



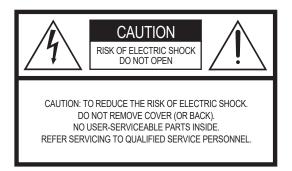
STAGE PIANO

CP88 CP73

Owner's Manual

SPECIAL MESSAGE SECTION

PRODUCT SAFETY MARKINGS: Yamaha electronic products may have either labels similar to the graphics shown below or molded/stamped facsimiles of these graphics on the enclosure. The explanation of these graphics appears on this page. Please observe all cautions indicated on this page and those indicated in the safety instruction section.





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



The lightning flash with arrowhead symbol, within the equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electrical shock.

IMPORTANT NOTICE: All Yamaha electronic products are tested and approved by an independent safety testing laboratory in order that you may be sure that when it is properly installed and used in its normal and customary manner, all foreseeable risks have been eliminated. DO NOT modify this unit or commission others to do so unless specifically authorized by Yamaha. Product performance and/or safety standards may be diminished. Claims filed under the expressed warranty may be denied if the unit is/has been modified. Implied warranties may also be affected.

SPECIFICATIONS SUBJECT TO CHANGE: The information contained in this manual is believed to be correct at the time of printing. However, Yamaha reserves the right to change or modify any of the specifications without notice or obligation to update existing units.

ENVIRONMENTAL ISSUES: Yamaha strives to produce products that are both user safe and environmentally friendly. We sincerely believe that our products and the production methods used to produce them, meet these goals. In keeping with both the letter and the spirit of the law, we want you to be aware of the following:

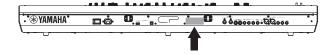
Battery Notice: This product MAY contain a small non-rechargeable battery which (if applicable) is soldered in place. The average life span of this type of battery is approximately five years. When replacement becomes necessary, contact a qualified service representative to perform the replacement.

Warning: Do not attempt to recharge, disassemble, or incinerate this type of battery. Keep all batteries away from children. Dispose of used batteries promptly and as regulated by applicable laws. Note: In some areas, the servicer is required by law to return the defective parts. However, you do have the option of having the servicer dispose of these parts for you.

Disposal Notice: Should this product become damaged beyond repair, or for some reason its useful life is considered to be at an end, please observe all local, state, and federal regulations that relate to the disposal of products that contain lead, batteries, plastics, etc.

NOTICE: Service charges incurred due to lack of knowledge relating to how a function or effect works (when the unit is operating as designed) are not covered by the manufacturer's warranty, and are therefore the owners responsibility. Please study this manual carefully and consult your dealer before requesting service.

NAME PLATE LOCATION: The graphic below indicates the location of the name plate. The model number, serial number, power requirements, etc., are located on this plate. You should record the model number, serial number, and the date of purchase in the spaces provided below and retain this manual as a permanent record of your purchase.



Model		
Serial No		
Purchase Date		

92-469- ① (rear)

FCC INFORMATION (U.S.A.)

1. IMPORTANT NOTICE: DO NOT MODIFY THIS UNIT!

This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements. Modifications not expressly approved by Yamaha may void your authority, granted by the FCC, to use the product.

- 2. IMPORTANT: When connecting this product to accessories and/or another product use only high quality shielded cables. Cable/s supplied with this product MUST be used. Follow all installation instructions. Failure to follow instructions could void your FCC authorization to use this product in the USA.
- 3. NOTE: This product has been tested and found to comply with the requirements listed in FCC Regulations, Part 15 for Class "B" digital devices. Compliance with these requirements provides a reasonable level of assurance that your use of this product in a residential environment will not result in harmful interference with other electronic devices. This equipment generates/uses radio frequencies and, if not installed and used according to the instructions found in the users manual, may cause interference harmful to the operation of other electronic devices. Compliance with FCC regula-

tions does not guarantee that interference will not occur in all installations. If this product is found to be the source of interference, which can be determined by turning the unit "OFF" and "ON", please try to eliminate the problem by using one of the following measures:

Relocate either this product or the device that is being affected by the interference.

Utilize power outlets that are on different branch (circuit breaker or fuse) circuits or install AC line filter/s.

In the case of radio or TV interference, relocate/reorient the antenna. If the antenna lead-in is 300 ohm ribbon lead, change the lead-in to co-axial type cable.

If these corrective measures do not produce satisfactory results, please contact the local retailer authorized to distribute this type of product. If you can not locate the appropriate retailer, please contact Yamaha Corporation of America, Electronic Service Division, 6600 Orangethorpe Ave, Buena Park. CA90620

The above statements apply ONLY to those products distributed by Yamaha Corporation of America or its subsidiaries.

(class B)

COMPLIANCE INFORMATION STATEMENT (DECLARATION OF CONFORMITY PROCEDURE)

Responsible Party: Yamaha Corporation of America

Address: 6600 Orangethorpe Ave., Buena Park, Calif. 90620

Telephone: 714-522-9011
Type of Equipment: STAGE PIANO
Model Name: CP88, CP73

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.

See user manual instructions if interference to radio reception is suspected.

(FCC DoC)

Information for users on collection and disposal of old equipment:



This symbol on the products, packaging, and/or accompanying documents means that used electrical and electronic products should not be mixed with general household waste.

For proper treatment, recovery and recycling of old products, please take them to applicable collection points, in accordance with your national legislation.

By disposing of these products correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling.

For more information about collection and recycling of old products, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items.

For business users in the European Union:

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

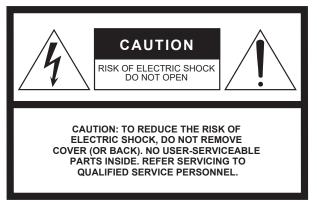
Information on Disposal in other Countries outside the European Union:

This symbol is only valid in the European Union. If you wish to discard these items, please contact your local authorities or dealer and ask for the correct method of disposal.

(weee eu en 02)

^{*} This applies only to products distributed by YAMAHA CORPORATION OF AMERICA.

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The above warning is located on the rear of the unit.

Explanation of Graphical Symbols



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



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

IMPORTANT SAFETY INSTRUCTIONS

- 1 Read these instructions.
- 2 Keep these instructions.
- 3 Heed all warnings.
- 4 Follow all instructions.
- 5 Do not use this apparatus near water.
- 6 Clean only with dry cloth.
- 7 Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9 Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10 Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

- 11 Only use attachments/accessories specified by the manufacturer.
- 12 Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.
 When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



- 13 Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14 Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.

(UL60065_03)

PRECAUTIONS

PLEASE READ CAREFULLY BEFORE PROCEEDING

Please keep this manual in a safe and handy place for future reference.



WARNING

Always follow the basic precautions listed below to avoid the possibility of serious injury or even death from electrical shock, short-circuiting, damages, fire or other hazards. These precautions include, but are not limited to, the following:

Power supply/Power cord

- Do not place the power cord near heat sources such as heaters or radiators. Also, do not excessively bend or otherwise damage the cord, or place heavy objects on it.
- Only use the voltage specified as correct for the instrument. The required voltage is printed on the name plate of the instrument.
- Use only the supplied power cord/plug.
- Check the electric plug periodically and remove any dirt or dust which may have accumulated on it.
- Be sure to connect to an appropriate outlet with a protective grounding connection. Improper grounding can result in electrical shock.

Do not open

 This instrument contains no user-serviceable parts. Do not open the instrument or attempt to disassemble or modify the internal components in any way. If it should appear to be malfunctioning, discontinue use immediately and have it inspected by qualified Yamaha service personnel.

Water warning

- Do not expose the instrument to rain, use it near water or in damp or wet conditions, or place on it any containers (such as vases, bottles or glasses) containing liquids which might spill into any openings. If any liquid such as water seeps into the instrument, turn off the power immediately and unplug the power cord from the AC outlet. Then have the instrument inspected by qualified Yamaha service personnel.
- Never insert or remove an electric plug with wet hands.

Fire warning

Do not put burning items, such as candles, on the unit.
 A burning item may fall over and cause a fire.

If you notice any abnormality

- When one of the following problems occur, immediately turn off the power switch and disconnect the electric plug from the outlet. Then have the device inspected by Yamaha service personnel.
- The power cord or plug becomes frayed or damaged.
- It emits unusual smells or smoke.
- Some object has been dropped into the instrument.
- There is a sudden loss of sound during use of the instrument.

A CAUTION

Always follow the basic precautions listed below to avoid the possibility of physical injury to you or others, or damage to the instrument or other property. These precautions include, but are not limited to, the following:

Power supply/Power cord

- Do not connect the instrument to an electrical outlet using a multiple-connector. Doing so can result in lower sound quality, or possibly cause overheating in the outlet.
- When removing the electric plug from the instrument or an outlet, always hold the plug itself and not the cord. Pulling by the cord can damage it.
- Remove the electric plug from the outlet when the instrument is not to be used for extended periods of time, or during electrical storms.

Location

- Do not place the instrument in an unstable position where it might accidentally fall over.
- Before moving the instrument, remove all connected cables, to prevent damage to the cables or injury to anyone who might trip over them.
- When setting up the product, make sure that the AC outlet you
 are using is easily accessible. If some trouble or malfunction
 occurs, immediately turn off the power switch and disconnect
 the plug from the outlet. Even when the power switch is turned
 off, electricity is still flowing to the product at the minimum
 level. When you are not using the product for a long time, make
 sure to unplug the power cord from the wall AC outlet.

Connections

- Before connecting the instrument to other electronic components, turn off the power for all components. Before turning the power on or off for all components, set all volume levels to minimum.
- Be sure to set the volumes of all components at their minimum levels and gradually raise the volume controls while playing the instrument to set the desired listening level.

Handling caution

- Do not insert a finger or hand in any gaps on the instrument.
- Never insert or drop paper, metallic, or other objects into the gaps on the panel. This could cause physical injury to you or others, damage to the instrument or other property, or operational failure.
- Do not rest your weight on, or place heavy objects on the instrument, and do not use excessive force on the buttons, switches or connectors.
- Do not use the instrument/device or headphones for a long period of time at a high or uncomfortable volume level, since this can cause permanent hearing loss. If you experience any hearing loss or ringing in the ears, consult a physician.

Yamaha cannot be held responsible for damage caused by improper use or modifications to the instrument, or data that is lost or destroyed.

Always turn the power off when the instrument is not in use.

Even when the [] (Standby/On) switch is in standby status (display is off), electricity is still flowing to the instrument at the minimum level.

When you are not using the instrument for a long time, make sure you unplug the power cord from the wall AC outlet.

NOTICE

To avoid the possibility of malfunction/ damage to the product, damage to data, or damage to other property, follow the notices below.

■ Handling

- Do not use the instrument in the vicinity of a TV, radio, stereo equipment, mobile phone, or other electric devices. Otherwise, the instrument, TV, or radio may generate noise. When you use the instrument along with an application on your iPad, iPhone or iPod touch, we recommend that you set "Airplane Mode" to "ON" on that device in order to avoid noise caused by communication.
- Do not expose the instrument to excessive dust or vibrations, or extreme cold or heat (such as in direct sunlight, near a heater, or in a car during the day) to prevent the possibility of panel disfiguration, damage to the internal components or unstable operation.
- Do not place vinyl, plastic or rubber objects on the instrument, since this might discolor the panel or keyboard.

■ Maintenance

- When cleaning the instrument, use a soft and dry/slightly damp cloth. If the panel (front, side and bottom, excepting the controllers and the keyboard) is dirty, wipe the dirt away using a cloth moistened with a neutral detergent solution and tightly wrung out. Following this, wipe away the detergent solution using a cloth soaked in water and tightly wrung out. Do not use paint thinners, solvents, alcohol, or chemical-impregnated wiping cloths.
- During extreme changes in temperature or humidity, condensation may occur and water may collect on the surface of the instrument. If water is left, the wooden parts may absorb the water and be damaged. Make sure to wipe any water off immediately with a soft cloth.

■ Saving data

- Edited Live set sound and settings of MENU/ SETTINGS screens are lost when you turn off the power to the instrument. This also occurs when the power is turned off by the Auto Power Off function (page 21). Save the data to the instrument, or to USB flash drive/an external device such as a computer (page 23). However, the data saved to the instrument may be lost due to some failure, an operation mistake, etc. Save your important data onto USB flash drive/an external device such as a computer (page 23). Before using a USB flash drive, make sure to refer to page 24.
- To protect against data loss through USB flash drive damage, we recommend that you save your important data onto spare USB flash drive or an external device such as a computer as backup data.

Information

■ About copyrights

- Copying of the commercially available musical data including but not limited to MIDI data and/or audio data is strictly prohibited except for your personal use.
- This product incorporates and bundles contents in which Yamaha owns copyrights or with respect to which Yamaha has license to use others' copyrights. Due to copyright laws and other relevant laws, you are NOT allowed to distribute media in which these contents are saved or recorded and remain virtually the same or very similar to those in the product.
 - * The contents described above include a computer program, Accompaniment Style data, MIDI data, WAVE data, voice recording data, a score, score data, etc.
 - * You are allowed to distribute medium in which your performance or music production using these contents is recorded, and the permission of Yamaha Corporation is not required in such cases.

■ About this manual

- The illustrations and LCD screens as shown in this manual are for instructional purposes only, and may appear somewhat different from those on your instrument.
- iPhone, iPad, Logic Pro are trademarks of Apple Inc., registered in the U.S. and other countries.
- IOS is a trademark or registered trademark of Cisco in the U.S. and other countries and is used under license.
- Cubase is a registered trademark of Steinberg Media Technologies GmbH.
- Ableton Live is a trademarks of Ableton AG.
- Pro Tools[®] is a registered trademark of Avid Technology, Inc.
- The company names and product names in this manual are the trademarks or registered trademarks of their respective companies.

The model number, serial number, power requirements, etc., may be found on or near the name plate, which is at the rear of the unit. You should note this serial number in the space provided below and retain this manual as a permanent record of your purchase to aid identification in the event of theft.

Model No.		
Serial No.		
Serial No.		

(rear_en_01)

Welcome

Thank you for purchasing the Yamaha CP88 or CP73.

This instrument is a Stage Piano designed especially for live performance.

Please read this Owner's Manual carefully before using the instrument in order to take full advantage of its various features. When you have finished reading the manual, keep it in a safe, accessible place, and refer to it when you need to better understand an operation or function.

Accessories

- Owner's Manual (this book)
- · Power cord
- Foot pedal (FC3A)

Main Features

■ Authentic acoustic- and electric-piano sounds of unparalleled quality

Building on our decades of experience in the production of stage pianos, we have meticulously adjusted the sound of each individual key and realized perfect balance over the full length of the keyboard, creating full-bodied piano tones ideal for solo performances and authentically rich sounds well suited for playing within an ensemble. Furthermore, by analyzing and replicating the sound-producing mechanisms of classic electric pianos using cutting-edge technologies, we have been able to achieve an extremely smooth response in the CP88 and CP73 keyboards.

■ Weighted hammer-action keyboards

CP series employ a keyboard with a weighted hammer-action design that is virtually indistinguishable from an acoustic piano. The CP88's NW-GH (Natural Wood Graded Hammer keyboard with synthetic ebony and ivory keytops) keyboard reproduce a touch of grand piano by giving all keys an authentic resistance that increases from the top register to the lower. And the CP73 features a BHS (Balanced Hammer Standard) keyboard with matte black keytops, perfect for performing as an electric piano as well.

■ Design embodies high-class appearance and portability

Featuring a stylish, finely crafted aluminum exterior in a light, compact package, the CP88 and CP73 project an exceptionally professional appearance and provide convenient portability onstage.

■ User interface provides direct, intuitive control required for live performance

The three Voice sections—Piano, E.Piano and Sub—are indicated clearly on the top panel, giving you all the controllers you need onstage, allowing you to directly adjust each parameter as you need while you play. The LED indicator lamps show you the selected Voice, letting you fully concentrate on your performance. Moreover, you can enhance sounds on-the-fly, adding various effects to suit your performance as you play.

■ Connect with other devices and expand your performance potential

Comprehensive MIDI controls and powerful Master Keyboard features make it easy to connect and use the instrument with software synthesizers and external MIDI devices. Moreover, the instrument has a built-in USB Audio/MIDI interface for convenient recording functions in home and professional studios, as well as onstage performance power.

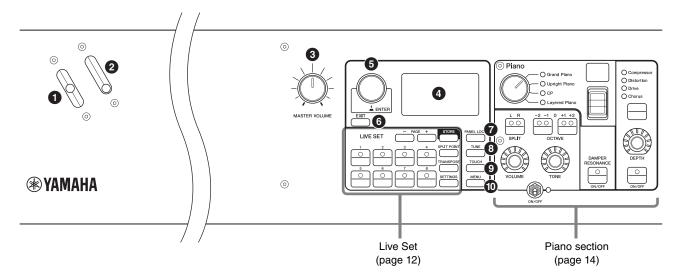
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Controls and Functions

Front Panel



1 Pitch bend lever

Use this controller to smoothly raise or lower the pitch of played notes. When you release it, the lever will automatically spring back to the original position, and the pitch will return to normal.

The range can be set for each sections from the [SETTINGS] button → "Controllers" → "Bend Range" (page 36).

2 Modulation lever

Use this lever to apply vibrato to the sound. The vibrato depth can be set for each section from the [SETTINGS] button → "Controllers" → "P.Mod Depth" (page 36). When the "Rotary" insertion effect of the Sub section is selected, this lever functions as a controller to switch the rotary speed (Fast, Slow).

③ [MASTER VOLUME] knob

Use this knob to adjust the overall volume of the instrument.

4 LCD

Displays the system messages, parameter settings, and a range of other information depending on the function currently being used.

■ Settings of LCD and the indicator lamp

To make the following settings, press the [MENU] button → "Control Panel" → "Display Lights."

Section	For setting "Off" to light the lamps of each section that is linked with the Voice section [ON/OFF] switches, or "On" so that they continuously light.
Ins Effect	For setting "Off" to light each insertion effect lamps linked with the Insertion effect [ON/ OFF] buttons, or "On" to continuously light the lamps.
LCD SW	Set this to "On" to light the Top screen, or "Off" to turn off. However, regardless of this setting, the various setting screens such as the MENU screens and the SETTINGS screens are always lit.
LCD Contrast	For adjusting the contrast of the LCD.

5 Encoder dial/[ENTER] button

Use this dial to display the Live Set view and to edit the currently selected parameter. In the MENU screens and the SETTINGS screens, move the cursor (highlighted) up or down to select an event for editing.

Also pressing this dial is equivalent to pressing the

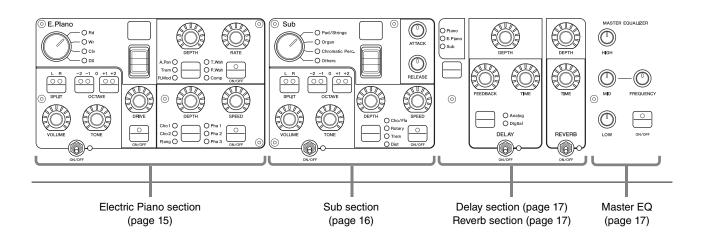
Also, pressing this dial is equivalent to pressing the [ENTER] button. Use this button to determine the selected parameter or to execute each operation.

