
DIAGNOSTICS



9

9 DIAGNOSTICS

GENFREE

Here we highlight a few issues you may encounter while using your cabin and give solutions on how to remedy them.

If at any point you have any questions or doubts, please do not hesitate to contact our Service Department.

To contact Boss Cabins Service Department, call 01778 300475 option 2 or email aftercare@bosscabins.co.uk or go on our website www.bosscabins.co.uk and access the online chat function.

WARNING

- Never work beneath any unsupported load or structure.
- Always move the vehicle to a safe place away from traffic or site equipment before attempting maintenance.
- Never climb on or work over or above any device without suitable fall restraint equipment.
- Ensure the unit is parked on firm level ground before changing wheels.
- If in doubt ask for assistance from suitably qualified personnel.
- Always take care when working with or connecting any electrical equipment. Damaged or inadequately insulated equipment can lead to electrocution causing fire, burns, serious injury or death.
- Always follow instructions and abide by the work site's published Safety Policy.
- If any welding is being attempted on the vehicle, please remove the positive power supply wire and earth it to protect the controller from any damage.

NOTE

NOTE: NO CABIN ELECTRICS WILL WORK WHILE HYDRAULIC SYSTEM IS ACTIVATED. IF YOU HAVE PRESSED SILVER BUTTON TO ACTIVATE THE RAM SYSTEM, ELECTRICITY TO OTHER ITEMS WILL BE SHUT OFF FOR 5 MINS BEFORE RETURNING AUTOMATICALLY.



9.1 DISPLAY WARNINGS - ALWAYS CHECK FIRST

In many GenFree and Deep Green cabins, the most common faults will be flagged as Warnings on the main Display Screen in the Canteen with instructions of what to do next. If any problems occur with your cabin, please check this screen first to see if there is any Warning flagged before consulting the rest of the Diagnostics section.



GENERAL INFO AND TANK LEVELS.



EMERGENCY STOP.



RAMS ENABLED.



RAIN WATER TANK EMPTY.

9.2 NO ELECTRICITY IN CABIN



NOTE

NOTE: NO CABIN ELECTRICS WILL WORK WHILE HYDRAULIC SYSTEM IS ACTIVATED. IF YOU HAVE PRESSED SILVER BUTTON TO ACTIVATE THE RAM SYSTEM, ALL OTHER ELECTRICS GO OFF FOR 5 MINS.

9.2.1 CHECK E-STOP IN CANTEEN – IS IT PRESSED IN?



YES – Twist E-STOP clockwise to release.

NO – Go to point 9.2.2.

Is there electrical supply now?

YES – CONGRATULATIONS!

NO – Go to point 9.2.2.

9.2.2 IS THE FUEL LEVEL IN THE FUEL TANK BELOW 10%?



NO – Go to point 9.2.3.

YES – In order to protect the heater from being damaged if there is too little fuel in the tank when the heater is started, there is a in-built protection system which cuts off all electrics in the cabin if the fuel falls below 10%. If the fuel tank is lower than this, then fill with HVO biofuel or diesel.

Are the electrics working now?

YES – CONGRATULATIONS!

NO – Go to point 9.2.3.

9.2.3 CHECK SWITCHES ON RCD BOARD ARE ON (UP POSITION) –ARE THEY ON?



YES – Contact Boss Cabins Service Department.

NO – Make sure all the RCD paddle switches are ON (up position).

Is there 230V power now?

YES – CONGRATULATIONS!

NO – Contact Boss Cabins Service Department.

Main Power Outlet Switch

9.2.4 HAVE THE ELECTRICS STOPPED WORKING DUE TO THE ‘BATTERY PROTECTION SYSTEM’?



Scan the QR code or go to Section 4.6 of the Ops Manual to read about the Battery Protection System installed in this cabin to protect the battery in case of conditions where there is not enough solar energy to charge the battery. Check the battery State of Charge either on the display panel in the Canteen or on the remote VRM system. Could the electrics have been switched off due to lack of charge in the battery?

YES – Wait for the battery level to rise again via solar charging or plug the unit into an external electrical supply to recharge.

NO – Contact Boss Cabins Service Department.

