

# **User's Guide**

# DH E RS D/BW

## Smart Programmable Electronic Thermostat for Heating Cable



For further information or to consult this guide online, please visit www.schluter.com

## 🛦 warning 🛦 warning 🛦

Before installing and operating this product, the owner and/or installer must read, understand and follow these instructions and keep them handy for future reference. If these instructions are not followed, the warranty will be considered null and void and the manufacturer deems no further responsibility for this product. Moreover, the following instructions must be adhered to in order to avoid personal iniuries or property damages, serious injuries and potentially fatal electric shocks. All electric connections must be made by a qualified electrician, according to the electrical and building codes effective in your region. Do NOT connect this product to a supply source other than 120 VAC, 208 VAC or 240 VAC, and do not exceed the specified load limits. Protect the heating system with the appropriate circuit breaker or fuse. You must regularly clean dirt accumulations on or in the thermostat. Do NOT use fluid to clean thermostat air vents. Do NOT use where exposed to water.

## 1. Description

The DH E RS D/BW electronic thermostat can be used to control heating floors with electrical current – with a resistive load – ranging from 0 A to 16 A at 120/208/240 VAC. It has an easy user interface and can manage up to four programming periods a day. It keeps the temperature of a room ( $\implies$  mode) and a floor ( $\square$  mode) at a requested set point with a high degree of accuracy.

Floor Mode (cfactory setting): this control method is ideal in areas where you want a warm floor at any time and when the temperature of the ambient air can be high without causing discomfort. For example, in a bathroom. **Ambient Mode** (you only have to press down the A/F button to switch from one mode to the other): this control method is ideal when you want a stable ambient air temperature (without fluctuation). Usually, this mode is used in large and often occupied rooms where temperature variations can be uncomfortable. For example, in a kitchen, a living room or a bedroom.

Some factors cause variations in ambient air temperature. They include large windows (heat losses or gains due to outside temperature) and other heat sources such as a central heating system, a fireplace, etc. In all these cases, the mode will ensure a uniform temperature.

# This Thermostat is not Compatible with the Following Installations:

- electrical current higher than 16 A with a resistive load (3840 W
  @ 240 VAC, 3330 W @ 208 VAC and 1920 W @ 120 VAC);
- inductive load (presence of a contactor or relay); and
- central heating system.

### Parts Supplied:

- one (1) thermostat;
- two (2) mounting screws;
- four (4) solderless connectors suitable for copper wires;
- one (1) floor sensor.

## 2. Installation

#### Selection of Thermostat and Sensor Location

The thermostat must be mounted on a connection box, at around 1.5 m (5 feet) above the floor level, on a section of the wall exempt from pipes or air ducts.

# <u>Do not install</u> the thermostat in a location where temperature measurements could be altered. For example:

 close to a window, on an external wall, or close to a door leading outside;

- exposed directly to the light or heat of the Sun, a lamp, a fireplace or any other heat source;
- close or in front of an air outlet;
- · close to concealed ducts or a chimney; and
- in a location with poor air flow (e.g. behind a door), or with frequent air drafts (e.g. head of stairs).

To install the sensor, refer to the installation guide of your heating floor.

#### Thermostat Mounting and Connection



Cut off power supply on lead wires at the electrical panel in order to avoid any risk of electric shock; Ensure that the thermostat will be installed on a junction box located in an uninsulated wall;

- Ensure that the air vents of the thermostat are clean and clear of any obstructions;
- 3.Using a screwdriver, loosen the screw retaining the mounting base and front part of the thermostat. Remove the front part of the thermostat from the mounting base by tilting it upward;

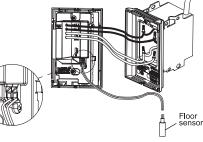


 Align and secure the mounting base to the connection box using the two screws supplied;



5. Route wires coming from the wall through the hole of the mounting base and make the required connections using the "Four-wire installation" figure, and using the supplied solderless connectors. A pair of wires (black) must be connected to the power source (120-208-240 VAC) and another pair (yellow) must be connected to the heating cable (refer to the drawings displayed on the back of the thermostat). For connections with aluminum wires, you must use CO/ALR connectors. Please note that thermostat wires do not have polarity, meaning that any wire can be connected to the other. Then, connect the wires of the floor temperature sensor at the indicated location behind the thermostat.

