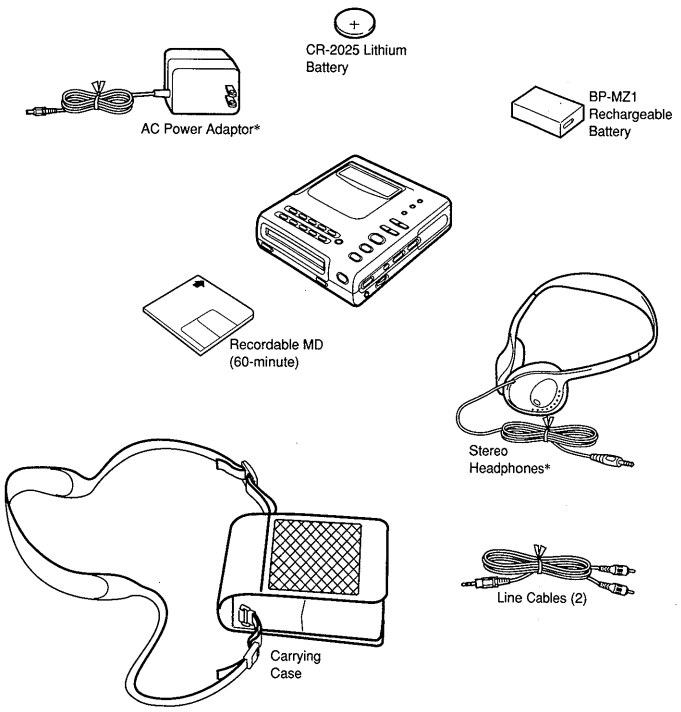
One major drawback of optical read systems is that they can skip or mute when subjected to vibration. The MD system resolves this problem by using a buffer memory that stores up to 3 seconds of audio data. This is possible because of a 1 second lag between the time audio data is picked up and when it is decoded (*see illustration below*). Should the optical pickup be jarred out of position, the correct audio data plays from the buffer memory. Using a concept called "sector repositioning," the optical pickup has the ability to within 13 milliseconds identify the disruption and resume reading from the correct point. As long as the optical pickup returns to the correct position within 3 seconds, you never experience mistracking or muting.

■ Shock-Resistant Memory System



Unpacking

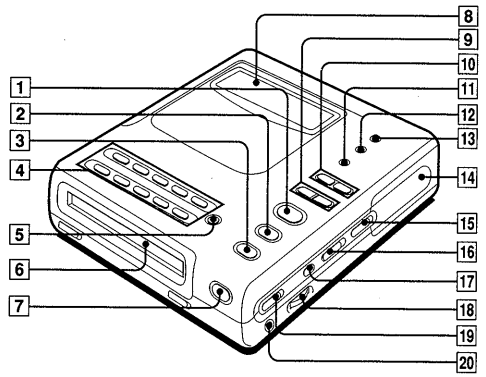
Take the recorder out of the box and check that you have all the supplied accessories. You should have:



* Illustration conforms to US model.

Looking at the controls

The controls



1 ▶ Play button
Press to start playing an MD.

2 ⏸ Pause button
Press to momentarily interrupt play or record.

3 ■ STOP/CHARGE
Press to stop the MD or to charge the battery.

4 Number keys
Press to find the beginning of a track, set the clock or make music programs.

5 ENTER/REPEAT
Press to enter programmed selections or repeat tracks.

6 Disc compartment
Insert the MD here. The power goes on automatically.

7 ⏏ Eject button
Press to remove an MD. The power goes off automatically.

8 Display window

9 ◀◀/▶▶ Search buttons
Press to find a point in a track.

10 ⏮/⏭ AMS (Automatic Music Sensor) buttons
Press to find the beginning of a track.

11 DATE
Press to display the recording date or current time.

12 DISC NAME
Press to display the MD name.

13 TRACK NAME
Press to display the track name.

14 Rechargeable battery compartment

15 RESUME
Slide to play from the point the MD stopped.

16 BASS BOOST
Select to emphasize low frequency (bass) sounds.

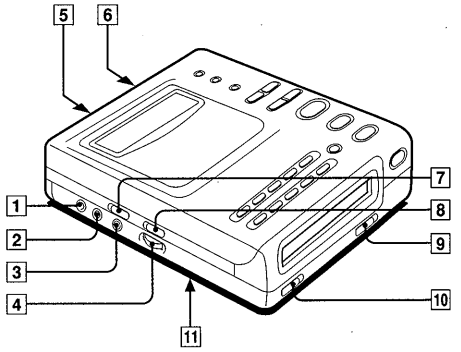
17 VOLUME
Rotate to adjust the volume through the headphones.

18 PLAY MODE
Press once to play a single track, twice tracks in random order, or three times to set up a play list of up to 21 selections.

19 ∩ Headphones jack
Connect the headphones here.

20 HOLD
Slide to lock the controls.

The controls



1 OPTICAL (DIGITAL)/LINE OUT
When playing or recording with digital equipment, connect from here to the optical digital in jack of a digital amplifier using the POC-MZ1 (optional) optical connecting cord; with analog equipment, connect to the line in jacks of the analog unit using the Line cable (supplied).

2 OPTICAL (DIGITAL)/LINE IN
When recording a digital source, connect from here to the optical digital out jack of another MD player, CD player or digital amplifier using the POC-MZ1 (optional) optical connecting cord; when recording an analog source, connect from here to the line out jacks of the analog unit using the Line cable (supplied).

3 MIC (microphone)–PLUG IN POWER
Connect a microphone here.

4 REC LEVEL (recording level)
When recording from analog sources, adjust the recording level while observing the level meter. The maximum recording level should be about –12 dB.

5 DC IN 10.5 V
Connect the supplied AC power adaptor here.

6 Lithium Battery holder
Keep a lithium battery in the recorder to operate the clock and memory.

7 MIC ATT (microphone attenuation)
Usually set to 0 dB. For high volume recordings, to avoid sound breakup, set to 20 dB.

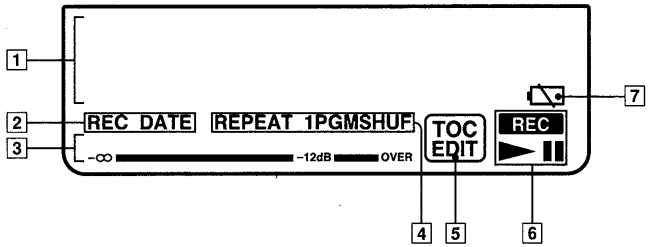
8 AGC (Automatic Gain Control)
Only for use with analog sources.
Switch to ON: for the recording level to set automatically.
Switch to OFF: to set the recording level manually using the REC LEVEL dial.

9 ● REC (record)
Slide to start recording.

10 EDIT
Slide to combine, divide, erase or give a track name to MDs you have recorded.

11 CLOCK SET
Press here with a pen nib to set the clock.

The display window



1 Character information display
Displays the disc and track names, date and time.

2 REC DATE/DATE
REC DATE: Lights up along with the date to show when the MD was recorded.
DATE: Lights up along with the current date.

3 Level meter
Shows the volume on the MD being played or recorded.

4 Play mode indicators
1: lights to indicate one track will play.
PGM: lights to indicate a programmed play list will play.
SHUF: lights to indicate tracks will play in random order.
REPEAT: lights to indicate tracks will be repeated according to the play mode chosen.

5 TOC EDIT
Lights up when an MD is being recorded or edited.

6 Battery indicator
Flashes when the battery is weak or dead.

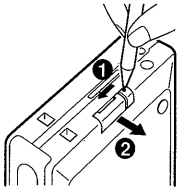
7 Play, pause and recording indicators
► indicates the MD is playing; ❚❚ indicates the MD has paused; REC indicates the MD is recording.

Choosing power sources

Installing the lithium battery

Before using the recorder or installing the rechargeable battery, install the CR-2025 lithium battery. The lithium battery operates the clock and powers the player's memory.

1 Release the lithium battery compartment with a pen nib (as shown) and slide out the lithium battery holder.



2 Insert the CR-2025 lithium battery with the + (plus) side facing up.

3 Slide the holder back in.

4 Reset the clock if necessary.

The battery should last about 6 months. If the clock begins to lose time or the display flashes, replace the battery with a Sony CR-2025 lithium battery. If you use any other than the Sony CR-2025, you may risk fire or explosion.

Warning!

- Keep the lithium battery out of the reach of children. Should the battery be swallowed, immediately consult a doctor.
- Wipe the battery with a dry cloth to assure good contact.
- Be sure to install the battery with the correct polarity.
- Do not hold the battery with metallic tweezers. Doing so may cause a short-circuit.
- Do not crush the battery or dispose of it in a fire. Doing so may cause it to explode. Carefully dispose of the used battery.

Using the recorder on AC power

The MiniDisc Recorder is operable on AC and rechargeable battery power. To operate the recorder on AC power, just insert the narrow end of the supplied AC power adaptor to the terminal on the recorder marked DC IN 10.5 V and the other end to the wall outlet. To operate the recorder on battery power, read the following section.

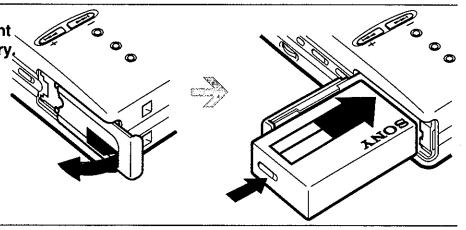
Note on the AC power adaptor
Use the supplied AC power adaptor only. Do not use any other AC power adaptor.

Polarity of the plug

Installing the rechargeable battery

Before using the rechargeable battery for the first time, you must charge it.

1 Slide open the battery compartment lid (as shown) and insert the battery.



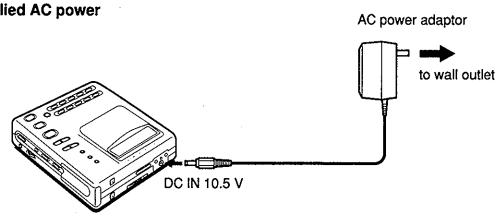
2 Close the compartment lid.

3 Recharge the battery.
(*See the next section for how to charge the battery.*)

Charging the battery

Ideally, the recorder should be operated until no charge remains (the battery indicator flashes). You should avoid recharging a half-charged battery. If any charge is left when the battery starts charging, the recorder will discharge the residual amount ("refreshing") to avoid weakening the capacity of the battery.

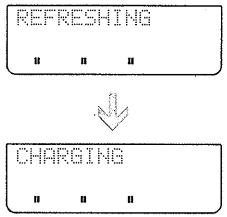
1 After you have installed the rechargeable battery, connect the supplied AC power adaptor.



2 Press ■ STOP/CHARGE to start charging the battery.

"REFRESHING" lights in the display as residual battery charge is discharged.
Refreshing may take up to one hour depending on how much charge is left.

The display changes to "CHARGING" when refreshing ends. When the battery is ready to use, "CHARGING" goes out. Charging takes from 60 to 90 minutes.



3 Disconnect the AC power adaptor.

The battery should power consecutive playback for about 75 minutes and record for about 60 minutes before you need to charge it again.

When to charge the battery

When the battery is weak, the ⌂ low battery indication will flash continuously. Recharge the battery then.

When to replace the rechargeable battery

When the operating time of the fully charged battery decreases to about half, replace it with a new one (BP-MZ1).

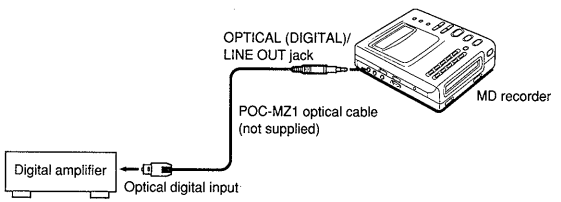
Recharging and battery cautions

- Be sure to use the supplied AC power adaptor.
- Use the battery where the temperature is between 41° and 95°F (5° and 35°C) for the best results.
- Do not discard the battery in fire.
- Do not short-circuit the battery.
- Do not disassemble the battery. If the electrolyte inside the battery should come into contact with clothes or skin, immediately wash the contaminated objects with water.

Connecting to a stereo system

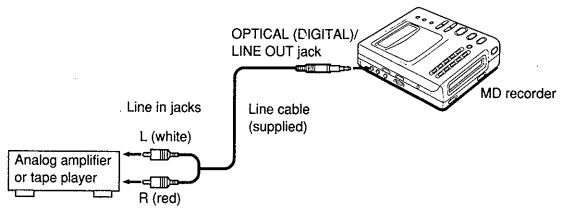
The MiniDisc Recorder is connectable to a digital or analog stereo system. Once hooked up, the recorder automatically recognizes the device as digital or analog. Note, however, that you can't hook up a digital device unless it has the same sampling frequency as the MD recorder (44.1 kHz). If it isn't the same, use the analog connection described in the following section.

Hooking up a digital amplifier



Note
To ensure good signal transmission, keep the plug ends of the optical cable free from tarnish.

Hooking up an analog amplifier (or tape player)

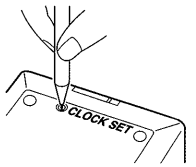


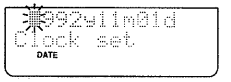
Setting the clock

To stamp the date on the MD when you record, you need to set the time.

1 Press CLOCK SET at the bottom of the recorder with a pen nib.

The first digit of the year flashes.





2 Enter the current year by pressing the number keys.

3 Press ENTER/REPEAT.

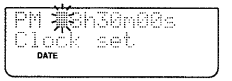
The year you set is stored in memory and the first digit of the month flashes.

4 Repeating steps 2 and 3, enter the current month and day.

To enter a single-digit month or day, enter 0 as the first digit.

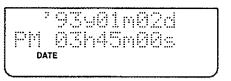
5 Choose AM or PM by pressing DATE. Press ENTER/REPEAT.

The cursor moves to the hour location and the first digit of the hour flashes.



6 Enter the current hour and minutes as you did month and day in steps 2 and 3.

When you press ENTER/REPEAT to set the minutes, the clock starts operating.



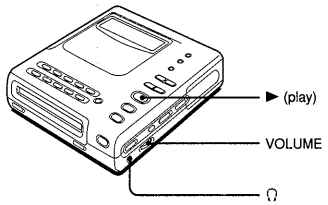
If you make a mistake while setting the time
Press ENTER/REPEAT until the item you want to change flashes. Re-enter the number using the number keys.

To display the time
Press DATE in stop mode. The time indication disappears after 10 seconds or when you press DATE.

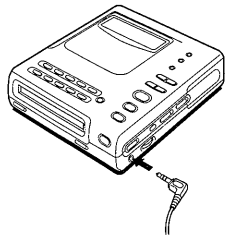
To display the time in the 24-hour system
Press DATE to display the time and then press ENTER/REPEAT.

Playing an MD (normal play)

Listening to an MD is easy — just plug in the headphones, insert the MD and turn up the volume.

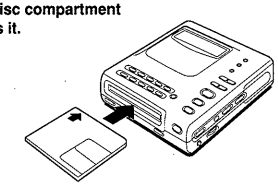


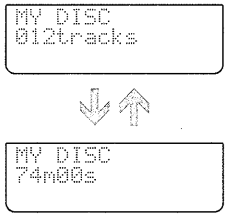
1 Connect the headphones at the jack marked Ω.



2 With the label side up, and the arrow pointing toward the opening (as shown), slide the MD into the disc compartment until the recorder grips it.

The power will go on automatically. The name of the MD will light on the first line. The second line will alternate between the total number of tracks and the total playing time.





3 Press ► (play).

The track number, playing time and name light up in the display window, and the MD starts playing. If "REPEAT" is lit in the display window, all the tracks will play again. (See *Playing tracks repeatedly.*)

4 Adjust the volume.
(See the section, *Emphasizing the bass.*)

To	Press
stop play	■ STOP/CHARGE*
interrupt play momentarily	II (pause)
resume play after pause	► (play) or II (pause)
eject the MD	⏏ (eject)

* When you stop the recorder, the power goes off.

Playing specific tracks

You can quickly find any track while playing an MD using the AMS (Automatic Music Sensor) buttons or number keys. You can also find tracks while in pause mode.

To find	Press
the beginning of the current or preceding tracks	I◄◄
the beginning of the next or succeeding tracks	►►I
a specific track	number keys and ENTER/REPEAT

Playing from a particular point in a track

While listening to an MD you may want to hear a particular section of a track. To find that section, press one of the ◄◄/►► Search buttons until you hear the part you want. Release it to return to normal play.

To	Press
search backward	◄◄
search forward	►►

Emphasizing the bass

The BASS BOOST feature intensifies low frequency sound for richer quality audio reproduction.

To emphasize	Set to
heavy bass slightly	MID
heavy bass greatly	MAX
no emphasis	NORM

Note
If the volume is too high, the sound may crack or distort. If this happens, turn down the volume.

Displaying disc and track names

If you are playing a premastered or recorded MD that's been electronically labeled, you can display information on the MD while it's playing or paused.* (To find out how to label an MD you've recorded, see *Labeling Recordings (title function).*) The display disappears after 10 seconds or when you press the button again.

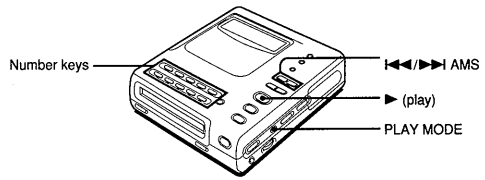
To display	Press
name of MD playing	DISC NAME
name of track playing	TRACK NAME
date recorded (if not a premastered MD)	DATE

* Some premastered MDs may not have been electronically labeled.

Playing a single track

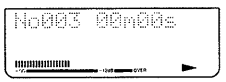
Because of the durable nature of MDs, you can play a favorite track once or over and over without wear to the disc. To play a track once just follow the procedure below.

To play the same track repeatedly, see *Playing tracks repeatedly*.



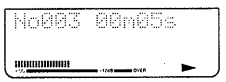
1 Press ► (play).

2 Display the track number you want to play using the I◄◄/►►I AMS or one of the number keys.



3 Press PLAY MODE until "1" lights in the display window.

The recorder will stop after the current selection has played. If "REPEAT" is also lit in the display window, the same track will play continuously.

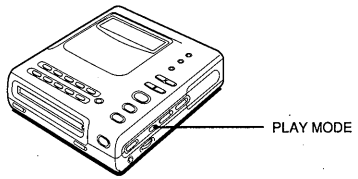


To stop single track play
Press ■ STOP/CHARGE.

To cancel single track play
Press PLAY MODE until "1" disappears from the display window.

Playing tracks in random order (shuffle play)

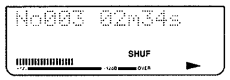
In shuffle play tracks will play in random order. For example, instead of tracks 5, 6, 7 playing in order, they will play in any order such as 6, 5, 7.



While the MD is playing, press PLAY MODE until "SHUF" lights in the display window.

"Access" lights up in the display while the player is looking for the first track to play.

The recorder will stop after all the tracks on the MD have played randomly. If "REPEAT" is lit in the display window, the MD will play in a continuously random order. (See *Playing tracks repeatedly*.)



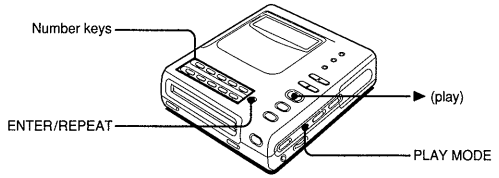
To stop shuffle play
Press ■ STOP/CHARGE.

To cancel shuffle play
Press PLAY MODE until "SHUF" disappears from the display window.

Note
When you press I◄◄ AMS or ◄◄ Search, the MD returns to the beginning of the current track only. To go back beyond the current track, you must cancel shuffle play.

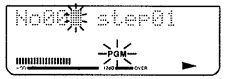
Playing tracks in specific order (program play)

You can program up to 21 tracks to play in any order you like. Just enter the track numbers you want played in the order you want them played.



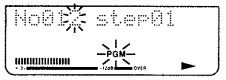
1 While the MD is playing, press PLAY MODE until "PGM" lights in the display window.

"PGM" will flash signaling you to enter a track number.

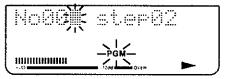


2 Press the number key or keys of the track you want to program.

The track number lights in the display, and the recorder continues to play the current selection.



3 Press ENTER/REPEAT to enter your choice.



4 Repeat steps 2 and 3 until you have entered all the tracks you want played.

You can program up to 21 tracks.

5 Decide whether or not the order you want the tracks to play is correct (if not, see the options below), then press ENTER/REPEAT.

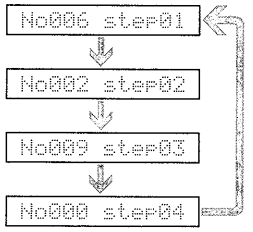
If tracks are left from a previous play list, enter "0" to erase the succeeding tracks.
"PGM" lights and the first track of the new play list is displayed.

6 Press ► (play).

The recorder will stop after playing all the tracks in the play list. If "REPEAT" is lit, the play list will play continuously. (See *Playing tracks repeatedly*.) The programmed play list will stay in memory until you program over it, erase it, take out the disc or turn off the recorder.

To check the order of the tracks you've entered
Before pressing ► (play), press ENTER/REPEAT. Each time you press ENTER/REPEAT, the next track number lights in the display.

Tracks 6, 2, and 9 have been entered.



(Nothing has been programmed from the fourth step on.)

To change a track in the program
Before pressing ► (play), press ENTER/REPEAT to display the track you want to change. Press a number key to change the track number to the one you want. Press ENTER/REPEAT to save the new number.

To change the order of a play list
After you have pressed ► (play), you can only change the order of the tracks by re-programming new tracks over the old ones. Do this by following steps 1 through 5. Those tracks you do not program over will remain in the play list. For example, the old play list contains tracks 2, 3 and 4 and you program tracks 1 and 2 over 2 and 3. The new program will play tracks 1, 2 and 4. You can also erase the whole program, then re-enter a completely new program.

To erase a program
Display "PGM" and enter "0" at the beginning of the programmed tracks you want to erase. The succeeding programmed tracks will be cleared. For example, if you want to erase all the tracks in a play list, enter "0" at the first track. If you want to erase the 5th through last programmed track, enter "0" at the 5th track.

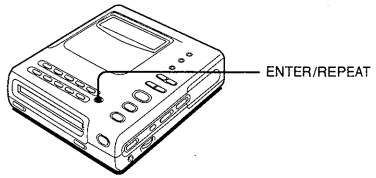
To stop a program while playing
Press ■ STOP/CHARGE.

To cancel program play
Press PLAY MODE until "PGM" disappears. The programmed play list will not be erased.

Note
If you try to program more than 21 tracks, the step number display will return to "1". If that happens, every tracks you program beyond the 21st will erase a programmed track number starting from the first.

Playing tracks repeatedly

You can play tracks repeatedly in normal, single, shuffle or program play modes. In shuffle mode, the tracks will be repeated in a different order each time they are played. For how to normal play, see *Playing an MD*; for single play, see *Playing a single track*; for shuffle play, see *Playing tracks in random order*; for program play, see *Playing tracks in specific order*.



While the MD is playing, press ENTER/REPEAT until "REPEAT" appears in the display window.

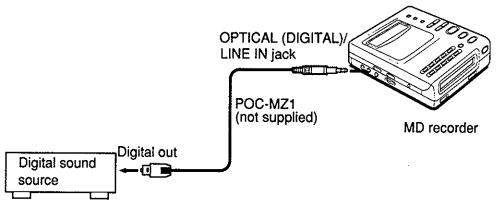
Make sure you press ENTER/REPEAT sometime before play ends. For example, when playing a single track, press ENTER/REPEAT before the track finishes. When playing programmed tracks, press ENTER/REPEAT before the play list ends.

The MD recorder will play all the desired tracks beginning from the designated first track, then go back and play them again.

Connecting other sound sources

Before you start recording, you need to connect this recorder to a sound source or a microphone. The sound source will be one of two types: a digital source (for example, another MD player, CD player or digital amplifier) or an analog source (such as a cassette player, radio or analog amplifier). Microphone recording connections are explained in the section, *Recording from a microphone*.

Hooking up a digital source

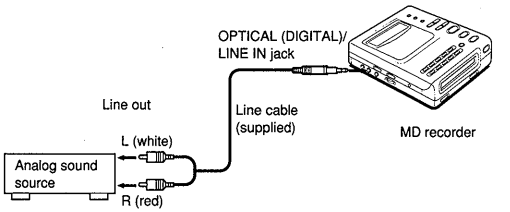


Notes on recording

- A digital source which has a different sampling frequency (such as the DAT Walkman) cannot be recorded using the digital connection. Use instead the analog (line out) connection (in the next section).
- If you use the above connection to record your MD, you will not be able to make copies from the recorded disc copy. You can only make copies from a home-recorded MD by using the analog (line out) connection.

Hooking up an analog source

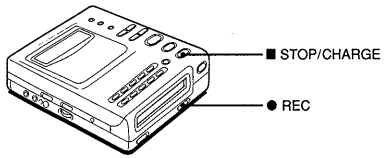
When you record through the OPTICAL (DIGITAL)/ LINE IN jack, the recorder automatically recognizes the analog source and switches to analog input.



Recording an MD

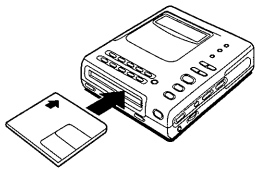
Before you start recording, connect the MD recorder to a sound source (see *Connecting other sound sources*). Use a "recordable MD" to record. Premastered discs cannot be recorded over. (For more information on the difference between the two, read the section, *What is the MiniDisc ?*).

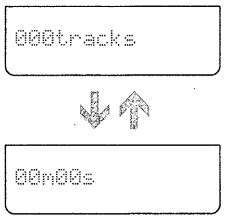
If you are recording from a digital source digitally connected, the track divisions are copied to the new recording. Tracks are copied where there is space for them on the disc, so there is no need to find a blank space to record into. The tracks are then renumbered automatically.



1 Insert the MD.

The disc name (if labeled) lights on the first line. On the second line the total number of tracks recorded and the recording time light alternately.



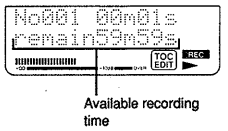


2 Find the music, track or selection on the source you want to record and if necessary, set the AGC.
(See the section *Adjusting the recording level* for how to set the AGC.)

3 Slide ● REC on the MD recorder to the right.

The switch will spring back to its original position. The ► and REC indications will come on and the available recording time on the MD will light up in the display. Recording starts. The time counts down as you record.

If a screen message flashes in the display
See the section *Error Messages* for an explanation.

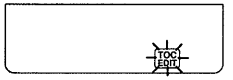


4 Play the recording source in normal play mode (i.e. not shuffle or program play).

5 Press ■ STOP/CHARGE to start rewriting the new TOC data to the MD.

Pressing ⏏ (eject) also will cause the new TOC data to start writing to the MD.
"TOC EDIT" starts flashing. You will hear whirring inside the recorder while the new TOC data* is writing to the MD. After about a second, the whirring will stop and "TOC EDIT" will go out. The new TOC is written to the MD.

Caution
Do not move or jog the recorder while"TOC EDIT" is flashing in the display.



To	Press
Stop recording	■ STOP/CHARGE
Pause	❚❚ (pause)

To start recording precisely

1 Insert the MD and hold down the ❚❚ (pause) button.
2 Slide the ● REC switch to the right.
The recorder enters recording/pause mode.
3 Play the source. When the source comes to the part you want to record, press ❚❚ (pause) again.

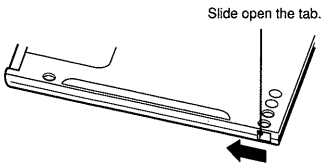
To check the last track recorded

Before you start recording, slide RESUME to the ON position. Press ► (play) after you finish step **5** above. Instead of playing from the first track, the recorder will play from the last track recorded.

* The TOC (Table of Contents) represents the addresses for the beginning and ending of tracks on the MD.

To record-protect a MiniDisc

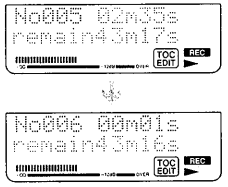
To the record-protect an MD, slide open the tab at the side of the MD (so the white part is concealed). In this position, the MD cannot be recorded.



Track marking a recording

Track marking is essentially adding tracks while recording. The track marking feature is useful particularly when recording conferences or discussions where a number of people are speaking. Insert a track mark (a new track number) every time the speaker changes. Track marking must be done while recording.

While recording, press ENTER/REPEAT.
The track number will increment one.



To play from a track mark
Press one of the I◄◄/►►I AMS buttons.
The MD will start play as soon as it detects a track mark.

Adjusting the recording level

Sound levels of digital sources are automatically copied to the MD. However, if you are recording from an analog source, you can set the recording level manually.

Setting levels automatically
Before recording, switch the AGC (Automatic Gain Control) to the ON position.

Setting levels manually
1 Switch the AGC to the OFF position.
2 Find the selection you want to record.
3 Slide the ● REC switch to the right while pressing II (pause).
4 Play the source at the loudest point.
5 While observing the level meter, adjust the recording level using the REC LEVEL dial so the audio level is about –12 dB.
6 Rewind or return to the selection to be recorded and release the pause button. The selection will record without cracking or breaking up at peak sound levels.

Recording over a previous recording

When you record over a previous recording, note that all the succeeding tracks will be erased.

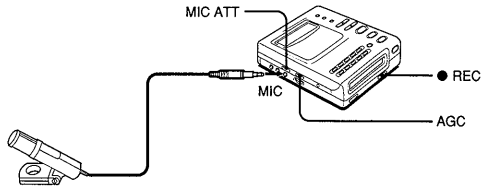
1 Play the MD you want to record.
2 Find the place on the MD you want to record over using the I◄◄/►►I AMS or ◄◄/►► Search buttons.
3 Press II (pause) to stop the MD at that point.

Caution
All tracks following this point will be erased as soon as you start recording.

4 Find the selection on the sound source you want to play.
5 Slide ● REC to the right.
Recording starts.

Recording from a microphone

To record through the microphone, first connect a stereo microphone (such as the Sony ECM-909 or ECM-727P) at the MIC jack.



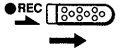
1 Set MIC ATT to 0 dB.

If the sound you're recording is very loud (a rock concert for instance), set it to 20 dB to reduce the recorder's sensitivity to the microphone and avoid sound break-up.

2 Adjust the AGC (Audio Gain Control).

Switch to ON: for the recording level to adjust automatically.
Switch to OFF: to set the recording level manually.
(See *Adjusting the recording level* for more details.)

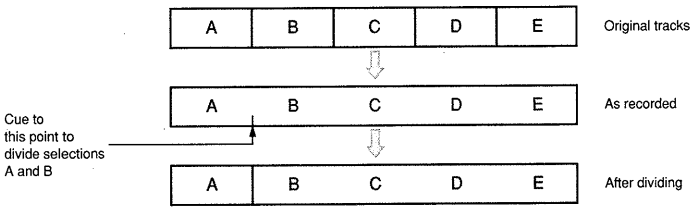
3 Slide the ● REC switch on the MD recorder to the right.



Dividing recorded tracks

If you are recording from an analog source or via an analog connection, all the selections will record to the MD as one track. If you don't want them as one track, you will need to divide the selections into individual tracks again. (*See illustration below.*)

Dividing Analog Recorded Tracks



1 **Press ► (play).**

2 **Using the ◄◄/►► Search buttons, cue to the end of the first of two selections you want to divide.**

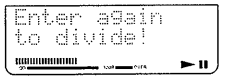
3 **Press II (pause) at that point.**

4 **Slide the EDIT switch to the right several times until "Divide" lights in the display.**

The first time you slide EDIT

The second time you slide EDIT

5 **Press ENTER/REPEAT.**



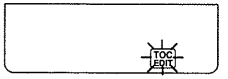
6 **Press ENTER/REPEAT again to confirm your choice.**

Pause is released and the new track starts playing. The track number in the display increments one and playing time of the new track appears. The track name before the divide remains in the display. (To change the track name, see *Labeling recordings (title function).*)

7 **Press ■ STOP/CHARGE.**

"TOC EDIT" flashes and the new TOC data is written to the MD.

Caution
Do not move the recorder while "TOC EDIT" is flashing.



To cancel divide while dividing
Before you press ENTER/REPEAT, press ■ STOP/CHARGE or slide the EDIT switch in the direction of the arrow.

If you make a mistake
Recombine the tracks by using the procedure in "*Combining recorded tracks*" in the next section, and then divide the tracks again.

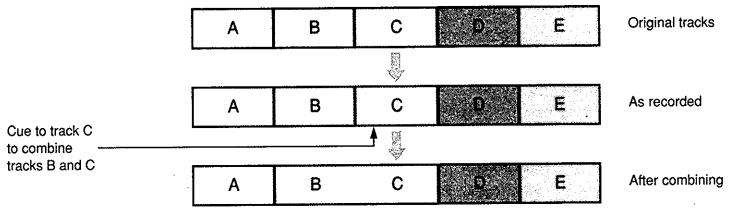
To change the order of two tracks
You can switch the order of adjoining tracks.

1 Press ► (play).
2 Using the I◄◄/►►I AMS buttons, find the second track of the two you want to switch. For example, to switch tracks 1 and 2, play track 2.
3 Keep ► (play) pressed and slide the EDIT switch to the right until "Swap" lights in the display.
4 Press ENTER/REPEAT.
"Enter again to swap!" lights in the display.
5 Press ENTER/REPEAT again to confirm your choice.
The two tracks switch places.
6 Press ■ STOP/CHARGE to rewrite the TOC data on the MD.

Combining recorded tracks

If you record from a digital source (using the digital connection) such as a CD or MD, every track division will be copied to the new MiniDisc. However, you may not want all of these divisions on your new disc. (*See illustration below.*) To get rid of extraneous track divisions or to correct mistakes made during dividing, use the combine function.

Combining Digital Recorded Tracks

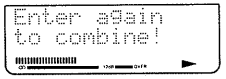


1 **Press ► (play).**

2 **Using the I◄◄/►►I AMS or ◄◄/►► Search buttons, cue to any point in the second track of the two you want to combine.**

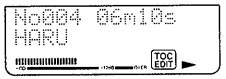
3 **Slide the EDIT switch to the right until "Combine" lights in the display.**

4 **Press ENTER/REPEAT.**



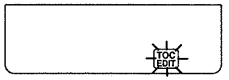
5 **Press ENTER/REPEAT again to confirm your choice.**

This combines the tracks. The number and name of the first track of the two lights up with the combined time.



6 **Press ■ STOP/CHARGE to rewrite the new TOC data to the MD.**

"TOC EDIT" starts flashing.



Caution
Do not move the recorder while "TOC EDIT" is flashing.

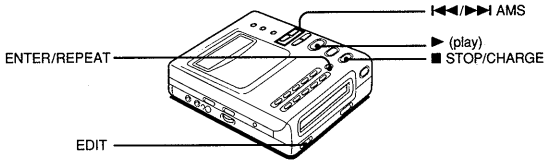
To cancel combine while combining
Before you press ENTER/REPEAT, press ■ STOP/CHARGE or slide the EDIT switch in the direction of the arrow.

If you make a mistake
Redivide the tracks by using the procedure in *Dividing recorded tracks* in the previous section, then recombine them using the procedure for combining.

To combine very short tracks
To combine tracks less than a minute long, press II (pause) before step **3** above.

Erasing recordings

When you erase a selection, all the music between the selected track number and the next track number gets erased. For example, if there are five music selections between tracks 1 and 2, when you designate track 1 to erase, all five selections will be erased with track 1. If you want to erase only one of the selections, add track numbers at the starting and ending points of that selection (See *To erase part of a track*, below). **Note that once a recording has been erased, you cannot retrieve it.**



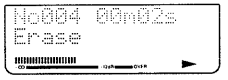
1 **Press ► (play).**

2 **Using the I◄◄/►►I AMS buttons, find the track you want to erase.**

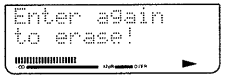
3 **Make sure the music between the track number now displayed and the next track number include only the music you want erased.**

If not, add track numbers at either end of the selection. (See *To erase a part of a track*.)

4 **Slide EDIT to the right several times until "Erase" lights in the display.**



5 **Press ENTER/REPEAT.**



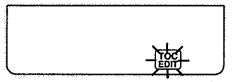
6 **Press ENTER/REPEAT again to confirm your choice.**

The track title and track number are erased from the MiniDisc, and the remaining tracks are renumbered. The track following the one just erased starts playing.

7 **Press ■ STOP/CHARGE to rewrite the new TOC data to the MD.**

"TOC EDIT" starts flashing.

Caution
Do not move the recorder while the "TOC EDIT" is flashing.



To cancel erase while erasing
Before you press ENTER/REPEAT, press ■ STOP/CHARGE or slide the EDIT switch in the direction of the arrow.

To erase part of a track
1 Add track numbers at the start and end point of the music to be erased following the procedure in *Dividing recorded tracks*.
2 Erase the music using the instructions in *Erasing recordings* above.
3 Recombine the parts preceding and following the erased section following the procedure in *Combining recorded tracks*.

To erase a very short track
To erase a track less than a minute long, press II (pause) before step **4** above.

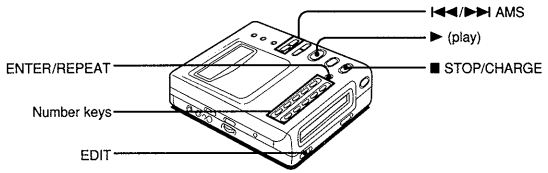
To erase a disc
Erasing a recordable MD erases all the recorded tracks and the disc name.

1 Press ► (play).
2 Keep ► (play) pressed and slide the EDIT switch to the right until "Be careful! Erase all" flashes in the display.
3 Press ENTER/REPEAT.
"Enter again to erase all" lights in the display.
4 Press ENTER/REPEAT again to confirm your choice.
All the tracks on the disc are erased. After "TOC EDIT" flashes the disc stops.

Labeling recordings (title function)

The MiniDisc and song titles light up in the display when you insert a premastered MD and press ► (play). You can have the titles of a home recorded MD light in the display by creating labels for the MD.

You may want to label the MD before recording it, but first record tracks on the MD before creating labels for the tracks. Use the number keys to enter MD and track titles.

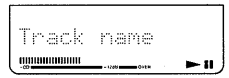


1 **Press ► (play).**

2 **Choose which you want to label, an MD or an individual track:**

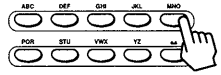
To label an MD
Slide the EDIT switch several times to the right until "Disc Name" appears in the display.

To label a track
① Use the I◄◄/►►I AMS buttons to find the track you want to name.
② Slide the EDIT switch several times to the right until "Track Name" appears in the display. Play will pause so that the track doesn't end before you have entered the name.



3 **Press a number key until the letter you want appears in the display,** ***(see the illustration to the right).***

To enter a space, press "0" twice.



Each number key corresponds to two or three letters of the alphabet.

4 **Press the ►►I AMS button to move to the next letter.**

5 **Repeat steps 3 and 4 until you've entered the whole name.**

You can enter up to 16 characters.

6 **Press ENTER/REPEAT.**

The name you entered is displayed on the second line.

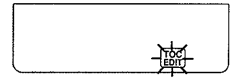
7 **Press ENTER/REPEAT again to confirm your choice.**

As soon as you've entered the track name, pause is released and play resumes.

8 **Press ■ STOP/CHARGE to write the new data to the MD.**

"TOC EDIT" starts flashing.

Caution
Do not move the recorder while "TOC EDIT" is flashing in the display.



If you make a mistake
If you have not already pressed ENTER/REPEAT for the first time, press one of the I◄◄/►►I AMS buttons and enter the correct letter over the wrong one. To erase a letter, enter a space.
If you have already pressed ENTER/REPEAT, start again from step 2.

To change a name you have entered
When you have pressed ENTER/REPEAT for the second time, repeat "Labeling recordings" from major step 2.

Useful tips

Playing from where the MD stopped

Instead of pressing II (pause), use the Resume function, to resume playback (in the same mode) from where you stopped playing. This is useful when you don't want the recorder to expend energy (as it would in pause mode), or start playing from the first track (as it would if you pressed ■ STOP/CHARGE only). The Resume function stores the stop point in memory and allows the recorder to play from where you stopped the recorder.

1 Switch RESUME to the ON position.

2 Press ■ STOP/CHARGE to stop the MD.

3 Press ► (play) to start play again.

Note
If you take the MD out or disconnect the power source (AC or battery power), the resume point will be lost.

Playing while walking or jogging

Use the Hold function to prevent the buttons from being accidentally operated while you are jogging, walking or charging the battery (see *Battery charging tips*).

Slide the HOLD switch in the direction of the arrow to activate the Hold function.

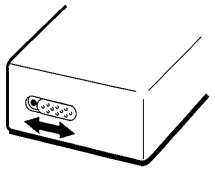
Battery charging tips

Use the HOLD function while charging
If a button is accidentally pressed while the battery is charging, charging will stop and "refreshing" will start again. To prevent this, slide the HOLD switch after the battery starts charging.

If you're in a hurry
If you don't want to wait for the battery to discharge completely ("refreshing"), you can interrupt the refreshing process and start charging immediately by pressing the ■ STOP/CHARGE button. However, we don't recommend you do this often with the same battery, since recharging a partially discharged battery weakens its capacity (i.e. it will operate for increasingly shorter periods).

To restore a weakened battery
If the battery capacity has been diminished considerably because of repeated partial rechargings, discharge and charge it a few times. This will restore the battery to full capacity. This also applies to when you use the battery for the first time or after a long period of disuse.

To remind yourself of the battery's charging state
Set the switch on the battery to the position where no mark is visible when the battery has finished charging. Set the switch to the red mark position when the battery has been discharged.



To best operate the battery
Keep the electrical contacts to the rechargeable battery compartment clean. If they are tarnished or dirty, battery operating time will decrease.

Precautions

On safety
- Since the laser beam used in this MiniDisc recorder is harmful to the eyes, do not attempt to disassemble the casing. Refer servicing to qualified personnel only.
- Do not put any foreign objects in the DC IN 10.5 V jack.

On power sources
- Use the rechargeable battery pack (supplied), house current or car battery.
- For use in your house: Use the AC power adaptor supplied with this recorder. Do not use any other AC power adaptor since it may cause the recorder to malfunction.
- The recorder is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the recorder itself has been turned off.
- If you are not going to use this recorder for a long time, be sure to disconnect the power supply (AC power adaptor, rechargeable battery pack or car battery cord). To remove the AC power adaptor from the wall outlet, grasp the adaptor plug itself; never pull the cord.
- For use in the car: Use the CPA-4 car connection pack (not supplied).

On installation
- Never use the recorder where it will be subject to extremes of light, temperature, moisture or vibration.
- Never wrap the recorder in anything when it is being used with the AC power adaptor. Heat build-up in the recorder may cause a malfunction or injury.

On the headphones
- *Do not use headphones while in traffic*
  Do not use headphones while driving, cycling, or operating any motorized vehicle. It may create a traffic hazard and is illegal in many areas. It can also be potentially dangerous to play your headset at high volume while walking, especially at pedestrian crossings. You should exercise extreme caution or discontinue using the headphones in potentially hazardous situations.
- *Preventing hearing damage*
  Avoid using the headphones at high volume. Hearing experts advise against continuous, loud and extended play. If you experience a ringing in your ears, reduce the volume or discontinue use.
- *Considering others*
  Keep the volume at a moderate level. This will allow you to hear outside sounds and to be considerate to the people around you.

On the MiniDisc cartridge
- Do not break open the shutter.
- Do not place the cartridge where it will be subject to light, temperature, moisture or dust.

On cleaning
- Clean the recorder casing with a soft cloth slightly moistened with water or a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzene as it may mar the finish of the casing.
- Wipe the disc cartridge with a dry cloth to remove dirt.

If you have any questions or problems concerning your recorder, please consult your nearest Sony dealer.

Error messages

If the recorder cannot carry out an operation, one of the following error messages may flash in the display window.

