

# Home Energy Grants: Technical Bulletin

## Heating Controls Installation Guidance

Series 2021-12-001 HCU



# Installation guidance for heating controls upgrade

This technical bulletin outlines common technical and administrative non-compliance issues noted by SEAI for heating controls upgrade (HCU) works. The information below is intended as guidance. All measures must be installed as per the Domestic Technical Standards and Specification (DTSS) and in accordance with the Contractors Code of Practice. Please see the Contractors Support page for further information: <https://www.seai.ie/grants/supports-for-contractors/>. The Quality Assurance and Disciplinary Procedures (QADP) document contains a full list of checks, used by SEAI inspectors. This list should be used to check your work, prior to completing and signing the Declaration of Works (DOW) form. **Nominated Personnel must not sign the DOW stating that the works have been completed to standard if non-compliances are outstanding.**

## 1. Declaration of works (DOW)

Incorrect completion of DOW forms is a common source of error which can result in payment delays, grant declines and inspection failures. We would like to draw your attention to the following important points regarding completion of the DOW:

### Total cost

Please note that if you are carrying out other works such as replacement or repair of a boiler in tandem with the heating controls upgrade, the total cost declared on the DOW must only include the cost of installing heating controls. Boiler costs are not relevant as they are not grant funded.

### Minimum number of newly installed items

It is vital that at least **6 out of 9** prescribed items on the DOW are *newly installed* as part of the grant works.

Item	Pre-existing	Installed as part of grant works	N/A
1 Separated pipework for Space Heating and Domestic Hot Water* (N/A for combi Boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Boiler interlock arrangement*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Thermostat controlling 1 Space Heating zone and wiring*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 24hr/7day programmer with minimum 2 channels*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Time clock for immersion heater* (N/A for combi Boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Cylinder thermostat and wiring* (N/A for combi Boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Additional space heating zone(s):			
7 Separated pipework for two Space Heating zones (e.g., downstairs/upstairs) *	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Thermostat controlling an additional space heating zone and wiring*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 Thermostatic Radiator Valves (TRVs) *	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The items listed below do not contribute to the requirement to have 6 newly installed items.			
<b>The following items must be in place with heating controls where applicable. Please indicate if they are pre-existing or newly installed as part of heating controls grant works.</b>			
10 Hot water cylinder insulation (factory applied if new cylinder)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 Auto by-pass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 Compliant earthing and equipotential Bonding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Figure 1.** Extract from Heating Controls Upgrade DOW

The last three (3) items on Figure 1 above **do not** contribute towards the minimum requirement of six (6) newly installed items, namely:

- 1) Hot water cylinder insulation (factory applied if new cylinder)
- 2) Auto by-pass
- 3) Compliant earthing and equipotential Bonding

However, these items must be present for the safe and optimal operation of the heating system. These can be pre-existing or installed as part of the grant works.

The items listed below do not contribute to the requirement to have 6 newly installed items.			
The following items must be in place with heating controls where applicable. Please indicate if they are pre-existing or newly installed as part of heating controls grant works.			
	Pre-existing	Installed as part of grant works	N/A
10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Figure 2. Lines 10, 11, and 12 must be present for safe and optimal operation

Failure to comply with the above requirements will mean that the works will be considered seriously non-compliant and may result in de-registration from the Better Energy Homes programme, in line with our Quality Assurance and Disciplinary Procedures (QADP).

### Replacement of existing equipment

Replacement of existing heating control equipment *does not* constitute new installation, even where the existing equipment is old and/or no longer functioning.

If you have any technical queries in relation to the completion of the DOW, please contact our technical helpdesk at: 01-2776977.

## 2. Combi boilers

For heating controls installation in homes with a combi boiler, the following items are not applicable and must be ticked as N/A on the DOW:

- 1) Separated pipework for Space Heating and Domestic Hot Water (N/A for combi Boilers)
- 2) Time clock for immersion heater (N/A for combi Boilers)
- 3) Cylinder thermostat and wiring (N/A for combi Boilers)

As such, the remaining six (6) of the nine (9) contributing items must be *newly* installed.

