

PortaSound PSS-380

OWNER'S MANUAL

English Version

YAMAHA

Congratulations on your purchase of the Yamaha PortaSound PSS-380!

You now own a great portable keyboard with a compact form that is packed full of musical enjoyment. Its outstanding features, developed through the culmination of the latest technology, will surely provide your performance with greater versatility and expression.

Read this User's Guide carefully while playing your new PortaSound, and you will be able to make full use of its many fantastic features in no time.

CONTENTS

GETTING STARTED.....	1
POWER	1
ACCESSORY JACKS	1
OPTIONS	1
QUICK GUIDE.....	2
SELECTING THE VOICE.....	4
SELECTING THE STYLE AND AUTO ACCOMPANIMENT.....	6
DIGITAL SYNTHESIZER.....	10
USING SONG MEMORY	12
LET'S TRY PLAYING!.....	14
TROUBLESHOOTING	15
SPECIFICATIONS	16

PRECAUTIONS—TAKING CARE OF YOUR PORTASOUND

Your new PortaSound is a fine musical instrument—and should be treated as such. Handle it with care and common sense, and it will give you years of enjoyment.



Location

- Avoid exposure to direct sunlight or other sources of heat. Never leave it inside a car where it can get very hot. Also avoid highly humid or dusty places.



Interference Through Electromagnetic Fields

- Do not use your PortaSound close to television sets, radios or other equipment receiving electromagnetic signals as this may cause interference noise in the other appliance.



Handling

- Protect your PortaSound from strong impact. Be careful not to drop it or place heavy objects on it.
- Do not apply unreasonable force the buttons and levers.



When You are Not Using the PortaSound

- After use, always turn off the POWER switch.
- When not using your PortaSound for long periods, be sure to remove the batteries to avoid damage through battery leakage.



Cleaning

- Clean the exterior with a soft, dry cloth.
- To remove stubborn stains, use a slightly moistened cloth to wipe off the soiled areas.
- Never use alcohol, thinner, or other chemical solvents; their use will damage the finish.
- Do not leave vinyl chloride material on the PortaSound for a long time; it may adhere to the exterior.

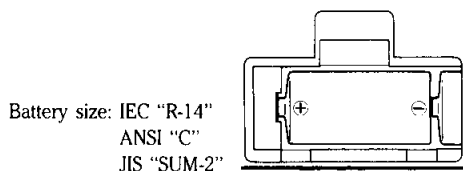
GETTING STARTED

POWER

Your PortaSound can run on batteries or can run on a household current by connection to the optional Yamaha PA-3, PA-4, or PA-40 Power Adaptor.

Inserting Batteries

Turn the instrument upside-down and remove the battery compartment lid. Insert the six 1.5V size "C" batteries provided, making sure that their poles are aligned. Replace the lid.

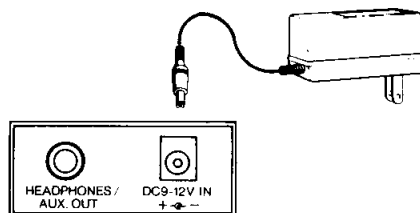


*When the Batteries Run Down

When the batteries run low and the battery voltage drops below a certain level, the PortaSound may produce either a distorted sound or no sound at all at high volume levels. As soon as this happens, replace all six batteries with new ones. If you allow the batteries to become spent completely, any data you have stored in the internal memories will be lost.

Using an AC Power Adaptor

To connect your PortaSound to a wall socket, you will need the separately sold Yamaha PA-3, PA-4, or PA-40 Power Adaptor. No other adaptor can be used, so be sure to ask for the right kind.

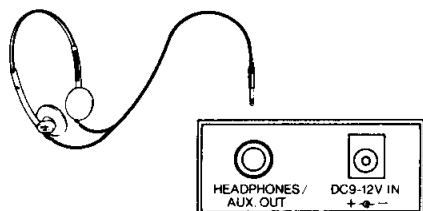


*Plug the adaptor into a convenient wall socket and its connector into the DC 9-12V IN jack on the back of your PortaSound.

ACCESSORY JACKS

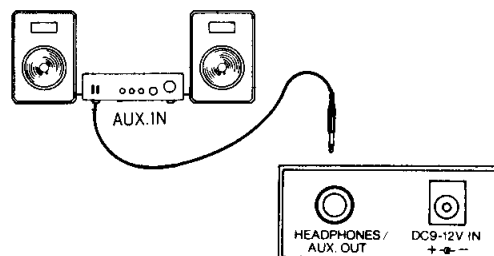
Using Headphones

For private practicing and playing without disturbing others, connect headphones to the rear panel HEADPHONES/AUX. OUT jack. The built-in speakers are automatically cut off when you insert a headphone plug into this jack.



Connecting a Keyboard Amplifier or Stereo Amplifier

After making sure the PortaSound is turned off, use an audio cable to connect the LINE IN or AUX. IN jack of the keyboard amplifier or stereo system to the HEADPHONES/AUX. OUT jack of the PortaSound.



OPTIONS

Headphones

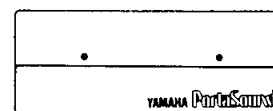
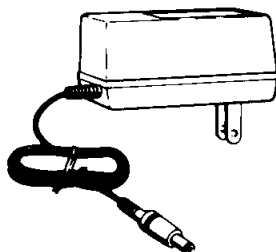
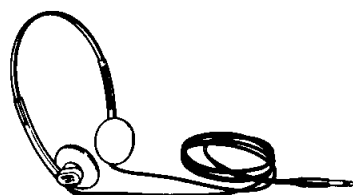
HPE-5
HPE-3

AC Power Adaptor

PA-3
PA-4
PA-40

Soft Carrying Case

SCC-23



QUICK GUIDE

This section provides a simple introduction to your PortaSound. For further details on its operation, refer to the respective pages listed in parentheses.

POWER/MODE lever (→page 7)

NORMAL: In this mode, you can perform using only the rhythm without Automatic Accompaniment.

SINGLE FINGER: You can produce entire chords automatically by pressing just one, two, or three keys.

FINGERED: In this mode, you can produce an Automatic Accompaniment by pressing chords with your left hand.

