



**INSTALLATION AND OPERATING  
INSTRUCTIONS  
SOLID FUEL HEATERS – INSERT TYPE**

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THERMIKI TSALIKIS, based in the industrial area of Oreokastro, has been specializing for 40 years in the production of high-quality and long-lasting fireplaces and heaters. The management and technical staff, with continuous development and adoption of new technologies, realize a vision: manufacturing products of unsurpassed aesthetics and durability, able to satisfy every modern requirement for heating.

#### Quality guarantee:

The selection of excellent materials, detailed control at all stages of production and strict adherence to specifications ensure the impeccable quality of THERMIKI TSALIKIS products.

In addition, continuous modernization, the adoption of innovative technologies, impeccable service and excellent organization, combined with experienced staff and modern equipment resulted in THERMIKI TSALIKIS fireplaces and heaters to be distinguished for their ergonomics, flawless operation, durability, safety and ease of use and established THERMIKI TSALIKIS as one of the most reliable companies in Greece.

#### Standards Compliance:

THERMIKI TSALIKIS strictly adheres to the strict safety and health requirements of Regulation (EU) No. 305/2011, as well as the EN 13329:2001/A2:2004 standards, while all products bear the CE marking, ensuring their compliance with the applicable specifications.

By choosing THERMIKI TSALIKIS, you invest in reliability and incomparable heating quality.

## Symbol explanation



Warning notices in the text are marked with a warning triangle

**Warnings** point out the seriousness of the **danger** that arises if the instructions mentioned in this manual are not followed in order to avoid material damage and/or personal injury.

**The term “insert” refers to the built – in, “insert type” heater.**

## **GENERAL ISTRUCTIONS FOR INSTALLATION AND USE**

1. The installation of the insert, as well as its first ignition and maintenance, must be carried out by certified technical personnel.
2. The installation of the chimney must be done in accordance with the E.L.O.T. regulation. 447 DI N4705, to be placed vertically up to 1.30 meters high, horizontally up to 1.5 meters long and to exit from the highest point of the house to ensure the efficient removal of flue gases. .
3. Flue gas ducts located inside the house must be sealed at their joints with aluminum tape, to avoid any leaks.
4. Solid fuels (firewood) must be stored in a dry and covered area.
5. **The manufacturer bears no responsibility for damages due to poor installation and failure to follow the installation and use instructions described in this manual.**
6. To select a insert, it is necessary a check for the space intended to heat to be carried out by a licensed engineer, who will also be responsible for the selection of the device.
7. The manufacturer warrants the device and is required by law to cover any material failure in accordance with the warranty provided.
8. **Carefully read the safety, installation and use instructions described in this manual.**

## **1. Safety instructions**

These installation and operating instructions are intended for users and qualified technicians. We recommend that users read carefully all instructions for use. Installation works and the first use / ignition of the insert must be carried out exclusively by a qualified technician.

- This device is intended for indoor heating. Any use beyond that for which it is intended is prohibited.
- The insert must be supervised by an adult when it is in operation.
- The insert must be placed at a safety distance of at least 1 meter from any flammable material.
- The insert must not be placed on a flammable surface. Place non-flammable material where the insert is installed.
- The insert can be transported safely using the appropriate means. NEVER attempt to transport the insert while it is in use.
- The accessible parts of the device are extremely hot during its operation, as well as for a considerable time after its operation, and therefore the necessary precautions must be taken. Keep children away.
- Do not place flammable or explosive materials near the insert. In case you want to carry out work with flammable materials in the surrounding area, turn off the insert and wait for it to cool down before carrying out such work.
- The insert and its parts must not be modified in any way.
- Use only original spare parts from the manufacturer. The company is not responsible for any damage caused by spare parts not approved by the company.

## **2. Installation instructions**

The insert is delivered ready to install with no assembly required. The installation of the device must comply with all locally applicable regulations including those referring to national and European standards.

### **Warning:**



**The insert is not suitable for installation in a shared chimney system.**

### **Warning:**



**The insert must be installed by a qualified technician.**

## **Floor requirements**

Place the device on a floor that is flat, stable, non-flammable, resistant to high temperatures and able to bear the weight of the device.

### **Warning:**



**Risk of fire due to unsuitable flooring!**

If the floor is flammable, place the device on a stable, durable base made of nonflammable material (e.g. ceramic or steel), with dimensions such that it protrudes around the device by at least 30 cm and at least 50 cm from the front part where the combustion chamber door is located.

