YAMAHA
PORTATONE
PSR·41

Owner's Guide

YAMAHA

Congratulations!

Thank you for purchasing a Yamaha PortaTone PSR-41. This PortaTone is an ultra-modern keyboard with a design based on the latest digital electronics technology.
To be sure you get maximum satisfaction, we suggest you follow the steps in this manual carefully while actually playing the instrument.

Contents

Before playing

Inserting Batteries
Remove the battery compartment cover on the bottom of the instrument and insert six 1.5V SUM-1, "D" size, R-20, or equivalent *alkaline* batteries (sold separately), making sure that the polarities are placed as directed inside the compartment. Replace the cover, ensuring that it locks securely in place.

Optional power adaptors
Household current: Power Adaptor PA-4/PA-40 is available for household current. No other adaptor is usable, so when you purchase a power adaptor please ensure that it is model PA-4/PA-40.
Car Battery: Car Battery Adaptor CA-1 plugs into a car cigarette lighter socket.

1

Nomenclature
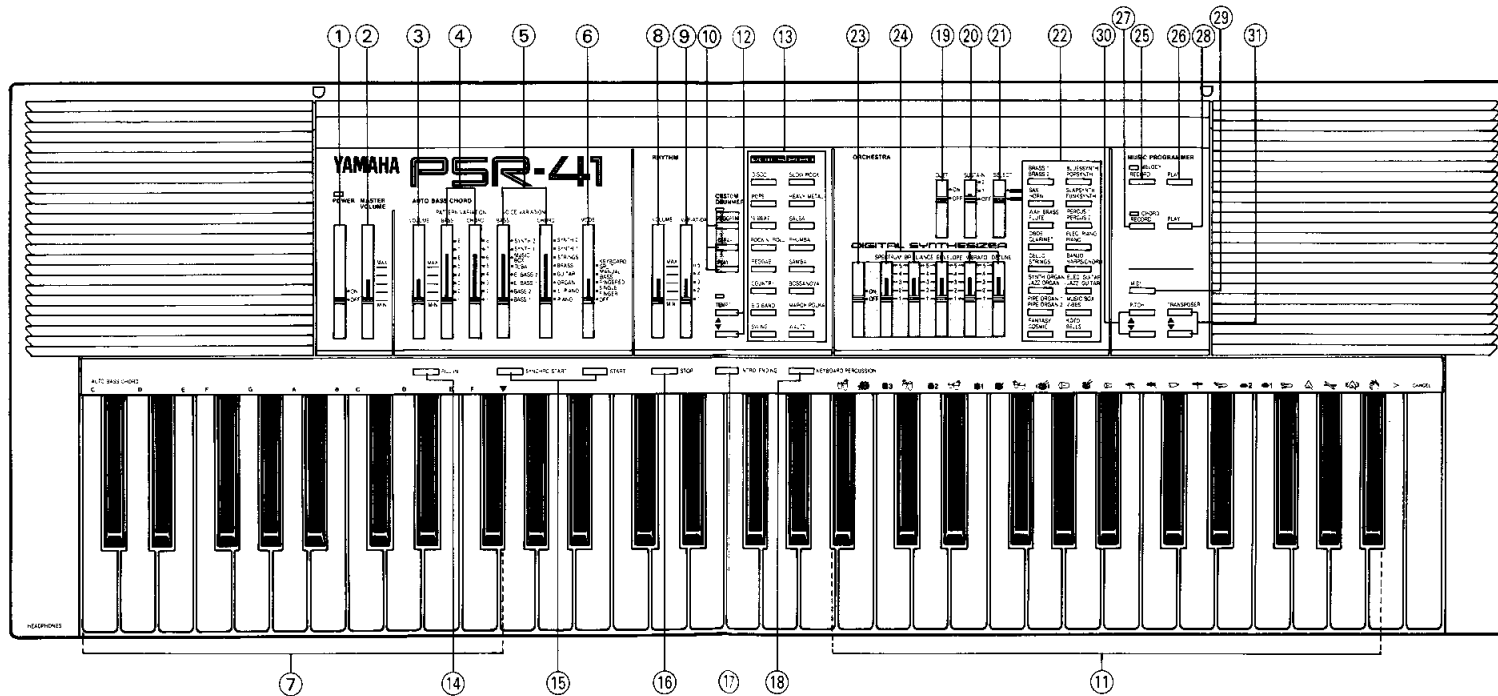
① Power Switch
② Master Volume Control
③ Auto Bass Chord Volume Control
④ Bass & Chord Variation Selectors
⑤ Bass & Chord Voice Selectors
⑥ Auto Bass Chord Mode Selector
⑦ Auto Bass Chord Key Section
⑧ Rhythm Volume Control

⑨ Rhythm Variation Selector
⑩ Custom Drummer Function Selectors
⑪ Custom Drummer Key Section
⑫ Tempo Controls
⑬ Rhythm Selectors
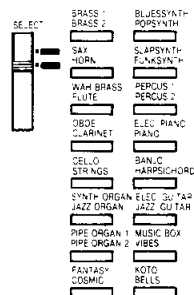⑭ Fill-In Button
⑮ Synchro Start and Start Buttons
⑯ Stop Button