AUTO BASS: When you press chords with your left hand, this mode automatically produces an accompaniment consisting of bass notes.

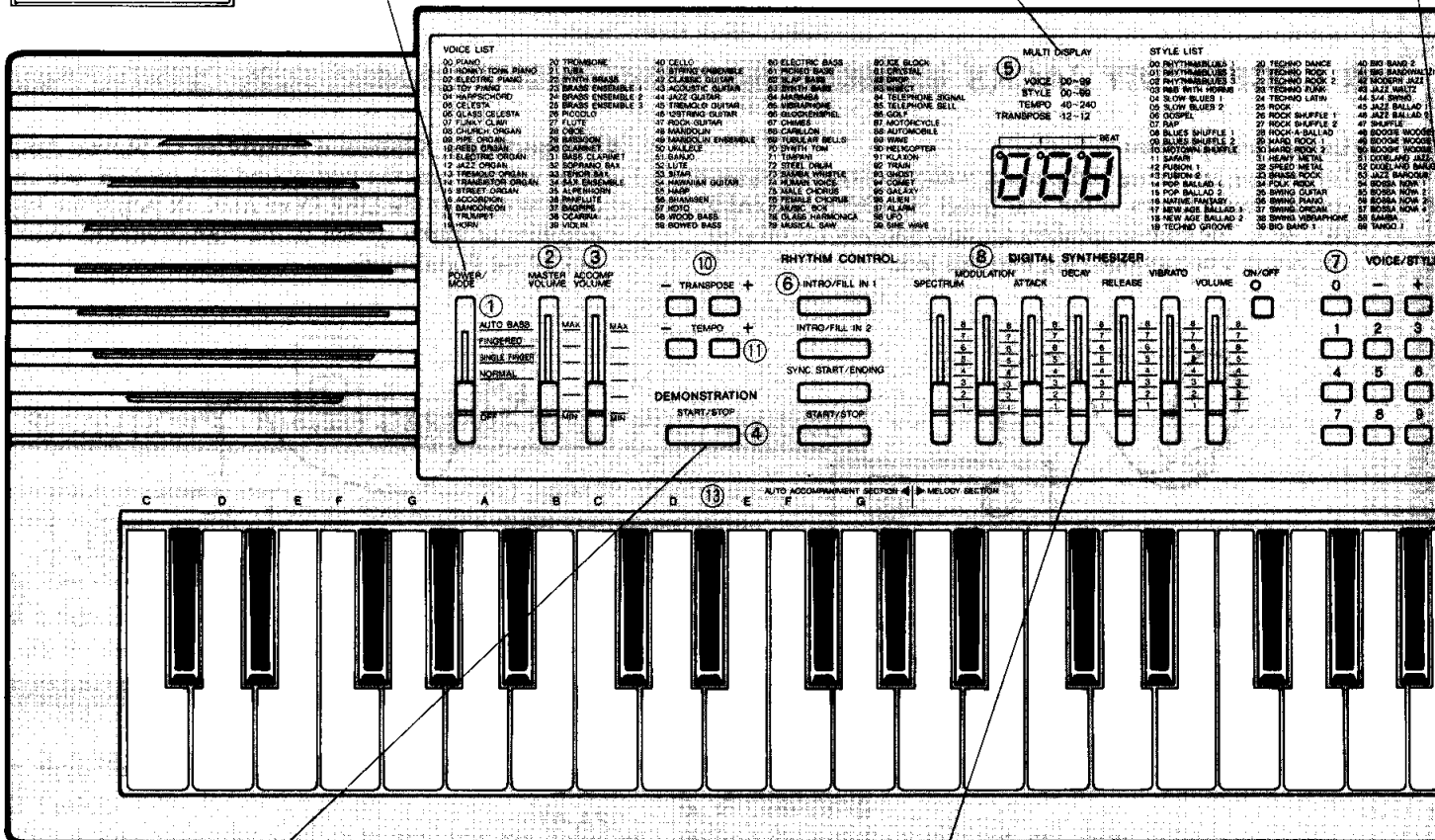
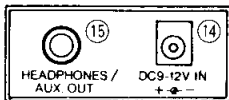
OFF: Turns off your PortaSound.

VOICE selection (100 voices) (→page 4)

- ① Turn on the VOICE button in the VOICE/STYLE SELECT section.
- ② Choose a voice (an instrument sound) from the VOICE LIST on the left of the MULTI DISPLAY.
- ③ Use the numeric buttons 0-9 to input the corresponding two-digit Voice No. by beginning with the left digit.

MULTI DISPLAY

Your PortaSound is provided with a digital LED display, so you can check the currently selected voice, style, tempo, and Transpose value, or the current beat.



DEMONSTRATION

Turn on this START/STOP button to start the demonstration performance of the preset song. To stop the demonstration performance, press the START/STOP button again.

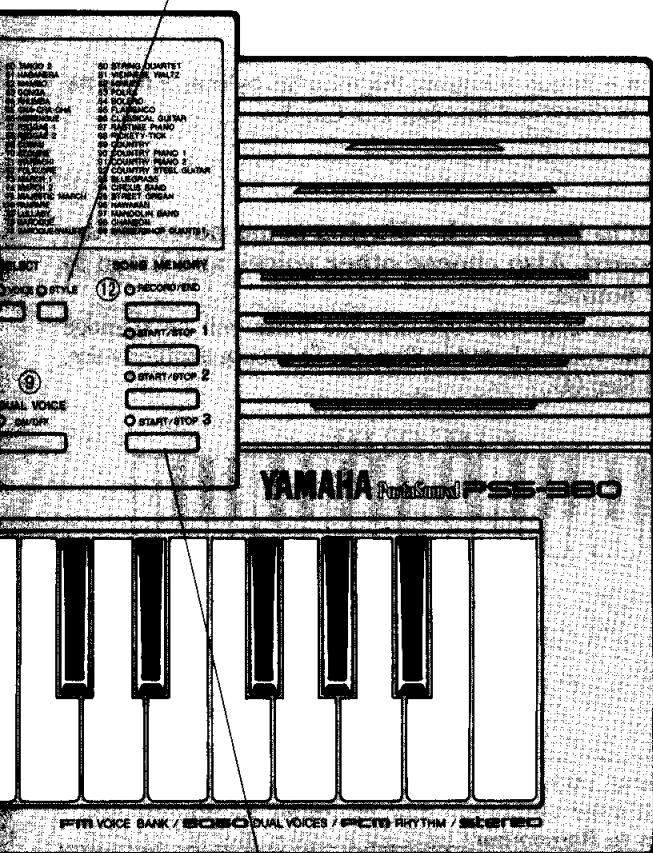
DIGITAL SYNTHESIZER section

(→page 10)

This features provides you with 100 preset voices which can be edited to create your own exclusive voice. By changing the voice waveform and the way in which the voice amplitude changes over time, you enjoy a virtually unlimited variety of voices.

