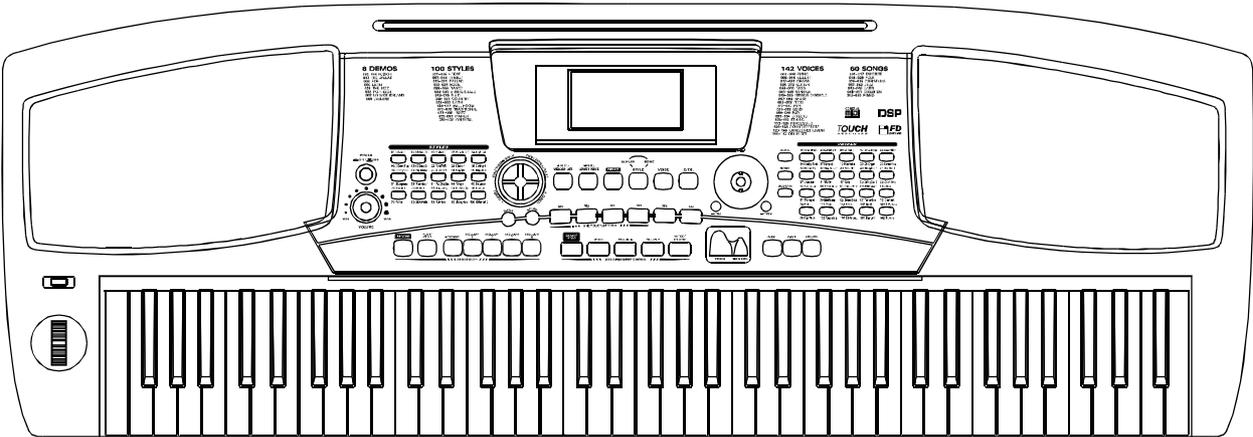


Instruction Manual

ELECTRONIC KEYBOARD



Congratulations!

Congratulations on your purchase of the electronic keyboard! It is a sophisticated. It has up to 142 voices, 100 styles ,8 demos,100 albums and 60 songs.

Before you use the electronic keyboard, we recommend you to carefully read through this manual. Please keep this instruction manual for future reference.

Taking care of your electronic keyboard

Your keyboard will give you much pleasure.Please follow the rules below:

Location

Do not expose the unit to the following conditions to avoid deformation, discoloration, or more serious damage.

- Direct sunlight.
- High temperature (near a heat source, or in a car during the day time).
- Excessive humidity.
- Excessive dust.
- Strong vibration

Power Supply

- Turn the power switch OFF when the instrument is not in use.
- The AC adaptor should be unplugged from the AC outlet if the instrument is not to be used for a period of time.
- Unplug the AC adaptor during electric storms.
- Avoid plugging the AC adaptor into the same AC outlet as appliance with high power consumption, such as electric heaters or ovens. Also avoid using multi-plug adaptors since these can result in reducing sound quality, operation errors, and possibly damage.

Turn Power OFF When Making Connections

- To avoid damage to the instrument and other devices to which it is connected, turn the power switches of all related device OFF prior to connecting or disconnecting cables.

Handling and Transport

- Never apply excessive force to the controls, connectors or other parts of the instrument.
- Always unplug cables by gripping the plug firmly, but not pulling on the cable.

- Disconnect all cables before moving the instrument.
- Physical shocks caused by dropping, bumping, or placing heavy objects on the instrument can result in scratches and more serious damage.

Cleaning

- Clean the cabinet and panel with a dry soft cloth.
- A slightly damp cloth may be used to remove stubborn grime and dirt.
- Never use cleaners such as alcohol or thinner.
- Avoid placing vinyl object on top of the unit (vinyl can stick to and discolor the surface).

Electrical Interference

- This instrument contains digital circuitry and may cause interference if placed too close to radio or television receivers. If this occurs, move the instrument further away from the affected equipment.

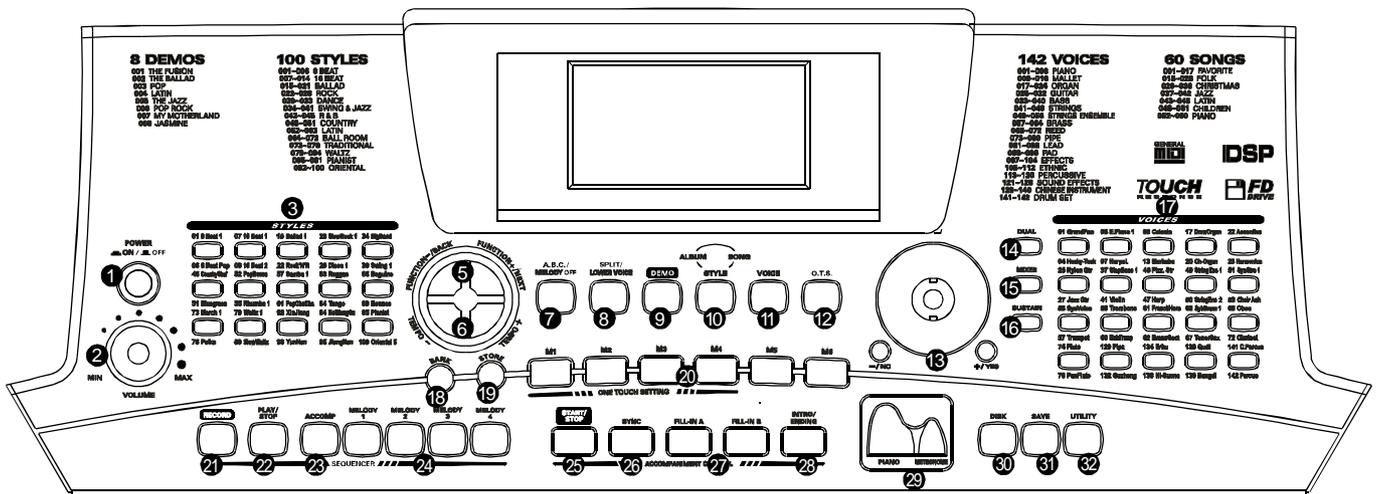
Contents

General Guide	3	Function	17-20
Power Supply	4	1.Transpose.....	17
The Connectors	4-5	2.Tune.....	17
1.The headphone jack	4	3.Octave	17
2.The damper jack.....	4	4.Beat	17
3.The Aux.Out jack.....	4	5.Touch	17
4.The volume jack	5	6.Split point.....	18
5.The MIDI IN/OUT jacks	5	7.Pitch bend range.....	18
Basic Operation	5	8.Portamento time.....	18
Power switch & volume.....	5	9.PAD assign	18-19
Voice and Effects	6-7	10.DSP on/off	19
1.Voice selecting	6	11.Reverb type	19
2.Dual voice	6	12.Reverb level.....	19
3.Lower voice	7	13.Chorus type	19
4.Split point	7	14.Chorus level.....	19
5.Piano	7	15.Local on/off.....	20
Keyboard Function	8-9	16.Receive channel.....	20
1.ABC on	8	17.Transmit channel.....	20
2.Naming.....	8	18.Default parameters.....	20
3.Portamento.....	8	Disk	21-26
4.Pith change	8	1.Using floppy disks.....	21-22
5.Pitch bend and modulation.....	8	2.Disk utility.....	22-25
6.Sustain.....	9	3.Disk save	25-26
Auto Accompaniment	9-11	Record	26-27
1.Play the style(only drum)	9	1.Start recording.....	26-27
2.Play the style(all tracks)	9-10	2.Playback recording.....	27
3.The accompaniment section.....	10	MIDI	28
4.Accompaniment operation.....	10-11	1.What is MIDI	28
Chord Recognize	12	2.MIDI connection.....	28
Volume Control	13	3.MIDI application	28
Accomp volume control.....	13	Specifications	29
Keyboard volume	13	Appendix 1-Voice List	30
Tempo	14	Appendix 2-Style List	31
Metronome	14	Appendix 3-Demo List	32
One Touch Setting	14-15	Appendix 4-Song List	32
Memory	15	Appendix 5-Album List	33
Demonstration	15-16	Appendix 6-Chord Chart	34
Album	16	Appendix 7-MIDI Chart	35
Song	16		

Main Features

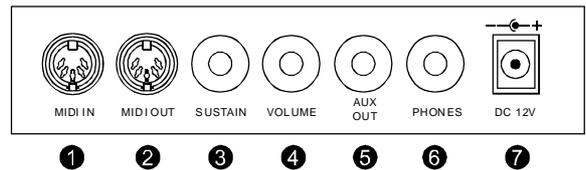
- 76 keys touch keyboard,3 kinds of touch level.
- Multi-functional LCD which can display the staff.
- Use the +/- key or wheel to select voice, style or song.
- Function features that include transpose, tune, octave, split point, pedal select, touch, DSP, midi etc.
- 142 high quality voices at all, including 128 GM Voices.
- 100 auto accompaniment styles, from 001 to 100.
- 8 demos of different style.
- 60 songs that have melody off mode.
- 100 albums that offer you some good classic music setting.
- 8 banks with 6 memories each .
- Both Single finger detect and fingers detect.
- Each record song has 5 tracks--1 accomp track and 4 melody tracks.
- Pitch bend wheel with 12 level pitch bend sensitivity.
- Portamento with 4 level portamento sensitivity.
- Modulation wheel.
- Mixer function including the volume adjustment of Voice R1, Voice R2, Voice L, Drum, Bass, Chord1,Chord2,Chord3,Accomp.
- Pedal selection function including sustain, soft, accomp start, tempo tap, and memory select.
- DSP function that can set the level of Reverb and Chorus.
- MIDI IN and MIDI OUT function, and you can select which channel to receive or transmit midi message.
- Dual, Lower voice, Sustain, Piano, O.T.S etc.
- Floppy disk driver. You can play standard midi music and save as midi files.

General Guide



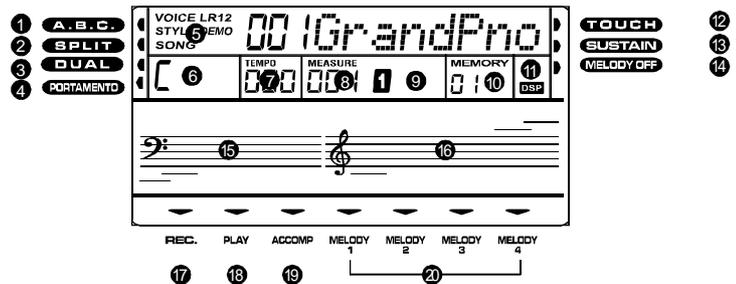
Front panel

- 1 POWER SWITCH
- 2 MASTER VOLUME
- 3 DIRECT SELECT STYLES
- 4 LCD
- 5 FUNCTION- BACK/
FUNCTION + NEXT
- 6 TEMPO +/-
- 7 A.B.C./MELODY OFF
- 8 SPLIT/LOWER VOICE
- 9 DEMO
- 10 STYLE/ALBUM/SONG
- 11 VOICE
- 12 O.T.S.
- 13 DATA DIAL +/-
- 14 DUAL
- 15 MIXER
- 16 SUSTAIN
- 17 DIRECT SELECT VOICES
- 18 BANK
- 19 STORE
- 20 M1-M6
- 21 RECORD
- 22 PLAY/STOP
- 23 ACCOMP
- 24 MELODY 1-4
- 25 START/STOP
- 26 SYNC
- 27 FILL-IN A/B
- 28 INTRO/ENDING
- 29 PIANO/METRONOME
- 30 DISK
- 31 SAVE
- 32 UTILITY



Rear panel

- 1 MIDI IN
- 2 MIDI OUT
- 3 SUSTAIN
- 4 VOLUME
- 5 AUX. OUT
- 6 PHONES
- 7 DC 12V



LCD display

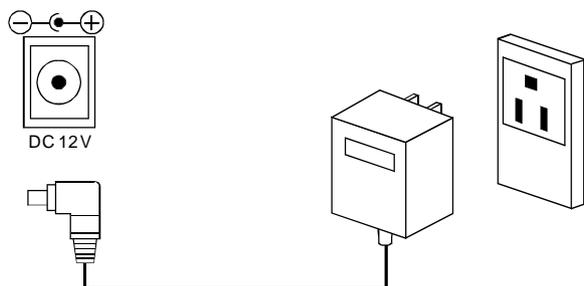
- 1 A.B.C.
- 2 SPLIT
- 3 DUAL
- 4 PORTAMENTO
- 5 VOICE/STYLE/
SONG/DEMO
- 6 CHORD
- 7 TEMPO
- 8 MEASURE
- 9 BEAT
- 10 MEMORY
- 11 DSP
- 12 TOUCH
- 13 SUSTAIN
- 14 MELODY OFF
- 15 BASS CLEF
- 16 TREBLE CLEF
- 17 REC
- 18 PLAY
- 19 ACCOMP
- 20 M1-M4

Power Supply

This electronic keyboard can be powered by current from a standard household wall outlet (using the specified AC adaptor).

