

Roland

МУЗЦЕНТР
МУЗЫКАЛЬНОЕ ОБОРУДОВАНИЕ
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A-88

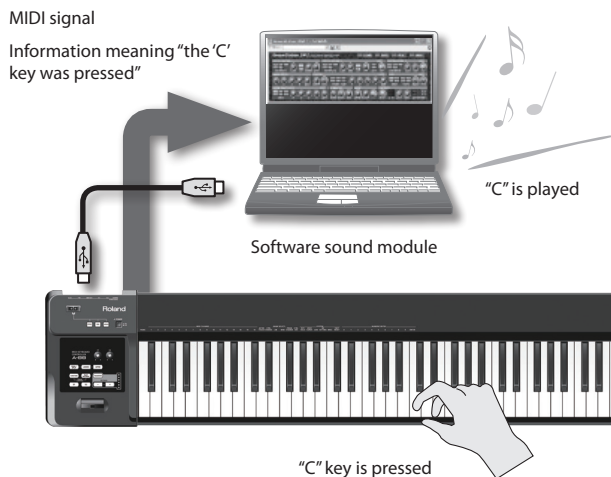
MIDI KEYBOARD CONTROLLER

Owner's Manual

What is MIDI?

MIDI is an internationally recognized standard for exchanging performance information between electronic musical instruments and computers.

For example, in the illustration below, a MIDI signal meaning “the ‘C’ key on the MIDI keyboard was pressed” passes through the A-88 and is received by the computer’s software sound module, and then the software sound module plays the note “C.”



In this way, MIDI is used to send performance information to other instruments; for example “the ‘C’ key was pressed with a certain amount of force,” “the instrument was changed to a violin sound,” “the volume was raised/lowered,” “the pitch was raised/lowered,” etc. In other words, MIDI is the “language of musical instruments.”

MIDI signals are merely performance instructions, therefore a MIDI sound module, such as a software sound module, is required to produce sound.

All software sound modules and DAW (Digital Audio Workstation) software support MIDI.

MEMO

DAW software is a term that refers to music production software, such as SONAR.

NOTE

Do not connect the A-88 to the computer until the driver has been installed (p. 17).

Before using this unit, carefully read the sections entitled: “USING THE UNIT SAFELY” (p. 3) and “IMPORTANT NOTES” (p. 6). These sections provide important information concerning the proper operation of the unit. Additionally, in order to feel assured that you have gained a good grasp of every feature provided by your new unit, Owner’s Manual should be read in its entirety. The manual should be saved and kept on hand as a convenient reference.






USING THE UNIT SAFELY

INSTRUCTIONS FOR THE PREVENTION OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

About ⚠ WARNING and ⚠ CAUTION Notices

⚠ WARNING	Used for instructions intended to alert the user to the risk of death or severe injury should the unit be used improperly.
⚠ CAUTION	Used for instructions intended to alert the user to the risk of injury or material damage should the unit be used improperly. * Material damage refers to damage or other adverse effects caused with respect to the home and all its furnishings, as well to domestic animals or pets.

About the Symbols

	The ⚠ symbol alerts the user to important instructions or warnings. The specific meaning of the symbol is determined by the design contained within the triangle. In the case of the symbol at left, it is used for general cautions, warnings, or alerts to danger.
	The  symbol alerts the user to items that must never be carried out (are forbidden). The specific thing that must not be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the unit must never be disassembled.
	The  symbol alerts the user to things that must be carried out. The specific thing that must be done is indicated by the design contained within the circle. In the case of the symbol at left, it means that the power-cord plug must be unplugged from the outlet.

ALWAYS OBSERVE THE FOLLOWING

WARNING

Do not disassemble or modify by yourself

Do not open (or modify in any way) the unit or its AC adaptor.



Do not repair or replace parts by yourself

Do not attempt to repair the unit, or replace parts within it (except when this manual provides specific instructions directing you to do so). Refer all servicing to your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page.



Do not use or store in the following types of locations

- Subject to temperature extremes (e.g., direct sunlight in an enclosed vehicle, near a heating duct, on top of heat-generating equipment); or are
- Damp (e.g., baths, washrooms, on wet floors); or are
- Exposed to steam or smoke; or are
- Subject to salt exposure; or are
- Humid; or are
- Exposed to rain; or are
- Dusty or sandy; or are
- Subject to high levels of vibration and shakiness.



WARNING

Use only stand that is recommended

This unit should be used only with a stand that is recommended by Roland.



Do not place in an unstable location

When using the unit with a rack or stand recommended by Roland, the rack or stand must be carefully placed so it is level and sure to remain stable. If not using a rack or stand, you still need to make sure that any location you choose for placing the unit provides a level surface that will properly support the unit, and keep it from wobbling.



Precautions regarding placement of this unit on a stand

Be sure to follow the instructions in the Owner's Manual carefully when placing this unit on a stand (p. 9).

If it is not set up properly, you risk creating an unstable situation which could lead to the unit falling or the stand toppling, and may result in injury.



USING THE UNIT SAFELY

WARNING

Use only the supplied AC adaptor and the correct voltage

Be sure to use only the AC adaptor supplied with the unit. Also, make sure the line voltage at the installation matches the input voltage specified on the AC adaptor's body. Other AC adaptors may use a different polarity, or be designed for a different voltage, so their use could result in damage, malfunction, or electric shock.



Use only the included power cord

Use only the attached power-supply cord. Also, the supplied power cord must not be used with any other device.



Do not bend the power cord or place heavy objects on it

Do not excessively twist or bend the power cord, nor place heavy objects on it. Doing so can damage the cord, producing severed elements and short circuits. Damaged cords are fire and shock hazards!



Don't allow foreign objects or liquids to enter unit; never place containers with liquid on unit

Do not place containers containing liquid on this product. Never allow foreign objects (e.g., flammable objects, coins, wires) or liquids (e.g., water or juice) to enter this product. Doing so may cause short circuits, faulty operation, or other malfunctions.



Adults must provide supervision in places where children are present

When using the unit in locations where children are present, be careful so no mishandling of the unit can take place. An adult should always be on hand to provide supervision and guidance.



Do not drop or subject to strong impact

Protect the unit from strong impact. (Do not drop it!)



WARNING

Turn off the unit if an abnormality or malfunction occurs

Immediately turn the unit off, remove the AC adaptor from the outlet, and request servicing by your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page when:



- The AC adaptor, the power-supply cord, or the plug has been damaged; or
- If smoke or unusual odor occurs; or
- Objects have fallen into, or liquid has been spilled onto the unit; or
- The unit has been exposed to rain (or otherwise has become wet); or
- The unit does not appear to operate normally or exhibits a marked change in performance.

Do not share an outlet with an unreasonable number of other devices

Do not force the unit's power-supply cord to share an outlet with an unreasonable number of other devices. Be especially careful when using extension cords—the total power used by all devices you have connected to the extension cord's outlet must never exceed the power rating (watts/amperes) for the extension cord. Excessive loads can cause the insulation on the cord to heat up and eventually melt through.



Do not use overseas

Before using the unit in a foreign country, consult with your retailer, the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page.



Do not use a CD-ROM in an audio CD player or DVD player

DO NOT play a CD-ROM disc on a conventional audio CD player. The resulting sound may be of a level that could cause permanent hearing loss. Damage to speakers or other system components may result.



CAUTION

Place in a well ventilated location

The unit and the AC adaptor should be located so their location or position does not interfere with their proper ventilation.



Use only the specified stand (s)

This unit is designed to be used in combination with specific stands (KS-12, KS-18Z) manufactured by Roland. If used in combination with other stands, you risk sustaining injuries as the result of this product dropping down or toppling over due to a lack of stability.



Evaluate safety issues before using stands

Even if you observe the cautions given in the owner's manual, certain types of handling may allow this product to fall from the stand, or cause the stand to overturn. Please be mindful of any safety issues before using this product.



Grasp the plug when connecting or disconnecting the AC adaptor

Always grasp only the plug on the AC adaptor cord when plugging into, or unplugging from, an outlet or this unit.



Periodically clean the AC adaptor's plug

At regular intervals, you should unplug the AC adaptor and clean it by using a dry cloth to wipe all dust and other accumulations away from its prongs. Also, disconnect the power plug from the power outlet whenever the unit is to remain unused for an extended period of time. Any accumulation of dust between the power plug and the power outlet can result in poor insulation and lead to fire.



Manage cables for safety

Try to prevent cords and cables from becoming entangled. Also, all cords and cables should be placed so they are out of the reach of children.



CAUTION

Avoid climbing on top of the unit, or placing heavy objects on it

Never climb on top of, nor place heavy objects on the unit.



Do not connect or disconnect the AC adaptor with wet hands

Never handle the AC adaptor or its plugs with wet hands when plugging into, or unplugging from, an outlet or this unit.



Disconnect everything before moving the unit

Before moving the unit, disconnect the AC adaptor and all cords coming from external devices.



Unplug the AC adaptor from the outlet before cleaning

Before cleaning the unit, turn it off and unplug the AC adaptor from the outlet (p. 16).



If there is a possibility of lightning strike, disconnect the AC adaptor from the outlet

Whenever you suspect the possibility of lightning in your area, disconnect the AC adaptor from the outlet.



IMPORTANT NOTES

Power Supply

- Do not connect this unit to same electrical outlet that is being used by an electrical appliance that is controlled by an inverter or a motor (such as a refrigerator, washing machine, microwave oven, or air conditioner). Depending on the way in which the electrical appliance is used, power supply noise may cause this unit to malfunction or may produce audible noise. If it is not practical to use a separate electrical outlet, connect a power supply noise filter between this unit and the electrical outlet.
- The AC adaptor will begin to generate heat after long hours of consecutive use. This is normal, and is not a cause for concern.
- To prevent malfunction and equipment failure, always make sure to turn off the power on all your equipment before you make any connections.
- When not connected to a computer, the A-88 will automatically be switched off four hours after you stop playing or operating it (if the factory settings have been unmodified). If you don't want the unit to turn off automatically, change the "AUTO OFF" setting to "OFF" as described on p. 42.
- When moved from one location to another where the temperature and/or humidity is very different, water droplets (condensation) may form inside the unit. Damage or malfunction may result if you attempt to use the unit in this condition. Therefore, before using the unit, you must allow it to stand for several hours, until the condensation has completely evaporated.
- Do not allow rubber, vinyl, or similar materials to remain on this unit for long periods of time. Such objects can discolor or otherwise harmfully affect the finish.
- Do not allow objects to remain on top of the keyboard. This can be the cause of malfunction, such as keys ceasing to produce sound.
- Do not paste stickers, decals, or the like to this instrument. Peeling such matter off the instrument may damage the exterior finish.
- Depending on the material and temperature of the surface on which you place the unit, its rubber feet may discolor or mar the surface. You can place a piece of felt or cloth under the rubber feet to prevent this from happening. If you do so, please make sure that the unit will not slip or move accidentally.

Placement

- This device may interfere with radio and television reception. Do not use this device in the vicinity of such receivers.
- Noise may be produced if wireless communications devices, such as cell phones, are operated in the vicinity of this unit. Such noise could occur when receiving or initiating a call, or while conversing. Should you experience such problems, you should relocate such wireless devices so they are at a greater distance from this unit, or switch them off.
- Do not expose the unit to direct sunlight, place it near devices that radiate heat, leave it inside an enclosed vehicle, or otherwise subject it to temperature extremes. Also, do not allow lighting devices that normally are used while their light source is very close to the unit (such as a piano light), or powerful spotlights to shine upon the same area of the unit for extended periods of time. Excessive heat can deform or discolor the unit.

Maintenance

- To clean the unit, use a dry, soft cloth; or one that is slightly dampened. Try to wipe the entire surface using an equal amount of strength moving the cloth. Rubbing too hard in the same area can damage the finish.
- Never use benzine, thinners, alcohol or solvents of any kind, to avoid the possibility of discoloration and/or deformation.

Repairs and Data

- Please be aware that all data contained in this unit's memory may be initialized to the factory settings when it is sent for repairs.

Additional Precautions

- Roland assumes no liability concerning such loss of data, nor any obligation to recover it.
- Use a reasonable amount of care when using the unit's buttons, sliders, or other controls; and when using its jacks and connectors. Rough handling can lead to malfunctions.
- When disconnecting all cables, grasp the connector itself—never pull on the cable. This way you will avoid causing shorts, or damage to the cable's internal elements.
- To avoid disturbing others nearby, try to keep the unit's volume at reasonable levels.
- The sound of keys being struck and vibrations produced by playing an instrument can be transmitted through a floor or wall to an unexpected extent. Please take care not to cause annoyance to others nearby.
- When you need to transport the unit, package it in the box (including padding) that it came in, if possible. Otherwise, you will need to use equivalent packaging materials.
- Use only the specified expression pedal (EV-5, EV-7; sold separately). By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.
- The usable range of D-BEAM controller will become extremely small when used under strong direct sunlight. Please be aware of this when using the D-BEAM controller outside.

Handling CDs / DVDs

- Avoid touching or scratching the shiny underside (encoded surface) of the disc. Damaged or dirty CD/DVD discs may not be read properly. Keep your discs clean using a commercially available CD/DVD cleaner.

Copyrights/Licences/Trademarks

- Before you open the included CD-ROM or DVD-ROM, you must read the "license agreement." Opening the CD-ROM or DVD-ROM will be taken to mean your acceptance of the license agreement.
- MMP (Moore Microprocessor Portfolio) refers to a patent portfolio concerned with microprocessor architecture, which was developed by Technology Properties Limited (TPL). Roland has licensed this technology from the TPL Group.
- Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation.
- Roland and SuperNATURAL are either registered trademarks or trademarks of Roland Corporation in the United States and/or other countries.
- Cakewalk and SONAR are either registered trademarks or trademarks of Cakewalk, Inc. or Roland Corporation in the United States and/or other countries.
- Company names and product names appearing in this document are registered trademarks or trademarks of their respective owners.

