

# fumis



## **Fumis WEB-PRO**

### **User Guide**

*Version 8.0*

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## Notices

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# 1. About Fumis WEB-PRO

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Fumis WEB-PRO is a web based application that provides access to heating systems using FUMIS® controllers. It enables you to monitor, manage, control and maintain heating systems. In addition it offers visualization, collection, storage and transfer of heating system operation data. Fumis WEB-PRO significantly reduces time and cost of installation setup, and simplifies heating system maintenance.

Fumis WEB-PRO application is intended for supply companies, installer and service personnel for heating system maintenance, monitoring heating system operation and energy consumption metering, and for home users to manage and monitor their home heating system.

Fumis WEB-PRO can connect to FUMIS controller directly, using uCOM converter cable, or remotely, using the GSM/GPRS remote control unit.

## 1.1. Technical requirements

Fumis WEB-PRO runs on Windows and LINUX platform. Minimum system requirements are:

- 800 MHz processor
- 512 MB RAM
- 320 MB available disk space

Fumis WEB-PRO is a web based application and runs in a web browser window. Supported web browsers are:

- Microsoft Internet Explorer 7.x
- Mozilla Firefox 3.x
- Google Chrome 1.x

Fumis WEB-PRO requires the following additional software:

- Tomcat 6.x application server (<http://tomcat.apache.org/>)
- MySQL 5.x database (<http://www.mysql.com/> )
- Java Platform, Standard Edition - JDK (<http://www.oracle.com/technetwork/java/javase/downloads/index.html>)

Fumis WEB-PRO installation bundle includes the Tomcat application server and MySQL. If you have MySQL installed already, you can use the existing installation.

## 1.2. Licensing

Fumis WEB-PRO offers flexible licencing options, which enables you to customize your licence according to your needs and requirements. Licence is time delimited and defines the number of users and installations in the application. The following licence types are available:

- Evaluation licence  
Included by default. Allows one user of each user group, one installation and one RCU. The application can be used in read-only mode.
- Standing licence  
You can order specific number of users, installations and RCU units you need your licence to cover.

Without a valid licence, you can use the FUMIS WEB-PRO application in read-only mode. In case your licence expires, you retain your Fumis WEB-PRO environment. After you renew your licence, you can continue using full functionality of the application.

## 1.3. User groups and permissions

Fumis WEB-PRO defines the following user groups:

- Read-only user
- Basic user
- Advanced user
- Administrator

### **Read-only user group**

Users in this user group have the permission to monitor controller status and week operation programs. They cannot add or edit installations, update firmware, modify controller parameters and write data to the controller, and view logs and operation history.

### **Basic user group**

Users in this user group have the permission to monitor and change controller status and week operation programs, view controller parameters and logged data. They cannot add or edit installations, update firmware, and change parameter values.

### **Advanced user group**

Users in this user group have no restrictions. In addition to basic user group permissions they can also add and edit installations, update firmware, modify parameter values and manage logs. They cannot access the administrator functionalities of the application.

### **Administrator**

There is only one administrator in the application. You cannot delete the administrator account or create additional administrator accounts. Administrator has access only to administrative functionalities of the application (for example, he can manage users, installations, licenses). Access to full Fumis WEB-PRO functionality is restricted.

## 1.4. Fumis WEB-PRO user interface

Fumis WEB-PRO user interface consists of:

- **Title bar**  
Contains language selection and session information – logged in user, connection details, controller details. Displayed details vary depending on logged in user permissions.
- **Menu bar**  
Serves for navigating through the functionalities. Options in the Menu bar vary depending on user group.
- **Window**  
Serves for data presentation. The window can split in two parts, depending on the Fumis WEB-PRO functionality you are accessing.