Are the electrics running now?

YES – CONGRATULATIONS!

NO – Contact Boss Cabins Service Department.

Battery level



9.2.5 CHECK INTERNAL/EXTERNAL POWER SUPPLY CAM SWITCH IS IN CORRECT POSITION



The Internal/External power supply cam switch is located in the white compartment under the Canteen work surface. Is it in the correct position for either internal (solar/battery) power or for external power supply

YES – Contact Boss Cabins Service Department.

NO – Make sure all the RCD paddle switches are ON (up position).

Is there 230V power now?

YES – CONGRATULATIONS!

NO – Contact Boss Cabins Service Department.

9.3 NO 230V POWER TO CABIN

 **NOTE** NOTE: NO CABIN ELECTRICS WILL WORK WHILE HYDRAULIC SYSTEM IS ACTIVATED. IF YOU HAVE PRESSED SILVER BUTTON TO ACTIVATE THE RAM SYSTEM, ALL OTHER ELECTRICS GO OFF FOR 5 MINS.

9.3.1 IS IT JUST THE KETTLE OR MICROWAVE AFFECTED?



- NO** – Go to 9.3.2.
- YES** – To save energy, the kettle and microwave must be used individually. Power is directed to one or the other using the Kettle/Microwave Selector Switch. Make sure this is in the correct position for the appliance you wish to use. Do the kettle and microwave work correctly now?
- YES** – CONGRATULATIONS!
- NO** – Go to 9.3.2.

9.3.2 HAVE YOU CHECKED THE INDIVIDUAL APPLIANCE ISOLATORS?



- YES** – If all isolator switches are already on, go to 9.3.3.
 - NO** – A number of electrical items in the cabin have individual isolator switches which must be on for the to operate - kettle, microwave, water heaters, electric hand dryers and in some models UV sterilisation system. Make sure all these are switched on.
- Do the electrical items work now?
- YES** – CONGRATULATIONS!
 - NO** – Go to 9.3.3.

9.3.3 E-STOP – IS IT RELEASED?



- YES** – Go to 9.3.4.
 - NO** – Twist E-STOP clockwise to release and turn all electrics on
- Is there 230V power now?
- YES** – CONGRATULATIONS!
 - NO** – Go to 9.3.4.

9.3.4 CHECK SWITCHES ON RCD BOARD ARE ON (UP POSITION) –ARE THEY ON?



- YES** – Check all the Diagnostics in Section 9.1 and 9.2. If still not working, contact Boss Cabins Service Department.
 - NO** – Make sure all the RCD paddle switches are ON (up position)
- Is there 230V power now?
- YES** – CONGRATULATIONS!
 - NO** – Check all the Diagnostics in Section 9.1 and 9.2. If still not working, contact Boss Cabins Service Department.

Main Power Outlet Switch

To contact Boss Cabins Service Department, call 01778 300475 option 2 or email aftercare@bosscabins.co.uk

9.4 NO 24V POWER IN CABIN



NOTE

NOTE: NO CABIN ELECTRICS WILL WORK WHILE HYDRAULIC SYSTEM IS ACTIVATED. IF YOU HAVE PRESSED SILVER BUTTON TO ACTIVATE THE RAM SYSTEM, ALL OTHER ELECTRICS GO OFF FOR 5 MINS.

9.4.1 CHECK E-STOP IN CANTEEN – IS IT RELEASED?



YES – Check all the Diagnostics in Section 9.1 and 9.2. If still not working, contact Boss Cabins Service Department.

NO – Release E-STOP button to turn electrics on.

Do the 24V electrics work now?

YES – CONGRATULATIONS!

NO – Are any electrics working?

YES – Contact Boss Cabins Service Department.

NO – Check all the Diagnostics in Section 9.1 and 9.2. If still not working, contact Boss Cabins Service Department.

9.5 ELECTRIC HYDRAULIC SYSTEM NOT WORKING – NO POWER TO RAMS

9.5.1 HAVE YOU PRESSED THE SILVER HYDRAULIC ACTIVATION BUTTON IN THE CANTEEN?



NOTE: To operate the rams you must first press the silver hydraulic activation button for 2 seconds. The ram system will then be operational for 5 minutes..

