



R5 Analog Keyboard User's Guide

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Introduction

The Aimpad R5 Analog Keyboard is the most advanced mechanical keyboard on the market today. We are happy you get to experience the Awesomeness of Aimpad. While every effort has been made to simplify the various functions and features of this keyboard, it is still a very complex device. We highly recommend reading this manual to gain an understanding of everything it can do so you can fully leverage the device to its full capacity. We'll try to make the learning process at least moderately entertaining. But, if you don't have time to learn all the cool things the Aimpad R5 keyboard can do for now, then plug it in and have some fun! If you get lost, we'll be here waiting for you.

Profiles

The Aimpad R5 Keyboard has 6 different profiles designed for 6 specific uses. Each Profile is selected by pressing and holding FN and then pressing F1-F6 depending on which profile you want to activate. Get used to holding the FN key, you are gonna be best buddies soon.

FN + “F1” (Blue Profile) – FPS Mode – This is the default profile that the keyboard will start in when you first plug it in. The WASD keys will function as the left analog stick of an Xbox controller allowing you to move forward, back, left and right smoothly in games. All other keys on the keyboard are otherwise normal boring keyboard keys.



FN + “F2” (Green Profile) – Driving Mode – In this Profile the W and S keys will function as the Left and Right Analog Triggers of an Xbox controller. Typically, when a game assumes you are driving using an Xbox controller it assumes you want to use the right trigger as your gas pedal and the left trigger as your brake pedal... Game developers typically won't let you remap Xbox controls. So, this mode will allow you to drive using the WASD keys like you would expect. All other keys are normal boring keyboard keys.



FN + “F3” (Yellow Profile) Advanced Flight Mode – This Profile is designed to give you the most control over all available analog functions of an Xbox controller. This allows you to control 4 analog axis with the left hand while controlling two different axis using the mouse for full movement control in 3D space. WASD will function like the left analog stick, Q and E will function as the Right and Left Triggers, R and F will function as the Right Stick (Up and Down), and the 4 arrows keys will function as the Right Stick (Up, Down, Left and Right). By default, all other keys will be normal keyboard keys, but in the image below you will see some additional functions that can be assigned to the keys. But, you aren’t ready for that yet... we’ll get there in a minute... fine... if you think you are ready you can learn more on page 12.



FN + “F4” (White Profile) Mouse Mode – In this Profile the E, S, D, F keys will allow you to smoothly move the mouse cursor. The Q and A keys will allow you to scroll up and down as if you were using a mouse scroll wheel. The further you press in the key the faster you will scroll. The Space Bar functions as the “Left Click.” The Left Shift button functions as the “Right Click”. The Left Alt key functions as the “Middle Click”. All other keys are normal boring keyboard keys.



Smooth Scroll – By pressing FN+Q while in Mouse Mode you can activate a smoother scrolling option in applications that support it (web browsers and Office applications). The mouse scroll option is replaced with a “middle click” scroll instead allowing a scrolling experience that is not as “jumpy” as normal mouse scrolling.

FN + “F5” (Purple Profile) Activation Point MOBA Mode – In this Profile you can set the activation point of the analog keyboard keys. This is limited to the following 12 keys: Q, W, E, R, A, S, D, F, Up Arrow, Left Arrow, Down Arrow, Right Arrow. By default these keys will activate at the very top of the key press for a “hair trigger” activation point. Please see the section *Activation Point Control* on page 18 to learn how to set the activation to a different point on these keys.

FN + “F6” (Red Profile) – Normal Keyboard Mode – In this Profile the keyboard is just a normal boring keyboard. The keys are all activated using the normal electrical contacts of the Cherry MX switches. We felt the need to include this boring mode or people would throw a fit. If nothing else it helps contrast the experience of using a normal keyboard with a real gaming keyboard.

Alternate Profile Layouts

All of the Profiles (except the F6 mode) have an alternate key layout. You can switch between the Default and Alternate Layouts by pressing FN + “Left Alt”. The LEDs will briefly turn Green indicating the Alternate Layout is activated. If you press FN + “Left Alt” again the LEDs will briefly turn Red indicating the Alternate Layout has been deactivated and returned to the Default Layout. F1-F3 Profiles share the same Layout toggle (ie, it is assumed if you want to use ESDF you will use ESDF in all F1-F3 Profiles), but F4 and F5 Layouts are toggled separately.

