

# BeatBuddy Firmware Revision History

## New BeatBuddy Firmware (3.6.0 “The Bug Zapper”) 06/17/2019

- Fixed count-in color style and behavior
- Fixed Headphone volume random display
- Fixed Missing Audio bug – this was a bug that cause certain drum sounds not to be played in rare cases.
- Stability improvement to memory management (That were done while looking for the memory corruption problem in the missing audio bug)
- Midi Time signature – added check to make sure the values sent are valid, to prevent errors in MIDI files causing errors in the MIDI sync
- Prevent default song tempo / drumset if those were set by MIDI 500ms before – so if you choose a song with certain settings through MIDI, the BB won't override those settings.

## Beat Buddy beta firmware version (3.50) that fixes a few bugs 05/13/2019

### Changelog:

- Fixed Missing Audio bug (probably)
  - Missing audio bug was caused by memory corruption during file loading. An invalid library configuration seems to be the issue. (Disabled word access in ff.c to solve the issue)
- Stability improvement (That were done while looking for the memory corruption problem)
  - Stopped using malloc / free for i2c packets.
  - Limited the number of settings that can be saved in one setting Task call
  - Add load sanity checks to limit the chance of trying to play a corrupt song
- Midi Time signature
  - Made sure the values sent are valid by applying mask on the payload value (0x7F)
- Fixed count-in color style
- Fixed Headphone volume random display
- Prevent Song Manager from setting default song tempo / drumset if those were set by MIDI 500ms before.

## BeatBuddy Firmware (3.2.0 “A New Look”) 03/25/2019

### New Visual Interface

One of the main focuses of this update was to improve the visibility of key information at a glance. We really wanted to increase the pedal's visual feedback during a live performance. With this in mind, we performed a complete visual overhaul of the BeatBuddy's graphical interface. Here's what's changed:

1. **Added measure marker:** Useful for knowing when a fill or transition is more than one measure long, as well as seeing where you are in long song parts. This is the dark box on the bottom of the screen that is moving left to right.

2. **Made fonts larger and centered** (when not longer than the screen). There's now a focus on the current part playing, which is the most important information you need while performing.
3. **Updated the pause, tempo and volume screen** with new looks as well as an always active visual metronome, so you never lose track of the beat.

### **More MIDI Commands**

We're continuing to implement more functionality into the BeatBuddy in preparation for our upcoming pedals. These changes include:

1. Separate Pause / Unpause message
2. CC-111 data == 0 : pause
3. CC-111 data == 1 : unpause
4. CC-111 data >= 2 : toggle between pause and unpause

### **Other Changes**

1. Improvements to the memory management system
2. Half/Double time now changes at the end of a measure
3. Half/Double time mode resets when a new song is loaded

### **Bug Fixes**

1. Potentially fixed the "no audio" bug
2. Fixed bpm screen that is always visible when changed by MIDI
3. Fixed broken sleep mode
4. Prevented useless bpm/tempo page popups

## **[New Firmware Release Notes \(2.7.0 "The Tempo Update"\) 02/28/2019](#)**

### **Tap Tempo Overhaul**

One of the main focuses of this update was to improve the ease of use and accuracy of the BeatBuddy's Tap Tempo functionality. With this in mind we made a few key improvements:

1. The BeatBuddy now rounds Tap Tempo to the nearest whole integer, avoiding non-whole number BPM values (e.g. 120.54 BPM).
2. We added new behavior which adjusts the Tap tempo to the current time signature. So if the beat is 6/8 you will be tapping to the 8th notes (not to the quarter notes as previously)
3. We also made changes to the BeatBuddy's Tempo UI Screen, now whenever the tempo is adjusted it brings up a screen with tempo in big numbers, which are easily read from standing distance. This should result in more visual feedback at a glance, helping to further improve the ease of use for BeatBuddy's Tempo function.
4. Lastly, if you're tapping out the tempo with the button, footswitch, or an external controller, the main pedal no longer does tap tempo and can be used to start a song immediately, even in the tap tempo screen. The exception to this is if you entered tap tempo mode by holding down the main pedal while the song was stopped (then the main pedal acts like the tap button).

## Enable/Disable Outro Fills

You now have the ability to disable outros in the BeatBuddy's settings. This was requested often, and behaves similarly to the already present ability to enable/disable intros.

## More MIDI Commands

We've begun to implement some more functionality into the BeatBuddy in preparation for our upcoming pedals. These changes include:

1. The ability to control tempo incrementally using custom CC messages. (CC-80 for increment and CC-81 for decrement, with the value of command representing the size of increment/decrement)
2. Previous part command for CC-113 when value is 126.

