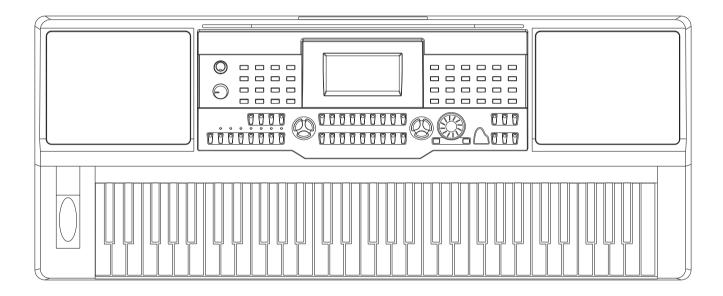
# Instruction Manual **ELECTRONIC KEYBOARD**



# Introduction

Congratulations on your purchase of this Electronic keyboard!

The keyboard is an user friendly keyboard with fabulous sound quality and advance feature such as style record and self-learning. No matter you are adult or children, you will enjoy playing the keyboard as it provides amazing styles for accompaniment, expressive tones, and real time record. Other features such as numbered musical notation display chord dictionary, variety of songs will help you better master the playing skill.

You are recommended to study this manual carefully before using the unit.

# **Inside This Package**

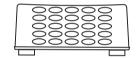
Please make sure the package completely contains the following:

• The Instrument

Instruction Manual

== 12V Adaptor

Music Rest



Your keyboard will give you years of playing pleasure if you follow the simple rules given 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**

- Make sure to use the suitable AC adaptor, and also make sure the AC outlet voltage at your country matches the input voltage specified on the AC adaptor's label
- Turn the power switch OFF when the instrument is not in use
- An AC adaptor should be unplugged from the AC outlet if the instrument will not be used for an extended period of time
- Unplug the AC adaptor during electric storms
- Avoid plugging the AC adaptor into the same AC outlets as appliances with high power consumption, such as electric heaters or ovens. Also avoid using multiplug adaptors since this could reduce sound's quality, causes operation errors and damages

#### Turn Off Power When Making Connections

To avoid damaging the instrument and other devices to which it is connected, turn off the power switches of all related devices prior to connecting or disconnecting cables

#### Cleaning

- Clean the unit with a soft dry cloth
- Slightly dampen a cloth helps to remove stubborn grime and dirt
- Never use cleaners such as alcohol or thinner
- Avoid placing vinyl object on top of the unit (vinyl might discolor and stick to the surface)

#### Handling and Transporting

- 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 the cables
- Disconnect all cables before moving the instrument
- Physical shocks caused by dropping, bumping, or placing heavy objects on the instrument could result in scratches or even severe damages

#### **Electrical Interference**

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

•The normal function of the product may be disturbed by Strong Electro Magnetic Interference. Caution! If so, simply reset the product to resume normal operation by following the instruction manual. In case the function could not resume, please use the product in other location.

# **Main Features**

#### KEYBOARD

61-key touch response keyboard

#### LCD DISPLAY

The staff area of the LCD indicates the notes you play on the keyboard

#### VOICE

559 voices in total, 36 voices can be selected conveniently with voice direct select button

#### STYLE

203 styles in total, including 3 user styles, 24 styles can be selected conveniently with style direct select button

#### SONG

100 songs in total. Each song has its learning mode

#### DEMO

2 demos in total

#### • CHORD MODE

Single finger detect, multi finger detect

#### CHORD DICTIONARY

It can help you to learn chord more conveniently, including Dict 1 mode (dictionary mode) and Dict 2 mode (test mode)



 Pressing and holding [+/YES] and [-/NO] together and turning the power on simultaneously, its default setting will be loaded into the keyboard, then the memory and the record song will be lost.

#### RECORD

3 recording song. Each recording song has 6 tracks--1 ACCOMP track and 5 melody tracks

#### STYLE RECORD

3 recording style, they will not be erased even the power is off and you can also save the user style to SD card

#### MEMORY FEATURE

48 memories, 8 banks with 6 memories each

#### MIXER MENU

Including Rhythm s、Rhythm m、Bass、Chord1、Chord2、Chord3、Phrase1、Phrase2、Voice R1, Voice R2, Voice L

#### • PEDAL

Foot Switch (Sustain Pedal、Soft Pedal、Memory Change Pedal、Start/stop Pedal) and Volume Pedal

#### • INTERFACE

MIDI THRU, IN, OUT USB Headphones

#### SD CARD

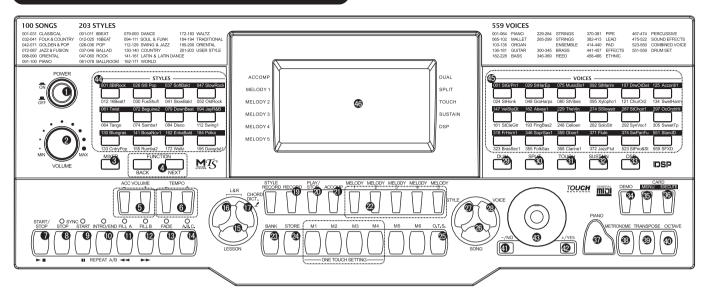
You are allowed to play midi files, save & load the user songs, user styles and memory data etc

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# **General Guide**

### **Front Panel**



- 1 POWER ON/OFF
- **2** MASTER VOLUME
- 3 MIXER
- 4 FUNCTION NEXT FUNCTION BACK
- 5 ACCOMPANIMENT VOLUME ACCOMPANIMENT VOLUME +
- 6 TEMPO -TEMPO +

#### In the Style mode

- 7 START/STOP
- 8 SYNC STOP
- 9 SYNC START
- 10 INTRO/END
- 1 FILL A
- P FILL B
- 13 FADE
- AUTO BASS CHORD

#### In the Song mode

- 7 START/STOP ►■
- PAUSE \*\*
- REPEAT A/B
- REW 

   ✓
- 12 FF →
- 15 LESSON
- 16 LEFT HAND
- RIGHT HAND
   CHORD DICTIONARY (Hold for two seconds)
- **18** STYLE RECORD
- 19 RECORD

- 20 PLAY/STOP
- **21** ACCOMP
- 2 MELODY1

MELODY2

MELODY3 MELODY4

MELODY5

- **23** BANK
- 2 STORE M1-M6

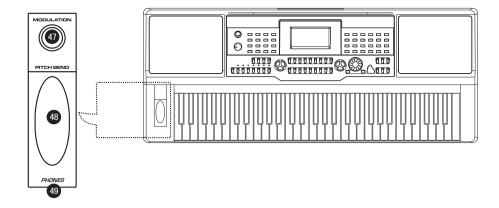
ONE TOUCH SETTING (M1-M4)

- **25** ONE TOUCH SETTING
- 26 SONG
- **3** STYLE
- **28** VOICE
- 29 DUAL
- 30 SPLIT
- 31 TOUCH
- 32 SUSTAIN
- 33 DSP
- 34 DEMO

#### CARD

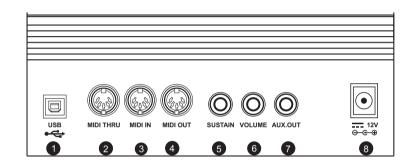
- 35 MENU
- **36 EXECUTE**
- 37 PIANO
- METRONOME
- **39 TRANSPOSE**
- 40 OCTAVE
- 41 -/NO
- 42 +/YES
- **43** DATA DIAL
- 49 STYLE DIRECT SELECT BUTTON
- **45** VOICE DIRECT SELECT BUTTON
- 46 LCD DISPLAY

- 47 MODULATION
- **48** PITCH BEND
- 49 PHONES



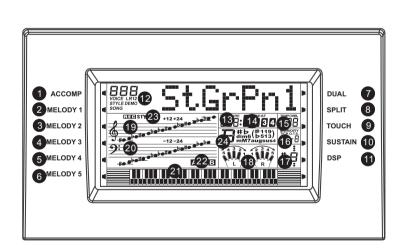
# **Rear Panel**

- USB JACK
- 2 MIDI THRU
- 3 MIDI IN
- 4 MIDI OUT
- 5 SUSTAIN
- 6 VOLUME
- AUX.OUT
- 8 == 12V



# LCD Display

- ACCOMP
- 2 MELODY 1
- MELODY 2
- 4 MELODY 3
- MELODY 4
- 6 MELODY 5
- DUAL
- 8 SPLIT
- 9 TOUCH
- 10 SUSTAIN
- 1 DSP
- 12 VOICE/STYLE/DEMO/SONG
- 13 MEASURE
- 14 BEAT
- **15** TEMPO
- **6** STORE M1-M6/ONE TOUCH SETTING
- **17** NOTE INDICATION
- 18 LEFT/RIGHT HAND LESSON MODE
- 19 TREBLE CLEF
- 20 BASS CLEF
- 61 KEY KEYBOARD
- 22 FILL A/B
- 23 RECORD/STYLE RECORD
- 24 CHORD

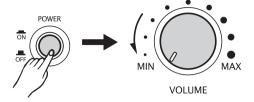


# **Preparation**

# **Power Supply**

#### Using the AC Adaptor

**1.** First, please ensure the keyboard is turned off, then turn the VOLUME knob to the minimum volume level.



2. Connect the adaptor into the AC wall outlet and the cord into the unit.



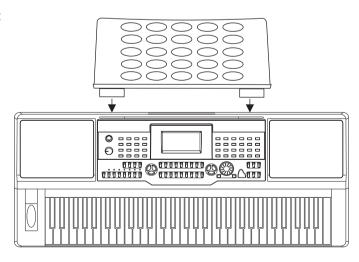


 When the keyboard is not in use or in the time of thunderstorm, please disconnect the power for safety purpose.



# **Setting Music Stand**

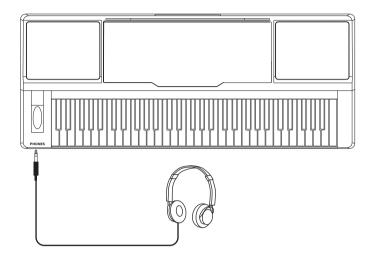
Please set up the music stand as the instruction below:



# Connections

### **Headphones Jack**

- If you prefer to play with headphones for high quality personal monitoring, plug a set of stereo headphone into the PHONES jack.
- **2.** Plug a set of headphones into the **[PHONES]** jack and the speakers will be shut automatically.



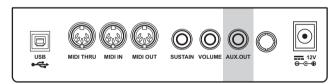


 Never use headphones in high volume, as it may hurt your ears.

# **AUX.OUT Jack**

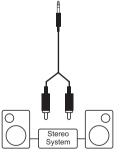
The AUX.OUT jack delivers the output signal of the keyboard to an external amplifier.

Use an audio cord to plug into the **[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.





• To avoid damaging the speakers, please ensure that the volume has been set to the minimum level before connecting the power and other devices.

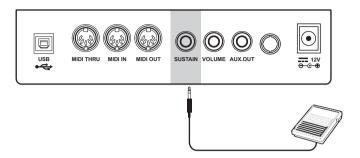


# **MARNING**

To avoid damages, please be sure to turn off the power switches before you disconnect the related devices from the keyboard.

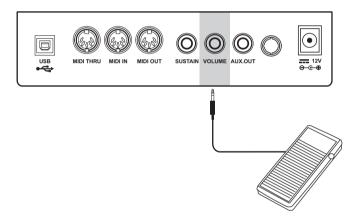
# Sustain Jack

- 1. An optional footswitch can be plugged into the **[SUSTAIN]** jack for sustain control.
- 2. The footswitch functions like the damper pedal on a piano. Step on the footswitch, all notes played on the keyboard have a longer sustain effect.



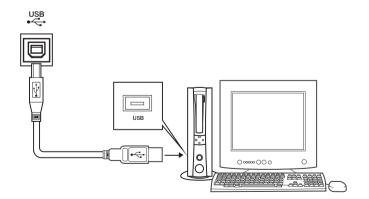
# **Volume Jack**

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



# **USB Jack**

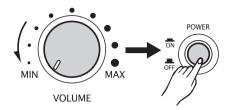
- 1. Connect PC or other USB host devices that support USB audio.
- You can simply connect the MIDI/USB convertor to your USB connector on your computer and plug the MIDI in and out cables into the keyboard, then to transfer midi data.

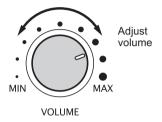


# **Basic Operation**

### **Power Switch & Volume**

- **1.** First, please ensure the correct connection based on previous instruction.
- 2. Turn the VOLUME knob to reach the minimum volume level, then turn the **[POWER]** switch on. The LCD display lights up.
- **3.** Use the **[VOLUME]** control knob to adjust the volume to your desired level.

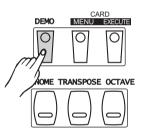


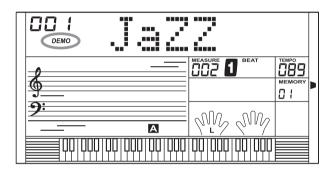


### **DEMO**

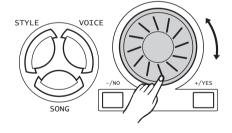
There are 2 demos in total.

**1.** Press [**DEMO**] button to play demo songs.

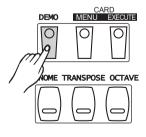


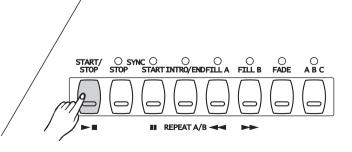


2. Select a demo song with [+/YES] / [-/NO] or dial.



Press [DEMO] or [START/ STOP] button to exit from the demo mode.







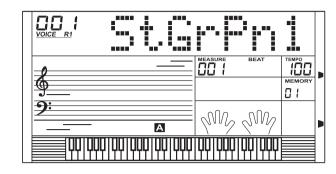
•In the demo mode, all buttons except DEMO, START/STOP, TEMPO, +/YES, -/NO, VOLUME, POWER ON/OFF will not be available.

# Voices and Effects

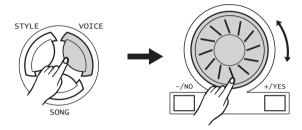
559 voices in total (See appendix: page 61).

### **Select a Voice**

 Press [VOICE] button to enter "voice mode". The default VOICE R1 is "No:001 Stereo Grand Piano"; LCD displays "VOICE R1" and the voice number.



2. Press [+/YES] / [-/NO] or dial or use the **Direct Select**Button to select the voice you want.



#### **Direct Select Button**

Use the Direct Select Button to select a voice (36 voices), 2 direct voices for each button(upper & nether key)



3. After selecting a voice, you can now play the keyboard.



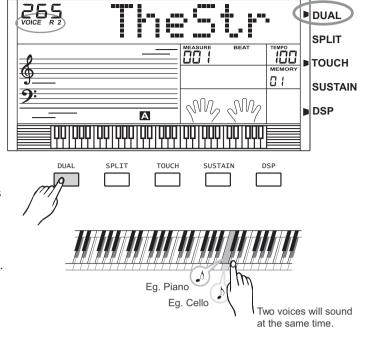
- While changing a voice, pay attention to the rules:
   If you press the same button, the voice will be changed between the upper and nether key.
- When the upper/nether voice is on, and then you press another direct button, the corresponding upper/nether voice will be selected.