## **Safety distance**

Safety distances from flammable materials should be at least 1 meter around the insert.

### **Warning:**



**Do not place flammable objects and materials within the safety distance. Fire hazard!**

### **3. Chimney installation:**

A key factor for the correct operation of the insert is the choice of chimney. Pay particular attention to the following factors:

- 1. Dimensioning:** The chimney must be of suitable dimensions to be able to effectively remove the flue gases from the insert.
- 2. Height:** The chimney must be of sufficient height to avoid the entry of flue gases into the interior of the building.
- 3. Insulation:** The chimney must be well insulated to reduce the risk of flue gas leakage and improve the efficiency of the insert.
- 4. Construction and materials:** It must be made of durable and non-combustible (metallic) materials, while the fire resistance index must be at least 2 hours.
- 5. Support:** It must be securely supported along its entire length against a wall, floor or ground to avoid potential hazards.

#### **The construction of the chimney must be such as to ensure:**

- The smooth extraction of exhaust gases in normal operating conditions • The tightness of the walls, so that smoke gases do not escape indoors.
- The resistance to the thermal and mechanical loads it has to endure.
- The resistance to conditions created by possible ignition of deposits inside the chimney.
- Their resistance to chemical reactions caused by combustion products.
- The thermal insulation, so that the external surface temperature is below 50°C at the base of the chimney, regardless of whether it is accessible or not.
- The internal walls of the chimney must be smooth without cracks and corrosion.
- Free expansion must be ensured in the part of the chimney inside the building. The chimney must be located as far as possible inside the building for maximum thermal insulation and exit at its highest point.
- Bends must be avoided in the chimney route. The connection of the horizontal part of the chimney with its vertical part must be made at an angle of at least 100 degrees.
- The circular or rectangular cross-section is the most suitable for the chimney and must be kept constant throughout the length of the chimney. Arbitrarily changing the cross-section is prohibited for any reason. In rectangular cross-sections of chimneys the aspect ratio must be at most 1/1.5. The chimney cross-section is calculated according to the corresponding ELOT 447 standard.

- The chimney must end at least 1 m from its exit point, 0.70 m from any edge of a building located within a radius of less than 3 m from it and 1.50 m from combustible materials.
- For each chimney there is a cleaning opening at its base, which closes hermetically. The minimum chimney draft must be 12 Pa or 0.12 mbar.
- Each energy stove should ideally have its own independent chimney for optimal operation. The connection of multiple stoves to the same chimney duct system is only permitted with the use of mechanical flue gas extraction means. In any case, the connection of stoves to the same chimney must be done in accordance with the manufacturer's specifications and the applicable legal provisions.

The construction configuration of the final part of the chimney located outside the building must be such that:

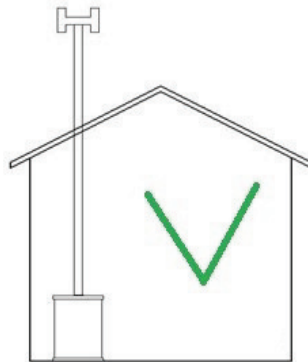
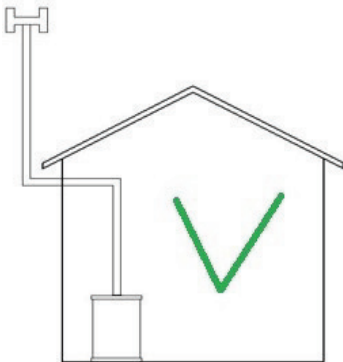
a) There must be a suitable height difference to ensure the required flue gas extraction (minimum distance of the exhaust gas exit point from the insert should be 1.5m).

b) The external horizontal part must have the minimum possible length and protrude from the external wall for a length less than three times the diameter of the pipe.

c) The final point of exit of the exhaust gases must be protected with a special component.



In the event that there are openings (doors or windows) at a higher point than the end of the chimney and at a horizontal distance of less than 6 meters, it should be ensured that the nuisance caused by flue gases is limited (e.g. by raising the chimney above the openings). See the diagram below with indicative examples of chimney placement.

