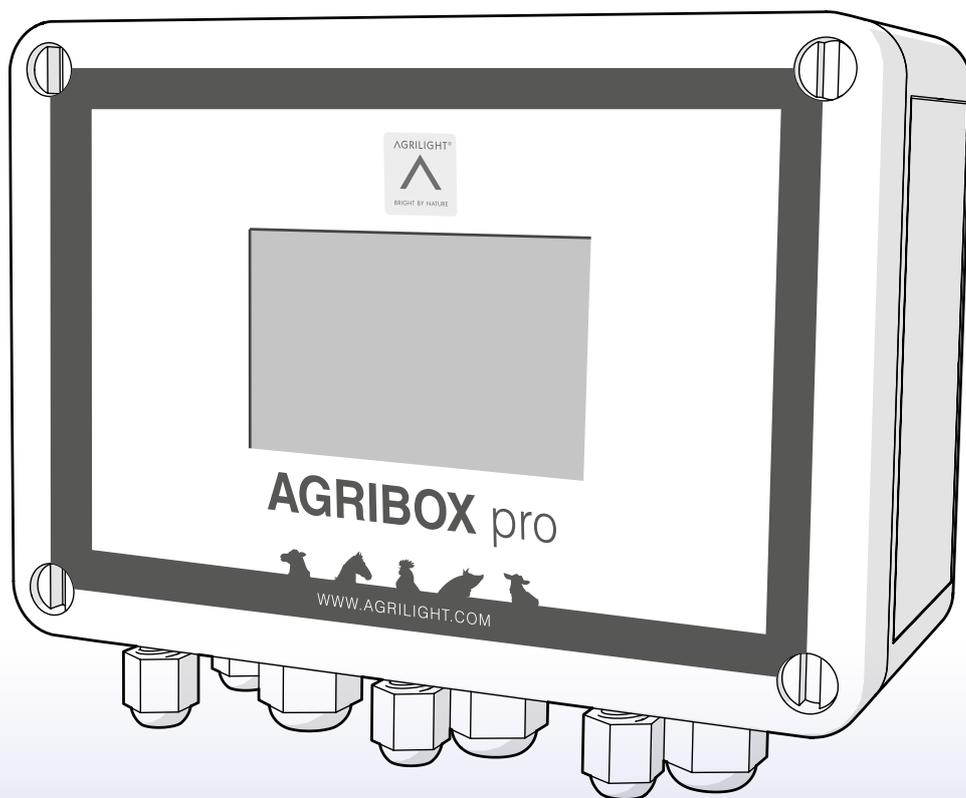


# AGRIBOX pro

EN User and Installation Manual



[WWW.AGRILIGHT.COM](http://WWW.AGRILIGHT.COM)

Agrilight B.V. | Tel.: +31 (0) 174 287 287 | [info@agrilight.com](mailto:info@agrilight.com)



# Manual for the Installer and End-user

Dear Customer,

Thank you for buying AGRIBOX pro. This manual contains all the information necessary to allow you to quickly familiarise yourself with the product. Please read this information carefully before using the product for the first time.

This manual is intended for both the installer and the end-user of the AGRIBOX pro. The table of contents allows you to find the information you need in the manual. We recommend that you perform the steps in the order described in this manual.

This is a translation of the original manual. Store the manual in a safe place!

For further information or to order manuals,  
please contact:

Agrilight  
Vlotlaan 643  
2681 TV  
Monster

Tel.: +31 (0) 174 287 287  
Fax: +31 (0) 174 287 292  
E-mail: [info@agrilight.nl](mailto:info@agrilight.nl)  
www: [www.agrilight.com](http://www.agrilight.com)

# Contents

<b>1</b>	<b>Introduction</b>	<b>4</b>
1.1	Product description	4
1.2	Symbols used	4
<b>2</b>	<b>Technical Specifications</b>	<b>5</b>
2.1	General product specifications	5
2.2	Environmental influences	6
2.3	Tools required for the installer	6
2.4	Most important parts	7
2.4.1	AGRIBOX pro	7
2.4.2	Overview of touchscreen icons and most important screens	7
<b>3</b>	<b>Precautions and Safety Instructions</b>	<b>9</b>
<b>4</b>	<b>Assembly and Installation</b>	<b>10</b>
4.1	Assembling the AGRIBOX pro	10
4.1.1	Installing the glands	10
4.1.2	Assembling the AGRIBOX pro without brackets	11
4.1.3	Assembling the AGRIBOX pro with brackets	12
4.2	Installing the light sensor (IP65)	12
4.3	Electrical connection of the AGRIBOX pro	14
4.4	Installing the AGRIBOX pro	16
4.4.1	Set the language	16
4.4.2	Set date and time	18
4.4.3	Set number of groups	20
4.4.4	Add fixtures to the AGRIBOX pro	22
4.4.4.1	Add all fixtures at once	22
4.4.4.2	Add a single fixture at a later date	24
4.4.5	Divide fixtures into groups	26
4.4.6	Set lighting programs	28
4.4.7	Set control light	31
4.4.8	Add a lighting program to a group	33
4.4.9	Remove a fixture from the AGRIBOX pro system	34
4.4.10	Set light values	36
4.4.10.1	Activate daylight compensation	36
4.4.10.2	Activate or deactivate daylight compensation per group	41
4.4.10.3	Switch on screen compensation	42
4.4.10.4	Activate or deactivate screen compensation per group	44
4.4.10.5	Activate or deactivate the daylight sensor	45
4.4.11	Set brightness of the display	47
4.4.12	Factory settings and operating hours	49
4.4.12.1	Reset the displayed time that a group has been in operation	49
4.4.12.2	Reset the AGRIBOX pro to the factory settings	50
4.5	Add a second AGRIBOX pro as slave	51
4.5.1	Electrical connection of the slave	51
4.5.2	Set the slave	53
4.6	Prepare the AGRIBOX pro for 0 - 10 V fixtures	55
<b>5</b>	<b>Operation</b>	<b>57</b>
5.1	Switching a program on or off	57
5.2	Switching the groups on or off	59
5.2.1	Switch all groups on or off at once	59
5.2.2	Switch a single group on or off	60
5.3	Switching the control light program ON and OFF	63
<b>6</b>	<b>Maintenance and Maintenance Plan</b>	<b>65</b>
<b>7</b>	<b>Faults and Repairs</b>	<b>65</b>
<b>8</b>	<b>Environment and Disposal</b>	<b>65</b>
<b>9</b>	<b>Warranty</b>	<b>65</b>

# 1 Introduction

## 1.1 Product description

### *Intended use*

The AGRIBOX pro is a light management system intended for automatic control of lighting fixtures. Any other form of use than that described above does not constitute an intended use. Agrilight cannot be held responsible for any injury or damage caused by the system being used incorrectly, unwisely or contrary to the intended use.

Agrilight gives the CE mark only to the AGRIBOX pro. The installer of the AGRIBOX pro is personally responsible for the electrical installation in accordance with the provisions of the law. Note that if the AGRIBOX pro becomes part of a larger system, this system as a whole must be qualified for the CE mark. Safety must be assured at all times so that the installer, the end-user and third parties can use the AGRIBOX pro safely.

## 1.2 Symbols used

In this user and installation manual, the following marking conventions have been used to draw attention to certain subjects or actions.

---

	<b>Danger!</b> The life of the user is directly threatened.
	<b>Warning!</b> The user can (seriously) injure himself or cause serious damage to the product. A warning indicates the injury to the user or the damage to the product if the user does not follow the procedures carefully.
	<b>Note!</b> A note contains supplementary information for the user. A note draws the user's attention to possible problems.
	With this symbol, Agrilight declares that the product conforms to the European legal requirements.
	This symbol declares that the product has been independently tested and certified in compliances with the Canadian and American safety standards.
	Risk of electric shock.

---

## 2 Technical Specifications

### 2.1 General product specifications

<b>Product description</b>	
Name:	AGRIBOX pro
Year of production:	2015
Manual version	37/2016
<b>Technical specifications</b>	
Voltage	100-240 V(AC) (-15% / +10%)
Frequency	50-60 Hz
Current	0.47 A @ 115 VAC / 0.28 A @ 230 VAC
Starting peak	55 A @ 115 VAC / 95 A @ 230 VAC
Power	20 W
Power factor	> 0.95
Mains supply voltage	3-core
DALI connection	2-core (galvanically separated)
Analog connection	0..10 V, max. 100 mA, galvanically separated, 2-pin
Red control light contact	Floating contact, for 230 VAC, max. 10 A
Screen signalling	Static connection, 3-core
Light sensor	0..10 V (3-core, screened)
Master/slave connector	Yes
Light groups	Max. 5
Timer programs	10
Number of DALI drivers	Max. 60
Number of AGRILED® pro 32	Max. 30
Dimmable	Yes (100% ~ +/- 10%)
IP degree of protection	IP65
Operating temperature	0°C ~ + 40°C (Ta)
Storage temperature	-20 °C ~ + 60 °C (Ta)
Relative humidity	40% ~ 90% (Ta)
Article dimensions (L x W x H)	240 x 194 x 85 mm
Packaging dimensions (L x W x H)	380 x 295 x 160 mm
Article weight	1.2 kg
Weight incl. packaging	1.4 kg
Supply cable diameter	8 - 13 mm
DALI cable diameter	2 x 1.5 mm <sup>2</sup> , not supplied
Cable for light sensor	3 x 0.34 mm <sup>2</sup> , screened
Connecting cable length	7 mm
Warranty (years)*	2

\* See Warranty terms

## 2.2 Environmental influences

The AGRIBOX pro may only be used indoors in livestock pens, agricultural buildings and sheds. The product must not be used in wet environments or outdoors. Use in other environments can influence the performance of the product or may damage the product.

## 2.3 Tools required for the installer



Screwdrivers  
(flat and cross-head)



Drill



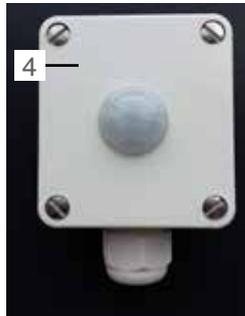
Wire stripper



Luxmeter

## 2.4 Most important parts

### 2.4.1 AGRIBOX pro



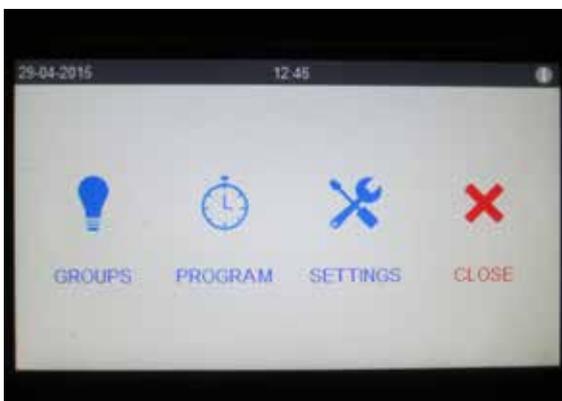
#### Parts list

1	Touchscreen	6	Washers
2	Mounting holes (4x)	7	Sealing plugs for the glands not used
3	Cover	8	Dowels
4	Light sensor	9	Screws
5	Glands		

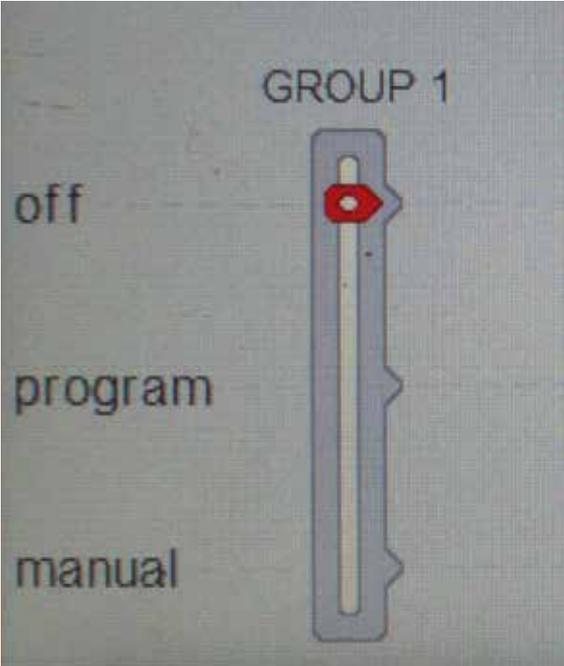
### 2.4.2 Overview of touchscreen icons and most important screens



Start screen



Overview screen

Touchscreen icon	Description
	The corresponding function is switched OFF.
	The corresponding function is switched ON.
	The program is switched ON.
	Confirm an entered value.
	Delete the whole value.
	Backspace; delete the last character.
	<p>The function bar of a group:</p> <ul style="list-style-type: none"> <li>- OFF: The group is switched off.</li> <li>- Program: The program belonging to the group is switched on.</li> <li>- Manual: Manual operation of the group</li> </ul>

### 3 Precautions and Safety Instructions

---

**⚠ DANGER**

- Danger! Keep the product away from water. If the electronic components come into contact with water, this can lead to an electric shock or even electrocution.
- 

**⚠ WARNING**

- Special know-how is necessary for assembly and installation so that only correspondingly qualified personnel should be entrusted to carry out this work. Assembly and installation must be performed in accordance with the local laws and regulations.
  - Do not use the product if the product or cable is damaged.
  - Disconnect the product from the power supply before starting installation or maintenance.
  - Do not replace parts yourself. Consult a recognised maintenance fitter.
  - The AGRIBOX pro contains electronic components that are sensitive to interference. Install the product out of the range of objects that can cause electrical interference, or if possible remove the objects that can cause electrical interference.
- 

**NOTICE**

- Cordon off the working area for unauthorised persons during the installation.
  - Wear the proper protective clothing during installation, such as working gloves, work shoes, helmet and protective overalls.
-

## 4 Assembly and Installation

---

- Special know-how is necessary for assembly and installation so that only correspondingly qualified personnel should be entrusted to carry out this work. Assembly and installation must be performed in accordance with the local laws and regulations.
- The AGRIBOX pro contains electronic components that are sensitive to interference. Install the product out of the range of objects that can cause electrical interference, or if possible remove the objects that can cause electrical interference.
- Disconnect the product from the power supply before starting installation.

### **⚠ WARNING**

- Cordon off the working area for unauthorised persons during the installation.
- Wear the proper protective clothing, such as working gloves, work shoes, helmet and protective overalls.

### **NOTICE**

### 4.1 Assembling the AGRIBOX pro

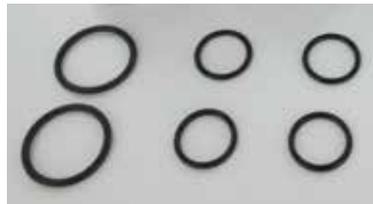
#### 4.1.1 Installing the glands

---

1. Separate the glands by unscrewing the lower part.



2. Place the upper side of the glands, including washers (figure right) in the right positions on the outside of the AGRIBOX pro.



3. Screw on the lower part of the glands on the inside of the AGRIBOX pro.

4. Press a sealing plug (figure right) into the glands that are not used.



#### 4.1.2 Assembling the AGRIBOX pro without brackets

1. Unscrew the plastic screws (4x) in anti-clockwise direction using a screwdriver.



2. Remove the cover.



3. Remove the plastic seals from the mounting holes.



4. Hold the product against the wall in the desired position and mark the mounting holes.
5. Drill holes in the wall and insert dowels (the dowels are not supplied with the product).
6. Fasten the product to the wall using screws (the screws are not supplied with the product).
7. Place the plastic seals back in the mounting holes.