About the Ivory Feel Keyboard

Features of an ivory feel keyboard

Traditional piano keys are made from the best materials-ivory (for white keys) and ebony (for black keys). The Ivory Feel keyboard uses the latest in technology to reproduce the touch and feel of these materials.

An Ivory Feel keyboard offers the following features.

- We're sure you'll develop a fondness for the distinctive texture of these keys, which feels better the more you play them.
- Surfaces incorporate stripes of moisture-absorbing material for improved touch and playability.
- The keys feature subtle gloss and understated coloring, enhancing the look and elegance.
- The white keys are finished with a slight yellowish tinge for the look of real ivory.

Handling

- Do not write on the keyboard with any pen or other implement, and do not stamp or place any marking on the instrument. Ink will seep into the surface lines and become unremovable.
- Do not affix stickers on the keyboard. You may be unable to remove stickers that use strong adhesives, and the adhesive may cause discoloration.

Care and maintenance

Please note the following points. Failure to do so may result in scratches on the surface finish, damaged gloss, or other discoloration or deformation.

- To remove dirt, use a soft cloth.
Using a moistened and tightly wrung-out cloth, gently wipe off any dirt.
Do not rub the surface vigorously.
- To remove stubborn dirt, use a commercially available keyboard cleaner that does not contain abrasives.
Start by wiping lightly. If the dirt does not come off, wipe using gradually increasing amounts of pressure while taking care not to scratch the keys.
- Do not use benzene, paint thinner, or alcohol on the instrument.

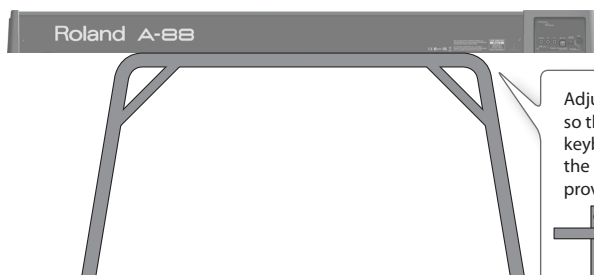
Placing the A-88 on a Stand

If you want to place the A-88 on a stand, use the Roland KS-12 or KS-18Z.

Place the A-88 on the stand as follows.

Be careful not to pinch your fingers when setting up the stand.

KS-12

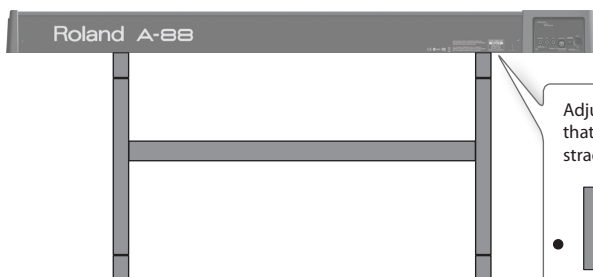


Adjust the width of the stand so that the rubber feet on the keyboard side of the bottom of the keyboard fit into the holes provided for the rubber

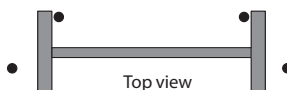


Top view

KS-18Z

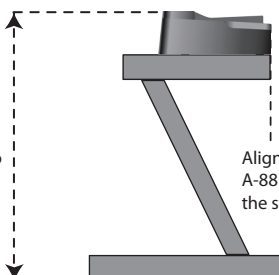


Adjust the width of the stand so that the rubber feet of the A-88 straddle the stand



Top view

Adjust so that the height does not exceed 1 meter
(Adjust the stand to a level no higher than the fourth level from the bottom)



Align the front of the A-88 with the front of the stand

Contents

USING THE UNIT SAFELY	3
IMPORTANT NOTES	6
About the Ivory Feel Keyboard	8
Placing the A-88 on a Stand	9
Quick Page Reference Table.....	11
Contents of the Package	13
Panel Descriptions	14
Panel	14
Rear Panel	16
Driver Installation	17
Verify That You Can Hear Sound.....	23
Checking with a SONAR Soft Synths (Windows)	23
Checking in GarageBand (Mac OS X) ..	24
MIDI Signal Flow	25
About the Operating Modes	26
Switching the Operating Mode	26
PLAY Mode.....	26
FUNCTION Mode.....	27
SuperNATURAL Mode	28
MIDI Visual Control Mode.....	29
Layering Two Parts	30
Two Parts (LOWER, UPPER).....	30
Layering Two Sounds (DUAL)	31
Playing Different Sounds with the Right and Left Hands (SPLIT)	31
Changing the Location at Which the Keyboard Is Divided (Split Point) .	31
Performing	32
Setting the MIDI Transmit Channel (MIDI CHANNEL)	32
Switching Sounds.....	32
Shifting the Pitch of the Keyboard	34

Using the Lever to Modify the Sound	35
Using the D-BEAM to Modify the Sound .	36
Using the Knobs to Modify the Sound....	37
Using the Pedals to Modify the Sound ...	38
Using Aftertouch to Modify the Sound ...	39
Halting Stuck Notes (PANIC)	39

Changing the A-88 Settings	40
Changing the Velocity Curve (VELO CURVE)	41
Specifying the Keyboard Velocity Value (KEY VELO)	41
Making the Power Automatically Turn Off After a Time (Auto Off)	42
Switching the Function of the [C2] Knob in SuperNATURAL Mode (SN SETTING).....	42
Assigning Functions to the Knobs, Buttons, and Jacks.....	43
Assigning a Program Change Message (PRGM CHANGE)	43
Assigning Aftertouch.....	43
Assigning a Control Change Number (CC#)	44
Changing the Direction of Value Increases for the Knobs, D-BEAM Controller, and Pedals (CTRL DIR)	46
Selecting the Dedicated Driver or the Generic Driver.....	46
Returning the Pedal Jacks Assignments to the Factory Settings	47
Restoring the Factory Settings (FACT RESET).....	47

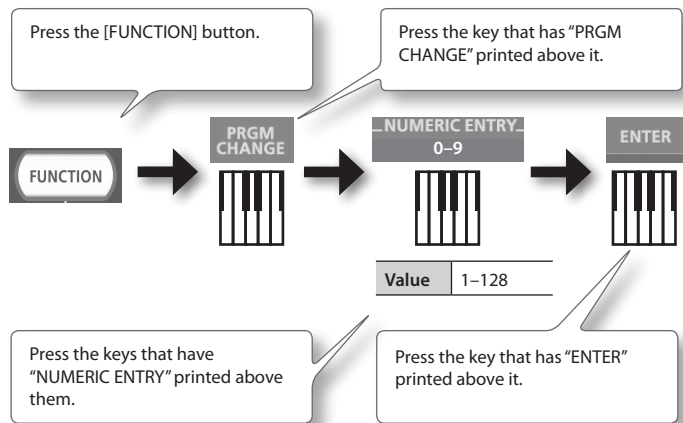
Troubleshooting	48
Problems When Installing the Driver	48
Problems When Using the Unit	49
Changing Computer Settings to Avoid Problems	52
Driver Signing Options Setting (Windows XP)	52
Power Management Settings	52

Reinstalling the Driver	54	MIDI Implementation Chart	57
Deleting the Driver	54	Index	58
Lightening the MIDI Load (Windows)	55		
Main Specifications	56		

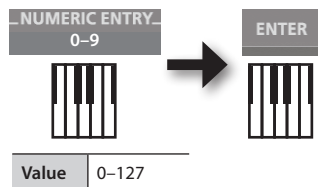
Quick Page Reference Table

Performing	Switching the operating mode (PLAY/FUNCTION/SuperNATURAL/MIDI Visual Control)	p. 26
	Layering Two Parts (DUAL, SPLIT)	p. 30
	Setting the MIDI transmit channel (MIDI CHANNEL)	p. 32
	Switching sounds ([S1][S2] knobs)	p. 32
	Performing	—
	Octave Shift, Transpose	p. 34
	Pitch Bend, Modulation	p. 35
	D-BEAM	p. 36
	[C1][C2] knobs	p. 37
	Pedal	p. 38
	Aftertouch	p. 39
	Halting stuck notes	p. 39
	Performing with a SuperNATURAL sound module	p. 28
	Controlling MIDI Visual Control-compatible video equipment	p. 29
Changing the A-88's Settings	Changing the velocity curve (VELO CURVE)	p. 41
	Specifying the keyboard velocity value (KEY VELO)	p. 41
	Making the Power Automatically Turn Off After a Time (Auto Off)	p. 42
	Assigning functions to the knobs, buttons, and jacks	p. 43
	Switching the function of the [C2] knob in SuperNATURAL mode (SN SETTING)	p. 42
	Changing the direction of value increases for the knobs, D-BEAM controller, buttons, and pedals (CTRL DIR)	p. 46
	Selecting the dedicated driver or the generic driver	p. 46
	Returning the pedal jack assignments to the factory settings	p. 47
	Restoring the factory settings (FACT RESET)	p. 47

How to read the procedural explanations



Using NUMERIC ENTRY to enter a value



NUMERIC ENTRY keys pressed in this order	This value is entered
6, 4, ENTER	64
1, 2, 7, ENTER	127
1, 2, 8, ENTER	28
9, 3, 5, 7, ENTER	57

* If you specified a value that's outside the acceptable range, the valid value that had been entered before you pressed ENTER will be used.

Explanation of the icons

Icon	Explanation
	Rotate the [C1] or [C2] knob.
	Step on the pedal for which you want to make settings (either DAMPER, FC2, or FC1).

Contents of the Package

After you open the package, please check that all items are present.
(If any accessories are missing, please contact the place of purchase.)

☐ A-88



☐ AC Adaptor

This is the dedicated AC adaptor for the A-88.
(includes an AC cord)

Please use only the included AC adaptor, USB cable and damper pedal. If you require a replacement due to loss or damage, please contact the nearest Roland Service Center, or an authorized Roland distributor, as listed on the "Information" page.

☐ USB cable

Use this cable to connect the A-88 to the USB connector of your computer.

☐ Damper pedal

This is the dedicated damper pedal for the A-88.

☐ A-Series Keyboard CD-ROM

This contains the USB driver and PDF files of the owner's manual.

☐ Cakewalk SONAR LE DVD-ROM **Windows**

DAW software allows you to record or play audio data on a computer.

For details on using SONAR LE, user registration, and obtaining a registration code, refer to the installation guide (included on the DVD-ROM), or to the Help function of the software.

- * Avoid touching or scratching the shiny underside (encoded surface) of a disc. Damaged or dirty discs may not be read properly. Use a commercially available CD-ROM/DVD-ROM cleaner to keep your disc clean.
- * You need DAW software for Mac OS X.

☐ Cakewalk SONAR LE installation guide **Windows**

This explains the installation and user registration process for the software included on the Cakewalk SONAR LE DVD-ROM. Unless you complete the user registration and obtain a registration code as directed in this guide, you won't be able to use the software for more than thirty days after installation.

☒ Owner's Manual

This is the document you're reading. Keep it at hand for reference when needed.

Panel Descriptions

Panel

D-BEAM (p. 36)

D-BEAM controller

Move your hand above this to apply various effects to the sound.

[PITCH] button

If this is turned on, the D-BEAM controller will control the pitch.

[VOL] button

If this is turned on, the D-BEAM controller will control the volume.

[ASSIGN] button

If this is turned on, the D-BEAM controller will control the function you've assigned. (Factory setting: aftertouch)

[POWER] switch

This turns the power on/off.

* When not connected to a computer, the A-88 will automatically be switched off four hours after you stop playing or operating it (if the factory settings have been unmodified). If you don't want the unit to turn off automatically, change the "AUTO OFF" setting to "OFF" as described on p. 42.

POWER indicator

This will light when the power is on.

[C1][C2] knobs

Turn this knob to use the function you've assigned (p. 37).

[FUNCTION] button

If you press this button so it's lit, you can change the MIDI channel or transmit a program number by pressing the appropriate keys (p. 27).

[SuperNATURAL] button

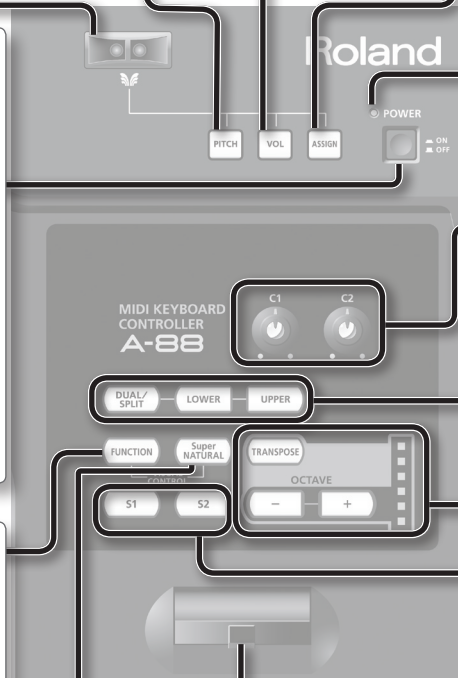
If this is turned on, you'll be able to control a connected SuperNATURAL sound module (p. 28).

[Pitch Bend/Modulation] lever

Use this lever to vary the pitch or to apply vibrato (p. 35).

[S1][S2] buttons

You can switch sounds by pressing these buttons (p. 32).



