Startone✶

MK-300

Keyboard

Table of contents

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.
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!

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.

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 external power supply due to high voltages!

The device is powered by an external power supply. The external power supply 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 external power supply matches the local power grid before plugging in the power supply. Only operate the external power supply from professionally installed mains sockets that are protected by a residual current circuit breaker (FI). As a precaution, disconnect the power supply from the power grid when storms are approaching or it the device will not be used for a longer period.

NOTICE!
Possible damage due to leaking batteries!

Batteries can leak and cause permanent damage to the device. Take the batteries out of the device if it is not going to be used for an extended period of time.

NOTICE!
Risk of fire due to incorrect polarity!

Incorrectly inserted batteries may cause fires and destroy the device and the batteries. Observe the markings on the batteries and on the device. Ensure that proper polarity is observed when inserting batteries.

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 keyboard is characterized by the following features:

- Keyboard: 61 keys with adjustable touch velocity
- 64-voice polyphony
- 390 voices
- 100 styles
- 110 practise songs
- 8 demo songs
- Record and playback function
- 4 memory slots
- Reverb
- Chorus
- Split mode
- Metronome
- Transpose function
- Speaker: 2 × 10 W
- Connections: Headphone output, sustain pedal, USB
- Operating system: Windows® 8 and later, Mac OS X® 10.8 and later
- Automatic shutoff
- Battery operation possible (6 × AA battery, not included in the scope of delivery)
- includes power supply

4 Assembly instructions

Unpack and check carefully there is no transportation damage before using the unit. Keep the equipment packaging. To fully protect the product against vibration, dust and moisture during transportation or storage use the original packaging or your own packaging material suitable for transport or storage, respectively.
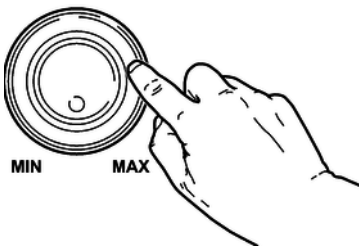
Set up the device in the desired location.

Power supply
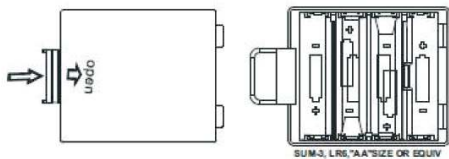
The device can be powered by batteries or with the included power supply.

Batteries

1. ▶ Make sure that the device is turned off before you connect it to the supply voltage or disconnect it.

2. ▶ Turn the volume knob counter-clockwise to minimum before connecting the keyboard to the supply voltage or to other devices. This is to protect the speakers from damage.

3. ▶ Take off the battery compartment cover on the underside of the keyboard.

4. ▶ Insert six AA/R6 size batteries. Pay attention to the correct polarity according to the marks.

> **!** **NOTICE!**
> **Possible damage due to leaking batteries!**
> Batteries can leak and cause permanent damage to the device.
>
> Take the batteries out of the device if it is not going to be used for an extended period of time.

Always use batteries of the same type and do not use new and used batteries at the same time.

5. ▶ Reattach the battery compartment cover and snap it into place.

Power supply
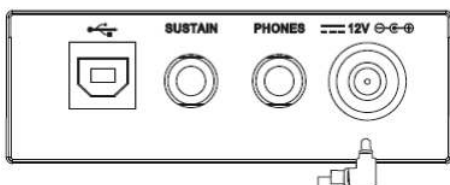
1. ▶ Make sure that the device is turned off before you connect it to the supply voltage or disconnect it.

VOLUME
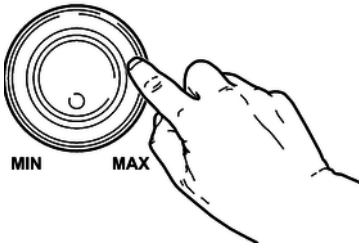
MIN   MAX

2. ▷ Turn the volume knob counter-clockwise to minimum before connecting the keyboard to the supply voltage or to other devices. This is to protect the speakers from damage.

3. ▷ Connect the cable on the power supply outlet to the *[12V]* input socket on the back of the keyboard.

Plug the power adapter into a properly wired mains wall outlet.

5 Control panel and connections

Overview

Control panel

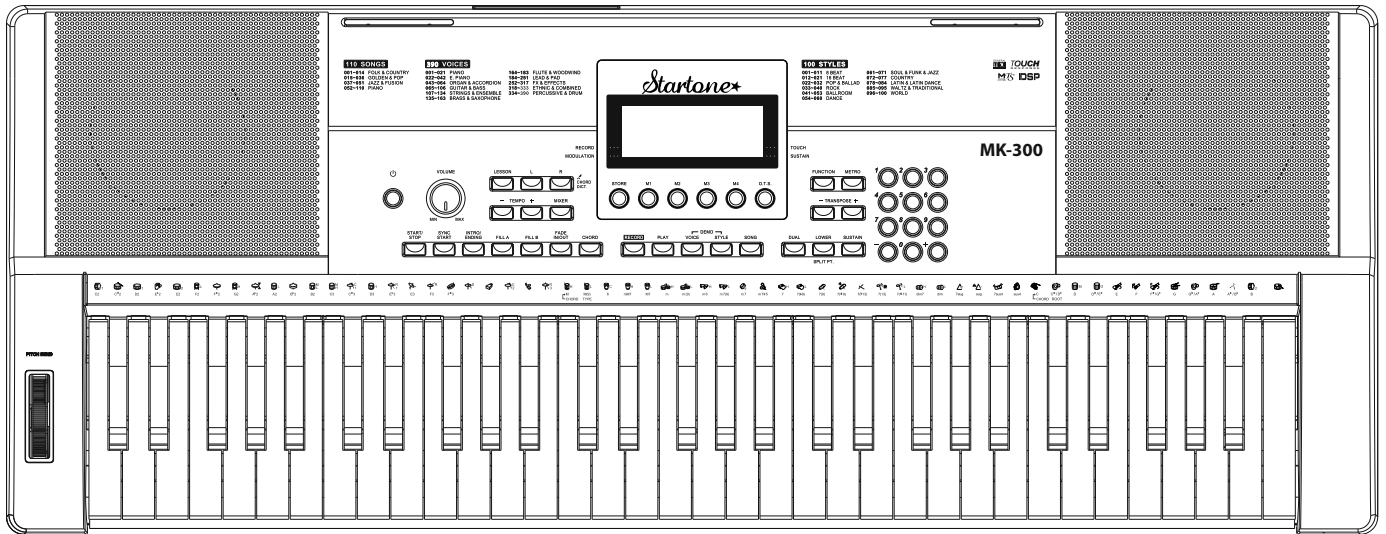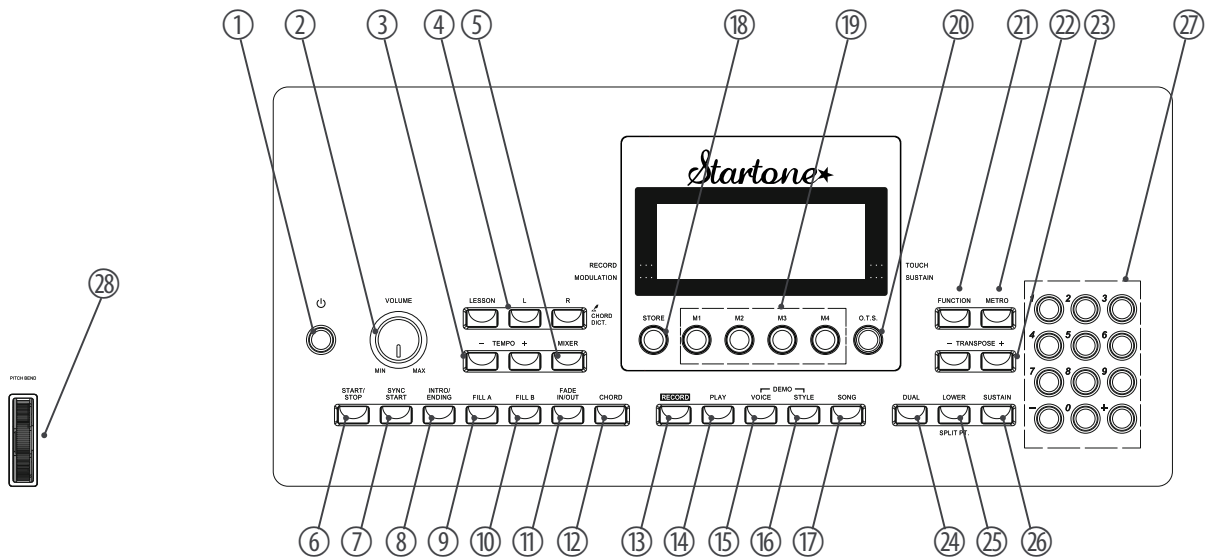| 1	Button for turning the keyboard on and off.
2	*[VOLUME]* rotary control for setting the volume.
3	*[TEMPO +]/[TEMPO –]* buttons for increasing / decreasing the tempo.
4	*[CHORD DICT./LESSON]* buttons for activating learning mode and calling up the chord directory.
5	*[MIXER]* button for adjusting the volume of each component.
6	*[START/STOP]* button for playing practise songs in *[SONG]* mode and for starting and stopping styles in *[STYLE]* mode.
7	*[SYNC START]* button for enabling and disabling synchronous start for the auto accompaniment.
8	*[INTRO/ENDING]* button for selecting an intro or ending.
9	*[FILL A]* button for selecting Fill A/Main A.