The screenshot displays the Fumis WEB-PRO user interface. At the top is the **Title bar** with the Fumis logo, user information (User: Advanced), installation status (Installation ... Fumis oddaljeni), status (Status Offline), connection type (Remote), and last time online (20.05.2009 15:46). Below the title bar is the **Menu bar** with tabs for Status, Parameters, Logs, and Week program. The main content area is the **Window**, which is divided into several sections:

- Operating mode:** A switch set to OFF and a status indicator showing Offline.
- Alarm pellets:** A red triangle icon with the text PEL Alarm pellets.
- Temperature gauges:** Three vertical gauges showing temperatures: Water (32 °C), Back water (21 °C), and Gases (26 °C).
- Fan speed gauges:** Two circular gauges showing Fan1 speed and Fan2 speed, both currently at 0.
- Time and Date:** A display showing Wednesday 15:47 with a Set button.
- Caution:** A note stating: "Caution: the time zone at the installation's location may differ from your location."
- Selected water temperature:** A control element showing 82 and Synchronized.
- Current power:** A control element showing 0.
- Selected power:** A control element showing 5 and Synchronized.

At the bottom of the interface, there is a footer with copyright information (Copyright © 2009 ATEch d.o.o.) and links for Downloads, Legal, ATEch d.o.o., and Support.

### 1.4.1. Sorting and filtering tables

When data is presented in a table, you can sort the entries alphabetically. You can also filter entries in the table to limit the number of displayed entries.

To sort the table by columns alphabetically in ascending or descending order, click the corresponding arrow next to the column title. You can sort the table by one column at a time.

To filter the table by columns, select the value in the column title drop-down list. The table shows only entries, corresponding to selected value. You can make additional selections to further limit the table.

## 2. Installing Fumis WEB-PRO

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Fumis WEB-PRO uses client-server architecture model. You can install the Fumis WEB-PRO application locally on your computer, or you can install it on a server and access it over the internet.

### 2.1. Before you begin

The Fumis WEB-PRO installation file is located on the CD. Additionally, it is available for download at [www.fumis.si/downloads](http://www.fumis.si/downloads).

Before you begin with the Fumis WEB-PRO installation, you need to fulfill the following prerequisites:

- Make sure your computer meets system requirements (refer to chapter *Technical requirements* on page 5)
- Install Java Platform, Standard Edition (JDK). JDK is free and available for download at <http://www.oracle.com/technetwork/java/javase/downloads/index.html> Version information, installation instructions and other documentation for JDK are also available at this website.

### 2.2. Installing on Windows platform

On Windows platform the Fumis WEB-PRO installation wizard is provided. To install, double click the file **Fumis WEB-PRO-<x.x.x>.exe** (where <x.x.x> represents the file version) and follow the wizard. In the process you will also install the Tomcat application server and MySQL.

If you want to use existing MySQL database, uncheck the **MySQL** option in the wizard. In this case, provide the following database information when prompted:

- username
- password
- port
- host

The table required by Fumis WEB-PRO will be created the first time you run the application.

The Tomcat application server and MySQL are installed as services and are listed in the service list under *Services (Start Menu/Settings/Control Panel/Administrative Tools/Services)*:

- Tomcat application server service name: **Fumis WEB-PRO Tomcat Server**
- MySQL database service name: **Fumis WEB-PRO MySQL**

## 2.3. Installing on Linux platform

On UNIX platforms you need to install Fumis WEB-PRO and all required software manually. The installation procedure is as follows:

1. Install Java Platform, Standard Edition (JDK).  
JDK is free and available for download at <http://www.oracle.com/technetwork/java/javase/downloads/index.html>  
Version information, installation instructions and other documentation for JDK are also available at this website.

### Important

Java Runtime Environment (JRE) is not sufficient, Tomcat application server requires complete JDK to run properly.

2. Install MySQL 5.x database.  
MySQL is available for download at <http://dev.mysql.com/downloads/>  
For installation instructions refer to <http://dev.mysql.com/doc/refman/5.1/en/installing.html>
3. Install Tomcat application server.  
Tomcat is available for download at <http://tomcat.apache.org/download-60.cgi>  
For installation instructions refer to <http://tomcat.apache.org/tomcat-6.0-doc/setup.html>
4. Install Fumis WEB-PRO application.  
Perform the following steps:
  - a. Stop Tomcat server (if running).
  - b. Copy `AtechFumis.war` file to `<TOMCAT_INSTALL_DIR>/webapps/`
  - c. Copy `*.jar` files to `<TOMCAT_INSTALL_DIR>/lib/` (for the list of files, refer to Appendix).
  - d. Start Tomcat server (during startup, Tomcat automatically installs Fumis WEB-PRO from `AtechFumis.war` file).
  - e. Stop Tomcat server.
5. Run Fumis WEB-PRO application.  
In case your MySQL server runs with default settings, perform the following steps:
  - a. Start MySQL server.
  - b. Start Tomcat application server.
  - c. Direct your browser to the following URL:  
<http://localhost:8080/ATechFumis>

In case your MySQL server runs with settings other than default, you need to modify those settings in the Fumis WEB-PRO application (refer to chapter *Modifying MySQL settings* on page 11).

