Korg Concert Piano

C-303
C-505

Owner's Manual

KORG

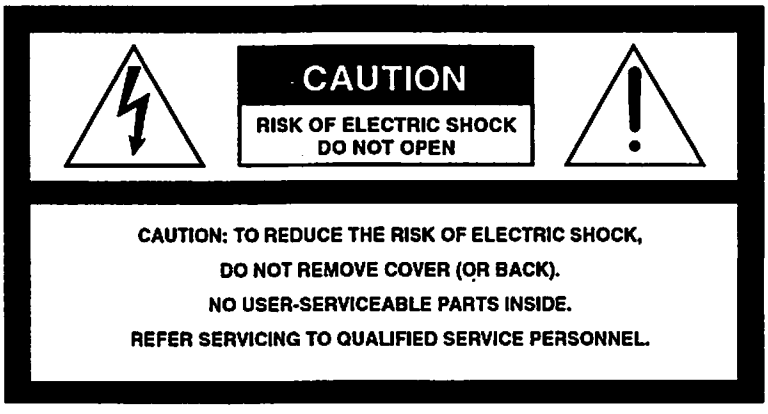
Ⓔ ①

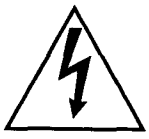
IMPORTANT SAFETY INSTRUCTIONS

WARNING: When using electric products, basic precautions should always be followed, including the following.

1. Read all the instructions before using the product.
2. Do not use this product near water — for example, near a bathtub, washbowl, kitchen sink, in a wet basement, or near a swimming pool.
3. This product should be used only with a cart or stand that is recommended by the manufacturer.
4. This product, either alone or in combination with an amplifier and headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.
5. The product should be located so that its location or position does not interfere with its proper ventilation.
6. The product should be located away from heat sources such as radiators, heat registers, or other products that produce heat.
7. The product should be connected to a power supply only of the type described in the operating instructions or as marked on the product.
8. This product may be equipped with a polarized line plug (one blade wider than the other). This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician to replace your obsolete outlet. Do not defeat the safety purpose of the plug.
9. The power-supply cord of the product should be unplugged from the outlet when left unused for a long period of time.
10. Care should be taken so that objects do not fall and liquids are not spilled onto the enclosure through openings.
11. The product should be serviced by qualified service personnel when:
    A. The power-supply cord or the 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 appear to operate normally or exhibits a marked change in performance; or
    E. The product has been dropped, or the enclosure damaged.
12. Do not attempt to service the product beyond that described in the user-maintenance instructions. All other servicing should be referred to qualified service personnel.

SAVE THESE INSTRUCTIONS





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 to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

THE FCC REGULATION WARNING

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacture's instructions, may cause interference to radio and television reception. It has been type 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, which 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 this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna.
- Relocate the equipment,with respect to the receiver.
- Move the equipment away from the receiver.
- Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful. "How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the US Government Printing Office, Washington D.C. 20402, stock No. 004-000-000345-4.

CANADA

THIS DIGITAL APPARATUS DOES NOT EXCEED THE "CLASS B" LIMITS FOR RADIO NOISE EMISSIONS FROM DIGITAL APPARATUS SET OUT THE RADIO INTERFERENCE REGULATION OF THE CANADIAN DEPARTMENT OF COMMUNICATIONS.

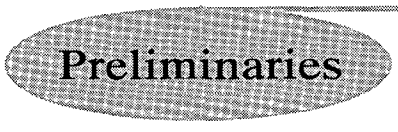
LE PRESENT APPAREIL NUMERIQUE N'EMET PAS DE BRUITS RADIO-ELECTRIQUES DEPASSANT LES LIMITES APPLICABLES AUX APPAREILS NUMERIQUES DE LA "CLASS B" PRESCRITES DANS LE REGLEMENT SUR LE BROUILLAGE RADIOELECTRIQUE EDICTE PAR LE MINISTERE DES COMMUNICATIONS DU CANADA.

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

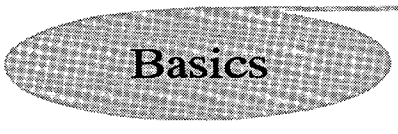
ATENTION: POUR ÉVITER LES CHOCS ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU' AU FOND.

Thank you for purchasing the Korg Concert Piano C-303/505. To ensure long, trouble-free operation, please read this manual carefully.

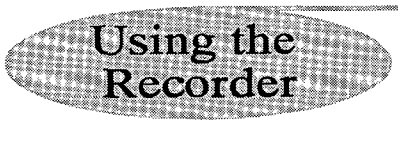
Contents



Safety precautions, and an introduction to your Korg's layout and features.



Basic operation of your Korg C-303/505



Recording and playing with your Korg's built-in recorder.

Additional Features

Getting the most from your piano's many features; and how to use MIDI functions to connect to external devices.

Reference

Stand Assembly Instruction and C-303/505 Specifications.

Before You Begin

Location

To prevent damage to the instrument electronics, do not use or store it for extended periods where it may be exposed to:

- direct sunlight
- sand or dust
- extreme temperature or humidity
- excessive vibration

Power Supply

- Only connect the instrument to electrical outlets matching the specifications on the name plate at the rear of the unit.
  Note: If necessary, add the appropriate step-up or step-down transformer. Connecting to the wrong polarity or voltage can irreparably damage the instrument.
- To help prevent noise and poor sound quality, avoid connecting the instrument to the same electrical circuit as motors or large appliances.
- For the same reasons, never overload the electrical circuit with too many extension cords.
- Always start with the volume at a low level and gradually increase it– especially when the instrument is connected to external equipment.

Interference

To minimize the risk of radio-frequency interference:

- Keep the instrument away from fluorescent light fixtures and other sources of radio-frequency noise that may disrupt operation of the instrument's main microprocessor.
- Never use the instrument in the immediate vicinity of a radio, television set, or similar equipment, as the equipment may pick up radio-frequency noise from the microprocessor.
- If operation becomes erratic or unpredictable or the instrument fails to respond, reset the micro-processor by turning off the instrument, waiting a few seconds and then turning it on again.

Rear Connections

Only use jacks and connectors matching the corresponding connectors available at the rear of the instrument.

Handling

- Never apply excessive force to keys, switches, terminals and other components.
- Avoid dropping the instrument.

Treatment of the Stand

If you use the stand for long periods of time, the screws may become loose. For safety, retighten the screws if you notice significant shaking during use or if you move the stand to another place (see "Assembling the stand").

Cleaning

- Wipe the exterior of the instrument with a clean, dry cloth to remove dust and dirt.
- Never use harsh cleanser, organic solvents, or flammable polishes.

Foreign Objects

- Do not place vases or beverage containers on the instrument. Liquid spills may cause fire or electrical shock, as well as cause permanent damage to the instrument.
- Care should be taken so that metal objects such as pins and coins do not fall into the enclosure through openings between keys.

If any of the above has occurred, turn off the power, unplug the power cord from the outlet and contact your dealer or a KORG service center.

Warranty

Have your warranty card validated at the place of purchase and keep it in a safe place until the warranty period expires.

Manual

This manual is your guide to using the instrument properly and effectively. Keep it in a safe place.

Features

Six voices

The piano's "AI^2 Synthesis System" produces six realistic voices: concert piano, electric piano, harpsichord, vibes, organ, and strings.

Up to 32 simultaneous notes

When operating in SINGLE mode, your piano can play 32 notes at once.

Digital effects

Set the reverberation effects to simulate a small room or large concert hall. Add modulation effects to obtain a wider sound or a tremolo effect.

Voice combinations

Use the LAYER and SPLIT modes to play two different voices at the same time.

Pedal effects

The damper pedal produces a rich resonance effect, similar to the string/soundboard resonance produced by the damper pedal of an acoustic piano.

Built-in metronome

Use the metronome to set both meter and tempo. Metronome volume is adjustable, and you can select a bell sound for the accented beat.

Recorder

Use the piano's built-in recorder to record and play back your performances. The recorder offers multitrack recording (up to three tracks), and includes a repeat function.

Touch control

The piano offers three levels of keyboard response. Select the level by pressing the appropriate TOUCH key combination.

Premodern temperaments

In addition to the modern Equal temperament (tuning), your piano also offers the premodern Kirnberger and Werckmeister temperaments. Select either of these temperaments to accurately reproduce the sound of a premodern keyboard instrument.

Transposition and tuning

Use the transposition function to transpose any key into any other. Use the tuning function to make fine adjustments in pitch.

MIDI

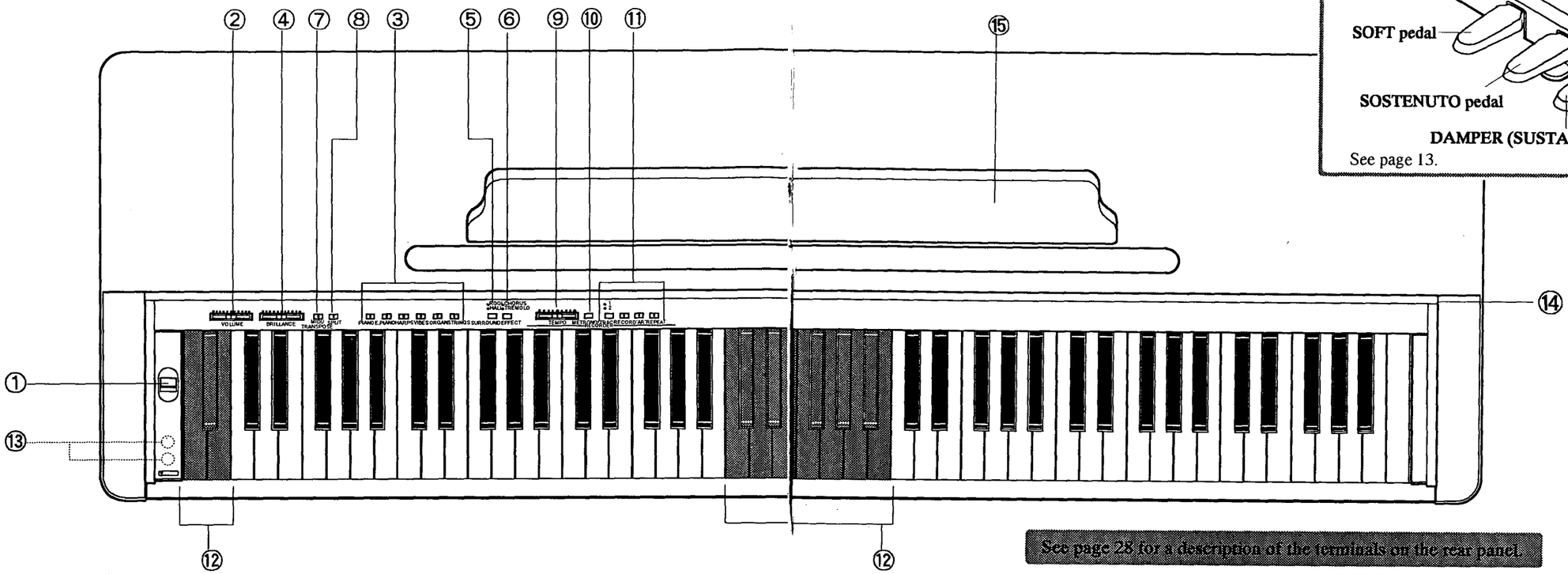
Your piano comes equipped with the industry-standard "Musical Instrument Digital Interface." You can use MIDI to connect your piano to computers and other electronic instruments. Your piano can drive and be driven by external devices. The piano's "MIDI Multivoice function" allows external input to drive up to four of the piano's voices at the same time.

The Backup Battery

Your piano's backup battery enables the memory to retain recorder data and various settings even while the piano's power is off. If the MIDI/TRANSPOSE lamp begins blinking when you switch on the piano, it is time to change the battery. For instructions, refer to your nearest service center or dealer.

To switch the lamp off, press the MIDI/TRANSPOSE switch.

Layout



See page 13.

See page 28 for a description of the terminals on the rear panel.

① POWER switch (p. 7)
Use this switch to turn the piano's power on or off.

② VOLUME slider (p. 7)
Move the slider right or left to adjust the volume.

③ VOICE selectors
Press one of these switches to select the voice. (p. 7)
Use LAYER or SPLIT mode to play two voices at once. (p. 10)

④ BRILLIANCE slider (p. 8)
Slide the knob right or left to adjust the "brilliance" of the instrument's sound.

⑤ SURROUND switch (p. 8)
Press this switch to select the "surround" level.

⑥ EFFECT switch (p. 8)
Press this switch to select the CHORUS or TREMOLO effect.

⑦ MIDI/TRANSPOSE switch
This is a multipurpose switch: use it to transpose the key (p. 26), to implement MIDI settings (p. 30), or to make various other settings. (p. 43).

⑧ SPLIT switch (p. 11)
Use this switch to select SPLIT mode. When the piano is in SPLIT mode, the upper and lower sections of the keyboard play different voices.

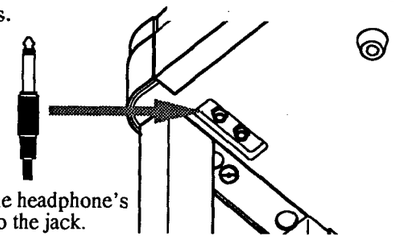
⑨ TEMPO control slider (p.15)
Move this slider to set the tempo for the metronome or for recorder play back.

⑩ METRONOME switch (p. 15)
Press this switch to turn the metronome on or off.

⑪ RECORDER switches (p. 17)
Use these switches to control recording and playback.

⑫ Tuning Area (p. 27)

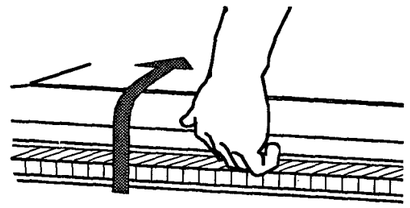
⑬ HEADPHONE jacks (on the underside of the piano)
You can connect up to two sets of stereo headphones. Headphone connection automatically cuts off the internal speakers, so you can play at any volume without disturbing others.

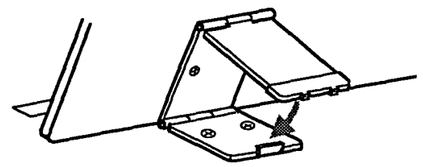


Insert the headphone's plug into the jack.

⑮ Music Stand
To prop up the music stand, pull out the flaps and fit them into the base, forming a triangle.

⑭ Keyboard Cover
The keyboard cover folds down to cover the entire keyboard. To avoid damaging it and the keyboard:
Always grasp the cover in the middle when lifting.
Never force the cover in or out.

