USER GUIDE

KeyMander 2 Keyboard/Mouse Adapter plus Controller Crossover
GE1337P2

Overview

The KeyMander 2 is a USB Gamepad Emulator that allows you to use a keyboard and mouse with a PS/Xbox/Nintendo Switch game console. The KeyMander 2 has an easy to use app that allows you to customize all game controller buttons for use with a keyboard and mouse. Advanced features allow you to custom map keys, create macros, set turbo buttons, and adjust the mouse sensitivity. Quick macro setup allows you to program up to 8 button press combinations and set it to a single key, so one press executes multiple commands.

The KeyMander 2 app also allows you to download preconfigured game profiles, as well as create, edit and share your own profiles, then back them up to our cloud storage service.

With the KeyMander 2 you can create an unlimited number of keyboard and mouse configuration profiles - each suited for specific game play. Profiles can be switched and configured during game play for quick access. The KeyMander 2 gives gamers the ability to customize and fine tune all controls for the expert advantage with every game.

With KeyMander 2 you can:

- Use a keyboard and mouse on a PS4, PS3, Xbox One, Xbox 360 and Nintendo Switch game consoles
- Remap all Gamepad controls to the keyboard and mouse using the K2 App for Android/iOS
- Create custom profiles for different games or game characters
- Simultaneously use a keyboard, mouse, and PS/Xbox/Nintendo Switch controller
- Play using a controller from a different console
- Backup your game profiles to our free cloud storage
- Create Macro commands which perform up to 8 controller commands with a single key press
- Program a key for Microphone mute or PTT (push-to-talk) on headsets without mute functions
- Use Turbo Mode to make semi-auto guns operate as full-auto guns in compatible games
- Receive OTA (over-the-air) firmware upgrades for easier and faster product updates

Package Contents

1 x KeyMander 2
1 x Micro USB Cable
1 x Quick Start Guide
1 x Warranty Card

Note: an optional micro USB power supply may be required with certain RGB keyboards that have a larger than normal current draw.

System Requirements

- PS4™: Sony Playstation brand PS4 wireless controller connected via included micro USB cable (Sony DualShock®4 V2 controller required for headset support on controller)
- PS3™: Sony Playstation brand PS3 wireless controller connected via a mini USB cable (Sony DualShock 3 SIXAXIS controller is recommended)
- Xbox One®: Microsoft brand Xbox One wireless controller connected via included micro USB cable
- Xbox 360®: Microsoft brand Xbox 360 wired controller (Wireless Play and Charge kit is not supported)
- Nintendo Switch™: Nintendo Switch connected to Switch dock (not included)
- Android 6.0+ device or iOS 10+ device supporting Bluetooth 4.1+
- USB Keyboard and USB Mouse*

*Required branded game controllers not included

Audio Support

- Xbox One: Headset is supported connected to original Xbox One controller
- Xbox 360: Headset is supported connected to original Xbox 360 controller
- PlayStation 4: Headset is supported connected to original PS4 2nd generation controller or USB headset connected directly to the PS4 console.
- PlayStation 3: Headset not supported with controller. Connect USB headset directly to the PS3 console.
- Nintendo Switch: Connect headset directly to the Nintendo Switch or USB headset connected directly to the Switch dock. 1 x UC3420 Phantom-S II USB Gamepad Emulator

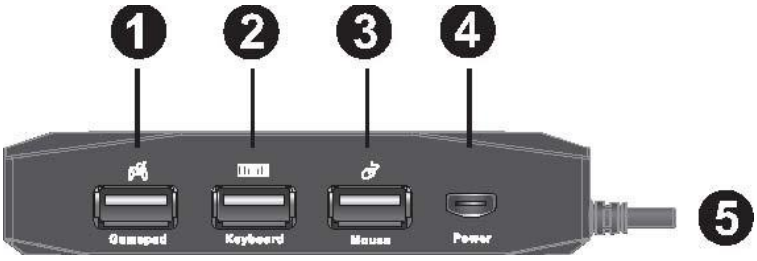
Operating Systems

Supported operating systems for the KeyMander 2 app:

- Android: Version 7 or higher
- iOS: Version 10 or higher

Hardware Review

Front View



1. Gamepad USB Port
2. Keyboard USB Port
3. Mouse USB Port
4. Power Port-(optional) Note: KeyMander 2 will function without additional power, however some RGB keyboards such as those with built-in USB hubs, etc. may require additional power. If the KeyMander 2 LED indicator is flashing red or a low voltage warning appears on the K2 app, connect a micro USB cable between the KeyMander 2's Power port and a USB power supply (minimum 2A output) such as a charger for a tablet or smartphone.
5. Game Console USB connector

*Some gaming keyboards may have accessories that require more power than the KeyMander 2 is able to supply. Please visit http://www.IOGEAR.com/product/GE1337P2 for more information.

Top View

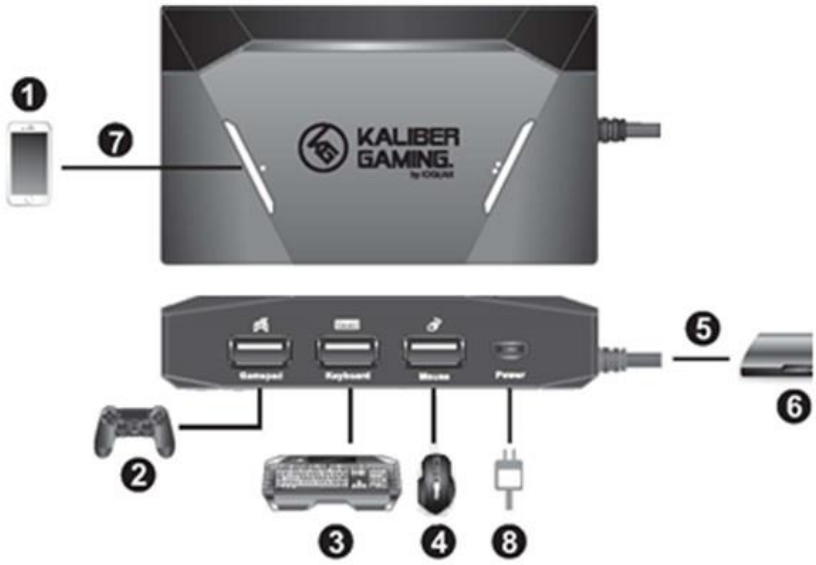
1. Button 1: Bluetooth Pairing Button. Press to pair your mobile device with the KeyMander 2 app. This button is also used in conjunction with the Mode Button to enter the Firmware Upgrade Mode, and hardware reset.
2. LED Indicator. The LED indicator provides system alerts and feedback for different operating modes.
3. Button 2: Mode Button. This button is used for performing a default reset. Press the button three times quickly to perform a default reset and set the system back to factory settings.

K2 App

The K2 App is required to use the KeyMander 2, and is designed for downloading and manage your game profiles and help make configuration changes as needed. A game profile consists all of your mouse settings and keyboard mappings, and formats the profile for your console type (Nintendo Switch, PS4 or Xbox One. Please download and install the K2 App to optimize your KeyMander 2 experience.

1. To download and install the K2 App, visit the App Store or Google Play store on your mobile device.
2. Type in KeyMander 2 into the search bar and it should find the K2 app for you to download.
3. Accept the location permission request or the BLE pairing to KeyMander 2 will not connect.
4. Create a KeyMander account and login to get started. Note: Your KeyMander 2 account allows access to the KeyMander 2 Game Center and KeyMander 2 cloud to store or retrieve your saved profiles.

Hardware Installation Diagram



This is a basic system diagram for easy reference. Please see the setup instructions for your console.

PS4 Setup

1. Download and install the K2 App from the App Store or Google Play store to configure and manage your game profiles.
   a. Type in KeyMander 2 into the search bar and it should find the K2 app for you to download.
   b. Accept the location permission request or the BLE pairing to KeyMander 2 will not connect.
   c. Create a KeyMander account and login to get started. Note: Your KeyMander 2 account allows access to the KeyMander 2 Game Center and KeyMander 2 cloud to store or retrieve your saved profiles.
2. Begin with the console and controller powered off, then connect your controller to the KeyMander 2 Gamepad port with the micro USB cable provided in the box with the KeyMander 2
3. Connect your keyboard to the KeyMander 2's Keyboard port. If you are using a wireless keyboard and mouse, connect the wireless dongle to the keyboard port.
4. Connect your mouse to the KeyMander 2's Mouse port.
5. Connect the KeyMander 2 to a USB port on the back of the PS4.
6. Turn on the PS4. The KeyMander 2 will turn on and the LED will glow blue indicating the default PS4 profile is loaded.
7. Press the Bluetooth Pairing Button to put KeyMander 2 into pairing mode, then press the Connect button on the Device tab of the K2 App (*Image 1*) and select GE1337P2 under DEVICES (*Image 2*). When the Device Tab shows the current profile and device settings the K2 App is ready to use (*Image 3*).

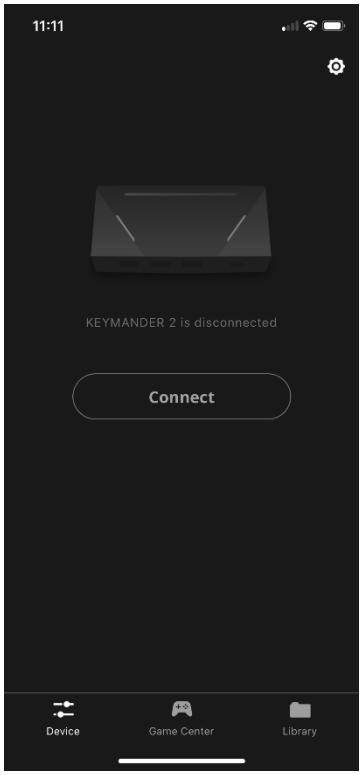


Image 1

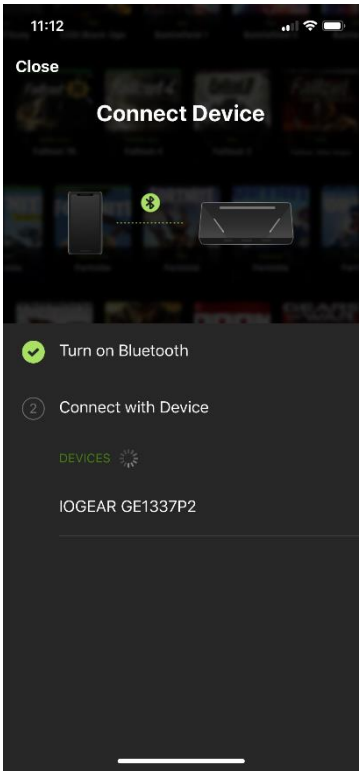


Image 2

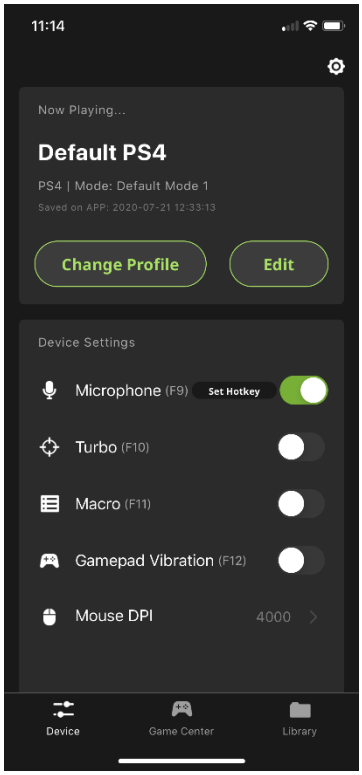
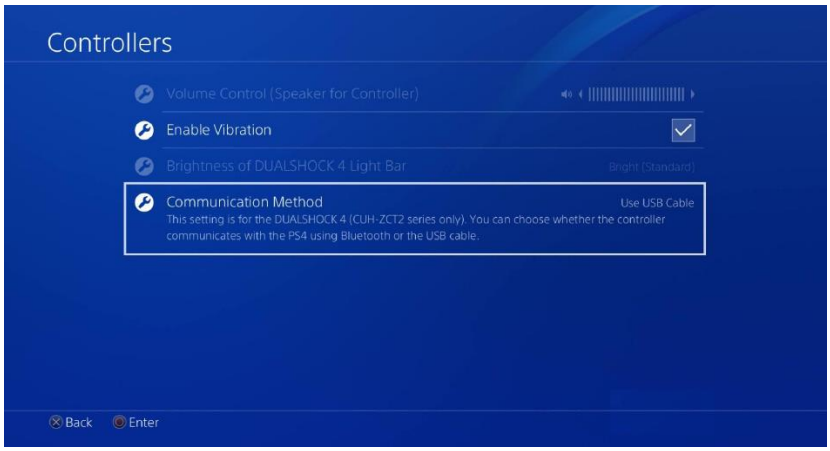


Image 3

8. If your KeyMander 2 LED is flashing red or you get a low voltage notice on the K2 App, you need to add an additional 5VDC2A USB power supply (not included).