### 2.3.1. Modifying MySQL settings

Fumis WEB-PRO application uses default MySQL server settings. Default MySQL server settings are:

- port: **3306**
- host: **localhost**
- username: **root**
- password: **<blank>**

You can use custom settings for MySQL server. In this case you need to specify those settings in the Fumis WEB-PRO application. To modify MySQL server settings in the Fumis WEB-PRO application, edit file **hibernate.cfg.xml** in

`<TOMCAT_INSTALL_DIR>/webapps/ATechFumis/WEB-INF/classes/`

In this file you can modify the following settings:

- **host and port:** find the tag `<property name="hibernate.connection.url">`. By default it is set to: `"jdbc:mysql://localhost:3306/atech_fumis"`. Replace *localhost* with your host name and *3306* with the port number you want to use.
- **Username:** find the tag `<property name="hibernate.connection.username">`. By default it is set to: `"root"`. Replace *root* with the username you want to use.
- **Password:** find the tag `<property name="hibernate.connection.password">`. By default it is set to: `" "` (blank). Enter the password you want to use.

## 3. Starting Fumis WEB-PRO

Fumis WEB-PRO is a web application and runs in a browser window. You can start the application in two ways:

- Double-click the **Fumis WEB-PRO** desktop shortcut, created during the installation
- Start your preferred internet browser and direct it to the Fumis WEB-PRO URL address: **http://localhost:8080/ATechFumis**

The Fumis WEB-PRO *Login* page opens. Enter your username (e-mail address) and password in corresponding textboxes and click **Login**.

In case you forgot your password, you can use the **Forgotten password?** link. Enter the required information as prompted and you will receive new password in an e-mail.

### 3.1. Setting up the environment

First log in as Administrator. Default login for administrator is:

- Username: `noreply@fumis.si`
- Password: `admin`

#### **Important**

For security reasons it is highly recommended to change the password for the administrator upon first login.

Before you can start using the application, you need to set up the environment. This consists of the following steps:

- License the application: refer to chapter *Licensing the application* on page 16
- Configure application settings: refer to chapter *Setting global application settings* on page 16
- Install firmware packs: refer to chapter *Installing firmware packs* on page 15
- Add users: refer to chapter *Managing users* on page 14

Optional steps are:

- Add installations: refer to chapter *Managing installations* on page 14
- Assign installations: refer to chapter *Assigning installations to users* on page 15

Administrator has access only to administrative functionalities of the application and cannot access the full Fumis WEB-PRO functionality. When the environment is set up, the users can start using the application.

## 4. Administering the application

Only administrator has access to administrative functionalities of the Fumis WEB-PRO application.

Default login for administrator is:

- Username: `noreply@fumis.si`
  - Password: `admin`
- For security reasons it is highly recommended to change this password upon first login.

The screenshot displays the Fumis WEB-PRO user management interface. At the top, there is a navigation bar with the Fumis logo and the text 'By ATech'. On the right side of the navigation bar, there are links for 'English' and 'Logout'. Below the navigation bar, there is a 'User:' section showing the current user as 'Administrator'. A navigation menu contains the following items: 'User list', 'Installation list', 'Assignment list', 'Firmware packs', 'Application settings', and 'Licence'. Below the navigation menu, there is an 'Add user' button. The main content area features a table of users with the following columns: 'First name', 'Last name', 'E-mail', and 'User type'. Each row in the table has 'Edit' and 'Delete' buttons. The table contains the following data:

First name	Last name	E-mail	User type	
		read@atech.si	Read-only user	Edit Delete
		conpet@atech.si	Advanced user	Edit Delete
Administrator		noreply@fumis.si	Administrator	Edit
Advanced		advanced@atech.si	Advanced user	Edit Delete
Basic		basic@atech.si	Basic user	Edit Delete
Janez	Novak	janez@atech.si	Advanced user	Edit Delete
Tuš	Test	tus-test@atech.si	Advanced user	Edit Delete

At the bottom of the table, there is a pagination control showing 'Page 1 of 1' and 'Showing: 7 rows per page - (7 visible/7 total)'. The footer of the page contains the text 'Copyright © 2009 ATech d.o.o.' and links for 'Downloads', 'Legal', 'ATech d.o.o.', and 'Support'.

