th•mann

DP-95 B, DP-95 WH

User Manual

Digital Piano

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1 General information

This document contains important instructions for the safe operation of the product. Read and follow the safety instructions and all other instructions. Keep the document for future reference. Make sure that it is available to all those using the product. If you sell the product to another user, be sure that they also receive this document.

Our products and documentation are subject to a process of continuous development. They are therefore subject to change. Please refer to the latest version of the documentation, which is ready for download under *www.thomann.de*.

1.1 Symbols and signal words

In this section you will find an overview of the meaning of symbols and signal words that are used in this document.

Signal word	Meaning
DANGER!	This combination of symbol and signal word indicates an immediate dangerous situation that will result in death or serious injury if it is not avoided.
WARNING!	This combination of symbol and signal word indicates a possible dangerous situation that can result in death or serious injury if it is not avoided.
CAUTION!	This combination of symbol and signal word indicates a possible dangerous situation that can result in minor injury if it is not avoided.
NOTICE!	This combination of symbol and signal word indicates a possible dangerous situation that can result in material and environmental damage if it is not avoided.

Warning signs	Type of danger
	Warning – high-voltage.
	Warning – danger zone.

2 Safety instructions

Intended use

This device is intended to be used for electronic sound generation using a piano keyboard. Use the device only as described in this user manual. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use.

This device may be used only by persons with sufficient physical, sensorial, and intellectual abilities and having corresponding knowledge and experience. Other persons may use this device only if they are supervised or instructed by a person who is responsible for their safety.

Safety

DANGER!

Risk of injury and choking hazard for children!

Children can suffocate on packaging material and small parts. Children can injure themselves when handling the device. Never allow children to play with the packaging material and the device. Always store packaging material out of the reach of babies and small children. Always dispose of packaging material properly when it is not in use. Never allow children to use the device without supervision. Keep small parts away from children and make sure that the device does not shed any small parts (such knobs) that children could play with.

DANGER!

Danger to life due to electric current!

A short circuit could lead to a fire hazard and risk of death. Do not modify the mains cable or the plug! In case of isolation damage, disconnect immediately the power supply and arrange repair. If in doubt, seek advice from a qualified electrician.

DANGER!

Danger to life due to electric current!

Within the device there are areas where high voltages may be present. Never remove any covers. There are no user-serviceable parts inside. Do not use the device when covers, safety equipment or optical components are missing or damaged.

CAUTION!

Risk of injury due to heavy weight!

The device is heavy. Lifting and dropping it during transport and installation can cause injuries. Make sure at least two people work together when transporting and installing the device.

WARNING!

Possible hearing damage due to high volumes on speakers or headphones!

With speakers or headphones connected, the device can produce volume levels that may cause temporary or permanent hearing impairment. Over an extended period of time, even levels that seem to be uncritical can cause hearing damage. Do not operate the device permanently at a high volume level. Decrease the volume level immediately if you experience ringing in your ears or hearing impairment.

NOTICE!

Damage to the device if operated in unsuitable ambient conditions!

The device can be damaged if it is operated in unsuitable ambient conditions. Only operate the device indoors within the ambient conditions specified in the “Technical specifications” chapter of this user manual. Avoid operating it in environments with direct sunlight, heavy dirt and strong vibrations. Avoid operating it in environments with strong temperature fluctuations. If temperature fluctuations cannot be avoided (for example after transport in low outside temperatures), do not switch on the device immediately. Never subject the device to liquids or moisture. Never move the device to another location while it is in operation. In environments with increased dirt levels (for example due to dust, smoke, nicotine or mist): Have the device cleaned by qualified specialists at regular intervals to prevent damage due to overheating and other malfunctions.

NOTICE!

Damage to the device due to high voltages!

The device can be damaged if it is operated with the incorrect voltage or if high voltage peaks occur. In the worst case, excess voltages can also cause a risk of injury and fires. Make sure that the voltage specification on the device matches the local power grid before plugging in the device. Only operate the device from professionally installed mains sockets that are protected by a residual current circuit breaker (FI). As a precaution, disconnect the device from the power grid when storms are approaching or it the device will not be used for a longer period.

NOTICE!

Possible staining due to plasticiser in rubber feet!

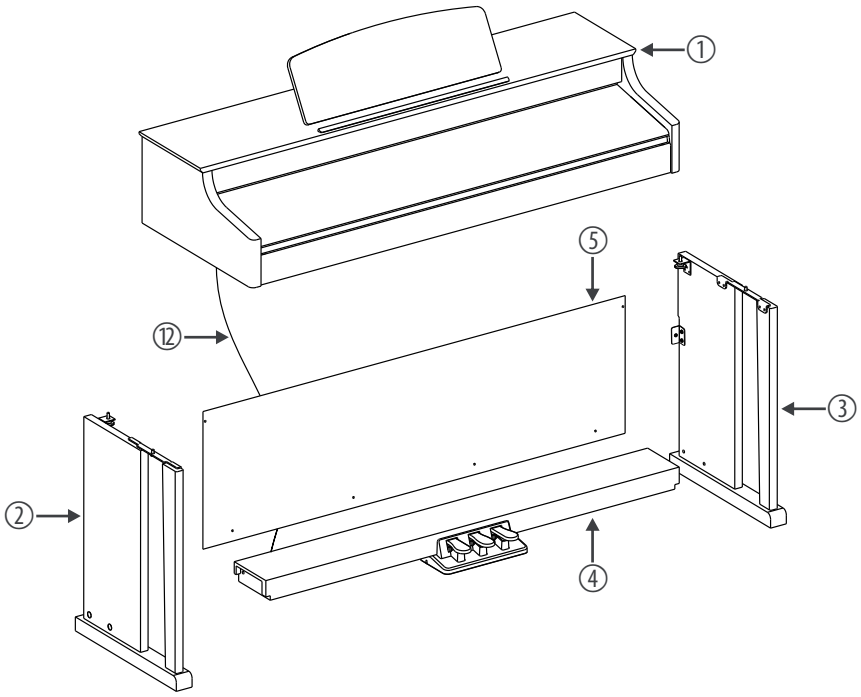
The plasticiser contained in the rubber feet of this product may react with the coating of the floor and cause permanent dark stains after some time. If necessary, use a suitable mat or felt slide to prevent direct contact between the device's rubber feet and the floor.

3 Features

The digital piano is characterized by the following features:

- 88 weighted keys with hammer action, touch velocity in 3 steps
- Multi function LCD
- User-friendly controls and indicators
- 500 voices
- 200 preprogrammed styles
- 60 preprogrammed practise songs
- Three memory locations for user songs
- Song album with 120 songs
- Two demo songs
- Sequencer function
- Single and multi-finger chord detection
- Recording function
- Eight memory banks, each with four memory locations
- Mixer function
- Connections: USB, 2 × headphones, AUX, MIDI, pedal box
- Operating system: Windows® 8 and later, Mac OS X® 10.8 and later

4 Assembly instructions

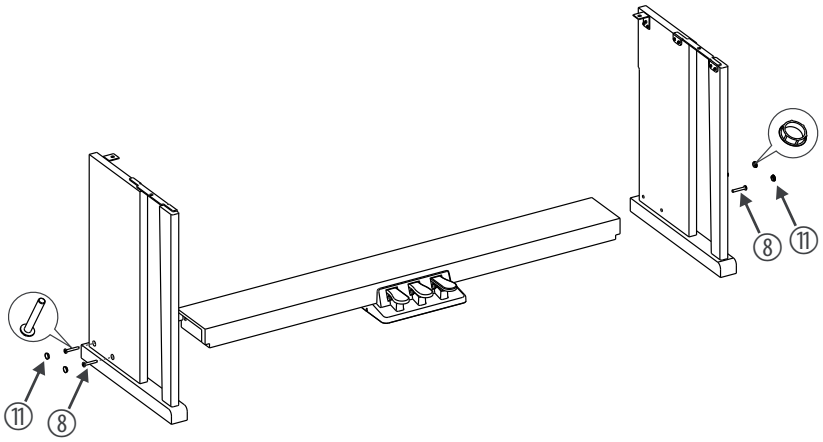


You need a Phillips screwdriver (not supplied) for the assembly of the digital piano. Open the package and, before assembling, please check that you have the entire scope of delivery, as listed here.

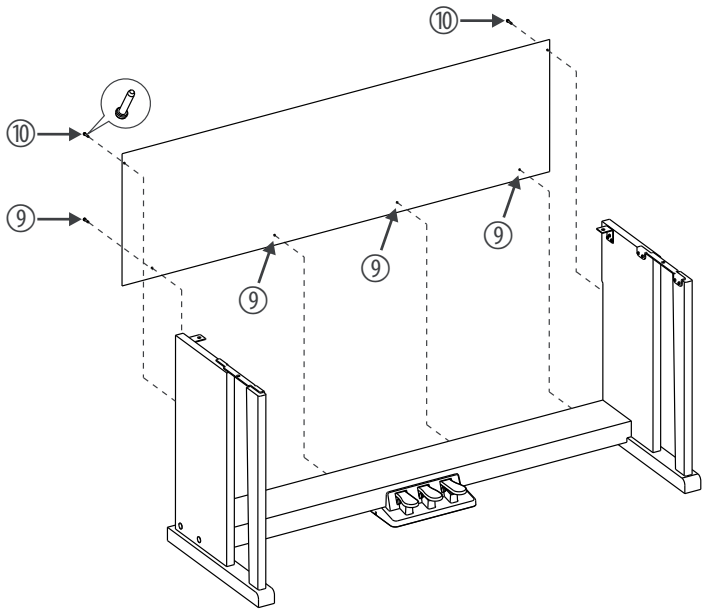
1	Digital piano housing with music stand
2	Left side panel
3	Right side panel
4	Pedal box
5	Back panel
6	2 × screws M6 × 18
7	2 × hand screws
8	4 × screws M6 × 40
9	4 × screws M4 × 15
10	2 × screws M6 × 12
11	4 × plastic caps
12	Pedal cable
13	Power cord

Mechanical assembly

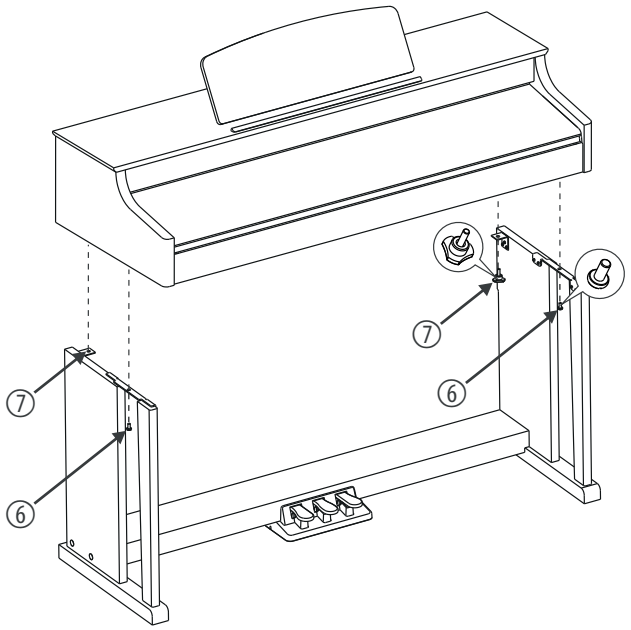
1. Set up the digital piano near a power socket.
2. Proceed according to the illustrations and only use the supplied screws. Using other screws could damage the digital piano housing or result in a reduced stability of the digital piano.



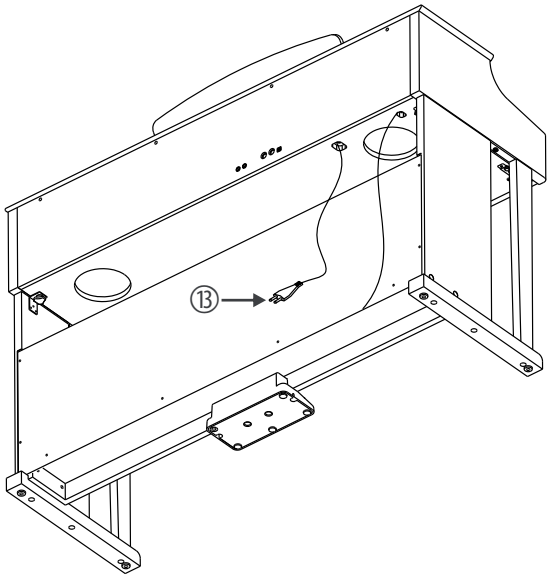
3. Put the pedal box between the left and right side panel and use two screws M6 × 40 on each side to affix both side panels to the pedal box.



4. Attach the back panel with four screws M4 × 15 and two screws M6 × 12 to the pedal box and to the rear sides of the side panels.

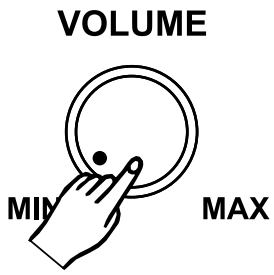


5. Place the digital piano case on the frame and secure it with two screws M6 × 18 and the two hand screws.

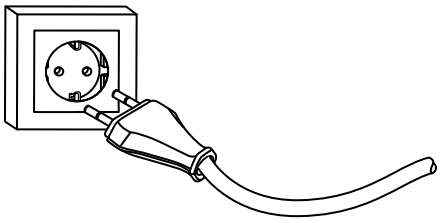


6. Fasten the cables to the stand. Insert the DIN plug of the pedal cable into the provided socket on the bottom side of the digital piano. Move the digital piano to its designated location.

Mains connection



1. Make sure that the device is turned off before you connect it to the supply voltage or disconnect it.
2. Turn the volume control to minimum.

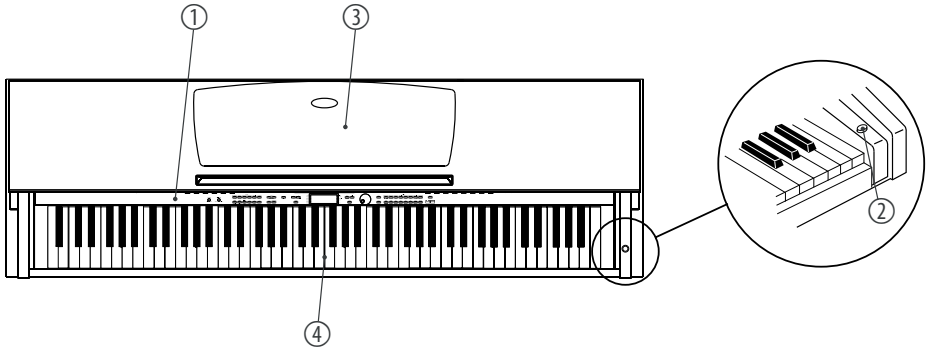


3. Plug the power cord into a 230 V mains socket
4. You can now turn on the device.

If the piano is not in use or when there is a risk of a thunderstorm with lightning, disconnect the device from its mains power for safety.