8. Fit the cover again.



9. Tighten the plastic screws again in clockwise direction using a screwdriver.

### 4.1.3 Assembling the AGRIBOX pro with brackets

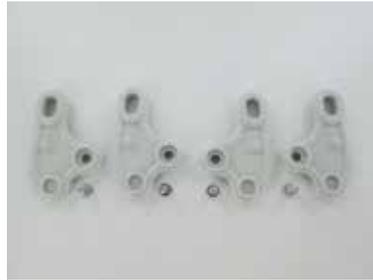
---

1. Place the brackets onto the rear side of the AGRIBOX pro.



2. Fasten the brackets to the AGRIBOX pro using the screws supplied.

Tighten the screws in clockwise direction using a screwdriver.



3. Mark the desired positions for the brackets.
4. Drill holes and insert the dowels supplied.
5. Attach the brackets in the desired position using the screws supplied.

Tighten the screws in clockwise direction using a screwdriver.

---

## 4.2 Installing the light sensor (IP65)

---

1. Unscrew the screws in anti-clockwise direction using a screwdriver.



2. Remove the cover.

**NOTICE** Install the sensor so that it has an unobstructed view, it is protected from direct sunlight and it is not near another light source.



If you are above equator, the light sensor must be installed outside the room on the north side. If you are below equator, the light sensor must be installed outside the room on the south side.

---

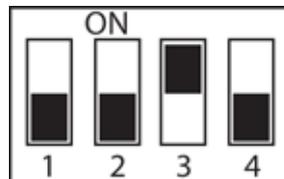
3. Hold the product in the desired position and mark the two mounting holes.
-

- 
4. Drill holes in the wall and insert dowels (the dowels are not supplied with the product).
  5. Fasten the product to the wall using screws (the screws are not supplied with the product).
  6. Loosen the glands in anti-clockwise direction.
- 

7. Pull a 3-core screened cable through the gland and connect it to the terminal:
  - 1 UB +
  - 2 Ausg.
  - 3 GND



8. Set the dip switches to the 20 kLux position:
  - Dipswitch 1 OFF
  - Dipswitch 2 OFF
  - Dipswitch 3 ON
  - Dipswitch 4 OFF



**NOTICE** Set de dip switches AFTER the calibration to the 2 kLux position. See paragraph 4.4.10.1 for more information.

- 
9. Tighten the glands on the master again in clockwise direction.
  10. Fit the cover again.
- 

11. Insert the screws into the product again and tighten in clockwise direction using a screwdriver.



## 4.3 Electrical connection of the AGRIBOX pro

The following parts have to be connected electrically in the AGRIBOX pro:

- Power supply
- Light sensor
- Control light
- Screen (optional)
- DALI (optional)
- Slave (optional, see section 4.5)

Proceed as follows:

- 
1. Unscrew the plastic screws (4x) in anti-clockwise direction using a screwdriver.



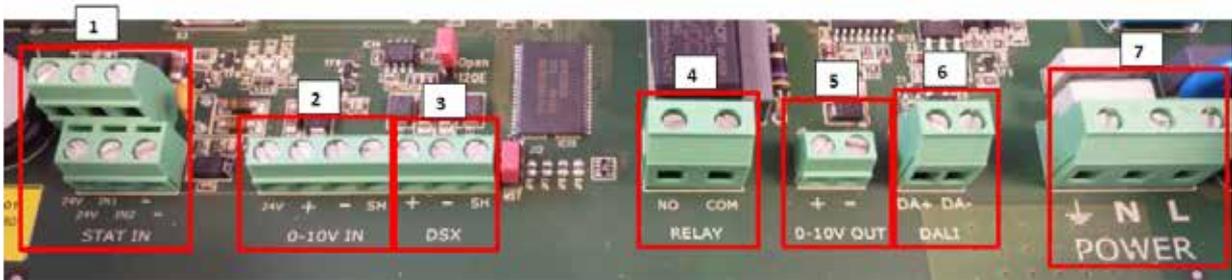
- 
2. Remove the cover.



- 
3. Loosen one empty gland per connection in anti-clockwise direction.
-

---

4. Pull the correct cable through the gland and connect it to the correct terminal:



1: Screen connection

- Uppermost terminal (connector J5)
- + = floating contact
- - = floating contact

2: Light sensor 0-10V in connection

- 24V = UB+
- + = Ausg.
- - = GND
- SH = Shield

3: Slave/DSX connection

- See section 4.5.

4: Control light connection

- NO = Normally open contact
- COM = common

5: 0-10V OFF connection

- + = 0-10V
- - = 0V

6: DALI connection

- DA = DALI connection
- DA = DALI connection

7: Power supply

- N = Neutral
- L = Phase
-  = Earth

---

5. Tighten the glands again in clockwise direction.

---

6. If applicable: Press the sealing plugs supplied into the gland holes that have not been used and tighten them in clockwise direction.

---

7. Fit the cover again.



---

8. Tighten the plastic screws again in clockwise direction using a screwdriver.

---

## 4.4 Installing the AGRIBOX pro

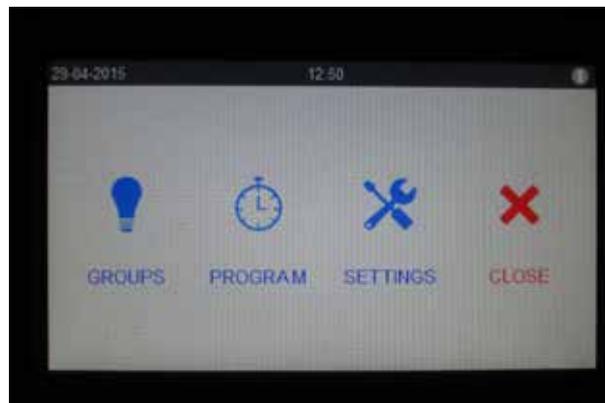
**NOTICE** The first time the AGRIBOX pro is switched on, the default language is English.

### 4.4.1 Set the language

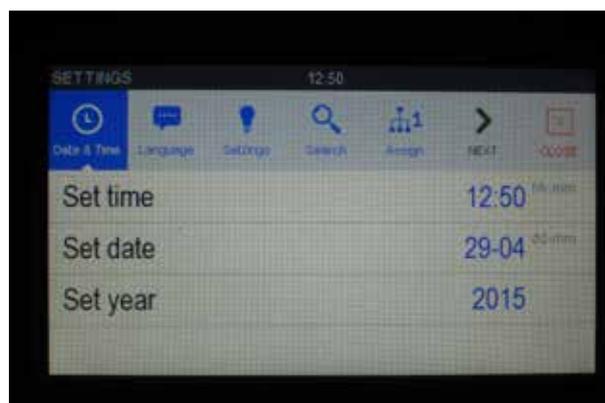
1. Press the gear wheel in the top right-hand corner of the Start screen.  
The overview screen is displayed.



2. Press 'SETTINGS'.

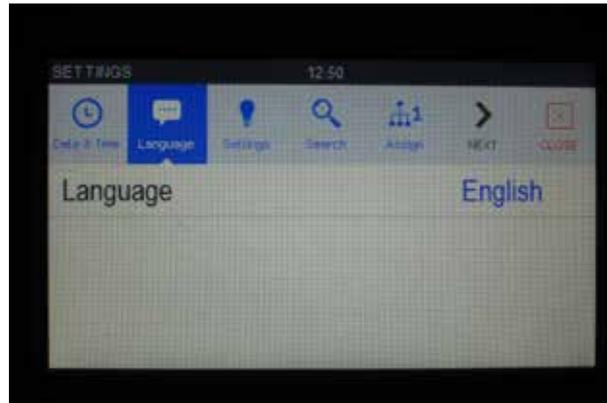


3. Press 'Language'.



---

4. Press 'English'.



---

5. Select the desired language by pressing the '<' or '>' button.  
Press 'Select' to confirm.



---

6. Press 'Close' twice to return to the Start screen.

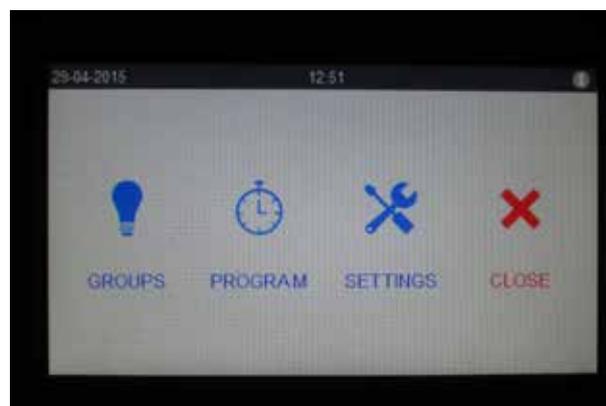
---

#### 4.4.2 Set date and time

1. Press the gear wheel in the top right-hand corner of the Start screen.  
The overview screen is displayed.

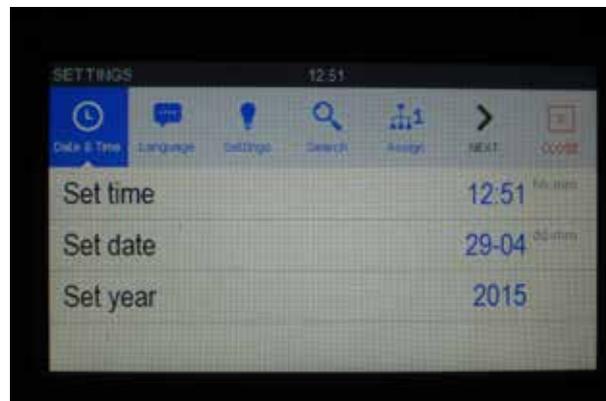


2. Press 'SETTINGS'.

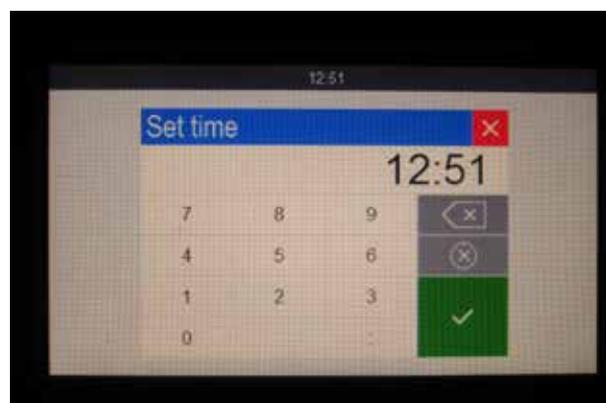


3. Press 'Date & time' if this screen is not yet displayed.

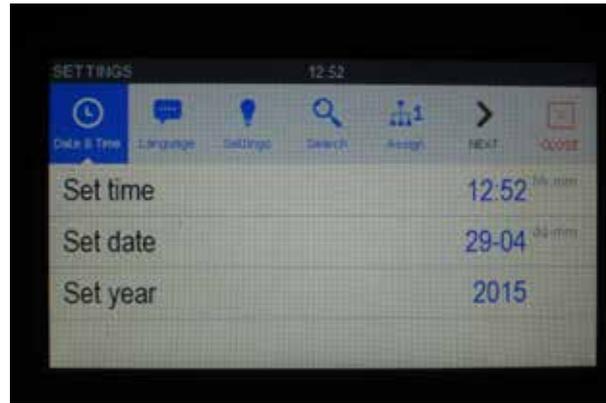
Press on the time behind 'Set time'.



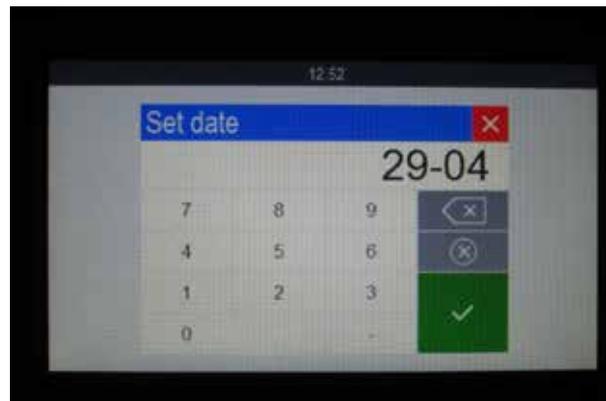
4. Enter the desired time and press the green button to confirm.



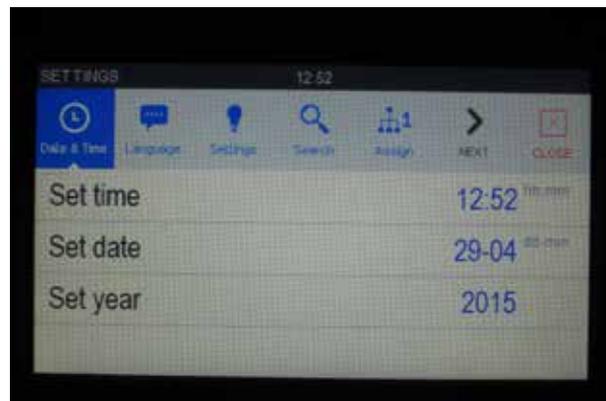
- 
5. Press on the date behind 'Set date'.



- 
6. Enter the desired date and press the green button to confirm.



- 
7. Press on the year behind 'Set year'.



- 
8. Enter the desired year and press the green button to confirm.



- 
9. Press 'Close' twice to return to the Start screen.
-

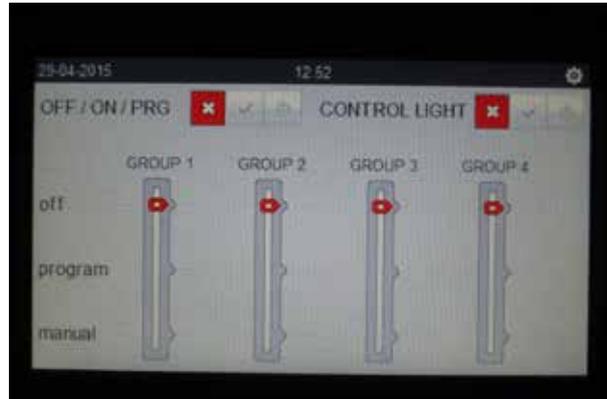
### 4.4.3 Set number of groups

With the AGRIBOX pro it is possible to divide the fixtures into groups. This allows you, for example, to switch off the fixtures in one part of the room while leaving the fixtures in the rest of the room switched on.

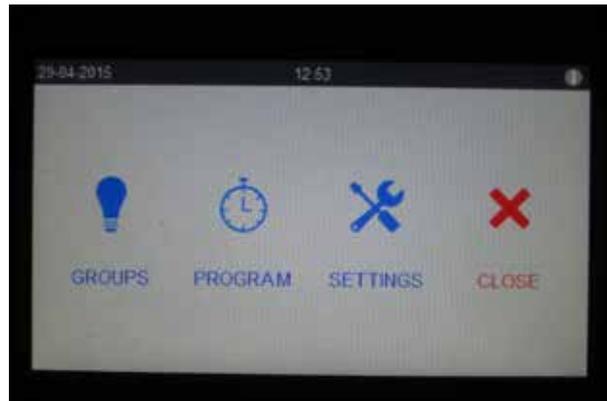
1. Draw up a plan where the fixtures are divided into groups. The lighting plan can be used for this.

