th•mann

DP-31 B, DP-31 WH
digital piano

user manual

Table of contents

1 General information

This manual contains important instructions for the safe operation of the unit. Read and follow the safety instructions and all other instructions. Keep the manual for future reference. Make sure that it is available to all those using the device. If you sell the unit please make sure that the buyer also receives this manual.

Our products are subject to a process of continuous development. Thus, they are subject to change.

1.1 Further information

On our website (*www.thomann.de)* you will find lots of further information and details on the following points:

Download	This manual is also available as PDF file for you to download.
Keyword search	Use the search function in the electronic version to find the topics of interest for you quickly.
Online guides	Our online guides provide detailed information on technical basics and terms.
Personal consultatio	For personal consultation please contact our technical hotline.
Service	If you have any problems with the device the customer service will gladly assist you.

1.2 Notational conventions

This manual uses the following notational conventions:

Letterings

The letterings for connectors and controls are marked by square brackets and italics.

Examples: *[VOLUME]* control, *[Mono]* button.

Displays

Texts and values displayed on the device are marked by quotation marks and italics.

Examples: *'24ch'* , *'OFF'* .

Instructions

The individual steps of an instruction are numbered consecutively. The result of a step is indented and highlighted by an arrow.

Example:

1. ▶ Switch on the device.

2. ▶ Press *[Auto]*.

   ⇨ Automatic operation is started.

3. ▶ Switch off the device.

Cross-references

References to other locations in this manual are identified by an arrow and the specified page number. In the electronic version of the manual, you can click the cross-reference to jump to the specified location.

Example: See ↯ *'Cross-references' on page 6*.

1.3 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 manual.

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.
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!
Danger for children

Ensure that plastic bags, packaging, etc. are disposed of properly and are not within reach of babies and young children. Choking hazard!

Ensure that children do not detach any small parts (e.g. knobs or the like) from the unit. They could swallow the pieces and choke!

Never let children unattended use electrical devices.

DANGER!
Electric shock caused by short-circuit

Do not modify the mains cable or the plug. Failure to do so could result in electric shock/death or fire. If in doubt, seek advice from a registered electrician.

DANGER!
Electric shock caused by high voltages inside

Within the device there are areas where high voltages may be present. Never remove any covers.

There are no user-serviceable parts inside.

CAUTION!
Possible hearing damage

With loudspeakers or headphones connected, the device can produce volume levels that may cause temporary or permanent hearing impairment.

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.

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CAUTION!

Risk of injury due to heavy weight

Due to the heavy weight of the device, at least two persons are required for transport and installation.

NOTICE!

Operating conditions

This device has been designed for indoor use only. To prevent damage, never expose the device to any liquid or moisture. Avoid direct sunlight, heavy dirt, and strong vibrations.

NOTICE!

Power supply

Before connecting the device, ensure that the input voltage (AC outlet) matches the voltage rating of the device and that the AC outlet is protected by a residual current circuit breaker. Failure to do so could result in damage to the device and possibly injure the user.

Unplug the device before electrical storms occur and when it is unused for long periods of time to reduce the risk of electric shock or fire.

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.
- 220 voices. 16 voices available via direct selection buttons.
- 120 styles. 12 styles available via direct selection buttons.
- 60 practise songs.
- Three demo songs.
- Single and multi-finger chord detection.
- Recording function.
- Four memory banks, each with four memory locations.
- Mixer function.
- Connections: USB, 2 × headphones, audio outlet, pedal box.

4 Assembly instructions
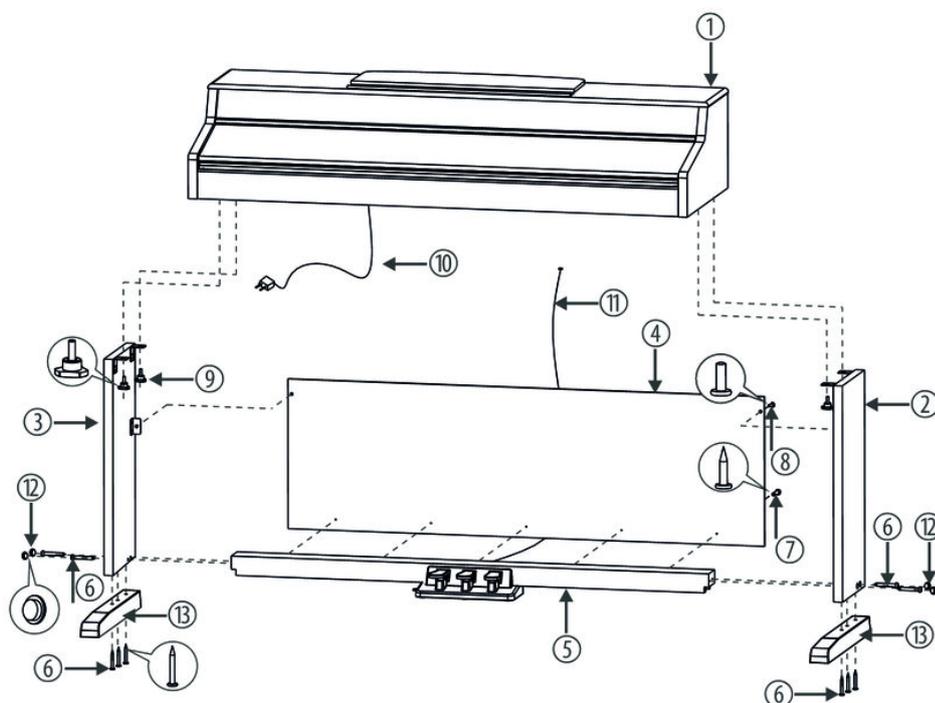
You need a Phillips screwdriver (not supplied) for the assembly of the digital piano. Open the package and please make sure before assembling that the entire scope of delivery is present, as posted here.

1	Digital piano housing with music stand
2	Right side panel
3	Left side panel
4	Back panel
5	Pedal box
6	10 × screws 6 × 60
7	5 × screws 4 × 15
8	2 × screws 6 × 12
9	4 × hand screws
10	Power cord
11	Pedal cable
12	4 × plastic caps
13	2 × body feet

Mechanical assembly

1. ▸ Assemble the piano near a wall power outlet.

2. ▸ Proceed according to the illustrations and exclusively use the supplied screws. Using other screws could damage the piano housing or result in a reduced stability of the piano.
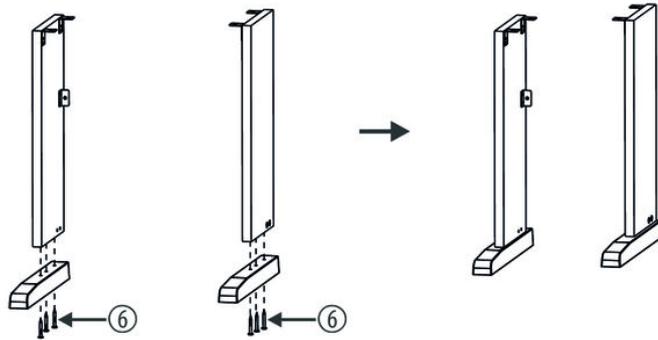
3. ▸ Screw the body feet to the side panels (6 × screws 6 × 60).
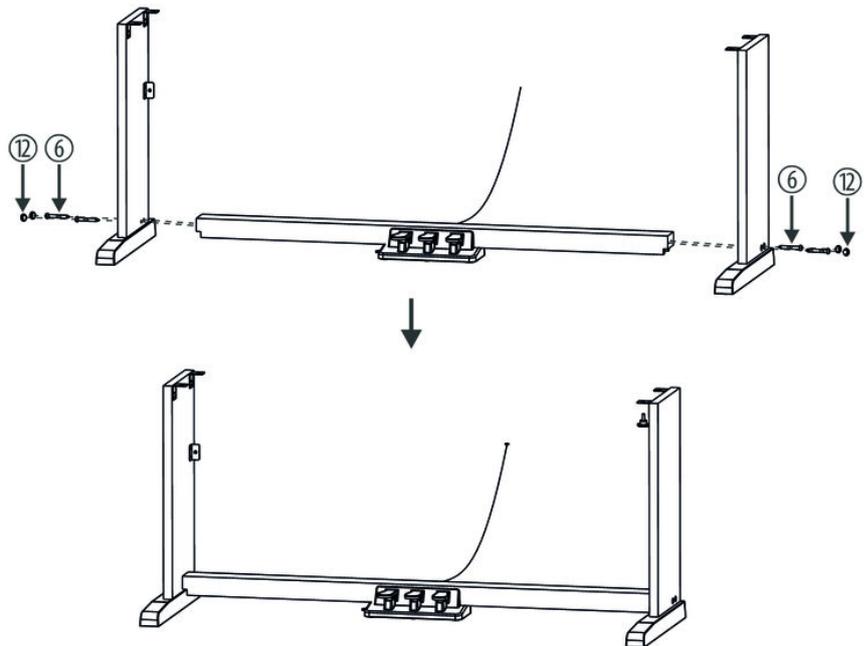
4. ▸ Screw the pedal box to the two side panels (4 × screws 6 × 60) and insert the four supplied plastic caps into the screw holes.

