

YAMAHA PortaSound

PSS-50/PSS-190

Owner's Guide

Thank you for choosing a Yamaha PortaSound PSS-50 or PSS-190. Your PSS-50/190 is a high-performance electronic keyboard that features the most advanced Yamaha technology for superior sound and features. To ensure that you fully understand the many fine features provided, we urge you to follow the steps outlined in this manual while actually trying out the instrument's features.

Taking Care of Your PortaSound

Your PortaSound will give you years of playing pleasure if you follow the simple rules given below:

1. Avoid placing the PortaSound in areas that are subject to excessive humidity or heat. Do not leave the instrument near heaters or in a car exposed to direct sunlight, for example.
2. Avoid locations in which the instrument is likely to be exposed to excessive dust or moisture.
3. Connections between the PortaSound and any other device must be made with both pieces of equipment turned OFF.
4. Do not subject the instrument to strong physical shocks, and avoid placing heavy objects on it.
5. Use a soft cloth, dry or slightly damp, for cleaning. Never use chemicals such as benzine or thinner.
6. Since the PortaSound contains digital circuitry, it may cause interference if placed too close to radio or television receivers. If this occurs, move the instrument further away from the affected equipment.

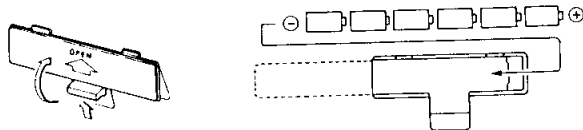
Power Supply

Your PSS-50/190 will run either from optional batteries or an optional power adaptor. Follow the instructions below according to the power source you intend to use.

• Using Batteries

Six 1.5V AA size (SUM-3 or R-6) or equivalent alkaline batteries (sold separately) must first be installed in the battery compartment.

1. Open the battery compartment cover located on the instrument's bottom panel.
2. Insert the six batteries, being careful to follow the polarity markings on the cabinet.
3. Replace the compartment cover, making sure that it locks firmly in place.



Caution:

1. When the batteries run down, replace them with a complete set of six new batteries. NEVER mix old and new batteries.
2. To prevent possible damage due to battery leakage, remove the batteries from the instrument if it is not to be used for an extended period of time.

• Using An Optional Power Adaptor

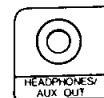
Plug the DC output cable from an optional PA-1, PA-1B or PA-3 Power Adaptor into the DC(9-12V)IN jack on the rear panel, then plug the adaptor into a convenient wall AC power socket.

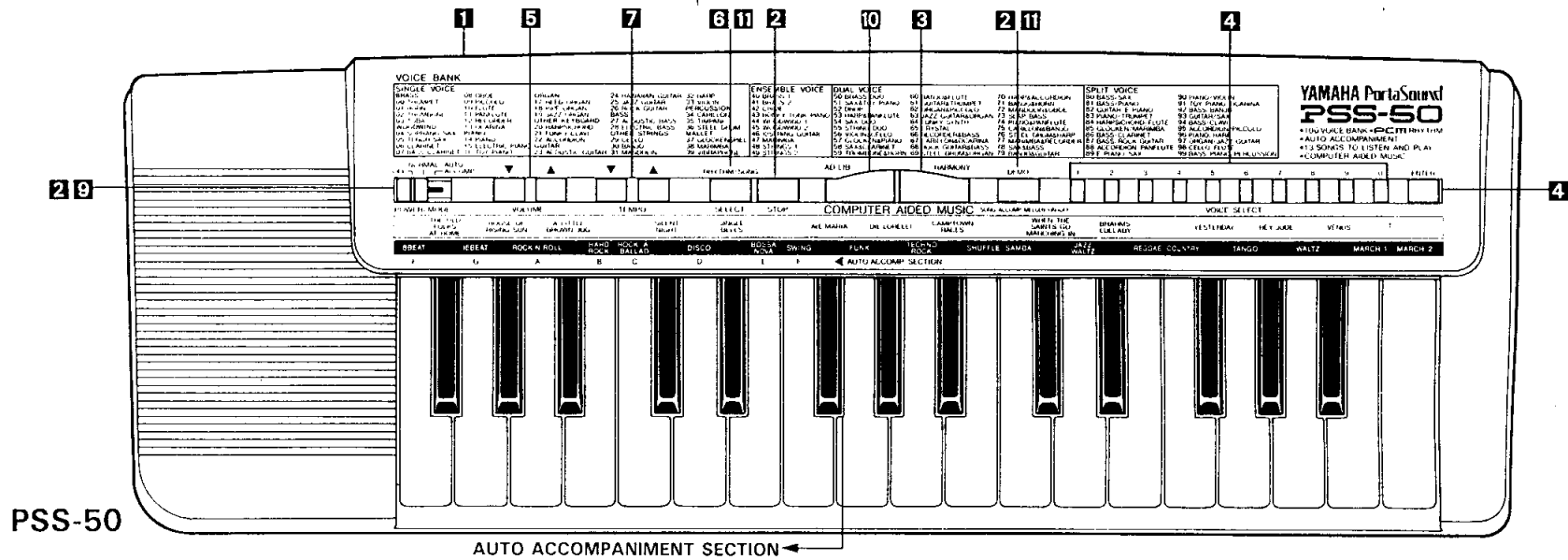
Use ONLY a Yamaha PA-1, PA-1B or PA-3 Power Adaptor to power your instrument from the AC mains. Attempting to use other AC adaptors could result in serious damage to your PSS-50/190.

