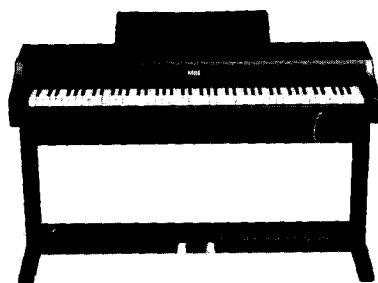


YAMAHA

EC100 *EC100_H*

Digital Piano
Piano Numérique
Digital-Piano
Pianoforte Digitale

CONCERT Series



User's manual
Mode d'emploi
Bedienungseinleitung
Manuale d'istruzioni

ENGLISH
FRANCAIS
DEUTSCH
ITALIANO



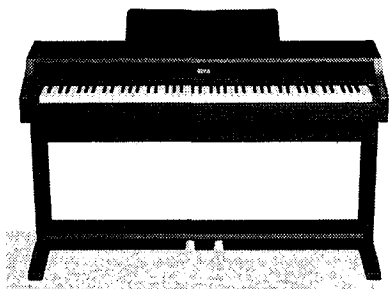
A12 Synthesis System

YAMAHA

EC100
EC100_H

Digital Piano

CONCERT Series



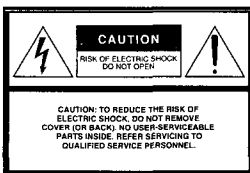
User's Manual

SAFETY PRECAUTIONS

WARNING — When using electrical equipment the following safety precautions should be followed:

1. Read all the instructions before using the product.
2. Do not use this product near water — for example near a bathtub, washbowl, in a damp basement, near a swimming pool or similar.
3. This product should only be used with the cart or stand that has been recommended by the manufacturer.
4. This product, either alone or combined with an amplifier, headphones or speakers, is able to produce sound levels that can cause permanent hearing damage. Do not use it at a high volume level for a long time, or at least not at an uncomfortable level. If you notice any loss of hearing or ringing in the ears, consult an audiologist.
5. Position the product in a place that guarantees sufficient ventilation.
6. The product should be located away from heat sources such as radiators, heaters or other heat producing devices.
7. The product should be connected to a power supply of the type described in the instructions or as marked on the product itself.
8. The power-supply cord should be unplugged from the outlet when the product is left unused for long periods.
9. Do not let objects or liquids drop into the internal part of the product.
10. Go to an authorized service center when:
 - A. The power-supply cord or the plug have 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 be working properly or is showing a marked change in performance, or
 - E. The product has been dropped or its enclosure has been damaged.
11. Do not carry out any maintenance on the product that is not described in the user instructions. All other servicing should only be carried out by authorized service centers.

SAVE THESE INSTRUCTIONS



The lightning flash symbol with an arrowhead inside an equilateral triangle, warns the user about the presence of uninsulated "dangerous voltage" within the product, of sufficient magnitude to constitute the risk of electric shocks.

The exclamation mark inside an equilateral triangle, warns the user about the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

CAUTION - To prevent electric shock, fully insert the plug.

ATTENTION – Pour éviter les chocs électriques, INTRODUIRE la fiche dans la prise et pousser jusqu' au fond.

English

User's Manual



Français

Mode d'emploi



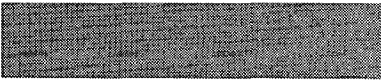
Deutsch

Bedienungseinleitung



Italiano

Manuale d'istruzioni



CE MARK FOR EUROPEAN HARMONIZED STANDARDS

The CE mark that is attached to our company's products of AC mains operated apparatus until December 31, 1996 means it conforms to the EMC Directive (89/336/EEC) and to the CE mark Directive (93/68/EEC).

The CE mark that is attached after January 1, 1997 means it conforms to the EMC Directive (89/336/EEC), to the CE mark Directive (93/68/EEC) and to the Low Voltage Directive (73/23/EEC).

In addition, the CE mark that is attached to our company's products of Battery operated apparatus means it conforms to the EMC Directive (89/336/EEC) and to the CE mark Directive (93/68/EEC).

IMPORTANT NOTICE FOR THE UNITED KINGDOM

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

- the wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
- the wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.
- Do not connect the wire to the earth terminal of a three-pin plug.

DISCLAIMER

The information contained in this manual has been carefully revised and checked through. Due to our constant efforts to improve our products, the specifications might differ to those in the manual. Korg is not responsible for any eventual differences found between the specifications and the contents of the instruction manual - the specifications being subject to change without prior notice

WARRANTY

KORG products are manufactured according to the strictest electrical and mechanical regulations that exist in various countries of the world. These products are warranted by the KORG distributor only in each country. Any KORG product that is not sold with the manufacturer's or distributor's warranty, or without a serial number, cannot benefit from servicing under the warranty. This regulation is for the consumer's own protection.

ASSISTANCE AND SERVICE FOR MUSICIANS

For repairs, contact your nearest Authorized KORG Service Center. For more information on KORG products, and to find software and accessories for your piano, please contact your local Authorized KORG distributor.

KORG ON INTERNET

Home page Korg Italy: "<http://www.korg.it>"

Home page Korg.net: "<http://www.korg.net>"

Home page Korg Inc.: "<http://www.korg.com>"

Copyright © 1997 by KORG Italy Spa.

CONTENTS

	Before you begin	7
1	Panels	8
	Front panel	8
	Connection panel	10
2	Basic functions	11
	Turning the instrument on	11
	Adjusting the volume	11
	Selecting a sound	11
	Selecting a combination of sounds	12
	Choosing the reverb and the chorus	12
	Listening to the Demo	12
	Transpose	13
	The pedals	13
	The metronome	14
3	The recorder	17
	General	17
	Recording	17
	Playback	17
4	Other functions	18
	Touch regulation	18
	Fine tuning	18
	MIDI	19
5	Assembling the stand	22
6	Appendix	27
	Troubleshooting	27
	Technical specifications	28

INTRODUCTION

Before you begin

Location. Do not use or store the instrument in places that are dusty, damp, too hot or cold, in direct sunlight, subject to vibration.

Power. Connect the instrument to an outlet with suitable voltage. (The voltage is indicated on a sticker on the rear part of the instrument). Do not connect the instrument to an outlet where other large machines, or large household electrical appliances are connected. Do not connect too much apparatus to the same outlet.

Volume. Begin playing at a low volume, increase gradually until you get to the required level. Do not keep the volume too high.

Interference. Keep the instrument away from fluorescent lighting and any other sources of static. Do not use the instrument near a radio, television or similar apparatus, so as to avoid interference from the instrument's microprocessor. If the instrument does not seem to be working properly, turn it off for a few seconds and then turn it back on again.

Handle with care. Do not apply any force to the buttons or pedals. Do not drop the instrument.

Cleaning and maintenance. Periodically tighten up the screws of the base and the music stand. Clean the surfaces with a soft dry cloth. Do not use abrasive cloths, organic solvents or inflammable liquids.

Foreign bodies. Do not place vases, glasses or other kind of containers on the instrument. Infiltration of liquid can cause fire and electric shocks, and may damage the instrument beyond repair. Do not drop metal objects into the instrument, such as pins or coins.

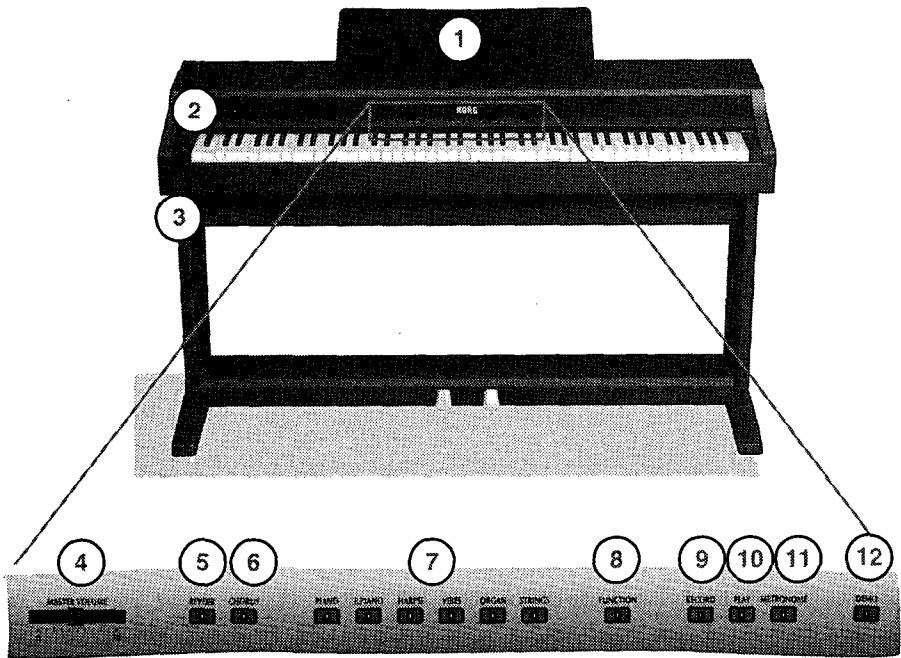
Warning: If one of the above should accidentally happen, turn off the instrument immediately, disconnect the power cable from the outlet, and contact your dealer or KORG Service Center at once.

CHAPTER

1

Panels

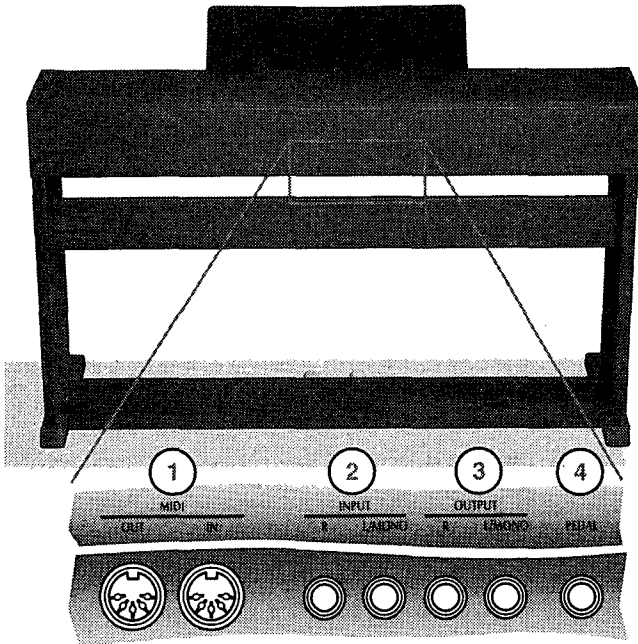
Front panel



- 1 Music stand:** In order to erect the music stand, lift up the metal supports that are located at the back of the stand, and fit them into the metal base, thus forming a triangle.
- 2 POWER:** On/off switch.
- 3 Headphone jacks (underneath):** You can connect two stereo headphones. When you insert headphone plug, the built-in speakers will automatically be deactivated.

