SINGLE MANUAL ELECTRONIC KEYBOARD

HA-1

USER'S GUIDE

YAMAHA



CAUTION

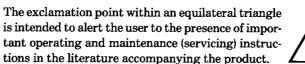
RISK OF ELECTRIC SHOCK DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Explanation of Graphic Symbols

The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.









IMPORTANT SAFETY AND INSTALLATION INSTRUCTIONS

INFORMATION RELATING TO INJURY, ELECTRIC SHOCK, AND FIRE HAZARD POSSIBILITIES HAS BEEN INCLUDED IN THIS LIST.

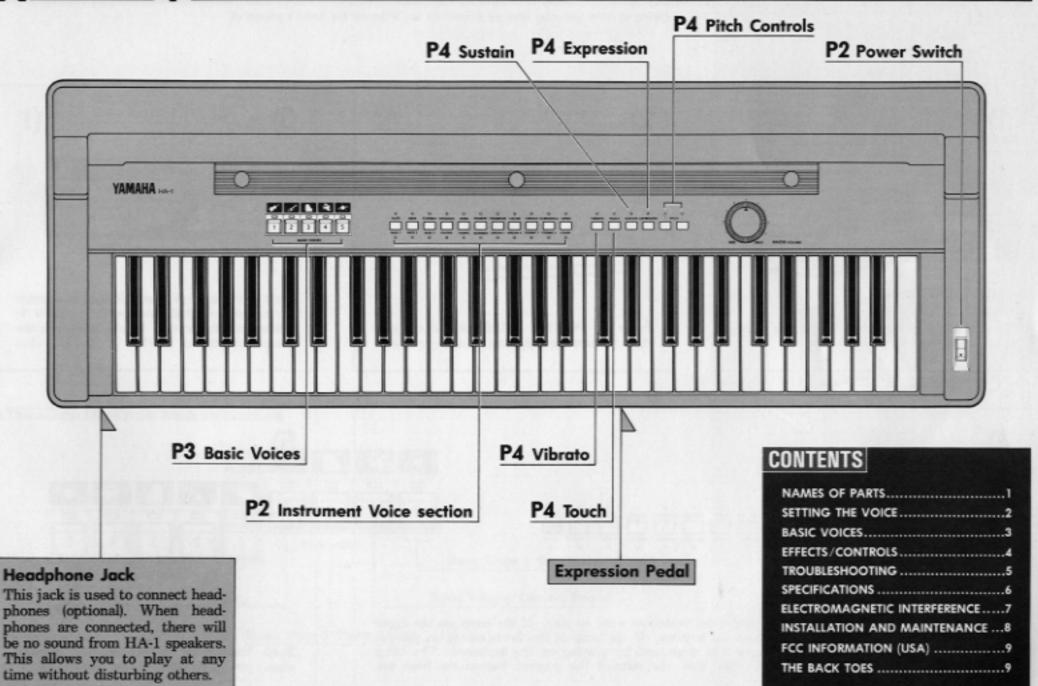
WARNING —When using electronic products, basic precautions, including the following:

- Read all Safety and Installation Instructions, Supplemental Marking and Special Message Section data, and assembly instructions (where applicable) BEFORE using your Yamaha electronic product. Check unit weight specifications before you attempt to move this instrument!
- Main Power Supply Verification: Your Yamaha electronic product has been manufactured specifically for the main supply voltage used in your area. If you should move, or if any doubt exists, please contact your dealer for instructions. The main supply voltage required by your electronic product is printed on the name plate. For name plate location see graphic in Special Message Section.
- This product may be equipped with a polarized line plug (one other blade). If you are unable to insert the plug into the outlet, contact an electrician to have your obsolete outlet replaced. Do NOT defeat the safety purpose of the plug. Yamaha products without polarized plugs incorporate construction methods and designs that do not require line plug polarization.
- **4.** WARNING—Do NOT place objects on your electronic product's power cord or place the unit in a position where anyone could trip over, walk over, or roll anything over cords of any kind. Do NOT allow your electronic product or its bench to rest on or be installed over cords of any type. Improper installations of this type create the possibility of a fire hazard and/or personal injury.

