

Trouble-shooting Guide



One Call

UK & Ireland
coverage from our
dedicated
Head Office

Static Welfare Units

SWO7600 Fusion Pulse & Fusion Pulse Full Flush



How to diagnose and solve most common issues

from **groundhog**

FUSION PULSE
SW07600
 FUSION PULSE

FUSION PULSE
SW07600
 FUSION PULSE FULL FLUSH



- 1. Welfare Area
- 2. Drying room
- 3. Toilet Area
- 4. Warm Room/ Generator Area
- 5. Office Area

The Groundhog welfare range is robust, easy to use and known for its high quality and longevity in the tough rental market.

However, should a problem arise, this trouble-shooting guide from Groundhog contains guidance, advice and helpful notes that will inform you how to diagnose and solve the most common issues that may arise.

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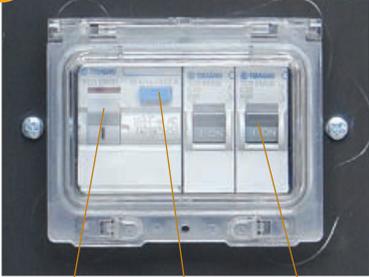
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If the generator does not start...



No 230 volt power to appliances...

1 **9.8kVA generator**



Ensure MCB and the RCD on the generator are in the "up" position.

RCD Test button MCB

2 **Consumer unit above the worktop**



Ensure the RCD and all MCB's within the consumer unit above the worktop are in the "up" position.

MCB's RCD

3 If on checking all of the above you still have no power, press the "test" button on the RCD on the generator. If this does not trip then an engineer will need to attend site to diagnose issue.

No 12 volt power to appliances...

Are LED lights illuminated?

YES

If lights within the unit are illuminated then please check the fuses which are located under the seating area in the drying room.

NO

Start the generator. After around 30 seconds all lights should illuminate.



9.8kVA generator

a → GL OFF ON ← **c** ST

ENGINE SHUT OFF TIMER 1-10 min

ON TIMER ENABLED GLOW PLUG

DISABLED **b**

Start the generator:

- Turn key to GL (see A) on control panel
- Wait for the glow plug light to go out (see B)
- Turn key to ST (start) (see C).
- Once running, allow the engine to warm up for at least 2 minutes before using power.

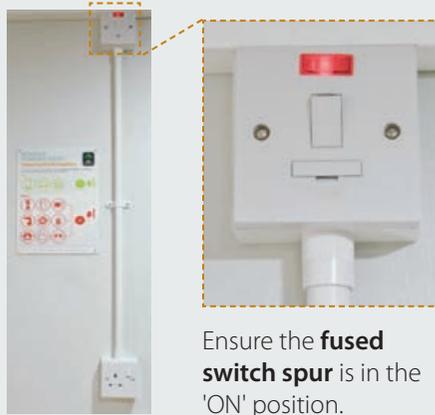
Run generator for full 3 hour cycle

It is important that the generator is then left to run for its full 3 hour cycle to charge the battery.

12V fuse board

If there is no power to inverter powered socket...

If lights within the unit are illuminated then please **check the inverter** which is located under the seating area in the drying room (Fusion Pulse) or in toilet area behind 12V enclosure (Fusion Pulse Full Flush).



Ensure the **fused switch spur** is in the 'ON' position.



Toggle switch in 'ON' position

Green LED light signifying that inverter is in good working order

Fully located plug



1. Ensure the toggle switch is in the 'ON' position
2. The plug is fully located. There should also be a **green LED light** illuminated to signify that inverter is in good working order.

If inverter shows a red LED light

If the inverter is showing a **red LED light** this signifies the inverter has been overloaded.



1. Remove the appliance from the inverter powered socket



2. Turn toggle switch on inverter to the 'OFF' position.



3. After 10 seconds, turn the toggle switch back to the 'ON' position.

NOTE

If an appliance trips the inverter then that appliance requires more power than the inverter can produce, so an alternative power source should be used.

This will then reset the inverter for further use.

