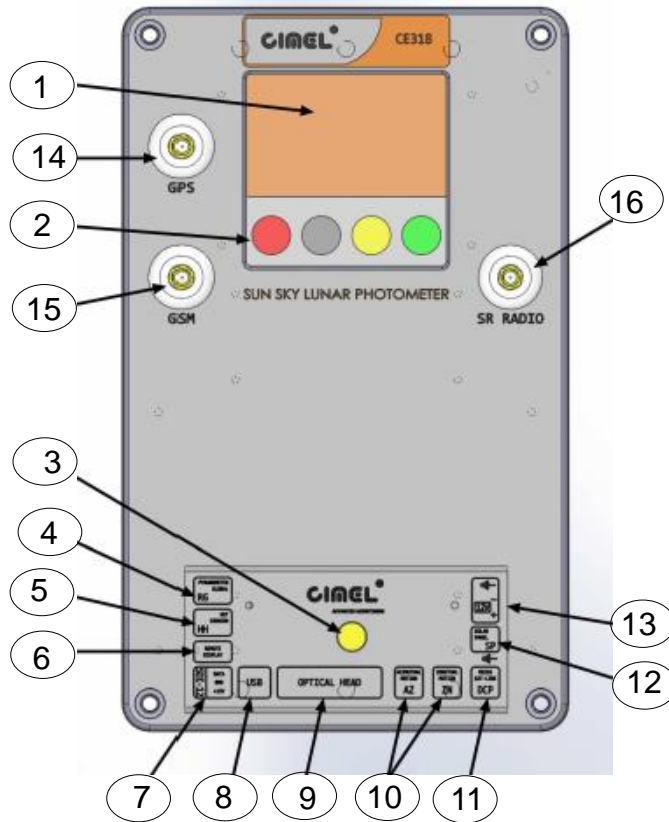


CIMEL CE318-T

Quick Setup Guide

Instructional video

https://aeronet.gsfc.nasa.gov/new_web/training_videos/complete_setup_low.mp4



User interface:

1. Graphic display
2. Capacitive keys
3. Mechanical push button

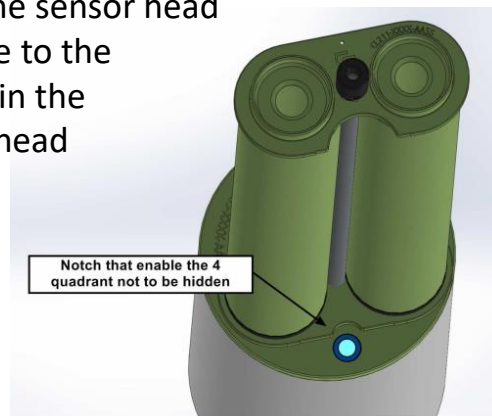
Connector panel:

4. **NOT USED**
5. Wet sensor
6. **NOT USED**
7. **NOT USED**
8. USB
9. Sensor head
10. Robot azimuth and zenith motion
11. DCP / Serial communication
12. Solar panel
13. External battery

Other:

14. GPS antenna
15. GSM antenna
16. **NOT USED**

1. Assemble the collimator to the sensor head by tightening the long central threaded rod using pliers (**Do Not Overtighten**). The notch must face the 4 quadrants lens on the sensor head front plate. Now connect the sensor head cable to the connector panel and route it through the hole in the deployment case and connect it to the sensor head

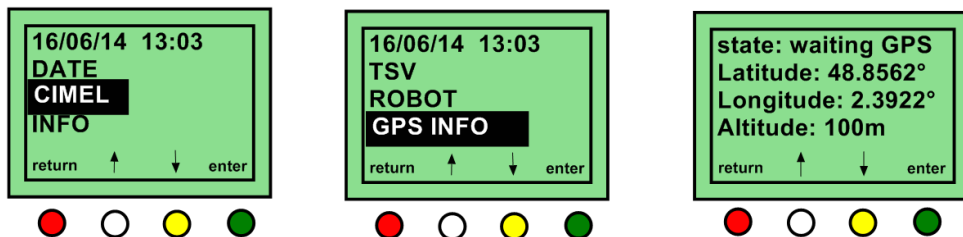


2. **BEFORE CONNECTING POWER TO THE CONTROL BOX,**

Connect everything else to the connector panel and the GPS antenna to GPS port (number 14) through the hole in the deployment case.

