

SAFIRE 3800A and 3200A and B HEATERS from No. 431 and up, and 2000A HEATERS from No. 281 and up  
INSTALLATION, OPERATION AND MAINTENANCE

## GSM control device SAFIRE 1287B USAGE AND INSTALLATION

**General:** The **SAFIRE 1287B** GSM control device can be used for controlling safire-heaters with a mobile phone. The control device sends, upon request, a report, which includes the battery voltage, the temperature measured by the thermostat and the status of the heater control. (Fuel quantity is shown as well if a Genius control board is used.) The device sends a battery voltage alert if the voltage drops below 12 V, and a temperature alert if the temperature drops below the set alert threshold.

**Subscription:** The device works in the GSM network. You should choose a subscription with a low subscription fee, including an advertising SMS prohibition. You may also want to consider using different balance and other restrictions in case the SIM card falls in the wrong hands.

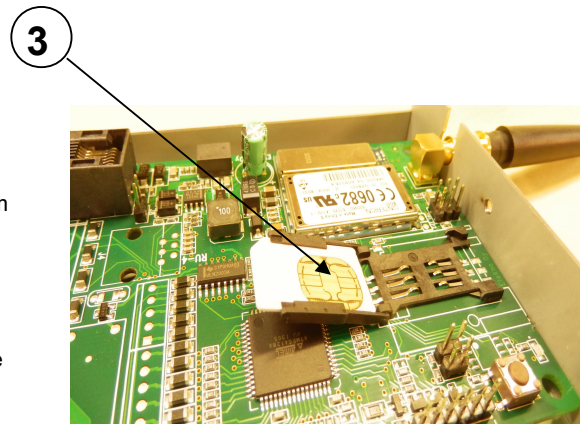
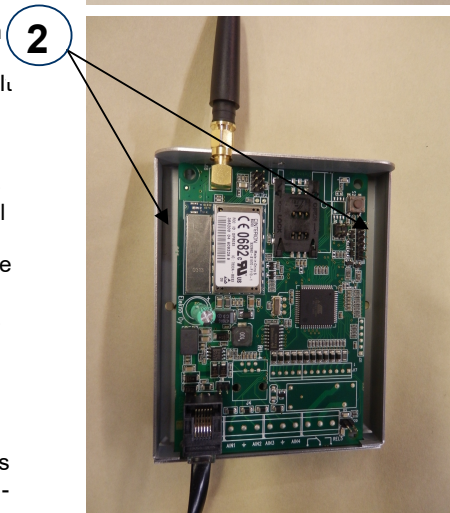
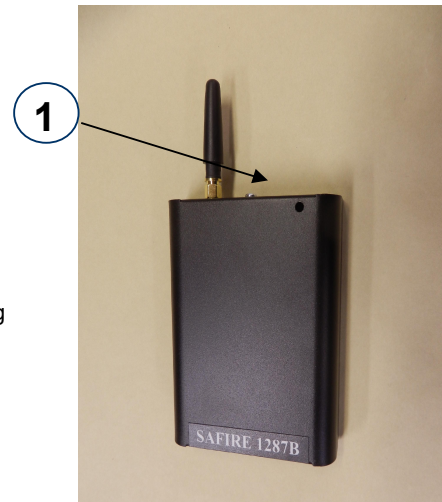
**Installation:** The installation is affected by the signal strength of the operator. If the reception is weak, the antenna may have to be placed at a location with a stronger signal. The reception can be measured by using a mobile phone. There are no other restrictions on the placement of the device, except for the cable length. The device is connected to the connector located on the circuit board of the heater. It can be found by opening the control panel (black screws in the lower front corner). At the same time, make sure that the input voltage selection connector S1 (located in the centre of the circuit board, approx. 5 cm from the connector) is in position 2-3 (in this position the software is able to reboot the modem in case of failure situations). Pull the cable out of the control panel the same way the other cables exit the panel. Attach the cable so that it does not touch the hot parts of the heater.

**Mounting the controller:** The casing of the device has to be opened for installation. Remove the locking screw of the cover at the top. Figure 1 There are holes in the bottom of the casing for mounting screws. Figure 2. Ensure that the connection cable plug is connected all the way to the connector on the circuit board.

