	Technics
	DIGITAL PIANO
	sx-PX665
	÷
ENGLISH	M QQTQ0640A

WARNING:

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE, DO NOT EXPOSE THIS APPLIANCE TO RAIN, SPLASHING, DRIPPING OR MOISTURE.

BEFORE YOU PLAY, PLEASE READ THE CAUTIONARY COPY APPEARING ON PAGE 4.

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 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.





The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "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 maintenance (servicing) instructions in the literature accompanying the appliance.

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

Technics

OWNER'S MANUAL

Before you play

For long and pleasurable use of this instrument, and to gain a thorough understanding of your **PX665** Digital Piano, it is strongly recommended that you read through this Owner's Manual once.

The Owner's Manual is comprised of the following parts.

Preparative

This part includes an explanation of how to set up to play the instrument and basic knowledge for playing.

Various Functions

This part comprises a detailed explanation of sound, effect, rhythm, **SEQUENCER**, Disk Drive and MIDI.

REFERENCE GUIDE (separate booklet)

Reference guide for the contents of the SOUND, MIDI Implementation Chart, etc.

Important Safety Instructions

WARNING

When using electric products, basic precautions should always be followed, including the following;

• Read all the instructions before using the product.

Safety

- Power Source—The product should be connected to a power supply only of the type described in the operating instructions or as marked on the product.
- Polarization—This product may be equipped with a polarized line plug(one blade wider than the other). This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician to replace your obsolete outlet. Do not defeat the safety purpose of the plug.
- Periods of Non-use—The power-supply cord of the product should be unplugged from the outlet when left unused for a long period of time.

Installation

- Water and Moisture—Do not use this product near water—for example, near a bathtub,washbowl, kitchen sink, in a wet basement, or near a swimming pool, or the like.
- Cart/Stand—This product should be used only with a cart or stand that is recommended by the manufacturer.
- Ventilation—The product should be located so that its location or position does not interfere with its proper ventilation.
- Heat—The product should be located away from heat sources such as radiators, heat registers, or other products that produce heat.
- Foreign Material—Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

Listening caution

This product, either alone or in combination with an amplifier and headphones or speakers may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.

Service

- Damage Requiring Service—The product should be serviced by qualified service personnel when:
- a.The power-supply cord or the plug has been damaged; or
- b.Objects have fallen, or liquid has been spilled onto the product; or
- c.The product has been exposed to rain; or
- dThe product does not appear to operate normally or exhibits a marked change in performance; or
- e.The product has been dropped, or the enclosure damaged.
- Servicing—Do not attempt to service the product beyond that described in the user-maintenance instructions.

All other servicing should be referred to qualified service personnel.

Maintenance

- Be sure to switch this unit 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 maintain the luster of the keys and buttons, wipe with a clean, damp cloth, and 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.

SAVE THESE INSTRUCTIONS

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Supplied accessory Please check the supplied accessory. AC cord

Getting started





• Set the MAIN VOLUME to an appropriate level with the sliding control.



 No sound will be heard when the sliding control is set to MIN.

Tuning

Unlike an acoustic piano, your Digital Piano never needs tuning.

• The pitch of this instrument can be adjusted when playing along with other instruments. (Refer to page 34.)



Music stand

To set up the music stand, gently raise it from its folded down position. It will lock into place automatically.

To lower the music stand, first fold in the metal support at the rear of the stand and then lower the stand gently, as shown in the figure.



Automatic performances which introduce you to the sounds are stored in the memory of this piano.





Listen to all the demonstration tunes in order.



- All the demonstration tunes are automatically played in order.
- If you press the button with the flashing indicator during the demonstration performance, the current tune stops and the next tune begins.
- You can also first press the DEMO button and then the PLAY button to play the tunes in order.
- The tunes are repeated in order until the **DEMO** button or **STOP** button is pressed again.

- You can play the keyboard while the demonstration performances are playing.
- Some of the buttons do not function while the demonstration performances are being played.
- The demonstration performance data cannot be output as MIDI data.

Controls and Functions





The **BRILLIANCE** allows you to select the brightness of the sound from 5 settings. (Refer to page 14.)

Record your performance and have it automatically played back. (Refer to page 20.)

Sustain pedal

The right pedal allows you to use sustain. When a key is released while this pedal is depressed, the sound is sustained so that it lingers and slowly fades out.

• String resonance is added to some sounds. (Refer to page 14.)

About the backup memory

The instrument settings (except recorded song data) is retained for about one week after the power is turned off.

To save your recorded song data, please store it on a floppy disk before turning off the power. (Refer to page 30.)

• This instrument's recorded song data is retained for about one minute after the power is turned off.

About the display

The display serves to show various information, such as the names of the sounds you select, and also works as a setting display when you adjust the functions and settings of your instrument.

• The display contrast can be adjusted (Refer to page 34.)

Normal display

The information below is shown on the normal display.



- TRANSPOSE is explained on page 18.
- METRONOME is explained on page 19.

Setting display

The display is used to set various functions.

Example: METRONOME setting display



When the instrument is in the function-setting mode, the **TRANSPOSE/PROGRAM** and **TEMPO/PROGRAM** buttons to the left and right of the display become function-setting buttons and are used to select functions and adjust their values. In the function-setting mode, the **PROGRAM** indicators for these buttons are lit.

- The two buttons below the display are sometimes used for function-setting. In these cases, arrows (1) are shown on the display.
- When the **TEMPO/PROGRAM** indicator flashes, it indicates that you should press the button to execute the procedure (OK).

EXIT

To cancel the function-setting mode, press the **EXIT** button. The display returns to the previous display.

• The EXIT button is effective whenever its indicator is flashing.

Example: INITIALIZE display



Selecting sounds



Select one of the several sounds for your performance.

SOUND

1. In the SOUND section, press a button to select a sound category.



2.Use the SOUND VARIATION buttons to select the desired sound from the display.



ORGAN PRESETS, GM/OTHERS

Because the number of sounds accessed with the **ORGAN PRESETS** and **GM/OTHERS** buttons is so many, you find a sound by first selecting a sound group, and then selecting the desired sound. The procedure is as follows.

- 1.Press the ORGAN PRESETS button or the GM/OTHERS button for a few seconds.
- The indicator flashes to show that the setting mode is active.
- The display looks similar to the following.



- A few seconds after the setting is changed, the display returns to the normal display.
- Each time either SOUND VARIATION button is pressed, a different sound is indicated.
- The ORGAN PRESETS and GM/OTHERS buttons represent group names rather than sound names. (See the following section.)
- The non-pitched sounds of the DRUM KIT group, etc. are accessed with the GM/ OTHERS button.
- For information about GM (GENERAL MIDI), refer to page 36.
- The sound you select is memorized and recalled whenever the same **SOUND** button is pressed.
- · A list of sounds can be found in the separate sheet.

- 2.Use the **TRANSPOSE/PROGRAM** buttons to select a sound group. Then use the **TEMPO/PROGRAM** buttons to select a sound in that group.
- The SOUND VARIATION buttons can also be used to select a sound.
- 3.After you have selected the desired sound, press the **EXIT** button.

Touch Sensitivity

Adjust keyboard touch response.

1. Press the TOUCH SENSITIVITY button.



· The display looks similar to the following.





00

o n CT.

2. Use the TEMPO/PROGRAM buttons to adjust the setting.

J.

Select from HEAVY, NORMAL and LIGHT. ٠

θ

0

θ

8

3. When you have finished adjusting the settings, press the TOUCH SENSITIVITY or EXIT button.

Effects



You can achieve even fuller and stirring sounds by adding various effects.

DIGITAL EFFECT

DIGITAL EFFECT gives the sound richness and enhances your performance.

Press the DIGITAL EFFECT button to turn it on.



- · The on or off status of the DIGITAL EFFECT is preset for each sound.
- This effect does not work for the sounds in the DRUM KITS (GM/OTHERS) sound group.
- This effect may not work for some sounds.
- · This button is used to switch the speed of the tremolo effect for the ORGAN PRESETS sounds (except for Pipe Organ type sounds). Turn it on for the faster tremolo speed and off for the slower speed.

