

PLAYING GUIDE / TIPS ZUM KENNENLERNEN / METHODE / GUIA PARA TOCAR

**YAMAHA**

**PortaSound**

**PS-300/PS-400**

SINCE 1887



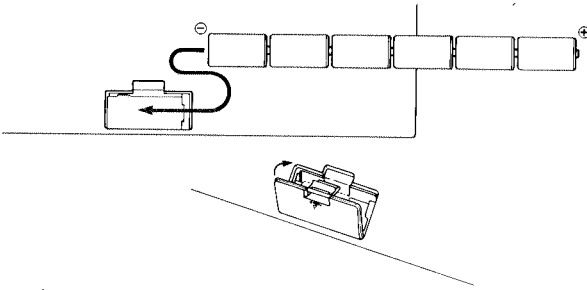
**YAMAHA**

**YAMAHA**  
**PortaSound**  
PS-300 / PS-400

*Before playing your PortaSound, please read through this Playing Guide—it will help you get full enjoyment out of your instrument.*

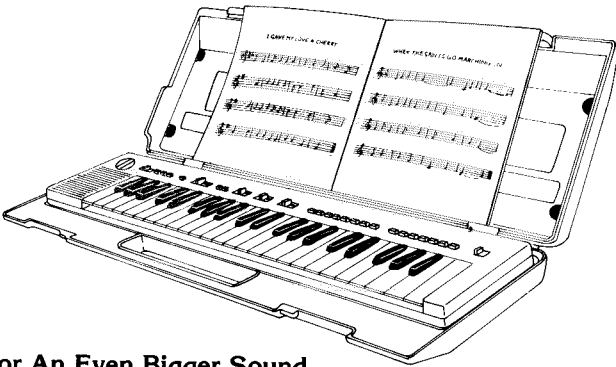
**Battery Operation**

- Use six 1.5V SUM-2, "C" size batteries (sold separately). When the batteries lose power, it is more economical to replace them all at the same time.
- Inserting batteries: Remove the battery compartment lid on the bottom of the unit and insert six 1.5V batteries, making sure that the polarities are correct as indicated on the base of the instrument. Replace the lid.



**Convenient Music Rest**

You can use the case as a music rest if you leave the instrument in the case while playing.



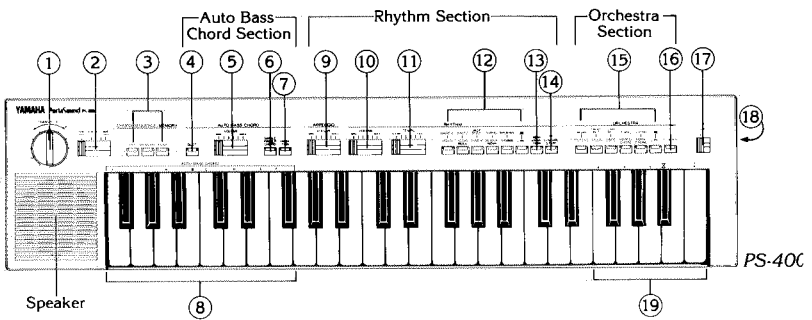
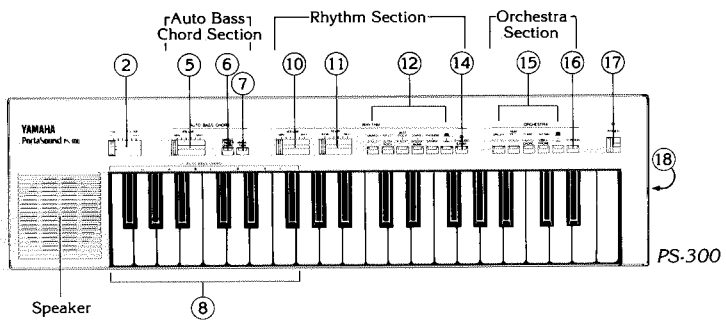
**For An Even Bigger Sound**

Although you'll be happy with the sound from the built-in speaker, you can get an even more satisfying sound if you connect the PortaSound to a bigger speaker. Try using the optional speaker cabinet or your stereo system (see page 10).

