



## Manuel & Operating Instructions Standard Sensor Models M1001--- (Propane)

INTENDED USE OF THE M1001 SENSOR IS TO MEASURE THE AMOUNT OF LIQUID PROPANE INSIDE A PROPANE TANK MEETING THE SPECIFICATIONS BELOW, UNDER THE CONDITIONS LISTED BELOW.

THIS DEVICE IS INTENDED FOR OUTDOOR USE ONLY.

### **WARNING**

USE OF THIS DEVICE IN A MANNER OTHER THAN STATED IN THIS MANUAL, MAY RESULT IN IMPAIRMENT OF THE DESIGNED SAFETY PROTECTION AND THUS AN UNSAFE CONDITION.

SPECIFICATIONS	
MEASUREMENT METHOD	Ultrasonic
FLUID	Propane
TANK TYPES	Steel Tanks Note: Also works with aluminum tanks with alternate mounting. Not intended for use on composite cylinders.
TANK SIZES	Vertical DOT Cylinders of 20, 30, and 40 lb (5, 7.5, and 10 gal) Horizontal tanks up to 20" diameter Typically any propane tank up to 20" fluid height, on which the sensor may be mounted on bottom.
Envelope Dimensions	47.2 x 87.7 x 7.3 mm (1.85 x 3.45 x 0.29in)
Mounting location	Tank Bottom
Suitable for these locations	CLASS 1, DIVISION 2, GROUP D CLASS 1, ZONE 2, GROUP IIA
OPERATING TEMPERATURE RANGE	-25° TO 40°C
TEMPERATURE CODE	T6
BATTERY	ONE, CR2032 COIN CELL (3V)
HUMIDITY RANGE	0 - 100%
MAX ALTITUDE	4000m

### **WARNING**

EXPLOSION HAZARD-BATTERIES MUST ONLY BE CHANGED IN AN AREA FREE OF IGNITIBLE CONCENTRATIONS.

### **WARNING**

THIS DEVICE IS NOT TO BE REPAIRED OR OTHERWISE MODIFIED.

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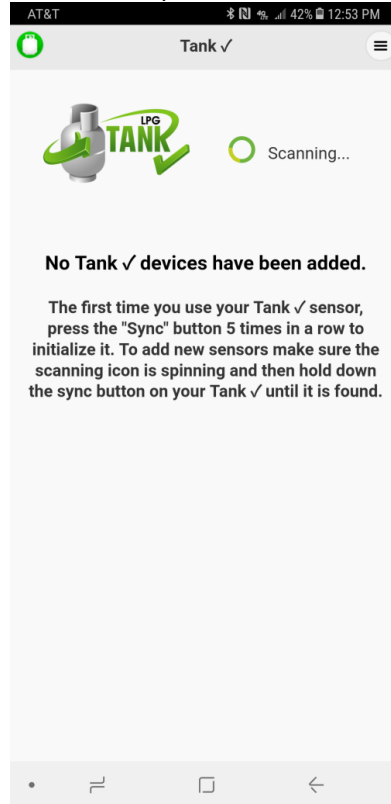
MOPEKA PRODUCTS LLC  
MAILING ADDRESS: 445 FM 1983, COLORADO CITY, TX 79512  
www.mopeka.com  
support@mopeka.com



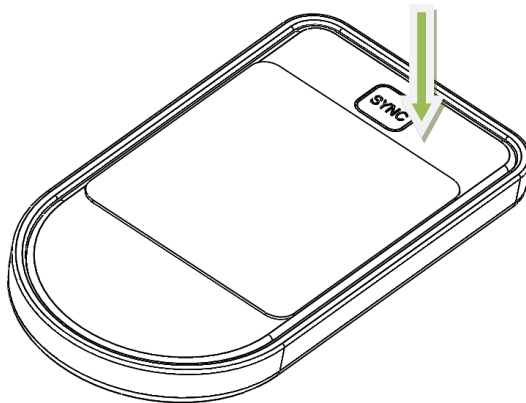
## OPERATING INSTRUCTIONS

### Smart Device/App Users

1. Go to your app store. Search for Mopeka Tank Check app and install.
2. Launch the app. When it starts it will automatically start a search for Mopeka ✓ sensors.

