

Installation Instructions - GREEN CATCH



IMPORTANT:

This product must be installed by a licensed electrician. This product must be installed According to the AS3000 – Australian Wiring Standards.

Inside the Package

- 1 x Green Catch Diverter
- 1 x Current Transformers
- 1 x Green Catch Control box

Installation Overview

- Install the Catch Diverter into the meter box
 - Install the Green Catch Control box and connect it to the diverter
 - Adjust controller
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Diverter Installation

IMPORTANT:

- Maximum load allowed to be connected to HW terminal is 20A RMS.
- Cable sizing must be chosen based on the AS3000 wiring standard.
- The Diverter must be protected from the weather. The recommended installation location is inside the meter box, behind the metering board.

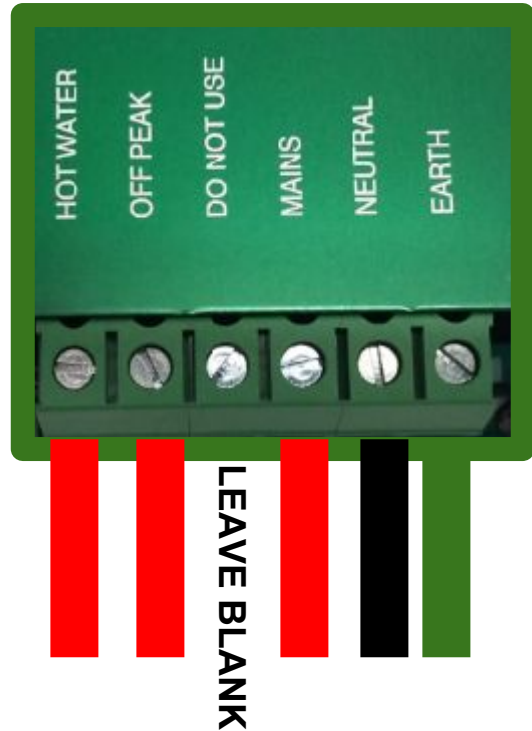


CT IS DIRECTIONAL.

Make sure you know which direction the arrow is pointing before placing the CT.

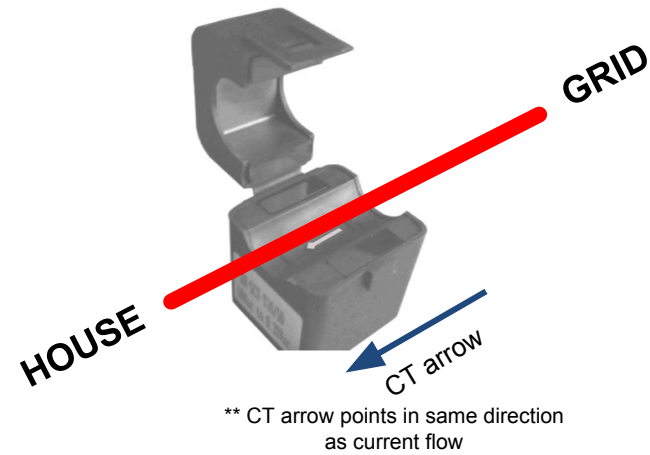
- The Arrows next to the CT in the wiring diagram represent the arrows on the inside of the CT
- NEVER disconnect CT from diverter while they are wrapped around a current carrying conductor.
- If Off Peak is not available leave the Off Peak connection empty.
- Some electrical jurisdictions do not allow switches in the Off Peak circuit, if this is your case then do not connect the off peak circuit.

CONNECTING POWER CABLES



House Mains CT

This CT must be positioned so that it sees exactly the same things as the premises meter. It can be positioned just before or just after the meter.

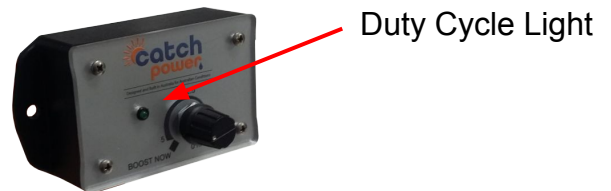


Picture shows the CT positioned just before the meter.



