

**Avlite**<sup>®</sup>  
www.avlite.com



**AV-OL-75**  
**Low Intensity Obstruction**  
**Light Installation, Bluetooth**  
**& Service Manual**

Version  
1.0

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1.0	Launch	August 2017	A.Dixon	

## Introduction

**Congratulations! By choosing to purchase an Avlite light, you have become the owner of one of the most advanced solar LED airfield lights in the world.**

Since 2004 Avlite Systems has been designing and manufacturing the most advanced navigation aids. Particular care has been taken to ensure your light gives years of trouble free service.

As a commitment to producing the highest quality products for our customers, Avlite has been independently certified as complying with the requirements of ISO 9001:2008 quality management system.

By taking a few moments to browse through this booklet, you will become familiar with the versatility of your light, and be able to maximise its operating function.

Please remember to complete the Avlite warranty registration card accompanying your light.

## Operating Principle

The solar module of the light converts sunlight to an electrical current that is used to charge the battery. The battery provides power to operate the light at night. For optimum solar charge performance it is recommended that the unit is orientated with the solar panels facing East-West.

The flasher unit has very low current requirements. A microprocessor drives a single, ultra-bright LED through a DC/DC converter, which enables the LED to operate within the manufacturer's specifications. The battery is protected from over-charging within the circuit to ensure maximum battery life.

On darkness, the microprocessor will initiate a program check and after approximately 1 minute will turn on.

## Technology

***Avlite Systems is a world-class solar lighting systems manufacturer with a proven reputation for rapid, innovative, and agile technology solutions designed specifically for defense, government, civil and humanitarian aid operations in the most remote, toughest environments.***

### Electronics

Avlite employs leading in-house electronic engineers in the design and development of software and related circuitry. All individual electronic components are sourced directly by Avlite procurement staff ensuring that only the highest quality components are used in our products.

### LED Technology

All aviation lights use the latest advancements in LED (Light Emitting Diode) technology as a light source. The major advantage of LED's over traditional light sources is well established in that they typically have an operational life in excess of 100,000 hours, resulting in substantial savings to maintenance and servicing costs.

### Precision Construction

Commitment to investing in the design and construction of injection-moulded parts including optic lenses, light bases and a range of other components ensures that all Avlite products are of a consistent and superior quality.

### Optical Performance

Avlite manufactures a range of aviation LED lenses moulded from multi-cavity dies. The company has superior in-house lens manufacturing capabilities to support outstanding optical performance.

### Award-winning, Patented Technology

Several United States and Australian patent registrations are held on Avlite's range of innovative designs, with other regional patents pending in Canada, United Kingdom and Europe.

## Installation

### Charging the Battery

*New lights should be left in the sun for 1-2 days to ensure battery is charged before placing in service. Please note, light will re-charge even when toggle switch is turned to 'OFF' position.*

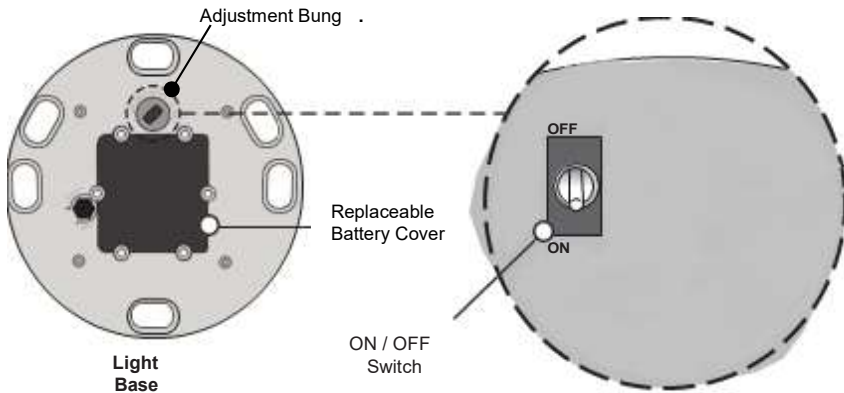
### Preferred Installation Location

For best light performance, ensure solar modules are not covered and are in clear view of the sky with no shadows.

### Manual Setting

Light is activated by ON/OFF Switch. Intensity and flash settings need to be set prior to activation.

1. Remove the marked flash adjustment bung from the base of the light and
2. Set internal toggle switch to 'ON'.
3. Replace flash adjustment bung.
4. A sealed vent on the base allows air transfer without moisture intake, and should not be disturbed.
5. To test place dark cover (towel or jacket) on top of light to activate sensor, light will come on.
6. Ensure that the unit is bolted to an even, flat surface.