10 *[FILL B]* button for selecting Fill B/Main B.

11 *[FADE IN/OUT]* button for fading the currently playing style in or out.

12 *[CHORD]* button for setting up chord recognition mode.

13 *[RECORD]* button for starting and stopping a real time recording.

14 *[PLAY]* button for playing the recorded user song.

15 *[VOICE]* button for calling up *[VOICE]* mode. Pressing the *[VOICE]* and *[STYLE]* buttons simultaneously starts automatic playback of the demo songs.

16 *[STYLE]* button for calling up *[STYLE]* mode. Pressing the *[STYLE]* and *[VOICE]* buttons simultaneously starts automatic playback of the demo songs.

17 *[SONG]* button for calling up *[SONG]* mode.

18 *[STORE]* button for saving the current settings to a specific memory slot.

19 Buttons *[M1]* to *[M4]* for calling up the saved settings.

20 *[O.T.S.]* button (One Touch Setting) for sound pre-assignment.

21 *[FUNCTION]* button for calling up the function menu and fine tuning parameters.

22 *[METRO]* button for turning the metronome function on and off.

23 *[TRANSPOSE +]* and *[TRANSPOSE –]* buttons.

24 *[DUAL]* button for turning dual mode on and off.

25 *[LOWER]* button for turning the key assignment for the left hand on and off.

26 *[SUSTAIN]* button for turning the sustain effect on and off.

27 Number buttons for selecting a number or a parameter setting.

28 Pitch bend wheel for changing the pitch.

Display
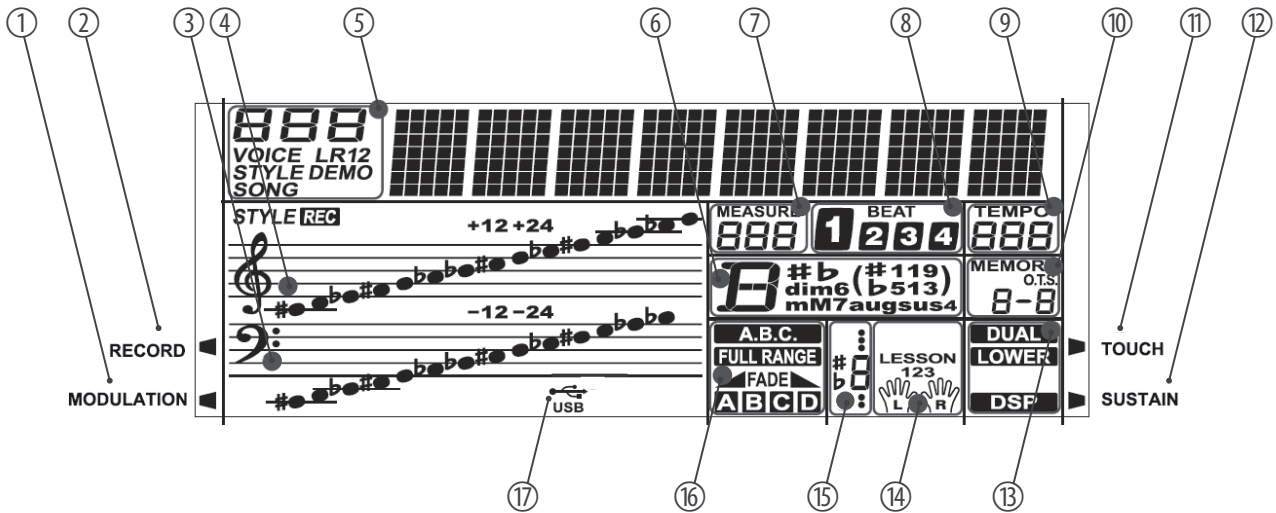
| 1	*[MODULATION]* LED lights up during modulation.
2	*[RECORD]* LED lights up during a recording.
3	Bass clef
4	Treble clef
5	*'VOICE/STYLE/DEMO/SONG'* | Displays the number of the voice/style/demo/song
6	*'CHORD'* | Displays the chord
7	*'MEASURE'* | Displays the time signature
8	*'BEAT'* | Displays the beats in the bar
9	*'TEMPO'* | Displays the tempo
10	*'MEMORY1/2/3/4 / O.T.S.'* | Display for memory slots 1 to 4 and O.T.S.
11	*[TOUCH]* LED lights up when velocity sensibility is being adjusted
12	*[SUSTAIN]* LED lights up if a sustain pedal is connected.
13	*'DUAL/LOWER/DSP'* | Display for dual mode, left hand assignment and DSP
14	*'LESSON 123 / L/R'* | Learning mode display for left and right hand
15	Note display
16	*'A.B.C. / FADE / A/B'* | Display of automatic bass accompaniment / fade / A/B
17	*'USB'* | Lights up if the device is connected to a computer via USB connection