This message will flash	If
BLANK DISC	• you try to play a disc with no recording on it.
DISC ERROR	• the recorder cannot read the disc (it's scratched or dirty).
DISC FULL	• there is no more space on the disc (less than 4 seconds).
HOLD	• you try to operate the recorder with the HOLD switch slid in the direction of the arrow.
NO DISC	• you try to play or record with no disc in the recorder.
NO SWAPPED!	• you try to change the order of tracks while the first track on the disc is playing.
PB DISC	• you try to record or edit* on a pre-mastered disc ("PB" = playback).
PROTECTED	• you try to record or edit on a disc with the tab in the record-protect position.
SORRY PROHIBITED	• you try to combine tracks the recorder is not able to combine. If you have recorded or erased many times on the same disc, the data of a single track may be scattered throughout the disc. When the data is scattered in groups of less than 8 seconds long, the recorder will not be able to combine the tracks.
TR PROTECTED	• you try to record over or edit a track which has been track protected.**

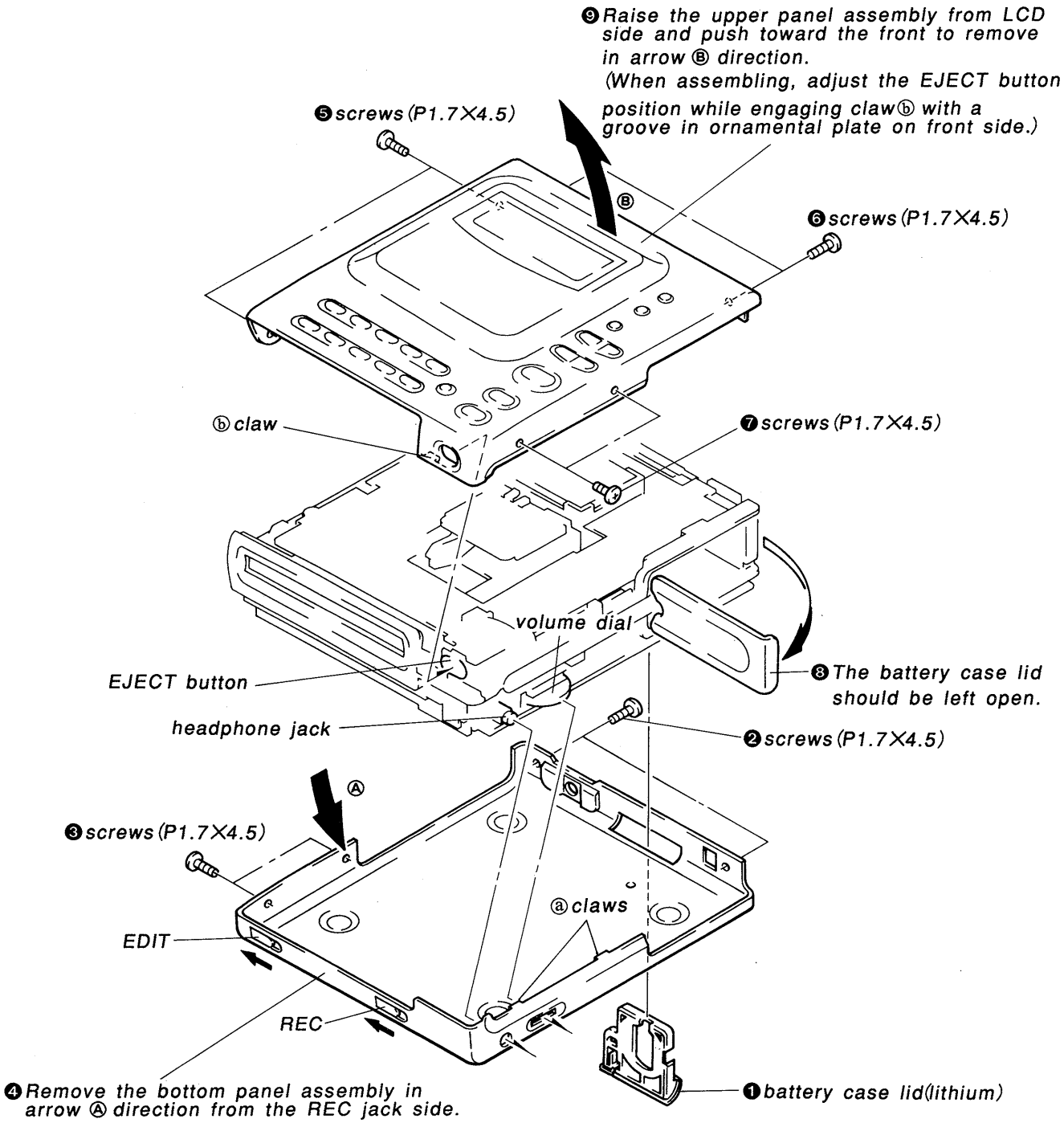
* "Edit" means you operated the EDIT switch.

** Track-protected mini-discs — Some MD recorders will let you protect individual tracks from being recorded over. This recorder, however, does not offer this feature.

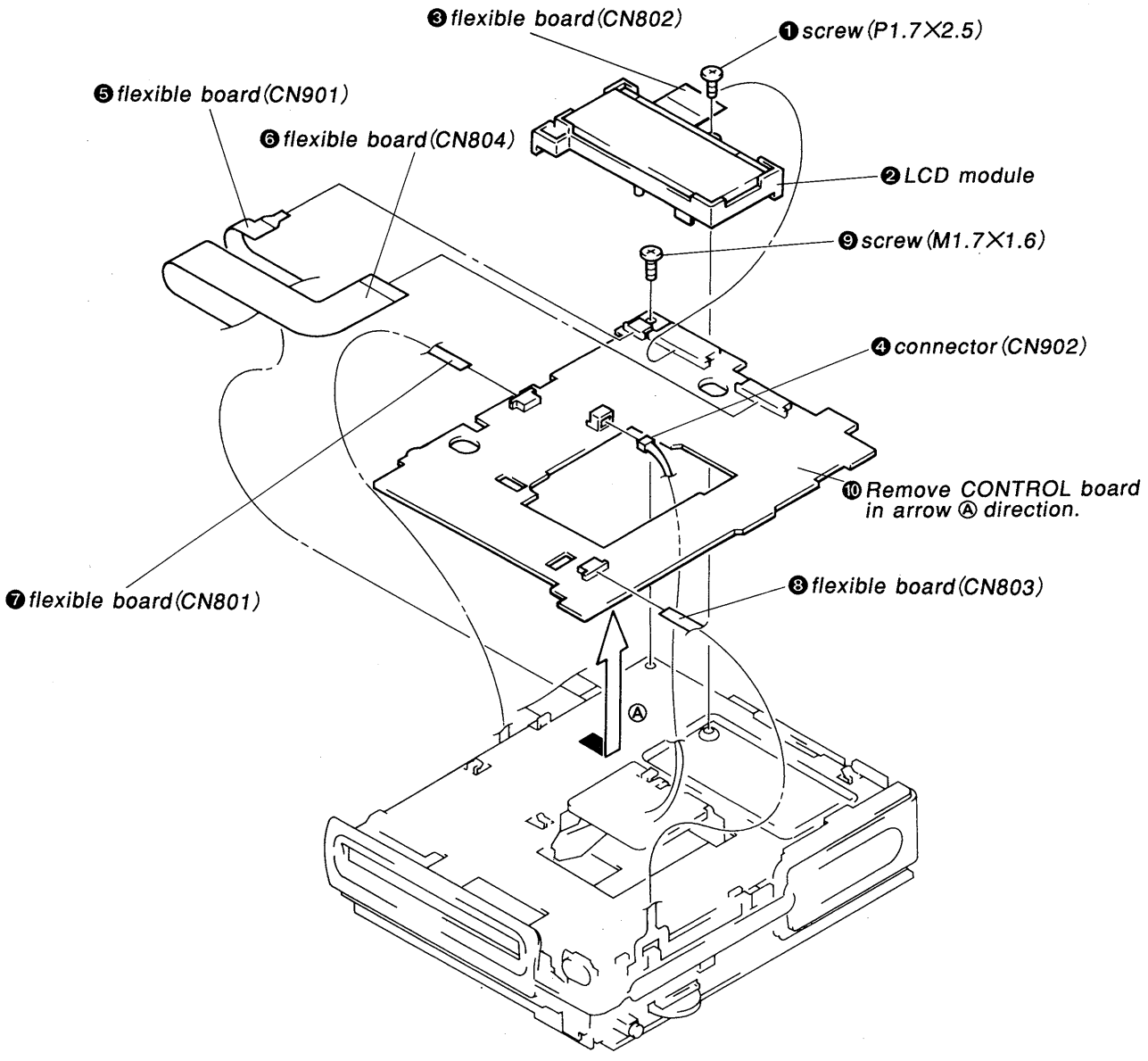
SECTION 2
DISASSEMBLY

NOTE: Follow the disassembly procedure in the numerical order given.

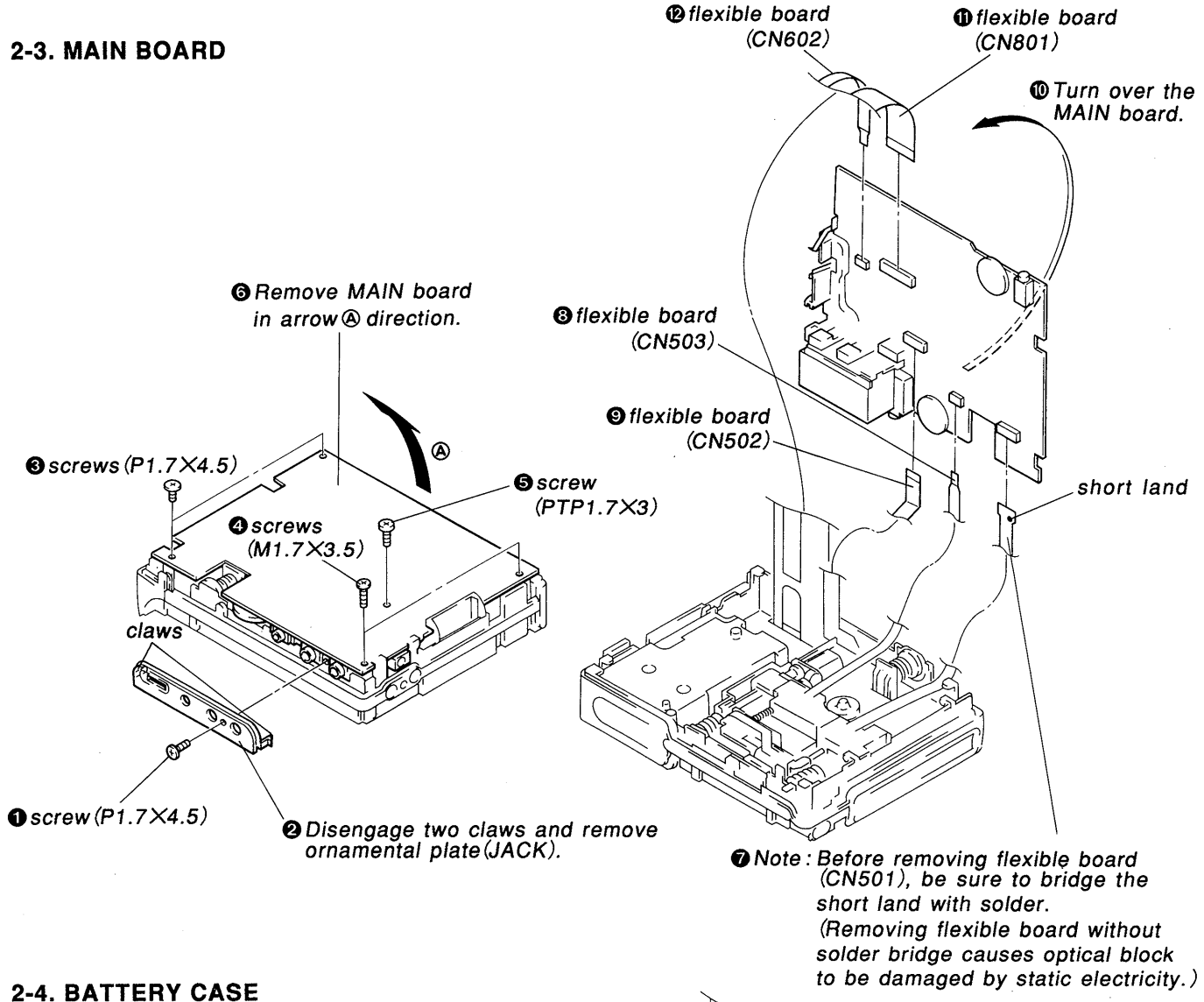
2-1. UPPER PANEL AND BOTTOM PANEL



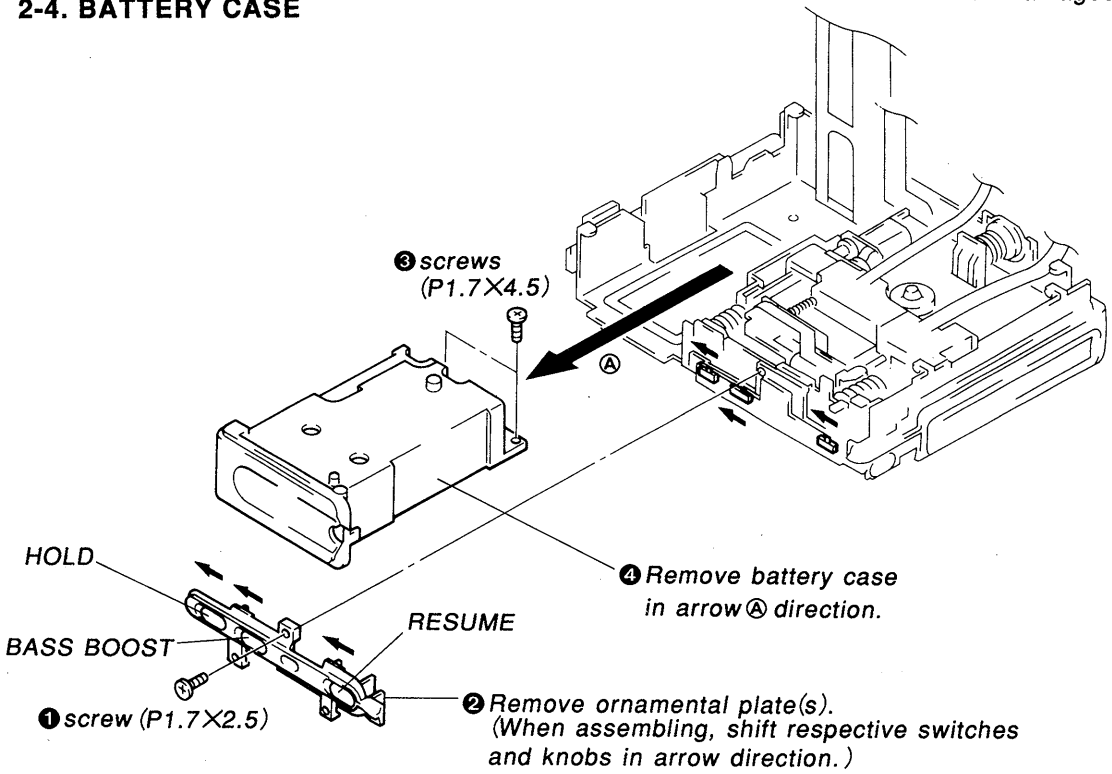
2-2. CONTROL BOARD



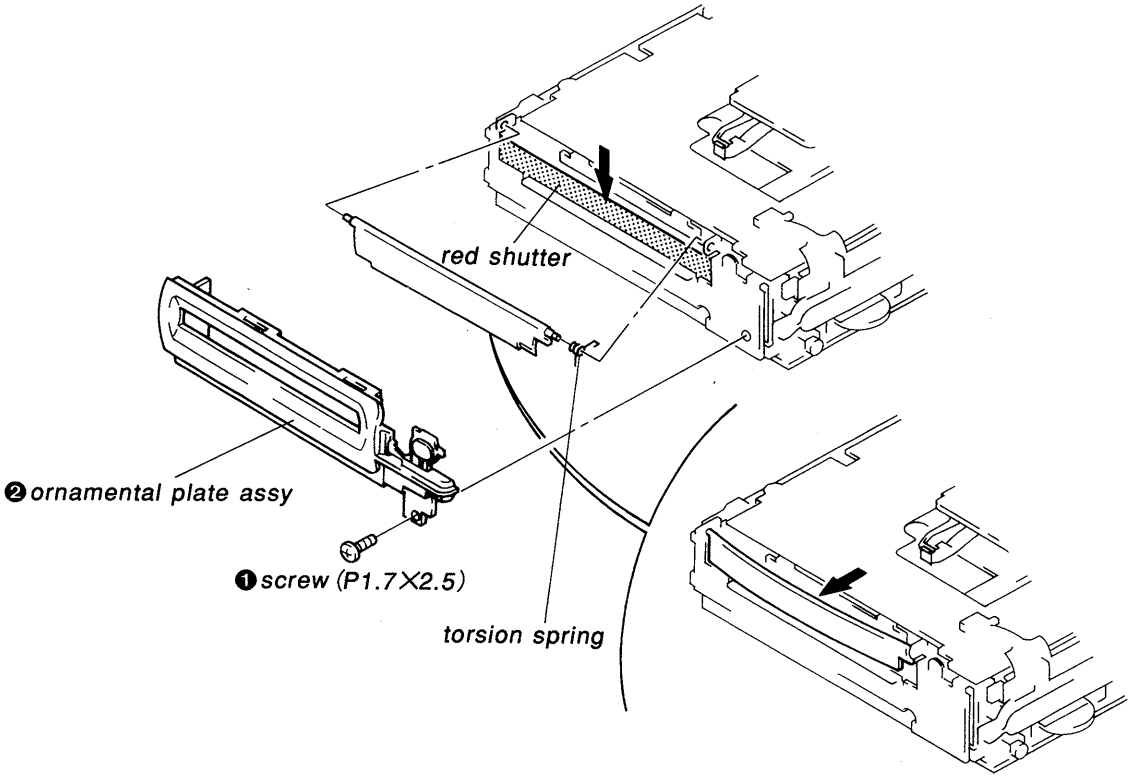
2-3. MAIN BOARD



2-4. BATTERY CASE



2-5. EJECT SHUTTER

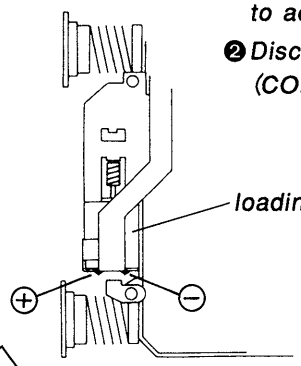


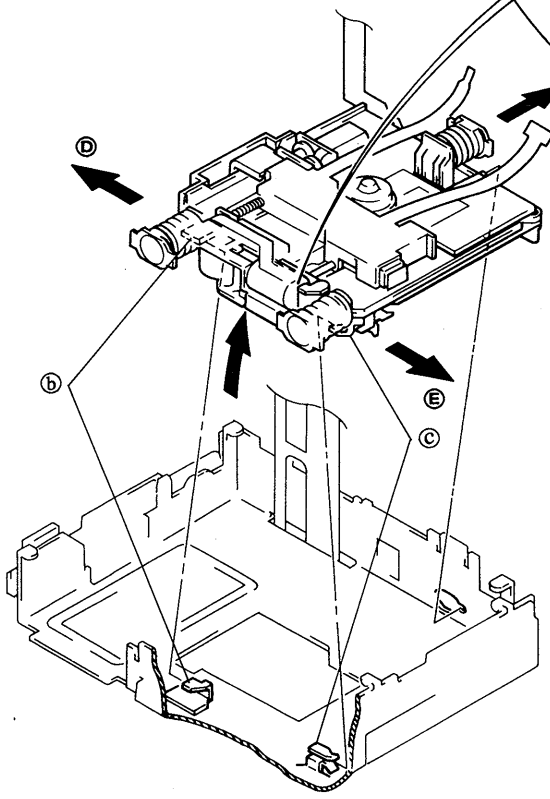
❸ Remove the eject shutter while bending a little as shown.
(When assembling, press a red shutter and insert eject shutter inside red shutter.)

2-6. MECHANICAL DECK

❶ *Apply about 2V to loading motor terminals to activate the loading status.*

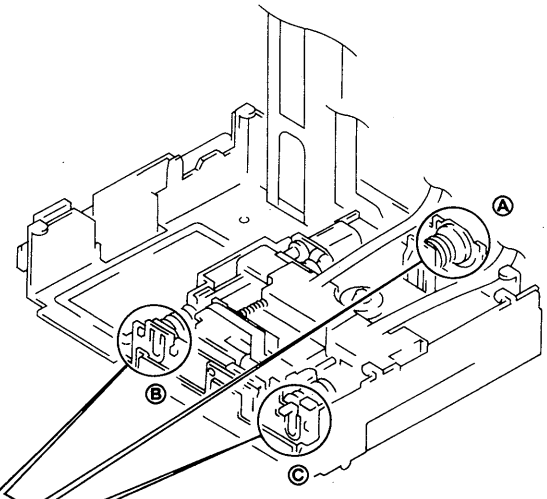
❷ *Disconnect the magnetic head connector (CONTROL board).*





* *If loading status is not activated due to faulty loading motor or a mechanical trouble. (This method, however, puts burden on mechanical components and therefore the mechanical deck should be removed in the loading status.)*

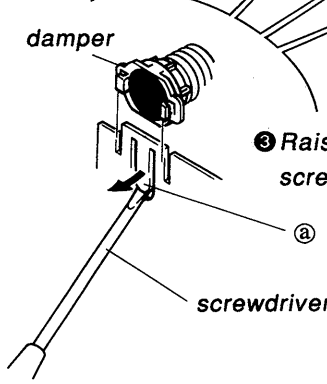
1. *Remove dampers at three places.*
2. *Shift mechanical deck in arrow Ⓓ direction to unlock ⓑ.*
3. *Shift mechanical deck in arrow Ⓔ direction to unlock Ⓒ.*
4. *Shift mechanical deck in arrow Ⓕ direction to remove.*



❹ *Remove the mechanical deck from Ⓑ and Ⓒ sides where there are two dampers. (When assembling, remove a damper on Ⓐ side and mount the chassis first, then the mechanical deck from Ⓐ side.)*

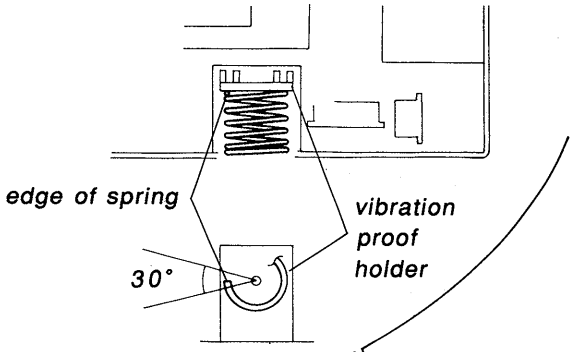
Note : Do not touch optical block if possible, when removing the mechanical deck.

Note : Run the loading motor to activate loading status when assembling the mechanical deck. (Mechanical deck will not be assembled unless the loading status is activated.)

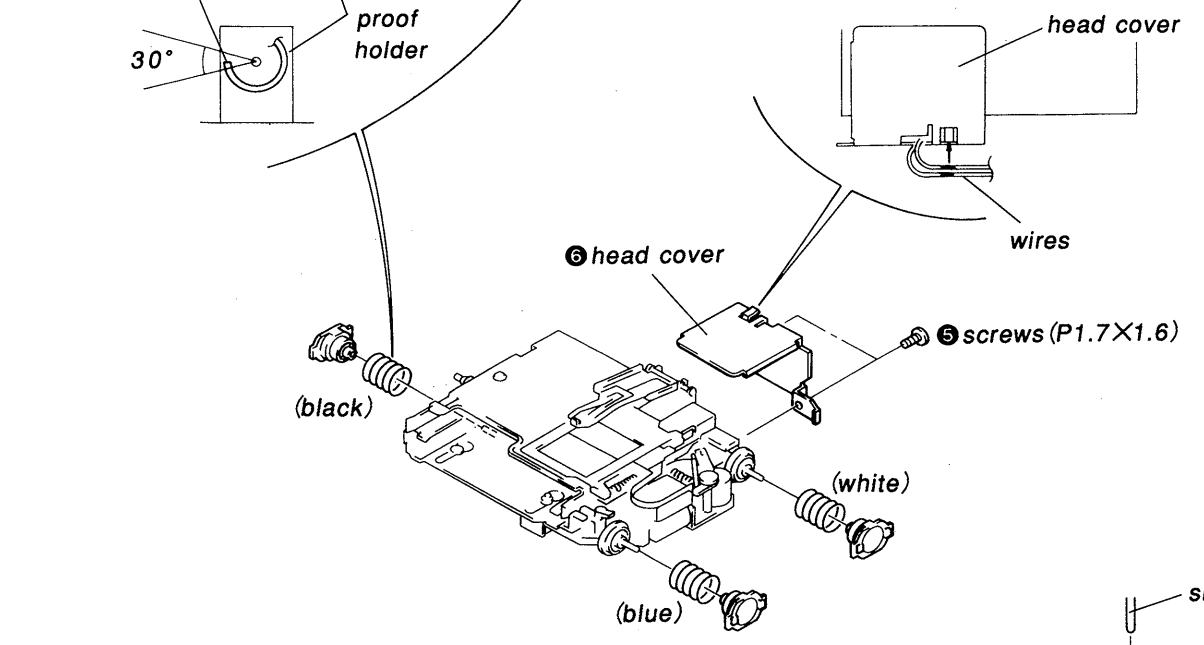


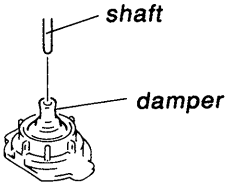
❸ *Raise ⓐ at three places on chassis with a screwdriver.*

Note : When assembling mechanical deck, expand the lead edge of spring on vibration proof holder side to the position shown in figure. (Thus, the mechanical deck balance will be suitable for ejection when the set is placed vertically.)



Note : When assembling, align a black marking on magnetic head wires with a slit on head cover, and lock the screw.

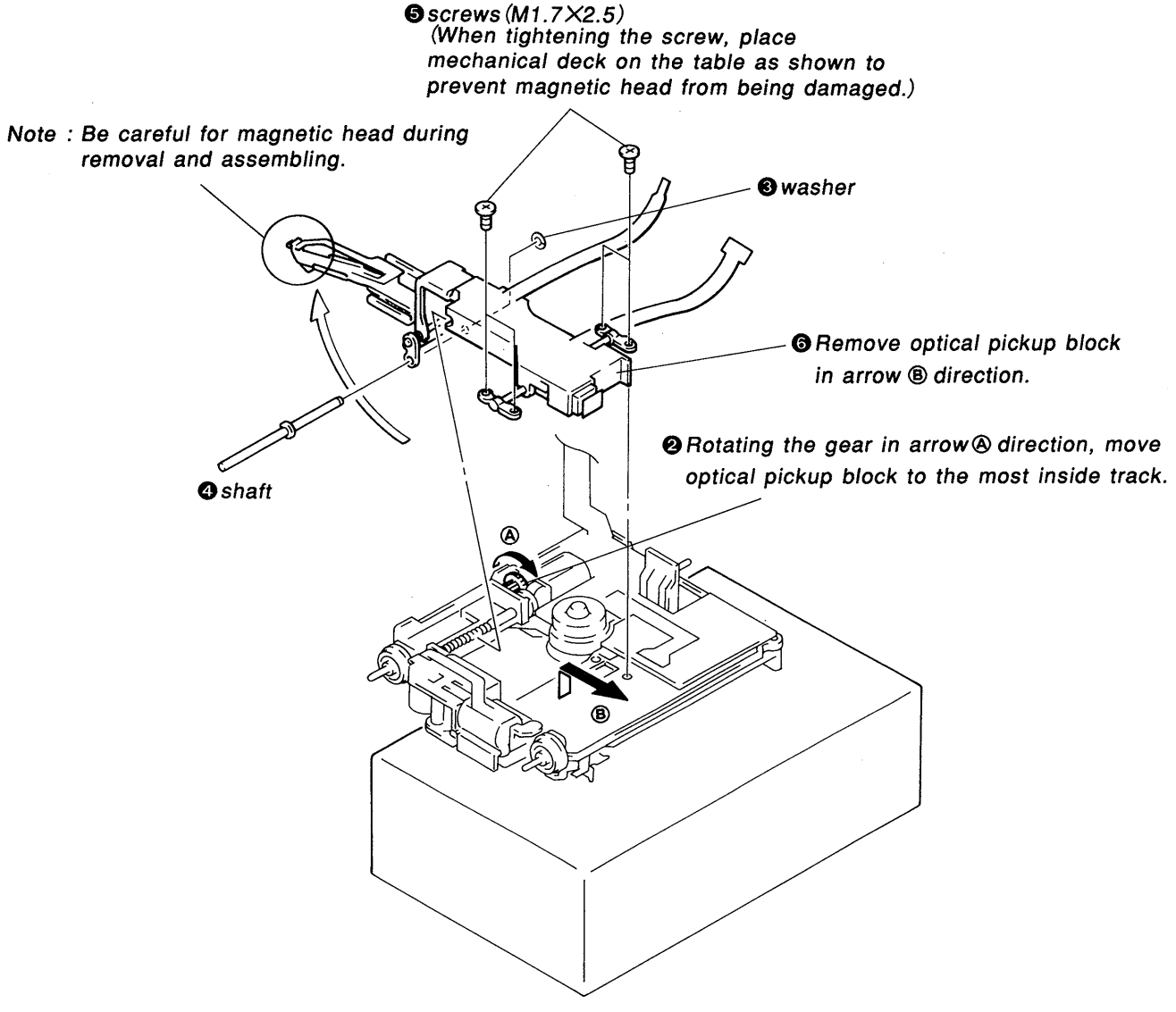




Note : When assembling a damper, insert the shaft with a lead edge peeled up as shown.

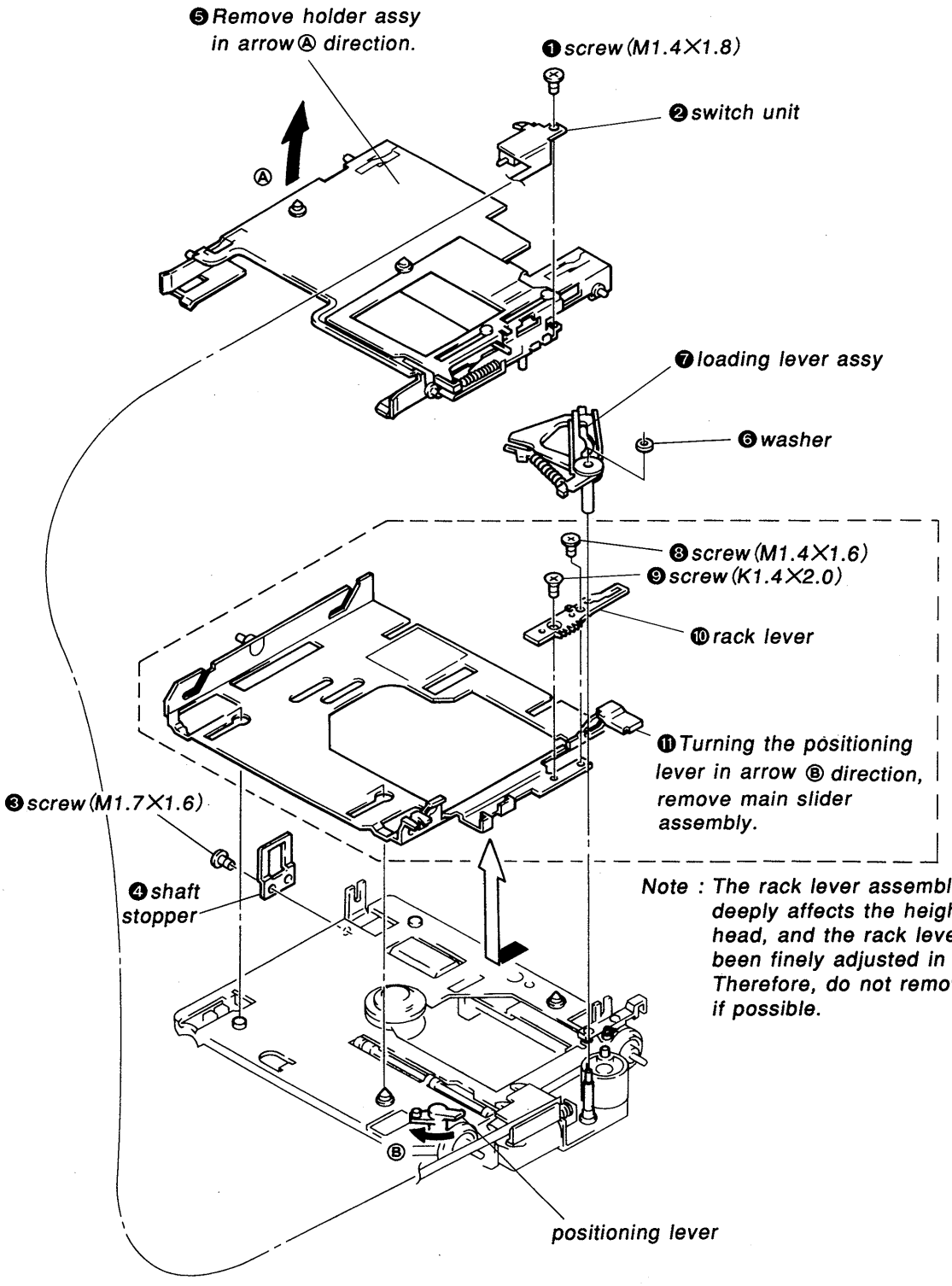
2-7. OPTICAL PICKUP BLOCK

❶ *Run the loading motor to activate eject status.*



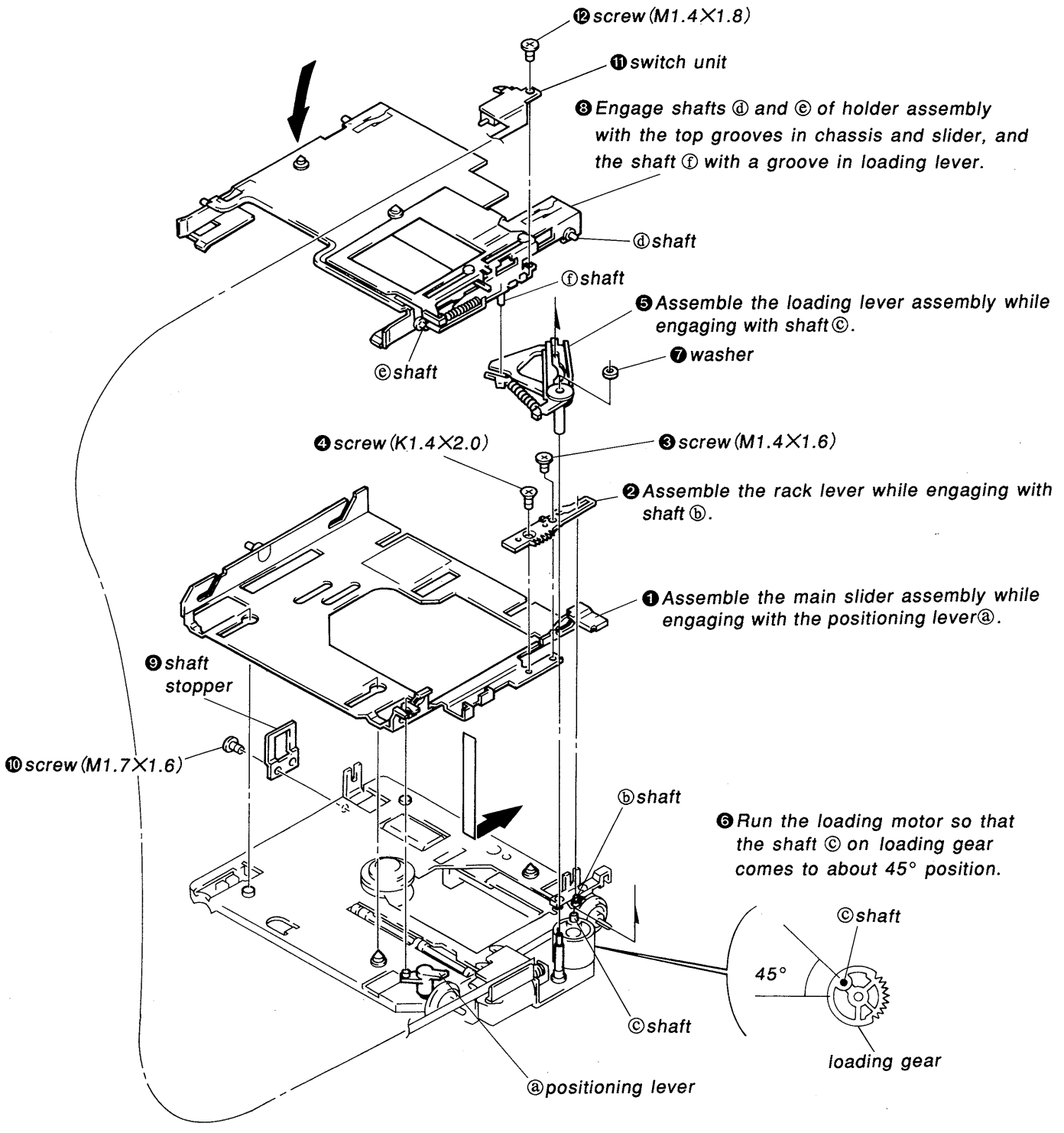
2-8. HOLDER ASSY AND MAIN SLIDER ASSY

1. Removal

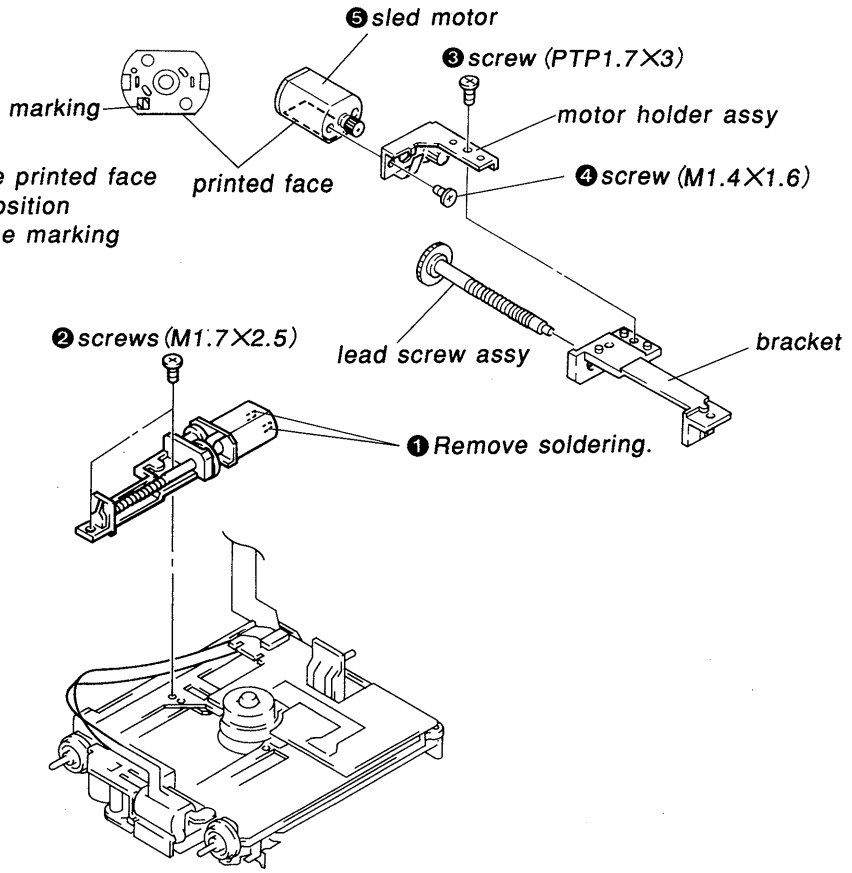


Note : The rack lever assembling position deeply affects the height of magnetic head, and the rack lever position has been finely adjusted in the factory. Therefore, do not remove this lever if possible.

2. Assembling



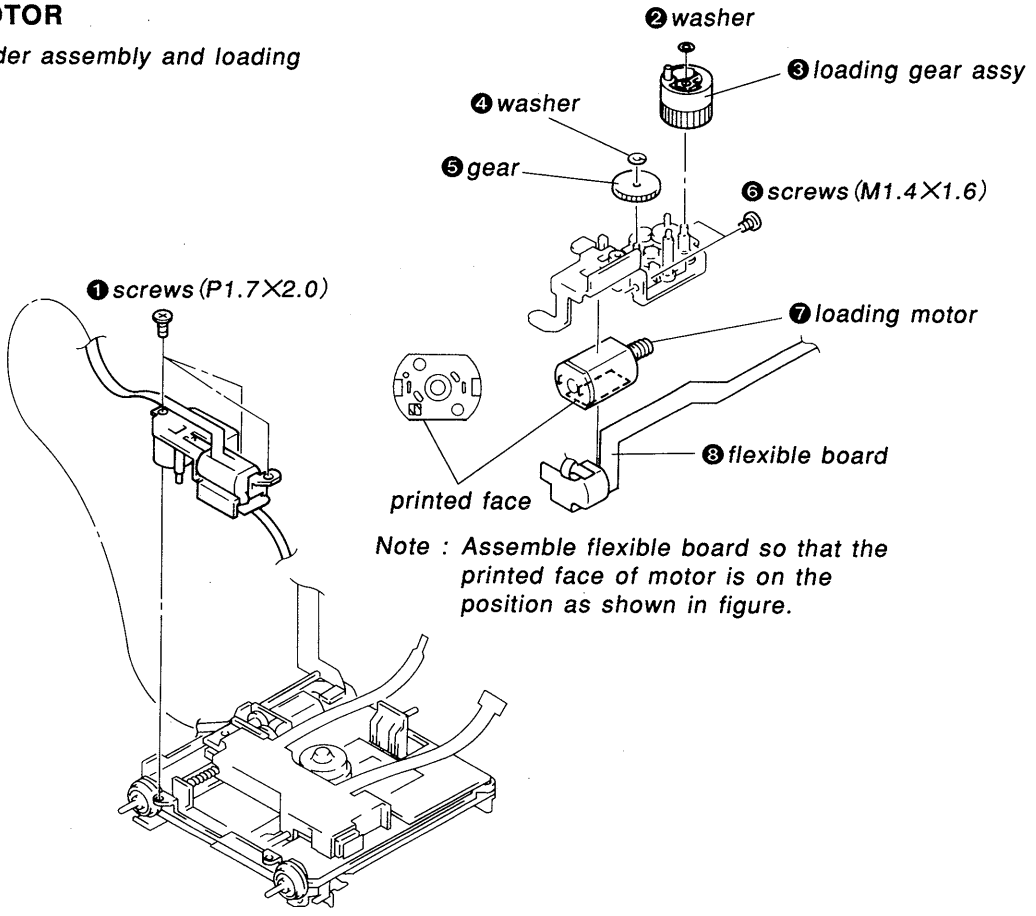
2-9. SLED MOTOR



Note : Assemble so that the printed face of motor is on the position shown in figure or the marking becomes ⊕.

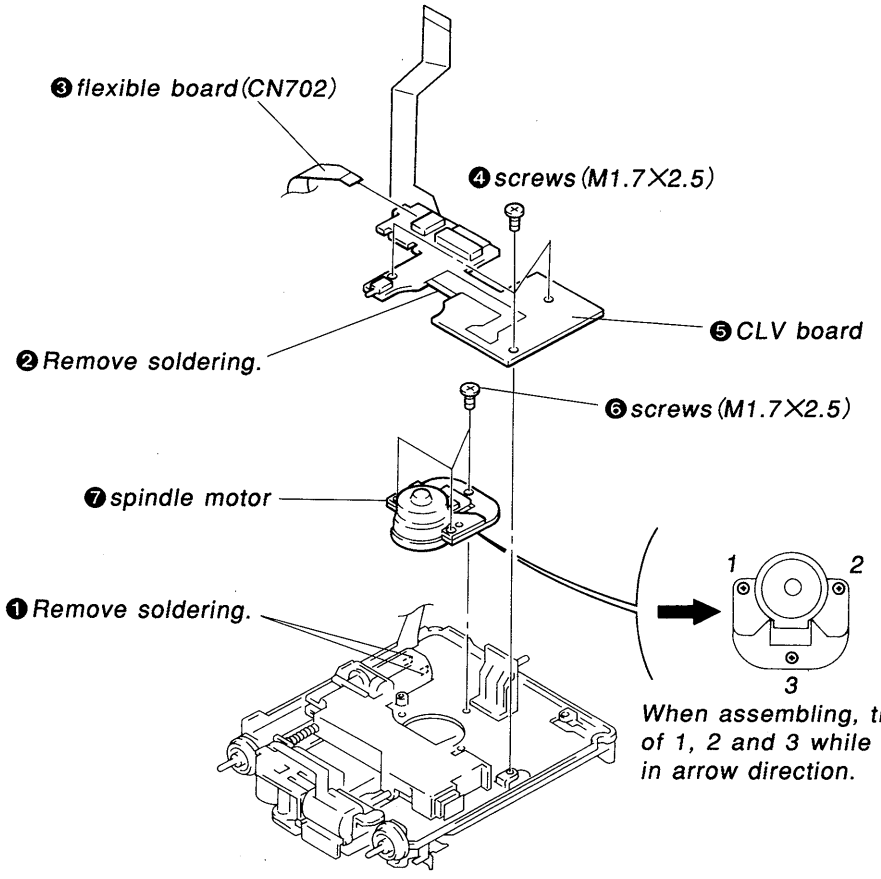
2-10. LOADING MOTOR

** Remove the holder assembly and loading lever assembly.*



Note : Assemble flexible board so that the printed face of motor is on the position as shown in figure.

2-11. SPINDLE MOTOR



When assembling, tighten screws in the order of 1, 2 and 3 while shifting the spindle motor in arrow direction.

SECTION 3
PIN FUNCTION

IC601 EFM/ACIR ENCODER/DECODER (CXD2525R)

*In the I/O column, (3) implies state output and (A) implies analog output.

