Panasonic®

PERSONAL MUSIC PA SYSTEM
SY-PA100

Before connecting, operating or adjusting this product, please read these instructions completely. Please keep this manual for future reference.

CAUTION

**RISK OF ELECTRIC SHOCK
DO NOT OPEN**

CAUTION   TO REDUCE THE RISK OF
ELECTRIC SHOCK, DO NOT
REMOVE SCREWS
NO USER-SERVICEABLE PARTS
INSIDE
REFER SERVICING TO QUALIFIED
SERVICE PERSONNEL

The lightning flash with arrowhe-
ad symbol, within an equilateral
triangle, is intended to alert the
user to the presence of uninsu-
lated "dangerous voltage" within
the product's enclosure that may
be of sufficient magnitude to
constitute a risk of electric shock
to persons

The exclamation point within an
equilateral triangle is intended to
alert the user to the presence of
important operating and mainte-
nance (servicing) instructions in
the literature accompanying the
appliance

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QQTG0647

BEFORE YOU PLAY, PLEASE READ THE
CAUTIONARY COPY APPEARING ON
PAGE 5

CAUTION:

This equipment has been tested and found to
comply with the limits for a Class B digital device,
pursuant to Part 15 of the FCC Rules These limits
are designed to provide reasonable protection
against harmful interference in a residential
installation This equipment generates, uses and
can radiate radio frequency energy and, if not
installed and used in accordance with the
instructions, may cause harmful interference to
radio communications However, there is no
guarantee that interference will not occur in a
particular installation If this equipment does cause
harmful interference to radio or television
reception, which can be determined by turning the
equipment off and on, the user is encouraged to
try to correct the interference by one or more of
the following measures

— Reorient or relocate the receiving antenna
— Increase the separation between the
  equipment and receiver
— Connect the equipment into an outlet on a
  circuit different from that to which the
  receiver is connected
— Consult the dealer or an experienced
  radio/TV technician for help

Any unauthorized changes or modifications to this
equipment would void the user's authority to
operate this device

This device complies with Part 15 of the FCC Rules
Operation is subject to the following two conditions
(1) This device may not cause harmful interference,
and (2) this device must accept any interference
received, including interference that may cause
undesired operation

CAUTION!

THIS PRODUCT UTILIZES A LASER
USE OF CONTROLS OR ADJUSTMENTS
OR PERFORMANCE OF PROCEDURES
OTHER THAN THOSE SPECIFIED HEREIN
MAY RESULT IN HAZARDOUS RADIATION
EXPOSURE
DO NOT OPEN COVERS AND DO NOT
REPAIR YOURSELF REFER SERVICING
TO QUALIFIED PERSONNEL

WARNING:

TO REDUCE THE RISK OF FIRE, ELEC-
TRIC SHOCK OR PRODUCT DAMAGE, DO
NOT EXPOSE THIS APPARATUS TO RAIN,
MOISTURE, DRIPPING OR SPLASHING
AND THAT NO OBJECTS FILLED WITH
LIQUIDS, SUCH AS VASES, SHALL BE
PLACED ON THE APPARATUS.

The model number and serial number are found
underneath the keyboard
Please note the model and serial numbers in the
space provided below and retain this sheet as a
permanent record of your purchase to aid
identification in the event of theft

MODEL NUMBER _____

SERIAL NUMBER _____

Dear customer

Thank you for purchasing this product
For optimum performance and safety, please read
these instructions carefully

Maintenance

The following suggestions will assist you in keeping
the unit in top condition
- Be sure to switch the instrument off after use,
  and do not switch the unit on and off in quick
  succession, as this places an undue load on the
  electronic components
- To keep the luster of the surface and buttons,
  simply use a clean, damp cloth, polish with a soft,
  dry cloth Polish may be used but do not use
  thinners or petro-chemical-based polishes
- A wax-based polish may be used on the cabinet,
  although you will find that rubbing with a soft cloth
  will suffice

■ Supplied accessory

Please check the supplied accessory

☑ ✎   □ AC cord

Note The included AC cord is for use with this
unit only Do not use it with other equipment

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IMPORTANT SAFETY INSTRUCTIONS

Read these operating instructions carefully before using the unit. Follow the safety instructions on the unit and the safety precautions listed below. Keep these operating instructions handy for future reference.

Safety

1. **Power Source**—Connect the unit to a power source of the type described in these instructions or as marked on the unit.

2. **Polarization**—The unit is equipped with a polarized power plug where one blade is wider than the other. This safety feature ensures that the plug fits into your household AC outlet only one way. If the plug doesn't fit one way, try reversing it. If the plug still doesn't fit, contact an electrician to replace the obsolete outlet. Do not attempt to defeat the safety purpose of the plug.

3. **Power Cord protection**—Route the AC power supply cord so that it will not be walked on or pinched by items placed on or against it. Never take hold of the plug or cord with wet hands. Always grasp the plug body firmly when connecting and disconnecting it.

4. **Overloading**—When connecting the AC power supply cord, be careful not to overload the household AC outlet, extension cord, or outlet from any other device as this can result in fire or electric shock.

5. **Nonuse periods**—Turn the unit off when it is not in use. Unplug the unit from the household AC outlet if it is not to be used for a long time. Unplug the unit during lightning storms.

6. **Attachments and accessories**—Use only the attachments and accessories recommended in these operating instructions.

Installation

Placement

1. **Ventilation**—Situate the unit so that it receives proper ventilation. Do not install in a confined space such as a bookcase or cabinet. Allow at least 10 cm (4 inches) clearance from the rear of the unit. To prevent the risk of electric shock or fire due to overheating, ensure curtains and other materials do not obstruct the unit's ventilation.

2. **Foreign material**—Ensure objects and liquids do not get into the unit. Avoid exposing the unit to excessive smoke, dust, mechanical vibration, and shock.

3. **Magnetism**—Situate the unit away from equipment and devices that generate strong magnetic fields.

4. **Stacking**—Do not place heavy objects on top of this unit.

5. **Surface**—Place the unit on a flat, level surface.

6. **Carts and stands**—Use the unit only with carts and stands recommended by the manufacturer. Move carts with care. Sudden stops, excessive force, and uneven surfaces can cause carts to overturn.

7. **Wall and ceiling mounting**—Do not mount the unit on walls or ceilings unless specified in the instructions.

Environmnet

1. **Water and moisture**—Do not use the unit near water, such as near a bathtub or swimming pool. Avoid damp basements.

2. **Heat**—Situate the unit away from heat sources, such as radiators.
   Do not situate where temperatures fall below 5°C (41°F) or rise above 35°C (95°F).

Maintenance

(See page 4 for details.)

Unplug the unit from the household AC outlet before cleaning.
Clean with a damp cloth.
Do not use abrasive pads, scouring powders, or solvents.

Service

1. **Damage Requiring Service**—The unit should be serviced by qualified service personnel if:
   (a) The AC power supply cord or the plug has been damaged, or
   (b) Objects or liquids have gotten into the unit, or
   (c) The unit has been exposed to rain, or
   (d) The unit does not operate normally or exhibits a marked change in performance, or
   (e) The unit has been dropped or the cabinet damaged.

2. **Servicing**—Do not attempt to service the unit beyond that described in these operating instructions. Refer all other servicing to authorized servicing personnel.

3. **Replacement parts**—When parts need replacing ensure the servicer uses parts specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other hazards.

4. **Safety check**—After repairs or service, ask the servicer to perform safety checks to confirm that the unit is in proper working condition.

