

BEATBUDDY

USER MANUAL



FIRMWARE V2.0.4

SINGULAR **SOUND**

BEATBUDDY **USER GUIDE**

FIRMWARE V2.0.4 UPDATED MANUAL

REACH US!

Support@singularsound.com

305 - 809 - 6698

We love to help! :-)

To check the Firmware version on your BeatBuddy, press the drum set and tempo knobs down at the same time and select '**About BeatBuddy**'.

Don't have the latest firmware?

Download it here:

<https://singularsound.com/firmware/>

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FIRMWARE INSTALLATION INSTRUCTIONS

- Once you have downloaded the firm ware, unzip the file.
- You will see 5 files: app, app.bin, boot. bin, MLO, and MLO.bin.
- Insert SD Card directly into your computer.
- Drag the contents of the firmware folder directly onto the SD Card (the first window when opening the SD card drive on your computer).
- If you are prompted to skip or replace certain files with identical names, click Replace.
- After the files are transferred, insert the SD card into your unplugged BeatBuddy.
- Once the SD card is in, power the BeatBuddy on. Let the firmware upgrade take place (~20-30 seconds).

CHANGE LOG

View all firmware change logs:

<https://singularsound.com/firmware/>

2.04 FIRMWARE I NEW FEATURES

Settings Menu Improvements

New Settings Menu Help System

- Look for the (?) symbol next to a menu option
- Press the right arrow button to highlight
- Press the Tap button to see setting option explanations

Change The Font Size

- (Settings > Font Size)
- Default font size is now large when entering the Folder/Song selection window via the footswitch.

Hide Sobriety Feature

- 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: Use the BeatBuddy on a table-top (or keyboard) height. Set one of the footswitches to act like the main pedal (Settings > Footswitch > Function > Main pedal)

Note: Latching footswitches can't be used with the main pedal option. A momentary footswitch is required. All Singular Sound Footswitches manufactured after May 2015 are momentary.

Test Your Footswitch: (Settings > Footswitch > Footswitch detector)

Disable Double Tap Outro: Disable double tap outro during a performance. (Settings > Main Pedal > Outro)

Enable Footswitches as a Single Tap Outro: (Settings > Footswitch > Function > Playing)

New Accent Hit Options:

- **Global Accent Hit:** A single sound triggered with any song or song part you are in (as opposed to the Default Accent Hit which is a sound set to the
- 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: We formerly used a percentage based cue fill period system (if you have it, then you have an older version of the firmware), and 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)

MIDI Command Change: When unpausing with drum fill (by tapping the main pedal), the MIDI “Start” message is sent after the completion of the fill and the main loop begins. This means that the looper only begins playback after the fill is complete, which is a more accurate representation of what usually happens in a live performance.

Technical Improvements:

- Increased the Polyphony from 24 to 64 simultaneous instruments.
- Added Non-Percussion Instrument handling: Now the drum sets with bass will sound better!

Bug Fixes:

- Fixed Midi Note In Problem. (Under some circumstance, some MIDI note received in the MIDI in port were retransmit on the MIDI out port even if it was set to MIDI-OUT.
- Added quick release to reduce “clicking” sound when removing sounds (when max polyphony is reached)
- Fixed release buffer coefficient calculations.
- Fixed midi merge sync bug.

1. Introduction

Congratulations and thank you
for purchasing your BeatBuddy!

What it does

BeatBuddy is the world's first pedal drum machine that enables musicians to easily control the beat hands-free. Just by pressing a pedal, you can start a beat, insert fills, transition from verse to chorus, throw in drum breaks (pauses), trigger accent hits such as hand claps or cymbal crashes and more! It is the closest thing to having a real drummer. And it won't drink all of your beer! In fact we have a Sobriety setting so you can control how drunk your BeatBuddy gets, no beer required!

Content format

The BeatBuddy is a MIDI based drum machine. The beats in the songs are MIDI files. MIDI files are like musical notes on sheet music, which tell the musician what to play on an instrument. The drum sets on the BeatBuddy are collections (libraries) of WAV sound files - which are recordings of the actual drum sounds. The MIDI files trigger the WAV files in the drum sets. That is how the BeatBuddy is able to play any beat, any time signature, using any drum set at different tempo settings to get a completely different sound.

Whenever possible, the BeatBuddy's drum sets and beats were set up using the **General MIDI Drum Map**, so that most beats work with most drum sets.

