The Operating Manual contains important information on setting up and using the product. Please refer to these instructions. If you transfer the redpipe to a third party, make sure that the instrument comes along with the Operating Manual.

Please retain these Operating Instructions for future use!
redpipe – a revolution in electronic piping

The redpipe is an electronic bagpipe with various sounds and fingerings. The redpipe family is modeled on original bagpipes from Scotland, France, Germany, Sweden and Spain. It is a bagpipe without tuning problems.

Connected to a standard amplifier the redpipe is a full instrument, which proved all its advantages on stage. Sound is produced by applying pressure to the bag under your arm, just like the original thing. Optimised sensors provide for authentic chanter fingering. The redpipe’s pneumatic sound system control provides for an unprecedented overall effect.

Microprocessor technology provides optimal simulation of the Great Highland Bagpipe and Scottish Smallpipe, and various other European bagpipes.

The chip has been designed to allow future sound and feature updates.

And now, have fun with your redpipe
Regards

Rolf Jost
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Precautions
The **redpipe** chanter will give you years of reliable service if you follow the simple precautions below:

**Safe-Keeping**
Keep the instrument away from locations where it might be exposed to high temperatures (such as direct sunlight) or humidity. Also avoid locations which are subject to excessive dust accumulation vibrations, which can lead to mechanical damages.

The bag is finest leatherwork. Like with clothes you have to be careful about fluids and dirt. Direct sunlight can have an impact on the colour of the bag.

**Handle the redpipe with care**
Although the **redpipe** has been constructed to withstand the rigors of normal use for optimum sturdiness and reliability, avoid subjecting it to strong physical shocks (such as dropping or hitting it). Just handle the **redpipe** as you would handle a precision-made musical instrument.

*SWITCH OFF THE CHANTER BEFORE PLUGGING OR UNPLUGGING CABLES*
To prevent damage, always switch the Chanter off before plugging or unplugging cables or headphones.

*DON’T OPEN THE CASE OR TRY TO REPAIR THE INSTRUMENT YOURSELF*
The chanter contains no user-serviceable parts. Never open the case or tamper with the internal circuitry in any way, since doing so may result in damage to the instrument. Contact your dealer or the manufacturer for services.

**redpipes** will not be held responsible for any damage caused by handling or operation. Opening the case voids warranty.
Getting started

Insert the battery
The redpipe works with 2 Mignon batteries (AA). The battery compartment is accessible by removing the lid. Just use a coin. The positive pole of the battery has to be on top. Low Battery status is indicated by a continuously blinking LED. If the LED blinks, the batteries can still be used for several hours. Please take care that the batteries are not short-circuited, thrown into fire. Do not reload batteries. There is some danger of explosive reactions.

Connecting headphones
Connect the headphones to the 3,5 mm phonesjack. It is possible to connect all standard headphones as used for example with portable disc players. Always use a stereo plug as mono plugs cause a short circuit which may damage the instrument.

Connecting PA
LINE OUT, this audio jack (6,3 mm) can be connected to the line in of an amplifier (line in of an amplifier, active speakers or a mixer). Use mono plugs, because stero plugs just use one channel. Some amplifiers generate glitches. In such a case use radio transmission, a DI Box, or ground the amplifier.

Customizing of the chanter position
The chanter is adjustable. Hold it with your left hand and turn the chanter with your right hand. Please do this absolutely carefully, otherwise you risk to damage the chanter totally.
Light-emitting diode (LED)
The LED shows the operating status of the redpipe. The following information is available:

**Power ON**
Use the slide switch to switch on the redpipe. The LED lights up for 2 seconds and then starts blinking continuously. If the redpipe has not been operated for a longer period there is a humming sound indicating the activation of the pressure sensors. Then the redpipe is ready for playing. If the redpipe is switched on but not in use it will move to a power-saving mode after approximately 2 hours. To restart the instrument switch it off and on again. **IMPORTANT:** Even in the power-saving mode the redpipe consumes a little power. To lengthen the lifetime of the batteries, use the slide switch to power off the chanter after using it.