If replacing the Pro Charge Ultra...

Fault-finding if charger is showing 0.0V – 0.0 Amps

If changing the Pro Charge Ultra in a Groundhog unit, you will need to reset the programme from 'Battery Charge' (BC) to 'Power Supply' (PS). To do this, please follow points 1–5 below:



1 Start the generator:

- Turn key to GL (see A) on control panel
- Wait for the glow plug light to go out (see B)
- Turn key to ST (start) (see C).

2 On start up the battery charger will first show "888" in Voltmeter & Ammeter windows.

Control 888 Volts 888 Amps

CEC approved

www.sterling-power.com

On start up the battery charger will first show "888" in Voltmeter & Ammeter windows.

3 The display then changes to 'bc'.

Control bc Volts

4 Press either Up or Down arrow button (A) to toggle to 'PS'.

5 When the display reads 'PS', press and hold Setup/Enter (B) for 5 seconds.

Control PS Volts

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When the display reads 'PS', press and hold Setup/Enter (B) for 5 seconds.

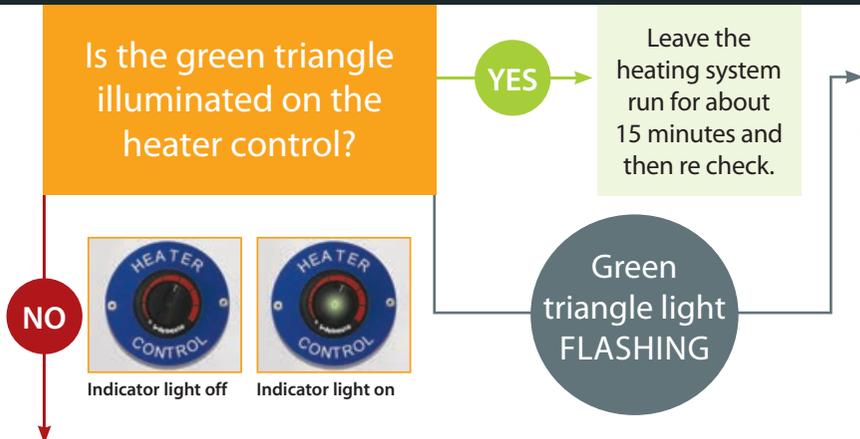
Once stage 5 is completed, your Sterling Power battery charger is set to 'Power Supply' mode.

This can be checked by switching off the generator and restarting when the charger goes off; on start up you should see 'PS' rather than 'bc'. If 'bc' is still displayed, please repeat procedure.

NOTE

Using the 'power supply' mode makes no difference to the set up of the unit.

If the Webasto heating system is not working...



If the LED on the heater control is showing a series of flashes then a fault has been detected, please follow the instructions below to determine the fault:

An error code is generated on the control element indicator light after an error has occurred. When determining the generated code, there will be a **series of 5 fast flashes** after which, the error code will be generated by a sequence of long flash pulses.

Count only the long flash pulses to obtain the code.

The error codes shown here apply to **static units only**. For mobile unit error codes, please see our trouble-shooting guide for mobile units

Error codes are shown below:

- | | | |
|--|---|---|
| F 00 Control unit defective / heater lock out/ internal room temperature sensor defective | F 07 Fuel pump defective | F 17 Exhaust temperature sensor defective |
| F 01 No starting | F 08 Combustion air fan defective | F 18 Setpoint sensor defective |
| F 02 Flame failure | F 09 Glow plug defective | F 19 Plausibility check for sensor not correct |
| F 03 Undervoltage or overvoltage | F 10 Overheating | |
| F 04 Premature flame detection | F 14 Blow-out temperature sensor defective | |
| | F 16 Exhaust temperature exceeded | |

This tells you that there is no 12 volt power going to the diesel powered heater. Check all the following:

1. **Start the generator** to ensure there is sufficient diesel and battery power for heating to operate.
2. **Check the battery guard** has not cut the power to the 12 volt supply, if the canteen lights are illuminated then the heater should be receiving 12 volts (if canteen lights are not illuminated then start the generator).
3. **Check the 20 amp fuse** in the "in line fuse" holder on positive side of the battery.
4. **Check the 5 amp fuse** on the 12 volt fuse board.
5. **Check the multi pin plug** on the top of the heater is firmly located.
6. **Check all electrical connections** to both the battery and the 12 volt fuse board.