Please note: Not all beats and drum sets sound good together -- it may sound strange to play jazz beats on a heavy metal drum set -- or it may sound cool! You decide.

Please Note: There is one exception, and that is the Latin genre/drumset. The Latin genre is exclusively compatible with the Latin drumset, and vice-versa. We occasionally have some library content that also is mapped to the Latin drumset (e.g. a few songs in the Beatles package), and those songs are set ahead of time to the Latin drumset as default.

Content Organization

The BeatBuddy's beats are organized into 'songs', each comprising 'song parts' (such as verse or chorus). Each song part has a main beat loop, an accent hit and multiple fills associated with it. When transitioning between song parts, the song parts are played in order until the last song part is played, and then it goes back to the first song part.

The entire combination of songs and drum sets on your BeatBuddy is called an SD Image and is all stored on the SD card. You may have one Project per SD card.

What the BeatBuddy is Not

The BeatBuddy is not a traditional drum machine: Drum machines have traditionally been used to create beats. The BeatBuddy is a performance tool, and cannot be used to create beats. New beats can be created on the many beat creation software programs available (such as Guitar Pro, Cubase, ProTools, GarageBand, Ableton, EZ Drummer, etc.) and loaded onto the BeatBuddy with the BeatBuddy Manager Software (available as a FREE download at myBeatBuddy.com/downloads).

The BeatBuddy is not a traditional effect pedal: Unlike other effects pedals, the BeatBuddy is not intended to modify your instrument's sound. It has input jacks only in case you want to put both the BeatBuddy and your instrument into the same sound system without the need for a mixer. The beats are not changed by your instrument's sound. No instrument needs to be plugged into the BeatBuddy for it to work normally, so the BeatBuddy can be a stand-alone tool used by any musician.

2. How to plug in.

Power

The BeatBuddy uses a 9V 500mA center-negative power supply.

If you use a power supply of more than 9V or plug it directly into AC power you will destroy your BeatBuddy, and your warranty will NOT be valid! This would be painful for everyone - especially your BeatBuddy. Do not do this!

The power supply must have a minimum of 300mA (0.3 Amps) for the BeatBuddy to turn on. More amps won't harm your BeatBuddy. If you use a center-positive adapter, it won't harm your BeatBuddy either, but your BeatBuddy won't turn on.

Using your pedal board's power supply

If you would like to use your pedal board's 'octopus' power supply (a single power supply that powers all of your pedals), make sure it is 9V and center negative (most are) BEFORE plugging it in! To calculate if your pedal board's power supply has enough Amps to power the BeatBuddy, add up all of the Amps that your other pedals require (usually written on the bottom of the pedal. Remember: 1000 mA [milliAmps] = 1.0 A [Amps]) and add 0.3 Amps for the BeatBuddy's requirement. If this total is more Amps than your power supply can produce (for example, the total of all of your pedals plus the BeatBuddy is 2.5 Amps but your power supply can only produce 2.0 Amps), then the BeatBuddy won't turn on (neither will any of your other pedals), because

there isn't enough power available.
PLEASE NOTE: Plugging the BeatBuddy (a digital pedal) into the same power supply as analogue pedals (most effect pedals) can cause noise interference in the analogue pedal sound. If you experience this, please use a separate power supply for the BeatBuddy.

SD Card

All of the BeatBuddy's content (beats, drum sets) are stored on the SD card. The SD card must be properly inserted into the BeatBuddy for it to work.

The BeatBuddy SD card comes loaded with 10 drum sets and 200+ songs in many different styles. If you lose your SD card, you can download the default BeatBuddy content to put on a new SD card at myBeatBuddy.com/downloads.

Sound System

BeatBuddy can be used without an instrument plugged into it. It will produce sound whether an instrument is plugged into it or not. The input jacks are there in case you want to put both the BeatBuddy and your instrument sounds into the same speaker without the need for a mixer.

The BeatBuddy produces 'line-out' level analogue sound, similar to a standard music player or computer headphones jack. You can plug the BeatBuddy into any speaker system that accepts 1/4" (6.5mm) or 1/8" (3.5mm) audio jacks.

However, like all audio, the better the sound system it is plugged into, the better the BeatBuddy will sound. The BeatBuddy sounds best when played through a high quality full range stereo sound system. A PA system or a home

stereo system is ideal (you can plug the BeatBuddy's headphones port into the Aux input on your home stereo or guitar amplifier, if it has one).

