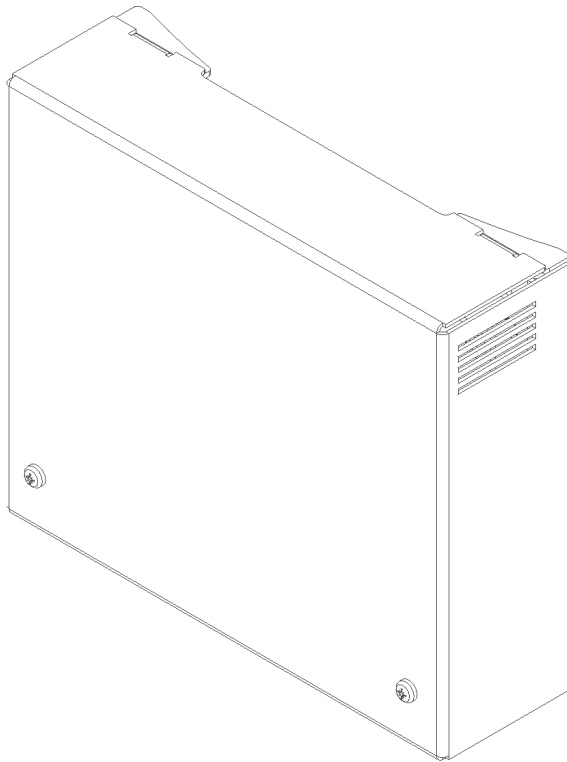


# Installation and commissioning instructions

## MDC0014-02

For Mixergy PV switch



**mixergy**

## About this module

The Mixergy PV switch is an intermediary relay device which allows for external 3rd party PV diverters to be integrated with the Mixergy cylinder and share use of the primary immersion.

Under idle conditions, control of the immersion is given to the PV diverter. Whenever the Mixergy controller calls for heat through the immersion via. boost or a scheduled heating event, control of the immersion is switched away from the PV diverter and given to the Mixergy controller.

For all queries, please contact us:

**Tel: 01865 884343**

**Email: [enquiries@mixergy.co.uk](mailto:enquiries@mixergy.co.uk)**

## Technical data

<b>Supported (input) diverter(s)</b>	1
<b>Supported (output) immersion(s)</b>	1
<b>Supported immersion rating</b>	230-240 V~ 2.7-3.0 kW
<b>Supported immersion specification</b>	EN 60335-2-73
<b>Max. idle consumption (12V)</b>	250 mW
<b>Max. active consumption (12V)</b>	1500 mW

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## Included items

- MAS0086-01 PV ready switch box complete
- MEL0049 2m pump cable extension
- 2x MME0077 Screw No 8 x 13mm Self Drilling
- 2x MME0152 Plastic spacer
- Installation guide

## Installation: general guidelines



**ENSURE ALL ELECTRICAL SUPPLIES ARE SWITCHED OFF BEFORE MAKING ANY CONNECTION TO THE UNIT. ELECTRICAL INSTALLATION MUST BE CARRIED OUT BY COMPETENT ELECTRICIAN AND BE IN ACCORDANCE WITH THE LATEST I.E.E. REGULATIONS.**



Ensure that all mains cabling used has a minimum CSA of 1.5 mm<sup>2</sup> with a minimum temperature rating of 90C (H05V2V2-F).

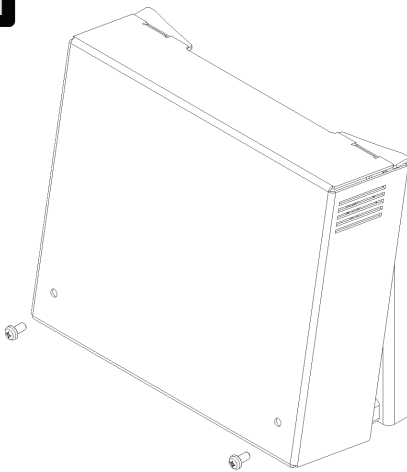
Avoid fitting the PV switch or making electrical junctions directly underneath water pipework.

The PV switch can be fixed to the outer wrapper of the cylinder using the two self drilling screws or to an adjacent wall using the provided plastic spacers. In the case of a wall-mount, the immersion cable will need to be extended. Ensure that the junction used to perform this extension has a minimum IP41 rating and is appropriately rated to handle 240V~ 13A continuous.