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MUSIC IS OUR PASSION
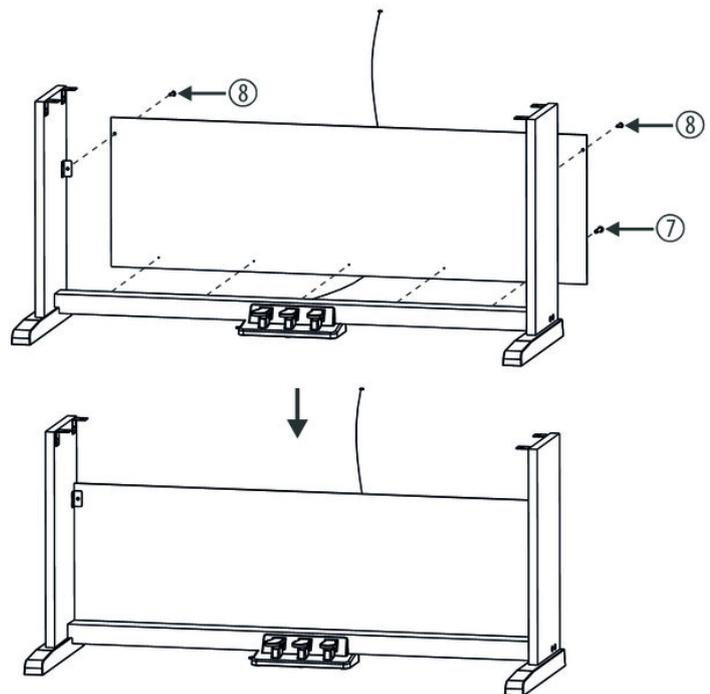
5. ▶ Attach the back panel to the pedal box (5 × screws 4 × 15) and to the backs of the side panels (2 × screws 6 × 12).
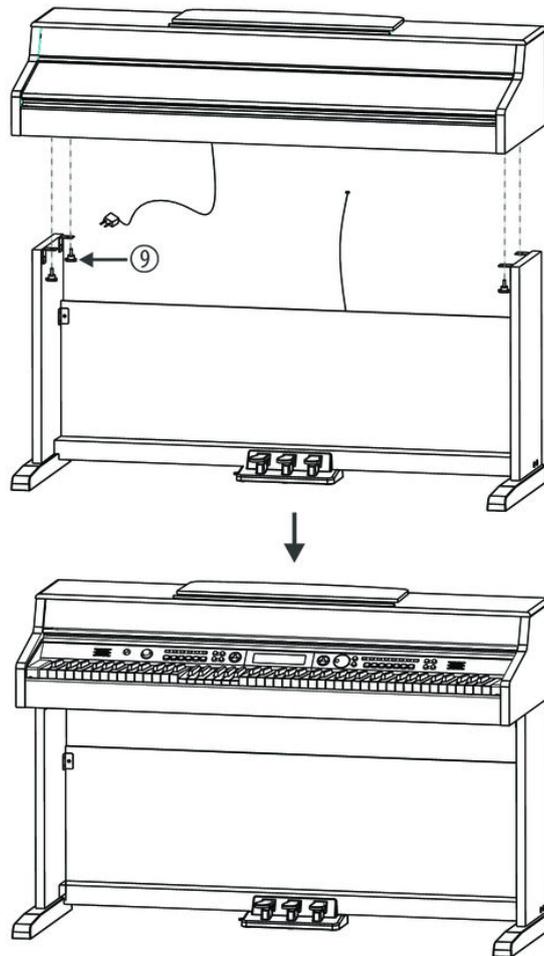
6. ▶ Put the digital piano housing on the stand and affix it using the four supplied hand screws.
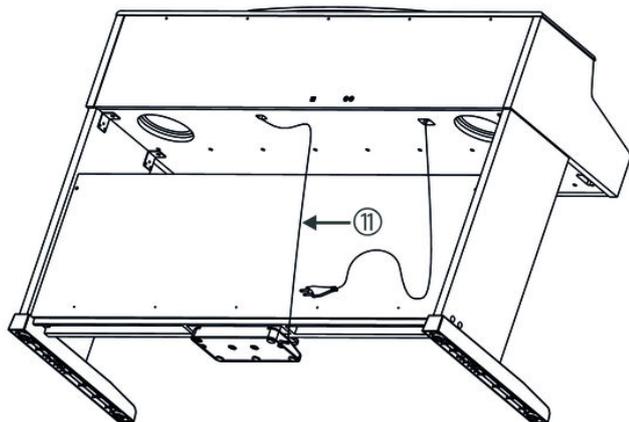
7. ▶ Fasten the cables to the stand. Insert the DIN plug of the pedal cable into the provided socket on the bottom side of the digital piano. Move the digital piano to its designated location.

Mains connection
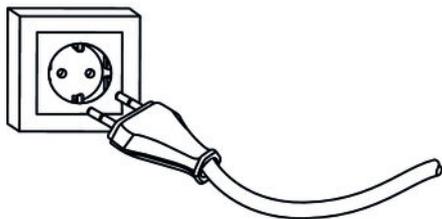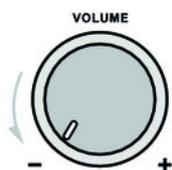
VOLUME

1. ▷ Make sure that the piano is turned off before you connect the device to the power supply or disconnect it.

2. ▷ Turn the volume control to minimum.

3. ▷ Plug the power cord into a 230 V AC outlet.

4. ▷ Now you can turn on the device.

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

Assembly overview
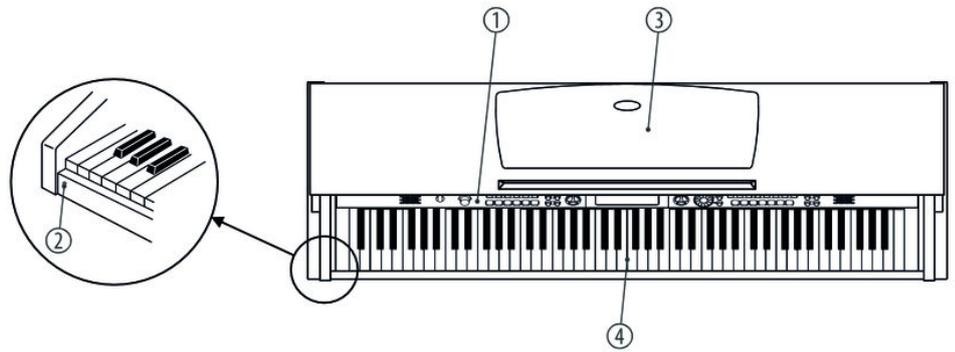
Top view

1	Operating panel
2	Headphone sockets
3	Music stand
4	Piano keyboard
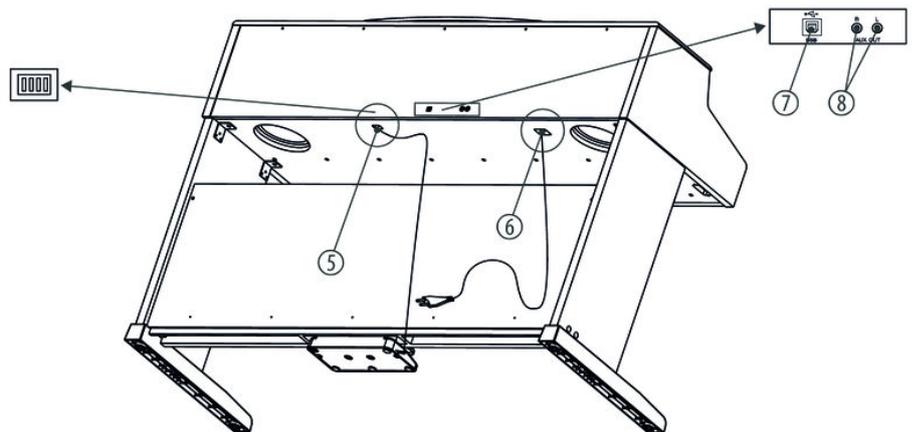
Rear panel

5	Connection for pedal cable
6	Power cord
7	USB port
8	AUX stereo outlet
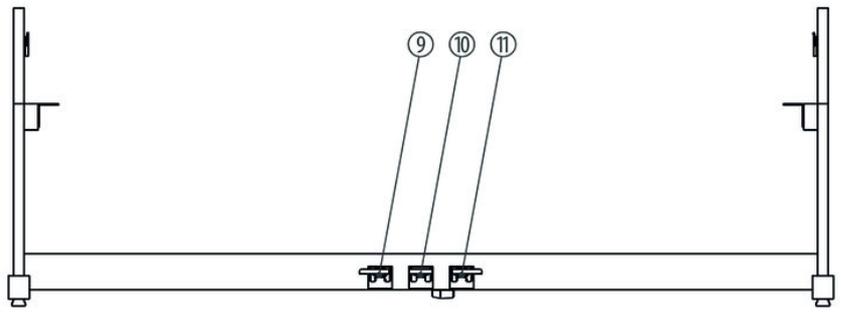
Pedals

9	Soft pedal
10	Sostenuto pedal
11	Sustain pedal

5 Control panel and connections

Operating panel

1	On / off switch		
2	Volume control		
3	Direct selection buttons for styles selection.		
4	Button for operating mode STYLES ■ *[START / STOP]* ■ *[SYNC]* ■ *[INTRO / ENDING]* ■ *[FILL A]* ■ *[FILL B]* ■ *[A.B.C.]*		Button for operating mode SONG ■ *[MELODY OFF]*
5	*[ACC. VOL +]/[ACC. VOL −]* Buttons for Auto Accompaniment volume control.		
6	*[TEMPO +]/[TEMPO −]* Buttons to increase / decrease the playback tempo.		
7	*[MIXER]* Button to adjust the volume of each track.		
8	*[FUNCTION]* Button to call the function menu.		