## 4.1. Managing users

To manage users, click **User list** in the menu bar. All configured users are listed in the table. You can add new users, and edit or delete existing users.

To add a new user, click **Add user**. Enter the information on the user and, if desired, modify the default assigned password. When logged in, the user can change the assigned password. You also define the number of installations the user can manage. When this number is reached, the user cannot add additional installations. Click **Save** to save the user account and return to the user list.

To modify an existing user, click **Edit** in the corresponding row. Modify the information and click **Save**.

To delete a user, click **Delete** in the corresponding row and confirm your action.

## 4.2. Managing installations

To manage installations, click **Installation list** in the menu bar. This allows you to add, edit or remove Fumis controllers. All configured installations are listed in the table.

To add a new installation, click **Add installation**, fill in the form and click **Save**. The following fields are required:

- *Installation name*: Enter the name of the installation
- *Connection type*: Select `Local` or `Remote`, depending on whether Fumis WEB-PRO connects to FUMIS controller directly, using uCOM converter cable, or remotely, using the GSM/GPRS remote control unit.
- *Controller type*: Select type of the controller.
- *Boiler number*: With some Fumis controllers you can manage more than one boiler simultaneously. Enter the identification number for the boiler you want this installation to manage.
- *Firmware version*: Select the version of firmware installed on the controller.

If you selected *Remote* connection type, enter the following information:

- *Unit name*: Name of the remote control unit (RCU), default value is `G2RCU`.
- *IMEI*: Identification number written on the RCU.
- *Unit password*: Password of the unit, default password is `changeme`
- *Connect period*: Define in minutes the period for RCU to reconnect to the application.

The following fields are optional:

- *Phone number*: Phone number of the SIM card in the RCU.
- *GPRS APN*: Your GPRS provider.
- *GPRS username*: Username for the GPRS provider.
- *GPRS password*: Password for the GPRS provider.
- *SMTP server*: The name of the SMTP server for e-mail notifications.
- *SMTP sender*: E-mail address of the sender.
- *SMTP username*: Username for the SMTP server.

- *SMTP password*: Password for the SMTP server.
- *SMTP port*: Port of the SMTP server.

Other fields are for informational purposes and are not required.

To modify an existing installation, click **Edit** in the corresponding row. Modify the information and click **Save**.

To delete an installation, click **Delete** in the corresponding row and confirm your action.

### 4.3. Assigning installations to users

You can assign installations to users to define which user can manage specific installation. Click **Assignment list** in the menu bar to manage assignments.

Fumis WEB-PRO offers flexible management of installations. You can have centrally managed system, where administrator adds installations. In this case, you need to assign installations to users to make them available. Unassigned installations cannot be accessed. Another option is that users can add their own installations.

To add a new assignment, click **Add assignment**, pair up the installation with the user and click **Save**.

To modify an existing assignment, click **Edit** in the corresponding row. Modify the information and click **Save**.

To delete an assignment, click **Delete** in the corresponding row and confirm your action.

### 4.4. Installing firmware packs

Firmware packs are updates for Fumis controllers. Firmware packs are specific to the controller and boiler, the same controller can have different firmware packs for different boilers.

For necessary firmware packs, contact ATech Elektronika d.o.o. directly.

As administrator you can import the firmware into the application to make them available to users. Users can then use the packs in the list to update Fumis controllers.

To manage firmware, click **Firmware packs** in the menu bar. The list of all firmware packs is displayed.

To add a new firmware pack, enter the location of the file in the text box, or click **Browse** and search for it. Then click **Add pack** to import the pack to the list.

## 4.5. Setting global application settings

To set global application settings, click **Application settings** in the menu bar. This enables you to configure connection settings for the RCU and define the e-mail server for notifications.