Getting started

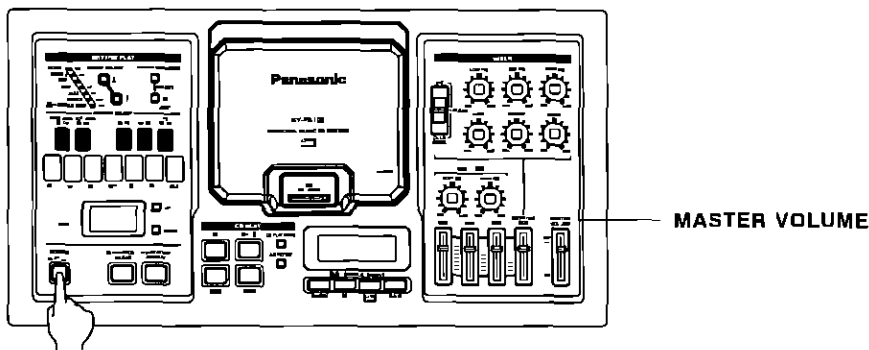**1** Plug the power cord into an outlet

<Rear panel>

Power cord (included)

AC IN
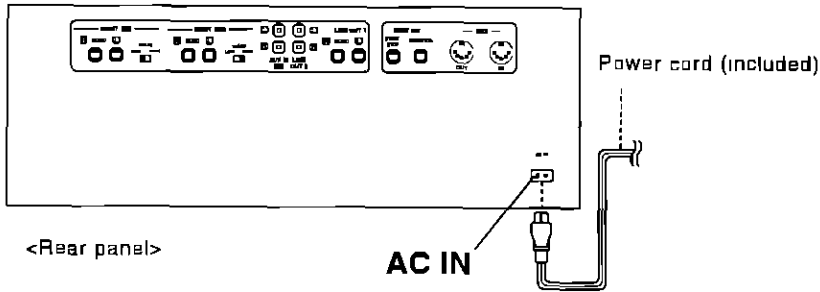
2 Connect a guitar to the **INPUT [4] GUITAR/MIC** terminal

<Front panel>
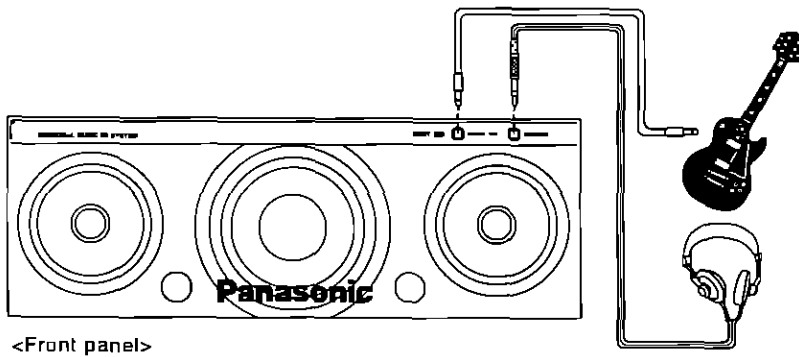
- You can also connect headphones to the **PHONES** terminal

3 Set the **MASTER VOLUME** to the **MIN** position, and then press the **POWER** button to turn it on
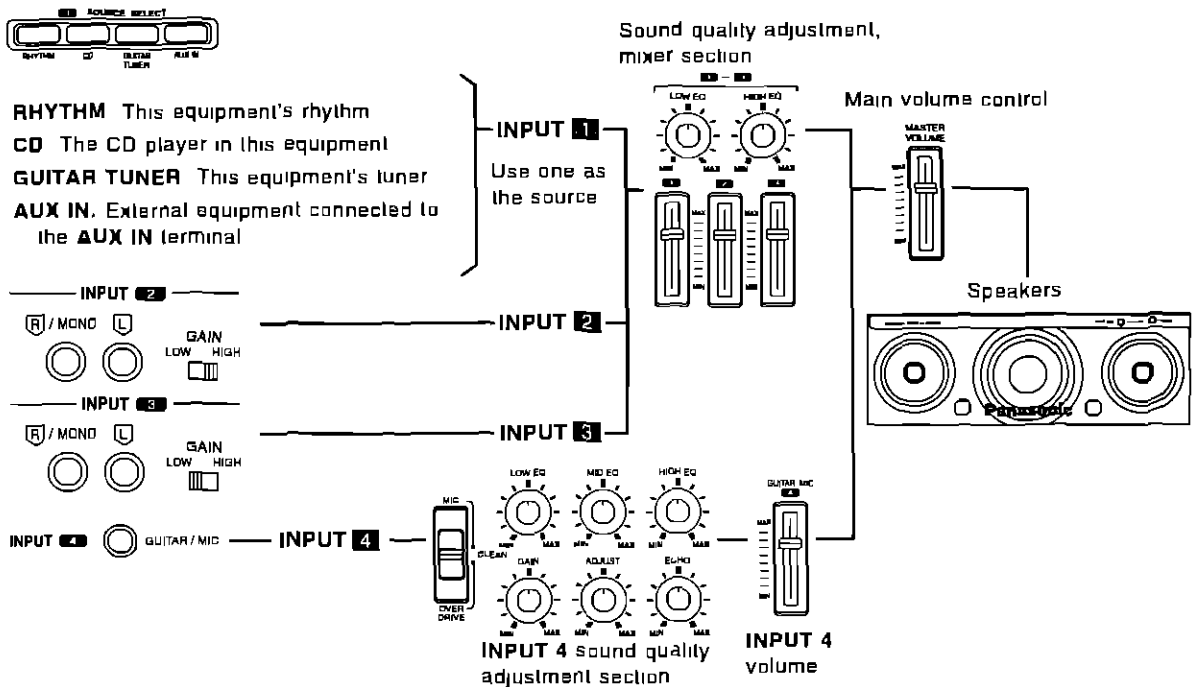
MASTER VOLUME

NOTE
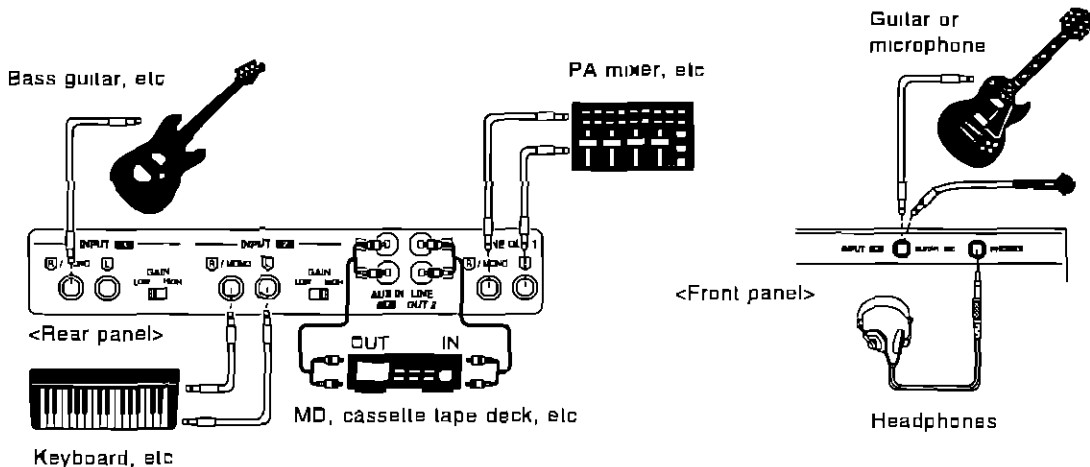- For adjusting the guitar sounds, refer to page 12

About the input terminals

This device has 4 input channels, **INPUT [1]** to **[4]**, which can be mixed and output as a mixed signal

Input/output diagram (overview)

RHYTHM This equipment's rhythm
CD The CD player in this equipment
GUITAR TUNER This equipment's tuner
AUX IN. External equipment connected to the **AUX IN** terminal