[DUAL/SPLIT] [LOWER] [UPPER] buttons

These buttons allow you to play two layered sounds simultaneously (Dual), or to play different sounds in the left and right sections of the keyboard, divided at a specified key (Split) (p. 30).

How the buttons indicate the DUAL/SPLIT status

Status	Button illumination	Keyboard section
Single (only UPPER)	DUAL/SPLIT — LOWER — UPPER	
Single (only LOWER)	DUAL/SPLIT — LOWER — UPPER	
DUAL	DUAL/SPLIT — LOWER — UPPER	
SPLIT	DUAL/SPLIT — LOWER — UPPER DUAL/SPLIT — LOWER — UPPER	

In Split mode, controllers other than the keyboard (pitch bend lever, pedals, etc.) will affect only the part whose indicator is lit.

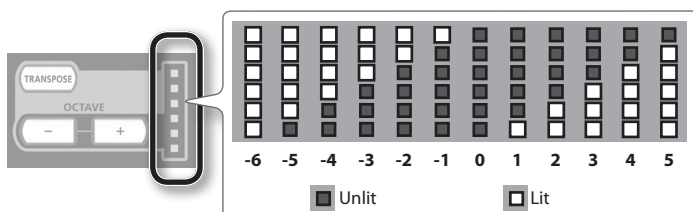
[TRANPOSE] button, OCTAVE/TRANPOSE indicator, [+] [-] buttons

In PLAY mode (p. 26), you can press the [TRANPOSE] button to switch the function of the OCTAVE/TRANPOSE indicator and the [+] [-] buttons.

When the [TRANPOSE] button is turned on, the transposition setting is enabled. When the [TRANPOSE] button is turned off, the transposition setting is disabled.

Button	Function	OCTAVE/TRANPOSE indicator
[+][-] buttons	Change the octave setting (p. 34)	Indicates the octave setting
[TRANPOSE] + [+] [-] buttons	Change the transpose setting (p. 34)	Indicates the transpose setting

The OCTAVE/TRANPOSE indicator and the setting it shows




Rear Panel

[POWER SOURCE] switch, DC IN jack

This switch specifies whether the A-88 will be powered by USB bus power (USB) or by the AC adaptor (AC ADAPTOR).

Switch setting	Explanation
USB	The A-88 will use USB bus power. The AC adaptor does not need to be connected. Use this setting when the A-88 is connected to a desktop computer.
AC ADAPTOR	The A-88 will use the AC adaptor. Use this setting when the A-88 is connected to a notebook computer, or when you are not connecting it via USB.



AC Outlet

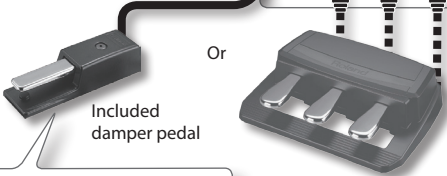
Power Code

Place the AC adaptor so the side with the indicator (see illustration) faces upwards and the side with textual information faces downwards. The indicator will light when you plug the AC adaptor into an AC outlet.

* Operate this switch only while the power is off. If you operate this switch while the power is on, the power will turn off.

Pedal (DAMPER, FC1, FC2) jacks

You can connect the included damper pedal to the DAMPER jack and use it as a damper pedal (p. 38).



Set the switch on the included pedal to "Continuous" when the pedal is connected.

Or expression pedal (EV-5, EV-7; sold separately), pedal switch (DP series; sold separately)



USB COMPUTER port

If you use the included

USB cable to connect the A-88 to your computer, you'll be able to record and play back the A-88's performance (MIDI data) using MIDI-compatible software.

- * USB audio is not supported.
- * Install the driver in your computer before you make this connection (p. 17).

MIDI OUT connector

You can connect this to a MIDI sound module and play it from the A-88.



* To prevent malfunction and equipment failure, always turn down the volume and turn off all devices (except the computer) before making any connections.

Driver Installation

Windows

Mac OS X

NOTE

Do not connect the A-88 to the computer until you are directed to do so.

A “driver” is software that transfers data between the A-88 and application software running on your computer when your computer and the A-88 are connected.

1. Set the A-88's [POWER SOURCE] switch as follows (p. 16).

Switch setting	Explanation
USB	Use this setting when the A-88 is connected to a desktop computer.
AC ADAPTOR	Use this setting when the A-88 is connected to a notebook computer. Connect the AC adaptor.

2. Start up the computer without the A-88 connected.

Disconnect all USB cables other than those for a USB keyboard and/or USB mouse (if used).

Windows

Log on to the computer with a user account that has administrator privileges.

Windows 8

Switch to the “Desktop.”

3. Exit all applications that are running.
4. Insert the included CD-ROM into the DVD-ROM drive.

Windows 8/Windows 7/Windows Vista

If the AutoPlay dialog box appears, click [Open folder to view files].

5. Of the following, double-click the relevant file on the included CD-ROM to start the installer.

Operating System	File
Windows	[Setup] in the [WinDriver] folder
Mac OS X	[A-SeriesKeyboard_USBDriver] in the [MacDriver] folder

Refer to the Roland website for the latest USB drivers and information about compatibility with the latest operating system versions.

<http://www.roland.com/>

Windows

6. When a confirmation screen regarding user account control appears, click [Yes] or [Continue].
7. When “The A-Series Keyboard Driver will be installed on your computer” appears, click [Next].
8. Click [Next] again.

Windows 8/Windows 7/Windows Vista

If a dialog box regarding Windows security appears, click [Install].

Windows XP

If the “Software Install” dialog box appears, click [Continue] to proceed with the installation.

If you cannot proceed, click [OK] to cancel the installation. Change the settings as described in “Driver Signing Options Setting (Windows XP)” (p. 52) and try installing again.

9. When the screen indicates “Ready to install the driver,” use the USB cable to connect the A-88 to your computer, and then turn on the [POWER] switch.

* Turn down the volume on any peripheral devices before connecting the USB cable.

* This unit is equipped with a protection circuit.
A brief interval (a few seconds) after turning the unit on is required before it will operate normally.

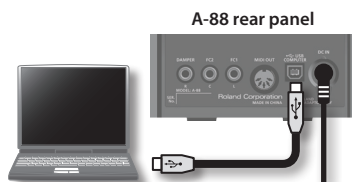
It may take several minutes for the driver to be installed.

Windows 8/Windows 7/Windows Vista

If other messages appear, follow the instructions on the screen. The driver will be installed automatically.

Windows XP

“Found new hardware” will appear in the lower-right corner of the screen.



Windows 8/Windows 7/Windows Vista

Windows XP

Windows 8/Windows 7/Windows Vista

10. When “Installation has been completed.” appears, click [Close].

Close the “A-Series Keyboard Driver Setup” dialog box.

If the “Change System Settings” dialog box appears, click [Yes] to restart Windows.

page 23

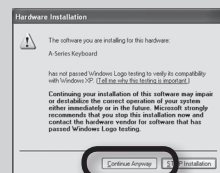
Windows XP

10. If a dialog box that asks whether you want to connect to Windows Update appears, select [No, not this time] and click [Next].



11. Select [Install the software automatically (Recommended)] and click [Next].

12. If the “Hardware Installation” dialog box appears, click [Continue Anyway] to proceed with installation.



13. When “Completing the Found New Hardware Wizard” appears, click [Finish].

14. When “Installation has been completed.” appears, click [Close].

Close the “A-Series Keyboard Driver Setup” dialog box.

If the “System Settings Change” dialog box appears, click [Yes] to restart Windows.

page 23

Mac OS X

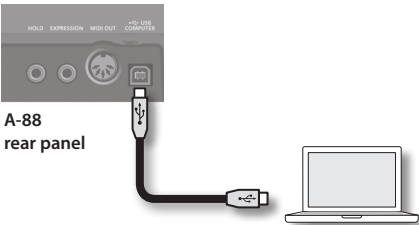
If a dialog box requesting a password appears during installation, enter a computer administrator's user name and password and click the [Install Software] button or [OK] button.

- 6. When "Welcome to the A-Series Keyboard Driver installer" appears, click [Continue].
- 7. If the screen for selecting the installation destination appears, select the startup disk and click [Continue].
- 8. When the installation type appears, click [Install] or [Upgrade].
- 9. Click [Continue Installation] in the next screen.
- 10. When installation has finished, click [Restart] to restart the Mac.

It may take some time for the computer to restart.

- 11. After the Mac restarts, use the USB cable to connect the A-88 to the Mac, and then turn on the [POWER] switch.

- * Turn down the volume on any peripheral devices before connecting the USB cable.
- * This unit is equipped with a protection circuit. A brief interval (a few seconds) after turning the unit on is required before it will operate normally.



- 12. Open the [Applications] folder and then the [Utilities] folder, and then double-click [Audio MIDI Setup].

The "Audio MIDI Setup" dialog box will appear.

- 13. Open the MIDI device settings dialog box.

Operating System	Operation
Mac OS X v10.6 or later	Select [Show MIDI Window] in the [Window] menu. (The "MIDI Studio" window will appear.)
Mac OS X v10.5 or earlier	Click the [MIDI Devices] tab.

14. Confirm that [A-Series Keyboard] appears in the “MIDI Studio” window or the “Audio MIDI Settings” dialog box.

If [A-Series Keyboard] does not appear or if it is grayed out, it means that the A-88 is not being detected properly. Click [Rescan MIDI]. Also try disconnecting and reconnecting the A-88’s USB cable.

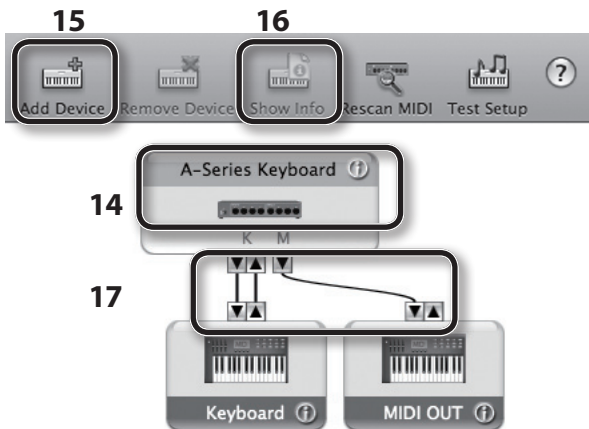
15. Click [Add Device] two time.

Two [New Device] items will appear.

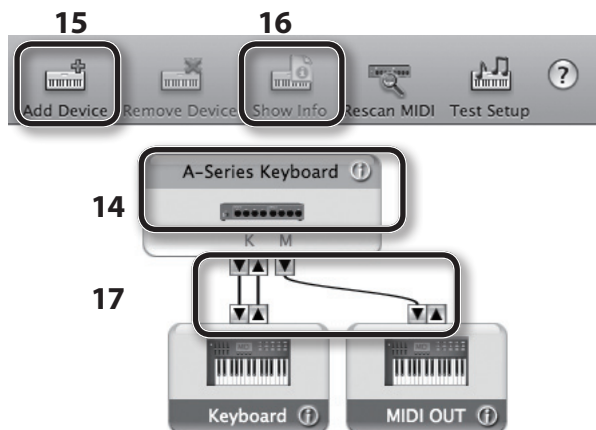
16. Specify device names for the newly added [New Device].

1. Click each newly added [New Device] to select it, and then click [Show Info].
2. Enter the desired name in the [Device Name] field, and then click [Apply]. Enter the following for each [New Device].

New Device	Device Name
First	Keyboard
Second	MIDI OUT



- 17.** Using your mouse, drag and connect the ▲ and ▼ (which represent the input/output ports of each device) of the [A-Series Keyboard] and each [New Device] that you added so that they are connected as shown in the figure.



- 18.** Close the “MIDI Studio” window or the “Audio MIDI Setup” dialog box.

Verify That You Can Hear Sound

After you've installed the driver, check to verify that the driver was installed correctly.

We will use SONAR LE as an example for Windows, and GarageBand as an example for Mac OS X.

Checking with a SONAR Soft Synths (Windows)

Here's an example using a plug-in synth included with SONAR LE. The procedure or screens may differ if you're using a different version.

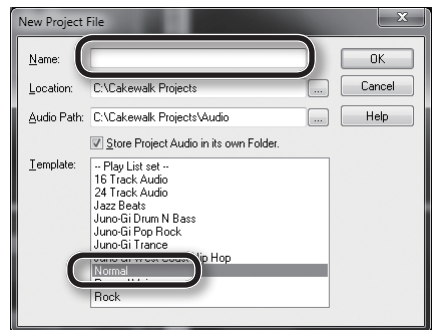
For details on installing and setting up SONAR LE, refer to the SONAR LE Installation Guide.

1. Start up SONAR LE.
2. In the [Edit] menu, click [Preferences]; then in the menu at left, click [Devices] in the MIDI area.
The "Select MIDI input and output devices" dialog box will appear.
3. Choose the following MIDI devices in the [Inputs] and [Outputs] fields.

Input device	Output device
A-Series Keyboard	A-Series Keyboard MIDI OUT

If you're unable to select A-Series Keyboard as an input/output device, it may be that a problem has occurred. Refer to "Problems When Using the Unit" (p. 49).

4. Click [Apply] and then [Close] to close the "Select MIDI input and output devices" dialog box.
5. In the [File] menu, click [New].
The "New Project File" dialog box will appear.
6. In the "Template" area, choose [Normal]; then enter a project name in the "Name" field and click [OK].



7. In the [Insert] menu, choose [Soft Synths] and then [Square I].

Driver Installation

8. In the “Insert Soft Synth Options” dialog box, select the [Synth Property Page] option in the “Open These Windows” area, and click [OK].



