

Owner's Manual

Roland Piano 4500

FEATURES

The HP-4500 utilize SA/S technology to reproduce the timbres, dynamics, and characteristics of many of the world's most famous acoustic and electric keyboard instruments. These instrument voices include two acoustic grand pianos, electric grand piano, harpsichord, clavi, vibraphone and two electric pianos.

The HP-4500 includes built-in Chorus and Tremolo effects.

Each of the keyboard timbres of the HP-4500 can be controlled via the keyboard of its own or through MIDI with full control over velocity (dynamics).

<p>Bescheinigung des Herstellers /Importeurs</p> <p>Hiermit wird bescheinigt, daß der/die/das ROLAND ELECTRONIC PIANO HP-4500 <small>(Gerät, Typ, Bezeichnung)</small></p> <p>in Übereinstimmung mit den Bestimmungen der Amtsbl. Vfg 1046 / 1984 <small>(Anzahlverfügung)</small></p> <p>funk-entstört ist.</p> <p>Der Deutschen Bundespost wurde das Inverkehrbringen dieses Gerätes angezeigt und die Berechtigung zur Überprüfung der Serie auf Einhaltung der Bestimmungen eingeräumt.</p> <p>Roland Corporation Osaka / Japan <small>Name des Herstellers/Importeurs</small></p>

<p>RADIO AND TELEVISION INTERFERENCE</p> <p>Warning - This equipment has been verified to comply with the limits for a Class B computing device pursuant to Subpart J, of Part 15, of FCC rules. Operation with non certified or non verified equipment is likely to result in interference to radio and TV reception.</p> <p>The equipment described in this manual generates and uses radio frequency energy. If it is not installed and used properly, that is, in strict accordance with our instructions, it may cause interference with radio and television reception.</p> <p>This equipment has been tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J, of Part 15, of FCC Rules. These limits are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If the equipment does cause interference to radio or television reception, which can be determined by turning the equipment on and off, the user is encouraged to try to correct the interference by the following measures:</p> <ul style="list-style-type: none"> • Disconnect other devices and their input/output cables one at a time. If the interference stops, it is caused by either the other device or its I/O cables. • These devices usually require Roland designated shielded I/O cables. For Roland devices, you can obtain the proper shielded cable from your dealer. For non-Roland devices, contact the manufacturer or dealer for assistance. • If your equipment does cause interference to radio or television reception, you can try to correct the interference by using one or more of the following measures: <ul style="list-style-type: none"> • Turn the TV or radio antenna until the interference stops. • Move the equipment to one side or the other of the TV or radio. • Move the equipment farther away from the TV or radio. • Plug the equipment into an outlet that is on a different circuit than the TV or radio. (That is, make certain the equipment and the radio or television set are on circuits controlled by different circuit breakers or fuses.) • Consider installing a rooftop television antenna with coaxial cable lead-in between the antenna and TV. <p>If necessary, you should consult your dealer or an experienced radio/television technician for additional suggestions. You may find helpful the following booklet prepared by the Federal Communications Commission:</p> <p>How to Identify and Resolve Radio-TV Interference Problems</p> <p>This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock No. 004 000 00345 4.</p>

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Please read the separate volume "MIDI", before reading this owner's manual.

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IMPORTANT NOTES

Power Supply

Do not use the same socket that is used for any noise generating device, such as a motor or variable lighting system.

This unit might not work properly if the power cable is plugged in with the unit turned on. If this happens, simply turn the unit off, and turn it on again in a few seconds.

The appropriate voltage to be used is shown on the name plate on the rear panel. Be sure that it meets the voltage system in your country.

Power Cord

When disconnecting the power cord from the socket, do not hold the cord but the plug. When the unit is not to be used for a long period, disconnect the power cord.

Location

- Operating this unit near a neon or fluorescent lamp may cause noise interference. If so, change the angle or position of the unit.
- Avoid using this unit in extreme heat or humidity or where it may be affected by dust.

Cleaning

- Use a soft cloth and clean only with a mild detergent.
- Do not use solvents such as paint thinner.

