

## INSTRUCTIONS FOR ROOF GUARD

### Automatic Roof De-Icing Cable Control Installation & Operation Instructions

This product has been designed and manufactured for the sole intended use of controlling roof de-icing cables. The roof de-icing cable is used for preventing ice dams from forming on inclined roofs, in gutters and downspouts. Improper installation, use, operation and/or maintenance of electrical roof de-icing can cause fire, electric shock and/or allow ice dams to form.

Fig. 1 Kit also includes (6) clips and (2) mounting screws.

#### WARNING

1. If after reading these instructions you still have questions regarding installations or operation of this product call Waterline Products Co. Ltd.
2. The RS2 must be connected to a ground fault circuit interrupter (GFCI) outlet. If a GFCI trips and cannot be reset, then a fault in the RS2 or in the roof de-icing cable exists. Do not attempt to bypass the GFCI. Bypassing the GFCI may result in the risk of fire or electrical shock.
3. The RS2 must be kept dry, the unit is not water resistant and will fail if directly exposed to the weather.
4. All roof de-icing cables must be installed in compliance with the latest editions of The National Electrical Code, Canadian Electrical Code, State or Provincial Codes and Local Codes.
5. These instructions must be saved and made available to owners or users of this product and /or transferred to future owners.
6. Any roof de-icing cable that is to be connected to the RS2 must be installed according to the manufacturer's instructions.
7. Do not connect more than one roof cable to the RS2. The maximum cable size that can be connected to the RS2 is 1200 Watts. Risk of fire, electric shock or the formation of ice dams can result from a larger cable or from multiple cables being connected.

#### INSTALLATION INSTRUCTIONS

1. Mount The RS2 under the soffit, or equivalent location protected from the weather, using the screws provided Refer to Fig. 2. Ensure that the mounting location is close enough to the receptacle supplying power to the unit to allow the cord on the control to be plugged in. The connection should be located for the best protection from the weather and a drip loop used as appropriate. Drip loops should be used between the control box and both the sensor wire and power connection to the heater wire as appropriate for maximum protection. If desired, this receptacle can be controlled by a switch (with a pilot light) located inside the house. See Fig. 2.

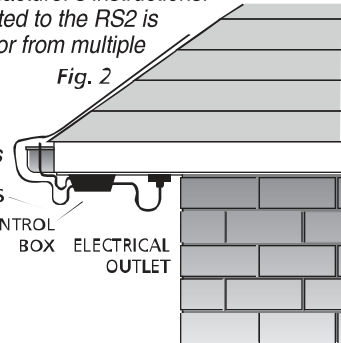
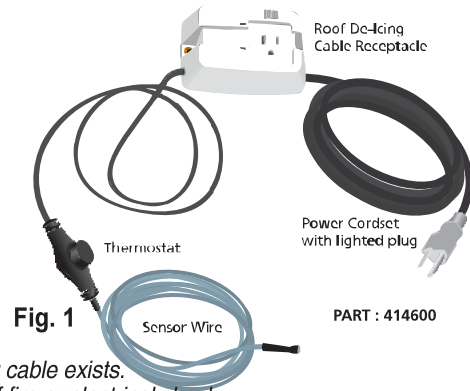
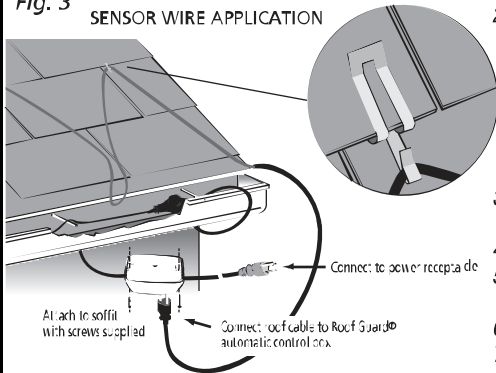


Fig. 3 SENSOR WIRE APPLICATION



2. Lay the thermostat block and sensor wire along the bottom of the gutter within two inches of the roof de-icer cable. Route the sensor wire over at least one gutter support strap or nail in order to sense the full depth of the gutter, then route along one triangular weave of the heating cable on the roof as per diagram. At the peak of the second triangle, attach the sensor wire up the roof, at least 2 feet past the heater wire as illustrated. Use the clips provided to secure the sensor wire to the roof. Gently squeeze the coated end of the clip around the sensor wire. See Fig. 3
3. Connect the cord from the roof cable to the Roof Guard Control box. Cables up to a maximum of 1200 Watts can be used.
4. Plug the Roof Guard cord-set into receptacle. Ensure that this connection remains dry.
5. If using a pilot light, turn the pilot light switch to the "ON" position. The pilot light on the plug of the unit wall will be lit.
6. Your Roof Guard is now ready to control the cable on your roof.
7. The power light indicator (next to the receptacle on the control box) will only be lit, when the roof de-icing cable is energized. Fig. 4

#### OPERATION INSTRUCTIONS

The RS2 roof control is designed to energize the roof de-icing ONLY when roof snow/ice melting conditions exist AND there is a risk of this melted water refreezing at roof edge to form an ice dam. This ensures that ice dams will not form and that energy consumption is minimized.

The thermostat (in the thermostat block on the RS2) senses the ambient temperature. The sensor wire senses the presence of water. If the temperature is below 4°C (40°F) AND at least 10 inches of the sensor is laying in (or on) water, Then the RS2 will apply power to the roof cable. Note that snow or ice surrounding the sensor wire WILL NOT result in activation of the RS2 to energize the cables.

The RS2 can be tested for functionality by submerging the thermostat block and 10 inches of sensor wire in ice water for 10 minutes, the power indicator light will turn on.

Disconnect the power to the RS2 during summer months.

At the beginning of the heating season and monthly during operation, inspect the RS2 control and its connection to the electric power source. Discontinue use and remove any unit that has been cut, damaged, or has deteriorated for any reason. Other conditions to look for are chewing by animals or any physical abuse. This unit does not contain any serviceable parts. Inspect for and remove all leaves and combustible debris from roof, gutters and downspouts.