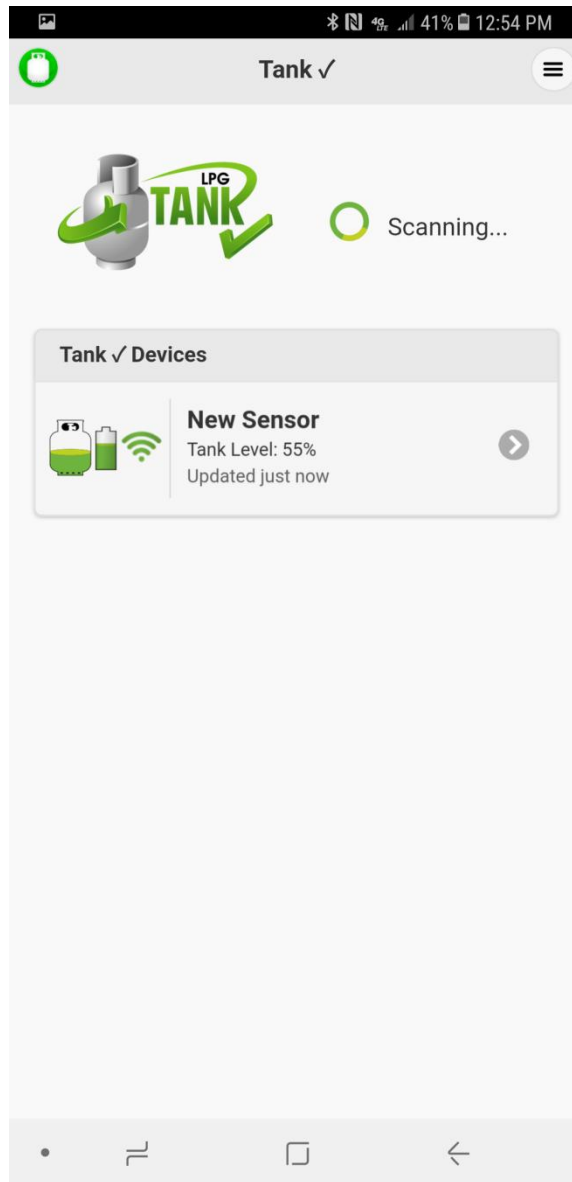


3. Press and hold SYNC button until sensor appears on app. (up to 10 seconds)





4. The sensor will then appear on your app as a new device.

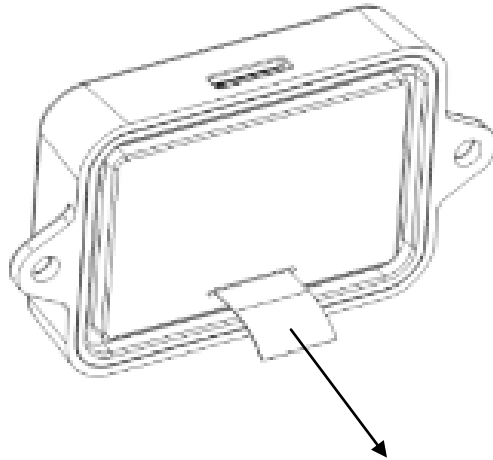


5. Sensor is now Sync'd . You may now proceed to installing the sensor on the tank.



**For LPG Tank ✓ Monitor Users:**

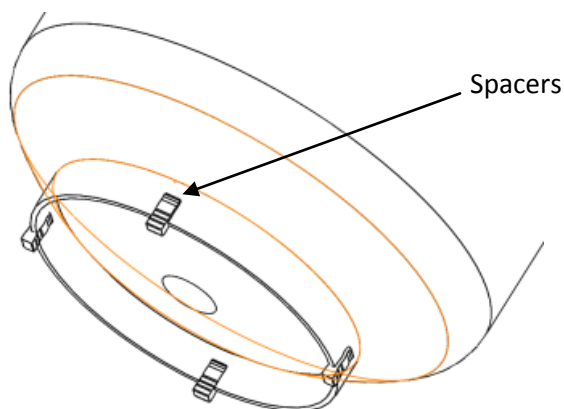
6. Pull the battery protection strip completely out of monitor and discard. This will turn on the monitor.



