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DIESEL HEATER

TROUBLESHOOTING

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Troubleshooting for 5kW Diesel Heater

If your diesel heater is not working properly or displaying and error code, please always check first:

- 1. **Battery voltage:** Please check the voltage before and during start-up. Measure directly on the battery terminals. Low voltage can cause the glow plug to not work properly.
- 2. Fuel supply: Check the fuel level in the tank and look for any bubbles or blockages along the fuel line
- 3. **Position of main unit:** Check if your unit installed with the correct side up or sideways. Please make sure the glow plug is facing up.
- 4. **Position of fuel pump:** check the angle of installation of the fuel pump (please refer to manual)
- 5. **Position of your fuel tank:** Please refer to manual to position the fuel tank

After checking all the 5 points and the problem persists, please:

- Check the next pages for common issues and troubleshooting
- Provide us further details: please send a detailed video and photos of your installation so we can assist you further. Please show us:
 - The position of your diesel heater, fuel pump, fuel tank, etc.
 - The battery voltage measured at the terminals
 - Any error code, smoke or unusual behavior

Please send the information above to info@ontrackoutdoor.com.au.

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Fault table

Error Code	Cause	LCD Warning Symbol	Solution
E-01	Power Supply Undervoltage	÷÷	Increase power supply voltage (i.e. charge your battery)
E-02	Power Supply Overvoltage	Ê.	Reduce power supply voltage (i.e. discharge your battery)
E-03	Ignition Plug Failure		Check if glow plug is ope n or short-circuited
E-04	Fuel Pump Failure	¢	Check the fuel pump for any leaks or damages
E-05	Over-heat ()	₽ L	Check if the temperature sensor cables are loose or faulty
E-06	Over-heat ()	\$	Check fan magnet polarity, position of Holzer sensor or loose terminal
E-07	Broken Line Fault	હ્ર્સ્ર્	Check the LCD connectors harness, verify if the blue wiring is loose or short circuited
E-08	Flame Failure		Check if the fuel circuit is blocked, resulting in poor fuel supply
E-09	Sensor Failure		Check if sensor plug is loose, broken or short circuited
E-10	Ignition Failure		Check if the fuel circuit is blocked and fuel quality



Error Code 1: Power Supply Undervoltage

A 12-volt deep cycle battery in good condition has a reading of between 12.4 and 12.7 volts

- Check the voltage at the battery terminal before and during start up
- If there is a high voltage drop, please check cabling size and distance from power supply to controller. Keep the cable short to reduce voltage drop.
- Ensure the cable is properly dimensioned for up to 12A (startup draw)
- Perform a battery and charging system testing to check if battery is holding charge and charging properly
- Please charge or replace your battery if needed

Error Code 2: Power Supply Overvoltage

A 12-volt deep cycle battery in good condition has a reading of between 12.4 and 12.7 volts

- Check the voltage at the battery terminal before and during start up
- Make sure you are using a battery charge controller to not overcharge your battery from external sources
- Please discharge or replace your battery if needed

Error Code 3: Ignition Plug Failure

- Check if glow plug is open or short-circuited, if the connectors are loose or oxidized
- Make sure your battery is fully charged are not dropping below 12V during start-up
- Check your glow plug with an ohm meter, it should read 0.6 0.8ohms
- Check if the voltage is slowly rising to 8-9V across the plug during start up
- If you are running the system of a battery charger, please charge your battery first and run the diesel heater without the battery charger
- Check the air inlet, outlet, and the exhaust pipe:
 - Clean if any debris or dust
 - Make sure you leave at least 10cm gap for the air-inlet







Error Code 4: Fuel Pump Failure

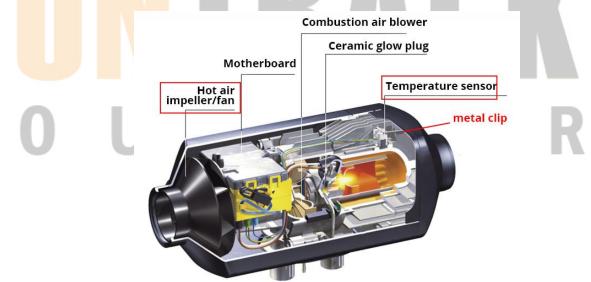
• Check the fuel pump and connections for any leaks, damages or oxidation.



Error Code 5 and 6: Over-heat

- Check fan magnet polarity, position of Holzer sensor or loose terminal
- Check if the fan is spinning freely, with no scraping or rubbing noise
- Make sure the distance between the fan and the mainboard is no more than 5mm
- Verify if there is anything clogging the combustion air supply or exhaust system, such as dust around the vents
- If the unit turns itself on (fan only):
 - Check the temperature sensor for faulty cables
 - Replace the temperature sensor if needed

If all above are checked and correct, it is possible that the mainboard has shifted, causing interference between the magnets (on the fan) and the sensor of the mainboard. If the mainboard isn't totally lined up with the magnets, then it won't run. Try to remove the mainboard, replace it nicely and try again. Make sure the unit has primed and please only run the heater with the cover on.





Error Code 7: Broken Line Fault

• Check the LCD connectors harness, verify if the blue wiring is loose or short circuited

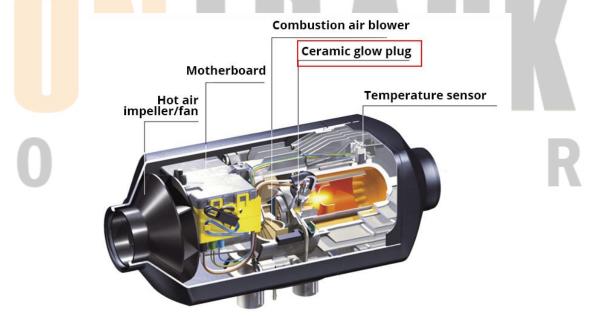


Error Code 8: Flame Failure

- Check if the fuel circuit is blocked, resulting in poor fuel supply
- Check if the fuel tank is clean and has enough fuel on it
- Check if the fuel filter is clean

If still not working, please try to run on a higher setting (higher pump speed) and let me know if the problem still occurs.

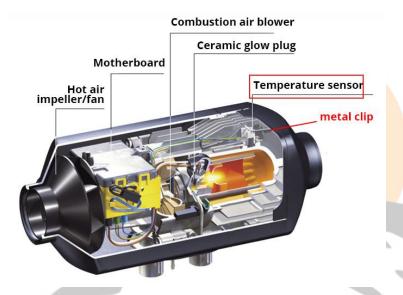
If above has been checked and there is smoke: replace glow plug





Error Code 9: Sensor Failure

• Check if sensor plug is loose, broken or short circuited



Error Code 10: Ignition Failure

- Check if the fuel circuit is blocked
- Check fuel quality
- Check whether the fan is working properly, moving freely
- Check glow plug for loose cables
- Check if the filter at the glow plug is clean. Clear or replace as needed
- Check if combustion intake and exhaust passages are clear
- Check power cord connections for oxidation loose cables



For More Information



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