Incorrect CT installation will result in hot water heating using peak tariff electricity.. this will be very expensive for the customer.

IS THE CT CORRECT?

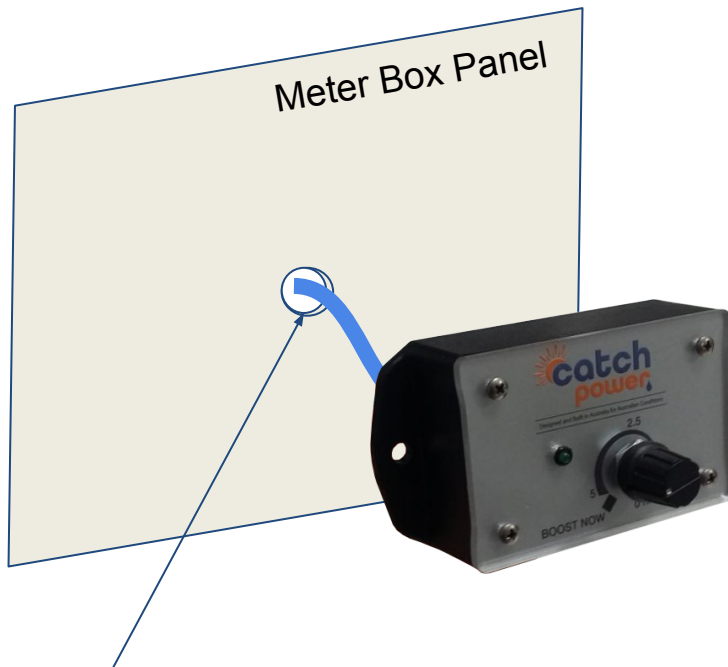


The CT direction is correct if:

- When there is solar being exported the duty cycle light will be flashing or solid on.
- When there is no solar exporting the duty cycle light will be off.