- Environment: Your electronic product should be installed away from heat sources such as radiators, heat registers and/or other products that produce heat. Additionally, the unit should not be located in a position that exposes the cabinet to direct sunlight or air currents with high humidity or heat levels.
- 6. Your Yamaha electronic product should be placed so that its location or position does not interfere with its proper ventilation.
- 7. Some Yamaha electronic products may have benches that are either a part of the product or supplied as an optional accessory. Some of these benches are designed to be dealer assembled. Please make sure that the bench is stable before using it. The bench supplied by Yamaha was designed for seating only. No other uses are recommended.
- 8. Some Yamaha electronic products can be made to operate with or without the side panels or other components that constitute a stand. These products should be used only with the components supplied or a cart or stand that is recommended by the manufacturer.
- **9.** Do not operate for a long period of time at a high volume level or at a level that is uncomfortable (consult an audiologist). If you experience any hearing loss or ringing in the ears, you should.
- 10. Do not use your Yamaha electronic product near water or in wet environments. Such as swimming pools, spas, or wet basements.

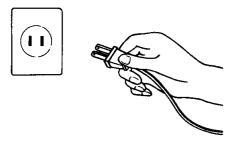
- Care should be taken that objects do not fall and liquids are not spilled into the enclosure through openings.
- 12. Your Yamaha electronic product should be serviced by a qualified service person when:
- a. The power-supply cord or plug has been damaged: or
- b. Objects have fallen, or liquid has been spilled into the product: or
- c. The product has been exposed to rain: or
- d. The product does not operate, exhibits a marked change in performance: or
- e. The product has been dropped, or the enclosure of the product has been damaged.
- 13. When not in use, always turn your Yamaha electronic product "OFF". The power-supply cord of the product should be unplugged from the outlet when it is to be left unused for a long period of time. Notes: In this case, some units may lose some user programmed data. Factory programmed memories will not be affected.
- 14. Do not attempt to service the product beyond the steps described in the user-maintenance instructions. All other servicing should be referred to qualified service personnel.
- 15. Electromagnetic Interference (RFI). This series of Yamaha electronic products utilizes digital (high frequency pulse) technology that may adversely affect Radio/TV reception or the operation of other devices that utilize digital technology. Please read FCC Information (Page 9) for additional information.

NAMES OF PARTS



SETTING THE VOICE

1)



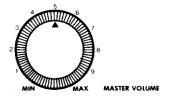
First of all, make sure that the plug is firmly inserted in the wall power outlet.

2)



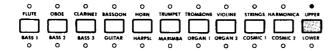
Press the POWER Switch located on your right to turn the HA-1 on.

3)



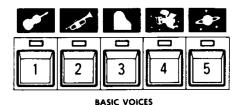
Turn the Master Volume Control clockwise to a position where the triangle mark is vertical. This control lets you adjust the overall volume of HA-1.

4)



Press the selector corresponding to the instrument voice you want to play. If the lamp on the upper side is on, you can select the voices above the buttons. If the lamp on the lower side is on, you can select the voices below the buttons. Choose one voice, and try playing on the keyboard. The lamp of the pressed button will light up, indicating that the voice of the pressed button has been set.

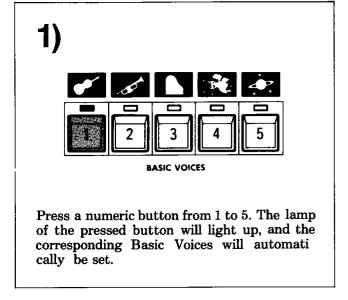
5)

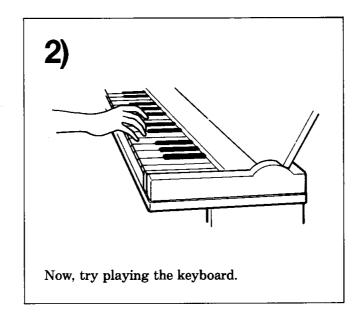


Basic Voice No. 1 is automatically selected when you turn the Power Switch on.

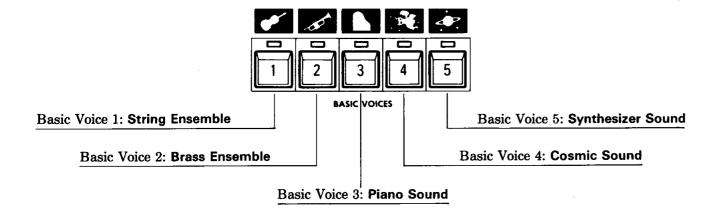
BASIC VOICES

By pressing a button, you can call to your HA-1 one of five Basic Voices best suited for practice.