<table>
<thead>
<tr>
<th>Display</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>off</td>
<td>the redpipe is switched off or in power-save mode</td>
</tr>
<tr>
<td>one flash per second</td>
<td>the redpipe is ready for playing</td>
</tr>
<tr>
<td>continuous light</td>
<td>The chanter is active</td>
</tr>
<tr>
<td>(short interruption shows activity)</td>
<td></td>
</tr>
<tr>
<td>constant blinking</td>
<td>the Battery is low and should be changed</td>
</tr>
<tr>
<td>the LED blinks with the beat of the Metronome</td>
<td>Metronome</td>
</tr>
</tbody>
</table>

**Shut-off control elements**
To Block the control Buttons
**ON** - press the SOUND, MET and + and then switch on the redpipe
**OF** - press the SOUND, MET and - and then switch on the redpipe

`Change used batteries before a new public appearance!`
Start and stop the sound
Sound is produced by applying pressure to the bag under your arm. You have three switchpoints. The drones start first and the LED lights up. Press the bag stronger and the chanter starts to play. The LED flickers a bit. Press even more and the overblowing function gets activated. The switchpoints can be tuned by yourself. Press the bag and if you feel comfortable, press KEY for three seconds. The LED will give a sign for 1 second. Now it is tuned. After then you need no more pressure to the bag and the sound will stop. All individually switchpoints can be tuned like this - volume, high of the key ct. The settings are stored and work after changing batteries. The switchpoints are strong – that means drones and chanter start after the respective switchpoints have been reached.

Start/stop toggle
If you do not want to press the bag permanently while playing you can switch on the continuous tone. Switch on the pipe and press for on: DRONES and KEY out: DRONES and MET

For starting the redpipe put the right hand on the chanter during the switch on process and press the bag until the drones come up. To add the chanter put the left hand on the chanter. Press once again and the sound stops.

Real bagpipe sound
A traditional bagpipe is at the beginning a bit deeper until the pressure to the bag is o.k. The redpipe provides this characteristic function. Press the SOUND button for about three seconds till the LED will light up for 1 second. This function can be switched on or off. The two highest tones of a GHB are normally a bit lower. This characteristic can be eliminated. While switching on the redpipe press MET and + for an adjusted sound volume MET and - for GHB standard sound volume
Start to play the *redpipe* avalon, gaita, camelot and metal
Switch on the *redpipe* and inflate three-fourth of the bag. Then start as with the traditional bagpipe to activate the drones by pressing. Further pressing will activate the chanter. With some of the fingering charts ist also possible to get an overblowing effect by pressing the bag.

**Adjusting the pressure level**
Press the bag with the *redpipe* switched on until you get the desired pressure for playing comfortably. Then press the KEY-button for 4 seconds – the LED expires shortly. After that the new setting is stored and will remain even after the changing of batteries. It has only to be renewed after a factory setup.

**Adjusting the air consumption**
The amount of air that has to be added to the pipe by blowing depends on the adjustment of the cut-off valve at the bass drone. The Bassdrone simply pull or push like tuning the real Pipe for open the airflow.
Start to play the redpipe Caledonia
Switch on the redpipe and inflate three-fourth of the bag. Then start as with the traditional bagpipe to activate the drones by pressing. Further pressing will activate the chanter. With some of the fingering charts it is also possible to get an overblowing effect by pressing the bag a bit more.

Adjusting the pressure level
Press the bag with the redpipe switched on until you get the desired pressure for playing comfortably. Then press the KEY-button for 4 seconds – the LED expires shortly. After that the new setting is stored and will remain even after the changing of batteries. It has only to be renewed after a factory setup.

Adjustment of air consumption
The amount of air that has to be added to the pipe by blowing depends on the adjustment of the cut-off valve at the bass drone.
Open the zip of the bag. Adjust the valve which is positioned at the lower end of the bass drone stock.
Volume (+ -)
The headphones sound volume can be adjusted by pressing the + and - keys.

Avoid using headphones at very high volume levels.
The sound volume for the Line Out cannot be modified.

Volume of the drones
To adjust the drone volume, hold down the DRONES key and then adjust with the + and - keys. The drone volume can be adjusted separately for the different instrument sounds. Drones can be shut down by setting the volume on a minimum.

Switching between different instruments
The instrument to be activated can be chosen over the SOUND button. The LED starts blinking.

1. blink GHB
2. blinks Medieval Bagpipe (shepherd pipe)
3. blinks Gaita
4. blinks Smallpipe/Huemmelchen

Drones additional
The drones can be adjusted for each instrument separately.
Press the DRONES button together with the SOUND button. The LED blinks.

1. blink : dronestuning basic note and octav
2. blinks : dronestuning basic note and quint
3. blinks : dronestuning basic note and quart
Changing the key (KEY)
The key can be adjusted by semitones with the + and - keys while holding the KEY button. Holding the KEY button and pressing the + and - key at the same time resets the pitch to the default pitch. The keys are stored individually for the different instruments. The key is retained if the KEY button is held while changing the instrument (SOUND).

Pitch (TUNE)
The redpipe factory setup for the standard pitch is 440 Hz. If necessary, due to playing together with other instruments, the redpipe can be tuned easily with the + and - keys while holding both the KEY and DRONES keys. Drones can be tuned by pressing + and – while holding the DRONES and the MET keys. The tuning is global and independent of the selected instrument.

