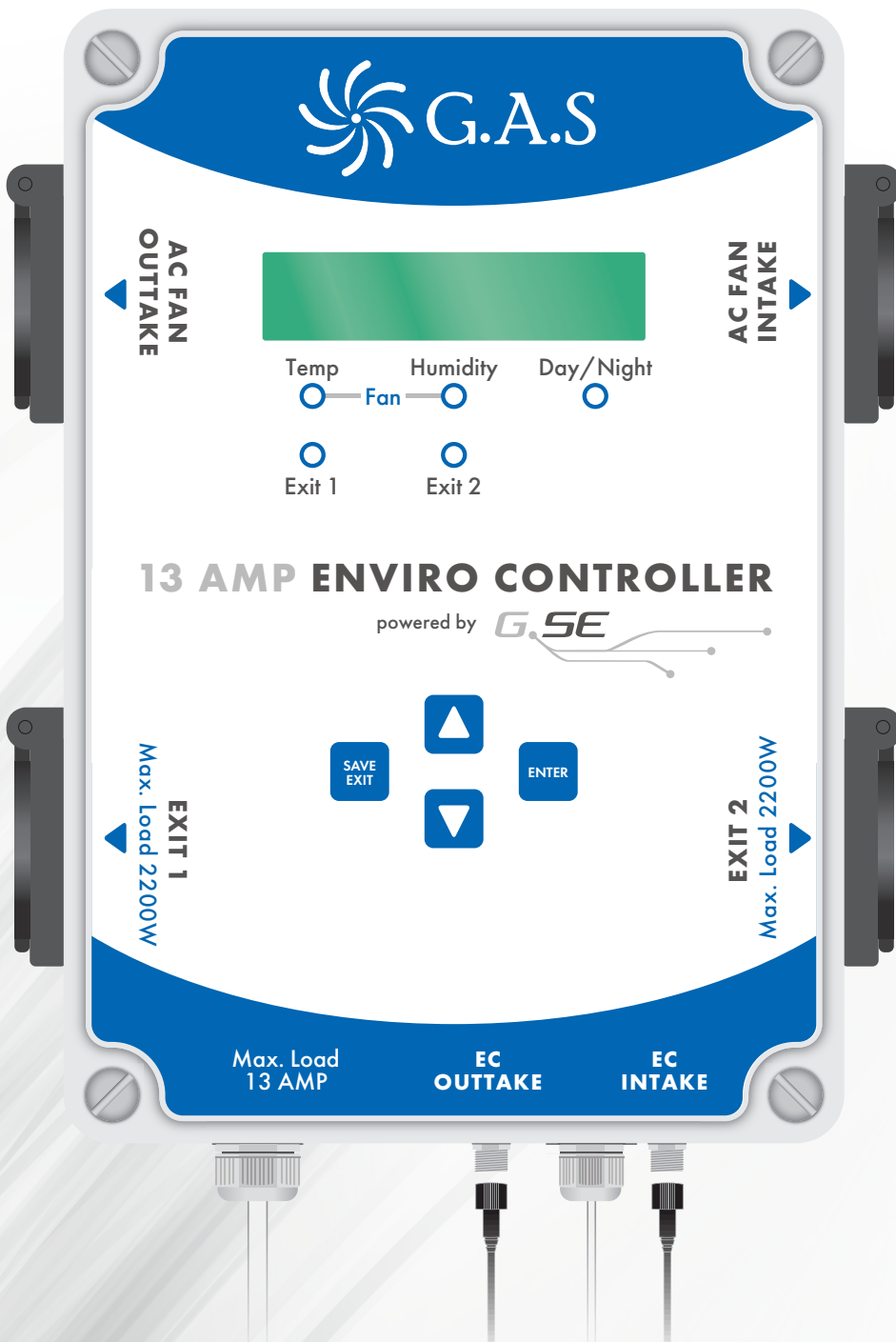


GLOBAL AIR SUPPLIES UK

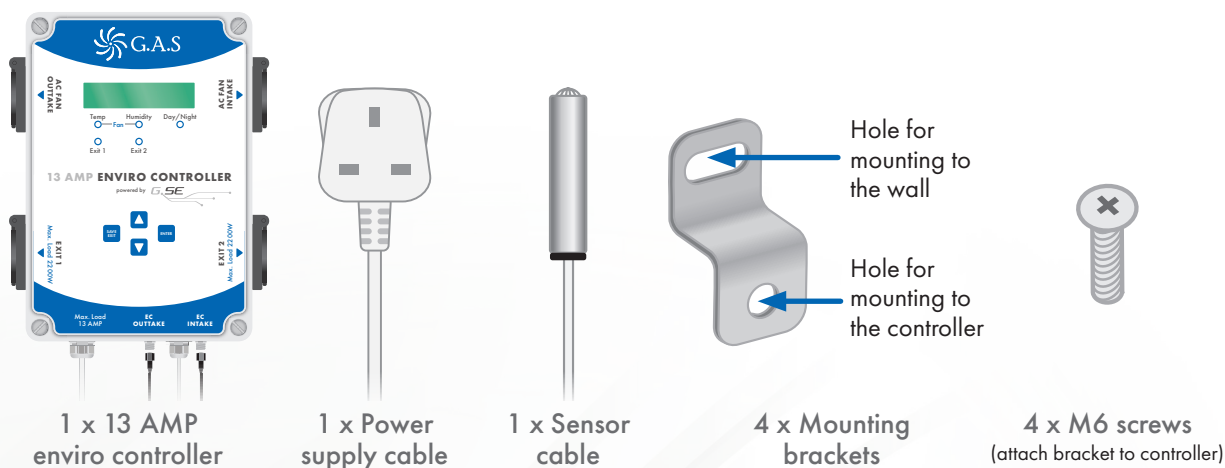
13 AMP ENVIRO CONTROLLER



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IN THE BOX



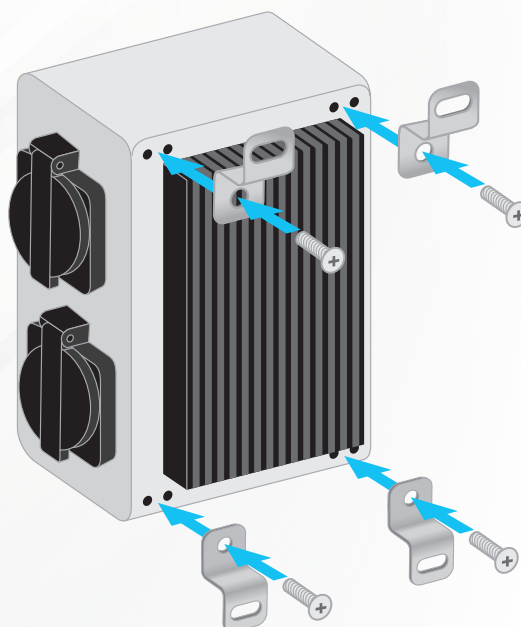
TECHNICAL SPECIFICATION

- Operating Voltage 230V / 50 Hz
- Max Amp 13
- Loading of the individual outputs
 - Intake Fan Max: 10A 2300W
 - Outtake fan Max: 10A 2300W
 - Exit 1 Max: 10A 2300W
 - Exit 2 Max: 10A 2300W

The total load on all the sockets **MUST NOT** be more than 2900W!

MOUNTING YOUR UNIT