9. For PS4 Pro or PS4 Slim consoles using the DualShock 4 Slim controller (V2 controller with LED strip above touchpad), you will need to change the controller's communication method from Bluetooth to USB in the PS4 settings menu. Go to Settings > Devices > Controllers > Communication Method and select Use USB Cable.



10. Open the Game Center tab on the K2 App and use the search function to find the game you want to play (*Image 4*). Select the PS4 version by tapping on the game's cover art image. You will see the in-game settings required to use this profile and a download button (*Image 5*). Press the download button. Open the Library tab and scroll to the profile you just downloaded, then press the up arrow to load the profile. If there is no profile available for your game, select Default PS4 profile (*Image 6*) and press the up arrow to load the profile.

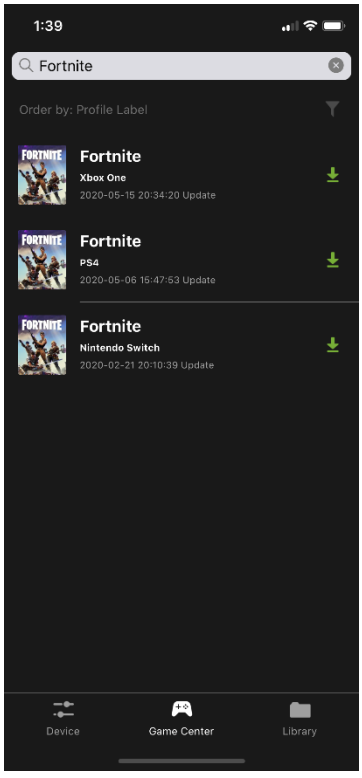


Image 4

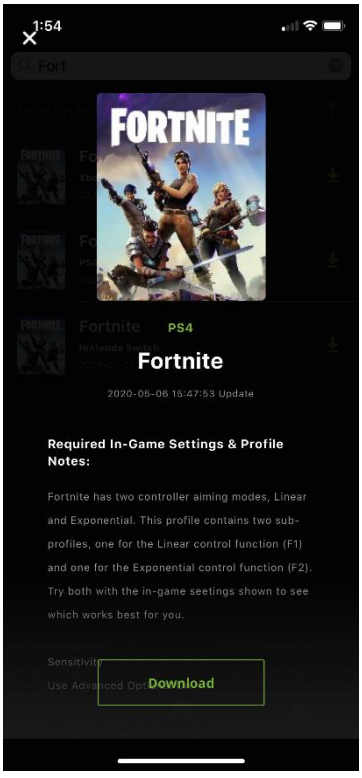


Image 5

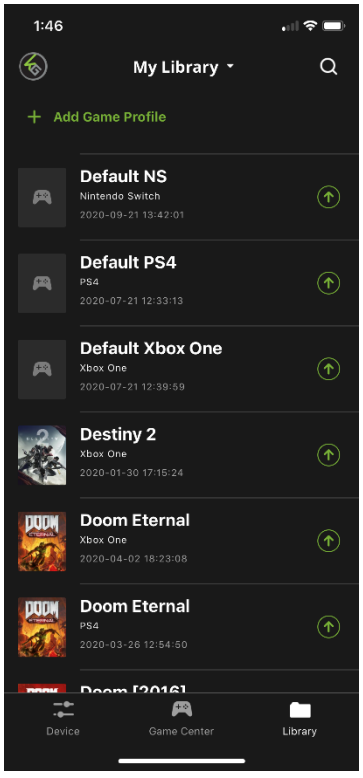


Image 6

11. Once you have the profile loaded, open the settings menu inside the game and make the changes shown on the profile in Game Center (*Image 5*). NOTE: when using the default PS4 profile you will need to change the game's aim and look settings to maximum, then adjust the mouse sensitivity and key bindings as desired.

Xbox One Setup

1. Download and install the K2 App from the App Store or Google Play store to configure and manage your game profiles.
   a. Type in KeyMander 2 into the search bar and it should find the K2 app for you to download.
   b. Accept the location permission request or the BLE pairing to KeyMander 2 will not connect.
   c. Create a KeyMander account and login to get started. Note: Your KeyMander 2 account allows access to the KeyMander 2 Game Center and KeyMander 2 cloud to store or retrieve your saved profiles.
2. Begin with the console and controller powered off, then connect your controller to the KeyMander 2 Gamepad port with the micro USB cable provided in the box with the KeyMander 2.
3. Connect your keyboard to the KeyMander 2's Keyboard port. If you are using a wireless keyboard and mouse, connect the wireless dongle to the keyboard port.
4. Connect your mouse to the KeyMander 2's Mouse port.
5. Connect the KeyMander 2 to a USB port on the back of the Xbox One. DO NOT use the USB port on the front or side of Xbox One consoles as they usually have lower power output than the rear ports.
6. Turn on the Xbox One using the power button on the console. DO NOT press the power button on a controller! The controller should light up by itself indicating it is in USB mode and the KeyMander 2's LED will be glowing blue indicating the default PS4 profile is loaded.
7. Press the Bluetooth Pairing Button to put KeyMander 2 into pairing mode, then press the Connect button on the Device tab of the K2 App on your mobile device (*Image 1*) and select GE1337P2 under DEVICES (*Image 2*). When the Device Tab shows the current profile and device settings it is ready to use (*Image 3*).

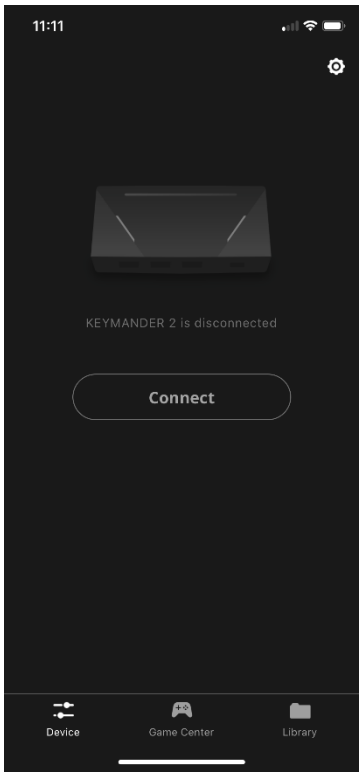


Image 1

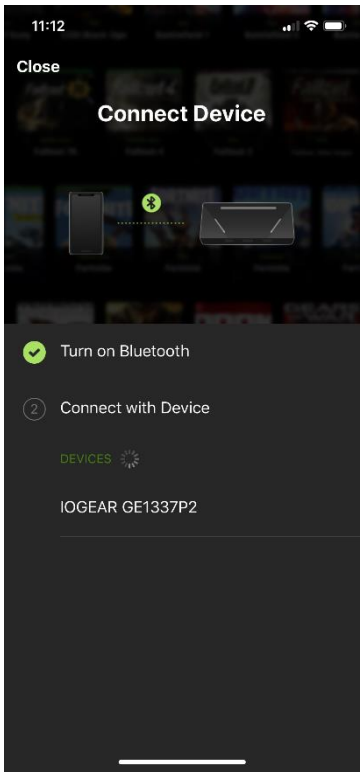


Image 2

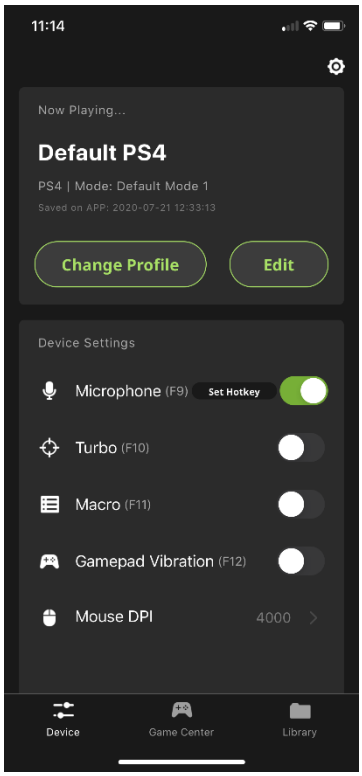


Image 3

8. If your KeyMander 2 LED is flashing red or you get a low voltage notice on the K2 App, you need to add an additional 5VDC2A USB power supply (not included).

9. Open the Game Center tab on the K2 App and use the search function to find your game (*Image 4*). Select the Xbox One version by tapping on the game's cover art image. The required in-game settings are shown abovethe download button (*Image 5*). Press the download button. Open the Library tab and scroll to the profile you just downloaded, then press the up arrow to load the profile. If there is no profile available for your game, select Default Xbox One profile (*Image 6*) and press the up arrow to load the profile.

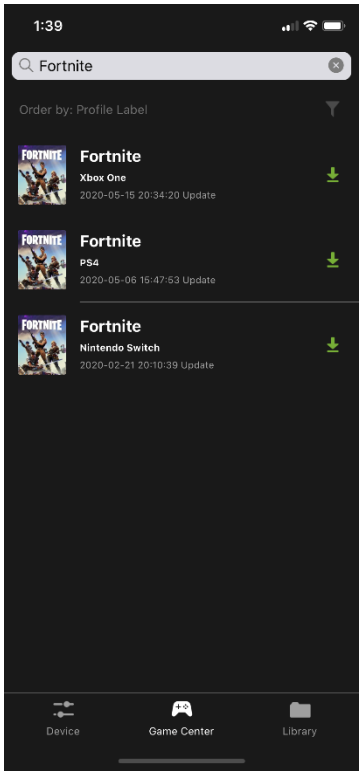


Image 4

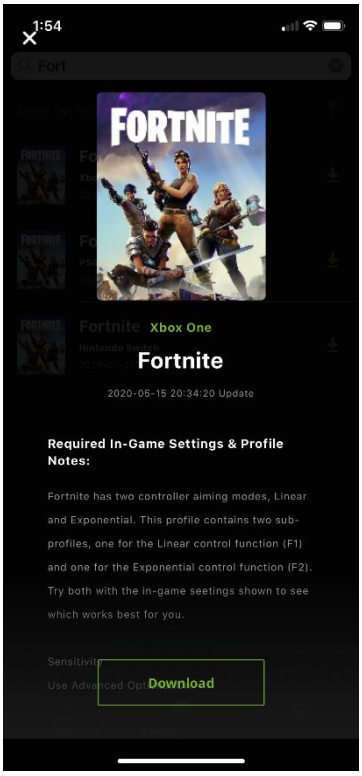


Image 5

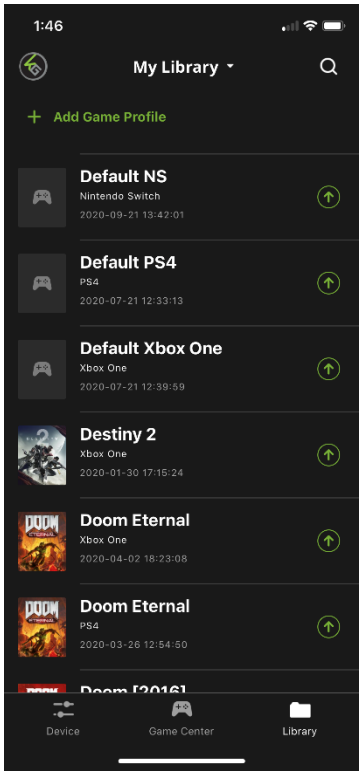


Image 6

10. Once you have the profile loaded, open the settings menu inside the game and make the changes shown on the profile in Game Center (*Image 5*). NOTE: if using the default Xbox One profile you need to change the game's aim and look settings to maximum, then adjust mouse sensitivity and key bindings as desired.

