

# TROUBLESHOOTING

## Weather Flow Tempest system and smart weather stations

### Troubleshooting / Hub Fix up Issues

#### Hub not found

If you get a "Hub not found" error message ...

- Be sure to enter the hub serial number when prompted and not the sensor device serial number.
- Make sure the app has permission to use Bluetooth on your device. Enable Location Services on Android devices.
- Turn off Bluetooth on other nearby devices. The hub could connect to other nearby BLE devices, laptops, smartwatches, etc.

If the problems persist, follow these steps:

1. Restart your smartphone or tablet.
2. Unplug the hub for 10 seconds and plug it back into the device power loop. It will take a few moments to restart.
3. Enable Bluetooth on your smartphone or tablet and stay close to the Hub.
4. Open the app and proceed with the configuration of the station in the app.

#### Additional Tips

**For Android Devices:** Activate localization services. Enabling localization services is required to search for Bluetooth devices.

**For iOS devices with the new iOS 13:** after the new IOS 13 update, the Bluetooth authorization may be disabled. Make sure that the app has the Bluetooth authorization. Go Settings> Scroll down and find the Tempest App and activate "Bluetooth Sharing" for the application.

#### Tempest device not found

The Tempest device must be in association mode before connecting to the hub. The coupling mode is indicated by a green LED flashing slowly on the base of the unit.

1. Remove the mounting attachment.

2. Based on the device, hold down the cancellation button next to the power switch until the LED blinks.
3. After a few seconds, the LED will flash slowly in green, pointing to it is ready for coupling to a hub. Continue with the configuration procedure in the app.

### Additional suggestions

If the LED on the unit base does not light up at all, there may be a low battery problem. **Make sure your device is switched on and place it outdoors** with solar panels facing the sun. The Tempest device can be loaded enough within a few hours. Check the LED again.

If the LED is not slowly blinking green, reset the device to put it in pairing mode.

1. Press and hold the clear button on the base of the unit and release it when the LED flashes green. Using the SKY solar panel accessory: The solar power accessory should be sufficiently charged to supply power to the SKY unit out of the box. Use a thin tool to go through the slot in the solar panel and press and hold the clear button and release when the LED flashes green.
2. Continue with the setup process in the app.

### **The app cannot find my AIR / SKY device**

- 1) Open the battery door and check the batteries, make sure they are new and inserted correctly. Using the SKY solar panel accessory: If you are using the SKY solar panel accessory, check the voltage available in the app. See Batteries in AIR & SKY [Batterie in AIR & SKY](#) for more information.
- 2) Close the battery door - after a few seconds the LED button will slowly flash green, waiting for connection to the Hub. Follow the setup procedure in the app. If the light does not slowly flash green, press and hold the LED button for five seconds, release it when the LED flashes green. Continue with the setup in the app. Using the SKY Solar Panel Accessory: The solar panel should have adequate charge out of the box. Use a thin tool to go through the slot in the solar panel and press and hold the LED button for five seconds, then release it when the LED flashes green. Continue with setup in the app.

### **Bluetooth connection issues**

#### **"Hub not found"**

If you receive an "Hub not found" error message ...

- Make sure you enter the UH series sector and not the serial number of the sensor device.
- Make sure that the app has the authorization to use Bluetooth on your device.
  1. Restart your smartphone or tablet.
  2. She stops the hub for a moment and reconnect it to the power supply cycle. Wait a minute to restart completely.
  3. Enables Bluetooth on your smartphone or tablet and are near the hub.
  4. Open the app and wait for the blue LED to turn on the back of the hub.
  5. Proceed with the station configuration in the app.

### Additional Tips for Bluetooth Connection

- **for Android Devices:** Enable localization services.
- Enabling localization services is required to search for Bluetooth devices.
- **For iOS devices with the new iOS 13:** after the new IOS 13 update, the Bluetooth authorization may be disabled. Make sure that the app has the Bluetooth authorization. G O Settings> Scroll down and find the Tempest App and activate "Bluetooth Sharing" for the application.

## WIFI Network Connection

### Wifi Not Found

If you have problems with your WiFi network, try the following suggestions ...

- Tap "Update" at the top right on the Wi-Fi configuration screen in the Tempest app.
- Make sure the router sends a 2.4GHz band network. **The hub only communicates on a 2.4GHz network that offers a greater reach of 5 ghz.** The hub does not require a large or fast data transfer.
- Restart your hub and your WiFi router as well as any range extender.
- If your network is hidden, choose **Manual Configuration** and Enter the SSID.
- If anything this helps and you can confirm that your network is transmitting, choose **Manual Configuration** and Enter the SSID.