⑰ Intro./Ending Button
⑱ Keyboard Percussion Button
⑲ Duet On/Off Switch
⑳ Sustain Selector
㉑ Orchestra Bank Selector
㉒ Orchestra Voice Selectors
㉓ Digital Synthesizer Selector
㉔ Voice Data Controllers

㉕ Melody Record Button
㉖ Melody Play Button
㉗ Chord Record Button
㉘ Chord Play Button
㉙ MIDI Button
㉚ Pitch Controls
㉛ Transposer

■ 2 ■

Starting to play

Orchestra section

First, try the sounds in the Orchestra section, which is a fundamental part of this keyboard.

SELECT	BRASS 1 BRASS 2	BLUESSYNTH POPSYNTH
	SAX HORN	SLAPSYNTH FUNKSYNTH
	WAH BRASS FLUTE	PERCUS 1 PERCUS 2
	OBOE CLARINET	ELEC PIANO PIANO
	CELLO STRINGS	BANJO HARPSICHORD
	SYNTH ORGAN JAZZ ORGAN	ELEC GUITAR JAZZ GUITAR
	PIPE ORGAN 1 PIPE ORGAN 2	MUSIC BOX VIBES
	FANTASY COSMIC	KOTO BELLS

1. Switch on

Slide the POWER switch ① to the "ON" position. The Power-on light will then illuminate.

POWER

• ON
• OFF

2. Adjust the volume

Slide the MASTER VOLUME control ② about three-quarters of the way towards Max. to set the volume level.

MASTER VOLUME

MAX

MIN
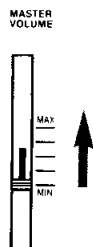
3. Choose an instrument voice

First set the Orchestra Bank selector ㉑ for the desired bank of voices (Orchestra Bank selector in upper position to select upper row of voices labeled in silver above the voice selectors, lower position to select lower row of voices labeled in yellow.) Then press the Orchestra Voice selector ㉒ for the desired voice in the selected bank.

- When you turn the keyboard ON, the BRASS 1 voice will automatically be selected if the Orchestra Bank selector ㉑ is set to the upper position, and the BRASS 2 voice will be selected if the Orchestra Bank selector is set to the lower position.

Notes:
1. Vibrato is automatically applied to voices which benefit from application of this effect.
2. Be sure to set the Auto Bass Chord MODE selector ⑥ to the OFF position. When the selector is set to the SINGLE FINGER or FINGERED position, the keys in the Auto Bass Chord key section ⑦ cannot be used for melody playing.

4. Try other voices
Make your selection from among the voices in the ORCHESTRA section ㉒.

STRINGS

BRASS

Note:
The maximum number of notes that can be played simultaneously (normally twelve) will be reduced when the Auto Bass Chord, Duet and Digital Synthesizer are used. The minimum number of simultaneous notes is two.

5. Adding sustain
Slide the SUSTAIN selector ⑳ to its "1" or "2" setting, and notes will be sustained after you lift your fingers from the keys. SUSTAIN 1 produces a short sustain, SUSTAIN 2 produces a longer sustain.

SUSTAIN
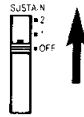
● **Transposer**
The Transposer ㉛ lets you adjust the PortaTone's pitch to suit either a singing voice—so anyone can sing along as you play—or an instrument such as a B♭ trumpet, clarinet, or E♭ saxophone. When ▲ is pressed, the pitch rises by a semitone. When ▼ is pressed, the pitch decreases by a semi-tone. When both selectors are pressed simultaneously, the normal pitch is obtained.

TRANSPOSER

● **Pitch control**
The Pitch controls ㉚ differ from the Transposer in that their function is to fine-tune the keyboard. This allows you to tune the PSR-41 to match other instruments such as a guitar. Each time ▲ is pressed, the pitch increases very slightly, up to a maximum of 50 cents (above the preset level). Whenever ▼ is pressed, the pitch drops very slightly, also to a maximum of 50 cents.

PITCH

Notes:
1. *If you hold down one of the PITCH or TRANSPOSER controls, the pitch will change continuously.*
2. *If you press both of the PITCH or TRANSPOSER controls together, the pitch will return to the preset level ($A_3 = 440Hz$).*

Voice Editing

DIGITAL SYNTHESIZER
As one of the PSR-41's special features, the Digital Synthesizer function allows you to expand the 32 orchestra voices to total of 100,000 different voices.