Four-wire installation

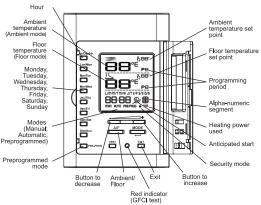


Reinstall the front part of the thermostat on the mounting base and tighten the screw at the bottom of the unit;



- 7. Turn on the power;
- Set the thermostat to the desired setting (see the following section).

### 3. Operation



#### First Start-up

At the first start-up, the thermostat is initially in the Man (manual) and <u>hermostatic</u> modes. The temperature is displayed in degrees Celsius and the standard factory set point adjustment is 21°C (70°F). The hour displays --:-- and must be adjusted before switching to the Auto or Pre Prog mode. The maximum floor temperature is limited to 28°C (82°F).

#### Ambient and Floor Temperature

#### Temperature Set Points

Out of any adjustment mode, press down the + button to increase the set point, or the - button to decrease it. Set points can only be adjusted by increments of 1 degree. To quickly scroll through the set point values, press and hold down the button.

#### Maximum Floor Temperature Limitation

At any time, the floor temperature (in <u>1</u> mode) is maintained at less than 28°C (82°F) in order to avoid overheating caused by an excessive heating request, which could damage some materials or be detrimental for health.

#### Adjustment of the Hour and the Day of the Week

Adjustment procedure of the hour and the day of the week.

- 1.Press down the Day/Hr button, whether it is in Man, Auto or Pre Prog mode.
- 2.At this moment, the b icon and the day of the week blinks and you can adjust the day of the week using the + or button and

confirm your choice by pressing down the Mode or Day/Hr button. You can also press down the desired day of the week button without using the + or - button and confirm your choice using the Mode or Day/Hr button.

- 3. The two figures indicating the hour blink. You must adjust them using the + or button and confirm your choice by pressing down the Mode or Day/Hr button.
- 4. The two figures indicating the minutes blink. You must adjust them using the + or - button and confirm your choice by pressing down the Mode or Day/Hr button. The adjustment is then completed and the thermostat returns to the previous mode.

At any time, you can exit the adjustment mode of the day and the hour by pressing down the Exit button or by not pressing any button during 1 minute.

In case of a power failure, the thermostat is self-sufficient for 2 hours. If the failure lasts less than 2 hours, the thermostat saves the adjustment of the hour and the day of the week. When the power is restored after an extensive failure (more than 2 hours), the hour and the day of the week are recovered, but you must update them.

#### Display in Degrees Fahrenheit/Celsius

The thermostat can display the ambient temperature and the set point in degrees Fahrenheit (standard factory setting) or Celsius.

Adjustment procedure for degrees Fahrenheit/Celsius display.

- 1. To switch from the degrees Fahrenheit to the degrees Celsius, and conversely, simultaneously press down the + and buttons for more than 3 seconds until the h icon blinks.
- Press down the + button to switch from the degrees Fahrenheit to the degrees Celsius, and conversely. The degree Fahrenheit or Celsius symbol is displayed.
- 3. When the adjustment is completed, press down the Exit button or do not press down any button during 5 seconds to exit the adjustment function.

This adjustment can be done from any of the three principal modes.

### Manual Mode (Man)

From the Manual mode, you can manually adjust the thermostat set point by pressing down the + or - buttons to increase the value, or to decrease it. Please note that if the backlight is off, the set point will not change when you press down these buttons for the first time instead, the backlight will be activated. To guickly scroll through the set point values, press and hold down the button. From 🚎 mode, the set points can range between 3 and 35°C and can only be adjusted by increments of 1°C (from 37 to 95°F; by increments of 1°F from the Fahrenheit mode). From 15 mode, the set points can range between 3 and 28°C (from 37 to 82°F). The thermostat will turn off if the set point is lowered below 3°C (37°F), and the set point value displayed will be --. The standard factory set point adjustment is 21°C (70°F)  $( \bigcup \text{ mode} )$ . From this mode, the screen displays the  $\approx / \bigcup$ mode temperature, the  $\approx 1 \leq$  mode set point, the hour and the day of the week.

This mode is initially activated when the power is turned on for the first time. You must adjust the hour (as described in the section "Adjustment of the hour and the day of the week") before switching to other modes by pressing down the Mode or Pre Prog button.

