

TEO-5 Beta OS 1.2.0.15 Addendum

OS Beta version 1.2.0.15 for the TEO-5 adds exciting new features, including new Arp Modes, a new Noise mode, and the ability to Poly Chain two TEO-5s together to achieve a 10-voice mode.

This addendum covers these new features.

Updating Your Operating System Version

To update your TEO-5 OS, you'll need a computer and a USB cable, or a MIDI cable and MIDI interface. To download the TEO-5 Beta OS along with instructions on how to perform a system update, visit the TEO-5 Beta OS thread of the Sequential/Oberheim [forum](#).

IMPORTANT

After installing the OS update, you must reset the TEO-5's Global parameters. To do this, enter the Global menu, navigate to Reset Globals, and press WRITE.

New Features in Beta OS 1.2.0.15

1. New arpeggiator modes.
2. New arpeggiator timing mode.
3. New noise modes.
4. Poly Chain.

New Arpeggiator Play modes

OS 1.2.0.15 adds ten new arpeggiator playback modes. These can be accessed via the Arpeggiator MODE encoder. Turning this to the right will reveal the new modes, indicated at the bottom left of the OLED display window.

1. **PinkyUp** – Alternates note playback between two virtual playheads, A (fixed), and B (in motion). Playhead A will always play the highest selected note in the highest octave. Playhead B will count up from the lowest selected note in the lowest octave to the second-highest selected note in the highest octave, crossing between octaves. After playhead B plays the second-highest note and playhead A plays the highest note a second time, playhead B resets to the lowest note in the lowest octave.
2. **PinkyDown** – As Pinky Up, but playhead B starts on the second-highest selected note in the highest octave and moves down from there.
3. **ThumbUp** – Also uses two virtual playheads, as in Pinky Up/Down, but in this case playhead A stays at the lowest note in the lowest octave, and playhead B starts playback at the second-lowest note, moving up from there.
4. **ThumbDown** – Plays back much like ThumbUp, but playhead B begins at the highest selected note in the highest octave and moves down.
5. **Spiral** – Utilizes two virtual A and B playheads like the previous modes. Playhead A starts on the lowest note in the lowest octave, while playhead B starts on the highest note in the highest octave. On the first playback cycle, playhead A moves up to higher notes, while playhead B moves down to lower notes. When either playhead crosses the other in pitch, *or* reaches the highest or lowest octave note, the direction of both playheads will reverse.

6. Leapfrog – With only a single virtual playhead, Leapfrog starts playback on the lowest selected note in the lowest octave, then moves up two steps, then down one step, crossing over into the next octave when necessary. Playback resets to the lowest note in the lowest octave when there are insufficient notes or octaves to continue the pattern.
7. Shuffle – Plays all held notes once in a randomly-determined order and without replacing notes. Each octave is shuffled independently, giving complex results.
8. ShuffleOnce – Like Shuffle, but the randomly-determined order is repeated until it is reshuffled. The shuffled sequence is repeated at each octave; reshuffling occurs whenever a note is added or removed from the selection of held notes.
9. RandWalk – Begins playback in the middle octave of held notes, first playing the middle note of all held notes, in order of notes played. At each step the note's octave will move up or down at random, spanning all selected octaves.
10. Chord – This mode will play all notes at once on each step of the arpeggiation, changing octaves each time.

New Arpeggiator Timing Mode

OS 1.2.0.15 adds a new Program menu parameter, Arp Timing. This adds a new arpeggiator setting for how selected arpeggiation modes are played back. To access the new parameter, enter the Program menu and scroll to Arp Timing. It offers two selections:

1. Normal – This is the standard Sequential Arpeggiator playback timing, where keys trigger the arpeggiator based on the internal or external clock and the selected Clock Division setting.
2. Whiplash – Whiplash causes the arpeggiation to take the same amount of time to complete one cycle regardless of how many notes are held. This will cause arpeggiated notes to “bunch up” or space out, depending on initial clock settings.

Noise Modes

The Noise Type Program parameter has been changed in this update. The options under Noise Type are now White, Pink, and Violet, with Violet noise as the new noise type selection. The Noise button on TEO-5's front panel will enable output of the selected Noise Type.

Violet noise is a form of noise that emphasizes higher frequencies and cuts low frequencies. With less low frequency content than either pink or white noise, violet noise is a more subtle, grainy, high register noise source.

Poly Chain

The new poly chain mode allows you to connect two TEO-5s together via MIDI DIN to create a 10-voice system. The Follower TEO-5 will respond to front panel, note, arpeggiator, and sequencer parameters from the leader TEO-5, with the whole system acting like a 10-voice synth.

To set up poly chain for two TEO-5s:

1. Connect a MIDI DIN cable from the Leader TEO-5 MIDI Out (the one that will be used as the controller) to the Follower TEO-5 MIDI In (the secondary unit in the pair; the one that will provide the second set of 5 of the total voices).
2. Power up the Follower TEO-5 first. Then power up the Leader TEO-5.
3. Reset Globals on the Leader TEO-5.
4. Enter the Global menu on the Leader again and set Clock Mode to OUT.
5. Set Clock Cable Out on the Leader to MIDI.
6. Set MIDI Param Send on the Leader to NRPN.
7. Set MIDI Out Select on the Leader to POLY CHAIN.
8. Set MIDI Prog Send to ON.

On the Follower TEO-5, reset Globals, then:

1. Set MIDI Param Rcv to NRPN.
2. Set MIDI Prog Rcv to ON.

When poly chain is set correctly, the Follower unit will display POLY CHAIN in the top center of the OLED display. If you do not see the POLY CHAIN indicator here, please reset the global parameters on both units and go through the settings listed above once more.