**SIM card:** The PIN code must be disabled before the SIM card is installed: Insert the SIM card in a mobile phone. Navigate to: Settings - Security - Enable/disable PIN code.

The card is inserted in the card reader, figure 3. The SIM card holder lock is opened by pulling it downwards, and locked by pressing it upwards. When the SIM card is installed and the power is connected, (heater in AUTO position) the red indicator in the right corner starts flashing in approx. 1 s intervals, until the device has connected to the base station. After this the flashing interval is approx. 3 seconds. The indicator is also visible from the window on the casing after the cover has been replaced. The green indicator in the lower right corner starts blinking in approx. 1.5 second intervals after the start-up phase. The red indicator in the lower corner blinks when data are transferred between the heater and the modem.

Replace the cover after checking the functionality, and ensure that the cover is properly placed so that the pins in the lower corners lock the lower part of the cover as you tighten the screw (figure 1).



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**Control functions:** All functions are enabled when the heater is in AUTO position. All other functions, except for startup and shutdown, are enabled when the heater's switch is in ON position.

**Language selection:** Send text message **#KS** in order to select Finnish (suomi).

Send text message **#KR** in order to select Swedish (svenska).

Send text message **#KE** in order to select English.

**Commands:** Commands are sent by using text messages. They are not case-sensitive, however, do not use spaces. Several commands can be sent in a single message. The order of the commands is up to you, but **startup or shutdown commands must be first in command queues.**

- The heater is started with the message **#nn** (0-99 hours).

Example: The message #15 starts the heater for 15 hours.

- The message #0 shuts down a remotely started heater.
- The message #R returns a report text message (battery voltage, temperature, heater status and remaining heating time. The fuel quantity is also shown if a Genius control board is used.)

**Please note!** If a startup command is combined with a report command, the report is sent after the heater's ignition process is completed (e.g. #12R).

- The message **#Tnn** is used for setting a new temperature to the thermostat. The value must be between 10 and 30.

Example: #T22 sets the thermostat expected value at 22 °C. This can be used for increasing or decreasing the set basic temperature.

The setting is removed when the temperature is adjusted from the heater.

- The message **#Pnumber** is used for setting a phone number, which is used for sending reports and alerts. A plus sign must be entered before the number if it is international format. Example:  
#P+358401234567
- The message **#S** sets the number stored in the memory slot 1 of the SIM card as the user's phone number.
- The message **#H or h(+ or -) nn** is used for setting the temperature alert threshold. Example: #-0,5 sets the temperature alert at -0.5°C. The alert can be disabled by setting the alert threshold at -50 °C. An exclamation mark (!) instead of a colon (:) after the text SAFIRE indicates that the alert is set.

**Power saving mode:** The heater's software is factory-preset to save power: the modem checks for text messages every hour. This leads to reduced power consumption (November-January). When the heater's switch is in AUTO position, the modem is on for approx. 10 minutes, during which a successful connection is indicated by a red indicator blinking sporadically.

For example, if you want instant reports, you can turn off the power saving mode by sending a text message containing **#V0**.

The power saving mode is switched on with the command **#V1**.

**(Note! When using the Genius control panel, the power saving mode is enabled and disabled from the control panel, not by sending a text message.)**

**Notifications:** The device sends messages and alerts to the number from which it has received the previous command. When the device is switched off, it forgets the phone numbers. When the switch is turned to the AUTO position, e.g. low voltage alerts are sent to the number in memory slot 1 of the SIM card.

The command #S can be used for sending all messages to the number in memory slot 1 instead of using the number used to send a command.

If there is an error in the text message, a description of the error is sent to the sender, except for if the pound sign (#) is missing from the beginning of the message, in which case the device does not reply.

**Alerts:** The device sends an alert if the voltage of the battery system drops below 12 V.

If the heater shuts down due to an error after it has been turned on by a mobile phone, the device sends a text message with a fault code for identifying the fault. The heater cannot be restarted with a text message until the cause of the error is eliminated and the heater is reset to GSM control, **unless it is the lack of flame fault (error code 3) in which case a restart is possible.**

The device will alert if the temperature drops below a threshold, if it has been set.

**Manufacturer's declaration:** Elekno Oy assures that the Safire 1287B GSM control device complies with the essential requirements and other conditions of directive 1999/5/EC.

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