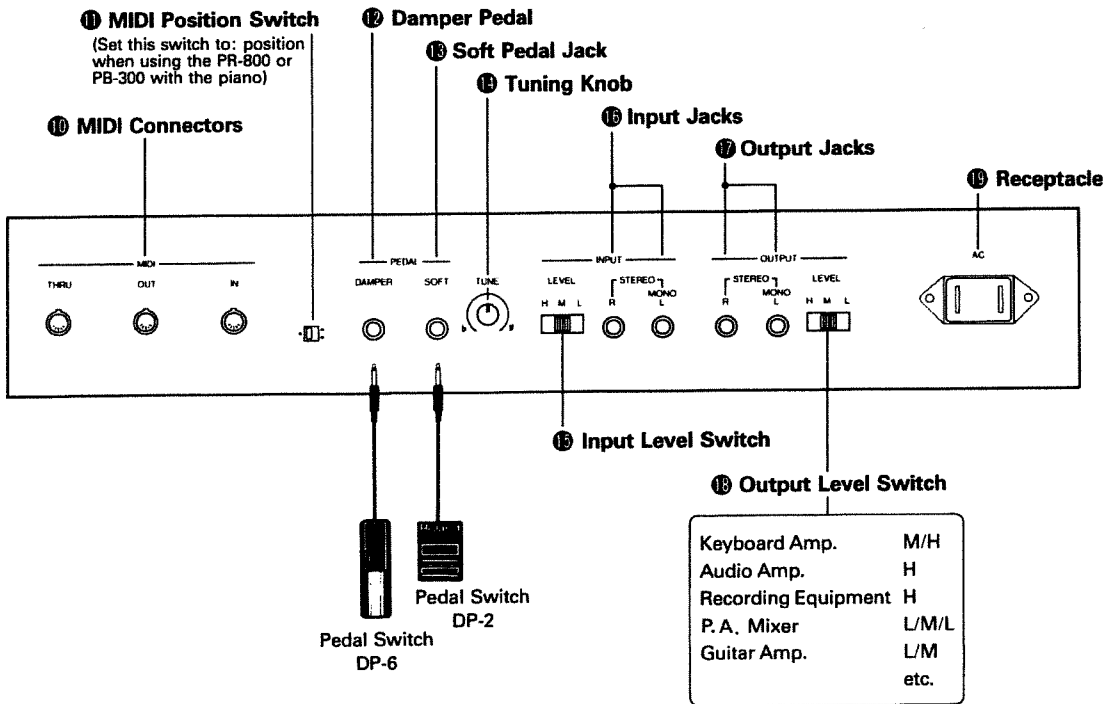
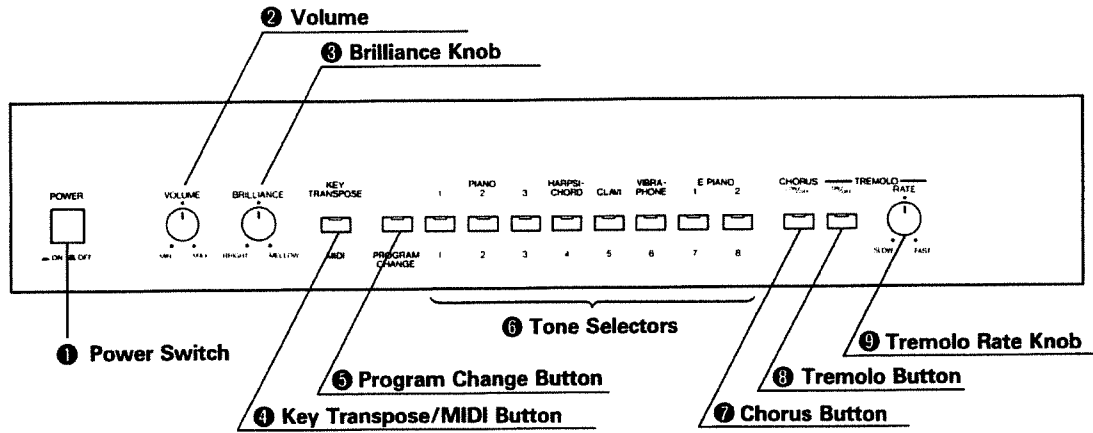
This owner's manual covers both the HP-2000/3000. The HP-3000's front panel is shown here, but it is exactly the same as the HP-2000's.

HOW TO SETUP THE PIANO

1. Connect the supplied power cord to the Receptacle ⑨ on the rear panel.
2. Connect the plug to the wall socket.

* Be sure to take the step 1 then 2. Do not do it the other way round.