DIGITAL REVERB

DIGITAL REVERB applies a reverberation effect to the sound.

Press the DIGITAL REVERB button to turn it on.



- · This effect is applied to all the sounds of the keyboard.
- The on/off status, type and depth settings are memorized separately for each SOUND button.

Type and depth settings

- 1. Press and hold the **DIGITAL REVERB** button for a few seconds.
- The indicator flashes to show that the setting mode is active.
- · The display changes to the following.



- 2.Use the TRANSPOSE/PROGRAM buttons to select the type.
- Select from ROOM, PLATE, CONCERT, DARK, BRIGHT, LARGE HALL, LIVE STAGE, STADIUM and SNGL (SINGLE) DELAY.
- 3.Use the **TEMPO/PROGRAM** buttons to adjust the depth of the reverb (1 to 10).
- If the upper and lower buttons are pressed at the same time, the effect returns to the standard setting.
- 4. When you have finished changing the settings, press the DIGITAL REVERB button or the EXIT button.

PIANO AMBIENCE

PIANO AMBIENCE is a special effect which recreates the resonance that occurs naturally in an acoustic piano, as well as other spatial effects beyond the scope of the **DIGITAL REVERB**.

Press the PIANO AMBIENCE button to turn it on.



Type and level settings

- 1.Press and hold the **PIANO AMBIENCE** button for a few seconds.
- The indicator flashes to show that the setting mode is active.
- · The display looks similar to the following.



- 2.Use the TRANSPOSE/PROGRAM buttons to select the type.
- Select from GRAND PNO, EP.STACK, STANDARD, PERCUSSIVE and SYMPHONIC.
- 3. Use the **TEMPO/PROGRAM** buttons to select the level (1 to 10).
- If the upper and lower buttons are pressed at the same time, the effect returns to the standard setting.
- 4. When you have finished changing the setting, press the **PIANO AMBIENCE** button or the **EXIT** button.

Part I

BRILLIANCE

The **BRILLIANCE** allows you to select the brightness of the sound from 5 settings.



Pressing the **BRIGHT** button increases the brightness; when the **MELLOW** button is pressed, the sound becomes mellower. During setting the brightness is shown on the display (-2 to 2).

- Press both buttons at the same time to return the brightness to 0.
- A short time after the setting is completed, the display will return to the previous display.
- If the BRILLIANCE has been set to a number other than 0, one of the indicators remains lit
- This setting is memorized separately for each SOUND button.

String resonance

String resonance is the sound heard in an acoustic piano when the struck strings produce a sympathetic resonance of the other unstruck strings. For piano-type sounds, string resonance is produced as long as the sustain pedal is depressed. The amount of string resonance can be adjusted.

1.Press the STRING RESONANCE button.



- · STRING RESONANCE is shown on the display.
- 2.Use the TEMPO/PROGRAM buttons to adjust the amount of resonance (0 to 10).



- The higher the number, the greater the amount of resonance.
- · When set to 0, there is no string resonance.
- This effect does not work for the left part when the keyboard is split.
- This effect does not work when the **DIGITAL REVERB** is on.
- When you have finished changing the setting, press the EXIT button.
- You can also access this display by pressing and holding the **GRAND** button for a few seconds.

Mixing two sounds (dual)

You can play two different sounds at the same time, thus obtaining a composite sound having a depth not possible in a single sound. The volume balance for each of the sounds can also be adjusted.

Mixing sounds

1.Press two SOUND buttons at the same time.



- The sound for each button should be selected beforehand.
- Two sounds in the same SOUND button cannot be mixed.
- 2. Press any key on the keyboard to hear the mixed sound.
- The on/off status of the DIGITAL EFFECT is effective for each sound. In addition, the BRILLIANCE and DIGITAL REVERB settings are memorized for each combination of SOUND buttons.

Volume balance

- 1. Press the two SOUND buttons continuously for a few seconds.
- The indicators for the two sounds flash, and the current volume balance is shown on the display.
- 2.Use the TEMPO/PROGRAM buttons to adjust the volume balance.



- Each time the upper button is pressed, the volume of the upper or right-side SOUND button increases, and each time the lower button is pressed, the volume of the lower or left-side SOUND button increases. Play the keyboard to hear the volume balance.
- If the two TEMPO/PROGRAM buttons are pressed at the same time, the volume is equally balanced.
- On the display, the volume of the upper or right-side SOUND button is louder when a number from 1 to 10 is shown, and the volume of the lower or left-side SOUND button is louder when a number from -1 to -10 is shown.
- 3. When you have finished adjusting the volume balance, press any SOUND button or the EXIT button.

Assigning different sounds (split)



You can split the keyboard into right and left sections (SPLIT), and assign a different sound to each section.

SPLIT

- **1.** Select the sound and effects you wish to play on the right section of the keyboard.
- The sounds can be mixed.
- 2. Press the SPLIT button to turn it on.



 In the initialized state, the keyboard split point is the G key (G2) to the left of middle C (C3). You can change the split point by selecting a different key while depressing the SPLIT button.



- The right and left sections of the keyboard produce different sounds.
- In the initialized state (when shipped from the factory), the "Acoustic Bass" sound is assigned to the left part. You can select a different sound, as well as change the settings for the right and left parts. (Refer to the following section.)
- The name of the sound selected for the left part is shown in the lower line of the display.

Right part Concert Grand AcousticBass* Left part

Setting the Split functions

The settings when the keyboard is split into right and left sections can be changed.

Outline of the setting procedure.

1. Press and hold the SPLIT button for a few seconds.



- The indicator flashes to show that the setting mode is active.
- 2.Use the TRANSPOSE/PROGRAM buttons to select an item.



- Select from the following items.
 - 1: LEFT SOUND
 - Settings for the-left part sound.
 - 2: SPLIT POINT Keyboard split point, where it is divided into left
 - and right parts. 3: LEFT VOLUME
 - Volume for the left part.
 - 4: LEFT OCTAVE Octave setting for the left part.
 - 5: RIGHT OCTAVE
 - Octave setting for the right part.
 - 6: SUSTAIN PEDAL
 - Sustain pedal enable/disable setting.
- When an item is selected, the display changes to the corresponding setting display.
- 3.Follow the procedure to change the setting for the selected item. (See below.)
- 4. Repeat steps 2 and 3 for each item as desired.
- 5. When you have finished changing the settings, press the SPLIT button or the EXIT button.

 All settings, except for SPLIT POINT, are memorized for each combination of left-part and right-part SOUND buttons. When the same SOUND buttons are again combined and the SPLIT button turned on, these same settings are recalled. (In case of a DUAL right sound part, the right part of the combination is based on the lower or left-side SOUND button of the mixed sounds.) For this reason, if a different SOUND button is pressed when the keyboard is split, the octave setting for the left and right parts or other settings may change.

LEFT SOUND



Use the **SOUND** and **SOUND VARIATION** buttons to select a sound for the left part.

• The BASS sounds are grouped with the GM/OTHERS sounds.

SPLIT POINT



Press the key to specify the point you wish to divide the keyboard into right and left parts.

- · The name of the note is shown on the display.
- The key you pressed becomes the lowermost key of the right part.
- You can also specify the split point by specifying a key while you depress the **SPLIT** button.

LEFT VOLUME



Use the **TEMPO/PROGRAM** buttons to adjust the volume of the left part (1 to 10).

- When set to 10, the volumes for the left part and right part are the same.
- If the upper and lower buttons are pressed at the same time, the volume returns to the standard setting.

LEFT OCTAVE



Use the **TEMPO/PROGRAM** buttons to specify the octave of the left-part sound (0 to 2).

• For example, if you specify 1, the pitch of the left-part sound becomes one octave higher.

RIGHT OCTAVE



Use the **TEMPO/PROGRAM** buttons to specify the octave of the right-part sound (-2 to 0).

 For example, if you specify -1, the pitch of the rightpart sound becomes one octave lower.

SUSTAIN PEDAL



Use the left and right buttons below the display to enable (EN) or disable (DIS) the sustain pedal for the respective left (L) and right (R) parts.

