

Prophet-6 Manual Addendum

OS Version 1.3.1

Prophet-6 OS version 1.3.1 adds a number of new features not covered in the main Operation Manual. These features are described in the following Addendum in the order shown below.

- Using Poly Chain (Unison, Sequencer, Arpeggiator)
- Recovering from a failed OS update
- Additional effects: 2 flangers, a ring modulator, and a new phaser
- How to check a parameter value in a preset
- Stepping backward in the sequencer
- Stepping through presents using the increment/decrement buttons
- Additional velocity curves

Checking Your Operating System Version

If you've just purchased your Prophet-6 new, OS 1.3.1 should already be installed. If you purchased your Prophet-6 prior to June, 2016 and wish to use the new features described above, you'll need to update your OS to version 1.3.1 or later.

To update your Prophet-6 OS, you'll need a computer and a USB cable, or a MIDI cable and MIDI interface. To download the latest version of the Prophet-6 OS along with instructions on how to perform a system update, visit the DSI website at:

<https://www.davesmithinstruments.com/updating-the-prophet-6-os/>

To check your OS version:

1. Turn on your Prophet-6. The OS version number is briefly displayed in the main BANK/PROGRAM display.
2. If your OS is out of date, download the latest version from the URL above and update your instrument using the instructions included with the download.



If you are updating to OS 1.3.1 from OS 1.0.1 you must do so using the MIDI DIN connectors on your Prophet-6 and not the USB connector since USB was not supported in the OS 1.0.1 release. Updating via USB is supported in OS 1.1 and above.



A MIDI boot loader, which enables recovery mode in case of OS update errors, was added to the Prophet-6 beginning with OS 1.2 (serial number #2415 and later). If you are updating to OS 1.3.1 from OS 1.0 or 1.1, you will notice that a second “OS load countdown” stops at “1” on the main display rather than automatically restarting. This is normal. Simply wait 60 seconds then power your Prophet-6 off and on again. The Prophet-6 will restart using the newly installed OS. As a general rule during OS updates, if the countdown ever stops at “1” rather than automatically restarting, wait at least 60 seconds before powering your Prophet-6 off and on again.

Recovering from a Failed OS Update

In very rare cases, the Prophet-6 OS might fail to load correctly when you update. There is now a safe and easy way to recover in such situations. The Prophet-6 is now equipped with a MIDI boot loader, which will allow you to reload the OS in the event the you accidentally “brick” your synth (permanently freeze it) while updating its OS.

To restore your Prophet-6 if it is frozen.

1. Power on the Prophet-6 while holding the WRITE switch to enter boot loader mode. You’ll see an animation in the main display.
2. Use a MIDI cable (not USB) to transmit the new OS to your synth. You must use a standard MIDI cable for this. USB MIDI doesn’t work in boot loader mode.
3. As the OS loads, you will see the main display count backwards from 999. When it gets to 0, another countdown will begin between the main display and the EFFECTS parameter 1 display. Do not power down until this countdown has finished. The Prophet-6 will restart itself when it is done.



If your Prophet-6 is currently equipped with OS 1.2 (which is included with Prophet-6 serial numbers #2415 and later) you cannot downgrade to an OS version earlier than 1.2. If you try, your Prophet-6 will freeze. If this happens, you can enter recovery mode by holding the WRITE button while powering up as described above. You can then update your synth to the latest OS via MIDI DIN (not USB).

Poly-Chaining Two Prophet-6 Synthesizers

If you have two Prophet-6 synthesizers of any type (modules or keyboards) you can link them together with MIDI to increase the total available polyphony to 12 voices. We call this poly chaining. If you have a Prophet-6 keyboard and a Prophet-6 module, you will use the keyboard as the master and the module as the slave.

To poly chain two Prophet-6 synths:

1. With a MIDI cable, connect the rear-panel MIDI OUT of the first Prophet-6 (the master) to the MIDI IN of the second Prophet-6 (the slave).
2. On the master Prophet-6, press the GLOBALS button then press program selector button 9 (MIDI OUT).
3. Use the BANK/DECREMENT and TENS/INCREMENT to select P_{L9} (poly).
4. Press the GLOBALS button twice to exit GLOBALS mode.

The two synths are now poly chained. You can now play up to twelve notes simultaneously. Another advantage of this arrangement is that notes with long release times are less likely to be cut off as you play additional notes.

Using Unison in a Poly-Chained System

In a poly-chained system, the maximum number of voices available in unison mode is 12 voices. In a non-poly chained system, Unison gives you control over how many voices to stack, from 2 to 6 voices.

In a poly-chained system, stacking options are slightly different. You can choose to stack either 2, 3, 4, 5, or 12 voices. In other words, setting voice stacking above 5 voices will stack all 12 voices. There are no options for stacking 6, 7, 8, 9, 10, or 11 voices in a poly-chained system.

To use Unison:

1. Press and hold the UNISON button.
2. With the UNISON button held down, use the BANK/DECREMENT and TENS/INCREMENT buttons to choose the number of voices to stack (2, 3, 4, 5, or 12 voices) then release the UNISON button.
3. To detune the oscillators, use the SLOP knob.