DIGITAL SYNTHESIZER
SPECTRUM BRILLIANCE ENVELOPE VIBRATO DETUNE
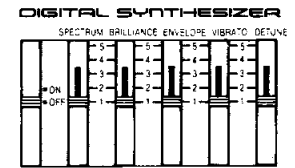
Let's create various voices using DIGITAL SYNTHESIZER.
1. Select the desired voice by pressing one of the 32 Orchestra Voice selectors ㉒.
2. Set the Digital Synthesizer selector ㉓ to ON.
3. Adjust the volume using the Master Volume control ②.
4. Set each Voice Data controller (SPECTRUM, BRILLIANCE, ENVELOPE, VIBRATO and DETUNE) ㉔ to the position which results in the desired sound.

SPECTRUM
This controls the timbre or tone color of the voice.

BRILLIANCE
This determines how brilliant or mellow the voice is.

ENVELOPE
Controls the attack of the notes (whether the notes begin sharply or smoothly).

VIBRATO
This controls the vibrato effect.

DETUNE
Increasing the DETUNE setting produces a "thicker" multi-instrument type sound.

5. Now, let's play some notes. By comparing the same voice in both the ON and OFF settings of the Digital Synthesizer Selector ㉓, you can distinguish the difference in timbre.

* *The degree to which a voice changes varies with the selected voice.*

Using the built-in drummer

PCM/Stereo rhythm section
Now it's time to add a dynamic rhythm accompaniment to your melody.

1. Choose a rhythm
Pick the rhythm that best suits the music you're going to play and press the corresponding Rhythm selector ⑬.
- When you turn the keyboard ON, the DISCO rhythm is automatically selected.

2. Start the rhythm
After selecting a rhythm, press the START selector ⑮.
- **Synchro Start**
Use the SYNCHRO START button ⑮ if you want the rhythm to begin from the moment you first press a key. Any of the 19 keys (up to $F^\#_2$) beginning at the left of the keyboard (Auto Bass Chord key section ⑦) will activate the rhythm.
- **Intro./Ending**
Instead of using START, you can have the rhythm begin by using the INTRO./ENDING button ⑰. When this selector is pressed, the rhythm will start after a two-bar intro-phrase.
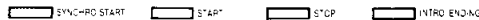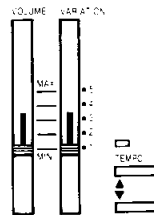
3. Adjustments
- **Volume**
The Rhythm VOLUME control ⑧ lets you adjust the rhythm volume in relation to the melody volume.
- **Tempo**
Use the TEMPO controls ⑫ to adjust the speed of the rhythm.
- **Variation**
The Rhythm VARIATION selector ⑨ gives a choice of five patterns for each rhythm.

4. Making use of the Tempo Light
The Tempo Light functions as a visual metronome, making it simple for you to confirm the rhythm tempo. It flashes indicating tempo when the rhythm is running and also when the SYNCHRO START button ⑮ has been pressed but you have not yet started the rhythm by pressing a key.

5. Adding fill-ins
If you tap the FILL-IN button ⑭, the rhythm being played will be replaced with a 1-bar drum solo.
- If you press the FILL-IN button ⑭ before starting to play, the rhythm will start after a 1-bar drum solo.
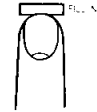
6. Using the INTRO./ENDING button for your musical finale
If you press the INTRO./ENDING button ⑰ when the rhythm is on, the rhythm will stop automatically after playing a two-bar ending phrase. If you wish to stop the rhythm immediately, press the STOP button ⑯.

Keyboard Percussion
Press the KEYBOARD PERCUSSION button ⑱, and you can enjoy playing like a drummer by tapping the Custom Drummer keys ⑪ with your fingers. Twenty-five PCM digital percussion sounds are assigned to the keys. The different kinds of percussion instrument sounds are indicated by symbols next to the relevant keys. (When the Keyboard Percussion feature is engaged, the Tempo Light will come on). If you turn KEYBOARD PERCUSSION ON while a rhythm pattern is playing, the rhythm pattern will stop (leaving bass and/or chord backing when using the Auto Bass Chord function described in item 7) so you can play your own rhythm on the Custom Drummer keys. Press the KEYBOARD PERCUSSION button ⑱ a second time to exit the Keyboard percussion mode.

5
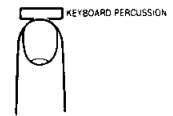
# Creating original rhythm patterns

Custom Drummer
The PSR-41 has 80 preset rhythm patterns (including variations). Apart from the preset patterns, you can also create original ones of your own using Custom Drummer ⑩.
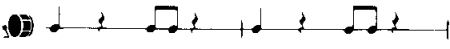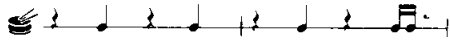
Programming a rhythm pattern
Create your own version of the 8 Beat rhythm.
1. First of all, choose a basic rhythm pattern from among the preset rhythms. As an example, select POPS.
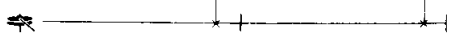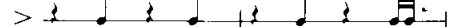2. Press the PROGRAM selector. You are now ready to input.
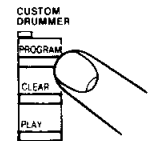
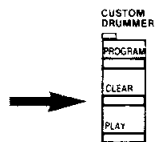Try writing the following rhythm patterns:

BASS DRUM

SNARE DRUM

**CLOSED HI-HAT**

OPEN HI-HAT

ACCENT

3. Press the CLEAR selector and the preset POPS is cancelled, leaving only the sound of the beat count.

4. Input the bass drum pattern by tapping the key indicated by the 🥁 figure.
5. The same procedure is required for inputting snare drum, closed hi-hat, and open hi-hat. You can add an accent (slightly higher volume level) to the timing you want by tapping the > key (B_5).
6. If you make an error, cancel it by pressing the relevant percussion key together with the CANCEL key (C_6). The input that percussion instrument again.