- 4 **MASTER VOLUME:** Adjusts the volume.
- 5 **REVERB:** Turns the reverb on/off.
- 6 **CHORUS:** Turns the chorus on/off.
- 7 **Sound selecting buttons:** Press a button to play the indicated sound (SINGLE). Press two buttons together to play two sounds (DUAL).
- 8 **FUNCTION:** Multifunction button to be used in order to modify the transpose and fine tuning functions, to program the MIDI parameters and to carry out other adjustments.
- 9 **RECORD:** Sets the recorder on record. If the led flashes, start playing to begin recording, or press METRONOME to obtain a pre-count measure, and then start recording.
- 10 **PLAY:** Sets the recorder on playback.
- 11 **METRONOME:** Turns the metronome on/off. If the RECORD led is flashing recording will begin after a pre-count measure.
- 12 **DEMO:** Turns the demo mode on/off, to listen to demo pieces. Select the pieces with the sound selecting buttons (7).

Connection panel



- 1 MIDI connectors:** Connectors that are used to connect other MIDI devices (sequencer, keyboards, etc.). OUT: Data output (to be connected to the MIDI IN connector of another MIDI device). IN: Data input (to be connected to the MIDI OUT connector of another MIDI device).
- 2 INPUT connectors:** Audio input. Connect the audio output of another musical instrument or a hi-fi system to these connectors. In order to connect a guitar (or any other instrument with low-level output), connect the guitar to a pre-amplifier or to an effect processor, and then connect this to the INPUT connectors of the EC100. Connect mono instruments to the L/MONO connector.
- 3 OUTPUT connectors:** Audio output. Connect these connectors to an external amplifying system. (With a hi-fi system use the AUX or TAPE connectors, not the PHONO connector). To amplify the piano in mono, connect the single L/MONO connector.
- 4 PEDAL:** Connect the pedal switch cable plug to this connector.

Basic functions

Turning the instrument on

Insert the plug into the power outlet and press the POWER switch. When the instrument is on the leds on the control panel will light up. To turn the instrument off press the POWER switch again.

Adjusting the volume

Move the MASTER VOLUME slider towards the right to increase the volume; towards the left to decrease the volume. The maximum is “10”; the minimum (silence) is “0”. This control adjusts the output level of the built-in speakers, of the headphones and of the OUTPUT.

Note: It is always better to start off with a low volume and then increase gradually – in particular when the instrument is amplified externally.

Selecting a sound

Press one of the sound selecting buttons in order to choose the sound.

PIANO	Acoustic stereo piano
E.PIANO	Synthetic electric piano
HARPSI	Classical harpsichord
VIBES	Jazz vibes
ORGAN	Pipe organ
STRINGS	String section

If you only press one button, one sound will be selected (SINGLE mode). If you press two buttons together, two sounds will be selected (DUAL mode).

The piano and organ have 16-note polyphony. All the other sounds have 32-note polyphony. DUAL mode reduces the polyphony, according to the sounds selected.

Selecting a combination of sounds

There are two possible combinations of sounds: SINGLE and DUAL modes. Press a sound selecting button to select only one sound (SINGLE mode).

Press two of the sound selecting buttons together to select two sounds (DUAL mode). Press only one of the sound selecting buttons in order to get back to the SINGLE mode with the sound you have selected.

Adjusting the volume of sounds in DUAL. To adjust the balance between the sounds in DUAL, keep the button of the sound you wish to lower pressed down, and press the button repeatedly of the sound you wish to raise the volume of.

Choosing the reverb and the chorus

The EC100 has two effects: reverb and chorus. The reverb simulates the sound reverberation in a room, while the chorus reproduces an electronically obtained modulating effect.

Turn the REVERB led on to activate the reverb function, the CHORUS led to activate the chorus function. You can have a different combination of reverb and chorus for each of the sounds (e.g., only reverb for the PIANO and both reverb and chorus for the E.PIANO).

Listening to the Demo

The piano contains six pre-recorded demo pieces.

- 1 Press the DEMO button. The sound selection buttons led will light up, thus indicating the possibility of selecting a demo.
- 2 After about two seconds, the first demo will start to be played back. If you wish to start from a different demo, press the corresponding button within the two-second wait. The demo will be played back one after the other, starting from the one that has been selected.

Button	Demo
PIANO	F. Mendelssohn-Bartholdy: Prelude op.104a no.2
E.PIANO	G. Paradisi: Toccata in A major
HARPSI	S. Joplin: Rag Time
VIBES	J.S. Bach: Prelude in C major (by an Equal Tempered Harpsichord)

Button	Demo
ORGAN	W.A. Mozart: Turkish march (from the Sonata A major)
STRINGS	KORG Original (M. Tempia): Rubber Bob

- 3 Press DEMO to exit from the demo mode.

Transpose

You can transpose the pitch of the instrument by one or more semitones higher or lower. Transposing allows you to tune the piano to another instrument, or to simplify the performance of songs with too many alterations.

- 1 Press the FUNCTION button; its led will begin flashing.
- 2 Press the key on keyboard that corresponds to the transpose you wish to carry out (see table). The FUNTION led will remain lit up, to indicate that the transpose function is active.
- 3 To get back to standard pitch, press FUNCTION to turn the led off.



Key	Effect
F#5 — B5	6 — 1 semitones below
C6	Standard pitch
C#6 — F6	1 — 5 semitones higher

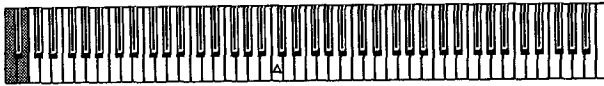
The pedals

The EC100 has two pedals, the left for the soft pedal effect and the right for the damper or sostenuto effect.

Choosing the right-pedal effect. The right-pedal is programmable. When turning the instrument on, it always functions with the damper effect. It can however be programmed to function with the sostenuto effect.

- 1 Press the FUNCTION button; its led will begin flashing.
- 2 Press the key on the keyboard that corresponds to the effect you wish to use (see

table). The FUNTION led will go off.



Key	Effect
A0	Damper
B0	Sostenuto

Soft effect. The left pedal corresponds with the soft pedal of an acoustic piano. On an acoustic piano, when you press this pedal the sound becomes softer, as the hammers only hit one string.

Damper. The right-pedal corresponds with the damper or “forte” pedal of an acoustic piano. On an acoustic piano when you press this pedal, the pads (dampers) that dampen the vibrations of the strings are lifted. The strings of the notes that are, and are not played can therefore vibrate freely. When the pedal is released the pads are lowered again and the strings of the notes that are not played stop vibrating.

Sostenuto. The right-pedal could be considered as the sostenuto pedal on a grand piano. On an acoustic piano, when you press this pedal the pads (dampers) are lifted from the notes that are playing when the pedal is pressed. This causing some strings to vibrate freely, whereas others are made to vibrate and then dampened again when the key is released.

The metronome

The EC100 incorporates a metronome, with which you can set the tempo during practice.

Note: You can only hear the metronome tick on the built-in speakers or headphones.

Starting the metronome. Press METRONOME to make the metronome start or stop. When turning on, the metronome is set at 120, but you can adjust it with the procedure described below. After having listened to the demo, the tempo will be of the last demo that had been listened to.

Adjusting the metronome volume. While the metronome is working, keep the FUNCTION button pressed and press RECORD repeatedly to lower the volume, or PLAY to raise it.

Adjusting the tempo. Keep the METRONOME button pressed and keep the RECORD button pressed to slow it down gradually, or PLAY to speed it up gradually.

Selecting a predetermined tempo. Keep the METRONOME button pressed, and press RECORD repeatedly to slow it down, or PLAY to speed it up. Each time you press a predetermined tempo will be selected:

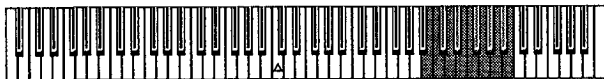
40←60←70←80←100←120→150→180→210→240

Indicating the tempo number value. In order to indicate the exact tempo number value, follow this procedure.

- 1 Press and keep pressed down the METRONOME button.
- 2 Press the B5 (“Activate numbers”) key on the keyboard.
- 3 Choose a three-digit number by using the appropriate keys (see table). Before a two-digit number put a “0”.

Example: To choose a tempo of 168 select 1, 6, 8. To choose a tempo of 85 select 0, 8, 5.

- 4 Press the B6 (“Confirm”) key on the keyboard.
- 5 Release the METRONOME button.



Key	Number	Key	Number
C6	0	C#6	1
D6	2	D#6	3
E6	4	F6	5
F#6	6	G6	7
G#6	8	A6	9
B5	ACTIVATE NUMBERS	B6	CONFIRM

Getting back to 120 tempo. Keep the METRONOME button pressed down, and press RECORD and PLAY together.

Selecting the time signature. While the metronome is working, keep the METRONOME button pressed down and press the button that corresponds to the time signature you wish to use (see table). The first movement of the measure will be stressed. To deactivate the stress, keep METRONOME pressed down and press PIANO.

Button	Time signature
PIANO	No stress
E.PIANO	2 movements (2/4, 2/8...)
HARPSI	3 movements (3/4, 3/8...)
VIBES	4 movements (4/4, 4/8...)
ORGAN	5 movements (5/4, 5/8...)
STRINGS	6 movements (6/4, 6/8...)

