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Site de Grenoble  
Z.I. Centr'Alp  
170, Rue de Chatagnon  
38430 MOIRANS - FRANCE

## USER MANUAL

FCCID: 2BBPH-AEGIS-S

### AEGIS S

PROMINENT AEGIS S® Controller for Cooling tower managements (Part 2)



### General programming instructions

# ProMinent®

Reference: DOC0573

Rev: 1.0

General programming instructions



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General information

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Part of the general documentation

- Part 1: Installation and starting instructions
- ▶ Part 2: General programming instructions
- Part 3: Communication programming instructions

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**General information:**

**ProMinent 2023**® Manual of 22/02/2023 Rev 1.0

Professional controller for cooling towers.

**Product line AEGIS S**®

Part 2: General programming instructions (Ref: D0C0673)

Editor:

**ProMinent**®

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General programming instructions

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## I. Generality

### 1) Scope

The range of **PROMINENT AEGIS S**<sup>®</sup> controller you have purchased is a high-tech electronic device for the complete management of cooling tower (air/water coolers) and the risks related to the legionella.

Its remarkable adaptability to the various structures of cooling towers enables him to settle in all the difficult cases where the control of the process and the water treatment in a cooling tower are decisive.

Designed according to the needs of the customer, the **AEGIS S**<sup>®</sup> controller is equipped analogical and numeric inputs for specific sensors for treating water in a cooling tower and also include alarm functions and various controls with cyclic commands transmitted by means of programmable relays to control specific dosing systems used for chemical treatments.

The simplicity of the **AEGIS S**<sup>®</sup> controller operations, the user friendliness and the remarkable technical aspects of these controllers, will ensure you benefits from their many options, guaranteeing you full control and supervision of the quality of the water.

The following instructions contain all the information required for installation, use and maintenance of your new equipment.

- > Installation
- > Technical specifications
- > Commissioning instructions
- > Safety tips

If you would like to receive further information or if you encounter any difficulties not described in this manual, please contact your usual retailer or else directly contact the sales department of **ProMinent GmbH**, either at the agency or at the office for your region, or the technical/quality departments of our establishments. We will do everything in our power to help you and ensure your benefit from our advice and know-how in the field of measurement and treatment of swimming-pool water.

### 2) FCC conformity

The **PROMINENT AEGIS S**<sup>®</sup> controller complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

(1) this device may not cause harmful interference (2) this device must accept any interference received, including interference that may cause undesired operation FCC Regulations state that unauthorized changes or modifications to this equipment may void the user's authority to operate it.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect this equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes and modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

**Remark:** To ensure compliance with the FCC regulations on electromagnetic interference for a class B device, use cables properly shielded and connected to the ground as recommended in this manual. The use of a cable that is not properly shielded or earthed for risk of violating the FCC rules.



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Generality

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Radio Frequency (RF) Exposure Compliance of Radiocommunication for mobile Apparatus To satisfy FCC RF Exposure requirements for mobile devices, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during operation. To ensure compliance, operation at closer than this distance is not recommended. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Contains:

- WiFi module: FCC ID : 2AC7Z-ESPWROOM02

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

- GSM module: FCC ID: UDV-0912142009007

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. (for FCC).

### 3) Use of the document

Please read carefully the entire document before starting the installation and the commissioning of the controller device, in order to ensure the safety of swimmers, users and equipment's.

The information provided in this document must be strictly observed. **ProMinent GmbH** declines all responsibility in cases where failure to comply with the instructions of this documents.

The following symbols and pictograms will be used to facilitate reading and understanding of these instructions.

- Information
- ▶ Action to do
- > Element of a list or enumeration


### 4) Symbols and signs


— — — Identification of a continuous volage or current


~ Identification of an alternative voltage or current


 Protective ground

 Functional ground

 Risk of injury or accident. Identifies a warning concerning a potentially dangerous risk. The documentation must be consulted by the user with each time the symbol is notified. If the instructions are not respected, this presents risks of death, physical injuries or property damages.

 Electric hazard. Identifies a warning statement relative to a mortal electric danger. If the instructions are not strictly respected, this implies an inevitable risk of physical injuries or death.

 Risk of incorrect operation or damage for the device

 Comment or particular information.

 Recyclable element

General programming instructions



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5) Storage and transport



It is important to store and to transport the **PROMINENT AEGIS S** controller in its original packaging in order to minimize risk of damage.  
Furthermore, the package must be stored in an environment that is protected against humidity and exposure to chemical products.

Environmental conditions for transport and storage:

Temperature: -10 °C à 70 °C  
Air humidity: Maximum of 90% with no condensation

6) Packaging



The device is delivered without power cable.

Caps of the box are pre-drilled and fitted with corresponding cable glands conform to the maintenance of IP65 protection. Cables used must be adapted to them in order to respect the portion index.  
Shielded cables for connecting pH and ORP electrodes are not supplied.

The controller is delivered with:

- ✓ **PROMINENT AEGIS S**® central controller
- ✓ Installation and starting instructions
- ✓ General programming instructions
- ✓ Communication programming instructions (Option)

7) Warranty

The warranty is provided according to the terms of our general conditions of sale and delivery as long as the following conditions are met:

- Use of the equipment according to the instructions of this notice
- No modifications of the equipment which may modify its behaviour and no incorrect manipulation
- Respect for the electrical safety conditions



Consumable material is no longer covered by warranty as soon as it's put into service.

