

DIGITAL KEYBOARD

PSR-T455

Owner's Manual









The model number, serial number, power requirements, etc., may be found on or near the name plate, which is at the bottom 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.

(bottom_en_01)

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Special Features

Creating New Sounds

► Page 21

By adjusting just two knobs you can add varying degrees of distortion, "sweetness," or other characteristics to a sound to change it subtly or drastically. Parameters that can be assigned to the knobs include effect, filter, envelope generator and more. You can create new sounds in real time!





Arpeggio Function

► Page 20

Similar to the arpeggio functions provided on some synthesizers, this function automatically produces arpeggios (broken chords) when you simply play the appropriate notes on the keyboard. A variety of arpeggios can be produced by changing your fingering or the arpeggio type.



Play a Variety of Instrument Voices

► Page 16

The instrument voice that sounds when you play the keyboard can be changed to violin, flute, harp, or any of an extensive range of voices. You can change the mood of a song written for piano, for example, by using violin to play it instead. Experience a whole new world of musical variety.



Play Along with Styles

► Page 22

Want to play with full accompaniment? Try the auto-accompaniment Styles. The accompaniment styles provide the equivalent of a full backing band covering a wide variety of styles from waltzes to 8-beat to euro-trance ... and much more. Select a style that matches the music you want to play, or experiment with new styles to expand your musical horizons.



Try playing the Tabla/Tanpura feature!

► Page 23

This special feature lets you play Indian phrase patterns via the Tabla and Tanpura sounds, as if you were using the Tabla machine and Tanpura machine. Let's enjoy the conventional Indian music via the panel buttons and Knobs.



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/AC power adaptor

- 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 the specified adaptor (page 81) only. Using the wrong adaptor can result in damage to the instrument or overheating.
- Check the electric plug periodically and remove any dirt or dust which may have accumulated on it.

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, 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

Battery

- Follow the precautions below. Failure to do so might result in explosion, fire, overheating or battery fluid leakage.
 - Do not tamper with or disassemble batteries.
 - Do not dispose of batteries in fire.
 - Do not attempt to recharge batteries that are not designed to be charged.
 - Keep the batteries separate from metallic objects such as necklaces, hairpins, coins, and keys.
 - Use the specified battery type (page 12) only.
 - Use new batteries, all of which are the same type, same model, and made by the same manufacturer.
 - Always make sure all batteries are inserted in conformity with the +/- polarity markings.
 - When the batteries run out, or if the instrument is not to be used for a long time, remove the batteries from the instrument.
 - When using Ni-MH batteries, follow the instructions that came with the batteries. Use only the specified charger device when charging.
- Keep batteries away from small children who might accidentally swallow them.
- If the batteries do leak, avoid contact with the leaked fluid. If the battery fluid should come in contact with your eyes, mouth, or skin, wash immediately with water and consult a doctor. Battery fluid is corrosive and may possibly cause loss of sight or chemical burns.

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. (If you are using batteries,
 remove all batteries from the instrument.) 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.



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/AC power adaptor

- 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.
- Use only the stand specified for the instrument. When attaching the stand or rack, use the provided screws only. Failure to do so could cause damage to the internal components or result in the instrument falling over.

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 or keyboard. 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 [d] (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.

Make sure to discard used batteries according to local regulations.

NOTICE

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

■ Handling and Maintenance

- 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.
- 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. (Verified operating temperature range: 5° 40°C, or 41° 104°F.)
- Do not place vinyl, plastic or rubber objects on the instrument, since this might discolor the panel or keyboard.

■ Saving data

• Some data items (page 32) are automatically saved as backup data in the internal memory even if you turn the power off. Saved data may be lost due to malfunction or incorrect operation. Save important data to external device such as a USB flash memory (page 51).

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 computer programs and contents in which Yamaha owns copyrights or with respect to which it has license to use others' copyrights.
 Such copyrighted materials include, without limitation, all computer software, style files, MIDI files, WAVE data, musical scores and sound recordings. Any unauthorized use of such programs and contents outside of personal use is not permitted under relevant laws. Any violation of copyright has legal consequences. DON'T MAKE, DISTRIBUTE OR USE ILLEGAL COPIES.

■ About functions/data bundled with the instrument

• Some of the preset songs have been edited for length or arrangement, and may not be exactly the same as the original.

■ 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.
- The company names and product names in this manual are the trademarks or registered trademarks of their respective companies.

Compatible Format and Functions



GM System Level 1

"GM System Level 1" is an addition to the MIDI standard which ensures that any GM-compatible music data can be accurately played by any GM-compatible tone generator, regardless of manufacturer. The GM mark is affixed to all software and hardware products that support GM System Level.



XGlite

As its name implies, "XGlite" is a simplified version of Yamaha's high-quality XG tone generation format. Naturally, you can play back any XG song data using an XGlite tone generator. However, keep in mind that some songs may play back differently compared to the original data, due to the reduced set of control parameters and effects.



USB

USB is an abbreviation for Universal Serial Bus. It is a serial interface for connecting a computer with peripheral Devices. It allows "hot swapping" (connecting peripheral devices while the power to the computer is on).



STYLE FILE

The Style File Format is Yamaha's original style file format which uses a unique conversion system to provide high-quality automatic accompaniment based on a wide range of chord types.

About the Manuals

This instrument has the following documents and instructional materials.

■ Included Documents



Owner's Manual (this book)

• Setting Up Please read this section first.

• Quick Guide This section explains how to use the basic functions. Refer to this section while

playing the instrument.

• Reference This section explains how to make detailed settings for the various functions of

the instrument.

Appendix This section includes troubleshooting information and specifications.



Data List

Contains various important preset content lists such as those of Voices, Styles, Tabla/Tanpura patterns and Effects.

■ Online Materials (from Yamaha Manual Library)



MIDI Reference

Contains MIDI related information such as MIDI Data Format and the MIDI Implementation Chart.



MIDI Basics (only in English, French, German and Spanish)

Contains basic explanations about MIDI.



Computer-related Operations

Includes instructions on connecting this instrument to a computer, and operations related to transferring song data.

To obtain these manuals, access the Yamaha Manual Library, enter "PSR-I455" or "MIDI Basics" to the Model Name box, then click [SEARCH].

Yamaha Manual Library http://www.yamaha.co.jp/manual/

■ Online Materials (for Yamaha Online members)



Song Book (only in English)

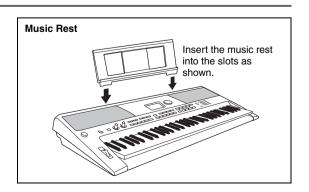
Contains music scores for the preset Songs (excluding the Demo Songs) of this instrument. After completing the user registration at the website below, you can download this Song Book free of charge.

Yamaha Online Member https://member.yamaha.com/myproduct/regist/

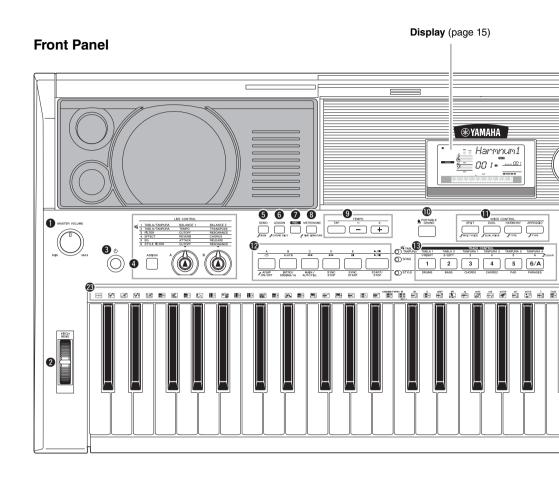
You will need the PRODUCT ID on the sheet ("Online Member Product Registration") packaged with this manual in order to fill out the User Registration form.

Included Accessories

- Owner's Manual (this book)
- · AC Power Adaptor
- Music Rest
- Online Member Product Registration*
 - * The PRODUCT ID on the sheet will be needed when you fill out the User Registration form.



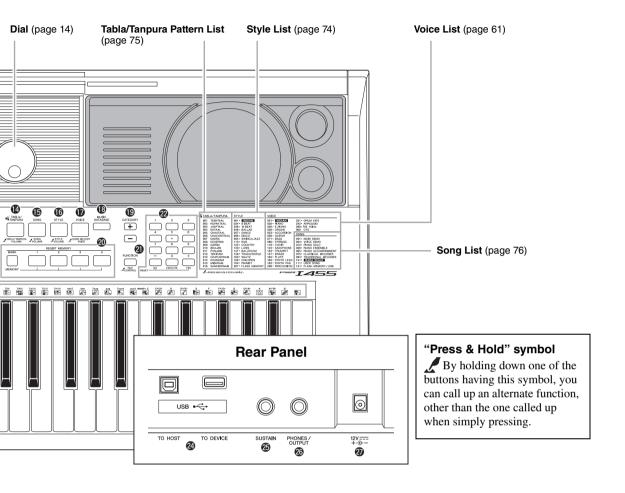
Panel Controls and Terminals



Front Panel

0	[MASTER VOLUME] control	Page 14
0	PITCH BEND wheel	Page 34
6	[也] (Standby/On) switch	Page 14
4	LIVE CONTROL section	
	[ASSIGN] button	Page 21
	[A] and [B] knobs	Page 21
6	[DEMO] button	Page 24
6	[LESSON] button	Page 26
	[REC] button	
8	[METRONOME] button	Page 18
9	TEMPO section	
	[TAP] button	Page 42
	[-] and [+] buttons	Page 42
1	[PORTABLE GRAND] button .	Page 16

VOICE CONTROL section	
[SPLIT] button	Page 17
[DUAL] button	Page 16
[HARMONY] button	Page 19
[ARPEGGIO] button	Page 20
Playback Control buttons	
• When the [TABLA/TANPURA]] lamp is
turned on:Pa	ages 23 and 42
• When the [SONG] lamp is tur	ned on:
	Page 25
• When the [STYLE] lamp is tu	rned on:
Pages	22, 40, and 41
	[SPLIT] button



When the [TABLA/TANPURA] lamp is turned on: Bage 23 When the [SONG] lamp is turned on: Page 25

(B) [TRACK CONTROL] buttons

	Page 25
 When the [STYLE] lamp is turne 	d on:
	Page 41
([TABLA/TANPURA] button	Page 23
([SONG] button	Page 24
(6 [STYLE] button	Page 22
(VOICE] button	Page 16
(B [MUSIC DATABASE] button	Page 22
[CATEGORY] buttons	Page 14
[REGIST MEMORY] buttons	Page 31
[FUNCTION] button	Page 48

- Number buttons [1]–[9], [-/NO], [0/EXECUTE] and [+/YES] buttons Page 14
- Drum illustrations for the Drum Kit.... Page 16 Each of these indicates the drum or percussion instrument assigned to the corresponding key for "Standard Kit 1."

Rear Panel

4	USB terminals	
	USB TO HOST terminal*	Page 49
	USB TO DEVICE terminal	Page 51
②	SUSTAIN jack	Page 13
②	PHONES/OUTPUT jack	Page 13
Ø	Power supply jack	Page 12

^{*} For connecting to a computer. For details, refer to "Computer-related Operations" (page 9). When connecting, use an AB type USB cable of less than 3 meters. USB 3.0 cables cannot be used.

Setting Up

Power Requirements

Although the instrument will run either from an optional AC adaptor or batteries, Yamaha recommends use of an AC adaptor whenever possible. An AC adaptor is more environmentally friendly than batteries and does not deplete resources.

Using an AC Power Adaptor

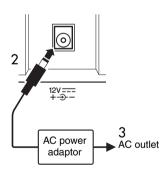
1 Make sure that the power of the instrument is off (display is blank, except for notation staff).

⚠ WARNING

- Use the specified adaptor (page 81) only. Using the wrong adaptor can result in damage to the instrument or overheating.
- 2 Connect the AC adaptor to the power supply jack.
- 3 Plug the AC adaptor into an AC outlet.

/ CAUTION

. 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.



Using Batteries

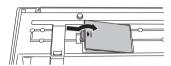
This instrument requires six "AA" size, Alkaline (LR6)/Manganese (R6) batteries, or rechargeable nickel-metal hydride batteries (rechargeable Ni-MH batteries). The Alkaline batteries or rechargeable Ni-MH batteries are recommended for this instrument, since other types may result in poorer battery performance.

/!\ WARNING

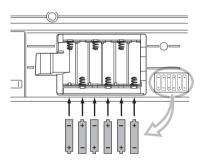
. When using Ni-MH batteries, follow the instructions that came with the batteries. Use only the specified charger device when charging.

■ Installing the batteries

- 1 Make sure that the power of the instrument is off (display is blank, except for notation staff).
- 2 Open the battery compartment cover located on the instrument's bottom panel.



3 Insert the six new batteries, being careful to follow the polarity markings on the inside of the compartment.



4 Replace the compartment cover, making sure that it locks firmly in place.

NOTICE

. Connecting or disconnecting the power adaptor with batteries installed may turn the power off, resulting in loss of data being recorded or transferred at the time.

When battery power becomes too low for proper operation, the volume may be reduced, the sound may be distorted, and other problems may occur. When this happens, make sure to replace all batteries with new ones or already-recharged ones.

- This instrument cannot charge the batteries. Use only the specified charger device when charging.
- Power will be automatically drawn from the AC adaptor if an AC adaptor is connected while batteries are installed in the instrument.

■ Setting the battery type

After installing the new batteries then turning the power on, make sure to set the Battery Type to Rechargeable type or not. For details, refer to page 50.

NOTICE

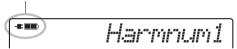
• Failure to set the Battery Type may shorten the amount of the battery life. Make sure to set the Battery Type correctly.

Checking the power status on the display

• Power source on the display

You can confirm the power source at the left corner of the display.

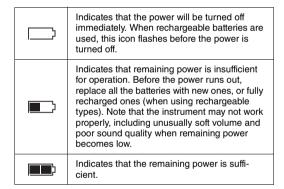
Only one of these is shown.



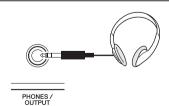
When **-** is shown, the power is supplied from the AC power adaptor. When is shown, the power is supplied from the batteries. When the AC power adaptor is connected with the batteries installed, the power is supplied from the AC power adaptor and the **-** indication is shown.

• Remaining battery power indication

You can confirm the approximate amount of remaining battery power at the top left of the display.



Connecting Headphones or External Audio Equipment



Any pair of stereo headphones with a 1/4" stereo phone plug can be plugged in here for convenient monitoring. The speakers are automatically shut off when a plug is inserted into this jack.

The PHONES/OUTPUT jack also functions as an external output. You can connect the PHONES/OUT-

PUT jack to a keyboard amplifier, stereo system, mixer, tape recorder, or other line-level audio device to send the instrument's output signal to that device.

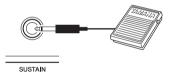
(CAUTION

- 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.
- Before connecting the instrument to other electronic components, set all volume levels to the minimum, then turn off the power for all components.

NOTICE

 When the instrument's sound is output to an external device, first turn on the power to the instrument, then to the external device. Reverse this order when you turn the power off.

Connecting a Footswitch to the SUSTAIN jack



You can produce a natural sustain as you play by pressing an optional footswitch plugged into the [SUSTAIN] jack. Although the footswitch works as the Sustain pedal for most Voices, it features other functions such as Sostenuto and Arpeggio Hold (for Voices 242–287). One of these functions can be assigned to the footswitch on the Function display (page 50).

NOTE

- When Split is on, the sustain function does not affect the current Split Voice (page 17) while sostenuto and Arpeggio Hold (page 39) affect only the current Split Voice.
- Make sure that the footswitch plug is properly connected to the SUSTAIN jack before turning on the power.
- Do not press the footswitch while turning the power on. Doing this changes the recognized polarity of the footswitch, resulting in reversed footswitch operation.

Basic Operations

Turning the Power On/Off

Turn down the MASTER VOLUME control to "MIN" then press the [(1)] (Standby/On) switch to turn on the power. While playing the keyboard, adjust the MAS-TER VOLUME control. To turn off the power, press the [(1)] (Standby/On) switch again for a second.



N CAUTION

• When using a power adaptor, even when the power is off, a small amount of electricity is still being consumed by the instrument. When you are not using the instrument for a long time, make sure to unplug the AC power adaptor from the wall AC outlet.

Auto Power Off Function

To prevent unnecessary power consumption, this instrument features an Auto Power Off function that automatically turns the power off if the instrument is not operated for a specified period of time. The amount of time that will elapse before the power is automatically turned off is set by default to 30 minutes.

■ To disable the Auto Power Off function:

Turn off the power, then press the [()] (Standby/On) switch to turn on the power while holding down the lowest key.



■ To set the time that elapses before Auto Power Off is executed:

Press the [FUNCTION] button, press the CATEGORY [+] or [-] button several times until "Auto Power Off" appears then select the desired value.

Settings: OFF, 5, 10, 15, 30, 60, 120 Default value: 30

• Generally, the data and settings are maintained even when the power is turned off. For details, see page 32.

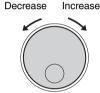
. Depending on the instrument status, the power may not turn off automatically, even after the elapse of the specified period of time. Always turn off the power manually when the instrument is not in use.

 When the instrument is not operated for a specified period of time while connected to an external device such as an amplifier, speaker or computer, make sure to follow the instructions in the Owner's Manual to turn off the power to the instrument and the connected devices, in order to protect the devices from damage. If you do not want the power to turn off automatically when a device is connected, disable Auto Power Off.

Selecting Operations

Before operating the instrument, it may be helpful to familiarize yourself with the basic controls below that are used to select items and change values.

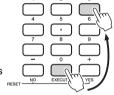
Rotate the dial clockwise to increase the value, or counterclockwise to decrease the value.



Number buttons

Use the Number buttons to directly enter an item or value. For numbers that start with one or two zeroes. the first zeroes can be omitted.

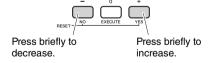
Example: Selecting Voice 003. Harmnum3.



Press number buttons [0], [0], [3].

■ [-] and [+] buttons

Press the [+] button briefly to increase the value by 1, or press the [-] button briefly to decrease the value by 1. Press and hold either button to continuously increase or decrease the value in the corresponding direction.



■ CATEGORY buttons

Use these buttons to jump to the first Voice, Style, or Song in the next or previous Category, and call up the next or previous Function sequentially.



Display Items

The display shows all the current settings of the Song, Style, Tabla/Tanpura, Voice and other related functions.

Power source status

Indicates the source from which this instrument obtains power, AC power adaptor or batteries. (Page 13)



USB connection status

Appears when USB flash memory is connected to this instrument. (Page 51)

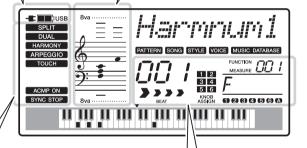
USB

Notation

Normally this indicates the notes you play. When the Song Lesson function is used, this indicates the current notes and chord of playback. When the Dictionary function is used, this indicates the notes of the chord you specify.



- Any notes occurring below or above the staff are indicated by "8va."
- For a few specific chords, not all notes may be shown, due to space limitations in the display.



On/off status

This area indicates the on/off status of each function. Each indication is shown when the corresponding function is turned on.

SPLIT	Page 17

DUAL	Page	16

HARMONY Page 19

ARPEGGIO Page 20

Page 35 TOUCH

ACMP ON Page 22

SYNC STOP Page 41

Beat

Indicates the current beat of playback. (Page 24)



Knob assignment

Indicates the parameters currently assigned to the Knobs. (Page 21)



FUNCTION and MEASURE

Indicates the Function number, the current Measure number of a Song/Style, or the current Beat number of the Tabla/Tanpura pattern.



Chord

Indicates the chord which is being played on the keyboard (Page 22) or specified via Song playback.



Track status

Indicates the on/off status of the current Song, Style or Tabla/Tanpura. (Pages 23, 28, 41)



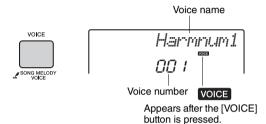
Try Playing a Variety of Instrument Voices

In addition to piano, organ, and other "standard" keyboard instruments, this instrument has a large range of voices that includes guitar, bass, strings, sax, trumpet, drums and percussion, and even sound effects—giving you a wide variety of musical sounds.

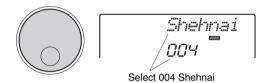
Selecting a Main Voice

Press the [VOICE] button.

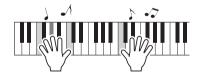
The Voice number and name will be shown.



2 Use the dial to select the desired Voice.



3 Play the keyboard.



Preset Voice Types

001-019 (Indian Voices)	Used for Indian music performance.
020–220	Instrument Voices.
221–241 (Drum Kit)	Various drum and percussion sounds are assigned to individual keys. Details on assigning instruments to keys are provided in the Drum Kit List (page 67).
242-287	Used for Arpeggio performance (page 20).

Playing the "Grand Piano"

When you want to reset various settings to default and simply play a Piano sound, press the [PORTABLE GRAND] button.



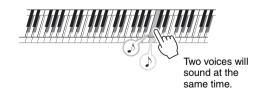
The Voice number is set to 020 Grand Piano and all the settings such as Dual and Split are turned off automatically, with exception of the Touch Sensitivity (page 35).

Layering a Dual Voice

In addition to the Main Voice, you can layer a different Voice over the entire keyboard as a "Dual Voice."

Press the [DUAL] button to turn Dual on.





2 Press the [DUAL] button again to exit from Dual.

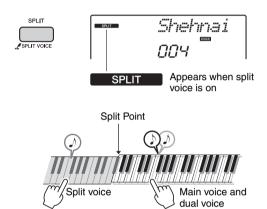
Although turning on Dual will select a Dual Voice suitable for the current Main Voice, you can easily select a different Dual Voice (page 36).

Playing a Split Voice in the Left Hand area

By dividing the keyboard into the two separate areas, you can play a different Voice between the Left hand and Right hand areas.

Press the [SPLIT] button to turn on Split.

The keyboard is divided into the Left hand and Right hand areas.



You can play a "Split Voice" on the Left hand area of the keyboard while playing a Main Voice and Dual Voice on the Right hand area of the keyboard.

The highest key for the Left hand area is referred to as the "Split Point" which can be changed from the default F#2 key. For details, refer to page 36.

2 Press the [SPLIT] button again to exit from Split.

You can easily select a different Split Voice (page 36). However, you need not select a Split Voice for one of the Main Voices 272–281. This is because these Voices already are set up to enable Split automatically and call up an appropriate Split Voice.

Using the Metronome

The instrument features a built-in metronome (a device that keeps an accurate tempo), convenient for practicing.

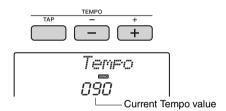
Press the [METRONOME] button to start the metronome.



2 Press the [METRONOME] button again to stop the metronome.

Adjusting the Metronome Tempo

Press the TEMPO [TAP] button to call up the Tempo value, then use the TEMPO [-] and [+] buttons to adjust the Tempo value.



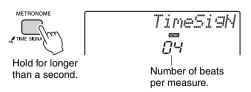
The dial and the Number buttons can also be used to set the Tempo.

Setting the Time Signature

Here, we'll set a time signature of 5/8 as an example.

Hold down the [METRONOME] button for longer than a second to call up "TimeSigN" (Time Signature Numerator).

The number of beats per measure is shown on the display.



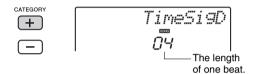
2 Rotate the dial to select the number of beats per measure.

A chime will sound on the first beat of each measure while the other beats will click. If "0" is selected, all beats will simply click with no chime. Select 5 for this example.

NOTE I

- This parameter cannot be set during playback of a Style, Song or Tabla/Tanpura.
- 3 Press the CATEGORY [+] button to call up "TimeSigD" (Time Signature Denominator).

The length of one beat is shown on the display.



- A Rotate the dial to select the length of one beat, from 2nd, 4th, 8th and 16th note.

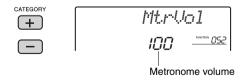
 Select "08" (8th note) for this example.
- 5 Confirm the setting by playing the Metronome.

Setting the Metronome Volume

Press the [FUNCTION] button.



2 Press the CATEGORY [+] or [-] buttons repeatedly until "MtrVol" appears.

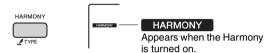


3 Rotate the dial to set the Metronome Volume.

Adding Harmony

You can add harmony notes to the Main Voice.

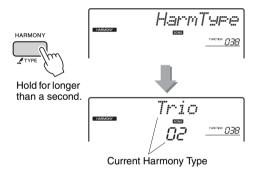
Press the [HARMONY] button to turn Harmony on.



Although turning on the Harmony will select a Harmony Type suitable for the current Main Voice, you can select a different Harmony Type.

2 Hold down the [HARMONY] button for longer than a second until "HarmType" appears on the display.

After "HarmType" is shown for a few seconds, the current Harmony Type appears.



3 Rotate the dial to select the desired Harmony Type.

For details, refer to the Effect Type List (page 80). The effect and operation differs depending on the Harmony Type. Refer to the section below.

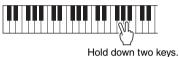
How to sound each Harmony Type

• Harmony type 01 to 05



Press the right-hand keys while playing chords in the auto accompaniment range of the keyboard when the Auto Accompaniment is on (page 22).

• Harmony type 06 to 12 (Trill)



riola down two keys.

• Harmony type 13 to 19 (Tremolo)



• Harmony type 20 to 26 (Echo)



You can adjust the Harmony Volume in the Function Settings (page 49).

NOTE I

 The Harmony function cannot be used in the Tabla/Tanpura mode. Even if Harmony is turned on, pressing the [TABLA/ TANPURA] button will turn off the Harmony effect.

Creating Arpeggios

The Arpeggio function lets you create arpeggios (broken chords) by simply pressing the notes of the chord. For example, you could play the notes of a triad—the root, third, and fifth—to trigger interesting phrases. This feature can be used for music production as well as performance.

Triggering the Arpeggio

Press the [ARPEGGIO] button to turn on the Arpeggio function.



NOTE

- Selecting a Voice number between 242 and 287 will turn on Arpeggio automatically.
- 2 Press a note or notes to trigger Arpeggio.

The Arpeggio phrase differs depending on the number of pressed notes and the area of the keyboard.



When Split is on, Arpeggio is applied only to the Split Voice. When Split is off, Arpeggio is applied to the Main and Dual Voices. Arpeggio cannot be applied to the Split and Main/Dual Voices simultaneously.

NOTE I

- When you select one of the Main Voices 272–281, Split as well as Arpeggio is automatically turned on. This allows you to immediately trigger an Arpeggio by pressing a key to the left of the Split Point after selecting one of these Voices.
- When the Pedal Function is set to "Arp Hold" or "Hold+Sus" (page 50), pressing the footswitch connected to the SUSTAIN jack will cause Arpeggio playback continue even after the note is released.
- 3 To turn off the Arpeggio, press the [ARPEGGIO] button again.

Changing the Arpeggio Type

The most suitable Arpeggio Type is automatically selected when you select a Main Voice, but you can easily select any other Arpeggio Type.

Hold down the ARPEGGIO [TYPE] button for longer than a second.

In the display, "ARP Type" appears for a few seconds, followed by the current Arpeggio Type appears.



2 Rotate the dial to select the desired Arpeggio type

For a list of the Arpeggio List, see page 77.

NOTE I

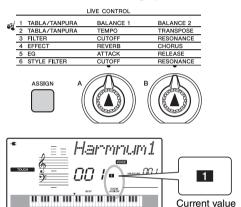
When any of Voices 242–287 are selected, it is a good idea to set the Pedal Function to "Arp Hold" or "Hold+Sus" (page 50). This setting allows you to use a footswitch (press and hold) to have Arpeggio playback continue even after the note is released.