### Automatic Mode (Auto)

To switch from the Manual mode to the Automatic mode, and conversely, press down the Mode button. The Man or Auto icon is displayed at the bottom of the screen as applicable.

From the Automatic mode, the thermostat adjusts the set points according to the programmed periods. If no data is entered, the thermostat acts as in Manual mode and the standard factory set point adjustment is  $2^{10}$ C (70°F) ( $b_{-}$  mode). It is always possible to manually adjust the set point using the + or - button. The selected set point will be effective until one period is programmed, which represents an hour and a day of the week. Note that, if the set point is lowered to off (--), the programming will not be effective. It is possible to program 4 periods a day.

meaning that the set point can change automatically up to 4 times a day. The period order is not important.

From this mode, the screen displays the temperature, the set point, the hour, the day of the week and the current programmed period number (1 to 4; as applicable).

After programming a day of the week, you can copy this setting; see "Copy of the Programming".

- 1.To access the Programming mode, press down the day of the week button that you want to program (Mon to Sun). Once you release the button, the selected day of the week is displayed, the  $\delta$  icon blinks and the period number 1 blinks too.
- 2.Select the period number (1 to 4) that you want to program using the + or button. For each period, the hour and the set point are displayed. The hour displays ---:-- and the set point displays -- if there is no programming for the period. You must confirm the period by pressing down the Mode button.
- 3. The two figures representing the hour blink to indicate that you can adjust them (from 00 to 23) using the + or button. You must confirm the adjustment by pressing down the Mode button.
- 4. After confirmation, the figures representing the minutes (the last 2 figures) blink. You can adjust and confirm them in the manner described in point 3. Note that the minutes can only be adjusted by increments of 15 minutes.
- 5. The period set point blinks and you can adjust it using the + or - button. You must confirm the adjustment by pressing down the Mode button.
- 6.After set point confirmation, the programming is completed. The following period number blinks. For example, if the previously programmed period was 1, period 2 blinks. It is then possible to continue the programming of this period by pressing down the Mode button. You can also select another period using the + or button.
- 7.At the end of period 4 programming, you automatically exit the Programming mode.

At any time, you can exit the Programming mode using one of these 3 methods:

1-Press down the button of the day you are adjusting.

2-Press down the button of another day to program it.

3-Press down the Exit button.

Moreover, if you do not press down any button for more than 1 minute, the thermostat will exit the Programming mode. In all cases, the programming is saved.

## Anticipated Start D

This mode enables the room to reach the selected temperature at the programmed hour by starting or stopping the heating before this time. In fact, the thermostat estimates the delay required to reach the set point of the next period at the programmed hour. This delay is obtained by the observation of the temperature variations in the room and the results obtained during the preceding anticipated starts. Therefore, results should be increasingly precise day after day. From this mode, the thermostat displays at any time the set point ( $\mathbf{b}$ ) of the current period. The  $\underline{\mathscr{D}}$  icon will blink when the anticipated start of the next period begins.

For example, if the requested temperature between 8h00am and 10h00pm is 22°C (72°F) and between 10h00 pm and 8h00am is 18°C (64°F), the set point ( $\oint$ ) will indicate 18°C (64°F) until 7h59am and will switch to 22°C (72°F) at 8h00am. Thus, you will not see the progression carried out by the anticipated start, only the desired result.

To activate or deactivate the anticipated start, the thermostat must be in Auto or Pre Prog mode. Then, you must press down the Mode button for at least 5 seconds. The anticipated start icon ( $\mathscr{B}$ ) is displayed or hidden to indicate the activation or the deactivation of the mode. This modification will apply to the Auto as well as the Pre Prog mode. If you modify the temperature set point manually when these modes are activated, the anticipated start of the next period will be cancelled.

**Note:** The anticipated start is initially activated when you enter the Automatic or Preprogrammed mode. Thus, you must deactivate it following the above procedure if needed.

#### Copy of the Programming

You can apply the programming of one day of the week to other days by copying the programming day by day or in block.

To copy the programming day by day, you must:

- 1. Press down the source day button (day to be copied).
- 2. Hold down this button and press down the destination days one by one. The screen displays the selected days. If an error occurs when you are choosing a day, press down the erroneous day again to cancel the selection.
- After all selections are completed, release the source day button. The selected days have the same programming as the source day.
- To copy the programming in block, you must:
- 1. Press down the source day button, hold it and press down the last day of the block you want to copy.
- Hold down these two buttons for 3 seconds. After this time, the days of the block are displayed indicating that the copy in block is activated.
- 3.Release the buttons. The days of the block are not displayed anymore and the current day is displayed.