INPUT **2**

R / MONO L
GAIN
LOW HIGH

INPUT **3**

R / MONO L
GAIN
LOW HIGH

INPUT **4** GUITAR / MIC — INPUT **4**

INPUT **1**
Use one as the source

INPUT **2**

INPUT **3**

Sound quality adjustment, mixer section

LOW EQ HIGH EQ

Main volume control

MASTER VOLUME

Speakers

Panasonic

MIC
CLEAN
OVER-DRIVE

LOW EQ MID EQ HIGH EQ

GUITAR MIC

GAIN ADJUST ECHO

INPUT 4 sound quality adjustment section

INPUT 4 volume

Connection example

Bass guitar, etc

PA mixer, etc

Guitar or microphone

INPUT **3** — INPUT **2**
R / MONO L
GAIN
LOW HIGH
R / MONO L
GAIN
LOW HIGH
AUX IN LINE
OUT 2
R / MONO L
LINE OUT 1

<Front panel>

INPUT **4** GUITAR MIC PHONES

<Rear panel>

OUT IN
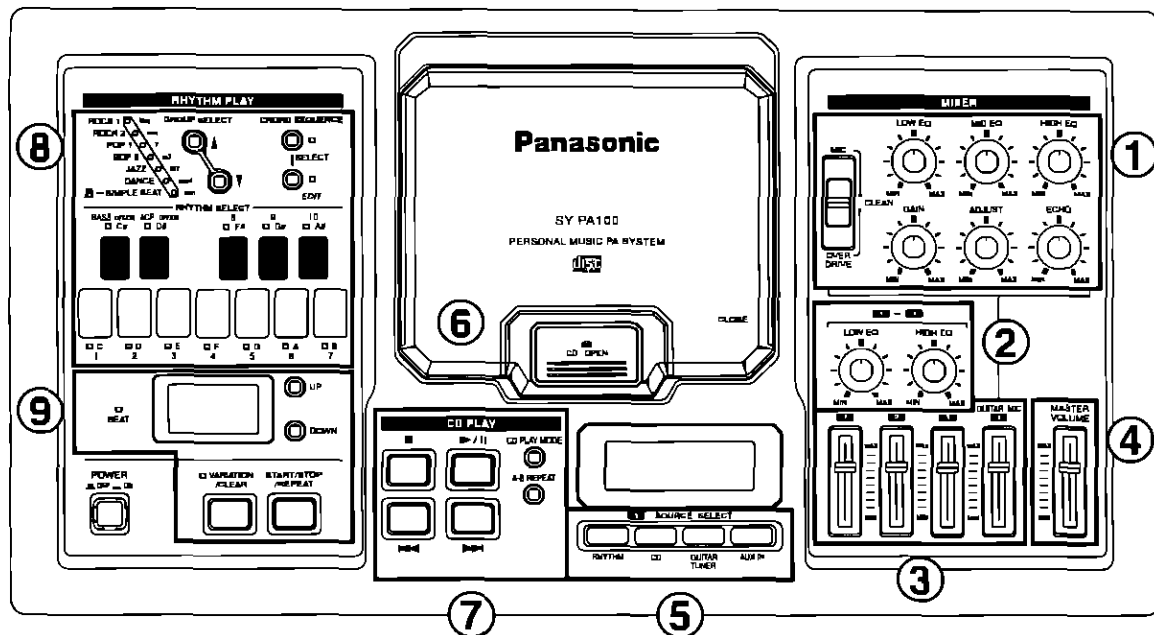
MD, cassette tape deck, etc

Headphones

Keyboard, etc

⇒ Connect all cords (sold separately) between the **PA100** and each input source device
• Be sure that the power to all equipment is turned off when connecting equipment

Stereo pin cord (sold separately) connection

White plug to left (L) terminal
Red plug to right (R) terminal
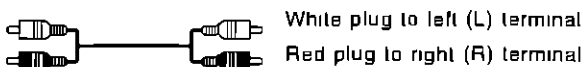
Controls and functions

Operation panel

MIXER section

(1) INPUT 4 sound quality adjustment section
Adjust the sound quality of the guitar or microphone connected to the **INPUT 4 GUITAR/MIC** terminal (Refer to page 12.)

(2) INPUT 1 to 3 sound quality section
Adjust the total sound quality from **INPUT 1, 2** and **3**

(3) Volume mixer section
Adjust the volume from **INPUT 1** to **4**

(4) MASTER VOLUME
Adjust the total volume of the **PA100**

(5) [1] SOURCE SELECT
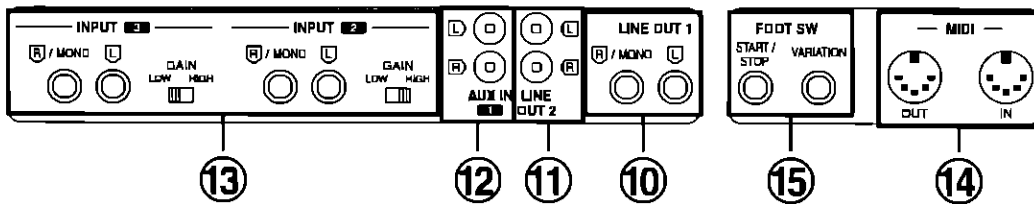Select an input source for **INPUT 1**

CD PLAY section

(6) CD cover
Open the cover to position a CD in the player

(7) CD operating section
Play a CD (Refer to page 10.)

RHYTHM PLAY section

(8) Rhythm select section
Select a rhythm and chord progression (Refer to pages 12 to 17.)

(9) Rhythm operation section
Start and stop the rhythm, and adjust the tempo (Refer to page 13.)

Rear panel

(10) LINE OUT 1 (stereo/monaural M6)

Output the sound from the **PA100** (The sound from this terminal is not affected by the **MASTER VOLUME** setting)
- To output monaural sound, connect to the **R/MONO** terminal, do not connect anything to the **L** terminal in this case

(11) LINE OUT 2 (stereo RCA pin plug)

Output the sound from the **PA100** (The sound from this terminal is not affected by the **MASTER VOLUME** setting)

(12) AUX IN 1 (stereo RCA pin plug)

Input stereo sound from external equipment

(13) INPUT 2, INPUT 3 (stereo/monaural M6)

Input sound from external equipment
- Use the **LOW/HIGH** switch to select the gain appropriate for the input source
- To input monaural sound, connect to the **R/MONO** terminal, do not connect anything to the **L** terminal in this case

(14) MIDI

IN The terminal to receive MIDI data
OUT The terminal to transmit MIDI data
- Use a commercially sold MIDI cable for these connections
- For MIDI operation, refer to page 18
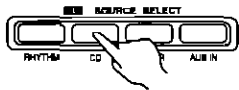
(15) FOOT SW

When a separately sold Foot Switch (**SZ-P1**) is connected, the **VARIATION** on/off and **START/STOP** can be controlled with your foot (Refer to page 13)
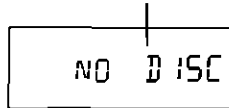
Playing a CD

You can play and listen to a CD on the **PA100** When playing back a CD, your guitar, elc performance can be mixed with the CD playback
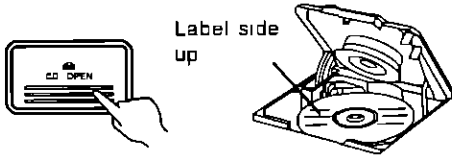
Playing a CD

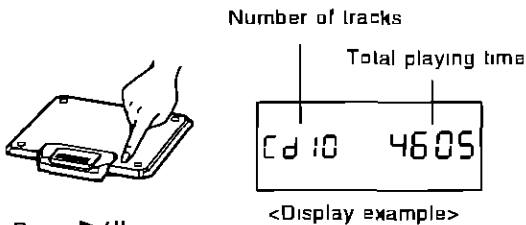1 In the [1] **SOURCE SELECT** section, press the **CD** button to turn it on
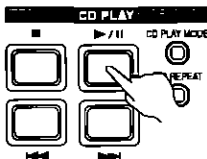
Indicates that no CD is inserted