Many electric guitar amps and bass amps are not full range speakers

(they clip off the higher frequencies), so they muffle the BeatBuddy's sound. Acoustic guitar and keyboard amps are full range. If you're not sure if your amp is full range, listen to the BeatBuddy on high quality headphones to compare. If there is a considerably noticeable difference in the audio, then connecting it to a higher quality full range speaker system will enable you to hear the BeatBuddy's full potential. But as always, trust your own ears and do what sounds best to you.

If you have the BeatBuddy plugged into an amp, any effects on the amp will affect the sound of BeatBuddy (unless the BeatBuddy is plugged into your amp's AUX jack, then it is fine). So if your amp's distortion is on, the beats will sound distorted. It is highly recommended to have your amp set to a 'clean' neutral tone for the best sound and use other effects pedals instead of the amp's effects. If you are using BeatBuddy with other effect pedals, it is recommended to place BeatBuddy after all of the other pedals in the effects chain so that the BeatBuddy's sound isn't affected by your other pedals.

BeatBuddy will never damage your amp's speaker through normal use. Though, if you prefer using your amp exclusively for your instrument, you may use a separate amp for BeatBuddy.

This will also allow you to enjoy the built in effects of your main amp for your guitar without affecting the BeatBuddy's drum sounds.

One additional issue that may arise from using the same amp to play your guitar and the BeatBuddy's beats is that on some amps, the sound of the bass drum will cause the guitar to tremolo, or waver, a bit to the beat. While some people love this effect -- if you would like to reduce it, lower the Bass (Low) setting on your amp.

3. How to use the BeatBuddy

Visual Display:

The BeatBuddy uses a first of it's kind visual display to show you what is going on with the beat. It uses color codes to show what part is being played.

The dark bar is the **Visual Metronome**. It shows where the beats is in the measure. How many movements it takes to cross the BeatBuddy's screen depends on the time signature of the beat. If the time signature is 4/4, there are 4 beats in the measure and so there are 4 movements to cross the screen. If the time signature is 5/4, then there are 5 movements, etc. All fills and transitions end at the end of the measure, so you can know when the beat will change by watching when the bar will reach the end of the screen. This is great for timing your song changes.

Visual Display:

Type of footswitch: It is highly recommended you use the official BeatBuddy footswitch (sold separately), since we designed our footswitch to withstand the heavy use of a BeatBuddy performance. If you are not using a BeatBuddy footswitch, make sure that the footswitch is compatible with the BeatBuddy and that the BeatBuddy is configured to the type of footswitch you are using. The BeatBuddy is compatible with standard momentary or latching dual footswitches which have a single TRS (Stereo) ¼" output (one switch is connected to the Left channel and the other to the Right). It is NOT compatible with ABY switches.

Make sure that the footswitch is connected to the BeatBuddy with a stereo (TRS) cable and that the cable is plugged in all the way.

To configure the BeatBuddy to your footswitch, press the Drum Set and Tempo knobs down at the same time to enter the Settings menu. Select 'Footswitch' and then 'Footswitch Detector' and follow instructions. The BeatBuddy will save your settings, so you only have to use the 'Footswitch Detector' again if you use a different footswitch.

4. Tips and Tricks

- Want to know which beat to use with a particular famous song? Or would you like to find a custom beat made just for that song? Look it up on the our BeatBuddy Tools page!
- Navigate through settings, folder and song lists quickly by turning the Tempo knob. Pressing the Tempo knob selects an item and pressing the Drum Set knob exits the current setting or folder.
- End the song with fast presses on a cymbal crash accent hit to simulate a drummer doing a 'swell' as the song ends with a big finale.
- Stepping on both the Pause and Accent hit footswitches at the same time stops the drums with a crash cymbal sound (if the accent hit is a crash cymbal) -- a nice effect.

- Starting a song with a double tap will play just the outro fill and end the song... when only a single fill is required!
- If the song or drum set name is too long to be displayed on the screen, you can see it scroll again by pressing the Drum Set or Tempo knob twice.
- Hold the Tempo or Drum Set knob down to set the default tempo or drum set (respectively). So if you like a certain tempo or drum set for a certain song, you don't have to adjust it every time you select that song. The setting will be saved!
- If you know you want a certain tempo or drum set, but are not sure which beat to use, disable the default tempo and/or drum set in the Settings menu so that you don't have to keep adjusting the tempo and drum set while changing songs.

