SUPERNOVA

SUPERNOVA Owners Manual Addendum

For Operating System Version 4.1

Introducing

DoubleSaw

novation
In music, anything is possible.

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Page button auto-repeat

The Page Up and Page Down buttons now auto-repeat if they are pressed and held. This makes navigation around large menus (such as the Global Menu) easier.

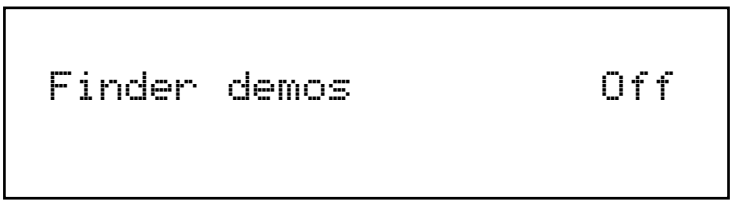
Several new functions have been added to the Global Menu.

Finder demo switch

There is a new parameter in the Global Menu which allows the finder demos to be disabled when searching for Programs using the Demo/finder button.

Global - Button

Page 9 looks like so:

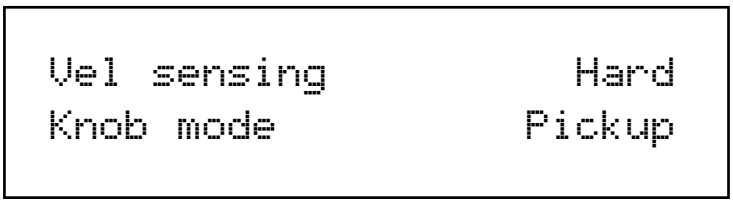


The higher parameter is “Finder demos”. In this case with a value of Off.
This parameter determines if the “Finder” plays a demo or not when activated. Use the higher Data knob to adjust this parameter. In the On position whenever the Finder mode is activated a small demo tune will play in the style of the category currently assigned to the selected program. In the Off position the finder function still works but no demo plays. This is useful when working with an external sequencer & auditioning sounds while the sequencer is running. The range of this parameter is On & Off. This parameter is memorised as Global.

Knob sensing mode

There is a new parameter in the Global Menu which determines how all knobs behave on the Supernova’s front panel.

Page 10 looks like so:



The higher parameter is “Vel sensing”. In this case with a value of Hard.
This parameter alters the velocity response of the Supernova. Use the upper Data knob to adjust this parameter. This is global & applies to all modes. In the Hard position, large Velocity changes are required to create a big change in response. This is good for weighted & semi-weighted keyboard actions. In the Soft position, not so large Velocity changes are required to create a big change in response. This is good for cheaper keyboard actions. The range of this parameter is Hard & Soft. This parameter is memorised as Global.

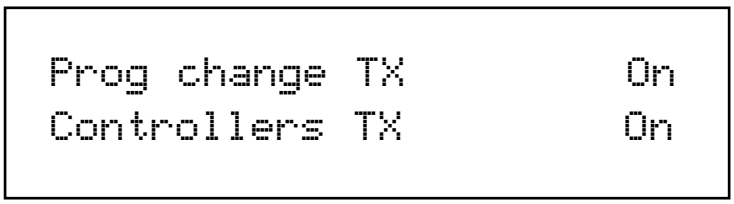
The lower parameter is “Knob mode”. In this case with a value of Pickup.
This parameter determines if the values of Knob parameters jumps immediately to the actual position of the Knob as soon as it is turned or if the Knob has to pass “though” the value of the edited parameter before the Knob starts editing the parameter. Use the lower Data knob to adjust this parameter. In the Normal position the value of the parameter being edited jumps to the value of the Knob as soon as a Knob is turned. This is good when creating sounds as parameters are always “Live”. In the Pickup position no change to the parameter being edited will take place until the Knob is turned so that it has passed “through” the value of the edited parameter, thereby “picking it up”. The Knob then becomes “live” & will start editing the parameter & will start to transmit the appropriate controller. The range of this parameter is Normal & Pickup.

When this parameter is set to “Pickup” mode no controller data will be sent & no edits to the parameter by Knob movements will occur until the Knob parameter has been picked up.

Global MIDI transmit options

There are two new parameters available on a new page in the Global Menu which determine whether the Supernova will transmit certain types of MIDI information.

Page 13 looks like so:



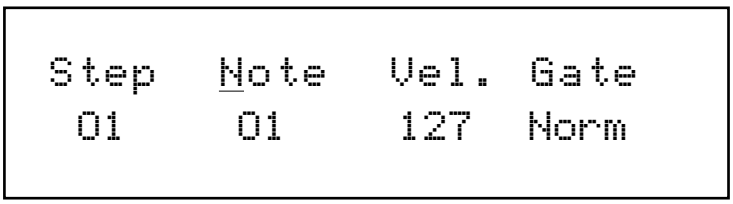
The higher parameter is “Prog change TX”. In this case with a value of On.
This parameter determines if the Supernova transmits MIDI program change & Bank messages when a new Program or Performance is selected (This includes program changes within a Part of a Performance). Use the higher Data knob to adjust this parameter. In the On position whenever a new Program or Performance is selected the appropriate Program change message & Bank message is sent on the appropriate channel. In the Off position no Program change or Bank change messages will be transmitted. The range of this parameter is On & Off. This parameter is memorised as Global.

The lower parameter is “Controllers TX”. In this case with a value of On.
This parameter determines if the Supernova transmits Controller messages. Use the lower Data knob to adjust this parameter. In the On position whenever a knob, slider or switch is manipulated appropriate Controller messages are sent on the appropriate channel. In the Off position no Controller messages will be transmitted. The range of this parameter is On & Off. This parameter is memorised as Global.

Improved Arpeggiator pattern editing

The editing of User arpeggio patterns has been improved with all step editing parameters (Step, Note, Vel and Gate) now available all on a single page in the Global Menu.

Page 17 looks like so:



The higher parameter is “Step Note Vel. Gate”. In this case with a value of Note.
This parameter determines what type of pattern parameter is going to be edited with the lower Data knob. Use the upper Data knob to select the parameter to be edited. The cursor indicates the current selection, in this case Note. When this parameter is set to “Step” the value of the parameter below it determines the step to be edited. Use the lower Data knob to adjust this parameter. The range of this parameter is 01 to 64 but depends on the value set in the “No of Steps” parameter above. When this parameter is set to “Note” the value of the parameter below it determines the note value of the currently selected step. Use the lower Data knob to adjust this parameter. The range of this parameter is 01 to 12 for the User Monophonic patterns (000 to 063) & -36 to +36 for the User Polyphonic patterns (064 to 127) When this parameter is set to “Vel.” the value of the parameter below it determines the velocity of the note at the currently selected step. Use the lower Data knob to adjust this parameter. The range of this parameter is 1 to 127. When this parameter is set to “Gate” the value of the parameter below it determines the gate time of the note at the currently selected step. In the Normal position the gate equals one step unless the following step is a tie. In the Tie position the notes are tied together. Use the lower Data knob to adjust this parameter. In the Rest position the note is silent. In the Glide position the Portamento effect is engaged as it does in Autoglide. The range of this parameter is Norm, Tie, Rest, Glide. These parameters are memorised as Pattern data.