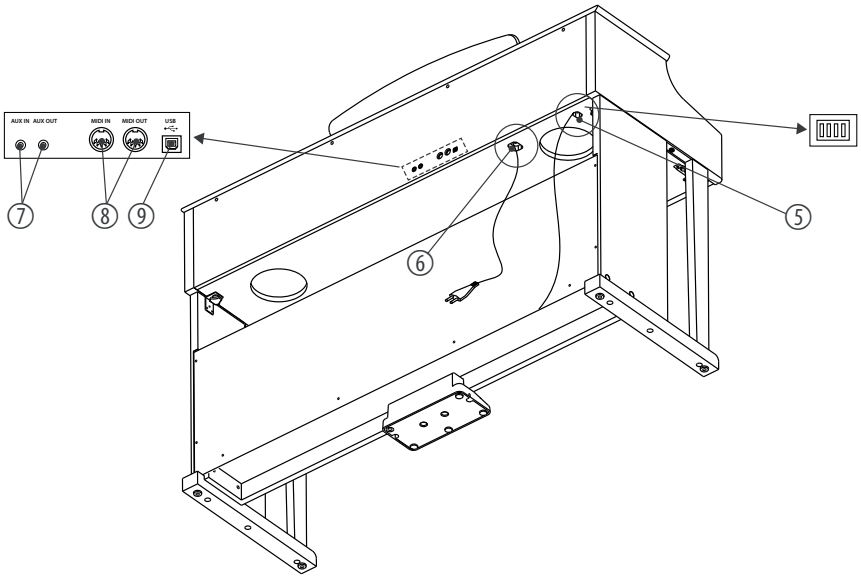
Assembly overview

Top view



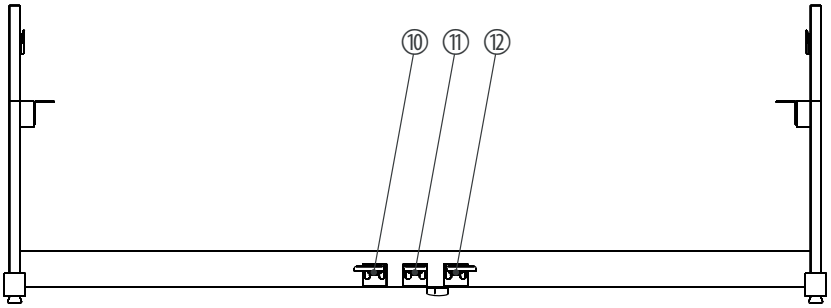
1	Control panel
2	Main switch
3	Music stand
4	Keyboard

Back



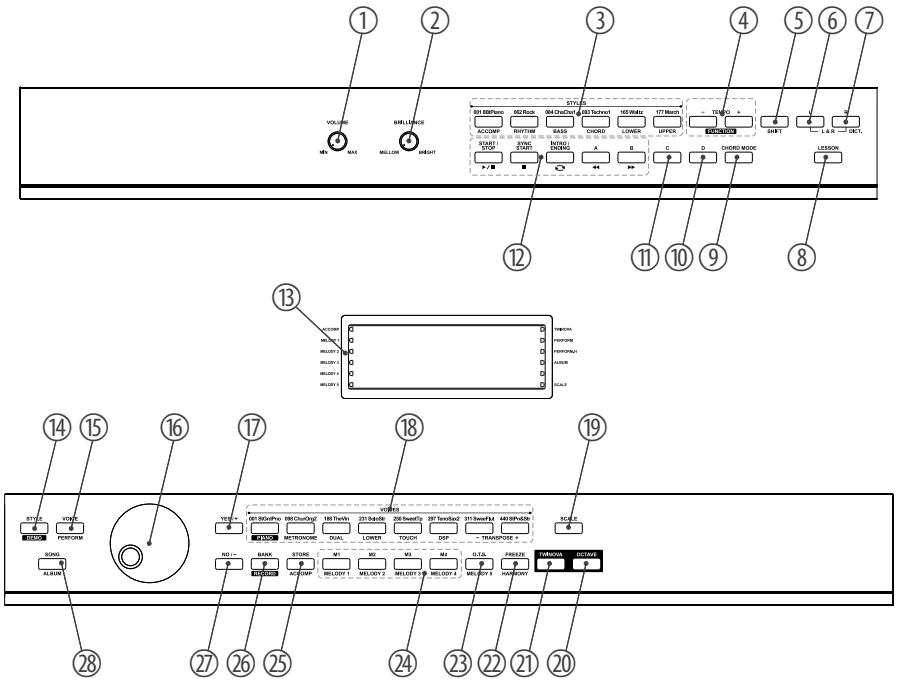
5	Connection for pedal cable
6	Power cord
7	AUX input, AUX output
8	MIDI input, MIDI output
9	USB connection

Pedals



10	Soft pedal
11	Sostenuto pedal
12	Sustain pedal

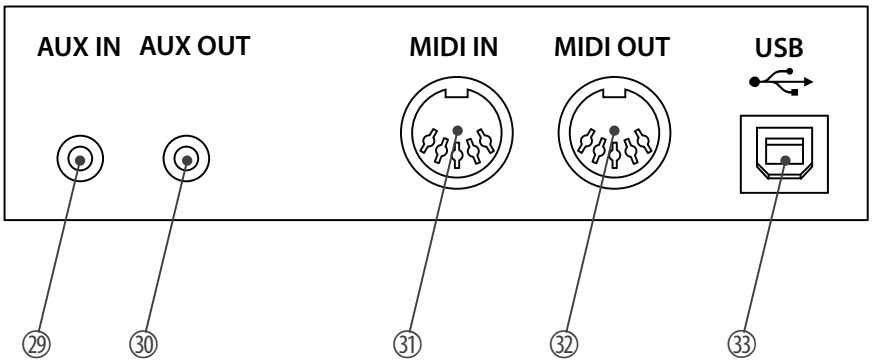
5 Control panel and connections



1	*[VOLUME]* | Rotary control to adjust the volume
2	*[BRILLIANCE]* | Rotary control to adjust the brilliance
3	*[STYLES]* | Simple button function: direct style selection Button function when the *[SHIFT]* button is pressed in MIXER mode: ■ *[ACCOMP]* | Setting the accompaniment track volume ■ *[RYTHM]* | Setting the rhythm section volume ■ *[BASS]* | Setting the bass section volume ■ *[CHORD]* | Setting the chord section volume. ■ *[LOWER]* | Setting the second voice volume ■ *[UPPER]* | Setting the first voice volume
4	*[TEMPO /+]/[TEMPO –]/[FUNCTION]* | Simple button function: Increasing / decreasing playback tempo. Button function when the *[SHIFT]* button is pressed: Opening function menu
5	*[SHIFT]* | Enables the second function of doubly assigned function buttons
6	*[L]* | Left hand voice selection button in lesson mode
7	*[R]/[DICT]* | Simple button function: Right hand voice selection button in lesson mode Button function when the *[SHIFT]* button is pressed: Opening chord library
8	*[LESSON]* | Button for calling up lesson mode
9	*[CHORD MODE]* | Button for calling up chord mode
10	*[D]* | Button to insert a fill bar (Fill-in D)
11	*[C]* | Button for inserting a fill bar (Fill-in C)

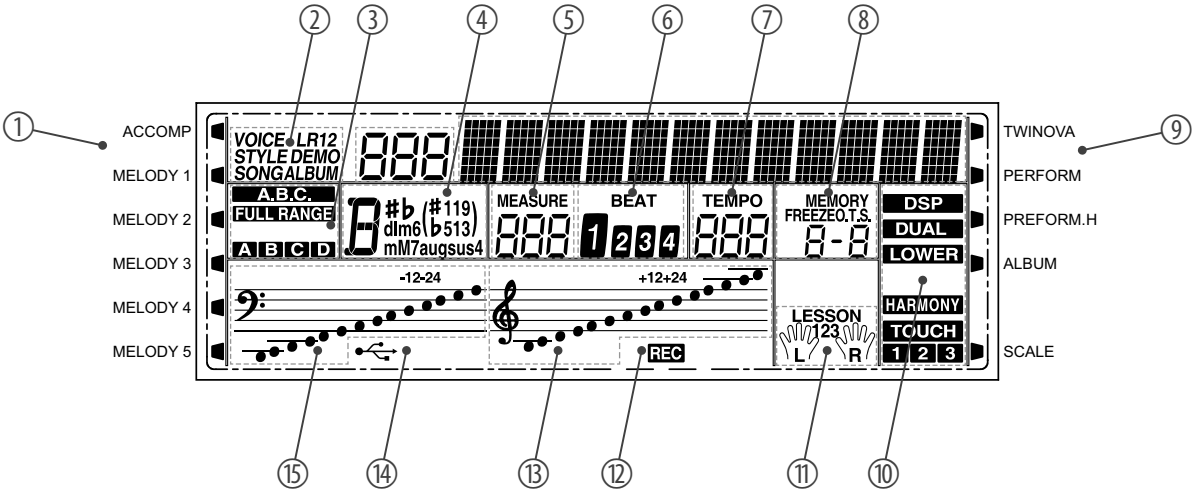
12	Buttons for STYLE mode ■ START/STOP ■ SYNC/START ■ INTRO/ENDING ■ FILL A ■ FILL B	Buttons for SONG mode ■ START/STOP ►■ ■ PAUSE ■■ ■ REPEAT ⟲ ■ REW ◄◄ ■ FF ►►
13	Display	
14	*[STYLE]*/*[DEMO]* | Simple button function: Calls up Style mode Button function when the *[SHIFT]* button is pressed: Calls up Demo mode	
15	*[VOICE]*/*[PERFORM]* | Simple button function: Calls up Voice mode Button function when the *[SHIFT]* button is pressed: Calls up Performance-Assistant mode	
16	Jog dial for selecting functions, parameters and values	
17	*[YES/+]* | Increases the displayed value by one	
18	*[VOICES]* | Simple button function: direct voice selection Button function when the *[SHIFT]* button is pressed: ■ *[PIANO]* | Calls up piano mode ■ *[METRONOME]* | Turns the metronome on / off ■ *[DUAL]* | Enable / disable right hand voice (R2 ■ *[LOWER]* | Enables / disables the left hand voice (L) ■ *[TOUCH]* | Activates the default setting ■ *[DSP]* | Turns digital effects on/off ■ *[TRANSPOSE –/+]* |Transposes the entire keyboard up or down.	
19	*[SCALE]* | Enables / disables the selection of historic tunings	
20	*[OCTAVE]* | Button for octaving the keyboard in TWINOVA mode.	
21	*[TWINOVA]* | Enables / disables TWINOVA mode	
22	*[FREEZE]*/*[HARMONY]* | Simple button function: Calls up Freeze mode Button function when the *[SHIFT]* button is pressed: Calls up Harmony mode	
23	*[O.T.S.]*/*[MELODY 5]* | Simple button function: Enables one button operation Button function when the *[SHIFT]* button is pressed: Selects melody track 5 for recording	
24	*[M1]* … *[M4]*/*[MELODY 1]* … *[MELODY 4]* | Simple button function: Calls up user settings M1 … M4 Button function when the *[SHIFT]* button is pressed: Selects melody tracks 1 … 4 for the recording.	
25	*[STORE]*/*[ACCOMP]* | Simple button function: Saves current values as user setting. Button function when the *[SHIFT]* button is pressed: Selects the accompaniment track for recording	
26	*[BANK]*/*[RECORD]* | Simple button function: Selects a memory bank Button function when the *[SHIFT]* button is pressed: Activates Recording mode	
27	*[NO/–]* | Decreases the displayed value by one	
28	*[SONG]*/*[ALBUM]* | Simple button function: Calls up Song mode Button function when the *[SHIFT]* button is pressed: Calls up Album mode	

Connections on the back



29	*[AUX IN]* | Input socket for connecting an external audio device (e.g. MP3 or CD player)
30	*[AUX OUT]* | Output socket for connecting the digital piano to an amplifier, stereo system, mixer or recording device
31	*[MIDI IN]* | MIDI input for connecting an external MIDI device
32	*[MIDI OUT]* | MIDI output for connecting an external MIDI device
33	*[USB]* | USB interface for connecting a computer

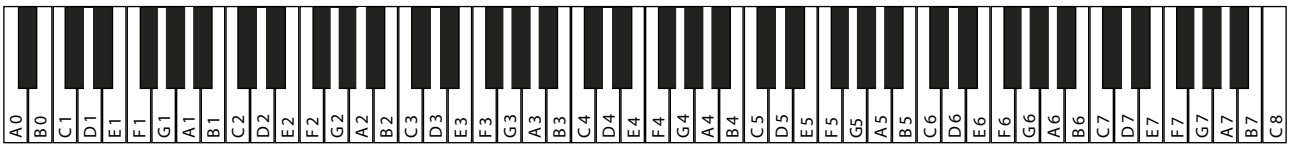
Display



1	Accompaniment track / Melody track 1 … 5		9	Operating mode TWINOVA, PERFORM, PERFORM.H, ALBUM, SCALE
2	Operating mode VOICE, STYLE, DEMO, SONG, ALBUM		10	Operating mode DSP, DUAL, LOWER, HARMONY, TOUCH
3	Chord detection, Full Range, Accompaniment track section		11	Lesson mode, left / right hand active
4	Chord		12	Mounting holes
5	Bar		13	Note in treble clef
6	Beat		14	USB connection
7	Tempo		15	Note in bass clef
8	Memory bank, memory location			

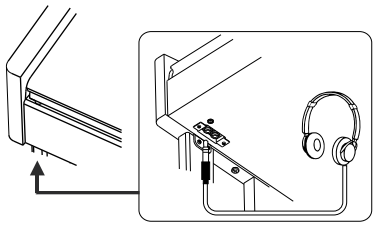
Piano keys

The keyboard keys are referred to in this user manual as shown below.



6 Connection options

Headphones

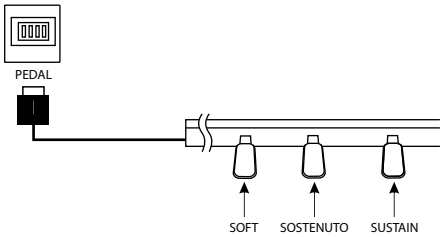


To the left beneath the keyboard you find the headphones outlets 1 and 2.

Connecting headphones (not supplied) to output 2 mutes the speakers.

Using output 1 maintains the sound output through the speakers.

Pedals

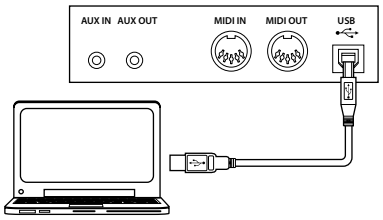


1. Connect the foot pedal to the provided connector on the bottom of the pedal box.

2. Pedal functions:

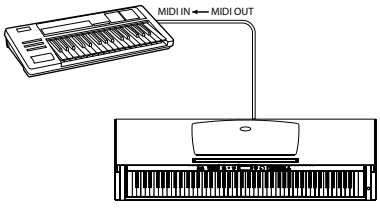
Soft pedal The soft pedal makes the piano sound smoother and attenuates the overall volume.
Sostenuto pedal When the Sostenuto pedal is pressed, the currently played notes linger until you release the pedal.
Sustain pedal With the sustain pedal all played notes sound longer. This effect simulates the lifting of the damper in an analogue keyboard instrument.

Computer



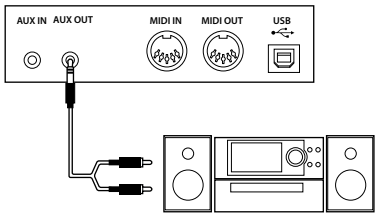
- USB interface
  The USB port provides data exchange with a computer.

MIDI interface



- MIDI ports
  MIDI stands for 'Musical Instrument Digital Interface' and represents a global standard for the communication of numerous electronic instruments and sound modules.
  - MIDI IN: The device receives MIDI data from other devices through this port.
  - MIDI OUT: MIDI data generated by the digital piano is sent to other MIDI devices through this output.

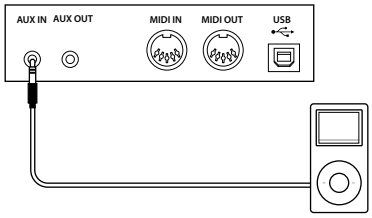
External audio devices



Use the *[AUX OUT]* socket to connect the digital piano to an amplifier, stereo device, mixing console or recording device. Plug one end of the audio cable into the *[AUX OUT]* socket on the rear panel of the digital piano and the other end into the input of the respective audio device.

To prevent damage to the speakers, turn the volume down to "Minimum" before you connect other devices to the digital piano.

MP3 / CD player

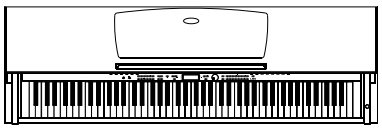


Use the *[AUX IN]* socket to connect e.g. a CD or MP3 player to the digital piano. This enables you to playback music through the internal speakers of the digital piano and simultaneously play along to it. Plug one end of the audio cable into the *[AUX IN]* socket on the rear panel of the digital piano and the other end into the output of the respective audio device.

7 Switching on / off, basic operation

7.1 Turning the digital piano on and off

7.1.1 Normal switching on / off



Press the power button on the right of the claviature to turn the device on and off.

If the display does not light up after switching on the digital piano, check the power supply.

If you hear nothing coming from the speakers, the volume may be set to 'minimum'.

7.1.2 Automatic shutdown

If the digital piano is not in use, it shuts off after 30 minutes automatically. For adjusting or disabling the automatic shutdown, please proceed as described here *Chapter 7.1.2 'Automatic shutdown' on page 22*.

To turn the device on again after an automatic shutdown, press the on / off switch to the right of the claviature.