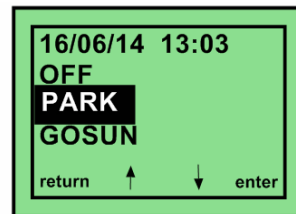
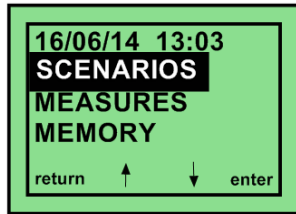
3. From the main menu scroll down to “**CIMEL**” and touch “**enter**”, then scroll down to “**GPS INFO**” and touch “**enter**” to synchronize the GPS coordinates, This can take up to 15 min for automatic GPS synchronization. When done the coordinates will be displayed on the screen

*****NOTE:** “*State*” will show: *Init...* => *wait GPS...* => *off* (to turn on display, press the yellow push button on the connector panel)

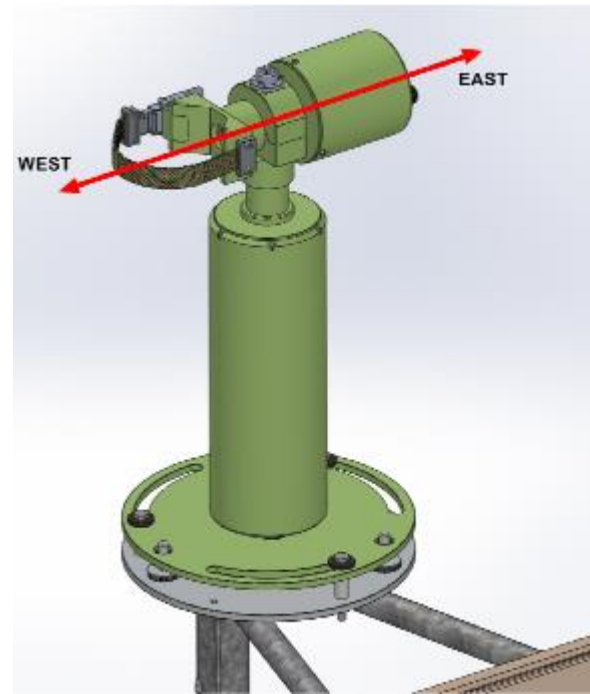


Select CIMEL then GPS INFO and validate with the green button

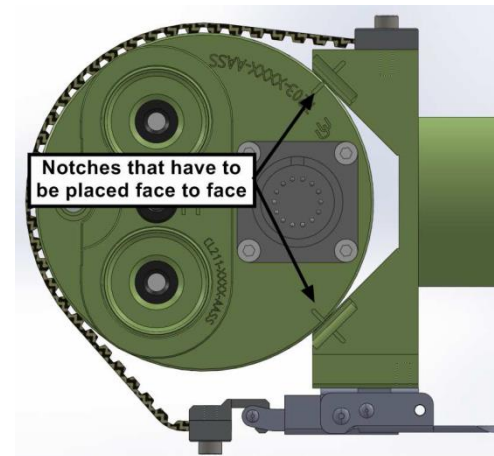
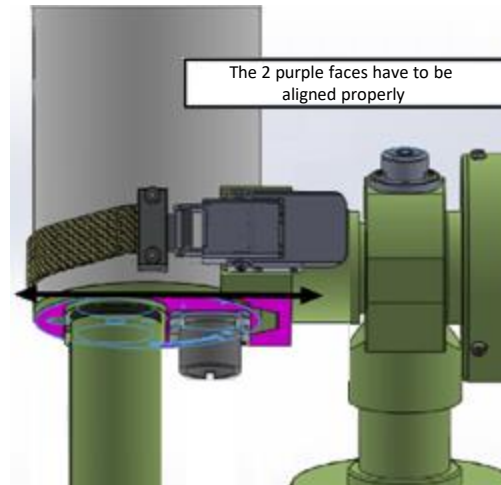
4. Perform a **“PARK”** scenario in the control box menu. The robot will find its home position. Set the horizontal robot axis in the East-West direction by manually turning the whole base of the robot.