- To navigate between folders hands free, set one of the footswitch buttons to song advance or song back. Pressing once when the song is stopped will go to the next or last song in the folder, holding the footswitch button down will exit or enter a folder. To select a song in the folder, press the main BeatBuddy pedal.
- You can load a rimshot sound ('ba dum tss') or the sound of applause into the first accent hit of a song, and use it as comedic relief in a show.
- Use the BeatBuddy Manager (see Section 7) to create a folder on the BeatBuddy with the songs you'll use for a show (you can name these folders "Coffee House Gig", "Tuesday Nights", etc.), so you don't have to navigate to find the songs you want in a live performance. For added ease, use a footswitch attachment to scroll through the songs, hands-free.

If you think of a cool new tip or trick, please share it with the BeatBuddy community at myBeatBuddy.com/forum.

Thanks! :-)

5. BeatBuddy Manager

Extra content can be downloaded from the BeatBuddy Online Library at myBeatBuddy.com/library or from the user forum at myBeatBuddy.com/forum.

BeatBuddy Manager software (available for free download at myBeatBuddy.com/downloads) will enable you to manage BeatBuddy content. Re-arrange the content on the BeatBuddy, create new songs by importing MIDI files, add existing songs to the content, and load an SD card with the content.

To use the BeatBuddy Manager software with your BeatBuddy, you can either connect the BeatBuddy to your computer with the included USB cable (make sure the SD card is properly inserted in the BeatBuddy), or put the BeatBuddy's SD card in your computer's SD card reader. Then when you are finished, insert the SD card back in the BeatBuddy.

6. Settings

To enter the Settings screen, press down on the 'Drum Set' and 'Tempo' knobs at the same time.

The settings give you many options to customize the BeatBuddy to suit your needs and playing style.

Tip: If you are unsure what a particular setting does, press the right arrow button (next to 'tap') to select the '?' and press 'tap' to see a short explanation. Press the left arrow to exit the explanation.

Settings Table of Contents:

- I. Sleep Mode
- II. Footswitch
- III. Main Pedal
- IV. Font Size
- V. Sobriety
- VI. About BeatBuddy
- VII. Restore Default Settings

I. Sleep Mode - This puts the BeatBuddy in a low power state -- wake it up any time by pressing any knob, button or the main pedal.

II. Footswitch

- **Footswitch Detector** - Detects the type of footswitch that is plugged into the BeatBuddy. Use this whenever using a new footswitch with the BeatBuddy or if your footswitch doesn't seem to be working correctly (such as it only works every other press, or triggers a command on both the press and release).
- **1st Footswitch Function** - 1st = LEFT button, 2nd = RIGHT button. (NOTE: Because both the 1st and 2nd footswitch settings menus are identical, we are only elaborating on one of them)
- **1st Main Pedal** - Sets the switch to act like the Main Pedal, with tap for fill, hold for transition, double tap for outro. Useful if you want the BeatBuddy somewhere other than the floor. Note that if you enable this function, all other available functions for this button will not be available (while playing or stopped).

- **1st Switch Stopped** - The function that the 1st (left) switch will do when pressed while no song is playing.
 - **No Action** - Nothing happens when pressed
 - **Accent Hit** - Triggers a single sound that is set for the song part that is currently playing. If a song is not playing, it will play the accent hit of the first song part in the song.
 - **Song Advance** - Loads the next song in the current folder
 - **Song Back** - Loads the previous song in the current folder
 - **Tap Tempo** - Sets the Tempo beats per minute to the speed that the switch is tapped.

- **1st Switch Playing** - The function that the 1st (left) switch will do when pressed while a song is playing (including when it is paused).
 - **No Action** - Nothing happens when pressed
 - **Accent Hit** - Triggers a single sound that is set for the song part that is currently playing. If a song is not playing, it will play the accent hit of the first song part in the song.
 - **Pause/Unpause** - Pauses and Unpauses the beat.
 - **Tap Tempo** - Sets the Tempo beats per minute to the speed that the switch is tapped.
 - **Outro Fill** - Triggers the outro fill and ends the song.
- **Accent Hit** - Accent hit settings
 - Source** - The source of the accent hit sound
 - Default** - The default sound per each individual song. Global - Sets onesound for all of the accent hits on your pedal (you will be able to choose from a menu).
 - Volume** - The volume of the accent hit sound.

