USER MANUAL

# BBC RADIOPHONIC WORKSHOP

SPITFIRE AUDIO

# CONTENTS

# INTRODUCTION

For 40 years, the BBC Radiophonic Workshop was the place to go for the sound of the impossible – the unruly engine behind the music and effects of Doctor Who, the Goon Show, The Hitchhiker's Guide to the Galaxy, and countless other BBC productions. It was a place of other worlds, and of other sounds. Reanimating this abundant legacy, the essence of the BBC Radiophonic Workshop is now available for the first time – with unprecedented access to its home: London's Maida Vale studios.

Dive into an immaculately sampled collection of vintage synthesisers, tape loops, found sounds, iconic archives and brand new performances from Workshop members. Deeply sampled and reimagined within our SOLAR engine, this library passes the torch from the most forward-thinking musical minds of the early electronic music revolution to the next generation of producers.

## QUICK SPECS

MAC SYSTEM REQUIREMENTS

Mac OS 11 to OS 14

Minimum: 2.8GHz i5 minimum (quad-core), 8GB RAM.

Recommended: 2.8GHz i7 (six-core), 16GB RAM.

Apple Silicon computers are supported and 64 bit DAW required.

(32 bit DAWs not supported)

PC SYSTEM REQUIREMENTS

Windows 10 and Windows 11. (latest Service Pack, 64-bit)

Minimum: Intel Core 2.8GHz i5 (quad-core) or AMD Ryzen 5, 8GB RAM

Recommended: Intel 2.8GHzi7 (six-core) or AMD R7 2700, 16GB RAM

(32 bit DAWs not supported)

- Download Size ~26GB
- Dedicated plugin (AU, VST2, VST3, AAX)

# WELCOME

**Life, the universe and everything**

Preserving a unique period in the history of British electronic music (1958-1968), but offering an instrument for the future, BBC Radiophonic Workshop takes the early form of sampling pioneered by composers such as Delia Derbyshire, Desmond Briscoe, John Baker and Daphne Oram and brings it up to date with the cutting edge techniques of library creation Spitfire Audio is known for.

While there are instruments in this library that are created from sampling the archival tapes of the Workshop, the human connection has been maintained. The found sounds and early synths that were deployed by the Workshop are realised here with new performances and patches from remaining members of the Workshop such as Dick Mills, Mark Ayres, Glynis Jones and new collaborators including Kieron Pepper (once live drummer for The Prodigy).

The Workshop was a place where tape loops ran around the block and solos were played on lampshades; a laboratory with a forest of wires, tape machines … and unique inspirations. Producers came for the sounds of “A halo of bees”, “An unbearable alien shriek”, “A machine singing to itself” or “The voice of a living planet” and left with some of the most original electronic sounds of the era. The Workshop gave Doctor Who’s TARDIS its engine, and terrified a gleeful generation of children who would hide behind the sofa while the voices of Daleks filled their living rooms.

**Welcome to your Sonic Screwdriver**

We were guided through the labyrinthine archives of the BBC Radiophonic Workshop by composer, sound designer and Workshop archivist Mark Ayres – who has worked on Doctor Who and many other productions. Along with other members of the Workshop who are alive today and still gigging under the Workshop’s name, Mark has overseen a deeply sampled exploration of this other-worldy collection. New patches and performances on precious EMS VCS 3 synths, choirs of the lampshades Delia Derbyshire famously sampled and composed with, Skeleton Guitars, tape loops … And more.

The Workshop was a physical place, a space where you could get your hands – and your ears – dirty. The archive materials available in this new instrument, stored in Spitfire’s Solar engine, are your invitation to do the same. Solar allows these historic audio ingredients to find new expression through a variety of signal chains – some old, some new – and the modern techniques of bending, stretching and morphing provided for by the on-board effects. Along with a variety of microphones, the EMT turntable and Rogers loudspeakers made especially for the BBC, there are the Maida Vale plate and spring reverbs, plus processing through modular synthesizers, tape machines, EMS Vocoder, Echo chamber, Roland Vocoder SVC-350 and Eventide H-3000.  Choose from Archive Content, Found Sounds, Junk Percussion, Tape Loops, Synths and a Miscellany of other gems … And your time travel begins.

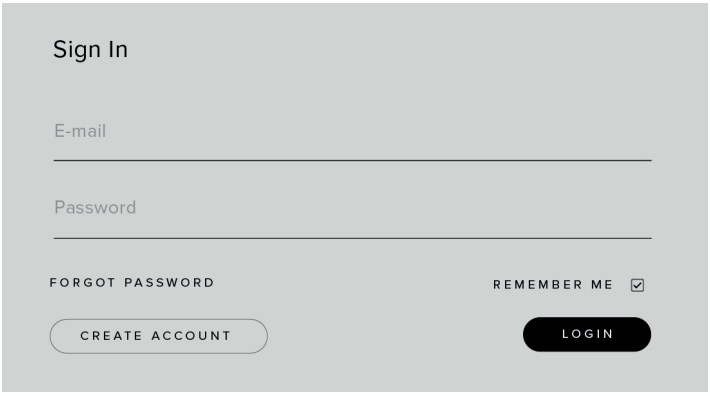
# DOWNLOADING & INSTALLING

Thank you for buying BBC Radiophonic Workshop. If you are new to Spitfire Audio you can get up to speed here: https://www.spitfireaudio.com/about/

First though, grab the 'Spitfire Audio App' from this link, this app will enable you to download the library: http://www.spitfireaudio.com/info/library-manager/

## THE SPITFIRE AUDIO APP

When you launch the app you will be prompted to login using the same details you use at our site. Then you'll see the page pictured below:

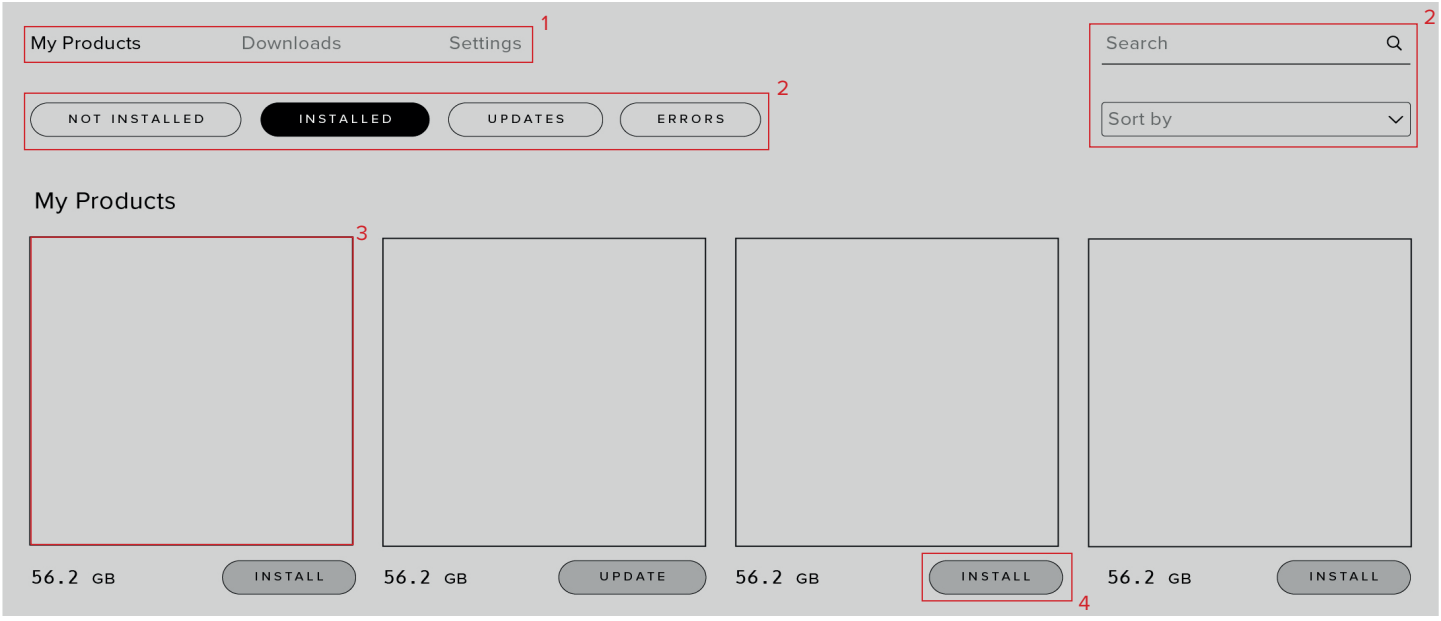



1. TABS the default tab is My Products, which shows all of the libraries on your Spitfire Account. Downloads will show currently downloading products.

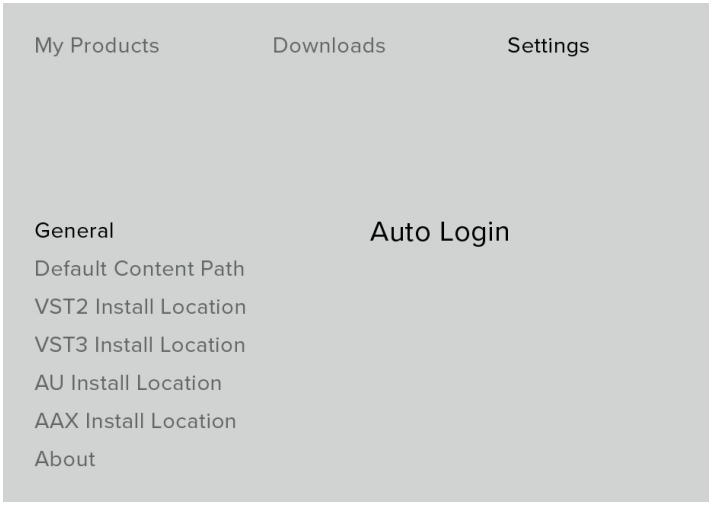
2. FILTERS Clicking these filters will quickly display products you've yet to install, those already installed, and any available updates. Clicking again will remove the filter.

3. LIBRARY All libraries and plugins in your collection will appear with their artwork on the My Products tab. Clicking this artwork will open the product page. This is a great place to find information such as system requirements and instructions as well as Reset and Repair options.

4. INSTALL/UPDATE buttons allow you to quickly start a download directly from the My Products tab, instead of clicking through to the Library. Next to the button the size of the download is shown.

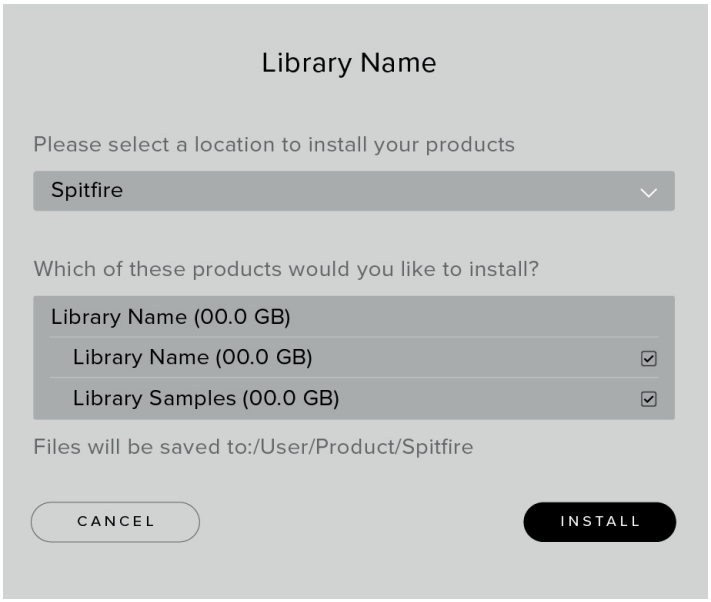


# THE SPITFIRE APP PREFERENCES




If this is your first time using the Spitfire Audio App for a download you may wish to first navigate to the Settings tab. Here you can set the Default Content location for where you wish to download your libraries. You can also you can set the default VST2 install location to the folder where your DAW expects to find VST files.

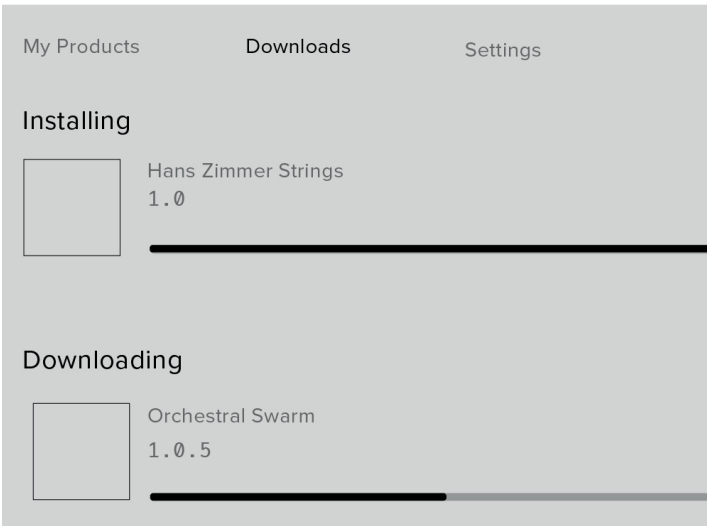
Here you can also enable Auto Login to save time in future.