YES – Go to 9.5.2.

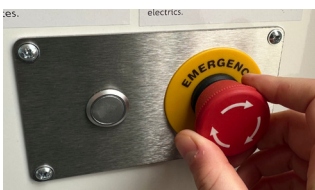
NO – Press silver hydraulic activation button.

Do the electric rams operate now?

YES – CONGRATULATIONS!

NO – Go to 9.5.2..

9.5.2 CHECK E-STOP IN THE CANTEEN – IS IT RELEASED?



YES – Check all the Diagnostics in Section 9.1 and 9.2. If still not working, contact Boss Cabins Service Department.

NO – Twist E-STOP clockwise to release. Press silver hydraulic activation button.

Do the electric rams operate now?

YES – CONGRATULATIONS!

NO – Check all the Diagnostics in Section 9.1 and 9.2. If still not working, contact Boss Cabins Service Department.

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9.6 WATER HEATER NOT WORKING



NOTE

NOTE: NO CABIN ELECTRICS WILL WORK WHILE HYDRAULIC SYSTEM IS ACTIVATED. IF YOU HAVE PRESSED SILVER BUTTON TO ACTIVATE THE RAM SYSTEM, ALL OTHER ELECTRICS GO OFF FOR 5 MINS.

Is there water coming out of the taps? If no water is coming out, go to 9.6.3.

If there is water coming out but it is cold, go to 9.6.1.

9.6.1 CHECK E-STOP IN THE CANTEEN - IS IT RELEASED?



YES – Go to 9.6.2.

NO – Release E-STOP button. Is the water hot now?

YES – CONGRATULATIONS!

NO – Go to 9.6.2.

9.6.2 ARE THE INSTANT WATER HEATER ISOLATORS ON?



Each instant water heater has its own isolator switch located near the unit. Is the isolator for the unit you are trying to use switched on?

YES – Are all the other electrics in the cabin working? If yes, contact Boss Cabins Service Department. If not, check all the Diagnostics in Section 9.1 and 9.2. If still not working, contact Boss Cabins Service Department.

NO – Turn the water heater isolator on.

Is the water hot now?

YES – CONGRATULATIONS!

NO – Are all the other electrics in the cabin working? If yes, contact Boss Cabins. If not, check all the Diagnostics in Section 9.1 and 9.2. If still not working, contact Boss Cabins Service Department..

9.6.3 CHECK IF THERE IS SUFFICIENT WATER IN THE CLEAN WATER TANK?



To check the level of the fresh water tank, check the gauge on the wall of the Canteen. Is there sufficient water in the tank?

YES – Your water pump may be broken. Contact Boss Cabins Service Department.

NO – Fill the tank with clean water (see Manual Section 6.2 for instructions).

Do the hot water taps work now?

YES – CONGRATULATIONS!

NO – Contact Boss Cabins Service Department..

To contact Boss Cabins Service Department, call 01778 300475 option 2 or email aftercare@bosscabins.co.uk

9.7 HEATER NOT WORKING

 **NOTE** NOTE: NO CABIN ELECTRICS WILL WORK WHILE HYDRAULIC SYSTEM IS ACTIVATED. IF YOU HAVE PRESSED SILVER BUTTON TO ACTIVATE THE RAM SYSTEM, ALL OTHER ELECTRICS GO OFF FOR 5 MINS.

9.7.1 CHECK HEATER SWITCHES - ARE THEY SHOWING A GREEN LIGHT?



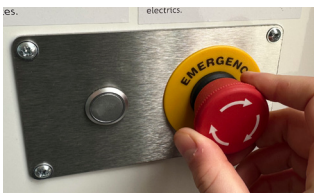
- YES** – Go to 9.7.3.
- NO** – Press Heater switch on.

Has the green light come on and is the heater working now?

- YES** – CONGRATULATIONS!
- NO** – Go to 9.7.2.

NOTE: To save energy in this cabin the heater will turn off automatically after a set time. To restart, press the ON button again.

9.7.2 CHECK E-STOP IN THE CANTEEN - IS IT RELEASED?



- YES** – Go to 9.7.3.
- NO** – Release the E-STOP then press the heater switch.

