

Installation Manual

VARIO^{iP} PoE

**Installation only by suitably trained and qualified personnel
Suitable for Internal and External Applications**

BOX CONTENTS

VARIO IP PoE LAMP
60° x 25° Diffuser
Waterproof RJ45 connector

Infra-Red (IR) or White-Light (WL)

System requirements: PC running Windows 7 with IE9 (or equivalent) and network access.

**Warnings**

- Install in a well ventilated area
- Do not stare at the lamp for prolonged periods
- **IR Variants:** CAUTION - IR emitted from this product – Risk Group 2.
Avoid prolonged exposure or use appropriate shielding or eye protection. Risk Group 2 for cornea / lens infrared hazard. At a distance of more than 1840mm for all products the unit is in the exempt group.
- **White Light Variants:** Risk Group 2 Classification. Caution – Possible hazardous optical radiation emitted from this product. May be harmful to eyes, do not stare at the lamp. Hazard distance is 1840mm.

Product Introduction

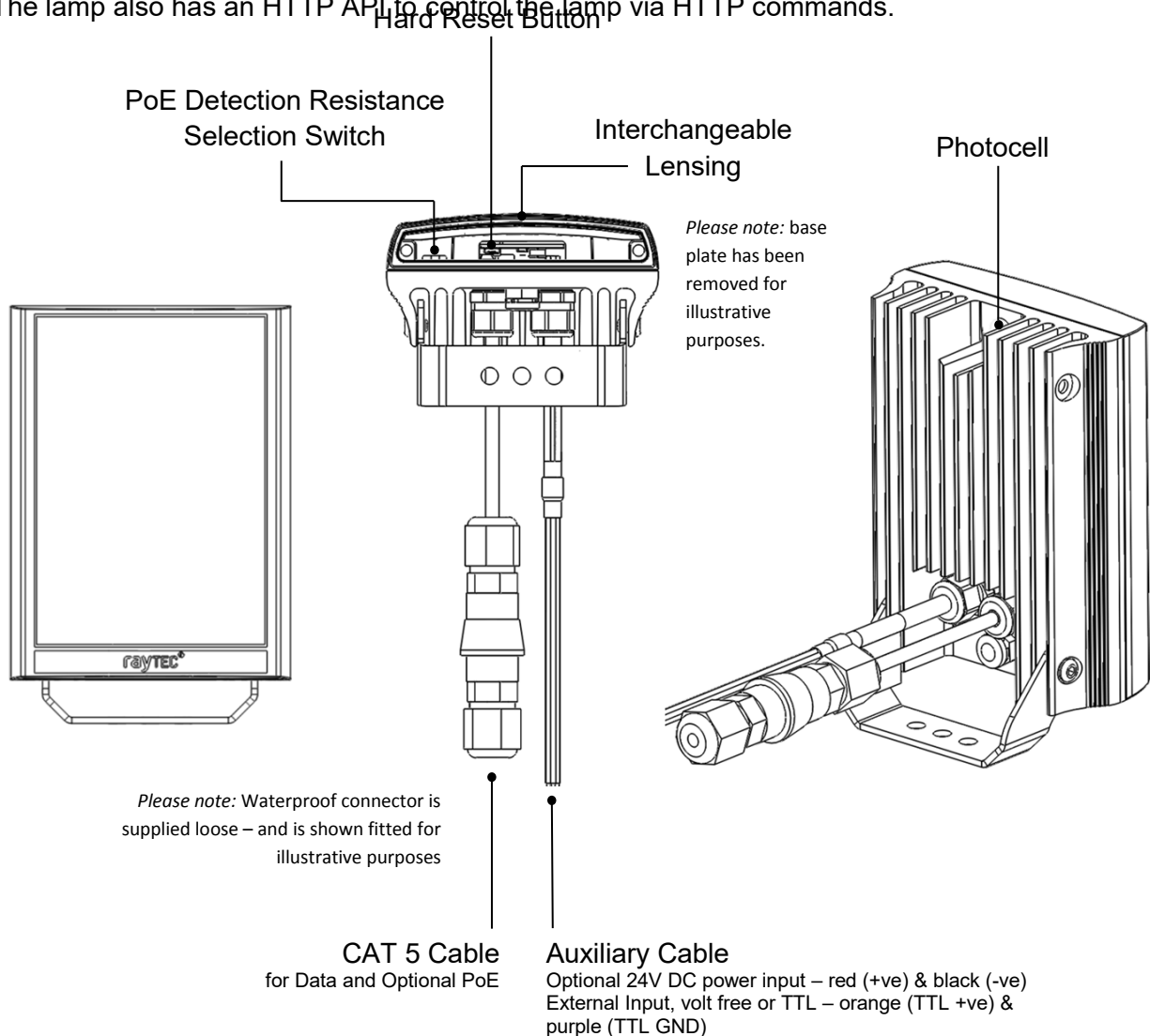
VARIO IP is a Network Illuminator designed to connect to a suitable network and is provided with an integrated Web Interface. There is the RayLED Discovery Tool for easy identification and connection to the lamp or you can connect directly to the lamp via its IP address.

The lamp has a CAT5 cable for data connection and can be powered from PoE and is supplied with a waterproof Cat 5 connector. The lamp also has an auxiliary cable if low voltage 24V DC operation is preferred.

The lamp has a photocell for automatic day/night switching and has an External Input (to act as a telemetry, trigger input, volt free or TTL) and an External Output (volt free output) and benefits from RayLED's interchangeable lens system so that the correct angle of illumination can always be achieved easily.

The lamp has Operator and Administrator log-on and access rights. The Operator has access to the Homepage and Diagnostic pages. The Administrator has access to all pages.

An API is available for programmers for integration within a VMS / BMS environment. The lamp also has an HTTP API to control the lamp via HTTP commands.



Basic Steps

STEP 1: Safety Information (Pg. 1)

STEP 2: Wiring (Pg. 4)

For PoE, use standard CAT 5 or better for both power and data. For all 8 sized products, check the PoE detection resistance of the lamp is compatible with your PoE equipment (24.9KΩ is factory default).

For low voltage (non-PoE) apply 24V DC to red and black cores of auxiliary cable and use standard CAT 5 or better for data connection. Connect external inputs and external output wires as required.

IMPORTANT:

Ensure PoE equipment or 24V PSU are suitably rated

For 8 sized products check PoE detection resistance is set correctly

Ensure Cat 5 cable and auxiliary cable are correctly terminated and waterproofed after installation

If using low voltage, a CAT 5 cable must still be connected to the network for communication

If not using auxiliary cable, it must still be suitably terminated and waterproofed

STEP 3: Physical Installation (Pg. 5-6)

Adjust interchangeable lens if required.

Fix to wall, pole or camera unit using U bracket provided or other RayLED bracketry.

IMPORTANT:

Ensure lamp is rated to provide required viewing distances and select correct angle

Ensure lamp is orientated in the correct direction

STEP 4: Change IP address and connect to the lamp (Pg. 7-8)

All Vario IPs have the same default IP address and this must be changed immediately to avoid any potential conflicts or communication errors.

We recommend the easiest and fastest way to identify and connect to lamps is using the RayLED Discovery Tool where the IP address can be altered or DHCP enabled.

Alternatively, type the IP address of lamp into a web browser – default is 192.168.2.80 – and use web interface to manually alter IP address.

IMPORTANT:

We recommend RayLED Discovery Tool as being the easiest way to establish communication.

If using IP address for direct communication, lamp and computer must be in same network range.

STEP 5: Lamp Set-Up (Pg. 8-12)

Log-on and Security

Basic Lamp Setup

Basic Web Page Functionality

STEP 6: Basic Troubleshoot (Pg. 12-13)

For full, detailed instructions and troubleshooting visit www.RayLED.com

Wiring

The lamp is supplied with a terminated CAT5 cable with a waterproof Ethernet connector (supplied loose i.e. not fitted) and an auxiliary multi-core cable.

Option 1 – Power via PoE

Connect an Ethernet cable (category 5 or better) using the T-568B wiring standard between the Power Sourcing Equipment (PSE) and the lamp. Ensure that the PSE is sufficiently rated to power the Vario IP device as follows:

Model	PoE Requirement
VAR-IPPOE-w4-1, i4-1, i4-1-c	IEEE 802.3at (HP PoE) ≤25.5W
VAR-IPPOE-w8-1, i8-1, i8-1-c	4-pair PoE ≤51W

The CAT5 cable is both the power and data connection for the lamp. The maximum Ethernet cable length is 100m (328') without boosting the signal.

Ensure you make a waterproof connection to the RJ45 as shown below. Ensure the connector is waterproof and sealed after the connection is made.



To lamp

RJ45-RJ45 connector

To Network

Option 2 – Power from 24V DC

If using low voltage power, connect **24V DC** to the red (+ve) and black (-ve) cables of the auxiliary cable. In this case the Ethernet cable is a data connection only.

For either Option 1 or Option 2 above, connect external input trigger and external output as required – see table below:

Colour	Description	Wire Gauge (AWG)
Orange	External Input -Volt free or TTL +ve	22
Purple	External Input -Volt free or TTL GND	22
Yellow	External Output – Volt free	22
White	External Output - Volt free	22

WARNING: To maintain the IP rating of the product the multicore auxiliary cable must be waterproofed and terminated appropriately even if it is not in use.

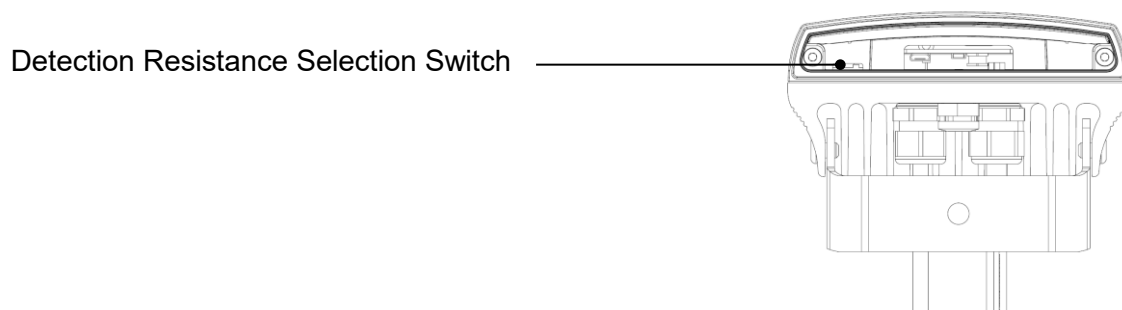
PoE Detection Resistance Selection Switch

There is a switch on the **VAR-IPPOE-w8-1**, **i8-1** and **i8-1-c** lamps which can be used to change the PoE detection resistance of the lamp (24.9KΩ is the factory default setting).

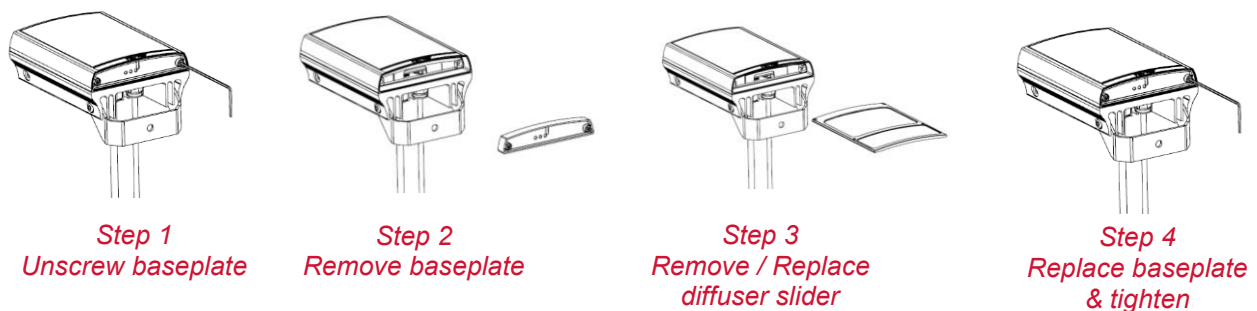
Turn the power to the lamp OFF, remove the baseplate and access the switch as shown.

The majority of PSE equipment requires a detection resistance of 24.9KΩ to establish a PoE link. Some models of PSE equipment require a 12.5KΩ detection resistance. Check with your supplier of PSE equipment.

For 24.9 KΩ, slide switch to the LEFT (factory default – as shown). For 12.5 KΩ, slide switch to the RIGHT.



