

REVOMAX II

BY OPTICLIMATE

User Manual



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1. SPECIFICATIONS

| MODEL | 6000 REV2 | 10000 REV2 | 15000S REV2 | 15000 REV2 |
|---|------------------------|------------------------|------------------------|------------------------|
| | REGULAR & DEEP COOL | REGULAR & DEEP COOL | REGULAR & DEEP COOL | REGULAR & DEEP COOL |
| Nominal Cooling Capacity - kWatt | 6 kW | 10 kW | 15 kW | 15 kW |
| Maximum Cooling Capacity - kWatt | 7 kW | 12 kW | 19 kW | 19 kW |
| De-humidification Capacity - Liters/24Hrs* | 85 L | 105 L | 165 L | 165 L |
| Electricity | | | | |
| Power Supply - Volt | 230v-400v | 230v-400v | 230v-400v | 400v |
| Phase | 1 or 3 | 1 or 3 | 1 or 3 | 3 |
| Compressor (inverter) - Volt | DC (230V) | DC (230V) | DC (230V) | DC (400V) |
| Compr. Freq. Min (Max) - Hz | 30 (110) Hz | 30 (90) Hz | 30 (65/85) Hz | 30 (65/85) Hz |
| Fuse MCB single-phase (3-phase) | C32 (C20) | C40 (C25) | C63 (C40) | C25 3ph+N |
| Total 3-Phase Ampere | 17 A | 24 A | n/a | 23 A |
| Total 1-Phase Ampere | 28 A | 38 A | 68 A | n/a |
| Cable diameter (mm) 3 phase | 2,5 mm ² | 4 mm ² | 10 mm ² | 6 mm ² |
| Cable diameter (mm) 1 phase | 6 mm ² | 6 mm ² | 25 mm ² | n/a |
| Internal Glass Fuse Heater (3x) - Ampere | 16 A | 16 A | 16 A | 16 A |
| Internal Glass Fuse Main - Ampere | 5 A | 5 A | 5 A | 5 A |
| Power Factor cos Φ | 0,9 | 0,9 | 0,9 | 0,9 |
| Cooling & Heating | | | | |
| Nominal (cooling) rated power - kWatt | 1,3 kW | 2,1 kW | 5,0 kW | 5,0 kW |
| Max cooling rated power - kWatt | 1,9 kW | 3,5 kW | 6,5 kW | 6,5 kW |
| Max current (cooling) - Ampere | 9 A | 16 A | 30 A | 16 A |
| Electrical Heating Power - kWatt | 3 x 1,3 kW | 3 x 1,6 kW | 3 x 2,7 kW | 3 x 2,7 kW |
| Electrical Heating Current - Ampere | 3 x 5,5 A | 3 x 8,0 A | 3 x 13,0 A | 3 x 13,0 A |
| De-Humidify 20 degrees WB - kg | 5 kg | 8 kg | 12 kg | 12 kg |
| Coefficient of Performance COP | 4,6 | 4,6 | 3,2 | 3,5 |
| Total max power capacity (heating& cooling) | 10,9 kW | 16,8 kW | 27,1 kW | 27,1 kW |
| Airflow | | | | |
| Rated Air Flow m ³ /h | 1300 m ³ /h | 1900 m ³ /h | 2200 m ³ /h | 2200 m ³ /h |
| Static Pressure Pascal | 0 Pa | 0 Pa | 0 Pa | 0 Pa |
| Rated Air Flow m ³ /h | 1100 m ³ /h | 1600 m ³ /h | 2450 m ³ /h | 2450 m ³ /h |
| Static Pressure Pascal | 100 Pa | 100 Pa | 100 Pa | 100 Pa |
| Refrigerant | | | | |
| Type | R410A | R410A | R410A | R410A |
| Charge Volume - kg | 2,3 kg | 2,7 kg | 3,45 kg | 3,85 kg |
| GWP number | 2088 | 2088 | 2088 | 2088 |
| CO2 Equivalent - Ton | 4,8 | 5,64 | 7,2 | 7,2 |
| Flow demand cold water (25 deg. Celcius Max) | | | | |
| Cooling mode - Liters/min | 2,0 - 4,0 L/min | 3,0 - 6,0 L/min | 3,0 - 10,0 L/min | 3,0 - 10,0 L/min |
| Heating mode - Liters/min | 0,0 - 4,0 L/min | 0,0 - 6,0 L/min | 0,0 - 10,0 L/min | 0,0 - 10,0 L/min |
| Flow demand recirculating water | | | | |
| Cooling mode - m ³ /hour | 1,2 m ³ /h | 2 m ³ /h | 3 m ³ /h | 3 m ³ /h |
| Heating mode - m ³ /hour | 1,2 m ³ /h | 2 m ³ /h | 3 m ³ /h | 3 m ³ /h |
| Water Temperature Limits | | | | |
| Temp In (recirculating) - ° Celcius Max | 25 (55) ° | 25 (55) ° | 25 (55) ° | 25 (55) ° |
| Temp Out (recirculating) - ° Celcius Max | 65 (65) ° | 65 (65) ° | 65 (65) ° | 65 (65) ° |
| Delta (recirculating) - AT | 5 ° | 5 ° | 5 ° | 5 ° |
| Size L x W x H cm | 91 x 57 x 44 cm | 99 x 67 x 49 cm | 114 x 70 x 54 cm | 114 x 70 x 54 cm |
| Weight kg | 79 kg | 94 kg | 124 kg | 124 kg |

