



# JEVEN UV-CONTROL G2

## Installation Guide

Dokument Nr 500-00118  
Revision A



**Jeven**  
*Top ventilation for top chefs*



## CONTENT

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## PRODUCT DESCRIPTION

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Jeven UV-Control controls and monitors UV-TurboSwing filters. With continuous monitoring of run time and UV-light sources, the function of UV treatment is ensured.

Jeven UV-Control starts/stops all UV-Turbo filter. Operating periods for the kitchen can be set by a weekly timer, Monday to Sunday according to the needs the user has. The system can also be run manually or by way of external start/stop signal.

UV-Turbo filters run time is measured and emits alarms when the UV-lamp's maximum run time is reached. (Max run time UV-lamps 8 000 h).

Jeven UV-Control monitors the UV-lamps if they break before the maximum operating time is reached and alarms.

When the maximum operating time is reached, there is a possibility to reset the time, if replace of an individual UV-lamp before the maximum operating time has been reached, should not the time be reset.

Sum alarm from from Jeven UV-Control can be passed to an superior system by a potential-free contact.

## SOFTWARE FEATURES

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- Start and stop of UV-Turbo filter is selectable between: Manual, Week timer or External signal.
- Control of operating time, alarm at reached value.
- Ability to reset operating time.
- Control of the total ampere value of the UV lamps in the system, alarm if one breaks down.
- Potential free relay output to superior system in case of alarm.

## TECHNICAL DATA

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|                                    |                       |
|------------------------------------|-----------------------|
| Dimension:                         | 200x200x120mm (WxHxD) |
| Power supply:                      | 230VAC, 10A           |
| Protection:                        | IP65                  |
| Ambient temperature:               | <55 ° C               |
| Maximum number of UV-Turbo filter: | 25pcs                 |

## DELIVERY CHECK

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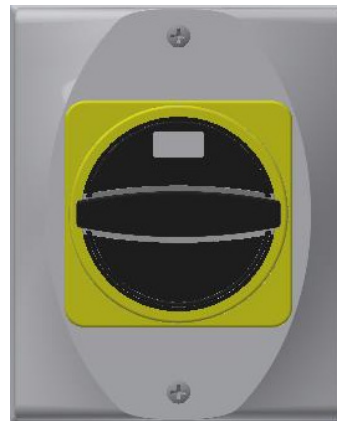
Control that the insulation box and cables doesn't have any defects. Defective material can not be assembled and put into operation. Contact Jeven AB for handling of defective material.

Delivery includes:

- Jeven UV-Control



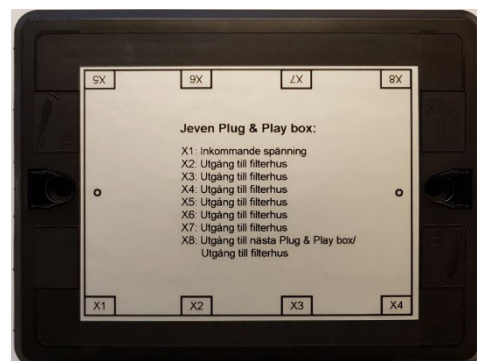
- Safety switch



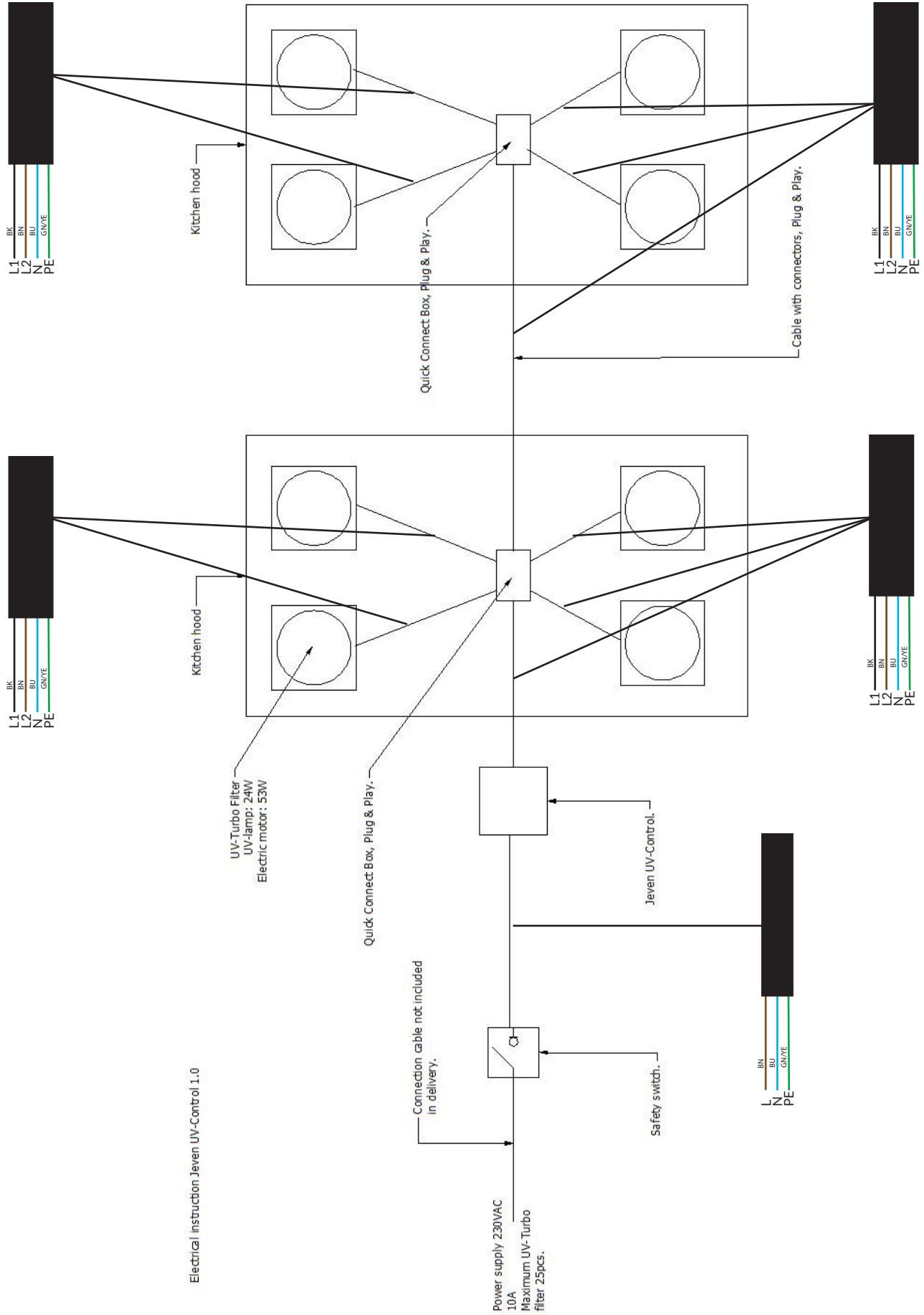
- Connected cables. 5m or 10 m



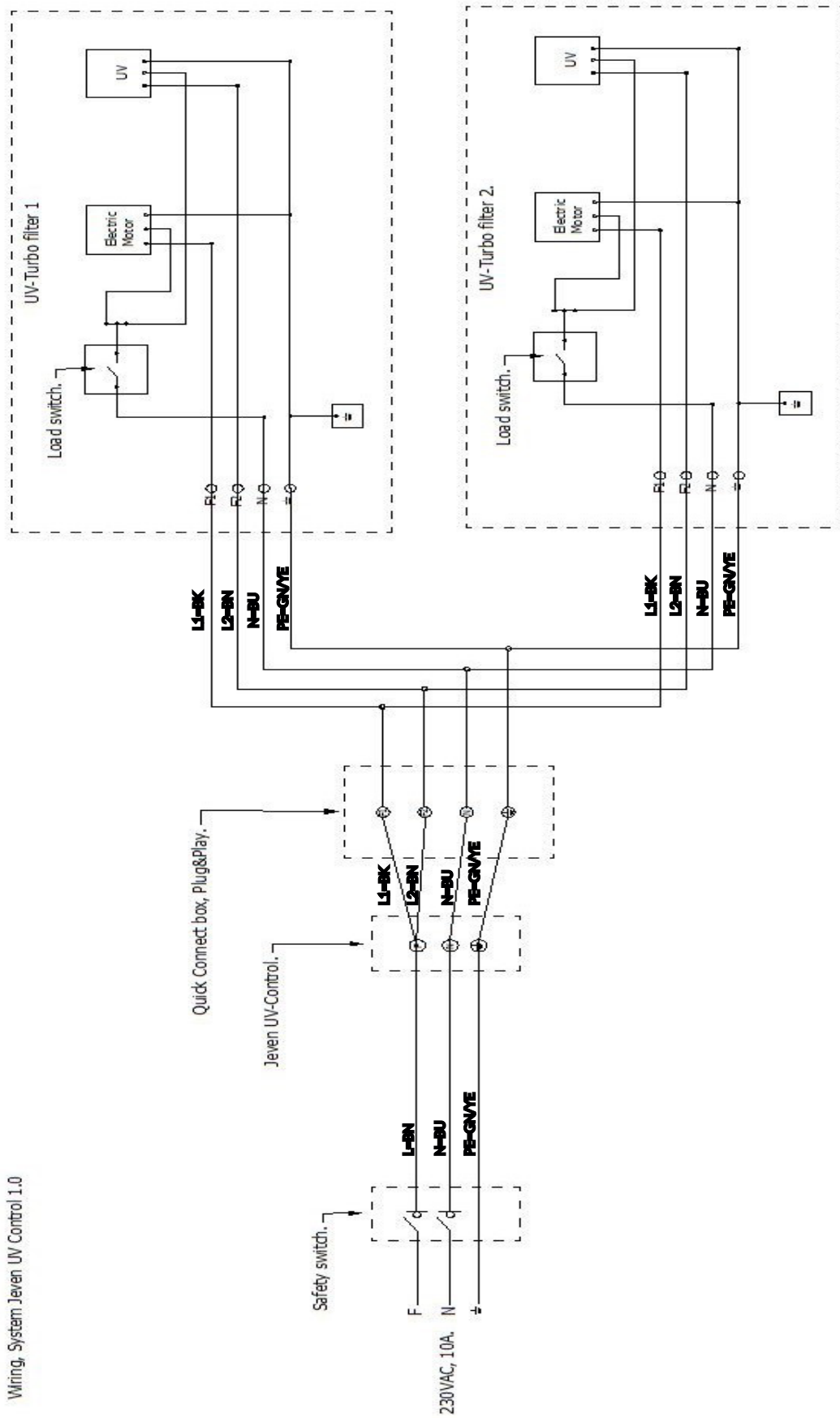
- Jeven Plug & Playbox, 1 piece / hood  
Mounted on the ceiling of the hood



