

# LHZ Electric Radiator TDI Control Instructions

## Preface

The heater that you are operating is 100% German designed and manufactured. In Germany they have very low temperatures for several months of the year, so at no point do they want the fabric of the building to get cold, because it would take too much energy to warm the building up again.

The TDI controller has four modes, sun, moon, frost and auto.


In Germany, while they are home during the day, they typically have the heater in the sun setting with a room temperature at 18 to 20 degrees.

When they go to sleep they will use the moon setting which is typically 16 or 17 degrees. This is because they don't want it to be too hot when they are sleeping, but they also don't want to waste too much energy warming the room back up to 20° from a very low temperature. The moon mode can also be used when leaving the house for short periods of time during the day.

When they go away from the house for longer periods they will use the frost mode. The frost mode is typically between 5 & 7 degrees and it is simply to stop the house freezing over, resulting in burst pipes etc.

The auto mode is used to have the heater cycling between the other three modes automatically. It is possible to use the heater as a manual heater, simply by using any of the other three modes.

## The Buttons:

There are 6 buttons on the controller; the two larger buttons are shown in the image below to be the ON/OFF, with the  symbol below it, and the Mode button, with MODE below it.

The four smaller buttons will have their function shown at the bottom of the blue screen, directly above the button. The functionality of the buttons will change but it will always be shown clearly above the button.

If nothing changes when you press a button, simply press it again.



## Step 1: Plug the heater in.


When the heater is first plugged in there will be four zeros showing on the screen, and the numbers 1 to 7 will be flashing on the right hand side of the screen. If there is **not** four zeros showing then hit the MODE button once, you will now have four digits (not necessarily zeros) and the numbers 1 to 7 will be flashing on the right hand side of the screen.

### Setting the day & time:

You are about to set the day and time of the heater. The screen with the four zeros is showing midnight as the time, this will change to 00:01 after one minute. The numbers down the right hand side of the screen are the days of the week. Typically 1 would be Monday and 7 would be Sunday. They do not use M T W symbols because different languages have different names for the days.

- Press the + or – buttons to set the day (1 is Monday, 2 is Tuesday, etc), then press the OK button to confirm.
- Press the + or – buttons to set the hour, then press the ok to confirm.
- Press the + or – buttons to set the minutes, then press ok to confirm.
- Press the On/Off button once to exit the day and time setting mode.

## Step 2: Setting the Temperatures

The screen will now be showing the room current temperature, there will be a  symbol showing at the top left and a PROG at the bottom left of centre.

### The sun temperature

You are about to set the sun temperature. This is the temperature that you would like the room to be at while you are at home and up and about during the day. The sun setting is normally set between 18° and 20° Celsius.

- Press the ON/OFF button once and there will be a sun symbol at the top of the screen, a temperature showing in the middle and - + & i symbols showing at the bottom of the screen.
- Use the buttons directly below the - & + symbols to chose the desired sun temperature.

### The frost temperature

You are about to set the frost temperature. This is the temperature that the heater will not let the room fall below while it is on. The frost setting is normally set between 5° and 7° Celsius.

- Press the MODE button once and there will be a snowflake symbol at the top of the screen, a temperature showing in the middle and +, - & i symbols showing at the bottom of the screen.
- Use the buttons directly below the + & - symbols to chose the desired frost temperature. Suggest 5°.

NB: Most New Zealand homes will never get down to 5° inside, so we will be using the frost setting as the off mode when the heater is following the auto program. This is because the thermostat will not allow the heater to come on unless the room temperature falls below 5°.

### **The moon temperature**

You are about to set the moon temperature. This is the temperature that you would like the room to be at while you are at sleeping or out for short periods. The moon setting is normally set between 14° and 16° celsius.

- Press the MODE button once and there will be a moon symbol at the top of the screen, a temperature showing in the middle and +, - & i symbols showing at the bottom of the screen.
- Use the buttons directly below the + & - symbols to chose the desired moon temperature.

### **Step 3: Programming the heater**

You are about to program the times of the day that the heater will come on automatically. Each day is divided up into 24, so you can chose what temperature you would like for each hour of the day.

- Push the mode button once so that the auto symbol appears at the top of the screen.

The screen will appear cluttered, but this is ok. At the bottom there is an hour glass symbol, the PROG symbol, a suitcase symbol and the i symbol.

- Push the button below the PROG symbol.

There will be 00:00 in the middle of the screen, a block flashing on the left hand side and a triangle pointing to the number 1 (top right hand side of the screen).

The heater is asking what the temperature should be from midnight on Mondays to 1am on Mondays.

Across the bottom of the screen there are sun, moon, snowflake and ok symbols.

- Choose the temperature setting you would like at midnight on a Monday by pressing the button below the corresponding symbol.

Eg: most people in NZ will use the snowflake setting while sleeping.

The screen will then show 01:00 in the middle of the screen, it is asking what temperature setting should be used from 1am to 2am on Mondays.

- Continue to choose which temperature setting should be used for each hour of the day.

Eg: most people have the heater coming on for 1 or 2 hours in the morning and between 4 and 6 hours in the evening. Also, **in NZ** for these hours most people just use the sun temperature and the moon is mostly ignored.

- If Tuesday requires the same settings then press and hold the button below the ok symbol to confirm.

You can go back and change a setting of a day at any time. You will need to press and hold the button below the OK symbol to confirm your changes to the other days of the week.

## **Setup completed**

The setup is now completed. You can use your heater in any one of four modes simply by pressing the mode button. Keep pressing the MODE button and it will go around and around in a loop.

## **Auto Program Overrides**

### **1. Timer mode**

A set temperature can be selected for a certain period of time.

- In the auto mode press the button below the hour glass once.
- Set the desired temperature with the buttons below the + & – symbols, then press the OK button to confirm.
- Set how long the heater is required to run for with the buttons below the + & – symbols, then press the OK button to confirm.

The timer will now countdown the time you have sent and maintain the temperature you have set for that time period. To cancel the timer mode, press the OK button.

### **2. Holiday Mode**

You can set the radiator to be off if you are going to absent from the property.

- In the auto mode press the button below the suit case once.
- Set the number of days of absence with the buttons below the + & – symbols, then press the OK button to confirm.

While in holiday mode the heater will keep the room temperature above the frost setting temperature. To cancel this mode, press on the OK button again.