Connections on the back
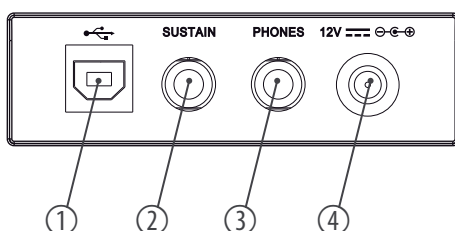
1	*[USB]* | USB/MIDI interface for connecting a computer
2	*[SUSTAIN]* | Connection for a sustain pedal
3	*[PHONES]* | Output for headphones or external audio devices such as active speakers or amplifiers
4	*[12 V]* | Connection for the power supply

6   Connection options

Headphones
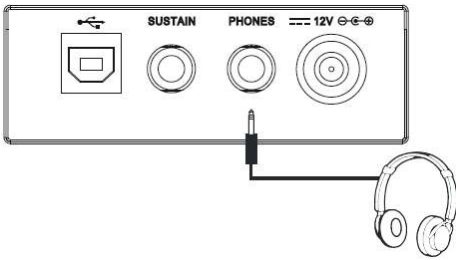
On the back of the keyboard you can connect headphones to the *[PHONES]* output socket.

When you connect headphones, the internal speakers of the keyboard are automatically switched off.

⚠️ **WARNING!**

Possible hearing damage due to high volumes on headphones!

The use of headphones at high volumes may result in permanent hearing impairment. Over an extended period of time, even levels that seem to be uncritical can cause hearing damage.

Avoid operating headphones at high volumes, in particular over an extended period of time.

External audio devices
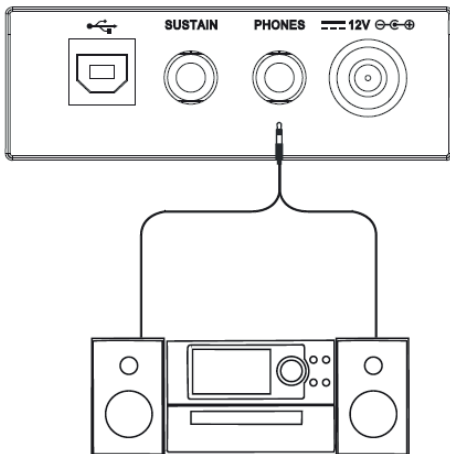
Use the *[PHONES]* output socket to connect the keyboard to an amplifier, stereo device, mixing console or recording device. Plug one end of the audio cable into the *[PHONES]* socket on the back of the keyboard and the other end into the input of the respective audio device.

Computer
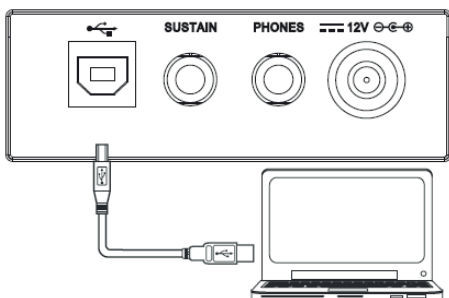
MIDI data are sent and received through the USB/MIDI interface.

ℹ️ *Use a current operating system still supported by the provider to avoid technical difficulties.*

7 Switching on and off and basic operation

7.1 Switching on the keyboard

7.1.1 Switching on and off normally

Press the power button on the far left of the operating panel to turn the keyboard on or off.

7.1.2 Automatic shutoff

If the keyboard is not used for 30 minutes, it switches off automatically. To turn it on again, press the on/off switch on the device.
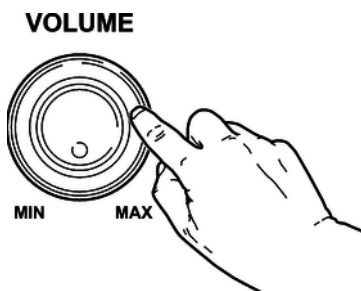
Automatic shutoff is activated automatically when the keyboard is switched on.

7.2 Adjusting the volume

Adjust the [VOLUME] control for a pleasant volume for playback and practising. Turn the control clockwise to increase the volume. Turn it anti-clockwise to reduce the volume.

7.3 Demo songs
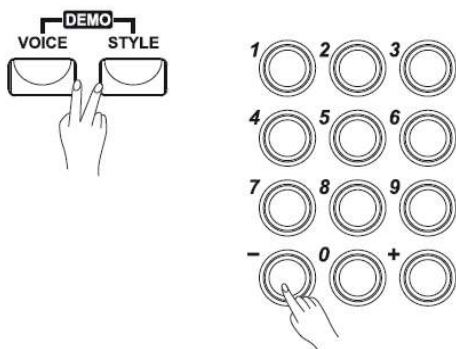
The eight demo songs integrated in the keyboard demonstrate the sound and the pitch range of the instrument. The demo list is available for download on the product page of our website *www.thomann.de*.

1. ▸ Press the [STYLE] and [VOICE] buttons simultaneously to enter DEMO mode.

2. ▸ Select a demo song using the number buttons or the [+] and [–] buttons.

   After four beats, the first demo song starts and all eight demo songs are played in an endless loop.

3. ▸ To stop playback and exit DEMO mode, press the [STYLE] and [VOICE] buttons again or press the [START/STOP] button.

8 Functions

8.1 Using the sustain pedal
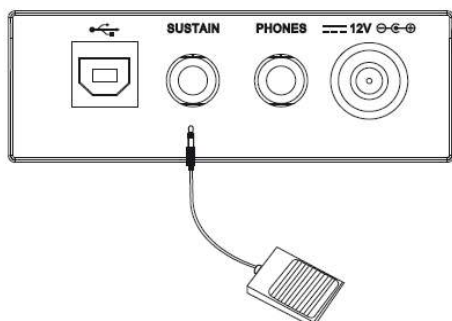
By using a sustain pedal, you can make your playing more expressive and let tones linger after you lift your fingers from the keys of the keyboard. The sustain effect is activated when you step on the pedal and deactivated when you release it.

8.2 Voices and effects

8.2.1 Selecting voices

The instrument offers 390 exceptionally realistic voices including piano, guitar, strings, brass and other sounds. The voice list is available for download on the product page of our website *www.thomann.de*.
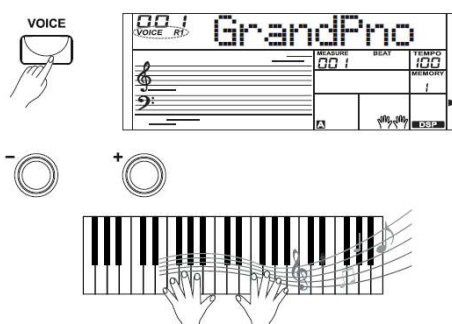
1. The default voice shown on the display, *'VOICE R1'*, is number *'001'* and has the short name *'GrandPno'*.