## Bluetooth Controller Functions

*The Avlite AV-OL-75 Bluetooth® Control System accessible via the AvlitePro™ App is divided into five simple sections, as outlined below and displayed on the App home screen;*

Light Information

Light identification  
Light name Security  
pin  
Battery Option

Light Status

Battery Voltage with display  
Battery health status  
Geolocation

Solar Calculations

Solar Calculator Options  
Solar Charge  
Autonomy  
Hibernation mode

Programming Options

Light Type Selector  
Operating Mode (Always On, Dusk to Dawn & Standby)

Power Monitoring

Minimum & Maximum Voltage for last 24 hours  
Load Current for both last hour and last 24 hours.  
Charge Current for both last hour and last 24 hours.

Manufacturing Data

Hardware version  
Light serial number.  
Manufacture Date  
Software version  
Battery Last Changed Date  
Date of Last Service

# Accessing the AvlitePro™ App for the first time

## Opening the AvlitePro™ App on an Android or iOS Device

Download the AvlitePro™ App from Google Play (search for “Avlite” store) on an Android Tablet or Smartphone or via the Appstore on an iOS tablet or phone.

Open the App to prompt the Avlite Bluetooth control program.

## Start Menu

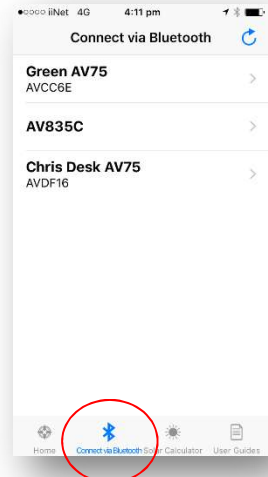
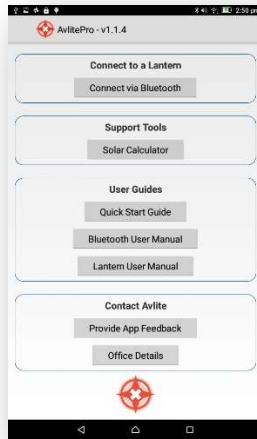
Home – brings you back to the home screen

Connect via Bluetooth - connect to a light.

Solar Calculator – Used to conduct simulations based on locations. NOTE – This feature provides light simulations only in regards to battery autonomy on solar radiation. Changes may be applied through “Connect via Bluetooth” option only.

User Guides –User Manual

Contact Avlite / Us – Provide product feedback and contact Sealite



## Scan for Lights

When the “Connect via Bluetooth” option is selected, the app will automatically scan for lights equipped with Bluetooth within range.

It will only communicate with lights that are turned on and not ‘talking’ to another Bluetooth device.

Select the light, which requires setting or verification.

## Light Information

### Identify Bluetooth Radio ID

Expand the "Lantern Information" tab if collapsed.

When "Identify" on the Tablet or phone is selected, the connected light will flash quickly 10 times.

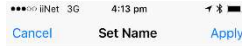
For iOS, identify is represented by a flash / burst icon. The connected light will flash quickly 10 times.



## Light Name

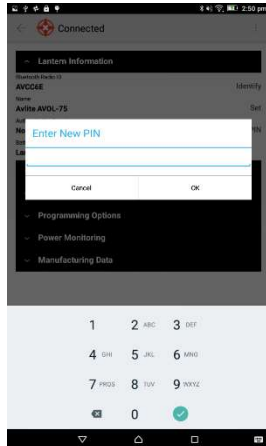
Press “Name” to change the light name. A user defined name, comprising up to 16 alpha-numeric characters (and -, \$, #, @) can be typed into the dialogue box. It is recommended that the light be programmed with a unique name.

Press ✓ and then Set or Apply to confirm.



## Bluetooth Authentication or Setting a PIN

The factory default does not set the light with a security PIN. In order to set a PIN, select “Authentication



Level” (“Bluetooth Authentication for iOS”) then enter a New PIN and press “OK”. A confirmation of the PIN will be prompted. Reenter the same PIN and press “OK”.

## Modify current security access PIN

To set a new security access PIN select “Authentication Level” (“Bluetooth Authentication for iOS”) and type the current security PIN. After validation, the app will request for the current PIN to be re-entered. After confirmation enter the new security PIN then confirm the new PIN. Note - If the Security PIN is lost, go to Page 22 for Password Reset Procedure. Note - The PIN ‘0000’ is reserved and will result in the light having no PIN.



## Light Status

### Voltage

Displays the Battery voltage.

### Battery

Displays the Battery voltage with a simple display, so you can quickly determine the health of your battery.