Has the green light come on and is the heater working now?

- YES** – CONGRATULATIONS!
- NO** – Go to 9.7.3.

9.7.3 IS THE HEAT DIRECTED TO THE CORRECT AREA OF THE CABIN?



If your cabin has a drying room, the heater in this cabin is designed to direct warm air to one of two areas - either the Canteen and Office or to the Drying Room. When warm air is being blown into the Drying room, none will be blown into the Canteen and Office and vice versa.

Push IN for Canteen and Office. Pull OUT for Drying room.

Do you have the Heat Direction handle in the correct position for where you wish the heat to be blown?

- YES** – Contact Boss Cabins Service Department.
- NO** – Put the handle in the correct position for where you wish the heat to be directed to.

Is the heater working now?

- YES** – CONGRATULATIONS!
- NO** – Contact Boss Cabins Service Department.

To contact Boss Cabins Service Department, call 01778 300475 option 2 or email aftercare@bosscabins.co.uk

9.8 WATER TANK NOT FILLING WITH RAIN WATER

9.8.1 CHECK RAIN WATER VALVE - IS IT IN THE CORRECT POSITION ALLOWING RAIN TO FLOW TO TANK RATHER THAN ONTO FLOOR BENEATH CABIN?



NO – Turn valve to the correct position.

YES – Go to 9.8.2.

Is the rain water filling the tank now?

YES – CONGRATULATIONS!

NO – Go to 9.8.3.

9.8.2 CHECK ROOF DRAIN – IS IT BLOCKED BY FALLEN LEAVES AND DEBRIS?



NO – Go to 9.8.3.

YES – Clear away all the leaves and debris.

Is the rain water filling the tank now?

YES – CONGRATULATIONS!

NO – Go to 9.8.3.

9.8.3 CHECK RAIN WATER FILTERS – ARE THEY BLOCKED?



NO – Call Boss Cabins Service Department.

YES – Clean out the filters and remove any debris and particles (see Section 7.1 for instructions).

Is the rain water filling the tank now?

YES – CONGRATULATIONS!

NO – Call Boss Cabins Service Department.

To contact Boss Cabins Service Department, call 01778 300475 option 2 or email aftercare@bosscabins.co.uk

9.9 BATTERY NOT BEING CHARGED BY SOLAR PANELS

9.9.1 CHECK WHERE YOUR CABIN IS POSITIONED - IS IT RECEIVING SUFFICIENT SUNLIGHT?



To ensure the optimum performance of the solar-powered GenFree cabin, the unit should be parked with the tow hitch facing south in an open exposed area with as little shade as possible over the solar panels. Avoid areas under trees, tunnels or close to tall buildings if at all possible.

Is your cabin parked in the sunlight?

YES – Go to 9.9.2.

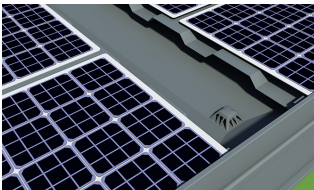
NO – Move your cabin to a location where it receives as much natural daylight as possible.

Is solar energy now being produced in reasonable quantities?

YES – CONGRATULATIONS!

NO – Go to 9.9.2.

9.9.2 ARE THE SOLAR PANELS CLEAN?



To ensure the maximum solar gain, the solar panels should be kept clean and clear of debris. Are the solar panels on this unit clean and clear?

YES – Go to 9.9.3.

NO – Clean the solar panels using a soft brush or cloth. Do not use detergents. Do not lean on the solar panels while cleaning them. See Section 5.5.3 for more information on how to clean your solar panels.

Is sufficient solar energy now being produced during daylight hours?

YES – CONGRATULATIONS!

NO – Go to 9.9.3.

9.9.3 CHECK SOLAR PANEL ISOLATOR SWITCHES – ARE THEY IN ON POSITION?



YES – Contact Boss Cabins Service Department.

NO – Turn on the Solar Panel Isolators.

Can you now see acceptable levels of solar energy being produced during daylight hours?

YES – CONGRATULATIONS!

NO – Contact Boss Cabins Service Department.

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