

TERMS OF LIMITED WARRANTY

Warranty:

Products manufactured by Five Star Manufacturing are warranted for one year from date of sale to the original consumer against defects in workmanship and materials providing the installation and use of these products are in accordance with the manufacturer's instructions and applications. The manufacturer's only obligation shall be to repair or replace at manufacturer's option the product provided it is returned transportation prepaid to the factory within one year from date of sale to original consumer. Defects or failures due to normal wear, incorrect installation, improper voltage, improper usage, improper alterations, or handling, accident, misuse, abuse, neglect, mishandling, misapplication, improper or extraordinary use, inconsistent use with any instruction or recommendation issued by the manufacturer or by any other condition beyond our control, as to any and all of which the manufacturer will be the sole judge, are specifically excluded from this warranty. This may also have implied warranty rights which vary from state to state. No other liability of any kind, arising from the use of the product, whether defective or not, is assumed.

The foregoing limited warranty is exclusive and in lieu of all other warranties, whether written or oral, expressed, implied, or statutory.

No implied warranty of merchantability or fitness for a particular purpose shall apply. The limited warranty contained herein does not extend to incidental or consequential damages resulting from the use of this product, or arising out of a breach of this warranty.

Replacement and Repair Policy

- 1) In returning heater for replacement or repair, include all the information possible as to what may have caused the trouble. Check the extension cord. In some cases it has been faulty. All returned heaters must be labeled and identified with warranty tags
- 2) Service charges will be made on units which:
 - A) Were burned in air (operated without heating element being immersed in water or coolant).
 - B) Failed due to restricted circulation, improper installation, air pockets in hose lines, or dirty cooling system.
 - C) Are damaged through no fault of the manufacturer.
 - D) Failed due to installation on other than recommended vehicles.
 - E) Are not defective.
- 3) Five Star Manufacturing cannot and does not refund labor
- 4) Before returning any item to Five Star, obtain RGA # from the company.

⚠ Important...Caution

To obtain satisfactory results from your external type engine heater, please read the following information carefully.

Do not use a Kat's engine heater when using a 100% solution of anti-freeze.

After the heater has been installed according to instructions, have your service station or garage check your anti-freeze solution. On permanent type anti-freeze, a solution too strong as well as too weak will freeze. If your coolant freezes or congeals, it will stop the flow of liquid through the heater housing and hoses and cause the heater to burn out. Our heater guarantee is void when this happens or when there is evidence of inadequate coolant.

To obtain maximum protection from freezing, consult your antifreeze manufacturer's recommendations.

Five Star manufacturing reserves the right to make any changes to the design or appearance it deems necessary to any of its products at anytime without notification, and these changes will not obligate Five Star to replace or change any previously manufactured products.

INSTALLATION INSTRUCTIONS FOR B & C SERIES CUMMINS

⚠ Warning

This heater must be installed and submerged into coolant before energizing. The element can burn out in seconds if not surrounded by coolant. If an exposed element is energized it could burst and cause personal injury or damage.

Use a 50/50 solution of antifreeze and water. Because of variations in local water supplies distilled water is preferred.

If any stop leak is in the system, flush the coolant before installing heater.

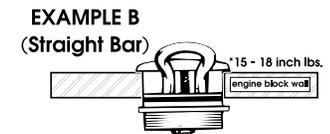
Do not use any form of sealant around the O ring. This will prevent the heater from fully seating and could cause leaks.

⚠ Caution

Cummins B/C Series Engines: Refill and bleed the cooling system as described on the Service Manual.

Installation Procedures

- 1) Refer to the most current catalog for the correct part number and position of freeze plug heater. If your supplier does not have it, this is available at www.fivestarmanufacturing.com
- 2) Drain the cooling system, flush radiator and block.
- 3) Remove the correct freeze plug or existing heater with a punch; be careful not to nick the wall of the freeze plug hole. Remove any burrs, sharp edges, paint or compound from the machined surface of the hole.
- 4) Remove outer O ring from heater, place in hole with the element in the direction prescribed. The element should not touch anything inside. If it does rotate the heater until the element is free floating.
- 5) Lubricate O ring and machined surface of the hole with anti-freeze or silicone grease to facilitate installation and prevent O ring damage.
- 6) Reinstall O ring. Back-off heater nut as far as possible, insert heating element in proper direction, center heater in hole. And press tight. Tighten bolt to recommended torque (see illustration). Do not use the screw to draw the heater into the hole. Do not over torque the bolt, this could damage the inner O ring and cause a leak or strip the threads of the bolt.
- 7) Route the cord to any convenient point and tie cord down. Keep cord away from hot surfaces and moving parts. Always have the cord attached to the heater before plugging the cord into the wall.
- 8) Refill the coolant system. Check manufacturer's instructions on mixture of anti-freeze. Do not use more than 60% anti-freeze. Use of non distilled water could result in lime or calcium buildup on elements and cause premature burn out of heater. Run engine until internal thermostat opens and continue running for 20 minutes to eliminate air pockets. Test drive the vehicle and Check for leaks.
- 9) Plug heater into power supply and test for proper operation. The block around the heater should get hot. The only way to check a heater is with an Ohms meter or some other device that will check continuity. If the heater shows continuity then check the power supply including extension cord.



Five Star Manufacturing
1004 Central Ave
Springfield, TN 37172
1-888-872-7278
www.fivestarmanufacturing.com