NO DISC
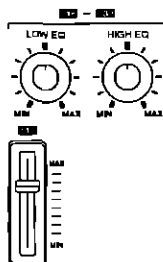
2 Open the CD cover, and insert a CD

Label side up

3 Close the CD cover

Number of tracks

Total playing time

Cd 10   4605

<Display example>

4 Press ▶/II

- Playback begins After the last track has been played, playback stops
- Adjust the volume with [1] Adjust the sound quality with [1] to [3] **EQ (LOW, HIGH)**

- To adjust the total volume, use the **MASTER VOLUME** control

□ To stop playback
Press ■

■ To skip a track
Press the ▶▶I (next) or I◄◄ (previous) button the number of times necessary to skip to the desired track

□ Fast forward, fast backtrack (search)
Press and hold ▶▶I (fast forward) or I◄◄ (rewind) during playback or pause

■ Pause
Press ▶/II during playback Press again to resume playback from the same point

1 song repeat

1 Select the song for repeat playback

2 Press the **CD PLAY MODE** button to display the 1 song repeat mark

1 song repeat mark

Cd 10   4605

<Display example>
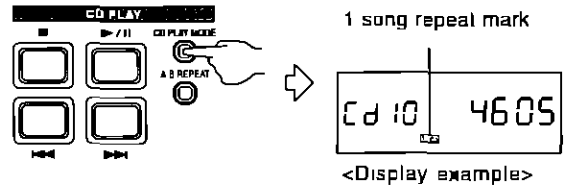
3 If it is during play stop, press the ▶/II button
- The selected song is played back repeatedly

All songs repeat

1 Press the **CD PLAY MODE** button to display the all song repeat mark

All song repeat mark

Cd 10   4605

<Display example>

2 If it is during play stop, press the ▶/II button
- All the CD tracks are played back repeatedly

Random play

1 Press the **CD PLAY MODE** button to display the random play mark

Random play mark

$$Cd \ 10 \qquad 4605$$

<Display example>

2 Press the ▶/Ⅱ button
- All the CD songs are played in random order, after which playback stops
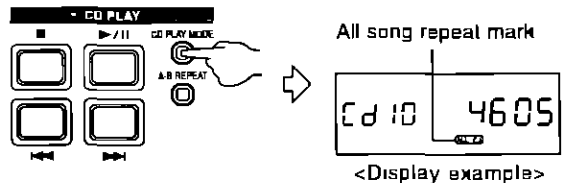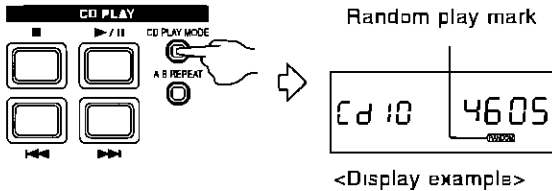
■ To exit all modes
⇒ Press the **CD PLAY MODE** button several times until all of the playback mode indicators are canceled
- Each time the button is pressed, the indication changes in the following order (loop) 1 song repeat → all songs repeat → random play → cancel
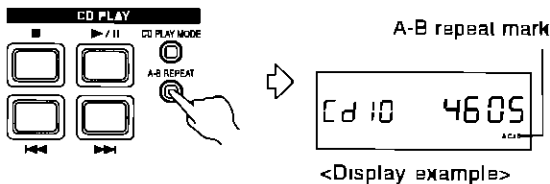
A-B repeat

You can specify a particular portion of the CD to play back repeatedly This feature is convenient, for example, when you want to copy phrases

1 During CD playback, press the **A-B REPEAT** button at the point you wish repeat play to begin (point A)

Lit

$$Cd \ 10 \qquad 4405$$

<Display example>
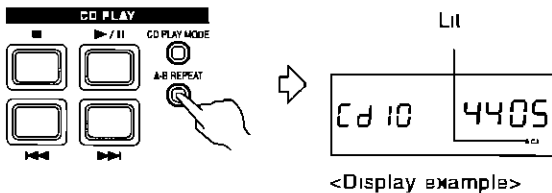
2 Press the **A-B REPEAT** button again at the point you wish repeat play to end (point B)

A-B repeat mark

$$Cd \ 10 \qquad 4605$$

<Display example>

To cancel
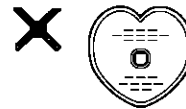⇒ Press the **A-B REPEAT** button to cancel the AB repeat mark
- The repeat mode is also canceled in the following cases
  —When ■ is pressed
  —When ▶▶ or ◀◀ is pressed

About the CD

Use a CD which has this mark

- Please do not use a CD with a heart or other special mark, as doing so may result in damage

- Do not insert more than one CD at a time
- Be sure to remove the CD from the tray before moving or tilting the instrument

■ To avoid injuring your CD, as well as damaging your instrument, please heed the following points
- Do not use a pencil or ball point pen to write on the CD
- Do not wipe with record cleaner, thinner, benzene or alcohol If soiled, use a clean damp cloth to wipe it clean, and polish it with a soft, dry cloth
- Do not affix paper or stickers (decals) (Do not use a CD from which cellophane tape or a glue-backed label has been peeled off, as the residual glue may result in damage)

NOTES

This device can play back music CD-R and CD-RW which are recorded in the CD-DA format, and which were finalized* when recording was completed However, it may not be possible to play back some disks, depending on the recording condition
* A process that enables a CD-R/CD-RW for music to be played back on playback equipment

- To avoid scratching the CD surface, do not open the CD cover during a performance
- The playback mode, A-B repeat etc setting contents are lost whenever the CD cover is opened or the power switch is turned off
- The skip-to-previous function does not work during random playback In addition, during playback of the last track, the skip-to-next function does not work
- A-B repeat does not work during random playback
- If the **A-B REPEAT** button is pressed during 1 song/all songs repeat play, the mode changes to A-B repeat, and if you then cancel A-B repeat, the mode returns to the original repeat playback mode

QQTG0547

Adjust the guitar sound quality

Adjust the sound quality of the guitar or microphone connected to the INPUT 4 (GUITAR/MIC) terminal

Change the input mode

⇒ Select the mode that is appropriate for the connected instrument
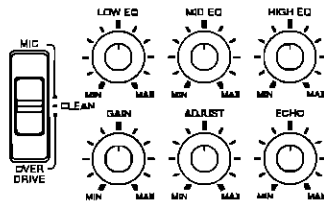
MIC Microphone or acoustic type guitar
CLEAN Electric guitar
OVER DRIVE To apply the PA100 overdrive to the electric guitar
- Use the GAIN and ADJUST controls to adjust the amount of effect

Adjust the sound quality

EQ Use the LOW EQ, MID EQ, HIGH EQ controls to adjust the sound in each sound range
ECHO The ECHO control is used to add an echo effect to the sound

Adjust the volume

⇒ Use the 4 (GUITAR/MIC) control to adjust the volume
- To adjust the total volume, use the MASTER VOLUME control

NOTES
- When plugging in or unplugging the guitar or microphone, be sure to first set the MASTER VOLUME to the MIN position
- If the correct input mode is not selected, the special features of your PA100 will not be optimally utilized
- If you wish to use a commercially sold effector to apply the OVER DRIVE effect, select the CLEAN input mode

Play a guitar in time with the rhythm

While playing the PA100 rhythm section, and play a guitar or the like in time with the rhythm

About the rhythm

Seven rhythm groups are provided in the PA100, each group having 10 types of rhythm
The rhythm, in addition to the drums is comprised of the bass and accomp (accompaniment) parts While the chords progress automatically in a sequenced progression, the song is played (except for rhythms in the SIMPLE BEAT group) It's easy to enjoy playing the guitar in a "session" with your PA100