Pin. No. QFP	Pin. No. VQFP	Name	I/O	Function
1	79	FSW	O(3)	Spindle motor output filter switching output. "Z" in CLV-P mode, or "L" in other modes.
2	80	NON	O	Spindle motor ON/OFF control output. ON at "H".
3	1	MDP	O(3)	Spindle motor servo control
4	2	MDS	O(3)	Spindle motor servo control
5	3	EFMI	I	EFM input in PLAY mode
6	4	ASY	O	EFM full-swing output in PLAY mode
7	5	LOCK	O	Lock status monitoring of spindle servo (CLV). Lock at "H".
8	6	VCOO	O	EFM decoder analog PLL oscillation output (196Fs=8.6436MHz)
9	7	VCOI	I	EFM decoder analog PLL oscillation input
10	8	TEST1	I	Test pin. Normally GND.
11	9	PDO	O(3)	EFM decoder analog PLL phase comparison output
12	10	VSS	—	Digital GND
13	11	EFMO	O	EFM output in REC mode
14	12	ATER	O	ADIP CRC flag output. Error at "H".
15	13	CNIN	I	Track jump count signal input
16	14	SENS	O(3)	Internal status output to serial bus address
17	15	SYPL	I	SQSY, ADSY, DQSY, MQSY polarity switching input. Active high at "H".
18	16	FILO	O(A)	Master PLL filter output for digital PLL
19	17	FILI	I	Master PLL filter input for digital PLL
20	18	PCO	O(3)	Master PLL phase comparison output for digital PLL
21	19	AVSS	—	Analog GND
22	20	CLTV	I	Master PLL VCO control voltage input for digital PLL
23	21	AVDD	—	Analog power supply
24	22	XRST	I	System reset input. Active low.
25	23	REC	I	Decoder at "L". Encoder at "H".
26	24	TEST8	I	Test pin. Normally GND.
27	25	SCLK	I	Serial bus clock input
28	26	XLAT	I	Serial bus latch input
29	27	SWDT	I	Serial bus write data input
30	28	SRDT	O(3)	Serial bus read data output
31	29	ADSY	O	ADIP Sync output
32	30	SQSY	O	Subcode Q Sync output
33	31	VDD	—	Digital power supply
34	32	DQSY	O	Output of subcode Q Sync(SCOR) in digital IN U-bit CD format.
35	33	TEST7	O	Open this pin.
36	34	DTI	I	Audio signal input in REC mode
37	35	DTO	O(3)	Audio signal output in PLAY mode. High impedance in REC mode
38	36	C2PO	O	C2PO in PLAY, D. IN-VFLAG in D.REC, 0 in A. REC.
39	37	BCK	O	2.8224MHz output (MCLK system)
40	38	XBCK	O	BCK inverted output (MCLK system)
41	39	LRCK	O	44.1kHz (=Fs) (MCLK system)
42	40	WDCK	O	88.2kHz (MCLK system)
43	41	FS4	O	176.4kHz (MCLK system)

Pin. No. QFP	Pin. No. VQFP	Name	I/O	Function
44	42	GTOP	O	Sync guard window open at "H" (INPUT EFM SYNC monitor output)
45	43	XUGFS	O	Unguarded Frame Sync at "L" (INPUT EFM SYNC monitor output)
46	44	XPLCK	O	EFM decoder PLL clock output (98Fs=4.3218MHz)
47	45	GFS	O	Frame Sync OK at "H" (INPUT EFM SYNC monitor output)
48	46	EPDO	O(3)	EFM encoder external PLL phase comparison output Freq. : low → "H"
49	47	RFCK	O	7.35kHz output (MCLK system)
50	48	EVCI	I	EFM encoder external PLL osxillation input (196Fs=8.6436MHz)
51	49	EVCO	O	EFM encoder external PLL osxillation output (196Fs=8.6436MHz)
52	50	VSS	—	Digital GND
53	51	MCLK	O	22.5792MHz output. Duty is not guaranteed.
54	52	XTAI	I	Crystal oscillation input (512Fs=22.5792MHz)
55	53	XTAO	O	Crystal oscillation output (512Fs=22.5792MHz)
56	54	TEST9	I	Fix to "L"
57	55	MVCI	I	Digital IN PLL oscillation input (512Fs=22.5792MHz)
58	56	MVCO	O	Digital IN PLL oscillation output (512Fs=22.5792MHz)
59	57	TEST2	O	Fix to "open"
60	58	DIPD	O(3)	Digital IN PLL phase comparison output Freq. : low → "L"
61	59	RAOF	O	RAM overflow output (Decoder monitor output)
62	60	MT3	O	Correction status monitor output in PLAY mode
63	61	MT2	O	Correction status monitor output in PLAY mode
64	62	MT1	O	Correction status monitor output in PLAY mode
65	63	MT0	O	Correction status monitor output in PLAY mode
66	64	WFCK	O	7.35kHz (EFM decoder PLL system in PLAY mode, EFM encoder PLL system in REC mode)
67	65	DIN	I	Digital audio input pin
68	66	MD2	I	Digital audio OUT ON/OFF pin. ON at "H".
69	67	DOUT	O	Digital audio output pin
70	68	DIDT	O	Audio data output pin for digital audio input pin
71	69	DODT	I	16-bit data input pin for digital audio output
72	70	DOVF	I	Validity flag input pin for digital audio output
73	71	VDD	—	Digital power supply
74	72	TEST3	I	Fis to "L"
75	73	TEST4	O	Fix to "open"
76	74	TEST5	I	Fix to "L"
77	75	TEST6	I	Fix to "L"
78	76	FMCK	I	ADIP read clock input (TTL Schmidt input)
79	77	FMDT	I	ADIP data input (TTL Schmidt input)
80	78	ADFG	I	ADIP carrier signal input (TTL Schmidt input)

Notes :
- XUGFS is Frame Sync taken from EFM signal and it is a negative pulse. It is a signal before Sync protection.
- For the XPLCK, PLL is generated so that the inverted EFM PLL clock falling edge meets with the transition point of EFM signal.
- GFS signal becomes "H" when Frame Sync meets with the internal guard timing.
- C2PO signal indicates data error status.
- RAOF signal is generated when 32kRAM exceeds±4F jitter margin.

IC602 SHOCK PROOF MEMORY CONTROLLER(CXD2526Q)

Pin. No.	Name	I/O	Function
1	A14	O	SRAM address bus A14 when RMSL=H, or WFFUL (note) when RMSL=L
2	A15	O	SRAM address bus A15 when RMSL=H, or RFEMP (note) when RMSL=L
3	A16	O	SRAM address bus A16 when RMSL=H, or WFOVF (note) when RMSL=L
4	A17	O	SRAM address bus A17 when RMSL=H, or WDTM (note) when RMSL=L
5	A18	O	SRAM address bus A18 when RMSL=H, or ZERO (note) when RMSL=L
6	A19	O	SRAM address bus A19 when RMSL=H, or MDTSC (note) when RMSL=L
7	A20	O	SRAM address bus A20 when RMSL=H, or CMPSY (note) when RMSL=L
8	LRCK	I	LRCK input from EFM encoder/decoder
9	BCK	I	BCK input from EFM encoder/decoder
10	C2PO	I	C2PO input from EFM decoder
11	DATA	I/O	I/O data from decoder in PLAY mode, or to encoder in REC mode
12	VSS	–	GND
13	TEST	I	Test pin. Normally fix to "L".
14	XRST	I	RESET input. Reset at "L".
15	MIN	I	External monitor signal input pin. Input a signal to be monitored.
16	SRDT	(HiZ) O	Microcomputer serial data output. Hi-z when CXD2526 read register is not selected.
17	SWDT	I	Microcomputer serial data input
18	XSLT	I	Microcomputer serial data latch signal input
19	SCK	I	Microcomputer serial data shift clock input
20	SCTX	I	Data output enable signal input in REC mode
21	RCPB	I	PLAY mode at "L"/REC mode at "H"
22	WRMN	I	WRITE mode at "H"/MONITOR mode at "L"
23	SBMN	I	Input signal recording based on SDCT at"H"/based on DCT at "L"
24	XINT	O	Interruput request output. "L" in the interrupt status.
25	MDSY	O	Input data MD Sync detection signal
26	MEMFUL	O	H when main data area is full
27	MEMEMP	O	H when main data area is empty
28	UNDER	O	H when RMS < THUND
29	OVER	O	H when RMS ≧ THOVR
30	ERWR	O	H when C2PO data is written in RAM
31	BTOV4	O	H when BCT ≧ 400(Hex)
32	TXST	O	H during data transfer
33	VDD		System power supply
34	BUSY	I/O	H during RAM access
35	ZZ2	I	Test signal. Fix to "L".
36	ZZ1	I	Test signal. Fix to "L".
37	ZZ0	I	Test signal. Fix to "L".
38	XALT	O	Data ready or latch signal to CXD2527
39	ADT1	I	Data input from CXD2527
40	ADTO	O	Data output to CXD2527
41	ACK	O	Data I/O clock output to CXD2527
42	AC2	O	C2PO output pin for output data to CXD2527
43	XRQ	I	Data request signal input from CXD2527
44	SDCK	I	External subdata I/F shift clock input
45	SBDT	I/O	External subdata I/F data output in PLAY mode, or data input in REC mode
46	XWT	O	External subdata I/F wait signal. When this pin is"L", clock to read new data must not be fed.

Pin. No.	Name	I/O	Function
47	SRDY	O	External subdata I/F access permit signal. When this pin is "H", clock to read/write subdata is ignored, even if fed.
48	MCK	O	128Fs output
49	F256	O	256Fs output
50	XTLO	O	System clock output
51	XTLI	I	System clock input. Input 22.5792MHz.
52	VSS	—	GND
53	TEST	I	Fix to "L"
54	RMSL	I	External RAM selection. SRAM at "H"/DRAM at "L".
55	ERR	I/O	C2PO input/output when EXTC2R="H"
56	D7	O	SRAM data line D7 when RMSL="H"/Test signal at "L"
57	D4	I/O	RAM data bus D4 when RMSL="H"/Test signal at "L"
58	D0	I/O	RAM data bus D0
59	D1	I/O	RAM data bus D1
60	D3	I/O	RAM data bus D2
61	D2	I/O	RAM data bus D3
62	XCAS	I/O	DRAM $\overline{CAS}$ output when RMSL="L"/Data bus D5 when RMSL="H"
63	XOE	O	RAM output enable
64	A10	O	RAM address bus A10
65	XWE	O	RAM write enable
66	XRAS	I/O	DRAM $\overline{RAS}$ output when RMSL= "L"/Data bus D5 when RMSL= "H"
67	A11	O	RAM address bus A11
68	A9	O	RAM address bus A9
69	A0	O	RAM address bus A0
70	A1	O	RAM address bus A1
71	A2	O	RAM address bus A2
72	A3	O	RAM address bus A3
73	VDD	O	System power supply
74	A8	O	RAM address bus A8
75	A7	O	RAM address bus A7
76	A6	O	RAM address bus A6
77	A5	O	RAM address bus A5
78	A4	O	RAM address bus A4
79	A12	O	RAM address bus A12 when RMSL="H"/CS output at "L"
80	A13	O	RAM address bus A13 when RMSL="H"/SYOK output at "L"

Note : WFFUL "H" when the write FIFO is full.
RFEMP "H" when the read FIFO is empty.
WFOVF "H" when the write FIFO overflows.
WDTM The timing for window in D1 block is output.
ZERO "H" when BCT=0.
MDTSC "H" when the header sector of input data is 00-1F, or "L" for others.
CMPSY Internal synchronization timing.

SECTION 4
TEST MODE

The microcomputer of this set provides the TEST mode.

The following describes TEST mode function and its operating method.

〔CAUTION ON LASER EMISSION〕

Never look into the laser unit from top position when confirming laser emission during adjustment. Otherwise, you could lose your eyesight.

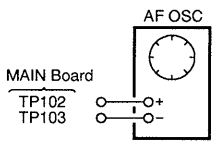
〔CAUTION in TEST mode〕

- Pressing ENTER key with all servo ON erases the contents of disc(UTOC erasing).
- Confirm RF waveform since no playback signal is output during playback in the TEST mode.

〔Activation or deactivation of TEST mode〕

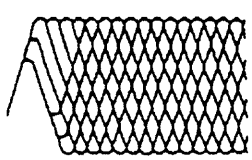
1. With an AC cord unplugged and battery removed, short JR106 with solder jumper.
2. Plug−in the AC cord, and the TEST mode will be activated.
3. To deactivate the TEST mode, remove the solder jumper.

〔Checking RF waveform〕



1. Place the set in STOP status, and connect an oscilloscope to TP102.
2. Select either CLV servo mode of "a" to "d" listed in Table 2 on page 39, and load a suitable disc(MO should have been already written).
3. Press the PLAY key, and RF waveform will be output.
4. Check that proper waveforms are output in all modes "a" to "d" listed in Table 2

RF signal Waveform



〔Operation in TEST mode〕

1. Output of SIN wave

1-1. After power ON initialization, the SIN wave of 1KHz −12dB is output from LINE OUT and PHONE, which will be continuously output until any key is pressed(but, this operation is only performed immediately after power ON).

1-2. The audio circuit will be normal if this signal is output.

* The 212−byte data is transferred from IC801 (microcomputer)to IC602 and IC602 generates a fixed pattern.

2. Checking loading operation of cassette compartment

2-1. Loading is started when caddy is inserted.

2-2. The caddy is ejected when EJECT key is pressed.

2-3. The head is moved up and down when pressing PAUSE key with an MO disc loaded. (Do not use CD disc.)

* Unplug the power cord immediately when you find any abnormality because the cassette compartment keeps operating by ignoring mechanical failure.

3. Checking servo system

3-1. Checking laser emission

3-1-1. Confirm that repetitional operation of laser beam emission and lens up−down movement is performed when pressing the PLAY key without loading a disc.

3-2. Focus search and CLV is kicked up to rough servo

3-2-1. Load a disc and press the PLAY key in STOP status.

3-2-2. Focus search, Focus on and CLV−A are executed.

3-2-3. Disc reflection is checked, and the laser power is set to MO/CD READ power.

3-2-4. Tracking brake is turned on.

3-3. All servo ON

3-3-1. With the set in STOP status or during servo system check 3-2, press PLAY key.

3-3-2. Focus on, CLV−A, sled motor and tracking motor are turned on respectively.

3-4. Movement of optical pickup

3-4-1. With the set in STOP status or during servo system check 3-1, 3-2, 3-3, press NEXT key.

3-4-2. The sled motor and tracking run forward while the NEXT key is pressed.

3-4-3. With the set in STOP status or during servo system check 3-1, 3-2, 3-3, press PREV key.

3-4-4. The sled motor and tracking reverse while the PREV key is pressed.

3-4-5. Check for smooth operation.

3-5. All servo OFF

3-5-1. With the set in STOP status or during servo system check 3-1, 3-2, 3-3, press STOP key.

3-5-2. Focus on, CLV－A, sled motor and tracking motor are turned off respectively one by one.

4. Switching laser power

4-1. With the set in STOP status, press EDIT key.

4-2. Each time the EDIT key is pressed, laser power varies like : [CD-READ] → [MO-READ] → [3.5mW] → [MO-WRITE] → [OFF] ([Laser CD PIT] → [Laser MO GRV] → [Laser1／2 GRV] → [Laser MOW GRV] → [Laser OFF PIT])

Remarks : In the CD／MO READ power mode, the module is turned on about 10ms after the laser is turned on.

* Use for MO－WRITE power adjustment and READ power checking.

5. Checking REC monitor system

5-1. With the set in STOP status, press REC key.

5-2. The input status at the time when REC key is pressed is activated (see Table 1).

Table 1

OPTICAL (DIGITAL) IN	MIC IN	INPUT STATUS
Not connected	Not connected	Analog
Connected	Not connected	Digital

Remarks : 1) IC301(MIC line IN, AMP)
IC309(AD converter)
IC603(ATRAC)input interface
IC601(EFM encode, decode)digital
IN／OUT These can be checked.

Remarks : 2) IC601 COMMAND DATA

AIN :	SYSTEM SET	$80. 04
	SYSTEM CONTROL	$81. 20
DIN :	SYSTEM SET	$80. 24
	SYSTEM CONTROL	$81. 38

6. Selection of CLV servo mode

6-1. With the set in STOP status, press PLAY key and PLAY MODE key, so that each mode is selected depending on setting of REFLECT, RESUME and HOLD switches as shown in Table 2.

Table 2

Mode	Operation			Applicable disc	LCD DISPLAY	CLV mode
	REF.	RESUME	HOLD	Applicable area	PIT/GRV	
a	L	ON	HOLD	CD:PIT	PIT	EFM
b	H	ON	HOLD	MO:PIT	GRV	EFM
c	H	OFF	HOLD	MO:Recorded	GRV	EFM
d	H	OFF	OFF	MO:Groove	GRV	ADIP

* Always use a disc suitable for each mode.
* REF. is automatically changed over when caddy is loaded, It is in "H" status when caddy is not loaded, or in "L" status when TP520 is connected to GND.
* In mode "b", optical pickup must be positioned on the most inside track.
* In mode "c" and "d", move optical pickup to proper Groove area.

＊The jigs for MZ-1 have been registered.
LIST OF MZ-1 JIGS

- TEST DISC (CD: Optical Disc)
  TGYS-1 P/N : 4-959-188-01
- TEST DISC (MO : Magneto Optical Disc)
  PTDM-1 P/N : J-2501-054-A
  ※Rinking data already registered
- LASER POWER METER
  LPM-8001 P/N : J-2501-046-A
- ERROR RATE COUNTER
  MDPE-1 P/N : J-2501-047-A

7. Linking data recording 1

(for checking recording error rate)

7-1. Load an Mo disc and press REC key(no IN terminal is connected : Analog recording).

7-2. Move optical pickup to a proper position in Groove area. (Inside from 0600. FC cluster)

7-3. Press PLAY key and PLAY MODE key to activate ALL SERVO ON status.

7-4. When pressing REC key, the pickup makes an access to 0600. FC cluster to start linking recording.

7-5. Upon display of 0700. FC cluster, press STOP key, and the pickup makes an access to 0600. FC and stops.

8. Linking data recording 2(for adjusting focus bias)

* This disc has been registered as a service tool.
* Prepare for focus bias adjustment because it takes about 20 minutes to complete this operation.

8-1. Load an MO disc and press REC key(no In terminal is connected : Analog recording).

8-2. Move optical pickup to a proper position in Groove area.

8-3. Press PLAY key, PLAY MODE key, "O" key and REC key, and the pickup makes an access to 0032 cluster.

8-4. Perform linking recording over 0700. cluster display (for about 20 minutes), then stop by pressing the STOP key.

9. LCD display

POWER ON	'■■■■■■' (ALL on)
(POWER ON &	'Welcome to Disc World' (Continuous scroll)
LOAD/EJECT)	' [SONY] '
1st line	
PLAY KEY	'Focus Srch'
	'Focus ON ! '
STOP KEY	'ALL SV OFF'
P MODE KEY	'ALL SV ON'
NEXT KEY	'T. SLED FWD'
PREV KEY	'T. SLED RVS'
REC KEY	'REC' analog'
	'RED digital' (When DIGITAL IN is connected)
2nd line	
EDIT KEY	'Laser OFF PIT'
	'laser CD PIT'
	'laser MO GRV'
	'laser 1/2 GRV'
	'laser MOW GRV'
P MODE KEY	'xxxxC xxS' / 'Error-xxxx' (Displayed alternately with DATE key. Cluster (error) is displayed at All servo on.)

[Reference]

1. Erasing of UTOC area

CAUTION : This should be executed only when the contents of disc are not erased completely through ALL ERASE operation because the contents of UTOC area are all erased, resulting in an empty disc just as a new disc.

1-1. Press NEXT key to move optical pick up to a proper position in Groove area.

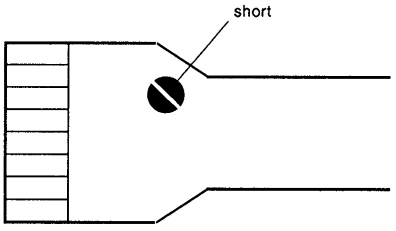
1-2. Press PLAY key and PLAY MODE key to place the set in ALL SERVO ON status.

1-3. When pressing ENTER key, the pickup makes an access to inside track, erases UTOC area, and stops.

SECTION 5
ELECTRICAL ADJUSTMENTS

〔Notes〕

1. Adjust all items in the listed order (up to (1-10) when optical pickup is replaced).
2. Power supply voltage : DC10. 5V
3. Use a disc(MO or CD)suitable for the CLV servo mode, whenever so specified.
4. Place the set in TEST mode before adjustment (see page 40)and reset the mode after adjustment.
5. Short the laser taps on flexible board with solder during removal and mounting, because optical pickup could easily be broken by static electricity.



optical pickup flexible board

〔Before adjustment〕

Place the set in TEST mode, and perform operation check in TEST mode and confirm the following items.

1. Checking power supply

1-1. In the TEST mode, check that each output voltage satisfies standard value (in this set, no adjustment can be made because of parts layout, and therefore replace the unit if power supply is faulty).

	Standard value	
UPV	6. 5V±0. 5	TP405
CPUV	4. 0V±0. 15	TP841
4. 5	4. 5±0. 2	TP402
VP	5. 5±0. 2	TP404
4. 1	4. 1V±0. 1	TP401
4. 75	4. 75V±0. 2	TP403
REC(recording)	4. 0V±0. 05	TP910
10	8. 7V±0. 2	TP1

〔Adjustment〕

1-1. Adjustment of temperature compensation

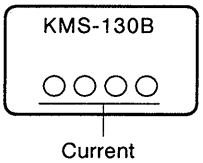
1. With the set in cold status, measure voltage at TP120.
2. Calculate voltage based on the room temperature, then adjust RV509 meeting that value.

Remarks : 1) Compensated voltage will vary in a step of −9mV/deg (voltage lowers by 9mV when room temperature rises 1° C) on the basis of voltage at TP120 at room temperature 25° C (VC=OV).

Remarks : 2) Temperature sensor : Q512 (on operation board)

1-2. Adjustment of MO write power

1. Short R530 (between TP550 and TP120).
2. Press te EDIT key four times to display "LaserMOW" (write power mode).
3. Place a probe of laser power meter on objective lens and fix the probe where meter indicates the maximum reading.
4. Adjust RV505 so that meter reading is 6. 8mW±0. 1.
5. Measure voltage between TP126 and 127 and calculate current from resistance across these test points to con firm that it is within ±30% of the value specified on optical pickup label.



Current
(Example : 1072=107.2mA)

6. Remove a short between TP120 and TP550.

* Some of the following adjustments use both CD (PIT) and MO(PIT/Groove)discs. In suck a case, switch the CLV servo mode by referring to page 39.
* In order to activate REF-L(Table 2 - a)without using a disc (CD status), TP520 must be shorted to GND.

1-3. Adjustment of focus offset

1. Place the set in STOP status (disc must be removed).
2. Short TP105 to VC(TP101).
3. Adjust RV511 in PIT mode (Table 2 - a), or RV510 in Groove mode (Table 2 - d) so that the voltage at TP107 is VC±50mV.
4. Remove a short between TP105 and VC.

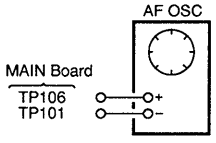
*For the PIT mode, connect TP520 to GND with a jumper wire, and remove the wire after adjustment.

1-4. Adjustment of FOK offset

1. Place the set in STOP status(disc must be removed).
2. Adjust RV512 in PIT mode (Table 2 - a), or RV513 in Groove mode (Table 2 - d)so that the voltage at TP103 is VC±50mV.

1-5. Adjustment of tracking error

1-5-1. Up to last digit—12 of main board



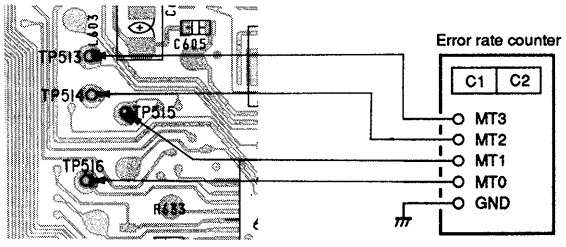
1. Activate MO-PIT, EFM-CLV mode(Table 2 - b).
2. Load an MO disc and optical pickup moves to the most inside track, then press the PLAY key.
3. Connect an oscilloscope to TP106, and adjust RV504 so that a waveform at TP106 is vertically symmetric(noise measures).
4. Press the STOP key and optical pickup moves to middle track(Groove area).
5. With MO-GRV, ADIP-GRV mode (Table 2 - d). press PLAY key for focusing, and press EDIT key to activate the write power mode("LaserMOW" is displayed).
   At this time, adjust RV501 so that a waveform at TP106 is vertically symmetric against VC.
6. Repeat steps 1 to 5 once more, then press the EDIT key to select the Read Power mode ("Laser MO" is displayed) and confirm that the center offset from the waveform adjusted in step 5 is within 0.3V. After confirmation, unload the disc.

   *If the center offset is over 0.3V, the OP is defective.
7. Activate CD-PIT, EFM-CLV mode (Table 2 - a). (Connect TP520 to GND with a jumper wire)
8. In the STOP status, adjust RV503 so that the voltage at TP106 is VC±50mV.
9. Load a CD disc, and press PLAY key and adjust RV502 so that a waveform at TP106 is vertically symmetried against VC.
10. Remove a jumper wire between TP520 and GND.

1-5-2. Up to last digit -13 of main board

1. Place MO in GRV status and ADIP in CLV status (Table 2 - d).
2. Load an MO disc, move the optical pickup to a middle track of disc, and press the PLAY key.
3. Connect an oscilloscope to TP106, and adjust RV504 so that a waveform at TP106 becomes vertically symmetric against VC.
4. Press the EDIT key to select WRITE POWER mode ("Laser MOW" is displayed).
5. Adjust RV501 so that waveform at TP106 becomes vertically symmetric against VC.
6. Press the EDIT key to select READ POWER mode ("Laser MO" is displayed), and execute above steps 1 to 3 again.
7. Place MO in PIT status and EFM in CLV status (Table 2 - b).
8. Move the optical pickup to the most inside track of disc, and press the PLAY key.
9. Adjust RV502 so that a waveform at TP106 becomes vertically symmetric against VC.
10. Press the STOP key, and unload an MO disc.
11. Place CD in PIT status and EFM in CLV status (Table 2 - a).
12. Load a CD disc, and press the PLAY key.
13. Adjust RV503 so that a waveform at TP106 becomes vertically symmetric against VC.

1-6. Adjustment of focus bias

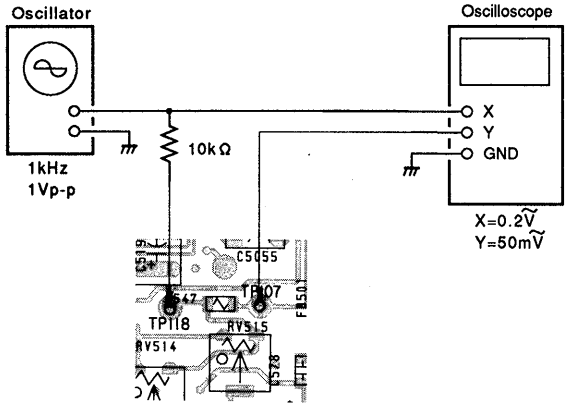


1. Load an MO disc on which the linking data recording 2 as described on page 40 was executed, and press PLAY key on inside track in Groove area, then the PLAY MODE key.
2. Adjust RV508 to search a point where the error rate (C1) is about 100 or 200, then press STOP key.
3. Record voltage at TP107.
4. Again perform playback and adjust RV508 in reverse direction of step 2) to search a point where the error rate (C1) is about 100 or 200, then press STOP key.
5. Record voltage at TP107.
6. Adjust RV508 so that the voltage at TP107 is interme diate value of those measured in steps 3)and 5).

1-7. Adjustment of CD read power

1. Load a CD disc.
2. Turn on the HOLD and RESUME switch (Servo＝PIT, CLV＝EFM). (Table 2 - a)
3. Press the PLAY key, then the PLAY MODE key.
4. Adjust RV519(on main F board)so that the RF amplitude(at TP102)is 1. 0V±0. 1.

1-8. Adjustment of focus gain

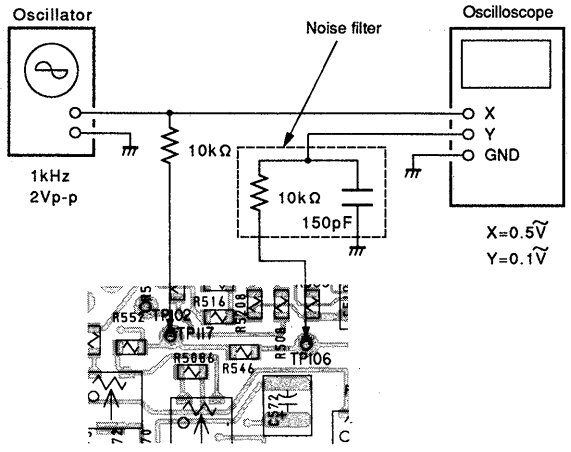


1. Load a disc(CD／MO), and press the PLAY key, then PLAY MODE key.
2. Enter 1kHz 1Vpp from oscillator to TP118 through 10kΩ.
3. Draw Lissajous' figure on oscilloscope with the oscillator output assumed as X axis and TP107 output as Y axis.
4. Adjust on the oscilloscope so as to attain the status (a＝b) shown in Fig. 1.
5. Adjust each RV so that phase difference is 95±5 deg(Fig. 2).

   For CD (Table 2 - a) : RV515

   For MO (Table 2 - d) : RV514

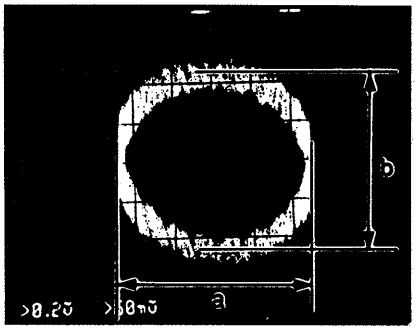
1-9. Adjustmetnt of tracking gain



1. Load a disc(CD／MO), and press the PLAY KEY, then PLAY MODE key.
2. Enter 1kHz 2Vpp from oscillator to TP117 through 10kΩ.
3. Draw Lissajous' figure on oscilloscope with the oscillator output assumed as X axis and TP106 output as Y axis.
4. Adjust on the oscilloscope so as to attain the status (a=b) shown in Fig. 1.
5. Adjust each RV so that phase difference is 100±5 deg (Fig. 2).

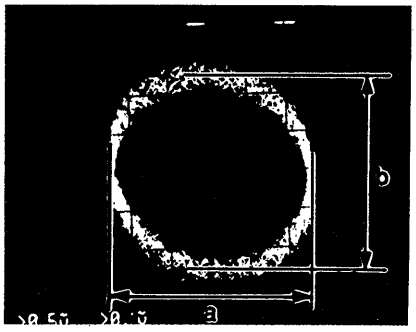
   For CD (Table 2 - a) : RV516

   For MO (Table 2 - d) : RV517



Set b to the center of noise.
Make a=b.

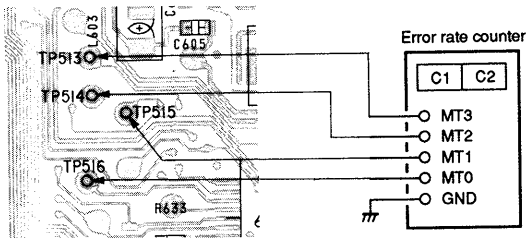
Fig. 1 Focus gain adjustment (95 deg)



Set b to the center of noise.
Make a=b.

Fig. 2 Tracking gain adjustment (100 deg : inserting noise filter)

1-10. Confirmation of recording(playback)error rate



1. Connect the error rate counter (TP513－516, GND).
2. Perform the linking data recording 1 from 0600. FC cluster to 0700. FC cluster (for more than 2 minutes), then press the STOP key.
3. Press the PLAY key, and the PLAY MODE key. (table 2 - d)
4. Confirm error rate from 0600. FC cluster to the end of recording.

   Max. C1 error rate : 100 or less
   C2 error : No interpolation

* If this condition is not satisfied, check disc for damage or dust.

Remarks : LCD display will be switched between error and cluster number each time the DATE key is pressed.

1-11. Adjustment of encoder PLL

1. Make sure that nothing is connected to the DIGITAL LINE IN terminal.
2. Press the REC key, and adjust RV602 so that the waveform at TP545 is vertically symmetric against VC.

1-12. Adjustment of DIGITAL IN PLL

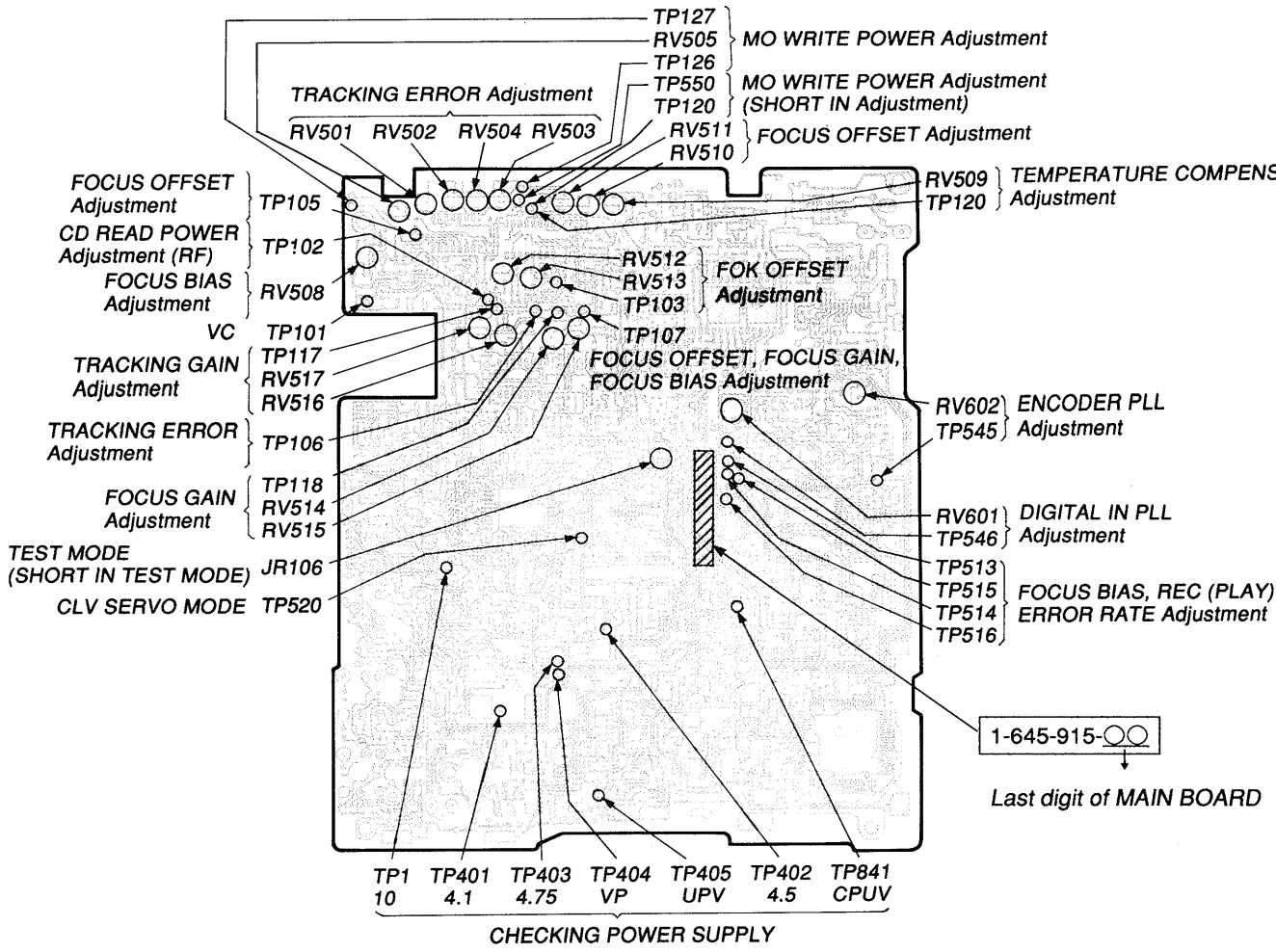
1. Connect digital output of CD player to the DIGITAL IN terminal of the set, and place the CD player in play back status.
2. Press the REC key, and adjust RV601 so that the wave form at TP546 is vertically symmetric against VC.

1-13. Charging Operation Check

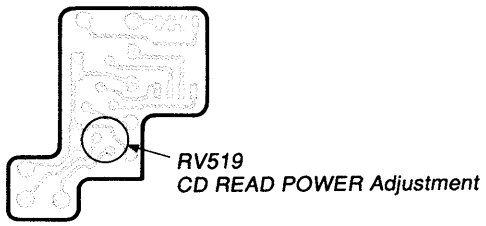
1. Supply 10.5V to DC jack from external power supply connected with an ammeter while pressing the DATE (DISPLAY MODE) key to activate the POWER SUPPLY TEST mode. At this time, the "スタンバイ" is displayed on the screen.
2. Press the DATE key 5 times to display "チャージ".
3. Insert a battery which is not charged fully. The ammeter indicates between 0.8 and 1.0A.
4. Press the PLAY key once to activate the CHARGE OPERATION CHECK mode. (Display will not change.)
5. Confirm that the ammeter indicates between 0.8 and 1.0A. (Confirming charging voltage control circuit)
6. Lower the power supply voltage to 8V. The ammeter indicates about 0.4A.
7. Confirm that the set completes charging operation in about 30 seconds, then the "スタンバイ" is displayed. (Confirming completion of charging operation)

Note : Pressing the PLAY key twice causes the CHARGE OPERATION CHECK mode to be returned to POWER SUPPLY TEST mode. Therefore, the PLAY key must be pressed only once.

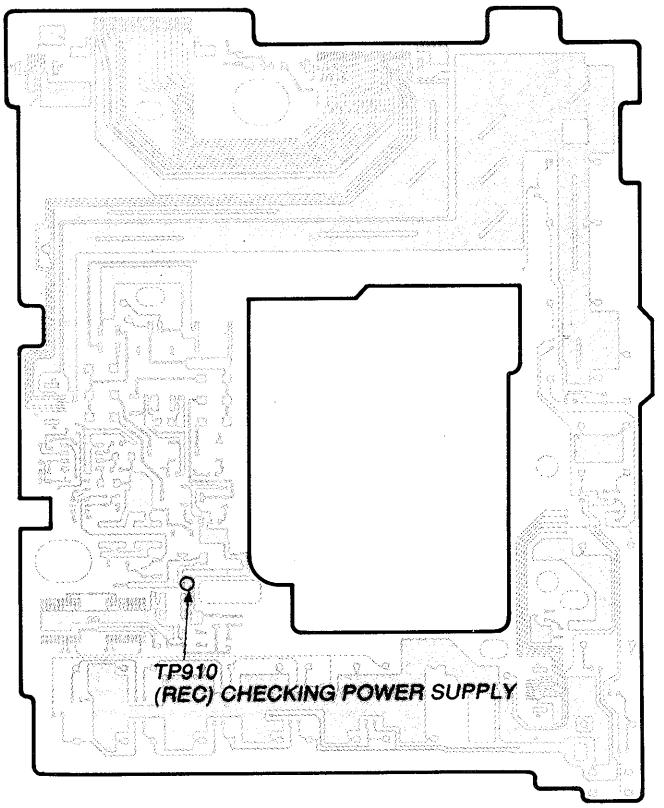
[MAIN BOARD] (SIDE-B)



[MAIN F BOARD] (Component side)

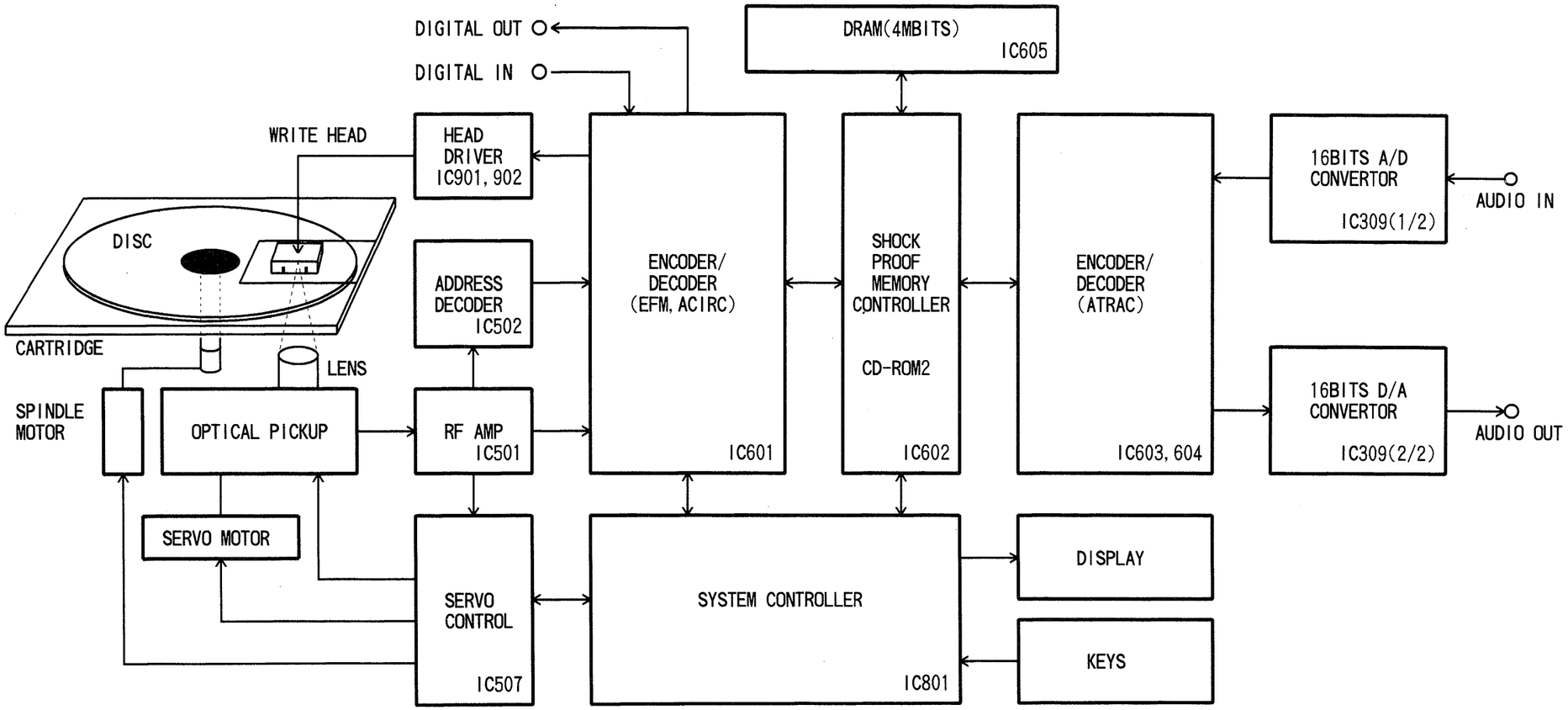


[CONTROL BOARD] (Component side)



SECTION 6
DIAGRAMS

6-1. BLOCK DIAGRAM



6-2. PRINTED WIRING BOARD —CONTROL/POWER Section—

• See page 71 Circuit Boards Location and Semiconductor Lead Layouts.

