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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.

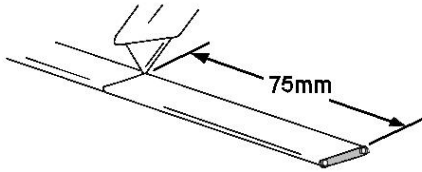
Please make sure you do not exceed the maximum length for each type of cable as shown in the cable instruction leaflet.

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

CRJ-S kit contains:-

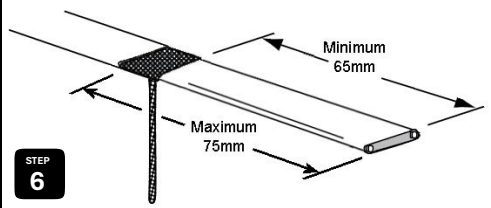
- 1 - Black 180mm x 16.4mm heat shrink
- 1 - Black 70mm x 16.4 mm heat shrink
- 1 - Black 50mm x 16.4 mm heat shrink
- 3 - Black 35mm x 16.4mm heat shrinks
- 3 - Red 40mm x 3.2mm dia heat shrinks
- 3 - Blue 40mm x 3.2mm dia heat shrinks
- 2 - Blue insulated barrel connectors
- 1 - Uninsulated barrel connector
- 1 - Piece mastic tape
- 1 - Cable tie
- 1 - Yellow Warning Label

Preparation for jointing / splice



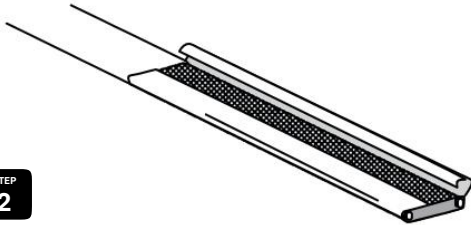
STEP
1

Prepare each end of the cable in a similar manner for each cable to be spliced (or tee connected) First slide the 180mm and then the 70mm length of black heat shrink onto one side of the cable. Cut around the outer cable sheath 75mm from the end the gently bend the cable to break the sheath free.



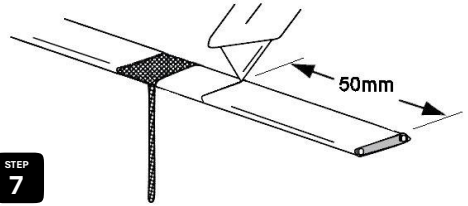
STEP
6

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.



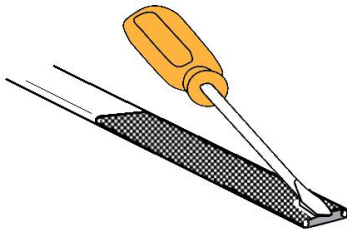
STEP
2

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



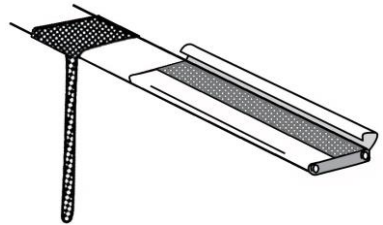
STEP
7

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



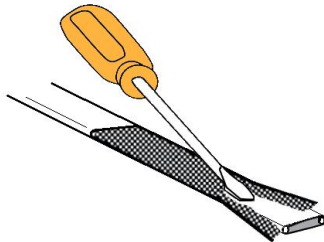
STEP
3

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



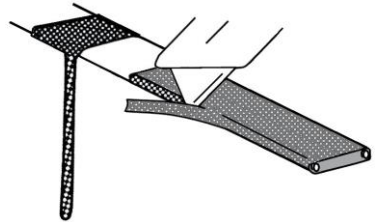
STEP
8

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



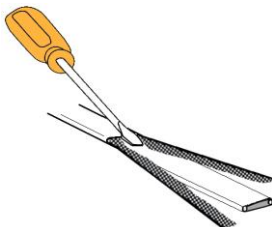
STEP
4

Slowly undo the braid by using a screwdriver.