Using the Sequencer in a Poly-Chained System

In a poly-chained system, the sequencer functions nearly the same as it does in a non-poly-chained system. In other words, you can create a single sequence of up to 64 steps with a maximum of 6 notes (6-note chords) per step.

The 6 extra voices are simply added into the total pool of available voices so that any notes with long release times are less likely to be cut off as additional notes are played. Additionally, the 6 extra voices can be used to play live along with the sequence as it runs.

Using the Arpeggiator in a Poly-Chained System

As with the Sequencer, in a poly-chained system, the arpeggiator functions nearly the same as it does in a non-poly-chained system. The 6 extra voices are added into the total pool of available voices. Any notes with long release times are less likely to be cut off as additional notes are arpeggiated.

New Effects: Flanger, Ring Modulator, and Phaser 3

OS 1.3.1 adds new effects to the Prophet-6: Flanger 1 and Flanger 2, a Ring Modulator, and a new phaser. The ring modulator and phaser are emulations of Tom Oberheim's original effects designs. Adjustable parameters are given in the table below.

Display	Effect Type	Parameter 1	Parameter 1
<i>F_L 1</i>	flanger	rate	depth
<i>F_L 2</i>	flanger	rate	depth
<i>PH 3</i>	phaser 3	rate	depth
<i>r m</i>	ring modulator	modulator frequency	low-note pitch tracking on/off

FL1: This is a vintage flanger emulation. Use it to add a sweeping resonant effect to a sound. This effect has true through zero flanging capability. Adjustable parameters are rate and depth.

FL2: This is a vintage flanger without a feedback path and is designed to emulate the through zero capability of tape deck flanging. Use it to add a sweeping flanged effect to a sound. Adjustable parameters are rate and depth.

PH3: This is a faithful emulation of Tom Oberheim's original phaser design. Use it to add a swirling resonant effect to a sound. Adjustable parameters are rate and depth.

rin: This is a faithful emulation of Tom Oberheim's original ring modulator design. Use it to add a complex harmonic effect to a sound. Adjustable parameters are the modulation frequency and low note pitch tracking on/off.



The ring modulator's mode of operation is determined by the setting of Parameter 2, (pitch tracking) which can be set to either on or off. With this parameter off, the ring modulator functions like the original Oberheim ring modulator. In this mode, pitch tracking is off, and Parameter 1 sets the modulation frequency, which remains the same regardless of what note you play on the keyboard. With parameter 2 on, the ring modulator tracks the pitch of the lowest note that you play on the keyboard. In this case the Parameter 1 sets a ratio between the lowest note that you play and the modulator note (instead of setting a fixed frequency). The modulation frequency will then change as you change the lowest note that you're playing, so that the ratio will remain constant between the note that you play and note of the modulator. If you are only playing one note at a time, then the ring modulator will modulate with the same ratio as you play up and down the keyboard.



Set Parameter 2 to the "on" position to get more musical results from the ring modulator.

How to Check a Parameter Setting in a Preset

When you're editing a preset, the Prophet-6 now has a convenient way of indicating the programmed (saved) value for any knob parameter: Whenever you turn a knob and reach the saved value of a given parameter, an LED dot in the main Prophet-6 display will illuminate.

This dot illuminates



The dot illuminates when a knob position matches a preset's saved parameter value

Stepping Backward to Correct Notes When Recording a Sequence

While you are recording a sequence, it is now possible to step backward using the Bank/Decrement button to correct notes. You can decrement as many steps as you like, but each time you step backward the sequencer erases the step. You must then re-record any steps/notes that occur after the current step. For example, if you play notes on steps 1-8, then decrement to step 4, you will need to manually re-play steps 5-8 again on the keyboard.

To step backward while recording a sequence:

1. Record a sequencer normally by pressing the RECORD button, then playing notes on the keyboard. The display indicates the current step as you play.
2. Press the BANK SELECT/DECREMENT button. This will step back to the previous step so that you can rerecord it. Stepping back erases the step.

Stepping Through Presets Using the Inc/Dec Buttons

Instead of having to manually enter the Banks, Tens, and Ones digits to recall a preset, you can now use the Increment/Decrement buttons to step through programs sequentially, one by one.

To do this:

1. Hold **BANK SELECT/DEC** and press **TENS SELECT/INC** to increment by a single program.
2. Hold **TENS SELECT/INC** and press **BANK SELECT/DEC** to decrement by a single program.

Additional Velocity Curves Added to Global Settings

OS 1.3.1 adds four additional velocity curves that allow you to adjust the Prophet-6 keyboard's velocity response to your playing style. This now gives you a total of eight velocity curves to choose from.

To select a velocity curve:

1. Press the **GLOBALS** button twice to activate the lower set of parameters.
2. Press program selector button 5 to select **VEL RESPONSE**.
3. Use the **BANK** and **TENS** buttons as decrement and increment buttons to step through available settings. To choose one of the new velocity curves, choose settings 4-7.
4. Once you've chosen the desired setting, press the **GLOBALS** button again to exit.

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