



Cleankeys Keyboard User Guide

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Regulatory information

European Union Directives Conformance Statement

This device complies with the essential requirements and other relevant provisions of directive 2004/108/EC.

FCC Rules – Part 15

Keyboard FCC registration number: XWS-CKPxxW

Wireless Receiver FCC registration number: XWS-CKD

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Industry Canada (IC) Notice

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Keyboard Certification Number IC: 8721A-CKPxxW

Wireless Receiver Certification Number IC: 8721A-CKD

WARNING

Changes or modifications to this equipment not approved by Cleankeys can cause this equipment to not comply with

Part 15 of the FCC rules and void the user's authority to operate this equipment.

Cleankeys corporate address

Cleankeys Inc.
4664 - 99 Street
Edmonton, Alberta
T6E 5H5 Canada
+1-780-702-1473

About the Cleankeys® keyboard

The Cleankeys keyboard is the ideal keyboard and trackpad for infection controlled environments, or any place where the computer keyboard can easily become contaminated.

The Cleankeys keyboard has a smooth top surface made from glass or acrylic. The base is made of Corian® or ABS plastic. This makes it one of the world's easiest keyboards to clean. Just spray and wipe, and your keyboard is spotless in seconds. The Cleankeys keyboard is also extremely resistant to microbial growth.

The keys are both touch and tap sensitive and have an audible click for feedback. The touch sensitivity can be adjusted, allowing Cleankeys to be touched directly or through gloves.

Specifications

Keyboard Size: 14.68" x 5.64" x 0.68" (373mm x 143mm x 17mm)

Wireless Receiver Size: 1.89" x 0.68" x 0.35" (48.0mm x 17.3mm x 8.9mm)

Keyboard Weight: Glass: 2.0 lbs (0.91 kg), Acrylic: 1.6 lbs (0.73 kg)

Wireless Receiver Weight: 0.21 oz (6 gr)

Color: White

Cable: 8 ft. (2.46m)

Interface: USB over Nordic Semiconductor Frequency Agility Protocol Wireless

Keyboard (Charging) Power: 5V @ 1A (max)

Wireless Receiver Power: 5V @ 22mA

Supported operating systems: Windows®, Mac, Linux, Unix

Regulatory approvals: FCC, CE, ROHS, IP65

Mounting option: Three #6-32 inserts spaced in a MIS-D 75 Vesa standard pattern

Operating Environment: 32° F (0° C) to 95° F (35° C)

Warranty: Two year (extended options available)

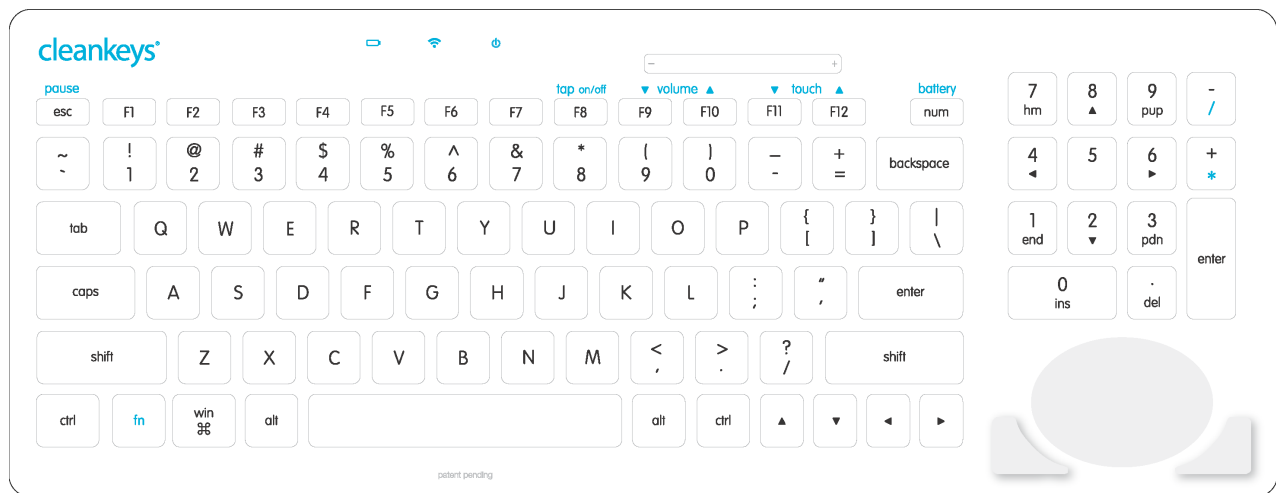
Opening the Cleankeys box

The following items are in your Cleankeys keyboard box.

