

pulse 2

ANALOG SYNTHESIZER

Quick Start

English



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Foreword

Thank you for purchasing the Waldorf Pulse 2 Synthesizer.

You now own a compact analog synthesizer with an astonishing sound. And of course, a very exceptional feature set as for example the paraphonic modes and the APW waveform. If you do decide to read the following quick start manual we can promise you a lot of fun while reading it and especially afterwards working with the Pulse 2.

Your Waldorf-team

Hint

Waldorf Music is not liable for any erroneous information contained in this manual. The contents of this manual may be updated at any time without prior notice. We made every effort to ensure the information herein is accurate and that the manual contains no contradictory information. Waldorf Music extends no liabilities in regard to this manual other than those required by local law.

This manual or any portion of it may not be reproduced in any form without the manufacturer's written consent.

Waldorf Music GmbH, Landskroner Straße 52, D-53474 Bad Neuenahr, Germany



On the following pages of this Quick Start manual you will find instructions for a quick entrance to your Waldorf Pulse 2 explaining the most important basic functions to you. All functions will be described in detail in the PDF manual which can be downloaded from our website!



Please visit our website **pulse2.waldorfmusic.de**. Here you will find the latest firmware version as well as other downloads for the Pulse 2.

The Pulse 2 Development Team

Hardware: Frédéric Meslin, Frank Schneider,
Stefan Stenzel

Software: Stefan Stenzel, Frédéric Meslin

Design: Axel Hartmann

Manual: Holger Steinbrink

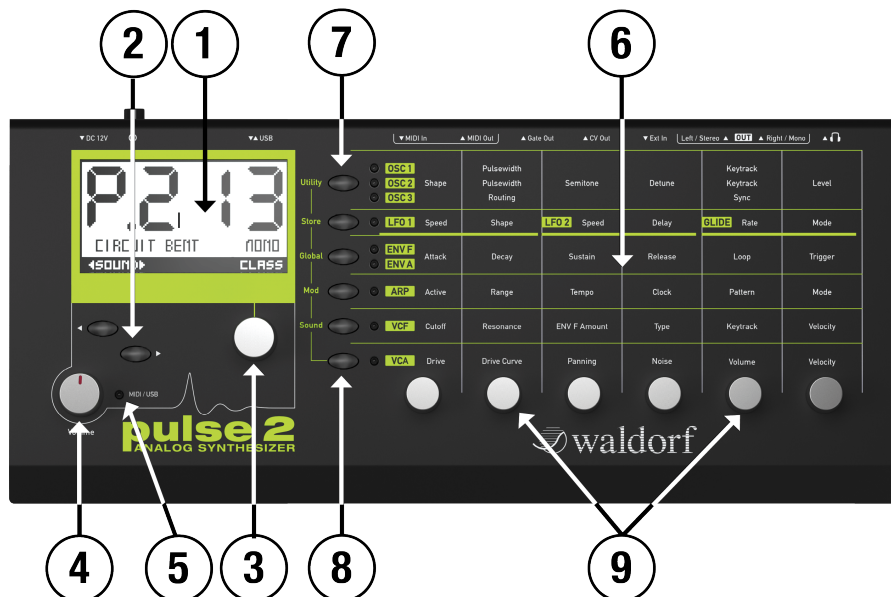
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We would like to thank

the sound programmer and beta tester: Jürgen Driessen,
Christian Gritzner, Till Kopper, Dirk Krause, Rob Lee, Dr.
Ingo Weidner.