CANCEL Key

B_5 C_6
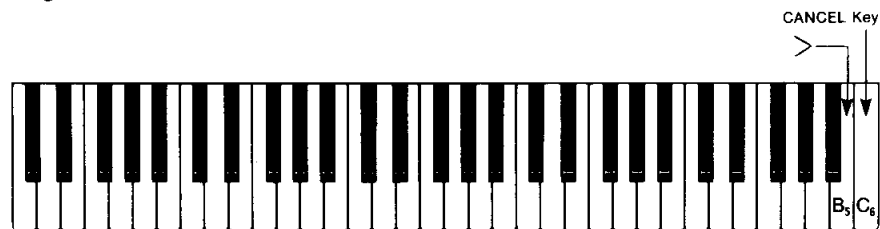
7. When your original pattern is completed, press the STOP button ⑯ or PROGRAM button again.
● In procedure 3, if you do not want to erase all of the percussion sounds, you can use the CANCEL key (C_6) and individual percussion keys to selectively erase.
8. Now, playback what you have programmed by pressing the PLAY selector.

Try other rhythm patterns as shown below:

MARCHING DRUM (set to MARCH/POLKA)
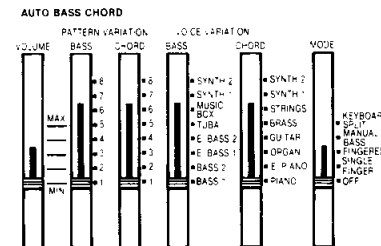
SNARE DRUM

OPEN HI-HAT

Notes:
1. When you play back a customized rhythm, the Auto Bass Chord feature can be used in the same way as with a preset rhythm.
2. The total number of percussion voices that can be used for one pattern amounts to 8.
3. When the power is OFF, the data that you input will be erased automatically.

6

Adding accompaniment

Auto Bass Chord section

The Auto Bass Chord section is an automatic accompaniment feature.
If the MODE selector ⑥ is set to OFF, the Auto Bass Chord system does not function.
With the SINGLE FINGER position selected, you can play chords plus bass notes with just one finger when you press any of the keys in the Auto Bass Chord key section ⑦.
The FINGERED position is suitable for you if you already know how to play chords since it lets you play your own chords and still get the bass accompaniment.

For one-fingered accompaniment
1. **Slide the selector to the SINGLE FINGER position.**
2. **Select a rhythm**
   Choose the rhythm you want then press the SYNCHRO START or START button ⑮. (Don't forget to do this whenever you use the Auto Bass Chord feature).
3. **Press a key**
   Press one of the 19 keys in the Auto Bass Chord key section ⑦ on the left side of the keyboard.

Auto Bass Chord key section
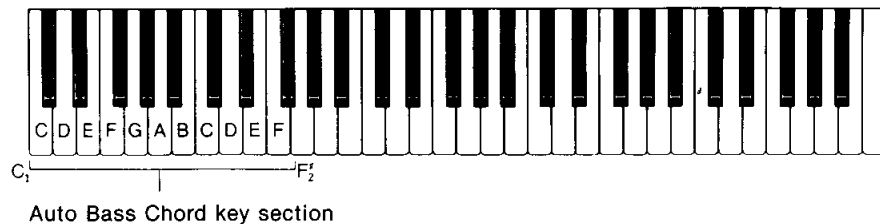
You will hear the corresponding chord with bass and rhythm accompaniment. For instance, when you press "C," you'll obtain a C major chord that plays along with the bass and rhythm.

C   G   F
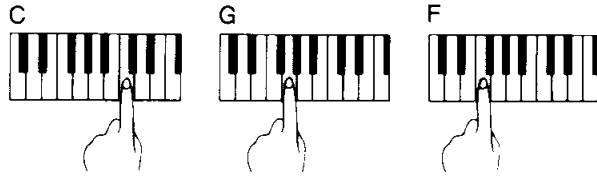
4. Set the volume
Adjust the volume to suit the overall level using the Auto Bass Chord VOLUME control ③.
5. Set the tempo
Set the tempo you want using the TEMPO controls ⑫ in the Rhythm section.
6. Select a variation combination
Using the BASS and CHORD VARIATION selectors ④, choose the bass and chord pattern combination most suitable for the kind of music you want to play.
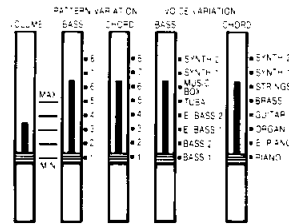
● Moving the CHORD VARIATION selector to position No. 8 cancels the chord accompaniment, leaving only the bass line and percussion. You can then play your own chords in the normal way.

