Tempest Manual Addendum

OS Version 1.1

This document details changes and additions to Tempest's operating system that are not in the Tempest Operation Manual.

Manual Errata

Assignment of an expression pedal to Note FX 1 through 4 in the System menu is not yet implemented.

System Settings

Master Transpose: -12…+12—Transposes the pitch of all voices in half-step increments, as much as one octave up (+12) or down (-12).

Fine Tune: -50…+50—Transposes the pitch of all voices in one cent increments, as much as a quarter-tone up (+50) or down (-50).

Pad Velocity Curve: 1…4—Sets the overall velocity response curve for Tempest's pads. The default value is 2.

MIDI: Clock Mode: Off, Master, Slave, Slave Thru—In **Master** mode, Tempest transmits MIDI clock and start, stop, and continue messages.

In **Slave** mode, Tempest syncs to incoming MIDI clock and responds to start, stop, and continue messages. When slaved to an external MIDI clock, Tempest's Tempo display is preceded by "EXT." The master BPM (beats per minute) is not transmitted via MIDI as a numerical value, so Tempest must calculate the BPM from the incoming clock, and the value displayed by Tempest is subject to rounding and the accuracy of the master clock. In other words, Tempest's displayed BPM value may be slightly different from the master's, even though they're perfectly synced.

In **Slave Thru** mode, Tempest syncs to MIDI clock and forwards incoming MMC and clock messages to the MIDI Out port.

> **Note:** In **Slave** and **Slave Thru** modes, if no MIDI clock is present at the selected input, Tempest will not play.

When clock mode is set to **Off**, MIDI clock is neither transmitted nor received.

MIDI: IN Channel: All, 1…16—Sets the incoming MIDI channel for MIDI note-to-pad playback and recording. The note-to-pad mapping is derived from the General MIDI standard drum mapping.

Note	MIDI Note	GM Inst	Pad
A4	69	Cabasa	A1
F#3	54	Tamborine	A2
E2	40	Electric Snare	A3
D2	38	Acoustic Snare	A4
A#3	46	Open Hi Hat	A5
D3	50	High Tom	A6
B2	47	Low Mid Tom	A7
G2	43	High Floor Tom	A8
F5	77	Low Wood Block	A9
D#2	39	Hand Clap	A10
C#2	37	Side Stick	A11
C2	36	Bass Drum	A12
F#2	42	Closed Hi Hat	A13
D#3	51	Ride Cymbal 1	A14
C#3	49	Crash Cymbal 1	A15
G3	55	Splash Cymbal	A16

Note: Notes played via MIDI take priority over notes played by Tempest's sequencer, just as notes played from the pads do.

MIDI: OUT Channel: Off, 1…16—Sets the channel on which Tempest's pads transmit MIDI note and velocity data. The pads transmit MIDI data in 16 Sounds, 16 Tunings, and 16 Levels modes. The note-to-pad mapping is the same as what is described in "MIDI: IN Channel," regardless of the Pad Functions mode. In 16 Levels mode, played velocity is ignored and the pad's assigned velocity level is transmitted.

When set to **Off**, note and velocity messages are not transmitted (but clock and start/stop/continue messages are).

Note: The current version of the OS uses Tempest's default note-to-pad mapping even in 16 Tunings mode, so the transmitted MIDI notes don't correspond to the notes in the 16 Tunings screen.

MIDI: Synth IN Channel: Off, 1…16—Sets the channel on which one of Tempest's Sounds can be played from an external MIDI keyboard or other MIDI controller, or a MIDI sequencer. Used strictly as a MIDI sound module, Tempest behaves as a six-voice analog poly synth. It responds to note messages and the "standard" controllers (pitch bend, mod wheel, aftertouch, channel pressure, etc.), provided that the Sound has those modulation sources routed to some destination.

When used to record notes to Tempest's sequencer, the external keyboard or controller controls the note's pitch, but otherwise acts much the same as recording from a pad: only one note can be recorded at a time. Velocity and duration are also recorded. Timing is subject to the current Quantize setting. Because the sequencer is event-based, continuous controllers such as pitch bend, mod wheel, and aftertouch are ignored.