<Example>

| Intro | C chord | C chord | F chord | - - - - - - - - - - - | Ending |

↑
START
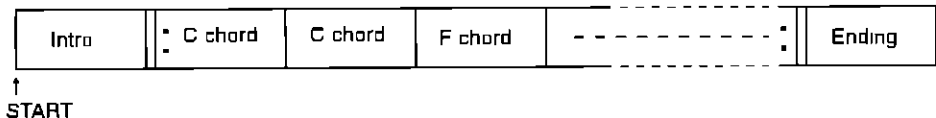
- Each rhythm includes an intro pattern and and ending pattern, which are played automatically
- The chord progressions can be modified, allowing you to create the perfect accompaniment for your performance (Refer to pages 15 to 17)

Playing the rhythm

1 In the [1] SOURCE SELECT section, press the RHYTHM button to turn it on

2 Use the GROUP SELECT buttons to select a rhythm group, and RHYTHM SELECT buttons 1 to 10 to select a rhythm

Select a group (the indicator for the selected group lights)

Select a number (the indicator for the selected rhythm number lights)

- Refer to the separate REFERENCE GUIDE provided for a list of the rhythms
- The rhythms in the SIMPLE BEAT group are simple rhythms that do not include chord progressions

3 Press the START/STOP button

- After the intro pattern (except for SIMPLE BEAT rhythms) plays, the rhythm starts Play the guitar in time with the rhythm
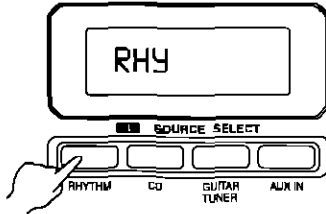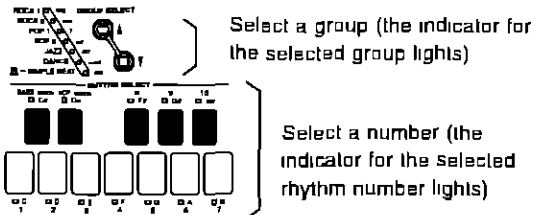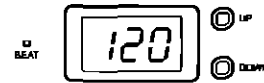- The rhythm repeats continuously until you stop it (from immediately following the intro pattern, until immediately preceding the ending pattern)

■ To change the tempo
⇒ Use the UP and DOWN buttons to adjust the tempo (♩=40 to 300)
- The BEAT indicator blinks in time with the beat

- To reset the tempo to ♩=120, press both buttons at the same time

■ To turn off the BASS and ACCOMP parts
⇒ You can turn off the BASS OFF/ON and ACP OFF/ON buttons, leaving only the drums part sounding (except for rhythms in the SIMPLE BEAT group)
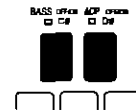
■ To stop the rhythm
⇒ During the performance, press the START/STOP button The indicated tempo setting flashes, and the current repeat changes to the ending pattern, after which the rhythm performance stops
- If the START/STOP button is pressed again while the intro is playing or the tempo value is flashing, the rhythm stops immediately
- When either the BASS ON/OFF or ACP OFF/ON is off, if the START/STOP button is pressed, the ending pattern begins in the measure immediately following

Variation

A variation rhythm is provided for each rhythm, which you select by turning on the VARIATION button

- If the VARIATION button is pressed during rhythm play, the variation rhythm may start from the following measure
- During repeat play, if you turn the VARIATION button on while the tempo value is flashing, repeat play continues

NOTE
- When the separately sold Foot Switch (SZ-P1) is connected, the VARIATION and START/STOP can be started with your foot (Refer to page 9)
- If using a commercially available foot switch, the foot switch function may be reversed If this happens, with the foot switch connected but without pressing it, in the [1] SOURCE SELECT section select a mode other than RHYTHM, and then turn on the RHYTHM again to correct the operation
- If using a commercially sold foot switch other than the SZ-P1, plugging it in or unplugging it may cause the rhythm to start, etc or otherwise malfunction

About the chord sequence

Your **PA100** contains data for 50 types of chord progressions (chord sequences), one of which is assigned to each rhythm (except for rhythms in the **SIMPLE BEAT** group), creating a sequence of automatic chord changes
The chord sequence assigned to any rhythm can be changed, allowing you to try out different chord progressions for the same rhythm

Modifying the chord sequence

1 Select a rhythm (except for a rhythm in the **SIMPLE BEAT** group)

2 In the **CHORD SEQUENCE** section, press **SELECT** to turn it on

3 Use the **UP** and **DOWN** buttons to select a chord sequence number (P 01 to P 50, U 01 to U 50)

- Chord sequences can be edited and stored in memories U 01 to U 50 (Refer to the following section)
- By pressing both the **UP** and **DOWN** buttons at the same time, you can switch between P (preset) and U (user) chord sequences
- The main chord of the chord sequence is denoted with the keyboard keys If you wish to change the key (scale), specify it by turning on the corresponding keyboard key button This procedure will transpose all the notes of each chord (Example When the key is changed from C to F, the chords are transposed from C Am Dm G7 to F Dm Am C7)
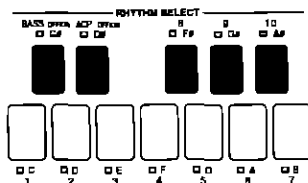
4 Press the **START/STOP** button

- Rhythm playback begins in the altered chord progression

NOTES
- Information about the chord progression for each rhythm is shown in diagram form in the separate REFERENCE GUIDE provided (The chord names shown in the table have been changed to root note C or Am)
- Chord progression data is constructed based on a 4/4 time signature Therefore, if you chose a 3-beat rhythm, the chords in the sequence progress differently from the chord progression diagram in the Reference Guide
- The set chord sequence, transposition status and tempo for each rhythm are stored and remain in the memory even when the power to the **PA100** is turned off The settings stored for each rhythm can also be restored to the initial factory-preset status (Refer to page 20)

Edit the chord progression

By editing a chord sequence, you can program the chord progression for the song you want to play or change a specific portion of a preset chord sequence Up to 50 different edited chord progressions can be stored in the user memory area

Input the chord progression for a song

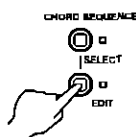Following a music score or the like, store the chords for the song you want to play

1 Select a user memory number (U 01 to U 50) in which to store the chord progression (Refer to page 14)

2 In the **CHORD SEQUENCE** section, press the **EDIT** button to turn it on

- The indicator flashes
- The user memory number you selected in step 1 flashes

(Display example)

3 Press and hold the **CLEAR (VARIATION)** button until the "Clr" indication appears on the display

- The chord sequence that previously resided in the selected memory is erased, and a C chord is stored in the first measure (If the data is played back at this point, a one-measure C chord is played back repeatedly)

4 Press and hold the flashing **EDIT** button for a few seconds, until the indicator remains lit
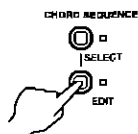
- If the EDIT button is pressed briefly at this time, the status returns to the chord sequence selection status

5 Use the **UP** and **DOWN** buttons to select the point in the sequence at which to record the chord

Measure number | Beat (quarter note increments)

(Display example)
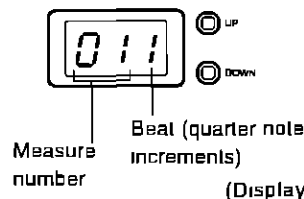
- "End" is shown at the end point of the song During playback the sequence is repeated at that point
- Immediately after the data was cleared (Clr), the End was set to follow the first measure (after 01 4) While the End indication appears, if the UP button is pressed, the End point is moved back (If the UP button is kept depressed, the chord sequence is extended one measure at a time)
- By pressing both the **UP** and **DOWN** buttons at the same time, the second half of the currently selected beat can be selected (eighth note increments)

