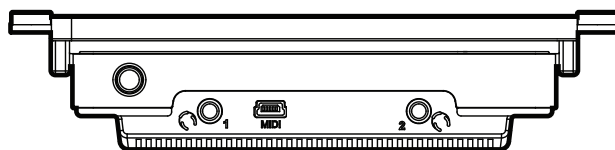


PIANO SILENCER
GENIO

BASIC α User's Manual



USRLAB

Important Safety and Installation Instructions



Information related to the possible electric shock, fire hazard and personal injury has been included in this list. Please read the contents carefully and use the product safely.

1. Be well-acquainted with this user's manual before using the product.
2. Please use the exclusive power supply. When obliged to use the other power supply, be careful of the output voltage and polarity.
3. Do not dismantle the product under any circumstances. Dismantle at discretion may not guarantee the warranty repair.
4. Keep the power cord away from the other objects. Make sure the cord is not pressed under any heavy objects or piano.
5. When using the adapter or headphones, connect or release with grasping the plug instead of cable.
6. Place the product away from the direct sunlight, humid, hot or cold air current.
7. The power supply cord should be unplugged from the outlet when left unused for a long time.
8. Please ask help to the dealer from whom you purchased for any after service.
9. This product is operating independently, but it can be damaged by the difference of the input/output characteristics when connected with external device.
10. Refrain from playing long time with loud sound or uncomfortable posture, it can be the reason of your hearing loss.
11. Place the product at the location or position with smooth natural air flow for proper ventilation.
12. Pay attention to any liquid like water or coffee not to be spilled. If spilled, do not disassemble the product, and ask for repair. Turing on the system under the moisture may damage the key sensors or product.
13. For the below cases, the product should be serviced by the qualified service personnel or the dealer from whom you purchased.
 - When the power supply cord or the plug has been damaged.
 - When the metal material has fallen, or liquid has been spilled on the product.
 - When the inner parts have been exposed.
 - When the product does not operate correctly.
 - When the exterior of the product has been fatally damaged.
14. Standard tuning is required for ensemble of acoustic and silent play together.
15. For correct operation, it is essential to do the initializing process after the key height adjustment or action adjustment.
16. There is a little heat generation in device during use, but it is not a problem of the product.

GENIO BASIC α

After the installation of GENIO BASIC α, while you keep the acoustic piano functions, and it becomes a new concept piano which enables you to play the piano without external sound and enjoy your own piano playing, it has multi functions of acoustic, silent and digital piano. You can select various sounds with various types of music in anytime, anyplace.

Especially, GENIO BASIC α has 10 Demo songs helping you to acquaint yourself with piano performance and accompaniment. Please refer to the Demo song list on this manual, and make use of them in piano exercise and lessons, and then, it will be the piano class with full of fun and impression. Using these functions, in order to be well accustomed to use this product, please read this user's manual carefully for your satisfaction of the performance of this product.

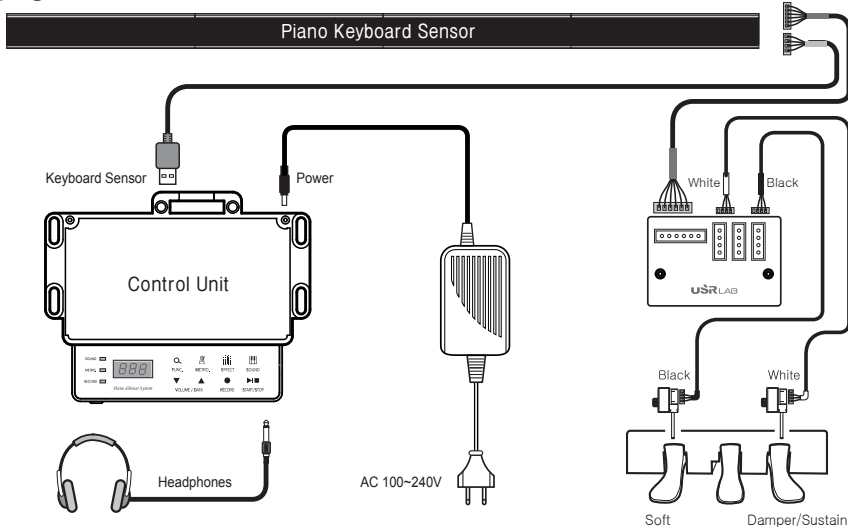
The buttons of GENIO BASIC α are the new concept touch sensor types, and operate sensitively by slight touch of the English letters below the icons.