### The hub can not connect to the WiFi

- If the message "Hub unused connected" is displayed, see Bluetooth Connection issues [Problemi di connessione Bluetooth](#).
- **Check your password and try again.**

- The hub connects only to 2.4GHz band networks. Make sure your router is transmitting a 2.4GHz network.
- The hardware restarting many problems: **Restart the hub, network router, and any range extender. Disconnect for a moment and then reconnect them.** Then try the WiFi configuration in the Tempest app.
- Completely app full app, make sure to leave the background. Check the LED on the hub. If it is blue, it means that the app is not fully closed or that the hub is connected to another Bluetooth device. Disables bluetooth on nearby devices and turn off and on the hub, disconnect and reconnect it. Wait a minute to the hub restart completely. The LED on the UB should be red. Repair the app and wait for the blue LED on the hub. Go to Settings> Stations> Choose Your Station> Wifi Configuration> Next> Follow steps in the app to connect to your WiFi network.

### Additional tips for wifi connection

- Check your router settings. **The hub does not support the WEP security protocol.** Change the protection to the router from WEP to WPA. Some less routers may still use a obsolete WEP security and not just as sure.
- **The hub does not support business networks.**
- Try to configure a guest network if your router is able to do it. See the router user manual for specific instructions. Some models may have the administrator access information on a sticker on the router itself.
- **The mesh network** can cause connection problems with the hub. If you use multiple access points, temporarily close all access points except one, locate the hub closest to the "Main" access point and try the Wi-Fi configuration again.

### The hub loses WiFi connection - "Offline Station"

- **Move the Hub closer to the router.** Check the RSSI value which is an indicator of the signal strength: go to settings> stations> (select station)> tap the Status line and write down the RSSI value for the Hub. A weak signal would be between -85 and -100. If you have a weak signal, consider placing the hub closer to the router.
- **Restarts your hub, your WiFi router and all range extender / access points.** Wait the hub to re-automatically re-select, the LED will become green, if the app is open on any device will show a blue LED. The manually registered to WiFi, open the Tempest app> Go to Settings> Stations> (Select Station)> WiFi Configuration> Follow Steps to Reconnect the Hub of the Station to your Wizard Network 2.4 GHz.
- **Check the power.**

- Verify that the cable and power supply are securely connected.
- **Connect the hub to the main access point** that will offer a much more stable connection than when connecting to an extender range. Disconnect all range extender to avoid confusion on which network connect.
- If the problems persist, try to delete the saved WiFi connection and proceed. To clear the saved WiFi connection, while the hub is powered, press and hold the reset button on the back of the hub with a toothpick or a clip and release the button when the LED flashes.

## **Hub Status Indicators**

**GREEN:** Hub connected to WiFi and Station Online. Everything good!

**BLUE:** Hub connected to Bluetooth (BLE)

- Occurs when the mobile app is open on a nearby device.
- The status of the BLE connection overrides the status of the WiFi connection.

**Flashing BLUE + CYAN** = Hub is in pairing mode.

**RED:** the hub is powered but not connected via Bluetooth or WiFi.

## **Troubleshooting the device (Tempest)**

To troubleshoot measurement accuracy, i.e. temperature, humidity, pressure, wind, rain, lightning, see Tempest - Device Observations <https://help.weatherflow.com/hc/en-us/articles/360050050673>.

## **The Tempest does not report current data**

### **1. Tempest device has lost power**

- Check the app to see if the device is powered. The voltage reading in the app for the Tempest device should be above 2.35 volts. Make sure the solar panels get direct sunlight to charge.

### **2. The Tempest device has disconnected from the station hub**

- Check the RSSI value, which is an indicator of signal strength. Go to settings> stations> (select station)> tap the Status menu> scroll down and make a note of the RSSI value for the connected device. A weak signal would be between -85 and -100. If the last reported RSSI is poor, consider moving the hub closer to the device, which may be easier than repositioning the sensor device.

- Turn the Tempest sensor device off and on again: remove the base attachment on the bottom of the unit, turn off the switch for a moment and then turn it back on. You should see a green LED that flashes quickly if the device reconnects to the hub successfully.
- Try resetting the hub radio:
  1. Disconnect the hub.
  2. Using a thin tool, press and hold the reset button on the back of the hub.
  3. Press and hold the button and reconnect the hub.
  4. Wait for the blue LED on the back of the hub, then release the button.

### **3. Status of faulty sensors or one or more sensors are not reporting, "-" displayed in the device observation display.**






- **If your Tempest device is connected to the Hub and is powered but still not reporting any data from a particular sensor, (temperature, pressure, wind, UV) check the status menu in the app for technical information from the device:** settings> stations> choose your station> scroll down and tap the status menu> scroll to connected device> take note of the sensor status message down. If you see a faulty sensor status in the app, please restart your device to try to fix the problem.
  1. Remove the Tempest device from its mounting attachment.
  2. Turn off the power switch for a moment and then turn it back on.
  3. Wait for the status LED. To check the LED status, press the button once to display a light. See the LED status indicator references below.

If you see a faulty sensor status in the app or a red LED on the device itself, please contact us <https://help.weatherflow.com/hc/en-us/requests/new> for assistance. Please do not delete the device from the Station Hub.

