# KAWAI

*Digital Piano*

# Model 2000

*Owner's Manual*

# Thank you for purchasing a Kawai Digital Piano!

The Kawai digital piano model 2000 is a revolutionary new keyboard instrument that combines the latest in electronic advances with traditional craftsmanship inherited from Kawai's many years of experience in building fine pianos. Its wooden keys provide the touch response and full dynamic range required for a superb performance on the piano, harpsichord, and other instrument presets. Industry-Standard MIDI (Musical Instrument Digital Interface) jacks are included which allow you to play other electronic instruments at the same time — opening a whole new world of musical possibilities.

This Owner's Manual contains valuable information that will help you make full use of this instrument's many capabilities. Read it carefully and keep it handy for future reference.

## IMPORTANT NOTES

● **Keyboard lock**

The keyboard and the switches under it are protected by a locking mechanism which keeps them from moving during shipment. To release the lock, loosen the three screws shown in the illustration below to the point where key travel is free and unobstructed. DO NOT REMOVE THE SCREWS. They will be required should you ever have to lock the keyboard for shipment again.
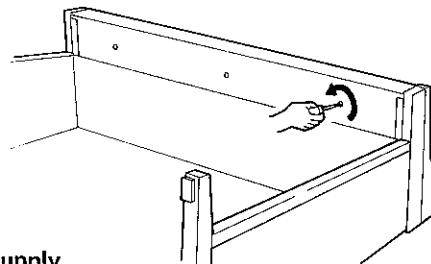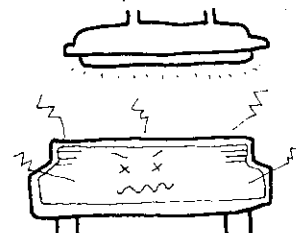


● **Power Supply**

Use only the voltage appearing on the plate next to the power cord (Rear Panel). Incorrect voltage presents a shock hazard and will also damage the instrument's delicate electronic circuitry.
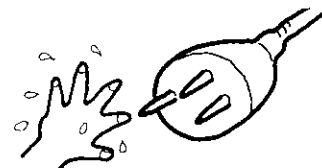
● **Electrical Noise**

Keep the instrument away from electrical motors, neon signs, fluorescent light fixtures, and other sources of electrical noise.



● **Power Cord**

Do not touch the power plug with wet hands. There is a risk of electrical shock.
Treat the power cord with care as well. Stepping on or tripping over it can break or short-circuit the wire inside.



● **Repairs and Alterations**

Never attempt to remove or modify the piano's circuitry. There is a significant shock hazard and there are no user servicable parts. If you think something is broken, consult your nearest authorized Kawai dealer.
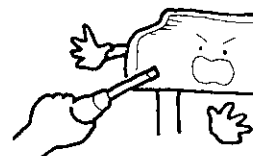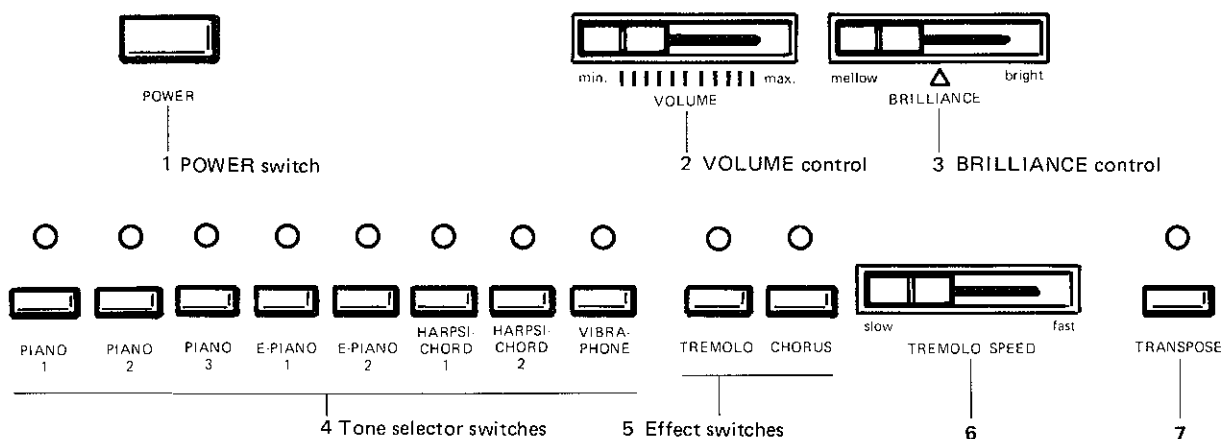