The recorder

General

The recorder allows you to record a musical piece. During playback of the recorded piece you can play the keyboard. This function is very useful while you are practicing: for example, you can record the left hand and practice the right hand “live”.

Thanks to the metronome of the EC100, you can record a difficult piece slowly, and then speed up the tempo to listen to it with a faster tempo.

Recording

- 1 Press **METRONOME** if you wish to record with the metronome. Program the metronome (tempo, time signature) as explained in the previous chapter.
- 2 Press **RECORD**. The recorder will be turned on, the button led will start flashing.
- 3 Begin playing, and the recorder will start recording. Otherwise, press **METRONOME** and wait for a one measure pre-count before recording begins. During recording, the **RECORD** led will remain on.
- 4 When recording has stopped, press **RECORD** to turn the recorder off. The button led will go off.

Playback

- 1 Press **PLAY** to start playback of the piece. The button led will go on.
- 2 Press **PLAY** again to stop playback. The button led will go off.

Other functions

Touch regulation

The keyboard sensitivity, or touch, can be programmed.

- 1 Press FUNCTION; its led will start flashing.
- 2 Press the key that corresponds to the value you wish to use (see table). The FUNCTION led will go off.



Key	Touch sensitivity
D2	Light
E2	Normal
F2	Heavy

Fine tuning

In order to adapt the EC100 pitch to that of another instrument, you can adjust the pitch in micro-intervals, that is to say, brief intervals called cents or semitone hundredths. It is possible to adjust the pitch up to a maximum of 50 cents above or below standard pitch.

- 1 Press FUNCTION; its led will start flashing.
- 2 Press the D5 key on the keyboard to raise the pitch by 1 cent, or B4 to lower the pitch by 1 cent. Each time the button is pressed, the pitch will be raised or lowered by 1 cent. To get back to the standard pitch, press the C5 key.

- 3 Press **FUNCTION** again to turn off its led.



The pitch will go back to standard level (A4 = 440Hz) when the instrument is turned off, then on again.

MIDI

What is MIDI? MIDI, is the abbreviation of Musical Instrument Digital Interface. It is an international standard that was created to connect and transfer data between electronic musical instruments, computers and other devices.

What can you do with MIDI? Thanks to MIDI, you can use the EC100 to control other instruments, use other instruments to control the EC100, use a sequencer to create complex musical pieces.

When you use the EC100 keyboard or pedals, or select a sound, the notes, pedal activation and change in sound are transmitted to another instrument, or are recorded by a sequencer.

Connecting. Always connect the MIDI OUT connector of the instrument to the MIDI IN connector of another instrument. Never connect two connectors of the same instrument to each other.

To connect the EC100 to a computer, you need a MIDI interface for the computer, sequencing or musical notation software, and two Standard MIDI cables. Connect the EC100 MIDI OUT connector to the MIDI IN connector of the computer. Connect the EC100 MIDI IN connector to the MIDI OUT connector of the computer.

Standard MIDI settings. When turning the instrument on, the MIDI parameters of the EC100 are programmed as follows:

Parameter	Setting
Transmission and reception channel	1
Reception on 16 channels	OFF
Local	ON
Omni	OFF

Selecting the transmission and reception channel. The standard MIDI has 16 separate channels available for transmission and reception of data. To transmit and

receive data from the EC100, you need to choose which of the 16 channels you wish to transmit and receive data on.

- 1 Press the FUNCTION button; its led will start flashing.
- 2 Press the key that corresponds to the MIDI channel you wish to use (see table). The FUNCTION led will go off.



Key	Selected channel
C3 — D#4	Channel 1 — Channel 16

Omni On/Off. The Omni function allows you to receive data from any MIDI channel.

- 1 Press the FUNCTION button; its led will start flashing.
- 2 Press the key that corresponds to the setting you wish to use (see table). The FUNCTION led will go off.



Key	Omni
E1	OFF (EC100 will only receive on one MIDI channel)
F1	ON (EC100 will receive on all MIDI channels)

Local On/Off. Local is the parameter that allows you to establish whether the keyboard has to play and transmit MIDI data (Local On), or whether it just has to transmit data and not play (Local Off). Local Off should be chosen when you wish to use the EC100 as a mute keyboard.

For example, when you program a piece on the computer, Local Off lets you send data to the computer without playing the EC100 directly. The computer is responsible for making the other selected instruments play (for example, another keyboard, an expander, or the EC100 itself).

- 1 Press the FUNCTION button; its led will start flashing.
- 2 Press the key that corresponds to the setting you wish to use (see table). The FUNC-

FUNCTION led will go off.



Key	Local
A1	ON (the keyboard will play the EC100 sounds)
G1	OFF (the keyboard will not play the EC100 sounds)

Reception on 16 channels. Via MIDI, the EC100 can receive on 16 MIDI channels at the same time. When reception on 16 channels is active, it is no longer possible to activate the DUAL mode on the keyboard.

- 1 Press the FUNCTION button; its led will start flashing.
- 2 Press the key that corresponds to the setting you wish to use (see table). The FUNCTION led will go off.



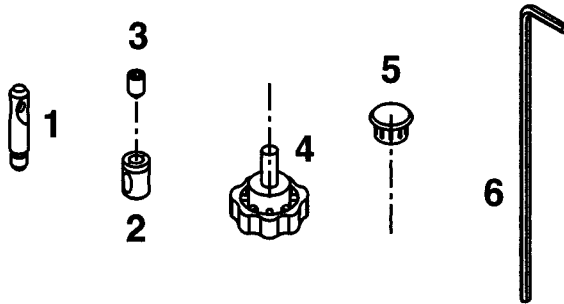
Key	Reception on 16 channels	Dual mode
B1	OFF	ON
C2	ON	OFF

The sound of the EC100 can be selected via MIDI, by sending a Program Change message on the channel where you wish to assign the sound. The table lists the Program Change numbers (numbering from 0-127; if the transmitting device uses numbers from 1-128, you will need to come up a number).

Sound	Program Change (0-127)
PIANO	000
E.PIANO	004
HARPSI	006
VIBES	011
ORGAN	019
STRINGS	048

Assembling the stand

- Open the carton, remove the contents, and check that all the items listed below are present.
- Assemble the stand in the sequence given in the instructions, taking care that each part is correct and correctly positioned.
- Two people are needed to assemble the stand. In particular when tightening the screws to fasten large components, one person is needed to support the component while the other person tightens the screws. Also be particularly careful when placing the instrument upright during assembly. The instrument and stand are heavy, and must be supported firmly during assembly to avoid placing undue strain on the screws or screw-holes, overturning, or causing damage or injury.



List of parts

1	Threaded flared studs with transverse hole	× 8
2	Threaded bushings with transverse hole	× 8
3	Allen screws	× 8
4	Knob bolts	× 5
5	Caps	× 4

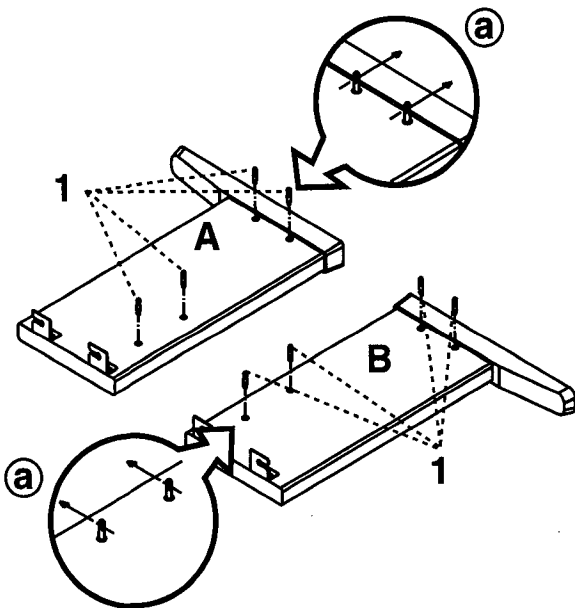
List of parts

6 Allen wrench

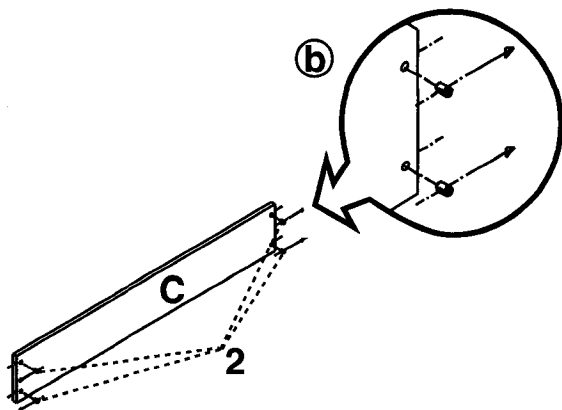
× 1

Preparing the side panels. Take the two side panels (A) and (B) and lay them down on the packaging cardboard. Screw the eight studs (1) into the threaded bushings which are already placed on the two side panels. Make sure that the holes are perfectly orientated (see direction of arrows in diagrams

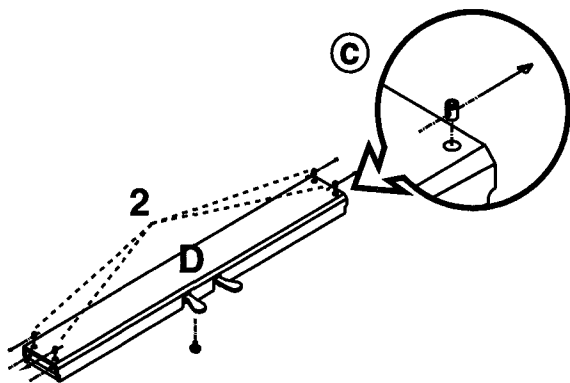
(a)). It is not necessary to tighten the studs (1).