■ The sounds of the 5 Basic Voices are as follows:

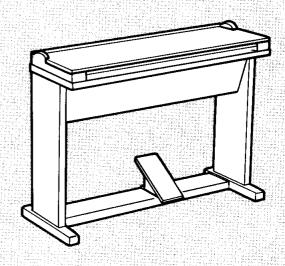


NOTICE

●Key Cover

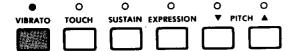
The key cover can be used as a desk when shut and as a music stand when opened.

The key cover's hinges have a shock absorbing device, so it will feel slightly heavy to open and close.



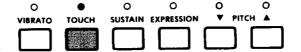
EFFECTS/CONTROLS





Produces vibrato effect for fine vibration of notes played. The most suitable Vibrato setting for each individual voice has been preset and will automatically be produced when this button is on. Some voices with built-in vibrato are not influenced by this button.

B) Touch



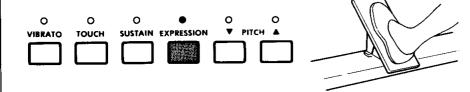
The volume and timbre of each voice can be minutely changed in response to your touch on the depressed keys to produce the ultimate in musical expression.

C) _{Sustain}



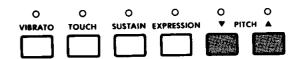
This effect produces a gradual fade out of the sound after the keys have been released.

D) Expression



When this button is turned on, the Expression pedal can be used to vary the overall volume level of the entire instrument during performance. The Master Volume Control sets a general level for the loudness of the instruments.

E) Pitch



Use this button to finely adjust the pitch.

▼ button: Slightly lowers the pitch each time it is pressed.

▲ button: Slightly raises the pitch each time it is pressed.

Press the ▼ and ▲ buttons simultaneously to return to Normal Pitch. You can also restore Normal Pitch by switching the Power Switch to off and then to on.

TROUBLESHOOTING

· Please note that the appearance of any of the following phenomena does not indicate a mechanical failure.

PHENOMENON	CAUSE AND SOLUTION
A crackling sound is sometimes heard.	Noise may be produced either when an electrical appliance is turned on/off or when an electric power tool, such as a drill, is used in the proximity of the instrument. In such a case, plug the HA-1 into an electrical outlet located as far as possible from the device that seems to be the source of the problem.
Interference from radio, TV, wireless radio, etc.	This is caused by the proximity of a high-power broadcasting station or amateur ham radio station.
Noise is produced in a radio, TV, etc.	Noise may be produced in such equipment if the HA-1 is located nearby. Use such equipment in a location as far as possible from the HA-1.
The HA-1 sounds cause surrounding objects to resonate.	Because the HA-1 produces many sustained sounds, resonance may be caused in surrounding objects, such as cabinets or glass windows. If it becomes a problem, relocate the resonating objects or lower the volume of the HA-1.
The volume of the selected voice varies with the position played on the keyboard.	Because the intrinsic nature of electronic music instruments is generally to change timbre, it is extremely difficult to eliminate changes in the volume of a voice at different keyboard positions. This HA-1 is designed and adjusted to eliminate any performance-related problems. Its volume and timbre also vary greatly according to the installation site and system configuration of the HA-1, the position of the audience, etc.
The sound of the notes is broken or seems to include noise.	This effect occurs mainly with the voices of wind instruments and is deliberately included to recreate the characteristic sounds of the actual instruments. It provides instrument sounds with realistic features, such as reed vibration or the breath noises for Brass.
Only seven notes are heard when eight notes are simultaneously played.	A maximum of seven notes can be simultaneously sounded.
The Touch feature does not work.	The Touch button is off. Turn on the Touch button.
The Vibrato effect is on, but the desired effect is not produced.	Some voices have built-in vibrato, so such voices may not vary so clearly.
When the $lacktriangle$ button is pressed, the lamp of the $lacktriangle$ button will light up.	When the ▼ or ▲ button is pressed, the corresponding lamp wil not always light up. If the currently set pitch is lower than Normal Pitch, the ▼ button will remain lit; if it is higher than Normal Pitch, the ▲ button will remain lit. Therefore, the lamp of the ▼ button may remain lit even if you press the ▲ button.