Nintendo Switch Setup

Setup for the Nintendo Switch requires updating to most recent firmware and placing the Switch into the dock, then following the instructions below:

1. Download and install the K2 App from the App Store or Google Play store to configure and manage your game profiles.
   a. Type in KeyMander 2 into the search bar and it should find the K2 app for you to download.
   b. Accept the location permission request or the BLE pairing to KeyMander 2 will not connect.
   c. Create a KeyMander account and login to get started. Note: Your KeyMander 2 account allows access to the KeyMander 2 Game Center and KeyMander 2 cloud to store or retrieve your saved profiles.
2. It is not necessary to connect a controller to use KeyMander 2 with the Swtich, but if you wish to use the Nintendo Pro Controller connect it now.
3. Connect your keyboard to the KeyMander 2's Keyboard port. If you are using a wireless keyboard and

mouse, connect the wireless dongle to the keyboard port.

4. Connect your mouse to the KeyMander 2's Mouse port.
5. Connect the KeyMander 2 to a USB port on the back of the Nintendo Switch dock.
6. Place your Nintendo Switch dock into the Switch Dock, making sure the dock is connected to power and to your monitor. Turn on the Nintendo Switch using the power button on the top of the Switch. The KeyMander 2's LED will be glowing blue indicating the default PS4 profile is loaded. NOTE: you must keep the JoyCons connected to the Nintendo Switch or it will not function with the KeyMander 2.
7. Press the Bluetooth Pairing Button to put KeyMander 2 into pairing mode, then press the Connect button on the Device tab of the K2 App on your mobile device (*Image 1*) and select GE1337P2 under DEVICES (*Image 2*). When the Device Tab shows the current profile and device settings it is ready to use (*Image 3*).

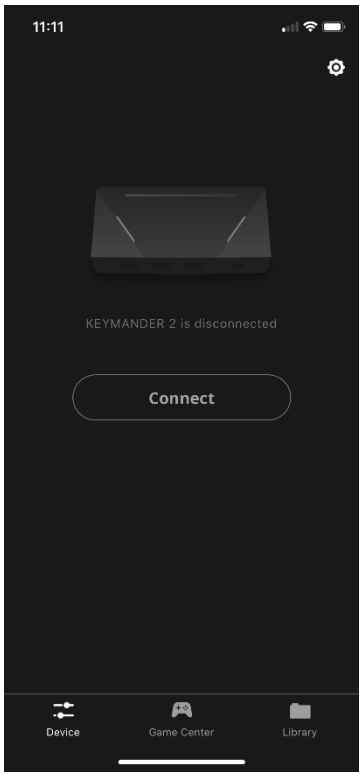


Image 1

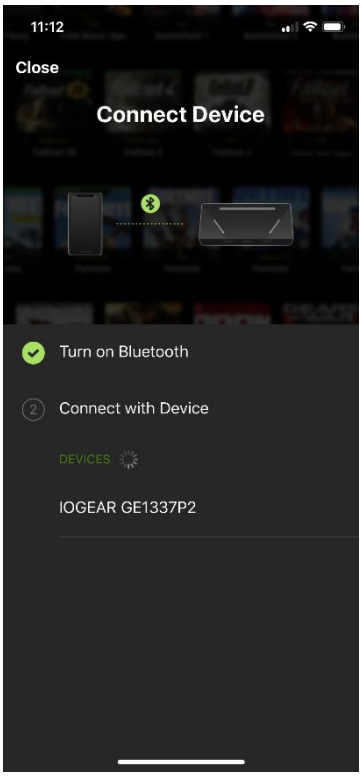


Image 2

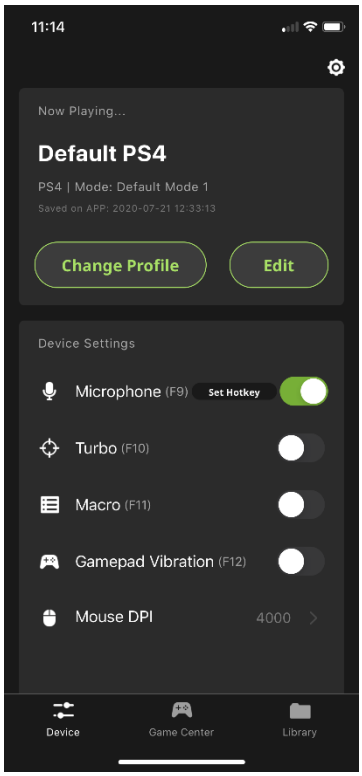
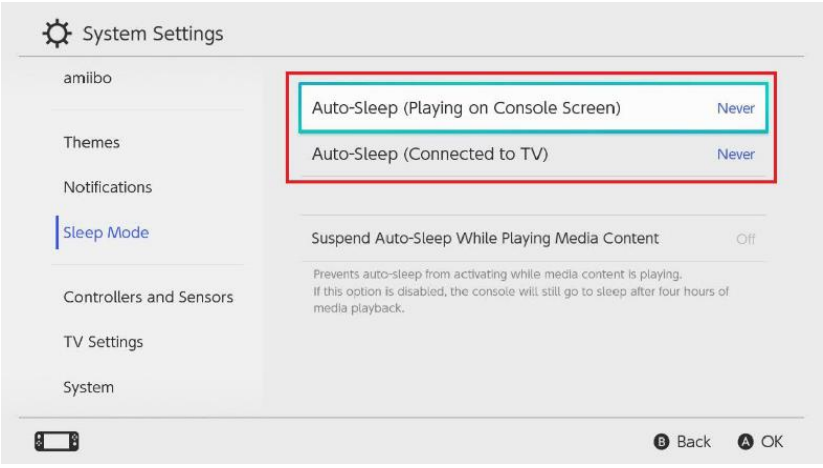
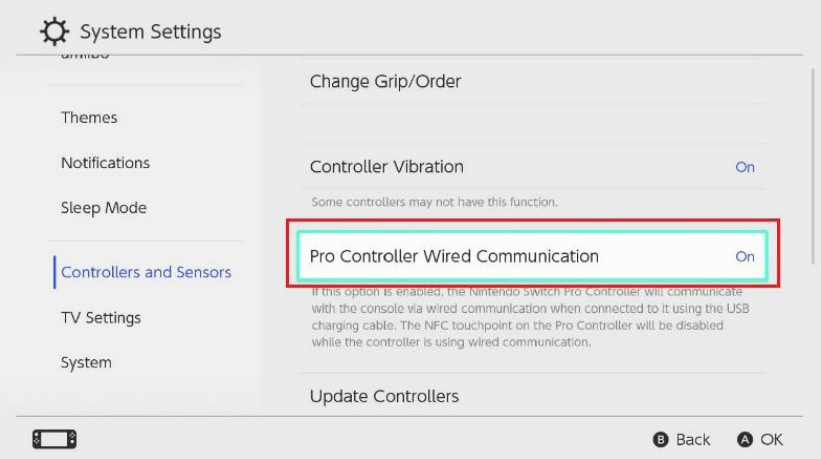


Image 3

8. If your KeyMander 2 LED is flashing red or you get a low voltage notice on the K2 App, you need to add an additional 5VDC2A USB power supply (not included).
9. Disable Auto Sleep. Open the System Settings menu and scroll down to Sleep Mode. Change the setting to Never as shown.



10. Enable Pro Controller Wired Communication. After changing the Auto-Sleep setting, scroll down the System Settings menu and select Controllers and Sensors. Change the Pro Controller Wired Communication mode to On as shown.



11. Open the Game Center tab on the K2 App and use the search function to find the game you want to play (*Image 4*). Select the Nintendo Switch version by tapping on the game's cover art image. You will see the in-game settings required to use this profile and a download button (*Image 5*). Press the download button. Open the Library tab and scroll to the profile you just downloaded, then press the up arrow to load the profile. If there is no profile available for your game, select Default Nintendo Switch profile (*Image 6*) and press the up arrow to load the profile.

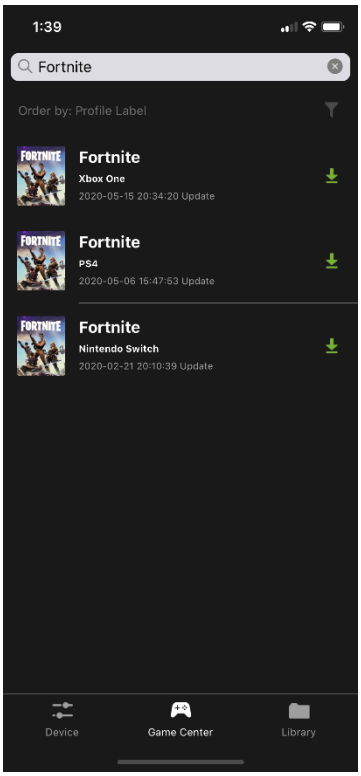


Image 4

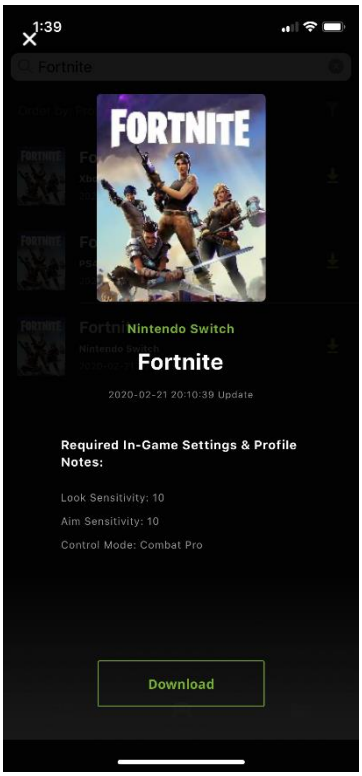


Image 5

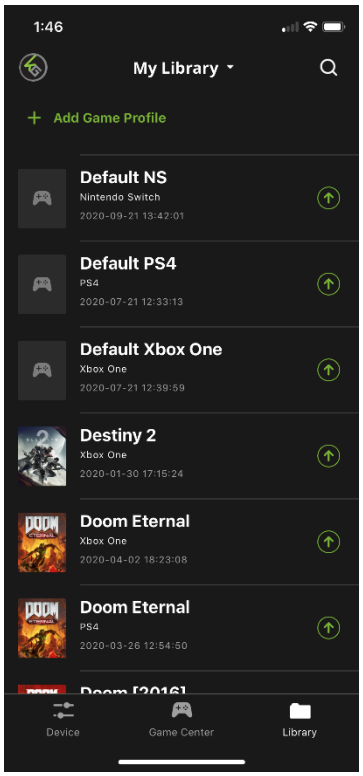


Image 6

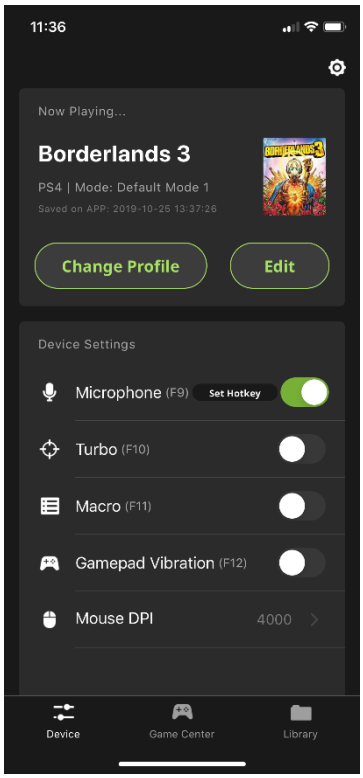
12. Once you have the profile loaded, open the settings menu inside the game and make the changes shown on the profile in Game Center (*Image 5*). NOTE: when using the default Nintendo Switch profile you will need to change the game's aim and look settings to maximum, then adjust the mouse sensitivity and key bindings as desired.