MIDI: Synth IN Channel must be set to a different channel than **MIDI: IN Channel** in order to function properly. If they are set the same, the note-to-pad mapping detailed under "MIDI: IN Channel" overrides the MIDI: Synth functionality.

> **Note:** Notes played via MIDI are prioritized higher than notes played by Tempest's sequencer, so the sequencer should not steal voices while notes are playing via MIDI. Notes played by the pads have the same priority as MIDI notes, so they can steal voices from MIDI notes and vice versa.

MIDI: Synth Sound: A1…A16—Used to choose the pad—and its assigned Sound—that plays on the MIDI: Synth IN Channel. Because this is currently a system-level setting, MIDI data will be routed to the chosen pad, regardless of the loaded Beat or Project.

MIDI: Synth Root Note: C0…C10—Sets the note at which the external MIDI controller plays the Sound at the same pitch as playing it from the pad in 16 Sounds mode. For example, let's say the pad plays the sound as an A. In order to play the Sound from a MIDI keyboard without transposing, **MIDI: Synth Root Note** should also be set to an A, perhaps A4 or A5 to play in close proximity to middle C on the keyboard.

Local Control: Off, On—Currently affects only the pads. When **Off**, the pads transmit note and velocity messages via MIDI, but do not directly control the "local" instrument (that is, Tempest).

Touch Slider Latch Mode: Active Only, All—When set to **Active Only** (the default) and Latch On is active, the latched slider value is reset to 0 when switching between FX1 and FX3, playing another pad, or switching between 16 Sounds and 16 Beats modes. FX2 and FX4 behave similarly.

When set to **All** and Latch On is active, the slider values stay latched for a given Sound, even when switching among FX1, FX2, FX3, and FX4, playing other pads/Sounds, or switching between 16 Sounds and 16 Beats. Turning latch off resets all latched values to 0.

For details about the touch sliders, see "Real Time FX" on page 35 of the Tempest Operation Manual.

Latch Button behavior: Normal, Shift Switched, Disabled—In **Normal** mode, the touch slider remains at the last value when Latch On is active.

In **Shift Switched** mode, the un-shifted and shifted behaviors are swapped. That is, the Latch On buttons now switch between FX1 and FX3 or FX2 and FX4. Shift + Latch On turns latch on and off.

When set to **Disabled**, the Latch On buttons simply switch between FX1 and FX3 or FX2 and FX4 and the latch function is disabled.

For more details about Latch On, see "Real Time FX" on page 35 of the Tempest Operation Manual.

Envelope Amount Encoder behavior: Normal, Shift Switched—In **Shift Switched** mode, the un-shifted (Amount) and shifted (Velocity Amount) behaviors are swapped. That is, when Shift is off, the encoder controls Velocity Amount and when on, Amount.

Select Sound behavior: Shift On + Pad, Shift Held + Pad—The default behavior (**Shift Held + Pad**) is slightly different from what is described on page 5 of the Tempest Operation Manual. To select a Sound for editing without playing the Sound, hold Shift down and press the desired pad. When set to **Shift Held + Pad**, the pads can still be played when Shift is on.

When set to **Shift On + Pad**, Shift must either be on or held down to select the Sound.

Tap Tempo behavior: Shift On + Play, Shift Held + Play—With Tempest's default behavior (**Shift Held + Play**), must be held to tap the tempo. Otherwise,

Play starts/restarts the Beat, whether SHIFT is on or not. When set to **Shift On + Play**, Play is used to tap the tempo when SHIFT is either on or held down.

Erasing All Notes

All notes in a Beat can be erased easily in either 16 SOUNDS or 16 BEATS mode.