# Dual Voice

You can play two sounds at the same time on the keyboard. It is called Dual Voice mode. When the dual function is off, the voice indicated is VOICE R1. When the dual function is on, the voice indicated is VOICE R2.

- During the VOICE R1 status, press [DUAL] button to enter the dual voice mode. "VOICE R2" and "DUAL" icon would be lightened simultaneously. The number of the dual voice will be displayed on the LCD. Now, you can get two different sounds at the same time when pressing one key.
- Press [+/YES] / [-/NO] button, or turn the DIAL to select your desired voice. The default DUAL VOICE number is "No:265 The Strings".
- **3.** Press **[DUAL]** button again to turn off the DUAL VOICE. The note you play sounds a single voice of Voice R1.



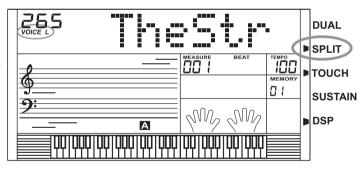


 While the keyboard is splited, only the right hand area can respond the dual voice, the left hand area can't.

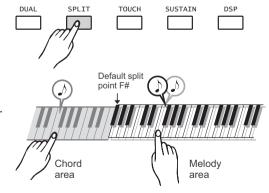
# **Lower Voice/Split Point**

You can play two sounds on different parts of the keyboard. It is called Split mode.

 Press [SPLIT] button to turn on the LOWER VOICE, LCD lights the SPLIT flag and displays "VOICE L" and its name. When you play in real time, you can activate Split Mode simply by pressing this button.



- 2. Press [+/YES] / [-/NO] button, or turn the DIAL to select the voice you want. The default LOWER VOICE number is "No:265 The Strings".
- 3. Press [SPLIT] button again to turn off the LOWER VOICE. LCD darkens its flag.



### Touch

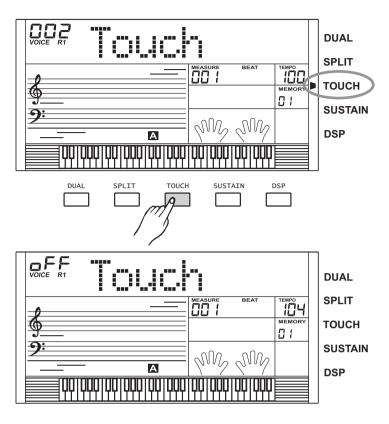
This function allows you to activate the dynamic level while playing the keyboard.

**1.** The LCD displays the touch value ranging from off to level 3.

Press [+/YES] / [-/NO] button, or turn the DIAL to change the touch response level.

Default level of touch response is 2.

2. If the value is set as OFF, that means no touch response to keyboard.

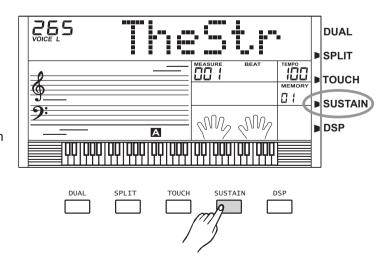


3. To experience the effect, play any note on the keyboard after you turn it on.

### **Sustain Voice**

This function helps you to get a voice with a sustained effect, while playing the keyboard.

- Press [SUSTAIN] button to activate the sustain effect.
   The "SUSTAIN" flag lightens on the display.
- **2.** Press **[SUSTAIN]** button again to eliminate the sustain effect. The **"SUSTAIN"** flag will disappear.
  - When you step on the 'sustain pedal', its sustain effect is stronger than the effect by pressing the [SUSTAIN] button.

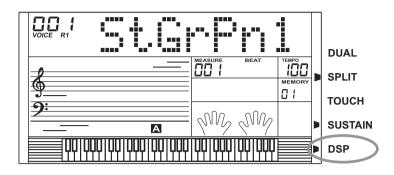


NOTE

### **DSP Effect**

This function allows you to perform the overall sound in a realistic style.

1. The DSP effect is set to ON when keyboard power on.

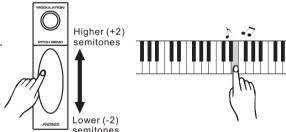


2. Press [DSP] button to turn off the DSP effect.



# **Pitch Bend**

The pitch bend wheel can be used to bend the note upwards or downwards, ranging between +/- 2 semitones. When the wheel is released, the note will return back to the normal status.



# **Modulation**

Press and hold **[MODULATION]** button. You can hear the vibrato effect while playing the keyboard. Release the button to turn off modulation effect.

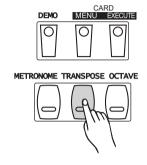




### **Transpose**

You can shift the pitch of the entire keyboard with the TRANSPOSE function by semitone steps.

- **1.** The first time press **[TRANSPOSE]** button to enter Transpose setting mode.
- 2. Use [+/YES] / [-/NO] to adjust the value from -12 to +12 semitones The default value is 0.



Transpos

UDD D

3. Press [+/YES] and [-/NO] together will set the transpose value to the default one.

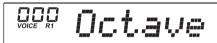


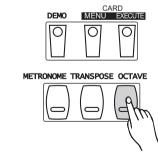
 If you don't press any button for 5 seconds after entering the Transpose setting mode, it will quit this mode automatically.

#### Octave

 The first time press [OCTAVE] button to enter octave setting mode.

2. Use [+/YES] / [-/NO] to adjust the value from -1 to +1 octaves.



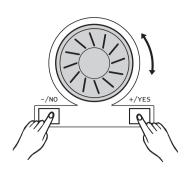




3. Press [+/YES] and [-/NO] together will set the octave value to the default one.

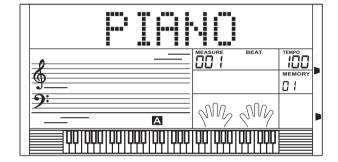


• If you don't press any button for 5 seconds after entering the Octave setting mode, it will quit this mode automatically.



### **Piano**

- Press [PIANO] button to enter piano mode.
   The LCD displays PIANO, and the voice is changed to piano immediately. In this mode, A.B.C. is OFF.
- 2. Press [PIANO] button again to exit the PIANO mode.



- You can select the style number with the [+/YES] / [-/No] button, or dial at the PIANO mode. Press the [START/STOP] button to play the style(only drum).
- 4. The MIXER and FUNCTION menu can be entered.

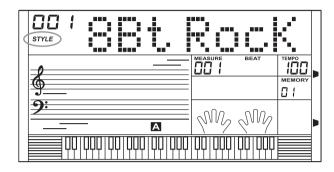


# **Style Control**

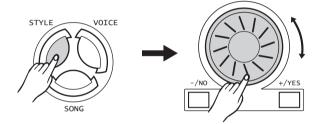
The keyboard has a total of 203 styles, from 001 to 203, including 3 user styles. The default style is 001. (See appendix: page 66)

### Select a Style

1. Press [STYLE] button to set the keyboard to the "style mode". The "STYLE" flag and the style number will show up on the display.

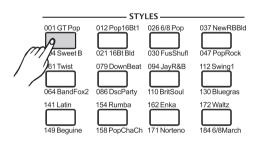


Press [+/YES] / [-/NO] button or use the Direct Select Button to select the style you want.



#### 3. Direct Select Button

Use the Direct Select Button to select your desired style (24 styles), 2 direct styles for each button (upper & nether).





- While changing a style, pay attention to the rules:
   If the same button has been pressed twice, the style will be swapped from one to another.
- When the upper/nether style is on, and you then press another direct button, the corresponding upper/nether style will be selected.

# 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 styles enables you to enhance musical performance.

#### 1. INTRO

Press the **[INTRO/END]** button to insert an intro section before you start to play . The rhythm will begin with a 2-4 measure introduction which will be followed by a main section.

#### 2. NORMAL and VARIATION

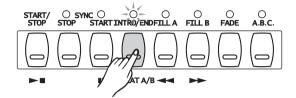
There are two main sections: normal and variation. Each section consists of 2 to 4 measures.

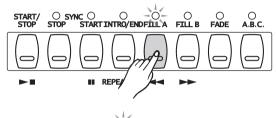
#### 3. FILL

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/END]** button in process of accompaniment playing, it brings the ending section appropriate for the accompaniment, and then stop the performance.



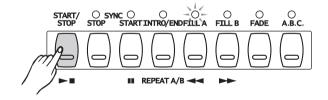




# Start a Style

#### 1. Start immediately:

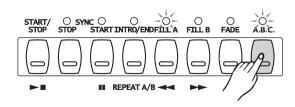
Use [START/STOP] button to start the style.

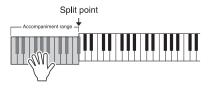


#### 2. A.B.C. Mode:

The default setting of A.B.C is off. Press [A.B.C.] button to turn on the auto bass chord.

The area to the left of split point is known as the chord area. When playing the chord, both the bass and the chord voice sound.

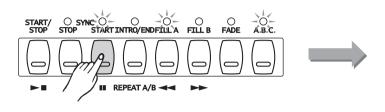




#### **Style Control**

#### 3. Sync start:

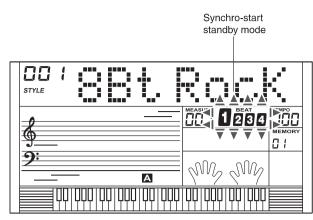
 Press [SYNC START] button to enter the sync start waiting mode. The 4 beats on LCD flash together.

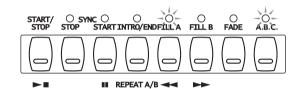


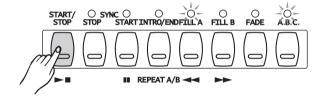
 If the A.B.C. mode is on , play any key in chord area , the style start playing with bass and chord. If the A.B.C. Mode is off, play any key on keyboard; the style plays only the drum voice.



• Press [START/STOP] again to stop the style.

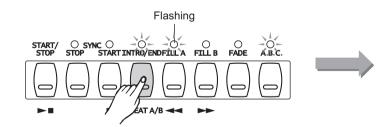




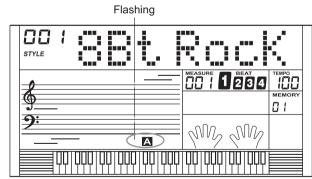


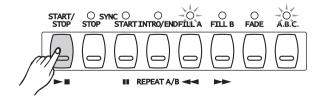
#### 4. Intro start:

Press [INTRO/END] button when the style is not playing,
 'A' or 'B' flashes on LCD, indicates the intro section is ready to play.



• Press [START/STOP] button, then the style starts with an intro section , followed by the main section.

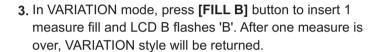


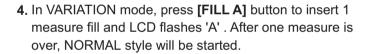


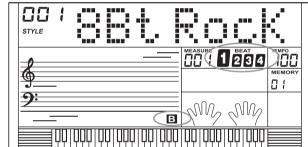
A.B.C.

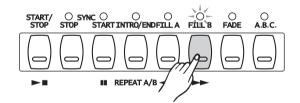
#### Fill A/B

- In NORMAL mode, press [FILL A] button to insert 1
  measure fill and LCD flashes 'A'. After one measure is
  over, NORMAL style will be returned.
- 2. In NORMAL mode, press [FILL B] button to insert 1 measure fill and LCD flashes 'B'. After one measure is over, VARIATION mode will be started.



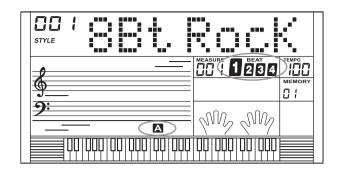


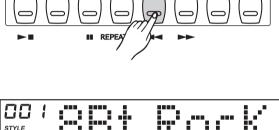






- Hold down the FILL A/B button when the style is playing, the selected FILL pattern repeats continuously until button is released.
- Press [FILL A] when style stop, it will change to the normal section, the flag A on LCD will be lightened;
- Press [FILL B] when style stop, it will change to the variation section, the flag B on LCD will be lightened.



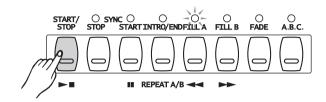


O SYNC O O O O STOP START INTRO/ENDFILL A FILL B FADE

# Stop a Style:

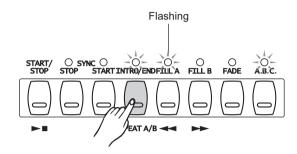
#### 1. Stop immediately:

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



#### 2. Ending stop:

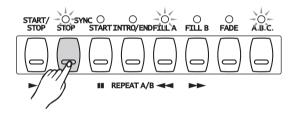
Press the **[INTRO/END]** button, the style will stop after the ENDING section over.

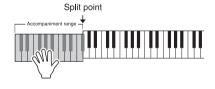


#### 3. Sync Stop:

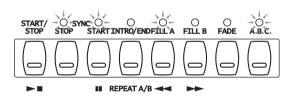
**[SYNC STOP]** would be enabled only when A.B.C. indicator is on.

Press **[SYNC STOP]** button and release the keyboard, it will stop the style and flash the 4 beats together.



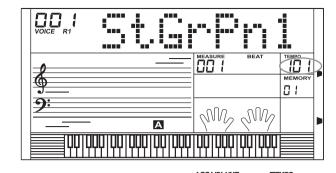




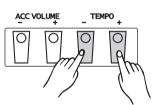


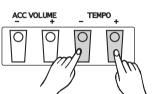
### Tempo

1. Press the [TEMPO+] or [TEMPO-] button to change the tempo, the DIAL can also be used to change the tempo.



2. Press the [TEMPO+] and [TEMPO-] simultaneously to set the tempo value back to the default one.







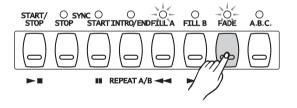
- Selecting the style when it stops, the tempo will change with the style automatically to the default one.
- When style is playing, the tempo will not change with the style you select.

### **Fade IN/OUT**

#### 1. FADE IN:

Press the [FADE] button while style stop. "FADE" lamp lights, "FADE" lamp glimmers after style begins to play, style volume will increase from 0 to maxima between 10 seconds, style is play normally subsequently, "FADE" lamp goes out.

Press the [FADE] button again while FADE OUT state, "FADE" lamp glimmers, style volume will be getting increase to maxima on the basis of present volume, style is play normally subsequently, "FADE" lamp goes out.

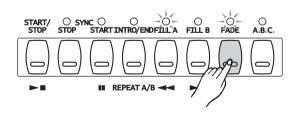


#### 2. FADE OUT:

press the [FADE] button while style play state, "FADE" lamp glimmer, style volume will decrease from maxima to 0 between 10 seconds, style stop.

Press [FADE] button while FADE IN state, will enter FADE OUT state, volume is decrease to 0 on the basis of present volume, style stop, "FADE" lamp goes out.

Press [FADE] button while FADE OUT state, will enter FADE IN state, volume increase to maxima on the basis of present volume, style is play normally subsequently, "FADE" lamp goes out. Keep FADE IN state not changing as FADE IN state stops STYLE. stop style to withdraw from FADE state in FADE OUT state.