6 [EXIT] button

The MENU screens and the SETTINGS screens are organized according to a hierarchical structure. Press this button to exit from the current screen and return to the previous level in the hierarchy.

Illustration shows the CP88.

The keyboard range of the CP88 is A-1 to C7, the keyboard range of CP73 is E1 to E7.

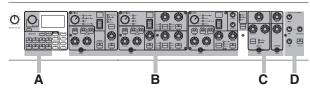


[PANEL LOCK] button

Use this button to switch the panel lock function on and off. When this is set to "On," control panel operations are disabled, ensuring that settings cannot be inadvertently changed. Pressing the button alternates between lock and unlock. While the panel lock is engaged, will appear on the top left corner of the LCD display.

NOTE

Panel lock settings can be made individually for the following areas from the [MENU] button \rightarrow "Control Panel" \rightarrow "Panel Lock Settings."



- A. Live Set
- B. Piano/E.Piano/Sub
- C. Delay/Reverb
- D. Master EQ

[TUNE] button

Use this button to set the tuning for the entire instrument (414.72 – 466.78 Hz). Press the [TUNE] button, and then use the Encoder dial to change the value.

NOTE

The default value is 440.00 Hz.

9 [TOUCH] button

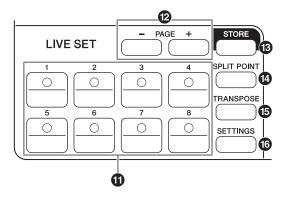
Displays the screen to select a curve for determining how the actual velocities will be generated according to the strength with which you play notes on the keyboard. The available settings are as follows. The setting also can be changed from the [MENU] button \Rightarrow "General" \Rightarrow "Keyboard/Pedal" \Rightarrow "Touch Curve" (page 29).

Settings	Characteristics
Normal	This curve produces velocities in direct proportion to the strength of your keyboard playing. This is the most common type of curve.
Soft	This curve makes it easier to produce high velocities across the entire keyboard.
Hard	This curve makes it more difficult to produce high velocities across the entire keyboard.
Wide	This curve accentuates your playing strength by producing lower velocities in response to softer playing and louder velocities in response to harder playing. You can use this setting to expand the dynamic range of your performances.
Fixed	This curve produces the same amount of sound change, regardless of how hard or soft you play the keyboard. The fixed velocity can be set from the [MENU] button → "General" → "Keyboard/Pedal" → "Fixed Velocity."

10 [MENU] button

Use this button to call up the screens for making overall system settings.

Live Set



1 Live Set Sound [1] - [8] button

Use these buttons to call up the stored Live Set Sounds.

Live Set Sound

This is a combination of Voices/effects, consisting of the sounds of all Voice sections – Piano section (page 14), Electric Piano section (page 15), and Sub section (page 16) and effects of the Delay section (page 17) and the Reverb section (page 17). You can combine sounds and insertion effects, to create and store a custom Live Set Sound.

The Live Set feature supports SSS (Seamless Sound Switching), ensuring that the sound does not cut off even when changed, resulting in smoother transitions between Live Set Sounds and a more natural performance.

NOTE

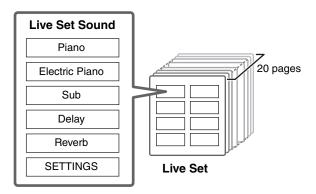
If you wish to mute the sound continued by the effect of SSS, press again the currently selected Live Set Sound button.

PAGE [-]/[+] buttons

Use these buttons to switch the Live Set Pages. The Live Set Sound switches accordingly.

Live Set

Combines the Live Set Sounds [1] – [8] into one page. With the default settings (factory settings), the preset Live Set Sounds are installed in from page 1 to page 10.



Live Set View

Displays a Live Set Page (Live Set Sound [1] – [8]) in a single screen, for convenient overall view of the available sounds. To open the Live Set View, turn the Encoder dial when at the Top screen. The will appear on the left of the currently selected Live Set Sound. To change the Live Set Sound in Live Set View, turn the Encoder dial to select a Live Set Sound, and press the [ENTER] button to return to the Top screen. To have the Live Set view shown on the Top screen, change the settings of "Live Set View Mode" to "Keep" (page 31).



Live Set View Mode

(B) [STORE] button

Use this button to store the edited Live Set Sound. Settings of the sections listed below and their parameters can be stored. Stored settings will be retained when this instrument is turned off.

- · Piano section
- Electric Piano section
- Sub section
- Delay section
- Reverb section
- SETTINGS (includes Split Point and Transpose)

NOTE

The Master EQ settings cannot be stored in Live Set Sound.

■ Storing a Live Set Sound

1. Press the [STORE] button.

Select a Live Set Sound you wish to store the currently edited Live Set Sound setting into.



2. Press the [ENTER] button to execute.

A "Completed." message will appear on the screen, and then return to the Top screen.



NOTE

If you wish to store the currently edited settings to another Live Set Sound, use the Encoder dial to select the Live Set Sound which is to be the store destination. Press the keyboard to confirm that the sound has been changed to the edited settings.





NOTICE

- Keep in mind that the settings will be overwritten when you select an existing Live Set Sound (including one of the preset Live Set Sounds). Proceed with caution
- The settings currently be edited will be lost if you select another Live Set Sound before storing, or turn off the power.

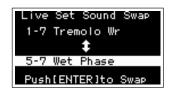
NOTE

- Edits made to a Live Set Sound are normally lost if not stored before selecting a different Live Set Sound; however, by using the "Edit Recall" function, you can recall the last edited condition (page 32).
- You can download the preset Live Set Sounds from Soundmondo. Soundmondo is an iOS application for storing and managing Voice data.
- Please refer to the following Yamaha web page for more details on Soundmondo. http://www.yamaha.com/kbdapps/

■ Swapping Live Set Sounds

- 1. Select the Live Set Sound you wish to swap.
- 2. Call up the Swap screen.

[MENU] button \Rightarrow "Job" \Rightarrow "Live Set Manager" \Rightarrow "Swap."



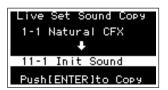
3. Select a Live Set Sound.

Use the Encoder dial to select a Live Set Sound to swap, and then press the [ENTER] button. The messages "Executing.." → "Completed." will appear on the screen, and then return to the Top screen.

■ Copying a Live Set Sound

- 1. Select the Live Set Sound you wish to copy.
- 2. Call up the Copy screen.

[MENU] button → "Job" → "Live Set Manager" → "Copy."



3. Select the desired Live Set Sound location.

Use the Encoder dial to select the Live Set Sound intended for the store destination, and then press the [ENTER] button. The messages "Executing.." → "Completed." will appear on the screen, and then return to the Top screen.

(SPLIT POINT) button

Use this button to change the Split Point. Turn the Encoder dial or press the key you wish to assign as the Split Point. The setting will be stored in Live Set Sound.

Split

This function allows you to play different Voices with the left and right hands. The point on the keyboard that separates the left hand section and the right hand section of the keyboard is called the "Split Point."

NOTE

- The default setting is "G2".
- The lowest note of the right hand section is referred as the Split Point.
- The Split Point can be changed from the [SETTINGS] button
 → "Function" → "Split Point" (page 33).

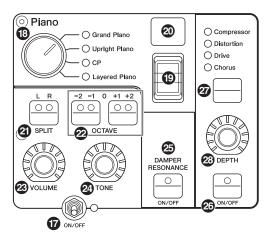
(5) [TRANSPOSE] button

Use this button to adjust the pitch of the keyboard up or down in semitone steps. The settings can be stored to the Live Set Sound. The settings can be changed from the [SETTINGS] button \rightarrow "Function" \rightarrow "Sound Transpose" (page 33).

(6) [SETTINGS] button

Use this button to call up the SETTINGS screens. In the SETTINGS screens, you can make detailed settings for the current selected Live Set Sound (page 33), which will then be stored for the Live Set Sound.

Piano section



7 Voice section [ON/OFF] switch

Use these switches to determine whether the corresponding Voice section is enabled (ON) or not (OFF). When these indicator lamps are lit, the corresponding Voice sound is produced when you play the keyboard.

■ Copying a section

The settings of each Voice section can be copied with the following operation.

1. Select the Voice section you wish to copy.

Select the Live Set Sound which contains the Voice section you wish to copy. Press the [MENU] button → "Job" → "Section Manager" → "Copy," then select the Voice section you wish to copy.

A "Section copied." message will appear on the screen, and then return to the Top screen.

2. Select a Voice section you wish to paste.

Select the Live Set Sound which contains the Voice section you wish to paste the copied section. Press the [MENU] button \rightarrow "Job" \rightarrow "Section Manager" \rightarrow "Paste," then select the Voice section you wish to paste.

A "Section pasted." message will appear on the screen, and then return to the Top screen.

13 Voice category selector

The Voices in each Voice section are divided into four categories. To select a Voice, select a Voice category first.

Voice section	Voice category
Piano	Grand Piano, Upright Piano, CP, Layered Piano
Electric Piano	Rd, Wr, Clv, DX
Sub	Pad/Strings, Organ, Chromatic Perc., Others

19 Voice select switch

Use this switch to select one of the Voices of the category selected with the Voice category selector. For information about the Voices, refer to page 39.

2 Voice number display

Displays the currently selected Voice numbers.

SPLIT [L R] button

Press these buttons to alternate between the keyboardsplit settings of each Voice section. The area for which the indicator lamp is lit will sound.

NOTE

The Split Point can be changed from the [SPLIT POINT] button (page 13), also from the [SETTINGS] \rightarrow "Function" \rightarrow "Split Point" (page 33).

@ OCTAVE [-2 -1]/[+1 +2] buttons

Use these buttons to change the octave range of the keyboard. To restore the normal octave setting, press both buttons simultaneously.

[VOLUME] knob

Use these knobs to adjust the volume of each Voice section.

2 [TONE] knob

Use these knobs to adjust the tone of each Voice section. Setting the knob to the center position produces a flat, evenly balanced sound. Turn the knob to the right (clockwise) to boost the higher and lower ranges. Turn the knob to the left (counter-clockwise) to cut the higher range and the lower range.

② DAMPER RESONANCE [ON/OFF] button

Use this button to switch the damper resonance effect on and off. This simulates the rich sound of open strings produced when the damper pedal of a piano is pressed.

Insertion effect [ON/OFF] button

Use this button to apply the insertion effects.

NOTE

To more easily confirm the setting value when the display light is turned off, you can turn the light on from the [MENU] button \rightarrow "Control Panel" \rightarrow "Display Lights" \rightarrow "Ins Effect" (page 30).

Insertion effect switch button

Use this button to switch among the following effects. The indicator lamp of the selected effect is lit.

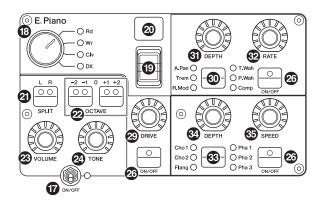
Effect	Description
Compressor	Stereo compressor. To increase the compressor effect, turn the [DEPTH] knob to the right (clockwise).

Effect	Description
Distortion	Monaural compressor plus distortion. Settings from the left-most to the center of the [DEPTH] knob applies compression. Turning the [DEPTH] knob from the center to right (clockwise) increases the amount of distortion.
Drive	Drive effect. Turning the [DEPTH] knob to the right (clockwise) increases the amount of distortion, with the maximum value producing an AM radio-like tone.
Chorus	Stereo chorus. Turning the [DEPTH] knob to the right (clockwise) increases the amount of chorus effect.

2 [DEPTH] knob

Use this knob to adjust the depth of the selected effect.

Electric Piano section



❷ [DRIVE] knob

Use this knob to adjust the amount of the drive effect. Simulates the distortion produced by a tube amp.

1 Insertion effect switch button

Use this button to switch among the following effects. The indicator lamp of the selected effect is lit.

Effect	Description
A.Pan	Auto pan built into vintage electric pianos. Turn the [DEPTH] knob to adjust the effect depth, and turn the [RATE] knob to adjust the effect speed.
Trem	Tremolo built into vintage electric pianos. Turn the [DEPTH] knob to adjust the effect depth, and turn the [RATE] knob to adjust the effect speed.
R.Mod	Ring modulator. Turn the [DEPTH] knob to adjust the effect depth, and turn the [RATE] knob to adjust the frequency. Depending on the settings of the [RATE] knob, this effect also can be used as tremolo.

Effect	Description
T.Wah	Wah responds to keyboard dynamics. Turn the [DEPTH] knob to adjust the effect strength, and turn the [RATE] knob to adjust the effect amount.
P.Wah	Wah synchronized to an expression pedal connected to the FOOT CONTROLLER [2] jack. Turn the [DEPTH] knob to adjust the amount of distortion, and turn the [RATE] knob to adjust the amount of resonance.
Comp	Stereo compressor. Turn the [DEPTH] knob to adjust the effect depth, and turn the [RATE] knob to adjust the sound volume.

(i) [DEPTH] knob

Use this knob to adjust the depth of the selected effect.

@ [RATE] knob

Use this knob to adjust the modulation speed of the selected effect.

3 Insertion effect switch button

Use this button to switch among the following effects. The indicator lamp of the selected effect is lit.

Effect	Description
Cho 1	Traditional Yamaha multiple chorus. Turn the [DEPTH] knob to adjust the effect depth, and turn the [SPEED] knob to adjust the speed.
Cho 2	Simulates a thick detune chorus produced by the vintage TX816 tone generator. Turn the [DEPTH] knob to adjust the effect depth, and turn the [SPEED] knob to adjust the speed.
Flang	Stereo flanger. Turn the [DEPTH] knob to adjust the feedback amount, and turn the [SPEED] knob to adjust the speed.
Pha 1	Phaser applies a smooth and unique sweeping effect. The sweeping effect can be changed by turning the [DEPTH] knob to left/right. Turn the [SPEED] knob to adjust the speed.
Pha 2	Standard phaser. Turn the [DEPTH] knob to adjust the effect strength. Turn the [SPPED] knob to adjust the speed.
Pha 3	Features two different phaser systems. Turn the [DEPTH] knob to switch the depth of "Pha 1" and "Pha 2." Turn the [SPEED] knob to adjust the speed.
Flang Pha 1 Pha 2	vintage TX816 tone generator. Turn the [DEPTH knob to adjust the effect depth, and turn the [SPEED] knob to adjust the speed. Stereo flanger. Turn the [DEPTH] knob to adjust the feedback amount, and turn the [SPEED] knot to adjust the speed. Phaser applies a smooth and unique sweeping effect. The sweeping effect can be changed by turning the [DEPTH] knob to left/right. Turn the [SPEED] knob to adjust the speed. Standard phaser. Turn the [DEPTH] knob to adjust the effect strength. Turn the [SPPED] knob to adjust the speed. Features two different phaser systems. Turn the [DEPTH] knob to switch the depth of "Pha 1" an "Pha 2." Turn the [SPEED] knob to adjust the

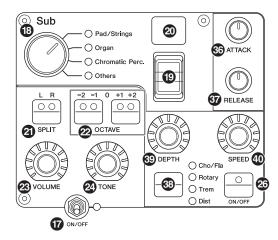
② [DEPTH] knob

Use this knob to adjust the depth of the selected effect.

(SPEED] knob

Use this knob to adjust the modulation speed of the selected effect.

Sub section



③ [ATTACK] knob

Use this knob to adjust the attack time.

(7) [RELEASE] knob

Use this knob to adjust the release time.

NOTE

After you change a Live Set Sound, turning the [ATTACK] knob or the [RELEASE] knob does not actually affect the sound until their position reaches the set values of the currently selected Live Set Sound. Until then, the value will be shown in parentheses.

Insertion effect switch button

Use this button to switch among the following effects. The indicator lamp of the selected effect is lit.

Effect	Description
Cho/Fla	Chorus/Flanger. Turn the [DEPTH] knob to adjust the effect depth. Turn the [SPEED] knob to adjust the speed. Settings from the left-most to the center of the [DEPTH] knob apply a chorus effect, while settings from the center to the right (clockwise) apply a flanger effect (similar to the sound of jet).
Rotary	Rotary speaker. Turn the [DEPTH] knob to adjust the balance between rotary speaker and horn speaker. Turn the [SPEED] knob to adjust the rotation speed. Turning the [DEPTH] knob to the left applies the horn speaker, and turning to the right applies the rotary speaker. Turning the [SPEED] knob from the center to left decreases the rotation speed, and turning the knob from the center to right increases the speed. The speed can be changed by using the Modulation lever.
Trem	Standard tremolo. Turn the [DEPTH] knob to adjust the effect depth, and turn the [SPEED] knob to adjust the speed.
Dist	British hard rock type distortion. Turn the [DEPTH] knob to adjust the amount of distortion, and turn the [SPEED] knob to adjust the presence.

(9) [DEPTH] knob

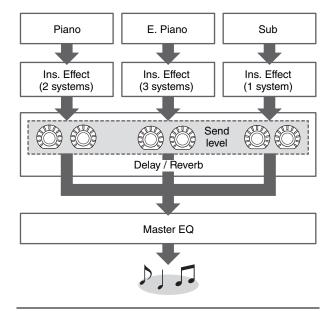
Use this knob to adjust the depth of the selected effect.

(ISPEED) knob

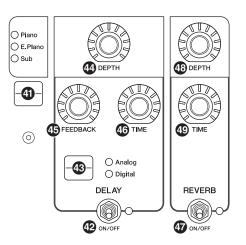
Use this knob to adjust the modulation speed of the selected effect.

Effect

The CP88 and CP73 feature insertion effects and delay/reverb effects that can be configured for each Voice section, as well as a master EQ that affects all the Voice sections in the same way. The illustration below shows the audio signal path.



Delay section/Reverb section



4 Effect level display switch button

Use this button to select the desired Voice sections for adjusting the send levels to delay and reverb effects. Turn the [DEPTH] knobs of the Delay section and the Reverb section to adjust the send levels from each Voice section.

When all the indicator lamps of the Voice sections are lit, the send levels from each Voice section can be adjusted equally. When the send levels of each Voice section are set individually, the indicator lamp of the [DEPTH] knob is unlit. However, when the send levels are readjusted, the indicator lamp of the [DEPTH] knob light, and the send levels are changed from the previously set value.

■ Delay section

42 DELAY [ON/OFF] switch

Use this switch to determine whether to apply (ON) the delay effect or not (OFF). Delay effects create a delayed version of the input signal, and as such, they can be used for many different purposes, such as creating a sense of spaciousness or thickening a sound.

(4) [Analog/Digital] switch button

Use this button to switch between the analog delay and the digital delay. The indicator lamp of the selected effect is lit.