Once you are happy with your preferences, click the Install button for the library. This is either directly on My Products tab under the library artwork, or it can be found by clicking on the library image and clicking the install button on the page that appears.

Clicking either of these will prompt you for a location, the default content location in your preferences will be suggested but you can select any suitable location. If installing from a hard drive, ensure that you choose the drive as the location.

Once you are happy with the location click Download.




After clicking install you will be directed to the Downloads tab where you can watch the progress if you like. You can of course leave the Downloads tab and start other downloads but at this point you should leave the Spitfire App open until the download completes.

# THE DEDICATED PLUGIN

Solar is its own, self contained plugin built for VST, AU and AAX, so once you've downloaded and installed you're ready to go.

## LOGIC PRO X

• On a fresh project, a track dialogue box will automatically pop up.

• Choose 'Software Instrument', and then look beneath the 'Instrument' dropdown.

• Select AU Instruments > Spitfire Audio > Solar.

## CUBASE

• Right-click the track window and choose 'Add Instrument Track'.

• Underneath the 'Instrument' dropdown, choose Solar.

• Select 'Add Track'.

## PRO TOOLS

• Go to the 'Track' menu at the top of the screen, and select 'New'.

• In the pop-up, select Stereo and Instrument Track, and press 'Create'.

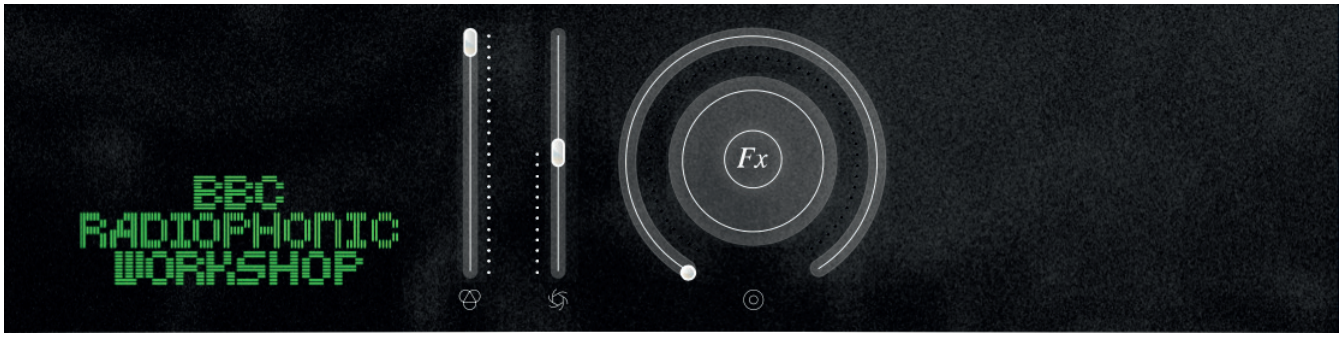
• In the first Insert slot, select multichannel plug-in and 'Instrument'.

• You should see Solar available as an option.

# EDNA INTERFACE (QUICK LOOK)

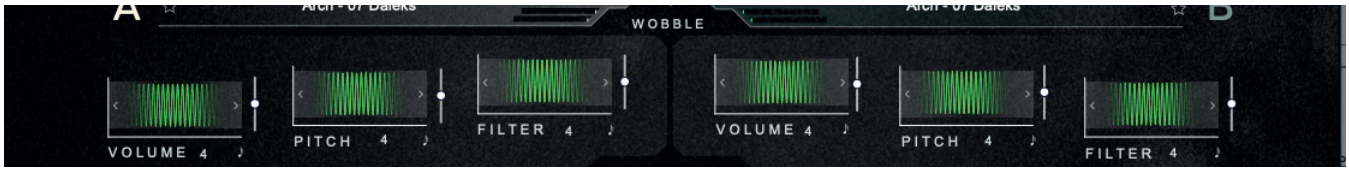
## THE BBC RADIOPHONIC WORKSHOP SYNTH INTERFACE (EDNA)

## MAIN CONTROLS



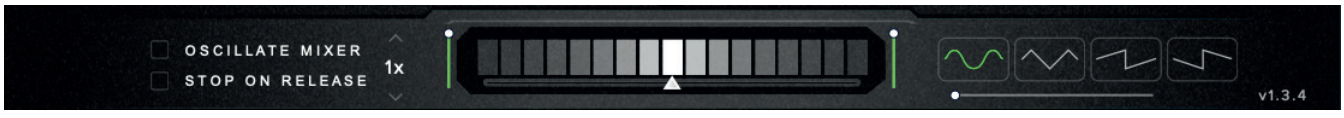

## SOUND BAYS


## WOBBLES



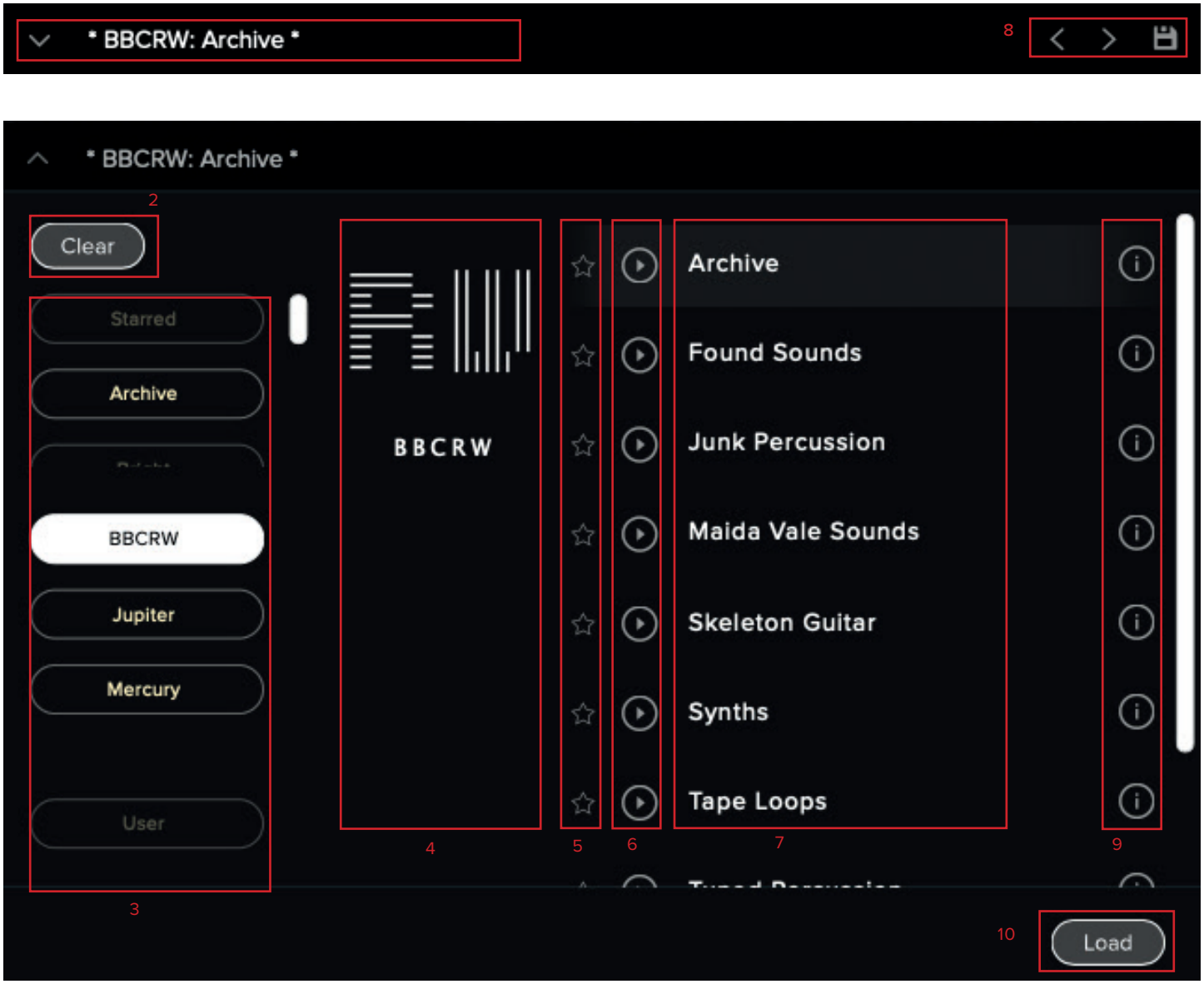

## ENVELOPE


## MIXER




## KEYBOARD & INFO

# PRESET SELECTOR




## 1. PRESET NAME

Here you can see the currently selected preset.

## 2. CLEAR FILTERS

Click here to show all instruments at once.

## 3. FILTERS

Click on a filter to only show those preset grouped by the filter.

## 4. INSTRUMENT GROUP

As you scroll through the available presets, the instrument group is displayed here.

## 5. STAR

Favourite to add to the “Starred” filter.

## 6. PREVIEW

Play back a short example of the preset without having to load it. Enormously helpful when choosing a sound.

## 7. PRESET LIST

Scroll through the list of presets here. Double-click to load a preset or click the ‘Load’ button.

## 8. NEXT, PREVIOUS AND SAVE

With the presets view collapsed, you will be able to see the Next, Previous and Save icons.

Next and Previous will send you to the next available preset - if you have a filter enabled, you will scroll through the filtered set of presets.

Save allows you to save your own preset, click save, name the preset and it will appear under the “user” filter.

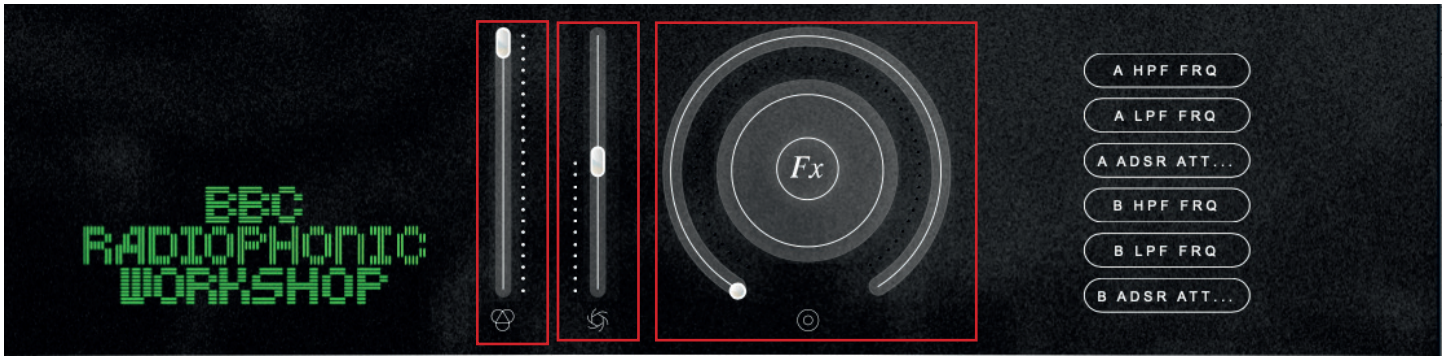
## 9. INFORMATION

Hover over on the “i” icon to see some information about the preset.

## 10. LOAD

Select a preset and then press “load” (or double-click the preset).

# THE EDNA MAIN CONTROLS




1. VOLUME

Often referred to as “Expression” in our Kontakt Libraries, this is an overall level control.

2. CROSSFADER

This controls the mix percentage between Bay A and B

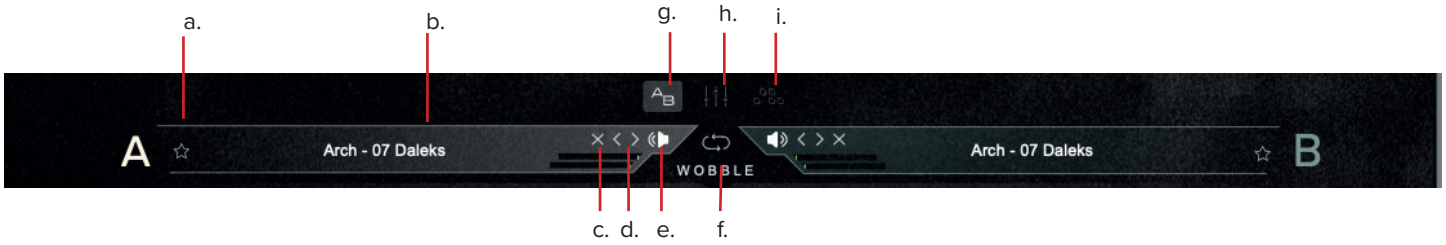
3. KNOB

The configurable knob controls any of the other available parameters for the technique selected.