**NOTICE** A maximum of 5 groups can be created in the AGRIBOX pro.

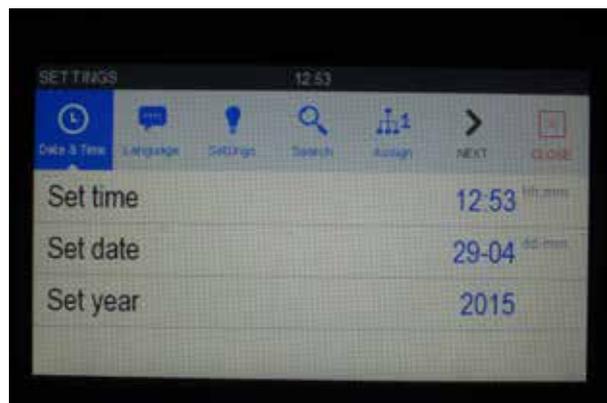
2. Press the gear wheel in the top right-hand corner of the Start screen.  
The overview screen is displayed.



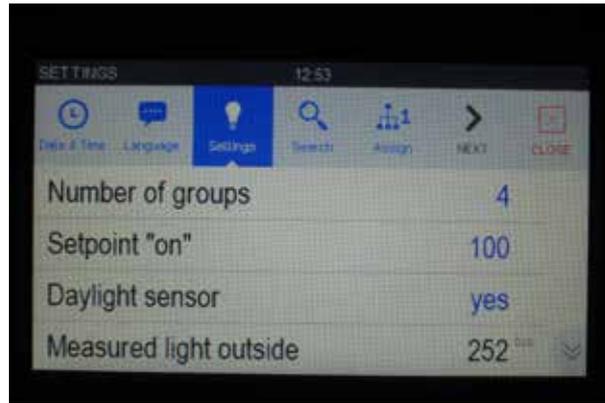
3. Press 'SETTINGS'.



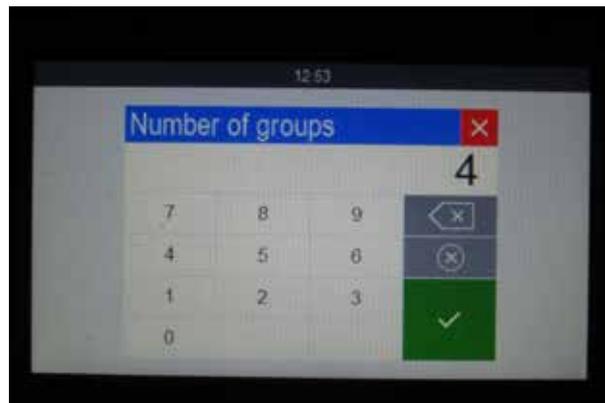
4. Press 'Settings'.



- 
5. Press on the number behind 'Number of groups'.



- 
6. Enter the desired number of groups and press the green button to confirm.



- 
7. Press 'Close' twice to return to the Start screen.
-

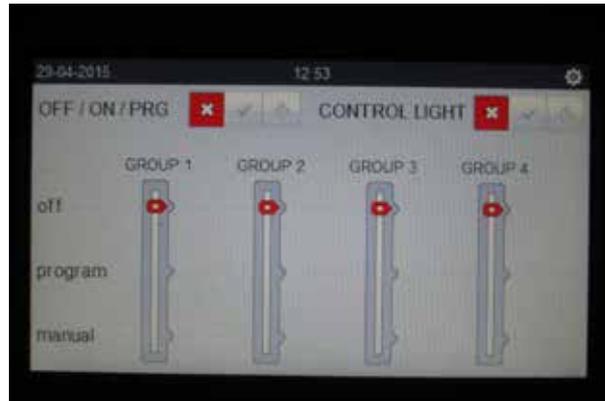
#### 4.4.4 Add fixtures to the AGRIBOX pro

**NOTICE** All fixtures must be live before this step is carried out.

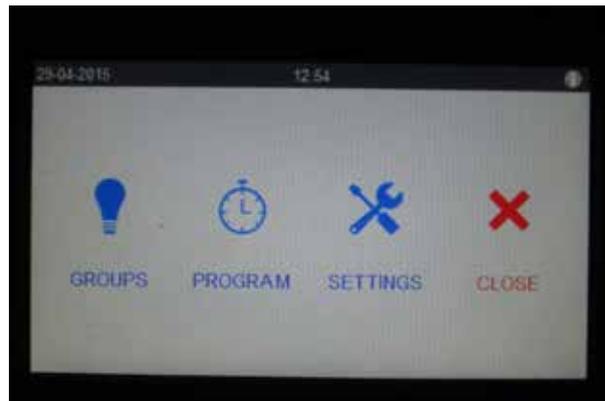
No fixtures are connected when the AGRIBOX pro is switched on for the first time. A fixture has one or two drivers, each of which controls a row of LED lamps. Each driver has its own code. The fixtures are added as soon as the AGRIBOX pro reads in the codes.

##### 4.4.4.1 Add all fixtures at once

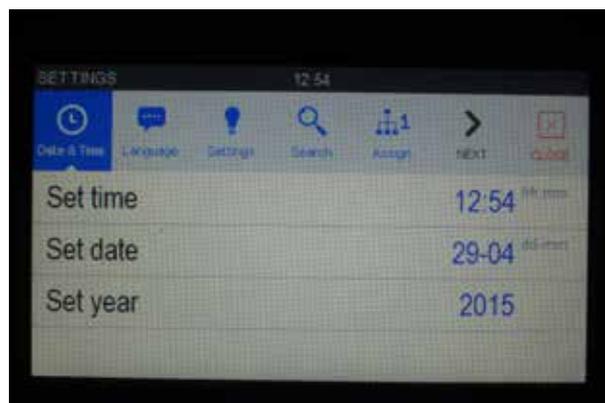
1. Press the gear wheel in the top right-hand corner of the Start screen.  
The overview screen is displayed.



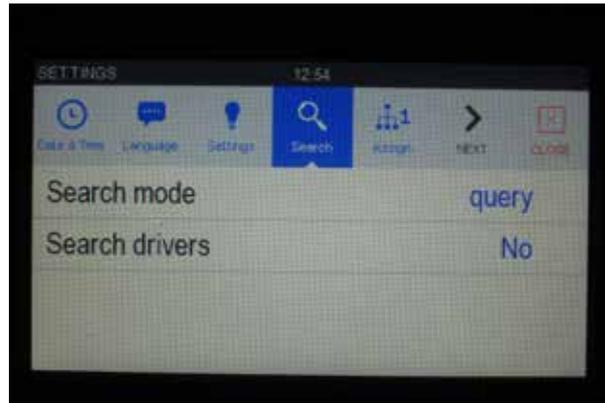
2. Press 'SETTINGS'.



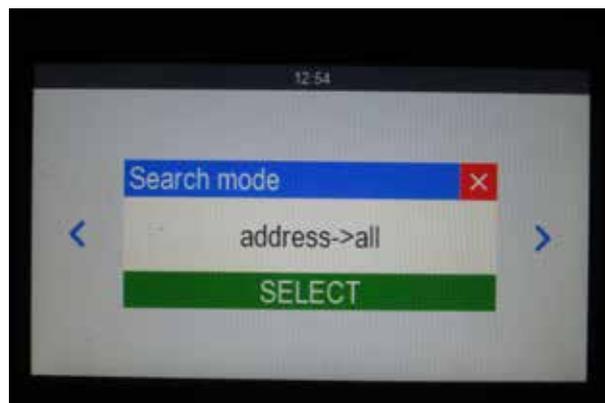
3. Press 'Search'.



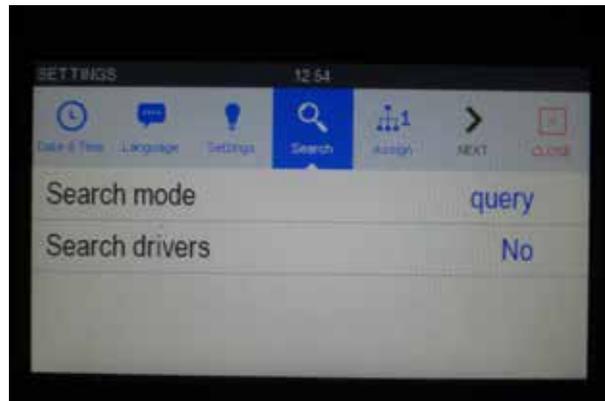
- 
4. Press on the text behind 'Search mode'.



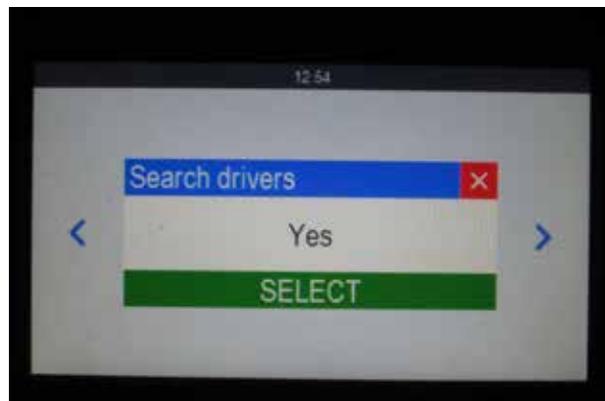
- 
5. Select 'Address -> All' by pressing the '<' or '>' button.  
Press 'Select' to confirm.



- 
6. Press on the text behind 'Find drivers'.



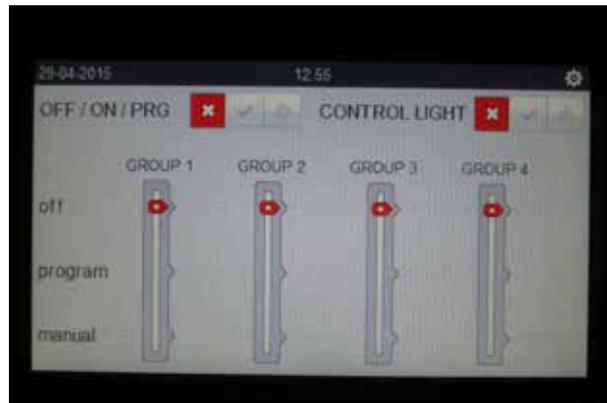
- 
7. Select 'Yes' by pressing the '<' or '>' button.  
Press 'Select' to confirm.  
The AGRIBOX pro now searches for all the drivers. The message 'Ready' appears when the search has been completed.



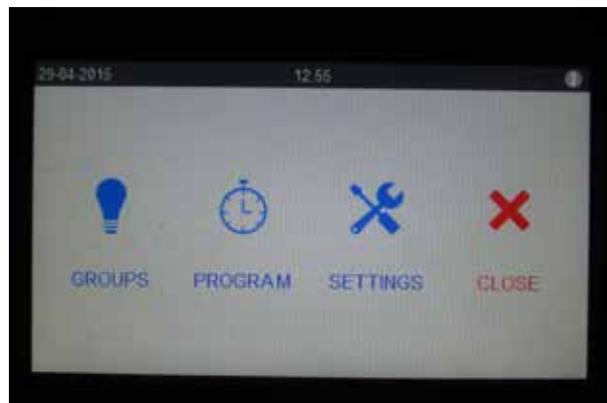
- 
8. Press 'Close' twice to return to the Start screen.
-

#### 4.4.4.2 Add a single fixture at a later date

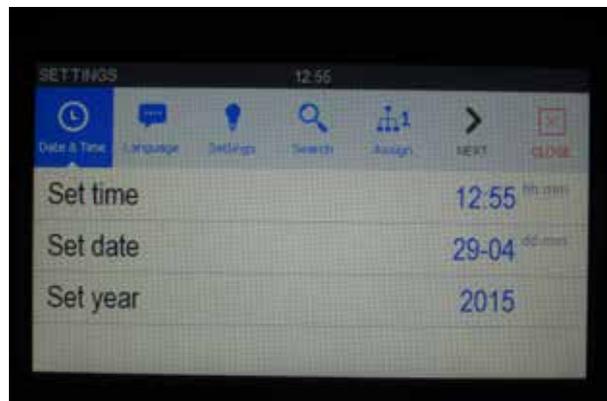
1. Press the gear wheel in the top right-hand corner of the Start screen.  
The overview screen is displayed.



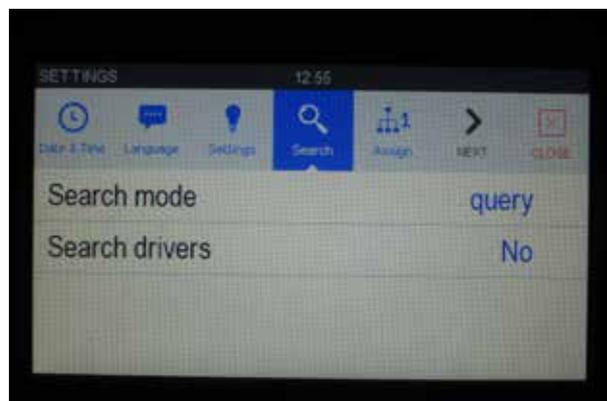
2. Press 'SETTINGS'.



3. Press 'Search'.



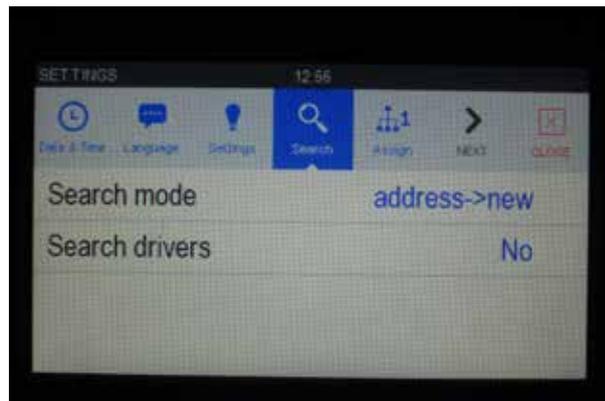
4. Press on the text behind 'Search mode'.



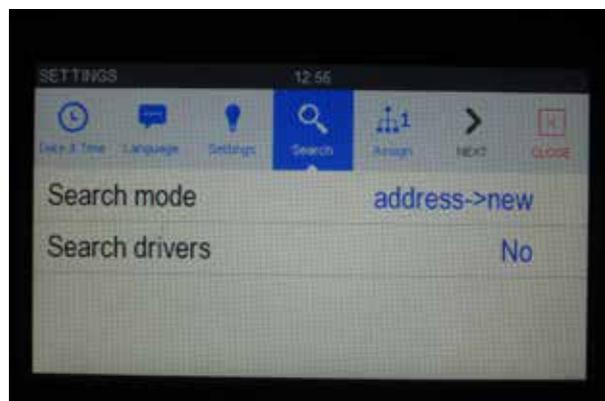
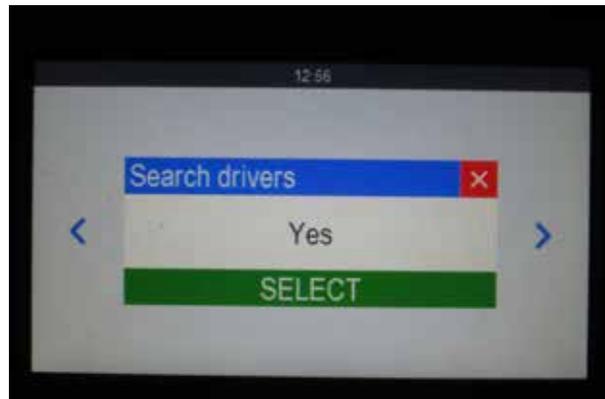
- 
5. Select 'Address -> New' by pressing the '<' or '>' button.  
Press 'Select' to confirm.



