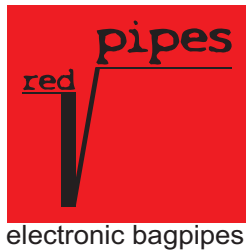


Operating manual



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!

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***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 stereo 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.

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

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 individual switchpoints can be tuned like this - volume, high of the key etc. 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

GHB	basic pitch B (b flat)	sheppertpipe/french pipe	basic pitch G
Gaita	basic pitch C	Hümmelchen and Dudey	basic pitch C
Medieval pipe	basic pitch A minor		

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.

LED	Gaita	Medieval	French/Bechonnet	Renaissance
blinks 1x standard	C-Dur	A-Moll	G-Dur	C-Dur
blinks 2x	F-Dur	D-Dur	C-Dur	F-Dur
blinks 3x	D-moll	H-Moll	A-Moll	D-Moll
blinks 4x	-	G-Dur	F-Moll	-

Fingering mode

The **redpipe** chanter offers 8 choices of fingering.

Press the following buttons at the switch on:

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/MET	open	open, no vibrato
8.	SOUND/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

GHB
a=466 Hz

low low natural natural high sharp high

Scottish denomination
mixolydian
heard
ionian

low G A B C C D E F F G G A

heard G# A# C C# d d# f f# g g# a a#

ionian A

left hand

right hand

- Holes
- open
 - closed
 - ∅ vibrato

Gaita-fingering

- open
- closed

C

B C D E_b E F F[#] G A_b A B_b B c d

	B	C	D	E _b	E	F	F [#]	G	A _b	A	B _b	B	c	d
left hand	●	●	●	●	●	●	●	●	●	●	●	●	○	○
	●	●	●	●	●	●	●	○	○	●	○	○	○	●
	●	●	●	●	●	●	○	○	●	○	○	○	○	●
right hand	●	●	●	●	○	●	○	○	○	○	○	○	○	○
	●	●	●	○	○	○	●	○	○	○	○	○	○	●
	●	●	○	●	○	○	○	○	○	○	○	○	○	○
	●	○	○	○	○	○	○	○	○	○	●	●	●	○

Gaita-extended fingering

1 1/2 oktave overblow

○ open ✕ not relevantly

● closed

C

Notes	B	C	C [#]	D	E _b	E	F	F [#]	G	A _b	A	B _b	B	c	c	c [#]	d	e _b	e	f	f [#]	g
Left hand	●	●	●	●	●	●	●	●	●	●	○	○	○	●	●	●	●	●	●	●	●	●
Right hand	●	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Right hand (Fingering)	●	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Right hand (Overblow)	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Right hand (Not relevant)																						

Medieval bagpipe fingering

A-minor

mixolydian

left hand

Right hand

Holes

- open
- closed
- ∅ vibrato

Hand	Hole	G#	A	H	c	d	e	f	fis	g	a	a#	h
left hand	1	●	●	●	●	●	●	●	●	●	○	○	○
	2	●	●	●	●	●	●	○	○	○	∅	●	●
	3	●	●	●	●	●	○	●	○	○	○	●	●
	4	●	●	●	○	○	∅	∅	●	●	●	●	●
Right hand	1	●	●	●	○	○	○	○	○	○	○	○	○
	2	●	●	○	∅	∅	∅	●	●	●	●	●	○
	3	●	●	○	∅	○	∅	●	●	∅	●	●	○
	4	●	○	∅	○	○	○	○	○	○	○	●	○

Shepherdpipe/french bagpipe

Bechonnet-fingering by Remy Dubois

only french modell

G

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

left hand

right hand

Holes
 ○ open
 ● closed

Renaissance fingering

chromatic

C D D# E F F# G G# A A# b c c# d d#

left hand
 right hand

Holes ○ open
 ● closed
 ∅ vibrato

Minimal fingering

open

C-major

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

mixolydian

left hand

right hand

Holes ○ open
 ● closed

Hand	low C	low b	low c	d	e	f	g	a	high b	high c
Left Hand	●	●	●	●	●	●	●	●	○	○
Right Hand	●	●	●	○	○	○	○	○	○	○

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:

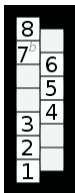
1. Press both **DRONES** and **KEY**
2. Press + **and** - to reset the tuning to default of a 440 Hz.

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

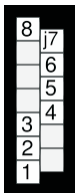
Modi (mixolydian (GHB)/ Ionian)

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.

MIDI-Channel	Note Number
1	chanter (see fingering-charts)
2	58 (Tenor Drones)
3	46 (Bass Drone)
4	53 (Baritone Drone)

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

Fred Morrison kompatibel on
Fred Morrison kompatibel off

press **SOUND** and + and then switch on the redpipe
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 justscale 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

Power supply	2x AA Mignon alkaline batteries. Don't use rechargeable batteries
Battery lifetime	approx. 20 h. using alkaline batteries (depending on the connected equipment)
Output	LINE OUT balanced jack 6,3 mm
	Headphone non balanced jack 3,5 mm
MIDI	Out
Weight	1,3kg

Trouble Shooting

Problem	Possible Cause	Solution
No sound over headphone connection or Line out, no LED display or non-stop LED display	No battery or empty battery	Insert new battery
	Adjustment for volume is too low	Increase the volume
	Not enough pressure in the bag	Applying more pressure
	Headphones defective or not connected properly	Check headphones and contacts
	The internal microprocessor is in an undefined state	Switch off the slide switch, wait for at least 10 seconds and power on again
	Others	Contact your dealer or the manufacturer
No sound from the connected MIDI device	No battery or empty battery	See above, also check if the Chanter works with earphones
	Cables not connected properly	Check cables



	The connected MIDI devices are not adjusted to receive on MIDI channel 1 or volume too low	Check adjustment at the MIDI device, check corresponding owners manual
	The internal microprocessor is in an undefined state	See above
Sensors respond delayed or not at all	Dry skin	Use hand cream to increase the circuit capacity of the hand
Wrong addressing of the sensors at stage.	Ground potential is missing at the amplifier	Some amplifiers generate glitches. In such a case use radio transmission, a DI Box , or ground the amplifier.
Sensors seem to 'hang', i.e. after take the finger away nothing happens	The chanter is moist or dirty	Dry or clean the sensor area carefully. If necessary use a bit soap and water. (clean the sensor area all around)
Adjustments are lost after switching off	The sound was not stopped before switching off	Always stop the sound before switching of the slide switch

This Product complies with the requirements of the EMC Directive 89/336/EEC, and carries the CE marking accordingly.

redpipes

electronic bagpipes

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