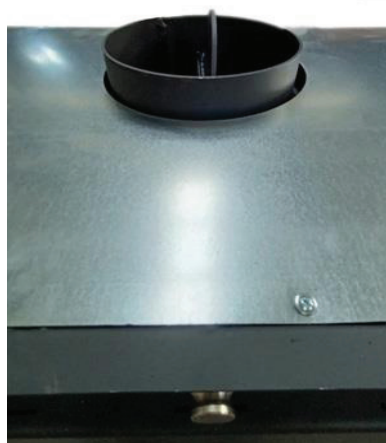


### **Connection to the chimney.**

The insert is designed to operate in chimneys located close to the final outlet. The insert and its flue should be as straight as possible, and with minimal horizontal piping or a slight slope. The piping must be connected to each other in a way that ensures the tightness of the connections. The wood inserts have a chimney with a flue gas outlet adjustment system (damper), as shown in the image below. The damper is constructed in such a way that it does not completely block the flue gas outlet, even in its closed position.



Open



Closed

### **In case of fire in the chimney**

1. Close all vents to cut off the oxygen supply that feeds the fire.
2. IMMEDIATELY call the fire department.
3. Clear the access routes to facilitate the access of the firemen to the chimney.
4. If possible, move flammable objects to reduce the risk of fire spreading.
5. After extinguishing and before the insert is put back into operation, have an authorized technician check the chimney and the device and repair any damage that has been caused.
6. A qualified technician should investigate the cause of the fire and take the necessary measures to prevent future problems.

#### 4. Combustion air inlet

The insert uses ambient air for combustion. If the air flow from the gaps and crevices is not enough, an air supply fan (at least 4mm<sup>3</sup> per kW for a rated thermal output of more than 5kW), which should be placed near the insert and on a wall connected to the outside environment, can provide the necessary supply air for combustion. It is important that the means of air intake (such as blinds, fan, etc.) are not blocked, that they are open during the operation of the insert. In models with air-fan, you can adjust two tubes on the upper side, so the warm air can be transferred in separate areas of the house.



#### Danger:



**Under no circumstances let air containing volatile or flammable substances inside the insert. Fire hazard!**

#### Warning:



**Do not install a hood in the same room as the insert. Smoke can seep into the space despite the door being closed.**

## **About the central water circuit inserts**

The water circuit insert operating with an open water heating system must be connected to the environment through an open expansion tank, placed above the highest heating device. There must be no obstruction (e.g. valves or filters) between the container and the device.

In the water circuit insert that works with a closed water heating system, safety systems must be integrated into the installation that will not allow the operating pressure of the device to exceed 2 bar.

### **5. Operating instructions**

**The insert must under no circumstances be used to burn household waste / refuse. Anyone using it to burn household waste, chemically treated wood scraps, plastic or other packaging can be prosecuted.**

The device is not suitable for burning liquids or fuels or other fuels than those intended for its use. In addition to the emission of harmful pollutants, the burning of unsuitable fuels causes damage, has a negative effect on the performance and lifetime of the appliance and the chimney, and can be the cause of fire.

Acceptable fuels are natural firewood that has been air-dried, i.e. stored for 2 years and with a moisture content of < 20%. Dry firewood with a maximum moisture content of 20% can be obtained after at least one year (softwood) or two years (hardwood) of suitable storage. Wood is not a slow burning fuel, so continuous heating throughout the night is not possible with wood burning. The insert has intermittent operation.

Firewood is recommended to be cut to a length of up to 25cm and a diameter of up to 30cm.

Avoid using very small firewood, as it only burns for a very short time. Different types of wood have different calorific value. Hardwoods, such as oak and beech, are particularly suitable for burning, as they burn slowly with a low flame and create a longer burning time. Resinous woods burn faster and tend to spark.

### **Warning:**



**Burning of plastics, household waste, chemically treated wood residues, bark and chipboard or other unsuitable materials is prohibited. The use of unsuitable fuel can have serious consequences, such as damage to the chimney, fire, damage to health and pollution of the environment.**

**Warning:**



Only use dry firewood.

**6. First use / ignition**

**Before operating the insert for the first time, please check with the authorized technician that:**

- The installation has been carried out in accordance with the building regulations and all works have been completed.
- The chimney is well secured and free of obstacles.
- The insert is supplied with the required combustion air.
- The insert is under your complete control during the ignition and operation process.

