# Jamstik®
## MIDI Guitar

# User Manual

Scan the QR Code above or go to **jamstik.com/start**
for detailed guides, video tutorials, and free software downloads.

Before using the unit, carefully read the “Important Safety Instructions” present in this manual.

# *Important Safety Information*

Please read these instructions and heed all warnings. Keep them in a convenient location and make sure everyone in the household is aware of them.
1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Clean with a damp or dry soft cloth. Do not use household cleaners or solvents as they may damage the finish on your Jamstik.
6. Do not use or store near any heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat.
7. Refer all servicing to Jamstik/Zivix qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cable or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

## Battery Warnings & Proper Care

WARNING:
The user must have appropriate understanding of Lithium-Ion batteries before purchase. Use caution when working with and using Lithium-Ion batteries as they are very sensitive to charging characteristics and may explode, burn, or cause a fire if misused or mishandled. Always charge in or on a fire-proof surface. Never leave batteries charging unattended. This battery is sold for the use of system integrations with proper protection circuitry or battery packs with a battery management system or PCB (circuit board/module). Buyer is responsible for any damage or injury caused by misuse or mishandling Lithium-Ion batteries and chargers. Charge only with a smart charger designed for this specific type of Lithium-Ion battery.
Misusing or mishandling Lithium-Ion batteries can pose a SERIOUS RISK of personal injury, property damage, or death
BATTERIES MAY EXPLODE, BURN, OR CAUSE A FIRE IF MISUSED OR MISHANDLED
ONLY use within manufacturer specification
DO NOT store loose in pocket, purse, etc. – always use a protective case
KEEP AWAY from metal objects to prevent short circuiting
DO NOT short circuit
DO NOT use if wrapper or insulator is damaged or torn
DO NOT use if damaged in any way
DO NOT overcharge or over-discharge
DO NOT modify, disassemble, puncture, cut, crush, or incinerate
DO NOT expose to liquids or high temperatures
DO NOT solder
User must be familiar with handling Lithium-Ion batteries before purchase
Usage of batteries is AT YOUR OWN RISK

## Trademarks

- Apple, iPad, iPhone, Mac, iOS and OS X are trademarks of Apple Inc., registered in the U.S. and other countries.
- Windows is a trademark of Microsoft Corporation in the U.S. and other countries.
- Bluetooth is a registered trademark of Bluetooth SIG, Inc.
- Jamstik is a registered trademark of Zivix LLC.
- All product names and company names are the trademarks or registered trademarks of their respective owners.

## Warranty & Registration

- Under the limited warranty, your guitar is protected for 1 year from the original purchase date and may not be transferred to subsequent owners.

## Other Guitar Care Instructions

- When possible, store your guitar in its case to keep it protected and limit extreme hot or cold exposure.
- It may be necessary to adjust the truss rod to compensate for climate and humidity changes that can occur in transit. For further information, visit jamstik.com/start

Safety and Compliance information continued on page 13

## *Welcome*

Welcome to your new MIDI guitar! For the best user experience, please make sure to read through the important quick-start information, and don't hesitate to reach out to our support team with any questions along the way.

The Jamstik MIDI guitar was built as a plug-and-play controller and works out of the box with any software that accepts MIDI input from 3rd party controllers. For fine-tuning, you may want to adjust your Jamstik's settings to match the DAW, plugin, app, or hardware synth you're pairing with. To get set up please visit **jamstik.com/start**