- **Make sure the unit is unplugged.**
- Screw the mounting brackets to the unit and screw the unit to the wall.
- **PLEASE NOTE: Mount the unit on a non-flammable surface. Make sure the unit is in a well ventilated area and away from water and high humidity.**
- The unit is sealed to IP44 however to prevent any water ingress it is recommended that the unit is mounted outside of the grow room.



SENSOR POSITIONING

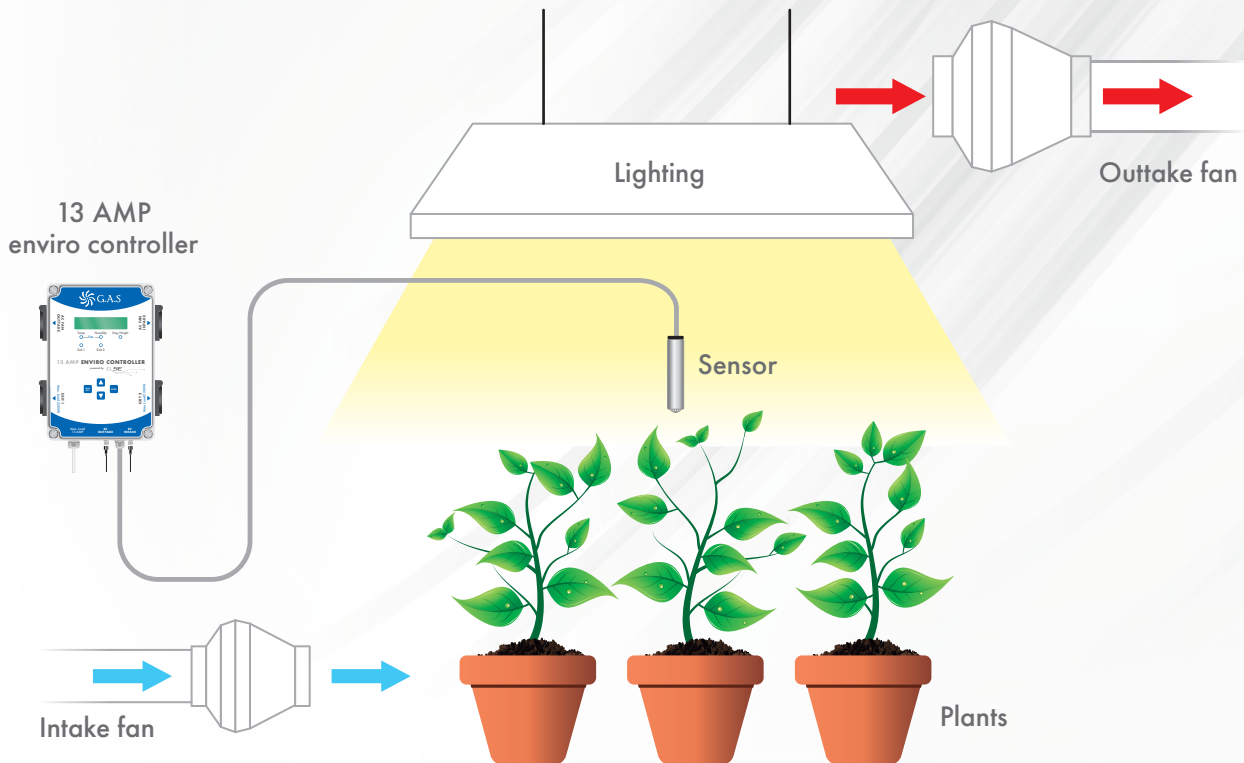
- The best position for the sensor is the middle of the grow room, just above the canopy.