Interchangeable Lenses: Changing the Angle



The lamp is delivered with a 35° beam angle. To alter to 10°, remove the baseplate from the bottom of the product and remove the existing lens and then re-attach the baseplate securely. With no lens insert the product produces a 10° beam angle.

To alter to any other angle, remove the existing lens and insert the required lens which will have its angle indicated on it. Ensure the baseplate is securely re-attached to maintain waterproof integrity of the product.

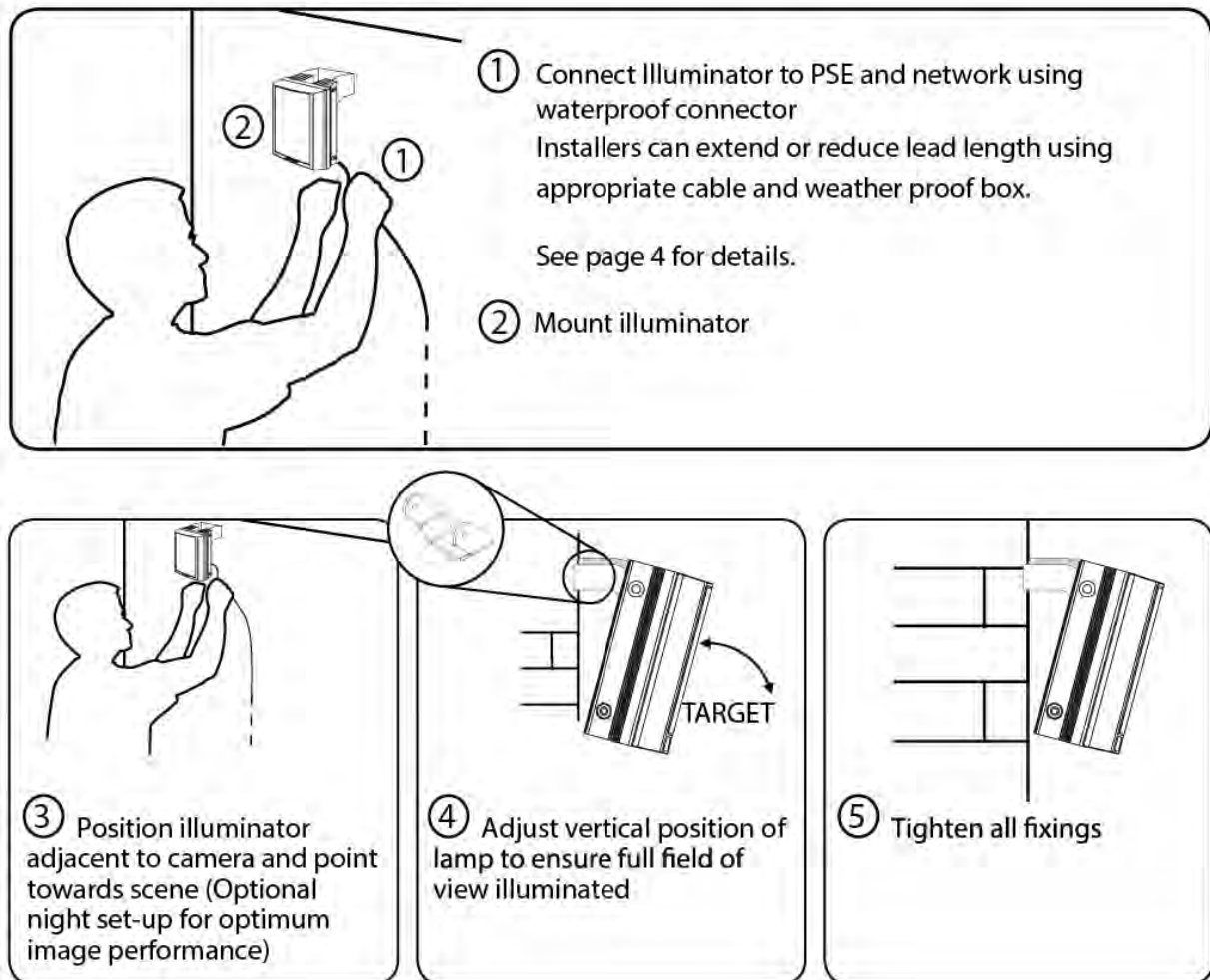
The angles available as standard are: 10°x10° (NO lens / diffuser in place), 35°x10° and 60°x25°. Other angles are available to order: 80°x30° and 120°x50°.

Installation

VARIO IP is delivered as standard with bracket at the bottom of the unit. This can be moved to top of the unit if required.

Attach lamp to wall, housing or pole using U-bracket provided or dedicated RayLED bracketry.

Connect lamp to PSE and network.



Connecting to the Network

Assign an IP Address

All Vario IPs have the same default IP address (192.168.2.80) and this must be changed immediately to avoid any potential conflicts or communication errors.

There are two main ways to change the IP address of a lamp:

OPTION 1: RayLED Discovery Tool

We recommend the easiest and fastest way to identify and connect to lamps is using the RayLED Discovery Tool where the IP address can be altered or DHCP enabled. Using the RayLED Discovery Tool avoids the need to have the computer and lamp in the same network range in order to alter the IP address. This free application is downloadable from our website or please contact RayLED.

To change the IP address using the RayLED Discovery Tool so that you can communicate with the lamp(s) you can:

A. Run the RayLED Discovery Tool. Single click on lamp to highlight it. Select **Network** from bottom menu. Highlight DHCP option. Press **OK**, then **OK** again to the “Confirm Changes” dialog box. Press **Discover**. The lamp should now appear with a valid IP address. You can now double click lamp to navigate to it.

WARNING: Your network must have DHCP capability.

B. Run RayLED Discovery Tool. Single click on lamp to highlight it. Select **Network** from bottom menu. Write in a new IP address and subnet mask - which must be compatible with your network. Check with your IT manager. After changing the IP address and subnet mask, press **OK**, then **OK** again to the “Confirm Changes” dialog box. Press **Discover**. You can now double click lamp to navigate to it.

OPTION 2: Use the Lamp’s Web Interface

Alternatively, type the IP address of lamp into a web browser – default is 192.168.2.80 – and use the web interface using the “Network” tab on the left hand side to manually alter the IP address or enable DHCP. For manual allocation of a static IP address it is important that the network administrator controls and ensures the IP addresses issued are unique and not repeated. In order to establish communication the computer and lamp must be in the same network range.

In either option above, if DHCP is enabled, your network must have DHCP capability.

Note: - If assigning the IP address fails, check that there is no firewall blocking the operation and that the computer and lamp have IP addresses in the same range.

Basic RayLED Discovery Tool

The RayLED Discovery Tool is downloadable from our website or you may request it from RayLED.

During the initial set-up we strongly recommend that you use the RayLED Discovery Tool on a computer on the same network as the Vario IP lamps to discover and establish connection.

The lamp responds to multicast messages - and therefore does not need to have a valid IP address in the same network range for the RayLED Discovery Tool to find it. But it does require a valid IP address for connection and communication. ALL IP addresses need to reside within the same network address range to ensure these components can communicate with each other.

With the VARIO IP powered and attached to the same network, Press **Discover** and the RayLED Discovery Tool will display a list of lamps available on the network.

See instructions above on how to change IP address or enable DHCP in order to allow communication with the lamp.

Once the IP address of the lamps have been changed, you can double click onto the lamp from the RayLED Discovery Tool to navigate directly to the lamp.

The RayLED Discovery Tool allows you to:-

- Discover all lamps on the network – lamps do not need a valid IP address to be discovered
- Alter IP address of lamp – the lamp must have a valid IP address to allow communication
- Enable DHCP
- Navigate directly to each lamp – once a valid IP address has been assigned
- See the lamps status
- See whether the lamp is ON / OFF
- View what the MAC address is of each lamp
- Change Network Settings
- Change the Name and Group Name
- See additional lamp details including Names, Firmware version, Model number and the time the lamp has been powered.

Hierarchy of Photocell vs. Telemetry

If the telemetry function is enabled, then the photocell must detect that is it dark for the telemetry function to operate. The photocell overrides the telemetry function during the day.

If the external input/telemetry function needs to be operated 24 / 7, then the photocell function should be disabled from the settings / groups page.

The system requires 15 seconds of light to deactivate the photocell and turn the lamps off to avoid accidental turn off of the lamps via car headlights or torches.

If Lamps are in Groups the following rules apply

- ANY sending lamp within a group which says it is dark will turn all the lamps in the group on (subject to local lamp settings)
- ALL lamps in the group need to say it is light before all the group lamps will go off together (subject to local conditions)

Log-on & Basic Lamp Setup

Log-on using Operator or Administrator user names and passwords. Operator has limited access rights. Administrator has full access rights.

Defaults (User Names & Passwords are case sensitive):

Users & Passwords	Name	Password
Operator	user	password
Administrator	admin	password

In order to maintain maximum security of your system, you may want to consider changing the passwords at the earliest opportunity (for further information, please see page 36 of full installation instructions available at www.RayLEDv.com).

Take instant control of a lamp by pressing the Override button on home page. This will countdown for 30 minutes to allow user to control the lamp and then will revert to standard settings automatically or if the Override button is deselected. Override is only available when the lamp mode is set to **Local**, **HTTP + Local** or **VMS + Local**.

To operate the lamp via a VMS or third party application that uses the RayLED API, then the lamp mode should be set to **VMS** or **VMS + Local**. In VMS mode the lamp will ignore Photocell and External Input triggers and respond only to valid VMS commands. In **VMS + Local** mode the lamps can be controlled via a VMS system whilst also still responding to local photocell and telemetry triggers.

To operate the lamp with an application that uses the HTTP API, then the lamp mode should be set to **HTTP** or **HTTP + Local**. In HTTP mode the lamp will ignore Photocell and External Input triggers and respond only to valid HTTP commands. In **HTTP + Local** mode the lamps can be controlled with HTTP commands whilst also still responding to local photocell and telemetry triggers.

VMS integration allows the lamp(s) to be directly controlled and triggered by events within the VMS environment such as scheduled events, alarm triggers, camera commands, etc.

HTTP Integration allows the lamp to be directly controlled and triggered on receipt of valid HTTP commands generated on the network from VMS, cameras or other components capable of generating HTTP commands.

The lamp mode can be changed on the Settings / Groups page. The default lamp mode is **Local**.

Standard Setup – Factory Defaults

The lamp is operating in Local mode and will respond only to its own photocell and telemetry status. As default the lamp is NOT assigned to a group.

The lamp will turn ON / OFF automatically when the photocell detects it is dark / light at 100% (soft start) via the photocell.

The External Input will activate the lamp at 100% (NOT soft start) for the duration of the input provided the photocell detects it is dark.

External Output: activated by photocell and will become short circuit when active.

Factory Defaults

Name	VARIOIP
Group Name	<<Deliberately Left Blank>>
IP Address	192.168.2.80
Enable DHCP Checkbox	Not Selected – IP addresses will NOT be automatically allocated. If lamp is being operated on a DHCP enabled network, DHCP can be selected for automatic allocation of IP address.
Lamp Mode	<i>Local</i> : Control the lamp using the web interface. Lamp will respond to its own photocell and telemetry events.

	<i>Photocell</i>	<i>External Input</i>
Trigger Control	Lamp Control	Lamp Control
Respond to Group Commands	No, ignore group command	No, ignore group command
Lamp Mode on Trigger	On	On
Power (%)	100%	100%
Duration	All night	Duration of Input
Soft Start	On	Off

Deterrent

Pattern = SOS

Frequency = Slow

Advanced Settings

Manual Override

Countdown Duration = 30 mins

Photocell Sensitivity = 20 lux

External Input

Type of Input = Volt Free

Active State = Short Circuit / Low

External Output

Trigger State = Photocell Only

Active State = Short Circuit / Low

Basic Web Page Functionality

User has access to Home Page and Diagnostics pages.
Admin has access to all pages.

<u>Page Name</u>	<u>Functions available</u>
Home Page	Allows manual control of an individual lamp or group of lamps including power adjustment, boost and deterrent controls. Select override to operate above functions.
Settings / Groups	Allows detailed set-up and configuration of the lamp including how it responds to Photocell and External Inputs, duration on period, power levels, soft start, response to group commands, deterrent patterns and speeds. Allows lamps to be allocated to a group or to create a new group. Selectable control of lamp either locally, by VMS or http commands.
Adv. Settings	Allows for further detailed setup of External Input, External Output, Photocell sensitivity level and duration of Override.
Access	Change passwords
Network	Allocate IP address and other network settings, select DHCP operation, allocate lamp name
System Information	Indicates basic information about the lamp. Ability to restore factory settings or restart lamp.