Using the AC adaptor

Make sure that only the AC adaptor specified for this electronic keyboard is used. The adaptor shall be 12V DC output, and center positive type. Be sure to turn off the electronic keyboard before you connect the adaptor into the AC wall outlet and the cord into the unit.



CAUTIONS!

- Use only the specified AC adaptor. Use of another type of adaptor creates a danger of fire and electrical shock.
- For safety sake, ensure to unplug the AC adaptor from the wall outlet whenever leaving the electronic keyboard unattended for a long time.

The Connectors

The headphone jack

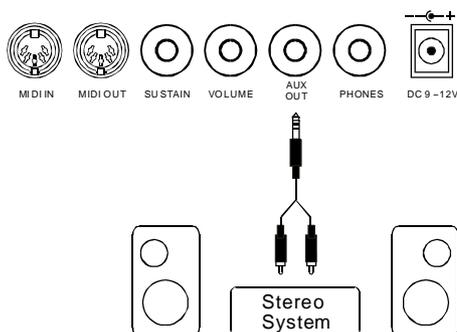
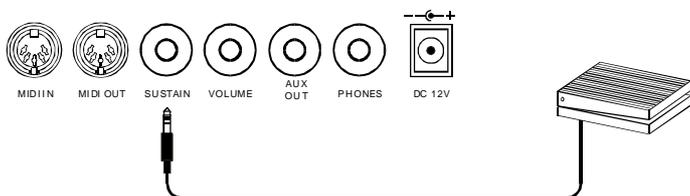
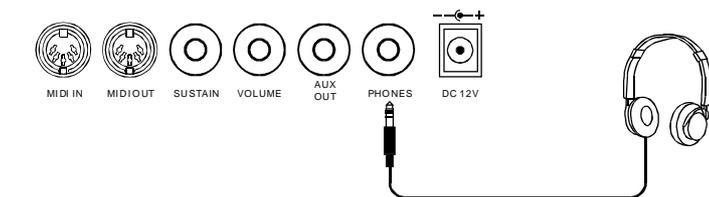
A pair of stereo headphones can be plugged into the PHONES jack for private practice or late night playing. The internal speaker system is automatically turned off when the headphones is plugged into the PHONES jack.

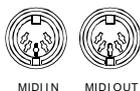
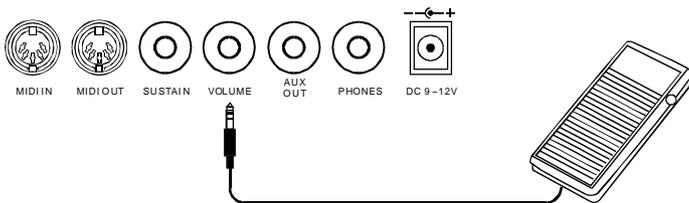
The Sustain jack

An optional footswitch can be plugged into the SUSTAIN jack for various pedal functions. For details please see the section "Function Select" in this manual.

The Aux. Out jack

The AUX. OUT jack delivers the output of the keyboard for connection to an external amplifier. Using an audio cord, plug into AUX. OUT jack located on the rear panel. Then plug the other end of the cord into LINE IN or AUX. IN of the amplifier.





The volume jack

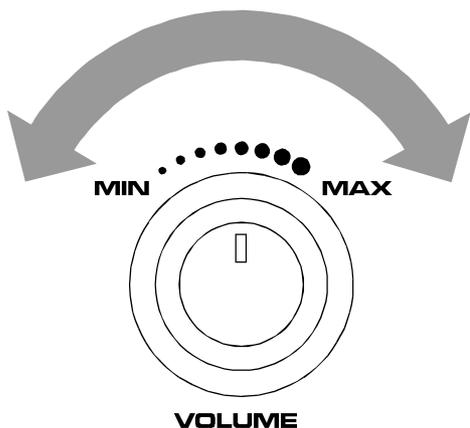
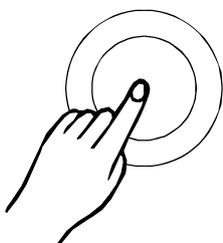
An optional volume control can be plugged into the **VOLUME** jack for adjusting the volume of sound.

The MIDI IN/OUT jacks

The **MIDI IN** connector receives MIDI data from an external MIDI device. The **MIDI OUT** connector transmit MIDI data generated by the electronic keyboard to an external MIDI device.

Basic Operation

POWER
 OFF ON



Power switch & volume

- 1 Turn the [POWER] switch on. The LCD display lights up.
- 2 Use the volume control switch to adjust the volume to your desired level.

NOTE:

- If the LCD display does not light up after you turned on the keyboard, please check the power supply. If the keyboard is silent, the volume may be adjusted to its minimum level.

Vocies and Effects

Voice selecting

1 Voice number

142 voice at all (Appendix 1), including 128 GM voice, 12 Chinese voices, and 2 percussion voices.

2 Voice setting

Press [VOICE] button to select three separate voice modes: VOICE R1, VOICE R2, VOICE L. The default VOICE R1 is No.001; LCD displays "VOICE R1" and the voice name.

Press [+ / YES] / [- / NO] button or use dial to select the voice wanted.

Use 20 voice direct select keys to select the voice with direct voices in each button (upper & nether)

NOTE:

- When change the voice, pay attention to the rules. If press the same button, the voice will be changed between upper and nether.
- If one direct button is the upper (nether) voice, the voice is also the upper(nether) when pressing other direct buttons.

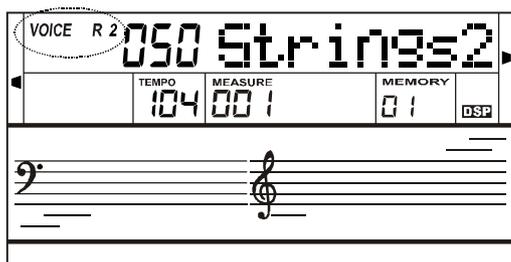
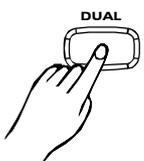
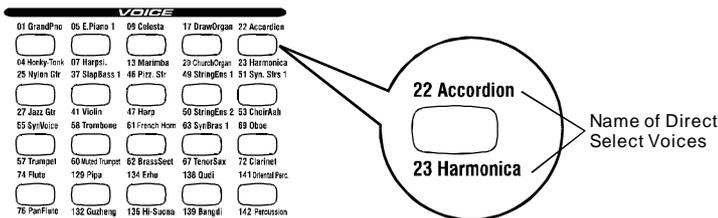
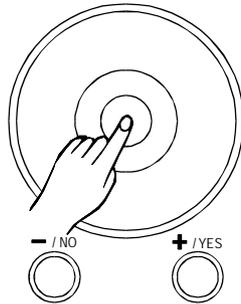
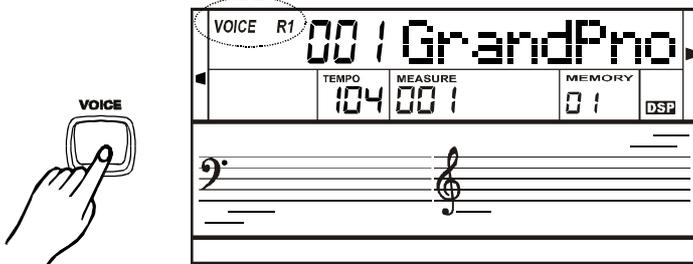
Dual voice

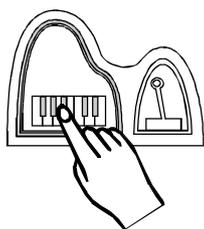
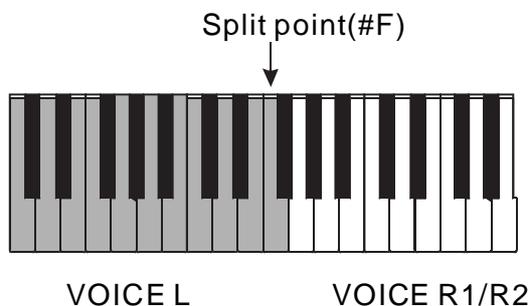
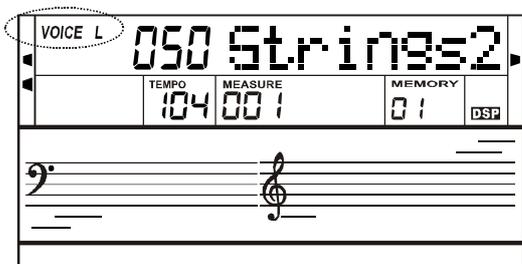
1 Press [DUAL] button to turn on the DUAL VOICE. When VOICE R1 is lightened off, " VOICE R2" and dual flag are both lightened. The dual voice name is also displayed on the LCD.

2 Press [+ / YES] / [- / NO] button or the dial to select the dual voice number. The default dual voice number is No. 50: Strings2.

3 Select the dual voice with the Direct Voice keys.

4 Press [DUAL] button again to turn off the DUAL VOICE.





Lower voice

You can split the keyboard to right and left area in this function.

- 1 Press [SPLIT/LOWER VOICE] button to turn on the lower voice. LCD lights the lower voice flag and displays "VOICE L" and the lower voice name.
- 2 Press [+ / YES] / [- / NO] button or the dial to select the lower voice number. The default lower voice number is No. 50: Strings2.
- 3 Select the lower voice with the Direct Voice buttons.
- 4 Press [SPLIT/LOWER VOICE] button again to turn off the lower voice.

Split point

- 1 In the Split Voice mode, you can assign two different Voices to opposite sections of the keyboard, and play one Voice with your left hand while your right hand plays another voice.
- 2 #F3 is the default split point. Each key on the keyboard can be set as the split point, and be stored in the memory.

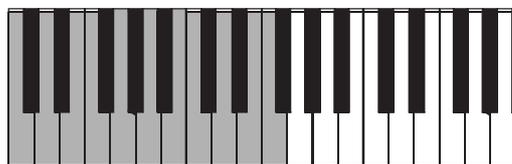
Piano

- 1 Press [PIANO] to the piano mode. The LCD displays PIANO, and the voice is changed to piano immediately. At that time, ABC, DUAL, and LOWER are all OFF.
- 2 Press [PIANO] again or press any of keys as follows : [DEMO] / [VOICE] / [ALBUM / SONG / STYLE] / [DISK] / [SAVE] / [UTILITY] / [REPLAY] / [ALBUM / SONG / STYLE] / [BANK] and the memory keys will exit the PIANO mode. The voice will no longer retain as the piano voice.
- 3 You can select the style number with the [+ / YES] / [- / NO] key, or the wheel at the PIANO mode. Press the [START / STOP] key to play the style (Only drum).
- 4 The MIXER and FUNCTION menu can be functioned.