**Contents**

1. Nomenclature
2. Starting to play
3. How to use all the features
4. Chord Sequence Memory (PS-400)
5. Making use of the jacks
6. Optional accessories
7. Taking care of your PortaSound
8. Specifications

# 1 Nomenclature



- ① **Transposer** Changes key of entire keyboard.
- ② **Master Volume** Controls overall volume of instrument.
- ③ **Chord Sequence Memory** Memorizes and plays back chords.
- ④ **Duet** Adds harmonizing note to each melody note.
- ⑤ **Auto Bass Chord Volume** For adjusting Auto Bass Chord section's volume.
- ⑥ **Single Finger Chord** For automatic bass and chord accompaniment.
- ⑦ **Auto Bass Chord Variation** Changes bass line and rhythm accompaniment.
- ⑧ **Auto Bass Chord Key Section** Only keys in this section can obtain automatic bass and chord accompaniment.
- ⑨ **Arpeggio** Adds rippling effect to accompaniment.
- ⑩ **Rhythm Volume** For adjusting volume of rhythm section.
- ⑪ **Tempo Control** Adjusts speed of rhythm.
- ⑫ **Rhythm Selectors** Ten rhythms can be selected.
- ⑬ **4-Bar Variation** Automatically adds rhythm variation every 4th bar.
- ⑭ **Syncho Start** Causes rhythm to start simultaneously with first key pressed in Auto Bass Chord key section.
- ⑮ **Instrument Voice Selectors** For choosing instrument voice.
- ⑯ **Sustain** Causes notes to linger after you remove your finger(s) from keyboard.
- ⑰ **Power Switch** Slide to right to switch on; lamp lights up.
- ⑱ **Pitch Control (on bottom, under cap)** For slight adjustment of instrument's pitch.
- ⑲ **Chord Programming Key Section** For programming chord sequence memory with chords and chord lengths.

# 2 Starting to play

If you are going to use battery power, first insert the batteries in the compartment (see page 1). Before using with household current or a car battery, ensure that the optional adaptor is safely connected.

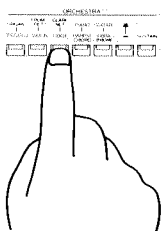
## 1. Switch On

Switch on by sliding the POWER switch (17) to the right. The Power-on light will light up.



## 2. Choose The Voice You Want

Select one from among those available in the ORCHESTRA section (15) and press the selector.



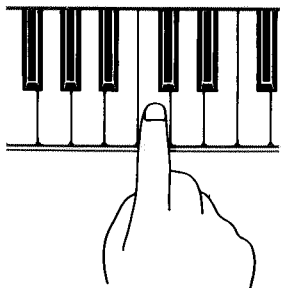
## 3. Adjust The Volume

Adjust the overall volume using the MASTER VOLUME control (2).



## 4. Press A Key

You'll hear the instrument voice you selected. Try playing a simple melody that suits the voice.



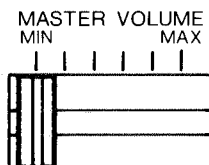
When the SINGLE FINGER CHORD selector (6) is depressed, you will not be able to use the AutoBassChord Section Keys (8) for playing the melody (see page 5 for details).

# 3 How to use all the features

## A) Orchestra Section

### 1. Instrument Voice Selectors

- Press the selector corresponding to the instrument voice you want to hear. If the selector with the red tab is up, you can select voices in the top row; if it is down, you can select voices in the bottom row. The volume can be adjusted by means of the MASTER VOLUME ②.
- When two or more voice selectors are pressed simultaneously, the right hand selector always has priority.
- If no selector is depressed, the ORGAN voice will be automatically selected.
- Delayed vibrato is built-in for the Piccolo, Trumpet, Violin and Oboe voices.



### 2. Sustain

This effect works with all the instrument voices except for Vibraphone, which has sustain built in. Press the SUSTAIN selector ⑩ and notes will linger after you take your fingers off the keys.

SUSTAIN

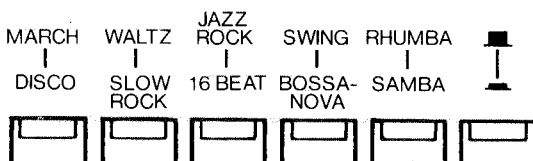


## B) Rhythm Section

### 1. Choose A Rhythm

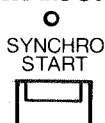
Pick the rhythm that best suits the music you're going to play and press the button. If the button with the red tab is up, you can select rhythms in the top row; if it is down, you can select rhythms in the bottom row.