Table of Contents

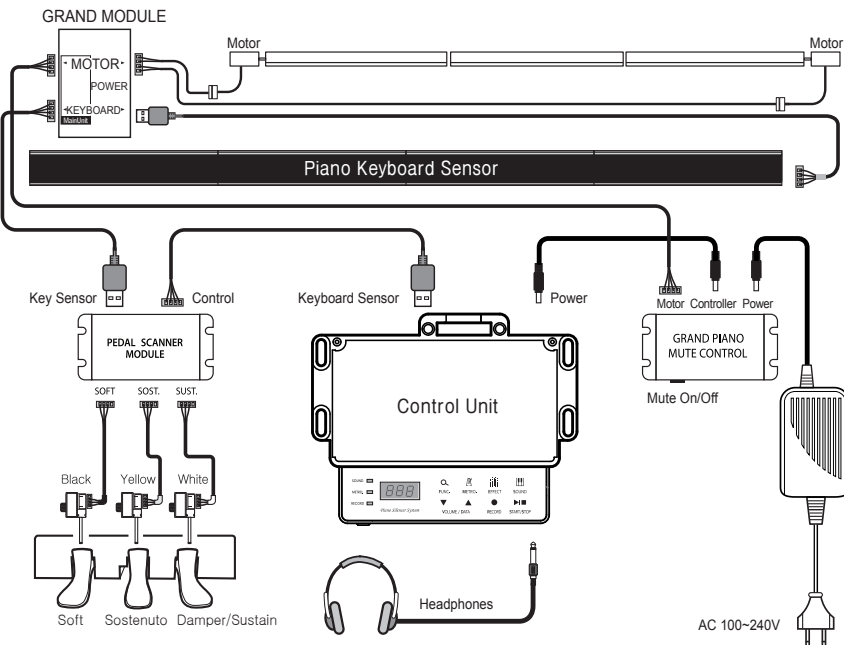
Important Safety and Installation Instructions	02
GENIO BASIC α	03
Connection Diagram of GENIO BASIC α	04
Name & Function of each part	05
Originating information	07
How to try out various Functions	08
How to use the functions by the keys	10
Metronome	12
Record	13
Playback	14
Demo	15
Initializing GENIO BASIC α	16
How to adjust the sensitivity of individual keys	17
System Setting	18
Connecting with External Audio Equipment	19
GM Program Chart	21
Drum Chart	22
MIDI Implementation Chart	23
Specifications	24
Trouble Shooting	25

Connection Diagram of GENIO BASIC α

Upright Piano



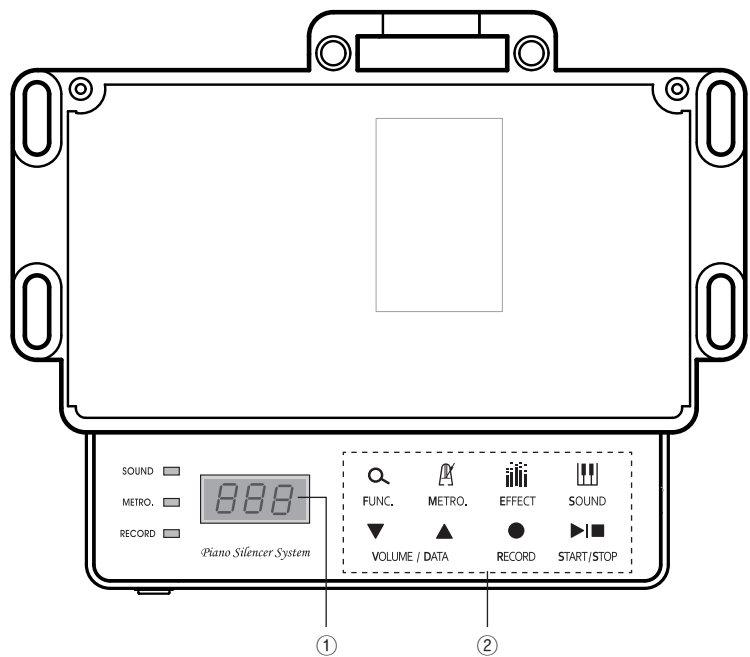
Grand Piano



Name & Function of each part

CONTROL UNIT

Top View



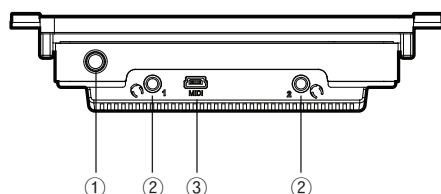
① **DISPLAY:** Shows the selected mode and value.

② **TOUCH BUTTONS**

FUNC.	METRO.	EFFECT	SOUND
Function	Metronome	Effect selection	Sound selection
VOLUME / DATA		RECORD	START / STOP
Volume control / Data selection		Record	For recording, Playback etc.

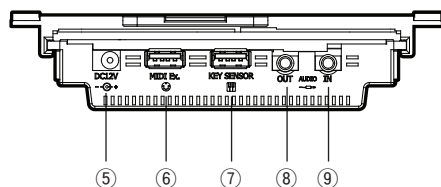
CONTROL UNIT

Front View



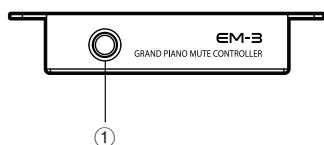
- ① **POWER BUTTON** : Turns the system on and off
- ② **HEADPHONES** : 2 headphones are available
- ③ **USB PORT** : Connect with computer
(Device : USB MIDI)

Rear View



- ⑤ **DC JACK** : System power is supplied from power adapter
- ⑥ **MIDI Ex**: Connects with external MIDI device through extra MIDI I/O Module(Optional)
- ⑦ **KEY SENSOR**: Connect with key sensor module with signal cable
- ⑧ **AUDIO OUT**: Audio signal output
- ⑨ **AUDIO IN**: Audio signal input

Grand Piano Mute Controller: for Grand System



- ① **POWER BUTTON** : Pressing the button converts to mute-on or mute-off

Originating information

Make sure your power supply complies with the details listed on the accompanying power supply(12V DC plug).

Ready to use

After installation, the system should be optimized to be used by the initializing process (Page 16), and it can be used with adequate connection of power supply.

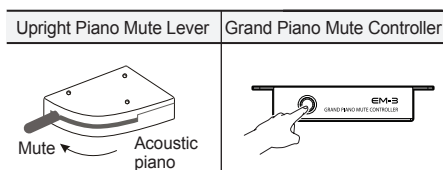
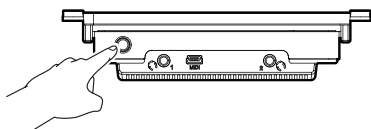
A. Taking out & confining GENIO BASIC α control unit



Pressing softly the GENIO BASIC α control unit front and it comes out.