The Note parameter can only be accessed if the current step’s gate is set to Norm or Glide.

To write any changes to the currently selected pattern into memory press the “Write” button while any of the pattern edit pages are displayed. Also note the “Memory Protect” has to be set to “Off” for this to be possible.

Double saw oscillator waveform

This new waveform is available for all three oscillators. It is selected for an oscillator by pressing the 'special' button in the Oscillator section on the front panel and selecting "Double saw" using the lower fast data knob.

Saw Waveform - Button
Sq waveform - Button
Special Waveform - Button

This is a menu of oscillator waveforms for the oscillator selected with the Osc 1, 2, & 3 buttons. To adjust the waveform of oscillator 1 press the "Osc 1" button & select the waveform required. The selected waveform will light. The Saw button selects a Sawtooth waveform, the Sq button selects a Square waveform & the Special button selects the DoubleSaw "special" waveform.

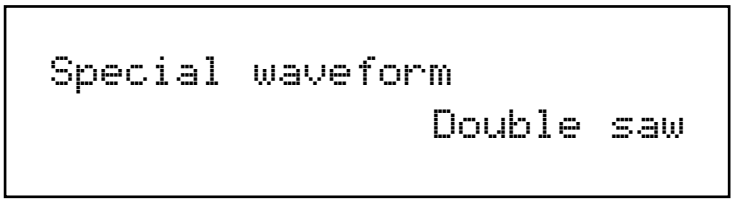
When the DoubleSaw wave form is selected, the currently selected Oscillator actually becomes 2 Saw waves that can be independently phase shifted or detuned with the use of an LFO. If all Oscillators are set to Double Saw then each voice has effectively 6 Oscillators. This has no effect on total Polyphony & can allow Unison type sounds to be created without the need to use the Unison feature, thereby saving voices, but then again it is possible to Unison a Double Saw Program to create truly HUGE sounds. (Whoever said size does not matter is deluding themselves!)

NOTE:
All the functions like Mix, Pitch, Sync & Soften still apply but modulate both Saw waves simultaneously.

NOTE:
Sync sounds can cause clicks when LFOs are used to detune Double Saw waves. This will happen when the modulating LFO is set to anything BUT Tri waves.

Special Waveform - Button

When the Special button in the Oscillator Section is pressed the Display shows:



The parameter is "Special waveform" In this case with a value of Double saw.
This parameter determines what special waveform the currently selected oscillator is going to have. When this button is pressed the Double saw waveform as described above will be substituted for the standard Oscillator. The range of this parameter is Double Saw. This parameter is memorised with a Program.

How to use the Double Saw waveform

Width - Button
Level - Knob

When the Double Saw wave is selected the Width part of the matrix is used to control the "Difference" in phase between the 2 Saw waves. The Level control controls the static phase difference between the 2 Saw waves. When this is set to 000 there is no difference in phase between the waves and so at this setting Double Saw waves sound just the same as a standard Saw wave.


NOTE:

As both waves are adding together exactly when no phase difference is set between the 2 Saw waves the resulting “Single” Saw wave is twice as loud as a standard Saw wave. This can be handy when severe filtering is being employed.

When this parameter is set to a positive value the phase difference between the 2 Saw waves is modulated by a positive amount. Similarly negative values produce a negative phase shift between the 2 Saw waves. Fully clockwise or fully anticlockwise the phase shift is 180˚ & has been shifted positive or negative respectively. The range of this parameter is -64 to +63. This parameter is memorised with a program.

The key way to understand how this works is to understand that detuning can be expressed as a continually accelerating (or decelerating) phase shift. When looking at the waves of detuned Oscillators on an Oscilloscope it can be clearly seen that one waveform accelerates (or decelerates, the result is the same) in respect to the other. The greater the detuning the greater the difference in phase shift acceleration or deceleration between the two Oscillators.

So how is this done? The answer is with an LFO. Because the modulation of an LFO has been tailored to modulate a Double Saw wave exactly from 0˚ phase shift to 360˚ when set to FULLY positive or negative modulation (180˚ phase shift of modulation of each positive & negative cycle are used providing 360˚ of phase shift) continuous detuning effects can be reproduced.

To create straight pitch shift detuning effects use a Saw wave on the modulating LFO. Moderate speed is required. Typically 110 when set to “Slow”. Slow speeds produce small pitch shifts. Fast speeds produce large ones.

To create chorus like detuning effects use a Tri wave on the modulating LFO. Fairly slow speeds are all that is required.


NOTE:

Anything less than FULL positive or negative modulation will result in less than 360˚ phase shift and clicks will occur.

Tips and Tricks

Try setting the modulating LFOs Keysync parameter to Keysync to get really percussive attacks to Double Saw sounds. This simulates all the Oscillators starting in phase. Setting this parameter to Freewheel means all Oscillators will start at random phase locations.

Below is an example of how to set up a detuning effect using a Double Saw wave.

Width	**-**	**Button**
Mod Depth	**-**	**Knob**
LFO 1	**-**	**Button**

This combination can be used to create a Pitch shift using LFO 1. The first thing that needs to be done is set (in this case LFO 1) to a Saw wave running at a moderate speed, i.e. 110 when set to Slow, turning the Mod Depth Knob clockwise introduces a pitch shift in one of the Saw waves in a positive direction. Turning the Mod Depth Knob anticlockwise introduces a pitch shift in one of the Saw waves in a negative direction. In the “Mid” position there is no modulation at all. The range of this parameter is -64 to +63.


NOTE:

This is actually set up in “DOUBLE SAW Init” program included with this manual. It is a single program dump saved as a MIDI file. In this program LFO1 is used positively and negatively on 2 oscillators & LFO2 is used at a slightly different speed to make sure all 6 oscillators are at different pitches.


NOTE:

The detune effect will not be smoothly produced if anything other than a modulation level of -64 to +63 is used. Anything else may produce clicky artifacts, But these in themselves may be interesting.
This parameter is memorised with a Program.