PLEASE NOTE: We advise you have good air circulation in your grow room, this will prevent hot spots or high humidity zones. The sensor will be more accurate if the air is moving inside the grow room, therefore making the controller more accurate.



DO NOT drop or hit the sensor.

KEEP AWAY from water and aerosols



CONNECTING YOUR FANS

The 13 AMP Enviro Controller can be used with AC or EC Fans.

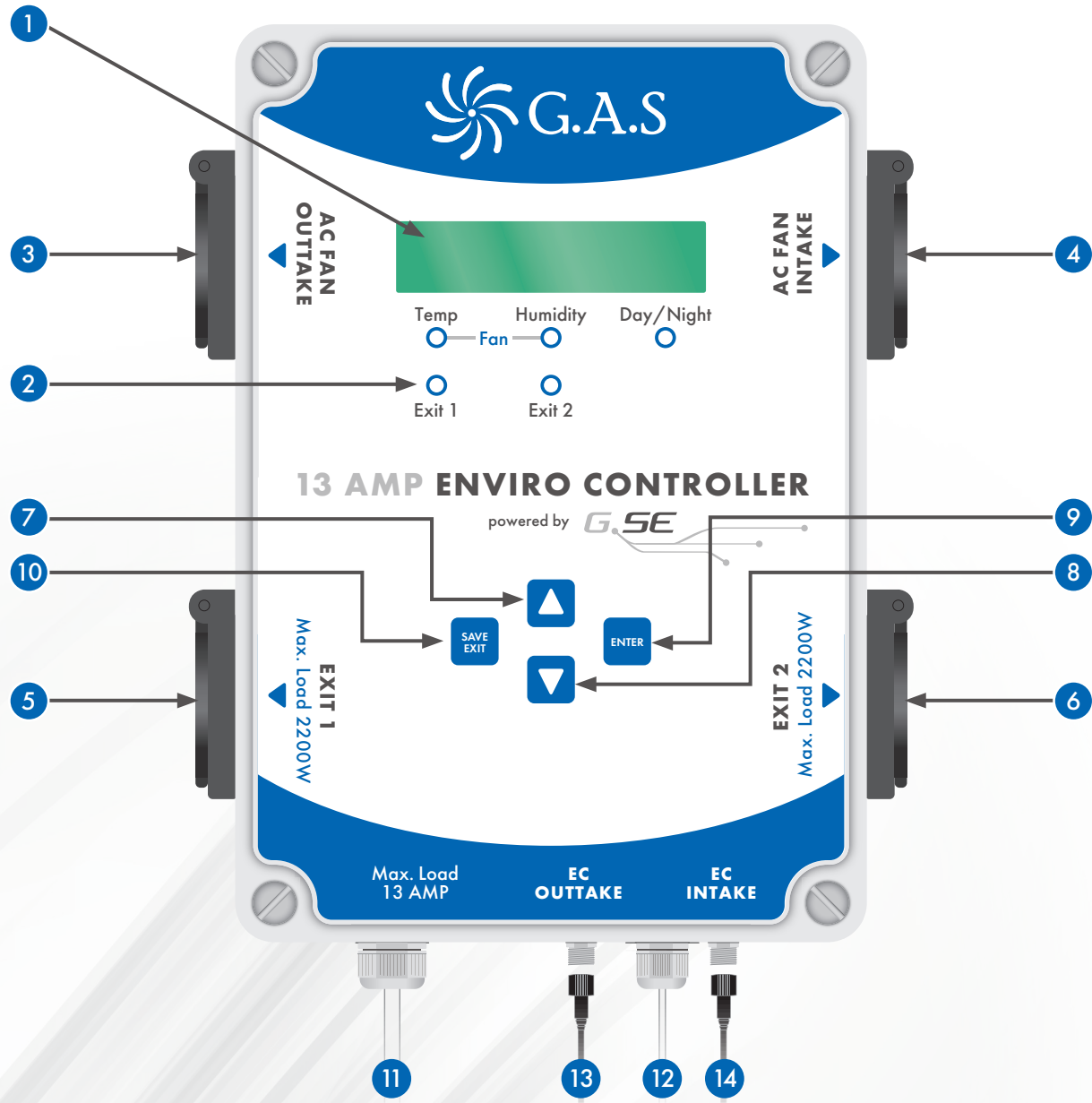
- To connect AC fans, simply plug the fan into the top two plug sockets on the side of the controller. **AC FAN OUTTAKE** connects to your outtake and your intake connects to **AC FAN INTAKE**.
- To connect your EC fans, connect the EC signal cable to the controller and to the signal cable on your fans. **EC INTAKE** connects to your intake fan and **EC OUTTAKE** to your outtake fan.