- If two or more buttons are pressed the one on the right has priority.
- If no button is depressed, March is automatically selected.



### 2. Press SYNCHRO START

After selecting a rhythm, press the SYNCHRO START button ⑭.



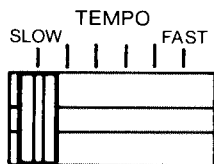
### 3. Press A Key On The Left Part Of The Keyboard

The rhythm will start the moment you play a note in the Auto Bass Chord Key Section. To stop the rhythm, press the SYNCHRO START button ⑭ again.

### 4. Adjustments

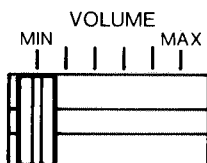
#### ● Tempo

Use the TEMPO control ⑪ to adjust the speed of the rhythm.



#### ● Volume

The RHYTHM VOLUME control ⑩ lets you adjust the rhythm volume in relation to the melody volume.



### 5. Making Use Of The Tempo Light

The Tempo Light functions as a visual metronome, making it simple for you to confirm the rhythm tempo when playing the melody. When the rhythm is playing, the light flashes at the first beat of every bar. When the SYNCHRO START button ⑭ is engaged but you have not yet started the rhythm by pressing a key, the Tempo Light flashes at every quarter note.

### 6. 4-Bar Variation (PS-400)

When the 4 BAR button ⑬ is pressed, a one-bar variation in the rhythm is automatically introduced every fourth bar.



## C) Auto Bass Chord Section

This feature lets you obtain a chord, bass and rhythm accompaniment simply by pressing a single key.

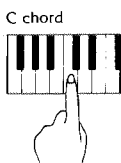
### 1. Select A Rhythm

Choose the rhythm you want then press the SYNCHRO START button ⑭. (Don't forget to do this whenever you use the Auto Bass Chord feature.)

### 2. Press The SINGLE FINGER CHORD Button ⑥

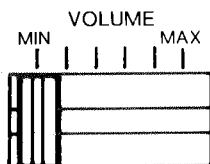
### 3. Press A Key

Press one of the 14 keys on the left side of the keyboard. You will hear the corresponding chord with bass and rhythm accompaniment. For instance, when you press "C" ("Do"), you'll obtain a C major chord that strums along with the bass and rhythm.



### 4. Set The Volume

Adjust the volume to suit the overall level using the Auto Bass Chord's independent VOLUME control ⑤.



### 5. Set The Tempo

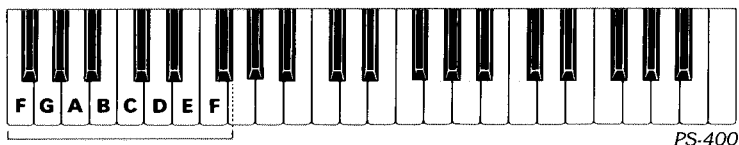
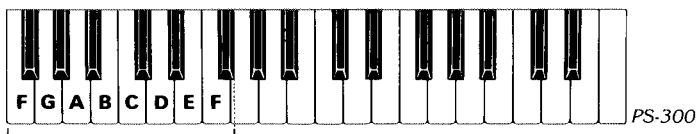
Select the tempo you want using the rhythm section's TEMPO control ⑪.

### 6. Using VARIATION

Press the VARIATION selector ⑦ if you want a different bass line and rhythm accompaniment.

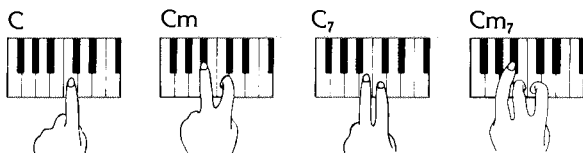


### ● Auto Bass Chord key section



### Obtaining Minor, Seventh And Minor Seventh Chords

- To get a C major chord, push C key. The bass accompaniment will always conform to the strumming chord.
- 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 next black key and white key to the left.



- To cancel the Auto Bass Chord function, press the Single Finger Chord again. The Auto Rhythm will also stop, but will start again when a note is pressed in the Auto Bass Chord Key Section.