7. Select the bass and chord voices
Enjoy selecting different bass and chord voices using the BASS and CHORD VOICE selectors ⑤ to suit the music.
8. To stop the Auto Bass Chord accompaniment
Press the STOP button ⑯ in the Rhythm section.

Obtaining minor, seventh, and minor seventh chords in Single Finger mode.
● To get a C minor chord depress the C key together with the next black key to the left.
● To get a C seventh chord depress the C key together with the next white key to the left.
● To get a C minor seventh chord, simply press the C key together with the black key and white key to the left.

Cm   C₇   Cm₇
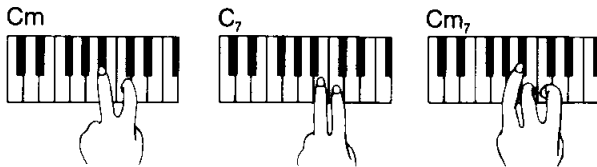
For automatic accompaniment based on three-note or four-note chords
1. Slide the selector to the FINGERED position.
2. When a combination of keys located in the Auto Bass Chord key section ⑦ is pressed, the resulting chord will be played together with the automatic accompaniment consisting of the bass line and the selected rhythm.


C chord   G chord   F chord
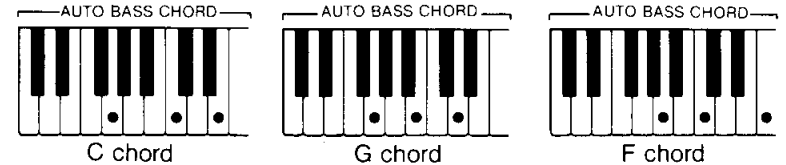
Note:
The chord accompaniment selected by chord variation selectors 6 and 7 include arpeggio patterns. The arpeggio patterns are only produced, however, when major, minor, dominant seventh or minor seventh chords are played.

● **Adding harmony to the melody (DUET)**
This function works together with the SINGLE FINGER or FINGERED feature in the Auto Bass Chord section. Slide the DUET on/off switch ⑲ to ON, and a harmonizing note (taken from your left hand chord) will be added to each melody note you play.
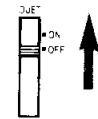
Advanced course 1:
Manual Bass accompaniment
1. Slide the MODE selector ⑥ to the MANUAL BASS position.
2. Play your own bass line using the keys in the Auto Bass Chord key section ⑦.

Note:
You can play only one note at a time in the Auto Bass Chord key section when using this function.

Advanced course 2:
Keyboard split
If you set the Auto Bass Chord MODE selector ⑥ to the KEYBOARD SPLIT position, the auto accompaniment will be cancelled, enabling you to play the 19 keys in the Auto Bass Chord key section using any of the CHORD voices. This means that you can play with different voices for your left and right hands. Choose the left-hand voice by means of the CHORD VOICE selector ⑤.

Note:
You can play up to four notes at the same time in the Auto Bass Chord key section when using this function.

2-track Recording System

MUSIC PROGRAMMER
☐ MELODY
RECORD   PLAY

☐ CHORD
RECORD   PLAY

Music Programmer

About the Music Programmer

With this feature you can have the keyboard store the chords and melody that you play in its memory. Then you can have them played back in any tempo you like. The main advantages are:

1. After storing the chord progression and rhythm pattern in the memory, you can have them played back automatically to accompany you while you concentrate on practicing your melody performances or improvisations.
2. Besides having the above benefit, the PSR-41 lets you store a melody line independently as in a 2-track recording studio. The two tracks can then be played back together, making possible a truly professional sound.
- Memorized data is automatically cleared and replaced by new data when music is played with the Record mode selected.
- The following data are not memorized: Volume, Tempo, Transposer, Pitch, MIDI Mode, Custom Drummer, Keyboard Percussion and Expression Pedal.

Note:
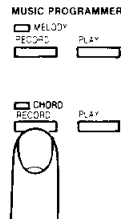*When the power is OFF, the data that you input will be erased automatically.*

This owner's guide shows how to use the memory system using "Greensleeves" as an example.

Step 1

Chord Programming
A. Chord recording
1. Depress the CHORD RECORD button ㉗ in the Music Programmer section.

MUSIC PROGRAMMER
☐ MELODY
RECORD   PLAY

☐ CHORD
RECORD   PLAY

2. Try storing the accompaniment for "Greensleeves". First, select WALTZ in the Rhythm section, and then play the following chord sequence together with the rhythm: (using the Auto Bass Chord key section ⑦)

| Am — D — G — Em — Am — E₇ — Am — Am				
Am	D	G	Em	E₇
Single Finger Chord				
Fingered Chord				

Note:
The accompaniment can be played using either the Single Finger or Fingered mode of the Auto Bass Chord section. However, the Single Finger mode is automatically engaged when you press the CHORD RECORD button ㉗ except when using the Fingered mode beforehand (see page 9 for instructions on Single Finger and for Fingered).