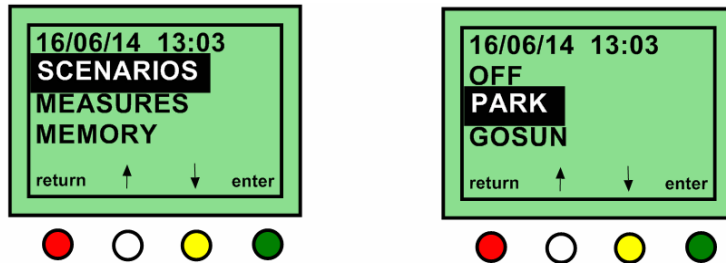
Select SCENARIOS then PARK and validate with the green button



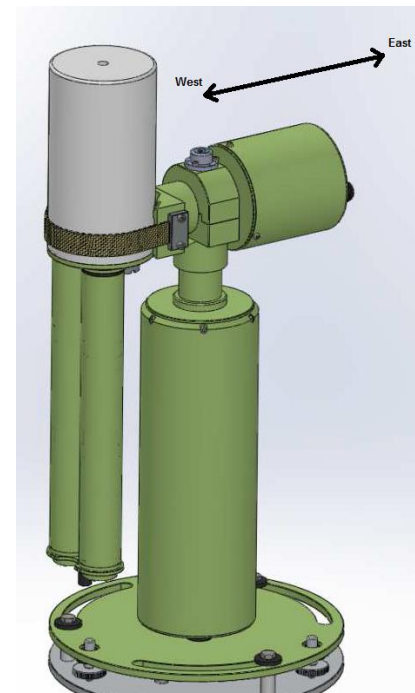
5. Strap the sensor head on the V-shaped support of the robot with the collimator pointing down.



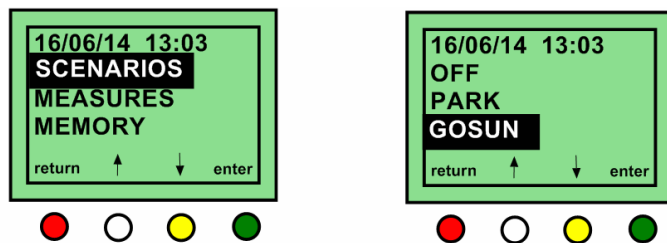
6. Perform a **"PARK"** scenario in the control box menu. The robot will find its home position. The collimator should return to pointing down.



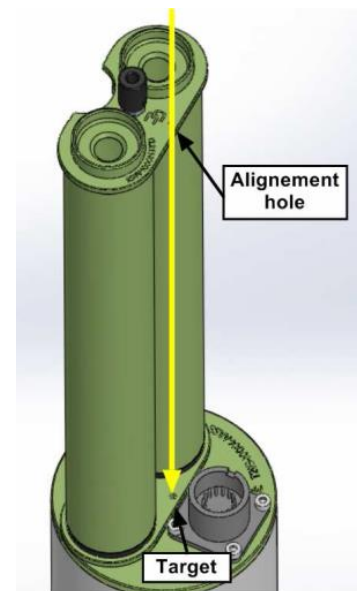
Select SCENARIOS then PARK and validate with the green button