Hover over, and click and you will be able to assign any of the remaining available controls to the knob.

Tip: ALT right click any control to assign it to this knob.

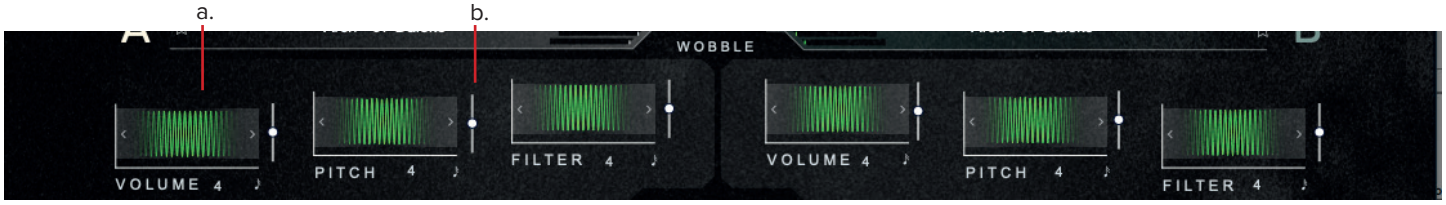
Tip: Right click on any of these controls to assign them to a MIDI controller. Remember that if you assign a MIDI controller to a parameter via the knob, the MIDI controller will follow the parameter rather than being permanently assigned to the knob.




## 1. SOUND BAYS

The Sound Bays display which sounds are loaded (b) and allow you to favourite (a) and mute (e) the sound as well as swapping the bays with the button in the centre (f).

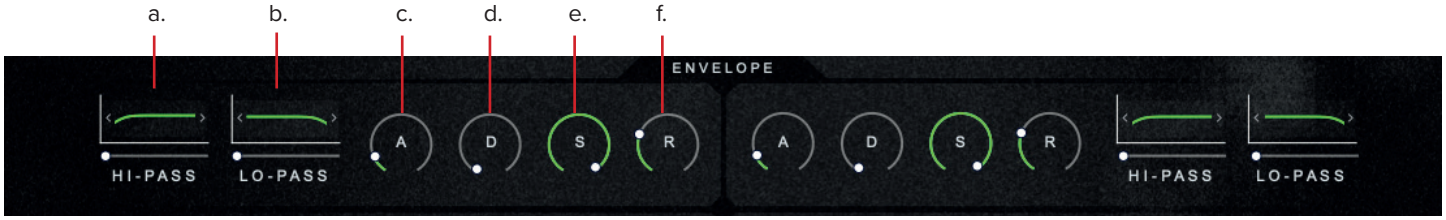
You can also browse for, and load different sounds from the browser (b) as well as unloading the sound (c) and navigating back and forth through the available sounds (d). Finally, use (g) to view the main eDNA panel, (h) to view the FX Pages and (i) to view the Gate Sequencer.




## 2. WOBBLES

Wobbles are low frequency oscillators (LFOs) which are linked to Volume, Pitch and Filter.

Each of these has a frequency (a) and an amount (b) which you can change by clicking and dragging up or down. These can be assigned to your MIDI controller by right clicking.




## 3. ENVELOPE SECTION

This section is made up of the Filters and ADSR.

Filters - Two filters, low pass (cuts frequencies above the cutoff point) and high pass, (cuts frequencies below the cutoff point)

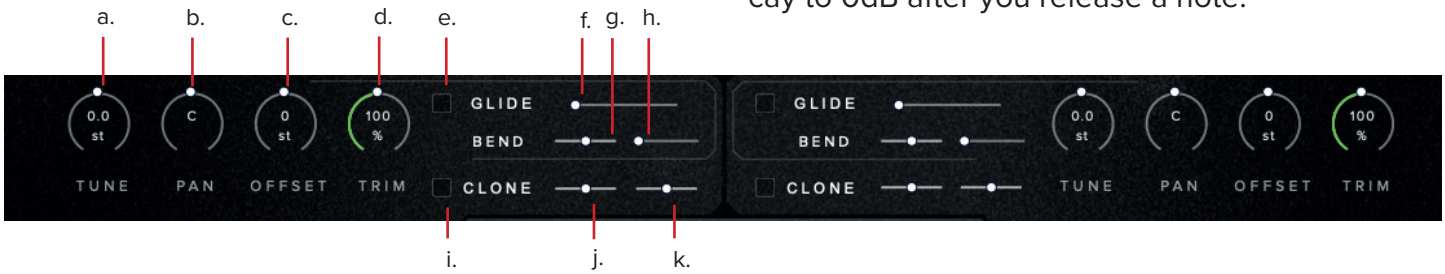
Click and drag the curve (a) up or down to adjust the frequency cut off of the filter. Pull the slider (b) left to right to adjust the resonance of the filter.

**ADSR** - The ADSR controls the amplitude envelope of the sound.

Adjust the Attack (c) to create a slow or fast fade in to your sound.

The Decay (d) drops the volume to the Sustain level (e).

Release (f) sets the time it takes the sound to decay to 0dB after you release a note.




## 4. SAMPLE / NOTE CONTROLS

4a. Tune - Adjusts the pitch of the sample in 50 cent (quarter tone or half semitone) steps. To have a smooth dial (which moves in 5 cent steps) click SHIFT and then move the knob.

4b. Pan - Moves the instrument within the stereo field left and right.

4c. Offset - Is the quickest way of changing the samples you're using. Use this in conjunction with the tune knob to get the desired effect.

In context: offsetting by + 7 keys, you will hear the sample for the note 7 keys higher. If you then tune down 7 semitones you will hear the correct note with a different sample.

4d. Trim - Is a gain stage. It helps you tweak the volume balance between sound bay A & B.

In Context: use this if a Bay A instruments needs balancing against Bay B.

Bend Controls - These control what happens when you use the pitch bend wheel.

4e. Glide ON - This activates the glide control.

4f. Glide Amount - Slide this amount up to increase the time it takes to reach the target note, exaggerating the glides between notes.

4g. Bend Amount - This controller sets the extreme bend amount up to 2400 cents.

4h. % Bend - This controller then sets how much in % the pitch bends. For example, if you set the right to 2400 cents, then the left to -100% you get a bend of -2400 cents. If you put the left slider to +50% you get a bend of +1200 cents.

4i. Clone On - This activates the clone control.

4j. Coarse Tune - This tunes the clone up and down in 100 cent (1 semitone) steps to +/- 1200 cents (1 octave).

4k. Fine Tune - This tunes the clone further in smaller increments +/- 100 cents (1 semitone/halftone).

## 5. OSCILLATE MIXER

The mixer cross fades between the sound in Bay A and Bay B, much like a DJ's mixer.

5a. Oscillate Mixer check box - Click on this to turn on the Oscillator.

5b. Stop On Release - this returns the fader to the Stop position/stops the effects after all notes are released.

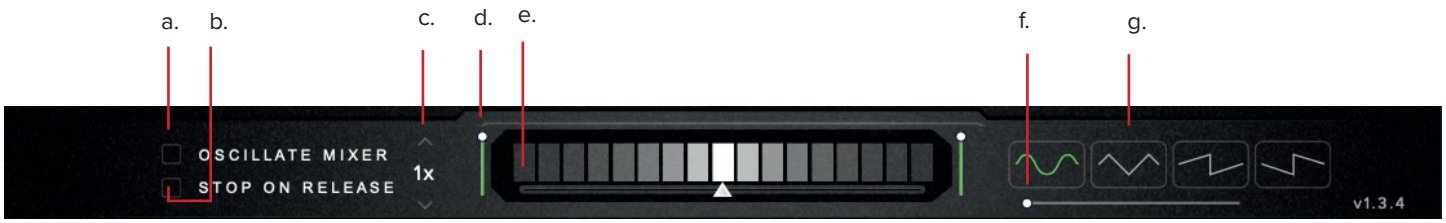
5c. Speed - Synced to your host DAW tempo, adjust up or down to affect the frequency of the Oscillator.

5d. Direction Strength - These control the amount the XFader travels in each direction. Both sliders at 50% will oscillate half way in and out of each bay.

5e. The X-FADER - This is the cross fader between bay a & b.

5f. Start/Phase - This slider controls where the x-fader starts and which direction it moves first.

5g. Oscillator Shape - These toggle between the standard 'equal' shape moving left and right, to a more jagged shape to uni-directional.

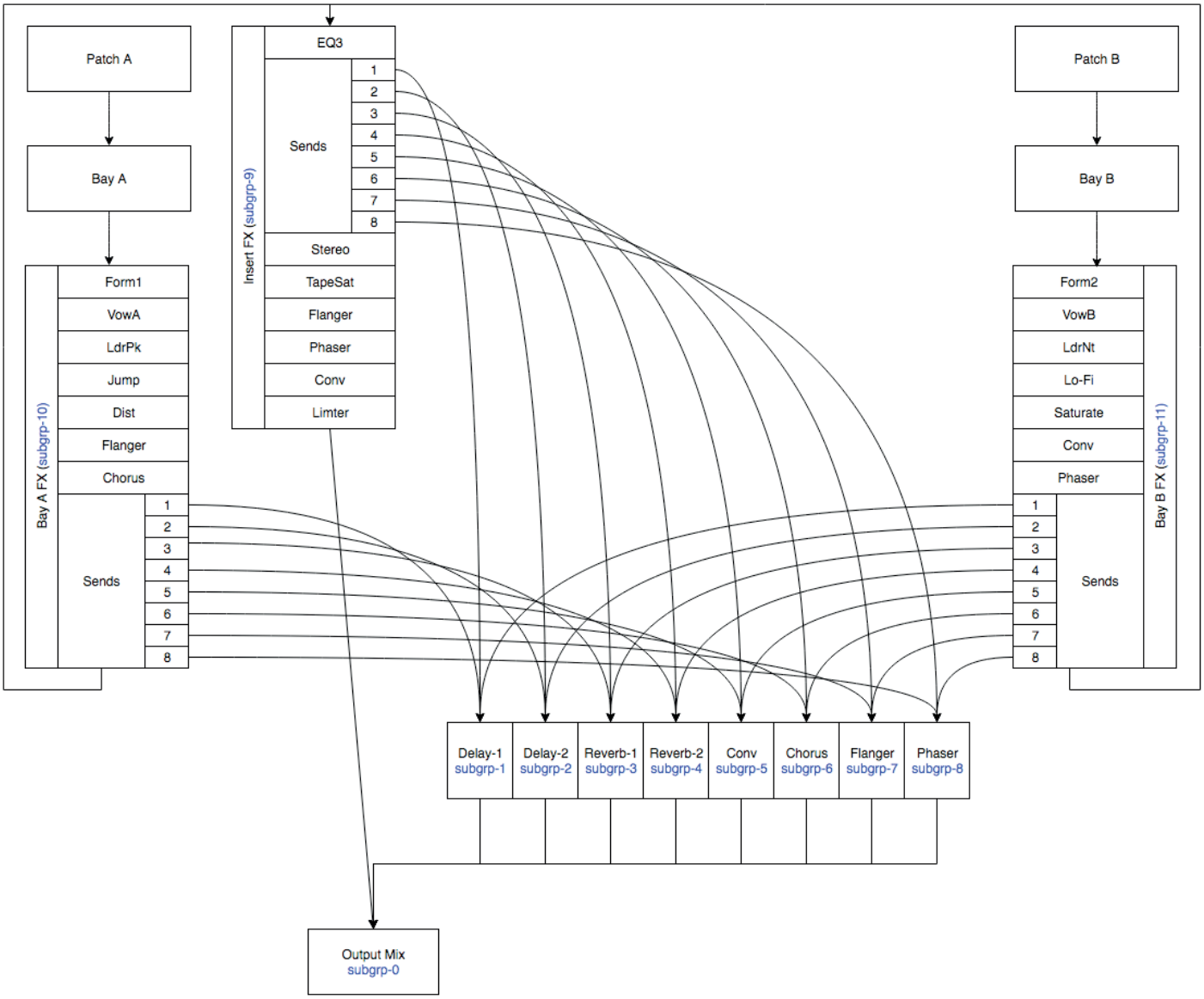


# THE EDNA FX PAGES

## eDNA FX SIGNAL FLOW

Below is a diagram of what the signals are doing under eDNA's hood so you can best decide at which stage you wish to add and tweak your effects.

We have pre-curated the FX racks according to their stage in the signal path. Common send FX such as Reverbs and Delays are found on the AUX FX. Phases, Flangers and Distortions are found as direct inserts, for example Bay A and B.