Keyboard Function

The keyboard not only plays three voices at the same time, but also has other necessary functions.

SPLIT POINT(#F3)



ACCOMP

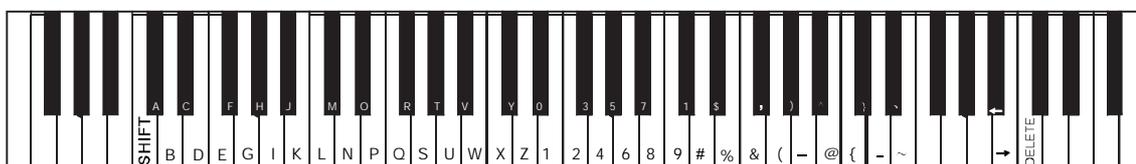
VOICRE R1/R2

ABC on

Turn ABC on. The left area of keyboard is chord area. When you play the chord, both the bass and the chord voice will phonate.

Naming

If you want to save a midi file or memory file, you can name this file with the keyboard.



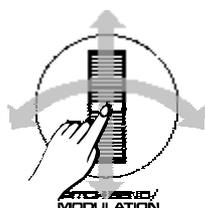
Portamento

To have portamento effect, press and hold [PORTAMENTO] button and play the keyboard. There are four types portamento time(0-3). The default time setting is 2. (You can modify the portamento time with function menu)



Pitch change

You can also adjust the tuning, octave, and change the transposition (key) of the entire sound with the Transpose and Tuning, Octave functions. (See FUNCTION MENU).



Pitch bend and modulation

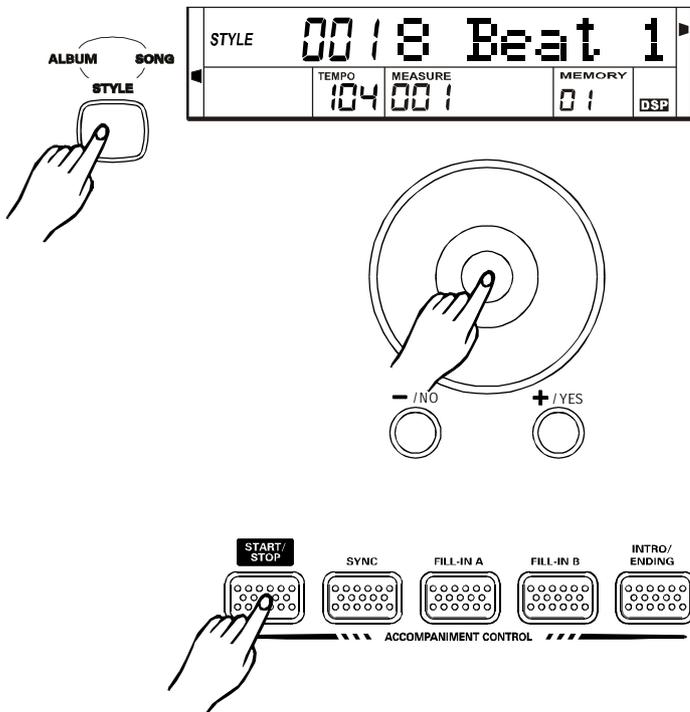
The PITCH BEND wheel which is on the left of the keyboard make the pitch of notes played on the keyboard be bended up or down. Rotate the wheel away from you to bend down, and toward you to bend up. The actual pitch bend range can be adjusted via the PB Range function in the FUNCTION menu. When rolling the Modulation wheel away from or toward you, the note will have different level modulation effect.

Sustain



- 1 Press the [SUSTAIN] button to turn the SUSTAIN effect on. The sustain icon will appear next to "sustain" on the LCD. All notes played on the keyboard will have a longer sustain effect.
- 2 When the Sustain feature is ON, press the [SUSTAIN] button to turn the SUSTAIN effect OFF.

Auto Accompaniment



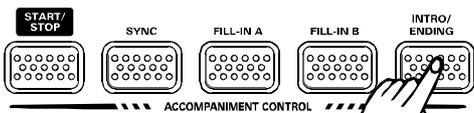
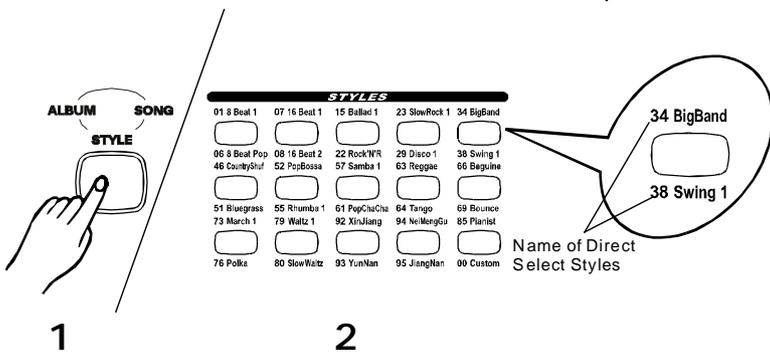
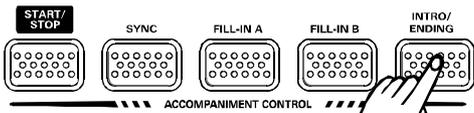
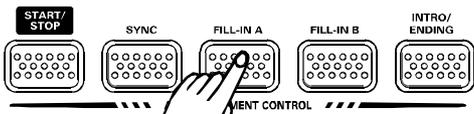
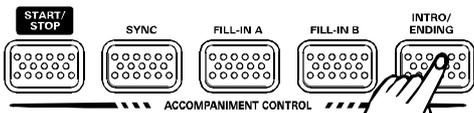
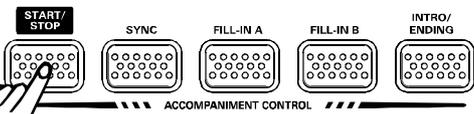
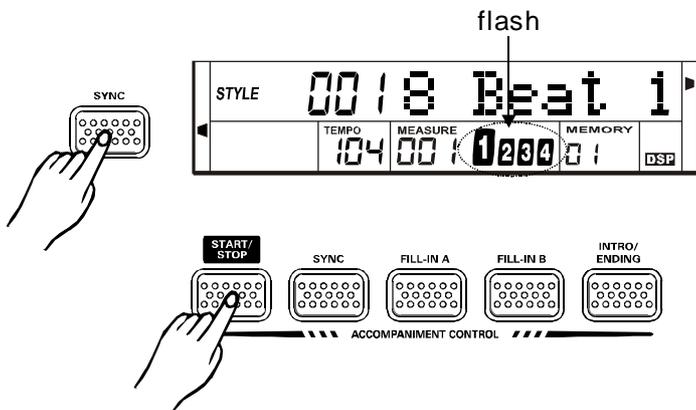
Play the style(only drum)

- 1 Press the [ALBUM/SONG/STYLE] button, or the direct style button.
- 2 Select a style.
Select the desired style number with dial,[+ /YES], [- /NO] or the direct style buttons.
- 3 Press the [START/STOP] button to start/stop playing the style (only drum).

Play the style (all tracks)



- 1 Press the [ALBUM/SONG/STYLE] button, or the direct style button.
- 2 Select the desired style number with dial,[+ /YES], [- /NO] or the direct style buttons.
- 3 Press the[A.B.C./MELODY OFF] button. The A.B.C icon will appear next to "A.B.C" on the LCD. This keyboard automatically plays bass and chord parts in accordance with the chords you finger. The relevant chord name will be shown above "CHORD" on the LCD.



- 4 Sync start
Press the [SYNC] button. The Beat display will flash at the current tempo when the synchronized start mode has been selected.
The keyboard will start to play the accompaniment by pressing "recognized" chord.
- 5 Play another chord.
- 6 Press the [START/STOP] button to stop playing the style.

The accompaniment section

Accompaniment consists of Intro, normal, variation, fill (a-a, a-b, b-a, b-b), ending. Using different sections based on the structure of songs enables you to enhance musical performance.

- 1 **INTRO**
Press the [INTRO] button to insert an intro section before you start to play. The main section will be followed by the Intro section.
- 2 **NORMAL and VARIATION**
There are two main sections: normal and variation. It has its own two or four-measure section.

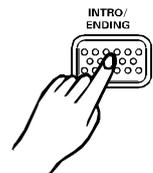
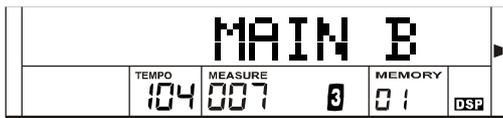
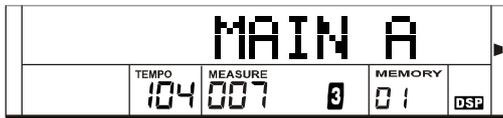
- 3 **FILL**
While the accompaniment is playing, you can fill in the rhythm/accompaniment by pressing the [FILL A] button or the [FILL B] button. This will automatically insert a fill section.

- 4 **ENDING**
When you press the [INTRO/ENDING] button, it brings rhythm accompaniment and your performance to the end.

Accompaniment operation

- 1 Press the [ALBUM/SONG/STYLE] or direct style button.
- 2 Select a style.
Select the desired style number with dial, [+ / YES], [- / NO], or the direct style buttons.
- 3 Start accompaniment.
Start immediately: Press the [START/STOP] button to start play the rhythm without bass and chord accompaniment.
Sync Start: Press the [SYNC] button. The beat display will flash at the current tempo. To start the main section and accompaniment, play any key on the keyboard. (When A.B.C is On, play a key or chord in the auto accompaniment section of the keyboard).

- 4 Play the INTRO section
This keyboard let you insert a short intro a rhythm pattern to make intro more smoother and more natural. Beats on LCD flash simultaneously in current tempo when pressing [SYNC] button.
Press [INTRO/ENDING] button to insert INTRO. LCD lightens the intro flag.
The INTRO plays automatically when the keyboard at the same time.



- 5 Play the Main(A/B) section.
Choose the desired style and press the [START/STOP] button.
Press the [FILL A] button. The fill a-a or fill b-a will begin immediately and smoothly lead into the normal.
LCD displays: "MAIN A".

Press the [FILL B] button. The fill a-b or fill b-b will begin immediately and smoothly lead into the VARIATION.
LCD displays: "MAIN B".

- 6 Play the ENDING section
To play the ENDING section, press [INTRO/ENDING].
LCD displays: "ENDING".

NOTE:

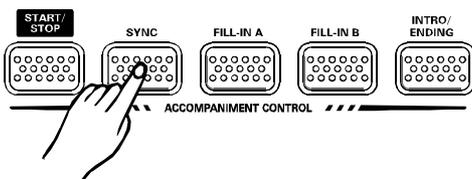
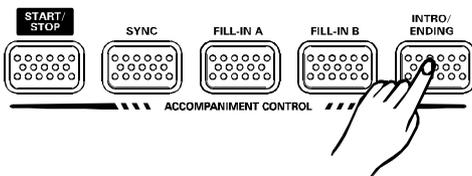
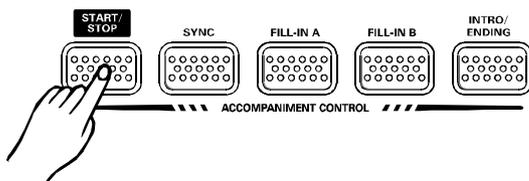
- If holding down the [FILL A] or [FILL B] button, the keyboard will play the fill section all along.
- If pressing the [FILL A] or [FILL B] button at the last beat of the current measure, the fill will begin from the first beat of the next measure.