# ELECTRICAL INSTRUCTION



Wiring, System Jeven UV Control 1.0



## SETTINGS AND OPERATIONS

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Jeven UV-Control has three different possibilities for start and stop of the UV-Turbo filters, monitoring the UV-lamps and keeping track of the UV-lamps operating time. As well as the ability to adjust the alarm limit for the current measurement, if for example retrofitted into one or more UV-Turbo.



## CONTENT

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### 1. CONTROL FUNCTION

- 1.1 Manual Start/Stop
- 1.2 Start/Stop with weekly timer
- 1.3 Start/Stop by external signal

### 2. RUN TIME

- 2.1 Read current run time

### 3. ALARM

- 3.1 Alarm UV-lamp
- 3.2 Alarm run time
- 3.3 Alarm cleaning
- 3.4 Sum alarm
- 3.5 Operation indication

### 4. PROGRAMMING ALARM LIMIT



# SETTINGS AND OPERATIONS

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## 1. CONTROL FUNKTION

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### 1.1 Manual start/stop



To stop the UV-purification manual press  
( Esc + ◀ )

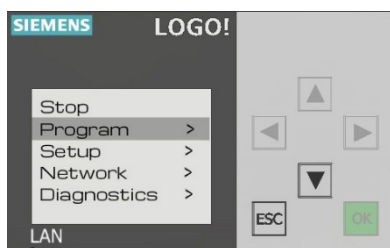
# SETTINGS AND OPERATIONS

## 1. CONTROL FUNCTION

### 1.2 Start and stop with weekly timer

To enter the program menu, press ▼ then Esc.

In the program select: 1. "Program", 2 "Set parameter" and 3. "WEEKLY TIMER".



Here you can use up to 3 different time programs D1, D2 and D3.

Example:

| <b>D1</b>     | <b>D2</b> |
|---------------|-----------|
| M, T, W, T, F | S, S      |
| On1           | On2       |
| 07:00         | 10:00     |
| Off1          | Off2      |
| 16:00         | 14:00     |



Exit the program menu by pressing Esc until, time and date appear on screen, then press arrow ▲.