9. Play the A-88's keyboard.

If the MIDI monitor in the taskbar responds and you hear the sound of the synth, the A-88 is correctly connected to your computer.

This completes the necessary settings. Now you can proceed to “About the Operating Modes” (p. 26).

Checking in GarageBand (Mac OS X)

GarageBand is software that is included with Apple's iLife.

Here, the explanation assumes that you're using GarageBand '11. The steps or screens may be different if you're using a different version.

1. In the [Applications] folder, double-click [GarageBand].
2. When GarageBand has started up, click the [File] menu item [New].
3. In the “New Project” screen, assign a name and click [Create].
4. Play the A-88's keyboard.

If you hear the Grand Piano sound that's assigned to the GarageBand track, the A-88 is correctly connected to your computer.

This completes the necessary settings. Now you can proceed to “About the Operating Modes” (p. 26)!

If you don't hear sound

- From the [GarageBand] menu, click [Preferences].
If MIDI input is not detected in the [Audio/MIDI] tab's "MIDI Status" field, it may be that a problem has occurred. Please refer to "Problems When Using the Unit" (p. 49).
- In "System Preferences," choose the [Sound]-[Output] tab. Make sure that your computer's main volume is not turned down or muted. Also make sure that internal audio is selected.
- If you're using headphones, make sure that they are correctly connected to your computer's headphone jack.

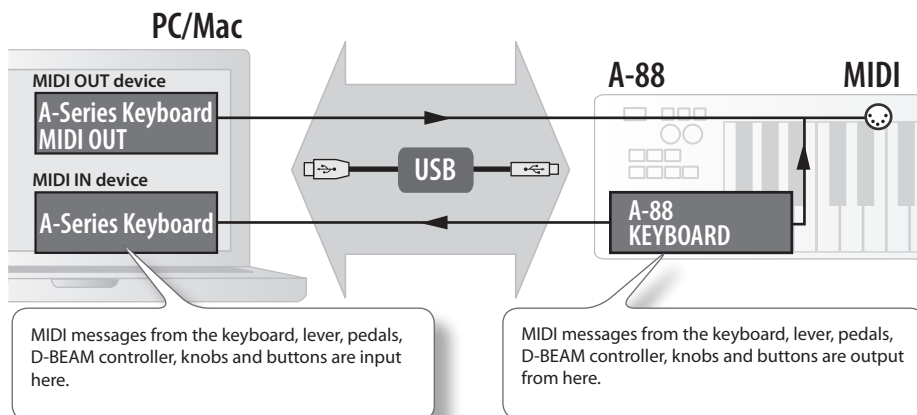
If you don't hear sound in software other than GarageBand, you'll need to make MIDI and audio input/output settings.

Make the following settings for MIDI input/output.

Input device	Output device
A-Series Keyboard	A-Series Keyboard MIDI OUT

MIDI Signal Flow

The illustration below shows the MIDI signal flow.



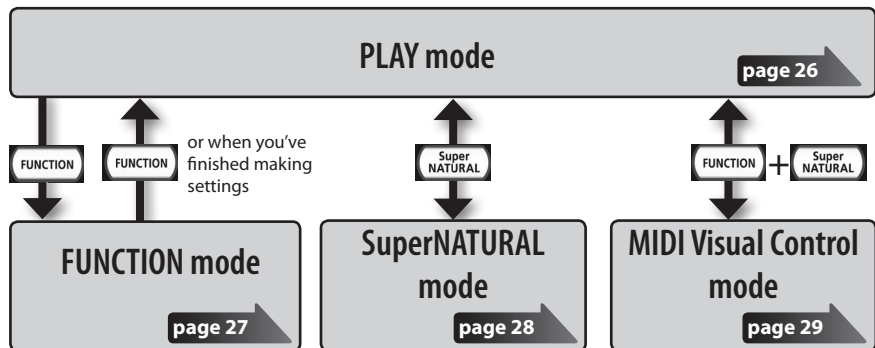
About the Operating Modes

Switching the Operating Mode

The A-88 has four operating modes.

When you turn on the power, the A-88 will automatically start up in PLAY mode.

You can switch the operating mode by pressing the following buttons.



PLAY Mode

What is PLAY mode?

This is the mode that's used when performing. When you play the keyboard, note messages will be transmitted, causing your MIDI device to produce sound.

In PLAY mode you can use the keyboard to play a connected sound module. You can also use functions such as the [Pitch Bend/Modulation] lever to change the pitch of the currently sounding notes (Pitch Bend) or apply a vibrato effect (Modulation), and change the octave (Octave Shift).

Functionality in PLAY mode

Performing	You can transmit MIDI messages by operating the keyboard, [Pitch Bend/Modulation] lever, [C1] [C2] knobs, [S1] [S2] buttons, D-BEAM controller and pedals.	p. 32
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FUNCTION Mode

What is FUNCTION mode?

This is the mode that lets you transmit specific control messages or make settings for the A-88 itself.

In FUNCTION mode, the keyboard is used to select the function that you want to set (You won't be able to perform by playing the keyboard).

Functionality in FUNCTION mode

Specify the MIDI transmit channel	You can specify the transmit channel for the keyboard, [Pitch Bend/Modulation] lever, [C1] [C2] knobs, [S1] [S2] buttons, D-BEAM controller and pedals.	p. 32
Transmit program change messages	You can transmit program change messages.	p. 34
Transmit Bank Select LSB	You can switch banks by transmitting Bank Select LSB (CC#32) messages.	p. 33
Transmit Bank Select MSB	You can switch banks by transmitting Bank Select MSB (CC#00) messages.	p. 33
Transmit aftertouch messages	You can transmit aftertouch messages.	p. 39
Transmit reset messages	If "stuck notes" occur on the connected MIDI sound module, or if there's something wrong with the sound, you can transmit reset messages (All Sound Off, All Notes Off, Reset All Controllers) to solve the problem.	p. 39
Change the keyboard settings	You can adjust the velocity sensitivity or specify the velocity value that is transmitted when you play the keyboard.	p. 41
Change the functions that are assigned to the knobs, buttons and pedals	You can change the function (CC#) of the functions assigned to the [C1] [C2] knobs, [S1] [S2] buttons, [ASSIGN] button, DAMPER, FC1, and FC2 jack.	p. 43
Change the directionality of the knobs, D-BEAM controller, buttons, and pedals	You can change the directionality of the [C1] [C2] knobs, D-BEAM controller, [S1] [S2] buttons, DAMPER, FC1, and FC2 jack to specify the direction in which the value will increase.	p. 46
Change the function of the [C2] knob in SuperNATURAL mode	You can change the function that the [C2] knob will have in SuperNATURAL mode.	p. 42
Switch the driver that's used	You can choose whether to use the dedicated driver or the driver provided by the operating system.	p. 46
Change the Auto Off setting	You can have the power be turned off automatically after a specified amount of time has passed.	p. 42
Restoring the factory settings	You can return all of the A-88's settings to the factory-set state.	p. 47

About the Operating Modes

SuperNATURAL Mode

What is SuperNATURAL mode?

This is the mode that lets you control a SuperNATURAL sound module.

You can control the SuperNATURAL sound module that's connected to the A-88 via a MIDI cable.

What are SuperNATURAL Tones?

SuperNATURAL

Taking advantage of Behavior Modeling Technology, SuperNATURAL is Roland's exclusive sound set that achieves a new level of realism and expression that were difficult to realize with previous sound generators.

Behavior Modeling Technology

Not only physical modeling of the instruments, Roland takes it a step further by modeling the instrument's distinctive behavior that responds to how the performer plays, resulting in true-to-life, expressive sounds in realtime.

Functionality in SuperNATURAL mode

Buttons, knobs, etc.	Function
[PITCH] button	The same functionality as in PLAY mode.
[VOL] button	
[ASSIGN] button	General purpose controller 3 (CC#18)
[FUNCTION] button	Not in use.
[S1] button	General purpose controller 5 (CC#80)
[S2] button	General purpose controller 6 (CC#81)
[C1] knob	General purpose controller 1 (CC#16)
[C2] knob	General purpose controller 2 (CC#17) Operates as a general purpose controller 4 (CC#19) according to the SN SETTING (p. 42).
[Pitch Bend/Modulation] lever	The same functionality as in PLAY mode.
[TRANPOSE] button	
[+]/[-] buttons	
DAMPER jack	You can use the same functionality as in PLAY mode.
FC1 jack	
FC2 jack	Portamento (CC#65)

* The effect that's applied will depend on the sound module. For details, refer to the owner's manual of your sound module.

MIDI Visual Control Mode

What is MIDI Visual Control mode?

This is the mode that lets you control a video device that supports MIDI Visual Control (MVC). You can control images on the Visual Control device that's connected to the A-88 via a MIDI cable. When you select MIDI Visual Control mode and play the keyboard of the A-88, images will be controlled in synchronization with your performance.

What is MIDI Visual Control?



MIDI Visual Control is an internationally-used recommended practice that was added to the MIDI specification so that visual expression could be linked with musical performance. Video equipment that is compatible with MIDI Visual Control can be connected to electronic musical instruments via MIDI in order to control video equipment in tandem with a performance.

Functionality in MIDI Visual Control mode

Buttons, knobs, etc.	Function
[PITCH] button	The same functionality as in PLAY mode.
[VOL] button	
[ASSIGN] button	Attack time (CC#73)
[FUNCTION] button	Not in use.
[S1] button	You can use the same functionality as in PLAY mode.
[S2] button	
[C1] knob	Cutoff (CC#74)
[C2] knob	Resonance (CC#71)
[Pitch Bend/Modulation] lever	The same functionality as in PLAY mode.
[TRANPOSE] button	
[+][-] buttons	
DAMPER jack	You can use the same functionality as in PLAY mode.
FC1 jack	
FC2 jack	

* The effect that's applied will depend on the video device. For details, refer to the owner's manual of your video device.

Layering Two Parts

Two Parts (LOWER, UPPER)

The A-88 stores the keyboard settings for two parts, LOWER and UPPER.

The keyboard settings include the MIDI channel and octave shift.

Such settings are stored individually for the UPPER and LOWER parts. When the [DUAL/SPLIT] button is off, you'll be able to use one or the other of these parts.









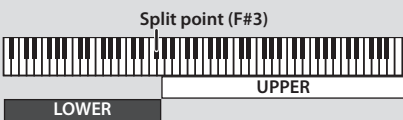
Button	Function
[LOWER] button	Sound is produced according to the LOWER part settings when you play the A-88.
[UPPER] button	Sound is produced according to the UPPER part settings when you play the A-88.

In FUNCTION mode

Either the [UPPER] or the [LOWER] button will blink. MIDI messages of the part whose button is blinking will be transmitted.

You can use the [LOWER][UPPER] buttons to switch the setting even after pressing the [FUNCTION] button.

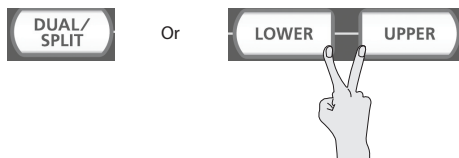
How the buttons indicate the DUAL/SPLIT status

Status	Button illumination	Keyboard section
Single (Only UPPER)		
Single (Only LOWER)		
DUAL		
SPLIT	 	

In Split mode, controllers other than the keyboard (pitch bend lever, pedals, etc.) will affect only the part whose indicator is lit.

Layering Two Sounds (DUAL)

This allows you to use all of the A-88's keys to simultaneously play the sounds assigned to the UPPER part and the LOWER part.



Playing Different Sounds with the Right and Left Hands (SPLIT)

Such a division of the keyboard into right- and left-hand sections is called a "Split," and the key where the division takes place is called the "Split Point."

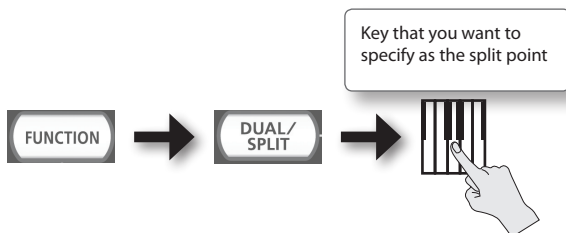
While in Split mode, a sound played in the right side is called an "UPPER part," and the sound played in the left side is called a "LOWER part." The split-point key is included in the LOWER section.



The following controllers will affect only the part whose indicator is lit (UPPER or LOWER).

- [Pitch Bend/Modulation] lever, [C1] [C2] knobs, [S1] [S2] buttons, D-BEAM controller, Pedals

Changing the Location at Which the Keyboard Is Divided (Split Point)



At the factory settings, the split point is F#3.

Performing

When the A-88's power is turned on, it will automatically start up in PLAY mode (p. 26).

In PLAY mode, playing the keyboard will transmit note messages, causing your MIDI device to produce sound.

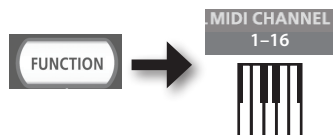
1. Set the A-88's MIDI transmit channel to match the MIDI receive channel of your MIDI device (or software) (p. 32).
2. Select a sound (p. 32).
3. Play the keyboard.

When you play the keyboard, MIDI messages will be transmitted.

* Since the A-88 itself does not contain a built-in sound generator, you can't play the A-88 on its own.

Setting the MIDI Transmit Channel (MIDI CHANNEL)

In order to play sounds on your MIDI sound module, the A-88's MIDI transmit channel must match your MIDI sound module's MIDI receive channel.



MEMO

- The settings of the part whose [UPPER][LOWER] button is blinking will be changed.
- For details on how to set the transmit channel of your external MIDI device, refer to its owner's manual.
- When you turn off the power, the setting will return to the default value (MIDI CHANNEL 1).