## II. Safety and environmental instructions

Please:

- Read this manual carefully before the unpacking, the installing or the commissioning of this equipment
- Take into account all the hazards and of recommended precautionary measures

The failure to respect these procedures can result in serious injury to users or damaging the device.

### 1) Use of the equipment

**PROMINENT AEGIS S**® controller is a microprocessor equipment generating all necessary functions to control a cooling tower.



All other uses are considered to be non-conforming and must therefore be forbidden. ProMinent GmbH will not be responsible in any case for any damage that result from such uses.



The 12V Ext must not be used when the product is connected to an electrical network within the following range: 100 – 208V



Do not use the device for measurements on the network directly, but only on the secondary circuit under very low safety voltage.

### 2) User obligations

The user undertakes not to allow its employees to work with the **PROMINENT AEGIS S**® controller described in this manual unless they:

- Are aware of the fundamental instructions relating to work safety and prevention of accidents
- Are trained in the use of the device and its environment
- Have read and understood these instructions, warnings and manipulation rules

### 3) Risk prevention



The installation and connection of the **PROMINENT AEGIS S**® controller should be only performed by specialized personnel and qualified for this task.  
The installation must comply with the current safety standards and instructions!



Before opening the controller or manipulate the relay outputs, always remember to switch-off the primary power supply!  
Never open the controller when it is powered on!  
Maintenance operations and repairs should be only performed by trained and specialized personnel!



Take care when choosing the location for installing the controller!  
**PROMINENT AEGIS S**® controller should not be installed in a hazardous environment and should be protected against splashing with water or chemical products. It should be installed in a dry, well-ventilated and isolated location.

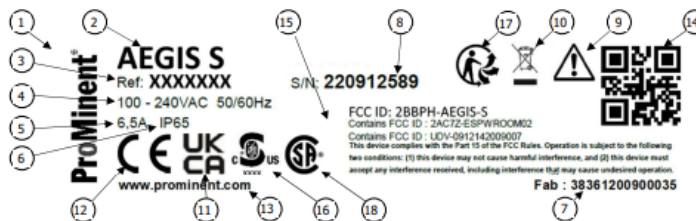


Make sure that the chemical sensors used with this controller correspond well to the chemicals used. Refer to the individual technical note of each sensor. Chemistry of water is very complex, in case of doubt, contact immediately our engineering service or your approved installer/reseller.



Chemical sensors are sensitive elements using consumable parts. They must be supervised, maintained and calibrated regularly using specific calibrator systems not-provided with this equipment. In the event of defect, a surplus possible hazard of chemical injections can be noted. In the doubt, a service contract must be taken near your reseller/installer or failing this near our engineering services. Contact your approved installer/reseller or our business service for more information.

4) Identification and localization of the nameplate



(1) Manufacturer's label	(10) Product which can be recycled
(2) Model of the product / Trade Mark	(11) UKCA approved
(3) Reference of the product	(12) CE approved
(4) Range of power supply	(13) Country of manufacture
(5) Values of maximum current	(14) Manufacturer square code
(6) Class of protection	(15) FCC ID
(7) Identification of the manufacturer	(16) cBvus approved
(8) Serial number	(17) Triman logo
(9) Particular risk. Read the manual	(18) CSA approved



5) Disposal and conformity

The recyclable packaging of the **PROMINENT AEGIS S**® equipment must be disposed of according to current regulations.



Elements such as paper, cardboard, plastic or any other recyclable elements must be taken to a suitable sorting centre.



According to European directive 2012/19/EC, this symbol means that as of 4 July 2012 electrical appliances cannot be thrown out together with household or industrial waste. According to current regulations, consumers within the European Union are required, as of this date, to return their used devices to the manufacturer, who will take care of disposing them at no extra expense.



According to European directive 2011/65/EC, this symbol means that the **PROMINENT AEGIS S**® controller is designed in compliance with the restrictions on hazardous substances.



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**CE** According to low-voltage directive (2014/35/UE) and the electromagnetic compatibility directive (2014/30/UE), this symbol means that the device has been designed in compliance with the previously cited directives.

**FC** In accordance with part 15 of the FCC regulation (Federal communications commission), this symbol indicates that the device was tested and approved under the respect and the conditions of the limits for a Class B digital device.

**IEC** The product complies with the requirements of IEC 61326-1 relating to immunity and emissions concerning electromagnetic compatibility in a basic environment.

**UK CA** According to low-voltage directive (2014/35/UE) and the electromagnetic compatibility directive (2014/30/UE), this symbol means that the device has been designed in compliance with the previously cited directives.

**C US** In accordance with UL61010 and PART 15 class B computing device peripheral, this symbol indicates that the device has been designed in accordance with the above-mentioned directives.

**RECYCLING** In accordance with Decree no. 2021-835 of 29 June 2021 on consumer information on the waste sorting rule.

6) Radio technologies in equipment

Radio technologies			
Technologies	Number of antenna	Radiated powers	Frequency bands of use
WIFI	1	< 20dBm	2400 MHz to 2483.5 MHz 2.4 GHz Band Exclusion Band : [2280 MHz – 2603.5 MHz]
2G	GSM900	33dBm	900MHz
	DCS1800	30dBm	1800MHz