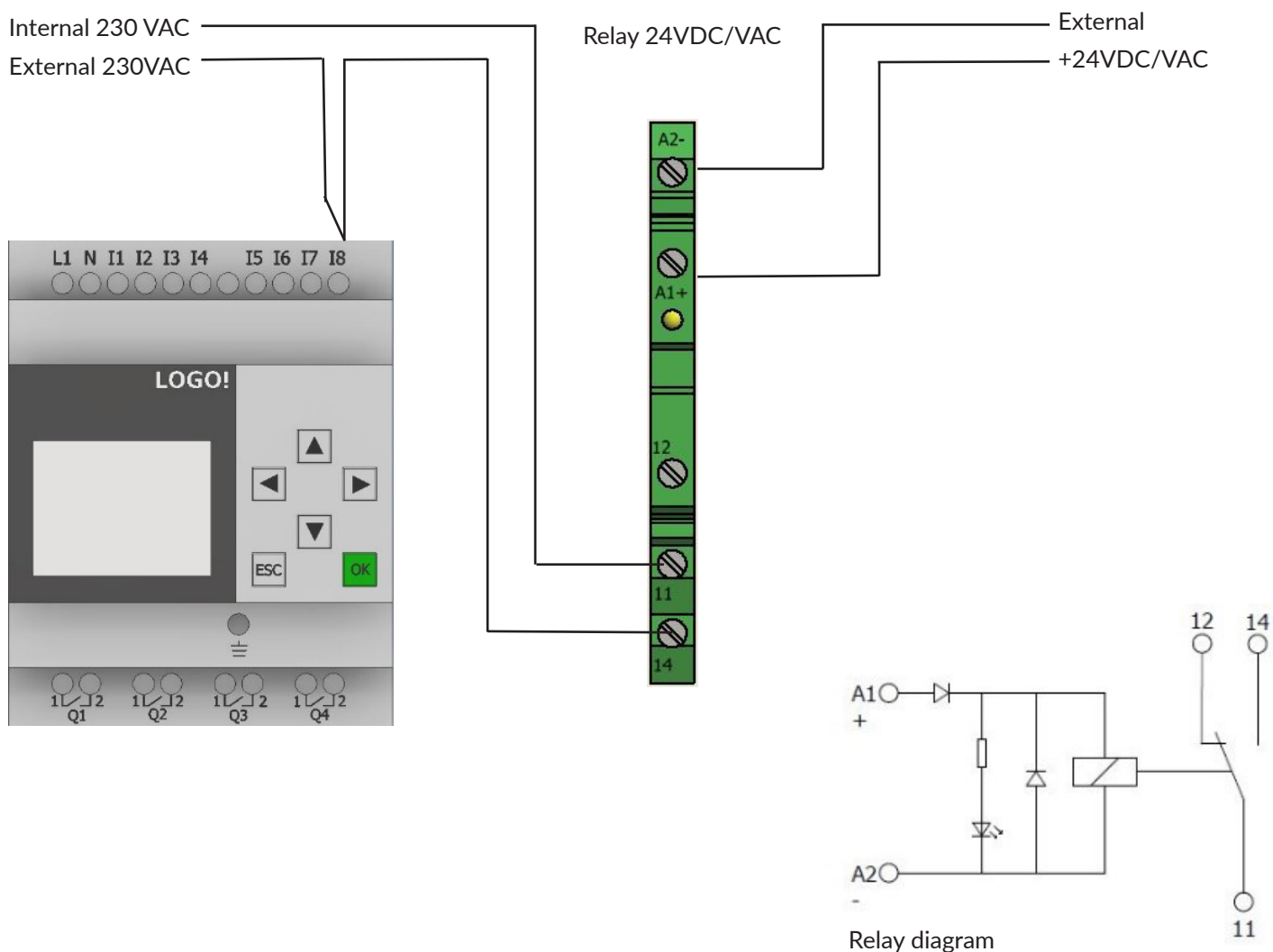
# SETTINGS AND OPERATIONS

## 1. CONTROL FUNCTION

### 1.3 Start/Stop by external signal

Connect control cable to input I8 on Siemens LOGO! When using 230VAC signal.  
Or use the 24VDC/VAC relay to activate Start/Stop by 24VDC/VAC signal.

Start of the system occurs when input I8 on Siemens LOGO! will go in "high" state over 79VAC.  
Stop of system occurs when the voltage level is below 30VAC, the input I8 on Siemens LOGO! will go in "low" state.



## SETTINGS AND OPERATIONS

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### 2. RUN TIME

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#### 2.1 Read current run time

Current operating time is read  
by simultaneously pressing:  
Esc + ►



UV lamps have a lifespan of 8 000 h, then they should be replaced. The system will indicate when the run time of 8 000 h has been reached.

## SETTINGS AND OPERATIONS

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### 3. ALARM

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#### 3.1 Alarm UV-lamp

If a UV-lamp is broken, the system detects power loss and generates an alarm.

Then it needs to be physically checked which filter house the diode labeled UV does not light blue. When it is determined which UV light is broken, byts den. The alarm is reset automatically when the current limit returns to the normal level

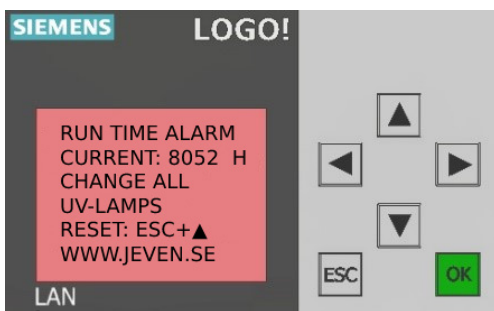


# SETTINGS AND OPERATIONS

## 3. ALARM

### 3.2 Alarm Run time

Jeven UV-Control has built-in control of the run time of the UV-lamp, the system will give an alarm when 8 000 h are reached, which is the lifespan of the UV-lamps. Replace all UV-lamps and reset run time by pressing ESC + ▲



When the burning time of the UV lamps has reached 7 500 h an alarm is given that it is soon time to replace all UV lamps. Reset the alarm by pressing ESC + ▶