F1-F3 Profiles – The left analog stick control is moved from WASD to the ESDDF key position. In F3 mode this shifts the Left/Right Triggers from Q/E to W/R and the Up/Down Right Stick control is moved from R/F to Q/A.



F4 Profile – The default ESDF position is moved to WASD to move the mouse cursor and the scroll wheel is moved from Q/A to R/F.

F5 Profile – Currently the F5 profile does not have an alternate layout. Instead you can enable a secondary activation point for each analog key by pressing FN + the analog key you want to enable the secondary activation point. So, at the top of the keypress the “Q” will be activated. But, if you continue to press the key down a second key “U” will be activated. Likewise, the “W” key will also activate the “I” key, the “E” will also activate the “O” key and the “R” key will also activate the “P” key. This allows you to map additional related functions to the same key. For example, you could map the top of the key press of “Q” to show the Area of Effect of a spell should you wish to cast it. And then pressing the “Q” key all the way will actually activate that spell. This is most useful in MOBA and RPG games.

Layers

You can have two “Layers” active at the same time so that you can quickly switch between two of the profiles above. This is done pressing the CAPS Lock key (Please Note: if you wish to designate the quick switch key to Scroll Lock instead this is done by pressing FN + “~”). By default, “Layer 1” is set to the F1 Profile and “Layer 2” is set to the F6 Profile.

However, you can set each Layer independently. For example, you could switch to “Layer 2” and then press FN + “F2” to set the second layer to the driving mode. This is particularly useful in games that have you walking around on foot and getting in and out of vehicles. While on foot, you can use F1 Profile, and then when you get in a car you can quickly press CAPS Lock to switch to the F2 Profile to control the gas and brake pedal with the Left/Right Triggers.

Alternatively, while in Layer 1 you could set the keyboard to normal keyboard mode (FN + “F6”) and then press the CAPS Lock key to switch to Layer 2 and set the keyboard to mouse mode (FN + “F4”). This would allow you to browse Reddit with your feet up on the desk and the keyboard on your lap. You can easily control both the keyboard and mouse with the keyboard on your lap by just pressing the CAPS Lock key to switch back and forth between keyboard control and mouse control without ever having to reach for the mouse!

Digital Function Features

Caps Lock Key Activation - “Where is the @\$%#ing CAPSLOCK key?” Calm down... we have you covered... the traditional CAPLOCK function can be activated/deactivated by pressing FN + “Left Shift”. ☺ Alternatively, if you want to change the Quick Swap button and restore normal CAPSLOCK functionality it can be changed from CAPSLOCK to Scroll Lock by pressing FN+ “~”.

Xbox Button Activation – “The games I am playing keep telling me to press Xbox Controller Buttons?” This is because the game thinks you are using an Xbox controller. If you wish to change some of the keyboard keys to Xbox Buttons instead this can be done by pressing FN + “Space”. This will swap keyboard keys with the following Xbox buttons

Keyboard Key	Xbox Button	Keyboard Key	Xbox Button
ESC	“Back”	R	“X button”
~	Xbox Menu	F	“Y button”
1	Dpad Left	Left Shift	Left Stick
2	Dpad Up	Z	Left Bumper
3	Dpad Right	C	Right Bumper
4	Dpad Down	Left Control	“B Button”
Tab	“Start”	Left Alt	Right Stick
Space	“A Button”		

Please note: in the F1 and F3 Profiles the R and F keys will not be swapped unless these analog keys are disabled using FN + “R” as indicated below.



This setting is tracked independently for F1, F2, and F3 Profiles, so you can choose which profiles it is active and which it is not.