**Danger :**



**Do not touch the hot parts of the insert. Take precautions (especially fireproof gloves, etc.). Keep children away, warn them of the risk of burns and keep them under constant supervision during the time the device is in use and for some time after it is deactivated.**

**To ignite the insert :**

1. Open the combustion chamber and place kindling in the center of the hearth. Open the flue system (flap).
2. Fully open (far right) the air intake lever.
3. Light the pilot light and close the combustion chamber door.
4. Once the kindling starts to burn, open the door and add the wood.
5. Once the fire starts burning, use the air intake control lever to increase or decrease the intensity of the burn ( - left, or + right).



**Danger:**



**Never use alcohol, gasoline or other flammable materials as kindling. Use the special commercial products.**

**Note:**

The smell that emerges during the first operation is normal and results from the burning of residues of the materials used in the construction of the insert. While this can be a little annoying at first, it usually goes away after a few hours of use. You can operate the insert for a few hours in a well-ventilated area so that the smell will naturally decrease.

**Warning:**



**The insert must be used with the combustion chamber door closed. Risk of flue gas emission**

**Do not overload the insert with firewood.**

**Note:**

When you use the water circuit wood insert for the first time, you will notice water droplets (liquefaction) in the lower part of it. This is normal and only happens when the insert is first turned on. Wipe off the water with a cloth.

**Warning:**



**The air control lever must be closed for the oven to operate.**

**Deactivating the insert.**

To reduce or extinguish the fire in the insert, set the air intake lever to a low level or close it completely (far right). In this way the insert is not supplied with air, so the fire lowers and gradually goes out.

**DO NOT USE WATER TO EXTINGUISH THE FIRE!**

### **Warning :**



When wood burns slowly in a closed insert, moisture and tar are produced, this will create condensation and deposits in the chimney. This effect can be minimized by burning the insert at high intensity for 15 to 20 minutes twice a day.

### **Note:**

The insert does not emit fumes or smoke into the home as long as it has been properly installed by a qualified technician, according to the installation instructions, the chimney has been installed correctly and the cleaning and maintenance instructions for the insert have been applied. Occasionally and only during ash removal or refueling there may be some smoke for a short time.

### **Danger:**



**Stop using the insert if fumes or smoke are present and ventilate the area immediately.**

### **In case of flue gas emission:**

- Open doors and windows to ventilate the space.
- Extinguish the fire and safely remove the fuel from the insert.
- Check the flue and the chimney if there is any obstruction that prevents the flue gases from escaping smoothly.
- Ask for the help of a qualified technician.
- Do not attempt to operate insert again unless cause of flue gas emission is investigated and corrected.

### **Use of device during the transition period (spring or autumn).**

When the outside ambient temperature is above 14C, it may cause disturbances in the combustion and reduce the stack effect of the chimney and the flue gas may not be completely discharged.

### **Warning:**



**Only use small amounts of firewood and have the air supply ducts open so that the fuel burns faster.**

## **7. Cleaning and maintenance**

It is important that the insert is maintained at least once a year by a qualified technician, according to the instructions.

### **Danger:**



**Cleaning and maintenance work on the insert should be carried out when the device has completely cooled down.**

### **Cleaning of external surfaces**

The outer surfaces of the insert are painted with high temperature resistant paint. Use a soft brush or dry cloth to clean them. Remove moisture as surface rust may form.

### **Ash container cleaning**

Empty the ash container at regular intervals or even daily if required. Do not let the ash reach the height of the grate.

### **Cleaning the ceramic glass of the combustion chamber (flame port)**

The combustion chamber crystal is kept clean by proper air supply to the combustion chamber. In case of pollution:

- Remove light dirt from the glass with a damp cloth.
- Use a mild detergent without active substances.
- In case of stubborn dirt, remove it with a special cleaner.

Be careful and follow the directions for using these products as they may damage the fireproof coating.

Another solution for cleaning refractory glass is by using ash:

- Place a slightly wet piece of newspaper or cloth in the white ashes of the cold stove and rub it on the glass.
- Rub the glass with another wet piece of newspaper or cloth.
- Dry with a clean and dry cloth.