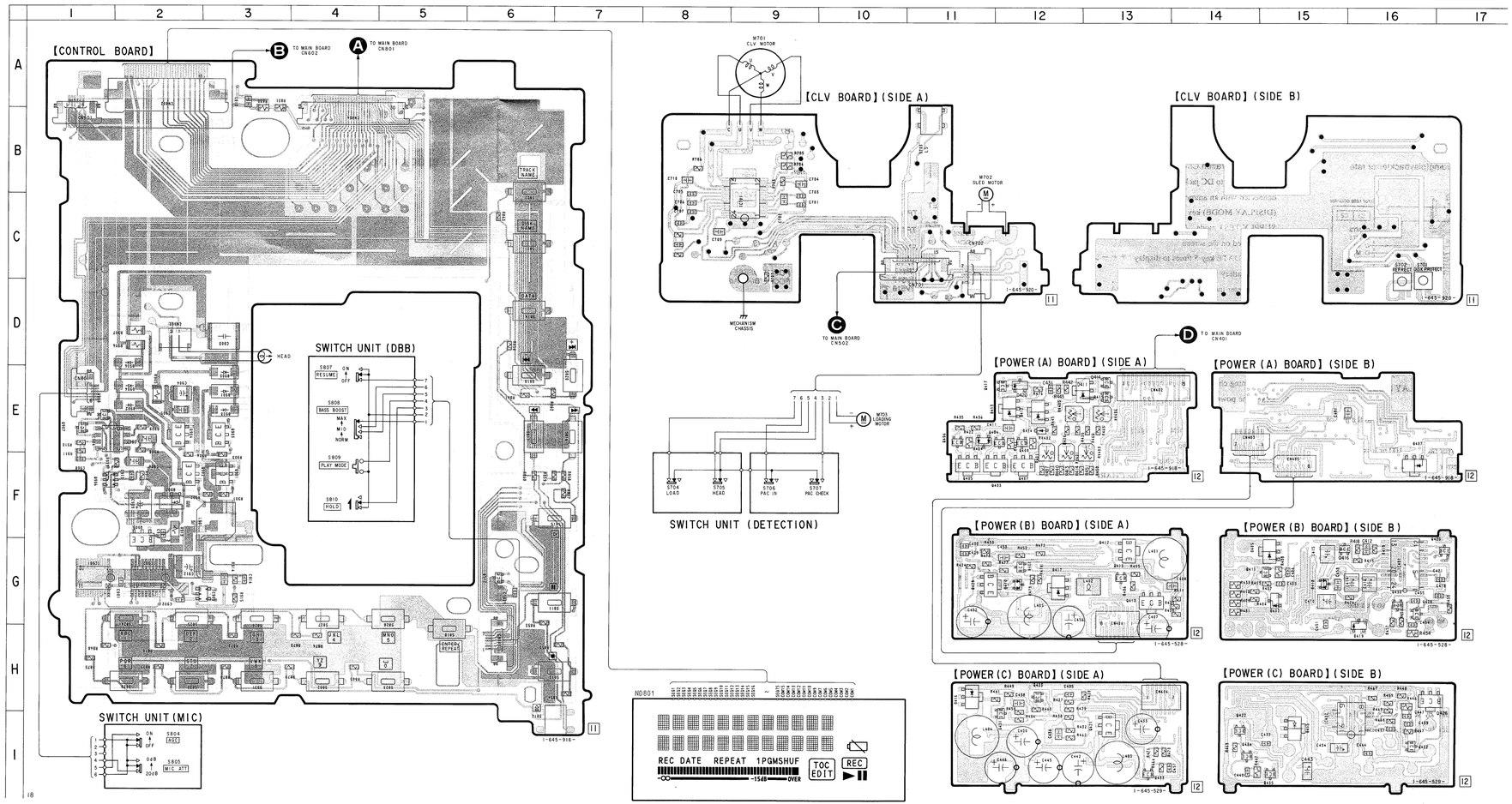
● Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D402	G-15	Q406	E-11
D404	E-11	Q407	F-12
D405	G-14	Q408	E-12
D407	E-16	Q410	G-13
D410	G-12	Q411	G-14
D411	E-12	Q412	G-13
D412	E-12	Q413	G-13
D413	E-11	Q414	E-13
D414	E-12	Q415	E-13
D415	I-15	Q416	G-15
D416	H-11	Q417	E-11
D417	G-12	Q420	F-17
D418	G-15	Q421	I-13
D419	H-16	Q422	I-14
D420	E-12	Q423	H-12
D901	E-3	Q426	H-16
D902	E-2	Q428	G-16
D903	E-3	Q429	G-11
D904	E-2	Q430	G-16
D905	E-3	Q431	I-12
D906	D-2	Q432	I-16
D907	F-2	Q433	I-13
		Q434	I-14
IC401	G-16	Q435	I-15
IC402	I-15	Q436	G-12
IC701	C-9	Q512	G-6
IC901	G-1	Q901	F-3
IC902	G-2	Q902	F-2
IC904	E-1	Q903	E-3
IC905	G-3	Q904	E-2
		Q905	F-2
Q403	F-12	Q906	F-1
Q404	E-12	Q907	E-1
Q405	F-11	Q908	E-1

• For printed wiring boards.
• ● : Through hole.
• ▒▒ : Pattern from the side
• ▒▒ : Pattern of the rear side.

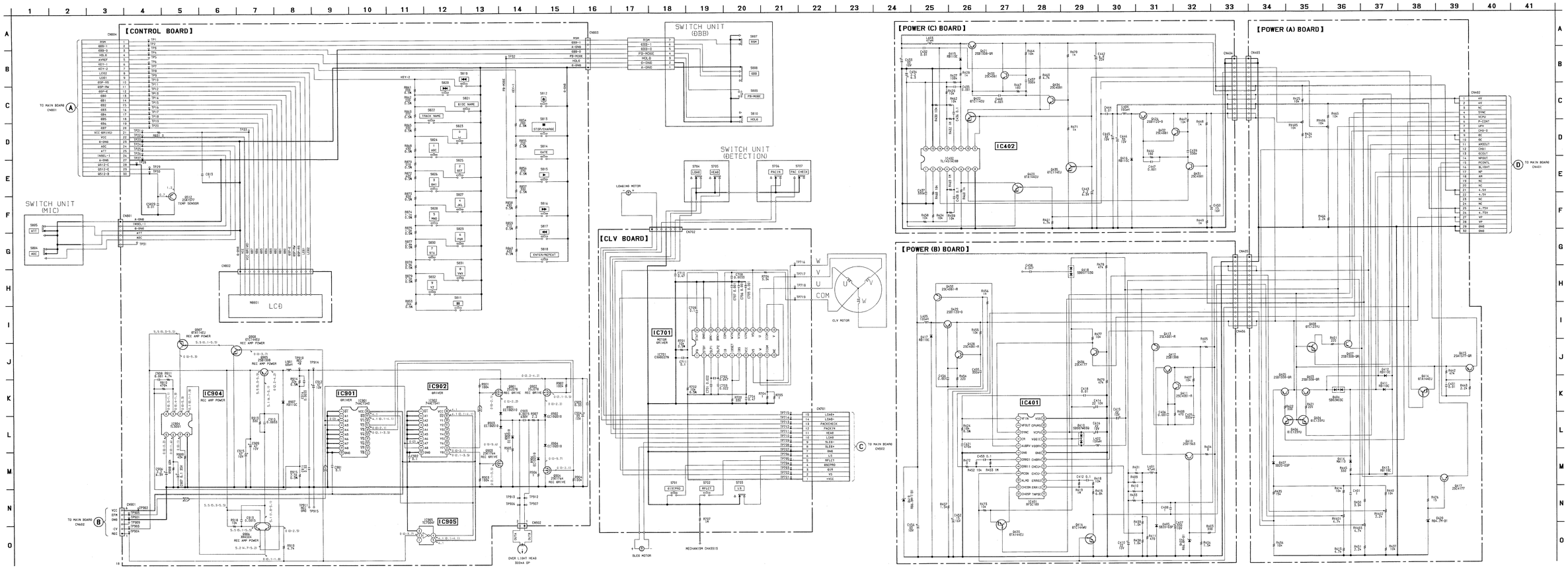
Caution:
Pattern face side: Parts on the pattern face side seen from (Conductor Side) the pattern face are indicated.
Parts face side: Parts on the parts face side seen from the (Component Side) parts face are indicated.

Note:
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- % : indicates tolerance.
- ⊘ ▭▭ : B+ Line
- ⊘ ▭ : adjustment for repair.
- ⊘ Power voltage is dc 10.5V and fed with regulated dc power supply from battery terminal.
- ⊘ Voltage is dc with respect to ground under no-signal (detuned) conditions.
  no mark: PLAY
  ( ): REC
- ⊘ Signal path.
  ▷▷ : PLAY (Analogue output) ▷▷ : PLAY (Digital output)
  ▨▨ : REC (Analogue input) ▨▨ : REC (Digital input)



6-3. SCHEMATIC DIAGRAMS —CONTROL/POWER Section—

• See page 72 for IC Block Diagrams.

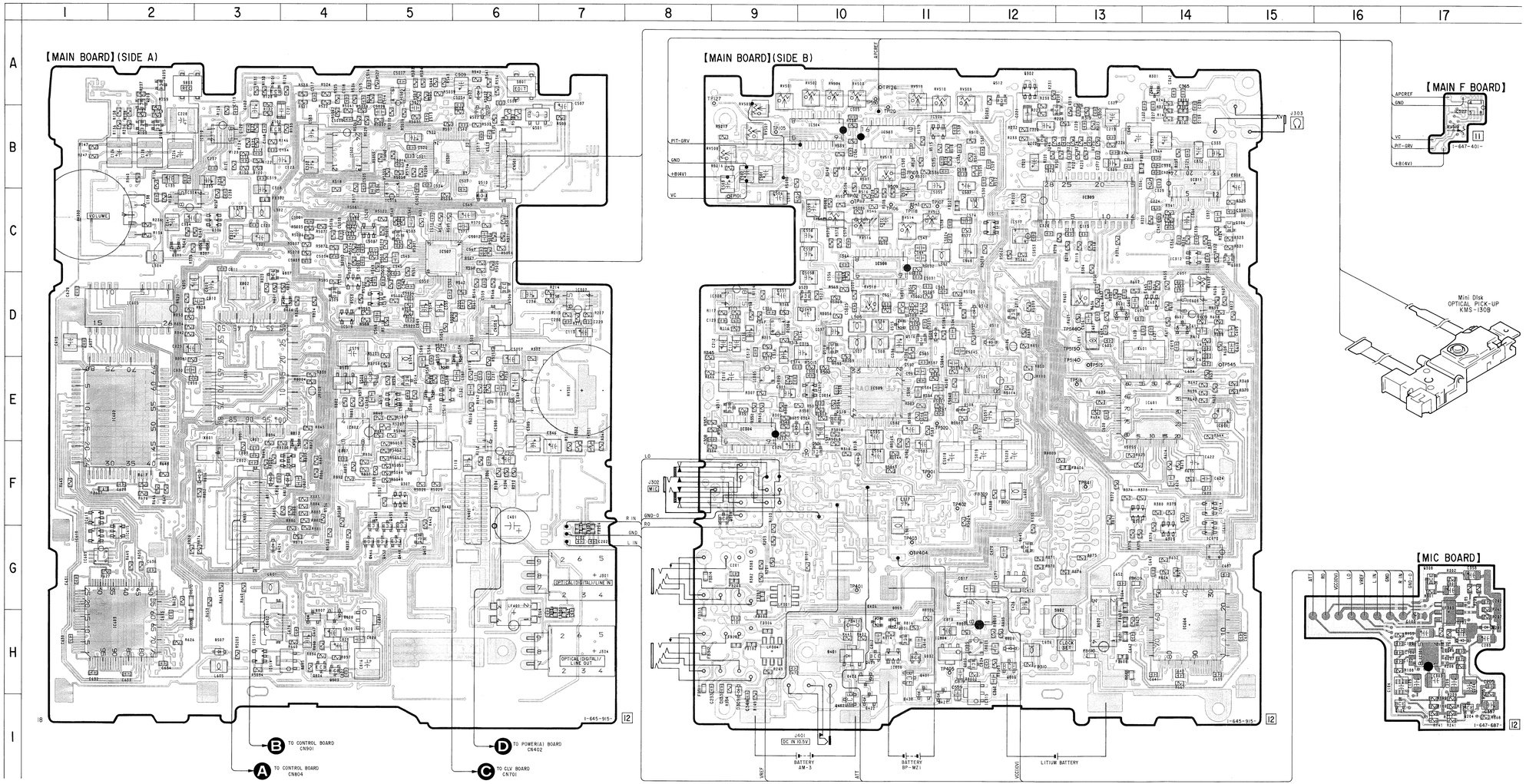


6-4. PRINTED WIRING BOARDS —MAIN Section—

· See page 71 Circuit Boards Location and Semiconductor Lead Layouts.

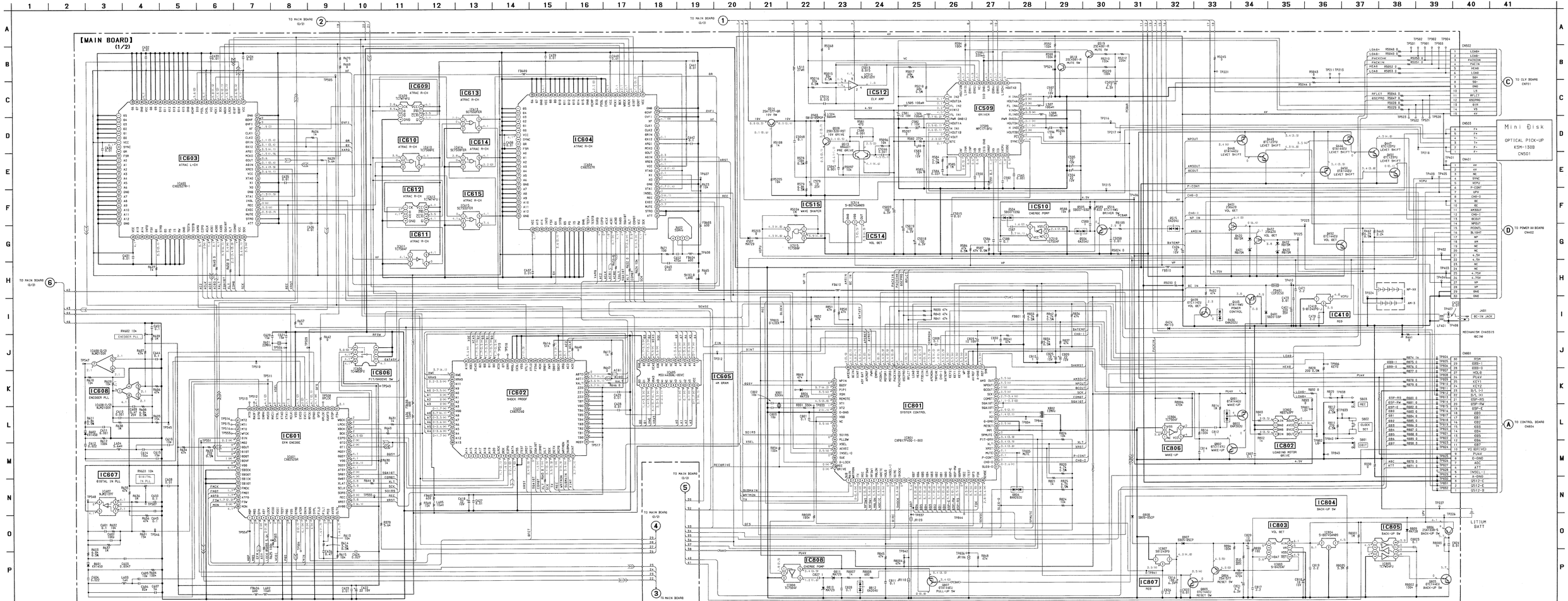
● Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D101	H-17	IC602	E-2
D201	H-17	IC603	H-2
D202	G-9	IC604	H-14
D301	A-14	IC605	D-2
D304	E-10	IC606	E-14
D305	E-9	IC607	D-14
D307	C-3	IC608	D-14
D309	H-9	IC609	G-1
D310	F-10	IG610	G-1
D311	C-2	IC611	F-14
D401	H-10	IC612	G-14
D406	G-10	IC613	F-1
D420	I-11	IC614	F-14
D421	I-11	IC615	G-2
D422	I-10	IC801	E-3
D423	H-10	IC802	E-4
D424	G-3	IC803	G-11
D502	A-6	IC804	H-11
D503	E-4	IC805	H-11
D504	D-6	IC806	H-11
D505	E-5	IC807	H-5
D506	E-5	IC808	F-4
D507	H-3		
D508	E-11	Q101	A-3
D509	D-11	Q102	B-3
D511	D-12	Q103	B-2
D512	D-12	Q104	I-16
D515	D-11	Q105	B-2
D601	D-13	Q201	A-13
D602	D-14	Q202	B-12
D803	G-11	Q203	A-2
D804	D-4	Q204	I-17
D806	F-3	Q205	A-2
D807	H-4	Q301	F-10
D808	H-4	Q302	A-12
D809	H-12	Q303	C-15
D810	F-4	Q304	C-15
D811	F-3	Q306	C-3
D812	E-4	Q307	F-5
		Q308(MAIN)	F-9
IC301	H-17	Q308(MIC)	G-17
IC303	E-6	Q309	G-14
IC304	E-9	Q310	F-13
IC305	E-9	Q311	E-9
IC306	D-9	Q312	D-12
IC307	D-7	Q401	H-11
IC308	D-9	Q402	I-10
IC309	C-13	Q409	H-10
IC310	B-3	Q445	G-12
IC311	B-14	Q446	G-5
IC312	C-14	Q447	F-5
IC314	C-2	Q448	G-5
IC315	H-12	Q449	F-5
IC410	G-12	Q450	G-5
IC501	B-5	Q451	F-5
IC502	B-4	Q452	G-5
IC503	B-11	Q501	B-6
IC504	B-10	Q502	B-6
IC505	A-5	Q503	C-5
IC506	B-11	Q506	D-6
IC507	C-5	Q508	E-4
IC508	C-10	Q509	D-4
IC509	E-10	Q510	B-6
IC510	E-5	Q512	A-12
IC511	C-12	Q513	E-5
IC512	E-10	Q514	E-5
IC513	D-4	Q516	D-11
IC514	H-3	Q518	D-10
IC515	H-3	Q519	E-10
IC516	C-5	Q520	D-10
IC517	C-12	Q801	H-11
IC518	D-5	Q802	H-11
IC519	D-4	Q803	H-4
IC520	C-4	Q804	H-4
IC521	E-12	Q805	H-11
IC522	B-17	Q806	H-12
IC601	E-14	Q807	C-4

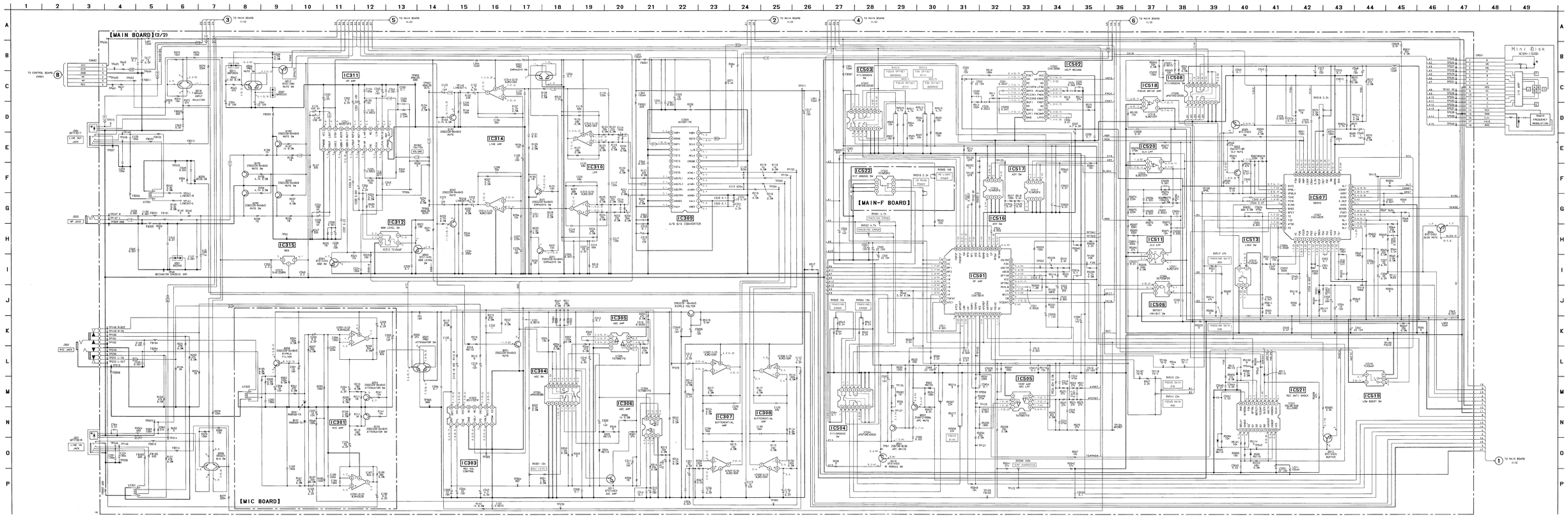


6-5. SCHEMATIC DIAGRAMS —MAIN Section-1—

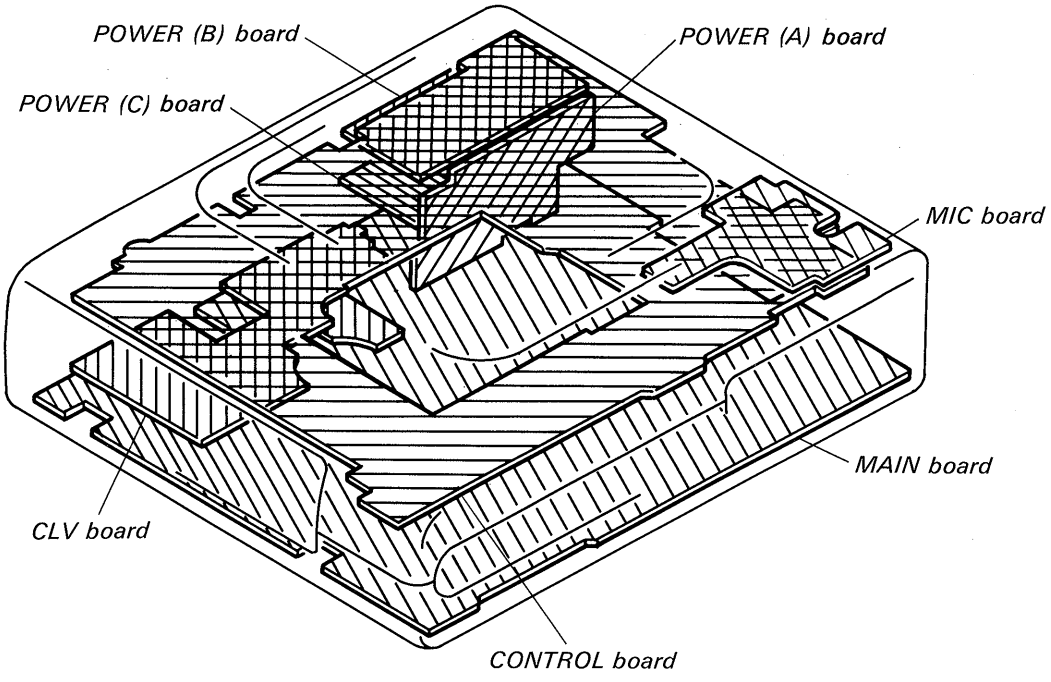
• See page 72 for IC Block Diagrams.



6-6. SCHEMATIC DIAGRAMS —MAIN Section-2—

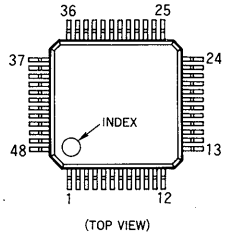


6-7. CIRCUIT BOARDS LOCATION

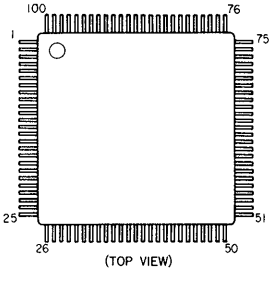


● Semiconductor Lead Layouts

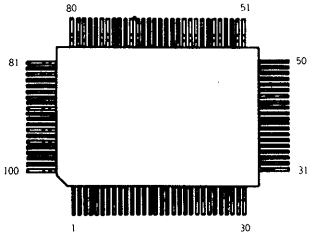
CXA1381R
CXA1602R



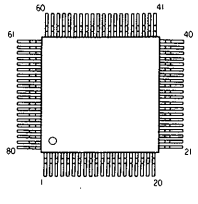
CXD2527R



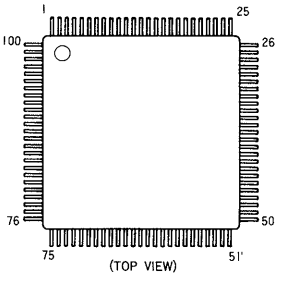
CXP817P40Q-1-100



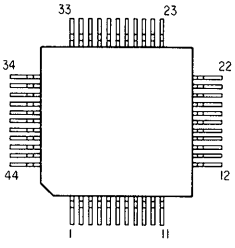
CXD2525R



CXD2527R-1

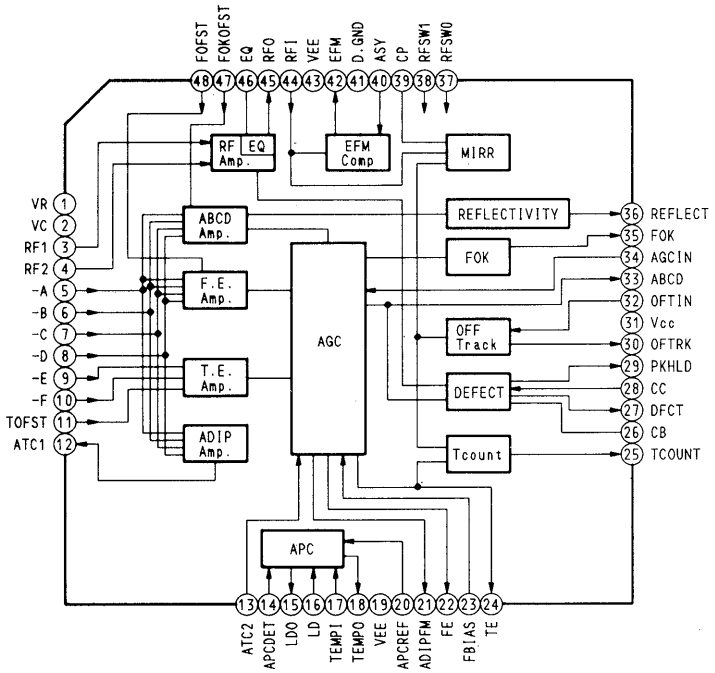


MPC1718FU

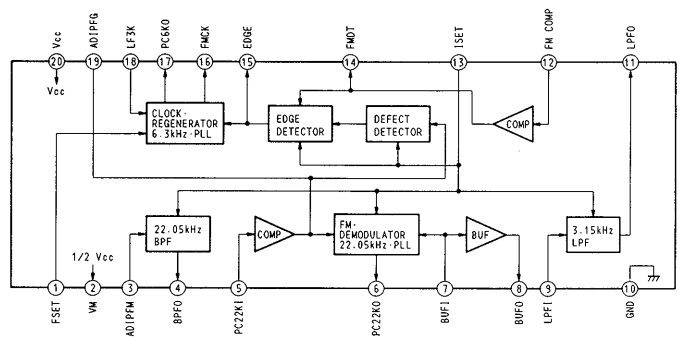


● IC Block Diagrams

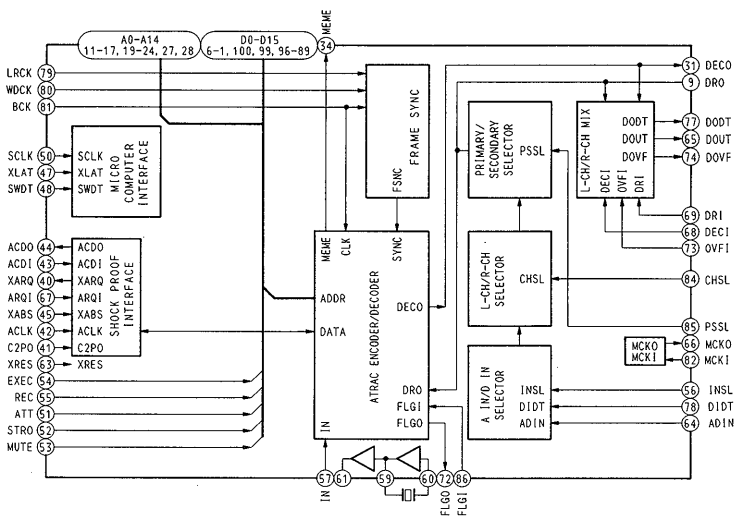
IC501 CXA1381R



IC502 CXA1380M



IC603, 604 CXD2527R



SECTION 7
EXPLODED VIEWS

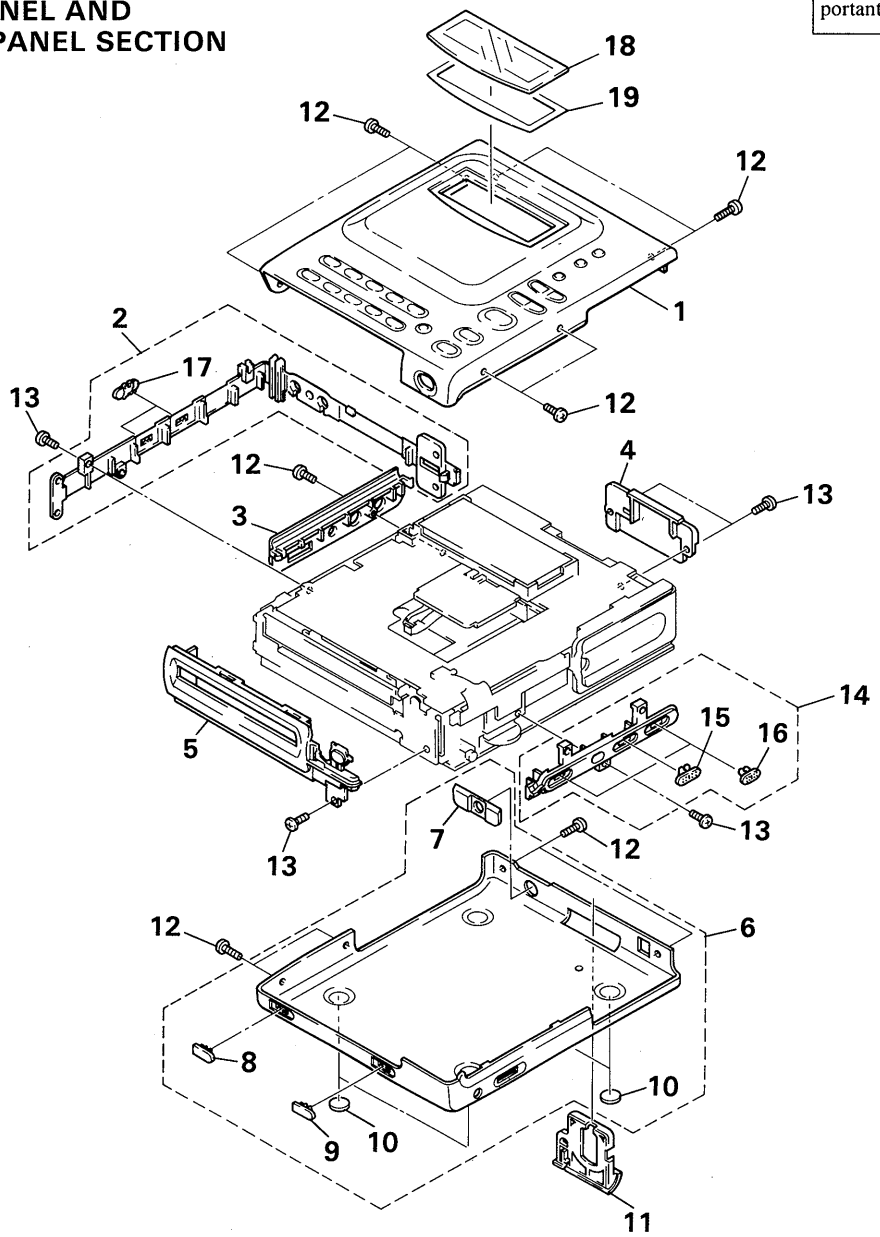
NOTE:

- –XX, –X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE)...(RED)
  ↑ ↑
  Parts color Cabinet's color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (#mark) list and accessories and packing materials are given in the last of this parts list.

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

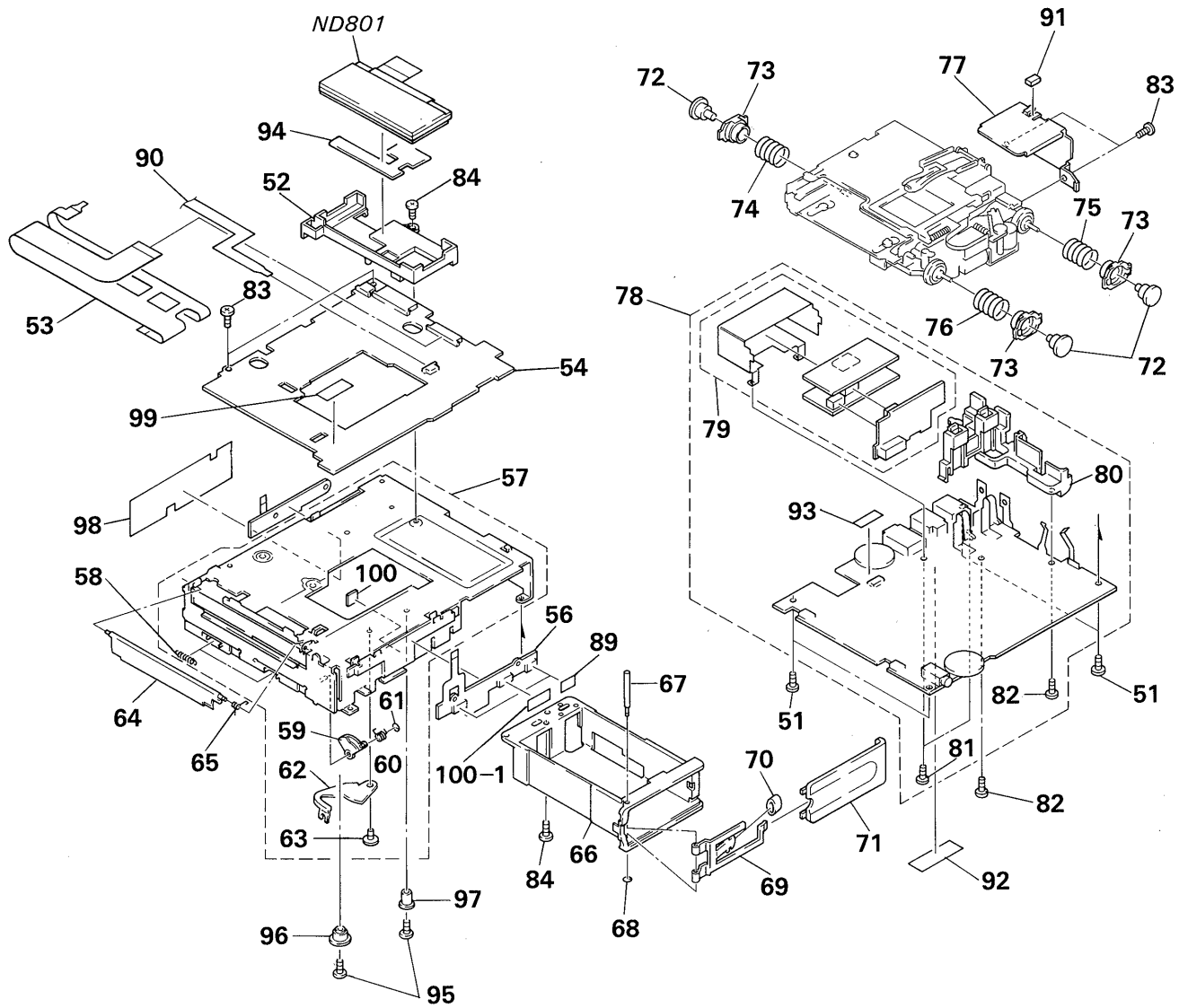
Les components identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

7-1. UPPER PANEL AND BOTTOM PANEL SECTION



Ref.No.	Part No.	Description	Remark
1	X-4943-172-1	PANEL (REC) ASSY, UPPER	
2	X-4943-097-1	PLATE (R) ASSY, ORNAMENTAL	
3	4-955-512-01	PLATE (JACK), ORNAMENTAL	
4	4-955-541-01	REINFORCEMENT (B)	
5	X-4943-096-1	PLATE (F) ASSY, ORNAMENTAL	
6	X-4943-090-1	PANEL ASSY, BOTTOM	
7	4-955-466-01	PLATE (DC), ORNAMENTAL	
8	4-955-456-11	KNOB (EDIT)	
9	4-955-456-01	KNOB (REC)	
10	4-912-641-01	FOOT, RUBBER	
11	4-955-514-01	LID (LITHIUM), BATTERY CASE	
12	3-704-244-74	SCREW (P1.7X4.5)	
13	3-704-244-34	SCREW (P1.7X2.5)	
14	X-4943-098-1	PLATE (S) ASSY, ORNAMENTAL	
15	4-955-502-01	KNOB (BASS BOOST)	
16	4-955-503-01	KNOB (HOLD/RESUME)	
17	4-955-503-01	KNOB (MIC ATT/AGC)	
18	4-956-049-01	WINDOW (REC)	
19	4-956-043-01	SHEET (LCD WINDOW R), ADHESIVE	

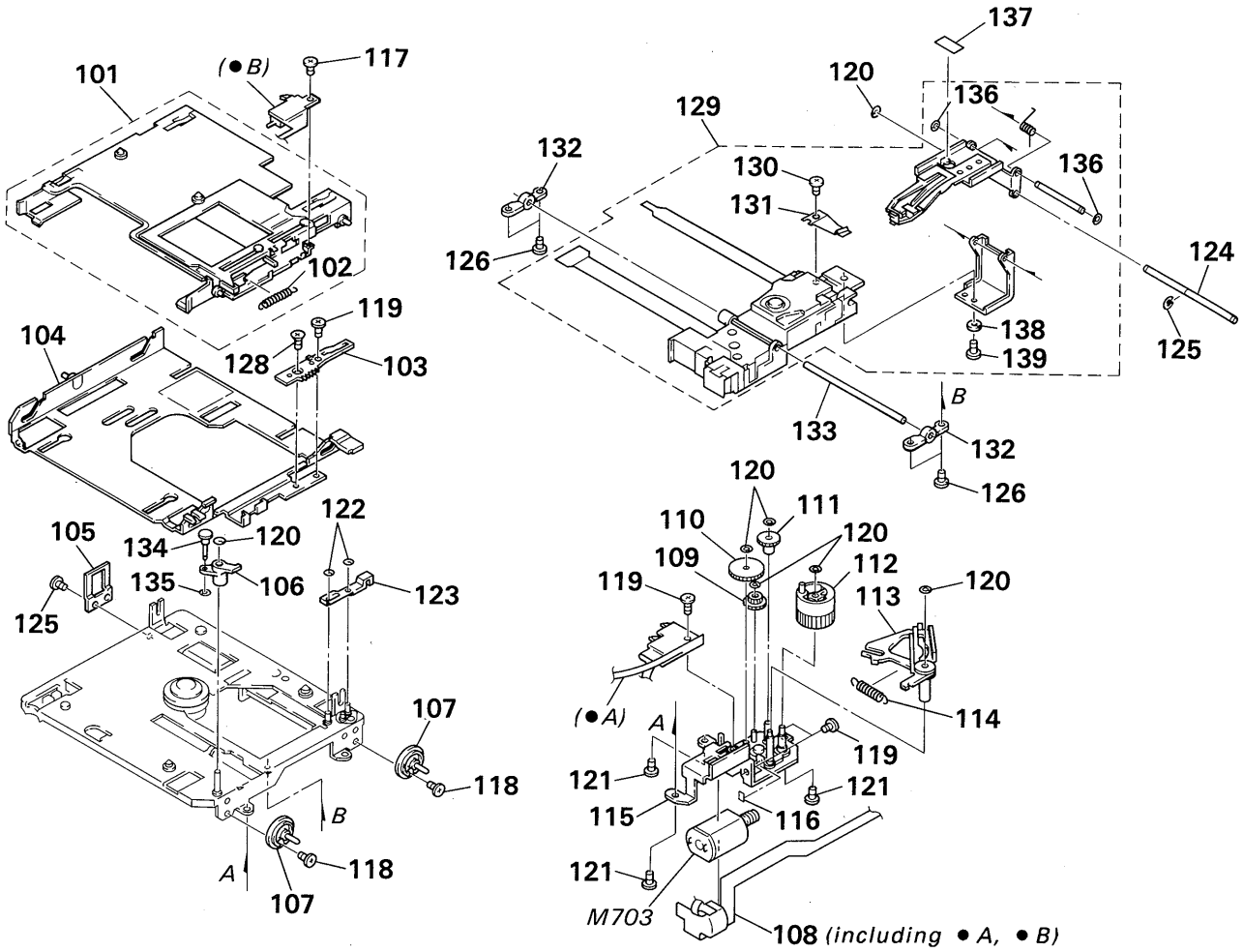
7-2. CHASSIS SECTION



Ref.No.	Part No.	Description	Remark
51	2-134-636-41	SCREW (M1.7X4.0)	
52	4-956-046-01	HOLDER (LCD-RP)	
53	1-645-919-11	PC BOARD, RELAY (A) FLEXIBLE	
54	A-3275-715-A	CONTROL BOARD, COMPLETE	
55	1-466-923-11	SWITCH UNIT (MIC)	
56	1-466-924-11	SWITCH UNIT (DBB)	
57	X-4943-980-2	CHASSIS ASSY, SUB	
58	4-955-450-01	SPRING, TENSION	
59	4-955-526-02	LEVER (SHUTTER)	
60	4-955-528-01	SPRING (SHUTTER RD), TORSION	
61	3-348-953-11	WASHER	
62	4-955-542-01	LEVER (S OPEN)	
63	4-955-544-01	SCREW (M1.7)	
64	4-955-515-01	SHUTTER (EJECT)	
65	4-955-527-01	SPRING (SHUTTER E), TORSION	
66	4-955-529-01	CASE (BATTERY)	
67	4-955-530-01	SHAFT (BATTERY CASE LID)	
68	3-348-953-11	WASHER	
69	4-955-531-01	LEVER (BATTERY CASE LID)	
*70	3-537-790-41	REST, ARM, TENSION	
71	4-955-537-01	LID, BATTERY CASE	
72	4-955-511-01	DAMPER	
73	4-955-516-01	HOLDER (DAMPER)	
74	4-955-538-01	SPRING (MD1), COMPRESSION	

Ref.No.	Part No.	Description	Remark
75	4-955-539-01	SPRING (MD2), COMPRESSION	
76	4-955-540-01	SPRING (MD3), COMPRESSION	
*77	4-956-096-01	COVER (O H)	
78	A-3275-717-A	MAIN BOARD, COMPLETE	
79	A-3275-782-A	POWER BOARD, COMPLETE	
80	4-955-523-01	HOLDER (TERMINAL)	
81	7-627-850-17	SCREW,PRECISION +P 1.4X2.5	
82	2-123-861-01	SCREW, TAPPING, P1.7X3	
83	4-955-841-01	SCREW	
84	3-704-244-34	SCREW (P1.7X2.5)	
89	4-958-042-01	SPACER (ORNAMENT M1)	
90	1-647-803-11	MIC FLEXIBLE BOARD	
91	3-831-441-11	CUSHION	
92	3-831-441-XX	CUSHION, SPEAKER	
*93	4-957-258-01	SHEET, ADHESIVE	
*94	4-957-487-01	SHEET (LCD-RP), ADHESIVE	
95	3-704-244-84	SCREW (P1.7X5.0)	
96	4-957-308-02	RING, REINFORCEMENT	
97	4-957-267-02	COLLAR, REINFORCEMENT	
*98	4-957-572-01	SHEET (E-E), INSULATING	
99	4-957-432-01	SHEET (FLEXIBLE SP), ADHESIVE	
*100	9-911-839-XX	RETINER (B), MICROPHONE	
100-1	4-958-041-01	SPACER (ORNAMENT M2)	
ND801	1-809-926-11	LCD MODULE	

7-3. MECHANISM SECTION-1 (MT-MZ1-106)

