



<u>CME1Q+</u> Units With Volt Free Switching



This document covers part numbers TP300 & TP351

PAGE 1 OF 9

FAULT FINDING CME1Q+ NON A

ISSUE 3 27/10/22

RTILON® 894 The Crescent, Colchester Business Park, Colchester, Essex, CO4 9YQ United Kingdom Tel: +44 (0)1206 713800

Contents

| Unit Identification |
|--|
| Product Features |
| Continuous Speed |
| Boost Speed with Overrun Timer |
| Wiring Diagrams |
| Unit Dismantling |
| Fault Finding |
| Unit Not Running |
| Unit Will Not Boost |
| Unit Stuck In Boost |
| Unit Noisy6 |
| Insufficient Airflow |
| Condensation/Mould Within House |
| Condensation/Moisture Forming In Or On Ducting |
| Unit Will Not Stay In Place Without The Additional Fixing Screws |
| Quick Commissioning |
| Full Commissioning |
| Continuous Speed Setting |
| Boost Speed Setting |
| Resetting The Controller |
| Fig 1 Molex Connector |
| Fig 2 PCB Components |

Unit Identification



All maintenance/fault finding/repairs must be completed by a competent person. Safe isolation procedures must be followed when working on these units.



Product Features

| Model | CME1Q Plus | |
|--|------------|-------|
| Part Number | TP300 | TP350 |
| Complete Unit | • | |
| 2nd Fix Cover / Scroll / Inlet Ring Assembly | | • |
| Continuous Speed | • | • |
| Boost Speed | • | • |
| Boost Overrun Timer | • |) |

Continuous Speed

Continuous speed is the normal continuous extract air flow running speed of the units.

Boost Speed with Overrun Timer

Boost speed increases the extract air flow and includes an Overrun Timer offering 5, 10, 15 or 20 minute steps. The boost speed can be triggered by any device which provides a volt free one-way switch, such as PIR, thermostat, humidistat or a standard one-way switch.

Wiring Diagrams



N.B. the remaining two terminals are not used

Unit Dismantling

All maintenance/fault finding/repairs must be completed by a competent person.



R TILON[®] 894 The Crescent, Colchester Business Park, Colchester, Essex, CO4 9YQ United Kingdom Tel: +44 (0)1206 713800

| Boost Cable Mains Cable | Inlet removal. Remove the mains cable and the boost cable(s). Safety lockout procedure must be followed prior to disconnecting the mains from the unit. |
|-------------------------------|--|
| | Remove three additional fixing screwS |
| | Unclip the inlet ring from the first fix base. One clip in each corner. |
| | Scroll removal. Undo the four screws, as shown. |
| | Unclip the scroll in three places. |
| Screw 4 off | Fan removal Disconnect the fan cables from the PCB and the mains terminal, release the cable clamps. Then remove the 4 retaining screws. |
| | PCB removal Disconnect the motor cable (white Molex connector) and the boost cables. |

PAGE 4 OF 9

FAULT FINDING CME1Q+ NON A

ISSUE 3 27/10/22



PCB mounted on nylon feet - Using a flat screw driver prize the PCB off the four nylon feet.

Fault Finding

<u>Unit Not Running</u>

- 1. How are you determining the fan is not running? The fan may be running but is so quiet it cannot be herd. Check flow rates at ceiling terminals
- 2. Check 230v is present at terminal block.



3. Check fan Molex connector is firmly located onto the PCB.



4. Check fan runs (connect a 10KΩ potentiometer as Fig 1), turning the potentiometer will adjusts the fan speed from max to min or vice versa.

<u>Unit Will Not Boost</u>

- 1. Is it actually boosting but the boost speed is just higher or the same as continuous, therefore no audible difference.
 - Check flow rates at continuous and boost to see if there is a difference.
- 2. Is the unit in program commissioning mode, the unit will not respond to boost when in the commissioning position? The jumper needs to be in the stored position Fig 2
- 3. Is the boost switch providing a connection across the boost terminals?
 - Disconnect the boost wires and check for continuity, with a continuity tester or multimeter.
 - Function can be tested by bridging the terminals, using a link wire.



Unit Stuck In Boost

- 1. Is it actually dropping out of continuous but the boost speed is just higher or the same as continuous, therefore no audible difference.
 - \circ $\;$ Check flow rates at continuous and boost to see if there is a difference.
 - o Is the overrun timer set to max. (20 mins) Re set, switch the unit off for 20 seconds then restart
- Is the unit in program position, if the boost was the last speed set it will stay at that speed. Jumper should be in the stored position. Fig 2
- 3. Is the boost switch cabling providing a permanent connection across the boost terminals?
 - Disconnect the boost wires and switch the unit off for 20 seconds the restart.
- 4. Are the boost cables running next to mains cables, mains cables can induce voltages in the boost cables that will result in sporadic or continuous boosting? Boost cables and mains cables must be segregated, min 50mm segregation.