STYLE selection (100 styles) (→page 6)

- ① Turn on the STYLE button in the VOICE/STYLE SELECT section.
- ② Choose a style (a rhythm pattern) from the STYLE LIST.
- ③ Use the numeric buttons 0-9 to input the corresponding two-digit Style No. by beginning with the left digit.
- ④ To start the rhythm, turn on the START/STOP button in the RHYTHM CONTROL section. To stop the rhythm, press the same button again.



SONG MEMORY (→page 12)

The Song Memory feature lets you record and play back your performance of three different songs.

DESCRIPTION OF PARTS

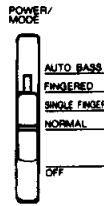
- ① **POWER/MODE lever**
Selects an accompaniment mode or turns off the PortaSound.
- ② **MASTER VOLUME lever**
Adjusts the overall volume.
- ③ **ACCOMP.VOLUME lever**
Adjusts the volume of the Automatic Accompaniment.
- ④ **DEMONSTRATION section**
Press this START/STOP button to start or stop playback of the preset demo song.
- ⑤ **MULTI DISPLAY**
A digital display that shows the currently selected voice, style, tempo, Transpose value or the current beat.
- ⑥ **RHYTHM CONTROL section**
Use these buttons to start, stop or add variation to the rhythm or Automatic Accompaniment.
- ⑦ **VOICE/STYLE SELECT section**
Use these buttons to select the desired voice or style.
- ⑧ **DIGITAL SYNTHESIZER section**
These levers let you alter the parameters of a voice to create your own original sound.
- ⑨ **DUAL VOICE section**
Turn on the ON/OFF button when you want to create a richer, layered sound consisting of two voices.
- ⑩ **TRANSPOSE buttons**
Use these buttons to transpose the overall key of the PortaSound.
- ⑪ **TEMPO buttons**
Use these buttons to adjust the tempo of the rhythm.
- ⑫ **SONG MEMORY section**
These buttons are used to record and play back your performance.
- ⑬ **Auto Accompaniment section of the keyboard**
During automatic accompaniment, this section of the keyboard is used for playing chords with your left hand. In NORMAL mode, it functions as an ordinary keyboard.
- ⑭ **DC 9-12V IN jack**
Connect the AC power adaptor to this jack.
- ⑮ **HEADPHONES/AUX. OUT jack**
The sound of the PortaSound is output from this jack, which can be connected to headphones, a keyboard amplifier, or a stereo system.

SELECTING THE VOICE

You can choose from 100 voices. First of all, let's select different voices and listen to their sound.

① Set the POWER/MODE lever to NORMAL.

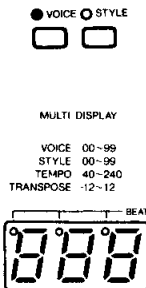
The PortaSound is turned off when this lever is in OFF position. To turn it on, choose a mode by setting the lever to another position.



② Turn on the VOICE button.

Turn on the VOICE button in the VOICE/STYLE SELECT section.

The currently selected Voice No. will appear at the three-digit MULTI DISPLAY.



③ Turn off the DUAL VOICE ON/OFF button.

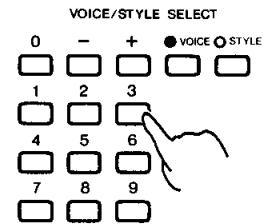
When the POWER/MODE lever is initially set to a mode, the DUAL VOICE feature will automatically be turned on so that two PIANO voices (No. 00) will be sounded when you play the keyboard.

If you wish to select and sound only a single voice, turn off the DUAL VOICE ON/OFF button.



④ Choose a voice from the VOICE LIST.

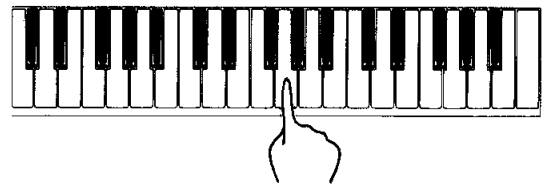
Using the numeric keys 0–9 or the + and – keys at the VOICE/STYLE SELECT section, input the desired Voice No. To select the TOY PIANO voice (No. 03), for example, sequentially press the 0 button then the 3 button. The selected Voice No. will appear at the MULTI DISPLAY.



★ Press the + button to increase the Voice No. by one, or press the – button to decrease it by one.

⑤ Listen to the voice by playing some notes on the keyboard. Also choose other voices and listen to their sound.

When you play the keyboard, the notes will be sounded using the voice selected in Step ④. To choose another voice, repeat Step ④.



Points to Remember

● For each voice, up to eight notes (or four notes for certain voices) can be sounded at the same time. During Automatic Accompaniment playback, however, only half that number of notes can be concurrently sounded. And if DUAL VOICES is on, the maximum number of notes which can be concurrently sounded for each voice will be further halved.

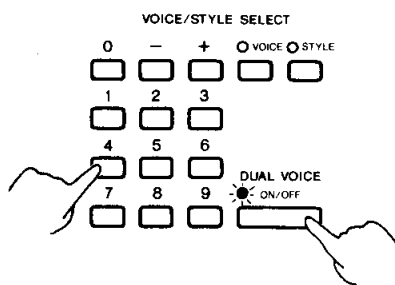
DUAL VOICES

Turn on the ON/OFF button when you want to create a richer, layered sound consisting of two voices.