9	[METRO]
	Button to turn the metronome on or off.
10	Display.
11	[STYLE]
	Button to open Styles selection.
12	[VOICE]
	Button to open instrument voice selection.
	If you press the buttons [STYLE] + [VOICE] simultaneously you enable the DEMO mode.
13	[SONG]
	Button to open practise song selection.
14	Selection panel with jog dial and buttons [+] and [–].
15	Direct selection buttons for instrument voice selection.
16	[BANK]
	Button to select the memory bank.
17	[STORE]
	Store button.
18	Memory location buttons [M1] to [M4] for 'One Touch Setting' .
19	[O.T.S]
	Key to enable the One-Touch-Setting function.
20	[DUAL]
	Button to call the Dual mode (two voices simultaneously).
21	[SPLIT]
	Button to call the Split mode (two different voices in different keyboard areas).
22	[REC]
	Button to switch to recording mode.
23	[PLAY / STOP]
	Button to playback songs.

Display
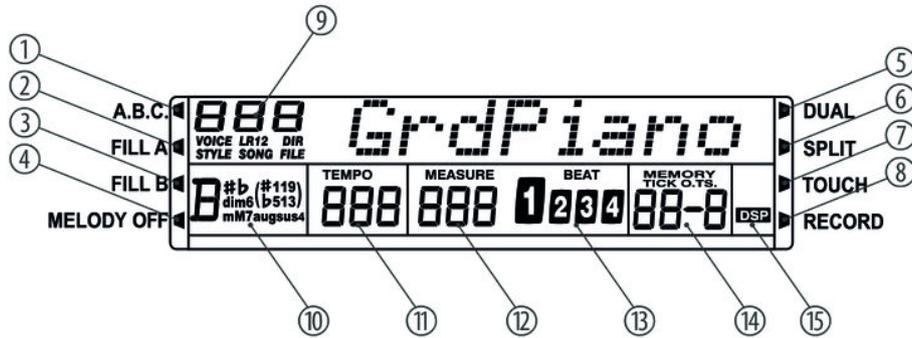
1	A.B.C. (automatic chord detection and bass accompaniment)	9	VOICE / STYLE / SONG / DIR (directory) / FILE
2	FILL A (fill bar A)	10	CHORD
3	FILL B (fill bar B)	11	TEMPO
4	MELODY OFF (right hand muted)	12	MEASURE
5	DUAL (Dual mode)	13	BEAT
6	SPLIT (Split mode)	14	MEMORY / TICK (metronome) / O.T.S.
7	TOUCH (touch sensitivity)	15	DSP (digital effects)
8	RECORD		

6 Connectivity options

Headphones
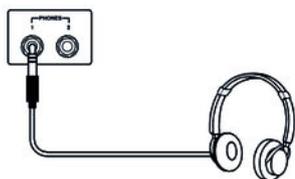
On the left below the keyboard you find headphone jacks.

1. ▶ If you plug a stereo headphones (not supplied) into headphone socket 2, the speakers are muted so that you can hear the sound only from the headphones.

2. ▶ If you plug a stereo headphones (not supplied) into headphone socket 1, you will hear the sound from both speakers and headphones.

> ℹ️ – *Never operate the headphones at high volume as this can permanently damage your hearing.*
> – *To avoid damage to the speakers, make sure before connecting the power supply or a device to the digital piano that the volume is set to 'minimum'.*

AUX output
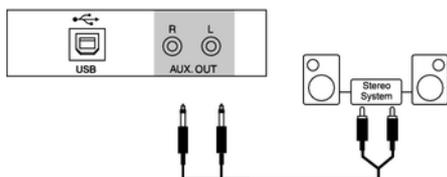
You can connect powered speakers, your stereo system or other amplifiers to the rear AUX output.

> ℹ️ *For stereo playback, connect both channels (L and R). For mono playback, connect only one channel.*

USB connection
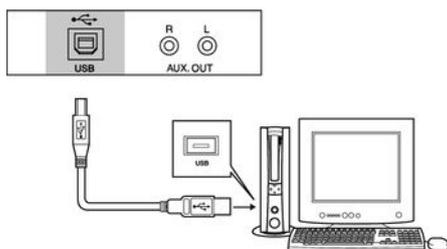
1. ▶ Connect a computer or other device with USB support.

2. ▶ This USB port is a built-in MIDI-USB adapter. For devices with USB cable, you can simply connect the MIDI / USB converter to the USB port and connect the MIDI IN or MIDI OUT cable to the digital piano. After the driver is installed and the installation is complete, you can select the USB audio device in the Device menu of the software to transfer MIDI data.

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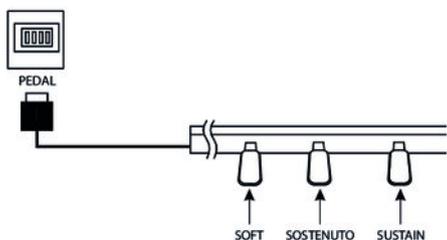
1. ▶ Connect the foot pedal to the provided connector on the bottom of the pedal box.

2. ▶ Pedal functions:

Soft pedal	21
Using the Soft pedal makes the piano sound smoother and the overall volume is attenuated.	

Sostenuto pedal

When stepping on the Sostenuto pedal, 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.

7 Switching on / off and basic operation

7.1 Turning the digital piano on and off

7.1.1 Normal switching on / off

Press the power button on the left of the operating panel to turn the device on and off.

> ℹ️ 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 7.2.9 'Automatic shutdown' on page 25.

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

7.2 Setting up the digital piano, Function menu

Press the button [FUNCTION] to call the Function menu. The first function to appear after activation is 'Transpos'. Press the button [FUNCTION] repeatedly to open the desired sub menu. You can then change the parameters using the jog dial or the buttons [+] or [–] :

Option	LCD	Control range	Default value
Transposing	Transpos	−12 … +12	0
Fine tuning	Tune	−50 … 50	0
Beat	Beat	0, 2 … 9	4
Touch sensitivity	Touch	OFF, 1, 2, 3	2
Split point	Split pt	1 … 88	34 (F3#)
Reverb level	DSPlevel	OFF, 1 … 7	2
MIDI receive channel	Midi In	01 … 16, ALL	ALL

Option	LCD	Control range	Default value
MIDI send channel	Midi Out	01 … 16	01
Automatic shutoff	Power off	030, 060, OFF	030

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

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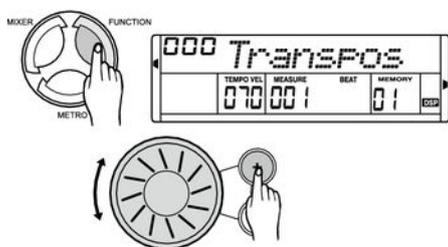
With this function you can adjust the pitch of the keyboard in 12 semitone steps up or down.

1. Use *[FUNCTION]* to switch to *'Transpos'* menu. The current setting appears on the display.

2. Adjust the pitch using the buttons *[+]* or *[–]* or the jog dial.

3. Simultaneously press *[+]* and *[–]* to restore the default setting (no transposing).

> *If you do not press any button for five seconds after opening the TRANS-POSE menu, it will quit automatically.*

7.2.2 Fine tuning
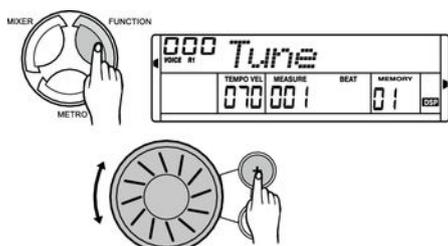
With this function you can fine tune the entire keyboard in cent steps.

1. Use *[FUNCTION]* to switch to *'Tune'* menu. The current setting appears on the display.

2. Adjust the tuning using the buttons *[+]* or *[–]* 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 *[+]* and *[–]* , to reset the tuning to the default value.

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 *'Beat'* menu. The current setting appears on the display.

2. ▶ Adjust the beat using the buttons *[+]* or *[–]* or the jog dial.

7.2.4 Touch sensitivity

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

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

1. ▶ Use *[FUNCTION]* to switch to *'Touch'* menu. The current setting appears on the display.

2. ▶ Adjust the Touch sensitivity using the buttons *[+]* or *[–]* or the jog dial.

3. ▶ If choosing *'OFF'*, the *'Touch'* display turns off and the function is disabled.

7.2.5 Split point

Use this function you can select a point to split the whole keyboard into two areas.

1. ▶ Use *[FUNCTION]* to switch to *'Split pt'* menu. The current setting appears on the display.

2. ▶ Set the desired split point using the buttons *[+]* or *[–]* or the jog dial, or just press the piano key that you want to be the split point. 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).