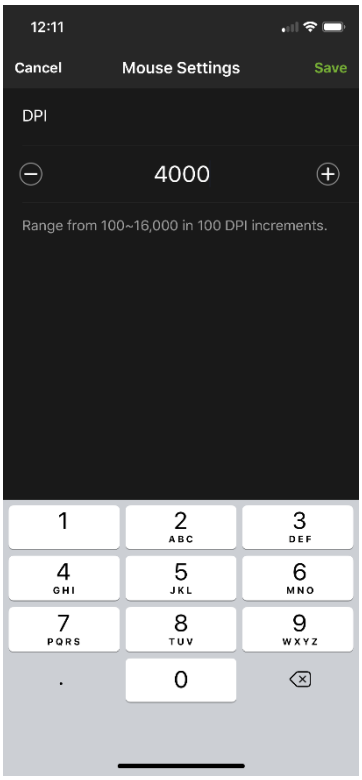
Mouse Configuration

Before you begin, there are four important settings that must be set properly for best mouse performance with KeyMander 2. Open the K2 App and select the default Gamepad profile for your game system, or download a preconfigured game profile for your game from the Game Center tab, then follow the instructions below.

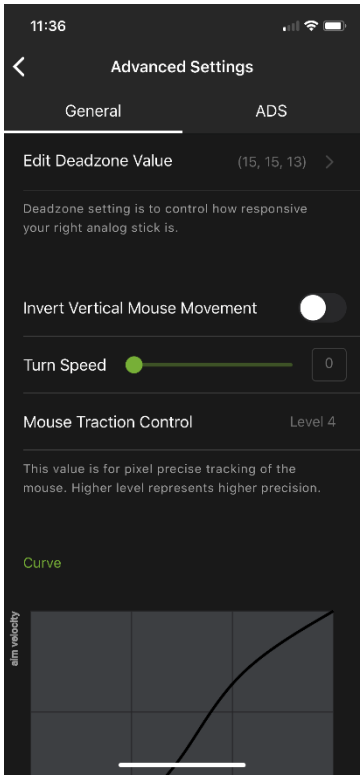
1. Maximize all in-game sensitivity settings. Note: make sure to check the profile page on Game Center for the list of required changes to the in-game settings for the profile to perform correctly.

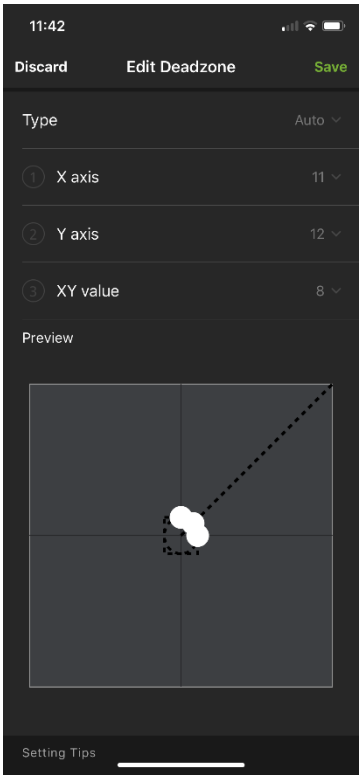
2. Set your mouse to it's maximum DPI setting, then set the K2 App's mouse setting to match. When using a mouse with software such as G Hub (Logitech), you will need to adjust the DPI using the software included with the mouse. For mice with greater than 16,000 SPI set the mouse to 16,000. This will allow you to have a greater range of mouse sensitivity when adjusting the controls with the KeyMander 2 app.
   Note: Setting your mouse to maximum DPI resolution is the standard recommendation, however in some games we may recommend a different DPI setting to improve performance. These settings will be listed on the game profile download screen inside the Game Center tab, so always make sure to check after downloading new profiles from Game Center. A minimum mouse resolution of 3500 DPI or greater is recommended for advanced gamers.



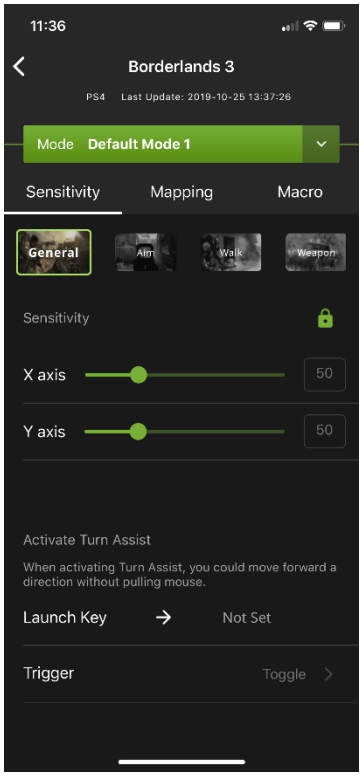


3. Use the K2 App to adjust the Deadzone settings for the mouse.
   Note: A properly set deadzone is normally the step where the aim/look view begins moving on its own in any axis. That means for example, if setting the X axis to 16 causes the aim/look view to begin slowly moving to the right, the correct X axis deadzone setting is 16.



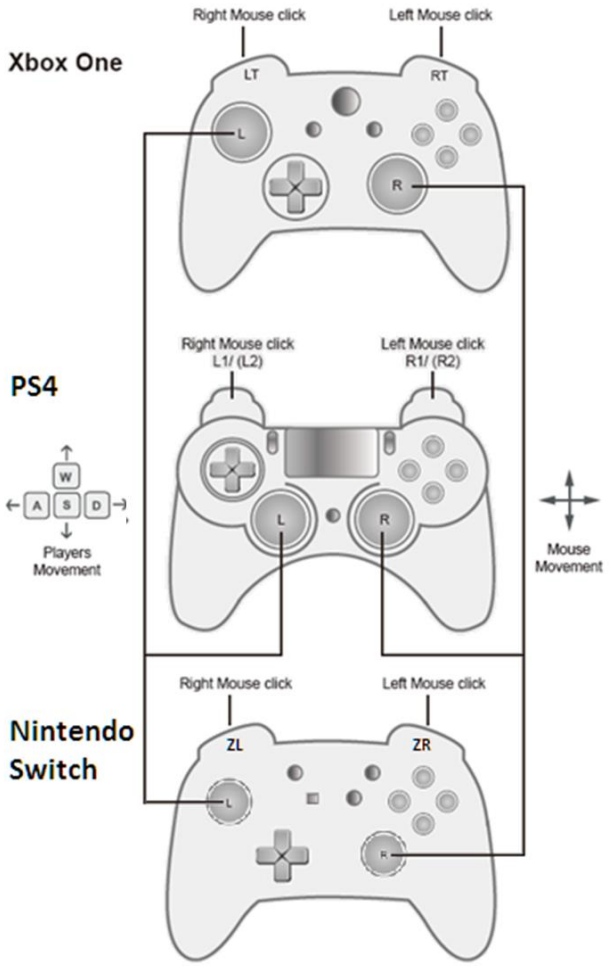


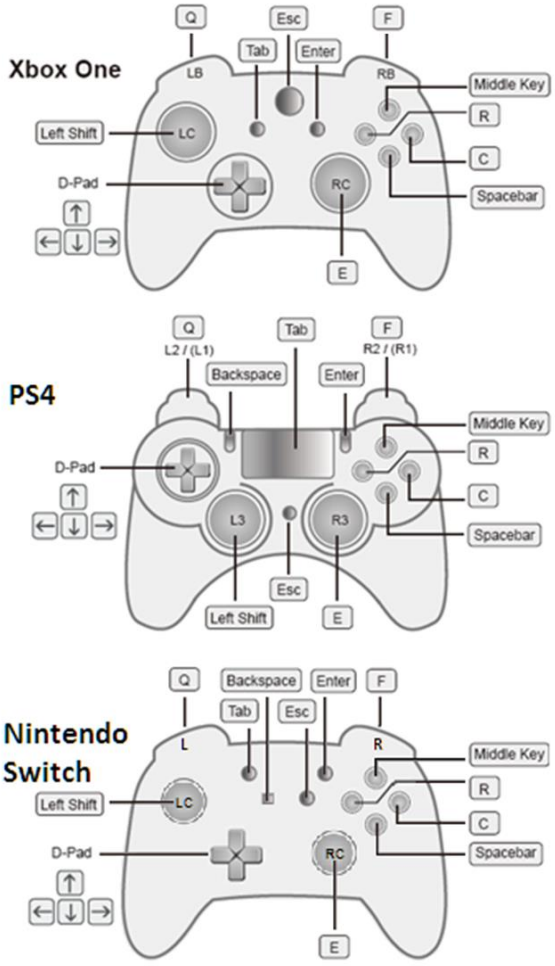
4. Use the K2 App to adjust the mouse sensitivity to your liking.
   Note: Every console game has a maximum turning speed set by the game's developer, and turning up the sensitivity too high can exceed this limit and cause the mouse to move slower and slower the more you exceed this limit. It it strongly recommended to start testing with a lower sensitivity and slowly increase the sensitivity until you find the point of best performance for your style of play. More information about maximum turn speed can be found in the Troubleshooting section under *Understanding Mouse Performance with KeyMander 2*.



Basic Operation

The mouse is used for up/down and right/left movements, emulating the controller's right stick as seen in the image below left. The controller buttons and directional pads are mapped to the keyboard as seen below right.





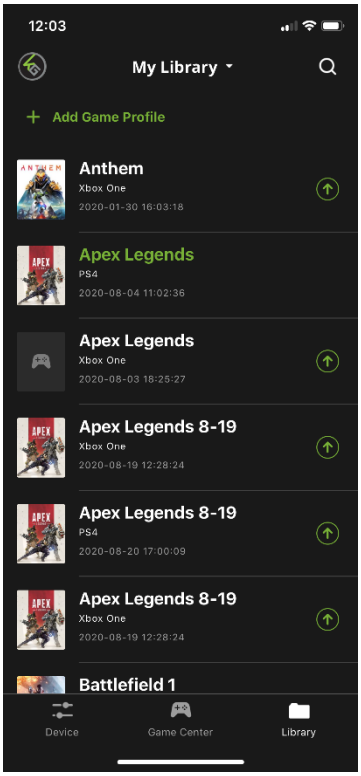
Function Keys

The function keys enable special features and profile switching without using the KeyMander 2 app. Below is quick summary of each function key setting. For more information please see the full description for each function in *In-Game & K2 App Settings*.

- [F9] Microphone: Toggles the Microphone on and off.
- [F10] Turbo Mode: Toggles Turbo Mode on and off. When Turbo mode is on, buttons with enabled Turbo settings will work. Note: Turbo settings do not work from the game controller.
- [F11] Macro Mode: Turns Macro Mode on and off. When on, Macro keys will execute macro commands.
- [F12] Gamepad Vibration: Toggles Gamepad Vibration on and off.

Customizing Profiles

The preloaded profile is for PlayStation 4 only. If you are a Nintendo Switch or Xbox One user, please select a profile that corresponds to your game system. These profiles are console specific but not game-specific, so once the proper default profile for your console is loaded the settings can be adjusted for the specific game you are playing. Aside from adjusting profile settings, you can also customize the profile from the Library tab view. Swipe left on the profile to make changes such as renaming, changing profile icon, or change the format to a different game system. Swipe right to duplicate a profile. You can also download and customize the preconfigured profiles from the Game Center tab on the K2 App.