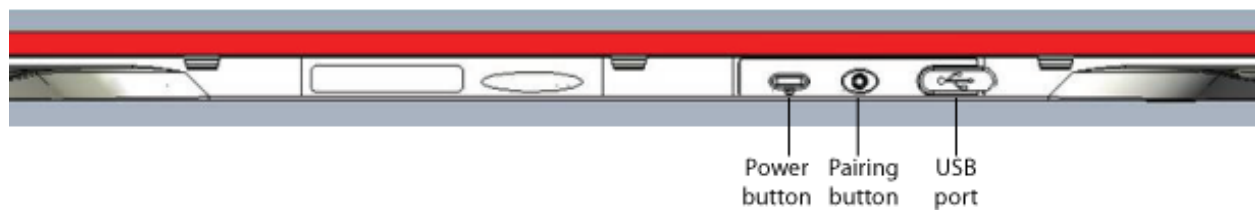
- Cleankeys keyboard
- wireless receiver
- battery charger
- USB cable
- Quick Reference Card

If any of these items are missing, contact you local distributor.

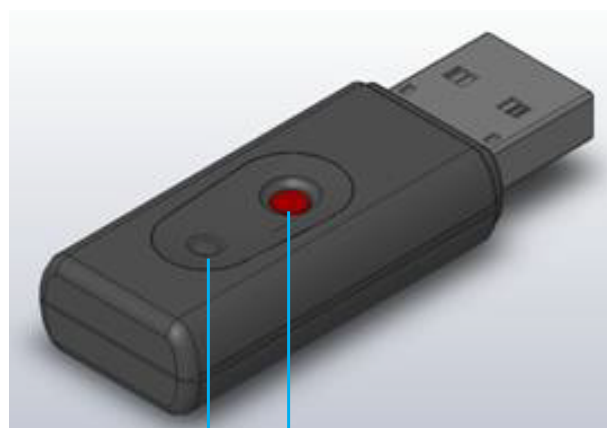
Cleankeys keyboard



Back of the Cleankeys keyboard



Wireless receiver



Pairing
LED

Pairing
button

Connecting your Cleankeys keyboard to a computer

You can connect your Cleankeys keyboard to your computer using a wireless connection or a USB cable.

Connecting your Cleankeys keyboard using a wireless connection

To connect your Cleankeys keyboard using the wireless connection, connect the wireless receiver to your computer and then link the wireless receiver with your Cleankeys keyboard.

Connecting the wireless receiver

1. Turn on your computer.
2. Plug the wireless receiver into a USB port on your computer.
3. Wait for your computer to recognize the wireless receiver.

Linking the wireless receiver to your Cleankeys keyboard

Note: Your Cleankeys keyboard and wireless receiver have been linked at the factory, so you do not have to link them when you first install the keyboard.

1. Press the power button on your Cleankeys keyboard.
If your Cleankeys keyboard does not turn on, the built in battery may need to be charged. See [Charging your Cleankeys keyboard on page 10](#).
2. Press the Pairing button on the wireless receiver.
The LED on the wireless receiver begins to flash.
3. Press the Pairing button on the Cleankeys keyboard.
The wireless LED on the Cleankeys keyboard flashes at least once.
When the wireless receiver and the Cleankeys keyboard have finished pairing, the LEDs on the wireless receiver and the keyboard stop flashing.
Note: You must press the Pairing button on the Cleankeys keyboard within 10 seconds of pressing the Pairing button on the wireless receiver.
4. To verify the Cleankeys keyboard is working, touch the **[caps]** key.
The **[caps]** LED will light if the Cleankeys keyboard is recognized by the computer.

Connecting your Cleankeys keyboard using the USB cable

1. Turn on your computer.
2. Plug the smaller end of the USB cable into the USB port on your Cleankeys keyboard.
3. Plug the larger end of the USB cable into a USB port on your computer.
4. Press the power button on your Cleankeys keyboard.
5. Wait for your computer to recognize your Cleankeys keyboard.
6. To verify the Cleankeys keyboard is working, touch the **[caps]** key.
The **[caps]** key LED will light if the Cleankeys keyboard is recognized by the computer.