Using Headphones or an External Sound System

The Rear-panel HEADPHONES/AUX. OUT Jack

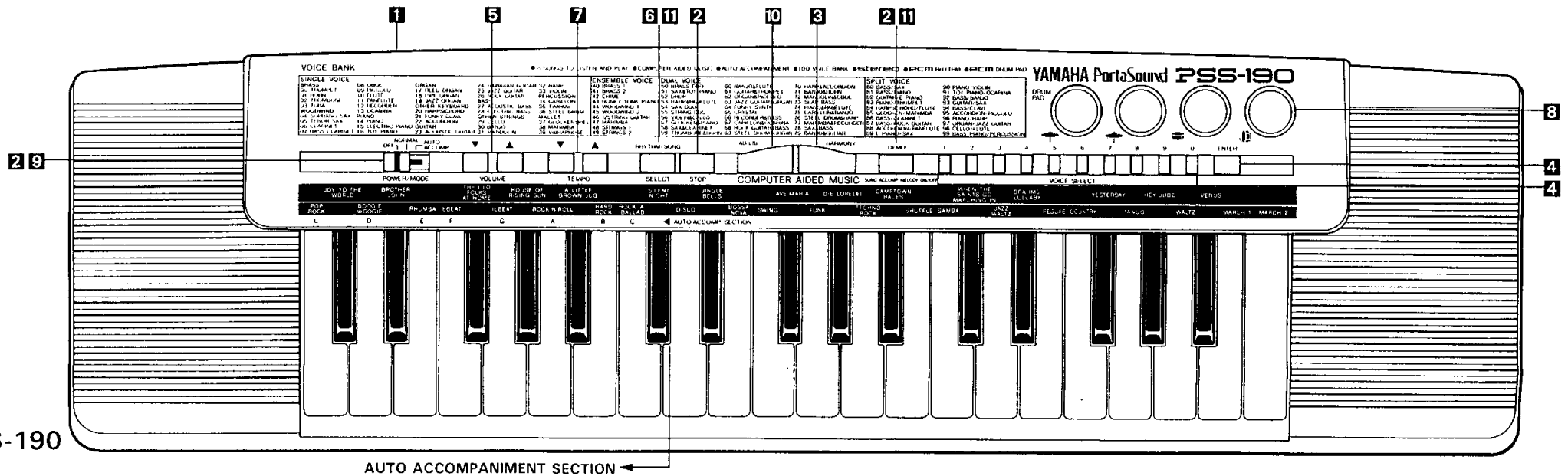
A standard pair of stereo headphones can be plugged in here for private practice or late-night playing. The internal speaker system is automatically shut off when a pair of headphones is plugged into the HEADPHONES/AUX. OUT jack. The HEADPHONES/AUX. OUT jack can also be used to deliver the output of the PSS-50/190 to a keyboard amplifier, stereo sound system, mixing console or tape recorder. Use the optional Yamaha connecting cord to connect the HEADPHONES/AUX. OUT jack to your sound system.





PSS-50

AUTO ACCOMPANIMENT SECTION



PSS-190

AUTO ACCOMPANIMENT SECTION

Playing the PSS-50/190

Automatic Playback of the Demo Tune 2

Slide the switch to the NORMAL position, and press the button. The demo tune will continue playing until you press the or button.

* Tempo and volume can be varied while the demo tune is playing.

Playing in the Harmony Mode 3

When the PSS-50/190 is initially turned ON, voice number 00 (TRUMPET) is automatically selected and the HARMONY mode is turned OFF. The HARMONY mode can be turned ON or OFF by pressing the .