- 
6. Press on the text behind 'Find drivers'.



- 
7. Select 'Yes' by pressing the '<' or '>' button.  
Press 'Select' to confirm.  
The AGRIBOX pro now searches for the new drivers. The message 'Ready' appears when the search has been completed.



- 
8. Press 'Close' twice to return to the Start screen.
-

#### 4.4.5 Divide fixtures into groups

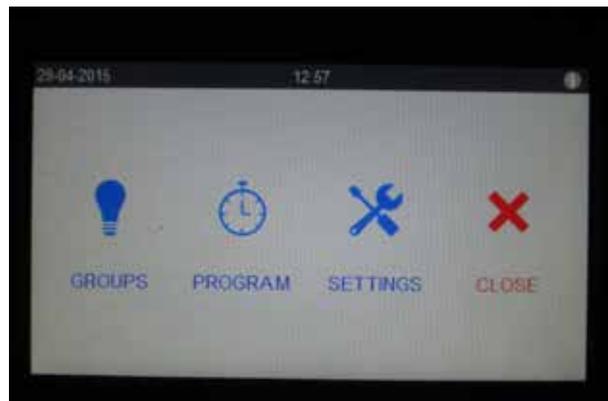
**NOTICE** All fixtures must be live before this step is carried out.

A fixture has one or two drivers, each of which controls a row of LED lamps. To divide the fixtures into groups, each driver has to be switched on manually. Then you have to determine visually in which group the LED lamps come on.

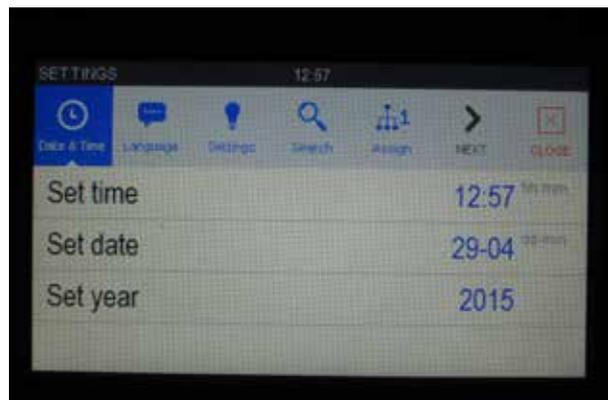
1. Press the gear wheel in the top right-hand corner of the Start screen.  
The overview screen is displayed.



2. Press 'SETTINGS'.

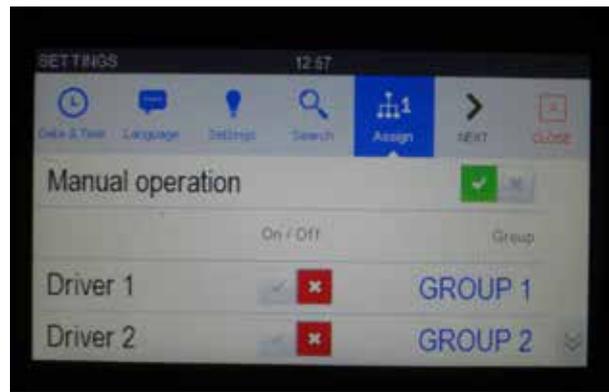


3. Press 'Assign'.

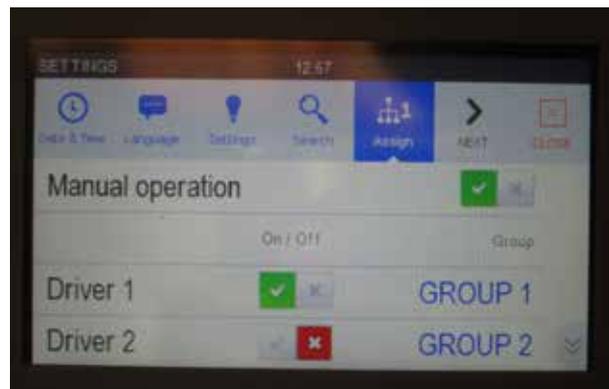


- 
4. Press 'V' (ON) behind 'Driver 1' to switch on the corresponding lamp.

Find the fixture whose lamp is switched on and determine to which group it belongs.



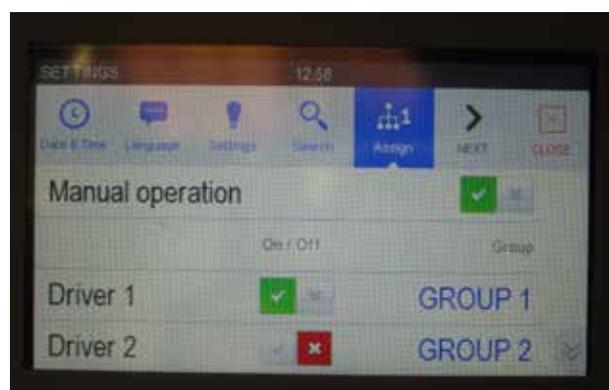
- 
6. Press on the text behind 'Driver 1' (under 'Group').



- 
7. Select the desired group by pressing the '<' or '>' button.  
Press 'Select' to confirm.



- 
8. Press 'X' (OFF) behind 'Driver 1' to switch off the corresponding lamp.



- 
9. Repeat steps 3 to 7 for all the other driver.

**NOTICE** These steps can take some time.

- 
10. Press 'Close' twice to return to the Start screen.
-

#### 4.4.6 Set lighting programs

A lighting program allows you to switch the fixtures on and off within a period of 24 hours at the times desired by you. A total of 10 lighting programs can be set. 8 times can be set per lighting program.

*Example:*

From 6:30 a.m. until 10:30 p.m. the group of fixtures belonging the program 1 must be switched on 100%. The group of fixtures must then switch off. Enter the times as follows:

	PROGRAM 1	PROGRAM 2	PROGRAM 3	PROGRAM 4	NEXT	CLOSE
1	6:00	0 %		5	0:00	0 %
2	6:30	100 %		6	0:00	0 %
3	22:30	100 %		7	0:00	0 %
4	23:00	0 %		8	0:00	0 %

- Time 1: The group of fixtures switches on at 6.00 a.m.
- Time 2: From 6:00 a.m. until 6:30 a.m. the light power is gradually increased up to 100%.
- Time 3: From 6:30 a.m. until 10:30 p.m. the group of fixtures remains switched on at 100%.
- Time 4: From 22:30 p.m. until 23:00 p.m. the light power is gradually decreased down to 0%.

Times 5 to 8 can be entered if you wish for the group of fixtures to be switched on and off at several times.

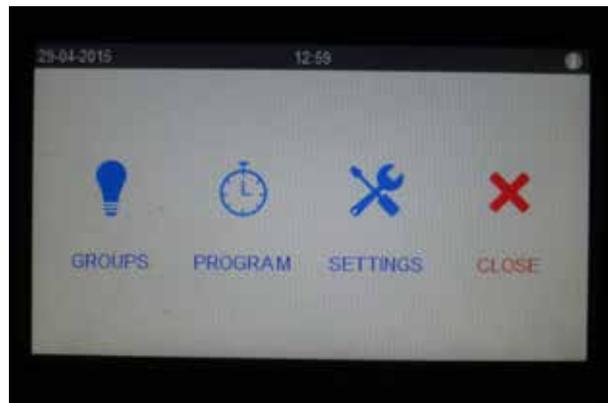
**NOTICE** The first and last time must always be 0%. If this is not the case, the fixture will remain switched on.

A lighting program is set as follows:

1. Press the gear wheel in the top right-hand corner of the Start screen.  
The overview screen is displayed.



2. Press 'PROGRAM'.

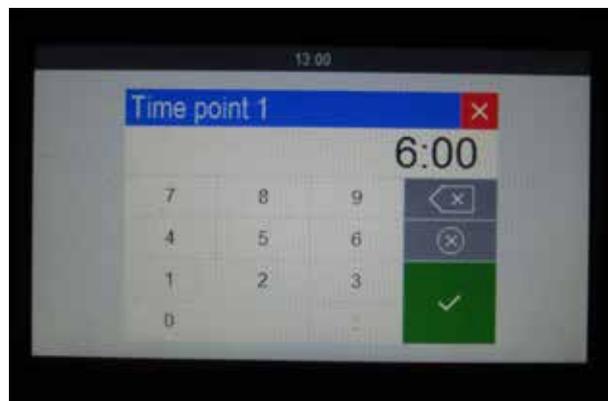


3. Press the desired program.

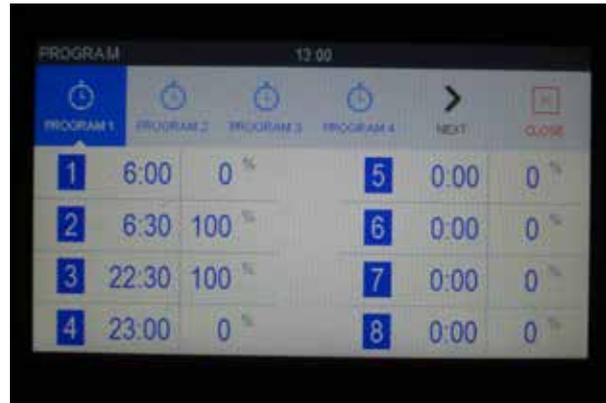
Press on the time behind '1'.



4. Enter the desired starting time and press the green button to confirm.



- 
5. Press on the percentage (%) behind '1'.



- 
6. Enter the percentage with which the lamps are to be switched on at this time and press the green button to confirm.



- 
7. Repeat steps 4 to 7 for the other required times.

When all the times have been entered, program 1 is set.

- 
8. If necessary, repeat steps 3 to 8 for the other programs.

**NOTICE** A maximum of 10 programs can be set.

- 
9. Press 'Close' twice to return to the Start screen.
-

#### 4.4.7 Set control light

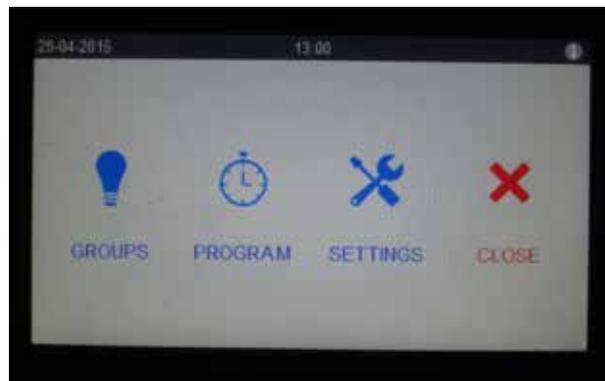
One control light program can be set. The control light is less strongly perceived by the animals. The animals are therefore not disturbed in their day and night rhythm.

Set the control light program as follows:

1. Press the gear wheel in the top right-hand corner of the Start screen.  
The overview screen is displayed.



2. Press 'PROGRAM'.



3. Press 'NEXT' twice.



4. Press 'CONTROL'.

Press on the time behind '1 ON:'.



- 
5. Enter the desired starting time and press the green button to confirm.



- 
6. Press on the time behind '1 OFF:'.



- 
7. Enter the desired end time and press the green button to confirm.



- 
8. If necessary, repeat steps 5 to 7 for the other times.

**NOTICE** A maximum of 4 times can be set for switching the control light on and off.

- 
9. Press 'Close' twice to return to the Start screen.
-

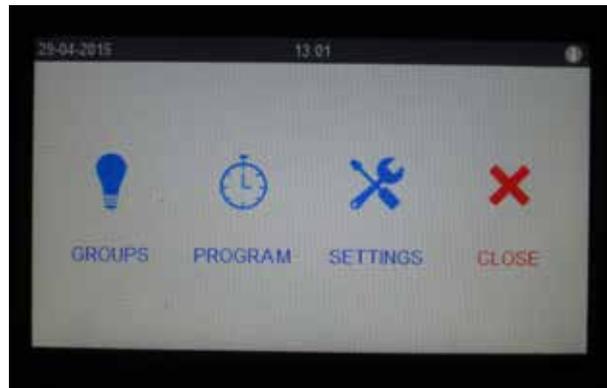
#### 4.4.8 Add a lighting program to a group

1. Press the gear wheel in the top right-hand corner of the Start screen.

The overview screen is displayed.

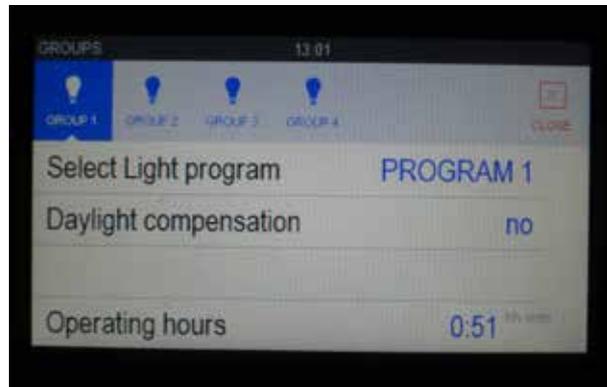


2. Press 'GROUPS'.



3. Press the desired group at the top of the screen.

Press on the text behind 'Light program selection'.



4. Select the desired program by pressing the '<' or '>' button.  
Press 'Select' to confirm.

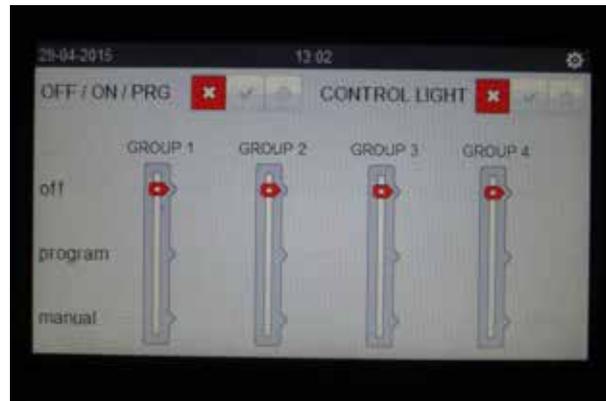
The desired program is now added to the selected group.



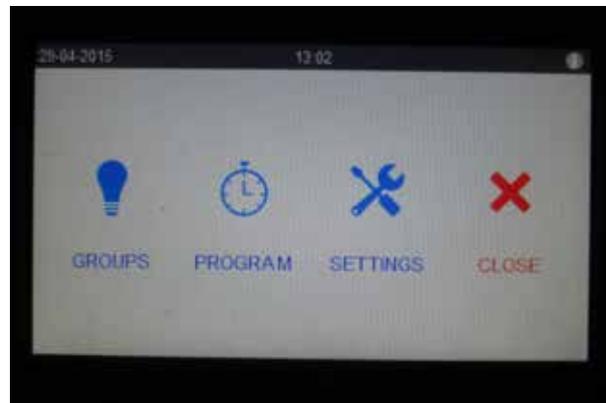
5. If necessary, repeat steps 3 to 5 to add programs to other groups.
6. Press 'Close' twice to return to the Start screen.

#### 4.4.9 Remove a fixture from the AGRIBOX pro system

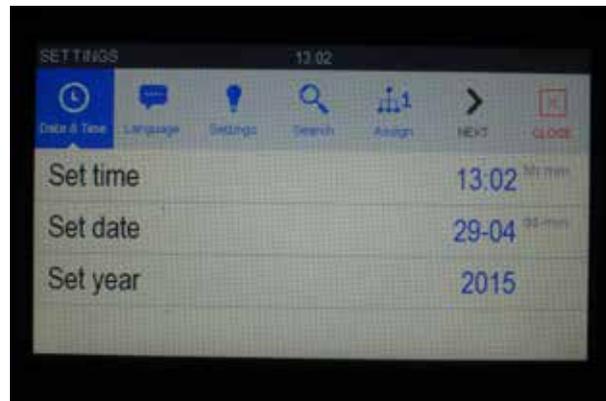
1. Remove the fixture from the livestock pen/shed/agricultural building.
2. Press the gear wheel in the top right-hand corner of the Start screen.  
The overview screen is displayed.