Mounting

You can choose to place your Cleankeys keyboard on a counter top or you can mount the Cleankeys keyboard to a wall or bracket.

There are three #6-32 mounting inserts on the bottom of Cleankeys keyboard. These inserts are compatible with the RAM-Mount 101 system. Using these mounting inserts, you can mount the Cleankeys at any angle, including vertical.

Using your Cleankeys keyboard

Your Cleankeys keyboard has several features that are not found on standard keyboards.

Typing on your Cleankeys keyboard

Although the keys on the Cleankeys keyboard do not move, you use the same typing technique on the Cleankeys that you use on a standard keyboard.

The Cleankeys keyboard accomplishes this by combining touch sensing and tap sensing technology. With touch and tap sensing, unlike just touch sensing, you must tap the keys with your fingers to type a characters. This not only provides a more familiar feel, it also allows you to rest you fingers on the keyboard.

Touch sensing

The Cleankeys keyboard uses touch capacitance technology to sense the touch of a human finger. This means that you must use your fingers to touch the keys. Touching or tapping the keyboard with another object, a pencil for example, will not activate a key.

However, you can use the Cleankeys keyboard with surgical gloves, or any type of glove for that matter. Just adjust the touch sensitivity accordingly. See [Changing the touch sensitivity of the keys on page 11](#).

Tap sensing

When tap sensing is turned on, you must tap the key you want to type, not just touch the key.

When tap sensing is turned off, the Cleankeys keyboard uses only touch sensing to sense a keystroke. If tap sensing is off, do not rest your fingers on the keyboard. If you do the Cleankeys will type each key that you touch.

Tap sensing is disabled at the factory. For information about turning tap sensing on, see [Turning tap sensing on or off on page 12](#).

Key indentations

The surface of the acrylic Cleankeys keyboard has shallow indentations over each key. These indentations help you locate the position of the keys without looking at the keyboard.

The surface of the glass Cleankeys keyboard does not have these indentations.

Low Battery Mode

The red Battery LED at the top of the keyboard begins to flash when the battery charge is low.

The red LED flashes slowly (about once per second) when there is 20% of the battery power remaining. The red LED flashes more quickly (about twice per second) when there is 10% of the battery power remaining.

This feature is only available when you are using a wireless connection for the Cleankeys keyboard.

Pausing your Cleankeys keyboard

Before you clean or disinfect your Cleankeys keyboard, you should pause the keyboard. When the keyboard is paused, it does not send characters when the keys are touched or tapped. This allows you to clean the keyboard surface without inadvertently pressing keys.

To pause the Cleankeys keyboard, touch **fn** and then **esc**.
The pause LED flashes when the keyboard is paused.

When you are finished cleaning the keyboard, touch **fn** and then **esc**.
The pause LED turns off.

Cleaning

The Cleankeys keyboard is made from ABS plastic and acrylic, or Corian® and glass. You can clean it with anything suitable for those surfaces. For the glass or acrylic, use a standard glass cleaner (such as Windex®). For the base, use any standard counter-top cleaners (such as Vim®). **Do not use abrasive cleaners on the keyboard.**

The Cleankeys keyboard is splash-proof, but should not be immersed in water.

Before cleaning the keyboard, touch **fn** and then **esc** to pause keyboard operation. The pause LED flashes when the keyboard is paused.

After you have finished cleaning keyboard, touch **fn** and then **esc** to return the keyboard to normal operation. The pause LED turns off.

Disinfecting

You can disinfect the Cleankeys keyboard with any standard disinfectant solution, including CaviCide®, Opti-Cide3®, and SciCan Optim®. Be sure to touch **fn** and then **esc** to pause the keyboard operation before disinfecting the Cleankeys keyboard. When you are finished, touch **fn** and then **esc** to return the keyboard to normal operation.

Infection control

Cleankeys is a unique computer keyboard for use in any environment where there is a high risk of contamination. Unlike hygienic keyboard competitors, Cleankeys incorporates a smooth, flat, non-porous surface that is easy to clean. It can be wiped clean in seconds, substantially increasing infection control and reducing staff time spent cleaning the keyboard.

Although the key indentations are easy to find with your fingers, they are shallow enough that they do not create cleaning shadows on the surface.

The integrated trackpad on the Cleankeys keyboard also provides significant advantages over a separate keyboard and mouse. Not only is there only one device to clean and disinfect, the trackpad is easier to clean than a mouse. A single device also reduces the risk of cross contamination.