NOTE:

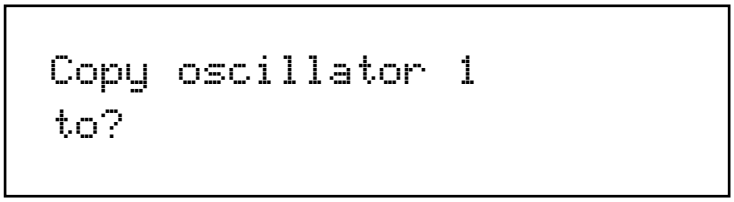
These buttons do not apply to the Ring Mod Oscillators (1*3 & 2*3) or the Noise Generator.

New Copy Oscillator functions

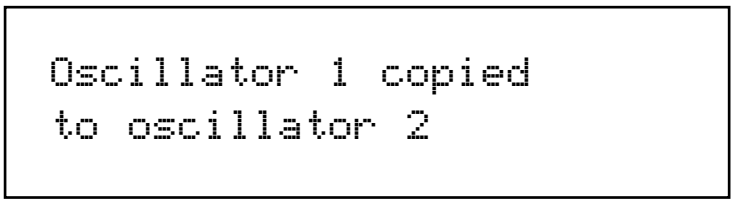
This new feature activates a Copying utility & allows the settings of one oscillator to be quickly copied to another.

Menu - Button

Page 4 looks like so:



When this page is selected, whatever oscillator is currently selected (lit) is displayed on the top line, in this case oscillator 1 is selected. It is now a simple matter of pressing the destination (the oscillator that you wish to copy oscillator 1's settings to). i.e. Press Oscillator 2 button & the display shows:



NOTE:
It is only possible to copy an oscillator to another oscillator.

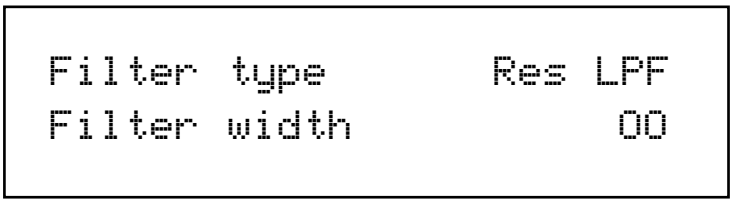
NOTE:
It is not possible to copy an oscillator to itself, the Noise source or the Ring modulators.

New Special Filter types

Nine new special filter types are available by pressing the 'special' button in the Filter section on the front panel. Press the button and use the upper fast data knob to select the desired filter type. Each special filter is made up from two filter blocks. The types available are : Res LPF, Res BPF, Res HPF, Notch, LPF + LPF, BPF + BPF, HPF + HPF, LPF + BPF and BPF + HPF.

Special - Button

When the special filter button is pressed the display shows:



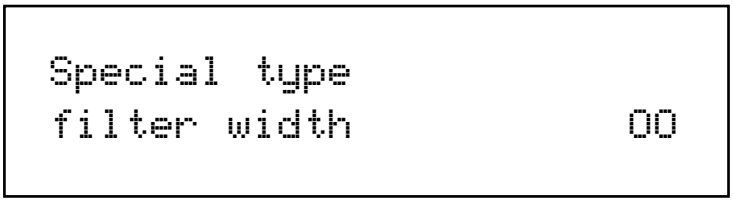
The higher parameter is "Filter type". In this case with a value of Res LPF.
This parameter determines what type of Special filter is applied. Use the Higher data knob to adjust this parameter. There are 9 different special filters. Each one is made up of 2 filter blocks. The "Hyper Resonant" types are in series & are the Res LPF, Res BPF & Res HPF filters. These types are very resonant & the Filter width parameter allows the Cutoff frequencies of each filter block to be set at different frequencies. The rest of the filter types have the 2 filter blocks in parallel. Again the Filter width parameter allows the Cutoff frequencies of each filter block to be set at different frequencies. The range of this parameter is Res LPF, Res BPF, Res HPF, Notch, LPF + LPF, BPF + BPF, HPF + HPF, LPF + BPF, & BPF + HPF. This parameter is memorised with a program.

The lower parameter is "Filter width". In this case with a value of 00.
This parameter determines the spacing/offset in filter cutoff frequencies between the two elements of the "Special" filters. This is a duplicate of the Special type filter width parameter that is displayed on page 6 of the Filter menu. The reason for this is that it was found to be nice for the display to jump back to this parameter when editing & as this parameter is duplicated in the Filter menu it will do that when the Filter menu is selected. This can provide "Formant" type filters & speech like qualities can be easily realised. The Filter width is calibrated in semitones and a range of pre-set intervals are available. The range of this parameter is 00, 08, 16, 24, 32, 40, 48 & 56. Note that the Resonance modulation Knob in the Filter Modulation Matrix actually modulates the "Filter width" parameter & not the resonance when the "Special" filters are selected. The Resonance knob still retains its function as filter Resonance when in this mode. This parameter is memorised with a program.

Adjusting the value of this parameter will alter the value in the Filter menu. It is not possible to have different values set in the 2 pages.

Menu - Button

Page 5 looks like so:



The parameter is "Special type filter width". In this case with a value of 00.
This parameter determines the spacing/offset in Filter cutoff frequencies between the two elements of the "Special" filters. This is a duplicate of the Filter width parameter that is displayed when the Special Filter page is active. The reason for this is that it was found to be nice for the display to jump back to this parameter when editing & as this parameter is duplicated here in this menu it will do exactly that. This can provide "Formant" type filters & speech like qualities can be easily realised. The Filter width is calibrated in semitones and a range of pre-set intervals are available. The range of this parameter is 00, 08, 16, 24, 32, 40, 48 & 56. Note that the Resonance modulation Knob in the Filter Modulation Matrix actually modulates the "Filter width" parameter & not the resonance when the "Special" filters are selected. The Resonance knob still retains its function as filter Resonance when in this mode. This parameter is memorised with a program.

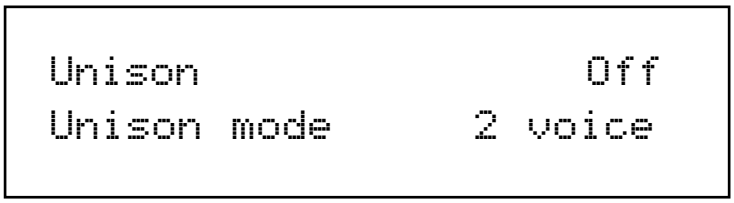
Adjusting the value of this parameter will alter the value in the Special page. It is not possible to have different values set in the 2 pages.

