

## **BN Thermic Ltd**

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## **Installation instructions for**

# **CRJ-T1**

## **Termination kit**

All terminations and connections must be completed by a qualified electrician and carried out in accordance with current regulations.

This CRJ-T1 termination kit is intended to be used with all BN Thermic CRJ and CRJM Self Regulating Cable. This kit includes all the parts required to terminate both ends of a single piece of cable. If you wish to join two lengths of cable or T join another piece of cable you will also require a CRJ-S Splice / T Joint Kit for each join or T joint you wish to make. Please make sure you do not exceed the maximum length for each type of cable as shown in the cable instruction leaflet.

### **Termination Kit**

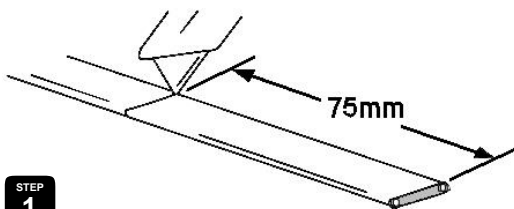
CRJ T1 kit contains:

- 1 - Grey cable gland 20mm
- 1 - Red 40mm x 3.2mm dia heat shrink
- 1 - Blue 40mm x 3.2mm dia heat shrink
- 1 - Green / yellow 65mm x 3.2mm dia heat shrink
- 1 - Black 70mm x 16.4mm dia heat shrink
- 1 - Black 50mm x 16.4mm dia heat shrink
- 1 - Black 35mm x 16.4mm dia heat shrink
- 2 - Insulated barrel connectors
- 1 - Warning label

### **Tools required**

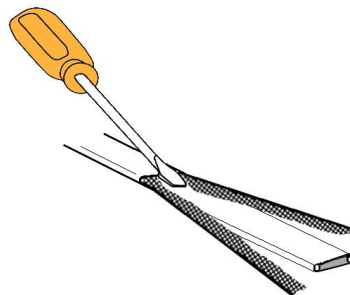
- Sharp knife
- Side cutters
- Long nose pliers
- Small screwdriver
- Heat gun
- Crimp tool
- Spanner

## Preparation for termination



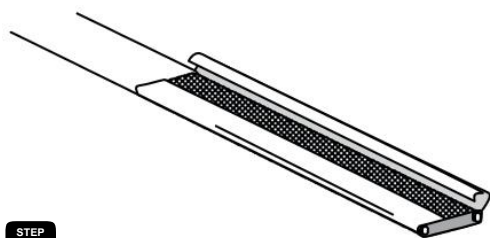
STEP  
1

First slide the cable gland and then the 70mm heat shrink onto the cable. Cut around the outer cable sheath 75mm from the end the gently bend the cable to break the sheath free.



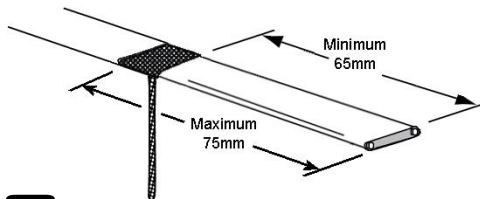
STEP  
5

Undo the braid leaving approximately 8mm in front of the cut line.



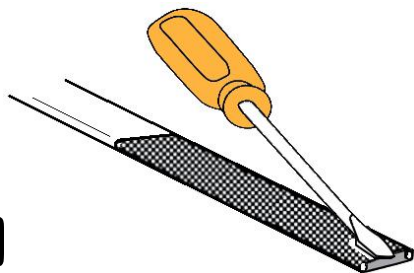
STEP  
2

Carefully cut along the centre of the outer sheath as shown. Discard the 75mm length of the outer sheath.



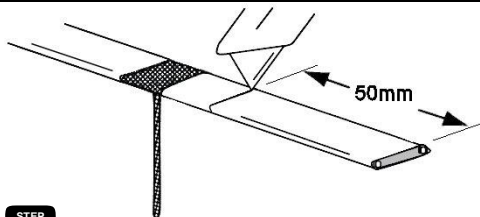
STEP  
6

Pull the braid tight to form a 'pig tail', now twist to form a round wire shape. Ensure the braid conforms to the dimensions in the above drawing.



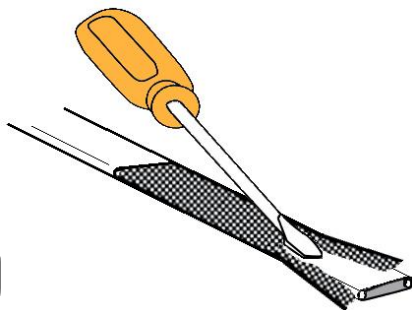
STEP  
3

Using a screwdriver start to undo the braid by sliding the screwdriver down the cable.



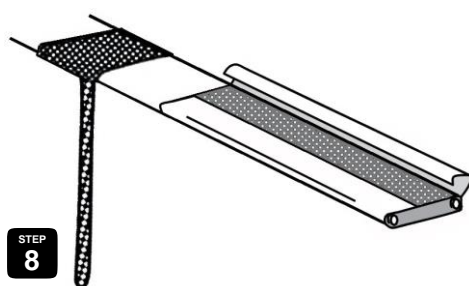
STEP  
7

Carefully score around the inner sheath 50mm from the end. Gently bend the cable to break this section of the sheath free.



