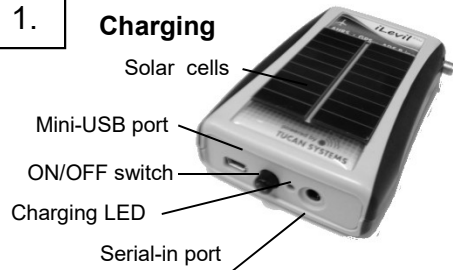


## INSTALLATION INSTRUCTIONS

1.


### Charging



- Do NOT turn on your device until the initial charging period is completed.
- Connect the USB cable supplied with your device to a 5V USB power supply and the other side to the iLevel. Charging may take up to 4 hours.
- The LED next to the ON/OFF switch indicates if the device is charging. When the LED goes off, the battery is fully charged.
- The solar panels help recharge the batteries when exposed to sunlight. Although the amount of power is small compared to USB power, they will extend the battery during flight when the iLevel is exposed to sunlight (~ 30 minutes).

2.

### Alignment

- Find a location that will allow the iLevel to have a clear view of the sky and “line-of-sight” to ADS-B ground stations and other aircraft around you.
  - Align the airplane drawing on the iLevel’s top label with the roll axis of your aircraft. 
  - The solar cells should face up (towards the sky)
  - Install the iLevel on a surface that is LEVEL with the horizon DURING un-accelerated, straight and level flight. It is ok if it isn’t level when on the ground (i.e tail draggers).
  - Install as far away from ferrous metals. The internal compass will slowly learn your aircraft configuration during flight to compensate for magnetic deviations. If unable to obtain a good heading, try repositioning the iLevel and perform a complete reset.
  - Attach the ADS-B antenna supplied with the iLevel. An external antenna can also be used. See our website for antenna options.
- Note:** DO NOT rely on the iLevel for attitude & heading, if it was not aligned as specified above.

3.

### Communication



#### WiFi (Apple and Android devices)

- Turn on the iLevel by pushing the on/off switch
- Go to WiFi Settings and connect your tablet to the iLevel-xxxx network. (NOT Bluetooth)
- Wait 10 seconds for connection to be established
- Run your App.

Note: Some Applications may not support all the features of the iLevel. Go to [www.aviation.level.com](http://www.aviation.level.com) to determine your apps’ capabilities. Also, some apps require additional steps to connect to the iLevel. You must check with your software provider what additional steps are required.

## TIPS

- Let the AHRS stabilize in place for 2 minutes before flight. If the iLevel is restarted during flight, it is recommended to keep a stable flight condition for the first 2 minutes to let the gyros stabilize.
- DO NOT switch the iLevel ON/OFF button swiftly. When resetting your device, let the capacitors inside drain for 2 seconds, then turn on your device again. Failure to do so will cause the AHRS to fail and display inaccurate readings.
- Check the website for future firmware updates. We are always integrating new hardware and software.
- Magnetic heading compensation starts after the 2 minutes of stabilization. The airplane must be turning for the compass to calibrate itself. Use GPS heading if unable to achieve reliable magnetic heading.
- In most locations, it is not possible to receive ADS-B information unless you are airborne (typically above 2000 feet)

## SPECIFICATIONS

### AHRS

- 360 deg pitch and bank operation
- GPS independent attitude
- 300 deg/sec max turn rate
- 4Gs max rating
- Output:  
Roll, pitch, magnetic heading, slip indicator, rate of turn, G meter.

### ADS-B in (978 MHz)

- Receives regional and continental NEXRAD reports broadcasted by ADS-B towers within range. (regional every 2.5 minutes, continental every 15 minutes)
- Receives traffic reports broadcasted by near-by ADS-B towers and airplanes operating 978 MHz ADS-B out transponders

### GPS

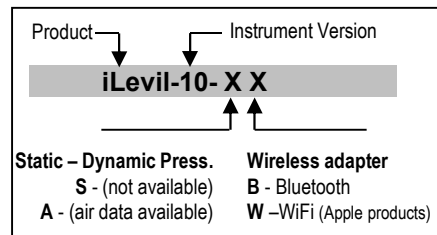
- Supports WAAS
- Cold start: < 60 sec typ. (open sky)
- Warm start: < 30 sec. typ (open sky)

### Internal Battery

- Operating time: < 5 hours typ. (no sunlight)
- Charging time (USB): ~ 4 hours.
- Charging time (Solar): ~ 43 hours.

### Environmental Requirements

- Temp range: -10° to 40° C (14°-104° F)
- Clear view to the sky for best GPS and ADS-B reception.
- Windshields with integrated heating elements will severely attenuate GPS signals.



## WARRANTY

- Levil Technology Corp. warrants this product to the original purchaser to be free from defects in material and workmanship for a period of one year from the date of the original purchase. The following are not covered: software, damage resulting from accident, neglect, misuse, improper voltage supply or failure to follow operational guidelines supplied with this product.

## CAUTION

- Ferrous materials inside the aircraft affect the compass reading.
- Lithium-ion batteries are volatile. Failure to read and follow the **Safety Instructions** may result in fire, personal injury and damage to property.
- The iLevel will get really hot after it has been running in the direct sun, use caution when handling this device.
- Not all traffic is displayed using ADS-B in.
- This is not an FAA certified instrument. Do not use it as primary or back-up instrument

# iLevel SW

978MHz ADS-B receiver +  
GPS + AHRS

## Installation Guide