 For example, if you specify L[DIS] and R[EN], when the sustain pedal is pressed during your performance, the sustain effect is applied only to the right sound part.

Transpose



The TRANSPOSE buttons are used to change the key of the entire instrument in semi-tone steps across an entire octave.

Suppose you learn to play a song—in the key of C, for example—and decide you want to sing it, only to find that it's either too high or too low for your voice. Your choice is to either learn the song all over again in a different key, or to use the **TRANSPOSE** feature.

Adjust the key with the TRANSPOSE buttons.



Actual key

- Each press of the + button changes the key as follows:
 D[↓] → D → E[↓] → E → F → F[†]. Each press of the button changes the key as follows: B → B[↓] → A → A[↓] → G.
- If the two buttons are pressed at the same time, the key returns to C.
- When the **TRANSPOSE** function is active, the transposed key is shown on the normal display.
- When the PROGRAM indicator is lit, the TRANSPOSE buttons work as function-setting buttons and cannot be used to change the key of the instrument. If you wish to change the key, first exit the setting mode, by pressing the EXIT button, for example.

<Example: transposed to D>







Notes that sound



D major

Metronome

You can play in time with the metronome sound, and you can add an accent to the metronome sound.

METRONOME sound

1. Press the METRONOME ON/OFF button to turn it on.



- · The metronome sound begins.
- 2. Adjust the tempo with the TEMPO buttons.



- Each time the lower button is pressed, the tempo slows down, and each time the upper button is pressed, the tempo speeds up.
- The tempo can be adjusted to J = 40-300 and is shown on the display.
- Press and hold either **TEMPO** button to change the tempo quickly.
- Pressing both TEMPO buttons at the same time returns the tempo to the standard J = 120.
- The bars to the right of the tempo display indicate the beat.
- 3.Press the METRONOME's ON/OFF button again to turn off the metronome sound.

Metronome volume and time signature

1. Press the METRONOME's SET button.

· The display looks similar to the following.



- 2.Use the TRANSPOSE/PROGRAM buttons to specify the metronome volume (1 to 9).
- 3.Use the **TEMPO/PROGRAM** buttons to select a time signature.
- Select from OFF, 2/2, 2/4, 3/4, 4/4, 5/4, 6/4, 7/4, 3/8, 6/8, 9/8, and 12/8.
- The first beat of the selected time signature is accented. Select OFF if you want a metronome sound with no accented beat.
- If both buttons are pressed at the same time, the setting returns to the standard setting.
- For compound rhythms (6/4, 6/8, 9/8, 12/8), pressing either button below the display will bring up a display similar to the following. You can then use the buttons below the display to select a note length indicating the type of metronome beat you want. (An asterisk on the display (*) indicates your selection.)



4.When you have finished changing the settings, press the EXIT button.

Record your performance



Your performance can be recorded in this instrument's SEQUENCER and then played back.

Easy Record

Use this method to simply record your performance as you play the keyboard, including DUAL and SPLIT modes.

- Note that this procedure will erase any previously recorded contents of the SEQUENCER. To retain the SEQUENCER contents, refer to page 30.
- 1.Set up the sounds and effects for your performance.
- Do not select the DRUM KIT sounds in the GM/OTHERS button for either part.
- 2.In the SEQUENCER section, press and hold the RE-CORD button for a few seconds.



· The display looks similar to the following.



- 3. Press either TEMPO/PROGRAM button (OK).
- Press the EXIT button if you wish to cancel the operation instead.

4.Begin playing.

- Actual recording begins when you start to play the keyboard.
- You can also begin recording by pressing the PLAY button. You will hear a two-measure count, after which recording automatically begins. The TEMPO buttons are used to adjust the count tempo.

- When you have finished playing, turn off the RECORD button.
- You can also press the STOP button to end the recording.
- 6. Your performance is played back when the PLAY button is pressed.
- For more information about playback, refer to page 22.
- With this recording method, your performance is recorded in tracks 1, 3 and 4 as follows.

TRACK 1:

The mixed sound part when the DUAL mode is active.

TRACK 3:

Left sound part when the SPLIT mode is active. TRACK 4:

Normal performance parts (right sound part when the SPLIT mode is active).

Recording each track

You can use several tracks for a multitrack recording

- Only one track can be recorded at a time
- 1 in the SEQUENCER section, press the RECORD button to turn it on



- You can press the RECORD button again if you wish to stop the recording
- 2 Select a TRACK number to record
- The indicator for the selected TRACK button flashes
- The RHYTHM track is reserved for recording the rhythm When you select this track, the keyboard keys produce percussion sounds

3 Set up the sounds and effects for the track

- The DRUM KIT sounds in the GM/OTHERS button are available only when the RHYTHM track is selected
- 4 Begin playing
- Actual recording begins when you start to play the keyboard
- You can also begin recording by pressing the PLAY button You will hear a two-measure count, after which recording automatically begins The TEMPO buttons are used to adjust the count tempo
- The basic tempo can also be modified after you finish recording (Refer to page 24)
- If you turn the METRONOME ON/OFF button on and then press the PLAY button, you will hear a twomeasure count, after which the metronome sounds and recording begins
- During recording, the display looks similar to the following



- The measure indication (M=) changes in accordance with the tempo and metronome time signature settings that are currently active
- 5 When you have finished recording, turn off the RE-CORD button
- You can also press the STOP button to end the recording
- · The indicator for the track you recorded remains lit

Multitrack recording

Use the following procedure to record a track while listening to the track or tracks already recorded

- 1 Follow the procedure to record the first track
- 2 Turn on the RECORD button
- 3 Press a **TRACK** button to select the track you wish to record next
- 4 Set up the sounds and effects for the track
- 5 Press the PLAY button
- After the count, the previously recorded track or tracks are played back, and you can record in time with this
- 6 When you have finished playing, turn off the RECORD button
- 7 Repeat steps 2 to 6 as necessary to record the other tracks

Notes

- The following are recorded in your SEQUENCER performance beginning tempo and time signature settings, your keyboard performance and pedal operation, sound settings and changes, DIGITAL EFFECT on/off operation, volume balance when the dual mode is active, volume setting, etc for the left part
- The total number of notes that can be recorded in all the tracks combined is about 20,000 notes (Pedal operation, etc., is also included in this count.) When the remaining recording capacity becomes 20% or less, it is indicated on the display. When the memory capacity is reached, "MEMORY FULL!" appears on the display and recording automatically ends
- If the recording procedure is used to record in tracks already recorded, the contents recorded previously are erased
- Recording can be started only from the beginning of the song
- Data received through the MIDI terminals cannot be recorded
- The SEQUENCER contents are deleted approximately one minute after the power is turned off. If you wish to retain the performance data, you can store the SEQUENCER contents on a floppy disk. (Refer to page 30.)
- The nuance of effects that are controlled by the sustain pedal may sound different during playback
- You can assign a name to your recorded song (Refer to page 24)

Track Clear

Follow the procedure below to erase all data from specified tracks.

1. While pressing the **RESET** button, press the button for the track you wish to erase.



· The display looks similar to the following.



2. Press either TEMPO/PROGRAM button (OK).

- If you wish to cancel the clear procedure, press the EXIT button.
- The data is deleted from the specified track, and "Completed!" appears on the display.
- · To erase more than 1 track, repeat steps 1 and 2.
- You can also erase all the data for one song. (Refer to page 26.)

Sequencer playback

Listen to the song recorded in the SEQUENCER.

• The buttons function in the same way as when playing back disk data. (Refer to page 28.)

Playback procedure

1. Confirm that the indicators for the tracks you recorded are lit.

2.Press the RESET button.

3. Press the PLAY button to turn it on.



- · Playback begins.
- If you turn on the COUNT IN button before pressing the PLAY button, a two-measure count is heard, after which playback begins. If playback is begun in the middle of a measure, the count begins from the beginning of the previous measure.
- Playback data cannot be transmitted through the MIDI terminals.
- During playback or playback standby, the song name, time signature, tempo and number of measures are shown on the display. To return to the normal display, press the EXIT button.

Button functions



RESET:

When playback is stopped, pressing this button returns the song to the first measure.