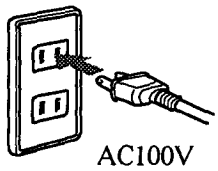


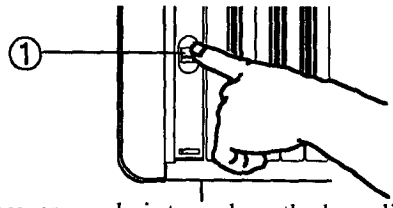


Getting Started

❑■ Switch on the power. — POWER switch ① —

Plug the power supply cord into the wall outlet, and press the power switch.





When the power supply is turned on, the lamp lights.

Now, let's make some settings and try out the instrument !

❑■ Adjust the volume. — VOLUME slider ② —

Move the slider to the right to increase the volume; slide it left to decrease the volume. The maximum volume is "10"; the minimum volume (silence) is "0".

Note: It is a good idea to always start with the volume at a low level and gradually increase it—especially when the instrument is connected to external equipment.

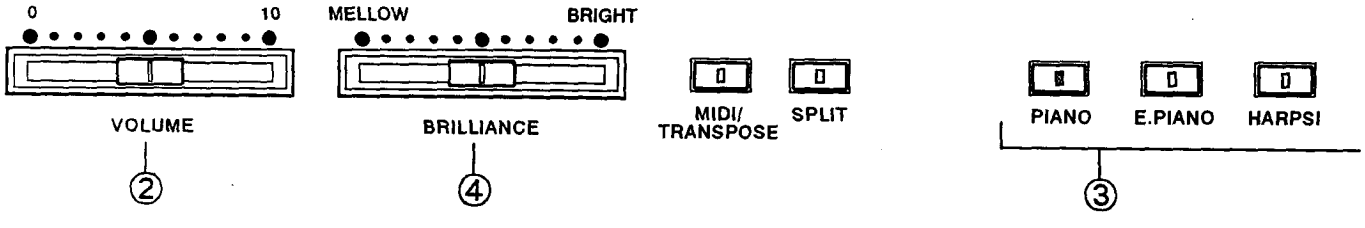
Note: This control determines the output level for the built-in speakers, headphone jack, and the AUX OUT jacks.

❑■ Select the voice. — VOICE selectors ③ —

Press a selector to choose the voice.

PIANO	:	Bright acoustic grand piano.
E.PIANO	:	Synthesized electric piano.
HARPSI	:	Traditional harpsichord.
VIBES	:	Jazz vibraphone.
ORGAN	:	Pipe organ sound.
STRINGS	:	String section.

By using LAYER or SPLIT mode, you can set the piano to play two voices at once. In LAYER mode, the piano plays both voices over the entire range of the keyboard. SPLIT mode divides the keyboard into upper and lower sections, each with its own voice. When you select SPLIT mode, you can set the lower half of the keyboard to a special "acoustic bass" voice not available in any other mode. (Refer to pages 10—12.)



❑■ Set the brilliance. — BRILLIANCE slider ④ —

Move the slider to the right to brighten the sound, or to the left to make it mellower.

❑■ Add various effects.

Set the reverberation level — SURROUND switch ⑤ —

The SURROUND effect adds reverberation to simulate the acoustics of a small room or large concert hall.

Press the SURROUND switch to select the reverberation effects; the corresponding indicator lamp lights up. Each press of the switch changes the selection:

ROOM ····· Small room.
HALL ····· Large concert hall.
OFF (no indicator) ···· No SURROUND effect. Pressing the damper pedal with the PIANO voice produces an effect that simulates the resonance of an acoustic piano. (See page 13.)

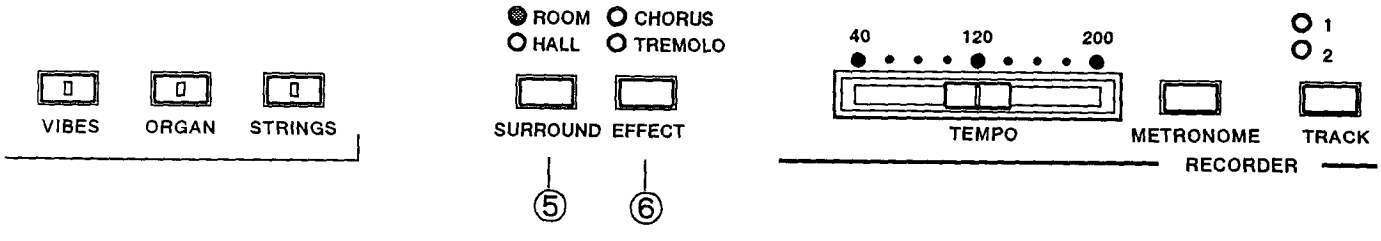
Set the modulation — EFFECT switch ⑥ —

Use the EFFECT switch to select a tremolo sound or chorus effect.

Press the EFFECT switch to select the modulation; the corresponding indicator lamp lights up. Each press on the switch changes the selection:

CHORUS ····· Slight detuning to make one instrument sound like many.
TREMOLO ····· Sound source seems to quaver from side to side.
OFF (no indicator) ···· No modulation effect.

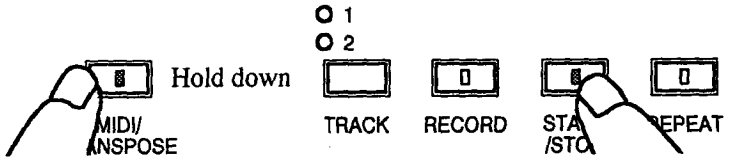
Note: Any changes that you make affect only the current voice. The new effect settings for that voice remain in effect through all subsequent voice changes until you change them—even if you turn off the instrument.



Playing the Demos

Your piano comes with six prerecorded demos. You can select these one by one, or you can choose to play them all out in succession.

■□ 1 Hold down the MIDI/TRANSPOSE switch and press the START/STOP switch.

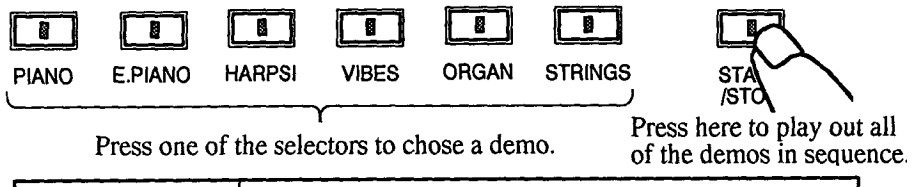


The piano enters DEMO SELECT mode. The VOICE selector lamps light up, indicating that you can now select a demo.

Note: The SURROUND effect automatically sets to ROOM.

Note: While the piano is in DEMO SELECT mode, you can use the VOICE selectors to select a demo. You cannot use them to select a voice.

□■ 2 To play just one of the demo tunes, press the VOICE selector corresponding to the tune. To play out all of the tunes in sequence, press the START/STOP switch once again.



VOICES	DEMO SONGS
PIANO	C. M. von Weber / Aufforderung Zum Tanz
E. PIANO	R. Schumann / Träumerei Op. 15 – No. 7
HARPSI	F. Chopin / Waltz E-minor Op. posthum.
VIBES	KORG demo 1 (Piano+Strings)
ORGAN	KORG demo 2 (Harpsi+Strings)
STRINGS	KORG demo 3 (Organ+Strings)

Note: When the demo playback ends, the piano returns to DEMO SELECT mode.

Exiting demo mode

If a demo is currently playing, press START/STOP once to stop the demo and return the piano to normal mode. If you have entered DEMO SELECT mode but have not yet selected a demo, press START/STOP twice to cancel DEMO SELECT mode and return to normal mode.

Repetitive playback

You can select to play one or all of the demos repetitively; the playback will continue to repeat until you cancel the mode. Simply press the REPEAT switch before carrying out steps (1) and (2) above, or after a demo has started playing.

You can repeat entire demos only; you cannot limit repetition to selected parts of a demo.

Selecting Voice Modes

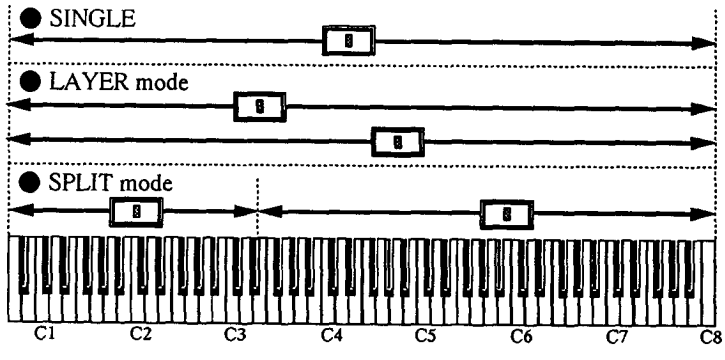
The instrument provides three voice modes, two of which, LAYER and SPLIT, simultaneously use two different voices at the same time:

SINGLE : This, the normal performance mode, uses one sound over the entire range of the keyboard.

LAYER : This mode simultaneously uses two voices over the entire range of the keyboard.

SPLIT : This mode divides the keyboard into two zones, upper and lower, each with its own voice.

Note : The LED indicators in the switches light to indicate which voice or voices are currently in use.

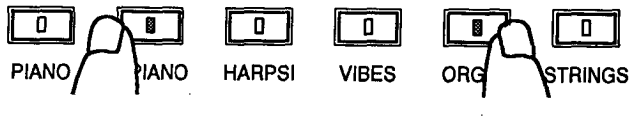


SINGLE

Press a VOICE SELECTOR switch and every note across the range of the keyboard will sound the selected voice (for example, PIANO).

LAYER

Hold down one VOICE SELECTOR switch and press another and every note over the range of the keyboard will sound both selected voices (for example, E.PIANO and ORGAN).
Since the LAYER mode uses two voices simultaneously, a maximum of 16 notes, instead of the normal 32, can be played at a given time.



To **Cancel** the LAYER mode, simply select a different voice.

SPLIT

Press the appropriate VOICE SELECTOR switch to select the desired voice for the upper zone of the keyboard. Press the SPLIT switch to change to SPLIT mode. This automatically assigns an acoustic bass voice to the lower zone of the keyboard. To select a new voice for the lower zone of the keyboard, see "Changing Voices in Two-Voice Modes".

To **Cancel** the SPLIT mode and return to SINGLE mode, press the SPLIT switch to turn off its LED indicator.

Note: The instrument returns to the VOICE previously selected for the upper zone of the keyboard.

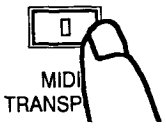
Changing Voices in Two-Voice Modes

- To change the voice in the LAYER or SPLIT mode, select a new voice or pair of voices.
- To change the voice for the upper zone of the keyboard in SPLIT mode, press another VOICE SELECTOR switch.
- To change both voices in the SPLIT mode, hold down the VOICE SELECTOR switch for the upper zone of the keyboard and then press the switch for the lower zone.

Changing the Octaves of Voices

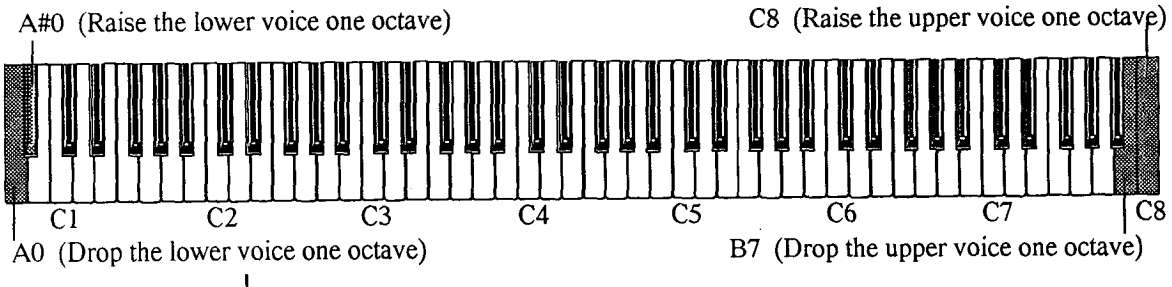
Each of the upper and lower voices in Split mode can be transposed up to ±3 octaves.

Hold down the MIDI/TRANSPOSE switch and press the appropriate key on the keyboard, as shown below. Each press moves you up or down by one octave.



Hold down

A0••••••(Drop the lower voice one octave)
A#0••••(Raise the lower voice one octave)
B7••••••(Drop the upper voice one octave)
C8••••••(Raise the upper voice one octave)



Note: Since the entire keyboard range of the instrument lies between A0 and C8, the lowest octave will repeat in the lower ranges of the keyboard, and the highest octave will repeat in the higer ranges of the keyboard for as many octaves as you transposed.

Note: MIDI note numbers will not be affected by transposition. The transposed range(s) for both upper and lower voices will remain in effect even when changing voices. Each transposed range will return to its original setting when leaving the SPLIT mode.

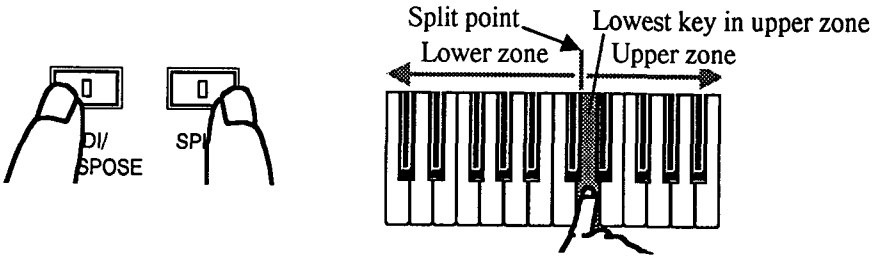
Note: When acoustic bass is selected for the lower voice, it cannot be transposed.

Changing the Split Point

The split point marks the boundary between the upper and lower zones of the keyboard. You specify its position by pressing the lowest key for the upper zone.

■□ 1
□■ 2

Switch to the SPLIT mode, if not already there.
Hold down the MIDI/TRANSPOSE switch, press the SPLIT switch, and then press the key corresponding to the new split point.



Note : You cannot change the split point while you are using acoustic bass as the lower zone's voice.

Note : Any change you make in the split position is lost when you exit SPLIT mode. SPLIT mode always begins with the split point at E3.

Adjusting the Relative Volume

Since the LAYER and SPLIT modes both use two voices, you may wish to adjust the relative loudness of the voice:

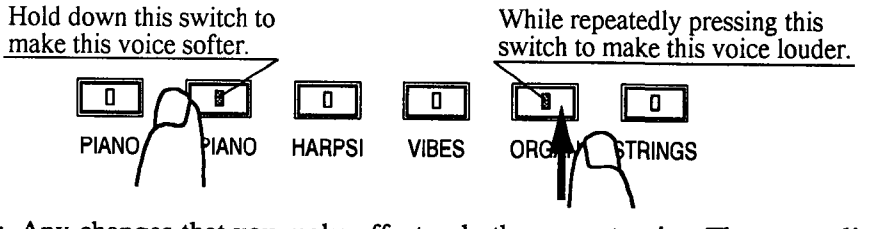
■□ 1
□■ 2

Switch to the SPLIT or LAYER mode, if not already there.
Hold down the VOICE SELECTOR switch corresponding to the voice that you wish to make softer.