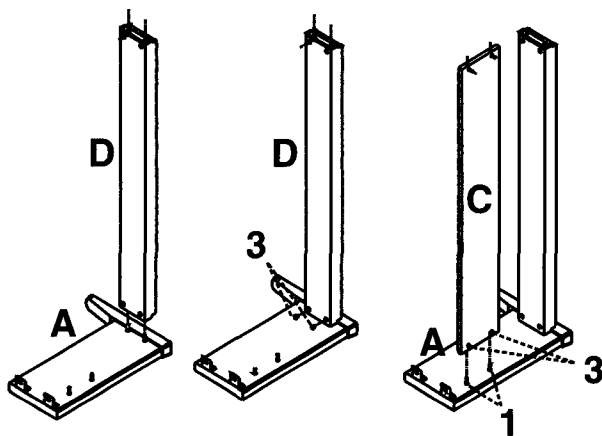
Preparing the rear panel. Take the rear panel (C) and insert four threaded bushings (2), so that the transverse holes of the bushings (2) line up with the holes in the wood (see direction of arrows in diagram (b)).



Preparing the pedal stand. Take the pedal stand (D) and insert the remaining four threaded bushings (2), so that the transverse holes of the bushings (2) line up with the holes in the wood (see direction of arrows in diagram (C)). Screw the knob bolt (4) into the threaded hole underneath the metal support of the pedals.

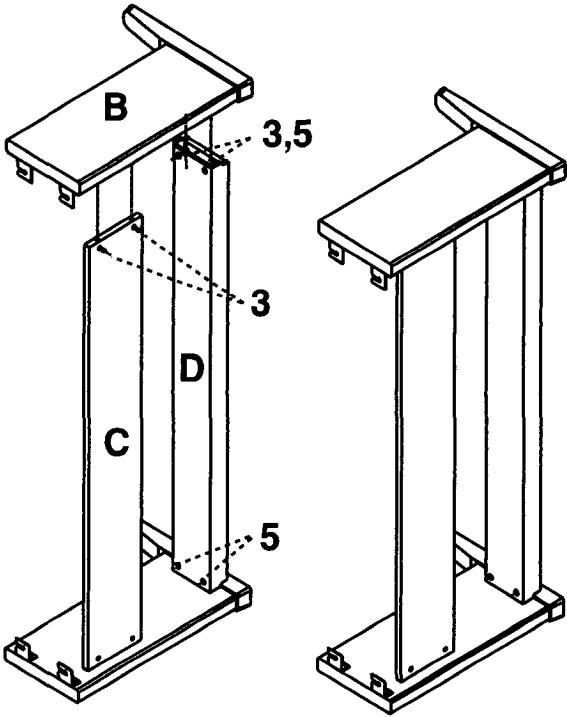


Assembling the stand. Attach the pedal stand (D) to the right side panel (A), inserting the two studs of the side panel (A) into the holes of the pedal stand (D). Screw the two allen screws (3) into the two bushings of the pedal stand (D), and loosely tighten them using the allen wrench (6).

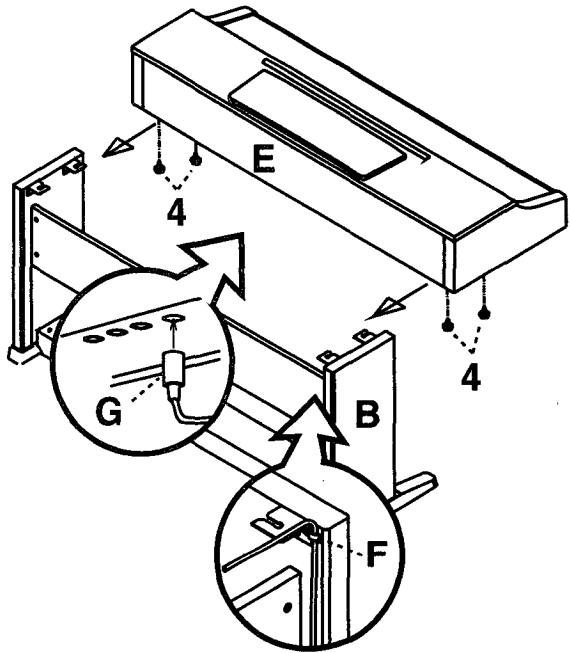


Assembling the rear panel. Attach the rear panel (C), lining up the holes on the shorter side of the rear panel (C) with the threaded studs (1) of the right side panel (A). Screw the allen screws (3) into the bushings (2).

Finishing the assembly of the stand. Attach the left side panel (B) to the pedal stand (D) and to the rear panel (C), then screw the remaining four allen screws (3) into the remaining threaded bushings (2). Tighten up all the screws with the allen wrench (6). Insert the four plastic caps (5) in the holes of the upper part of the pedal stand, in order to cover them.



Installing the upper part of the piano. Insert the four knob-bolts (4) into the four bushings situated on the bottom of the top part (E) of the instrument, without tightening them up. Take the top part (E) of the instrument and put it together with the bottom part, letting the knob-bolts slide into the metal slots of the base. Tighten up the four knob-bolts (4)



Connecting the pedals. Fix the pedal cable to the clamp (F) of the left side panel (B). Then insert the pedal connector (G). Point the arrow symbol of the connector toward the front of the piano, and insert it carefully.

Final positioning of the instrument. After having moved the instrument to the place where it will be played, adjust the knob underneath the pedal stand so that it rests on the ground, to avoid bending down the pedal stand when pressing pedals.

Warning: As you continue using the piano for an extended period of time, the screws in various parts of the stand may gradually loosen, causing the stand to sway. If this happens, be sure to re-tighten all screws before continuing use. Continuing to use the piano with loosened screws is very dangerous, since this can result in damage to the stand or in the stand tipping over. Likewise, re-tighten all screws before moving the piano to a different location.

Warning: When moving the piano to a different location, dragging it will scratch the floor. Make sure that two or more people to lift the piano if it must be moved.

Warning: Using the piano with the power cable squashed under the bottom panel, pedal stand, or feet, etc. is extremely hazardous. Be very careful not to allow any heavy object to stand on the power cable.

Appendix

Troubleshooting

If during use any of the following problems should occur, carefully examine the instrument to see if you can find out what the problem is, and try resolving it by following the suggestions below. If the instrument will still not function properly refer to your dealer or to an Authorized KORG Service Center.

Problem	Possible remedy	Page
The instrument will not turn on.	Check that the power cable is correctly inserted in the outlet.	7
No sound.	(1) Make sure that the volume is not set on 0. If it is, bring it up to an adequate level.	11
	(2) Make sure that the Local function is not set on OFF. If it is, set it onto ON (or turn the instrument off and then on again).	20
	(3) Make sure that the headphone jack is not inserted. If it is, take it out of the piano connector.	8

Technical specifications

Specifications	EC100	EC100H
Specifications	88 notes, velocity sensitive	88 notes with hammer simulation, velocity sensitive
Touch regulation	Light, Normal, Heavy	
Sound generation	ai-squared Synthesis System	
Polyphony	32 note (max)	
Sounds	6 sounds in ROM: Stereo Piano, Electric Piano, Harpsichord, Vibraphone, Organ, Strings	
Effects	Reverb, Chorus	
Recorder	1 track, 4.000 event, Play and Record controls	
Demo	6 incorporated demo	
Metronome	Tempo, Time signature and Volume controls	
Pedal	2 pedals: Damper or Sostenuato, Soft	
Connections	Audio output (OUTPUT L/MONO, R), Audio input (INPUT L/MONO, R), Headphones x 2, MIDI (IN, OUT)	
Controls	Master Volume, Power switch, Transpose, Fine tuning	
Amplifier	14 W × 2	
Speakers	13 cm × 2	
Power	AC, local voltage	
Consumption	40 W	
Dimensions (W x D x H)	54.3 x 18.8 x 32 inch (1380 x 480 x 815 mm)	
Weight (including base)	106lbs (48 kg)	113.5lbs (51.5kg)
Color	Red wine rosewood	



KORG

Address

KORG ITALY Spa
Via Cagiata, 85
I-60027 Osimo (An)
Italy

Web servers

www.korg.it
www.korg.net
www.korg.com

**LE
RO
K**

EC120

Digital Piano
Piano Numérique
Digital-Piano
Pianoforte Digitale

CONCERT Series

User's manual
Mode d'emploi
Bedienungseinleitung
Manuale d'istruzioni

ENGLISH
FRANCAIS
DEUTSCH
ITALIANO



AI2 Synthesis System

KORU

EC120

Digital Piano

CONCERT Series

User's Manual

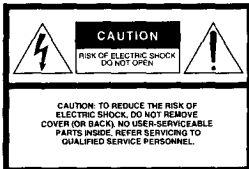
Instructions pertaining to a risk of fire, electric shock, or injury to persons

SAFETY PRECAUTIONS

WARNING — When using electrical equipment the following safety precautions should be followed:

1. Read all the instructions before using the product.
2. Do not use this product near water — for example near a bathtub, washbowl, in a damp basement, near a swimming pool or similar.
3. This product should only be used with the cart or stand that has been recommended by the manufacturer.
4. This product, either alone or combined with an amplifier, headphones or speakers, is able to produce sound levels that can cause permanent hearing damage. Do not use it at a high volume level for a long time, or at least not at an uncomfortable level. If you notice any loss of hearing or ringing in the ears, consult an audiologist.
5. Position the product in a place that guarantees sufficient ventilation.
6. The product should be located away from heat sources such as radiators, heaters or other heat producing devices.
7. The product should be connected to a power supply of the type described in the instructions or as marked on the product itself.
8. The power-supply cord should be unplugged from the outlet when the product is left unused for long periods.
9. Do not let objects or liquids drop into the internal part of the product.
10. Go to an authorized service center when:
 - A. The power-supply cord or the plug have 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 be working properly or is showing a marked change in performance, or
 - E. The product has been dropped or its enclosure has been damaged.
11. Do not carry out any maintenance on the product that is not described in the user instructions. All other servicing should only be carried out by authorized service centers.

SAVE THESE INSTRUCTIONS



The lightning flash symbol with an arrowhead inside an equilateral triangle, warns the user about the presence of uninsulated “dangerous voltage” within the product, of sufficient magnitude to constitute the risk of electric shocks.

The exclamation mark inside an equilateral triangle, warns the user about the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

CAUTION – To prevent electric shock, fully insert the plug.

ATTENTION – Pour éviter les chocs électriques, INTRODUIRE la fiche dans la prise et pousser jusqu'au fond.