## *Table of Contents*

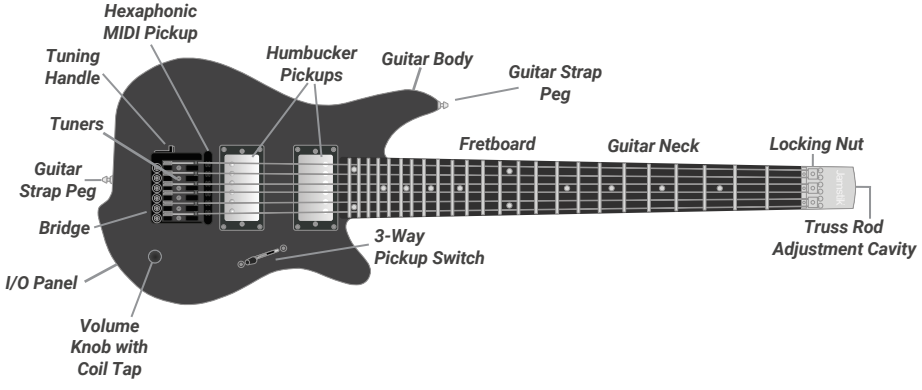

| | |
|---|---|
| **Getting To Know Your Instrument** | 2 |
| **Guitar Setup Instructions** | 3 |
| **Connectivity** | 4 |
| **Software Guide** | 6 |
| **Quick Tips** | 7 |
| **Settings Glossary** | 8 |
| **Safety & Compliance** | 13 |


For detailed instructional videos, like how to restring your guitar, how to properly adjust your string height, and updated information not covered in this manual, please visit **jamstik.com/start**

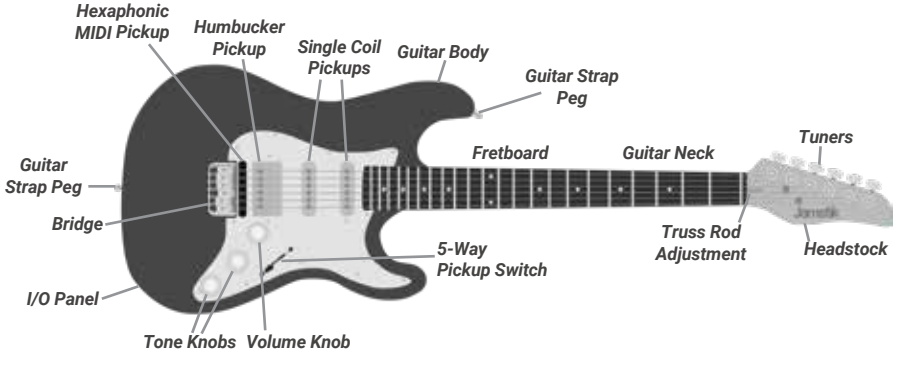
For more help and troubleshooting, visit **jamstik.com/support** or email **support@jamstik.com**

# Parts of the Guitar

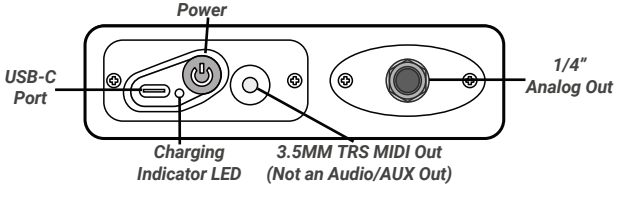
## Jamstik Studio




## Jamstik Classic

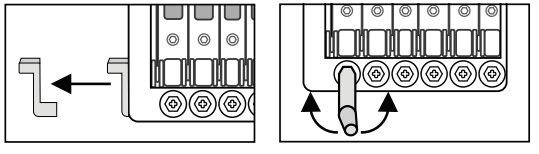



## I/O Panel

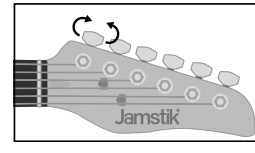


# Keeping Your Guitar Tuned

- Your guitar may need to be tuned upon shipment, and subsequently over time.
- Tuning is critical for optimal MIDI performance. We recommend checking your guitar's tuning before each use for best results.
- For the headless Jamstik Studio, your guitar is tuned at the bridge rather than the headstock. Use the built-in tuning handle at the bridge to rotate the tuners up to correct tension.
- The headstock Jamstik Classic is tuned like a standard electric guitar by turning the tuning pegs on the headstock by hand.
- The Jamstik may require correct tuning before successful MIDI connection and tuning can be done with a traditional guitar tuner method or the software tuner over MIDI in Jamstik Software once properly connected