● **After Use**

Always turn the power off when the instrument is not in use. Leaving the piano on for extended periods can lead to serious problems.
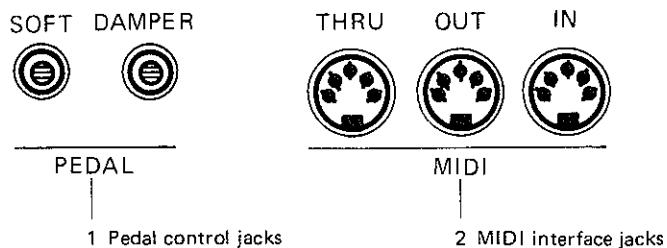
# Table of Contents

# ■Basic Controls

■ **Front Panel**

POWER

1 POWER switch

min. ||||||||||||| max.
VOLUME

mellow △ bright
BRILLIANCE

2 VOLUME control     3 BRILLIANCE control

PIANO 1   PIANO 2   PIANO 3   E-PIANO 1   E-PIANO 2   HARPSI-CHORD 1   HARPSI-CHORD 2   VIBRA-PHONE     TREMOLO   CHORUS     slow          fast
TREMOLO SPEED          TRANSPOSE

4 Tone selector switches          5 Effect switches               6               7

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■ **Rear Panel**

SOFT  DAMPER          THRU    OUT    IN

PEDAL                    MIDI

1 Pedal control jacks          2 MIDI interface jacks

## 1 PEDAL

These jacks are used to connect the damper and soft pedals.

The soft pedal can be used as the sostenuto pedal by applying the power while holding down the soft pedal.

## 2 MIDI

These jacks allow communication with other gear equipped with MIDI.

**IN**     Accepts MIDI data from other instruments.

**OUT**   Transmits MIDI data to other instruments.

**THRU**  Retransmits all MIDI data coming into the MIDI IN jack (for use in a chain of MIDI devices).

## 1 POWER

## 2 VOLUME

Move the volume slider to the right to increase the instrument's volume. Move the slider to the left to decrease the volume.

## 3 BRILLIANCE control

This slider controls the brilliance, or clarity, of the sound. Shifting it to the left produces a rich, mellow sound; shifting it to the right, a bright, clear sound. The center position corresponds to the instrument's normal tone.

## 4 TONE SELECTORS

Select the desired instrument by pressing the appropriate switch.
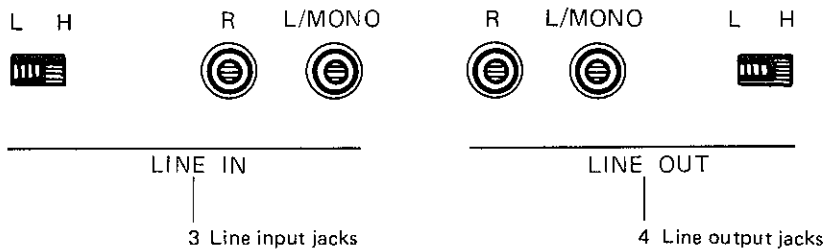
## 5 EFFECTS

These functions cause the output to become more animated (CHORUS) or fluctuate (TREMOLO).

## 6 TREMOLO SPEED control

This knob speeds up and slows down the TREMOLO effect.

## 7 TRANSPOSE switch

The TRANSPOSE function automatically transposes the entire keyboard to a different key. For example, after changing the transposition to the key of E, playing a C scale would actually sound as an E scale. Changing keys is as easy as holding down this switch and selecting the key from the 1-octave range marked on the front panel. The LED next to the switch remains lit for all keys except C, the standard.