1 PANEL DESCRIPTION



2 OPERATION

1. Basic Operation

① Turn the piano on.

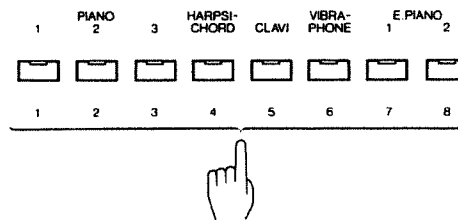
* For about 2 seconds after turned on, the piano cannot be played because of the muting function.

② Adjust the volume with the Volume Knob ②.



2. Tone Selection

The HP-4500 features 8 keyboard sound; two acoustic grand pianos, electric grand piano, harpsichord, clavi, vibraphone and two electric pianos. To select one of these voices, press one of the Tone Selector buttons numbered 1 through 8. One keyboard sound can be selected at a time.



VOICE PRESERVE FUNCTION

The HP-4500 features the Voice Preserve Function, that is, while you are playing the keyboard using a certain tone color, you can request the next tone color to be used, without the tone actually changing until you release all the keys.

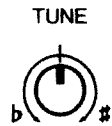
When the piano is being played with the Note or Damper ON, the tone color does not change. (the indicator of the corresponding sound flashes.) To change the voices, lift all Notes and the Damper OFF. (Now, the indicator of the new voice is constantly lighted.)

3. Tuning

The Tune Knob is provided for controlling the overall tuning center of the HP-2000 or HP-3000. This is especially useful for tuning to other acoustic instruments, synthesizers, and synthesizer sound modules. Since the HP-4500 incorporate S/A Synthesis, the tuning of individual notes will never be necessary. At its center position;

Middle A = 442Hz.

At the Center Position,
middle A = 442Hz



4. Damper/Soft Pedal

The Damper Pedal Jack and Soft Pedal Jack are provided to connect the cables from the stand's pedals or the DP-2/DP-6. These pedals function just like the damper and soft pedal on an acoustic piano.

* The Soft Pedal can be used as a Sostenuato pedal.

a. Damper Pedal

The Damper Pedal makes the sound decay slowly.

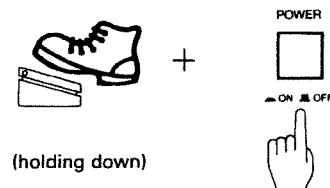
b. Soft Pedal

The Soft Pedal serves to make the performance softer.

c. Sostenuato Pedal

How to turn the Soft Pedal to Sostenuato Pedal.

Connect the Soft Pedal to the Soft Pedal Jack, and turn the piano on while holding the pedal down.



Now, the Soft Pedal works as a Sostenuato Pedal.

When the pedal is turned to a Sostenuato Pedal, it loses the Soft Pedal function.

Pressing the Sostenuato Pedal will turn on the Damper of the note currently played. The following notes will not take on any effect.

* To return the pedal to the Soft Pedal, turn the piano off once, then turn it on again.

5. Brilliance

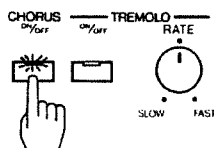
As you rotate the Brilliance knob ③ clockwise, the tone will be brighter, and mellow when rotated counterclockwise.

6. Chorus/Tremolo

The piano includes built-in Chorus and Tremolo effects.

a. Chorus

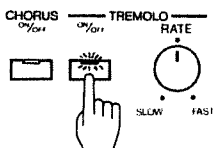
By pressing the Chorus button ⑦, a lush stereo chorus effect can be obtained through the instrument's internal speaker/amplifier system or via the stereo outputs.



Pressing the Chorus Button will cause the indicator to light up.

b. Tremolo

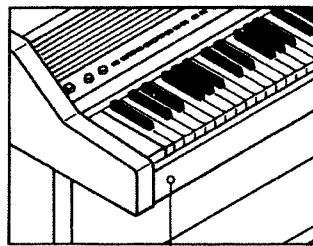
The Tremolo button ⑧ engages the tremolo effect. The Tremolo circuit is stereo and is especially useful when used with the electric piano and vibraphone sounds.



Pushing the Tremolo Button will cause the indicator to light up.

The Tremolo Rate knob ⑨ is used to increase or decrease the speed of the tremolo effect. Rotating it clockwise increases the tremolo speed while rotating it counterclockwise decreases the speed of the effect.