**Points to note**

- You must completely lift your finger from the key for the chord to change. If you hold down the previous chord and move to the next one, PortaSound will not change chords.
- If the Auto Bass Chord feature is used without SYNCHRO START ⑭, you will get a continuous chord with bass. The chord will stop when you take your finger from the key.

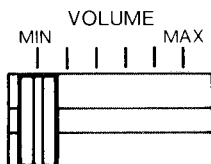
**D) Duet (PS-400)**

This function works together with the Auto Bass Chord feature. Press the DUET button ④, and a harmonizing note will be added to every melody note you play.



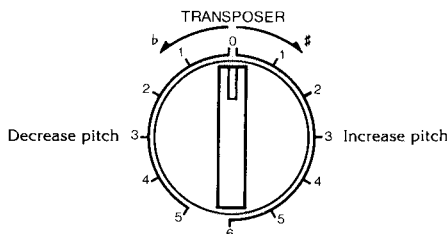
**E) Arpeggio (PS-400)**

The ARPEGGIO control ⑨ adds a rippling effect to the accompaniment. This feature must be used in conjunction with the Auto Bass Chord and Rhythm sections, but since the Auto Bass Chord, Rhythm and Arpeggio volumes are independently controllable, you can finely balance all three to suit the music.



**F) Using the TRANSPOSER (PS-400)**

The TRANSPOSER ① lets you adjust the PortaSound's pitch to suit either a singing voice—so anyone can sing along as you play—or an instrument such as a B<sup>b</sup> trumpet, clarinet or saxophone. The right half of the dial is for increasing the pitch up to half an octave, and the left half for decreasing up to half an octave.





# Chord Sequence Memory (PS-400)

## A) Program The Chord Progression

### 1. MEMORY On

Depress the MEMORY button in the CHORD SEQUENCE MEMORY section ③.



### 2. SINGLE FINGER CHORD On

Depress the SINGLE FINGER CHORD button ⑥.

### 3. SYNCHRO START Off

The SYNCHRO START button ⑭ should be in the "up" position.

### 4. Chord Selection

Play the key(s) in the Auto Bass Chord Key Section ⑧ to obtain the desired chord. (For details, refer to page 5.) Be sure to execute procedure No. 5 simultaneously with this procedure.

### 5. Chord Length Selection

Input the desired chord length by pressing the appropriate key ( ♩ ♪ ♫ ) in the Chord Programming Key Section ⑰ with your right hand, while holding down the chord key(s) with your left hand.

#### Lengths

- Whole note = 4 beats  
(1 measure with 4/4 meter)
- ♪ Dotted half note = 3 beats
- ♩ Half note = 2 beats
- ♩ Quarter note = 1 beat

#### Example

Programming chord progression of "When The Saints Go Marching In".

- C chord, press ◦ 7 times
- G chord, press ◦ twice
- C chord, press ◦ twice
- Hold down — F chord, press ◦ twice
- C chord, press ◦ once
- G chord, press ◦ once
- C chord, press ◦ once

- To program a waltz (3/4 meter), press the 3/4 key (extreme right-hand white key) before executing procedure No. 4.
- Don't lift your left hand off the keyboard until you finish designating each chord length.
- When you want to program a measure without chords (with rhythm only), designate the length only using your right hand.

### ● **Correcting**

If you input an incorrect chord, immediately press the Input Cancel Key (Σ) to cancel it, then press the correct chord key; the mistake is rectified. (Correction can only be made to the preceding key input.)

6. When all the chords have been programmed, press the OFF button in the CHORD SEQUENCE MEMORY section.

Now the chord progression has been stored in the memory.

## **Alternative Method**

### **1. MEMORY On**

Depress the MEMORY button in the CHORD SEQUENCE MEMORY section ③.

### **2. SINGLE FINGER CHORD On**

Depress the SINGLE FINGER CHORD button ⑥.

### **3. SYNCHRO START On**

The SYNCHRO START button ⑭ should be in the “down” position.

### **4. Play The Chords**

Play the chords exactly as you want them reproduced; they will be memorized.

Note: The Chord Programming Key Section ⑲ does not function when this method is employed.

## **B) Music Playback**

Memorized music can be played back as many times as you like, unless you input some other music or turn off the power supply.

