

The main installation and commissioning instructions should be followed, but the following points should be read through and understood, before commissioning of the “Commercial Weather Watcher” commences.

### TESTING

- 1) The test resistor (47Kohm) is not fitted in the base of the main control but into the lower terminal block. This should be removed when the outside sensor is fitted, and left in the bottom of the enclosure to facilitate testing at a later date if required.
- 2) During testing the Set Back Clock (mounted in the top right- hand of the enclosure) must be in the OFF position. This can be checked by removing th plastic cover over the face of the clock and checking that the indicator at the top of the clock is in the “0” position. If it is in the “1” position rotate the indictor in the direction of the arrow until “0” is indicated. Also the switch below the clock must be in the “Timed” position.

### Commissioning

After testing the “Set Back Clock” should be set as required by the customer. This facility will reduce the charge to the system by approximately 50% of normal charge, with out set back.

To switch on the set back facility, a green peg should be fitted to switch the clock ON, before the off-peak tariff comes on, and a red peg to switch the clock OFF, after the off-peak tariff switches OFF.

E.g. To set the system to switch into set back mode for the weekend, a green peg should be fitted to switch the clock ON at 9 pm Friday, and a red peg to swich the clock OFF at 9 pm Sunday. ( these times are only a guide, as any time outside the off peak tarriff can be used)

The “Constant/Timed” swich should always be left in the “Timed” postion unless a permanent set back is required e.g. holidays.

# SPHQ MECHANICAL TIMESWITCH CLOCK OPERATING INSTRUCTIONS

## SPHQ/24HOUR 24 Hour Timeswitch Clock SPHQ/7DAY 7 Day Timeswitch Clock

### 1. INSTALLATION

(a) Mounting

#### **Surface Mount**

Remove transparent front cover. Unscrew the front corner screws. Separate the base from the clock and remove terminal shroud. Fix the base to the wall with screws.

#### **DIN Rail Mount**

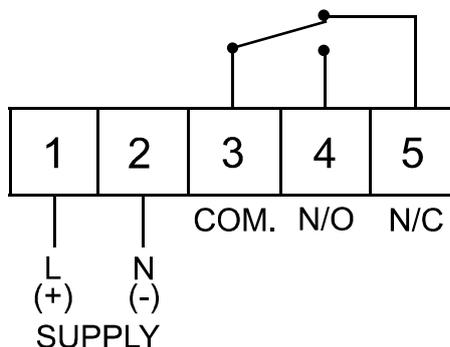
Remove transparent front cover. Unscrew the front corner screws. Separate the base from the clock and remove terminal shroud. Clip the base onto DIN rail.

#### **Panel Mount**

Remove transparent front cover. Unscrew the front corner screws. Separate the base from the clock and remove terminal shroud. Position the timeswitch clock through the panel and push panel mount clip firmly from behind the panel.

(b) Connect appliance to power supply - see wiring diagram below. **The installation and assembly of electrical equipment should only be carried out by a skilled or qualified person.** Replace terminal shroud on base, attach clock onto the base and replace front corner screws and transparent front cover.