Required settings are:

- *Application address*: The address to which the remote RCU connects. This address must be accessible from the internet. It can be a fully qualified domain name (for example, `www.companysite.com`), or dotted format (for example, `111.222.123.456`). In case you do not use remote functionality, leave the default setting.
- *Application TCP port*: The port to which the remote RCU connects. This port must be accessible from the internet. In case you do not use remote functionality, leave the default setting.
- *Local mode serial port*: The port to which the local FUMIS connects. In your operating system check the allocated serial port number, used by the uCOM USB to serial converter (for example, on Windows open the **Device Manager** and locate *Ports/USB Serial Port*. For more information refer to help for your operating system).

In case you have additional local RCU, which you can use to send configurable SMS to remote RCU, check the option **Auxiliary RCU** and define the following settings:

- *Serial port*: Connecting serial port of the RCU. In your operating system check the allocated serial port number, used by the uCOM USB to serial converter.
- *Unit name*: Name of the RCU, default value is `G2RCU`.
- *IMEI*: Identification number written on the RCU.
- *Unit password*: Password of the unit, default password is `changeme`
- *Phone number*: Phone number of the SIM card in the RCU.

In addition, you can set the e-mail server to which a notification email can be sent in case you forgot your password.

## 4.6. Licensing the application

To manage licences, click **Licence** in the menu bar. Without a valid licence, you can use the FUMIS WEB-PRO application in read-only mode.

To obtain a valid licence, click **Generate key**. Copy the generated key into a licence request email and send it to `licence@fumis.si`. In reply email you will receive a valid licence. Copy the valid license string into *Valid license* field and click **Save licence**.

Under *Licence information* you can view the number and type of licences you have and how many licences you already have in use.

## 5. Using the Fumis WEB-PRO application

If the application does not have a licence, you can use the FUMIS WEB-PRO application in read-only mode. You can view the installations and read controller details, but you cannot make any changes or send data to the controller. In this case, log in as administrator and request a license (refer to chapter *Licensing the application* on page 16), or contact the Administrator.

The screenshot shows the Fumis WEB-PRO application interface. At the top, there is a logo for 'Fumis By ATech' and a language selection 'English | Logout'. Below the logo, the user is identified as 'User: Advanced'. A navigation bar contains three items: 'Installation list' (selected), 'My account', and 'Firmware update'. Below the navigation bar, there is a button labeled 'Add installation'. The main content area displays a table with the following data:

Installation name	Controller type	Boiler number	Connection type	Installation location	Owner name	
Fumis oddaljeni	FUMIS FD	1	Remote	Ledena pot, Kozina, Slovenija	Franc Vidmar	Edit

Below the table, there is a pagination control showing 'Page 1 of 1' and 'Showing: 1 rows per page - (1 visible/1 total)'. At the bottom of the page, the footer contains 'Copyright © 2009 ATech d.o.o.' and 'Downloads | Legal | ATech d.o.o. | Support'.

### 5.1. Managing my installations

To manage your installations, click **Installation list** in the menu bar. The list of installations contains all installations you created, or Administrator assigned to you.

You can add and edit Fumis controllers. Fumis WEB-PRO can connect to FUMIS controller directly, using uCOM converter cable, or remotely, using the GSM/GPRS remote control unit.

To add a new installation, click **Add installation**, fill in the form and click **Save**. The following fields are required:

- *Installation name*: Enter the name of the installation.
- *Connection type*: Select **Local** or **Remote**.
- *Controller type*: Select type of the controller.
- *Boiler number*: With some Fumis controllers you can manage more than one boiler simultaneously. Enter the identification number for the boiler you want this installation to manage.

- *Firmware version*: Select the version of firmware installed on the controller.

If you selected *Remote* connection type, enter the following information:

- *Unit name*: Name of the remote control unit (RCU), default value is G2RCU.
- *IMEI*: Identification number written on the RCU.
- *Unit password*: Password of the unit, default password is `changeme`.
- *Connect period*: Define in minutes the period for RCU to reconnect to the application.

The following fields are optional:

- *Phone number*: Phone number of the SIM card in the RCU.
- *GPRS APN*: Your GPRS provider.
- *GPRS username*: Username for the GPRS provider.
- *GPRS password*: Password for the GPRS provider.
- *SMTP server*: The name of the SMTP server for e-mail notifications.
- *SMTP sender*: E-mail address of the sender.
- *SMTP username*: Username for the SMTP server.
- *SMTP password*: Password for the SMTP server.
- *SMTP port*: Port of the SMTP server.