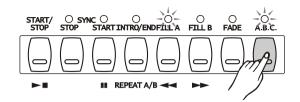


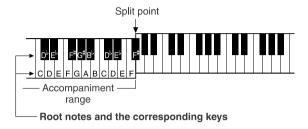
# **Recognizing Chords**

Default mode for A.B.C. is off on the keyboard. Press [A.B.C.] button to turn on this "auto bass chord" mode. The left section of the keyboard is known as the "chord area", while playing the chord, both the bass and the chord voices sound.



 Since the chord detection of A.B.C. is based on the Chord Root priority, some chords that could be played under the Chord Dictionary may not be recognised by A.B.C., eg. B6、bB6、B6(9)、bB6 (9)、Baug、 bBaug、bBm6、Bm6、Adim7、bBdim7、Bdim.



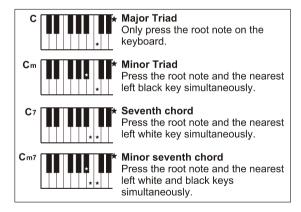


# There are 2 ways to detect the chord: "single finger detect" and "multi finger detect".

How the chords are played or indicated with your left hand (in the auto accompaniment section of the keyboard) is referred to as "fingering". There are 2 types of fingerings as described below.

#### Single Finger

Single-finger makes it simple to produce major, seventh, minor and minor seventh chords by pressing a minimum number of keys on the auto accompaniment section.



#### Multi Finger

Multi-finger allows you to play chords in normal fingering. Try playing the 32 chord types in C scale as listed on the right.

0	1	2	3	4	5
C 	C <sub>6</sub>	CM <sub>7</sub> ★ ★ ⊛ ★	CM <sub>7</sub> (#11) ★®★ ® ★	CM(9) * * * *	CM <sub>7</sub> <sup>(9)</sup>
6 C <sub>6</sub> <sup>(9)</sup>	7 Caug	8 Cm * * *	9 Cm <sub>6</sub> * **	10 Cm <sub>7</sub>	11 Cm <sub>7</sub> <sup>(b5)</sup>
12 Cm(9) ** *	13 Cm <sub>7</sub> (9)	14 Cm <sub>7</sub> (11) ** **	15 CmM <sub>7</sub> *	16 CmM <sub>7</sub> (9) ** 8 *	17 Cdim *
18 Cdim <sub>7</sub>	<b>19</b> C <sub>7</sub>	<b>20</b> C <sub>7sus4</sub>	<b>21</b> C <sub>7</sub> <sup>(b5)</sup>	<b>22</b> C <sub>7</sub> <sup>(9)</sup>	<b>23</b> C <sub>7</sub> (#11)
	*  *  *	*   *   *	* *	* * * *	* * * 8
24 C <sub>7</sub> (13) * * * * *	<b>25</b> C <sub>7</sub> (b9) *   *   *   *	<b>26</b> C <sub>7</sub> (b13)	<b>27</b> C <sub>7</sub> (#9)	28 CM <sub>7aug</sub>	29 C <sub>7aug</sub>
30 Csus 4 C1+2+5 Notes enclosed in parentheses⊛are optional; the chords could be recognized without them.					



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

#### Chord Basics

A chord, in music, is any harmonic set of three or more notes that is heard as if sounding simultaneously. The most frequently encountered chords are triads. A triad is a set of three notes that can be stacked in thirds. When stacked in thirds, the triad's members, from lowest pitched tone to highest, are called: the Root, the Third, and the Fifth.

#### Triad Type

There are following basic triad types:

Maior Triad	A root with a major third added above and a perfect fifth
.,.	will consist as a "Major Triad".
Minor Triad	A root with a minor third added above and a perfect fifth
	will consist as a "Minor Triad".
Augmented	A root with a major third added above and an
Triad	augmented fifth will consist as an "Augmented Triad".
Diminished	A root with a minor third added above and a diminished
Triad	fifth will consist as a "Diminished Triad".

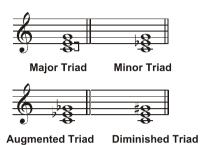
#### Chord Inversion

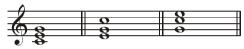
We define this chord its root is not in the bass (i.e., is not the lowest note) as an inversion chord. When the root is in the bass, we call the chord: root-position chord. If we put the Third and Fifth in the root position, then it forms "Inversion", we call this chord "Inversion Chord". See the following major triad and its inverted chord.

#### Chord Name

The chord name contains two parts content: Chord root and Chord type.





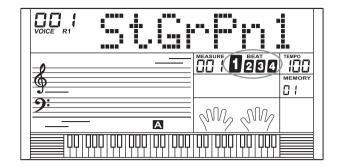


Root Position First Inversion Second Inversion

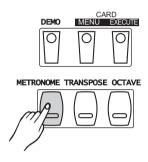


### **Metronome**

 Press the [METRONOME] button to turn on the metronome.



**2.** Press the **[METRONOME]** button again to turn off the metronome.

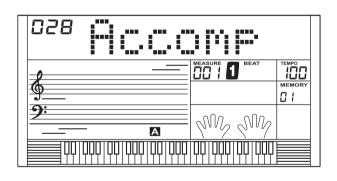




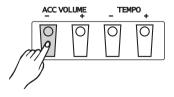
Metronome can be played in tempo with the accompaniment whenever you turn on the sytle.

# **Accomp Volume**

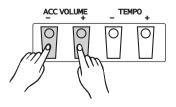
 Press [ACC VOLUME+] or [ACC VOLUME -] button to adjust volume of accompaniment in style playing. The LCD displays the ACCOMP volume which range between 0 and 31. Default Accomp Value is 28.



2. Press [ACC VOLUME +] and [ACC VOLUME -] button together to mute the ACCOMP track.



3. Press [ACC VOLUME +] and [ACC VOLUME -] button together again to turn on the ACCOMP volume.



# **Function Menu**

Press [FUNCTION/NEXT] or [FUNCTION/BACK] button to enter the menu of function. The default option of the menu is "TUNE". When you enter the menu next time, you will find the option is the same as last time. Press [FUNCTION/NEXT] or [FUNCTION/BACK] button to select the option to be set.

Use [+/YES] / [-/NO] or the DIAL to set the parameter. The option and the parameters are as the follows:

Option	LCD Display	Range	Default
TUNE	000Tune	-50-050	000
BEAT	004Beat	000 002-009	004
SPLIT POINT	019Split pt	001-061	019
PEDALASSIGN	001 Ped Sust	Sust、Soft、Mem、ST/S	Sust (001)
REVERB LEVEL	040Rvb Lev	000— 127	040
CHORUSLEVEL	000Cho Lev	000— 127	000
MIDI RECEIVE	ALL Receive	001— 016、ALL	ALL
MIDITRANSMIT	001 Transmit	001— 016	001

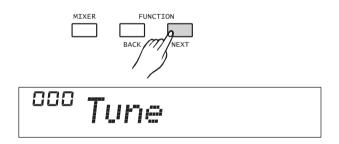


• If you don't press any button for 5 seconds after entering FUNCTION menu, it will quit this menu automatically.

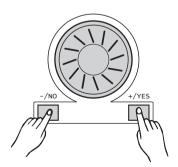
### Tune

This function sets the pitch of entire keyboard by steps of cents.

1. The LCD displays the tune value. Use [+/YES] / [-/NO] or DIAL to change the tune value. Its range is from -50 to 50 cents only by the right area of keyboard.

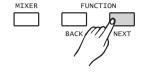


2. Pressing [+/YES] and [-/NO] together will set the TUNE value back to its default setting.



#### Beat

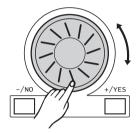
This function sets the beat value ranging from 0, 2-9.



1. The LCD displays the beat value.

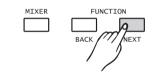


2. Use [+/YES] / [-/NO] or DIAL to change the BEAT value.



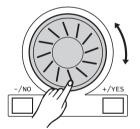
# **Split Point**

This function sets the point that separate the entire keyboard to two section.



1. The LCD displays the split point value.

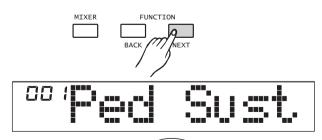
- o'9 SPlit Pt
- 2. Use [+/YES] / [-/NO] or DIAL to change the split point. You may also use keyboard to change the split point by simply selecting the note you desired to be the point of separation. The part below the split point is the the CHORD area.



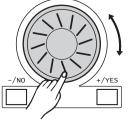
# **Pedal Assign**

This function sets the pedal type as sustain pedal, soft pedal, start/stop pedal or memory select pedal. The default pedal setting is sustain pedal.

1. The LCD displays the type of pedal.

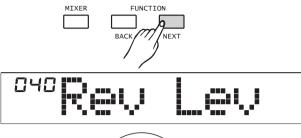


2. Use [+/YES] / [-/NO] or DIAL to change the pedal assign.

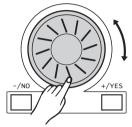


# **Reverb Level**

**1.** The LCD displays the reverb level. The level ranges from 0 to 127. The default level is 40.

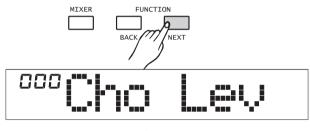


2. Use [+/YES] / [-/NO] or DIAL to change the reverb level.

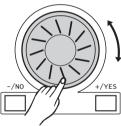


# **Chorus Level**

**1.** The LCD displays the chorus level. The level ranges from 0 to 127. The default level is 0



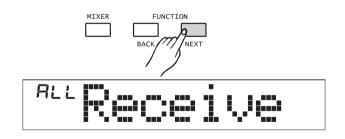
2. Use  $\mbox{ [+/YES] / [-/NO] or DIAL to change the chorus level.}$ 



# **MIDI Setting**

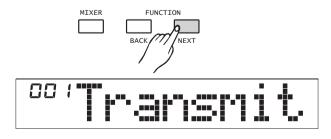
RECEIVE can be used to set the channel of MIDI IN.
 The default setting is "all ". Otherwise, channel 1~16 can also be selected.

Use [+/YES] / [-/NO] button or the DIAL to select the channel.



TRANSMIT can be used to set the channel of MIDI OUT. There are total of 16 channels for selection. Default setting is "001".

Use [+/YES] / [-/NO] button or the DIAL to select the channel.

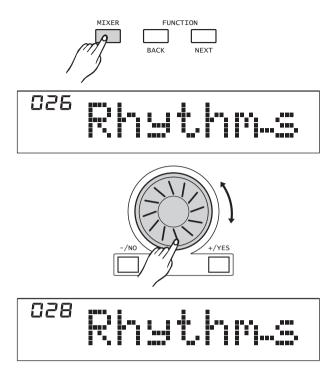


# Mixer Menu

Press [MIXER] button to enter the menu of MIXER. The default option of the menu is "Rhythm s", When you enter this menu next time, you will find the option is the same as last time. Press [MIXER] button, select the option you want to set. Use [+/YES] / [-/NO] or the DIAL to set the parameter. The option and the parameters are as the follows:



• If you don't press any button for 5 seconds after entering the MIXER menu, it will quit this menu automatically.



Option	LCD Display	Range	Deafult	Description
Rhythm s Volume	026 Rhythm_s	000-031	026	percussion instrument 1
Rhythm m Volume	026 Rhythm_m	000-031	026	percussion instrument 2
Bass Volume	026 Bass	000-031	026	bass foil
Chord 1 Volume	026 Chord1	000-031	026	symphonic melody 1
Chord 2 Volume	026 Chord2	000-031	026	symphonic melody 2
Chord 3 Volume	026 Chord3	000-031	026	symphonic melody 3
Phrase 1 Volume	026 Phrase1	000-031	026	intermezzo snippet 1
Phrase 2 Volume	026 Phrase2	000-031	026	intermezzo snippet 2
Voice R1 Volume	026Voice R1	000-031	026	single voice
Voice R2 Volume	010 Voice R2	000-031	010	dual voice
Voice L Volume	010 Voice L	000-031	010	lower voice
SD MIDI Play Volume	024 SD Play	000-031	024	

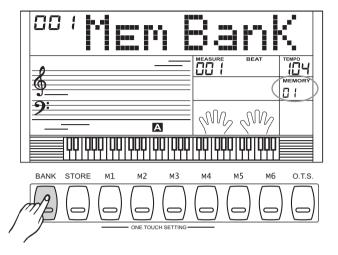
# Memory

Memory feature can be used to preset 48 complete setups which could be recalled whenever needed.

#### Bank

There are 8 banks in total; each bank has 6 memories (M1~M6).

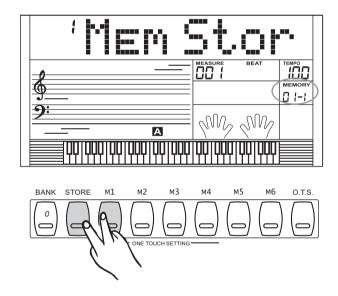
- **1.** Press **[BANK]** button, the LCD displays "00x Mem Bank", with 00x showing the Bank that has been selected.
- 2. Use [+/YES] / [-/NO] button or DIAL to select the bank.



# Store and Load

Press and hold **[STORE]** then press M1(or M2~M6). The data will be stored to the M1 (M2~M6). Please note that it will clear the previous memory data.

Press M1 (or M2-M6) to load the data from memory, the memory number will appear on LCD.



### **Memory Data**

The data can be stored to the memory are as follows: Voice Right 1, Voice Right 2, Voice Left, Sustain, Style, Tempo, Function parameter, Mixer parameter, ACCOMP volume and the Octave.



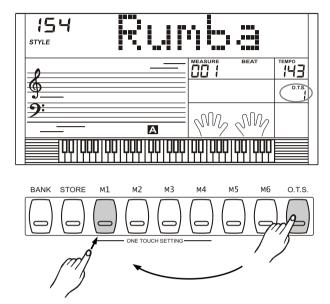
• If the current memory data be changed, the correspon ding memory flag on LCD will be erased.

# **One Touch Setting**

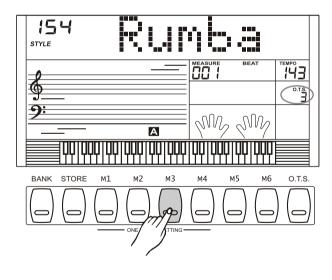
When One Touch Setting is switched on, you can instantly recall all auto accompaniment related settings including voices selection and digital effects simply with a single touch of a button. In this function, 4 types of parameters (M1~M4) will be loaded to match the current style.

**1.** Press **[O.T.S.]** button to turn this mode on and the O.T.S. Flag lighten on the LCD.

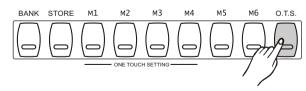
Press any of the **[M1]** ~ **[M4]** button, it will load the relative type of parameter to be suitable for the current style. A.B.C. mode is automatically turned on during O.T.S. Mode.



2. Press any of the M1-M4 buttons, which is corresponded to your desired setting.



3. Press [O.T.S.] button again to turn off the O.T.S. Mode.



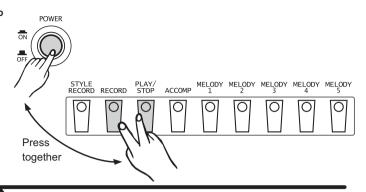
**4.** The parameters stored in the O.T.S. including: VOICE R1, VOICE R2, OCTAVE(R1/R2) and VOLUME.