PLEASE NOTE: Never connect the mains power lead from EC fans to the AC fan plug sockets. Serious damage will occur to your EC fans.



ALL FANS will turn on when the controller is plugged in/switched on

USING YOUR 13 AMP ENVIRO CONTROLLER



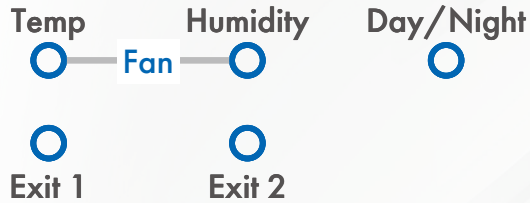
KEY

- 1 LCD information display
- 2 LED indication lights
- 3 AC fan outtake plug socket
- 4 AC Fan Intake plug socket
- 5 Programmable Exit 1 plug socket
- 6 Programmable Exit 2 plug socket
- 7 Menu up key
- 8 Menu down key
- 9 Menu enter key
- 10 Menu save and exit key
- 11 Power supply
- 12 Sensor cable for the humidity, light and temperature sensor
- 13 EC outtake signal cable
- 14 EC intake signal cable

LED's

Five lights on the front of the controller give you information about your grow room.

When the controller is turned on, all 5 lights will briefly illuminate, then go off.

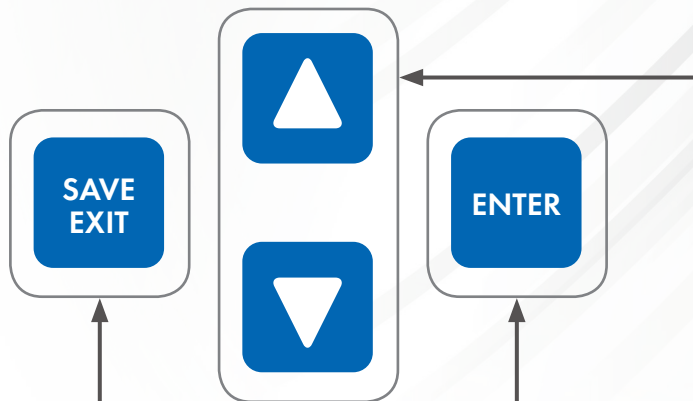


The LED's indicate when on:-

- Temp
Grow room is above set temperature
- Humidity
Grow room is above set humidity
- Day/Night
Blinking LED indicates night time or lights are off.
Solid LED indicates day time or lights are on.
- Exit 1
Exit 1 power supply is on
- Exit 2
Exit 2 power supply is on

CONTROL KEYS

The controller is operated by four buttons.



SAVE - EXIT

Allows you to save an entry and move back up a level on the display.

ENTER BUTTON

Press to select or open menus.

UP AND DOWN ARROWS

Navigate up and down the menu display.

To select a menu item press **ENTER**

Up and down keys also allow you to change values in the controller like temperature and humidity settings.

All values get stored in the internal memory and will be stored for 72 hours if there is a power failure.

MAIN MENU – HOME SCREEN

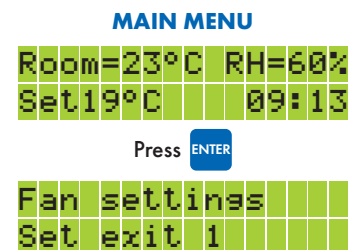
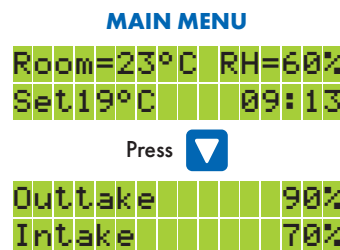
When the controller is turned on, the main menu – home screen is displayed. This shows your room temperature, relative humidity, fan setting and the time.

Press the **DOWN** arrow to view your outtake and intake settings.

Press **ENTER** to access all the sub menus.

Menus will **flash** when highlighted – selected.

If viewing a different menu, you can go back to the **Main Menu – Home Screen** by either leaving the controller for 2 minutes, or by pressing the **SAVE EXIT** button repeatedly to move backwards through any sub menus.



