



## **Delta Series plug-ins**

Version 1.1.0

### **Welcome**

Thank you for downloading the Delta Series Exponent plug-ins! We hope that they will serve you well. To get the most out of your new plug-ins, we suggest you read this brief manual, as certain key concepts are explained.

All the best  
Exponent

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Version History

# Licence Agreement

By installing any of the Delta Series software you are agreeing to be bound by the following terms and conditions:

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# Installation

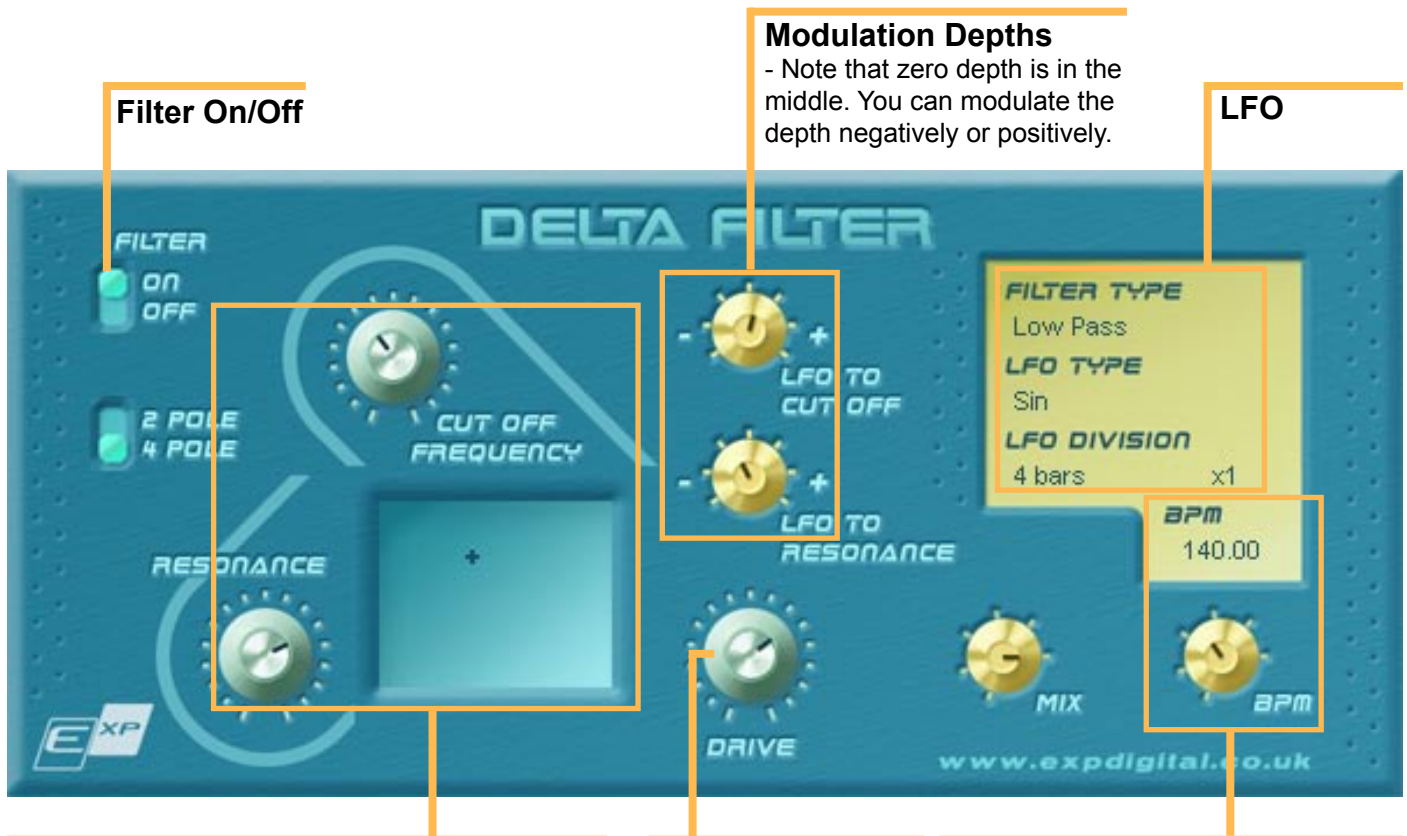
You will either have down loaded the pack from our web site (<http://www.expdigital.co.uk>) or you will have received it on a CD, either way you will have a zip file. Unzip this and copy the contents to your VST plug-ins folder. They should now show up in your chosen VST host application. Note you may need to restart your host application.

## MIDI

The Delta Series can be automated either through the use of host parameters or alternatively via a set of fixed midi controller IDs. They are detailed below along with a brief description of each plug-in.