Confining by pushing GENIO BASIC α control unit front lightly.

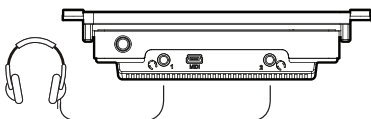


1) Power on by pressing the POWER BUTTON.

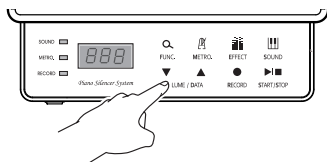
2) Mute Control

Upright Piano Mute Lever : Pull the mute lever to mute position

Grand Piano Mute Controller : Power on for mute-on, and power off for mute-off of Acoustic piano.



3) Plug your headphones into one of the headphone jacks and wear the headphones.



4) Select adequate volume and sound, and play the piano.

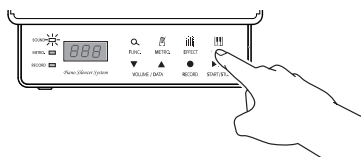
How to try out various Functions

You can enjoy GENIO BASIC α as a digital piano with various sounds and effects, and also as a sound module with GM sounds contained.

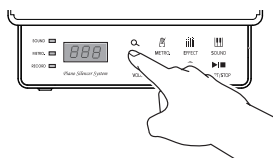
A. Sound select

You can select one of 17 Pre-set sounds and 128 GM Sounds.

* Pre-set sounds can be changed only by the manufacturer(Users are not allowed to change it).



- 1) Press [SOUND] button for the sound mode, and the upper left [SOUND] lamp and upper right [SOUND] button will highlight the button icon.



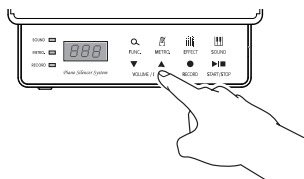
- 2) Press [FUNC.] buttons to select from Pre-set sounds or GM sounds.



Pre-Set 1



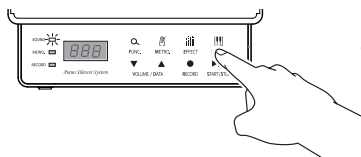
GM 1



- 3) Press either [▼] or [▲] button of [VOLUME/DATA] to select one from 17 Pre-set sounds,

- 4) GM Sounds need just one channel at a time
(Other channels are off mode)

- * Press [▲] button to move from a low numbers to a high number.
- * Press [▼] button to move from a high number to a low number.
- * Press and hold either [▼] or [▲] buttons to move through the sounds faster.



- 5) Press [SOUND] button after selecting the desired sound and the setting will then be saved. The display will return to the home mode automatically.

Pre-set sounds

NO.	Pre-Set
P1	Piano 1
P2	Piano 2
P3	E. Piano 1
P4	E. Piano 2
P5	E. Piano 3
P6	Vibraphone
P7	Celesta
P8	Tinkle Bell
P9	Harpsichord

NO.	Pre-Set
P10	Sound Track
P11	Strings
P12	Pan Flute
P13	Pipe Organ
P14	Church Organ
P15	Organ 3
P16	Tubular Bell
P17	Drum



- Please refer to the GM sounds chart.

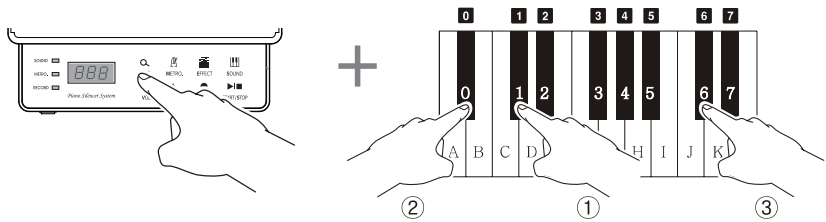
How to use the functions by the keys

Due to the limited button numbers, in order to use the various functions, press the key like below, while pressing and holding the [FUNC.] BUTTON, and then you can use various sounds, effects and transpose.

A. How to Select 128 GM Sounds

- 1) While pressing and holding the [FUNC.] BUTTON, press one (or two, or three) black keys assigned with the number like the picture in below, and release the [FUNC.] BUTTON.
- * If the compounded number is bigger than 127, 000 : Piano 1 is automatically selected.
 - * Please refer to the GM Chart (Page 16) for selecting sound number.
 - * The sound exceeding from the real instrument's range of note can be different from the real sound.
 - * The instrument selected by the keys is a single channel.

Ex) Selecting 106 sound
While Pressing and holding [FUNC.] BUTTON, press C# for 1, A#0 for 0, and C#2 for 6, and release the [FUNC.] BUTTON for setting.