2. To select another voice, press the *[+]* and *[–]* buttons or the number buttons.

If dual or split mode is activated, you can repeatedly press the [VOICE] button to navigate through the current selection for the first right hand voice 'VOICE R1', the second right hand voice 'VOICE R2', and the left hand voice 'VOICE L'.

8.2.2 Dual mode
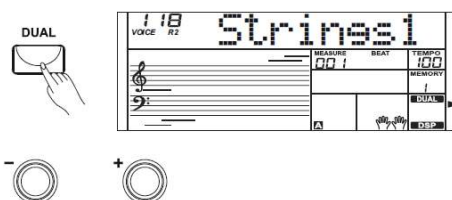
In dual mode you can play two voices simultaneously.

1. Press the *[DUAL]* button to activate dual mode. The display shows *'VOICE R2'* and the *'DUAL'* symbol lights up. The currently set second voice also appears in the display. If you now press a key, both voices sound simultaneously.

2. Press the *[+]* or *[–]* buttons or the number buttons to select the desired voice.

3. Press the *[DUAL]* button again to exit dual mode. *'VOICE R2'* is disabled and you only hear the voice set for *'VOICE R1'*.

If the keyboard is split, dual mode affects only the keys to the right of the keyboard split point.

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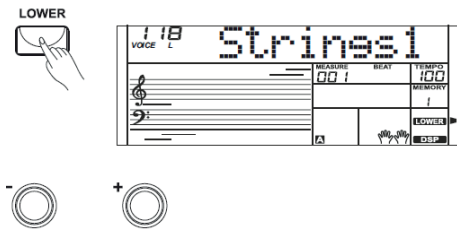
You can use this function to assign different voices to certain keyboard areas.

1. ▶ Press the *[LOWER]* button in order to activate split mode and thus the left hand voice. *'VOICE L'* and the short name for the voice appear simultaneously on the display.

2. ▶ Press the *[+]* or *[–]* buttons or the number buttons to select the desired voice.

3. ▶ Press the *[LOWER]* button again to exit split mode. The *'LOWER'* symbol on the display goes out.

8.2.4 Sustain

When the sustain function is turned on, all tones played on the keyboard linger.
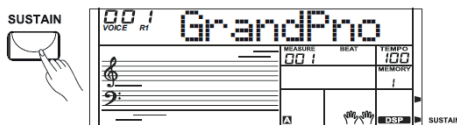
Press the *[SUSTAIN]* button to turn the sustain effect on or off.

8.2.5 Transposing
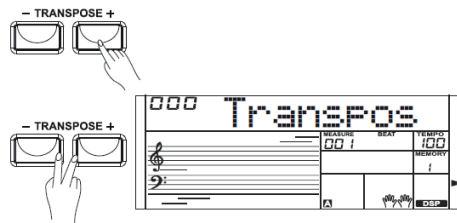
With this function you can adjust the pitch of the keyboard in 12 semitone steps up to one octave up or down.

▶ Press the *[TRANSPOSE +]* and *[TRANSPOSE –]* buttons to adjust the keyboard pitch up or down in semitone steps. The display shows *'XXX Transpos'*.

> Press the *[TRANSPOSE +]* and *[TRANSPOSE –]* buttons simultaneously to restore the default setting (no transposition).

8.2.6 Pitch bend wheel

While playing the keyboard, you can roll the pitch bend wheel upward and downward to vary the pitch up or down. When it is released, the pitch bend wheel automatically returns to its default position.

8.3 Style operation and auto accompaniment

The keyboard offers a total of 100 different styles from a variety of different musical genres. The style list is available for download on the product page of our website *www.thomann.de*.

The auto accompaniment feature gives you a full backing band. To use it, you only need to play chords with your left hand while playing with your right hand.

8.3.1 Starting auto accompaniment (rhythm track only)
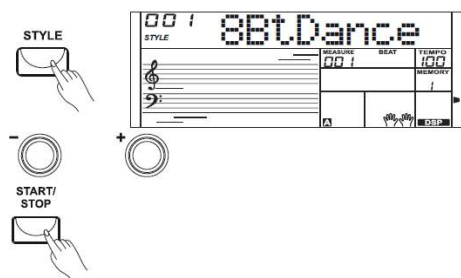
1. Press the *[STYLE]* button to enter *[STYLE]* mode. The display shows *'STYLE'* and the currently selected style.

2. Select the desired style using the buttons *[+]* and *[–]* or the number buttons.

3. Press the *[START/STOP]* button to start the auto accompaniment's rhythm track.

8.3.2 Starting auto accompaniment (all tracks)

1. Press the *[STYLE]* button to enter *[STYLE]* mode. The display shows *'STYLE'* and the currently selected style.

2. Select the desired style using the buttons *[+]* and *[–]* or the number buttons.
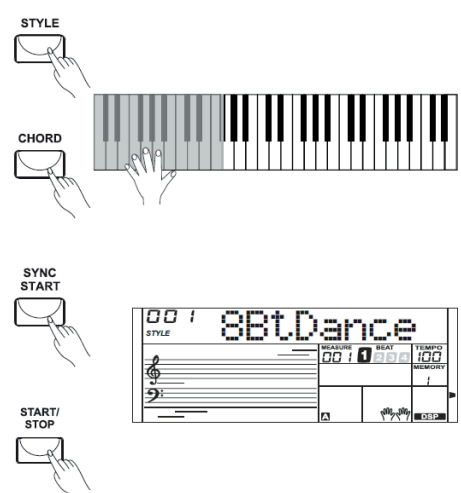
3. Press the *[CHORD]* button to activate chord recognition mode. The area defined for the left hand becomes auto accompaniment area and chords played here are automatically recognized and used as the basis for auto accompaniment with the selected style.

4. Press the *[SYNC START]* button to turn on the synchronous start function. The indicators for the beats within the bar flash on the display according to the set tempo. Auto accompaniment starts as soon as you play a chord with your left hand.

5. Try playing other chords with your left hand.

6. Press the *[START/STOP]* button again to stop the auto accompaniment.

8.3.3 Auto accompaniment patterns
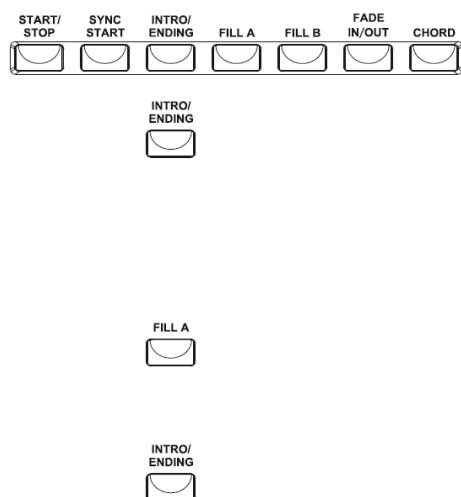
Auto accompaniment is controlled via several parameters: Intro, Main, Fill-in (A,B), and Ending.

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**

The main part is an accompaniment pattern of several bars that is repeated indefinitely until a button is pressed to call another pattern of the auto accompaniment.

3. **FILL**

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

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.