Effect	Description
Analog	Typical warm sound of analog delay. Use the [DEPTH] knob to adjust the effect depth, the [FEEDBACK] knob to adjust the number of repeats, and the [TIME] knob to adjust the delay time. The maximum delay time is 800 ms.
Digital	Clean digital delay. Use the [DEPTH] knob to adjust the effect depth, the [FEEDBACK] knob to adjust the number of repeats, and the [TIME] knob to adjust the delay time. The maximum delay time is 1,486 ms.

4 [DEPTH] knob

Use this knob to adjust the effect depth. Also you can adjust the send level for each Voice section with the Effect level display switch button.

45 [FEEDBACK] knob

Use this knob to adjust the feedback level output from the delay that is returned to the input.

NOTE

The sound will be oscillated when the feedback level is set to high levels. To reduce the oscillation, lower the feedback level, or set the DELAY [ON/OFF] switch to OFF. If the Live Set Sound is changed to another while the sound is still oscillating, the controls of the delay section will not be effective in controlling the oscillation. Press the currently selected Live Set Sound button again to stop the oscillation.

(5) [TIME] knob

Use this knob to set the feedback delay time.

■ Reverb section

TREVERB [ON/OFF] switch

Use this switch to determine whether to apply (ON) the reverb effect or not (OFF). Reverb effects create a rich special ambience of various performance environments, such as a concert hall or a night club.

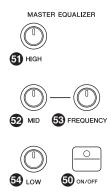
49 [DEPTH] knob

Use this knob to adjust the depth of the reverb effect. Also use the Effect level display switch button to adjust the effect level individually for each Voice section.

49 [TIME] knob

Use this knob to set the duration of the reverb effect (max. 30 s).

Master EQ



MASTER EQUALIZER [ON/OFF] button

Use this button to determine whether to apply (ON) the Master EQ or not (OFF). Master EQ adjusts the overall tone of the sound.

NOTE

The Master EQ settings are a global control and cannot be stored to a Live Set Sound.

⑤ [HIGH] knob

Use this knob to adjust the gain (-12 to +12) of the high EQ band (5 kHz).

Use this knob to adjust the gain (-12 to +12) of the mid EQ band (100 to 10 kHz).

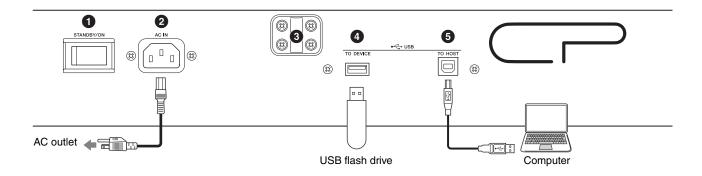
3 [FREQUENCY] knob

Use this knob to adjust the center frequency of the midrange.

(LOW) knob

Use this knob to adjust the gain (-12 to +12) of the low EQ band (80 Hz).

Rear Panel



1 [STANDBY/ON] switch

For switching the instrument to standby or turning it on.

2 [AC IN] jack

For connecting the supplied AC power cord.

3 Music stand attachment holes

Use these two holes to attach a music stand (sold separately).

4 USB [TO DEVICE] terminal

Use this terminal to connect a USB flash drive to this instrument, for saving data you have created and loading data you want to restore.

NOTE

Only USB flash drive can be recognized by this instrument. No other USB devices (such as a hard disk drive, CD-ROM drive or USB hub) can be used.

5 USB [TO HOST] terminal

This terminal lets you connect this instrument to a computer, iPhone or iPad via a USB cable, allowing you to transfer MIDI data and audio data between the devices. Unlike MIDI, USB can handle multiple ports via a single cable. For information about how this instrument handles Ports, see page 25.

NOTE

- Audio data sending capability for the instrument is a maximum two channels (one stereo channel) at a sampling rate of 44.1 kHz.
- · For details on connecting an iPhone or iPad, refer to page 27.

6 MIDI [IN]/[OUT] terminals

With a standard MIDI cable (available separately), you can connect an external MIDI instrument, and control it from this instrument. Likewise, you can use an external MIDI device (such as a keyboard or sequencer) to control the sounds on this instrument.

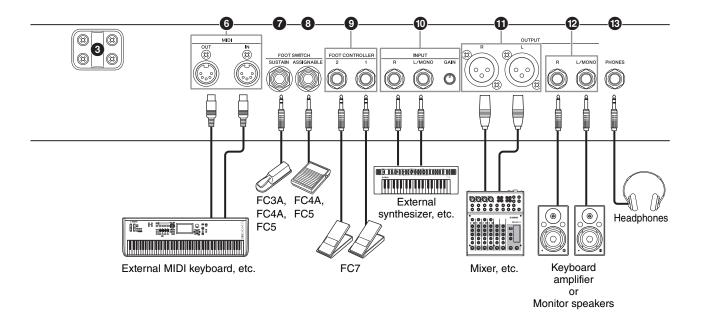
7 FOOT SWITCH [SUSTAIN] jack

Use this jack to connect an FC3A Foot Switch (provided) for use as a dedicated sustain pedal.

3 FOOT SWITCH [ASSIGNABLE] jack

Use this jack to connect a separately sold foot switch (FC4A or FC5) in order to perform a range of freely assignable functions such as a soft pedal, sostenuto pedal, and switching Live Set Sounds. With the default settings, "Live Set+" is assigned.

You can assign functions from the [MENU] button → "General" → "Keyboard/Pedal" → "Foot Switch Assign" (page 30). Refer to page 40 for a list of the parameters that can be assigned to this instrument.



9 FOOT CONTROLLER [1]/[2] jacks

Use these jacks to connect a separately sold foot controller (FC7) in order to continuously control one of various different assignable functions by foot, such as volume and the tone of Voice sections. With the default settings, "Expression" is assigned to the FOOT CONTROLLER [1], and "Pedal Wah" is assigned to the FOOT CONTROLLER [2].

You can assign functions to the foot controller from the [SETTINGS] button → "Controllers" → "FC1 Assign"/ "FC2 Assign." Refer to page 40 for a list of the parameters that can be assigned.

1 INPUT [L/MONO]/[R] jacks/[GAIN] knob

These jacks allow you to connect an external audio devices and mix the output of that device with that of this instrument. Use the [GAIN] knob to adjust the volume balance with this instrument.

1 OUTPUT [L]/[R] jacks

Use these two XLR-type jacks together to output balanced audio signals.

② OUTPUT [L/MONO]/[R] jacks

Use these two standard 1/4" mono audio jacks together to output unbalanced stereo signals. When using mono output, connect only to the [L/MONO] jack.

NOTE

- Select either jack

 or
 depending on the external audio devices to be connected.
- In case both 11 and 12 jacks are connected to external audio devices, the audio signals will be output from the both jacks simultaneously.

(B) [PHONES] jack

Use this standard 1/4" stereo audio jack to connect a pair of headphones.



- To prevent hearing loss, avoid using headphones at high volumes for extended periods of time.
- Whenever connecting other audio equipment, ensure that all devices are turned off.

NOTE

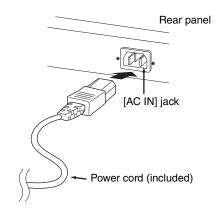
The sound output via the headphones is identical to that output via the OUTPUT [L]/[R] jacks and the OUTPUT [L/MONO]/[R] jacks. Furthermore, plugging in or disconnecting a set of headphones has no effect on the sound being output via these jacks.

Setting Up

Power Supply

Connect the ends supplied AC power cord in the following order. Make sure the [STANDBY/ON] switch on the instrument is set to the STANDBY position.

- 1. Connect the supplied power cord to the [AC IN] jack on the instrument's rear panel.
- 2. Connect the other end of the power cord to an AC outlet.



NOTE

Follow this procedure in reverse order when disconnecting the power cord.



WARNING

- Use only the AC power cord supplied with your instrument. The use of an inappropriate replacement can lead to overheating or electric shock.
- The power cord supplied with your instrument must not be used with other electrical equipment. Failure to observe this precaution can result in damage to the equipment or fire.
- Make sure your instrument the voltage requirement for the country or region in which it is being used.

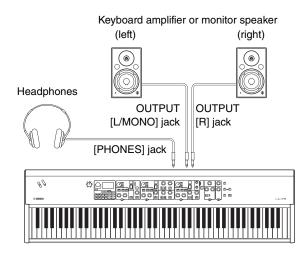


CAUTION

The instrument remains charged and draws a small amount of power even when the [STANDBY/ON] switch is set to the STANDBY position. If you intend not to use it for an extended period of time, therefore, make sure to unplug the power cord from the wall outlet.

Connecting Speakers or Headphones

Since the instrument has no built-in speakers, you will need to monitor the sound of the instrument by using external equipment. Connect a set of headphones, monitor speakers, or other playback equipment as illustrated below. When making connections, be sure that your cables have the appropriate ratings.



Turning On and Off

Make sure the volume settings of the instrument and external devices such as powered speakers are turned to the minimum before turning the power on. When connecting the instrument to monitor speakers, turn on the power switch of each device in the following order.

■ Turning on

Turn the [MASTER VOLUME] knob of this instrument to its minimum (left-most setting) \rightarrow set the [STANDBY/ON] switch to ON \rightarrow turn the amplifier or speaker power on.

■ Turning off

Turn the [MASTER VOLUME] knob of this instrument to its minimum (left-most setting) \rightarrow turn the amplifier or speaker power off \rightarrow set the [STANDBY/ON] switch to STANDBY.

Auto Power Off Function

The Auto Power Off function automatically turns off this instrument after 30 minutes of inactivity. By default, this is set to "Disable."

■ Setting the Auto Power Off function

[MENU] button → "General" → "Auto Power Off" → "Enable" (page 30).

NOTICE

- Since any unsaved data will be lost when the Auto Power Off function turns off this instrument. Make sure to store your work before this occurs.
- Depending on the instrument status, the power may not turn off automatically, even after the specified period of time elapses. Always turn off the power manually when the instrument is not in use.

Restoring the Factory Default Settings (Factory Reset)

The Factory Reset function allows you to restore this instrument to its initial condition. To execute the factory Reset function, press the [MENU] button → "Job" → "Factory Reset."

NOTICE

When the Factory Reset function is executed, all the Live Set Sounds and the settings of MENU screens and SETTINGS screens will be overwritten with their defaults. It is wise, therefore, to regularly create backup copies of important data on a USB flash drive or the like.

NOTE

Refer to page 37 for information on detailed settings of preset Live Set Sounds.

Basic Structure & Display Content

Selecting Voices

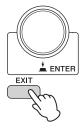
Voices are divided into three Voice sections: Piano, Electric piano and Sub.

Use each Voice section [ON/OFF] switch to enable (ON) or disable (OFF) the corresponding Voice section. When the indicator lamp of the Voice section [ON/OFF] switch is lit, the corresponding Voice will sound by playing the keyboard. When the multiple indicator lamps are lit, those Voices will be layered.



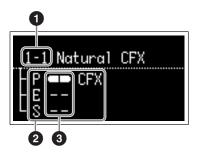
Exiting from the Current Screen

The MENU screens and the SETTINGS screens are organized according to a hierarchical structure. Press the [EXIT] button to move one step back to the previous screen. Pressing the [EXIT] button several times will return you to the Top screen — in other words, the first one displayed when the instrument is turned on.



Display Configuration

This section explains the Top screen which appears when this instrument is turned on with its default settings (factory settings).



Live Set Sound number

Displays Live Set Sound "1-1" when this instrument is turned on with default settings. You can change which Live Set Sound automatically appears on the Top screen by using the "Power On Sound" function (page 31).

2 Voice section

Indicates Piano section (P), Electric piano section (E), Sub section (S), and displays the currently selected Voices for each of these Voice sections. The Voices of the Voice sections which are set to ON will be layered. Voices of Voice sections which are set to OFF will not sound, and no Voice name will be displayed.

Split

Indicates the current split status of each Voice section.

—— indicates that the Voice is assigned to a range below the split point.

indicates that the Voice is assigned to a range above the split point.

Editing File Names/Live Set Sound Names

■ Editing File Names

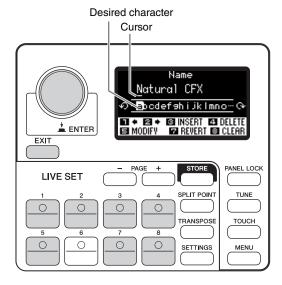
See "Saving the settings to a USB flash drive" on page 23.

■ Editing Live Set Sound Names

Select the desired Live Set Sound for which you wish to edit the name \rightarrow [SETTINGS] button \rightarrow "Name" \rightarrow Edit the name \rightarrow [STORE] button \rightarrow [ENTER] button.

NOTE

The edited names will not be stored in this instrument unless you perform the Store operation with the [STORE] button.



Use the Live Set Sound [1]/[2] buttons to move the cursor to the position of the character you wish to edit. Use the Encoder dial to select characters, and use the following buttons to edit the name.

Button/Indication	Functions
Button/maication	i dilotions
Live Set Sound [1]	Moves the cursor to left.
*	
Live Set Sound [2]	Moves the cursor to right.
2 +	
Live Set Sound [3]	Inserts a desired character at the
■ INSERT	cursor position.
Live Set Sound [4]	Deletes the character at the cursor
4 DELETE	position.
Live Set Sound [5]	Changes the character at the cursor
■ MODIFY	position to the desired one.
Live Set Sound [7]	Reverts all characters to unedited
REVERT	name.
Live Set Sound [8]	Deletes all characters.
B CLEAR	
[ENTER]/[EXIT]	Terminates the edit operation.

Saving / Loading Data

In the File screens ([MENU] button \rightarrow "File") you can transfer entire system settings and data (such as Live Sets and Live Set Sounds) between this instrument and an external USB flash drive connected to the USB [TO DEVICE] terminal. This section explains how to save/load the data to/from the user memory of this instrument.

Saving the settings to a USB flash drive

- 1. Connect a USB flash drive to the USB [TO DEVICE] terminal of this instrument.
- 2. Call up the File screen.

Press the [MENU] button, select "File," and then press the [ENTER] button.

3. Select the contents you wish to save.

The following file types can be saved to a USB flash drive.

File type	Description
Back Up File	All data including the system settings stored in this instrument.
Live Set All File	All the Live Set Pages stored in this instrument.
Live Set Page File	A Live Set Page stored in this instrument.
Live Set Sound File	A Live Set Sound stored in this instrument.

4. Call up the Save screen.

Select "Save" and press the [ENTER] button.

■ Overwriting files

Select the file to be overwritten from the displayed list.

■ Saving as a new file

Select "New File," and then the "Save Backup File" screen will appear. For details about how to edit file names, refer to the "Editing the File names/Live Set Sound names."



File name edit screen

Loading the settings from a USB flash drive

NOTICE

The Load operation overwrites any data previously existing in this instrument. Important data should always be saved to a USB flash drive connected to the USB [TO DEVICE] terminal

- 1. Connect a USB flash drive to the USB [TO DEVICE] terminal of this instrument.
- 2. Call up the File screen.

Press the [MENU] button, select "File," and then press the [ENTER] button.

3. Select the contents you wish to load from the USB flash drive.

File type	Description
Back Up File (Extension: .X9A)	All data including system settings saved to the USB flash drive.
Live Set All File (Extension: .X9L)	All the Live Set Pages saved to the USB flash drive.
Live Set Page File (Extension: .X9P)	A Live Set Page saved to the USB flash drive.
	The file will be loaded to the currently selected Live Set Page.
Live Set Sound File (Extension: .X9S)	A Live Set Sound saved to the USB flash drive.
	The file will be loaded to the currently selected Live Set Sound.

4. Select "Load" and press the [ENTER] button.

Select the folder containing the file you wish to load, and then press the [ENTER] button.

5. Select a file in the USB flash drive.

The messages "Loading.." → "Completed." will appear on the screen, and then return to the Top screen. To cancel the loading operation, select "Cancel" and press the [ENTER] button.

Precautions when using the USB [TO DEVICE] terminal

This instrument features a built-in USB [TO DEVICE] terminal. When connecting a USB device to the terminal, be sure to handle the USB device with care. Follow the important precautions below.

NOTE

For more information about the handling of USB devices, refer to the owner's manual of the USB device.

■ Compatible USB devices

Only USB memory devices of the flash drive variety can be used with this instrument. Furthermore, this instrument does not necessarily support all commercially available USB flash drives, and Yamaha cannot guarantee normal operation with every such device on the market. Before purchasing a USB flash drive for use with this instrument, therefore, please visit the following web page to confirm whether or not it is supported:

http://download.yamaha.com/

Although USB devices 2.0 to 3.0 can be used on this instrument, the amount of time for saving to or loading from the USB device may differ depending on the type of data or the status of the instrument.

NOTE

The rating of the USB [TO DEVICE] terminal is a maximum of 5V/500mA. Do not connect USB devices having a rating above this, since they can cause damage to the instrument itself.

■ Connecting a USB device

When connecting a USB device to the USB [TO DEVICE] terminal, make sure that the connector on the device is appropriate and that it is connected in the proper direction.

■ Formatting a USB flash drive

Certain types of flash drive must be formatted before they can be used with this instrument. Whenever you plug such a device into the USB [TO DEVICE] terminal, and a "Connect USB device" message is shown prompting you to format it, do so.

NOTICE

The format operation overwrites any previously existing data. Make sure that the USB flash drive you are formatting does not contain important data.

■ Write protection

To prevent important data from being inadvertently erased, apply the write-protect provided with each USB flash drive. If you are saving data to the USB flash drive, make sure to disable write-protect.

■ Removing USB flash drives

Before removing a USB flash drive from the USB [TO DEVICE] terminal, ensure that this instrument is not currently accessing it in order to save, delete or load data.

NOTICE

Make sure to avoid excessive repeated connecting/ disconnecting of USB flash drives. Failing to follow this may cause this instrument to freeze and stop operating. In addition, a USB flash drive should never be removed before it has been fully mounted or while it is being accessed by this instrument in order to load or save data. Data on the USB flash drive or on the instrument itself may be corrupted as a result of such action, and there is also a danger that the USB flash drive could be permanently damaged.

Using with Other MIDI Devices

By using standard MIDI cables (sold separately), you can connect other MIDI devices such as synthesizers and sound modules to this instrument via its MIDI [IN]/[OUT] terminals. This type of connection allows you to exchange MIDI data with these devices.

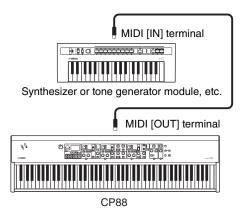
The MIDI [IN]/[OUT] terminals and the USB [TO HOST] terminal can be used for MIDI data transmission/reception. The illustrations below show examples of how to use the MIDI [IN]/[OUT] terminals.

NOTE

For instructions on setting the MIDI Port, refer to page 28.