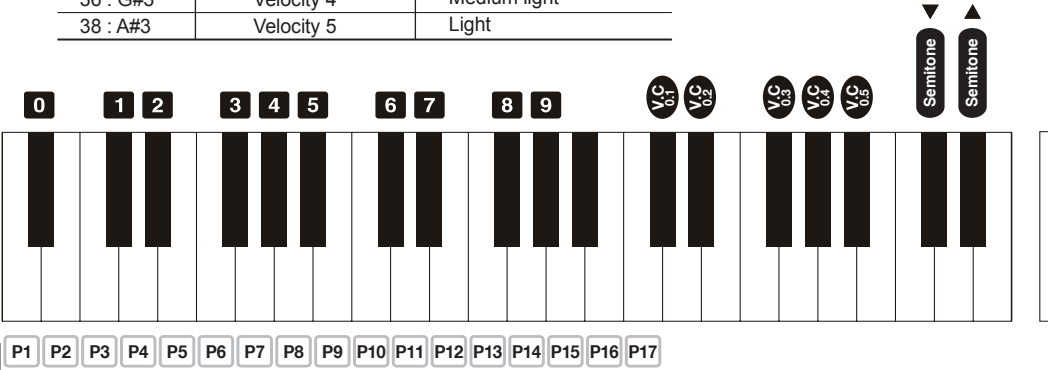


B. Velocity Curve

The touch feeling of GENIO BASICα can be changed to accommodate the players with a lighter or heavier feeling than average touch.

- 1) While pressing and holding the [FUNC.] BUTTON, press one from the 5 black keys assigned with the 1~5 numbers, positioned just below the middle C.
- * Default : 3

Key	Velocity Curve	Touch & Sound
29 : C#3	Velocity 1	Heavy
31 : D#3	Velocity 2	Medium Heavy
34 : F#3	Velocity 3	Medium (Default)
36 : G#3	Velocity 4	Medium light
38 : A#3	Velocity 5	Light



C. Transpose

1) While pressing and holding the [FUNC.] BUTTON, press the below key for semitone or octave transpose.

Key	Function	Control Range
41 : C#4	Semitone Down	± 24 Semitone
43 : D#4	Semitone Up	± 24 Semitone
46 : F#4	Octave Down	± 2 Octave
48 : G#4	Octave Up	± 2 Octave
50 : A#4	Reset	0

D. Reverb, Chorus (Effects)

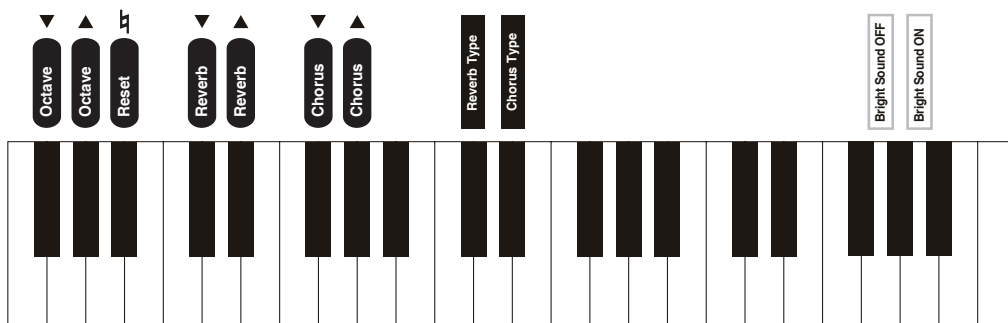
1) While pressing and holding the [FUNC.] BUTTON, press the below keys for selecting desired chorus and reverb type, and adjusting the depth of both types.

Key	Function	Control Range
53 : C#5	Reverb Down	000
55 : D#5	Reverb Up	127
58 : F#5	Chorus Down	000
60 : G#5	Chorus Up	127
65 : C#6	Reverb Type	4 Types
67 : D#6	Chorus Type	3 Types

E. Bright Sound

1) While pressing and holding the [FUNC.] button, press below keys for Bright Sound ON/OFF

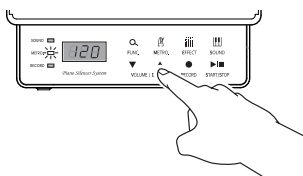
Key	Function	Control Range
83 : G7	Bright Sound OFF	0
85 : A7	Bright Sound ON	0



Metronome

Using the built-in metronome function, you can practice with correct tempo and beat.

- 1) ON/OFF: Press [METRO.] button for metronome ON or OFF.
 * When metronome is on, the lamp(middle left) blinks according to the beat.
- 2) Setting: Press and hold the [METRO.] button for more than 2 seconds, then you can see metronome setting display.
 * ("120"= Tempo), METRO Lamp on.



- ① Press [FUNC] button to select from Tempo->Beat->Volume->Bell.

- * The dot beside the number indicates the selected menu.
- * Tempo : The display shows the current tempo.
 (quarter step/minute, default 120/minute)

- ② Beat : Beat selection 1/2 ~ 9/8

Beat chart

1/2	2/2	3/2	4/2						
1/4	2/4	3/4	4/4	5/4	6/4	7/4	8/4		
1/8	2/8	3/8	4/8	5/8	6/8	7/8	8/8	9/8	

- ③ Volume : Control the range of the volume: (0~9, Default:5)

- ④ Bell : Setting the bell sound on/off on the hard beat

Ex) 4/4 Beat

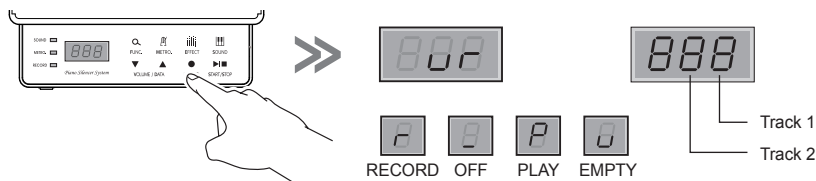


- 3) Press either [▼] or [▲] button to adjust Tempo, Beat, Volume, Bell.
- 4) Press [▼] and [▲] button together to return to the Default.
- 5) Press [SOUND] button to return to the home mode.



Record

- 1) Press [RECORD] button during the home mode for recording mode.