### WIRING DIAGRAM



### 2. PROGRAMMING

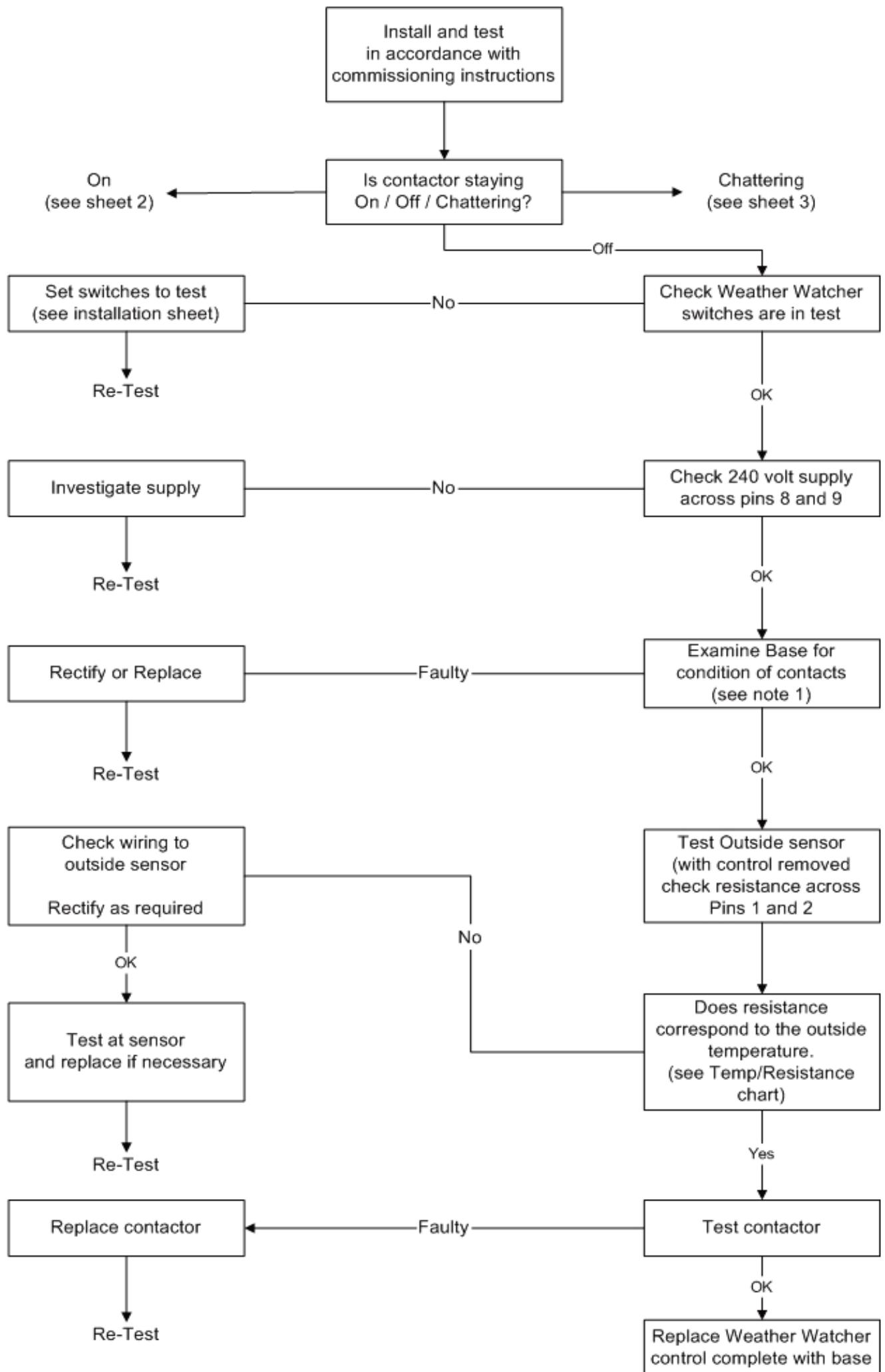
(a) Ensure the timeswitch clock is in operation by observing the central spindle rotating. This can take up to 10 minutes from the time the power supply is connected. Rotate this central spindle until the timeswitch clock hands are reading the correct time.