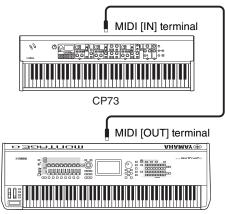
Controlling a synthesizer or tone generator module from this instrument

This connection lets you play the sounds of an external MIDI tone generator (synthesizer, tone generator module, etc.) from this instrument's keyboard. Use this connection as well when you wish to have both instruments sound.



Controlling this instrument from an external MIDI keyboard or synthesizer

Use an external MIDI keyboard or synthesizer to remotely select and play the Voices of this instrument.



Synthesizer or tone generator module, etc.

MIDI transmit and receive channels

Make sure to match the MIDI transmit channel of the external MIDI instrument with the MIDI receive channel of this instrument. For details on setting the MIDI transmit channel of the external MIDI instrument, refer to the owner's manual of that instrument. You can check and change the settings of MIDI transmit channel of this instrument from the [MENU] button \Rightarrow "General" \Rightarrow "MIDI Settings" \Rightarrow "MIDI Channel" \Rightarrow "Tx." If you wish to sound only the external MIDI instrument, turn down the master volume of this instrument, or set the "Local Control" to "Off" from the [MENU] button \Rightarrow "General" \Rightarrow "Local Control" (page 30). For information on how to set the MIDI Receive Channel of the external MIDI instrument, refer to the owner's manual of that particular MIDI instrument.

MIDI channels and MIDI ports

MIDI data is assigned to one of sixteen channels, and this instrument is capable of simultaneously playing sixteen separate Parts, via the sixteen MIDI channels. However, the sixteen-channel limit can be overcome by using separate MIDI "ports," each supporting sixteen channels. While a single MIDI cable is equipped to handle data over up to sixteen channels simultaneously, a USB connection is capable of handling far more—thanks to the use of MIDI ports. Each MIDI port can handle sixteen channels, and the USB connection allows up to eight ports, letting you use up to 128 channels (8 ports x 16 channels) on your computer.

■ Port 1

The tone generator block in this instrument can recognize and use only this port. When playing this instrument as a tone generator from the external MIDI instrument or computer, you should set the MIDI Port to 1 on the connected MIDI device or computer.

■ Port 2

This port is used as the MIDI Thru Port, allowing you to re-transmit MIDI data received by this instrument to an external MIDI device. When you use this port, set "MIDI" to "Off" and "USB" to "On" from the [MENU] button \rightarrow "General" \rightarrow "MIDI Settings" \rightarrow "MIDI Port." The MIDI data received via the USB [TO HOST] terminal will be re-transmitted to an external MIDI device via the MIDI [OUT] terminal. The MIDI data

received via the MIDI [IN] terminal will be retransmitted to an external MIDI device via the USB [TO HOST] terminal.

When using a USB connection, make sure to match the MIDI transmit port and the MIDI receive port as well as the MIDI transmit channel and the MIDI receive channel. Make sure to set the MIDI port of the external device connected to this instrument according to the above information.

Using with a Computer

By connecting this instrument to your computer, you can use DAW or sequence software on the computer to create your own original songs and record complex arrangements.

DAW

The acronym DAW (Digital Audio Workstation) refers to music software for recording, editing and mixing audio and MIDI data. The main DAW applications include Cubase, Logic Pro, Ableton Live, and Pro Tools.

Here are some of the creative options you can explore when connecting this instrument to a computer:

- Use the instrument as an external sound source and/or MIDI keyboard for a DAW application.
- Record yourself playing this instrument in MIDI or audio format to a DAW application.

Connecting to a computer

A USB cable and the Yamaha Steinberg USB Driver are necessary to connect this instrument to the computer. Follow the instructions below. Note that both audio data and MIDI data can be transmitted through a USB cable. The following describes how this type of connection can be established:

1. Download the latest Yamaha Steinberg USB Driver from our website.

After clicking the Download button, extract the compressed file.

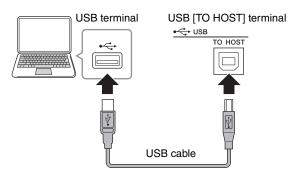
http://download.yamaha.com/

NOTE

- Information on system requirements is also available at the above website.
- The Yamaha Steinberg USB Driver may be revised and updated without prior notice. Make sure to check and download the latest version from the above site.

2. Install the Yamaha Steinberg USB Driver to the computer.

For instructions on installing, refer to the online Installation Guide included in the downloaded file package. When connecting this instrument to a computer, connect the USB cable to the USB [TO HOST] terminal of this instrument and the USB terminal of the computer as shown below.



3. Set the MIDI port of this instrument.

[MENU] button → "General" → "MIDI Settings" → "MIDI Port" → "USB" → "On."

Precautions when using the USB [TO HOST] terminal

When connecting the computer to the USB [TO HOST] terminal, make sure to observe the following points. Failing to do so risks freezing the computer and corrupting or losing the data. If the computer or the instrument freezes, restart the application software or the computer OS, or turn the power to the instrument off and then on again.

NOTICE

- Use an AB type USB cable. Do not use a USB 3.0 cable.
- Before connecting the computer to the USB [TO HOST] terminal, exit from any power-saving mode of the computer (such as suspend, sleep, standby).
- Before turning on the power to the instrument, connect the computer to the USB [TO HOST] terminal.
- Execute the following before turning the power to the instrument on/off or plugging/unplugging the USB cable to/from the USB [TO HOST] terminal.
 - Quit any open application software on the computer.
 - Make sure that data is not being transmitted from the instrument. (Note that even playing a key causes data to be sent.)
- When making computer connections, make sure that at least six seconds elapses between the time you turn this instrument on/off and you connect/ disconnect the USB cable.

USB Audio

USB Audio receiving/sending capability for the instrument is a maximum 2 channels (1 stereo channel) at a sampling rate of 44.1 kHz. The input signal from the USB [TO HOST] terminal is output via the OUTPUT [L]/[R] jacks (XLR type connector), the OUTPUT [L/MONO]/[R] jacks and the [PHONES] jack. The input level can be adjusted from the [MENU] button → "General → "USB Audio Volume." The audio signal output via the USB [TO HOST] terminal is identical to the audio signal output via the OUTPUT [L]/[R] jacks (XLR type connector), the OUTPUT [L/MONO]/[R] jacks, and the [PHONES] jack.

NOTE

The audio signal input via the INPUT [L/MONO]/[R] jacks is output only from the OUTPUT [L]/[R] jacks (XLR type connector), the OUTPUT [L/MONO]/[R] terminal, and the [PHONES] jack of this instrument, and is not sent via the USB [TO HOST] terminal.

Connecting an iPhone or iPad

NOTE

In order to eliminate the risk of noise from other communication when using this instrument with an iPad or iPhone app, be sure to turn on Airplane Mode and then turn on Wi-Fi.

NOTICE

Be sure to place your iPad or iPhone on a stable surface to prevent it from falling over and being damaged.

Apps compatible with this instrument provide many more convenient and creative ways to enjoy music with it. For details on how to connect the devices, refer to the "iPhone/iPad Connection Manual," which is available from the Yamaha website.

iPhone/iPad Connection Manual

This is downloadable from the Yamaha Downloads website:

http://download.yamaha.com/

Details of compatible smart devices and apps can be found on the following page at the Yamaha website. http://www.yamaha.com/kbdapps/

MENU LIST

From the [MENU] button, you can configure various parameters and functions over the whole system of this instrument. The settings will be stored in this instrument.

Operation

- 1. Press the [MENU] button.
- 2. Use the Encoder dial and the [ENTER] button to call up the item you wish to edit.
- **3.** Use the Encoder dial to change the value or settings.
- 4. Press the [ENTER] button to execute the settings. The display will return to the Top screen.

General

Function name			Description
Master Tune			Determines the tuning for the entire instrument. Settings: 414.72 Hz – 466.78 Hz Default: 440.00 Hz
MIDI Settings	MIDI Port	USB	Determines whether to use (On) the USB [TO HOST] terminal as the input/output ports for MIDI message, or not (Off). Default: On NOTE The USB port 1 will be used when this is set to "On".
		MIDI	Determines whether to use (On) the MIDI [IN]/[OUT] terminals as the input/output ports for MIDI messages, or not (Off). When this is set to "On," the terminals will be enabled. When this is set to "Off," MIDI messages received via the MIDI terminals will be output to USB port 2. MIDI messages received via USB port 2 will be output to the MIDI terminals. Default: Off
	MIDI Channel	Tx	Determines the MIDI transmit channel. When this is set to "Off," MIDI messages are not transmitted. Settings: 1 – 16, Off Default: 1
		Rx	Determines the MIDI receive channel. When this is set to "All," MIDI messages will be received over all channels. Settings: 1 – 16, All Default: 1
	MIDI Control		Determines how the instrument performs and responds to MIDI control. When this is set to "On," control change messages dedicated to the CP88 and CP73 will be transmitted from the effective controls, allowing you to control DAW software or an external MIDI device from this instrument. When these messages are received (for example, from DAW playback), the settings of the relevant, corresponding controls will be changed. Controls that can be changed are indicated by the lit knobs and switches. When this is set to "Invert," control change messages from the sections not being used can be transmitted or received. For example, when you've created a Live Set Sound of Piano and Strings from DAW software, you can assign the Sub section controls to affect the volume or filter of a strings instrument in DAW software.
			Default: Off
			NOTE Control change messages corresponding to the controls of this instrument cannot be changed. If you wish to re-assign specific parameters of DAW software for control, set them up on your computer (page 26).

Function name		Description
MIDI Settings	MIDI Control	■ MIDI Control = On Control change messages from the enabled controls of this instrument can be transmitted or received. NOTE Since the control lights will be lit according to the settings of "Display Lights" (page 30), even when the Voice section [ON/OFF] switches or the Insertion effect [ON/OFF] buttons are set to OFF, the control change messages will be transmitted or received.
		■ MIDI Control = Off Control change messages cannot be transmitted or received, regardless of the state of the controls.
		■ MIDI Control = Invert The section lamps are lit and all controls are enabled. Control change messages can be transmitted or received, only when the Voice section [ON/OFF] switches are set to OFF. NOTE When this is set to "Invert," the section lamps are automatically lit, so the "Display Lights" ("Section" and "Ins Effect" only) settings cannot be made.
	Tx/Rx Pgm Change	Determines whether transmission/reception of program change messages between this instrument and external MIDI devices is enabled (On) or disabled (Off). Default: On
	Tx/Rx Bank Select	Determines whether transmission/reception of bank select messages between this instrument and external MIDI devices is enabled (On) or disabled (Off). Default: On
	Controller Reset	Determines the status of the controllers (Sustain, Modulation lever, Foot Controller, etc.) when switching between Live Set Sounds. When this is set to "Hold," the controllers are kept at the current setting. When this is set to "Reset," the controllers are reset to the default states (below). • Pitch Bend: Center • Modulation lever: Minimum • Expression: Maximum • Pedal Wah: Minimum • Sustain: OFF • Sostenuto: OFF • Soft pedal: OFF Default: Reset
Keyboard/ Pedal	Octave	Shifts the octave range of the keyboard up or down. Settings: -3 - +3 Default: +0
	Transpose	Transposes the pitch of the keyboard up or down in semitones. Settings: -12 - +12 Default: +0
	Touch Curve	Determines how actual note velocities will be generated and transmitted according to the strength of your playing. Settings: Normal, Soft, Hard, Wide, Fixed Default: Normal
	Fixed Velocity	Use this function to send a fixed velocity to the tone generator regardless of how strongly or softly you play the keyboard. This parameter is only available if you select the "Fixed" Touch Curve above. Settings: 1 – 127 Default: 64

Function name		Description
Keyboard/ Pedal	Sustain Pedal Type	Determines which type of foot switch connected to the FOOT SWITCH [SUSTAIN] jack is recognized. Select "FC3A (HalfOn)" when you wish to use half-damper playing techniques. Settings: FC3A (HalfOn), FC3A (HalfOff), FC4A/FC5 Default: FC3A (HalfOn)
	Foot Switch Assign	Determines the Control Change number generated by using the Footswitch connected to the FOOT SWITCH [ASSIGNABLE] jack. Keep in mind that if the same MIDI Control Change messages set here are received from an external device, the internal tone generator also responds to those messages as if the Footswitch of the instrument itself was used. Default: Live Set +
Local Control		Determines local control on and off. When "Off" is selected, this instrument's tone generator is essentially disconnected from its controllers, and no sound will be produced in response to playing of the keyboard. This instrument does, however, continue to transmit MIDI messages when "Local Control" has been set to "Off," and the tone generator will continue to produce sound in response to received MIDI messages. Default: On
USB Audio Volume		Determines the output level of the USB Audio. Settings: 0 – 127 Default: 64
Auto Power Off		Determines whether to set the Auto Power Off function to "Enable" or "Disable." Default: Disable

Control Panel

Function name		Description
Panel Lock Settings	Live Set	Determines whether to enable (On) or disable (Off) the panel lock for each of
	Piano/E.Piano/Sub	the categories listed at left. Default: On
	Delay/Reverb	
	Master EQ	
Display Lights	Section	Determines whether or not the lighting of the indicator lamps for the Piano, Electric piano, Sub, Delay, Reverb sections is linked with each section's [ON/OFF] switches. When "Off" is selected, the corresponding lamps are linked with each of the [ON/OFF] switches; when "On" is selected, the indicator lamps will always be lit. When "MIDI Control" is set to "On," the transmit/receive settings of control change messages will be changed according to the state of the indicator lamps (page 28). Default: Off
	Ins Effect	Determines whether or not the lighting of the indicator lamps of insertion effects contained in Voice sections is linked with each Insertion effect's [ON/OFF] buttons. When "Off" is selected, the corresponding indicator lamps are linked with each of the [ON/OFF] buttons; when "On" is selected, the indicator lamps will always be lit. Default: Off

Function name		Description	
Display Lights	LCD SW	Determines whether to show (On) or not show (Off) the Top screen. The various setting screens such as the MENU screens and the SETTINGS screens are always shown regardless of this setting. Default: On	
	LCD Contrast	Adjusts the contrast of this instrument's LCD. Settings: 1 – 63 Default: 32	
Advanced Settings	Section Hold	When this is set to "Enable," you can select another Live Set Sound and still maintain (hold) selected settings of the currently selected Live Set Sound. To maintain the settings of the desired sections, press and hold the section [ON/OFF] switches until the corresponding indicator lamp flashes. To release Section Hold, press the section [ON/OFF] switches again. For example, to fix the reverb settings during your performance regardless of the Live Set Sound, set "Section Hold" to "Enable" and then push and hold the Reverb section [ON/OFF] switch. Default: Disable	
	Live Set View Mode	Determines whether to maintain the Live Set View (Keep) or return to the Top screen (Close) when switching between Live Set Sounds. When this is set to "Keep," eight sets of Live Set Sounds are displayed in one screen. Default: Close	
	Value Indication	Determines whether to display (On) the values of each knobs on LCD, or not (Off). Default: On	
	SW Direction	Determines whether to operate the Voice select switches in ascending order (Default) or in descending order (Reverse). Default: Default	
	Power On Sound	Determines which Live Set Sound is automatically shown on the Top screen when this instrument is turned on. Default: 1-1	
	MIDI Device Number	Determines the MIDI device numbers. The device number of this instrument must match the device number of the external MIDI device when transmitting/receiving bulk data, parameter changes or other system exclusive messages. Settings: 1 – 16, All, Off Default: All	

Job

Function name		Description
Live Set Manager	Swap	Swaps the currently selected Live Set Sound with an arbitrary Live Set Sound.
	Сору	Copies the currently selected Live Set Sound and paste it onto arbitrary Live Set Page and the position.
	Initialize	Resets the currently selected Live Set Sound to its default value.

Function name			Description
Section Manager	Сору	Piano	Copies the settings of the currently selected Piano section.
		E.Piano	Copies the settings of the currently selected Electric piano section.
		Sub	Copies the settings of the currently selected Sub section.
	Paste	Piano	Pastes the settings of the previously copied Voice section. This function
		E.Piano	cannot be executed when no Voice section has been previously copied or when a different Voice section is selected as the paste destination.
		Sub	
Edit Recall	Recall		If, while editing a Live Set Sound you have not yet stored, you select a different Live Set Sound and then return to the one being edited, the latest stored version will be selected. Using this function, you can restore your latest edits and keep them intact.
			NOTICE Keep in mind that all of your latest edits (unsaved) will be lost when this instrument is turned off.
Menu Initialize			Resets the settings of MENU screens to the default values.
Factory Reset			Restores this instrument to its default (factory) condition.

File

Function name		Description
Back Up File	Save	Saves all the data stored in this instrument including the system settings to a USB flash drive as a "Back Up File" (with the extension: .X9A).
	Load	Loads the data saved as a "Back Up File" from a USB flash drive.
Live Set All File	Save	Saves all the Live Set data stored in this instrument to a USB flash drive as a "Live Set All File" (with the extension: .X9L).
	Load	Loads the data saved as a "Live Set All File" from a USB flash drive.
Live Set Page File	Save	Saves a Live Set Page stored in this instrument to a USB flash drive as a "Live Set Page File" (with the extension: .X9P).
	Load	Loads the data saved as a "Live Set Page File" from a USB flash drive.
Live Set Sound File	Save	Saves a Live Set Sound stored in this instrument to a USB flash drive as "Live Set Sound File" (with the extension: .X9S).
	Load	Loads the data saved as a "Live Set Sound File" from a USB flash drive.
File Utility	Rename	Renames a file name in a USB flash drive.
	Delete	Deletes a file in a USB flash drive.
	Format	Initializes a USB flash drive.
		NOTICE When a USB flash drive is formatted, all of its content will be deleted. Because of this, make sure before formatting that the USB flash drive contains no irreplaceable data.

Version Info

Shows the versions of this instrument's boot loader and firmware as well as the owner of the copyright for this instrument.

SETTINGS LIST

From the [SETTINGS] button, you can configure and store the various settings of the currently selected Live Set Sound. The settings will be stored in this instrument.

Operation

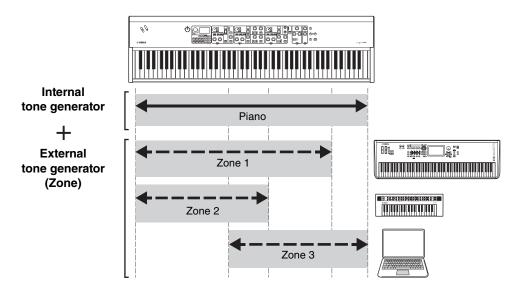
- 1. Press the [SETTINGS] button.
- 2. Use the Encoder dial and the [ENTER] button to call up the item you wish to edit.
- **3.** Use the Encoder dial to change the value or settings.
- 4. Press the [ENTER] button to execute the settings. The display will return to the Top screen.