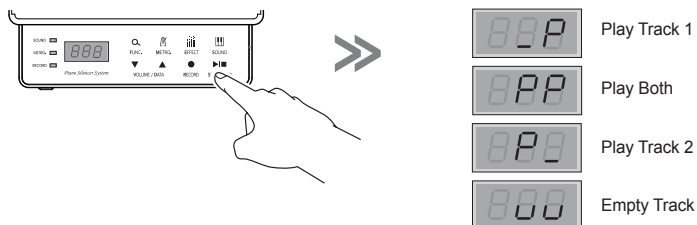


* Recording in both tracks respectively is available, and you can record a track while playing another recorded track at the same time.

- 2) Press [▼] button to select RECORD/PLAY/OFF from track2.
- 3) Press [▲] button to select RECORD/PLAY/OFF from track1.
- 4) When you select recording, if the selected track has been recorded already, it is set to PLAY
* you can record just in one track at a time.
- 5) Select the track you want and press [RECORD] button. Then the recording will be started after playing count off 1 measure.
- 6) Press [RECORD] button again to finish recording.
- 7) You can continue recording on another track after selecting record/play track.
- 8) Press [SOUND] button to return to the Home Mode.
- 9) For deleting the recorded data, press and hold [FUNC.] button for more than 2 seconds, the data would be deleted after one blink of the display.

Playback

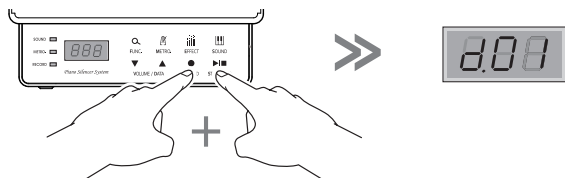
- 1) Press [START/STOP] button during the Home Mode for Playback Mode.



- 2) Press [▼] button to select whether to play track 2 or not.
- 3) Press [▲] button to select whether to play track 1 or not.
- 4) You can play one or two tracks at one go.
- 5) Select one or two tracks you want and press [START/STOP] button to play.
- 6) Press [START/STOP] button again to stop playing.
- 7) Press [SOUND] button to return to the Home Mode.

DEMO

- 1) Press [RECORD]+ [START/STOP] buttons together during the Home Mode to get into Demo Mode.



- 2) Press either [▼] or [▲] button to select demo song.
- 3) Select a song from 10 demo songs and press [START/STOP] button to play.
- 4) When the selected song is finished, the next song will be played continuously.
- 5) Press [START/STOP] button again to stop playing.
- 6) Press [SOUND] button to return to the Home Mode.

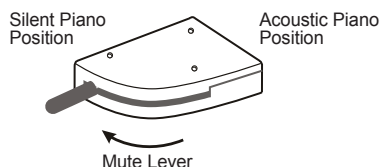
* **Note** : You can play the piano along with demo song.

Initializing GENIO BASIC α

GENIO BASIC α enables you to hear your own sound during the piano muting. The signals generated by actinography from the sensors underneath the keys convert into MIDI signals which are needed for generating the piano sound by control unit's program. Since GENIO BASIC α adopts continuous position detective photo sensors, after installation, by initializing process, it records the characteristics of keys and sensors into the memory storage to generate the sounds. Without correct initializing process, some keys have no sound, or generate irregular sound, so it is essential to initialize perfectly to keep the best performance.

A. Before Initializing

- 1) Every connection of cables should be perfect.
- 2) The mute lever should be in mute position.
- 3) Make sure that nothing is sitting on the keys that might press keys down.
- 4) Mechanical regulation of the piano action like let-off should be perfect to prevent malfunction.



B. How to Initialize GENIO BASIC α

- 1) Right after turning on the GENIO BASIC α , immediately press and hold [METRO.] button before the system gets ready to be used. Release [METRO.] button. And then, the display shows :

* 88 key mode : $\square\square\square$ / 85 key mode : $\square 85$

If the key mode should be changed, press and hold [METRO.] button for more than 2 seconds.



- 2) Press each of 88 keys and pedals one by one, all with slowly and softly.
 - * Don't press next key before the prior key is not released.
 - * Once a key is initialized, you can hear the corresponding key sound.
 - * Once you softly press the initialized key again, you can hear the key sound.
- 3) After the above process, please press all keys and pedals AGAIN to check if you can hear each note's sound well or not.
 - * If a certain key is not initialized (if you cannot hear the sound), press and hold that key for more than 2 seconds again, that key would be re-initialized. (It remembers the last key position.)
 - * If the key is not re-initialized after pressed again, turn off the system and try from the first step.
- 4) After completion of the initializing all keys and pedals, press [METRO.] BUTTON again.
 - * When the data is successfully stored, the display will change as shown and the piano is ready to be played.

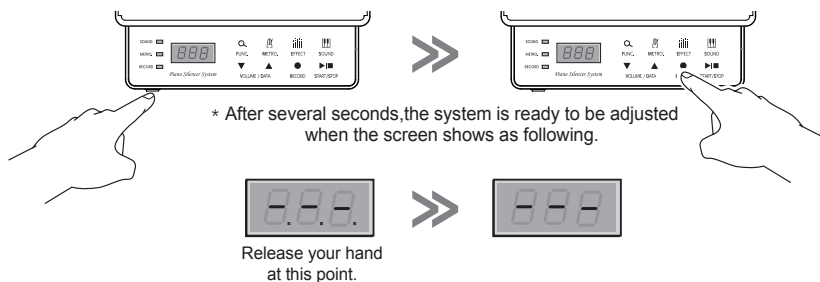


Note : Please initialize GENIO BASIC α properly if the piano is not used for a long time or recently moved. (The height of the keys can be changed)

How to adjust the sensitivity of individual keys

The initialization procedure on the previous page should make all of the keys equally sensitive. If you find that some keys still play too loudly or softly, use the following procedure to adjust the sensitivity of individual key.