7.2.6 DSP effects depth

This function lets you change the intensity of the various effects.

1. ▶ Use *[FUNCTION]* to switch to *'DSP Level'* menu. The current setting appears on the display.

2. ▶ Adjust the Effects depth using the buttons *[+]* or *[–]* or the jog dial.

7.2.7 Midi receive channel (Midi In)

Here you can define 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 *[+]* or *[–]* or the jog dial.

7.2.8 MIDI send channel (Midi Out)

Here you can define 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 *[+]* or *[–]* or the jog dial.

7.2.9 Automatic shutdown
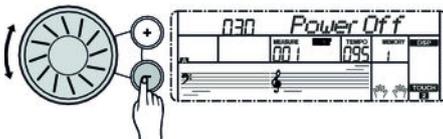
Here you can specify whether and after what time the automatic shutdown of the digital piano is carried out.

1. ▶ Use *[FUNCTION]* to switch to *'Power Off'* menu. The current setting appears on the display.

2. ▶ Use *[+]* and *[–]* 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. ▶ If you press the buttons *[+]* and *[–]* simultaneously, the default setting (automatic shutdown after 30 minutes) is re-activated.

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.

8 Operating

8.1 Demo songs

The digital piano offers a total of three demo songs (see ↻ *Chapter 11 'Practise and demo songs' on page 48*).

1. ▶ Simultaneously press *[VOICE]* and *[STYLE]* to play demo songs.

2. ▶ Use *[+]* or *[–]* or the jog dial to select the desired demo song.

3. ▶ Press again simultaneously *[VOICE]* and *[STYLE]* or *[START / STOP]* to stop playback.

8.2 Practise songs

← Activate Song mode

Start / stop song playback

Turning main melody on / off
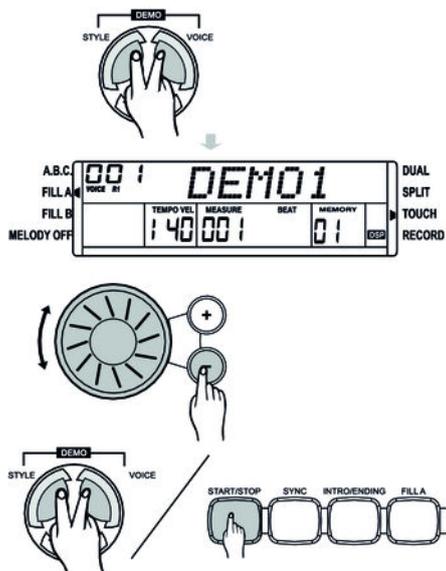
The digital piano offers 60 practise songs, where you can mute the right hand voice and play this part yourself.
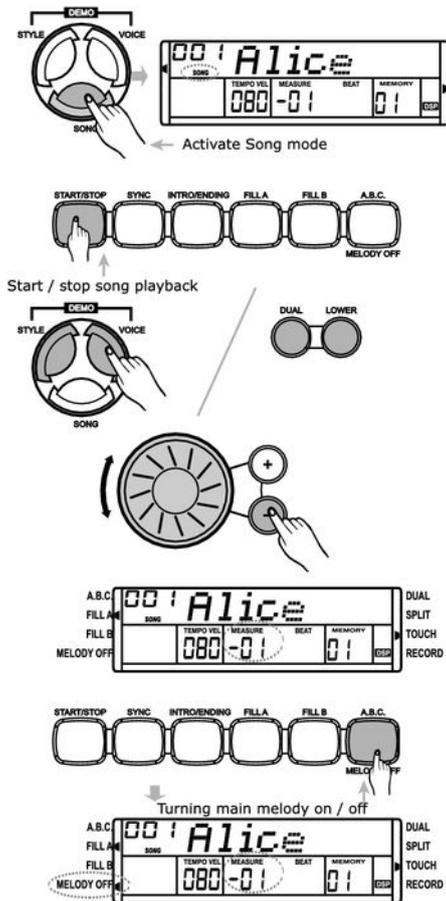
1. ▶ **Playing and stopping practise songs**

   Use *[SONG]* to switch to Demo song mode. The *'SONG'* display appears on the display.

   If you press *[SONG]* again, all practise songs are played successively in an endless loop.

   If you press *[START / STOP]* the currently shown practise song will be repeated in an endless loop.

   Press the button *[START / STOP]* again to stop the currently playing practise song.

2. ▶ **Selecting a practise song**

   Use the buttons *[+]* and *[–]* or the jog dial to select the desired practise song. The display shows the respective title.

3. ▶ **Pre-count**

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

4. ▶ **Muting the melody track**

   Press the button *[MELODY OFF]* to mute the right hand voice. *'MELODY OFF'* lights up in the display and you only hear the left hand voice. Press the button *[MELODY OFF]* again to re-enable the track.

5. ▶ **Leaving the practise mode**

   To exit the practise song mode press one of the *[STYLE]*, *[VOICE]*, *[DUAL]* or *[LOWER]* buttons.

8.3 Dual mode

In Dual mode, you can play two voices simultaneously. *'VOICE R1'* is displayed when the DUAL function is turned off. *'VOICE R2'* is displayed when the DUAL function is turned on.
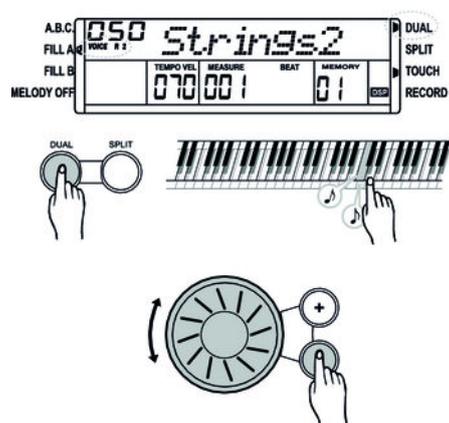
1. ▶ Use *[DUAL]* to switch to Dual mode.

⇨ The corresponding icon on the display indicates that the mode is active.

2. ▶ Use the buttons *[+]* or *[–]* or the jog dial to select the desired Dual voice. The default preset voice in Dual mode is no. *'050 Strings2'*.

3. ▶ Press again *[DUAL]* to exit Dual mode. Dual voice *'VOICE R2'* will be disabled and you will only hear the (first) voice set for *'VOICE R1'*.

> ℹ️ *When the keyboard is split, the 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.*

8.4 Split mode
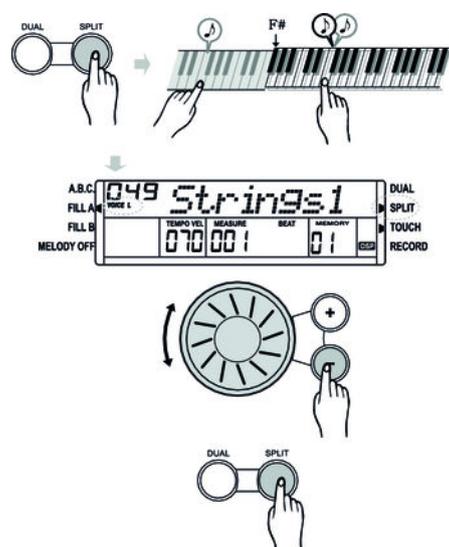
With this function, you can assign different voices to certain keyboard areas.

1. ▶ Use *[SPLIT]* to switch to Split mode and to enable the left hand voice.

⇨ The corresponding icon on the display indicates that the mode is active. *'VOICE L'* appears at the same time on the display.

2. ▶ Use the buttons *[+]* or *[–]* or the jog dial to select the desired Dual voice. The default preset left hand voice in Split mode is no. *'049 Strings1'*.

3. ▶ Press again *[SPLIT]* to exit Split mode. The *'SPLIT'* display turns off on the display.

8.5 Selecting voices

The digital piano offers 220 voices in total (see ↳ *Chapter 9 'Voice list' on page 43*).
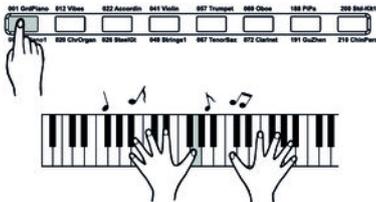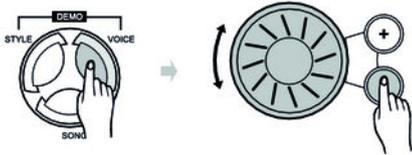
16 voices can be called via direct selection buttons. Two voices are assigned to each direct selection button. With the first keystroke you activate the voice that is specified above the button, with the second keystroke you activate the voice that is specified below the button.

1. ▶ When you turn on, the display *'VOICE R1'* lights on the display and the name of the first voice is displayed.

2. ▶ Use the direct selection buttons, the *[+]* or *[–]* or the jog dial to select the desired voice.

8.6 Style mode

The digital piano offers a total of 120 Styles (see). By default, Style *'001'* is set.

8.6.1 Style selection
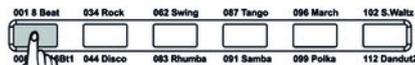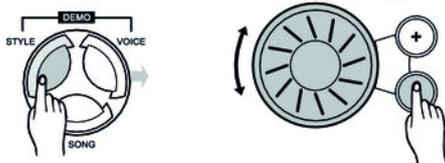
1. ▶ Use *[STYLE]* to switch to Style mode.