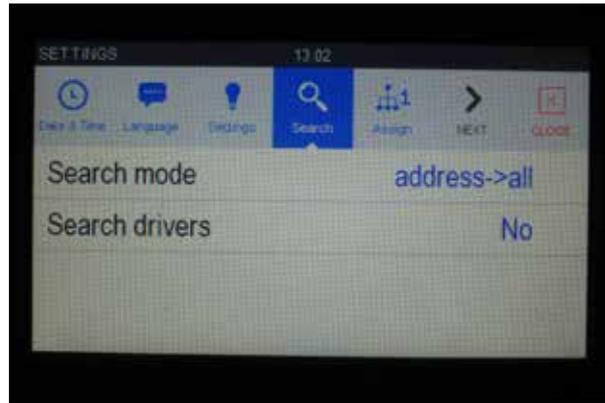
3. Press 'SETTINGS'.



4. Press 'Search'.



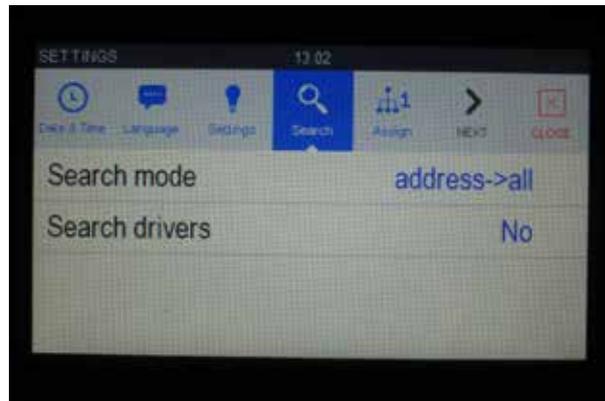
- 
5. Press on the text behind 'Search mode'.



- 
6. Select 'Search' by pressing the '<' or '>' button.  
Press 'Select' to confirm.



- 
7. Press on the text behind 'Find drivers'.



- 
8. Select 'Yes' by pressing the '<' or '>' button.  
Press 'Select' to confirm.

The AGRIBOX pro searches for drivers that are still installed in the system. The message 'Ready' appears when the search has been completed.

The number of drivers removed is deducted from the AGRIBOX pro system.



- 
9. Press 'Close' twice to return to the Start screen.
-

#### 4.4.10 Set light values

**NOTICE** You need a luxmeter for these operations.

##### 4.4.10.1 Activate daylight compensation

**NOTICE** We recommend that this operation is not carried out in the middle of the day.

Daylight compensation can be set if the light sensor is installed. A certain light level has to be achieved in the area with the fixtures. Daylight can shine in and thus influence the light level. The light sensor detects the amount of daylight and feeds this information back to the AGRIBOX pro. The AGRIBOX pro then activates the fixtures in order to achieve the desired light level.

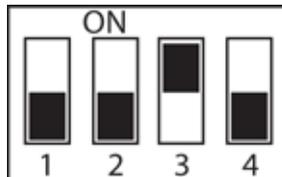
No luxmeter available? Take 10% of the value measured by the light sensor (this value can be found under "Measured value outdoors") and enter this figure for "Calibrate inside light".

Before calibration you will do as follow: (as mentioned earlier in step 4.2.8 on page 13 is described)

1. Loosen the glands in anti-clockwise direction.

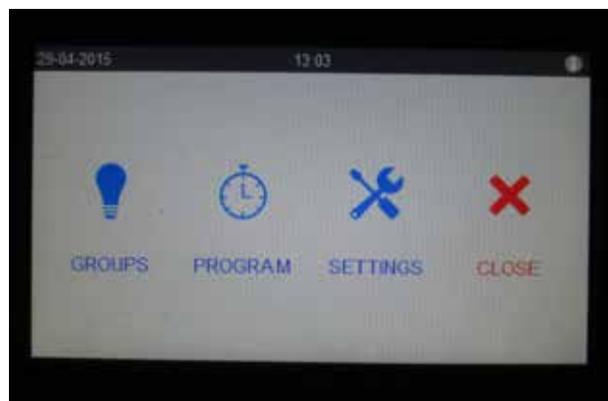


2. Set the dip switches to the 20 kLux position:
  - Dipswitch 1 OFF
  - Dipswitch 2 OFF
  - Dipswitch 3 ON
  - Dipswitch 4 OFF

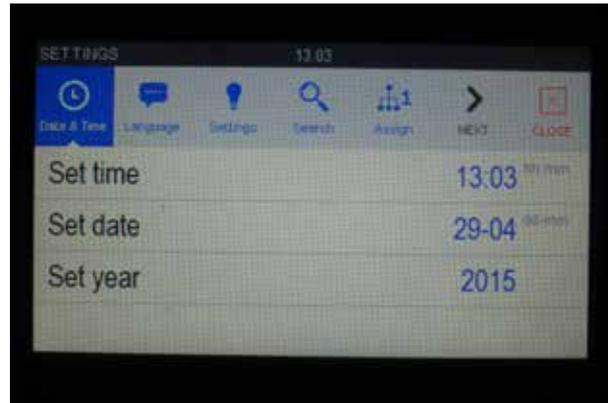


Now go to the touch screen.

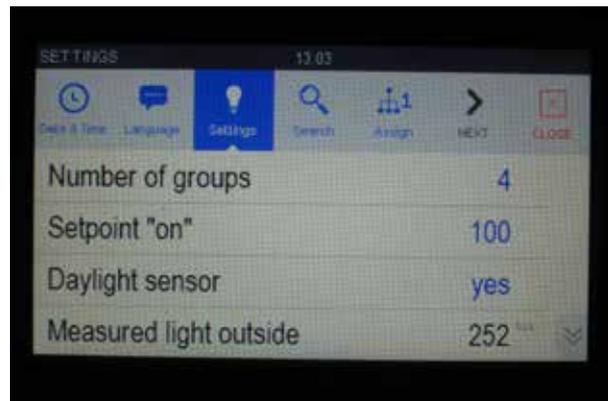
3. Press 'SETTINGS'.



- 
4. Press 'Settings'.



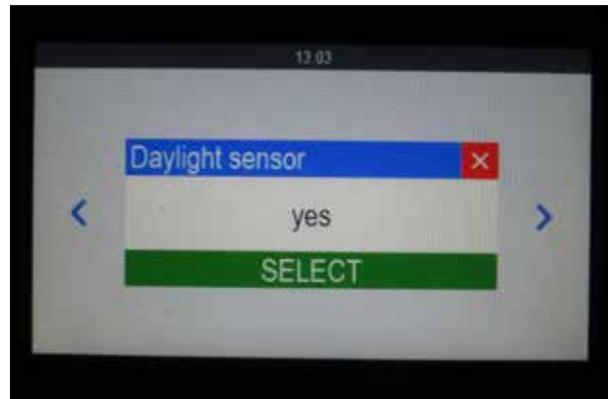
- 
5. Press on the text behind 'Daylight sensor'.



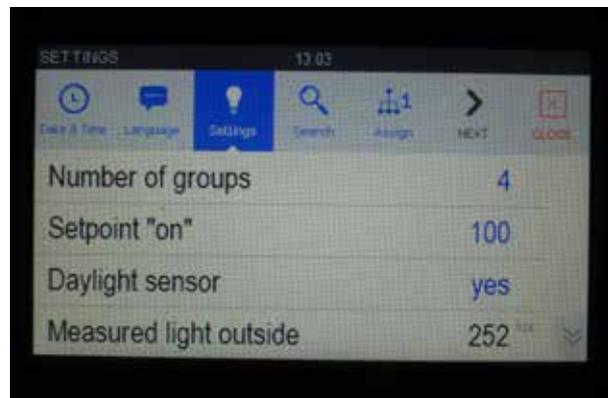
- 
6. Select 'Yes' by pressing the '<' or '>' button.

Press 'Select' to confirm.

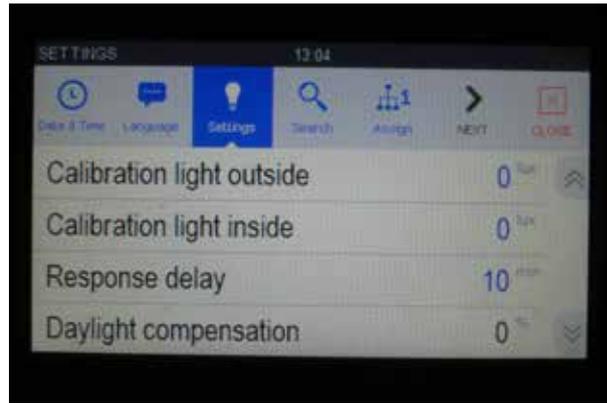
The daylight sensor is switched on.  
A number of values to be set appear under 'Daylight sensor'.



- 
7. Press the two 'down' arrows until 'Calibrate outside light' appears on the screen.



8. Press on the value behind 'Calibrate outside light'.



9. Press the green button to confirm.

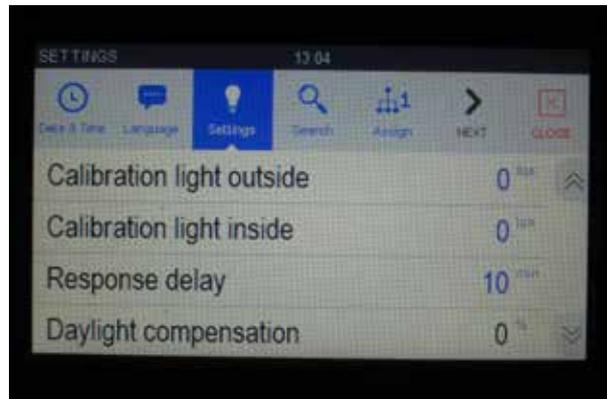
The light sensor automatically calculates the amount of daylight (in lux). When confirmed, this value is stored in the system.

**NOTICE** The minimum value of the light sensor is approx. 250 lux. This value appear when there is no day light.



10. Press on the value behind 'Calibrate inside light'.

**NOTICE** Measure the number of lux at various points in the room and take an average. In case you can't do a measurement, fill in 10% of the value "Measured value outdoors".

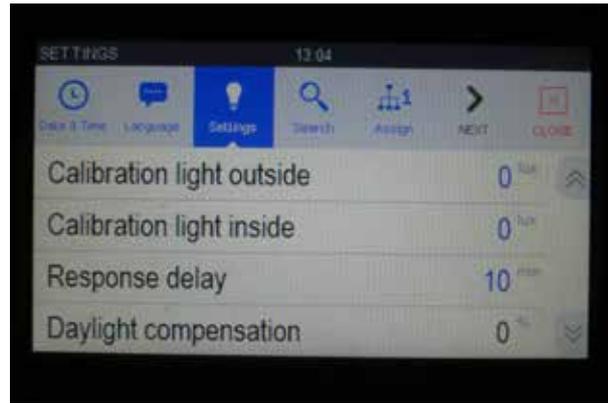


11. Enter the actual measured value for the indoor measurement and press the green button to confirm.



- 
12. Press on the text behind 'Reaction delay'.

If the daylight in the room is reduced for a brief time (for example due to a cloud), the AGRIBOX pro can switch on the fixtures after a certain time. This is the reaction delay.



- 
13. Enter the desired value (in minutes) and press the green button to confirm.

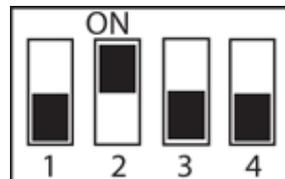
In the figure, the AGRIBOX pro switches on the fixtures as soon as there has been less light in the room for 10 minutes.



---

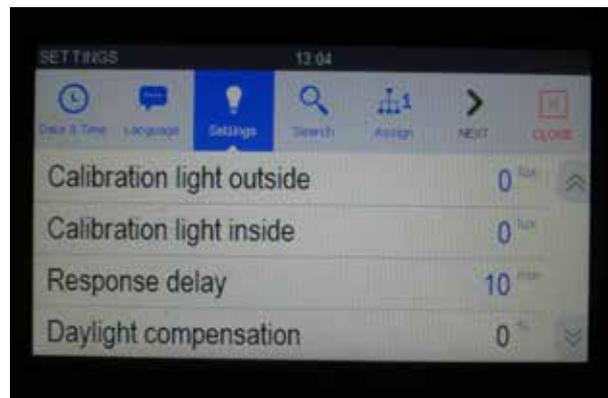
Finish calibraton?

14. Set the dip switches to the 2 kLux position:
- Dipswitch 1 OFF
  - Dipswitch 2 ON
  - Dipswitch 3 OFF
  - Dipswitch 4 OFF



- 
15. Fit the cover of the light sensor.

16. Press the two 'down' arrows repeatedly until 'Measurement range sensor' appears on the display.



- 
17. Press on the value behind 'Measurement range sensor'.



- 
18. Select '2000' by pressing '<' or '>' button.

Press 'select' to confirm. The Measurement range of the light sensor I now set on 2000 Lux.

**NOTICE** Do not set the "dark value sensor" manually. The dark value of the light sensor will be adjust automatically when "Measurement range sensor" is chanced.

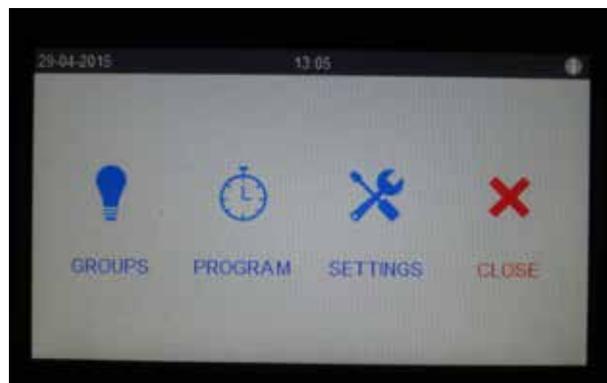
- 
19. Press 'Close' twice to return to the Start screen.
-

#### 4.4.10.2 Activate or deactivate daylight compensation per group

1. Press the gear wheel in the top right-hand corner of the Start screen.  
The overview screen is displayed.

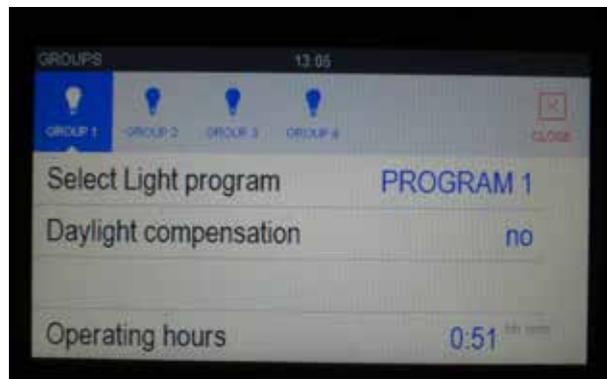


2. Press 'GROUPS'.



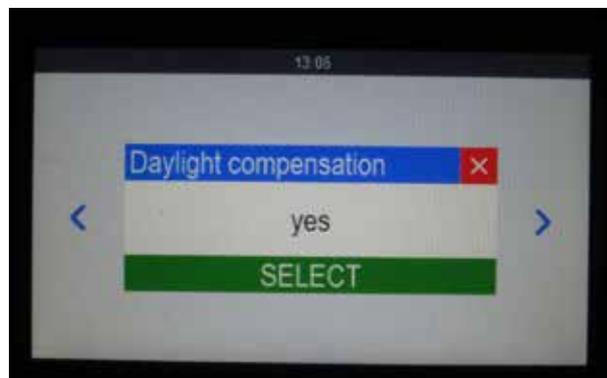
3. Press the desired group at the top of the screen.

