



**Warning – Refer to Safety Precautions Booklet 035-00636R for all safety precautions prior to use.**  
**User Guide 035-00589R download:**  
<http://www.excelitas.com/Pages/Product/OmniCure-AC-2-Series.aspx>

## SETUP / Unpack

- Carefully unpack the unit and accessories from shipping carton.
- When removing the LED Head, ensure that the optical window is not placed directly on a surface to avoid any damage.

### 1.1 System Requirements

In addition to the UV LED Head, you will require the following components:

- Power supply
- Power cable

You will also require a PLC controller unless you are using an existing controller. These may be sourced separately or may be purchased from Excelitas Technologies

### 1.2 Connecting the Power Supply and PLC Controller

**Note:** The following is a generic procedure, illustrated with the common components described above; please refer to specific documentation related to your power supply and controller.

**Tip:** After securing the power cable to the power supply, it is recommended to “tie-off” the female connector cable on to the mounting brackets or process rigging as a form of strain relief.

1. Make sure the power supply unit is turned off.
2. The AC2 series utilizes a combined PLC / Power connector on the top of the unit. The connector type used is Connector: JST S18B-PUDSS-1
3. The PLC/Power cable has two legs connected to a shared female connector: JST PUDP-18V-S
  - a) Connect the shared connector to the UV LED Head
  - b) Attach the appropriate legs of the cable to both the power supply and PLC I/O connector.
4. If using an Excelitas PLC Controller connect the PLC loop-back connector to the PLC pass-through port



### 1.3 Powering Up and Powering Down



1. Ensure that the AC2- system has been properly installed, the protective blue covering has been removed from the optical window and the UV LED Head is securely mounted with the optical window in the desired orientation.
2. Turn the main power switch of the power supply to the “ON” position and check the fan for airflow. If present, ensure the power supply breaker is set to the “ON” position.
3. The LED indicator on the UV LED Head will *flash* green during “boot-up” and change to a *steady* green indicating UV LED Head is ready for use. It is recommended to wait for 1 minute from “cold state” to “ready state” before applying UV power to the Head.
4. Apply sufficient voltage levels on pins 3, 5 and 8 of the PLC interface to enable the LEDs or if using the PLC2000, push the LED Enable button on the controller to turn power on to the LED Head.

### 1.4 Using the LED Head

1. Adjusting the UV LED Head intensity can be actuated by an external controller via the PLC interface or with the PLC2000 controller
2. Using the PLC interface, input voltage vs. desired intensity; 5V = 100% and 1V = 20%. A minimum voltage of 1V is required for light source operation.
3. Using the PLC2000 controller and when in “%” mode, adjust intensity using the up or down buttons to the right of the display to increase or decrease the intensity respectively.
4. Ensure the UV LED Head indicator is illuminated to a *steady* green before enabling the UV head.
5. The UV LED Head indicator will illuminate to a *steady* amber indicating UV is on. When UV is off, the indicator will revert back to a *steady* green indicating UV is off.

After turning on UV power, the system will reach a fully stable operating temperature in 2-3 minutes.



**WARNING:** Never look at operating LED! The light could severely damage the cornea and retina of the eye if the light is observed directly. Eye shielding must be used at all times as well as clothing to protect exposed skin. Refer to user guide for more details.





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## 1.5 Understanding the LED Indicators

LED Indicator	Condition
Steady green	System Ready; no critical faults
Steady amber	UV LED turned ON
Steady red	Critical fault <ul style="list-style-type: none"> <li>• Temperature Fault</li> <li>• LED Fault</li> <li>• System Error</li> </ul>
Slow flashing green	POST and Initialization
Slow flashing red	Major or critical fault
Slow flashing amber	UV LED ON with major fault
Fast flashing green	Warranty status - operating hours is < 9000
Fast flashing amber	Warranty status - operating hours = between 9,000 and 10,000
Fast flashing red	Warranty status - operating hours is >10000

Table 1 LED Indicator Status (UV LED Head)

**Note:** To clear a fault or alarm signal, either cycle power to the LED Head or if connected to the PLC2000, press the Clear Fault button

## 1.6 Symptoms and Possible Causes

**If the system fails to power up:**

- Ensure that the power supply is switched on and that the circuit breaker on the power supply unit is not tripped. If so, reset breaker.
- Make sure all cable connections (power supply to UV LED Head) are secure.

**If the system powers up but experiences a thermal fault during operation:**

- Ensure UV Head is installed with adequate clearance around intake and exhaust ports.
- Ensure intake air filter is not clogged or obstructed. If filter is clogged, either clean with compressed air or replace with a new filter insert.

**If the system powers up but does not emit UV:**

- Make sure the door lock electrical loopback on the PLC is installed properly.
- Ensure that the voltage levels on pins 3, 5 and 8 of the PLC interface match the logic required to enable the LEDs.

- Check the visual indicator for signs of a fault.

**If a fault condition has been detected:**

- Attempt to clear the fault by cycling power to the LED Head or by pressing the “Clear Fault” button on the PLC 2000 controller.
- Power-cycle the UV Head to clear.

**If the light intensity is too low:**

- Make sure the input voltage is at least 46V (input voltage to the Head for the purposes of powering the head is typically 48V (46-50V DC)).
- Clean the optical window of the UV LED Head as described in Section 9.3, of the User’s Guide, “Cleaning the LED Head”.
- Verify that the intensity level of the UV LED Head is set to the correct level, using the PLC Controller.

If problems persist beyond these troubleshooting points, please contact Excelitas Technologies Service Department (refer to Section 12”).

## REGULATORY (refer to user guide for complete details)

### Product Safety and Electromagnetic Compatibility

The OmniCure AC2 Series has been tested and found to comply with product safety and electromagnetic compatibility requirements. For a complete list of tests and for certification details, please contact your OmniCure representative or visit:  
<http://www.excelitas.com/Pages/Product/OmniCure.aspx>

### CE Marking



- Council Directive 2014/35/EU Low Voltage Directive
- Council Directive 2014/30/EU EMC Directive
- Council Directive 2012/19/EU WEEE Directive
- Council Directive 2011/65/EU RoHS as amended by (EU) 2015/863



WEEE Directive



China RoHS



RoHS



FCC