PAGE 5 OF 9

FAULT FINDING CME1Q+ NON A

ISSUE 3 27/10/22

<u>Unit Noisy</u>

- 1. Is the unit providing the correct airflow, as calculated in Approved Document Part F? If set to high it may be possible to slow down the fan, thus reducing noise.
- 2. Is the unit capable of achieving the required levels at an acceptable speed. The higher the speed the greater the noise!
- 3. Is the unit permanently in boost?
- 4. Has the system been installed to the design?
- 5. Has the system been designed to minimise noise?
- 6. Is the ducting system fitted to minimise system resistance, including suitable external terminal, duct sizes and duct type?
- 7. Is the ducting system sealed to minimise air leakage?
- 8. Is the unit correctly fitted to stop leakage? Have all fixing screws been fitted?
- 9. Is the Inlet Ring tight against the First Fix Base. If there is a gap it is likely that the two parts are not clipping together correctly. Check the parts clip together correctly without the additional fixing screw. If they do not clip together correctly it is possible the First Fix Base is twisted as it is not on a flat substrate.



10. Is there excessive noise from the fan/motor? E.g. bearing noise

Insufficient Airflow

- 1. Is the unit set to the correct flow rates i.e. commissioned?
- 2. Has the unit sufficient capacity for the dwelling requirements?
- 3. Has the system been installed to the design?
- 4. Is the design balanced?
- 5. Is there excessive resistance in the system?
- 6. Are the ceiling terminals closed?
- 7. Has the correct duct sizes been used?
- 8. Is the ducting system blocked/damaged?
- 9. Is there air leakage in the ducting system, is it sealed?
- 10.1s there air leakage from the unit?
- 11.Is there sufficient clearance under internal doors?
- 12.Is the unit correctly fitted to stop leakage? Have all fixing screws been fitted?
- 13.Is the Inlet Ring tight against the First Fix Base. If there is a gap it is likely that the two parts are not clipping together correctly. Check the parts clip together correctly without the additional fixing screw. If they do not clip together correctly it is possible the First Fix Base is twisted as it is not on a flat substrate.



Condensation/Mould Within House

- 1. Is the unit being switched off, it must run 24/7
- 2. Where fitted, are trickle vents being left open?
- 3. Is the Boost function available and being used? N.B. not required in all properties depending upon calculations.
- 4. Are flow rates being achieved?

PAGE 6 OF 9

FAULT FINDING CME1Q+ NON A

ISSUE 3 27/10/22

- Unit not commissioned, N.B. standard rates may not be sufficient, dependent upon lifestyles.
- System is unable to provide sufficient air flow (refer to fault insufficient air flow).

Condensation/Moisture Forming In Or On Ducting

- 1. Is duct insulated as required, DVCG statement:-
 - Ducting should be insulated where it passes through unheated areas and voids (e.g. loft spaces) with the equivalent of at least 25 mm of a material having a thermal conductivity of ≤ 0.04 W/(m.K) to reduce the possibility of condensation forming. Where a duct extends above roof level the section above the roof should be insulated or a condensate trap should be fitted just below roof level.
- Does duct slope away from the unit, DVCG statement:-Horizontal ducting, including ducting in walls, should be arranged to slope slightly downwards away from the fan to prevent backflow of any moisture into the product.

Unit Will Not Stay In Place Without The Additional Fixing Screws

 Check the parts clip together correctly without the additional fixing screw. If they do not clip together correctly it is possible the First Fix Base is twisted as it is not on a flat substrate. Undo the fixing screws and re check the fitting.

Quick Commissioning

If the unit has previously been fully commissioned the Controller will require Resetting

- 1. Power up the Titon CME 1 Q Plus
- 2. Gain Access to the control board located under the cover
- 3. Place Jumper in the 'Stored' Position
- 4. Select the required speed setting using switches 2 to 4 on the Speed Selection.
- 5. Select required boost overrun using switch 1 on the Speed Selection Switch.
- 6. Check boost activation by triggering the remote boost switch device



Full Commissioning Continuous Speed Setting

- 1. Power up the Titon CME1 Q Plus
- 2. Gain Access to the control board located under the cover
- 3. Place Jumper in the 'ON' Position
- 4. Ensure the controller is in the Continuous mode, switch one off



5. Select the required speed setting using switches 2 to 4 on the Speed Selection.



RTILON® 894 The Crescent, Colchester Business Park, Colchester, Essex, CO4 9YQ United Kingdom Tel: +44 (0)1206 713800

Resetting The Controller

1. Set all speed switches to off.



2. Select to Continuous mode.



3. Place the Jumper in to the ON Position.



- 4. Switch the power to the unit OFF for at least 1 minute
 - 5. Switch the power to the unit back ON, the units should then run at 50% capacity by default.
 - 6. Remove the jumper and place it back into the stored position, the unit should then run at minimum capacity.

The unit can now be re – commissioned, see detail above.

