

TROUBLESHOOTING GUIDE

PKOM 4 COMPACT SERVICE UNIT



EMERGENCY IMMERSION OPERATION

& DIAGNOSTIC INSTRUCTIONS

This document is for the activation of the back-up immersion element and the deactivation of the domestic hot water heat pump in the event of a heat pump failure. This will isolate the possibly faulty compressor and provide you with some hot water via the immersion as a **temporary** solution.

This guidance is mainly for situations where the system or electrics that supply the system keep “tripping”. As the PKOM 4 compact service unit has two heat pumps (one for space heating and one for domestic hot water), the issue could be from one of these or the immersion itself. This guide will tell you how to switch between the modes to isolate the fault.

1. HARD RESET – may solve many issues

The first thing to try with any issue, is completing a hard reset, solving the issue of an unresponsive controller or maybe even clearing other errors on the system. This is done by switching the unit off at the mains and restarting.

2. IS POWER GETTING TO UNIT?

It would also be wise to check that power is getting to the unit and that there is not a fault with the electrical supply (you may need a qualified electrician to do this).

3. ELECTRICS STILL KEEP TRIPPING

If a **compressor (heat pump) is at fault** and the electric keeps tripping after several minutes, this is the length of time that you will have to deactivate them. You will need to complete the below instructions quickly, before the fault happens again.

If someone is available at Total Home Environment, then these changes can be performed remotely if you have your system connected to the internet.

The diagram opposite is the 'home' screen:

- The top option is for the operating mode of the unit ('**auto**', '**summer**', '**winter**' etc)
- Second option is for the ventilation level
- Third option is for the room temperature setpoint
- Last option is for the domestic hot water temperature and its heat pump activation



NB: THIS WILL NOT WORK IF THE LANDLORD SOFTWARE VERSION IS INSTALLED – you should contact your building's maintenance company to complete the procedures below.

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STOPPING COMPRESSOR (HEAT PUMP) FROM SPACE HEATING OR COOLING

1. once you switch the unit back on wait for the controller to come onto its home screen
2. to stop the space heating compressor, press the **top option** by pressing it to highlight the operating mode
3. select '**summer**' mode by pressing it.
4. the home screen should appear, if not press the back button ↶
5. select the third option '**Room**'
6. press the down arrow ↓ to the next page and press "**cooling enabled**"
7. turn this off by pressing the + or - button to change '**Yes**' to '**No**'
8. press '**OK**' to confirm your selection - the heat pump has now stopped space heating or cooling
9. press the back button ↶ or home button 🏠.

STOPPING COMPRESSOR (HEAT PUMP) FROM HEATING WATER

1. ensure you are on the home screen, if not press button ↶ or the home button 🏠.
2. press the bottom option '**Hot Water**'
3. press box next to '**enabled**' so it is highlighted
4. press + or - to change '**Yes**' to '**No**'
5. press '**OK**' to confirm your selection - the heat pump has now stopped heating the water.

ACTIVATE IMMERSION HEATER TO HEAT UPPER HALF OF CYLINDER ONLY

1. From the **Hot Water** menu, press the box next to '**E-booster**' so it is highlighted
2. Press + or - to change '**Off**' to '**On**'
3. press '**OK**' to confirm your selection
4. press down arrow ↓ to get to next page and highlight box next to '**Elec.Heater**'
5. Press + or - to change '**No**' to '**Yes**'
6. press '**OK**' to confirm your selection
7. press the back button ↶ or home button 🏠 to get back to the home screen.

This has now finished the procedure to set your system to an 'emergency mode'. You now have two options:

1. you could switch different systems back on, leaving them on for the same time it has historically taken the electricity meter to trip to see which system is at fault **or**
2. you could leave the system like this until further assistance is available – but please note this is an **emergency set-up only, you will have increased electricity bills** from this temporary function.

NB: you still have the MVHR part of this system working with its PASSIVE heat recovery. Depending on the time of year and the need for heating will depend on whether you will need to proceed any further. If you are in the colder months and rely on the PKOM 4 as your heat source then option 1 above should be carried out.

WARNING: this is only an emergency solution to ensure you still have hot water, whilst waiting for an engineer visit. Increased electricity bills will be incurred using this temporary function.

CONTINUED OVERLEAF

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TROUBLESHOOTING WHICH SYSTEM IS TRIPPING THE ELECTRICITY METER

We would suggest starting by **switching on the space heating**:

1. from home screen select first option and put unit back into '**Winter**' mode by pressing to highlight it (screen should take you back to home screen shown above)
2. you can leave your system like this with the current temperature settings
3. if the heat pump comes on without tripping the electrics and you have heating then it is not the space heating heat pump.
4. if the electric trips again then you will need to follow the above instructions to switch off space heating.

Then try **switching on the hot water heat pump**:

1. switch on the '**Hot Water**' by selecting the bottom option and changing the '**Enabled**' option box to "**Yes**" and then press '**OK**'.
2. If the DHW heat pump comes on (if the bottom half the cylinder is cold enough) and stays running with no issues then the problem is not with the hot water heat pump

The issue is then on the space heating circuit. Unfortunately there is no back-up mode for space heating, so your supplementary heating (woodburning stove/towel rads/infrared heating panels etc) will be needed, but the hot water system will run as normal.

If after trying both systems separately, they both trip-out the electric, but the immersion does not, then it will have to be **run in the "emergency" settings** explained above.

If the **electric is still tripping out when you turn the unit on and both heat pumps are switched off**, then there is something else fundamentally wrong with the PKOM 4. It could be the immersion heater itself, which can be switched off on the controller – this will therefore allow heat recovery ventilation to still be enabled at least.

SWITCHING OFF THE IMMERSION

1. On the home page press the bottom option '**Hot Water**' and switch off both the '**E-Booster**' and the '**Elec. Heater**' settings (see above instructions, '**ACTIVATE IMMERSION HEATER TO HEAT UPPER HALF OF CYLINDER ONLY**' but change to '**No**' and '**Off**'. Then the system will only use the heat pumps, (if they are not at fault) as long as they have been re-enabled again. If this solves the issue, then there is a problem with the immersion.

After these steps have been completed you will hopefully have some functionality with the system and at least have some hot water and heat recovery ventilation. An engineer will need to be organised at the next available date.

4. CALL FOR SERVICE

On 0345 260 0123 Opt 2. Monday – Thursday 8.30am-5pm, Friday 8.30-4.30pm or email support@totalhome.co.uk. Between Christmas and New Year we will shut down although you may email xmassupport@totalhome.co.uk. We will respond within 24 hours outside of the bank holidays, although assistance will be limited.