- 7 Stop playing the style.

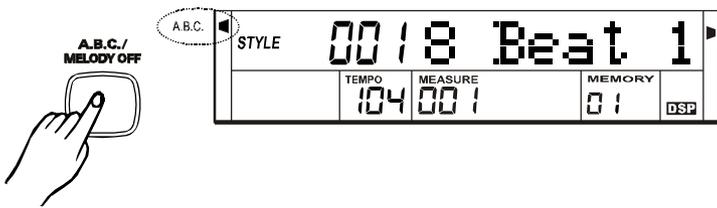
The accompaniment can be stopped at any time by pressing the [START/STOP] button.

Press the [INTRO/ENDING] button if you want to go to the ending section and then stop. The ending section will begin from the top of the next measure.

SYNC STOP: press the [SYNC] button to stop playing style.



Chord Recognize

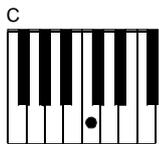


- 1 Press the [A.B.C/MELODY OFF] button to turn on the A.B.C. mode. The A.B.C icon will appear next to "A.B.C" on the LCD.
- 2 In this mode, play the chords the chord section below the split point.
- 3 You can change the chords of the accompaniment by playing keys in the auto accompaniment section of the keyboard using either the "Single Finger" or "Fingered" method.
- 4 **Single Finger detect**

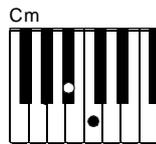
Choose the desired style. (See appendix 2)

Press the [START/STOP] button to start to play back the style.

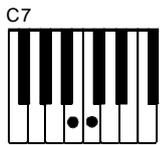
Play the chords by following the Single Finger Chord table.



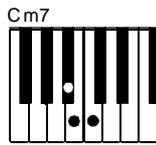
Major[M]



Minor[m]



Seventh[7]



Minor Seventh[m7]

The examples of Single Finger Chord C, Cm, C7 and Cm7 are shown as follows:

C Major [M]: To play a major chord: Press the root note of the chord.

Cm Minor [m]: To play a minor chord: press the root note together with any black key to the left of it.

C7: To play a seventh chord: Press the root note together with any white key to the left of it.

Cm7: To play a minor seventh chord: Press the note together with any white and black keys to the left of it. (Three keys altogether.)

NOTE:

- When A.B.C is ON, press the keys on the left of the split point. The chord will be recognized as fingered chords.

0 C	1 C ₆	2 CM ₇	3 Cm ₇ ^{b5}	4 Cmadd9	5 Cm9	6 C ₇ ⁹
7 C ₇ (#11)	8 C ₇ (13)	9 CM ₇ ^{#11}	10 C Madd9	11 CM9	12 Cm11	13 CmM7
14 CmM ₉	15 C ₇ (^{b9})	16 C ₇ (^{b13})	17 C ₇ (#9)	18 C ₆ (⁹)	19 Caug	20 Cm
21 Cm ₆	22 Cm ₇	23 Cdim	24 Cdim ₇	25 C ₇	26 C ₇ ^{sus4}	27 C ₇ (^{b5})
28 CM ₇ ^{aug}	29 C ₇ ^{aug}	30 C ^{sus4}	31 C ¹⁺²⁺⁵			

5 Fingered detect

Play the Fingered Chord on the keys below the Split point.

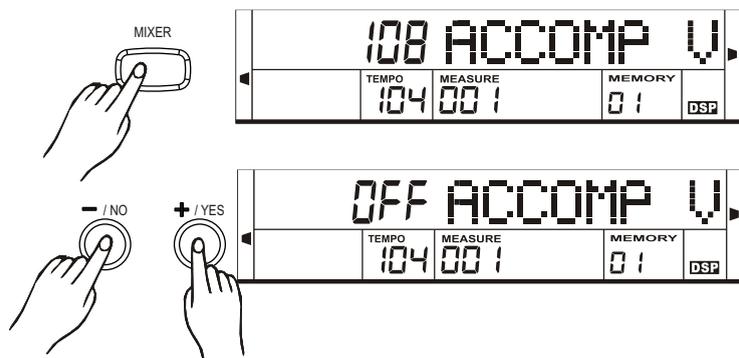
Choose your desired style.

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

Play the desired chords by following the Chord Chart (See appendix 6).

A total of 32 chords are provided as well as follows:

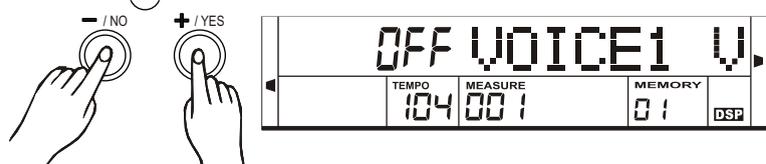
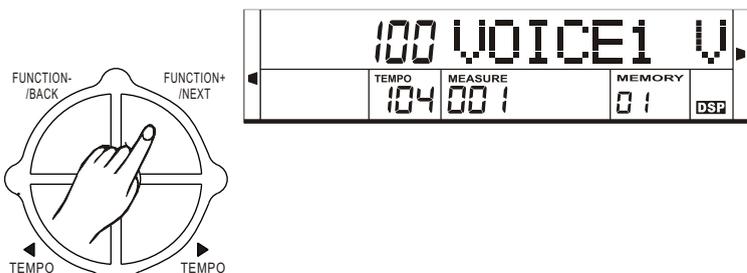
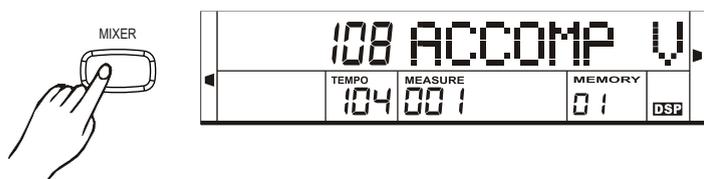
Volume Control



TRACK	CHANNEL	PARAMETER	DEFAULT
ACCOMP	CH1, CH3, CH5, CH6, CH7, CH8, CH9, CH10	0-127	108
CHORD 1	CH1	0-127	92
CHORD 2	CH3	0-127	82
CHORD 3	CH5	0-127	73
CHORD 4	CH6	0-127	75
CHORD 5	CH8	0-127	75
PERCUSSION	CH9	0-127	70
DRUM	CH10	0-127	70
BASS	CH7	0-127	85
VOICE 1	CH12	0-127	100
VOICE 2	CH13	0-127	70
LOWER	CH14	0-127	40
DISK	ALL	0-127	100



Track	Channel	Parameter Range	Default
VOICE 1	CH12	0-127	100
VOICE 2	CH13	0-127	70
LOWER	CH14	0-127	40



Accomp volume control

- 1 To adjust accomp volume control, please [MIXER] button. LCD displays : "108 Accomp V".
- 2 You can adjust the volume values of ACCOMP with dial, [+ / YES], [- / NO]. Parameter range: 000-127.
- 3 Press [+] and [-] at the same time will set the ACCOMP volume to 0. LCD displays: " OFF ACCOMP". Press them again to resume the original ACCOMP volume.

Accomp track adjust

There are 8 accompaniment tracks for you to adjust: CHORD 1, CHORD 2, CHORD 3, CHORD 4, CHORD 5, PERCUSSION, DRUM, BASS.

- 1 Select a style to adjust track volume.
- 2 Press [MIXER] button. LCD displays: "108 ACCOMP V".
- 3 Press the [FUNCTION+ / NEXT] or the [FUNCTION- / BACK] button to select the track that you want to adjust.
- 4 You can adjust the accomp track volume values with dial, [+ / YES], [- / NO]. Parameter range: 000-127. For example, CHORD1. LCD displays: "092 CHORD1 V".
- 5 Press [+] and [-] at the same time will set the accomp track volume to 0. LCD displays: "OFF CHORD1 V". Press them again to resume the original volume.
- 6 Press [MIXER] button to exit the mixer menu.

Keyboard volume

This digital piano has 3 keyboard tracks: VOICE 1, VOICE 2, LOWER.

How to adjust:

- 1 Press the [MIXER] button. LCD displays: "108 ACCOMP V".
- 2 Press the [FUNCTION+ / NEXT] or [FUNCTION- / BACK] button to select track that you want to adjust. Order: VOICE 1, VOICE 2, LOWER.
- 3 If you adjust the track voice 1, LCD displays: "100 VOICE1".
- 4 You can adjust the volume values of voice1 with dial, [+ / YES], [- / NO]. Parameter range : 000-127.
- 5 Press [+] and [-] at the same time will set the volume voice1 to 0. LCD displays OFF VOICE 1; Press [+] and [-] simultaneously again to resume the original ACCOMP volume.
- 6 The volume adjustment of other track is the same as the track: Voice 1
- 7 Press the [MIXER] button to exit this mixer menu.

Tempo

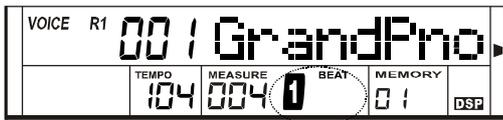
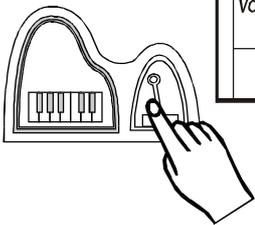


- 1 Press the [TEMPO+] or [TEMPO-] button. The tempo value will be flashing. At that time, the tempo can be adjusted in the range of 30-280.
- 2 Hold down the [TEMPO+] or [TEMPO-] button and adjust the tempo continuously.
- 3 Press [TEMPO+] and [TEMPO-] simultaneously to set the tempo value back to the default one.

NOTE:

- When the style stops while select the style, the tempo will change with the style automatically to the default tempo. When style is playing, the tempo will not change with the style.

Metronome



- 1 In the FUNCTION menu, you can adjust the beat with dial, [+ / YES], [- / NO]. The range 0, 2~9. (SEE FUNCTION OPERATION).
- 2 Press the [METRONOME] key to turn on the metronome and the metronome sound will be played.
- 3 Press the [METRONOME] key again to turn it off.

NOTE:

- The time signature changes automatically as soon as a style is selected.

One Touch Setting



One Touch Setting is powerful and convenient Style mode function that let you instantly reconfigure virtually all setting of the instrument. You can save the following setting:

- Voice R1 number and volume
- Dual function.
- Voice R2 number and volume
- REVERB and CHORUS type and level
- OCTAVE

How to recall a one touch setting

- 1 Select a style.
- 2 Each style has four desired settings.
- 3 Press the [O.T.S] button. LCD displays O.T.S and turns A.B.C ON automatically. Press the [M1~M4] button. LCD displays O.T.S 1~4. corresponding to the desired setting.