8.3.4 Varying with different accompaniment patterns
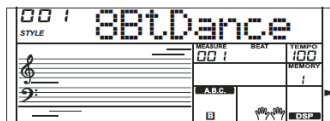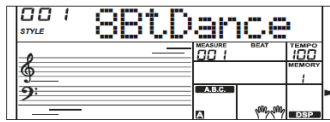
1. Press the *[STYLE]* button and select a style.

2. Press the *[CHORD]* button to turn on the chord recognition mode and press the *[SYNC START]* button.

3. Press the *[FILL A]* button.

4. Press the *[INTRO/ENDING]* button. The 'A' symbol flashes on the display. This indicates that the intro is ready to start.

5. Auto accompaniment starts as soon as you play a chord with your left hand. If the intro is finished, the auto accompaniment flows seamlessly into main part A.

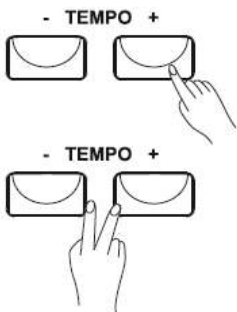6. Press the *[FILL B]* button.

   A fill part is inserted, that flows seamlessly into main part B.

7. Press the *[INTRO/ENDING]* button to conclude the song with an ending. The style stops after the ending.

> *If you hold the [FILL A] or [FILL B] button pressed while a style is being played, the selected fill pattern is played until you release the key.*

8.3.5 Tempo

1. Each style of the instrument is programmed with a preset default tempo, but you can change it using the *[TEMPO+]* and *[TEMPO–]* buttons.

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

8.3.6 Fade
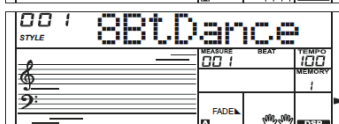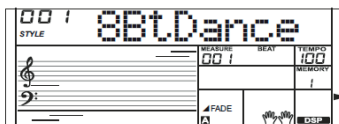
1. FADE IN

   Press the *[FADE IN/OUT]* button while no style is being played.

   When the style begins to play, the style volume is increased slowly from 0 to the normal volume.

2. FADE OUT

   Press the *[FADE IN/OUT]* button while a style is being played. The style volume is slowly decreased from normal volume to 0. Then the style playback is stopped.

8.3.7 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. *'O.T.S.'* appears on the display. If you press one of the keys *[M1]* to *[M4]*, the device loads the corresponding parameter types that match the current style. A.B.C. mode is automatically turned on in the process.

2. ▶ Press the *[O.T.S.]* button again to exit O.T.S. mode.

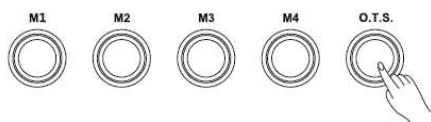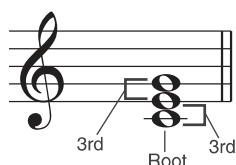## 8.3.8 Chord recognition and fingering techniques

The manner in which chords are played or displayed for the left hand in the auto accompaniment on your keyboard is referred to as chord fingering. A distinction is made between single and multi-finger chords on one hand and the chord detection over the entire keyboard range.

■ 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, 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.

Chord detection modes

With the chord recognition mode you can determine how the fingered chords are interpreted within the auto accompaniment. Press *[CHORD]* to activate the A.B.C. mode (chord recognition). The keyboard then automatically recognizes the single or multi-finger chords played.

■ 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).

■ 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.

The notes in brackets are optional; the chords will also be recognised without them.

■ Chord recognition throughout the entire keyboard range

If you press the *[CHORD]* button twice, full range mode is activated and the *'FullRange'* symbol lights up on the display. In this mode, chords played over the entire keyboard range are detected. The split point setting for auto accompaniment is ignored.

8.4 Function menu

Press the *[FUNCTION]* button to call up the function menu. The first function to appear each time after activation is *'Octave'*. Press the *[FUNCTION]* button repeatedly to select the desired option. Then you can change the parameters using the number buttons or the *[+]* and *[–]* buttons.

Option	LC display	Control range	Default value
Octave shift	*'XXX Octave'*	−1 to +1	0
Digital effects	*'DSP'*	ON/OFF	ON
Reverb effect	*'XXX Rev Type'*	0 to 7	4
Reverb effect depth	*'XXX Rev Level'*	0 to 32	9
Chorus effect	*'XXX Chr Type'*	0 to 7	
Chorus effect depth	*'XXX Chr Level'*	0 to 32	
Vibrato	*'Modul'*	ON/OFF	
Touch sensitivity	*'Touch'*	OFF, 1, 2, 3	2
Beat	*'XXX Beat'*	0, 2 to 9	4
Fine tuning	*'XXX Tune'*	−50 to 50	
MIDI receive channel	*'Midi In'*	01 to 16, ALL	
MIDI send channel	*'Midi Out'*	01 to 16	
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.

8.4.1 Octave shift
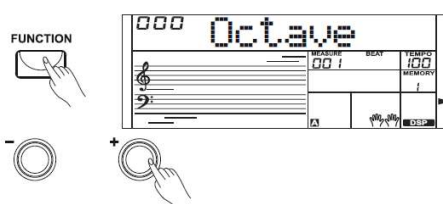
1. First, press the *[FUNCTION]* button to enter the *'Octave'* menu. The display shows the current setting *'XXX Octave'*.

2. Press the *[+]* or *[–]* buttons or the number buttons to shift the keyboard setting one octave up or down. The default value is *'000'*.

8.4.7 Vibrato effect

The vibrato effect modulates the tones played on the keyboard.

1. Press the *[FUNCTION]* button to select the setting for the vibrato effect. The current setting appears on the display.

2. Press the *[+]* or *[–]* buttons to turn the vibrato effect on or off.

> *The vibrato effect does not affect the percussion voices.*

8.4.8 Touch sensitivity

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

Parameter	Meaning
'OFF'	Touch sensitivity is off. This can be very useful 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.
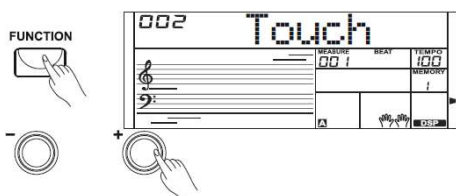
1. Press the *[FUNCTION]* button until the display shows the setting *'TOUCH'*.

   Use the *[+]* or *[–]* buttons to adjust the touch sensitivity.

2. If you select *'OFF'*, touch sensitivity is disabled.

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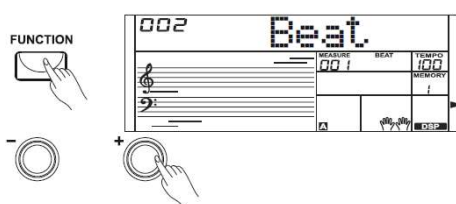
With this function you can set the beats in a range from 0 to 9.

1. Press the *[FUNCTION]* button to select the setting for the beats. The display shows the current *'XXX Beat'* setting.