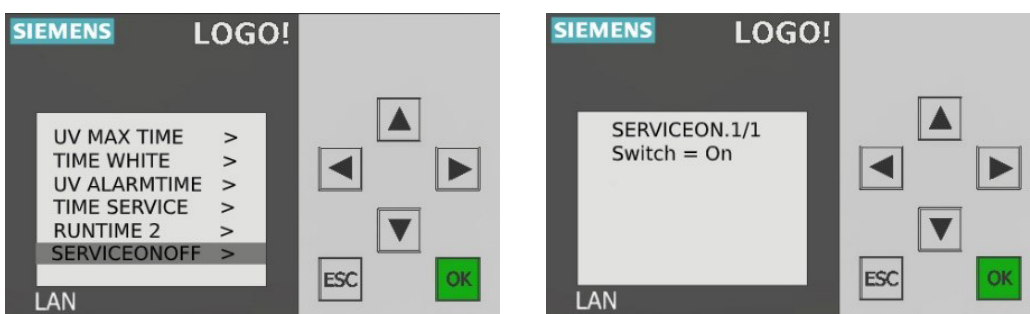
# SETTINGS AND OPERATIONS

## 3. ALARM

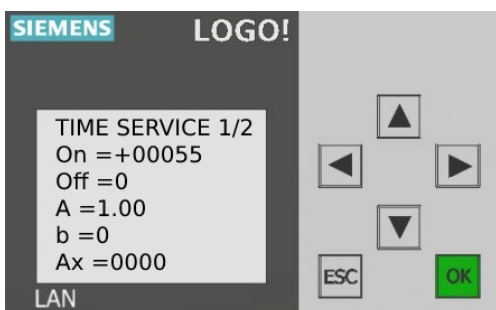
### 3.3 Alarm cleaning

There is a possibility to set a cleaning interval in the Siemens LOGO!.  
The service function is OFF by default.

Set the cleaning status to ON.



Adjust the cleaning interval if necessary. Default time is set to 55h (On =+00055).



When set time is reached, the system will alarm for cleaning.



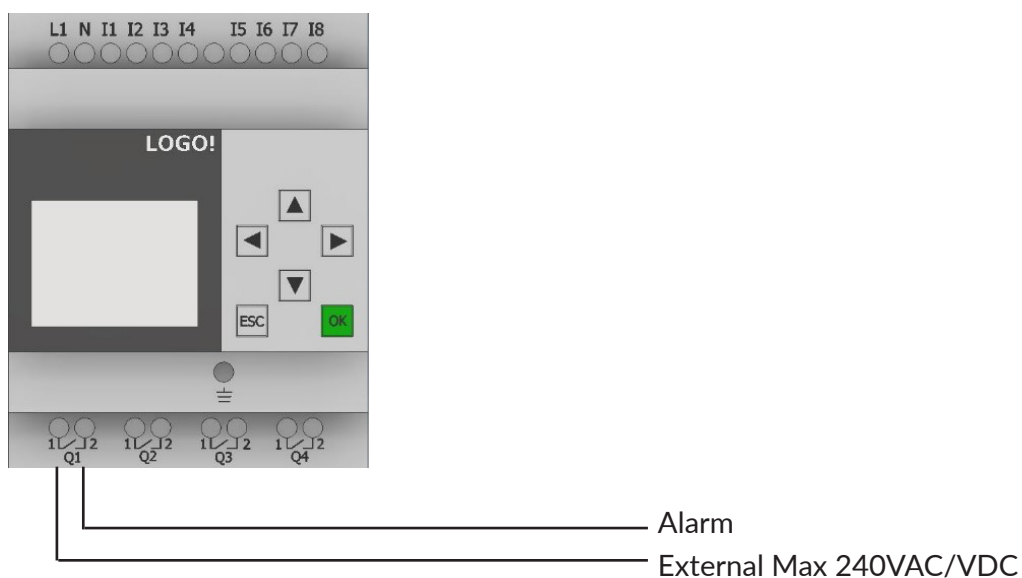
Reset alarm by pressing ESC+ ▶

## SETTINGS AND OPERATIONS

### 3. ALARM

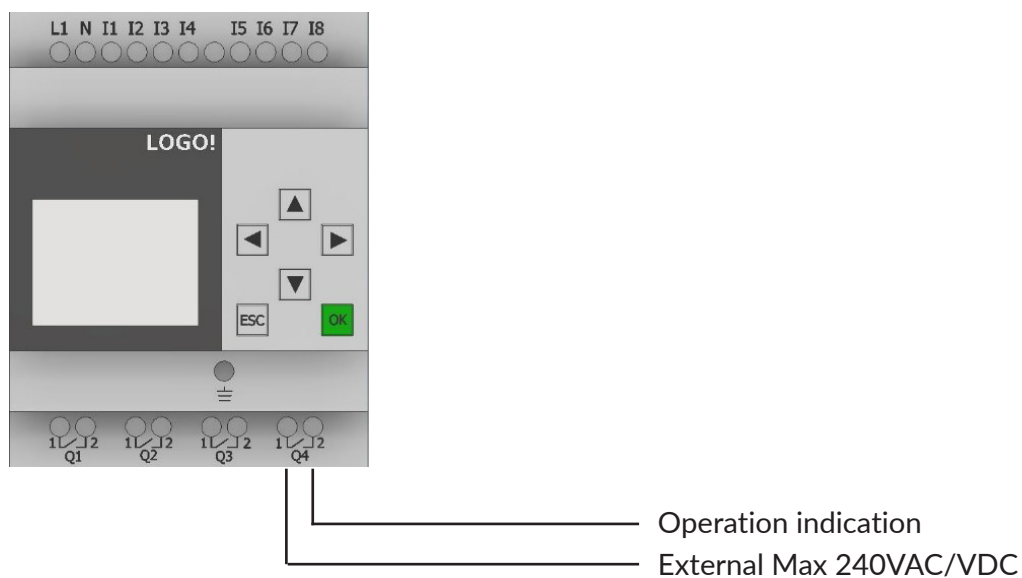
#### 3.4 Sum alarm

There is a possibility of connecting to the superior system and receiving a signal when an alarm has been triggered. Connect any voltage, Max 240VAC/VDC to the potential-free relay output Q1 (NO) on Siemens LOGO!