# Record

3 user songs can be recorded with 6 tracks (1 ACCOMP track, 5 MELODY tracks) each.

#### NOTE

- The recorded data will not be lost when you turn off the power.
- Hold down [RECORD] and [PLAY/STOP] button, then power on the keyboard, all recorded data will be erased.



# Real-time Recording

#### 1. Start Recording

- Press [RECORD] button to enter the user song selection mode. The LCD Lightens "Rec\_Song" and sequence number.
- Press [+/YES] / [-/NO] button or DIAL to select the user song you want to record.
- Press [RECORD] button again to enter the record mode.
   The LCD lightens the "REC" flag. Four beats and
   "MELODY 1" (or other tracks) on LCD flash, indicates waiting for recording.

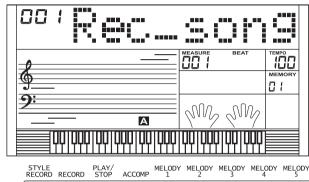
Parameters such as the voice, style and tempo can be revised.

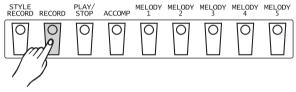
When recording a new song, the keyboard will automatically select "melody 1" as the recorded track. Press "Accomp" (or "Melody 2" to "Melody 5") to make your own selection.

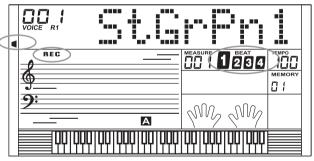
When recording an existing song, the keyboard will automatically select the empty track next to the occupied track. For example, if "Melody 1" is occupied, "Melody 2" will be selected as the recorded track.

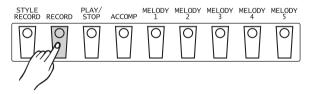
When all 6 tracks have been recorded and a specific track needs to be revised, press the button of the desired track and start recording. The original data will be replaced.

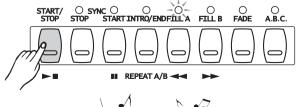
 press [START/STOP] button or play the keyboard to start recording.













#### 2. Choosing Tracks

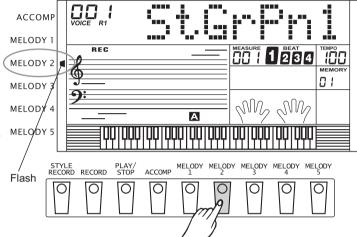
• The track cursor on the left side of the LCD has 3 status: Lighten, Flashing, Darken.

When the cursor is flashing, it indicates the flashing track is the track to be recorded.

When the cursor is lightened, it indicates there has recorded data in this track . The data in this track will be played while recording for another track.

When the cursor is darkened, it indicates there's no data in this track or there's data in this track but it's forbid to play while recording another track.

 Press "Accomp" (or "Melody 1" to "Melody 5") to select the desired track. The corresponding track will be switched from the above three states by pressing the track button repeatedly.



#### NOTE

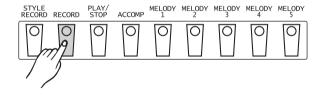
- 2 melody tracks can't be recorded at the same time.
   However, you are allowed to record 1 melody track and 1 accomp track simultaneously.
- Style can only be recorded in "Accomp" track.

#### 3. Stop Recording

 When the capacity is full, the recording will be stopped automatically when recording is in process.

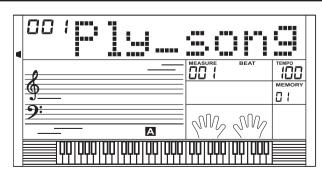


 Press [RECORD] button again while recording to stop this action immediately.

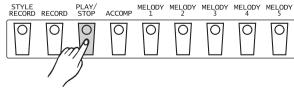


# Playback Recording Song

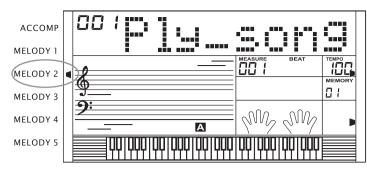
 Press [PLAY/STOP] button to enter the user song selected mode. LCD displays the sequence number of user's song and " Play \_ Song".

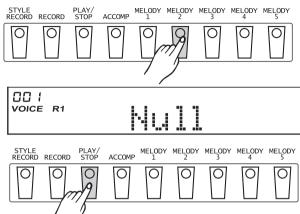


Press [+/YES] / [-/NO] button to select the user song you want to play.



- 3. On the left side of LCD, cursor indicates whether the trackdata has been recorded or not. If there's data on this track, the cursor will be lightened. Otherwise the cursor will not be lightened.
- **4.** To mute a track, simply press the button of selected track and cursor will be darkened. This track will not sound when the song is played.
- 5. Press [PLAY/STOP] button again to play the user song. If there is no user song when you press [PLAY/STOP], LCD will display "NULL" temporarily.
- **6.** Press [PLAY/STOP] or [START/STOP] button to stop the song.





# **Delete Recording Song**

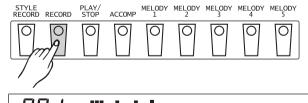
 Press [PLAY/STOP] button to enter the user song selection mode.

2. Press [+/YES] / [-/NO] button to select the user song you want to delete.

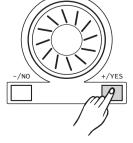
- 3. Press [RECORD] button, LCD will display "DelUser".
- **4.** Press **[+/YES]** button to delete the current user song When complete, LCD displays " OK! ", the cursor of all tracks will darken simultaneously.











# Style Record

Style record allows user to produce a new rhythm through recording and editing an built-in style. Be note that the built-in rhythm are programmed with CM7. 3 styles can be recorded and the data will not be lost after the power is off. You are also allowed to save the recorded style to SD card.

Before recording, you need to choose a rhythm as the original rhythm. This rhythm can be chosen from any of the existing 200 styles and you can also select your recorded style as original rhythm. The style must be recorded by paragraph and by track. After finishing recording a track of a paragraph, you may proceed to record a different track of the same paragraph or a track of a different paragraph.

#### Structure of a Rhythm:

Rhythm includes 8 paragraphs at most:

- Main \_ A
- Main B
- Intro \_ M (major )
- Intro \_ m (minor)
- Fill \_ A
- Fill B
- Ending \_ M(major)
- Ending \_ m (minor)

Each paragraph includes 8 tracks at most:

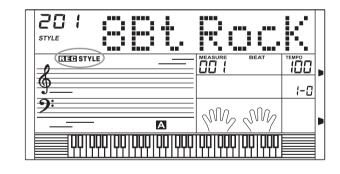
- · Rhythm sub
- Rhythm main
- Bass
- Chord 1 (symphonic 1)
- Chord 2 (symphonic 2)
- Chord 3 (symphonic 3)
- Phrase 1
- Phrase 2

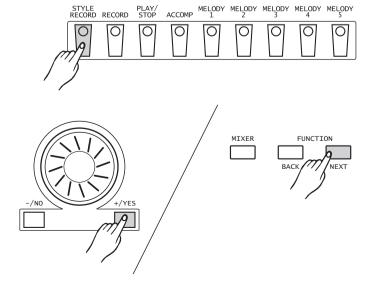
#### Attention:

If you power off the keyboard during style recording, the recording data will be lost.

### Start Style Record

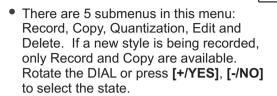
Press [STYLE RECORD] button to enter style record mode. There are 5 major menus in each style record mode. Scan the menus by pressing [FUNCTION / NEXT] or [FUNCTION/BACK] and press [+/YES] or [-/NO] button to choose the parameter. pressing [STYLE RECORD] button again to exit the recording mode.





## Record a new Style

- 1. Press [FUNCTION / NEXT] to enter choice menu.
- LCD will display "Record".

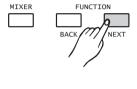


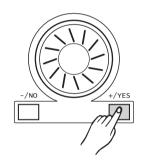


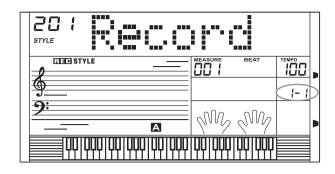
- MTXER
- 2. Press [FUNCTION / NEXT] to enter record mode menu.
- LCD will display "Overdub".
- Press [+/YES], [-/NO] button or rotate the **DIAL** to select a recording mode. 2 options for recording mode: overdub and replace.

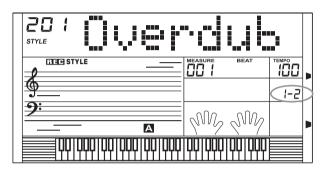
In Overdub mode, the newly recorded data will be added to the original style

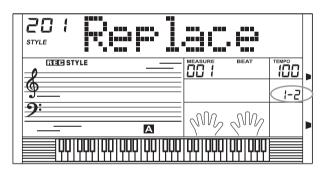
In Replace mode, the original style data will be overwritten with the newly recorded data.



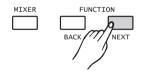


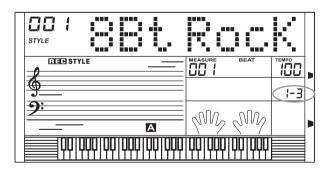




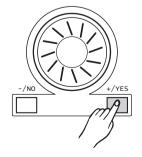


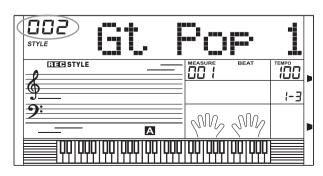
3. Press [FUNCTION / NEXT] to enter rhythm selection menu.





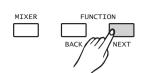
• Press [+/YES], [-/NO] button or rotate the **DIAL** to select a original rhythm.

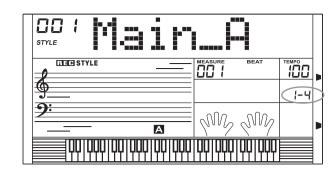




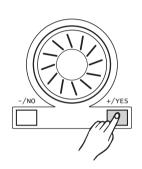
#### **Style Record**

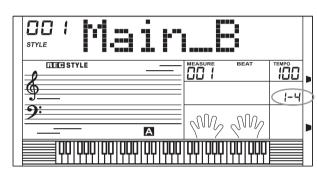
**4.** Press **[FUNCTION/NEXT]** button to enter the paragraph menu.



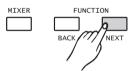


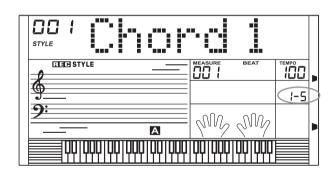
 Press [+/YES], [-/NO] button or rotate the DIAL to select the paragraph of rhythm: Main \_ A, Main \_ B, Intro \_ M, Intro \_ m, Fill \_ A, Fill \_ B, Ending \_ M, Ending \_ m.



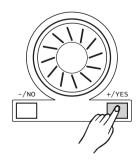


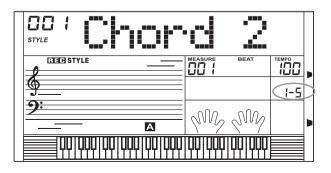
**5.** Press **[FUNCTION/NEXT]** button to enter the paragraph menu.





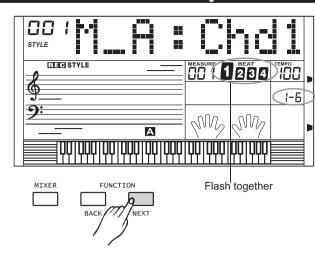
 Press [+/YES], [-/NO] button or rotate the DIAL to select the track: Rhythm sub, Rhythm main, bass, chord 1, chord 2, chord 3, phrase 1, phrase 2.





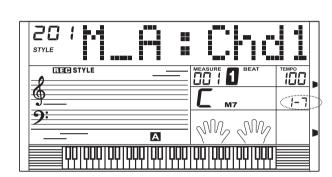
6. Press [FUNCTION/NEXT] to enter the record ready menu.

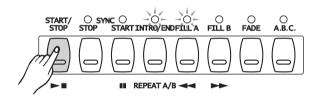




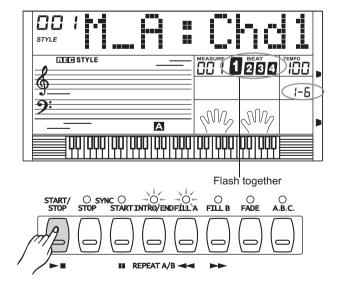
7. Press [START/STOP] button to start recording.

 The selected paragraph of the original rhythm begins to play in a loop way. Play the keyboard to record, the recorded data in current loop would be replayed in next loop.



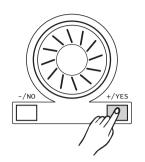


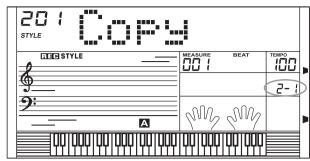
- 8. Press [START/STOP] button to stop the recording.
- You will exit the style record mode and enter record ready mode, the beat flashes.
- If another paragraph or track needs to be recorded, simply use the [FUNCTION/BACK] button to go back to step 4 or 5.



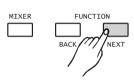
## Copy a Style

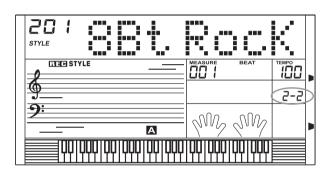
- 1. Select a user style slot to be used to store the new style.
- Press [FUNCTION/NEXT] button to enter choice menu.
- Press [+/YES], [-/NO] button or rotate the DIAL to choose "Copy".



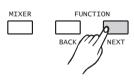


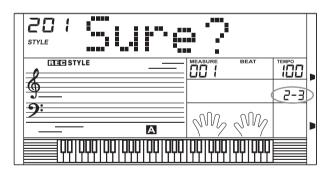
- **2.** .Press **[FUNCTION/NEXT]** button to enter rhythm selection menu.
- Press [+/YES], [-/NO] button or rotate the DIAL to select a user style that needs to be copied.



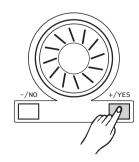


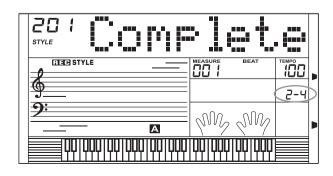
- Press [FUNCTION/NEXT] button to enter next menu.
- LCD will display: "Sure? " .
- Press [+/YES] to confirm, press
   [-/NO] to return to previous menu.





4. Press [+/YES] to finish copy.

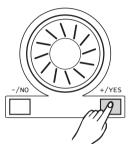


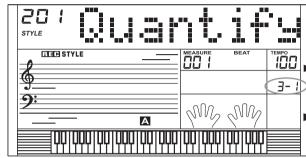


## Quantify a Style

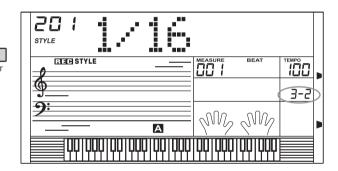
As timing of the recording may not be as accurate as it should be, Quantization helps users to correct the timing by aligning the notes to the exact beat. we'd suggest choosing the shortest note of the piece as the quantization precision for best result. If a lower quantization precision is chosen, for example choosing a quarter note as the precision when the shortest note is a 16th, the note with the short duration may be filtered.