Switching Sounds

To switch sounds on your MIDI sound module, transmit a program change message.

Pressing the [S1] [S2] buttons will transmit program changes, causing your sound module to switch sounds.



Button	Function
[S1] button	Decrement the program number
[S2] button	Increment the program number

* Program numbers have a range of 1–128.

MEMO

You can change the functions that are assigned to the [S1] [S2] buttons. For details, refer to “Assigning Functions to the Knobs, Buttons, and Jacks” (p. 43).

To select sounds from a different bank, first transmit a Bank Select message, and then transmit a Program Change message.

- * Simply transmitting a Bank Select message will not make the sound change.
- * The Bank Select message must be sent before the Program Change message.

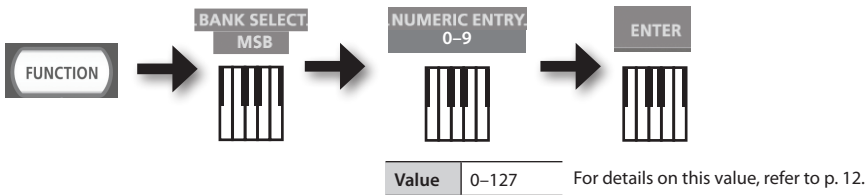
What is a bank?

MIDI sound modules organize their numerous sounds in various groups according to the category of sound. These groups are called “banks.”

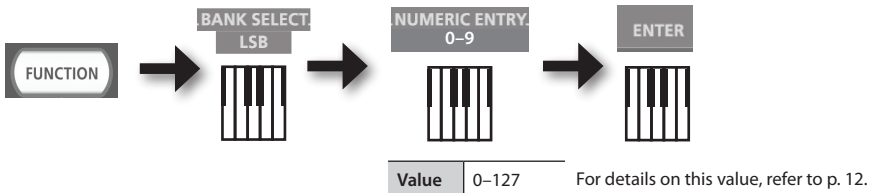
Program change messages can only select sounds within the same bank, but by using these in conjunction with bank select messages, you can select different variations of sound.

- * The way in which sounds are organized will differ for each sound module. For details, refer to the owner’s manual of the sound module you are using.

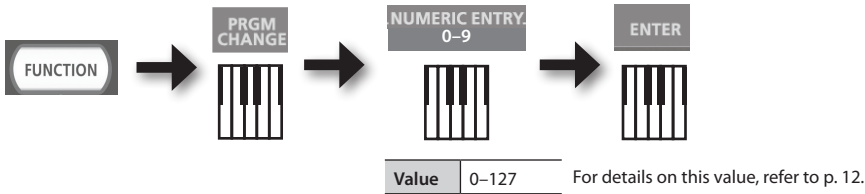
Transmitting the Bank Select MSB



Transmitting the Bank Select LSB



Transmitting a Program number (PRGM CHANGE)



Shifting the Pitch of the Keyboard

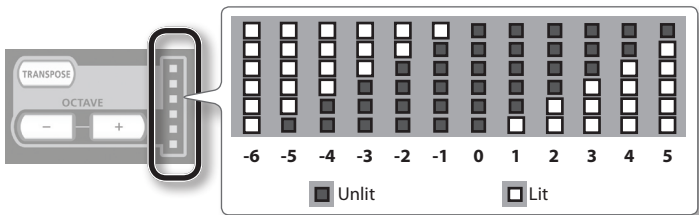
Changing the octave (Octave Shift)

You can raise or lower the pitch range of the keyboard (Octave Shift) by using the [+/-] buttons. You can change this setting in the range of -4 to 5 octaves. The current octave shift setting is shown by the OCTAVE/TRANPOSE indicator. If you press the [+/-] button and [-] button simultaneously, this setting will be reset to 0.

Changing the pitch (Transpose)

You can transpose the pitch in semitone step by using the [+/-] buttons while holding down the [TRANPOSE] button. You can change this setting in the range of -6 to 5. The current transpose setting is shown by the OCTAVE/TRANPOSE indicator. When the [TRANPOSE] button is turned on, the transposition setting is enabled. When the [TRANPOSE] button is turned off, the transposition setting is disabled. To reset the transpose setting to 0, hold down the [TRANPOSE] button and press the [+/-] button and [-] button simultaneously.

The OCTAVE/TRANPOSE indicator and the setting it shows



Using the Lever to Modify the Sound

Changing the pitch of a sounding note (Pitch Bend)

Moving the [Pitch Bend/Modulation] lever to the left or right will transmit pitch bend messages, causing the pitch to change slightly.

- * The range of the pitch change ("bend range") will depend on the settings of your sound module.

Applying modulation to a sounding note (Modulation)

Moving the bender lever away from yourself will transmit modulation messages (CC#01), applying a vibrato effect to the sound.

- * The way in which the sound changes will depend on the settings of your sound module.

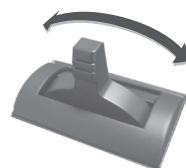
MEMO

Moving the lever toward the left while you play will lower the pitch, and moving it toward the right will raise the pitch. This effect is called "pitch bend."

Moving the lever away from yourself will apply vibrato. This effect is called "modulation."

If you move the lever to left or right and simultaneously move it away from yourself, both effects will apply at the same time.

- * The amount of pitch change (bend range) depends on the settings of your sound module.



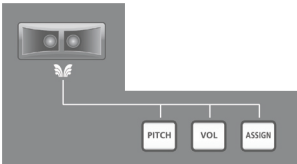
Pitch bend effect



Modulation effect

Using the D-BEAM to Modify the Sound

You use the D-BEAM controller simply by moving your hand above it. By assigning different functions to it, you can control the sound in various ways.



1. Press the D-BEAM [PITCH], [VOL], or [ASSIGN] button to turn the D-BEAM controller on.

Button	Function
[PITCH] button	The pitch will change as you move your hand above the D-BEAM controller.
[VOL] button	The volume will change, allowing you to add expression to your performance.
[ASSIGN] button	The function assigned to the D-BEAM controller will be controlled. (Factory setting: aftertouch) (p. 39)

* The effect that’s applied will depend on the sound module. For details, refer to the owner’s manual of your sound module.

MEMO

You can change the function that’s assigned to the [ASSIGN] button. For details, refer to “Assigning Functions to the Knobs, Buttons, and Jacks” (p. 43).

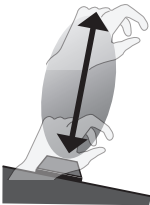
2. While playing the keyboard to produce sound, position your hand above the D-BEAM controller and slowly move it up and down.
3. To turn off the D-BEAM controller, once again press the button you pressed in step 1 (the button will go out).

Effective range of the D-BEAM controller

This illustration shows the effective range of the D-BEAM controller. No effect will be obtained if you position your hand outside the effective range.

NOTE

The effective range of the D-BEAM controller will change depending on the lighting conditions.



Using the Knobs to Modify the Sound

You can modify the sound by turning the [C1] [C2] knobs.



Knob	Function
[C1] knob	Transmits a Cutoff (CC#74) message.
[C2] knob	Transmits a Resonance (CC#71) message.

* The effect that's applied will depend on the sound module. For details, refer to the owner's manual of your sound module.

MEMO

You can change the functions that are assigned to the [C1] [C2] knobs. For details, refer to "Assigning Functions to the Knobs, Buttons, and Jacks" (p. 43).

Using the Pedals to Modify the Sound

The A-88 supports the use of an included damper pedal, a pedal unit (RPU-3; sold separately), an expression pedal (EV-5, EV-7; sold separately) and a pedal switch (DP series; sold separately).

Jack	Function	Explanation
DAMPER	Hold (CC#64)	Use this pedal to sustain the sound. While this pedal is held down, notes will be sustained for an extended time even if you release your fingers from the keyboard.
FC2	Sostenuto (CC#66)	The notes you are pressing when this pedal is depressed will be sustained.
FC1	Soft pedal (CC#67)	This pedal is used to make the sound softer.

* The effect that's applied will depend on the sound module. For details, refer to the owner's manual of your sound module.

MEMO

If you want to assign a function other than those listed above, such as when you want to connect an expression pedal and use it to control the volume (expression), refer to "Assigning Functions to the Knobs, Buttons, and Jacks" (p. 43–p. 45).

Adding expression to your performance (Expression Pedal)

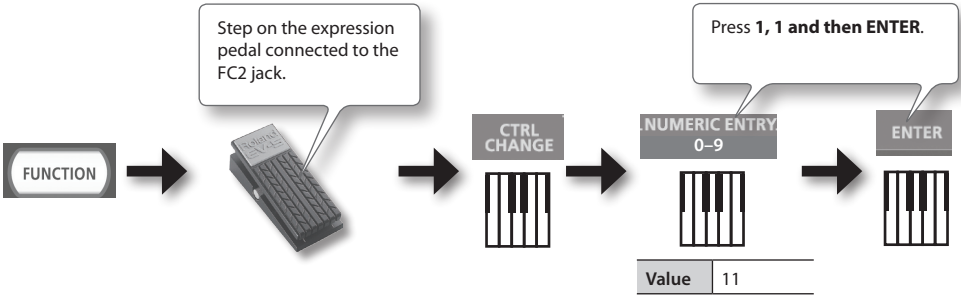
While playing the keyboard, raise or lower the expression pedal.

You can make your performance more expressive by varying the volume.

* Use only the specified expression pedal (EV-5, EV-7; sold separately). By connecting any other expression pedals, you risk causing malfunction and/or damage to the unit.



Example: Using an expression pedal connected to the FC2 jack to control volume (expression: CC#11)

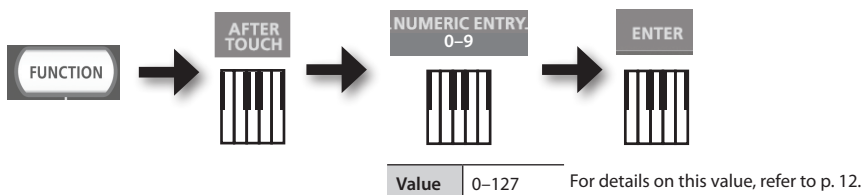


Using Aftertouch to Modify the Sound

Aftertouch is a function that lets you modify the sound by applying additional pressure to the key after playing a note.

On the A-88, applying further pressure to a key after playing a note will not affect the sound, turning on the [ASSIGN] button and moving your hand above the D-BEAM controller will cause Aftertouch messages to be transmitted.

As an alternative to using the D-BEAM controller, you can also directly enter a specific aftertouch value by using the keyboard.



* If you specify an aftertouch value other than 0, the change will continue to be applied to the sound. Return the value to 0 if you don't need this.

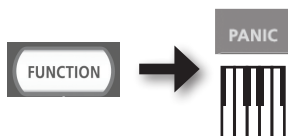
MEMO

- The A-88 is only able to transmit the variety of aftertouch called “channel pressure”; it cannot transmit “polyphonic key pressure” messages.
- You can assign aftertouch to the [C1] [C2] knobs or to the FC1, FC2 jacks. For details, refer to “Assigning Functions to the Knobs, Buttons, and Jacks” (p. 43).

Halting Stuck Notes (PANIC)

If you experience “stuck notes” on the connected MIDI sound module, or if there’s something else wrong with the sound, you can transmit reset messages to fix the problem.

This function will transmit the reset messages All Sounds Off, All Notes Off, and Reset All Controllers for all channels.



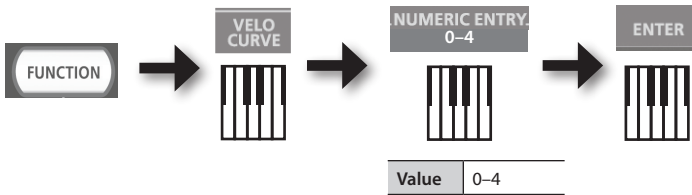
Changing the A-88 Settings

To change settings for the A-88, you need to be in FUNCTION mode.

The following parameters are common to both the UPPER and LOWER parts; they cannot be set individually.

Parameter	Factory setting	Explanation	Page
VELO CURVE	MEDIUM	When you play the A-88's keyboard, the transmitted note message will include a velocity value (volume data) corresponding to the force of your strike. The VELO CURVE setting lets you choose the curve by which the velocity value will change.	p. 41
KEY VELO	TOUCH	Specifies the velocity value of the keys you play.	p. 41
SN SETTING	MODE 0	Specifies the function of the [C2] knob in SuperNATURAL mode.	p. 42
[C1] knob	Cutoff (CC#74)	Switches the functions assigned to the knobs, buttons, and jacks.	p. 43
[C2] knob	Resonance (CC#71)		
[ASSIGN] button	Aftertouch		
[S1] button	Switches the sound (decrements the program number)		
[S2] button	Switches the sound (increments the program number)		
DAMPER jack	Hold (CC#64)		
FC1 jack	Soft pedal (CC#67)		
FC2 jack	Sostenuto (CC#66)		
CTRL DIR	Positive direction	Specifies whether turning the knob toward the right will transmit successively higher, or successively lower values. The same setting can be made for the D-BEAM controller, buttons, and pedals.	p. 46
ADV	ADVANCED	Specifies whether the A-88 will use the dedicated driver described in "Driver Installation" (p. 17) (ADVANCED), or the standard driver provided by the operating system (GENERIC).	p. 46
MISC	—	Switches the Auto Off setting, or resets the functions assigned to the pedal jacks to their factory-set state.	p. 42 p. 47
FACT RESET	—	Returns all of the A-88's settings to their factory-set state.	p. 47

Changing the Velocity Curve (VELO CURVE)

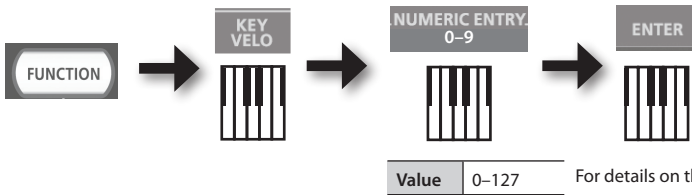


For details on this value, refer to p. 12.

