YAMAHA

PortaSound

PS-300/PS-400

◆ YAMAHA

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.
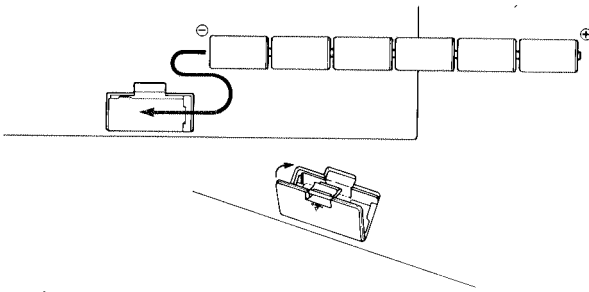
Convenient Music Rest

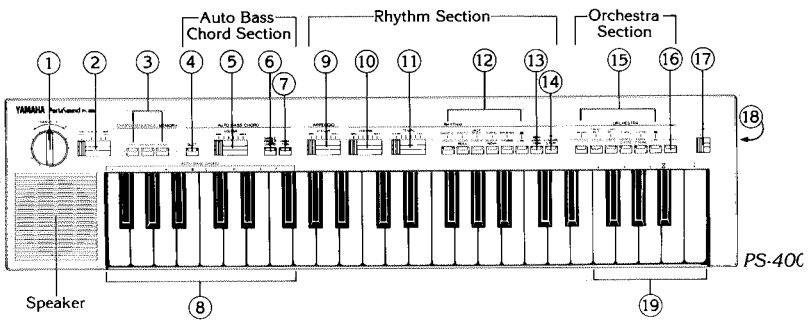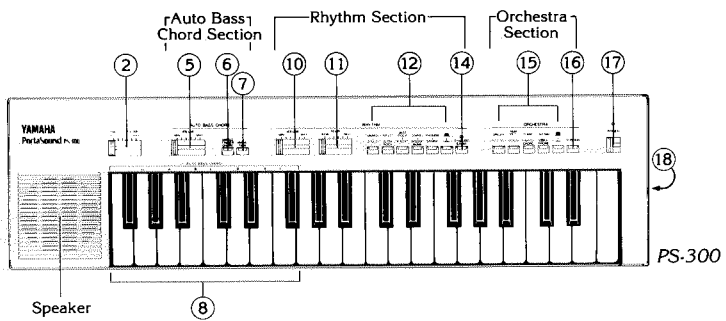You can use the case as a music rest if you leave the instrument in the case while playing.
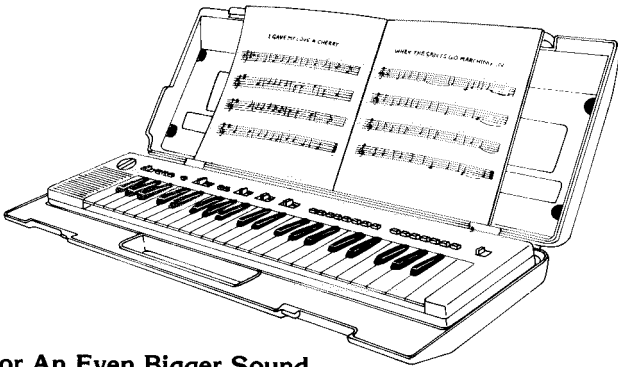
For An Even Bigger Sound

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**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**Synchro 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.
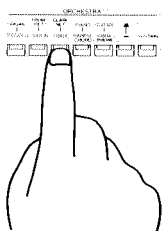
1. Switch On
Switch on by sliding the POWER switch ⑰ to the right.
The Power-on light will light up.

2. Choose The Voice You Want
Select one from among those available in the ORCHESTRA section ⑮ and press the selector.
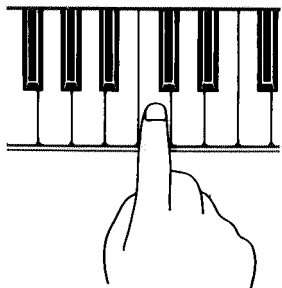
3. Adjust The Volume
Adjust the overall volume using the MASTER VOLUME control ②.

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 Auto Bass Chord 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.

```
MASTER VOLUME
MIN           MAX
 |  |  |  |  |  |
```
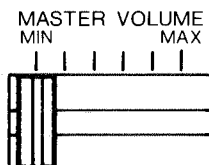
2. Sustain
This effect works with all the instrument voices except for Vibraphone, which has sustain built in. Press the SUSTAIN selector ⑯ and notes will linger after you take your fingers off the keys.
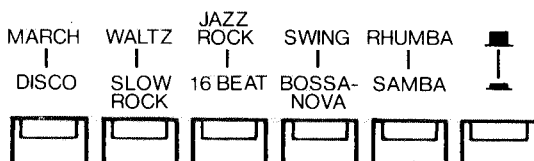
SUSTAIN

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.

```
                 JAZZ
MARCH  WALTZ  ROCK   SWING  RHUMBA
 |      |      |      |      |
DISCO  SLOW   16 BEAT BOSSA- SAMBA
       ROCK           NOVA
```

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

O
SYNCHRO
START

4
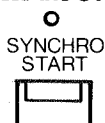
3. Press A Key On The Left Part Of The Keyboard

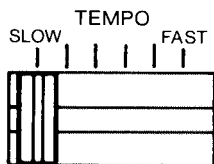The rhythm will start the moment you play a note in the Auto Bass Chord Key Section. To stop the rhythm, press the SYNCHRO START button ⑭ again.
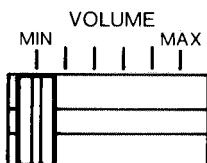
4. Adjustments
● Tempo

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

TEMPO
SLOW | | | | | FAST

● Volume

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

VOLUME
MIN | | | | | MAX

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.