Highlighted menus will blink



Press **ENTER** to select and access sub menus

USING YOUR 13 AMP ENVIRO CONTROLLER

GENERAL SETTINGS MENU

This menu allows you to change the main settings of the controller such as:

- Set Time
- Set Language
- Set Photosensor
- Set Display
- Reset to factory Settings
- EC Fan Signal

TO ACCESS THE GENERAL SETTINGS MENU

From the Main Menu – Home Screen press **ENTER** to access the sub menus.

'Set fan Settings' and 'Set exit 1' will be displayed. Press the **DOWN** arrow to scroll down to 'General Settings'.

With 'General Settings' blinking, press **ENTER**

ACCESSING GENERAL SETTINGS

Start from the Main Menu – Home Screen

```
Room=23°C RH=60%
Set19°C    09:13
```

Press **ENTER** to access the first sub menu

Press **DOWN** to scroll down to General Settings

```
Fan settings
Set exit 1
Set exit 2
General settings
```

Press **ENTER** to access General Settings

Press **DOWN** to scroll down the sub menus

```
Set Time
Set Language
Set Photosensor
Set Display
Res. factory set
EC fan signal
```

SETTING THE DATE – TIME

From the General Settings Menu (see above), with 'Set Time' blinking, press **ENTER** to access the set date – time settings.

Use the **UP** and **DOWN** arrows to change the Day.

Pressing **ENTER** will subsequently select the Month, Year and then the Time values.

Press **SAVE EXIT** to save your information, and to go back to the previous sub menu.

TIME – DATE SETTINGS MENU

Select General Settings as detailed above

Press **ENTER** to access Set Time – Date Settings

```
Set Time
Set Language
Set Photosensor
Set Display
Res. factory set
EC fan signal
```

TO SET THE DATE – TIME

The 'day' is initially selected and blinking

Press **UP** **DOWN** to change value

```
Set date/time
01.01.2017 00:00
/\
```

Pressing **ENTER** will select the next entry: Month, Year and Time

```
Set date/time
01.01.2017 00:00
/\
```

Pressing **SAVE EXIT** will save your entry and go back to the previous menu

SETTING THE LANGUAGE

From the **General Settings Menu** (see page 6), press **DOWN** and scroll down to 'Set Language'.


With 'Set Language' blinking, press **ENTER** to access the language settings.

Use the **UP** and **DOWN** arrows to select your chosen Language.

Press **SAVE EXIT** to save your information, and to go back to the previous sub menu.



LANGUAGE MENU

Select General Settings as detailed on page 6


Press  to scroll down to Set Language

Press  to access Language Settings

```
Set Time      |
Set Language  |
Set photosensor |
Set Display   |
Res. factory set |
EC fan signal  |
```

Press   to scroll to your chosen language

```
Set language  |
              | English
              | Deutsch
              | Fransiais
              | Italiano
              | Español
              | Nederlands
```

Pressing  will save your entry and go back to the previous menu

SETTING THE PHOTOSENSOR

This menu shows the current Photosensor level at the top. You can adjust the value for the switch between day and night. The switch time is the delay before the controller changes mode from day to night, or night to day. This is to stop the controller changing all the environmental conditions if you open the door of the grow room.

From the **General Settings Menu** (see page 6), press **DOWN** and scroll down to 'Set photosensor'.

With 'Set photosensor' blinking, press **ENTER** to access the photosensor settings.

Press the **UP** or **DOWN** arrows to select 'Switch at' or 'Switch Time' and then press **ENTER** to select.

Press the **UP** or **DOWN** arrows to change the value and then press **SAVE EXIT** to save your information, and to go back to the previous sub menu.



PHOTOSENSOR MENU

Select General Settings as detailed on page 6

Press  to scroll down to Set Photosensor

Press  to access Photosensor Settings


```
Set Time      |
Set Language  |
Set photosensor |
Set Display   |
Res. factory set |
EC fan signal  |
```

Press   to make your selection

```
Photosensor 35%
Switch at: 70%
Switch time 1s
```

Press   to change value

```
Switch at: 70%
```

Pressing  will save your entry and go back to the previous menu

USING YOUR 13 AMP ENVIRO CONTROLLER

GENERAL SETTINGS MENU

SETTING THE DISPLAY

From the **General Settings Menu** (see page 6), press **DOWN** and scroll down to 'Set Display'.

With 'Set Display' blinking, press **ENTER** to access the display settings.

Use the **UP** and **DOWN** arrows to select your chosen setting of **Automatic**, **On** or **Off**.

Press **SAVE EXIT** to save your information, and to go back to the previous sub menu.



DISPLAY MENU

Select General Settings as detailed on page 6


Press  to scroll down to Set Display

Press  to access Display Settings

```
Set Time      | | | | | | | |
Set Language  | | | | | | | |
Set Photosensor | | | | | | | |
Set Display   | | | | | | | |
Res. factory set | | | | | | | |
EC fan signal | | | | | | | |
```

Press   to scroll to your chosen setting

```
LED back light | | | | | | | |
                | | | | | | | |
                | | | | | | | |
                | | | | | | | |
                | | | | | | | |
```

Pressing  will save your entry and go back to the previous menu

RESET TO FACTORY DEFAULTS

From the **General Settings Menu** (see page 6), press **DOWN** and scroll down to 'Res. factory set'.