Press on the text behind 'Daylight compensation'.



4. Perform one of the following actions:
  - Select 'Yes' by pressing the '<' or '>' button. Daylight compensation is switched on.
  - Select 'No' by pressing the '<' or '>' button. Daylight compensation is switched off.

Press 'Select' to confirm.



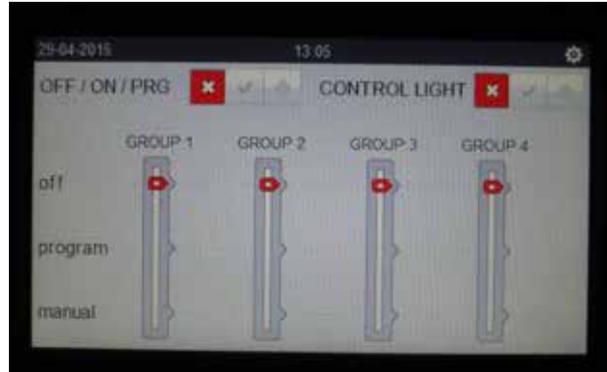
5. If necessary, repeat steps 4 and 4 for the other groups.

6. Press 'Close' twice to return to the Start screen.

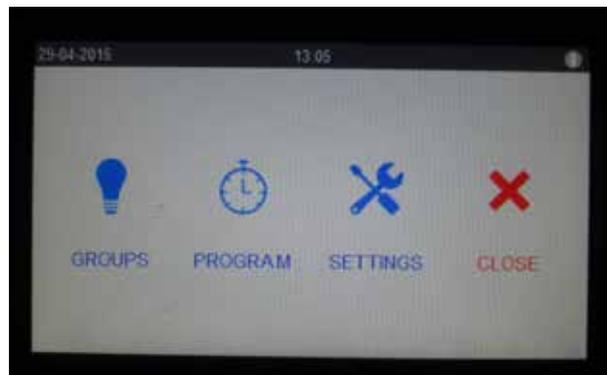
### 4.4.10.3 Switch on screen compensation

Screen compensation can be set if a screen is installed. A certain light level has to be achieved in the area with the fixtures. Daylight can shine in and thus influence the light level. The light sensor detects the amount of daylight and feeds this information back to the AGRIBOX pro. The AGRIBOX pro then activates the fixtures in order to achieve the desired light level.

1. Press the gear wheel in the top right-hand corner of the Start screen.  
The overview screen is displayed.



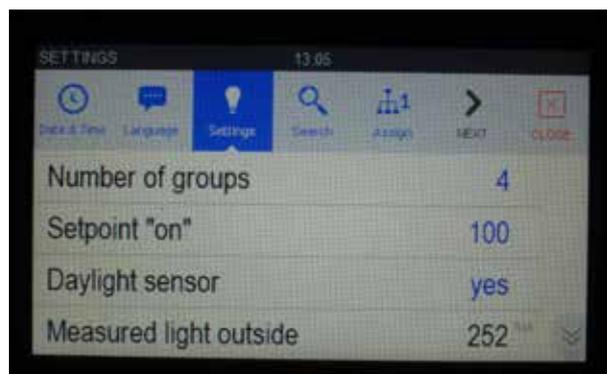
2. Press 'SETTINGS'.



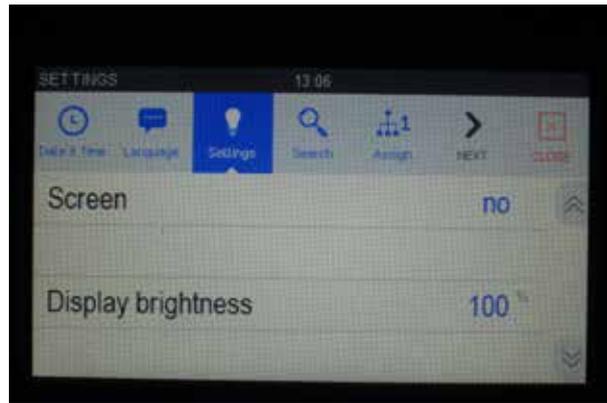
3. Press 'Settings'.



4. Press the two 'down' arrows repeatedly until 'Screen' appears on the display.



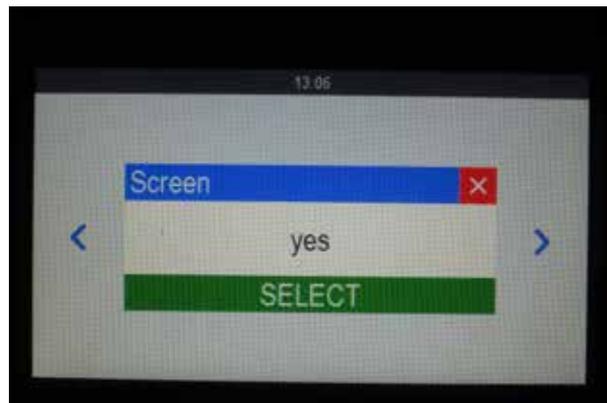
- 
5. Press on the text behind 'Screen'.



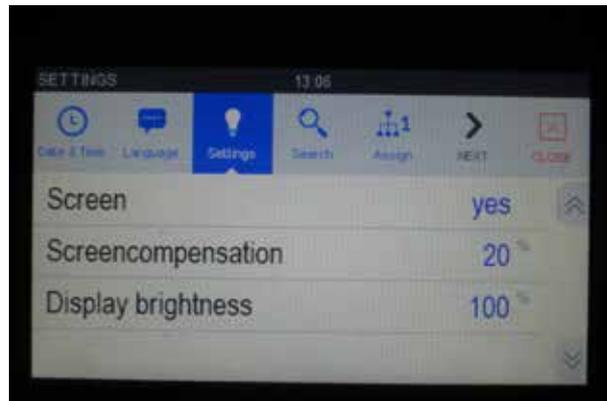
- 
6. Select 'Yes' by pressing the '<' or '>' button.

Press 'Select' to confirm.

Screen compensation is switched on.  
'Screen compensation' is displayed.



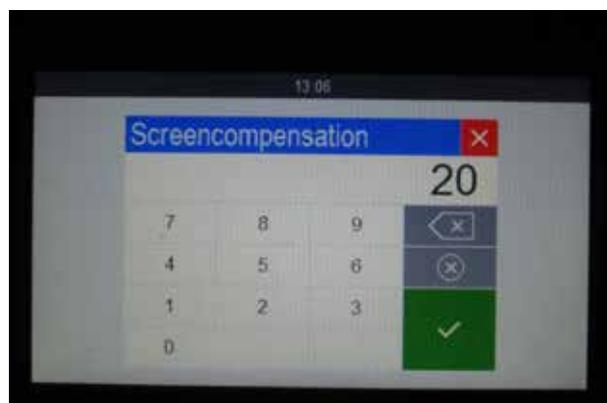
- 
7. Press on the value behind 'Screen compensation'.



- 
8. Enter the percentage of daylight to be blocked by the screen.

In the figure on the right, 20% of the daylight is blocked.

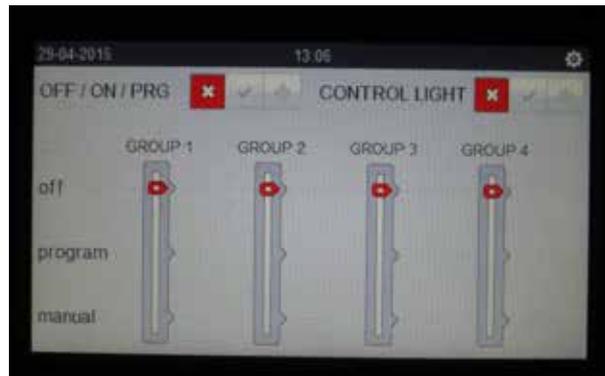
Press the green button to confirm.



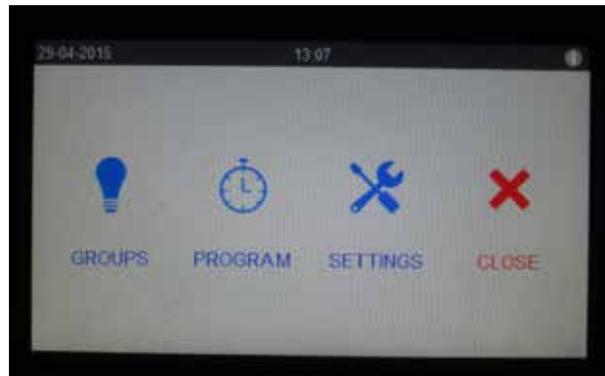
- 
9. Press 'Close' twice to return to the Start screen.
-

#### 4.4.10.4 Activate or deactivate screen compensation per group

1. Press the gear wheel in the top right-hand corner of the Start screen.  
The overview screen is displayed.

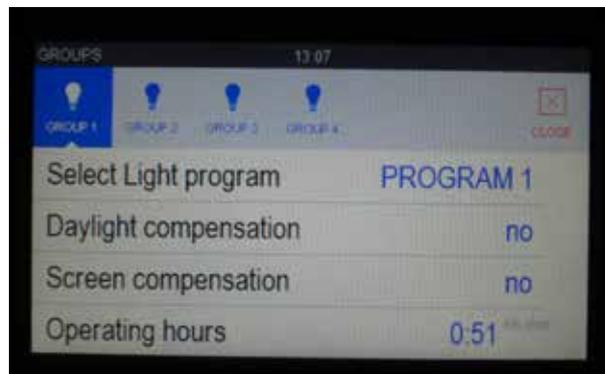


2. Press 'GROUPS'.



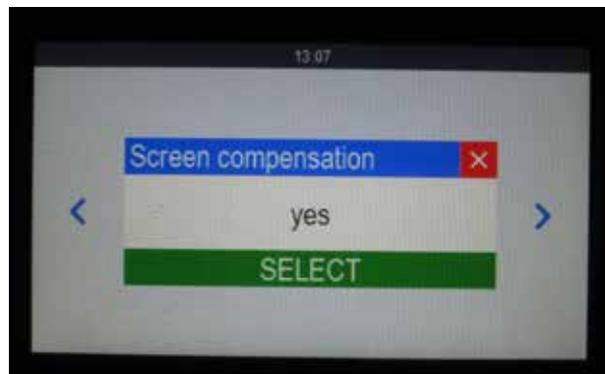
3. Press the desired group at the top of the screen.

Press on the text behind 'Screen compensation'.



4. Perform one of the following actions:
  - Select 'Yes' by pressing the '<' or '>' button. Screen compensation is switched on.
  - Select 'No' by pressing the '<' or '>' button. Screen compensation is switched off.

Press 'Select' to confirm.



5. If necessary, repeat steps 4 and 4 for the other groups.

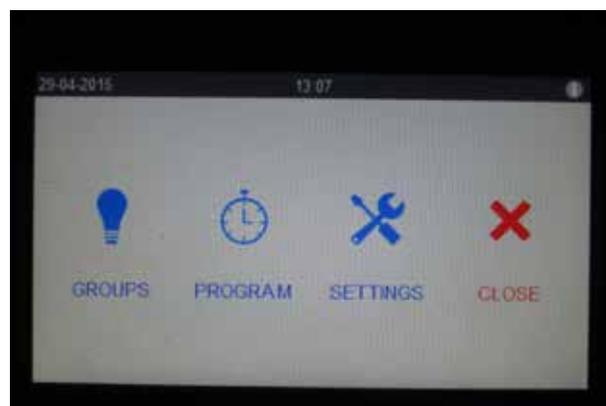
6. Press 'Close' twice to return to the Start screen.

#### 4.4.10.5 Activate or deactivate the daylight sensor

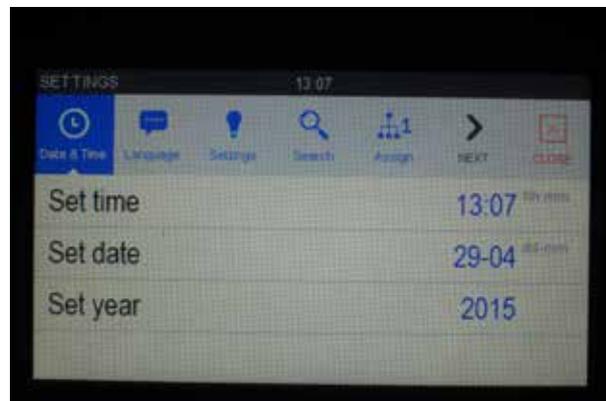
1. Press the gear wheel in the top right-hand corner of the Start screen.  
The overview screen is displayed.



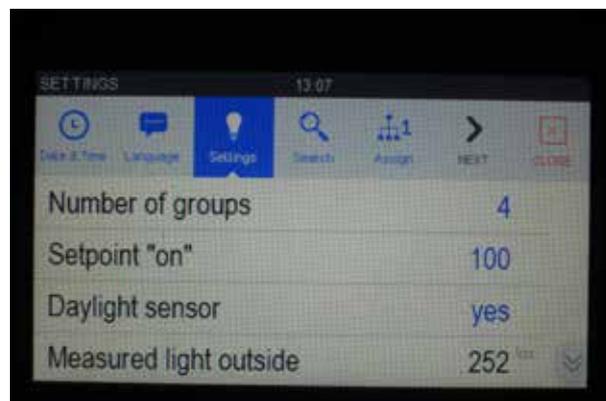
2. Press 'SETTINGS'.



3. Press 'Settings'.



4. Press on the text behind 'Daylight sensor'.



- 
5. Perform one of the following actions:
- Press the '<' or '>' button and select 'Yes' to activate the daylight sensor.
  - Press the '<' or '>' button and select 'No' to deactivate the daylight sensor.

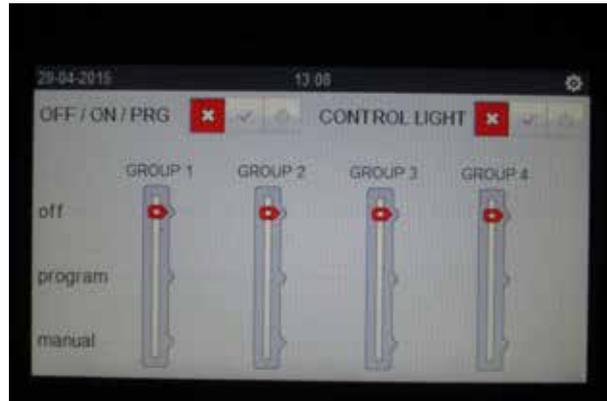
Press 'Select' to confirm.



