

CIMEL CE318-N

Quick Setup Guide

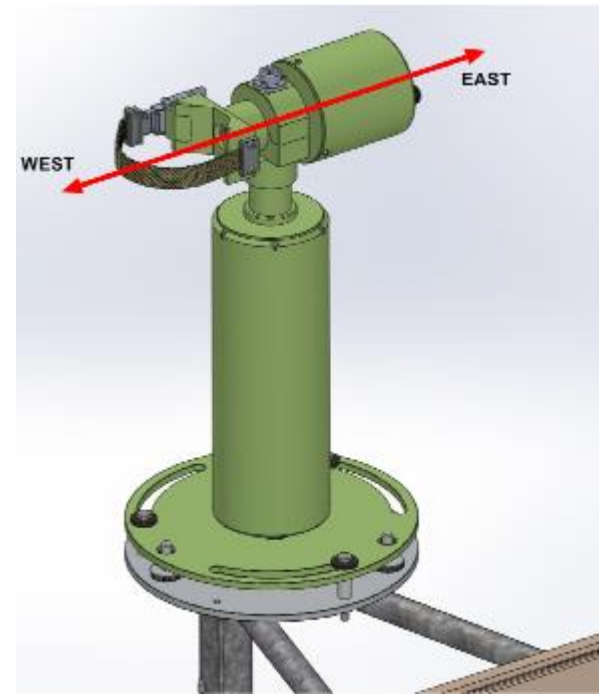
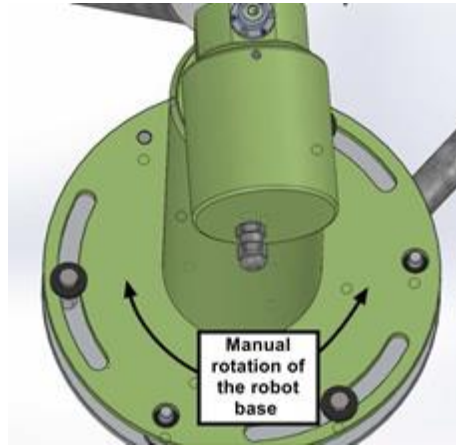
Menu structure is on pages 9-11

Instructional video

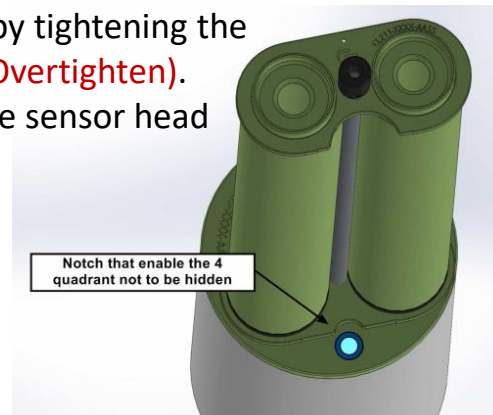
https://aeronet.gsfc.nasa.gov/new_web/training_videos/Setup.avi

https://aeronet.gsfc.nasa.gov/new_web/training_videos/Setup.mov

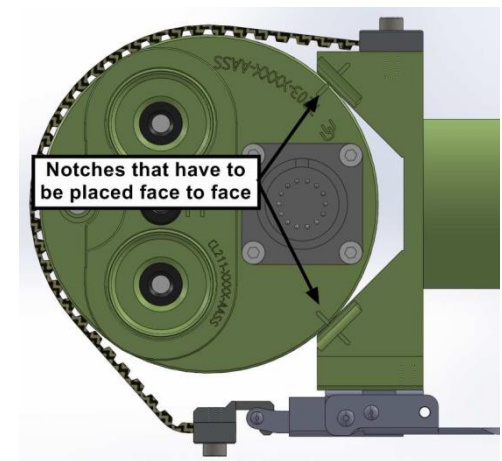
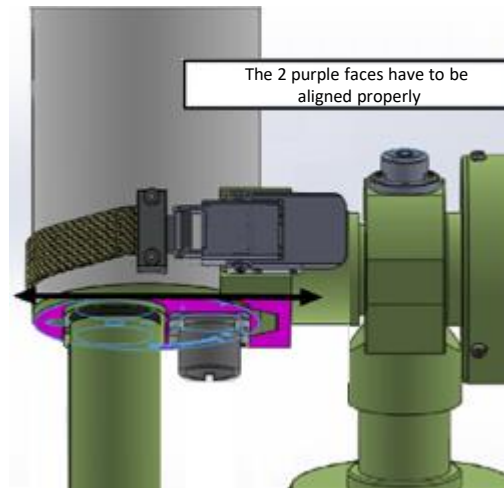
1. Perform a **“PARK”** scenario in the control box menu. The robot will find its home position. . Set the horizontal robot axis in the East-West direction by manually turning the whole base of the robot.