Second-half indication | (Display example)

- The name of the chord at the specified point is shown When it is possible to delete the data at the specified point, the **CLEAR (VARIATION)** indicator is lit In this case, pressing the CLEAR (VARIATION) button will delete the data at that point If you wish to delete the data in the current measure and all measures following, press and hold this button until the "End" indication appears (The data in the first measure cannot be deleted)

6 Use the **GROUP SELECT** buttons and keyboard key buttons to store a new chord (Example Emin)

Chord type

Root note

15

QQTG0647
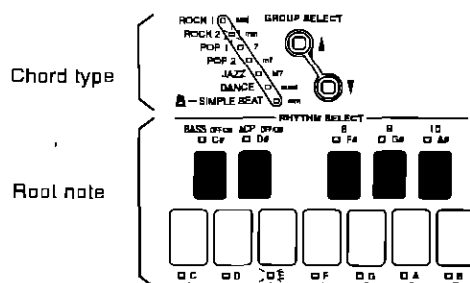
7 Repeat steps 5 and 6 to continue storing chords
- A chord remains effective until another chord is input at a subsequent point
- To store a rest (no chord specified), turn off all keyboard key buttons at that point

8 Store the main chord
- While the End indication appears, the chord stored at the beginning of the first measure is indicated by the keyboard key buttons. To specify a different chord as the key (scale) of the sequence, use the keyboard key buttons to select the note name for the key, and the **GROUP SELECT** buttons to select the type of key
- This procedure is only for specifying the main chord of the chord sequence, not to transpose the chord
- It is not possible to specify «no chord» here

9 Press the **EDIT** button
- The edited contents are stored, the indicator goes out and editing is concluded
- You can also conclude the editing procedure by pressing the **SELECT** button in the **CHORD SEQUENCE** section

---

Modify a portion of the chord sequence

You can modify specific portions of a preset chord sequence or a chord sequence previously stored

1 Select a chord sequence you wish to modify (Refer to page 14)

2 In the **CHORD SEQUENCE** section, press the **EDIT** button to turn it on
- The indicator flashes

3 Use the **UP** and **DOWN** buttons to select a user memory in which to store your new chord progression (U 01 to U 50)

4 Press and hold the **EDIT** button for a few seconds, until the indicator remains lit
- The chord sequence used as the source is copied to the selected user memory in step 3
- If "FUL" appears on the display, erase a user memory that is not being used to free some of the memory for recording (Refer to page 15)

5 Use the **UP** and **DOWN** buttons to select the point you wish to begin editing
- To move quickly to a specific measure, press and hold the **UP** or **DOWN** button continuously While the button is depressed, only the measure number is shown in the display (3 gdigits)
- The name of the chord at the specified point is shown When it is possible to delete the data at the specified point, the **CLEAR (VARIATION)** indicator is lit In this case, pressing the **CLEAR (VARIATION)** button will delete the data at that point If you wish to delete the data in the current measure and all measures following, press and hold this button until the "End" indication appears (The data in the first measure cannot be deleted)

6 Use the **GROUP SELECT** and the keyboard key buttons to store a new chord

7 Repeat steps 5 and 6 to continue storing chords as desired
- If you wish to change the main chord of the chord sequence, store the change at the end point ("End" indication)

8 When you have finished modifying the chord sequence, press the **EDIT** button to turn it off
- The edited contents are stored, the indicator goes out and editing is concluded
- You can also conclude the editing procedure by pressing the **SELECT** button in the **CHORD SEQUENCE** section

NOTES
- In some cases, chords that are transposed may not be reproduced during playback
- The transposition status is shown in the chord indication during editing
- The edit display is based on a 4/4 time signature, so it is important to be careful when creating data for a 3-beat rhythm

Storing complex chords

The chords indicated on the panel are standard types of chords, but more complex chords and "on bass" (broken) chords, such as A/C, can also be stored

During chord sequence edit:

1 Select the point to store the chord

2 Specify the root note of the chord on the keyboard

3 Press two **GROUP SELECT** buttons at the same time

4 Use the **UP** and **DOWN** buttons to select the numerical value of the chord (see below)

<Display example (add 9 chord)>

- When storing an "on bass" chord, use the keyboard key buttons to select the bass note

5 Press one of the **GROUP SELECT** buttons
- The display returns to the input display
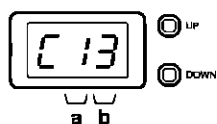
b＼a	1 (Maj)	2 (min)	3 (7)	4 (m7)	5 (M7)	6 (sus4)	7 (dim)
1	Maj	min	7	m7	M7	sus4	dim
2	6	m6	9	m9	M9	7sus4	
3	add9	mM7	13				
4	−5	m−5	7−5	m7−5			
5	+5		7+5				

Setting repeat play

You can mark a specific portion within the sequence for repeat play
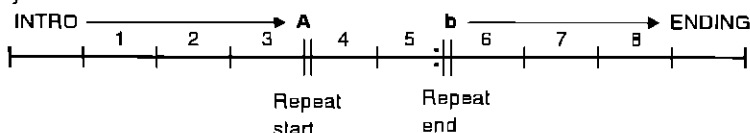
For example, in the song configuration shown above, the the following procedure would be used to mark the portion between points A and b so that they are repeated

During chord sequence editing·

1 At point A (start point of the repeat 04 1 in this example), press the **REPEAT (START/STOP)** button

2 At point b (end point of the repeat 06 1 in this example), press the **REPEAT (START/STOP)** button
- Make sure that point b comes after point A in the sequence
- Point A and point b can be set only at the beginning of a measure, not midway
- During playback, the section between A and b is repeated

- The measures preceding point A are treated as the INTRO, and the measures following point b are treated as the ENDING

- The start and end points of the repeat section are respectively shown as "-A-" and "-b-" on the display
- While "-A-" or "-b-" is showing on the display, it can be erased by pressing the **CLEAR (VARIATION)** button

- When repeat play is not set, the rhythm is repeated from the point immediately following the intro to the point immediately preceding the ending
- Repeat cannot be stored in the following cases (a beep will sound)
  —Point b comes before point A in the sequence
  —Point A and/or point b is already stored
  —You attempt to store a repeat in the first measure or while End is showing on the display

■ MIDI bulk dump

The contents of the user memories can be sent and received via the MIDI connection, making it possible to exchange data with another **PA100** unit, for example
- For MIDI connections, refer to page 9

<Transmitting>

1 In the **[1] SOURCE SELECT** section, press the **RHYTHM** button to turn it on

2 While pressing the **EDIT** button in the **CHORD SE-QUENCE** section, press the **START/STOP** button
- Trasmission begins During data transmission, "OUt" is shown on the display, this indication is canceled when data transmission is completed

- MIDI data exchange can take place only when the **RHYTHM** of **[1] SOURCE SELECT** is on and the tempo is being displayed

- The data can be received only when the tempo is displayed ("In" appears while data is being received, and disappears when data receiving is finished)
- During data sending and receiving, do not operate either the sending or receiving device Doing so may interrupt the data transfer
- If data was not successfully received, "Err" appears on the display
- The rhythm does not play during data reception and transmission

NOTES
- If the power is turned off while in the edit mode, the edited contents will be lost
- Data stored in the user memories is retained even when the power to the **PA100** is turned off
- If the user memories become full while chords are being stored, "FUL" appears on the display and a beep sound is heard No more data can be stored

Tuning the guitar

Your **PA100** provides two modes that are extremely useful for tuning your guitar In the auto mode, this unit evaluates the accuracy of the guitar's pitch, in the sound mode, the it outputs a standard tone for tuning