Alternate Xbox Face Buttons – By pressing FN + “J” it is possible to activate a second set of Xbox buttons arranged physically how they are arranged on the Xbox controller. This can be particularly useful in games that have Quick Time Events (QTE) forcing you to rapidly respond to a series of xbox button presses. It can also be useful in action oriented games that do not use the mouse such as platformers and brawlers. The I, J, K, L keyboard keys will be assigned to the Xbox Y, X, A, B buttons:



Window Key Useful in Games – Most gaming keyboards have a function to disable the windows key so it doesn't drop you out of a game. We go one step better and remap the Windows Key to the "P" key so it can be remapped to something else useful. This is done by pressing FN + "P".

Disable select analog keys in F1 and F3 Profiles – You may find that you want to disable some analog keys and use them as normal keyboard keys. This only pertains to the F1 and F3 Profiles. If you wish to disable the analog R/F keys this can be done by pressing FN + "R". If you wish to disable the analog Q/E keys this can be done by pressing FN + "Q". Please note that if you are using the alternate layout that this will disable the Q/A and W/R key combinations instead. If you wish to disable the analog arrow keys this can be done by pressing FN + "Left Arrow".

Enable Numpad – Pressing FN + "7" will set an overlay on the keys to replicate the Numpad layout over the keys as below:

Analog Function Features

Increase Sensitivity – If you find that in some games you are having to press in the key further than you think it should before you start moving, you can try increasing the sensitivity. This can be done by pressing FN + “PGUP”. The triggers have very different sensitivity settings. The sensitivity can be increased for the triggers by pressing FN + “Insert”. The LEDs will gradually increase in brightness as you increase the sensitivity. The default setting will turn the LEDs Green, and the minimum and maximum will turn them Red.

Decrease Sensitivity – If you find that you are moving faster than you think you should at the top of the key press you can decrease the sensitivity by pressing FN + “PGDN”. To decrease the sensitivity of the triggers press FN + “Delete”. The LEDs will gradually decrease in brightness as you decrease the sensitivity. The sensitivity settings are maintained individually for F1, F2, and F3 Profiles.

Mouse Speed Control – The speed of the mouse can be increased by pressing FN + “PGUP” and decreased by pressing FN + “PGDN”. There are 16 possible speeds with “5” being the default speed. This can only be adjusted while in the Mouse Profile (FN + “F4”).

Change Deadzone Compensation – Different games use different kinds of “dead zone” (a way to get rid of unintended movement on joysticks). If you find that your movement is strange in some games (for example, you can’t move diagonally as

fast as you are able to when you move forwards, or you can't move in slight directions very easily you can try changing the Deadzone Compensation settings using FN + "END". This will compensate for Axial Deadzones shaped like this:

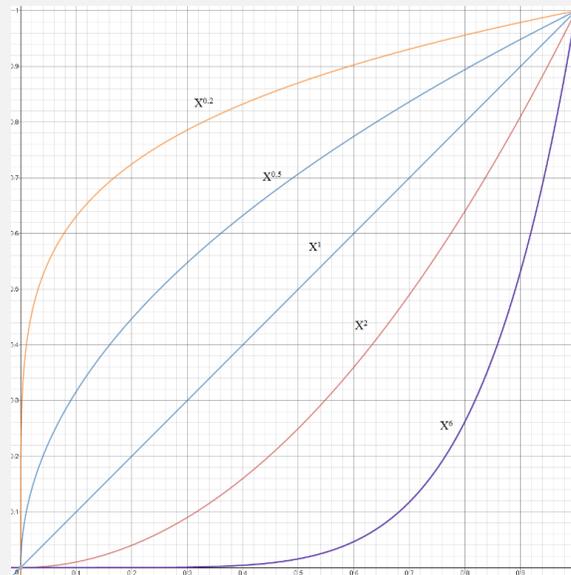


or Radial Deadzones shaped like this:



If you want to know more about what this does ask Lance, he loves talking about this crap. This setting is tracked separately in F1 and F3 Profiles, but is not applicable to the F2 Profile.