Creating Original Sounds via the Knobs

The two knobs located in the lower left area of the panel can be used to add variations to the sound being played, transforming the sound in a variety of musical ways. Select the desired pre-programmed effect combination printed above the Knobs, then rotate the Knobs to enjoy the sound.

Selecting a Knob Effect Combination

Repeatedly press the [ASSIGN] button to sequentially select the six effect combinations provided: $(1) \rightarrow (2) \rightarrow (3) \rightarrow (4) \rightarrow (5) \rightarrow (6) \rightarrow (1) \dots$ etc. The current combination is shown in the display.

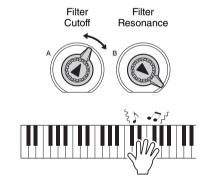


(1)–(2) affect the entire the Tabla/Tanpura sound, (3)–(5) affect the Main and Dual Voices only, and (6) affects only playback of the Style and Tabla/Tanpura. For details about each Knob effect, refer to page 37.

Only selecting a Knob effect combination will not affect the sound even if the Knob arrow is not at the initial position. After operating the Knob, the selected effect is applied to the sound.

Applying the Filter to the Main Voice

- Select the desired Main Voice.
 Here, select "178 SquareLd" (Square-wave Lead) as a synth-lead type Voice.
- 2 Press the [ASSIGN] button several times until (3) (Filter) appears in the display).
- 3 Rotate Knob B all the way to the right (maximum), then play the keyboard with your right hand while operating Knob A with your left.



NOTICE

 Selecting a different Voice will replace the settings created via the Knobs with the default settings of the new Voice. If you create a sound with the Knobs that you wish to keep, make sure to memorize the settings to Registration Memory (page 31) before selecting a different Voice.

NOTE |

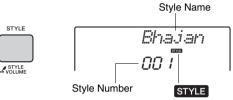
 Rotating a Knob to the right while the volume is set to a high level may result in distortion. If this occurs, reduce the volume level.

Playing Styles

This instrument includes the Auto Accompaniment feature that plays appropriate "Styles" (rhythm + bass + chord accompaniment). You can select from a huge variety of Styles covering a wide range of musical genres.

Press the [STYLE] button, then use the dial to select the desired Style.

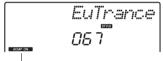
The Style List is shown on the front panel; also see page 74.



This icon appears when a style number and name is displayed.

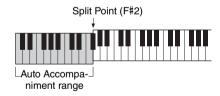
2 Press the [ACMP ON/OFF] button to turn on the Auto Accompaniment.





This icon appears when automatic accompaniment is on.

With this operation, the area of the keyboard to the left of the Split Point (54: F#2) becomes the "Auto Accompaniment range" and is used only for specifying the chords.



3 Press the [SYNC START] button to turn Synchro Start on.



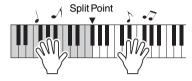


Flashes when sync start is on.

Play a chord in the Auto Accompaniment range to start playback.

Play a melody with the right hand and chords with the left hand.

For information about chords, refer to "Chord List" (page 44) or use the Chord Dictionary function (page 45).



5 Press the [START/STOP] button to stop playback.



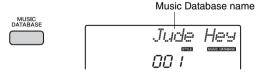
You can add intro, ending and rhythm variations to Style playback by using "Sections." For details, refer to page 40.

Using the Music Database

If you have difficulty finding and selecting the desired Style and Voice, use this feature. From the Music Database, just selecting the favorite music genre calls up the ideal settings.

Press the [MUSIC DATABASE] button.

Both the Auto Accompaniment and Synchro Start are automatically turned on.



2 Use the dial to select the desired Music Database.

This operation calls up the panel settings such as Voice and Style that are registered to the selected Music Database. For a list of the Music Database List, see page 78.

3 Play the keyboard as described in Steps 4–5 above.

Playing the Tabla/Tanpura!

This instrument provides 16 phrase patterns (consisting of several measures) using the authentic Tabla and Tanpura sounds with looped playback. By using the Tabla/Tanpura function, try out the conventional Indian music—changing keys and creating dynamic sound variations by rotating the Knobs.

Press the [TABLA/TANPURA] button, then use the dial to select the desired Tabla/Tanpura pattern.

Refer to the Tabla/Tanpura list on the panel of this instrument.



2 Press the [START/STOP] button to start looped playback.

At first, only the Tabla sound will play back. During playback, enjoy creating sound variations via the following operations.



Turning on/off Tabla tracks 1 and 2 individually

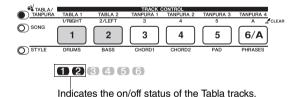
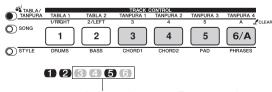


Tabla 1 features the lower pitched part while Tabla 2 features the higher pitched part.

Adding the Tanpura phrase and changing it from 1–4

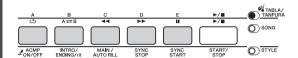


Indicates the current Tanpura number.

At first, press any of the [TANPURA 1]–[TAN-PURA 4] buttons to add the Tanpura phrase. Next, press another Tanpura button to change the phrase. You can enjoy four phrase varia-

tions, which are shared among all Tabla/Tanpura patterns. To turn off the Tanpura sound, press the Tanpura button of the current number.

Changing the Variation via the [A]–[E] buttons



Using the Knobs



Adjusting the Volume Balance

Press the [ASSIGN] button several times to select "1 TABLA/TANPURA," then rotate Knob A to adjust the volume balance between the sounds of Tabla 1 (low-pitched part) and Tabla 2 (high-pitched part), or rotate Knob B to adjust the volume balance between the sounds of the Tabla and Tanpura.

Adjusting the Tempo / Transposing playback Press the [ASSIGN] button several times to select "2 TABLA/TANPURA," then rotate Knob A to adjust the playback tempo, or rotate Knob B to transpose the playback key in semitones.

NOTE |

- You can confirm the current key and tempo value on the display. To call up the current tempo value, press the TEMPO [-] or [+] button.
- 3 Press the [START/STOP] button to stop playback.



NOTE |

• The Tabla/Tanpura performance cannot be recorded.

Playing Songs

You can simply enjoy listening to the internal Songs, or use them with just about any of the functions, such as Lesson.

Song Category

The Songs are organized by category as listed below.

SONG	
001 - MAIN DEMO	 Gives you an idea of the advanced capabilities of this instrument.
004 - VOICE DEMO	 Demonstrates many useful Voices of this instrument.
012- PIANO SOLO	 These piano solo pieces are ideally suited for the Song Lesson.
038 - PIANO ENSEMBLE	 These piano ensemble pieces are also well suited for the Song Lesson.
065 - PIANO ACCOMPANIMENT -	- • When you need to practice backing (accompaniment) patterns, these songs are ideal for that purpose.
075 - CLASSICAL MELODIES	 Includes famous classical music pieces.
094 - TRADITIONAL MELODIES -	 Includes traditional Songs from around the world.
101- RAGA SCALE	 Practice Songs for studying the traditional scale of India.
111- USER SONG	 Songs you record yourself.
121- FLASH MEMORY/USB	- • Songs transferred from a computer (refer to "Computer-related operations"—page 9) and
	Songs in the USB flash memory (page 53).

Listening to a Demo Song

Press the [DEMO] button to play Songs in sequence. Playback will repeat continuously, starting again from the first Song (001).

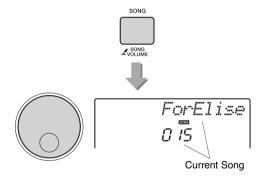


To stop playback, press the [DEMO/BGM] button.

Selecting and Playing Back a Song

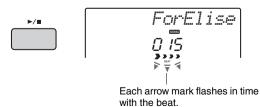
Press the [SONG] button, then use the dial to select the desired Song.

Refer to the Song List (page 76).



2 Press the [►/■] (Start/Stop) button to start playback.

To stop playback, press the [►/■] (Start/Stop) button again.

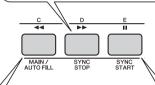


Song Fast Forward, Fast Reverse, and Pause

Like the transport controls on an audio player, this instrument lets you fast forward [►►] (Fast Forward), rewind [◄◄] (Fast Reverse) and pause [▮] (PAUSE) playback of the Song.

Fast Forward

During playback, press this button to rapidly skip ahead to a later point in the Song.



Fast Reverse

During playback, press this button to rapidly return to an earlier point in the Song.

Pause

During playback, press this button to pause playback, and press again to start from that point.

NOTE |

 When the A-B repeat is specified, the Fast Reverse and Fast Forward will only work within the range between A and B.

A-B Repeat

You can play back only a specific section of a Song repeatedly by setting the A point (start point) and B point (end point) in one-measure increments.



- Start playback of the Song (page 24).
- When playback reaches to the point you want to specify as the start point, press the [A=B] (A-B REPEAT) button to set the A point.



3 When playback reaches to the point you want to specify as the end point, press the [A⇒B] (A-B REPEAT) button again to set the B point.

The specified A-B section of the song will now play repeatedly.

↓ To cancel repeat playback, press the [A=B] (A-B REPEAT) button.

To stop playback, press the [START/STOP] button.

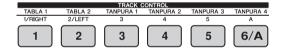
NOTE I

 If you want to set the start point "A" at the top of the Song, press the [A ⇒ B] (A-B REPEAT) button before starting playback.

Turning Each Track On/Off

Each "track" of a Song plays a different part—melody, percussion, accompaniment, etc. Each of the tracks can be muted so that you can play the muted part yourself.

Pressing the desired Track button repeatedly will toggle the on/off status.



Track number on—Track will playback



Track number off—Track is muted or contains no data

NOTE |

 Up to two Track buttons can be pressed simultaneously for turning on or off.

Using the Song Lesson Feature

You can use the selected Song for a left-hand, right-hand, or both-hands lesson. Try practicing with these three Song Lesson types while referring to the music scores in the Song Book (page 9).

Three Types of Song Lesson

Lesson 1—Listen

In this Lesson, you need not play the keyboard. The model melody/chords of the part you selected will sound. Listen to it carefully and remember it well.



Lesson 2—Timing

In this mode, simply concentrate on playing the notes with the correct timing. Even if you play wrong notes, the correct notes shown in the display will sound



Lesson 3—Waiting

In this Lesson, try playing the correct notes shown on the display. The Song pauses until you play the right note, and playback tempo will change to match the speed at which you are playing at.



NOTE |

 If you want to keep a steady playback tempo is maintained during Lesson 3: Waiting, set the Your Tempo parameter (page 50) to OFF.

Practicing with Song Lesson

Select the desired Song for your lesson (page 24).

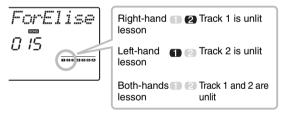
NOTE I

- The Song Lesson can be applied also to the Songs (SMF format 0 only) transferred from a computer (page 24), but cannot be applied to the User Songs.
- 2 Turn off the part you want to practice.

For the right-hand lesson, press the [1/RIGHT] button to turn off the right-hand part. For the left-hand lesson, press the [2/LEFT] button to turn off the left-hand part. For the lesson using both hands, turn off both the parts.



Pressing the [1/RIGHT] and [2/LEFT] buttons repeatedly will toggle the on/off status of each part, which can be shown on the display.



NOTE |

- Song numbers 075–100 only support the right-hand lesson.
- 3 Press the [LESSON] button to start playback of the Song Lesson.

After starting playback, pressing the [LESSON] button repeatedly will change the Lesson number from 1: LISTEN \rightarrow 2: TIMING \rightarrow 3: WAITING \rightarrow off \rightarrow 1.... Press this button until the desired number is shown on the display.



The notation and key positions you should play are shown.

To stop Lesson playback, press the [START/STOP] button.

Even during playback, you can change the Lesson number by pressing the [LESSON] button.

When Lesson playback reaches to the end, check your evaluation Grade on the display.

"2 Timing" and "3 Waiting" will evaluate your performance in four levels: OK, Good, Very Good, or Excellent.

See How You've Done

OΚ

When the lesson song has played all the way through your performance will be evaluated in 4 levels: OK, Good, Very Good, or Excellent. "Excellent!" is the highest evaluation.

After the evaluation display has appeared, the lesson will start again from the beginning.

Making Practice Perfect— Repeat & Learn

If you want to practice a specific section in which you made a mistake or you have difficulty with use the Repeat & Learn function.

Press the [] (REPEAT & LEARN) button during a Lesson playback.



The Song location will move back four measures, a one-measure count will play, then Song playback will start again. Playback of the four measures will repeat with a one-measure count-in.

To exit from this status, press this button again.

NOTE .

• You can change the amount of measures the Repeat & Learn function jumps back by pressing a number button [1]–[9] during repeat playback.

Recording Your Performance

You can record up to 10 of your performances as User Songs. The recorded User Songs can be played back on the instrument.

NOTE I

• The Tabla/Tanpura performance cannot be recorded.

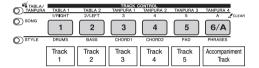
Track Structure of a Song

• Melody Tracks [1]-[5]

The melody performance in the right-hand area of the keyboard will be recorded.

Accompaniment Track [A]

The chord progression (for the Style) will be recorded.



Quick Recording

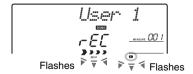
The operation is useful when you record a new Song from scratch.

- Make the desired settings including the Main Voice selection.
- 2 Make the desired settings of your performance.
 - If you want to record only the melody performance, press the [SONG] button.
 - If you want to record the performance using a Style, press the [Style] button.

3 Press the [REC] button to enter the Record Ready mode.

If a User Song was not selected beforehand, this operation selects the lowest-numbered unrecorded User Song (from 101–110) as Recording target.



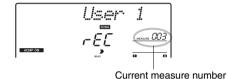


To exit from this status, press the [REC] button again.

NOTE |

 The ACMP on/off status cannot be changed after the [REC] button is pressed.

- When you press the [SONG] button in Step 2, play any note to start recording.
- When you select a Style in Step 2, play a chord in the Auto Accompaniment area to start recording with Style playback, or press the [START/STOP] button to start recording only with playback of the Rhythm part of a Style.



The current measure will be shown on the display while recording.

5 Press the [START/STOP] or [REC] button to stop recording.

When using a Style, you can stop recording also by pressing the [ENDING] button then waiting until playback ends.



After recording finishes, "Writing!" appears indicating that the recorded data will be stored, then the recorded track numbers in the display will light.

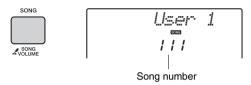
NOTICE

- Never attempt to turn the power off when "Writing!" is shown in the display. Doing so can damage the flash memory and result in a loss of data.
- 6 To play back the recorded Song, press the [START/STOP] button.

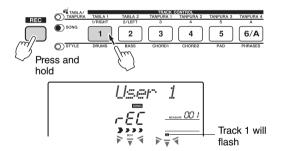
Recording to a Specified Track

The operation here is useful especially when you want to record the additional performances to an already recorded Song.

Press the [SONG] button, then select the desired User Song (111–120) as the recording target.

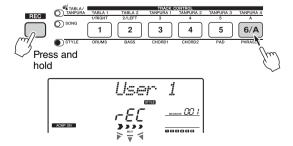


- 2 While holding down the [REC] button, press the desired Track button to enter the Record Ready mode.
 - If you want to record only the melody: While holding down the [REC] button, press one of the [1]–[5] buttons.



If you want to record only the Style playback:

Press the [STYLE] button, select the desired Style, then simultaneously hold down the [REC] button and press the [6/A] button. ACMP is automatically turned on.



3 Same as in Steps 4 to 6 (page 28) in "Quick Recording."

NOTE |

 If the memory becomes full while recording, an alert message will appear and recording will stop automatically. In this case, delete unnecessary data by using the Clear functions (page 30), then execute the recording again.

Limitations while recording

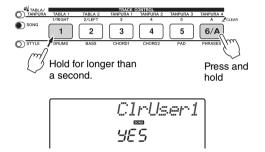
- The on/off status of ACMP cannot be changed.
- The Style number cannot be changed.
- When you use a Style, the following parameters cannot be changed: Reverb Type, Chorus Type, Time Signature, Style number and Style Volume.
- Performance with a Split Voice cannot be recorded.

Clearing a User Song

You can clear all tracks of a User Song.

- Press the [SONG] button, then select the User Song (111–120) to be cleared.
- While holding down the track [A] button, press the track [1] button for longer than a second.

A confirmation message will appear on the display.



3 Press the [+] button.

A confirmation message will appear on the display. To cancel this operation, press the [-] button.

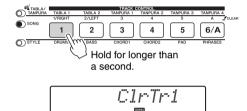
4 Press the [+] button to clear the Song.
A clear-in-progress message will appear briefly on the display.

Clearing a Specified Track from a User Song

This lets you clear individual tracks from a User Song.

- Press the [SONG] button, then select the desired User Song (111–120).
- 2 From [1]-[5] and [A], press the Track button to be cleared for longer than a second.

A confirmation message will appear on the display.



3 Press the [+] button.

A confirmation message will appear on the display. To cancel this operation, press the [-] button.

4 Press the [+] button to clear the track.
A clear-in-progress message will appear briefly on the display.

Memorizing Your Favorite Panel Settings

This instrument has a Registration Memory feature that lets you memorize your favorite settings for easy recall whenever they're needed. Up to 32 complete setups can be saved (eight banks of four setups each).

Memorizing Panel Settings to the Registration Memory

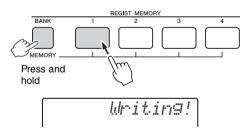
- Make the desired settings such as those for Voice, Style, and Tabla/Tanpura.
- Press and release the [MEMORY/BANK] button to call up a Bank number on the display.



3 Use the dial or the [1]–[8] number buttons to select a Bank number.

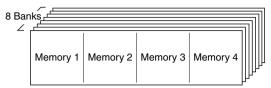
NOTE I

- Data cannot be saved to the Registration Memory during Song playback.
- 4 While holding down the [MEMORY/ BANK] button, press one of the [1]–[4] buttons to memorize the current panel settings.



NOTICE

- If you select a Registration Memory number that already contains data, the previous data is deleted and overwritten by the new data.
- Do not turn off the power while memorizing settings to the Registration Memory, otherwise the data may be damaged or lost.

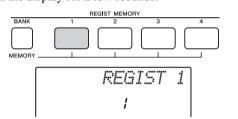


Up to 32 presets (eight banks of four each) can be memorized

Recalling Panel Settings from the Registration Memory

- Press and release the [MEMORY/BANK] button to call up a Bank number on the display.
- 2 Use the dial or the [1]–[8] number buttons to select a Bank number.
- Press one of the [1]–[4] buttons to call up the panel settings you memorized.

 The recalled REGIST MEMORY number appears in the display for a few seconds.

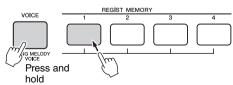


IMPORTANT)

When recalling the panel settings from the Registration Memory, make sure to press the same button—[STYLE] or [TABLA/TANPURA]—corresponding to the mode used when you memorize the panel settings. This is necessary since the mode status (Style or TablalTanpura) is not memorized to the Registration Memory, meaning that it cannot be called up even if you press the REGISTRATION MEMORY button.

Freezing the Style settings even if a different Registration number is selected

If you want to select different Registration Memory setups without changing the Style settings or Tabla/Tanpura settings, simultaneously hold down the [VOICE] button and press the REGIST MEMORY number button.



If you want to freeze the Style settings or Tabla/Tanpura settings permanently, set the Freeze mode parameter to ON from Function display 060 (page 50).

NOTE I

 For details about the parameters that can be memorized to Registration Memory, see the next page.

Backup Parameters and Initialization

Backup Parameters

The following data will be maintained even if the power is turned off and can be transferred then saved to a computer via Musicsoft Downloader as a single Backup file. For instructions, refer to "Computerrelated Operations" (page 9).

- User Song data (page 28)
- Style data transferred from a computer and loaded to Style numbers 207–211 (page 57)
- Registration Memory data (page 31)
- Function Settings (page 48):

Tuning, Split Point, Touch Sensitivity, Style Volume, Song Volume, Tabla/Tanpura Volume, Metronome Volume, Grade, Demo Group, Demo Play, Demo Cancel, Master EO type, Your Tempo on/off, Auto Power Off setting, Battery Select, Freeze Mode

In addition to the Backup data above, all the Style data (including data that have not been loaded) and all the Song data will be maintained even if you turn off the

Parameters that can be memorized to Registration Memory

Style settings*

Style number, ACMP on/off, Style volume, Track on/off

Tabla/Tanpura settings*

Tabla number, Tabla/Tanpura volume, Section, Track on/off, Volume balance between Tabla 1 and 2, Volume balance between Tabla and Tanpura

Voice settings

Main Voice settings: Voice number and all settings of the related Functions

Dual Voice settings: Dual on/off and all settings of the related Functions

Split Voice settings: Split on/off and all settings of the related Functions

Effect settings

Reverb Type, Chorus Type

Arpeggio settings

Arpeggio on/off and all settings of the related Functions

Harmony settings

Harmony on/off and all settings of the related Functions

Other settings

Transpose, Pitch Bend Range, Knob Effect Combination number, Split Point, Tempo, Pedal Function

* Available only when a Style is selected.
** Available only when a Tabla is selected.

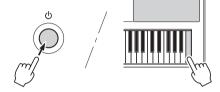
Initialization

This function erases the Backup data described above and Song/Style data, then restores all the default factory settings. As required, execute one of the following two procedures.

Backup Clear

This operation initializes the backup data.

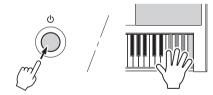
While holding down the highest white key on the keyboard, press the [()] (Standby/On) switch to turn the power on.



Flash Clear

This operation deletes all the Songs and Styles that have been transferred from a computer. Note that Style data loaded to Style numbers 207–211 will be maintained.

While simultaneously holding the highest white key and the three highest black keys, press the [\bigcirc] (Standby/On) switch to turn the power on.



NOTICE

. Keep in mind that this operation also deletes the data you have purchased. Be sure to save the important data to a computer via Musicsoft Downloader (MSD) software. For details, refer to "Computer-related Operations" (page 9).

Handy Performance Features

Selecting a Reverb Type

The Reverb effect lets you play with a rich concert hall type ambience.

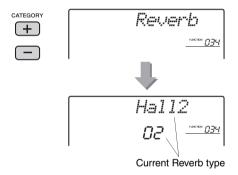
Although selecting a Style or Song will call up the optimum Reverb type for the entire sound, you can select a different Reverb type manually.

1 Press the [FUNCTION] button.



2 Use the CATEGORY [+] and [-] buttons to call up "Reverb" (Function 034).

After "Reverb" is shown for a few seconds, the current Reverb Type is shown.



NOTE I

• Some Songs and Styles use Reverb Types which cannot be selected via panel operation. If such a Song or Style is played back, "- - -" is shown on the display.

3 Rotate the dial to select a Reverb type.

Play the keyboard to check the sound. For information about the available Reverb types, refer to the Effect Type List (page 80).

Adjusting the Reverb depth

You can adjust the Reverb depth applied to the Main, Dual, and Split Voices individually via the same operations above. Regarding the item in Step 2, refer to the Function List on page 48.

Selecting a Chorus Type

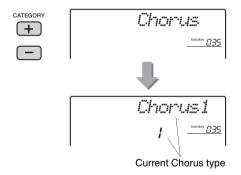
The Chorus effect creates a thick sound that is similar to many of the same Voices being played in unison. Although selecting a Style or Song will call up the optimum Chorus type for the entire sound, you can select a different Chorus type manually.

Press the [FUNCTION] button.



2 Use the CATEGORY [+] and [-] buttons to call up "Chorus" (Function 035).

After "Chorus" is shown for a few seconds, the current Chorus Type is shown.



NOTE I

• Some Songs and Styles use Chorus Types which cannot be selected via panel operation. If such a Song or Style is played back, "---" is shown on the display.

3 Rotate the dial to select a Chorus type.

Play the keyboard to check the sound. For information about the available Chorus types, refer to the Effect Type List (page 80).

Adjusting the Chorus depth

You can adjust the Chorus depth applied to the Main, Dual, and Split Voices individually via the same operations above. Regarding the item in Step 2, refer to the Function List on page 48.

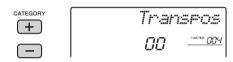
Pitch Controls—Transpose

The overall pitch of the instrument (except for the Drum Kit Voices) can be shifted up or down by a maximum of 1 octave in semitone increments.

Press the [FUNCTION] button.



2 Use the CATEGORY [+] and [-] buttons to call up "Transpos" (Function 004).



3 Use the dial to set the Transpose value between -12 and +12.

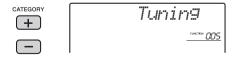
Pitch Controls—Tuning

The overall tuning of the instrument (except for the Drum Kit Voices) can be shifted up or down between 427 Hz and 453 Hz in approximately 0.2Hz increments. The default value is 440.0 Hz.

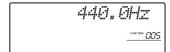
Press the [FUNCTION] button.



2 Use the CATEGORY [+] and [-] buttons to call up "Tuning."

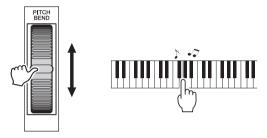


3 Use the dial to set the Tuning value.



Pitch Controls—the PITCH BEND wheel

The PITCH BEND wheel can be used to add smooth pitch variations to notes you play on the keyboard. Roll the wheel upward to raise the pitch, or downward to lower the pitch.



You can change the amount of pitch bend produced by the wheel. Refer to "Pitch Bend Range" in the Function List (page 48).

Calling up Optimum Panel Settings

You can call up optimum panel settings that are ideal and stylistically appropriate for the current Song or Style—with a single touch. If you don't know what settings are best with a selected Voice, for example, use the following functions.

 To call up the settings for a Song or Style (One Touch Setting):

Select Voice number "000 OTS." In this status, selecting a Style or Song will call up the optimum panel settings matching the current Song or Style.

Changing the Touch Sensitivity of the Keyboard

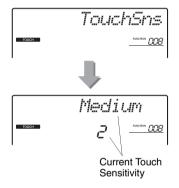
The keyboard of this instrument is equipped with a Touch Response feature that lets you dynamically and expressively control the level of the Voices according to your playing strength.

Press the [FUNCTION] button.



Press the CATEGORY [+] or [-] button several times until "TouchSns" (Function 008) appears.

"TouchSns" is shown in the display for a few seconds, and the current Touch Sensitivity is shown.



3 Use the dial to select a Touch Sensitivity setting between 1 and 4.

When "1"-"3" is selected, higher values produce greater (easier) volume variation in response to keyboard dynamics—i.e. greater sensitivity. When "4" (off) is selected, all notes will be played at the same volume no matter how strongly or softly you play the keys.

NOTE |

• The initial default Touch Sensitivity value is "2".

Selecting an EQ Setting for the Best Sound

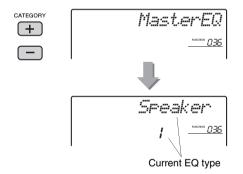
Five different master equalizer (EQ) settings are provided to give you the best possible sound when listening through different reproduction systems—the instrument's internal speakers, headphones, or an external speaker system.

Press the [FUNCTION] button.



Press the CATEGORY [+] or [-] button several times until "MasterEQ" (Function 036) appears.

"MasterEQ" is shown in the display for a few seconds, and the current Master EQ type appears.