If after checking all the above points, the green triangle does not illuminate then an engineer will need to attend site.

DETERMINING THE ERROR CODE:

Example A
F 03



Example B
F 02



Please see following page for instructions on how to reset the heater.

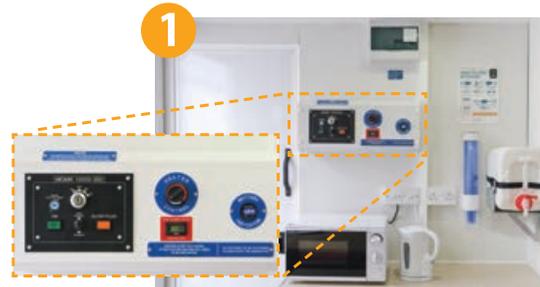
How to reset the heater...

SWO7600 Fusion Pulse

All faults can be reset by following the below sequence:

NOTE

Prior to resetting any faults please record the error code for future reference then start the generator to ensure there is sufficient diesel and battery power for the heating to run.



1 Locate the heater control on the control panel in the canteen area.



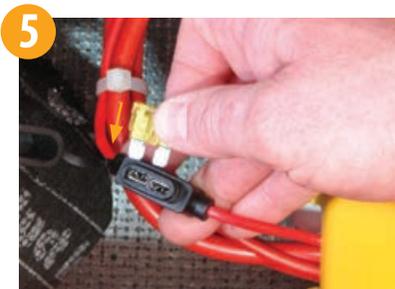
2 Turn the heater control clockwise to the "on" position, so that the error code is being given.



3 Remove the 20 amp fuse from the inline fuse holder on positive side of the 130 amp hour battery, positioned under seating in the drying area.



4 Return to the control panel in the canteen and turn heater control anti clockwise to the "off" position.



5 Replace the 20 amp fuse to the inline fuse holder on the positive side of the 130 amp hour battery.



6 Finally, turn the heater control in the canteen clockwise to the "on" position; you should now see a solid green triangle in the centre of the heater control to show the heating is in working order.

It may be necessary to run this sequence a number of times to cancel all faults stored on the heater. If after clearing all faults the heating system still does not work it is recommended an engineer is contacted.

IMPORTANT

To prevent heater lock-out during the winter months it's advised that the generator should be run for 3 hours every night before leaving site . The generator is fitted with a 3 hour run timer which will automatically shut the generator off.

How to reset the heater...

SWO7600 Fusion Pulse Full Flush

If you are not receiving hot water and hot air after 15 minutes, follow the below reset procedure:



Turn the heater control toggle switch, situated on the control panel in the canteen, clockwise to the "ON" position.



Turn the heater power isolator, situated on the 12V enclosure panel in the toilet area, anticlockwise to the "OFF" position.



After 10 seconds, turn the heater power isolator clockwise to the "ON" position.

IMPORTANT

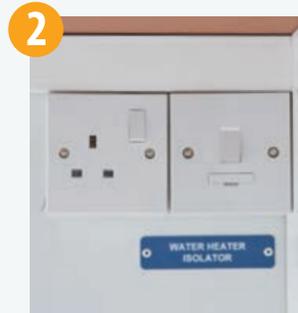
To prevent heater lock-out during the winter months it's advised that the generator should be run for 3 hours every night before leaving site . The generator is fitted with a 3 hour run timer which will automatically shut the generator off.

If there is no hot water from taps in canteen/toilet...

If there is water constantly running from canteen/toilet taps...



Ensure generator is running and has been for around 10 minutes.