Checking the battery level

To check the amount of charge that is left in the Cleankeys keyboard battery, touch **fn** and then **num**. The indicator LEDs, in the box labelled with - and +, light to indicate the current battery level. The number of LEDs that light indicates the amount of charge in the battery. If all 5 LEDs turn on, the battery is fully charged. If only LED 1 turns on, you need to recharge the battery soon.

Charging your Cleankeys keyboard

Your Cleankeys keyboard has a built in rechargeable battery. This battery provides power to your Cleankeys keyboard when you are using a wireless connection.

When you are using a USB cable to connect your Cleankeys keyboard, the USB port on your computer provides the power for your Cleankeys keyboard. The USB port also charges the Cleankeys keyboard battery. If the USB port is charging the battery, the red battery LED is lit. When the battery is fully charged, the green battery LED is lit.

To charge your Cleankeys keyboard battery using the charger:

1. Plug the charger into a wall outlet.
2. Plug the wide end of the USB cable into the charger.
3. Plug the small end of the USB cable into the USB port on the keyboard.
When the battery is charging, the red battery LED is lit.
When the battery is fully charged, the green battery LED is lit.

Changing the Cleankeys keyboard volume

The Cleankeys keyboard uses sound to indicate various actions, such as key presses. You can adjust the volume of these sounds to match your personal preference or working environment.

To change the volume of the Cleankeys:

1. Touch **fn** and then **F9** or **F10**.
The indicator LEDs, in the box labelled with - and +, light to indicate the current volume level.
The number of LEDs that light indicates the current volume level. If all five LEDs turn on, the volume is high. If only one LED turns on, the volume is low.
2. Hold **fn** and touch **F9** to lower the volume of the Cleankeys keyboard.
Hold **fn** and touch **F10** to increase the volume of the Cleankeys keyboard.
To turn the volume of the Cleankeys keyboard off, hold **fn** and touch **F9** until all five LEDs are off.

Changing the touch sensitivity of the keys

The Cleankeys keyboard uses touch capacitance technology to sense the touch of a human finger. You can change how sensitive the Cleankeys keyboard is touch by changing the touch sensitivity. Typically, you will need to increase the sensitivity if you have gloves on when using the Cleankeys keyboard.

You can set the touch sensitivity to a value from 1 to 5. When the touch sensitivity is 5, the Cleankeys keyboard can sense a very light touch. When the touch sensitivity is 1, more contact with the key is needed.

To change the touch sensitivity:

1. Touch **fn** and then **F11** or **F12**.
The indicator LEDs, in the box labelled with - and +, light to indicate the current touch sensitivity.
The number of LEDs that light indicates the touch sensitivity level. If all five LEDs turn on, the touch sensitivity is high. If only one LED turns on, the touch sensitivity is low.
2. Hold **fn** and touch **F11** to lower the touch sensitivity.
Hold **fn** and touch **F12** to raise the touch sensitivity.

You can change the touch sensitivity of the Cleankeys keyboard, but you cannot turn touch sensing off.

Turning tap sensing on or off

As well as sensing touch, the Cleankeys can sense a tap on the keys. When tap sensing is turned on, you must tap the key you want to type, not just touch the key.

To turn tap sensing on or off:

1. Touch and hold **fn**.
The current state of tap sensing appears on the LED above **tap on/off**. If the LED is on, tap sensing is on.
If the LED is off, tap sensing is off.
2. If you want to change the current state of tap sensing (either from off to on, or on to off), touch **F8**.

Updating the Cleankeys keyboard firmware

Firmware is the software that is installed on your Cleankeys keyboard. This firmware provides the features and functionality that is available on the keyboard. Occasionally, the firmware may need to be updated to provide additional functionality or improve performance.

To update the firmware, you need the Cleankeys Update Utility.

Installing the Cleankeys Update Utility

The Cleankeys Update Utility is available from the Cleankeys web site.

Before you install the Cleankeys Update Utility, make sure that your computer is using the Windows XP, Windows Vista or Windows 7 and has the .Net Framework 2.0 or later installed. As well, you must ensure that your firewall software allows basic web connections while the utility is running.

1. Go to the Cleankeys web site (www.cleankeysinc.com).
2. Click the link to go to the download page.
3. Download the Cleankeys Update Utility to a folder on your computer.
4. Double-click the downloaded file and follow the instructions to install the utility.