7. Perform a **"GOSUN"** scenario in the control box menu. The sensor head will point towards the sun.

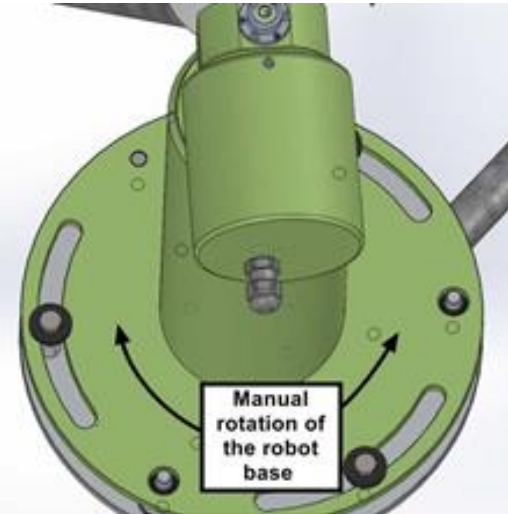
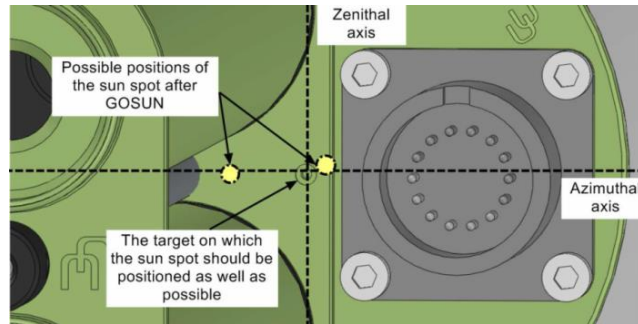


Select SCENARIOS then GOSUN and validate with the green button



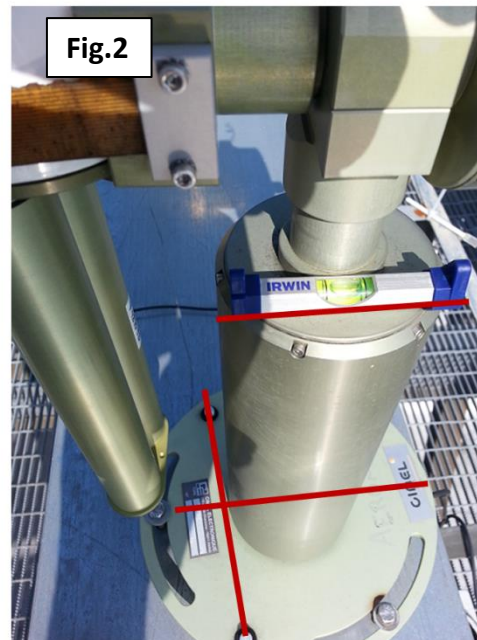
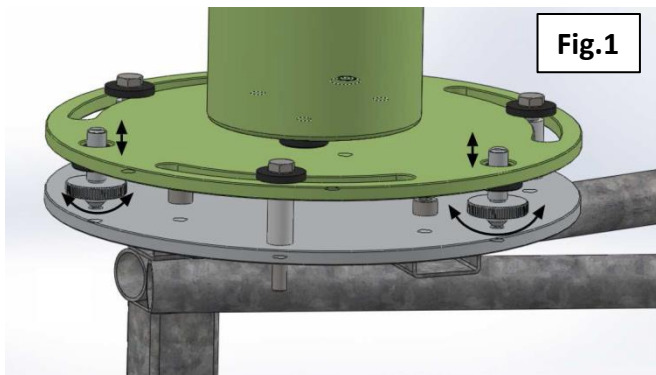
8. After a “GOSUN” scenario rotate the base of the robot until the sun spot lines up close to the target at base of collimator.

Note: The sun spot may not be centered on the target.