* measured at 27 degrees Celcius / 60 % humidity

| MODEL | 21000 REV2 | 30000 REV2 | 30000 Free Air | 30000 SEP-FAN |
|---|------------------------|------------------------|------------------------|------------------------|
| | REGULAR & DEEP COOL | REGULAR & DEEP COOL | | |
| Nominal Cooling Capacity - kWatt | 21 kW | 30 kW | 30 kW | 30 kW |
| Maximum Cooling Capacity - kWatt | 23 kW | 35 kW | 35 kW | 35 kW |
| De-humidification Capacity - Liters/24Hrs | 230 L | 315 L | 315 L | 315 L |
| Electricity | | | | |
| Power Supply - Volt | 400v | 400v | 400v | 400v |
| Phase | 3 | 3 | 3 | 3 |
| Compressor (inverter) - Volt | DC (400v) | DC (400V) | DC (400v) | DC (400v) |
| Compr. Freq. Min (Max) - Hz | 30 (85) Hz | 30 (85) Hz | 30 (85) Hz | 30 (85) Hz |
| Fuse MCB single-phase (3-phase) | C32 3ph+N | C50 3ph+N | C50 3ph+N | C50 3ph+N |
| Total 3-Phase Ampere | 27 A | 36 A | 36 A | 36 A |
| Total 1-Phase Ampere | n/a | n/a | n/a | n/a |
| Cable Diameter (mm) 3 phase | 6 mm ² | 10 mm ² | 10 mm ² | 10 mm ² |
| Cable Diameter (mm) 1 phase | n/a | n/a | n/a | n/a |
| Internal Glass Fuse Heater (3x) - Ampere | 16 A | 16 A | 16 A | 16 A |
| Internal Glass Fuse Main - Ampere | 5 A | 8 A | 8 A | 8 A |
| Power Factor cos Φ | 0,9 | 0,9 | 0,9 | 0,9 |
| Cooling & Heating | | | | |
| Nominal cooling rated Power kWatt | 6,0 kW | 9,0 kW | 9,0 kW | 9,0 kW |
| Max cooling rated Power - kWatt | 9,0 kW | 15,0 kW | 15,0 kW | 15,0 kW |
| Max current cooling - Ampere | 20 A | 25 A | 25 A | 25 A |
| Electrical Heating Power - kWatt | 3 x 2,7 kW | 3 x 3,7 kW | 3 x 3,7 kW | 3 x 3,7 kW |
| Electrical Heating Current - Ampere | 3 x 13,0 A | 3 x 16,0 A | 3 x 16,0 kW | 3 x 16,0 kW |
| De-Humidify 20 degrees WB - kg | 17 kg | 19 kg | 19 kg | 19 kg |
| Coefficient of Performance w/w | 3,5 | 3,3 | 3,3 | 3,3 |
| Total max Power capacity (heating & cooling) kW | 31,1 kW | 46,1 kW | 46,1 kW | 46,1 kW |
| Airflow | | | | |
| Rated Air Flow m ³ /h | 3900 m ³ /h | 6500 m ³ /h | 6000 m ³ /h | 6500 m ³ /h |
| Static Pressure Pascal | 0 Pa | 0 Pa | 0 Pa | 0 Pa |
| Rated Air Flow m ³ /h | 3100 m ³ /h | 5000 m ³ /h | 5000 m ³ /h | 5000 m ³ /h |
| Static Pressure Pascal | 200 Pa | 200 Pa | 200 Pa | 200 Pa |
| Refrigerant | | | | |
| Type | R410A | R410A | R410A | R410A |
| Charge Volume - kg | 4,4 kg | 6 kg | 6 kg | 6 kg |
| GWP number | 2088 | 2088 | 2088 | 2088 |
| CO ₂ Equivalent - Ton | 9,19 | 12,53 | 12,53 | 15,53 |
| Flow demand cold water (25 deg. Celcius Max) | | | | |
| Cooling mode - Liters/min | 3,0 - 12,0 L/min | 3,0 - 20,0 L/min | 3,0 - 20,0 L/min | 3,0 - 20,0 L/min |
| Heating mode - Liters/min | 0,0 - 12,0 L/min | 0,0 - 20,0 L/min | 0,0 - 20,0 L/min | 0,0 - 20,00 L/min |
| Flow demand recirculating water | | | | |
| Cooling mode - m ³ /h | 4,5 m ³ /h | 6 m ³ /h | 6 m ³ /h | 6 m ³ /h |
| Heating mode - m ³ /h | 4,5 m ³ /h | 6 m ³ /h | 6 m ³ /h | 6 m ³ /h |
| Water Temperature Limits | | | | |
| Temp In (recirculating) - ° Celcius Max | 25 (55) ° | 25 (55) ° | 25 (55) ° | 25 (55) ° |
| Temp Out (recirculating) - ° Celcius Max | 65 (65) ° | 65 (65) ° | 65 (65) ° | 65 (65) ° |
| Delta (recirculating) - AT ° Celcius | 5 ° | 5 ° | 5 ° | 5 ° |
| Size L x W x H cm | 122 X 82 X 59 cm | 148 x 86 x 74,9 cm | 148 x 86 x 74,9 cm | 148 x 86 x 74,9 cm |
| Weight kg | 181 kg | 232 kg | 232 kg | 232 kg |

* measured at 27 degrees Celcius / 60 % humidity

2. SAFETY

CAUTION

Please read this manual carefully before attempting to install the Opticlimate Revomax II. The RevomaxII is a high performance climate control system, we strongly advice to seek the services of an installation professional.