# EDNA BAY A FX

## SHAPE

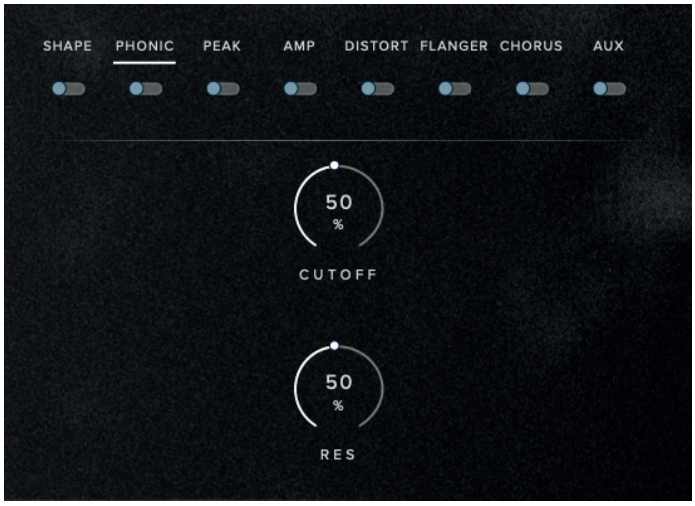

Associated with a talk box effect, a filter which can target the vowel sounds.

**Talk** - Controls the frequency response of the filter.

**Sharp** - Similar to a resonance control on a synth, this control provides a boost or cut to the notches.

**Size** - Similar to a frequency cutoff control.

## PHONIC

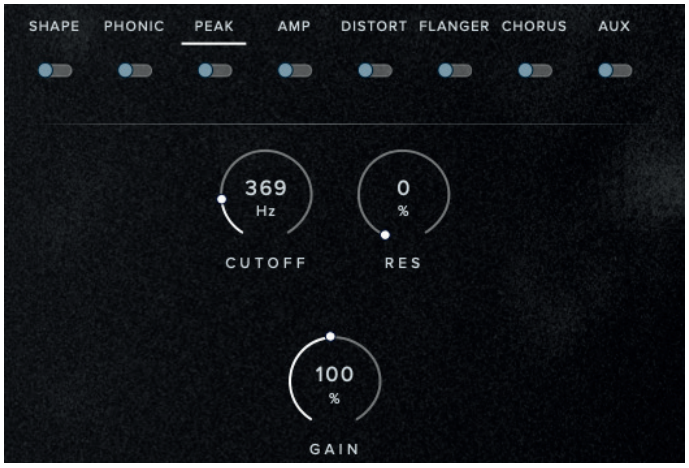



Similar to the shape, this is another filter emphasising vowel sounds.

**Cutoff** - Changes the frequency centre of the filter.

**Resonance** - This control emphasises the filter cut off point.

## PEAK




A Ladder Peak filter that emphasises frequencies at the cut off point.

**Cutoff** - Changes the frequency centre of the filter.

**Resonance** - This control emphasises the filter cut off point.

**Gain** - Control the overall volume after the filter stage.

## AMP


**Bass** - Modifies Bass frequencies.

**Mid** - Modifies Mid frequencies.

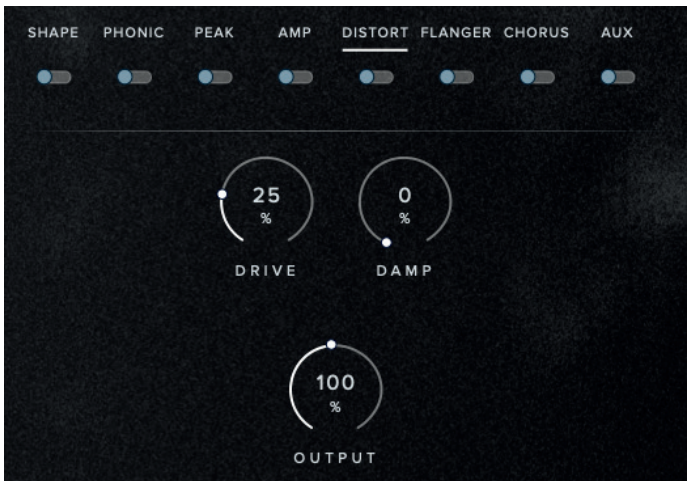
**Treble** - Modifies High frequencies.

**Presence** - Boosts upper mid frequencies.

**Preamp** - Use this to increase drive and distortion.

**Output** - Adjust the volume level after the FX.

## DISTORT




**Drive** - Increase or decrease the amount of distortion.

**Damp** - Increase this to increase high frequencies. Similar to a presence control.

**Output** - Adjust the volume level after the FX.

## FLANGER


**Depth** - The LFO modulation amount. Increase this for a greater range of sweeping.

**Feedback** - Controls the amount of output signal that is returned into the input.

**Speed** - Controls the rate of the LFO variation.

**Phase** - The phase difference between the left and the right channels.

**Colour** - Adjusts the delay of the effect, lower values result in an effect similar to a Phaser.

**Dry / Wet** - Adjust the balance between the original signal, and the processed signal.

## CHORUS


**Depth** - The LFO modulation amount.

**Speed** - The Frequency of the LFO.

**Phase** - The phase difference between left and the right channels.

**Dry / Wet** - Adjust the balance between the original signal, and the processed signal.

## AUX SENDS


8 FX sends. These will not be heard unless activated under the AUX FX section.

2x Delay and Reverb.

Convolution, Chorus, Flanger and Phaser. Turn the sends on, and adjust the FX settings in the AUX FX returns area.

# EDNA BAY B FX

## FORM

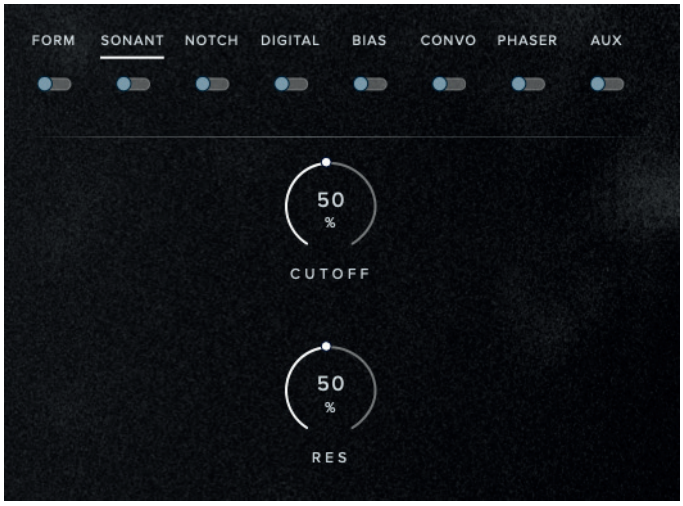

A filter which can target the vowel sounds.

**Talk** - Controls the frequency response of the filter.

**Sharp** - Similar to a resonance control on a synth, this control provides a boost or cut to the notches.

**Size** - Similar to a frequency cutoff control.

## SONANT

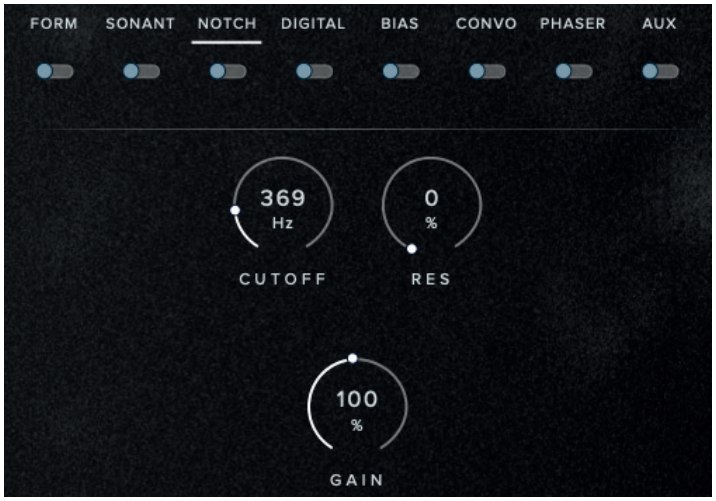



Similar to Phonic.

**Cutoff** - changes the frequency centre of the filter.

**Resonance** - This control emphasises the filter cut off point.

## NOTCH



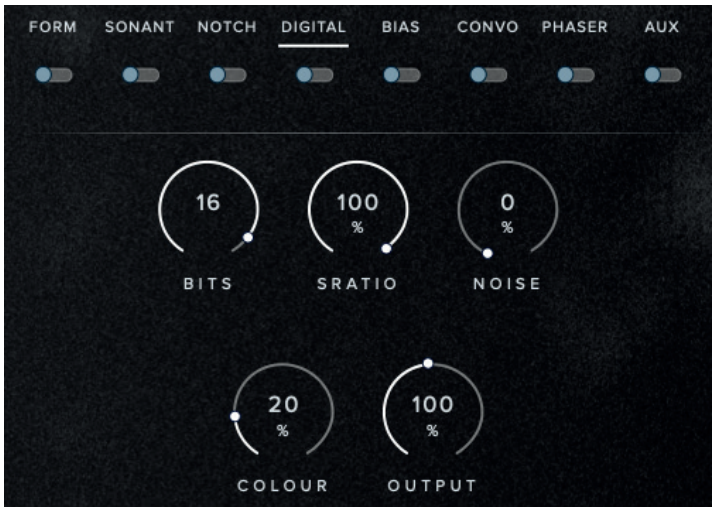

Similar to Peak however the Notch Filter cuts two bands either side of the cut off point.

**Cutoff** - changes the frequency centre of the filter.

**Resonance** - This control emphasises the filter cut off point.

**Gain** - Overall volume output after the FX.

## DIGITAL




**Bits** - Adjust the quantisation of the audio to a different bit-depth.

**Sratio** - Adjust the samples of the audio to a different sample rate.

**Noise** - Adds noise to the audio signal.

**Colour** - Adds a frequency variation to the noise.

**Output** - Overall volume output after the FX.

## BIAS


A saturation based Amplifier.

**Saturate** - Increase this to add a gentle compression. Similar to the drive of analogue tape.

**Output** - Overall volume output after the FX.

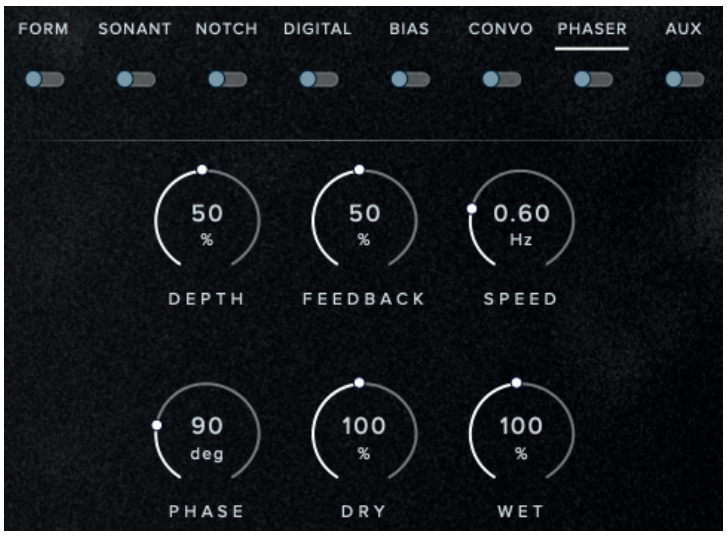
## CONVOLUTION


**Pre Delay** - Adjust the onset of the reverb in ms.

**Return** - Control the amount of the convolution effect you want to hear.

**Drop-down Menu** - Choose from a range of different impulses.

## PHASER




**Depth** - The LFO modulation amount. Increase this for a greater range of sweeping.

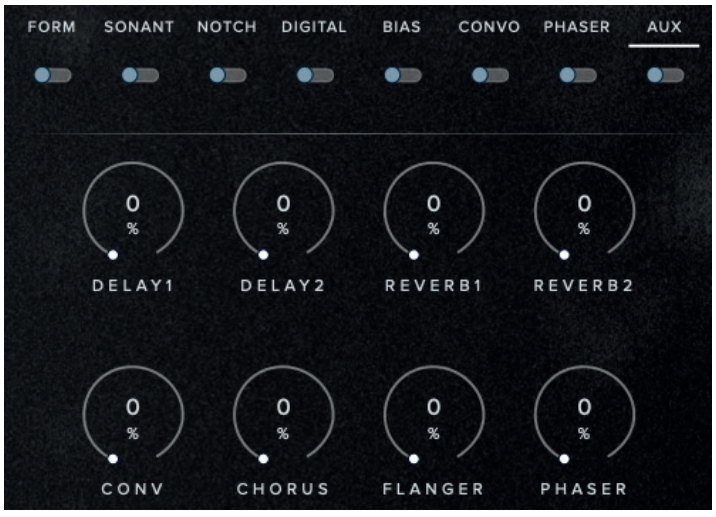
**Feedback** - Controls the amount of output signal that is returned into the input.