L H     R   L/MONO     R   L/MONO     L H

LINE IN              LINE OUT

3 Line input jacks          4 Line output jacks

## 3 LINE IN

These jacks connect two channels of output from other electronic instruments to the piano's speaker. Use the L/MONO jack when using only one input.

**Note:** This input bypasses the piano's VOLUME control. To adjust the balance, you must use the output volume controls on the individual instruments.

The two-position switch adjusts the LINE IN jack sensitivity to match the source: Low for strong inputs and High for weak ones.

## 4 LINE OUT

These jacks provide stereo output to amplifiers, stereo systems, tape recorders, or similar equipment. The two-position switch to the right allows you to adjust the output level to High (H) or Low (L) to match the input impedance of the other equipment. Use the L/MONO jack when using only one output.

# ■Basic Operation

## 1 Basic Operation

### ① Turn on the power.
When the power is first applied, the LED next to the PIANO 1 switch in the tone selector section lights.

POWER

### ② Adjust the volume.
Sound a note on the keyboard and adjust the volume. (Moving the slider to the right raises the volume; moving it to the left lowers it.)
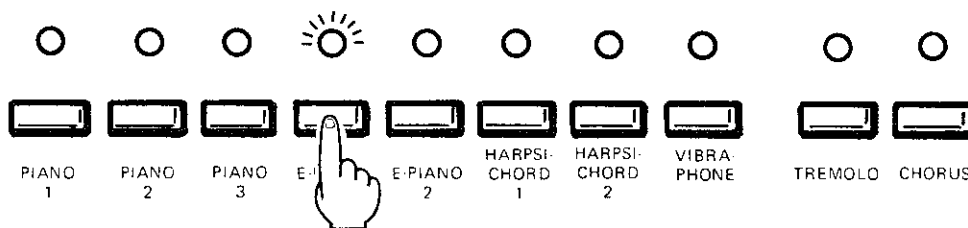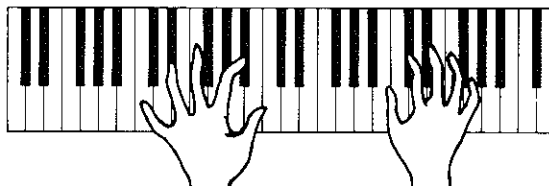
min ⅠⅠⅠⅠⅠⅠⅠⅠⅠⅠⅠ max
VOLUME

### ③ Choose a tone color.
The piano uses one tone color at a time. Tone selector switches cannot be pressed simultaneously.

| PIANO 1 | PIANO 2 | PIANO 3 | E-I | E-PIANO 2 | HARPSI-CHORD 1 | HARPSI-CHORD 2 | VIBRA-PHONE | TREMOLO | CHORUS |

### ④ Play.
Experiment with the various tone colors to acquaint yourself with the sounds that are available.

### ⑤ (Optional) Add an effect!
Press an effect switch to add a special effect (CHORUS or TREMOLO). TREMOLO SPEED control allows you to adjust the speed of the TREMOLO effect. Shifting the slider to the right speeds it up; shifting the slider to the left slows it down.

slow          fast
TREMOLO SPEED

TREMOLO   C
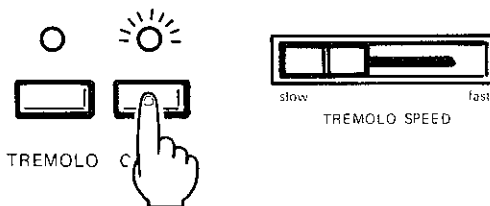
## 2 The NEXT Function

Pressing a tone selector switch does not necessarily produce an immediate change. If you are pressing any keys on the keyboard or holding down the damper pedal, the LED next to the switch will start flashing to indicate that the piano is ready to change. When you release all keys and the damper pedal, the tone color will instantly change and the LED will light steadily. This allows you to make a smooth, natural transition without removing your hands from the keyboard.
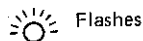
# 3 The Transpose Function

ENGAGE

Flashes
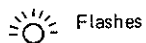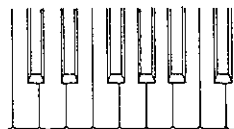
(1) Hold down

(2) Select any key but C.