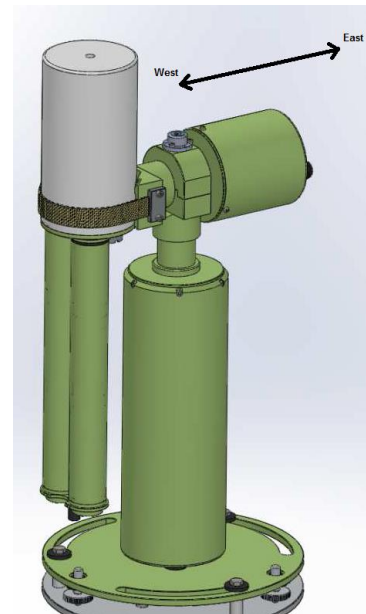
2. Assemble the collimator to the sensor head by tightening the long central threaded rod using pliers (**Do Not Overtighten**). The notch must face the 4 quadrant lens on the sensor head front plate.



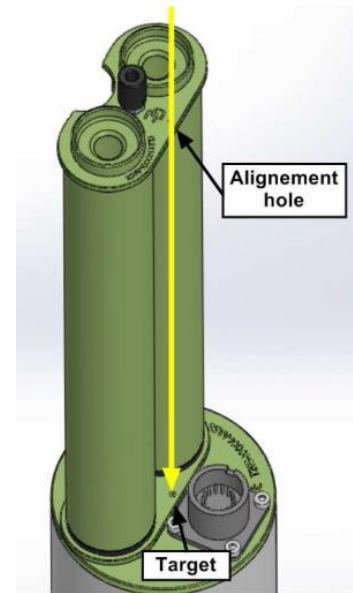
3. Strap the sensor head on the V-shaped support of the robot with the collimator pointing down.



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

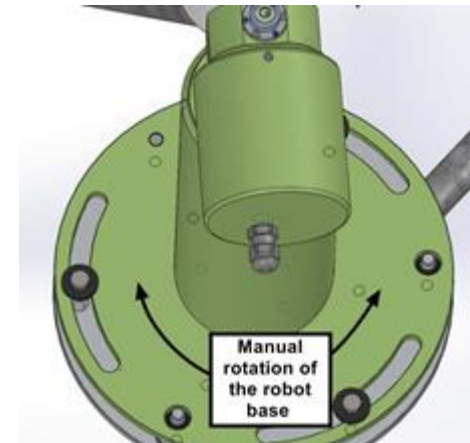
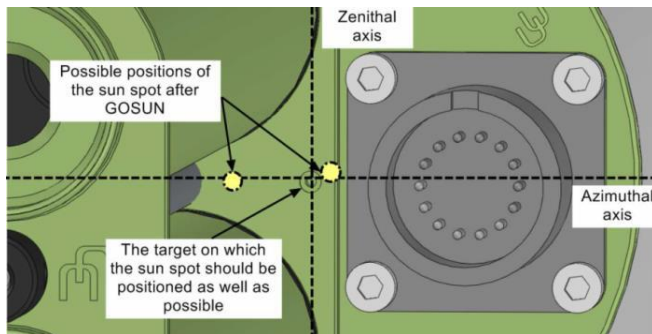


