

# INSTALLATION AND MAINTENANCE




## CT-9001

Junction box for use with self regulating  
-CT Heating Cable



### SPECIFICATIONS

OPERATING TEMPERATURES	-40°C to +50°C (-40°F to +212°F)
EARTH CONTINUITY PLATE	Available as extra
APPROXIMATE VOLUME	635cm <sup>3</sup>
MATERIAL	Glass reinforced Polyester. Fire Retardant
SPECIAL FEATURE	The enclosure has a uniquely designed hinged cover
RATING	NEMA TYPE 4X
CERTIFICATION	 Class I, Div. 2, Groups A, B, C, D <sup>[2]</sup> Class II, Div. 2, Groups E, F, G <sup>[2]</sup> C US Class III <sup>[2]</sup>


DANGER


ELECTRIC SHOCK OR FIRE HAZARD

READ ALL WIRE SIZING, VOLTAGE REQUIREMENTS AND SAFETY DATA TO AVOID PROPERTY DAMAGE AND PERSONAL INJURY

## GENERAL INFORMATION

King Electric supply quality junction boxes only as part as a complete King Electric System. As standard, robust and corrosion resistant polyamide enclosures are supplied for use in safe (non-hazardous) or hazardous (Zone 1, or Zone 2) areas. When used in hazardous areas the enclosures provide type EExe protection (increased safety) in “Electrical Apparatus for Potentially Explosive Atmospheres”



## ! WARNING !

- If after carefully reading these instructions you still have questions regarding installation or operation of this product, call King Electrical Manufacturing Co. at 206-762-0400 or visit us at [www.king-electric.com](http://www.king-electric.com) for assistance.
- This component is an electrical device which must be installed correctly to ensure proper operation and to prevent shock or fire. Read these important warnings and carefully follow all of the installation instructions.
- To minimize the danger of fire from sustained electrical arcing if the heating cable is damaged or improperly installed, and to comply with the requirements of King Electrical, certifications, and National Electrical Codes, ground-fault equipment protection must be used. Arcing may not be stopped by conventional circuit breakers.
- Component approvals and performance are based on the use of King Electrical. specified parts only. Do not use substitute parts or vinyl electrical tape.
- The black heating cable core is conductive and can short. It must be properly insulated and kept dry.
- Damaged bus wires can overheat or short. Do not break bus wire strands when scoring the jacket or core.
- Keep components and heating cable ends dry before and during installation
- Bus wires will short if they contact each other.
- Keep bus wires separated.
- Use only fire-resistant insulation materials, such as fiberglass wrap or flame-retardant foam.

# INSTALLATION INSTRUCTIONS

**Step 1.** After the seal fitting is open, put the junction box cap, strain relief disk, grommet, and body onto the power connection of cable.

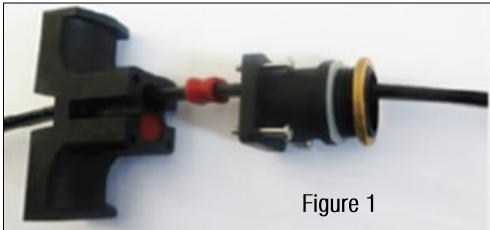


Figure 1

**Step 2.** Slice completely around heating cable outer jacket, and then down a distance of 4.5" (119mm), being careful not to cut braid or inner jacket. Then, bend heating cable to break jacket where sliced, and peel off outer jacket.