Diagnostics	Basic diagnostics to enable 1 st level troubleshooting
Adv. Diagnostics	Advanced diagnostics to enable 2 nd level troubleshooting
Software Update	Indicates current software / firmware version. Ability to upload updated software / firmware version.
Log Off	We recommend logging off lamp after every session

Ping

The lamp will respond to a standard Ping command sent to its valid IP address. For the ping command to work the lamp and computer must reside in the same network range.

Basic Troubleshoot

- Check if the camera and illuminator are aligned correctly.
- For Infra-Red illumination, ensure that a Day and Night or Black and White camera is used and that the camera switches correctly into night mode.
- Check camera and lens. Is iris fully open at night and set correctly. Ensure camera is fully operational and has correct night time settings and capability.
- Ensure correct illuminator lens angle selected for required distance – check stated performance.
- Check the LED status indicator: if green LED indicator is lit on the bottom of the unit, then the unit is receiving power.
- If powering from PoE, ensure Power Sourcing Equipment (PSE) is suitably rated for the Vario IP unit – see page 4 for required ratings – and for all 8 size units check correct PoE Detection Resistance has been selected – see page 5.
- If powering from low voltage 24V DC, check voltage applied and that power supply is suitably rated for the Vario IP unit – see page 4 for required ratings.
- Check connection and wiring of CAT5 / 6 cable to VARIO IP. Verify link has been established with the router / switch to which the lamp is connected and that the wiring is compatible with T-568B wiring standard.
- If the lamps are correctly wired to the network, run the RayLED Discovery Tool and try to discover the lamp on the network.
- If the lamp is discovered and the “State” indicator is grey, this indicates that there is no communications with the lamp. Ensure IP Address and Subnet Mask of computer

and lamp are set within the same range. If not, alter IP address of lamp or Enable DHCP on lamp for automatic allocation of suitable IP address.

- Enter a Ping command to see if the lamp and device are on the same network and have communication.
- If still unsuccessful try a different web browser.
- If unit still cannot be discovered then type default IP address into browser:
192.168.2.80
- If no communication possible after above steps, please contact RayLED for further support or consider a Hard Reset of the lamp.

FOR A FULL SET OF DETAILED INSTRUCTIONS AND IN-DEPTH TROUBLESHOOT PLEASE CONTACT RAYLED OR DOWNLOAD FROM www.RayLEDctv.com

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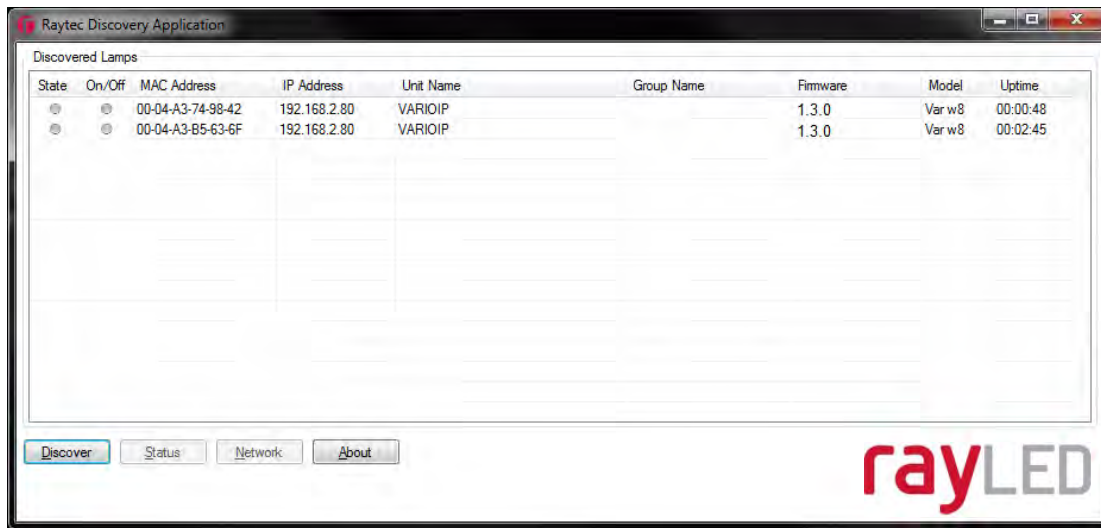
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Detailed RayLED Discovery Tool

The RayLED Discovery Tool will discover and display all VARIO IP Lamps on your network.

The lamp responds to multicast messages - and therefore does not need to have a valid IP address in the same network range for the RayLED Discovery Tool to find it. But it does require a valid IP address for connection and communication.

Load the RayLED Discovery Tool from the USB provided (or contact RayLED for a copy) onto a computer on the same network as the lamp. Run the application and press **Discover**.



The RayLED Discovery Tool allows you to:-

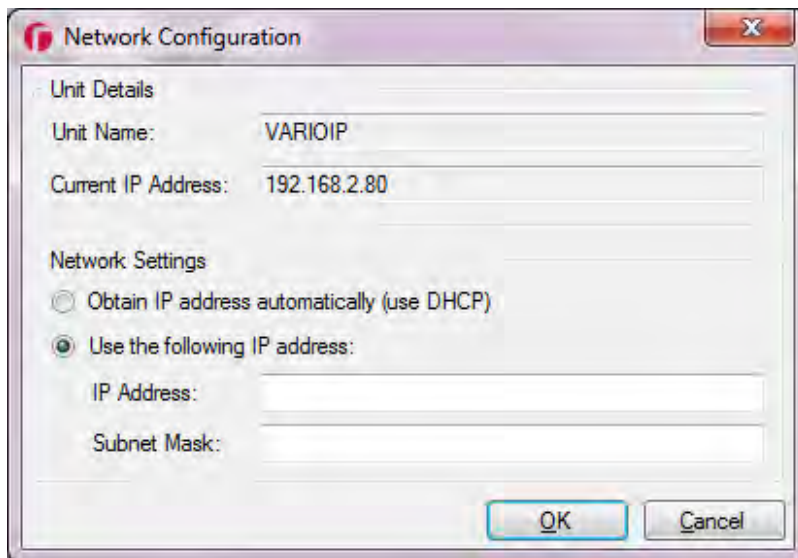
- Discover all lamps on the network – lamps do not need a valid IP address to be discovered
- Alter IP address of lamp – the lamp must have a valid IP address to allow communication
- Enable DHCP
- Navigate directly to each lamp – once a valid IP address has been assigned
- See the lamps status
- See whether the lamp is ON / OFF
- View what the MAC address is of each lamp
- Change Network Settings
- Change the Name and Group Name
- See additional lamp details including Names, Firmware version, Model number and the time the lamp has been powered.

On the image above, two lamps have been discovered on the network. They are unique in that they have different MAC addresses, but the same IP Address and Unit Name. The application allows the lamps now to be configured.

Network Settings

To change the network settings, highlight the lamp to be changed and press **Network**.

The “Network Configuration” screen will be shown.

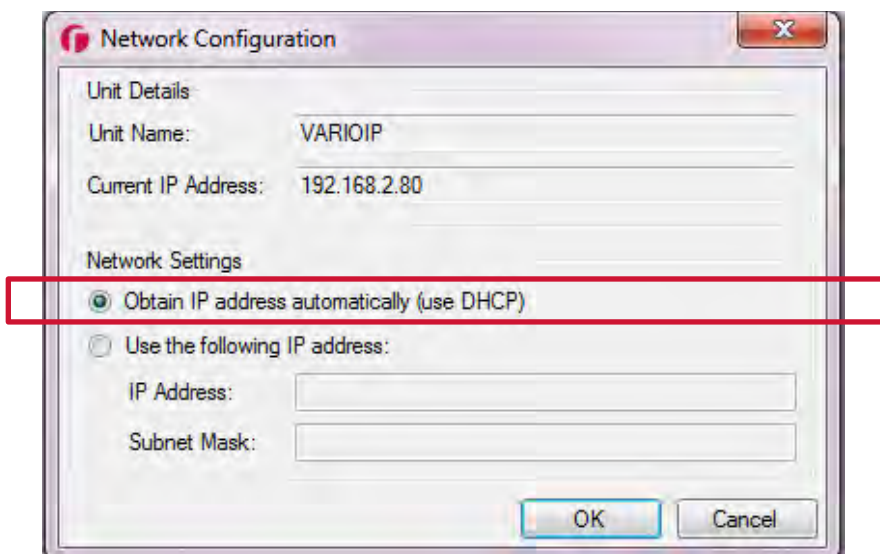


Two options are available to set the IP Address at this stage:-

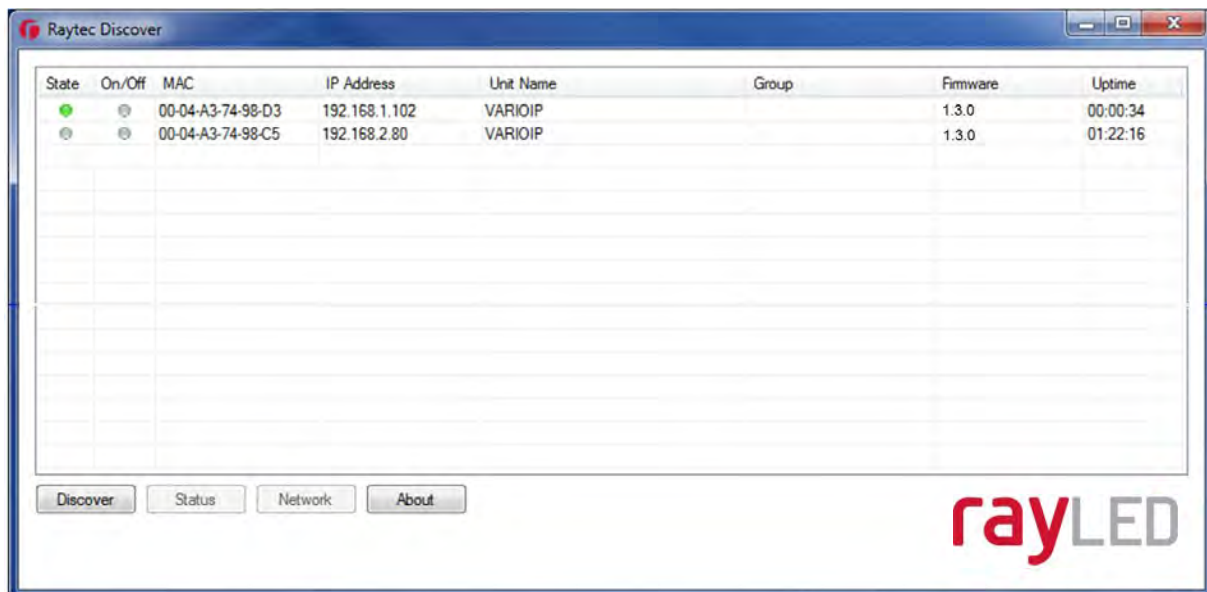
1. Enable DHCP – if the network is DHCP enabled
2. Enter a Static IP Address and Subnet Mask

DHCP – Automatic allocation of IP address

Select **Obtain IP address automatically (use DHCP)** and press **OK**.

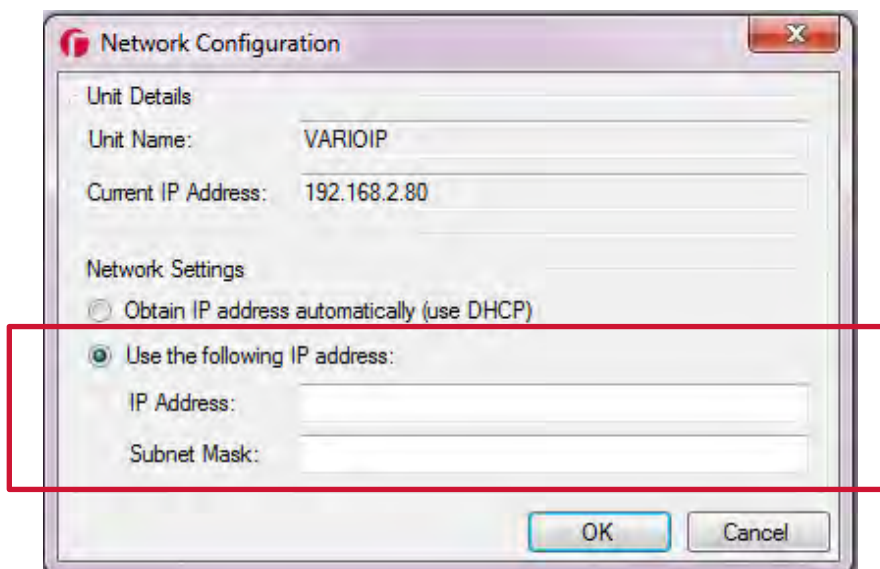


The unit will now be allocated an IP Address via the network's DHCP server. Refresh the RayLED Discovery Tool by pressing **Discover**. The lamp's IP address should automatically be updated into the required range and the lamp can now be accessed directly from the RayLED Discovery Tool by double clicking on the lamp from the list of discovered lamps.