Remains lit to indicate that transposition is in effect.
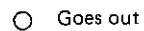
TRANSPOSE

(3) Release

DISENGAGE

Flashes

(1) Hold down a second time.

Goes out

TRANSPOSE

(2) Simply releasing the switch is sufficient to return the keyboard to C (No transposition).

**Note:** Pressing and then releasing the TRANSPOSE key returns the piano to the key of C (No transposition).

# ■Advanced Features

# 1) MIDI Interface

## 1 Introduction

The letters MIDI stand for Musical Instrument Digital Interface, an international standard for connecting synthesizers, drum machines, and other electronic musical instruments so that they can exchange performance data. The model 2000 features three MIDI jacks — IN, OUT, and THRU — that allow it to both send and receive these kinds of data.

**Note:** The sending and receiving instruments must be assigned the same channel number before they can communicate.

## 2 Typical Applications

### 2.1 Ensemble playing with another keyboard instrument

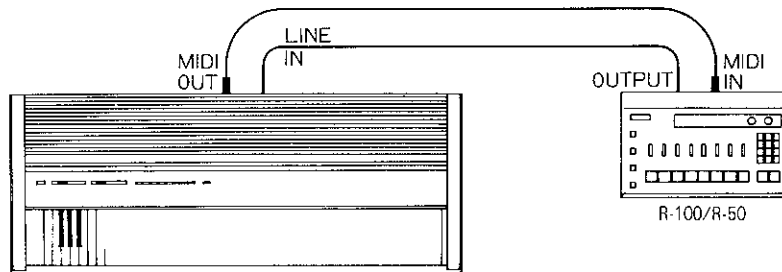**Example:** a Kawai K3 digital synthesizer
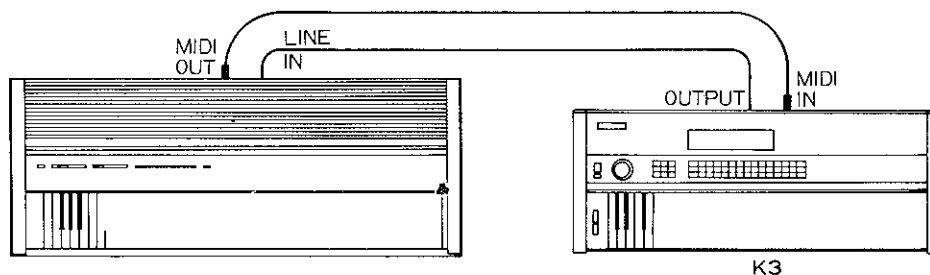


If you connect the MIDI OUT jack on your electronic piano to the MIDI IN jack on the synthesizer and the synthesizer's LINE OUTPUT jack to the piano's LINE IN jack, you will be able to play both instruments simultaneously from the piano keyboard. The interface transmits both the keys played and the strength with which you played them, so the synthesizer output is exactly the same as it would be if you were playing the keyboard directly. The only differences is that the synthesizer uses a different tone color, which blends with the digital piano's to create an ensemble effect. You can, for example, add the synthesizer's strings to your piano solo to give it more depth.

**Note:** If you reverse the MIDI IN and MIDI OUT connections, you can play the piano from the synthesizer just as easily.
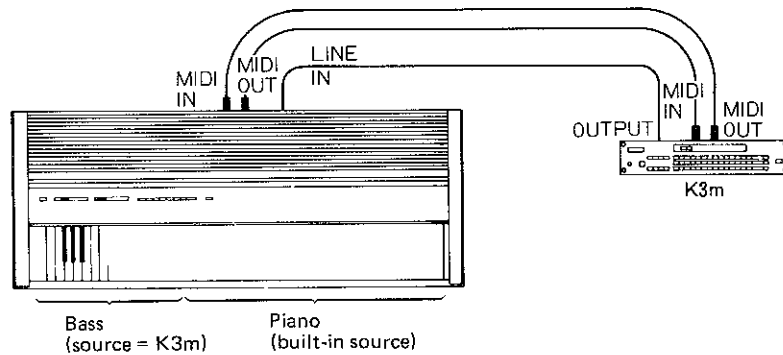
## 2.2 Drum Machines

**Example:** a Kawai R-100/R-50 drum machine



R-100/R-50

Connecting a drum machine allows you to add a rhythm accompaniment to your playing or create special effects by adding notes from the percussion instrument to the piano output.