## **Cleaning combustion chamber lining**

The lining of the combustion chamber consists of refractory plates. To clean them:

- Wait until the surfaces with the refractory plates cool down.
- Clean the surfaces of the combustion chamber with a soft brush or broom. Do not use sharp objects or wire to clean surfaces

## **Chimney and ducts cleaning**

The maintenance and cleanliness of the flue ducts and the flue socket is important for the safe operation and proper performance of the insert. The cleanliness of these parts ensures the uninterrupted extraction of flue gases and the avoidance of possible problems such as fire or the accumulation of flue gases indoors. An inspection by a qualified technician should be scheduled at least once a year to clean and check these parts.

## **Maintaining the insert in the summer months**

During the summer make sure the insert is cleaned and moving parts are lubricated.

Leave the air intake lever slightly open to allow air to enter through the insert into the flue, thus preventing moisture and condensation in the chimney.

## **8. Instructions for the water circuit insert**

The water insert, which has a built-in water tank (boiler), is designed to work in a water heating system under maximum operating pressure:

For open water circuit 1 bar.

For closed water circuit 2 bar.

In the combustion chamber of the device there is a built-in boiler. The maximum water temperature in the boiler should be 85°C.

### **When connecting the device to the heating installation, the following rules and recommendations must be observed:**

- The installation of the water circuit insert should only be carried out by a qualified technician.
- Before connecting the installation, it is advisable to calculate the heat loss in the room. Make sure that the required thermal power does not exceed the nominal thermal power of the boiler, which can lead to shrinkage and rupture of its surfaces.
- In the open water heating circuit, an open expansion tank should be installed in the installation. Do not connect any accessories that obstruct the connection

between the device and the expansion vessel. The open circuit system operates under a pressure of 1 bar.

- In the closed water heating circuit, protective components must be integrated into the installation, which will ensure that the operating pressure will not exceed 2 bar.
- Venting should be ensured in every section and component of the circuit, at every moment of operation.
- During installation, a pipe plug of at least 1/2" diameter should be placed very close to the built-in boiler, at the lowest point.
- All parts of the installation should be protected from frost, especially if the expansion tank or other parts are installed in unheated rooms.
- When using an old installation, the entire circuit should be cleaned of accumulated dirt that may have settled on its parts.
- A fill and drain valve should be installed by the technician. The circuit water should not be drained from the installation during the period when the device is not in use.
- It is necessary to install a UPS to supply the pump in the event of a power outage lasting at least 3 hours.
- The surfaces of the insert should be cleaned of smoke and resin deposits at least once a month.

**Danger:**

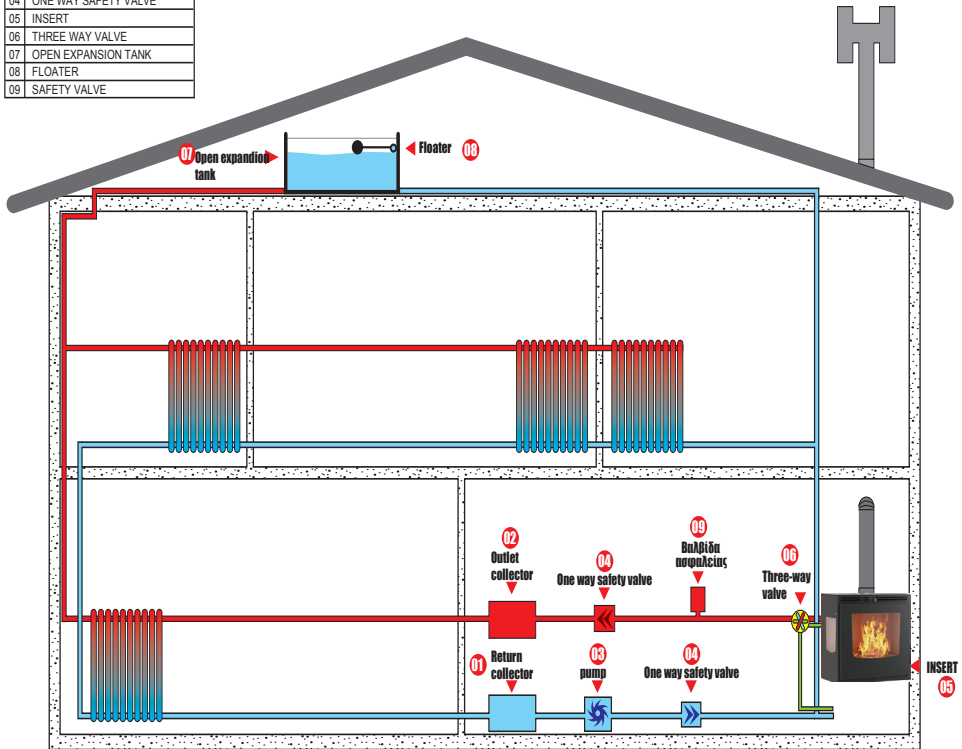


**Risk of system damage due to leaking connections!**

- Protect the boiler piping to prevent it from being under pressure.
- Place the pressure relief valve after completion of the leak test and in a vertical position.
- Seal the temperature and pressure gauges.