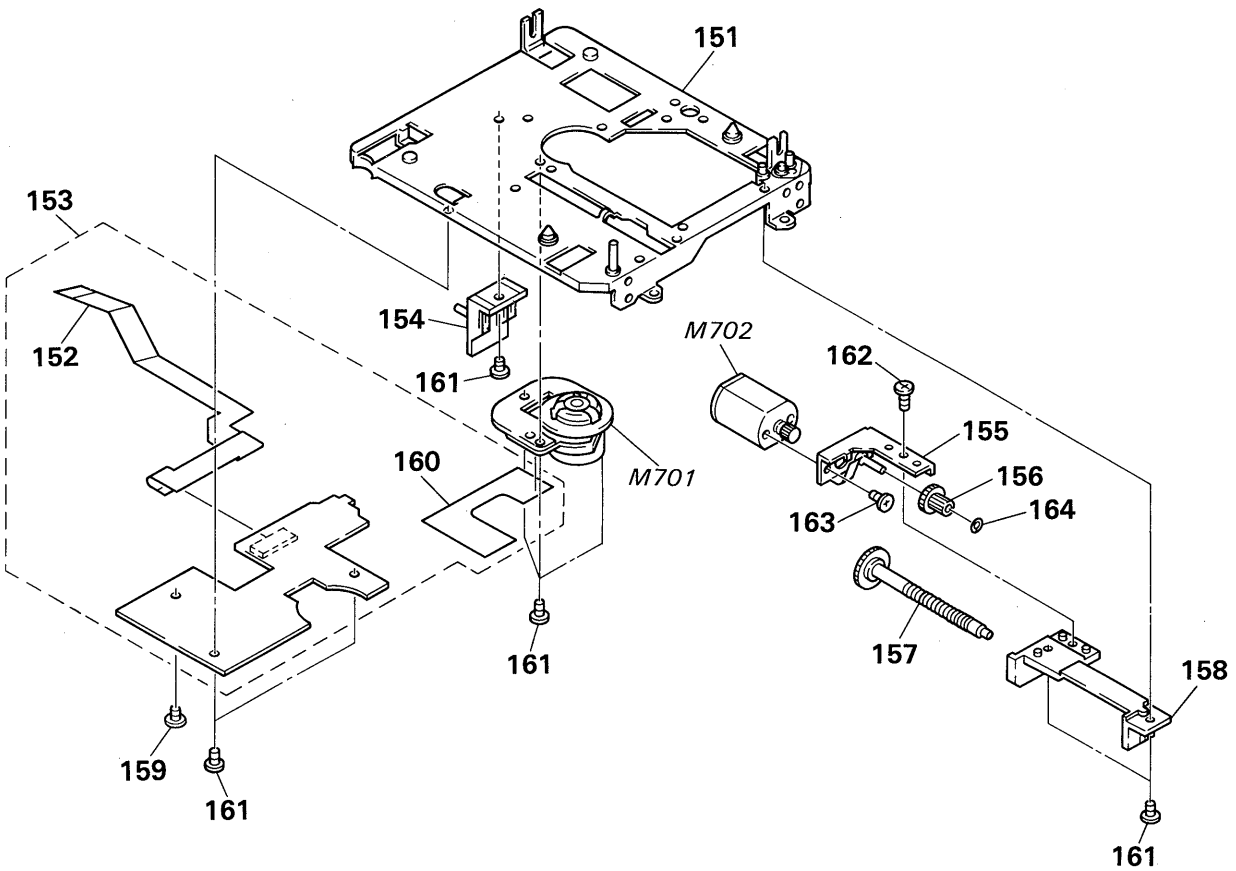


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les components identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description	Remark
101	X-4943-091-1	HOLDER ASSY	
102	3-385-103-01	SPRING, TENSION	
103	4-955-498-01	LEVER (RACK)	
104	X-4943-088-1	SLIDER ASSY, MAIN	
105	4-955-520-01	STOPPER, SHAFT	
106	4-955-500-01	LEVER (POSITIONING)	
107	X-4943-083-1	HOLDER (B)ASSY,VIBRATION PROOF	
108	1-466-925-11	SWITCH UNIT (DETECTION)	
109	4-955-496-01	GEAR (MIDWAY B)	
110	4-955-495-01	WHEEL, WORM	
111	4-955-497-01	GEAR (MIDWAY C)	
112	X-4943-085-1	GEAR (LOADING) ASSY	
113	X-4943-089-1	LEVER (LOADING) ASSY	
114	3-385-104-01	SPRING, TENSION	
115	X-4943-084-1	CHASSIS ASSY, GEAR	
*116	3-317-577-01	SPACER (Z)	
117	3-363-220-21	SCREW (M1.4X1.8)	
118	4-955-841-01	SCREW	
119	3-704-197-02	SCREW (M1.4X1.6), LOCKING	
120	3-578-242-11	WASHER	

Ref.No.	Part No.	Description	Remark
121	3-704-243-11	SCREW (P1.7X2.0)	
122	3-338-645-31	WASHER (0.8-2.5)	
123	4-955-499-01	SLIDER (RP)	
124	4-955-510-01	SHAFT (REC)	
125	3-315-384-31	WASHER, STOPPER	
126	4-955-841-21	SCREW	
127	4-955-841-01	SCREW	
128	3-704-197-11	SCREW (M1.4X2.0), LOCKING	
⚠129	X-4944-237-1	OP BLOCK ASSY	
130	3-704-197-21	SCREW (M1.4X2.5), LOCKING	
131	4-955-517-03	SPRING, FEED	
132	4-955-505-01	RETAINER, SHAFT, GUIDE	
133	4-959-632-01	SHAFT (OP), GUIDE	
134	3-386-541-02	SHAFT (D)	
135	3-320-540-01	WASHER	
136	3-578-242-11	WASHER	
137	3-831-441-11	CUCHION	
138	4-957-137-01	WASHER, SPRING	
139	4-955-841-21	SCREW	
M703	1-698-035-11	MOTOR, DC (LOADING)	

7-4. MECHANISM SECTION-2 (MT-MZ1-106)



Ref.No.	Part No.	Description	Remark
151	X-4943-080-1	CHASSIS ASSY	
152	1-649-066-11	PC BOARD, RELAY FLXIBLE (B)	
153	A-3275-714-A	CLV BOARD, COMPLETE	
154	X-4943-082-1	HOLDER (A)ASSY,VIBRATION PROOF	
155	X-4943-087-1	HOLDER ASSY, MOTOR	
156	4-955-518-01	GEAR (B)	
157	A-3263-172-A	SCREW BLOCK ASSY, LEAD	
158	4-955-519-01	BRACKET (A)	

Ref.No.	Part No.	Description	Remark
159	2-134-636-21	SCREW (M1.7X2.5)	
160	1-645-921-11	CLV FLEXIBLE BOARD	
161	4-955-841-21	SCREW	
162	2-123-861-01	SCREW, TAPPING, P1.7X3	
163	3-704-197-02	SCREW (M1.4X1.6), LOCKING	
164	3-325-394-11	WASHER, STOPPER	
M701	1-698-007-11	MOTOR (SPNDLE)	
M702	1-698-008-11	MOTOR, DC (SLED)	

SECTION 8
ELECTRICAL PARTS LIST

CLV | CLV FLEXIBLE | CONTROL

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH
- Abbreviations JE:Tourist model AUS:Australian model EA:Saudi Arabia model

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

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

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

Ref. No.	Part No.	Description			Remark
	A-3275-714-A	CLV BOARD, COMPLETE			
		**********			
	1-645-921-11	CLV FLEXIBLE BOARD			
		**********			
		< CAPACITOR >			
C701	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C702	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C703	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C704	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C705	1-162-964-81	CERAMIC CHIP	0.001uF	5%	50V
C706	1-162-964-81	CERAMIC CHIP	0.001uF	5%	50V
C707	1-162-964-81	CERAMIC CHIP	0.001uF	5%	50V
C708	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C709	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C710	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C711	1-164-360-11	CERAMIC CHIP	0.1uF		16V
		< CONNECTOR >			
CN701	1-573-355-11	CONNECTOR, FFC/FPC 15P			
CN702	1-573-347-11	CONNECTOR, FFC/FPC 7P			
		< IC >			
IC701	8-759-098-52	IC CXA-8027N-ELL2000			
		< RESISTOR >			
R701	1-218-716-11	METAL CHIP	10K	0.50%	1/16W
R702	1-218-716-11	METAL CHIP	10K	0.50%	1/16W
R703	1-216-815-11	METAL CHIP	330	5%	1/16W
R704	1-217-671-11	METAL CHIP	1	5%	1/10W
R705	1-217-671-11	METAL CHIP	1	5%	1/10W
R706	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R707	1-216-857-11	METAL CHIP	1M	5%	1/16W
		< SWITCH >			
S701	1-692-363-11	SWITCH, PUSH (1 KEY) (DISC PROTECT)			
S702	1-692-273-11	SWITCH, PUSH (1 KEY) (REFLECT)			
S703	1-572-467-31	SWITCH, PUSH (1 KEY) (LS)			

Ref. No.	Part No.	Description			Remark
	A-3275-715-A	CONTROL BOARD, COMPLETE			
		**********			
	1-135-240-21	TANTAL. CHIP 47MF		20%	10V
		< CAPACITOR >			
C813	1-164-346-11	CERAMIC CHIP	1uF		16V
C901	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C902	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C904	1-135-265-21	TANTAL. CHIP	33uF	20%	10V
C905	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C906	1-135-149-21	TANTALUM CHIP	2.2uF	20%	10V
C907	1-135-070-00	TANTALUM CHIP	0.1uF	10%	35V
C908	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C909	1-135-240-21	TANTAL. CHIP	47uF	20%	10V
C910	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C911	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C912	1-135-240-21	TANTAL. CHIP	47uF	20%	10V
C913	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C914	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C915	1-135-240-21	TANTAL. CHIP	47uF	20%	10V
C5029	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
		< CONNECTOR >			
CN801	1-573-915-11	CONNECTOR, FFC/FPC (ZIF) 6P			
CN802	1-566-532-11	CONNECTOR, FPC (ZIF) 16P			
CN803	1-573-916-11	CONNECTOR, FFC/FPC (ZIF) 7P			
CN804	1-573-370-21	CONNECTOR, FFC/FPC 30P			
CN901	1-573-346-21	CONNECTOR, FFC/FPC 6P			
* CN902	1-580-055-21	PIN, CONNECTOR 2P			
		< DIODE >			
D901	8-719-210-56	DIODE EC10QS10-TE12R			
D902	8-719-210-56	DIODE EC10QS10-TE12R			
D903	8-719-210-56	DIODE EC10QS10-TE12R			
D904	8-719-210-56	DIODE EC10QS10-TE12R			
D905	8-719-210-56	DIODE EC10QS10-TE12R			
D906	8-719-210-56	DIODE EC10QS10-TE12R			
D907	8-719-975-33	DIODE RB110C			

CONTROL | MAIN | MAIN F

Ref. No.	Part No.	Description			Remark
		< IC >			
IC901	8-759-095-65	IC TC74ACT540FS-EL			
IC902	8-759-095-67	IC TC74ACT541FS-EL			
IC904	8-759-521-35	IC TL5001CD-E1			
IC905	8-759-031-84	IC SC7S04F			
		< COIL >			
L901	1-402-831-21	COIL, CHOKE 68uH			
		< TRANSISTOR >			
Q512	8-729-922-10	TRANSISTOR 2SA1577-QR			
Q901	8-729-018-75	TRANSISTOR 2SJ278MYTR			
Q902	8-729-018-75	TRANSISTOR 2SJ278MYTR			
Q903	8-729-017-65	TRANSISTOR 2SK1764-TL			
Q904	8-729-017-65	TRANSISTOR 2SK1764-TL			
Q905	8-729-923-45	TRANSISTOR 2SB1308-QR			
Q906	8-729-425-18	TRANSISTOR XN4504			
Q907	8-729-920-XX	TRANSISTOR DTA114EUT106			
Q908	8-729-907-00	TRANSISTOR DTC114EU			
		< RESISTOR >			
R831	1-216-295-00	METAL CHIP	0	5%	1/10W
R853	1-218-725-11	METAL CHIP	24K	0.50%	1/16W
R854	1-218-675-11	METAL CHIP	200	0.50%	1/16W
R855	1-218-676-11	METAL CHIP	220	0.50%	1/16W
R856	1-216-814-11	METAL CHIP	270	5%	1/16W
R857	1-218-680-11	METAL CHIP	330	0.50%	1/16W
R858	1-218-482-11	METAL CHIP	430	0.50%	1/16W
R859	1-218-289-11	METAL CHIP	510	0.50%	1/16W
R860	1-220-373-11	METAL CHIP	620	0.50%	1/16W
R861	1-218-675-11	METAL CHIP	200	0.50%	1/16W
R862	1-218-676-11	METAL CHIP	220	0.50%	1/16W
R863	1-216-814-11	METAL CHIP	270	5%	1/16W
R865	1-218-680-11	METAL CHIP	330	0.50%	1/16W
R868	1-218-482-11	METAL CHIP	430	0.50%	1/16W
R870	1-218-289-11	METAL CHIP	510	0.50%	1/16W
R872	1-220-373-11	METAL CHIP	620	0.50%	1/16W
R873	1-216-820-11	METAL CHIP	820	5%	1/16W
R874	1-218-270-11	METAL CHIP	1.1K	0.50%	1/16W
R875	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R877	1-218-701-11	METAL CHIP	2.4K	0.50%	1/16W
R878	1-218-706-11	METAL CHIP	3.9K	0.50%	1/16W
R879	1-218-344-11	METAL CHIP	7.5K	0.50%	1/16W
R901	1-216-845-11	METAL CHIP	100K	5%	1/16W
R902	1-216-845-11	METAL CHIP	100K	5%	1/16W
R903	1-216-845-11	METAL CHIP	100K	5%	1/16W
R904	1-216-845-11	METAL CHIP	100K	5%	1/16W
R905	1-217-806-11	METAL GLAZE	1	5%	1/8W
R906	1-217-806-11	METAL GLAZE	1	5%	1/8W
R907	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R908	1-216-843-11	METAL CHIP	68K	5%	1/16W
R909	1-218-295-11	METAL GLAZE	43K	5%	1/16W
R910	1-216-853-11	METAL CHIP	470K	5%	1/16W
R911	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R913	1-216-186-00	METAL GLAZE	330	5%	1/8W
R914	1-218-724-11	METAL CHIP	22K	0.50%	1/16W
R915	1-218-344-11	METAL CHIP	7.5K	0.50%	1/16W
R918	1-216-833-11	METAL CHIP	10K	5%	1/16W
R919	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
		< SWITCH >			
S811	1-572-473-11	SWITCH, TACTIL (⏸)			
S812	1-692-088-11	SWITCH, TACTIL (⏏)			
S813	1-572-473-11	SWITCH, TACTIL (■ STOP/CHARGE)			
S814	1-572-473-11	SWITCH, TACTIL (DISPLAY)			
S815	1-572-473-11	SWITCH, TACTIL (▶)			
S816	1-572-473-11	SWITCH, TACTIL (▶▶)			
S817	1-572-473-11	SWITCH, TACTIL (◀◀)			
S818	1-572-473-11	SWITCH, TACTIL (ENTER/REPEAT)			
S819	1-572-473-11	SWITCH, TACTIL (⏮ -)			
S820	1-572-473-11	SWITCH, TACTIL (⏭ +)			
S821	1-572-473-11	SWITCH, TACTIL (DISC NAME)			
S822	1-572-473-11	SWITCH, TACTIL (TRACK NAME)			
S823	1-572-473-11	SWITCH, TACTIL (0)			
S824	1-572-473-11	SWITCH, TACTIL (1)			
S825	1-572-473-11	SWITCH, TACTIL (2)			
S826	1-572-473-11	SWITCH, TACTIL (3)			
S827	1-572-473-11	SWITCH, TACTIL (4)			
S828	1-572-473-11	SWITCH, TACTIL (5)			
S829	1-572-473-11	SWITCH, TACTIL (6)			
S830	1-572-473-11	SWITCH, TACTIL (7)			
S831	1-572-473-11	SWITCH, TACTIL (8)			
S832	1-572-473-11	SWITCH, TACTIL (9)			

****

A-3275-717-A MAIN BOARD, COMPLETE
****

1-647-401-11 MAIN F BOARD
****

1-126-949-75 ELECT 220MF 20% 35V
2-123-861-01 SCREW, TAPPING, P1.7X3
3-831-441-11 CUSHION (B)
4-955-523-01 HOLDER (TERMINAL)
4-955-524-01 CONTACT, PLUS
4-955-525-01 CONTACT, MINUS
4-955-534-01 TERMINAL BOARD

Ref. No.	Part No.	Description			Remark
	4-955-535-01	TERMINAL BOARD (LI PLUS)			
	4-955-536-01	TERMINAL BOARD (LI MINUS)			
	4-956-974-01	SHEET (D-D), INSULATING			
	4-957-126-01	CUSHION (PC BOARD)			
	4-957-187-01	SPACER			
	4-957-306-31	CUSHION			
	4-957-306-41	CUSHION			
	7-627-850-17	SCREW, PRECISION +P 1.4X2.5			
		< CAPACITOR >			
C101	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C102	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C110	1-135-237-11	TANTAL. CHIP	2.2uF	20%	6.3V
C112	1-135-237-11	TANTAL. CHIP	2.2uF	20%	6.3V
C113	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C115	1-164-473-11	CERAMIC CHIP	820PF	10%	50V
C116	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C117	1-162-928-11	CERAMIC CHIP	120PF	5%	50V
C118	1-162-928-11	CERAMIC CHIP	120PF	5%	50V
C119	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C120	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C121	1-137-294-11	FILM CHIP	0.01uF	5%	16V
C122	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C123	1-135-091-00	TANTALUM CHIP	1uF	20%	16V
C124	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C125	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C126	1-135-335-11	TANTAL. CHIP	100uF	20%	4V
C127	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C128	1-135-335-11	TANTAL. CHIP	100uF	20%	4V
C129	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C130	1-162-924-11	CERAMIC CHIP	56PF	5%	50V
C131	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C132	1-164-346-11	CERAMIC CHIP	1uF		16V
C133	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C134	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C135	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C136	1-135-237-11	TANTAL. CHIP	2.2uF	20%	6.3V
C137	1-162-957-11	CERAMIC CHIP	220PF	5%	50V
C138	1-162-922-11	CERAMIC CHIP	39PF	5%	50V
C139	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C201	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C202	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C210	1-135-237-11	TANTAL. CHIP	2.2uF	20%	6.3V
C212	1-135-237-11	TANTAL. CHIP	2.2uF	20%	6.3V
C215	1-164-473-11	CERAMIC CHIP	820PF	10%	50V
C216	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C217	1-162-928-11	CERAMIC CHIP	120PF	5%	50V
C218	1-162-928-11	CERAMIC CHIP	120PF	5%	50V
C219	1-162-925-11	CERAMIC CHIP	68PF	5%	50V

Ref. No.	Part No.	Description			Remark
C220	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C221	1-137-294-11	FILM CHIP	0.01uF	5%	16V
C222	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C223	1-135-091-00	TANTALUM CHIP	1uF	20%	16V
C224	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C225	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C226	1-135-335-11	TANTAL. CHIP	100uF	20%	4V
C227	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C228	1-135-335-11	TANTAL. CHIP	100uF	20%	4V
C229	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C230	1-162-924-11	CERAMIC CHIP	56PF	5%	50V
C231	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C232	1-164-346-11	CERAMIC CHIP	1uF		16V
C233	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C234	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C235	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C236	1-135-237-11	TANTAL. CHIP	2.2uF	20%	6.3V
C237	1-162-957-11	CERAMIC CHIP	220PF	5%	50V
C238	1-162-922-11	CERAMIC CHIP	39PF	5%	50V
C239	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C305	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C306	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C308	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C309	1-135-091-00	TANTALUM CHIP	1uF	20%	16V
C310	1-135-334-11	TANTAL. CHIP	100uF	20%	6.3V
C311	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C312	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C313	1-164-173-11	CERAMIC CHIP	0.0039uF	10%	50V
C314	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C315	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C316	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C317	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C318	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C319	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C320	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C321	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C322	1-104-630-11	TANTAL. CHIP	33uF	20%	6.3V
C323	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C324	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C325	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C326	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C327	1-104-630-11	TANTAL. CHIP	33uF	20%	6.3V
C328	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C329	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C330	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C331	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C332	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C333	1-135-263-21	TANTAL. CHIP	10uF	20%	10V

MAIN | MAIN F

Ref. No.	Part No.	Description			Remark
C334	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C335	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C336	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C337	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C338	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C339	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C341	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C342	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C343	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C344	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C345	1-135-240-21	TANTAL. CHIP	47uF	20%	10V
C346	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C347	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C349	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C350	1-164-361-11	CERAMIC CHIP	0.047uF		16V
C351	1-104-630-11	TANTAL. CHIP	33uF	20%	6.3V
C354	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C356	1-164-361-11	CERAMIC CHIP	0.047uF		16V
C359	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C360	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C361	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C362	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C363	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C364	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C365	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C366	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C426	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C470	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C471	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C472	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C473	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C501	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C502	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C503	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C504	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C505	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C506	1-135-232-11	TANTAL. CHIP	10uF	20%	16V
C507	1-135-091-00	TANTALUM CHIP	1uF	20%	16V
C508	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C509	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C510	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C511	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C512	1-164-490-11	CERAMIC CHIP	0.068uF		16V
C513	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C514	1-162-958-11	CERAMIC CHIP	270PF	5%	50V
C515	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C516	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C517	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V

Ref. No.	Part No.	Description			Remark
C518	1-162-958-11	CERAMIC CHIP	270PF	5%	50V
C519	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C520	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C521	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C522	1-135-073-00	TANTALUM CHIP	0.33uF	10%	35V
C523	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C524	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C525	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C526	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C527	1-162-979-11	CERAMIC CHIP	0.0027uF	10%	50V
C529	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C530	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C531	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C532	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C533	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C534	1-164-490-11	CERAMIC CHIP	0.068uF		16V
C535	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C536	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C537	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C538	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C539	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C540	1-164-346-11	CERAMIC CHIP	1uF		16V
C541	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C542	1-164-346-11	CERAMIC CHIP	1uF		16V
C543	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C544	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C545	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C546	1-164-361-11	CERAMIC CHIP	0.047uF		16V
C547	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C548	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C549	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C550	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C551	1-162-952-11	CERAMIC CHIP	82PF	5%	50V
C552	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C553	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C554	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C555	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C556	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C557	1-104-630-11	TANTAL. CHIP	33uF	20%	6.3V
C558	1-104-630-11	TANTAL. CHIP	33uF	20%	6.3V
C559	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C561	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C563	1-164-361-11	CERAMIC CHIP	0.047uF		16V
C564	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C565	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C567	1-164-361-11	CERAMIC CHIP	0.047uF		16V
C568	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C569	1-135-091-00	TANTALUM CHIP	1uF	20%	16V
C570	1-164-360-11	CERAMIC CHIP	0.1uF		16V

Ref. No.	Part No.	Description			Remark
C571	1-164-346-11	CERAMIC CHIP	1uF		16V
C572	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C573	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C574	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C578	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C579	1-135-224-11	TANTAL. CHIP	10uF	10%	25V
C580	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C581	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C582	1-135-208-11	TANTAL. CHIP	1uF	10%	10V
C583	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C584	1-163-986-00	CERAMIC CHIP	0.027uF	10%	25V
C586	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C587	1-164-346-11	CERAMIC CHIP	1uF		16V
C588	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C589	1-164-346-11	CERAMIC CHIP	1uF		16V
C590	1-164-346-11	CERAMIC CHIP	1uF		16V
C591	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C592	1-164-346-11	CERAMIC CHIP	1uF		16V
C594	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C595	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C596	1-135-208-11	TANTAL. CHIP	1uF	10%	10V
C597	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C598	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C599	1-135-232-11	TANTAL. CHIP	10uF	20%	16V
C601	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C602	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C603	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C604	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C605	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C606	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C607	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C608	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C609	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C610	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C611	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C612	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C613	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C614	1-164-001-11	CERAMIC CHIP	150PF	5%	50V
C615	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C616	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C617	1-104-629-11	TANTAL. CHIP	15uF	20%	6.3V
C618	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C620	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C621	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C622	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C623	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C624	1-163-986-00	CERAMIC CHIP	0.027uF	10%	25V
C626	1-164-005-11	CERAMIC CHIP	0.47uF		25V

Ref. No.	Part No.	Description			Remark
C627	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C628	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C629	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C630	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C631	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C632	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C633	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C634	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C635	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C636	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C637	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C638	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C639	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C640	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C641	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C642	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C643	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C644	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C645	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C650	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C651	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C652	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C801	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C802	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C803	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C807	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C808	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C809	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C810	1-164-346-11	CERAMIC CHIP	1uF		16V
C811	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C812	1-164-346-11	CERAMIC CHIP	1uF		16V
C814	1-164-346-11	CERAMIC CHIP	1uF		16V
C816	1-135-334-11	TANTAL. CHIP	100uF	20%	6.3V
C817	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C818	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C819	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C820	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C821	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C822	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C824	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C825	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C826	1-164-505-91	CERAMIC CHIP	2.2uF		16V
C827	1-164-346-11	CERAMIC CHIP	1uF		16V
C828	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C829	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C830	1-164-346-11	CERAMIC CHIP	1uF		16V
C5001	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C5012	1-164-346-11	CERAMIC CHIP	1uF		16V

MAIN | MAIN F

Ref. No.	Part No.	Description			Remark
C5013	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C5014	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V
C5015	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C5016	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C5017	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C5018	1-135-334-11	TANTAL. CHIP	100uF	20%	6.3V
C5019	1-135-334-11	TANTAL. CHIP	100uF	20%	6.3V
C5020	1-135-334-11	TANTAL. CHIP	100uF	20%	6.3V
C5022	1-164-363-11	CERAMIC CHIP	560PF	5%	50V
C5023	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C5025	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C5026	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C5027	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C5028	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C5030	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C5031	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C5032	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C5033	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C5034	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C5035	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C5036	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C5037	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C5038	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C5039	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C5040	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C5041	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C5044	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C5045	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C5046	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C5047	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C5048	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C5049	1-135-232-11	TANTAL. CHIP	10uF	20%	16V
C5050	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C5051	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C5052	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C5053	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C5054	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C5055	1-164-346-11	CERAMIC CHIP	1uF		16V
C5056	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C5057	1-135-237-11	TANTAL. CHIP	2.2uF	20%	6.3V
C5058	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C5059	1-163-809-91	CERAMIC CHIP	0.047uF	10%	25V
C8023	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
		< CONNECTOR >			
CN401	1-573-315-21	CONNECTOR, BOARD TO BOARD 30P			
CN501	1-573-927-11	CONNECTOR, FFC/FPC (ZIF) 18P			
CN502	1-573-355-11	CONNECTOR, FFC/FPC 15P			
CN503	1-573-346-21	CONNECTOR, FFC/FPC 6P			

Ref. No.	Part No.	Description	Remark
CN602	1-573-346-21	CONNECTOR, FFC/FPC 6P	
CN801	1-573-370-21	CONNECTOR, FFC/FPC 30P	
		< DIODE >	
D301	8-719-941-23	DIODE DA204U	
D304	8-719-404-46	DIODE MA110	
D305	8-719-404-46	DIODE MA110	
D307	8-719-941-86	DIODE DAN202U	
D309	8-719-977-20	DIODE DTZ8.2B	
D310	8-719-404-46	DIODE MA110	
D311	8-719-941-09	DIODE DAP202U	
D401	8-719-974-51	DIODE SB20-03P	
D406	8-719-941-86	DIODE DAN202U	
D420	8-719-106-88	DIODE RD15M-B1	
D420	8-719-401-31	DIODE MA3047L-TX	
D421	8-719-106-88	DIODE RD15M-B1	
D422	8-719-106-88	DIODE RD15M-B1	
D423	8-719-106-88	DIODE RD15M-B1	
D424	8-719-404-46	DIODE MA110	
D502	8-719-420-51	DIODE MA729	
D503	8-719-938-78	DIODE SB10-05PCP	
D504	8-719-023-69	DIODE SB007T03Q	
D505	8-719-024-10	DIODE SB007-03Q-TL	
D506	8-719-941-23	DIODE DA204U	
D507	8-719-420-51	DIODE MA729	
D508	8-719-404-46	DIODE MA110	
D509	8-719-404-46	DIODE MA110	
D511	8-719-404-46	DIODE MA110	
D512	8-719-404-46	DIODE MA110	
D515	8-719-941-23	DIODE DA204U	
D601	8-719-981-25	DIODE KV1450	
D602	8-719-981-25	DIODE KV1450	
D803	8-719-941-09	DIODE DAP202U	
D804	8-719-941-86	DIODE DAN202U	
D806	8-719-420-51	DIODE MA729	
D807	8-719-938-75	DIODE SB05-05CP	
D808	8-719-938-75	DIODE SB05-05CP	
D809	8-719-421-27	DIODE MA728	
D810	8-719-420-51	DIODE MA729	
D811	8-719-420-51	DIODE MA729	
D812	8-719-941-23	DIODE DA204U	
		< FERRITE BEAD >	
FB101	1-543-949-11	BEAD, FERRITE (CHIP)	
FB102	1-543-949-11	BEAD, FERRITE (CHIP)	
FB103	1-543-949-11	BEAD, FERRITE (CHIP)	
FB104	1-543-949-11	BEAD, FERRITE (CHIP)	
FB201	1-543-949-11	BEAD, FERRITE (CHIP)	

REVISED

MAIN **MAIN F**

Ref. No.	Part No.	Description	Remark
FB202	1-543-949-11	BEAD, FERRITE (CHIP)	
FB203	1-543-949-11	BEAD, FERRITE (CHIP)	
FB204	1-543-949-11	BEAD, FERRITE (CHIP)	
FB301	1-543-949-11	BEAD, FERRITE (CHIP)	
FB302	1-543-949-11	BEAD, FERRITE (CHIP)	
FB303	1-543-949-11	BEAD, FERRITE (CHIP)	
FB304	1-543-949-11	BEAD, FERRITE (CHIP)	
FB305	1-543-949-11	BEAD, FERRITE (CHIP)	
FB306	1-543-949-11	BEAD, FERRITE (CHIP)	
FB307	1-543-949-11	BEAD, FERRITE (CHIP)	
FB308	1-543-949-11	BEAD, FERRITE (CHIP)	
FB309	1-543-949-11	BEAD, FERRITE (CHIP)	
FB311	1-543-949-11	BEAD, FERRITE (CHIP)	
FB312	1-543-949-11	BEAD, FERRITE (CHIP)	
FB313	1-543-949-11	BEAD, FERRITE (CHIP)	
FB314	1-543-949-11	BEAD, FERRITE (CHIP)	
FB501	1-543-949-11	BEAD, FERRITE (CHIP)	
FB603	1-543-949-11	BEAD, FERRITE (CHIP)	
FB604	1-543-949-11	BEAD, FERRITE (CHIP)	
FB606	1-543-949-11	BEAD, FERRITE (CHIP)	
FB607	1-543-949-11	BEAD, FERRITE (CHIP)	
FB608	1-543-949-11	BEAD, FERRITE (CHIP)	
FB609	1-543-949-11	BEAD, FERRITE (CHIP)	
FB801	1-543-949-11	BEAD, FERRITE (CHIP)	
		< IC >	
IC303	8-759-085-04	IC M51132FP-E1	
IC304	8-759-103-25	IC uPD4053BG	
IC305	8-759-080-34	IC TA75W01FU	
IC306	8-759-080-34	IC TA75W01FU	
IC307	8-759-097-92	IC NJM2100V	
IC308	8-759-097-92	IC NJM2100V	
IC309	8-759-085-06	IC AK4501-VS	
IC310	8-759-097-92	IC NJM2100V	
IC311	8-759-510-56	IC BA3570FS	
IC312	8-759-234-77	IC TC4S66F	
IC314	8-759-097-92	IC NJM2100V	
IC315	8-759-161-52	IC S-81250PG-PD-T1	
IC410	8-759-161-50	IC S-81240PG-PJ-T1	
IC501	8-752-064-34	IC CXA1381R	
IC502	8-752-064-33	IC CXA1380N	
IC503	8-759-053-34	IC uPD74HC4053G	
IC504	8-759-053-34	IC uPD74HC4053G	
IC505	8-759-080-34	IC TA75W01FU	
IC506	8-759-035-26	IC SC7S08F	
IC507	8-752-055-94	IC CXA1602R	
IC508	8-759-053-34	IC uPD74HC4053G	
IC509	8-759-084-72	IC MPC1718FU	
IC510	8-759-031-84	IC SC7S04F	
IC511	8-759-710-79	IC NJM2107F	
IC512	8-759-710-79	IC NJM2107F	
IC513	8-759-234-77	IC TC4S66F	
IC514	8-759-087-73	IC S-80745AN-D9	
IC515	8-759-234-20	IC TC7S08F	
IC516	8-759-082-61	IC TC4W53FU	
IC517	8-759-082-61	IC TC4W53FU	
IC518	8-759-710-79	IC NJM2107F	
IC519	8-759-234-77	IC TC4S66F	
IC520	8-759-710-79	IC NJM2107F	
IC521	8-759-157-68	IC PGLAD-048-ELL2000	
IC522	8-759-082-61	IC TC4W53FU	
IC601	8-752-352-18	IC CXD2525R	
IC602	8-752-354-57	IC CXD2526Q	
IC603	8-752-356-18	IC CXD2527R-1	
IC604	8-752-355-96	IC CXD2527R	
IC605	8-759-160-77	IC MS514400AL-80VC	
IC606	8-759-082-61	IC TC4W53FU	
IC607	8-759-710-79	IC NJM2107F	
IC608	8-759-097-92	IC NJM2100V	
IC609	8-759-083-94	IC TC7W74FU	
IC610	8-759-234-20	IC TC7S08F	
IC611	8-759-031-84	IC SC7S04F	
IC612	8-759-083-94	IC TC7W74FU	
IC613	8-759-035-93	IC SC7S32F	
IC614	8-759-035-26	IC SC7S08F	
IC615	8-759-035-93	IC SC7S32F	
IC801	8-752-844-55	IC CXP81740-603Q	
IC802	8-759-908-81	IC MB3763PF	
IC803	8-759-056-84	IC S-8420AF	
IC804	8-759-087-73	IC S-80745AN-D9-T1	
IC805	8-759-082-57	IC TC7W04FU	
IC806	8-759-031-84	IC SC7S04F	
IC807	8-759-161-50	IC S-81240PG-PJ-T1	
IC808	8-759-031-84	IC SC7S04F	
		< JACK >	
J301	8-749-923-95	IC GP1F351R (OPTICAL(DIGITAL)/LINE IN)	
J302	1-568-593-21	JACK 1P (MIC(PLUG IN POWER)	
J303	1-569-809-11	JACK (SMALL TYPE) (Ω)	
J304	8-749-923-96	IC GP1F351T (OPTICAL(DIGITAL)/LINE OUT)	
J401	1-580-428-11	JACK, DC (DC IN 10.5V)	
		< COIL >	
L301	1-412-029-11	INDUCTOR CHIP 10uH	
L302	1-412-032-11	INDUCTOR CHIP 100uH	
L303	1-412-032-11	INDUCTOR CHIP 100uH	
L304	1-412-029-11	INDUCTOR CHIP 10uH	
L306	1-410-997-31	INDUCTOR CHIP 2.2uH	

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Ref. No.	Part No.	Description		Remark
L501	1-412-029-11	INDUCTOR CHIP	10uH	
L502	1-412-029-11	INDUCTOR CHIP	10uH	
L503	1-412-029-11	INDUCTOR CHIP	10uH	
L504	9-910-999-33	INDUCTOR	560UH	
L505	1-414-203-21	INDUCTOR	100uH	
L506	1-414-203-21	INDUCTOR	100uH	
L507	1-414-203-21	INDUCTOR	100uH	
L508	1-414-203-21	INDUCTOR	100uH	
L510	1-412-011-31	INDUCTOR CHIP	27uH	
L511	1-412-032-11	INDUCTOR CHIP	100uH	
L601	1-412-029-11	INDUCTOR CHIP	10uH	
L602	1-412-029-11	INDUCTOR CHIP	10uH	
L603	1-414-200-21	INDUCTOR	1uH	
L604	1-414-201-21	INDUCTOR	5.6uH	
L605	1-412-029-11	INDUCTOR CHIP	10uH	
L606	1-412-029-11	INDUCTOR CHIP	10uH	
		< LINE FILTER >		
LF301	1-402-984-21	FILTER, COMMON MODE		
LF304	1-402-984-21	FILTER, COMMON MODE		
LF401	1-402-951-11	COIL, LINE FILTER		
		< IC LINK >		
PS401	1-533-282-21	RINK, IC		
		< TRANSISTOR >		
Q101	8-729-144-16	TRANSISTOR	2SD2228-D44D45	
Q102	8-729-144-16	TRANSISTOR	2SD2228-D44D45	
Q103	8-729-144-16	TRANSISTOR	2SD2228-D44D45	
Q105	8-729-144-16	TRANSISTOR	2SD2228-D44D45	
Q201	8-729-144-16	TRANSISTOR	2SD2228-D44D45	
Q202	8-729-144-16	TRANSISTOR	2SD2228-D44D45	
Q203	8-729-144-16	TRANSISTOR	2SD2228-D44D45	
Q205	8-729-144-16	TRANSISTOR	2SD2228-D44D45	
Q301	8-729-144-16	TRANSISTOR	2SD2228-D44D45	
Q302	8-729-907-39	TRANSISTOR	IMD2	
Q303	8-729-906-33	TRANSISTOR	DTC114YU	
Q304	8-729-906-33	TRANSISTOR	DTC114YU	
Q306	8-729-907-39	TRANSISTOR	IMD2	
Q307	8-729-907-39	TRANSISTOR	IMD2	
Q309	8-729-402-84	TRANSISTOR	XN4601	
Q310	8-729-402-84	TRANSISTOR	XN4601	
Q311	8-729-905-12	TRANSISTOR	DTA144EU	
Q312	8-729-924-31	TRANSISTOR	DTA114WU-T106	
Q401	8-729-421-71	TRANSISTOR	2SK620	
Q402	8-729-421-71	TRANSISTOR	2SK620	
Q409	8-729-907-00	TRANSISTOR	DTC114EU	
Q445	8-729-924-31	TRANSISTOR	DTA114WU-T106	

Ref. No.	Part No.	Description		Remark
Q446	8-729-905-12	TRANSISTOR	DTA144EU	
Q447	8-729-924-65	TRANSISTOR	DTC123YU	
Q448	8-729-905-12	TRANSISTOR	DTA144EU	
Q449	8-729-924-65	TRANSISTOR	DTC123YU	
Q450	8-729-905-12	TRANSISTOR	DTA144EU	
Q451	8-729-924-65	TRANSISTOR	DTC123YU	
Q452	8-729-905-18	TRANSISTOR	DTC144EU	
Q501	8-729-101-07	TRANSISTOR	2SB798-DL	
Q502	8-729-216-22	TRANSISTOR	2SA1162	
Q503	8-729-922-10	TRANSISTOR	2SA1577-QR	
Q506	8-729-905-61	TRANSISTOR	DTC124EU	
Q508	8-729-420-74	TRANSISTOR	2SD1328-RST	
Q509	8-729-905-61	TRANSISTOR	DTC124EU	
Q510	8-729-905-12	TRANSISTOR	DTA144EU	
Q512	8-729-905-61	TRANSISTOR	DTC124EU	
Q513	8-729-402-84	TRANSISTOR	XN4601	
Q514	8-729-922-10	TRANSISTOR	2SA1577-QR	
Q516	8-729-924-68	TRANSISTOR	DTC114WU-T106	
Q518	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q519	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q520	8-729-144-16	TRANSISTOR	2SD2228-D44D45	
Q801	8-729-905-12	TRANSISTOR	DTA144EU	
Q802	8-729-906-33	TRANSISTOR	DTC114YU	
Q803	8-729-905-18	TRANSISTOR	DTC144EU	
Q804	8-729-922-10	TRANSISTOR	2SA1577-QR	
Q805	8-729-905-18	TRANSISTOR	DTC144EU	
Q806	8-729-824-26	TRANSISTOR	2SA1338-5-TA	
Q807	8-729-905-12	TRANSISTOR	DTA144EU	
		< RESISTOR >		
R101	1-216-817-11	METAL CHIP	470 5% 1/16W	
R103	1-218-732-11	METAL CHIP	47K 0.50% 1/16W	
R104	1-216-857-11	METAL CHIP	1M 5% 1/16W	
R112	1-216-864-11	METAL CHIP	0 5% 1/16W	
R113	1-218-738-11	METAL CHIP	82K 0.50% 1/16W	
R114	1-218-740-11	METAL CHIP	100K 0.50% 1/16W	
R115	1-218-721-11	METAL CHIP	16K 0.50% 1/16W	
R116	1-216-795-11	METAL CHIP	6.8K 0.50% 1/16W	
R117	1-218-716-11	METAL CHIP	10K 0.50% 1/16W	
R118	1-216-821-11	METAL CHIP	1K 5% 1/16W	
R119	1-216-821-11	METAL CHIP	1K 5% 1/16W	
R120	1-218-724-11	METAL CHIP	22K 0.50% 1/16W	
R121	1-218-724-11	METAL CHIP	22K 0.50% 1/16W	
R122	1-218-724-11	METAL CHIP	22K 0.50% 1/16W	
R123	1-218-724-11	METAL CHIP	22K 0.50% 1/16W	
R124	1-218-883-11	METAL CHIP	33K 0.50% 1/16W	
R125	1-218-883-11	METAL CHIP	33K 0.50% 1/16W	
R126	1-218-736-11	METAL CHIP	68K 0.50% 1/16W	
R127	1-218-736-11	METAL CHIP	68K 0.50% 1/16W	

Ref. No.	Part No.	Description				Remark
R128	1-218-705-11	METAL CHIP	3.6K	0.50%	1/16W	
R129	1-216-823-11	METAL CHIP	1.5K	5%	1/16W	
R130	1-216-857-11	METAL CHIP	1M	5%	1/16W	
R131	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R132	1-216-813-11	METAL CHIP	220	5%	1/16W	
R133	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W	
R134	1-218-724-11	METAL CHIP	22K	0.50%	1/16W	
R135	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R136	1-216-800-11	METAL GLAZE	18	5%	1/16W	
R137	1-216-821-11	METAL CHIP	1K	5%	1/16W	
R138	1-216-799-11	METAL CHIP	15	5%	1/16W	
R140	1-216-864-11	METAL CHIP	0	5%	1/16W	
R142	1-216-821-11	METAL CHIP	1K	5%	1/16W	
R146	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R147	1-216-815-11	METAL CHIP	330	5%	1/16W	
R149	1-218-704-11	METAL CHIP	3.3K	0.50%	1/16W	
R150	1-216-842-11	METAL CHIP	56K	5%	1/16W	
R156	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R157	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W	
R158	1-218-740-11	METAL CHIP	100K	0.50%	1/16W	
R159	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W	
R160	1-216-864-11	METAL CHIP	0	5%	1/16W	
R201	1-216-817-11	METAL CHIP	470	5%	1/16W	
R203	1-218-732-11	METAL CHIP	47K	0.50%	1/16W	
R204	1-216-857-11	METAL CHIP	1M	5%	1/16W	
R212	1-216-864-11	METAL CHIP	0	5%	1/16W	
R213	1-218-738-11	METAL CHIP	82K	0.50%	1/16W	
R214	1-218-740-11	METAL CHIP	100K	0.50%	1/16W	
R215	1-218-721-11	METAL CHIP	16K	0.50%	1/16W	
R216	1-216-795-11	METAL CHIP	6.8K	0.50%	1/16W	
R217	1-218-716-11	METAL CHIP	10K	0.50%	1/16W	
R218	1-216-821-11	METAL CHIP	1K	5%	1/16W	
R219	1-216-821-11	METAL CHIP	1K	5%	1/16W	
R220	1-218-724-11	METAL CHIP	22K	0.50%	1/16W	
R221	1-218-724-11	METAL CHIP	22K	0.50%	1/16W	
R222	1-218-724-11	METAL CHIP	22K	0.50%	1/16W	
R223	1-218-724-11	METAL CHIP	22K	0.50%	1/16W	
R224	1-218-883-11	METAL CHIP	33K	0.50%	1/16W	
R225	1-218-883-11	METAL CHIP	33K	0.50%	1/16W	
R226	1-218-736-11	METAL CHIP	68K	0.50%	1/16W	
R227	1-218-736-11	METAL CHIP	68K	0.50%	1/16W	
R228	1-218-705-11	METAL CHIP	3.6K	0.50%	1/16W	
R229	1-216-823-11	METAL CHIP	1.5K	5%	1/16W	
R230	1-216-857-11	METAL CHIP	1M	5%	1/16W	
R231	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R232	1-218-676-11	METAL CHIP	220	0.50%	1/16W	
R233	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W	
R234	1-218-724-11	METAL CHIP	22K	0.50%	1/16W	

Ref. No.	Part No.	Description				Remark
R235	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R236	1-216-800-11	METAL GLAZE	18	5%	1/16W	
R237	1-216-821-11	METAL CHIP	1K	5%	1/16W	
R238	1-216-799-11	METAL CHIP	15	5%	1/16W	
R240	1-216-864-11	METAL CHIP	0	5%	1/16W	
R242	1-216-821-11	METAL CHIP	1K	5%	1/16W	
R246	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R247	1-216-815-11	METAL CHIP	330	5%	1/16W	
R249	1-218-704-11	METAL CHIP	3.3K	0.50%	1/16W	
R250	1-216-842-11	METAL CHIP	56K	5%	1/16W	
R256	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R257	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W	
R258	1-218-740-11	METAL CHIP	100K	0.50%	1/16W	
R259	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W	
R260	1-216-864-11	METAL CHIP	0	5%	1/16W	
R304	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R307	1-216-841-11	METAL CHIP	47K	5%	1/16W	
R308	1-216-821-11	METAL CHIP	1K	5%	1/16W	
R309	1-218-716-11	METAL CHIP	10K	0.50%	1/16W	
R310	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R311	1-218-736-11	METAL CHIP	68K	0.50%	1/16W	
R313	1-218-723-11	METAL CHIP	20K	0.50%	1/16W	
R314	1-218-723-11	METAL CHIP	20K	0.50%	1/16W	
R315	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W	
R316	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W	
R317	1-216-864-11	METAL CHIP	0	5%	1/16W	
R318	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	
R319	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	
R320	1-216-864-11	METAL CHIP	0	5%	1/16W	
R321	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R322	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R323	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R324	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R325	1-216-857-11	METAL CHIP	1M	5%	1/16W	
R326	1-216-864-11	METAL CHIP	0	5%	1/16W	
R330	1-216-864-11	METAL CHIP	0	5%	1/16W	
R332	1-218-704-11	METAL CHIP	3.3K	0.50%	1/16W	
R333	1-216-822-11	METAL CHIP	1.2K	5%	1/16W	
R334	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W	
R337	1-216-864-11	METAL CHIP	0	5%	1/16W	
R338	1-216-864-11	METAL CHIP	0	5%	1/16W	
R339	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W	
R340	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R341	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R342	1-216-823-11	METAL CHIP	1.5K	5%	1/16W	
R343	1-216-841-11	METAL CHIP	47K	5%	1/16W	
R345	1-216-835-11	METAL CHIP	15K	5%	1/16W	
R346	1-216-817-11	METAL CHIP	470	5%	1/16W	