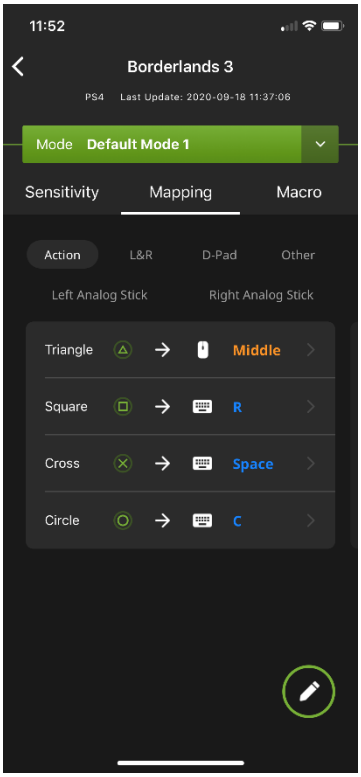


Function Mapping

The K2 App allows you to set all controller functions to the keyboard keys and mouse buttons of your choice, or in the case of the Controller Crossover Mode you can set the buttons bindings to your preference on the controller you wish to use.

To map the controller functions:

1. Open the K2 App and select a profile to modify.
2. Select the Mapping tab and scroll down to the function you wish to map.



Direct Mapping

1. Press the desired game controller button.
2. Press the corresponding button on the App and the controller button will be mapped to that key.

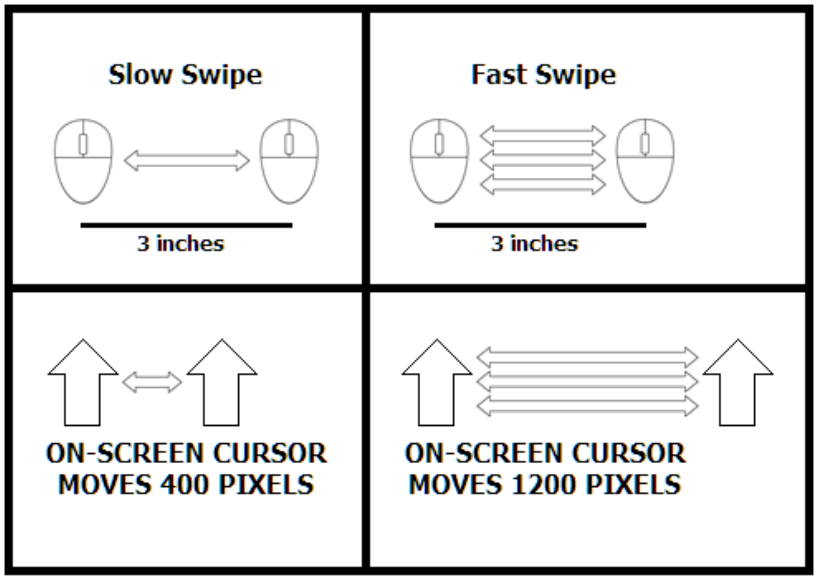
Pencil Mode Direct Mapping

The Pencil icon inside the circle on the Mapping tab allows quick function mapping.

1. Press the pencil icon to get started.
2. Press the controller function you want to map.
3. Press the keyboard key or mouse button where you want it assigned.
4. Press the save icon inside the circle to store the setting.

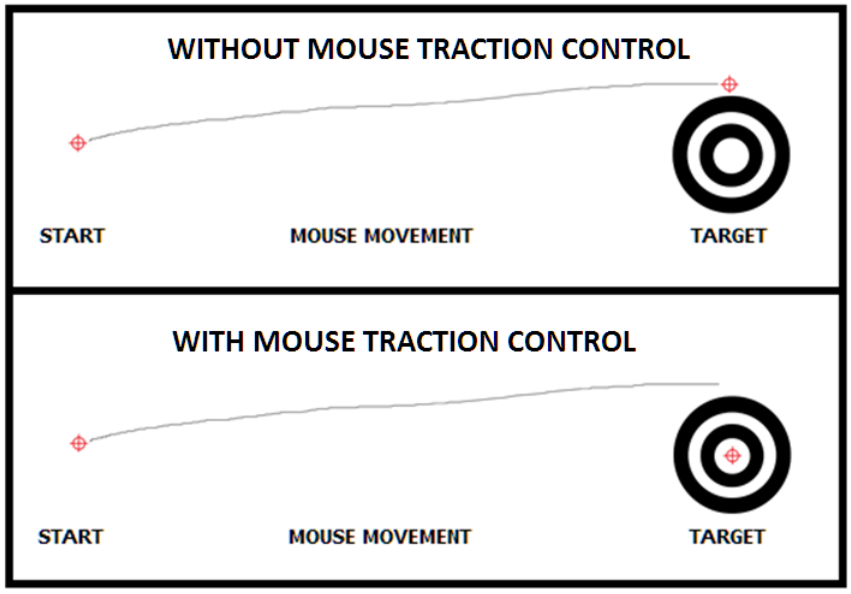
Turn Speed

The Turn Speed slider adjusts the amount of acceleration that KeyMander 2 adds when moving your mouse. A setting of 0 on the slider is equal to zero acceleration added by KeyMander 2. Settings of 1-50 add progressively greater amounts of aim acceleration to compensate for games with a slow aim/look mechanic. When tuning your profiles it is always best to start at 0 and begin making adjustments only when needed. For best accuracy remember to tune your Aim/Look sensitivity first, then fine tune the Turn Speed slider as needed for your style of play. Here's a quick visual of how increasing Turn Speed slider setting works:



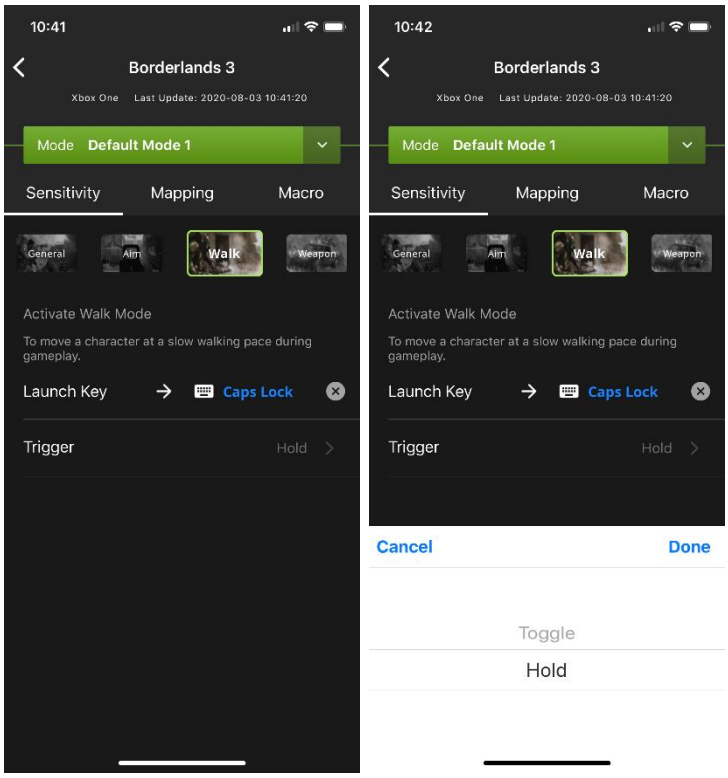
Mouse Traction Control

The Mouse Traction Control setting adjusts the amount of vertical correction applied when moving the mouse horizontally, to help keep the aim/look view level when making fast, long turns. This feature is designed that when spinning 180 degrees to see an enemy behind you, a slightly angled mouse swipe doesn't cause you to be aiming above their head or below their feet. The cost for this ability can be a loss of precision when making diagonal movements or small movements when aiming-down-sight for sniping. A setting of Level 1 is equal to maximum vertical correction applied by KeyMander 2, and higher settings add decreasing amounts of correction up to Level 7 where zero correction is applied. Depending on the game, most users will see improved performance accuracy in long turns with the default setting, and advanced users will still see some benefits between Levels 5-6. High level users that want no correction should select Level 7.



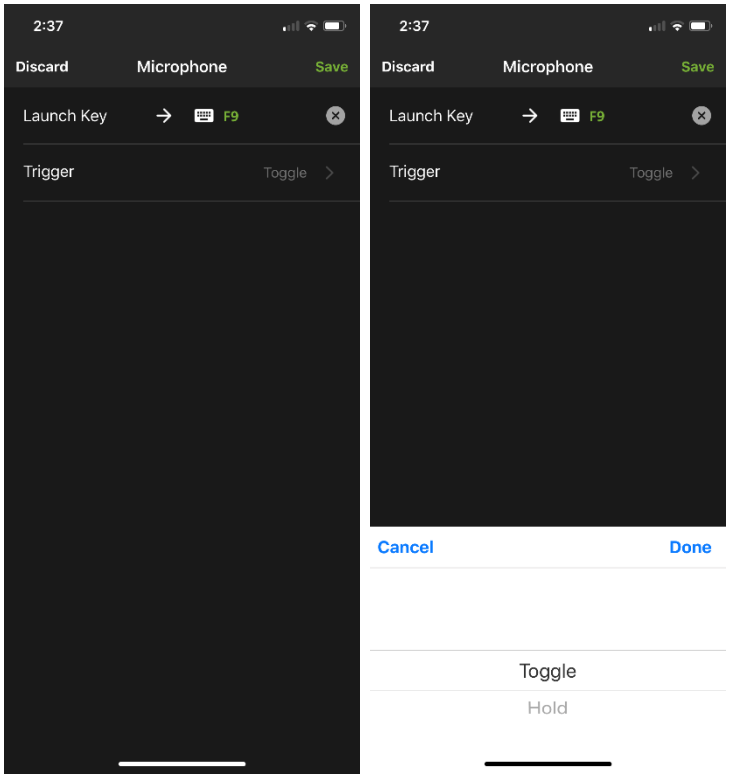
Walk Mode

The Walk Mode function allows holding an additional key while also pressing one of the WASD keys to reduce movement speed when needed, like when sneaking up behind and enemy for example. To set the Walk Mode, Open the K2 App and select the Sensitivity option, then select the Walk Mode tab, to open the settings page. On the Launch Key line choose a key to activate the function. Caps Lock and Left Ctrl keys are usually the best choice for using Walk Mode. After selecting the activation key, choose either Hold to activate Walk only when holding the key, or choose Toggle to activate Walk until the key is pressed again to deactivate Walk. Pressing the Walk key and any direction key will allow you to move slowly in the chosen direction.

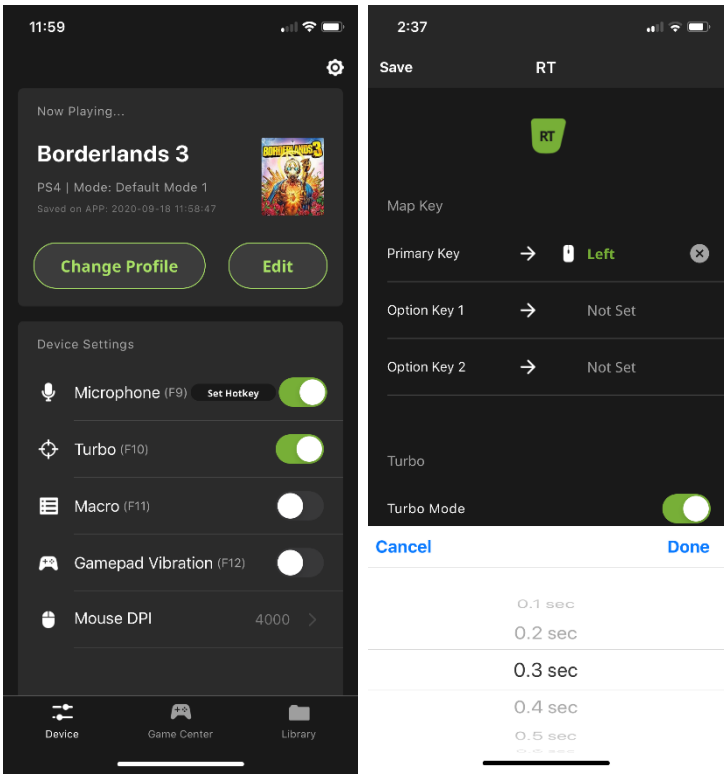


Microphone Mode

KeyMander 2's Microphone setting allows you turn on or off the microphone function while you play, and is very useful for headsets without a microphone mute function. The default setting uses the F9 key to toggle the microphone on/off, but can also be programmed for push-to-talk functionality using the "Hold" option in the setting menu. With the Hold setting turned on, the microphone will only be open (able to capture audio) while the F9 key is being held down and will mute the microphone when released. This feature may alternately be programmed to a different key instead of F9.