Analog Curve Control - This feature is designed to assist you to have more control at the top of the key press or more control at the bottom of the key press. By default there is a direct linear relationship of how far down you press the key and the analog values that are sent to the computer. This is represented as the straight blue line in the graph below:



If you wish to adjust the response so that you have more control at the top of the press (for example the orange line) you can adjust the curve by pressing FN + “Up Arrow”. If you want more control at the bottom of the press (for example, the purple line) you can adjust the curve by pressing FN + “Down Arrow”. When the normal linear setting is selected the LEDs will turn green. The minimum and maximum allowed settings will turn the LEDs red.

The analog curve control and the Sensitivity settings above interact with each other significantly. In order to get the desired response across a variety of games it may be necessary to completely turn off the sensitivity by pressing FN + “PGDN” until the LEDs turn red. Likewise, it may be necessary to significantly increase the sensitivity to still use a curvilinear response but not completely remove the ability to activate movement at the top of the switch. Currently, the analog curve control settings only apply to the WASD/ESDF keys.

This feature is intended for advanced users only. Most users will experience very good results using the default linear setting.

Disable Keypresses at bottom of key press – By default in F1-F3 modes if you press the analog keys all the way down it will send a key press for that corresponding key. This is so that you can still type while using analog control. However, this may occasionally cause problems in some games and it may be desired to completely disable the keyboard key press at the bottom of the key press. This can be done by pressing FN + “HOME”. This setting is tracked independently

for F1,F2, and F3 Profiles, so you can choose which profiles it is active and which it is not.

You can set the activation point of this keystroke by pressing FN + “[” to lower the activation point and FN + “]” to increase the activation point. Please note that the higher that this activation point occurs the less of the 4mm range of the switch can be used for analog functions.

Activation Point Control

First Activation Point – In F5 mode you can set the activation point of the 12 analog keys. By default the activation point is at the very top of the key press. To make the activation at a lower point in the key press you can press FN + “PGDN”. To set it at a higher activation point you can use FN + “PGUP”.

Second Activation Point – In F5 mode you can send a second keystroke using a single key. This can be enabled/disabled per each QWERTASDF analog key. To enable/disable this feature simply press FN and the corresponding analog key you want to enable/disable the second activation point for. For example, if you wanted to enable the secondary activation point under just the “R” key you would press FN+R and the LEDs will turn green letting you know it has been enabled. If you wish to enable it for other keys press FN and then each key you wish to enable the feature for. The activation point of this second press is selected using the FN + “INS” to increase the activation point and FN + “DEL” to decrease the activation point. It is not possible to set the activation point of the second key press higher than the activation point of the first and the keyboard will prevent you from doing so. Currently the “Q”, “W”, “E”, “R” keys will use “U”, “I”, “O”, “P” as the secondary press and “A”, “S”, “D”, “F” will use “J”, “K”, “L”, “,” as the secondary press.

Lighting Effects and Control

Bloom Lighting Effect – Pressing FN + “F8” will start a “Bloom” lighting effect where pretty colors will gradually increase on the analog and then the non-analog keys reminiscent of a couple of blooming electric flowers.

Breathing Lighting Effect – Pressing FN + “F9” will start a “Breathing” lighting effect. The analog keys will remain the set colors for the selected profile but the other normal digital keys will all be lit in white and will gradually increase and decrease in brightness.

Light Show Lighting Effect – Pressing FN + “F10” will start a repeating pattern of varying colors. Caution: Seizure Warning.

Lighting Effect Speed Control – Pressing FN + “-” will decrease the speed of the lighting effects above. Pressing FN + “+” will increase the speed of the lighting effect.

Adjust Color and Brightness of Analog Keys – Pressing FN + “F11” will initially turn off the backlighting of all analog keys. You can then set the color and brightness of these keys based off how far down you press the A, S, and D keys. “A” controls the brightness of Red, “S” controls the brightness of Green, and “D” controls the brightness of Blue. Combining more than one key at a time will allow you to select any color. Pressing all keys at the same time will turn the LEDs white. Once the desired color and brightness is selected pressing “Space” will freeze the

desired color for that current profile. If “Space” is not pressed, after 20 seconds, the mode will exit automatically and use the previously stored color. The LEDs will blink red twice if this occurs. Each of the six profiles (F1-F6) will independently store the color of the keys to the keyboard. For example, if you are in the F1 profile and change the color of the keys to be orange instead of the default blue color, then every time you switch to the F1 profile the LEDs will be orange for the F1 profile instead of blue. *Warning: The “Oh crap” (FN+ESC) feature will restore all LED colors to their default settings.*

