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Mobile Welfare Units

FUSION PULSE

How to diagnose and solve most common issues



Trouble-shooting

Mobile Welfare Accommodation Units Engineer's Manual



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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If the **generator** does not start...



No **230 volt** power to appliances...

No **12 volt** power to appliances...



Ensure 32amp plug is fully connected to appliance inlet on the side of the generator.



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



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

4

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.





Press the ON/OFF button then press and hold the start button until the engine is running.



12V fuse board

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

4

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 behind the table in the canteen area:



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.

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.



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.

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:





Start the generator

Press the ON/OFF button then press and hold the start button until the engine is running. To stop the engine, press the ON/OFF button.



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







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 'P5' rather than 'bc'. If 'bc' is still displayed, please repeat procedure.

NOTE

If the **hydraulics** are not working/ I can't lift or lower the unit...



Check for audible sounds

If sounds are heard when operating the 'UP' or 'DOWN' buttons of the hydraulic remote, this means that the battery has charge.

Please go to step 3.



Check battery level

Check battery level, if lighting in the canteen area is not illuminated then start the generator and leave to run for the full 3 hour cycle. You should be able to operate the hydraulics after 30 minutes of the generator running.



Check wander lead/ hydraulic remote plug connection

Ensure the wander lead/hydraulic remote plug is fully connected to the front socket.



Inspect all connections on the hydraulic power pack

Inspect all connections on the hydraulic power pack which is located under the seating area on the door side of the canteen area.







Carry out a quick check around the area of the hydraulic rams to ensure there are no oil leaks.

This check is only to be carried out when unit is on wheels and is suitably supported.

NOTE

It is normal for the hydraulic rams to lower at different speeds. As soon as the first ram makes contact with the ground, the second ram will then increase its speed. When both rams are on the ground the unit should lift level.

If the Webasto **heating system** is not working...



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.

heater is firmly located.

- 5. Check the multi pin plug on the top of the
- 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.

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.

Error codes are shown below:

- **F 00** Control unit error / incorrect data set / customer bus defective
- **F 01** No start (after 2 attempts to start) / no flame formation
- **F 02** Flame failure (repeated more than 3 times)
- **F 03** Under voltage or over voltage
- **F 04** Premature flame recognition

F 02

- **F 05** Flame monitors (gasoline heater) interrupt or short circuit
- **F 06** Temperature sensor interrupt or short circuit
- **F 07** Metering pump interrupt or pump short circuit

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

- **F 08** Fan motor interrupt or short circuit or overload or blocked
- **F 09** Ceramic glow pin interrupt or short circuit
- **F 10** Overheating: Resulting in permanent heater fault lock-out
- **F11** Overheating sensor interrupt or short circuit
- F12 Heater lock-out
- F 14 Overheating sensor incorrect position
- **F 15** Set point generator interrupts

DETERMINING THE ERROR CODE: F 03

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

How to reset the heater...

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.

All faults can be reset by following the below sequence:



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



Turn heating control to the 'ON' position.



Locate the 130 amp hour battery situated under the seating area behind the table.



Remove the 20 amp fuse from the inline fuse holder on positive side of the 130 amp hour battery.



Turn heating control to the 'OFF' position.



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



Turn heating control to the 'ON' position.

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.

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.



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



Ensure the switched spur for water heater is in the 'ON' 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 selector switch is in position 2. (Standard units only.)



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

If the water pump is constantly running then remove the fuses for both the water pump and timer switches in the 12 volt fuse board located under the seating area behind the table, after 10 seconds replace both fuses and retest.





Timer switches Water pump fuse

fuse



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



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



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