Using the Cleankeys Update Utility

1. Connect your Cleankeys keyboard to your computer using a USB cable.
2. Check the Cleankeys keyboard power light to ensure the keyboard is turned on. If the power light is not on, press the power button to turn on the Cleankeys keyboard.
3. Launch the Cleankeys Update Utility.
The Welcome screen appears.
4. Click the **Next** button.
The Select Update Method window appears.
5. Click the **Automatically Download Latest Firmware** option.
6. Click the **Next** button.
The Cleankeys Update Utility starts downloading the latest version of compatible firmware for the attached keyboard.
7. When the Confirm Update window appears, click the **Next** button.
The Cleankeys Update Utility starts to update the keyboard. When the update is complete, the Cleankeys keyboard resets and starts using the new firmware.
8. When the Update Successful window appears, click the **Finish** button.

Using the Cleankeys Update Utility to manually select the firmware version

If you want to install a specific version of the Cleankeys firmware, you can choose to select the firmware to install. The version of firmware you want to install must be on your computer. These files have **cup** as a file extension.

CAUTION:

Due to different keyboard layouts and functions, it is crucial that you select a firmware version that is compatible with your Cleankeys keyboard. Updating your keyboard with an incompatible firmware version can result in erratic behavior and/or the disabling of features. It can even cause your keyboard to stop functioning. If you choose to use manual updates, you must do so with caution and only under the advice of someone familiar with Cleankeys keyboards.

1. Connect your Cleankeys keyboard to your computer using the USB cable.
2. Check the Cleankeys keyboard power light to ensure the keyboard is turned on. If the power light is not on, press the power button to turn on the Cleankeys keyboard.
3. Launch the Cleankeys Update Utility.
The Welcome screen appears.
4. Click the **Next** button.
The Select Update Method window appears.
5. Click the **Browse Computer for Firmware** option.
6. Click the **Next** button.
The Get Firmware window appears.

7. Move to the folder that contains the firmware and then click on the firmware you want to install.
8. Click the **Next** button.
The Cleankeys Update Utility starts downloading the firmware for the attached keyboard.
9. When the Confirm Update window appears, click the **Confirm** button.
The Cleankeys Update Utility starts to update the keyboard. When the update is complete, the Cleankeys keyboard will reset and start using the new firmware.
10. When the Update Successful window appears, click the **Finish** button.

Troubleshooting

If your Cleankeys keyboard is not working as you expect, try one of the following procedures to correct the problem.

The keyboard does not type and is connected using a USB cable

1. Check the Cleankeys keyboard power light to ensure the keyboard is turned on. If the power light is not on, press the power button to turn the Cleankeys keyboard on.
2. Check the pause light to see if the keyboard has been paused. If pause light is flashing, touch **[fn]** and then **[esc]** to unpause the keyboard.
3. Try changing the touch sensitivity level of the keyboard to its highest level (level 5).
4. Check the USB cable to make sure it is properly connected to both the Cleankeys keyboard and the computer.
5. Check the operating system's USB device table (for example, Device Manager for Windows) to make sure the keyboard is enumerated properly as an HID. Refer to your operating system user manual or help file for information about how to check the HID.
6. Windows, and some other operating systems, may cache the USB Descriptor tables and it is possible for these tables to get corrupted. If this happens, remove the Cleankeys entry from the table and restart the computer.

The keyboard does not type and is using a wireless connection

1. Check the Cleankeys keyboard power light to ensure the keyboard is turned on. If the power light is not on, press the power button to turn the Cleankeys keyboard on.
2. Check the wireless LED on the keyboard. The wireless LED flashes when there is a problem with the wireless communication.
3. Check that the wireless receiver is plugged into the computer and enumerated properly as an HID device. Refer to your operating system user manual or help file for information about how to check the HID.
4. Check the pause light to see if the keyboard has been paused. If pause light is flashing, touch **[fn]** and then **[esc]** to unpair the keyboard.
5. Try changing the touch sensitivity level of the keyboard to its highest level (level 5).
6. Try to link the keyboard and the wireless receiver. See [Linking the wireless receiver to your Cleankeys keyboard on page 7](#).
7. Windows, and some other operating systems, may cache the USB Descriptor tables and it is possible for these tables to get corrupted. If this happens, remove the Cleankeys entry from the table and restart the computer.