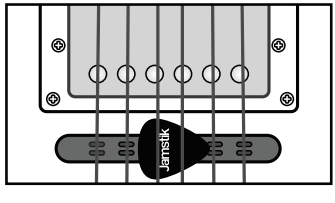
Jamstik Studio

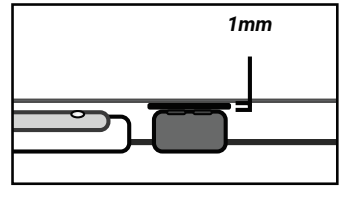



Jamstik Classic

# *Optional Step* - Adjusting the MIDI Pickup

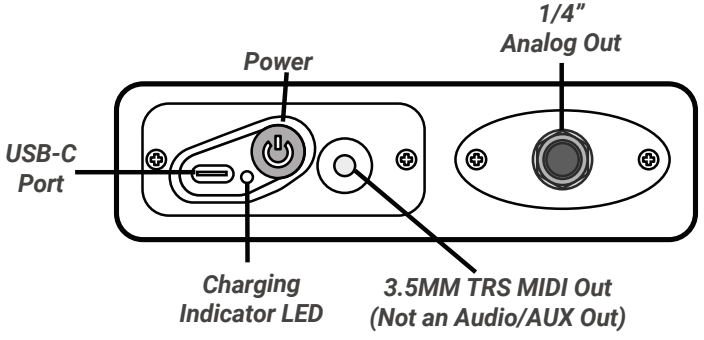
- The MIDI Pickup was calibrated at the factory, but you may find that you want to make fine adjustments to accommodate your personal playing style/preferences. Maintaining the proper spacing between the MIDI pickup and string is crucial for optimal performance.
    - To test and adjust the pickup height, press your finger down on the 3rd or 4th string and fret the highest note. Then measure the distance between the pickup and the string. The distance should be around 1mm—which is the width of the included guitar pick. *The distance should be slightly greater than 1mm on strings 1, 2, 5, and 6.*
    - If the pickup and strings are not at this spacing, use the included hex key to either raise or lower the midi pickup.
    - You may also want to adjust individual string heights or fine-tune your pickup. You can use the velocity readouts in any DAW's MIDI roll or the calibration section of the Jamstik Creator as a guide and watch our video tutorials on **jamstik.com/start** or **jamstik.com/support** for extra assistance.



# Charging & Powering Up

- Fully charge the Jamstik before first powering on using any 2.0A or above USB-A wall charger or a powered USB-A port on your computer.
- The indicator LED will light up orange while charging, and turn green when charging is completed.




- To power on, hold the power button for 1 second. The LED indicator will pulse red at startup, blink green when ready to pair, and appear solid green when connected.
- To power OFF, hold the power button for 1 second and release.

# Firmware Update

- For best MIDI performance and latest features/improvements, make sure to keep your Jamstik MIDI Guitar's firmware updated.
- Firmware can be updated with Jamstik Software found at **jamstik.com/update** on desktop and mobile.
- It is recommended to update firmware on desktop over USB for best update speed.

# Connect and Pair

### Mac/PC MIDI over USB (Recommended)

- Connect using the included USB cable or a comparable data-enabled cable.
- The Power Button will display a solid green state when connected.
- You may also connect over Bluetooth MIDI on Mac by turning on your Jamstik and opening the ***Audio MIDI Setup*** Program, Selecting ***Window*** --> ***Show MIDI Studio*** in the top bar, then selecting ***MIDI Studio*** –> ***Open Bluetooth Configuration*** in the top bar, and finally clicking the ***Connect*** button next to your Jamstik.
- Bluetooth MIDI is not natively supported on Windows but may be possible with additional third-party software/hardware.

# *Connectivity*

## iOS/Android over Bluetooth MIDI

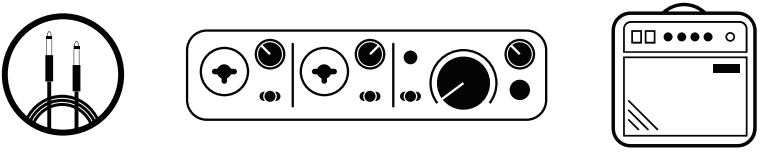
- The Jamstik must be connected through **Bluetooth MIDI in-app** and can't connect through the device system Bluetooth settings.
- Power on your Jamstik, then select your Jamstik in the Bluetooth MIDI connection menu in the Jamstik mobile app for iOS/Android or other Bluetooth MIDI mobile app.



