

## **Topps ACK 4 and C20 Motor Wiring and Installation Guide**

We do recommend that a qualified electrician installs these units

### **230V**

Common – Grey / Blue  
Open – Black  
Close – Brown

### **24V**

Close - Blue  
Open - Brown

#### **To the Controller**

A 1mm 3 core flex supply connected to  
A switched fuse 230v spur (fused at  
Between 3 – 5 amp)

#### **To the Controller**

See controller instructions

#### **To the Actuator**

Run 4 core flex (.75mm or larger) from  
Controller. The earth wire is connected to  
Controllers earth.

#### **To the Actuator**

Run 2 core flex (1.5mm or larger  
depending on cable run) from  
control.

**\* N.B. – When looking to plaster in the cabling for the motors please check whether the control units ordered are with rain sensors. In this instance there will be more cabling from the sensor that needs to be fed back to the control unit. If any doubt leave plastering until after installation.**

If looping to other actuators continue flex (inc 230v earth) wire to others actuators. If running more than 8 actuators check cable size. Before attaching the chain to the upper bracker, please power each actuator, so it fully opens and fully closes.

### **C20 Motors**

There are 2 settings for the opening either 240mm or 300mm. The small switch to adjust the setting is located in the end of the motor

### **TOPPS ACK 4 Motors only**

#### **Adjuster Screw**

Please note that if the V3 adjuster screw (pic21 in ACK4 manual) is not adjusted properly before the actuator is switched on (i.e. if the window closes before the actuator has finished its closing travel). This will result in the teeth of the cog being stripped (see buzzer).

#### **Length of opening**

To adjust the length of opening, turn dial from 100mm (marked as 10 on dial) to 400 (marked as 40 on dial). Generally speaking it is better to use a maximum opening of 200 mm, which will give a good airflow and minimize the likelihood of water ingress. If opened too much there is a danger of the skylight lid detaching itself

#### **Buzzer**

If the buzzer sounds this means that the chain has been stopped from retreating fully or a blockage has occurred.

#### **Extension Pins**

Extension pins up to 88mm are available if required. The ACK4 chain has to be fully retracted inside housing with motor powering off otherwise it will damage itself.

### **Technical Support**

For any technical enquiries in relation to any of our motors or controllers please call Vent Engineering on 01202 744958

### **Guarantee**

Opening Actuator casing invalidates all guarantees.

# TRADITIONAL ROOF LANTERNS

by  
Christopher Cooper



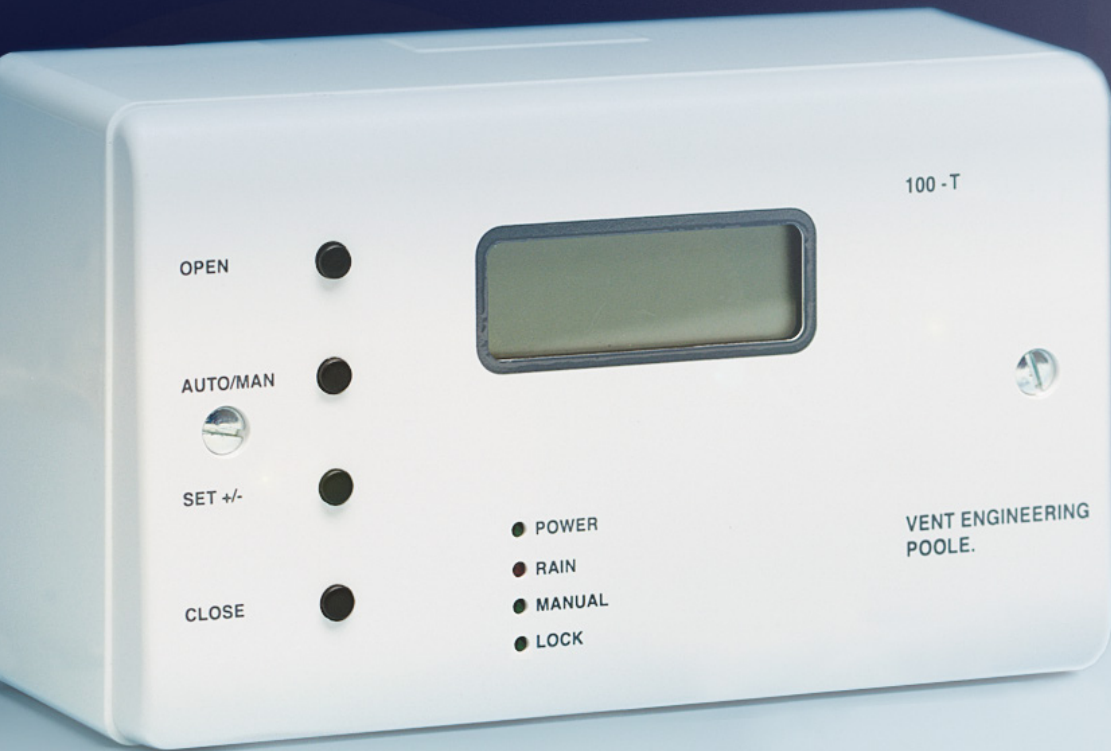
## Wiring information for electric skylights and top hung sashes