#### 3.4 Operation indication

It is possible to get an operation indication from Siemens LOGO! Connect any voltage, Max 240VAC / VDC to the potential-free relay output Q4 (NO) on the Siemens LOGO!





## SETTINGS AND OPERATIONS

### 4. PROGRAMMING ALARM LIMIT

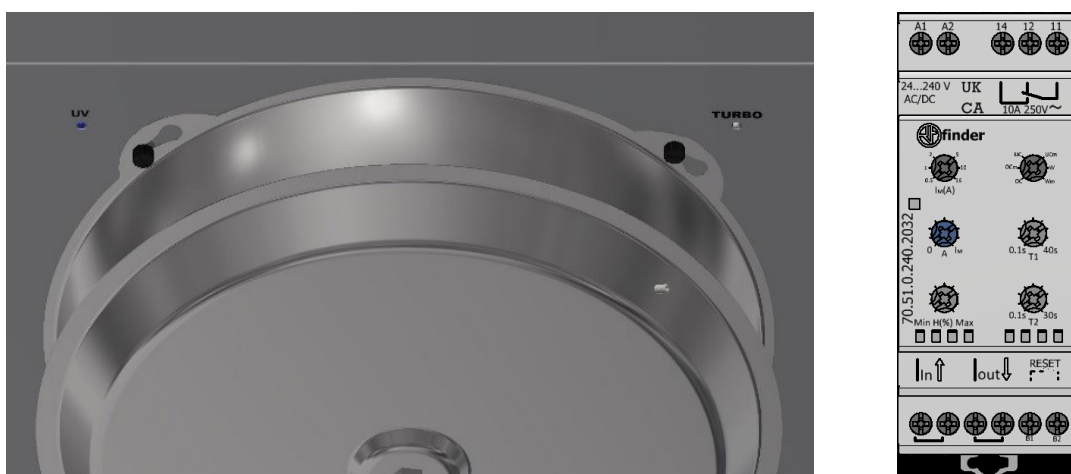
The monitoring of the UV lamps takes place by measuring the total current value of the UV lamps in the facility. Should a UV lamp break, the system detects the current change and shows the alarm on the display and triggers the potential-free relay output Q1 on the Siemens LOGO!

Thanks to the low current consumption from a UV lamp (0.1A), the monitoring relay is programmed with the internal current transformer to obtain a more stable current measurement. This means that the adjusted value is a fictitious value.

Jeven UV-Control must be adjusted and calibrated for each individual installed project/kitchen.

Below are instructions on how to adjust and calibrate Jeven UV-Control:

- Start the system and check on all filter housings that the diode indicating the UV lamp lights up.

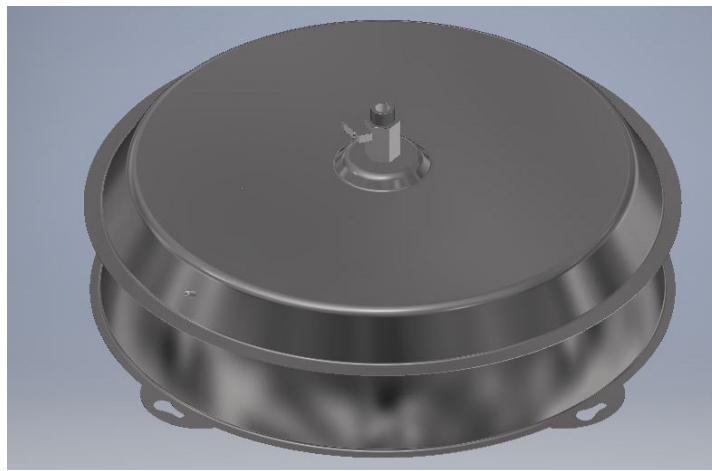
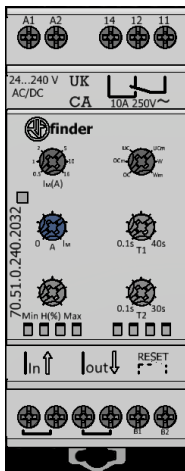


- The monitoring relay is set to the following measurement range (Im(A)) depending on how many filter housings (UV-Turboswing) are connected to the Jeven UV-Control:
  - 1-4 UV-Turboswing 0.5 Im
  - 5-8 UV-Turboswing 1 Im
  - 9 -15 UV-Turboswing 2 Im
  - 16-25 UV-Turboswing 5 Im
  - (Im 10 & 16 not used)

## SETTINGS AND OPERATIONS

### 4. PROGRAMMING ALARM LIMIT cont.

- After the monitoring relay is set to the correct measurement range (Im(A)), the blue adjusting screw (A) is adjusted clockwise until you see that the diode on the monitoring relay starts to flash red (then you have set the alarm limit above what the current plant consumes). Now adjust the blue adjusting screw (A) carefully counterclockwise until the diode on the monitoring relay lights up green again (then the alarm threshold of the monitoring relay is adjusted just below what the current plant consumes). Try removing a grease pan from a UV-Turboswing and ensure that the alarm is activated, refit the grease pan and ensure that the alarm is reset.