CE MARK FOR EUROPEAN HARMONIZED STANDARDS

The CE mark that is attached to our company's products of AC mains operated apparatus until December 31, 1996 means it conforms to the EMC Directive (89/336/EEC) and to the CE mark Directive (93/68/EEC).

The CE mark that is attached after January 1, 1997 means it conforms to the EMC Directive (89/336/EEC), to the CE mark Directive (93/68/EEC) and to the Low Voltage Directive (73/23/EEC).

In addition, the CE mark that is attached to our company's products of Battery operated apparatus means it conforms to the EMC Directive (89/336/EEC) and to the CE mark Directive (93/68/EEC).

IMPORTANT NOTICE FOR THE UNITED KINGDOM

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

- the wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
- the wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.
- Do not connect the wire to the earth terminal of a three-pin plug.

DISCLAIMER

The information contained in this manual has been carefully revised and checked through. Due to our constant efforts to improve our products, the specifications might differ to those in the manual. KORG is not responsible for any eventual differences found between the specifications and the contents of the instruction manual - the specifications being subject to change without prior notice

WARRANTY

KORG products are manufactured according to the strictest electrical and mechanical regulations that exist in various countries of the world. These products are warranted by the KORG distributor only in each country. Any KORG product that is not sold with the manufacturer's or distributor's warranty, or without a serial number, cannot benefit from servicing under the warranty. This regulation is for the consumer's own protection.

ASSISTANCE AND SERVICE FOR MUSICIANS

For repairs, contact your nearest Authorized KORG Service Center. For more information on KORG products, and to find software and accessories for your piano, please contact your local Authorized KORG distributor.

KORG ON INTERNET

Home page KORG Inc.: "<http://www.korg.co.jp>"

Home page KORG USA.: "<http://www.korg.com>"

Home page KORG Italy: "<http://www.korg.it>"

Copyright © 2000 by KORG Italy Spa.

CONTENTS

	Before you begin	7
2	Panels	8
	Front panel	8
	Connection panel	10
3	Basic functions	11
	Turning the instrument on	11
	Adjusting the volume	11
	Selecting a sound	11
	Selecting a combination of sounds	12
	Choosing the reverb and the chorus	12
	Listening to the Demo	12
	Transpose	13
	The pedals	13
	The metronome	14
4	The recorder	17
	General	17
	Recording	17
	Playback	17
5	Other functions	19
	Touch regulation	19
	Fine tuning	19
	MIDI	20
6	Assembling the stand	23
	Check after assembly	29
	Caution	29
7	Appendix	30
	Troubleshooting	30
	Technical specifications	31

INTRODUCTION

Before you begin

Location. Do not use or store the instrument in places that are dusty, damp, too hot or cold, in direct sunlight, subject to vibration.

Power. Connect the instrument to an outlet with suitable voltage. (The voltage is indicated on a sticker on the rear part of the instrument). Do not connect the instrument to an outlet where other large machines, or large household electrical appliances are connected. Do not connect too much apparatus to the same outlet.

Volume. Begin playing at a low volume, increase gradually until you get to the required level. Do not keep the volume too high.

Interference. Keep the instrument away from fluorescent lighting and any other sources of static. Do not use the instrument near a radio, television or similar apparatus, so as to avoid interference from the instrument's microprocessor. If the instrument does not seem to be working properly, turn it off for a few seconds and then turn it back on again.

Handle with care. Do not apply any force to the buttons or pedals. Do not drop the instrument.

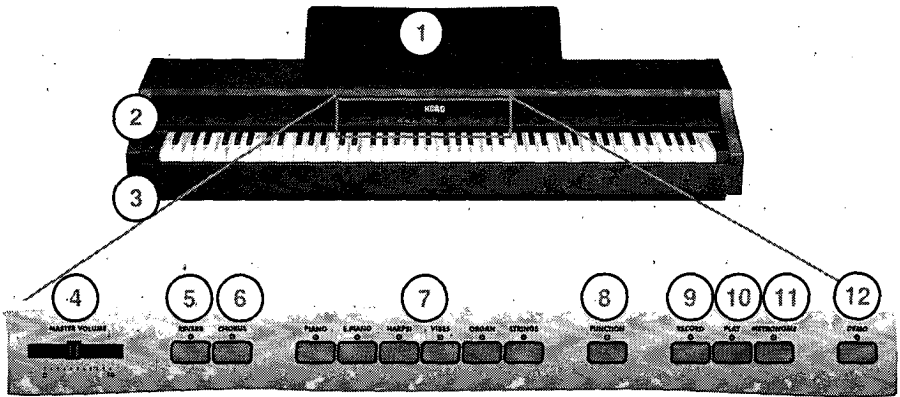
Cleaning and maintenance. Periodically tighten up the screws of the base and the music stand. Clean the surfaces with a soft dry cloth. Do not use abrasive cloths, organic solvents or inflammable liquids.

Foreign bodies. Do not place vases, glasses or other kind of containers on the instrument. Infiltration of liquid can cause fire and electric shocks, and may damage the instrument beyond repair. Do not drop metal objects into the instrument, such as pins or coins.

Warning: If one of the above should accidentally happen, turn off the instrument immediately, disconnect the power cable from the outlet, and contact your dealer or KORG Service Center at once.

Panels

Front panel

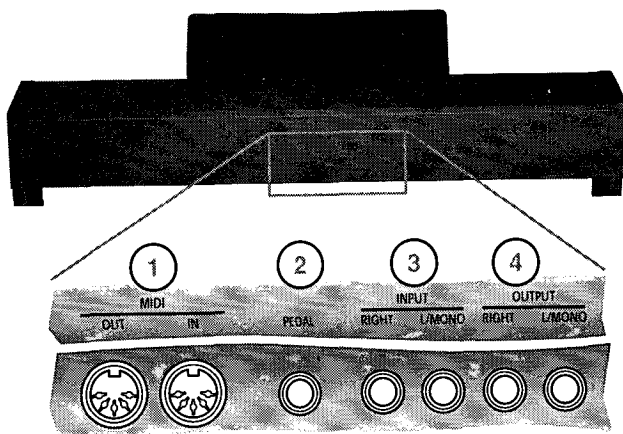


- ① **Music stand:** In order to erect the music stand, lift up the metal supports that are located at the back of the stand, and fit them into the metal base, thus forming a triangle.
- ② **POWER:** On/off switch.
- ③ **Headphone jacks** (underneath): You can connect two stereo headphones. When you insert headphone plug, the built-in speakers will automatically be deactivated.
- ④ **MASTER VOLUME:** Adjusts the volume.
- ⑤ **REVERB:** Turns the reverb on/off.
- ⑥ **CHORUS:** Turns the chorus on/off.
- ⑦ **Sound selecting buttons:** Press a button to play the indicated sound (SINGLE). Press two buttons together to play two sounds (DUAL).

- ⑧ **FUNCTION:** Multifunction button to be used in order to modify the transpose and fine tuning functions, to program the MIDI parameters and to carry out other adjustments.
- ⑨ **RECORD:** Sets the recorder on record. If the LED flashes, start playing to begin recording, or press METRONOME to obtain a pre-count measure, and then start recording.
- ⑩ **PLAY:** Sets the recorder on playback.
- ⑪ **METRONOME:** Turns the metronome on/off. If the RECORD LED is flashing recording will begin after a pre-count measure.
- ⑫ **DEMO:** Turns the demo mode on/off, to listen to demo pieces. Select the pieces with the sound selecting buttons (7).

Connection panel

(Located underneath the instrument)



- ① **MIDI connectors:** Connectors that are used to connect other MIDI devices (sequencer, keyboards, etc.). OUT: Data output (to be connected to the MIDI IN connector of another MIDI device). IN: Data input (to be connected to the MIDI OUT connector of another MIDI device).
- ② **PEDAL:** Connect the pedal switch cable plug to this connector.
- ③ **INPUT connectors:** Audio input. Connect the audio output of another musical instrument or a hi-fi system to these connectors. In order to connect a guitar (or any other instrument with low-level output), connect the guitar to a pre-amplifier or to an effect processor, and then connect this to the INPUT connectors of the EC120. Connect mono instruments to the L/MONO connector.
- ④ **OUTPUT connectors:** Audio output. Connect these connectors to an external amplifying system. (With a hi-fi system use the AUX or TAPE connectors, not the PHONO connector). To amplify the piano in mono, connect the single L/MONO connector.

Basic functions

Turning the instrument on

Insert the plug into the power outlet and press the POWER switch. When the instrument is on the LEDs on the control panel will light up. To turn the instrument off press the POWER switch again.

Adjusting the volume

Move the MASTER VOLUME slider towards the right to increase the volume; towards the left to decrease the volume. The maximum is “10”; the minimum (silence) is “0”. This control adjusts the output level of the built-in speakers, of the headphones and of the OUTPUT.

Note: It is always better to start off with a low volume and then increase gradually – in particular when the instrument is amplified externally.

Selecting a sound

Press one of the sound selecting buttons in order to choose the sound.

Button	Sound
PIANO	Acoustic stereo piano
E.PIANO	Electric piano
HARPSI	Classical harpsichord
VIBES	Jazz vibes
ORGAN	Pipe organ
STRINGS	String section

If you only press one button, one sound will be selected (SINGLE mode). If you press two buttons together, two sounds will be selected (DUAL mode).

The piano and organ have 16-note polyphony. All the other sounds have 32-note polyphony. DUAL mode reduces the polyphony, according to the sounds selected.

Selecting a combination of sounds

There are two possible combinations of sounds: SINGLE and DUAL modes. Press a sound selecting button to select only one sound (SINGLE mode).

Press two of the sound selecting buttons together to select two sounds (DUAL mode). Press only one of the sound selecting buttons in order to get back to the SINGLE mode with the sound you have selected.

Adjusting the volume of sounds in DUAL. To adjust the balance between the sounds in DUAL, keep the button of the sound you wish to lower pressed down, and press the button repeatedly of the sound you wish to raise the volume of.