3 Use the dial to select the desired Master EQ type.

Settings 1 and 2 are best for listening via the instrument's built-in speakers, setting 3 is for headphones, and settings 4 and 5 are ideal for listening via external speakers.

NOTE I

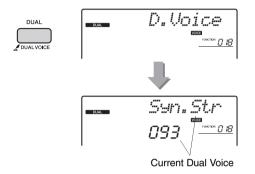
"Boost" produces a more punchy sound but may produce distortion depending on the Voice and Style, compared to the other Master EQ types.

Voice Settings

Selecting a Dual Voice

Hold down the [DUAL] button for longer than a second to call up "D.Voice."

"D.VOICE" is shown for a few seconds, then the current Dual Voice appears.

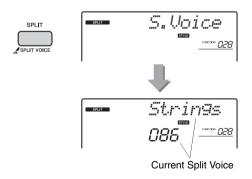


2 Rotate the dial to select the desired Dual Voice.

Selecting a Split Voice

Hold down the [SPLIT] button for longer than a second to call up "S.Voice."

"S.VOICE" is shown for a few seconds, then the current Split Voice appears.



2 Rotate the dial to select the desired Split Voice.

Voice Editing

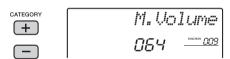
For each of the Main, Dual and Split Voices, you can edit the parameters such as volume, octave and depth of the Reverb and Chorus, allowing you to create new, custom sounds that best suit your musical needs.

Press the [FUNCTION] button.



2 Use the CATEGORY [+] and [-] buttons to call up the desired item.

Main Voice parameters are indicated as "M.*****," Dual Voice parameters as "D.*****," and Split Voice parameters as "S.*****." For information about each parameter, refer to the Function List on page 48.



- 3 Rotate the dial to set the value.

 Check the sound by playing the keyboard.
- A Repeat Steps 2–3 above to edit various parameters.
- 5 If necessary, memorize the settings to the Registration Memory (page 31).

The Voice-related settings are reset when a different Voice is selected. If you want to store the created sound for future recall, memorize the settings to the Registration Memory.

Parameters Assigned to the Knobs

This section describes each of the parameters which can be assigned to the Knobs (page 21).

1 TABLA/TANPURA

Knob A adjusts the volume balance between the sounds of Tabla 1 and 2, while Knob B adjusts the volume balance between the sounds of Tabla and Tanpura.

2 TABLA/TANPURA

Knob A adjusts the tempo of Tabla playback while the Tanpura playback tempo is maintained. This follows typical Indian music stylistic conventions. Knob B raises or lowers the pitch of the Tabla/Tanpura sound in semitones, with the exception of Tabla 1. This accurately simulates the characteristics of the Tabla, in which the lower sound is not affected by the tuning. Note that also the pitch of Tabla 2 may not be changed depending on the Tabla/Tanpura pattern.

NOTE |

 When Knob B is turned all the way left, only the pitch of the Tabla 2 sound is raised abruptly by an octave. This is due to a limitation in this instrument.

3 FILTER

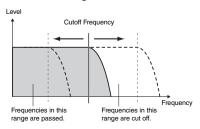
Filter effects shape the sound by allowing only a specified range of frequencies to pass and/or by producing a resonance peak at the filter's "cutoff" frequency. Filter effects can be used to create a range of synthesizer-like sounds.

NOTE |

- These effects are applied only to the Main/Dual Voices played on the keyboard.
- Filter effects can sometimes cause distortion in the bass frequencies.

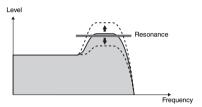
• Knob A: CUTOFF

Adjusts the filter's cutoff frequency, and therefore the brightness of the sound. Turning the Knob to the left makes the sound more muffled or darker, while turning the Knob A to the right makes the sound brighter.



● Knob B: RESONANCE

Adjusts the amount of Resonance applied at the filter's cutoff frequency. Turning the Knob to the right will increases the Resonance to emphasize the frequencies at the cutoff frequency, and thus "strengthens" the perceived effect of the filter.



4 EFFECT

● Knob A: REVERB

Reproduces the acoustic ambience of a concert hall or club. Turning the Knob to the right will increase the Reverb depth.

• Knob B: CHORUS

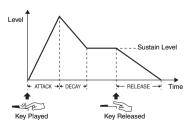
Produces a layered "multi-instrument" effect. Turning the Knob to the right will increase the Chorus depth.

NOTE

These effects are applied only to the Main/Dual Voices played on the keyboard.

5 EG (Envelope Generator)

Envelope Generator effects determine how the level of the sound varies over time. You can make the attack faster for a more percussive sound or slower for a violin-like sound, for example. Or you can lengthen or shorten the sustain to best match the music you're playing.



● Knob A: ATTACK

Adjusts the Attack Time (the amount of time it takes the sound to reach maximum level when a key is played). Turning the Knob to the right will increase the Attack Time, thus slowing down the attack rate.

● Knob B: RELEASE

Adjusts the Release Time (the amount of time it takes for the sound to decay to silence after a key is released). Turning the Knob to the right will increase the Release Time, thus make a longer sustain.

NOTE I

• These effects are applied only to the Main/Dual Voices played on the keyboard.

6 STYLE FILTER

Same as " FILTER." These effects are applied only to Style or Tabla/Tanpura playback.

The chart below lists some interesting ways to use the various effects that can be assigned to the knobs.

Some Ideas for Using the Knobs

Number/Effect		Try This				
1	TABLA/TANPURA	Knob A adjusts the volume balance between the sounds of Tabla 1 (having the lower sound) and Tabla 2 (having the higher sound of Tabla or Mridangam). Knob B adjusts the volume balance between the sounds of the Tabla (assigned to the [TABLA 1] and [TABLA 2] buttons) and Tanpura (assigned to the [TAN-PURA 1]–[TANPURA 4] buttons). Play with these Knobs as the patterns loop, sing along if you wish, and create your own performance.				
2	TABLA/TANPURA	Knob A adjusts the tempo of Tabla/Tanpura playback. Setting to the minimum left-most position results in half the default tempo, while setting to the maximum right-most position results in double the default tempo. The center position corresponds to the default tempo. Note that the tempo cannot exceed the range (11–280), and that the tempo of the Tanpura patterns will not change even if you rotate Knob A. Knob B raises or lowers the pitch of the Tabla/Tanpura sound in semitones. Regarding the Tabla, only the higher sound (assigned to the [2] button) will be transposed. Rotating the knob leftward lowers the pitch while rotating the knob rightward raises the pitch. Use these knobs to set the desired tempo and key, sing along if you wish, and create your own performance!				
3	FILTER	Select a synth-type lead or pad voice (see the Voice List; page 61). Turn Knob B all the way up and operate Knob A while playing for some spacey, floating 1980's effects.				
4	EFFECT	Select a voice that sounds as though it already has reverb and chorus effects applied, and turn Knob A and Knob B all the way down to hear the "direct" sound of the voice. You can then turn the Knob A and Knob B settings up to add extra impact and richness to the voice.				
5	EG	Select a piano voice, and turn Knob B all the way up and Knob A to about the 3 o'clock position. This should give you a majestic, organ-like sound. The attack time is quite long so play the keys and hold them to let the sound come in fully. Ideal for slow pieces.				
6	STYLE FILTER	Select style 67, Euro Trance. Turn accompaniment on and start style playback (page 22). Set Knob B to about 3 o'clock, and Knob A to about 8 o'clock. The overall sound of the style should be a bit muffled, with the drums emphasized for solid rhythmic impact.				

Arpeggio Settings

Synchronizing an Arpeggio to Song/Style/Tabla Playback— Arpeggio Quantize

When you play the keyboard to trigger an Arpeggio (page 20) along with Song/Style/Tabla playback, you'll need to play the notes with correct timing to keep the Arpeggio in synchronization with the other playback tracks. However, your actual timing may be slightly ahead of or behind the beat (or both). The "Arpeggio Quantize" function of this instrument will correct any slight imperfections in the timing (according to settings below), and then play back the Arpeggio appropriately.

- Synchronizing at the quarter notes
- Synchronizing at the 8th notes
- No synchronization with Style or Song playback

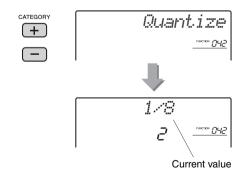
Although the Arpeggio Quantize value is pre-programmed for each Arpeggio Type, you can change the value manually.

1 Press the [FUNCTION] button.



2 Use the CATEGORY [+] and [-] buttons to call up "Quantize" (Function 042).

After "Quantize" is shown for a few seconds, the current Arpeggio Quantize value is shown.



3 Rotate the dial to select a value from "OFF," "1/8" and "1/16."

- 1/8 Synchronizing at the quarter notes
- 1/16 Synchronizing at the 8th notes
- OFF No synchronization with Style or Song playback

Holding the Arpeggio Playback via the Footswitch

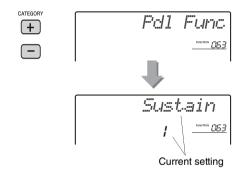
You can set the instrument so that Arpeggio playback continues even after the note has been released, by pressing the footswitch connected to the SUSTAIN jack.

Press the [FUNCTION] button.

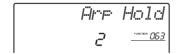


2 Use the CATEGORY [+] and [-] buttons to call up "Pdl Func" (Function 063).

After "Pdl Func" is shown for a few seconds, the current setting is shown.



3 Rotate the dial to select "Arp Hold."



If you want to restore the footswitch function to sustain, select "Sustain." If you want to use both hold and sustain functions, select "Hold+Sus".

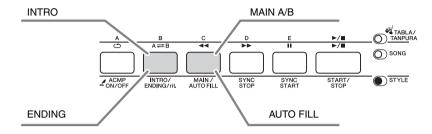
Try playing Arpeggio with the footswitch.

Press the notes to trigger the Arpeggio, then press the footswitch. Even if you release the notes, Arpeggio playback will continue. To stop Arpeggio playback, release the footswitch.

Styles (Auto Accompaniment) and Tabla/Tanpura patterns

Style Variations—Sections

Each Style consists of "Sections" that allow you to vary the arrangement of the accompaniment to match the song you are playing.



INTRO

This is used for the beginning of the Song. When the Intro finishes, Style playback shifts to the Main section. The length of the Intro (in measures) differs depending on the selected Style.

MAIN

This is used for playing the main part of the Song. Playback of the Main section repeats indefinitely until another Section's button is pressed. There are two variations (A and B), and the Style playback sound changes harmonically in response on the chords you play with your left hand.

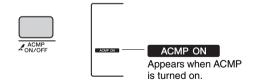
AUTO FILL

This is automatically added before changing to Main A or B.

ENDING

This is used for the ending of the Song. When the Ending finishes, the Style playback stops automatically. The length of the Ending (in measures) differs depending on the selected Style.

- Press the [STYLE] button, then rotate the dial to select a Style.
- Press the [ACMP ON/OFF] button to turn ACMP on.



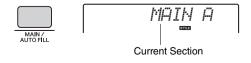
3 Press the [SYNC START] button to turn Synchro Start on.



Synchro Start

When the Synchro Start is on, Style playback will begin as soon as you play a chord in the accompaniment range of the keyboard. To turn off the Synchro Start, press the [SYNC START] button.

☐ Press the [MAIN/AUTO FILL] button to select Main A or Main B.



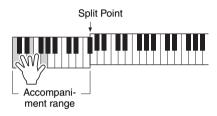
5 Press the [INTRO/ENDING/rit.] button.



Now, you're ready to start Style playback from the Intro section.

6 Play a chord with your left hand to start playback of the Intro.

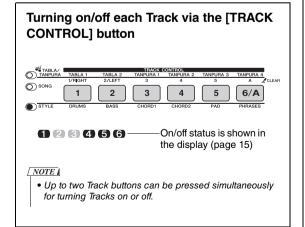
For this example, play a C major chord (as shown below). For information on how to enter chords, see "Chords" on page 44.



7 After the Intro finishes, play the keyboard according to the progression of the Song you are playing.

Play chords with your left hand while playing melodies with your right hand, and press the [MAIN/AUTO FILL] button as necessary. The Section will change to Fill-in then Main A or B.





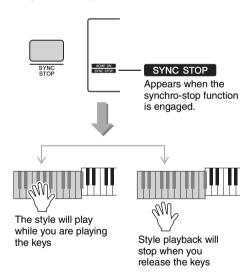
8 Press the [INTRO/ENDING/rit.] button.



The Section switches to the Ending. When the Ending is finished, Style playback stops automatically. You can have the Ending gradually slow down (ritardando) by pressing the [INTRO/END-ING/rit.] button again while the Ending is playing back.

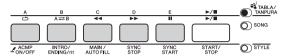
Synchro Stop

When you press the [SYNC/STOP] button to turn on this function, the Style will only play while pressing chords in the Accompaniment range of the keyboard. Releasing all the notes will stop Style playback. This makes it easy to add rhythmic breaks as you perform, simply by releasing your hand from the Accompaniment range of the keyboard.

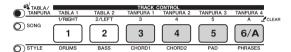


Tabla/Tanpura Variations

Each Tabla/Tanpura features five Variations A–E via the Tabla sound. These five variations can be alternated via the [A]–[E] buttons during playback, allowing you to add dynamic variations to the performance.



In addition, four phrase variations via the Tanpura sound are provided commonly for all the Tabla/Tanpura patterns. These four variations can be alternated via the TANPURA 1–4 buttons.



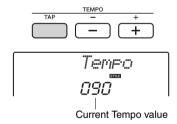
Unlike the Styles, the Tabla/Tanpura patterns do not have the variations dedicated to the beginning or ending of the Song, such as Intro and Ending.

The Tabla/Tanpura playback will continue until stopped manually.

Changing the Tempo

A Style or Tabla/Tanpura can be played at any tempo you desire—fast or slow.

Press the TEMPO [TAP] button to call up the Tempo value in the display.



2 Rotate the dial to set a tempo from 011 to 280.

Press the [+] and [-] buttons simultaneously to instantly reset the value to the default tempo of the current Style, Tabla/Tanpura or Song. You can change the tempo during playback by pressing the TEMPO [TAP] button just twice at the required tempo.

NOTE I

 The above operation applies also to Song or Arpeggio playback tempo.

Tap Start

You can start play back of the Tabla/Tanpura, Style or Song by simply tapping the TEMPO [TAP] button at the required tempo—four times for time signatures in 4 (4/4, etc.), and three times for time signatures in 3 (3/4, etc.).



Adjusting the Volume of the Style or Tabla/Tanpura

You can adjust the volume balance between Style or Tabla/Tanpura playback and keyboard performance.

Press the [FUNCTION] button.



2 Use the CATEGORY [+] and [-] buttons to call up "StyleVol" (Function 001) or "TablaVol" (Function 003).



3 Rotate the dial to set the volume between 000 and 127.

Setting the Split Point

The point on the keyboard that separates the left-hand range and the right-hand range of the keyboard is called the "Split Point."

When a Style is selected and ACMP is on, the notes played to the left of the Split Point are used to specify the chord for Style playback. When the Split function is on, the notes played to the left of the Split Point are used to play the Split Voice.

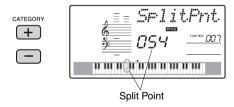
The initial default Split Point is key number 54 (the F#2 key), but you can change it to another key.

Press the [FUNCTION] button.

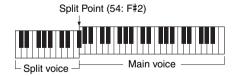


2 Use the CATEGORY [+] and [-] buttons to call up "SplitPnt" (Function 007).

You can call up this display also by pressing the [STYLE] then holding the [ACMP] button for longer than a second.



3 Rotate the dial to set the Split Point between 036 (C1) and 096 (C6).

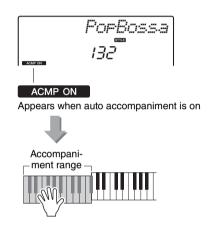


NOTE |

- The Split Point set here is applied common to the Style and Voice
- During the Lesson playback, the Split Point cannot be changed.

Playing Chords Without Style Playback

If you press the [STYLE] button, press the [ACMP ON/OFF] button to turn ACMP on (the ACMP ON icon appears), and play the chord in the Left hand range of the keyboard (with SYNC START off), the chord sound will be heard without Style playback. This is referred to as "Stop Accompaniment." The specified chord will be shown in the display, and affects the Harmony function (page 19).



Chord Types for Style Playback

For users who are new to chords, this chart features common chords. Since there are many useful chords and many different ways to use them musically, refer to commercially available chord books for further details.

★ indicates the root note.

Major	Minor	Seventh	Minor Seventh	Major Seventh
С	Cm	C ₇	Cm ₇	CM ₇
* • •	*	* • •	*	* • • •
D	Dm	D ₇	Dm ₇	DM ₇
*	* • •	* • •	* • • •	*
E	Em	E ₇	Em ₇	EM ₇
* • • •	* • •	*	* • • •	
F	Fm	F ₇	Fm ₇	FM ₇
* • • •	★	★ • •		* • •
G	Gm	G ₇	Gm ₇	GM ₇
	* •	* • • •	*	
Α	Am	A ₇	Am ₇	AM ₇
	* • •			
В	Bm	B ₇	Bm ₇	ВМ7
*				

- Inversions can be used as well as in "root" position—with the following exceptions: m7, m7 \(\dagger \), 6, m6, sus4, aug, dim7, 7 \(\dagger \)5, 6(9), sus2
- Inversion of the 7sus4 and m7(11) chords are not recognized if the notes are omitted.
- When playing a chord which cannot be recognized by this instrument, nothing is shown on the display. In such a case, only the rhythm and bass parts will be played.

Easy Chords

This method lets you easily play chords in the accompaniment range of the keyboard using only one, two, or three fingers.

For root "C"



To play a major chord Press the root note (★) of the chord.



To play a minor chord Press the root note together with the nearest black key to the left of it.



To play a seventh chord Press the root note together with the nearest white key to the left of it.



To play a minor seventh chord Press the root note together with the nearest white and black keys to the left of it (three keys altogether).

Looking Up Chords Using the Chord Dictionary

The Dictionary function is useful when you know the name of a certain chord and want to quickly learn how to play it.

Press and hold the [CHORD DICT] button for longer than a second to call up "Dict."



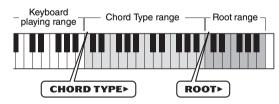
Hold for longer than a second.

This operation will divide the entire keyboard into the three ranges as illustrated below.

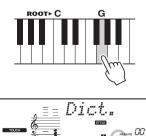
- The range to the right of "ROOT ▶":
 Lets you specify the Chord Root, but produces no sound.
- The range between "CHORD TYPE ▶" and "ROOT ▶":

Lets you specify the Chord Type, but produces no sound.

• The range to the left of "CHORD TYPE ▶": Lets you play and confirm the Chord specified in the above two ranges.



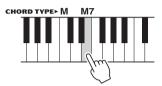
- 2 As an example, learn how to play a GM7 (G major seventh) chord.
 - 2-1. Press the "G" key in the section to the right of "ROOT ▶" so that the "G" is shown as the root note.



ույլը ա ս ա ս ա ս ա

2-2. Press the key labeled "M7" in the section between "CHORD TYPE ▶" and "ROOT."

The notes you should play for the specified chord (root note and chord type) are conveniently shown in the display, both as notation and in the keyboard diagram.



Notation of chord Chord name (root and type)

Litture

Individual notes of chord (keyboard)

To call up possible inversions of the chord, press the [+]/[-] buttons.

NOTE |

- About major chords: Simple major chords are usually indicated only by the root note. For example, "C" refers to C major. However, when specifying major chords here, make sure to select "M" (major) after pressing the root note.
- 3 Following the notation and keyboard diagram in the display, try playing a chord in the range to the left of "CHORD TYPE ▶."

When you've played the chord properly, a bell sound signals your success and the chord name in the display flashes.

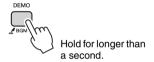
Song Settings

BGM (Background Music) Playback

With the default setting, pressing the [DEMO/BGM] button will play back only a few of the internal Songs repeatedly. This setting can be changed so that, for example, all internal Songs are played, or all Songs transferred to the instrument from a computer are played back, letting you use the instrument as a background music source. Five playback group settings are provided. Simply select the one that suits your needs.

Hold down the [DEMO/BGM] button for longer than a second.

"DemoGrp" is shown in the display for a few seconds, followed by the current repeat playback target.



2 Rotate the dial to select a repeat playback group from the table below.

Demo	Preset Songs 001–003			
Preset	All preset Songs			
User	All User Songs			
Download	All Songs transferred from a computer			
USB	All Songs (MIDI files) in the connected USB flash memory			

3 Press the [DEMO] button to start playback.

To stop playback, press the [DEMO] button again.

Random Song Playback

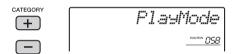
The order of Song repeat playback via the [DEMO/BGM] button can be changed between the numerical order and random order.

Press the [FUNCTION] button.



Press the CATEGORY [+] and [-] buttons several times to call up "PlayMode" (Function 058).

"PlayMode" is shown for a few seconds, followed by the current playback mode, "Normal" or "Random."



When the DemoGrp is set to "Demo," this parameter cannot be set.

3 Rotate the dial to select "Random."

To return to the numerical order, select "Normal."

⚠ Press the [DEMO] button to start play-back.

To stop playback, press the [DEMO] button again.

Tempo Setting of the Song

This operation is same as that of the Style and Tabla/ Tanpura. Refer to page 42.

Tap Start

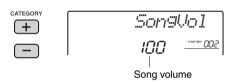
This operation is same as that of the Style and Tabla/ Tanpura. Refer to page 42.

Song Volume

Press the [FUNCTION] button.



2 Press the CATEGORY [+] and [-] buttons several times to call up "SongVol."



3 Rotate the dial to set the Song volume between 000 and 127.

NOTE I

Song volume can be adjusted while a Song is selected.

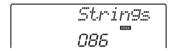
Melody Voice Setting of the Preset Song

You can change the Melody Voice of the current Preset Song temporarily to any other desired Voice.

Press the [SONG] button, select the desired Preset Song, then start playback.

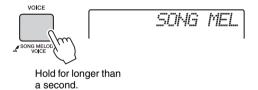


2 Press the [VOICE] button, then rotate the dial to select the desired Voice.



3 Hold down the [VOICE] button for longer than a second.

After "SONG MELODY VOICE" is shown for a few seconds, the Melody Voice of the Song will be changed to that selected in Step 2.



The Functions

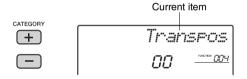
The "Functions" provide access to a range of detailed instrument parameters such as Tuning, Split Point, Voices and Effects. Take a look at the Function List (pages 48–50). When you find the desired Function you want to change, follow the instructions below.

Basic Procedure in the Function Display

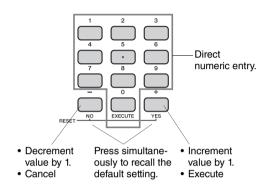
- Find the desired item in the Function List on pages 48–50.
- 2 Press the [FUNCTION] button.



3 Press the CATEGORY [+] and [-] buttons several times until the desired item appears.



✓ Use the dial, the [+] and [-] buttons, or the [0]–[9] number buttons to set the value of the selected function.



Some Function settings are maintained even if you turn off the power, and can be transferred to the computer as Backup Data (page 32).

Function List

Function Number	Function	Display	Range/Settings	Default Value	Description
Volume				'	
001	Style Volume	StyleVol	000–127	100	Refer to page 42.
002	Song Volume	SongUol	000–127	100	Refer to page 47.
003	Tabla Volume	TablaVol	000-127	100	Refer to page 42.
Overall					
004	Transpose	Transpos	-12–12	0	Refer to page 34.
005	Tuning	Tuning	427Hz–453Hz (in approximately 0.2Hz increments)	440.0Hz	Refer to page 34.
006	Pitch Bend Range	PBRan9e	01–12	2	Sets the range over which you can control pitch by using the PITCH BEND wheel (page 34), in semitone increments.
007	Split Point	SplitPnt	036-096 (C1-C6)	54 (F#2)	Refer to page 43.
800	Touch Sensitivity	TouchSns	1 (Soft), 2 (Medium), 3 (Hard), 4 (Off)	2 (Medium)	Refer to page 35.
Main Vo	pice (page 16)				
009	Volume	M.Volume	000–127	*	Determines the volume of the Main Voice.
010	Octave	M.Octave	-2 - +2	*	Determines the octave range for the Main Voice.
011	Pan	M.Pan	000 (left)-64 (center)- 127 (right)	*	Determines the stereo pan position of the Main Voice. The value "0" results in the sound being panned full left; the value "127" results in the sound being panned full right.
012	Reverb Depth	M.Reverb	000–127	*	Determines how much of the Main Voice's signal is sent to the Reverb effect.
013	Chorus Depth	M.Chorus	000–127	*	Determines how much of the Main Voice's signal is sent to the Chorus effect.
014	Attack Time	M.Attack	000–127	64	Determines how fast the volume of the Main Voice reaches the Attack level when the note is pressed. The larger the value, the faster the attack rate. The smaller the value, the slower the attack rate.

Function Number	Function	Display	Range/Settings	Default Value	Description				
015	Release Time	M.Releas	000–127	64	Determines how fast the volume of the Main Voice falls to 0 when the note is released. The larger the value, the longer the sustain. The smaller the value, the shorter the sustain.				
016	Filter Cutoff	M.Cutoff	000–127	64	Determines the Filter Cutoff Frequency (page 37) of the Main Voice.				
017	Filter Resonance	M.Reso.	000-127	64	Determines the Filter Resonance (page 37) of the Main Voice.				
Dual Voice (page 16)									
018	Dual Voice	D.Voice	001-753	*	Selects a Dual Voice.				
019	Volume	D.Volume	000–127	*	Determines the volume of the Dual Voice.				
020	Octave	D.Octave	-2 - +2	*	Determines the octave range for the Dual Voice.				
021	Pan	D.Pan	000 (left)–64 (center)– 127 (right)	*	Determines the stereo pan position of the Dual Voice. A value of "0" results in the sound being panned full left; a value of "127" results in the sound being panned full right.				
022	Reverb Depth	D.Reverb	000–127	*	Determines how much of the Dual Voice's signal is sent to the Reverb effect.				
023	Chorus Depth	D.Chorus	000–127	*	Determines how much of the Dual Voice's signal is sent to the Chorus effect.				
024	Attack Time	D.Attack	000–127	64	Determines how fast the volume of the Dual Voice reaches the Attack level when the note is pressed. The larger the value, the faster the attack rate. The smaller the value, the slower the attack rate.				
025	Release Time	D.Releas	000–127	64	Determines how fast the volume of the Dual Voice falls to 0 when the note is released. The larger the value, the longer the sustain. The smaller the value, the shorter the sustain.				
026	Filter Cutoff	D.Cutoff	000–127	64	Determines the Filter Cutoff Frequency (page 37) of the Dual Voice.				
027	Filter Resonance	D.Reso.	000–127	64	Determines the Filter Resonance (page 37) of the Dual Voice.				
Split Vo	ice (page 17)								
028	Split Voice	S.Voice	001-753	86 (Strings)	Selects a Split Voice.				
029	Volume	S.Volume	000–127	*	Determines the volume of the Split Voice.				
030	Octave	S.Octave	-2 - +2	*	Determines the octave range for the Split Voice.				
031	Pan	S.Pan	000 (left)-64 (center)- 127 (right)	*	Determines the stereo pan position of the Split Voice. A value of "0" results in the sound being panned full left; a value of "127" results in the sound being panned full right.				
032	Reverb Depth	S.Reverb	000–127	*	Determines how much of the Split Voice's signal is sent to the Reverb effect.				
033	Chorus Depth	S.Chorus	000–127	*	Determines how much of the Split Voice's signal is sent to the Chorus effect.				
Effects									
034	Reverb Type	Reverb	01–10	**	Refer to page 33.				
035	Chorus Type	Chorus	01–05	**	Refer to page 33.				
036	Master EQ Type	MasterEQ	Speaker, Boost, Head- phone, Line Out1, Line Out2	1 (Speaker)	Refer to page 35.				
037	Wide Type	Wide	1–4	4 (Wide Off)	Determines the Ultra-Wide Stereo type. Higher values produce a greater Wide effect.				
Harmon	y (page 19)								
038	Harmony Type	HarmType	01–26	*	Determines the Harmony type.				
039	Harmony Volume	HarmVol	000–127	*	Determines the volume of the Harmony effect				
Arpegg	io (page 20)								
040	Arpeggio Type	ARP Type	001–162	*	Determines the Arpeggio type.				
041	Arpeggio Velocity	ARP Velo	1(Original), 2(Thru)	*	When "Thru" is selected, the velocities of Arpeggio playback are determined by your playing strength. When "Original" is selected, the velocities of Arpeggio playback are determined by the original setting regardless of your playing strength.				
042	Arpeggio Quantize	Quantize	1(OFF), 2(1/8), 3(1/16)	*	Refer to page 39.				
Computer (USB TO HOST terminal)***									
043	PC mode	PC mode	OFF/PC1/PC2	OFF	Optimizes the MIDI settings when you connect to a computer				
MIDI***					·				
044	Local Control	Local	ON/OFF	ON	Determines whether the instrument's keyboard controls the internal tone generator (ON) or not (OFF). When you record your keyboard performance to the application software on the computer via MIDI, set this parameter to OFF.				