7. Hold one of the buttons on your Monitor until the lights for that button start flashing (approx 5 seconds). Release button when lights start flashing.
8. Press and hold SYNC button until sensor (up to 10 seconds) until the monitor lights stop flashing. The sensor is now synced with the monitor.
9. Repeat steps to sync the second sensor to the 2nd button/gauge of the monitor. NOTE: For easy reference, the buttons on the display are colored green & black to correspond to the colored labels on each sensor.
10. Both sensors are now sync'd to the monitor. You are now ready to install the sensor(s) on the tank(s).

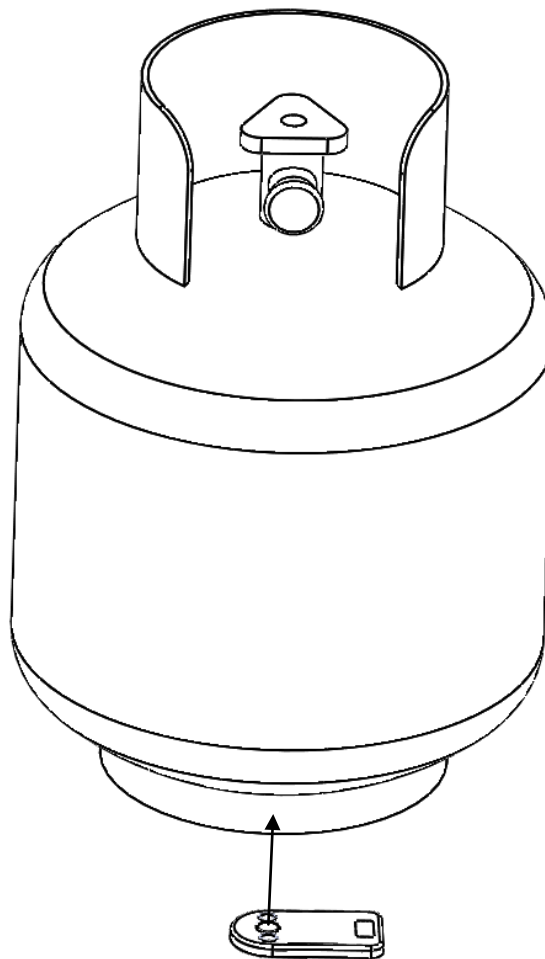
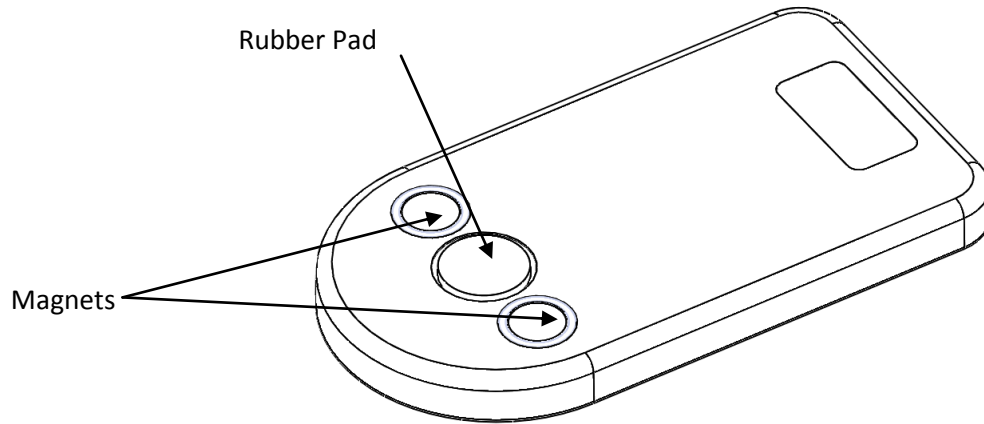
**Install Sensor on Tank**