■□ 3

Make the other voice louder by pressing the corresponding VOICE SELECTOR switch as often as necessary to achieve the desired balance.

Example : When Selecting E.PIANO and ORGAN



Note: Any changes that you make affect only the current voice. The new split point and volume balance settings remain in effect through all subsequent voice changes until you change them. Even after turning the unit off, the volume balance settings and the split point are retained in memory.

Note: If necessary, change the voice for the lower zone of the keyboard. This step is sometimes necessary because the split point and volume balance of the lower zone (acoustic bass) cannot be changed immediately after selecting the Split mode (when acoustic bass is selected as the lower zone voice).

Using Pedals

DAMPER

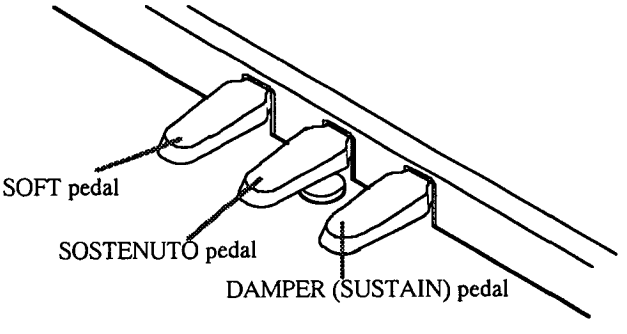
This pedal simulates the effect of a damper pedal on an acoustic piano. When the pedal is depressed on an acoustic piano, small felts, called dampers, are lifted from the strings. This allows all strings to vibrate, whether the key for those strings has been struck or not. When the pedal is released, strings vibrating without keys depressed are damped.
If the Surround parameter is set to "Off," pressing the damper pedal produces an effect that simulates the sound of an acoustic piano's resonating strings, when the PIANO voice is selected.

SOFT

This pedal simulates the effect of a soft pedal on an acoustic piano. When the pedal is depressed on an acoustic piano, the sound produced is softer, as the hammers strike one fewer string per key.

SOSTENUTO

This pedal simulates the effect of a sostenuto pedal on an acoustic piano. When this pedal is depressed on an acoustic piano, dampers for keys depressed when the pedal is depressed are suspended above the strings until the pedal is released. This allows certain strings to vibrate freely while other strings are struck and damped by depressing and releasing keys.

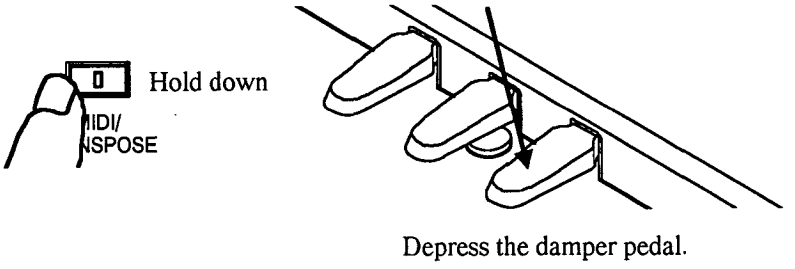


Setting the Resonance Effect

You can select the length of time for the resonance effect produced by pressing the damper pedal. (Resonance Simulation)

■□ 1

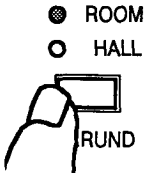
Hold down the MIDI/TRANSPOSE switch and step down on the damper pedal.



Depress the damper pedal.

□■ 2

While continuing to hold down both the switch and pedal, press the SURROUND switch once or twice to change the setting. The current setting is indicated by the SURROUND lamps, as follows.



ROOM (On) : Similar to the sustain length on an acoustic piano

HALL (On) : Longer than the sustain length on an acoustic piano

Both lamps off : No sustain effect

Note: This effect does not work if one of the Surround effects has been selected, or when any voice other than PIANO (Single Mode) has been specified using the voice selector.

Using the Pedals with LAYER and SPLIT Mode

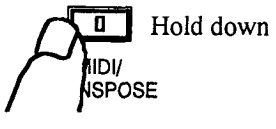
In the LAYER and SPLIT modes, the pedals may be used with just one voice or with both. To change between three possible pedal settings:

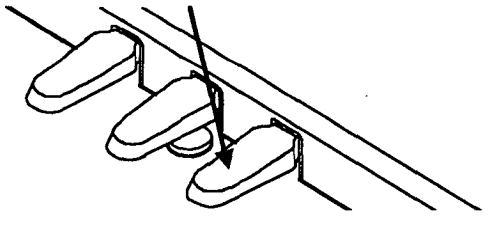
■□ 1

Hold down the MIDI/TRANSPOSE switch.

□■ 2

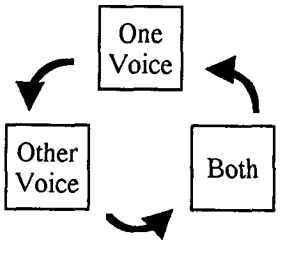
Press the damper pedal.





Depress the damper pedal.

Note: The changes will cycle with each press of the pedal. (See illustration.)



Note: The LED indicators in the VOICE selector switches light to indicate the voice or voices that use the pedals.

Note: The individual pedal settings for the LAYER and SPLIT modes remain in effect through all subsequent mode changes until you turn off the instrument. When the instrument is turned on, the pedals always start with the BOTH setting for the LAYER and SPLIT modes.

Note: This cannot be set if the acoustic bass voice has been selected for the lower zone.

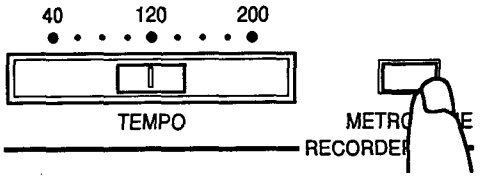
Using the Built-In Metronome

The instrument has a built-in metronome. It is capable of accenting particular beats, or groups of beats. This feature allows the metronome to keep time in different meters.

Note: The metronome sounds through the built-in speakers and headphones.

METRONOME

Pressing this switch alternately starts and stops the metronome.

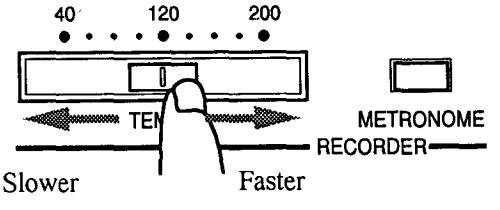


Adjusting the relative volume

Press and release the METRONOME switch to start the metronome. When the metronome has started, hold down the MIDI/TRANSPOSE switch and press the METRONOME switch repeatedly to change the volume level. There are ten volume levels. Each press of the METRONOME switch moves you up to the next level; when you reach maximum volume, the next press brings you back to minimum volume.

TEMPO

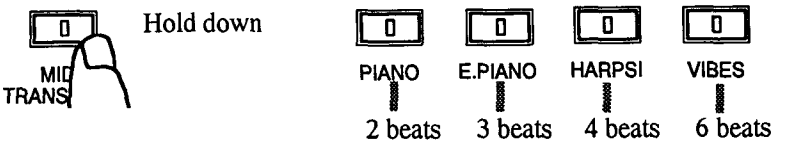
Use the TEMPO control slider to adjust the tempo.
The available range is ♩ =40~200.



Note: The TEMPO control slider also adjusts the RECORDER tempo.

Pattern Selector Switches

With the metronome running, hold down the MIDI/TRANSPOSE switch and press the VOICE selector corresponding to the desired meter.



When you press a selector, its lamp lights up, and the metronome begins accenting the first beat of each measure.

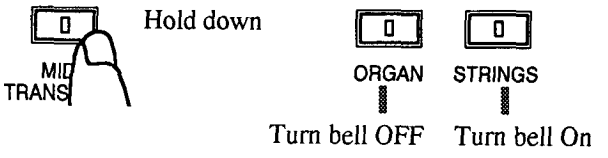
Canceling the meter

To cancel the meter accentuation, hold down the MIDI/TRANSPOSE switch and press the lighted VOICE selector. The metronome switches to an unaccented beat.

Note: When the piano is turned on, the metronome is set to the unaccented beat pattern.

Selecting the accent sound

You can select whether or not to use a bell sound for the accented beat. To make the setting, switch the metronome on, then hold down MIDI/TRANSPOSE and press the STRINGS switch to turn the bell on, or the ORGAN switch to turn it off.



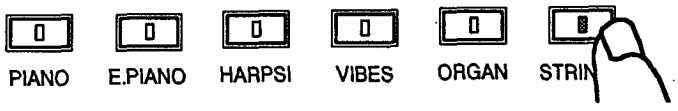
Note: When you set the bell on, you reduce the number of available MIDI reception channels from four to three.

Note: Regardless of the bell setting, the bell will not operate if the piano is set to SPLIT or LAYER mode and you are at the same time playing back a recording which consists entirely of SPLIT or LAYER tracks. To recover the bell, switch off the playback or return the piano to SINGLE mode.

Recording a Track

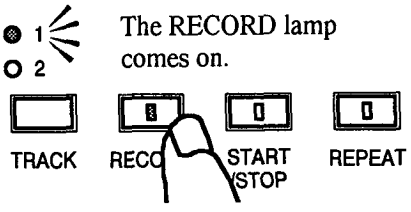
■□ 1

Press a VOICE selector to select a voice.
You cannot change voices while you are in the middle of recording. And you cannot use a different voice for playback; playback will always use the same voice as when recording.



□■ 2

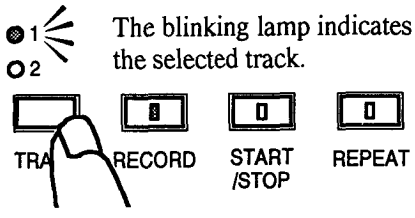
Press the RECORD switch.

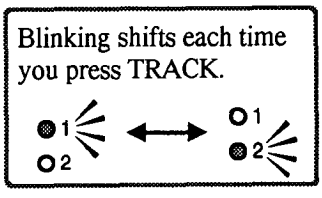


The lamp on the RECORD switch comes on, and the TRACK 1 lamp begins to blink.

■□ 3

Use the TRACK switch to select the track to record on.

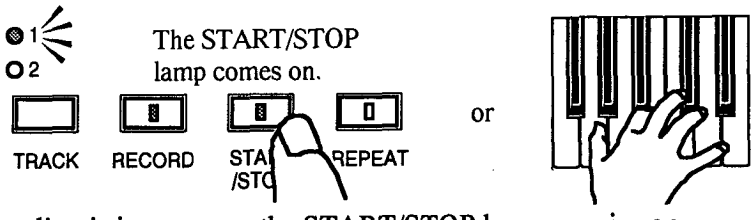




The TRACK switch toggles between track 1 and track 2. The lamp corresponding to the selected track blinks. You cannot record to both tracks at the same time.

□■ 4

Either press the START/STOP switch or start playing.

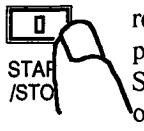


While recording is in progress, the START/STOP lamp remains on.

■□ 5

To stop recording, press the START/STOP switch.

Press the switch briefly: the recorder pauses at its current position, and the START/STOP lamp begins blinking.



Hold the switch down: the recorder returns to its start position, and the START/STOP lamp goes out.

To pause at the present position, press the START/STOP switch briefly. The recording pauses and the START/STOP lamp begins to blink.

To return the recorder to its start position, hold the START/STOP switch for longer than one second. The recorder returns and the START/STOP lamp goes out.

Restarting playback from the beginning

To stop the replay and start over from the beginning, depress START/STOP for longer than one second to return the recorder to its start position. Then repeat the recording procedure starting from step 1 on the previous page.

Continuing from where you left off

If you paused the recorder (as described in step 5 above), you can resume by pressing the RECORD switch and then the START/STOP switch. If you returned the recorder to its start position, play back your recording to its end, press RECORD, then START/STOP.

Note : Any voice changes made in the newly recorded material will be ignored when the material is played back. The voice selection made in the original or first recording of the song will be in effect for playback of the entire song, including the appended material.

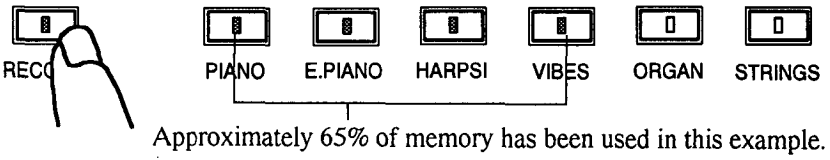
Note : Using the START/STOP switch to stop in the middle of playback and switch to recording will sometimes cause the newly recorded material to begin at a slightly different place from where playback was stopped.

Note : When cueing a track for re-recording, the data for the remainder of the track will be lost. The remainder of the track, to the end, must be re-recorded.

What the START/STOP lamp means...	
Lamp is ON :	Recording or playback is in progress.
Lamp is BLINKING :	Recorder is paused at the middle or end of a recording.
Lamp is OFF :	Recording is at the start position.

❑■ Reading the Memory Usage Gauge

When you hold down the RECORD switch, the lamps on the VOICE selectors act as a memory gauge. Use this gauge to judge how much free memory is left. The lamps light up from left to right as the memory fills. If memory is empty, all lamps will be off. If memory is full, all lamps will be on.

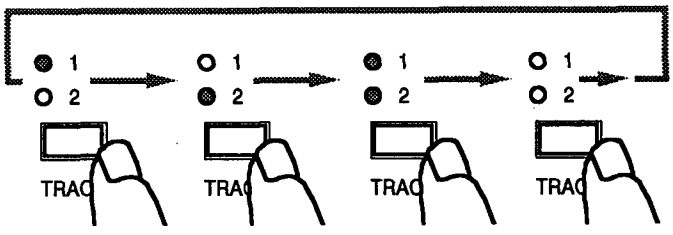


Approximately 65% of memory has been used in this example.

Note : The RECORD lamp begins flashing to indicate that you have used up more than 90% of the recorder's memory. If you need additional memory, you may want to purchase a MIDI data filer. For more information, see page 35.

Playing Back a Track

■□ 1 Press the TRACK switch to select the track to replay.

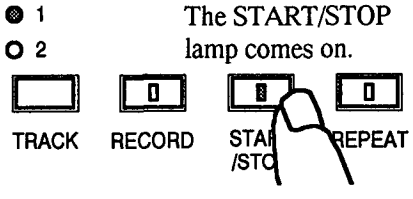


When a track is selected, the corresponding track lamp comes on.
Each press of the switch changes the selection. The sequence is:
Track 1 ➡ Track 2 ➡ both ➡ neither ➡ Track 1...