These products may represent a possible shock or fire hazard if improperly installed or attached in any way. Products should be installed in accordance with the owners manual and local electrical guidelines and law.

When operating with a separate humidifier, make sure it is an adiabatic humidifier to prevent the corrosion of electronics in the room. Using reverse osmosis by itself is not enough to prevent corrosion. Any damage to Airlux Technologies hardware caused by not using the correct humidifier is not covered under our warranty.

2.1 SAFETY PRECAUTIONS

Installation

- Make sure the Revomax is installed spirit level.
- Make sure a P-trap is installed on the condensation outlet.
- Make sure the return air filter and/or plenum box are clean without obstructions or high air resistance.
- Make sure the supply air ducting and/or air distribution hose is of the correct diameter, typically the same diameter of the supplied flange.
- Make sure all covers and panels are on the machine while in operation.

Electricity

- Make sure the correct diameter cable is used to power the machine (see spec sheet, chapter 1 /local code).
- Make sure the correct MCB (miniature circuit breaker) is installed (see spec sheet, chapter 1 /local code).
- Make sure the correct RCD (residual current device) type B (earth-leak) is installed (see data sheet /local code).
- Make sure the room temperature sensor is connected on the correct position on the circuit-board.
- Make sure the room temperature sensor is in the room and shielded from direct light or air streams.

Water/glycol

- Always install the watercooler outside the building. We do not support indoor placed watercoolers.
- Make sure flow and return piping has the correct diameter, we recommend at least 40mm (closed loop only, chapter 5.3).
- Make sure there is no air trapped in the system. Use an air vent at the high point of the circuit (closed loop only, chapter 5.3).
- Never use water only, when outdoor temperatures are below freezing. (closed loop only, chapter 5.3).
- Use dipswitch 3 to start the pump and open water valve to test for leaks/air before full operation (chapter 4.1).
- Use water/glycol mix for below zero temperature protection (closed loop only, chapter 5.3).
- Make sure fresh water supply is steady below 25 degrees all year round.

General

- Keep distance from the fan / supply air. Turning parts and rotating fan blades are dangerous.
- Do not power the machine when the electric compartment is open, circuit-boards and connectors might be charged.
- In a food / agro environment always use food-grade glycol (propylene glycol) (closed loop only, chapter 5.3).
- Make sure you are aware of all features and settings for correct day-to-day operation.
- Electrical connections should be done by a certified electrician. In some regions this is required by law.
- Water glycol setup should be done by a certified installer. In some regions this is required by law.
- Operating the system should be done by personnel that is fully aware of it's functions.
- Do not operate the unit without the filter or with a less effective filter. The heat exchangers inside the unit become clogged and require disassembly to clean.

2.2 INTRODUCTION

The OptiClimate RevomaxII is a state-of-the-art climate control system designed to provide an optimal growing environment for a wide variety of plant species. Leveraging advanced Infinity DC inverter technology, this system offers unmatched flexibility in climate control, allowing for precise adjustments up to one tenth Hertz increments in cooling, heating, dehumidification, and air filtration. Its capacity to maintain super stable humidity, room temperature, and output temperature ensures the health and productivity of your plants under any indoor condition.

Model Variations

1. Output Power

The RevomaxII is available in 6000 to 30000 Watt versions. The model you need with sufficient cooling capacity can be calculated by adding up the power outputs for all heat generating devices like fixtures. In most common situations, it's a 1-1 relationship. Example: 12 x 800 Watt HPS fixtures generate 9600 Watts of heat, which means you need a 10000 RevomaxII model to cool the growing area. LED does not generate much heat. To calculate the needed capacity for de-humidification, you need up to 650 watts per m² of green to get 50% of relative humidity (RH) in the night cycle (depending on your crop).

2. Regular

All RevomaxII models are able to cool to a maximum of 0.2 degrees celsius deviation of the set point temperature. With the RevomaxII you are able to control humidity with a maximum 'swing' of 4% (depending on the humidity load) of the set humidity level. In case you use LED fixtures, you might even need to heat the room instead of cooling it. The RevomaxII is unique and can heat a room while de-humidifying.

3. Deep Cool

Normal Revomax units can cool a space to about 16 degrees Celsius, which is more than sufficient for all plants and vegetables, as they thrive in warmer conditions. But if you're looking to turn the space into a cold storage solution—keeping your harvest fresh, just like in a fridge—then we've developed the Revomax Deep Cooling system, designed specifically for your post-harvest needs. Depending on the insulation and capacity the unit can cool close to 0 degrees Celsius.

4. Separate Fan

With the sep-fan model (separate-fan) you are able to place the active fan in another location, combined with air hoses or air duct systems.

5. Free Air

The RevomaxII Free Air is made to blow air freely instead of using a ducting system or hoses. The Free Air is designed in such a way that it takes up as little volume as possible and thus takes up as little space as possible and at the same time intercepts as little light as possible.