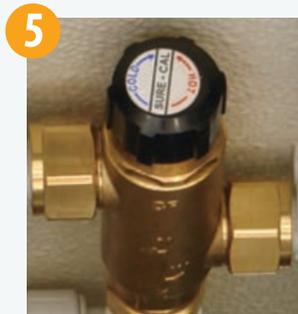
Ensure the switched spur for water heater is in the 'ON' position.



Check all MCB's and the RCD in the consumer unit above the worktop are in the up position.



Check to see if the amber LED light on the water heater is illuminated, if not then it may be the 13amp fuse in the switched spur which requires changing.



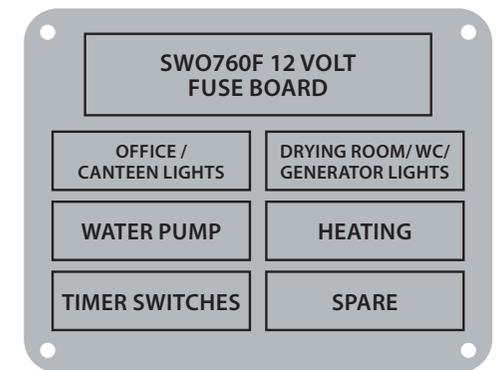
Check the mixer valve located by the water heater has not been turned fully to cold.

Remove the fuses for both the water pump and timer switches in the 12 volt fuse board located under the seating area in the drying room. After 10 seconds replace fuses and retest.



Water pump fuse

Timer switches fuse



NOTE: If issue continues then an engineer will need to attend site to diagnose issue.

NOTE: If issue continues then an engineer will need to attend site to diagnose issue.

If there is no **water running** from canteen/toilet taps...

SWO7600 Fusion Pulse

Is water pump running?

YES

1



Check water level in water butt under sink in canteen area.

2



Ensure the non-return valve connected to the blue water pipe in the water butt is present.

3



Check inline filter for any visual signs of leakage or damage to casing.

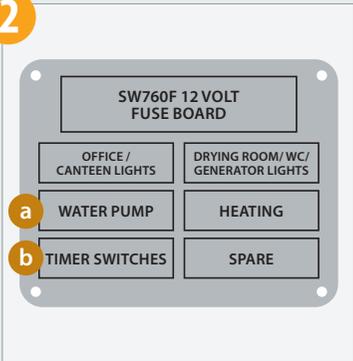
NO

1



Check battery level or ensure canteen lights are illuminated.

2



Check fuses located under the seating area in the drying room:

- a.** Water pump;
- b.** Timer switches.

NOTE: If issue continues then an engineer will need to attend site to diagnose issue.

If there is no **water running** from canteen/toilet taps...

SWO7600 Fusion Pulse Full Flush



1 Check toggle switch in canteen area is in the 'ON' position.

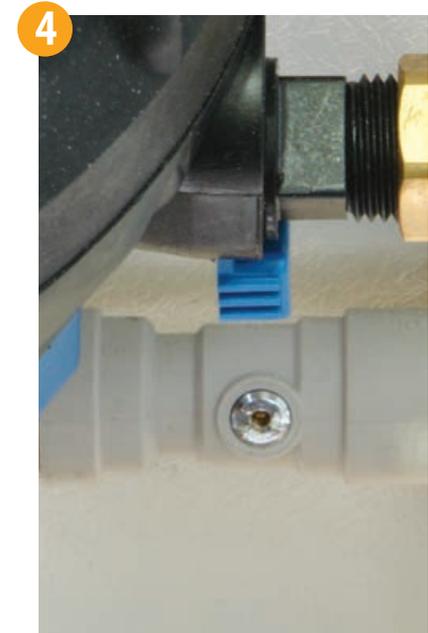


2 Check level of fresh water.



3 Ensure red light indicating status of waste level is not illuminated on panel in toilet room.

If red light is illuminated, contact service provider.



4 Ensure ballcock valve, located under the seating in the drying room, is turned on – in the horizontal position.

NOTE: If issue continues then an engineer will need to attend site to diagnose issue.



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