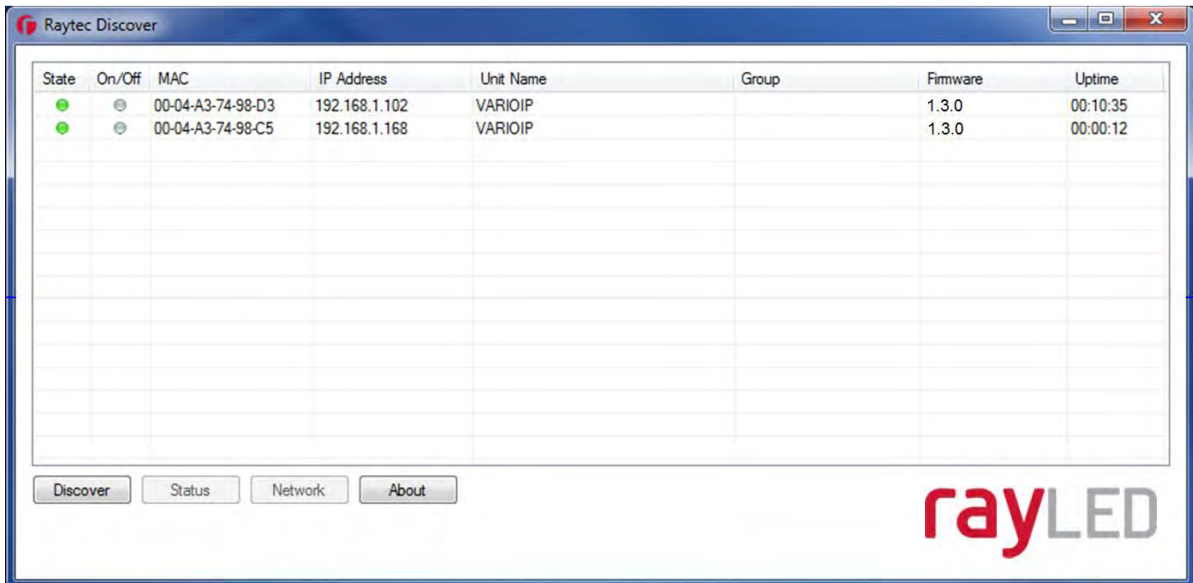


Static Network Configuration – Manual allocation of IP address

To use static network configuration it is important that the network administrator controls and ensures the IP Addresses issued are unique and not repeated. Enter the appropriate IP Address and Subnet Mask having selected **Use the following IP address** and press **OK**.



The unit will now be allocated the IP Address as entered. Refresh the RayLED Discovery Tool by pressing **Discover**.



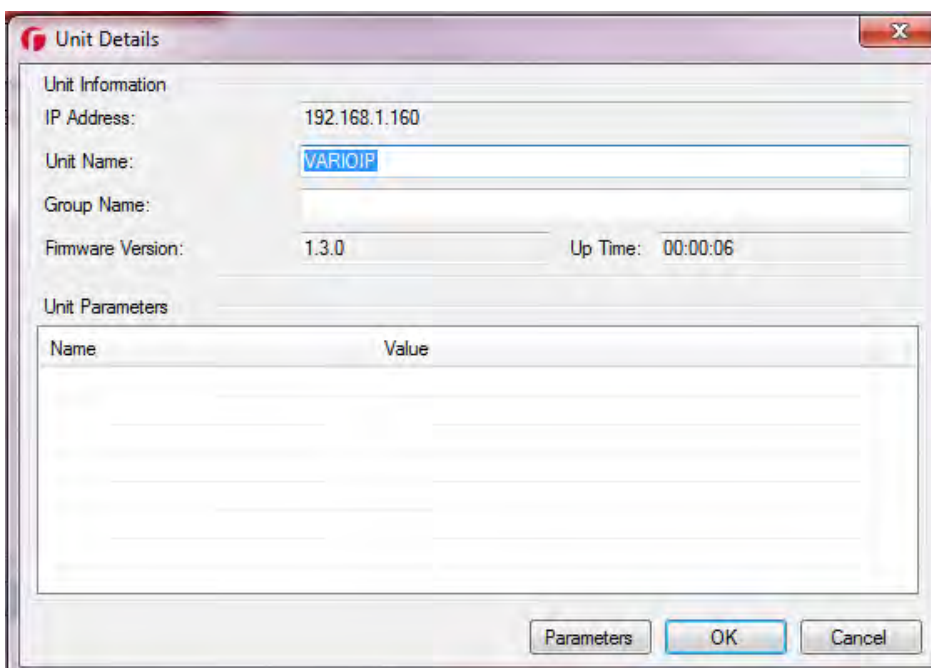
Name and Group Name

All lamps have the default name of “VARIOIP”. This should be changed so that the lamp can be easily identified.

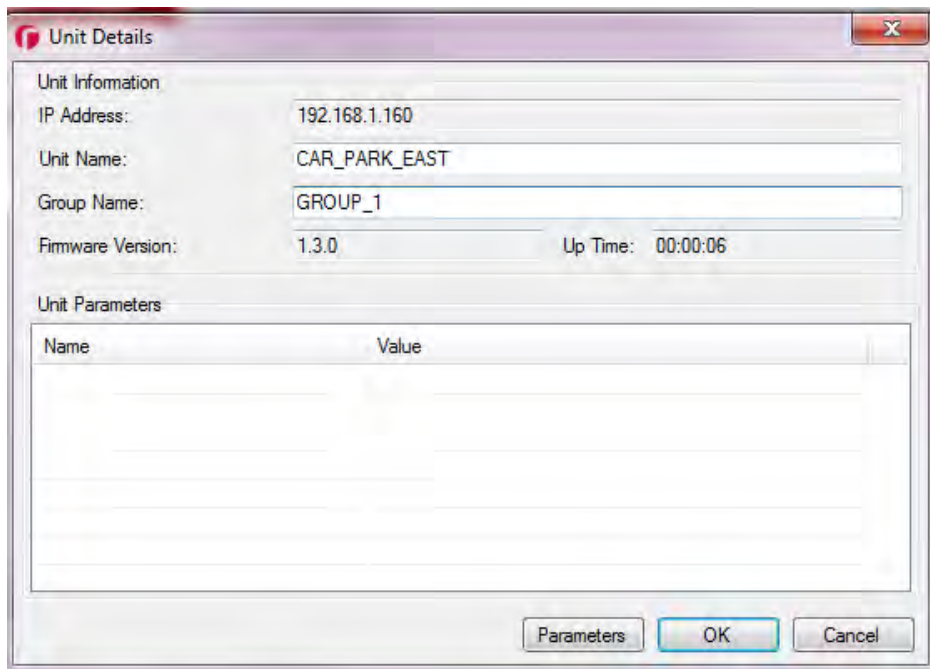
The group name is always left blank as default. The group name is used to associate / group lamps together and allows them to interact using group commands.

Both “Name” and “Group Name” can be modified directly from the RayLED Discovery Tool or via the web interface.

To change these via the RayLED Discovery Tool, highlight the lamp you want to change. Then press **Status**.

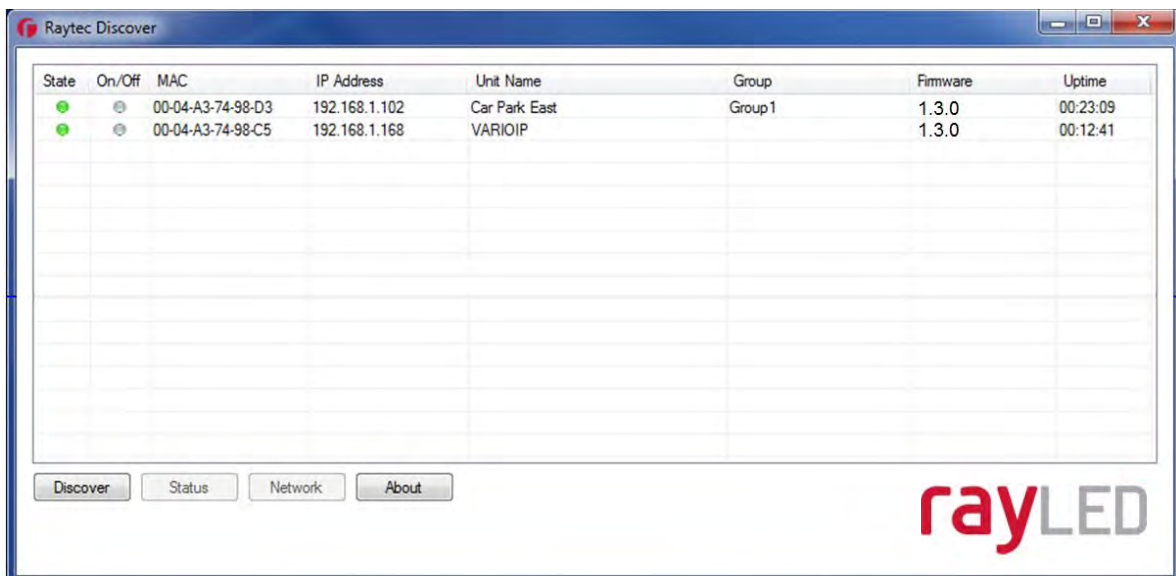


“Unit Name” and “Group Name” can both be edited by entering a new value in their fields.



After the change has been made save the edited names by pressing **OK**.

The selected unit name and group have now been changed. Refresh the RayLED Discovery Tool by pressing **Discover** and the updated information should be displayed.



Lamp Status

The RayLED Discovery Tool has two status indicators for each lamp. The colours of these indicators change depending on the state of the lamps as described below:-

	Red	Green	Grey
State	Lamp Fault	Lamp OK	No communication
On / Off	N/A	Lamp On	Lamp Off

A lamp fault is indicated if:-

1. An LED fault exists within the lamp.
2. The input voltage is outside specified limits.

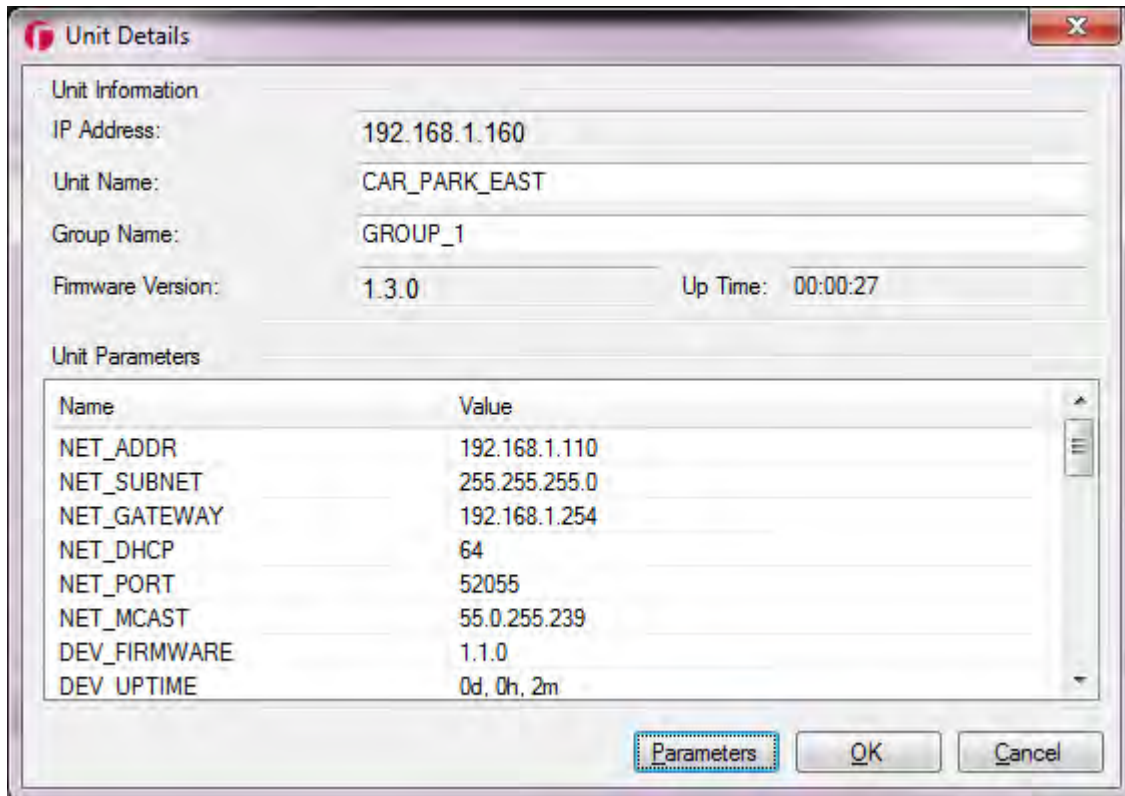
Other Information

The RayLED Discovery Tool does not automatically refresh, therefore to view any changes it is important that the page is refreshed - using function key “F5” or by pressing **Discover**.