3. When all of the chords have been programmed, press the STOP button ⑯ or CHORD RECORD button ㉗ again. The accompaniment has now been stored in the memory.

B. Chord playback
The memorized accompaniment can be played back, unless you cancel the memory contents by inputting a different chord sequence.
1. Press the CHORD PLAY button ㉘.

MUSIC PROGRAMMER
☐ MELODY
RECORD   PLAY

☐ CHORD
RECORD   PLAY
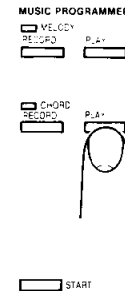
2. To start playback, press the START botton ⑮ or any key on the keyboard.

☐ START

3. Try playing the melody of "Greensleeves" to the accompaniment playback (see below).
4. Playback can be stopped at any time by pressing the STOP button ⑯.
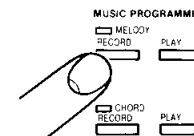
Step 2

Programming of melody
A. Melody recording
With the accompaniment of "Greensleeves" stored in the memory, you can now record the melody.

1. Press the MELODY RECORD button ㉕. If you want to listen to the stored accompaniment while you play the melody, also press the CHORD PLAY button ㉘.

MUSIC PROGRAMMER
☐ MELODY
RECORD   PLAY

☐ CHORD
RECORD   PLAY

2. Select the voice you want using the Orchestra voice selectors. As an example, select the FLUTE voice.
3. Play the melody.
   Since recording begins as soon as the melody is started, you are free to commence playing when the timing feels right for you.

Melody

4. When you have finished playing the melody, Press the STOP button ⑯ or MELODY RECORD button ㉕ again.
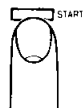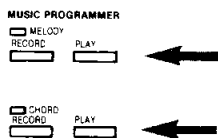
Note:
When the Music Programmer is used, the Orchestra becomes four-note polyphonic at maximum. However, if you use DUET or the DIGITAL SYNTHESIZER, the number of notes audible at one time decreases.

B. Music playback

Now you can simultaneously play back the memorized accompaniment and melody for "Greensleeves".

1. Press the MELODY PLAY button ㉖ and CHORD PLAY button ㉘.

2. Tap the START button ⑮, any key on the keyboard or the INTRO./ENDING button ⑰ to start playback. The music you can hear would have been impossible without the aid of the Music Programmer.

Notes:
1. The voices and rhythm can be changed if desired. However, it is not recommended to change from the Waltz rhythm which has a 3/4 measure to a rhythm with a 4/4 measure.
2. Playback can be stopped at any time by pressing the STOP button ⑯.

Capacity of Music Programmer
- About 100 chord changes and 240 melody notes can be recorded.
- If complicated chords are recorded by using Fingered Chord, the chord recording capacity will be reduced.
- If the number of chords or melody notes exceeds the memory capacity, recording will stop automatically.

8

External jacks

Several jacks are provided at the back of the keyboard for connecting a variety of optional accessories. There is also a headphone jack at the front.
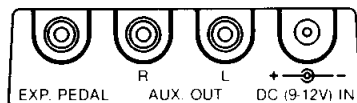
A. External power source jack (DC 9-12V IN)

- **AC power**
  Connect the optional AC Power Adaptor PA-4/PA-40 to the DC 9-12V IN jack.

- **Car battery**
  The Car Battery Adaptor CA-1 plugs into the DC 9-12V IN jack and a cigarette lighter socket.

B. Aux Out jacks (L & R)
You can channel sound through your stereo system using these jacks. Use the optional connecting cord PSC-3.
- Impedance: 600Ω
- Output level: -7 ± 3dBm (7 notes sounding simultaneously at maximum volume with Jazz Organ voice)

Note:
These jacks were designed to accommodate the most commonly used impedances. Significant deviation from these specifications will result in inadequate drive, distortion, noise, and poor performance in general.

C. Expression pedal jack
The EXP.PEDAL jack is for connecting the Expression Pedal EP-1, which lets you control the overall volume level using your foot.

D. Headphone Jack (Below left end of keyboard.)
Connect a set of headphones to this jack and you can practice without disturbing others.

E. MIDI Jacks (IN & OUT)
Refer to page 15 for details concerning MIDI.


9

Optional accessories

- **AC Power Adaptor (PA-4/PA-40)**
  Transforms AC voltage to DC voltage.
- **Car Battery Adaptor (CA-1)**
  Enables you to provide power to the instrument from a car battery using the cigarette lighter socket.
- **Soft Carrying Case (SCC-12)**
  For convenient transportation.
- **Headphones (HPE-3/5)**
  Specially designed lightweight dynamic headphones with extra-soft ear pads.
- **Connecting Cable (PSC-3)**
  For connecting the keyboard to a stereo hi-fi system or cassette tape deck.
- **Keyboard Stand (L-2/4)**
- **Expression Pedal (EP-1)**
  Lets you add more feeling to music by enabling subtle control of the overall volume level.
- **Bench (BC-6)**

Some optional accessories may not be available in every region.