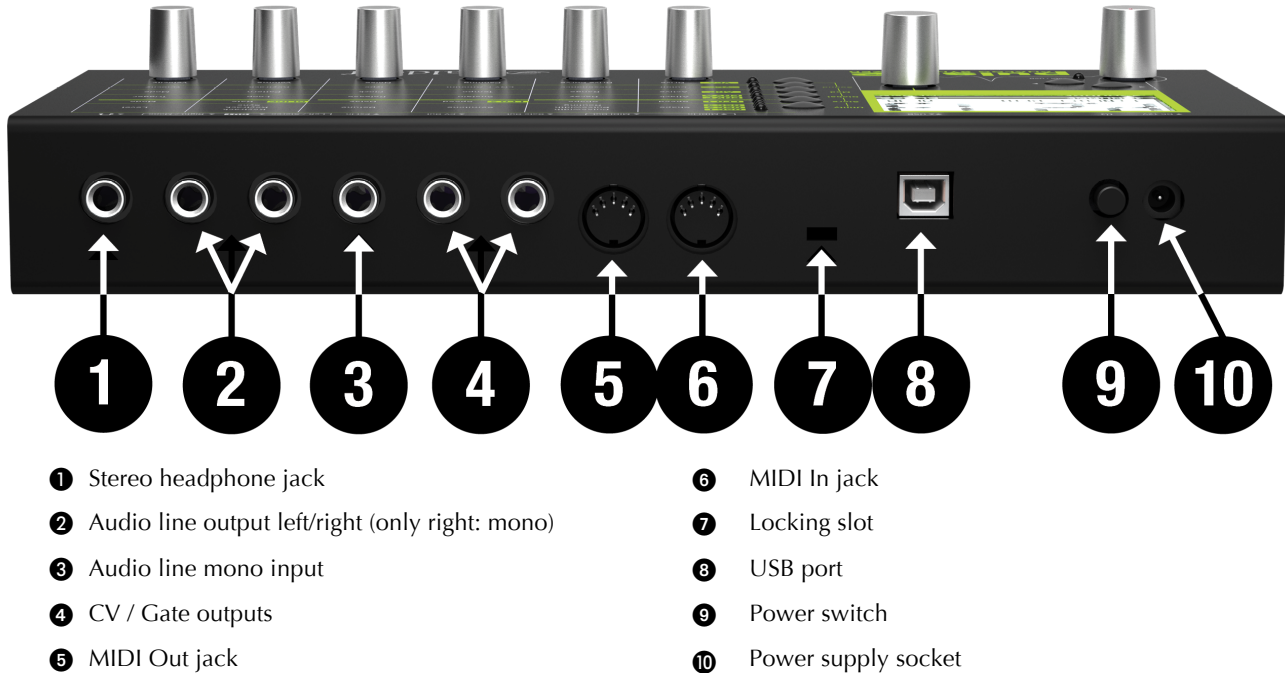
Control Features and Connections

Front Panel



- ① Display
- ② Selection buttons
- ③ Selection dial
- ④ Volume dial
- ⑤ MIDI Input Indicator
- ⑥ Parameter Matrix
- ⑦ Parameter Matrix buttons
- ⑧ Shift button
- ⑨ Parameter Matrix dials

Connections



Introduction

About this Quick Start Manual

This quick start manual was written to help you become familiar with the Pulse 2 synthesizer. It will also aid experienced users with routine tasks.

Important terms are highlighted in bold letters.

Symbols



Caution – The comments that follow this symbol will help you avoiding errors and malfunctions.



Info – Additional information on a given topic.



Instruction – Follow these guidelines to execute a desired function.

All of the Pulse 2 buttons, controls and parameters are highlighted in **bold** letters throughout the manual.

Example:

- Press the **VCF** button at the Parameter matrix.
- Move the **Cutoff** knob.

General Safety Guidelines



Please read the following safety tips carefully! They include several precautions you should always observe when dealing with electronic equipment. Read all of the instructions before operating your device

Suitable Operating Conditions

- Use the device indoors only. Outside it could be rainy or humid as well as too hot or too cold.
- Never use the device under damp conditions such as in bathrooms, washrooms or around indoor swimming pools.
- Do not use the device in extremely dusty or dirty environments in order maintain the surface finishing of the Pulse 2.
- Make sure that adequate ventilation is available on all sides of the device. Do not place the device near heat sources such as radiators.
- Do not expose the device to direct sunlight, even if you have a suitable sunscreen.
- Do not expose the device to extreme vibrations.

Power Supply

- Never use a different power cable than the one that came with the Pulse 2.
- Unplug the device when you are not using it for longer periods.
- Never touch the plug with wet hands.
- Always pull the plug when unplugging the device, never the cable.

Operation

- This device, used on its own or with amplifiers, speakers or headphones, can generate volume levels that may result in irreparable damage to your hearing and/or speakers and amplifiers. For this reason you should always keep the volume at appropriate levels.
- Never place objects containing liquids on or near the device.
- Always place the device on a stable base only.
- Make sure no foreign objects find their way into the chassis. If for some reason this should occur, switch

the power off, unplug the device and consult a qualified repair center.

Maintenance

- Do not open the device or remove the cover. Refer all service and repair tasks to qualified personnel. There are no user serviceable parts inside the chassis.
- Use only a dry, soft cloth or brush to clean the device. Never use alcohol, cleaning solutions or similar chemicals. They will damage the surface of the chassis.

Proper Use

This device is designed exclusively to produce low-frequency audio signals for the purpose of generating sound. Any other use is prohibited and voids the warranty extended by Waldorf Music. Waldorf Music is not liable for damages due to incorrect use.



Do not leave your Pulse 2 near children, mothers-in-law or pets. This could lead to critical interactions.

Setup and Connection

Inventory

The Waldorf Pulse 2 package comes complete with:

- the Waldorf Pulse 2 Synthesizer
- an external power supply with 12V / 500mA
- a printed Quick Start manual

Please ensure all the items above were included. If something is missing, contact your local dealer.