## Other Updates

1. Added long name support (up to 256 characters)
2. Added support for MIDI notes as accent hits
3. Added support for Human Readable Name (HRN) drumsets in metadata

## Bug Fixes

1. Fixed potential bug with MIDI merge
2. Fixed outro called from external footswitch bug

## Known Bugs

- Using MIDI commands to change the tempo results in the new tap tempo screen staying on indefinitely. You should be able to clear the screen by starting a song if this happens to you. Our developer is working on a fix.

## [New Firmware Features -- Release 2.04 \(RC4\) 03/31/2017](#)

### Settings Menu Improvements

- New Settings Menu Help System! Whenever you see the (?) symbol next to a menu option, press the right arrow button to highlight it and then press the Tap button to see an explanation of that Setting option. No more looking through the manual to understand what a setting does!
- Change Font Size: No more squinting at small words! (Settings > Font Size)
- Automatic Large font size when entering Folder / Song selection window with the footswitch
- Hide Sobriety Feature option: For the parents who don't want to explain this little joke to their kids. (Settings > Sobriety > Hide Sobriety Option)

**Use the Footswitch as the Main Pedal:** Many of you would like to have the BeatBuddy up at table top

(or keyboard) height so you can choose songs without bending down. You can now set one of the footswitches to act like the Main Pedal! (Settings > Footswitch > Function > Main pedal)

Please Note: If the footswitch detector detects a latching footswitch, it disables the main pedal option

since it cannot work with a latching footswitch. A momentary footswitch is required. All Singular Sound

Footswitches manufactured after May 2015 are momentary. To test your footswitch: Settings > Footswitch > Footswitch detector

**Double Tap Outro Disable** : Some Beat Buddies complained that they are accidentally hitting the double

tap outro during a performance. You can now disable it. (Settings > Main Pedal > Outro). You can set

one of the footswitches as a single tap outro at Settings > Footswitch > Function > Playing.

**New Accent Hit options:**

- **Global Accent Hit:** A single sound that is triggered no matter what song or song part you are in (as opposed to the Default Accent Hit which is a sound set to the specific song part). You can choose from all the Accent Hits available on the SD card and any WAV files added in the EFFECTS folder of the SD Card. (Settings > Footswitch > Accent hit > Source)

- **Accent Hit Volume:** You can now adjust the accent hit volume! Accent volume can range from [-40db, + 6db], Default value is set to 0db. (Settings > Footswitch > Accent hit > Volume)

**Cue Fill options:** Some users have said that the fills sound smoother if they start on the next half beat

(1/8th note), next beat (1/4 note) or next measure rather than immediately when the pedal is pressed. So

we have added these options. Default is still Immediately. Please note: When set to ‘Immediately’, if the

pedal is pressed in the last half beat of the measure, the fill will play in the next measure because it’s very

unlikely that you want less than a half beat of fill so you probably pressed it too early. (Settings > Main

Pedal > Cue Fill)

## **BB Firmware Release Notes Version 1.85 03/16/2016**

**Sobriety function:** Control how drunk your BeatBuddy is! One of the things BeatBuddy fans always tell us is that they love how their BeatBuddy never gets drunk (or shows up late, or drinks your beer, the list goes on...), but sometimes it’s kinda fun to jam with a drunk drummer! So we’ve included a Sobriety setting (just press the Drum Set and Tempo knob at the same time to enter Settings - it’s the fourth option down). When Sober, BeatBuddy plays perfectly as always. When Tipsy, BeatBuddy’s had a few beers and starts drifting on the tempo a bit. When Drunk, BeatBuddy has had way too many beers and a few shots and starts drifting on the tempo A LOT as well as throwing in some random fills. When Wasted, BeatBuddy is probably a danger to himself and to others, especially your musical sanity – he’ll be all over the place tempo wise, throwing in random drum fills, transitioning to other song parts when he’s not supposed to and just banging on the cymbals in the most annoying way. Luckily, unlike your human drummer, BeatBuddy sobers up instantly. Just change his setting

**Sleep Mode:** You may have noticed that like most guitar pedals, the BeatBuddy does not come with a power button. The only way to turn it off is to unplug it. So we created a sleep mode that puts the BeatBuddy in a low power state. Just press the Drum Set and Tempo Knobs at the same time to enter Settings and select Sleep Mode. This will put your BeatBuddy to sleep until you’re

ready to jam with him again. Don't worry, unlike most heavy sleeping drummers, the BeatBuddy can be woken up with a touch of any button or knob.

**Visual Metronome while stopped:** Many players have told us that they begin some songs by playing alone and then bringing in the drums after an intro – but it's hard to play that intro to the right tempo without the drum going. So we made the visual metronome active while in stopped mode so you have a visual cue of the tempo of the drums when you bring them in. And since some intro fills aren't full bar fills (they may start on the second or third beat of the bar, instead of the first), the beat where the intro fill starts is darker than the rest. But if you like the way your BeatBuddy was without the visual metronome active while stopped, you can adjust it in Settings > Main Pedal > Visual Metronome.