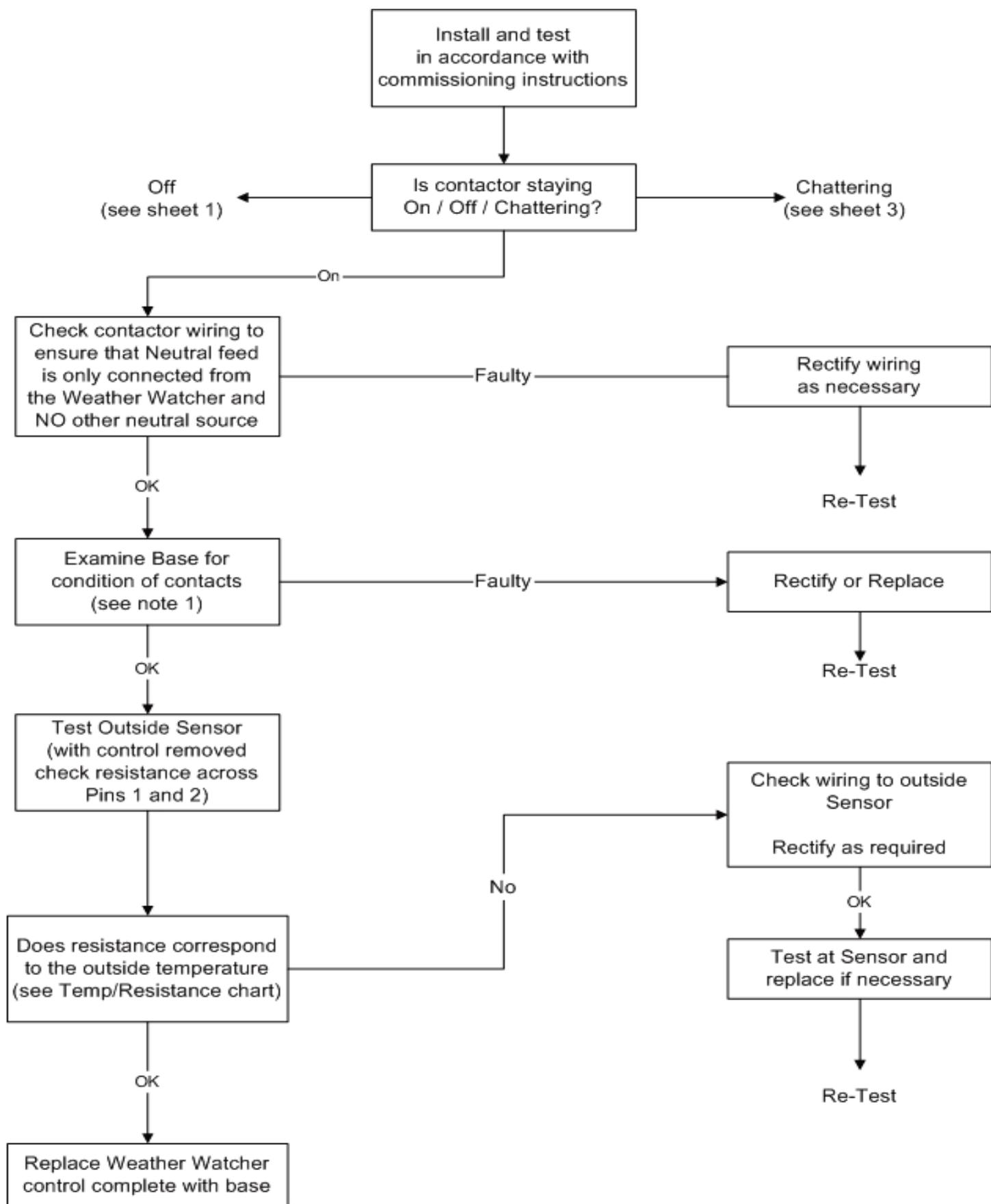
(b) Place the green tappets on the outside gear wheel at the selected times for ON operation. Place the red tappets on the outside gear wheel at the selected times for OFF operation. Ensure that there are equal numbers of red and green tappets and that they are alternating in position.

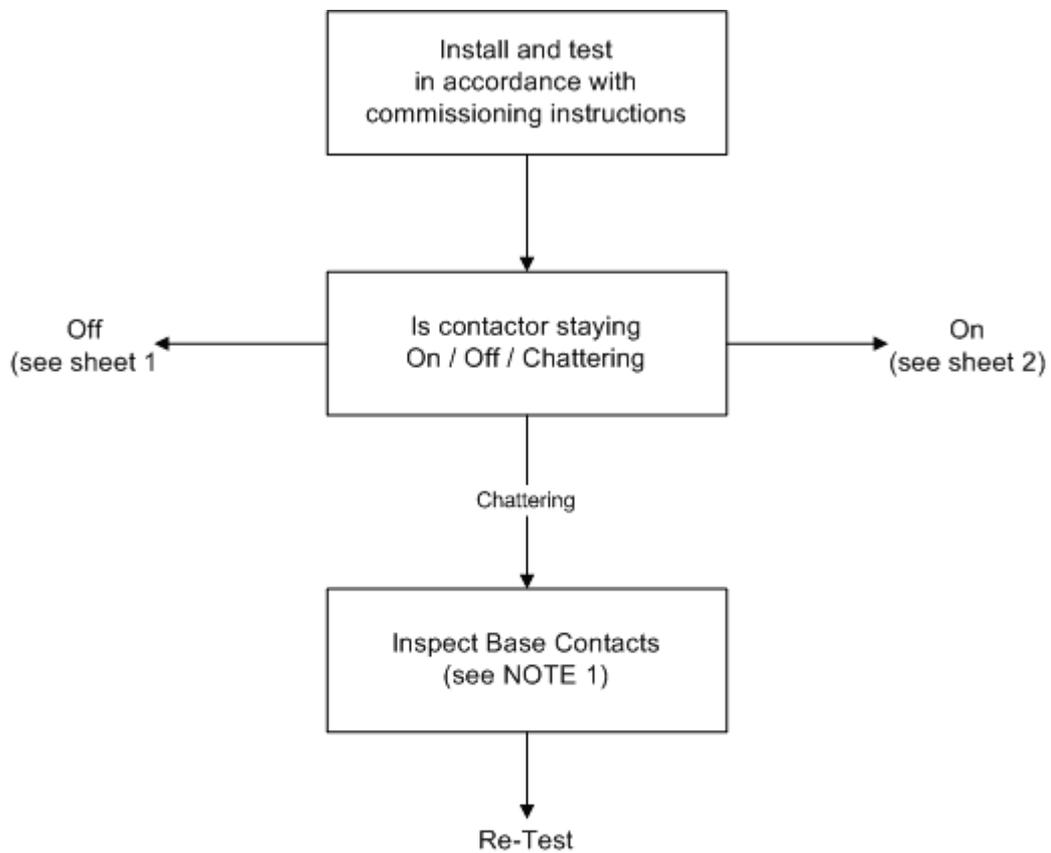
**Note: The minimum switching interval for the SPHQ/24HOUR is 30 minutes and for the SPHQ/7DAY is 3 hours.**

