**November 2012** 

# Using storage heaters more efficiently and economically

#### Dear Customer,

The cost of operating storage heaters has risen due to the price of oil on the International Market. By reading and following the instructions below, you could save electricity and possibly receive a lower bill.

Storage heaters retain heat during the night, using cheaper off-peak electricity, and release it the next day. The operating instructions below should be followed, provided that the correct capacity (size) of storage heater for the heating needs of each room has been chosen.

#### Settings

Your storage heater has two controls, usually marked INPUT and BOOST / OUTPUT. The two controls are usually located on the top right of the heater and, once you have lifted the cover (if there is one), they can be turned to the desired setting.

#### INPUT control

The setting of this control determines the amount of electricity that the storage heater receives, i.e. how much it is charged, and this subsequently determines the temperature of the firebricks. The more electricity the storage heater absorbs, the higher the temperature of the firebricks will be, resulting to higher consumption.

When the weather is very cold, the storage heater should be set so as to absorb more electricity by turning the INPUT control to the maximum.

In less cold weather, it is sufficient to set the INPUT control to a lower number. Since the ideal setting is determined by the weather conditions, the size of the room and the level of heat insulation in the building, experience will show you the most suitable setting.

### **BOOST / OUTPUT control**

This control regulates the speed by which the heat that has been stored during the night, is released into the room, by allowing a damper valve above the storage material of the device to open and close. Specifically, the valve will start to open at various times, depending on:

- 1. The amount of stored heat: The more heat is stored, the longer the delay in the need to open the damper valve since the storage heater itself is warmer.
- 2. The BOOST control setting: The lower the setting, the longer the damper valve will remain closed. If the lowest setting is used, the damper valve will remain closed.
- 3. Room temperature: The warmer the room is, the slower the damper valve will open since the additional heat will not yet be needed.

## Manual operation

With the BOOST control set at 1, the damper valve remains closed and heat is released through the outer casing of the storage heater. On many occasions this alone is enough to provide satisfactory heating and consequently no change is required to the BOOST control setting. However, if more heat is required during the evening, by putting the BOOST control on a higher setting, the damper valve will open at once and allow a faster release of the stored heat. When the next charging period starts, the damper valve will close automatically to prevent the loss of this additional heat during the period when the storage heater is being charged. It is necessary, however, to reset the BOOST to 1 so that, if necessary, it operates in the same way the next day.

#### **Automatic operation**

The position of the damper valve can be pre-set so that it opens automatically each day if necessary. In cases of storage heaters operating automatically, both the Input control and the Boost/Output control are set to the desired settings by the user and the storage heaters operate automatically throughout the winter period. For example, the settings of both controllers (Input and Boost/Output controls) would be ideally set having two numbers difference. (E.g. Input control at number 4 and the Boost/Output control at number 2 for performance in mild weather and respectively at number 5 and number 3 for colder weather).

Because the automatic opening of the damper valve depends primarily on the temperature of the firebricks, the INPUT control setting indirectly affects the length of time needed for the valve to open. Thus the higher the INPUT control setting, the later the damper valve will open. On the contrary, the lower the INPUT control setting, the earlier the damper valve will open.

#### Domestic use

When the weather is cold, the INPUT control should be set at a high setting. (No. 5, 6 or 9, depending on the manufacturer). When the weather is mild, the control should be set lower, i.e. somewhere between 3 and 4.

Under normal circumstances, the BOOST / OUTPUT control can be set at 1. However, when more heat is required during the evening, you can turn it up higher (morning and early afternoon). You should turn it back down to 1 before you go to bed.

## Commercial use

In buildings used for commercial purposes, if the BOOST / OUTPUT control is set to maximum it will ensure the greatest amount of heat during working hours. The INPUT control should be set as described above for Domestic Use.

#### Experience will show you the best INPUT settings.

#### **REMEMBER**

- (A) If you set the BOOST control high early in the day, less heat will remain stored for the evening, especially when the INPUT control setting is low.
- **(B)** In case you would like to open the windows of your house to clean it (or to get fresh air in the house) it is best that you choose a day with sunshine, adjust the Boost/Output control to the lowest position (so as the storage heater does not lose a lot of the heat that it has already stored) and all this for no longer than an hour.