In the HARMONY mode, playing single notes on the keyboard produces automatic two- or four-part harmony, depending on the selected voice. The HARMONY mode is most useful with AUTO ACCOMPANIMENT, described later. When HARMONY is turned OFF, you can play single notes as well as your own chords or harmonies on the keyboard.

- If a SPLIT voice is selected, harmony will not be applied to the lower voice even if the HARMONY mode is ON.
- Only single notes can be played when the HARMONY mode is ON – with the exception of the lower voice when a SPLIT voice is selected.

Selecting Voices 4

The PSS-50/190 has 100 different voices (00 through 99, listed in the VOICE BANK printed on the top panel) that can be selected by using the and buttons. To select any voice press two number buttons and then the ENTER button. To select voice number 04 (SOPRANO SAX), for example, press , , and then .

The closed hi-hat voice will sound to confirm that the above buttons have been properly pressed. The PSS-50/190 voices are divided into four categories:

- SINGLE (voices 00—39): Single voices.
- ENSEMBLE (40—49): Voices with an ensemble sound.
- DUAL (50—79): Combinations of two voices.
- SPLIT (80—99): Split voices with one voice playable on the left-hand section of the keyboard (to the left of the F#3 key) and the other playable on the right-hand section.

• SPLIT voices can only be used in the NORMAL mode. When the AUTO ACCOMPANIMENT mode is selected only the upper voice will be used.

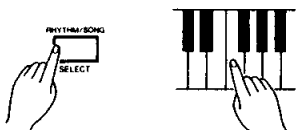
Adjusting the Volume 5

The PSS-50/190 volume can be adjusted in 11 steps. The volume is automatically set to "normal" when the POWER switch is turned ON.

Press the VOLUME button to increase volume or the VOLUME button to decrease volume. The volume is increased or decreased slightly each time the corresponding button is pressed. Press both the buttons together to restore the normal volume setting.

Playing a Rhythm Pattern 6

The PSS-50 has 19 different rhythm patterns and the PSS-190 has 22 patterns that can be selected and played by pressing the appropriate white key on the keyboard while holding the .



To play the SWING rhythm, for example, hold the button and press the white key on the keyboard labelled "SWING" in the green band above the keyboard. The SWING rhythm will begin playing immediately.

The rhythm pattern can be stopped at any time by pressing the .

* A different rhythm pattern can be selected in the same way even while a rhythm pattern is playing. In this case the new rhythm pattern begins playing from the beginning of the next measure.

Adjusting the Tempo (speed) of the Rhythm Pattern 7

The tempo of the selected rhythm pattern can be adjusted in 16 steps.

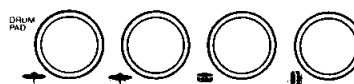
40 50 60 73 80 92 100 112 120 132 146 159 184 200 225 240 (beats per minute)

A tempo of 120 beats per minute is automatically selected when the POWER/MODE switch is initially turned ON.

Press the TEMPO button to increase the tempo or the TEMPO button to decrease the tempo. The tempo is increased or decreased by one step each time the corresponding button is pressed. Press both the buttons together to restore the normal "120" tempo setting.

Playing the Drum Pads (PSS-190 only) 8

Tap any of the DRUM PAD buttons to play the corresponding drum.

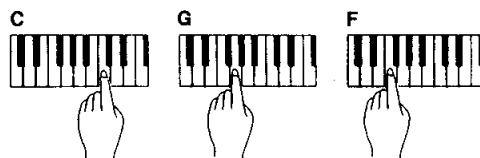


If you play a drum pad while a rhythm pattern is playing, the corresponding drum within the rhythm pattern will be muted until the beginning of the next measure.

Automatic Accompaniment 9

AUTO ACCOMPANIMENT makes it simple to produce beautifully orchestrated accompaniment using major, seventh, minor and minor-seventh chords by pressing a minimum number of keys in the AUTO ACCOMPANIMENT SECTION of the keyboard (to the left of the ◀ marker). The bass and chord accompaniment produced is perfectly matched to the selected rhythm pattern.

- Slide the switch to the AUTO ACCOMP. position.
- Select the desired rhythm in the normal way. The closed hi-hat voice will sound to confirm that the rhythm select key has been properly pressed. Although you can also select the melody (upper keyboard) voice you intend to use in the normal way, the PSS-50/190 automatically determines the voices to be used for the accompaniment bass and chords.
- Press a Key in the AUTO ACCOMPANIMENT SECTION of the keyboard to start the accompaniment. If you press a "C" key, for example, a C-major accompaniment will be played. Press another key in the AUTO ACCOMPANIMENT SECTION to select a new chord. The key you press will always determine the "root" of the chord played (i.e. "C" for a C chord).



