# ILLUMINE User Guide Addendum

New Features - Firmware Version 1.1

## MIDI Beat Clock Sync

ILLUMINE can synchronize the echo time for the Wet+Echo effect to a MIDI beat clock. The usable range of beat clock synchronization is approximately 23-230 BPM (beats per minute). The current beat clock frequency is displayed in the Global Setup menu. BPMs of 22 and lower are ignored.

Beat clock synchronization is enabled on power up. To ignore the beat clock and use the preset echo time instead, use CC 81.

CC Number	Parameter	Detail
81	Sync Echo Time to Beat Clock	0-63 = do not sync, 64-127 = sync

#### Echo Subdivisions

When a MIDI beat clock is present, the echo time may be synchronized to the MIDI beat clock, or quarter note tempo. In this case, the Echo Time parameter changes to Echo Subdivision and specifies one of several divisions of the echo time that synchronize with the tempo:

Echo Subdivision	# Repeats	Per # Beats	Description	Common Value
1:1-qtr note	1	1	quarter note	~
6:5	6	5	6:5 polyrhythm	
5:4-5tupl qtr	5	4	quintuplet quarter note	
4:3-dot 8th	4	3	dotted eighth note	~

3:2-3tupl qtr	3	2	triplet quarter note	
5:3	5	3	5:3 polyrhythm	
7:4-7tupl qtr	7	4	septuplet quarter note	
2:1-8th note	2	1	eighth note	~
7:3	7	3	7:3 polyrhythm	
5:2-5tupl 8th	5	2	quintuplet eighth note	
8:3-dot 16th	8	3	dotted sixteenth note	
3:1-3tupl 8th	3	1	triplet eighth note	>
7:2-7tupl 8th	7	2	septuplet eighth note	
4:1-16th note	4	1	sixteenth note	

Because the echo time in the Wet+Echo effect is limited, BPMs lower than 88 may require the echo time to be divided to remain synchronized. If the subdivided echo time is greater than the maximum echo time, it will be divided by 2 or by 4 and the Echo Subdivision parameter will be displayed with the suffix "double time" or "quad time," respectively.

### MIDI Beat Clock Display

The status of the MIDI beat clock received at the MIDI Input is displayed in Global Setup ► MIDI Beat Clk RX:

- BPM (beats per minute) if a beat clock is received
- "none" if no beat clock is received
- "too slow" if the BPM is below the usable limit

This screen is for information only, and no adjustment is available.

### Wet/Dry Effect Routing

ILLUMINE may be configured for a Wet/Dry rig, which splits the signal chain into separate dry and wet channels. Enabling Wet/Dry effect routing is a 2-step process:

- 1. Go to Global Setup ► Effect Routing, and select Separate Wet/Dry
- 2. Go to Global Setup ► Wet/Dry Mode and select one of the following:
  - Multiple Effects ILLUMINE is part of a signal chain with multiple effects in the wet signal path. Connect the dry input to ILLUMINE's left input and wet input to ILLUMINE's right input. The left/dry channel will not have the effect added, while a mono effect is added to the right/wet channel.



 ILLUMINE Only — ILLUMINE is the only effect in the wet signal chain and will create a wet/dry output from a dry input. The mono/dry input is sent to the left output, and the wet signal is sent to the right output.



The ILLUMINE Only option is available only when BYPASS TYPE is Buffered, because true bypass will pass the dry signal through the wet channel. When BYPASS TYPE is True, the WET/DRY MODE menu is not displayed and defaults to Multiple Effects.

### Preset Scrolling via MIDI

The following MIDI Program Change messages have been added:

PC	Action
124	Decrement footswitch preset list (same as Preset Down footswitch)
125	Increment footswitch preset list (same as Preset Up footswitch)
126	Decrement preset number by 1
127	Increment preset number by 1