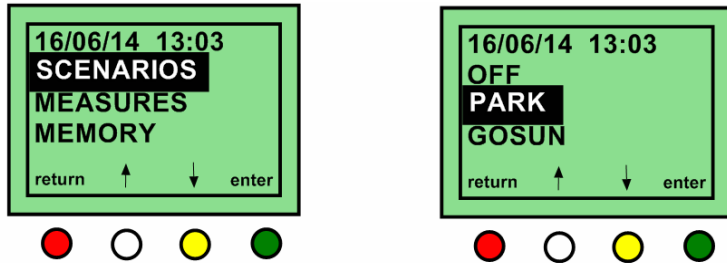


9. ROBOT LEVELING:

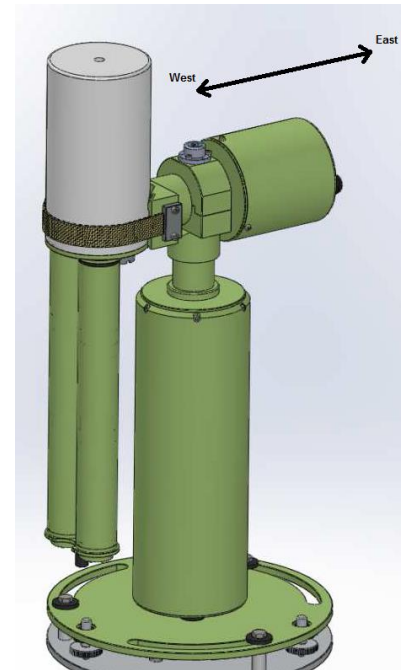
Without disturbing the sensor head, place the level on the AZ housing. using both the adjusters on the robot base (Fig. 1) adjust the level in the direction that is perpendicular with the adjustable feet (Fig.2), and then adjust the level in the direction that is parallel with the adjustable feet (Fig.3). This will ensure that robot is level in all directions.



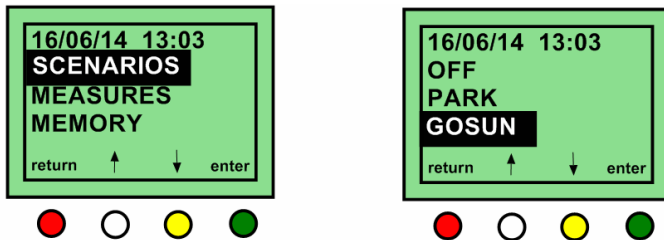
10. Perform a "PARK" scenario in the control box menu again. The robot will find its home position.



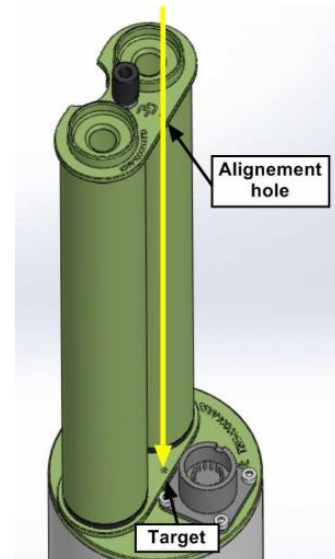
Select SCENARIOS then PARK and validate with the green button



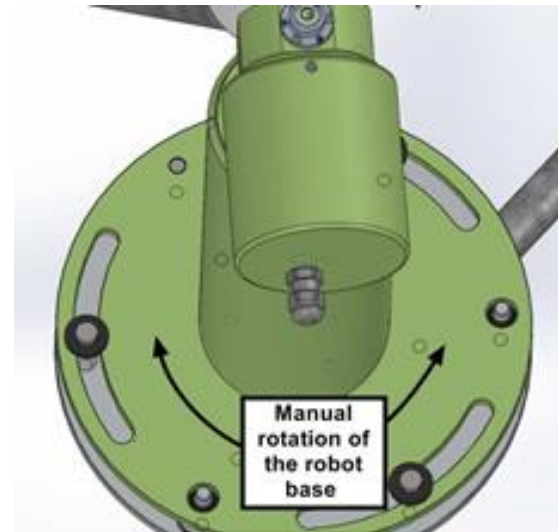
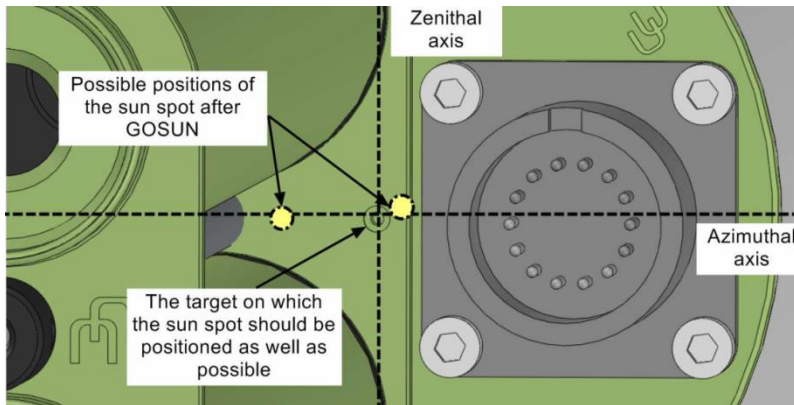
11. Perform a "GOSUN" scenario in the control box menu. The sensor head will point to the sun.