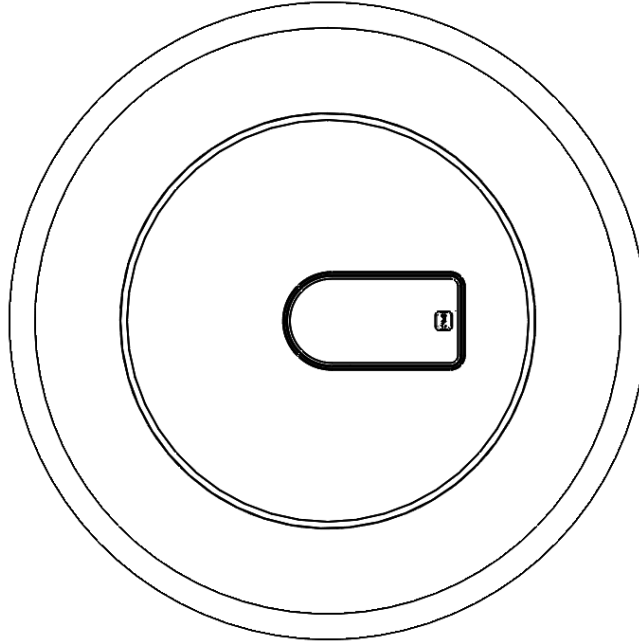
11. Clean the bottom of the tank of any debris, excess paint, and rust.
12. If your tank sits directly on the ground or other flat surface, then you will need to install the Mopeka spacers to the bottom of the foot ring of your tank. This will provide adequate space and improved wireless range for the sensor. (alternately Mopeka accessories Halo or Anchor can be used in place of spacers).





13. The sensor mounts to the bottom center of the tank using magnets. The rubber pad between the magnets must make good contact with the tank, with no contaminants in between and must be aligned to the bottom center of the tank.





14. Return the tank to the upright position. Check that the tank is on a level and flat surface or otherwise is level with ground. Even a slight tilt can degrade the quality of the measurement.
15. After a few seconds, up to a few minutes, the propane will settle and the readings will stabilize.

#### **Using the LPG Tank ✓**

##### **App Users:**

16. Clicking on a sensor in the main list takes you to the sensor's own screen. Most information is self-explanatory. Click on the pencil icon to change settings or rename your sensor. Be sure to change the tank size setting to match your tank. Please visit our website help section for more app use tips.