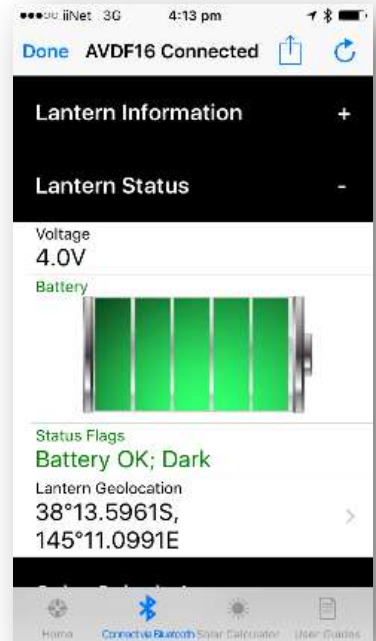
- Green >60% Capacity
- Amber 60% - 20% Capacity
- Red <20% Capacity

### Status Flags

This is quick reference to current state of the Light.

It will display the following

- **LED Fail**, will display if the LED has failed.
- **Day or Dark**, will display when the Light Sensor determines if it is in Darkness or Daylight.
- **Battery OK, Low or Flat**.
- **Light Sensor Failure**, will display if the Light sensor has not sensed a change lux levels in 24 Hours. E.g. the Light did not 'see' two Day/Night transitions



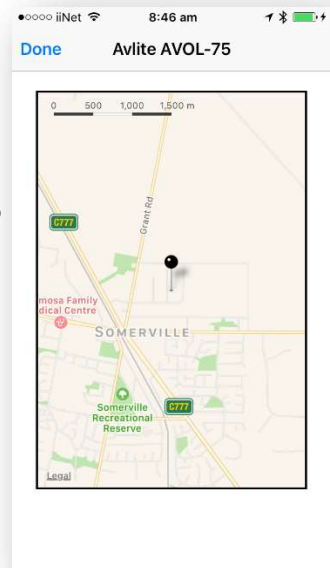
### Light Geolocation

The Location displayed is taken from your device's own GPS location.

By clicking on the location or arrow you can move your location to another part of the world.

This location is used for determining the Solar Calculations.

**Note Android only.** - Select a location globally to estimate the light's autonomy if installed at that location.



# Solar Calculations

## Solar Calculation Options

When selected the customer can add options, such as GSM, which will affect the current consumption of the Light.

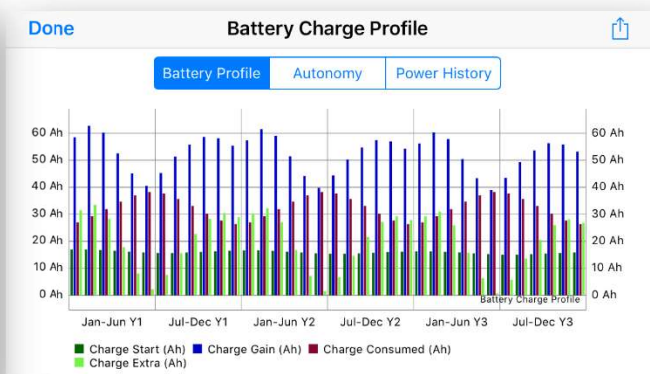
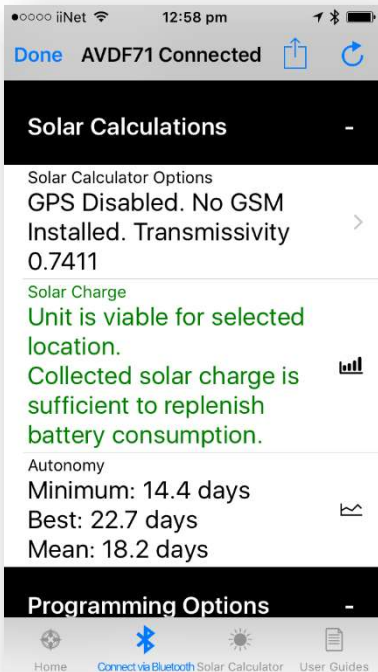
## Solar Charge

This function estimates if there is enough 'sunlight hours' throughout the year to keep the Light's battery fully charged.

By pressing the graph symbol, you will see a display showing Charge Gain, Consumption and Extra Charge for a three-year period.

Solar Charge will be shown in Green if there is sufficient solar charge to replenish the battery.