Adjust Color and Brightness of Digital Keys – Pressing FN+F12 will initially turn off the backlighting of all digital keys. You can then set the color and brightness of these keys based off how far down you press the A, S, and D keys. “A” controls the brightness of Red, “S” controls the brightness of Green, and “D” controls the brightness of Blue. Combining more than one key at a time will allow you to select any color. Pressing all keys at the same time will turn the LEDs white. Once the desired color and brightness is selected pressing “Space” will freeze the desired color for that current profile. If “Space” is not pressed, after 20 seconds, the mode will exit automatically and use the previously stored color. The LEDs will blink red twice if this occurs. Each of the six profiles (F1-F6) will independently store the color of the keys to the keyboard. For example, if you are in the F1 profile and change the color of the keys to be orange instead of the default blue color, then every time you switch to the F1 profile the LEDs will be orange for the F1 profile instead of blue. *Note: The “Oh crap” (FN+ESC) feature will restore the LED colors to their default settings.*

Calibration and Trim

The analog keys of the Aimpad R5 have been calibrated at the factory. Under normal circumstances it should not be necessary to manually calibrate your keyboard. However, unforeseen circumstances and environmental factors outside of our control may lead to the keyboard starting to drift in one direction causing unintended movement even though the analog keys are not being pressed.

Prior to attempting to recalibrate the keyboard it is recommended to allow the keyboard to reach a fully stable state. For best results *please ensure that the keyboard has been plugged into a computer for at least 30 minutes prior to performing a manual calibration.*

Manual Calibration – To initiate a manual calibration process press the FN + “Scroll Lock” keys. All the analog keys will temporarily be lit in White. In order for the keys to become properly calibrated the keyboard will need to be able to detect the lowest possible values and the highest possible values. You have about 10 seconds to press each of these 12 analog keys all the way down. It is recommended to press each key 2 or 3 times so it gets a good reading of both the top and bottom values of each key. After about 10 seconds the LEDs will return to their previous state and the keyboard should no longer create unintended movement.

Trim – If multiple attempts at a manual calibration does not resolve the issue then it may be necessary to apply “trim” to the keys. If you find that you are drifting in one

direction increasing the trim will throw away values until it no longer drifts. Pressing FN + ">" will add more trim to the keyboard. If you find that you have to press keys down further than you think you should decreasing the trim should help alleviate this to some extent. Pressing FN + "<" will remove trim from the keyboard but may cause unintended movement.

The trim settings above apply to the left and right "sticks" of the F1-F3 modes. If you wish to adjust the trim for the analog "triggers" (for example, the Q and E keys in the F3 profile) this is adjusted using FN + ";" to decrease the trim and FN + "'" to increase the trim.

Please note: In most cases, the Trim feature should only be used as a last resort. Most issues are solved through Manual Calibration and the Sensitivity Features above.

Function Key Reference List

Below is a list of all the function key combinations that enable/disable features on the keyboard. When a feature is activated the LEDs will gradually turn green. When they are deactivated they will turn red and gradually dim. If there are multiple settings for a specific feature (like Sensitivity for example) then the LEDs will be lit in white and gradually increase or decrease as the feature is adjusted. The “default” setting will turn the LEDs green and the maximum and minimum values will turn the LEDs red.