Function Number	Function	Display	Range/Settings	Default Value	Description
045	External Clock	ExtClock	ON/OFF	OFF	Determines whether the instrument synchronizes to the internal clock (OFF) or an external clock (ON). When you record your keyboard performance to the application software on the computer via MIDI, set this parameter to ON.
046	Keyboard Out	Kbd0ut	ON/OFF	ON	Determines whether MIDI messages generated via keyboard per- formance are transmitted (ON) or not (OFF) from the USB TO HOST terminal.
047	Style Out	StyleOut	ON/OFF	OFF	Determines whether MIDI messages generated via Style play- back are transmitted (ON) or not (OFF) from the USB TO HOST terminal.
048	Song Out	Son9Out	ON/OFF	OFF	Determines whether MIDI messages generated via Song play- back are transmitted (ON) or not (OFF) from the USB TO HOST terminal.
049	Initial Send	InitSend	YES/NO	-	Lets you send the data of the panel settings to a computer. Press [+] to send, or press [-] to cancel. This operation should be done immediately after starting the Recording operation on the computer.
Metrono	ome (page 18)	l .	1		
050	Time Signature Numerator	TimesigN	00–60	**	Determines the time signature of the Metronome.
051	Time Signature Denominator	TimesigD	Half note, Quarter note, Eighth note, Sixteenth note	**	Determines the length of each metronome beat.
052	Metronome Volume	MtrVol	000–127	100	Determines the volume of the Metronome.
Lesson	(page 26)				
053	Lesson Track (R)	R-Part	GuideTrack1–16, OFF	1	Determines the guide track number for your right hand lesson. The setting is only effective for Songs in SMF format 0 transferred from a computer.
054	Lesson Track (L)	L-Part	GuideTrack1–16, OFF	2	Determines the guide track number for your left hand lesson. The setting is only effective for Songs in SMF format 0 transferred from a computer.
055	Grade	Grade	ON/OFF	ON	Determines whether the Grade function is on or off.
056	Your Tempo	YourTemp	ON/OFF	ON	This parameter is for Lesson 3 "Waiting." When set to ON, play-back tempo will change to match the speed at which you are playing. When set to OFF, playback tempo will be maintained regardless of the speed at which you are playing.
Demo (page 24)				
057	Demo Group	DemoGrp	1 (Demo) / 2 (Preset) / 3 (User) / 4 (Down- load) / 5 (USB)	1 (Demo)	Refer to page 46.
058	Demo Play Mode	PlayMode	1 (Normal) 2 (Random)	1 (Normal)	Refer to page 46.
059	Demo Cancel	D-Cancel	ON/OFF	OFF	Determines whether Demo cancel is enabled or not. When this is set to ON, the Demo Song will not play, even if the [DEMO/BGM] button is pressed.
Registra	ation Memory (pag	je 31)			
060	Freeze Mode	Freeze	ON/OFF	OFF	When set to on, the Style related settings are maintained even if you press another Registration Memory number button.
Auto Po	wer Off (page 14)				
061	Auto Power Off Time	AutoOff	OFF, 5/10/15/30/60/ 120 (min.)	30 minutes	Specifies the time that will elapse before the instrument's power is automatically turned off.
Battery	(page 12)				
062	Battery Type	Battery	1 (Alkaline) / 2 (Ni-MH)	1 (Alkaline)	Selects the type of batteries you have installed to this instrument.
Pedal F	unction (page 20)				
063	Pedal Function	Pdl Func	1 (Sustain) / 2 (Arp Hold) / 3 (Hold+Sus) / 4 (Sostenut)	1 (Sustain)	Determines the function of the footswitch connected to the SUS-TAIN jack (page 13). When "1 (Sustain)" or "4 (Sostenut)" is selected, the footswitch works as a damper pedal or sostenuto pedal as on an acoustic piano. Note that sustain does not affect the Split Voice, while sostenuto affects only the Split Voice when Split is on. When "2 (Arp Hold)" is selected, pressing the footswitch maintains Arpeggio playback even if you release the notes (page 39). When "3 (Hold+Sus)" is selected, both the Arpeggio Hold and Sustain functions are assigned to the footswitch.

^{*} The appropriate value is automatically set for each Voice combination.

** The appropriate value is automatically set for each Song, Style or Tabla/Tanpura.

^{***} For details, refer to "Computer-related Operations" (page 9).

USB Flash Memory Operations

By connecting the USB flash memory device to the [USB TO DEVICE] terminal, you can save the data created on this instrument, such as User Song and parameter settings. The saved data can be recalled to this instrument again for the future use.

IMPORTANT

 It is recommended to use the Power Adaptor when executing USB flash memory operations, since battery power may not be reliable enough to last through these crucial operations. When you try executing certain functions, the "Use Adaptor" indication may appear and the selected function cannot be executed.

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 I

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

Compatible USB devices

The instrument does not necessarily support all commercially available USB devices. Yamaha cannot guarantee operation of USB devices that you purchase. Before purchasing a USB device for use with this instrument, check the following web page:

http://download.yamaha.com/

NOTE |

 Other USB devices such as a computer keyboard or mouse cannot be used.

Connecting USB flash memory

- 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.
- When connecting a USB cable, make sure that the length is less than 3 meters.
- Though the instrument supports the USB 1.1 standard, you can connect and use a USB 2.0 storage device with the instrument. However, note that the transfer speed is that of USB 1.1.

Using USB Flash Memory

By connecting the instrument to a USB flash memory, you can save data you've created to the connected device, as well as read data from the connected device.

The number of USB flash memory to be used

Only one USB flash memory device can be connected to the [USB TO DEVICE] terminal.

Formatting USB flash memory

When a USB flash memory is connected, a message may appear prompting you to format the device. If so, execute the Format operation (page 53).

NOTICE

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

• To protect your data (write-protect)

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

Connecting/removing USB storage device

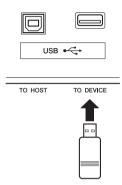
Before removing the USB flash memory from the [USB TO DEVICE] terminal, make sure that the instrument is not accessing data (such as in the Save and Delete operations).

NOTICE

 Avoid frequently connecting/disconnecting the USB flash memory too often. Doing so may result in the operation of the instrument "freezing" or hanging up.
 While the instrument is accessing data (such as during Save, Delete, Load and Format operations) or is mounting the USB storage device (shortly after the connection), do NOT unplug the USB flash memory, and do NOT turn the power off. Doing so may corrupt the data on either or both devices.

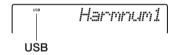
Connecting a USB Flash Memory

Connect a USB flash memory to the USB TO DEVICE terminal, being careful to insert it with the proper orientation.



Wait until "USB" appears on the left corner of the display.

The "USB" indication confirms that the connected USB flash memory has been mounted or recognized.



3 Hold down the [FILE CONTROL] button to call up the File Control display.



If "UnFormat" followed by "Format?" appears:

This indicates that the connected USB flash memory has not been formatted, and cannot be mounted or recognized. Execute the Format operation by following the instructions starting with Step 2 on page 53.

A Rotate the dial to call up the desired File Control function, then execute it.

For details, refer to the table below.

Display	File Control function	Page
Load STY	Loading a Style File	57
Load USR	Loading User Data from a USB Flash Memory	56
Save SMF	Saving a User Song as SMF to a USB Flash Memory	55
Save USR	Saving User Data to a USB Flash Memory	54
Del SMF	Deleting a SMF File in a USB Flash Memory	58
Del USR	Deleting a User File in a USB Flash Memory	58
Format?	Formatting a USB Flash Memory	53
Exit?	Exiting from a File Control display	59

Messages may appear on the display during File Control procedures to aid in smooth operation. Refer to the Message List on page 59 for details.

NOTE I

 No sound will be produced if the keyboard is played while the file control display is showing, and only buttons related to File Control operations will be active.

NOTE

The File Control display cannot be called up in the following situations.

- During playback of Style, Tabla/Tanpura, or Song
- When "USB" does not appear even if you have connected a USB flash memory to the [USB TO DEVICE] terminal.

Formatting a USB Flash Memory

The Format operation lets you prepare commercially available USB flash memory for use with this instrument is called "Format."

- Hold the [FILE CONTROL] button for longer than a second to call up the File Control display.
- 2 Use the CATEGORY [+] and [-] buttons to call up "Format?."



3 Press the [0/EXECUTE] button.

A confirmation message will appear. To cancel the operation, press the [-/NO] button.



☐ Press the [0/EXECUTE] button again or the [+/YES] button to execute the Format operation.

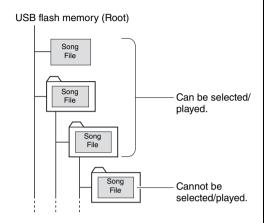
After a while, a message indicating completion of the operation appears, and the "USER FILES" folder will be created on the root directory in the USB flash memory.

NOTICE

- The Format operation cannot be cancelled during execution. Never turn off the power or disconnect the USB flash memory during the operation. Doing so may result in data loss.
- 5 Press the [FILE CONTROL] button to exit from the File Control display.



Recognizable file location in the USB flash memory for Song playback (page 24)



IMPORTANT |

 In order to play data copied to a USB flash memory from a computer or other device, the data must be stored either in the USB flash memory's root directory or a first-level/second-level folder in the root directory. Data stored in third-level-folders created inside a second-level folder cannot be selected and played by this instrument.

NOTE I

 If playback of an external Song (created via a different instrument or computer) produces the distorted sound, decrease the Song Volume (page 47) to reduce the distortion then adjust the Master Volume (page 14).

Saving User Data to a USB Flash Memory

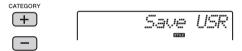
The following data created on this instrument comprise the "User Data."

- All 10 User Songs
- Styles which have been transferred from a computer then loaded to Style numbers 207–211.
- All the Registration Memory settings

The User Data can be saved as a single "User File" (.usr) to a USB flash memory.

NOTE

- The extension (.usr) of the User File will not be shown on the display of this instrument. Confirm the extension on the computer display when connecting the USB flash memory to a computer.
- Hold the [FILE CONTROL] button for longer than a second to call up the File Control display.
- 2 Use the CATEGORY [+] and [-] buttons to call up "Save USR."



3 Press the [0/EXECUTE] button.

As the target file name, "USER***" (***: number) appears on the display. If desired, rotate the dial to select a different file name from "USER001"—"USER100."



4 Press the [0/EXECUTE] button again.

A confirmation message will appear. To cancel the operation, press the [-/NO] button.

Overwriting existing files

If a file that already contains data is selected as the target user file, an overwrite confirmation message will appear.

5 Press the [0/EXECUTE] button again, or the [+/YES] button to execute the Save operation.

After a while, a message indicating completion of the operation appears, and a User file (.usr) will be saved in a "USER FILES" folder which will automatically be created on the USB flash memory.

NOTICE

 The Save operation cannot be cancelled during execution. Never turn off the power or disconnect the USB flash memory during the operation. Doing so may result in data loss.

NOTE

- The amount of time required for this operation may vary depending on the condition of the USB flash memory.
- 6 Press the [FILE CONTROL] button to exit from the File Control display.



NOTE

• If you want to recall the User file (.usr) to this instrument again, execute the Load operation (page 56).

Saving a User Song as SMF to a USB Flash Memory

A User Song can be converted to SMF (Standard MIDI File) format 0 and saved to a USB flash memory.

SMF (Standard MIDI File) format

With this format, various events via the keyboard performance such as note on/off and Voice selection will be recorded as MIDI data. The SMF Format 0 and Format 1 are available. A large number of MIDI devices are compatible with SMF Format 0, and most commercially available Song file (MIDI file) is provided in SMF Format 0.

- Hold the [FILE CONTROL] button for longer than a second to call up the File Control display.
- 2 Use the CATEGORY [+] and [-] buttons to call up "Save SMF."



3 Press the [0/EXECUTE] button.

As the target User Song, "USER**" (**: number 1–10) appears on the display. If desired, rotate the dial to select a different User Song from "USER01"—"USER10" then press the [0/EXE-CUTE] button.



⚠ Press the [0/EXECUTE] button again.

As the target file name on the USB flash memory, "SONG***" (***: number 1–100) appears on the display. If desired, rotate the dial to select the different file.



5 Press the [0/EXECUTE] button again.

A confirmation message will appear. To cancel the operation, press the [-/NO] button.

Overwriting existing files

If a file that already contains data is selected, an overwrite confirmation message will appear.

6 Press the [0/EXECUTE] button again, or the [+/YES] button to execute the Save operation.

After a while, a message indicating completion of the operation appears, and a User Song will be saved as the SMF format 0 in a "USER FILES" folder which will automatically be created on the USB flash memory.

NOTICE

 The Save operation cannot be cancelled during execution. Never turn off the power or disconnect the USB flash memory during the operation. Doing so may result in data loss.

NOTE |

- The amount of time required for this operation may vary depending on the condition of the USB flash memory.
- Press the [FILE CONTROL] button to exit from the File Control display.



Loading User Data from a USB Flash Memory

A User data (page 54) saved as a User file (.usr) to the USB flash memory can be loaded to this instrument.

NOTICE

- Loading a User file will overwrite and erase the existing data, including all 10 User Songs, Style data loaded to the Style numbers 207–211, and all the Registration Memory settings. Save important data you want to keep to a separate USB flash memory before loading a User file.
- Hold the [FILE CONTROL] button for longer than a second to call up the File Control display.
- 2 Use the CATEGORY [+] and [-] buttons to call up "Load USR."



3 Press the [0/EXECUTE] button.

"USER***" (***: number) appears on the display as the User file name in the USB flash memory. As desired, rotate the dial to select a different User file.



Note that the User file should be saved in the USERFILES folder on the USB flash memory. Files saved outside this folder cannot be recognized.

- ⚠ Press the [0/EXECUTE] button again.
 - A confirmation message will appear. To cancel the operation, press the [-/NO] button.
- 5 Press the [0/EXECUTE] button again, or the [+/YES] button to execute the Load operation.

After a while, a message indicating completion of the operation appears.

NOTICE

 The Load operation cannot be cancelled during execution. Never turn off the power or disconnect the USB flash memory during the operation. Doing so may result in data loss.

- 6 Press the [FILE CONTROL] button to exit from the File Control display.
- 7 Check the loaded data by calling up the User Song, one of the Styles 207–211, and Registration Memory settings.

Loading a Style File

Style data created on another instrument or a computer can be loaded to the Style numbers 207–211, and you can play them like the internal preset Styles. The following two Load operations are available.

- Loading of a Style file (.sty) saved on the root directory on the USB flash memory
- Loading of a Style file (.sty) transferred from a computer via the Musicsoft Downloader and stored in the internal memory of this instrument

NOTE

 For instructions on transferring a Style file from a computer via the Musicsoft Downloader, refer to "Computer-related Operations" (page 9). After data transfer, load the Style data to one of the Style numbers 207–211 to enable playback.

NOTICE

- Loading a Style file will overwrite and erase the existing data of the destination number. Save important data you want to keep to a separate USB flash memory before loading.
- Hold the [FILE CONTROL] button for longer than a second to call up the File Control display.
- 2 Use the CATEGORY [+] and [-] buttons to call up "Load STY."



3 Press the [0/EXECUTE] button.

A name of a Style file in the USB flash memory or internal memory of this instrument will appear on the display. As desired, rotate the dial to select a different Style file.



4 Press the [0/EXECUTE] button again.

As the Load destination, "Load To? ***" (***: 207–211) appears on the display. If desired, rotate the dial to select a different number.



5 Press the [0/EXECUTE] button again.

A confirmation message will appear. To cancel the operation, press the [-/NO] button.

6 Press the [0/EXECUTE] button again, or the [+/YES] button to execute the Load operation.

After a while, a message indicating completion of the operation appears.

NOTICE

- The Load operation cannot be cancelled during execution. Never turn off the power or disconnect the USB flash memory during the operation. Doing so may result in data loss.
- Press the [STYLE] button, rotate the dial to select a Style from 207–211, then try playing it back.

Deleting a User File in the USB Flash Memory

User Files (.usr) in the root directory of the USB flash memory can be deleted.

IMPORTANT |

- The User file (.usr) to be deleted should have been saved in the root directory of the USB flash memory. Files outside this folder cannot be recognized.
- Hold the [FILE CONTROL] button for longer than a second to call up the File Control display.
- 2 Use the CATEGORY [+] and [-] buttons to call up "Del USR."



3 Press the [0/EXECUTE] button.

As a User file name in the USB flash memory, "USER****" (****: number) appears on the display. As desired, rotate the dial to select a different User file.



- ⚠ Press the [0/EXECUTE] button again.
 - A confirmation message will appear. To cancel the operation, press the [-/NO] button.
- 5 Press the [0/EXECUTE] button again, or the [+/YES] button to execute the Delete operation.

After a while, a message indicating completion of the operation appears.

NOTICE

- The Delete operation cannot be cancelled during execution. Never turn off the power or disconnect the USB flash memory during the operation. Doing so may result in data loss.
- 6 Press the [FILE CONTROL] button to exit from the File Control display.

Deleting a SMF File in the USB Flash Memory

You can delete a SMF file that has been saved in the USB flash memory via the Save SMF operation (page 55).

IMPORTANT |

- The SMF file (.usr) to be deleted should have been saved in the root directory of the USB flash memory. Files outside this folder cannot be recognized. This operation can be applied only to file names with the "SONG***" (***: number) format.
- Hold the [FILE CONTROL] button for longer than a second to call up the File Control display.
- 2 Use the CATEGORY [+] and [-] buttons to call up "Del SMF."



3 Press the [0/EXECUTE] button.

As a SMF file name in the USB flash memory, "SONG***" (***: number) appears on the display. As desired, rotate the dial to select a different SMF file.



- 4 Press the [0/EXECUTE] button again.
 - A confirmation message will appear. To cancel the operation, press the [-/NO] button.
- 5 Press the [0/EXECUTE] button again, or the [+/YES] button to execute the Delete operation.

After a while, a message indicating completion of the operation appears.

NOTICE

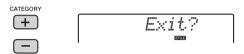
- The Delete operation cannot be cancelled during execution. Never turn off the power or disconnect the USB flash memory during the operation. Doing so may result in data loss.
- 6 Press the [FILE CONTROL] button to exit from the File Control display.

Exiting from a File Control display

To exit from the File Control display, press the [VOICE], [STYLE], [TABLA/TANPURA], [SONG], [FUNCTION], or [GRAND PIANO] button.

You can also exit from the File Control function mode as follows:

Use the CATEGORY [+] and [-] buttons to call up "Exit?."



2 Press the [0/EXECUTE] button to exit from the File Control display.

Message	Comment			
Can't Use	Indicates that the file control function is currently unavailable since the media is being accessed.			
Complet.	Indicates the specified job completion such as data saving and transmission.			
Data Err	Displayed when the user song contains illegal data.			
Disk Ful	Displayed when saving data cannot be executed since the media memory becomes full.			
Error	Displayed when a file error or operational error occurs.			
File Ful	Indicates that SMF songs cannot be displayed since the total number of files exceeds the capacity.			
no data	There is no data to save in the flash memory.			
no file	There is no file to load or delete from the media.			
	Communication with the USB device has been shut down because of the overcurrent to the USB device. Disconnect the device from the [USB TO DEVICE] terminal, then turn on the power of the instrument.			
Protect	Displayed when trying to save or delete data on a protected media, or format a protected media. Set protect to off and try again.			
UnFormat	Displayed when connecting an unformatted media.			
UseAdpt	USB flash memory save, delete, and format operations cannot be performed when the instrument is being powered from battery. Use an AC adaptor.			

Troubleshooting

Problem	Possible Cause and Solution
When the instrument is turned on or off, a popping sound is temporarily produced.	This is normal and indicates that the instrument is receiving electrical power.
When using a mobile phone, noise is produced	Using a mobile phone in close proximity to the instrument may produce interference. To prevent this, turn off the mobile phone or use it further away from the instrument
The instrument is automatically turned off even if no operation is done.	This is normal. This occurs due to the Auto Power Off function (page 14).
The volume is too soft. The sound quality is poor. The Style/Tabla/Song/Arpeggio stops unexpectedly or will not play. The recorded data of the song, etc. does not play correctly. The LCD display suddenly goes dark, and all panel settings are reset.	The batteries are low or dead. Replace all six batteries with completely new ones or completely recharged ones, or use the AC power adaptor.
No sound is produced even when the keyboard is played, or a Song, Style, or Tabla/Tanpura is being	Check whether a set of headphones or an audio cable is connected to the PHONES/OUTPUT, or not. When such a connection is made, no sound is output from the speaker of this instrument.
played back.	Check the on/off status of the Local Control (page 49). Normally, set this parameter to ON.
The footswitch (for sustain) seems to produce the opposite effect. For example, pressing the footswitch cuts off the sound and releasing it sustains the sounds.	The polarity of the footswitch is reversed. Make sure that the footswitch plug is properly connected to the SUSTAIN jack before turning on the power.
No sound is produced even when playing keys in the right hand area of the keyboard, although chords played in the left hand area are recognized.	Check whether or not the Dictionary function (page 45) is used. When used, this is normal.
Not all of the Voices seem to sound, or the sound seems to be cut off, when playing the keyboard, Arpeggio, Style or Tabla/Tanpura or Song.	You have exceeded 32 simultaneous notes, which is the maximum polyphony (the maximum amount of notes that can be played simultaneously) of this instrument. If the Main, Dual, and Split Voices are being used along with playback of Arpeggio, Style, Tabla/Tanpura or Song, some notes/sounds may be omitted (or "stolen").
The sound of the Voice changes from note to note.	This is normal. The tone generation method uses multiple recordings (samples) of an instrument across the range of the keyboard; thus, the actual sound of the Voice may be slightly different from note to note.
The keyboard performance and playback of Style/Tabla/ Song produces an unexpected or inappropriate sound, and cannot be restored to the normal status.	Using the Knobs can produce dramatic changes in the sound, but may also produce unexpected or undesired sounds. If you want to restore the original, normal sound before being changed by the Knobs, change the Voice, Style, Tabla/Tanpura or Song, or press the [PORTABLE GRAND] button to reset the panel settings.
The Style, Tabla/Tanpura or Song does not start even when the [START/STOP] button is pressed. The Arpeggio does not start even when the note is pressed with the Arpeggio turned on.	Check the on/off status of the External Clock (page 50). Normally, set this parameter to OFF.
The volume of the Style, Tabla/Tanpura or Song is too low.	Check the volume setting in the Functions (pages 42 and 47).
The chords played in the left hand area cannot be recognized even when the ACMP is turned on.	Check the Split Point setting (page 43). Set this to the appropriate value.
Style parts other than the Rhythm part produce no sound.	Check the on/off status of the ACMP (page 22). Make sure to turn ACMP on.
The Styles numbered 194–206 produce no rhythm drum sound even when the [START/STOP] button is pressed.	This is normal. Style numbers 194–206 have no rhythm parts, so no rhythm will play. When one of these Styles is selected, turn ACMP on, then specify the chord in the left hand area to play Style parts other than the Rhythm part.
The ACMP indicator does not appear on the display when the [ACMP ON/OFF] button is pressed.	Check the on/off status of the [STYLE] lamp. When using a Style, press the [STYLE] button to turn on the [STYLE] lamp.

Voice List

Maximum Polyphony

The instrument has 32-note maximum polyphony. This means that it can play a maximum of up to 32 notes at once, regardless of what functions are used. Auto accompaniment uses a number of the available notes, so when auto accompaniment is used the total number of available notes for playing on the keyboard is correspondingly reduced. The same applies to the Split Voice and Song functions. If the maximum polyphony is exceeded, earlier played notes will be cut off and the most recent notes have priority (last note priority).

Panel Voice List

ranei	Bank	Select	MIDI				
Voice No.	MSB (0-127)	LSB	Program Change# (1–128)	Voice Name			
INDIAN							
1	0	113	21	Harmonium 1 (Single Reed)			
2	0	114	21	Harmonium 2 (Double Reed)			
3	0	115	21	Harmonium 3 (Triple Reed)			
4	0	123	112	Shehnai			
5	0	123	111	Sarangi 1			
6	0	124	111	Sarangi 2			
7	0	124	112	Pungi			
8	0	117	74	Bansuri			
9	0	112	105	Sitar 1			
10	0	113	105	Sitar 2			
11	0	115	105	Sarod			
12	0	97	16	Santur			
13	0	114	105	Tanpura			
14	0	116	117	Tabla			
15	126	0	116	Tabla Kit 1			
16	126	0	117	Tabla Kit 2			
17	126	0	40	Indian Kit 1			
18	126	0	115	Indian Kit 2			
19	126	0	112	Animal Kit			
		,	PIANO				
20	0	112	1	Grand Piano			
*21	-	-	-	Octave Piano			
22	0	112	2	Bright Piano			
23	0	112	7	Harpsichord			
*24	-	-	-	Octave Harpsichord			
25	0	112	4	Honky-tonk Piano			
26	0	112	3	MIDI Grand Piano			
27	0	113	3	CP 80			
*28	-	-	-	Piano+Strings			
*29	-	-	-	Piano Pad			
		444	E.PIAN				
30	0	114	5	Cool! Galaxy Electric Piano			
31	0	113	6	Hyper Tines			
*32		112	-	Tiny Electric Piano			
33 34	0	112	5	Funky Electric Piano			
35			6	DX Modern Electric Piano			
*36	0	114	6	Venus Electric Piano EP Pad			
37	0	112	8	Clavi			
3/	U	112	ORGA				
38	0	118	19	Cool! Organ			
39	0	117	19				
40	0	117	17	Cool! Rotor Organ Jazz Organ 1			
40	0	113	17	ŭ			
41	0	112	17	Jazz Organ 2 Rock Organ			
42	0	114	19	Purple Organ			
43	0	112	18	Click Organ			
44	0	116	17				
45 46	0	127	17	Bright Organ			
46	0	127	20	Theater Organ 16'+2' Organ			
47	0	120	20	16'+4' Organ			
*49	-	120	- 20	ū			
50	0	113	20	Full Organ Chapel Organ			
51	0	112	20	Pipe Organ			
52	0	112	21				
5∠	U	112	∠ I	Reed Organ			

NOTE |

- The Voice List includes MIDI program change numbers for each voice. Use these program change numbers when playing the instrument via MIDI from an external device.
- Program change numbers are often specified as numbers "0-127." Since this
 list uses a "1-128" numbering system, in such cases it is necessary to subtract 1 from the transmitted program change numbers to select the appropriate sound: e.g. to select No. 2 in the list, transmit program change number 1.
- Some voices may sound continuously or have a long decay after the notes have been released while the sustain pedal (footswitch) is held.