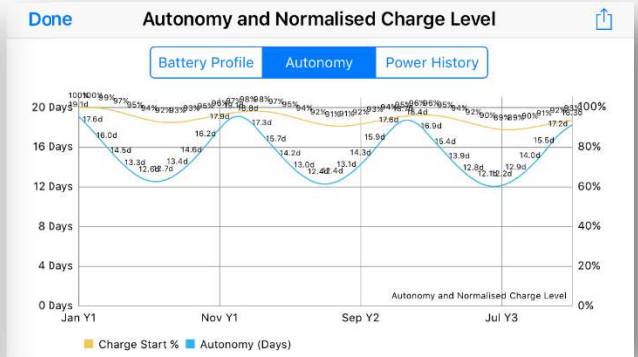
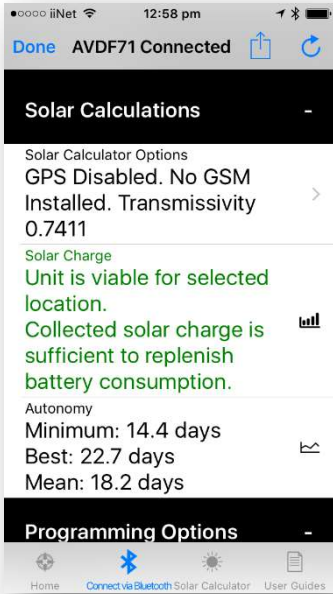
Solar Charge will be shown in Red if there is insufficient solar charge to replenish the battery.



### Autonomy

This function estimates the light autonomy based on the Light settings and geolocation. By pressing the graph symbol, you will see a display showing Battery autonomy throughout a three-year period:

The autonomy is displayed, showing the Best, Mean or Average and Minimum number of days the unit will work.



## Programming Options

### Light Type

The Light is configured to comply with the requirements for ICAO Low Intensity Type A Obstruction Lights.

### Operating Mode:

To change the Operating Mode press the Operating Mode field and then select one of three available options:

- Standby - The light is configured in a minimum current state in which the LEDs are always off
- Always on – The daylight sensor is disabled and the light operates 24/7
- Dusk till Dawn – The daylight sensor is monitored and the light will only operate at night time.

Once the Operating Mode is selected press “Set / Apply” to confirm the change.

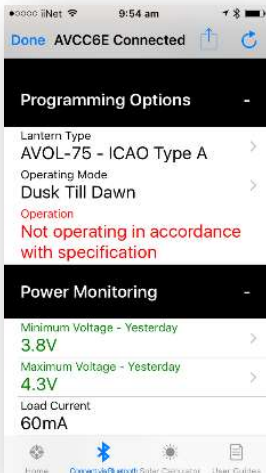
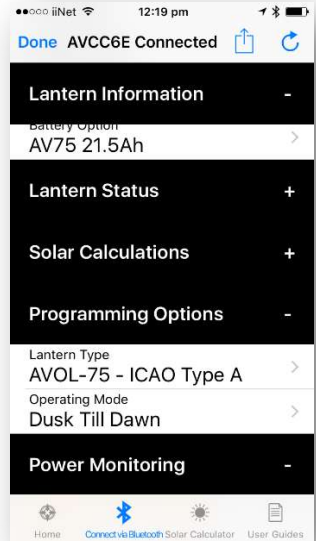
As factory default the light is always set to Dusk Till Dawn mode.

### Operation

The Light will alert the customer if a change occurs to cause the Light to stop activating in accordance with the requirements for ICAO Type A Low Intensity Obstruction Lights.

If this occurs try resetting the Light Type and adjusting the Operation Mode.

Please contact your Avlite dealer for assistance if necessary.

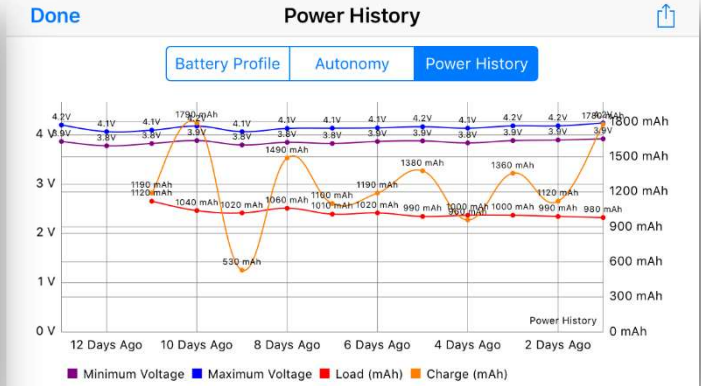
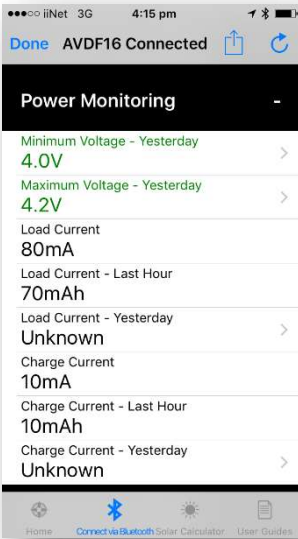


# Power Monitoring

When Bluetooth connection is established with your light, data about the Battery, Solar Charge and Light will appear.