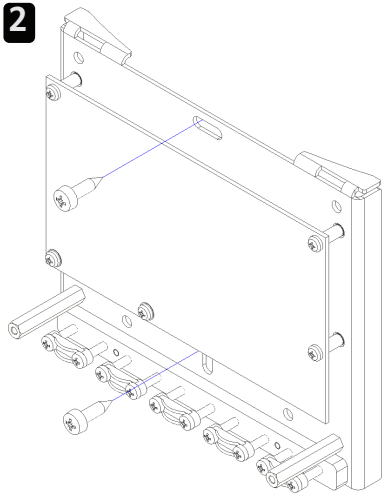
## Installation: mechanical

1. Remove the front cover of the PV switch.
2. Mount the PV switch either to the side wall of the cylinder (using the included self-drilling screws) or to a nearby wall (using the included plastic spacers).
3. Remove the cover/cap on the primary immersion heater. Disconnect the Mixergy controller's immersion supply cable from the immersion's terminals.

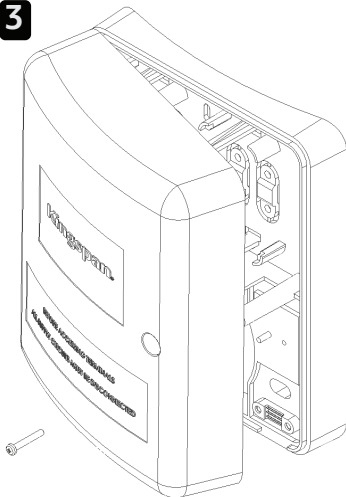
**1**



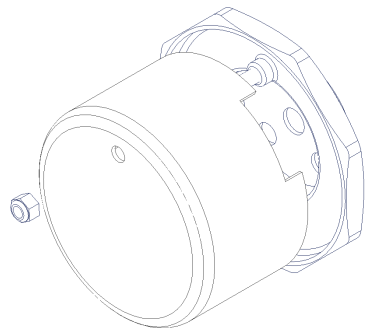
**2**



**3**

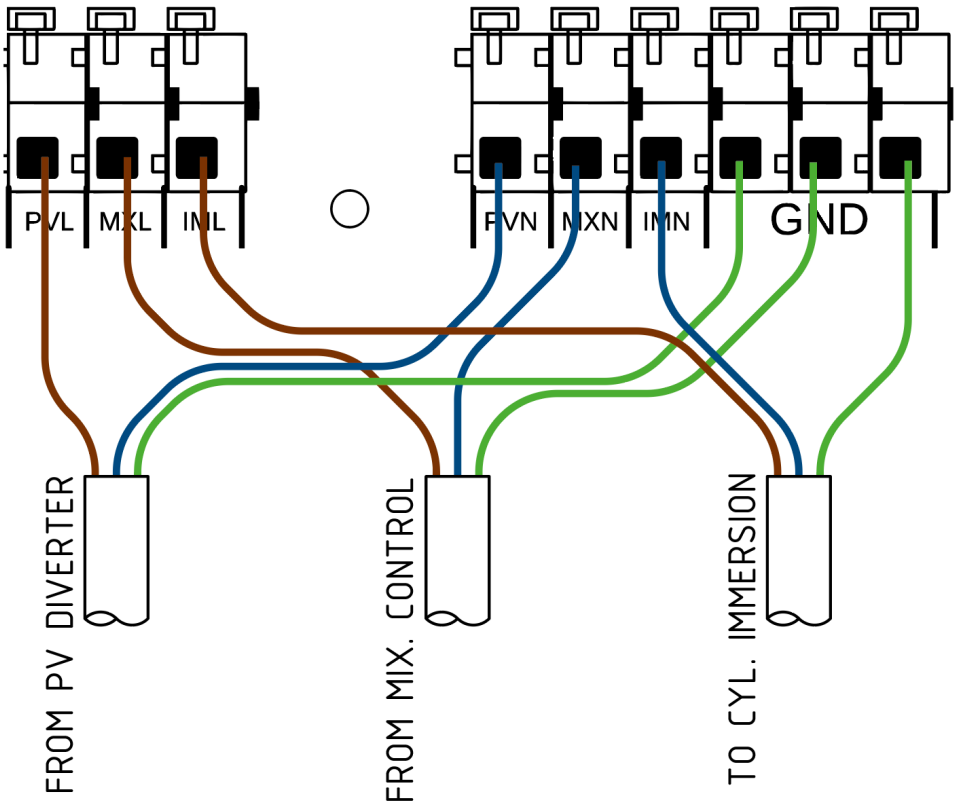


**3 (SLIM)**



## Installation: electrical

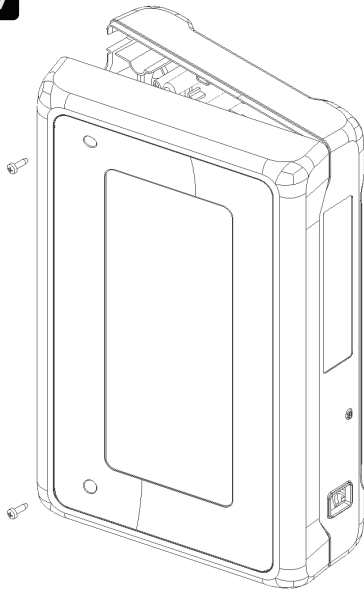
4. Wire the Mixergy controller's immersion supply cable into the terminals MXL(L), MXN(N), GND(E) on the PV switch. This cable can be extended using minimum 1.5mm<sup>2</sup> CSA 3-core H05V2V2-F flex if required.
5. Wire the external diverter's immersion supply cable into the terminals PVL(L), PVN(N), GND(E) on the PV switch.
6. Wire an appropriate length of minimum 1.5mm<sup>2</sup> CSA 3-core H05V2V2-F flex from the PV switch terminals IML(L), IMN(N), GND(E) to the cylinder's primary immersion heater terminals L, N, E.



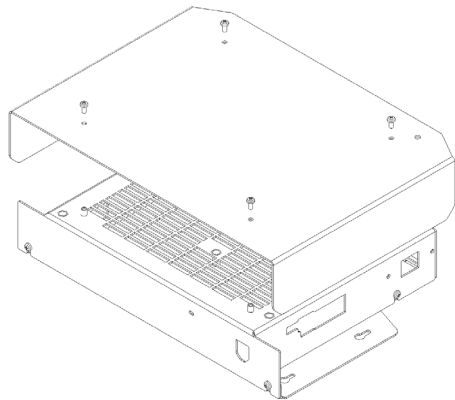
## Installation: electrical

7. Remove the Mixergy cylinder controller's top cover by unscrewing the screws shown below and pulling the cover away.
8. Unplug the pump from the cylinder controller.
9. Plug the pump cable into either pump port on the PV switch.
10. Plug the included pump extension lead from the second pump port on the PV switch to the pump port on the cylinder controller.
11. If the immersion thermostat is not already adjusted to maximum, or the thermostat is being replaced, ensure that the thermostat is adjusted to its highest set temperature.
12. Replace immersion cover, PV switch cover and cylinder controller cover.

