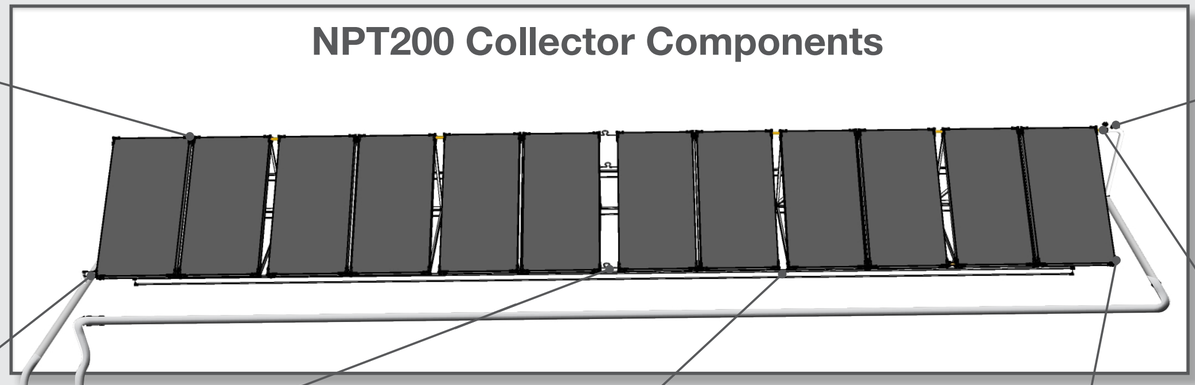
Commercial Solar Loline - Installation Overview

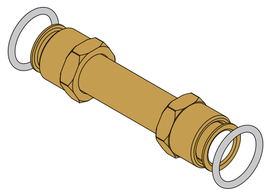
Installer: This pictorial guide does not replace the Owners Guide and Installation Instructions supplied with the solar controller. The installation instructions should be read in full and referred to for details. Rheem will not accept any liability for failure to read or install the water heater in accordance with the installation instructions.

NPT200 Collector Components



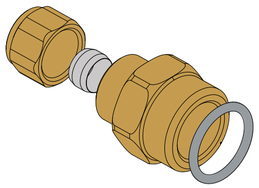
Collector union

Couple the solar collectors at the top and bottom together using the collector unions and 'O' rings.



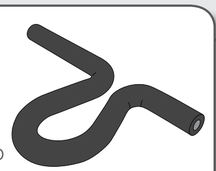
Collector inlet/outlet

Fit an inlet/outlet connector to the inlet and outlet of the solar collector array using an 'O' ring.



Expansion tube assembly

For multiple solar collectors of more than 8 in a single array, install an expansion tube at the top and bottom of the array, at no more than every eighth collector.
Allow approx. 360mm gap between adjacent collectors.



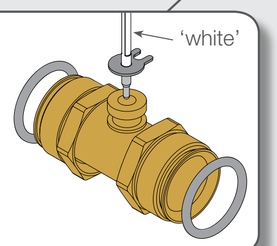
to collectors

from collectors

Frost sensor assembly

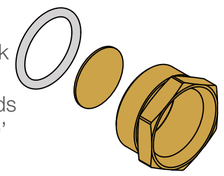
Fit the frost sensor housing at the bottom, as near as practical to the centre of an array, using the 'O' rings.

Note: The frost sensor must be fitted in all installations.



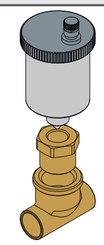
End plug assembly

Fit the end plug and disk to the unused collector connections at both ends of the array, using an 'O' ring.



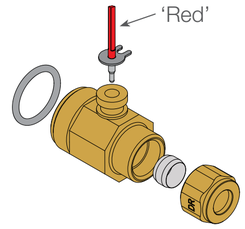
Automatic air eliminator

Fit automatic air eliminator at the highest point in each collector array, in the solar hot pipe.
NB: For pitched roofs, only one automatic air eliminator is required to be installed at the highest point of all the arrays.



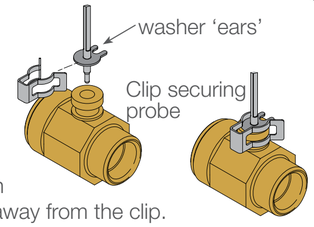
Hot sensor assembly

Fit the hot sensor assembly to the outlet of the solar collector of one array using an 'O' ring.