(c) The indicator in the top right hand corner of the timeswitch clock indicates the ON or OFF status. If the white line points towards '0' the timeswitch clock is in an OFF period whilst if the white line points towards '1' the timeswitch clock is in an ON period. This indicator can be rotated for manual override control.

**Note: If the power supply is removed or fails, the timeswitch will continue operating for 100 hours after an uninterrupted 48 hours of charge.**

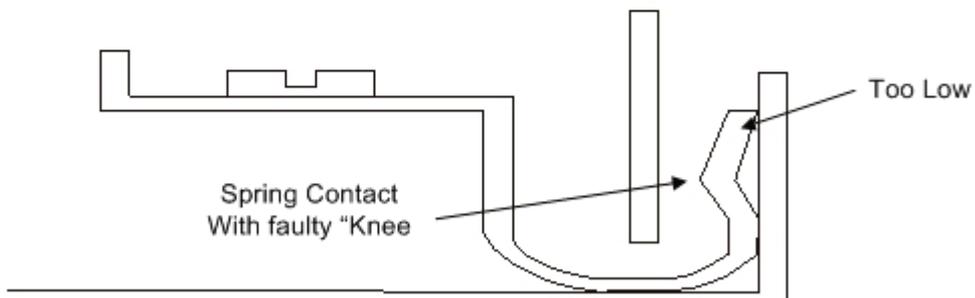
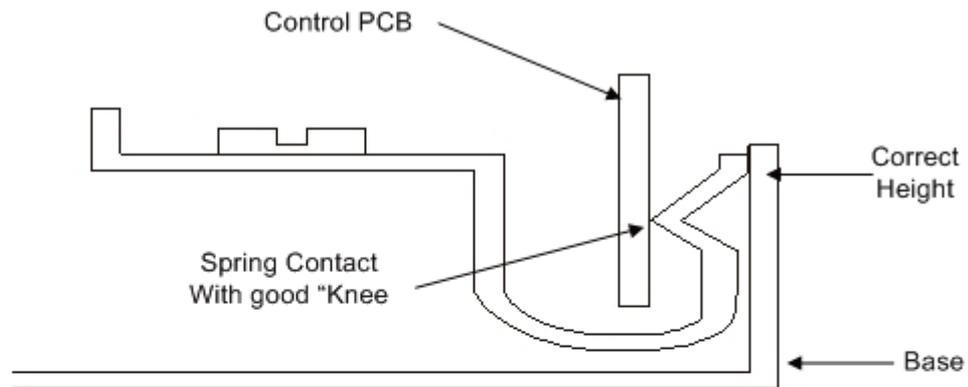




