Instructions

Touch Screen Weekly Programming Heating Thermostat

Model No – **E91.716**

menred Hiwell

The controller is designed in accordance with current product standard EN 60730-2-9, and hereby fufills the requirements to both LVD and EMC directives. CE

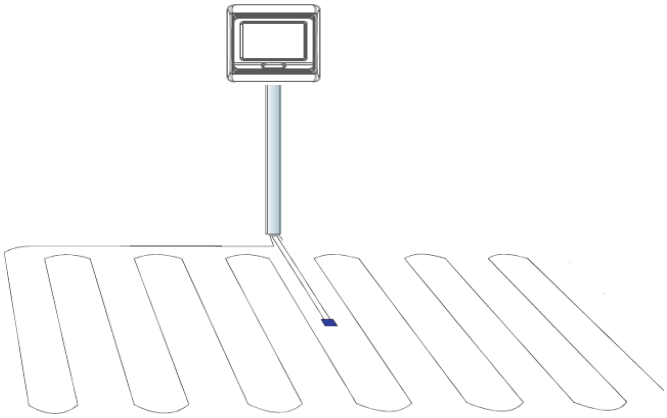
These instructions are to be used in conjunction with the operation manual enclosed.

The controller must not be put into operation until it has been ascertained that the entire installation complies with current general safety requirements for electrical installations.
The warranty is only valid if the controller has been put into operation in accordance with the operating instructions supplied with the controller and these installation instructions.

The E91.716 is an electronic on/off thermostat for control of temperature by means of an NTC sensor either placed externally or internally in the thermostat.

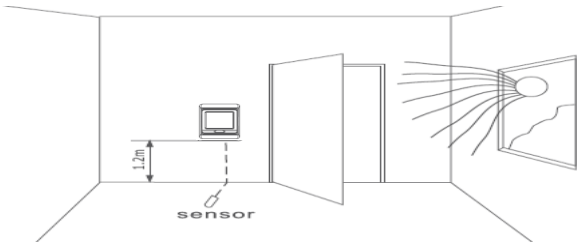
Mounting of the floor sensor

The floor sensor should be installed within an approved non conductive installation pipe in accordance with EN 61386-1, which is embedded in the floor. The pipe (flexible conduit) should be placed as high as possible in the subfloor. The floor sensor should be located equidistant between two runs of the heating element with the tip at least 300mm away from the outside edge of the heater. The enclosed 3 meter sensor cable can be extended up to 50m by means of a separate cable. If the extension cable is lighter than H05VV-F, it shall equally be installed in an unbroken installation pipe. The installation pipe must not contain any other cables, such as the supplies to the heating wire. The switching peaks of such current supply lines may create interfering signals that prevent optimum thermostat function. The heating supply cable should be placed in a separate pipe.
In the event of sensor failure, replacement of the sensor can be carried out with ease providing the sensor is installed within flexible conduit.
The floor sensor should never cross the heating element.



Controller Installation

Placement of Thermostat
The thermostat is to be mounted on the wall with free air circulation around it. Furthermore it has to be placed where it is not influenced by any other heating sources (e.g. the sun), draft from doors or windows, or by the temperature of an exterior wall.
The thermostat must be installed outside of rooms containing a bath or shower. (Protective housing – IP20)

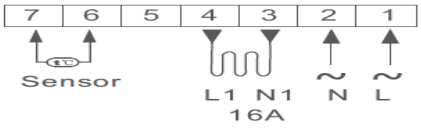


Electrical Connections

The circuit supplying this controller must be protected by a 30mA RCD.
All electrical connections must be performed by a fully qualified and part P certified electrician.
Any doubts surrounding the installation of this controller should be passed to the distributer prior to installation.
Testing of all under-floor heating systems should take place prior to floor coverings being installed.
The advanced settings should only be operated by competent people and extreme care should be taken when amending these factory settings.
If this thermostat is to be used with any under floor heating system designed for floor coverings other than ceramic, porcelain or stone floor tiles, the limitation temperature value will need to be re-programmed. Please refer to your heating supplier for the correct value.
This product is a class II device (reinforced insulation) and the product must be connected to the following conductors:

1. Phase(L)
2. Neutral (N)

Wiring Diagram



1 Live from mains
2 Neutral from mains
3 Neutral to heaters
4 Live to heaters
6 Red wire from sensor
7 Green wire from sensor
Connect earth from heaters to earth from mains separately

Sensor Failure

Sensor Resistance Values

Temperature℃	Resistance Ohms	Temperature℃	Resistance Ohms
5	22070.600	25	10000.000
10	17960.000	30	8312.400
15	14696.200	35	6943.400
20	12091.100	40	5827.250

The controller has a built in fault interrupter circuit which interrupts the heating in case of disconnected or short-circuited sensor.
In the event of a possible sensor failure, the sensor can be checked according to the resistance table on the left. Replacement of the sensor can be carried out with ease providing the sensor is installed within flexible conduit.

Recycling of obsolete appliances



Appliances with this label must not be disposed of with general waste. They must be collected separately and disposed of according to local regulations.

Thermostat Load and Contact Life:

We strongly recommend that you do not load the thermostat to the full extent of its 16A relay contact rating. It is good practice to restrict the load to 2kW~2.4kW (10A~12A). The relay is rated according to the requirements of EN 61810-1:2004 and EN60730-1 which are not representative of 'real life' applications but an arbitrary test method. Critically, relay contact life is affected by loading. At 10A~12A the contact life is more than double its life at 16A. In addition, measurement accuracy and control of room temperature is optimal at loads below 2kW~2.4kW. The relay contacts have resistance proportional to current passed and greater currents cause greater losses across the relay contacts. These losses can increase the internal temperature of the thermostat and affect the internal sensor used for air temperature control.

Warranty

Hiwell warrants this product, to be free from defects in the workmanship or materials, under normal use and service, for a period of two (2) years from the date of purchase by the consumer. If at any time during the warranty period the product is determined to be defective, Hiwell shall repair or replace it, at Hiwell's option.

If the product is defective, please return it, with a bill of sale or other dated proof of purchase, to the place from which you purchased it. Hiwell will determine whether the product should be returned, or replaced.

This warranty does not cover removal or reinstallation costs, and shall not apply if it is shown by Hiwell that the defect or malfunction was caused by damage which occurred while the product was in the possession of a consumer.

Hiwell's sole responsibility shall be to repair or replace the product within the terms stated above.

HIWELL SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE OF ANY KIND, INCLUDING ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING, DIRECTLY OR INDIRECTLY, FROM ANY BREACH OF ANY WARRANTY, EXPRESS OR IMPLIED, OR ANY OTHER FAILURE OF THIS PRODUCT. THIS WARRANTY IS THE ONLY EXPRESS WARRANTY HIWELL MAKES ON THIS PRODUCT. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IS HEREBY LIMITED TO THE TWO-YEAR DURATION OF THIS WARRANTY.

This Warranty does not affect your statutory rights.

For any questions regarding product installation or operation, please contact the retailer you purchased this product from.