4BAR
VARIA-
TION

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.

C chord

4. Set The Volume

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

VOLUME
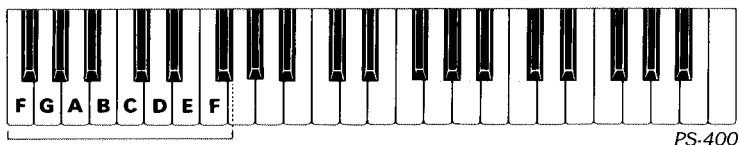MIN   MAX
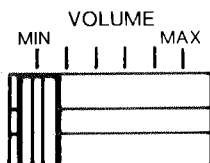
5. Set The Tempo

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.

VARIA-
TION

● Auto Bass Chord key section

F G A B C D E F   PS-300

F G A B C D E F   PS-400
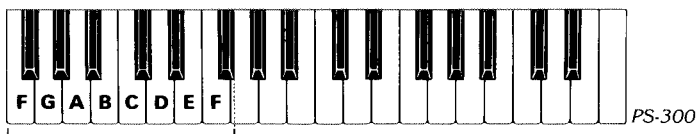
Obtaining Minor, Seventh And Minor Seventh Chords

● 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.

C   Cm   C₇   Cm₇
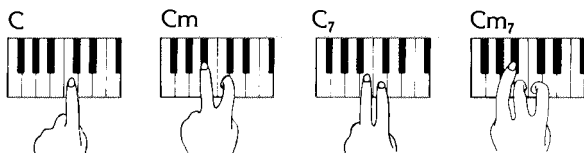
- To cancel the Auto Bass Chord function, press the Single Finger Chord again. The Auto Rhythm will also stop, but will start again when a note is pressed in the Auto Bass Chord Key Section.

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.

DUET

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.

VOLUME
MIN   MAX
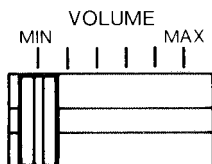
F) Using the TRANSPOSER (PS-400)

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♭ 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.

TRANSPOSER

Decrease pitch 3   3 Increase pitch
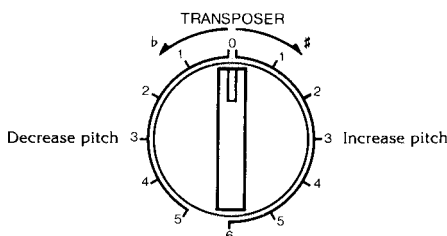
Chord Sequence Memory (PS-400)

A) Program The Chord Progression

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

OFF   MEMORY   PLAY

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 ⑲ 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 (X) 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 jacks

You'll find four jacks on the left side of the instrument. These jacks are for connecting the optional accessories and other equipment.
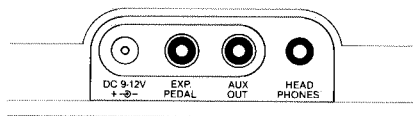
External Power Source Jack (DC 9-12V IN)
● AC power
Connect the optional AC Power Adaptor to the DC 9-12V IN jack.
● Car battery
The Car Battery Adaptor CA-1 plugs into the DC 9-12V IN jack and a cigarette lighter socket.
Expression Pedal Jack
● The EXP. PEDAL jack is for connecting the Expression Pedal (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.
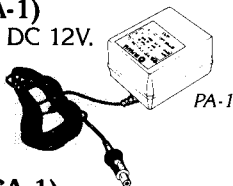## Headphone Jack
● Connect a set of headphones to this jack and you can practice in private or play by yourself at night without disturbing a soul. Headphones with a large input jack cannot be used.
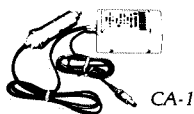
Optional accessories

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.
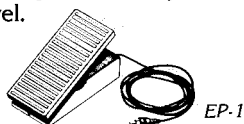

Headphones (YH-35)
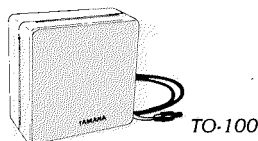Specially designed lightweight dynamic headphones with extra-soft ear pads.

Expression Pedal (EP-1)

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

EP-1

Speaker Cabinet (TO-100)

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

TO-100

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.

PC-2
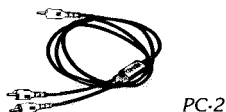
Some optional accessories may not be available in every region.

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   .iid 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_1—F_4)

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
($21^3/_8$" × 6" × $1^3/_4$")

Weight
1.4 kg (3.1 lbs.) excluding batteries

Accessory Carrying case

PS-400

Keyboard 44 keys (F_1—C_5)

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
($24^1/_2$" × 6" × $1^3/_4$")

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.

Modéle 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.

N° de modelo PS-

N° 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 sing von Vertriebsland zu Vertriebsland verschieden. Ihr Händler gibt Ihnen gerne ganauere Informationen zu den in Ihrem Land gültigen Garantie-und/oder Servicebedingungen.

Remarque relative à la garantie

Ce modèle est destiné à être distribuéà 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 aprés-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, sirvase consultar con el agente de ventas sobre la información en torno a la garantía aplicable y/o politicas de servicio.