# Delta Filter

Delta Filter is a Multi pole, multi mode modulated filter. It provides a full stereo filter unit, changeable between two and four pole flavours of five filter types. The cut-off and resonance can be modulated by the inbuilt LFO (which has many wave shapes and syncs directly to host BPM)



**Filter Controls** - You can either use the XY pad or the separate knobs.

**Drive** - Controls the depth of the wave shaping distortion.

**Tempo** - If your host supports BPM sending then the tempo locks to that of your host. If not you can adjust it by using the knob or typing over the BPM value

Control Name	Midi CC Assignment
LFO Reset	Midi Note on message
Cut-off	50
Resonance	51
Drive	52
Filter type	53
Global On Off	54
LFO division	55
LFO waveform	56
LFO -> Cut-off depth	57
LFO -> Resonance depth	58
Wet Dry Mix	59
Multiplier	60
BPM	61

# Delta Force

Delta Force is a multi band distortion processor, useful to anyone who likes a bit of grime and grit in their sounds!. The audio signal is split into three definable bands (Low Pass, Band Pass and High Pass). On each band you can choose from thirteen different distortion types. Each has its own flavour and will affect different audio in different ways. The output is a mix of the 3 bands. We strongly recommend automating this from your host application, especially the frequencies.

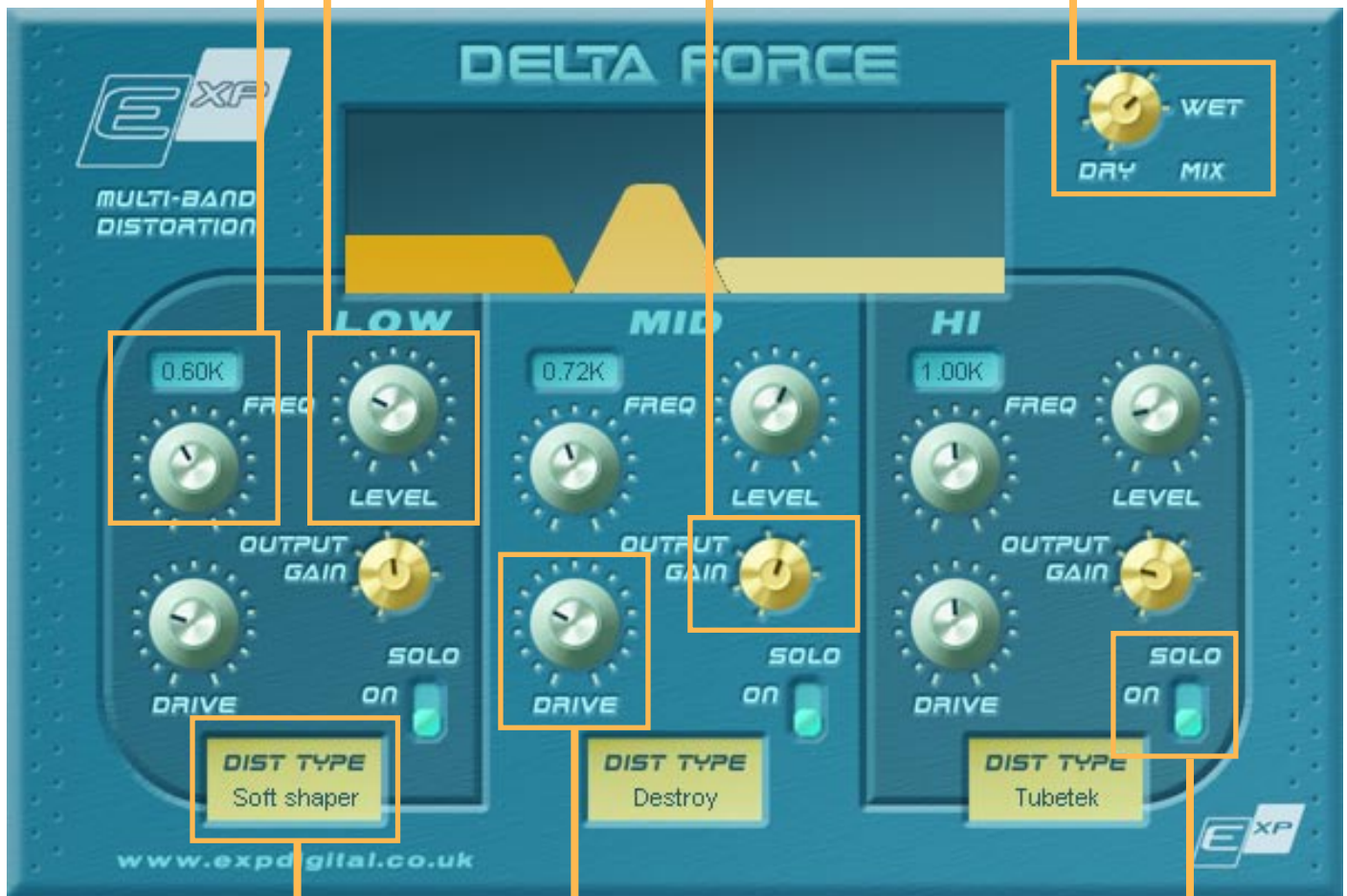
## Band Frequency

This controls the cut off frequency of the bands filter.