Voice Unison

A new unison mode is now implemented. This is accessed by a new page in the Trigger Menu. Unison can be used to considerably “fatten up” a sound by using more than one voice for each note sounded. It is possible to assign between 2 and 8 voices per note, but beware that large voice values will eat up the available polyphony drastically !

Trigger - Button

Page 5 looks like so:



The higher parameter is “Unison”. In this case with a value of Off.
This parameter activates the Unison mode. Use the upper Data knob to adjust the value of this parameter. When this parameter is set to Off only one voice is used per note in a Program. When this parameter is set to On more than one voice is used per note in a Program. The number of voices used per note is determined by the Unison mode parameter on the lower line of this page. The range of this parameter is On & Off. This parameter is memorised with a Program.

The lower parameter is “Unison mode”. In this case with a value of 2 voice.
This parameter determines the number of voices used on one note when the Unison mode is active. Use the lower Data knob to adjust the value of this parameter. Larger values tend to create fatter sounds. The range of this parameter is 2 to 8. This parameter is memorised with a Program.

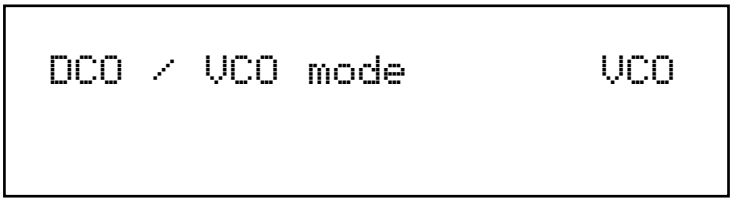
Large voice settings of the Unison mode can be quite polyphony hungry. For example a setting of 8 voice will produce a fat sound but 2 notes will consume 16 voices.

DCO / VCO mode

This new feature can be used to influence how the oscillators behave.

Trigger - Button

Page 6 looks like so:



The higher parameter is “DCO / VCO mode”. In this case with a value of VCO.

This parameter determines how the tuning of all the oscillators behaves. Use the higher Data knob to adjust this parameter. When this parameter is set to DCO the tuning between the oscillators is perfect. This is the case on “DCO” (Digitally Controlled Oscillator) synthesisers such as the Roland Juno 106* or Juno 60*. Setting this parameter to VCO recreates the classic “VCO” (Voltage Controlled Oscillator) characteristics of imperfect oscillator tuning. The range of this parameter is DCO & VCO. This parameter is memorised with a Program.

* Juno 106 & Juno 60 are trademarks copyright of Roland Corp. Japan.

Improved Distortion

The Distortion effect has now been made much more aggressive. This will be particularly noticeable when the “Distortion drive” parameter is set to a very high level.

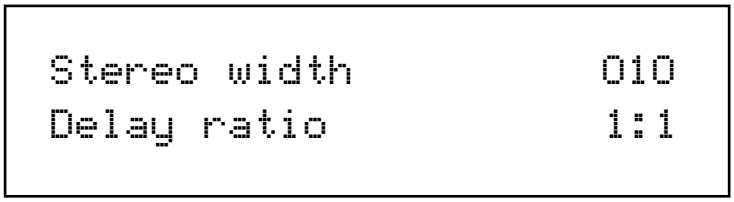
When OS4 is first installed on your Supernova, all Programs and Performances in flash memory will have their distortion levels scaled down accordingly so they will continue to sound the same as they did before OS4 was installed.

Extra Delay ratio options

The available range of Delay ratios has been extended. Extra options are “1:Off” (no delay is heard on the right-hand side) and “Off:1” (no delay is heard on the left-hand side).

Delay - Button

Page 2 looks like so:



The higher parameter is “Stereo width”. In this case with a value of 010.
This parameter determines how wide the stereo image of the delay is. Use the upper Data knob to adjust this parameter. In the 000 position the Delay is mono. In the 127 position the delay is fully stereo. The range of this parameter is 000 to 127. This parameter is memorised with a Program in Program Mode or memorised with a Program or Performance in Performance Mode depending on the value of the Part’s “Part FX” parameter.

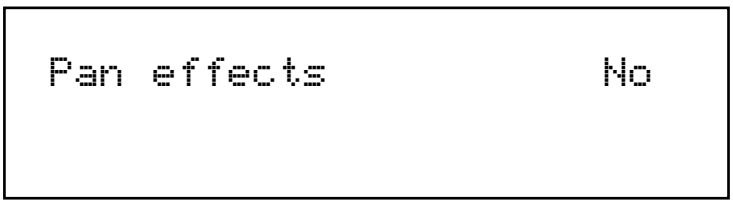
The lower parameter is “Delay ratio”. In this case with a value of 1:1.
This parameter determines the relationship of the Delay times in the Delay. In the 1:1 position the Left & Right channel Delays are the same Delay time. In the 1:0.5 position the Right Delay is half the time of the Left Delay. In the 0.5:1 position the Left Delay is half the time of the Right Delay. In the Off:1 position the there is no output from the Left Delay & there is an output from the Right Delay at the specified delay time.The range of this parameter is 1:1, 1:0.75, 0.75:1, 1:0.66, 0.66:1, 1:0.5, 0.5:1, 1:0.33, 0.33:1, 1:0.25, 0.25:1, 1:Off & Off:1. This parameter is memorised with a Program in Program Mode or memorised with a Program or Performance in Performance Mode depending on the value of the Part’s “Part FX” parameter.

Pan effects

This new parameter can be found on a new page within the Pan Menu. This parameter allows the stereo effects (reverb, chorus and delay) to be panned along with the main dry signal and mono effects (such as distortion). In previous Supernova operating systems, the stereo effects always remained stereo regardless of the pan position and so it was not possible to pan a sound into a single mono output if it was using any of the stereo effects.

Pan - Button

Page 3 looks like so:



The higher parameter is “Pan effects”. In this case with a value of No.

This parameter determines how the Effects behave when a sound is Panned between Left & Right in the Stereo image. Use the higher Data knob to adjust this parameter. When this parameter is set to No the sound is panned as it would be on a mixing desk. i.e. the sound can be panned hard Left or Right but *Stereo* effects such as the Comb filter, Phaser/Flanger/Chorus/Ensemble/ Rotary Speaker, Delay & Reverb will cause effects to appear on *both* the Left & Right channels (just like Aux returns on a mixing desk). Setting this parameter to On *forces* the Stereo effects to be panned as well as the source sound. i.e. if a sound is panned hard Left and this parameter is set to On, then only the Left side of the Stereo effects are heard. The range of this parameter is Yes & No. This parameter is memorised with a Program in Program Mode or memorised with a Program or Performance in Performance Mode depending on the value of the Part’s “Part FX” parameter.