□■ 2 Check the recorder position

If the START/STOP lamp is blinking, the recorder is paused at the middle or end off the recording. If you want to start playback from the beginning, hold down the START/STOP switch for at least one second (until the lamp goes out).

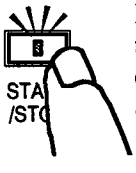
■□ 3 Press the START/STOP switch to start the playback.



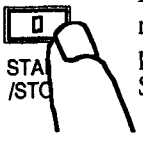
Note: The LED indicator inside the START/STOP switch lights to indicate that the recorder is playing back.

Use the TEMPO slider to adjust the speed of playback; left for slower, right for faster. Tempo adjustment does not affect the pitch.

□■ 4 Press the START/STOP switch to stop the playback.



Press the switch briefly: the recorder pauses at its current position, and the START/STOP lamp begins blinking.



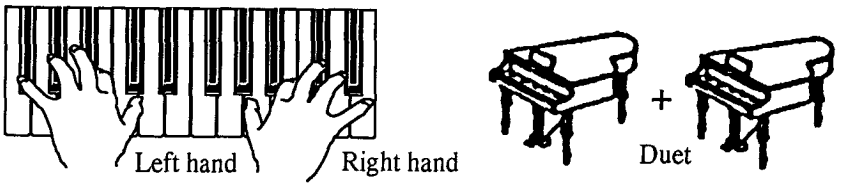
Hold the switch down: the recorder returns to its start position, and the START/STOP lamp goes out.

Note: When all the recorded data has been played, the START/STOP lamp starts blinking.

Note: You cannot send playback data to the MIDI OUT connector.

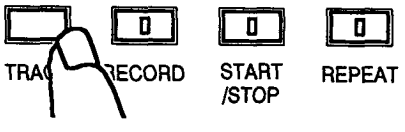
Simultaneous Playback and Recording

You can play back a recorded track while playing along on the keyboard and recording the result onto the other track. This technique is useful if you want to play both parts of a duet, for example, or if you want to separately record the left and right hands of a keyboard piece.



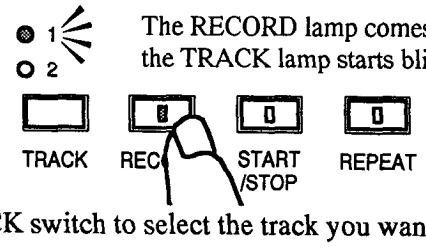
■□ 1 Press the TRACK switch to select track that you have already recorded.

● 1 Light up the Lamp corresponding
○ 2 to the track you want to play back.



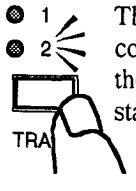
(Assuming TRACK 1 playback)

□■ 2 Press the RECORD switch.



The RECORD lamp comes on, and the TRACK lamp starts blinking.

■□ 3 Press the TRACK switch to select the track you want to record to.



The lamp corresponding to the recording track starts blinking.

To play back from track 1 while recording to track 2:

Blinking ● 1 ⟷ On ● 1
Off ○ 2 Blinking ● 2

Each press of the TRACK switch changes the track selection. If you select the same track for both recording and playback, the track is used just for recording, and the original recording on the track is lost.

□■ 4 Check the START/STOP lamp to confirm that the recorder is at the correct location, then start playback and recording by pressing the START/STOP key or by simply beginning to play. Remember to play along with the playback. (When the START/STOP switch is flashing, the switch should be held down for more than one second, and recording will start from the first measure.) The START/STOP lamp remains on while recording is in progress.

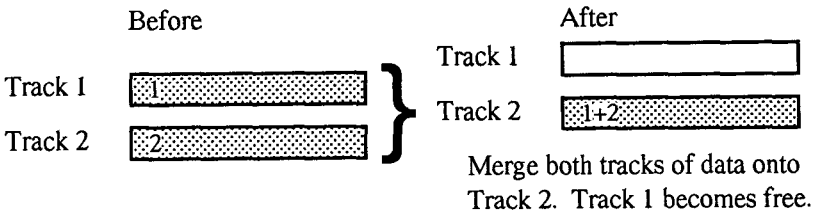
■□ 5 Press the START/STOP switch to simultaneously end recording and playback.

Note: To record another track without going back and playing back the track that you just recorded, press the TRACK switch before pressing the RECORD switch, and make sure the lamp for the current track has gone out.

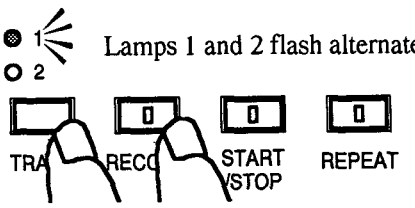
Bounce Function

(Merging two tracks into one)

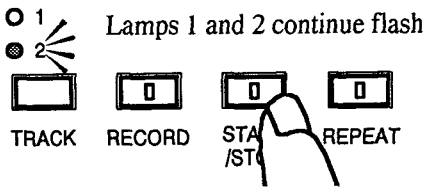
Use the bounce function to merge your Track 1 recording with your Track 2 recording, freeing Track 1 so that you can record on it once more. In other words, the bounce function allows you to produce a three-track recording: the two tracks merged onto Track 2, plus one more track on Track 1.



■□ 1 Hold down the RECORD switch and press the TRACK switch.



□■ 2 Press the START/STOP switch to start the merge.



■□ 3 When merging is completed, the TRACK lamps stop flashing and TRACK lamp 2 comes on. The data has now been merged onto Track 2, and Track 1 is now free.

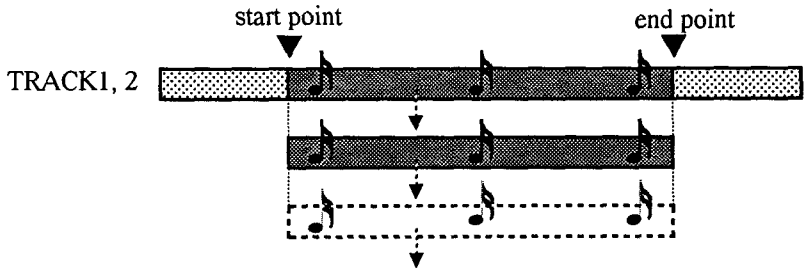
Note: You can merge data only once. If Track 2 already contains bounced data, you must erase the data (for example, by making a new recording on Track 2) before you can bounce again.

Note: While playing back bounced data, you cannot pause and begin re-recording from the middle. But you can begin recording again from the end of the existing data.

Repeating Playback

If necessary, you can choose to repeatedly play back all or a specific part of a recorded track. This feature is especially useful for practicing difficult pieces or parts.

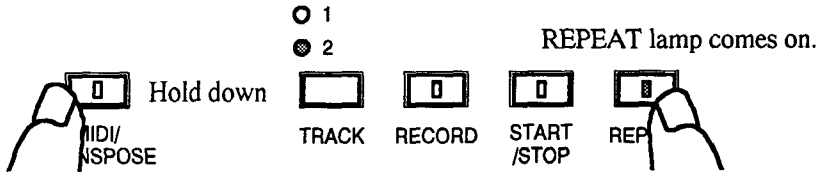
Note: Select the part of the track to be repeated by specifying the starting measure and the ending measure. You cannot specify the middle of a measure as the starting or ending point.



Setting the repeat range

■□ 1 Press the TRACK switch to select either or both tracks for playback. Press the START/STOP switch to begin the playback.

□■ 2 When the playback reaches the point at which you want to start the repeat, hold down the MIDI/TRANSPOSE switch and press the REPEAT switch.



■□ 3 The REPEAT lamp comes on, indicating that the start point has been selected.

Continue listening to the playback. When the playback reaches the point where you want to stop the repeat, hold down the MIDI/TRANSPOSE switch and press the REPEAT switch once again.

The REPEAT lamp goes out, indicating that the end point has been selected. The piano automatically begins repeated playback of the selected range.

Note: If you wish to repeat the entire recording, you do not need to set the range. If you have already selected a range, you must clear it, as described on the next page.

Note: You can set separate repeat ranges for Track 1 and Track 2.

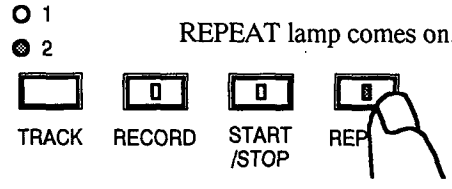
Note: The range setting is lost when you re-record or perform a bounce.

Note: The range setting remains in memory even after the power has been switched off.

Starting repeat playback

■□ 1 Press the TRACK switch to select either or both tracks for playback.

□■ 2 Press the REPEAT switch. The REPEAT lamp comes on.

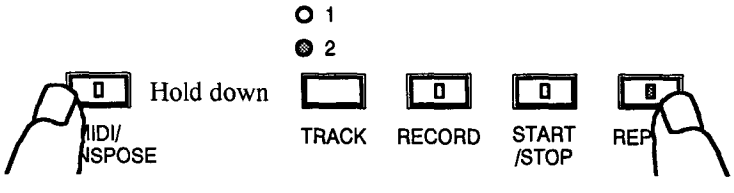


■□ 3 Press the START/STOP switch to begin playback. If a repeat range has been selected, playback proceeds to the end point of the repeat range, then begins repeating the range. If no repeat range is selected, the entire recording is repeated.

Clearing the repeat range

■□ 1 Hold down the START/STOP switch for at least one second, until the lamp goes off.

□■ 2 Hold down the MIDI/TRANSPOSE switch and press the REPEAT switch. The REPEAT lamp comes on.



■□ 3 Again hold down the MIDI/TRANSPOSE switch and press the REPEAT switch. The REPEAT lamp goes off, indicating that the range setting has been erased.

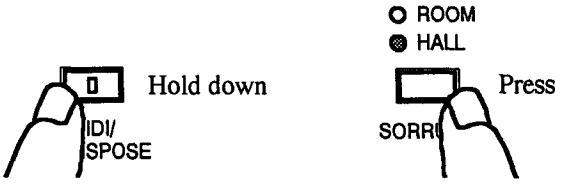
Touch Control

The instrument allows for the selection of a variety of touch responses that range from TOUCH 1 to TOUCH 3.

Setting the keyboard response

Hold down the MIDI/TRANSPOSE switch, then press the SURROUND switch as many times as necessary to select the desired keyboard action. Each press of the switch changes the selection. The sequence is:

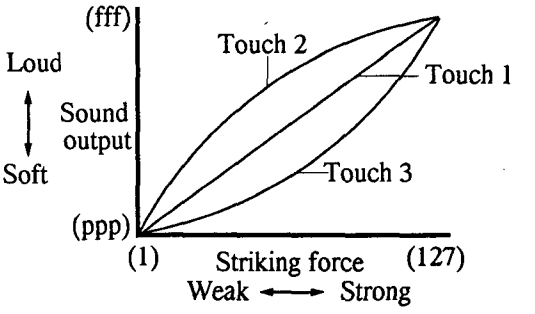
TOUCH 1 ➡ TOUCH 2 ➡ TOUCH 3 ➡ TOUCH 1



Touch 1 (both lamps off) ··· Response is similar to acoustic piano.

Touch 2 (ROOM lamp on) Light action—normal striking force produces strong sound

Touch 3 (HALL lamp on) ·· Heavy action—normal striking force produces weak sound



Note: Whenever the power is turned on, TOUCH 1 is automatically selected.

Changing Temperaments

In recent history, musical instruments have used a tuning system, or temperament, that divides an octave (for example, C4 to C5) into 12 equal steps, called half-steps or semitones. Before the 19th century, however, musical instruments made use of many different temperaments that were based on scales with different sized semitones.

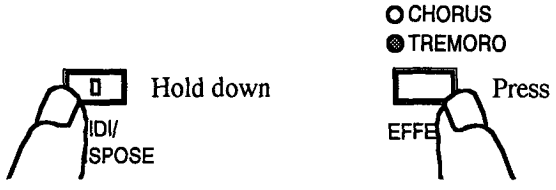
The C-303/505 voices can be assigned to an alternate temperament for realistic performance of early music. The two alternate temperaments are:

- **Kirnberger**
- **Werckmeister**

Selecting the temperament

Hold down the MIDI/TRANSPOSE switch and press the EFFECT switch as many times as necessary to select the desired temperament. Each press of the switch changes the selection. The sequence is:

Equal ➡ Kirnberger ➡ Werckmeister ➡ Equal



Equal ·····Both lamps off
Kirnberger·····CHORUS lamp on
Werckmeister·····TREMOLO lamp on

Note: The temperament setting remains in effect through all subsequent use of the instrument until you change it or turn it off. When the power is turned on, the instrument begins with the Equal Temperament setting.

Note: To obtain a more realistic piano sound, equal temperament in the PIANO voice is not exactly equal—the lower ranges are slightly lowered in pitch, and the higher ranges slightly raised. The effect approximates the "stretch tuning" technique used on acoustic pianos.

Transpose Function

The TRANSPOSE function changes the general key of the instrument, shifting the pitch up or down in semitones. The range of transposition is up a perfect fourth (5 semitones) and down a tri-tone (6 semitones). This function eliminates the need to change fingering when changing keys—making it easy to transpose to match a vocalist's range.

To transpose the keyboard

■□ 1

□■ 2

Hold down the MIDI/TRANSPOSE switch .

Press a key between F#6 and F7 to select the interval of transposition.

Note: The difference between the selected key and C7 becomes the new interval of transposition. Selecting a key below C7 transposes the key downward. Selecting a key above C7 transposes the key upward.

Note: The LED indicator in the MIDI/TRANSPOSE switch remains lit while the keyboard is in any key other than the original.

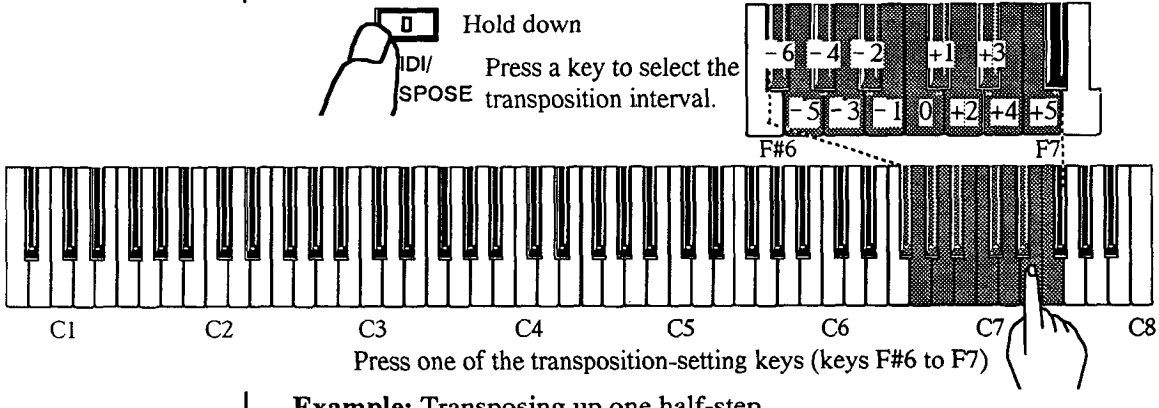
F7 key·····Transpose up five semitones. Key C7 produces the note normally associated with Key F7.