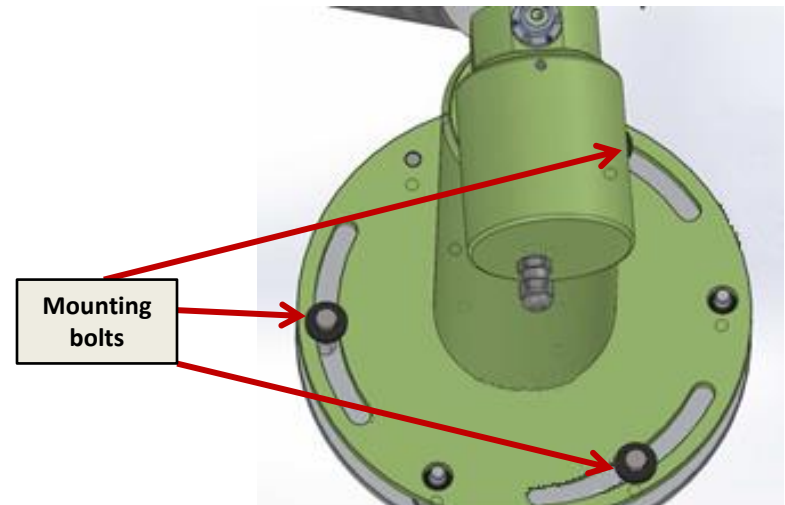
Select SCENARIOS then GOSUN and validate with the green button



12. After a “GOSUN” scenario rotate the base of the robot until the sun spot lines up close to the target. The sun spot may not be centered on the target but should be closer than 4mm. If the sun spot is further, go back to step 6.

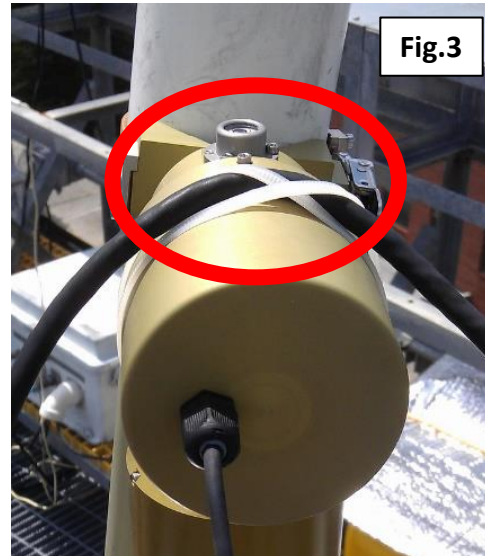


13. Tighten the bolts on the robot base to secure the robot without changing its position. Important note: watch out that the level didn't move. If the level moved, go back to step 6 and repeat procedure.

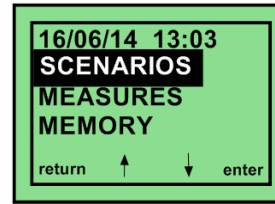


14.

- Attach Sensor head cable to ZN motor housing
- Form a "loop" that extend to the bottom of collimator (Fig. 1)
- "Loop" should point forwards (towards sun) when instrument takes a measurement (Fig.2)
- Remainder of cable should hang in rear, free of obstructions
- Secure the Sensor head cable with Zip-ties or plastic holder (Fig.3 & 4)

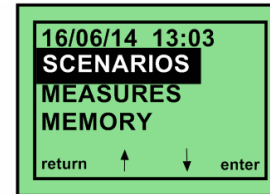


15. Perform a “PARK” scenario in the control box menu again. The robot will find its home position.



Select SCENARIOS then PARK and validate with the green button

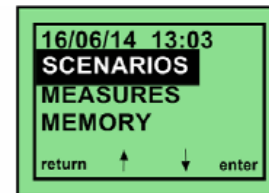
16. Perform a “GOSUN” scenario in the control box menu. The sensor head will point to the sun.