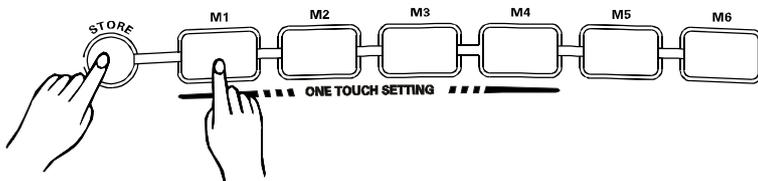
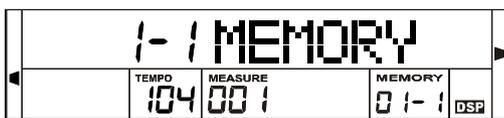
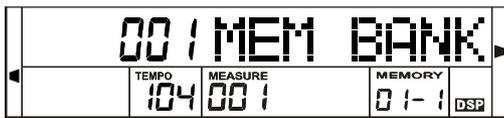


- When the style is playing, press [O.T.S] to turn on the O.T.S mode to inset a "Fill in " automatically. To insert "FILL A-A", "FILL A-B", "FILL B-A" or "FILL B-B" ,please press memory number.

NOTE:

- Press [O.T.S] key again to turn O.T.S mode off. LCD displays MEMORY.

Memory



Memory feature can be used to memorize 48 complete control-panel setups (8 banks, 6 setups each) that you can recall whenever needed.

1 Data stored by the Memory

Voice R1, Voice R2, Voice L, Sustain, Style, Tempo, Function parameter, Mixer parameter, ACCOMP volume, ABC ON/OFF.

2 Select a Memory

Press the [BANK] button. LCD displays:" 001 MEM BANK".

Press the [M1] to [M6] button. LCD displays 1-1 to 1-6. Select the desired memory bank with dial,[+/YES], [-/NO],or [BANK].

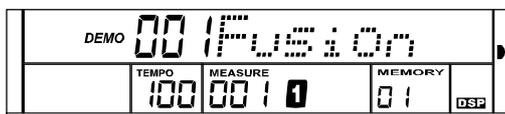
3 STORE MEMORY

Holding down the [STORE] button and pressing the [M1] to [M6] button simultaneously to store your desired memory.

4 RECALL YOUR MEMORY

First select your desired memory bank, and press any of the [M1] to [M6] button, then you can recall your desired memory.

Demonstration

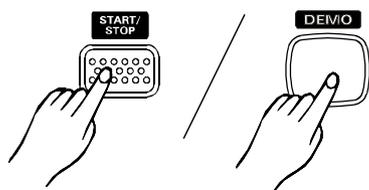


- Press the [DEMO] button to the DEMO mode. This digital piano plays all demos by turns from 001demo.

- If you hold down [DEMO] for three seconds, it will play the current demo circularly.

- Use the [MASTER VOLUME] to adjust the volume of DEMO.

- Press the [TEMPO+] or [TEMPO-] button to adjust the tempo of the DEMO.

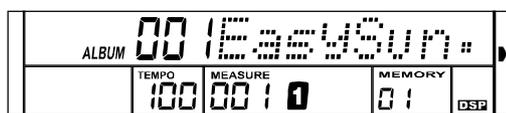


- There are 8 demos at all. You can select the demo number with dial, [+ / YES], [- / NO].
- Press the [DEMO] or [START/STOP] button to exit demo mode.

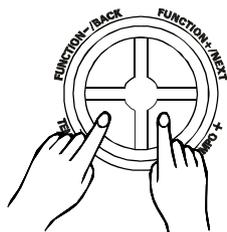
NOTE:

- All function keys on the panel are void.

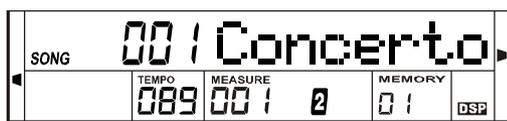
Album



- Press [ALBUM/SONG/STYLE] button to the album mode. LCD displays the name and the number of the current album.
- There are 100 albums at all. You can select the album number with dial, [+ / YES], [- / NO].
- Album parameters: accomp volume, tempo, voice, octave, DSP, normal or variation, dual, etc.
- These above parameters can be adjusted, but cannot be saved in this album.
- Press the [TEMPO+] or [TEMPO-] button to adjust the tempo of the album. If you press the [TEMPO+] and [TEMPO-] button at the same time, you can adjust the tempo to the default tempo.



Song



- Press the [STYLE/ALBUM/SONG] button to enter the SONG mode. This keyboard plays 60 songs circularly.
- Use the [MASTER VOLUME] to adjust the volume of the SONG.
- Press the [TEMPO+] or [TEMPO-] button to adjust the tempo of the SONG.
- There are 60 songs at all. You can select the song number with dial, [+ / YES], [- / NO].
- Press the [SONG] or [START/STOP] button to stop playing this song.
- Press the [START/STOP] button again to play current song circularly.
- Press the [A.B.C./MELODY OFF] button to enter the lesson mode. The melody is mute. You can play the note shown on the LCD display.
- There is a Intro and measure hint at the beginning of the song, which is easy for your learning.



Function



000 X' Pose 1			
TEMPO	MEASURE	MEMORY	DSP
080	001	01	

Press the [FUNCTION+/NEXT] or [FUNCTION-/BACK] button to enter or exit the menu of function.

Transpose

Press the [FUNCTION+/NEXT] button to adjust transpose parameter with dial, [+ /YES], [- /NO].

Parameter Range: -12 to +12 semitones.

NOTE:

- X'pose 1: Adjust the transpose parameter of voice R1;
- X'pose 2: Adjust the transpose parameter of voice R2;
- X'pose L: Adjust the transpose parameter of voice L.



000 Tune			
TEMPO	MEASURE	MEMORY	DSP
080	001	01	

Press the [FUNCTION+/NEXT] button to adjust tune parameter with the dial, [+ /YES], [- /NO].

Parameter Range: -50 to +50 cents.

Octave

Press the [FUNCTION+/NEXT] button to adjust Octave parameter with dial, [+ /YES], [- /NO].

Parameter Range: -2 to +2.

NOTE:

- You can change the OCTAVE and TRANSPOSE parameters of VOICER1, VOICER2, VOICE L separately and change the TUNE parameters of VOICE 1 only.



000 Octave 1			
TEMPO	MEASURE	MEMORY	DSP
080	001	01	



004 Beat			
TEMPO	MEASURE	MEMORY	DSP
080	001	01	

Beat

Press the [FUNCTION+/NEXT] button to adjust beat parameter with dial, [+ /YES], [- /NO].

Parameter Range: 0,2 to 9.



002 Touch			
TEMPO	MEASURE	MEMORY	DSP
080	001	01	

Touch

Press the [FUNCTION+/NEXT] button to adjust touch parameter with dial, [+ /YES], [- /NO].

Parameter Range: from off to 3.

If you select the OFF, the touch sign will put out.

off Touch			
TEMPO	MEASURE	MEMORY	DSP
080	001	01	



034 SplitPt			
TEMPO	MEASURE	MEMORY	DSP
080	001	01	

Split point

Press the [FUNCTION+/NEXT] button to adjust split point parameter with dial,[+ /YES],[- /NO] or press the corresponding key.

Parameter Range:from 1 to 76.



002PB Range			
TEMPO	MEASURE	MEMORY	DSP
080	001	01	

Pitch bend range

Press the [FUNCTION+/NEXT] button to adjust pitch bend range parameter with dial,[+ /YES],[- /NO].

Parameter Range:from 0 to 12.



002Portamen			
TEMPO	MEASURE	MEMORY	DSP
080	001	01	

Portamento time

Press the [FUNCTION+/NEXT] button to adjust portamento time with dial,[+ /YES],[- /NO].

Parameter Range:from 0 to 3.



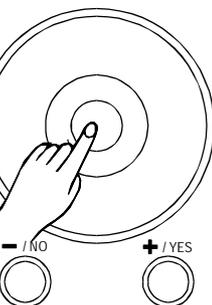
001PedalSus			
TEMPO	MEASURE	MEMORY	DSP
080	001	01	

PAD assign

Press the [FUNCTION+/NEXT] button to adjust PAD parameter with dial,[+ /YES],[- /NO].

Parameter Range:from 1 to 5---Sustain,Soft,Accompst, Tempo tap,Memory.

1 The default pedal is the sustain pedal. All notes played on the keyboard will have a longer sustain by stepping the pedal.



002PedalSft			
TEMPO	MEASURE	MEMORY	DSP
080	001	01	

2 If you select the soft pedal, all notes played on the keyboard will have a soft effect by stepping the pedal.

NOTE:

- This keyboard has another substantive soft pedal.

003PedalAcc			
TEMPO	MEASURE	MEMORY	DSP
080	001	01	

3 If you select the AccompSt pedal, it has the same function as press the [START/STOP] button by stepping the pedal.

004PedalTap			
TEMPO	MEASURE	MEMORY	DSP
080	001	01	

4 If you select the TEMPOTAP pedal, you can quickly adjust the tempo of songs, demos, and styles, by stepping the pedal four times continuously,

005PedalMem			
TEMPO	MEASURE	MEMORY	DSP
080	001	01	

5 If you select the MEMORY SELECT pedal, you can select each memory in turn by stepping the pedal. (from the MEMORY 01-1 to 08-4, all 32 memories).

on DSP Type			
TEMPO	MEASURE	MEMORY	DSP
080	001	01	

DSP on/off

Press the [FUNCTION+/NEXT] button to turn DSP on/off with dial, [+ / YES], [- / NO].

If you turn DSP off, the DSP sign will put out.

OFF DSP Type			
TEMPO	MEASURE	MEMORY	DSP
080	001	01	

Reverb type

Press the [FUNCTION+/NEXT] button to adjust reverb type parameter with dial, [+ / YES], [- / NO].

Parameter Range: from 0 to 7.

004Rve. Type			
TEMPO	MEASURE	MEMORY	DSP
080	001	01	

Reverb level

Press the [FUNCTION+/NEXT] button to adjust reverb level parameter with dial, [+ / YES], [- / NO].

Parameter Range: from 0 to 127.

040Rve. Lev1			
TEMPO	MEASURE	MEMORY	DSP
080	001	01	

Chorus type

Press the [FUNCTION+/NEXT] button to adjust chorus type parameter with dial, [+ / YES], [- / NO].

Parameter Range: from 0 to 7.

002Cho. Type			
TEMPO	MEASURE	MEMORY	DSP
080	001	01	

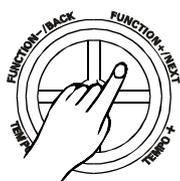
Chorus level

Press the [FUNCTION+/NEXT] button to adjust chorus level parameter with dial, [+ / YES], [- / NO].

Parameter Range: from 0 to 127.

000Cho. Lev1			
TEMPO	MEASURE	MEMORY	DSP
080	001	01	





Local on/off

Press the [FUNCTION+/NEXT] button to turn local on/off with dial,[+ /YES],[- /NO].

Receive channel

Press the [FUNCTION+/NEXT] button to adjust receive channel with dial,[+ /YES],[- /NO].

Parameter Range: 1 16 ALL.

If you select All , the instrument can receive midi message from all (1-16) midi channel.

Transmit channel

Press the [FUNCTION+/NEXT] button to adjust transmit channel with dial,[+ /YES],[- /NO].

Parameter Range: 1-16.

Only select one channel to transmit the midi message each time.

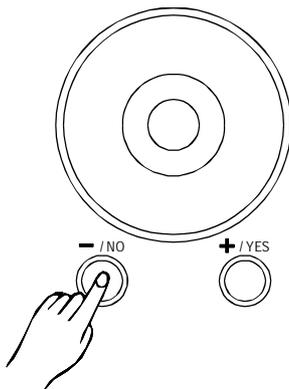
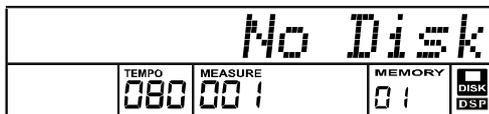
Default parameters

Press the [+] and [-] button simultaneously to set the parameter to its default value.