⇨ The corresponding icon on the display indicates that the mode is active. At the same time the name of the last selected style will appear on the display.

2. ▶ Press the buttons *[+]* or *[–]* or use the jog dial to select a Style.

3. ▶ **Style selection via direct selection buttons**

You can also select the desired style using the direct selection buttons. Two styles are assigned to each direct selection button, one specified above the button and one below.

If you press the same button twice, the style changes from the upper one to the lower one or vice versa.

If you press another direct selection button, the new style is selected according to whether the previous style name was specified above or below the button.

8.6.2 Starting a Style
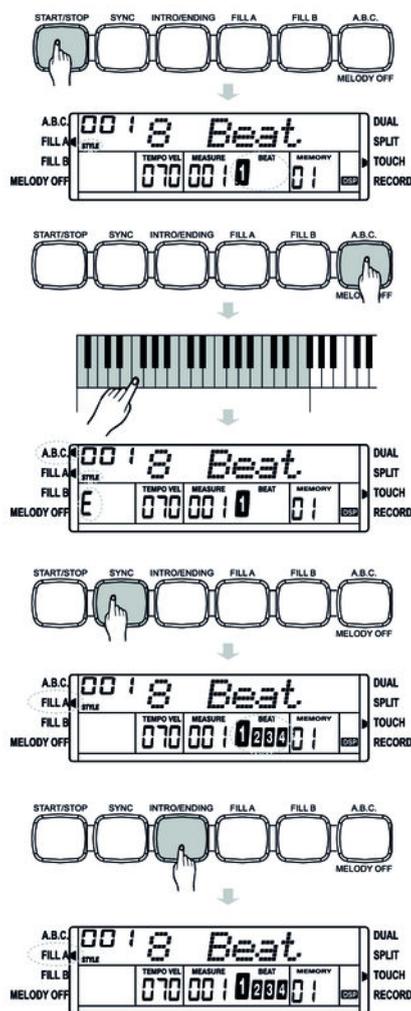
1. ▶ Instant start

With *[START / STOP]* you can start the active Style (drums only) immediately.

2. ▶ Chord mode (A.B.C.)

Use *[A.B.C. / MELODY OFF]* to switch to Chord mode. The A.B.C. icon appears on the display. The area to the left of the split point is now regarded as the chord area. If you play a chord with one or more fingers, bass and chord sound simultaneously.

Play chords in single or multi finger mode, see 'Chord detection' ♚ *'Single and multi-finger mode.' on page 35*.

3. ▶ SYNC START

Use *[SYNC]* to switch to Sync start mode.

⇨ Indicators *'BEAT 1'* to *'BEAT 4'* are flashing in the current tempo on the display. When you play the digital piano in this mode, the style will start automatically.

> ⓘ – *When the Chord mode is off, press any key on the keyboard. Then, only the percussion rhythm is played.*
> – *If the Chord mode is activated, press any key of the chord area to start the style with automatic bass and chord accompaniment.*

4. ▶ INTRO / ENDING

Press *[INTRO / ENDING]* to insert an intro part before the style is playing.

Press *[START / STOP]* to play intro and main part.

Press *[INTRO / ENDING]* while the Style is playing to insert an ending part after the current Style.

8.6.3 Ending a Style
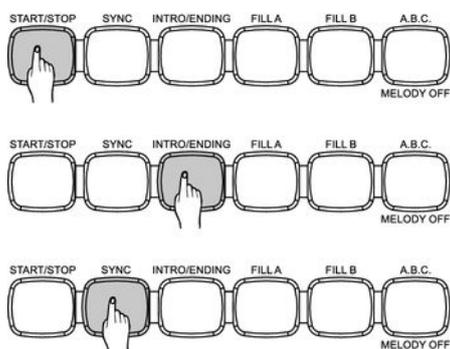
1. ▶ Instant ending

With *[START / STOP]* you can end the Auto Accompaniment at any time.

2. ▶ Ending

With *[INTRO/ENDING]* you can complete the song with an ending. The style stops after the ending.

3. ▶ SYNC

With *[SYNC]* you stop the Style. The Sync start mode is being activated.

8.6.4 Accompaniment track volume
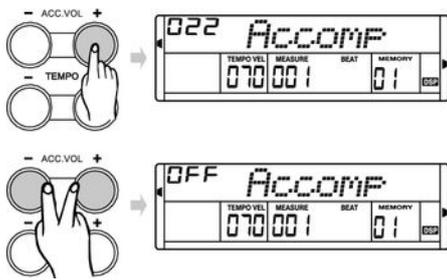
1. ▶ You can adjust the style volume via the volume of the Auto Accompaniment.
2. ▶ Press *[ACC. VOL +]* or *[ACC. VOL –]* to set the volume.
3. ▶ Press *[ACC. VOL +]* and *[ACC. VOL –]* simultaneously to mute the accompaniment track.

8.6.5 Accompaniment track tempo
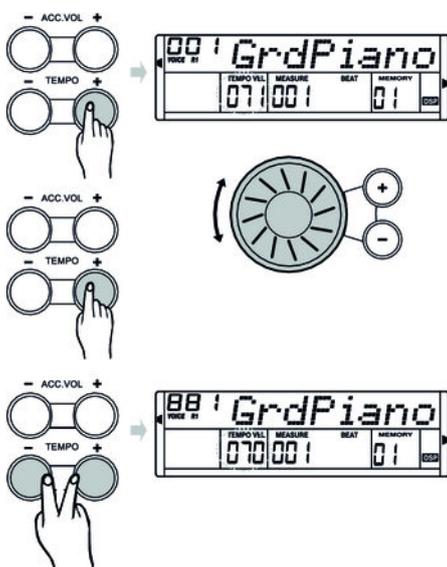
1. ▶ Press *[TEMPO +]* or *[TEMPO –]*. The set value flashes for about 2 seconds on the display.
2. ▶ During this time, you can set the tempo with the jog dial in a range of 30 … 280.
3. ▶ Keep *[TEMPO +]* or *[TEMPO –]* pressed to cycle through the values.
4. ▶ Simultaneously press *[TEMPO +]* and *[TEMPO –]* to reset the tempo to the preset default value.

> *If you change the style during style playback the current tempo is adopted for the new style.*

8.7 Metronome
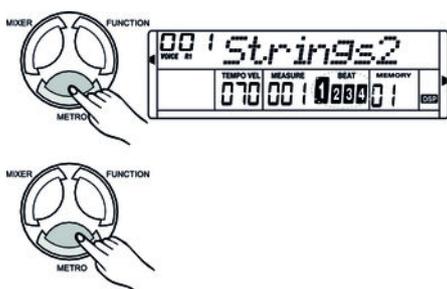
1. ▶ Press *[METRO]* to enable the metronome. You can select beat and tempo in the function menu.
2. ▶ Press the button *[METRO]* again to disable the metronome.

> *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 enabled, 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.*

8.8 Auto Accompaniment

The accompaniment function is controlled via five parameters: INTRO, NORMAL, VARIATION, FILL (A-A, A-B, B-A, B-B) and ENDING.

1. ▶ **INTRO**

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

2. ▶ **NORMAL** and **VARIATION**

There are two kinds of main part, normal and variation, which consist of two to four bars, depending on the style.

3. ▶ **FILL**

With activated accompaniment, you can press the button *[FILL A]* or *[FILL B]* to insert a rhythm and accompaniment part.

4. ▶ **ENDING**

If you press the button *[INTRO / ENDING]* while Auto Accompaniment is activated, an ending part matched to the accompaniment is inserted and the performance ends.

8.9 Fill A/B

With this function you can insert fill bars.
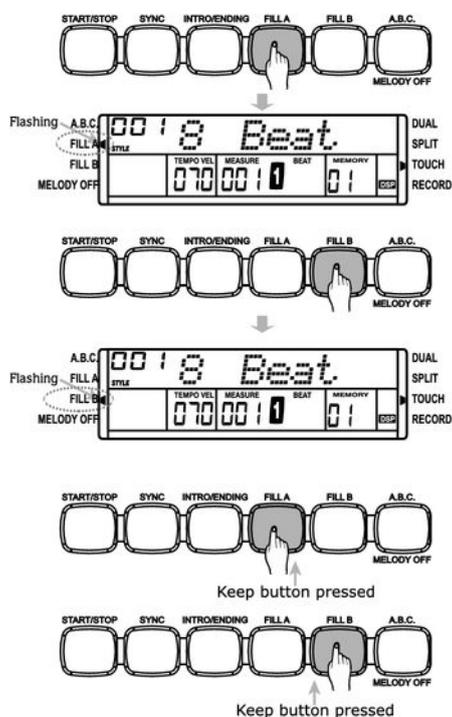
1. ▶ In NORMAL mode, press *[FILL A]* to insert a fill bar. *'FILL A'* is flashing on the display. After the bar has ended, the digital piano returns to NORMAL mode.

2. ▶ In NORMAL mode, press *[FILL B]* to insert a fill bar. *'FILL B'* is flashing on the display. After the bar has ended, the digital piano changes to VARIATION mode.

