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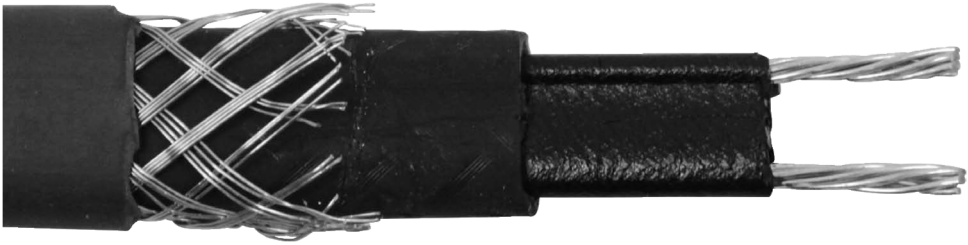
Installation instructions for

CRJ-S

Splice / Tee Kit



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

This CRJ-S Splice / T Joint Kit is intended to be used with all BN Thermic CRJ and CRJM Self Regulating Cable. This kit includes all the parts required to create either one splice (join) or one T Joint plus cover for the bare end.

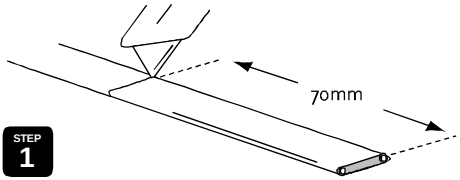
Please make sure you do not exceed the maximum length for each type of cable as shown in the cable instruction leaflet.

Before commencing this procedure please first read the complete instruction leaflet.

CRJ-S kit contains:-

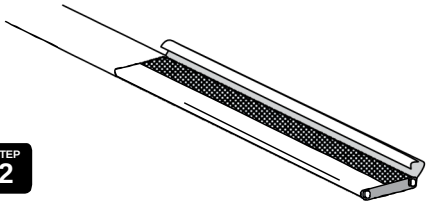
- 1 - Black 150mm x 16.4mm heat shrink
- 1 - Black 70mm x 16.4 mm heat shrink
- 4 - Black 35mm x 16.4mm heat shrinks
- 3 - Red 40mm x 3.2mm dia heat shrinks
- 3 - Blue 40mm x 3.2mm dia heat shrinks
- 1 - Green / yellow 65mm x 3.2mm dia heat shrink
- 2 - Blue insulated barrel connectors
- 1 - Piece mastic tape
- 1 - Uninsulated barrel connector
- 1 - Cable tie
- 1 - Yellow Warning Label

Preparation for jointing/splice



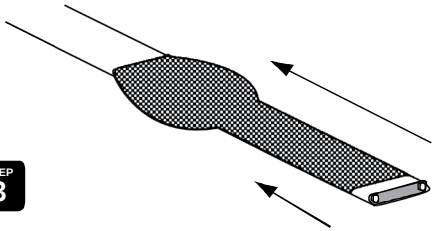
STEP 1

Prepare each end of the cable in a similar manner for each cable to be spliced (or tee connected). First slide both the 150mm and the 70mm length of black heat shrink onto one side of the cable. Then carefully cut around the outer cable jacket 70mm from the end.



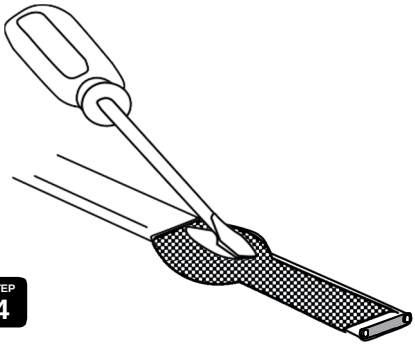
STEP 2

Carefully cut along the centre of the outer sheath as shown. Discard the 70mm length of the outer sheath.



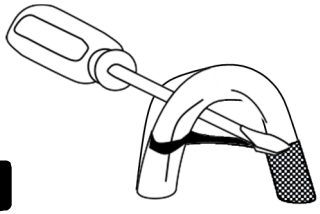
STEP 3

Push back the earth braid to create a bulge .