### **Tempest device LED status indicators**

The Tempest device LED will not remain illuminated, even when powered. To activate the LED status indicator, press the translucent button on the base of the unit once next to the power switch.



Light Pattern	When?	Meaning	Duration
	Initial state OR following reset*	All good but not joined	15 min
	On joining to hub	Successful join to hub	5 sec
	On boot OR after button tap	Joined, all good	5 sec
	On boot OR after button tap	Joined, no connection	5 sec
	On boot OR after button tap	Bad sensor**	5 sec

**RED LED:** sensor fault; the state replaces all other states. If you see a failed sensor status in the app or a red LED on the device itself, check the Tempest device troubleshooting steps above. Contact us <https://help.weatherflow.com/hc/en-us/requests/new> for assistance if you can't solve the problem.

1. Try turning the unit off and on again; For AIR, open and close the battery door. For SKY, disconnect and reconnect the solar power accessory. Check the status again: Press the clear button on the base of the unit for an indicator light. Do you use the SKY solar accessory? Use a thin tool to go through the slot in the bottom of the solar power accessory and press the LED button.
2. If your unit still has a bad sensor status (red LED) you may need to contact us <https://help.weatherflow.com/hc/en-us/requests/new> for assistance.

**PURPLE LED:** The device has not connected properly to a hub. Reset the device and reconnect it to the Station Hub:

1. Remove the mounting attachment from the Tempest device.
2. On the base of the device, press and hold the translucent button next to the power switch until the LED lights up flashes.
3. After a few seconds, the LED will slowly flash green, indicating it is ready to pair with a Hub.
4. Open the app, go to settings> stations> (select your station)> manage devices> tap "+" to add the device to the station Hub.

**GREEN LED:** the device is associated with a Hub.

The Tempest device should be connected and reporting data to the station hub. If you have a green status and don't see any minute-by-minute observations, you may need to reset and re-pair your device:

1. Reset the drive: Press and hold the clear LED button next to the battery door for five seconds, then release it when the LED flashes green.

2. Using the SKY Solar Panel Accessory: Use a thin tool to go through the slot in the solar panel and press and hold the LED button for five seconds, then release when the LED flashes green.
3. Reboot the hub - Unplug the hub for a few moments, then reapply power.
4. Add the device to your station again: go to Settings> Stations (select station)> Manage devices> tap "+" (top right) to add the device and follow the procedure.

## Merging Stations or Replacing Hubs

This guide is intended for:

- merging US & Canada versions of the AIR & SKY devices onto a new Hub (station)
- replacing an old Hub with a new Hub

### Procedure:

1. **Retrieve the old hardware:** Unplug the old hub. Physically retrieve the sensor device(s) that you want to migrate to the new station.
2. **Delete the old station:** Open the app, go to settings > stations > slide the old station left, then confirm delete.
3. **Create a new station:** In the app, set up a new station with the new Hub.
  - At this point, you can add any new devices that have never been paired to either Hub (Tempest).
  - If you don't have any new devices to pair to the Hub, proceed to step 4.
4. **Reset and add the old devices to the new Hub:**
  - If you don't have any old devices to pair to the Hub, proceed to step 5.
  - Reset each device:  
Press & hold the translucent button on the base of each device until you get a flashing green LED. The LED will then slowly blink green indicating the device is ready to pair to a new Hub.
  - Add device(s) to the new station Hub:  
In the app, go to settings > stations > choose the new station > manage devices > tap "+" in the top right corner and add each device.
5. **Reinstall the devices:** You can install the device(s) outdoors once you confirm data is reporting in the app. You're done!
6. **Contact Us.** Once you're up and running, please [contact us](#) and we'll merge the data and calibration settings from the old station into the new station. Be sure to include the email address you use to sign in to the Tempest app. (This step is technically optional - if you don't need or want to merge your old data, you can stop at step 5)



## **For European and Australian/NZ versions of the Smart Weather Stations**

Originally, we expected complete compatibility with the original AIR and SKY devices with the new Tempest Hub. To our surprise, we discovered that this would not be possible due to some radio communication issues. The old AIR and SKY devices will not be able to be added to the new Hubs. We actually knew this would be a limitation with Australian versions of the devices due to recent changes of RF standardization but the incompatibility was unanticipated for European versions.

The only consequence of this is that owners of the original Smart Weather Station will need to keep the AIR and SKY operating on the old Hub. You can still operate multiple stations (Hub + devices) on your account; two Hubs, two stations with AIR + SKY on the old Hub and Tempest on the new Hub.

## **Re-linking the new station's WU data feed**

You can easily use the same WU PWS station ID and Key - first unlink the old station on your account on the web: <https://tempestwx.com>

When the new station is set up and reporting, re-do the WU data feed on the website and use the same ID and key to link them. You'll need to grab the WU PWS ID and key from your account on WU under your weather station profile.

**REALIZED BY IVAN COMPARETTO**