Drones fine tuning
Press DRONES and MET buttons and fine tune by pressing + or –

The sensitivity of the chanter sensors
The reaction rate of the sensors can be tuned. Touch the upper three sensors without touching the thumb hole sensor. Press any button from + to SOUND. Pressing the + button results in the lowest reaction rate, pressing the SOUND button in the highest. Pressing any other button generates reaction times in between. The factory set up is represented by pressing the DRONES button. Very dry fingers in combination with high reaction rates may lead to problems. To avoid these reduce the reaction rate by pressing the respective buttons.

The metronome (MET)
The built-in metronome is started by pressing the MET button twice. After pressing the button the first time, the metronome waits for two seconds for a second press. If the MET button is pressed during this time, the metronome clicks on, using this time interval. To stop the metronome, simply press the MET button once. If the metronome is stopped, press and hold the MET button for three seconds to restart the metronome with the same speed as used last time.
Basic tune
The basic pitch is switched in combination with the fingering table

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Basic Pitch</th>
<th>Fingerings</th>
<th>Basic Pitch</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHB</td>
<td>B (b flat)</td>
<td>Sheppertpipe/French pipe</td>
<td>G</td>
</tr>
<tr>
<td>Gaita</td>
<td>C</td>
<td>Hümmelchen and Dudey</td>
<td>C</td>
</tr>
<tr>
<td>Medieval pipe</td>
<td>A minor</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tuning System
**equally tempered scale** - press ‘key and +’ and then switch on the Redpipe
Modern pianos are tuned on an equally tempered scale.
**just scale** press ‘key and –‘ and then switch on the Redpipe.
This tuning system is typical for bourdon music.
*Standard guitar tuner are normally not capable of checking a just scaled tuned Instrument.*

Drones tuning relative to the keynote
Drones tones can be retuned to specific tones of the scale of each instrument to make different keys in major/minor available.
Switch on the redpipe
Press the **KEY** and **DRONES** buttons and Tune the drones by pressing the **SOUND** button

The fingering table refers to the basic pitch of the implemented fingerings.

<table>
<thead>
<tr>
<th>LED</th>
<th>Gaita</th>
<th>Medieval</th>
<th>French/Bechonnet</th>
<th>Renaissance</th>
</tr>
</thead>
<tbody>
<tr>
<td>blinks 1x standard</td>
<td>C-Dur</td>
<td>A-Moll</td>
<td>G-Dur</td>
<td>C-Dur</td>
</tr>
<tr>
<td>blinks 2x</td>
<td>F-Dur</td>
<td>D-Dur</td>
<td>C-Dur</td>
<td>F-Dur</td>
</tr>
<tr>
<td>blinks 3x</td>
<td>D-moll</td>
<td>H-Moll</td>
<td>A-Moll</td>
<td>D-Moll</td>
</tr>
<tr>
<td>blinks 4x</td>
<td>-</td>
<td>G-Dur</td>
<td>F-Moll</td>
<td>-</td>
</tr>
</tbody>
</table>
Fingering mode
The redpipe chanter offers 8 choices of fingering.

Press when switching on the redpipe following button

1. + GHB standard GHB half open and vibrato
2. - Gaita Gallega standard 1 oktave overblow
3. DRONES GHB extended chromatic, extended pitch range, vibrato, overblowing
4. KEY Medieval Pipes minor
5. MET Bechonnet only french model with additional thumb hole, chromatic
6. SOUND Renaissance Huemmelchen, Dudey or recorder –
7. SOUND and MET open open, no vibrato
8. SOUND and KEY Gaita extended 1 ½ Oktaven overblow

Factory setup is GHB STANDARD.

Overblow
The fingering tables of the pages 15-20 allow overblowing. It is done by adding more pressure to the bag or by opening the thumbhole.
### GHB standard fingering

#### half open

<table>
<thead>
<tr>
<th>Scottish denomination</th>
<th>mixolydian</th>
<th>Ionian</th>
</tr>
</thead>
<tbody>
<tr>
<td>low</td>
<td>G A B C C D E F G G A</td>
<td>G B C</td>
</tr>
<tr>
<td>natural</td>
<td>G B C C d d° f f° g g° a b</td>
<td>C D E F</td>
</tr>
<tr>
<td>high</td>
<td>G B C C d d° f f° g g° a b</td>
<td>A</td>
</tr>
</tbody>
</table>