	Bank Select		MIDI	
	Voice NCB LCB Program		Voice Name	
No.	(0-127)	(0-127)	Change# (1–128)	
		l .	ACCORE	DION
53	0	112	22	Musette Accordion
54	0	113	22	Traditional Accordion
55	0	113	24	Bandoneon
56	0	113	23	Modern Harp
57	0	112	23	Harmonica
			GUITA	
58	0	116	25	Dynamic Nylon Guitar
59	0	118	30	Dynamic Overdriven
60 61	0	112 112	25 26	Classical Guitar Folk Guitar
62	0	112	27	Jazz Guitar
*63	-	-	-	Octave Jazz Guitar
64	0	117	28	60s Clean Guitar
65	0	113	26	12Strings Guitar
66	0	112	28	Clean Guitar
67	0	113	27	Octave Guitar
68	0	112	29	Muted Guitar
69	0	112	30	Overdriven Guitar
70	0	112	31	Distortion Guitar
		l.	BASS	5
71	0	116	34	Dynamic Electric Bass
72	0	112	34	Finger Bass
73	0	112	33	Acoustic Bass
74	0	112	35	Pick Bass
75	0	112	36	Fretless Bass
76	0	112	37	Slap Bass
77	0	118	40	DX100 Bass
78	0	119	40	Ramp Bass
79	0	120	40	Dark Core Bass
80	0	119	39	Fat Lo Bass
81 82	0	122 121	40 40	Bleep Bass Funk Bass
83	0	112	39	Synth Bass
84	0	113	39	Hi-Q Bass
85	0	113	40	Dance Bass
- 00		110	STRING	
86	0	112	49	String Ensemble
87	0	112	50	Chamber Strings
88	0	115	50	Marcato Strings
89	0	113	50	Slow Strings
*90	-	-	-	Octave Strings
*91	-	-	-	Orchestra Section
92	0	112	45	Tremolo Strings
93	0	112	51	Synth Strings
94	0	112	46	Pizzicato Strings
*95	-	-	-	Octave Pizzicato Strings
96	0	112	41	Violin
97	0	112	43	Cello
*98	-	-	-	Strings Session
99	0	112	44	Contrabass
100	0	112	47	Harp
*101	-	- 110	- 100	Octave Harp
102	0	112	106	Banjo Orabastra Hit
103 *104	0	112	56	Orchestra Hit & Timpani
105	0	96	105	Tambra
100	U	30	100	TAITIDIA

Voice No. MSB (0-127) (0-127) (1-128) Voice Name (hanges (1-128) (1-128) 106 0 96 106 Rabab 107 0 98 106 Oud 108 0 97 106 Gopichant 110 0 0 108 Koto 1110 0 0 108 Koto 1111 0 96 108 Taisho-kin 1112 0 0 16 Dulcimer 113 0 97 108 Kanoon 114 0 96 16 Cimbalom 114 0 96 16 Cimbalom 114 0 96 16 Cimbalom 115 - - Tremolo Vang Chin CHOR CHOR 115 - - Tremolo Vang Chin CHOR CHOR 118 0 112 53		Bank	Select	MIDI	
(0-127) (0-127) (1-128)	Voice			Program	Voice Name
107	NO.	(0-127)	(0–127)		
108					
109					
110				_	
112			_		•
1113	111	0	96	108	Taisho-kin
114			-	_	
***115					
116		-		-	
***117					
118					
119			,		
120					
*121					
122		-			
SAXOPHONE 123		0			
124				-	
125		-		_	
*126			_		
*127		0	116	66	
128		-	-	-	
129		0			
131		0	112	66	
132		0		65	
133					
134					
135					
136					
138		0			<u> </u>
TRUMPET 139		0	116		
139	138	0	97		
140	120	0	115		
141					
143 0 112 60 Muted Trumpet 144 0 112 61 French Horn *145 - - Octave Horns 146 0 112 59 Tuba BRASS 147 0 112 62 Brass Section 148 0 113 62 Big Band Brass 149 0 116 62 Octave Brass *150 - - Ballroom Brass *151 - - Jazz Brass Section *151 - - Jazz Brass Section *151 - - Jazz Brass Section *152 - - Orchestra Brass 153 0 113 56 Brass Hit 154 0 113 63 80s Brass *155 - - Fat Synth Brass 156 0 119 62 Mellow Horns 157				_	
144 0 112 61 French Horn *145 - - Octave Horns BRASS BRASS 147 0 112 62 Brass Section 148 0 113 62 Big Band Brass 149 0 116 62 Octave Brass *150 - - Ballroom Brass *151 - - Jazz Brass Section *152 - - Orchestra Brass 153 0 113 56 Brass Hit 153 0 113 56 Brass Hit 154 0 113 63 80s Brass *155 - - Fat Synth Brass 156 0 119 62 Mellow Horns 157 0 115 63 Funkey Brass 158 0 114 63 Techno Brass 159 0 112 63	142	0	113	58	Trombone Section
*145 Octave Horns 146 0 112 59 Tuba BRASS 147 0 112 62 Brass Section 148 0 113 62 Big Band Brass 149 0 116 62 Octave Brass *150 Ballroom Brass *151 Jazz Brass Section *152 Orchestra Brass 153 0 113 56 Brass Hit 154 0 113 63 80s Brass *155 Fat Synth Brass 156 0 119 62 Mellow Horns 157 0 115 63 Funkey Brass 158 0 114 63 Techno Brass 159 0 112 63 Synth Brass FLUTE 160 0 114 74 Sweet! Flute 161 0 113 76 Sweet! Pan Flute *163 Flute & Clarinet 164 0 112 73 Piccolo 165 0 112 76 Pan Flute 166 0 112 75 Recorder 167 0 112 80 Ocarina SYNTH LEAD		-			
146				_	
BRASS					
147 0 112 62 Brass Section 148 0 113 62 Big Band Brass 149 0 116 62 Octave Brass *150 - - Ballroom Brass *151 - - Jazz Brass Section *152 - - Orchestra Brass 153 0 113 56 Brass Hit 154 0 113 63 80s Brass *155 - - Fat Synth Brass 156 0 119 62 Mellow Horns 157 0 115 63 Funkey Brass 158 0 114 63 Techno Brass 159 0 112 63 Synth Brass FLUTE 160 0 114 74 Sweet! Flute 161 0 113 76 Sweet! Pan Flute 162 0 112 74 Flute <td>140</td> <td>U</td> <td>112</td> <td></td> <td></td>	140	U	112		
149 0 116 62 Octave Brass *150 - - Ballroom Brass *151 - - Jazz Brass Section *152 - - Orchestra Brass 153 0 113 56 Brass Hit 154 0 113 63 80s Brass *155 - - Fat Synth Brass 156 0 119 62 Mellow Horns 157 0 115 63 Funkey Brass 158 0 114 63 Techno Brass 159 0 112 63 Synth Brass FLUTE 160 0 114 74 Sweet! Flute 161 0 113 76 Sweet! Pan Flute 162 0 112 74 Flute *163 - - Flute & Clarinet *164 0 112 76 Pan Flute	147	0	112		_
*150 Ballroom Brass *151 Jazz Brass Section *152 Orchestra Brass 153 0 113 56 Brass Hit 154 0 113 63 80s Brass *155 Fat Synth Brass 156 0 119 62 Mellow Horns 157 0 115 63 Funkey Brass 158 0 114 63 Techno Brass 159 0 112 63 Synth Brass FLUTE 160 0 114 74 Sweet! Flute 161 0 113 76 Sweet! Pan Flute *162 0 112 74 Flute *163 Flute & Clarinet 164 0 112 73 Piccolo 165 0 112 76 Pan Flute 166 0 112 75 Recorder 167 0 112 80 Ocarina SYNTH LEAD		0	_		
*151 Jazz Brass Section *152 Orchestra Brass 153 0 113 56 Brass Hit 154 0 113 63 80 Brass *155 Fat Synth Brass 156 0 119 62 Mellow Horns 157 0 115 63 Funkey Brass 158 0 114 63 Techno Brass 159 0 112 63 Synth Brass FLUTE 160 0 114 74 Sweet! Flute 161 0 113 76 Sweet! Pan Flute *162 0 112 74 Flute *163 Flute & Clarinet 164 0 112 73 Piccolo 165 0 112 76 Pan Flute 166 0 112 75 Recorder 167 0 112 80 Ocarina SYNTH LEAD		0	116	62	
*152 Orchestra Brass 153 0 113 56 Brass Hit 154 0 113 63 80s Brass *155 Fat Synth Brass 156 0 119 62 Mellow Horns 157 0 115 63 Funkey Brass 158 0 114 63 Techno Brass 159 0 112 63 Synth Brass FLUTE 160 0 114 74 Sweet! Flute 161 0 113 76 Sweet! Pan Flute 162 0 112 74 Flute *163 Flute & Clarinet 164 0 112 73 Piccolo 165 0 112 76 Pan Flute 166 0 112 75 Recorder 167 0 112 80 Ocarina SYNTH LEAD		-	-	-	
153		-	-	-	
154		0		56	
*155 Fat Synth Brass 156 0 119 62 Mellow Horns 157 0 115 63 Funkey Brass 158 0 114 63 Techno Brass 159 0 112 63 Synth Brass FLUTE 160 0 114 74 Sweet! Flute 161 0 113 76 Sweet! Pan Flute 162 0 112 74 Flute *163 Flute & Clarinet 164 0 112 73 Piccolo 165 0 112 76 Pan Flute 166 0 112 75 Recorder 167 0 112 80 Ocarina SYNTH LEAD					
157	*155				
158					
159 0 112 63 Synth Brass FLUTE 160 0 114 74 Sweet! Flute 161 0 113 76 Sweet! Pan Flute 162 0 112 74 Flute 163 -					
FLUTE 160					
160 0 114 74 Sweet! Flute 161 0 113 76 Sweet! Pan Flute 162 0 112 74 Flute *163 - - - Flute & Clarinet 164 0 112 73 Piccolo 165 0 112 76 Pan Flute 166 0 112 75 Recorder 167 0 112 80 Ocarina SYNTH LEAD	109		112		
161 0 113 76 Sweet! Pan Flute 162 0 112 74 Flute *163 - - - Flute & Clarinet 164 0 112 73 Piccolo 165 0 112 76 Pan Flute 166 0 112 75 Recorder 167 0 112 80 Ocarina SYNTH LEAD	160	0	114		
*163 Flute & Clarinet 164 0 112 73 Piccolo 165 0 112 76 Pan Flute 166 0 112 75 Recorder 167 0 112 80 Ocarina SYNTH LEAD	161		113		Sweet! Pan Flute
164 0 112 73 Piccolo 165 0 112 76 Pan Flute 166 0 112 75 Recorder 167 0 112 80 Ocarina SYNTH LEAD					
165 0 112 76 Pan Flute 166 0 112 75 Recorder 167 0 112 80 Ocarina SYNTH LEAD					
166 0 112 75 Recorder 167 0 112 80 Ocarina SYNTH LEAD					
167 0 112 80 Ocarina SYNTH LEAD					
SYNTH LEAD					
168 0 104 82 RS Saw Lead 1					EAD
	168	0	104	82	RS Saw Lead 1

	Bank	Select	MIDI	
Voice No.	MSB	LSB	Program Change#	Voice Name
	(0–127)	(0–127)	(1–128)	
169	0	106	82	RS Saw Lead 2
170 171	0	114 119	84 81	RS Dist Lead RS Dual Square
172	0	107	82	RS Ramp Lead
173	0	108	82	RS Tech Saw
174	0	119	85	RS Quack Lead
175	0	109	82	RS Dual Saw
176	0	105	82	RS Sync 1
177 178	0	119 112	88 81	RS Sync 2 Square Lead
179	0	112	82	Sawtooth Lead
180	0	112	88	Under Heim
181	0	112	85	Portatone
182	0	115	82	Analogon
183	0	119	82	Fargo
184	0	112	86	Voice Lead
185 *186	0	121	82	Funky Lead
*186	-	-		Octave Lead Wah Square Lead
*188	-	-	-	Resonance Lead
*189	-	-	-	Quack Lead
*190	-	-	-	5th Wah Lead
*191	-	-	ı	Super 5th Lead
			SYNTH I	
*192	-	-	-	Dynamic Chime
193	0	126 123	90	RS Analog Pad RS Synth Pad
194 195	0	113	90 92	RS Warm Pad
196	0	116	91	RS Short Resonance
197	0	124	90	RS Noise Pad
198	0	125	90	RS Tekno Man
199	0	118	89	Sweet Heaven
200	0	121	89	Dream Heaven
201	0	113	89	Symbiont
202	0	112 112	99 92	Star Dust Xenon Pad
203	0	112	95	Equinox
205	0	112	89	Fantasia
206	0	113	90	Dark Moon
207	0	112	101	Brightness
208	0	113	101	Bell Pad
000			PERCUS	
209 210	0	112 112	12 13	Vibraphone Marimba
**211	-	-	-	Tremolo Marimba
212	0	112	14	Xylophone
**213	-	-	-	Tremolo Xylophone
214	0	112	115	Steel Drums
**215	-	-		Tremolo Steel Drum
216	0	112	9	Celesta
217	0	112	11	Music Box
218 219	0	112 112	15 48	Tubular Bells Timpani
**220	-	-	-	Timpani Roll
			DRUM K	
221	127	0	88	Power Kit
222	127	0	1	Standard Kit 1
223	127	0	2	Standard Kit 2
224	127	0	9	Room Kit
225 226	127	0	17	Rock Kit
226	127 127	0	25 59	Electronic Kit T8 Kit
228	127	0	60	T9 Kit
229	127	0	26	Analog Kit
230	127	0	113	Dance Kit
231	127	0	33	Jazz Kit
232	127	0	41	Brush Kit
233	127	0	49	Symphony Kit
234	126	0	1	SFX Kit 1

Voice	Bank	Select	MIDI Program	
No.	MSB (0-127)	LSB (0-127)	Change# (1–128)	Voice Name
235	126	0	2	SFX Kit 2
236	126	0	21	Bass Drum Kit
237	126	0	22	Reverse Bass Drum Kit
238	126	0	125	China Kit 1
239	127	0	127	China Kit 2
240	126	0	37	Arabic Kit
241	126	0	41	Cuban Kit
	120		ARPEG	
242	-	-	-	Concerto
243	-	-	-	Chambers
244	-	-	-	Pizzicato Strings
245	-	-	-	Latin Rock
246	-	-	-	Brass Section 1
247	-	_	-	Brass Section 2
248	-	_	-	Funk Brass
249	-	_	_	Piano Chord
250	_	_	_	Piano Ballad
251	_	_	_	Piano Arpeggio
252	-	-	_	Hybrid
253	-	_	_	Synth Sequence
254	_	_	-	Guitarist
*255	-	-		Strum
256		_		Pickin'
257				Spanish
258	-	-	-	Synth Chords
259	-	-	-	Funky Clavi
260	-	-	-	Reggae Organ
261	-	-		00 0
262		-	-	Harpeggio
263	-	-	-	Analog Sequence Sawtooth
263	-	-	-	
265	-	-	-	Percussion Arpeggio Trill
266	-	-	-	Club Beat
267	-	-		
				R&B Loop Club Adds
268	-	-	-	
269	-	-	-	Samba
270	-		-	Indian
271	-	-	-	Arabic
272	-	-	-	Finger Bass Left
273	-	-	-	Combo Jazz Left
274	-	-	-	Paul's Bass Left
275	-	-	-	Trance Bass Left
276	-	-	-	Acid Bass Left
277	-	-	-	Piano Ballad Left
278	-	-	-	Salsa Piano Left
279	-	-	-	Piano Arpeggio Left
280	-	-	-	Guitar Arpeggio Left
281	-	-	-	Strum Left
282	-	-	-	Teen Tal C
283	-	-	-	Teen Tal F
284	-	-	-	Teen Tal A
285	-	-	-	Dadra D
286	-	-	-	Dadra E
287	-	-	-	Dadra G
				l .

XGlite Voice List

	Bank	Select	MIDI					
Voice No.	MSB (0-127)	LSB (0-127)	Program Change# (1–128)	Voice Name				
XG PIANO								
288	0	0	1	Grand Piano				
289	0	1	1	Grand Piano KSP				
290	0	18	1	MellowGrPno				
291	0	40	1	Piano Strings				
292	0	41	1	Dream				
293	0	0	2	Bright Piano				
294	0	1	2	Bright Piano KSP				
295	0	0	3	Electric Grand Piano				

	Bank	Select	MIDI	
Voice No.	MSB	LSB	Program Change#	Voice Name
	(0–127)	(0–127)	(1–128)	
296	0	1	3	Electric Grand Piano KSP
297	0	32	3	Detuned CP80
298	0	40	3	LayeredCP 1
299	0	41	3	LayeredCP 2
300	0	0	4	Honky-tonk Piano
301	0	1	4	Honky-tonk Piano KSP
302	0	0	5	Electric Piano 1
303	0	1	5	Electric Piano 1 KSP MellowEP 1
304 305	0	18	5	Chorus Electric Piano 1
	0	32	5	HardEl.Piano
306 307	0	40 45	5 5	Velocity Crossfade El.P 1
308	0	64	5	60's El.Piano 1
309	0	0	6	Electric Piano 2
310	0	1	6	Electric Piano 2 KSP
311	0	32	6	Chorus Electric Piano 2
312	0	33	6	DX EP Hard
313	0	34	6	DX Legend
314	0	40	6	DX Phase EP
315	0	41	6	DX + Analog Electric Piano
316	0	42	6	DX Koto EP
317	0	45	6	Velocity Crossfade El.P 2
318	0	0	7	Harpsichord
319	0	1	7	Harpsichord KSP
320	0	25	7	Harpsichord 2
321	0	27	8	Clavi.Wah
322	0	35	7	Harpsichord 3
323	0	64	8	Pulse Clavi.
324	0	0	8	Clavi
325	0	1	8	Clavi KSP
326	0	65	8	PierceClavi.
		X	G CHROI	MATIC
327	0	0	9	Celesta
328	0	0	10	Glockenspiel
329	0	0	11	Music Box
330	0	64	11	Orgel
331	0	0	12	Vibraphone
332	0	1	12	Vibraphone KSP
333	0	45	12	Hard Vibes
334	0	0	13	Marimba
335	0	1	13	Marimba KSP
336	0	64	13	Sine Marimba
337	0	97	13	Balimba
338	0	98	13	Log Drums
339	0	0	14	Xylophone
340	0	0	15	Tubular Bells
341	0	96	15	Church Bells
342	0	35	16	Dulcimer 2
343	0	97	15	Carillon
044	_	_	XG ORG	
344	0	0	17	Drawbar Organ
345 346	0	32	17	Detuned Drawbar Organ 60's Drawbar Organ 1
	0	33	17	60's Drawbar Organ 1
347 348	0	34 35	17 17	60's Drawbar Organ 2 70's Drawbar Organ 1
	0	36	17	Drawbar Organ 2
349	0			60's Drawbar Organ 3
350 351	0	37	17 17	Even Bar Organ
		38	17	
352 353	0	40 64	17	16+2'2/3 Organ Bass
353	0	65	17	70's Drawbar Organ 2
354	0	66	17	Cheezy Organ
356	0	67	17	Drawbar Organ 3
356	0	0	18	Percussive Organ
358	0	24	18	70's Percussive Organ
359	0	32	18	Detuned Percussive Organ
360	0	33	18	Light Organ
361	0	37	18	Percussive Organ 2
362	0	0	19	Rock Organ
- OOL				1

Voice	MSB	Select LSB	MIDI Program	Voice Name
No.	(0-127)	(0–127)	Change# (1-128)	voice name
363	0	64	19	Rotary Organ
364	0	65	19	Slow Rotary
365	0	66	19	Fast Rotary
366	0	0	20	Church Organ
367 368	0	32 35	20 20	Church Organ 3 Church Organ 2
369	0	40	20	Notre Dame
370	0	64	20	Organ Flute
371	0	65	20	Tremolo Organ Flute
372	0	0	21	Reed Organ
373 374	0	40 0	21 22	Puff Organ Accordion
374	0	32	22	Accordin
376	0	0	23	Harmonica
377	0	32	23	Harmonica 2
378	0	0	24	Tango Accordion
379	0	64	24	Tango Accordion 2
200			XG GUIT	Nvlon Guitar
380	0	0 16	25 25	Nylon Guitar Nylon Guitar 2
382	0	25	25	Nylon Guitar 3
383	0	43	25	Velocity Guitar Harmonics
384	0	96	25	Ukulele
385	0	0	26	Steel Guitar
386	0	16	26	Steel Guitar 2
387 388	0	35 40	26 26	12-string Guitar Nylon & Steel Guitar
389	0	41	26	Steel Guitar with Body Sound
390	0	96	26	Mandolin
391	0	0	27	Jazz Guitar
392	0	18	27	Mellow Guitar
393	0	32	27	Jazz Amp
394 395	0	32	28 28	Clean Guitar Chorus Guitar
396	0	0	29	Muted Guitar
397	0	40	29	Funk Guitar 1
398	0	41	29	Muted Steel Guitar
399	0	43	29	Funk Guitar 2
400	0	45	29	Jazz Man
401	0	0 43	30 30	Overdriven Guitar Guitar Pinch
403	0	0	31	Distortion Guitar
404	0	40	31	Feedback Guitar
405	0	41	31	Feedback Guitar 2
406	0	0	32	Guitar Harmonics
407	0	65	32	Guitar Feedback
408	0	66	32 XG BA	Guitar Harmonics 2
409	0	0	33	Acoustic Bass
410	0	40	33	Jazz Rhythm
411	0	45	33	Velocity Crossfade Upright
				Bass
412	0	0 18	34 34	Finger Bass Finger Dark
414	0	27	34	Flange Bass
				Bass & Distorted Electric
415	0	40	34	Guitar
416	0	43	34	Finger Slap Bass
417 418	0	45 65	34 34	Finger Bass 2 Modulated Bass
418	0	0	35	Pick Bass
420	0	28	35	Muted Pick Bass
421	0	0	36	Fretless Bass
422	0	32	36	Fretless Bass 2
423	0	33	36	Fretless Bass 3
424	0	34	36	Fretless Bass 4
425 426	0	96	36 36	Syn.Fretless SmthFretless
426	0	97 0	36	Slap Bass 1
741	J	J	07	Ciap Dagg 1

	Donk	Select	MIDI	
Voice			Program	Voice Name
No.	MSB (0-127)	LSB (0-127)	Change#	voice Name
428			(1-128)	DecementClan
428	0	27 32	37 37	ResonantSlap Punch Thumb Bass
430	0	0	38	Slap Bass 2
431	0	43	38	Velocity Switch Slap
432	0	0	39	Synth Bass 1
433	0	18	39	Synth Bass 1 Dark
434	0	20	39	Fast Reso Bass
435	0	24	39	Acid Bass
436	0	35	39	Clavi Bass
437	0	40	39	Techno Synth Bass
438	0	64	39	Orbiter
439	0	65	39	Square Bass
440	0	66	39	Rubber Bass
441	0	96	39	Hammer
442	0	0	40	Synth Bass 2
443	0	6	40	Mellow Synth Bass
444	0	12	40	Sequenced Bass
445	0	18	40	Click Synth Bass
446 447	0	19	40 40	Synth Bass 2 Dark
447	0	32 40	40	Smooth Synth Bass Modular Synth Bass
449	0	41	40	DX Bass
450	0	64	40	XWire Bass
430	U	-	XG STRI	
451	0	0	41	Violin
452	0	8	41	Slow Violin
453	0	0	42	Viola
454	0	0	43	Cello
455	0	0	44	Contrabass
456	0	0	45	Tremolo Strings
457	0	8	45	Slow Tremolo Strings
458	0	40	45	Suspense Strings
459	0	0	46	Pizzicato Strings
460	0	0	47	Orchestral Harp
461	0	0	48	Timpani
462	0	0	G ENSEI	Strings 1
463	0	3	49	Stereo Strings
464	0	8	49	Slow Strings
465	0	24	49	Arco Strings
466	0	35	49	60's Strings
467	0	40	49	Orchestra
468	0	41	49	Orchestra 2
469	0	42	49	Tremolo Orchestra
470	0	45	49	Velocity Strings
471	0	0	50	Strings 2
472	0	3	50	Stereo Slow Strings
473	0	8	50	Legato Strings
474	0	40	50	Warm Strings
475	0	41	50	Kingdom
476 477	0	64 65	50 50	70's Strings Strings 3
477	0	0	51	Synth Strings 1
479	0	27	51	ResoStrings
480	0	64	51	Synth Strings 4
481	0	65	51	Synth Strings 5
482	0	0	52	Synth Strings 2
483	0	0	53	Choir Aahs
484	0	3	53	Stereo Choir
485	0	32	53	Mellow Choir
486	0	16	53	Choir Aahs 2
487	0	40	53	Choir Strings
488	0	0	54	Voice Oohs
489	0	0	55	Synth Voice
490	0	40	55	Synth Voice 2
491 492	0	41 64	55 55	Choral Analog Voice
492	0	0	55 56	
493	0	35	56	Orchestra Hit Orchestra Hit 2
734	J	JJ	50	OTOTICSHA LIK Z

	Bank	Select	MIDI				
Voice No.	MSB	LSB	Program Change#	Voice Name			
	(0–127)	(0–127)	(1–128)	Impost			
495	0	64	56 XG BRA	Impact			
496	0	0	57	Trumpet			
497	0	16	57	Trumpet 2			
498	0	17	57	BriteTrumpet			
499 500	0	32	57	Warm Trumpet			
500	0	0 18	58 58	Trombone Trombone 2			
502	0	0	59	Tuba			
503	0	16	59	Tuba 2			
504	0	0	60	Muted Trumpet			
505	0	0	61	French Horn			
506 507	0	6 32	61 61	French Horn Solo French Horn 2			
508	0	37	61	Horn Orchestra			
509	0	0	62	Brass Section			
510	0	35	62	Trumpet & Trombone Section			
511	0	40	62	Brass Section 2			
512	0	41 42	62	High Brass			
513 514	0	42 0	62 63	Mellow Brass Synth Brass 1			
515	0	12	63	Quack Brass			
516	0	20	63	Resonant Synth Brass			
517	0	24	63	Poly Brass			
518	0	27	63	Synth Brass 3			
519	0	32	63	Jump Brass			
520 521	0	45 64	63 63	Ana Vel Brass 1 Analog Brass 1			
522	0	0	64	Synth Brass 2			
523	0	18	64	Soft Brass			
524	0	40	64	Synth Brass 4			
525	0	41	64	Choir Brass			
526	0	45	64	Ana Vel Brass 2			
527	0	64	64 XG REI	Analog Brass 2			
528	0	0	65	Soprano Sax			
529	0	0	66	Alto Sax			
530	0	40	66	Sax Section			
531	0	43	66	Hyper Alto Sax			
532	0	0	67	Tenor Sax			
533 534	0	40 41	67	Breathy Tenor Sax Soft Tenor Sax			
535	0	64	67 67	Tenor Sax 2			
536	0	0	68	Baritone Sax			
537	0	0	69	Oboe			
538	0	0	70	English Horn			
539	0	0	71	Bassoon			
540	0	0	72 XG PIF	Clarinet			
541	0	0	73	Piccolo			
542	0	0	74	Flute			
543	0	0	75	Recorder			
544	0	0	76	Pan Flute			
545	0	0	77	Blown Bottle			
546 547	0	0	78 79	Shakuhachi Whistle			
547	0	0	80	Ocarina			
3 10	_ <u> </u>	_	SYNTH				
549	0	0	81	Square Lead			
550	0	6	81	Square Lead 2			
551	0	8	81	LM Square			
552	0	18	81	Hollow			
553 554	0	19 64	81 81	Shroud Mellow			
555	0	65	81	Solo Sine			
556	0	66	81	Sine Lead			
557	0	0	82	Sawtooth Lead			
558	0	6	82	Sawtooth Lead 2			
559	0	8	82	Thick Sawtooth			