1. Press the PLAY button in the CHORD SEQUENCE MEMORY section ③.

2. Press the SYNCHRO START button ⑭.

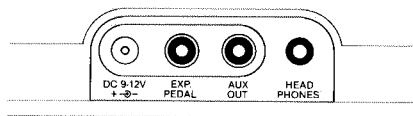
3. Press any one of the keys in the Auto Bass Chord Key Section ⑧ to start playback.

- If you press the DUET button ④, the melody will be played back as a duet.

- When the music ends, the playback process stops automatically.

# Making use of the **5** jacks

You'll find four jacks on the left side of the instrument. These jacks are for connecting the optional accessories and other equipment.



## External Power Source Jack (DC 9-12V IN)

### ● AC power

Connect the optional AC Power Adaptor 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.

## 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.

## Aux Out Jack

● The Speaker Cabinet (TO-100) is connected to the PortaSound via the AUX OUT jack.

● You can channel sound through your stereo system's speakers using this jack. Also, you can connect directly with a cassette deck for recording. In either case, the connecting cord PC-2 or an ordinary extension cord is required.

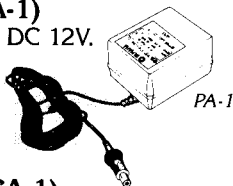
## Headphone Jack

● Connect a set of headphones to this jack and you can practice in private or play by yourself at night without disturbing a soul. Headphones with a large input jack cannot be used.

# Optional **6** accessories

## AC Power Adaptor (PA-1)

Transforms AC voltage to DC 12V.



## Car Battery Adaptor (CA-1)

Enables you to provide power to the instrument from a car battery using the cigarette lighter socket. The adaptor contains a circuit for protecting PortaSound against high voltages.

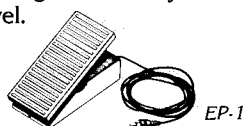


## Headphones (YH-35)

Specially designed lightweight dynamic headphones with extra-soft ear pads.

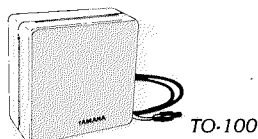
### Expression Pedal (EP-1)

Lets you add more feeling to music by enabling subtle control of the overall volume level.



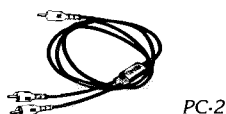
### Speaker Cabinet (TO-100)

An auxiliary speaker without an amplifier. Provides fuller, more dynamic sound in low note ranges.



### Connecting Cord (PC-2)

For hooking the instrument up with a stereo system so you can channel sound through the stereo's speakers or make a direct recording.



*Some optional accessories may not be available in every region.*

## Taking care of your PortaSound

Your PortaSound will remain in excellent playing condition if care is taken concerning the following.

1. When you use AC power or a car battery, be sure to use the optional PortaSound adaptors. Before use, read the adaptor instructions carefully.
2. The optional car battery adaptor 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 PortaSound 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 PortaSound 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 PortaSound 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 (176°F). Temperatures in excess of 60°C (140°F) 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 PortaSound keep it in the case to protect it.

# Specifications

## PS-300

**Keyboard** 37 keys (F<sub>1</sub>—F<sub>4</sub>)

### Instrument Voices

Organ, Piccolo, Trumpet,  
Violin, Piano,  
Harpsichord, Guitar,  
Vibraphone

**Effect** Sustain, Delayed  
Vibrato (Preset)

### Rhythm Section

Selectors: March, Disco,  
Waltz, Slow Rock, Jazz  
Rock, 16 Beat, Swing,  
Bossanova, Rhumba,  
Samba

Controls: Synchro Start,  
Tempo, Volume, Tempo  
Light

### Auto Bass Chord Section

Single Finger Chord,  
Variation, Volume

### Other Controls And Indicators

Power Switch, Power-on  
Light, Master Volume,  
Pitch Control

### Auxiliary Jacks

Headphones, Aux Out,  
Expression Pedal, DC  
9V—12V Input

**Main Amplifier** 1.4 W  
(RMS), 6 Ω

### Speaker

7.7 cm (3")

### Rated Voltage

DC 9V using six SUM-2,  
"C" size, R-14 or  
equivalent batteries, AC  
power adaptor or car  
battery adaptor