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Ref. No.	Part No.	Description			Remark
R347	1-218-724-11	METAL CHIP	22K	0.50%	1/16W
R348	1-216-864-11	METAL CHIP	0	5%	1/16W
R349	1-216-864-11	METAL CHIP	0	5%	1/16W
R350	1-218-698-11	METAL CHIP	1.8K	0.50%	1/16W
R351	1-218-698-11	METAL CHIP	1.8K	0.50%	1/16W
R352	1-218-732-11	METAL CHIP	47K	0.50%	1/16W
R353	1-216-841-11	METAL CHIP	47K	5%	1/16W
R354	1-216-793-11	METAL GLAZE	4.7	5%	1/16W
R356	1-216-804-11	METAL CHIP	39	5%	1/16W
R357	1-218-740-11	METAL CHIP	100K	0.50%	1/16W
R358	1-216-857-11	METAL CHIP	1M	5%	1/16W
R366	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R367	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R369	1-216-833-11	METAL CHIP	10K	5%	1/16W
R370	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R371	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R372	1-216-841-11	METAL CHIP	47K	5%	1/16W
R373	1-216-845-11	METAL CHIP	100K	5%	1/16W
R374	1-216-833-11	METAL CHIP	10K	5%	1/16W
R375	1-216-851-11	METAL CHIP	330K	5%	1/16W
R376	1-216-845-11	METAL CHIP	100K	5%	1/16W
R377	1-216-851-11	METAL CHIP	330K	5%	1/16W
R378	1-216-845-11	METAL CHIP	100K	5%	1/16W
R379	1-216-845-11	METAL CHIP	100K	5%	1/16W
R380	1-216-833-11	METAL CHIP	10K	5%	1/16W
R382	1-218-293-11	METAL GLAZE	24K	5%	1/16W
R383	1-216-845-11	METAL CHIP	100K	5%	1/16W
R384	1-216-864-11	METAL CHIP	0	5%	1/16W
R402	1-216-841-11	METAL CHIP	47K	5%	1/16W
R404	1-216-864-11	METAL CHIP	0	5%	1/16W
R441	1-216-864-11	METAL CHIP	0	5%	1/16W
R442	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W
R443	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R501	1-216-847-11	METAL CHIP	150K	5%	1/16W
R502	1-216-833-11	METAL CHIP	10K	5%	1/16W
R503	1-216-833-11	METAL CHIP	10K	5%	1/16W
R504	1-216-833-11	METAL CHIP	10K	5%	1/16W
R505	1-216-833-11	METAL CHIP	10K	5%	1/16W
R506	1-216-833-11	METAL CHIP	10K	5%	1/16W
R507	1-216-833-11	METAL CHIP	10K	5%	1/16W
R508	1-216-833-11	METAL CHIP	10K	5%	1/16W
R509	1-216-833-11	METAL CHIP	10K	5%	1/16W
R510	1-216-848-11	METAL CHIP	180K	5%	1/16W
R511	1-216-857-11	METAL CHIP	1M	5%	1/16W
R512	1-218-448-11	METAL GLAZE	430K	5%	1/16W
R513	1-216-857-11	METAL CHIP	1M	5%	1/16W
R514	1-216-838-11	METAL CHIP	27K	5%	1/16W
R515	1-216-848-11	METAL CHIP	180K	5%	1/16W
R516	1-216-844-11	METAL CHIP	82K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R517	1-216-845-11	METAL CHIP	100K	5%	1/16W
R518	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R519	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R520	1-216-857-11	METAL CHIP	1M	5%	1/16W
R521	1-216-838-11	METAL CHIP	27K	5%	1/16W
R522	1-216-838-11	METAL CHIP	27K	5%	1/16W
R523	1-216-838-11	METAL CHIP	27K	5%	1/16W
R524	1-216-838-11	METAL CHIP	27K	5%	1/16W
R525	1-216-838-11	METAL CHIP	27K	5%	1/16W
R526	1-218-738-11	METAL CHIP	82K	0.50%	1/16W
R527	1-216-838-11	METAL CHIP	27K	5%	1/16W
R528	1-218-738-11	METAL CHIP	82K	0.50%	1/16W
R529	1-216-838-11	METAL CHIP	27K	5%	1/16W
R530	1-216-849-11	METAL CHIP	220K	5%	1/16W
R533	1-216-815-11	METAL CHIP	330	5%	1/16W
R534	1-216-845-11	METAL CHIP	100K	5%	1/16W
R535	1-216-845-11	METAL CHIP	100K	5%	1/16W
R536	1-216-001-00	METAL CHIP	10	5%	1/10W
R538	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R539	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R540	1-218-704-11	METAL CHIP	3.3K	0.50%	1/16W
R541	1-216-832-11	METAL CHIP	8.2K	5%	1/16W
R542	1-216-832-11	METAL CHIP	8.2K	5%	1/16W
R543	1-216-832-11	METAL CHIP	8.2K	5%	1/16W
R544	1-216-832-11	METAL CHIP	8.2K	5%	1/16W
R545	1-218-287-11	METAL GLAZE	200	5%	1/16W
R546	1-216-821-11	METAL CHIP	1K	5%	1/16W
R547	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R548	1-216-841-11	METAL CHIP	47K	5%	1/16W
R549	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R550	1-216-841-11	METAL CHIP	47K	5%	1/16W
R551	1-216-857-11	METAL CHIP	1M	5%	1/16W
R552	1-216-864-11	METAL CHIP	0	5%	1/16W
R553	1-216-832-11	METAL CHIP	8.2K	5%	1/16W
R554	1-218-883-11	METAL CHIP	33K	0.50%	1/16W
R556	1-216-833-11	METAL CHIP	10K	5%	1/16W
R558	1-216-835-11	METAL CHIP	15K	5%	1/16W
R559	1-216-845-11	METAL CHIP	100K	5%	1/16W
R561	1-216-845-11	METAL CHIP	100K	5%	1/16W
R562	1-216-845-11	METAL CHIP	100K	5%	1/16W
R563	1-218-724-11	METAL CHIP	22K	0.50%	1/16W
R564	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R565	1-218-698-11	METAL CHIP	1.8K	0.50%	1/16W
R567	1-216-854-11	METAL CHIP	560K	5%	1/16W
R568	1-216-845-11	METAL CHIP	100K	5%	1/16W
R569	1-216-821-11	METAL CHIP	1K	5%	1/16W
R570	1-218-736-11	METAL CHIP	68K	0.50%	1/16W
R571	1-216-864-11	METAL CHIP	0	5%	1/16W

Ref. No.	Part No.	Description			Remark
R572	1-218-724-11	METAL CHIP	22K	0.50%	1/16W
R573	1-218-724-11	METAL CHIP	22K	0.50%	1/16W
R574	1-216-848-11	METAL CHIP	180K	5%	1/16W
R575	1-218-704-11	METAL CHIP	3.3K	0.50%	1/16W
R577	1-216-857-11	METAL CHIP	1M	5%	1/16W
R578	1-218-740-11	METAL CHIP	100K	0.50%	1/16W
R579	1-216-795-11	METAL CHIP	6.8K	0.50%	1/16W
R581	1-216-817-11	METAL CHIP	470	5%	1/16W
R582	1-216-850-11	METAL CHIP	270K	5%	1/16W
R583	1-216-833-11	METAL CHIP	10K	5%	1/16W
R584	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W
R585	1-216-857-11	METAL CHIP	1M	5%	1/16W
R586	1-218-732-11	METAL CHIP	47K	0.50%	1/16W
R587	1-218-732-11	METAL CHIP	47K	0.50%	1/16W
R588	1-216-833-11	METAL CHIP	10K	5%	1/16W
R589	1-216-820-11	METAL CHIP	820	5%	1/16W
R592	1-216-845-11	METAL CHIP	100K	5%	1/16W
R593	1-216-845-11	METAL CHIP	100K	5%	1/16W
R594	1-216-845-11	METAL CHIP	100K	5%	1/16W
R595	1-216-841-11	METAL CHIP	47K	5%	1/16W
R596	1-216-864-11	METAL CHIP	0	5%	1/16W
R597	1-216-833-11	METAL CHIP	10K	5%	1/16W
R598	1-216-864-11	METAL CHIP	0	5%	1/16W
R599	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R601	1-216-835-11	METAL CHIP	15K	5%	1/16W
R602	1-216-833-11	METAL CHIP	10K	5%	1/16W
R603	1-216-795-11	METAL CHIP	6.8K	0.50%	1/16W
R604	1-216-845-11	METAL CHIP	100K	5%	1/16W
R605	1-216-835-11	METAL CHIP	15K	5%	1/16W
R606	1-216-841-11	METAL CHIP	47K	5%	1/16W
R607	1-216-841-11	METAL CHIP	47K	5%	1/16W
R608	1-216-795-11	METAL CHIP	6.8K	0.50%	1/16W
R609	1-216-833-11	METAL CHIP	10K	5%	1/16W
R610	1-216-833-11	METAL CHIP	10K	5%	1/16W
R611	1-216-795-11	METAL CHIP	6.8K	0.50%	1/16W
R612	1-216-845-11	METAL CHIP	100K	5%	1/16W
R613	1-216-833-11	METAL CHIP	10K	5%	1/16W
R614	1-218-704-11	METAL CHIP	3.3K	0.50%	1/16W
R615	1-216-833-11	METAL CHIP	10K	5%	1/16W
R616	1-218-331-11	METAL GLAZE	51K	5%	1/16W
R617	1-216-821-11	METAL CHIP	1K	5%	1/16W
R623	1-216-833-11	METAL CHIP	10K	5%	1/16W
R624	1-216-833-11	METAL CHIP	10K	5%	1/16W
R625	1-216-845-11	METAL CHIP	100K	5%	1/16W
R626	1-216-821-11	METAL CHIP	1K	5%	1/16W
R627	1-216-821-11	METAL CHIP	1K	5%	1/16W
R629	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R630	1-216-821-11	METAL CHIP	1K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R631	1-216-821-11	METAL CHIP	1K	5%	1/16W
R633	1-218-676-11	METAL CHIP	220	0.50%	1/16W
R634	1-216-841-11	METAL CHIP	47K	5%	1/16W
R636	1-216-857-11	METAL CHIP	1M	5%	1/16W
R637	1-216-857-11	METAL CHIP	1M	5%	1/16W
R638	1-216-857-11	METAL CHIP	1M	5%	1/16W
R639	1-216-857-11	METAL CHIP	1M	5%	1/16W
R640	1-216-864-11	METAL CHIP	0	5%	1/16W
R641	1-216-864-11	METAL CHIP	0	5%	1/16W
R642	1-216-864-11	METAL CHIP	0	5%	1/16W
R643	1-216-864-11	METAL CHIP	0	5%	1/16W
R644	1-216-864-11	METAL CHIP	0	5%	1/16W
R645	1-216-864-11	METAL CHIP	0	5%	1/16W
R646	1-216-864-11	METAL CHIP	0	5%	1/16W
R647	1-216-864-11	METAL CHIP	0	5%	1/16W
R648	1-216-864-11	METAL CHIP	0	5%	1/16W
R649	1-216-864-11	METAL CHIP	0	5%	1/16W
R650	1-216-864-11	METAL CHIP	0	5%	1/16W
R651	1-216-864-11	METAL CHIP	0	5%	1/16W
R652	1-216-864-11	METAL CHIP	0	5%	1/16W
R655	1-216-841-11	METAL CHIP	47K	5%	1/16W
R656	1-216-841-11	METAL CHIP	47K	5%	1/16W
R657	1-216-821-11	METAL CHIP	1K	5%	1/16W
R660	1-216-864-11	METAL CHIP	0	5%	1/16W
R669	1-218-698-11	METAL CHIP	1.8K	5%	1/16W
R670	1-216-864-11	METAL CHIP	0	5%	1/16W
R671	1-216-809-11	METAL CHIP	100	5%	1/16W
R802	1-216-821-11	METAL CHIP	1K	5%	1/16W
R803	1-216-821-11	METAL CHIP	1K	5%	1/16W
R811	1-216-814-11	METAL CHIP	270	5%	1/16W
R812	1-218-676-11	METAL CHIP	220	0.50%	1/16W
R814	1-216-857-11	METAL CHIP	1M	5%	1/16W
R816	1-216-845-11	METAL CHIP	100K	5%	1/16W
R820	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W
R821	1-216-821-11	METAL CHIP	1K	5%	1/16W
R824	1-216-833-11	METAL CHIP	10K	5%	1/16W
R825	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W
R826	1-216-833-11	METAL CHIP	10K	5%	1/16W
R828	1-218-675-11	METAL CHIP	200	0.50%	1/16W
R829	1-216-864-11	METAL CHIP	0	5%	1/16W
R833	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W
R834	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W
R836	1-216-841-11	METAL CHIP	47K	5%	1/16W
R837	1-216-841-11	METAL CHIP	47K	5%	1/16W
R839	1-216-841-11	METAL CHIP	47K	5%	1/16W
R840	1-216-841-11	METAL CHIP	47K	5%	1/16W
R841	1-216-841-11	METAL CHIP	47K	5%	1/16W
R842	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W
R845	1-216-841-11	METAL CHIP	47K	5%	1/16W

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Ref. No.	Part No.	Description			Remark
R848	1-216-841-11	METAL CHIP	47K	5%	1/16W
R849	1-216-841-11	METAL CHIP	47K	5%	1/16W
R850	1-216-841-11	METAL CHIP	47K	5%	1/16W
R851	1-216-841-11	METAL CHIP	47K	5%	1/16W
R852	1-216-841-11	METAL CHIP	47K	5%	1/16W
R870	1-216-864-11	METAL CHIP	0	5%	1/16W
R871	1-216-864-11	METAL CHIP	0	5%	1/16W
R874	1-216-864-11	METAL CHIP	0	5%	1/16W
R875	1-216-864-11	METAL CHIP	0	5%	1/16W
R876	1-216-864-11	METAL CHIP	0	5%	1/16W
R877	1-216-864-11	METAL CHIP	0	5%	1/16W
R878	1-216-864-11	METAL CHIP	0	5%	1/16W
R879	1-216-864-11	METAL CHIP	0	5%	1/16W
R880	1-216-864-11	METAL CHIP	0	5%	1/16W
R881	1-216-864-11	METAL CHIP	0	5%	1/16W
R882	1-216-864-11	METAL CHIP	0	5%	1/16W
R883	1-216-864-11	METAL CHIP	0	5%	1/16W
R884	1-216-864-11	METAL CHIP	0	5%	1/16W
R885	1-216-864-11	METAL CHIP	0	5%	1/16W
R886	1-216-864-11	METAL CHIP	0	5%	1/16W
R887	1-216-864-11	METAL CHIP	0	5%	1/16W
R888	1-216-864-11	METAL CHIP	0	5%	1/16W
R889	1-216-864-11	METAL CHIP	0	5%	1/16W
R890	1-216-864-11	METAL CHIP	0	5%	1/16W
R891	1-216-851-11	METAL CHIP	330K	5%	1/16W
R892	1-216-864-11	METAL CHIP	0	5%	1/16W
R893	1-216-864-11	METAL CHIP	0	5%	1/16W
R894	1-216-845-11	METAL CHIP	100K	5%	1/16W
R896	1-216-845-11	METAL CHIP	100K	5%	1/16W
R897	1-216-853-11	METAL CHIP	470K	5%	1/16W
R898	1-216-851-11	METAL CHIP	330K	5%	1/16W
R899	1-216-809-11	METAL CHIP	100	5%	1/16W
R5000	1-216-820-11	METAL CHIP	820	5%	1/16W
R5001	1-216-864-11	METAL CHIP	0	5%	1/16W
R5002	1-216-850-11	METAL CHIP	270K	5%	1/16W
R5003	1-216-864-11	METAL CHIP	0	5%	1/16W
R5005	1-216-851-11	METAL CHIP	330K	5%	1/16W
R5006	1-216-838-11	METAL CHIP	27K	5%	1/16W
R5007	1-216-851-11	METAL CHIP	330K	5%	1/16W
R5008	1-218-745-11	METAL CHIP	160K	0.50%	1/16W
R5011	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5014	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W
R5015	1-218-883-11	METAL CHIP	33K	0.50%	1/16W
R5016	1-218-883-11	METAL CHIP	33K	0.50%	1/16W
R5017	1-218-736-11	METAL CHIP	68K	0.50%	1/16W
R5018	1-218-736-11	METAL CHIP	68K	0.50%	1/16W
R5020	1-216-857-11	METAL CHIP	1M	5%	1/16W
R5021	1-216-849-11	METAL CHIP	220K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R5022	1-216-835-11	METAL CHIP	15K	5%	1/16W
R5023	1-216-864-11	METAL CHIP	0	5%	1/16W
R5024	1-216-864-11	METAL CHIP	0	5%	1/16W
R5025	1-216-859-11	METAL GLAZE	1.5M	5%	1/16W
R5026	1-216-826-11	METAL CHIP	2.7K	5%	1/16W
R5027	1-216-832-11	METAL CHIP	8.2K	5%	1/16W
R5028	1-216-864-11	METAL CHIP	0	5%	1/16W
R5029	1-216-864-11	METAL CHIP	0	5%	1/16W
R5030	1-216-864-11	METAL CHIP	0	5%	1/16W
R5031	1-218-883-11	METAL CHIP	33K	0.50%	1/16W
R5032	1-218-736-11	METAL CHIP	68K	0.50%	1/16W
R5033	1-216-864-11	METAL CHIP	0	5%	1/16W
R5034	1-216-857-11	METAL CHIP	1M	5%	1/16W
R5035	1-216-848-11	METAL CHIP	180K	5%	1/16W
R5036	1-218-883-11	METAL CHIP	33K	0.50%	1/16W
R5037	1-216-848-11	METAL CHIP	180K	5%	1/16W
R5038	1-218-883-11	METAL CHIP	33K	0.50%	1/16W
R5039	1-216-850-11	METAL CHIP	270K	5%	1/16W
R5040	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5041	1-216-841-11	METAL CHIP	47K	5%	1/16W
R5042	1-216-841-11	METAL CHIP	47K	5%	1/16W
R5043	1-216-864-11	METAL CHIP	0	5%	1/16W
R5044	1-216-864-11	METAL CHIP	0	5%	1/16W
R5045	1-216-864-11	METAL CHIP	0	5%	1/16W
R5046	1-216-864-11	METAL CHIP	0	5%	1/16W
R5047	1-216-864-11	METAL CHIP	0	5%	1/16W
R5048	1-216-864-11	METAL CHIP	0	5%	1/16W
R5049	1-216-864-11	METAL CHIP	0	5%	1/16W
R5050	1-216-864-11	METAL CHIP	0	5%	1/16W
R5051	1-216-864-11	METAL CHIP	0	5%	1/16W
R5052	1-216-864-11	METAL CHIP	0	5%	1/16W
R5053	1-216-864-11	METAL CHIP	0	5%	1/16W
R5054	1-216-864-11	METAL CHIP	0	5%	1/16W
R5055	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R5056	1-216-864-11	METAL CHIP	0	5%	1/16W
R5058	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R5059	1-216-845-11	METAL CHIP	100K	5%	1/16W
R5060	1-216-865-11	METAL CHIP	3K	5%	1/16W
R5061	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5062	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5063	1-216-857-11	METAL CHIP	1M	5%	1/16W
R5065	1-216-836-11	METAL CHIP	18K	5%	1/16W
R5066	1-218-883-11	METAL CHIP	33K	0.50%	1/16W
R5067	1-218-883-11	METAL CHIP	33K	0.50%	1/16W
R5068	1-216-864-11	METAL CHIP	0	5%	1/16W
R5069	1-216-864-11	METAL CHIP	0	5%	1/16W
R5070	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5071	1-216-833-11	METAL CHIP	10K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R5072	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5073	1-216-849-11	METAL CHIP	220K	5%	1/16W
R5074	1-216-849-11	METAL CHIP	220K	5%	1/16W
R5075	1-216-845-11	METAL CHIP	100K	5%	1/16W
R5076	1-216-853-11	METAL CHIP	470K	5%	1/16W
R5077	1-216-853-11	METAL CHIP	470K	5%	1/16W
R5078	1-216-853-11	METAL CHIP	470K	5%	1/16W
R5079	1-218-724-11	METAL CHIP	22K	0.50%	1/16W
R5080	1-218-330-11	METAL GLAZE	11K	5%	1/16W
R5081	1-218-724-11	METAL CHIP	22K	0.50%	1/16W
R5082	1-216-001-00	METAL CHIP	10	5%	1/10W
R5083	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5084	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5085	1-216-828-11	METAL CHIP	3.9K	5%	1/16W
R5086	1-216-864-11	METAL CHIP	0	5%	1/16W
R5087	1-216-864-11	METAL CHIP	0	5%	1/16W
R5091	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W
R5092	1-218-724-11	METAL CHIP	22K	0.50%	1/16W
R5093	1-216-860-11	METAL GLAZE	1.8M	5%	1/16W
R5096	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5097	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5098	1-216-841-11	METAL CHIP	47K	5%	1/16W
R5099	1-216-864-11	METAL CHIP	0	5%	1/16W
R5100	1-216-864-11	METAL CHIP	0	5%	1/16W
R5101	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5102	1-218-736-11	METAL CHIP	68K	0.50%	1/16W
R5105	1-216-835-11	METAL CHIP	15K	5%	1/16W
R5108	1-216-821-11	METAL CHIP	1K	5%	1/16W
R5109	1-216-864-11	METAL CHIP	0	5%	1/16W
R5110	1-216-835-11	METAL CHIP	15K	5%	1/16W
R5114	1-216-864-11	METAL CHIP	0	5%	1/16W
R5116	1-216-864-11	METAL CHIP	0	5%	1/16W
R5117	1-216-834-11	METAL CHIP	12K	5%	1/16W
R5118	1-216-864-11	METAL CHIP	0	5%	1/16W
R5200	1-216-864-11	METAL CHIP	0	5%	1/16W
R5201	1-216-809-11	METAL CHIP	100	5%	1/16W
R5202	1-216-821-11	METAL CHIP	1K	5%	1/16W
R5203	1-216-864-11	METAL CHIP	0	5%	1/16W
R5205	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5206	1-216-295-11	METAL CHIP	0	5%	1/10W
R5207	1-216-295-11	METAL CHIP	0	5%	1/10W
R5208	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W
R5209	1-216-845-11	METAL CHIP	100K	5%	1/16W
R5210	1-216-845-11	METAL CHIP	100K	5%	1/16W
R5212	1-216-849-11	METAL CHIP	220K	5%	1/16W
R5213	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R5216	1-216-864-11	METAL CHIP	0	5%	1/16W
R5217	1-216-864-11	METAL CHIP	0	5%	1/16W
R8001	1-216-857-11	METAL CHIP	1M	5%	1/16W

Ref. No.	Part No.	Description			Remark
R8002	1-216-845-11	METAL CHIP	100K	5%	1/16W
R8003	1-216-821-11	METAL CHIP	1K	5%	1/16W
R8004	1-216-841-11	METAL CHIP	47K	5%	1/16W
R8005	1-216-863-11	METAL GLAZE	3.3M	5%	1/16W
R8006	1-216-853-11	METAL CHIP	470K	5%	1/16W
R8007	1-216-821-11	METAL CHIP	1K	5%	1/16W
R8008	1-216-819-11	METAL CHIP	680	5%	1/16W
R8009	1-216-845-11	METAL CHIP	100K	5%	1/16W
R8041	1-216-841-11	METAL CHIP	47K	5%	1/16W

< VARIABLE RESISTOR >

RV301	1-223-173-21	RES, VAR, CARBON	10K (REC LEVEL)
RV302	1-223-172-21	RES, VAR, CARBON	10K/10K (VOLUME)
RV501	1-238-089-11	RES, ADJ, CERMET	4.7K
RV502	1-238-089-11	RES, ADJ, CERMET	4.7K
RV503	1-238-090-11	RES, ADJ, CERMET	10K
RV504	1-238-090-11	RES, ADJ, CERMET	10K
RV505	1-223-270-21	RES, ADJ,	100
RV507	1-238-091-11	RES, ADJ, CERMET	22K
RV508	1-238-091-11	RES, ADJ, CERMET	22K
RV509	1-238-093-11	RES, ADJ, CERMET	100K
RV510	1-238-089-11	RES, ADJ, CERMET	4.7K
RV511	1-238-089-11	RES, ADJ, CERMET	4.7K
RV512	1-238-089-11	RES, ADJ, CERMET	4.7K
RV513	1-238-089-11	RES, ADJ, CERMET	4.7K
RV514	1-238-091-11	RES, ADJ, CERMET	22K
RV515	1-238-091-11	RES, ADJ, CERMET	22K
RV516	1-238-092-11	RES, ADJ, CERMET	47K
RV517	1-238-092-11	RES, ADJ, CERMET	47K
RV518	1-238-088-11	RES, ADJ, CERMET	2.2K
RV519	1-238-088-11	RES, ADJ, CERMET	2.2K
RV601	1-238-090-11	RES, ADJ, CERMET	10K
RV602	1-238-090-11	RES, ADJ, CERMET	10K

< SWITCH >

S801	1-572-467-31	SWITCH, PUSH (1 KEY) (EDIT)
S802	1-572-694-21	SWITCH, KEY BOARD (REFLOW TYPE) (CLOCK SET)
S803	1-572-467-31	SWITCH, PUSH (1 KEY) (REC)

< THERMISTOR >

TH301	1-809-990-21	THERMISTOR NTH5G40B473K02TE
TH302	1-809-990-21	THERMISTOR NTH5G40B473K02TE
TH501	1-809-986-21	THERMISTOR NTH5G36B103K02TE

< VIBRATOR >

X601	1-579-725-21	VIBRATOR, CRYSTAL (22MHz)
X602	1-579-847-21	OSCILLATOR, CRYSTAL (55MHz)
X801	1-579-709-11	VIBRATOR, CRYSTAL (32KHz)

MAIN | MAIN F | MIC | POWER

Ref. No.	Part No.	Description			Remark
X802	1-579-846-21	VIBRATOR, CERAMIC (12MHz)			
**********					
	1-647-687-12	MIC BOARD			
		*********			
	4-957-934-01	SHEET (MIC), ADHESIVE			
		< CAPACITOR >			
C102	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C103	1-135-180-21	TANTALUM CHIP	3.3uF	20%	6.3V
C104	1-104-630-11	TANTAL. CHIP	33uF	20%	6.3V
C105	1-162-957-11	CERAMIC CHIP	220PF	5%	50V
C106	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C107	1-162-952-11	CERAMIC CHIP	82PF	5%	50V
C109	1-135-180-21	TANTALUM CHIP	3.3uF	20%	6.3V
C202	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C203	1-135-180-21	TANTALUM CHIP	3.3uF	20%	6.3V
C204	1-104-630-11	TANTAL. CHIP	33uF	20%	6.3V
C205	1-162-957-11	CERAMIC CHIP	220PF	5%	50V
C206	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C207	1-162-952-11	CERAMIC CHIP	82PF	5%	50V
C209	1-135-180-21	TANTALUM CHIP	3.3uF	20%	6.3V
C301	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C303	1-135-232-11	TANTAL. CHIP	10uF	20%	16V
C357	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C358	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
		< DIODE >			
D101	8-719-017-58	DIODE	MA8068-TX		
D201	8-719-017-58	DIODE	MA8068-TX		
		< IC >			
IC301	8-759-700-62	IC	NJM4562D		
		< LINE FILTER >			
LF303	1-402-984-21	FILTER, COMMON MODE			
		< TRANSISTOR >			
Q104	8-729-144-16	TRANSISTOR	2SD2228-D44D45		
Q204	8-729-144-16	TRANSISTOR	2SD2228-D44D45		
Q308	8-729-144-16	TRANSISTOR	2SD2228-D44D45		
		< RESISTOR >			
R105	1-216-795-11	METAL CHIP	6.8K	0.50%	1/16W
R107	1-218-883-11	METAL CHIP	33K	0.50%	1/16W
R108	1-218-727-11	METAL CHIP	30K	0.50%	1/16W
R109	1-218-698-11	METAL CHIP	1.8K	0.50%	1/16W
R110	1-216-812-11	METAL CHIP	180	5%	1/16W
R111	1-216-857-11	METAL CHIP	1M	5%	1/16W
R141	1-216-833-11	METAL CHIP	10K	5%	1/16W
R155	1-216-845-11	METAL CHIP	100K	5%	1/16W
R161	1-216-817-11	METAL CHIP	470	5%	1/16W
R205	1-216-795-11	METAL CHIP	6.8K	0.50%	1/16W
R207	1-218-883-11	METAL CHIP	33K	0.50%	1/16W
R208	1-218-727-11	METAL CHIP	30K	0.50%	1/16W
R209	1-218-698-11	METAL CHIP	1.8K	0.50%	1/16W
R210	1-216-812-11	METAL CHIP	180	5%	1/16W
R211	1-216-857-11	METAL CHIP	1M	5%	1/16W
R241	1-216-833-11	METAL CHIP	10K	5%	1/16W
R255	1-216-845-11	METAL CHIP	100K	5%	1/16W
R261	1-216-817-11	METAL CHIP	470	5%	1/16W
R301	1-218-745-11	METAL CHIP	160K	0.50%	1/16W
R302	1-216-845-11	METAL CHIP	100K	5%	1/16W
R368	1-216-845-11	METAL CHIP	100K	5%	1/16W
**********					
	A-3275-782-A	POWER BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C401	1-164-346-11	CERAMIC CHIP	1uF		16V
C405	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C406	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C407	1-126-924-11	ELECT	330uF	20%	10V
C408	1-164-346-11	CERAMIC CHIP	1uF		16V
C410	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C412	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C414	1-135-237-11	TANTAL. CHIP	2.2uF	20%	16V
C415	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C416	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C418	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C421	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C431	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C432	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C433	1-127-561-11	ELECT(SOLID)	33uF	20%	10V
C434	1-135-149-21	TANTALUM CHIP	2.2uF	20%	10V
C435	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C436	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C437	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C438	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C439	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C440	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C442	1-104-725-81	ELECT(SOLID)	6.8uF	20%	25V
C443	1-135-149-21	TANTALUM CHIP	2.2uF	20%	10V
C444	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C445	1-127-561-11	ELECT(SOLID)	33uF	20%	10V
C446	1-127-561-11	ELECT(SOLID)	33uF	20%	10V

Ref. No.	Part No.	Description			Remark
C447	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C450	1-104-726-81	ELECT(SOLID)	15uF	20%	16V
C452	1-104-726-81	ELECT(SOLID)	15uF	20%	16V
C453	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C454	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C455	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C456	1-127-561-11	ELECT(SOLID)	33uF	20%	10V
C457	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C458	1-163-986-00	CERAMIC CHIP	0.027uF	10%	25V
C459	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C460	1-164-505-11	CERAMIC CHIP	2.2uF		16V
		< CONNECTOR >			
CN402	1-573-343-21	CONNECTOR, BOARD TO BOARD 30P			
CN403	1-573-307-11	CONNECTOR, BOARD TO BOARD 14P			
CN404	1-573-335-11	CONNECTOR, BOARD TO BOARD 14P			
CN405	1-573-308-11	CONNECTOR, BOARD TO BOARD 16P			
CN406	1-573-336-11	CONNECTOR, BOARD TO BOARD 16P			
		< DIODE >			
D402	8-719-106-16	DIODE	RD6.8M-B1		
D404	8-719-991-65	DIODE	SB02W03C		
D405	8-719-974-51	DIODE	SB20-03P		
D407	8-719-974-51	DIODE	SB20-03P		
D410	8-719-988-78	DIODE	SB007W03Q		
D411	8-719-975-33	DIODE	RB110C		
D412	8-719-975-33	DIODE	RB110C		
D413	8-719-975-33	DIODE	RB110C		
D414	8-719-404-46	DIODE	MA110		
D415	8-719-975-33	DIODE	RB110C		
D416	8-719-975-33	DIODE	RB110C		
D417	8-719-975-33	DIODE	RB110C		
D418	8-719-023-69	DIODE	SB007T03Q		
D419	8-719-106-16	DIODE	RD6.8M-B1		
D420	8-719-021-25	DIODE	UZM4.7X		
		< IC >			
IC401	8-759-054-95	IC	RF5C189		
IC402	8-759-990-43	IC	TL1451ACDB-TL		
IC403	8-759-168-33	IC	S-81245PG-P5-T1		
		< COIL >			
L401	1-410-626-11	COIL, CHOKE	47uH		
L402	1-412-039-51	INDUCTOR CHIP	100uH		
L403	1-410-626-11	COIL, CHOKE	47uH		
L404	1-410-627-11	COIL, CHOKE	100uH		
L405	1-410-627-11	COIL, CHOKE	100uH		

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q403	8-729-923-45	TRANSISTOR	2SB1308-QR		
Q404	8-729-924-65	TRANSISTOR	DTC123YU		
Q405	8-729-923-45	TRANSISTOR	2SB1308-QR		
Q406	8-729-924-65	TRANSISTOR	DTC123YU		
Q407	8-729-923-45	TRANSISTOR	2SB1308-QR		
Q408	8-729-924-65	TRANSISTOR	DTC123YU		
Q410	8-729-923-36	TRANSISTOR	2SD1963-Q.R		
Q411	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q412	8-729-923-45	TRANSISTOR	2SB1308-QR		
Q413	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q414	8-729-905-12	TRANSISTOR	DTA144EU		
Q415	8-729-922-10	TRANSISTOR	2SA1577-QR		
Q416	8-729-905-15	TRANSISTOR	DTC144WU		
Q420	8-729-905-12	TRANSISTOR	DTA144EU		
Q421	8-729-923-45	TRANSISTOR	2SB1308-QR		
Q422	8-729-907-00	TRANSISTOR	DTC114EU		
Q423	8-729-905-12	TRANSISTOR	DTA144EU		
Q426	8-729-806-75	TRANSISTOR	2SB1120		
Q428	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q429	8-729-806-75	TRANSISTOR	2SB1120		
Q430	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q431	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q432	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q433	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q434	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q435	8-729-907-00	TRANSISTOR	DTC114EU		
Q436	8-729-117-32	TRANSISTOR	2SC4177		
		< RESISTOR >			
R401	1-216-033-00	METAL CHIP	220	5%	1/10W
R403	1-216-815-11	METAL CHIP	330	5%	1/16W
R405	1-216-821-11	METAL CHIP	1K	5%	1/16W
R406	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R407	1-216-833-11	METAL CHIP	10K	5%	1/16W
R408	1-216-041-00	METAL CHIP	470	5%	1/10W
R409	1-217-671-11	METAL CHIP	1	5%	1/10W
R410	1-217-671-11	METAL CHIP	1	5%	1/10W
R411	1-216-817-11	METAL CHIP	470	5%	1/16W
R413	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R414	1-216-833-11	METAL CHIP	10K	5%	1/16W
R415	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R418	1-216-833-11	METAL CHIP	10K	5%	1/16W
R419	1-216-857-11	METAL CHIP	1M	5%	1/16W
R421	1-216-033-00	METAL CHIP	220	5%	1/10W
R422	1-216-037-00	METAL CHIP	330	5%	1/10W
R424	1-216-836-11	METAL CHIP	18K	5%	1/16W
R425	1-216-833-11	METAL CHIP	10K	5%	1/16W

POWER

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

Ref. No.	Part No.	Description			Remark
R426	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R427	1-216-845-11	METAL CHIP	100K	5%	1/16W
R428	1-216-821-11	METAL CHIP	1K	5%	1/16W
R429	1-216-833-11	METAL CHIP	10K	5%	1/16W
R430	1-216-833-11	METAL CHIP	10K	5%	1/16W
R431	1-217-671-11	METAL CHIP	1	5%	1/10W
R432	1-216-857-11	METAL CHIP	1M	5%	1/16W
R433	1-217-671-11	METAL CHIP	1	5%	1/10W
R434	1-216-833-11	METAL CHIP	10K	5%	1/16W
R435	1-216-835-11	METAL CHIP	15K	5%	1/16W
R436	1-216-833-11	METAL CHIP	10K	5%	1/16W
R437	1-216-833-11	METAL CHIP	10K	5%	1/16W
R438	1-216-821-11	METAL CHIP	1K	5%	1/16W
R439	1-216-821-11	METAL CHIP	1K	5%	1/16W
R440	1-216-833-11	METAL CHIP	10K	5%	1/16W
R442	1-216-841-11	METAL CHIP	47K	5%	1/16W
R443	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R445	1-216-815-11	METAL CHIP	330	5%	1/16W
R446	1-216-031-00	METAL CHIP	180	5%	1/10W
R447	1-216-833-11	METAL CHIP	10K	5%	1/16W
R448	1-216-821-11	METAL CHIP	1K	5%	1/16W
R449	1-216-821-11	METAL CHIP	1K	5%	1/16W
R450	1-216-828-11	METAL CHIP	3.9K	5%	1/16W
R451	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R452	1-216-833-11	METAL CHIP	10K	5%	1/16W
R453	1-216-857-11	METAL CHIP	1M	5%	1/16W
R454	1-216-033-00	METAL CHIP	220	5%	1/10W
R455	1-216-833-11	METAL CHIP	10K	5%	1/16W
R456	1-216-821-11	METAL CHIP	1K	5%	1/16W
R457	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R458	1-216-833-11	METAL CHIP	10K	5%	1/16W
R459	1-216-833-11	METAL CHIP	10K	5%	1/16W
R460	1-216-821-11	METAL CHIP	1K	5%	1/16W
R461	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R462	1-216-833-11	METAL CHIP	10K	5%	1/16W
R463	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R464	1-216-833-11	METAL CHIP	10K	5%	1/16W
R465	1-216-833-11	METAL CHIP	10K	5%	1/16W
R466	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R467	1-216-031-00	METAL CHIP	180	5%	1/10W
R468	1-216-836-11	METAL CHIP	18K	5%	1/16W
R469	1-216-857-11	METAL CHIP	1M	5%	1/16W
R470	1-216-821-11	METAL CHIP	1K	5%	1/16W
R471	1-216-821-11	METAL CHIP	1K	5%	1/16W
R472	1-216-864-11	METAL CHIP	0	5%	1/16W
R473	1-216-833-11	METAL CHIP	10K	5%	1/16W
R474	1-216-864-11	METAL CHIP	0	5%	1/16W
R476	1-216-799-11	METAL CHIP	15	5%	1/16W
R477	1-216-833-11	METAL CHIP	10K	5%	1/16W
R478	1-216-841-11	METAL CHIP	47K	5%	1/16W
R479	1-216-841-11	METAL CHIP	47K	5%	1/16W

< VARIABLE RESISTOR >

RV401	1-238-089-11	RES, ADJ, CERMET	4.7K		
RV402	1-238-088-11	RES, ADJ, CERMET	2.2K		
RV403	1-238-089-11	RES, ADJ, CERMET	4.7K		
RV405	1-238-090-11	RES, ADJ, CERMET	10K		
RV406	1-238-090-11	RES, ADJ, CERMET	10K		

****

MISCELLANEOUS

****

53	1-645-919-11	PC BOARD, RELAY (A) FLEXIBLE
55	1-466-923-11	SWITCH UNIT (MIC)
56	1-466-924-11	SWITCH UNIT (DBB)
108	1-466-925-11	SWITCH UNIT (DETECTION)
152	1-645-922-11	PC BOARD, RELAY (B) FLEXIBLE
M701	1-698-007-11	MOTOR (SPNDLE)
M702	1-698-008-11	MOTOR, DC (SLED)
M703	1-698-035-11	MOTOR, DC (LOADING)
ND801	1-809-926-11	LCD MODULE

****

ACCESSORIES & PACKING MATERIALS

****

⚠	1-466-884-11	ADAPTOR, AC (AC-MZ1) (US, Canadian)
⚠	1-466-885-11	ADAPTOR, AC (AC-MZ1) (AEP)
⚠	1-466-886-11	ADAPTOR, AC (AC-MZ1) (UK)
⚠	1-466-887-11	ADAPTOR, AC (AC-MZ1) (E, JE)
⚠	1-467-364-11	ADAPTOR, AC (AC-MZ1) (AUS, EA)
⚠	1-467-446-11	ADAPTOR, AC (AC-MZ1) (AUS, EA)
	1-555-658-21	CORD, CONNECTION
⚠	1-569-007-11	ADAPTER, CONVERSION 2P (E, JE)
	3-756-161-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN, SPANISH) (Canadian, AEP, E, JE)
	3-756-161-21	MANUAL, INSTRUCTION (ENGLISH) (US, UK)
	3-756-161-41	MANUAL, INSTRUCTION (DUTCH, SWEDISH, ITALIAN, PORTUGUESE) (AEP)
	3-756-161-51	MANUAL, INSTRUCTION (JAPANESE, KOREAN) (JE)
	4-955-545-01	CASE, CARRYING
*	4-956-253-01	CUSHION, MAIN
*	4-956-254-01	CUSHION (UPPER)
*	4-956-255-01	CUSHION (LOWER)
*	4-956-256-02	INDIVIDUAL CARTON (JE)
*	4-956-258-02	INDIVIDUAL CARTON (US, Canadian, AEP, UK, E)
	8-953-521-90	HEADPHONE MDR-34D SET (US)
	8-953-536-90	HEADPHONE MDR-E743 SET (Canadian, AEP, UK, E, JE)

MZ-1

SONY®
SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model
Tourist Model

SUPPLEMENT-1

File this supplement with the service manual.

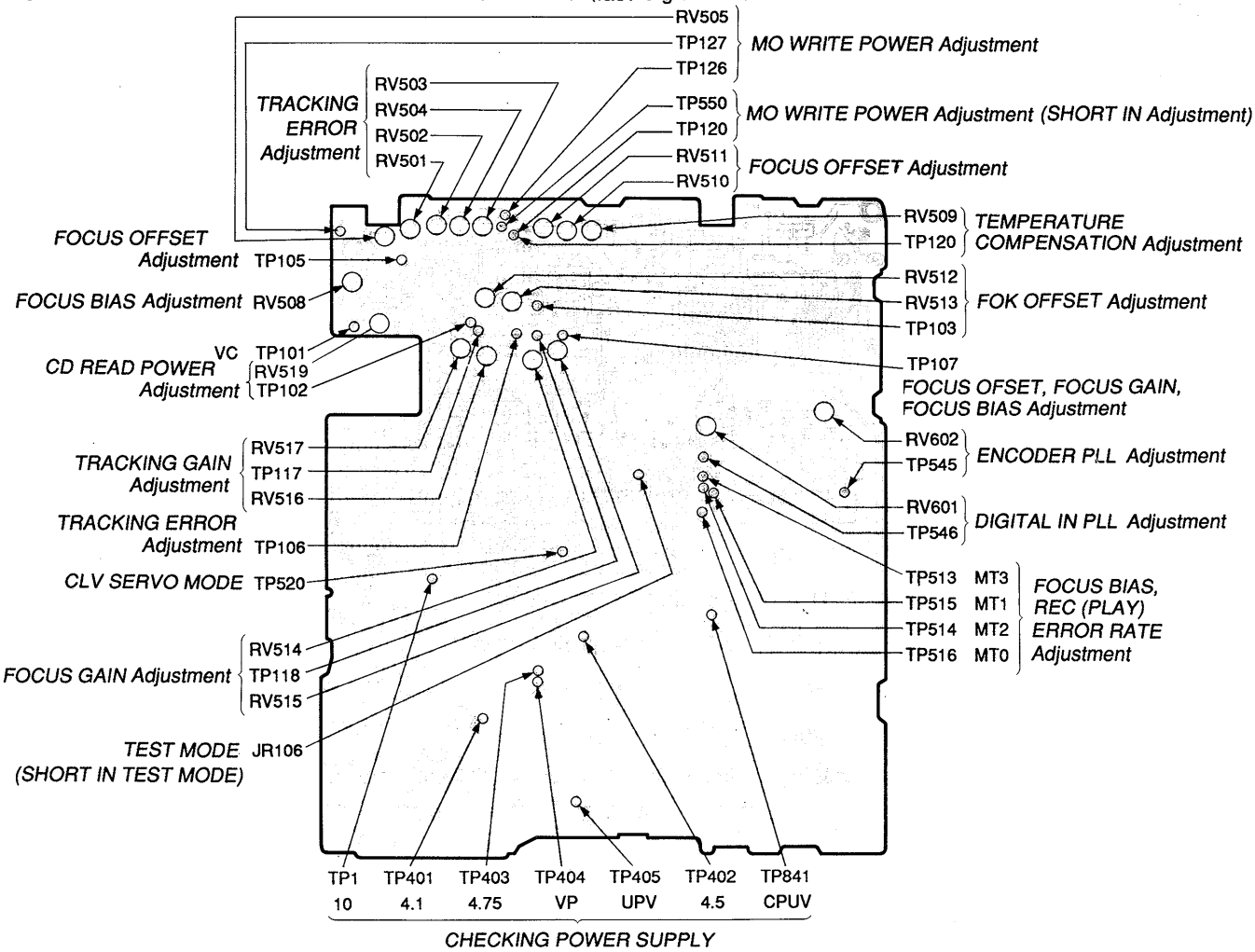
Subject:

1. The MAIN board of last digit "–13"
2. The CONTROL board of last digit "–12"
3. Adjustment location of MAIN board
4. Block diagram
5. Electrical parts list of MAIN and CONTROL boards

Note.