**Note:** The block order is always increasing. For example, if the source day is Thursday and the destination day is Monday, the copy will only include Friday, Saturday, Sunday and Monday.

#### Erasing of the Programming

You must proceed as follows to erase a programming period.

- Access the Programming mode as described previously by pressing down the button corresponding to the day to modify. Select the period to erase using the + or - button.
- You do not have to press down the Mode button to confirm the selection. However, doing so will not impact on the erasing.
- 3.Simultaneously press down the + and buttons to erase the period programming. The hour displays --:-- and the set point displays -- to indicate that the programming is erased.
- 4. The erased period number blinks and you can select another period to be erased or exit the Programming mode following one of the 3 methods described above.

#### Preprogrammed Mode

The Preprogrammed mode allows an automatic programming of the thermostat. 252 preprogrammings have been defined for mode and 252, for └\_ mode (A0 to Z1 and 0 to 9; see appendix 1 to consult the corresponding tables). This mode gives you the possibility to quickly program the thermostat using preprogrammings commonly used without having to do it manually.

As from the Automatic mode, it is possible, at any time, to manually adjust the set point. This set point will be effective until the next set point change anticipated by the preprogramming. Note that if the set point is lowered to off (--), the programming will not be effective.

From this mode, the screen displays the  $=/[\_]$  temperature, the  $=/[\_]$  set point, the hour, the day of the week and the letter and current number of the preprogramming (A0 to Z1 and 0 to 9; alpha-numeric segment displayed on the right-hand side of the hour, see appendix 1).

#### Choice of the Preprogramming

You can only access the Preprogramming mode when the thermostat is out of any programming or adjustment function. Make sure to choose the preprogrammings corresponding to the right mode ( $\equiv/|_{\sim}$ , according to the attached tables).

You must proceed as follows to access the Preprogramming mode:

- 1. Press down the Pre Prog button.
- The Pre Prog icon and saved selected preprogramming are displayed. This preprogramming can range between 0 and Z1.
- 3. From the Pre Prog mode, you can choose the first 10 preprogrammings by pressing and releasing the Pre Prog button. Each time you press down the button, the preprogramming switches (from 0 to 9).
- 4. To choose advanced preprogrammings, (see appendix 1), press down the Pre Prog button during 5 seconds. The letter indicator blinks and you can adjust it by pressing down the + or button. Once the letter is chosen, you must validate your choice by pressing down the Mode button. The letter ceases to blink and the figure starts to blink. The choice of the figure is made in the same way as that of the letter (using the + or button). Once the figure is selected, you must validate your choice by pressing down the Mode button.

Note: If you do not press down any button for more than one minute or press the Exit button, the thermostat exits the adjustment function and saves the current choice. Then, the icons cease to blink and the letter and the figure corresponding to the selected preprogramming blink alternately until you select another preprogramming. If the Pre Prog mode is activated and you successively press down the Pre Prog button, the preprogramming comes back to 0 and increases normally, as described above.

#### View of the Preprogramming

The view of the selected preprogramming is made in a way similar to the Auto mode programming. However, it is impossible to modify the preprogramming.

You must proceed as follows:

- 1.Press down the button corresponding to the day to view (buttons Mon to Sun). When the selected day is displayed, the b icon and period number blink.
- 2.Choose the period number (1 to 2) to view using the + or button. For each period, the hour and set point are displayed. You can also press down the Mode button to switch to period 2. If you press down the Mode button when period 2 is displayed, you exit the View mode.

# At any time, you can exit the View mode using one of these 3 methods.

- 1- Press down the button of the day you are viewing.
- 2- Press down another day to view it.
- 3- Press down the Exit button.

If you do not press down any button during 1 minute, the thermostat quits the view mode. At any time, it is possible to change the day to be viewed by pressing down the desired day button.

## ∭/<u>/</u>Mode

To switch from the  $\equiv$  mode to the  $\lfloor L_n$  mode, or conversely, press down the A/F button (when you are not in any adjustment mode). Then, the temperature set point will become the same as the  $\lfloor L_n$  or  $\equiv$  mode temperature, as applicable. However, if a set point is programmed for the current period, it will take this value.