This will display both the instantaneous, previous hour and previous day's power usage.

In addition, by clicking on the arrow a 'Power History' graph will appear showing up to 14 days' worth of data, helping you track the lights performance over a two-week period.



## Manufacturing Data

### Manufacturing Data

When Bluetooth connection is established with your light, data about the light hardware will appear on the “Manufacturing Data” tab.

### Hardware

This identifies the circuit board model number

### Board Serial Number –

This identifies the PCB serial number

### Manufacture Date

This details when the PCB was programmed.

### Software Version

This tab displays the software version loaded on the PCB.

### Battery Last Changed

This is a used adjustable field that alerts the customer when the battery may be due for replacement. The performance of the battery is affected by environmental conditions so please check your Light’s battery performance over the previous two weeks before determining if a replacement is necessary.

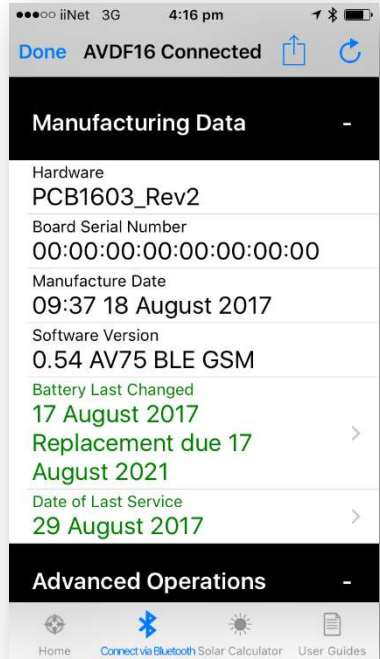
- This will be shown in Green if there is more than two months before the change date.
- This will be shown in Amber if there is less than one month before the change date.
- This will be shown in Red if the change date has passed.

### Date of Last Service

All Avlite AV-OL-75’s are maintenance free, but some customers will have a general maintenance program running at the site. This tab allows the customer to check when the Light was last serviced and organize their maintenance procedures more efficiently.

### email

All information on the Avlite Pro App can be emailed. Just click on the icon at the top of the screen.





## Optional GSM Monitoring & Control System

The lights may also be fitted with GSM Cell-Phone Monitoring and Control – enabling users to access real-time diagnostics data and change light settings via cell-phone. The system can also be configured to send out alarm SMS text messages to designated cellular telephone numbers. Users can also have alarms and reports sent to designated email addresses.

### Installing the Sim Card

1. Unscrew the Bung on the side of the light, to gain access to the GSM compartment.



2. Gently insert the SIM into the holder. Make sure the SIM Card is positioned correctly.



3. Screw the bung back into place. Make sure the bung is tightly secured in order to seal properly.



## Fixed Structure Orientation

Position the panels in an East-West orientation when within +/- 35 degrees latitude of the Equator.

For locations greater than +/- 35 degrees latitude, position the panels in a North / South Orientation.

## Maintenance and Servicing

Designed to be maintenance free, the AV-OL-75 requires minimal attention, though the following maintenance and servicing information is provided to help ensure the life of your Avlite product.

1. Cleaning Solar Panels - occasional cleaning of the solar panels may be required. Using a cloth and warm soapy water, wipe off any foreign matter before rinsing the panels with fresh water.
2. Battery Check - inspection of batteries should be performed every three years (minimum) to ensure that the charger, battery and ancillary electronics are functioning correctly. Either use a voltage meter to check that the battery voltage is at least 3.6 volts under 100MA load, and ensure all terminals are clear of foreign matter, or use the Avlite Pro to quickly determine the battery voltage.

### Replacing the battery- Don't throw the unit out!!

The AV-OL-75 lights are the only compact ICAO LIOL Obstruction light with a double sealed battery compartment. This provides the user with the ability to change the battery after years of operation.

1. Remove the marked flash adjustment bung from the base of the light and set internal toggle switch to 'OFF'.
2. Unscrew small screws to remove battery plate.
3. Remove battery from AV-OL-75 case by disconnecting the Red/Black Connector.
4. Discard old battery in a safe manner.
5. Reconnect a new battery and then place back into case.
6. Reattach battery plate and switch light 'ON' via internal switch. Close the bung.
7. To test place dark cover (towel or jacket) on top of light to activate sensor, light will come on.

***Always discard old batteries in a safe manner.***

### Long Term Storage Instructions

If the AV-OL-75 is to be placed in storage for an extended period, being more than 5 months, please follow the below steps.