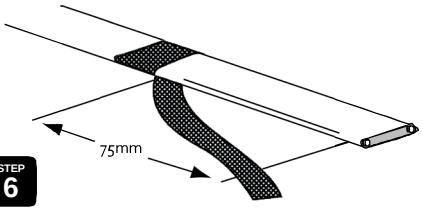
STEP 4

Then using a small screwdriver make an opening at the bulge.



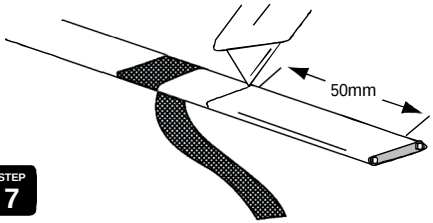
STEP 5

Gently bend the cable and feed the inner core through the braid opening.



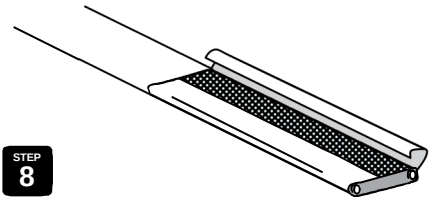
STEP 6

Pull the braid tight to form a 'pig tail'



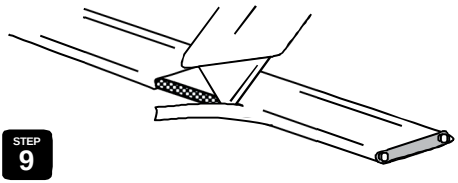
STEP 7

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



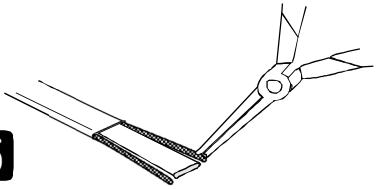
STEP 8

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



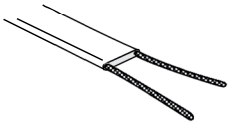
STEP 9

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



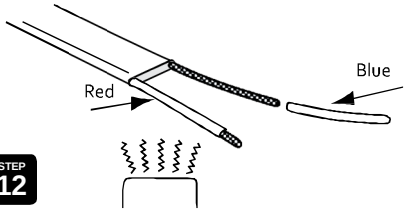
STEP 10

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



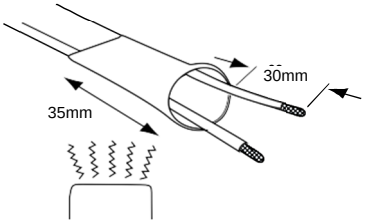
STEP 11

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



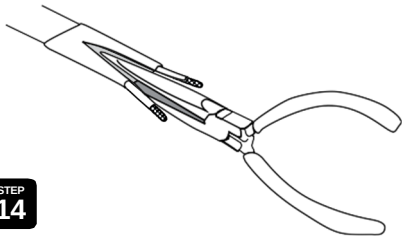
STEP 12

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



STEP 13

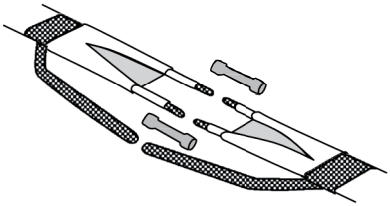
Slide the black adhesive lined 35mm long x 16mm diameter heat shrink over the cable leaving 20mm over the exposed red and blue insulated Buss wires. Have on hand the long nose pliers. Using the heat gun shrink this sleeve.



STEP 14

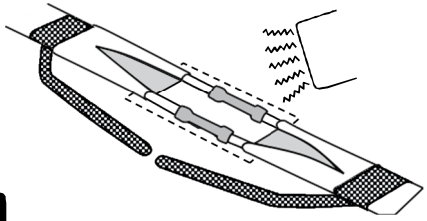
As the heat shrink reduces down immediately squeeze the overhung portion with the pliers for 20 seconds to form a fork like arrangement. (The heat shrink has an inner glue like material to ensure good adhesion.)