Figure 2

**Step 3.** Carefully push braid back to loosen and spread apart as shown



Figure 3

**Step 4.** The heating cable must be bent As shown so it can be pushed through the braid opening



Figure 4

**Step 5.** Place braid to one side of cable. Cut inner jacket of cable back 3.5"(90mm).

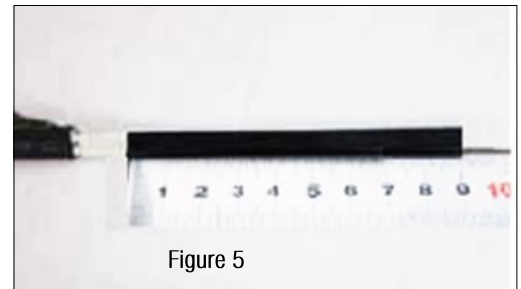


Figure 5

**Step 6.** Shave off outer matrix material from conductors with utility knife

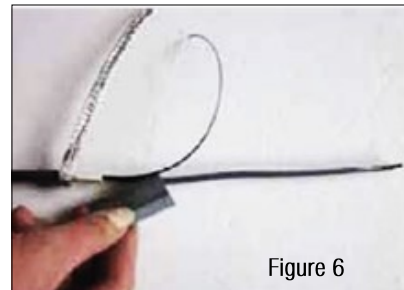


Figure 6

**Step 7.** Peel back exposed wires from central matrix material. Do not cut bus wire strands!

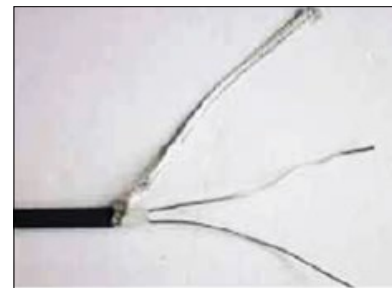


Figure 7

**Step 8.** Cut off remaining center core of matrix; leaving the bare conductors. Do not cut bus wires!

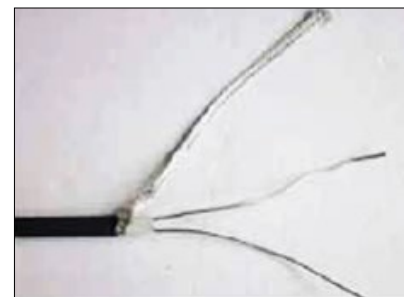


Figure 8

# INSTALLATION INSTRUCTIONS

**Step 9.** Slip on black shrink tubes 3" (77mm)

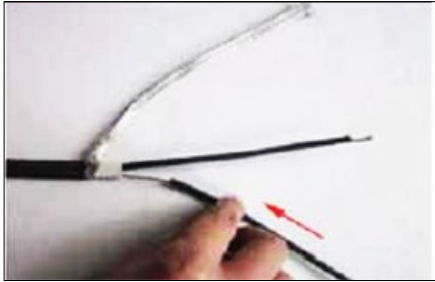


Figure 9

**Step 10.** Carefully shrink tubing by moving heat source from side to side continuously; being careful not to damage heating cable.



Figure 10

**Step 11.** Then, insert green/yellow tube over braid and shrink.

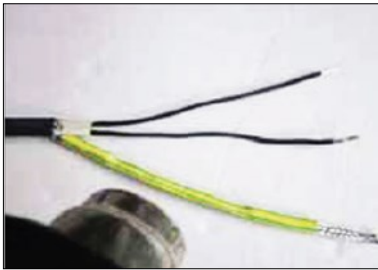


Figure 11

**Step 12.** Center black shrink tube 1" (25mm) over end of heating cable as shown in Figure 12.



Figure 12

**Step 13.** While tube is still hot, pinch tube with pliers, between wires, and hold for 10 seconds to ensure seal. See Figures 13.

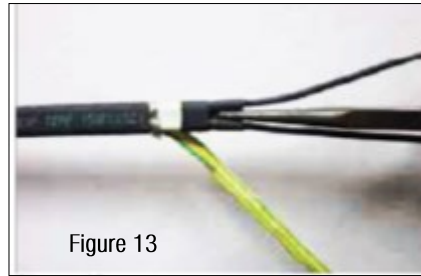


Figure 13

**Step 14.** For heating cables with an outer jacket, slide parts in place as shown below.

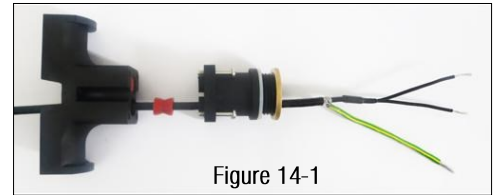


Figure 14-1

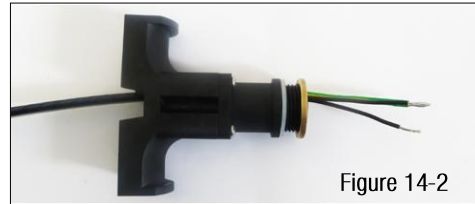


Figure 14-2

**Step 15.** power wire: Cut inner jacket of cable back 3.9"(100mm), Cut Conductor wire 0.5"(12mm)

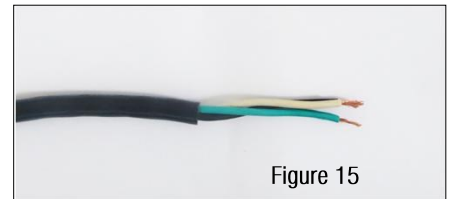


Figure 15

**Step 16.** Connect the power conductors to the cable leads.

Connect the incoming supply ground to the cable braid and to the green ground wire. The wire nuts, included, are not for use with aluminum feed wires. The junction box needs to be grounded.



Figure 16-1

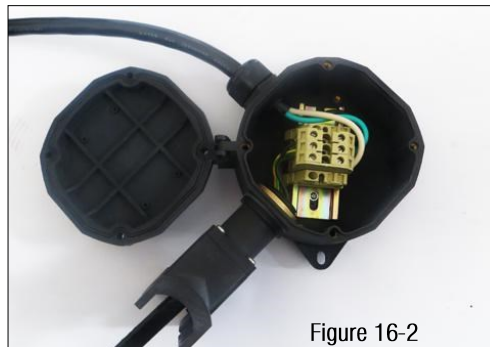


Figure 16-2



Figure 16-3