Choosing the reverb and the chorus

The EC120 has two effects: reverb and chorus. The reverb simulates the sound reverberation in a room, while the chorus reproduces an electronically obtained modulating effect.

Turn the REVERB LED on to activate the reverb function, the CHORUS LED to activate the chorus function. You can have a different combination of reverb and chorus for each of the sounds (e.g., only reverb for the PIANO and both reverb and chorus for the E.PIANO).

Listening to the Demo

The EC120 contains six pre-recorded demo pieces.

- 1 Press the DEMO button. The sound selection buttons LED will light up, thus indicating the possibility of selecting a demo.
- 2 After about two seconds, the first demo will start to be played back. If you wish to start from a different demo, press the corresponding button within the two-second wait. The LED on the selected demo button will flash, while the other LEDs will turn off. The demo will be played back one after the other, starting from the one that has been selected.

Button	Demo
PIANO	F. Mendelssohn-Bartholdy: Prelude op.104a no.2

Button	Demo
E.PIANO	G. Paradisi: Toccata in A major
HARPSI	S. Joplin: Rag Time
VIBES	J.S. Bach: Prelude in C major (by an Equal Tempered Harpsichord)
ORGAN	W.A. Mozart: Turkish march (from the Sonata A major)
STRINGS	KORG Original (M. Tempia): Rubber Bob

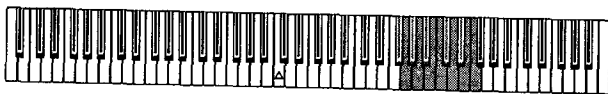
- 3 Press DEMO to exit from the demo mode.

Transpose

You can transpose the pitch of the instrument by one or more semitones higher or lower. Transposing allows you to tune the piano to another instrument, or to simplify the performance of songs with too many accidentals (sharps or flats).

Note: When the instrument is turned on, the transposing is reset.

- 1 Press the FUNCTION button; its LED will begin flashing.
- 2 Press the key on keyboard that corresponds to the transpose you wish to carry out (see table). The FUNCTION LED will remain lit up, to indicate that the transpose function is active.
- 3 To get back to standard pitch, press FUNCTION to turn the LED off.



Key	Effect
F#5 — B5	6 — 1 semitones below
C6	Standard pitch
C#6 — F6	1 — 5 semitones higher

The pedals

The EC120 has two pedals, the left for the soft pedal effect and the right for the damper or sostenuto effect.

Choosing the right-pedal effect. The right-pedal is programmable. When turning the instrument on, it always functions with the damper effect. It can however be programmed to function with the sostenuto effect.

- 1 Press the FUNCTION button; its LED will begin flashing.
- 2 Press the key on the keyboard that corresponds to the effect you wish to use (see table). The FUNTION LED will go off.



Key	Effect
A0	Damper
B0	Sostenuto

Soft effect. The left pedal corresponds with the soft pedal of an acoustic piano. On an acoustic piano, when you press this pedal the sound becomes softer, as the hammers only hit one string.

Damper. The right-pedal corresponds with the damper or “forte” pedal of an acoustic piano. On an acoustic piano when you press this pedal, the pads (dampers) that dampen the vibrations of the strings are lifted. The strings of the notes that are, and are not played can therefore vibrate freely. When the pedal is released the pads are lowered again and the strings of the notes that are not played stop vibrating.

Sostenuto. The right-pedal could be considered as the sostenuto pedal on a grand piano. On an acoustic piano, when you press this pedal the pads (dampers) are lifted from the notes that are playing when the pedal is pressed. This causing some strings to vibrate freely, whereas others are made to vibrate and then dampened again when the key is released.

The metronome

The EC120 incorporates a metronome, with which you can set the tempo during practice.

Starting the metronome. Press METRONOME to make the metronome start or stop. When turning on, the metronome is set at $\text{♩} = 120$, but you can adjust it with the procedure described below. After having listened to the demo, the tempo will be of the last demo that had been listened to.

Adjusting the metronome volume. While the metronome is working, keep the FUNCTION button pressed and press RECORD repeatedly to lower the volume, or PLAY to raise it.

Adjusting the tempo. Keep the METRONOME button pressed and keep the RECORD button pressed to slow it down gradually, or PLAY to speed it up gradually.

Selecting a predetermined tempo. Keep the METRONOME button pressed, and press RECORD repeatedly to slow it down, or PLAY to speed it up. Each time you press a predetermined tempo will be selected:

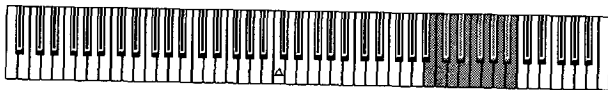
40←60←70←80←100←120→150→180→210→240

Indicating the tempo number value. In order to indicate the exact tempo number value, follow this procedure.

- 1 Keep the METRONOME button pressed down.
- 2 Press the B5 (“Activate numbers”) key on the keyboard.
- 3 Choose a three-digit number by using the appropriate keys (see table). Before a two-digit number put a “0”.

Example: To choose a tempo of ♩ = 168 select 1, 6, 8. To choose a tempo of 85 select 0, 8, 5.

- 4 Press the B6 (“Confirm”) key on the keyboard.
- 5 Release the METRONOME button.



Key	Number	Key	Number
C6	0	C#6	1
D6	2	D#6	3
E6	4	F6	5
F#6	6	G6	7
G#6	8	A6	9
B5	ACTIVATE NUMBERS	B6	CONFIRM

Getting back to ♩ = 120 tempo. Keep the METRONOME button pressed down, and press RECORD and PLAY together.

Selecting the time signature. While the metronome is working, keep the METRONOME button pressed down and press the button that corresponds to the time signature you wish to use (see table). The first movement of the measure will be stressed. To deactivate the stress, keep METRONOME pressed down and press PIANO.

Button	Time signature
PIANO	No stress
E.PIANO	2 movements (2/4, 2/8...)
HARPSI	3 movements (3/4, 3/8...)
VIBES	4 movements (4/4, 4/8...)
ORGAN	5 movements (5/4, 5/8...)
STRINGS	6 movements (6/4, 6/8...)

The recorder

General

The recorder allows you to record a musical piece. During playback of the recorded piece you can play the keyboard. This function is very useful while you are practicing: for example, you can record the left hand and practice the right hand “live”.

Thanks to the metronome of the EC120, you can record a difficult piece slowly, and then speed up the tempo to listen to it with a faster tempo.

Note: When the instrument is turned off, all parameters are reset. The recorded song is, therefore, deleted from the memory.

Recording

- 1 Press METRONOME if you wish to record with the metronome. Program the metronome (tempo, time signature) as explained in the previous chapter.
- 2 Select the sound(s) and effect(s) you wish to play with.
- 3 Press RECORD. The recorder will be turned on, the button LED will start flashing.
- 4 Begin playing, and the recorder will start recording. Otherwise, press METRONOME and wait for a one measure pre-count before recording begins. During recording, the RECORD LED will remain on.
- 5 If needed during recording, select any other sound(s) and effect(s).
- 6 When you have finished recording, press RECORD to turn the recorder off. The button LED will go off.

Playback

- 1 Press PLAY to start playback of the piece. The button LED will go on.
- 2 Press PLAY again to stop playback. The button LED will go off.

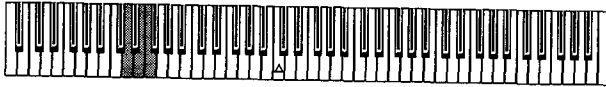
Note: When the memory is nearly full, the RECORD LED starts flashing. When the memory is full, the recording automatically stops, and the LED turns off.

Other functions

Touch regulation

The keyboard sensitivity, or touch, can be programmed.

- 1 Press FUNCTION; its LED will start flashing.
- 2 Press the key that corresponds to the value you wish to use (see table). The FUNCTION LED will go off.



Key	Touch sensitivity
D2	Light
E2	Normal
F2	Heavy

Fine tuning

In order to adapt the EC120 pitch to that of another instrument, you can adjust the pitch in micro-intervals, that is to say, brief intervals called cents or semitone hundredths. It is possible to adjust the pitch up to a maximum of 50 cents above or below standard pitch.

- 1 Press FUNCTION; its LED will start flashing.
- 2 Press the D5 key on the keyboard to raise the pitch by 1 cent, or B4 to lower the pitch by 1 cent. Each time the button is pressed, the pitch will be raised or lowered by 1 cent. To get back to the standard pitch, press the C5 key.

- 3 Press FUNCTION again to turn off its LED.



The pitch will go back to standard level (A4 = 440Hz) when the instrument is turned off, then on again.

MIDI

What is MIDI? MIDI, is the abbreviation of Musical Instrument Digital Interface. It is an international standard that was created to connect and transfer data between electronic musical instruments, computers and other devices.

What can you do with MIDI? Thanks to MIDI, you can use the EC120 to control other instruments, use other instruments to control the EC120, use a sequencer to create complex musical pieces.

When you use the EC120 keyboard or pedals, or select a sound, the notes, pedal activation and change in sound are transmitted to another instrument, or are recorded by a sequencer.

Connecting. Always connect the MIDI OUT connector of the instrument to the MIDI IN connector of another instrument. Never connect two connectors of the same instrument to each other.

To connect the EC120 to a computer, you need a MIDI interface for the computer, sequencing or musical notation software, and two Standard MIDI cables. Connect the EC120 MIDI OUT connector to the MIDI IN connector of the computer. Connect the EC120 MIDI IN connector to the MIDI OUT connector of the computer.

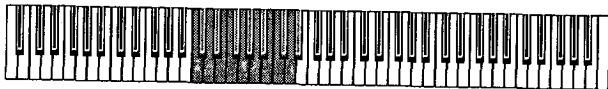
Standard MIDI settings. When turning the instrument on, the MIDI parameters of the EC120 are programmed as follows:

Parameter	Setting
Transmission and reception channel	1
Reception on 16 channels	OFF
Local	ON
Omni	OFF

Selecting the transmission and reception channel. The standard MIDI has 16 separate channels available for transmission and reception of data. To transmit and

receive data from the EC120, you need to choose which of the 16 channels you wish to transmit and receive data on.