2. Use the number buttons and the *[+]* or *[–]* buttons to adjust the beats.

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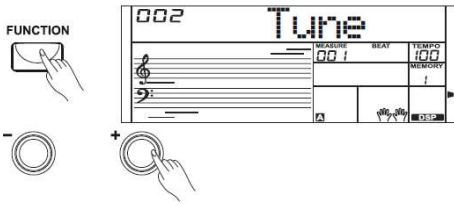
With this function you can fine tune the entire keyboard in cent steps.

1. ▶ Press the *[FUNCTION]* button to select the fine tuning setting. The display shows the current *'XXX Tune'* setting.
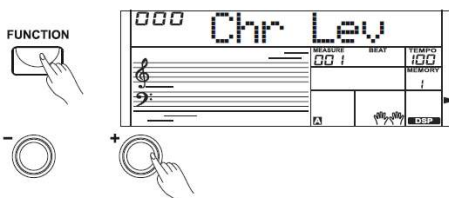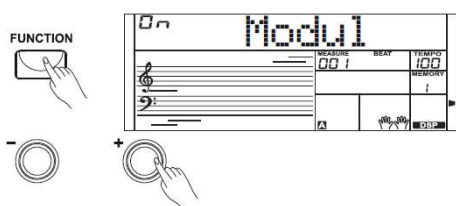
2. ▶ Use the *[+]* or *[–]* buttons to adjust the tuning in a range from –50 to +50 cents. Each time a key is pressed, the value changes by 1 cent. If you press the buttons *[+]* and *[–]* simultaneously, the tuning is reset to the default value.

The fine tuning affects both keyboard and styles.

8.4.11 MIDI channels
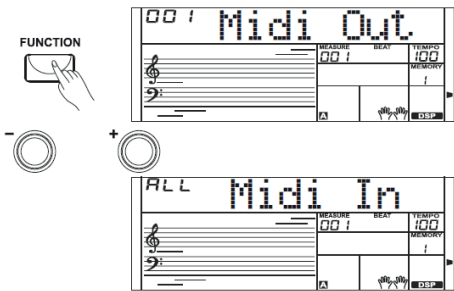
▶ Press the *[FUNCTION]* button to select the setting for the MIDI channels. The display shows the current setting *'XXX Midi In'* and *'XXX Midi Out'*. In the *'Midi In'* function menu you can define the MIDI channels on which the keyboard receives MIDI information from other devices. Use the number buttons or the *[+]* or *[–]* buttons to select the MIDI receive channel(s).

Parameter range: Channels 1 to 16 or 'ALL' for all channels. Default setting: 'ALL'.

▶ Press the *[FUNCTION]* button to select the setting for the MIDI channels. The display shows the current setting *'XXX Midi In'* and *'XXX Midi Out'*. In the *'Midi Out'* function menu you can define the MIDI channels which the keyboard uses to send MIDI information to other devices. Use the numeric buttons or the *[+]* or *[–]* buttons to select the MIDI send channel.

Parameter range: Default setting for channels 1 to 16: '001'.

8.4.12 Automatic shutoff
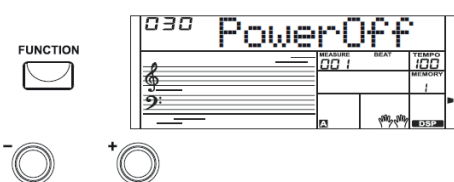
If the keyboard is not used, it is switched off automatically after 30 minutes.

1. ▶ Press the *[FUNCTION]* button to select the setting for automatic shutoff. The display shows the current setting *'XXX Power Off'*.

2. ▶ Use the *[+]* or *[–]* buttons to choose one of the following options:

- ■ *'030'* (automatic shutoff after 30 minutes)
- ■ *'060'* (automatic shutoff after 60 minutes)
- ■ *'OFF'* (automatic shutoff deactivated).

If you press the *[+]* and *[–]* buttons simultaneously, the default setting (automatic shutoff after 30 minutes) is selected.

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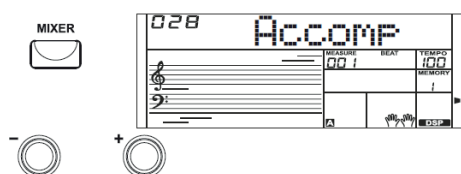
This menu is used to adjust the volume of the various style elements.

1. ▶ Press the *[MIXER]* button to enter the mixer menu. By default, the *'Accomp'* option appears when you open this menu.

2. ▶ Press the *[MIXER]* button repeatedly to select the desired option. Then you can adjust the selected parameter using the *[+]* or *[–]* buttons.

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

Tab. 1: Adjustable options and parameters

Option	LC display	Control range	Description
Accompaniment Volume	*'XXX Accomp'*	000 to 032	Accompaniment volume
Rhythm_s Volume	*'XXX Rhythm_s'*	000 to 032	Percussion instrument 1
Rhythm_m Volume	*'XXX Rhythm_m'*	000 to 032	Percussion instrument 2
Bass Volume	*'XXX Bass'*	000 to 032	Bass
Chord 1 volume	*'XXX Chord1'*	000 to 032	Polyphonic melody 1
Chord 2 volume	*'XXX Chord2'*	000 to 032	Polyphonic melody 2
Chord 3 volume	*'XXX Chord3'*	000 to 032	Polyphonic melody 3
Phrase 1 Volume	*'XXX Phrase1'*	000 to 032	Intermezzo1
Phrase 2 Volume	*'XXX Phrase2'*	000 to 032	Intermezzo 2
Voice R1 Volume	*'XXX Voice R1'*	000 to 032	Right hand voice
Voice R2 Volume	*'XXX Voice R2 '*	000 to 032	Second right hand voice in dual mode
Voice L Volume	*'XXX Voice L'*	000 to 032	Left hand voice

8.6 Metronome
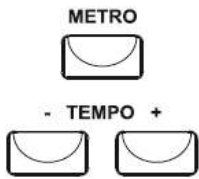
1. ▶ Press the *[METRO]* button to turn the metronome on or off.

2. ▶ Press the *[TEMPO +]* or *[TEMPO –]* button to adjust the metronome tempo.

8.7 Memory

You can store the control panel configuration in the memory of the keyboard and recall the data any time if required.

8.7.1 Saving/loading parameters
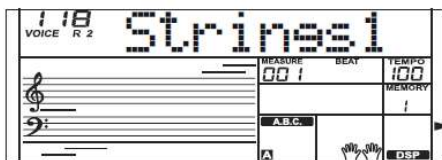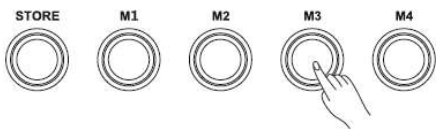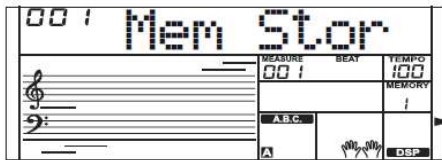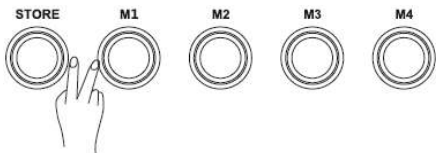
1. ▶ Hold down the *[STORE]* button and simultaneously press one of the *[M1]* to *[M4]* buttons. The current settings are then stored in the respective memory slot (M1 to M4). Please note that any data previously stored there will be deleted.