This is particularly handy when using the separate audio outputs as *Mono* outputs. Normally the audio outputs are treated as “Stereo pairs” when the “Pan effects” parameter is set to “No” as the “Pan” parameter behave s like it does on a Mixing console with effects routed via an Aux return. Setting the “Pan effects” parameter is set to “Yes” allows the user to pan *the sound & the effects to a single Mono output.*

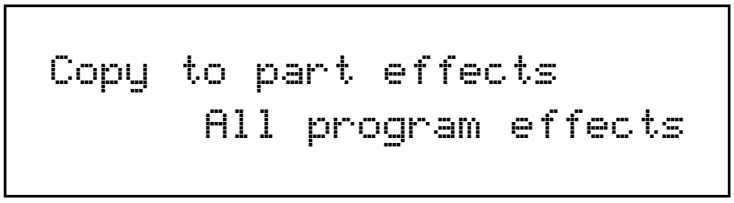
If the “Pan effects” parameter is set to “Yes” and the sound is panned hard to the Left, then only the Left channel of the Stereo effects (the Comb filter, Phaser/Flanger/Chorus/Ensemble/Rotary Speaker, Delay & Reverb) will be heard. In the case of the Phaser/Flanger/Chorus/ Ensemble/Rotary Speaker effect this may introduce a slight “Wobbling” sensation to the sound. This is due to the Stereo nature of the effect and is normal (If you monitor only one side of a Stereo version of the sound on your Mixer you will experience the same thing).

New Effects copy utilities

New Effect copy utilities have been added to facilitate easy copying of effect settings between Program & Performance part effects.

Output - Button

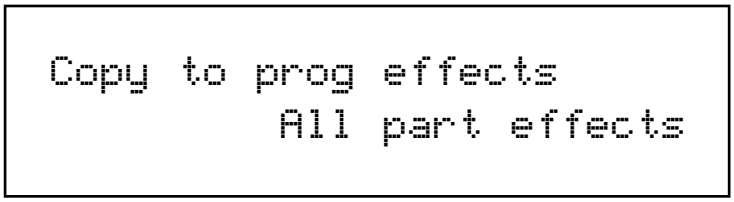
Page 2 looks like so:



As can be seen the parameter is “Copy to part effects”. In this case with a value of All program effects.
This is a copying utility that allows copying of the effects settings in the currently selected program to the “Part Effects Buffer”. Use the lower Fast data knob to adjust this parameter. To copy all the Program’s effects settings to the Part effects buffer set this parameter to “All program effects” & press the “Write” button in the mode section. Selective copying is also possible, that is just one effects setting can be copied. To copy just the Distortion’s settings set this parameter to “Program distortion” & press the “Write” button in the mode section. To copy just the Reverb’s settings set this parameter to “Program reverb” & press the “Write” button in the mode section. To copy just the Chorus settings set this parameter to “Program chorus” & press the “Write” button in the mode section. To copy just the Delay’s settings set this parameter to “Program delay” & press the “Write” button in the mode section. To copy just the Pan’s settings set this parameter to “Program panning” & press the “Write” button in the mode section. To copy just the EQ’s settings set this parameter to “Program EQ” & press the “Write” button in the mode section. To copy just the Comb filter’s settings set this parameter to “Program comb filter” & press the “Write” button in the mode section. To copy just the Effect Configuration’s settings set this parameter to “Program FX config” & press the “Write” button in the mode section. The range of this parameter is All program effects, Program distortion, Program reverb, Program chorus, Program delay, Program panning, Program EQ, Program comb filter & Program FX config. This parameter is not memorised.

It is only possible to copy effects settings in Performance mode.

Page 3 looks like so:



As can be seen the parameter is “Copy to prog effects”. In this case with a value of All part effects.
This is a copying utility that allows copying of the effects settings in the “Part Effects Buffer” to the currently selected “Program’s Effects Buffer”. Use the lower Fast data knob to adjust this parameter. To copy all the Part’s effects settings to the Program’s effects buffer set this parameter to “All part effects” & press the “Write” button in the mode section. Selective copying is also possible, that is just one effects setting can be copied. To copy just the Distortion’s settings set this parameter to “Part distortion” & press the “Write” button in the mode section. To copy just the Reverb’s settings set this parameter to “Part reverb” & press the “Write” button in the mode section. To copy just the Chorus settings set this parameter to “Part chorus” & press the “Write” button in the mode section. To copy just the Delay’s settings set this parameter to “Part delay” & press the “Write” button in the mode section. To copy just the Pan’s settings set this parameter to “Part panning” & press the “Write” button in the mode section. To copy just the EQ’s settings set this parameter to “Part EQ” & press the “Write” button in the mode section. To copy just the Comb filter’s settings set this parameter to “Part comb filter” & press the “Write” button in the mode section. To copy just the Effect Configuration’s settings set this parameter to “Part FX config” & press the “Write” button in the mode section. The range of this parameter is All part effects, Part distortion, Part reverb, Part chorus, Part delay, Part panning, Part EQ, Part comb filter & Part FX config. This parameter is not memorised.

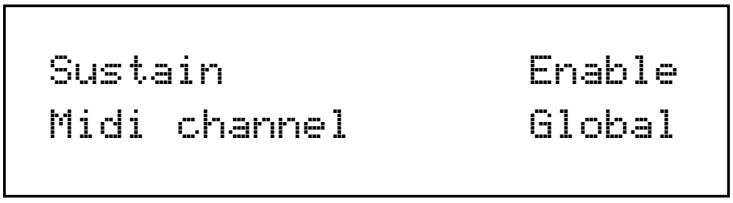
It is only possible to copy effects settings in Performance mode.

Extra sustain options

The available range of sustain message options for each Part in Performance Mode has been extended.

Midi - Button

Page 1 looks like so:



As can be seen the higher parameter is “Sustain”. In this case with a value of Enable.
This parameter determines how the selected Part will respond to incoming MIDI Sustain pedal data. (Controller 64). This parameter is adjusted using the higher Fast Data knob. If this parameter is set to “Enable” the Envelopes are held at their sustain phases if a MIDI Sustain pedal message of “On” is received. (This is similar to the Damper pedal on a Piano) . The Sustain pedal message can be set to do other things as well though. If this parameter is set to “Arp Latch” the Arp latch function will be switched on when a Sustain pedal message of “On” is received and switched “Off’ when a pedal “off” is received. Similarly if this parameter is set to “Arp Mute” or “Part Mute” the respective mute function will be controlled in the same way. Some manufacturers have different polarity pedals which can make this parameter behave in reverse so inverse parameters have been added as an option. Additionally it is often useful when layering 2 or more Parts to have one Part enabled and the other(s) disabled so an “Off” option is available. If this parameter is set to “Program + 1”, the Part’s Program advances by one when the pedal is pressed & if set to “Program - 1”, the Part’s Program decreases by one when the pedal is pressed. If this parameter is set to “Pattern + 1”, the Part’s arpeggiator pattern increases by one when the pedal is pressed & if set to “Pattern - 1,” the Part’s arpeggiator pattern decreases by one when the pedal is pressed.The range of this parameter is Enable, Arp Latch, Arp Mute, Part Mute, Enable (I), Arp Latch (I), Arp Mute (I), Part Mute (I), Program + 1, Program - 1, Pattern + 1, Pattern - 1 & Off. This parameter is memorised with the Performance.