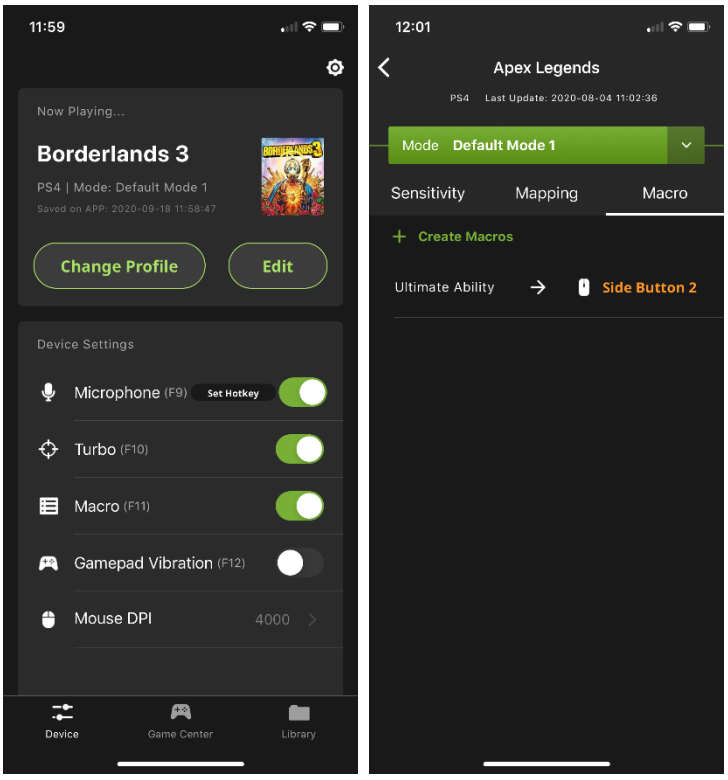


Turbo Mode



The Turbo Mode (F10 key) changes the actuation timing of a button from the keyboard or mouse to allow a faster repeat rate when held. You can enable or disable turbo for any controller button* and set the timing (0.1~1 second) as needed. This can be used in several ways, the most common is to increase the rate of fire and in effect make a semi-auto gun fully automatic where compatible. This feature may not work with all guns or games, so you will need to test the different timing options to find what works best for your specific gun/game. To use Turbo Mode you must enable the primary setting on the Device tab, and also activate the Turbo function on the key you want to use such as the right trigger in the game profile. A selection wheel of timing options will be displayed for you to choose from and then press Save. If the first timing option does not work with your game or gun, remember to try other options. Also remember that setting the timing too short may stop other functions that use that button from working in your game so make sure to test thoroughly.

Macro Mode



The Macro Mode (F11 key) allows a single key stroke or mouse click to perform multiple actions. For example you can set: “UP, DOWN, LEFT, RIGHT, X, O” to execute just by pressing the Y key. You can also set combos where multiple buttons are pushed at the same time such as “X+O” or “R3+L3+R2”. To create a macro select the Macro tab and then press the “+ Create Macros” button to bring up the recording window. Enter the steps exactly as you would execute the commands in the game, with the same timing sequence and then press the Stop Recording button at the bottom when done. You can delete and rerecord a macro as many times as needed to get the sequence correct. Once the Macro is saved you can label it to help remember its function. You can create up to 8 custom macros and each macro can have up to 8 controller buttons.

Gamepad Vibration

The Gamepad Vibration (F12 key) setting allows the tactile feedback from controller to be turned on and off as needed without having to open the game console menu. To turn controller vibration on or off press F12 on the keyboard or press the side button in the K2 App.

Controller Crossover Function

The KeyMander 2 supports controller crossover function to interchange OEM (factory-supplied) controllers between game systems. You can share original Xbox One, PS4 or Nintendo Switch controllers between all three game systems.

To connect and use a controller from a different console on your system:

1. For Xbox One and PS4 users connect your OEM controller to the Gamepad Port. Nintendo Swich users do not need to connect a controller to the Gamepad Port.
2. Connect the controller you wish to use to the Keyboard Port.
    - The profile will automatically switch to F4 Crossover Mode when the controller is connected to the Keyboard port.

Profile Backup and Restore

The K2 App has built-in access to cloud based storage for all your game profiles, and allows you to backup and restore your profiles as needed.

To Backup your game profiles:

1. Press the Library tab at the bottom of the K2 App screen.
2. Press your account icon in the upper left hand corner of the app screen.
3. Press the Backup My Profles icon.

   Note: the Backup function takes a “snapshot” of all profiles on your device and backs up those profiles, while also deleting anything from your previous backup that is not currently shown in your device library. This means if you share your library between multiple devices, you should always start a new gaming session by restoring your previous backup before making changes (downloading, sharing or modifying profiles). Always remember to backup your profiles after making any profile changes you wish to keep. If you make changes to your profiles and do not wish to keep them, you can perform a Restore which will overwrite your current profiles with those from your most recent backup.

To Restore your game profiles:

1. Press the Library tab at the bottom of the K2 App screen.
2. Press your account icon in the upper left hand corner of the app screen.

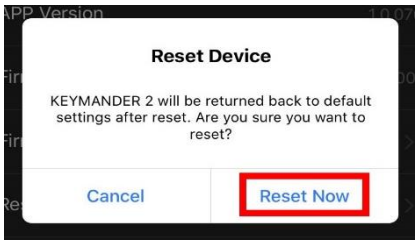
3. Press the Restore My Last Update icon.

   Note: the Restore function adds any profiles missing from your device since your last Backup, and overwrites any current profiles on your device with the version from your last Backup. If you added new profiles since your last Restore, they will be unaffected. The Restore function also makes it easy to keep your profiles current across multiple devices if you start each session with a Restore.

Reset Function

If your KeyMander 2 fails an update, has connection problems with your mobile device, or exhibits any other type of non-standard operation you can perform a system reset which may resolve the issue. There are three ways to reset the KeyMander 2 as described below.

Method 1: To reset the KeyMander 2 using the K2 app, go to the Device tab and tap the settings icon in the upper right hand corner of the screen. On the Device Settings screen tap Reset Device and a warning message appears. Tap Reset Now to perform the factory reset.



Method 2: For KeyMander 2 units running firmware version 1.1.107.002 or higher you can press the Number 2 button on the top panel quickly 3 times to perform a reset.

Method 3: For all KeyMander 2 units regardless of firmware version, you can perform a reset by pressing and holding Button 1 and Button 2 together for approximately 8 seconds. The LED light will turn white and cycle from left to right to for approximately 3 seconds indicating unit has been reset to factory settings.

Firmware Update

The KeyMander 2 supports both OTA (over-the-air) and PC connection updates. Under most circumstances firmware updates will be performed using standard OTA update function found in the K2 App. There may be times however, when you wish to load a specific firmware that is not hosted on our OTA update server (beta firmware), so the Firmware Update by PC method is explained below.

Before You Begin

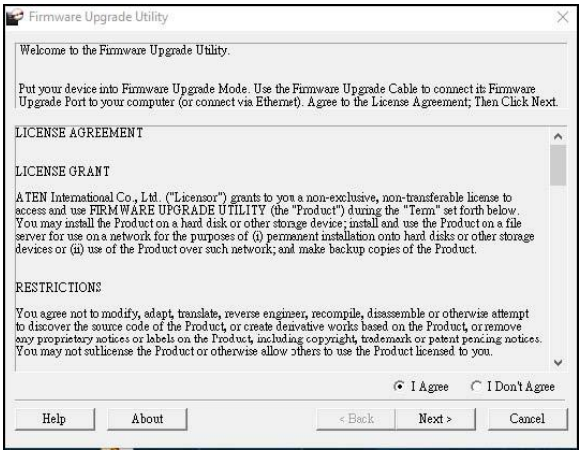
To prepare for the firmware upgrade, do the following:

1. Download the firmware .exe update file at https://www.iogear.com/support/dm/driver/GE1337P2
2. Follow the instructions to download the firmware upgrade.
3. Unzip the firmware upgrade package and connect the computer to the KeyMander 2.

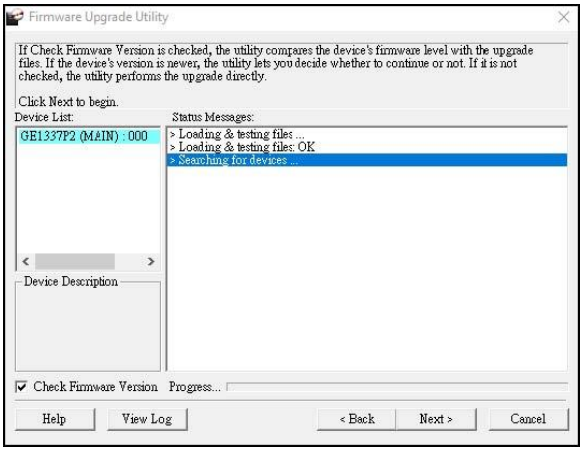
To Update Firmware Using a PC:

1. With the KeyMander 2's Power and USB cables unplugged, press and hold BTN1 and BTN2 together.
2. While holding BTN 1 and BTN 2 plug the KeyMander 2's USB connector into the PC and continue holding both buttons for approximately 8 seconds.
   - The LED light will turn white and cycle from left to right to indicate it is in firmware upgrade mode.
3. On the PC double click the firmware .exe file.

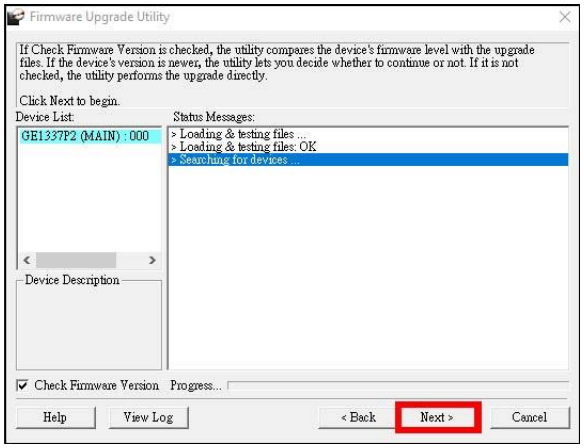
4. When the Firmware Upgrade Utility opens read the License Agreement, select “I Agree” and click next.



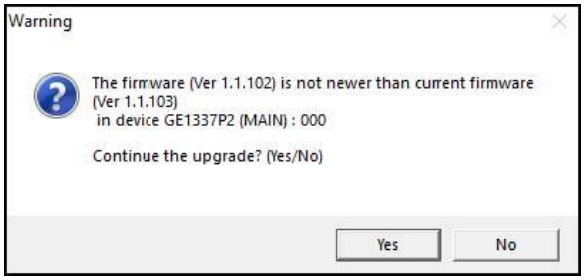
5. The Firmware Utility will list the attached KeyMander2 devices, and should show your GE1337P2 if connected to the PC.