We recommend that you save the original packing material for future transport.

Setup

Place the Pulse 2 on a clean, even surface.

Connections

In order to get started with your Pulse 2 you will need an AC power outlet. For the connection of the audio output you will need either a mixing console or an audio interface. You can also use a suited headphone.

Last but not least you will mostly likely need a MIDI master keyboard.

You can also use a computer or hardware sequencer to make use of the Pulse 2 MIDI features.



To connect the devices:

1. Turn all units off.
2. Connect the Pulse 2 audio output **2** to your mixing console or your computer audio interface. Optionally connect a suited stereo headphone to the Pulse 2 headphone output **1**. If you want to use a mono output only, connect only the *Stereo Out Right/Mono* output only with a 1/4 inch mono plug.
3. To play the Pulse 2 you need a MIDI master keyboard. Connect its MIDI Out jack to the Pulse 2 MIDI input **6**.
4. If you want to use a computer with a MIDI interface, connect your interface's MIDI Out jack to the Pulse 2 MIDI In jack **6**.
5. Optionally you can connect the Pulse 2 USB port **8** with a USB cable to your computer. Af-

ter that the Pulse 2 is automatically available as a MIDI unit.

6. Connect the power supply cable or the power cable that came with the Pulse 2 with the Power supply 10 jack.
7. If you want to use the external audio input, please connect it 3 to a line output of your signal source.
8. If you want to control other devices via CV/Gate, please connect them to the CV/Gate outputs 4 of the Pulse 2.
9. Then switch on the computer (if connected), your Pulse 2, the mixing console and finally the amplifier or active monitor speakers.

i To check the correct reception of MIDI data send any MIDI event to the Pulse 2; the MIDI / USB LED 5 will light up on any incoming MIDI message. If this is not the case please check the MIDI connection to the Pulse 2 as well as the Global MIDI configuration.



If you do not choose to connect a mixing console, you can patch the Pulse 2 output signals 2 directly to an amp or to an audio interface. Use an input usually called Line, Aux or Tape input.



Before connecting and disconnecting the Pulse 2 to a power supply source, turn your amp's volume control all the way down to avoid damage due to on/off switching noise. The Pulse 2 produces a high level output signal. Please take care that the connected playback device is suitable for the high level of an electronic instrument. Never use the mic or phono input of the connected amp!


The USB Connection

Using a USB cable you can connect the Pulse 2 to your computer observing the following system requirements:

- Windows PC: Windows XP or newer is recommended, a USB port
- Linux PC, a USB port
- Apple: Intel Mac with Mac OS X 10.5 or newer, a USB port
- Apple iPad with iPad Camera Connection Kit

The USB connection of the Pulse 2 allows:

- transmitting and receiving MIDI data
- dumping of firmware updates to the Pulse 2
- Sounds and Global parameters backup / recall with suitable computer software.

 Make sure to use a computer USB port as well as a USB cable to avoid problems with data transmission.



Keep also in mind that we often offer new firmware updates. Please read also the chapter "Updating the Firmware" in the PDF manual.

Basic Operation

Switching on / off

The Pulse 2 is equipped with a **Power switch** ⑧. Flick it to switch on the Pulse 2. The display ① is lit and shows the installed firmware version. After that, the Pulse 2 is ready for some action. Flick the **Power switch** again to switch off the Pulse 2.

⚠ Don't forget to save an edited sound program, before switching off the Pulse 2. Otherwise, your edits are lost forever.

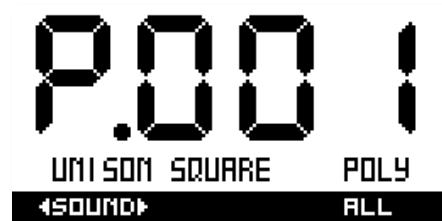
The Volume

The **Volume dial** ④ controls the Pulse 2's master volume. The volume setting is global and affects the level of the audio outputs ② and the headphone output ①.

Selecting Sounds

The Pulse 2 offers 500 sound programs. Use the **Selection dial** ② or the **Selection buttons** ③ to select these sounds. Turning the dial clockwise or pressing the right button increases the sound program num-

ber, turning the dial counterclockwise or pressing the left button decreases it. When you are at the end of the last sound program and turn the **Selection dial** further, you will jump to sound program 001 again.



i Everytime you select sound program 500, the Pulse 2 will automatically create a random sound patch.

i If you turn the **Selection dial** ② while pressing the **Shift** button, you can select a desired sound category (class), e.g. ARP or POLY. This is perfect for a faster selection of sounds. To select all sounds without limitation, you need to set Class to ALL.