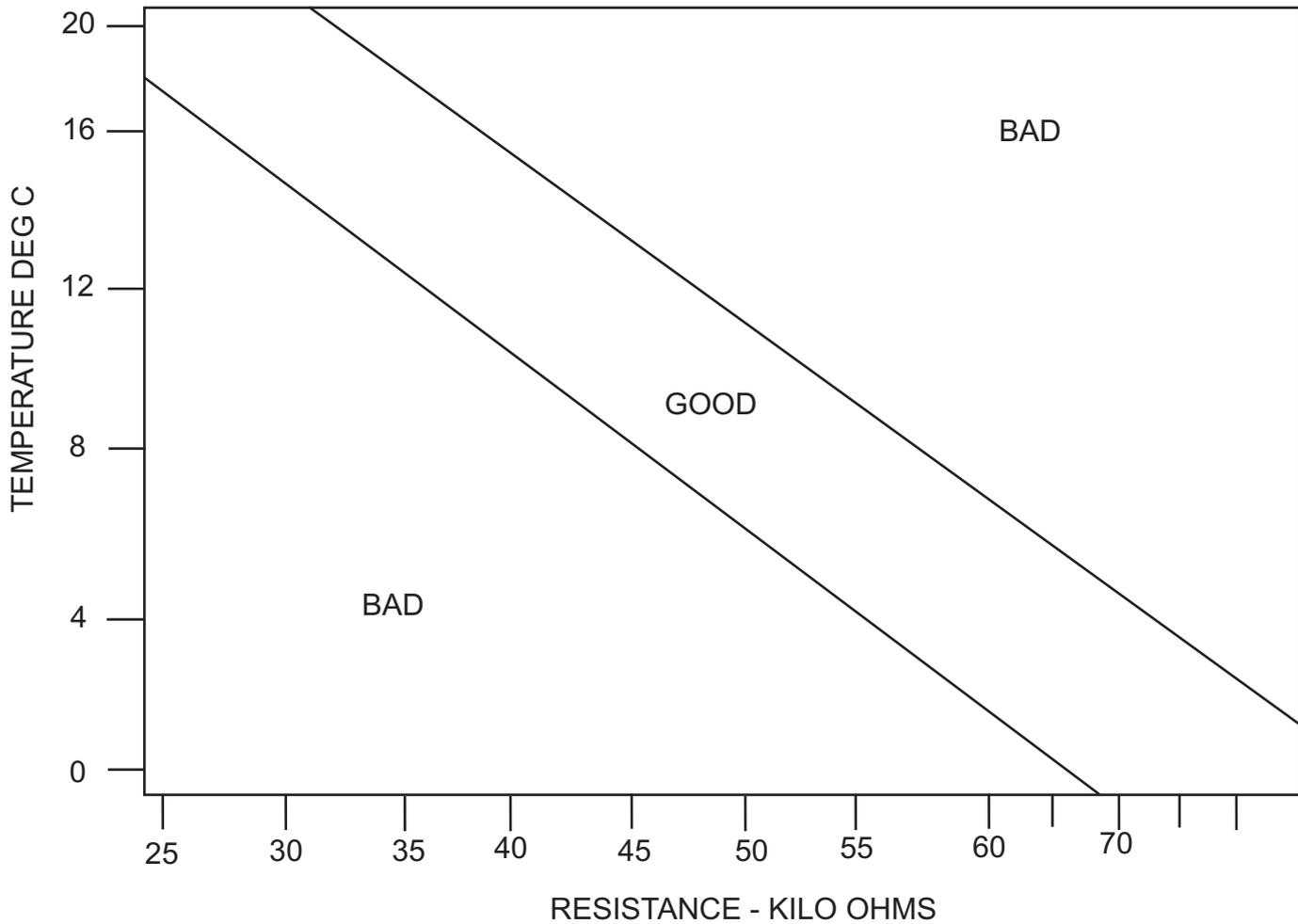


**NOTE 1**

Base contact should have a well defined "knee" in the contact leg adjacent to the outside face of the Base. This side of the contact should be almost in line with the top edge of the base



## Outside Sensor Temperature/Resistance Chart



### NOTE

Testing of the outside sensor should only be carried out using an Ohm meter with the control removed from the base.

**A Mega should not be used under any circumstances**

The accuracy of the sensor is + or - 2 Deg and should fall inside the "Good" band when tested.

The sensor should be checked for ingress of moisture as this can affect its operation

## TYPICAL TEMPERATURE V RESISTANCE READINGS FOR OUTSIDE SENSORS

| TEMP (Deg C) | RESISTANCE (K Ohms) |
|--------------|---------------------|
| 0            | 76.7                |
| 1            | 72.3                |
| 2            | 68.2                |
| 3            | 64.4                |
| 4            | 60.8                |
| 5            | 57.4                |
| 6            | 54.2                |
| 7            | 51.3                |
| 8            | 48.5                |
| 9            | 45.8                |
| 10           | 43.4                |
| 11           | 41.1                |
| 12           | 38.9                |
| 13           | 36.8                |
| 14           | 34.9                |
| 15           | 33.1                |
| 16           | 31.4                |
| 17           | 29.8                |
| 18           | 28.3                |
| 19           | 26.8                |
| 20           | 25.5                |

White  
Rodgers



New models are continuously under development.  
For further information visit our Website [www.pactrol.com](http://www.pactrol.com) or contact the sales team at [sales@pactrol.com](mailto:sales@pactrol.com) Pactrol Controls reserve the right to change the specification of this product range without notice.