2. ▶ Press one of the *[M1]* to *[M4]* buttons. The saved settings are then loaded from the corresponding memory and replace the current settings.

> *Memory data can not be retrieved if the O.T.S. function is turned on. The stored data are reset to the default values when you turn off the keyboard.*

8.8 Recording
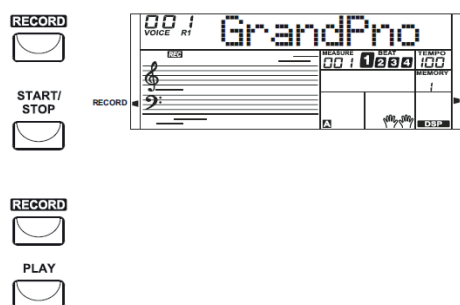
The keyboard lets you record your playing together with the accompaniment.

1. ▶ Press the *[RECORD]* button. The record symbol left of the display lights up and the beats flash in time.

2. ▶ Play the notes you want to record or press the *[START/STOP]* button to start recording. If you want to record your playing with style accompaniment, turn on the auto accompaniment and play the chords with your left hand on the keyboard.

3. ▶ Press the *[RECORD]* button again to stop the recording. The record symbol goes out.

4. ▶ Press the *[PLAY]* button to play back the recording.

5. ▶ Press the *[PLAY]* button again to stop the playback. If you press the *[PLAY]* button while recording, the recording is stopped and played back.

When you turn off the keyboard the recorded data are lost.

8.9 Practise songs

8.9.1 Selecting, playing and stopping practise songs
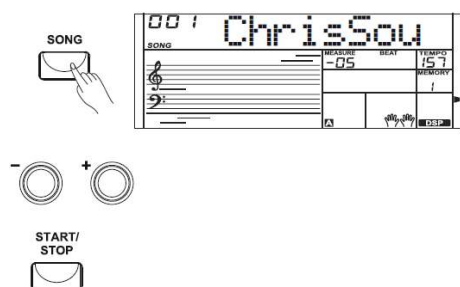
The keyboard offers 110 practise songs in total. The song list is available for download on the product page of our website *www.thomann.de*. Each song can be practised in learning mode.

1. ▶ Press the *[SONG]* button to enter playback mode for practise songs. All practise songs are played in an endless loop. The display shows *'SONG'* and the number of the currently playing song.

2. ▶ In *'SONG'* mode, use the number buttons or the *[+]* and *[–]*, *[START/STOP]* buttons to select a practise song.

3. ▶ When you press the *[START/STOP]* button this song is repeated in an endless loop until you press the *[START/STOP]* button again. This will not exit the mode for practise song playback.

8.10 Learning mode

When practising, it is mainly important to play the right **notes** at the right **time**. In this mode you can check your progress. There are three training stages.

Lesson 1 - playing in time

Press the *[SONG]* button. Stop the starting playback with the *[START / STOP]* button. Then press the *[LESSON]* button to call up learning 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. ▷ *'R'* appears in the symbol for the right hand on the display, which means the right hand is being practised. Press the *[L/R Part]* button if you want to practise the left hand. Then an *'L'* appears in the symbol for the left hand. Press the *[L/R Part]* button again if you want to practise both hands. *'L'* and *'R'* then appear in the hand symbols on the display.

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

3. ▷ 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.

4. ▷ You find out the result after completing the exercise.

Lesson 2 - hitting the right notes

Press the *[LESSON]* button again to enter learning mode 2. *'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 practise song continues only when you play the right note.

▷ 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 enter learning mode 3. *'LESSON 3'* appears on the display. This mode assesses whether you play the right notes at the right time. The practise song continues only when both are correct.

▷ You find out the result after completing the exercise.

Rating

The rating is based on the level you have achieved during practise:

- Level 1: Try again.
- Level 2: OK.
- Level 3: Well done.
- Level 4: Outstanding.

After the rating, the practise song is played again and you can go on practising.

8.11　Chord dictionary

The chord dictionary is essentially an integrated "chord book" that helps you find the right notes of a chord, for example if you know the chord name, but not how to play it. The chord list is available for download on the product page of our website *www.thomann.de*.
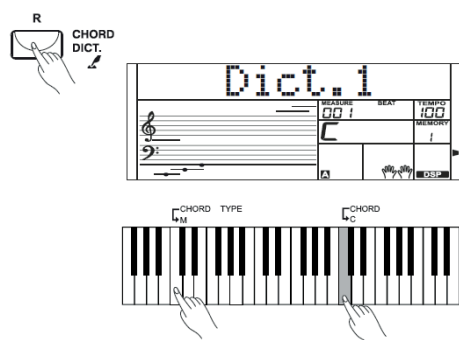
1. ▶ DICT 1 (chord learning mode)

Keep the *[CHORD DICT.]* button pressed for two seconds to enter the *'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 *[CHORD DICT.]* button again to enter the *'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.

3. ▶ Press the *[CHORD DICT.]* button a third time to exit the chord dictionary.

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#/Gb
C#6	C#/Db	G6	G
D6	D	Ab6	G#/Ab
Eb6	D#/Eb6	A6	A
E6	E	Bb6	A#/Bb
F6	F	B6	B

Key names	Chord type	Key names	Chord type
C4	M	C5	7b9
C#4	M(9)	C#5	7(9)
D4	6	D5	7(#9)
Eb4	mM7	Eb5	7b13
E4	M7	E5	7(13)
F4	m	F5	7(#11)

Key names	Chord type	Key names	Chord type
F$^{\#}$4	m(9)	F$^{\#}$5	dim7
G4	m6	G5	dim
A$_b$4	m7(9)	A$_b$5	7aug
A4	m7	A5	aug
B$_b$4	m7$_b$5	B$_b$5	7sus4
B4	7	B5	sus4

8.12 MIDI functions

8.12.1 What is MIDI?

With MIDI connections, the device that controls other devices is called the "master". A device that is controlled via MIDI is called "slave". The MIDI output of the master is connected to the MIDI input of the slave. You cannot connect the MIDI output of a device to the MIDI input of the same device.

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

You can use the USB connection to exchange MIDI data with computers or other USB devices that support USB audio via USB cable. MIDI data from computers or other USB devices can be played back by the sound module of the keyboard.

8.12.2 USB connection
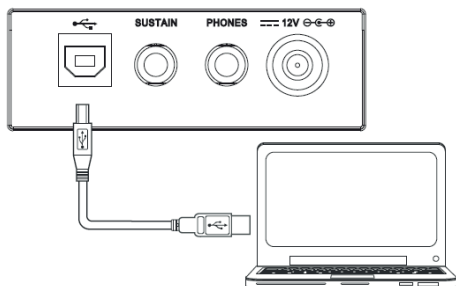
1. ▷ System requirements

   - CPU: 300 MHz, Pentium 2 or higher
   - RAM: 64 MB or more
   - 2 MB free hard disc space
   - Operating system: Windows® 8 and later, Mac OS X® 10.8 and later

   > *Use a current operating system still supported by the provider to avoid technical difficulties.*

2. ▷ Connecting

   Connect the USB port on the back of the keyboard to the USB port on your computer using a standard USB cable (not included).