- 1. Select the user style that needs to be quantified.
- Press [FUNCTION/NEXT] to enter choice menu.
- Press [+/YES], [-/NO] button or rotate the DIAL to choose "Quantify" (if there is no data in user style, this menu can not be selected).





- 2. Press [FUNCTION/NEXT] to enter Quantity accuracy menu.
- Press [+/YES], [-/NO] button or enter the dial to select the accuracy for quantifying. Quantity accuracy includes 1/4 (quarter), 1/4 Tri (Quarter Triplet), 1/8 (Eighth), 1/8 Tri (Eighth Triplet), 1/16 (Sixteenth), 1/16 Tri (sixteenth Triplet), 1/32 (32nd), 1/32 Tri (32nd Triplet).



#### **Quantization Precision value**

quarter note

eighth note

sixteenth

thirty-second note

quarter note triplet

FUNCTION

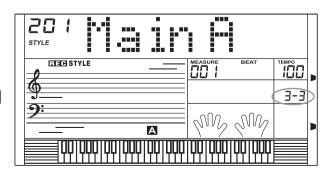
eighth note triplet

sixteenth note triplet thirty-second note triplet

- 3. Press [FUNCTION/NEXT] to enter the paragraph menu.
- Press [+/YES], [-/NO] button or rotate the **DIAL** to select the paragraph of rhythm: Main \_ A, Main \_ B, Intro \_ M, Intro \_ m, Fill \_ A, Fill \_ B, Ending \_ M, Ending m.

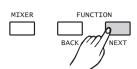


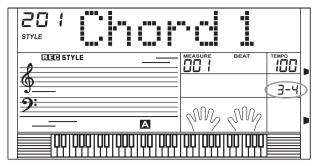




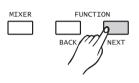
#### Style Record

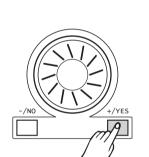
- 4. Press [FUNCTION/NEXT] to enter the Track menu.
- Press [+/YES], [-/NO] button or rotate the **DIAL** to select the track: Rhythm sub, Rhythm main, bass, chord 1, chord 2, chord 3, phrase 1, phrase 2.

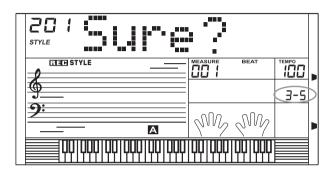


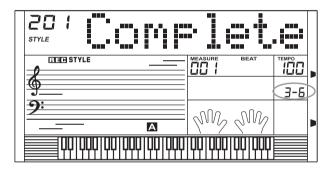


- 5. Press [FUNCTION/NEXT] to enter next menu.
- LCD will display "Sure?".
- The original time and length of note will not be recovered after quantified.
- Press [+/YES] to confirm. Press [-/NO] to return to previous menu.
- 6. LCD displays "Complete". The recorded style will be played with the desired accuracy.





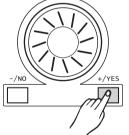




## Edit a Style

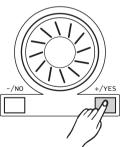
Select the style that needs to be editted.

- 1. Press [FUNCTION/NEXT] button to enter choice menu.
- Press [+/YES], [-/NO] button or rotate the DIAL to choose "Edit".

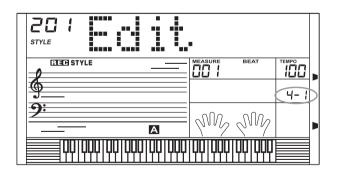


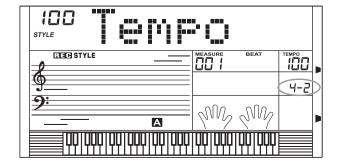
MIXER

- 2. Press [FUNCTION/NEXT] button To enter tempo edit menu.
- Press [+/YES], [-/NO] button or rotate the **DIAL** to adjust tempo value.



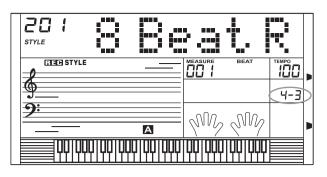
FUNCTION



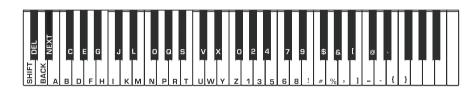


Press [FUNCTION/NEXT] button to enter the rename menu (full name).





 The user style name includes 1-8 characters which can be inputted with the keyboard. Keyboard & ASCII Character Relative Table is as follows:



#### **Explanation:**

#### [SHIFT]:

26 letters will be inputted with capital letter by pressing the keyboard.

To input small letter, Hold on the [SHIFT] key and press the letter key

#### [DELETE]:

To erase the character which cursor flashes

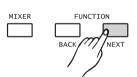
#### [BACK]:

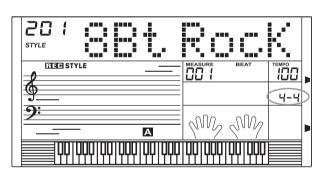
move the current cursor to the left.

#### [NEXT]:

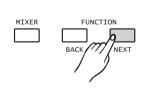
move the current cursor to the right.

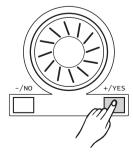
- Press [FUNCTION/NEXT] button to enter page of the abbreviation of style name.
- Only 8 characters or digits can be inputted.

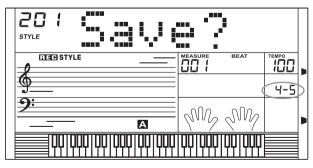


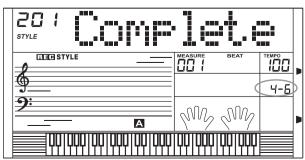


- 5. Press [FUNCTION/NEXT] button to enter next menu.
- LCD will display "Save?"
- Press [+/YES] to confirm.
   press [-/NO] to return to previous menu.
- 6. Press [+/YES] to finish editing.





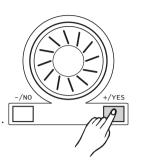




## Delete a style

Select the user style that needs to be deleted.

- 1. Press [FUNCTION/NEXT] button to enter choice menu.
- Press [+/YES], [-/NO] button or rotate the DIAL to choose "Delete".



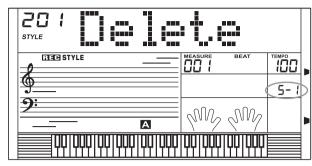
FUNCTION

FUNCTION

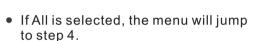
FUNCTION

MTXER

MIXER



- Press [FUNCTION/NEXT] button to enter Paragraph Selection page.
- Press [+/YES], [-/NO] button or rotate the DIAL to select the paragraph that needs to be deleted.

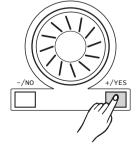


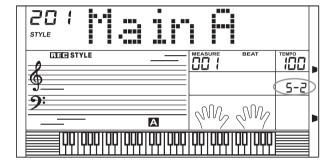


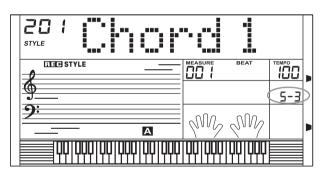


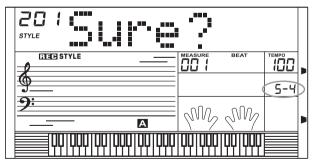
to enter Track Selection page.

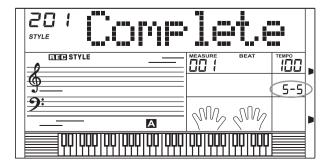
- If All is selected, the rhythm will be deleted.
- 4. Press [FUNCTION/NEXT] button to enter next menu.
- LCD will display "Sure?".
- Press [+/YES] to confirm.
   Press [-/NO] to return to previous menu.
- **5.** Press **[+/YES]** to finish deleting.













## Sona

Total of 100 songs, in which there are 10 piano songs. Each song can be practiced in LESSON mode. (See appendix: page 68)

#### 1. START/STOP the song:

Press [SONG] button to enter the song mode. It will play all songs in circle.

Press [START/STOP] button to start / stop playing the song, but it will not guit the song mode.

## SONG 01 My My

VOICE

STYLE

## 2. Loop: The 2nd time you start playing the song by pressing [START/STOP] button, it will play current song repeatedly. O SYNC O O O O O O STOP START INTRO/ENDFILL A O FILL B FADE 3. Select the song:

Use [+/YES] / [-/NO] button or DIAL to select the song you want.

#### 4. Song control:

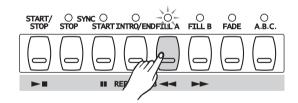
#### • Introductory beat:

Before the song start playing, it has the introductory beat, the measure starts from negative value. It begins to play the song when the measure goes to 1.

#### • REW,FF and PAUSE:

When the song is playing, press [►►] button to fast forward the song.

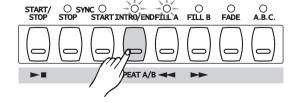
Press [ | to rewind the song (base on the measure), press [ • ] to pause the playing song.



#### Song repeat

When playing the song, press [REPEAT A/B] button to set the location of loop begin and loop end to the current song. Press the [REPEAT A/B] to set the loop begin, and press the [REPEAT A/B] twice to set the loop end. When in loop status, press [REPEAT A/B] again to guit loop playing status.

When the song is stopped, press [STYLE], [CHORD DICTIONARY], [VOICE], [DUAL] or [LOWER] will exit the song mode.



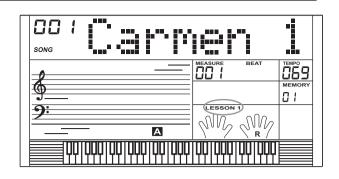


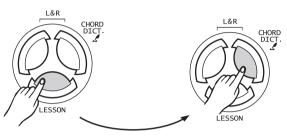
 The user song do not have the function of REW, FF and PAUSE.

#### **Lesson Mode**

There are 2 different ways to practise the songs by the time value training and note correction training. And the keyboard offers the GRADE function to help you know well about your progress.

- In song mode, press [LESSON] button to enter lesson mode.
- 2. There are 3 levels to score the performance of your playing. You can use [R] and [L] button to select which hand to practice. If neither hand is selected, the keyboard will choose the right hand automatically.







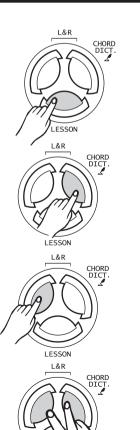
- According to the type of the song, the content of your practice by left hand is not the same. If you choose chord song, the left hand practices the chord, otherwise, left hand practise the melody.
- When the song is playing, the staff and the keyboard displayed on the LCD indicate the melody and chord position, the numbered musical notation displayed on LCD shows the last note played by RIGHT track, and it will be convenient for you to practice.

### Lesson 1-Practice an timing

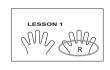
Press **[LESSON]** button to enter the lesson mode, the lesson 1 flag is lightened on LCD.

In LESSON 1 mode, the keyboard only grade the time value of the playing, do not care the correction of the note.

- 1. Press [START/STOP] to start to practise.
- 2. If [R] is selected; it will mute the melody of right hand and you will have to follow the time value of the right hand. As long as the time value is correct, the melody will sound.
- If [L] is selected; it will mute the changing chord and melody by left hand. You will have to follow time value of the left hand. As long as the time value is correct, the chord / melody will sound.
- If [L] and [R] are selected, the melody on left and right hand will be muted. You will have to follow time value on both left and right hand.







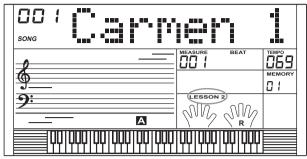




## **Lesson 2-Practice a note accuracy**

Press **[LESSON]** button again to enter the lesson 2 mode. In LESSON 2 mode, the keyboard only grade your practice by the note, do not care the correction of the time value. Only when you play the correct note, the song will continue to the next note.

1. Press [START/STOP] button to start to practise.



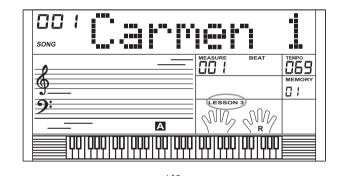


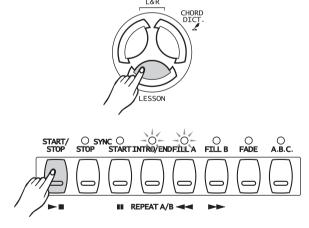
### Lesson 3

Press **[LESSON]** button in LESSON 2 to enter the LESSON 3 mode.

In LESSON 3 mode, it will score your practice by the correction of the time value and note.

1. Press [START/STOP] button to start to practise.





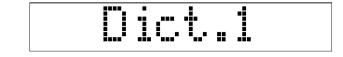
## **Chord Dictionary**

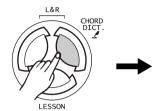
If you know the name of a chord but don't know how to play it, you can use the Chord Dictionary function.

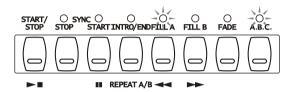
#### 1. DICT 1 (CHORD LEARNING MODE)

Press and hold the [CHORD DICT./R] button for longer than 2 seconds to enter DICT 1 mode.

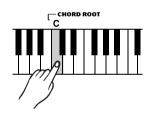
In this mode, the keys above C4 are used to assign the Chord Type, the keys above C6 are used to assign the Chord Root.

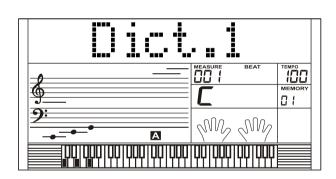




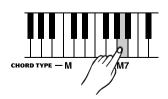


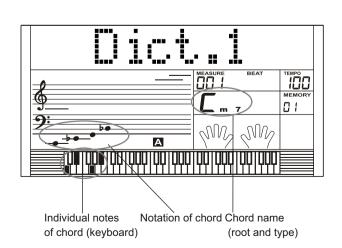
When the Chord Type and Chord Root is confirmed, The LCD will display the Chord and its keyboard position. For example, if we want to play a Cm7 Chord. Press the C key in the section of the keyboard labeled CHORD ROOT. (The note does not sound) the root note you set will be shown on the display.



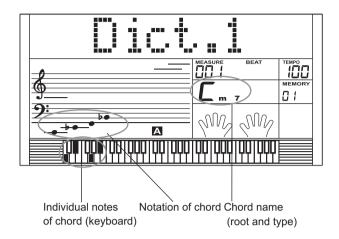


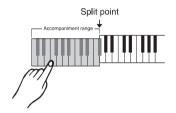
Press the m7 key in the section of the keyboard which has labeled CHORD TYPE (The note does not sound). The notes you should pay for the specified chord (root and chord type) are shown in the display as the notation and also in the keyboard diagram.