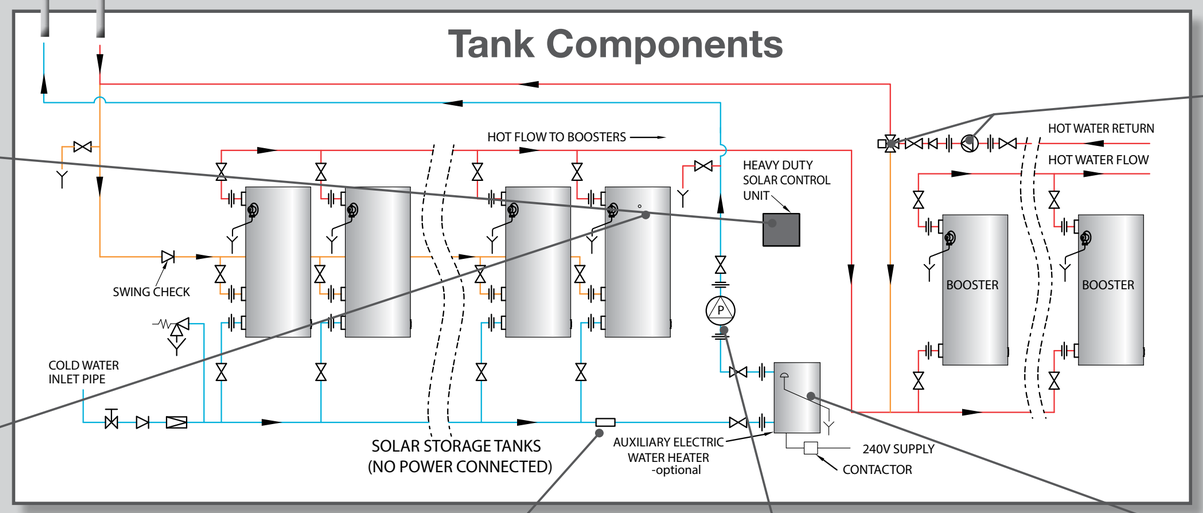


Sensor clip

Ensure one 'O' ring is fitted to the sensor fully in the housing. Position the clip over the sensor washer AND the housing with 'ears' of the washer away from the clip.

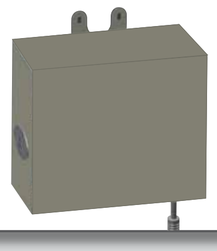


Tank Components



Solar control unit

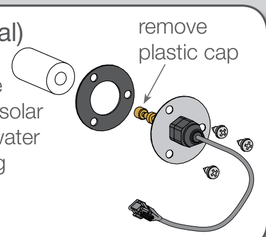
Install within 5 metres of the cold sensor and tank sensor. Can be installed indoors or outdoors.



Tank sensor (optional)

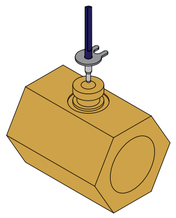
Fit the tank sensor to the solar tank closest to the solar control unit, if solar hot water secondary return is being used.

See over for details.



Cold sensor

Fit the cold sensor connector in the solar cold pipe between the last storage tank and the solar circulator

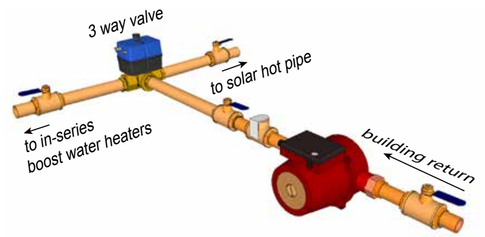


Solar circulator

Install the circulator in the solar cold pipe after the auxiliary electric water heater, if installed.

3 way valve & building return (optional)

Install a 3 way valve as shown after the building return circulator, if solar hot water secondary return is being used



Auxiliary electric water heater (optional)

Install the auxiliary electric water heater in the solar cold pipe.
In areas not subject to freeze conditions, the auxiliary electric water heater is optional.

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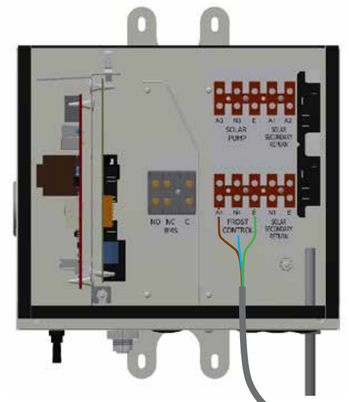
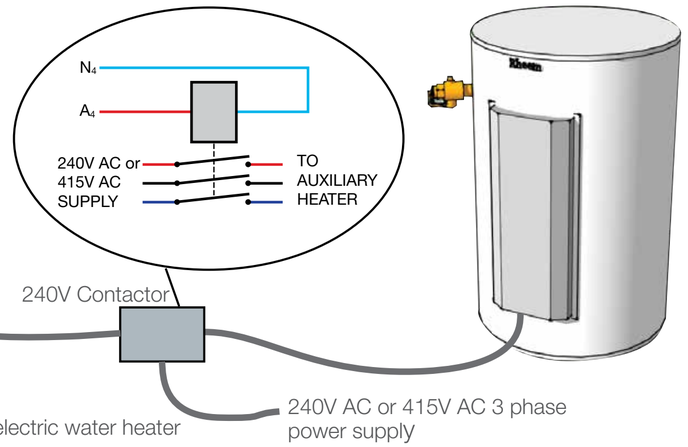
Electrical connections