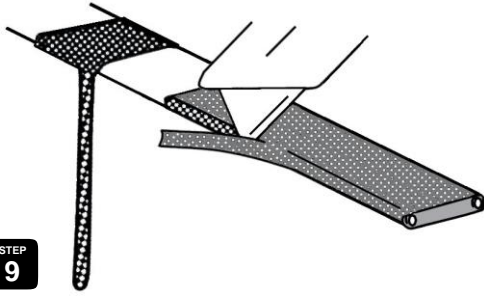
STEP  
4

Slowly undo the braid by using a screwdriver.



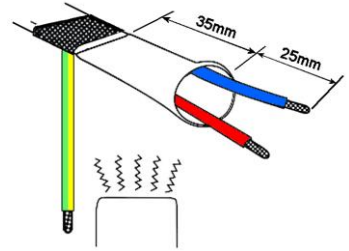
STEP  
8

Carefully cut along the centre of the inner jacket as shown gently bend the inner jacket, remove and discard.



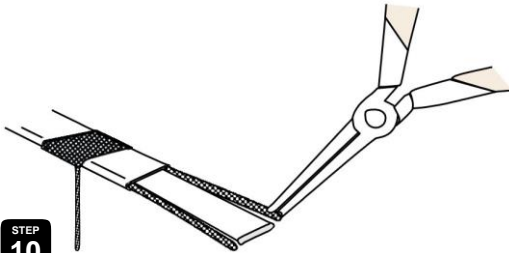
**STEP 9**

Taking care not to cut into the two conductors, working from the outside, expose the conductors (Buss wires).



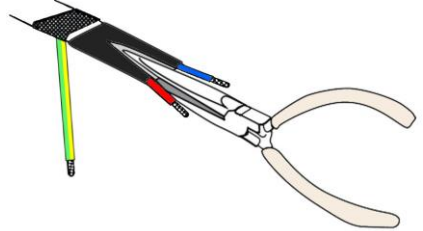
**STEP 13**

Slide the black adhesive lined 35mm long x 16mm diameter heat shrink over the cable leaving 25mm of the red and blue wires showing. Have on hand the long nose pliers. Using the heat gun shrink this sleeve.



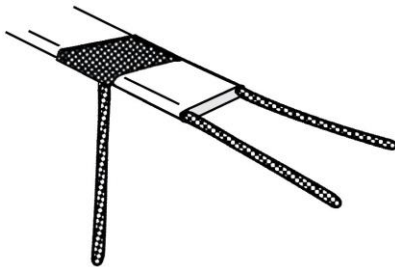
**STEP 10**

Starting from the ends pull each Buss wire away from the inner core material.



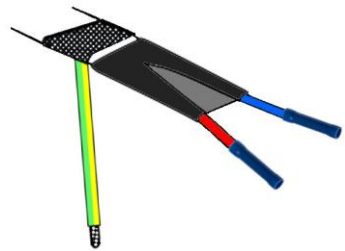
**STEP 14**

As the heat shrink reduces down immediately squeeze the overhung portion with the pliers for 20 seconds to form a fork like arrangement. (The heat shrink has an inner glue like material to ensure good adhesion.)



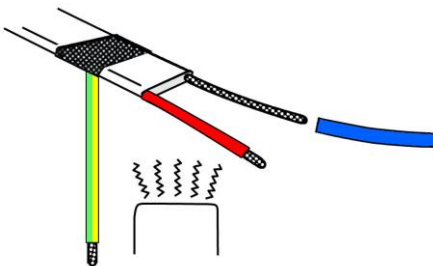
**STEP 11**

Remove and discard the inner core material leaving the two bare Buss wires exposed.



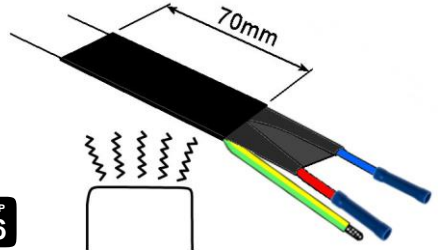
**STEP 15**

Crimp, using a suitable tool, the two insulated barrel connectors to the conductors to allow connection to the power feed cable.



**STEP 12**

Slide the red 40mm long x 3mm diameter heat shrink over one of the exposed Buss wires and using a suitable heat shrink gun shrink into place. Repeat using the blue sleeve on the other exposed wire. Slide the green/yellow sleeve over the earth wire and shrink into position.



**STEP 16**

Slide the 70mm length back over the terminated section including the green/yellow covered earth wire to the base of the forked conductors and shrink into place. Finally slide the gland over the assembly in preparation for connection into a suitable junction box. Tighten the cable gland.



Picture showing completed Termination End

### Remote / Far End Preparation

<p><b>STEP 1</b></p> <p>15mm</p> <p>25mm Maximum</p> <p>Using the same method to expose and separate the earth braid as shown in the termination detail, cut outer sleeve 25mm and strip the earth braid back 15mm from the cable end. Fold the earth wire around the sheath. <b>DO NOT EXPOSE THE BUSS WIRES.</b></p>	<p><b>STEP 3</b></p> <p>12mm</p> <p>12mm</p> <p>Slide the 50mm length of black heat shrink over the cable end so that there is 12mm overhanging the cable end.</p>
<p><b>STEP 2</b></p> <p>4mm</p> <p>Using a pair of side cutters cut down the centre of the 15mm length of inner core and then remove 4mm of one of the Buss wires so as to form a notch. This is to ensure that there is no way in which the Buss wires can come into contact with each other.</p>	<p><b>STEP 4</b></p> <p>Apply heat to the shrink tubing and when the overhanging portion is fully shrunk squeeze the ends together to enable the inner glue to adhere to itself. A bead of the clear colour glue should be visible at the end.</p>



Picture showing completed Remote / Far End.

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CRJ-T1INS-v2