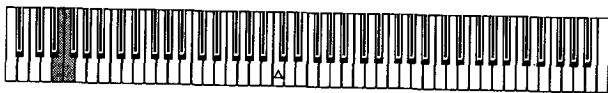
- 1 Press the FUNCTION button; its LED will start flashing.
- 2 Press the key that corresponds to the MIDI channel you wish to use (see table). The FUNCTION LED will go off.



Key	Selected channel
C3 — D#4	Channel 1 — Channel 16

Omni On/Off. The Omni function allows you to receive data from any MIDI channel.

- 1 Press the FUNCTION button; its LED will start flashing.
- 2 Press the key that corresponds to the setting you wish to use (see table). The FUNCTION LED will go off.



Key	Omni
E1	OFF (EC120 will only receive on one MIDI channel)
F1	ON (EC120 will receive on all MIDI channels)

Local On/Off. Local is the parameter that allows you to establish whether the keyboard has to play the internal sounds and transmit MIDI data (Local On), or whether it just has to transmit MIDI data and not play the internal sounds (Local Off). Local Off should be chosen when you wish to use the EC120 as a mute keyboard.

For example, when you program a piece on the computer, Local Off lets you send data to the computer without playing the EC120 directly. The computer is responsible for making the other selected instruments play (for example, another keyboard, an expander, or the EC120 itself).

- 1 Press the FUNCTION button; its LED will start flashing.

- 2 Press the key that corresponds to the setting you wish to use (see table). The FUNCTION LED will go off.



Key	Local
A1	ON (the keyboard will play the EC120 sounds)
G1	OFF (the keyboard will not play the EC120 sounds)

Reception on 16 channels. Via MIDI, the EC120 can receive on 16 MIDI channels at the same time. When reception on 16 channels is active, it is no longer possible to activate the DUAL mode on the keyboard.

- 1 Press the FUNCTION button; its LED will start flashing.
- 2 Press the key that corresponds to the setting you wish to use (see table). The FUNCTION LED will go off.



Key	Reception on 16 channels	Dual mode
B1	OFF	ON
C2	ON	OFF

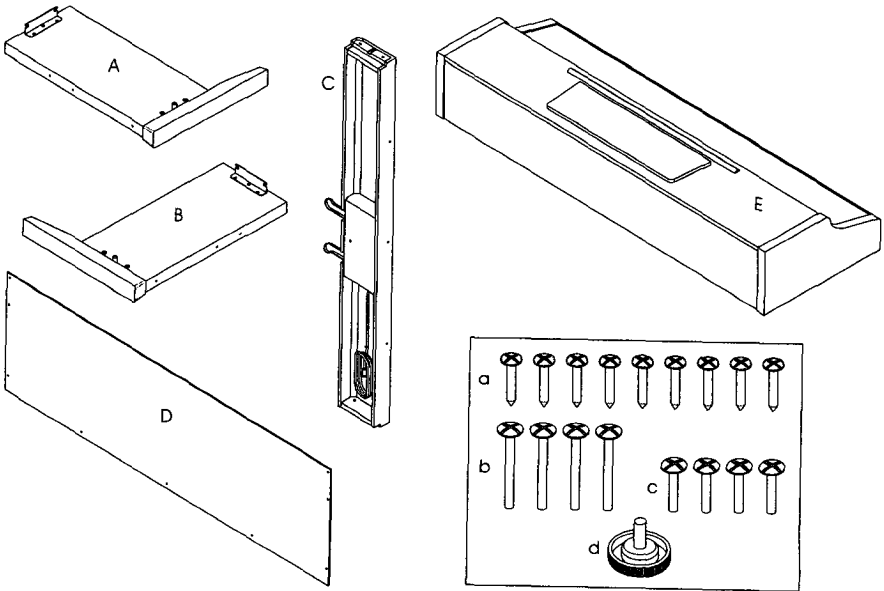
The sound of the EC120 can be selected via MIDI, by sending a Program Change message on the channel where you wish to assign the sound. The table lists the Program Change numbers (numbering from 0-127; if the transmitting device uses numbers from 1-128, you will need to come up a number).

Sound	Program Change (0-127)
PIANO	000
E.PIANO	004
HARPSI	006
VIBES	011
ORGAN	019
STRINGS	048

Assembling the stand

Caution: At least two persons are needed to assemble the stand.

- When placing the piano on the stand, be careful not to pinch your hand.
 - Be sure that the correct parts are assembled in the correct orientation and position, and follow the steps in order.
 - Do not apply weight to the front edge of the piano before tightening the screws, otherwise the piano may fall down.
- 1 Open the packing carton and take out the contents. Check that all of the following items are available.

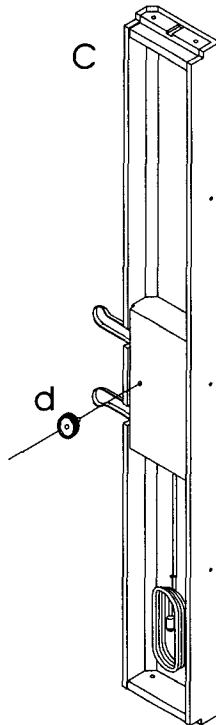


List of parts

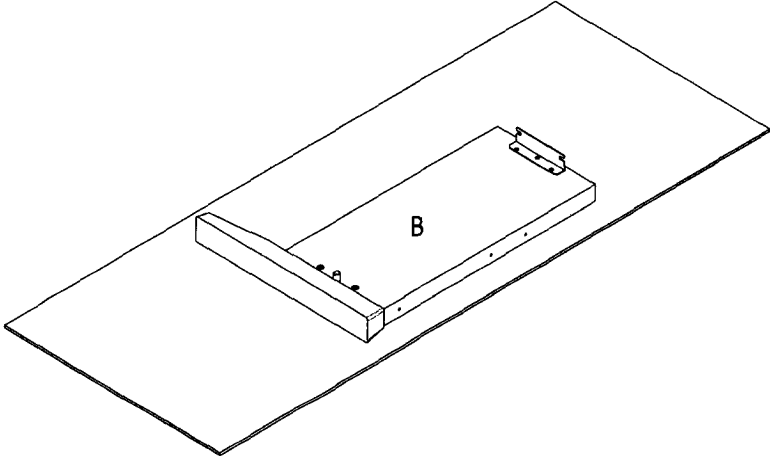
A	Leg panel - Right	× 1
B	Leg panel - Left	× 1
C	Pedal "beam"	× 1
D	Rear panel	× 1
E	Piano (main body)	× 1
a	Wood Screws	× 9
b	Long bolts	× 4
c	Short bolts	× 4
d	Adjuster (supporting the pedal beam)	× 1

NB: You will need a Phillips screwdriver for assembly.

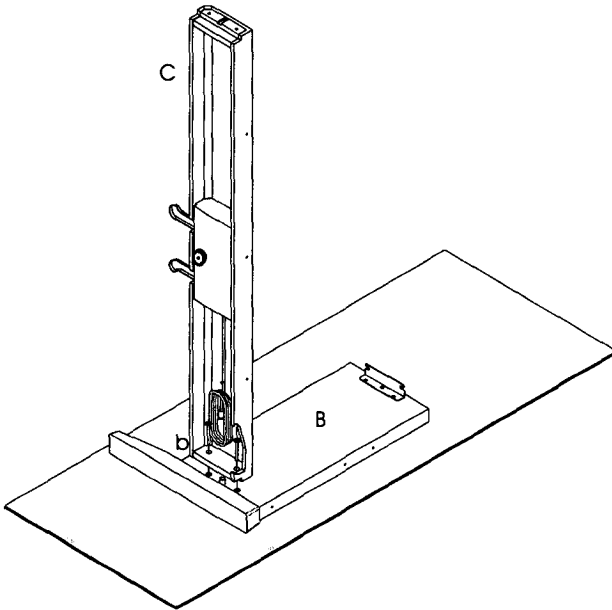
- 2 Insert the adjuster (d) into the pedal beam (C).



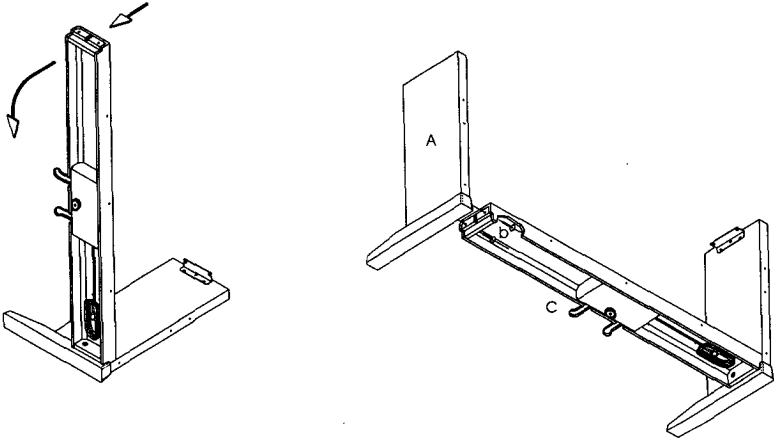
- 3 Lay the two cushion sheets included in the packaging on the ground, and put the left leg panel (B) on it, with the metal guide facing upwards.



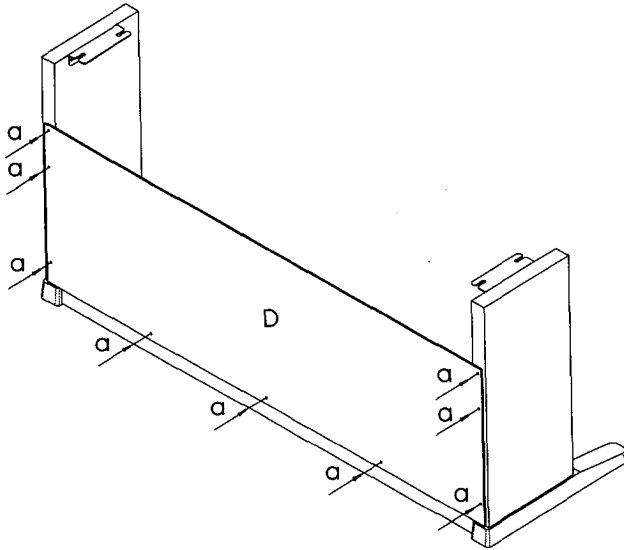
- 4 Fit the pedal beam (C) and the left leg panel (B) together, so that pedal ends direct to the front (see figure). Insert two long bolts (b) into the two holes at the end of the pedal beam, from the inside of it, and tighten up the bolts.