- To download the latest Jamstik mobile app, visit **jamstik.com/connect**

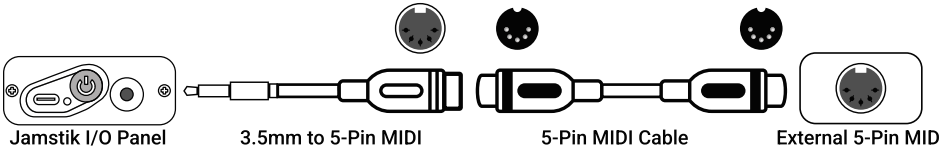
## Connecting to an Amp or Audio Interface

- The Jamstik MIDI Guitar can be played as a standard electric guitar though an amplifier or audio interface.
- Use a 1/4" instrument cable to connect the guitar to the amp or interface. A USB Audio interface is the easiest way to get your guitar's traditional audio onto your computer and can be used simultaneously with the MIDI output.



## Utilizing MIDI Third Party Compatible Hardware

- The Jamstik MIDI Guitar is a class-compliant MIDI device, therefore it works with other class-compliant, MIDI-compatible hardware & software.
- Included with your Jamstik is a 3.5mm TRS-MIDI adapter. This can be used in conjunction with a standard 5-pin MIDI cable to control hardware keyboards or anything with a 5-pin MIDI in.
- If you are not sure if the 3rd party device supports MIDI input from external controllers, we recommend contacting the manufacturer of the device to confirm compatibility.



Jamstik I/O Panel
3.5mm TRS MIDI Jack

3.5mm to 5-Pin MIDI
Adapter

5-Pin MIDI Cable
(Not Included)

External 5-Pin MIDI
(Not Included)

# Included Software

Your Jamstik MIDI Guitar comes with software for Mac, PC & mobile. Make sure to download the compatible software for the best possible playing experience with sounds designed specifically for the Jamstik.

## Jamstik Desktop Software

Jamstik Desktop Software is provided as a free complimentary download and serves as both a utility application for adjusting your guitar's settings and is also a full hybrid synthesizer designed from scratch to harness the performance capabilities and dynamic nuances of the Jamstik MIDI Guitar.

- You can download Jamstik Desktop Software as a standalone desktop app for Mac/PC or as a plugin for your DAW at **jamstik.com/software**
- You may need at least 5GB of disc space for full installation.

## Jamstik Mobile Apps

The Jamstik mobile apps allow you to change settings, update firmware, connect to your mobile device, play sounds on the fly, and more. To download the latest Jamstik mobile apps, visit **jamstik.com/software.**

## Utilizing MIDI Third Party Compatible Software

- Your Jamstik MIDI Guitar should be recognized by most DAW software.
- It is recommended to connect to the computer before starting up the software.
- Once you have opened up the software, create a new MIDI track, assign a MIDI instrument or plugin and you will be playing sound in no time.
- Make sure that the third party software settings and your Jamstik's device settings such as MIDI Mode, MIDI Channels, Pitch Bend Range, and String Envelope Mapping match for best performance.
- For walk-throughs and videos on setting up the Jamstik MIDI Guitar and Jamstik Creator with your DAW or third-party software, go to **jamstik.com/dawsetup**

## Enabling MPE (MIDI Polyphonic Expression)

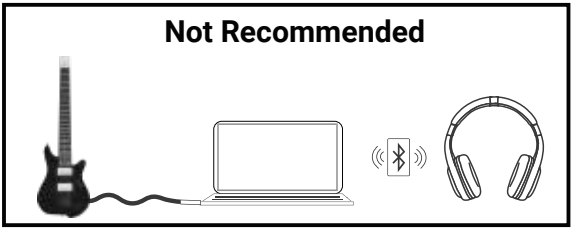
- By default, the Jamstik MIDI Guitar is in Single Channel MIDI Mode. To change MIDI modes, go to Device Settings using Jamstik software.
- You can also switch between MIDI Modes by quickly double pressing on the power button while the Jamstik is turned on.

## *Quick Tips*

- For best performance, fully charge the Jamstik before first powering on using any 2.0A or above USB-A wall charger or a powered USB-A port on your computer.

