CORIOLIS FORCE

SUSTAIN **HOLDER**
TAPE-STOP/PLAY FX
HOLD / MOMENTARY
FILTER LPX HPX BPX XAU
PARALLEL PITCH SHIFTER
FALL RISE 2 **OCTAVE**

CORIOLIS
HOLDER / FILTER / PITCH SHIFTER

[RACK EXTENSION]
MANUAL / 2021

FX device by Turn2on Software

Re Rack Extension
PRODUCT OF TURN2ON

The Coriolis Effect is a force that causes objects in motion to deflect in relation to a rotating reference frame.

Turn2on "Coriolis Force" changes the equation of motion for your incoming signal using a number of parameters. Changing the filter frequency and pitch shift parameters downwards / upwards moves your signal to a different location. The hold button stops time, whilst at the same time allowing the main signal to take its own trajectory.

CORIOLIS FORCE is based on a Pitch-Shifter with parallel mode, sustain holder, multimode filter, wah fx and harmonizer.

The Pitch-Shifter's Coarse and Fine parameters allow individual adjustment of the pitch value of the wet signal for the Left & Right channels. When Parallel mode is engaged, pitch shifting the Left Channel also affects the Right Channel and vice versa. Left and Right pitch-shifter channels have a range of +/-1 octave and have +/-12 semitones fine tuning control. The Pitch-shifter has 4 different Mark modes each with its own frequency characteristics.

When the **HOLD** button is enabled, the wet Pitch-Shifted signal is frozen to a micro loop. A clean dry signal can then be played in parallel to the frozen processed pitch-shifted signal.

In **SPECIAL** mode, the filter is controlled by the Left or Right Pitch-Shifter parameter. From here it is possible to vary filter modes and routings. This allows emulation of *Tape-Stop* or *Tape-Play* effects. If the filter Frequency parameter is controlled using the LEFT PITCH SHIFTER, it works as SUM (Filter+Left Pitch Shifter). The RIGHT channel continues to operate as a simple Right channel Pitch Shifter. And vice versa

Hold control mode is accessible on the rear panel. This is used to select between toggle On/Off button and momentary button modes.

Routing mode selects between Off/Main/Post modes of the filter section. In Main mode, the wet signal is routed to the Filter. The Filter does not affect the Dry signal. In Post mode, both the wet and dry signal are routed to the Filter.

The Filter includes 4 different modes: LowPass (LPX), HighPass (HPX), BandPass (BPX) and Wah-filter.

Coriolis Force's large number of filter and pitch-shifter modes allow for incredible manipulation of pitch and filter frequencies. The freeze function further enhances the effect increasing the creative possibilities

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Coriolis Force is a pretty weird phenomenon however the nature of it is simple: Different parts of the Earth move at different speeds.

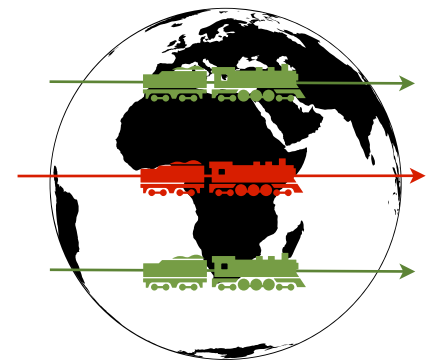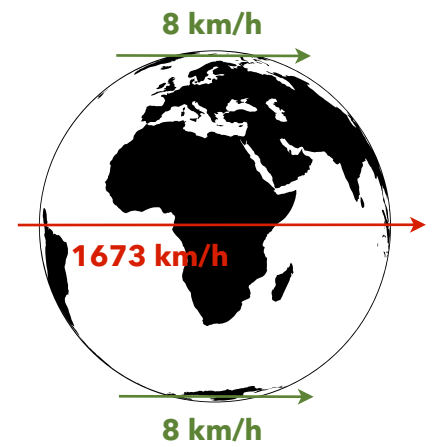The Earth rotates once every 24 hours.
If you stand within a few steps of center at the North or South pole, the speed of your foot is around 8 km/h. If you stand on the equator line, the speed of your foot is around 1673 km/h. Nothing has changed. The Earth is still rotating at the same speed, but your travel speed is different depending on where on Earth you are standing.

