



ORBIT MANUFACTURING COMPANY

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Now you're getting warmer!

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TXLP Roof & Gutter Melting Cable Instructions

Installing The Heating Cable

IMPORTANT NOTE: THESE CABLES ARE NOT TO BE INSTALLED IN WALLS OR CEILINGS FOR ANY REASON

GENERAL INSTALLATION INSTRUCTIONS

Description: Heating cables are delivered as a factory made or custom made heating cable sets, which is a pre-determined length of single conductor heating cable with the two conductor ends spliced to non-heating leads. The heating cable sets shall not be shortened or altered in the field.

Loading: Heating cables covered by this installation instruction can be used with the following MAXIMUM values:

Outdoor in Concrete: 56 watts/sq. ft. - 15.2 watts/linear ft.

Outdoors in Asphalt: 32.5 watts/sq. ft. - 10.5 watts/linear ft.

Outdoors in Gutters: 7.5 watts linear ft.

Outdoors on Roofs: 28 watts/sq. ft. - 7.5 watts/ linear ft.

Voltage: 120, 208, 220, 230, 240, 277, 480.

The relation ship between supply voltage, linear resistance, cable length and center spacing are important, as they need to be understood in order to give the right operating temperature and surface temperature distribution.

The TXLP heating cable can be installed within the confines of, Concrete, Asphalt, Mortar, Sand , or any non-combustible material.

Electrical code and safety: All heating cable installations shall be installed according to the National Electric Code (NEC) Article 426 for outdoor de-icing and snow melting and article 424 for space heating. **(In addition, the installation shall be in accordance with the regulations of all authorities having jurisdiction.)** **Caution:** This equipment shall only be installed by qualified personnel, who are familiar with the construction and operation of the installation and hazards involved in outdoor environments. UL listed weatherproof junction boxes shall be used along with Marker Plate(s) per all governing UL and NEC requirements.

TESTING PROCEDURES FOR TXLP SNOW AND ICE MELTING CABLE

Cable Description: 1 Black (Non-Heated Leads), 1 Green (Ground Wires) Spliced To Each End Of The Blue Heating Cable.

1. Verify the cable you ordered is the one that you received. Refer to the UL flag tag that is Attached to one of the black non-heated lead wires. This tag will list the following information: Watts, Volts, Cable Length, Cable Spacing, Ohms and Amps.
2. Visually check the cable for obvious flaws or breaks.
3. With a digital ohm meter, check your resistance between the two black wires. Reading should be between +/- 10% of the value listed on the UL tag. Record your reading on the enclosed warranty card.
4. Again, using your digital ohm meter check the resistance between the black and the green wires, the reading should be 0000 or infinity.
5. During the installation of the topping, monitor the cable for any sudden changes in the ohms.
6. After the cable is installed, repeat steps 3 & 4.
7. When performing an actual amperage test, never run the cable for more than 15 seconds.

GUTTER CABLE INSTALLATION:

Important Note: When pulling the cable off the spool or from the wire tie wraps, always pull the cable from the blue heating cable, not by the green and black lead wires. This will ensure that the integrity of the splice is not compromised.

GUTTER GUARDS MUST BE USED IN ALL APPLICATIONS OR WARRANTY WILL BE VOIDED

Gables, steel, copper or aluminum gutters shall be free of any sharp objects. Down spout openings shall be free of all burrs and down spouts shall not have any sheet metal screw points penetrating the inside of the spout. Most gutters have a high and a low side to allow the water to run to the down spout. Locate the splice (and the GIT-3 barrel sensor if purchased) in the low side to assure they will be covered with water. Lay the splice (Fig. 1A) into the gutter but do not secure it at this time. On the roof, lay out cable to mirror the actual installation in the gutter and down spout. Measure the down spout and install the clips (Fig. 2) to allow the cable to be lowered down the spout. Now install the cable in the gutter and in the down spout. Use the down spout hanger kit (Fig. 3) to secure the cable. Now secure the splice with two RC-1 clips as shown in Fig. 1. **(FOR RUNS OVER 50 FEET, AN RC-1 CLIP SHOULD BE INSTALLED TO SECURE THE CABLE TO THE GUTTER)**

We have been asked about different ways to secure the TXLP cable to various roofing materials without making holes in the roof. The following methods are recommended:

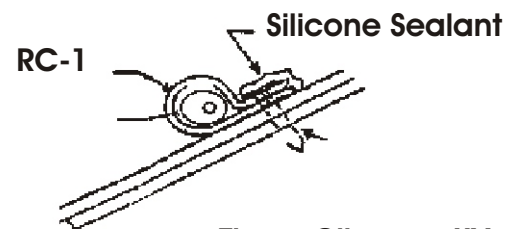
1. Rubber (PVC) type roofs, we recommend using an actual piece of roofing material and heat welding it to the roof surface.
2. Metal (Tin or Aluminum) type roofs, we suggest our DS-2 clip which will be secured across the standing seam. In lieu of the clips, seam tape can be used (STILK-11, No. 434-2B or Equivalent)