1. The 3.6V NiMH Battery must be stored in a fully charged condition.
2. Remove the Flash Adjustment plug and turn the ON/OFF switch to the OFF position.
3. Remove the battery cover and disconnect Battery.
4. Replace the Battery Cover
5. Replace the Flash Adjustment Plug.

All batteries will discharge over time and the rate of discharge is dependent on temperature. If the light is being stored in temperatures greater than 40°C the battery will discharge faster.

Please check battery every 3-6 months and recharge if necessary.

### Recharging the Battery

1. Remove the Battery Cover and connect the Battery.
  2. Remove the Flash Adjustment Plug and turn the ON/OFF switch to the ON position.
  3. Place unit in the sun for 2-4 days
- Or
- a. Reconnect the Battery and place in front of a halogen lamp for 2-3 days. (Do not place the halogen light too close to the solar panel or the panel may be overheated)
  - b. Check the battery voltage regularly to make sure the unit is charging correctly.
  - c. After the battery has been recharged, switch the light OFF.



## Trouble Shooting

Problem	Remedy
Light will not activate.	<ul style="list-style-type: none"> <li>• Ensure internal toggle switch is set to the 'ON' position.</li> <li>• Ensure light is in darkness.</li> <li>• Wait at least 60 seconds for the program to initialise in darkness.</li> <li>• Ensure battery terminals are properly connected.</li> <li>• Ensure battery voltage is above 3.4volts.</li> </ul>
Light will not operate for the entire night.	<ul style="list-style-type: none"> <li>• Expose light to direct sunlight and monitor operation for several days. Avlite products typically require 2.5-3.0 minimum hours of direct sunlight per day to retain full autonomy. From a discharged state, the light may require several days of operational conditions to 'cycle' up to full autonomy.</li> <li>• Ensure solar module is clean and not covered by shading during the day.</li> </ul>
Lights are constantly on during the day.	<ul style="list-style-type: none"> <li>• Check the Operational Mode setting in Avlite Pro is not set to 'Always ON'</li> </ul>

## AvlitePro™ Troubleshooting

Question	Answer
Can use the Solar Calculator under "Support Tool" to verify a Light Autonomy then set the light configuration from there?	No. The actual light settings can be only performed through "Connect via Bluetooth", any solar calculations simulation performed under support tools, can be reflected on the actual light settings.
Do I need to create a PIN when I first start using the Light?	No. The light will operate without setting a security PIN. However, it is highly recommended by Avlite to the customer to set a unique PIN from the moment the light starts to operate.
How do I know the light will have sufficient battery autonomy in my location using the setting I established?	The AvlitePro™ app will automatically recalculate any changes on the light settings and display under "Light Status"
When I try to download AvlitePro™ from Google Play, I see the message "Device not compatible".	AvlitePro™ may not be installed on an Android device running Ice Cream Sandwich (version 4.0.4) or lower. The Google Play store will stop you from attempting to install AvlitePro™ if your device is incompatible. AvlitePro™ requires a device running Android KitKat (version 4.4) to communicate with Avlite Bluetooth lights. AvlitePro™ may be installed on devices running Android Jelly Bean (version 4.1-4.3) however, the 'Connect via Bluetooth' option will not be available.
I have installed AvlitePro™, but the 'Connect via Bluetooth' option is disabled.	AvlitePro™ requires a device equipped with Bluetooth 4.0 or above. If no Bluetooth device is detected, the 'Connect via Bluetooth' option will be disabled. AvlitePro™ also requires a device running Android KitKat (version 4.4) to communicate with Avlite Bluetooth lights. If AvlitePro™ is installed on a device running Android Jelly Bean (version 4.1-4.3) then the 'Connect via Bluetooth' option will not be available.
When I start AvlitePro™, I see the message "Bluetooth Permissions Denied. Please enable all permissions. Go to Settings?"	AvlitePro™ requires permission from Android to access various features of the mobile device, such as use of the Bluetooth module. Some versions of Android enforce these permissions to be granted when AvlitePro™ is installed; later versions require the user to manually grant these permissions. If the message above is shown then the latter scenario has occurred. Please answer 'Yes' to the prompt and AvlitePro™ will attempt to open the 'Settings' page. A list of installed apps should appear. Find AvlitePro™ in the list and press it. At the bottom of the screen should be an 'App permissions' section. Click on this and enable all permissions presented. Then press the 'Back' button until AvlitePro™ reappears. If the above process does not open the 'Permissions' settings correctly, this will have to be performed manually. Return to the device home screen, then open the 'Settings' app and select 'Installed Apps'. Select AvlitePro™ from the list and follow the instructions above. Please consult your device user guide to find out how to access and grant app permissions if the settings cannot be found.
When I press 'Connect via Bluetooth', I see the message 'An app/ AvlitePro™ wants to turn on Bluetooth'.	Connecting to a light via Bluetooth requires that the mobile device has Bluetooth turned on. If this message appears it is because the device's Bluetooth module is turned off. Press 'Allow' and AvlitePro™ will attempt to turn the Bluetooth device on. If required, you may turn Bluetooth off when finished through the device's 'Settings' app. If you press 'Deny' then connection will be cancelled.
When I select 'Connect via Bluetooth', the device performs a scan but tells me that no lights were found.	Several conditions may occur that will prevent lights from being discovered. <ol style="list-style-type: none"> <li>1. Verify that a Bluetooth-equipped Avlite light is nearby and powered on.</li> <li>2. Verify that no other mobile device is connected to the light via Bluetooth. Bluetooth supports only one connection at a time, therefore if another device is connected it must be disconnected before the light appears in a scan result.</li> <li>3. Turn the Bluetooth feature of the mobile device off and on again. This may be performed through the Android Notification Bar of some devices or through the Settings app. See your device user manual for full instructions.</li> <li>4. Some Android devices require Location Services to be enabled before they will 'see' Bluetooth lights. Location Services may be enabled through the Android Notification Bar of some devices or through the Settings app. See your device user manual for full instructions.</li> <li>5. Turn the light off and then on again.</li> <li>6. Ensure your device is within its Bluetooth range.</li> </ol> <p>If the problem persists please contact Avlite for assistance.</p>
I have connected to a light via Bluetooth, but the message "Light Comms Failure. Retrying..." keeps appearing.	Try disconnecting from the light, then rescanning and connecting. It is possible that the light is at the edge of the Bluetooth range, or maybe the data connection is unreliable. If the problem persists please contact Avlite for assistance.