With 'Res. factory set' blinking, press **ENTER** to access the factory default settings.

Use the **UP** or **DOWN** arrows to select YES.

Press **ENTER** to confirm your choice and the controller will begin to reset. The display will count up to 100% and once the reset is complete, all 5 LEDs will briefly illuminate, and the display will change to the **Main Menu – Home Screen**. Your controller has now been reset to factory defaults.



RESET TO FACTORY DEFAULT MENU

Select General Settings as detailed on page 6


Press  to scroll down to Res. Factory Set

Press  to access Factory Default Settings

```
Set Time      | | | | | | | |
Set Language  | | | | | | | |
Set Photosensor | | | | | | | |
Set Display   | | | | | | | |
Res. factory set | | | | | | | |
EC fan signal | | | | | | | |
```

Press   to scroll to select YES

```
Reset controller | | | | | | | |
NO?              | | | | | | | |
YES?             | | | | | | | |
```

Press  to confirm your choice

```
Restore      | | | | | | | |
factory settings | | | | | | | |
```

The display will count up to 100% and then display

```
Reset completed! | | | | | | | |
Please wait       | | | | | | | |
```

All 5 LEDs will briefly illuminate, and the display will change to the main menu – home screen

SETTING THE EC SIGNAL

From the **General Settings Menu** (see page 6), press **DOWN** and scroll down to 'EC fan signal'.

With 'EC fan signal' blinking, press **ENTER** to access the EC fan signal settings.


Use the **UP** and **DOWN** arrows to select the type of EC Fan you are using.

Press **SAVE EXIT** to save your information, and to go back to the previous sub menu.

Make sure you get the correct signal type for your fan.



EC SIGNAL MENU

Select **General Settings** as detailed on page 6


Press  to scroll down to EC Fan Signal

Press  to access EC Signal Settings

```
Set Time      | | | |
Set Language  | | | |
Set photosensor
Set Display   | | | |
Res. factory set
EC fan signal | | | |
```

Press   to scroll to your chosen setting

```
Set EC Signal | | | |
0-10V Revolution
0-5V Hyper fan
          PWM output
```

Pressing  will save your entry and go back to the previous menu

FAN SETTINGS MENU

This menu allows you to change your fan settings such as:

- Temperature
- Bandwidth
- Humidity Settings
- Minimum Fan Speed
- Dump Override

TO ACCESS THE FAN SETTINGS MENU

From the **Main Menu – Home Screen** press **ENTER** to access the sub menus.

'Set fan Speed' will be displayed and blinking.

Press **ENTER** to access the Fan Settings Menu


ACCESSING FAN SETTINGS


Start from the **Main Menu – Home Screen**

```
Room=23°C RH=60%
Set19°C | | | | 09:13
```

Press  to access the first sub menu

```
Set fan Speed | | | |
Set exit 1    | | | |
Set exit 2    | | | |
General settings
```

Press  to access the fan settings menu

Press  to scroll down the sub menus

```
Set temperature
Set humidity
Fan settings
Dump Override
```

USING YOUR 13 AMP ENVIRO CONTROLLER

FAN SETTINGS MENU

SETTING THE FAN TEMPERATURE

From the Fan Settings Menu (as detailed on page 9), press **DOWN** and scroll down to 'Set temperature'.

With 'Set temperature' blinking, press **ENTER** to access the temperature settings.

Use the **UP** and **DOWN** arrows to select your chosen setting of Day, Night or Bandwidth.

With your chosen selection blinking press **ENTER** to highlight the corresponding value.

Use the **UP** and **DOWN** arrows to change the value.

Press **SAVE EXIT** to save your information, and to go back to the previous sub menu.

FAN TEMPERATURE BAND WIDTH

The band width value is the difference in temperature from when the fans start up and when they are going at full speed.

The fans in the example to the right will start at 24°C and ramp up to full speed in 3°C. Therefore the fans will be at full speed at 27°C.

SETTING THE FAN HUMIDITY

From the Fan Settings Menu (as detailed on page 9), press **DOWN** and scroll down to 'Set humidity'.

With 'Set humidity' blinking, press **ENTER** to access the humidity settings.

Use the **UP** and **DOWN** arrows to select your chosen setting of Day, Night or Bandwidth.

With your chosen selection blinking press **ENTER** to highlight the corresponding value.

Use the **UP** and **DOWN** arrows to change the value.

Press **SAVE EXIT** to save your information, and to go back to the previous sub menu.

These humidity settings will set the ventilation system to try to remove humidity by extracting it.

TAKE CARE if using Exit 1 or 2 to control either the humidifier or dehumidifier.

ALSO NOTE: particularly at night time, temperatures can drop if the ventilation system is removing humidity and replacing it with cold air.