8 km/h

1673 km/h

8 km/h

Look at 3 trains. 2 trains run near to the equator, and the 3rd on the equator line. The trains move at different speeds, but they appear to travel parallel to each other. From a bird's-eye view they appear to be travelling at the same speed but the first two trains are actually going slower than equator line train, because they are running on a shorter distance .

Anything traveling long distances, such as air currents, ocean currents, airplanes etc. will be pushed out of linear movement due to the Coriolis Effect.

The Coriolis Effect is a force that causes objects in motion to deflect in relation to a rotating reference frame.

Turn2on "**Coriolis Force**" changes the equation of motion for your incoming signal using a number of parameters. Changing the filter frequency and pitch shift parameters downwards / upwards moves your signal to a different location. The hold button stops time, whilst at the same moment allowing the main signal to take its own trajectory.

ARDUINO

Use of an external Expression pedal to control the Pitch-Shifter, or Filter Frequency parameters of CORIOLIS FORCE effect is highly reccomended. A **custom converter** can be built from 1/4 Jack Expression pedal -> USB midi, based on Arduino. *Please read manual about custom controller*

JOURNEY THROUGH TIME & SPACE

HORIZON **SHIFT**

PARALLEL MODE

✓ 2 OCTAVE
OCT FALL
OCT RISE

MARK MODEL

MSR Corase/Fine
✓ Coarse/Fine
Decimals

LEFT SHIFT CONTROL

PITCH SHIFTING VISUALISATION

RIGHT SHIFT CONTROL

LEFT & RIGHT CHAN. SHIFT CONTROL	Adjusts the pitch value of the WET signal individually for Left & Right channels. Works in 2 measurement modes
P.SHIFT VISUALISATION	Visualisation of the L/R channels pitch-shifting values
PARALLEL MODE	When Parallel mode is engaged, pitch shifting the Left Channel also affects the Right Channel and vice versa.
MARK MODEL	Selectable pitch-shifter models: 20 / 10 / 7 / 5 kHz
HORIZON SHIFT	Pitch-Shift range modes: 2 OCTAVES (+/- 1 oct) / OCTAVE FALL (-1 oct) / OCTAVE RISE (+1 oct)
MEASUREMENT MODE	Coarse / Fine mode. Coarse: +/-1 octave, Fine: +/-9 semitones. Decimals: +/- 12,0 semitones with steps in decimals (+/-0,1)

SUSTAIN **HOLD**

When the **HOLD** button is enabled, the wet Pitch-Shifted signal is frozen to a micro loop.
A clean dry signal can then be played in parallel to the frozen processed pitch-shifted signal.

Hold control mode is accessible on the rear panel. This is used to select between toggle On/Off button and momentary button modes.

Rear panel
CONTROL MODE:

CNTRL Hold Buttons

✓ Hold Buttons
Hold Switches
Momentary Hold Buttons
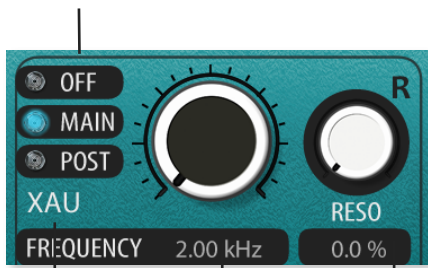Momentary Hold Switches

HOLD TRANSPORT SYNC (PLAY/STOP):

SYNC ON	Pressing STOP on the Transport Bar stops the HOLD signal. Pressing PLAY on the Transport bar resumes the HOLD signal
SYNC OFF	Pressing STOP/PLAY on the Transport Bar has no effect on the HOLD signal. The HOLD signal can be stopped and resumed using BYPASS on/off.

Bypassing the effect whilst the Hold function is engaged **clears the buffer**.
To have active Hold signal after Un-Bypass, Coriolis FX need at the Input any active sound.
If at the unbypassing moment you have the silence at the device input, you have <u>Holded silence sound!</u>
After Un-bypassing FX, Holded sound can be not the same as you hold the signal before, because every new unbypass work like a new Hold process.