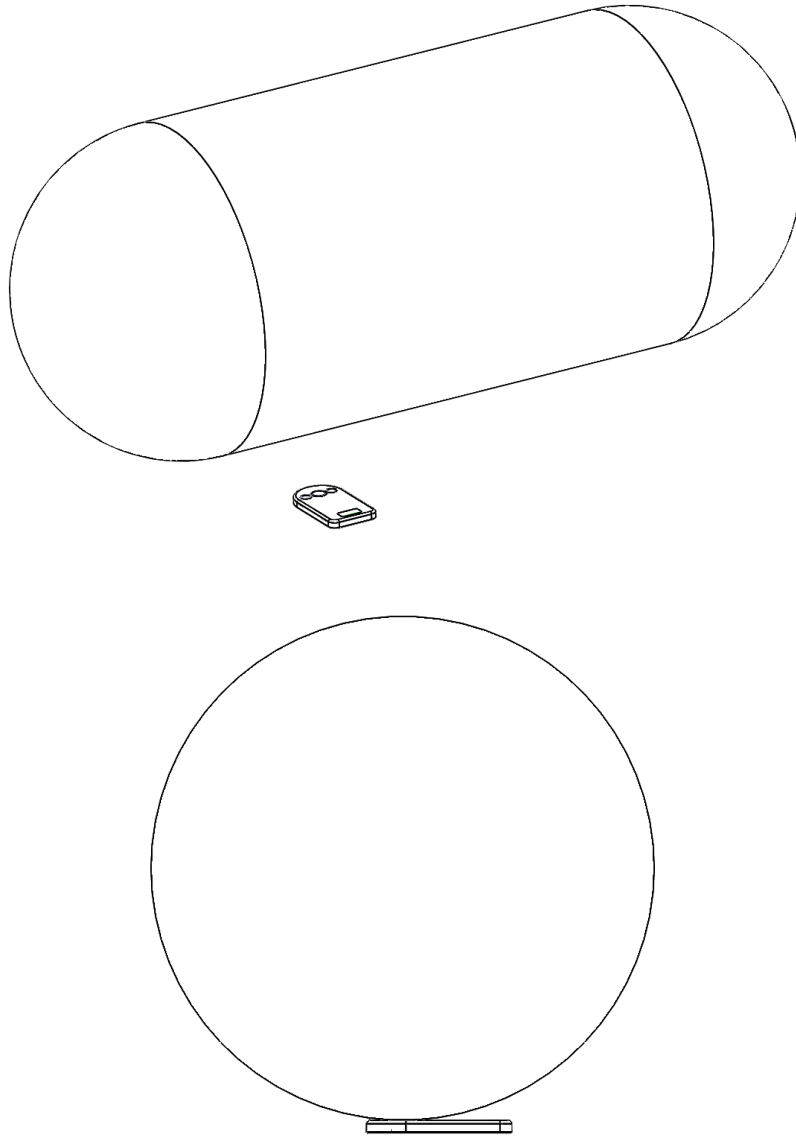
##### **Monitor Users:**

17. Pushing the monitor's button will initiate a scroll of the lights, once it obtains a new tank level reading from the sensor, that level will be displayed. It will remain lit for several seconds and then go back to sleep.
18. If the lights continue to scroll and never displays a level, the sensor and monitor are not communicating. Try pushing the button again. If the monitor still does not read, you may need to reposition the monitor, or check the FAQ's and Troubleshooting on our website.
19. Your monitor will automatically monitor tank readings every 30 minutes. If a tank level goes below 10% of full, the red light will start slowly flashing to alert you that your tank is near empty. The flashing may be stopped by pressing that Tank's button on the Monitor. This sequence then repeats every 8 hours.



### Horizontal Tanks

20. If installing on a horizontal tank, place the sensor on center, bottom of tank, with rubber pad and magnets against tank as shown. It is important to place it on the center of tank so that sensor is horizontal, or sensor reading quality can be poor.



21. On the top right corner of your app click on the pencil icon. Go to the tank type and push Arbitrary. Measure your horizontal cylinder from top to bottom (the tank diameter). Enter the measurement in inches into the arbitrary setting and click ok. Now the sensor will be reading your cylinder in % full correctly. Use the same steps for any size of cylinder that is not listed under the tank type on the app.