Auto mode

The sound from the guitar is input, and the **PA100** automatically evaluates it The standard pitch used to evaluate the tuning is A=440 Hz, which cannot be changed

1 In the **[1] SOURCE SELECT** section, press the **GUITAR TUNER** button to turn it on
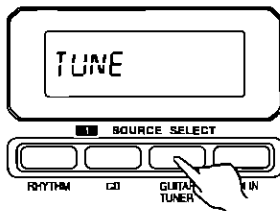
2 On the guitar, connected to the **INPUT 4 GUITAR/MIC** terminal, strum the string you wish to tune

3 While watching the auto evaluation result on the **GROUP SELECT** indication, tune the guitar

Standard pitch (A=400 Hz)
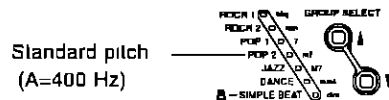
- While the guitar sound is being produced, the evaluation result is displayed The green indicator is the standard pitch, and the indicators above and below show the degree of deviation from the standard pitch Adjust the tuning of the guitar so that the green indicator is lit (0 deviation)
- Two indicators may light, showing that the deviation falls somewhere between the two values
- If the result falls outside the evaluation range, the uppermost or lowermost indicator flashes
- If the indicator's light is not steady, use a harmonic tone to facilitate the guitar tuning

4 Repeat steps 2 and 3 for the other strings

Sound mode

The **PA100** can output a standard tone to use for tuning the guitar

1 In the **[1] SOURCE SELECT** section, press the **GUITAR TUNER** button to turn it on
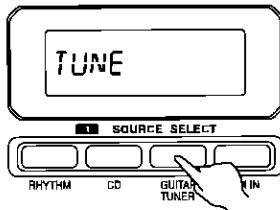
2 Turn on the keyboard key button for the pitch you want to tune to
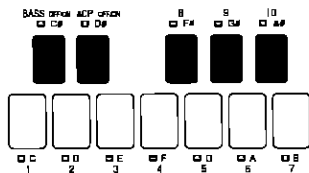
- The standard tone for that pitch will sound

3 Tune your guitar to match the tone
- To discontinue the tone output, press the keyboard key button again to turn it off The mode will change the auto mode
- The standard tone can be adjusted with the **UP** and **DOWN** buttons (A=430 to 450 Hz) Each tone sounds in the pitch based on the set standard pitch

- Pressing both buttons at the same time will return the pitch to the standard A=440 Hz
- The pitch adjustments made here have no effect on the sound generator pitch of the **PA100** If it is set to other than 440, the rhythm bass and accompaniment tones, etc and the guitar pitch will not match
- Changes in the pitch effected with this procedure are not stored When you exit the **GUITAR TUNER** mode, the standard pitch is reset to 440

MEMO
- The tuning function can also be used for instruments other than guitar
- The sound mode and auto mode cannot both be enabled at the same time

Symptoms which appear to be signs of trouble

The following changes in performance may occur but do not indicate equipment trouble or malfunction

		Phenomenon	Remedy
General		No sound is produced	• The volume level for the input device is at the minimum setting Use the **INPUT 1** to **INPUT 4** controls, or the **MASTER VOLUME** control, to set the volume to an appropriate level
			• The volume setting of the connected equipment is set to the minimum level
Guitar/ microphone		The guitar/mic volume is too low	• The correct performance mode is not selected Select the correct input mode (Refer to page 12)
		The guitar does not sound, or the sound is distorted	• The volume setting on the guitar is set to the minimum
		Noise is produced when the guitar is connected	• When not playing the guitar, turn the guitar volume to the minimum setting
CD		"E" appears on the display	• Misoperation Refer to the Owner's Manual and perform the correct operation
		Performance is not possible A CD is inserted, but the track number etc does not appear on the display	• Is the CD inserted upside down?
			• Is the CD a non-standard CD?
			• A severely deformed or scratched CD cannot be played
			• When the device is suddenly moved from a cold to a warm environment, for example, condensation may form on the lens Wait for about an hour for the moisture to evaporate before trying again
		A particular section of the CD cannot be played	• If the CD is soiled, use a soft cloth to wipe it clean
		The CD sound is interrupted	• If the input signal from the CD playback volume, the microphone or the guitar is too strong, the CD playback may become unstable Lower the playback volume

About the backup memory

The following settings are maintained even when the power is turned off or the power cord is unplugged
— Panel settings (rhythm group, rhythm number, **VARIATION**, **BASS** and **ACCOMP** on/off status)
— Chord sequence settings for each rhythm (number and transposition status), tempo
— Chord sequence user memory contents
• All other settings are lost when the power to this device is turned off

Initialize

The rhythm and chord sequence settings, and the panel settings can be reset to the factory-preset status

⇒ With the power to this device turned off, while pressing the **UP** and **DOWN** buttons at the same time, turn the power on
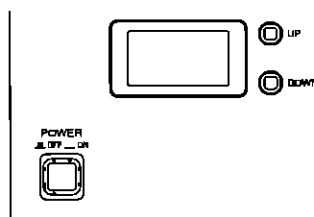
• If initialization was successful, «In» appears on the display

<To initialize all data>
In addition to the above settings, the contents of the chord sequence user memories can also be initialized
⇒ With the power turned off, while pressing **BASS OFF/ON** and **10** in the **RHYTHM SELECT** at the same time, turn on the power
• If initialization was successful, "F In" appears on the display

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Separately sold option

SZ-P1 Foot Switch

Sound name	Bank MSB	Bank LSB	PC #
Piano	32	0	1
Bright Piano	32	0	2
Midi Grand	32	48	2
Suitcase E P	32	16	5
Tremolo E P	32	64	5
Modern E P	32	0	6
Clavi	32	0	8
Full Drawbars	32	0	17
16 & 1	32	8	17
Jazz Drawbars	32	16	17
Perc Organ	32	0	18
Bossa Guitar	32	28	25
Folk Guitar	32	0	26
Jazz Guitar	32	0	27
Bright Solid Guitar	32	0	28
Clean Solid Guitar	32	16	28
Pop Solid Guitar	32	24	28
Mellow Solid Guitar	32	64	28
Mute Guitar	32	0	29
Distortion Guitar	32	0	31
Acoustic Bass	32	0	33
Mellow Ac Bass	32	16	33
Electric Bass	32	0	34
Bright E Bass	32	16	34
Funky E Bass	32	64	34
Picked E Bass	32	0	35
Mute Bass	32	32	35
Fretless Bass	32	0	36
Slap Bass	32	0	36
Basic Synth Bass	32	8	40
Analog Bass	32	32	40
House Bass	32	40	40
Sub Bass	32	48	40
Strings	32	16	49
Slow Strings	32	0	50
Synth Strings	32	0	51
Vocal Ooh	32	36	53
Analog Brass	32	0	64
Basic Square	32	8	81
Basic Pulse	32	12	81
Sine Lead	32	64	81
Basic Sawtooth	32	8	82
Boys Double Saw	32	48	82
PWM Lead 1	32	0	84
PWM Lead 2	32	0	86
Softy Pad	32	24	90
Warm Synth Pad	32	32	90
Oldie Pad	32	8	91
Olymp Synth	32	64	91
PWM Pad	32	64	94
Vocal Pad 1	32	32	102
Vocal Pad 2	32	0	96
Star Theme	32	0	104
< DRUM KITS >			
Standard Kit 1	38	0	1
Standard Kit 2	38	0	2
Pop Kit	38	0	4
Rock Kit	38	0	10
Power Kit	38	0	17
Analog Kit	38	0	26
Jazz Kit	38	0	33
Brush Kit	38	0	41