7.2 Setting up the digital piano, Function menu

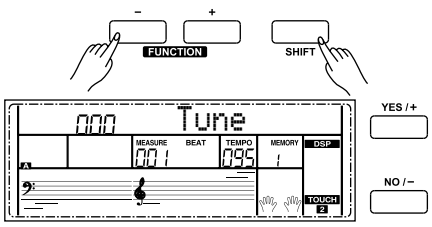
Simultaneously press the buttons *[SHIFT]* and *[FUNCTION + | –]* to call up the Functions menu. Select the desired sub menu using the buttons *[FUNCTION + | –]*. You can then change the following parameters using the jog dial or the buttons *[YES / +]* and *[NO / –:]* ändern:

Option	LCD	Control range	Default value
Fine tuning	Tune	–50 … 50	000
Split point	KeySplit	1 … 88	034
Beats	BeatType	0, 2 … 9	004
Metronome volume	MetroVol	0 … 127	90
Pedal function	Pedal	Sust, St/T, Mem	Sust
Reverb volume	ReverbVol	0 … 127	Depending on the selected voice
Chorus volume	ChorusVol	0 … 127	Depending on the selected voice

Option	LCD	Control range	Default value
Selection Harmony setting	xxxx	Duet, Standard Trio, Full Chord, Rock Duet, Country Duet, Country Trio, Block, 4 Close 1, 4 Close 2, 4 Open, 1+5, Octave, Strum, Echo, Tremolo, Trill	Duet
Effects depth Harmony setting	HarmonySpeed	1 … 4	1
MIDI receive channel	Midi In	1 … 16, ALL	ALL
MIDI send channel	Midi Out	1 … 16	001
Automatic shutoff	Power off	030, 060, OFF	030
Time signature	Perform Beat	4–4, 3–4, 2–4, 6–8	4–4

If you don't press any key within five seconds after entering the function menu, the menu is automatically closed.

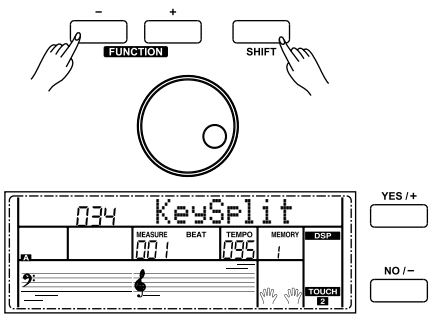
7.2.1 Fine tuning



With this function you can fine tune the entire claviature in cent steps.

1. Use *[FUNCTION + | –]* to switch to *'Tune'* menu. The current setting appears on the display.
2. Adjust the tuning using the buttons *[YES / +]* or *[NO / –]* or the jog dial in a range of –50 to +50 cents. Each time a key is pressed, the value changes by 1 cent.
3. Simultaneously press *[YES / +]* and *[NO / –]*, to reset the tuning to the default value.

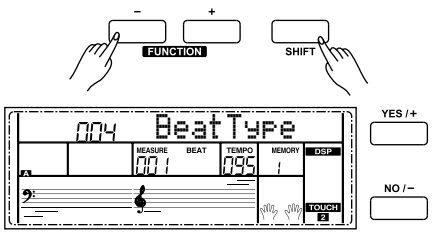
7.2.2 Split point



Using this function you can select a point to split the whole claviature into two areas.

1. Use *[FUNCTION + | –]* to switch to *'KeySplit'* menu. The current setting appears on the display.
2. Set the desired split point using the buttons *[YES / +]* or *[NO / –]* or the jog dial. The keys to the right of this point are the right hand area, the keys of the other sides are the left hand area (chord area).
3. Simultaneously press *[YES / +]* and *[NO / –]* to reset the split point to the default value (F#3 / 034).

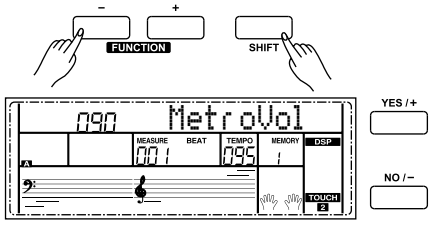
7.2.3 Beats



With this function you can set the beats in a range from 0 to 9.

1. Use *[FUNCTION + | –]* to switch to *'BeatType'* menu. The current setting appears on the display.
2. Adjust the beat using the buttons *[YES / +]* or *[NO / –]* or the jog dial.
3. Simultaneously press *[YES / +]* and *[NO / –]* to reset the beat to the default value (004).

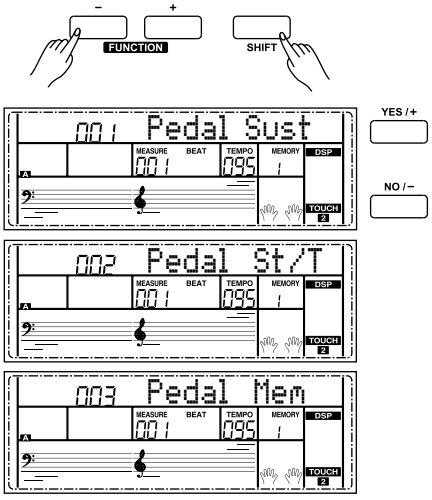
7.2.4 Metronome volume



With this function you can set the metronome volume in a range from 0 to 127.

1. Use *[FUNCTION + | –]* to switch to *'MetroVol'* menu. The current setting appears on the display.
2. Adjust the volume using the buttons *[YES / +]* or *[NO / –]* or the jog dial.
3. Simultaneously press *[YES / +]* and *[NO / –]* to reset the volume to the default value (090).

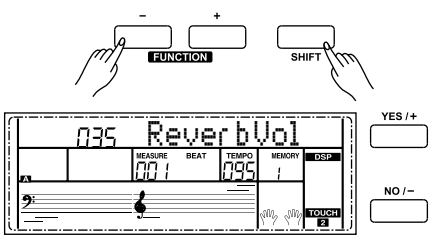
7.2.5 Pedal function selection



With this function you can assign the pedal function.

1. Use *[FUNCTION + | –]* to switch to *'Pedal'* menu. The current setting appears on the display.
2. Use the buttons *[YES / +]* or *[NO / –]* or the jog dial to select the desired pedal function: *'Sust'* (Sustain pedal), *'St/T'* (enabling / disabling accompaniment track), *'Mem'* (controlling storage function).
3. Simultaneously press *[YES / +]* and *[NO / –]* to reset the pedal function to the default value (Sust).

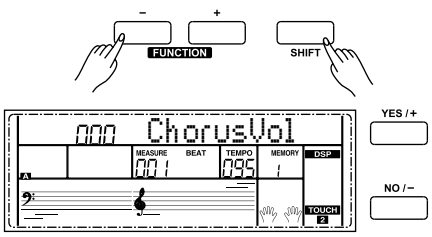
7.2.6 Reverb volume



With this function you can set the Reverb effects volume in a range from 0 to 127.

1. Use *[FUNCTION + | –]* to switch to *'ReverbVol'* menu. The current setting appears on the display.
2. Adjust the effects volume using the buttons *[YES / +]* or *[NO / –]* or the jog dial.
3. Simultaneously press *[YES / +]* and *[NO / –]* to reset the effects volume to the default value (depending on the selected voice).

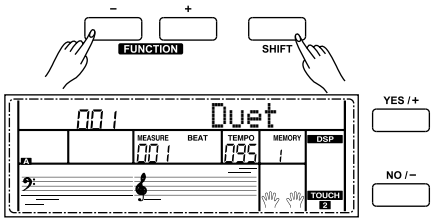
7.2.7 Chorus volume



With this function you can set the Chorus effects volume in a range from 0 to 127.

1. Use *[FUNCTION + | –]* to switch to *'ChorusVol'* menu. The current setting appears on the display.
2. Adjust the effects volume using the buttons *[YES / +]* or *[NO / –]* or the jog dial.
3. Simultaneously press *[YES / +]* and *[NO / –]* to reset the effects volume to the default value (depending on the selected voice).

7.2.8 Selecting a setting for the Harmony mode



With this function you can determine a setting for the Harmony mode.

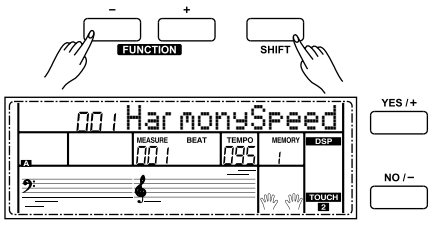
1. Use *[FUNCTION + | –]* to switch to Harmony type menu. The description of the current setting, e.g. *'Duet'*, appears on the display.
2. Use the buttons *[YES / +]* or *[NO / –]* or the jog dial to select the desired setting:

Number	Display
001	*'Duet'*
002	*'Standard Trio'*
003	*'Full Chord'*
004	*'Rock Duet'*
005	*'Country Duet'*
006	*'Country Trio'*
007	*'Block'*
008	*'4 Close 1'*
009	*'4 Close 2'*
010	*'4 Open'*
011	*'1+5'*
012	*'Octave'*
013	*'Strum'*
014	*'Echo'*
015	*'Tremolo'*
016	*'Trill'*

3. Simultaneously press *[YES / +]* and *[NO / –]* to load the default setting (Duet).

For the harmony settings Echo, Tremolo and Trill and you can also set the effects depth as described in the following section.

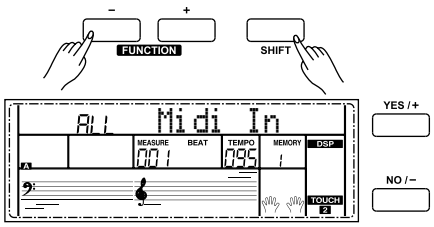
7.2.9 Effects depth in Harmony mode



With this function you can determine the effects depth for the Harmony settings Echo, Tremolo and Trill.

1. Use *[FUNCTION + | –]* to switch to *'HarmonySpeed'* menu. The current setting appears on the display.
2. Adjust the Effects depth using the buttons *[YES/+]* or *[NO / –]* or the jog dial.
3. Simultaneously press *[YES/+]* and *[NO / –]* to reset the effects depth to the default value (001).

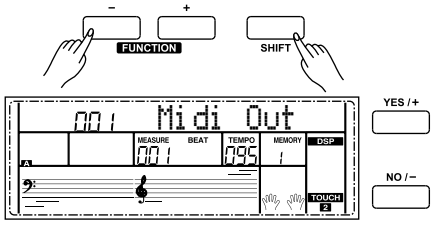
7.2.10 Midi receive channel (Midi In)



With this function you can determine on which channel the digital piano receives MIDI information from other devices.

1. Use *[FUNCTION + | –]* to switch to *'Midi In'* menu. The current setting appears on the display.
2. Set the desired MIDI receive channel using the buttons *[YES/+]* or *[NO / –]* or the jog dial.
3. Simultaneously press *[YES/+]* and *[NO / –]* to reset the channel selection to the default value (ALL).

7.2.11 MIDI send channel (Midi Out)



With this function you can determine on which channel the digital piano sends MIDI information to other devices.

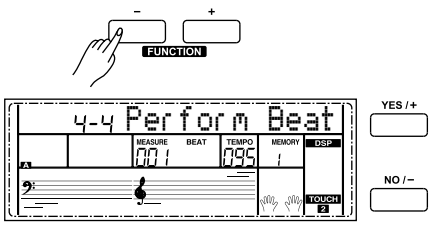
1. Use *[FUNCTION + | –]* to switch to *'Midi Out'* menu. The current setting appears on the display.
2. Set the desired MIDI send channel using the buttons *[YES / +]* or *[NO / –]* or the jog dial.
3. Simultaneously press *[YES / +]* and *[NO / –]* to reset the channel selection to the default value (001).

7.2.12 Automatic shutdown

With this function you can specify whether and after what time the automatic shutdown of the digital piano is carried out.

1. Use *[FUNCTION + | –]* to switch to *'Power Off'* menu. The current setting appears on the display.
2. Use *[YES / +]* or *[NO / –]* or the jog dial to select one of the following options:
   - *'030'* (automatic shutdown after 30 minutes)
   - *'060'* (automatic shutdown after 60 minutes)
   - *'OFF'* (automatic shutdown off).
3. Simultaneously press *[YES / +]* or *[NO / –]* to enable the default setting (automatic shutdown after 30 minutes).

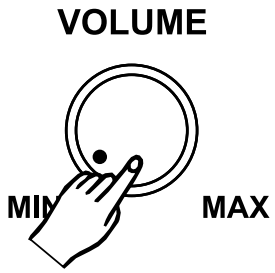
7.2.13 Time signature



Use this function to determine a Time signature (4–4, 3–4, 2–4 or 6–8).

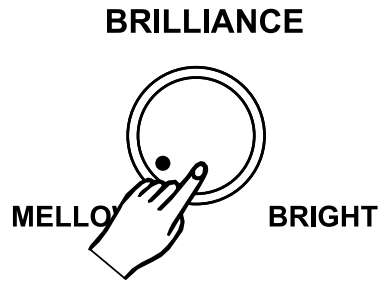
1. Use *[FUNCTION + | –]* to switch to *'Perform Beat'* menu. The current setting appears on the display.
2. Adjust the Time signature using the buttons *[YES / +]* or *[NO / –]* or the jog dial.
3. Simultaneously press *[YES / +]* and *[NO / –]* to reset the Time signature to the default value (4–4).

7.3 Adjusting the volume



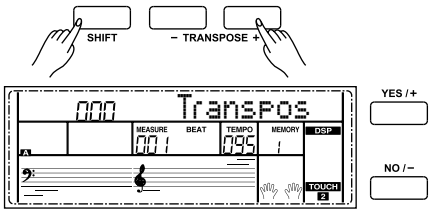
Use the rotary control *[VOLUME]* to set a comfortable volume for playing and practising. Turn this control clockwise to increase the volume. Turn it counter-clockwise to reduce the volume.

7.4 Setting the Brilliance



Use the rotary control *[BRILLIANCE]* to adjust the Brilliance of the digital piano. The sound of the entire keyboard range gets softer and darker when you turn the knob to the left, and brighter and more brilliant when you turn the knob to the right.

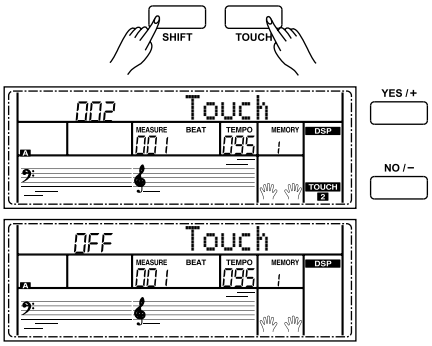
7.5 Transposing



With this function you can adjust the pitch of the claviature in 12 semitone steps up or down.

1. Keep the button *[SHIFT]* pressed and adjust the pitch of the claviature using the buttons *[TRANSPOSE +/–]* .
2. Simultaneously press *[YES / +]* and *[NO / –]* to restore the default setting (no transposing).

7.6 Touch sensitivity

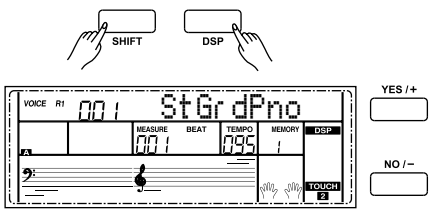


With this function you can adjust the touch response of the keyboard at four levels.

1. Simultaneously press the buttons *[SHIFT]* and *[TOUCH]* to open the menu for adjusting the touch sensitivity.
2. Adjust the Touch sensitivity using the buttons *[YES / +]* and *[NO / –]* or the jog dial.
3. Simultaneously press *[YES / +]* and *[NO / –]* to restore the default setting (002).

Parameter	Description
'OFF'	Touch sensitivity is off. This can be very recommendable when playing the organ voice.
'001'	Soft In this setting, the volume is higher than usual even when playing with a soft touch.
'002'	Normal This setting corresponds to the usual touch response of a keyboard.
'003'	Hard In this setting, the volume is lower than usual even when playing with a hard touch.

7.7 DSP effects depth



This function lets you change the intensity of the Reverb and Chorus effects.

1. This function is enabled by default when the digital piano is turned on. The DSP indicator lights up on the display.
2. Simultaneously press the buttons *[SHIFT]* and *[DSP]* to turn the function off and back on again.

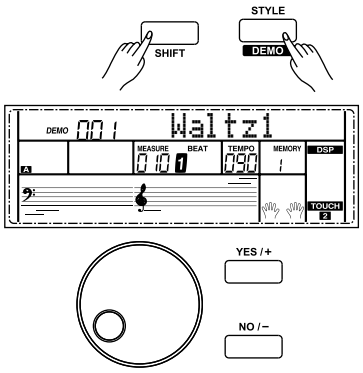
7.8 Factory defaults

Proceed as follows to restore the factory default settings:

1. Turn off the digital piano.
2. When turning back on, keep the buttons *[YES / +]* and *[NO / –]* pressed.
   ⇨ All user songs and settings are reset or deleted without further confirmation prompt. The display shows *'Wait …!'*.