1. The supply is 240 volts
2. A 4 core cable is required (3 + earth) either 1mm or 1.5 mm
3. We supply the motors already in place on the bottom of each opening skylight or top hung sash. Each motor has 1 metre of cable. If the electrician leaves about 1 metre of cable coiled up in the centre of each long length on top of the upstand it can be fed up through a hole in our cill when we fit the lanterns. The electrician can then connect the 2 cables on top of our cill with a neat junction box.
4. Depending on your choice of control –
  - a. Simple open / close switch. This will fit onto a single socket box.
  - b. Open / close with rain sensor. For this set up the rain sensor will be stuck onto the base of the lantern glass externally and the cable (a separate cable from the electric supply, about the same size as bell wire) will need to be passed down through the upstand and feed through the walls back to the central box before plastering. The control unit would fit onto a standard double socket.
  - c. Open / close with thermostat and rain sensor. This is the same as the above (b) but has an additional 1 metre cable in the control box with a temperature sensor.

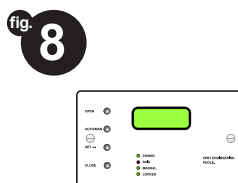
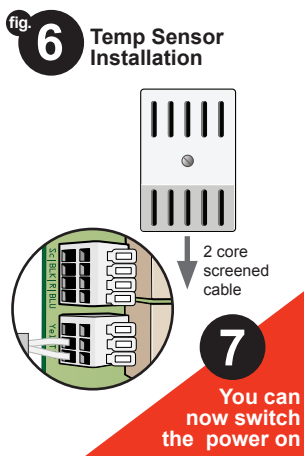
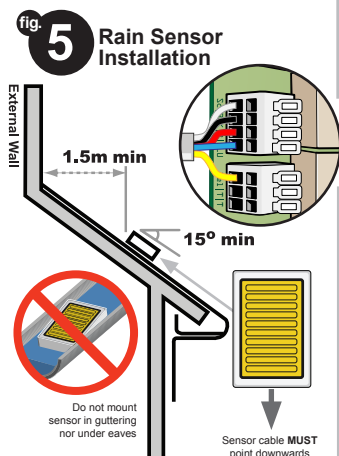
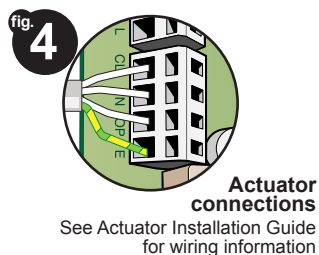
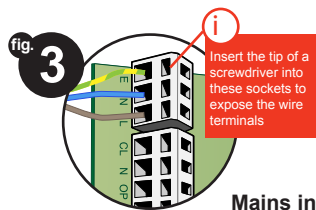
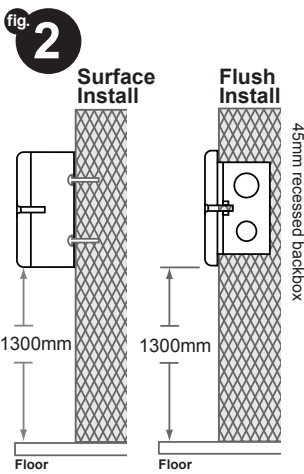
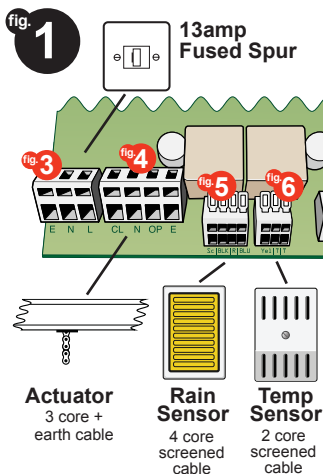
# 100 Series

Thermostatic and Rain Controller

## Installation Guide



# 100 Series Installation Guide



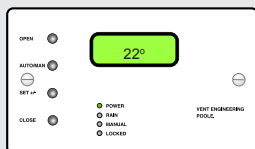
## Finished.

Your unit will now be fully set up to work with its factory settings.

Please read the following steps to adjust basic optional settings.