Function

Function name	Description
Sound Transpose	Transposes the pitch in semitones.
	Settings: -12 - +12
	Default: +0
	NOTE
	This setting does not affect the MIDI output data.
Split Point	Determines the note that separates (splits) the left hand section and the right hand section. The Split Point is the lowest note of the right hand section. Settings: C#-2 – G8 Default: G2

Master Keyboard

With the Master Keyboard function, you can configure this instrument for use as a master keyboard, for complex live performance features. It allows the keyboard to be split into as many as four different zones, each of which can control separate sounds of an external tone generator. For example, you can make a Live Set Sound combining Voices from this instrument and the external tone generators, or Live Set Sound composed with Voices of external tone generators only.



Function name		Description
Mode SW		Switches the Master Keyboard Mode settings. When "On" is selected, the Master Keyboard Mode is enabled, and the MST indication appears on the Live Set screen. Default: Off
Advanced Zone SW		Switches the setting range of Master Keyboard Mode. When "On" is selected, you can make detailed settings. Default: Off NOTE When "Off" is selected, the detailed settings will not be displayed.
Zone Settings *: Detailed settings	Zone Switch	Determines whether to enable (On) or disable (Off) the currently selected zone. Default: On
	Tx Channel	Determines the MIDI transmit channel for the currently selected zone. Settings: 1 – 16 Default: 1
	Octave Shift	Shifts the pitch of the currently selected zone in units of one octave. Settings: -3 - +3 Default: +0
	Transpose	Transposes the pitch of the currently selected zone in semitone units. Settings: -11 - +11 Default: +0
	Note Limit Low	Determines the lowest key in the currently selected zone. Default: C -2
	Note Limit High	Determines the highest key in the currently selected zone. Default: G8
	Bank MSB*	Determines the Bank Select MSB to be sent as a MIDI message from the currently selected zone to the corresponding external instrument upon selection of a Live Set Sound. Default: 0
	Bank LSB*	Determines the Bank Select LSB to be sent as a MIDI message from the currently selected zone to the corresponding external instrument upon selection of a Live Set Sound. Default: 0
	Program Change*	Determines the Program Change Number to be sent as a MIDI message from the currently selected zone to the corresponding external instrument upon selection of the Live Set Sound. Default: 0
	Volume*	Determines the volume of the external instrument corresponding to the currently selected zone upon selection of the Live Set Sound. Default: 100
	Pan*	Determines the stereo panning of the external instrument corresponding to the currently selected zone upon selection of the Live Set Sound. Default: C
	Tx SW Note*	Determines whether to enable (On) or disable (Off) the sending of MIDI note messages from the currently selected zone to the corresponding external instrument. Default: On
	Tx SW Bank*	Determines whether to enable (On) or disable (Off) the sending of MIDI Bank Select messages from the currently selected zone to the corresponding external instrument. Default: On

Function name		Description
Zone Settings	Tx SW Program*	Determines whether to enable (On) or disable (Off) the sending of MIDI Program Change messages to the external instrument corresponding to the currently selected zone. Default: On
	Tx SW Volume*	Determines whether to enable (On) or disable (Off) the sending of MIDI Volume messages to the external instrument corresponding to the currently selected zone. Default: On
	Tx SW Pan*	Determines whether to enable (On) or disable (Off) the sending of MIDI Pan messages to the external instrument corresponding to the currently selected zone. Default: On
	Tx SW PB*	Determines whether to enable (On) or disable (Off) the sending of MIDI Pitch Bend messages to the external instrument corresponding to the currently selected zone. Default: On
	Tx SW MOD*	Determines whether to enable (On) or disable (Off) the sending of MIDI Modulation messages to the external instrument corresponding to the currently selected zone. Default: On
	Tx SW Sustain*	Determines whether to enable (On) or disable (Off) the sending of MIDI Sustain messages to the external instrument corresponding to the currently selected zone. Default: On
	Tx SW FS*	Determines whether to enable (On) or disable (Off) the sending of MIDI messages from the footswitch to the external instrument corresponding to the currently selected zone. Default: On
	Tx SW FC1*	Determines whether to enable (On) or disable (Off) the sending of MIDI messages from FOOT CONTROLLER [1] to the external instrument corresponding to the currently selected zone. Default: On
	Tx SW FC2*	Determines whether to enable (On) or disable (Off) the sending of MIDI messages from FOOT CONTROLLER [2] to the external instrument corresponding to the currently selected zone. Default: On

Advanced Mode

The Advanced Mode lets you use the Voice select switch to select any Voice from any Voice section, no matter the category. For example, you can combine a Voice of Piano section and Wah (insertion effect) of Electric piano section, or make one Voice to be layered.

Function name		Description
Advanced Mode SW	Piano	Determines whether to enable (On) or disable (Off) the Advanced Mode for
	E.Piano	each Voice section. When this is set to "On," the [ADY] indication appears on the Top screen.
	Sub	Default: Off
		NOTE When this is set to "On," the Voice number will not be displayed on the Voice number display, but the Voice name will be displayed on the LCD.

Controllers

Function name			Description
Bend Range	Piano		Determines the maximum Pitch Bend Range in semitones for each Voice section. Settings: -24 - +0 - +24 Default: +2
	E.Piano		
	Sub		
P.Mod Depth	Piano		Determines the depth of vibrato effect on keyboard sound. This can be set individually for each Voice section. Settings: 0 – 127 Piano/E.Piano default: 0 Sub default: 10 NOTE Since the vibrato effect is disabled when a "Rotary" effect of the Sub section is selected, this setting will also be disabled.
	E.Piano Sub		
FC1 Assign			MIDI control change numbers produced by operating a foot controller (sold separately) connected via the FOOT CONTROLLER [1] jack. Default: 11 (Expression)
FC2 Assign			MIDI control change numbers produced by operating a foot controller (sold separately) connected via the FOOT CONTROLLER [2] jack. Default: 4 (Pedal Wah)
Receive SW	Expression	Piano	Determines whether to recognize (On) or ignore (Off) the corresponding MIDI messages received by each Voice section from external devices or the MIDI messages produced by operating a foot switch and foot controller.
		E.Piano	
		Sub	Default: On
	Sustain	Piano	- -
		E.Piano	
		Sub	
	Sostenuto	Piano	
		E.Piano	-
		Sub	
	Soft	Piano	
		E.Piano	_
		Sub	

Name

Edits the names of Live Set Sounds. For detailed instructions on editing, refer to "Editing File Names/Live Set Sound Names" (page 22) .

NOTE

To store the edited names, you'll need to use the Store operation (page 12).

DATA LIST

Live Set Sound List

BANK	No	Name	Split Point	Section	Voice Name	MSB	LSB	PC
1	1	Natural CFX	G2	Piano	CFX	63	0	1
				E.Piano	-			
				Sub	-			
1	2	NaturalImperial	G2	Piano	Imperial	63	0	2
				E.Piano	-			
				Sub	-			
1	3	Jazz S700	G2	Piano	S700	63	0	3
				E.Piano	-			
				Sub	-			
1	4	Rock Upright	G2	Piano	U1	63	0	4
				E.Piano	-			
				Sub	-			
1	5	Simple 78	G2	Piano	-	63	0	5
				E.Piano	78Rd			
				Sub	-			
1	6	Funky Tines	G2	Piano	-	63	0	6
				E.Piano	75Rd Funky			
				Sub	-			
1	7	Tremolo Wr	G2	Piano	-	63	0	7
				E.Piano	Wr Warm			
				Sub	-			
1	8	Clavi B Amped	G2	Piano	-	63	0	8
				E.Piano	Clavi B			
				Sub	-			
2	1	CFX+DX Legend	G2	Piano	CFX	63	1	1
				E.Piano	DX Legend			
				Sub	-			
2	2	A.Bass/78Rd	G2	Piano	U1	63	1	2
				E.Piano	78Rd			
				Sub	A.Bass	1		
2	3	80s El Grand	G2	Piano	CP80 1	63	1	3
				E.Piano	-	1		
				Sub	-	1		
2	4	Brite Pop 8ve	G2	Piano	Digi Piano	63	1	4
				E.Piano	DX Legend	1		
				Sub	OB Strings	1		
2	5	E.Bass/78Rd	G2	Piano	-	63	1	5
				E.Piano	78Rd	1		
				Sub	E.Bass	1		
2	6	Driven Wr+Pad	G2	Piano	-	63	1	6
				E.Piano	Wr Warm	1		
				Sub	Warm Strings	1		
2	7	Imperial + Str	G2	Piano	Imperial	63	1	7
			-	E.Piano	-	1		
				Sub	Section Str	1		
2	8	Ghostly U1	G2	Piano	U1	63	1	8
	-			E.Piano	Wr Warm	1		
				Sub	-	-		
3	1	Rock Grand	G2	Piano	CFX	63	2	1
				E.Piano	-		_	'
				Sub	-			
3	2	S700 + Pad	G2	Piano	S700	63	2	2
	-			E.Piano	-	1	_	_
				Sub	OB Strings	-		
3	3	MonoCmp CFX	G2	Piano	CFX	63	2	3
	,		J.L	E.Piano	-	- 30	_	Ĭ
				Sub	-			
3	4	Lo Fi Grand	G2	Piano	CFX	63	2	4
Ŭ			U.2	E.Piano	-	- 55	_	'
				Sub	-			
3	5	Piano Grind Pad	G2	Piano	Piano Synth	63	2	5
J	J	i iano arma i du	uz	E.Piano	73Rd	00	_	J
2	e	Luch Love	CO	Sub	Mellow Pad	60	0	c
3	6	Lush Love	G2	Piano	Imperial	63	2	6
				E.Piano	78Rd			
				Sub	Brightness			

BANK	No	Name	Split Point	Section	Voice Name	MSB	LSB	PC
3	7	Big S700	G2	Piano	S700	63	2	7
	•	Dig 07 00	u.	E.Piano	73Rd	00	_	•
				Sub	OB Strings			
3	8	Piano Scape	G2	Piano	Imperial	63	2	8
-				E.Piano	DX Legend		_	
				Sub	Mellow Pad			
4	1	Compressed CFX	G2	Piano	CFX	63	3	1
				E.Piano	-			
				Sub	-			
4	2	Kinda Squashed	G2	Piano	Imperial	63	3	2
				E.Piano	-			
				Sub	-			
4	3	Layered CFX	G2	Piano	CFX	63	3	3
				E.Piano	75Rd Funky			
				Sub	Mellow Pad			
4	4	Chorus CFX	G2	Piano	CFX	63	3	4
				E.Piano	-			
				Sub	-			
4	5	Upright	G2	Piano	U1	63	3	5
				E.Piano	-			
				Sub	-			
4	6	A Tacky Piano	G2	Piano	SU7	63	3	6
				E.Piano	75Rd Funky			
				Sub	Brightness			
4	7	HonkyTonk Piano	G2	Piano	U1	63	3	7
				E.Piano	-			
				Sub	-			
4	8	Old Record	G2	Piano	U1	63	3	8
				E.Piano	-			
				Sub	-			
5	1	Case 73	G2	Piano	-	63	4	1
				E.Piano	73Rd			
				Sub	-			
5	2	Chimin' Tines	G2	Piano	Digi Piano	63	4	2
				E.Piano	78Rd			
				Sub	Glocken			
5	3	Slow Phase	G2	Piano	-	63	4	3
				E.Piano	73Rd			
-		70 7' 0D	00	Sub	-	00		
5	4	73 Tines OD	G2	Piano	-	63	4	4
				E.Piano	73Rd			
-	-	Foot Dhann	00	Sub	-	co	4	-
5	5	Fast Phaser	G2	Piano	75D4 5	63	4	5
				E.Piano	75Rd Funky			
E	6	Amny Funk	CO	Sub	-	60	4	c
5	6	Ampy Funk	G2	Piano E Biano	75Rd Funky	63	4	6
				E.Piano				
5	7	Wat Dhace	G2	Sub	-	63	А	7
5	1	Wet Phase	u2	Piano E.Piano	- 70Dd	ರಿತ	4	/
				Sub	78Rd			
E	0	70 9 Dod	CO		-	60	4	0
5	8	78 & Pad	G2	Piano E Diano	70Dd	63	4	8
				E.Piano Sub	78Rd			
6	-1	Wr Bright	G o		Mellow Pad	63	E	4
6	1	Wr Bright	G2	Piano E Biano	Mr Dright	ರಿತ	5	1
				E.Piano	Wr Bright			
6	0	Wr Com-	00	Sub	-	60	-	_
6	2	Wr Comp	G2	Piano	- \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	63	5	2
				E.Piano	Wr Warm			
		01. 1.5	2.5	Sub	-		_	_
6	3	Clavi B	G2	Piano	-	63	5	3
				E.Piano	Clavi B			
				Sub	-			
6	4	Driven S	G2	Piano	-	63	5	4
				E.Piano	Clavi S			
		1	l	Sub	-	1	1	

BANK	No	Name	Split	Section	Voice Name	MSB	LSB	PC
6	5	Clavi Wah Dist	Point G2	Piano	-	63	5	5
				E.Piano	Clavi B			
6	6	Squeeze B	G2	Sub Piano	-	63	5	6
0	U	Oqueeze B	UZ.	E.Piano	Clavi B	00	,	U
				Sub	-			
6	7	Long Chorus S	G2	Piano	-	63	5	7
				E.Piano Sub	Clavi S			
6	8	Rock Wr w/Ba	G2	Piano	Digi Piano	63	5	8
				E.Piano	Wr Bright			
				Sub	E.Bass		_	
7	1	CP80 Comp	G2	Piano E.Piano	CP80 1	63	6	1
				Sub	-			
7	2	Natural CP80	G2	Piano	CP80 2	63	6	2
				E.Piano	-			
7	3	Chorus Legend	G2	Sub Piano	-	63	6	3
′	0	Onorus Ecgena	UZ.	E.Piano	DX Legend	00		0
				Sub	-			
7	4	Chorus FTine	G2	Piano	-	63	6	4
				E.Piano Sub	DX FTine Mellow Pad			
7	5	Chorus 7II	G2	Piano	-	63	6	5
				E.Piano	DX 7 II			
				Sub	-			
7	6	Legend + Pad	G2	Piano E.Piano	- DX Legend	63	6	6
				Sub	OB Strings			
7	7	SynBass/DXEP	G2	Piano	-	63	6	7
				E.Piano	DX Mellow			
7	8	Digi DX Pads	G2	Sub Piano	Syn Bass Digi Piano	63	6	8
′	0	Digi DX Faus	UZ	E.Piano	DX Legend	03	0	0
				Sub	Mellow Pad			
8	1	Bright Bars	G2	Piano	-	63	7	1
				E.Piano Sub	- Bright Bars			
8	2	All Bars Out	G2	Piano	-	63	7	2
				E.Piano	-			
				Sub	All Bars Out		_	
8	3	PipeOrgan1	G2	Piano E.Piano	-	63	7	3
				Sub	Pipe Organ 1			
8	4	PipeOrgan2	G2	Piano	-	63	7	4
				E.Piano	-			
8	5	The Red Combo	G2	Sub Piano	Pipe Organ 2	63	7	5
	Ü	The fied combo	G.E.	E.Piano	-	00		Ü
				Sub	60s Combo			
8	6	Italian Combo	G2	Piano	-	63	7	6
				E.Piano Sub	Compact			
8	7	Aggro Syn Pad	G2	Piano	-	63	7	7
				E.Piano	78Rd			
8	8	RdBa/60sCombo	G2	Sub Piano	Panther	63	7	8
0	0	nupa/00500IIID0	u2	E.Piano	- 78Rd	03	7	0
				Sub	60s Combo			
9	1	Strings1	G2	Piano	-	63	8	1
				E.Piano Sub	- Natural Str			
9	2	Strings2	G2	Piano	- waturdi Əli	63	8	2
-	-	3		E.Piano	-		_	_
				Sub	Section Str			
9	3	Synth Pad1	G2	Piano E Diano	-	63	8	3
				E.Piano Sub	- Mellow Pad			
9	4	Synth Pad2	G2	Piano	-	63	8	4
				E.Piano	-			
	_	V6b and the co	00	Sub	Warm Strings	00	_	_
9	5	Vibraphone	G2	Piano E.Piano	-	63	8	5
				Sub	Vibraphone			
9	6	Nice Bell	G2	Piano	-	63	8	6
				E.Piano	- Nies Dell			
				Sub	Nice Bell			

BANK	No	Name	Split Point	Section	Voice Name	MSB	LSB	PC
9	7	Syn Brass	G2	Piano	-	63	8	7
				E.Piano	-			
				Sub	Syn Brass			
9	8	Syn Lead1	G2	Piano	-	63	8	8
				E.Piano	78Rd			
				Sub	Syn Lead 1			
10	1	Harpsichord	G2	Piano	-	63	9	1
				E.Piano	Harpsichord			
				Sub	-			
10	2	Electric Harpsi	G2	Piano	-	63	9	2
				E.Piano	Harpsichord			
				Sub	-	İ		
10	3	Pipes Rd PBMW	G2	Piano	Digi Piano	63	9	3
				E.Piano	78Rd			
				Sub	Pipe Organ 2			
10	4	Funky w/RdBass	G2	Piano	CP80 1	63	9	4
				E.Piano	78Rd			
				Sub	Marimba			
10	5	Rough Lead	G2	Piano	CP80 2	63	9	5
				E.Piano	78Rd			
				Sub	Back Pad			
10	6	Clavi Syn Wah	G2	Piano	-	63	9	6
				E.Piano	Clavi B			
				Sub	Syn Lead 1			
10	7	Chimin' Crs	G2	Piano	Digi Piano	63	9	7
				E.Piano	75Rd Funky			
				Sub	Glocken			
10	8	Brite Pop	G2	Piano	Digi Piano	63	9	8
				E.Piano	DX Legend			
				Sub	OB Strings			

Voice List

Section	Category	No.	Voice
PIANO	Grand Piano	1	CFX
		2	Imperial
		3	S700
		4	Digi Piano
	Upright Piano	5	U1
	oprigner iano	6	SU7
	CP	7	CP80 1
	oi .	8	CP80 2
	Special Piano	9	Piano Strings
	Opoolai i lano	10	Piano Synth
E.PIANO	Rd	11	78Rd
L.1 17 11 VO	Tiu	12	75Rd Funky
		13	73Rd
	Wr	14	Wr Warm
	***	15	Wr Bright
	Clv	16	Clavi B
	OIV	17	Clavi S
		18	Harpsichord
	DX	19	DX Legend
	DA	20	
		21	DX Woody DX FTine
		22	DX 7 II
		23	DX Mellow
0115	B 100.1	24	DX Crisp
SUB	Pad/Strings	25	Mellow Pad
		26	Spectrum
		27	Back Pad
		28	Air Choir
		29	Natural Str
		30	Warm Strings
		31	OB Strings
		32	Section Str
	Organ	33	Bright Bars
		34	Click Organ
		35	Draw Organ 1
		36	All Bars Out
		37	Draw Organ 2
		38	60s Combo
		39	Compact
		40	Panther
		41	Pipe Organ 1
		42	Pipe Organ 2
	Chromatic Perc.	43	Glocken
		44	Vibraphone
		45	Xylophone
		46	Marimba
		47	Brightness
		48	Nice Bell
		49	Stack Bell
	Others	50	Syn Lead 1
		51	Syn Lead 2
		52	Syn Bass
		53	E.Bass
		54	A.Bass
		55	Steel Gt
		56	Clean Gt
		57	Syn Brass
	I	J.	.,