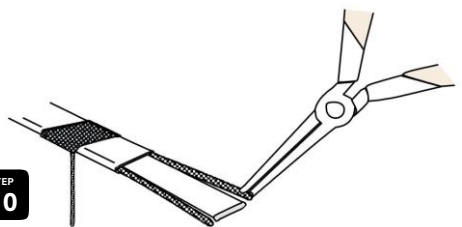
STEP
9

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



STEP
5

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



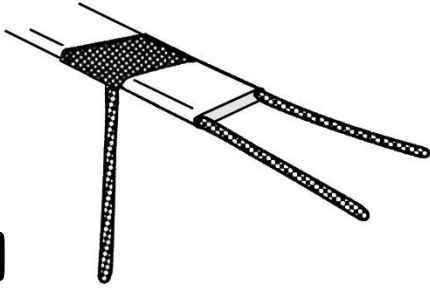
STEP
10

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

Preparation for jointing / splice – Cont.

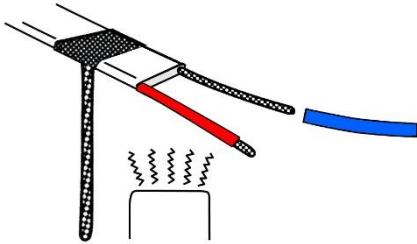
To make a splice

STEP
11



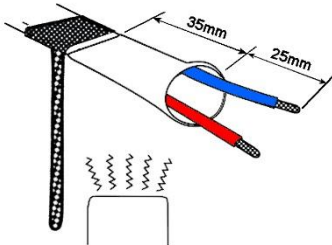
Remove and discard the inner core material leaving the two bare Buss wires exposed.

STEP
12



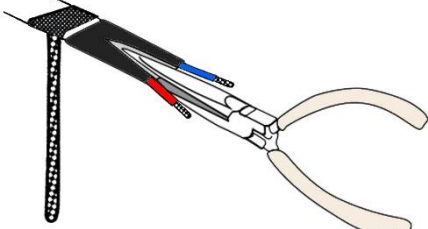
Slide the red 40mm long x 3mm diameter heat shrink over one of the exposed Buss wires and using a suitable heat shrink gun shrink into place. Repeat using the blue sleeve on the other exposed wire.

STEP
13



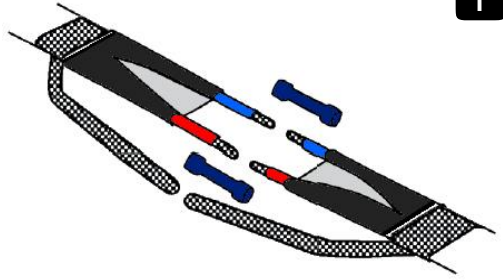
Slide the black adhesive lined 35mm long x 16mm diameter heat shrink over the cable leaving 25mm of the red and blue wires showing. Have on hand the long nose pliers. Using the heat gun shrink this sleeve.

STEP
14



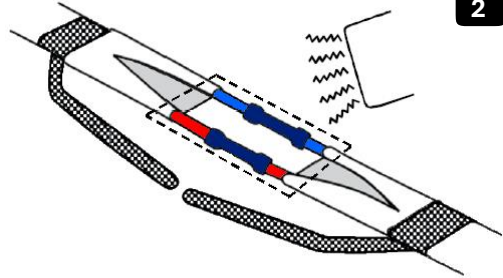
As the heat shrink reduces down immediately squeeze the overhung portion with the pliers for 20 seconds to form a fork like arrangement. (The heat shrink has an inner glue like material to ensure good adhesion.)

STEP
1



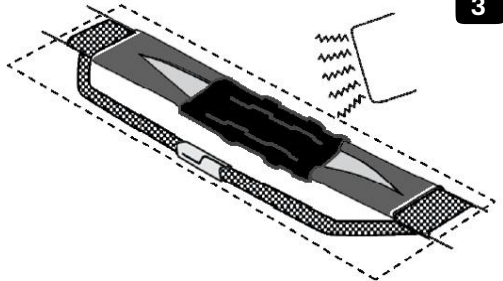
Using the 2 blue insulated barrel connectors' crimp the Buss wire conductors together red to red and blue to blue.