About MIDI

MIDI is an acronym standing for Musical Instrument Digital Interface, which is a standard interface for communication between keyboards and other music devices.
The PortaTone PSR-41 is equipped with MIDI jacks (IN and OUT), enabling connection of the PortaTone to another keyboard equipped with MIDI jacks or an expander module, for synchronized performances.

(Example)

MIDI OUT	MIDI IN
PSR-41	Another keyboard equipped with MIDI jacks
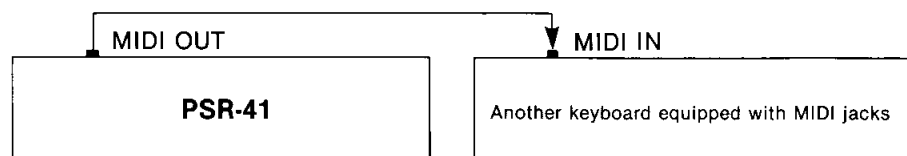
- When the power is turned on, the mode is: LOCAL ON, OMNI ON, POLY.
- Data to be sent/received in normal mode
  - Key ON/OFF
 - Orchestra voice change
  - Orchestra sustain

● MIDI Functions

The PSR-41 is equipped with 6 MIDI functions. These functions are selected by pressing the Orchestra Voice Selector shown in the table below while pressing the MIDI button ㉙.

Table of MIDI Functions

To select MIDI functions, press the appropriate Orchestra. Voice selector (as shown below) while holding the MIDI button.

	BRASS 1 / BRASS 2	BLUESSYNTH / POPSYNTH
Send CH Select		
Receive CH Select	SAX / HORN	SLAPSYNTH / FUNKSYNTH
Split Send Mode	WAH BRASS / FLUTE **ON**	PERCUS 1 / PERCUS 2 **OFF**
Program Change	OBOE / CLARINET **OFF**	ELEC. PIANO / PIANO **ON**
Clock Select	CELLO / STRINGS **EXT**	BANJO / HARPSICHORD **INT**
Local ON/OFF	SYNTH ORGAN / JAZZ. ORGAN **OFF**	ELEC. GUITAR / JAZZ. GUITAR **ON**
	PIPE ORGAN 1 / PIPE ORGAN 2	MUSIC BOX / VIBES
	FANTASY / COSMIC	KOTO / BELLS
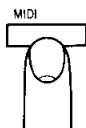
MIDI

1&2. Selecting MIDI Channels

While holding the MIDI button ㉙, press BRASS 1/BRASS 2 (send channel) or SAX/HORN (receive channel) and then press one of the black or white keys on the left of the keyboard to designate the channel (CH1 through CH16 from left).

17th key from the left
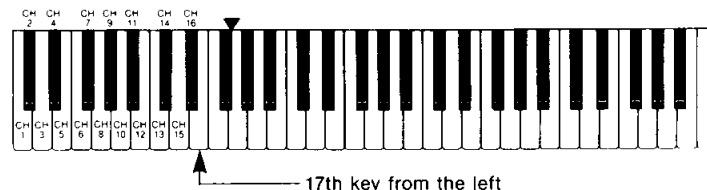
Note:
The OMNI ON Mode is selected by pressing the 17th key from the left while pressing the MIDI button ㉙.

3. Split Send Mode

When this mode is selected, only the Key On data for keys to the left of the split point (▼) is sent on the designated channel (fixed at CH2) when SINGLE FINGER, FINGERED, MANUAL BASS, or KEYBOARD SPLIT mode is selected.

4. Program Change Off

This is used to cancel the sending and reception of voice select and rhythm select information (program changes) from an external device.

5. MIDI Clock Select

This is used for synchronization with the timing clock of an external device.

6. Local Off

This is used to cancel the melody sounds of the PSR-41. (Rhythm and Auto Bass Chord cannot be turned off. The Rhythm and Auto Bass Chord sounds can be eliminated by setting their volumes to MIN.)

Taking care of your PortaTone

Your PortaTone will remain in excellent playing condition if care is taken concerning the following.
1. When you use AC power, be sure to use the optional AC Power PA-4/ PA-40 adaptor. Before use, read the adaptor instructions carefully. In particular, please note that in some cases the PA-4/PA-40 is provided with a voltage selector, so confirm that this selector is correctly set.
2. The optional car battery adaptor CA-1 is only for use with a negative ground 12V battery. Ensure that this is the case before connecting the adaptor.
3. Connections made between the PortaTone and any other device should be made with both units turned off.
4. Do not set the MASTER VOLUME at MAX when you connect the PortaTone to a stereo system. Use the stereo system's volume control to adjust the sound level.