**Filter Level** - This is the output level of the filter stage,

**Output Level** - This is the output level of the band's distortion.

**Mix** - Balances the level of the original dry signal with the processed wet signal



**Distortion Type** - Sets the Distortion type. Note that different distortions will have varying amounts of distortion and level, so play around with all the controls when you're flicking between these.

**Drive** - The amount of distortion applied by the distortion circuit.

**Solo** - This will solo an individual band so you can hear it without the other two bands.

## Delta Force Midi Controllers

Control Name	Midi CC Assignment
Low Frequency	50
Mid Frequency	51
High Frequency	52
Low Level	53
Low Solo	54
Low Distortion Type	55
Low Output Gain	56
Mid Level	57
Mid Solo	58
Mid Distortion Type	59
Mid Output Gain	60
High Level	61
High Solo	62
High Distortion Type	63
High Output Gain	64
Low Drive	65
Mid Drive	66
High Drive	67
Mix	68



# Delta Space

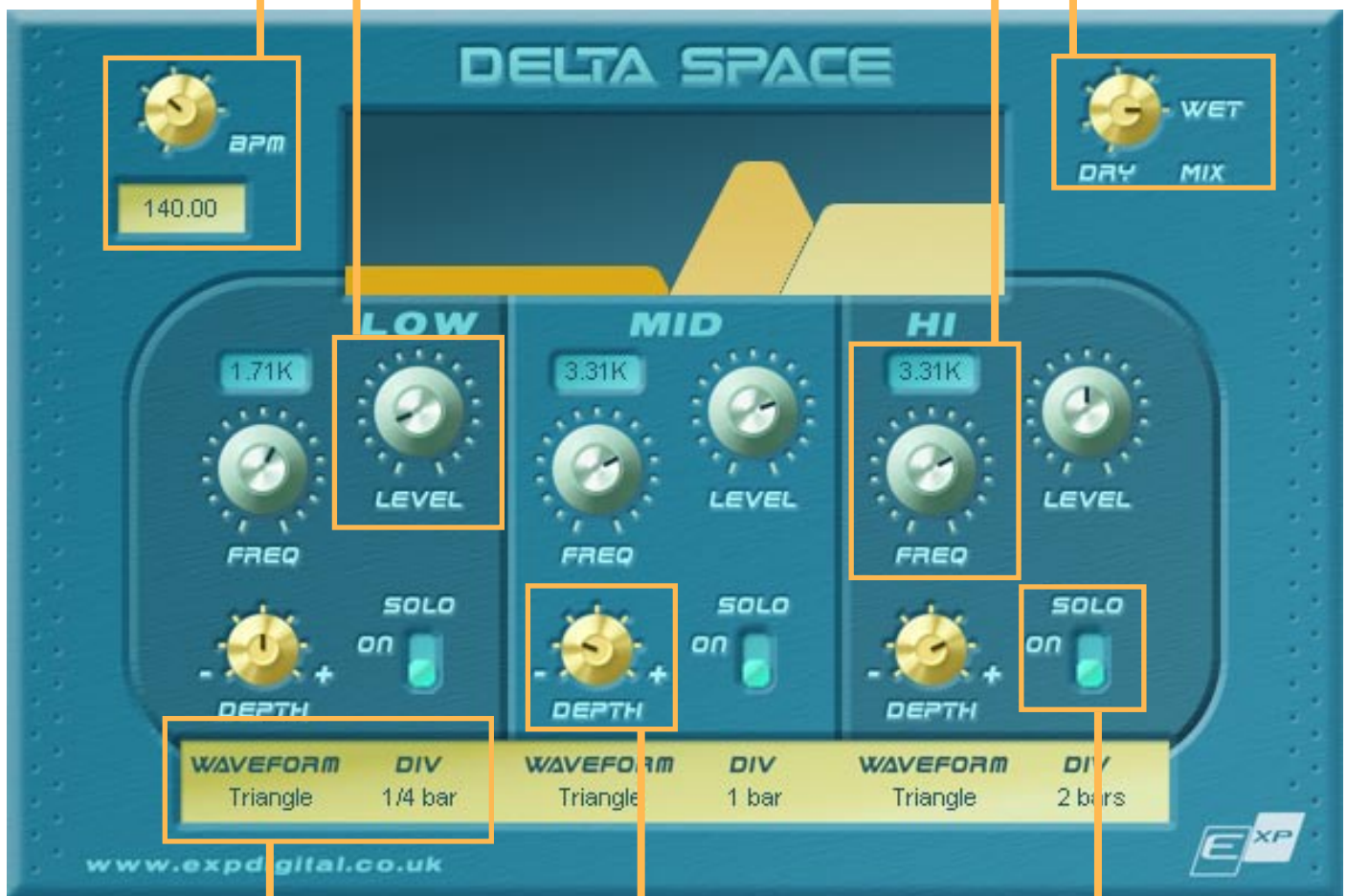
Delta Space is a three-band auto panner. Input audio is split in to three bands and each band is then processed, by its own dedicated auto pan unit. Each auto panner automatically syncs to your host sequencers BPM, and there is a large graphic display of the cross over frequencies. It turns bland audio in to spatial creations.