7. Headphones



Headphone Jack

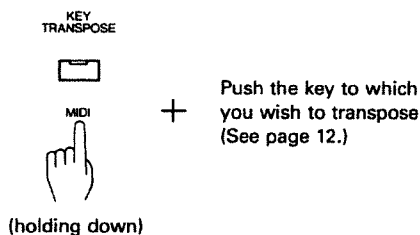
Standard stereo headphones can be used with HP-4500 pianos for private listening and practice. Connecting the headphone plug to the headphone jack will disconnect the internal speakers. The Volume knob ② on the front panel will adjust the headphone volume.

8. Key Transpose

The keyboard of your HP-4500 can be transposed within a range of up a perfect 4th and down a diminished 5th.

<Operation>

While holding the Transpose Button ④ down, press the key (F# to F) to which you wish to transpose.



While the button is being held down, the indicator flashes. When the button and the key are both released, the indicator will glow steadily showing that transposition is done.

Pressing the Transpose Button again will return the piano to the normal condition (C key.)

3 SETUP WITH AUXILIARY AUDIO EQUIPMENT

1. Input Jacks ⑯

The external input jacks are provided for connecting the outputs of other electronic instruments to the internal speakers and amplifier of the HP-2000 and HP-3000. A level switch is also provided to match the output of the device(s) to the input of the speaker/amplifier. Usually, the switch should be set to the low (L) position. However, if you detect audible distortion through the speakers, select either the middle (M) or high (H) position.

2. Output Jacks ⑰

These Output Jacks are provided for connecting the HP-4500 to larger sound systems such as a home stereo system, multi-track recorders, mixers, and/or auxiliary instrument amplifiers. As with the External Input Jacks, the Output Jacks have a three-way switch for setting the output level. The Output Jacks can be used in a stereo or monaural configuration.

<Setup>

- ① Turn down the volume of the external amplifier connected to the piano.
- ② Connect the Output Jacks of the piano to the Line In's (e.g. AUX) of the amplifier.
- ③ Adjust the volume of the amplifier.
- ④ Adjust the volume of the piano with the Output Level Switch ⑱.

* Connecting the headphone plug to the headphone jack will disconnect the internal speakers.

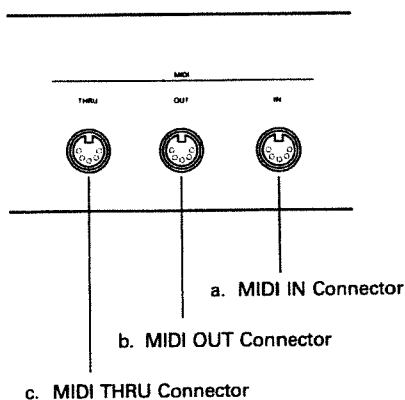
* At "H" position, the volume is highest, and at "L", the lowest.

4 MIDI

Part of the power of your HP-4500 is in the use of the MIDI (Musical Instrument Digital Interface). To learn more about MIDI and the various music systems that can be added to your HP-Piano, refer to the enclosed booklet "MIDI" and the MIDI implementation chart in the back of this owner's manual.

1. MIDI Connectors

The HP-4500 has MIDI IN, MIDI OUT and MIDI THRU Connectors on the rear panel.



a. MIDI IN Connector

When using the piano as a MIDI sound module controlled by the external MIDI device, connect the MIDI IN Connector to the MIDI OUT or MIDI THRU on the external device.

b. MIDI OUT Connector

When using the piano as a keyboard controller that drives the external device, connect the MIDI OUT Connector to the MIDI IN on the external device.

c. MIDI THRU Connector

Through this, the exact copy of the signal fed into the MIDI IN is sent out.

2. Setting MIDI Channels

The HP-4500 cannot have different MIDI channels for transmitting and receiving.

<How to set MIDI Channels>

While holding the MIDI Button ④ down, push the key that corresponds to the MIDI Channel number you want.

KEY
TRANSPOSE



MIDI



(holding down)

Push the key that corresponds to the MIDI Channel you want. (See page 12.)

* Usually, the default setting for receive channel is OMNI ON, and transmit channel is CH 1.

a. HP-4500 as a MIDI Keyboard Controller

To use the piano as a MIDI keyboard controller, it is necessary to match the transmit channel of the piano to the receive channel of the connected MIDI sound module.

b. HP-4500 as a MIDI Sound Module

When using the piano as a MIDI sound module, set the receive MIDI channel of the piano to the same as the transmit channel of the MIDI device that controls the piano.