Editing Parameters

In order to change or edit a sound in the Pulse 2, you must access the appropriate parameters. In spite of the Pulse 2 compactness it uses a sophisticated user interface allowing fast editing of any parameter. The change of any value is done with the dials in the **Parameter matrix** ⑨.

The dials control all parameter values. Turning a dial clockwise increases the corresponding value; turning it counterclockwise decreases it. The dials have a built-in dynamic response feature. If you turn the control slowly, the value changes very smoothly, too. If you turn it faster, it accelerates as well. This gives you the chance of adjusting the whole value range in just one turn without losing accurate control when necessary.

Editing Parameter Controls


The basic sound programming of the Pulse 2 is done via the so-called **Parameter Matrix** ⑥ which has all important parameters silkscreened on the machine's front panel. Changing the parameters is done with the six endless **Parameter Matrix dials** ⑨. Changing the edit level is done with the five **Parameter Matrix buttons** ⑦. This sounds more complex than it is. With a simple

example you will understand the structure of the Pulse 2 handling easily.

Would you like to change the **Cutoff** of the Pulse filter? Please proceed as follows:

To access a specific panel parameter:

1. Locate the section that contains the desired parameter on the front panel. For example, if you want to change **Cutoff**, refer to the **VCF** section. To do this please press the **VCF Parameter Matrix button** until the LED lights up.
2. With the first endless dial you can now change **Cutoff** parameter.
3. Whenever you change a parameter by moving a dial, the display shows the edited parameter and its current value.

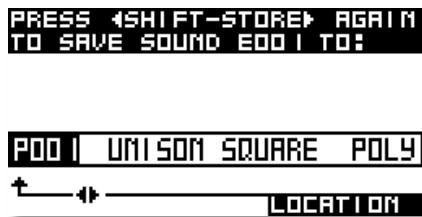
 Keep in mind that based on the selected Oscillator **Shape** some parameters are not accessible. This will be remarked in the further sections of the PDF manual.

Storing Sounds

After you have finished editing a sound, you must store it if you intend to use it again. Any of the Pulse 2 memory locations are available for this purpose.

To store a sound program:

1. Press the **Shift** Ⓢ + **Store** buttons to activate the Store page.



2. Use the **Selection dial** ③ to select the destination program number. The default value is the currently selected sound but you may want to store your edits in a different location.
3. Edit the sound name (if wished). First press the right **Selection button** to navigate to the naming function. A sound name can use up

to 14 characters. Use the **Selection dial** to change the setting of the first character. Use the six **Parameter Matrix buttons** to change the next six characters. Use the right **Selection button** to switch to the next seven characters. Here you can use the same controls as for the first seven characters.

4. Now you can select the category class of your sound. It is strongly recommended to select an appropriate category class for your sound program. This helps you finding your sound later. Use the right **Selection button** to switch to the class selection. With the **Selection dial** you can choose the corresponding class.
5. Finally press **Shift + Store** to store the sound to the selected location.
6. By pressing any button before performing the step 5, you can discard the storing process at any time



Whenever you store a sound, the selected memory location is overwritten. Therefore, any previously stored sound at this location will be erased and there is no way to get it back. So, you

should do backups of the sounds regularly. If you want to restore the factory presets, you can download them as a Standard MIDI File from our website.



Use the **Store** function also if you want to copy sounds. There is no need to edit a sound before storing it.

Product Warranty

Thank you for choosing this Waldorf product. It is a dependable device and is designed to last. However, the potential for defects in material or workmanship cannot be eradicated completely. This is why we provide an extended warranty for you. This warranty covers all defects in material and workmanship for a period of one year from the date of original purchase. During this time, Waldorf Music will repair or replace the product without charge for materials or labor, provided the product was first inspected and found faulty by Waldorf Music or an authorized service center. You must first contact your dealer or distributor by telephone. Products that were mailed without prior agreement cannot be exchanged or repaired free of charge. The unit must be insured and sent prepared in its original package. Please include a detailed description of the defect. Products that were not sent prepared or in the original package will be returned unopened. Waldorf Music reserves the right to upgrade the unit with the latest technological advances if necessary. This warranty does not cover defects due to abuse, operation under other than

specified conditions, or repair by unauthorized persons. The warranty covers only those malfunctions caused by material or work-manship defects that occur during normal operation.

Product Support

If you have any questions about your Waldorf product, feel free to contact us via one of the four options listed below:

① Send us an email message. This is the most efficient and fastest way to contact us. Your questions will be forwarded immediately to the resident expert and you will quickly receive an answer.

support@waldorfmusic.de

② Send us a letter. It will take a bit longer, but it is just as dependable as an email.

Waldorf Music GmbH

Lilienthalstr. 7

53424 Remagen, Germany