# Water circuit connections

01	RETURN COLLECTOR
02	OUTLET COLLECTOR
03	PUMP
04	ONE WAY SAFETY VALVE
05	INSERT
06	THREE WAY VALVE
07	OPEN EXPANSION TANK
08	FLOATER
09	SAFETY VALVE



When the water temperature in the three-way constant temperature valve, is lower than the requested, the green route is followed, other than that, the long route is followed.

**Danger:**



**Condensation can damage the installation and reduce the lifespan of the insert**

- Install a thermostatic valve that prevents the outlet water from returning.

**Warning:**



**Always follow the rules and standards in force in your country to prevent contamination of drinking water!**

**Warning:**



**Risk of damage to the installation due to excessive pressure in the heating circuit!**

The process of checking for possible leaks is essential for the safety of the heating circuit. During the test, it is important to ensure that no pressure or safety control equipment is installed that cannot be isolated from the boiler water chamber. This is important to avoid problems and ensure that the leak test can be carried out safely.

The leak test shall be performed at a pressure of 1.5 times the normal operating pressure of the system. This ensures that the system can withstand any excess pressure and protect against possible leaks or damage. In addition, it is important to observe all regulations and instructions governing the safety control of the heating system.

Boiler surfaces must be cleaned at least once a month.

**Warning:**



**The manufacturer is not responsible and cannot guarantee the operation of the heating installation. In case of incorrect connection and incorrect operating pressure, malfunctions and damages to the insert may occur which are not covered by the warranty.**

### **For the air-heated models:**

The inserts of the air - heated series have an additional fan that, when connected to an electricity supply, circulates the hot air into the room, contributing to its uniform heating. The fan speed can be adjusted and the fan can turn on automatically, by installing the dimmer / temperature sensor automation kit, which you can see in the picture below.



### **8. Packaging**

The insert is packaged in such a way as to offer protection against any wear or damage. However, its packaging may be damaged during transport. So please, when you receive the insert, check the packaging externally and internally for damage.

Please contact the company in case of damage to the device.

The packaging does not pollute the environment as long as you recycle its materials.

## **9. Warranty**

The manufacturer guarantees the excellent quality of its products and their excellent operation. For any manufacturing defects or malfunctions, the company undertakes to perform all required corrective actions for their restoration.

### **DURATION**

- The product warranty is valid for 1 year from the date of purchase regardless of the date of installation.
- The invoice / receipt must be kept in order to prove the date of purchase.

### **APPLICABLE CONDITIONS**

This warranty is valid under the following conditions:

- The product has been installed and used according to the instructions.
- The product has been connected to the chimney in accordance with the instructions and relevant regulations in force.
- The product has not been mechanically damaged by external force and has not undergone modifications, repairs and improper handling.
- The cost of transportation to and from the company's headquarters shall be borne by the customer.

The manufacturer's warranty is only valid for the domestic and in accordance with its intended purpose (indoor heating) use of the device. Damage caused by misuse, abuse, improper installation, lack of maintenance, fuel overload, negligence or accident in transport, power outages, power fluctuations, or ventilation problems are not covered by this warranty. This warranty does not cover any scratches, corrosion, deformation, or discoloration. Any malfunction or damage caused by the use of accessories other than genuine parts will void this warranty.

An authorized and qualified technician must perform the installation in accordance with the instructions provided with this product and all local and national building regulations. Any service call related to improper installation is not covered by this warranty.

The manufacturer may require the return of any defective products for inspection, or the user's submission of photographs to support any claim. If a product is found to be defective, the manufacturer will repair or replace it if its condition is deemed beyond repair. Transit costs to and from the buyer should be paid by the customer.

For more information you may contact the manufacturer.



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