3. Program Change

□ Transmit.

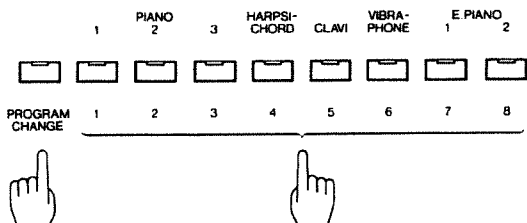
The HP-4500 allows to send the Program Change in two different ways; with the Tone Selector buttons or with the keyboard.

a. Using the Program Change Button and Tone Selectors

Using the Program Change Button and the Tone Selectors 1 to 8, Program Change messages can be transmitted.

<Operation>

While holding the Program Change Switch ⑤ down, press one of the Tone Selector buttons (1 to 8). In this way, the corresponding Program Change 1 to 8 can be transmitted.



b. Using the Key Transpose Button and Keyboard

Using the key Transpos Button and keyboard, 1 to 128 Program Change messages can be transmitted. The table at the top right shows how the Group/Bank/Voice numbers on the piano correspond to the Program numbers.

Program Change Table

	NO. BANK	1	2	3	4	5	6	7	8
A	1	1	2	3	4	5	6	7	8
	2	9	10	11	12	13	14	15	16
	3	17	18	19	20	21	22	23	24
	4	25	26	27	28	29	30	31	32
	5	33	34	35	36	37	38	39	40
	6	41	42	43	44	45	46	47	48
	7	49	50	51	52	53	54	55	56
	8	57	58	59	60	61	62	63	64
B	1	65	66	67	68	69	70	71	72
	2	73	74	75	76	77	78	79	80
	3	81	82	83	84	85	86	87	88
	4	89	90	91	92	93	94	95	96
	5	97	98	99	100	101	102	103	104
	6	105	106	107	108	109	110	111	112
	7	113	114	115	116	117	118	119	120
	8	121	122	123	124	125	126	127	128

<Operation>

While holding the Key Transpose Button ④ down, push the keys that correspond to the Group, Bank and Number you need.

The Group (A, B), Bank (1 to 8) and Number (1 to 8) correspond to the keyboard as shown on the last page of the manual.

KEY
TRANSPOSE



MIDI



(holding down)

+ Push the keys that correspond to the Group, Bank and Number you want. (See page 12.)

□ Receive

The HP-4500 receive 1 to 32 Program Changes, but do not receive 33 to 128.

4. Chorus/Tremolo

To transmit On/Off of the Chorus or Tremolo effect, push the Chorus or Tremolo Button whichever you want to transmit, while holding the Program Change Button.

5. MIDI Functions

The HP-4500 can select any of the following three modes that decide how the messages are received and transmitted.

- (I) Note On/Off, Pedal and Program Change messages are transmitted and received.
- (II) Note On/Off, Pedal and Program Change messages are transmitted. Pedal and Program Change messages are not received.
- (III) Note On/Off, Pedal and Program Change messages are transmitted and received. The moment a new voice is selected on the piano, the corresponding Program Change (1 to 8) is transmitted. The Chorus or Tremolo On/Off is also transmitted. This mode may be used when recording the data into a MIDI sequencer and playing it back.

<How to select one of the three modes>

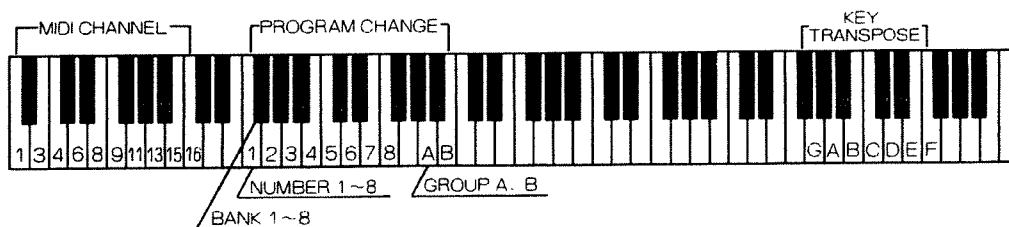
Mode I: Turning the piano on will automatically select this mode.