⬆

C7 ·····No transposition

⬇

F#6·····Transpose down six semitones. Key C7 produces the note normally associated with Key F#6.



Example: Transposing up one half-step

While holding down the MIDI/TRANSPOSE switch, press C#7. This transposes the pitch of the instrument so that a piece played in the key of C will sound as if it is played in C#.

Example: Transposing down one whole-step

While holding down the MIDI/TRANSPOSE switch, press A#6. This transposes the pitch of the instrument so that a piece played in the key of G will sound as if it is played in F.

Canceling

To cancel the transposition and restore the original key (C), just press the MIDI/TRANSPOSE switch and release.

The transposition setting is automatically lost when you switch the power off.

Tune Function

The TUNE function, which uses much smaller increments of pitch, called cents, provides the ability to fine-tune the instrument to another instrument. The range is 50 cents on either side of the standard pitch.

To fine-tune the keyboard:

■□ **1** Specify the tuning direction—up or down—by holding down the appropriate key combination at the lower end of the keyboard with your left hand:

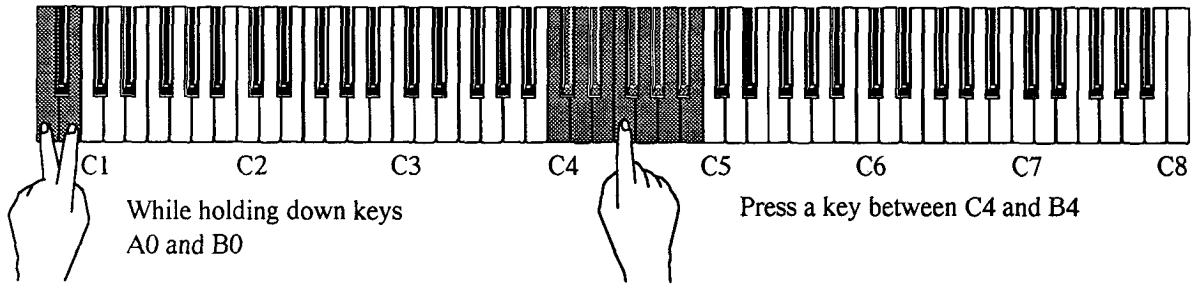
UP····· Two lowest white keys (A0 and B0)

DOWN····· Lowest white and lowest black keys (A0 and A#0)

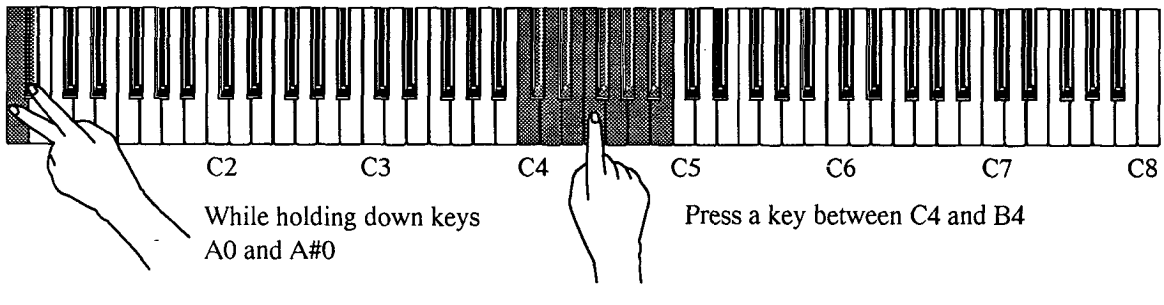
□■ **2** While holding the lower keys, press any key between C4 and B4 on the keyboard with your right hand to shift the pitch one step in the specified direction.

Note: One step is approximately 1 cent. The value can be changed over a range of ±50 cents. (1 cent is 1/100 of a semitone.) The tuning will automatically return to the original setting (A4 = 440Hz) when the power is turned off.

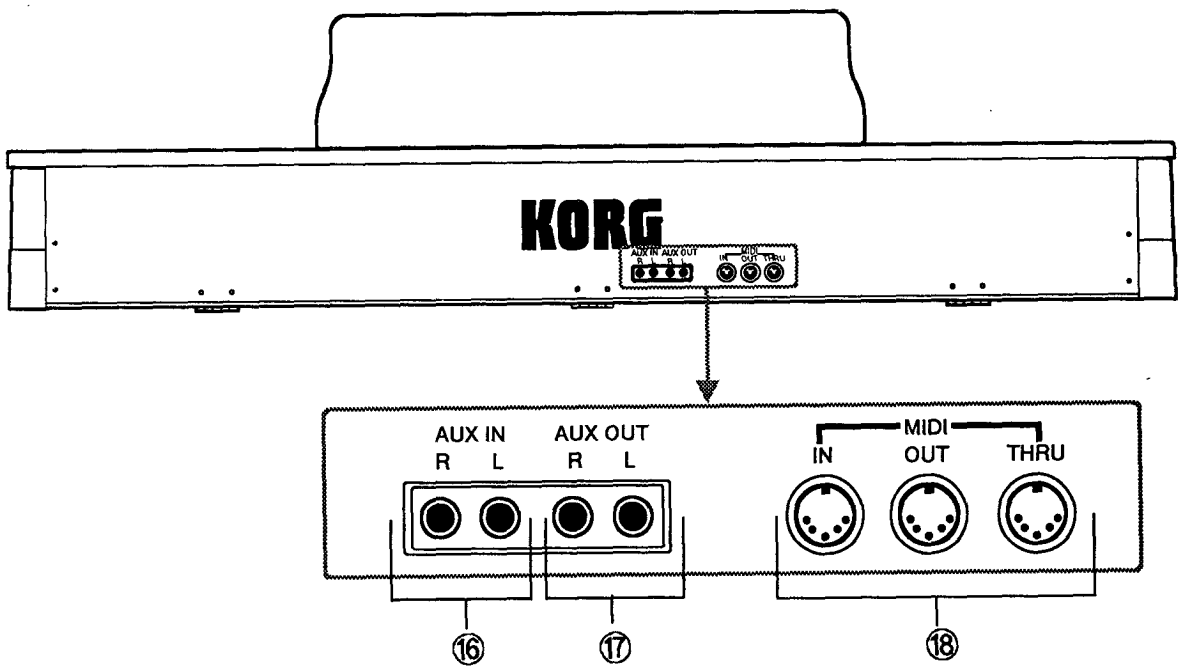
To raise the pitch:



To lower the pitch:



Connecting to External Devices



⑯ **AUX IN (L/R):**

These RCA jacks are for connecting audio signals from synthesizers, drum machines, and other equipment to the instrument's built-in speakers.

Note: Adjust the volume of the connected instrument from that instrument's controls.

⑰ **AUX OUT (L/R):**

These RCA jacks are for connecting the instrument to the AUX (or LINE) IN jacks on mixers, tape recorders, or home audio systems for routing output to a different speaker system, for example.

Note: The VOLUME slider on the front panel controls the output level.

⑱ **MIDI (IN/OUT/THRU):**

These DIN connectors accept optional MIDI cables for connecting the instrument to synthesizers, sequencers, and other MIDI devices. In addition, the connectors are for exchanging performance and other types of data. (See p. 29)

Using MIDI

What is MIDI

MIDI, or the "Musical Instrument Digital Interface," is the internationally recognized standard for connecting and passing data among electronic musical instruments, computers, and other electronic equipment.

What can MIDI do?

MIDI enables you to drive other instruments from the C-303/505, to drive the C-303/505 from other instruments or devices, and to store performance data to external media.
Using MIDI, you can play the C-303/505 and have all your keyboard action, pedal action, and voice selections reproduced on an external instrument. Or you can go the other way, using an external MIDI keyboard or sequencer to control the C-303/505. You can copy data from the C-303/505 recorder to an external data filer, and recall the data later when you want to replay it. And there are various other functions available to you as well.

Connection

Connection is made by special MIDI cables. These cables connect into the MIDI terminals provided on all MIDI devices. There are three terminal types, as described below. The terminals on the C-303/505 are located on the rear panel.

MIDI IN

Receives MIDI data from an external keyboard, sequencer, or other MIDI device. The received data drives the C-303/505, causing it to produce sound. A MIDI cable runs from this terminal to the MIDI OUT terminal on the external device.

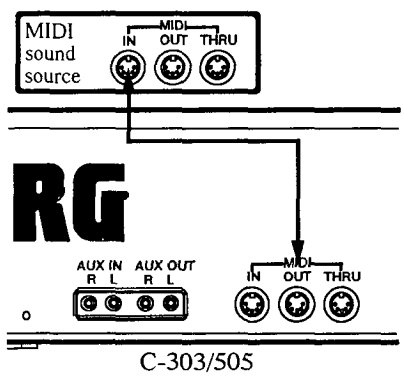
MIDI OUT

Transmits MIDI data to an external device. A MIDI cable runs from this terminal to the MIDI IN terminal on the external device. Use this terminal when you want your playing on the C-303/505 keyboard to drive the sound of an external keyboard, or when you want to record it into a sequencer or other computerized device.

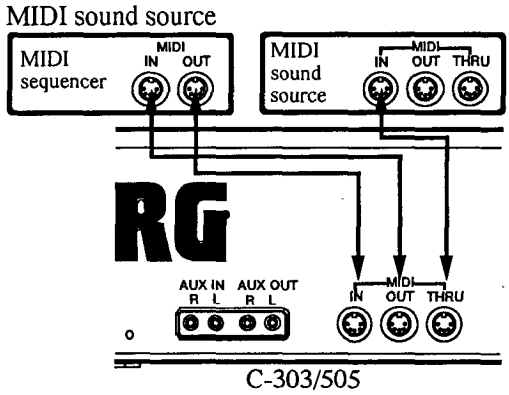
MIDI THRU

Relays MIDI data received at the MIDI IN port to an external device.

Connecting to an external MIDI sound source



Connecting to a MIDI sequencer and an external MIDI sound source



MIDI Default Values

When the power is turned on, the instrument defaults to the following MIDI settings.

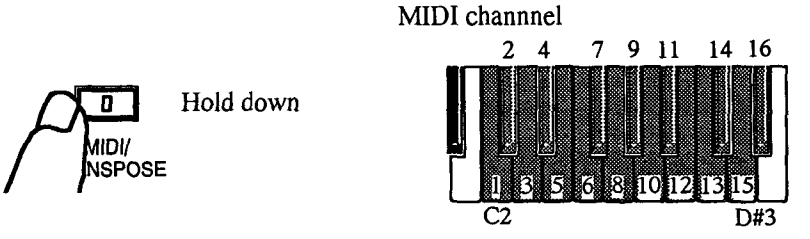
MIDI transmission channel	1
MIDI receiving channel	1
LOCAL	ON
PROGRAM CHANGE	ON
CONTROL CHANGE	ON

Changing the MIDI Transmit Channel

The MIDI standard provides 16 separate channels for the transmission of performance data. MIDI master keyboards (controllers) can therefore control up to 16 individual slaves (or groups of slaves acting in unison) by sending channel messages. Performance data messages always include a channel number. Each device on the network reads all messages, but only responds to messages that match the connected instrument's MIDI receive channel.

Selecting a MIDI channel

To change the MIDI transmit channel, hold down the MIDI/TRANSPOSE switch and press the appropriate key between C2 and D#3. (See figure.)



Note: When the power is turned on, the instrument is set up to transmit on channel 1.

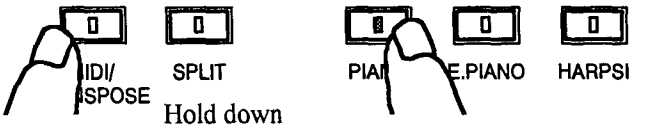
Changing the LOCAL ON/OFF Setting

The LOCAL ON/OFF setting allows you to use the instrument as a "silent" MIDI controller. When LOCAL is set to OFF, the instrument's internal voices will not sound—only the sounds of the connected MIDI devices will be heard.

Note: When the power is turned on, the instrument defaults to LOCAL Mode ON.

Switching LOCAL on or off

To change the setting, hold down the MIDI/TRANSPOSE switch and press the PIANO switch.



LED off: LOCAL ON

↑ ↓

LED on: LOCAL OFF

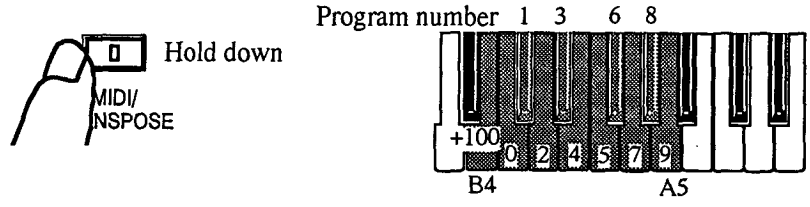
Sending PROGRAM CHANGE Requests

A PROGRAM CHANGE request is a channel message that asks devices on that channel to change the sound that they are playing.

Note: The definition of "program" varies widely between MIDI devices. To verify terminology, consult the manual for the device being controlled.

To transmit program numbers using the keyboard

Most synthesizers offer more than 6 programs, so it becomes necessary to use the PROGRAM CHANGE zone of the keyboard to specify the new program number.



1 Hold down the MIDI/TRANSPOSE switch.

2 If the number is greater than 99, press the "100" key (B4).
Note: The highest possible program number is 127.

3 Specify the two digits with the keys C5 through A5.

Examples:

Program #0	0, 0	Program #100	+100, 0, 0
Program #1	0, 1	Program #101	+100, 0, 1
Program #99	9, 9	Program #127	+100, 2, 7

Using VOICE selectors

When the Voice selector is used to select the voices for the Single, Layer, and Split modes, MIDI Program Numbers 0 to 56 are transmitted using the format shown in the table on page 32.

Note: The above procedure always transmits a PROGRAM CHANGE request, regardless of the PROGRAM CHANGE CANCEL setting. (See "Inhibiting PROGRAM CHANGE Requests" below.)

Inhibiting PROGRAM CHANGE Requests

When the PROGRAM CHANGE function is set to OFF, all incoming and outgoing PROGRAM CHANGE messages are ignored.

Note: This function does not affect selection of internal voices from the front panel VOICE SELECTOR switches.

To change the setting, hold down the MIDI/TRANSPOSE switch and press the E.PIANO switch.