Other fields are for informational purposes and are not required.

To modify an existing installation, click **Edit** in the corresponding row. Modify the information and click **Save**.

## 5.2. Managing my account

To manage your account, click **My account** in the menu bar. Here you can view and edit your user and account information. You can also change your password. This is recommended upon your first login or in case you forgot your password and it was reset.

## 5.3. Updating firmware

To update firmware, click **Firmware update** in the menu bar. This allows you to update Fumis controllers. The Administrator has to import the firmware packs in the application to make them available for update.

To update the controller, follow the procedure below:

1. In the drop-down list, select the installation you want to update. Current firmware installed on the selected controller is displayed. If the *Current firmware* field is empty, the application does not have the relevant information.
2. Click **Connect** to connect to the controller. In case the controller is already online, you can skip this step. Note that you cannot update disconnected controller, but you can set controller parameters in the *Parameters* tab.
3. In the drop-down list, select the firmware pack you want to install. Description of the selected firmware pack is displayed.

4. If you want to reset controller parameters to default values, check the **Set default value** option. In case you want to keep current parameters, make sure this option is not checked.
5. Click **Update Fumis** to install the firmware to the controller.

To save the parameters required by this firmware in the application, click **Save**. Note that this will not update the controller.

**IMPORTANT**

If your controller has a remote connection type, you have additional button **Update RCU**. This button will update firmware in the RCU. In this case you must update the RCU first, because Fumis is updated from the RCU. If you update Fumis before RCU, the RCU will override the update with its firmware version.

## 6. Managing Fumis controller

Controller management is accessible to all user groups, except to Administrator. Actions are limited according to user group permissions. To access the management functionality, in the installation list click the installation you want to manage.

This functionality enables you access to Fumis controller to manage your heating system. You can operate and monitor the Fumis controller, view and set parameter values, view controller operation history, set week operation programs and monitor RCU status.

The screenshot displays the Fumis WEB-PRO interface for managing a controller. At the top, the Fumis logo is visible alongside 'By ATech' and 'English | Logout'. Below this, a navigation bar shows 'User: Advanced', 'Installation ... Fumis oddaljeni', 'Status: Offline', 'Connection type: Remote', and 'Last time online: 20.05.2009 15:46'. A secondary navigation bar contains tabs for 'Status', 'Parameters', 'Logs', and 'Week program'. The main content area features a control panel with 'ON' and 'OFF' buttons, an 'Operating mode: Offline' indicator, and a red 'PEL Alarm pellets' warning. Three vertical bar charts display temperatures: 'Water' at 32°C, 'Back water' at 21°C, and 'Gases' at 26°C. To the right, two circular gauges show 'Fan1 speed' and 'Fan2 speed', both at 0. Below the gauges, a date and time display shows 'Wednesday 15:47' with a 'Start' button and a caution message: 'Caution: the time zone at the installation's location may differ from your location.' At the bottom, the page includes 'Copyright © 2009 ATech d.o.o.' and links for 'Downloads | Legal | ATech d.o.o. | Support'.

## 6.1. Monitoring the controller status

To monitor the Fumis controller status, click **Status** in the menu bar. In this window you can supervise and control operation of the controller.

### 6.1.1. Monitoring controller operation

For easier overview data is presented graphically. You can view temperature scales and dials for:

- Water temperature
- Back water temperature
- Gasses temperature
- Fan 1 operating speed
- Fan 2 operating speed

In addition, you can modify the following controller variables:






- Day and time of the controller
- Selected water temperature
- Selected power

### 6.1.2. Operating with the controller

To turn the controller on or off, click the corresponding button. Controller can be in one of the following operating modes:

- Offline
- Off
- Cool gas
- Cool fluid
- Test fire
- Clean fire
- Regulating gas
- Regulating fluid
- Fire up
- Load pellets
- Fast load pellets
- Burning

Error in controller operation triggers alarm in the application. Possible alarms are:

Alarm type	Description
FIRE 	Fire on error. This alarm is triggered when Par 1 timer expires before required temperature gradient is reached. Possible cause and solution: <ul style="list-style-type: none"> <li>• fuel with excessive moisture content</li> <li>• fuel container empty</li> <li>• jammed feeder</li> <li>• hardware overtemperature protection triggered</li> </ul>
GAS 	Gasses over temperature. This alarm is triggered when actual gasses temperature exceeds set upper limit. Possible cause and solution: <ul style="list-style-type: none"> <li>• obstructed chimney (check and clean chimney)</li> <li>• boiler heat exchange too dirty (check and clean heat exchanger)</li> </ul>
NTC 	Water sensor error. This alarm is triggered when water sensor is not detected. Possible cause and solution: <ul style="list-style-type: none"> <li>• bad sensor connection</li> <li>• sensor failure</li> <li>• wrong type of sensor connected</li> </ul>
PEL 	No pellets. Possible cause and solution: <ul style="list-style-type: none"> <li>• fuel container empty</li> <li>• jammed feeder</li> <li>• hardware overtemperature protection triggered</li> <li>• igniter malfunction</li> <li>• obstructed chimney</li> </ul>
TC 	Thermocouple error. This alarm is triggered when thermocouple is not detected. Possible cause and solution: <ul style="list-style-type: none"> <li>• bad thermocouple connection</li> <li>• thermocouple failure</li> <li>• wrong type of thermocouple connected</li> </ul>

## 6.2. Setting controller parameters

To manage Fumis controller parameters, click **Parameters** in the menu bar. This enables you to view and set parameters for the Fumis controller.

With Fumis WEB-PRO you can set the controller parameters in two ways. You can either edit parameters directly on the controller, or you can set the parameters in the application. Fumis WEB-PRO synchronizes the settings when connected to the controller. In the application you can select which set of parameters you want to keep. In case maintenance is mostly done directly on the controller, the settings in the Fumis WEB-PRO database are overwritten with controller settings. In case maintenance is mostly done using Fumis WEB-PRO, the settings on the controller are overwritten with Fumis WEB-PRO database settings. When maintenance is done either way, you can dynamically define which set of parameters to keep.

Parameters are organized in groups, which enables you to locate any given parameter easier. Window is split into the following parts:

- **Navigation menu**  
Contains navigation buttons for parameter groups, and buttons for importing and exporting parameter values.
- **Content pane**  
Displays parameter information table.

Parameter information table contains the following columns:

Column	Description
Parameter name	Name of the parameter.
Value	Each parameter has two values, value set in the Fumis WEB-PRO database ( <i>DB</i> ), and value set in the Fumis controller ( <i>Fumis</i> ). You can use the arrow buttons to transfer values between the two. To transfer values for all parameters at once, use the arrows in the column title.
Mode	Defines the mode of synchronizing the parameter values: <ul style="list-style-type: none"> <li>• <b>Manual</b> You can select the source for synchronizing values.</li> <li>• <b>Use Fumis</b> The values in the Fumis WEB-PRO database are overwritten with controller values.</li> <li>• <b>Use DB</b> The values in the Fumis controller are overwritten with Fumis WEB-PRO database values.</li> </ul> <p>This is relevant when you modify parameter values directly on the Fumis controller, or use Fumis WEB-PRO to operate the controller.</p> <p>To set mode for all parameters at once, use the drop-down list in the column title.</p>
Status	The status of synchronization between Fumis WEB-PRO database and Fumis controller: <ul style="list-style-type: none"> <li>• <b>OK</b> Values are synchronized.</li> <li>• <b>Not sync</b> Values are not synchronized.</li> <li>• <b>Waiting</b> Values are in the process of synchronizing.</li> </ul>
Description	Description of the parameter.

You can also import or export parameter values. This enables you to transfer settings between installations. In this case you import or export all parameters, not only the currently displayed parameter group.

## 6.3. Logging

To view controller operation history, click **Logs** in the menu bar. You can review history parameter values, controller events, and service counters.

### 6.3.1. Controller operation history

Controller operation history is presented in a graph. Window contains two graphs, the larger graph can be zoomed, while the smaller graph serves for presentational purposes only.

For reviewing operation history graph, the following actions are available:

- **Zoom out**
- **Zoom out (x)**: Zoom out only x axis
- **Reset chart**: Reset zoom

In addition, you can also:

- **Save logs to file**: save a log from Fumis WEB-PRO database to text file in csv format.
- **Delete logs**: delete a log from Fumis WEB-PRO database.