When changes are made to a lamp or a new lamp is added there may be a small delay in making contact or updating the information and so **Discover** may need to be pressed more than once.

Unit Details – Parameters

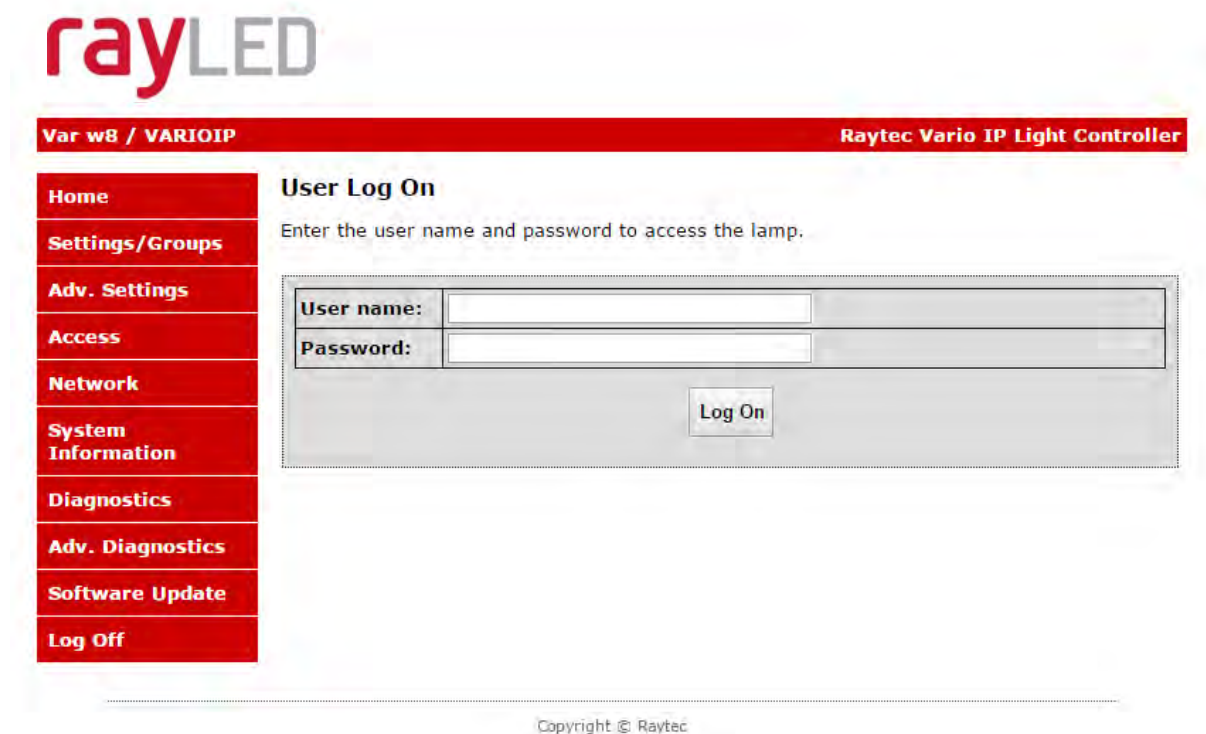
Selecting the Parameters button within the “Unit Details” screen provides a high level of detailed information regarding the performance and operation of the lamp. This is designed to be used during technical support of the lamp with RayLED or your supplier.



Detailed Lamp Setup: Web Pages

Log-In Page

Access Log-In Page for individual lamp by double-clicking on the lamp from the RayLED Discovery Tool or by typing the IP address into the web browser.



User Names & Passwords are case sensitive. (Max 32 characters – alpha, numeric, symbols allowed)

Log on using either **Operator** User Name and Password or **Administrator** User Name and Password.

Operator has restricted access to Home Page and Diagnostic Pages only.
Administrator has access to all pages.

The Administrator can change passwords by using the “Access” Page.
Ensure you keep a note of passwords used in a secure place.

	User name	Password
Operator	user	password
Administrator	admin	password

Forgotten Password

If you are an operator, please request the assistance of the administrator. They can reset the password through the “Access” Web Page.

If you are an administrator, you will have to use the Hard Reset button on the lamp – refer to Access / Passwords section on page 36. This will restore the lamp to factory defaults which includes user names and passwords.

Home Page

Var pw8 / VARIOIP **Raytec Vario IP Light Controller**

Home

Settings/Groups

Adv. Settings

Access

Network

System Information

Diagnostics


Adv. Diagnostics


Software Update

Log Off

Home

This page allows the user to take direct/override control of the lamp or the group of lamps with which this lamp is associated.



Type:Var pw8
Name:VARIOIP
Group:
Trig:TEL
Status: 

Override

Rev 1.3.1

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After a successful log-in, the Home Page / Manual Override Page will be displayed. You can navigate to all pages using the side navigator bar which is available on all pages.

The Home Page / Manual Override Page displays the current status of the lamps including the following information:

- A visual representation of the product and its current state (ON or OFF)
- Product Type & Model
- Product Name - if a name has been assigned (using Network Page or RayLED Discovery Tool)
- Group Name - if a name has been assigned (using Settings / Group Page or RayLED Discovery Tool)
- Trig – if lamp is on, this will indicate the type of input trigger
- Status – LED indicator will indicate if lamp is healthy (green LED) or if there is potentially an issue with the lamp (amber LED)

Home Page / Manual Override

All users can access Manual Override features shown below by selecting the **Override** button.

When selected, additional features will appear and Manual Override countdown will commence. Factory default Manual Override countdown is 30 minutes. This setting can be adjusted by the administrator on “Adv. Settings” Page. The countdown duration can be reset at any time and will restart from maximum time. The Manual Override function can be deselected at any time and the lamp will return to normal operating mode.

On & Group On

The current ON / OFF status will be displayed by the red / green button together with the current power level of the individual lamp. To alter power, use the slider bar from 20% to 100%.

To turn all lamps ON in the same group and control power level – select the **Group ON** button.

All lamps in a group will turn on to the power setting selected.

When **ON** or **GROUP ON** button is turned OFF, lamps will return to their normal operating mode.



Var pw8 / GN TEST W8 / GN Test Group
Raytec Vario IP Light Controller

Home Settings/Groups Adv. Settings Access Network System Information Diagnostics Adv. Diagnostics Software Update Log Off	<h3>Home</h3> <p>This page allows the user to take direct/override control of the lamp or the group of lamps with which this lamp is associated.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;"> <p>Type:Var pw8 Name:GN TEST Group:GN Test Trig:None Status: ●</p> <p style="text-align: center;">Override</p> <p style="text-align: center;">⏻</p> <p>Duration:00:29 Restart ⏻</p> </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; padding: 10px;"> <p>ON</p> <div style="text-align: center;"> ⏻ Power(%) 50 </div> <p style="text-align: center;">Group ON</p> <div style="text-align: center;"> ⏻ </div> </td> <td style="text-align: center; padding: 10px;"> <p>BOOST</p> <div style="text-align: center;"> ✖ Caution: When selecting boost use a suitably rated PSU / injector 110% Power 10 Seconds Recharge 100 Seconds <p style="text-align: center;">Group BOOST</p> <div style="text-align: center;"> ✖ </div> </div> </td> <td style="text-align: center; padding: 10px;"> <p>DETERRENT</p> <div style="text-align: center;"> ⏻ Pattern: SOS Freq: Slow Power(%) 50 </div> <p style="text-align: center;">Group DETERRENT</p> <div style="text-align: center;"> ⏻ </div> </td> </tr> </table>	<p>ON</p> <div style="text-align: center;"> ⏻ Power(%) 50 </div> <p style="text-align: center;">Group ON</p> <div style="text-align: center;"> ⏻ </div>	<p>BOOST</p> <div style="text-align: center;"> ✖ Caution: When selecting boost use a suitably rated PSU / injector 110% Power 10 Seconds Recharge 100 Seconds <p style="text-align: center;">Group BOOST</p> <div style="text-align: center;"> ✖ </div> </div>	<p>DETERRENT</p> <div style="text-align: center;"> ⏻ Pattern: SOS Freq: Slow Power(%) 50 </div> <p style="text-align: center;">Group DETERRENT</p> <div style="text-align: center;"> ⏻ </div>
<p>ON</p> <div style="text-align: center;"> ⏻ Power(%) 50 </div> <p style="text-align: center;">Group ON</p> <div style="text-align: center;"> ⏻ </div>	<p>BOOST</p> <div style="text-align: center;"> ✖ Caution: When selecting boost use a suitably rated PSU / injector 110% Power 10 Seconds Recharge 100 Seconds <p style="text-align: center;">Group BOOST</p> <div style="text-align: center;"> ✖ </div> </div>	<p>DETERRENT</p> <div style="text-align: center;"> ⏻ Pattern: SOS Freq: Slow Power(%) 50 </div> <p style="text-align: center;">Group DETERRENT</p> <div style="text-align: center;"> ⏻ </div>		

Rev 1.3.1

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Important - If a lamp is in group override control from another lamp you will not be able to access the override control on that lamp.

Boost & Group Boost

This will boost individual lamp or all lamps in a group (if GROUP BOOST selected) to 110% of normal output power for a period of 10 seconds. Boost will then be disabled for 100 seconds whilst system recharges.

Deterrent & Group Deterrent

This will turn individual lamp or all lamps in group (if GROUP DETERRENT selected) into deterrent mode. The current pattern and frequency of the deterrent is displayed and can be changed on SETTINGS / GROUP Page. Power setting of lamp(s) in deterrent mode can also be adjusted by using slider bar.

Settings / Groups

This page is used to configure the operation of the lamp based on Photocell and / or External Inputs, configure the lamp to operate in Local, VMS or HTTP mode, assign the lamp to a Group and configure the deterrent mode of the lamp.

The lamp can be configured to operate from the above inputs independently and the power level, duration and soft start function can be configured.



- Home
- Settings/Groups**
- Adv. Settings
- Access
- Network
- System Information
- Diagnostics
- Adv. Diagnostics
- Software Update
- Log Off

Settings / Groups

This page allows the administrator to amend settings associated with this lamp.
Press the **'Save'** button to store any changes.

Lamp Mode: Local		
Name: VARIOIP		
Enter Group Name: <input style="width: 100%;" type="text"/>		
or select from existing ▼		
	Photocell	Ext Input
Trigger Control:	Lamp Control ▼	Lamp Control ▼
Respond to Group Commands:	No, Ignore group commands ▼	No, Ignore group commands ▼
Lamp Mode On Trigger:	On ▼	On ▼
Power (%):	<input style="width: 50%;" type="range"/> 100	<input style="width: 50%;" type="range"/> 100
Duration (mins):	All Night <input checked="" type="checkbox"/> <input style="width: 50%;" type="range"/> 60	Duration of Input <input checked="" type="checkbox"/> <input style="width: 50%;" type="range"/> 60
Soft Start:	On ▼	Off ▼
	Pattern	Frequency (Hz)
Deterrent	SOS ▼	Slow ▼
<input type="button" value="Save"/>		

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WARNING: For changes to take effect, the SAVE button must be pressed

WARNING: You cannot see the effect of your changes if the *Override* button on the Home Page is still active (green) or your lamp is in group Override control from another lamp

Lamp Mode

The lamp can be operated in five different modes:

1. Local
2. VMS
3. VMS + Local
4. HTTP
5. HTTP + Local

These modes are selected in the lamp mode selection box.

Var w8 / VARIOIP **Raytec Vario IP Light Controller**

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Settings / Groups

This page allows the administrator to amend settings associated with this lamp.
 Press the 'Save' button to store any changes.