Select SCENARIOS then GOSUN and validate with the green button

17. Perform a “TRACK SUN” scenario in the Control box menu. The sun spot should automatically align to the target at base of collimator.






Note: If it doesn't align correctly, check and reset connections

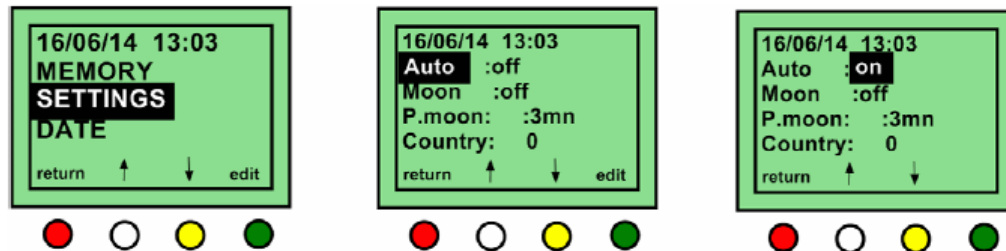


Select SCENARIOS then TRACK SUN and validate with the green button

18. When the sun spot aligns correctly, repeat step 15, 16 and 17 once or twice to validate the photometer behavior.

19. Set the photometer in automatic mode by pressing the red "Return" button until it shows the main screen.

- Scroll down to "Settings" and touch  "Enter" (image 1)
- You will see "AUTO : off", touch  "Edit" (image 2)
- Touch the  to turn "on" Auto mode (image 3)
- Touch  "Return" 2 times and you will see "SAVE SETTINGS" touch  "Valid"



Select SETTINGS then Auto and switch it to ON

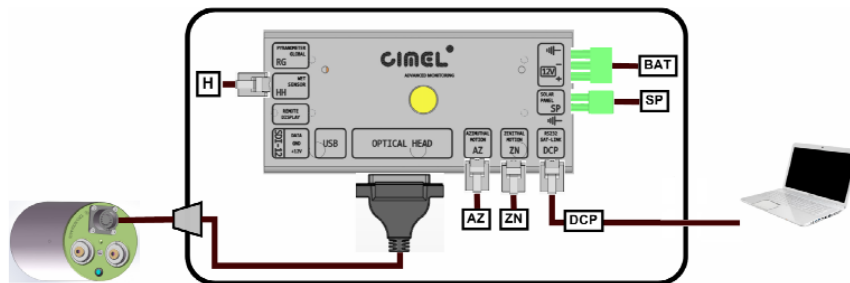
SKIP THE NEXT 2 STEPS IF USING A SIM CARD FOR DATA TRANSMISSION

SEE THE GSM and HTTP TEST INSTRUCTIONS FOR ESTABLISHING A CONNECTION TO THE AERONET SERVER IF YOU ARE USING A SIM CARD

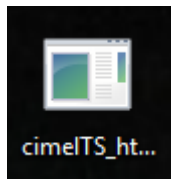
20. Plug the USB adapter into the PC.

Connect the PC cable to the DCP connector

On the connector panel. Then connect the PC Cable to the USB adapter.



21. Run the "cimelTS_https_connect.exe" program



```
cimelsv12_https_connect.exe - Shortcut
Starting C:\Users\jkraft2\Desktop\PhotoGetData 02.8.2\cimelsv12_https_connect.exe
Version 2.8
Aeronet connected, UTC time : 09:09:2016,16:03:58
Hostname: GS618-JKRAFTW
This is a desktop or the battery info not available
Program name = cimelsv12_https_connect.exe
Files will be uploaded via HTTP
com1 opened.
No IS boxes connected. Port closed.
com3 opened.
No IS boxes connected. Port closed.
com4 opened.
```