**Tempo** - If your host supports BPM sending then the tempo locks to that of your host. If not you can adjust it by using the knob or typing over the BPM value

**Filter Level** - This is the output level of the filter circuit (before panning).

**Frequency** - This controls the cut off frequency of the bands filter.

**Mix** - Balances the level of the original dry signal with the processed wet signal



**LFO** - Each band has an independent LFO. These controls let you vary wave shape and LFO rate.

**LFO depth** - This controls the modulation amount. Note that it can either be positive or negative. If you set it positive it means that when the LFO moves above the zero point it pans the band to the right. When you modulate negatively it reverses the modulation.

**Solo** - This will solo an individual band so you can hear it without the other two bands.

# Delta Space Midi Controllers

Control Name	Midi CC Assignment
Low Frequency	50
Mid Frequency	51
High Frequency	52
Low LFO Depth	53
Low Division	54
Low LFO shape	55
Low Level	56
Low Solo	57
Mid LFO Depth	58
Mid Division	59
Mid LFO shape	60
Mid Level	61
Mid Solo	62
High LFO Depth	63
High Division	64
High LFO shape	65
High Level	66
High Solo	67
BPM	68
Mix	69



# Delta Ping

Delta Ping is a ping-pong delay unit. Each channel enters its own dedicated delay unit. The paths of these two delay lines are crossed in their feedback loop, giving some wacky stereo effects. It is designed to be a simple to use, effective delay unit.

The controls for Delta Ping are self explanatory.

Note that if you hold down shift while moving one of the controls for the left or right channel it will set the other side to the same value.



Control Name	Midi CC Assignment
Left Feedback	50
Left tempo division	51
Left Triplets	52
Right Feedback	53
Right tempo division	54
Right triplets	55
BPM	56
Wet Dry Mix	57

# Delta Phase

Delta Phase is a parallel phase unit. It provides two independent phase units, one for each channel. Each channel has its own independent phase unit, meaning true stereo operation is possible. Channel linking means that you can have easy control over this stereo effect of Delta Phase.

**Stereo Link** - When this is on it means that any change to either left or right controls will affect both sides.

**Mix** - Balances the level of the original dry (0%) signal with the processed wet (100%) signal



Control Name	Midi CC Assignment
Left LFO speed	50
Right LFO speed	51
Left LFO depth	52
Right LFO depth	53
Left feedback	54
Right feedback	55
Wet Dry Mix	56
Stereo Width	57
Channel link	58

# Version History

## Delta Series

Version 1.1.0

- Improved CPU usage
- Updated graphics and interface design
- Remove installers and updated to statically linked DLL's (no more MSVCRT71.dll!)
- Downgraded licence to full freeware status

Version 1.0.0

- Initial version

## Delta Filter

Version 1.1.0

- Improved State Variable Filter algorithm to take account of sample rate usage in the host application and numerous other bug fixes.
- Added true host LFO sync.

## Delta Phase

Version 1.1.0

- Improved the mapping between the all pass filters. NO linear between updated calls to the modulator resulting in smoother signal.

## Delta Ping

Version 1.1.0

- Improved memory usage
- Added shift click lock function to feedback

## Delta Force

Version 1.1.0

- Updated distortion code
- Correctly labelled mix control

## Delta Space

Version 1.1.0

- It now works!
- Added host LFO sync
- Made panning centre weighted and linear
- Connected graphical level controls and mix control to internal controls
- Updated solos so that they now solo after the panning.