LED indicator off: PROGRAM CHANGE ON

⬆ ⬇

LED indicator on: PROGRAM CHANGE OFF

Note: When the power is turned on, the C-303/505 always starts with the PROGRAM CHANGE function ON.

Receipt of program change request

When the piano receives a program change request from an external device, it changes the voice setting as indicated below.

Program number	Voice
SINGLE	
0	PIANO
1	E.PIANO
2	HARPSI
3	VIBES
4	ORGAN
5	STRINGS
LAYER	
6	PIANO + E.PIANO
7	PIANO + HARPSI
8	PIANO + VIBES
9	PIANO + ORGAN
10	PIANO + STRINGS
11	E.PIANO + HARPSI
12	E.PIANO + VIBES
13	E.PIANO + ORGAN
14	E.PIANO + STRINGS
15	HARPSI + VIBES
16	HARPSI + ORGAN
17	HARPSI + STRINGS
18	VIBES + ORGAN
19	VIBES + STRINGS
20	ORGAN + STRINGS
SPLIT(lower/upper)	
21	PIANO / E.PIANO
22	PIANO / HARPSI
23	PIANO / VIBES
24	PIANO / ORGAN
25	PIANO / STRINGS
26	E.PIANO / PIANO

Program number	Voice
27	E.PIANO / HARPSI
28	E.PIANO / VIBES
29	E.PIANO / ORGAN
30	E.PIANO / STRINGS
31	HARPSI / PIANO
32	HARPSI / E.PIANO
33	HARPSI / VIBES
34	HARPSI / ORGAN
35	HARPSI / STRINGS
36	VIBES / PIANO
37	VIBES / E.PIANO
38	VIBES / HARPSI
39	VIBES / ORGAN
40	VIBES / STRINGS
41	ORGAN / PIANO
42	ORGAN / E.PIANO
43	ORGAN / HARPSI
44	ORGAN / VIBES
45	ORGAN / STRINGS
46	STRINGS / PIANO
47	STRINGS / E.PIANO
48	STRINGS / HARPSI
49	STRINGS / VIBES
50	STRINGS / ORGAN
51	BASS / PIANO
52	BASS / E.PIANO
53	BASS / HARPSI
54	BASS / VIBES
55	BASS / ORGAN
56	BASS / STRINGS

Note: A split-mode request (No. 21–56) automatically resets the split point to its default position.

Note: Program change numbers 57 to 127 are ignored.

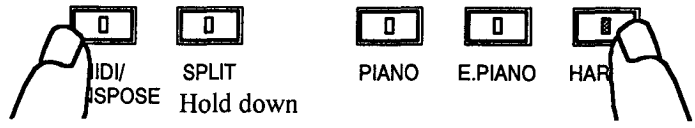
Note: If the recorder receives a Program Change instruction during playback, the voices will change when the recorder is stopped.

Inhibiting CONTROL CHANGE Requests

When the CONTROL CHANGE function is set to OFF, all incoming and outgoing CONTROL CHANGE messages are ignored, including those generated by the pedals.

Enabling and disabling control changes

To switch the function on or off, hold down the MIDI/TRANSPOSE switch and press the HARPSI switch.



LED indicator off ····· CONTROL CHANGE ON

⬆ ⬇

LED indicator on ·····CONTROL CHANGE OFF

When the power is turned on, the instrument always begins with the CONTROL CHANGE function ON.

Note: Do not press down the pedal when switching this function ON and OFF.

Note: External control changes are effective for both voices in the LAYER mode and SPLIT mode regardless of the individual internal pedal settings. (Refer to the section "Using the Pedals with LAYER and SPLIT Mode".)

Changing the MIDI Velocity Curve

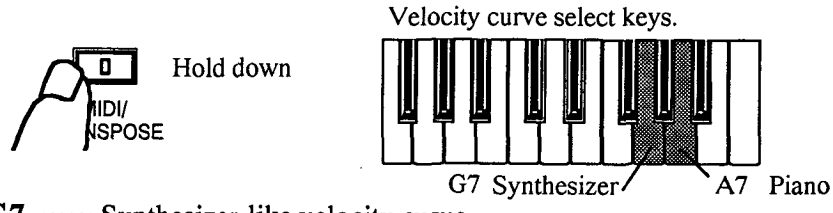
Velocity curves determine how the volume and tone respond to velocity, the speed at which the keys are struck. Since the piano has a curve much different from other instruments, the instrument offers a choice of two curves for MIDI output.

Piano: Curve duplicating that of an acoustic piano

Synthesizer: Curve for other instruments or other MIDI sound sources, like synthesizers and tone modules.

Setting the velocity curve

To change the MIDI velocity curve, hold down the MIDI/TRANSPOSE switch and press the appropriate key at the right end of the keyboard:



G7 ····· Synthesizer-like velocity curve

A7 ····· Piano-like velocity curve

Note: When the power is turned on, the instrument is set to the Piano-like velocity curve.

Note: The selected velocity curve only affects external sound devices connected via MIDI. The sound of the instrument itself is subject to the setting of the Touch Control.

MIDI Multivoice Function

The C-303/505 can receive data from up to four MIDI channels at once: the MIDI channel you have selected, plus the next three channels in succession. This means that you can use an external sequencer to drive up to four of the piano's voices at the same time.

When you are using this multivoice function, the selected channel drives the selected voice (the voice selected by the VOICE selector), while the next three channels drive the PIANO, E. PIANO, and HARPSI voices, respectively. If you have set the MIDI channel to 1, for example, the data coming in on channel 1 drives the selected voice, while channel 2 drives the PIANO voice, channel 3 the E. PIANO voice, and channel 4 the HARPSI voice. The following table shows the voice/channel correspondence for all MIDI channel settings.

C-303/505 MIDI channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Voice selected by VOICE selector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PIANO	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	×
E.PIANO	3	4	5	6	7	8	9	10	11	12	13	14	15	16	×	×
HARPSI	4	5	6	7	8	9	10	11	12	13	14	15	16	×	×	×

If the C-303/505 receives a program change request during multivoice operation, the selected voice changes accordingly.
(See page 32.)

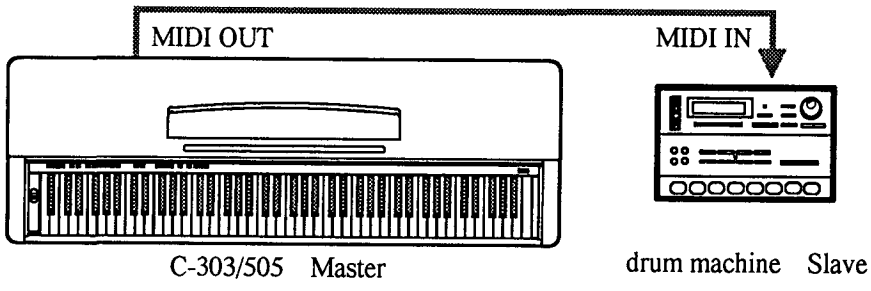
The voice/channel correspondence is different if you are receiving data while at the same time playing back from the RECORDER. In this case, if you have selected MIDI channel n, then channel n drives the selected voice, channel n+1 drives the voice recorded on Track 1, channel n+2 drives the voice recorded on Track 2, and channel n+3 drives the bounced voice. The following table shows the correspondence for all MIDI channel settings.

C-303/505 MIDI channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Voice selected by VOICE selector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Voice on Track 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	×
Voice on Track 2 *	3	4	5	6	7	8	9	10	11	12	13	14	15	16	×	×
Bounced voice	4	5	6	7	8	9	10	11	12	13	14	15	16	×	×	×

* The voice recorded on track 2 prior to bouncing.

☐■ Synchronizing with External MIDI devices

The built-in recorder of the instrument is capable of synchronizing with a drum machine, sequencer or other external MIDI devices. To use the C-303/505 as the master keyboard (controlling device) and the external device as the slave (controlled device), connect the MIDI OUT jack on the piano to the MIDI IN jack on the external device with a MIDI cable. (To change the MIDI clock setting on external devices, refer to the manual for each device.)



Note: To start and stop the synchronized play with external devices, use the START/STOP switch on the C-303/505.

Note: The MIDI clock (timing data) sent from the C-303/505 will follow changes made with the TEMPO control slider.

☐■ Using the MIDI Data Dump Function

The MIDI DATA DUMP function is used to copy data from the built-in recorder to a MIDI data filer, a device used for storing MIDI data.

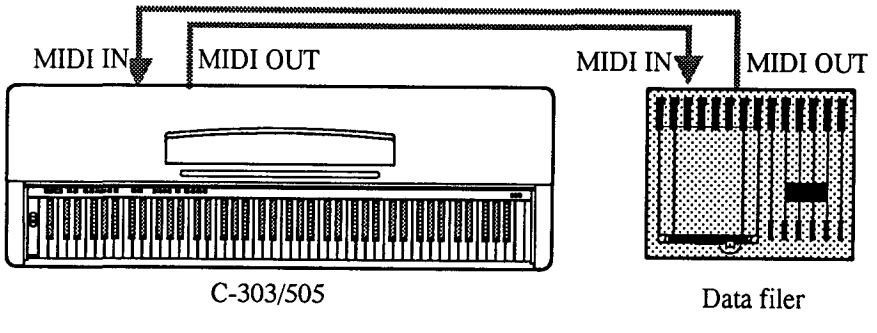
Note: The term "MIDI data filer" applies to both hardware and software devices.

A common data filer application is backing up data — in other words, copying the current recorder data to the filer so that you can always get the original data back after editing or deleting the data in the recorder. For further details, consult the manual included with your data filer.

Saving Data to the Data Filer

■☐ 1

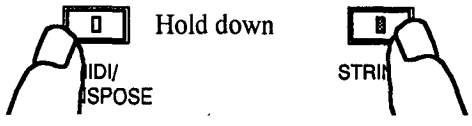
Use standard MIDI cables to connect the piano and a data filer as shown in the illustration below.



□■ 2 Set the data filer to receive data.

Note: Consult the manual included with the data filer for the necessary procedures.

■□ 3 Hold down the MIDI/TRANSPOSE switch and press the STRINGS switch to start transmission.



Note: The time required to complete the dump varies according to the amount of data.

Loading Data from the Data Filer

■□ 1 Use standard MIDI cables to connect the piano and a data filer as shown in the figure above.

□■ 2 Turn on the power of both units.

■□ 3 Set up the data filer to transmit the previously-stored piano data.

Note: As there is considerable variation between data filers, consult the manual included with the data filer for additional procedures.

□■ 4 Wait for the data filer to indicate the end of the transmission. (Never interrupt either the piano or the data filer while they are working, since such interruptions can cause errors in data transmission.)

Note: The piano keyboard and panel will remain inoperative until the transmission is complete.

Note: Changes made in the pedal settings cannot be stored in the data filer. (Refer to the section, "Using the Pedals with LAYER and SPLIT Mode".)

MIDI Implementation

1.TRANSMITTED DATA

1-1 CHANNEL MESSAGES

Status	Second	Third	Description	ENA
1000 nnnn	0kkk kkkk	0100 0000	Note Off	A
			kkk kkkk=15~113	
1001 nnnn	0kkk kkkk	0vvv vvvv	Note On	A
			kkk kkkk=15~113	
			vvv vvvv=1~127	
1011 nnnn	0100 0000	0000 0000	Damper Off (Damper Pedal)	C
1011 nnnn	0100 0000	0111 1111	Damper On (Damper Pedal)	C
1011 nnnn	0100 0010	0000 0000	Sosutenuto Off (Sosutenuto Pedal	C
1011 nnnn	0100 0010	0111 1111	Sosutenuto On (Sosutenuto Pedal	C
1011 nnnn	0100 0011	0000 0000	Soft Off (Soft Pedal)	C
1011 nnnn	0100 0011	0111 1111	Soft On (Soft Pedal)	C
1100 nnnn	0ppp pppp	---- ----	Program Change	P*
			ppp pppp=0~127	

nnnn : MIDI Channel No.(0~15)Usually Global Channel.

ENA=A : Always Enabled
C : Enabled when Control Filter is ENA
P : Enabled when Program Filter is ENA
*Program change is transmitted through keyboard, regardless of ENABLE/CANCEL.

1-2 SYSTEM REALTIME MESSAGES

Status	Description	
1111 1000	Timing Clock	*2
1111 1010	Start	*2
1111 1011	Continue	*2
1111 1100	Stop	*2
1111 1110	Active Sensing	

*2 : Transmits when Recorder is playing or Recording

2.RECOGNIZED RECEIVE DATA

2-1 CHANNEL MESSAGES

Status	Second	Third	Description	ENA
1000 nnnn	0kkk kkkk	0xxx xxxx	Note Off	A
1001 nnnn	0kkk kkkk	0000 0000	Note Off	A
1001 nnnn	0kkk kkkk	0vvv vvvv	Note On	A
			vvv vvvv=1~127	
1011 nnnn	0000 0111	0vvv vvvv	Volume	C
1011 nnnn	0100 0000	00xx xxxx	Damper Off	C
1011 nnnn	0100 0000	01xx xxxx	Damper On	C
1011 nnnn	0100 0010	00xx xxxx	Sosutenuto Off	C
1011 nnnn	0100 0010	01xx xxxx	Sosutenuto On	C
1011 nnnn	0100 0011	00xx xxxx	Soft Off	C
1011 nnnn	0100 0011	01xx xxxx	Soft On	C
1011 nnnn	0111 1010	0000 0000	Local Control Off	A
1011 nnnn	0111 1010	0111 1111	Local Control On	A
1011 nnnn	0111 1011	0000 0000	All Notes Off	A
1011 nnnn	0111 110x	0000 0000	(All Notes Off)	A
1011 nnnn	0111 1110	000m mmmm	(All Notes Off)	A
			m mmmm=0~16	
1011 nnnn	0111 1111	0000 0000	(All Notes Off)	A
1100 nnnn	0ppp pppp	---- ----	Program Change	

kkk kkkk : Note No.
vvv vvvv : Velocity
x : Random

ENA ..... Same as TRANSMITTED DATA

2-2 SYSTEM REALTIME MESSAGES

Status	Description
1111 1110	Active Sensing

3. MIDI EXCLUSIVE FORMAT(R:Receive, T:Transmit)

3-1 SYSTEM EXCLUSIVE MESSAGE

1st Byte = 1111 0000 (F0) : Exclusive Status
2nd Byte = 0100 0010 (42) : KORG ID
3rd Byte = 0011 nnnn (3n) : Format ID n = Global ch. } EX.Header
4th Byte = 0011 0111 (37) : Device ID
5th Byte = 0100 1000 (48) : Function=All Sequencer Data Dump
6th Byte = 0ddd dddd (dd) : Data
LastByte = 1111 0111(F7) : End of Exclusive ..... EOX