## 2.3 Sound Generator Modules

**Example:** a Kawai K3m synthesizer module



Bass
(source = K3m)

Piano
(built-in source)

Connecting your piano to a Kawai K3m allows you to play the ensembles discussed in the first example above, you can split the keyboard into two sections, each of which uses a separate sound. The illustration shows a piano-bass combination.

**Note:** You must set the LOCAL CONTROL parameter (described on a later page in this section) to OFF to use the split feature.

## 3 MIDI Implementation

The MIDI interface on your Kawai Electronic Piano allows you to:

(1) Receive and transmit keyboard data.
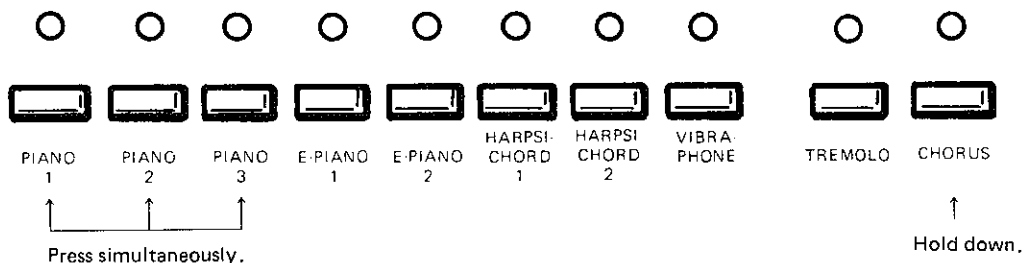(2) Receive and transmit soft and damper pedal data (ON/OFF).
(3) Receive and transmit program numbers — codes for changing tone colors.
(4) Set MIDI channel numbers for sending and receiving to any number between 1 and 16.
(5) Simultaneously receive data on multiple channels (MULTI TIMBRE)
(6) Turn LOCAL CONTROL on and off — either from the keyboard or another instrument.

6

## 4 Operation

To issue commands to the MIDI interface or use the tuning capability, you must first switch the piano to a special "programming" mode.
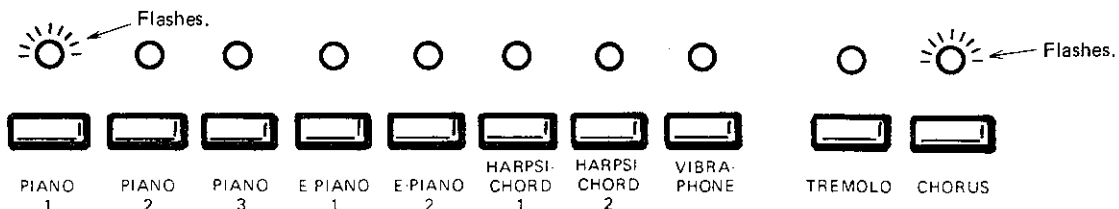
### 4.1 Entering the programming mode

Hold down the CHORUS switch and simultaneously press the first three tone selector switches (PIANO 1, PIANO 2, and PIANO 3). The LEDs next to the CHORUS and PIANO 1 switches should then start flashing to indicate that the piano is in the programming mode. In this mode, striking the keyboard produces no output.



| PIANO 1 | PIANO 2 | PIANO 3 | E·PIANO 1 | E·PIANO 2 | HARPSI·CHORD 1 | HARPSI CHORD 2 | VIBRA·PHONE | TREMOLO | CHORUS |

Press simultaneously.

Hold down.

### 4.2 Sending a program number (tone color code)

The model 2000 can send commands to other MIDI equipment to force program changes.

In the programming mode, the flashing LED next to the PIANO 1 switch indicates that the interface is ready to transmit a program number. Select the program number by pressing the corresponding pair of black keys at the lower end of the keyboard. There are a total of 128 numbers possible: the first thirteen black keys give the first and second digits ("00" — "12") of this three-digit number; the next ten, the final digit ("0" — "9").



Flashes.