- 1) Right after turning on the GENIO BASIC α , immediately press and hold [RECORD] button before the system gets ready to be used. Release [RECORD] button. The display should now look like below:
The system is now ready to be adjusted.



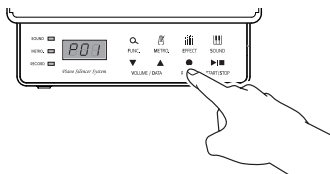
- 2) Wearing headphones to monitor the sound, play each key and listen to the volume of the sound to find the key to be adjusted.



- 3) When you find the key to be adjusted, press [▼] or [▲] to adjust the sensitivity you need.

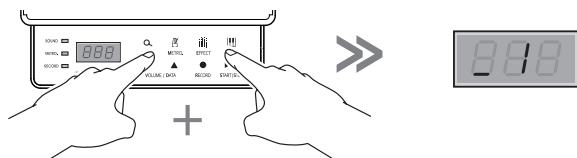
- * [▼] : less sensitive
- * [▲] : more sensitive
- * It adjust the key last pressed, so you'd better to adjust after confirm the key number
- * Sensitivity range : 1~255

- 4) Check and adjust the other keys with same way as above, press [RECORD] button to save the adjustment, then GENIO BASIC α is ready to be played.



System Setting

Press both [FUNC.] + [SOUND] buttons together to show system setting screen from the Home Mode



* Press [FUNC.] button to select one menu from the list below.

* Press either [▼] or [▲] button to change the value

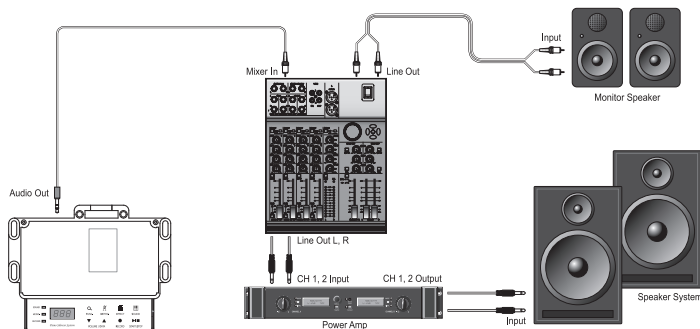
* Press [SOUND] button to save and return to Home Mode.

_1	Firmware Version Check (Non-changable)	Press and hold [▲] once: [control unit / release [▲]: Firmware version Press and hold [▲] twice: [Sensor rail / release [▲]: Firmware version Press and hold [▲] thruple: [Grand pedal scanner release [▲]: Firmware version
_2	Start-up Sound	Adjust the default sound(from preset 17) whenever power on
_3	Start-up Volume	Adjust the default volume whenever power on (Default: 60, Range: 0~100)
_4	Line-in Gain	Range: 0~-79dB, Default: -10dB
_5	Line-out Gain	Range: 0~-79dB, Default: 0dB, Same as setting volume
_6	System initialization	Reset the system and memory to the original version from the manufacturers.
_7	Keyboard mode	Note off when playing trills. (ON/OFF, Default: on)
_8	Correction of repeated key touch	off, 10~400, Default: 250
_9	Correction of key touch blending	off, 10~300, Default: off
_10	MIDI output channel	1~16, Default: 1
_11	Automatic power off time setting	Default:30n, Range: 5n(minutes)~12h(Hours)
_12	Soft pedal positioning	Range: 0~-10steps, Default: 5
_13	Sostenato pedal positioning	Range: 0~-10steps, Default: 5
_14	Sustain pedal positioning	Range: 0~-10steps, Default: 5
_15	Soft Pedal Adjustment	Adjusting softness of soft pedal 60~90%, Default 70%

Connecting with External Audio Equipment

This product has audio input and output sockets, so it is possible to amplify the sound to the external audio device or to play the piano listening external audio performance. Please use with connecting the right audio cable and do not exceed the input and output ranges with correct nature

A. Amplified piano playing through External Audio Equipment

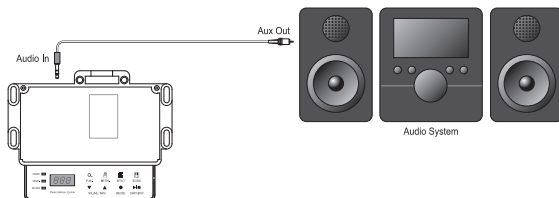


- 1) Connect the audio cable from the AUDIO Out of our product to the AUDIO In of external device, and adjust the audio volume adequately.
- 2) Both of our product and external device can adjust the audio volume coming out from AUDIO Out socket, so adjust the volume not exceeding the capacity of external device.
- 3) You can use Headphones terminal for audio out with 1/8" plug, but the output is around 4dB higher than Audio Output, so please adjust the volume not to be distorted.

B. Piano playing listening external audio performance

You can play the piano listening external audio device by simple connection with CD, TAPE and MP3.

* Audio cable is not provided from the manufacture.