Mode II: Turn the piano on while holding down the Tone Selector Button Piano 1.

Mode III: Turn the piano on while holding the Program Change button down.

MIDI Channel, Program Change and Key Transpose correspond to the keyboard as shown below.

HP-4500



MODEL HP-4500 MIDI Implementation

1. TRANSMITTED DATA

Table with 4 columns: Status, Second, Third, Description. Contains MIDI message details like Note OFF, Note ON, Damper ON/OFF, etc.

Notes

0000 MIDI Channel number: 0000 (1111, ch-1) 0000 Refer to Section 3.

*1 The Range may be changed by the transposition. Refer to Section 4.

*2 Refer to Section 5.

*3 Refer to Section 6.

*4 When all keys on the keyboard are released, the ALL NOTES OFF (FF: 4B, 7B, D) is sent.

*5 When power is first applied or Basic Channel is changed, OMNI OFF and POLY ON are sent in the Basic Channel.

2. RECOGNIZED RECEIVE DATA

Table with 4 columns: Status, Second, Third, Description. Contains received MIDI message details like Note OFF, Note ON, Damper OFF/ON, etc.

Notes

*1 Note numbers outside of the range 15-113 are transposed to the nearest octave inside this range. The transpose function does not affect the recognized NOTE numbers.

*2 If the power has been applied while the PIANO 1 switch being held down, this message is ignored.

*3 If the power has been applied while the PIANO 1 switch being held down, this message is ignored.

Received Program Change messages are assigned as follows. The program numbers 32-127 are ignored.

Table with 4 columns: Prog #, Voice, CHORUS, TREMOLO. Lists program numbers and their corresponding settings for various functions.

If the power has been applied while the PROGRAM CHANGE switch being held down, received Program Change messages don't affect TREMOLO and CHORUS and are assigned as follows. The program numbers 32-127 are ignored.

Table with 4 columns: Prog #, Voice, CHORUS, TREMOLO. Lists program numbers and their corresponding settings for various functions.

When the Program Change message is recognized, the VOICE will be not change to the new VOICE until all the notes are turned OFF and Damper is turned OFF.

*4 When the ALL NOTES OFF is recognized, all the notes which have been turned ON only by MIDI IN note ON messages are turned OFF. However, if the Damper pedal is pressed or the Damper ON message has been recognized, these ON notes will be not turned OFF until the damper pedal is released or the Damper OFF message is received.

*5 These Mode Messages (2nd byte: 123-127) are also being used as ALL NOTES OFF.

Mode Messages are recognized as follows

Table with 4 columns: POLY ON (127), MONO ON (126), MONO ON (125), OMNI ON (124). Shows bit patterns for various mode messages.

3. BASIC CHANNEL SETTING

When the power is first applied, the Basic Channel is normally set to 1, and the receiver is set to the MODE 1 (OMNI ON, POLY ON).

However, the Basic Channel may be changed when the following key on the keyboard is pressed while the TRANSPOSE switch being held down. The receiver will be set to the MODE 3 (OMNI OFF, POLY ON).

Table with 3 columns: Key, Basic Channel, OMNI. Lists keys and their corresponding channel and OMNI settings.

4. TRANSPOSE

When the power is first applied, the default transposition is set at 0. (In following chart shows the relation of the key position and transposed values, while the TRANSPOSE switch being held down.)

Table with 3 columns: Key, Transposed value (semi tones), Transmitted note range (semi tones). Shows transposition values for various keys.

5. TREMOLO, CHORUS TRANSMISSION

When the CHORUS switch or the TREMOLO switch is pressed while the PROGRAM CHANGE switch being held down, the function's ON or OFF message is sent.

And also, if the power has been applied while the PROGRAM CHANGE switch being held down, the function's ON or OFF message can be sent by units pressing the TREMOLO switch or the CHORUS switch.

6. PROGRAM CHANGE TRANSMISSION

When one of the following switches is pressed while holding the EXT PROGRAM CHANGE switch down:

And also, if the power has been applied while the EXT PROGRAM CHANGE switch being held down, the PROGRAM CHANGE message can be sent by units pressing following switches:

Table with 2 columns: Switch, Prog #. Lists switches and their corresponding program numbers.

The following table shows the GROUP, BANK and NUMBER values related with key position which is set while the TRANSPOSE switch being held down.