#### Safe mode

If the thermostat fails to detect the presence of a floor sensor, it will automatically revert to  $\cong$  mode at a set point of 21°C (70°F). (with a maximum set point temperature of 24°C – 75°F.)

#### Sensor Selection

If you want to use the DH E RS D/BW thermostat of Schluter®-Systems with a temperature sensor already installed in the floor (other than the sensor supplied with this thermostat), you must contact the Schluter®-Systems customer service to validate the compatibility between the sensor and the thermostat. You must know the serial number and name of the installed sensor.

#### Temperature Control

The thermostat controls the floor/ambient temperature (according to the *m/\_* mode) with a high degree of accuracy. When the heating starts or stops, it is normal to hear a "click" sound. It is the noise of the relay which opens or closes, as applicable.

#### Backlighting

The screen lights up when you press down a button. If you do not press down any button for more than 15 seconds, the screen turns off.

If you press down the + or – button once when the backlight is off, it will light up without changing the set point value. The set point value will change only if you press down one of these buttons again.

### Ground-fault Circuit Interrupter (GFCI)

The GFCI is designed to reduce the risk of electric shock. It can detect a leakage current of 5mA. If a defect is detected, the GFCI device lights up, and both screen and heating system circuit are deactivated. The GFCI can be reinitialized either by pressing down the Test button or by disconnecting the thermostat at the electrical panel.

#### Ground-fault Circuit Interrupter (GFCI) Verification

It is important to verify the ground-fault circuit interrupter installation and operation on a monthly basis.

GFCI verification procedure

- Increase the temperature set point until the heating power bars are displayed (displayed in the bottom-right hand corner of the screen).
- 2- Press down the Test button.
- 3- The following two cases can occur:
  - a) Successful test: The red indicator of the thermostat lights up. In this case, press down once again the Test button to reinitialize the ground-fault circuit interrupter, the red indicator turns off.
  - b) Failed test: The red indicator does not light up and the entire display blinks during 5 seconds. In this case, disconnect the heating system at the electrical panel and call Schluter<sup>®</sup>-Systems' customer service.

#### Security mode

This mode imposes a maximum temperature set point which is impossible to exceed regardless of the mode in progress. However, it is still possible to lower the set point at your discretion. The programming of the Auto and Pre-Prog modes also respects this maximum temperature set point. Please note that when the Security mode is activated, it is impossible to switch from the set mode to the L mode, and conversely.

#### Procedures to activate Security mode

- 1.Exit any adjustment mode to manually adjust the set point at the desired maximum value.
- 2.Simultaneously press down the + and buttons during 10 seconds (note that after 3 seconds, the b icon starts to blink and the software version and date are displayed. Continue to press down these buttons).
- 3.After 10 seconds, the a icon is displayed indicating that the Security mode is activated. Then, release the buttons.

#### Procedures to deactivate Security mode

- 1.To deactivate the Security mode, cut off the power supply of the thermostat at the electrical panel and wait at least 30 seconds.
- Restore the power supply to the thermostat. The ▲ icon will blink during a maximum of 5 minutes, indicating that you can deactivate the Security mode.
- 3.Simultaneously press down the + and buttons for more than 10 seconds. The a icon will then be hidden indicating that the Security mode is deactivated.

### Parameter Backup and Power Failures

The thermostat saves some parameters in its nonvolatile memory in order to recovered them when power is restored (e.g. after a power failure). These parameters are the current Man/Auto/Pre-Prog mode, the hour and the day of the week, the Auto mode programming (either from the  $\cong$  or  $[\_$  mode), the Maximum floor temperature (28°C – 82°F), the last selected programming of the Pre-Prog mode, the  $\cong/[\_$  mode, the Celsius/Fahrenheit mode, the last effective set point, the Security mode and the maximum lock set point.

As mentioned above, the thermostat can detect a power failure. In such a case, the adjustments described are automatically saved

in the volatile memory and recovered when power is restored. Then, the thermostat enters a very low consumption mode and only displays the hour and day of the week. All the other functions are deactivated.