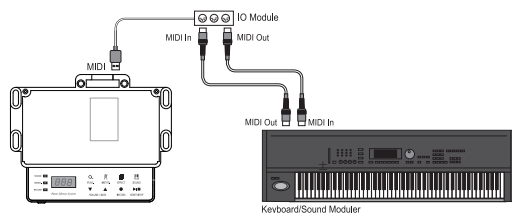


- 1) Audio Cable (RCA Jack) or 1/8" PLUG can be used, so please prepare the corresponding cable.
- 2) Connect the audio cable between external device Audio Out and our product's Audio In.

Please refer to the MIDI Implementation Chart for the Control Command of connection parameters with external MIDI device.

- * The sound of playing this product can be played back from the other MIDI device or saved in computer using MIDI program.
- * GM, Patch, volume or sound can be different from each manufacturer, the composed music with the other sound source can have different feeling.
- * This product outputs only 'Note' signal, so the patch of the external device should be set from the external device.
- * MIDI I/O Module, 5pin Round-DIN cable, MIDI Interface, 'USB MINI B' Type cable : option

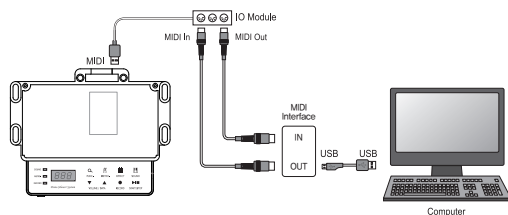
C. Connecting with external MIDI device



1) Connert MIDI cable(5Pin-round-DIN cable)

- * MIDI I/O Module OUT -> Extra device IN
- * MIDI I/O Module IN -> Extra device OUT

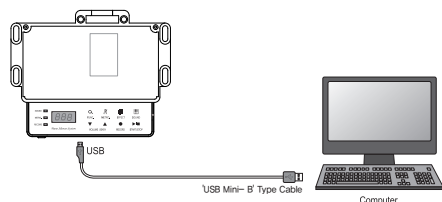
D. Connecting with computer with extra MIDI device



1) Connert MIDI cable(5Pin-round-DIN cable)

- * MIDI I/O Module OUT -> Extra device IN
- * MIDI I/O Module IN -> Extra device OUT

E. Connecting with computer with USB cable



1) Connect 'USB MINI B'Type Cable

GM Program Chart

Piano

000 Piano 1	004 E.Piano 1
001 Piano 2	005 E.Piano 2
002 Piano 3	006 Harpsichord
003 Piano 4	007 Clavinet

Organ

016 Organ 1	020 Reed Organ
017 Organ 2	021 Accordion
018 Organ 3	022 Harmonica
019 Church Organ	023 Bandneon

Bass

032 Acoustic Bs	036 Slap Bass 1
033 Fingered Bs	037 Slap Bass
034 Picked Bass	038 Synth Bass 1
035 Fretless Bs	039 Synth Bass 2

Ensemble

048 Strings	052 Chair Aahs
049 Slow Strings	053 Voice Oohs
050 Syn. Str 1	054 Synth Vox
051 Syn. Str 2	055 Orchestra Hit

Reed

064 Soprano Sax	068 Oboe
065 Alto Sax	069 English Horn
066 Tenor Sax	070 Bassoon
067 Baritone Sax	071 Clarinet

Synth Lead

080 Square Wave	084 Charang
081 Saw Wave	085 Solo Vox
082 Syn.Calliope	086 5th Saw Wave
083 Chiffer Lead	087 Bass & Lead

Synth SFX

096 Ice Rain	100 Brightness
097 Sound track	101 Goblin
098 Crystal	102 Echo Drops
099 Atmosphere	103 Star Theme

Percussive

112 Tinkel Bell	116 Taiko
113 Agogo	117 Melo Tom
114 Steel Drums	118 Synth Drums
115 Woodblock	119 Reverse Cym

Chromatic Percussion

008 Celesta	012 Marimba
009 Glockenspiel	013 Xylophone
010 Music Box	014 Tubular-bells
011 Vibraphon	015 Dulcimer

Guitar

024 Nylon-str.Gt	028 Muted Guitar
025 Steel-str.Gt	029 Overdrive Gt
026 Jazz Guitar	030 Distortion Gt
027 Clean Guitar	031 Gt.Harmonics

String / Orchestra

040 Violin	044 Tremolo Str
041 Viola	045 Pizzicato St
042 Cello	046 Harp
043 Contrabass	047 Timpani

Brass

056 Trumpet	060 French Horn
057 Trombone	061 Brass
058 Tuba	062 Synth Brass 1
059 Muted Trumpet	063 Synth Brass 2

Pipe

072 Piccolo	076 Bottle Blow
073 Flute	077 Shakuhachi
074 Recorder	078 Whistle
075 Pan Flute	079 Ocarina

Synth Pad etc.

088 Fantasia	092 Bowed Glass
089 Warm Pad	093 Metal Pad
090 Polysynth	094 Halo Pad
091 Space Voice	095 Sweet Pad

Ethnic

104 Sitar	108 Kalima
105 Banjo	109 Bag Pipe
106 Shamisen	110 Fiddle
107 Koto	111 Shannai

SFX

120 Gt.FretNoise	124 Telephone
121 Breath Noise	125 Helicopter
122 Seashore	126 Applause
123 Bird	127 Gun Shot

Drum Chart

NO.	Standard Set
27 D#1	High Q
28 E1	Slap
29 F1	Stratch Push
30 F#1	Stratch Pull
31 G1	Sticks
32 G#1	Square Click
33 A1	Metronome Click
34 A#1	Metronome Bell
35 B1	Bass Drum 2(Acoust)
36 C2	Bass Drum 1(Rock)
37 C#2	Side Stick
38 D2	Snare Drum 1
39 D#2	Hard Clap
40 E2	Snare Drum 2
41 F2	Low Floor Tom
42 F#2	Closed Hi Hat(EXC1)
43 G2	High Floor Tom
44 G#2	Peadal HiHat(EXC1)
45 A2	Low Tom
46 A#2	Open HiHat(EXC1)
47 B2	LowMid Tom
48 C3	Hi Mid Tom
49 C#3	Crash Cymbal 1
50 D3	High Tom
51 D#3	Ride Cymbal 1
52 E3	Chines Cymbal
53 F3	Ride Bell
54 F#3	Tambourine
55 G3	Splash Cymbal
56 G#3	Cowbell
57 A3	Crash Cymbal 2