3. ▶ USB precautions

Please heed the following instructions when connecting USB instruments to computers. Otherwise, the instrument or the computer may crash, which can result in data loss. If a crash should occur, turn off computer and instrument and restart them after a few seconds.

> – *If the computer is in standby or hibernation, wake the computer before connecting the USB cable.*
> – *Establish the USB connection between computer and instrument before turning on the instrument.*

8.13   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.
Interference occurs when a cell phone is used.	Using a cell phone near the keyboard may cause interference. To prevent this, turn off the mobile phone or use it only at a safe distance.
The auto accompaniment does not start although the sync start function is enabled and a key is pressed.	You may be trying to start auto accompaniment by pressing a key in the right hand area. Auto accompaniment with sync start function can only be started by pressing a key in the left hand chord area.

9   MIDI implementation chart

Function		Sent	Received	Notes
Basic Channel	Default	1	ALL	
	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		Yes	Yes	
Control Change	0	Yes	Yes	Bank Select
	1	Yes	Yes	Modulation
	5	No	Yes	Portamento Time
	6	No	Yes	Data Entry
	7	No	Yes	Volume
	10	No	Yes	Pan
	11	Yes	Yes	Expression
	64	Yes	Yes	Sustain Pedal
	65	No	Yes	Portamento ON/OFF
	66	No	Yes	Sostenuto Pedal
	67	No	Yes	Soft Pedal
	80	No	Yes	Reverb Program
	81	No	Yes	Chorus Program
	91	No	Yes	Reverb Level
	93	No	Yes	Chorus Level
	120	No	Yes	All Sound Off
	121	No	Yes	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	No	
Aux Messages	Local ON/OFF	No	No	
	ALL Notes OFF	No	Yes	
	Active Sensing	Yes	Yes	
	System Reset	No	Yes	

MIDI channel modes

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

10   Technical specifications

Input connections	Power supply	Socket for external power adapter
	Sustain pedal	1 × 6.35-mm jack socket
Output connections	Headphones, external audio devices	1 × 6.35-mm jack socket
	MIDI interface	USB-to-host
Keyboard	61 keys	
	Touch velocity adjustable	
Polyphony	64-voice	
Sounds	390	
Styles	100	
Effects	Reverb, chorus	
Pedal	Sustain	
Pitch adjustment	Transposing	−12 … +12
	Octaving	−1 … +1
	Tuning	−50 … +50
Functions	Pedal support	Sustain
	Pitch bend wheel	Built-in
	Metronome	0, 2 … 9
	Tempo	30 … 80
	Chord dictionary	Built-in
Practise songs	110	
Demo songs	8	
Speakers	2 × 10 W, 4 Ω	
Volume	+82 dB max.	
Power supply	External power adapter, 100 - 240 V ∼ 50/60 Hz	
Operating voltage	12 V ⎓ / 1,000 mA, centre positive	
Battery	6 × NiMH type AA/R6 (not included)	
Operating system	Windows® 8 and later, Mac OS X® 10.8 and later	
Dimensions (W × H × D)	955 mm × 145 mm × 360 mm	
Weight	4.5 kg	
Colour	black	
Ambient conditions	Temperature range	0 °C…40 °C
	Relative humidity	20%…80% (non-condensing)

Further information

Sustain pedal	Matching sustain pedal optionally available (item no. 320312)
Cover	Matching cover optionally available (item no. 486652 and item no. 493056)
Illuminated keys	No
Aftertouch	No
Lyric function	No
Vocal harmony	No
Storage medium	No
Touch velocity	Yes
USB audio recorder	No
Microphone connection	No

11 Plug and connection assignment

Introduction

This chapter will help you select the right cables and plugs to connect your valuable equipment in such a way that a perfect sound experience is ensured.

Please note these advices, because especially in 'Sound & Light' caution is indicated: Even if a plug fits into the socket, an incorrect connection may result in a destroyed power amp, a short circuit or 'just' in poor transmission quality!

Balanced and unbalanced transmission

Unbalanced transmission is mainly used in semi-professional environment and in hifi use. Instrument cables with two conductors (one core plus shielding) are typical representatives of the unbalanced transmission. One conductor is ground and shielding while the signal is transmitted through the core.

Unbalanced transmission is susceptible to electromagnetic interference, especially at low levels, such as microphone signals and when using long cables.

In a professional environment, therefore, the balanced transmission is preferred, because this enables an undisturbed transmission of signals over long distances. In addition to the conductors 'Ground' and 'Signal', in a balanced transmission a second core is added. This also transfers the signal, but phase-shifted by 180°.

Since the interference affects both cores equally, by subtracting the phase-shifted signals, the interfering signal is completely neutralized. The result is a pure signal without any noise interference.
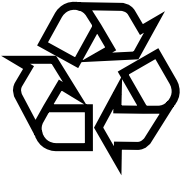
1/4" TRS phone plug (stereo, unbalanced)

| 1	Signal (left)
2	Signal (right)
3	Ground

12 Protecting the environment

Disposal of the packing material

Environmentally friendly materials have been chosen for the packaging. These materials can be sent for normal recycling. Ensure that plastic bags, packaging, etc. are disposed of in the proper manner.

Do not dispose of these materials with your normal household waste, but make sure that they are collected for recycling. Please follow the instructions and markings on the packaging.
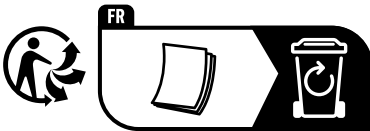
Observe the disposal note regarding documentation in France.

Disposal of batteries

Batteries must not be thrown away or burnt, but must instead be disposed of in line with the local regulations on the disposal of hazardous waste. Use the available collection sites.

Before disposing of your old device, remove the batteries if this is possible without destroying it.

Dispose of the batteries or rechargeable batteries at suitable collection points or through your local waste facility.

Disposal of your old device
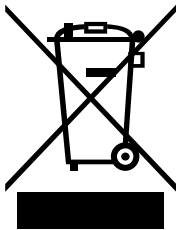
This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE) as amended.

Do not dispose of your old device with your normal household waste; instead, deliver it for controlled disposal by an approved waste disposal firm or through your local waste facility. If in doubt, consult your local waste management facility. You can also return the device to a retailer if they offer to take the device back for free or if they are legally obliged to do so. When disposing of the device, comply with the rules and regulations that apply in your country. You can also return your old device to Thomann GmbH at no charge. Check the current conditions on *www.thomann.de*.

Proper disposal protects the environment as well as the health of your fellow human beings. This is because the proper handling of old devices negates the potential negative effects of hazardous substances, and because it conserves resources by recycling them.

Also note that waste avoidance is a valuable contribution to environmental protection. Repairing a device or passing it on to another user is an ecologically valuable alternative to disposal.

If your old device contains personal data, delete those data before disposing of it.

Notes

Notes