SPECIFICATIONS

KEYBOARD:

61 keys (C1-C6) Touch Response (Initial Touch)

PRESET BASIC VOICES:

String Ensemble, Brass Ensemble, Piano Sound, Cosmic Sound, Synthesizer Sound

VOICES:

Flute, Oboe, Clarinet, Basoon, Horn, Trumpet, Trombone, Violin, Strings, Harmonica, Bass 1, 2, 3, Guitar, Harpsichord, Marimba, Organ 1, 2, Cosmic 1, 2, Voice Selector

EFFECTS:

Vibrato, Sustain

MAIN CONTROLS:

Master Volume, Expression Pedal, Power Switch

OTHER CONTROLS & FITTINGS:

Touch On/Off, Expression On/Off,
Pitch (▲, ▼), Headphone Jack, Power—On Light,
Casters (Right panel only),
Back Toes, Keyboard Cover/Music Stand

SOUND SYSTEM:

Power Amplifier: 30W

Speakers: 16cm (6.3") × 1, 5cm (2") × 1

DIMENSIONS:

HA-1: 96.3cm(W) × 38.6cm(D) × 71.6cm(H), (37.9" × 15.2" × 28.2") 90.7cm(Height, with Key Cover opened) Bench:46.1cm(W) × 29.9cm(D) × 46.4cm(H), (18.1" × 11.8" × 18.3")

WEIGHT:

HA-1: 25kg (55 lbs.) Bench: 4kg (9 lbs.)

FINISH:

Light Gray, Acrylic Lacquer Finish

Specifications subject to change without notice.

ELECTROMAGNETIC INTERFERENCE

"Interference" can be a two way street; something you are operating can interfere with others or, something someone else has may interfere with something of yours.

Naturally, it is also possible that two or more of your own electronic (electric) devices may interfere with each other. Your Electone has been designed to minimize all these possibilities and meets all applicable standards worldwide.

Electromagnetic interference with your instrument can show itself in variety of ways. You may hear speech, music, "beeps", static, or buzzing sounds. Yamaha Electronic keyboard products are designed to reject RF (radio frequency) signals that are many times the levels found in any normal environment. If, however, you are in the immediate proximity of a very high power transmitter, some interference may still occur. If this should happen, please try to identify the radio (TV) station and record the time of day that the interference occurs. Station identification is essential in order that the offending frequencies can be established and the authorized

(legal) operating power level of the transmitter causing the interference can be verified. If the interference continues, please follow the suggested corrective measures provided later in this section.

If the interference is in the form of occasional buzzing or static, it is highly probable that the cause can be traced to the turning on or off of some household appliance. The offending appliance can also be outside your own residence. Usually a "time" pattern (i.e., evenings only, etc.) will be involved. Noises of this type rarely orginate in the instrument itself. If the condition continues, please contact your local authorized Yamaha Electone dealer for assistance.

Main power line disturbances and electrical storms (lightning) can also be the source of static interference. Generally speaking, problems generated by these two sources will also be present in your other audio or video equipment. Lightning can also be very destructive. The following special warning also applies to virtually all electronic products.

IMPORTANT NOTICE

Modern electronic products, (i.e., computers, video games, electronic organs, etc.), contain components that, under normal conditions, extend the service free life of the products they make up to an almost unbelievable period of time. This is especially true when you consider the vast number of equivalent components incorporated within one given part. These "parts," called "integrated circuits," are however, subject to destruction by high voltage discharges, such as a close proximity lightning strike. This can occur even if the unit is turned off.

IN PERIODS OF ELECTRICAL STORM PROBABILITY, IT IS ADVISABLE THAT YOU DISCONNECT ANY ELECTRONIC DEVICE NOT ACTUALLY IN USE FROM ITS WALL SOCKET.

INSTALLATION AND MAINTENANCE

Installation

1. Warning

Do not allow your instrument or its bench to rest on or be installed over power cords of any type. An electrical shock and/or fire hazard could possibly result from this type of improper installation.

2. Warning

Do not place objects on your instrument power cord or place it in a position where anyone could trip over, walk on or roll anything over it. An improper installation of this type creates a personal injury/fire hazard possibility.

3. Warning

Do not sit on the key cover or place heavy objects on it.

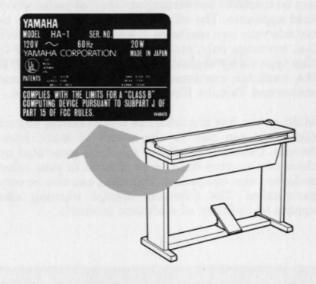
4. Environment

Your instrument should not be installed in a position that exposes the cabinet to direct sunlight or air currents having high humidity or heat levels. This type of installation can cause contact oxidation, case joint separation, and cabinet finish problems.

5. Electromagnetic Interference (RFI)

Your instrument has been type tested and found to comply with all applicable regulations. However, if it is installed in the immediate proximity of other electronic devices, some form of interference may occur. 6. Main Power Supply Verification

Your instrument has been manufactured specifically for the main supply voltages used in your area. If you should move, or if any doubt exists, please consult your local authorized for instructions. The main supply voltage is printed on the name plate.