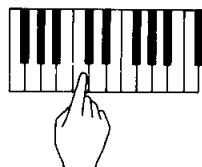
One of the two voices will be the currently selected voice. To select a different voice for the second voice, perform the operation below.

- ① Hold down the DUAL VOICE button (its lamp will light) while you press the numeric keys to input the Voice No. of the desired second voice.

While this button is held down, the Voice No. of the second voice will be shown at the MULTI DISPLAY.



- ② When you play notes on the keyboard, they will be sounded using two different voices.



Points to Remember

- When the PortaSound is initially turned on, DUAL VOICE will automatically be turned on with the PIANO voice (No. 00) selected for both voices of the Dual Voice.
- When DUAL VOICE is on, the maximum number of notes which can be concurrently sounded for each voice will be half that of a single voice when DUAL VOICE is off.

TRANSCOPE

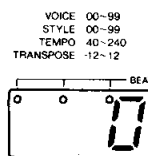
The Transpose feature allows you to transpose the overall key of the notes you are actually playing on the keyboard.



This feature is handy when:

- You wish to sound notes which are lower or higher than the actual range of the keyboard.
- You wish to change the key in order to play along with other instruments or to provide accompaniment to a singer.

- ① When either the + or - TRANSCOPE button is pressed once, the currently set Transpose value will appear at the MULTI DISPLAY. (It is initially set to zero.) After a brief interval, the display of the voice or style will be restored.



- ② To change the Transpose value, press the + or - button while the Transpose value is being displayed. With 0 representing the original key, the Transpose value can be changed in a two-octave range of -12 (one octave below) to 12 (one octave above). For example, if you set the Transpose value to 3 and then play a song in the key of C, your performance will be in the key of E \flat because the key has been shifted by three half-steps.



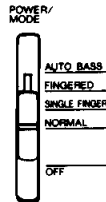
- ③ To restore the original pitch (0), press the + and - buttons at the same time. In addition, if you continuously hold down the + or - button, the Transpose value will automatically continue changing until that button is released. When 12 or -12 is selected, Automatic Accompaniment will be returned to its original key.

SELECTING THE STYLE AND AUTO ACCOMPANIMENT

SELECTING THE STYLE

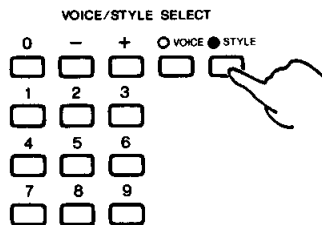
You can choose from 100 styles of rhythm. First of all, let's select different styles and listen to their sound.

- 1 Set the POWER/MODE lever to NORMAL.



- 2 Turn on the STYLE button.

Turn on the STYLE button in the VOICE/STYLE SELECT section.



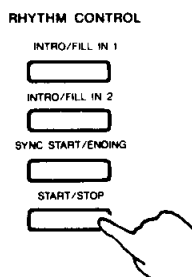
- 3 Choose a style from the STYLE LIST.

Using the numeric keys 0—9 or the + and - keys at the VOICE/STYLE SELECT section, input the desired Style No. To select the POP BALLAD 2 style (No. 15), for example, sequentially press the 1 button and the 5 button.

- ★ Press the + button to increase the Style No. by one, or press the - button to decrease it by one.

- 4 Start the rhythm.

Turn on the START/STOP button at the RHYTHM CONTROL section. A drum sound will be produced in the style selected in Step ③. Try playing along with the beat.



- 5 To change to another style:

Repeat Step ③. The rhythm will change to the new style from the beginning of the next measure.

- 6 To stop the rhythm:

Press the START/STOP button again.

TEMPO

Try changing the tempo of the rhythm to suit each of the songs you play. The tempo can be changed after the rhythm has been started or while the rhythm is stopped.

- 1 Press either the + or - TEMPO button once.

The currently set tempo ($\text{♩} = \square$) will appear at the MULTI DISPLAY. After a brief interval, the display of the voice or style will be restored.



- 2 Press the + or - button to adjust the tempo.

The tempo can be adjusted as long as the tempo value is being displayed.



- ★ Illumination status of the RHYTHM indicators
In accordance with the rhythm, the three dots within the display will light up or go off as shown below.

(Four-beat rhythm)



Points to Remember

- The tempo can be adjusted within a range of $\text{♩} = 40$ to 240.
- When you completely stop the rhythm then switch to a different style and start the rhythm again, a preset tempo which is suitable for the selected style will be automatically set.
- When the + and - buttons are pressed at the same time, the tempo value will be reset to the preset tempo for the currently selected style.

Selecting the Auto Accompaniment Mode

The SINGLE FINGER, FINGERED, and AUTO BASS positions of the POWER/MODE lever represent the three Auto Accompaniment modes. After an Auto Accompaniment mode is selected, an accompaniment pattern can be automatically produced by simply using the Auto Accompaniment section of the keyboard to indicate the desired chord progression for the accompaniment. The rest of the keyboard can be used to play the melody.



[Auto Accompaniment section]

When the POWER/MODE lever is set to the NORMAL position, Auto Accompaniment will not be produced. Be sure to choose a suitable mode before beginning your performance.

■ SINGLE FINGER mode

Even if you can't play chords, you can produce a chord and bass accompaniment by pressing just one, two, or three keys.

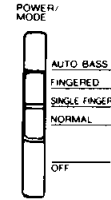
■ FINGERED mode

You can also produce a chord and bass accompaniment by playing chords in a manner close to the actual chord structure.

■ AUTO BASS mode

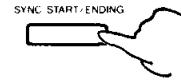
This mode lets you automatically produce an accompaniment consisting of only bass notes.

① Set the POWER/MODE lever to SINGLE FINGER.

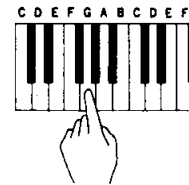


② Choose a style. (→page 6)

③ Turn on the SYNCHRO START/ENDING button.



④ When you press a key on the Auto Accompaniment section of the keyboard, the auto accompaniment will begin.



⑤ To stop the Auto Accompaniment, press the START/STOP button.