6. Click Next to perform the upgrade.

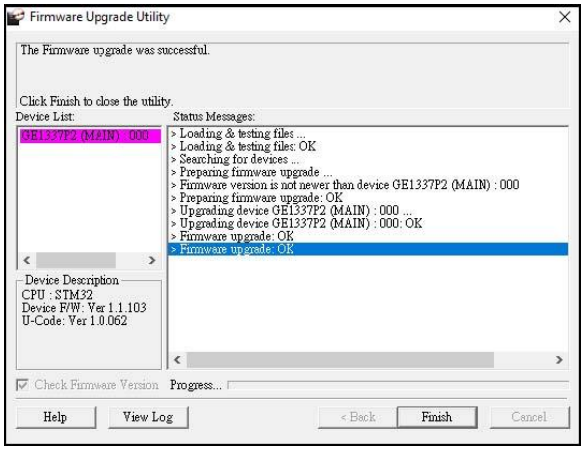


- If you enabled Check Firmware Version, the device's current firmware is compared to the upgrade files. If the device's version is higher, it brings up a dialog box informing you of the situation and lets you choose to continue the upgrade or not.
- If you didn't enable Check Firmware Version, the Utility installs the upgrade files without checking whether they are a higher level, or not.



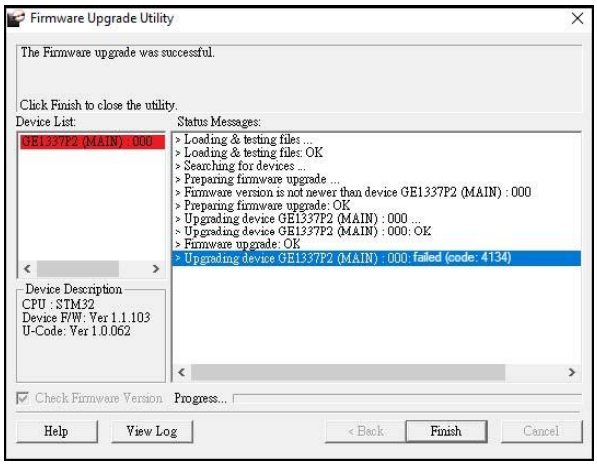
- As the Upgrade proceeds status messages appear in the Status Messages panel, and the progress toward completion is shown on the Progress bar.

7. After upgrade is complete click Finish and unplug the KeyMander 2 from the PC.
8. Reconnect the KeyMander 2's USB to the PC, then press and hold BTN 1 and BTN 2 together for approximately 8 seconds to perform a factory reset to complete the firmware update.
    9. The LED light will turn white and cycle from left to right to indicate it is in firmware upgrade mode



Firmware Upgrade Failed

If the upgrade failed to complete successfully the Upgrade Failed screen appears. Click Cancel to close the Firmware Upgrade Utility. See the next section, Firmware Upgrade Recovery, for how to proceed.



Firmware Recovery

There are three conditions that call for firmware upgrade recovery:

- When the unit's firmware becomes corrupted and you are unable to operate it.
- When a firmware upgrade procedure is interrupted or the KeyMander 2 is unplugged.
- When a firmware upgrade procedure fails.

To perform a firmware upgrade recovery, do the following:

1. Unplug the KeyMander 2 from the computer.
2. Plug the KeyMander 2 into to the computer.
3. Press the Bluetooth Pairing Button and the Mode Button together for 10 seconds.
4. Upgrade the firmware as explained in Starting the Upgrade, page 74.

Appendix

LED Status Indications

Dark Blue:	Powering on the KeyMander 2. Rebooting the KeyMander 2.
Light Blue:	KeyMander 2 is searching for a Bluetooth connection. KeyMander 2 is connected to a mobile device. The KeyMander 2 is updating profiles. The KeyMander 2 is disconnected from a mobile device.
Light Green:	The KeyMander 2 is in the key mapping or macro recording mode.
Navy Blue:	The KeyMander 2 is set to PS3/PS4 operation.
Dark Green:	The KeyMander 2 is set to Xbox 360/Xbox One operation.
Red:	The KeyMander 2 is set to Nintendo Switch operation.
Light Brown:	The KeyMander 2 is running under insufficient power supply. Connect a micro USB cable to an additional 5VDC 2A power supply.
White:	The KeyMander 2 is performing a device reset or firmware upgrade.

Understanding Mouse Performance with KeyMander 2

To help better answer some of the common questions about mouse performance, here's some basics about several things that determine how the mouse responds in-game: Sensitivity Setting, Maximum Turn Speed, Turn Speed Setting, Deadzone Setting and Resolution.

The biggest reason to love KeyMander 2 can quickly become a frustration if the mouse isn't setup properly, so here is some information that may help you to better dial in your mouse settings. KeyMander 2 is designed to provide as close to a PC gaming experience as possible on a game console, however there are a couple significant differences between playing on PC and using a keyboard and mouse with your console. Understanding differences in maximum turn speed and learning how to work with mouse sensitivity and acceleration are the keys to playing at the highest level with KeyMander 2. Getting to that level requires some also time spent learning how your mouse settings translate into the game, and also understanding the limitations of console games.

Sensitivity Setting

Properly setting mouse sensitivity is the biggest factor in getting good mouse performance with your KeyMander 2, and there is more to it than simply adjusting the sensitivity sliders in the K2 App. There are actually three other steps required before adjusting the software sliders, and forgetting them will lead to poor mouse performance. The first and most commonly overlooked step in properly setting up the mouse is actually making sure the aim/look sensitivity is maxed out in the game's settings menu, so you have the full sensitivity range to work within. Next, you need to input the mouse's DPI resolution setting into the K2 App Device tab for a smoother and more accurate adjustment range. Third, most gaming mice have a DPI button with multiple settings so make sure the mouse is set to the highest DPI step when connected to KeyMander 2. Only after those steps are complete do you begin making changes to the mouse sensitivity sliders.

Just like in PC gaming, bumping the sensitivity too high will cause you to reach a point where

movement can become jittery and difficult to use accurately for precision shots, so reaching a balance is important. In the PC world this equates to the balance between low DPI and high DPI settings, where lower DPI is far more accurate for making small, precise movements (like needed for headshots) at the cost of having to move your hand a foot or more to turn a 360° rotation. In the older days of first-person-shooters, gamers playing titles like Counter Strike on standard definition monitors might have mouse resolutions set as low as 100 or 200 dpi, so they can snap off a headshot (without a scope) like it's nothing. That type of play is a far cry from the common Rambo-esque, hard-charging free-for-all styles we see now in Call of Duty deathmatches, so just like in PC gaming, finding your own balance point is the key. If you run around in CoD with a shotgun and never aim-down-sight, having a highly boosted sensitivity may be fine for you, but if you later decide to pick up a sniper rifle you probably aren't going to be happy with that setting.

To get a better feel for how to best set your mouse sensitivity, start at a point where you think the sensitivity is way too low, and move your mouse back and forth. Get a feel for the ability to find your aim point accurately, then boost your speed until you can get the accuracy you want, at a comfortable enough speed to stay within the game's maximum turn speed or at least not far beyond it. Remember each game is different, and the difference can be huge when comparing a game like Call of Duty that has a high max turn speed, versus a game like Resident Evil 7 where you can use a watch to time how long it takes to spin around. By the way, several games actually have different horizontal and vertical look sensitivities that usually go unnoticed with analog sticks, but much more noticeable with a mouse. If vertical movement feels different than horizontal movement and you want to adjust it, you can unlock the horizontal and vertical mouse sensitivity sliders in the K2 App and adjust as needed.

Maximum Turn Speed (In-Game)

The biggest difference between playing on a PC versus playing on a console with KeyMander 2 is the turn speed limitation built into console games. Because console games are built for joysticks, every game has a maximum turn speed equal to having the analog thumb stick pushed all the way to the farthest position. This is the turn speed limit of the game set by the game developers and it basically caps the speed at which you can turn (look) in a given direction, no matter how fast you move the thumb stick (or mouse as in our case). You can test this with your controller by pushing the right thumb stick all the way left or right, and the speed at which your view rotates is the maximum turn speed for that game. This limit can vary widely from game to game as games like the Call of Duty franchise for example have a much higher turn speed limit that the Destiny franchise which can feel like the mouse is slow to respond if you do not adjust your settings and style of play a bit. The turn speed limit can even vary within a game depending on factors such as weapon choice, whether or not you're in a vehicle, location in the game (especially in campaign modes), etc. Games can also have different horizontal and vertical turn speed limits, although vertical limits are normally less of an issue.

It is important to understand the game's maximum turn speed and the effect it has on mouse performance, since a mouse can deliver faster average and peak movement speeds than a thumb stick allows. When you exceed the game's maximum turn speed (moving the mouse faster than the

game allows), the mouse will feel sluggish or "laggy" as your on-screen aim/look view moves less than expected. An easy way to see this is to move your mouse at a fairly slow rate noticing how far you rotate, then move extremely fast and compare. If your KeyMander 2 profile is set up with very high aim/look sensitivity, you probably noticed that by moving slowly you rotated 360 degrees or more with a short swipe, but by moving very fast you rotated only a short distance. That poor movement you just experienced is NOT mouse lag, but rather the game's turn speed limit.

The easiest way to understand what is happening is to equate the maximum turning speed to distance turned (rotated) in a period of time. For example, let's say with the aim/look thumb stick fully engaged it takes our game one full second to perform a 360° rotation, that would make our game's maximum turning speed equal to one rotation per second. Now to illustrate how that pertains to our mouse, let's say that with our current KeyMander 2 profile moving the mouse four inches in one second performs a full rotation; it would mean our max turn speed with the mouse is 4 inches per second. Now here is where the turn speed limit begins to show up with a mouse: if we move 8 inches in one second (double the limit in our example), the extra movement above the maximum turn speed is not registered and it's as if you moved for only half the distance or half the time (equal to a half rotation for our example). Following the same formula if we move it 16 inches (four times the limit), your on-screen aim/look view moves only a quarter of the time/distance (equal to a quarter rotation for our example), and so on. Simply put, once you hit maximum turn speed, the faster you move the mouse, the slower you go. Unlike on a PC, using a mouse in an environment designed for a joystick also requires getting used to playing within the game's turn speed limitation, but it's a small trade-off for being able to play console games with a mouse and keyboard and it's easy to set up your KeyMander 2 profiles to work within this limitation.

Turn Speed Setting (K2 App)

One way to overcome the turn speed limitations built into some games is through the use of the K2 App's Turn Speed setting, which progressively adds acceleration to boost your aim/look speed the faster you move. Slower movements stay slow and precise, but quick movements ramp up the turn speed to make spinning around much easier in games with lower turn speed limitations. Acceleration is usually avoided by most PC gamers since noticeable turn speed limitations are rare in PC games, however some console game designers understand that acceleration can be beneficial at times, and have begun adding the option in some games. TitanFall 2 is a one example, having programmable acceleration levels and curves in the game's settings menu. The K2 App also has programmable mouse response curves to add similar functionality to games without these adjustments. When setting up your game profiles, remember to treat acceleration like salt at the dinner table; it's there if you need it, but if it's already good you probably shouldn't add anything or you might make it worse.

Deadzone Setting (K2 App and In-Game Options)

If you are having problems with getting a smooth response from the mouse, especially when moving diagonally, take a look at the DeadZone setting. The Deadzone's primary function is to overcome the

area of the controller where joystick movement does not register in-game and allow instant response from the mouse, but when improperly adjusted it also influences mouse movement in a negative way. Having the deadzone set too low will cause choppy mouse response as initial mouse movements or very tiny mouse movements are suppressed. Having too large a deadzone will cause a floaty or accelerated feeling (pixel skipping), and can also cause a rough, “stair-step-like” movement in some games that reduces accuracy when moving the mouse diagonally. Some games also include a deadzone setting in the Options Menu, so be sure to check it and set accordingly for best performance. It is important to achieve the right balance, so if it feels choppy increase your deadzone setting and if the diagonal movement feels poor, lower the deadzone setting in the KeyMander software, in the game menu or both.