- The alarm limit must have a value between a fully functioning system and when one (1) UV lamp is disconnected.
- The monitoring relay are set to the following values from the factory:
  - H(%) Hysteresis = 0%
  - OC, OCn, UC, UCm, W, Wm Function = UC (Under Current)
  - T1 (time for activation of alarm) = approx.10s
  - T2 (time for alarm reset) = approx.10s

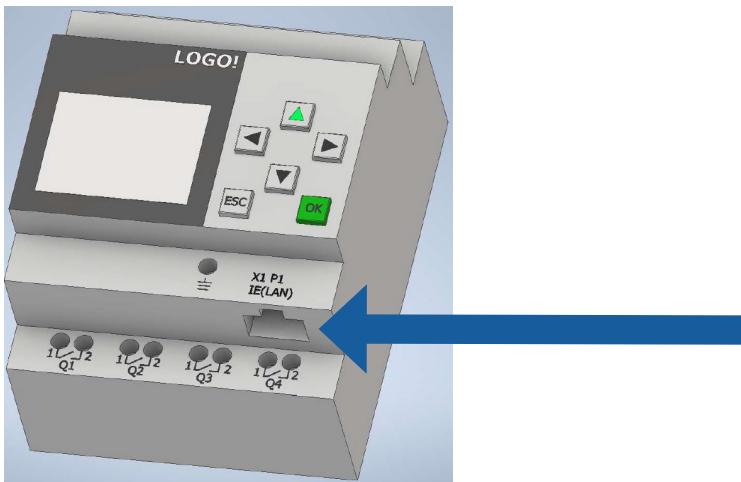
# MODBUS

## INSTALLATION

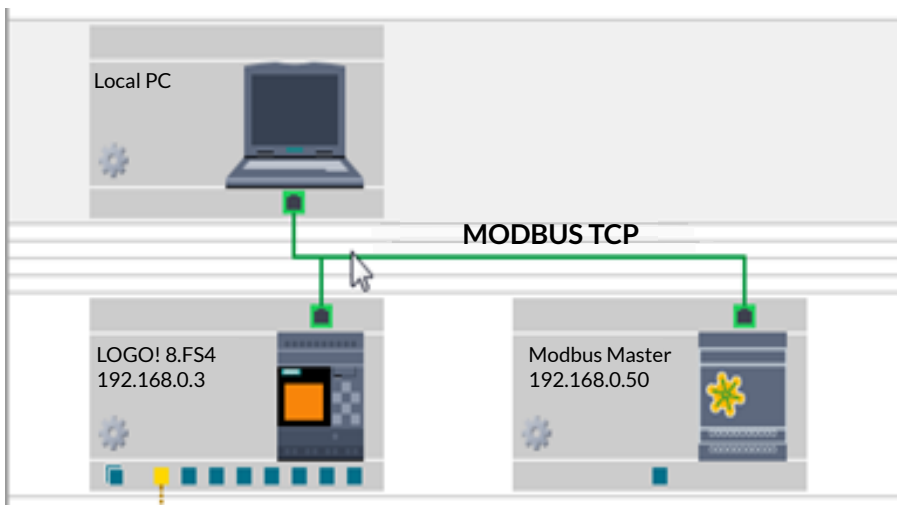
Use standard Ethernet TCP/IP RJ45 Cat 6 cable to communicate with superior system, see example below:



Connect one side of the Ethernet cable to Siemens LOGO: X1 P1 IE(LAN), see picture below:



Connect the other side of Ethernet cable to the superior system, see example below:



# MODBUS

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## COMMUNICATION

LOGO! Handles up to 16 pcs. connections simultaneously over the Profinet or Modbus protocols. This means that it is possible e.g. connect 16 Modbus slaves under a logo, or that 16 Modbus masters communicates with one and the same Logo! Default is LOGO! configured in slave mode. The maximum update time for Modbus communication is 100 ms.

| Function             | LOGO | Modbus    |
|----------------------|------|-----------|
| Start/Stop           | V0.0 | 1 (Coil)  |
| Service alarm        | V1.0 | 9 (Coil)  |
| Sum alarm            | V1.1 | 10 (Coil) |
| Operation indication | V1.2 | 11 (Coil) |