Layer Selection

FN + “~” – Swap Layer Selection key between CAPSLock or Scroll Lock

CAPSLock/Scroll Lock – Switch between Layer 1 selected profile and Layer 2 selected profile

Profile Selection

FN + “F1” – FPS Profile

FN + “F2” – Driving Profile

FN + “F3” – Flight Simulator Profile

FN + “F4” – Mouse Profile

FN + “F5” – MOBA Profile – Hair Trigger Analog Keys

FN + “F6” – Normal Boring Keyboard Profile

FN + “Left ALT” – Swap Key Layout for current Profile

Digital Function Features

- FN + “Space” – Swap select keyboard keys with Xbox buttons
- FN + “Left Shift” – Turn on/off normal “CAPSlock” key
- FN + “P” – Modify Windows Key to function as “P”
- FN + “ESC” – “Oh Crap” Feature – resets all settings to default.
- FN + “J” – Activate Xbox face buttons on IJKL keys

Analog Function Features

- FN + “PGUP” – Increase Sensitivity of Sticks to compensate for Deadzone
- FN + “PGDN” – Decrease Sensitivity of Sticks to compensate for Deadzone
- FN + “INS” – Increase Sensitivity of Triggers to compensate for Deadzone
- FN + “DEL” – Decrease Sensitivity of Triggers to compensate for Deadzone
- FN + “Up Arrow” – Increase Curve of Analog Stick
- FN + “Down Arrow” – Decrease Curve of Analog Stick
- FN + “END” – Swap Deadzone Type between Axial Deadzone/Radial Deadzone
- FN + “R” – Enable/Disable R/F (Layout1) or Q/A (Layout2) Analog keys in F1/F3 Modes
- FN + “Q” – Enable/Disable Q/E (Layout1) or W/R (Layout2) Analog keys in F1/F3 Modes
- FN + “Q” – Enable/Disable “Smooth Scroll” feature in F4 Mode
- FN + “HOME” – Enable/Disable activation of keyboard keys under analog keys
- FN + “[“ – Lower activation point of keypress at bottom of analog keys
- FN + “]” – Raise activation point of keypress at bottom of analog keys

Activation Point Control

- FN + “PGDN” – Decrease Activation Point of first key press in F5 Mode
- FN + “PGUP” – Increase Activation Point of first key press in F5 Mode

FN + “DEL” - Decrease Activation Point of second key in F5 Mode and Keypress in F1-F3 Modes

FN + “INS” – Increase Activation Point of second key in F5 Mode and Keypress in F1-F3 Modes

FN + “QWERTASDF” – Enable/Disable second activation point on the corresponding key

Lighting Effects and Control

FN + “F8” – Bloom Lighting Effect

FN+ “F9” – Breathing Lighting Effect

FN + “F10” – Lightshow Lighting Effect

FN + “-” – Decrease speed of Lighting Effect

FN + “+” – Increase speed of Lighting Effect

FN + “F11” – Modify color of analog keys in current profile using ASD and “Space” to set

FN + “F12” – Modify color of digital keys in current profile using ASD and “Space” to set

Calibration and Trim Control

FN + “SCROL LOCK” – Start Calibration Routine

FN + “>” - Increase Trim on Stick control

FN + “<” - Decrease Trim of Stick control

FN + ” ’ ” – Increase Trim on Trigger control

FN + “ ; “ – Decrease Trim on Trigger control

Troubleshooting

Problem: I have to press the key down further than I think I should. It should respond at the top of the press!

First, try pressing FN + PgUp to increase the sensitivity until the game responds at the top of the key press.

If that doesn't work, try a manual calibration using FN+Scroll Lock as described above.

If that still doesn't work, you might consider changing the color of the LEDs of the analog keys to white (if they aren't already). The calibration process is performed with the LEDs being white. It is often best to keep the same lighting characteristics for consistent performance.

Lastly, you can try decreasing the Trim by pressing FN + "<", just be aware that this may cause unintended movement if the Trim is decreased too much.

Problem: My keyboard is causing my game character or vehicles to move around even though I'm not pressing any of the keys!

First, ensure that the keyboard has been plugged in for at least 30 minutes. Then start a manual calibration process by pressing FN + "Scroll Lock". Press each of the lit white keys 2 or 3 times. If the keyboard is still causing movement press FN + ">" to increase the trim setting until the unintended movement stops.

Problem: I can't figure out what is going on, the settings are all messed up!

Press FN + "ESC" and all user configured settings will return to default.

Problem: I have an issue that cannot be resolved with any of the steps above!

Please contact us at support@aimpad.com