Product Features

Broad Capacity Range: We are able to adjust the cooling capacity in significantly smaller increments than our competition. We can reach 20-30 percent increments versus more than 60 percent at our competitors. This ensures a very stable climate all year round.

Optimized for LED Growing: Addresses the challenges of growing with LED lights by ensuring the room reaches optimal temperatures for photosynthesis more quickly and efficiently.

Advanced Safety Features: Includes built-in temperature protection, water leak safeguard (optional), and a fireproof system to ensure the operation is as safe as it is efficient.

Smart Remote Control: Comes with a smart remote controller for easy management of settings and receiving alarms and warnings via email, enhancing convenience and monitoring.

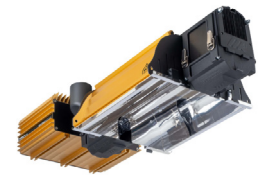
Superior Air Quality Management: Its built-in lightweight filter keeps the interior components clean ensuring your plants thriving at any moment during the growth cycle.



RevomaxII unit



Dimlux Xtremell LED Fixture



Dimlux Expert HPS Fixture



Separate Fan



Separate Fan on RevomaxII



RevomaxII Free-Air

3. DAILY OPERATION

3.1 CONTROL

After successfully installing the RevomaxII system in your applicable configuration, you can control the system with the Smart Remote Controller or remotely by accessing the Smart Remote Controller with the built-in Anydesk software. The software mimics the user interface of the Smart Remote Controller and shows the exact same user interface on your computer.

Check chapter 4.2 for to setup the Anydesk remote control software.

3.2 SETTINGS

With the RevomaxII, in essence, the room has two basic parameters we want to control:

- Temperature
- Humidity

The user interface is designed to give you maximum control over temperature and humidity and their timing, day & night cycle, indoor fan speed and read any other sensors data like water pressure. Based on your crops and the phase they are in, you can control these parameters. If you combine the RevomaxII setup with our Dimlux Xtremell LED lighting system you can control climate and lighting from the same control panel.

All settings in the Smart Remote Controller are designed to operate the RevomaxII no matter the configuration. In the chapter 4 all necessary setting will be explained.

3.3 FIRST USE

After the system is fully booted up, make sure to set date and time, the target temperature and humidity for both day- and night time. Continue to chapter 4.3, 4.4 and 4.5 to set your preferred values.

If you operate with an OptiClimate watercooler also make sure to set the watercooler 'active' in the controller. Instructions in chapter 4.12.

After setting the time, date, target temperature and target humidity, the system is fully operational.

3.4 CALIBRATION

To get optimal performance from your RevomaxII, we recommend to test and calibrate the RH (relative humidity) and temperature sensors and repeat the process yearly. Use settings S.26 and S33 in the settings menu (for navigation check chapter 4) to offset and correct readings.



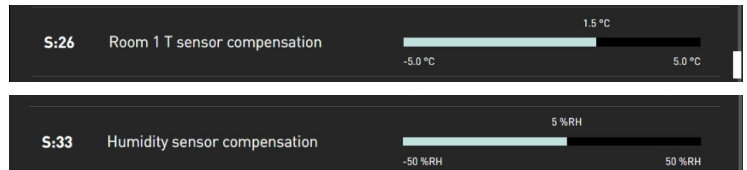
Smart Remote Controller



Dimlux Xtremell LED Fixture



OptiClimate watercooler

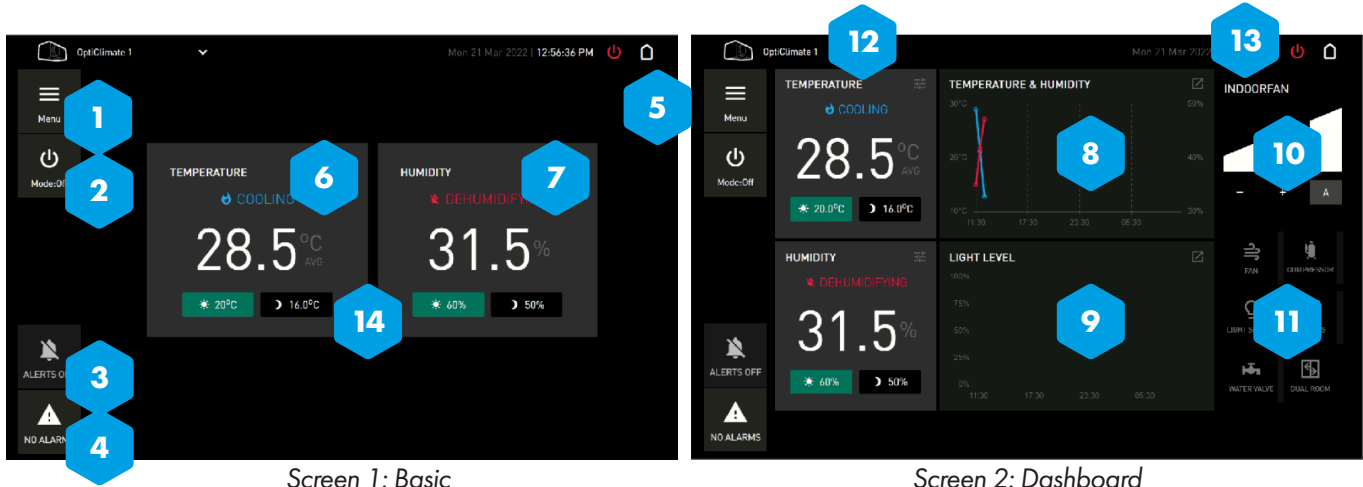


4. SMART REMOTE CONTROLLER

4.1 READING THE DISPLAY

Reading the display

When the system is fully booted up, you will be presented with the basic home screen (screen 1). In the right upper corner you will find the home icon **5** which lets you switch to dashboard mode (screen 2). Toggle back with the same button.