Lamp Mode: Local (dropdown menu open showing: Local, VMS, VMS + Local, HTTP, HTTP + Local)

Name: [input field]

Enter Group Name: [input field] or select from existing

	Photocell	Ext Input
Trigger Control:	Lamp Control	Lamp Control
Respond to Group Commands:	No, Ignore group commands	No, Ignore group commands
Lamp Mode On Trigger:	On	On
Power (%):	100	100
Duration (mins):	All Night	Duration of Input
	60	60
Soft Start:	On	Off

1. Local

The lamp will respond ONLY to photocell and telemetry events. The user may also take direct Manual Override control through the Home Page interface. This is the default setting.

2. VMS

The lamp will respond ONLY to third party VMS systems and any applications that use the RayLED API. The lamp will NOT respond to photocell and telemetry events. The user CANNOT take direct manual override control through the web interface.

3. VMS + Local

The lamp will respond to third party VMS systems and any applications that use the RayLED API and the lamp will ALSO respond to photocell and telemetry events. The user may ALSO take direct Manual Override control through the Home Page web interface.

IMPORTANT:

For detailed instructions on 'VMS' and 'VMS + Local' please refer to the RayLED API Document.

4. HTTP

The lamp will respond ONLY to any device / application generating valid http commands and any applications that use RayLED HTTP API. The lamp will NOT respond to photocell and telemetry events. The user CANNOT take direct Manual Override control through the web interface.

5. HTTP + Local.

The lamp will respond to any device / application generating valid http commands and any applications that use RayLED HTTP API and the lamp will ALSO respond directly to photocell and telemetry events. The user may ALSO take direct Manual Override control through the Home Page web interface.

IMPORTANT:

For detailed instructions on 'HTTP' and 'HTTP + Local' please refer to the RayLED HTTP API Document.

VMS Options – Additional Information :

There is a RayLED API Installer.exe and a RayLED API Quick Start guide available to support VMS integration

HTTP Options – Additional Information :

There is a RayLED HTTP Command Summary guide and a RayLED HTTP API guide available to support HTTP integration

Groups

The Vario IP PoE lamp is configured so that it can work individually or as part of a group of lamps. This group control gives the user more flexibility and capability in terms of how they want their lamps to operate.

Lamps can respond to Group commands in three ways and each lamp can be configured individually to respond to Photocell or External Input triggers:

- **Ignore group commands** – the lamp will ignore all group commands
- **Yes, Send and Receive** – the lamp can both originate a group command and will respond to group commands
- **Yes, Receive only** – the lamp will respond only to group commands

The maximum possible number lamps in a group are 16.

Some examples of lamp functionality in a group:

- All lamps to come ON at the same time and go OFF at the same time
- One lamp's External Input trigger can turn all the group lamps ON (E.g. Car park entrance / Alarm)
- The Group Override function on the Home Page allows the user to take instant control of the group of lamps all at the same time

Group Name

A lamp can be associated with a new or existing group to enable it to follow group commands from the photocell input and / or External Input. A new group name can be created by typing into the "Enter Group Name" box. Ensure that duplicate names are avoided. Or the lamp can be allocated to an existing group by selecting an existing group from the drop down list of groups.

Trigger Control

	Photocell	Ext Input
Trigger Control:	Lamp Control ▾	Lamp Control ▾
Respond to	Inactive	Inactive
Group	No, Ignore grc	No, Ignore grc
Commands:	Lamp Control Group Control	Lamp Control Group Control

For both Photocell and External Input, the user can select 3 action states:

1. Inactive the lamp ignores the input
2. Lamp Control the lamp will respond to its own input
3. Group Control the lamp will respond to an input from lamps within its named Group – based on selection from Respond to Group Commands below

Factory Defaults: **Photocell** **Lamp Control**
 External Input **Lamp Control**

Respond to Group Commands

Respond to Group Commands:	No, Ignore group commands	No, Ignore group commands
Lamp Mode On Trigger:	Yes, Send & Receive Yes, Recieve only	Yes, Send & Receive Yes, Recieve only

If Group control is NOT selected from Trigger Control options, then the lamp will not respond to any Group commands.

If Group Control is selected from Trigger Control options, then the user can select two modes of operation in response to Group Commands:

1. Yes, Send & Receive	The lamp will both originate group commands based on the trigger AND respond to group commands from other lamps in its group
2. Yes, Receive only	The lamp will only respond to group commands from other lamps in its group but it will NOT originate any group commands

Factory Defaults: *Photocell* **No, ignore group commands**
 External Input **No, ignore group commands**

Some examples of lamp functionality in a group:

- All lamps can come on at the same time and go off at the same time by either Photocell or Ext input control from a single lamp
- The Group Override function on the Home Page allows the user to take instant control of the group of lamps all at the same time

Lamp Mode On Trigger

Lamp Mode On Trigger:	On	On
Power (%):	On	On
		Deter

This dictates the status of the lamp on receipt of a valid instruction from Photocell and/or External Input. For both the Photocell and the External Input, the lamp can either be programmed to stay off or to turn on.

In addition, the External Input can activate the Deter mode – which can be configured below.

Factory Defaults: *Photocell* **On**
 External Input **On**

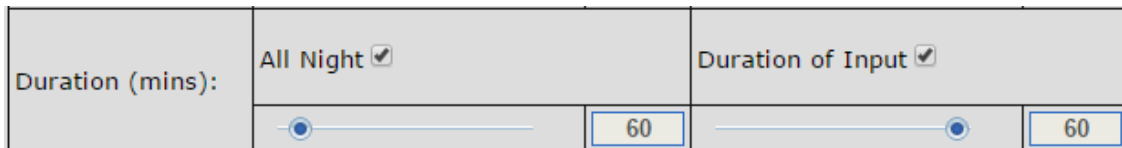
Power



This dictates the power level that the lamp turns on at in response to a valid instruction. Power levels can be set from 20% min to 100% max by using the slider bar.

Factory Defaults: *Photocell* **100%**
 External Input **100%**

Duration



This will dictate the amount of time the lamp turns ON (if ON command is selected) from receipt of a valid instruction.

For the Photocell input, user can select **All Night** in which case the lamp will stay ON (if ON command is selected) for the whole period of time that the photocell indicates it is dark. Alternatively, a specific time period can be selected using the slider bar.

The timer will only operate whilst the photocell indicates it is dark. If the photocell indicates it is light before the timer has elapsed then the timer is ignored and the light turns OFF.

For the External Input, user can select **For Duration of Input** in which case the lamp will stay ON or deter (if ON or deter command is selected) for the whole period of the duration of the input.

Alternatively, a specific time period can be selected using the slider bar. The lamps will operate immediately and the timer duration starts from the end of the External Input signal. The External Input can be reactivated within the timer period and it will have the effect of restarting the timer.

The lamp will stay ON until the end of the timed period even if the lamp photocell says it is daylight.

Min and Max timer settings are:

Photocell Min: 30 mins	External Input Min: 1 mins
Photocell Max: 720 mins	External Input Max: 60 mins

Factory Defaults: *Photocell* **All Night**
 External Input **Duration of Input**

Soft Start

Soft Start:	Off
	Off
	On

There is the option, when a valid on instruction is received, for the lamp to either start immediately (**Soft Start Off**) or to ramp up to selected power level (**Soft Start On**). The length of time of the ramp up depends on power level selected. (Max 10 seconds for 100% power)

Factory Defaults: *Photocell* **On**
 External Input **Off**

Deterrent Pattern & Frequency

	Pattern	Frequency (Hz)
Deterrent	SOS	Fast
	Wave	Slow
	Hi-Lo	Medium
	Countdown Duration (SOS)	Fast

There are 3 selectable deterrent patterns available if Deter Feature selected from Lamp Mode on Trigger:

- Traditional SOS pattern – 3 short on/off, 3 longer on/off, 3 short on/off
- Wave – The lamp slowly ramps up and down from 100% to 20%
- Hi-Lo – The lamp alternates between 100% and 20% setting

Factory Defaults: **SOS**

There are 3 selectable deterrent speeds available; Slow, Medium, Fast

Factory Defaults: **Slow**

Advanced Settings

This page is used to further configure the operation of the lamp based on more detailed requirements of the Photocell, External Input, External Output and to set the duration of the Override Timer..



Var w8 / VARIOIP
Raytec Vario IP Light Controller

[Home](#)
[Settings/Groups](#)
[Adv. Settings](#)
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[Adv. Diagnostics](#)
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[Log Off](#)

Advanced Settings

This page allows the administrator to amend advanced settings associated with this lamp.
 Press the **'Save'** button to store any changes.

Manual Override

	Countdown Duration (mins)
Manual Override	30 ▼

External Input

	Type Of Input	Active State
External Input	Volt Free ▼	Short Circuit / Low ▼

External Output

	Trigger State	Active State
External Output	Photocell Only ▼	Short Circuit / Low ▼

Photocell

Photocell Sensitivity	<input type="range"/>
-----------------------	-----------------------

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Manual Override - Countdown Duration

There are 8 selectable durations from a drop down list for the Countdown Duration of the Manual Override feature on the Home Page. This determines the amount of time that the user can take Manual Override of the lamp or group of lamps.

Manual Override	
	Countdown Duration (mins)
Manual Override	10
External Input	
	Type Of Input
External Input	Volt
	Active State
	Short Circuit / Low

Factory Defaults: 30 minutes

External Input – Select type of Input & Active State on Input

The External Input wires will accept either volt free or TTL inputs – see polarity on wiring instructions on page 4. The correct type of input must be selected from the drop down list to match the input to ensure correct operation.

The Active State lets the user define the External Input State, either Short or Open Circuit. For example: configuring the setting to Short Circuit will activate the lamp when the Input is closed, short circuit.

	Type Of Input	Active State
External Input	Volt Free	Short Circuit / Low
	Volt Free	Short Circuit / Low
	TTL	Open Circuit / High

Factory Defaults: Volt free

Factory Defaults: Short Circuit/Low

External Output

	Trigger State	Active State
External Output	Photocell Only	Short Circuit / Low
	Disable	Short Circuit / Low
Photocell	Photocell Only	Open Circuit / High
Photocell Sensitivity	Ext I/P	
	Photocell OR Ext I/P	

The External Output is a volt free open / short output.

External Output Trigger State: The drop down box gives you the option to disable the external output signal or make the signal dependant on active states of either the photocell or External Input or a combination of the two. (Photocell Active State = Darkness. External Input Active State = Valid Trigger received.)

The External Output active states provided above conditions are met can be selected to be open / high or closed / low.

Note: External Output is triggered by the local lamp Photocell and the local lamp External Input only.

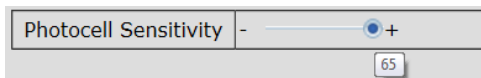
Factory Defaults: Photocell Only

Factory Defaults: Short Circuit / Low

Photocell Sensitivity

The photocell switch-on level can be altered by using the slider bar. Levels are:

Minimum level = 5 lux
Maximum level = 65 lux



Factory Defaults: 20 lux

There is a high level of hysteresis and an in-built delay incorporated to avoid switching ON / OFF in marginal lighting conditions.

WARNING: For changes to take effect, the SAVE button must be pressed

Access / Passwords

The screenshot shows the 'Access' configuration page in the Raytec Vario IP Light Controller web interface. The page title is 'Var w8 / VARIOIP' and 'Raytec Vario IP Light Controller'. The left navigation menu includes: Home, Settings/Groups, Adv. Settings, Access, Network, System Information, Diagnostics, Adv. Diagnostics, Software Update, and Log Off. The main content area is titled 'Access' and contains the following text: 'This page allows the configuration of the lamp's security. The administrator and operator passwords are set here. Operators have restricted access.' Below this text are two sections: 'Administrator' and 'Operator'. Each section has a 'User Name' and 'Password' field. The Administrator fields are pre-filled with 'admin' and 'password'. The Operator fields are pre-filled with 'user' and 'password'. A 'Note' section follows, stating: 'The 'Administrator' account can access any page. The 'Operator' account can only access the following pages:' followed by a bulleted list: 'Home', 'Diagnostics', and 'Adv. Diagnostics'. A 'Save' button is located at the bottom of the configuration area. At the bottom of the page, there is a copyright notice: 'Copyright © Raytec'.

Caution:

All passwords are case sensitive.
Keep a note of all passwords in a safe place.

Defaults:

Operator User Name & Password	user	password
Administrator User Name & Password	admin	password

Only the Administrator can change passwords.

Maximum number of characters

User Name 32 characters – alpha, numeric and symbols allowed

Passwords 32 characters – alpha, numeric and symbols allowed

WARNING: For changes to take effect, the SAVE button must be pressed

Recovery of Lost Passwords

If you are an Operator, please request the assistance of the Administrator. They can reset the password through the “Access” Web Page.