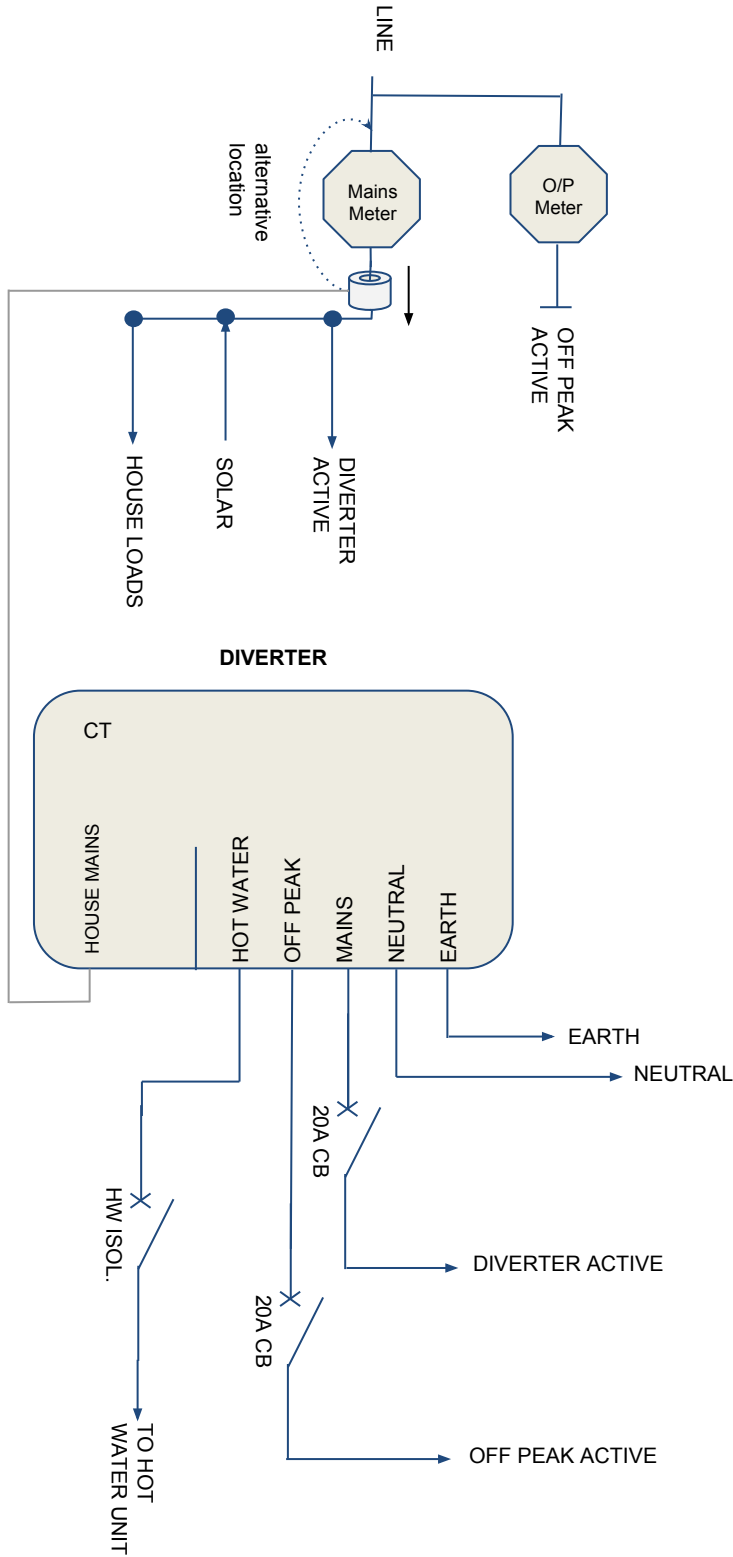
Install the Controller

The CATCH Controller is to be installed in the front of the meter box, protected from the weather.



1. Drill a 10mm Hole in the meter box panel to fit the controller cable through.
 2. Using appropriate screws fix the controller to the meter box panel.
 3. Screw the controller cable wires into the terminal block on the Catch Diverter.
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Diverter Wiring Diagram



NOTE:
 DIVERTER ACTIVE and OFF PEAK ACTIVE must be supplied from the same phase or the diverter will be damaged.

Boost Controller Settings

The Boost Controller guides GREEN CATCH on how best to utilise the off peak boosting window. The control dial allows you to set the number of hours spent “Boosting” the hot water service.



Boost Window:

If there is no off peak connected to the diverter CATCH treats the boost window as any time between 11pm and 5am AEST

If off peak is connected the boost window is any time the off peak is available and there is no solar being generated.

HOW CATCH WORKS WITH THE CONTROLLER:

- If the controller is set to **“BOOST NOW”** CATCH will turn the hot water unit on immediately.
 - Otherwise the following algorithm applies -
- CATCH starts by assuming the number of boosting hours set on the controller is correct.
- If CATCH finds the hot water shut off is happening before mid day on more than 3 consecutive occasions then CATCH will automatically reduce the boosting time by 12.5%. This process repeats until the hot water cut occurs around midday.

Note: the 12.5% reduction is an internal calculation, the dial position will not change.
- If on any day CATCH cannot get the hot water to cut off during the solar day, two things will happen:
 - a. The boosting that night will not be limited, it will go until cut off is reached.
 - b. The boosting hours will reset to the controller default.

The formula below can be used as a guide for setting the boost control.

$$\text{Boost Control (Hrs)} = \frac{\text{Daily HW Usage (kWh)} - \left(\text{Solar Size (kW)} \times 1.4 \right)}{\text{Element Size (kW)}}$$

Boost Controller Light

The small light next to the boost control dial tells you how hard CATCH is working. The light is called the Duty cycle light.

the amount of time the light is on represents how much energy CATCH is trying to put into the hot water service. For example:



- If the duty cycle light is off, there is no power being sent to the hot water service.
 - If the duty cycle light has small short flashes, there is a little bit of energy being sent to the hot water service.
 - If the duty cycle light has long flashes, there is a lot of energy being sent to the hot water service.
 - If the duty cycle light is on (there is no flashing) it means one of two things:
 - a. There is plenty of solar, so CATCH has turn the hot water service on to its maximum.
 - b. The hot water service has reached maximum temperature and has cut off, CATCH is trying as hard as it can to put energy in but the hot water service won't allow it.
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