To make the splice



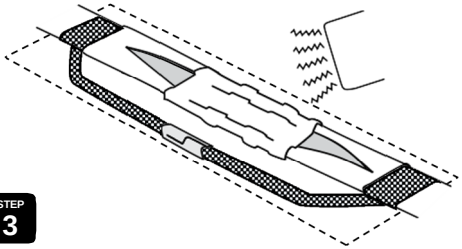
STEP 1

Using the 2 blue insulated barrel connectors' crimp the Buss conductors together red to red and blue to blue.



STEP 2

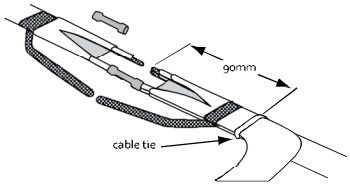
Slide the 70mm heat shrink so that it is centred over the joint and shrink into position. Using the un-insulated barrel connector, butt the earth 'pigtails' into the connector and crimp.



STEP 3

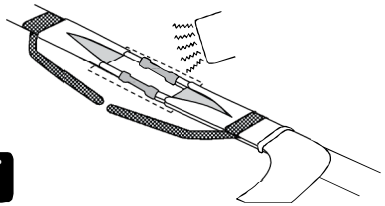
Now slide the 150mm length of heat shrink over the entire joint area and, again using the heat gun, shrink into position. The splice is now complete.

Tee Joint



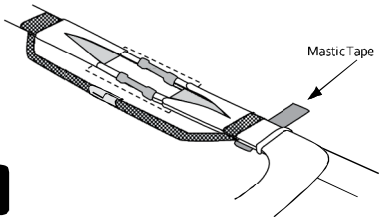
STEP 1

Prepare all 3 cable ends as previously described, remembering to slide both the 150mm and the 70mm black heat shrink onto one of the cables. Before crimping the conductors together fit the cable tie as shown to support the cable that is to form the tee. Then crimp all the red Buss wires together followed by the blue wires using the 2 blue insulated barrel connectors provided.



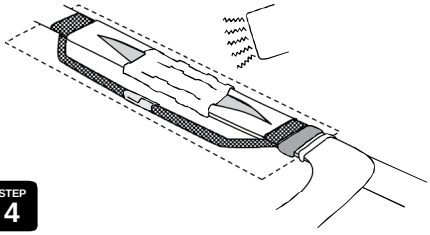
STEP 2

Slide the 70mm heat shrink over the joint and shrink into position. Now using the un-insulated barrel connector join the earth braids together and crimp.



STEP 3

Slide a small strip of mastic tape 25mm long under the twin cables and wrap around these cables stretching the tape so as to bring them together tightly.

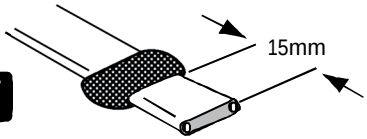


STEP 4

Slide the 150mm black heat shrink over the entire joint and shrink into position. A bead of adhesive should be visible where the heat shrink and cable outer sheath meet.

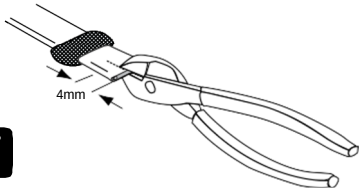
The newly created bare end MUST be covered in accordance with the instructions below.

Remote End Preparation



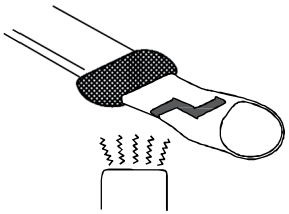
STEP 1

Using the same method to expose and separate the earth braid as shown in the termination detail, strip the outer, inner and earth braid back 15mm from the cable end. Fold the earth wire around the sheath. DO NOT EXPOSE THE BUSS WIRES.



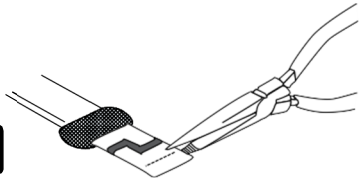
STEP 2

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 ensures that there is no way in which the Buss wires can come into contact with each other.



STEP 3

Slide the 35mm length of black heat shrink over the cable end so that there is 15mm overhanging the cable end.



STEP 4

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.

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