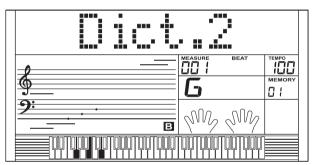
When the Chord Type and Chord Root are confirmed, the LCD will display the chord and its keyboard position. A bell sound will be heard when you play it correctly.

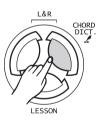




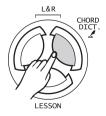
#### 2. DICT 2 (CHORD TEST MODE)

Press [R] button again to enter DICT 2 mode. The chord area on the LCD will display a random chord, while the keyboard position doesn't display anything on LCD. When you play the correct chord within 3 seconds, the next chord (random) will be displayed on LCD to wait for the correct chord playing, if not, LCD displays the corresponding keyboard position automatically.





Press [R] button for the third time to turn off chord dictionary.



## **Chord Dictionary**

24 chords will be displayed in the dictionary mode as follows:

#### Chord Root:

Note	Chord Root	Note	Chord Root
C6	С	F <sup>#</sup> 6	F# G <sup>b</sup>
C <sup>#</sup> 6	C <sup>#</sup> /D <sup>b</sup>	G6	G
D6	D	A <sup>6</sup> 6	A <sup>b</sup> /G <sup>#</sup>
E <sup>b</sup> 6	E <sup>b</sup> /D #	A6	Α
E6	Е	B <sup>b</sup> 6	В <sup>ь</sup> /А <sup>#</sup>
F6	F	B6	В

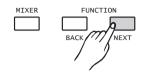
#### Chord Type:

Note	Chord Type	Note	Chord Type
C4	M	C5	7(b9)
C#4	M(9)	C <sup>#</sup> 5	7(9)
D4	6	D5	7(#9)
E <sup>b</sup> 4	mM7	E <sup>b</sup> 5	7(b13)
E4	M7	E5	7(13)
F4	m	F5	7( #11)
F <sup>#</sup> 4	m(9)	F <sup>#</sup> 5	dim7
G4	m6	G5	dim
A <sup>b</sup> 4	m7(9)	A <sup>b</sup> 5	7aug
A4	m7	A5	aug
B <sup>b</sup> 4	m7b5	B <sup>b</sup> 5	7sus4
B4	7	B5	sus4

## Pedal

### **Foot Switch**

The keyboard can assign the pedal in function menu. (See FUNCTION)



#### **PEDAL SUSTAIN**

If pedal assign is set as "pedal sustain", Step on the sustain pedal ,all notes played on the keyboard have a longer sustain.



#### **PEDAL SOFT**

If pedal assign is set as "pedal soft", Step on the soft pedal , all notes played on the keyboard have a soft effect.



#### **PEDAL MEMORY SELECT**

If pedal assign is set as "pedal mem", it will load the next memory parameter when you step the pedal.



#### PEDAL START/STOP

If pedal assign is set as "pedal ST/S", the pedal will have the same function as **[START/STOP]** button.

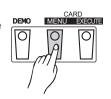


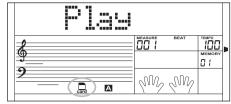
## **Volume Pedal**

You can step the volume pedal to control the volume.

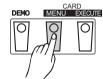
## **SD Function**

There is a standard SD external interface which supports the cards of 16M ~ 2G capability. It is compatible with the file system format of the FAT 16/32. Press the **[MENU]** button to enter the SD CARD sub menu which includes: PLAY, LOAD, SAVE, DELETE and FORMAT.





If there is no card, it will display "No Card",then you can press [MENU] to exit. Otherwise, "Wait... !"Will disappear temporarily for 3 seconds then it will show "Play"on the LCD.



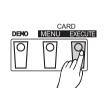
Nelet.e

Format

- You can press VOICE DIRECT SELECT BUTTON /STYLE DIRECT SELECT BUTTON / [VOICE] / [STYLE] / [SONG] / [DEMO] / [DUAL] / [SPLIT] / [PIANO] to exit SD CARD menu.
- In midi play mode, you can press mixer button then press [+/YES],[-/NO] button to adjust the volume to play.
- 3. In SD card mode, you could press [MENU]button repeatedly to exit sd menu step by step, you also could press and hold[MENU]button for 2 seconds to exit directly.

In the SD mode, it won't respond to the other function. In the SD mode,use the [+/YES], [-/NO] button and **DIAL** to choose the SD menu you want.

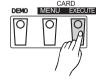
Press the **[EXECUTE]** button to take a step forward. press the **[MENU]** button to take a step back.



° FOLDERO1

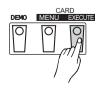
### **Play**

 Select the menu "Play" and press the [EXECUTE] button, LCD will display the MIDI files and directories in the root of the SD card.



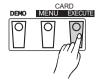
Plau

If the MIDI file in SD could be identified and selected, LCD will display file name and the "F" sign.



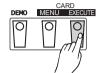
F SNG\_0001

If there is no midi file identified inside the current directory, LCD will display the sub-directory name and the "d" sign. Press the **[EXECUTE]** button to enter the current sub-directory, then new MIDI files or subdirectories of the directory will be displayed.



<sup>d</sup> FOLDER01

If there is neither MIDI file and subdirectory in the current directory, LCD will display " . . "and the "d" sign, you can press the **[EXECUTE]** button to exit the directory.

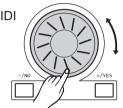


д ...

If there is neither MIDI file and subdirectory in the root , LCD will display "No file".

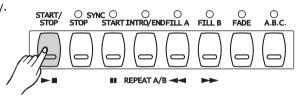
Mo File

2. Use the [+/YES], [-/NO] button and DIAL to select the MIDI file.



<sup>F</sup> SNG\_0001

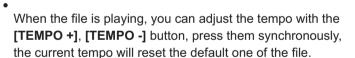
Then press the **[START/STOP]** button to play it repeatedly.



Press the **[EXECUTE]** button to play all files in the current directory circularly.

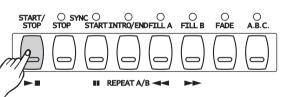


 When the file is playing, you can select new file in the current directory or other subdirectory.



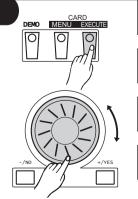
3. When the file is playing, press the [START/STOP] button to stop playing. Also you can press the [MENU] button to return PLAY menu, or press the [MENU] button 2 seconds to exit the SD mode, then stop to play the file.





#### Load

Select the menu "Load" and press the **[EXECUTE]** button, the Load menu are displayed on the LCD, it includes "Load Song", "LoadSty" and "LoadMem". Use the **[+/YES],[-/NO]** buttonand **DIAL** to select one.



1 1,.... 1

LoadMen

#### **SD Function**

#### **Load Song**

Select the menu "LoadSong" and press the **[EXECUTE]** button, the user songs you saved or directory in the root of SD are displayed on the LCD, the main name of the file includes 8 characters, the postfix name is MID. You can select songs with **DIAL** or the **[+/YES]** & the **[-/NO]** button.

Press the **[EXECUTE]** button to affirm the desired file, the empty user song slot will be displayed on the LCD, you can select them with dial or the **[+/YES]** and the **[-/NO]** button.

Press the **[EXECUTE]** button, "Sure?" will be displayed on the LCD.

You just need to press the [EXECUTE] button to load the file.

#### 2. Load Style

Select the menu "LoadSty" and press the **[EXECUTE]** button, the user styles you saved or directory in the root of SD are displayed on the LCD, the main name of the file includes 8 characters, the postfix name is STY. You can select Styles with dial or the **[+/YES]** & the **[-/NO]** button.

Press the **[EXECUTE]** button to affirm the desired file, the The empty user style slot will be displayed onthe LCD, you can select them with dial or the **[+/YES]** & the **[-/NO]** button.

Press the **[EXECUTE]** button, "Sure?" will be displayed on the LCD.

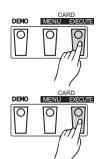
You just need to press the [EXECUTE] button to load the file.

#### 3. Load Memory

Select the menu "LoadMem" and press the **[EXECUTE]** button, the memory files you saved or directory in the root of SD are displayed on the LCD, the main name of the file includes 8 characters, the postfix name is MEM.

Press the **[EXECUTE]** button, "Sure?" will be displayed on the LCD.

You just need to press the [EXECUTE] button to load the file.



LoadSon9

<sup>F</sup> SNG\_0001

oo' UserSon9



00 / **Calaria** 



oo: Wait....



LoadStu

<sup>f</sup> STY\_0001



°°' UserSty



<sup>00:</sup> Sur∈?

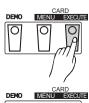


oo: Wait...!



LoadMem

<sup>F</sup> MEM\_0001



F Gune?



<sup>f</sup> Wait...!

#### Save

Select the menu "Save" and press the [EXECUTE] button, the Save menu are displayed on the LCD, it includes "SaveSong", "SaveSty" and "SaveMem".

You can select either with DIAL or the [+/YES] and the [-/NO] button

The operation of SAVE is same as PLAY .If there is no any subdirectory or recognized files in the storage directory you select,".."will displayed on LCD, and you are allowed to use [+/YES] . [-/NO]button or DIAL to change to "SaveHere" . When "SaveHere" displayed on the LCD, press [EXECUTE] to save the file to the current directory.

#### 1. Save Song

Select the menu "SaveSong" and press the [EXECUTE] button, the user song recorded is displayed on the LCD. You can select one to be saved with DIAL or the [+/YES],[-/NO] button.

Press the [EXECUTE] button to go to next step, you can select the storage directory with DIAL or the [+/YES], [-/NO] button.

Press the [EXECUTE] button to enter next step, LCD will display the naming state, you can play the keyboard to input the file name.

Press the [EXECUTE] button to enter the enquiry page, "Sure?" will be displayed on the LCD.

You just need to press the [EXECUTE] button to save the file.

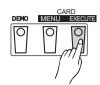
#### 2. Save Style

Select the menu "SaveSty" and press the [EXECUTE] button, the user style recorded is displayed on the LCD. You can select one want to be saved with DIAL or the [+/YES],[-/NO] button.

Press the [EXECUTE] button to go to next step, you can select the storage directory with DIAL or the [+/YES] ,[-/NO] button.

Press the [EXECUTE] button to enter next step, LCD will display the naming state, you can play the keyboard to input the filename.

Press the [EXECUTE] button to enter the enquiry page, "Sure?" will be displayed on the LCD.



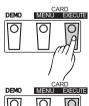






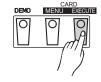












00 (

FOLDERO1

SNG\_0001

Wait...!

SaueStu

UserSt4

FOLDERO1

Y\_0001

#### **SD Function**

You just need to press the [EXECUTE] button to save the file.



<sup>f</sup> Wait...!

#### 3. Save Memory

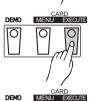
Select the menu "SaveMem" and press the **[EXECUTE]** button, you can select the storage directory with **DIAL** or the **[+/YES]**, **[-/NO]** button.

Press the **[EXECUTE]** button to enter next step, LCD will display the naming state, you can play the keyboard to input the filename.

Press the **[ EXECUTE]** button to enter the enquiry page, "Sure?" will be displayed on the LCD.

You just need to press the **[EXECUTE]** button to save all the datas includes 48 memorizers.









## SaveMem

d FOLDERO1

<sup>F</sup> MEM\_0001

<sup>f</sup> Sure?

f Wait...!

### Delete

#### Delete

Select the menu "Delete" and press the **[EXECUTE]** button, all files includes MIDI files, user songs and user styles or all directories in the root of SD are displayed on the LCD. You can select the file you want to delete with **DIAL** or the **[+/YES]** & the **[-/NO]** button.

Press the **[EXECUTE]** button, "Sure?" will be displayed on the LCD.

You just need to press the **[EXECUTE]** button to delete the file.



The directorids is unable to delete.







## Delete

<sup>F</sup> STY\_0001

*f* Sur∈?

<sup>\*</sup> Wait...!

### **Format**

#### **Format**

Select the menu "Format" and press the **[EXECUTE]** button, "Sure?" will be displayed on the LCD.

Press the **[EXECUTE]** button to format it, the card will be formatted.



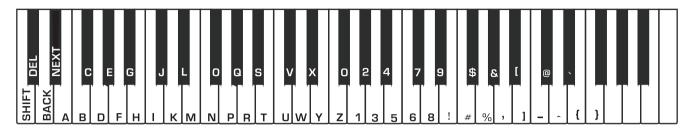


Sure?



#### **SD Function**

The file name includes 1-8 characters which can be inputted with the keyboard. Keyboard & ASCII Character Relative Table is as follows:



#### **Explanation:**

#### [SHIFT]:

26 letters will be displayed with capital letter by pressing the keyboard in letter area directly.

#### [DELETE]:

To erase the character which cursor flashes.

#### [BACK]:

move the current cursor to the left.

#### [NEXT]:

move the current cursor to the right.

#### NOTE

- While in the SD mode, press the [SHIFT] button hold on, it won't respond to it.
- If the name input has already existed, LCD will display "SameName" temporarily, then exit the SD mode to return the previous state.
- If there's no enough space in the card after name input, LCD will display "CardFull" temporarily, then exit the SD mode to return the previous state.

## **MIDI** Function

### What is MIDI

- 1. MIDI stands for "Musical Instrument Digital Interface", that is the standard interface between a PC and other electronic instrument(s).
- USB connection can be used for midi data transference with computer or other USB host devices that support USB audio device with an USB cable.
- **3.** The keyboard can be connected to the PC or other USB host device with an USB interface.
- 4. Use the keyboard as a tone generator, the data (MIDI) recorded on the PC or other USB host devices can be played on the keyboard.



 While a recording is playing back and a style is playing, you can not use the MIDI IN function, or the song you are playing will have error occurs for the same channel.

### **USB Connection**

#### 1. System Requirements

• CPU: 300 MHz or higher, Pentium 2

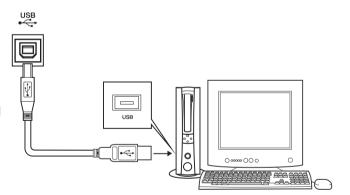
• Memory: 64MB or more

• Hard Disk: at least 2 MB of free base

OS: WINDOWS 2000/XP

#### 2. The Method of Connection

Connect a standard USB cable between the rear-panel of the USB jack of the instrument and the USB jack on your computer (USB cable sold separately).



#### 3. USB Precautions

Please observe the following precautions when connecting the instrument to a computer via a USB cable. Failure to do so can cause the instrument and/or the computer to hang up(freeze), possibly causing corruption or losing the data.

If the instrument or computer does hang up, turn the power of both devices off and then turn it on again after a few seconds.

#### **CAUTIONS!** -

Activate the computer from a sleep/ suspended/standby mode before connecting the USB cable.

Connect the USB cable to the instrument and a computer before turning the power of the instrument on.

## **MIDI** Connection

#### **Connection rule**

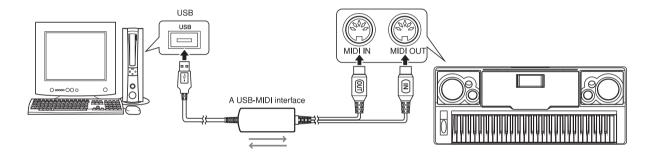
In midi connection, the equipment which control another one is called "Host equipment", while another is called "Affiliated equipment".