SINGLE FINGER Mode

This mode enables you to easily produce an Automatic Accompaniment, even if you cannot play entire chords. For example, use one finger to produce a major chord or press two or three keys to produce the other types of chords.

SINGLE FINGER Chords

Major Chords

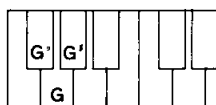
As shown in the figure below, a major chord can be produced by pressing the key corresponding to the basic note (known as the "root note") of the chord.



Producing a # or b Major Chord

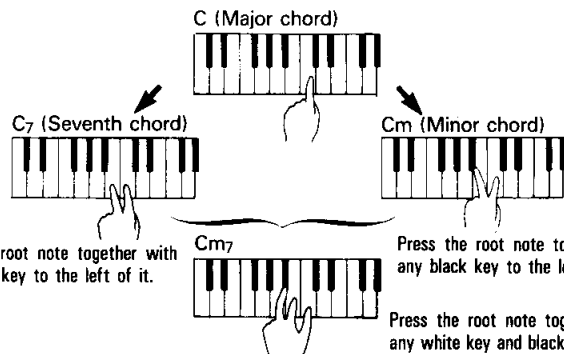
To obtain a sharped (#) chord, press the black key to the right of the root note.

For a flatted (b) chord, press the black key to the left of the root note.



Producing a Seventh or Minor Chord

An accompaniment will not always consist only of major chords. For example, seventh chords such as G₇ or minor chords such as A_m are also frequently used. These minor or seventh chords can be produced by pressing two keys at the same time as shown in the figure below.



Press the root note together with any white key to the left of it.

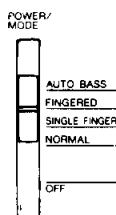
Press the root note together with any black key to the left of it.

Press the root note together with any white key and black key to the left of it (three keys total).

FINGERED Mode

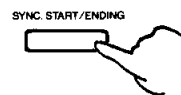
In this mode, Auto Accompaniment is produced by playing chords in a manner closer to the actual chord structure. This mode is suitable for persons who are used to playing chord accompaniment or for songs which cannot be performed properly using SINGLE FINGER mode.

- ① Set the POWER/MODE lever to FINGERED.

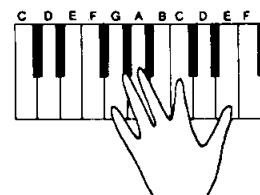


- ② Choose a style.

- ③ Turn on the SYNCHRO START/ENDING button.



- ④ When you press a chord on the Auto Accompaniment section of the keyboard, Auto Accompaniment will begin.



- ⑤ To stop Auto Accompaniment, press the START/STOP button.

FINGERED Chords

[Example: C chords]

A note enclosed by in parentheses indicates that the chord will be detected even if that note is not played.

Major chord C	Minor chord Cm	7th chord C7	Minor 7th chord Cm7
Major 7th chord CM7	Minor 7th b 5 chord Cm7 ⁻⁵	7th suspended 4th chord C7sus4	Augmented chord Caug
Diminished chord Cdim	Minor major 7th chord CmM7	6th chord C6	Minor 6th chord Cm6
7th b 5 chord C7 ⁻⁵	C on D C/D	C on B b C/B b	C on E C/E

Using the key of C as an example, the figure on the left shows the types of pressed chords which can be recognized for producing Auto Accompaniment in FINGERED mode. As long as you are playing keys within the scale of the Auto Accompaniment section of the keyboard, you can produce any pitch even after raising or lowering the octave.

- For the chord types not indicated by an asterisk in the figure on the left, as long as a chord consists of the same notes, the root note of that chord can be determined even if the chord is inverted. In case of the chords indicated by an asterisk, determination of the root note of the chord will vary when the intervals are inverted so be sure to heed the following precautions.

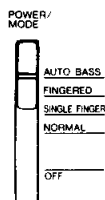
- For diminished and augmented chords, the lowest pitch of the pressed keys is recognized as the root note.
- 6th and minor 7th chords consist of notes of the same pitch. Therefore, if the lowest note pressed is a 6th interval from the root note, the chord is recognized as a 6th chord; if it is not, the chord is recognized as a minor 7th chord.
- Minor 7th b 5 chords and minor 6th chords consist of notes of the same pitch. Therefore, if the lowest note pressed is a minor 6th interval from the root note, the chord is recognized as a minor 6th chord; if it is not, the chord is recognized as a minor 7th b 5 chord.
- For a 7th b 5 chord, the lowest note pressed will be recognized as the root note or the minor 7th note.
- 7th chords and C/B b chords consist of notes of the same pitch. Therefore, only if the lowest note pressed is a flatted 7th interval from the root note, the chord is recognized as a C/B b chord; if it is not, the chord is recognized as a 7th chord.
- The C/E chord is recognized when four or more keys are pressed. If less than four keys are pressed, the chord is recognized as a major chord.

- When you press keys which are not recognizable as a chord, Auto Accompaniment will continue unchanged. If you press keys which are not recognizable as a chord immediately after pressing the SYNCHRO START button, however, only the rhythm will be started without Auto Accompaniment.

AUTO BASS Mode

This mode lets you play any chords you desire to produce an Auto Accompaniment that consists only of bass notes.

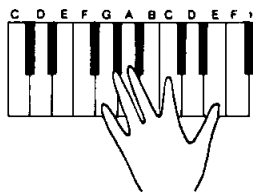
- 1 Set the **POWER/MODE** lever to **AUTO BASS**.



- 2 Choose a style.

- 3 Turn on the **SYNCHRO START/ENDING** button.

- 4 When you press a chord on the Auto Accompaniment section of the keyboard, Auto Accompaniment will begin.



- ★ The method of playing chords is identical to that in FINGERED mode.
- ★ Up to three notes can be sounded per chord on the basis of last-note priority (if more than three keys are pressed, only the notes of the last three keys pressed will be sounded.)
- ★ Each time you press a chord, the bass accompaniment pattern will change according to that chord. Since the bass pattern will not change when you press keys that do not form a chord (for example, if you play a melody line consisting of two notes or less), you can also play freely with your left hand.

- 5 To stop Auto Accompaniment, press the **START/STOP** button.