Item	Pre-existing	Installed as part of grant works	N/A
1 Separated pipework for Space Heating and Domestic Hot Water* (N/A for combi Boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2 Boiler interlock arrangement*	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3 Thermostat controlling 1 Space Heating zone and wiring*	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4 24hr/7day programmer with minimum 2 channels*	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5 Time clock for immersion heater* (N/A for combi Boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6 Cylinder thermostat and wiring* (N/A for combi Boilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Additional space heating zone(s):			
7 Separated pipework for two Space Heating zones (e.g., downstairs/upstairs) *	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8 Thermostat controlling an additional space heating zone and wiring*	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9 Thermostatic Radiator Valves (TRVs) *	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The items listed below do not contribute to the requirement to have 6 newly installed items.			
The following items must be in place with heating controls where applicable. Please indicate if they are pre-existing or newly installed as part of heating controls grant works.			
	Pre-existing	Installed as part of grant works	N/A
10 Hot water cylinder insulation (factory applied if new cylinder)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11 Auto by-pass	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12 Compliant earthing and equipotential Bonding	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Figure 3. Example of compliant DOW for homes with a combi boiler

This means that for homes with a combi boiler, contractors **MUST** install an additional space heating zone as part of the grant works, in order to comply with the programme criteria. Please see DTSS Section 6.7 for further information and QADP Appendix 2, Section 2.6 for a full list of heating controls checks.

### 3. Year of build

Where you have information that a home may have been built circa 2004 or 2005, we request that you attempt to verify the year of build by checking the ESB meter date stamp.

You must notify SEAI immediately in the event that the ESB meter date stamp reads 2006 or later, as it may indicate that the home is not eligible for a grant for heating controls upgrade works.

### 4. Common reworks

The following are some common technical non-compliance issues noted by SEAI inspectors:

#### TRV installed in room with room stat

Thermostatic Radiator Valves (TRVs) must not be fitted in rooms with a room thermostat. TRVs must be installed in accordance with the manufacturer’s guidelines and DTSS Section 6.7.3.

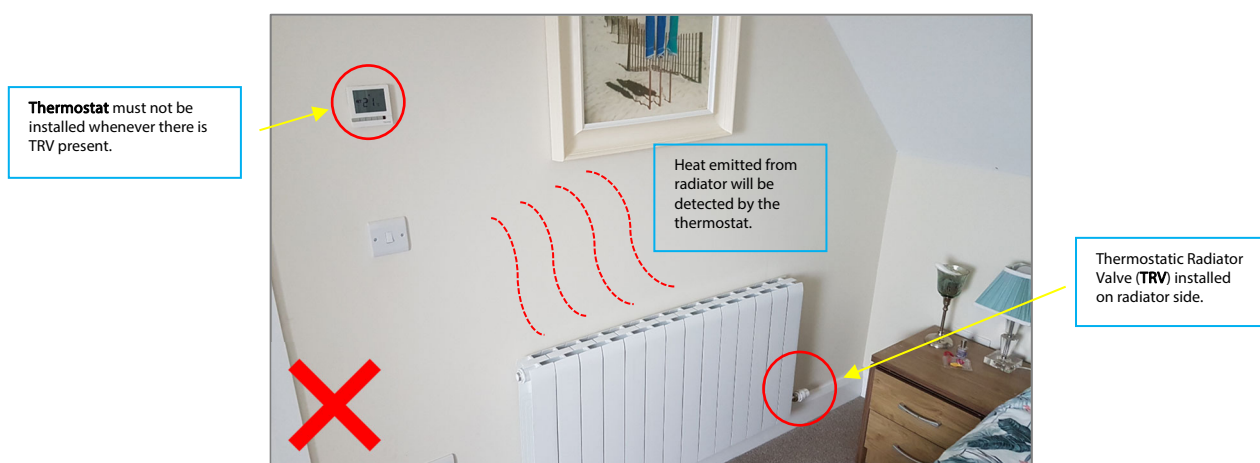


Figure 4. Incorrect thermostat installation and position

#### Immersion heater timer not fitted but required

Where electric immersion heaters are present, they must be fitted with a timer. Timer and temperature control equipment must conform to Section 6.7.4 of the DTSS.

#### Cross bonding not complete

Earthing/cross bonding **MUST** be completed on all exposed metallic pipework under the terms of SEAI grant programmes.

### 5. Training material

Further guidance and information can be found on the ‘Support for Contractors’ page on the SEAI website. Our most recent online training webinar on heating controls installation is available to view at the following link: <https://www.youtube.com/watch?v=G-F8p3Pw-ws>.

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