	Bank	Select	MIDI	
Voice	MSB	LSB	Program	Voice Name
No.	(0-127)	(0-127)	Change# (1-128)	10.00 11
560	0	18	82	Dynamic Sawtooth
561	0	19	82	Digital Sawtooth
562	0	20	82	Big Lead
563	0	24	82	Heavy Synth
564	0	25	82	Waspy Synth
565	0	40	82	Pulse Saw
566	0	41	82	Dr.Lead
567	0	45	82	Velocity Lead
568 569	0	96 0	82 83	Sequenced Analog Calliope Lead
570	0	65	83	Pure Lead
571	0	0	84	Chiff Lead
572	0	64	84	Rubby
573	0	0	85	Charang Lead
574	0	64	85	Distorted Lead
575	0	65	85	Wire Lead
576	0	0	86	Voice Lead
577	0	24	86	Synth Aahs
578	0	64	86	Vox Lead
579	0	0	87	Fifths Lead
580	0	35	87	Big Five
581	0	0	88	Bass & Lead
582	0	16	88	Big & Low
583	0	64	88	Fat & Perky
584	0	65	88 G SYNTH	Soft Whirl
585	0	0	89	New Age Pad
586	0	64	89	Fantasy
587	0	0	90	Warm Pad
588	0	16	90	Thick Pad
589	0	17	90	Soft Pad
590	0	18	90	Sine Pad
591	0	64	90	Horn Pad
592	0	65	90	Rotary Strings
593	0	0	91	Poly Synth Pad
594	0	64	91	Poly Pad 80
595	0	65	91	Click Pad
596	0	66	91	Analog Pad
597	0	67	91	Square Pad
598	0	0	92	Choir Pad
599	0	64 66	92 92	Heaven
600 601	0	67	92	Itopia CC Pad
602	0	0	93	Bowed Pad
603	0	64	93	Glacier
604	0	65	93	Glass Pad
605	0	0	94	Metallic Pad
606	0	64	94	Tine Pad
607	0	65	94	Pan Pad
608	0	0	95	Halo Pad
609	0	0	96	Sweep Pad
610	0	20	96	Shwimmer
611	0	27	96	Converge
612	0	64	96	PolarPad
613	0	66	96	Celestial
	_			FFECTS
614	0	0	97	Rain
615	0	45	97	Clavi Pad
616	0	64	97	Harmo Rain
617 618	0	65 66	97 97	African Wind Carib
619	0	0	98	Sound Track
620	0	27	98	Prologue
621	0	64	98	Ancestral
622	0	0	99	Crystal
623	0	12	99	Synth Drum Comp
624	0	14	99	Popcorn
625	0	18	99	Tiny Bells
626	0	35	99	Round Glockenspiel

Voice No. 627 628 629 630 631 632 633 634 635 636 637 638	MSB (0-127) 0 0 0 0 0 0 0 0 0 0	LSB (0–127) 40 41 42 64 65 66 67 68	Program Change# (1–128) 99 99 99 99	Voice Name Glockenspiel Chimes Clear Bells Chorus Bells Synth Mallet
628 629 630 631 632 633 634 635 636 637	0 0 0 0 0 0	41 42 64 65 66 67	99 99 99 99	Clear Bells Chorus Bells
629 630 631 632 633 634 635 636 637 638	0 0 0 0 0 0	42 64 65 66 67	99 99 99	Chorus Bells
630 631 632 633 634 635 636 637 638	0 0 0 0 0	64 65 66 67	99 99	
631 632 633 634 635 636 637 638	0 0 0 0	65 66 67	99	
632 633 634 635 636 637 638	0 0 0 0	66 67		Soft Crystal
633 634 635 636 637 638	0 0	67		Loud Glocken
634 635 636 637 638	0	68	99	Christmas Bel
636 637 638			99	Vibe Bells
637 638	0	69	99	Digital Bells
638		70	99	Air Bells
	0	71	99	Bell Harp
630	0	72	99	Gamelimba
	0	0	100	Atmosphere
640 641	0	18 19	100	Warm Atmosphere Hollow Release
642	0	40	100	Nylon Electric Piano
643	0	64	100	Nylon Harp
644	0	65	100	Harp Vox
645	0	66	100	Atmosphere Pad
646	0	67	100	Planet
647	0	0	101	Brightness
648	0	64	101	Fantasy Bells
649	0	96	101	Smokey
650	0	0	102	Goblins
651	0	64	102	Goblins Synth
652	0	65	102	Creeper
653	0	66	102	Ring Pad
654	0	67	102	Ritual
655	0	68	102	To Heaven
656	0	70	102	Night
657	0	71	102	Glisten
658 659	0	96	102	Bell Choir Echoes
660	0	8	103	Echoes 2
661	0	14	103	Echo Pan
662	0	64	103	Echo Bells
663	0	65	103	Big Pan
664	0	66	103	Synth Piano
665	0	67	103	Creation
666	0	68	103	Star Dust
667	0	69	103	Reso&Panning
668	0	0	104	Sci-Fi
669	0	64	104	Starz
			XG WOF	
670	0	0	105	Sitar
671	0	35	105	Sitar 2
672 673	0	32 97	105 105	Detuned Sitar Tamboura
674	0	0	112	Shanai
675	0	64	112	Shanai 2
676	0	96	112	Pungi
	0	0	106	Banjo
0//	0	28	106	Muted Banjo
677 678	U		109	Kalimba
	0	0		Bagpipe
678		0	110	OF F
678 679	0	0	111	Fiddle
678 679 680 681	0 0 0	0 0 X 0	111 PERCU	Fiddle SSIVE
678 679 680 681	0 0 0	0 0 X 0	111 F PERCU 113	Fiddle SSIVE Tinkle Bell
678 679 680 681 682 683	0 0 0	0 0 X0 0 96	111 G PERCU 113 113	Fiddle SSIVE Tinkle Bell Bonang
678 679 680 681 682 683 684	0 0 0	0 0 X0 0 96 97	111 3 PERCU 113 113 113	Fiddle SSIVE Tinkle Bell Bonang Altair
678 679 680 681 682 683 684 685	0 0 0 0 0 0	0 0 0 96 97 98	111 3 PERCU 113 113 113 113	Fiddle SSIVE Tinkle Bell Bonang Altair Gamelan Gongs
678 679 680 681 682 683 684 685 686	0 0 0 0 0 0 0	0 0 0 96 97 98 99	111 F PERCU 113 113 113 113 113	Fiddle SSIVE Tinkle Bell Bonang Altair Gamelan Gongs Stereo Gamelan Gongs
678 679 680 681 682 683 684 685 686 687	0 0 0 0 0 0 0 0	0 0 96 97 98 99	111 3 PERCU 113 113 113 113 113 113	Fiddle SSIVE Tinkle Bell Bonang Altair Gamelan Gongs Stereo Gamelan Gongs Rama Cymbal
678 679 680 681 682 683 684 685 686 687	0 0 0 0 0 0 0 0 0 0	0 0 96 97 98 99 100	111 3 PERCU 113 113 113 113 113 113 113	Fiddle SSIVE Tinkle Bell Bonang Altair Gamelan Gongs Stereo Gamelan Gongs Rama Cymbal Asian Bells
678 679 680 681 682 683 684 685 686 687 688 689	0 0 0 0 0 0 0 0 0 0	0 0 0 96 97 98 99 100 101	111 G PERCU 113 113 113 113 113 113 113 113	Fiddle SSIVE Tinkle Bell Bonang Altair Gamelan Gongs Stereo Gamelan Gongs Rama Cymbal Asian Bells Agogo
678 679 680 681 682 683 684 685 686 687 688 689 690	0 0 0 0 0 0 0 0 0 0 0	0 0 96 97 98 99 100 101 0	111 G PERCU 113 113 113 113 113 113 113 114 115	Fiddle SSIVE Tinkle Bell Bonang Altair Gamelan Gongs Stereo Gamelan Gongs Rama Cymbal Asian Bells Agogo Steel Drums
678 679 680 681 682 683 684 685 686 687 688 689	0 0 0 0 0 0 0 0 0 0	0 0 0 96 97 98 99 100 101	111 G PERCU 113 113 113 113 113 113 113 113	Fiddle SSIVE Tinkle Bell Bonang Altair Gamelan Gongs Stereo Gamelan Gongs Rama Cymbal Asian Bells Agogo

	Bank	Select	MIDI	
Voice No.	MSB (0-127)	LSB (0-127)	Program Change# (1-128)	Voice Name
694	0	96	116	Castanets
695	0	0	117	Taiko Drum
696	0	96	117	Gran Cassa
697 698	0	0 64	118 118	Melodic Tom Melodic Tom 2
699	0	65	118	Real Tom
700	0	66	118	Rock Tom
701	0	0	119	Synth Drum
702	0	64	119	Analog Tom
703	0	65	119	Electronic Percussion
704	0	0	120	Reverse Cymbal
		XG S	SOUND E	FFECTS
705	0	0	121	Fret Noise
706	0	0	122	Breath Noise
707	0	0	123	Seashore
708	0	0	124	Bird Tweet
709	0	0	125	Telephone Ring
710 711	0	0	126 127	Helicopter Applause
712	0	0	128	Gunshot
713	64	0	1	Cutting Noise
714	64	0	2	Cutting Noise 2
715	64	0	4	String Slap
716	64	0	17	Flute Key Click
717	64	0	33	Shower
718	64	0	34	Thunder
719	64	0	35	Wind
720	64	0	36	Stream
721	64	0	37	Bubble
722	64	0	38	Feed
723	64	0	49	Dog
724	64	0	50	Horse
725 726	64 64	0	51 56	Bird Tweet 2 Maou
727	64	0	65	Phone Call
728	64	0	66	Door Squeak
729	64	0	67	Door Slam
730	64	0	68	Scratch Cut
731	64	0	69	Scratch Split
732	64	0	70	Wind Chime
733	64	0	71	Telephone Ring 2
734	64	0	81	Car Engine Ignition
735	64	0	82	Car Tires Squeal
736	64	0	83	Car Passing
737	64	0	84	Car Crash
738 739	64	0	85	Siren
739	64 64	0	86 87	Train Jet Plane
740	64	0	88	Starship
741	64	0	89	Burst
743	64	0	90	Roller Coaster
744	64	0	91	Submarine
745	64	0	97	Laugh
746	64	0	98	Scream
747	64	0	99	Punch
748	64	0	100	Heartbeat
749	64	0	101	Footsteps
750	64	0	113	Machine Gun
751	64	0	114	Laser Gun
752	64	0	115	Explosion
753	64	0	116	Firework

- Selecting a Voice number between 242 and 287 will turn on Arpeggio.

- Selecting a Voice number with an asterisk (*) will turn on Dual.
 Selecting a Voice number with an asterisk (*) will turn on Harmony.
 These Voice numbers cannot be selected via MIDI messages from a computer.

Drum Kit List

- " " indicates that the drum sound is the same as "Standard Kit 1".
- Each percussion voice uses one note.
- The MIDI Note is actually one or two octave(s) lower than keyboard Note (see Default Octave column). For example, in "222: Standard Kit 1", the "Seq Click H" (Note C1) corresponds to (Note C0: Note# 24).
- Key Off: Keys marked "O" stop sounding the instant they are released.
- Voices with the same Alternate Note Number (*1 ... 4) cannot be played simultaneously. (They are designed to be played alternately with each other.)
- Actual keyboard notes of 14 "Tabla" are one octave lower than the ones described in the list below. For example, the C4 sound in the following list is actually played from C3.

	ISR /n			e No.	PC (1-128)	14 0/116/117	15 126/0/116		16 126/0/117		17	17 126/0/40	
	Keyl	board		ÍN	IIDÌ	0/116/11/ Tabla	Tabla Kit 1	Alternate	Tabla Kit 2	Alternate	Indian Kit 2	Alterna	
	lote#	Note		Note#		labia	Iabia Kit I	Group	Tabla Kit 2	Group	indian Kit 2	Group	
	25 26	C#	0	13 14	C# -1 D -1								
	27	D#	0	15	D# -1								
	28	E	0	16	E -1		A Tabla na	6	A Tabla na	6			
	29	F	0	17	F -1		A Tabla tin	6	A Tabla tin	6			
		F#	0	18	F# -1		A Tabla Center tin	6	A Tabla Center tin	6			
	31	G	0	19	G -1		A Tabla ti 01	6	A Tabla ti 01	6			
	32	G#	0	20	G# -1 A -1		A Tabla ti 02	6	A Tabla ti 02	6			
	33 34	A A#	0	22	A -1 A# -1		A Tabla ri A Tabla kat	6	A Tabla ri A Tabla kat	6	Hateli Long		
	35	В	0	23	B -1	-	A Tabla tu	6	A Tabla tu	6	Hateli Short		
	36	C	1	24	C 0		Open Baya	7	Open Baya	7	Baya ge	1	
#1	37	C#	1	25	C# 0		Mid Baya	7	Mid Baya	7	Baya ke	1	
	38	D	1	26	D 0		Press Baya	7	Press Baya	7	Baya ghe	1	
	39	D#	1	27	D# 0		Bend Baya Slow	7	Bend Baya Slow	7	Baya ka	1	
	40	E	1	28	E 0		Bend Baya Fast	7	Bend Baya Fast	7	Tabla na	2	
	41 42	F#	1	29 30	F 0 F# 0	Baya ke / ge	Click Open Click	7	Click Open Click	7	Tabla tin	1	
	42	G G	1	31	G 0		Open Click G Low Tabla Tharang	,	Open Click G Low Tabla Tharang	,	Tablabaya dha Tabla tun	2	
	44	G#	1	32	G# 0		G# Low Tabla Tharang		G# Low Tabla Tharang		Tablabaya dhin	1	
	45	A	1	33	A 0		A Low Tabla Tarang		A Low Tabla Tarang		Tabla di	2	
#1	46	A#	1	34	A# 0		A# Low Tabla Tarang		A# Low Tabla Tarang		Tablabaya dhe	1	
	47	В	1	35	B 0		B Low Tabla Tarang		B Low Tabla Tarang		Tabla ti	2	
	48	C	2	36	C 1		C Low Tabla Tarang		C Low Tabla Tarang		Tabla ne	2	
	49	C#	2	37	C# 1		C# Low Table Tarang		C# Low Table Tarang		Tabla taran	2	
	50 51	D D#	2	38	D 1		D Low Tabla Tarang D# Low Tabla Tarang		D Low Tabla Tarang D# Low Tabla Tarang		Tabla tak Chipri	2	
	52	E E	2	40	D# 1		E Low Tabla Tarang		E Low Tabla Tarang		Kanjira Open	3	
		F	2	41	F 1		F Low Tabla Tarang		F Low Tabla Tarang		Kanjira Slap	3	
	54	F#	2	42	F# 1		F# Low Tabla Tarang		F# Low Tabla Tarang		Kanjira Mute	3	
	55	G	2	43	G 1		G Low Tabla Tarang		G Low Tabla Tarang		Kanjira Bend up	3	
	56	G#	2	44	G# 1		G# Low Tabla Tarang		G# Low Tabla Tarang		Kanjira Bend down	3	
	57	Α	2	45	A 1		A Low Tabla Tarang		A Low Tabla Tarang		Dholak Open	4	
	58	A#	2	46	A# 1		A# Low Tabla Tarang		A# Low Tabla Tarang		Dholak Mute	4	
	59 60	В	2	47 48	B 1 C 2		B Low Tabla Tarang C Tabla na	1	B Low Tabla Tarang	1	Dholak Slap Dhol Open	4 5	
	61	C#	3	48	C# 2		C Tabla tin	1	C Tabla na C Tabla tin	1	Dhoi Open Dhoi Mute	5	
	62	D	3	50	D 2		C Tabla Center tin	1	C Tabla Center tin	- 	Dhol Slap	5	
	63	D#	3	51	D# 2		C Tabla ti 01	1	C Tabla ti 01	1	Dhol Slide	5	
	64	E	3	52	E 2		C Tabla ti 02	1	C Tabla ti 02	1	Mridangam Normal	6	
	65	F	3	53	F 2		C Tabla ri	1	C Tabla ri	1	Mridangam Open	6	
	66	F#	3	54	F# 2	(Vélocity 1-47 / 48-127)	C Tabla kat	1	C Tabla kat	1	Mridangam Mute	6	
	67	G	3	55	G 2		C Tabla tu	1	C Tabla tu	1	Mridangam Slap	6	
	68	G#	3	56	G# 2		D Tabla na	2	D Tabla na	2	Mridangam Rim	6 7	
	69 70	A A#	3	57 58	A 2 A# 2		D Tabla tin D Tabla Center tin	2	D Tabla tin D Tabla Center tin	2	Chimta Open Chimta Normal	7	
	71	В	3	59	B 2		D Tabla ti 01	2	D Tabla ti 01	2	Chimta Ring	7	
	72	C	4	60	C 3		D Tabla ti 02	2	D Tabla ti 02	2	Dholki Open	8	
#4	73	C#	4	61	C# 3		D Tabla ri	2	D Tabla ri	2	Dholki Mute	8	
	74	D	4	62	D 3		D Tabla kat	2	D Tabla kat	2	Dholki Slap	8	
	75	D#	4	63	D# 3		D Tabla tu	2	D Tabla tu	2	Dholki Slide	8	
	76	E	4	64	E 3		E Tabla na	3	E Tabla na	3	Dholki Rim	8	
	77 78	F F#	4	65 66	F 3		E Tabla tin E Tabla Center tin	3	E Tabla tin E Tabla Center tin	3	Khol Open Khol Slide	9	
	78 79	G	4	67	F∓ 3 G 3		E Tabla Center tin	3	E Tabla Center tin	3	Khol Slide Khol Mute	9	
	80	G#	4	68	G# 3		E Tabla ti 02	3	E Tabla ti 02	3	Manjira Open	10	
	81	A	4	69	A 3		E Tabla ri	3	E Tabla ri	3	Manjira Close	10	
	82	A#	4	70	A# 3		E Tabla kat	3	E Tabla kat	3	Jhanji Open	11	
\neg	83	В	4	71	B 3		E Tabla tu	3	E Tabla tu	3	Jhanji Close	11	
	84	C	5	72	C 4	4	F Tabla na	4	F Tabla na	4	Mondira Open	12	
	85	C#	5	73	C# 4		F Tabla tin	4	F Tabla tin	4	Mondira Close	12	
	86 87	D D#	5	74 75	D 4 D# 4		F Tabla Center tin F Tabla ti 01	4	F Tabla Center tin F Tabla ti 01	4	Mridang Open Mridang Mute	13	
	88	E	5	76	E 4	1	F Tabla ti 02	4	F Tabla ti 02	4	Mridang Rim	13	
	89	F	5	77	F 4	Tabla ne / tin	F Tabla ri	4	F Tabla ri	4	Mridang Slide	13	
	90	F#	5	78	F# 4	(Velocity 1-47 / 48-127)	F Tabla kat	4	F Tabla kat	4	Khomokh Normal		
	91	G	5	79	G 4		F Tabla tu	4	F Tabla tu	4	Khomokh Mute		
	92	G#	5	80	G# 4		G Tabla na	5	G Tabla na	5	Khomokh Mitatk		
	93	A	5	81	A 4		G Tabla tin	5	G Tabla tin	5	Madal-A2		
	94	A#	5	82	A# 4		G Tabla Center tin	5	G Tabla Center tin	5	Madal-A#2	-	
	95	В	5	83	B 4	1	G Tabla ti 01	5	G Tabla ti 01	5	Madal-B2	1	
	96 97	C C#	6	84 85	C 5	1	G Tabla ti 02 G Tabla ri	5	G Tabla ti 02 G Tabla ri	5 5	Madal-C3 Madal-C#3	1	
	98	D D	6	86	D 5		G Tabla kat	5	G Tabla kat	5	Madal-D3		
	99	D#	6	87	D# 5	Tabla ne / di	G Tabla tu	5	G Tabla tu	5	Madal-D#3	1	
	100	E	6	88	E 5	(Velocity 1-47 / 48-127)					Madal-E3	1	
	101	F	6	89	F 5						Madal-F3	L	
	102	F#	6	90	F# 5	1					Madal-F#3		
	103	G	6	91	G 5						Madal-G3	1 -	

	Voice No.					400)	18		19
	MSB (0-127) / LSB (0-127) / PC (1-128) Keyboard MIDI					128)	126/0/115	126/0/112	
	Note#	board No		Note#			Indian Kit 1	Alternate Group	Animal Ki
	25	C#	0	13	No C#	-1		агоар	
	26	D	0	14	D	-1			
	27	D#	0	15	D#	-1	Hand Clap		
	28	E	0	16	E	-1	Dafli Open		
	29	F	0	17	F	-1	Dafli Slap	1	
	30	F#	0	18	F#	-1	Dafli Rim	1	
	31	G	0	19	G	-1	Duff Open		
	32	G#	0	20	G#	-1	Duff Slap		
	33	Α	0	21	Α	-1	Duff Rim		
	34	Α#	0	22	A#	-1	Hatheli Long	2	
	35	В	0	23	В	-1	Hatheli Short	2	
	36	C C#	1	24	C	0	Baya ge	3	
	37 38	D	1	25 26	C#	0	Baya ke	3	
	39	D≢	+	27	D#	0		3	
	40	E	÷	28	E	0	Tabla na	4	
	41	F	÷	29	F	0	Tabla tin	4	
	42	F#	1	30	F#	0	Tablabaya dha	3	
	43	G	1	31	G	0	Dhol 1 Open	-	
	44	G#	1	32	G#	0	Dhol 1 Slap	5	
	45	Α	1	33	Α	0	Dhol 1 Mute	5	
	46	A#	1	34	A#	0	Dhol 1 Open Slap	5	
	47	В	1	35	В	0	Dhol 1 Roll		
	48	С	2	36	С	1	Dandia Short	6	
	49	C#	2	37	C#	1	Dandia Long	6	
	50	D	2	38	D.	1	Chutki		
1	51	D#	2	39	D#	1	Chipri		
	52 53	E F	2	40 41	E	1	Khanjira Open		
	54	F#	2	41	F₽	1	Khanjira Slap Khanjira Mute		
	55	G G	2	42	G	1	Khanjira Mute Khanjira Bendup		
	56	G#	2	43	G#	$\frac{1}{1}$	Khanjira Benddown		
	57	A	2	45	A	<u> </u>	Dholak 1 Open		
ı	58	A#	2	46	A#	1	Dholak 1 Mute	7	
١	59	В	2	47	В	1	Dholak 1 Slap	7	
ı	60	С	3	48	С	2	Dhol 2 Open		Rooster
	61	C#	3	49	C#	2	Dhol 2 Slap	8	
	62	D	3	50	D	2	Dhol 2 Rim	8	Elephant
	63	D#	3	51	D#	2	Mridangam na	9	
	64	E	3	52	Е	2	Mridangam din	9	Horse
	65	F	3	53	F	2	Mridangam ki	9	Cricket
	66	F#	3	54	F#	2	Mridangam ta	9	_
	67	G G#	3	55 56	G G#	2	Mridangam Chapu	9	Cow
	68 69	A	3	57	A	2	Mridangam Lo Closed Mridangam Lo Open	10	Tigor
	70	A#	3	58	A#	2	Chimta Normal	11	Tiger
	71	В	3	59	В	2	Chimta Ring	11	Rattlesnake
	72	C	4	60	С	3	Dholki Hi Open	12	Monkeies
	73	C#	4	61	C#	3	Dholki Hi Mute	12	
	74	D	4	62	D	3	Dholki Lo Open	13	Crow
	75	D#	4	63	D#	3	Dholki Hi Slap	12	
	76	E	4	64	Е	3	Dholki Lo Slide	13	
	77	F	4	65	F	3	Khol Open	14	
	78	F#	4	66	F#	3	Khol Slide		
	79	G	4	67	G	3	Khol Mute	14	
	80	G#	4	68	G#	3	Manjira Open	15	
	81	A A#	4	69	A A#	3	Manjira Close	15	
	82 83	A# B	4	70 71	A# B	3	Jhanji Open Jhanji Close	16 16	
	84	С	5	72	С	4	Mondira Open	17	
	85	C#	5	73	C#	4	Mondira Close	17	
	86	D	5	74	D	4	Bhangra Scat 1	- "	
	87	D#	5	75	D#	4	Bhangra Scat 2		
	88	E	5	76	E	4	Bhangra Scat 3		
	89	F	5	77	F	4	Bhangra Scat 4		
	90	F#	5	78	F#	4	Khomokh Normal		
ı	91	G	5	79	G	4	Khomokh Mute		
ı	92	G#	5	80	G#	4	Khomokh Mltatk		
	93	Α	5	81	Α	4	Thavil Open		
	94	Α#	5	82	Α#	4	Thavil Slap		
	95	В	5	83	В	4	Thavil Mute		
	96	С	6	84	С	5	Khartaal		
	97	C#	6	85	C#	5	Dholak 2 Open	18	
	98	D	6	86	D	5	Dholak 2 Slide	18	
	99	D#	6	87	D#	5	Dholak 2 Rim 1		
	100	Е	6	88	Е	5	Dholak 2 Rim 2		
	101	F	6	89	F	5	Dholak 2 Ring		
	102	F#	6	90	F#	5	Dholak 2 Slap		
	103	G	6	91	G	5	Dholak 2 Body	1	<u></u>