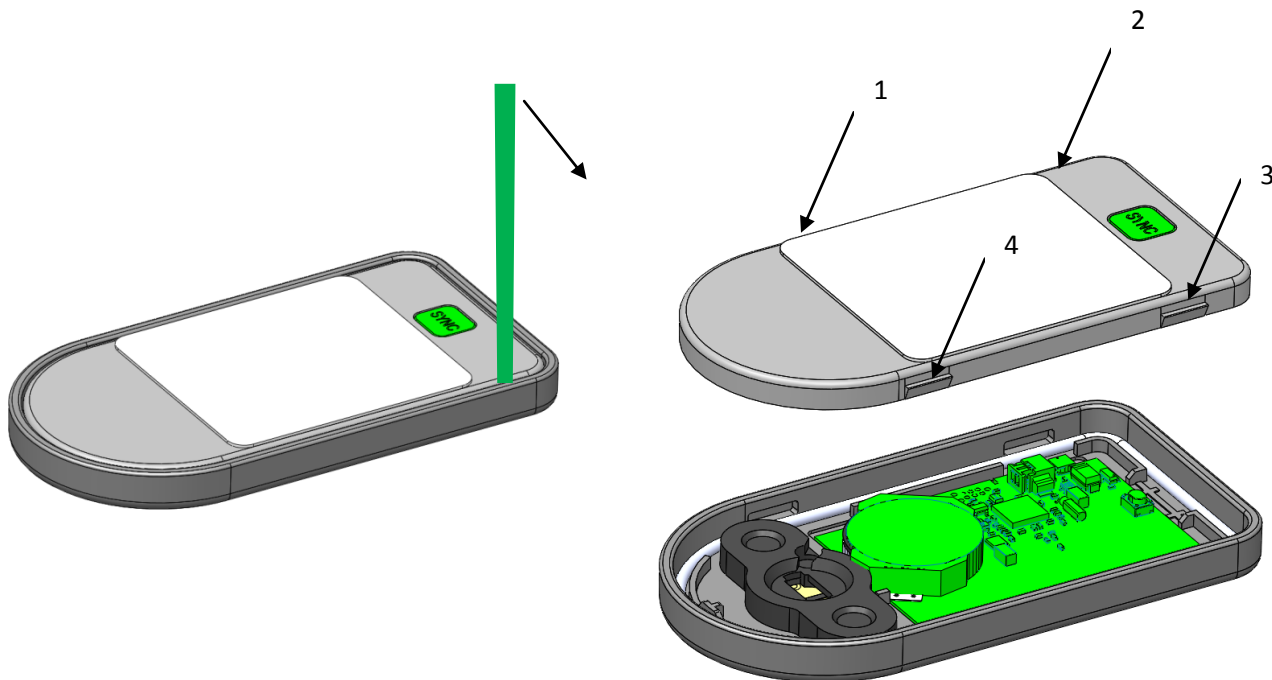


## BATTERY CHANGE INSTRUCTIONS

### **WARNING**

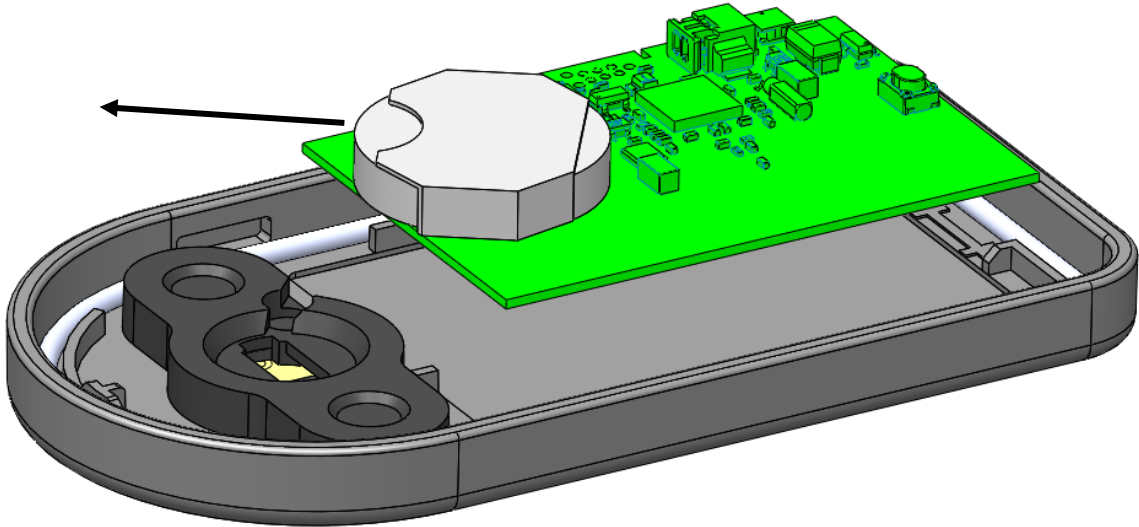
EXPLOSION HAZARD-BATTERIES MUST ONLY BE CHANGED IN AN AREA FREE OF IGNITIBLE CONCENTRATIONS.

1. The enclosure lid is held in place by a snap fit, in 4 places. In the approximate locations shown, insert small screwdriver between lid and base and pry outward to release snap fit. Lid can then be lifted out of assembly. (Note: Sync button will sometimes be slightly stuck to electronics board. Detach sync button and board if necessary to completely remove lid and leave electronics in the base piece.)

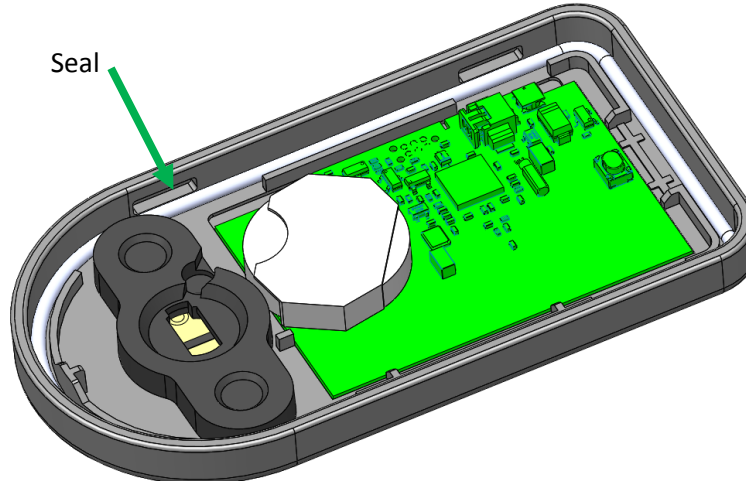


2. Gently lift board from base such that battery can be removed from battery holder. Insert new battery in same orientation. (Note: Wires that connect sensor base and electronics board remain attached during battery change. Use care not pull too hard on wires thus damaging the sensor.)