* Values outside the acceptable range (5-) will not be entered.

Value	Setting	Explanation
0	SUPER LIGHT	An even lighter setting than LIGHT.
1	LIGHT	This sets the keyboard to a light touch. You can achieve fortissimo (ff) play with a less forceful touch than usual, so the keyboard feels lighter. This setting makes it easy to play, even for children
2	MEDIUM (default)	This sets the keyboard to the standard touch. You can play with the most natural touch. This is the closest to the touch of an acoustic piano.
3	HEAVY	This sets the keyboard to a heavy touch. You have to finger the keyboard more forcefully than usual in order to play fortissimo (ff), so the keyboard touch feels heavier. Dynamic fingering adds even more feeling to what you play.
4	SUPER HEAVY	An even heavier setting than HEAVY.

Specifying the Keyboard Velocity Value (KEY VELO)



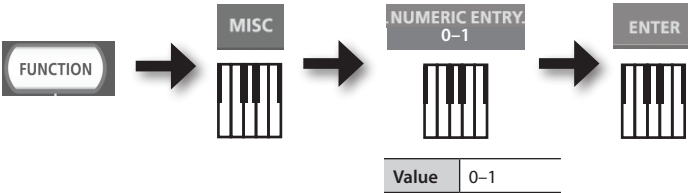
For details on this value, refer to p. 12.

Value	Setting	Explanation
0	TOUCH (default)	The velocity value that's transmitted will depend on the keyboard sensitivity and change curve you specify in "Changing the Velocity Curve (VELO CURVE)" (p. 41).
1-127	FIXED VALUE	The velocity value you specify here will be transmitted regardless of how strongly you play the keyboard.

Making the Power Automatically Turn Off After a Time (Auto Off)

⚠ WARNING

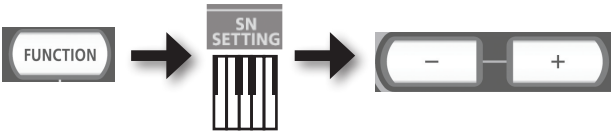
When not connected to a computer, the A-88 will automatically be switched off four hours after you stop playing or operating it (if the factory settings have been unmodified). If you don't want the unit to turn off automatically, change the "AUTO OFF" setting to "OFF" as described below.



For details on this value, refer to p. 12

Value	Settings	Explanation
0	OFF	The power will not turn off automatically.
1	ON (default)	When not connected to a computer, the A-88 will automatically be switched off four hours after you stop playing or operating it.

Switching the Function of the [C2] Knob in SuperNATURAL Mode (SN SETTING)



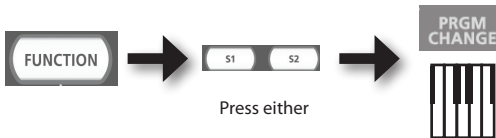
Button	Setting	Explanation
[+] button	MODE 1	General purpose controller 4 (CC#19) will be assigned to the [C2] knob.
[-] button	MODE 0 (default)	General purpose controller 2 (CC#17) will be assigned to the [C2] knob.

* The effect that's applied will depend on the sound module. For details, refer to the owner's manual of your sound module.

Assigning Functions to the Knobs, Buttons, and Jacks

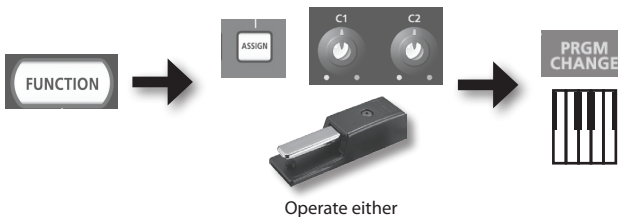
Assigning a Program Change Message (PRGM CHANGE)

[S1] [S2] buttons

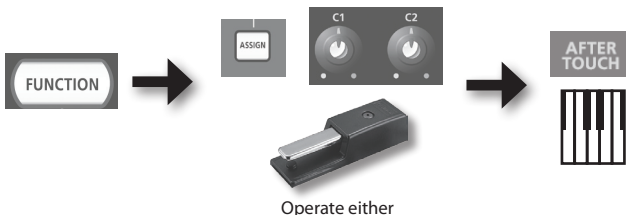


Button	Function
[S1] button	Decrement the program number
[S2] button	Increment the program number

Other controllers

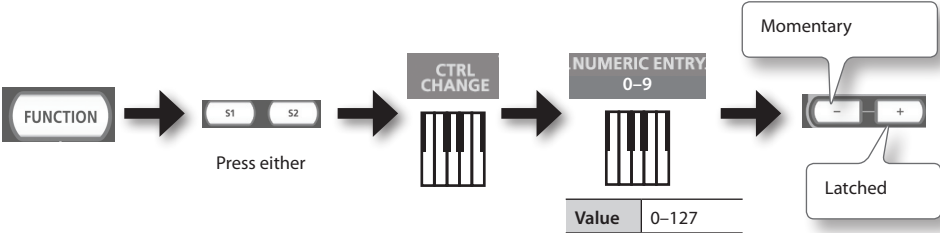


Assigning Aftertouch



Assigning a Control Change Number (CC#)

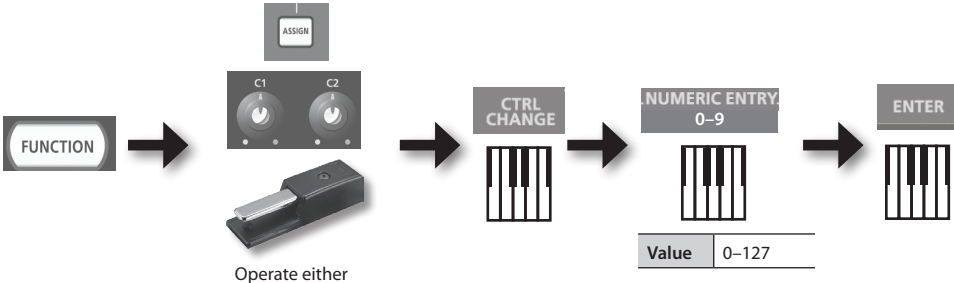
[S1] [S2] buttons



For details on this value, refer to p. 12.

Button	[S1][S2] buttons
[+] button	The button will alternately transmit ON (127) and OFF (0) each time you press it (Latched operation)
[-] button	The button will transmit ON (127) when you press it, and OFF (0) when you release it (Momentary operation)

Other controllers



For details on this value, refer to p. 12.

* You can't assign CC#0 (Bank Select MSB) or CC#32 (Bank select LSB).

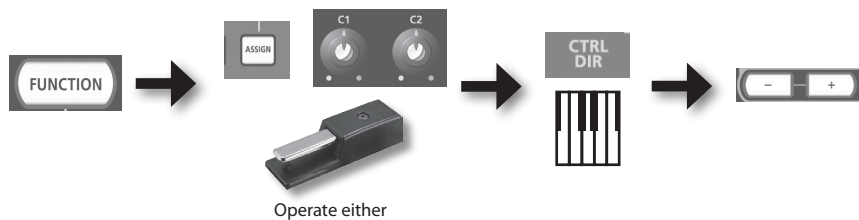
Frequently used CC#

CC#	Function	Factory assignments
1	Modulation	Modulation of [Pitch Bend/Modulation] lever
5	Portamento time	—
7	Volume	[VOL] button
10	Panpot	—
11	Expression	—
64	Hold	DAMPER jack
65	Portamento	—
66	Sostenuto	FC2 jack
67	Soft	FC1 jack
71	Resonance	[C2] knob
72	Release time	—
73	Attack time	—
74	Cutoff	[C1] knob
75	Decay time	—
76	Vibrato rate	—
77	Vibrato depth	—
78	Vibrato delay	—
84	Portamento control	—
91	General purpose effect 1 (Reverb send level)	—
93	General purpose effect 3 (Chorus send level)	—

* The effect that's applied will depend on the sound module. For details, refer to the owner's manual of your sound module.

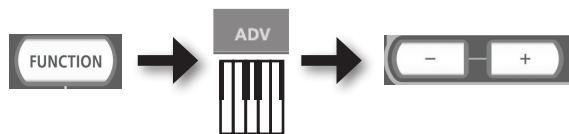
Changing the A-88 Settings

Changing the Direction of Value Increases for the Knobs, D-BEAM Controller, and Pedals (CTRL DIR)



Button	Setting	Explanation
[+] button	POSITIVE (default)	Moving the knob toward the right will increase the value. Moving your hand closer to the D-BEAM controller will increase the value, and moving it away from the D-BEAM controller will decrease the value. Pressing a pedal will increase the value.
[-] button	REVERSED	The opposite will occur.

Selecting the Dedicated Driver or the Generic Driver



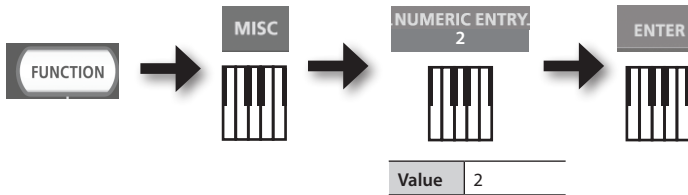
Normally, you can leave this set to “ADVANCED.”

Button	Setting	Explanation
[+] button	ADVANCED (default)	The dedicated driver described in “Driver Installation” (p. 17) will be used.
[-] button	GENERIC	The generic driver provided by the operating system will be used. This is convenient if you don’t have the dedicated driver, or if you’re unable to install the dedicated driver.

* After changing the setting, turn the power off, then back on again so that the setting is placed into effect.

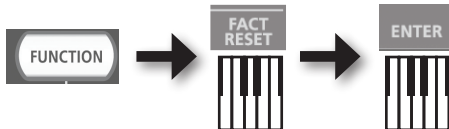
Returning the Pedal Jacks Assignments to the Factory Settings

Here's how to return the functions assigned to the DAMPER, FC1, and FC2 jacks to their factory-set settings.



For details on this value, refer to p. 12.

Restoring the Factory Settings (FACT RESET)



Troubleshooting

If you experience problems, read this chapter first. It contains tips for solving most problems. If this chapter cannot help you solve a problem, please refer to the support section of our website. If the problem is not resolved, refer to the contact information listed at the end of this manual.

Roland support website: <http://www.roland.com/>

Problems When Installing the Driver

Problem	Confirmation	Resolution
Installer does not start	Are you attempting to install from a networked DVD-ROM drive?	Put the CD-ROM to DVD-ROM drive connected to your computer, and install.
Cannot install	Are you logged on with a user account that does not have administrator privileges?	Log on to the computer with a user account that has administrator privileges. For details, consult the administrator for your computer system.
	Windows XP Is the "Driver Signing Options" setting set to [Block]?	Change the "Driver Signing Options" setting (p. 52).
	Are other programs or resident programs (such as antivirus programs) running?	Be sure to exit all other programs before installation.
Windows Warning or error appears during installation	In the "Device Manager," do you see "Other device," "Unknown device," or a device for which "?", "!", or "x" is displayed?	Reinstall the driver (p. 54).
Installer does not exit	Is your computer running on battery power?	Connect the power cord to the computer.
	Other than a mouse and keyboard, are any USB devices connected?	Make sure that there are no USB devices connected to the computer (other than a mouse and keyboard) during installation.
	Is the unit connected to a USB hub that is not connected to a power supply?	Use a USB hub that connects to a power supply.
Windows XP "Found New Hardware Wizard" appears again after driver was installed	Did you connect the unit to a different USB connector than the one you used when installing the driver?	If you change the USB connector to which the unit is connected, the "Found New Hardware Wizard" may appear again even if the driver has already been installed on the computer. Follow step 10 of the driver installation procedure (p. 19) and install the driver.
Windows 8/ Windows 7/ Windows Vista Numeral such as "2-" appears at the beginning of a device name	Did you connect the unit to a different USB connector than the one you used when installing the driver?	If you connect the unit to a different USB connector than the one you used when installing the driver, a numeral may appear with the device name. To have the device name appear without the numeral, connect the unit to the same USB connector used during installation, or reinstall the driver (p. 54).

Problems When Using the Unit

Problem	Confirmation	Resolution
Power won't turn on	Is the [POWER SOURCE] switch set appropriately?	If the AC adaptor is connected, set the [POWER SOURCE] switch to the "AC ADAPTOR" position (p. 16).
	Are the unit's AC adaptor and power cord correctly connected to the AC outlet and the unit itself?	Make sure that the AC adaptor and the power cord are connected correctly (p. 16). Use only the included AC adaptor; the use of any other adaptor may cause malfunction.
Power turns off	Could you have changed the setting of the [POWER SOURCE] switch while the power was on?	Turn the [POWER] switch off before you change the setting of the [POWER SOURCE] screen (p. 16).
Cannot select or use unit device	Is the driver installed?	Install the driver (p. 17).
	Is the POWER indicator off?	Make sure that the unit is connected to the computer correctly. If the problem is not resolved, reinstall the driver (p. 54).
	Is the unit's device name displayed?	Close all software that is using the unit; then turn the unit's [POWER] switch off, then back on again.
	Is another program using the unit?	
	Did the computer enter standby (suspend) mode, hibernate mode, or sleep mode while the unit was connected?	Close all software that is using the unit; then turn the unit's [POWER] switch off, then back on again.
	Did you disconnect and reconnect the USB cable while using the unit?	If the problem is not resolved, restart the computer.
	Was the unit connected to the computer while the computer was starting up?	Connect the unit after the computer has started up. With some computers, the unit cannot be used if it is connected to the computer while the computer is starting up.
	Windows 8/Windows 7/Windows Vista Are you using the Media Player included with Windows?	Use different software. MIDI devices cannot be selected in Media Player.
	Mac OS X Have you configured "Audio MIDI Setup"?	Configure Audio MIDI Setup (p. 20).
	Could you have specified OS default (GENERIC) as the driver setting?	Choose the dedicated setting (ADVANCED) (p. 46).