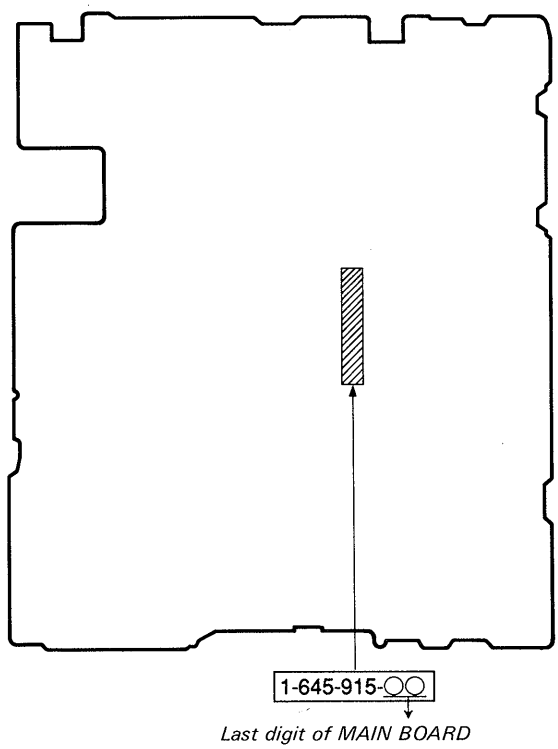
1. The last digit "–12" of CONTROL board correspond to on and after last digit "–13" of MAIN board.
2. The MIC board having up to last digit "–12" of MAIN board is built in the CONTROL board.

Adjustment Location : **[MAIN BOARD] (SIDE-B)** (last digit −13)

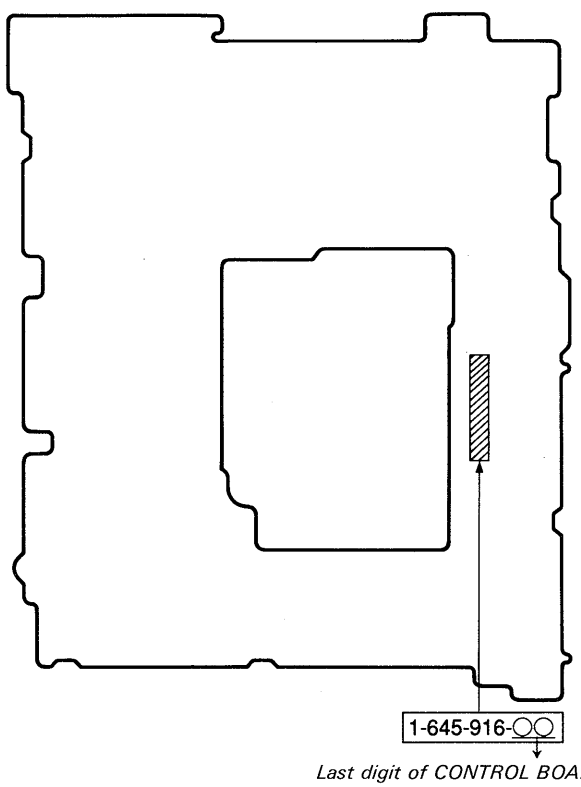


• **Location of the last digit position**

[MAIN BOARD] (SIDE-B)



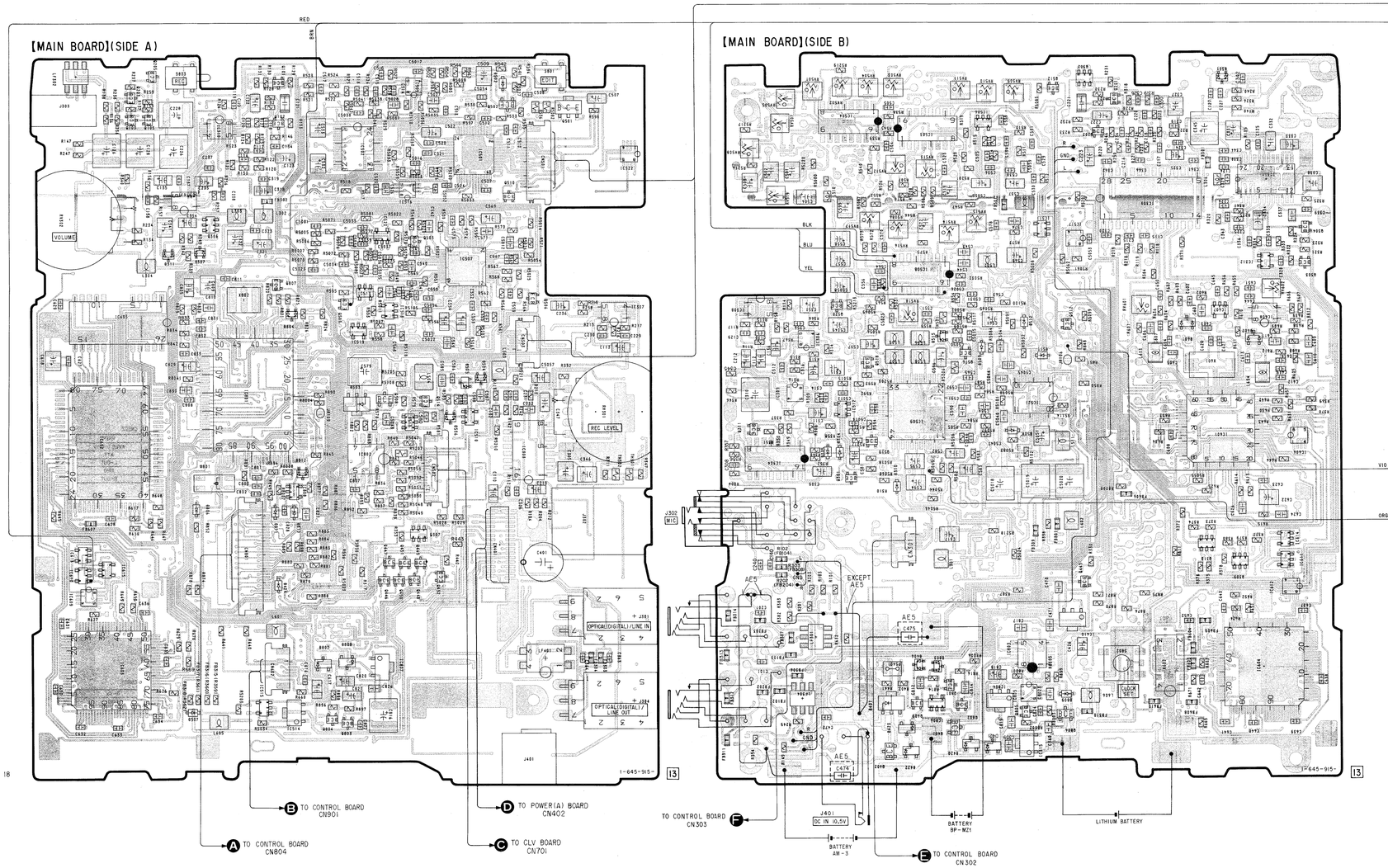
[CONTROL BOARD] (Component side)



[PRINTED WIRING BOARDS] (MAIN Section)

● Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D301	B-14	IC602	F-2
D304	F-10	IC603	H-2
D305	F-9	IC604	I-14
D307	D-3	IC605	D-2
D310	F-10	IC606	F-14
D311	D-2	IC607	D-14
D401	I-10	IC608	D-14
D406	H-10	IC609	G-2
D420	I-11	IC610	G-2
D421	I-11	IC611	G-14
D422	I-10	IC612	G-14
D423	I-10	IC613	G-2
D424	G-4	IC614	G-14
D502	B-6	IC615	G-2
D503	E-4	IC691	H-16
D504	E-6	IC692	H-16
D505	E-6	IC801	E-3
D506	E-5	IC802	F-4
D507	H-3	IC803	H-12
D508	E-11	IC804	I-11
D509	E-11	IC805	I-11
D511	E-12	IC806	I-11
D512	D-11	IC807	H-5
D515	E-11	IC808	F-4
D601	E-13		
D602	E-14	Q101	B-4
D691	H-16	Q102	B-4
D692	H-16	Q103	B-2
D693	H-17	Q105	B-5
D803	H-11	Q201	B-12
D804	D-4	Q202	B-12
D806	F-3	Q203	B-2
D807	H-4	Q205	B-2
D808	H-4	Q301	F-10
D809	H-12	Q302	B-12
D810	F-4	Q303	D-14
D811	F-4	Q304	C-14
D812	F-4	Q306	C-3
		Q307	G-5
IC303	F-6	Q309	G-14
IC304	F-9	Q310	G-13
IC305	E-9	Q311	F-9
IC306	E-9	Q312	E-12
IC307	D-7	Q401	I-11
IC308	D-9	Q402	I-10
IC309	C-13	Q409	I-10
IC310	B-3	Q445	G-12
IC311	C-14	Q446	G-5
IC312	D-14	Q447	G-5
IC314	C-3	Q448	G-5
IC315	I-12	Q449	G-5
IC410	H-12	Q450	G-5
IC501	B-6	Q451	G-5
IC502	B-4	Q452	G-5
IC503	B-10	Q501	B-7
IC504	B-10	Q502	B-6
IC505	B-5	Q503	C-5
IC506	B-11	Q506	D-6
IC507	D-6	Q508	E-5
IC508	D-10	Q509	D-4
IC509	E-10	Q510	C-6
IC510	E-6	Q512	B-12
IC511	E-12	Q513	E-5
IC512	E-10	Q514	E-5
IC513	D-5	Q516	E-11
IC514	H-4	Q518	E-10
IC515	H-3	Q519	F-10
IC516	C-5	Q520	D-9
IC517	D-12	Q801	H-11
IC518	D-5	Q802	H-11
IC519	D-4	Q803	I-4
IC520	C-5	Q804	I-4
IC521	E-12	Q805	I-12
IC522	B-7	Q806	I-12
IC601	F-14	Q807	D-4

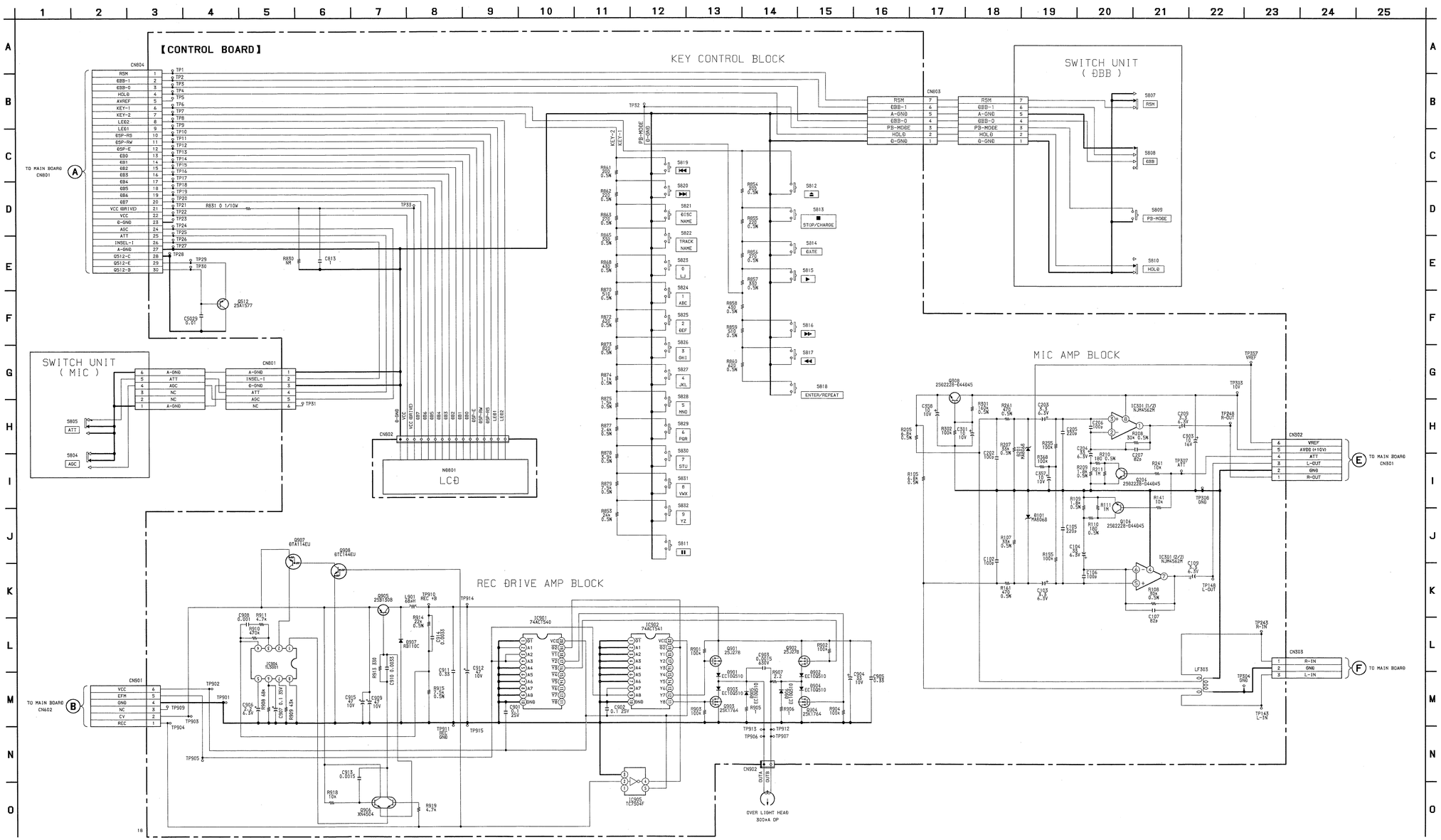


Note:

- AE5 means German and Swiss models.
- ▒▒: Pattern from the side which enables seeing.
- ▒▒: Pattern of the rear side.

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

【SCHEMATIC DIAGRAM】(CONTROL Section)



Note:

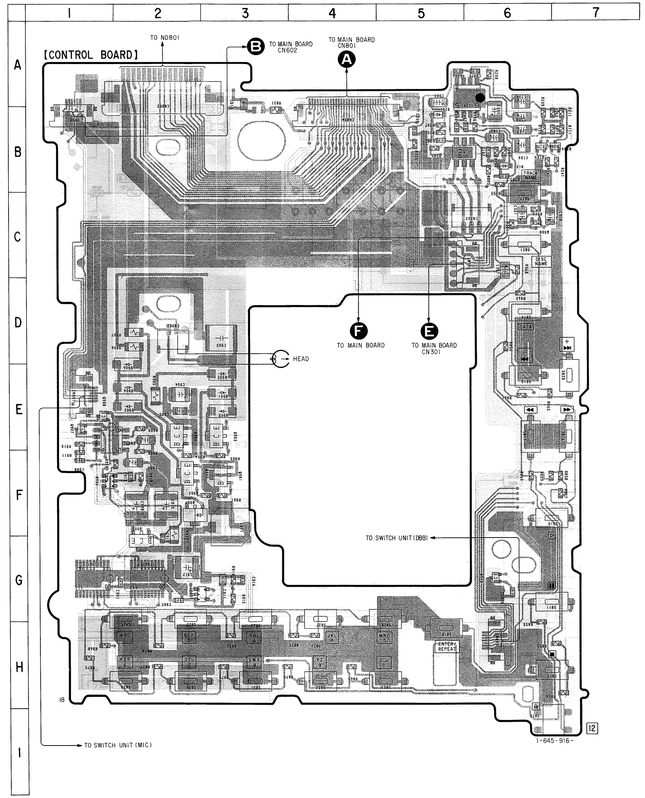
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- % : indicates tolerance.
- For voltage and semiconductor operation name, refer to the service manual.

[PRINTED WIRING BOARD] (CONTROL Section)

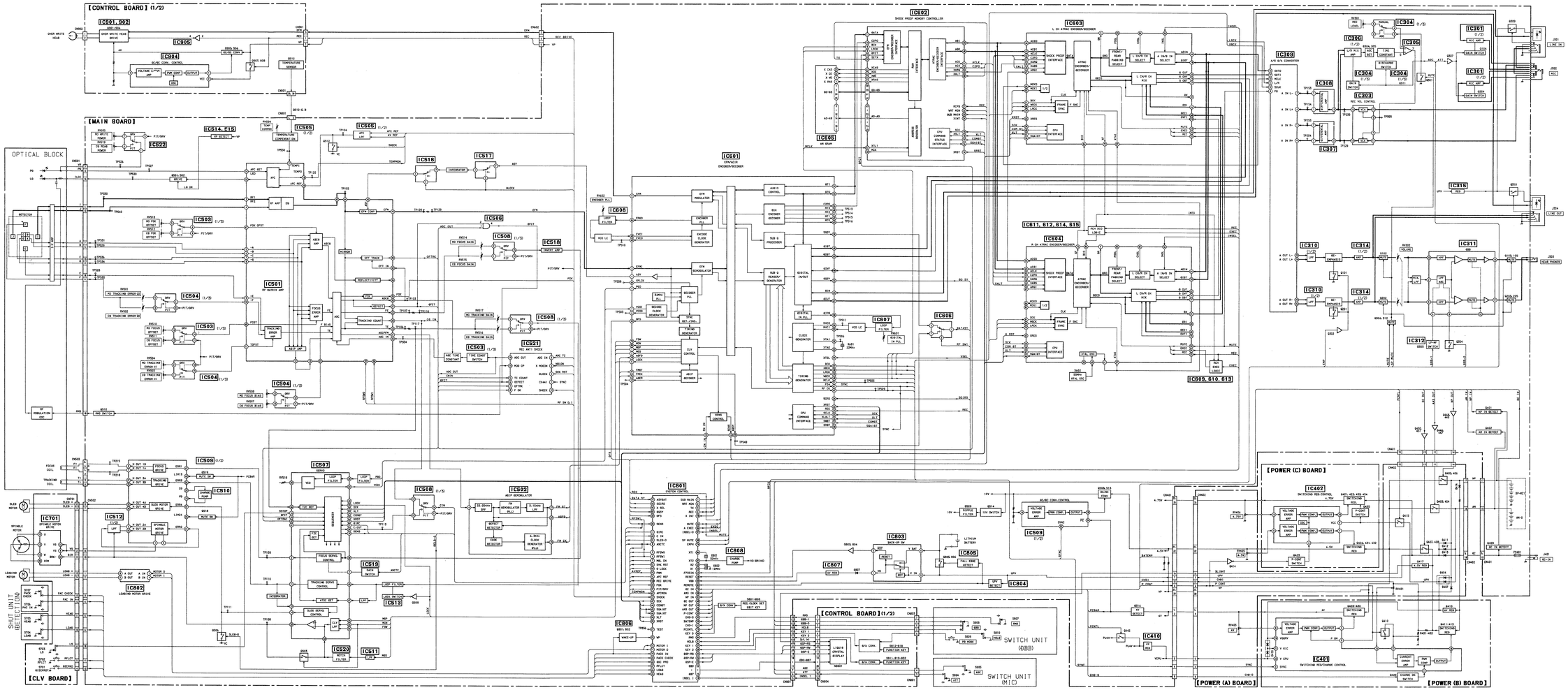
● Semiconductor Location

Ref. No.	Location
D101	B-6
D201	B-5
D901	E-2
D902	E-2
D903	E-2
D904	E-2
D905	E-2
D906	E-2
D907	E-2
IC301	A-6
IC901	F-1
IC902	F-2
IC904	E-1
IC905	F-2
Q104	B-6
Q204	B-7
Q308	C-6
Q512	F-6
Q901	E-3
Q902	E-2
Q903	E-3
Q904	E-2
Q905	F-2
Q906	E-1
Q907	E-1
Q908	E-1

Note:
- : Pattern from the rear side.
- : Pattern of the rear side.



[BLOCK DIAGRAM]



ELECTRICAL PARTS LIST

CONTROL

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH
- Abbreviations
  AE5:means German and Swiss models.

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

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

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

Ref.No.	Part No.	Description			Remark
	A-3275-715-A	CONTROL BOARD, COMPLETE			
		**********			
	4-957-934-01	SHEET (FLEXIBLE SP), ADHESIVE			
		< CAPACITOR >			
C102	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C103	1-135-180-21	TANTALUM CHIP	3.3uF	20%	6.3V
C104	1-104-630-11	TANTAL. CHIP	33uF	20%	6.3V
C105	1-162-957-11	CERAMIC CHIP	220PF	5%	50V
C106	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C107	1-162-952-11	CERAMIC CHIP	82PF	5%	50V
C109	1-135-180-21	TANTALUM CHIP	3.3uF	20%	6.3V
C202	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C203	1-135-180-21	TANTALUM CHIP	3.3uF	20%	6.3V
C204	1-104-630-11	TANTAL. CHIP	33uF	20%	6.3V
C205	1-162-957-11	CERAMIC CHIP	220PF	5%	50V
C206	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C207	1-162-952-11	CERAMIC CHIP	82PF	5%	50V
C209	1-135-180-21	TANTALUM CHIP	3.3uF	20%	6.3V
C301	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C303	1-135-232-11	TANTAL. CHIP	10uF	20%	16V
C357	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C358	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C813	1-164-346-11	CERAMIC CHIP	1uF		16V
C901	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C902	1-164-156-11	CERAMIC CHIP	0.1uF	5%	25V
C903	1-104-611-11	CAP,CHIP MICA	0.0015uF		100V
C904	1-135-265-21	TANTAL. CHIP	33uF	20%	10V
C905	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C906	1-135-149-21	TANTALUM CHIP	2.2uF	20%	10V
C907	1-135-070-00	TANTALUM CHIP	0.1uF	10%	35V
C908	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C909	1-135-240-21	TANTAL. CHIP	47uF	20%	10V
C910	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C911	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C912	1-135-240-21	TANTAL. CHIP	47uF	20%	10V
C913	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C914	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C915	1-135-240-21	TANTAL. CHIP	47uF	20%	10V

Ref.No.	Part No.	Description			Remark
C5029	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
		< CONNECTOR >			
CN302	1-573-915-11	CONNECTOR, FFC/FPC (ZIF) 6P			
CN303	1-580-056-21	PIN,CONNECTOR 3P			
CN801	1-573-915-11	CONNECTOR, FFC/FPC (ZIF) 6P			
CN802	1-566-532-11	CONNECTOR, FPC (ZIF) 16P			
CN803	1-573-916-11	CONNECTOR, FFC/FPC (ZIF) 7P			
CN804	1-573-370-21	CONNECTOR, FFC/FPC 30P			
CN901	1-573-346-21	CONNECTOR, FFC/FPC 6P			
* CN902	1-580-055-21	PIN, CONNECTOR 2P			
		< DIODE >			
D101	8-719-017-58	DIODE	MA8068-TX		
D201	8-719-017-58	DIODE	MA8068-TX		
D901	8-719-210-56	DIODE	EC10QS10-TE12R		
D902	8-719-210-56	DIODE	EC10QS10-TE12R		
D903	8-719-210-56	DIODE	EC10QS10-TE12R		
D904	8-719-210-56	DIODE	EC10QS10-TE12R		
D905	8-719-210-56	DIODE	EC10QS10-TE12R		
D906	8-719-210-56	DIODE	EC10QS10-TE12R		
D907	8-719-975-33	DIODE	RB110C		
		< IC >			
IC301	8-759-700-62	IC	NJM4562D		
IC901	8-759-095-65	IC	TC74ACT540FS		
IC902	8-759-095-67	IC	TC74ACT541FS		
IC904	8-759-521-35	IC	TL5001CD		
IC905	8-759-031-84	IC	SC7S04F		
		< COIL >			
L901	1-402-831-21	COIL, CHOKE	68uH		
		< LINE FILTER >			
LF303	1-402-984-21	FILTER, COMMON MODE			
		< TRANSISTOR >			
Q104	8-729-144-16	TRANSISTOR	2SD2228-D44D45		
Q204	8-729-144-16	TRANSISTOR	2SD2228-D44D45		

CONTROL

Ref. No.	Part No.	Description			Remark
Q308	8-729-144-16	TRANSISTOR	2SD2228-D44D45		
Q512	8-729-922-10	TRANSISTOR	2SA1577-QR		
Q901	8-729-018-75	TRANSISTOR	2SJ278MY		
Q902	8-729-018-75	TRANSISTOR	2SJ278MY		
Q903	8-729-017-65	TRANSISTOR	2SK1764		
Q904	8-729-017-65	TRANSISTOR	2SK1764		
Q905	8-729-923-45	TRANSISTOR	2SB1308-QR		
Q906	8-729-425-18	TRANSISTOR	XN4504		
Q907	8-729-920-XX	TRANSISTOR	DTA114EUT106		
Q908	8-729-907-00	TRANSISTOR	DTC114EU		
		< RESISTOR >			
R105	1-216-795-11	METAL CHIP	6.8K	0.50% 1/16W	
R107	1-218-883-11	METAL CHIP	33K	0.50% 1/16W	
R108	1-218-727-11	METAL CHIP	30K	0.50% 1/16W	
R109	1-218-698-11	METAL CHIP	1.8K	0.50% 1/16W	
R110	1-216-812-11	METAL CHIP	180	5% 1/16W	
R111	1-216-857-11	METAL CHIP	1M	5% 1/16W	
R141	1-216-833-11	METAL CHIP	10K	5% 1/16W	
R155	1-216-845-11	METAL CHIP	100K	5% 1/16W	
R161	1-216-817-11	METAL CHIP	470	5% 1/16W	
R205	1-216-795-11	METAL CHIP	6.8K	0.50% 1/16W	
R207	1-218-883-11	METAL CHIP	33K	0.50% 1/16W	
R208	1-218-727-11	METAL CHIP	30K	0.50% 1/16W	
R209	1-218-698-11	METAL CHIP	1.8K	0.50% 1/16W	
R210	1-216-812-11	METAL CHIP	180	0.5% 1/16W	
R211	1-216-857-11	METAL CHIP	1M	5% 1/16W	
R241	1-216-833-11	METAL CHIP	10K	5% 1/16W	
R255	1-216-845-11	METAL CHIP	100K	5% 1/16W	
R261	1-216-817-11	METAL CHIP	470	0.5% 1/16W	
R301	1-218-745-11	METAL CHIP	160K	0.50% 1/16W	
R302	1-216-845-11	METAL CHIP	100K	5% 1/16W	
R368	1-216-845-11	METAL CHIP	100K	5% 1/16W	
R831	1-216-295-00	METAL CHIP	0	5% 1/10W	
R853	1-218-725-11	METAL CHIP	24K	0.50% 1/16W	
R854	1-218-675-11	METAL CHIP	200	0.50% 1/16W	
R855	1-218-676-11	METAL CHIP	220	0.50% 1/16W	
R856	1-216-814-11	METAL CHIP	270	5% 1/16W	
R857	1-218-680-11	METAL CHIP	330	0.50% 1/16W	
R858	1-218-482-11	METAL CHIP	430	0.50% 1/16W	
R859	1-218-289-11	METAL CHIP	510	0.50% 1/16W	
R860	1-220-373-11	METAL CHIP	620	0.50% 1/16W	
R861	1-218-675-11	METAL CHIP	200	0.50% 1/16W	
R862	1-218-676-11	METAL CHIP	220	0.50% 1/16W	
R863	1-216-814-11	METAL CHIP	270	5% 1/16W	
R865	1-218-680-11	METAL CHIP	330	0.50% 1/16W	
R868	1-218-482-11	METAL CHIP	430	0.50% 1/16W	
R870	1-218-289-11	METAL CHIP	510	0.50% 1/16W	
R872	1-220-373-11	METAL CHIP	620	0.50% 1/16W	
R873	1-216-820-11	METAL CHIP	820	5% 1/16W	
R874	1-218-270-11	METAL CHIP	1.1K	0.50% 1/16W	
R875	1-216-823-11	METAL CHIP	1.5K	5% 1/16W	
R877	1-218-701-11	METAL CHIP	2.4K	0.50% 1/16W	
R878	1-218-706-11	METAL CHIP	3.9K	0.50% 1/16W	
R879	1-218-344-11	METAL CHIP	7.5K	0.50% 1/16W	
R901	1-216-845-11	METAL CHIP	100K	5% 1/16W	
R902	1-216-845-11	METAL CHIP	100K	5% 1/16W	
R903	1-216-845-11	METAL CHIP	100K	5% 1/16W	
R904	1-216-845-11	METAL CHIP	100K	5% 1/16W	
R905	1-217-806-11	METAL GLAZE	1	5% 1/8W	
R906	1-217-806-11	METAL GLAZE	1	5% 1/8W	
R907	1-216-134-00	METAL CHIP	2.2	5% 1/8W	
R908	1-216-843-11	METAL CHIP	68K	5% 1/16W	
R909	1-218-295-11	METAL GLAZE	43K	5% 1/16W	
R910	1-216-853-11	METAL CHIP	470K	5% 1/16W	
R911	1-216-829-11	METAL CHIP	4.7K	5% 1/16W	
R913	1-216-186-00	METAL GLAZE	330	5% 1/8W	
R914	1-218-724-11	METAL CHIP	22K	0.50% 1/16W	
R915	1-218-344-11	METAL CHIP	7.5K	0.50% 1/16W	
R918	1-216-833-11	METAL CHIP	10K	5% 1/16W	
R919	1-216-829-11	METAL CHIP	4.7K	5% 1/16W	
		< SWITCH >			
S811	1-572-473-11	SWITCH, TACTIL (⏸)			
S812	1-692-088-11	SWITCH, TACTIL (⏏)			
S813	1-572-473-11	SWITCH, TACTIL (■ STOP/CHARGE)			
S814	1-572-473-11	SWITCH, TACTIL (DISPLAY)			
S815	1-572-473-11	SWITCH, TACTIL (▶)			
S816	1-572-473-11	SWITCH, TACTIL (▶▶)			
S817	1-572-473-11	SWITCH, TACTIL (◀◀)			
S818	1-572-473-11	SWITCH, TACTIL (ENTER/REPEAT)			
S819	1-572-473-11	SWITCH, TACTIL (⏮ -)			
S820	1-572-473-11	SWITCH, TACTIL (⏭ +)			
S821	1-572-473-11	SWITCH, TACTIL (DISC NAME)			
S822	1-572-473-11	SWITCH, TACTIL (TRACK NAME)			
S823	1-572-473-11	SWITCH, TACTIL (0)			
S824	1-572-473-11	SWITCH, TACTIL (1)			
S825	1-572-473-11	SWITCH, TACTIL (2)			
S826	1-572-473-11	SWITCH, TACTIL (3)			
S827	1-572-473-11	SWITCH, TACTIL (4)			
S828	1-572-473-11	SWITCH, TACTIL (5)			
S829	1-572-473-11	SWITCH, TACTIL (6)			
S830	1-572-473-11	SWITCH, TACTIL (7)			
S831	1-572-473-11	SWITCH, TACTIL (8)			
S832	1-572-473-11	SWITCH, TACTIL (9)			

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Ref. No.	Part No.	Description			Remark
	A-3275-717-A	MAIN BOARD, COMPLETE (EXCEPT AE5)			
	A-3275-922-A	MAIN BOARD, COMPLETE (AE5)			
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	2-123-861-01	SCREW, TAPPING, P1.7X3			
	3-831-441-11	CUSHION (B)			
	4-955-523-01	HOLDER (TERMINAL)			
	4-955-524-01	CONTACT, PLUS			
	4-955-525-01	CONTACT, MINUS			
	4-955-534-01	TERMINAL BOARD			
	4-955-535-01	TERMINAL BOARD (LI PLUS)			
	4-955-536-01	TERMINAL BOARD (LI MINUS)			
	4-956-974-01	SHEET (D-D), INSULATING			
	4-957-126-01	CUSHION (PC BOARD)			
		< CAPACITOR >			
C101	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C110	1-135-237-11	TANTAL. CHIP	2.2uF	20%	6.3V
C112	1-135-237-11	TANTAL. CHIP	2.2uF	20%	6.3V
C113	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C115	1-164-473-11	CERAMIC CHIP	820PF	10%	50V
C116	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C117	1-162-928-11	CERAMIC CHIP	120PF	5%	50V
C118	1-162-928-11	CERAMIC CHIP	120PF	5%	50V
C119	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C120	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C121	1-137-294-11	FILM CHIP	0.01uF	5%	16V
C122	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C123	1-135-091-00	TANTALUM CHIP	1uF	20%	16V
C124	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C125	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C126	1-135-335-11	TANTAL. CHIP	100uF	20%	4V
C127	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C128	1-135-335-11	TANTAL. CHIP	100uF	20%	4V
C129	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C130	1-162-924-11	CERAMIC CHIP	56PF	5%	50V
C131	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C132	1-164-346-11	CERAMIC CHIP	1uF		16V
C134	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C135	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C136	1-135-237-11	TANTAL. CHIP	2.2uF	20%	6.3V
C137	1-162-957-11	CERAMIC CHIP	220PF	5%	50V
C138	1-162-922-11	CERAMIC CHIP	39PF	5%	50V
C140	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C201	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C210	1-135-237-11	TANTAL. CHIP	2.2uF	20%	6.3V
C212	1-135-237-11	TANTAL. CHIP	2.2uF	20%	6.3V
C215	1-164-473-11	CERAMIC CHIP	820PF	10%	50V
C216	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C217	1-162-928-11	CERAMIC CHIP	120PF	5%	50V
C218	1-162-928-11	CERAMIC CHIP	120PF	5%	50V
C219	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C220	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C221	1-137-294-11	FILM CHIP	0.01uF	5%	16V
C222	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C223	1-135-091-00	TANTALUM CHIP	1uF	20%	16V
C224	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C225	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C226	1-135-335-11	TANTAL. CHIP	100uF	20%	4V
C227	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C228	1-135-335-11	TANTAL. CHIP	100uF	20%	4V
C229	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C230	1-162-924-11	CERAMIC CHIP	56PF	5%	50V
C231	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C232	1-164-346-11	CERAMIC CHIP	1uF		16V
C234	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C235	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C236	1-135-237-11	TANTAL. CHIP	2.2uF	20%	6.3V
C237	1-162-957-11	CERAMIC CHIP	220PF	5%	50V
C238	1-162-922-11	CERAMIC CHIP	39PF	5%	50V
C240	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C305	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C306	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C308	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C309	1-135-091-00	TANTALUM CHIP	1uF	20%	16V
C310	1-135-334-11	TANTAL. CHIP	100uF	20%	6.3V
C311	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C312	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C313	1-164-173-11	CERAMIC CHIP	0.0039uF	10%	50V
C314	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C315	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C316	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C317	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C318	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C319	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C320	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C321	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C322	1-104-630-11	TANTAL. CHIP	33uF	20%	6.3V
C323	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C324	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C325	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C326	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C327	1-104-630-11	TANTAL. CHIP	33uF	20%	6.3V
C328	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C329	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C330	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C331	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C332	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C333	1-135-263-21	TANTAL. CHIP	10uF	20%	10V

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Ref. No.	Part No.	Description		Remark	
C334	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C335	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C336	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C337	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C338	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C339	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C341	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C342	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C343	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C344	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C345	1-135-240-21	TANTAL. CHIP	47uF	20%	10V
C346	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C347	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C350	1-164-361-11	CERAMIC CHIP	0.047uF		16V
C351	1-104-630-11	TANTAL. CHIP	33uF	20%	6.3V
C356	1-164-361-11	CERAMIC CHIP	0.047uF		16V
C359	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C360	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C361	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C362	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C363	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C364	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C366	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C401	1-126-945-11	TANTAL. CHIP	220uF		35V
C426	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C470	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C471	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C472	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C474	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V(AE5)
C475	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V(AE5)
C501	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C502	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C503	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C504	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C505	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C506	1-135-232-11	TANTAL. CHIP	10uF	20%	16V
C507	1-135-091-00	TANTALUM CHIP	1uF	20%	16V
C508	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C509	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C510	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C511	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C512	1-164-490-11	CERAMIC CHIP	0.068uF		16V
C513	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C514	1-162-958-11	CERAMIC CHIP	270PF	5%	50V
C515	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C516	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C517	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C518	1-162-958-11	CERAMIC CHIP	270PF	5%	50V
C519	1-135-264-21	TANTAL. CHIP	22uF	20%	10V

Ref. No.	Part No.	Description		Remark	
C520	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C521	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C522	1-135-073-00	TANTALUM CHIP	0.33uF	10%	35V
C523	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C524	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C525	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C526	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C527	1-162-979-11	CERAMIC CHIP	0.0027uF	10%	50V
C529	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C530	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C531	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C532	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C533	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C534	1-164-490-11	CERAMIC CHIP	0.068uF		16V
C535	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C536	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C537	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C538	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C539	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C540	1-164-346-11	CERAMIC CHIP	1uF		16V
C541	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C542	1-164-346-11	CERAMIC CHIP	1uF		16V
C543	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C544	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C545	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C546	1-164-361-11	CERAMIC CHIP	0.047uF		16V
C547	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C548	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C549	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C550	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C551	1-162-952-11	CERAMIC CHIP	82PF	5%	50V
C552	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C553	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C554	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C555	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C556	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C557	1-104-630-11	TANTAL. CHIP	33uF	20%	6.3V
C558	1-104-630-11	TANTAL. CHIP	33uF	20%	6.3V
C559	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C561	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C563	1-164-361-11	CERAMIC CHIP	0.047uF		16V
C564	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C565	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C567	1-164-361-11	CERAMIC CHIP	0.047uF		16V
C568	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C569	1-135-091-00	TANTALUM CHIP	1uF	20%	16V
C570	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C571	1-164-346-11	CERAMIC CHIP	1uF		16V
C572	1-135-264-21	TANTAL. CHIP	22uF	20%	10V

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Ref. No.	Part No.	Description			Remark
C573	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C574	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C578	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C579	1-135-224-11	TANTAL. CHIP	10uF	10%	25V
C580	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C581	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C582	1-135-208-11	TANTAL. CHIP	1uF	10%	10V
C583	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C584	1-163-986-00	CERAMIC CHIP	0.027uF	10%	25V
C586	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C587	1-164-346-11	CERAMIC CHIP	1uF		16V
C588	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C589	1-164-346-11	CERAMIC CHIP	1uF		16V
C590	1-164-346-11	CERAMIC CHIP	1uF		16V
C591	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C592	1-164-346-11	CERAMIC CHIP	1uF		16V
C594	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C595	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C596	1-135-208-11	TANTAL. CHIP	1uF	10%	10V
C597	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C598	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C599	1-135-232-11	TANTAL. CHIP	10uF	20%	16V
C601	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C602	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C603	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C604	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C605	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C606	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C607	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C608	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C609	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C610	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C611	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C612	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C613	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C614	1-164-001-11	CERAMIC CHIP	150PF	5%	50V
C615	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C616	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C617	1-104-629-11	TANTAL. CHIP	15uF	20%	6.3V
C618	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C620	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C621	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C622	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C623	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C624	1-163-986-00	CERAMIC CHIP	0.027uF	10%	25V
C626	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C627	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C628	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C629	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C630	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C631	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C632	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C633	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C634	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C635	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C636	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C637	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C638	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C639	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C640	1-162-970-11	CERAMIC CHIP	0.01uF	10%	16V
C641	1-162-970-11	CERAMIC CHIP	0.01uF	10%	16V
C642	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C643	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C644	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C645	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C650	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C651	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C652	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C801	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C802	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C803	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C807	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C808	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C809	1-135-264-21	TANTAL. CHIP	22uF	20%	10V
C810	1-164-346-11	CERAMIC CHIP	1uF		16V
C811	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C812	1-164-346-11	CERAMIC CHIP	1uF		16V
C814	1-164-346-11	CERAMIC CHIP	1uF		16V
C816	1-135-334-11	TANTAL. CHIP	100uF	20%	6.3V
C817	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C818	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C819	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C820	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C821	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C822	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C824	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C825	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C826	1-164-505-91	CERAMIC CHIP	2.2uF		16V
C827	1-164-346-11	CERAMIC CHIP	1uF		16V
C828	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C829	1-135-263-21	TANTAL. CHIP	10uF	20%	10V
C830	1-164-346-11	CERAMIC CHIP	1uF		16V
C831	1-162-962-11	CERAMIC CHIP	470pF	10%	50V
C832	1-162-962-11	CERAMIC CHIP	470pF	10%	50V
C833	1-162-962-11	CERAMIC CHIP	470pF	10%	50V
C5001	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C5012	1-164-346-11	CERAMIC CHIP	1uF		16V

MAIN

Ref. No.	Part No.	Description				Remark
C5013	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V	
C5014	1-164-245-11	CERAMIC CHIP	0.015uF	10%	25V	
C5015	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C5016	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
C5017	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
C5018	1-135-334-11	TANTAL. CHIP	100uF	20%	6.3V	
C5019	1-135-334-11	TANTAL. CHIP	100uF	20%	6.3V	
C5020	1-135-334-11	TANTAL. CHIP	100uF	20%	6.3V	
C5022	1-164-363-11	CERAMIC CHIP	560PF	5%	50V	
C5023	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C5025	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C5026	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	
C5027	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V	
C5028	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V	
C5030	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
C5031	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V	
C5032	1-162-953-11	CERAMIC CHIP	100PF	5%	50V	
C5033	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V	
C5034	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C5035	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C5036	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C5037	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	
C5038	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C5039	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C5040	1-164-336-11	CERAMIC CHIP	0.33uF		25V	
C5041	1-164-336-11	CERAMIC CHIP	0.33uF		25V	
C5044	1-164-336-11	CERAMIC CHIP	0.33uF		25V	
C5045	1-164-005-11	CERAMIC CHIP	0.47uF		25V	
C5046	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C5047	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C5048	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	
C5049	1-135-232-11	TANTAL. CHIP	10uF	20%	16V	
C5050	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C5051	1-135-264-21	TANTAL. CHIP	22uF	20%	10V	
C5052	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C5053	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C5054	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
C5055	1-135-091-91	TANTAL CHIP	1uF	20%	16V	
C5056	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V	
C5057	1-135-237-11	TANTAL. CHIP	2.2uF	20%	6.3V	
C5058	1-135-264-21	TANTAL. CHIP	22uF	20%	10V	
C5059	1-163-809-91	CERAMIC CHIP	0.047uF	10%	25V	
C8023	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V	
		< CONNECTOR >				
CN301	1-573-915-11	CONNECTOR, FFC/FPC (ZIF) 6P				
CN401	1-573-315-21	CONNECTOR, BOARD TO BOARD 30P				
CN501	1-573-927-11	CONNECTOR, FFC/FPC (ZIF) 18P				
CN502	1-573-355-11	CONNECTOR, FFC/FPC 15P				
CN503	1-573-346-21	CONNECTOR, FFC/FPC 6P				
CN602	1-573-346-21	CONNECTOR, FFC/FPC 6P				
CN801	1-573-370-21	CONNECTOR, FFC/FPC 30P				
		< DIODE >				
D301	8-719-941-23	DIODE	DA204U			
D304	8-719-404-46	DIODE	MA110			
D305	8-719-404-46	DIODE	MA110			
D307	8-719-941-86	DIODE	DAN202U			
D310	8-719-404-46	DIODE	MA110			
D311	8-719-941-09	DIODE	DAP202U			
D401	8-719-974-51	DIODE	SB20-03P			
D406	8-719-941-86	DIODE	DAN202U			
D420	8-719-401-31	DIODE	MA3047L-TX			
D421	8-719-106-88	DIODE	RD15M-B1			
D422	8-719-106-88	DIODE	RD15M-B1			
D423	8-719-106-88	DIODE	RD15M-B1			
D424	8-719-404-46	DIODE	MA110			
D502	8-719-420-51	DIODE	MA729			
D503	8-719-938-78	DIODE	SB10-05PCP			
D504	8-719-023-69	DIODE	SB007T03Q			
D505	8-719-024-10	DIODE	SB007-03Q-TL			
D506	8-719-941-23	DIODE	DA204U			
D507	8-719-420-51	DIODE	MA729			
D508	8-719-404-46	DIODE	MA110			
D509	8-719-404-46	DIODE	MA110			
D511	8-719-404-46	DIODE	MA110			
D512	8-719-404-46	DIODE	MA110			
D515	8-719-941-23	DIODE	DA204U			
D601	8-719-981-25	DIODE	KV1450			
D602	8-719-981-25	DIODE	KV1450			
D803	8-719-941-09	DIODE	DAP202U			
D804	8-719-941-86	DIODE	DAN202U			
D806	8-719-420-51	DIODE	MA729			
D807	8-719-938-75	DIODE	SB05-05CP			
D808	8-719-938-75	DIODE	SB05-05CP			
D809	8-719-421-27	DIODE	MA728			
D810	8-719-420-51	DIODE	MA729			
D811	8-719-420-51	DIODE	MA729			
D812	8-719-941-23	DIODE	DA204U			
		< FERRITE BEAD >				
FB102	1-543-949-11	BEAD, FERRITE (CHIP)				
FB103	1-543-949-11	BEAD, FERRITE (CHIP)				
FB104	1-543-949-11	BEAD, FERRITE (CHIP)				(AE5)
FB202	1-543-949-11	BEAD, FERRITE (CHIP)				
FB203	1-543-949-11	BEAD, FERRITE (CHIP)				
FB204	1-543-949-11	BEAD, FERRITE (CHIP)				(AE5)
FB301	1-543-949-11	BEAD, FERRITE (CHIP)				