Fig. 1



(Fig. 1A)

Lead And Splice Installation

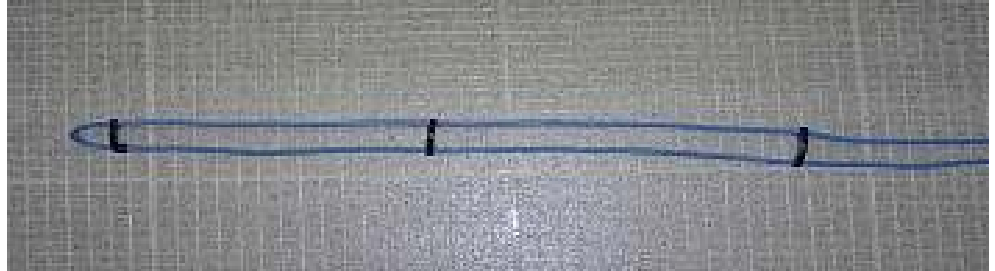


These Clips are UV protected to withstand direct sunlight. Each clip has a mounting hole. (Roofing nail is not included)

The TXLP cable will hold its shape when formed. You will find this useful when fabricating a drop for downspouts. Place clips (DS-2) every 1-2 feet along the cable that goes down the spout and follow procedures to mount the downspout hanger.

Spacer Detail using DS-2 clips for downspouts and gutters.

(Fig. 2)



RDK Downspout Hanger Kit:

- 2-Stainless Steel Clamps
- 2-Split Grommets
- 2-Stainless Steel Wire Hangers

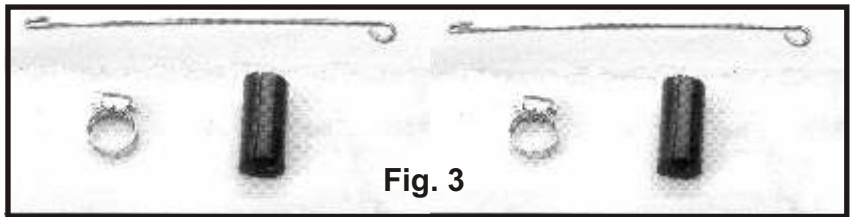


Fig. 3



Figure A.



Figure B.



Figure C.

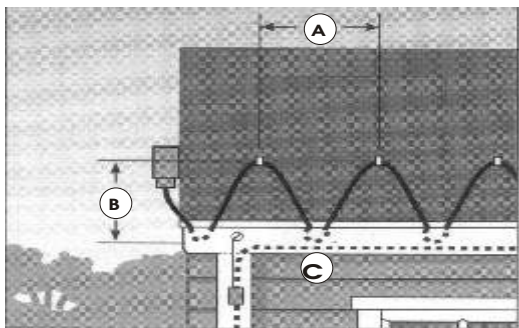


Figure D.

1. Position the split grommet around the heating cable where the downspout hanger will be placed. (Fig. A)
2. Center the hairpin end of the wire hanger along the split grommet. Slide the clamp over the hanger so the band of the clamp is between the "legs" of the hairpin. (Fig. B)
3. Tighten the clamp until the hanger and the cable are firmly held in place. (Fig. C)
4. Attach the hanger assembly to the roof structure With a roofing nail or screw. (Fig. D)

Shingle Roof Installation:

When doing a shingle roof (Fig. 4) we will include the spacing formula (Table 1) so the cable will be installed properly. Secure the cable at the top and the bottom with our RC-1 clips (Fig 1) The bottom loop should extend approximately 2" over the roof edge within the gutter



Note: Cables in downspouts and gutters will consist of two parallel cables.

A = _____ Inches
B = _____ Inches
C = _____ Inches

Metal (Standing Roof) Cable Installation:

For metal roofs, trace every other seam.



Figure 5



Figure 6

LIMITED WARRANTY

The warranty time shall be 10 (ten) years from the time of shipment from the factory. Orbit guarantees that the cables are free from defects in the material and workmanship. This guarantee is from Orbit and is limited to delivery of new products to the customer.

Orbit or it's distributors are under no circumstances liable for consequential damages or losses including without limitation the loss of profits arising from any cause whatsoever. This guarantee is a material warranty only and does not cover field labor.

Please fill out the enclosed warranty card. On the line marked conductor resistance, insert the resistance found in step 3 of the testing procedure (front page of the document). Fill in the date section, signature section and return to:

Orbit MFG. Co.

1507 West Park Avenue

Perkasie, PA 18944

This must be done to assure your warranty is registered !