- 
6. Press 'Close' twice to return to the Start screen.
-

#### 4.4.11 Set brightness of the display

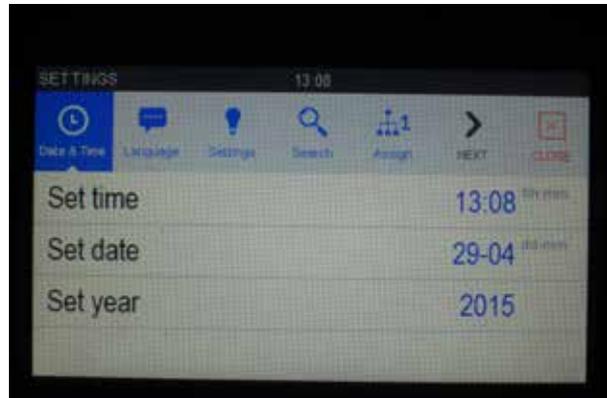
1. Press the gear wheel in the top right-hand corner of the Start screen.  
The overview screen is displayed.



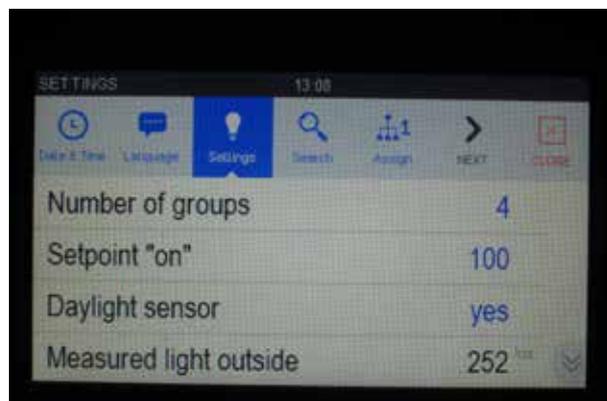
2. Press 'SETTINGS'.



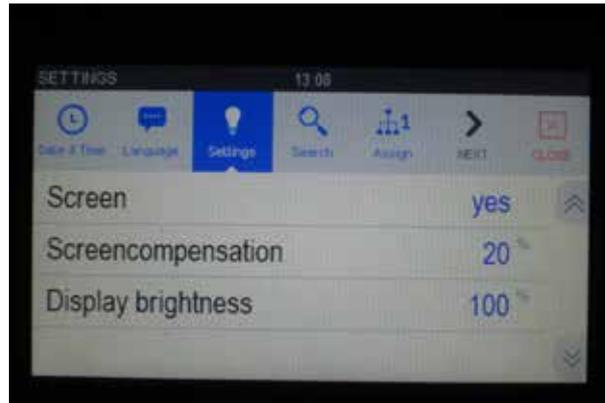
3. Press 'Settings'.



4. Press the two 'down' arrows repeatedly until 'Display brightness' appears on the screen.



- 
5. Press on the percentage (%) behind 'Display brightness'.



- 
6. Enter the desired percentage brightness of the display and press the green button to confirm.



- 
7. Press 'Close' twice to return to the Start screen.
-

## 4.4.12 Factory settings and operating hours

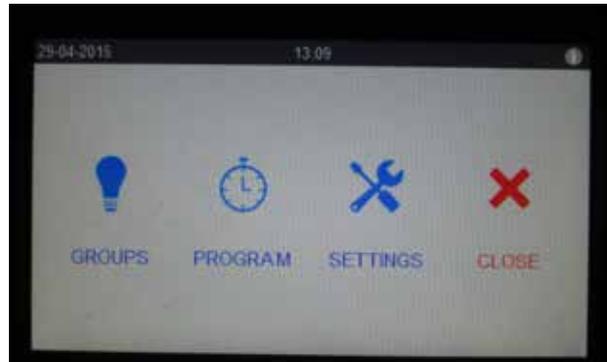
### 4.4.12.1 Reset the displayed time that a group has been in operation

As soon as a program belonging to a group is switched on, the number of hours and minutes that the group is (has been) in operation is displayed. To reset the time, proceed as follows:

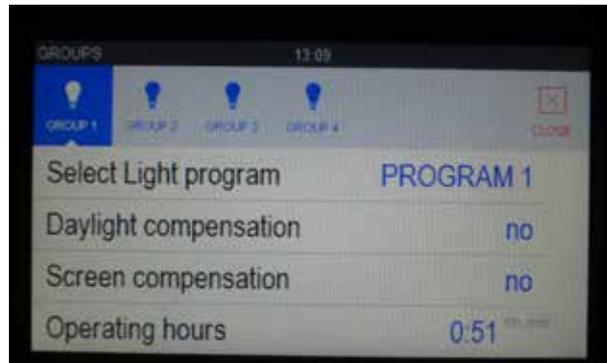
1. Press the gear wheel in the top right-hand corner of the Start screen.  
The overview screen is displayed.



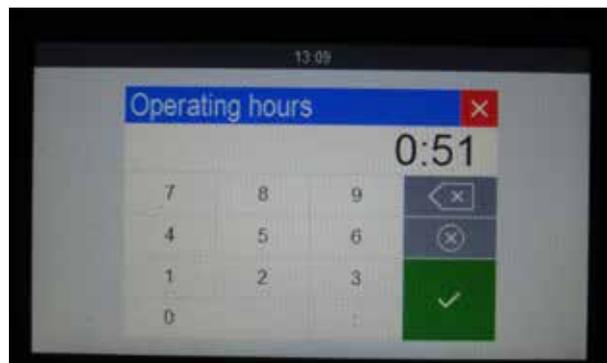
2. Press 'GROUPS'.



3. Press the desired group at the top of the screen.  
  
Press on the time behind 'Operating hours'.



4. Press the circle with the cross and then press the green button to confirm.  
  
The time that a group has been in operation is now reset.



5. Press 'Close' twice to return to the Start screen.

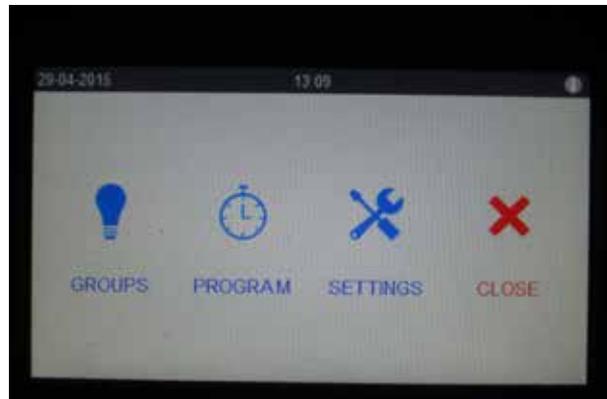
#### 4.4.12.2 Reset the AGRIBOX pro to the factory settings

**⚠ WARNING** When the following steps are performed, all settings are deleted and reset to the factory settings.

1. Press the gear wheel in the top right-hand corner of the Start screen.  
The overview screen is displayed.



2. Press 'i' in the top right-hand corner of the Overview screen.



3. Press 'Reset' behind 'Reset factory settings'.  
A warning is displayed.



4. Press 'YES'.  
The AGRIBOX pro is now reset to the factory settings



## 4.5 Add a second AGRIBOX pro as slave

Two additional AGRIBOX pro's can be added to the AGRIBOX pro in order to be able to control more fixtures. These extra AGRIBOX pro's are an extension of the first AGRIBOX pro. This means that they cannot be set independently and only perform what the first AGRIBOX pro dictates. The first AGRIBOX pro is therefore the master and the other AGRIBOX pro's are slaves.

### 4.5.1 Electrical connection of the slave

1. Determine which AGRIBOX pro is the master and which the slave(s).
2. Assemble the second AGRIBOX pro. See section (4.1) for further information.
3. Unscrew the plastic screws (4x) on both AGRIBOX pro's in anti-clockwise direction using a screwdriver.

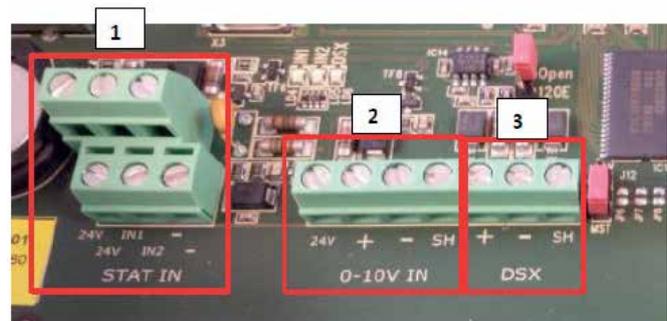


4. Remove the covers.



5. Loosen an empty gland on the master in anti-clockwise direction.
6. Pull a 3-core cable through the gland on the master and connect it to the DSX terminal (3):  
DSX +  
DSX -  
DSX SH

Move jumper JP5 to the 'down' position by placing the red cap over the bottom two pins.



7. Move jumper J12 to the 'down' position by placing the red cap over the bottom two pins. This determines that this AGRIBOX pro is the master.

8. Turn rotary switch S1 of the master (in the top left-hand corner of the circuit board) to 1.

Turn rotary switch S2 of the master (in the top left-hand corner of the circuit board) to 0.

This sets the code for the master to 01.

**NOTICE** This number code must not be 00!



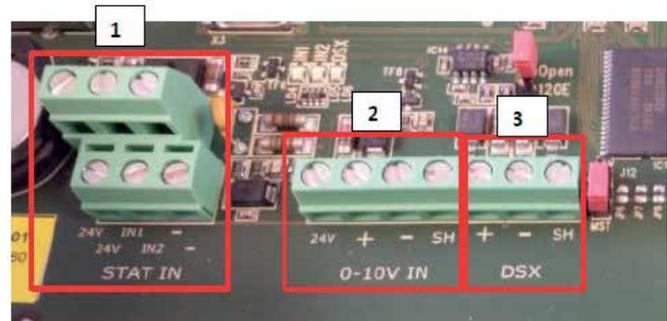
9. Tighten the glands on the master again in clockwise direction.

10. Loosen an empty gland on the slave in anti-clockwise direction.

11. Pull a 3-core cable through the gland on the slave and connect it to the DSX terminal (3):  
 DSX +  
 DSX -  
 DSX SH

**NOTICE** Connect the same cables in the master to the same connection in the slave.

Move jumper JP5 to the 'down' position.



12. Move jumper J12 to the 'up' position to indicate that this AGRIBOX pro is the slave.

13. Turn rotary switch S1 of the first slave (in the top left-hand corner of the circuit board) to 2.

Turn rotary switch S2 of the first slave (in the top left-hand corner of the circuit board) to 0.

This sets the code for the slave to 02.

**NOTICE** This number code must not be 00!

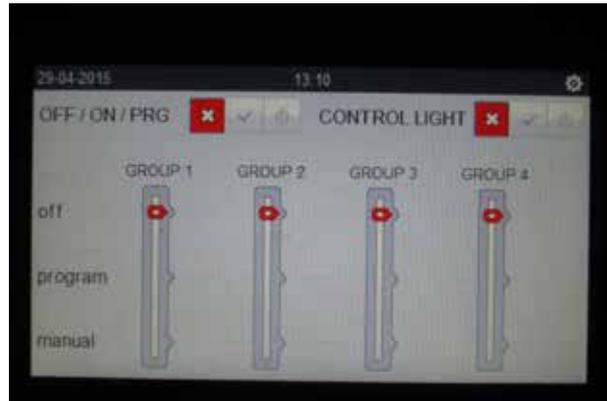
The code must be entered in the master. See section 4.5.2.



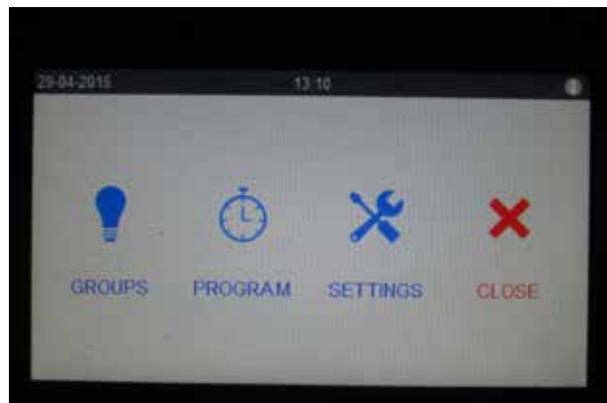
	Jumper JP5	Jumper J12	Rotary switch S2	Rotary switch S1
Master	Down	Down	0	1
Slave 1	Down	Up	0	2
Slave 2	Down	Up	0	3

## 4.5.2 Set the slave

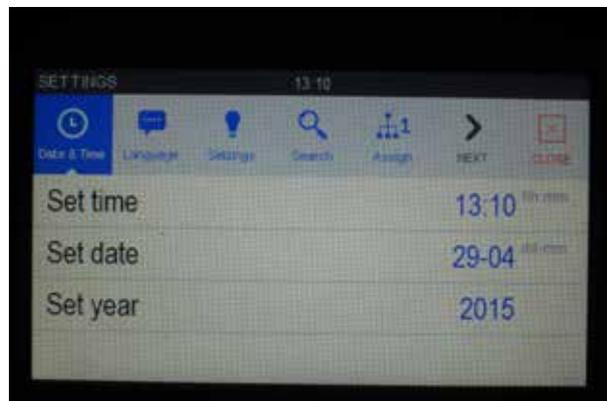
1. Press the gear wheel in the top right-hand corner of the Start screen.  
The overview screen is displayed.



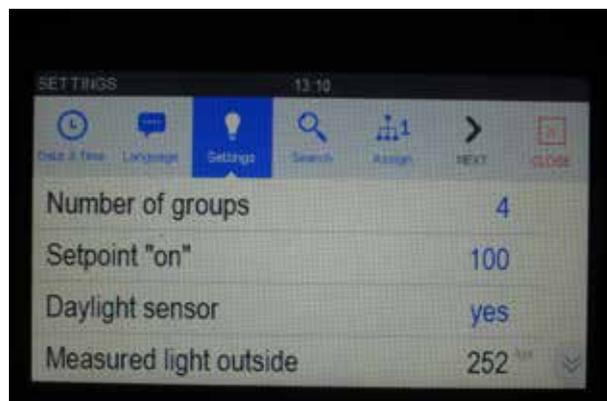
2. Press 'SETTINGS'.



3. Press 'Settings'.



4. Press the two 'down' arrows until 'Number of DALI circuits' appears on the screen.



- 
5. Press on the number behind 'IO address DALI circuit 2'.



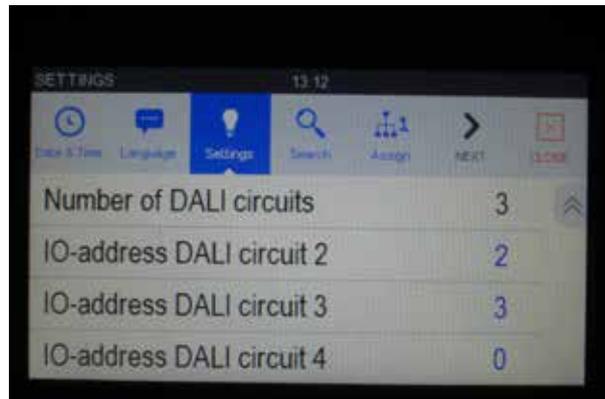
- 
6. Enter the code for the slave and press the green button to confirm.

See section 4.5.1 for further information on the code for the slave.

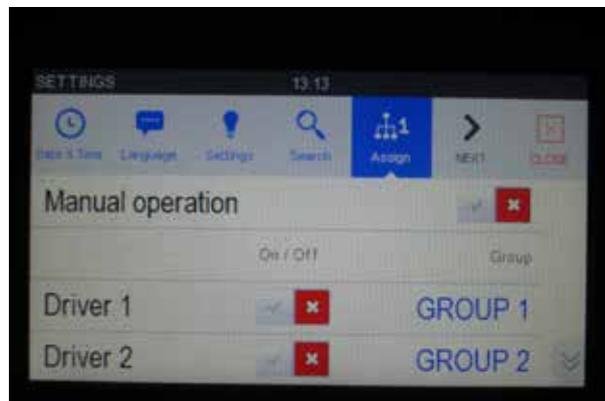


- 
7. 'IO address DALI circuit 3' is displayed; the second slave can be added here. 'Assign 2' is also displayed at the top of the screen.