REVISED

MAIN

Ref. No.	Part No.	Description	Remark
FB302	1-543-949-11	BEAD, FERRITE (CHIP)	
FB303	1-543-949-11	BEAD, FERRITE (CHIP)	
FB304	1-543-949-11	BEAD, FERRITE (CHIP)	
FB306	1-543-949-11	BEAD, FERRITE (CHIP)	
FB307	1-543-949-11	BEAD, FERRITE (CHIP)	
FB308	1-543-949-11	BEAD, FERRITE (CHIP)	(AE5)
FB309	1-543-949-11	BEAD, FERRITE (CHIP)	
FB310	1-543-949-11	BEAD, FERRITE (CHIP)	
FB311	1-543-949-11	BEAD, FERRITE (CHIP)	
FB312	1-543-949-11	BEAD, FERRITE (CHIP)	
FB313	1-543-949-11	BEAD, FERRITE (CHIP)	
FB314	1-543-949-11	BEAD, FERRITE (CHIP)	
FB315	1-543-949-11	BEAD, FERRITE (CHIP)	(EXCEPT AE5)
FB316	1-543-949-11	BEAD, FERRITE (CHIP)	(EXCEPT AE5)
FB317	1-543-949-11	BEAD, FERRITE (CHIP)	(EXCEPT AE5)
FB318	1-543-949-11	BEAD, FERRITE (CHIP)	(EXCEPT AE5)
FB501	1-543-949-11	BEAD, FERRITE (CHIP)	
FB603	1-543-949-11	BEAD, FERRITE (CHIP)	
FB604	1-543-954-21	BEAD, FERRITE (CHIP)	
FB606	1-543-949-11	BEAD, FERRITE (CHIP)	
FB607	1-543-949-11	BEAD, FERRITE (CHIP)	
FB608	1-543-949-11	BEAD, FERRITE (CHIP)	
FB609	1-543-949-11	BEAD, FERRITE (CHIP)	
FB610	1-543-949-11	BEAD, FERRITE (CHIP)	
FB801	1-543-949-11	BEAD, FERRITE (CHIP)	
		< IC >	
IC303	8-759-085-04	IC M51132FP-E1	
IC304	8-759-103-25	IC uPD4053BG	
IC305	8-759-080-34	IC TA75W01FU	
IC306	8-759-080-34	IC TA75W01FU	
IC307	8-759-097-92	IC NJM2100V	
IC308	8-759-097-92	IC NJM2100V	
IC309	8-759-085-06	IC AK4501-VS	
IC310	8-759-097-92	IC NJM2100V	
IC311	8-759-510-56	IC BA3570FS	
IC312	8-759-234-77	IC TC4S66F	
IC314	8-759-097-92	IC NJM2100V	
IC315	8-759-161-52	IC S-81250PG-PD-S	
IC410	8-759-161-50	IC S-81240PG-PJ-S	
IC501	8-752-064-34	IC CXA1381R	
IC502	8-752-064-33	IC CXA1380N	
IC503	8-759-053-34	IC uPD74HC4053G	
IC504	8-759-053-34	IC uPD74HC4053G	
IC505	8-759-080-34	IC TA75W01FU	
IC506	8-759-035-26	IC SC7S08F	
IC507	8-752-055-94	IC CXA1602R	
IC508	8-759-053-34	IC uPD74HC4053G	

Ref. No.	Part No.	Description	Remark
IC509	8-759-084-72	IC MPC1718FU	
IC510	8-759-031-84	IC SC7S04F	
IC511	8-759-710-79	IC NJM2107F	
IC512	8-759-710-79	IC NJM2107F	
IC513	8-759-234-77	IC TC4S66F	
IC514	8-759-087-73	IC S-80745AN-D9	
IC515	8-759-234-20	IC TC7S08F	
IC516	8-759-082-61	IC TC4W53FU	
IC517	8-759-082-61	IC TC4W53FU	
IC518	8-759-710-79	IC NJM2107F	
IC519	8-759-234-77	IC TC4S66F	
IC520	8-759-710-79	IC NJM2107F	
IC521	8-759-157-68	IC PGLAD-048-ELL2000	
IC522	8-759-082-61	IC TC4W53FU	
IC601	8-752-352-18	IC CXD2525R	
IC602	8-752-354-57	IC CXD2526Q	
IC603	8-752-356-18	IC CXD2527R-1	
IC604	8-752-355-96	IC CXD2527R	
IC605	8-759-160-77	IC MS514400AL-80VC	
IC606	8-759-082-61	IC TC4W53FU	
IC607	8-759-710-79	IC NJM2107F	
IC608	8-759-097-92	IC NJM2100V	
IC609	8-759-083-94	IC TC7W74FU	
IC610	8-759-234-20	IC TC7S08F	
IC611	8-759-031-84	IC SC7S04F	
IC612	8-759-083-94	IC TC7W74FU	
IC613	8-759-035-93	IC SC7S32F	
IC614	8-759-035-26	IC SC7S08F	
IC615	8-759-035-93	IC SC7S32F	
IC801	8-752-844-55	IC CXP81740-603Q	
IC802	8-759-908-81	IC MB3763PF	
IC803	8-759-056-84	IC S-8420AF	
IC804	8-759-087-73	IC S-80745AN-D9-T1	
IC805	8-759-082-57	IC TC7W04FU	
IC806	8-759-031-84	IC SC7S04F	
IC807	8-759-161-50	IC S-81240PG-PJ-T1	
IC808	8-759-031-84	IC SC7S04F	
		< JACK >	
J301	8-749-923-95	IC GP1F351R (OPTICAL(DIGITAL)/LINE IN)	
J302	1-568-593-21	JACK 1P (MIC(PLUG IN POWER)	
J303	1-569-809-11	JACK (SMALL TYPE) (Ω)	
J304	8-749-923-96	IC GP1F351T (OPTICAL(DIGITAL)/LINE OUT)	
J401	1-580-428-11	JACK, DC (DC IN 10.5V)	
		< COIL >	
L301	1-412-029-11	INDUCTOR CHIP 10uH	
L302	1-412-032-11	INDUCTOR CHIP 100uH	
L303	1-412-032-11	INDUCTOR CHIP 100uH	

MAIN

Ref. No.	Part No.	Description		Remark
L304	1-412-029-11	INDUCTOR CHIP	10uH	
L306	1-410-997-31	INDUCTOR CHIP	2.2uH	
L501	1-412-029-11	INDUCTOR CHIP	10uH	
L502	1-412-029-11	INDUCTOR CHIP	10uH	
L503	1-412-029-11	INDUCTOR CHIP	10uH	
L504	9-910-999-33	INDUCTOR	560UH	
L505	1-414-203-11	INDUCTOR	100uH	
L506	1-414-203-11	INDUCTOR	100uH	
L507	1-414-203-11	INDUCTOR	100uH	
L508	1-414-203-11	INDUCTOR	100uH	
L510	1-412-011-31	INDUCTOR CHIP	27uH	
L511	1-412-032-11	INDUCTOR CHIP	100uH	
L601	1-412-029-11	INDUCTOR CHIP	10uH	
L602	1-412-029-11	INDUCTOR CHIP	10uH	
L603	1-414-200-21	INDUCTOR	1uH	
L604	1-414-201-21	INDUCTOR	5.6uH	
L605	1-412-029-11	INDUCTOR CHIP	10uH	
L606	1-412-029-11	INDUCTOR CHIP	10uH	
		< LINE FILTER >		
LF301	1-402-984-21	FILTER, COMMON MODE		
LF302	1-402-984-21	FILTER, COMMON MODE		
LF304	1-402-984-21	FILTER, COMMON MODE		
LF401	1-402-951-11	COIL, LINE FILTER		
		< IC LINK >		
⚠PS401	1-533-282-21	LINK, IC		
		< TRANSISTOR >		
Q101	8-729-144-16	TRANSISTOR	2SD2228-D44D45	
Q102	8-729-144-16	TRANSISTOR	2SD2228-D44D45	
Q103	8-729-144-16	TRANSISTOR	2SD2228-D44D45	
Q105	8-729-144-16	TRANSISTOR	2SD2228-D44D45	
Q201	8-729-144-16	TRANSISTOR	2SD2228-D44D45	
Q202	8-729-144-16	TRANSISTOR	2SD2228-D44D45	
Q203	8-729-144-16	TRANSISTOR	2SD2228-D44D45	
Q205	8-729-144-16	TRANSISTOR	2SD2228-D44D45	
Q301	8-729-144-16	TRANSISTOR	2SD2228-D44D45	
Q302	8-729-907-39	TRANSISTOR	IMD2	
Q303	8-729-906-33	TRANSISTOR	DTC114YU	
Q304	8-729-906-33	TRANSISTOR	DTC114YU	
Q306	8-729-907-39	TRANSISTOR	IMD2	
Q307	8-729-907-39	TRANSISTOR	IMD2	
Q309	8-729-402-84	TRANSISTOR	XN4601	
Q310	8-729-402-84	TRANSISTOR	XN4601	
Q311	8-729-905-12	TRANSISTOR	DTA144EU	
Q312	8-729-924-31	TRANSISTOR	DTA114WU	
Q401	8-729-421-71	TRANSISTOR	2SK620	

Ref. No.	Part No.	Description		Remark
Q402	8-729-421-71	TRANSISTOR	2SK620	
Q409	8-729-907-00	TRANSISTOR	DTC114EU	
Q445	8-729-924-31	TRANSISTOR	DTA114WU	
Q446	8-729-905-12	TRANSISTOR	DTA144EU	
Q447	8-729-924-65	TRANSISTOR	DTC123YU	
Q448	8-729-905-12	TRANSISTOR	DTA144EU	
Q449	8-729-924-65	TRANSISTOR	DTC123YU	
Q450	8-729-905-12	TRANSISTOR	DTA144EU	
Q451	8-729-924-65	TRANSISTOR	DTC123YU	
Q452	8-729-905-18	TRANSISTOR	DTC144EU	
Q501	8-729-101-07	TRANSISTOR	2SB798-DL	
Q502	8-729-216-22	TRANSISTOR	2SA1162-G	
Q503	8-729-922-10	TRANSISTOR	2SA1577-QR	
Q506	8-729-905-61	TRANSISTOR	DTC124EU	
Q508	8-729-420-74	TRANSISTOR	2SD1328-RST	
Q509	8-729-905-61	TRANSISTOR	DTC124EU	
Q510	8-729-905-12	TRANSISTOR	DTA144EU	
Q512	8-729-905-61	TRANSISTOR	DTC124EU	
Q513	8-729-402-84	TRANSISTOR	XN4601	
Q514	8-729-922-10	TRANSISTOR	2SA1577-QR	
Q516	8-729-924-68	TRANSISTOR	DTC114WU	
Q518	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q519	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q520	8-729-144-16	TRANSISTOR	2SD2228-D44D45	
Q801	8-729-905-12	TRANSISTOR	DTA144EU	
Q802	8-729-906-33	TRANSISTOR	DTC114YU	
Q803	8-729-905-18	TRANSISTOR	DTC144EU	
Q804	8-729-922-10	TRANSISTOR	2SA1577-QR	
Q805	8-729-905-18	TRANSISTOR	DTC144EU	
Q806	8-729-824-26	TRANSISTOR	2SA1338-5-TA	
Q807	8-729-905-12	TRANSISTOR	DTA144EU	
		< RESISTOR >		
R101	1-216-817-11	METAL CHIP	470 5% 1/16W	
R102	1-216-864-11	METAL CHIP	0 5% 1/16W	(EXCEPT AE5)
R103	1-218-732-11	METAL CHIP	47K 0.50% 1/16W	
R104	1-216-857-11	METAL CHIP	1M 5% 1/16W	
R112	1-216-864-11	METAL CHIP	0 5% 1/16W	
R113	1-218-738-11	METAL CHIP	82K 0.50% 1/16W	
R114	1-218-740-11	METAL CHIP	100K 0.50% 1/16W	
R115	1-218-721-11	METAL CHIP	16K 0.50% 1/16W	
R116	1-216-795-11	METAL CHIP	6.8K 0.50% 1/16W	
R117	1-218-716-11	METAL CHIP	10K 0.50% 1/16W	
R118	1-216-821-11	METAL CHIP	1K 5% 1/16W	
R119	1-216-821-11	METAL CHIP	1K 5% 1/16W	
R120	1-218-724-11	METAL CHIP	22K 0.50% 1/16W	
R121	1-218-724-11	METAL CHIP	22K 0.50% 1/16W	

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

Ref. No.	Part No.	Description				Remark
R122	1-218-724-11	METAL CHIP	22K	0.50%	1/16W	
R123	1-218-724-11	METAL CHIP	22K	0.50%	1/16W	
R124	1-218-883-11	METAL CHIP	33K	0.50%	1/16W	
R125	1-218-883-11	METAL CHIP	33K	0.50%	1/16W	
R126	1-218-736-11	METAL CHIP	68K	0.50%	1/16W	
R127	1-218-736-11	METAL CHIP	68K	0.50%	1/16W	
R128	1-218-705-11	METAL CHIP	3.6K	0.50%	1/16W	
R129	1-216-823-11	METAL CHIP	1.5K	5%	1/16W	
R130	1-216-857-11	METAL CHIP	1M	5%	1/16W	
R131	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R132	1-216-813-11	METAL CHIP	220	5%	1/16W	
R133	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W	
R134	1-218-724-11	METAL CHIP	22K	0.50%	1/16W	
R135	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R136	1-216-800-11	METAL GLAZE	18	5%	1/16W	
R137	1-216-821-11	METAL CHIP	1K	5%	1/16W	
R138	1-216-799-11	METAL CHIP	15	5%	1/16W	
R140	1-216-864-11	METAL CHIP	0	5%	1/16W	
R142	1-216-821-11	METAL CHIP	1K	5%	1/16W	
R146	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R147	1-216-815-11	METAL CHIP	330	5%	1/16W	
R149	1-218-704-11	METAL CHIP	3.3K	0.50%	1/16W	
R150	1-216-842-11	METAL CHIP	56K	5%	1/16W	
R156	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R157	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W	
R158	1-218-740-11	METAL CHIP	100K	0.50%	1/16W	
R159	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W	
R201	1-216-817-11	METAL CHIP	470	5%	1/16W	
R202	1-216-864-11	METAL CHIP	0	5%	1/16W	(EXCEPT AE5)
R203	1-218-732-11	METAL CHIP	47K	0.50%	1/16W	
R204	1-216-857-11	METAL CHIP	1M	5%	1/16W	
R212	1-216-864-11	METAL CHIP	0	5%	1/16W	
R213	1-218-738-11	METAL CHIP	82K	0.50%	1/16W	
R214	1-218-740-11	METAL CHIP	100K	0.50%	1/16W	
R215	1-218-721-11	METAL CHIP	16K	0.50%	1/16W	
R216	1-216-795-11	METAL CHIP	6.8K	0.50%	1/16W	
R217	1-218-716-11	METAL CHIP	10K	0.50%	1/16W	
R218	1-216-821-11	METAL CHIP	1K	5%	1/16W	
R219	1-216-821-11	METAL CHIP	1K	5%	1/16W	
R220	1-218-724-11	METAL CHIP	22K	0.50%	1/16W	
R221	1-218-724-11	METAL CHIP	22K	0.50%	1/16W	
R222	1-218-724-11	METAL CHIP	22K	0.50%	1/16W	
R223	1-218-724-11	METAL CHIP	22K	0.50%	1/16W	
R224	1-218-883-11	METAL CHIP	33K	0.50%	1/16W	
R225	1-218-883-11	METAL CHIP	33K	0.50%	1/16W	
R226	1-218-736-11	METAL CHIP	68K	0.50%	1/16W	
R227	1-218-736-11	METAL CHIP	68K	0.50%	1/16W	
R228	1-218-705-11	METAL CHIP	3.6K	0.50%	1/16W	

Ref. No.	Part No.	Description				Remark
R229	1-216-823-11	METAL CHIP	1.5K	5%	1/16W	
R230	1-216-857-11	METAL CHIP	1M	5%	1/16W	
R231	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R232	1-218-676-11	METAL CHIP	220	0.50%	1/16W	
R233	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W	
R234	1-218-724-11	METAL CHIP	22K	0.50%	1/16W	
R235	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R236	1-216-800-11	METAL GLAZE	18	5%	1/16W	
R237	1-216-821-11	METAL CHIP	1K	5%	1/16W	
R238	1-216-799-11	METAL CHIP	15	5%	1/16W	
R240	1-216-864-11	METAL CHIP	0	5%	1/16W	
R242	1-216-821-11	METAL CHIP	1K	5%	1/16W	
R246	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R247	1-216-815-11	METAL CHIP	330	5%	1/16W	
R249	1-218-704-11	METAL CHIP	3.3K	0.50%	1/16W	
R250	1-216-842-11	METAL CHIP	56K	5%	1/16W	
R256	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R257	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W	
R258	1-218-740-11	METAL CHIP	100K	0.50%	1/16W	
R259	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W	
R303	1-216-864-11	METAL CHIP	0	5%	1/16W	(EXCEPT AE5)
R304	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R307	1-216-841-11	METAL CHIP	47K	5%	1/16W	
R308	1-216-821-11	METAL CHIP	1K	5%	1/16W	
R309	1-218-716-11	METAL CHIP	10K	0.50%	1/16W	
R310	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R311	1-218-736-11	METAL CHIP	68K	0.50%	1/16W	
R313	1-218-723-11	METAL CHIP	20K	0.50%	1/16W	
R314	1-218-723-11	METAL CHIP	20K	0.50%	1/16W	
R315	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W	
R316	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W	
R317	1-216-864-11	METAL CHIP	0	5%	1/16W	(EXCEPT AE5)
R318	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	
R319	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	
R320	1-216-864-11	METAL CHIP	0	5%	1/16W	
R321	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R322	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R323	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R324	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R325	1-216-857-11	METAL CHIP	1M	5%	1/16W	
R326	1-216-864-11	METAL CHIP	0	5%	1/16W	
R330	1-216-864-11	METAL CHIP	0	5%	1/16W	
R332	1-218-704-11	METAL CHIP	3.3K	0.50%	1/16W	
R333	1-216-822-11	METAL CHIP	1.2K	5%	1/16W	
R334	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W	
R338	1-216-864-11	METAL CHIP	0	5%	1/16W	

MAIN

Ref. No.	Part No.	Description				Remark
R339	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W	
R340	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R341	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R342	1-216-823-11	METAL CHIP	1.5K	5%	1/16W	
R343	1-216-841-11	METAL CHIP	47K	5%	1/16W	
R345	1-216-835-11	METAL CHIP	15K	5%	1/16W	
R346	1-216-817-11	METAL CHIP	470	5%	1/16W	
R347	1-218-724-11	METAL CHIP	22K	0.50%	1/16W	
R348	1-216-864-11	METAL CHIP	0	5%	1/16W	
R349	1-216-864-11	METAL CHIP	0	5%	1/16W	
R350	1-218-698-11	METAL CHIP	1.8K	0.50%	1/16W	
R351	1-218-698-11	METAL CHIP	1.8K	0.50%	1/16W	
R352	1-218-732-11	METAL CHIP	47K	0.50%	1/16W	
R353	1-216-841-11	METAL CHIP	47K	5%	1/16W	
R354	1-216-864-11	METAL GLAZE	0	5%	1/16W	
R356	1-216-804-11	METAL CHIP	39K	5%	1/16W	
R357	1-218-740-11	METAL CHIP	100K	0.50%	1/16W	
R358	1-216-857-11	METAL CHIP	1M	5%	1/16W	
R359	1-216-864-11	METAL CHIP	0	5%	1/16W	(AE5)
R360	1-216-864-11	METAL CHIP	0	5%	1/16W	(AE5)
R361	1-216-864-11	METAL CHIP	0	5%	1/16W	(AE5)
R362	1-216-864-11	METAL CHIP	0	5%	1/16W	(AE5)
R366	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	
R367	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	
R369	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R370	1-216-830-11	METAL CHIP	5.6K	5%	1/16W	
R371	1-216-821-11	METAL CHIP	1K	5%	1/16W	
R372	1-216-841-11	METAL CHIP	47K	5%	1/16W	
R373	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R374	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R375	1-216-851-11	METAL CHIP	330K	5%	1/16W	
R376	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R377	1-216-851-11	METAL CHIP	330K	5%	1/16W	
R378	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R379	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R380	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R382	1-218-293-11	METAL GLAZE	24K	5%	1/16W	
R383	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R384	1-216-864-11	METAL CHIP	0	5%	1/16W	
R387	1-216-864-11	METAL CHIP	0	5%	1/16W	
R388	1-216-864-11	METAL CHIP	0	5%	1/16W	
R402	1-216-841-11	METAL CHIP	47K	5%	1/16W	
R441	1-216-864-11	METAL CHIP	0	5%	1/16W	
R442	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W	
R443	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	
R501	1-216-847-11	METAL CHIP	150K	5%	1/16W	
R502	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R503	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R504	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R505	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R506	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R507	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R508	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R509	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R510	1-216-848-11	METAL CHIP	180K	5%	1/16W	
R511	1-216-857-11	METAL CHIP	1M	5%	1/16W	
R512	1-218-448-11	METAL GLAZE	430K	5%	1/16W	
R513	1-216-857-11	METAL CHIP	1M	5%	1/16W	
R514	1-216-838-11	METAL CHIP	27K	5%	1/16W	
R515	1-216-848-11	METAL CHIP	180K	5%	1/16W	
R516	1-216-844-11	METAL CHIP	82K	5%	1/16W	
R517	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R518	1-216-830-11	METAL CHIP	5.6K	5%	1/16W	
R519	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	
R520	1-216-857-11	METAL CHIP	1M	5%	1/16W	
R521	1-216-838-11	METAL CHIP	27K	5%	1/16W	
R522	1-216-838-11	METAL CHIP	27K	5%	1/16W	
R523	1-216-838-11	METAL CHIP	27K	5%	1/16W	
R524	1-216-838-11	METAL CHIP	27K	5%	1/16W	
R525	1-216-838-11	METAL CHIP	27K	5%	1/16W	
R526	1-218-738-11	METAL CHIP	82K	0.50%	1/16W	
R527	1-216-838-11	METAL CHIP	27K	5%	1/16W	
R528	1-218-738-11	METAL CHIP	82K	0.50%	1/16W	
R529	1-216-838-11	METAL CHIP	27K	5%	1/16W	
R530	1-216-849-11	METAL CHIP	220K	5%	1/16W	
R533	1-216-815-11	METAL CHIP	330	5%	1/16W	
R534	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R535	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R536	1-216-001-00	METAL CHIP	10	5%	1/10W	
R538	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	
R539	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	
R540	1-218-704-11	METAL CHIP	3.3K	0.50%	1/16W	
R541	1-216-832-11	METAL CHIP	8.2K	5%	1/16W	
R542	1-216-832-11	METAL CHIP	8.2K	5%	1/16W	
R543	1-216-832-11	METAL CHIP	8.2K	5%	1/16W	
R544	1-216-832-11	METAL CHIP	8.2K	5%	1/16W	
R545	1-218-287-11	METAL GLAZE	200	5%	1/16W	
R546	1-216-821-11	METAL CHIP	1K	5%	1/16W	
R547	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	
R548	1-216-841-11	METAL CHIP	47K	5%	1/16W	
R549	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	
R550	1-216-841-11	METAL CHIP	47K	5%	1/16W	
R551	1-216-857-11	METAL CHIP	1M	5%	1/16W	
R552	1-216-864-11	METAL CHIP	0	5%	1/16W	
R553	1-216-832-11	METAL CHIP	8.2K	5%	1/16W	
R554	1-216-839-11	METAL CHIP	33K	5%	1/16W	
R556	1-216-833-11	METAL CHIP	10K	5%	1/16W	

Ref. No.	Part No.	Description			Remark
R558	1-216-835-11	METAL CHIP	15K	5%	1/16W
R559	1-216-845-11	METAL CHIP	100K	5%	1/16W
R561	1-216-845-11	METAL CHIP	100K	5%	1/16W
R562	1-216-845-11	METAL CHIP	100K	5%	1/16W
R563	1-218-724-11	METAL CHIP	22K	0.50%	1/16W
R564	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R565	1-218-698-11	METAL CHIP	1.8K	0.50%	1/16W
R566	1-216-839-11	METAL CHIP	33K	5%	1/16W
R567	1-216-854-11	METAL CHIP	560K	5%	1/16W
R568	1-216-845-11	METAL CHIP	100K	5%	1/16W
R569	1-216-821-11	METAL CHIP	1K	5%	1/16W
R570	1-218-736-11	METAL CHIP	68K	0.50%	1/16W
R571	1-216-864-11	METAL CHIP	0	5%	1/16W
R572	1-218-724-11	METAL CHIP	22K	0.50%	1/16W
R573	1-218-724-11	METAL CHIP	22K	0.50%	1/16W
R574	1-216-848-11	METAL CHIP	180K	5%	1/16W
R575	1-218-704-11	METAL CHIP	3.3K	0.50%	1/16W
R577	1-216-857-11	METAL CHIP	1M	5%	1/16W
R578	1-218-740-11	METAL CHIP	100K	0.50%	1/16W
R579	1-216-795-11	METAL CHIP	6.8K	0.50%	1/16W
R581	1-216-817-11	METAL CHIP	470	5%	1/16W
R582	1-216-850-11	METAL CHIP	270K	5%	1/16W
R583	1-216-833-11	METAL CHIP	10K	5%	1/16W
R584	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W
R585	1-216-857-11	METAL CHIP	1M	5%	1/16W
R586	1-218-732-11	METAL CHIP	47K	0.50%	1/16W
R587	1-218-732-11	METAL CHIP	47K	0.50%	1/16W
R588	1-216-833-11	METAL CHIP	10K	5%	1/16W
R589	1-216-820-11	METAL CHIP	820	5%	1/16W
R592	1-216-845-11	METAL CHIP	100K	5%	1/16W
R593	1-216-845-11	METAL CHIP	100K	5%	1/16W
R594	1-216-845-11	METAL CHIP	100K	5%	1/16W
R595	1-216-841-11	METAL CHIP	47K	5%	1/16W
R596	1-216-864-11	METAL CHIP	0	5%	1/16W
R597	1-216-833-11	METAL CHIP	10K	5%	1/16W
R598	1-216-864-11	METAL CHIP	0	5%	1/16W
R599	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R601	1-216-835-11	METAL CHIP	15K	5%	1/16W
R602	1-216-833-11	METAL CHIP	10K	5%	1/16W
R603	1-216-795-11	METAL CHIP	6.8K	0.50%	1/16W
R604	1-216-845-11	METAL CHIP	100K	5%	1/16W
R605	1-216-835-11	METAL CHIP	15K	5%	1/16W
R606	1-216-841-11	METAL CHIP	47K	5%	1/16W
R607	1-216-841-11	METAL CHIP	47K	5%	1/16W
R608	1-216-795-11	METAL CHIP	6.8K	0.50%	1/16W
R609	1-216-833-11	METAL CHIP	10K	5%	1/16W
R610	1-216-833-11	METAL CHIP	10K	5%	1/16W
R611	1-216-795-11	METAL CHIP	6.8K	0.50%	1/16W
R612	1-216-845-11	METAL CHIP	100K	5%	1/16W

Ref. No.	Part No.	Description			Remark
R613	1-216-833-11	METAL CHIP	10K	5%	1/16W
R614	1-218-704-11	METAL CHIP	3.3K	0.50%	1/16W
R615	1-216-833-11	METAL CHIP	10K	5%	1/16W
R616	1-218-331-11	METAL GLAZE	51K	5%	1/16W
R617	1-216-821-11	METAL CHIP	1K	5%	1/16W
R623	1-216-833-11	METAL CHIP	10K	5%	1/16W
R624	1-216-833-11	METAL CHIP	10K	5%	1/16W
R625	1-216-845-11	METAL CHIP	100K	5%	1/16W
R626	1-216-821-11	METAL CHIP	1K	5%	1/16W
R627	1-216-821-11	METAL CHIP	1K	5%	1/16W
R629	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R630	1-216-821-11	METAL CHIP	1K	5%	1/16W
R631	1-216-821-11	METAL CHIP	1K	5%	1/16W
R632	1-216-864-11	METAL CHIP	0	5%	1/16W
R633	1-218-676-11	METAL CHIP	220	0.50%	1/16W
R634	1-216-841-11	METAL CHIP	47K	5%	1/16W
R636	1-216-857-11	METAL CHIP	1M	5%	1/16W
R637	1-216-857-11	METAL CHIP	1M	5%	1/16W
R638	1-216-857-11	METAL CHIP	1M	5%	1/16W
R639	1-216-857-11	METAL CHIP	1M	5%	1/16W
R640	1-216-864-11	METAL CHIP	0	5%	1/16W
R641	1-216-864-11	METAL CHIP	0	5%	1/16W
R642	1-216-864-11	METAL CHIP	0	5%	1/16W
R643	1-216-864-11	METAL CHIP	0	5%	1/16W
R644	1-216-864-11	METAL CHIP	0	5%	1/16W
R645	1-216-864-11	METAL CHIP	0	5%	1/16W
R646	1-216-864-11	METAL CHIP	0	5%	1/16W
R647	1-216-864-11	METAL CHIP	0	5%	1/16W
R648	1-216-864-11	METAL CHIP	0	5%	1/16W
R649	1-216-864-11	METAL CHIP	0	5%	1/16W
R650	1-216-864-11	METAL CHIP	0	5%	1/16W
R651	1-216-864-11	METAL CHIP	0	5%	1/16W
R652	1-216-864-11	METAL CHIP	0	5%	1/16W
R655	1-216-841-11	METAL CHIP	47K	5%	1/16W
R656	1-216-841-11	METAL CHIP	47K	5%	1/16W
R657	1-216-821-11	METAL CHIP	1K	5%	1/16W
R660	1-216-864-11	METAL CHIP	0	5%	1/16W
R665	1-216-864-11	METAL CHIP	0	5%	1/16W
R669	1-218-698-11	METAL CHIP	1.8K	5%	1/16W
R670	1-216-864-11	METAL CHIP	0	5%	1/16W
R671	1-216-809-11	METAL CHIP	100	5%	1/16W
R802	1-216-821-11	METAL CHIP	1K	5%	1/16W
R803	1-216-821-11	METAL CHIP	1K	5%	1/16W
R811	1-216-814-11	METAL CHIP	270	5%	1/16W
R812	1-218-676-11	METAL CHIP	220	0.50%	1/16W
R814	1-216-857-11	METAL CHIP	1M	5%	1/16W
R816	1-216-845-11	METAL CHIP	100K	5%	1/16W
R820	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W

MAIN

Ref. No.	Part No.	Description			Remark
R821	1-216-821-11	METAL CHIP	1K	5%	1/16W
R824	1-216-833-11	METAL CHIP	10K	5%	1/16W
R825	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W
R826	1-216-833-11	METAL CHIP	10K	5%	1/16W
R828	1-218-675-11	METAL CHIP	200	0.50%	1/16W
R829	1-216-864-11	METAL CHIP	0	5%	1/16W
R833	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W
R834	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W
R836	1-216-841-11	METAL CHIP	47K	5%	1/16W
R837	1-216-841-11	METAL CHIP	47K	5%	1/16W
R839	1-216-841-11	METAL CHIP	47K	5%	1/16W
R840	1-216-841-11	METAL CHIP	47K	5%	1/16W
R841	1-216-841-11	METAL CHIP	47K	5%	1/16W
R842	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W
R845	1-216-841-11	METAL CHIP	47K	5%	1/16W
R848	1-216-841-11	METAL CHIP	47K	5%	1/16W
R849	1-216-841-11	METAL CHIP	47K	5%	1/16W
R850	1-216-841-11	METAL CHIP	47K	5%	1/16W
R851	1-216-841-11	METAL CHIP	47K	5%	1/16W
R852	1-216-841-11	METAL CHIP	47K	5%	1/16W
R870	1-216-864-11	METAL CHIP	0	5%	1/16W
R871	1-216-864-11	METAL CHIP	0	5%	1/16W
R874	1-216-821-11	METAL CHIP	1K	5%	1/16W
R875	1-216-864-11	METAL CHIP	0	5%	1/16W
R876	1-216-864-11	METAL CHIP	0	5%	1/16W
R877	1-216-864-11	METAL CHIP	0	5%	1/16W
R878	1-216-864-11	METAL CHIP	0	5%	1/16W
R879	1-216-864-11	METAL CHIP	0	5%	1/16W
R880	1-216-864-11	METAL CHIP	0	5%	1/16W
R881	1-216-864-11	METAL CHIP	0	5%	1/16W
R882	1-216-864-11	METAL CHIP	0	5%	1/16W
R883	1-216-864-11	METAL CHIP	0	5%	1/16W
R884	1-216-864-11	METAL CHIP	0	5%	1/16W
R885	1-216-864-11	METAL CHIP	0	5%	1/16W
R886	1-216-864-11	METAL CHIP	0	5%	1/16W
R887	1-216-864-11	METAL CHIP	0	5%	1/16W
R888	1-216-864-11	METAL CHIP	0	5%	1/16W
R889	1-216-864-11	METAL CHIP	0	5%	1/16W
R890	1-216-864-11	METAL CHIP	0	5%	1/16W
R891	1-216-851-11	METAL CHIP	330K	5%	1/16W
R892	1-216-864-11	METAL CHIP	0	5%	1/16W
R893	1-216-864-11	METAL CHIP	0	5%	1/16W
R894	1-216-845-11	METAL CHIP	100K	5%	1/16W
R896	1-216-845-11	METAL CHIP	100K	5%	1/16W
R897	1-216-853-11	METAL CHIP	470K	5%	1/16W
R898	1-216-851-11	METAL CHIP	330K	5%	1/16W
R899	1-216-809-11	METAL CHIP	100	5%	1/16W
R5000	1-216-820-11	METAL CHIP	820	5%	1/16W

Ref. No.	Part No.	Description			Remark
R5001	1-216-864-11	METAL CHIP	0	5%	1/16W
R5002	1-216-850-11	METAL CHIP	270K	5%	1/16W
R5003	1-216-864-11	METAL CHIP	0	5%	1/16W
R5005	1-216-851-11	METAL CHIP	330K	5%	1/16W
R5006	1-216-838-11	METAL CHIP	27K	5%	1/16W
R5007	1-216-851-11	METAL CHIP	330K	5%	1/16W
R5008	1-218-745-11	METAL CHIP	160K	0.50%	1/16W
R5011	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5014	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W
R5015	1-218-883-11	METAL CHIP	33K	0.50%	1/16W
R5017	1-218-736-11	METAL CHIP	68K	0.50%	1/16W
R5018	1-218-736-11	METAL CHIP	68K	0.50%	1/16W
R5020	1-216-857-11	METAL CHIP	1M	5%	1/16W
R5021	1-216-849-11	METAL CHIP	220K	5%	1/16W
R5022	1-216-835-11	METAL CHIP	15K	5%	1/16W
R5023	1-216-864-11	METAL CHIP	0	5%	1/16W
R5024	1-216-864-11	METAL CHIP	0	5%	1/16W
R5025	1-216-859-11	METAL GLAZE	1.5M	5%	1/16W
R5026	1-216-826-11	METAL CHIP	2.7K	5%	1/16W
R5027	1-216-832-11	METAL CHIP	8.2K	5%	1/16W
R5028	1-216-864-11	METAL CHIP	0	5%	1/16W
R5029	1-216-864-11	METAL CHIP	0	5%	1/16W
R5030	1-216-864-11	METAL CHIP	0	5%	1/16W
R5031	1-218-883-11	METAL CHIP	33K	0.50%	1/16W
R5033	1-216-864-11	METAL CHIP	0	5%	1/16W
R5034	1-216-857-11	METAL CHIP	1M	5%	1/16W
R5035	1-216-848-11	METAL CHIP	180K	5%	1/16W
R5036	1-218-883-11	METAL CHIP	33K	0.50%	1/16W
R5037	1-216-848-11	METAL CHIP	180K	5%	1/16W
R5038	1-218-883-11	METAL CHIP	33K	0.50%	1/16W
R5039	1-216-850-11	METAL CHIP	270K	5%	1/16W
R5040	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5041	1-216-841-11	METAL CHIP	47K	5%	1/16W
R5042	1-216-841-11	METAL CHIP	47K	5%	1/16W
R5043	1-216-864-11	METAL CHIP	0	5%	1/16W
R5044	1-216-864-11	METAL CHIP	0	5%	1/16W
R5045	1-216-864-11	METAL CHIP	0	5%	1/16W
R5046	1-216-864-11	METAL CHIP	0	5%	1/16W
R5047	1-216-864-11	METAL CHIP	0	5%	1/16W
R5048	1-216-864-11	METAL CHIP	0	5%	1/16W
R5049	1-216-864-11	METAL CHIP	0	5%	1/16W
R5050	1-216-864-11	METAL CHIP	0	5%	1/16W
R5051	1-216-864-11	METAL CHIP	0	5%	1/16W
R5052	1-216-864-11	METAL CHIP	0	5%	1/16W
R5053	1-216-864-11	METAL CHIP	0	5%	1/16W
R5054	1-216-864-11	METAL CHIP	0	5%	1/16W
R5055	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R5056	1-216-864-11	METAL CHIP	0	5%	1/16W

Ref. No.	Part No.	Description			Remark
R5058	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R5059	1-216-845-11	METAL CHIP	100K	5%	1/16W
R5060	1-216-865-11	METAL CHIP	3K	5%	1/16W
R5061	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5062	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5063	1-216-857-11	METAL CHIP	1M	5%	1/16W
R5065	1-216-836-11	METAL CHIP	18K	5%	1/16W
R5066	1-218-883-11	METAL CHIP	33K	0.50%	1/16W
R5067	1-218-883-11	METAL CHIP	33K	0.50%	1/16W
R5068	1-216-864-11	METAL CHIP	0	5%	1/16W
R5069	1-216-864-11	METAL CHIP	0	5%	1/16W
R5070	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5071	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5072	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5073	1-216-849-11	METAL CHIP	220K	5%	1/16W
R5074	1-216-849-11	METAL CHIP	220K	5%	1/16W
R5075	1-216-845-11	METAL CHIP	100K	5%	1/16W
R5076	1-216-853-11	METAL CHIP	470K	5%	1/16W
R5077	1-216-853-11	METAL CHIP	470K	5%	1/16W
R5078	1-216-853-11	METAL CHIP	470K	5%	1/16W
R5079	1-216-837-11	METAL CHIP	22K	5%	1/16W
R5080	1-218-330-11	METAL GLAZE	11K	5%	1/16W
R5081	1-216-837-11	METAL CHIP	22K	5%	1/16W
R5082	1-216-001-00	METAL CHIP	10	5%	1/10W
R5083	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5084	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5085	1-216-828-11	METAL CHIP	3.9K	5%	1/16W
R5086	1-216-864-11	METAL CHIP	0	5%	1/16W
R5087	1-216-864-11	METAL CHIP	0	5%	1/16W
R5091	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W
R5092	1-218-724-11	METAL CHIP	22K	0.50%	1/16W
R5093	1-216-860-11	METAL GLAZE	1.8M	5%	1/16W
R5096	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5097	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5098	1-216-841-11	METAL CHIP	47K	5%	1/16W
R5099	1-216-864-11	METAL CHIP	0	5%	1/16W
R5100	1-216-864-11	METAL CHIP	0	5%	1/16W
R5101	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5102	1-218-736-11	METAL CHIP	68K	0.50%	1/16W
R5105	1-216-835-11	METAL CHIP	15K	5%	1/16W
R5108	1-216-821-11	METAL CHIP	1K	5%	1/16W
R5109	1-216-864-11	METAL CHIP	0	5%	1/16W
R5110	1-216-835-11	METAL CHIP	15K	5%	1/16W
R5114	1-216-864-11	METAL CHIP	0	5%	1/16W
R5116	1-216-864-11	METAL CHIP	0	5%	1/16W
R5117	1-216-834-11	METAL CHIP	12K	5%	1/16W
R5118	1-216-864-11	METAL CHIP	0	5%	1/16W
R5200	1-216-864-11	METAL CHIP	0	5%	1/16W

Ref. No.	Part No.	Description			Remark
R5201	1-216-809-11	METAL CHIP	100	5%	1/16W
R5202	1-216-821-11	METAL CHIP	1K	5%	1/16W
R5203	1-216-864-11	METAL CHIP	0	5%	1/16W
R5205	1-216-833-11	METAL CHIP	10K	5%	1/16W
R5206	1-216-295-11	METAL CHIP	0	5%	1/10W
R5207	1-216-295-11	METAL CHIP	0	5%	1/10W
R5208	1-218-708-11	METAL CHIP	4.7K	0.50%	1/16W
R5209	1-216-845-11	METAL CHIP	100K	5%	1/16W
R5210	1-216-845-11	METAL CHIP	100K	5%	1/16W
R5212	1-216-849-11	METAL CHIP	220K	5%	1/16W
R5213	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R5216	1-216-864-11	METAL CHIP	0	5%	1/16W
R5217	1-216-864-11	METAL CHIP	0	5%	1/16W
R5218	1-216-864-11	METAL CHIP	0	5%	1/16W
R5219	1-216-849-11	METAL CHIP	220K	5%	1/16W
R5220	1-218-708-11	METAL CHIP	4.7K	5%	1/16W
R8001	1-216-857-11	METAL CHIP	1M	5%	1/16W
R8002	1-216-845-11	METAL CHIP	100K	5%	1/16W
R8003	1-216-821-11	METAL CHIP	1K	5%	1/16W
R8004	1-216-841-11	METAL CHIP	47K	5%	1/16W
R8005	1-216-863-11	METAL GLAZE	3.3M	5%	1/16W
R8006	1-216-853-11	METAL CHIP	470K	5%	1/16W
R8007	1-216-821-11	METAL CHIP	1K	5%	1/16W
R8008	1-216-819-11	METAL CHIP	680	5%	1/16W
R8009	1-216-845-11	METAL CHIP	100K	5%	1/16W
R8041	1-216-841-11	METAL CHIP	47K	5%	1/16W

< VARIABLE RESISTOR >

RV301	1-223-173-21	RES, VAR, CARBON	10K (REC LEVEL)
RV302	1-223-172-21	RES, VAR, CARBON	10K/10K (VOLUME)
RV501	1-238-089-11	RES, ADJ, CERMET	4.7K
RV502	1-238-091-11	RES, ADJ, CERMET	22K
RV503	1-238-090-11	RES, ADJ, CERMET	10K
RV504	1-238-090-11	RES, ADJ, CERMET	10K
RV505	1-223-270-21	RES, ADJ,	100
RV507	1-238-091-11	RES, ADJ, CERMET	22K
RV508	1-238-091-11	RES, ADJ, CERMET	22K
RV509	1-238-093-11	RES, ADJ, CERMET	100K
RV510	1-238-089-11	RES, ADJ, CERMET	4.7K
RV511	1-238-089-11	RES, ADJ, CERMET	4.7K
RV512	1-238-089-11	RES, ADJ, CERMET	4.7K
RV513	1-238-089-11	RES, ADJ, CERMET	4.7K
RV514	1-238-091-11	RES, ADJ, CERMET	22K
RV515	1-238-091-11	RES, ADJ, CERMET	22K
RV516	1-238-092-11	RES, ADJ, CERMET	47K
RV517	1-238-092-11	RES, ADJ, CERMET	47K
RV518	1-238-088-11	RES, ADJ, CERMET	2.2K
RV519	1-238-088-11	RES, ADJ, CERMET	2.2K

MAIN PTOC

Ref. No.	Part No.	Description			Remark
RV601	1-238-090-11	RES, ADJ, CERMET	10K		
RV602	1-238-090-11	RES, ADJ, CERMET	10K		
		< SWITCH >			
S801	1-572-467-31	SWITCH, PUSH (1 KEY) (EDIT)			
S802	1-572-694-21	SWITCH, KEY BOARD (REFLOW TYPE) (CLOCK SET)			
S803	1-572-467-31	SWITCH, PUSH (1 KEY) (REC)			
		< THERMISTOR >			
TH301	1-809-990-21	THERMISTOR NTH5G40B473K02TE			
TH302	1-809-990-21	THERMISTOR NTH5G40B473K02TE			
TH501	1-809-986-21	THERMISTOR NTH5G36B103K02TE			
		< VIBRATOR >			
X601	1-579-725-21	VIBRATOR, CRYSTAL (22MHz)			
X602	1-579-847-21	OSCILLATOR, CRYSTAL (55MHz)			
X801	1-579-709-11	VIBRATOR, CRYSTAL (32KHz)			
X802	1-579-846-21	VIBRATOR, CERAMIC (12MHz)			
**********					
*	1-648-595-12	PTOC BOARD			
		**********			
		< CAPACITOR >			
C691	1-135-264-21	TANTALUM CHIP	22uF	20%	10V
C692	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C693	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
		< DIODE >			
D691	8-719-941-09	DIODE	DAP202U		
D692	8-719-404-46	DIODE	MA110		
D693	8-719-404-46	DIODE	MA110		
		< IC >			
IC691	8-759-035-90	IC	SC7S02F		
IC692	8-759-082-57	IC	TC7W04FU		
		< REGISTOR >			
R691	1-216-849-11	METAL CHIP	220K	5%	1/16W
R692	1-216-849-11	METAL CHIP	220K	5%	1/16W
R693	1-216-833-11	METAL CHIP	10K	5%	1/16W
R694	1-216-845-11	METAL CHIP	100K	5%	1/16W

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