Control Change Number List

		LCD indication		Panel controls	Table*
Piano	12	P: Select	13	Voice category selector	M
			9	Voice select switch	М
	13	P: Volume	3	[VOLUME] knob	Α
	14	P: Tone	2	[TONE] knob	Α
	15	P: Damper Reso	25	DAMPER RESONANCE [ON/OFF] button	В
	16	P: Effect SW	മ	Insertion effect [ON/OFF] button	В
	17	P: Effect Depth	_	[DEPTH] knob	A
	77	P: Delay Depth	_	[DEPTH] knob	Α
	81	P: Reverb Depth	43	[DEPTH] knob	А
	102	P: SW	Ø	Voice section [ON/OFF] switch	В
	103	P: Split	(3)	SPLIT [L R] button	E
	104	P: Octave	0	OCTAVE [-2 -1]/[+1 +2] buttons	F
	105	P: Effect Type	Ø	Insertion effect switch button	G
E.Piano	18	E: Select		Voice category selector	N
	40	F 1/1	_	Voice select switch	N
	19	E: Volume	_	[VOLUME] knob	A
	20	E: Tone E: Drive SW		[TONE] knob Insertion effect [ON/OFF] button	A B
		E: Drive Depth	_	[DRIVE] knob	A
	23	E: Effect 1 SW	_	Insertion effect [ON/OFF] button	В
	24	E: Effect 1 Depth	_	[DEPTH] knob	A
	25	E: Effect 1 Rate	•	[RATE] knob	A
	26	E: Effect 2 SW	_	Insertion effect [ON/OFF] button	В
	27	E: Effect 2 Depth	3	[DEPTH] knob	Α
	28	E: Effect 2 Speed	8	[SPEED] knob	Α
	78	E: Delay Depth	0	[DEPTH] knob	Α
	82	E: Reverb Depth	€	[DEPTH] knob	Α
	106	E: SW		Voice section [ON/OFF] switch	В
	107	E: Split	_	SPLIT [L R] button	E
	108	E: Octave	_	OCTAVE [-2 -1]/[+1 +2] buttons	F
	109	E: Effect 1 Type E: Effect 2 Type	_	Insertion effect switch button Insertion effect switch button	H
Sub	29	S: Select		Voice category selector	0
Oub	23	o. odlodi	_	Voice select switch	0
	30	S: Volume	_	[VOLUME] knob	A
	31	S: Tone	29	[TONE] knob	Α
	68	S: Effect SW	23	Insertion effect [ON/OFF] button	В
	72	S: Release	6	[RELEASE] knob	Α
	73	S: Attack	8	[ATTACK] knob	Α
	75	S: Effect Depth	_	[DEPTH] knob	Α
	76	S: Effect Speed	_	[SPEED] knob	Α
	79	S: Delay Depth	•	[DEPTH] knob	A
	83 111	S: Reverb Depth S: SW		[DEPTH] knob	A B
	112	S: Split	9 0	Voice section [ON/OFF] switch SPLIT [L R] button	E
	113	S: Octave	_	OCTAVE [-2 -1]/[+1 +2] buttons	F
	114	S: Effect Type	<u> </u>		J
DELAY	80	Delay Time	•	[TIME] knob	Α
REVERB	85	Reverb Time	49	[TIME] knob	Α
	91	All Reverb Depth	0	[DEPTH] knob	Α
	92	Delay Feedback	49	[FEEDBACK] knob	Α
	93	All Delay Depth		[DEPTH] knob	Α
	115	Delay SW	_	DELAY [ON/OFF] switch	В
	116	Delay Effect Type	_	[Analog/Digital] switch button	K
	117	Reverb SW	_	REVERB [ON/OFF] switch Effect level display switch button	B L
MASTER EQUALIZER	118 86	Depth Knob Select Master EQ SW	9		B
	87	Master EQ High	60	[HIGH] knob	С
	88	Master EQ Mid		[MID] knob	С
	89	Master EQ Freq	_	[FREQUENCY] knob	D
	90	Master EQ Low	€	[LOW] knob	С

P:=Piano, E:=Electric Piano, S:=Sub
Parameters shown within parentheses do not affect the sound of this instrument.

* Only affected by foot switch, and not foot controller.

*Parameter value/Controller value Correspondence Table (page 41)

			· ·	,, ,	
		LCD indication	Pa	inel controls	Table*
EDAL	1	Modulation			
	4	Pedal Wah			
	5	(Portamento Time)			
	7	(Data Entry MSB) All Volume			
	10	(Pan)			
	11	Expression			
	12	P: Select	Voice cat	tegory selector	M
			Voice sel		M
	13	P: Volume			A
	14	P: Tone	② [TONE] k	•	Α
	15	P: Damper Reso		R RESONANCE [ON/OFF]	В
	16	P: Effect SW		effect [ON/OFF] button	В
	17	P: Effect Depth	② [DEPTH]		A
	18	E: Select		tegory selector	N
			Voice sel		N
	19	E: Volume		E] knob	Α
	20	E: Tone	2 [TONE] k	knob	Α
	21	E: Drive SW		effect [ON/OFF] button	В
	22	E: Drive Depth	② [DRIVE]	knob	Α
	23	E: Effect 1 SW	26 Insertion	effect [ON/OFF] button	В
	24	E: Effect 1 Depth	[DEPTH]	knob	Α
	25	E: Effect 1 Rate		nob	Α
	26	E: Effect 2 SW	Insertion	effect [ON/OFF] button	В
	27	E: Effect 2 Depth	② [DEPTH]	knob	Α
	28	E: Effect 2 Speed	S [SPEED]	knob	Α
	29	S: Select	Voice cat	tegory selector	0
			Voice sel	lect switch	0
	30	S: Volume		E] knob	Α
	31	S: Tone	2 [TONE] k	knob	Α
	32	(Bank LSB)			
	38	(Data Entry LSB)			
	64	Sustain		*	
	65	(Portamento)			
	66	Sostenuto		*	
	67	Soft			
	68	S: Effect SW	23 Insertion	effect [ON/OFF] button	В
	71	(Resonance)			
	72	S: Release	@ [RELEAS	SE] knob	Α
	73	S: Attack	[ATTACK	[] knob	Α
	74	(Cutoff)			
	75	S: Effect Depth	[DEPTH]	knob	Α
	76	S: Effect Speed	(SPEED)	knob	Α
	77	P: Delay Depth	(DEPTH)	knob	Α
	78	E: Delay Depth	(DEPTH)	knob	Α
	79	S: Delay Depth	(DEPTH)	knob	Α
	80	Delay Time	45 [TIME] k	nob	Α
	81	P: Reverb Depth	[DEPTH]	knob	Α
	82	E: Reverb Depth	[DEPTH]	knob	Α
	83	S: Reverb Depth	(B) [DEPTH]	knob	Α
	84	(Portamento Ctrl)			
	85	Reverb Time	49 [TIME] k	nob	Α
	86	Master EQ SW	MASTER button	EQUALIZER [ON/OFF]	В
	87	Master EQ High	⑤ [HIGH] k	nob	С
	88	Master EQ Mid	€ [MID] kn		С
	89	Master EQ Freq	€ [FREQUE		D
	90	Master EQ Low	6 [LOW] ki		С
	91	All Reverb Depth	⊕ [DEPTH]		A
	92	Delay Feedback	45 [FEEDBA		A
	93	All Delay Depth	(DEPTH)	-	A
	94	(Effect 4 Depth)	J ()		1
	95	(Effect 5 Depth)			1
	96	(Data Increment)			
	97	(Data Decrement)			1
	98	(NRPN LSB)			1
	99	(NRPN MSB)			1
	100	(RPN LSB)			1
	1	. ,			

		LCD indication		Panel controls	Table*
PEDAL	101	(RPN MSB)			
	102	P: SW	0	Voice section [ON/OFF] switch	В
	103	P: Split	3	SPLIT [L R] button	E
	104	P: Octave	2	OCTAVE [-2 -1]/[+1 +2] buttons	F
	105	P: Effect Type	3	Insertion effect switch button	G
	106	E: SW	Ø	Voice section [ON/OFF] switch	В
	107	E: Split	a	SPLIT [L R] button	E
	108	E: Octave	8	OCTAVE [-2 -1]/[+1 +2] buttons	F
	109	E: Effect 1 Type	0	Insertion effect switch button	Н
	110	E: Effect 2 Type	€	[RATE] knob	I
	111	S: SW	Ø	Voice section [ON/OFF] switch	В
	112	S: Split	a	SPLIT [L R] button	E
	113	S: Octave	2	OCTAVE [-2 -1]/[+1 +2] buttons	F
	114	S: Effect Type	3	Insertion effect switch button	J
	115	Delay SW	Ð	DELAY [ON/OFF] switch	В
	116	Delay Effect Type	3	[Analog/Digital] switch button	K
	117	Reverb SW	(REVERB [ON/OFF] switch	В
	118	Depth Knob Select	•	Effect level display switch button	L
		Live Set Sound +		*	
		Live Set Sound -		*	

Correspondence Table

Α

Parameter	Controller		
raiailietei	Transmitted Recognized		
0-127	0-127	0-127	

В

Parameter		Controller		
ratatiletet		Transmitted	Recognized	
Off	0	0	0-63	
On	1	127	64-127	

С

Parameter		Controller		
Parameter		Transmitted	Recognized	
-12dB	52	0-5	0-5	
-11dB	53	6-10	6-10	
-10dB	54	11-15	11-15	
-9dB	55	16-20	16-20	
-8dB	56	21-25	21-25	
-7dB	57	26-30	26-30	
-6dB	58	31-35	31-35	
-5dB	59	36-40	36-40	
-4dB	60	41-46	41-46	
-3dB	61	47-51	47-51	
-2dB	62	52-56	52-56	
-1dB	63	57-61	57-61	
0dB	64	62-66	62-66	
1dB	65	67-71	67-71	
2dB	66	72-76	72-76	
3dB	67	77-81	77-81	
4dB	68	82-87	82-87	
5dB	69	88-92	88-92	
6dB	70	93-97	93-97	
7dB	71	98-102	98-102	
8dB	72	103-107	103-107	
9dB	73	108-112	108-112	
10dB	74	113-117	113-117	
11dB	75	118-122	118-122	
12dB	76	123-127	123-127	

Danamatan.		Controller			
Parameter		Transmitted	Recognized		
100Hz	14	0-3	0-3		
110Hz	15	4-6	4-6		
125Hz	16	7-9	7-9		
140Hz	17	10-12	10-12		
160Hz	18	13-15	13-15		
180Hz	19	16-18	16-18		
200Hz	20	19-21	19-21		
225Hz	21	22-24	22-24		
250Hz	22	25-28	25-28		
280Hz	23	29-31	29-31		
315Hz	24	32-34	32-34		
355Hz	25	35-37	35-37		
400Hz	26	38-40	38-40		
450Hz	27	41-43	41-43		
500Hz	28	44-46	44-46		
560Hz	29	47-49	47-49		
630Hz	30	50-53	50-53		
700Hz	31	54-56	54-56		
800Hz	32	57-59	57-59		
900Hz	33	60-62	60-62		
1.0kHz	34	63-65	63-65		
1.1kHz	35	66-68	66-68		
1.2kHz	36	69-71	69-71		
1.4kHz	37	72-74	72-74		
1.6kHz	38	75-78	75-78		
1.8kHz	39	79-81	79-81		
2.0kHz	40	82-84	82-84		
2.2kHz	41	85-87	85-87		
2.5kHz	42	88-90	88-90		
2.8kHz	43	91-93	91-93		
3.2kHz	44	94-96	94-96		
3.6kHz	45	97-99	97-99		
4.0kHz	46	100-102	100-102		
4.5kHz	47	103-106	103-106		
5.0kHz	48	107-109	107-109		
5.6kHz	49	110-112	110-112		
6.3kHz	50	113-115	113-115		
7.0kHz	51	116-118	116-118		
8.0kHz	52	119-121	119-121		
9.0kHz	53	122-124	122-124		
10kHz	54	125-127	125-127		

Ε

Parameter		Controller	
ratatilete		Transmitted	Recognized
L&R	0	0	0-42
L	1	63	43-85
R	2	127	86-127

F

Parameter		Controller	
		Transmitted	Recognized
-2	62	0	0-25
-1	63	31	26-51
0	64	63	52-76
+1	65	95	77-102
+2	66	127	103-127

G

Parameter		Controller	
		Transmitted	Recognized
Comp	0	0	0-31
Dist/OD	1	42	32-63
Drive	2	84	64-95
Chorus	3	127	96-127

Н

Dorometer		Controller	
Farameter	Parameter		Recognized
A.Pan	0	0	0-21
Trem	1	25	22-42
R.Mod	2	50	43-63
T.Wah	3	76	64-85
P.Wah	4	101	86-106
Comp	5	127	107-127

I

Parameter		Controller	
raiailietei	rarameter		Recognized
Cho1	0	0	0-21
Cho2	1	25	22-42
Fla	2	50	43-63
Pha1	3	76	64-85
Pha2	4	101	86-106
Pha3	5	127	107-127

J

Parameter		Controller	
		Transmitted	Recognized
Cho/Fla	0	0	0-31
Rotary	1	42	32-63
Trem	2	84	64-95
Dist/OD	3	127	96-127

Κ

Parameter		Controller	
		Transmitted	Recognized
Analog	0	0	0-63
Digital	1	127	64-127

L

Parameter		Controller	
		Transmitted	Recognized
All	0	0	0-31
Piano	1	42	32-63
E.Piano	2	84	64-95
Sub	3	127	96-127

М

Do.	Parameter		Cont	roller
Pari	ameter		Transmitted	Recognized
Grand Piano	1	0	1	1
	2	1	2	2
	3	2	3	3
	4	3	4	4
Upright Piano	1	4	5	5
	2	5	6	6
CP	1	6	7	7
	2	7	8	8
Special Piano	1	8	9	9
	2	9	10	10

N

Parameter		Cont	roller	
r.	Parameter		Transmitted	Recognized
Rd	1	10	11	11
	2	11	12	12
	3	12	13	13
Wr	1	13	14	14
	2	14	15	15
Clv	1	15	16	16
	2	16	17	17
	3	17	18	18
DX	1	18	19	19
	2	19	20	20
	3	20	21	21
	4	21	22	22
	5	22	23	23
	6	23	24	24

Parameter		Cont	roller	
			Transmitted	Recognized
Pad/Strings	1	24	25	25
	2	25	26	26
	3	26	27	27
	4	27	28	28
	5	28	29	29
	6	29	30	30
	7	30	31	31
	8	31	32	32
Organ	1	32	33	33
	2	33	34	34
	3	34	35	35
	4	35	36	36
	5	36	37	37
	6	37	38	38
	7	38	39	39
	8	39	40	40
	9	40	41	41
	10	41	42	42
Chromatic Perc	1	42	43	43
	2	43	44	44
	3	44	45	45
	4	45	46	46
	5	46	47	47
	6	47	48	48
	7	48	49	49
Others	1	49	50	50
	2	50	51	51
	3	51	52	52
	4	52	53	53
	5	53	54	54
	6	54	55	55
	7	55	56	56
	8	56	57	57

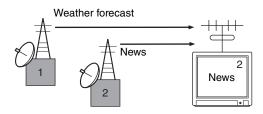
MIDI

Musical Instrument Digital Interface (MIDI) is a global standard designed to allow performance, Voice, and other data to be transferred between musical instruments. As such, reliable data communication is assured even between musical instruments and equipment from different manufacturers.

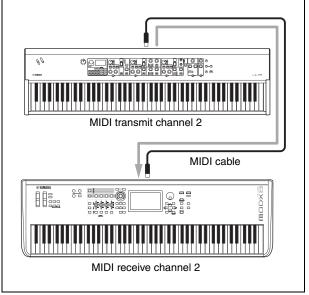
In addition to data generated by playing the keyboard or selecting a Live Set Sound, a wide range of other data types—such as tempo and instrument controls—can also be exchanged via MIDI. Using the powerful functionality provided by this technology, you can not only play other instruments using this instrument's keyboard and controllers, but you can also adjust the volume or the tone of each section and adjust effect settings. In fact, practically all of the parameters that can be set using the instrument's control panel can also be remotely controlled from another MIDI device.

MIDI Channels

MIDI data can be transmitted and received on one of sixteen MIDI channels. Therefore, performance data for up to sixteen different instrument parts can be simultaneously exchanged over a single MIDI cable. MIDI channels are very similar in nature to TV channels, in that each TV station transmits its broadcasts over a specific channel. Your TV, for example, receives many different programs at the same time from different broadcasters, and you select which program to watch by choosing the corresponding channel.

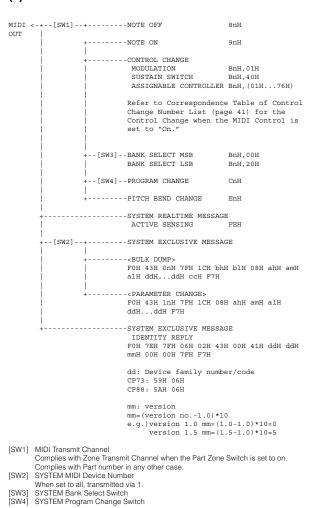


In much the same way, multiple transmitting devices in a MIDI system can each be set to send data on a separate channel (i.e., a MIDI transmit channel), which link with the system's receiving devices via MIDI cables. If a receiving device's MIDI channel (i.e., a MIDI receive channel) matches a MIDI Transmit channel, the receiving device will produce sound in response to the data sent by the corresponding transmitting device.