3. ▶ In VARIATION mode, press *[FILL A]* to insert a fill bar. *'FILL A'* is flashing on the display. After the bar has ended, the digital piano changes to NORMAL mode.

4. ▶ In VARIATION mode, press *[FILL B]* to insert a fill bar. *'FILL B'* is flashing on the display. After the bar has ended, the digital piano returns to VARIATION mode.

> – *Keep the button [FILL A] or [FILL B] pressed while a Style is being played, the selected fill pattern is played until you release the key again.*
> – *Press the button [FILL A] , when the Style playback has ended. Then the change to the NORMAL part takes place and 'FILL A' lights in the display.*
> – *Press the button [FILL B], when the Style playback has ended. Then the change to the VARIATION part takes place and 'FILL B' lights in the display.*

8.10 Chord detection

By default, the 'Auto Bass Chord' (A.B.C.) is disabled. Press *[A.B.C. / MELODY OFF]* to enable the 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, $B_b$aug, B_bm6, Bm6, Adim7, $B_b$dim7, Bdim.*

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 we show you some examples of single finger chords (C, Cm, C7 and Cm7).
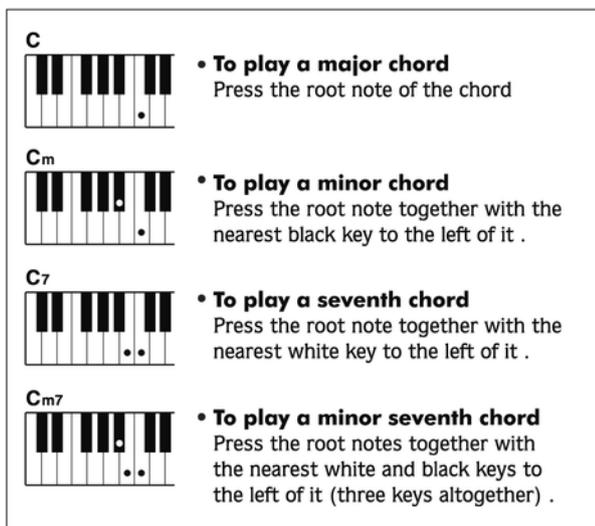
> ⓘ When the A.B.C. function is activated, single-finger chords are detected when playing keys to the left of the split point.

■ 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.

0 C	1 C$_6$	2 CM$_7$	3 CM$_7$(#11)	4 CM(9)	5 CM$_7$(9)
6 C$_6$(9)	7 Caug	8 Cm	9 Cm$_6$	10 Cm$_7$	11 Cm$_7$(♭5)
12 Cm(9)	13 Cm$_7$(9)	14 Cm$_7$(11)	15 CmM$_7$	16 CmM$_7$(9)	17 Cdim
18 Cdim$_7$	19 C$_7$	20 C$_{7sus4}$	21 C$_7$(♭5)	22 C$_7$(9)	23 C$_7$(#11)
24 C$_7$(♭13)	25 C$_7$(♭9)	26 C$_7$(13)	27 C$_7$(#9)	28 CM$_{7aug}$	29 C$_{7aug}$
30 Csus$_4$	31 C$_{1+2+5}$	The notes in brackets are optional; the chords will also be recognised without them.			
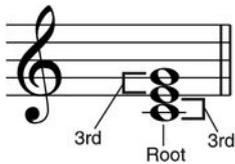
Major third – four half steps (semitones)   Minor third – three half steps (semitones)

■ 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').

Major chord	Minor chord	Augmented chord	Diminished chord
C_M	C_m	C_{aug}	C_{dim}
Minor 3rd — Major 3rd	Major 3rd — Minor 3rd	Major 3rd — Major 3rd	Minor 3rd — Minor 3rd

■ Chord names

Chord names will tell you everything you need to know about a chord. Through the chord name you know the root, 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.

Cm

Root note   Chord type

■ Some chord types

Suspended 4th	7th	Minor 7th	Major 7th
C_{sus4}	C_7	C_{m7}	C_{M7}
Perfect 5th — Perfect 4th	Flatted 7th — Major chord	Flatted 7th — Minor chord	Major 7th — Major chord

Minor/major 7th	7th, flatted 5th	Minor 7th, flatted 5th	7th, suspended 4th
C_{mM7}	$C_7^{(\flat 5)}$	$C_{m7}^{(\flat 5)}$	C_{7sus4}
Major 7th — Minor chord	Flatted 5th — 7th chord	Flatted 5th — Minor 7th chord	Flatted 7th — Suspended 4th chord

8.11   Mixer
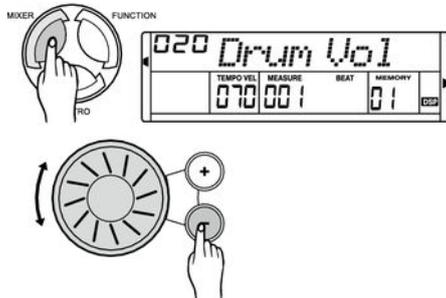
This menu is used to adjust the volume of the various style elements and instrument voices.

1. ▶ Press *[MIXER]* to open the Mixer menu. By default, the option *'Drum Vol'* appears.

2. ▶ Repeatedly press the button *[MIXER]* to select the desired option (see chart).

3. ▶ Use the buttons *[+]* or *[–]* or the jog dial to select the desired value.

> ⓘ *If you don't press any button within five seconds after calling the menu, the menu is automatically closed.*

Adjustable options and parameters

Option	LCD	Control range	Standard	Description
DRUM volume	Drum Vol	000 … 031	020	Drums accompaniment
BASS volume	Bass Vol	000 … 031	018	Bass accompaniment
ORCHESTRA volume	Oc Vol	000 … 031	021	Orchestra accompaniment
UPPER1 volume	Voice R1	000 … 031	024	Right hand voice
UPPER2 volume	Voice R2	000 … 031	012	Second right hand voice in Dual mode
LOWER volume	Voice L	000 … 031	012	Left hand voice

8.12   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.

The default parameters stored in O.T.S. are:

■ Right hand voice R1
■ Second right hand voice in Dual mode R2
■ Left hand voice L
■ R1 volume
■ R2 volume
■ Orchestra accompaniment for R1
■ Orchestra accompaniment for R2

1. ▶ Select a Style.

2. ▶ Use [O.T.S.] to switch to O.T.S. mode.

   ⇨ The display shows 'O.T.S.'.

3. ▶ Press one of the buttons [M1] … [M4].

   ⇨ The device loads the parameter types that match the current Style. The ABC mode is automatically turned on at that.

4. ▶ Press one of the buttons [M1] … [M4] that provides your desired settings.

5. ▶ Press again [O.T.S.] to exit O.T.S. mode.

   ⇨ The display shows 'MEMORY'.
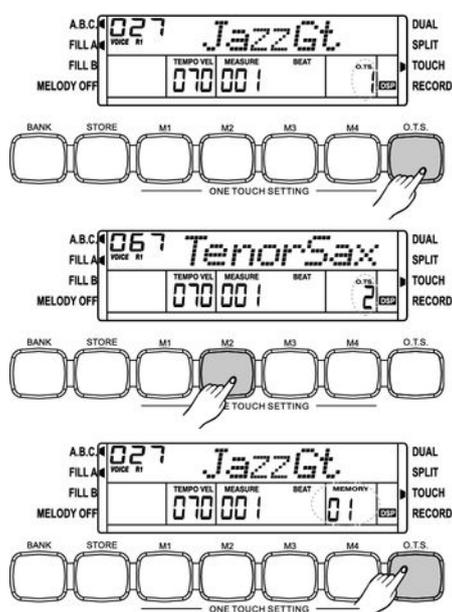
8.13   Recording function

8.13.1   Record stand-by
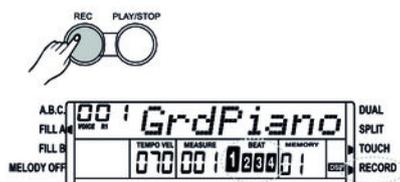
1. ▶ Use [REC] to switch to recording mode.

   ⇨ The corresponding icon on the display indicates that the mode is active. The indicators 'BEAT 1' … 'BEAT 4' are flashing synchronously and thus indicate stand-by for recording.

2. ▶ Select the instrument voice and the Style and set the tempo and mixer parameters.

8.13.2 Start recording
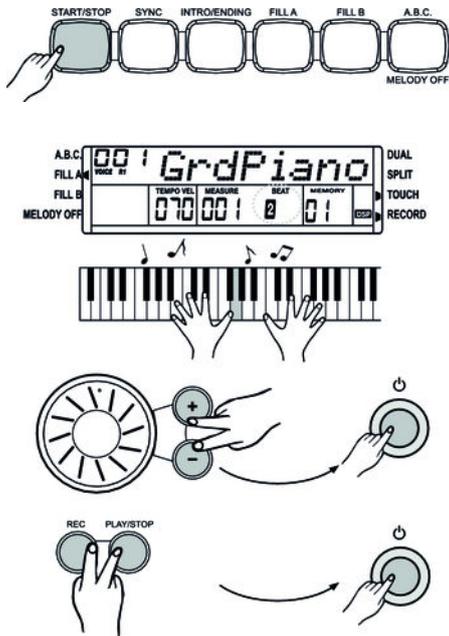
1. ▶ Press *[START / STOP]* on the record enabled digital piano to start recording.

