



SOLAR HOT WATER

Installation Specifications



There are three categories of installations

1. Simple Install = up to 5 metres between Cylinder and Collectors. Essentially, from where the cylinder is located, straight up through the roof to the collector.
2. Medium Install = a distance between 5 metres to 10 metres between Cylinder and Collectors including labour.
3. Complex Install = a distance between 10 metres to 15 metres between Cylinder and Collectors including labour.

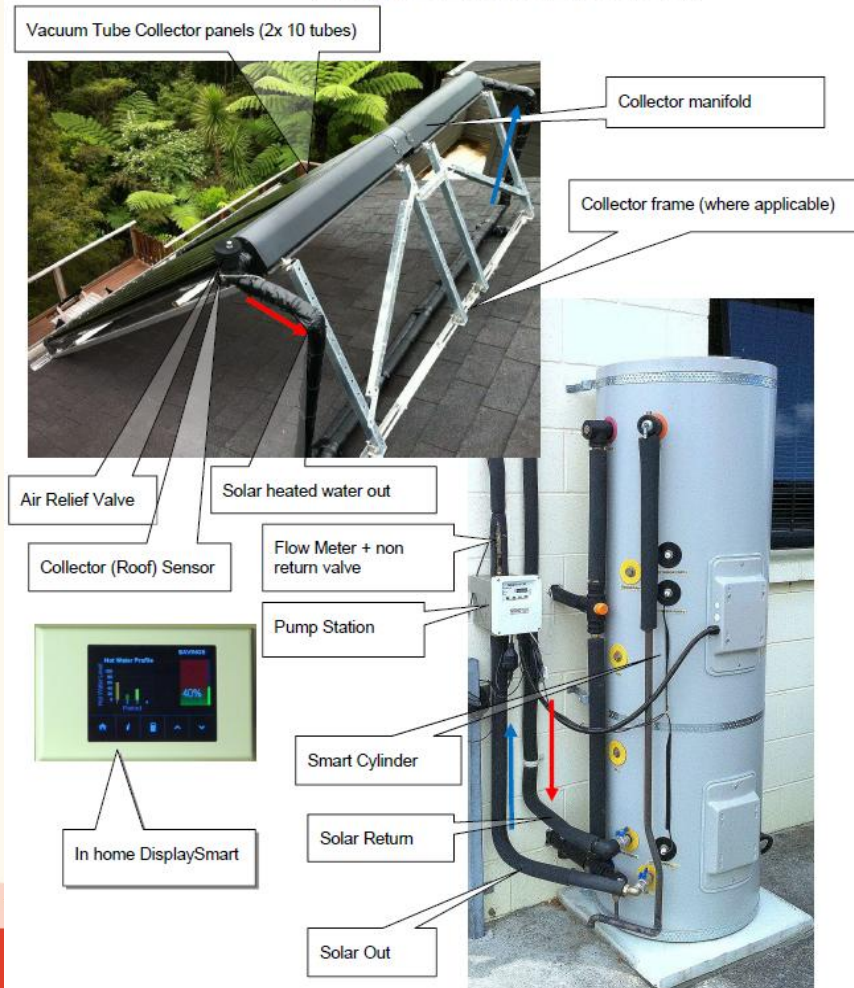




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Example of an Solar installation



Installation of **Solar Hot Water** systems includes

- Installation of Smart Cylinder including mains pressure valve kit
- Mounting of collectors on to roof and plumbing to cylinder
- Full insulation (lagging) on flow and return pipes between collectors and Cylinder
- Mounting of touch display
- Full commissioning of system and demo of features on the in-home Touch Display
- Free service check after 3 months
- *Note: installs available in the Auckland area only*





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Collectors



- Collectors are certified compliant with;
 - ISO9001 JAS-ANZ certified
 - Watermark
 - AS/NZS 2712-2007
 - AS 2435
 - AS 4020
- The roof loading presented by the solar thermal panels are within the limits of 'live roof loading'. Each panel is 990mm x 2024mm and weighs 45kg including mounting frame. This arrangement yields a roof loading of 0.22kPa and as such is less than the specified 0.25kPa in AS/NZS 1170.



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The costs to install a mains outlet for solar control are not included in install prices



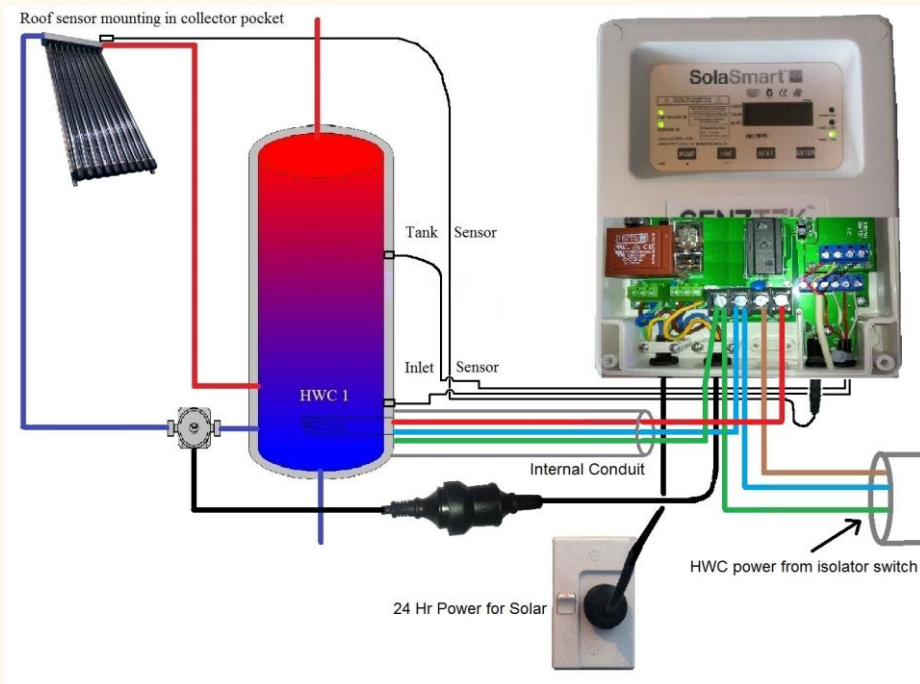
2m Mains Plug

- If the hot water cylinder is to be on load control (i.e. Ripple control*) then the controller on the smart cylinder needs to be independently powered, i.e. on a separate power supply. This is a requirement for solar hot water controllers when the cylinder is connected up to the ripple control network.
- Consequently, the Smart Cylinder needs to be configured for solar hot water control; and as part of this it comes with a 2m mains plug to plug into a mains socket outlet, which again, is a separate feed to that of the hot water cylinder.
- An electrician may be required to install a separate mains outlet at the location of the hot water cylinder if there is not one already there.
- The cost of installing such an mains outlet is not covered by the prices listed on this website .
- * Ripple control is used by the power utilities to manage excess load on the power grid by switching off hot water cylinders in a particular area for a 2 to 3 hour period at peak times. This usually occurs during the winter time.



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Example of Separate 24 Hr Power Supply for Solar Hot Water Control



The Smart Controller on your Smart Cylinder will also incorporate solar hot water control.

Essentially, it monitors the temperature at the collector and when it is hot enough it will switch the pump on to circulate the hot water from the collector back down to the cylinder.

Technically speaking, this differential pump controller transforms the solar collector into a **controlled heat source**.



0508 HOT H2O (468 426)

sales@smarthotwater.co.nz
www.smarthotwater.co.nz