ALL SEQUENCER DATA DUMP R, T

Byte	Description
F0, 42, 3n, 37	EXCLUSIVE HEADER
0100 1000	ALL SEQUENCER DATA DUMP 48H
00mm mmmm	channel 0 status (See Note 1)
0bbb xxxx	
0kkk kkkk	
0ppp pppp	
0qqq qqqq	
00mm mmmm	channel 15 status (See Note 1)
0bbb xxxx	
0kkk kkkk	
0ppp pppp	
0qqq qqqq	
0rrr rrrr	Track 1 Data size(=0hss ssss srrr rrrr)
0sss ssss	
0000 000h	
0ddd dddd	Track 1 Data
0rrr rrrr	Track 2 Data size(0hss ssss srrr rrrr)
0sss ssss	
0000 000h	
0ddd dddd	Track 2 Data
0000 cccc	Next Bounce Channel
1111 0111	END OF EXCLUSIVE

Note 1)
mmmm : Program No.
bbb : Volume balance
kkkkkkk : Split point
ppppppp : Upper Split Octave Value
qqqqqqq : Lower Split Octave Value

ch0:Track1,ch1:Track2,ch2~ch15:Bounce channel(Track2)

C-303 / 505 MIDI Implementation Chart

Function		Transmitting	Receiving	Remarks
Basic channel	Power-on default	1		
	Selectable	1 – 16	1 – 16	
Mode	Power-on default	X	3	
	Message	X	X	
	Substitution	**********		
Note numbers:	True Voice	15 – 113	0 – 127	
		**********	21 – 108	
Velocity	Note ON	1 – 127	1 – 127	
	Note OFF	X	X	
Aftertouch	Key's	X	X	
	Ch's	X	X	
Pitch bender		X	X	
Control change	7	X	○	Volume *1
	64	○	○	Damper pedal *2
	66	○	○	Sostenuto pedal *2
	67	○	○	Soft pedal *2
Program change: settable range		0 – 127	0 – 56	* 3
		**********	0 – 56	
Exclusive		○	○	Device Inquiry Sequence Data Dump
Common	:Song position	X	X	
	:Song select	X	X	
	:Tune	X	X	
Realtime	:Clock	○	X	
	:Commands	○	X	
Aux messages	:Local ON/OFF	X	○	
	:All notes OFF	X	○ 123 – 127	
	:Active sensing	○	○	
	:Reset	X	X	

Remarks
*1 Receive if CONTROL CHANGE is enabled.
*2 Transmit/receive if CONTROL CHANGE is enabled.
*3 Transmit/receive if PROGRAM CHANGE is enabled.
(Program changes input at keyboard are transmitted regardless of enable/disable setting.)

Mode 1: OMNI ON, POLY Mode 2: OMNI ON, MONO ○ : Supported
Mode 3: OMNI OFF, POLY Mode 4: OMNI OFF, MONO X : Unavailable

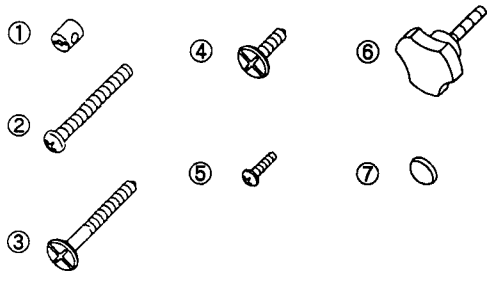
Assembling the Stand

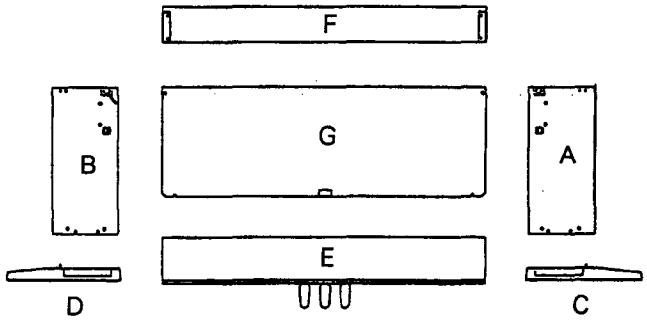
— *C-303 Stand* —

- Please assemble according to the sequence indicated below.
- Check that parts are correctly oriented before attaching them.
- You will need at least one other person to help you with the assembly work.
- Do not remove the protective tape from the keyboard and music holder until you have completed the assembly.
- You will need a phillips-head screwdriver.
- Before beginning assembly, remove all components from the box and make sure that nothing is missing.

① Round nuts 4
② Joint connecter bolts (gold) 4
③ Joint connecter bolts (black) 4
④ Screws (large) 4
⑤ Screws (small) 4
⑥ Knob bolts 4
⑦ Caps 8

A Side board (right) 1
B Side board (left) 1
C Stand base (right) 1
D Stand base (left) 1
E Pedal casing 1
F Cross board 1
G Rear board 1

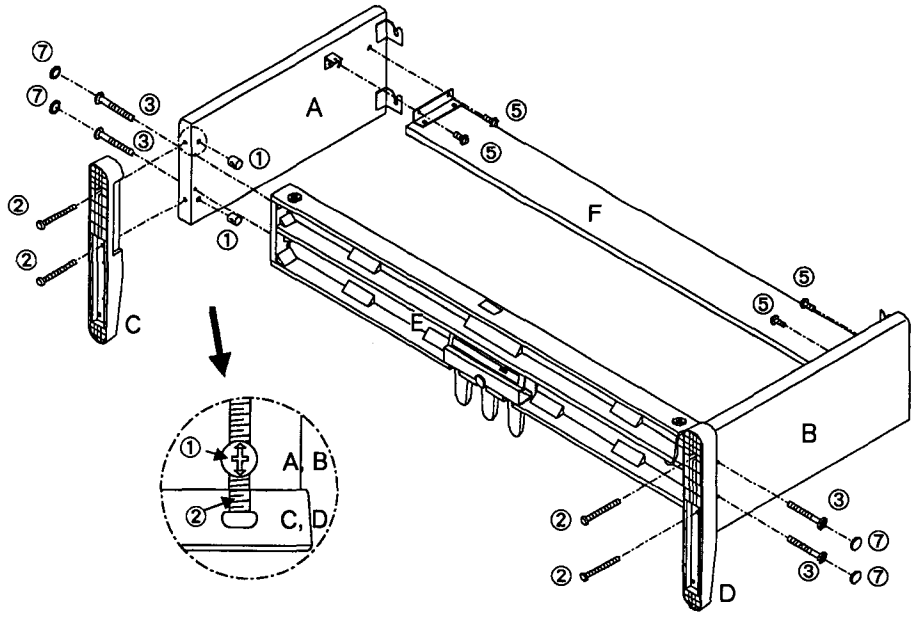




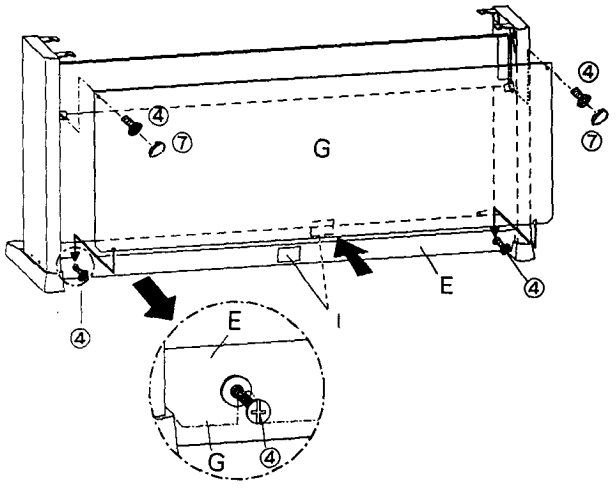
1. Fit round nuts ① to side boards (A) and (B). Using a screwdriver, set the arrows on the surface of each round nut so that they face the direction shown in the sketch. Attach side board (A) to stand base (C) and then (B) to (D) using screws ②.

2. Attach the pedal casing (E) to (A) and (B) with ③ (Put the caps ⑦ on after all the screws are tightened).

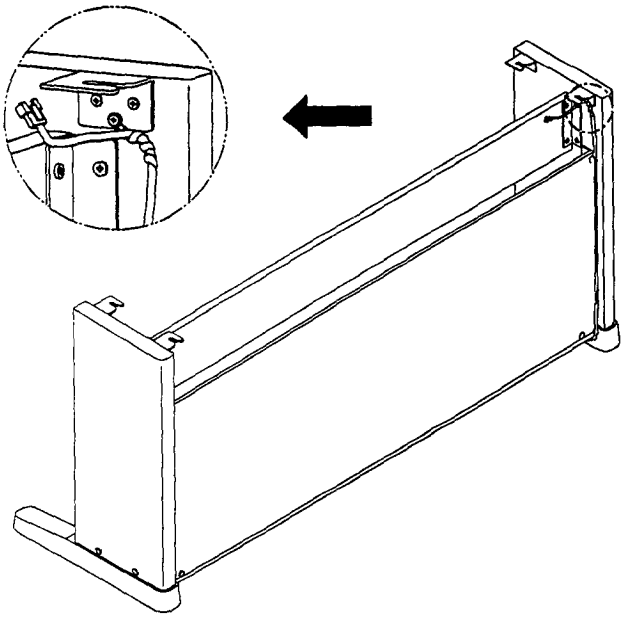
3. Attach cross board (F) with screws ⑤.



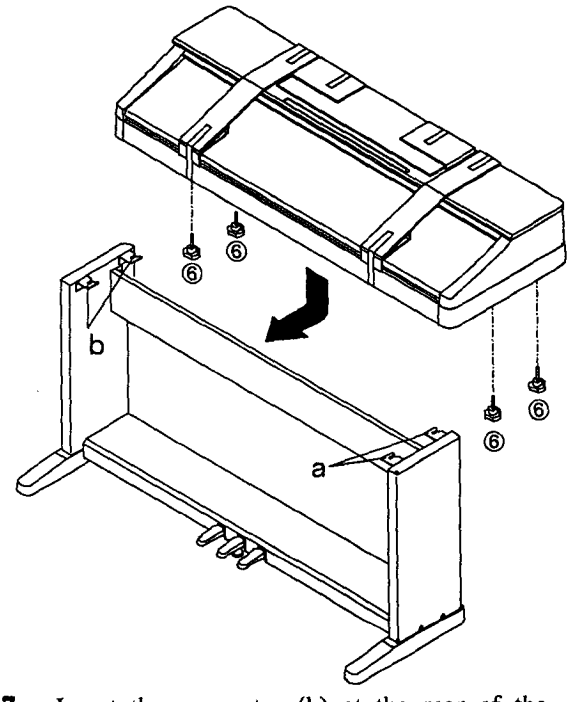
4. Screw the screws ④ about 1 cm into the pedal casing (H). Then set the back panel (G) on top of that and secure it in four places with the screws ④. After the back panel has been secured in place, press lightly on the back panel from the rear, so that it comes in tight contact with the surface fastener (I). (Put the caps ⑦ on after all the screws are tightened.)



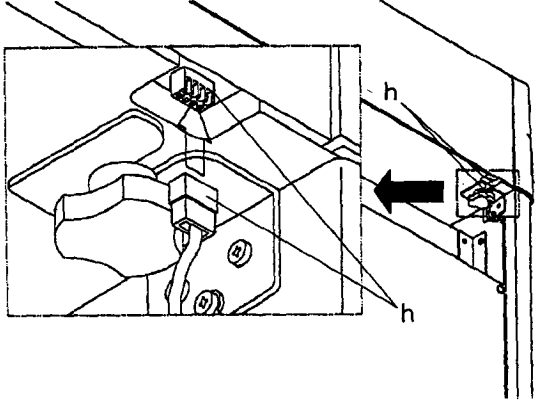
5. Attach the cable as shown in the sketch (make sure there is no slack).



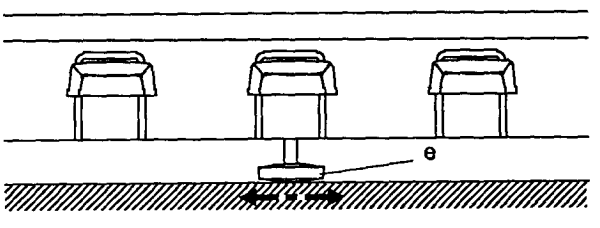
6. Align the main body of the piano with the metal brackets (a) and (b) on top of the side boards. Slide it from the back towards the front, lining up the holes in the metal brackets with the screw-holes in the bottom of the piano. This allows the piano to be held in place by the knob bolts ⑥ as shown.



7. Insert the connector (h) at the rear of the pedestal into the receptacle on the underside of the piano as shown in the sketch.



8. Adjust the adjuster (e) located under the pedal casing until it contacts the floor. If it is not correctly adjusted, the sound might be distorted.

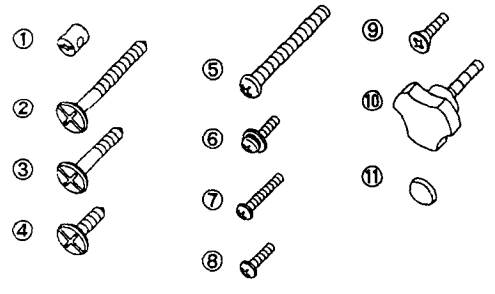


- Screws may loosen after long-term use. If you notice that the stand is vibrating excessively, retighten all screws.
- Always retighten all screws before relocating your piano.

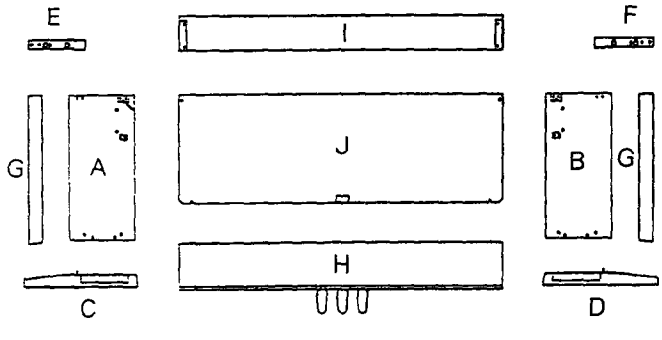
— C-505 Stand —

- Please assemble according to the sequence indicated below.
- Check that parts are correctly oriented before attaching them.
- You will need at least one other person to help you with the assembly work.
- Do not remove the protective tape from the keyboard and music holder until you have completed the assembly.
- You will need a phillips-head screwdriver.
- Before beginning assembly, remove all components from the box and make sure that nothing is missing.