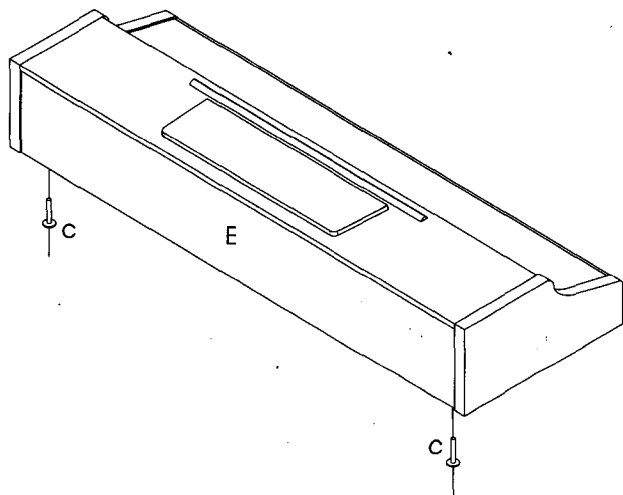
- 5 Place the stand, which is now partially assembled, on the ground, with the outer part of the leg panel resting on the floor. Fit the right side panel (A) to the pedal beam (C). Insert two long bolts (b) into the two holes at the end of the pedal beam, from the inside of it, and tighten up the bolts.



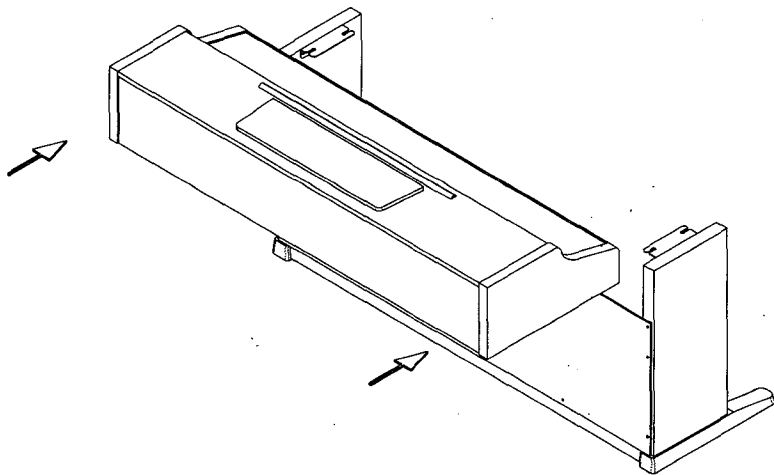
- 6 Turn the stand over so that the feet touch the ground. Fix the rear panel (D) to the stand, with the unpainted side facing the rear part. Attach the rear panel to the unpainted side of the stand, using the nine screws (a).



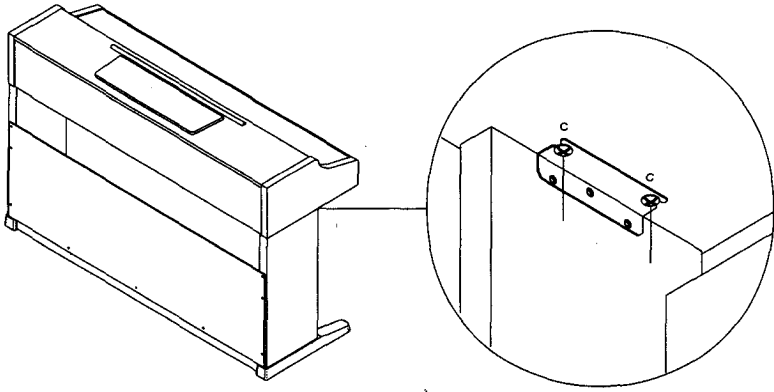
- 7 With two persons, lift the piano (E) in such a way as to be able to get to its bottom part. Screw the short bolts (c) a few millimetres into the two holes near the back of the piano. Leave most of the bolts free (not fully tightened).



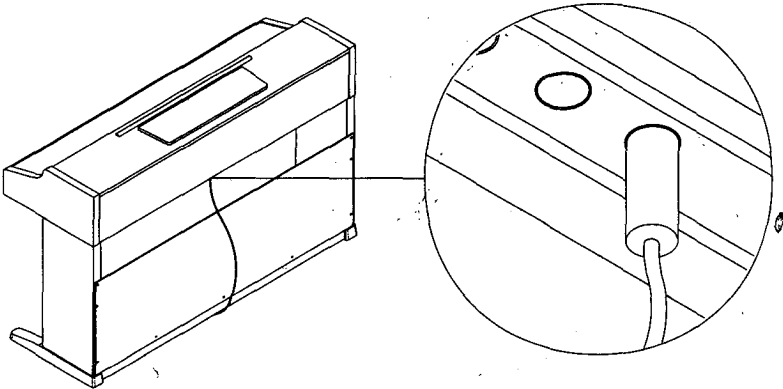
- 8 Lift the piano and fix it to the stand, placing the two bolts, sticking out of the bottom part, into the back of the holes of the stand's metal guides.



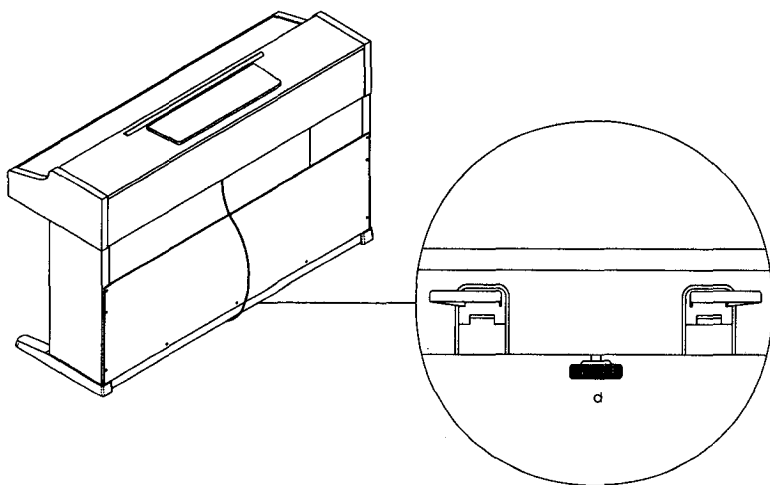
9 Place the remaining two short bolts (c) in the two holes underneath the piano. Tighten up the four bolts.



10 Connect the pedal lead to the piano connector.



- 11 Place the piano in the location where it will be played. Regulate the screwable pedal-adjuster (d) underneath the pedals, so that it touches the ground.



- 12 Tighten and check all the screws and bolts.

Place the piano at a distance from the wall, so that the power supply cable on the back panel is not strained.

Check after assembly

- [•] Are any parts left over?

If any parts are left over, check the diagrams to see where they should be used.

- [•] Make sure that all screws and bolts are tight.

Caution

Caution when transporting the instrument. Remove the piano from its stand, and transport them separately. After transportation, refer to these instructions and re-assemble the piano and stand.

Screw loosening. After assembly, the various screws and bolts of the stand may loosen as time goes by, causing the stand to wobble. If this occurs, re-tighten the screws and bolts.

Disassembly. If you need to pack up the EC120, reverse the assembly order by which the piano was attached to the stand and the stand was assembled. After disassembly, save the screws and other parts so that no parts are lost.

Appendix

Troubleshooting

If during use any of the following problems should occur, carefully examine the instrument to see if you can find out what the problem is, and try resolving it by following the suggestions below. If the instrument will still not function properly refer to your dealer or to an Authorized KORG Service Center.

Problem	Possible remedy	Page
The instrument will not turn on.	Check that the power cable is correctly inserted in the outlet.	7
No sound.	(1) Make sure that the volume is not set on 0. If it is, bring it up to an adequate level.	11
	(2) Make sure that the Local function is not set on OFF. If it is, set it to ON (or turn the instrument off and then on again).	21
	(3) Make sure that the headphone jack is not inserted. If it is, take it out of the headphone connector.	8

Technical specifications

Specifications	EC120
Keyboard	88 notes with hammer action, velocity sensitive
Touch selection	Light, Normal, Heavy
Sound generation	ai-squared Synthesis System
Polyphony	32 notes (max)
Sounds	6 sounds in ROM: Stereo Piano, Electric Piano, Harpsichord, Vibraphone, Organ, Strings
Effects	Reverb, Chorus
Recorder	1 track, 4.000 event, Play and Record controls
Demo	6 incorporated demo songs
Metronome	Tempo, Time signature and Volume controls
Pedal	2 pedals: Damper or Sostenuto, Soft
Connections	Audio output (OUTPUT L/MONO, RIGHT), Audio input (INPUT L/MONO, RIGHT), 2 × Headphones, MIDI (IN, OUT)
Controls	Master Volume, Power switch, Sound selection switches, Effect selection switches, Transpose, Fine tuning, Play, Record
Amplifier	2 × 14 W
Speakers	2 × 13 cm
Power	AC, local voltage
Power consumption	45 W
Dimensions (W x D x H)	54 x 17.2 x 32.5 inch (1370 x 437 x 827 mm)
Weight (including base)	88 lbs (40 kg)



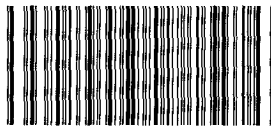
KORG

Address

KORG ITALY Spa
Via Cagiata, 85
I-60027 Osimo (An) - Italy

Web servers

www.korg.co.jp
www.korg.com
www.korg.co.uk
www.korgfr.com
www.jam-industries.com
www.korg.de
www.korg.it



4017269890248

KTBAEC120

PART CODE: MAN0001069 (ENG, FRE, GER, ITL)

© KORG Italy 2000. All rights reserved

EC120

KORG