Flashes.

| PIANO 1 | PIANO 2 | PIANO 3 | E PIANO 1 | E·PIANO 2 | HARPSI·CHORD 1 | HARPSI CHORD 2 | VIBRA·PHONE | TREMOLO | CHORUS |

**Note:** You must press the two keys in order from left to right. Alternatively, you can press just the second one to change only the third digit.
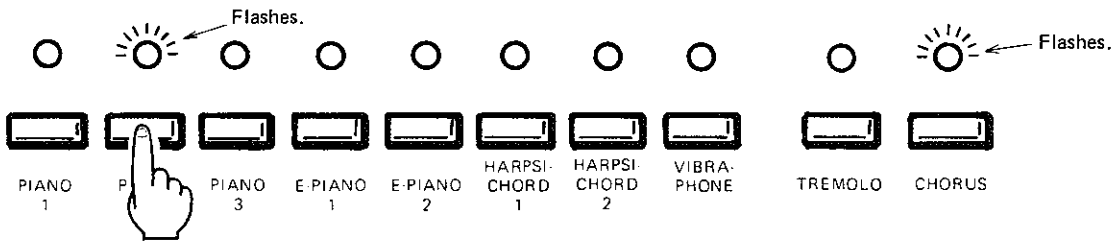


First two digits

Final digit
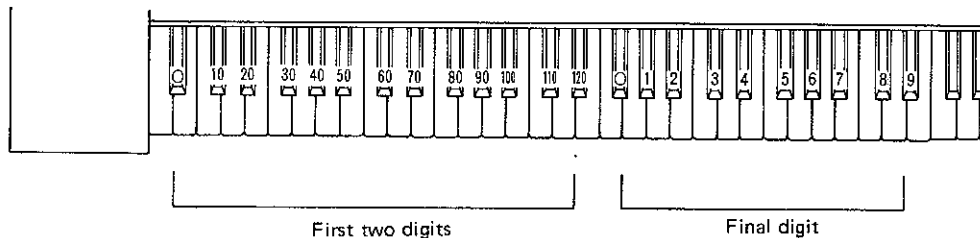
- **Examples:**

● Program No. 3

● Press the "00" key and then the "3" key.

● Program No. 20

● Press the "20" key and then the "0" key.

● Program No. 42

● Press the "40" key and then the "2" key.

## 4.3 Setting the channel

With the piano in the programming mode, press the PIANO 2 switch so that it flashes to indicate that the interface is waiting for a channel specification. (It is also possible to turn the MULTI TIMBRE function ON and OFF. See following section.)

Flashes.

O ⠿O O O O O O O O ⠿O ← Flashes.

| PIANO 1 | P | PIANO 3 | E-PIANO 1 | E-PIANO 2 | HARPSI-CHORD 1 | HARPSI-CHORD 2 | VIBRA-PHONE | | TREMOLO | CHORUS |

Select the channel by pressing the one of the first 16 white keys at the lower end of the keyboard.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
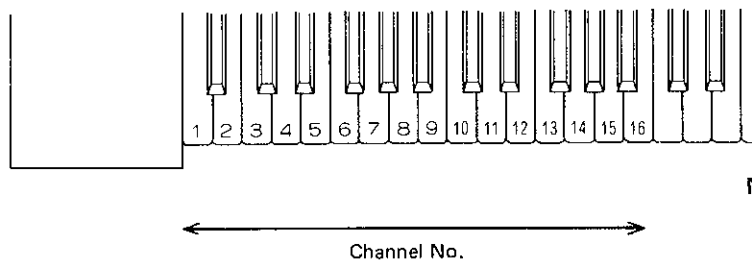
**Note:** You have 16 channels to choose from.

←——————————————→

Channel No.

Pressing one of these keys automatically sets the instrument's sending and receiving channel to the number selected.

**Note:** When the power is first applied, the interface uses Channel 1 and has the OMNI parameter on. Changing to another channel automatically turns the OMNI parameter off. In OMNI mode, information from all channels is received.