Table with 2 columns: Key, Related value. Lists keys and their corresponding group, bank, and number values.

When one of the above mentioned keys is pressed while the TRANSPOSE switch being held down, a PROGRAM CHANGE message will be transmitted. The transmitted program change numbers are related with the GROUP, BANK and NUMBER values as follows:

Table with 4 columns: GROUP A, BANK, NUMBER 1-8. Shows program change numbers for Group A.

Table with 4 columns: GROUP B, BANK, NUMBER 1-8. Shows program change numbers for Group B.

MODEL **HP-4500** MIDI Implementation Chart

Function.....		Transmitted	Recognized	Remarks
Basic Channel	Default Changed	1 1 - 16	1 1 - 16	
Mode	Default Messages Altered	3 POLY. OMNI OFF *****	1 POLY. OMNI ON/OFF MONO(M≠1)→1. (M=1)→3	
Note Number	True voice	15-113 *****	0 - 127 15 - 113	
Velocity	Note ON Note OFF	○ × (9n v=0)	○ ×	v = 1-127
After Touch	Key's Ch's	× ×	× ×	
Pitch Bender		×	×	
Control Change	64 66 67 92 93	○ ○ ○ ○ ○	○ ○ ○ ○ ○	Damper pedal Sostenuto pedal Soft pedal Tremolo Chorus
Prog Change	True #	○ (0-127) *****	○ (0-31) 0 - 31	can be ignored by power-up setting
System Exclusive		×	×	
System Common	Song Pos Song Sel Tune	× × ×	× × ×	
System Real Time	Clock Commands	× ×	× ×	
Aux Messages	Local ON OFF All Notes OFF Active Sense Resel	× ○ (123) ○ ×	× ○ (123-127) ○ ×	
Notes		When power up, ch-1, OMNI OFF and POLY are sent. When Basic channel is changed, Mode is set to 3.		

Mode 1 : OMNI ON, POLY
Mode 3 : OMNI OFF, POLY

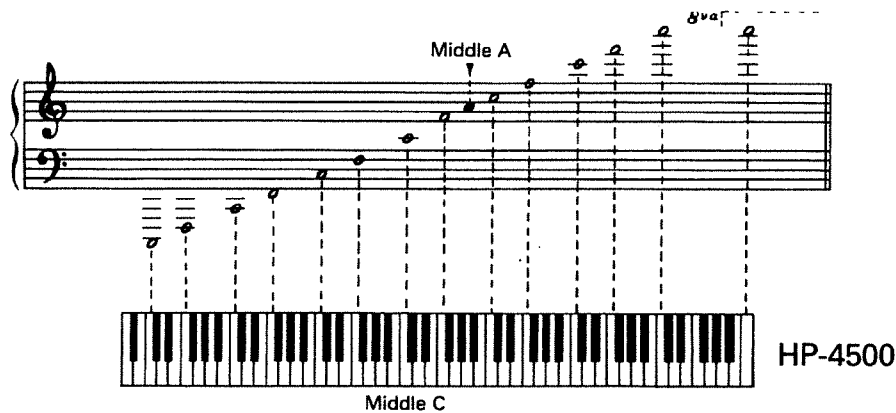
Mode 2 : OMNI ON, MONO
Mode 4 : OMNI OFF, MONO

○ : Yes
× : No

SPECIFICATIONS

Keyboard	88 Keys, 16 Voice Polyphonic (10 Voice Polyphonic for Harpsichord, Clavi and Electric Piano 2)
Preset Voices	Piano 1, 2, 3, Harpsichord, Clavi, Vibraphone, Electric Piano 1, 2
Effects	Chorus ON/OFF, Tremolo ON/OFF, Tremolo Rate
Connectors	Output Jacks (Mono, Stereo) Input Jacks (Mono, Stereo) Damper Pedal Jack Soft Pedal Jack MIDI IN Connector MIDI OUT Connector MIDI THRU Connector
Switches	Power Switch, Output Level Switch, Input Level Switch
Speakers	20cm × 2, 5cm × 2
Output	13W × 2
Finish	Roland Original Rose
Dimensions	1383(W) × 480(D) × 192(H) mm / 54 ⁷ / ₁₆ " × 18 ⁷ / ₈ " × 7 ⁹ / ₁₆ "
Weight	38 kg / 83lb 14oz
Consumption	117V:50W, 220V:75W, 240V:75W
Accessories	Music Rest, Power Cord