Press 'Assign 2'.



- 
8. Add the new fixtures to the slave. See section 4.4.4 for further information.



- 
9. Press 'Close' twice to return to the Start screen.
-

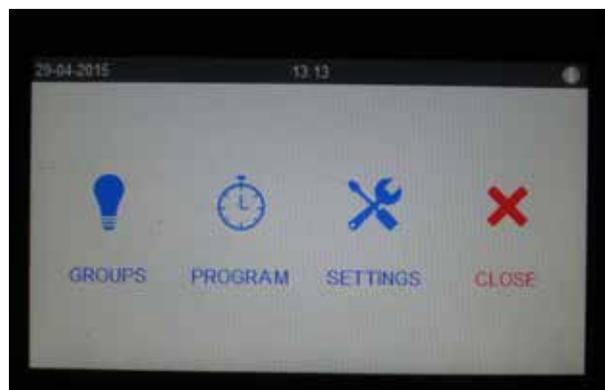
## 4.6 Prepare the AGRIBOX pro for 0 - 10 V fixtures

For the electrical connection of 0-10 V fixtures, refer to section 4.3.  
Proceed as follows to set the 0-10 V fixtures in the AGRIBOX pro:

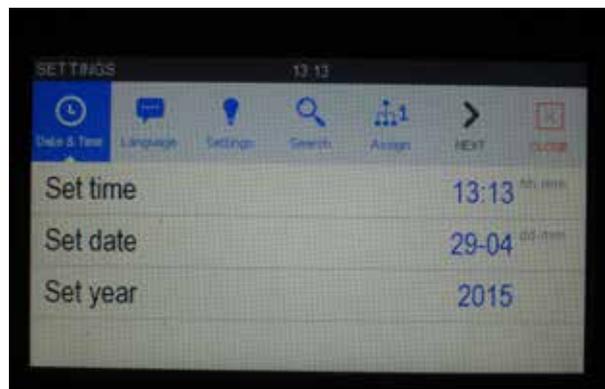
1. Press the gear wheel in the top right-hand corner of the Start screen.  
The overview screen is displayed.



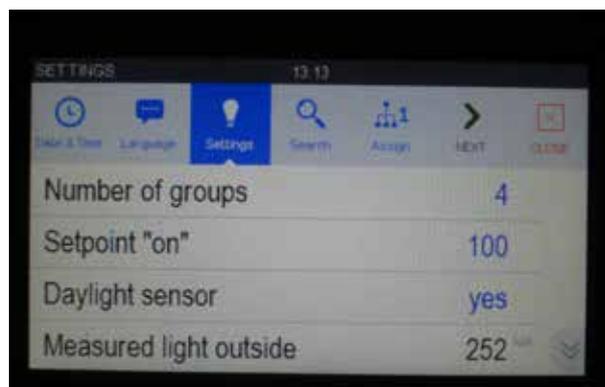
2. Press 'SETTINGS'.



3. Press 'Settings'.



4. Press the two 'down' arrows until 'Dalibus control signal' appears on the screen.



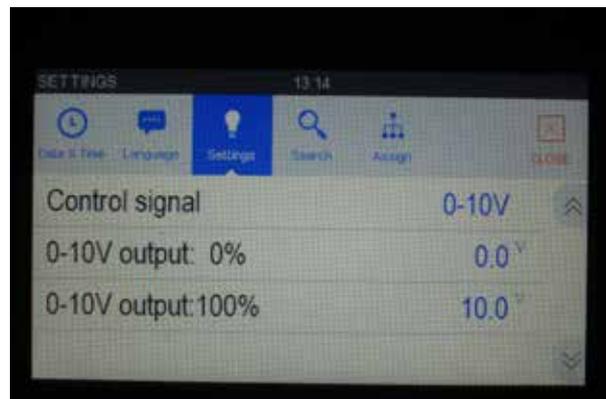
- 
5. Press 'dalibus'.



- 
6. Select '0-10V' by pressing the '<' or '>' button.  
Press 'Select' to confirm.



- 
7. The AGRIBOX pro is now ready for 0-10 V fixtures.



- 
8. Press 'Close' twice to return to the Start screen.
-

# 5 Operation

## 5.1 Switching a program on or off

Switch on

1. **NOTICE** Ensure that you see the Start screen.

Press the clock icon behind 'ON/OFF' if it has not yet been selected.



2. Press alongside 'Program' in the bar under the desired group(s).  
The set program for the selected group is switched on.

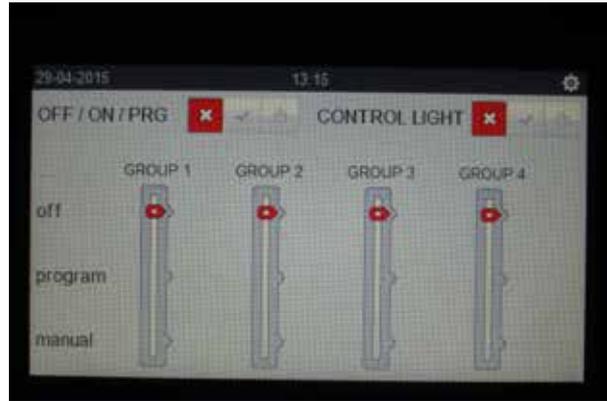
A percentage value is displayed, indicating the percentage at which the LED lamps in the fixture are on.



Switch off

1. **NOTICE** Ensure that you see the Start screen.

Press the clock icon behind 'ON/OFF' if it has not yet been selected.



2. Press alongside 'OFF' in the bar under the desired group(s).  
The set program for the selected group is switched off.



## 5.2 Switching the groups on or off

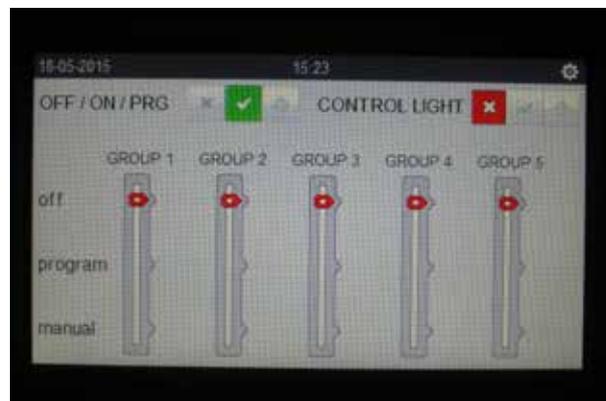
### 5.2.1 Switch all groups on or off at once

Switch on

**NOTICE** Ensure that you see the Start screen.

Press the 'V' icon behind 'ON/OFF'.

All the fixtures are switched on at 100%.

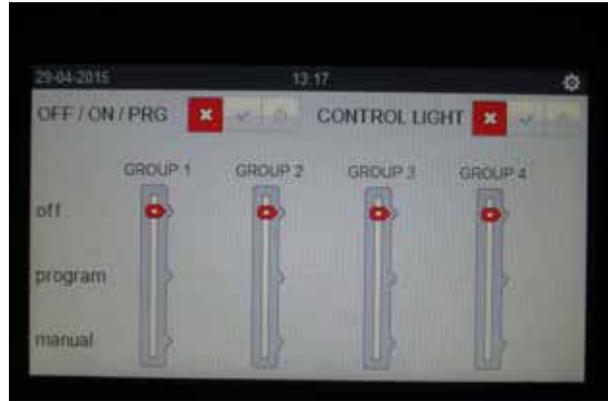
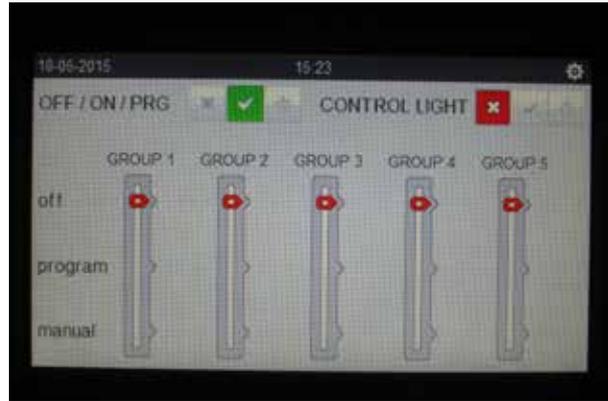


## Switch off

**NOTICE** Ensure that you see the Start screen.

Press the 'X' icon behind 'ON/OFF'.

All the fixtures are now switched off.

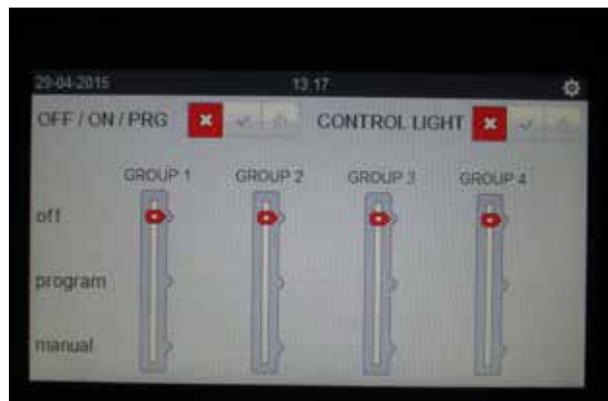


## 5.2.2 Switch a single group on or off

### Switch on

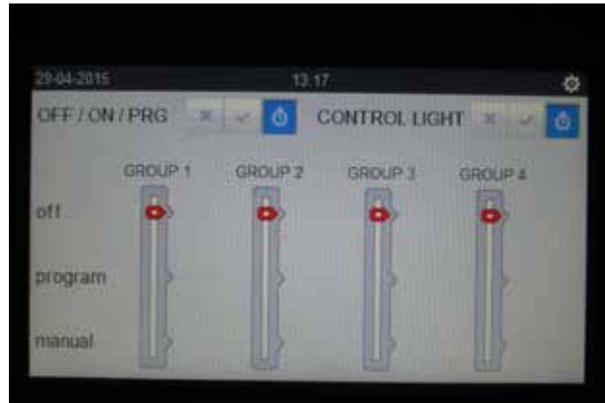
- NOTICE** Ensure that you see the Start screen.

Press the clock icon behind 'ON/OFF' if it has not yet been selected.



- 
2. Press alongside 'Manual' in the bar under the desired group(s).

A percentage value is displayed, indicating the percentage at which the LED lamps are on.



3. Press on the percentage value.



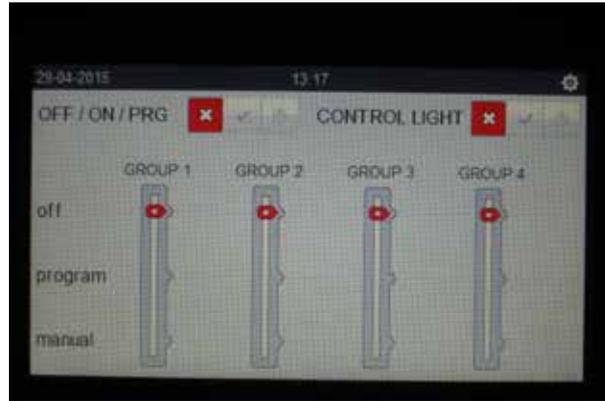
4. Select the desired light level by pressing the '<' or '>' button.  
Press 'Select' to confirm.  
The group is switched on with the selected light level.



Switch off

1. **NOTICE** Ensure that you see the Start screen.

Press the clock icon behind 'ON/OFF' if it has not yet been selected.



2. Press alongside 'OFF' in the bar under the desired group(s).

The group switches off.



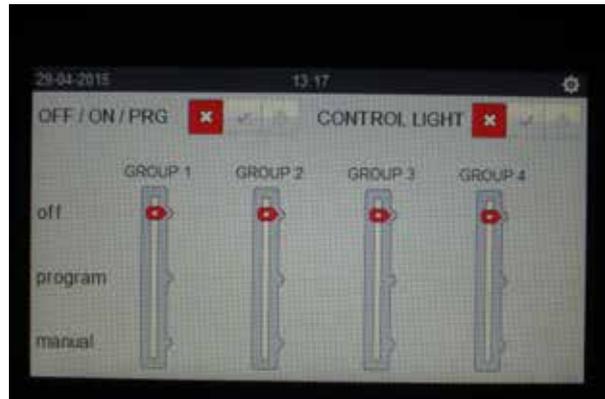
## 5.3 Switching the control light program ON and OFF

### Switch on - method 1

**NOTICE** Ensure that you see the Start screen.

Press the 'V' icon behind 'CONTROL LIGHT'.

All control lights are switched on.



### Switch on - method 2

**NOTICE** Ensure that you see the Start screen.

Press the clock icon behind 'CONTROL LIGHT' if it has not yet been selected.

The control lights are switched on according to their respective program.

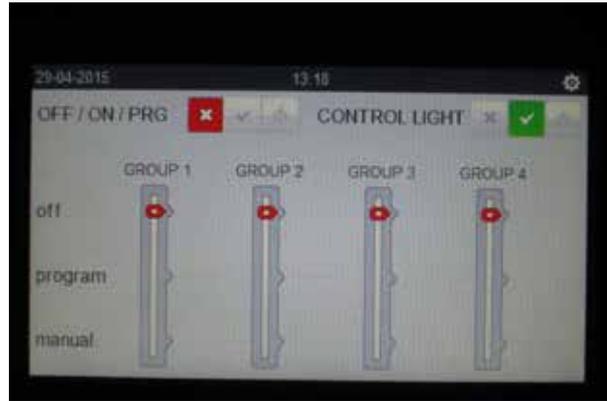


Switch off

**NOTICE** Ensure that you see the Start screen.

Press the 'X' icon behind 'CONTROL LIGHT'.

All the control lights are now switched off.



## 6 Maintenance and Maintenance Plan

- **⚠ WARNING** Disconnect the product from the power supply before starting maintenance.
- Clean the AGRIBOX pro with a dry or slightly damp cloth.
- Do not use abrasive cleaning agents.
- Do not use caustic cleaning agents or products with bleach.
- Consult a cleaning specialist if the fixture is heavily soiled.
- Store the product in a dry and dust-free place.

## 7 Faults and Repairs

**⚠ WARNING** Do not replace parts yourself. This would void the warranty.

**NOTICE** Please contact your local dealer if the product does not function or the electronics are defective.

## 8 Environment and Disposal



The symbol on the product, the accessories or packaging indicates that this product must not be treated as household waste. Dispose of the product via a collection point for the recycling of waste electrical and electronic equipment within the EU and in other European countries that operate separate collection systems for waste electrical and electronic equipment. By disposing of the product in the proper manner, you help to avoid possible hazards for the environment and public health that could otherwise be caused by improper treatment of waste equipment. The recycling of materials contributes to the conservation of natural resources. Therefore do not dispose of your old electrical and electronic equipment with the household waste.

## 9 Warranty

Agrilight offers a warranty on production and material faults for a period of two (2) years from the original date of purchase of the product, on condition that the product is used only for its intended purpose. Any damage caused by abnormal use, improper handling, cleaning or negligence is not covered by this warranty. Agrilight gives no warranty on assembly and installation.