8 Operation

8.1 Demo tracks

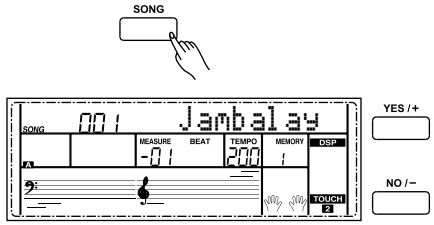


The digital piano offers a total of two demo songs.

1. To switch to DEMO mode, simultaneously press the *[SHIFT]* und *[DEMO]* buttons. The first demo song is displayed and the both demo songs will be played in a endless loop.
2. During playback, you can switch between the two demo songs using the *[+/YES]* and *[/NO]* buttons or the jog dial.
3. Push the *[PLAY/STOP]* button to stop playback.
4. Press the *[SHIFT]* and *[DEMO]* buttons simultaneously to quit the DEMO mode.

In DEMO mode, only the buttons [SHIFT], [DEMO], [START/STOP], [+/YES] and [/NO], [VOLUME] and [BRILLIANCE] as well as the jog wheel are available. All other buttons are disabled.

8.2 Practice songs



The digital piano offers 60 practise songs, where you can mute the right hand voice and play this part yourself.

1. Playing and stopping practice songs

   Press the *[SONG]* button to enter the playback mode for practice songs. *'SONG'* appears on the display and all practice songs are played in an endless loop.

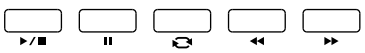
   Press the *[START/STOP]* button to stop the currently playing practice song. This will not exit the *'SONG'* mode for practising song playback.

2. Single loop

   If you press the *[START/STOP]* button again, the current song is repeated in an endless loop until you press the *[START/STOP]* button again.

3. Selecting a practice song

   Use the jog dial or the *[+/YES]* or *[/NO]* buttons to select the desired practice song. If you select a new practice song, the display shows first the title in running text, then the abbreviation.



4. Playback control

   Pre-count

   One bar will be pre-counted before playback begins. The bar display starts with a negative value. The practising song starts with bar 1.

   Fast-forward, rewind, pause

   Keep the ►► button pressed during playback to fast-forward the practice song. Use the ◄◄ button to rewind bar by bar. Press the ▮▮ button to pause the playback.

   Repeat function

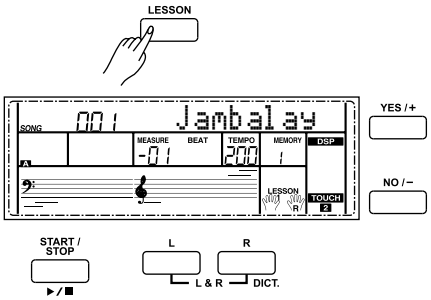
   While the practise song is playing, you can set two loop marks with the ↻ button. Press the button at the desired start point of the loop and again at the end point.

5. To exit practice song playback press any direct selection or function button.

Lesson mode

When practising, it is mainly important to play the right **notes** at the right **time**. In this mode you can check your progress. Press the *[LESSON]* button in SONG mode to activate Lesson mode. There are three training stages. Use the buttons *[R]* and *[L]* to specify which hand you want to practise. If you don't select a hand, the right hand is selected automatically.

Lesson 1 - playing in time



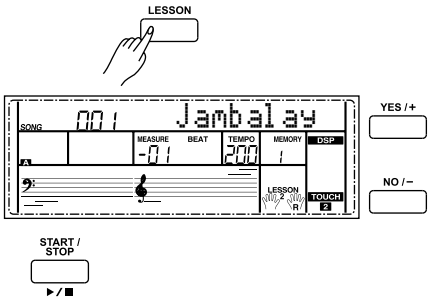
Press the *[LESSON]* button to call up Lesson mode. *'LESSON 1'* appears on the display. This mode only assesses whether you play the notes at the right time, but not whether you hit the right notes.

1. Press the *[START/STOP]* button to start practising.

2. If you selected *'R'*, the right hand voice is muted and you have to play the right hand yourself. As long as you are in time, you will hear the right hand voice. If you selected *'L'*, the left hand voice is muted and you have to play the left hand yourself. As long as you are in time, you will hear the left hand voice. If both *'L'* and *'R'* are selected, the voices for both hands are muted. You then have to play in time with both hands.

3. You find out the result after completing the exercise.

Lesson 2 - hitting the right notes

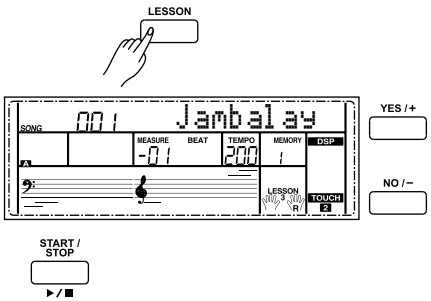


Press the *[LESSON]* button again to call up Lesson mode2. *'LESSON 2'* appears on the display. This mode only assesses whether you hit the right notes, but not whether you play them at the right time. The practice song continues only when you play the right note.

1. Press the *[START/STOP]* button to start practising.

2. You find out the result after completing the exercise.

Lesson 3 - hitting the right notes at the right time.

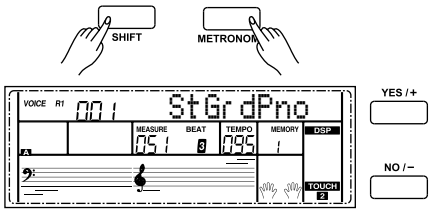


Press the *[LESSON]* button again to call up Lesson mode 3. *'LESSON 3'* appears on the display. This mode assesses whether you play the right notes at the right time. The practice song continues only when both are correct.

1. Press the *[START/STOP]* button to start practising.

2. You find out the result after completing the exercise.

8.3 Metronome

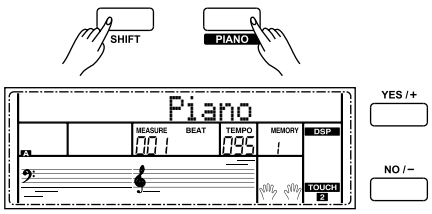


Press the *[SHIFT]* and *[METRONOME]* buttons simultaneously to turn the Metronome on or off. You can select the beat in the functions menu.

If the Style mode is disabled, the beat set in the function menu is applied after turning on the metronome. If the Style mode is active, the beat of the current style is applied.

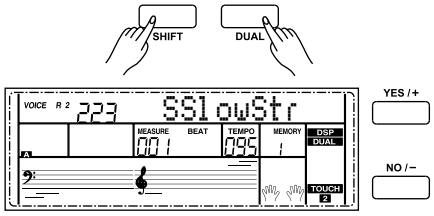
The metronome can be activated along with the style. If the style plays first, the metronome will be enabled with the next bar. On the other hand, the metronome responds instantly to the first beat of the style.

8.4 Piano mode



Press the *[SHIFT]* and *[PIANO]* buttons simultaneously to enable normal piano playing mode. The entire keyboard sounds with the piano voice.

8.5 Dual mode

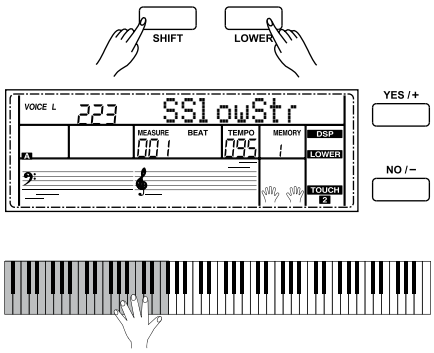


In Dual mode, you can play two voices simultaneously.

1. Press the *[SHIFT]* and *[DUAL]* buttons simultaneously to enable DUAL mode. The indicators *'VOICE R2'* and *'DUAL'* then light simultaneously on the display. The number and the name of the voice R2 appear on the display.
2. Another second voice can be selected using the direct select buttons, the *[+/YES]* and *[/NO]* buttons or the jog dial.
3. Press the *[DUAL]* button again to exit Dual mode. *'VOICE R2'* is disabled and you only hear the voice set for *'VOICE R1'*. The indicators *'VOICE R2'* and *'DUAL'* turn off.

When the keyboard is split, Dual mode affects only the keys to the right of the keyboard split point. In the area to the left of the split point, chords are supposed to be played.

8.6 Split mode

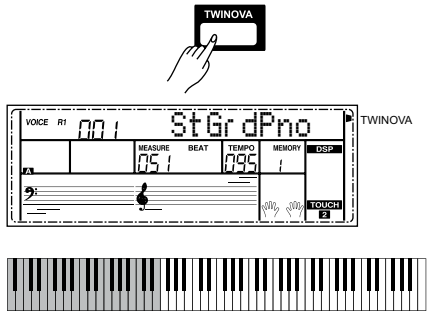


You can use this function to assign different voices to certain keyboard areas.

1. Press the *[SHIFT]* and *[LOWER]* buttons simultaneously to enable SPLIT mode. The indicators *'VOICE L'* and *'LOWER'* then light simultaneously on the display. The number and the name of the left hand voice appear on the display.
2. Press the *[+/YES]* or *[/NO]* buttons or turn the jog dial to select a desired left-hand voice.
3. Press the *[SHIFT]* and *[LOWER]* buttons simultaneously to quit SPLIT mode. The indicators *'VOICE L'* and *'LOWER'* turn off.

The right hand voice is not affected by the selection for the left hand voice.

8.7 TWINOVA



In TWINOVA mode, the keyboard is divided into two areas with the same voice and the same pitch.

1. **Selecting voices**

   First, select the desired voice (see *Chapter 8.8 'Selecting voices ' on page 33*).

2. **Enabling TWINOVA**

   Press the *[TWINOVA]* button to switch to TWINOVA mode. The *'TWINOVA'* LED lights up.

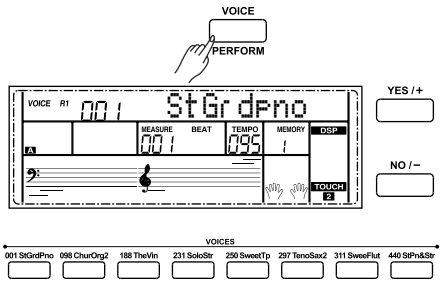
3. **Setting the split point**

   See .

4. **Setting the octave range**

   Press the *[OCTAVE]* button. The display shows the current setting. Adjust the octave range using the *[+/YES]* or *[–/NO]* buttons or with the jog dial.

8.8 Selecting voices

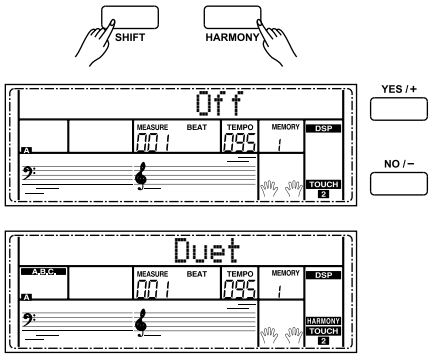


The digital piano offers 500 voices in total.

1. Press the *[VOICE]* button or one of the direct selection buttons in the *[VOICES]* section to activate VOICE mode. *'VOICE R1'* then lights up on the display. The number and the name of the currently assigned right hand voice appear on the display.
2. To select other voices, press one of the direct selection buttons, *[+/YES]* or *[/NO]* or turn the jog dial.

If you activate VOICE mode using the [VOICE] button, the display will show 'R1' (right-hand voice). By repeatedly pressing the [VOICE] button, you successively enable the modes 'R2' (second right hand voice in Dual mode), 'L' (left hand voice) and 'R1' again (right hand voice).

8.9 Harmony mode



In Harmony mode, suitable harmonic frequencies are automatically added to the notes played.

1. **Enabling Harmony mode**

Press *[SHIFT]* and *[HARMONY]* simultaneously to switch to Harmony mode. The display shows the default value *'Off'*.

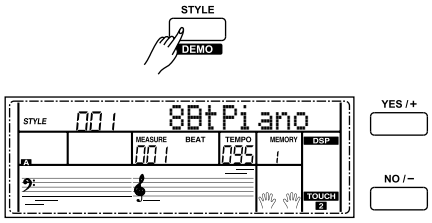
2. **Selecting a default setting**

See

8.10 Playing with accompaniment

The digital piano offers a total of 200 styles. By default, Style *'001'* is set.

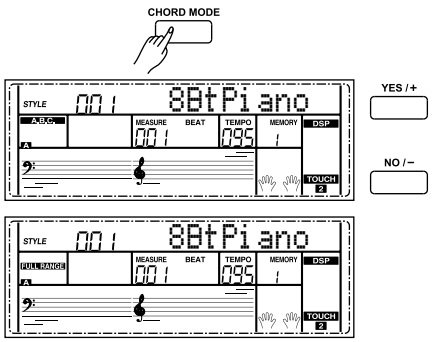
8.10.1 Style selection



1. Press the *[STYLE]* button or one of the direct selection buttons in the *[STYLES]* section to activate STYLE mode. *'STYLE'* then lights on the display. The number and the name of the current Style appear on the display.

2. To select other styles, press one of the direct selection buttons, *[+/YES]* or *[-/NO]* or turn the jog dial.

8.10.2 Playing Styles, Chord mode



1. Instant start

Push the *[START/STOP]* button to start the style.

2. Chord mode

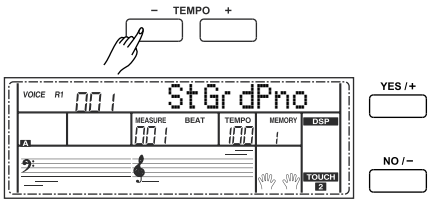
Press the *[CHORD MODE]* button once to activate the one-finger mode. The LED *'A.B.C.'* lights up. The area to the left of the split point is now regarded as the chord area. If you play a chord with one finger, bass and chord sound simultaneously.

Press the *[CHORD MODE]* button twice to activate the FULL RANGE mode. The *'FULL RANGE'* LED lights up. The chord area now covers the entire keyboard.

3. SYNC START

Press the *[SYNC START]* button to activate the sync start mode. When you now press one of the piano keys in the chord area, Style accompaniment starts synchronously. Accompaniment is being automatically adjusted on chord changes.

8.10.3 Tempo



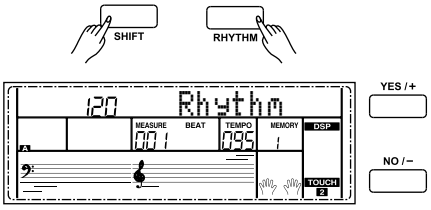
All pre-programmed Styles contain certain Tempo information. These presets can be adjusted at any time.

1. Press the *[TEMPO+]*/*[TEMPO-]* buttons or turn the jog dial to adjust the tempo of a style.

2. If you press the *[TEMPO+]*/*[TEMPO-]* buttons simultaneously, the tempo is reset to the factory default setting.

– *When Style is not activated, the tempo is automatically changed along with the style to the default value.*
– *When Style is activated, the tempo is not changed by the style you select.*

8.10.4 Mixer



This menu is used to adjust the volume of the various style elements.

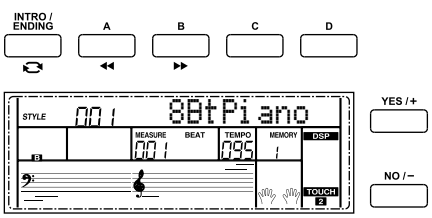
1. Press the *[SHIFT]* and *[RHYTHM]* buttons simultaneously to open the mixer menu. The display shows the *'Rhythm'* option and the current volume of the element.

2. Use the *[+/YES]* or *[–/NO]* buttons or the jog dial to adjust the volume in a range from 0 … 127.

3. Repeatedly press the *[SHIFT]* and *[RHYTHM]* buttons to successively call up the options *'Bass'*, *'Chord'*, *'Lower'* and *'Upper'*. The display shows the currently active option and the volume of the element.

4. Use the buttons *[+/YES]* or *[–/NO]* or the jog dial to adjust the volume in a range from 0 … 127.

8.11 Auto accompaniment



The accompaniment function is controlled via four parameters: INTRO, MAIN (A, B, C, D), FILL (A, B, C, D) and ENDING.

1. **INTRO**

To insert an intro, press the *[INTRO/ENDING]* button before beginning to play. Depending on the selected Style, the rhythm starts with two to four bars, followed by the main part.