In either 16 SOUNDS or 16 BEATS, press and hold ERASE, and then press the ERASE ALL NOTES soft key. All notes in the current Beat are erased.
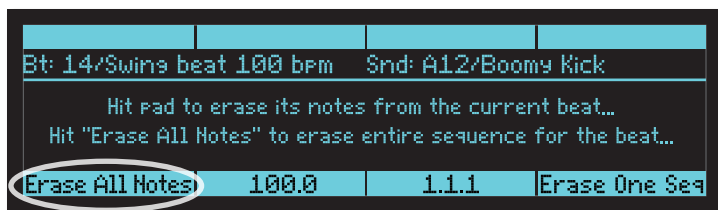
For details about using ERASE, see "Rec/Edit Keys" on page 38 of the Tempest Operation Manual.

Reverse Playback

REVERSE causes Sounds—even completely analog, non-sample-based Sounds—to play in reverse by reversing the envelopes. (Sample-based Sounds also play the sample in reverse.) REVERSE is a real-time, performance control in 16 SOUNDS and 16 BEATS modes and it can also be recorded into a Beat on a per note basis.

While playing a Beat in 16 SOUNDS mode, turning REVERSE on and playing a pad will cause the Sound to play in reverse. While recording a Beat in 16 SOUNDS mode, notes recorded with REVERSE on will record and play in reverse.

> **Note:** Reverse has also been added to the parameter list in the Beat Events screen and can be turned on or off for individual notes. For details about the Beat Events screen, see "Events key: the Beat Events screen" on page 12 of the Tempest Operation Manual.

While playing a Beat in 16 BEATS mode, REVERSE causes all of the Sounds in a Beat—but not the Beat itself—to play in reverse.

Load Beat Options

When loading a Beat, there are five options to determine what data gets loaded.

Normal—All Beat data will be loaded into the destination Beat.

Sounds + Mixer—Only the Sounds and mixer settings will be loaded.

**Sounds Only**—Only the Sounds will be loaded.

Sequencer + Note FX—Only the sequence and Note FX settings will be loaded.

Beat FX—Only the Beat FX settings will be loaded.

For more information, see "Loading Sounds, Beats, and Projects" on page 41 of the Tempest Operation Manual.

Time Shift

Time Shift has been added to the list of parameters in the Beat Events screen. Tempest's sequencer resolution is 96 PPQN (parts per quarter note). Time Shift allows a note to be shifted +/- 3 parts. At 120 BPM, 1 part equals about 5.2 milliseconds.
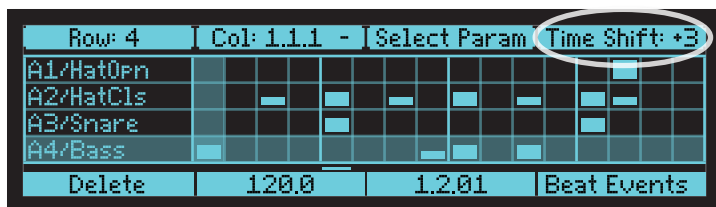
For details about the Beat Events screen, see "Events key: the Beat Events screen" on page 12 of the Tempest Operation Manual.

"Panic Button"

Tempest is capable of being played from the internal sequencer, the pads, and MIDI simultaneously. If a stuck note should occur, simply press SHIFT + SHIFT + STOP to force all the voices off.

Previewing Sounds

A parameter, LOAD SOUND, has been added to the Pads screen in 16 SOUNDS mode, enabling Sounds for the selected pad to be auditioned and changed.

In Pads view, strike a pad to select a Sound and then turn the LOAD SOUND soft knob clockwise to load the first available Sound for the current Sound directory. Continue scrolling through the list to audition different Sounds or use the SOUND DIRECTORY soft knob to change to a different directory of Sounds. Press the REVERT soft key to revert to the saved Sound.

> **Note:** REVERT is available until another pad is struck in 16 SOUNDS mode. Pads can be struck in any other Pad Function mode, but once another Sound pad is struck, REVERT is unavailable. To return to the saved settings, reload the file.

Bug Alert! Shortly after the release of this OS, a bug relating to LOAD SOUND was discovered. If you switch Beats after using LOAD SOUND, the edited Beat will no longer play correctly. If you decide to use this feature, follow one simple rule: don't switch beats! Or, to be completely safe, don't use it. You can still use LOAD SOUND to quickly change Sounds in a Beat and save the changes before switching Beats. We are working to get this corrected soon.