Screen 1: Basic

Screen 2: Dashboard

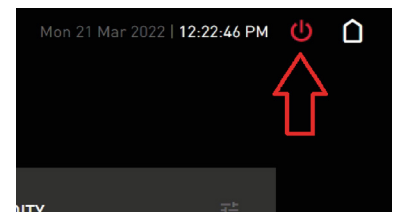
Both screens share the same basics but differ in data shown. The following items are present:

- | | |
|---------------------|---|
| 1. MENU | Change system settings |
| 2. MODE | Change the operating mode: day, night, timer or automatic (light sensor) |
| 3. ALERTS OFF/ON | Toggle alerts on/off |
| 4. ALARMS | Show list of past and present messages |
| 5. HOME | Switch between basic and dashboard mode |
| 6. TEMPERATURE | Show mode (cooling/heating), actual temperature and target temperatures for day & night |
| 7. HUMIDITY | Show mode (humidify/de-humidify), actual level and target humidity for day & night |
| 8. GRAPH | Show recent history of temperature and humidity levels |
| 9. LIGHT LEVEL | Show recent history of light levels |
| 10. INDOOR FAN | Change fan speed of the cooler unit |
| 11. VARIOUS DATA | Show available data based on connected sensors |
| 12. SELECT UNIT | Select Revomax unit to control |
| 13. ON/OFF | Turning the RevomaxII unit on or off |
| 14. CYCLE INDICATOR | Indicates if the system is currently in day or night mode (green is active) |

Turning the system on and off

During the growth cycle there is no need to turn the system on or off. The indicator is RED when the system is turned off and GREEN when operational. This is controlled by the chosen mode **2** and uses the clock or light sensor. When turned on the system is activated in the following sequence:

1. The on/off button turns green
2. The fan inside the unit turns on.
3. The light sensor or clock will determine if the room is in day or night mode, depending on the operating mode **2**



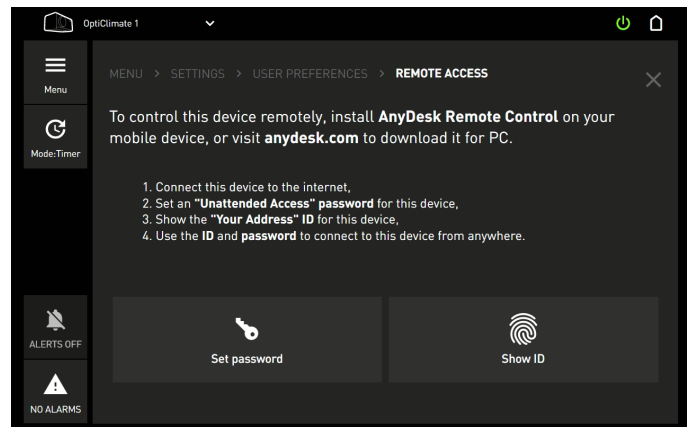
System On/Off button

4.2 CONNECTING TO A WIFI NETWORK

For receiving frequent updates and remote access, connect the Smart Remote Controller to a WiFi network. To do this you need to access the Microsoft Windows based environment.

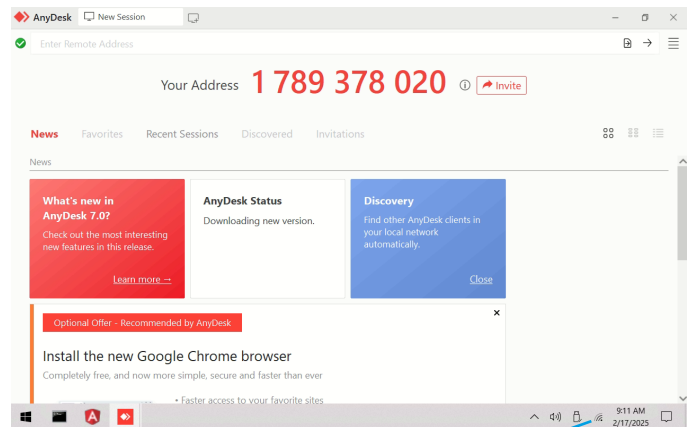
Note: the Smart Remote Controller supports 2.4 Ghz networks only.

1. Navigate to the Remote Access menu: Menu > Settings > User Preferences > Remote Access and click 'Show ID'



Remote access menu

2. From the Windows environment, click the Wifi (globe) icon in the bottom right of the screen. Select the network to connect to and enter the corresponding password.



Remote access menu - Globe Icon

3. When connected, exit the Windows Environment by clicking the red A icon in the bottom left.
4. The system is now connected and will receive regular firmware updates automatically. For more information on firmware updates check chapter 5.