2. **MAIN (A, B, C, D)**

The main part consists of an accompaniment pattern with different sections and is repeated until you enter a new song section (FILL or ENDING). The individual sections of the main part are selected via the buttons *[A]*, *[B]*, *[C]* and *[D]*.

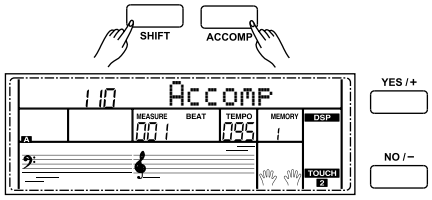
3. **FILL (A, B, C, D)**

   Use the buttons *[A]*, *[B]*, *[C]* and *[D]* to insert four different fill measures.

4. **ENDING**

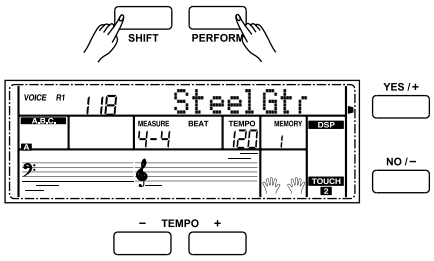
   If you press the *[INTRO/ENDING]* button while Auto Accompaniment is activated, an ending part suitable for the Accompaniment is started, finishing the song.

8.12 Accompaniment track volume, muting



1. Push the *[SHIFT]* and *[ACCOMP]* buttons simultaneously. The display shows the current volume setting of the accompaniment track.
2. Use the buttons *[YES/+]* and *[NO/]* or the jog dial to adjust the volume of the accompaniment track in a range from 0 … 127.
3. Pressing the *[YES/+]* and *[NO/–]* buttons simultaneously mutes the accompaniment track.
4. Press the *[YES/+]* and *[NO/–]* buttons again simultaneously to unmute the accompaniment track.

8.13 Performance Assistant



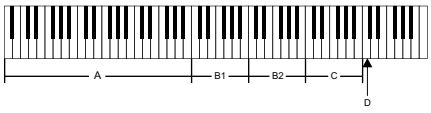
The "Performance Assistant" is a playing aid, which allows you to simulate different instruments on the keyboard.

1. Press the *[SHIFT]* and *[PERFORM]* buttons simultaneously to open the playing aid.

   GUITAR mode is enabled by default. Use the buttons *[YES/+]* and *[NO/–]* or the jog dial to select a voice.
2. Adjust the Tempo using the *[TEMPO +]* and *[Tempo –]* buttons.
3. Adjust the time signature as described in .

8.13.1 GUITAR mode

In this mode, you can simulate a guitar sound on the keyboard. The table shows the various play areas.



Chord area A

This area includes the keys A0 to B3 of the keyboard.

The chord type appears in the display. The root note of the guitar chord sounds.

Area B1

This area includes the white keys C4 to B4 of the keyboard.

Once the chord type is displayed, you can play several figures of broken chords with the white keys in this area. While playing, you also have the possibility to vary the chord played in the chord area.

Area B2

This area consists of the white keys C5 to A6 of the keyboard.

Once the chord type is displayed, you can play a solo track with the white keys in this area. While playing, you also have the possibility to vary the chord played in the chord area.

Rhythm area C

This area consists of the white keys C6 to G6 of the keyboard.

Once the chord type is displayed, you can play a rhythm track with the white keys in this area. While playing, you also have the possibility to vary the chord played in the chord area.

Shift D

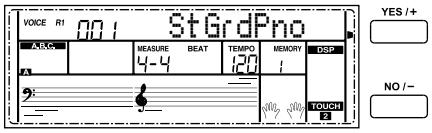
Button C7. Press this button to shift upwards.

With keys A6 or B6, you have the opportunity to complete a phrase with a suitable ending.

While playing, you can generate various reverb effects with the black keys in the areas B1 and B2.

8.13.2 PIANO mode

After enabling the playing aid, use the *[YES/+]* or *[NO/–]* buttons or the jog dial to switch to the PIANO mode.



In this mode, the entire keyboard sounds with the piano voice. The table shows the various play areas.

Play basic chords in area A and an accompanying melody in areas B and C an.

Keys A6, B6 and C7 give you the opportunity to complete a phrase with a suitable ending.

8.14 Chord detection

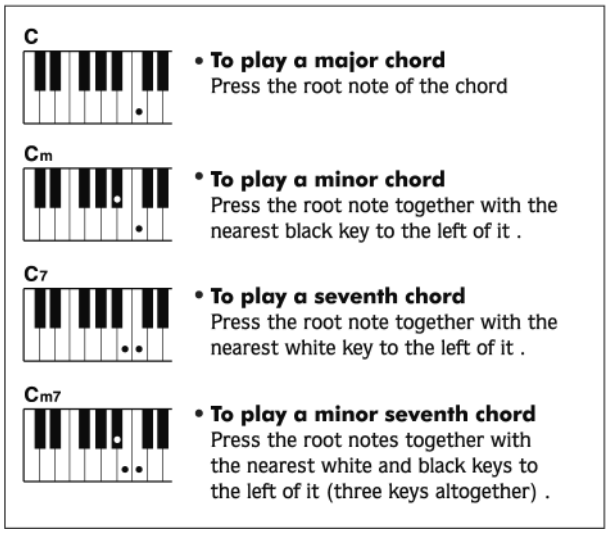
By default, the “Auto Bass Chord” function is disabled. Press the *[CHORD MODE]* button to activate this ‘A.B.C.’ function. The area to the left of the split point is already known as the chord area. When you now play a chord, both bass and chord voices will sound together.

As the A.B.C. chord detection is based on the root note of the chord, some chords that could be played according to the chord dictionary can not be detected by A.B.C., such as B6, B_b6, $B_b6(9)$, B6(9), Baug, B_baug, B_bm6, Bm6, Adim7, B_bdim7, Bdim.

Two ways to detect a chord: Single and multi-finger mode

If the chord is played on base of the illustration for multi-finger chords below, it will be detected as a "multi-fingered" chord. If not, it will be detected as a "single-finger" chord.

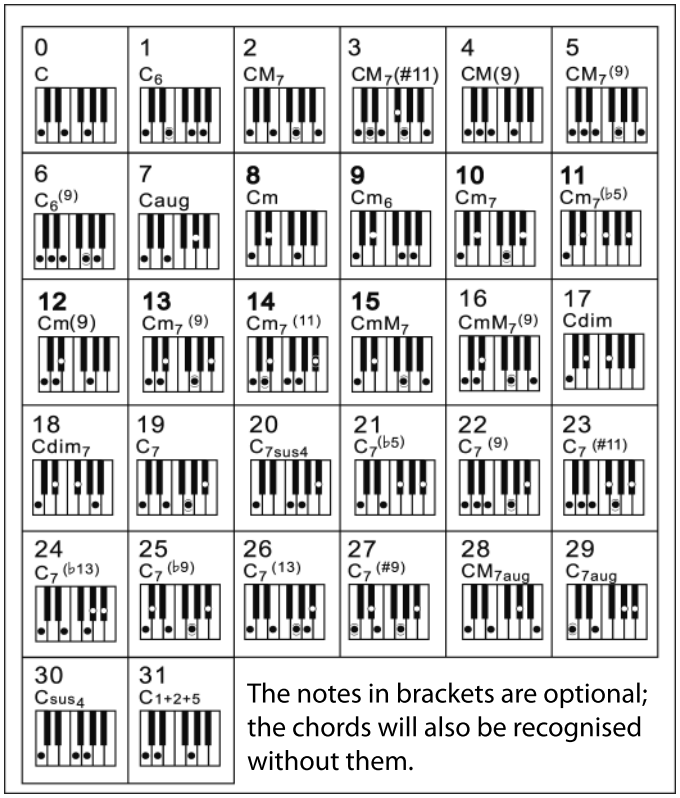
- Single-finger chords
  With this method, you can play chords with only one, two or three fingers within the capabilities of the auto accompaniment. Here are some examples of single finger chords (C, Cm, C7 and Cm7).

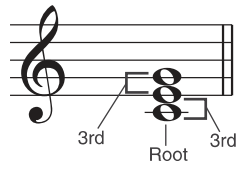


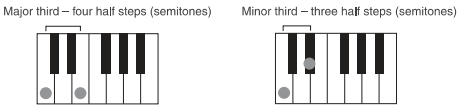
When the A.B.C. function is activated, press the keys to the left of the split point. The chords are detected as single-finger chords.

- Multi-finger chords

  With this method, you can play chords with normal fingering within the capabilities of the auto accompaniment. Here we show you 32 chords using the example of C chords.







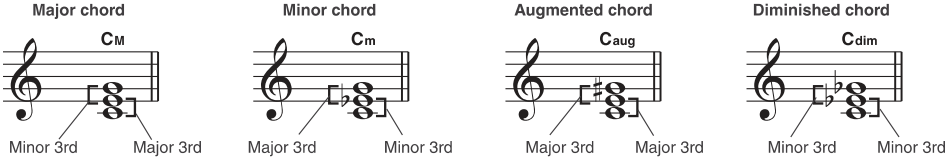
Chord basics

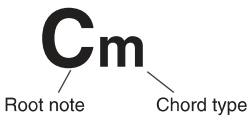
A chord consists of three or more notes played together. The most commonly used chord is the triad consisting of three notes: Root, third and fifth of the corresponding scale. The C major chord for example is formed from the notes C (root), E (the third note of the C major scale), and G (the fifth note of the C major scale). In the C major chord shown, the lowest note is the root (this is the basic form of the chord - if you play other notes of the chord as the lowest note, this is called 'chord inversion'). The root is the central sound of the chord on which the other chord notes are built upon. The interval between adjacent notes and the root determines whether the result is a major or minor third.

Chord structure

The lower interval in our triad (between root and third) determines whether the result is a major or minor triad. In addition, we can shift the highest note by a half step up or down to produce two additional chords.

The basic characteristic of the triad remains even if we change the order of the notes to create different inversions. Consecutive chords can be softly connected in a chord progression, e.g. by choosing suitable chord inversions (also called 'voicings').

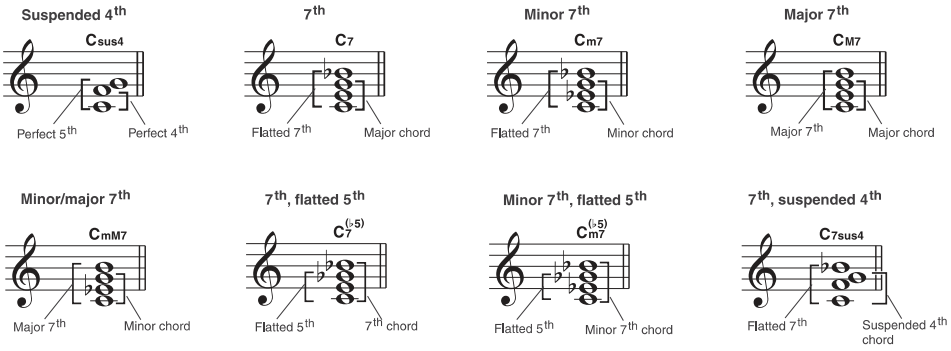




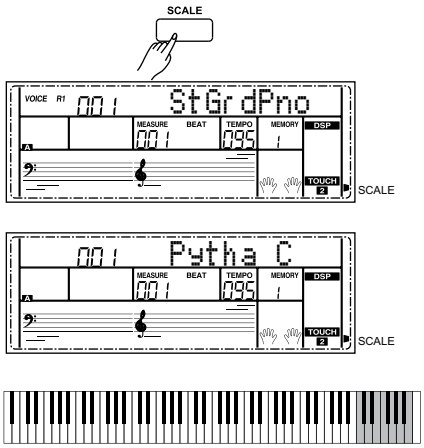
Chord names

Chord names will tell you everything you need to know about a chord. Through the chord name, you know the root note, whether it is a major, minor, or diminished chord, whether a large or flatted seventh is needed and what changes or tensions are used - all at a glance.

Some chord types



8.15 Historic tunings

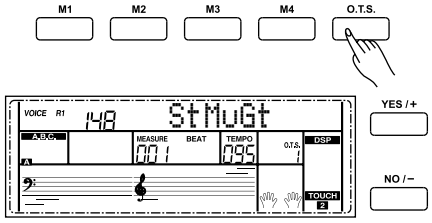


You can use this function to experiment with different historical tunings when playing certain musical genres that have not been composed based on equal temperament.

1. Press the *[SCALE]* button to switch to Historic Tunings mode. *'SCALE'* lights up.
2. Hold down the *[SCALE]* button to open the selection of historic tunings.

   As soon as the *'SCALE'* indicator flashes, you can use the *[YES/+]* and *[NO/-]* buttons to select one of the following settings: Pythagoras, pure major, pure minor, middle tone, Werckmeister or Kirnberger.
3. Use piano buttons C7 … B7 to select the root note of the selected tuning.
4. Press *[SCALE]* again to exit the 'Historic tunings' mode.

8.16 One Touch Setting



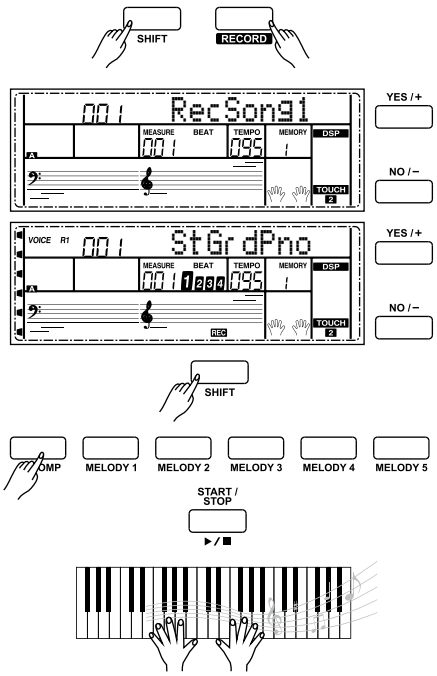
One Touch Setting (O.T.S. or one-key operation) is a convenient function that allows you to immediately reconfigure all settings with just one single key press. This is about rhythm-based compilations of instrument voices. With this function, four parameter types (M1 to M4) can be loaded.

1. Press the *[O.T.S.]* button to enter this mode. Press one of the keys *[M1]* to *[M4]*, then the device loads the corresponding parameter types that match the current Style. The ABC mode is automatically turned on at that.
2. Press one of the keys *[M1]* to *[M4]* that provides the desired settings.
3. Press the *[O.T.S.]* button again to exit O.T.S. mode.
4. The default parameters stored in O.T.S. are:
   - Voice R1, R2, L on / off
   - Change voice R1, R2, L
   - Volume R1, R2, L
   - Chorus level voice R1, R2, L
   - Reverb level voice R1, R2, L

8.17 Record, playback, delete

The digital piano lets you record three user songs that can contain six tracks each (one accompaniment track and five melody tracks).

8.17.1 Song recording



1. Press the *[SHIFT]* and *[RECORD]* buttons simultaneously to select a storage location. The display shows *'RecSong1'* and the current storage location.

2. Use the *[+/YES]* or *[–/NO]* button or the jog wheel to select a free storage location for the recording.

3. Record stand-by

Press the *[SHIFT]* and *[RECORD]* buttons simultaneously again to enable recording mode. *'REC'* lights up in the display. At the same time, a free track is automatically selected for recording and the associated track indicator (*[MELODY 1]* to *[MELODY 5]* or *[ACCOMP]*) flashes. The tracks are selected in the order *[MELODY 1]* to *[MELODY 5]*, *[ACCOMP]*. If no free track is available, *[MELODY 1]* is going to be selected. Press one of the buttons *[MELODY 1]* to *[MELODY 5]* or *[ACCOMP]* to select the track to which you want to record.

4. Start recording

Press the *[START/STOP]* button or one of the piano keys to start recording.

When you start recording, you may overwrite data on the selected track.

5. Selecting tracks

When you select tracks, the buttons can have three different states: They flash, light up or are off.

- A **flashing** button indicates that the track has been selected for recording.
- A **lit** button indicates that this track already contains data. This data will be played during recording to another track.
- If a button is **off,** there is no data on this track or there is data that is not going to be played during recording.

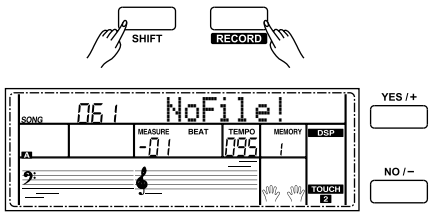
Press one of the buttons *[MELODY 1]* to *[MELODY 5]* or *[ACCOMP]* to select the desired track. The corresponding track is then enabled with the condition described above.