The host equipment's MIDI OUT connects with affiliated equipment's MIDI IN

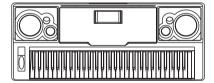
Note that MIDI OUT cannot connect with MIDI IN on the same equipment.

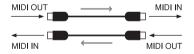
#### The method of connection

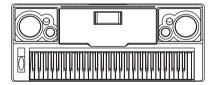
Connect the MIDI interface with PC.



Connect the MIDI interface with the other MIDI interface.







## **MIDI Application**

- 1. The keyboard can control other equipments or electronic instruments.
- 2. Some equipments can be used to control the keyboard.
- 3. PC recorded data (MIDI) can be played on the keyboard.

## **Specifications**

LCD display	Multi-functional LCD
Keys	61 keys with Touch Response
Polyphony	64-note polyphony(max)
Voice	559 Voices.
Style	203 Styles, including 3 user styles.
Song	100 Songs
Demo	2 Demos
Control button	Power on/off, Volume, Accomp Volume +/-,Tempo +/-, Lesson, L&R, Chord Dictionary, Mixer, Function Back/Next, Voice, Style, Song, O.T.S., M1-M6, Store, Bank, Start/Stop ►■, Sync Start ■, Sync Stop, Intro/End/Repeat A/B, Fill A◄◄, Fill B►►, FADE, A.B.C. Record, Style Record, Play/Stop, Accomp, Melody 1, Melody 2, Melody 3 Melody 4, Melody 5, Dual, Split, Touch,Sustain, DSP, Demo, Transpose, Octave, +/YES,-/NO, Piano, Metronome, Menu, Execute
Accompaniment Control	Start/Stop ►■, Sync Start ■ , Sync Stop, Intro/End/Repeat A/B, Fill A◄◄, Fill B►►, FADE,
Record Function	Record, Style Record, Play/Stop, Accomp, Melody 1, Melody 2, Melody 3 Melody 4, Melody 5
Panel Memory	48 Memory Storage
Connectors	DC Power, Headphones, Aux.Out, Sustain, Volume, USB, MIDI IN/OUT/THRU
Speaker	4 Ω 10w x 2 ; 4 Ω 25w x 2
Dimension	970(L)x390(W)x160(H)mm
Weight	9kg
Accessories	Adaptor, Music Rest, Manual

<sup>\*</sup> All specifications and appearances are subject to change without notice.

## **Trouble Shooting**

Problem	Possible Cause and Solution
No matter the instrument is turned on or off, a popping sound will be temporarily produced.	This is normal and indicates that the instrument is receiving electrical power.
There is no sound even when the keyboard is played or when a song or style is being played.	Check if any cable or headphone is connected to the PHONES jack on the rear panel. When a set of headphonesis plugged into this jack, no sound is output.
The volume is too soft. The sound quality is poor. The rhythm stops unexpectedly or not responding. The recorded data of the song is not playing correctly. The LCD display suddenly goes dark, and all panel settings are reset.	Check AC supply voltage is whether low.

# Appendix 1-Voice List

No	Name
	Piano
001	Stereo Grand Piano 1
002	Stereo Grand Piano 2
003	Stereo Grand Piano / W
004	Grand Piano / W
005	Stereo Piano Dark
006	Octave Piano 1
007	Octave Piano 2
800	Synth Piano
009	Dreamscape
010	Piano & Strings
011	Piano & Choir
012	Acoustic Grand Piano
013	Stereo Bright Piano
014	Bright Piano 1
015	Bright Piano2
016	Bright Piano 1 / W
017	Bright Piano 2 / W
018	Detuned Piano
019	Chorus Piano
020	Velocity Crossfade Piano
021	Piano Pad
022	Piano & Vibraphone
023	Electric Grand Piano
024	Stereo Honk-Tonk
025	Honky -Tonk
026	Honky-Tonk Dark
027	Honky-Tonk 1 / W
028	Honky-Tonk 2 / W
029	Stereo Hard E.P.
030	Detuned E.P. 1
031	Detuned E.P. 2
032	E Piano 1
033	E Piano 2
034	E.Piano 1 / W
035	E.Piano 2 / W
036	E.Piano 3 / W
037	E.Piano 4 / W
038	Hard E.P.
039	Soft E.P.
040	Deep E.P.
041	Velocity Crossfade E.P. 1

042	Velocity Crossfade E.P. 2
043	Layered E.P. 1
044	Layered E.P. 2
045	Nylon E.P.
046	Warm E.P.
047	Cloudy E.P.
048	Grand Harpsichord
049	Harpsichord 1
050	Harpsichord 2
051	Harpsichord 1 / W
052	Harpsichord 2 / W
053	Harpsichord Octave 1
054	Harpsichord Octave 2
055	Harpsichord Release
056	Harpsikd / O
057	Piano & Harpschord
058	Stereo Clavichord
059	Clavichord 1
060	Clavichord 2
061	Clavichord 1 / W
062	Clavichord 2 / W
063	Clavichord Wah
064	Punchy Clavichord
	Mallet
065	Celesta 1
066	Celesta 2
067	Birght Celeasta
068	Celesta & Sine
069	Reecho Bell
070	Celesta & Music Box
071	Glockenspiel 1
072	Glockenspiel 2
073	Glockenspiel & Sine
074	Glockenspiel & Celesta
075	Music Box 1
076	Music Box 2
077	Music Box 3
078	Toy Box
079	Music Box & Harp
080	Stereo Vibrapho
081	Rigid Vibraphone
082	Vibraphone 1
083	Vibraphone 2

No	Name
084	Vibraphone 1 / W
085	Vibraphone 2 / W
086	Vibraphone & Bell
087	Vibraphone & Harpsichord
088	Marimba 1
089	Marimba 2
090	Marimba / W
091	SinMarimba
092	Stereo Marimba
093	Marimba & Vibraphone
094	Wood Drum
095	Xylophone 1
096	Xylophone 2
097	Tubular Bells 1
098	Tubular Bells 2
099	Tubular Bells 3
100	Dulcimer
101	Santur
102	Shorty
.02	Organ
103	Drawbar Organ Stereo
104	Soft Stereo Drawbar Organ
105	Mellow Drawbar Organ
106	Drawbar Organ
107	Drawbar Organ Detuned
108	Bright Drawbar Organ
109	1960 Drawbar Organ
110	1970 Percussive Organ
111	Percussive Organ 1
112	Percussive Organ 2
113	Light Click Organ
114	Percussive Organ Detuned
115	Stereo Rotary Organ
116	Rock Organ
117	Rotary Organ
118	Slow Rotary Organ
119	Detuned Church Organ
120	Church Organ 1
121	Church Organ 2
122	Octave Church Organ
123	Stereo Reed Organ
124	Reed Organ
125	Accordion 1

No	Name
126	Accordion 2
127	Accordion 3
128	Chorus Accordion
129	Mustte
130	Accord ItSolo
131	Harmonica 1
132	Harmonica 2
133	Detuned Harmonica
134	Sweet Harmonica
135	Tango Accordion
	Guitar
136	Nylon G.T. 1
137	Nylon G.T. 2
138	Nylon G.T. / R
139	Velocity Nylon G.T.
140	Detuned Nylon G.T.
141	Chorus Nylon G.T.
142	Bright Nylon G.T.
143	Steel G.T. 1
144	Steel G.T. 2
145	Detuned StebG.T.
146	Velocity Steel G.T.
147	Velocity Steel G.T.(Fx)
148	Pedal Steel G.T.
149	Velocity Pedal Steel G.T.
150	12 String GT.
151	Chorus Steel G.T.
152	Nylon & Steel G.T.
153	Jazz G.T. 1
154	Jazz G.T. 2
155	Mellow G.T.
156	Velocity Jazz G.T.
157	Jazz G.T. Detuned
158	Clean G.T. 1
159	Clean G.T. 2
160	Clean G.T. 3
161	Stereo Clean G.T.
162	Velocity Clean G.T.
163	Chorus Clean G.T.
164	Muted G.T. 1
165	Muted G.T. 2
166	Funk G.T.
167	Jazz Boy

No	Name
168	Stereo Muted G.T.
169	OverDriven G.T. 1
170	OverDriven G.T. 2
171	Detuned Overdriven G.T.
172	Distortion G.T. 1
173	Distorted G.T. 2
174	FeedbackG.T. 1
175	FeedbackG.T. 2
176	Distorted Rhythm G.T.
177	5th Distortion
178	Distortion G.T. Octave
179	Stereo Distorted G.T.
180	G.T. Harmonics 1
181	G.T. Harmonics 2
	Bass
182	Acoustic Bass 1
183	Acoustic Bass 2
184	Acoustic Bass Detuned
185	Acoustic Bass Filter
186	Jazz Style
187	A.Bass & Mute G.T.
188	Resonant Bass
189	Velocity Crossfade Bass
190	Wah Bass 1
191	Wah Bass 2
192	Finger Bass 1
193	Finger Bass 2
194	Detuned Finger Bass
195	Dark Finger Bass
196	Jazz Bass
197	Resonant Finger Bass
198	Velocity Bass
199	Velocity Finger Bass (FX)
200	Bass & Distorted Elec Guitar
201	Pick Bass 1
202	Pick Bass 2
203	Mute Pick Bass
204	Detuned Pick bass
205	Fretless Bass 1
206	Fretless Bass 2
207	1990 Bass
208	Fretless Bass & Sine
209	Fretless Bass Detuned 1

No	Name
210	Fretless Bass Detuned 2
211	Fretless Bass Detuned 2 Fretless Bass Detuned 3
212	
213	Slap Bass 1
	Slap Bass 2
214	Slap Bass 3
215 216	Slap Bass 4
217	Power Slap Bass Lash Thumb Bass
218	
	Resonant Slap Bass
219	Velocity Switch Slap Bass
220	Synth Bass 1
221	Synth Bass 2
222	Synth Bass 3
223 224	Synth Bass 4
	Synth Bass 5
225 226	Super Synth Bass Tech Synth Bass
227	•
228	Synth Bass / O
220	Fast Syntonic Bass
229	Strings The ViOlin
230	Violin 1
231	Violin 2
232	Violin 3
233	Mono Violin
234	Octave Violin
235	Electric Violin
236	Slow Violin
237	Two Violin
238	Soft Violin
239	Largo Violin
240	Viola 1
241	Viola 2
242	Viola 3
243	Dark Viola
244	Cello 1
245	Cello 2
246	Cello 3
247	Cello 4
248	Celloen 16'
249	Chamber Music
250	Contrabass 1
251	Contrabass 2

### Appendix 1- Voice list

No	Name
252	Tremolo Strings 1
253	Tremolo Strings 2
254	Slow Tremolo Strings 1
255	Slow Tremolo Strings 2
256	Pizzicato Strings 1
257	Pizzicato Strings 2
258	Octave Pizzicato
259	Orchestral Harp 1
260	Orchestral Harp 2
261	Velocity City
262	Africa
263	Timpani 1
264	Timpani 2
	Strings Ensembl
265	The Strings
266	Synth Strings 1
267	Synth Strings 2
268	Synth Strings 3
269	Synth Strings 4
270	Synth Strings 5
271	Strings Ensemble 1
272	Strings Ensemble 2
273	Resonant Strings
274	Stereo Slow Strings
275	Slow Strings
276	Sforzato Strings
277	Orchestra
278	Legato Strings
279	Arco Strings
280	1960 Strings
281	1970 Strings
282	Solo Strings
283	Choir Aahs 1
284	Choir Aahs 2
285	Choir Aahs3
286	Mellow Choir
287	Stereo Choir Aahs 1
288	Stereo Choir Aahs 2
289	Strings Choir
290	Voice Oohs 1
291	Voice Oohs 2
292	Synth Voice 1
293	Synth Voice 2

No	Name
294	Echo Synth Voice
295	Orchestra Hit 1
296	Orchestra Hit 2
297	Orchestra Hit Octave
298	Orchestra Hit Stereo
299	6th Orchestra Hit
	Brass
300	Trumpet 1
301	Trumpet 2
302	Trumpet 3
303	Dark Trumpet
304	Resonant Trumpet
305	Sweet Trumpet
306	Wah Trumpet
307	Trombone 1
308	Trombone 2
309	Trombone 3
310	Dark Trombone
311	Strings & Trombone
312	Tuba 1
313	Tuba 2
314	Tuba Solo
315	Soft Tuba
316	Muted Trumpet 1
317	Muted Trumpet 2
318	French Horn 1
319	French Horn 2
320	Soft Horn
321	Stereo French Horn
322	5th Horn Orchestr
323	Brass Section 1
324	Brass Section 2
325	Brass Section 3
326	Brass Section 4
327	Brass Section Octave
328	Brass Swell
329	Brassband
330	Bright Brass Section
331	Dark Brass
332	Mute Brass Ensemble
333	SforzatoBrass
334	Stereo Brass & Strings
335	Synth Brass 1

No	Name
336	Synth Brass 2
337	Synth Brass 3
338	Synth Brass 4
339	Synth Brass 5
340	Leap Brass
341	Octave Synth Brass
342	Synth Brass & Strings 1
343	Synth Brass & Strings 2
344	Echo Brass
345	Sooth Brass
	Reed
346	Soprano Sax 1
347	Soprano Sax 2
348	Soprano Sax Soft
349	Solw Soprano Sax
350	Sweet Soprano Sax
351	Alto Sax
352	Alto Sax & Breath
353	Super Alto Sax
354	SaxBand
355	Folk Sax
356	Tenor Sax
357	Baritone Sax
358	Baritone Sax & Breath
359	Oboe 1
360	Oboe 2
361	Sweet Oboe
362	English Horn 1
363	English Horn 2
364	Analog Horns
365	Woodwinds
366	Bassoon 1
367	Bassoon 2
368	Clarinet 1
369	Clarinet 2
	Pipe
370	Piccolo
371	Flute
372	Jazz Flute
373	Recorder
374	Sweet Pan Flute
375	Pan Flute
376	Dark Pan Flute
0.0	

## Appendix 1- Voice List

No	Name
377	Blown Bottle
_	
378 379	Shakuhachi Whistle 1
	Whistle 2
380	
381	Ocarina
	Lead
382	Lead 1 (square)
383	Square
384	Lead Sine
385	Slow Square Lead
386	Sine Solo
387	Square Lead 1
388	Square Lead 2
389	Thick Square
390	Corrie
391	Quint
392	2 Oscillators Lead
393	Sawtooth Lead 1
394	Sawtooth Lead 2
395	Wavy Sawtooth
396	Lead 2 (sawtooth)
397	Solw Saw
398	Super Analog
399	Synther
400	Heavy Sawtooth
401	Bauble Lead
402	PWM 4th
403	Lead 3 (calliope)
404	Lead 4 (chiff)
405	Lead 5 (charang)
406	Lead 6 (voice)
407	Voice Lead
408	Lead 7 (fifths)
409	Fifths Lead Soft
410	Fifth Lead
411	Lead 8 (Bass & Lead)
412	Massiness
413	Bass Lead
	Pad
414	Pad 1 (newage)
415	Slow Square
416	New Year Pad
417	Pad2 (warm)
	(