STOP:

Stops playback (pause).

 When playback is stopped in the middle of a song, you can press the PLAY button to continue playback from the same point.

PLAY:

Begins playback.

BWD: Rewind (by measures)

FWD:

Fast forward (by measures)

 After BWD or FWD is pressed, playback starts from the beginning of the indicated measure.

SEQUENCER VOLUME

During playback you can lower the volume of all the playback parts with the **SEQUENCER VOLUME** sliding control. When you play the keyboard along with the stored recording, for example, you can easily adjust the volume balance between your keyboard performance and the playback performance.

- Use this control to lower the playback volume when it is too loud.
- At MAX the volume as it was recorded is played back, and at OFF the playback is inaudible.
- This control is normally left at the MAX setting.

Sequencer settings

You can adjust the various settings of the SEQUENCER, such as the part settings.

Parts

The performance parts are assigned to each track as shown in the table below. When recording in this instrument, five parts are used; however, when playing back commercially recorded disks, up to 16 parts may be generated.

Track assign



Track	Part (channel)	
RHYTHM	10 (reserved for DRUM KIT sounds)	
1	1 (DUAL part)	
2	2, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16 (fixed to 2 when recording)	
3	3 (left part of split keyboard)	
4	4 (normal performance, right part of split keyboard)	

Outline of setting procedure

1.Press the MENUS button to turn it on.



· The display changes to the following.



- 2. Press the left button below the display (SEQUENCER).
- 3.Use the TRANSPOSE/PROGRAM buttons to select an item.



(continued on the next page)

Part II

- Select from the following items.
 1:SONG NAMING Specify a name for the song data currently in the SEQUENCER.
 - 2:TEMPO WRITE
 - Beginning tempo setting.
 - 3:PANEL WRITE
 - Store the following part settings at the beginning of the song.
 - 4:PART VOLUME
 - Volume setting for each part. 5:PART PAN
 - Stereo balance setting for each part.
 - 6:PART REVERB
 - Reverb depth setting for each part. 7:PART CHORUS
 - Chorus depth setting for each part.
 - 8:FIXED TEMPO
 - You can specify a fixed playback tempo when recorded tempo change data is played back. 9:SONG CLEAR
 - Erase the recorded contents of all the SEQUENCER tracks.
- When an item is selected, the display changes to the corresponding setting display.
- 4.Follow the procedure to change the setting (see below).
- 5. Repeat steps 1 (2) to 4 as necessary for each item you wish to change.
- 6. When you have finished adjusting the settings, press the **MENUS** button or the **EXIT** button.

SONG NAMING

1.Press either TEMPO/PROGRAM button (OK).



· The display looks similar to the following.



- 2.Use the two buttons below the display to move the cursor (■).
- 3.Use the TRANSPOSE/PROGRAM buttons to select the alphanumeric character.
- 4. Repeat steps 2 and 3 for each character position in the name (maximum 12 characters).
- 5. When you have finished assigning the name, press either TEMPO/PROGRAM button (OK).
- The name is assigned to the song, and "Completed!" appears on the display, after which the instrument returns to the normal performance mode.

TEMPO WRITE



- 1.Use the two buttons below the display to adjust the beginning tempo.
- 2. Press either TEMPO/PROGRAM button (OK).
- The tempo is stored at the beginning of the song, and "Completed!" appears on the display, after which the instrument returns to the normal performance mode.
- This setting does not work if the song begins from the third or a succeeding measure.

PANEL WRITE



- 1. Adjust the settings for each part (see below).
- 2. Press either TEMPO/PROGRAM button (OK).
- The settings for each part are stored at the beginning of the song, and "Completed!" appears on the display, after which the display changes to the SEQ PLAY display.
- This setting does not work if the song begins from the third or a succeeding measure.

PART VOLUME



- 1.Use the two buttons below the display to select a part (1 to 16).
- 2.Use the **TEMPO/PROGRAM** buttons to adjust the volume for the part (0 to 127).
- 3. Repeat steps 1 and 2 for each part as necessary.
- If you wish to store the setting at the beginning of the song, follow the PANEL WRITE procedure.

PART PAN



- 1.Use the two buttons below the display to select a part (1 to 16).
- 2.Use the TEMPO/PROGRAM buttons to adjust the balance for the part.
- At L64, the sound is completely to the left, at 0 in the center, and at R63 completely to the right.
- 3.Repeat steps 1 and 2 for each part as necessary.
- If you wish to store the setting at the beginning of the song, follow the PANEL WRITE procedure.

PART REVERB



- 1.Use the two buttons below the display to select a part (1 to 16).
- 2.Use the **TEMPO/PROGRAM** buttons to adjust the reverb depth for the part (0 to 127).
- 3. Repeat steps 1 and 2 for each part as necessary.
- If you wish to store the setting at the beginning of the song, follow the PANEL WRITE procedure.

PART CHORUS



- 1 Use the two buttons below the display to select a part (1 to 16)
- 2 Use the TEMPO/PROGRAM buttons to adjust the chorus depth for the part (0 to 127)
- 3 Repeat steps 1 and 2 for each part as necessary
- If you wish to store the setting at the beginning of the song, follow the PANEL WRITE procedure

FIXED TEMPO



Use the buttons below the display to select ON or OFF

 An asterisk on the display (*) indicates your selection ON

When recorded song data with tempo changes is played back, the tempo changes are ignored (The song is played back at a fixed tempo)

When set to ON, " " is shown to the right of the tempo value on the playback display

OFF

Tempo changes as they were recorded in the song are played back

 The ON setting is convenient, for example, when you wish to play along with recorded song data at an easy tempo during practice

SONG CLEAR





- 1 Press either TEMPO/PROGRAM button (OK)
- The display changes to the following



- 2 Press either TEMPO/PROGRAM button (OK)
- If you wish to cancel the clear procedure, press the
 EXIT button
- All the recorded contents of the SEQUENCER are erased, and "Completed!" appears on the display, after which the instrument returns to the normal performance mode
- You can also specify which tracks to erase (Refer to page 22)

Part III Disk Drive

Outline of the Disk Drive function

The Disk Drive enables you to save the song recorded in the SEQUENCER on a floppy disk for playback later, as well as play commercial song disks.

SAVE

Playback

Disk Drive





Main parts of the Floppy Disk Drive



Eject button

Press to remove the disk from the Disk Drive.

 You can use 3.5 inch 2DD (720 KB) or 2HD (1.44 MB) floppy disks; however, 2HD disks formatted as 2DD cannot be used.

DISK IN USE

ð Disk in Use

This indicator lights when data is being loaded or saved.

 To prevent data loss, do not eject the disk or turn off the power while this indicator is lit.

This indicator is lit continuously as long as the power is on.



Commercial song disks

You can listen to commercial song disks and use them to help your practicing.

• The procedure is explained on the next page.

The following commercially sold song disks can be played back on this instrument:

Standard MIDI File FORMAT (0/1)				
	ORCHESTRA ack only)	COLLECTION™	(DOC)	
PianoDisc™ (playback only)				

- All product and company names are trademarks or registered trademarks of their respective owners.
- * DISK ORCHESTRA COLLECTION is a trademark of the YAMAHA Corporation.

About Standard MIDI Files

"Standard MIDI File" (SMF) is a standardized data format which makes it possible for music data to be exchanged among different sequencers. Data stored in this format on sequencers of different models can be played back on this instrument, and vice versa. Note, however, that Standard MIDI Files ensure the compatibility of data such as NOTE data (keyboard performance data), VELOCITY (how hard the keyboard is played), PROGRAM NUMBER data (voice number data), etc. Because it does not guarantee 100% faithful reproduction of recorded music which is replete with such data, it may be necessary for you to adjust the settings to your satisfaction.

- Only files with the ".MID" extension can be loaded.
- Standard MIDI File FORMAT 1 can be loaded, but not saved.
- This instrument's SEQUENCER data can be saved to a disk in Standard MIDI File (FORMAT 0) and can be used by other equipment.