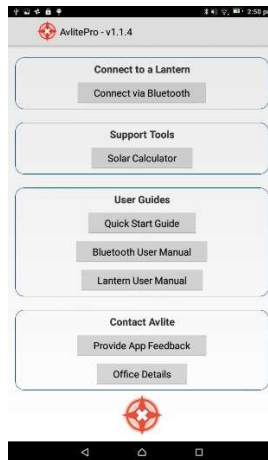
## AvlitePro™ Password Reset Procedure

### Step 1 - AV-OL-75 ON/OFF toggle switch:

1. Use the Switch key provided in the product box to remove the AV-OL-75 bung to access the AV-OL-75 ON/OFF toggle switch;
2. Use the Switch key to activate the Light ON/OFF toggle switch. First switch Off the light then immediately Switch On the light again;

### Step 2 – Connect to the Light using the AvlitePro™:

Once the toggle switch was activated (OFF then ON) ensure the following procedure is conducted within one minute. Otherwise it will require to perform the Step 1 once again:



1. Connect to a Light, by pressing “Connect via Bluetooth®”;
2. Select a Light displayed on the “Scan for Lights”;



3. Expand the “Light Information” drop down menu then press select “Authentication Level” (“Bluetooth Authentication for iOS”) . NOTE – If “Authenticated” appears under “Authentication Level”, the limited time that allows to modify the PIN has expired. Therefore, it will require to perform the Step 1 again;
  
4. If under “Authentication Level” appears “No PIN Set“, Please press Change PIN;
  
5. Enter a New PIN and press “OK”. A confirmation of the PIN will be prompted. Reenter the same PIN and press “OK”;
  
3. One the procedure is completed, ensure to place the AV-OL-75 bung back on the base.
  
4. **END OF PROCEDURE**



**Notes**

## Avlite Light Warranty V1.3

### Activating the Warranty

Upon purchase, the Avlite Systems warranty must be activated for recognition of future claims. To do this you need to register on-line. Please complete the Online Registration Form at:

[www.avlite.com](http://www.avlite.com)

**Avlite Systems will repair or replace your light in the event of electronic failure for a period of up to three years from the date of purchase.**

**Avlite Systems will repair or replace any ancillary or accessory products in the event of failure for a period of up to one year from the date of purchase, as per the terms & conditions below.**

