

# Twenty-Six Eleven

## **Madison Accessories Tank Blanket**

The Holding Tank Heater for RV's, Motorhomes and Camping Trailers

### ***RV-ING IS A FOUR SEASON THING!***

Whether RV-ing for the love of it, living in a park unit or camping, many people are using their vehicles throughout the entire year. A common problem is that water holding tanks may freeze up in cold winter weather. As water tanks turn to ice, basic RV necessities such as toilets, showers, and sinks fail to function.

The solution is simple. Protect your water tanks in freezing temperatures with the Madison Accessories Tank Blanket.

### **What is the Tank Blanket?**

The Tank Blanket is an auxiliary heating device designed to be applied to the exterior of a holding tank in RV's, Motorhomes, camping trailers, and/or other commercial vehicles. Simply stated, it is an electric heating blanket for your various water tanks.

The Tank Blanket is made up of a laminated heating element, a thermostat switch and a rubberized backing material with an outer aluminum layer. The entire inner layer, opposite the aluminum outer layer, is covered in a Pressure Sensitive Adhesive that allows the user to "stick" the heater blanket onto the tank.

### **How does the Tank Blanket work?**

The thermostat switch will Turn ON the heater at approximately 40 degrees F ( + - 5 degrees) and will Turn OFF the heater at approximately 58 degrees F ( + - 5 degrees).

### **What size are available?**

The Tank Blanket comes in various sizes to accommodate the size of your water tanks. It is available for 20, 30, 40, and 60 gallon tank sizes.

### **What power requirements are available?**

The Tank Blanket is also available in various electrical power choices, either as a separate AC voltage unit, a separate DC voltage unit or a model that is a combination of each that has both an AC voltage heater and a DC voltage heater in one unit.

## ***How to Install the Tank Blanket The 7 steps***

*Caution: Do not remove the large and small backing papers from the back panel, until final placement on the tank. The adhesive is very sticky and once in place it is difficult to remove and reposition the unit.*

### **STEP 1: Determine best location on your tank**

Pick a placement such that the tank blanket will be in maximum thermal conductivity with the tank contents.

Because tanks dif  
is most likely to be present.

The goal is to transfer the heat from the tank blanket, through the wall of the tank, to the liquid inside the tank. Since the heat is transferred by conduction “all elements in contact” the ideal position is to install the

### **STEP 2: Clean Location**

Using a rag soaked with alcohol or mineral spirits, and clean an area slightly larger than the heater at this location of the tank.

### **STEP 3: The RED DOT**

Find the RED DOT on the heater. The BUMP under the RED DOT is the control thermostat. The thermostat must be in a location near the lowest point of the tank area where the liquid is present.

### **STEP 4: Test the position – *DO NOT REMOVE THE ADHESIVE BACKING***

Hold the heater in place on the tank. Orient the RED DOT to an area near the lowest point of the tank. Check the routing and clearance of the power wires of the heater.

### **STEP 5: Remove the 2 backing papers LARGE and SMALL**

Remove the **LARGE** backing paper from the foil backing. Remove the **SMALL** backing paper from the heater assembly.

### **STEP 6: Stick the heater to the Tank – *CAUTION: THE BLACK ADHESIVE IS EXTREMELY STICKY***

smoothly over the entire surface of the aluminum foil of the heater. Work out any bubble or gaps with

good seal is made at these locations. The **RED DOT**

DOT (thermostat) to be certain that the thermostat and the area around the thermostat BUMP is snugly adhered to the tank.

### **STEP 7: Connect the power**

Route the power wire to the appropriate power source, use tape or zip ties to keep the wire safely in place along the chassis and frame. Make all necessary electrical connection to a fused power source.

## ***Usage suggestions: Please read***

***Engage the electrical power to the unit when weather conditions denote that freezing conditions are prevalent.***

The thermostat switch will Turn ON the heater at approximately 40 degrees F ( + - 5 degrees) and will Turn OFF the heater at approximately 58 degrees F ( + - 5 degrees). However, there are many cool days when the temperature is less than 40 degrees and freezing conditions are not imminent. Therefore, use common sense, and unplug or remove power from the heater until necessary. Otherwise, the heater will try to raise the tank temperature to 58 degrees and waste energy unnecessarily when freezing conditions are not prevalent.

### ***Insulation: optional***

The Tank Blanket is an aid to prevent the liquid in your tank from freezing. The heat produced is spread is exposed to the elements, tanks being outside the vehicle, some type of additional insulation may be necessary to retain the heat to the tank liquid. Wrapping your tank with some type of insulation found at the

## ***Usage warning: Please read***

***Never engage electrical power to the heater if the tank is empty.***

If you drain your tanks for prolong storage and still provide power from a land line or other sources for functions such as lighting or battery charging in the stored vehicle then disconnect power to the tank heater.

Otherwise, if power is still active, the heater will turn on if the temperature reaches 40 degrees and try to heat the air in an empty tank. In this instance there is no liquid in the tank to absorb the heat from the unit and the heater may become very hot.

### ***Disclaimer:***

Each tank blanket has been tested by the factory for correct and safe operation. However, as with any electrical item, misuse or damage could cause a potential hazardous situation. , written or implied.

## ***Additional wiring instructions ONLY for 12 Volt DC Tank Blankets:***

***The 12 volt DC heaters use from 5 amps to 11 amps of current depending on the model.***

The DC Tank Blankets comes with 5 feet of #14 wire attached. The National Electrical Code standard rating for 14 gauge copper wire is 15 amps. If you need to add additional wiring, then be certain to use 14 gauge copper wire when wiring the tank blanket to the vehicle. Also, be certain that this wiring is connected to a 15 amp fuse in the vehicle and that if a toggle switch is used to control the power to the Tank Blanket that it is also rated for 15 amps capacity. Proper wiring is important, you must use the appropriate size connecting wire for the application, use 14 gauge or heavier wire.

Note:

*The calculated values for amperage in the table use 13.6 volts, as 12 volt automotive battery voltages range from 12.6 volts to 13.6 volts dependent on the state of charge.*

## **INSTALLATION CAUTION**

Install your Tank Blanket at near room-like temperature. Installation in conditions under 60°(F) could affect the adhesive backing, preventing proper installation. The unit's "sticky" backing, under the brown and white paper backing, like most adhesives, generally will not stick in very cold weather. Once properly installed and sticking to your tank, the unit will remain functional and will permanently adhere to your tank regardless of freezing conditions.

Should you need to install your unit in outside cold temperatures, you should move your vehicle inside and allow the tank to warm up, and/or, if necessary apply a hair dryer or heat gun to the tank area and to the aluminum outer sheet of the Blanket. This will assure proper adhesiveness under the brown inner paper backing and under the white paper outer backing (see step 5 of the installation instructions), keeping the unit pliable for proper and easy installation.

Lastly, you may also wish to add some **LOW TEMPERATURE DUCT TAPE** to the perimeter of the Blanket as an added security in extremely low temperatures. Low temperature duct tape adheres in very low temperatures and can be found at most home stores.