**Speed** - Controls the rate of the LFO variation on the all pass filter.

**Phase** - The phase difference between the left and the right channels.

**Dry / Wet** - Adjust the balance between the original signal, and the processed signal.

## AUX SENDS




8 FX sends. These will not be heard unless activated under the AUX FX section.

2x Delay and Reverb.

Convolution, Chorus, Flanger and Phaser. Turn the sends on, and adjust the FX settings in the AUX FX returns area.

# AUX FX

Aux FX are the FX called by the AUX sends from Bay A and Bay B FX. You can also send to AUX FX from the Master FX. To hear these FX, the sends need to be active under Master FX, Bay A FX or Bay B FX.

## DELAY 1 & 2


**Time** - The delay time in notation. For example 1/8 = a delay time of 1 quaver / 8th note.

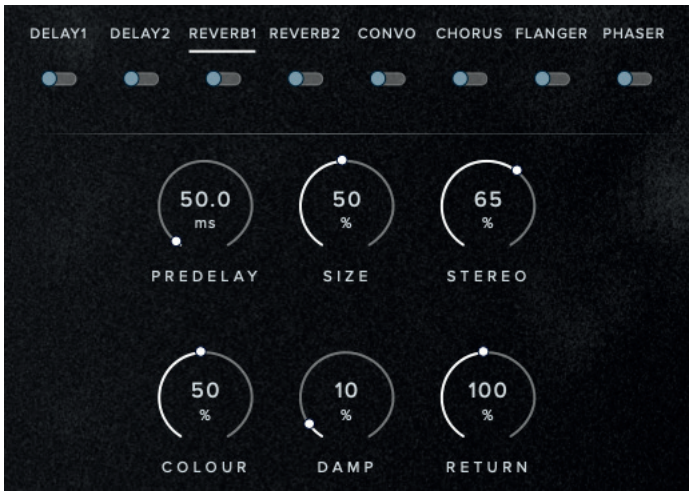
**Damp** - With each delay repetition the high frequencies are attenuated.

**Pan** - Create a stereo delay where delay fluctuates between L/R channels.

**Feedback** - Controls the amount of repetitions that occur.

**Return** - Overall FX volume level.

## REVERB 1 & 2




**Pre Delay** - Adjust the onset of the reverb in ms.

**Size** - Increase the size to give the impression of a larger room.

**Stereo** - Increase the stereo width of the reverb.

**Damp** - The room absorption control.

**Colour** - Lower values will resemble softer room material, whereas higher values resemble more reflective surfaces.

**Return** - Overall FX Volume level.

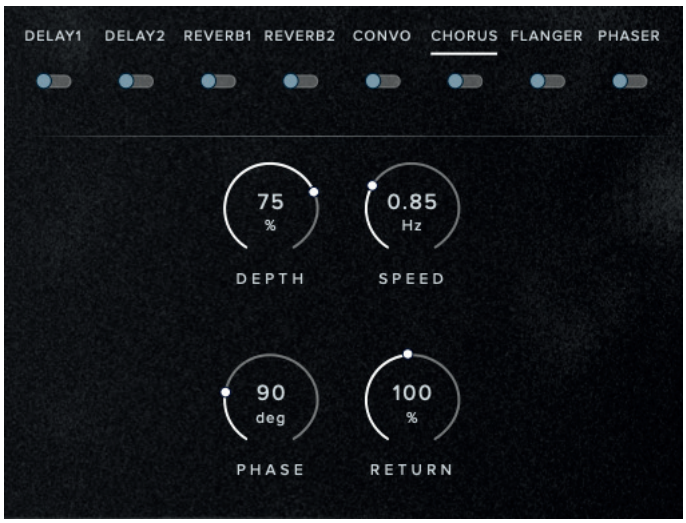
## CONVOLUTION


**Pre Delay** - Adjust the onset of the reverb in ms.

**Return** - Control the amount of convolved signal you want to hear.

**Drop-down Menu** - Choose from a range of different impulses.

## CHORUS



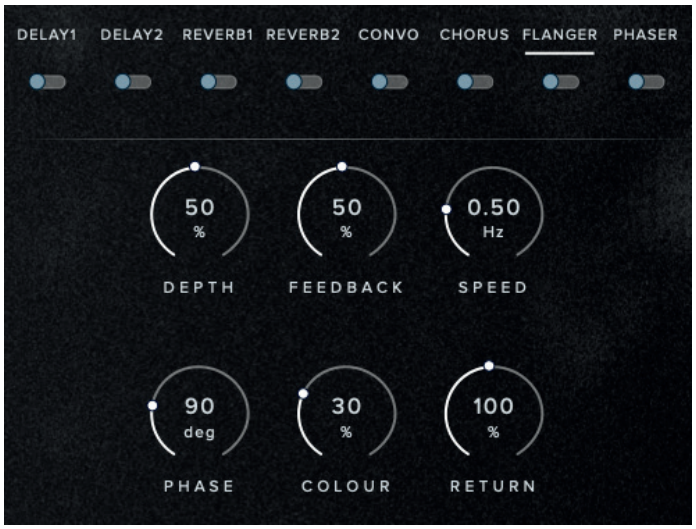

**Depth** - The LFO modulation amount.

**Speed** - The Frequency of the LFO.

**Phase** - The phase difference between left and the right channels.

**Return** - Control the amount of the chorus effect you want to hear.

## FLANGER




**Depth** - The LFO modulation amount. Increase this for a greater range of sweeping.

**Feedback** - Controls the amount of output signal that is returned into the input.

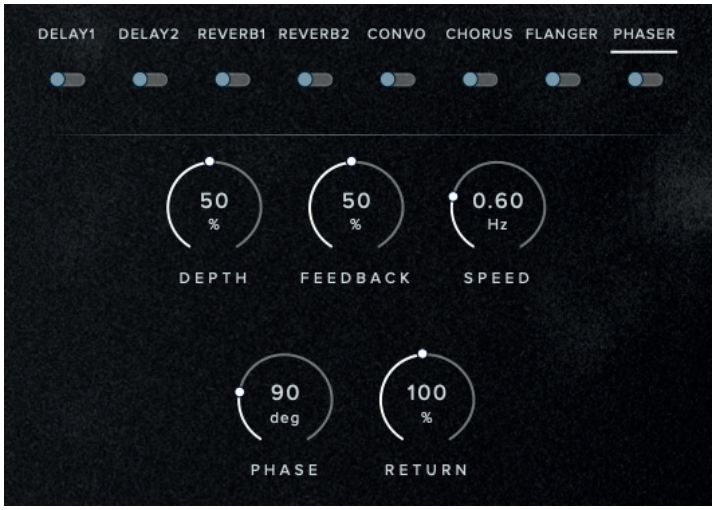
**Speed** - Controls the rate of the LFO variation.

**Phase** - The phase difference between the left and the right channels.

**Colour** - Adjusts the delay of the effect, lower values result in an effect similar to a Phaser.

**Return** - Control the amount of the flanger effect you want to hear.

## PHASER




**Depth** - The LFO modulation amount. Increase this for a greater range of sweeping.

**Feedback** - Controls the amount of output signal that is returned into the input.

**Speed** - Controls the rate of the LFO variation on the all pass filter.

**Phase** - The phase difference between the left and the right channels.

**Return** - Control the amount of the phaser effect you want to hear.

# MASTER FX

Master FX are placed at the end of the signal chain, and all sound in the plugin are processed through these FX.

## EQ


3 bands to adjust the frequency spectrum.

**Frequency** - Controls the band location.

**Gain** - Controls the boost or cut in dB, of frequency.

**Q** - Controls the bandwidth of the chosen frequency.

## GRAIN FX


**Delay** - The time offset from within the delay line from which the grains are generated.

**Delay Spread** - Random distribution of delay times measured as a percentage of the delay parameter.

**Duration** - The duration of each grain.

**Duration Spread** - Random distribution of grain duration, measured as a percentage of the duration parameter.

**Gain Frequency** - The frequency at which new grains are generated.

**Frequency Spread** - Random distribution of grain frequency, measured as a percentage of the grain frequency parameter.

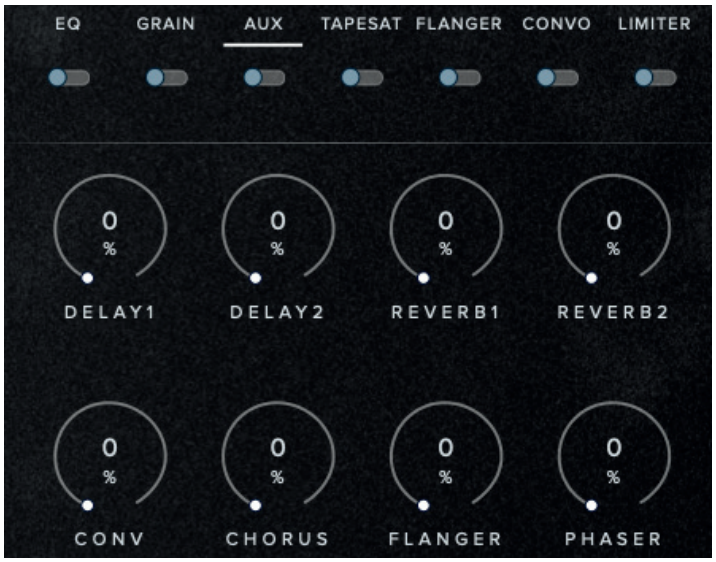
**Tuning** - The pitch tuning of grains in semitones.

**Tuning Spread** - Random distribution of grain tune, measured as a semitone from the grain tune parameter.

**Tuning Quantise** - Select which scale the tuning of the grains should follow.

**Mix** - The overall mix of the granular effect.

## AUX SENDS

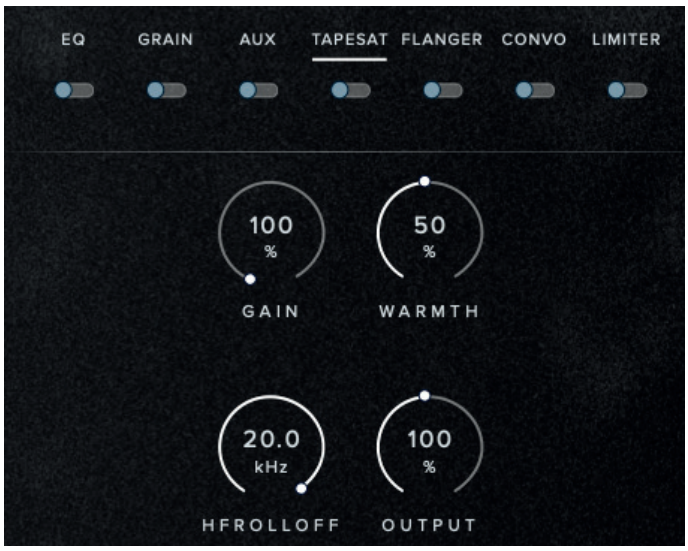



8 FX sends. These will not be heard unless activated under the AUX FX section.

2x Delay and Reverb.

Convolution, Chorus, Flanger and Phaser. Turn the sends on, and adjust the FX settings in the AUX FX returns area.

## TAPE SATURATION




Tape Saturation emulates gentle compression and distortion of recording to tape.

**Gain** - Increasing this will create a greater distortion.

**Warmth** - a tone control for the tape and adds in harmonics.

**HF Roll off** - attenuates high frequencies.

**Output** - allows the user to compensate for any gain reduction.

## FLANGER


**Depth** - The LFO modulation amount. Increase this for a greater range of sweeping.

**Feedback** - Controls the amount of output signal that is returned into the input.

**Speed** - Controls the rate of the LFO variation.

**Phase** - The phase difference between the left and the right channels.

**Colour** - Adjusts the delay of the effect, lower values result in an effect similar to a Phaser.

**Dry / Wet** - Adjust the balance between the original signal, and the processed signal.

## CONVOLUTION


**Pre Delay** - Adjust the onset of the reverb in ms.

**Dry / Wet** - Adjust the balance between the original signal, and the processed signal.

**Drop-down Menu** - Choose from a range of different impulses.

## LIMITER


Limiters are a safeguard against clipping of the overall output signal, with a ratio of 1.100 and a fast attack.