**7**



**7 (alt)**



## Installation: commissioning

1. Restore power to external diverter and Mixergy controller
2. Cancel and scheduled heating events/boosts from the Mixergy controller (if active).
3. Set the PV diverter to bypass/boost and check that the immersion is heating via the diverter.
4. Set the Mixergy controller heat source to electric and boost using the gauge, observe that the bypass/boost function of the diverter is switched off and the cylinder continues to heat via. the Mixergy controller supply.
5. Set the exchanger circulator pump speed to setting II for heat pumps, I for solar thermal.

## Troubleshooting

### Diverter not working correctly

If the diverter is unable to supply heat to the cylinder, perform the following checks:

- Check that the cylinder is not entirely full of hot water (i.e. 100% charged). If the cylinder is full of hot water, drain the cylinder down 20-30% and repeat the commissioning steps.
- Check that the cylinder immersion thermostat is adjusted to its maximum set temperature.
- Check that the diverter is setup correctly according to manufacturer's instructions.

### RCD tripping

If an RCD is tripping when the cylinder is switched on, double check all mains wiring to the PV switch, diverter and cylinder immersion.

### Electrical fault

If an electrical fault of the controller is suspected or the electrical system does not operate as expected, please contact Mixergy directly.



## Replacement parts

**Do not attempt to repair or replace any parts of the Mixergy cylinder unless you are a trained operative.**

**If you suspect a fault or a replacement part is needed, please contact Mixergy directly.**

Part description	Part no.
PV Switch PCBA	MAS0085
PV Switch enclosure lid	MME0144
Pump cable extension	MAS0090

For more information on our  
hot water tanks,  
visit us at **[mixergy.co.uk](https://www.mixergy.co.uk)**  
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