- If using a third-party USB cable for connection, please ensure the cable is data-enabled. For example, a Mac USB-C charging cable will not transfer MIDI data.

- Wireless headphones & speakers cause a delay. Always use wired audio output from your connected device for the best playing experience.




- Lower the Buffer Rate in your DAW: Latency is one of the biggest barriers to getting MIDI devices to perform the way you want them to. Ensure that your device and software are set to the most responsive settings. Additionally, close any other software programs running in the background on your device.

- Proper tuning is essential for optimal MIDI performance with the Jamstik. The Jamstik is able to accept alternate tunings as low as C Standard tuning (C-F-A#-D#-G-C).

- The 3.5mm jack on your guitar is for TRS-MIDI messages only and will not output audio into speakers or headphones.

- If MIDI output is not behaving as expected, make sure you are matching *Pitch Bend Range* and *MIDI Channel Mode* with your Jamstik and external software/hardware. You may also want to change your Jamstik's *String Envelope Mapping* or disable *String Envelope Send* if you are getting unwanted MIDI distortion or other extra signals.

- If you are experiencing excess noise from the analog output when connected via USB, you can use a USB noise isolator when connecting both ports simultaneously. Visit jamstik.com/support for recommendations and assistance.

## *Settings Glossary*

The following are a selection of Jamstik MIDI Device settings and their applications. For an up-to-date guide reflecting the latest firmware, visit **jamstik.com/devicesettings**

**MIDI Settings**

MIDI Settings control what the Jamstik sends to external devices such as DAWs, notation software, software synthesizers, and other hardware devices that connect to your Jamstik. **If you experience unexpected sounds/results with other programs/synthesizers, make sure these settings match the settings in the third-party software/hardware.**

**MIDI Mode**

MIDI Mode can be set to either MPE, Multi-Channel, or Single Channel. This changes the channels that the Jamstik sends MIDI through. To use the Jamstik with other synthesizers/programs/hardware, the Jamstik must be sending MIDI data through channels that the third-party device is looking for.

Mode descriptions and use cases:

**Single Channel Mode**: Single Channel Mode sends MIDI only on MIDI channel 1. Many older MIDI devices and pieces of software are only set up to receive MIDI on channel 1 and many default to only listen for channel 1. Setting the Jamstik's MIDI Mode to single channel limits the ability to send detailed string specific messages such as per-string string bend.

If possible, it is preferred to look in your third-party's manual/support guides to change those settings to accept simultaneous input from channels 1-6 (or 1-7) instead of using the Jamstik's Single Channel Mode if you are attempting to track pitch bend or string envelope on multiple strings.

**Multi-Channel Mode**: Multi-Channel Mode sends MIDI over 6 MIDI Channels. By default, these will be channels 1-6, though this can be changed with the First MIDI Channel setting. This mode is ideal for third-party devices that are not fully MPE-compatible but still allow MIDI input through multiple channels.

This allows the Jamstik to send pitch bend and expression on a per-string/per-channel basis. You can also use this mode to target MIDI channels in third-party software to split instruments per string.

**MPE Mode**: MPE Mode sends MIDI using the MPE MIDI standard. Strings are sent over channels 2-7 and channel 1 is reserved for additional MPE-specific MIDI messages.

MPE Mode allows for the most expressive output from the Jamstik, but should only be used with MPE compatible hardware and software.

## *Settings Glossary*

**First MIDI Channel**

First MIDI Channel controls what channel or channels MIDI notes are being sent on from the Jamstik. In *Multi-Channel Mode* - this will change the channel of the lowest string. For example, if First MIDI Channel is set to 9, MIDI will be sent on channels: 9, 10, 11, 12, 13, and 14. In *Single Channel Mode* - this will change the channel that all MIDI is sent on. In *MPE Mode* - this value cannot be changed in order to follow the MPE standard.

**Pitch Bend Send**

Pitch Bend Send controls whether the Jamstik sends pitch bend data. In single-channel and multi-channel modes, pitch bend is sent through traditional MIDI pitch bend methods. In MPE Mode, pitch bend is sent through MPE-specific protocols.