Save your SEQUENCER performances

The recorded contents of the **SEQUENCER** are deleted approximately 80 minutes after the power is turned off However, the Disk Drive enables you to save your performance on a floppy disk for playback anytime Several songs can be stored on one floppy disk, making it easy to keep and organize your performances

- Basic outline of how to save your performances
- 1 Record your performance in the SEQUENCER (Refer to page 20)
- 2 Format a floppy disk if necessary (Refer to page 30)
- 3 Perform the procedure to save your recording to the floppy disk (Refer to page 31)
- 4 Play back the song from the floppy disk anytime you like

Disk play



Here is how to play back a song saved to a floppy disk

Note Because the song on the floppy disk is played back using the SEQUENCER, any song data currently recorded in the SEQUENCER will be erased by this procedure. If you wish to retain this song data, save it to a floppy disk before beginning the disk play procedure. (Refer to page 30.)

Procedure

1 Insert the disk with the song data into the Disk Drive



- Make sure the disk is inserted correctly, and push it all the way in until you hear a click
- After a few seconds, the display changes to the SONG SELECT display
- 2 Use the SONG buttons to select the song you wish to play back



- The song number and song name are shown on the display
- If ALL REPEAT is selected, all the disk's songs are played back in order
- If RANDOM is selected, the disk's songs are played in random order
- 3 Press the PLAY button



- Playback begins after a few seconds
- When the SEQUENCER currently contains data that you have recorded or edited, a confirmation display appears If it is OK to erase the data, press either TEMPO/PROGRAM (OK) button, and then follow the playback procedure
- You can press the BWD button to go back and the FWD button for fast forward (Refer to page 22)

- If you turn on the COUNT IN button before pressing the PLAY button, a two-measure count is heard, after which playback begins. If playback is begun from the middle of a measure, the count begins from the beginning of the previous measure.
- When you play the keyboard along with the stored recording, for example, you can use the SEQUENCER VOLUME control to easily adjust the volume balance between your keyboard performance and the playback performance. (Refer to page 22.)
- The settings for each part can be adjusted. (Refer to page 25.)

Adjusting the tempo

During disk playback, the **TEMPO** buttons can be used to set the tempo to the rate you like. If tempo change data is recorded in the song, all the tempo changes are effected in direct proportion to the tempo you set.

- To return to the original tempo, press both **TEMPO** buttons at the same time.
- When a different song is selected, the tempo change is canceled, and the tempo conforms to the tempo data for the selected song.
- The tempo does not return to the original tempo even if the **RESET** button is pressed.
- To play back the song at a steady tempo, set the FIXED TEMPO to ON. (Refer to page 26.) The recorded tempo changes will be ignored.

Minus One performance

By turning off a **TRACK** button, you can mute the sound for that specific part. This is convenient when you wish to play the keyboard in time with the recorded song.



TRACK 2 mute

When you play back song data that uses many channels (parts), several channels are assigned to track 2 (2, 5 to 9, 11 to 16). You can specify the channels in track 2 that you wish to turn on or off.

- The channel numbers and part numbers of this instrument are the same.
- 1. Press and hold the TRACK 2 button for a few seconds.
- The indicator flashes to show that the setting mode is active.
- · The display looks similar to the following.



- 2.Use the **TRANSPOSE/PROGRAM** buttons to select a channel. Use the **TEMPO/PROGRAM** buttons to set the channel to YES or NO.
- Channels which are set to MUTE [YES] will not sound.
- · Repeat this step for the other parts, as desired.
- If all the parts are set to YES, the TRACK 2 indicator goes out. If the button is then pressed to turn it on, all the channels are reset to NO.
- 3.When you have finished making the settings, press the TRACK 2 button or the EXIT button.
- These settings are cancelled when another song is selected for playback.

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Saving data

The recorded data and panel settings of this instrument can be saved on a disk.

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Floppy disks

You can use 3.5 inch 2DD (720KB) or 2HD (1.44MB) disks.

• How to distinguish the two disk types:



- · Although 2HD disks can hold more data and are convenient for quick loading and saving, some models may be able to read only 2DD disks. Therefore, you may not be able to use your 2HD disk data with other musical instrument models.
- FORMAT

Floppy disks which are used for the first time with this instrument have to be formatted through the following procedure.

- · Note that this procedure clears any data which is currently stored on the disk.
- 1. Insert an unformatted disk into the Disk Drive slot.
- 2.Press the MENUS (DISK) button to turn it on.



· The display looks similar to the following.



· When saving data to the disk, the write-protect tab must be closed.

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- 3. Press the right (DISK) button below the display.
- The display looks similar to the following.



4. Use the TRANSPOSE/PROGRAM buttons to specify 3: DISK FORMAT.



- 5 Press either TEMPO/PROGRAM button (OK)
- The display looks similar to the following



- 6 Use the buttons below the display to select the type of disk which is inserted (2DD or 2HD)
- An asterisk (*) on the display indicates your selection
- 7 Press either TEMPO/PROGRAM button (OK)
- The display changes to the following



8 Press either TEMPO/PROGRAM button (OK)

- Note that the disk format procedure clears any data which may be currently stored on the disk If you wish to cancel the format procedure, press the EXIT button
- After a few minutes, formatting is completed, and "Completed!" appears on the display, after which the instrument returns to the normal performance mode
- If an unformatted disk is inserted into the Disk Drive slot and you attempt to save song data, the FORMAT display automatically appears

Save procedure

Follow the save procedure to save your recorded **SEQUENCER** performance on a floppy disk

- This instrument's SEQUENCER data is saved on disks in the "Standard MIDI File" format (FORMAT 0)
- 1 Record a performance in the SEQUENCER (Refer to page 20)
- 2 Insert a formatted disk into the Disk Drive slot
- 3 Press and hold the MENUS (DISK) button for a few seconds



· The display looks similar to the following



- 4 Press either TEMPO/PROGRAM button (OK)
- The display changes to the SONG NAMING display, similar to the following



(continued on the next page)

- 5.Use the two buttons below the display to move the cursor to the desired character position.
- 6.Use the TRANSPOSE/PROGRAM buttons to select the alphanumeric character.
- If you wish to clear the current song name, press both TRANSPOSE/PROGRAM buttons, and on the resulting confirmation display press either TEMPO/PRO-GRAM (OK) button.
- 7. Repeat steps 5 and 6 for each character position in the name (maximum 12 characters).
- If there is other song data on the disk, the last song number is incremented by one and becomes the song number of the saved song. If you wish to assign a number which already contains song data, move the cursor to the number indication, and use the TRANS-POSE/ PROGRAM buttons to specify the number. An asterisk next to a song number indicates that song data is currently saved for that number. In this case, the SURE display appears in step 8; you can press either TEMPO/PROGRAM button to overwrite the existing song data on the disk (OK), or EXIT to cancel the procedure.

Erasing song data

You can specify the songs you wish to erase from the disk.

- 1.Insert the disk with the data you wish to delete into the Disk Drive slot.
- 2.Press the MENUS (DISK) button to turn it on. Press the right button below the display (DISK).
- 3.Use the TRANSPOSE/PROGRAM buttons to specify 2:SONG DELETE.
- The display changes to the following.



4. Press either TEMPO/PROGRAM button (OK).

The display looks similar to the following.



- 8. Press either TEMPO/PROGRAM button (OK).
- The save operation begins.
- When the operation is completed, "COMPLETED!" appears on the display, after which the instrument returns to the normal performance mode.
- If data from a commercial disk has been loaded in the SEQUENCER, it may not be possible to save data to a disk.
- Up to 99 songs can be stored on one disk. (Note that the number of songs which can be stored decreases depending on the length of the songs.)
- The SONG SAVE display can also be accessed by turning on the **MENUS** (DISK) button and then pressing the right button below the display (DISK).

- 5.Use the TRANSPOSE/PROGRAM buttons to select the song number you wish to delete. Press either TEMPO/PROGRAM button (OK).
- · The display changes to the following.



6. Press either TEMPO/PROGRAM button (OK).

- If you wish to cancel the erase procedure, press the EXIT button.
- The specified song data is deleted from the disk, and "Completed!" appears on the display, after which the instrument returns to the normal performance mode.
- When a song is erased, the song numbers following are moved up.