Key	No	DRUM KITS	Key	No	DRUM KITS
C 2	0	- - -	D#3	63	Conga High
C# 2	1	- - -	E3	64	Conga Low
D 2	2	Electric Snare Drum*	F3	65	Timbales High
D#-2	3	Electric Tom Low	F#3	66	Timbales Low
E 2	4	Electric Tom Mid	G3	67	— — —
F-2	5	Electric Tom High	G#3	68	— — —
F# 2	6	— — —	A3	69	Cabasa
G 2	7	— — —	A#3	70	Maracas
G#-2	8	- - -	B3	71	- - -
A 2	9	— — —	C4	72	— - —
A# 2	10	Brush Swirl*	C#4	73	— — —
B 2	11	Brush Slap*	D4	74	— — —
C-1	12	— — —	D#4	75	Claves
C#-1	13	— — —	E4	76	— — —
D 1	14	— — —	F4	77	— — —
D# 1	15	— - —	F#4	78	— — —
E 1	16	Click 1	G4	79	— — —
F-1	17	Click 2	G#4	80	Triangle Mute
F# 1	18	Hi-Hat On-Beat	A4	81	Triangle Open
G-1	19	Hi Hat Off-Beat	A#4	82	Shaker
G# 1	20	Hi Hat Accent	B4	83	— — —
A-1	21	Hi Hat Half Open	C5	84	— - —
A# 1	22	- - -	C#5	85	— — —
B 1	23	- - -	D5	86	— — —
C0	24	Piccolo Snare	D#5	87	— — —
C#0	25	— — —	E5	88	— — —
D0	26	Finger Snap	F5	89	— — —
D#0	27	— — —	F#5	90	Samba Drum On Beat
E0	28	— — —	G5	91	Samba Drum Off Beat
F0	29	— - —	G#5	92	Small Conga High
F#0	30	- — —	A5	93	Small Conga Low
G0	31	Sticks	A#5	94	Conga Mute On Beat
G#0	32	Square Click	B5	95	Conga Mute Off-Beat
A0	33	Metronome Tap	C6	96	Conga Open Slap
A#0	34	Metronome Bell	C#6	97	Bongo Mute 1
B0	35	Bass Drum 2	D6	98	Bongo Mute 2
C1	36	Bass Drum 1	D#6	99	Bongo Mute 3
C#1	37	Rim Shot	E6	100	Timbales Open High
D1	38	Snare Drum 1*	F6	101	— — —
D#1	39	Hand Claps*	F#6	102	— — —
E1	40	Snare Drum 2*	G6	103	— — —
F1	41	Bass Tom Low	G#6	104	Shaker On-Beat
F#1	42	Hi Hat Closed	A6	105	Shaker Off Beat
G1	43	Bass Tom High	A#6	106	Maracas On Beat
G#1	44	Hi Hat Pedal	B6	107	Maracas Off-Beat
A1	45	Low-Tom	C7	108	Tambourine On Beat
A#1	46	Hi Hat Open	C#7	109	Tambourine Off Beat
B1	47	Mid Tom Low	D7	110	— — —
C2	48	Mid Tom High	D#7	111	Cowbell 1
C#2	49	Crash Cymbal 1	E7	112	Cowbell 2
D2	50	High-Tom	F7	113	Cowbell 3
D#2	51	Ride Cymbal 1	F#7	114	Cowbell 4
E2	52	China Cymbal	G7	115	Cowbell 5
F2	53	Ride Bell	G#7	116	Cowbell 6
F#2	54	Tambourine			
G2	55	Splash Cymbal			
G#2	56	Cowbell			
A2	57	Crash Cymbal 2			
A#2	58	- — -			
B2	59	Ride Cymbal 2			
C3	60	Bongo High			
C#3	61	Bongo Low			
D3	62	Conga Mute Slap			

* The sound may be different depending on the Drum Kit

MIDI Implementation Chart

Personal Music PA System [SY-PA100]

Function		Transmitted	Recognized	Remarks
Basic Default		—	1–16	
Channel Changed		—	—	
	Default	—	3	OMNI OFF, POLY mode
Mode	Messages	×	×	
	Altered	—	—	
Note		×	0–127	
Number	True voice	—	0–127	
Velocity	Note ON	×	O	
	Note OFF	×	×	
After	Key's	×	×	
Touch	Ch's	×	O	
Pitch Bend		×	O	
	0,32	×	O	bank select MSB/LSB
	1	×	O	modulation
	6,38	×	O	data entry MSB/LSB
	7	×	O	volume
	10	×	O	panpot
Control	11	×	O	expression
Change	64	×	O	sustain
	91	×	O	reverb
	93	×	O	chorus
	100,101	×	O	RPN LSB/ MSB
	120	×	O	all sound off
	121	×	O	reset all controllers
Prog		×	O	
Change	True #	—	0–127	
System Exclusive		O	O	
System	Song Pos	×	×	
	Song Sel	×	×	
Common	Tune	×	×	
System	Clock	×	×	
Real Time	Commands	×	×	start/stop, continue
Aux	Local ON/OFF	×	×	
	All Notes OFF	×	O	
Messages	Active Sense	×	O	
	Reset	×	×	
Notes		• When rhythm playback starts, the ch6 to 10 settings switch • If sounds other than the internal sounds are selected, they may not be reproduced		

Mode 1	OMNI ON, POLY	Mode 2	OMNI ON, MONO	O	Yes
Mode 3	OMNI OFF, POLY	Mode 4	OMNI OFF, MONO	×	No

Specifications

	SY-PA100
RHYTHMS	70 RHYTHMS, 50 CHORD SEQUENCES (+50 USER MEMORIES), VARIATION, TEMPO
MIXER	INPUT 4 EQUALIZER, ECHO, OVER DRIVE, INPUT 1, 2, 3 EQUALIZER, INPUT 1, 2, 3, 4 VOLUME MIXER, MASTER VOLUME
GUITAR TUNER	AUTO MODE (A=440 Hz), SOUND MODE (A=430–450 Hz)
TERMINALS	MIDI IN, MIDI OUT, FOOT SW (VARIATION, START/STOP)
INPUT TERMINALS	INPUT 4 (GUITAR/MIC) MONAURAL (M6) INPUT 1 (AUX IN) STEREO (RCA PIN PLUG) INPUT 2, 3 STEREO/MONO (M6)
OUTPUT TERMINALS	PHONES STEREO (M6) LINE OUT 1 STEREO/MONO (M6) LINE OUT 2 STEREO (RCA PIN PLUG)
OUTPUT MAX	WOOFER 30W (EIAJ), FULL RANGE 15W + 15W (EIAJ)
SPEAKERS	WOOFER 14 cm ROUND 8Ω x 1, FULL RANGE 12 cm ROUND 6Ω x 2
POWER SUPPLY	AC 120/220/230–240V 50/60 Hz AC 230–240V, 50/60 Hz (EUROPE, AUSTRALIA AND NEW ZEALAND) AC 120V, 60 Hz (NORTH AMERICA AND MEXICO)
POWER CONSUMPTION	36 W 75 W (NORTH AMERICA AND MEXICO)
DIMENSIONS (W x H x D)	57 4 cm × 22 4 cm x 30 cm (22-19/32" × 8-13/16" × 11-13/16")
NET WEIGHT	12 5 kg (27 6 lbs)
ACCESSORIES	POWER CORD

- Design and specifications are subject to change without notice

	SAMPLING FREQUENCY	44 1 kHz
	DECODING	16 bit LINEAR
CD PLAYER	BEAM SOURCE	SEMICONDUCTOR LASER (WAVELENGTH 780 nm)*
	NO OF CHANNELS	2 CHANNEL, STEREO
	WOW AND FLUTTER	BELOW MEASURABLE LIMIT
	D/A CONVERTER	16 bit DAC

ENGLISH   M   Se050150   QQTG0547A