## Additional user settings

### Preset Opening Temperature

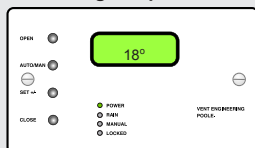


### To adjust opening temperature

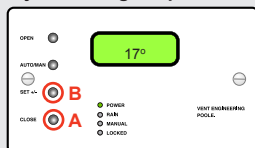


In Auto mode, hold 'A' & repeat press 'B'

### Preset Closing Temperature



### To adjust closing temperature

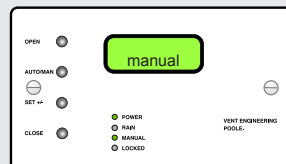


In Auto mode, hold 'A' & repeat press 'B'

We advise a difference of at least 2° between the opening and closing temperature.

### To manually open and close

Press and hold **AUTO/MAN** for 2 seconds until **MANUAL** light comes on then use the **OPEN** or **CLOSE** buttons to adjust the window position.



Press and hold **AUTO/MAN** for 2 seconds to return to automatic mode.

# Frequently Asked Questions

We have compiled the following list of **Frequently Asked Questions** to assist you with any troubles you may encounter.

**Q. It has recently stopped raining but my windows have not opened again?**

- A. In Auto mode the 100 series controller has a built in time delay of 5 minutes between the rain sensor drying and the unit becoming fully operational. This will be indicated by the presence of the Rain LED on the front panel. For the unit to operate the current temperature will need to be higher than your desired opening temperature. In manual mode you should have full control of the unit.

**Q. Only the set+/- button on my panel does anything?**

- A. This means your panel has been locked. To unlock your unit see the instructions on the back page.

**Q. Can I change the default lock/unlock code?**

- A. No. The code has been preset to avoid the need for a complete system reset should the new code be forgotten.

**Q. My rain sensor seems to have become less responsive?**

- A. Check the unit has not slipped or fallen into an undesired position and try cleaning the metallic head with a soft damp cloth. We recommend the rain sensor is cleaned on a quarterly basis.

**Q. Where do I mount my temperature sensor?**

- A. This location is entirely at your discretion. We would recommend a position that gives a good average reading of the desired location, ideally at least 1300mm from the floor.

*You can choose to position the thermostat a maximum of 30m away from the control panel.*

**Q. My display shows 0.0 - Is this correct?**

- A. This indicates a problem with the thermostat wiring. Check the wiring and that all connections have been correctly made.

**Q. How many actuators will the 100 series operate?**

- A. The 100 series has a 5 amp capacity.



# 100 Series Advanced Operations Guide

The default settings of our 100 series controller are suited to most user applications. However, if you need to make advanced alterations such as; Thermostat, Actuator and Lock Calibration, then please use the following guide.

To enter 'advanced' setup set your unit to "AUTO" mode then press and hold the **AUTO/MAN** plus **SET +/-** buttons simultaneously for 5 seconds.

Your screen should now read..

ADV  
SETUP

After a moment the screen will change to display

To Advance  
Press SET +/-

Using **SET +/-** is how you scroll through the available options and saves each stage of any alteration.

Now press "**SET +/-**". The screen will read..

To + a value  
Press Open

The Open button is used to increase any value.

Press "**SET +/-**" again. The screen will read..

To - a value  
Press Close

The Close button is used to decrease any value.

Press "**SET +/-**" again. The display will read..

Proceed to  
ADV Setup

Now you can proceed to the advanced setup options.

Press "**SET +/-**" again. The display will read..

Room Temp  
is now XXc

'XX' being the current temperature in your room.

By using **Open(+)** and **Close(-)** you can calibrate the display temperature.

Press "**SET +/-**" again. The display will read

Full open  
Cycle 013sec

**013sec** is the amount of time for the motor to operate and fully open - in most cases this default setting is adequate. You can of course, alter this setting for your actuator by pressing the **Open(+)** and **Close(-)** buttons.

Press "**SET +/-**" again. The display will read..

Opening  
Temp =22c

This relates to the temperature that the room must reach before the actuator will operate.

You can alter this setting by pressing the **Open(+)** and **Close(-)** buttons.

Press "**SET +/-**" again. The display will read..

Closing  
Temp =18c

This relates to the temperature that the room must fall to before the actuator will operate.

You can alter this setting by pressing the **Open(+)** and **Close(-)** buttons.

Press "**SET +/-**" again. The display will read..

AUTO LOCK  
MODE OFF

Using autolock is a security feature that prevents the unit from being used without entering a passcode first. You can turn this on or off by pressing the **Open(+)** and **Close(-)** buttons.

Press "**SET +/-**" again will take you back to **AUTO MODE**

The unlock sequence is:

- Button 2** [ AUTO/MAN ]
- Button 1** [ OPEN ]
- Button 3** [ SET +/- ]
- Button 4** [ CLOSE ]