### Power Consumption

2.3W with AC adaptor  
1.8W with batteries

**Body Construction** ABS  
resin

### Dimensions

543 mm wide × 152 mm  
deep × 43 mm high  
(21<sup>3</sup>/<sub>8</sub>" × 6" × 1<sup>3</sup>/<sub>4</sub>" )

### Weight

1.4 kg (3.1 lbs.)  
excluding batteries

**Accessory** Carrying case

## PS-400

**Keyboard** 44 keys (F<sub>1</sub>—C<sub>5</sub>)

### Instrument Voices

Organ, Piccolo, Trumpet,  
Violin, Clarinet, Oboe,  
Piano, Harpsichord,  
Guitar, Vibraphone

**Effect** Sustain, Delayed  
Vibrato (Preset)

### Rhythm Section

Selectors: March, Disco,  
Waltz, Slow Rock, Jazz  
Rock, 16 Beat, Swing,  
Bossanova, Rhumba,  
Samba

Controls: 4-Bar Variation,  
Synchro Start, Tempo,  
Volume, Tempo Light

### Auto Bass Chord Section

Single Finger Chord,  
Variation, Volume, Duet

### Chord Sequence Memory

Off, Memory, Play

### Arpeggio

Volume

### Other Controls And Indicators

Power Switch, Power-on  
Light, Master Volume,  
Transposer (1/2 octave  
high and low), Pitch  
Control

### Auxiliary Jacks

Headphones, Aux Out,  
Expression Pedal, DC  
9V—12V Input

**Main Amplifier** 1.4 W  
(RMS), 6 Ω

### Speaker

7.7 cm (3")

### Rated Voltage

DC 9V using six SUM-2,  
"C" size, R-14 or  
equivalent batteries, AC  
power adaptor or car  
battery adaptor

### Power Consumption

2.3W with AC adaptor  
1.8W with batteries

**Body Construction** ABS  
resin

### Dimensions

621 mm wide × 152 mm  
deep × 43 mm high  
(24<sup>1</sup>/<sub>2</sub>" × 6" × 1<sup>3</sup>/<sub>4</sub>" )

### Weight

1.6 kg (3.5 lbs.)  
excluding batteries

**Accessory** Carrying case

*Specifications subject to change without notice.*

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. PS- \_\_\_\_\_

Serial No. \_\_\_\_\_

Die Seriennummer befindet sich an der Unterseite des Instrumentes. Wir empfehlen, diese Nummer sicherheitshalber an der unten vorgesehenen Stelle einzutragen, um sie auch im Falle eines Diebstahls jederzeit zur Hand zu haben.

Modell-Nr. PS- \_\_\_\_\_

Serien-Nr. \_\_\_\_\_

Le numéro de série de ce produit figure au bas du bloc. Il conviendra de noter ce numéro de série dans l'espace réservé au-dessous et de conserver ce manuel: celui-ci constitue le document permanent de votre achat et permet l'identification en cas de vol.

Modèle No. PS- \_\_\_\_\_

No. de série: \_\_\_\_\_

El número de serie de este producto se encuentra en la parte inferior de la unidad. Sírvase anotar este número de serie en el espacio proporcionado debajo y guarde este manual como comprobante de compra para ayudar a la identificación en caso de robo.

Nº de modelo PS- \_\_\_\_\_

Nº de serie \_\_\_\_\_

### **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.

### **Hinweis zur Garantie**

Dieses Produkt wird international vertrieben, und die Garantiebedingungen sind von Vertriebsland zu Vertriebsland verschieden. Ihr Händler gibt Ihnen gerne genauere Informationen zu den in Ihrem Land gültigen Garantie-und/oder Servicebedingungen.

### **Remarque relative à la garantie**

Ce modèle est destiné à être distribué à l'échelle internationale. Etant donné que les conditions de garantie pour ce type de produit varient en fonction des zones de commercialisation, prière de prendre contact avec l'agence chargée des ventes pour tous renseignements relatifs aux conditions de garantie et de service après-vente.

### **Concerniente a la garantía**

Este producto ha sido fabricado para ser distribuido internacionalmente y, como la garantía para este tipo de producto varía en relación a su área de comercialización, sírvase consultar con el agente de ventas sobre la información en torno a la garantía aplicable y/o políticas de servicio.

SINCE 1887



**YAMAHA**

NIPPON GAKKI CO., LTD. HAMAMATSU, JAPAN