The control functions can be set to maximize your enjoyment of this instrument.

Outline of the setting procedure

1.Press the PROGRAM MENUS button to turn it on.

· The display changes to the following.



- 2.Press the left button below the display (CONTROL).
- 3.Use the TRANSPOSE/PROGRAM buttons to select the item you wish to set.



INITIALIZE



- 1. Press either TEMPO/PROGRAM button (OK).
- The display changes to the following.





- Select from the following items.
 - INITIALIZE Return this instrument to the factory-preset status.
 - 2: MASTER TUNING
 - Fine-tune the pitch of the entire instrument. 3: KEY SCALING
 - Specify the type of tuning for this instrument. 4: PIANO TUNING
 - Set the piano tuning to on or off.
 - 5: MINIMUM RANGE Specify whether or not sound is generated when the keys are pressed very softly.
 - REVERB CONTROL Specify whether the reverb is controlled by the SEQUENCER data or by the panel buttons.
 LCD CONTRAST
 - Adjust the display contrast.
- When an item is selected, the display changes to the corresponding setting display.
- 4.Follow the procedure to change the setting for the selected item. (See below.)
- 5. Repeat steps 3 and 4 for each item as desired.
- 6.When you have finished changing the settings, press the **PROGRAM MENUS** button or the **EXIT** button.
- 2.Press either TEMPO/PROGRAM button (OK).
- Note that the INITIALIZE procedure erases the recorded contents of the SEQUENCER and returns all function settings to their factory-preset status. If you wish to cancel the INITIALIZE procedure, press the EXIT button at this time.
- The instrument is initialized, and "Completed!" appears on the display, after which the instrument returns to the normal performance mode.
- You can also initialize the instrument with the following procedure: Turn off the power to this instrument once, Then, while pressing the keyboard key labeled INI-TIAL, turn the power on again.

MASTER TUNING



Use the **TEMPO/PROGRAM** buttons to adjust the pitch within a range of 427.3 to 453.0 Hz.

- The decimal can be set to 0, 3 or 6.
- If the two buttons are pressed at the same time, the pitch returns to the standard frequency (440.0 Hz).

KEY SCALING



Use the **TEMPO/PROGRAM** buttons to select the desired type of scaling (tuning).

- Select from EQUAL, WERCKMEISTER and KIRN-BERGER.
- The factory-preset setting is EQUAL (equal temperament).

PIANO TUNING



Use the two buttons below the display to select ON or OFF.

 An asterisk on the display (*) indicates your selection. ON:

Standard acoustic piano tuning, in which the lower pitches are tuned slightly lower and the higher pitches are tuned slightly higher (factory preset). OFF:

Standard equal temperament

- If a type other than EQUAL is selected, please set KEY SCALING to OFF.
- This setting is effective only for acoustic plano-type sounds.

MINIMUM RANGE



Use the buttons below the display to select ON or OFF.

· An asterisk on the display (*) indicates your selection.

ON:

No sound is produced when a key is played extremely softly (factory preset).

OFF:

Sound is produced regardless of how softly the keys are pressed.

REVERB CONTROL



Use the buttons below the display to select MANUAL or SEQ.

 An asterisk on the display (*) indicates your selection. MANUAL:

The reverb setting is always controlled by the DIG-ITAL REVERB button.

SEQ:

Reverb settings during **SEQUENCER** playback follow the reverb data as they were recorded in the performance (factory preset).

LCD CONTRAST



Use the TEMPO/PROGRAM buttons to adjust the contrast (1 to 10).

MIDI



MIDI (Musical Instrument Digital Interface) is the international standard for digital communication of electronic musical instrument data. This means that any equipment which has a MIDI terminal—such as electronic musical instruments and personal computers—can easily exchange digital data with other MIDI equipment without resorting to complicated conversions or connections.

About the MIDI terminals



- IN: The terminal by which this instrument receives data from other equipment.
- **OUT:** The terminal that transmits data from this instrument to other equipment.
- For these connections, use a commercially available MIDI cable. Contact your Technics dealer for more information.
- Exchange of normal data through these terminals is enabled only when the **COMPUTER** terminal switch is set to **MIDI**. (Refer to page 39.)

Connection examples

To generate sound from a connected instrument by playing this instrument



To generate sound from this instrument by operating a connected MIDI sequencer



MIDI channels

A single MIDI cable is used to transmit 16 channels of MIDI data. Transmitting and receiving MIDI data is enabled when the channels on the transmission wide match the channels on the receiving side. This makes it possible to specify that data from specific channels be transmitted to specific sound generators, and to have each of multiple sound generators reproduce different parts of the performance data.

The following kinds of data can be transmitted/received.

Key note on/off data (keyboard performance data) Pedal on/off data DIGITAL EFFECT on/off data

PROGRAM CHANGE (sound selection change) data, etc.

- SEQUENCER and DEMO performance data cannot be transmitted.
- Data received through the MIDI terminals cannot be recorded in the SEQUENCER.

Setting the WIDI functions

This procedure is used to set various functions related to MIDI operation

Outline of setting procedure

1 Press the PROGRAM MENUS button to turn it on



· The display changes to the following



- 2 Press the right button below the display (MIDI)
- 3 Use the TRANSPOSE/PROGRAM buttons to select an item



Select from the following items
 1 BASIC CHANNEL

This instrument's MIDI channel settings (right/left part)

- 2 LOCAL CONTROL Specify whether or not the sound is reproduced by this instrument
- 3 TRANSPOSE OUT Specify whether or not this instrument's TRANS-POSE data is transmitted
- 4 PROGRAM CHANGE Specify whether or not program (sound) change data is transmitted/received

5 PEDAL ON/OFF

Specify whether or not pedal operation data is transmitted/received

- 6 EFFECT ON/OFF Specify whether or not DIGITAL EFFECT on/off data is transmitted/received
- 7 PROG CHNG OUT Transmit specific program change numbers
- When an item is selected, the display changes to the corresponding setting display
- 4 Follow the procedure to change the setting for the selected item (See below)
- In the setting mode, no sound is produced from this instrument
- 5 Repeat steps 3 and 4 for each item as desired
- 6 When you have finished changing the settings, press the PROGRAM MENUS button or the EXIT button

GENERAL MIDI

GENERAL MIDI (GM) is the standard which enables MIDI data exchange between different models or equipment of different manufacture Program change numbers and their corresponding sounds, percussion instrument sounds, note numbers, etc are data-compatible between equipment using this standard Song data created on the equipment of one manufacturer can be played back on the equipment of a different manufacturer, as long as both conform to the GENERAL MIDI standard This instrument conforms to this standard and can be used as a GENERAL MIDI sound generator

Equipment which conforms to GENERAL MIDI standards is indicated by the following logo



 GM/OTHERS sounds with a GENERAL MIDI compatible

mark are

"*'
BASIC CHANNEL



- 1.Use the two buttons below the display to select a part (L: left; R: right).
- An asterisk (*) on the display indicates your selection.
- 2.Use the TEMPO/PROGRAM buttons to select a channel number for the part (1 to 16).
- The factory-preset settings are R[1] and L[2].

LOCAL CONTROL



Use the two buttons below the display to set the respective left and right local controls to ON or OFF. ON:

Performance data from this instrument is transmitted as MIDI data and also sounds from this instrument (power-on preset).

OFF:

Performance data from this instrument is transmitted as MIDI data but does not sound from this instrument.

TRANSPOSE OUT



Use the two buttons below the display to disable (DIS) or enable (EN) the transmission of **TRANSPOSE** data.

 An asterisk (*) on the display indicates your selection. EN:

The note numbers of the transposed notes (after they are transposed) are transmitted. DIS:

Transpose data is ignored, and the note numbers of the played keys are transmitted (factory preset).

PROGRAM CHANGE



Use the two buttons below the display to disable (DIS) or enable (EN) the exchange of sound change data.

An asterisk (*) on the display indicates your selection.
 EN:

Program (sound) change data is transmitted/received (factory-preset).

DIS:

Program (sound) change data is not transmitted/received.