For example:

PARAMETER	RANGE	DEFAULT
XPOSE	-12~12	0
TUNE	-50~50	0
OCTAVE	-2~2	0
BEAT	0,2~9	4
TOUCH	OFF1~3	2
SPLITPT	1-76	27
PB RANGE	0~12	2
KEY SELECT	PORTAMNETO/MODULATION	PORTAMENTO
PORTAMEN	0~3	2
PEDALSUS	PEDALSUS,SOF,ACC,TAP,MEM	PEDALSUS
DSP TYPE	ON/OFF	ON
REV.TYPE	0~7	4
REV.LEVL	0~127	40
CHO.TYPE	0~7	2
CHO.LEVL	0~127	0
LOCAL	ON/OFF	ON
RECEIVE	1~16ALL	ALL
TRANSMIT	1-16	1

Using floppy disks



1 List Song Names of Disk

Insert the floppy disk that containing standard midi file into the disk drive, and then press the [DISK] button, "Wait..." will display and the disk icon will flash on the LCD during loading disk song names.

A song name of disk and disk icon is appeared on the LCD display. Only the names which extension is .MIDI in disk will be displayed and maximum value is 8. For example, the midi file is SONG1.MID. The LCD displays SONG1.

Press the [YES/+],[NO/-], dial to select the song of disk that you want to playback.

If there is no disk in the disk drive, "No Disk" appears on the LCD after pressing [DISK] button.

2 Playback Disk Song

It will begin or stop playing back the disk song after you pressed the [START/STOP] button

You can choose another disk song while a midi song is playing by pressing the dial and [YES/+]/[NO/-] button .

The playing song will be stopped as soon as the number of song is changed.

If the song's number you selected have loaded, the song name will appear and it will start to play at once. Otherwise the "Wait..." will display until the midi file to be loaded.

NOTE:

- Flashing disk icon indicates the song data is loading or writing. Do not take out the floppy disk from disk drive while disk icon is flashing. The disk icon will stop flashing and lighting after having loaded.
- There is enough memory to store the disk song data in the keyboard. Playing any of the disk song will load nothing if all disk songs' data have been loaded. "No Disk" will appear on the LCD when taking out floppy disk from disk drive in disk mode.
- It is suggested that users should insert a disk into disk drive while playing the unit.



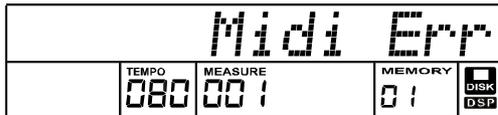
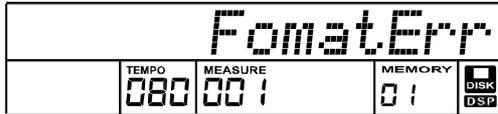
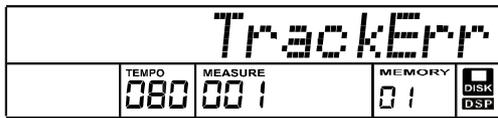
If no floppy disk in disk drive, the LCD will display "No Disk".



If the floppy disk is empty or there is no file which extension is .mid, the LCD will display "No File".



If loading disk is error, the LCD will display "Disk Err".



If the track number of a playing song is more than 64, the LCD will display: "Track Err".

If the midi format of a playing song is not format0 or format1, the LCD will display : "Format Err".

If the ticks in one beat of a playing song is more than 1024 or less than 24, the LCD displays : "Midi Err".

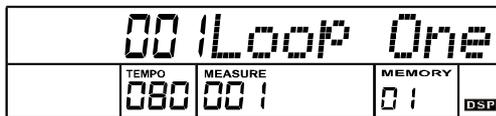
If midi data is irregular, the LCD will display : "Midi Err" or "Track Err".

Disk utility

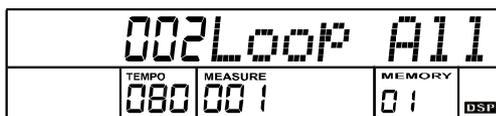
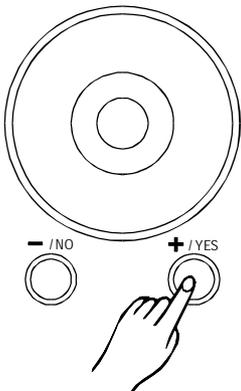
Press the [UTILITY] button, the "Play Mode", "Format" and "Delete" functions will be selected by [+], [-] button and data dial. If you want to enter these disk functions, you can press the [FUNCTION+/NEXT] button. To exit, press the [BACK] button..

1 Play mode

Press [UTILITY] button, the LCD will display:



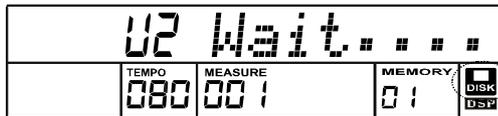
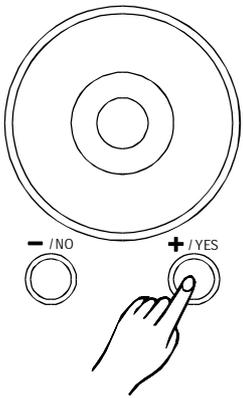
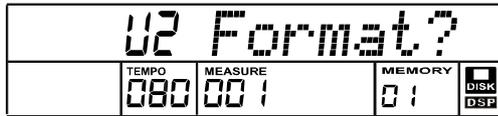
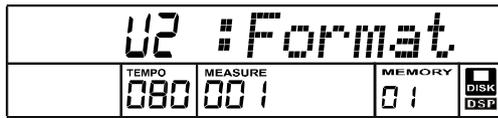
Press [FUNCTION+/NEXT] button to enter PlayMode, "Loop One" appearing on the LCD, indicating the disk songs will playback repeatedly.



Press [+] button or data dial. The "Loop All" indicating the disk songs will playback from the first songs to the end and then return to start first song again. Press [-] button or data dial will appear "Loop One".

NOTE:

- You can still receive MIDI data through the MIDI IN connector when the disk song is playing, but it may cause unexpected errors. We suggest you do not playback disk songs and receive MIDI data simultaneously.



2 Disk format

Press [UTILITY] button and then press [+] button or rotate data dial, LCD will display: "U2:Format".

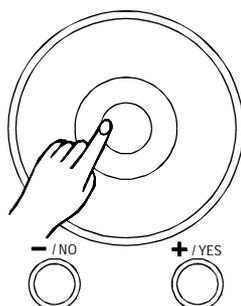
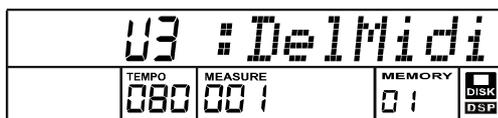
Press [FUNCTION+/NEXT] button. "FORMAT?" will appear on the display.

Press [+] button to execute the format operation (or press [-] button to cancel). "Wait...." will appear and disk icon will flash on the display when format is in process.

When the disk has been formatted, "FormatOK" will display on the LCD.

NOTE:

- There is no action if you press any buttons when the disk is formatting.
- When a write-protected disk is loading, "Protect!" will be displayed.



3 Delete midi

Select the disk midi deletion function by pressing the [UTILITY] and [+] button or rotating data dial, "DelMid" will appear on the display.

Press [FUNCTION+/NEXT] button and the disk song name(.midi) will display.

Press [+] button or data dial to select the song you want to delete.



Press [NEXT] button and LCD will display:"Delete ?"

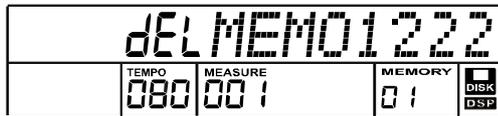
If you are sure, press [+] button and "Wait..." will appear on the LCD.

If you do not want to delete the song, press [-] button .

Return to step 2 after the step above.

4 Delete memory

Select the disk memory deletion function by pressing the [UTILITY] and [+] button or rotating data dial. "Del Memo" will appear on the display.



Press [FUNCTION+/NEXT] button and the disk memory name(.mem) will display.

Press [+] button or data dial to select the memory you want to delete.



Press [FUNCTION+/NEXT] button and LCD will display "Delete ?"

If you are sure,you can press [+] button and "Wait..." will appear on the LCD. If you do not want to delete the song,you can press [-] button .

Return to step 2 after the step above.

5 Load midi

Select the load disk mid function by pressing the [UTILITY] and [+] button or rotating data dial, "LoadRec" will appear on the display.



Press [FUNCTION+/NEXT] button and the saved disk mid name (*.mid) will display.



Press [+] button or data dial to select the mid you want to load.



Press [FUNCTION+/NEXT] button and LCD will display "Wait..." LCD will display as below when the MIDI song is loading at the end.

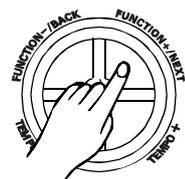
NOTE:

- Load mid function is only used for the midi files that be saved by the piano. If the midi files saved from PC or other midi devices, their names will not display on LCD and this function will be no effect.
- If you modified the midi file with PC, the midi file will not display in this function.
- If data is error, LCD will display "ERRORREC".
- If you have loaded a midi file by this function, the recorded memory data will be overwritten. You can continue to edit recorded data by record.



6 Load memory

- Select the load disk memory function by pressing the [UTILITY] and [+] button or rotating data dial. "LoadMem" will appear on the display.



- Press [FUNCTION+/NEXT] button and the disk memory name(.mem) will display.

- Press [+] button or data dial to select the mem you want to load.



- Press [NEXT] button and LCD will display "Wait...". LCD will display as below if the memo is loading at the end.

NOTE:

- This function is only used for the memory files that saved by the piano. If not, LCD will display "ERRORMEM".

Disk save



1 Save midi

- Press [SAVE] button to select Disk Save mid job.



- Press [FUNCTION+/NEXT] button to enter save midi file mode.

"MIDI0001" will appear on the LCD and the character "0" will flash to be changed by keyboard

You can press some special keyboards to remove the "flash" character to rename or delete it.

A standard midi format file will be saved in the disk. The file is always located in the root of disk. This midi file can be continued to edit by MIDI function.

- Input file name: If you want to enter a new name for the saved song, you can press the [←] keyboard or [→] keyboard to move the position of character you want to modify and then press the other special keyboard to name the song. A song name can consist of up to 8 characters.
- Press [FUNCTION+/NEXT] button after entering new song name to confirm. The "OverWri?" will appear on the LCD when there is a same song name in the disk. Press [FUNCTION-/BACK] or [-] button to rename. Press [+] button to overwrite the original file.

NOTE:

- The "DISK FUL" will appear on the LCD if there is no more space in the disk.
- The LCD will display "Protect!" if a write-protected disk is load. Press number button or [+]/[-]/[FUNCTION-/BACK] button to return renaming song.



2 Save memory

- Press [SAVE] and [+] button to select Save memory file function.



- Press [FUNCTION+/NEXT] button to enter save memory file mode. LCD will display memory name.

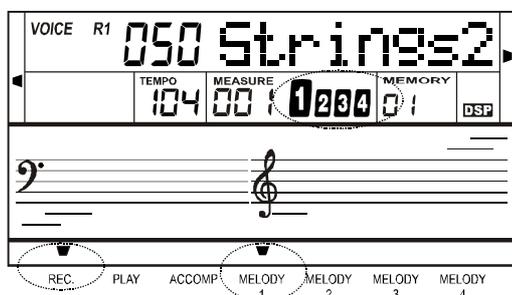
- If you want to enter a new name for the new mem file, press the [←] keyboard or [→] keyboard to move the position of character you want to modify and then press the other special keyboard to name of mem. A mem name can consist of up to 8 characters.
- Press [FUNCTION+/NEXT] button after entering new song name if you confirm. The "OverWri?" will appear on the LCD when there is a same song name in the disk. Press [FUNCTION-/BACK] or [-] button to rename. Press [+] button to overwrite the original file.