**Pitch Bend Range**

Pitch Bend Range changes the values that the Jamstik sends for pitch bend. It is vital for best performance that this value matches the value that your third-party device is looking for. If it does not, bending strings will result in notes that do not match the pitch of what you are playing.

MPE software/hardware should automatically default to +/- 48. By default, changing MIDI Modes to MPE will change your Jamstik's pitch bend range to +/- 48. However, if you encounter an MPE program with a different pitch bend range (such as +/- 24) you can change your pitch bend range and stay in MPE mode.

Most non-MPE MIDI software/hardware, default to a pitch bend range of +/-2. If you want to record or play with a piece of software and bend more than 2 semitones (2 frets worth) on the Jamstik, you will need to set a higher pitch bend range in Jamstik devices settings ***and change your third-party software/hardware pitch bend range to match.*** Without matching pitch bend ranges, bending strings will result in notes that are not accurate to the pitch of what is being played on the guitar.

**String Envelope Send**

String Envelope Send sends amplitude/aftertouch information from the Jamstik to other MIDI Devices. The pickups in the Jamstik detect the amplitude of a note over time. String Envelope Send uses that time-decreasing value and sends it through MIDI. This can be used similarly to how Channel Pressure, Press, or Aftertouch is used on other MIDI devices. It can also be mapped to volume or other CC parameters in String Envelope Mapping to transform MIDI instruments to follow the dynamics of your guitar by matching the volume/amplitude of your strings as all times.

***If you are experiencing "glitching" noises or rapid fluctuations in third-party synthesizers*** it may be a result of the synthesizer reading string envelope messages from multiple strings at the same time and applying it to the same control. Many default instruments in Logic Pro have this issue and this can be resolved by either mapping string envelope to a value that the synthesizer accepts on multiple strings or by turning string envelope send off while using these synthesizers.

**String Envelope Mapping**

String Envelope Mapping changes how String Envelope data from String Envelope Send is sent through MIDI. Jamstik settings programs will have some preset values to choose from for mapping and you can also type most MIDI CC numbers in the input box in Jamstik Creator to assign String Envelope to other values as well.

Default values and use cases:

> ***CC11: Expression*** - CC11 Expression is a control that has traditionally been triggered in MIDI systems by an expression pedal and is often mapped to various modulations/effects/volume.
>
> By default, the Jamstik Creator looks for CC11: Expression for a variety of default presets that use the Oscillator's "Expression Volume Mod" control under Envelopes.
>
> ***Channel Pressure -*** Channel Pressure or the MPE z-axis, is used similarly to a traditional aftertouch control in MIDI, where a midi note changes modulations/effects/volume based on how hard a user presses down on a note after the initial strike.
>
> In the case of the Jamstik, since this is mapped to the string envelope, the value will always decrease over time rather than increase as it would with a harder push on other MPE controllers. Often this will create desired effects but rarely this will not work as intended and you may want to turn off or reassign String Envelope for certain third-party MPE patches.
>
> ***CC7: Volume*** - CC7 is generally used for volume and in many third-party software/hardware synthesizers will change the overall volume of a sound being played.
>
> While this will work for many third-party synthesizers, some will map this to master volume in a way that will make messages from multiple strings contradict with each other and cause rapid fluctuations in volume as volume messages from multiple strings are being read at once.
>
> ***CC71: Sound Control 2*** - CC71 Sound Control 2 is a value that is used in some MIDI synthesizers for resonance. This and the surrounding Sound Control values (70 - 79) may already be mapped to interesting values in your synthesizer and may produce favorable results with the Jamstik.

**Octaves / Octave Transpose**

This control will pitch shift the MIDI output up or down octaves (12 semitones) based on the positive or negative value. Transposing the octave down may be helpful for playing bass synthesizers while keeping standard guitar tuning.

## *Settings Glossary*

**Semitones / Semitone Transpose / Virtual Capo**

This control will pitch shift the MIDI output up or down semitones based on the positive or negative value. Changing this value will make it so that the notes you are playing on your guitar will NOT match the notes being played in MIDI.

If you want to use a physical capo on your Jamstik, there is no need to change any device settings and this value should stay at 0.

**String Sensitivity**

String Sensitivity can be changed per-string on a scale from 1-10. It is worth noting that the lowest note/thickest string is labeled as String 6 while the highest note/thinnest string is String 1.