- *You can only record one melody track at a time. However, you can record the accompaniment track along with one of the melody tracks.*
- *A style can only be recorded if it is activated by the [ACCOMP] button.*

6. Stopping recording

Press the *[SHIFT]* and *[RECORD]* buttons again to stop the recording. If you record an accompaniment track, press the *[INTRO/ENDING]* button to stop recording after the ending part. When the memory is full, recording stops automatically. In this case, *'Rec_Full'* appears on the display.

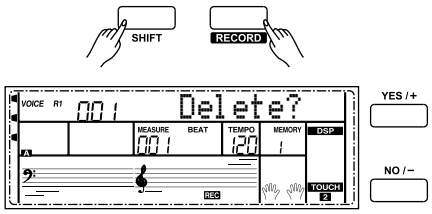
8.17.2 Playing a recording



1. After recording, simultaneously press the *[SHIFT]* and *[RECORD]* buttons. The digital piano changes to Song mode, the last recording is automatically played as a loop.
2. Press the *[SONG]* button to play all tracks as an endless loop, or use the *[+/YES]* and *[/NO]* buttons to select a specific track for playback.
3. Push the *[PLAY/STOP]* button to end playback.

If there is no recording and you press the [PLAY/STOP] button, 'NoFile!' will appear briefly in the display.

8.17.3 Deleting a recording



1. Deleting individual sections of the current recording

   Hold down the *[SHIFT]* and *[RECORD]* buttons simultaneously for two seconds. Simultaneously press *[SHIFT]* and *[ACCOMP]* or *[MELODY 1 … 5]* to delete the accompaniment or one of the melody tracks of the recording. The indicator of the selected track lights up on the display. The confirmation prompt *'Delete?'* appears on the display. Confirm with *[+/YES]*.
2. Deleting a single recording

   In Song mode, use the *[+/YES]* or *[–/NO]* button to select the recording you want to delete. Confirm the confirmation prompt with *[+/YES]*. Press *[–/NO]* to cancel the deleting.
3. Deleting all recordings

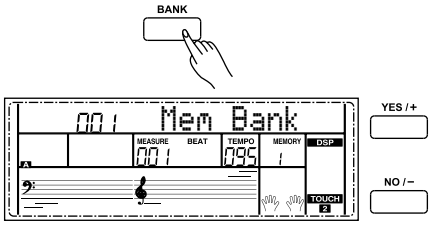
   Turn off the digital piano. Simultaneously press the *[RECORD]* and *[SONG]* buttons and turn the digital piano back on. All user recordings are going to be deleted without a prompt.

8.18 Memory

You can store 32 control panel configurations in the memory of the digital piano and recall the data any time, if required.

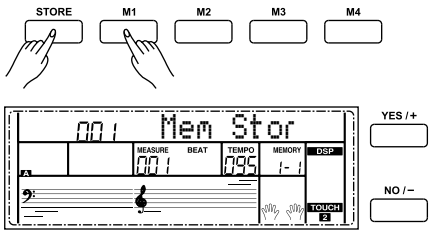
8.18.1 Memory banks

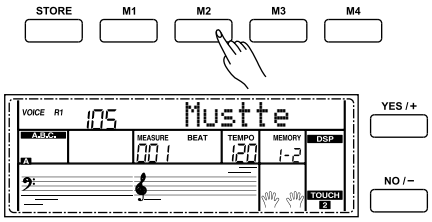
A total of eight memory banks are available, each with four memory locations (M1 to M4).



1. Press the *[BANK]* button. *'Mem Bank'* appears on the display.
2. Use the jog dial or the *[+/YES]* or *[–/NO]* button to select the desired memory bank.

8.18.2 Saving/loading parameters

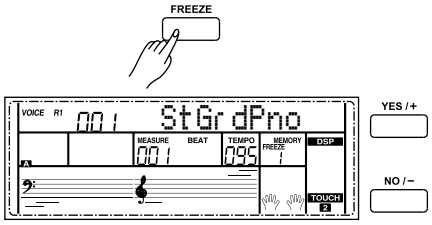




1. Hold down the *[STORE]* button and simultaneously press one of the *[M1]* to *[M4]* buttons. The current settings are then stored in the respective memory location (M1 to M4). Please note that any data previously stored there will be deleted.
2. Press one of the *[M1]* to *[M4]* buttons. The saved settings are then loaded from the corresponding memory and replace the current settings.

In O.T.S. mode, no settings can be loaded from the device memory.

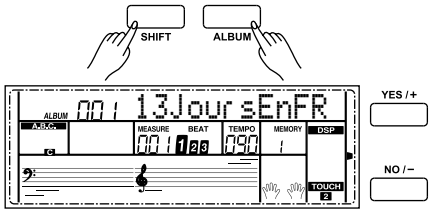
8.18.3 Lock function



You can use the lock function to prevent the digital piano's current settings for rhythm and tempo from being overwritten with saved settings.

1. Press the *[FREEZE]* button to activate the lock function. *'FREEZE'* lights up on the display.
2. Press the *[FREEZE]* button again to deactivate the lock function. The *'FREEZE'* display turns off.

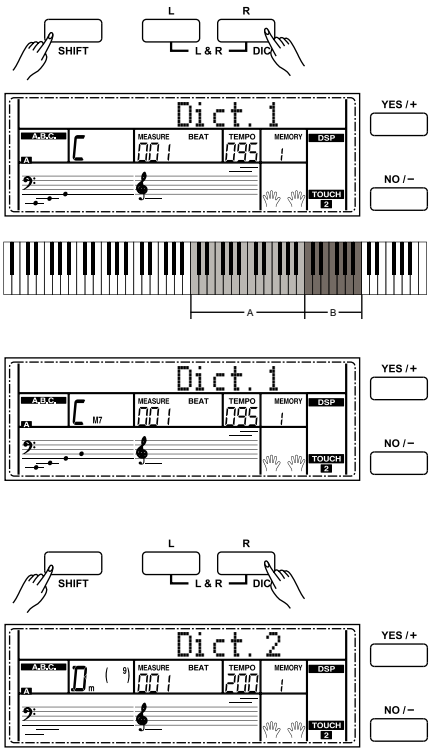
8.19 Song album



The digital piano offers a song album with a total of 120 stored songs. When you call up a song from the album, all relevant supporting parameters are loaded automatically.

1. Press the *[SHIFT]* and *[FUNCTION +/–]* buttons simultaneously to open the song album.
2. Use the *[+/YES]* or *[–/NO]* buttons to select the desired song.
3. To close the song album, press one of the direct selection buttons *[VOICE]* or *[STYLE]*.

8.20 Chord dictionary



The Chord dictionary is basically a built-in 'Chord book' assisting you to find the right tones of a chord if you e.g. know only the chord name, but not how to play it.

1. DICT 1 (chord learning mode)

Press the *[SHIFT]* and *[DICT.]* buttons simultaneously to call up *'DICT.1'* mode. In this mode, the keys from C4 on are used to assign the chord type, and the keys from C6 to assign the root note. If you have pressed the keys for chord type and root note, the display shows the chord name and the individual notes in the notation system.

For example, if you want to play a Cm7 chord, press the C6 key (root note C in the Cm7 chord). You will hear no sound, but the root note is displayed.

Press the A4 key (chord type for minor-seventh chord, 'm7'). You will hear no sound, but the chord name and the notes you should play for the specified chord appear in the display.

2. DICT 2 (chord testing mode)

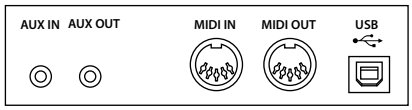
Press the *[SHIFT]* and *[DICT.]* buttons simultaneously again to call up *'DICT.2'* mode. The display shows a randomly generated chord name, but not its individual notes in the notation system. If you play the right chord within three seconds, the next randomly generated chord name appears. If this does not happen, the individual notes of the chord in the notation system appear automatically in the display.

In the chord dictionary, the 12 root notes and 24 chord types are presented as follows:

Key names	Root note	Key names	Root note
C6	C	$F^{\#}6$	$F^{\#}/G_b$
$C^{\#}6$	$C^{\#}/D_b$	G6	G
D6	D	A_b6	$G^{\#}/A_b$
E_b6	$D^{\#}/E_b6$	A6	A
E6	E	B_b6	$A^{\#}/B_b$
F6	F	B6	B

Key names	Chord type	Key names	Chord type
C4	M	C5	7_b9
$C^{\#}4$	M(9)	$C^{\#}5$	7(9)
D4	6	D5	$7(^{\#}9)$
E_b4	mM7	E_b5	7_b13
E4	M7	E5	7(13)
F4	m	F5	$7(^{\#}11)$
$F^{\#}4$	m(9)	$F^{\#}5$	dim7
G4	m6	G5	dim
A_b4	m7(9)	A_b5	7aug
A4	m7	A5	aug
B_b4	$m7_b5$	B_b5	7sus4
B4	7	B5	sus4

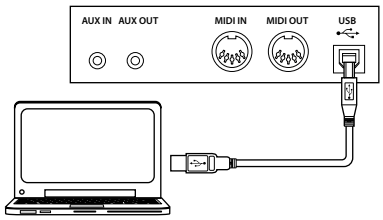
8.21 MIDI function



MIDI stands for 'Musical Instrument Digital Interface' and represents the standard interface between a computer and electronic instruments.

You can exchange MIDI data with other MIDI devices via the MIDI and USB interfaces of the digital piano.

8.22 USB connection



Turn on the computer first. Connect the USB port on the rear panel of the digital piano using a standard USB cable (not included) to the USB port on your computer. Then turn on the digital piano.

Use an up-to-date operating system still supported by the provider to avoid technical difficulties.

Now you have the option to load up to three MIDI files from your computer as user songs into the digital piano or to save user styles and recordings externally.

For additional applications you may need suitable software for recording and editing music (not included).

9 Troubleshooting

Problem	Possible causes and solutions
You hear a 'pop' sound from the speakers when switching the digital piano on and off.	This is normal. No need to worry.
No sound can be heard when playing the piano.	Make sure that the volume control is set appropriately. Check if headphones are plugged into the headphone output 2. Connecting headphones will mute the speakers of the digital piano.
Malfunction occurs when using a mobile phone.	Using a mobile phone near the digital piano can cause interference. To prevent this, turn off the mobile phone or use it only at a safe distance.

10 Voice List

No.	Name	LCD name		No.	Name	LCD name
Piano				034	Warm Electric Piano	WarmEp
001	Stereo Grand Piano	StGrdPno		035	Grand Harpsichord	GraHarps
002	Acoustic Grand Piano (wide) 1	GrandPnW		036	Harpsichord 1	Harpsi
003	Acoustic Grand Piano (dark)	GrandPnD		037	Harpsichord 2	Harpsi2
004	Octave Piano 1	OctPno1		038	Harpsichord (wide)	HarpsiW
005	Octave PIANO 2	OctPno2		039	Harpsichord (octave mix) 1	HarpsiO
006	Piano & Strings	Pno&Str		040	Harpsichord Release	HarpsiR
007	Piano & Choir	Pno&Cho		041	Harpsichord (with key off)	HarpsiOf
008	Acoustic Grand Piano	GrandPno		042	Clavi 1	Clavi
009	Stereo Bright Piano	StBrtPno		043	Clavi 2	Clavi2
010	Bright Acoustic Piano	BritePno		044	Clavi (wide) 1	ClaviW1
011	Bright Acoustic Piano (wide) 1	BritePnW		045	Clavi (wide) 2	ClaviW2
012	Chorus Piano	ChoruPno		046	Clavi Wah	ClaviWa
013	Electric Grand Piano	E.Grand		047	Pulse Clavi	PluseClv
014	Electric Grand Piano (wide)	E.GrandW		**Chromatic Percussion**		
015	Stereo Honk-Tonk	StHonkTo		048	Celesta 1	Celesta
016	Honky-tonk Piano	HnkyTonk		049	Celesta 2	Celesta2
017	Honky-tonk Piano (wide) 1	HnyTonkW		050	Birght Celeasta	BirCelea
018	Stereo Hard Electric Piano	StHarEp		051	Celesta & Sine	Celes&Si
019	Detuned Electric Piano 1	DetunEP1		052	Reecho Bell	RechBell
020	Detuned Electric Piano 2	DetunEP2		053	Celesta & Music Box	Celes&MB
021	Electric Piano 1	E.Piano1		054	Glockenspiel 1	Glocken
022	Electric Piano 2	E.Piano2		055	Glockenspiel 2	Glocken2
023	Electric Piano (wide) 1	EPnoW1		056	Music Box 1	MusicBox
024	Electric Piano (wide) 2	EPnoW2		057	Music Box 2	MusicBo2
025	EP legend	EPLegend		058	Music Box 3	MusicBo3
026	EP Phase	EPPhase		059	Toy Box	ToyBox
027	60's Electric Piano	60'sEP		060	Music Box & Harp	Mbx&Harp
028	Electric Piano 1 (velocity mix)	E.PnoV1		061	Stereo Vibrapho	StVibes
029	Electric Piano 2 (velocity mix)	E.PnoV2		062	Rigid Vibraphone	RigiVibe
030	Velocity Crossfade Electric Piano	VeCrosEP		063	Vibraphone 1	Vibra
031	Layered Electric Piano 1	LayerEp1		064	Vibraphone 2	Vibra2
032	Layered Electric Piano 2	LayerEp2		065	Vibraphone (wide) 1	VibraW
033	Nylon Electric Piano	NylonEP		066	Vibraphone (wide) 2	VibraW2

No.	Name	LCD name		No.	Name	LCD name
067	Vibraphone & Bell	Bell&Vib		101	Puff Organ	PuffOrgn
068	Marimba 1	Marimba		102	Accordion 1	Accordion
069	Marimba 2	Marimba2		103	Accordion 2	Acordin2
070	Marimba (wide)	MarimbaW		104	Accordion 3	Acordin3
071	Stereo Marimba	StMarim		105	Mustte	Mustte
072	Marimba & Vibraphone	Mar&Vib		106	Accord It Solo	AccordSo
073	Xylophone 1	Xylophon		107	Sweet Harmonica	SwetHarm
074	Xylophone 2	Xylopho2		108	Harmonica 1	Harmnica
075	Tubular Bells	TubulBel		109	Harmonica 2	Harmnic2
076	Church Bell	ChurBell		110	Tango Accordion	TangoAcd
077	Carillon	Carillon		111	Acoustic Guitar (nylon) 1	NylonGtr
078	Dulcimer	Dulcimer		112	Acoustic Guitar (nylon) 2	NylonGt2
079	Santur	Santur		113	Acoustic Guitar (nylon + key off)	NylGtrOf
Organ				114	Ukulele	Ukulele
080	Drawbar Organ 1	DrawOrgn		115	Velocity Nylon Guitar	NylnGtVe
081	Drawbar Organ 2	DrawOrg2		116	Chorus Nylon Guitar	ChoNyGt
082	Soft Stereo Drawbar Organ	SfDrawOr		117	Bright Nylon Guitar	BrNyGt
083	Mellow Drawbar Organ	MellDrOr		118	Acoustic Guitar (steel) 1	SteelGtr
084	Detuned Drawbar Organ 1	DeDraOrg		119	Acoustic Guitar (steel) 2	SteelGt2
085	Detuned Drawbar Organ 2	DeDraOr2		120	Steel Guitar with Body Sound	SteelBdy
086	Italian 60's Organ	60'sOrgn		121	Tremolo Steel Guitar	TremGt
087	1970 Percussive Organ	1970PcOr		122	Mandolin	Mandolin
088	Percussive Organ 1	PercOrgn		123	12-Strings Guitar	12StrGtr
089	Percussive Organ 2	PercOrg2		124	Chorus Steel Guitar	ChoSteGt
090	Light Click Organ	LClickOr		125	Nylon & Steel Guitar	Ny&SteGt
091	Detuned Percussive Organ	DePerOrg		126	Stereo Steel Guitar	StSteGt
092	Stereo Rotary Organ	StRotaOr		127	Steel Guitar Bend	GtBend
093	Rock Organ	RockOrgn		128	Steel Guitar Harmonics	GtHarm
094	Rotary Organ	RotaOrgn		129	Velocity Steel Guita 1	VelSte1
095	Slow Rotary Organ	SloRotOr		130	Velocity Steel Guita 2	VelSte2
096	Detuned Church Organ	DeChuOrg		131	Velocity Steel Guita 3	VelSte3
097	Church Organ 1	ChurOrgn		132	Electric Guitar (jazz) 1	JazzGtr
098	Church Organ 2	ChurOrg2		133	Electric Guitar (jazz) 2	JazzGt2
099	Church Organ (octave mix)	ChurOrgO		134	Electric Guitar (pedal steel)	PedalGtr
100	Reed Organ	ReedOrgn		135	Mellow Guitar	MelloGt