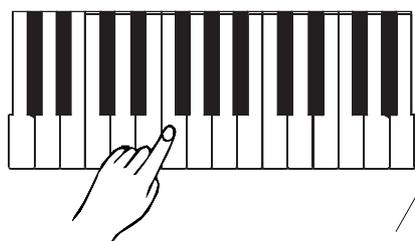
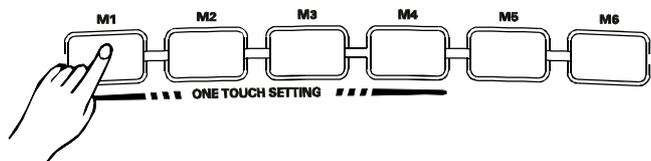
Record

There is one user song can be recorded in the keyboard.
Each song has 5 tracks (1 ACCOMP track, 4 MELODY tracks). You can record the user song and save them into disk with the standard MIDI format.

Start recording

Press [RECORD] button. The REC flag will appear on the LCD and enter real time recording mode. The 4 beats will flash simultaneity on the LCD, indicating that it is ready for record.





A melody track will be selected automatically after entering recording mode. You can also press melody track buttons to select other track for recording.

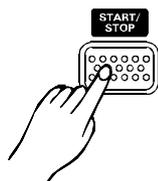
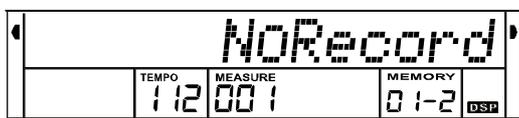
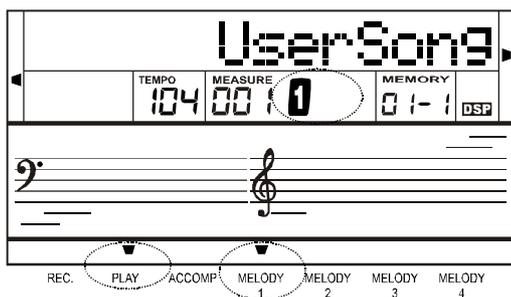
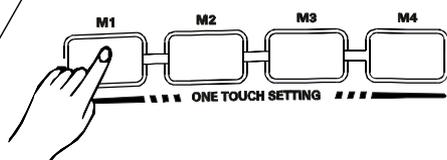
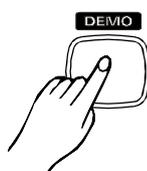
The recording will start as soon as you play a note on the keyboard or press [START/STOP] button. The TEMPO data will display with current TEMPO value and beat will appear on the LCD.

If a track is started to record, the data recorded before in this track will be deleted and over written by new record data.

If record starts, the parameter of TUNE will be reset automatically. You can turn on the metronome but the click is not recorded in user song when recording is in process.

Press [START/STOP] button to play or stop the STYLE. It will not exit record mode when the recording is in process.

Press [DEMO] button to stop recording. Demo song plays at once. The record will not lose.



Playback recording

1 Select track

Press the [M1]--[M4]/[ACCOMP/CLEAR] button to select a record track. A lighting flag of the track indicates that the relative track is turned on. You can not light the flag of the track that there is not any record data.

2 Playback

Press [PLAY/STOP] button to start playing the tracks after you have selected it.

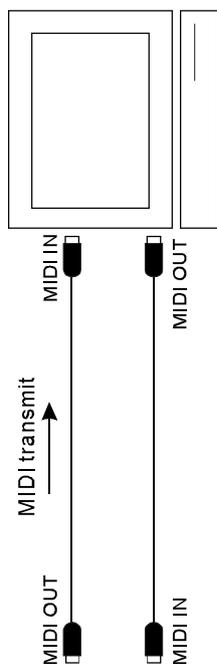
If the USER SONG is empty or no tracks are selected, the LCD will display : "NoRecord".

3 Stop playback

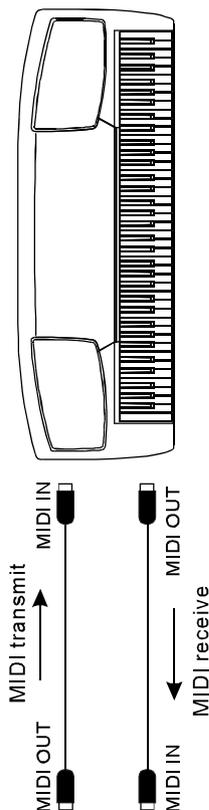
Press [PLAY/STOP] button to stop playing when a user song is playing

NOTE:

- The recorded data will be clear after power on or reset



A



B

What is MIDI

- 1 Musical Instrument Digital Interface. The standard interface between PC and Electronic instrument.
- 2 It is equipped with standard MIDI interface, including 1 MIDI IN and 1 MIDI OUT.
- 3 Connection
It can connect with PC or other MIDI equipment.

MIDI connection

- 1 **Connection rule**
In midi connection, the equipment which controls another equipment is called “Host equipment” , while another is called “affiliated equipment” .
The host equipment's MIDI OUT connect with affiliated equipment's MIDI IN.
Do not connect MIDI OUT with MIDI IN on the same equipment.

- 2 **The method of connection**
 - A. Connect the MIDI interface with PC.
 - B. Connect the MIDI interface with the other MIDI interface.

NOTE:

- When playback recording and playing disk, you can not use MIDI IN function, or the song you are playing will error for the same channel.

MIDI application

- 1 The keyboard controls other equipment or electronic instrument.
- 2 Other equipments control it. (See MIDI CHART for details of MIDI information)
- 3 PC can record the play on it.

Specifications

Keyboard	76 keys touch keyboard,3 kind of touch level.
Voice	142 Voices
Style	100 Styles
Demo Song Album	8 Demos and 60 Songs and 100 albums
Max, Polyphony	64-note Polyphony (max)
Display	Multi functional LCD display with blue backlit
Switch and Buttons	POWER SWITCH, VOLUME,ALBUM/SONG/STYLE,DUAL, O.T.S, DEMO, TOUCH, DIAL, TEMPO,ACCOMP VOLUME,NUMERIC KEYPAD, SPLIT/LOW VOICE, METRONOME, BANK,STORE, MEMORY 1-6,PIANO,FUNCTION +/NEXT,FUNCTION-/BACK, MIXER,SUSTAIN,TOUCH,DSP,PORTAMENTO/MODULATION, A.B.C/MELODY OFF,DISK,SAVE,UTILITY
Accompaniment Control	START/STOP, SYNC, INTRO/ENDING, FILL-IN A, FILL-IN B
Record function	RECORD,PLAY/STOP, 4 Melody tracks and 1accompaniment track
Sequencer	ACCOMP/CLEAR, MELODY 1-4
Panel Memory	48 Memory Storage
MIDI	TRANSMIT, RECEIVE, 16 MIDI TERMINALS
Connectors	DC 12V, PHONES, AUX. OUT, VOLUME, DAMPER, MIDI IN/OUT
Speaker	4 Ω 15w x 2(sackbut);2wx2(althorn)
Dimension	1230(W) x 425(D) x 170(H)mm
Weight	11.7kg

Appendix 1-Voice List

PIANO	BRASS	PERCUSSIVE
001 Acoustic Grand Piano	057 Trumpet	113 Tinkle Bell
002 Bright Acoustic Piano	058 Trombone	114 Agogo
003 Electric Grand Piano	059 Tuba	115 Steel Drums
004 Honky-Tonk Piano	060 Muted Trumpet	116 Wood Block
005 E.Piano1	061 French Horn	117 Taiko Drum
006 E.Piano2	062 Brass Section	118 Melodic Tom
007 Harpsichord	063 Synth Brass 1	119 Synth Drum
008 Clavi	064 Synth Brass 2	120 Reverse Cymbal
MALLET	REED	SOUND EFFECTS
009 Celesta	065 Soprano Sax	121 Guitar Fret Noise
010 Glockenspiel	066 Alto Sax	122 Breath Noise
011 Music Box	067 Tenor Sax	123 Seashore
012 Vibraphone	068 Baritone Sax	124 Bird Tweet
013 Marimba	069 Oboe	125 Telephone Ring
014 Xylophone	070 English Horn	126 Helicopter
015 Tubular Bells	071 Bassoon	127 Applause
016 Santur	072 Clarinet	128 Gunshot
ORGAN	PIPE	CHINESE INSTRUMENT
017 Drawbar Organ	073 Piccolo	129 Pipa
018 Jazz Organ	074 Flute	130 Yue qin
019 Rock Organ	075 Recorder	131 Zhong ruan
020 Church Organ	076 Pan Flute	132 Gu zheng
021 Reed Organ	077 Blown Bottle	133 Yangqin
022 Accordion	078 Shakuhachi	134 Erhu
023 Harmonica	079 Whistle	135 Gao hu
024 Tango Accordion	080 Ocarina	136 Hi- Suona
GUITAR	LEAD	137 Lu shen
025 Classic Guitar	081 Lead1(square)	138 Qudi
026 Steel Guitar	082 Lead2(sawtooth)	139 Bangdi
027 Jazz Guitar	083 Lead3(calliope)	140 Xiao
028 Clean Guitar	084 Lead4(chiff)	DRUM SET
029 Muted Guitar	085 Lead5(charang)	141 Chinese Percussion
030 Overdriven Guitar	086 Lead6(voice)	142 Percussion
031 Distortion Guitar	087 Lead7(fifths)	
032 Guitar Harmonics	088 Lead8(bass & Lead)	
BASS	PAD	
033 Acoustic Bass	089 Pad1(newage)	
034 Finger Bass	090 Pad2(warm)	
035 Pick Bass	091 Pad3(Polysynth)	
036 Fretless Bass	092 Pad4(choir)	
037 Slap Bass 1	093 Pad5(bowed)	
038 Slap Bass 2	094 Pad6(metallic)	
039 Synth Bass 1	095 Pad7(halo)	
040 Synth Bass 2	096 Pad8(sweep)	
STRINGS	EFFECTS	
041 Violin	097 FX1(rain)	
042 Viola	098 FX2(soundtrack)	
043 Cello	099 FX3(crystal)	
044 Contrabass	100 FX4(atmosphere)	
045 Tremolo Strings	101 FX5(brightness)	
046 Pizzicato Strings	102 FX6(goblins)	
047 Orchestral Harp	103 FX7(echoes)	
048 Timpani	104 FX8(sci-fi)	
STRING ENSEMBLE	ETHNIC	
049 Strings Ensemble 1	105 Sitar	
050 Strings Ensemble 2	106 Banjo	
051 Synth Strings 1	107 Shamisen	
052 Synth Strings2	108 Koto	
053 Choir Aahs	109 Kalimba	
054 Voice Oohs	110 Bagpipe	
055 Synth Voice	111 Fiddle	
056 Orchestra Hit	112 Shanai	

Appendix 2-Style List

8 BEAT	
001	8 Beat1
002	8 Beat2
003	8 Beat3
004	8Bt Clas
005	8Bt Hiph
006	8 Bt Rock
007	8 Bt Pop
16 BEAT	
008	16 Beat 1
009	16 Beat 2
010	16 Beat 3
011	16 Bt Pop
012	16 BtFunk
013	FunkPop
014	Fusion
015	JazzRock
016	Pop Shfl
017	Shuffle
ROCK	
018	Rock1
019	Pop Rock
020	Rk'N'R 1
021	Rk'N'R 2
022	Light Rk
023	Rock2
024	Rk Shfl1
025	6 / 8 Rock
026	Rk Shfl2
027	4 / 4 Blues
BALLAD	
028	Ballad1
029	SlowBld
030	16 Bt Bld
031	Pop Bld
032	DanceBld
033	Orgn Bld
034	BluesBld