III. Main Pedal

- **Intro** - What happens when a song is started.
 - **Enable:** Plays the intro fill for the song, if present
 - **Count in:** Plays one sound for each beat of one measure and then starts the first song part beat.
 - **None:** Immediately starts the first song part beat.
- **Outro (Double Tap)** - To enable or disable the BB's default double tap to play the outro. Some users accidentally hit the double tap, so would prefer to disable this. You can always stop the song with a pause (footswitch), then while paused hold the main pedal down to stop the song.
 - **Enable/Disable**

- **Default Tempo** - When enabled, it will automatically load the saved tempo for each song. But if you know the tempo of a song you want to play but are searching for the best beat, select 'Disable' so the tempo doesn't change every time you change the song. Tip: To change the default tempo of a song, press and hold down the tempo knob.

- **Enable/Disable**

- **Default Drum Set** - When enabled, it will automatically load the saved drum set for each song. But if you want to try a few different songs with the same drum set, select 'Disable' so the drum set doesn't change every time you change the song. **Tip:** To change the default drum set of a song, press and hold down the drum set knob.

- **Enable/Disable**

- **Mute Pause** - When enabled, mutes the beat while paused. To be used if the BeatBuddy is 'Slave', controlled by an external MIDI clock.
 - **Enable/Disable**
 - **MIDI-Activated** - Mute Pause is automatically enabled when BeatBuddy is acting as Slave in MIDI Sync
- **Main Pedal Unpause** - What happens when the main pedal is pressed while the BeatBuddy is paused
 - **Tap** - While paused and the main pedal is tapped (pressed quickly).
 - **Intro**
 - **Fill**
 - **Hold** - While paused and the main pedal is held down.
 - **Stop Song**
 - **Start Transition**

- **MIDI Messages** - Please refer to our **MIDI manual**.
- **Cue Fill Period** - Controls when the fill is triggered after the pedal is pressed. Please note that even when set on 'Immediately', if you press the pedal in the last half beat of the measure, it will play the fill in the next measure, because it's very unlikely that you want less than a half beat fill, so you probably pressed it too early.
 - **Immediately**
 - **Next Half Beat**
 - **Next Beat**
 - **Next Measure**
- **Start Beat** - Controls whether to start the beat on the press of the pedal or release. Press is more immediate, but if you set it to Press, you cannot use the Hold pedal features (enter tap tempo from Stopped mode, stop song or start transition from paused mode).
 - **Press/Release**

- **Triple Tap Stop** - When enabled, allows the function of stopping the song immediately with a quick triple tap.
 - **Enable/Disable**
- **Release Time** - Period of time over which the BeatBuddy fades out a choked sound (advanced feature).
 - **0ms - 250ms**
- **Visual Metronome** - Sets when the Visual Metronome (the moving bar on the screen) is active.
 - **Stopped & Playing / Playing Only / Disable**

IV. Font Size- Sets the text size of the content and settings menu

- **Normal/Large/Extra Large**

V. Sobriety - Makes the BeatBuddy play like it's been drinking! Great for practice for those real life situations, or just to make your friends laugh :-)

- **Sober**
- **Tipsy**
- **Drunk**
- **Wasted**

VI. About BeatBuddy - Unique BeatBuddy ID number and current firmware version

VII. Restore Default Settings - Restores settings to the way they came from the factory

9. Technical Specifications

Dimensions: 5" long x 3.5" wide x 2.5" high (127mm x 86mm x 63mm)

Power: 9v DC, 300mA, center negative

Output Impedance: ~26 ohms

Input Impedance: > 1Meg ohms

Max Input Level: 3.5 dBu

Signal to Noise: 95 dB typical

D/A: 24 bits, 44,1 kHz

Frequency Response: 10Hz to 20 kHz

10. Warranty

Your BeatBuddy comes with a full two year warranty on parts and workmanship from the date of purchase. During this period we will repair or replace (at our option) defective units free of charge.

Most issues can be solved by writing to us at support@singularsound.com or call us at **305-809-6698**

If we cannot help you fix the problem, we will have you send the BeatBuddy in for servicing.

The warranty remains valid only if the serial number on the unit is not defaced or removed. It does not cover damage due to misuse, unauthorized tampering, accident or neglect.

To validate your warranty please register your BeatBuddy within 30 days of purchase at singularsound.com/warranty

Thanks for reading the manual!

If there is anything you don't understand, or think that can be explained better, please contact us at

Support@singularsound.com

305 - 809 - 6698

or visit the BeatBuddy
Community Forum at

<http://forum.mybeatbuddy.com>