No	Name	
418	PWM Pad	
419	Sine Pad	
420	Warmly Pad	
421	Horn Pad	
422	Pad 3 (Polysynth)	
423	Click Pad	
424	Analog Pad	
425	Poly Pad	
426	Poly Synth Pad	
427	Pad 4 (choir)	
428	Choir Pad 2	
429	Pad 5 (bowed)	
430	Bowed Pad 2	
431	Pad 6 (metallic)	
432	Metallic Pad 2	
433	Pan Pad	
434	Pad 7 (halo)	
435	Halo Pad 2	
436	Pad 8 (sweep)	
437	Sweep Pad 2	
438	Dipolar Pad	
439	Rising	
440	Congregate	
	Effects	
441	FX1 (rain)	
442	FX2 (soundtrack)	
443	Progenitor	
444	Prelude	
445	FX3 (crystal)	
446	FX4 (atmsphere)	
447	Warm Air	
448	FX5 (brightness)	
449	Smog	
450	FX6 (goblins)	
451	Choir Bell	
452	FX7 (echoes)	
453	Reecho Pan	
454	Large Pan	
455	Echordrzz Slow	
456	Fantasyland	
457	FX8 (scɨfi)	
	Ethnic	

No	Name	
458	Sitar	
459	Detuned Sitar	
460	Banjo	
461	Shamisen	
462	Koto	
463	Kalimba	
464	Bagpipe	
465	Fiddle	
466	Shanai	
	Percussive	
467	Tinkle Bell	
468	Agogo	
469	Steel Drums	
470	Wood Block	
471	Taiko Drum	
472	Melodic Tom	
473	Synth Drum	
474	Reverse Cymba I	
Sound Effects		
475	Guitar Fret Noise	
476	Breath Noise 1	
477	Stream	
478	Helicopter 2	
479	Seashore 1	
480	Telephone Ring 2	
481	OpenDoor	
482	Starship	
483	CloseDoor	
484	Siren	
485	Gunshot 2	
486	Rise2	
487	Bird Tweet	
488	Ambulance	
489	Rise1	
490	Fall	
491	Seashore 2	
492	Bird 1	
493	Clop	
494	Wind	
495	Cattle	
496	Horse	
497	Telephone Ring 1	
498	Bird	

## Appendix 1- Voice List

No	Name
499	Breath Noise 2
500	Heartbeat
501	Laugh
502	Applause 2
503	Helicopter 1
504	Fire
505	Punch
506	ScratchCut
507	Fight 1
508	Shot
509	Fight 2
510	
511	Applause 1
512	Sheep
513	Firework Lion
514	
515	Frog Bird 2
516	
517	Dog
518	Spring Gunshot 1
519	Gunshot 3
520	
521	Laser Gun
$\vdash$	Drip Siron 2
522 Siren 2 Combined Voice	
523	
524	Stereo Piano & Strings Pad Stereo Piano & Choir
525	Piam & Warm Pad
526	FM Electric Piano
527	Old Electric Piano
52 <i>1</i>	Digital Piano
529	E.Piano & Strings
530	Harpsichord & Stereo Strings
531	Digital Music Box
532	Serenity
533	Vibraphone & Stereo Strings
534	FM Tubular Bells
535	Organ & Stereo Strings
536	Stereo Organ & Piano
537	Accordian 2
538	Power Distorted Guitar
539	Dynamic Bass
540	X Fade Bass
J#U	7 1 auc Dass

No	Name	
541	Stereo Strings & Piano	
542	Orchestra	
543	Full Strings 1	
544	Full Strings 2	
545	Symphonic	
546	Stereo Choir & Strings	
547	Trombone & Stereo Strings	
548	Club Brass	
549	Woodwinds & Strings	
550	Pan Flute & Strings Pad	
	Drum Set	
551	Standard Kit	
552	Room Kit	
553	Power Kit	
554	Electronic Kit	
555	Analog Kit	
556	Jazz Kit	
557	Brush Kit	
558	Orchestra Kit	
559	SFX Kit	

# Appendix 2- Style List

	I		
Number	Name		
	8BEAT		
001	8 Beat Rock		
002	Guitar Pop 1		
003	8 Beat 1		
004	Sweet Beat		
005	8 Beat Dance		
006	8 Beat Disco		
007	Pop Funk		
008	8 Beat 2		
009	60's 8 Beat		
010	Rhythm & Beat		
011	Miami Beat		
	16BEAT		
012	16 Beat 1		
013	Pop 16 Beat 1		
014	Pop 16 Beat 2		
015	Modern 16 Beat		
016	16 Beat Hot		
017	16 Beat Modern		
018	16 Beat Funk		
019	16 Beat 2		
020	Cool Beat		
021	16 Beat Ballad		
022	16 Beat 3		
023	Pop Shfl		
024	Guitar Funk		
025	16 Beat Funk 1		
	POP		
026	6/8 Pop		
027	Brit. Pop 1		
028	Brit. Pop 2		
029	Pop Hit		
030	Fusion Shuffle		
031	Analog Night		
032	Guitar Pop 2		
033	Popbeat		
034	Soft Beat		
035	60's Pop		
036	Sting Latin		
	BALLAD		
037	Soft Ballad		

Number	Name
038	Natural Ballad
039	Love Ballad
040	Easy Ballad
041	Slow Ballad
042	Folk Ballad
043	Pop Ballad 1
044	Pop Ballad 2
045	EP Ballad
046	New R&B Ballad
	ROCK
047	Slow Rock
048	70's Rock & Roll
049	FolkRock
050	Soft Rock
051	Pop Rock
052	Old Rock
053	Easy Rock
054	New Shuffle
055	Rock Hip Hop
056	Rock & Roll
057	Rock1
058	RockShuffle
059	R'N'R 1
060	Rock Shuffle
	BALLROOM
061	Twist1
062	Twist2
063	Big Band Fox 1
064	Tango
065	Slow Fox 1
066	Slow Waltz 1
067	Swing Fox
068	Salsa 2
069	Cha Cha 1
070	Cha Cha 2
071	Beguine1
072	Beguine2
073	Rhumba 1
074	Samba1
075	Samba2
076	Jive
077	Foxtrot

Number	Name	
078	Quick Step	
	DANCE	
079	Down Beat	
080	Techno	
081	Progressive	
082	Rap 1	
083	Rap 2	
084	Disco	
085	Soft Disco	
086	Disco Party	
087	70's Disco	
880	70's Disco Funk	
089	Clubdance	
090	Euro Dance	
091	80's Dance	
092	Нір Нор	
093	Garage	
SOUL & FUNK		
094	Jay R&B	
095	Gospel Swing	
096	Gospel	
097	Funk	
098	Electric Funk	
099	Groove Funk	
100	Rubber Funk	
101	Cool Funky	
102	Jazz Funk	
103	Groove	
104	Soul	
105	Hip Hop Soul	
106	Hip Hop Beat	
107	R&B	
108	Soul Beat	
109	R & B Ballad	
110	British Soul Pop	
111	Samba Funk	
	SWING&JAZZ	
112	Swing1	
113	Swing2	
114	Jazz Brush	
115	Latin Jazz	
116	Fusion	

## Appendix 2- Style List

Number Name		
117	Acid Jazz	
118		
119	Cool Jazz Ballad	
	Swing Shuffle	
120	Big Band 40's	
121	Big Band Medium	
122	Dixieland	
123	Acoustic Jazz	
124	Guitar Swing	
125	Ragtime	
126	Modern Jazz Ballad	
127	Swing Ballad	
128	Big Band Ballad	
129	Orchestra Swing	
	COUNTRY	
130	Bluegrass	
131	Country 8 Beat	
132	Modern Country	
133	Country Pop1	
134	Country Pop2	
135	2/4 Country	
136	Country	
137	Country Quick Steps	
138	Country Rock	
139	Country Folk	
140	Country Shuffle	
	Latin/Latin Dance	
141	Bossa Nova 1	
142	Latin	
143	Bossa Nova2	
144	New Reggae	
145	Dance Reggae	
146	Pasodoble	
147	Lite Bossa	
148	Latin Rock	
149	Beguine	
150	Slow Bolero	
151	Disco Samba	
151	Mambo	
152	Meneito	
153	Rumba1	
155	Rumba2	
156	Tikitikita	

Number	
157	Lambada
158	Pop Cha Cha1
159	Pop Cha Cha2
160	Salsa
161	Bossa1
	World
162	EnkaBallad
163	Laendler
164	Hawaiian
165	Sirtake
166	Venezia
167	6/8 Flipper
168	New Age
169	Tarantella
170	Scottish
171	Norteno
	Waltz
172	Waltz
173	Old Waltz
174	English Waltz
175	French Waltz
176	German Waltz
177	Italian Mazurka
178	MariachWaltz
179	ViennaWaltz 1
180	Slow Waltz 2
181	ViennaWaltz 2
182	Slow Waltz 1
183	Jazz Waltz
	TRADITIONAL
184	Polka
185	6/8 March
186	German Polka
187	Party Polka
188	March

Number	Name		
189	Polka2		
190	US March		
191	Musette		
192	French Musette		
193	Mazurke		
194	1-Mar		
	ORIENTAL		
195	Dangdut1		
196	Dangdut2		
197	Kongcong		
198	PopKcong		
199	IndioDnc		
200	PopIndio		

## Appendix 3-Song List

Number	Name		
CLASSICAL			
001	Carmen-EntracteII		
002	Annen Polka		
003	Pianosonatan 08 IN Cm IN Pathetique		
004	Brahms Waltz		
005	Aida		
006	Carmen-Prelude		
007	L'Arlesienne		
008	Uungarische Tanz		
009	Mazurka		
010	Menuett		
011	Musical Moments		
012	Pizzicato Polka		
013	Rigoletto		
014	Serenade		
015	Song Without Words		
016	Swan		
017	Prelude To Act 2 (Swan Lake)		
018	Valse (Swan lake)		
019	The Happy Farmer		
020	The Sleeping Beauty		
021	La Traviata		
022	Wiegenlied		
023	Mov.2 Adagio Non Troppo Piano Sonata No.9 In D		
024	Mov.1 Andante Grazioso Piano Sonata No.11 In A [Alla TurSonata11ca]		
025	Prelude In C		
026	Chinese Dance		
027	Emperors Waltz		
028	March Militaire		
029	Symphony No.40		
030	Auf FlugeIn Dec Gesanges		
031	Arpeggione Sonata in Am		
FOLK & COUNTRY			
032	Santa Lucia		
033	Country		
034	Jambalaya		
035	Susanna		
036	Bridge		

## Appendix 3- Song List

Number	Name			
037	Battle Hymne Of The Republic			
038	The Old Gray Mare			
039	American Patrol			
040	In The Rain			
041	Sippin' Cider Through A Straw			
	GOLDEN & POP			
042	On London Bridge			
043	Are You Lonesome Tonight			
044	Only You			
045	End Of The World			
046	House Of Rising Sun			
047	Solveig's Song			
048	The Blue-Bells Of Scotland			
049	Over The Rainbow			
050	Beautiful Dreamer			
051	It'S Been A Long, Long Time			
052	Edelweiss			
053	O Sole Mio			
054	Der Deitcher'S Dog			
055	Joy To The World			
056	Silent Night			
057	Ave Maria			
058	Five Hundred Miles			
059	Happy New Year			
060	It' S Beginning To Look A Lot			
	Like Christmas			
061	Jeanie With The Light Brown Hair			
062	My Bonnie			
063	Song Of The Pearlfisher			
064	Summer Palace			
065	The StageCoach			
066	Entertainer			
067	Annie Laurie			
068	Killing Me Softly With His Song			
069	Love Is Blue			
070	Last Rose Of Summer			
071	The Old King Cole			
	JAZZ & FUSION			
072	Little Brown Jug			
073	Maple Leaf Rag			
074	June Samba			
075	Funk			

Number	Name
076	I Can
077	Sea Shore
078	Guitar&Saxphone
079	The Hip Hop'S Night
080	Blue Lunch
081	Cobweb
082	Wine
083	Jazz Old Man
084	Dark Eyes
085	Carlos
086	Sad
087	The Jazz
	ORIENTAL
088	South Mud Bay
089	Give You A Rose
090	Flowing Rill
	PIANO
091	Habanera
092	Four Little Swans
093	Turkish March
094	Moseta Dance
095	Aria
096	Away In A Manger
097	Wedding March
098	"Jesus, Saviour Pilot Me"
099	Brave Cavalier
100	America The Beautiful

## **Appendix 4-Demo List**

Number	Name	
001	Jazz	
002	Dream of freedom	

## Appendix 5- Chord List

	Chord Name[Abbreviation]	Normal Voicing	Chord	Display
0	Major[M]	1-3-5	С	С
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	CM7(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	Cm7(b5)
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[mll]	1-(2)-b3-4-5-(b7)	Cm11	Cm7(11)
15	Minor major ninth[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	C7 (b5)
22	Seventh Ninth[79]	1-2-3-(5)-b7	C7 9	C7(9)
23	Seventh sharp eleventh[7#11]	1-2-3-#4-(5)-b7or 1-(2)-3-#4-5-b7	C7#11	C7(#11)
24	Seventh thirteenth[7 13]	1-3-(5)-6-b7or 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 Thirteenth[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[7aug]	(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	С

## **Appendix 6- MIDI Implementation Chart**

	Function	Transmitted	Recognized	Remarks
Basic	Default	1ch	ALL	
Channel	Changed	1-16ch	1-16ch	
	Default	×	3	
Mode	Messages	×	3	
	Altered	******	×	
Note		0-127	0-127	
Number "	True voice	******	0-127	
Velocity:	Note on	O 9nH,V=1-127	O 9nH,V=1- 127	
	Note off	$\times$ (9nH,V=0)	×(9nH,V=0; 8nH,V=0 -127)	
After	Keys	×	×	
Touch	Chs	×	×	
PitchBend		0	0	
Control	0	0	0	Bank Select
Change	1	0	0	Modul ation
	5	×	0	Portamento Time
	6	0	0	Data Entry
	7	0	0	Volume
	10	×	0	Pan
	11	×	0	Expression
	64	0	0	Sustain Pedal
	65	×	0	Portamento ON/OFF
	66	×	0	Sostenuto Pedal
	67	0	0	Soft Pedal
	80	0	0	Reverb Program
	81	0	0	Chorus Program
	91	0	0	Reverb Level
	93	0	0	Chorus Level
	120	×	0	All Sound Off
	121	×	0	Reset All Controllers
	123	0	0	All Notes Off
Program		0	0	
Change	" True #	******	0[-/NO]127	
System Exc	clusive	×	0	
System	" Song Positio	n ×	×	
	" Song Select	×	×	
	" Tune	×	×	
System	: Clock	×	×	
Real Time	" Commands	× *1	× *1	
Aux	: Local on/off	×	×	
	: All Notes off	0	0	
Messages	" Active sense	×	0	
	" Reset	×	0	
Note"		When accompani When an FAH me	paniment is started, an FAH message ment is stoped, an FCH message is to ssage is received, accompaniment is essage is received, accompaniment is	ansmitted. started.

Mode 1: OMNI ON, POLY Mode 2: OMNI ON, MONO O : YES Mode 3: OMNI OFF, POLY Mode 4: OMNI OFF, MONOX : NO