DANCE	
035	Disco1
036	Disco2
037	Dance
038	House
039	Techno
SWING & JAZZ	
040	Swing1
041	Big Band
042	JazzBld
043	BB Bogie
044	Boogie
045	Swing2
046	Dixie
047	JazzTrio
R & B	
048	R&B 1
049	R&B 2
050	Soul
051	SoulShfl
COUNTRY	
052	Country
053	CtryRock
054	CtryPop
055	Ctry 8Bt
056	CtryShfl
057	BluGrass
LATIN	
058	Bossa1
059	Bossa2
060	PopBossa
061	Gtr Bosa
062	Rhumba1
063	GtrRumba
064	Samba 1
065	Mambo
066	Salsa
067	JazSamba
068	PpChaCha
069	Reggae
070	PopRegae

BALL ROOM	
071	Twist
072	Beguine 1
073	Tango
074	Cha Cha
075	Beguine2
076	Rhumba2
077	Samba2
078	Bounce
	Foxtrot
080	Quick Stp
081	Jive
TRADITIONAL	
082	March 1
083	6/8 M arch
084	Polka1
085	Polka2
086	PolkPop1
087	PolkPop2
WALTZ	
088	VienWltz
089	SlwWltz1
090	Waltz
091	SlwWltz2
092	CtryWltz
093	JazzWltz
094	OrchWltz
095	Musette
PIANIST	
096	Pianist
097	Ballad2
098	SlowRk 2
099	Bossa3
ORIENTAL	
100	Oriental

Appendix 3-Demo List

01	The Fusion
02	The Ballad
03	Pop
04	Latin
05	The Jazz
06	Pop Rock
07	My Motherland
08	Jasmine

Appendix 4-Song List

Classic 001-017		Children 035-039	
001	Concerto for Violin and Orchestra in a Minor	035	Amazing Grace
002	Nocturne	036	Sippin Cider Through A Straw
003	Symphonie No.94 Surprise	037	Battle Hymne Of The Republic
004	Carmen	038	Carry Me Back To Old Virginny
005	The Stage Coach	039	Oh! Susanna
006	Nocturne (Chopin)	Favorite 040-054	
007	Back Arioso	040	Lover's Concerto
008	mov. 1 Symphony No. 45 in F# Farewell	041	Etudes Op10 No11 In Eb Maj
009	Heidenr slein	042	Something In The Air
010	German Dance no.6 in E	043	Trumpet Voluntary
011	Canon	044	Long Long Ago
012	Sonata	045	Guitar Quartet in D mov. 4 Minuetto
013	Flute Sonata No 7 in A minor mov. 4	046	American Patrol
014	Concerto in F Op. 4 No. 5 mov. 3	047	Old Floks At Home
015	The Entertainer	048	Mazurka for Piano Op. 6 No. 1
016	The Old Gray Mare	049	Rondo # 1
017	Brahms Lullaby	050	O' Sole Mio
Folk 018-029		051	Nocturnes Op. 32 No. 2 in Ab
018	Londonderry Air	052	mov. 2 Adagio Cello Concerto
019	My Bonnie	053	in D Op. 101
020	Nocturne Op. 15 No. 2 in F#	054	Chant San Sparoles Op. 40 No. 6
021	German Dance no. 1 in D		German Dance no. 5 in D
022	Red River Valley	Piano 055-060	
023	Etudes Op. 10 No. 3 in E Major	055	Impromptu
024	Troika	056	Nocturne
025	Nocturnes Op. 62 No. 2 in E	057	Minuet
026	The Sideway	058	Invention A 2 Voix
027	Turkey In The Straw	059	Gavotte
028	Old Black Joe	060	Spring
029	Rondo		
Christmas 030-034			
030	Ave Maria		
031	Der Deitcher's Dog		
032	Joy To The World		
033	Santa Claus Is Coming To Town		
034	Silent Night		

Appendix 5-Album List

NO	ALBUM	NO	ALBUM	NO	ALBUM
	FAVORITE		FUNK&SOUL	077	Dance Of The Crown
001	Easy Sunday	039	Down By The Riverside	078	Beer Tub Boercar
002	Moon Light	040	Billy Bailey	079	The Happiness Of Bumper
003	Love Me Or Not	041	Greensleeves	080	Amusement
004	Someone For Me	042	The Cuckoo	081	Tulip
005	Sitting Down Here	043	Don't Let The Sun Go Down On Me	082	Mary Had A Little Lamb
006	Don't Break My Heart		DANCE&POP	083	Mornin g Of Miaolin
007	Donot Say Love Me	044	Dry Sky Thunder		DRUM&BASS
008	Saving All My Love For You	045	The Boy Reading	084	My Bonnie
009	Wish You Safe	046	In The Rain	085	I Want To Have A Home
010	Beauty And The Beast	047	London Bridge	086	Friend
011	Quiet- Here With You	048	Little Star Partita	087	Long Long Ago
012	Only You	049	Strlight On The Rail	088	Celebration
013	The Girl Opposite Look Here	050	Battle Hymn Of The Republic	089	From "The Magic Flute"
014	Dave Again	051	Pop Goes The Weasel	090	Loessial Tableland
015	Go Home	052	Galloper		TRADITIONAL
016	Only Love	053	Spain Dance	091	Edelweiss
017	Funky Disco	054	Ten Little Indias	092	Pizzicato Polka
018	Corazon Espioade		JAZZ&SWING	093	I have Nothing
019	When The Saints Go Marching In	055	Path	094	Forest Polka
020	Funky Pieces	056	Ducking	095	The Opposite Girl Reads Over
021	Bath Song	057	Silent Night	096	The Moon
	BALLROOM	058	Yankee Doodle	097	The Night Man
022	Aura Lee	059	Chopsticks	098	Dragon
023	Unchained Melody	060	Hungarian Dance Of Gypsia Style	099	Something In The Air
024	American Patrol	061	Aloha Oe	100	Solo Riverside
025	Georgia On My Mind	062	Twinkle Twinkle Little Star		
026	When You Hold Me You Love Me	063	Jingle Bells		
027	Appointment in 98	064	Night at suburb of Moscow		
028	Im Mai	065	Home Sweet Home		
029	Old Folks At Home	066	Grandfather' s Clock		
030	Rising Sun	067	Washing Song		
031	Curfew	068	Cuerchack Dance		
	ROCK	069	Colt Pace		
032	Serbian Barber	070	Samba Dance		
033	Turkey In The Straw	071	Attractive Lagtime Dance		
034	Ring The Banjo	072	I've been working on the railroad		
035	Die Lorelei	073	The Cup Of Live		
036	Who Can Tell Me	074	Happy Birthday To You		
037	Funiculi - Funicula	075	O Du Lieber Augustin		
038	Snowing Street	076	Waltz Of The King		

Appendix 6-Chord Chart

	Chord Name [Abbreviation]	Normal Voicing	Chord	Display
0	Major[M]	1-3-5	C	C
1	Major sixth [6]	1-(3)-5-6	C6	C6
2	Major seventh [M7]	1-3-(5)-7	CM7	CM7
3	Major seventh sharp Eleventh [M7#11]	1-(2)-3-#4-(5)-7	CM7#11	CM7#11
4	Major add ninth [Madd9]	1-2-3-5	Cmadd9	Cm(9)
5	Major ninth [M9]	1-2-3-(5)-7	Cm9	CM(9)
6	Major sixth add ninth [6 9]	1-2-3-(5)-6	C6 9	C6(9)
7	augmented [aug]	1-3-#5	Caug	Caug
8	Minor [m]	1-b3-5	Cm	Cm
9	Minor sixth [m6]	1-b3-5-6	Cm6	Cm6
10	Minor seventh [m7]	1-b3-(5)-b7	Cm7	Cm7
11	Minor seventh flatted fifth [m7b5]	1-b3-b5-b7	Cm7b5	Cm7b5
12	Minor add ninth [madd9]	1-2-b3-5	Cmadd9	Cm(9)
13	Minor ninth [m9]	1-2-b3-(5)-b7	Cm9	Cm7(9)
14	Minor eleventh [m11]	1-(2)-b3-4-5-(b7)	Cm11	Cm7(11)
15	Minor major seventh [mM7]	1-b3-(5)-7	CmM7	CmM7
16	Minor major ninth [mM9]	1-2-b3-(5)-7	CmM9	CmM7(9)
17	Diminished [dim]	1-b3-b5	Cdim	Cdim
18	Diminished seventh [dim7]	1-b3-b5-6	Cdim7	Cdim7
19	Seventh [7]	1-3-(5)-b7	C7	C7
20	Seventh suspended Fourth [7sus4]	1-4-5-b7	C7sus4	C7sus4
21	Seventh flatted Fifth [7b5]	1-3-b5-b7	C7b5	C7b5
22	Seventh Ninth [79]	1-2-3-(5)-b7	C7 9	C7(9)
23	Seventh sharp eleventh [7#11]	1-2-3-#4-(5)-b7 or 1-(2)-3-#4-5-b7	C7#11	C7(#11)
24	Seventh thirteen [7 13]	1-b2-3-(5)-b7 or 2-3-5-6-b7	C7 13	C7(13)
25	Seventh flatted Ninth [7b9]	1-b2-3-(5)-b7	C7b9	C7(b9)
26	Seventh flatted Thirteen [7b13]	1-3-5-b6-b7	C7b13	C7(b13)
27	Seventh sharp ninth [7#9]	(1)-#2-3-(5)-b7	C7#9	C7(#9)
28	Major Seventh augmented [M7aug]	1-3-#5-7	CM7aug	CM7aug
29	Seventh augmented [7 aug]	(1)-3-#5-b7	C7aug	C7aug
30	Suspended Fourth [sus4]	1-4-5	Csus4	Csus4
31	One plus two plus five [1+2+5]	1-2-5	C1+2+5	C

Appendix 7-MIDI Chart

Function	Transmitted	Recognized	Remarks
Basic Default	1 ch	ALL	
Channel Changed	1-16 ch	1-16 ch	
Default	×	3	
Mode Message	×	×	
Altered	** *****	×	
Note	36-96	0 —127	
Number : True voice	1-60/72-127	0 —127	
Velocity: Note on	○	○	
Note off	×	○	
After key's	×	×	
Touch Ch's	×	×	
Pitch Bend	○	○	
Control 0	○	○	Bank select
1	○	○	Modulation
5	○	○	Portamento time
7	○	○	Volume
10	×	○	Pan
11	×	○	Expression
64	○	○	Sustain Pedal
65	×	○	Sostenuto Pedal
66	×	○	Soft Pedal
67	○	○	Reverb Program
80	○	○	Chorus Program
81	○	○	Reverb Level
91	○	○	Chorus Level
93	×	○	All sound off
120	×	○	
121	×	○	Reset all controllers
123	○	○	All notes off
Program Change : true	○	○	
Bank Select	○	○	
System Exclusive	×	×	
System : Song Position	×	×	
: Song Select	×	×	
Common : Tune	×	×	
System : Clock	×	×	
RealTime: Commands	×	×	
Aux : LOCAL ON/OFF	×	×	
: All notes	×	○	
off	×	○	
Messages:Active sense	×	○	

Mode 1: OMNI ON , POLY
Mode 3: OMNI OFF , POLY

Mode 2 : OMNI ON , MONO
Mode 4 : OMNI OFF , MONO

○ : YES
× : NO