① Round nuts 4
② Joint connector bolts (long) 4
③ Joint connector bolts (medium) 4
④ Joint connector bolts (short) 2
⑤ Screws (gold) 4
⑥ Screws with washers (black) 4
⑦ Screws (black, long) 4
⑧ Screws (black, short) 4
⑨ Countersunk screws 4
⑩ Knob bolts 2
⑪ Caps 8



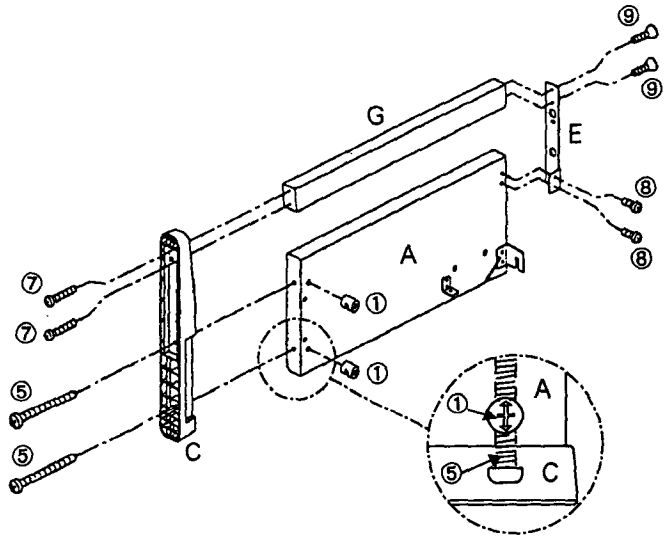
A Side board (left) 1
B Side board (right) 1
C Stand base (left) 1
D Stand base (right) 1
E Metal bracket (left) 1
F Metal bracket (right) 1
G Front legs 2
H Pedal casing 1
I Cross board 1
J Rear board 1



1. Attach the round nuts ① to the side board (A). Using a screwdriver, position the round nuts so that the arrow on the surface of the nut is oriented as shown in the enlarged view of the diagram, and secure the stand base (C) with the screws ⑤. Attach the side board (B) and the stand base (D) in the same way.

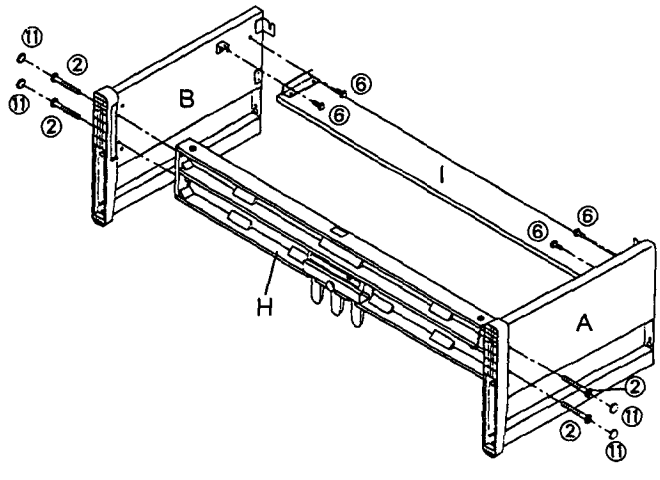
2. Secure the metal bracket (E) to (A) using the screws ⑧. Then secure the metal bracket (F) to (B) in the same way.

3. Using the long black screws ⑦ and the countersunk screws ⑨, secure the front legs (G) to (C) and (E). Then attach (G) to (D) and (F) in the same way.

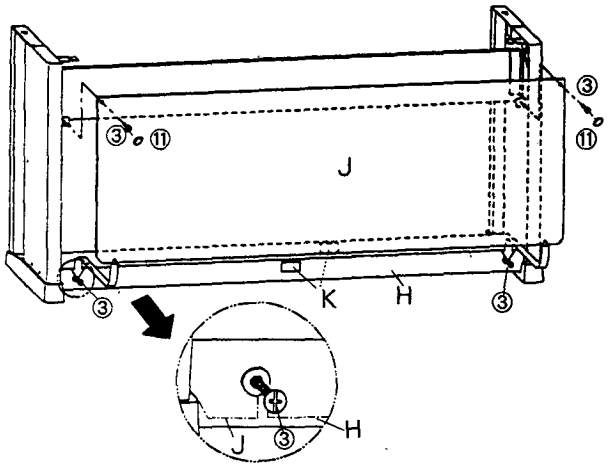


4. Attach the pedal casing (H) to (A) and (B) with ②. (Put the caps ⑪ on after all the screws are tightened.)

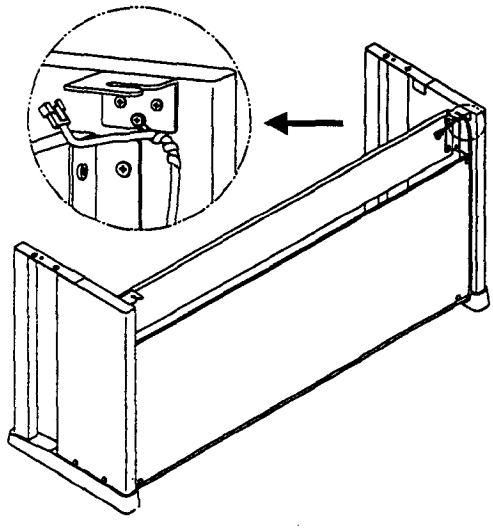
5. Attach Cross board (I) with screws ⑥.



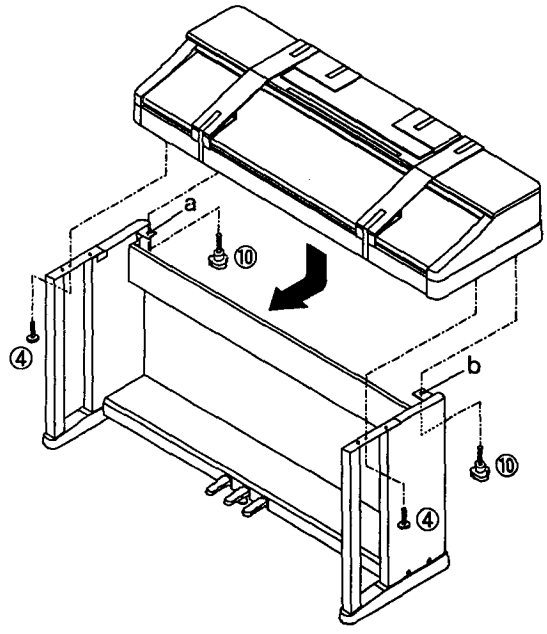
6. Screw the screws ③ about 1 cm into the pedal casing (H). Then set the rear board (J) on top of that and secure it in four places with the screws ③. After the rear board has been secured in place, press lightly on the rear board from the rear, so that it comes in tight contact with the surface fastener (K). (Put the caps ⑪ on after all the screws are tightened.)



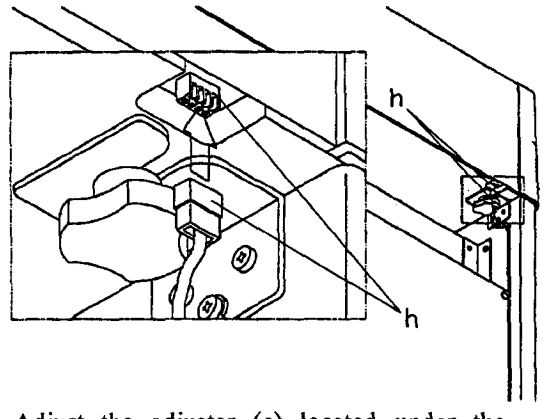
7. Attach the cable as shown in the sketch (make sure there is no slack).



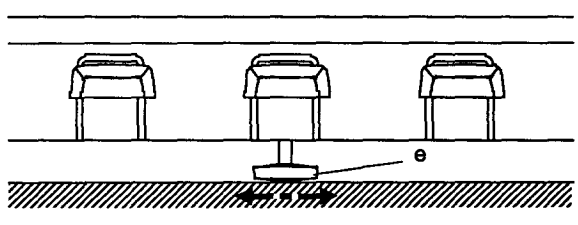
8. Align the main body of the piano with the metal brackets (a) and (b) on top of the side boards. Slide it from the back towards the front, lining up the holes in the metal brackets with the screw-holes in the bottom of the piano. This allows the piano to be held in place by the screws ④ and the knob bolts ⑩ as shown.



9. Insert the connector (h) at the rear of the pedestal into the receptacle on the underside of the piano as shown in the sketch.

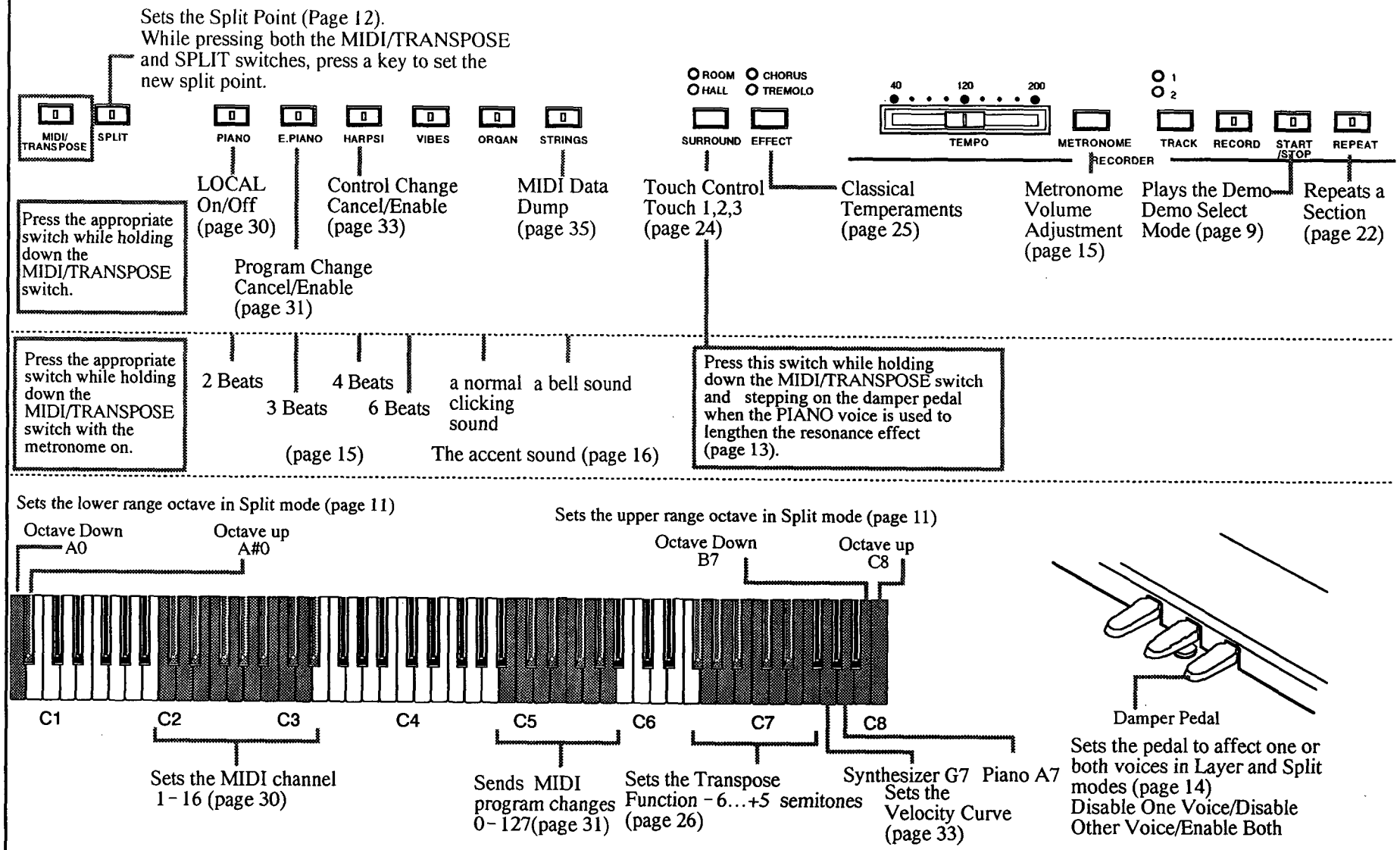


10. Adjust the adjuster (e) located under the pedal casing until it contacts the floor. If it is not correctly adjusted, the sound might be distorted.



- Screws may loosen after long-term use. If you notice that the stand is vibrating excessively, retighten all screws.
- Always retighten all screws before relocating your piano.

The MIDI/TRANSPOSE switch is used to set various functions besides the transpose function and the MIDI mode.



Trouble Shooting

If the following problems develop during normal operation of the instrument, follow the suggestions below and check the unit to identify and correct the problem. If the instrument still does not function properly, consult your dealer or a KORG service center.

Symptom	Correction	Page
The unit does not turn on.	Check if the AC supply cord is properly plugged into the power outlet.	7
No sound	① Check if the master volume is 0. If so, raise the volume to an appropriate level. ② Check if LOCAL is set to OFF in MIDI mode. If so, set LOCAL to ON. ③ Check if a headphone set is plugged into the unit. If so, unplug the headphone set.	7 30 6

Specifications

	C-303	C-505
Keyboard	88 keys (A0 – C8)	
Voices	Six voices: Piano, Electric piano, Harpsichord, Vibraphone, Organ, Strings. (Additional voice: Acoustic bass [available in SPLIT MODE only])	
Polyphony	32	
Effects	Surround (Room, Hall), Effect (Tremolo, Chorus), Brilliance, Resonance Simulation	
Recorder	Maximum 2,600 notes: Tempo, Metronome, Record, Track (1 and 2), Start/Stop, Repeat, (with Bounce function)	
Keyboard modes	Single, Layer, Split, (MIDI Multi)	
Controls	Volume, Brilliance, Power, Key Transpose, Pitch, Touch, Traditional classical music tuning	
Pedal controls	Damper, Soft, Sustenuto	
Connections	Headphones (× 2), AUX IN (L,R), AUX OUT (L,R), MIDI (IN, OUT, THRU)	
Main amplifier	30W × 2	
Speakers	16cm × 2	
Power supply	AC, Local Voltage	
Power consumption	90W	
Color and Grain	Dark wine-red walnut	
Dimensions	1382(W) × 456.5(D) × 818.5(H)mm	1382(W) × 456.5(D) × 838.5(H)mm
Weight (with stand)	55.4kg	60.3kg
Standard Accessories	Music stand, Key cover	

※ Specifications and finish are subject to change without notice for purpose of product enhancement.

C-303, C-505 Owner's Manual

KORG (E) 1

NOTICE

KORG products are manufactured under strict specifications and voltages required by each country. These products are warranted by the KORG distributor only in each country. Any KORG product not sold with a warranty card or carrying a serial number disqualifies the product sold from the manufacturer's/distributor's warranty and liability. This requirement is for your own protection and safety.

KORG

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