No.	Name	LCD name		No.	Name	LCD name
136	Velocity Jazz Guitar	JazzGtVe		170	Electric Bass (pick) 1	PickBass
137	Jazz Guitar Detuned	JazzGtDt		171	Electric Bass (pick) 2	PickBas2
138	Mid Tone Guitar	MidTonGt		172	Mute Pick Bass	MuPkBass
139	Electric Guitar (clean) 1	CleanGtr		173	Fretless Bass 1	Fretless
140	Electric Guitar (clean) 2	CleanGt2		174	Fretless Bass 2	Fretlss2
141	Stereo Clean Guitar	StCleGtr		175	Slap Bass 1	SlapBas1
142	Velocity Clean Guitar	CleGtVel		176	Slap Bass 2	SlapBas2
143	Electric Guitar (detuned clean)	DetClnGt		177	Slap Bass 3	SlapBas3
144	Electric Guitar (muted velo-sw)	MutVelGt		178	Slap Bass 4	SlapBas4
145	Electric Guitar (muted)	MutedGtr		179	Synth Bass 1	SynBass1
146	Electric Guitar (funky cutting)	FunkGt		180	Synth Bass 2	SynBass2
147	Jazz Man	JazzMan		181	Synth Bass 3 (resonance)	ResoBass
148	Stereo Muted Guitar	StMuGt		182	Synth Bass 4 (attack)	AtackBas
149	Guitar Pinch	GtPinch		183	Synth Bass (warm)	WarmBass
150	Overdriven Guitar	Ovrdrive		184	Clavi Bass	ClavBass
151	Distortion Guitar 1	DistGtr		185	Hammer	Hammer
152	Distortion Guitar 2	DistGt2		186	Synth Bass (rubber)	RubbBass
153	Distortion Guitar (with feedback) 1	FeedbkGt		187	Attack Pulse	AtackPls
154	Distorted Rhythm Guitar	DistRyth		**Strings & Orchestral Instruments**		
155	5th Distortion	5thDist		188	The Violin	TheVin
156	Stereo Distorted Guitar	StDistor		189	Violin 1	Violin
157	Guitar Feedback	GtrFedbk		190	Violin 2	Violin2
158	Guitar Harmonics	GtrHarmo		191	Violin (slow attack)	SlViolin
Bass				192	Soft Violin	SoftVin
159	Acoustic Bass 1	AcoBass		193	Viola 1	Viola
160	Acoustic Bass 2	AcoBass2		194	Viola 2	Viola2
161	Jazz Style	JazzSty		195	Viola 3	Viola3
162	A.Bass & Mute G.T.	Bs&GtMu		196	Cello 1	Cello
163	Resonant Bass	ResBass		197	Cello 2	Cello2
164	Wah Bass 1	WahBass1		198	Celloen 16'	Celloen
165	Electric Bass (finger) 1	FngrBass		199	Chamber Music	Chamber
166	Electric Bass (finger) 2	FngrBas2		200	Contrabass 1	Contrabs
167	Electric Bass (finger) 3	FngrBas3		201	Contrabass 2	Contrbs2
168	Finger Slap Bass	FngrSlap		202	Tremolo Strings 1	TremStr
169	Wah Finger Bass	WahFnBs		203	Tremolo Strings 2	TremStr2

No.	Name	LCD name		No.	Name	LCD name
204	Slow Tremolo Strings 1	SlwTrSt1		238	Voice Oohs	VoiceOoh
205	SLOW Tremolo Strings 2	SlwTrSt2		239	Analog Voice	AnaVoice
206	Pizzicato Strings 1	PizzStr		240	Synth Voice	SynVoice
207	Pizzicato Strings 2	PizzStr2		241	Bass Hit Plus	BassHit
208	Octave Pizzicato	OctoPizz		242	Orchestra Hit 1	OrchHit
209	Orchestral Harp 1	Harp		243	Orchestra Hit 2	OrchHi2
210	Orchestral Harp 2	Harp2		244	Euro Hit	EuroHit
211	Yang Chin	YangChin		245	6th Hit	6thHit
212	Timpani 1	Timpani		**Brass**		
213	Timpani 2	Timpani2		246	Trumpet 1	Trumpet
Ensemble				247	Trumpet 2	Trumpet2
214	The Strings	TheStr		248	Trumpet 3	Trumpet3
215	String Ensembles 1	Strings1		249	Dark Trumpet Soft	DarkTrp
216	String Ensembles 2	Strings2		250	Sweet Trumpet	SweetTp
217	Synth Strings 1	SynStrs1		251	Wah Trumpet	WahTp
218	Synth Strings 2	SynStrs2		252	Trombone 1	Trombone
219	Synth Strings 3 Synth Strings	SynStrs3		253	Trombone 2	Trmbone2
220	Synth Strings 4	SynStrs4		254	Bright Trombone	BritBone
221	Synth Strings 5	SynStrs5		255	Strings & Trombone	Str&Trb
222	Resonant Strings	ResonSt		256	Tuba 1	Tuba
223	Stereo Slow Strings	SSlowStr		257	Tuba 2	Tuba2
224	Slow Strings	SlowStr		258	Soft Tuba	SoftTuba
225	Strings and Brass	Str&Bras		259	Muted Trumpet 1	MuteTrp1
226	Legato Strings	LegatStr		260	Muted Trumpet 2	MuteTrp2
227	Orchestra	Orchstr		261	French Horn 1	FrHorn
228	Arco Strings	ArcoStr		262	French Horn 2 (warm)	FrHorn2
229	60's Strings	60'sStr		263	French Horn 3	FrHorn3
230	1970 Strings	70'Str		264	Stereo French Horn	StFrHorn
231	Solo Strings	SoloStr		265	Horn Orchestra	5thHornO
232	Choir Aahs 1	ChoirAah		266	Brass Section 1	Brass
233	Choir Aahs 2	ChoirAh2		267	Brass Section 2 (octave mix)	Brass2
234	Choir Aahs 3	ChoirAh3		268	Brass Section 3	Brass3
235	Stereo Choir Aahs	StChoir		269	Brass Section 4	Brass4
236	Strings & Choir	StrChoir		270	Brass Section 5	Brass5
237	Humming	Humming		271	Brass Swell	BrasSwel

No.	Name	LCD name		No.	Name	LCD name
272	Brass Band	BrasBand		306	Bassoon 2	Basson2
273	Bright Brass Section	BrBraSec		307	Clarinet 1	Clarinet
274	Mute Brass Ensemble	MuteEns		308	Clarinet 2	Clarine2
275	Sforzato Brass	SfrzBras		**Pipe**		
276	Brass & Strings	Bras&Str		309	Piccolo	Piccolo
277	Synth Brass 1	SynBras1		310	Flute	Flute
278	Synth Brass 2	SynBras2		311	Sweet Flute	SweeFlut
279	Synth Brass 3	SynBras3		312	Recorder	Recorder
280	Synth Brass 4	SynBras4		313	Sweet Pan Flute	SwPanFu
281	Analog Synth Brass 1	AnaBras1		314	Pan Flute	PanFlute
282	Analog Synth Brass 2	AnaBras2		315	Blown Bottle	Bottle
283	Jump Brass	JumpBras		316	Shakuhachi	Shakhchi
284	Octave Synth Brass	SynBraOc		317	Whistle 1	Whistle
285	Synth Brass & Strings 1	SyBr&St1		318	Whistle 2	Whistle2
286	Synth Brass & Strings 2	SyBr&St2		319	Ocarina	Ocarina
287	Echo Brass	EchoBr		**Synth Lead**		
Reed				320	Lead 1 (square)	SquareLd
288	Soprano Sax 1	SprnoSax		321	Square	Square
289	Soprano Sax 2	SprnSax2		322	Lead 1b (sine)	SineLead
290	Soprano Sax Soft	SopSaxSf		323	Square Lead 1	SquarLd1
291	Slow Soprano Sax	SlSopSax		324	Lead 1a (square 2)	SquarLd2
292	Sweet Soprano Sax	SweSpSax		325	Lead 2a (sawtooth 2)	SawLead2
293	Alto Sax	AltoSax		326	Lead 2d (sequenced analog)	SquAnaLd
294	Soft Alto Sax	SoftAlto		327	Lead 2 (sawtooth)	SawLead1
295	Super Alto Sax	SuprAlto		328	Lead 2b (saw + pulse)	SawPlsLd
296	Tenor Sax 1	TenorSax		329	Lead 2c (double sawtooth)	DubSawLd
297	Tenor Sax 2	TenoSax2		330	Lead 3 (calliope)	CaliopLd
298	Baritone Sax	BariSax		331	Lead 4 (chiff)	ChiffLd
299	Sweet Oboe	SwetOboe		332	Lead 5 (charang)	CharanLd
300	Oboe 1	Oboe		333	Lead 5a (wire lead)	WireLead
301	Oboe 2	Oboe2		334	Lead 6 (voice)	VoiceLd
302	English Horn 1	EngHorn		335	Lead 7 (fifths)	FifthsLd
303	English Horn 2	EngHorn2		336	Lead 8 (bass + lead)	BassLead
304	Woodwinds	Woodwind		337	Lead 8a (soft wrl)	SftWrlLd
305	Bassoon 1	Bassoon				

No.	Name	LCD name		No.	Name	LCD name
Synth Pad				371	FX 7 (echoes) 1	Echoes
338	Pad 1 (new age)	NewAgePd		372	FX 7a (echo bell) 1	EchoBell
339	Slow Square	SlowSqu		373	FX 7b (echo pan)	EchoPan
340	New Year Pad	NewYrPd		374	FX 8 (sci-fi)	Sci-Fi
341	Pad 2 (warm)	WarmPad		**Ethnic Misc.**		
342	PWM Pad	PWMPad		375	Sitar 1	Sitar
343	Pad 2a (sine pad)	SinePad		376	Sitar 2 (bend)	Sitar2
344	Horn Pad	HornPad		377	Banjo	Banjo
345	Pad 3 (polysynth) 1	PolySyPd		378	Shamisen	Shamisen
346	Click Pad	ClickPd		379	Koto	Koto
347	Analog Pad	AnaloPad		380	Taisho Koto	TaishoKt
348	Poly Pad	PolyPad		381	Kalimba	Kalimba
349	Pad 4 (choir)	ChoirPad		382	Bag Pipe	Bagpipe
350	Pad 4a (itopia)	ItopiaPd		383	Fiddle	Fiddle
351	Pad 5 (bowed) 1	BowedPad		384	Shanai	Shanai
352	Pad 6 (metallic) 1	MetalPad		**Percussive**		
353	Pan Pad	PanPad		385	Tinkle Bell	TnklBell
354	Pad 7 (halo) 1	HaloPad		386	Agogo	Agogo
355	Pad 7 (halo) 2	HaloPad2		387	Steel Drums	SteelDrm
356	Pad 8 (sweep) 1	SweepPad		388	Woodblock	WoodBlok
357	Pad 8 (sweep) 2	SweePad2		389	Castanets	Castanet
358	Dipolar Pad	DipolPad		390	Taiko Drum	TaikoDum
359	Rising	Rising		391	Concert Bass Drum	ConBasDm
360	Congregate	Congrega		392	Melodic Tom 1	MelodTom
Synth SFX				393	Melodic Tom 2 (power)	MeldTom2
361	FX 1 (rain)	FXRain		394	Synth Drum	SynDrum
362	FX 2 (soundtrack)	Soundtrk		395	Rhythm Box Tom	RhythBox
363	Progenitor	Progenit		396	Electric Drum	ElecDrum
364	FX 3a (synth mallet)	SynMalet		397	Reverse Cymbal	RevCymbl
365	FX 3 (crystal)	Crystal		**SFX**		
366	FX 4 (atmosphere)	Atmosphr		398	Guitar Fret Noise	FretNoiz
367	Warm Air	WarmAir		399	Guitar Cutting Noise	GtCtNoiz
368	FX 5 (brightness)	Bright		400	Acoustic Bass String Slap	BsStSlap
369	FX 6 (goblins)	Goblins		401	Breath Noise	BrthNoiz
370	Choir Bell	ChoirBel		402	Flute Key Click	FlKeyClk

No.	Name	LCD name		No.	Name	LCD name
403	Seashore	Seashore		438	Lasergun	Lasergun
404	Rain	Rain		439	Explosion	Explosio
405	Thunder	Thunder		440	Stereo Piano & Strings Pad	StPn&Str
406	Wind	Wind		441	Stereo Piano & Choir	StPn&Cho
407	Stream	Stream		442	Stereo Piano & Synth Strings	StPn&Syn
408	Bubble	Bubble		443	Stereo Piano & Warm Pad	StPn&Pad
409	Bird Tweet 1	Tweet		444	Stereo Piano & Soft Ep	StPn&Ep
410	Dog	Dog		445	FM Electric Piano	FMEp
411	Horse Gallop	HouseGlp		446	Digital Piano	DigiPn
412	Bird Tweet 2	Tweet2		447	E.Piano & Strings	EP&Str
413	Sheep	Sheep		448	E.Piano & Ac Guitar	EP&Gt
414	Telephone Ring 1	Telphone		449	E.Piano & Vibraphone	Ep&Vib
415	Telephone Ring 2	Telphon2		450	E.Piano 2 & Pad	Ep&Pad
416	Door Creaking	DoorCrek		451	E.Piano 2 & Strings	Ep2&Str
417	Door	Door		452	Harpsichord & Stereo Strings	Harps&Str
418	Scratch	Scratch		453	Music Box & Stereo Strings	Mxb&Str
419	Wind Chime	WindChim		454	Vibraphone & Stereo Strings	Vib&Str
420	Helicopter	Helicptr		455	Vibraphone Octave	VibOct
421	Car Engine	CarEngin		456	Vibraphone & Marimba & Kalimba	VibMK
422	Car Stop	CarStop		457	Marimba & Kalimba	Mar&Kal
423	Car Pass	CarPass		458	Marimba Delay	MarDel
424	Car Crash	CarCrash		459	Xylophone Octave	XylopOct
425	Siren	Siren		460	Organ & Stereo Strings	Org&Str
426	Train	Train		461	Stereo Organ & Piano	StOr&Pno
427	Jetplane	Jetplane		462	Rock Organ & Strings	RoOr&Str
428	Starship	Starship		463	Church Organ & Choir	ChuOr&Ch
429	Burst Noise	BurtNois		464	Church Organ & Strings	ChuOr&St
430	Applause	Applause		465	Acoustic Guitar & Flute	Gt&Fl
431	Laughing	Laughing		466	Acoustic Guitar & Clav	Gt&Cl
432	Screaming	Scream		467	24 String Guitar	24Gt
433	Punch	Punch		468	Steel Guitar & Warm Pad	StGt&Pad
434	Heart Beat	HeartBet		469	Stereo Strings & Horn	StStr&Hn
435	Footsteps	Footstep		470	Orchestra	Orchest
436	Gunshot	Gunshot		471	Full Strings 1	FullStr1
437	Machine Gun	MachnGun		472	Full Strings 2	FullStr2

No.	Name	LCD name		No.	Name	LCD name
473	Symphonic	Symphon		487	Aoud	Aoud
474	Stereo Choir & Strings	StCh&Str		488	Bouzouk	Bouzouk
475	Stereo Choir & Steel Guitar	Ch&Gt		489	Nay	Nay
476	3 Trumpet Loose	3Trump		490	Mizmar	Mizmar
477	Trombone & Stereo Strings	Tb&StStr		**Drum Set**		
478	3 Trombones Loose	3Tromb		491	Standard Set	StandSet
479	3 Muted Trumpets Loose	3MuTrumb		492	Room Set	RoomSet
480	Club Brass	ClubBras		493	Power Set	PowerSet
481	Brass & Woodwinds	Br&Wood		494	Electronic Set	ElectSet
482	Woodwinds & Strings	Wind&Str		495	Analog Set	AnalgSet
483	Section Woods Small	WoodSma		496	Jazz Set	JazzSet
484	Pan Flute & Strings Pad	PanFu&St		497	Brush Set	BrushSet
485	Koto & Shamisen	Koto&Sh		498	Orchestra Set	OrcheSet
Arabic Instruments				499	SFX Set	SFXSet
486	Kanoun	Kanoun		500	Arabic Set	ArabiSet