Data compatibility with SN II series

Limited provision has been made for the Supernova to load system exclusive dumps from a Supernova II Keyboard, Nova II Keyboard or Supernova II Rack.

However, it will not be possible to take across all of the parameters into the Supernova. Certain features such as FM algorithms, extended envelope parameters and extended effects parameters are unique to the 2nd generation series and cannot be taken across. These features will be ignored if taken across via Sysex.

Other features such as special filter width and unison are common to both series, but are available in a reduced form on the Supernova. In such cases, the settings will be approximated as closely as possible when taken across via Sysex.

New features common with 2nd generation series (can be taken across) :

Osc special waveform : Double saw
Filter special types (all)
Unison on/off
Unison voices
Special filter width modulation
Pan effects
Global prog change tx option
Global controllers tx option
Global finder demo switch
Global knob mode

NOTE:

The Pan effects, Special Filter width & VCO Drift parameters can only be transferred successfully if the transmitting Supernova II or Nova II has the forthcoming OS 2 or above installed.

New features common with 2nd generation series in limited form (can be taken across) :

Unison detune (default unison detune value applied when Unison is on)
Special filter width (rounded to nearest pre-set value)
VCO drift (converted to DCO/VCO mode)
Arp gate time (rounded to nearest pre-set value)

Features unique to 2nd generation series (cannot be taken across) :

FM configurations
Envelope level tracking
Envelope level note
Envelope A-D repeat
Envelope sustain rate
Envelope sustain time
Oscs start phase
Arp output channel
Filter overdrive curve
Oscs filter bypass
Effects bypass
Comb filter speed
Comb filter depth
Comb filter spread
Comb filter freq wheel
Comb filter boost wheel
Distortion output level
Distortion gain compensate
Distortion curve
Chorus delay
Chorus LFO wave
Chorus speed 2
Chorus inertia
Chorus stereo width
Chorus type : Ensemble
Chorus type : Rotary speaker
LFO delay fade
LFO slew amount
Drum played as
Global input/switch settings
Global aftertouch tx option
Global velocity tx option
Global arp kbd note tx option
Global sysex tx delay
Global temp display time
Arp transpose zone settings
All external part settings
Drum maps
Digital i/o card options
Constant gate

Squarewave pulse width compatibility

Before OS4.0, maximum or minimum setting of “width” (+63 or –64) for an oscillator set to square wave gave a 5% pulse width.
For compatibility with series 2, this has changed to 0% (ie silence).
OS4.0 does not automatically adjust this.

Few programs use these extreme settings and it is unlikely that any change will be heard.

However, if upgrading to OS4.0 has made any of your programs silent or distinctly different, please check oscillators using square wave and reduce extreme settings of width by 3 or 4 counts.

New sound banks A & B are included in this archive. To install the new sounds follow the proceedure below. This is actually very similar to upgrading the OS in your Supernova.

1 - Connect the MIDI out of the sequencer to the MIDI in of the Supernova.
2 - Turn the Memory Protect OFF (in page 7 of the Global mode) & make sure your Supernova is set to Global MIDI channel 1. (page 1 of the Global mode)
3 - Load the total.mid file into your sequencer.
4 - Play the sequence. (The display will show the status of incoming messages)

If you experience problems with this file, it is probably due to similar problems that can occur when updating the OS. Please Refer to page 19 “Problems that can occur when updating an OS & sounds”.

This Dump only contains bank A & B. Banks C & D will remain unchanged.

The total.mid dump enclosed was actually developed for the Nova 4.1 OS upgrade and so has vocoder & input programs included. These will not work in a Supernova.

Please follow the instructions below for details on how to upgrade you Supernova's Operating System.

1 - BACK UP YOUR DATA.
Make a backup of your data to computer. By this I mean everything. Use the "Total data" setting in the Sysex transmission parameter in global mode & press the midi button to initiate the data dump.

2 - VERIFY YOUR BACKUP.
Change the name of one of the sounds & write the change in. Then reload your sounds from YOUR BACKUP that you have just made. If the name has changed back to what it was when you made the backup, chances are the backup is OK.

3 - SWITCH THE SUPERNOVA OFF.

4 - CONNECT MIDI OUT OF THE SEQUENCER TO MIDI IN ON THE SUPERNOVA.

5 - LOAD THE snvos41.mid FILE INTO YOUR SEQUENCER.

6 - HOLD DOWN PART BUTTON 8 & SWITCH THE SUPERNOVA ON WHILE STILL HOLDING IT DOWN.

The display should show:

```
Waiting for midi O/S
```

7 - PLAY THE SEQUENCER.

If everything is OK you'll get a display like so indicating the amount of file received.

```
Receiving OS 4.1
 progress...10%
```

Once the file has reached 100% the display will show:

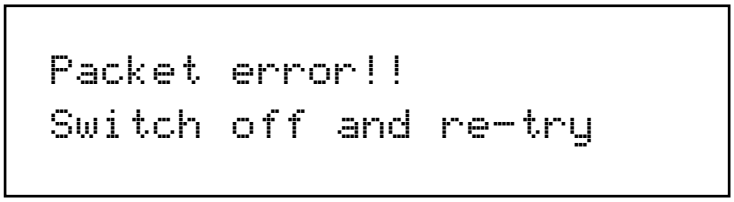
```
OK - updating flash
 progress...10%
```

The Supernova is now updating the OS in Flash Memory.

Under no circumstances switch off the Supernova while this procedure is happening. Doing so may result in very erratic behaviour & may lead to the Supernova needing to be sent back for service! Once the Flash has been loaded the Supernova will automatically reboot as normal running the new OS.

While we have taken every precaution in designing the OS to be upgraded trouble free, sometimes problems can occur. This is not solely down to us but in almost all cases rests with the sequencer/hardware used to perform the upgrade.

If an error occurs during the upgrade process the display will show:



This is an indication that an error has occurred in the download process that does not make any sense to the Supernova.