 Please refer to the separate REFERENCE GUIDE provided for the program change number of each sound.

PEDAL ON/OFF



Use the two buttons below the display to disable (DIS) or enable (EN) the exchange of pedal data.

 An asterisk (*) on the display indicates your selection. EN:

Data of each pedal's operation is transmitted/received (factory-preset).

DIS:

Data of each pedal's operation is not transmitted/received.

EFFECT ON/OFF



Use the two buttons below the display to disable (DIS) or enable (EN) the exchange of **DIGITAL EFFECT** on/off data.

• An asterisk (*) on the display indicates your selection. EN:

DIGITAL EFFECT on/off data is transmitted/received (factory-preset).

DIS:

DIGITAL EFFECT on/off data is not transmitted/received.

PROGRAM CHANGE OUT



- 1.Use the **TEMPO/PROGRAM** buttons to specify the program change number to send.
- 2. Press the left button below the display (SEND).
- The specified data is transmitted on the R (right) channel.

Connections

(on the rear panel)



AUX IN (input level 0.5 Vrms, 6 kΩ)

Other instruments such as a sound generator can be connected to this terminal, and the sound will be output from this instrument's speakers.

• To receive monaural sound, connect the other instrument to the **R/MONO** terminal. (Do not connect the L terminal.)

LINE OUT (output level 1.5 Vrms, 600 Ω)

By connecting an external high-power amplifier, the sound can be reproduced at a high volume.

To output monaural sound, connect the external equipment to the R/MONO terminal. (Do not connect the L terminal.) However, there are some cases where the sound quality may deteriorate depending on the sound.

MIDI

These terminals are for connection to another MIDI instrument. (Refer to page 35.)

HEADPHONES (phones) ×2

(Beneath the keyboard, on the left side)

For silent practice headphones may be used. When plugged in, the speaker system is automatically switched off, and sound is heard only through the headphones.



COMPUTER

By connecting this terminal to the serial port of a computer, performance data can be exchanged. Use the switch to select the type of computer.

 Be sure that the power to this instrument is turned off when connecting to a computer or when changing the switch setting.

Caution:

Failure to turn off the power before changing the switch setting may result in malfunction.

- The new switch setting is effective the next time the power is turned on.
- When no computer is connected, or when a MIDI interface is used, the switch should be set to MIDI.

Connection to a Macintosh series computer

Use an ACCESSORY CABLE (SZ-JJAP1: sold separately) to connect the **COMPUTER** terminal of this instrument to the modem port or printer port of a Macintosh Series computer. Set the switch to **MAC**.

- Set the MIDI interface clock of the Macintosh software to 1 MHz.
- · Do not remove the core at either end of the cable.

Connection to a PC

Use an ACCESSORY CABLE (SZ-JJAT1: sold separately) to connect the **COMPUTER** terminal of this instrument to the RS232C terminal of a PC. Set the switch to **PC2**.

- The MIDI driver included with the cable should be installed in the computer. (Refer to the manual accompanying the cable.) This MIDI driver is not compatible with Windows NT or Windows 2000.
- · Do not remove the core at either end of the cable.
- * All product and company names are trademarks or registered trademarks of their respective owners.

Symptoms which appear to be signs of trouble

The following changes in performance may occur in this instrument but do not indicate trouble.

	Phenomenon	Remedy		
S	The buttons, keys, etc. malfunction.	• Turn off the POWER button once, then turn it on again. If this procedure is not successful, turn off the POWER button once. Then, while pressing the INITIAL key, turn the POWER button on again. (Note that, in this case, all programmable settings, functions and memories return to their factory- preset status.)		
Sounds and effects	No sound is produced when the keys are pressed.	 The MAIN VOLUME is at the minimum setting. Adjust the volume with the MAIN VOLUME control. The LOCAL CONTROL for a part performed on the keyboard is set to OFF. Set the LOCAL CONTROL to ON. (Refer to page 37.) 		
Sound	Only percussive instrument sounds are produced when the keyboard is played.	 The DRUM KITS sounds in the GM/OTHERS button is selected. 		
	The volume is very low when the keyboard is played.	 The volume setting in the SEQUENCER contents is very low. Follow the INITIALIZE procedure to reset the settings. (Refer to page 41.) 		
	The sustain does not work even when the sustain pedal is depressed.	 The sustain pedal is not connected. Connect the pedal cord firmly to the PEDAL IN terminal on the back of the instrument. 		
SEQUENCER	Storage is not possible.	• The remaining memory capacity of the SEQUENCER is 0. Follow the SONG CLEAR or TRACK CLEAR procedure to erase the memory. (Refer to pages 22, 26.)		
đ	The Disk Drive produces a noise during recording or playback.	 This occurs when the Disk Drive is reading a disk. It does not indicate a problem. 		
Disk Drive	When the procedure to play back a song from the disk is performed, the contents of the instrument's memory are erased.	 When performing the operation to play back a song from a disk, this instrument's memory memory is overwriten by the data from the disk. If you wish to preserve a song which is stored in this instrument's memory, save it to a disk before performing the disk playback procedure. (Refer to page 30.) 		
	Data cannot be exchanged through MIDI terminals.	 The switch for the COMPUTER terminal is not set to MIDI. Turn off the power to this instrument and set the switch to MIDI. (Refer to page 39.) Match the channels on the transmitting side and the receiving side. (Refer to page 37.) 		
IQIW	The sound quavers or is distorted.	• When the COMPUTER terminal or both the MIDI IN and OUT terminals are connected to a computer, depending on the computer software the received data may be sent back to the instrument just as it is. Because of this the sound generated from the keys and the sound generated from the keys and the sound generated from the returned data are both produced, causing undesirable effects, such as the sounds canceling each other out, for example. In this case, either change the software settings to prevent received data from being returned, or set the MIDI LOCAL CONTROL to off.		

	Phenomenon	Remedy	
	Noise from a radio or TV can be heard.	 This sometimes occurs when electrical equipment such as a radio or TV is used near the instrument. Try moving such electrical equipment further away from the instrument. 	
Other		 The sound may be coming from a nearby broadcast station or amateur radio station. If the sound is bothersome, consult your dealer or service center. 	
	The cabinet becomes warm during use.	 This instrument has a built-in power source that heats the cabinet to some degree. This is not an indication of trouble. 	

Initialize

All of this instrument's settings can be reset to the factory-preset status.

1. Turn off the power to this instrument.



2. While pressing the keyboard key labeled INITIAL, turn the power on again.



- The initialize operation is executed (ALL INITIAL is shown on the display).
- Another initialize procedure is explained in the section on CONTROL functions. (See INITIALIZE on page 33.)

Settings that are initialized by this procedure

SEQUENCER contents (The song data recorded in this instrument is erased.)

All function settings (reset to their factory-preset settings or values)

About the backup memory

The instrument settings (except recorded song data) is retained for about one week after the power is turned off.

To save your recorded song data, please store it on a floppy disk before turning off the power. (Refer to page 30.)

• This instrument's recorded song data is retained for about one minute after the power is turned off.

Power on settings

When the **POWER** button of this instrument is turned on, the settings below are automatically set to those suitable for piano performance.

Sound: R = Concert Grand L = Acoustic Bass SPLIT: Off LOCAL CONTROL: On

etc.