DPI Resolution (Mouse Hardware/Software & K2 App)

The conventional wisdom for setting mouse resolution with KeyMander 2 is normally to set the mouse to its maximum resolution and set the KeyMander 2 DPI setting to match it. This will provide the maximum amount of adjustment range with fine adjustment steps in between. While this normally works great with most games, there will be times when a lower dpi setting is actually advantageous. Games with built-in Aim Assist such as the Call of Duty titles, Overwatch, etc. will benefit from having a lower dpi setting which allows the aim assist to better “pull” you onto the target’s hit box. Having a higher dpi setting sends more data at a faster rate to the aim assist processing and causes what amounts to an overload situation, where the aim assist function is decreased or defeated altogether.

In games with aim assist it is important to test different resolution (DPI) settings so you can maximize the benefit (or remove it) for your style of play. For example, most Call of Duty games work very well with mouse resolutions between 3500-5000dpi for those that like the slightly magnetic feel of aim assist. If you prefer to snipe headshots, set the dpi higher at 6-16K to help breakout of the aim assist bubble as it will tend to "pull" you down when trying to snap quick headshots. Just make sure to match your KeyMander 2 DPI setting to your mouse DPI or your sensitivity will be way off.

As a final note, one of the things that can complicate getting proper mouse performance with high-end gaming mice is the manufacturer's custom mouse driver software, which often needs to be correctly configured on a PC so it doesn't default to some unknown/less effective setting. Mice from companies like Corsair, Logitech, etc. have downloadable drivers for setup, and usually store these settings in the mouse memory as configuration profiles. If you have one of these mice that stores profiles internally (especially Logitech mice as their software is a bit tricky), it is important to make sure you set the mouse to maximum resolution in their software first, and program it to default to that setting so the mouse is actually running at the full resolution offered. Because these settings have to be programmed using a PC, it will it will make your life much easier if you remember do this first before connecting the mouse to your KeyMander 2! After setting up your mouse, make sure to set the mouse resolution in the K2 App to match your mouse setting. Having a 12,000 DPI mouse is great, but if you forget to change the default setting in the K2 App (default is 4000 DPI) you won't getting the full benefit of all that resolution!

Troubleshooting

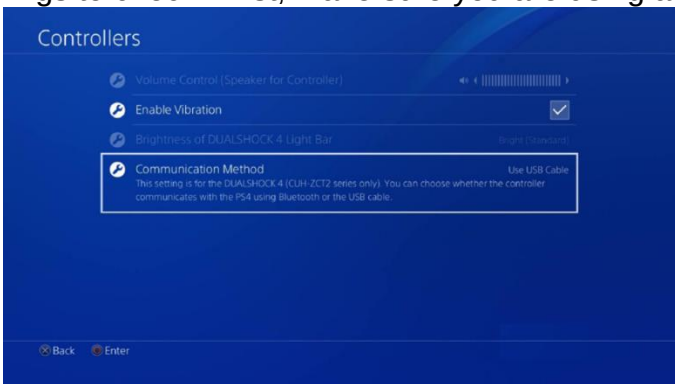
The following is a list of common issues and how to solve them.

Micro USB Cable Problems

In the event your system is not working with the supplied micro USB cable during initial setup, you can use your own micro USB charge and sync cable for testing. If the system works normally after performing this test, replace the micro USB cable. If the system is still not working normally after performing this test, the cable is not the source of the problem. If you are using a PS4, fully charge the controller and reconnect to KeyMander 2. If you are using an Xbox One, see *Loss of USB Connection to Controller*.

PlayStation 4

If the KeyMander 2 is connected to a PS4 using the DualShock 4 Slim controller and it does not respond to the keyboard and mouse, there are three things to check. First, make sure you are using a profile set for PS4. If you are using a PS4 profile, the KeyMander 2 status bar should be glowing blue, If not you can download a profile for PS4 from the Game Center in the K2 App. Next, make sure you have enabled USB Communication in the System Settings menu. Go to Settings > Devices > Controllers > Communication Method and select Use USB Cable.



Lastly, disconnect the micro USB cable between the KeyMander 2's Gamepad port and the controller, then wait a few seconds. Reconnect the USB cable. If the cable is a USB charge and sync cable, the PS4 controller should turn on and display a yellow light. If it is a charge only cable, it will show a blue light which means it is still in wireless mode and does not recognize the cable.

Xbox One

If the KeyMander 2 is connected to an Xbox One console and completely stops responding to the keyboard and mouse or if this is a first time setup and the keyboard and mouse are not working, start by making sure you have the KeyMander 2 connected to the rear USB port on the console, as the front or side ports do not support as much power output. Next, make sure you have a game profile for Xbox One synced to the KeyMander 2 and you are in Mode 1 of that profile (Mode 4 is Crossover Mode so keyboard and mouse function will not operate). If there is a profile for Xbox One current synced, the KeyMander 2 LED status bar should be glowing green. If the status bar is glowing green and the keyboard and mouse are still not working, check the micro USB cable as mentioned above in *Micro USB Cable Problems*. If if still does not respond, check the controller's USB connection as described below.

Loss of USB Connection to Controller

In the event the KeyMander stops responding to the keyboard and mouse, you can check the USB

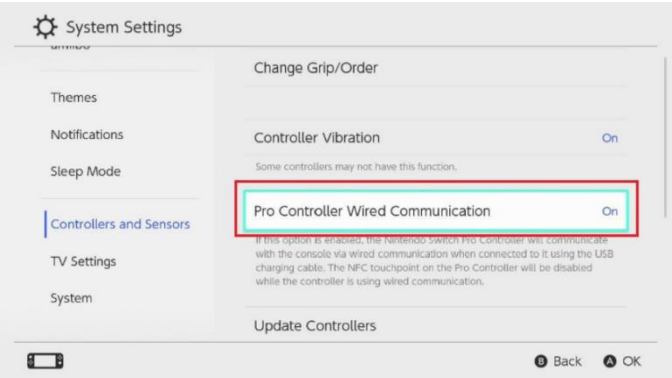
connection to controller by opening the Xbox menu, going to System>Settings>Devices & Streaming>Accessories. When the Xbox controller is displayed on the screen, select the three dots below the Configure box. Select the Firmware Update even if “No update available” is displayed. Select Continue. If you see a message saying to insert batteries or connect a USB cable after pressing continue and it will not attempt to update, the controller is connected to Xbox One in Bluetooth mode and you will need to follow the steps below to switch it to USB communication.

To Force the Xbox One to USB communication:

1. Disconnect the controller from KeyMander 2.
2. Disconnect KeyMander 2 from the Xbox One console.
3. Disconnect the external power cable from KeyMander 2 (if attached).
4. Press and hold Xbox power button on console for 10 seconds until the console shuts down.
5. Unplug the power cable from the console for 1 minute.
6. Reconnect power cable to the console and turn on using the power button on the console. DO NOT press the power button on a controller!
7. When green Xbox screen comes on during boot up, connect the controller directly to the Xbox One console using the micro USB cable.
   - Controller should light up by itself indicating it is in USB mode.
8. Reconnect KeyMander 2 cable to the rear USB port on Xbox One console.
9. Reconnect external power cable to KeyMander 2 power port (if needed).
10. Disconnect the controller micro USB cable from Xbox One and reconnect to KeyMander 2.
    - Controller should light up by itself indicating it is in USB mode.

Nintendo Switch

If the KeyMander 2 is connected to a Nintendo Switch using the Nintendo Switch dock and it does not respond to the keyboard and mouse, there are three things to check. First, make sure the JoyCons are attached to the Nintendo Switch (the KeyMander 2 cannot work with them disconnected from the Switch). Next, make sure you are using a profile set for Nintendo Switch. If you are using a Nintendo Switch profile, the KeyMander 2 status bar should be glowing red, If not you can download a profile for Nintendo Switch from the Game Center in the K2 App. Lastly, make sure you have enabled the Pro Controller Wired Communication in the System Settings as seen in the image to the right.



Technical Support

If you experience problems or have questions about setting up and using KeyMander, several support options are available. For immediate live assistance, telephone and on-line chat are available. You can also email us for less urgent assistance.

Phone: 866-946-4327 x4862

Toll Free: 866-9-IOGEAR (866-946-4327)

Live Chat: www.iogear.com/keymanderchat

Email: support@iogear.com

Product Support: www.iogear.com/support

When you contact us, please have the following information ready beforehand:

- Product model number, serial number, and date of purchase.
- Your computer configuration, including operating system, revision level, expansion cards, and software.
- Any error messages displayed at the time the error occurred.
- The sequence of operations that led up to the error.
- Any other information you feel may be of help.

You can quickly find answers to most questions on our product support pages and in our KeyMander Forum where you can also access setup videos, contests and more.

KeyMander Forum: www.keymander2.com

Safety Instructions

General

- This product is for indoor use only.
- Read all of these instructions. Save them for future reference.
- Follow all warnings and instructions marked on the device.
- Do not place the device on any unstable surface (cart, stand, table, etc.). If the device falls, serious damage will result.
- Do not use the device near water.
- Do not place the device near, or over, radiators or heat registers.
- The device is provided with slots and openings to allow for adequate ventilation. To ensure reliable operation, and to protect against overheating, these openings must never be blocked or covered.
- The device should never be placed on a soft surface (bed, sofa, rug, etc.) as this will block its ventilation openings. Likewise, the device should not be placed in a built in enclosure unless adequate ventilation has been provided.
- Never spill liquid of any kind on the device.
- Unplug the device from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
- The device should be operated from the type of power source indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
- To prevent damage to your installation it is important that all devices are properly grounded.

- Do not allow anything to rest on the power cord or cables. Route the power cord and cables so that they cannot be stepped on or tripped over.
- Position system cables and power cables carefully; Be sure that nothing rests on any cables.
- Do not attempt to service the device yourself. Refer all servicing to qualified service personnel.

If the following conditions occur, unplug the device from the wall outlet and bring it to qualified service personnel for repair.

- The power cord or plug has become damaged or frayed.
- Liquid has been spilled into the device.
- The device has been exposed to rain or water.
- The device has been dropped, or the cabinet has been damaged.
- The device exhibits a distinct change in performance, indicating a need for service.
- The device does not operate normally when the operating instructions are followed.
- Only adjust those controls that are covered in the operating instructions. Improper adjustment of other controls may result in damage that will require extensive work by a qualified technician to repair.

Specifications

Function			KeyMander 2
Connectors	Front	Gamepad	1 x USB2.0 Type A Female (Black)
		Keyboard	1 x USB2.0 Type A Female (Black)
		Mouse	1 x USB2.0 Type A Female (Black)
		Power	1 x Micro USB-B Female (Black)
	Side	Main Power	1 x 1 m USB-A Male Cable (Black)
Wireless Connection			BT (BTBT) Dual Module
LED	Power / Notification		7, RGB
Emulation	Keyboard		USB, Emulation
	Mouse		USB, Emulation
	Gamepad		USB, Bypass
Power Consumption			DC 5V: 1.045W: 19.81BTU
Environment	Operating Temp.		0–40°C
	Storage Temp.		-20–60°C
	Humidity		0–80% RH, Non-condensing
Physical Properties	Housing		Plastic
	Weight		110 g
	Dimensions (L x W x H)		110 x 65.8 x 24.3 mm
MTBF	25°C		hours
	55°C		hours

Limited Warranty

IOGEAR warrants its hardware in the country of purchase against flaws in materials and workmanship for a Warranty Period of two [2] years (warranty period may vary in certain regions/countries) commencing on the date of original purchase. This warranty period includes the LCD panel of IOGEAR LCD KVM switches. Select products are warranted for an additional year (see A+ Warranty for further details). Cables and accessories are not covered by the Standard Warranty.

What is covered by the Limited Hardware Warranty?
IOGEAR will provide a repair service, without charge, during the Warranty Period. If a product is detective, IOGEAR will, at its discretion, have the option to (1) repair said product with new or repaired components, or (2) replace the entire product with an identical product or with a similar product which fulfills the same function as the defective product. Replaced products assume the warranty of the original product for the remaining period or a period of 90 days, whichever is longer. When the products or components are replaced, the replacing articles shall become customer property and the replaced articles shall become the property of IOGEAR.

To learn more about our warranty policies, please visit our website:
https://www.iogear.com/support/warranty/