**The unit must be returned to Avlite freight prepaid.**

### Warranty Terms

1. Avlite Systems warrants that any Avlite aviation products fitted with telemetry equipment including but not limited to GSM, GPS or RF ("Telemetry Products") will be free from defective materials and workmanship under normal and intended use, subject to the conditions hereinafter set forth, for a period of twelve (12) months from the date of purchase by the original purchaser.
2. Avlite Systems warrants that any rotationally-moulded products ("Roto-Moulded Products") and accessory products ("Accessory Products") will be free from defective materials and workmanship under normal and intended use, subject to the conditions hereinafter set forth, for a period of twelve (12) months from the date of purchase by the original purchaser.
3. Avlite Systems warrants that any Avlite aviation products other than the Telemetry Products, Roto-Moulded Products and Accessory Products ("Avlite Products") will be free from defective materials and workmanship under normal and intended use, subject to the conditions hereinafter set forth, for a period of three (3) years from the date of purchase by the original purchaser.
4. Avlite Systems warrants that any Avlite obstruction products other than the Telemetry Products, Roto-Moulded Products and Accessory Products ("Avlite Products") will be free from defective materials and workmanship under normal and intended use, subject to the conditions hereinafter set forth, for a period of five (5) years from the date of purchase by the original purchaser.
5. Avlite Systems will repair or replace, at Avlite's sole discretion, any Telemetry Products, Roto-Moulded Products, Accessory Products or Avlite Products found to be defective in material and workmanship in the relevant warranty period so long as the Warranty Conditions (set out below) are satisfied.
6. If any Telemetry Products or Avlite Products are fitted with a rechargeable battery, Avlite Systems warrants the battery will be free from defect for a period of one (1) year when used within original manufacturer's specifications and instructions.

### Warranty Conditions

This Warranty is subject to the following conditions and limitations;

1. The warranty is applicable to lights manufactured from 1/1/2009.
2. The warranty is void and inapplicable if:
  - a. the product has been used or handled other than in accordance with the instructions in the owner's manual and any other information or instructions provided to the customer by Avlite;
  - b. the product has been deliberately abused, or misused, damaged by accident or neglect or in being transported; or
  - c. the defect is due to the product being repaired or tampered with by anyone other than Avlite or authorised Avlite repair personnel.
3. The customer must give Avlite Systems notice of any defect with the product within 30 days of the customer becoming aware of the defect.
4. Rechargeable batteries have a limited number of charge cycles and may eventually need to be replaced. Typical battery replacement period is 3-4 years. Long term exposure to high temperatures will shorten the battery life. Batteries used or stored in a manner inconsistent with the manufacturer's specifications and instructions shall not be covered by this warranty.

5. No modifications to the original specifications determined by Avlite shall be made without written approval of Avlite Systems.
6. Avlite lights can be fitted with 3rd party power supplies and accessories but are covered by the 3rd party warranty terms and conditions.
7. The product must be packed and returned to Avlite Systems by the customer at his or her sole expense. Avlite Systems will pay return freight of its choice. A returned product must be accompanied by a written description of the defect and a photocopy of the original purchase receipt. This receipt must clearly list model and serial number, the date of purchase, the name and address of the purchaser and authorised dealer and the price paid by the purchaser. On receipt of the product, Avlite Systems will assess the product and advise the customer as to whether the claimed defect is covered by this warranty.
8. Avlite Systems reserves the right to modify the design of any product without obligation to purchasers of previously manufactured products and to change the prices or specifications of any product without notice or obligation to any person.
9. Input voltage shall not exceed those recommended for the product.
10. Warranty does not cover damage caused by the incorrect replacement of battery in solar light models.
11. This warranty does not cover any damage or defect caused to any product as a result of water flooding or any other acts of nature.
12. There are no representations or warranties of any kind by Avlite or any other person who is an agent, employee, or other representative or affiliate of Avlite, express or implied, with respect to condition of performance of any product, their merchantability, or fitness for a particular purpose, or with respect to any other matter relating to any products.

### **Limitation of Liability**

To the extent permitted by acts and regulations applicable in the country of manufacture, the liability of Avlite Systems under this Warranty will be, at the option of Avlite Systems, limited to either the replacement or repair of any defective product covered by this Warranty. Avlite Systems will not be liable to Buyer for consequential damages resulting from any defect or deficiencies in accepted items.

### **Limited to Original Purchaser**

This Warranty is for the sole benefit of the original purchaser of the covered product and shall not extend to any subsequent purchaser of the product.

### **Miscellaneous**

Apart from the specific warranties provided under this warranty, all other express or implied warranties relating to the above product is hereby excluded to the fullest extent allowable under law. The warranty does not extend to any lost profits, loss of good will or any indirect, incidental or consequential costs or damages or losses incurred by the purchaser as a result of any defect with the covered product.

### **Warrantor**

Avlite Systems has authorised distribution in many countries of the world. In each country, the authorised importing distributor has accepted the responsibility for warranty of products sold by distributor. Warranty service should normally be obtained from the importing distributor from whom you purchased your product. In the event of service required beyond the capability of the importer, Avlite Systems will fulfil the conditions of the warranty. Such product must be returned at the owner's expense to the Avlite Systems factory, together with a photocopy of the bill of sale for that product, a detailed description of the problem, and any information necessary for return shipment.