AnyDesk

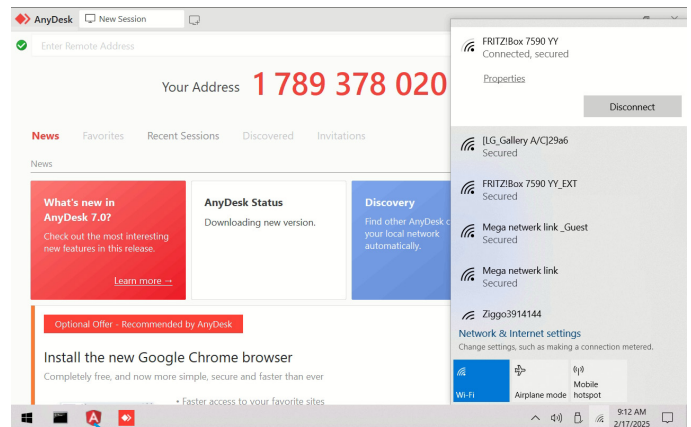
When connected, the system is accessible remotely with the AnyDesk application. Download the AnyDesk app from www.anydesk.com and enjoy the control of your RevomaxII system from any computer.

Instructions on connecting with anydesk is available on: <https://support.anydesk.com/knowledge>

Note:

A select range of ID codes are known to result in incorrect connections. When your ID is one of the following please contact your dealer or our supportdesk at support@airluxtechnologies.com

- 143 937 739
- 240 808 032
- 531 879 305

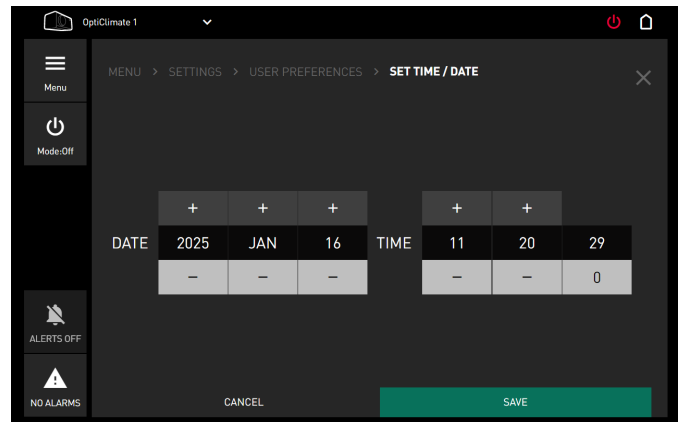


Remote access menu - RevomaxII environment

4.3 CONFIGURE TIME AND DATE

1. from the home screen, tap the menu button **1**
2. navigate to: settings > user preferences > set time/date
3. change the settings with the +/- icons and click save

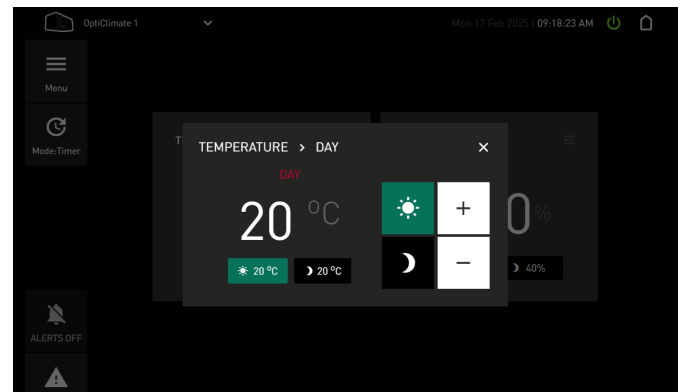
Note: the settings influence the day/night cycle



Set Time/Date menu

4.4 SETTING TARGET TEMPERATURE

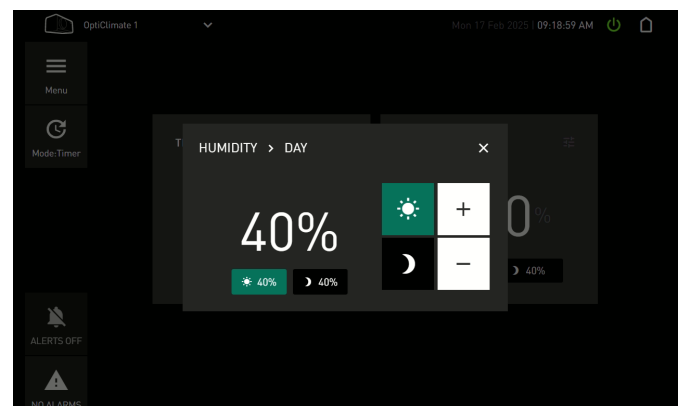
1. from the home screen tap the temperature area **6**
2. tap the 'sun' icon
3. use the + / - keys to adjust the target temperature for daytime
4. tap the 'moon' icon
5. use the + / - keys to adjust the target temperature for nighttime
6. tap the X icon to return to the main menu