NOTE:
This is not caused by the Supernova but by the transmitting device. This is caused by the software or the hardware used to transmit the OS to the Supernova. Do what it says, switch the Supernova off & re-try.

If the problem re-occurs, then please look below.

PCs

PCs have the most problems. As said above this is not a fault in the Supernova but the transmitting device.
In these devices it seems to be a compound problem with hardware & software. Some applications will work with some MIDI interfaces & not with others.

Solution 1 is try another sequencer / application.
Solution 2 is try another MIDI interface.
Solution 3 is try another sequencer / application with a different MIDI interface.

Cubase works most of the time depending on the version & interface.
Cakewalk works sometimes depending on the version & interface.
Logic works most of the time depending on the version & interface.
Media Player works sometimes depending on the version & interface.
Freeloader works most of the time depending on the version & interface.

Some USB MIDI interfaces do seem to have problems handling this data. Please contact the manufacturer to get the latest Drivers / Operating systems for the interfaces. At the point of writing no USB interface known can reliably do this.

If none of this works...Try a different computer. Feel free to ask the sequencer manufacturer why large sysex files as .mid files are incompatible with their application. (.mid files are meant to be an international standard)

Macintosh

Mac's seem to be relatively trouble free. I have encountered some problems with older ones though. The same solutions apply.

Solution 1 is try another sequencer/application.
Solution 2 is try another MIDI interface.
Solution 3 is try another sequencer / application with a different MIDI interface.

Some USB MIDI interfaces do seem to have problems handling this data. Please contact the manufacturer to get the latest Drivers / Operating systems for the interfaces. At the point of writing no USB interface known can reliably do this.

If none of this works...Try a different computer. However this is rarely necessary.

ATARI

Never had a problem ever, an 8meg 16 bit machine can cream the lot of them.

AMIGA

Bars & Pipes Pro works but it could be down to the interface.

WORKSTATIONS

Workstations such as KORG's Trinity/X-series/O1w & ROLAND Workstations do not to our knowledge at this stage support sysex as .mid files. They have Utility modes which can load sysex files but not in the Midi File format.

Basically this means the files downloadable from our site are not compatible with your workstation. You will have to use a computer to upgrade your unit with this file.

DETAILS ON THE SOUNDSET ENCLOSED WITH THIS ARCHIVE

The soundset enclosed in this Archive was created for the NOVA Laptop & so there are Programs & Performances that use the Inputs & the Vocoder section of the NOVA. These parameters are not available in the Supernova 1 rackmount & so these Programs & Performances will not work.

This applies to the following Programs & Performances:

Program Bank B

124 Vocoder Init
125 Input 1 Init

Performance Bank A

119 Vocoder
120 FX Processor 1
121 FX Processor 2
122 FX Processor 1&2

All the other sounds however will work fine.

0	Blaster Master
1	Pad on Spec
2	Tech Terror
3	Liquid Goo
4	SQ Law
5	SuperStabber
6	Popsickle
7	SintillatedWorry
8	Cool Pad
9	The Pizzacato
10	Klavikle
11	Ravers in 7th!
12	Donna Supernova!
13	AbsoluteMassive
14	The Glide
15	Skwelchi 7th
16	Electric Aaah
17	Hypersynus
18	Ambient Nation
19	Brass Section
20	HardToTheKore!
21	Pink Phycosis
22	Fatty
23	Naked String
24	TwinOvaHead303's
25	Puff Pipe
26	Layered Pianos
27	SupSupSupJup
28	Pionus
29	Worry Free
30	Conetik
31	Layered Spectra
32	Novestra
33	Kit 1
34	EP & Strings
35	String+PluckLead
36	Good Ole 80's
37	Filming in Space
38	AttackVelo-Chord
39	Probe
40	3rd Party Pad
41	Two Big Ones
42	Trance Nation
43	Morphwave
44	Synth Section
45	LiquidNarcotic
46	Piano+Pading
47	1 Finger LSO
48	Teci
49	Fantasam
50	Tingly & Drugged
51	Sync's 'R' Us!
52	Layered Pianos 2
53	Super Fat
54	Squelchie
55	Heaven OrganPad
56	Super Unisyn
57	Space Pad
58	PiciGater Pad
59	Multimode BPF
60	2 Nasties
61	Lead & H20
62	Minor Evil
63	Botty & Sparks
64	Juicy Gaff
65	Agro Pad
66	Ambi Bambi
67	Solaris
68	Perci Organ
69	Brass+Lead
70	TooPad
71	Chime On
72	Choccie
73	PaddiWhack
74	OrchStrings
75	Liquid Sweep
76	Classic Combo
77	Multimode BPF
78	Annialator
79	Masterbasse
80	Swept
81	Analogue Bleep!
82	Synced Clavinux
83	Tinkler
84	The Three Arps
85	Synced Twice
86	I Feel Funky
87	A Bunch Obiewan
88	Staccato Square
89	Worry Free
90	Ambient Groover
91	Twin Organ
92	Lead & Pad
93	2ForkinRavers
94	Synth Strings
95	Cave Trippy
96	Psy Pad
97	7th Heaven
98	3rd & 7th
99	Perky Synth Pad
100	MooZ At 72ooz..
101	Staccato Saw
102	Blip & Co
103	Trouser Fat
104	Invert Filta Pad
105	Perci Fellow
106	Flutter Pad
107	Liquid Sweep
108	JammyLoop
109	When U Wanna…
110	Chimez
111	Layered Sweeps
112	TinCanDiffusion
113	Brass Section 2
114	Endless Arps
115	Atmospherics
116	Super Unisyn 2
117	Wet Sintillation
118	Comp 1
119	Vocoder
120	FX Processor 1
121	FX Processor 2
122	FX Processor 1&2
123	Init Velo Xfade
124	Init VeloSw V110
125	Init Split at C3
126	Multi Ch 1-6
127	Init Perf