INTRO/FILL IN



[INTRO]

When you press the INTRO/FILL IN 1 or 2 button while the rhythm is stopped, the rhythm will start following by a one-measure drum introduction.

During an Auto Accompaniment mode, when you press a chord after pressing an INTRO/FILL IN button, the bass and chord accompaniment will start following a one-measure drum introduction.

[FILL IN]

After starting the rhythm or Auto Accompaniment, try pressing the INTRO/FILL IN 1 or 2 button. One of two variations of the current rhythm or accompaniment pattern will be inserted and played until the end of that measure. A Fill In pattern is particularly effective at the end of a phrase or during a musical climax.

Points to Remember

- ★ Holding down the same **INTRO/FILL IN** button for longer than one measure causes that pattern to be repeated until the button is released.

SYNCHRO START/ENDING

[SYNCHRO START]

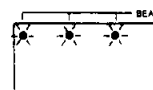
This feature synchronizes the rhythm so that it will start with you when you begin playing the keyboard.

- 1 Choose a style.

- 2 Enter **Synchro Standby status**.

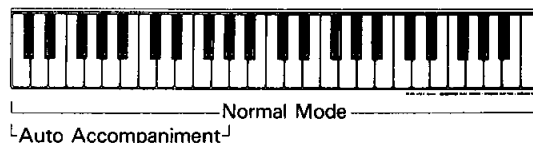
Turn on the SYNCHRO START/ENDING button.

Three dots at the BEAT display will flash simultaneously, indicating that Synchro Standby status has been entered.



- 3 Start the rhythm.

In NORMAL mode, the rhythm is started when you press any key of the keyboard. In an Auto Accompaniment mode, the rhythm is started when you press any key from G#2 or lower.



- ★ To cancel the Synchro Standby status, press the SYNCHRO START/ENDING again before the rhythm has started.

[ENDING]

Use this feature when you want the rhythm to end naturally on a special "ending" pattern.

- 1 While the rhythm or Auto Accompaniment is playing, press the **SYNCHRO START/ENDING** button.

- 2 At the start of the next measure, the ending pattern will begin and the rhythm will stop.

- ★ If an INTRO/FILL IN button is pressed while an ending pattern is playing, the ending rhythm pattern is replaced by a Fill In percussion pattern, and the Auto Accompaniment will begin with the basic pattern from the beginning of the next measure. That is, the ending no longer ends the accompaniment. This can be very effective as a "break" within a song for added tension.

ACCOMP. VOLUME

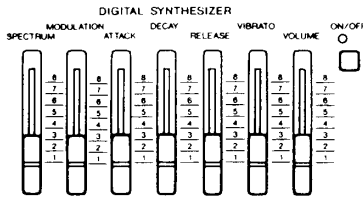
This lever adjusts the volume of the Auto Accompaniment (including the rhythm) within a six-step range from maximum volume (MAX) to minimum volume (MIN).

DIGITAL SYNTHESIZER

The Digital Synthesizer feature allows you to create your own custom voices. Let's try creating a unique sound by adjusting the values of the seven Digital Synthesizer parameters.

Change the STRING ENSEMBLE voice (No. 41) to a sparkling, crystal sound!

The No. 41 STRING ENSEMBLE voice is an expansive and gentle sound. Let's use the Digital Synthesizer feature to completely transform this voice into a sparkling sound that resembles an electric piano.



- ① First of all, select String Ensemble by inputting Voice No. 41.
 - ② Turn off the DUAL VOICE ON/OFF button.
 - ③ To begin creating a new voice, turn on the ON/OFF button at the DIGITAL SYNTHESIZER section.
- ★ If you set all of the DIGITAL SYNTHESIZER levers to position "5", you will be able to clearly distinguish the difference in the tonal quality of each parameter.

1. SPECTRUM: Set the basic quality of the voice.

The Spectrum parameter determines the brilliance or darkness of the voice's tonal quality.

The "spectrum" of a voice refers to its harmonic structure, and the value of the Spectrum parameter determines which harmonics will be present in the voice.

Lever Position	Resulting Change in the Voice
	<p>A sparkling, brilliant sound.</p>
	<p>An indistinct, dark sound.</p>

Set the SPECTRUM lever to "7"

2. MODULATION: Set the timbre.

The Modulation parameter determines the timbre of the voice so that a clear sound or thick sound will be produced.

This parameter adjusts the extent to which the harmonic component selected by the Spectrum parameter in Step 1 will be emphasized.

Lever Position	Resulting Change in the Voice
	<p>A thick sound.</p>
	<p>A clear sound.</p>

Set the MODULATION lever to "5"

3. ATTACK: Set the Attack Rate.

The Attack parameter determines the speed with which the notes will reach peak volume after the keys are pressed.

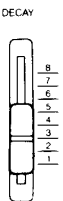

Lever Position	Resulting Change in the Voice
	<p>The notes are sounded immediately. (Example: No. 00 PIANO, No. 45 TREMOLO GUITAR)</p>
	<p>The sounding of the notes is somewhat delayed. (Example: No. 41 STRING ENSEMBLE, No. 75 MALE CHORUS)</p>

Set the ATTACK lever to "8"

4. DECAY:

Set the Decay Rate.

The Decay parameter determines whether the volume of the notes is sustained as long as the keys are being pressed or whether their volume will decrease (decay) gradually.

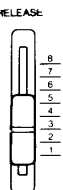

Lever Position	Resulting Change in the Voice
	<p>The volume gradually decreases = Decay voice. (Example: No. 00 PIANO, No. 42 CLASSIC GUITAR)</p>  <p>The volume is sustained = Sustained voice. (Example: No. 20 TROMBONE, No. 40 CELLO)</p>

Set the DECAY lever to "3"

5. RELEASE:

Set the Release Rate.

The Release parameter determines the rate at which the notes fade out after the keys are released.

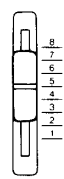

Lever Position	Resulting Change in the Voice
	<p>The notes fade out immediately = Short aftersound. (Example: No. 64 MARIMBA, No. 57 KOTO)</p>  <p>The notes linger = Long aftersound. (Example: No. 65 VIBRAPHONE, No. 77 MUSIC BOX)</p>

Set the RELEASE lever to "3"

6. VIBRATO:

Add a Vibrato effect.