2. ▶ The indicators *'BEAT 1'* … *'BEAT 4'* are flashing in the current tempo.

> ⓘ
> – *When you turn off the digital piano the recording is maintained.*
> – *If you keep the buttons [REC] and [PLAY / STOP] simultaneously pressed when turning the digital piano on, the stored recordings will be erased.*
> – *If you keep the buttons [+] and [–] pressed when turning the digital piano on, the factory default settings are loaded and all stored recordings will be erased.*

8.13.3 Stopping recording

▶ Press *[REC]* to stop recording.

> ⓘ *When the memory is full the recording stops automatically. Then the display shows 'Full'.*

8.13.4 Playback recordings
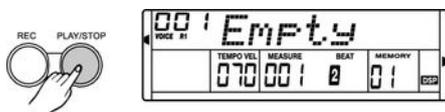
1. ▶ Press *[PLAY / STOP]* to play a recording.

2. ▶ Press again *[PLAY / STOP]* to stop playback.

> ⓘ *If you press [PLAY / STOP] although there's no recording stored, the display briefly shows 'Empty'.*

8.14 Memory

You can store 16 control panel configurations in the memory of the digital piano and recall the data any time, if required.

8.14.1 Memory banks

There are four memory banks in total. Each memory bank offers four storage locations (M1 to M4).
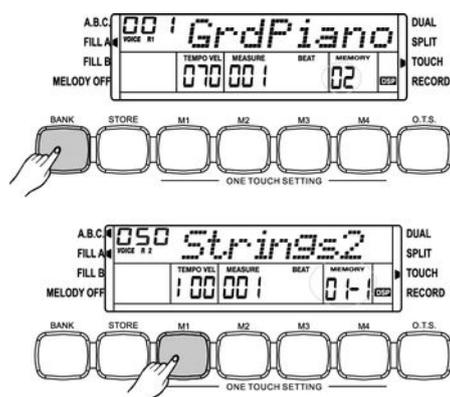
1. ▶ Press repeatedly *[BANK]* to select one of the four memory banks. The display shows *'MEMORY 0X'* .

2. ▶ Press one of the buttons *[M1]* … *[M4]* to select one of the four memory banks. The display shows *'MEMORY 0X–X'* .

8.14.2 Memory data

The settings for the following functions can be stored as data in memory:

- Right hand voice R1
- Second right hand voice R2
- Left hand voice L
- Style
- Tempo
- Function
- Mixer
- Accompaniment volume.

> ⓘ *If the current memory data are changed the corresponding memory display turns off.*

8.14.3 Load / save parameters
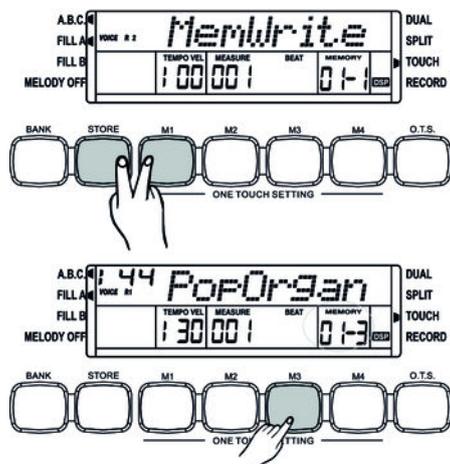
1. ▸ Select the desired memory bank (see ✆ Chapter 8.14.1 'Memory banks' on page 41).

2. ▸ **Storing a configuration**

   Keep the button [STORE] pressed and simultaneously press one of the buttons [M1] … [M4]. The data are then stored in the respective memory location (M1 … M4). Please note that any data previously stored there will be deleted.

3. ▸ **Loading a configuration**

   Use the buttons [M1] … [M4] to select the memory from which you want to load data. The data are instantly loaded and thereby replace the current settings. The SONG display appears on the display.

> ⓘ When you turn off the digital piano the stored data are retained.

8.14.4 Deleting memory data
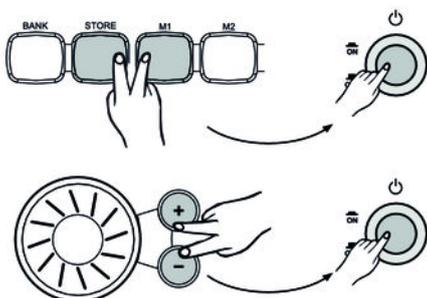
1. ▸ If you keep the buttons [STORE] and [M1] pressed when turning the digital piano on again, the data from the memory are applied as standard values.

2. ▸ If you keep the buttons [+] and [–] pressed when turning the digital piano on, the factory default settings will be loaded and all stored recordings deleted.

9 Voice list

No.	Voice	No.	Voice	No.	Voice
001	Acoustic Grand Piano	031	Distortion Guitar	061	French Horn
002	Bright Acoustic Piano	032	Guitar Harmonics	062	Brass Section
003	Electric Grand Piano	033	Acoustic Bass	063	Synth Brass 1
004	Honky-Tonk Piano	034	Finger Bass	064	Synth Brass 2
005	Electric Piano 1	035	Pick Bass	065	Soprano Sax
006	Electric Piano 2	036	Fretless Bass	066	Alto Sax
007	Harpsichord	037	Slap Bass 1	067	Tenor Sax
008	Clavi	038	Slap Bass 2	068	Baritone Sax
009	Celesta	039	Synth Bass 1	069	Oboe
010	Glockenspiel	040	Synth Bass 2	070	English Horn
011	Music Box	041	Violin	071	Bassoon
012	Vibraphone	042	Viola	072	Clarinet
013	Marimba	043	Cello	073	Piccolo
014	Xylophone	044	Contrabass	074	Flute
015	Tubular Bells	045	Tremolo Strings	075	Recorder
016	Dulcimer	046	Pizzicato Strings	076	Pan Flute
017	Drawbar Organ	047	Orchestral Harp	077	Blown Bottle
018	Jazz Organ	048	Timpani	078	Shakuhachi
019	Rock Organ	049	Strings Ensemble 1	079	Whistle
020	Church Organ	050	Strings Ensemble 2	080	Ocarina
021	Reed Organ	051	Synth Strings 1	081	Square
022	Accordion	052	Synth Strings 2	082	Sawtooth
023	Harmonica	053	Choir Aahs	083	Calliope
024	Tango Accordion	054	Voice Oohs	084	Chiff
025	Nylon Guitar	055	Synth Voice	085	Charang
026	Steel Guitar	056	Orchestra Hit	086	Voice
027	Jazz Guitar	057	Trumpet	087	Fifths
028	Clean Guitar	058	Trombone	088	Bass Lead
029	Muted Guitar	059	Tuba	089	Fantasia
030	Overdriven Guitar	060	Muted Trumpet	090	Warm

No.	Voice		No.	Voice		No.	Voice
091	Poly Synth		122	Breath Noise		**ACCORDION**	
092	Choir		123	Seashore		151	Accordion 2
093	Bowed		124	Bird Tweet		152	Soft Accordion
094	Metallic		125	Telephone Ring		153	Soft Accordion 2
095	Halo		126	Helicopter		154	Harmonic
096	Sweep		127	Applause		**GT & BASS**	
097	Fx1 (rain)		128	Gunshot		155	N-Gthamm
098	Fx2 (soundtrack)		**KEYBOARD**			156	PickGt
099	Fx3 (crystal)		129	Pianostr		157	PickGt2
100	Fx4 (atmosphere)		130	Modern Electric Piano		158	12Str Guitar
101	Fx5 (brightness)		131	Solo Piano1		159	Clean Guitar 2
102	Fx6 (goblins)		132	Polar		160	Clean Guitar 3
103	Fx7 (echoes)		133	Grand Harpsi		161	Clean Guitar 4
104	Fx8 (sci-fi)		134	Clavi 2		162	Solidwa
105	Sitar		135	Clavi 3		163	Overdriven Guitar 2
106	Banjo		136	Clavi 4		164	Overdriven Guitar 3
107	Shamisen		137	Bell		165	Tremolo Guitar
108	Koto		138	Bell 2		166	Funk Guitar
109	Kalimba		139	Vibes 2		167	Bass Cymbal
110	Bag Pipe		140	Vibesma		168	Synth Bass 3
111	Fiddle		141	Marimba 2		169	Synth Bass 4
112	Shanai		**ORGAN**			**STRINGS**	
113	Tinkle Bell		142	Electric Organ		170	Viola 2
114	Agogo		143	Jazz Organ 2		171	Cello 2
115	Steel Drums		144	Jazz Organ 3		172	Cello 3
116	Wood Block		145	Clik Organ		173	Cello 4
117	Taiko Drum		146	Pop Organ		174	Strings Ensemble 3
118	Melodic Tom		147	Church Organ 2		175	Strings Ensemble 4
119	Synth Drum		148	Electric Organ 2		176	Synth Strings 3
120	Reverse Cymbal		149	Tremolo Organ		177	Dream Strings
121	Guitar Fret Noise		150	Q-Organ			