5. Perform a “GOSUN” scenario in the control box menu. The sensor head will point to the sun.



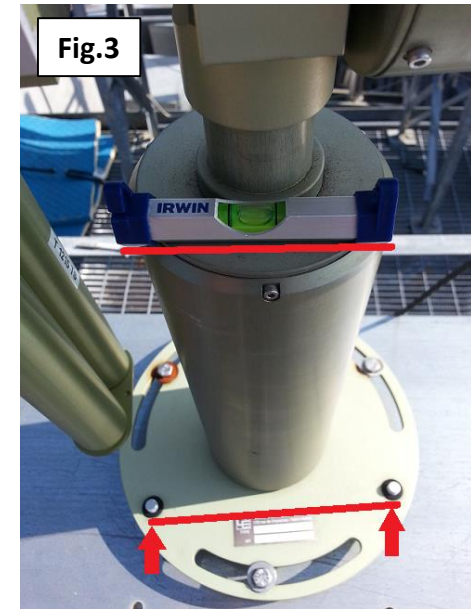
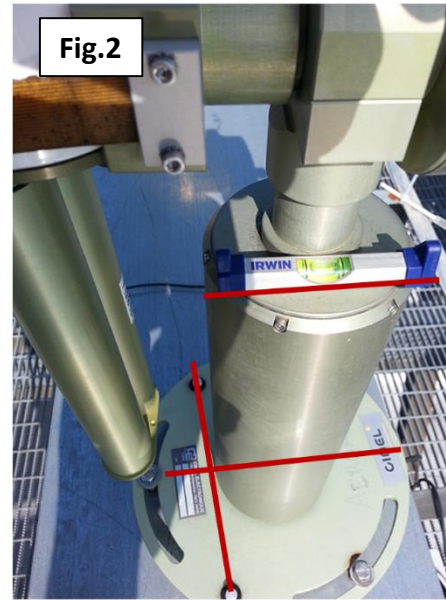
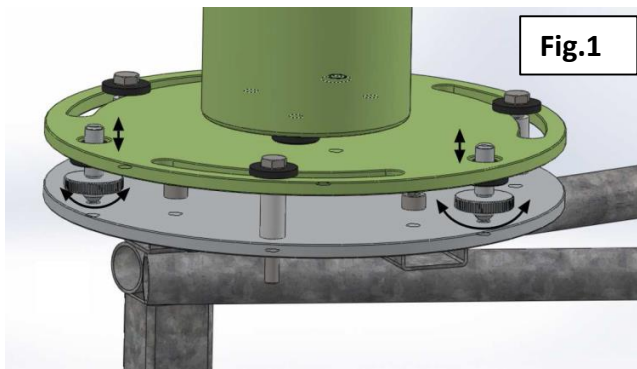
6. After a “GOSUN” scenario rotate the base of the robot until the sun spot lines up close to the target at base of collimator.

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

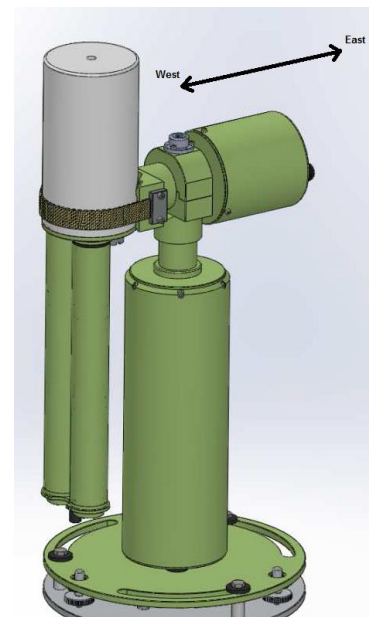


7. ROBOT LEVELING:

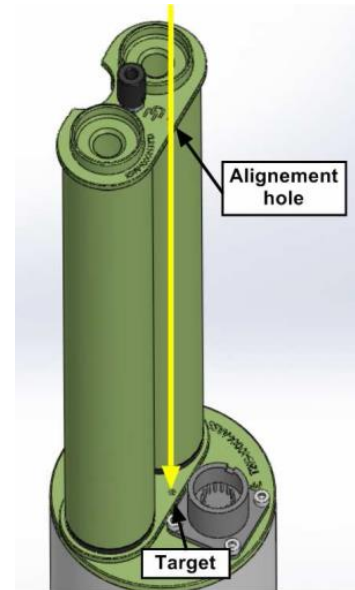
Without disturbing the sensor head, place the level on the AZ housing. using both the adjusters on the robot base (Fig. 1) adjust the level in the direction that is perpendicular with the adjustable feet (Fig.2), and then adjust the level in the direction that is parallel with the adjustable feet (Fig.3).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