#### Holes
- ○ open
- ● closed
- ⌀ vibrato

#### Left hand

<table>
<thead>
<tr>
<th>G B C D E F G G</th>
</tr>
</thead>
<tbody>
<tr>
<td>○ ○ ○ ○ ○ ○ ○ ○</td>
</tr>
</tbody>
</table>

#### Right hand

<table>
<thead>
<tr>
<th>G B C D E F G G</th>
</tr>
</thead>
<tbody>
<tr>
<td>○ ○ ○ ○ ○ ○ ○ ○</td>
</tr>
</tbody>
</table>

#### GHB

- a=466 Hz
GHB extended fingering

- **B♭**
- **G♯, A♯, H, C, C♯, D, D♯, D, E, F, F♯, g, g♯, a, a**

**Left hand***
- **Holes**: open, closed, vibrato, open or overblow

**Right hand***
Gaita-fingering

left hand

right hand

open
closed
Gaita-extended fingering
1 1/2 oktave overblow

- open
- not relevantly
- closed
Medieval bagpipe fingering

A-minor

mixolydian

G  A  H  c  d  e  f  fis  g  g#  a  a#  h

Holes

- open
- closed
- vibrato

left hand

Right hand

18
Shepherdpipe/french bagpipe
Bechonnet-fingering by Remy Dubois
only french modell

G

F G A Bb/ais B C cis/des D es/dis e f fis/ges g a ais/b f b c

left hand

Holes
○ open  ● closed

Right hand
Renaissance fingering
chromatic

Holes
- open
- closed
- vibrato
Minimal fingering
open

C-major

Holes  ○ open
       ● closed

left hand

right hand

mixolydian  low  low  d  e  f  g  a  high  high
b  c  a#  b  a#  c

I  I
Reset to defaults
To reset to default values for

Drones:
1. Press and hold **DRONES**
2. Press + **and** - to reset the drone volume and activate the octave drones.

Key:
1. Press and hold **KEY**
2. Press + **and** - to reset the key to the standard setup.

Tuning:
1. Press both **DRONES** and **KEY**
2. Press + **and** - to reset the tuning to default of a 440 Hz.

Reset to factory settings:
1. Switch off the slide switch and wait at least 2 seconds
2. Press and hold + **and** - button
3. Switch on the slide switch
Modi (mixolydian (GHB)/ Ionian)

By pressing the drones and the – button a switch between myxolydiyn and ionian is available. (reduced seventh and sharp-G)

The settings are valid for all fingering tables

The **Mixolydian mode** is a musical mode or diatonic scale. It has the same series of tones and semitones as the major scale, except the fifth (dominant) note is taken as the tonic or starting (beginning) pitch of the scale. It may also be considered a major scale with the leading tone moved down by a semitone. Incidentally, the order of Mixolydian tones and semitones is identical to the Dominant 7th scale. In other words, the C Mixolydian mode and the C Dominant 7th scale are identical.

The **Ionian mode** is a musical mode of diatonic scale. It was part of the music theory of ancient Greece, and was based around the relative natural scale in C (that is, the same as playing all the 'white notes' of a piano from C to C).

The G in the Myxolydian mode (High-G and Low_G) is normally one full tone below the basic tone A (reduced seventh)
By pressing the drones and the – button a switch between myxolydiyn and ionian is available.
(reduced seventh and sharp-G)
The settings are valid for all fingering tables
The MIDI OUT

MIDI stands for Musical Instrument Digital Interface. No sound is transmitted through the MIDI interface, only data. Sound is generated by the connected MIDI tone equipment. You may play the chanter with any sound the connected equipment is capable of producing.

The DIN plug meets the MIDI standards and may be connected to any MIDI equipment (also personal computers which are equipped with a MIDI interface).

A single MIDI interface is capable of transmitting 16 MIDI channels. The redpipe uses channel 1 for the chanter data, and channels 2 to 4 for the Drones.

<table>
<thead>
<tr>
<th>MIDI-Channel</th>
<th>Note Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>chanter (see fingering-charts)</td>
</tr>
<tr>
<td>2</td>
<td>58 (Tenor Drones)</td>
</tr>
<tr>
<td>3</td>
<td>46 (Bass Drone)</td>
</tr>
<tr>
<td>4</td>
<td>53 (Baritone Drone)</td>
</tr>
</tbody>
</table>

To prevent missing Note-Off signals, always stop the sound before switching off the slide switch.

Fred Morrison kompatiebel on press SOUND and + and then switch on the redpipe
Fred Morrison kompatiebel off press SOUND and - and then switch on the redpipe
Volume (MIDI)

There is no volume control when MIDI output is connected. Volume must be adjusted using the volume control of the connected equipment. The drone volume is the same as used for the PHONES output.