**In Gain** - Sets input signal gain. Turn this up until attenuation is heard.

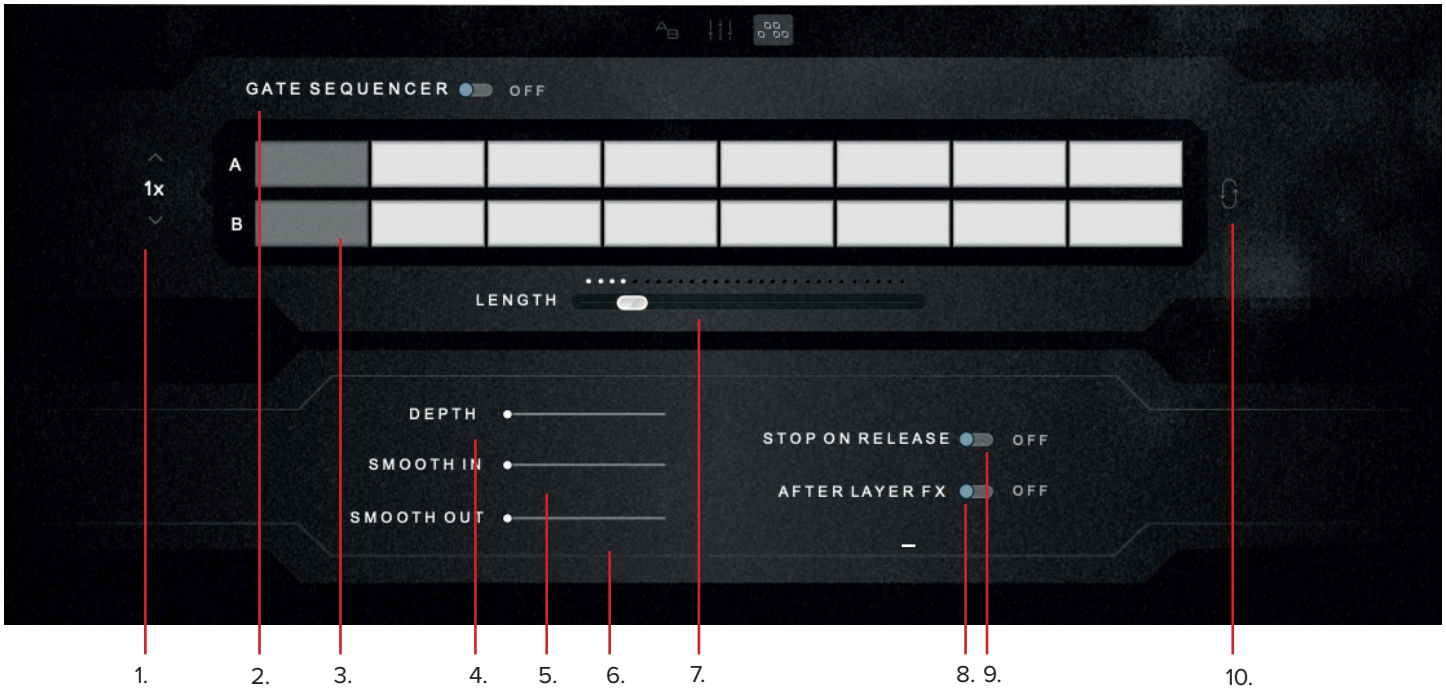
**Release** - In ms, how long it takes for the Limiter to return to its unprocessed signal.

**Output** - Compensates for any gain reduction.

# GATE SEQUENCER

The Gate Sequencer rhythmically mutes and unmutes both sound bays independently. The top line is the gate for Bay A, the bottom for Bay B.

The default position is everything “on”. To gate either A or B click on the step you wish to gate.




**1. Speed** - Adjusts the speed of your gate sequence in relation to your DAW tempo.

**2. Gate Sequencer** - Switches the machine on or off.

**3. Gate Cell** - Click these in / out to activate a sequence.

**4. Depth** - This adjusts how much the signal is affected by the gate sequencer.

**5. Smooth In** - Changes the shape of the front of the gate and smooths it in.

**6. Smooth Out** - The amount of tail the gate has.

**7. Length** - If you need more or fewer steps than the default length, use the division slider. This will not affect the gate speed, but the number of steps in your pattern. Particularly useful when working in a 3/4 time signature.

**8. After Layer FX** - This switches the gate stage to after the bank FX.

**9. Stop on release** - Switches the gate engine off when you release your sound.

**10. Flip** - This swaps the A/B sequence around.

We have also have some quick keys that help you tweak and experiment quickly and easily:

• Holding shift toggles a range of cells (i.e. press the 2nd cell, hold shift, press the 10th cell - cells 2-10 will change).

• Holding ALT affects both A and B cells (same as ALT and knob twiddling).

• Holding CMD/CTRL (Mac/PC) and clicking inverts the current sequencer track. On becomes off and vice versa.

# TOP MENU


## 1. LED

Shows when an instrument is loaded by lighting solid green. If this flashes, your instrument is not fully loaded.

## 2. CPU METER

An indication of how much your CPU is being taxed, the green flash next to the CPU meter will turn red when you are overloading it.

## 3. DISK METER

How hard your hard drive is working. If this is close to, or going over 100% it's time to consider a faster drive.

## 4. MEMORY

This shows how much RAM you are currently using in this instance of BBC Radiophonic Workshop. While the preset is loading, this will show the instrument loading into memory.

## 5. VOICES

Shows how many voices are being used at any one time.

## 6. REFRESH

Refresh the instrument, alt-click to refresh the whole plug-in. This can be useful if you have hanging MIDI notes or have moved samples in your file system.

## 7. MIDI CH

Set the MIDI channel that will control the instrument here. If in doubt select "any" so that the instrument will react to any incoming MIDI messages.

## 8. TUNE

Move this knob to tune in increments of 0.01 of a semitone. CMD/CTRL-click to reset to default.

## 9. PAN

Pan the signal left / right. CMD/CTRL-click to reset.

## 10. VOLUME

Control the overall volume of the instrument.

## 11. PRESET SETTINGS


### A. VELOCITY

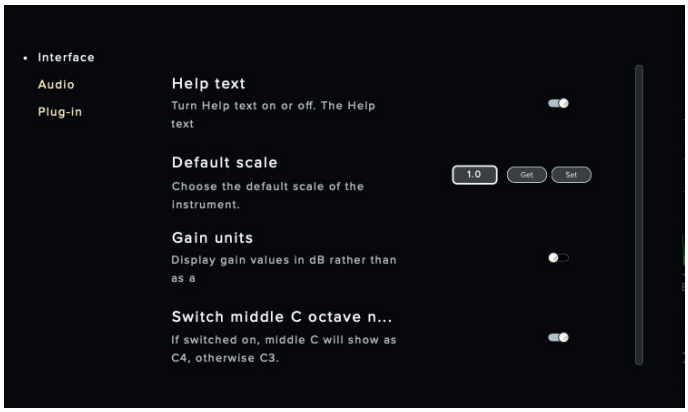
Pick from 4 different velocity curves to suit your controllers touch.

### B. EDIT CC MAPPINGS

Clicking EDIT will open the CC Mappings editor, which will allow you to map parameters to any controller/MIDI CC with controllable ranges. See page 28 for more detailed information.

# 14. PLUGIN SETTINGS

## INTERFACE




### HELP TEXT

Turn this on to display parameter information in the bottom left corner of the plug in.

### DEFAULT SCALE

How big the plugin UI is when opened. Press “get” to set the current scale or type a value before pressing “Set” and “Save”.

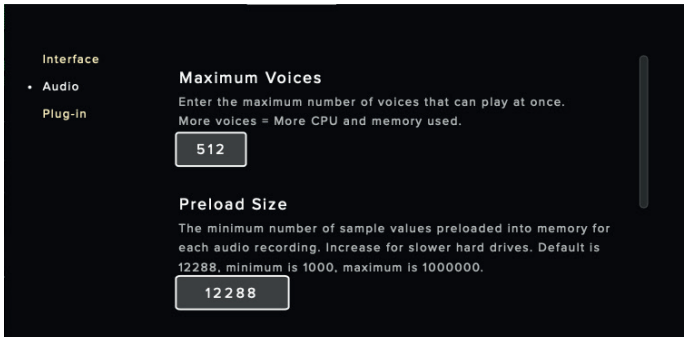
### GAIN UNITS

Toggle this if you want your gain to be displayed in dB instead of as a percentage.

### SWITCH MIDDLE C OCTAVE NUMBER

If switched on, Middle C will show as C4, rather than C3.

## AUDIO




### MAXIMUM VOICES

Enter the maximum number of voices that can play at once. More voices = More CPU and memory used.

### PRELOAD SIZE

The minimum number of sample values preloaded into memory for each audio recording. Increase for slower hard drives. Default is 12288.


### STREAM BUFFER SIZE

The number of sample values kept in memory for each audio recording stream. Increase for slower hard drives.

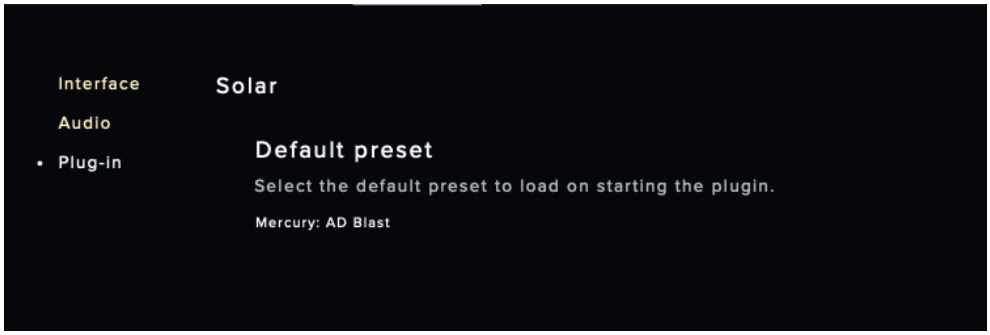
### MASTER TUNING

Change the default tuning of the plugin. For example A = 440hz or A = 432 HZ.


### MAXIMUM PITCH VOICES

Limit the number of pitch stretch voices that can be triggered at any one time. Lower values can aid CPU.

## PLUGIN



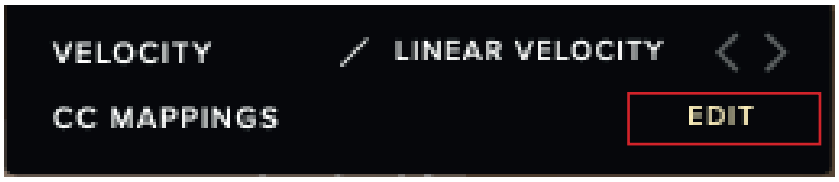

Under this heading you can choose a default preset to load, click on the preset name and choose your preferred preset from the list.

# MIDI MAPPING

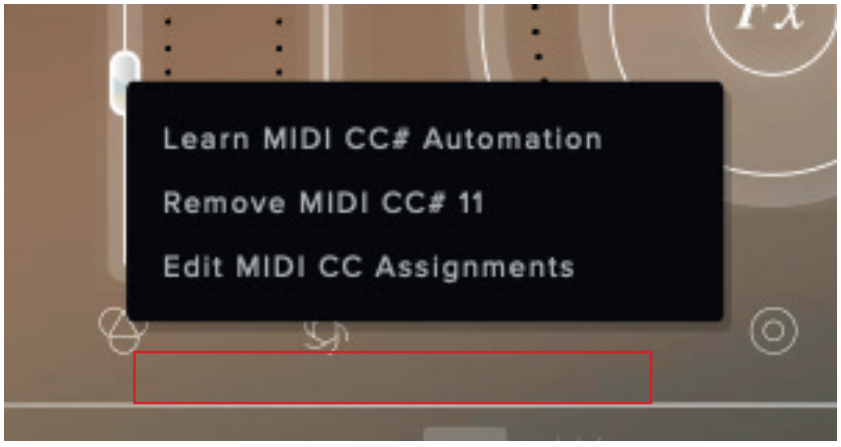
MIDI Mapping refers to the process of assigning MIDI messages to specific parameters or functions within a software application, hardware device or DAW.

The CC Mappings window will allow you to easily map to controls all available MIDI CC assignable parameters and/or functions within the plugin, all in one place.

Access the CC Mappings window via the Plugin Settings ellipsis in the Top Menu by clicking on EDIT next to CC MAPPINGS (see page 26):




You can also access this by right- clicking any assignable parameter in the main plugin GUI, and choosing “Edit MIDI CC Assignments”:




The option to right click on any assignable parameter and choose Remove MIDI CC#XX (on parameters with default assignments) and Learn MIDI CC# Automation is also still available as you can see above.

The CC Mappings window will initially open to the parameters in the plugin with default CC assignments, you can access and make changes to a number of settings as below:


**1. SOURCE** - Shows the current source CC# - click in the CC box to type in a new CC# as required.

**2. PARAMETER** - Shows the name of the parameter being assigned.

**3. PARAMETER DROP-DOWN LIST** - Click here to bring up the list of available assignable parameters in the plugin, to change the current parameter.

**4. RANGE** - Use this slider to configure a minimum value and a maximum value, which will define the limits of the fader's range of motion for the assigned CC# when using a MIDI Controller.