## 4.4 Turning MULTI TIMBRE on and off

The MULTI TIMBRE function allows external MIDI instruments operating on different channels to simultaneously use up to 16 tone colors. The following chart gives the channel number assignments.

| | | | | |
|---|---|---|---|---|
| Channel 1 | : | PIANO 1 | Channel 9 : BRASS |
| Channel 2 | : | PIANO 2 | Channel 10 : STRINGS |
| Channel 3 | : | PIANO 3 | Channel 11 : CLAVI |
| Channel 4 | : | E. PIANO 1 | Channel 12 : E. GUITAR |
| Channel 5 | : | E. PIANO 2 | Channel 13 : PIPE ORGAN 1 |
| Channel 6 | : | HARPSICHORD 1 | Channel 14 : PIPE ORGAN 2 |
| Channel 7 | : | HARPSICHORD 2 | Channel 15 : JAZZ ORGAN |
| Channel 8 | : | VIBRAPHONE | Channel 16 : E. BASS |

### ■ Procedure

Follow the procedure in the preceding section to set the LED next to the PIANO 2 switch flashing.
Press the highest black key to turn the function off, the highest white one to turn it on.

**Notes:** • When the power is first applied or reapplied after a short break, MULTI TIMBRE is off.


## 4.5 Turning LOCAL CONTROL on and off

LOCAL CONTROL refers to the connection between the internal sound source and the keyboard. It is normally on. Turning it off disconnects the keyboard; the instrument sounds only when it receives keyboard data through the MIDI interface. The keyboard can still control other MIDI devices connected to the model 2000's MIDI OUT.
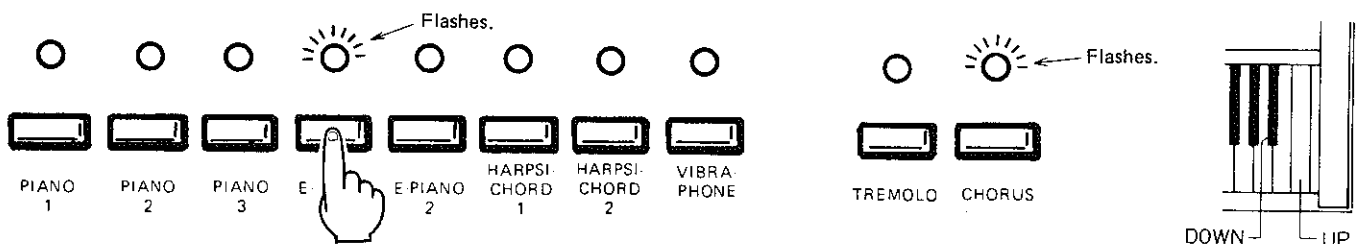
### ■ Procedure

With the piano in the programming mode, press the PIANO 3 switch so that it flashes to indicate that the interface is waiting for a LOCAL CONTROL specification. Press the highest black key to turn it off, the highest white one to turn it on.
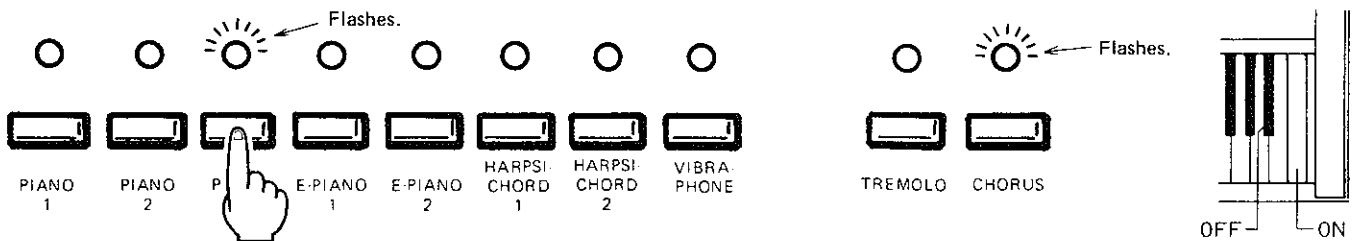


**Note:** Momentarily turning off the power also turns LOCAL CONTROL on.

# 2) Tuning

With the piano in the programming mode, press the E PIANO 1 switch so that it flashes to indicate that the piano is ready to be tuned. Unlike the other functions in the programming mode, this one produces keyboard output so that you can compare the piano's pitch with another instrument. It uses the same keys as the LOCAL CONTROL function: Press the highest black key to lower the pitch, the highest white one to raise it. It may be necessary to press these keys repeatedly to achieve proper tuning.