Maintenance

1. SERVICE

Your instrument contains no user serviceable components. Refer all service to qualified service technicians only.

2. BENCH STRUCTURAL INTEGRITY

If any motion or an "unsteady" sensation is noted in the bench, please check its structural integrity immediately. Discontinue use until any and all discrepancies are resolved.

3. CLEANING/CARE

A) GENERAL: DO NOT use chemically harsh (i.e., alcohol, paint thinners, etc.) or abrasive cleaners on any portion of your instrument.

B) KEYS/CONTROL PANEL: When cleaning the keys and control panels of your instrument, please use a soft absorbent-type cloth that has been dampened with a very mild solution of

liquid soap and lukewarm water.

C) CABINET/BENCH: Clean the cabinet portions of your instrument with a slightly dampened cloth containing a neutral cleaning agent. The cleaning agent selected should not contain a high wax content or any other substance that would have a tendency to form a "build-up" on the cabinet.

4. Vinyl Products

Do not set vinyl items, (i.e., headphones vinyl doilies, etc.) on the finished surfaces of your instrument or use polyvinyl material to cover the unit for any extended period of time. A chemical reaction may occur between the finish chemical and those contained in the polyvinyl products, resulting in a permanent marring of the finish.

IMPORTANT NOTICE

This product has been tested and approved by independent safety testing laboratories in order that you may be sure that when it is properly installed and used in its normal and customary manner, all foreseeable risks have been eliminated. DO NOT modify this unit or commission others to do so unless specifically authorized by the manufacturer. Product performance and/or safety standards may be diminished. Claims filed under the expressed warranty terms may be denied if the unit is/has been modified. The warranty of title (patent infringement, etc.) will not be defended by the manufacturer in the area(s) that relate to the modification. Implied warranties may also be affected.

FCC INFORMATION (USA).

While the following statements are provided to comply with FCC Regulations in the United States, the corrective measures listed are applicable worldwide.

The digital series of Yamaha Electronic keyboard products use frequencies that appear in the radio frequency range, and if installed in the immediate proximity of some types of audio or video devices within three meters (approximately ten feet), interference may occur.

This series of Yamaha Electronic keyboard products has been type-tested and found to comply with the specifications set for a class B computer in accordance with those specifications listed in sub-part J, 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 Electronic keyboard product should be sus-

pected of causing interference with other electronic devices, verification can be made by turning your Electronic keyboard product off and on. If the interference continues when your Electronic keyboard product is off, the Electronic keyboard product is not the source of the interference. If your Electronic keyboard product 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 Electronic keyboard product or the electronic device that is being affected by the interference.
- Utilize power outlets for the Electronic keyboard product and the device being affected that are on different branch (circuit breaker or fuse) circuits, or install AC line filters.
- In the case of radio-TV interference, relocate the antenna or if the antenna lead-in is 300 ohm ribbon

lead, change the lead-in to coaxial type cable.

If these corrective measures do not produce satisfactory results, please contact an authorized Yamaha Electronic keyboard product dealer for suggestions and/or corrective measures. If you can not locate an authorized Yamaha Electronic keyboard product dealer in your general area, please contact the Electronic keyboard product Service Department, YAMAHA CORPORATION OF AMERICA, U.S.A., 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, Stock #004-000-00345-4, is available from the US. Government Printing Office, Washington DC. 20402.

NSTRUCTION FOR ATTACHNESS HE PACKETORS

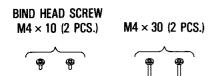
CAUTION: TO PREVENT INSTABILITY, BACK TOES MUST BE INSTALLED PRIOR TO USE.

■CHECK THE PARTS LISTED BELOW.

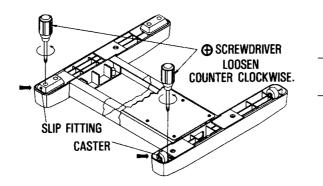
BACK TOE (2 PCS.)



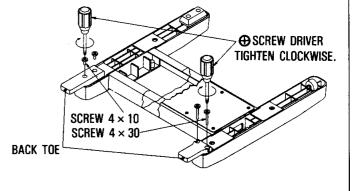




REPLACE THE SLIP FITTING & CASTER POINTED OUT BY ARROW WITH THE BACK TOE.



■REMOVE THE SLIP FITTING & CASTER.



■ ATTACH THE BACK TOE & TIGHTEN SCREW.