**5. FLIP** - Tick this box to invert the way the assigned controller changes the values, (e.g. moving the control all the way down to lower or turn off a parameter when using FLIP would increase the values instead).

**6. CURVE** - This is MIDI CC Curve, allowing you to shape the behaviour of the MIDI-controlled parameter to create more expressive and dynamic performances. Click and drag diagonally from inside the box to change the curve shape as required.

**7. DELETE** - Click on this to remove the parameter line altogether.

**8. ADD** - Click here to add a new line, where you can then enter your new CC# and choose the parameter using the parameter drop-down arrow from point 3.

**9. RESET** - Use this to reset all assignments back to default (this will also delete any additional parameters you created to revert to only parameters with default assignments).

**10. CLEAR** - Click on this to clear all assignments and empty the window to start again from scratch.

**10. SAVE** - Saves your current assignments, which will be applied to all presets subsequently loaded in this plugin instance. New plugin instances loaded, however, will open to the default assignments.

# APPENDIX A — FAQS AND TROUBLESHOOTING

## Q: WHAT ARE THE SYSTEM REQUIREMENTS?

MAC SYSTEM REQUIREMENTS

Mac OS 11 - OS 14
Minimum: 2.8GHz i5 (quad-core), 8GB RAM

Recommended: 2.8GHz i7 (six-core), 16GB RAM

32 bit is no longer supported. Apple Silicon / ARM is supported.

PC SYSTEM REQUIREMENTS

Windows 10 and Windows 11. (latest Service Pack, 64-bit)

Minimum: Intel Core 2.8GHz i5 (quad-core) or AMD Ryzen 5, 8GB RAM

Recommended: Intel 2.8GHzi7 (six-core) or AMD R7 2700, 16GB RAM

## Q: I WANT TO RESET THE PLUGIN SETTINGS TO THE DEFAULT

You can delete the .settings file to reset the settings to default. This is located at:

Users/username/Music/Spitfire Audio - on a Mac

C:\Users\username\AppData\Roaming\Spitfire Audio - on a PC.

## Q: MY LIST OF PRESETS IS EMPTY, HOW DO I SOLVE THIS?

If you have moved your BBC Radiophonic Workshop Library folder, you can solve this problem by using the “Locate Library” feature in the Spitfire Audio App.

If this does not solve the problem, the library likely needs reauthorising, to do this, use the “repair” feature in the Spitfire Audio App.

## Q: I SEE A RED EXCLAMATION MARK IN THE TOP LEFT OF BBC RADIOPHONIC WORKSHOP, WHAT DOES THIS MEAN?

This means that there is an error, you can click the exclamation mark to open a log with further details. It is likely that using the “Repair” and “Locate Library” features in the Spitfire Audio App will solve the problem but if not, contact our support team at spitfireaudio.com/support and attach the log.

## Q: CAN I INSTALL ON MORE THAN ONE COMPUTER?

With our products you have two licenses. This means that you are allowed to download and install on two computers you own, say your main rig and your mobile rig. If you have purchased the library on a hard drive, you should copy the contents of the drive on to the destination machine before completing the download with the Spitfire App. If you downloaded BBC Radiophonic Workshop, you can copy the library folder over to the second machine and then use the “Repair” and “Locate Library” features in the Spitfire Audio App.

## Q: I CAN’T SEE THIS IN THE KONTAKT LIBRARIES PANE AND WHEN I TRY AND LOAD IT INTO KONTAKT IT SAYS NO LIBRARY FOUND

This library does not run in Kontakt, it is a standalone plug-in that you can run in your chosen DAW.

## Q: HOW DO I AUTHORIZE BBC RADIOPHONIC WORKSHOP ON A MACHINE NOT CONNECTED TO THE INTERNET?

It not possible to authorise BBC Radiophonic Workshop on a machine not connected

to the internet. Authorisation is done with the Spitfire Audio App and an internet connection is required.

## Q: HOW CAN I REDOWNLOAD A PRODUCT?

This can easily be done via your Spitfire Audio App. To reset both your entire library download or the latest update;

• Open up the Spitfire Audio App and log in with your account email and password.

• Select the product artwork you wish to re-download

• On this page is a “cog wheel”. Select this, choose “reset” from the menu. Then “Reset Entire Download” (for a full download) or (Latest Update) for the latest update.

This will reset your latest update ready for install again. You can repeat this process for any of the libraries you own.

Note that there is a limit to how many times you can reset your downloads in a certain time frame. If you do exceed your reset limit please get in touch.

## Q: DIFFICULTIES IN DOWNLOADING / INSTALLING

Customers may find that they have some difficulties in the downloading process. If you find that you are having some trouble, please check the list below for possible causes:

• The formatting of your drive, if it is FAT32 this will cause errors, because there is a maximum file size with this format of 4GB and our download files will exceed this limit. ExFat format is also not supported due to possible permissions/decryption issues. To solve this problem, reformat your drive or use a different drive. We recommend NTFS on PC and Mac OS Extended or AFPS on Mac.

Other possible issues:

• Spitfire App freezes in the “Extracting” stage for hours. This may be because our libraries are often very large files, and this is the stage where the compressed files are extracted and placed in their final locations on the hard drive. There could be hundreds of GB of content to unpack, so it really can take hours. If you’re unsure whether it has crashed or is extracting files, visit the installation folder you chose when you started the install. If everything is working normally you’ll see various files appearing in the folder (or one of its sub-folders).

• If your download gets stuck and is continually cycling and not resuming, please get in touch with us, giving us as much detail as possible about your set up. It would be helpful if you can tell us your operating system, where you are downloading from (your country, and also whether you’re at home or work), your ISP, and whether there are any proxy servers or firewalls between your computer and the internet.

## Q: I HAVE FAST INTERNET, WHY IS MY DOWNLOAD SLOW?

We have no direct influence on your actual download speeds, our libraries are hosted on S3 servers which are normally very quick but it may well be that at certain times of the day when traffic is particularly busy, your ISP may throttle your connection speeds.

We would advise you to leave your download running overnight as speeds should ramp up at less busy times. Our Spitfire App downloader aims to use as much of the available bandwidth as possible to give you the quickest possible speeds, and may take several minutes to reach its peak.

## Q: CAN I TRY BEFORE I BUY?

No - it is not currently possible to demo our products.

If you go to our Youtube channel you’ll see many walkthroughs containing detailed info about all our products -- you can hear them being played in real time with no smoke and mirrors!

## Q: MY LIBRARIES ARE NOT SHOWING UP IN MY SPITFIRE APP

A handful of customers may find that when they log into their Spitfire App, some of their previously purchased products do not show up in the 'Installed' section or in the 'Download Ready' section either. It may be that you have purchased these under another email address. Checking other possible email addresses for your previous purchases may help to find these missing products. If this is not the case, and these missing products were purchased a few years ago, please create a support ticket telling us your account email address, and any serial numbers you may have to go with these missing products. Our support team can also merge one or more accounts together if you'd like to consolidate all your purchases in one place.

The more information we have, the quicker we can get you back up and running!

## Q: HOW DO I UPDATE MY PRODUCTS?

The main premise of downloading our products is that our Spitfire App downloads into the folder you choose, so it is important to choose the folder above where you want the download to go. The best file path for our products is something very simple, a long file path will cause errors as there is a character limit on how far the Spitfire App can read. We advise a file path of something along the lines of: Samples Drive > Spitfire Audio

When it comes to downloading / updating - if you have a folder called 'Spitfire Audio' always point the Spitfire App to the folder Spitfire Audio - never go into this folder and choose the actual library in question.

## Q: HOW DO I REDOWNLOAD THE LATEST UPDATE?

With the continuous improvements to our Spitfire Audio App, we have incorporated the ability to reset your own downloads.
This can easily be done via your Spitfire Audio App.
Open up the Spitfire Audio App and log in with your account email and password.

• Select the product artwork you wish to re-download

• On this page is a "cog wheel". Select this, choose "reset" from the menu. Then "Reset Entire Download" (for a full download) or (Latest Update) for the latest update.

• This will reset your latest update ready for install again.

You can repeat this process for any other updates you wish.

If you do not see the option to reset your download in your Spitfire Audio App, we would advise to download the latest version of the Spitfire App from spitfireaudio.com/info/library-manager/.

## Q: I'VE BEEN WAITING AGES FOR MY DOWNLOAD LINKS?

We run all our orders through a fraud checking process. The automatic fraud check takes 20 minutes (but can take up to an hour during a very busy period, e.g.. Black Friday) If your order gets caught at this stage, we run a manual order check, and this can delay the processing of your order for up to 24 hours.

You should however receive an order confirmation email IMMEDIATELY upon placing your order. This confirms that your order has successfully been logged in our system and that your payment was successfully taken. Please check your junk folders before contacting our support.

## Q: CAN I DOWNLOAD ON A PC, THEN TRANSFER TO A MAC OR VICE VERSA?

Yes, you can copy the library folder and plugin files over to the second machine and then use the “Repair” and “Locate Library” features in the Spitfire Audio App. Please note that although the majority of the download can be done on a separate machine, you will always need an internet connection to finish the authorisation process.

## Q: HOW DO I DOWNLOAD PRODUCTS ON MAC OSX 10.9?

The version of the Spitfire App needed to install BBC Radiophonic Workshop only supports Mac OS 11 and upwards.

## Q: I HAVE FOUND A BUG

In some cases we can’t squash them all and bugs shamefully make their way through. If you think you have found a bug, please contact us with all the relevant information;

• A description of the bug you have found

• A screencast (video) of the bug happening, or an audio example

• The exact preset name (or presets) in question and also the library giving us as much detail as possible will help us get to the bottom of the issue.

## Q: WHAT IS YOUR REFUNDS / RETURNS POLICY?

If you have NOT completed the download / installation process, and bought within 14 days then we CAN refund / return your product, please contact support with your account email address and order number so we can handle this quickly. If you HAVE completed the installation process (even if you’ve not yet registered your serial number), please see our EULA in regards to why we do not accept refunds and returns. We can refund hard drive orders up until the point when the drive is dispatched from our office. This is usually 1-2 days after you order.

## Q: I’VE FORGOTTEN MY PASSWORD?

If you have forgotten your password, please see this link spitfireaudio.com/my-account/login/, and click ‘Forgotten Password’. If at some point in the past you asked us to merge two or more accounts but have since forgotten, you MAY find that the forgotten password isn’t working for the email address you asked us to merge FROM. In this case, please contact support with your name, and any email addresses you think we might know about, and we’ll work out what has happened.

# APPENDIX B —
# DEFAULT CC MAPPINGS

| | |
|---|---|
| Crossfader | 1 |
| Global Gain | 7 |
| Global Pan | 10 |
| Expression | 11 |

# APPENDIX C —
# SIGNALS, PRESETS & SOUND BAYS CONTENT (ACCESSIBLE VIA SOUND BAY A AND SOUND BAY B)

## SELECTION OF 6-12 SIGNALS AVAILABLE FOR APPLICABLE SOUNDS:

**MIX 1 (MI1)** - A 'REALISTIC' MIX WITH AN ADDITION OF PLATE REVERB
**MIX 2 (MI2)** - A HEAVIER MIX WITH ADDED COMPRESSION, EQ AND SPRING REVERB
**DIRECT (DI)** - DIRECT SOUND FROM THE SYNTH
**CLOSE (CL)** - A CLOSE MIC'D SIGNAL FROM THE SOURCE INSTRUMENT
**ROOM MID (RM)** - A PAIR OF MICS SET AT A MEDIUM DISTANCE FROM THE SOURCE INSTRUMENT
**ROOM FAR (RF)** - A PAIR OF MICS SET RIGHT AT THE BACK OF THE ROOM
**MODULAR 1 (MO1)** - SOUND PROCESSED THROUGH THE MODULAR
**TAPE (TP)** - A COMBINATION OF BOTH TAPE MACHINES
**PLATE (PL)** - MAIDA VALE PLATE REVERB
**SPRING (SP)** - MAIDA VALE SPRING REVERB
**SPACE ECHO (SE)** - SIGNAL SENT THROUGH A SPACE ECHO SET UP IN THE ROOM
**AMS (AS)** - EFFECTS SIGNAL FROM AMS PITCH-SHIFTED DELAY
**FLANGER (FL)** - EFFECTS SIGNAL FROM A VINTAGE FLANGER

## PRESETS & CONTENTS:

## ARCHIVE (ARCH)

Decades of music and sound effects from the workshop, collated by Mark Ayres and chopped, warped and recombined by Spitfire Audio.