FAN TEMPERATURE MENU

Select Fan Settings as detailed on page 9

Press **ENTER** to access Temperature Settings

```
Set temperature
Set humidity
Set fan Speed
Dump Override
```

Press **UP** **DOWN** to make your selection

Press **ENTER** to highlight the corresponding value

```
Day 24.0°C
Night 20.0°C
Band width 3.0°C
```

Press **UP** **DOWN** to change value

```
Day 24.0°C
      ^^^^/
      \^^^/
```

Pressing **SAVE EXIT** will save your entry and go back to the previous menu

FAN HUMIDITY MENU

Select Fan Settings as detailed on page 9

Press **DOWN** to scroll down to Set humidity

Press **ENTER** to access Humidity Settings

```
Set temperature
Set humidity
Set fan Speed
Dump Override
```

Press **UP** **DOWN** to make your selection

Press **ENTER** to highlight the corresponding value

```
Day 60%
Night 50%
Band width 0.5%
```

Press **UP** **DOWN** to change value

```
Day 70%
      ^^^/
      \^^/
```

Pressing **SAVE EXIT** will save your entry and go back to the previous menu

SETTING THE FAN SPEED

From the Fan Settings Menu (as detailed on page 9), press **DOWN** and scroll down to 'Fan settings'.

With 'Fan settings' blinking, press **ENTER** to access the fan speed settings.

Use the **UP** and **DOWN** arrows to select your chosen setting of Minimum speed, Maximum speed or Negative pressure.

With your chosen selection blinking press **ENTER** to highlight the corresponding value.

Use the **UP** and **DOWN** arrows to change the value.

Press **SAVE EXIT** to save your information, and to go back to the previous sub menu.

Minimum speed outtake:

Use this to have your ventilation system operating all the time. This will keep the outtake fan running and keep negative pressure in you room at all times, to stop odours escaping your room.

Maximum speed Outtake:

To be used if noise is an issue. You can lower the maximum speed and therefore the maximum noise.

Negative Pressure Intake:

This will set your intake fan speed below your outtake fan. If you set it at -20% when the outtake fan is at 50% the intake fan will be at 40% (20 % of 50% = 10% reduction). This is to maintain negative pressure in your grow room.

DUMP OVERRIDE FUNCTION

Allows you to programme your fans to dump the air out of your grow room. It takes your outlet fan up to the maximum set fan speed, and your inlet to the maximum fan speed, less the set negative pressure.

The timer works on a 24 hour clock and you can set 23 different times.

From the Fan Settings Menu (as detailed on page 9), press **DOWN** and scroll down to 'Dump Override'.

With 'Dump Override' blinking, press **ENTER** to access the dump override settings.

Use the **UP** and **DOWN** arrows to select your chosen setting from 1 to 23.

With your chosen selection blinking press **ENTER** to highlight the corresponding ON TIME value.

Use the **UP** and **DOWN** arrows to change the value, and press **ENTER** to highlight the next value.

Once you have your chosen ON TIME settings, press **ENTER** to highlight the OFF TIME value. This shows hours : mins : secs and can be changed in the same way.

Press **SAVE EXIT** to save your information. Press **SAVE EXIT** again to go back to the previous sub menu.

FAN SPEED MENU

Select Fan Settings as detailed on page 9

Press **DOWN** to scroll down to Fan settings

Press **ENTER** to access Fan Speed Settings

```

Set temperature
Set humidity
Fan settings
Dump Override
    
```

Press **UP** **DOWN** to make your selection

Press **ENTER** to highlight the corresponding value

```

Minimum speed
Outtake      20%

Maximum speed
Outtake      70%

Negativepressure
Intake      -20%
    
```

Press **UP** **DOWN** to change value

```

Minimum speed
Outtake      20%
    
```

Pressing **SAVE EXIT** will save your entry and go back to the previous menu

DUMP OVERRIDE MENU

Select Fan Settings as detailed on page 9

Press **DOWN** to scroll down to Dump Override

Press **ENTER** to access Dump Override Settings

```

Set temperature
Set humidity
Set fan Speed
Dump Override
    
```

Press **UP** **DOWN** to make your selection from 1 to 23

Press **ENTER** to highlight the first value

```

Dump timer 1
ON TIME 0:00 OFF TIME 00:00:00
hours : mins hours : mins : secs
    
```

Press **UP** **DOWN** to change value

```

Dump timer 1
0:00 00:00:00
    
```

Press **ENTER** to highlight the next value

Pressing **SAVE EXIT** will save your entry.

Press **SAVE EXIT** again to go back to the previous menu

USING YOUR 13 AMP ENVIRO CONTROLLER

EXIT 1 AND 2 SETTINGS

This menu allows you to change the settings of items connected to exits 1 and 2 such as:

- A heater
- A humidifier
- A dehumidifier

TO ACCESS THE EXIT 1 OR EXIT 2 SETTINGS MENU

From the Main Menu – Home Screen press **ENTER** to access the sub menus.