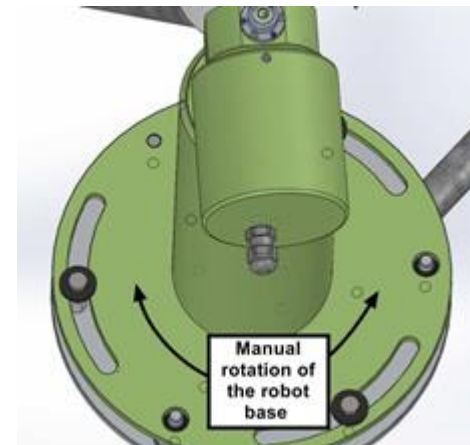
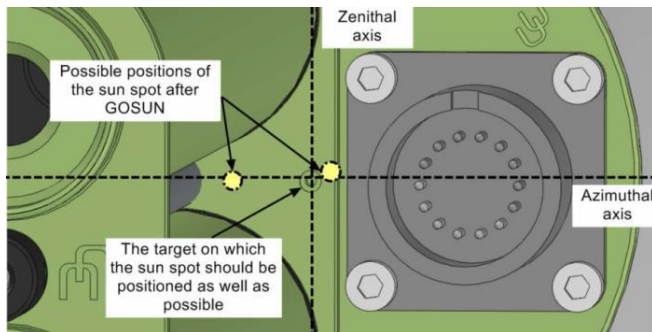
8. Perform a **“PARK”** scenario in the control box menu again. The robot will find its home position. The collimator should return to pointing down.



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

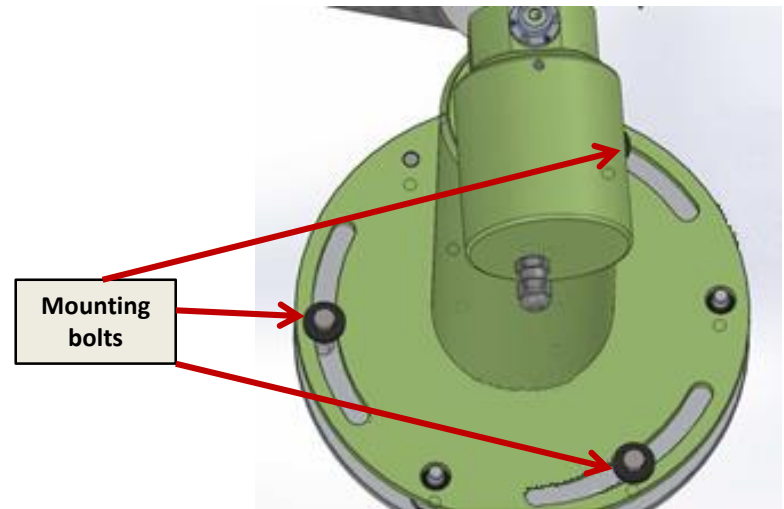


10. After a “GOSUN” scenario rotate the base of the robot until the sun spot lines up close to the target. The sun spot may not be centered on the target but should be closer than 4mm. If the sun spot is further, go back to step 4.



11. 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 4 and repeat procedure.



12.