When the Vibrato effect is added, the pitch of the voice will be cyclically raised and lowered. The Vibrato parameter determines the depth of the Vibrato effect. Raising the lever will deepen the Vibrato effect.

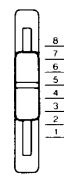

Lever Position	Resulting Change in the Voice
	<p>Maximum Vibrato effect</p>  <p>No Vibrato effect</p>

Set the VIBRATO lever to "5"

7. VOLUME:

Set the overall volume of the voice.

The Volume parameter determines the volume of the voice created at the DIGITAL SYNTHESIZER section.

Lever Position	Resulting Change in the Voice
	<p>Maximum volume level</p>  <p>Minimum volume level</p>

Set the VOLUME lever to "5"

The creation of a sparkling sound is now complete!

■ Using the voice you just created, try playing
“Twinkle Twinkle Little Star”

Twinkle Twinkle Little Star



By simply performing the preceding steps, the Digital Synthesizer feature lets you enjoy creating your own custom sounds.

Select different voices and experiment with creating new sounds by yourself.

Points to Remember

● A voice created by DIGITAL SYNTHESIZER feature can be combined with one of the 100 preset voices to form a Dual Voice. All you have to do is turn on the DUAL VOICE ON/OFF button while the Digital Synthesizer ON/OFF button is turned on, then select the second voice. For details on setting the second voice of a Dual Voice, see page 5.

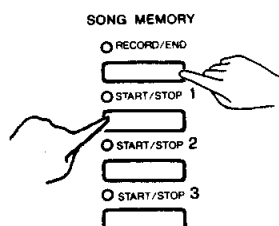
USING SONG MEMORY

The SONG MEMORY feature can be used to record and play back your performances exactly as you play them. (The SONG MEMORY consists of three Song Memory banks, each of which can memorize the performance of one song.) You can also play along with the playback of SONG MEMORY.

Recording or Playing Back a Performance

① Hold down the RECORD/END button while you press the START/STOP 1, 2, or 3 button.

(The RECORD/END lamp flashes, a metronome count is sounded, and Record Standby status is entered.)



★ To cancel Record Standby status, press the RECORD/END button again.



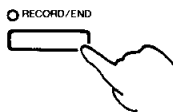
② Start recording your performance.

Recording will automatically start as soon as your performance begins.

- ★ If you are performing without a rhythm part, recording will start as soon as you press a key at the keyboard.
- ★ If you want recording to start at the same time, the rhythm is started by SYNCHRO START, press the SYNCHRO START/ENDING button in Record Standby status to enter Synchro Standby status, then start your performance by pressing keys at the keyboard.
- ★ When recording is started, any previously memorized data in the selected Song Memory bank will be erased. If you wish to save that data, record your performance to another Song Memory bank by pressing a different START/STOP button.

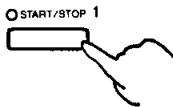
③ Stop recording.

Press the RECORD/END button.



④ Play back the recorded performance.

When you press the START/STOP button (1, 2, or 3) of a Song Memory bank that contains recorded data, the song memorized in that Song Memory bank will be played back.



- ★ You can play the keyboard as usual during SONG MEMORY playback, but the NORMAL mode will be selected regardless of the actual setting of the POWER/MODE lever. You can increase your musical enjoyment by, for example, recording only the accompaniment then playing the melody part yourself along with the playback.

In this case, the maximum number of notes that can be concurrently sounded is eight notes, which will be the sum of the notes played back by SONG MEMORY and the notes of the keys pressed. If you press any keys in excess of the maximum eight notes, only the last keys you press within this eight-note limit will be sounded.

Points to Remember

- If the tempo is changed during recording, only the tempo value that is valid when recording is ended will be memorized and then playback will be performed using the memorized tempo.
- Even if you have changed the Transpose value, your performance will not be recorded in the transposed key. You can, however, use the Transpose feature to change the key for playback.
- Even if you change the style during recording, the preset tempo for that style will not take effect.
- The settings of the Digital Synthesizer parameters will not be memorized. Even if a voice is recorded with the Digital Synthesizer turned on, it will be played back as if the Digital Synthesizer had been turned off.
- If the recorded data exceeds the capacity of a Song Memory bank, recording will stop automatically. The Song Memory bank of each BANK button can store up to about 500 notes maximum.

- ★ The recorded data will be retained in memory even after the PortaSound is turned off. If you take out the batteries when the AC power adaptor is not connected, however, all of the data in SONG MEMORY will be erased. (This will not happen if the batteries are only removed for no more than about five minutes, such as during battery replacement.)

LET'S TRY PLAYING

MODE = SINGLE FINGER
 VOICE = NO. 41 (STRING ENSEMBLE)
 STYLE = NO. 15 (POP BALLAD 2)
 TEMPO ♩ = 90

Piano sonata No. 8 2nd Mov.

Ludwig van Beethoven

SINGLE FINGER CHORD

Major chord

C	
D [♯] (C [♯])	
D	
E [♯] (D [♯])	
E	
F	
F [♯] (G [♯])	
G	
A [♯] (G [♯])	
A	
B [♯] (A [♯])	
B	

Minor chord

Cm	
D [♯] m (C [♯] m)	
Dm	
E [♯] m (D [♯] m)	
Em	
Fm	
F [♯] m (G [♯] m)	
Gm	
A [♯] m (G [♯] m)	
Am	
B [♯] m (A [♯] m)	
Bm	

7th chord

C7	
D [♯] 7 (C [♯] 7)	
D7	
E [♯] 7 (D [♯] 7)	
E7	
F7	
F [♯] 7 (G [♯] 7)	
G7	
A [♯] 7 (G [♯] 7)	
A7	
B [♯] 7 (A [♯] 7)	
B7	

Minor 7th chord

Cm7	
D [♯] m7 (C [♯] m7)	
Dm7	
E [♯] m7 (D [♯] m7)	
Em7	
Fm7	
F [♯] m7 (G [♯] m7)	
Gm7	
A [♯] m7 (G [♯] m7)	
Am7	
B [♯] m7 (A [♯] m7)	
Bm7	

TROUBLESHOOTING

If your PortaSound is not operating as you expect, please check the table below. The problem may not necessarily indicate a malfunction of the instrument.