The thermostat is self-sufficient for 2 hours. If the power failure lasts less than 2 hours, the thermostat saves the adjustment of the hour. However, when power is restored after an extensive failure (more than 2 hours), it recovers the last mode (Man/Auto/ Pre-Prog) as well as the various adjustments that were effective when the failure occurred (either from the  $\implies$  or the  $\lfloor L_n \mod R \rfloor$ . The hour and the day of the week are also recovered, but you must update them. The set point will be the same as what was active when the failure occurred.

**Note:** During the first half hour of the failure, the hour and day of the week are displayed. After half an hour, the screen turns off in order to ensure energy saving.

Problem	Solution
The thermostat is hot.	In normal operating conditions, the thermostat housing can reach nearly $40^{\circ}C (104^{\circ}F)$ at maximum load. It is normal and will not affect the operation of the thermostat.
Heating is always on.	Check if the thermostat is properly connected. Refer to the installation section.
Heating does not run even if the thermostat indicates it is on.	Check if the thermostat is properly connected and make sure the red indicator is not lit. Refer to the installation section.
The display does not come on.	Check if the thermostat is properly connected. Refer to the installation section. Check the power supply at the electrical panel.
The red indicator lights up frequently.	Contact customer service.
The displayed ambient temperature is incorrect.	Check the presence of an air stream or a heat source near the thermostat, and correct the situation.
The display indicates E1*, E2** or E3***.	Faulty thermal sensor. Contact customer service.
Weak luminosity of the display.	Possibility of a bad contact. Check thermostat wirings. Refer to the installation section.

\* E1: Faulty ambient exterior sensor (open circuit) - written in the ambient section

\*\* E2: Faulty interior sensor (open circuit) - written in the ambient section

\*\*\* E3: Faulty floor sensor (open circuit) - written in the floor section

Note: If you do not solve the problem after checking these points, cut off the power supply at the main electrical panel and contact customer service (see page 24 for contact information).

4.

#### 5. Technical Specifications

Supply voltage: 120/208/240 VAC, 50/60 Hz

Maximum electrical current with a resistive load: 16 A 3840 W @ 240 VAC 3330 W @ 208 VAC 1920 W @ 120 VAC

Range of temperature: 0 °C to 35 °C (0 °F to 95 °F)

Temperature display resolution: 1 °C (1 °F)

Range of the temperature set points: 3 °C to 35 °C (37 °F to 95 °F)

Temperature set point increments: 1 °C (1 °F)

Storage: -40 °C to 50 °C (-104 °F to 122 °F)

Certification: cETLus

#### Schluter®-DITRA-HEAT Thermostat

3-Year Limited Warranty

COVERAGE AND CONDITIONS: Subject to the conditions and limitations as stated hereinafter. Schluter®-Systems\* warrants that the Schluter®-DITRA-HEAT thermostat (the "Product")\*\* will be free of manufacturing defects for a period of three (3) years from the date of purchase only when the Product is used and installed in accordance with the terms and conditions of the Schluter®-DITRA-HEAT Thermostat User's Guide and industry standard guidelines that are not in conflict with User's Guide in effect at the time of installation. This warranty is conditioned and will be considered null and void and Schluter®-Systems will have the right to refuse any claims if ; (a) resulting from faulty installation or improper storage, (b) any Schluter product comprising the system has been altered or otherwise modified in any way without the prior written authorization of Schluter®-Systems. (c) an abusive or abnormal use, lack of maintenance, improper maintenance or use other than that for which the Product was manufactured. It is the responsibility of the owner/ builder/ installer to ensure the suitability of all building materials and all associated building materials for the owner's intended use. It is recommended that the owner consult with an experienced and professional installer and qualified electrician.

**RESOLUTION:** If the Product fails to meet this warranty, then the owner's exclusive remedy and the sole obligation of Schluter<sup>®</sup>-Systems, at its election, shall be to repair or replace the Product. This warranty does not cover the cost of disconnection, transport, and installation. If at any time during the warranty period the unit becomes defective, you must cut off the power supply at the main electrical panel and contact 1) your installer or distributor or 2) Schluter<sup>®</sup>-Systems' customer service department.