Switching between the Well-Tempered and just Scale

The scale of the bagpipe chanter does not use the modern “well-tempered” scale mostly used for today’s musical instruments. The chanter uses a just scale to fit every note perfectly to the drones. MIDI equipment is generally unable to produce a just scale on its own. The chanter, however, is able to generate the just scale by sending pitch bend data to the connected equipment. To work correctly, the pitch bend range of the connected equipment must be set to two semitones. Since this is the default value of most MIDI equipment, it is rarely necessary to make any adjustments.

It is sometimes better to play the well-tempered scale, especially when playing together with other instruments. The Chanter only sends pitch bend data when the sound is switched to Highland Pipe. Switching to Smallpipe stops sending pitch bend data and returns to the standard tempered scale.
Disposal of used batteries

You, as the end user, are legally obliged (Battery Ordinance) to return all flat batteries and rechargeable batteries. Disposal in the household waste is prohibited.

Batteries/rechargeable batteries containing hazardous substances are marked by the symbols alongside. These symbols also indicate that it is prohibited to dispose of these batteries in the household waste.

The designations for the relevant heavy metals are:
Cd = cadmium, Hg = mercury, Pb = lead.

You can return flat batteries/rechargeable batteries free of charge to the collection points in your community, at our branches or anywhere else where batteries/rechargeable batteries are sold.

Disposal of the device

If the device has reached the end of its operational life, please dispose of it in accordance with the applicable statutory regulations.
### Technical Data

<table>
<thead>
<tr>
<th>Power supply</th>
<th>2x AA Mignon alkaline batteries. Don’t use rechargeable batteries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery lifetime</td>
<td>approx. 20 h. using alkaline batteries (depending on the connected equipment)</td>
</tr>
<tr>
<td>Output</td>
<td>LINE OUT balanced jack 6,3 mm</td>
</tr>
<tr>
<td></td>
<td>Headphone non balanced jack 3,5 mm</td>
</tr>
<tr>
<td>MIDI</td>
<td>Out</td>
</tr>
<tr>
<td>Weight</td>
<td>1,3kg</td>
</tr>
</tbody>
</table>

### Trouble Shooting

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>No sound over headphone connection or Line out, no LED display or non-stop LED display</td>
<td>No battery or empty battery</td>
<td>Insert new battery</td>
</tr>
<tr>
<td></td>
<td>Adjustment for volume is too low</td>
<td>Increase the volume</td>
</tr>
<tr>
<td></td>
<td>Not enough pressure in the bag</td>
<td>Applying more pressure</td>
</tr>
<tr>
<td></td>
<td>Headphones defective or not connected properly</td>
<td>Check headphones and contacts</td>
</tr>
<tr>
<td></td>
<td>The internal microprocessor is in an undefined state</td>
<td>Switch off the slide switch, wait for at least 10 seconds and power on again</td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No sound from the connected MIDI device</td>
<td>No battery or empty battery</td>
<td>See above, also check if the Chanter works with earphones</td>
</tr>
<tr>
<td></td>
<td>Cables not connected properly</td>
<td>Check cables</td>
</tr>
<tr>
<td>Issue</td>
<td>Cause</td>
<td>Solution</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>The connected MIDI devices are not adjusted to receive on MIDI channel 1 or volume too low</td>
<td>Check adjustment at the MIDI device, check corresponding owners manual</td>
<td></td>
</tr>
<tr>
<td>The internal microprocessor is in an undefined state</td>
<td>See above</td>
<td></td>
</tr>
<tr>
<td><strong>Sensors respond delayed or not at all</strong></td>
<td>Dry skin</td>
<td>Use hand cream to increase the circuit capacity of the hand</td>
</tr>
<tr>
<td><strong>Wrong addressing of the sensors at stage.</strong></td>
<td>Ground potential is missing at the amplifier</td>
<td>Some amplifiers generate glitches. In such a case use radio transmission, a <strong>DI Box</strong>, or ground the amplifier.</td>
</tr>
<tr>
<td><strong>Sensors seem to ‘hang’, i.e. after take the finger away nothing happens</strong></td>
<td>The chanter is moist or dirty</td>
<td>Dry or clean the sensor area carefully. If necessary use a bit soap and water. (clean the sensor area all around)</td>
</tr>
<tr>
<td><strong>Adjustments are lost after switching off</strong></td>
<td>The sound was not stopped before switching off</td>
<td>Always stop the <strong>sound</strong> before switching of the slide switch</td>
</tr>
</tbody>
</table>
This Product complies with the requirements of the EMC Directive 89/336/EEC, and carries the CE marking accordingly.

redpipes
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