NO.	Standard Set
58 A#3	Vibraslap
59 B3	Ride Cymbal 2
60 C4	Hi Bongo
61 C#4	Lo Bongo
62 D4	Mute Hi Conga
63 D #4	Open Hi Conga
64 E4	Low Conga
65 F4	High Timbale
66 F#4	Low Timbal
67 G4	High Agogo
68 G#4	Low Agogo
69 A4	Cabasa
70 A#4	Maracas
71 B4	ShortWhistle(EXC2)
72 C5	Long Whistle(EXC2)
73 C#5	Short Guiro(EXC3)
74 D5	Long Guiro(EXC3)
75 D#5	Claves
76 E5	Hi Wood Block
77 F5	Low Wood Block
78 F#5	Mute Cuica(EXC4)
79 G5	Open Cuica(EXC4)
80 G#5	MuteTriangle(EXC5)
81 A5	OpenTriangle(EXC5)
82 A#5	Shaker
83 B5	Jingle Bell
84 C6	Belltree
85 C#6	Castanets
86 D6	Mute Surdo(EXC6)
87 D#6	Open Surdo(EXC6)
88 E6	

MIDI Implementation Chart

Function		Transmitted	Received	Remark
MIDI Channels		1 ~ 16	1 ~ 16	
Mode		X	3	
Note Number		21 ~ 108	0 ~ 127	
Velocity		0 ~ 127	0 ~ 127	
Note On		9n, V = 127	9n, V = 127	
Note Off		9n, V = 0	8n, V = 0 ~ 127 9n, V = 0	
Key Aftertouch		X	X	
Channel Aftertouch		X	O	
Pitch Bend		X	O	+2 Octave Pitch Band Sensitivity
Control Change	0, 32	X	O	recognized
	1	X	O	Bank Seselect
	6, 38	X	O	Modulation
	7	X	O	Data Entry
	10	X	O	Main Volume
	11	X	O	Pan
	64	O	O	Expression
	67	O	O	Damper Pedal
	91	X	O	Soft Pedal
	93	X	O	Reverb Depth
	98	X	O	Chorus Depth
	99	X	O	NRPN LSB
	100	X	O	NRPN MSB
	101	X	O	RPN LAB
	120	X	O	RPN MSB
	121	X	O	All Sound Off
	123	X	O	Reset All Controllers
Programme Change		X	O (0 ~ 127)	All Note Off

Note :

1. Default Pitch Bend = 1 Semitone
2. Mode 1 : OMNI On, Poly
3. Mode 2 : OMNI Off, Poly

Specifications

Item			Description
Silent Mechanism			Universal Mute Rail by Manual Lever
Sensor Keyboard			Reflector Type Touchless Optic Sensor System
Velocity			127 Level
Touch Response			5 Curves
Sensitivity of each Keys			Individual Adjustment Range from 000 to 255
Sensor Pedal			Sustain, Soft
Sounds			17 Pre-Set, 128 GM Sounds
Sounds Memory			512 MB
Polyphony			256 Poly
Transpose			±24 Semitone
Effect	Reverb	Type	4
		Range	000 ~ 127
	Chorus	Type	3
		Range	000 ~ 127
Pitch	Standard		440 Hz
	Range		438 ~ 445 Hz (1 Hz)
Metronome	Tempo		25 ~ 250
	Type		21 Type
	Volume		0 ~ 9
	Demonstration Song		
Record and Playback			2 Tracks (Approx. 40,000 Notes)
Display			3 Digit Numeric LED
Headphone Jack			1/8" x 2 Jacks
USB MIDI INTERFACE			MIDI INTERFACE built in (Connecting to Computer)
MIDI Port			Input / Out / Thru (Extra MIDI Module)
Audio			In/Out (Stereo)
Power Supply			Input : AC 100 ~ 240V, Output : DC 12V, 1~3A
Dimension of Control Unit			121 x 26 x 67 mm (W x H x D)
Remark			

* For Grand Piano : Universal Mute Rail by Auto Lever, controlled by the Grand Piano Mute Controller
Sustain, Sostenuto, Soft Pedal Sensors

* Above specifications are subject to change without notice.

Trouble Shooting

Phenomenon	Possible cause and Trouble shooting
No Power	<ul style="list-style-type: none">• Check if AC plug is connected correctly with the outlet.• Check if DC jack is connected correctly with the control unit.
No Sound	<ul style="list-style-type: none">• If metronome works well with the sound, check the connection of key sensors and control unit.• If metronome doesn't work, check the headphones connection or volume control.• If the key have no sound, initialize (page 16) the system again.• Check if there's any foreign substance on the key sensors.
Noisy Sound	<ul style="list-style-type: none">• If there's no noisy sound when the volume is down, it's the headphones problem.

- **Note** : If you use the other headphones which is not supplied with a basic kit item, the sound maybe different from each headphones' manufacturer.

Note

Note

Note