= PSS-190 only

Playing Minor, Seventh, and Minor-seventh Chords

- For a minor chord, press the root key and a black key to its left.
- For a seventh chord, press the root key and a white key to its left.
- For a minor-seventh chord, press the root key and a white and black key to its left.



= PSS-190 only

• The automatic accompaniment will continue playing even if you lift your fingers from the Auto Bass Chord keys. You only need to press the Auto Bass Chord keys when changing chords.

- Press the button to stop the accompaniment.


Automatic Ad-Lib Phrases 10

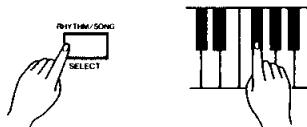
Press the button briefly while the AUTO ACCOMPANIMENT is running to produce a short "ad-lib" phrase that can be used as a "fill-in" for your performance. The AD-LIB button can be held to produce longer ad-lib lines.



• If the AD-LIB button is pressed in the NORMAL mode, a C-major ad-lib phrase will be produced.


Song Accompaniment

The PSS-50 can play the accompaniment for 13 different songs and the PSS-190 can play the accompaniment for 15 songs, listed in grey above the keyboard, that you can play along with.

To select and start playback of a song accompaniment, hold the  button and press the black key on the keyboard corresponding to the desired song. The selected song will begin with a two-measure count-in.



When a song accompaniment is first started, the melody for that song will also begin playing. If you want to mute the melody and leave only the accompaniment in order to play along, press the  button. The  button alternately turns the melody ON or OFF. When the melody is turned OFF, it is possible to select a different voice using the standard voice selection procedure.

The song accompaniment can be stopped at any time by pressing the  button.

• Refer to the SONG ACCOMPANIMENT SCORE on the reverse side.

Troubleshooting

Symptoms	Remedies
Reduced volume. Distortion.	Replace batteries.
Not all the notes are heard when you play a number of notes simultaneously.	The PSS-50/190 can produce a maximum of 8 notes at the same time (not including the rhythm sounds). Demo playback, automatic accompaniment and song accompaniment use up part of this quota.

FCC INFORMATION

IMPORTANT NOTICE: DO NOT MODIFY THIS UNIT! This product, when installed, as indicated in the instructions contained in this manual, meets FCC requirements. Modifications not expressly approved by Yamaha may void your authority, granted by the FCC, to use the product.

IMPORTANT: When connecting this product to accessories and/or another product use only high quality shielded cables. Cable/s supplied with this product **MUST** be used. Follow all installation instructions. Failure to follow instructions could void your FCC authorization to use this product in the USA.

NOTE: This product has been tested and found to comply with the requirements listed in FCC Regulations, Part 15 for Class "B" digital devices. Compliance with these requirements provides a reasonable level of assurance that your use of this product in a residential environment will not result in harmful interference with other electronic devices. This equipment generates/uses radio frequencies and, if not installed and used according to the instructions found in the users manual, may cause interference harmful to the operation of other electronic devices. Compliance with FCC regulations does not guarantee that interference will not occur in all installations. If this product is found to be the source of interference, which can be determined by turning the unit "OFF" and "ON", please try to eliminate the problem by using one of the following measures:

Relocate either this product or the device that is being affected by the interference.

Utilize power outlets that are on different branch (circuit breaker or fuse) circuits or install AC line filters.

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

If these corrective measures do not produce satisfactory results, please contact the local retailer authorized to distribute this type of product. If you can not locate the appropriate retailer, please contact: Yamaha Corporation of America, Electronic Service Division, 6600 Orangethorpe Ave, Buena Park CA, 90620

* This applies only to products distributed by Yamaha Corporation of America.

Specifications

Keyboard: PSS-190 37keys (C2-C5), PSS-50 32keys (F2-C5)

Voices:

100voices

SINGLE VOICE: TRUMPET, HORN, TROMBONE, TUBA, SOPRANO SAX, TENOR SAX, CLARINET, BASS CLARINET, OBOE, PICCOLO, FLUTE, PANFLUTE, RECORDER, OCARINA, PIANO, ELECTRIC PIANO, TOY PIANO, REED ORGAN, PIPE ORGAN, JAZZ ORGAN, HARPSICHORD, FUNKY CLAVI, ACCORDION, ACOUSTIC GUITAR, HAWAIIAN GUITAR, JAZZ GUITAR, ROCK GUITAR, ACOUSTIC BASS, ELECTRIC BASS, CELLO, BANJO, MANDOLIN, HARP, VIOLIN, CARILLON, TIMPANI, STEEL DRUM, GLOCKENSPIEL, MARIMBA, VIBRAPHONE