**Hands free folder navigation:** You can set your footswitch to go to the next song or to the last song in a folder, but until now there was no way to use the footswitch to enter or exit the folders themselves. So we added the capability that when a footswitch is set to Song Advance or Song Back, holding the footswitch down enters or exits a folder. Please note that this will only work with Momentary (unlocked) type footswitches, not latching (locked) ones. We changed Official BeatBuddy Footswitch from latching to momentary around 1 year ago. To test the type of footswitch you have go to Settings > Footswitch > Footswitch detector.

**Complete MIDI Control:** One of the most common requests we have gotten is for full MIDI support so that the BeatBuddy can be integrated with other systems, programs and devices. We have worked extensively to map (with MIDI CC Controls) practically every function of the BeatBuddy to MIDI so that you guys can have the most powerful possible tool and use it in creative ways. You can control the Volume or Tempo with an app like MIDI Designer. Or you can set a MIDI footswitch to trigger an outro fill with a single press or to skip from song part 1 to song part 3 and then back to song part 2 – you can skip to any part at will! This is especially useful for Keyboard Players who would like the BeatBuddy to sit next to them on the keyboard instead of on the floor so they can see the BeatBuddy's screen. For full details on MIDI Mapping, see the User Manual.

**Instant song selection with Bank Select / Program Change:** Now you can use Onsong or other apps to instantly go to a certain beat when selecting a song – this is especially useful for musicians who have hundreds, if not thousands, of songs in their repertoire and don't want the hassle of search for that one beat on their BeatBuddy when the audience requests a random song. Just select the song in Onsong, and your BeatBuddy will instantly go to the beat you have set to that song!

**Technical Detail:** To select a song, set your app to MSB 0 (make sure this value is always 0), LSB (0-127) selects the BeatBuddy song folder where 0 is the first folder, 1 is the second folder, etc. – we know this is confusing, but that is how the MIDI standard works, beginning at 0, not at 1. And Program Change selects the song in the folder, where Program Change 0 is the first song, Program Change 1 is the second, etc.

**MIDI Merge:** The BeatBuddy now has the capability to merge MIDI commands it receives with the MIDI commands the BeatBuddy generates and output the merged commands through the MIDI Out port. This allows you to use a tablet to control the settings on your BeatBuddy and other devices in your MIDI chain while at the same time using the BeatBuddy as a source of MIDI clock and other MIDI commands. The MIDI Merge protocol we developed has the lowest possible latency. To Enable this feature, select: Settings > Main Pedal > MIDI Messages > MIDI Out > Output Type > MIDI-Merge

### **Added additional settings:**

- Settings > Main Pedal > MIDI Messages > MIDI Out > Sync > Always On / While Playing / Disable: You can now set when the MIDI Clock signal is sent out by the BeatBuddy. This is useful for if you want to play with your MIDI connected device (like your looper or effects), but one of your songs doesn't include the drums, so you don't want the BeatBuddy's tempo affecting your other device.
  - Settings > Main Pedal > MIDI Messages > MIDI In > Control Change (CC) > Enable / Disable: You may want to pass CC MIDI commands through the BeatBuddy to your other devices, but not have the BeatBuddy be affected to them.
  - Settings > Main Pedal > MIDI Messages > MIDI In > Notes Off > Choke Notes / Ignored: BeatBuddy now chokes notes when external notes are received with a velocity of 0. This allows long notes to be cut short.
- Settings > Main Pedal > MIDI Messages > MIDI Out > Notes > Enable / Disable: Some devices (notably the Pigtronix Infinity) have trouble when receiving MIDI Notes, so we have set this default to off. If you wish to turn on MIDI Out Note streaming so the BeatBuddy's MIDI notes are sent to another device (such as your DAW), change this setting.
- Settings > Main Pedal > MIDI Messages > MIDI Out > Next Part & Time Signature > Enable / Disable: Some devices (notably, the Eventide Timeline) seem to have problems when receiving certain MIDI Messages, such as the the time signature midi message or the Next Part Midi message (CC102).

### **Many bug fixes:**

- Critical bug that was causing the BeatBuddy to reset after 2 to 3 hours of playing
- Bug that caused a reboot of the BeatBuddy when no accent hit was present and footswitch was pressed
- USB connection bug that prevented correct operation when BeatBuddy is in Folder / Drum Set / Song Selection window
- Various minor bugs

### **Upcoming Feature(s):**

Autopilot Mode: Because of the BeatBuddy's new capability to respond to CC commands, it is possible have the CC commands programmed into them so fills and transitions are played automatically. We will be releasing new versions of the Most Popular Cover Songs packages in the BeatBuddy Library which the BeatBuddy will play the way the original song was played – but you will still have the capability to improvise using all of the BeatBuddy's live control functions. Stay tuned for the announcement regarding this new content.