If your Fumis controller is connected locally, Fumis WEB-PRO application collects and saves history when you are logged in.

If you have a remote controller, the RCU collects and saves history values. When you connect to the RCU, you can import history log. Click **Get remote logs** to import history logs from RCU to Fumis WEB-PRO database.

### 6.3.2. Service counter history

Fumis WEB-PRO keeps track of the following service counters:

- Igniter starts
- Total ON time
- Total heating time
- Total service time
- Over temperature errors
- Missed firings

To reset service counter timer, click **Reset service timer**.

### 6.3.3. Event history

Fumis WEB-PRO tracks the following two types of events:

#### **Fumis operation mode**

- Offline
- Off
- Cool gas

- Cool fluid
- Test fire
- Clean fire
- Regulating gas
- Regulating fluid
- Fire up
- Load pellets
- Fast load pellets
- Burning

#### Fumis alarm

- Alarm Offline
- Alarm None
- Alarm Pellets
- Alarm Gas
- Alarm Fire
- Alarm TC
- Alarm NTC

## 6.4. Setting weekly programs

To manage weekly operation programs, click **Week program** in the menu bar. Fumis WEB-PRO enables you to define and set four different programs for weekly operation of the heating system. For more information on operation programs, refer to your Fumis controller documentation.

You can view two sets of weekly programs:

- Programs set in the Fumis WEB-PRO database (DB)
- Programs set in the Fumis controller (Fumis)

Use the arrow buttons to transfer programs between the two.

You can select the mode of synchronizing the weekly program sets:

- **Manual**  
You can select the source for synchronizing programs.
- **Use Fumis**  
The programs in the Fumis WEB-PRO database are overwritten with controller programs. Use this option when you modify programs directly on the Fumis controller.
- **Use DB**  
The programs in the Fumis controller are overwritten with Fumis WEB-PRO database programs. Use this option when you use Fumis WEB-PRO to operate the controller.

Synchronization between Fumis WEB-PRO database and Fumis controller can have one of the following statuses:

- **OK**  
Programs are synchronized.
- **Not sync**  
Programs are not synchronized.
- **Waiting**  
Programs are in the process of synchronizing.

For each day you can define two different programs. You can set individual programs on and off, or enable weekly program scheme. To modify program scheme using the Fumis WEB-PRO application, make sure you selected **DB**. Then set the programs. When you are finished, the program scheme from **DB** to **Fumis** is synchronized automatically when connected to the controller.

## 6.5. Supervising RCU status

To supervise RCU status of the remote Fumis installation, click **RCU status** in the menu bar. This enables you to view the following RCU information:

- Status
- Uptime
- Supply voltage
- Board temperature
- Operator ID
- Signal strength
- IMSI

## 7. Troubleshooting

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This chapter contains possible solutions for problems that you may encounter while using Fumis installations and Fumis WEB-PRO.

### 7.1. Problems with local connection

uCOM and Fumis red and green LEDs flash when devices are properly connected and working. In case Fumis LEDs do not flash, this most typically means hardware malfunction.

#### **Local connection: no communication**

Possible cause and solution:

- Wrong com-port set  
Set the correct com-port for Fumis uCOM converter cable (check the allocated USB serial port number in Windows *Device Manager*. Then in the Fumis WEB-PRO application go to *Application settings* and modify *Local mode serial port* accordingly). For more information refer to chapter *Setting global application settings* on page 16.
- Bad connection (uCOM LEDs do not flash)  
Check that all connectors are properly connected.

### 7.2. Problems with RCU connection

#### **No RCU connection**

Possible cause and solution:

- Incorrect RCU setup  
In the Fumis WEB-PRO application go to *Application settings* and check RCU parameters (host address/port, GPRS).
- Incorrect Fumis WEB-PRO setup  
In the Fumis WEB-PRO application go to *Application settings* and check application settings (IP address, TCP port).
- Bad GPRS connectivity  
Check GPRS (availability/signal, credit, activation, APN parameters).

## 7.3. Problems with parameters

### **Unexpected or zero values (temperatures, speeds)**

Possible cause and solution:

- Wrong firmware pack  
in the Fumis WEB-PRO application go to *Firmware packs* and change the  
firmware pack associated with an installation.