'Set fan Settings' and 'Set exit 1' will be displayed. Press the **DOWN** arrow to scroll down to Set exit 1 or Set exit 2.

With 'Set exit 1 or Set exit 2' blinking, press **ENTER**

ACCESSING EXIT 1 AND EXIT 2 SETTINGS

Start from the Main Menu – Home Screen

```
Room=23°C RH=60%
Set19°C      09:13
```

Press **ENTER** to access the first sub menu

Press **▼** to scroll down to Set exit 1 or Set exit 2

```
Fan settings
Set exit 1
Set exit 2
General settings
```

Press **ENTER** to access Exit 1 or Exit 2

```
Choose function
```

Choose function is displayed.

Press **ENTER** to access functions

Press **▼** to scroll down the sub menus

```
Power
Heat
Humidify
Dehumidify
Timer
```

POWER ON / OFF SETTING

From the Set exit 1 or Set exit 2 Settings Menu (as detailed above), press **DOWN** and scroll down to 'Power'.

With 'Power' blinking, press **ENTER** to access the power settings.

Use the **UP** and **DOWN** arrows to select OFF or ON.

Press **SAVE EXIT** to save your information, and to go back to the previous sub menu.

EXIT 1 AND EXIT 2 POWER MENU

Select Set exit 1 or Set exit 2 settings as detailed above

Press **▼** to scroll down to Power

Press **ENTER** to access Power Settings

```
Power
Heat
Humidify
Dehumidify
Timer
```

Press **▲▼** to make your selection

```
Ex1 off
Ex1 on
```

Pressing **SAVE EXIT** will save your entry and go back to the previous menu

USING YOUR 13 AMP ENVIRO CONTROLLER

EXIT 1 AND 2 SETTINGS

DEHUMIDIFY SETTING

With a dehumidifier connected to Exit 1 or Exit 2:

From the Set exit 1 or Set exit 2 Settings Menu (as detailed on page 12), press **DOWN** and scroll down to 'Dehumidify'.

With 'Dehumidify' blinking, press **ENTER** to access the humidifier settings.

Use the **UP** and **DOWN** arrows to select Dehumidify Day, Dehumidify Night or Band width.

With your chosen selection blinking press **ENTER** to highlight the corresponding value.

Use the **UP** and **DOWN** arrows to change the value.

Press **SAVE EXIT** to save your information, and to go back to the previous sub menu.

DEHUMIDIFY SETTING BAND WIDTH

The controller can be programmed to turn the dehumidifier on whenever it drops below your set value.

The band width is how many % the humidity can drop below the set humidity value before the dehumidifier is turned back on. In the example to the right, during the day the dehumidifier will turn on at 60% and turn back off at 50% (band width set to 10%).

SET TIMER FUNCTION

Allows you to programme Exit 1 or Exit 2 to turn off at a specific time

You must specify on time and off time.
NOT ON TIME & DURATION.

The timer works on a 24 hour clock and you can set 23 different times.

From the Set exit 1 or Set exit 2 Settings Menu (as detailed on page 12), press **DOWN** and scroll down to 'Timer'.

With 'Timer' blinking, press **ENTER** to access the timer settings.

Use the **UP** and **DOWN** arrows to select your chosen setting from 1 to 23.

With your chosen selection blinking press **ENTER** to highlight the corresponding ON TIME value.

Use the **UP** and **DOWN** arrows to change the value.

Press **ENTER** highlight the next value.

Press **SAVE EXIT** to save your information. Press **SAVE EXIT** again to go back to the previous sub menu.

EXIT 1 AND EXIT 2 DEHUMIDIFY MENU

Select Set exit 1 or Set exit 2 settings as detailed on page 12

Press **DOWN** to scroll down to Dehumidify

Press **ENTER** to access Dehumidify Settings

```

Power
Heat
Humidify
Dehumidify
Timer
    
```

Press **UP** **DOWN** to make your selection

Press **ENTER** to highlight the corresponding value

```

Exit1 Dehumidify
Dehumidi day 60%
Dehumi night 50%
Band width 10%
    
```

Press **UP** **DOWN** to change value

```

Dehumidi day > 60%
    
```

Pressing **SAVE EXIT** will save your entry and go back to the previous menu

EXIT 1 AND EXIT 2 DEHUMIDIFY MENU

Select Set exit 1 or Set exit 2 settings as detailed on page 12

Press **DOWN** to scroll down to Dehumidify

Press **ENTER** to access Dehumidify Settings

```

Power
Heat
Humidify
Dehumidify
Timer
    
```

Press **UP** **DOWN** to make your selection from 1 to 23

Press **ENTER** to highlight the first value

```

Exit1 timer 1
ON TIME 0:00 OFF TIME 00:00:00
hours : mins hours : mins : secs
    
```

Press **UP** **DOWN** to change value

```

Exit1 timer 1
0:00 00:00:00
    
```

Press **ENTER** to highlight the next value

Pressing **SAVE EXIT** will save your entry.

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