5. Avoid placing the instrument in excessively humid areas.
6. Do not subject the unit to physical shock, and avoid placing anything heavy on it.
7. The PortaTone should not be placed in direct sunlight for a long time.
8. Do not place the instrument near any heating appliance, or leave it inside a car in direct sunlight for any length of time. Direct sunshine can raise the interior temperature of a car with closed doors and windows to as high as 80°C. Temperatures in excess of 60°C can cause physical and/or electrical damage not covered by warranty.
9. Use a dry or damp cloth for cleaning.
10. When you aren't using the PortaTone, we recommend keeping it in the case to protect it.

12

Specifications

Keyboard
61 keys (C_1—C_6)
Orchestra Voices (Upper Bank/Lower Bank)
Brass 1/Brass 2, Sax/Horn, Wah Brass/ Flute, Oboe/Clarinet, Cello/Strings, Synth Organ/Jazz Organ, Pipe Organ 1/Pipe Organ 2, Fantasy/Cosmic, Bluessynth/ Popsynth, Slapsynth/Funksynth, Percus 1/ Percus 2, Elec. Piano/Piano, Banjo/ Harpsichord, Elec. Guitar/Jazz Guitar, Music Box/Vibes, Koto/Bells
Effects
Duet, Sustain (1, 2)
Digital Synthsizer Section
Spectrum (1—5), Brilliance (1—5), Envelope (1—5), Vibrato (1—5), Detune (1—5), On/Off
Rhythm Section
Disco, Pops, 16 Beat, Rock'n' Roll, Reggae, Country, Big Band, Swing, Slow Rock, Heavy Metal, Salsa, Rhumba, Samba, Bossanova, March/Polka, Waltz
Controls: Tempo, Volume, Variation (1—8), Synchro Start, Start, Stop, Intro./Ending, Fill-In, Tempo Light
Custom Drummer: Program, Clear, Play
Keyboard Percussion: 11 Latin Percussions, 13 Drum Percussions, Hand Clap, Accent, Cancel
Auto Bass Cord Section
Mode Selector: Single Finger, Fingered, Manual Bass, Keyboard Split, Off
Chord Voices: Piano, E. Piano, Organ, Guitar, Brass, Strings, Synth 1, Synth 2
Bass Voices: Bass 1, Bass 2, E. Bass 1, E. Bass 2, Tuba, Music Box, Synth 1, Synth 2
Chord Variation: 1, 2, 3, 4, 5, 6, 7, 8
Bass Variation: 1, 2, 3, 4, 5, 6, 7, 8
Control: Volume

Music Programmer Section
Melody Record, Melody Play, Chord Record, Chord Play, Melody Light, Chord Light
Transposer
1/2 octave up and down
Pitch Control
±50 cents
Other Controls and Indicators
Power Switch, Power-on Light, Master Volume, MIDI
Auxiliary Jacks
Headphones, Expression Pedal, MIDI IN, MIDI OUT, Aux Out (L/R), DC9—12V IN
Main Amplifier
5W × 2 (RMS)
Speaker
12cm (4-3/4") × 2
Rated Voltage
DC9V (Six SUM-1, "D" size, R-20 or equivalent batteries), AC Power Adaptor (PA-4/PA-40) or Car Battery Adaptor (CA-1)
Dimensions (W × D × H)
913mm × 331mm × 96mm (36" × 13" × 3-3/4")
Weight
6.6kg (14.6 lbs.)

Specifications are subject to change without notice.

Function	Transmitted	Recongnized	Remarks
:Basic Default	1	1	
:Channel Changed	1-16	1-16	
: Default	3	1	
:Mode Messages	X	OMNI on,OMNI off	
:		POLY,MONO(M=1)	
:Note	30-102	36-96	
:Number : True voice	**************	36-96	
:Velocity Note on	X 9nH,v=64	X	
: Note off	X 9nH,v=0	X	
:After Key's	X	X	
:Touch Ch's	X	X	
:Pitch Bender	X	X	
:Control			
: 64	O	O	:Sustain
:Change			
:Program	O 0-31	O 0-127	
:Change : True #	**************	0-31	
:System Exclusive	X	X	
:System : Song Pos	X	X	
: : Song Sel	X	X	
:Common : Tune	X	X	
:System :Clock	O	O	
:Real Time :Commands	O	O	
:Aux :Local ON/OFF	X	O	
: :All Notes OFF	X	O (122-127)	
:Mes- :Active Sense	O	O	
:sages :Reset	X	O	
:Notes			

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

FCC INFORMATION

YAMAHA
YAMAHA CORPORATION
P.O. Box 1, Hamamatsu, Japan

The serial number of this product may be found on the bottom of the unit. You should note this serial number in the space provided below and retain this manual as a permanent record of your purchase to aid identification in the event of theft.

Model No. **PSR-41**

Serial No.

Concerning Warranty
This product was made for international distribution, and since the warranty for this type of product varies from marketing area to marketing area, please contact the selling agency for information concerning the applicable warranty and/or service policies.