*String Sensitivity does not change string velocities* (changing this value will not make notes you play louder or quieter though midi). Instead, string sensitivity changes how likely it is that a note will be registered as a midi note. If you are experiencing extra notes being played that are unwanted, change the value to be lower. If the Jamstik is missing notes, change the value to be higher.

If changing these values do not improve the note detection of the Jamstik, you may want to Adjust String Height and MIDI Pickup On The Jamstik. (A guide for this can be found at **jamstik.com/start**)

**String Open Note Tuning**

String Open Note Tuning changes what tuning the Jamstik's note detection is expecting your guitar to be tuned to. It is important that this value matches your Jamstik's tuning. If it does not, the Jamstik may ignore notes below the Open Note Tuning Range.

You can use one of the common tuning presets (the most common guitar tuning being E Standard), or you can set any tuning you like. However, at very low tunings there may be some performance degradation.

**Sleep Timer Wired/Battery**

This controls how many minutes of inactivity can occur before the MIDI Guitar switches into sleep mode.

Wired applies to when the Jamstik is connected over USB to a powered USB port while battery applies to all other types of connection when not connected to power (Bluetooth or TRS-MIDI). Setting this value to 0 or infinity will disable the sleep timer.

## *Settings Glossary*

**Bluetooth Enable**

Turning this off will disable the Jamstik's Bluetooth radio. It is ***not recommended*** and disables wireless connection for the Jamstik. It may be useful for specific, rare studio scenarios in which a Bluetooth radio could cause interference.

**Left-Handed Mode**

This sets your Jamstik to left-handed mode and switches the fretboard display in Jamstik apps. If you purchased a left-handed model, this should be enabled by default. If it is not, you can turn it on with this option. If you bought a non-left-handed guitar and you want to use it left-handed, turn this option on and follow the steps at **jamstik.com/start** to restring your guitar to match left-handed patterns.

**Transcription Mode**

Transcription mode improves accuracy and filters out unwanted MIDI notes at the cost of adding 30-40 extra milliseconds of latency and disabling some performance features like hammer-ons. This mode is primarily meant for recording rather than performing and a lower buffer size and ASIO drivers on Windows is strongly recommended in this mode.

**Demo Mode**

Demo mode is a feature designed for exhibition use that resets a Jamstik's settings after a period of inactivity. You can change the amount of time between resets and whether it changes back to a single channel or MPE mode.

**Reset to Factory Settings**

This option will reset all settings on your Jamstik to factory defaults and reset the Jamstik. If you are having issues with your Jamstik this may be a solution. If you cannot access this setting and your Jamstik will not turn on or operate properly, instead hold the power button for 75 seconds and the Jamstik will force restore.

# *Safety & Compliance*

## Battery Information

| | |
|---|---|
| Operating Temperature | 41° to 95° F (5° to 35° C) |
| Storage Temperature | 32° to 86° F (-20° to 30° C) |
| Battery Type | Efest IMR 18650 Lithium-Ion |
| Battery Size | 2600mAh 35A |
| Battery Life | 10 hours on full charge |
| Inputs | USB for charging |
| Recharging | Recharge with the included USB cable connected to any 0.5A or higher USB power adapter (7.5 W (5V/1.5A) or above recommended) |
| Charging Time | 100% in 4 hours with a 2.0A USB charger |

## RF Certification

This product operates in the 2.4GHz band.
The radio module is certified under the following RF certification standards:
- FCC: WAP3034 / WAP2011
- ISED: 7922A-3034 / 7922A-2011
- MIC: 203-JN0874 / 203-JN0509
- CE

**Caution:**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

## Conformity and Safety

For additional and updated safety and compliance information, please visit: **jamstik.com/documentation**

R 203-JN0874 | R 203-JN0509

For detailed instructional videos, like how to restring your guitar, how to properly adjust your string height for best pickup performance & updated information not covered in this manual, visit **jamstik.com/start, jamstik.com/support** or email **support@jamstik.com**

Contact our Customer Experience
Team at: support@jamstik.com or
submit a ticket at: jamstik.com/support
or by phone: (612) 225-0096

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jamstik.com

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MIDI Guitar

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