Sound Range Diagram



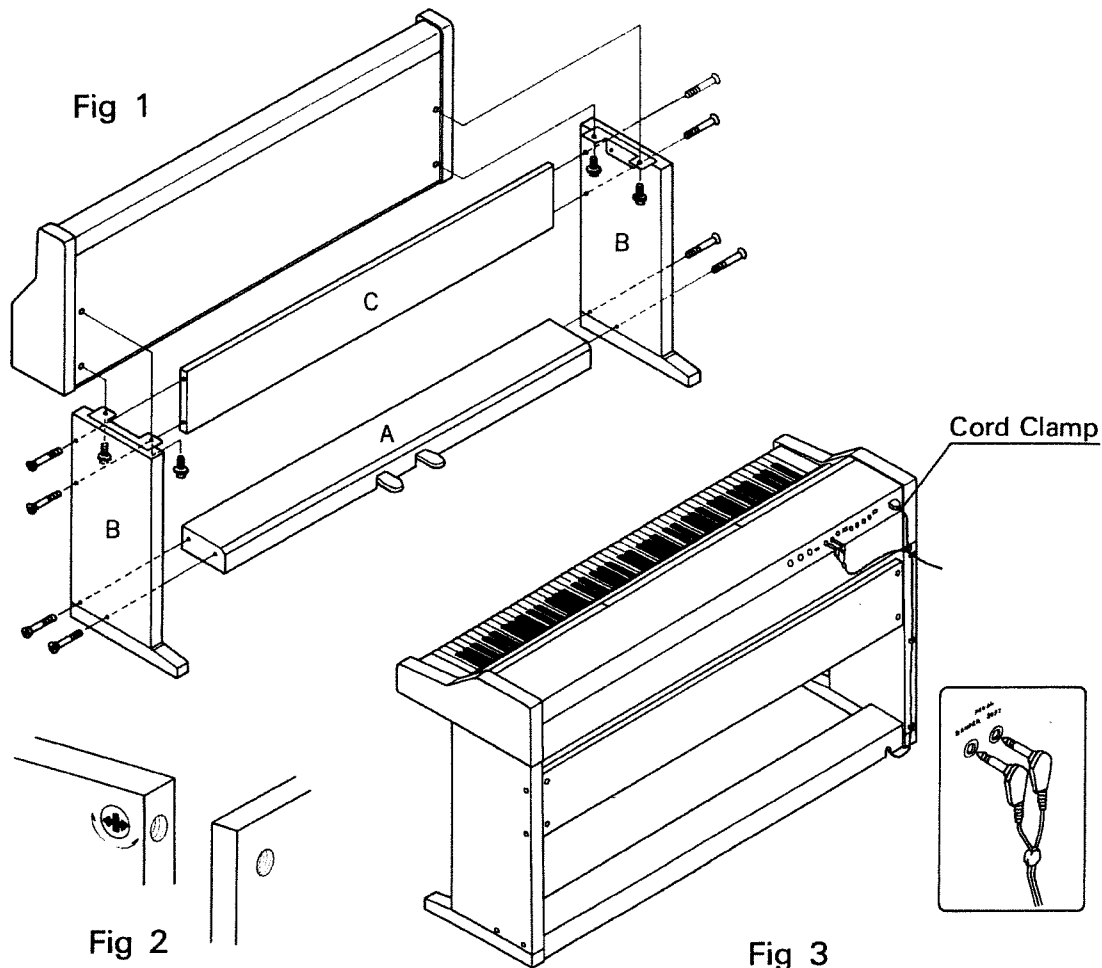
KS-4500

Please read the following instructions carefully for installing the piano on the stand KS-4500.

Assembling Procedure

- ① Attach the side panels B to the both ends of the pedal unit A with the holders on B facing inside, then tighten the screws.
- ② Make sure that the metallic part located near the holes on the back panel C looks like as shown in Fig 2, then attach the back panel C to the side panels B and tighten the screws.
- ③ Put the piano body on the stand you have just assembled and tighten the screws.
- ④ Loosen the screws on the cord clamp with the supplied screw driver, put the power cord into the clamp, and retighten the screw.

* If you find it difficult to tighten the screws, adjust the metallic part that is located near the holes on the back panel C using the supplied screw driver.



Roland®

17049599

UPC 17049599



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Roland®