Set Target Temperature menu

4.5 SETTING TARGET HUMIDITY

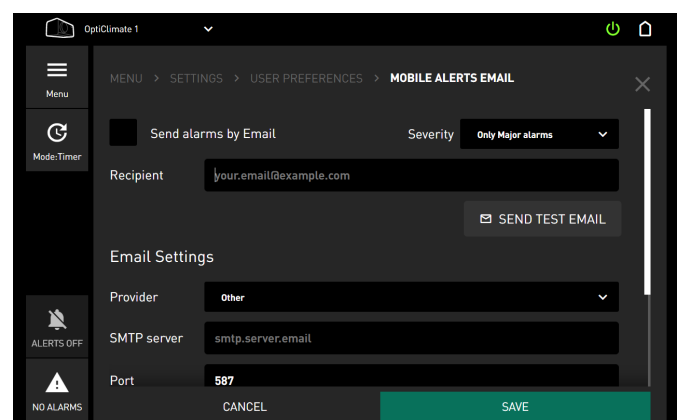
1. from the home screen tap the humidity area **7**
2. tap the 'sun' icon
3. use the + / - keys to adjust the target humidity for daytime
4. tap the 'moon' icon
5. use the + / - keys to adjust the target humidity for nighttime
6. tap the X icon to return to the main menu



Set Target Humidity menu


4.6 E-MAIL ALERTS

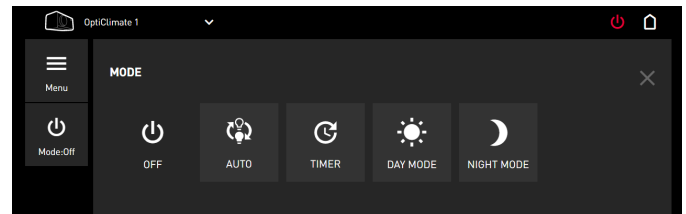
1. navigate to menu > settings > user preferences > mobile alerts e-mail
2. check the 'send alarms by e-mail' box
3. enter the e-mail address(es) the alarms are going to be sent to
4. choose the level of alert importance in the 'severity' menu
5. To be able to send e-mails from the remote controller, enter the e-mail settings for the outgoing mail. Ask your IT department for the required information.



Set E-Mail alerts menu

4.7 OPERATING MODE

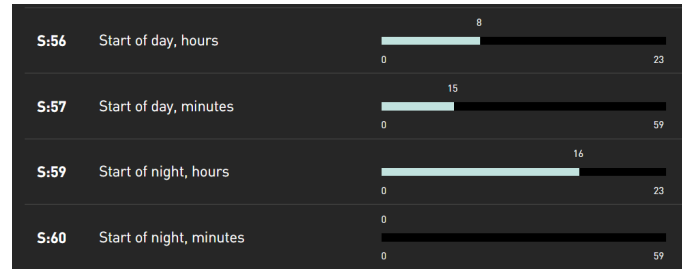
1. navigate to mode:  to select your preferred operating mode
2. select preferred mode
 - off: turn of the RevomaxII
 - auto: detects light from Humidity Sensor light cell
 - timer: based on timer from opticlimate timer settings (chapter 4.8)
 - day mode: always in DAY mode
 - night mode: always in NIGHT mode



Select Mode Menu

4.8 TIMER SETTINGS

1. navigate to menu > settings > opticlimate settings > start of day, hours
2. tap the value you want to adjust, adjust by using the +/- buttons
3. click save settings
4. repeat steps 2 and 3 for the other values

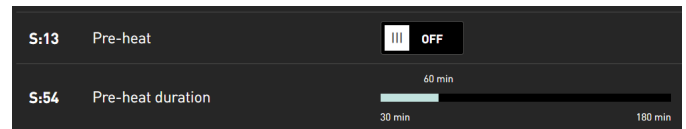


OptiClimate Settings menu - timer

4.9 PRE-HEAT

1. navigate to menu > settings > opticlimate settings > pre-heat
2. turn on pre-heat to make sure the system is at the right temperature when the day-cycle starts.
3. tap the pre-heat duration bar to change the pre-heat duration

The timer needs to be activated for this function to work.

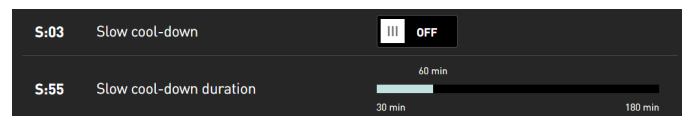


OptiClimate Settings menu - pre-

4.10 SLOW COOLDOWN

1. navigate to menu > settings > opticlimate settings > slow cooldown
2. turn on slow cooldown to make sure the temperature has less shock effect to your crops
3. tap the slow cooldown duration bar to change the slow cooldown duration

The timer needs to be activated for this function to work.



OptiClimate Settings menu - slow cool-down

4.11 HEAT DURING DAY

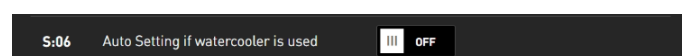
1. navigate to menu > settings > opticlimate settings > system heating during day
2. turn on system heating during day. In most classic HPS based lighting environments the heating stays off during the day cycle. When using LED fixtures you might need to heat the growing area because LED doesn't generate heat like HPS does. The RevomaxII is unique and is able to heat and de-humidify simultaneously.



OptiClimate Settings menu - heat during day

4.12 COOLER ON/OFF

1. navigate to menu > settings > opticlimate settings > Auto setting if watercooler is used
2. turn on the 'Auto setting if watercooler is used' when you use a closed loop water system. In an open tap installation turn the option off.



OptiClimate Settings menu - cooler on/off

4.13 WATER FLOW & WATER DELTA

Water flow

When the system is installed with a manual water valve (check the installation manual when in doubt), the water flow must be adjusted manually by opening and closing a valve that is installed directly after the pump in the closed loop. The water flow regulates the refrigerant pressure in the RevomaxII. When the refrigerant pressure is too low or too high, the RevomaxII will not operate to specification.