		Voice No.						221	222	223	224	225	
Va	MSB	(0-	127) / LS	B (0-1 IDI	127)			127/000/088	127/000/001	127/000/002	127/000/009	127/000/017	
Note			Note#		е	Key Off	Alternate Group	Power Kit	Standard Kit 1	Standard Kit 2	Room Kit	Rock Kit	
25	C#	0	13	C#	-1		3		Surdo Mute				
26	D	0			-1		3		Surdo Open				
27	D#	0			-1				Hi Q				
28 29	E	0	16 17	E F	-1 -1		4		Whip Slap Scratch H				
30	F#	0			-1		4		Scratch L				
31	G	0			-1				Finger Snap				
32	G#	0			-1				Click Noise				
33	Α	0	21	Α	-1				Metronome Click				
34	A#	0			-1				Metronome Bell				
35	В	0			-1				Seq Click L				
36 37	C C#	1	24 25	C C#	0				Seq Click H				
38	D	1		D D	0	0			Brush Tap Brush Swirl				
1 39	D#	1		D#	0				Brush Slap				
40	E	1	28	Е	0	0			Brush Tap Swirl				
41	F	1	29	F	0	0			Snare Roll				
1 42	F#	1		F#	0				Castanet				
43	G	1		G	0			Snare Soft Power 1	Snare Soft	Snare Soft 2		Snare Noisy	
44 45	G# A	1	32 33	G# A	0			Kick Amb+	Sticks Kick Soft				
1 46	A A#	1		A#	0			Open Rim Power 1	Open Rim Shot	Open Rim Shot H Short			
46	B	1	35	B	0			Kick Power Open	Kick Tight	Spon rum Shot it Shoft		Kick 2	
48	C	2	36	C	1			Kick Power Closed	Kick	Kick Short		Kick Gate	
2 49	C#	2	37	C#	1			Side Stick Power	Side Stick	Side Stick Light			
50	D	2	38	D	1			Snare Power	Snare	Snare Short	Snare Snappy	Snare Rock	
2 51	D#	2	39	D#	1			Hand Clap Power	Hand Clap				
52	F	2	40 41	F	1			Snare Rough	Snare Tight	Snare Tight H	Snare Tight Snappy	Snare Rock Tight	
53 2 54	F#	2		F#	1		1	Tom Power 1 Hi-Hat Closed Power	Floor Tom L Hi-Hat Closed		Tom Room 1	Tom Rock 1	
55	G G	2	42	G	1		-	Tom Power 2	Floor Tom H		Tom Room 2	Tom Rock 2	
2 56	G#	- 2	44	G#	1		1	Hi-Hat Pedal Power	Hi-Hat Pedal		TOTAL TROUBLE	TOTT FLOCK Z	
57	A	2	45	A	1			Tom Power 3	Low Tom		Tom Room 3	Tom Rock 3	
2 58	A#	2	46	A#	1		1	Hi-Hat Open Power	Hi-Hat Open				
59	В	3	47	В	1			Tom Power 4	Mid Tom L		Tom Room 4	Tom Rock 4	
60	С	3	48	C	2			Tom Power 5	Mid Tom H		Tom Room 5	Tom Rock 5	
3 61	C#	3		C#	2			Crash Cymbal Acoustic 1	Crash Cymbal 1		T D A	T D I A	
62	D D#	3	50 51	D D#	2			Tom Power 6	High Tom Ride Cymbal 1		Tom Room 6	Tom Rock 6	
3 63 64	E	3	52	E	2			Ride Cymbal Acoustic 1 Chinese Cymbal Acoustic	Chinese Cymbal				
65	F	3	53	F	2			Ride Cymbal Acoustic	Ride Cymbal Cup				
3 66	F#	3	54	F#	2				Tambourine				
67	G	3	55	G	2			Splash Cymbal Acoustic	Splash Cymbal				
3 68	G#	3	56	G#	2				Cowbell				
69	A	3	57	A	2			Crash Cymbal Acoustic 2	Crash Cymbal 2				
3 70	A#	3		A#	2			Did Own by Assessin O	Vibraslap				
71 72	B	3 4	59 60	B C	3			Ride Cymbal Acoustic 2	Ride Cymbal 2 Bongo H				
4 73	C#	4		C#	3				Bongo L				
74	D	4	62	D	3				Conga H Mute				
4 75	D#	4	63	D#	3				Conga H Open				
76	E	4	64	Е	3				Conga L				
77	F	4		F	3				Timbale H				
4 78	F#	4		F#	3				Timbale L				
79 80	G G#	4	67 68	G G#	3				Agogo H Agogo L				
81	A	4		A	3				Cabasa				
4 82	A#	4	70	A#	3				Maracas				
83	В	4	71	В	3	0			Samba Whistle H				
84	С	5	72	С	4	0			Samba Whistle L				
5 85	C#	5		C#	4				Guiro Short				
86	D	5		D.	4	0			Guiro Long				
5 87 88	D#	5	75 76	D# E	4				Claves Wood Block H				
89	F	5 5	77	F	4				Wood Block L				
5 90	F#	5		F#	4				Cuica Mute				
91	G	5	79	G	4				Cuica Open				
92	G#	5	80	G#	4		2		Triangle Mute				
93	Α	5	81	Α	4		2		Triangle Open				
5 94	A#	5		A#	4	_			Shaker				
95	В	5	83	В	4				Jingle Bells				
96 97	C C#	6		C#	5				Bell Tree				
98	D	6	86	C# D	5				1	1			
99	D#	6		D#	5					1			
100		6		E	5								
101	F	6	89	F	5								
102		6	90	F#	5								
103	G	6	91	G	5								

	Voice No.						222	226	227	228	229	
	I Variab	MSB (0-	127) / L	SB (0-12	7) / PC (1		127/000/001	127/000/025	127/000/059	127/000/060	127/000/026	
	Note#	ooard Note	Note#	/IIDI Note	Key Off	Alternate Group	Standard Kit 1	Electronic Kit	T8 Kit	T9 Kit	Analog Kit	
	25	C# 0		C# -		3	Surdo Mute					
	26	D 0		D -		3	Surdo Open					
		D# 0		D# -			Hi Q					
		E 0		E -	l	4	Whip Slap Scratch H					
		F# 0		F# -		4	Scratch L					
	31	G 0		G -			Finger Snap		Snare Hammer	Snare Drum&Bass 1		
	32	G# 0		G# -			Click Noise		Kick ZapHard	Kick Break 2		
		A 0		Α -			Metronome Click		Snare Garg L	Snare Distortion		
		A# 0 B 0		A# -			Metronome Bell Seq Click L		Kick TekPower Kick Slimy	Kick TekPower Kick Distortion RM		
	36	C 1)		Seq Click H		Kick T8 1	Kick T9 2		
C#1	37	C# 1)		Brush Tap		Snare Analog CR	Snare Analog CR		
)1		D 1	26		0		Brush Swirl		Snare T8 4	Snare T9 5		
D#1		D# 1)		Brush Slap		Snare Clap Analog	Clap Analog Sm		
	40 41	E 1		E (0 0		Brush Tap Swirl Snare Roll	Reverse Cymbal	Snare T8 3 Tom T8 5	Snare T9 Gate Snare Rock Roll	Reverse Cymbal	
1 F#1		F# 1) 0		Castanet	Hi Q 2	Snare T8 5	Snare T9 3	Hi Q 2	
31	43	G 1)		Snare Soft	Snare Snappy Electro	Kick T8 3	Snare T9 4	Snare Noisy 4	
G#1	44	G# 1	32	G# ()		Sticks		Snare T8 4	Snare T9 Gate		
1		A 1)		Kick Soft	Kick 3	Kick T8 2	Kick T9 4	Kick 3	
A#1	46 47	A# 1 B 1)		Open Rim Shot	Kick Gate	Snare T8 3 T8 Kick Bass	Snare T9 5 Kick T9 1	Kiek Angles Chart	
	47	B 1			l I	-	Kick Tight Kick	Kick Gate Kick Gate Heavy	T8 Kick Bass Kick T8 1	Kick T9 1 Kick T9 3	Kick Analog Short Kick Analog	
C#2	49	C# 2	37		 	1	Side Stick	Not Gate Heavy	Snare T8 Rim	Snare T9 Rim	Side Stick Analog	
)2	50	D 2	38	D ·	l		Snare	Snare Noisy 2	Snare T8 2	Snare T9 1	Snare Analog	
D#2	51	D# 2	39	D# '	I		Hand Clap		Clap T9	Clap T9		
	52 53	E 2	40 41	E ·	1		Snare Tight	Snare Noisy 3 Tom Electro 1	Snare T8 1	Snare T9 2 Tom T9 1	Snare Analog 2	
2 F#2		F# 2			1	1	Floor Tom L Hi-Hat Closed	Iom Electro 1	Tom T8 1 Hi-Hat Closed T8 2	Hi-Hat Closed T9	Tom Analog 1 Hi-Hat Closed Analog	
32		G 2			! 	-	Floor Tom H	Tom Electro 2	Tom T8 2	Tom T9 2	Tom Analog 2	
G#2	56	G# 2			i	1	Hi-Hat Pedal	TOTAL ELOCATO E	Hi-Hat Open T8 1	Hi-Hat Pedal T9	Hi-Hat Closed Analog 2	
.2	57	A 2	45	Α .	I		Low Tom	Tom Electro 3	Tom T8 3	Tom T9 3	Tom Analog 3	
A#2		A# 2			ı	1	Hi-Hat Open		Hi-Hat Open T8 1	Hi-Hat Open T9	Hi-Hat Open Analog	
_	59	B 2	47 48		1		Mid Tom L Mid Tom H	Tom Electro 4 Tom Electro 5	Tom T8 4 Tom T8 6	Tom T9 4 Tom T9 5	Tom Analog 4	
C#3	60 61	C# 3	49	C# 2	2		Crash Cymbal 1	TOTTI ETECTIO 5	Crash T8	Crash T9	Tom Analog 5 Crash Analog	
3	62	D 3			2		High Tom	Tom Electro 6	Tom T8 7	Tom T9 6	Tom Analog 6	
D#3	63	D# 3		D# 2	2		Ride Cymbal 1		Ride T9	Ride T9		
3	64	E 3	52	E 2	2		Chinese Cymbal		Chinese Cymbal 2	Chinese Cymbal 2		
3		F 3					Ride Cymbal Cup		Ride Cymbal Cup 2	Ride Cymbal Cup 2		
F#3		F# 3 G 3		F# 2	2		Tambourine Splash Cymbal		Tambourine RX5	Tambourine RX5 Crash Cymbal 3		
G#3		G# 3	56	G# 2	2		Cowbell		Cowbell T8	Cowbell 1	Cowbell Analog	
3	69	A 3	57	Α 2	2		Crash Cymbal 2		Crash Cymbal 4	Crash Cymbal 4		
A#3		A# 3	58	A# 2	2		Vibraslap			Cowbell T8		
33	71	B 3		В 2	2		Ride Cymbal 2		Ride Cymbal 3	Ride Cymbal 3		
C#4	72 73	C 4		C :	3		Bongo H Bongo L		Conga T8 5 Conga T8 4	Conga T8 5 Conga T8 4		
04	74	D 4			3		Conga H Mute		Conga T8 3	Conga Tip	Conga Analog H	
D#4	75	D# 4	63	D# 3	3		Conga H Open		Conga T8 2	Conga Open Slap	Conga Analog M	
4	76	E 4	64	E :	3		Conga L		Conga T8 1	Conga Open	Conga Analog L	
4		F 4		F 3	3		Timbale H					
F#4	78 79	F# 4 G 4			3	1	Timbale L		Glace H	Analog Click		
G#4	80	G# 4		G 3	3		Agogo H Agogo L		Glass H Glass L	Analog Click Conga T8 1		
4	81	A 4	69	Α :	3		Cabasa			3- ·- ·		
Δ#4	82	A# 4	70	A# :	3		Maracas		Maracas T8	Maracas Slur	Maracas 2	
34		B 4			3 0		Samba Whistle H		FxGun 2	FxGun 2		
55 O#F	84	C 5	72 73	C# 4	1 0		Samba Whistle L		FxGun 1	FxGun 1		
C#5	85 86	C# 5			1 1 O	1	Guiro Short Guiro Long		Analog Shaker H Analog Shaker L	Scratch H 2 Scratch Down		
D#5		D# 5			1 0		Claves		Clave T8	Hi Q 3	Claves 2	
5	88	E 5	76	E 4	1		Wood Block H		Hi Q 1	Hi Q 1		
5	89	F 5	77	F 4	1		Wood Block L		Hi Q 2	Hi Q 2		
F#5		F# 5			1		Cuica Mute	Scratch H 2	Scratch L	Scratch L	Scratch H 2	
35 C#5	91 92	G 5		G 4	1	2	Cuica Open Triangle Mute	Scratch L 2	Scratch L 2	Scratch L 2	Scratch L 2	
G#5 \5	93	A 5			1	2	Triangle Open					
Δ#5	94	A# 5			1		Shaker		Analog Shaker	Analog Shaker		
35	95	B 5	83	В 4	1		Jingle Bells		Sleigh Bell	Sleigh Bell		
6	96	C 6			5		Bell Tree		Wind Chime	Wind Chime		
	97 98	C# 6			5	1	1	1	Snare Hip 1	Snare Piccolo Snare T8 5		
		D# 6			5	1	+	+	Snare Hip 2 Snare Hip Gate	Snare Rock Roll Distortion		
	100	E 6			5			+	Snare Break 1	Snare Brush Mute		
	101	F 6	89	F 5	5		<u> </u>		Kick Blip	Kick Blip Hard		
		F# 6			5	1	1	1	Snare FX 1	Snare Jungle 1	1	
		G 6			5				Kick FxHammer	Kick Sustain		

* Actual keyboard notes of the SFX Kit 1 and 2 are one octave lower than the ones described in the list below.

230	231	232	233	234	235
127/000/113	127/000/033	127/000/041	127/000/049	126/000/001	126/000/002
Dance Kit	Jazz Kit	Brush Kit	Symphony Kit	SFX Kit 1 *	SFX Kit 2 *
Reverse Cymbal					
Hi Q 2					
Snare Techno	Snare Jazz H	Brush Slap 2			
Kick Techno Q			Kick Soft 2		
Rim Gate		Open Rim Shot Light			
Kick Techno L Kick Techno	Kick Jazz	Kick Jazz	Gran Cassa Gran Cassa Mute	Cutting Noise	Phone Call
Side Stick Analog	Stick Light	Stick Light	Graff Cassa Mule	Cutting Noise 2	Door Squeak
Snare Clap	Snare Jazz L	Brush Slap 3	Band Snare		Door Slam
Snare Dry	Snare Jazz M	Brush Tap 2	Band Snare 2	String Slap	Scratch Cut Scratch H 3
Tom Analog 1	Tom Jazz 1	Tom Brush 1	Tom Jazz 1		Wind Chime
Hi-Hat Closed Analog3	T	T 5 1 6	- · ·		Telephone Ring 2
Tom Analog 2 Hi-Hat Closed Analog 4	Tom Jazz 2	Tom Brush 2	Tom Jazz 2		
Tom Analog 3	Tom Jazz 3	Tom Brush 3	Tom Jazz 3		
Hi-Hat Open Analog 2	T 1 1	T 0 1 1	_ , ,		
Tom Analog 4 Tom Analog 5	Tom Jazz 4 Tom Jazz 5	Tom Brush 4 Tom Brush 5	Tom Jazz 4 Tom Jazz 5		
Crash Analog			Hand Cymbal		
Tom Analog 6	Tom Jazz 6	Tom Brush 6	Tom Jazz 6		
			Hand Cymbal Short	Flute Key Click	Car Engine Ignition
				ridio ricy cilor	Car Tires Squeal
					Car Passing
Cowbell Analog					Car Crash Siren
<u> </u>			Hand Cymbal 2		Train
					Jet Plane
			Hand Cymbal 2 Short		Starship Burst
					Roller Coaster
Conga Analog H					Submarine
Conga Analog M Conga Analog L					
				Shower	Laugh
				Thunder	Scream
Maracas 2				Wind Stream	Punch Heartbeat
				Bubble	Footeps
				Feed	·
Claves 2					
2					
Scratch H 2 Scratch L 3				-	+
					1
				Dog	Machine Gun
TurnTableNoise				Horse	Laser Gun
		+	+	Bird Tweet 2	Explosion Firework
		+	+		THOWOIK
	+		1	1	

	Voice No. MSB (0-127) / LSB (0-127) / PC (1-128)					100\	222	236	237	238	
	MSB (0- Keyboard			B (0–127 IDI			127/000/001	126/000/021	126/000/022	126/000/125	Alternate
	Note#	Note	Note#	Note	Key Off	Alternate Group	Standard Kit 1	Bass Drum Kit	Reverse Bass Drum Kit	China Kit 1	Group
	25	C# 0		C# -1		3	Surdo Mute	BD Electro	Reverse BD Electro		
	26 27	D 0		D -1 D# -1		3	Surdo Open Hi Q	BD FX Gate BD Hammer	Reverse BD FX Gate Reverse BD Hammer		
		E 0		E -1			Whip Slap	BD Analog Power	Reverse BD Analog Power		
		F 0		F -1		4	Scratch H	BD Analog Distortion 5	Tievelee 25 / maleg Tevel		
		F# 0	18	F# -1		4	Scratch L	BD Analog Distortion 6	Reverse BD Analog Distortion 6		
		G 0		G -1			Finger Snap	BD Analog Distortion 4			
		G# 0		G# -1 A -1			Click Noise Metronome Click	BD Analog Distortion 3	Reverse BD Analog Distortion 3 Reverse BD Analog Distortion 2		
		A# 0		A# -1			Metronome Bell	BD Analog Distortion 2 BD Analog Tight	Reverse BD Analog Tight		
		B 0		B -1			Seq Click L	BD Analog 94	Reverse BD Analog 94	Da Cha	
C1		C 1		C 0			Seq Click H	BD Analog Blip 2	Reverse BD Analog Blip 2	Da Gu mp	2
C#1		C# 1		C# 0			Brush Tap	BD Analog Rubber 2	Reverse BD Analog Rubber 2	Da Gu rim	
D1 D#1		D 1		D 0 D# 0	0		Brush Swirl Brush Slap	BD Analog 93 BD Analog 90	Reverse BD Analog 93 Reverse BD Analog 90	Da Gu f Da Gu hand	2
E1	40	E 1	28	E 0	0		Brush Tap Swirl	BD Analog 83	Reverse BD Analog 83	Da Gu roll	2
F1		F 1		F 0			Snare Roll	BD Analog 82	Reverse BD Analog 82	Pai Gu 4	
F#1		F# 1		F# 0			Castanet	BD Analog 92		Pai Gu 4 High	
G1	43	G 1		G 0			Snare Soft	BD Analog 91	Reverse BD Analog 91	Pai Gu 3	
G#1 A1	44 45	G# 1		G# 0 A 0			Sticks Kick Soft	BD Analog Deep BD Analog Hard 2	Reverse BD Analog Deep	Pai Gu 3 High Pai Gu 2	
Δ#1		A# 1		A# 0			Open Rim Shot	BD Analog Hard 1	Reverse BD Analog Hard 1	Pai Gu 2 High	1
B1	47	B 1	35	В 0			Kick Tight	BD Analog Blip 1	Reverse BD Analog Blip 1	Pai Gu 1	
C2	48	C 2	36	C 1			Kick	BD Analog Rubber 1	Reverse BD Analog Rubber 1	Luo High 1	
C#2		C# 2		C# 1			Side Stick	BD Analog Loose	Reverse BD Analog Loose	Gong batter	
D2 D#2		D 2	38 39	D 1			Snare Hand Clap	BD Synth 1 BD Synth 2	Reverse BD Synth 1 Reverse BD Synth 2	Jin Luo Luo High 2	-
E2	52	E 2	40	E 1			Snare Tight	BD Analog Distortion 1	Reverse BD Analog Distortion 1	Luo Mid-Low	
F2	53	F 2	41	F 1			Floor Tom L	Ripper	Reverse Ripper	Luo	
— F#2		F# 2	42	F# 1		1	Hi-Hat Closed	BD Analog 70 L		Jin Luo Low	5
G2	55	G 2	43	G 1		1	Floor Tom H	BD Analog 70	Reverse BD Analog 70	Da Cha	5
A2 G#2	56 57	G# 2	44 45	G# 1 A 1		- 1	Hi-Hat Pedal Low Tom	BD Analog 80 BD Analog 80 Long	Reverse BD Analog 81	Da Cha effect Zhong Cha	5
A#2		A# 2	46	A# 1		1	Hi-Hat Open	BD Dry	Reverse BD Dry	Xiao Cha effect	1
B2	59	B 2		B 1			Mid Tom L	BD Dry Hard	,	Xiao Cha	1
C3	60	C 3	48	C 2			Mid Tom H	BD Room 1		Mang Luo Low	
D3 C#3	61 62	C# 3	49 50	C# 2 D 2			Crash Cymbal 1 High Tom	BD Soft BD Room 2	Reverse BD Soft Reverse BD Room 2	Mang Luo Mid Qing	
D#2		D# 3		D# 2			Ride Cymbal 1	BD Break Lo-fi 2	Reverse BD Break Lo-fi 2	Finger Bell	
E3	64	E 3	52	E 2			Chinese Cymbal	BD Break Lo-fi 1	Reverse BD Break Lo-fi 1	Luo big	
F3		F 3	53	F 2			Ride Cymbal Cup	BD & Hi-Hat Open	Reverse BD & Hi-Hat Open	Mu Yu Low	
F#3	66	F# 3		F# 2			Tambourine	BD Jungle 2		Mu Yu Mid-Low	
G3 G#3	67 68	G 3 G# 3	55 56	G 2 G# 2	-		Splash Cymbal Cowbell	BD Jungle 1 BD Jungle 3	Reverse BD Jungle 3	Mu Yu Mid Mu Yu High	
A3		A 3	57	A 2			Crash Cymbal 2	BD D&B 1	Reverse BD D&B 1	Nan Bang Zi roll	3
A#3	70	A# 3	58	A# 2			Vibraslap	BD D&B 2	Reverse BD D&B 2	Nan Bang Zi	3
В3	71	B 3	59	B 2			Ride Cymbal 2	BD RX5 1	Reverse BD RX5 1	Ban Gu	4
C4	72	C 4		C 3			Bongo H	BD RX5 2	Reverse BD RX5 2	Ban	4
D4 C#4	73 74	C# 4		C# 3 D 3	-		Bongo L Conga H Mute	BD Room 3 BD Power Gate	Reverse BD Room 3 Reverse BD Power Gate	Ban Gu roll Chinese Opera Voice 1	4
D#4	75	D# 4	63	D# 3			Conga H Open	BD R&B 1	Reverse BD R&B 1	Chinese Opera Voice 2	-
E4	76	E 4	64	E 3			Conga L	BD R&B 2	Reverse BD R&B 2	Chinese Opera Voice 3	
F4	77	F 4	65	F 3			Timbale H	BD Lo-fi	Reverse BD Lo-fi	Yun Luo F4	
F#4		F# 4		F# 3			Timbale L	BD Hip Deep	Davis DD Davis C	Yun Luo F#4	
G4 G#4	79 80	G 4	67 68	G 3 G# 3			Agogo H Agogo L	BD Break Deep BD Break Heavy	Reverse BD Break Deep Reverse BD Break Heavy	Yun Luo G4 Yun Luo G#4	
A4		A 4		A 3			Cabasa	BD Break Hard	Reverse BD Break Hard	Yun Luo A4	
Δ#4	82	A# 4	70	A# 3			Maracas	Big Drum	Reverse Big Drum	Yun Luo A#4	
B4		B 4		B 3	0		Samba Whistle H	Taiko Drum	Reverse Taiko Drum	Yun Luo B4	
C5 C#5	84	C 5	72 73	C 4 C# 4	0		Samba Whistle L	Surdo Open	Reverse Surdo Open	Yun Luo C5	
D5	85 86	D 5	73	C# 4	0		Guiro Short Guiro Long	Feet 2 BD Industrial	Reverse Feet 2 Reverse Tom Industrial	Yun Luo C#5 Yun Luo D5	1
D#E	87	D# 5		D# 4			Claves	Door Slam	Reverse Door Slam	Yun Luo D#5	1
E5	88	E 5	76	E 4			Wood Block H	Punch	Reverse Punch	Yun Luo E5	
F5		F 5	77	F 4			Wood Block L	Heart		Yun Luo F5	
F#5	90 91	F# 5 G 5	78 79	F# 4 G 4			Cuica Mute Cuica Open	Feet 1 BD Human	Reverse Feet 1 Reverse BD Human	Yun Luo F#5	1
G5 G#5	92	G# 5	80	G# 4		2	Triangle Mute	BD Human BD Human Deep	Reverse BD Human Deep	Yun Luo G5 Yun Luo G#5	1
A5		A 5		A 4		2	Triangle Open	Vox Buh!	Reverse Vox Buh!	Yun Luo A5	
Δ#5	94	A# 5	82	A# 4			Shaker	Vox Muh!	Reverse Vox Muh!	Yun Luo A#5	
B5	95	B 5	83	B 4	L		Jingle Bells			Yun Luo B5	<u> </u>
C6	96 97	C 6		C 5			Bell Tree	1	1	Yun Luo C6	
	98	C# 6		C∓ 5 D 5					+		1
		D# 6		D# 5					1		1
	100	E 6	88	E 5				<u> </u>			
		F 6	89	F 5							
	102	F# 6		F# 5				1		I	1
		G 6	91	G 5							

* Actual keyboard notes of the Arabic Kit are one octave higher than the ones described in the list below.