Assembly

Follow the steps below to assemble your Technics plano. Make sure you are using the correct parts and that they are in the correct direction

- · At least 2 people are required for assembly
- · To disassemble the plano, reverse the procedure
- 1 Remove the packing and take the parts out of the carton Confirm that all the parts on the printed list are present



2 Affix the right and left side planks to the pedal box



- (1) Use the 4 brass-colored screws to secure the planks
- (2) Be sure to insert the screws straight
- · If a screw is inserted crookedly, it may be damaged
- (3) Insert each of the 4 screws partway, lightly securing each one little by little After confirming that the screws are all correctly inserted, tighten each one securely
- If each screw is tightened securely before all the screws are inserted, the last screw may be very difficult to insert
- (4) Extend the pedal cord, stowed on the inner side of the pedal box
- 3 Affix the rear panel



- For the brown wood grain model affix the rear panel so that the wood grain suface is facing the front
- (1) Insert the 2 black screws (C) partway in the upper part of the rear panel, securing them only lightly. Do not tighten the screws completely at this time.
- If the screws are tightened securely at this time, it may be difficult to affix the lower part of the rear panel

- (2) Insert the 4 black screws (B) through the mounting holes in the lower part of the rear panel and tighten the screws fully
- Run the screws directly into the pedal box as there are no rough holes in the pedal box
- (3) Tighten the 2 black screws (C) in the upper part of the rear panel completely
- 4 Place the plano body on the stand



WARNING

Avoid pinching your fingers

Note 1

Holding the plano body at least 10 cm in from the edge, place it on the stand so that it does not fall off

Note 2

If the piano body is placed too far to the right or left, or to the front or back, it will become unstable

5 Secure the plano body to the stand



(1) Insert 2 black screws (A) in the 2 rear screw holes on the underside of the piano body, and turn each screw 5 or 6 times. Push the piano body forward so that the screws are fully inserted in the cutout of the metal piece on either side plank. (This enables you to easily position the piano body on the stand.) (2) Adjust the piano body so that the right and left sides project evenly over the stand.



- (3) Positioning the piano body on the stand, confirm that the 4 balck screws (A) can easily be inserted.
- (4) Tighten the 4 screws securely.
- 6. Connect the pedal cord and power cord to the terminals.



• Plug the pedal cord and power cord into the terminals on the rear of the piano.

Confirm

- After assembling, check these points.
- Are any parts left over?
- → Check the assembly procedure again.
- Does the piano rattle when it is rocked?
 → Make sure all the screws are securely tightened.
- Is the power cord firmly inserted?
 → Check again.
- Is the plug of the pedal cord inserted as far into the connector terminal as it will go?
 - → If it is not completely inserted, the sustain and other pedal functions may not work.
- When the piano has been moved or transported, retighten the screws securely.

Error messages

No.	Contents	
00: WRONG DISK!	The data on the disk that you are using is for a different product.	
01: LOAD ERROR! TRY AGAIN!	An error has occurred while the disk was loading. Please try again!	
02: NO DISK	There is no disk in the Disk Drive.	
03: FILE EMPTY!	The file that you tried to play is empty.	
04: SAVE ERROR! TRY AGAIN!	An error has occurred while the disk was saving. Please try again!	
05: WRITE PROTECTED!	The disk that you are using is write protected. Please remove the write protection and try again.	
06: DISK FULL!	The disk that you are using is full. Please use another disk.	
07: FORMAT ERROR	An error has occurred while the disk was formatting. The disk that you are using may be faulty. Please try formatting another disk.	
08: COPY PROTECTED!	You attempted to save a song which is based on copyrighted song data. Such data cannot be saved.	
09: NO SEQUENCER DATA!	The song you are trying to save is empty.	
10: UNFORMAT DISK	The disk you are using has not been formatted. Format the disk before using it.	
11: SEQUENCER DATA ERROR!	An error occurred during playback. Playback is not possible.	
12: MEMORY FULL!	The recording memory is full. Further recording is not possible.	
13: ONLY FOR PLAY	This song data is for playback only. Recording or saving to a disk is not possible.	
14: DRUM KIT ONLY FOR RHYTHM TR	DRUM KIT sounds (GM/OTHERS) can be recorded only in the RHYTHM track. It is not possible to record these sounds in other tracks.	

Specifications

	SX-PX665	
KEYBOARD	88 KEYS	
SOUND GENERATOR	РСМ	
MAX. POLYPHONY	64 NOTES	
SOUND	350 SOUNDS: GRAND PIANO, UPRIGHT PIANO, ELECTRIC PIANO, MODERN PIANO, HARPSI, VIBES, STRINGS, VOCAL, ORGAN PRESETS, GM/OTHERS	
SPLIT	LEFT SOUND, SPLIT POINT, LEFT VOLUME, LEFT OCTAVE, RIGHT OCTAVE, SUSTAIN PEDAL	
PEDAL	SUSTAIN, SOSTENUTO, SOFT	
EFFECT	DIGITAL EFFECT, PIANO AMBIENCE, DIGITAL REVERB, STRING RESONANCE	
BRILLIANCE	MELLOW, BRIGHT (5 STEPS)	
TOUCH SENSITIVITY	LIGHT, NORMAL, HEAVY	
TRANSPOSE	G-C-F:	
METRONOME	BEAT: OFF, 2/2, 2/4, 3/4, 3/4, 4/4, 5/4, 6/4, 7/4, 3/8, 6/8,9/8, 12/8, TEMPO	
SEQUENCER	TRACK: 1–4, RHYTHM STORAGE CAPACITY: APPROX. 20000 NOTES, RECORDING MODE: REAL TIME COUNT IN, SEQUENCER VOLUME, RESET, STOP, PLAY,RECORD, BWD, FWD MENUS: SONG NAMING, TEMPO WRITE, PANEL WRITE, PART SETTING, FIXED TEMPO,	
	SONG CLEAR, TRACK CLEAR	
DISK DRIVE	3.5inch FLOPPY DISK DRIVE for 2HD (1.44MB), 2DD (720kB) SONG SELECT MENUS: SONG SAVE, SONG DELETE, DISK FORMAT	
CONTROL	INITIALIZE, MASTER TUNING, KEY SCALING, PIANO TUNING, MINIMUM RANGE, REVERB CONTROL	
MIDI	BASIC CHANNEL, LOCAL CONTROL, TRANSPOSE OUT, PROGRAM CHANGE, PEDAL ON/OFF, EFFECT ON/OFF, PROGRAM CHANGE OUT	
DISPLAY	LCD (16 CHARACTER × 2 LINES)	
DEMO	0	
TERMINALS	LINE OUT (R/MONO, L), AUX IN (R/MONO, L), MIDI (IN, OUT), COMPUTER, PEDAL IN, PHONES× 2	
OUTPUT	120W (60W × 2)	
SPEAKERS	14 cm × 2, 6.5 cm × 2	
POWER REQUIREMENT	135 W/180 W (NORTH AMERICA AND MEXICO) AC 120/220/240 V 50/60 Hz AC 120V 60 Hz (NORTH AMERICA AND MEXICO) AC 230-240V 50/60 Hz (EUROPE, AUSTRALIA, NEW ZEALAND, SINGAPORE AND PHILIPPINES)	
DIMENSIONS 142 cm × 106.7 cm × 51.4 cm (W×H×D) (55-29/32" × 42" × 20-1/4")		
NET WEIGHT	55 kg (121.3 lbs.)	
ACCESSORIES	AC CORD	

• In some markets, one of the models may not be available.

• Design and specifications are subject to change without notice.

Demo Performance List



SOUND NAME		SONG TITLE	COMPOSER
	1	Polonaise Heroique	Chopin
	2	Clair de Lune (Suite bergamasque)	Debussy
	3	from Sonata A major (K 331)	Mozart
	4	Military March	Schubert
GRAND	5	Technics Original	
	6	Danny Boy	Traditional
	7	Beautiful Dreamer	Foster
	8	Swannee River	Traditional
	9	Dynamic Acoustic feature demo*	Technics Original
UPRIGHT		My Lady's-Ride (25 Easy Studies Op 100)	Burgmuller
ELECTRIC		Amazing Grace	Traditional
MODERN		Technics Original	
HARPSI		Prelude in C [#] major No 3 from Book 1 of 48 Preludes & Fugues (BWV 848)	Bach
VIBES		La Paloma	Traditional
STRINGS		Technics Original	
VOCAL		Ave Maria	Burgmuller
ORGAN	A	Courante from Suite No 5 in G major (BWV 816)	Bach
PRESETS	В	The House of the Rising Sun	Traditional
	С	Technics Original	
GM/OTHERS	D	Technics Original	
	E	from Piano Concerto No 21 2nd Movement	Mozart

* This demo highlights the New Dynamic Acoustic system PCM sound generator of this plano. It exhibits Total Sound reproduction, created by the addition of the Hammer Sound and String Resonance to the basic sound.

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