STEP
2



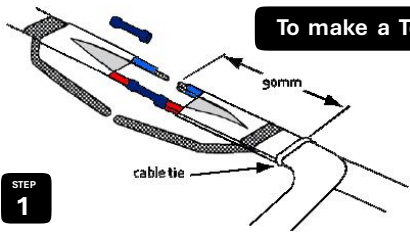
Slide the 70mm heat shrink so that it is centred over the joint and shrink into position. Using the un-insulated barrel connector insert the earth 'pigtail's so they come together in the connector, crimp in position (see picture below).

STEP
3



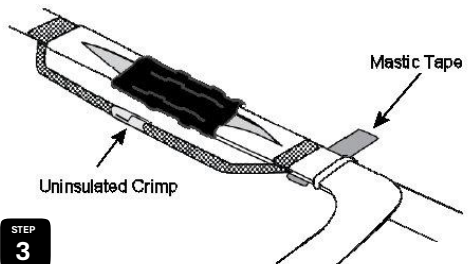
Now slide the 180mm length of heat shrink over the entire joint area so that it is centred over the joint. Using the heat gun, shrink into position. The splice is now complete.

To make a Tee Joint



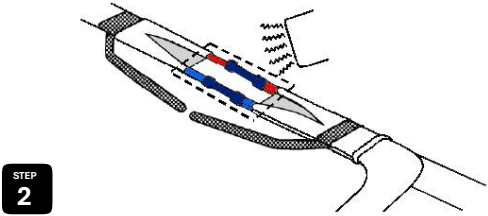
STEP 1

Slide the 180mm and then the 70mm heat shrink onto the cable that will end up being the single end. Prepare all 3 cable ends as previously described. Before crimping the conductors together fit the cable tie as shown to support the cable that is to form the tee. Crimp all the red Buss wires together then the blue wires using the 2 blue insulated barrel connectors provided.



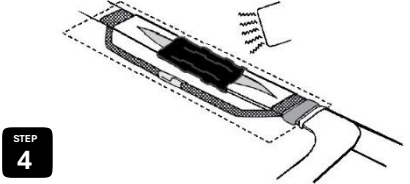
STEP 3

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 2

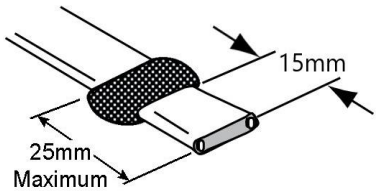
Slide the 70mm heat shrink over the joint and shrink into position. Now using the un-insulated barrel connector join the earth braids together and crimp in position.



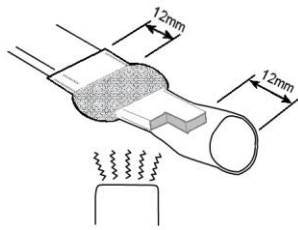
STEP 4

Slide the 180mm 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.

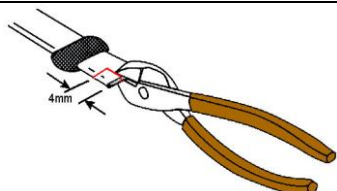
Remote / Far End Preparation



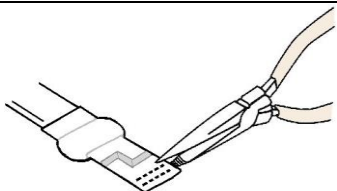
Using the same method to expose and separate the earth braid as shown in the termination detail, cut outer sleeve 25mm and strip the earth braid back 15mm from the cable end. Fold the earth wire around the sheath.



Slide the 50mm length of black heat shrink over the cable end so that there is 12mm overhanging the cable end.



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 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.



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.



Picture showing completed remote / far end