239		240	241
127/000/127		126/000/037	126/000/041
China Kit 2	Alternate Group	Arabic Kit *	Cuban Kit
	Слопр	Zarb Back mf	
		Zarb Tom f	
		Zarb Eshareh	
		Zarb Whipping	
		Tombak Tom f Neghareh Tom f	
		Tombak Back f	
		Neghareh Back f	
		Tombak Snap f	
		Neghareh Pelang f	Conga H Tip
		Tombak Trill	Conga H Heel
		Khaligi Clap 1 Arabic Zalgouta Open	Conga H Open Conga H Mute
		Khaligi Clap 2	Conga H Slap Open
		Arabic Zalgouta Close	Conga H Slap
		Arabic Hand Clap	Conga H Slap Mute
		Tabel Tak 1	Conga L Tip
		Sagat 1 Tabel Dom	Conga L Heel Conga L Open
		Sagat 2	Conga L Open Conga L Mute
		Tabel Tak 2	Conga L Slap Open
		Sagat 3	Conga L Slap
		Riq Tik 3 Riq Tik 2	Conga L Slide
		Riq Tik 2	Bongo H Open 1 finger
		Riq Tik Hard 1	Bongo H Open 3 finger
		Riq Tik 1 Riq Tik Hard 2	Bongo H Rim Bongo H Tip
		Riq Tik Hard 3	Bongo H Heel
		Riq Tish	Bongo H Slap
		Riq Snouj 2	Bongo L Open 1 finger
		Riq Roll	Bongo L Rim
		Riq Snouj 1	Bongo L Rim
		Riq Sak Riq Snouj 3	Bongo L Tip Bongo L Heel
		Riq Snouj 4	Bongo L Slap
		Riq Tak 1	Timbale L Open
		Riq Brass 1	
		Riq Tak 2	
		Riq Brass 2	
		Riq Dom Katem Tak Doff	Paila L
		Katem Dom	Timbale H Open
		Katem Sak 1	
		Katem Tak 1	
		Katem Sak 2	
		Katem Tak 2	B 1 11
		Daholla Sak 2 Daholla Sak 1	Paila H Cowbell Top
		Daholla Tak 1	Оомься тор
		Daholla Dom	
		Daholla Tak 2	
		Tablah Prok	Guiro Short
		Tablah Dom 2	Guiro Long
Dagu Mute	4	Tablah Roll of Edge Tablah Tak Finger 4	
Zhongcha Mute	5	Tablah Tak Trill 1	Tambourine
Dagu Heavy	4	Tablah Tak Finger 3 Tablah Tak Trill 2	
Zhongcha Open	5	Tablah Tak Trill 2	
Paigu Middle	ļ	Tablah Tak Finger 2	Manage
Paigu Low Xiaocha Mute	6	Tablah Tak Finger 1 Tablah Tik 2	Maracas Shaker
Bangu	0	Tablah Tik 4	Cabasa
Xiaocha Open	6	Tablah Tik 3	- 30000
Bangzi		Tablah Tik 1 Tablah Tak 3	
Muyu Low		Tablah Tak 3	
Zhongluo Mute	7	Tablah Tak 1	
Muyu Mid-Low Zhongluo Open	7	Tablah Tak 4 Tablah Tak 2	+
Muyu Middle		Tablah Sak 2	+
Xiaoluo Open		Tablah Tremolo	
Triangle Mute	8	Tablah Sak 1	
Triangle Open	8	Tablah Dom 1	1
			1
	-		+
	-		+

Style List

Style No.	Style Name
1	INDIAN
2	Bhajan Bolly 1
3	Bolly 2
4	Bolly 3
5	Bolly 4
6	Indy Pop
7	Hind Bld
8	IndyWlz1
9	IndyWlz2
10	Bhangra1
11	Bhangra2
12	Boliyan
13	BaleBale
14	IndyDnc1
15	IndyDnc2
16	Tamil
17	Kerala
18	Goa Grv
19	Goan Pop
20	Rajsthan
21	Dandiya
22	MdrnQwal Qawwali
23	8BEAT
24	BritRock
25	8BtModrn
26	Cool 8Bt
27	60sGtPop
28	8BtAdria
29	60s8Beat
30	BblgumPp
31	BritPpSw
32	8Beat
33	Off Beat
34	60s Rock
35	HardRock
36	RockShfl
37	8Bt Rock
00	16BEAT
38	16Beat PopShf 1
40	PopShf 2
41	Gtr Pop
42	16Bt Up
43	KoolShfl
44	JazzRock
45	HH Light
	BALLAD
46	Glam Pno
47	Gtr Bld
48	PianoBld
49	LoveSong
50	68Modern
51	68SlowRk
52	68OrcBld
53	OrganBld
54	Pop Bld
55	16Bld 1
56	16Bld 2
	DANCE
57	AgagBeat
58	CoastDnc
59	ClubBeat

Style No.	Style Name	
60	Electron	
61	FunkyHse	
62	ChartR&B	
63	MellowHH	
64	Soul R&B	
65	Soul Bld	
66	Chillout	
67	EuTrance	
68	Ibiza	
69	DreamDnc	
70	NewHipHp	
71	Pop R&B	
72	TrancPop	
73	ChartPop	
74	HouseMsk	
75 70	Swing H	
76	TcnPolis	
77	Clubdanc	
78	Club Ltn	
79	Garage 1	
80	Garage 2	
81	TcnParty	
82 83	UK Pop	
84	HHGroove Hip Shfl	
85	HipHopPp	
65	DISCO	
86	ModDisco	
87	70sDsc 1	
88	70sDsc 2	
89	LatinDsc	
90	DscPhily	
91	SatNight	
92	DscChoco	
93	DscHands	
	SWING&JAZZ	
94	BB Fast	
95	BBMedium	
96	BBBallad	
97	BB Shfl	
98	AcousJaz	
99	AcidJazz	
100	JazzClub	
101	Swing 1	
102	Swing 2	
103	OrchSwng	
104	FiveFour	
105	Jazz Bld	
106	Dixie	
107	Ragtime	
108	AfroCubn	
109	Charlstn	
	R&B	
110	Blues Rk	
111	Soul	
112	DetPop 1	
113	60s R&R	
114	6/8 Soul	
115	ModrnR&B	
116	CroTwist	
117	Rck&Roll	
118	DetPop 2	
119	Boogie 1	
120	Boogie 2	

Style No.	Style Name
121	6/8Blues
	COUNTRY
122	Cntry8Bt
123	CntryPop
124	CntrySwg
125	CntryBld
126	Cntry2/4
127	CowboyBg
128 129	CntryShf
129	Blgrass LATIN
130	BrzSamba
131	Bossa
132	PopBossa
133	Forro
134	Srtanejo
135	Tijuana
136	Joropo
137	Parranda
138	Regaeton
139	DscLatin
140	Mambo
141	Salsa
142	Beguine
143	GtrRumba
144	Flamenco
145 146	RmbIsInd
146	Reggae BALLROOM
147	VienWltz
148	EngWaltz
149	Slowfox
150	Foxtrot
151	Quickstp
152	Tango
153	Pasodobl
154	Samba
155	ChaCha
156	Rumba
157	Jive
	RAD & WORLD
158	US March
159	6/8March
160 161	GerMarch PolkaPop
162	OberPlka
163	Trntella
164	Showtune
165	Xmas Swg
166	XmasWltz
167	Reel
168	Hawaiian
169	Durngens
170	CGrupera
171	Saeidy
172	WehdaSag
173	Laff
174	IranElec
175	Emarati
176	Luo Gu
177	Jing Ju
178 179	Dangdut
1/9	Kroncong

Tabla/Tanpura Pattern List

Style No.	Style Name
	WALTZ
180	ItalyWlz
181	MriacWlz
182	Serenade
183	SwingWlz
184	Jz Wlz 1
185	Jz Wlz 2
186	CntryWlz
187	OberWitz
188	Musette
	CHILDREN
189	Learn2/4
190	Learn4/4
191	Learn6/8
192	Fun 3/4
193	Fun 4/4
	PIANIST
194	Stride
195	PnoBls 1
196	PnoBls 2
197	Pno Rag
198	Pno R&R
199	PnoBoogi
200	PnoJzWlz
201	PnoJzBld
202	Arpeggio
203	Musical
204	SlowRock
205	8Pno Bld
206	PnoSwing

Pattern No.	Pattern Name
1	TeenTaal
2	Rupak
3	JhapTaal
4	EkTaal
5	ChauTaal
6	Chachar
7	Dadra
8	Keherwa
9	Garba
10	Bhajan
11	Punjabi
12	Tishram
13	Chtushrm
14	Khandam
15	Mishram
16	Sankernm

Song List

Song No.	Song Name	Composer
NO.	Main Demo	•
1	India	Original
2	GlobePop	Original
3	Chillin	Original
	Voice Demo	
4	Grand Piano Demo	Original
5	Sweet! Tenor Sax Demo	Original
6	Cool! Rotor Organ Demo	Original
7	Cool! Galaxy Electric Piano Demo	Original
8	Modern Harp & Sweet! Soprano Demo	Original
9	Power Kit Drum Demo	Original
10	Dance Kit Drum Demo	Original
11	Afro Cuban Kit Percussion Demo	Original
10	Piano Solo	C. Ionlin
12	Maple Leaf Rag Jeanie with the Light Brown Hair	S. Joplin S. C. Foster
14	The Last Rose of Summer	Traditional
15	For Elise	L. v. Beethoven
16	Valse op.64-1 "Petit Chien"	F. Chopin
17	Turkish March	W.A. Mozart
18	Menuett/Beethoven	L. v. Beethoven
19	Andante grazioso (Sonate K.331)	W. A. Mozart
20	24 Preludes op.28-7	F. Chopin
21	Melodie (Album für die Jugend)	R. Schumann
22	Fröhlicher Landmann (Album für die	R. Schumann
22	Jugend)	n. Schumann
23	Von fremden Ländern und Menschen	R. Schumann
24	(Kinderszenen) Träumerei (Kinderszenen)	R. Schumann
25	Thema (Impromptus D.935-3)	F. Schubert
26	Menuett BWV. Anh.116	J. S. Bach
27	Invention Nr.1	J. S. Bach
28	Gavotte/J. S. Bach	J. S. Bach
29	Arietta/Grieg	E. Grieg
30	To a Wild Rose	E. A. MacDowell
31	Tango/Albeniz	I. Albéniz
32	La Fille aux Cheveux de Lin	C. A. Debussy
33	La Chevaleresque	J. F. Burgmüller
34	Arabesque	J. F. Burgmüller
35	Pastorale	J. F. Burgmüller
36	Annie Laurie	Traditional
37	The Entertainer	S. Joplin
	Piano Ensemble	
38	Amazing Grace	Traditional
39	Die Lorelei	F. Silcher
40	Piano Concerto No.21 2nd mov. Scarborough Fair	W. A. Mozart Traditional
41	Old Folks at Home	S. C. Foster
43	Londonderry Air	Traditional
44	Home Sweet Home	H. R. Bishop
45	Jesus bleibet meine Freude	J. S. Bach
46	Loch Lomond	Traditional
47	Twinkle Twinkle Little Star	Traditional
48	Three Blind Mice	Traditional
49	Believe Me If All Those Endearing Young Charms	Traditional
50	Nocturne op.9-2	F. Chopin
51	Etude op.10-3 "Chanson de L'adieu"	F. Chopin
52	Ave Maria/J. S. Bach - Gounod	J. S. Bach / C. F. Gounod
53	Menuett BWV. Anh.114	J. S. Bach
54	Wenn ich ein Vöglein wär	Traditional
55	Der Vogelfänger bin ich ja	W. A. Mozart
56	Romanze (Serenade K.525)	W. A. Mozart
57	Ave Verum Corpus	W. A. Mozart
58	Liebesträume Nr.3	F. Liszt
59	Chanson du Toreador	G. Bizet

Song No.	Song Name	Composer	
60	Frühlingslied	F. Mendelssohn	
61	Ode to Joy	L. v. Beethoven	
62	O Christmas Tree	Traditional	
63	Deck the Halls	Traditional	
64	Silent Night	F. Gruber	
	Piano Accompaniment		
65	Ep Ballad	Original	
66	Boogie Woogie	Original	
67	Rock Piano	Original	
68	Salsa	Original	
69	Country Piano	Original	
70	Gospel R&B	Original	
71	Medium Swing	Original	
72	Jazz Waltz	Original	
73	Medium Bossa	Original	
74	Slow Rock	Original	
	Classical Melodies		
75	Waltz (The Sleeping Beauty)	P. I. Tchaikovsky	
76	Air (Orchestral Suite)	J. S. Bach	
77	Minuetto/Boccherini	L. Boccherini	
78	Siciliano/J. S. Bach	J. S. Bach	
79	Menuet (L'Arlésienne)	G. Bizet	
80	Slavonic Dances op.72-2	A. Dvořák	
81	Largo (From the New World)	A. Dvořák	
82	Pizzicato Polka	J. Strauss II	
83	Romanze/Beethoven	L. v. Beethoven	
84	Swan Lake	P. I. Tchaikovsky	
85	Sicilienne/Fauré	G. Fauré	
86	Méditation (Thaïs)	J. Massenet	
87	Serenade/Haydn	F. J. Haydn	
88	Grand March (Aida)	G. Verdi	
89	Danza dell'Ore (La Gioconda)	A. Ponchielli	
90	Le Cygne (Le Carnaval des Animaux)	C. Saint-Saëns	
91	L'éléphant (Le Carnaval des Animaux)	C. Saint-Saëns	
92	Fossiles (Le Carnaval des Animaux)	C. Saint-Saëns	
93	Wachet auf, ruft uns die Stimme BWV. 645	J. S. Bach	
	Traditional Melodies		
94	Greensleeves	Traditional	
95	Beautiful Dreamer	S. C. Foster	
96	Ring de Banjo	S. C. Foster	
97	O du lieber Augustin	Traditional	
98	London Bridge	Traditional	
99	Aura Lee	Traditional	
100	Aloha Oe	Q. Liliuokalani	
	Raga Scale		
101	Bilawal	_	
102	Khamaaj	_	
103	Bhairav	_	
104	Kalyan	_	
105	Asavari	_	
106	Kalyani	_	
107	Hamsadhvani	-	
108	Mohanam	_	
109	Hindolam	_	
110	Sankarabharanam	_	

Arpeggio List

Arpeggio No.	Arpeggio Name
1	UpOct
2	DownOct
3	UpDwnOct
4	SynArp1
5	SynArp2
6	SynArp3
7	SynArp4
8	SyncEcho
9	PulsLine
10	StepLine
11	Random
12	Down&Up
13	SuperArp
14	AcidLine
15	TekEcho
16	VelGruv
17	Planet
18	Trance1
19	Trance2
20	Trance3
21	ChordAlt
22	SynChrd1
23	SynChrd2
24	Syncopa
25	Hybrid1
26	Hybrid2
27	Hybrid3
28	Hybrid4
29	Hybrid5
30	PfArp1
31	PfArp2
32	PfArp3
33	PfArp4
34	PfClub1
35	PfClub2
36	PfBallad
37	PfChd8th
38	EPArp
39	PfShufle
40	PfRock
41	Clavi1
42	Clavi2
43	RocknPf
44	70RockPf
45	SlowflPf
46	SoulPf
47	ChordUp
48	ChdDance
49	LatinRck
50	Salsa1
51	Salsa2
52	Reggae1
53	Reggae2
54	Reggae3
55	6/8R&B
56	Gospel
57	BalladEP
58	Strum1
59	Strum2
60	Strum3
61	Strum4
62	Pickin1
	D:
63	Pickin2
63 64	Funky

Arpeggio No.	Arpeggio Name
66	GtrChrd2
67 68	GtrChrd3 GtrArp
69	FngrPck1
70	FngrPck2
71	CleanGtr
72	Slowfl
73	Samba1
74	Samba2
75	Spanish1
76	Spanish2
77	Harp1
78	Harp2
79	FngrBas1
80 81	FngrBas2
82	FngrBas3 CoolFunk
83	SlapBass
84	AcidBas1
85	AcidBas2
86	FunkyBas
87	CmbJazB1
88	CmbJazB2
89	CmbJazB3
90	NewR&BBs
91	HipHopBs
92	SmoothBs
93	DreamBas
94 95	TranceBs
96	LatinBas Strings1
97	Strings2
98	Strings3
99	Strings4
100	StrngDwn
101	StrngUp
102	OrcheStr
103	Jupiter
104	Pizz1
105	Pizz2
106	BrasSec1
107 108	BrasSec2 BrasSec3
108	FunkBras
110	SoulReed
111	DiscoLd
112	SmoothPd
113	PercArp
114	Trill
115	Cresendo
116	DiscoCP
117	Perc1
118	Perc2
119	R&B
120 121	Funk1 Funk2
121	Funk3
123	Soul
124	ClscHip
125	Smooth
126	NewGospl
127	CmbJazz1
128	CmbJazz2
129	Bebop
130	JazzHop

	A
Arpeggio No.	Arpeggio Name
131	FolkRock
132	Unplugge
133	HipHop
134	Trance
135	Dream
136	2 Step
137	ClubHs1
138	ClubHs2
139	EuroTek
140	House
141	Ibiza1
142	Ibiza2
143	Ibiza3
144	Garage
145	Samba
146	African
147	Latin
148	China
149	Indian
150	Arabic
151	TeenTalC
152	TeenTaID
153	TeenTalE
154	TeenTalF
155	TeenTalG
156	TeenTalA
157	Dadra C
158	Dadra D
159	Dadra E
160	Dadra F
161	Dadra G
162	Dadra A

Music Database List

MDB No.	MDB Name
	ALL TIME HITS
2	Jude Hey New UK
3	MyLoving
4	All OK
5	Buttercp
6	JustCall
7	CheepChp
8	Daddy's
9	Dance?
10	GetBack
11	GtrWheel
12 13	HighTide IWasBorn
14	Sailing
15	BluJeans
16	Holiday
17	Imagine
18	LoveMe
19	LetItBld
20	LdyMdona
21	YelowSub
22	Marriage
23	MovinOut
24 25	My Shell NowNever
26	DoLoveMe
27	TcktRide
28	SeeClear
29	Masachus
30	Hard Day
31	USA Pie
32	Norway
33	YesterBd
24	MODERN POP
34 35	Watches SoundMPH
36	Hold Us
37	Unfound
38	NeedSome
39	PrtTmLvr
40	MoonShdw
41	NikitSng
42	Sure of
43	Off Day
44	Tell Her
45 46	GirlsMne NeedLove
47	Radio
	POP CLASSICS
48	Standing
49	RainLaff
50	Sunshine
51	ForNamdo
52	ThankFor
53	ManPiano
54	CoinLane
55 56	LovesYou Tmbourin
56	Alone
58	GldField
59	Raindrop
60	SultanSw
61	Life'sWk
62	TopWorld

MDB No.	MDB Name
63	WatchGrl
	POP BALLAD
64	WnderLnd
65	CanlStop
66	EvryTime
67	IvoryAnd
68	TheWorld
69	LovWoman
70	Dolannes
71	Madigan
72 73	Paradise Whisper
73	BALLAD
74	AllOdds
75	AtonalFl
76	Hero
77	Woman
78	RunToYou
79	LoveOfAl
80	CndleWnd
81	Cavatina
82	Cherish
83	ToLoveMe
84	YouKnow
85	Evrythng EyesOfBI
86 87	Hello
88	BeThere
89	FlyAway
90	LoveYou
91	NeverLet
92	JustOnce
93	IfYouGo
94	SavingAl
95	InTheDrk
96	LovePwr
97	Vision
98	Beautifl AllAlone
99	Opposite
100	BeHonest
102	SayYou
103	SayNthng
104	Stranger
105	OneDay
106	TheBayou
107	ThisSong
108	Distance
109	ThisWay
110	LoveGone
111	Inspirng
112	TrueColr ROCK & ROLL
113	ShakenUp
114	Beethovn
115	HurryLov
116	BeCruel
117	Jumping
118	Countdwn
119	SuePeggy
120	Champion
121	Jailhous
122	BlueShoe
123	Rockin24
124	Shouting

-	
MDB No.	MDB Name
125	Rock&RII
126	HonkyTnk
107	OLDIES
127 128	Daydream Sumertme
128	Diana's
130	Uptown
131	Apache
132	IGotlt
133	Tonight
134	MyPillow
135	NoRain
136	FinalDan
137	SlpnLion
138	Ghetto
139	LipsLcky
140	PrettyWm
141	TikiGtr
142	TurnThre
143	Sherry
	ANCE & DISCO
144 145	Babylon Goodbye
145	Catch22
147	DISCO
148	Survival
149	TheNavv
150	DontHide
151	Celebrat
152	LondonRU
153	10,2 Sun
154	ShakeYou
155	Believe
156	BoySumer
157	I'mSexy
158	StuffHot
	SWING & JAZZ
159	MoonOf
160	Patrol
161	Charles
162	GiveLove
163 164	HallOfMe Rhythm
165	LOVE
166	LeroyBad
167	Caraban
168	Misbehav
169	Safari
170	Smiling
171	SoWhatIs
172	TimeGone
173	TasteHny
174	Sandman
175	Tunisian
176	TwoFoot
177	MyBaby
	R&B
178	Sally's
179	AsPlayed
180	BabyGrov
181	Highwy66
182	SweetCHI
183 184	JustU&Me ManLoves
	OurLove
185	OutLove

MDB No.	MDB Name
186	Wish I
187	What
	COUNTRY
188	OnTheRd
189	Breathe
190	InMyMind
191	ContryHw
192	GreenGrs
193 194	EverNeed Lonesome
194	Lucille
196	HomeRng
197	Tennesse
	LATIN
198	Bananabt
199	DanceMng
200	DntWorry
201	Jamaica
202	FleaSpa
203	I'mPola
204	MamboJm
205	OneNote PasoCani
206 207	PasoCani SayNoMor
207	Beguine
209	Tiiuana
210	Picture
	NTERTAINMENT
211	OnTheHil
212	Barnacle
213	Califrag
214	DadClock
215	DanceLd
216	DnceFire
217	BigCntry
218 219	Cabaret OdeToJoy
220	Mi-Re-Do
221	MyPrince
222	Necesary
223	NoBuiz
224	NoisyOld
225	Sleigh
226	RockBaby
227	Magnifiq
228	Magnfcnt
229	SilentNt
230	Nabucco
231	Standing
232	SummerPl
233	Christms
234 235	Favorite Tubbie
235	Turkish
236	12OClock
	WALTZ & TRAD
238	Blk&Whte
239	CanCan
240	Charmain
241	Musicbox
242	Clementn
243	Doodah!
244	Dreamer
245	EnterRag
246	Birthday

MDB No.	MDB Name
247	MaryLamb
248	Donald's
249	MoonWlz
250	MoulinHt
251	Sunshine
252	PieceOf
253	GreenSlv
254	TakeFour
255	TexRose
256	ThePolka
257	Scarboro
258	Edelweis
259	AroundWd
260	Whatever
261	Yankee's
-	WORLD
262	Hawaii
263	D'amor
264	ElCondor
265	GoodbyRm
266	ILandOn
267	ItalyBel
268	Cucarumb
269	Puntuali
270	Cielito
270	
271	ItalySun SantaLuc
273	Trumpetr
274	VanMass
	PIANIST
275	ItalySun
276	BeGood
277	Birdland
278	BlueRose
279	Chaie's
280	Highwy66
281	Leaves
282	Miload
283	Cabaret
284	Wonderfl
285	Imagine
286	LtleStar
287	MapleRag
288	Mi-Re-Do
289	NoBuiz
290	OhBlah
291	Charades
292	Sally's
293	Nabucco
294	SunnyStr
295	MistyFln
296	LdnBridg
297	GrndClck
298	Importnc
299	Snowman
300	Favorite
301	SongForU
302	SugerSpn
303	ThisWay
304	WenSmile
305	ZipperD
	LZ BUDELLI

Effect Type List

Harmony Types

No.	Harmony Type		Description	
01	Duet			
02	Trio	Harmony type	ses 01–05 are pitch-based and add one-, two- or three-note harmonies to the single- ed in the right hand. These types sound when chords are played in the auto accompa of the keyboard. These Harmony types will also work when playing songs that contain	
03	Block	melody played		
04	Country	chord data.		
05	Octave	0.1014 4414.		
06	Trill 1/4 note	J		
07	Trill 1/6 note	JJ		
08	Trill 1/8 note)		
09	Trill 1/12 note			
10	Trill 1/16 note	A.		
11	Trill 1/24 note	Ħ		
12	Trill 1/32 note	Ą		
13	Tremolo 1/4 note	٦		
14	Tremolo 1/6 note		Types 6-26 are rhythm-based effects and add embellishments or delayed repeats in	
15	Tremolo 1/8 note)	time with the auto accompaniment. These types sound whether the auto accompaniment is on or not; however, the actual speed of the effect depends on the Tempo setting. The individual note values in each type let you synchronize the effect precisely to the rhythm. Triplet settings are also available: $1/6 = \text{quarter-note triplets}$, $1/12 = \text{eighth-}$	
16	Tremolo 1/12 note		the rhythm. Triplet settings are also available: 1/6 = quarter-note triplets, 1/12 = eighth-note triplets, 1/24 = sixteenth-note triplets. • The Trill effect Types (06–12) create two-note trills (alternating notes) when two notes	
17	Tremolo 1/16 note	Ą	are held. • The Tremolo effect Types (13–19) repeat all held notes (up to four).	
18	Tremolo 1/24 note	Ħ	The Echo effect Types (20–26) create delayed repeats of each note played.	
19	Tremolo 1/32 note	J		
20	Echo 1/4 note	J		
21	Echo 1/6 note	JJ		
22	Echo 1/8 note	,		
23	Echo 1/12 note	JJ 3		
24	Echo 1/16 note	4.		
25	Echo 1/24 note	Ħ		
26	Echo 1/32 note			

Reverb Types

No.	Reverb Type	Description
01-03	Hall 1–3	Concert hall reverb.
04-05	Room 1–2	Small room reverb.
06–07	Stage 1–2	Reverb for solo instruments.
08-09	Plate 1–2	Simulated steel plate reverb.
10	Off	No effect.

Chorus Types

No.	Chorus Type	Description
01-02	Chorus 1–2	Conventional chorus program with rich, warm chorusing.
03-04	Flanger 1–2	Pronounced three-phase modulation with a slight metallic sound.
05	Off	No effect.

Specifications

	D'	X I IV	040 405 440 (074/4" 15 15/40" 5 1/0"	
Size/Weight	ze/Weight Dimensions (W x D x H) Weight		946 mm x 405 mm x 140 mm (37-1/4" x 15-15/16" x 5-1/2")	
-			6.8 kg (15lbs 0oz.) (not including batteries) 61	
Keyboard	Touch Response Pitch Bend Control Knobs Display Language			
-			Yes	
Other Controllers			Yes	
			Yes LCD display	
Display			LCD display	
			English	
	Tone Generation	Tone Generating Technology	AWM Stereo Sampling	
Voices	Polyphony Preset	Number of Polyphony (Max.) Number of Voices	32	
	Compatibility		214 + 466XGlite + 6 Indian Kits + 21 Drum/SFX Kits + 46 Arpeggio	
	Compatibility	Reverb	GM, XGlite	
		Chorus	9 types 4 types	
	Types	Master EQ	**	
	Types	Harmony	5 types 26 types	
Effects		Ultra-Wide Stereo	71	
		Dual	3 types Yes	
	Functions	Split	Yes	
	Turictions	Arpeggio type	162 types	
		Number of Preset Styles	206	
	_	Fingering	Multi finger	
	Preset		ACMP ON/OFF, INTRO/ENDING/rit., MAIN/AUTO FILL, SYNC START,	
Accompaniment Styles		Style Control	SYNC STOP, START/STOP, TRACK ON/OFF	
	User Styles	Music Databas	5	
	Other Features	Music Database	305	
		One Touch Setting (OTS) Number of Preset Tabla	Yes	
		Patterns	16	
Tabla/Tanpura pattern	Preset	Number of Variations	5 (for each Tabla Pattern)	
pattern		Number of Preset Tanpura	4 (for all Tabla Patterns)	
		Patterns	, in the second	
	Preset	Number of Preset Songs	110	
	Recording	Number of Songs	10	
Recording/Playback		Number of Tracks	6 (5 Melody + 1 Style)	
		Data Capacity	Approx. 19,000 notes (when only "melody" tracks are recorded) Approx. 5,500 chords (when only "chord" tracks are recorded)	
Compatible Data	Playback	1 1	SMF	
Format	Recording		Original File Format (SMF conversion function)	
	Lesson/Guide		[1 LISTENING, 2 TIMING, 3 WAITING], [Repeat & Learn], [Chord Dictionary]	
	Registration Number of Buttons		4 (x 8 banks) with Freeze function	
	· ···g·········	Metronome	Yes	
Function		Tempo Range	11 – 280	
	Overall	Transpose	-12 to 0, 0 to +12	
		Tuning	427.0 – 440.0 – 453.0 Hz	
	Miscellaneous	Portable Grand Button	Yes	
	Mamaru	Internal Memory	Approx. 1.54MB	
	Memory	External Strage Device	USB flash memory	
		DC IN	DC IN 12V	
Memory/Connectivity		Headphones/Output	[PHONES/OUTPUT] x 1	
	Connectivity	Sustain Pedal	[SUSTAIN] x 1	
		USB TO DEVICE	Yes	
		USB TO HOST	Yes	
Amplifiers/Speakers	Amplifiers		2.5W + 2.5W	
piiiioi a/opeakei s	Speakers		12cm×2 + 3cm×2	
		Adaptor	Adaptor:	
Power Supply	Power Supply	T	PA-150A or an equivalent recommended by Yamaha	
		Batteries	Six "AA" size alkaline (LR6), manganese (R6) or Ni-MH rechargable batteries	
	Power Consumption	n	• 16W (PA-150A)	
	Power Consumption Auto Power Off Function		Yes	
	Included Accessories		Owner's Manual	
			AC Power Adaptor	
			PA-150A or an equivalent	
			Music Rest Online Member Product Registration	
Accessories			AC Power Adaptor	
	Optional Accessories		PA-150A or an equivalent recommended by Yamaha	
			Kovhoard Stand (L-2C)	
			Stereo Headphones (HPE-150/HPE-30) Footswitch (FC4/FC5)	
			. 55.5511 (1 5 1/1 5 5)	

^{*} Specifications and descriptions in this owner's manual are for information purposes only. Yamaha Corp. reserves the right to change or modify products or specifications at any time without prior notice. Since specifications, equipment or options may not be the same in every locale, please check with your Yamaha dealer.

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