No.	Voice		No.	Voice		No.	Voice
BRASS & PIPE			192	Softpad		208	BANG DI
178	Trombone 2		193	Bellpad		209	XIAO
179	Trombone 3		194	Synpad		**DRUM KIT**	
180	FM Horn		195	Hornpad		210	Standard Drum 1
181	Bbbrass		196	Newagpad		211	Standard Drum 2
182	Hibrass		197	Bagpipe		212	Room Drum
183	Tenosax 2		**CHINES. INSTRUMENTE**			213	Rock Drum
184	SoftSax		198	Pi PA		214	Electric Drum
185	Basso 2		199	YUE QIN		215	Analog Drumset
LEAD			200	MID RUAN		216	Dance Drumset
186	Whistle 2		201	GU ZHEN		217	Jazz Drum
187	Pan Flute 2		202	YANG QIN		218	Brush Drumset
188	Lead1		203	ER HU		219	Standard Drumset
189	Lead3		204	GAO HU		220	Chinese Percussion
190	Warplead		205	SUO NA			
PAD			206	LU SHEN			
191	Sinepad		207	QU DI			

10 Styles list

No.	Style	No.	Style	No.	Style
8 BEAT & 16 BEAT		028	Easy Ballad	055	Samba Funk
001	8 Beat	029	Love Ballad	056	Soul
002	Guitar Pop 1	030	Natural Ballad	057	Soul Beat
003	8 Beat Disco	031	Piano Ballad	058	Hip Hop Soul
004	8 Beat Dance	032	EP Ballad	059	British Soul Pop
005	60s 8 Beat	033	New R&B Ballad	060	Hip Hop Beat
006	Pop Funk	**ROCK**		061	R & B Ballad
007	16 Beat Ballad	034	Rock	**JAZZ**	
008	Pop 16 Beat 1	035	Folk Rock	062	Swing
009	Pop 16 Beat 2	036	Slow Rock 1	063	Jazz Brush
010	16 Beat Modern	037	Hard Rock	064	Cool Jazz Ballad
011	Modern 16 Beat	038	6/8 Rock	065	Acid Jazz 1
012	16 Beat Bossa Nova	039	Rock & Roll	066	Acid Jazz 2
013	16 Beat Funk	040	70's Rock & Roll	067	Big Band Medium
014	Cool Beat	041	Rock Shuffle	068	Big Band Ballad
POP		042	4/4 Blues	069	Swing Shuffle
015	Guitar Pop 2	**DANCE**		070	Fusion
016	Pop beat	043	Club Dance	071	Jazz Fusion
017	Soft beat	044	Disco	**COUNTRY**	
018	Sting Latin	045	70's Disco Funk	072	Country 8 Beat
019	Brit Pop 1	046	Garage	073	Country Pop 1
020	Brit Pop 2	047	Rap 1	074	Country Ballad
021	New Age	048	Rap 2	075	Modern Country
022	Pop Hit	049	House	076	Country Folk
023	Fusion Shuffle	050	Euro Dance	077	2/4 Country
BALLAD		051	Techno	078	Country Pop 2
024	Folk Ballad	**SOUL & FUNK**		079	Country Shuffle
025	Pop Ballad 1	052	Jazz Funk	080	Country Quick Steps
026	Pop Ballad 2	053	Cool Funky	081	Bluegrass
027	Rock Ballad	054	Groove		

No.	Style		No.	Style		No.	Style
LATIN/BALLROOM			**TRADITIONAL**			108	Slow Rock 2
082	Bossa Nova 1		096	March		109	Bossa Nova 2
083	Rhumba		097	German March		110	Twist
084	Cha Cha Cha		098	6/8 March		**INDONESIA**	
085	Pop Cha Cha		099	Polka		111	Dandut 1
086	Beguine		100	Polka Pop 1		112	Dandut 2
087	Tango		101	Polka Pop 2		113	Dangdu
088	Swing Fox		102	Slow Waltz		114	Dangdut 1
089	Mambo		103	Country Waltz		115	Dangdut 2
090	Salsa		104	Jazz Waltz		116	Dangdut 3
091	Samba		105	Musette		117	Kercong 1
092	Pasodoble		**PIANO**			118	Kercong 2
093	Slow Bolero		106	Pianist		119	PopKcong
094	Habanera		107	Ballad		120	Sdangdut
095	Latin Rock						

11 Practise and demo songs

No.	Title
PIANO	
001	Für Elise
002	Habanera
003	Four Little Swans
004	Moseta Dance
005	Germanic Dance
006	Turkish March
007	March
008	Away In A Manger
009	Chopsticks
010	2-Part Invention # 13 In A Minor.B.W. Iii
FOLK & COUNTRY	
011	Country
012	Jambalaya
013	Susanna
014	Bridge
015	Battle Hymn Of The Republic
016	The Old Gray Mare
017	American Patrol
018	In The Rain
019	Sippin' Cider Through A Straw
GOLDEN & POP	
020	Are You Lonesome Tonight
021	Only You
022	End Of The World
023	House Of Rising Sun
024	The Blues-Bells Of Scotland
025	Over The Rainbow
026	Beautiful Dreamer

No.	Title
027	Edelweiss
028	O Sole Mio
029	Silent Night
030	Ave Maria
031	Five Hundred Miles
032	Happy New Year
033	It's Beginning To Look A Lot Like Christmas
034	Jeanie With The Light Brown Hair
035	My Bonnie
036	Song Of The Pearlfisher
037	The Stage Coach
038	Entertainer
039	Annie Laurie
040	Killing Me Softly With His Song
041	Last Rose Of Summer
042	The Old King Cole
JAZZ & FUSION	
043	Maple Leaf Rag
044	June Samba
045	Funk
046	I Can....
047	Sea Shore
048	Guitar & Saxophone
049	The Hip Hop's Night
050	Blue Lunch
051	Cobweb
052	Wine
053	Jazz Old Man
054	Dark Eyes

No.	Title		No.	Title
055	Carlos		**CHINESE**	49
056	Sad		058	South Mud Bay
057	The Jazz		059	Give You A Rose
			060	Flowing Rill

Demo songs

No.	Name
001	DEMO 1
002	DEMO 2
003	DEMO 3

12 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 or 1–(2)–3–#4–5–b7	C7#11	C7(#11)
24	Seventh thirteenth [7 13]	1–3–(5)–6–b7 or 2–3–5–6–b7	C7 13	C7(13)
25	Seventh flatted ninth [7b9]	1–b2–3–(5)–b7	C7b9	C7(b9)
26	Seventh flatted 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

	Chord description	Normal chord construction	Chord symbol	Display
30	Suspended fourth [sus4]	1–4–5	Csus4	Csus4
31	Suspended second [1+2+5]	1–2–5	C1+2+5	C

13   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		9 – 120	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	No, 9nH, v = 0	
After Touch	Keys	No	No	
	Channels	No	No	
Pitch Bend		Yes	Yes	
Control Change	0	Yes	Yes	Bank Select
	1	Yes	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	No	Yes	Sostenuto Pedal
	67	Yes	Yes	Soft Pedal
	80	Yes	Yes	Reverb Program
	81	Yes	Yes	Chorus Program
	91	Yes	Yes	Reverb Level
	93	Yes	Yes	Chorus Level
	120	No	Yes	All Sound Off
	121	No	Yes	Reset All Controllers
	123	Yes	Yes	All Notes Off

Function		Sent	Received	Notes
Program Change	True #	Yes ***********	Yes 0 – 127	53
System Exclusive		No	Yes	
System	Song Position	No	No	
	Song Select	No	No	
	Tune Request	No	No	
System Real Time	Clock	No	No	
	Commands	No	No	
Aux Messages	Local ON/OFF	No	No	
	ALL Notes OFF	Yes	Yes	
	Active Sensing	No	Yes	
	Reset	No	Yes	
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

14   Technical specifications

Keyboard	88 weighted keys with hammer action and adjustable touch response
Instrument voices	220
Styles	120
Demo and practice songs	3 demo and 60 practice songs
Polyphony	64-voice (without DSP effects), 38-voice (with DSP effects)
Display	Multifunctional LCD with blue backlight
Switches and buttons	[POWER], [VOLUME], [AUTO BASS CHORD], [MELODY OFF], [ACC. VOL +/–], [TEMPO +/–], [FUNCTION], [MIXER], [METRONOME], [DEMO], [SONG], [VOICE], [STYLE], [+/–], [BANK], [STORE (M1-M4)], [ONE TOUCH SETTING], [DUAL], [SPLIT], [RECORD], [PLAY / STOP]
Auto Accompaniment	[START / STOP], [SYNC], [INTRO / ENDING], [FILL A], [FILL B]
Record	[REC], [PLAY / STOP]
Memory	4 banks, each with 4 memory locations
MIDI	Receive / send
Connections	Voltage supply AC 230 V ∼, 2 × headphones (1/4" phone jack), AUX OUT (L / R), USB, MIDI IN, MIDI OUT, three pedals (Soft, Sostenuto and Sustain)
Speaker	8 Ω, 2 × 25 W
Dimensions (W × H × D)	1358 mm × 894 mm × 486 mm
Weight	45.3 kg
Housing colour	Black — Item number 352287
	White — Item number 352384

15 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). 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.

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MUSIC IS OUR PASSION