11 Styles list

No.	Name	LCD name		No.	Name	LCD name
8 BEAT				033	16Beat 4	16Beat4
001	8Beat Piano	8BtPiano		034	Pop Shuffle	PopShufl
002	8Beat 1	8Beat1		**POP**		
003	8Beat Shuffle	8BtShufl		035	Pop Rock 1	PopRock1
004	Guitar Pop 1	GtPop1		036	Pop Dance 1	PopDanc1
005	8Beat Hip Hop	8BtHiHop		037	Pop Fusion	PopFusn
006	8Beat R&B	8BeatR&B		038	Analog Night 1	AnalgNt1
007	8Beat Pop	8BtPop		039	6/8 Pop	6/8Pop
008	Pop Funk 1	PopFunk1		040	Brit. Pop 1	BritPop1
009	Rhythm & Beat 1	Rhy&Bt1		041	Brit. Pop 2	BritPop2
010	8Beat Disco 1	8BtDisc1		042	Pop Hit	PopHit
011	8Beat Rock	8BtRock		043	Fusion Shuffle	FusShufl
012	8Beat 2	8Beat2		044	Analog Night 2	AnalgNt2
013	Sweet Beat	SweetBt		045	Pop Beat	PopBeat
014	8Beat Dance	8BtDance		046	Soft Beat	SoftBeat
015	8Beat Disco 2	8BtDisc2		047	60's Pop	60'sPop
016	8Beat 3	8Beat3		048	Sting Latin	StigLatn
017	60's 8Beat	60's8Bt		**BALLAD**		
16 BEAT				049	R&B Ballad 1	R&BBad1
018	16Beat 1	16Beat1		050	Guitar Ballad	GtBallad
019	16Beat Funk 1	16BtFuk1		051	Ballad Rcok	BalladRk
020	16Beat Ballad 1	16BtBld1		052	Piano Pop	PianoPop
021	16Beat R&B	16BtR&B		053	Soft Ballad	SoftBald
022	Pop 16Beat 1	Pop16Bt1		054	Natural Ballad	NatuBld
023	16Beat Funk 2	16BtFuk2		055	Love Ballad	LoveBld
024	16Beat Dance	16BDanc		056	Easy Ballad	EasyBld
025	16Beat 2	16Beat2		057	Slow Ballad	SlowBald
026	Pop 16Beat 3	Pop16Bt3		058	Folk Ballad	FolkBld
027	Modern 16Beat	Modrn16B		059	Pop Ballad 1	PopBld1
028	16Beat Hot	16BtHot		060	Pop Ballad 2	PopBld2
029	16Beat Modern	16BModr		061	EP Ballad	EPBallad
030	16Beat 3	16Beat3		**ROCK**		
031	Cool Beat	CoolBeat		062	Rock	Rock
032	16Beat Ballad 2	16BtBld2		063	New Wave	NewWave

No.	Name	LCD name		No.	Name	LCD name
064	Ska	Ska		098	Down Beat	DownBeat
065	Pop Rock 2	PopRock2		099	Progressive	Progress
066	Slow Rock	SlowRock		100	Rap 1	Rap1
067	70's Rock & Roll	70'sRock		101	Disco	Disco
068	Folk Rock	FolkRock		102	Soft Disco	SoftDisc
069	Soft Rock	SoftRock		103	Disco Party	DscParty
070	Easy Rock	EasyRock		104	70's Disco	70'sDisc
071	New Shuffle	NewShufl		105	Club Dance	ClubDanc
072	Rock Hip Hop	RkHipHop		106	Euro Dance	EuroDanc
073	Rock&Roll 1	R'N'R1		107	Hip Hop 2	HipHop2
074	Rock & Roll 2	R'N'R2		**SOUL & FUNK**		
BALLROOM				108	Funk 1	Funk1
075	Tango 1	Tango1		109	Classic Funk	ClasFunk
076	Spain Matador	Matador		110	Gospel Swing	GopSwing
077	Twist 1	Twist1		111	Gospel	Gospel
078	Big Band Fox	BandFox		112	Funk 2	Funk2
079	Tango 2	Tango2		113	Electric Funk	ElecFunk
080	Slow Fox	SlowFox		114	Groove Funk	GrooveFk
081	Slow Waltz 1	SlowWlz1		115	Cool Funky	ColFunky
082	Swing Fox	SwingFox		116	Jazz Funk	JazzFunk
083	Salsa 1	Salsa1		117	Groove	Groove
084	Cha Cha 1	ChaCha1		118	Soul	Soul
085	Cha Cha 2	ChaCha2		119	Hip Hop Beat	HipHopBt
086	Beguine 1	Beguine1		120	R&B	R&B
087	Beguine 2	Beguine2		121	Soul Beat	SoulBeat
088	Rumba 1	Rumba1		122	R&B Ballad 2	R&BBld2
089	Samba 1	Samba1		**SWING & JAZZ**		
090	Samba 2	Samba2		123	Latin Jazz 1	LatinJz1
091	Jive	Jive		124	Big Band	BigBand
092	Fox Trot	FoxTrot		125	Dixieland 1	Dixland1
DANCE				126	Broadway Big Band	BwayBand
093	Techno 1	Techno1		127	Swing	Swing
094	Hip Hop 1	HipHop1		128	Latin Jazz 2	LatinJz2
095	Dream Dance	DrmDance		129	Fusion	Fusion
096	House	House		130	Acid Jazz	AcidJazz
097	Pop Dance 2	PopDanc2		131	Cool Jazz Ballad	CoolJzBd

No.	Name	LCD name		No.	Name	LCD name
132	Swing Shuffle	SwingSfl		**WALTZ & TRADITIONAL**		
133	Big Band Medium	BandMid		165	Waltz	Waltz
134	Dixieland 2	Dixland2		166	Old Waltz	OldWaltz
135	Guitar Swing 2	GtSwing2		167	English Waltz	EngWaltz
136	Ragtime	Ragtime		168	German Waltz	GemWaltz
137	Modern Jazz Ballad	MdJzBald		169	ViennaWaltz	VinaWtz
138	Swing Ballad	SwingBal		170	Slow Waltz 2	SlwWltz2
139	Orchestra Swing	OrhSwing		171	Jazz Waltz	JzWaltz
COUNTRY				172	Polka	Polka
140	Country Pop 1	CntyPop1		173	6/8 March	6/8March
141	Bluegrass 1	Bluegrs1		174	German Polka	GerPolka
142	Country 8Beat	Ct8Beat		175	Party Polka	PtyPolka
143	Modern Country	ModernCt		176	Army March	ArmMarch
144	Country Pop 2	CntyPop2		177	March	March
145	Bluegrass 2	Bluegrs2		178	US March	USMarch
146	2/4 Country	2/4Cntry		179	Musette	Musette
147	Country Quick Steps	QuickStp		180	Mazurke	Mazurke
148	Country Folk	CntyFolk		**World**		
149	Country Shuffle	CnyShufl		181	Enka Ballad	EnkaBald
LATIN & LATIN DANCE				182	Laendler	Laendler
150	Bossa Nova	BosaNov		183	Hawaiian	Hawaiian
151	Latin	Latin		184	Sirtake	Sirtake
152	New Reggae	NewRegga		185	Dangdut	Dangdut
153	Dance Reggae	DanRegga		186	6/8 Flipper	6/8Flipp
154	Pasodoble	Pasodobl		187	New Age	NewAge
155	Lite Bossa	LteBossa		188	Tarantella	Tarantel
156	Latin Rock	LatinRck		189	Scottish	Scottish
157	Disco Samba	DscSamba		190	Norteno	Norteno
158	Mambo	Mambo		**Arab**		
159	Rumba 2	Rumba2		191	Zarb 6/8	Zarb 6/8
160	Tikitikita	Tikitkta		192	Zarb Tempo	ZarbTemp
161	Lambada	Lambada		193	Bandary	Bandary
162	Pop Cha Cha 1	PChaCha1		194	Zarb Daf	Zarb Daf
163	Pop Cha Cha 2	PChaCha2		195	Pop 4/4	Pop 4/4
164	Salsa 2	Salsa2		196	Saidi IR	Saidi IR

No.	Name	LCD name		No.	Name	LCD
197	Cifte	Cifte		199	Masmoudi	Masmoudi
198	Baladi	Baladi		200	Wehda	Wehda

12 Practise and demo songs

No.	Name	LCD		No.	Name	LCD
FOLK & COUNTRY				028	Mov.2 Adagio Non Troppo Piano Sonata No.9 In D	Sonata9
001	Jambalaya	Jambalay		029	Mov.1 Andante Grazioso Piano Sonata No.11 In A (Alla TurSo-nata11ca)	Sonata11
002	Ding! Dong! Merrily On High	DingDong		030	Prelude In C	Prelude
003	Battle Hymn Of The Republic	Battle		031	Chinese Dance	ChDance
004	The Old Gray Mare	GrayMare		032	Emperors Waltz	EmprWalz
005	American Patrol	USPatrol		033		MilMar1
006	Christmas Is Coming	IsComing		034	Symphony No.40	Symphony
007	Sippin`Cider Through A Straw	SCTStraw		**JAZZ & FUSION**		
008	Christmas Sound	Sound		035	ShanZhaShu	ShanZhaS
GOLDEN & POP				036	You Are My Sunshine	MySun
009	On London Bridge	LdBridge		037	June Samba	JunSamba
010	Are You Lonesome Tonight	Lonesome		038	Funk	Funk
011	Der Deitcher`s Dog	DerDDog		039	I Can.....	I Can...
012	Joy to The World	JoyWorld		040	Sea Shore	SeaShore
013	Silent Night	SltNight		**PIANO**		
014	Ave Maria	AveMaria		041	Fur Elise	FurElise
015	Five Hundred Miles	FHMiles		042	Military March	MMarch
016	Happy New Year	HappyNY		043	Habanera	Habanera
017	It's Beginning To Look A Lot Like Christmas	LikeXmas		044	Minuet	Minuet
018	Jeanie With The Light Brown Hair	LighHair		045	Austria Variation	AVariati
019	My Bonnie	MyBonnie		046	Old Macdonald Had A Farm	OldAFarm
020	Song Of The Pearlfisher	SongOfTP		047	Wedding March	Wedding
CLASSICAL				048	2-Part Invention #13 In A Minor.B.W. Iii	Invntion
021	Swan	Swan		049	Minuet In G	MinuetG
022	Prelude To Act 2 (Swan Lake)	SwanLak1		050	Turkish March	TurkishM
023	Valse (Swan lake)	SwanLak2		051	Hey Diddle Diddle	HeDiddle
024	The Happy Farmer	HpFarmer		052	Italian Polka	ItaPolka
025	The Sleeping Beauty	SleepBty		053	Moseta Dance	MosetaDn
026	La Traviata	LaTravia		054	Bulie Dance	BulieDn
027	Wiegenlied	Wiegenli		055	Waltz in A Flat Op.39 No.15	Waltz in A

No.	Name	LCD		No.	Name	LCD
056	Wild Rose	WildRose		059	Angles We Have Heard On High	Angles
057	Away In A Manger	AwayInAM		060	Waltz	Waltz
058	Jack & Jill	JackJill				

Tab. 1: Demos

No.	Name	LCD
001	Fantasie Impromptu	Fantasie
002	Funk	Funk

13 Chord list

	Chord description	Normal chord construction	Chord symbol	Display
0	Major [M]	1–3–5	C	C
1	Major sixth [6]	1–(3)–5–6	C6	C6
2	Major seventh [M7]	1–3–(5)–7	CM7	CM7
3	Major seventh with augmented 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 and 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 [m11]	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 [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)–b7 oder 1–(2)–3–#4–5–b7	C7#11	C7(#11)
24	Seventh thirteenth [7 13]	1–3–(5)–6–b7 oder 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	Suspended second [1+2+5]	1–2–5	C1+2+5	C

14 MIDI implementation chart

Function		Sent	Received	Notes
Basic Channel	Default	1	1 – 16	
	Changed	1 – 16	1 – 16	
Mode	Default	No	Mode 3	
	Messages	No	No	
	Altered	********	No	
Note Number		0 – 127	0 – 127	
	True voice	********	0 – 127	
Velocity Note	Note ON	Yes, 9nH, v = 1 – 127	Yes, 9nH, v = 1 – 127	
	Note OFF	No, 9nH, v = 0	Yes, 9nH, v = 0 or 8nH, v = 0 – 127	
After Touch	Keys	No	No	
	Channels	No	No	
Pitch Bend		No	Yes	
Control Change	0	Yes	Yes	Bank Select
	1	No	Yes	Modulation
	5	No	Yes	Portamento Time
	6	Yes	Yes	Data Entry
	7	Yes	Yes	Volume
	10	No	Yes	Pan
	11	No	Yes	Expression
	64	Yes	Yes	Sustain Pedal
	65	No	Yes	Portamento ON/OFF
	66	Yes	Yes	Sostenuto Pedal
	67	Yes	Yes	Soft Pedal
	80	No	Yes	Reverb Program
	81	No	Yes	Chorus Program
	91	Yes	Yes	Reverb Level
	93	Yes	Yes	Chorus Level
	120	Yes	Yes	All Sound Off
	121	No	No	Reset All Controllers
	123	Yes	Yes	All Notes Off
Program Change	True #	Yes ********	Yes 0 – 127	
System Exclusive		No	Yes	
System Common	Song Position Pointer	No	No	

Function		Sent	Received	Notes
	Song Select	No	No	
	Tune Request	No	No	
System Real Time	Clock	Yes	No	
	Commands	No *1	No	
Aux Messages	LOCAL ON/OFF	No	No	
	Active Sensing	No	Yes	
	System Reset	No	No	
Notes:	*1 When the accompaniment starts, an FAH message is transmitted. When the accompaniment stops, an FCH message is transmitted. When an FAH message is received, the accompaniment starts. When an FCH message is received, the accompaniment stops.			

MIDI channel modes

	POLY	MONO ON
OMNI ON	Mode 1	Mode 2
OMNI OFF	Mode 3	Mode 4

15 Technical specifications

Input connections	USB interface	USB-to-Host
	AUX IN	1 × 3.5 mm jack socket
	MIDI IN	1 × DIN socket, 5-pin
Output connections	Headphones	2 × 6.35 mm jack socket
	MIDI OUT	1 × DIN socket, 5-pin
	AUX OUT	1 × 3.5 mm jack socket
Keyboard	88 weighted keys with hammer action	
	Touch velocity adjustable	
Display	Multifunction LCD	
Polyphony	128-voice	
Sounds	500	
Styles	200	
Effects	Chorus, reverb	
Pedals	Multifunction pedal, Soft, Sostenuto, Sustain	
Practice songs	60	
Demo tracks	2	
Album	120 songs	
Memory	32 memory locations	
Pitch adjustment	Transposing	–12 … +12
	Octaving	–1 … +1
Functions	Pedal support	Sustain, accompaniment track, recording function
	Metronome	0, 2 … 9
	Tempo	30 … 280
	Chord dictionary	built-in
Amp	10 W	
Speakers	2 × 20 W, 8 Ω	
	2 × 25 W, 8 Ω	
Supply voltage	230 V ~ 50 Hz	
Dimensions (W × H × D)	1,380 mm × 906 mm × 514 mm	
Operating system	Windows® 8 and newer, Mac OS X® 10.8 and newer	
Weight	53 kg	
Colour	Black	Item number 352288
	White	Item number 352389
Ambient conditions	Temperature range	0 °C…40 °C
	Relative humidity	20%…80% (non-condensing)

Further information

Surface	Matt
Wooden keyboard	No
Ivory-feel keyboard	No
Pressure point simulation	No
Keyboard cover	Yes
Auto accompaniment	Yes
Sequencer	Yes
Storage medium	MIDI In/Out
	USB to host
Bluetooth® AUDIO	No
Bluetooth® MIDI	No
Semi-pedal capable	No

16 Protecting the environment

Disposal of the packaging material

For the transport and protective packaging, environmentally friendly materials have been chosen that can be supplied to normal recycling.

Ensure that plastic bags, packaging, etc. are properly disposed of.

Do not just dispose of these materials with your normal household waste, but make sure that they are collected for recycling. Please follow the notes and markings on the packaging.

Disposal of your old device

This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE) in its currently valid version. Do not dispose with your normal household waste.

Dispose of this device through an approved waste disposal firm or through your local waste facility. When discarding the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste disposal facility.