Troubleshooting

Problem	Confirmation	Resolution
No sound	Is the POWER indicator off?	Make sure that the unit is connected to the computer correctly.
	Could you have operated the pedal or D-BEAM controller to lower the volume?	Try pressing the pedal or moving your hand above the D-BEAM controller.
Cannot play or record	Is the driver installed?	Install the driver (p. 17).
	Are the software's input device and output device configured?	Select the A-88 as the input and output device (p. 23).
	Is the unit's POWER indicator off?	Make sure that the unit is connected to the computer correctly. If the problem is not resolved, reinstall the driver (p. 54).
	Is the sound module connected to the MIDI OUT cable receiving MIDI signals?	Confirm the settings of the sound module.
	Is there another program using the unit?	Close all software that is using the unit; then turn the unit's [POWER] switch off, then back on again. If the problem is not resolved, reinstall the driver (p. 54).
	Did the computer enter standby (suspend) mode, hibernate mode, or sleep mode while the unit was connected?	Close all software that is using the unit; then turn the unit's [POWER] switch off, then back on again.
	Did you disconnect and reconnect the USB cable while using the unit?	If the problem is not resolved, restart the computer.
	Was the unit connected to the computer while the computer was starting up?	Connect the unit after the computer has started up. With some computers, the unit cannot be used if it is connected to the computer while the computer is starting up.
	Did the computer perform a processor-intensive task while you were using the unit?	Stop playback or recording, and then try playing back or recording again. If the problem is not resolved, close all software that is using the unit; then turn the unit's [POWER] switch off, then back on again.
	<div>Windows 8/Windows 7/ Windows Vista</div> Are you using the Media Player included with Windows?	Use different software. MIDI devices cannot be selected in Media Player.
Duplicate notes sound	Is the sound module set to Local On? Is the software's THRU function turned on?	Configure as follows. Sound module: Local Off Software's THRU function: Off For details, refer to the owner's manual for the equipment you are using.
	Could you have assigned the same MIDI channel to UPPER and LOWER?	Assign different MIDI channels (p. 32).

Problem	Confirmation	Resolution
Sound is interrupted during playback or recording, sound drops out	Are multiple programs running?	Exit programs that are not in use.
	Windows Is the system software up to date?	Run Windows Update or Microsoft Update and make sure the system software is up to date.
	Mac OS X Have you used Mac OS X Software Update?	Run Software Update and make sure the system software is up to date.
	Are the drivers for the computer's internal chipset and graphics card up to date?	Update to the latest drivers, as necessary.
	Are the drivers for the computer's LAN hardware (wired and wireless) up to date?	Install the latest LAN hardware drivers. If the problem is not resolved, disable the LAN.
	Is the computer's power management setting set to economy mode?	Check the power management setting and make the appropriate setting (p. 52).
	Is the unit connected to a USB hub?	Connect the unit directly to one of the computer's USB connectors.
	Windows Is the driver's [Lighten Load] setting turned off?	Place a check in the [Lighten Load] check box (p. 55).
	Did you try to play back or record immediately after the computer started up or after it woke up from sleep mode?	Wait a while before attempting playback or recording.
There's a time lag from when you play the keyboard until your software sound generator produces sound	Have you lowered (decreased) the audio buffer size of your software sound generator? Have you lowered (decreased) the buffer size for your sound card?	A software sound generator produces sound using your computer's sound card. Before the sound from the software sound generator is actually heard from the sound card as sound, there will be a time lag referred to as "latency." Regardless of the combination of sound generator and sound card you use, there will always be some latency. Usually, however, the latency can be kept to an acceptable amount by using the right combination of sound generator and card, and by making the appropriate settings. For details on how to make these settings, refer to the owner's manuals for your software and sound card.

Changing Computer Settings to Avoid Problems

Changing these computer settings can help you avoid the problems described in “Problems When Installing the Driver” (p. 48) and “Problems When Using the Unit” (p. 49).

Driver Signing Options Setting (Windows XP)

If the “Driver Signing Options” setting is set to [Block], you cannot install the driver. Configure as follows.

1. Open the “Control Panel,” click [Performance and Maintenance], and then click the [System] icon.

If you have selected Classic view, double-click [System].

2. Click the [Hardware] tab, and then click [Driver Signing].

The “Driver Signing Options” dialog box will open.

3. In the “Driver Signing Options” dialog box, select [Warn] or [Ignore], and then click [OK].

4. Click [OK] to close the “System Properties” dialog box.

5. Install the driver as described in “Driver Installation” (p. 17).

When you have completed the installation, return the “Driver Signing Options” setting to its original setting.

Power Management Settings

If the sound is interrupted during a performance or if sounds are missing, you may be able to resolve the problem by changing the computer’s power management settings.

Windows 8/Windows 7/Windows Vista

1. Open the “Control Panel,” click [System and Security] or [System and Maintenance], and then click [Power Options].

- If you have selected Icon view in Windows 8 or Windows 7, double-click the [Power Options] icon.
- If you have selected Classic view in Windows Vista, double-click the [Power Options] icon.

2. When “Select a power plan” appears, select [High performance].

3. Click [Change plan settings] next to [High performance].

If “High performance” is not displayed in Windows 8 or Windows 7, click [Show additional plans].

4. Click [Change advanced power settings].
5. In the [Advanced settings] tab of the "Power Options" control panel, click the [+] mark next to "Hard disk," and then click the [+] mark next to "Turn off hard disk after."
6. Click [Setting], click the down arrow, and then select [Never].
7. Click [OK] to close the "Power Options" window.
8. Close the "Edit plan settings" screen.

Windows XP

1. Open the "Control Panel," click [Performance and Maintenance], and then click [Power Options].
If you have selected Classic view, double-click [Power Options].
2. Click the [Power Schemes] tab, and set "Power schemes" to [Always On].
3. Click [OK] to close "Power Options Properties."

Mac OS X

This setting is not available on certain versions of Mac OS X.

1. Open "System Preferences" and click [Energy Saver].
2. Click [Options].
3. Set "Processor Performance" to [Highest].

To open the Control Panel Windows 8

1. On the Start screen, click the Desktop.
2. Move the mouse pointer to the upper right or lower right corner of the screen to display the charms.
* On touch-enabled PCs, swipe from the right side of the screen to display the charms.
3. Click [Settings] and display the "Settings charms."
4. In "Settings charms," click [Control Panel] to open the "Control Panel."

Reinstalling the Driver

If you experience problems installing the driver, use the following procedure and reinstall the driver.

1. Delete the driver.
2. Install the driver again as described in “Driver Installation” (p. 17).

Deleting the Driver

If the computer does not detect the unit correctly, use the following procedure to delete the driver, and then install the driver again as described in “Driver Installation” (p. 17).

Windows

1. **Start up the computer without the unit connected.**
Disconnect all USB cables other than those for a USB keyboard and/or USB mouse (if used).
2. **Log on to the computer with a user account that has administrator privileges.**
3. **Insert the included CD-ROM into the computer’s DVD-ROM drive.**
4. **Double-click the [Uninstall] icon in the [WinDriver] folder on the included CD-ROM.**
5. **When a confirmation screen regarding user account control appears, click [Yes] or [Continue].**
6. **When “The installed A-Series Keyboard driver will be uninstalled.” appears, click [OK].**
If other messages appear, follow the instructions on the screen.
7. **When “Uninstallation was completed.” appears, click [OK] to restart the computer.**

Mac OS X

1. Start up the Mac without the unit connected.

Disconnect all USB cables other than those for a USB keyboard and/or USB mouse (if used).

2. Insert the included CD-ROM into the computer's DVD-ROM drive.

3. Double-click [Uninstaller] in the [MacDriver] folder on the included CD-ROM.

4. When "This uninstalls A-Series Keyboard driver from this Mac." appears, click [Uninstall].

If other messages appear, follow the instructions on the screen.

5. When "Are you sure you want to uninstall the driver?" appears, click [OK].

The authentication dialog box or the message "Uninstaller requires that you type your password" will appear.

6. Enter the password and click [OK].

7. When "Uninstallation is completed." appears, click [Restart] to restart the Mac.

It may take some time for the Mac to restart.

Lightening the MIDI Load (Windows)

The MIDI load can be lightened in the driver setting dialog box.

1. Exit all programs that are using the unit.

2. Open the "Control Panel" and set the display mode as follows.

Windows 8/Windows 7 : Icon view

Windows Vista/Windows XP : Classic view

3. Double-click the A-Series Keyboard icon.

The "A-Series Keyboard Driver Settings" dialog box will appear.

4. Place a check in the [Lighten Load] check box.

5. Click [OK].

Main Specifications

Roland A-88: MIDI Keyboard Controller

Keyboard	88 keys (Ivory Feel-G keyboard with Escapement)
Controllers	Buttons: [S1] [S2] (Assignable) Knobs: [C1] [C2] (Assignable) Foot Pedals: DAMPER, FC1, FC2 [Pitch Bend/Modulation] lever D-BEAM controller
Buttons	[FUNCTION] button [SuperNATURAL] button [+][-] buttons [TRANPOSE] button [DUAL/SPLIT] button, [LOWER] button, [UPPER] button
Switches	[POWER] switch [POWER SOURCE] switch
Display	POWER indicator LED OCTAVE/TRANPOSE indicator LED
Connectors	DAMPER jack: 1/4-inch TRS phone type FC1, FC2 jacks: 1/4-inch TRS phone type MIDI OUT connector USB COMPUTER port (USB Type B) DC IN jack
Power Supply	AC adaptor Supplied from the computer via USB COMPUTER port
Current Draw	100 mA (AC Adaptor) 150 mA (USB)
Dimensions	1,443 (W) x 273 (D) x 116 (H) mm 56-7/8 (W) x 10-3/4 (D) x 4-5/8 (H) inches
Weight	15.9 kg / 35 lbs 1 oz
Accessories	Owner's Manual Damper Pedal (capable of continuous detection) AC Adaptor, Power Cord (for AC Adaptor) A-Series Keyboard CD-ROM USB cable SONAR LE DVD-ROM (Windows) SONAR LE installation guide (Windows)
Options (sold separately)	Keyboard Stand (KS-18Z, KS-12) Pedal Unit (RPU-3) Damper Pedal (DP-10) Pedal Switch (DP-2) Expression Pedal (EV-5, EV-7)

* In the interest of product improvement, the specifications and/or appearance of this unit are subject to change without prior notice.

MIDI Implementation Chart

Date: Sep. 1, 2012

Version: 1.00

Model: A-88

Function...		Transmitted	Recognized	Remarks
Basic Channel	Default	1	×	
	Changed	1-16	×	
Mode	Default	Mode 3	×	
	Messages	OMNI ON/OFF, MONO, POLY	×	
	Altered	*****	×	
Note Number		0-127	×	
	: True Voice	*****	×	
Velocity	Note ON	O (9n v=1-127)	×	
	Note OFF	O (8n v=1-127), (9n v=0)	×	
Aftertouch	Key's	×	×	
	Ch's	O	×	
Pitch Bend		O	×	
Control Change	0-119	O	×	
Program Change		O (0-127)	×	
	: True #	*****	×	
System Exclusive		O	O	
System Common	: Song Pos	O	×	
	: Song Sel	O (0-127)	×	
	: Tune	O	×	
System Real Time	: Clock	O	×	
	: Command	O	×	
Aux Message	: All Sound Off	O *1 (120)	×	
	: Reset All Controller	O *1 (121)	×	
	: Local control	O	×	
	: All Notes Off	O *1 (123)	×	
	: Active Sense	O	×	
	: Reset	O	×	
Notes		*1 Transmits When the Panic function is executed.		