LONG

07 Daleks
Macra Terror Drops (84bpm)
Macra Terror Fifth (140bpm)
Macra Terror Tone (88bpm)
Aboard the Submarine (120bpm)
Aggedors Temple (75bpm)
Boardroom (78bpm)
Brighton Beach (120bpm)
Corridor Background (132bpm)
Cyberman Stab (117bpm)
Dalek Control Room (120bpm)
Dalek Truth Machine (96bpm)
Davros Interrogation machine (120bpm)
Dawn of Emptiness
Dematerializer Gun (134bpm)
Distillation Chamber
Dominator Saucer Int (65bpm)
Electric Storm
Exxilon City Control Room
Federation Ship
Generator Screen (116bpm)
Heavenly Choir
Hive Mena Fades (117bpm)
International Electromagnetics (73bpm)
JB Reel 1 (100bpm)
JB Reel 4 (135bpm)
JB Reel 7
Keller Machine (67bpm)
Liberator Black Hole
Liberator Ship
Magrathea Alarm (81bpm)
Mandragora Helix (78bpm)
Mechanical Auton Sound (70bpm)
Meteorite Alert (107bpm)
Moon Homing Beam (120bpm)
Mr Walkers War (61bpm)
Ovoid Appearance
Rocket In Space (80bpm)
Scorpio Spaceship
Sea Fort (74bpm)
Sidrat Control (140bpm)
Sisterhood of Karn
Sonic Screwdriver
Space Bells
Stranded (92bpm)
Sutekh Time Tunnel
Tachyon Terror (127bpm)
Tardis Entry (90bpm)
Tardis In Flight (75bpm)
Testing Time (75bpm)
The Beach
Time Lord Count

# APPENDIX C —
# SIGNALS, PRESETS & SOUND BAYS CONTENT (ACCESSIBLE VIA SOUND BAY A AND SOUND BAY B) CONTD.

Time Winds
War Lord Arrival (86bpm)
White Void (80bpm)

SHORT

01 Robot Searching
18 Galaxy Four
Air Conditioning
Alien Gun
Avons Bracelet
Book Activation
Cloning Miniaturisation
Computer Panel Bleeps
Countdown
Dalek Capsule
Dematerialisation
Deons Take Control
Devils Torpedo
Earthlings 02
Federation Laser
Force Field
Generator Child
Heavy Voltage
Hive Mena Fades
Horns of Nimon
Interior Rocket
JB Reel 1 (Bell Hit)
JB Reel 1 (Sonic Ident 2)
JB Reel 1 (Sonic Ident 3)
JB Reel 1 (Sonic Ident)
JB Reel 3
JB Reel 4
Jo At The Prison
Liberator Laser
Liberator Plasma
Macra Terror
Marshman
Marshmen 41
Marshmen 42
Marshmen Kit
Meglos Earthling
Meteorite Alert
Mysterious Being
Orac Switch On
Orac Working
Re-Creation
Rematerialisation
Rock Bottom Fifth
Rock Bottom Stab
Rocket Stab
Scorpio Gun
Screens of Zolpha
Sea Chase
Seen Too Much
Tardis Into Time
Tardis Time Slip
The Beach
The Masters Plan
The Ocean Reel 1 (Boat Horn)
The Ocean Reel 1 (Synthesised)
The Prison
Transportation Reappear
Zolpha Thura
Zolpha

## FOUND SOUNDS (FS)

Found Sounds inspired by the tools and techniques used by the Radiophonic Workshop.

LONG

Fire Crackle
Paper Rip
Wine Glass Pitch

SHORT

Animal Growl
Oven Shelf Hit
Paper Rip Medium
Paper Rip Quick
Wine Glass Pitch

# APPENDIX C —
# SIGNALS, PRESETS & SOUND BAYS CONTENT (ACCESSIBLE VIA SOUND BAY A AND SOUND BAY B) CONTD.

## JUNK PERCUSSION (JP)

A variety of bizarre percussion provided by drummer Kieron Pepper, with Lampshades as inspired by Delia Derbyshire.

MAIN

Kit

LONG

Death Valley Triangle
Dishwasher Scrape
Frying Pan Scrape
Lampshade 1 Bell Roll
Lampshade 1 Edge Roll
School Bell Bow
Spring Roll

SHORT

Bike Spoke Hit
Bike Spoke Roll
Bike Wheel Hit
Christmas Tree Stand
Death Valley Triangle Hit
Death Valley Triangle Roll
Dishwasher Bow Med
Dishwasher Bow Stacc
Dishwasher Hammer Hit
Dishwasher Soft Beater Hit
Frying Pan Hammer
Frying Pan Roll
Helium Tank Bow
Helium Tank Hit
Lampshade 1 Bell Hit
Lampshade 1 Bow Med
Lampshade 1 Bow Quick
Lampshade 1 Edge Hit
Lampshade 1 Hard Stick Hit
Radiator Hammer Hit
Radiator Hammer Scrape
Radiator Stick Hit
School Bell Bow
School Bell Hit
Shell Bow Med
Shell Bow Quick
Shell Hammer Hit
Shell Roll
Shell Stick
Spring Hit 1
Spring Hit 2
Spring Roll
Spring Scrape

## MAIDA VALE SOUNDS (MVS)

Exploring and sampling the home of the Radiophonic workshop in its original spirit.

MAIN

Kit

SHORT

BBC Sign Hit
Barrier Beater
Barrier Mallet
Barrier Wire
CD Rack Beater
CD Rack Fingers Quick
CD Rack Fingers
CD Rack Mallet
Chair Hit
Coffee Jar Lid
Computer Keys Pressed
Computer Keys Sliding
Detol Spray
Door Close
Door Creaking
Doorknob
Dustpan & Brush
Fire Extinguisher Beater
Fire Extinguisher Mallet
Foil Scrunch
Garden Fork
Hallway Door Close
Hole Punch
Kitchen Sink Knife
Metal Stool
Mouse Clicks

# APPENDIX C —
# SIGNALS, PRESETS & SOUND BAYS CONTENT (ACCESSIBLE VIA SOUND BAY A AND SOUND BAY B) CONTD.

Mouse Scroll
Plastic Spoons 1
Plastic Spoons 2
Ribbons In Bucket
Saucepan Hit
Scissors Cut Air
Stair Banister
Stapler
Tape
Thunder Sheet 1
Thunder Sheet 2
Thunder Sheet 3
Thunder Sheet Roll
Trailer Hit Beater
Trailer Hit Mallet
Trolley Push
Water Cooler 1
Water Cooler 2
Water Cooler 3
Water Cooler 4
Wine Bottle Cork

## SKELETON GUITAR (SG)

The Workshop's original bare-bones steel-string guitar.

SHORT

Short Harmonics
Short Noises
Short Plucks

## SYNTHS

Classic synths used by Radiophonic Workshop.

ARP ODYSSEY (LONG)

Bass Drone 1
Bass Drone 2
Bass Growls
Filtered Wind
Pad
Portemento Synth
Wobble Synth

ARP ODYSSEY (SHORT)

Blip
Plucks

MODULAR (SHORT)

Pluck Dirty

SYSTEM 100 (LONG)

Filter Sweep
Filtered White Noise 1
Filtered White Noise 2

VCS3 (LONG)

Pad 1
Pad 2

VCS3 (SHORT)

Pad 1
Pad 2
Pad 3
Pluck Clean
Pluck Dirty 1
Pluck Dirty 2

VOCODER (LONG)

Ahhs
Eehs
Ohhs

# APPENDIX C —
# SIGNALS, PRESETS & SOUND BAYS CONTENT (ACCESSIBLE VIA SOUND BAY A AND SOUND BAY B) CONTD.

## TAPE LOOPS (TL)

Long performances of textures, tonal and atonal, made by synths, found sounds, guitars and more

Alarm Bell A
Chattery White Noise 1
Chattery White Noise 2
Ebow Guitar 1
Ebow Guitar 2
Guitar Plucks
Mandolin Mute Strum 1
Mandolin Mute Strum 2
Mandolin Mute Strum 3
Mandolin Mute Strum 4
Mandolin Scrapes 1
Mandolin Scrapes 2
Modular Harp 1

## TUNED PERCUSSION (TP)

Beautifully performed Vibraphone textures and Marimba hits.

SHORT

Marimba
Vibraphone Hard Mallet Washes
Vibraphone Harmonics
Vibraphone Washes 1
Vibraphone Washes 2
Vibraphone Washes 3
Vibraphone Washes 4
Vibraphone

## WARPS

The sounds of the workshop, warped and twisted to sonic extremes by the Spitfire Audio team.

Afterburner
Air Lock
Alien Voices
Blurred Visions
Caves
Chasm
Comet
Cosmic Rays
Echo Growls
Hyperdrive
Ignition
Light Bursts
Lost Chamber
Orbit
Our Planet
Radar
Radiation Belt
Refractions
Sinking Dimentions
Solar Winds
Sonic Resonator
Tape Organ
Time Fractures
Vortex Echo
Wormhole

## ADDITIONAL PRESETS

Created and curated by members of the Spitfire Audio team.

5 Big Booms (Short/FX)
Aloof Cave Dwellers (Long/FX)
Are you dreaming - (Long/FX)
Background Generation - (Long/Pad)
Bad Wolf - (Long/Pad)
Bass Stabs - (Short/Bass)
Beyond Time - (Long/FX)
Boards of Phonica - (Long/Pad)
Bottled Swarm - (Long/Pad)
Broken Delay - (Long/Synth)
Buzzy Glass - (Long/Synth)
Chimes - (Short/Synth)
Clanging of Hope - (Long/Pad)
Clatter & Chatter (Short/FX)
Cloning Miniaturisation (Long/FX)
Close Encounter - (Long/FX)
Cosmic Mist - (Long/Pad)
Cosmic Pulsar - (Long/Synth)

# APPENDIX C —
# SIGNALS, PRESETS & SOUND BAYS CONTENT (ACCESSIBLE VIA SOUND BAY A AND SOUND BAY B) CONTD.

Crystal Cavern - (Long/Pad)
Crystalline Stalactites - (Short/Pad)
Dalekick - (Short/Drum)
Dark Pad - (Long/Pad)
Delaware Road Revisited - (Long/Synth)
Digi Halo - (Long/Synth)
Dirty Plucks - (Short/Synth)
Doo-Wee-Ooh - (Long/Synth)
Down To The Wire - (Short/FX)
Echoes On The Tracks - (Long/FX)
Enchanted Prism - (Short/FX)
Ethereal Choir - (Long/Synth)
Ethereal Pad - (Long/Pad)
Exxilon City - (Long/FX)
False Paradise - (Long/Pad)
Fever Dream - (Long/FX)
Followers of the Lamp - (Short/FX)
Forgotten Caverns - (Long/Pad)
Found In Sound - (Short/FX)
Fresh Vibes - (Short/FX)
Ghost Circuit - (Long/Pad)
Ghost In The Cupboard - (Short/FX)
Glowing Ore - (Long/FX)
Go Low - (Long/Bass)
Guitar Stabs - (Short/Guitar)
Hans Bow Zimmer - (Long/Synth)
Hiding Behind The Sofa - (Long/FX)
Hostile Wind - (Long/FX)
Impact - (Long/FX)
Into the Pit... - (Long/Pad)
Intruder Window - (Long/Pulse)
Keller War - (Long/Bass)
Lost In The Forest - (Long/Pad)
Lost in the Supermarket - (Short/FX)
Macra Brighton - (Long/Pad)
Mandolin Crackle - (Long/FX)
Martian Landscape - (Long/FX)
Meditation Organ - (Long/Pad)
Medusa Cascade - (Long/Pad)
Melting Time - (Long/Pad)
Metropolitan Dawn - (Long/Pad)
Ocean Dread - (Long/Pad)
Oh Bye Mark - (Long/Pad)
Oramic Ceramic - (Long/Pad)
Otherwind - (Long/FX)
Paper Bass - (Short/Bass)
Pensive Arctic Stomp - (Long/Pad)
Quantum Bassland - (Long/Bass)
Rave in the Hive - (Short/Synth)
Robo Swamp - (Short/Pad)
Room 13 - (Long/FX)
Searching For Space - (Long/Synth)
Sisterhood of Karn - (Long/FX)
Skeleton Grains - (Long/Synth)
Skybox Bells - (Long/Pad)
Sonic Fort - (Long/Pad)
Star Skating - (Long/Pad)
Submarine Alarm - (Long/FX)
Super Sonic - (Short/FX)
Sutekh Time Tunnel - (Long/FX)
Tailbit Pluck - (Short/Synth)
Tape Grain - (Long/Synth)
The Wobbulator - (Long/Bass)
Twinkle Twinkle Mental Star - (Long/Pad)
Unholy Tracks - (Long/FX)
Vent Skitterer - (Long/FX)
Vibraphonic Glow - (Short/Piano)
Villan's Organ - (Long/Organ)
Vortex Revelation - (Long/Pad)
Wine In The Tardis - (Long/Pad)
Wub Pot - (Long/Bass)
Zero_G Bass - (Short/Bass)