0	Sintillator M-Wh
1	Skewed Arp
2	Softena Bass M-Wh
3	Velo 303
4	Velocity Mutes
5	Its Not OK
6	Garage Kick
7	FM EP
8	T-chu Wave
9	Ravin On
10	Velo 303 Dist
11	SyncHeathHazard
12	Stringz
13	SimpleEnvVeloArp
14	Synthi Harp M-Wh
15	Square Basics
16	Synus M-Wh
17	PunchiPick M-Wh
18	Sparkx
19	Morph Brass M-Wh
20	Flathead Bass
21	U-no polysynth 1
22	MW BPF
23	Perc Organ Bass1
24	Pickled on…
25	Slynkie Slide
26	"I"
27	Vorsprung…M-Wh
28	909 Snare 1
29	Pad 4 Landing
30	DigiTrouserCough
31	Anafuzzy logik
32	Spectra Pad
33	Vindalo Noise
34	SlapBass1
35	Techno crat
36	Obie Paddiviv
37	Soft Brit Sound?
38	Echoed Maj 3rd
39	Naked
40	Uni*Syn
41	EP
42	Ambient Line
43	RainPicks
44	No Moralies M-Wh
45	Highly Strung
46	ItsKindaPhasedWh
47	BP 303 2
48	Clock Clang
49	Skwusha 2 M-Wh
50	Jungle sine
51	303 Groover 1 M-Wh
52	Pick Bass M-Wh
53	Sonar (C3) M-Wh
54	TeaSub Bass
55	Bright EP
56	Brass
57	Eleventh HourPad
58	SuperStrings1
59	Electric Insect
60	All The Rave
61	Stack HPF M-Wh
62	Infiltrator SFX
63	Cheesy Spice
64	Pulsebass
65	Synth Scratch
66	Staccato Filter
67	Vienna Bender
68	Piki
69	Rez Square M-Wh
70	DetuneBass M-Wh
71	Randevous 2 harp
72	Comb Snare
73	Arpy 30Dist
74	Hard Bass
75	LFO madness
76	Arp Fingers
77	Sweep 12 dB
78	Strillan M-Wh
79	Waterphones
80	Pulse Clav M-Wh
81	SimpleAnaBass-Wh
82	Burbler
83	InVinceable M-Wh
84	Pinchi Pick M-Wh
85	Down Osc
86	DontSurrender-Wh
87	Sinker M-Wh
88	No FM Huh?
89	909 Clap
90	Perckie Saw M-Wh
91	Coke Filter M-Wh
92	Sup Jup Horn M-Wh
93	Clockworks M-Wh
94	Comatose
95	Open High Hat 1
96	Your Pad or Mine
97	Xtal Drop
98	S-ash Tray M-Wh
99	Uplifting M-Wh
100	Subbass M-Wh
101	Clix Organ
102	Swidge M-Wheel
103	Delicate Arp
104	Syncapation
105	Closed High Hat 1
106	Juice Bass
107	X mod Bass
108	Ahh Voices 2
109	Obie Jumpin
110	Novebella
111	Pianola M-Wh
112	Talker
113	Poms Bass3
114	Just Cant Get It
115	Bubble Arp
116	909 Tom M-Wh
117	Virtual Panpipe
118	Glider 2 Pad M-Wh
119	Hard Nosed
120	Drubex SQ
121	Piano Pad M-Wh
122	Raver Pad M-Wh
123	Roundhouse Bass
124	Pick 'n' Mix
125	Rain Piz
126	Mechatron Arp
127	Poms Bass2

0	Filtered H2O
1	SuperBassSt'n 19
2	Width Bass M-Wh
3	Wheel 303
4	Lonely Olive
5	Z-Plane VeloPick
6	Kickin Hardcore
7	Giggin EP
8	Chatter Arp M-Wh
9	Screaming Raver
10	DistortOrgan
11	Bigger 1
12	Polysikz Strings
13	Voxi Organ
14	Lead Gat
15	HolidayLeadBass
16	Sine-us
17	Bottie End
18	StaccatoString
19	Obie Brass
20	Flatter Head M-Wh
21	Synthi Trumpet
22	Squeege M-Wh
23	Organ Perc Bass2
24	Don’t Pick!
25	Stab
26	Dance Bass
27	Hartkern M-Wh
28	909 Snare 2
29	Devolution M-Wh
30	DualFiltStringWh
31	Syn Section M-Wh
32	Spectrux Pad M-Wh
33	Filter Sweep KHz
34	SlapBass2
35	VeloUniSync
36	Choral Pad M-Wh
37	Messy Sync M-Wh
38	Old’n’Rickety
39	Trance6 M-Wh
40	DualFiltPWMingWh
41	Velo Stabber
42	Dreamy Arp
43	Ringglass
44	Handbagin Bass
45	Stringie Thingie
46	Lead 1
47	Worry free Pad
48	Bell 1
49	Garage Swelch
50	Single Sub Wheel
51	303 Groover 2 M-Wh
52	PWM Crunchie
53	BlubberPick M-Wh
54	Simple Bass
55	Super Nova TramP
56	Brassic
57	Upstairs@Holgers
58	SuperStrings2
59	Max Bass
60	Attacka M-Wh
61	Xfade HPF
62	Explosion
63	Pocket stylophone
64	SuperBassSt'n 1
65	Synth Backslip
66	Staccato Square
67	Leader
68	D’you know Pick
69	Perci Blip M-Wh
70	Simple Bass 2
71	Snotty Nose
72	NeedleBleep M-Wh
73	Harmonic Dist303
74	Dat D'n'BassM-Wh
75	Obie String Pad
76	Random Arp
77	Sweep 24dB
78	Filmskore
79	Liquinova M-Wh
80	FM Clav
81	VeloReso
82	PVC Pipe/Tom M-Wh
83	Rhythm Sweep
84	BP Organ
85	Self Osc
86	Clean'n'Clear jh
87	Syncker
88	Psy1
89	Sawtooth Seq. jh
90	Perckie Sq M-Wh
91	Obie Extravert
92	SupJup BrassM-Wh
93	Throbba M-Wh
94	Wineglass
95	HiRage Kick M-Wh
96	Phillharmonic
97	Obie Tootle
98	Wheelreso
99	Slow Sweepa
100	2 Osc & M-Wh Sub
101	MultiHigh Hat
102	Radar>Comms
103	Rio Mod Wheel
104	VeloQuack
105	Boogie Lead
106	Emerald
107	FilterBass M-Wh
108	Rubber Filter M-Wh
109	Sync Brass Pad
110	Tinkerbell
111	BP Barker
112	Whiteout
113	Sync & Ring Bass
114	Needle Pick M-Wh
115	Electro Wire
116	TecknoTecknoM-Wh
117	Low Transmitter
118	Strings Ens
119	Boot Bass
120	Clickie Pickie(Moved 124)
121	Chirpy Novae(Moved 125)
122	Simple Arp M-Wh(Moved126)
123	Tin Can Wire M-Wh
124	Vocoder Init
125	Input 1 Init
126	Doublesaw Init
127	Init Program

A

For More Information Contact:

novation

Platinum House, 32B Clivemont Road, Maidenhead, Berkshire, England SL6 7BZ.
Ph: +44 (0) 1628 678520 Fax: +44 (0) 1628 671122
E-Mail:sales@novationuk.com Web Site: http//www.novationuk.com