Symptom	Cause	Remedy
When the PortaSound is turned on or off, a buzzing sound is produced.	The power current is flowing into the PortaSound.	This is not a malfunction.
The MULTI DISPLAY is dark.	① The batteries are running low. ② The voltage temporarily drops when the volume is turned up.	① Replace all the batteries with new ones. ② This is not a malfunction.
No sound is produced from the speakers.	The volume is set too low.	Turn up the volume.
	A headphone plug is connected to the HEADPHONES/AUX. OUT jack.	Unplug the headphones from the jack.
When multiple keys are pressed at the same time, certain notes are not sounded.	The maximum number of notes that can be concurrently sounded, including Automatic Accompaniment and SONG MEMORY playback, is eight notes.	This is not a malfunction. When you press more than eight notes at one time, the notes will be sounded on a last-note priority (that is, the notes of the last eight keys pressed will be sounded).
A different voice or rhythm cannot be selected.	You need to press the VOICE or STYLE button.	Review the steps for selecting a voice (page 4) or a style (page 6).
No rhythm is being sounded.	You need to press the START or INTRO button at the RHYTHM CONTROL section.	Review the steps on page 6 to make sure that you are using the correct procedure.
	After pressing the SYNCHRO START button, you need to press keys on the Auto Accompaniment section of the keyboard.	
No Auto Accompaniment is produced.	① NORMAL mode is selected. ② You need to press keys on the Auto Accompaniment section of the keyboard. ③ You are using the SINGLE FINGER method of playing chords during FINGERED mode.	① Select the desired Auto Accompaniment mode. ② Press keys on the Auto Accompaniment section of the keyboard. ③ The method for producing chords varies in the FINGERED and SINGLE FINGER modes.
While producing an Auto Accompaniment, the chord does not change when you press other keys.	When you moved your fingers from one chord position to the next, you didn't lift your fingers completely off the keyboard.	When changing chords, be sure to release the keys of the current chord completely before playing a new chord.
While recording to SONG MEMORY, the rhythm suddenly stopped.	Recording was stopped because the memory capacity of a Song Memory bank was exceeded.	Up to about 500 notes can be memorized into a single bank.

SPECIFICATIONS

●Keyboard

49 keys (C₁ ~ C₅)

●Voice ("00 ~ 99")

100

●STYLE ("00 ~ 99")

100

●POWER/MODE

OFF, NORMAL, SINGLE FINGER, FINGERED, AUTO BASS

●VOLUME

MASTER VOLUME, ACCOMP. VOLUME

●RHYTHM CONTROL

INTRO/FILL IN 1, 2, SYNC. START/ENDING, START/STOP

●VOICE/STYLE SELECT

-, +, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, VOICE, STYLE

●DUAL VOICE

ON/OFF

●DIGITAL SYNTHESIZER

ON/OFF, SPECTRUM, MODULATION, ATTACK, DECAY, RELEASE, VIBRATO, VOLUME.

●TRANSPOSE

-, +

●TEMPO

-, +

●DEMONSTRATION

START/STOP

●SONG MEMORY

RECORD/END, START/STOP 1, 2, 3

●Auxiliary jacks

HEADPHONES/AUX. OUT, DC 9-12V IN

●Tone Generators

FM Tone Generator (for voices), PCM Tone Generator (for the rhythm patterns).

●Main Amplifiers

Stereo 2W × 2

●Speakers

10 cm (4Ω) × 2 (3.9" × 2)

●Rated Power Supply

DC9-12V (six size "C" batteries), AC power adaptor: PA-3, PA-4, PA-40

Battery size: IEC "R-14"

ANSI "C"

JIS "SUM-2"

●Battery Life

4 hours (when playing the Demo song)

●Power Consumption

During AC power adaptor: 9W

During battery use: 5W

●External dimensions

637.5 (total length) × 252 (total width) × 84.7 (total height) mm
(25-1/20" × 9-7/8" × 3-3/8")

●Weight

2.3 kg (5.11 lbs.) excluding batteries

●External casing

Styrene plastic

FCC INFORMATION

•This applies only to products distributed by the Yamaha Music Corp.

Attention users in the U.S.A.

PortaSound PSS-380 is prepared in accordance with FCC rules.

The PortaSound PSS-380 uses frequencies that appear in the radio frequency range, and if installed in the immediate proximity (within three meters) of some types of audio or video devices, interference may occur.

The PortaSound PSS-380 has been type tested and found to comply with the specifications set for a class B computing device in accordance with those specifications listed in Subpart J of Part 15 of the FCC rules. These rules are designed to provide a reasonable measure of protection against such interference. However, this does not guarantee that interference will not occur. If your PortaSound PSS-380 should be suspected of causing interference with other electronic devices, verification can be made by turning your PortaSound PSS-380 off and on.

If the interference continues when your PortaSound PSS-380 is off, the PortaSound PSS-380 is not the source of the interference. If your PortaSound PSS-380 does appear to be the source of the interference, you should try to correct the situation by using one or more of the following measures:

Relocate either the PortaSound PSS-380 or the electronic device that is being affected by the interference.

Utilize power outlets for the PortaSound PSS-380 and the device being affected that are on different branch (circuit breaker or fuse) circuits, or install A/C line filters.

In the case of radio-TV interference, relocate the antenna or if the antenna lead-in is a 300 ohm ribbon lead, change the lead-in to co-axial type cable.

If these corrective measures do not produce satisfactory results, please contact your Authorized Yamaha Consumer Products dealer for suggestions and/or corrective measures. If you can not locate an Authorized Yamaha Consumer Products dealer in your general area, contact the Consumer Products Service Center, Yamaha Corporation of America, 6600 Orangethorpe Ave., Buena Park, CA 90620.

If, for any reason, you should need additional information relating to radio or TV interference, you may find a booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems." This booklet is available from the U.S. Government Printing Office, Washington D.C. 20402—Stock #004-000-345-4.

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. **PSS-380**

Serial No. _____

YAMAHA

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