The system works optimally when the delta temperature (the difference between the outgoing water and incoming water temperature) is no more than 5 degrees Celcius.

In the Smart Remote Controller first make sure the internal valve in the Revomax is fully opened.

Check the current output in the menu > settings > outputs menu.

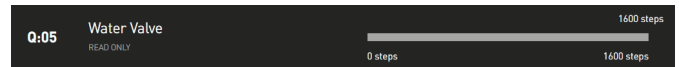
Wait for the grow area to heat up to the target room temperature and water temperature is stable. The RevomaxII must be active and in cooling mode. The set temperature must be set to 16 degrees Celcius to force the unit to cool.

Delta Temperature

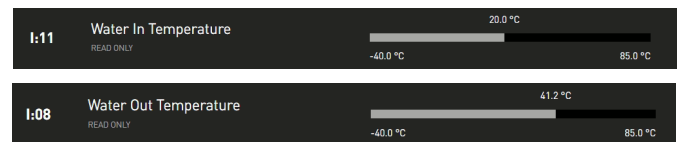
Target temperatures are 32 degrees Celcius in (I:11) and 37 degrees Celcius out (I:08), this means the delta (difference) is 5 degrees, which is optimal. Choose menu > settings > all sensors to check

- When the delta is too LOW (less than 5 degrees): CLOSE the valve, there is too much flow
- When the delta is too HIGH (more than 5 degrees): OPEN the valve, there is too little flow

Adjust in small increments and wait for the system to respond. This can take a few minutes. After all temperatures are stable for a few hours adjust the room temperature to the desired temperature.



OptiClimate Settings menu - water valve



OptiClimate Settings menu - water

5 FIRMWARE UPDATES

Firmware updates release regularly to add new functionality and fix bugs. Connected fixtures will be updated in one action. To execute an update:

Option 1: Wifi

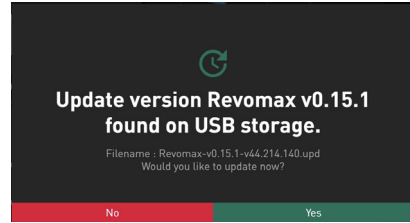
1. Make sure to have an active wifi connection on your Smart Remote Controller
2. Once an update is available, your controller will prompt the new firmware, choose 'yes'
3. Wait for the firmware to finish installing. After a full reboot of the RevomaxII and Smart Remote Controller the system is up-to-date with all the latest fixes and updates.

When an update goes wrong due to connection problems, the update will re-appear the next day.

Option 2: USB

Whenever it's not possible or preferable to have the system connected to the internet, the system can be updated via USB.

1. Make sure to have an empty USB memory stick that is readable on a Windows computer
2. Request the update file with our support desk at support@airluxtechnologies.com
3. Copy the downloaded update file (.UPD) to the USB memory stick
4. Insert the USB memory stick with update file into the Smart Remote Controller
5. The system will detect the update file and shows the update window, click 'yes' to start the update
6. Wait for the firmware to finish installing. After a full reboot of the RevomaxII and Smart Remote Controller the system is up-to-date with all the latest fixes and updates.
7. Remove the USB memory stick



Firmware update prompt



Firmware update progress



USB Port for update

6 WARRANTY

The Revomax II series and accessories are designed and manufactured with maximum care and craftsmanship. Airlux Technologies warrants the delivered goods to be free of defects for the duration of the applicable warranty period under normal use and conditions after the original purchase date. When the product shows any defects within this period that is not due to improper use, Airlux Technologies will replace or repair the defect product with a suitable replacement with at least the same functionality and specifications. Warranty of the replaced products will remain under warranty for the remaining period from the original product and purchase date. For service, the owner ships the unit to the closest Airlux Technologies service location, to be determined by the service desk. Airlux Technologies will require the original receipt to determine the warranty eligibility.

Use of reactive substances and impact on warranty

Revomax units are designed for operation in controlled environments with clean air and without the introduction of chemically reactive gases or vapours. The introduction of external substances into the room or air stream may affect materials, heat exchangers and piping within the system. The use of substances that can chemically react with copper or copper alloys may result in discoloration, accelerated corrosion, reduction of wall thickness and, ultimately, leakage of piping or heat exchangers. This includes, but is not limited to, sulphur-containing compounds (such as those produced by sulphur burners), unfiltered or impure CO₂ sources (such as bio CO₂), and other gases, vapours or aerosols containing sulphur, acidic or otherwise corrosive components.

Damage to components resulting from exposure to such substances falls outside the design specifications of the Revomax units and is considered improper use. Any resulting damage or failure is not covered by warranty. Responsibility for the introduction of substances into the environment, including CO₂ systems, combustion products, treatment agents or other additives, rests entirely with the user. In case of doubt regarding the suitability or compatibility of any substance or system in combination with a Revomax unit, your supplier must be consulted in advance. Failure to do so may result in voiding of the warranty.

To contact the supportdesk:

By Phone: +31 20 776 6006

By e-mail: support@airluxtechnologies.com



Direct link: <https://www.opticlimat.com/nl/knowledge-base/>

Scan the QR-code to go to our online knowledge base for the latest manuals and information