Mode 1 : OMNI ON, POLY

Mode 2 : OMNI ON, MONO

O : Yes

Mode 3 : OMNI OFF, POLY

Mode 4 : OMNI OFF, MONO

X : No

Index

Symbols

[+][-] buttons 15

A

AC ADAPTOR 16

Aftertouch 39

[ASSIGN] button 14, 36

Auto Off 42

B

Bank 33

Bank Select LSB 33

Bank Select MSB 33

C

[C1] knob 37

[C2] knob 37

CHANNEL 32

Control Change Number 44

CTRL DIR 46

D

DAMPER jack 16, 38

Damper pedal 38

D-BEAM 14, 36

D-BEAM controller 14

DC IN jack 16

Driver

Delete 54

Install 17

Mode 46

Reinstall 54

DUAL 30

[DUAL/SPLIT] button 15

E

Expression 38

F

FACT RESET 47

FC1 jack 16, 38

FC2 jack 16, 38

[FUNCTION] button 14

FUNCTION mode 27

I

Ivory Feel Keyboard 8

K

KEY VELO 41

KS-12 9

KS-18Z 9

L

Lightening the MIDI load 55

LOWER 30

[LOWER] button 15, 30

LSB 33

M

MIDI CHANNEL 32

MIDI OUT connector 16

MIDI transmit channel 32

MIDI Visual Control 29

MIDI Visual Control mode 29

Modulation 35

MSB 33

O

Octave Shift 34

OCTAVE/TRANPOSE indicator 15

Operating modes 26

P

PANIC 39

Parts 30

Pedal 38, 47

Pitch bend 35

[Pitch Bend/Modulation] lever 14

[PITCH] button 14, 36

PLAY mode 26

POWER indicator 14

[POWER SOURCE] switch 16

[POWER] switch 14

PRGM CHANGE 43

Program Change 43

S

SN SETTING 42

SPLIT 30

Stuck notes 39

SuperNATURAL 28

SuperNATURAL mode 28

Switching sounds 32

T

Transpose 34

[TRANPOSE] button 15

U

UPPER 30

[UPPER] button 15, 30

USB COMPUTER port 16

V

Velocity 41

Velocity Curve 41

VELO CURVE 41

[VOL] button 14, 36

MEMO

MEMO

MEMO

For EU Countries



- UK** This symbol indicates that in EU countries, this product must be collected separately from household waste, as defined in each region. Products bearing this symbol must not be discarded together with household waste.
- DE** Dieses Symbol bedeutet, dass dieses Produkt in EU-Ländern getrennt vom Hausmüll gesammelt werden muss gemäß den regionalen Bestimmungen. Mit diesem Symbol gekennzeichnete Produkte dürfen nicht zusammen mit den Hausmüll entsorgt werden.
- FR** Ce symbole indique que dans les pays de l'Union européenne, ce produit doit être collecté séparément des ordures ménagères selon les directives en vigueur dans chacun de ces pays. Les produits portant ce symbole ne doivent pas être mis au rebut avec les ordures ménagères.
- IT** Questo simbolo indica che nei paesi della Comunità europea questo prodotto deve essere smaltito separatamente dai normali rifiuti domestici, secondo la legislazione in vigore in ciascun paese. I prodotti che riportano questo simbolo non devono essere smaltiti insieme ai rifiuti domestici. Ai sensi dell'art. 13 del D.Lgs. 25 luglio 2005 n. 151.
- ES** Este símbolo indica que en los países de la Unión Europea este producto debe recogerse aparte de los residuos domésticos, tal como esté regulado en cada zona. Los productos con este símbolo no se deben depositar con los residuos domésticos.
- PT** Este símbolo indica que nos países da UE, a recolha deste produto deverá ser feita separadamente do lixo doméstico, de acordo com os regulamentos de cada região. Os produtos que apresentem este símbolo não deverão ser eliminados juntamente com o lixo doméstico.
- NL** Dit symbool geeft aan dat in landen van de EU dit product gescheiden van huishoudelijk afval moet worden aangeboden, zoals bepaald per gemeente of regio. Producten die van dit symbool zijn voorzien, mogen niet samen met huishoudelijk afval worden verwijderd.
- DK** Dette symbol angiver, at i EU-landet skal dette produkt opsamles adskilt fra husholdningsaffald, som defineret i hver enkelt region. Produkter med dette symbol må ikke smides ud sammen med husholdningsaffald.
- NO** Dette symbolet indikerer at produktet må behandles som spesialavfall i EU-land, iht. til retningslinjer for den enkelte regionen, og ikke kastes sammen med vanlig husholdningsavfall. Produkter som er merket med dette symbolet, må ikke kastes sammen med vanlig husholdningsavfall.

- SE** Symbolen anger att i EU-länder måste den här produkten kasseras separat från hushållsavfall, i enlighet med varje regions bestämmelser. Produkter med den här symbolen får inte kasseras tillsammans med hushållsavfall.
- FI** Tämä merkintä ilmaisee, että tuote on EU-maissa kerättävä erillään kotitalousjätteistä kunkin alueen voimassa olevien määräysten mukaisesti. Tällä merkinnällä varustettuja tuotteita ei saa hävittää kotitalousjätteiden mukana.
- HU** Ez a szimbólum azt jelenti, hogy az Európai Unióban ezt a terméket a háztartási hulladéktól elkülönítve, az adott régióban érvényes szabályozás szerint kell gyűjteni. Az ezzel a szimbóllal ellátott termékeket nem szabad a háztartási hulladékok közé dobni.
- PL** Symbol oznacza, że zgodnie z regulacjami w odpowiednim regionie, w krajach UE produktu nie należy wyrzucać z odpadami domowymi. Produktów oznaczonych tym symbolem nie można utylizować razem z odpadami domowymi.
- CZ** Tento symbol udává, že v zemích EU musí být tento výrobek sbírán odděleně od domácího odpadu, jak je určeno pro každý region. Výrobky nesoucí tento symbol se nesmí vyhazovat spolu s domácím odpadem.
- SK** Tento symbol vyjadruje, že v krajinách EÚ sa musí zber tohto produktu vykonávať oddelene od domového odpadu, podľa nariadení platných v konkrétnej krajine. Produkty s týmto symbolom sa nesmú vyhazovať spolu s domovým odpadom.
- EE** See sümbol näitab, et EL-i maades tuleb see toode olemprigrist eraldi koguda, nii nagu on igas piirkonnas määratletud. Selle sümboliga märgitud tooteid ei tohi ära visata koos olmeprügiga.
- LT** Šis simbolis rodo, kad ES šalyse šis produktas turi būti surenkamas atskirai nuo buitinių atliekų, kaip nustatyta kiekviename regione. Šiuo simboliu paženklinyti produktai neturi būti išmetami kartu su buitinių atliekomis.
- LV** Šis simbols norāda, ka ES valstīs šo produktu jāievā atsevišķi no mājsaimniecības atkritumiem, kā noteikts katrā reģionā. Produkts ar šo simbolu nedrīkst izmest kopā ar mājsaimniecības atkritumiem.
- SI** Ta simbol označuje, da je treba proizvod v državah EU zbirati ločeno od gospodinskih odpadkov, tako kot je določeno v vsaki regiji. Proizvoda s tem znakom ni dovoljeno odlagati skupaj z gospodinskimi odpadki.
- GR** Το σύμβολο αυτό υποδηλώνει ότι στις χώρες της Ε.Ε. το συγκεκριμένο προϊόν πρέπει να συλλέγεται χωριστά από τα υπόλοιπα οικιακά απορρίμματα, σύμφωνα με όσα προβλέπονται σε κάθε περιοχή. Το προϊόντα που φέρουν το συγκεκριμένο σύμβολο δεν πρέπει να απορρίπτονται μαζί με τα οικιακά απορρίμματα.

For China

有关产品中所含有害物质的说明

本资料就本公司产品中所含的特定有害物质及其安全性予以说明。

本资料适用于 2007 年 3 月 1 日以后本公司所制造的产品。

环保使用期限



此标志适用于在中国国内销售的电子信息产品，表示环保使用期限的年限。所谓环保使用期限是指在自制造日起的规定的期限内，产品中所含的有害物质不致引起环境污染，不会对人身、财产造成严重的不良影响。

环保使用期限仅在遵照产品使用说明书，正确使用产品的条件下才有效。

不当的使用，将会导致有害物质泄漏的危险。

产品中有害有毒物质或元素的名称及含量

部件名称	有害有毒物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
外壳 (壳体)	×	○	○	○	○	○
电子部件 (印刷电路板等)	×	○	×	○	○	○
附件 (电源线、交流适配器等)	×	○	○	○	○	○

○：表示该有害有毒物质在该部件所有均质材料中的含量均在 SJ/T11363-2006 标准规定的限量要求以下。

×：表示该有害有毒物质至少在该部件的某一均质材料中的含量超出 SJ/T11363-2006 标准规定的限量要求。

因根据现有的技术水平，还没有什么物质能够代替它。

For the U.K.

IMPORTANT: THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE.

BLUE: NEUTRAL
BROWN: LIVE

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.
Under no circumstances must either of the above wires be connected to the earth terminal of a three pin plug.

For the USA

DECLARATION OF CONFORMITY Compliance Information Statement

Model Name : A-88
Type of Equipment : MIDI Keyboard Controller
Responsible Party : Roland Corporation U.S.
Address : 5100 S. Eastern Avenue, Los Angeles, CA 90040-2938
Telephone : (323) 890-3700

For EU Countries



This product complies with the requirements of EMC Directive 2004/108/EC.

For the USA

FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful 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 or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment requires shielded interface cables in order to meet FCC class B limit.

Any unauthorized changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

For Canada

NOTICE

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

AVIS

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

For C.A. US (Proposition 65)

WARNING

This product contains chemicals known to cause cancer, birth defects and other reproductive harm, including lead.

Information

When you need repair service, call your nearest Roland Service Center or authorized Roland distributor in your country as shown below.

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Londerry Road, Ottery 7800
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Shanghai 200090, CHINA
TEL: (021) 5800-0800

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Jl.Jendeng S.Parmar Kav.28
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Alatau Dybystan
141 Ablyai-Khan ave, 1st floor,
050000 Almaty, KAZAKHSTAN
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BOSNIA AND HERZEGOVINA
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Pod Bani 8
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DENMARK/ESTONIA/ LATVIA/LITHUANIA

Roland Scandinavia A/S
Skagerrakvej 7 Postbox 880
DK-2100 Copenhagen,
DENMARK
TEL: 39166222

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Roland Scandinavia As, Filial
Vanha Nuorijärventie 62
01670 Vantaa, FINLAND
TEL: (0) 9 68 24 020

GERMANY/AUSTRIA

ROLAND Germany GmbH.
Adam-Opel-Strasse 4, 64569
Naheim, GERMANY
TEL: 6152 95546-00

GREECE/CYPRUS

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Music Sound Light
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Patras 26442, GREECE
TEL: 2610 435400

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2045, Törökbalint, FSD Park 3. ep,
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TEL: (231) 511 011

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Roland Ireland
E2 Calmout Park, Calmout
Republic of IRELAND
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ITALY

Roland Italy S. p. a.
Viale delle Industrie 8,
20020 Arese, Milano, ITALY
TEL: (02) 937-78300

MACEDONIA

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Aleksio Demirovski-Bauman 9-3,
1400 Veles, MACEDONIA
TEL: 70 264 458

MONTENEGRO

MAX-AP
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Riziko, MONTENEGRO
TEL: 68 050 112

NORWAY

Roland Scandinavia Adv.
Korte Norge
Lilakervien 2 Postboks 95
Lilaker N-0216 Oslo,
NORWAY
TEL: 2273 0074

POLAND

ROLAND POLSKA SP. Z O.O.
ul. Kry Grodziskie 168
03-289 Warszawa, POLAND
TEL: (022) 678 9512

PORTUGAL

Roland Systems Group EMEA, S.L.
Branch Office Porto
Edificio Tower Plaza
Rotundas Eng. Edgar Cardoso 23,
4-8
4400-676 Vila Nova de Gaia,
PORTUGAL
TEL: (+351) 22 608 00 60

RUSSIA

Roland Music LLC
Donozhaya ul.3, korp.6
117 545 Moscow, RUSSIA
TEL: (495) 981-4967

SERBIA

Music AP
Sutjeska br. 5 XS - 24413 PALIC,
SERBIA
TEL: (0) 24 539 395

SLOVAKIA

DAN Acoustic s.r.o.
Povazska 18,
SK - 940 01 Nové Zámky,
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SPAIN

Roland Systems Group EMEA, S.L.
Paseo Garcia Faria, 33-35
08005 Barcelona, SPAIN
TEL: 93 493 91 00

SWEDEN

Roland Scandinavia A/S
SWEDISH SALES OFFICE
Marbackagatan 31, 4-6
SE-123 43 Farsta, SWEDEN
TEL: (0) 8 683 04 30

SWITZERLAND

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Landstrasse 5, Postfach,
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TEL: (061) 975-9987

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EURHYTHMICS Ltd.
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Achrafieh, LEBANON
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Beirut, LEBANON
TEL: (01) 20-1441

OMAN

TALENTZ CENTRE L.L.C.
Majlana House No. 1
Al Noor Street, Ruwi
SULTANATE OF OMAN
TEL: 2478 3443

QATAR

AL-EMADI TRADING & CONTRACTING CO.
P.O. Box 62, Doha, QATAR
TEL: 4423-5554

SAUDI ARABIA

Adwalah Universal Electronics APL
Behind Pizza Inn
Prince Turki Street
Adwalah Building,
PO BOX 2154,
Al Khobar 31952,
SAUDI ARABIA
TEL: (03) 8643601

SYRIA

Technical Light & Sound Center
PO Box 13520 Bldg No.49
Khaled Ben Alwaid St.
Damascus, SYRIA
TEL: (011) 223-5384

TURKEY

ZUHAL DIS TICARET A.S.
Galip Dedek Cad. No.33
Beyoglu, Istanbul, TURKEY
TEL: (0212) 249 85 10

U.A.E.

Adwalah Universal Electronics APL
Omar bin alkhattab street, fish
market opposite, nayeef area, deira,
Dubai, U.A.E.
TEL: (04) 2340442

NORTH AMERICA

CANADA

Roland Canada Ltd.
(Head Office)
5480 Parkwood Way Richmond B.
C. W.V.2M4, CANADA
TEL: (604) 270 6626

Roland Canada Ltd.

(Toronto Office)
170 Admiral Boulevard
Mississauga ON L5T 2N6,
CANADA
TEL: (905) 362 9707

U. S. A.

Roland Corporation U.S.
5100 S. Eastern Avenue,
Los Angeles, CA 90040-2938,
U.S.A.
TEL: (323) 890 3730