MIDI Data Format

(1) TRANSMIT FLOW



(2) RECEIVE FLOW

MIDI >-+[SW1]+NOTE OFF	8nH
NOTE ON/OFF	9nH
+CONTROL CHANGE	
MODULATION	BnH,01H
CHANNEL VOLUME	BnH,07H
	BnH,0BH
	BnH,40H
	BnH,42H
	BnH,43H
PORTAMENTO CONTROL	BnH,54H
Refer to Correspondenc Change Number List (pa Control Change when th set to "On."	ge 41) for the
+[SW3]BANK SELECT MSB	BnH.00H
BANK SELECT LSB	BnH,20H
+CHANNEL MODE MESSAGE	
ALL SOUND OFF	BnH,78H
RESET ALL CONTROLLERS	BnH,79H
ALL NOTE OFF	
OMNI MODE OFF	BnH,7CH
OMNI MODE ON	BnH,7DH
+[SW4]PROGRAM CHANGE	CnH
+PITCH BEND CHANGE	EnH
+SYSTEM REALTIME MESSAG	IR.
ACTIVE SENSING	_

+[SW2]+SYSTEM EXCLUSIVE MESSAGE	
+	
FOH 43H OnH 7FH 1CH bhH blH 08H ahH amH	
alH ddHddH ccH F7H	
+ <parameter change=""></parameter>	
FOH 43H 1nH 7FH 1CH 08H ahH amH alH	
ddHddH F7H	
+	
FOH 43H 2nH 7FH 1CH 08H ahH amH alH	
ddHddH F7H	
FOH 43H 3nH 7FH 1CH 08H ahH amH alH F7H	
 +BYSTEM EXCLUSIVE MESSAGE	
IDENTITY REQUEST FOH 7EH OnH O6H O1H F	7 H

[SW1] Complies with MIDI Receive Channel. [SW2] SYSTEM MIDI Device Number [SW3] SYSTEM Bank Select Switch

[SW4] SYSTEM Bank Select Switch [SW4] SYSTEM Program Change Switch

(3) TRANSMIT/RECEIVE DATA

(3-1) CHANNEL VOICE MESSAGES

(3-1-1) NOTE OFF

(3-1-2) NOTE ON/OFF

(3-1-3) CONTROL CHANGE

STATUS 1011nnnn(BnH) n=0-15 CHANNEL NUMBER CONTROL NUMBER 00ccccc CONTROL VALUE 00vvvvvv

*TRANSMITTED CONTROL NUMBER

C=0 BANK SELECT MSB ;V=0-127

C=32 BANK SELECT LSB ;v=0-127

C=1 MODULATION ;V=0-127

C=64 SUSTAIN SWITCH ;v=0-127

C=1...118 ASSIGNABLE CONTROLLER ;v=0-127

*1 *1

*RECEIVED CONTROL NUMBER

C=0 BANK SELECT MSB ;v=0-127

C=1 MODULATION ;v=0-127

C=7 CHANNEL VOLUME ;v=0-127

C=11 EXPRESSION ;v=0-127

C=64 SUSTAIN SWITCH ;v=0-127

C=66 SOSTENUTO ;v=0-63:OFF, 64-127:ON

C=67 SOFT ;v=0-127

C=84 PORTAMENTO CONTROL ;v=0-127

*1 Relation between BANK SELECT and PROGRAM is as follows:

CATEGORY	MSB	LSB	PROGRAM No.
Live Set Page 1	63	0	07
:	:	:	
Live Set Page 20	63	19	07

 $\ensuremath{^{\star2}}\xspace$ The default CONTROL NUMBERs of ASSIGNABLE CONTROLLER are as follows:

FOOT CONTROLLER 1 11
FOOT CONTROLLER 2 4
FOOT SWITCH Live Set Inc

*3 When Sustain is set to something other than "FC3A (HalfOn)," operating the foot switch transmits only values of 0 (off) or 127 (on).

Bank Select will be actually executed when a Program Change message is received. Bank Select and Program Change numbers that are not supported by Yamaha will be ignored.

(3-1-4) PROGRAM CHANGE

STATUS 1100nnnn(CnH) n=0-15 CHANNEL NUMBER PROGRAM NUMBER 00000ppp p=0-7

(3-1-5) PITCH BEND CHANGE

STATUS 1110nnnn(EnH) n=0-15 CHANNEL NUMBER LSB 0VVVVVVVV PITCH BEND CHANGE LSB MSB 0VVVVVVVV PITCH BEND CHANGE MSB Transmitted with a resolution of 7 Dits.

(3-2) CHANNEL MODE MESSAGES

1011nnnn (BnH) n=0-15 CHANNEL NUMBER CONTROL NUMBER CONTROL VALUE 0vvvvvv v=DATA VALUE

(3-2-1) ALL SOUND OFF (CONTROL NUMBER = 78H, DATA VALUE = 0)

All the sounds currently being played, including channel messages such as note-on and hold-on of a certain channel, are muted this message is received.

(3-2-2) RESET ALL CONTROLLERS (CONTROL NUMBER = 79H, DATA VALUE = 0)

Resets the values set for the following controllers. PITCH BEND CHANGE 0 (center) 0 (minimum) 127 (maximu MODIII.ATTON EXPRESSION (maximum) PEDAL WAH 0 (minimum) SUSTAIN SWITCH 0 (off) SOSTENUTO SWITCH 0 (off)

PORTAMENTO CONTROL Reserved note number

Doesn't reset the following data: PROGRAM CHANGE, BANK SELECT MSB/LSB, VOLUME

(3-2-3) ALL NOTE OFF (CONTROL NUMBER = 7BH, DATA VALUE = 0)

All the notes currently set to on in certain channel(s) are muted when receiving this message. However, if Sustain or Sostenuto is on, notes will continue sounding until these are turned off.

(3-2-4) OMNI MODE OFF (CONTROL NUMBER = 7CH, DATA VALUE = 0)

Performs the same function as when receiving ALL NOTES OFF

(3-2-5) OMNI MODE ON (CONTROL NUMBER = 7DH, DATA VALUE = 0)

Performs the same function as when receiving ALL NOTES OFF.

(3-4) SYSTEM REAL TIME MESSAGES

(3-4-1) ACTIVE SENSING

11111110 (FEH) STATUS

Transmitted every 200 msec. Once this code is received, the instrument starts sensing. When neither status messages nor data are received for more than approximately 350 ms, the MIDI receive buffer will be cleared, and the sounds currently being played are forcibly

(3-5) SYSTEM EXCLUSIVE MESSAGE

(3-5-1) UNIVERSAL NON REALTIME MESSAGE

(3-5-1-1) IDENTITY REQUEST (Receive only)

FOH 7EH OnH 06H 01H F7H ("n" = Devinstrument receives under "omni.") Device No. However, this

(3-5-1-2) IDENTITY REPLY (Transmit only)

FOH 7EH 7FH 06H 02H 43H 00H 41H ddH ddH mmH 00H 00H 7FH F7H

dd: Device family number/code CP73: 59H 06H CP88: 5AH 06H

mm=(version no.-1.0)*10 e.g.) version 1.0 mm=(1.0-1.0)*10=0 version 1.5 mm=(1.5-1.0)*10=5

(3-5-2) UNIVERSAL REALTIME MESSAGE

(3-5-3)PARAMETER CHANGE

(3-5-3-1) NATIVE PARAMETER CHANGE, MODE CHANGE

11110000 01000011 Exclusive status 0001nnnn 1n Device Number Group ID High Group ID Low Model ID 01111111 00011100 00000010 08 0aaaaaaa 0aaaaaaa aaaaaaa aaaaaaa Address High Address Mid 0aaaaaaa aaaaaaa Address Low 0ddddddd ddddddd 11110111 End of Exclusive

For parameters with data size of 2 or more, the appropriate number of data bytes will be transmitted. See the following MIDI Data Table for Address

(3-5-4) BULK DUMP

Exclusive status 01000011 43 YAMAHA ID Device Number Group ID High Group ID Low 0000nnnn 00011100 Byte Count Byte Count Model ID 0bbbbbbb bbbbbbb 0bbbbbbb 00000010 bbbbbbb 0aaaaaaa aaaaaaa Address High Address Mid Address Low 0aaaaaaa aaaaaaa 0aaaaaaa aaaaaaa 0 0 Data cccccc 11110111 End of Exclusive

See the following MIDI Data Table for Address and Byte Count Checksum is the value that results in a value of 0 for the lower 7 bits when the Byte Count, Start Address, Data and Checksum itself are added. (3-5-5) DUMP REQUEST

11110000 Exclusive status YAMAHA ID Device Number Group ID High 01000011 43 0010nnnn 01111111 00011100 1C Group ID Low 00000010 08 Model ID 0aaaaaaa Address High 0aaaaaaa aaaaaaa Address Mid 0aaaaaaa aaaaaaa Address Low End of Exclusive

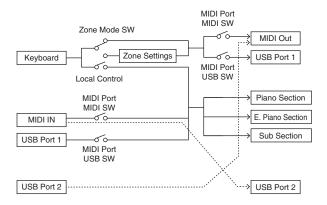
See the following DUMP REQUEST Table for Address

(3-5-6) PARAMETER REQUEST

11110000	F0	Exclusive status
01000011	43	YAMAHA ID
0011nnnn	3n	Device Number
01111111	7F	Group ID High
00011100	1C	Group ID Low
00000010	80	Model ID
0aaaaaaa	aaaaaaa	Address High
0aaaaaaa	aaaaaaa	Address Mid
0aaaaaaa	aaaaaaa	Address Low
11110111	F7	End of Exclusive

See the following MIDI Data Table for Address.

(4) SYSTEM OVERVIEW (Keyboard and Tone Generator)



USB Port 2 is enabled when 'MIDI Port MIDI SW = OFF' and 'MIDI Port USB SW = ON' $^{\prime}$

ALL SOUND OFF clears all the sounds in the specific channel(s) played by both the keyboard and the data via MIDI.

ALL NOTES OFF received via MIDI clears the sounds in the specific channel(s) played via

MIDI Data Table

Bank Select

MSB	(HEX)	LSB	(HEX)	Program No.	Туре	Memory	Description
63	3F	0	00	0 – 7	Live Set	User	Live Set Page 1
		1	01	0 – 7	Sound	User	Live Set Page 2
		2	02	0 – 7		User	Live Set Page 3
		3	03	0 – 7		User	Live Set Page 4
		4	04	0 – 7		User	Live Set Page 5
		5	05	0 – 7		User	Live Set Page 6
		6	06	0 – 7		User	Live Set Page 7
		7	07	0 – 7		User	Live Set Page 8
		8	08	0 – 7		User	Live Set Page 9
		9	09	0 – 7		User	Live Set Page 10
		10	0A	0 – 7		User	Live Set Page 11
		11	OB	0 – 7		User	Live Set Page 12
		12	0C	0 – 7		User	Live Set Page 13
		13	0D	0 – 7		User	Live Set Page 14
		14	0E	0 – 7		User	Live Set Page 15
		15	0F	0 – 7		User	Live Set Page 16
		16	10	0 – 7		User	Live Set Page 17
		17	11	0 – 7		User	Live Set Page 18
		18	12	0 – 7		User	Live Set Page 19
		19	13	0 – 7		User	Live Set Page 20

Parameter Base Address

Group Number = 7F 1C, Model ID = 08

Paramete	r Block			
	To	op Addre	ss	Description
	High	Mid	Low	
System	20	00	00	System
	20	40	00	Master EQ
BULK CONTROL	0E	00	00	Header
	0F	00	00	Footer
STORE TO FLASH	0D	00	00	Store To Flash
Live Set Sound	46	00	00	Common
Zone	4A	ZZ	00	Zone (zz: 00 – 03)
Section	50	0р	00	Common
	50	1p	00	Specific

Bulk Dump Block

"Top Address" indicates the top address of each block designated by the bulk dump operation.
"Byte Count" indicates the data size contained in each block designated by the bulk dump operation.
The block from the Bulk Header to the Bulk Footer of the Performance can be received regardless

of their order; however, they cannot be received if an irrelevant Block is included.

To execute 1 Multi/1 Voice bulk dump request, designate its corresponding Bulk Header address.

For information about "mm" and "nn" shown in the following list, refer to the MIDI PARAMETER CHANGE TABLE (BULK CONTROL).

Group Number = 7F 1C, Model ID = 08

Davan	neter Block	Description	Byte	Count	To	op Addre:	SS
Parai	Heler Block	Description	Dec	Hex	High	Mid	Low
System		System	48	30	20	00	00
		Master EQ	20	14	20	40	00
		Contents Unlock			20	70	00
Live Se	t Sound	Bulk Header	0	00	0E	pp	0n
	Common		48	30	46	00	00
	Zone	Zone 1	16	10	4A	00	00
		:				:	
		Zone 4				03	
	Section	Piano Common	24	18	50	00	00
		E.Piano Common				01	
		Sub Common				02	
		Piano Specific	28	1C	50	10	00
		E.Piano Specific				11	
		Sub Specific				12	
		Bulk Footer	0	00	0F	pp	0n

Message Type	Data
Parameter Change	F0, 43, 1n, gh, gl, id, ah, am, al, dt, F7
Parameter Request	F0, 43, 3n, gh, gl, id, ah, am, al F7
Bulk Dump	F0, 43, 0n, gh, gl, bh, bl, id, ah, am, al, dt,, cc, F7
Bulk Request	F0, 43, 2n, gh, gl, id, ah, am, al, F7

- n: Device Number gh: Group Number High gl: Group Number Low bh: Byte Count High

- bil: Byte Count Low
 id: Model ID
 ah: Parameter Address High
 am: Parameter Address Middle
 al: Parameter Address Low
 dt: Data
- cc: Data Checksum

MIDI PARAMETER CHANGE TABLE (BULK CONTROL)

Group Number = 7F 1C, Model ID = 08

А	ddres	s		Data	Parameter		Default	
High	Mid	Low	Size	Range (HEX)	Kange Name Descri		(HEX)	Notes
0E	pp	0n	1	-	Bulk Header	Live Set Sound User $(pp = 0 - 19, n = 0 - 7)$	-	
	7F	00	1	-		Current Sound Buffer	-	
0F	pp	0n	1	-	Bulk Footer	Live Set Sound User $(pp = 0 - 19, n = 0 - 7)$	-	
	7F	00	1	-		Current Sound Buffer	-	

SYSTEM

System Common

Group Number = 7F 1C, Model ID = 08

High Mid Low Size Range Name Description (HEX) Name 20 00 00 1	A	ddres	s		Data	Parameter		Default	
01	High	Mid	Low	Size			Description		Notes
02	20	00	00	1		reserved			
00 - 07			01	1		reserved			
Shift			02	4	00 – 07 00 – 0F	Master Tune	[cent] 1st bit3-0: bit15-12 2nd bit3-0: bit11-8 3rd bit3-0: bit 7-4	04 00	
Transpose [semitones]			06	1	3D – 43		-3 - 0 - +3	40	
0.9			07	1	34 – 4C			40	
OA			08	1	00 – 01	Controller Reset	Hold, Reset	01	
OB			09	1	00 - 01	Local Switch	Off, On	01	
OC			0A	1		Tx Channel	1 – 16, Off	00	
Mode 2, Mode 3			0B	1	00 – 10	Rx Channel	1 – 16, All	00	
OE			0C	1	00 – 03	MIDI Control		00	
0F			0D	1		reserved			
10			0E	1		reserved			
Curve Wide, Fixed			0F	1		reserved			
12			10	1	00 – 04			00	
Bank Select 13			11	1	01 – 7F		1 – 127	40	
Program Change			12	1	00 – 01		Off, On	01	
15			13	1	00 – 01		Off, On	01	
16			14	1		reserved			
17			15	1	00 – 01	MIDI In/Out	USB Thru, In/Out	01	
18			16	1	00 – 01	USB In/Out	Off, On	01	
19			17	1		reserved			
Section Section Section Section Section Section 1A 1 00 - 01 Display Lights Ins Off, On O1 Effect Section O1 Display Lights Off, On O1 CD Display Lights Off, On O1 CD CD CD CD CD CD CD C			18	1		reserved			
Effect			19	1	00 – 01		Off, On	01	
LCD			1A	1	00 – 01		Off, On	01	
1D 1 reserved			1B	1	00 – 01		Off, On	01	
1E									
1F 1 reserved	<u> </u>								
20					00 – 01		Off, On	01	
21 1 reserved								_	
22 1 00 - 3F LCD Contrast 1 - 64 20					00 – 01		Default, Reverse	00	
23 1 00 - 01 Panel Lock Live Off, On 01					00 05		4 04	00	
24 1 00 - 01 Panel Lock Off, On 01						Panel Lock Live			
25 1 00 - 01 Panel Lock Effect Off, On 01 26 1 00 - 01 Panel Lock Master Off, On 01 EQ 01			24	1	00 – 01	Panel Lock	Off, On	01	
26 1 00 – 01 Panel Lock Master Off, On 01			25	1	00 – 01		Off On	01	
						Panel Lock Master			
<u> </u>			27	1					
28 1 00 – 01 Section Hold Disable, Enable 00					00 – 01		Disable, Enable	00	

Α	ddres	s	Size	Data	Parameter	Description	Default	Notes
High	Mid	Low	3126	Range	Name	Description	(HEX)	Notes
		29	1	00 – 01	Live Set View Mode	Close, Keep	00	
		2A	1	00 – 13	Power On Page	1 – 20	00	
		2B	1	00 – 07	Power On Sound	1 – 8	00	
		2C	1	00 – 78	FS Control Number	Off, 1 – 118, 119 (Live Set Inc), 120 (Live Set Dec)	77	
		2D	1		reserved			
		2E	1	00 – 7F	USB Audio Volume	0 – 127	40	
		2F	1	00 – 02	Sustain Pedal Select	FC3 Half On, FC3 Half Off, FC4/5	00	

TOTAL SIZE = 48 30 (HEX)

System MEQ

А	ddres	s	Size	Data	Parameter	Description	Default	Notes
High	Mid	Low	SIZE	Range	Name	Description	(HEX)	Notes
20	40	00	1	34 – 4C	EQ Gain1	-12dB - +12dB	40	
		01	1		reserved			
		02	1		reserved			
		03	1		reserved			
		04	1		reserved			
		05	1		reserved			
		06	1		reserved			
		07	1		reserved			
		08	1	34 - 4C	EQ Gain3	-12dB - +12dB	40	
		09	1	0E - 36	EQ Frequency3	100Hz – 10kHz	1C	
		0A	1		reserved			
		0B	1		reserved			
		0C	1		reserved			
		0D	1		reserved			
		0E	1		reserved			
		0F	1		reserved			
		10	1	34 - 4C	EQ Gain5	-12dB - +12dB	40	
		11	1		reserved			
		12	1		reserved			
		13	1		reserved			

TOTAL SIZE = 20 14 (HEX)