ENSEMBLE VOICE: BRASS 1, BRASS 2, CHIME, HONKY-TONK PIANO, WOODWIND 1, WOODWIND 2, 12STRING GUITAR, MARIMBA, STRINGS 1, STRINGS 2

DUAL VOICE: BRASS DUO, SAX & TOY PIANO, DROP, HARP & PANFLUTE, SAX DUO, STRING DUO, VIOLIN & CELLO, GLOCKEN & PIANO, SAX & CLARINET, TROMBONE & HORN, BANJO & FLUTE, GUITAR & TRUMPET, ORGAN & PICCOLO, JAZZ GUITAR & ORGAN, FUNKY SYNTH, CRYSTAL, RECORDER & BASS, CARILLON & OCARINA, ROCK GUITAR & BASS, STEEL DRUM & ORGAN, HARP & ACCORDION, BANJO & HORN, MANDOLIN & OBOE, SLAP BASS, PIANO & PANFLUTE, CARILLON & BANJO, STEEL DRUM & HARP, MARIMBA & RECORDER, SAX & BASS, BANJO & GUITAR

SPLIT VOICE: BASS/SAX, BASS/PIANO, GUITAR/E.PIANO, PIANO/TRUMPET, HARPSICHORD/FLUTE, GLOCKEN/MARIMBA, BASS/CLARINET, BASS/ROCK GUITAR, ACCORDION/PANFLUTE, E.PIANO/SAX, PIANO/VIOLIN, TOY PIANO/OCARINA, BASS/BANJO, GUITAR/SAX, BASS/CLAVI, ACCORDION/PICCOLO, PIANO/HARP, ORGAN/JAZZ GUITAR, CELLO/FLUTE, BASS/PIANO/PERCUSSION

Rhythm styles:

POP ROCK*, BOOGIE WOOGIE*, RHUMBA*, 8BEAT, 16BEAT, ROCK'N'ROLL, HARD ROCK, ROCK-A-BALLAD, DISCO, BOSSA NOVA, SWING, FUNK, TECHNO ROCK, SHUFFLE, SAMBA, JAZZ WALTZ, REGGAE, COUNTRY, TANGO, WALTZ, MARCH 1, MARCH 2

* = PSS-190 Only

Song Accompaniment: JOY TO THE WORLD*, BROTHER JOHN*, THE OLD FOLKS AT HOME, HOUSE OF RISING SUN, A LITTLE BROWN JUG, SILENT NIGHT, JINGLE BELLS, AVE MARIA, DIE LORELEI, CAMPTOWN RACES, WHEN THE SAINTS GO MARCHING IN, BRAHMS' LULLABY, YESTERDAY, HEY JUDE, VENUS

* = PSS-190 Only

Drum Pad: BASS DRUM, SNARE DRUM, HI-HAT CLOSE, CYMBAL (PSS-190 Only)

Other Controls: VOLUME, TEMPO, RHYTHM/SONG SELECT, STOP, AD-LIB, HARMONY, DEMO (SONG ACCOMP. MELODY ON/OFF), VOICE SELECT 1-0, ENTER, POWER/MODE (OFF, NORMAL, AUTO ACCOMP.)

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

Main Amplifiers: PSS-190 2.1W x 2 (Stereo), PSS-50 0.6W

Speakers: PSS-190 7.7cm (3") x 2, PSS-50 7.7cm

Rated Voltage: DC 9V (Six SUM-3, "AA" size, R-6 or equivalent batteries), AC Power Adaptor (PA-1, PA-1B or PA-3)

Dimensions: PSS-190 630mm x 170mm x 66.2mm
(W x D x H) (24-13/16" x 6-11/16" x 2-5/8")
PSS-50 498mm x 170mm x 64mm (19-5/8" x 6-11/16" x 2-1/2")

Weight: PSS-190 1.4kg (3.1lbs.) excluding batteries
PSS-50 1.1kg (2.4lbs.) excluding batteries

* Specifications subject to change without notice.

IMPORTANT

PLEASE RECORD THE SERIAL NUMBER OF YOUR UNIT IN THE SPACE BELOW.

MODEL: PSS-50

MODEL: PSS-190

SERIAL NO.:

THE SERIAL NUMBER IS LOCATED ON THE BOTTOM OF THE UNIT.
RETAIN THIS OWNER'S GUIDE IN A SAFE PLACE FOR FUTURE REFERENCE.

YAMAHA
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