

TECHNICAL CIRCULAR



Telephone
(905) 670-0960

Fax
(905) 670-0728

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Receiving Reference

MSD / DD Service Departments - North America

Recommended Pre-Season Maintenance for *AIRTRONIC* Heaters

Ladies and Gentlemen,

It is recommended that the AIRTRONIC heaters receive a pre-season check-up to make sure that the heaters are ready for a trouble-free cold weather season. Please use the recommended tools and follow the procedures as outlined in the heater manual while removing and reinstalling the different heater components. It should be noted that periodic heater maintenance is the responsibility of the owner of the heater and is not covered under Espar's warranty.

The heaters should be inspected and repaired by an Espar trained mechanic, as follows:

1. Before initial operation ensure that the heater is not being subjected to external loads by heavy objects being placed over it. This may cause damage to the heater parts and affect its normal operation. Ensure that sufficient clearances, as recommended in the heater manual are being maintained around the heater, even while the vehicle is in operation.
2. Check the return air inlet port and hot air outlet port for any blockages. Inspect the length of ducting for any damage and replace as necessary. Ensure all ducting connections are secure. Discourage heat sensitive materials from being placed too close to the heater, ducting components or hot air outlet ports.
3. Check all electrical connections from the heater to the batteries. Check for wear and abrasion along the length of the harnesses. Repair or replace the harness whenever the harness insulation is broken or damaged. Check the battery connections. Clean any corrosion at the terminals. Replace the battery terminals if the corrosion is severe. Check the fuse for corrosion and the correct rating.
4. Remove the glow pin and if necessary, clean it. If the glow pin shows signs of dissimilar color or distortions, replace it. Inspect the glow pin wires for damage and if necessary, replace it. Remember to clean the glow pin chamber and ensure glow pin ventilation hole is clear of any obstructions, then replace the glow pin.
5. Regardless of its condition, remove and replace the glow pin screen every pre-season. Make sure that the new screen is installed correctly. Install the new screen.
6. Check the condition of the exhaust pipe. Look for any holes or breaks in the exhaust piping. Replace if necessary. Ensure the exhaust pipe is securely located and correctly routed.
7. Check the condition of the combustion air intake tube. Clear any blockages. If damaged, replace it. Ensure that the combustion air intake tube is securely located and correctly routed.
8. Ensure mounting angle of the fuel pump is in between 15-35°. An incorrectly mounted fuel pump may lead to excessive carbon issues. Check the fuel lines for possible leaks, loosened clamps, etc. inspect the filter on the suction side fuel pump filter - clean or replace as necessary. Once the entire fuel system has been checked and any issues corrected, it is advisable to do a fuel quantity check.
9. If the fuel quantity result is above specification, then it will be a cause for excessive carbon issues and the fuel pump should be replaced. If the fuel quantity result is within specifications, but on the higher side, then any possible excessive carbon issues may be corrected by increasing the mounting angle of the fuel pump to the near vertical position. If fuel quantity result is below specification, then it is recommended that the fuel pump may be replaced only if the heater repeatedly flames out during operation.
10. If there are complaints about the heater smoking excessively during operation then remove and check the condition of the burner. The burner should be light brown in color. Clean any carbon build up inside the burner tube. Check the inside of the heat exchanger and scrape out any loose carbon.
11. When reassembling the burner and the heat exchanger, use a new thermal insulator. Likewise, when reassembling the blower motor assembly use a new blower gasket.
12. Re-assemble the heater and test operation. The heater should be bench tested for 15-20 minutes before returning the heater to the vehicle.
13. Regardless of the season, run the heater every month for a minimum period of 15 minutes. This will help the heater to burn away any combustion residue in the burner chamber. It will ensure that the fuel in the lines to the heater does not gel and solidify and that the heater will start reliably when heating season arrives.