Patented: GB2013/000018

Remote Controller

Congratulations on your purchase of a solarcache *touch* Remote Controller unit. This is a powerful addition to your solarcache installation which lets you see what is being displayed by your existing solarcache master controller unit, and operate control buttons too. But whereas the master controller needs to be near to your consumer unit (fuse board), the Remote Controller can be mounted anywhere convenient for you (provided that it is within radio range of the master controller unit), so you won't have to go out to the garage or dive into a cupboard to get to the controls. This guide will to help you to understand how it works and how to set it up.

Setting up your Remote Controller

The Remote Controller does not need any special wiring and installation. Just plug the 9 volt plug (black tubular connector of the included power supply) into the socket inside the unit (marked P in the picture). You can expose this socket by pulling apart the two halves of the white plastic box, pressing in the centre of the left-hand side of the front half. It will release from the left-hand side of the back half, hinging at the right-hand side. When you have plugged the 9 volt plug into its socket, refit the front half by aligning the locator at the right-hand side, gently pushing home on the left-hand side. You can feed the 9 volt plug through the aperture in the base.

Now plug the power supply into a 13A mains socket and turn it on. After a few seconds, you should see the words "Please wait …" and shortly after that the home screen should appear. If the solarcache master controller unit is not transmitting signals for any reason, or if the reception of those signals by the remote display unit is not good enough, you will see an error message with the following words:

"*Master controller unit not found! Touch screen to check/set the channel parameters. You may need to move the Remote Controller closer to the master controller*."

One of the issues might be that the channel settings on the remote display unit are not the same as those on the master controller unit. The standard settings are channel 1 and address 0, but these might have been changed by the installer when the solarcache was fitted. Check what the settings are by touching the settings icon (cog wheels) on the top right-hand side of the master controller unit's screen, selecting "*Other settings*" (item 5), and touching the ">" button in the bottom right-hand corner twice to move to screen number three. Make a note of the channel number and address number (do not alter them!) and then touch the "H" button in the bottom left-hand corner to return to the home screen.

When you touch the screen of the Remote Controller, the error message will disappear and you will see the wireless settings screen. Set the channel and address if necessary so that they agree with the master unit's settings, and then touch the "H" button to return to the home screen.

The remote display unit will now attempt to contact the master control unit using the new settings. You will see the same error message again if it fails to do so. The issue might then be that the distance between the master controller unit and the Remote Controller is too great (or there are too many walls in between) so that the received signals are too weak to be used. You can move the Remote Controller to another location closer to the master controller unit.

You can also improve the range by exposing the white wire antennas in both units and arranging them to be vertical. To do this, open each unit as described above and find the white antenna wire which is attached to the small plug-in board on the back of the front-half of the unit. This wire is usually wrapped around inside the case. Pull it clear and then feed it down through the SD card slot in the side of the plastic case. When you reassemble the unit, make sure that the antenna wire hangs down more-or-less vertically below the unit. Do this on both the master controller unit and on the remote display unit. Please note: the antenna length is exactly 41cm long and must not be trimmed or extended!

We have tested the range of the radio system in a number of different environments, and have been able to make the remote display unit work properly when 40 m away from the master controller unit with brick walls in between.

Operation of the Remote Controller

The screen on the Remote Controller replicates that on the master controller. You can see the powers and energies just as if you were standing next to the master controller unit. You can also operate the heater control buttons on the bottom of the home screen, i.e. the "immersion heater always on" button (marked with a small triangle), "the one-hour boost" button (marked "1h"), the automatic button (marked "A") and the boost-period on/off override button (marked with a clock face). The settings inside the Remote Controller are obtained automatically from the master controller unit, including the date, day and time, so you won't need to bother changing these. If you want to set up or alter any timed boost periods, you will need to do so using the master control units screens (see the User Guide for details).

You may notice a time lag of up to 15 seconds between changes made on one unit and those changes appearing on the other unit. This is quite normal as is caused by the way the units communicate with each other.

Technical Support

Please contact our technical support team at DSM Energy Control Ltd., if you have any questions regarding the installation or operation of your Remote Controller.