**Note:** Momentarily turning off the power restores the original pitch.

# 3) Temperaments

Your Kawai digital piano offers not only equal temperament (the modern standard), but also immediate access to those popular during the Renaissance and Baroque period.

## ■ Procedure

With the piano in the programming mode, press the E.-PIANO 2 switch so that it flashes to indicate that the piano is waiting for a temperament specification. Press one of the seven white keys at the lower end of the keyboard to select one of these corresponding temperaments.

1. Equal temperament without the tuning curve
2. Mersenne pure temperament
3. Pythagorean temperament
4. Meantone temperament
5. Werckmeister III temperament
6. Kirnberger III temperament
7. Equal temperament with the tuning curve

**Note:** ● When the power is first applied or reapplied after a short break, the piano returns to the modern standard, equal temperament with the tuning curve (#7).

Key set function is also available at this point. As you know, limitless modulation of the key became available only after the invention of Equal Temperament. When we use a temperament except Equal Temperament, we must carefully choose the key signature to play in.
To select the key signature setting, simply press one of the keys marked on the front panel. For example, if the tune you are going to play is written in D major, press D key to set the key.
Please note that this will only change the "balance" of the tuning, and the pitch of the keyboard will remain unchanged. Use the Transpose function to change the pitch of the whole keyboard.

**Notes:** ● The order in which the temperament and key signature are pressed does not affect the final result.
● These temperament and key signature specifications remain in effect until the power is removed.

## ■ Temperament Characteristics

### ● Equal temperament
This, by far the most popular piano temperament, divides the scale into twelve equal semitones and has the advantage of producing the same chords for all transpositions.

### ● Mersenne pure temperament
This temperament, which eliminates consonances for thirds and fifths, is still popular for choral music.

### ● Pythagorean temperament
This temperament, which uses mathematical ratios to eliminate consonances for fifths, has problems with chords, but produces a very beautiful melodic line.

### ● Meantone temperament
This temperament, which uses a mean between a major and minor whole tone to eliminate consonances for thirds, was devised to eliminate the lack of consonance experienced with certain fifths for the Mersenne pure temperament. It produces chords that are more beautiful than those with the equal temperament.

### ● Werckmeister III temperament, Kirnberger III temperament
For key signature with few accidentals, this temperament produces the beautiful chords of the mean tone, but, as the accidentals increase, the tension increases, and the temperament produces the beautiful melodies of the Pythagorean temperament. It is used primarily for classical music written to take advantage of these characteristics.

## ■ Leaving the programming mode

To leave the programming mode, simply press the CHORUS switch. The flashing will stop, and you will return to the tone color in effect when you entered the programming mode.

# ■Specifications

| | |
|---|---|
| **Keyboard** | 88 keys (wood) |
| **Tone Colors** | Piano 1, Piano 2, Piano 3<br>E. Piano 1, E. Piano 2<br>Harpsichord 1, Harpsichord 2<br>Vibraphone |
| **Effects** | Tremolo, Chorus |
| **Temperaments** | Equal, Mersenne pure<br>Pythagorean, Meantone<br>Werckmeister III, Kirnberger III |
| **Controls** | Volume, Brilliance, Transpose, Tune<br>Tremolo Speed |
| **Other Fittings** | Headphone Jack, Pedal Jacks (Soft/Sostenuto, Damper)<br>Line Input Jacks (L[Mono]/R), Input Level Switch (H/L)<br>Line Output Jacks (L[Mono]/R), Output Level Switch (H/L)<br>MIDI Jacks (IN, OUT, THRU) |
| **Output Power** | 30W x 2 |
| **Speakers** | 20 cm x 2, 9 cm x 2, 7 cm x 2 |
| **Power Consumption** | 100W |
| **Finish** | Art Brown |
| **Dimensions (W x D x H)** | 1472.5 x 515 x 801 mm (Including Stand) |
| **Weight** | 73 kg (Including Stand) |

# KAWAI