The wireless receiver does not flash during pairing

1. You should feel a click, when the Pairing button is pressed. If you do not feel the click, try using a paperclip or pin to press the button.
2. Remove the wireless receiver from the USB port and plug it back in. Verify if the wireless receiver has been enumerated.
3. Remove the wireless receiver from the USB port and plug it into a different USB port. Verify if the wireless receiver has been enumerated.
4. Unplug the wireless receiver from the USB port. Remove the existing HID entry from the HID table cache (for example, the Windows Device Manager). Restart the computer. Plug the wireless receiver into a USB port.

The keyboard does not flash during pairing

1. Verify that the keyboard is not connected to the computer using a USB cable. Connecting a USB cable between the keyboard and computer disables the wireless connection. The keyboard can be paired with the wireless receiver when the charger is connected to the keyboard.
2. Check the Cleankeys keyboard power light to ensure the keyboard is turned on. If the power light is not on, press the power button to turn the Cleankeys keyboard on.
3. Verify that the keyboard has enough battery power. See [Checking the battery level on page 10](#).

The keyboard does not pair with the wireless receiver

1. Check that the wireless receiver is plugged in a USB port on the computer.
2. Check the Cleankeys keyboard power light to ensure the keyboard is turned on. If the power light is not on, press the power button to turn the Cleankeys keyboard on.
3. Make sure you press the Pairing button on the keyboard within 10 seconds of pressing the Pairing button on the wireless receiver.

The keyboard does not charge when connected using a USB cable

1. Check to make sure that the computer is turned on and is not in standby or sleep mode. These modes do not provide enough power through the USB cable to charge the Cleankeys keyboard battery.
2. Check that the USB cable is properly connected to both the Cleankeys keyboard and the computer.

The keyboard does not charge when connected to the charger

1. Make sure you use only the charger that came with your Cleankeys keyboard. The battery light will flash if the charger is not the designated Cleankeys keyboard charger.
2. Check that charger is plugged into the wall and the USB cable is properly connected to the keyboard and the charger.
3. If the LED on the charger flashes, it indicates an error.

The keyboard does not make any sound

1. Touch **[fn]** and then **[F9]** to check the volume setting of the Cleankeys keyboard.
2. Touch **[fn]** and then **[num]** to check that the battery level on the Cleankeys keyboard.
Charge the battery if the battery level is low.

The keyboard does not turn on

The battery level may too low to power the keyboard. Charge the battery. See [Charging your Cleankeys keyboard on page 10](#).

If you would like to continue working while the battery is charging, connect the charger to the Cleankeys keyboard and press the power button twice.

The caps or num light does not turn on

Pressing the caps or num key changes the Caps Lock or Numlock mode in the operating system. The lights on the caps and num keys are turned on or off to reflect the mode in the operating system.

1. Check the Cleankeys keyboard power light to ensure the keyboard is turned on. If the power light is not on, press the power button to turn the Cleankeys keyboard on.
2. Check that the Cleankeys keyboard is connected to the computer using either the USB cable or the wireless receiver.
3. Check that the operating system is not stalled or frozen.

The numeric pad does not type numbers but moves the cursor

Check to see if the keyboard is in Numlock mode.

The keyboard types but the trackpad does not move the cursor

Check that the trackpad HID is not disabled in the Device Manager.

The Cleankeys Update Utility cannot find the Cleankeys keyboard

When you start the Cleankeys Update Utility it searches for a specific USB device that has been enumerated with a predefined Vendor ID and Product ID.

1. Verify that the Cleankeys keyboard is plugged into the computer with a USB cable.
2. Try to get the system to re-enumerate the keyboard by unplugging the USB cable and plugging it back into the keyboard.
3. Check the Cleankeys keyboard power light to ensure the keyboard is turned on. If the power light is not on, press the power button to turn the Cleankeys keyboard on.

The firmware is incompatible

The Cleankeys Update Utility is designed to check for compatibility between the firmware selected and the device. It will prevent any firmware updates that are not compatible with the device that is plugged in.

After updating the firmware, the keyboard is behaving strangely

Check to make sure that the firmware update is compatible with the keyboard. It is possible to force a specific firmware update by downloading a firmware update and then selecting the option to manually upload that firmware to the keyboard.

Firmware updates fail repeatedly on the keyboard

The update utility uses some basic read and write operations to upload the firmware to the keyboard. If the update fails in the middle of this process repeatedly, this indicates that there is something wrong with the device hardware itself. Please consult Technical Support.