Connection to auxiliary electric water heater



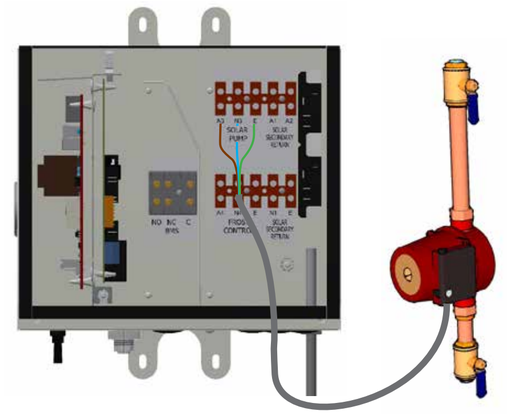
Connect the coil of the contactor to the solar controller at the terminals A4, N4 and E marked ‘FROST CONTROL’



Note the electrical rating of the auxiliary electric water heater

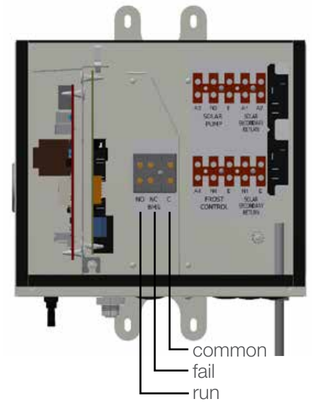
Connection to solar circulator

Connect the solar circulator to the solar controller at the terminals A3, N3 and E marked ‘SOLAR PUMP’.
NB: A Rediset dual pump set can be connected.

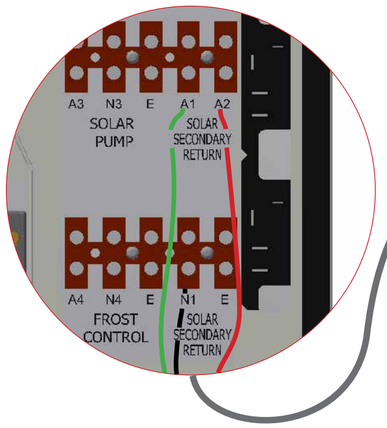


BMS

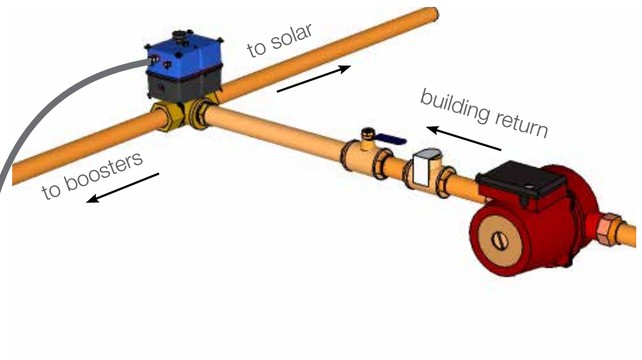
Connect the BMS system to the solar controller at the terminals N/O, N/C, C marked ‘BMS’.
Note: N/O = OK
N/C = Fault



Connection to 3 way valve



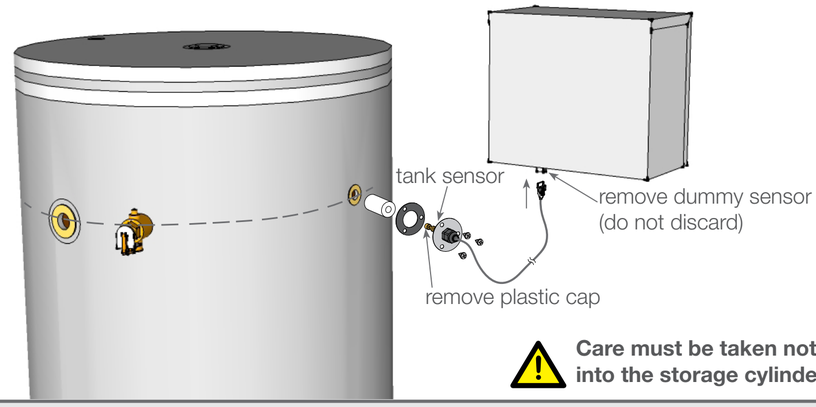
Connect the Rheem 3 way motorised valve to the solar controller at the terminals A1, A2, and N1 marked ‘SOLAR SECONDARY RETURN’



For other 3 way valves, A1 is normally closed and A2 is normally open. Wire and plumb 3 way valve such that return water is diverted to the solar storage tanks when A2 is energised.

Tank Sensor

Select a spot at the same level as the hot water outlet and using a 22mm hole saw, drill deep enough to just remove the steel outer casing jacket. The insulation thickness is between 47-54mm depending on the tank, and this should be used as a guide. Clean out the remaining foam insulation by hand until clean bare metal is exposed.
Fit tank sensor assembly securing with the 3 screws supplied.



Care must be taken not to drill into the storage cylinder.