DISCLAIMER: THERE ARE NO WARRANTIES BEYOND THIS EXPRESSED WARRANTY AS STATED ABOVE. ALL OTHER WARRANTIES, REPRESENTATIONS OR CONDITIONS, EXPRESSED OR IMPLIED, ARE DISCLAIMED AND EXCLUDED, INCLUDING WARRANTIES, REPRESENTATIONS OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARISING BY STATUTE OR OTHERWISE BY LAW OR FROM A COURSE OF DEALING OR USAGE OF TRADE. SCHLUTER-SYSTEMS EXCLUDES AND IN NO EVENT SHALL HAVE ANY LIABILITY FOR LOST PROFITS OR ANY OTHER INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, EXEMPLARY, OR CONSEQUENTIAL DAMAGES, ARISING OUT OF OB OTHERWISE CONNECTED TO FAILURE OF THE PRODUCT OR FLOORING SYSTEM OF WHICH THEY ARE PART, NOR MISUSE OF THE PRODUCT OR FLOORING SYSTEM, REGARDLESS OF ANY STRICT LIABILITY, ACTIVE OR PASSIVE NEGLIGENCE OF SCHI UTER SYSTEMS, AND REGARDLESS OF THE LEGAL THEORY. (CONTRACT OR TORT OR EXTRA-CONTRACTUAL OR OTHER), NOR FROM ACTS OF WAR, TERRORISM, OVERVOLTAGE, FAULTY AND NEGLIGENT PENETRATION OF THE SYSTEM, FIRES, EXPLOSIONS, ACTS OF GOD, INTENTIONAL ACTS OF DESTRUCTION OR ANY LOSSES DUE TO STRUCTURAL FAILURE OR OTHER CAUSES UNRELATED TO THE PRODUCT OR DELAYS, OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES. THIS WARRANTY IS GIVEN IN LIEU OF ANY OTHER WARRANTY EXPRESSED OR IMPLIED. THE REMEDIES CONTAINED HEREIN ARE THE ONLY REMEDIES AVAILABLE FOR BREACH OF THIS WARRANTY. THIS LIMITED WARBANTY GIVES YOU SPECIFIC LEGAL BIGHTS: SOME STATES AND PROVINCES DO NOT ALLOW DISCLAIMERS OR OTHER RESTRICTIONS OF IMPLIED WARRANTIES. SO SOME OF THE ABOVE DISCLAIMERS MAY NOT APPLY TO YOU

TRANSFERABILITY: This Limited Warranty extends ONLY to the original end user (defined as original intended owner and user of the property/unit in which the installation is incorporated - herein referred to as "Owner") and is not transferable or assignable, unless approved in writing by the Technical Director or an Officier of Schluter®-Systems or otherwise prohibited by specific state or provincial law.

MODIFICATIONS TO WARRANTY: No changes or modification of any terms or conditions of this warranty are allowed unless authorized by written agreement and signed by the Technical Director or an Officer of Schluter®-Systems

EFFECTIVE DATE: This warranty shall supersede and replace any and all prior oral or written warranties, agreements, or other such representations made by or on behalf of Schluter<sup>®</sup>. Systems relative to the Product or the application of the Product and shall apply to any installation occurring on or after January 1, 2014. CLAIMS ON THIS LIMITED WARRANTY: To make a claim under this Limited Warranty, the Owner must provide Schluter®-Systems with written notice within 30 days of any alleged defect in the Product covered by this Limited Warranty, together with date and proof of purchase of the Product, and name and address of all installers, failing which this Limited Warranty shall be of no legal effect. Schluter®-Systems reserves the right at its election and as a condition of this Limited Warranty to inspect the alleged defective Product.

#### All U.S. claims shall be sent to:

Schluter Systems L.P. Attn: Warranty Claims Dept. 194 Pleasant Ridge Road Plattsburgh, NY 12901

#### All Canadian claims shall be sent to:

Schluter Systems (Canada), Inc. Attn: Warranty Claims Dept. 21100 chemin Ste-Marie Ste-Anne-de-Bellevue, QC H9X 3Y8

For the purpose of this warranty Schluter Systems, LP, shall provide the warranty for all products for end users located in the United States, and Schluter Systems (Canada) Inc. shall provide the warranty for all products for end users located in Canada. This warranty is limited to sales of the Products made in and intended for use in the United States and Canada.

\*\*Schluter®-DITRA-HEAT Thermostat ("the Product"): The product is defined to be the Programmable (DH E RS D/BW) Thermostat and/or the Non-Programmable (DH E RS /BW) Thermostat.

#### Schluter Systems L.P.

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