LIVE SET SOUND

Live Set Sound Common

Group Number = 7F 1C, Model ID = 08

						Group Number = 7F		110 = 0
			Size	Data Range	Parameter Name	Description	Default (HEX)	Notes
	Low 00	_	1	20 – 7F	Live Set Sound	32 – 127 (ASCII)	40	Т
			·		Name 1			
	01	01	1	20 – 7F	Live Set Sound Name 2	32 – 127 (ASCII)	6E	'n'
	02	02	1	20 – 7F	Live Set Sound Name 3	32 – 127 (ASCII)	69	'i'
	03	03	1	20 – 7F	Live Set Sound Name 4	32 – 127 (ASCII)	74	't'
	04	04	1	20 – 7F	Live Set Sound Name 5	32 – 127 (ASCII)	20	11
	05	05	1	20 – 7F	Live Set Sound Name 6	32 – 127 (ASCII)	53	'S'
	06	06	1	20 – 7F	Live Set Sound Name 7	32 – 127 (ASCII)	6F	'0'
	07	07	1	20 – 7F	Live Set Sound Name 8	32 – 127 (ASCII)	75	'u'
	08	08	1	20 – 7F	Live Set Sound Name 9	32 – 127 (ASCII)	6E	'n'
	09	09	1	20 – 7F	Live Set Sound Name 10	32 – 127 (ASCII)	64	'd'
	0A	0A	1	20 – 7F	Live Set Sound Name 11	32 – 127 (ASCII)	20	
	0B	0B	1	20 – 7F	Live Set Sound Name 12	32 – 127 (ASCII)	20	
	0C	00	1	20 – 7F	Live Set Sound Name 13	32 – 127 (ASCII)	20	
	0D	0D	1	20 – 7F	Live Set Sound Name 14	32 – 127 (ASCII)	20	
	0E	0E	1	20 – 7F	Live Set Sound Name 15	32 – 127 (ASCII)	20	
	0F	0F	1		reserved			
	10	10	1		reserved			
	11	11	1	00 - 01	Zone Mode Switch	Off, On	00	
	12	12	1	00 – 01	Advanced Zone Mode Switch	Off, On	00	
	13	13	1		reserved			
	14	14	1		reserved			
	15	15	1	34 – 4C	TG Transpose	-12 - +12	40	
	16	16	1	01 – 7F	Split Point	C#-2 - G8	37	
	17	17	1		reserved			
	18	18	1		reserved			
	19	_	1	00 – 76	FC1 Assign	0 – 118	0B	
	1A	_	1	00 - 76	FC2 Assign	0 – 118	04	
	1B		1	00 10	reserved	0 110	01	
	1C	_	1					
	1D	_	1		reserved			
	1E							
			1		reserved			
	1F 20	_	1	00 – 03	Depth Knob Section	All, Piano, E.Piano, Sub	00	
	21	21	1		Select reserved	ב.ו ומווט, טעט		
	22	22	1		reserved			
	23	_	1		reserved			
	24		1	00 – 01	Delay Switch	Off, On	01	
	25	_	1	00 - 01	Delay Type	Analog, Digital	00	
	26	_	1	00 – 7F	Delay Feedback	0 – 127	40	
	27		1	00 – 7F	Delay Time	0 – 127	40	
:	28	_	1	00 - 01	Reverb Switch	Off, On	01	
	29		1	01	reserved	,	٠.	
	29 2A		1		reserved			
		_	1	00 - 75		0 _ 127	40	
1	2B	_		00 – 7F	Reverb Time	0 – 127	40	
	2C		1		reserved			
	2D 2E	_	1		reserved			
	2F		1		reserved			

TOTAL SIZE = 48

30 (HEX)

ZONE

Group Number = 7F 1C, Model ID = 08

A	Address		Size Data Parameter		Description Def	Default	ult Notes	
High	Mid	Low	SIZE	Range	Name	Description	(HEX)	Nutes
4A	ZZ	00	1	00 – 01	Zone Switch	off, on	00 – 01	With the default settings, only the Zone 1 is se to "on."
		01	1	00 – 0F	Transmit Channel	Ch1 – 16	00 – 03	Default settings: Zone1(0) Zone2(1) Zone3(2) Zone4(3)
		02	1	3D – 43	Transpose (Octave)	-3 - +3	40	
		03	1	35 – 4B	Transpose (Semitone)	-11 – +11	40	
		04	1	00 – 7F	Note Limit Low	C-2 – G8	00	The upper limit will be determined with "Note Limit High."
		05	1	00 – 7F	Note Limit High	C-2 – G8	7F	The Lower limit will be deter- mined with "Note Limit Low."
		06	1		reserved			
		07	1	00 – 7F	MIDI Volume	0 – 127	64	
		08	1	00 – 7F	MIDI Pan	L64 - C - R63	40	
		09	1	00 – 7F	MIDI Bank MSB	000 – 127	00	
		0A	1	00 – 7F	MIDI Bank LSB	000 – 127	00	
		0B	1	00 – 7F	MIDI Program Number	001 – 128	00	
		OC	1	00 – 1F	Transmit Bank Select Transmit Program Change Transmit Volume Transmit Pan Transmit Note	bit0: off, on Bank Select bit1: off, on Program Change bit2: off, on Volume bit3: off, on Pan bit4: off, on Note	1F	CC#11 (Expression) will not be transmitted when the Volume is set to "off."
		OD	1	00 – 3F	Transmit PB Transmit MW Transmit FC1 Transmit FC2 Transmit FS Transmit Sus	bit0: off, on PB bit1: off, on MW bit2: off, on FC1 bit3: off, on FC2 bit4: off, on FS bit5: off, on Sus	3F	
		0E	1		reserved			
		0F	1		reserved			

TOTAL SIZE = 16

10 (HEX)

zz = Zone Number 00 - 03 (HEX)

SECTION

Section Common

Group Number = 7F 1C, Model ID = 08

А	ddres	s	Size	Data	Parameter Name	Description	Default	Notes
High	Mid	Low	Size	Range	Parameter Name	Description	(HEX)	Notes
50	0p	00	1	00 – 0B	Current Category		00	
		01	1	00 – 7F	Category 1 Voice Number		00	
		02	1	00 – 7F	Category 2 Voice Number		00	
		03	1	00 – 7F	Category 3 Voice Number		00	
		04	1	00 – 7F	Category 4 Voice Number		00	
		05	1	00 – 7F	Advanced Sound Mode Voice Number		00	
		06	1	00 – 01	Advanced Sound Mode Switch	Off, On	00	
		07	1	00 – 01	Section Switch	Off, On	01	
		08	1	00 – 02	Split Mode	L&R, L, R	00	
		09	1	3E - 42	Octave Shift	-2 - 0 - +2	40	
		0A	1	00 – 7F	Section Volume	0 – 127	7F (Piano), 40 (EP, Sub)	
		0B	1	00 – 7F	Tone	0 – 127	40	
		0C	1		reserved			
		0D	1	28 – 58	Pitch Bend Range	-24 - 0 - +24	42	
		0E	1		reserved			
		0F	1	00 – 7F	Pitch Modulation Depth	0 – 127	00 (Piano, EP), 0A (Sub)	
		10	1		reserved			
		11	1	00 – 01	Receive Expression	Off, On	01	
		12	1	00 – 01	Receive Sustain	Off, On	01	
		13	1	00 – 01	Receive Sostenuto	Off, On	01	
		14	1	00 – 01	Receive Soft	Off, On	01	
		15	1		reserved			
		16	1	00 – 7F	Delay Depth	0 – 127	00	
		17	1	00 – 7F	Reverb Depth	0 – 127	00	

TOTAL SIZE = 24

18 (HEX)

Section Specific

A	Address		ress		Parameter		Dofoult	
High	Mid	Low	Size	Data Range	Name	Description	Default (HEX)	Note
50	1p	00	1	00 – 01	Piano Damper	Off, On	00	Only effective
	-				Resonance			for the Piano
		01	1		Switch reserved			Section
		02	1		reserved			
		03	1		reserved			
		04	1	00 – 01	Piano Effect	Off, On	00	Only effective
			,		Switch	,		for the Piano Section
		05	1	00 – 03	Piano Effect Type	Comp, Dist/ OD, Drive, Chorus	00	Only effective for the Piano Section
		06	1	00 – 7F	Piano Effect Depth	0 – 127	40	Only effective for the Piano Section
		07	1		reserved			
		80	1	00 – 01	E.Piano Effect 1 Switch	Off, On	00	Only effective for the E.Piano Section
		09	1	00 – 05	E.Piano Effect 1 Type	A.Pan, Trem, R.Mod, T.Wah, P.Wah, Comp	00	Only effective for the E.Piano Section
		0A	1	00 – 7F	E.Piano Effect 1 Depth	0 – 127	40	Only effective for the E.Piano Section
		OB	1	00 – 7F	E.Piano Effect 1 Rate	0 – 127	40	Only effective for the E.Piano Section
		00	1	00 – 01	E.Piano Effect 2 Switch	Off, On	00	Only effective for the E.Piano Section
		0D	1	00 – 05	E.Piano Effect 2 Type	Cho1, Cho2, Fla, Pha1, Pha2, Pha3	00	Only effective for the E.Piano Section
		0E	1	00 – 7F	E.Piano Effect 2 Depth	0 – 127	40	Only effective for the E.Piano Section
		0F	1	00 – 7F	E.Piano Effect 2 Speed	0 – 127	40	Only effective for the E.Piano Section
		10	1	00 – 01	E.Piano Drive Switch	Off, On	00	Only effective for the E.Piano Section
		11	1	00 – 7F	E.Piano Drive	0 – 127	40	Only effective for the E.Piano Section
		12	1		reserved			
		13	1		reserved			
		14	1	00 – 01	Sub Effect Switch	Off, On	00	Only effective for the Sub Section
		15	1	00 – 03	Sub Effect Type	Cho/Fla, Rotary, Trem, Dist/OD	00	Only effective for the Sub Section
		16	1	00 – 7F	Sub Effect Depth	0 – 127	40	Only effective for the Sub Section
		17	1	00 – 7F	Sub Effect Speed	0 – 127	40	Only effective for the Sub Section
		18	1	00 – 7F	Sub Attack	0 – 127	40	Only effective for the Sub Section
		19	1	00 – 7F	Sub Release	0 – 127	40	Only effective for the Sub Section
		1A	1		reserved			
		1B	1		reserved			
_								

TOTAL SIZE = 28

1C (HEX)

YAMAHA [Stage Piano]

Model CP88/CP73 MIDI Implementation Chart Version: 1.0

Date :29-NOV-2017

Function	Transmitted	Recognized	Remarks
Basic Default Channel Changed	1 - 16 1 - 16	1 - 16 1 - 16	Memorized
Default Mode Messages Altered	3 X ******	3 X X	Memorized
Note Number : True voice	0 - 127	0 - 127 0 - 127	
Velocity Note ON Note OFF	O 9nH, v=1-127 X 8nH, v=64	O 9nH, v=1-127 O 9nH, v=0 or 8nH	
After Key's Touch Ch's	X X	X X	
Pitch Bend	0	0	
0,32 1 7,11,67,84 64 Control 66 12-31 Change 68,72,73 75-83,85-93 102-118 1-118	O *2 O X O X O *1 O *1 O *1 O *1 O *3	O *2 O O O *2 O *2 O *1 O *1 O *1 X	Bank Select Sustain Sw Sostenuto
Prog Change : True #	0 0 - 127 *2	0 0 - 7 *2	
System Exclusive	0	0	
: Song Pos. Common : Song Sel. : Tune		X X X	
System : Clock Real Time : Commands	X X	X X	
: All Sound Off Aux : Reset All Cntrls : Local ON/OFF Mes- : All Notes OFF sages: Active Sense : Reset	X X X X O X	O (120) O (121) X O (123-125) O X	

Notes: *1 receive/transmit if MIDI control mode is on. *2 receive/transmit if switch is on.

Mode 1 : OMNI ON , POLY Mode 2 : OMNI ON , MONO Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF, MONO O : Yes X : No

^{*3} transmit if assigned to foot controllers.

Appendix

Display Messages

LCD indication	Description
Auto power off disabled.	This message appears when Auto Power Off is disabled.
Completed.	The specified load, save, format, or other Job has been completed.
Connecting to USB device	Currently recognizing the USB flash drive connected to the USB [TO DEVICE] terminal.
Device number is off.	Bulk data cannot be transmitted/received because the device number is off.
Device number mismatch.	Bulk data cannot be received because the device numbers do not match.
File or folder already exists.	A file/folder having the same name as the one you are about to save already exists.
File or folder path is too long.	The file or folder you tried to access cannot be accessed because the maximum amount of characters indicating the path has been exceeded.
Illegal bulk data.	An error occurred while receiving a Bulk data or Bulk Request message.
Illegal file name.	The specified file name is invalid. Try entering a different name.
Illegal file.	The specified file is unusable by this instrument or cannot be loaded.
Incompatible USB device.	USB device which cannot be used with this instrument has been connected to the USB [TO DEVICE] terminal.
MIDI buffer full.	Failed to process the MIDI data because too much data was received at one time.
MIDI checksum error.	An error occurred when receiving bulk data.
No device.	Device is not connected.
No read/write authority to the file.	Indicates that you do not have the authority to read/write the file.
Now receiving MIDI bulk data	Indicates this instrument is receiving MIDI bulk data.
Now transmitting MIDI bulk data	Indicates this synthesizer is transmitting MIDI bulk data.
Please reboot to maintain internal memory.	Please reboot this instrument to restore the internal memory (NAND).
Push [PANEL LOCK] Button.	Push the [PANEL LOCK] button to disengage panel lock.
Unsupported USB device.	This message appears if the plugged-in USB flash drive is either unformatted or formatted in a way that this instrument does not support. Please format the USB device using this instrument.
USB connection terminated.	A break in the connection with the USB flash drive has occurred because of an abnormal electric current.
USB device is full.	The USB flash drive is full and no more data can be saved. Use a new USB flash drive, or make space by erasing unwanted data from the storage device.
USB device is write-protected.	This message appears when you have attempted to write to a protected USB flash drive.
USB device read/write error.	An error occurred while reading or writing to/from a USB flash drive.

Troubleshooting

No sound? Wrong sound? When a problem like this occurs, please check the following points before assuming that the product is faulty. Many problems can be solved by executing the Factory Reset operation (page 21). If the problem persists, consult your Yamaha dealer.

Issue	Suspected cause	Solution
The instrument turns off unexpectedly.	This is normal when the Auto Power Off function is enabled.	If necessary, you can deactivate the Auto Power Off function to prevent it turning off the instrument again (page 21).
No sound is produced.	Related external equipment (e.g., amplifier, speaker, headphones) is not properly connected to this instrument via audio cables.	Since this instrument has no built-in speakers, you will need an external audio system or a set of stereo headphones to properly monitor it (page 20).
	Power to this instrument or the connected external audio equipment are not turned on.	Check the power to this instrument and the connected external audio equipment are turned on.
	The volume of this instrument and the connected external audio equipment are turned fully down.	Adjust the volume. Use the [MASTER VOLUME] knob to adjust the volume. If a foot controller has been connected to the FOOT CONTROLLER [1]/[2] jacks, try using it to increase the volume.
	All the Voice section [ON/OFF] switches are set to OFF.	Set the Voice section [ON/OFF] switch to ON.
	The volume of Voice sections are turned fully down.	Use the [VOLUME] knobs of each Voice section to adjust the volume.
	Local Control is set to "Off."	When the Local Control is set to "Off", the internal tone generator will not sound. Set the Local Control to "On" (page 30).
	MIDI volume or expression has been set to a very low level by an external MIDI controller.	Select other Live Set Sound. If a foot controller has been connected to the FOOT CONTROLLER [1]/[2] jacks, try using it to increase the volume.
A sound continues to play without end.	Effect sound such as delay continues.	Lower the feedback level or set the DELAY [ON/OFF] switch to OFF. If other Live Set Sound is selected during a sound continues to play, press again the Live Set Sound button currently selected.
Sounds are distorted.	Effect settings are not appropriate.	Sound will be distorted depending on the effect types and the settings. Change the effect types and the settings.
	Volume is set too high.	Adjust the volume.
	Volume of this instrument and the external audio equipment are set too high.	Adjust the volume of an external audio equipment, or use the INPUT [GAIN] knob of this instrument. You can also adjust the volume from the "USB Audio Volume."
Sound output is intermittent and stuttered.	The entire sound exceeded the maximum polyphony (128 notes).	Keep in mind not to exceed the maximum polyphony.
No effect is applied.	The depth is turned to the minimum level.	Use the [DEPTH] knob to adjust the effect depth.
Data communication between the computer and this instrument does not work properly.	The Port settings on the computer is not appropriate.	Check the port settings on the computer.

Issue	Suspected cause	Solution
MIDI bulk data transmission	Using wrong terminals (MIDI, USB).	Check the connection.
does not work properly.	Wrong MIDI device number.	Check the MIDI device number.
Cannot save data to the external	The USB flash drive is write protected.	Unlock the write protect.
USB flash drive.	The USB flash drive is not formatted properly.	Format again.
A pedal has no effect.	The pedal is not correctly connected.	Ensure that the pedal's cord is fully plugged in.
The Voice numbers not displayed.	The "Advanced Mode SW" is enabled (On).	Disable (Off) the "Advanced Mode SW" (page 35).
Nothing is displayed on the	"Display Lights" → "LCD SW" is set to "Off".	Set the "LCD SW" to "On" (page 31).
LCD, even the instrument's power is on.	"Display Lights" → "LCD Contrast" value is set too low.	Adjust the contrast from "LCD Contrast" (page 31).

Specifications

Item		Details			
		CP88	CP73		
Keyboard		88-key NW-GH (Natural Wood Graded Hammer) keyboard: synthetic ebony and ivory keytops	73-key (E1-E7) BHS (Balanced Hammer Standard) keyboard: matte black keytops		
Tone Generation	Tone Generation Technology	AW	/M2		
	Polyphony (max.)	1.	28		
Voices	Number of Live Set Sounds	160 (Preset Live	Set Sounds: 80)		
	Number of Voices	57 (PIANO: 10 / E.F	PIANO: 14 / SUB: 33)		
	Effects	Insertion Effect: PIANO 2 systems (1: Damper Resonance 2: Compressor, Distortion, Drive, Cho E.PIANO 3 systems (1: Drive 2: Auto Pan, Tremolo, Ring Modulator, Touch Wah, Pedal Wah, Compressor 3: Chorus1, Chorus2, Flanger, Phaser1, Phaser2, Phas SUB 1 system (Chorus/Flanger, Rotary Speaker, Tremolo, Distortion) Delay: 2 types (Analog, Digital) Reverb 3 band EQ (with sweepable Mid)			
Display	Туре	Full Dot LCD ((128 x 64 dots)		
Connectors		OUTPUT [L/MONO]/[R] (6.3 mm, standard phone jacks, UNBALANCED) OUTPUT [L]/[R] (XLR jacks, BALANCED) [PHONES] (6.3 mm, standard stereo phone jack) INPUT [L/MONO]/[R] (6.3 mm, standard phone jacks) FOOT CONTROLLER [1]/[2] FOOT SWITCH [SUSTAIN]/[ASSIGNABLE] MIDI [IN]/[OUT] USB [TO HOST]/[TO DEVICE] [AC IN]			
Size/Weight	Dimensions (W x D x H)	1298 mm x 364 mm x 141 mm (51-1/8" x 14-5/16" x 5-9/16")	1086 mm x 355 mm x 144 mm (42-3/4" x 14" x 5-11/16")		
	Weight	18.6 kg (41 lb, 0 oz)	13.1 kg (28 lb, 14 oz)		
Included Acce	ssories	Owner's Manual (this book) x 1 Power cord x 1 Foot pedal (FC3A) x 1			

The contents of this manual apply to the latest specifications as of the printing date.

Since Yamaha makes continuous improvements to the product, this manual may not apply to the specifications of your particular product. To obtain the latest manual, access the Yamaha website then download the manual file.

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MEMO

MEMO



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