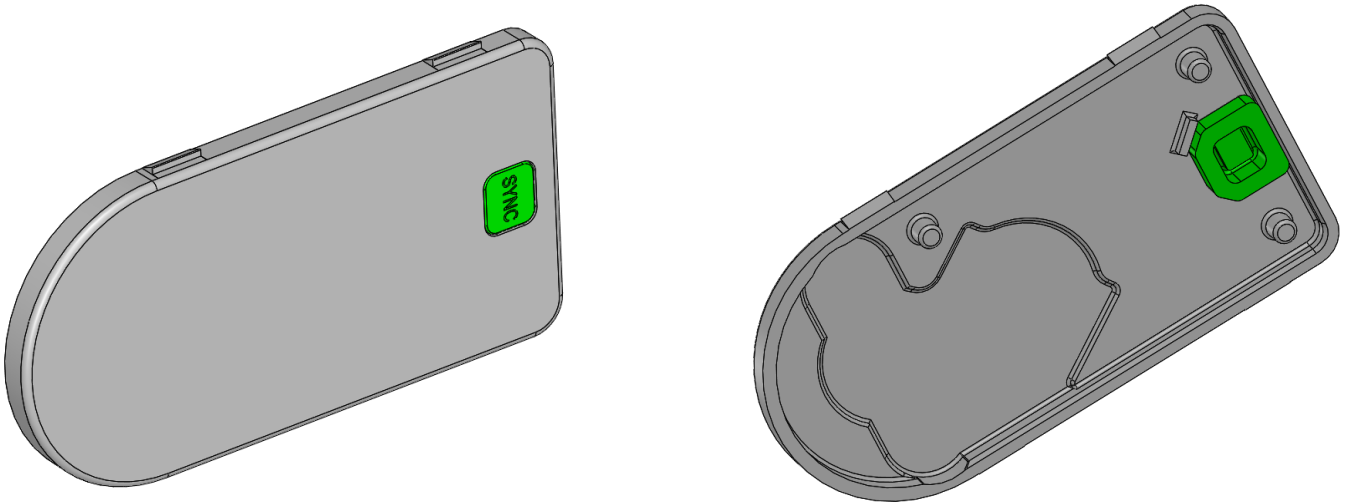




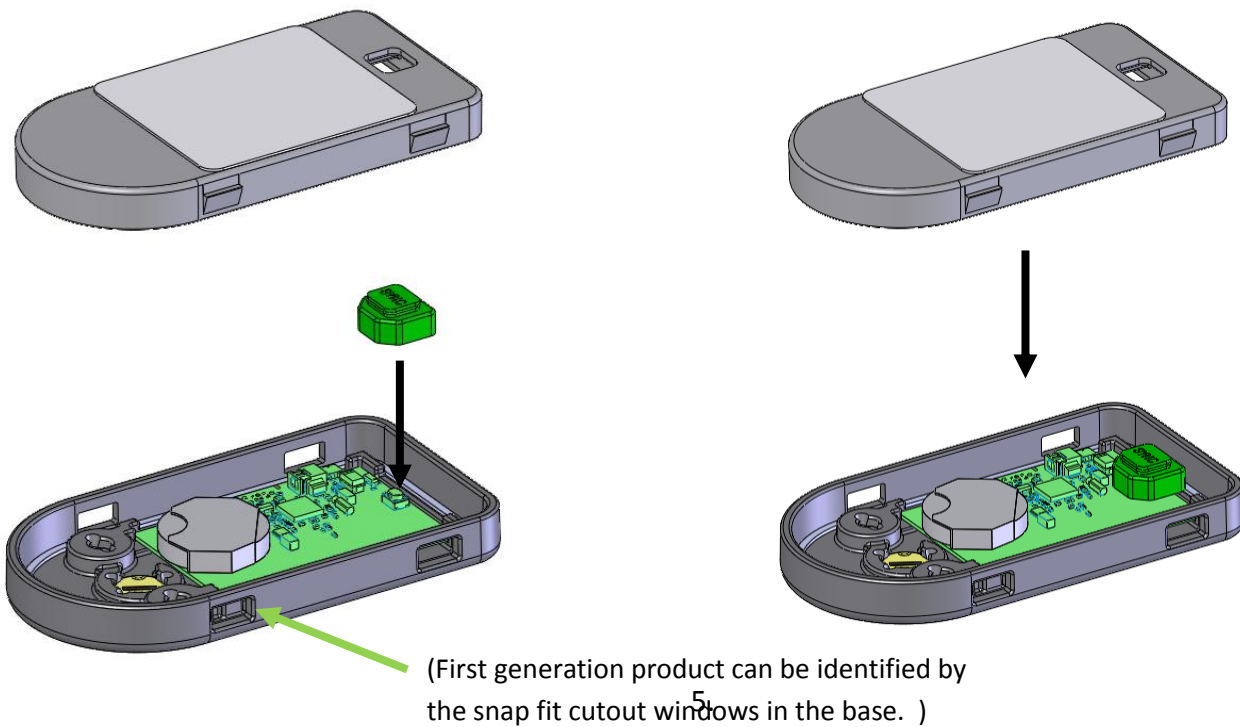
3. Place electronics board back into base. Pay attention to wire routing so that wires do not get pinched when lid is reassembled. Also check that the enclosure seal is properly seated into the base.



4. If Sync button came loose during disassembly, assemble button back to lid. Button will stay attached to lid once properly assembled to lid.

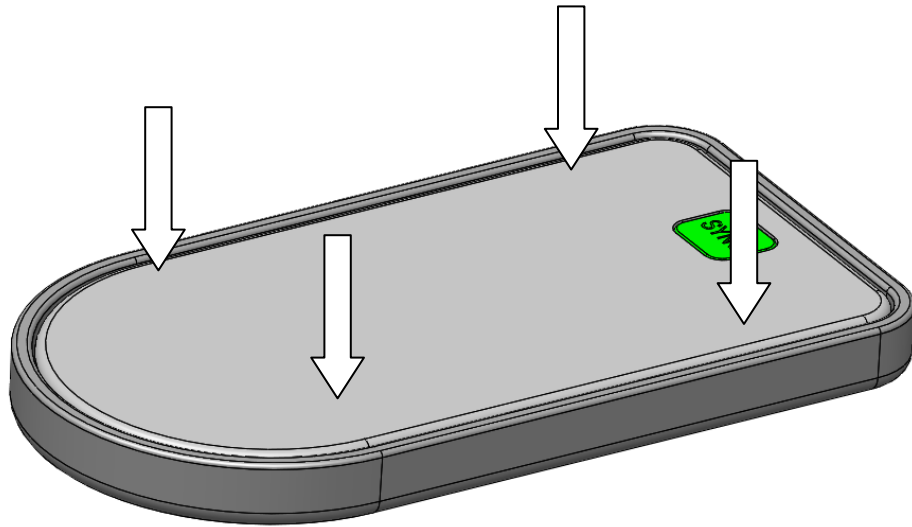


*Note: First generation product only-Sync button does not assemble to lid. Place Sync button on electronics board as shown, and then install lid over Sync button onto base and snap in place.*





6. Place lid back into base and press down fully to reengage all 4 snap fits.





REVISION TABLE

<u>REVISION</u>	<u>DESCRIPTION</u>	<u>DATE</u>
A	RELEASE	2018.02.21
B	UPDATED FOR CERTIFICATIONS	2018.02.22
C	ADDED DWG NUMBER TO FOOTER	2018.02.27
D	ADDED USE/SPEC TABLE SHEET 1	2018.03.05
E	ADDED INTENDED USE STATEMENT, PAGE 1	2018.03.06
F	MODIFIED SYNC TO PRESS AND HLD	2018.06.21