Default IP Adress: 192.168.0.3

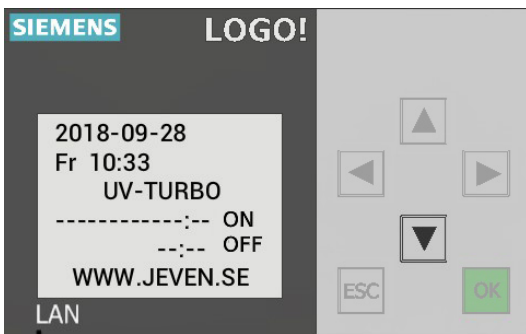
Netmask: 255.255.255.0

Netmask: 255.255.255.0

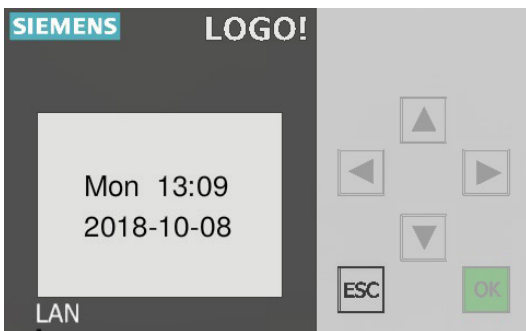
# MODBUS

## CHANGE OF IP ADRES IN SIEMENS LOGO

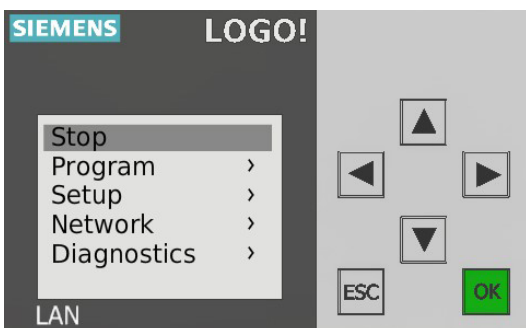
It is necessary to change the IP address to match the IP address of the facility. Follow the steps below to set the correct IP address:



Press the down arrow ▼.



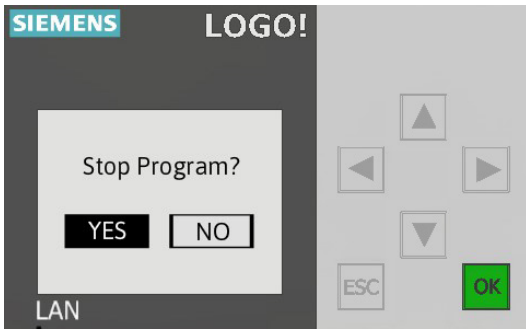
Then press ESC



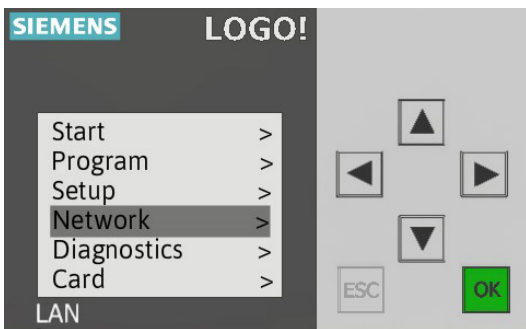
Set the cursor to "Stop" and press OK.

# MODBUS

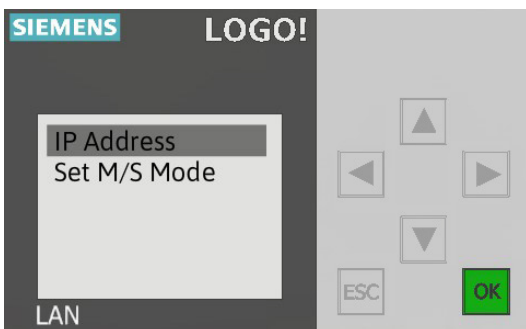
## CHANGE OF IP ADRES IN SIEMENS LOGO



Stop program "Yes" and press OK.



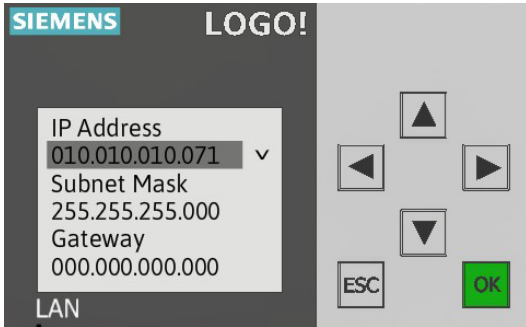
Set the cursor to "Network" and press OK.



"IP Address" press OK.

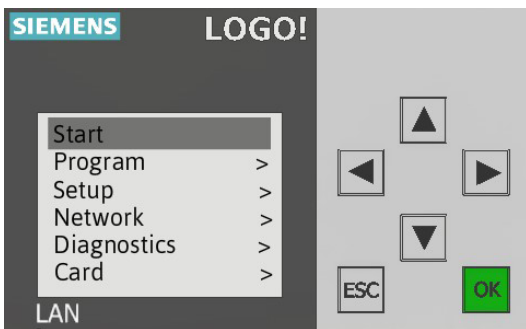
# MODBUS

## CHANGE OF IP ADRES IN SIEMENS LOGO



Press OK to start changing the IP address, use the arrow keys to change the numbers and move sideways. When the correct IP address is set, press OK.  
Do the same to change the Subnet Mask.

When both addresses are set, press ESC twice.



Set the cursor to "Start" and press OK.



Start program "Yes" and press OK.

The IP address has now been changed!

# UV Turbo

*by* Jeven



## CONTACT

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