FILTER SECTION

FILTER ROUTING

FILTER MODE **FREQUENCY** **RESONANCE**

FREQUENCY	Cutoff frequency of the selected filter mode. Frequency range 60 Hz ... 20 kHz
RESONANCE	Resonant peak at cutoff frequency
FILTER ROUTING	Routing scheme of the filter: **OFF**: Filter section is off. Filter does not affect the Dry or Wet signal. **MAIN**: Wet signal routed to the Filter. Filter does not affect the Dry signal. **POST**: Wet and Dry signal routed to the Filter.
FILTER MODE	Selectable filter modes: **LPX**: LowPass filter mode (24 dB/oct) **HPX**: HighPass filter mode (12 dB/oct) **BPX**: BandPass filter mode (6 dB/oct) **XAU**: Wah-Wah filter mode

ROUTING SCHEME

INP — PST FILT — PLC — OUT
HRZN — HLD — FILT

SPECIAL FILTER MODE

In Special mode, the filter is controlled by either the Left or Right Pitch-Shifter parameter. From here it is possible to vary filter modes and routings. This allows emulation of *Tape-Stop* or *Tape-Play* effects.

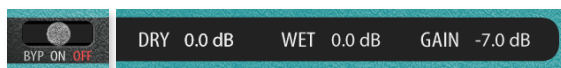|	
LEFT CHANNEL SYNC	The Filter Frequency parameter is controlled by LEFT PITCH SHIFTER, which works as SUM (Filter+Left Pitch Shifter). The RIGHT channel continues to work as a simple Right channel Pitch Shifter
RIGHT CHANNEL SYNC	Filter Frequency parameter is controlled by RIGHT PITCH SHIFTER, which works as SUM (Filter+ Right Pitch Shifter). The LEFT channel continues to work as a simple Left channel Pitch Shifter
CLOSE	The close button returns the filter section to normal operation, disabling Special filter mode

MAIN SECTION

HOLD SAVER

HOLD SAVER ON	After Un-Bypassing FX, the Hold signal is resumed
HOLD SAVER OFF	After Un-Bypassing FX, the Hold signal is reset

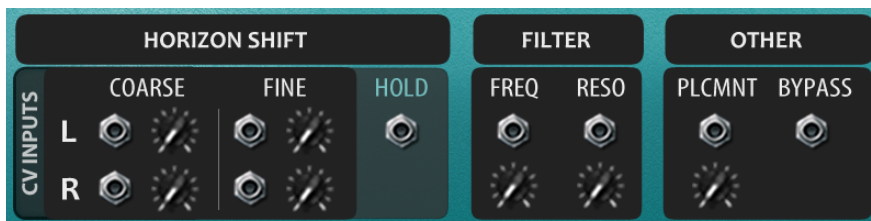|	
PLACEMENT	Placement (Mix) between Dry / Wet signals
SOFT BYPASS	Bypass with fade in and out to exclude loud peaks when the effect is enabled or disabled. Bypassing the effect whilst the Hold function is engaged clears the buffer.
DRY	Gain of the Dry input level (unprocessed input signal)
WET	Gain of the Wet input level (unprocessed input signal)
GAIN	Gain of the output level
ENABLE	BYPASS - disable effect ON - enable effect OFF - mute incoming signal

AUDIO INPUT/OUTPUT:
Mono or Stereo connections for audio signals.

CONTROL MODE:

✓ Hold Buttons
Hold Switches
Momentary Hold Buttons
Momentary Hold Switches

CV INPUTS
CV inputs allow control of the main parameters through use of external CV source curves

CORIOLIS FORCE

PARALLEL PITCH-SHIFTER / MULTI FILTER /
TAPE-STOP / TAPE-PLAY/ WAH / HARMONIZER FX

Thanks to all beta-testers,
Special thanks to:

MrFigg (Cameron Jeffrey): Beta testing / Manual edits
Despondo (Philip Meadows): Manual edits

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Rack Extension Developer

contacts: https://turn2on.com/
support@turn2on.com

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