If you are an Administrator, you will have to use the Hard Reset button on the lamp – refer to Hard Reset instructions on page 45. This will restore the lamp to factory defaults which includes User Names and Passwords.

Network

This page allows the configuration of the lamp's network settings and to create a name for individual lamps.



Var pw8 / VARIO IP Raytec Vario IP Light Controller

Home	<h3>Network</h3> <p>This page allows the configuration of the lamp's network settings.</p> <table border="1" style="width: 100%;"> <tr> <td>MAC Address:</td> <td><input type="text" value="D8:80:39:30:08:98"/></td> </tr> <tr> <td>Lamp Name</td> <td><input type="text" value="VARIO IP"/></td> </tr> <tr> <td><input type="checkbox"/> Enable DHCP</td> <td></td> </tr> <tr> <td>IP Address</td> <td><input type="text" value="192.168.2.80"/></td> </tr> <tr> <td>Gateway:</td> <td><input type="text" value="192.168.2.1"/></td> </tr> <tr> <td>Subnet Mask:</td> <td><input type="text" value="255.255.0.0"/></td> </tr> <tr> <td>Primary DNS:</td> <td><input type="text" value="192.168.2.1"/></td> </tr> <tr> <td>Secondary DNS:</td> <td><input type="text" value="0.0.0.0"/></td> </tr> <tr> <td colspan="2" style="text-align: center;"><input type="button" value="Save"/></td> </tr> </table>	MAC Address:	<input type="text" value="D8:80:39:30:08:98"/>	Lamp Name	<input type="text" value="VARIO IP"/>	<input type="checkbox"/> Enable DHCP		IP Address	<input type="text" value="192.168.2.80"/>	Gateway:	<input type="text" value="192.168.2.1"/>	Subnet Mask:	<input type="text" value="255.255.0.0"/>	Primary DNS:	<input type="text" value="192.168.2.1"/>	Secondary DNS:	<input type="text" value="0.0.0.0"/>	<input type="button" value="Save"/>	
MAC Address:		<input type="text" value="D8:80:39:30:08:98"/>																	
Lamp Name		<input type="text" value="VARIO IP"/>																	
<input type="checkbox"/> Enable DHCP																			
IP Address		<input type="text" value="192.168.2.80"/>																	
Gateway:		<input type="text" value="192.168.2.1"/>																	
Subnet Mask:		<input type="text" value="255.255.0.0"/>																	
Primary DNS:		<input type="text" value="192.168.2.1"/>																	
Secondary DNS:		<input type="text" value="0.0.0.0"/>																	
<input type="button" value="Save"/>																			
Settings/Groups																			
Adv. Settings																			
Access																			
Network																			
System Information																			
Diagnostics																			
Adv. Diagnostics																			
Software Update																			
Log Off																			

CAUTION: Incorrect settings may cause the lamp to lose network connectivity. Recovery options will be provided on the next page.

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The MAC Address is a unique identifier and cannot be changed

The Lamp Name can be changed on this page. Avoid duplicates. Maximum number of characters is 15 – alpha / numeric

Enable DHCP You may enable DHCP if your network is compatible and then IP addresses will be allocated automatically without creating duplicates.

Manual IP Address - Alternatively, manually change the IP address into a suitable range for your network by unchecking Enable DHCP box. It is vital to avoid duplicate IP addresses.

Gateway, Subnet Mask, Primary DNS and Secondary DNS can all be changed on this page if Enable DHCP is NOT selected.

WARNING: Please check with your IT Manager to ensure any changes are compatible with your network and the VARIO IP lamp. We suggest that these settings should only be changed by experienced users.

WARNING: For changes to take effect, the SAVE button must be pressed

Network - IP Address Changed- Reboot

After a network change the system will reboot to ensure that all changes have been applied. The Reboot Screen is shown to instruct the user on how to access the lamp after the new network settings have been applied.



Var w8 / VARIOIP	Raytec Vario IP Light Controller
Home	Reboot
Settings/Groups	The the lamp has now been restarted.
Adv. Settings	Your lamp is now located at:
Access	http://VARIOIP
Network	Reconnection Instructions
System Information	<ol style="list-style-type: none"> 1. Did you change the hostname or IP address? It is necessary to clear the address caches in your web browser and OS. From the command prompt in Windows, enter "nbtstat -R" to clear the hostname cache, close your current web browser, open a new web browser, and then try to access the web address above. 2. Did you try the IP address? Try accessing the lamp directly with the IP address you set. (e.g. enter "http://192.168.5.23/" into your browser). If this fails, then the IP address you set is not reachable. Try the step below. 3. Still not working? The factory default settings can be restored to the lamp using the hard reset switch by holding down the reset button for 5 seconds whilst powering up the unit. Refer to the user instruction for location and access of "Hard Reset" switch.
Diagnostics	
Adv. Diagnostics	
Software Update	
Log Off	

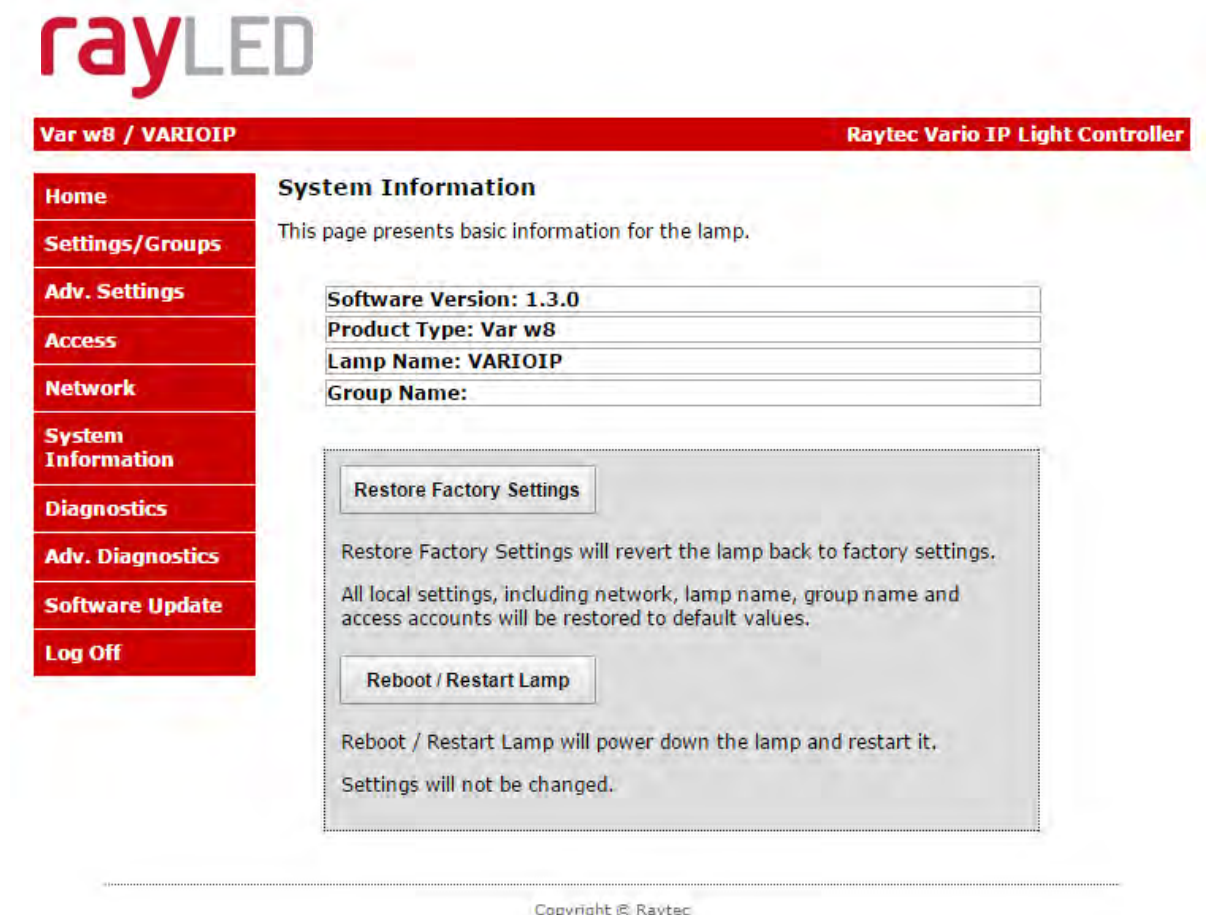
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Warning: We strongly recommend that IP addresses are changed via the RayLED Discovery Tool. This is the safest way to ensure that connection is not lost with the lamp by setting up an invalid IP address.

All other settings remain unchanged.

System Information

This page shows basic information about the lamp including software version, product type, lamp name and group name. This is for information only and cannot be altered on this page.



The screenshot shows the 'System Information' page of the Raytec Vario IP Light Controller. The page has a red header with 'Var w8 / VARIOIP' on the left and 'Raytec Vario IP Light Controller' on the right. A left-hand navigation menu contains the following items: Home, Settings/Groups, Adv. Settings, Access, Network, System Information (highlighted), Diagnostics, Adv. Diagnostics, Software Update, and Log Off. The main content area is titled 'System Information' and contains the following text: 'This page presents basic information for the lamp.' Below this text are four data fields: 'Software Version: 1.3.0', 'Product Type: Var w8', 'Lamp Name: VARIOIP', and 'Group Name:'. Below these fields is a grey box containing two buttons: 'Restore Factory Settings' and 'Reboot / Restart Lamp'. Under the 'Restore Factory Settings' button, the text reads: 'Restore Factory Settings will revert the lamp back to factory settings. All local settings, including network, lamp name, group name and access accounts will be restored to default values.' Under the 'Reboot / Restart Lamp' button, the text reads: 'Reboot / Restart Lamp will power down the lamp and restart it. Settings will not be changed.' At the bottom of the page, there is a copyright notice: 'Copyright © Raytec'.

Restore Factory Settings

At any stage, it is possible to restore ALL the original factory settings of the lamp. Any settings that have been previously changed will be resorted to factory default. During the “Restore Factory Settings” the lamp may come on / flash for a short period.

WARNING: Please be aware that this will restore the original IP address of the lamp being 192.168.2.80 which will likely be out of the normal range of your IP addresses. See Pages 16 onwards on how to reset the IP address of your lamp.

Reboot / Restart Lamp

It is also possible to reboot / restart the lamp. The lamp will restart using the existing settings of the lamp.

A reboot / restart is generally recommended if a system becomes unresponsive or you want to ensure settings have been reloaded correctly.

During the reboot / restart process the lamp may come on / flash for a short period.

Diagnostics



Home
Settings/Groups
Adv. Settings
Access
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Adv. Diagnostics
Software Update
Log Off

Diagnostics

This page presents basic diagnostic information for the lamp.

To see the latest diagnostic information this page must be refreshed.

Input Voltage Status:
LED Status*:
Photocell Status: Day
Ext.Input Status: Active
Auxiliary Output Status: Open
Deterrent Pattern: SOS
Duration - Lamp On: 0 days, 0 hours, 0 minutes
Duration - Power Connected: 0 days, 0 hours, 3 minutes

* During sub-zero start up the LED status indicator may turn amber until warm up is complete.

* If the lamp is not on the LED status cannot be measured and the status indicator will be grey.

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This page is useful for first level troubleshooting and displays basic diagnostics and information of the lamp as follows:

Input Voltage Status	green LED indicates if Input Voltage correctly within specified range – an amber LED indicates a potential fault – check Adv. Diagnostics for more information.
LED Status	green LED indicates if all LED strings of lamp operating correctly. An amber LED indicates a potential fault and a grey LED indicates that the LED status is currently unknown (E.g.: if the LEDs are not currently ON) – check Adv. Diagnostics for more information.
Photocell Status	indicates if photocell status is day or night
Ext Input Stat	indicates if an external input is being received (Active) or not (Inactive)
Auxiliary Output Status	indicates if external output is active (closed) or not (open)
Deterrent Pattern	indicates which deterrent pattern is selected
Duration – Lamp On	indicates the amount of time the lamp has been on
Duration – Power connected	indicates the amount of time the lamp has been connected to power source

Note: information on this page is NOT constantly updated or refreshed automatically. To refresh the page, press Function Key F5 or select the page again from the navigation bars on the left.

Advanced Diagnostics

This page is useful for detailed troubleshooting and displays diagnostics and information about the lamp. It is intended to be used for detailed troubleshooting with RayLED.