- 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)



Fig.1



Fig.2

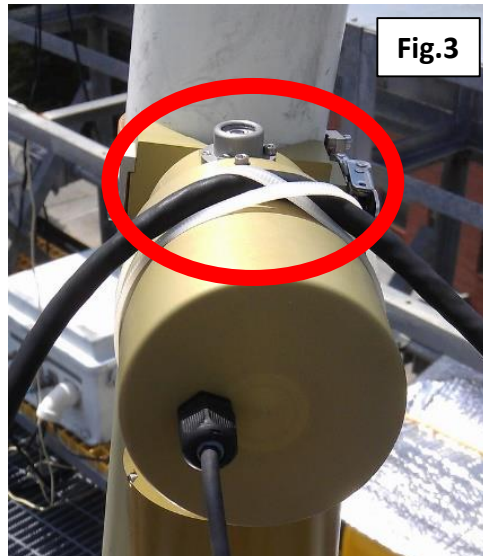


Fig.3

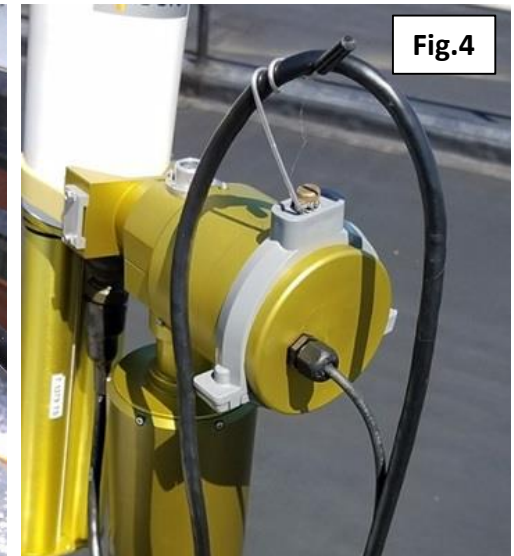


Fig.4

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

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

15. 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 track correctly, check and reseal connections

16. When the track is done correctly, repeat step 13, 14 and 15 once or twice to validate the photometer behavior.

PERFORMING A "PARK" SCENARIO

(Cimel has to be in Manual mode in order to do the following operations)

Scenario → Park

1.

06/25/10	10:27		
PW	MAN	SCN	VIEW

<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
-----------------------	-----------------------	----------------------------------	-----------------------
2.

←	0.0→v	0.0^	
RTN	GO	- +	OFF

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
-----------------------	-----------------------	-----------------------	----------------------------------
3.

←	0.0→v	0.0^	
RTN	GO	- +	PARK

<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
-----------------------	----------------------------------	-----------------------	-----------------------
4.

activing	PARK
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<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
-----------------------	-----------------------	-----------------------	-----------------------
5.

←	0.0→v	0.0^	
RTN	GO	- +	PARK

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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PERFORMING A "GOSUN" SCENARIO

(Cimel has to be in Manual mode in order to do the following operations)

Scenario → Go Sun

1. 06/25/10 10:27
PW MAN SCN VIEW



2. ← 0.0→v 0.0^
RTN GO - + OFF



3. ← 0.0→v 0.0^
RTN GO - + PARK



4. ← 0.0→v 0.0^
RTN GO - + GOSUN



5. activating GOSUN



6. ← -0.1→v -0.1^
RTN GO - + GOSUN



PERFORMING A "TRACK" SCENARIO

(Cimel has to be in Manual mode in order to do the following operations)

Scenario → Track

1.

06/25/10	10:27		
PW	MAN	SCN	VIEW

<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
-----------------------	-----------------------	----------------------------------	-----------------------
7.

←	0.0→v	0.0^	
RTN	GO	-	+ TRACK

<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
-----------------------	-----------------------	----------------------------------	-----------------------
2.

←	0.0→v	0.0^	
RTN	GO	-	+ OFF

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
-----------------------	-----------------------	-----------------------	----------------------------------
3.

←	0.0→v	0.0^	
RTN	GO	-	+ PARK

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
-----------------------	-----------------------	-----------------------	----------------------------------
4.

←	0.0→v	0.0^	
RTN	GO	-	+ GOSUN

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
-----------------------	-----------------------	-----------------------	----------------------------------
5.

←	0.0→v	0.0^	
RTN	GO	-	+ TRACK

<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
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6.

activing	TRACK		
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<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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