Var w8 / VARIOIP **Raytec Vario IP Light Controller**

Home | **Settings/Groups** | **Adv. Settings** | **Access** | **Network** | **System Information** | **Diagnostics** | **Adv. Diagnostics** | **Software Update** | **Log Off**

Advanced Diagnostics

This page presents advanced diagnostic information for the lamp.
This information will be useful when troubleshooting the lamp with Raytec Technical Support.

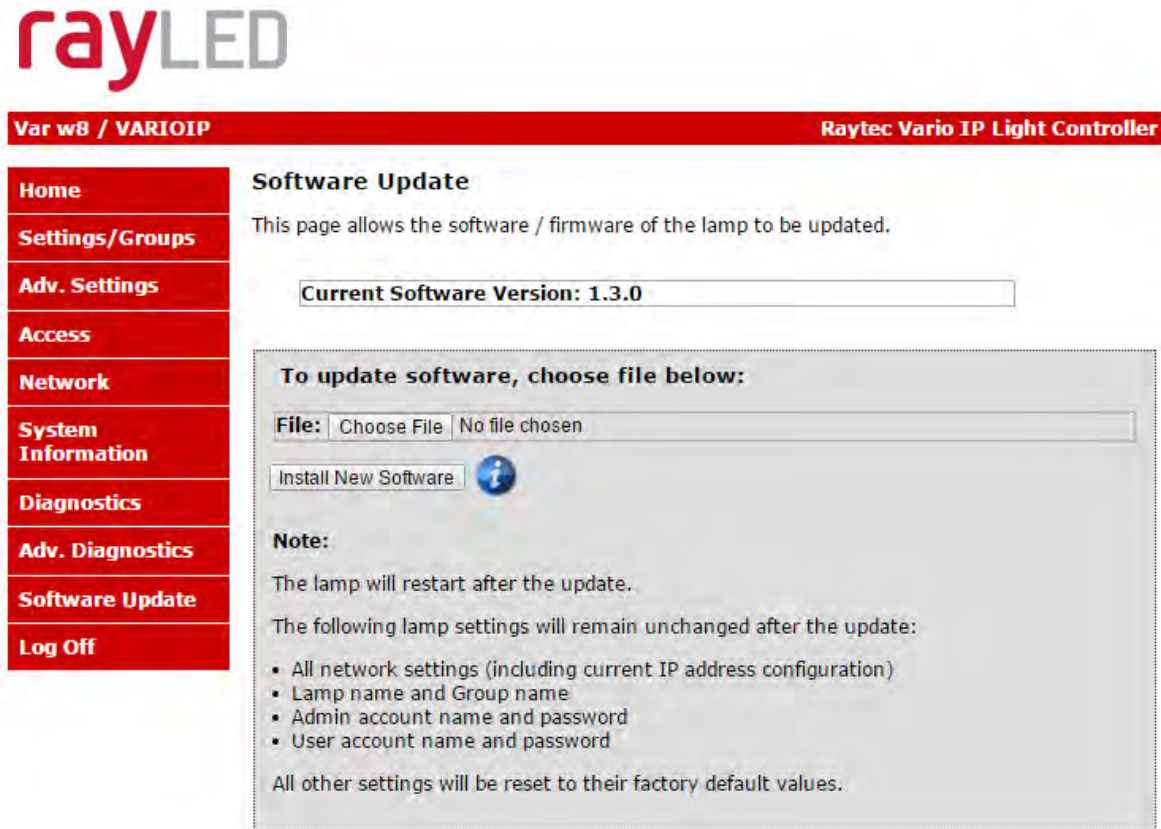
Voltage Input: 23.3 Volts
Photocell Voltage: 1086 mVolts.
Model Type Voltage: 2313 mVolts.
LED String 1 In: 409 mVolts.
LED String 2 In: 393 mVolts.
LED String 3 In: 389 mVolts.
LED String 4 In: 396 mVolts.
LED String 5 In: 393 mVolts.
LED String 6 In: 393 mVolts.
LED String 7 In: 389 mVolts.
LED String 8 In: 389 mVolts.

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Note: information on this page is NOT constantly updated or refreshed automatically. To refresh the page, press Function Key F5 or select the page again from the navigation bars on the left.

Software Update

This page indicates the current version of the software / firmware and also enables the software / firmware to be updated over the network.



Var w8 / VARIOIP **Raytec Vario IP Light Controller**

Home **Software Update**

Settings/Groups This page allows the software / firmware of the lamp to be updated.

Adv. Settings

Access

Network

System Information

Diagnostics


Adv. Diagnostics

Software Update

Log Off

To update software, choose file below:

File: No file chosen



Note:

The lamp will restart after the update.

The following lamp settings will remain unchanged after the update:

- All network settings (including current IP address configuration)
- Lamp name and Group name
- Admin account name and password
- User account name and password

All other settings will be reset to their factory default values.

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To upload a new version of software / firmware, please contact RayLED to receive the latest version.

Upload new version onto a computer on the network, **Choose File**, select file to upload – then press **Install New Software**.

We would recommend that the software/firmware update is undertaken when network traffic is low.

The update will restart the unit. From software version 1.2.6 and above, the following settings will remain unchanged:

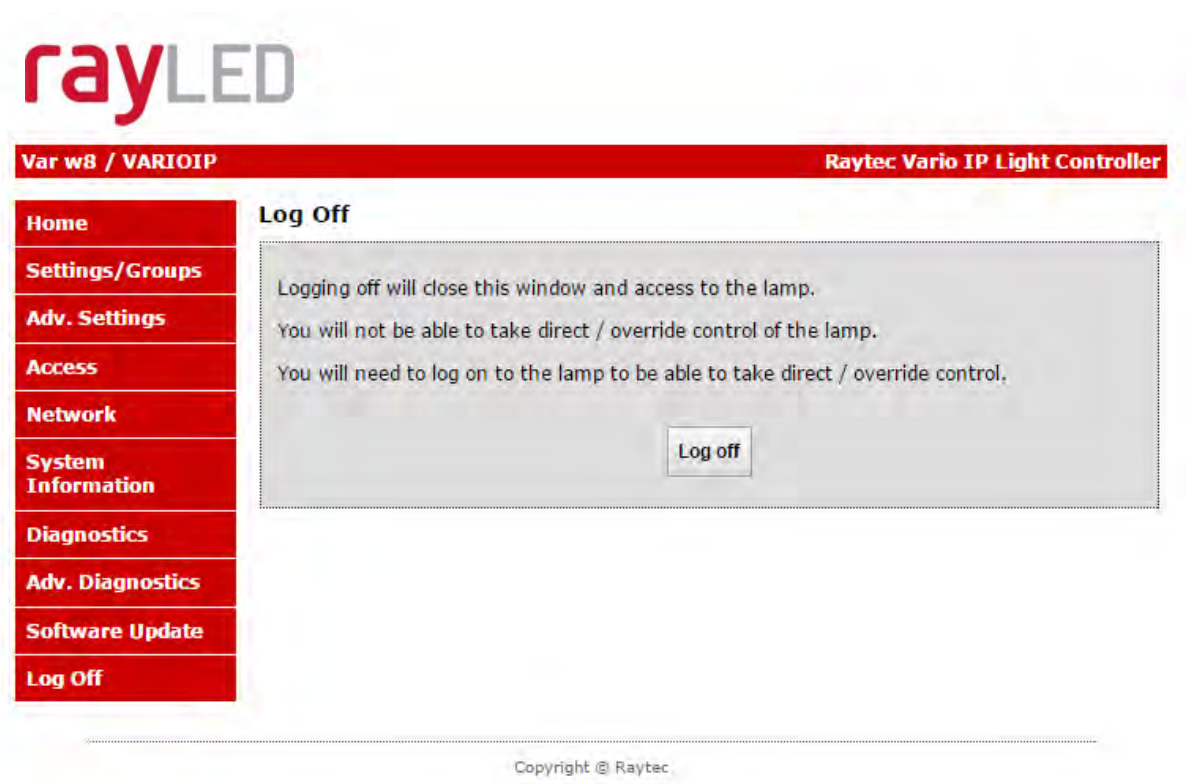
- IP Address (if configured statically)
- DHCP mode
- Gateway address
- Subnet mask
- Primary DNS
- Secondary DNS
- Lamp name

- Group name
- User name and user password
- Admin user name and password

All other settings will revert to the Factory Defaults of the new software / firmware version uploaded.

Log Off

We recommend after using the lamp web interface that users log off using the Log Off Page.



Hard Reset Button – Located on lamp

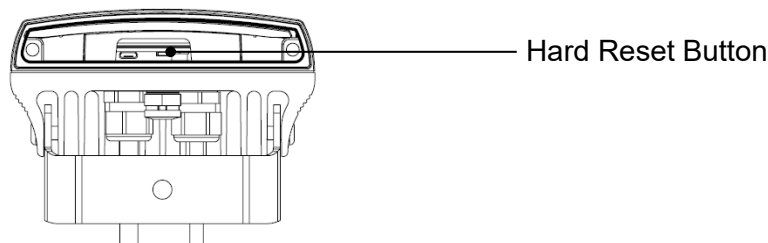
A hardware reset button feature has been provided that will restore ALL factory default settings including IP address, user names and passwords etc. and can be used in cases where communication is lost and the lamp does not respond.

WARNING: We recommend attempting to reconnect with the lamp by firstly restarting the lamp or restoring factory settings via the integrated web interface. The hard reset button on the lamp should be used only as a last resort.

To reset all parameters and the IP address to Factory Default settings:

1. Disconnect power from the lamp.
2. Remove the bottom cover plate on the lamps to access the reset button.
3. Press and hold the Reset button and reconnect power.
4. Keep the Reset button pressed for approximately 5 seconds until the lamp flashes. Release the Reset button.
5. Replace the bottom cover securely to ensure unit remains waterproof.

The lamp can now be discovered using the RayLED Discovery Tool and can be configured as normal following the instructions in this manual. Be aware that the IP address will have been restored to factory default.



RayLED APIs (VMS and HTTP)

The RayLED Network Lamp has been designed such that it can be integrated into 3rd party systems such as a VMS, BMS etc. as well as receiving HTTP commands and RayLED have suitable APIs to support such integrations. Please contact RayLED to discuss your particular requirements.

For full documentation to support API implementation, please contact RayLED.

Troubleshooting & FAQs

Please refer to the VARIO IP product pages on our website www.RayLED.com which has a comprehensive list of troubleshooting support and FAQs. Also, please feel free to contact us directly on the contact numbers below.

Typical Questions:

Please see Basic Troubleshooting on Pg.'s 12-13

Can I run the lamp from auxiliary power? – *Yes, Vario IP can be operated from PoE power or 24V DC. See page 4.*

What PoE cable type is compatible? – *Use CAT 5 or CAT 6 cable with T-568B wiring standard.*

What is a suitable Power Sourcing Equipment for IP? – *Vario IP 4 is .at compliant and requires up to 25.5W. Vario IP 8 requires an .at handshake and power up to 51W.*

I have forgotten my Password. – *If you are an operator, contact your administrator. If you are an administrator, then you may need to perform a hard reset of the lamp – see page 45.*

I cannot discover my lamp on the network using the RayLED Discovery Tool. – *Check that there is power to the lamp, check that the correct CAT5 / 6 wiring is being used, check that your computer's Firewall is allowing the lamp access and is not blocking UDP traffic.*

I cannot communicate with my lamp from the RayLED Discovery Tool – *Make sure the IP address of the computer and the lamp are set to the same range to allow communication. The default IP address of the lamp is 192.168.2.80.*

My lamp turns on too early or too late – *First adjust the Photocell Sensitivity under the **Adv. Settings** tab. Make sure the lamp is not mounted under or next to another another light source which may affect the performance of the photocell.*

I want my lamp to turn ON via the photocell – *Photocell operation is activated as a factory default setting and will turn the lamp on/off automatically provided the lamp is in “**Local**” mode or “**VMS + Local**” or “**http+Local**” mode. See page 27 for more information.*

My lamp does not trigger from an external input – *In standard mode, the photocell must detect that it is dark(or be disabled) before the lamp will respond to an external input. Does your External Input work correctly? Are the respective telemetry wires (orange and purple) wired correctly? Has the lamp been set to trigger from an External input on the RayLED webpage?*

My lamp is not responding to group messages correctly –*Are all the lamps on the same network range with correct IP Addresses and Subnet Masks? Have all lamps been assigned to the correct group? Trigger Control must be set to “**Group Control**”. Make sure under the “Respond to Group Commands” is set to “**Yes, Receive Only**” or “**Yes, Send and Receive**”. Ensure that if an external trigger is used then that unit is set to “**Yes, Send and Receive**”. Ensure that override function is not running.*

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