



**Network Standard**  
**Advice No. 1636** 30/01/2012  
Doc. Ref. Network Standard NS127.

**TO: Customers, Service Providers and Ausgrid Staff.**

**Amendments to Ausgrid's Network Standard NS 127,  
*Specification for Low Voltage Cable Joints and  
Terminations, October 2011.***

**Introduction**

This Network Standard Advice (NSA) amends Network Standard (NS) 127, *Specification for Low Voltage Cable joints and Terminations*, October 2011, which has been updated.

- New Section 36 SAIF BOARD DISTRIBUTION STRIP TERMINATIONS providing information on installation of boots on SAIF board distribution strip terminations.
- Note: All subsequent sections re-numbered.

Note: Current network standards, with amending NSAs, are available on Ausgrid's internet site at [www.ausgrid.com.au](http://www.ausgrid.com.au).

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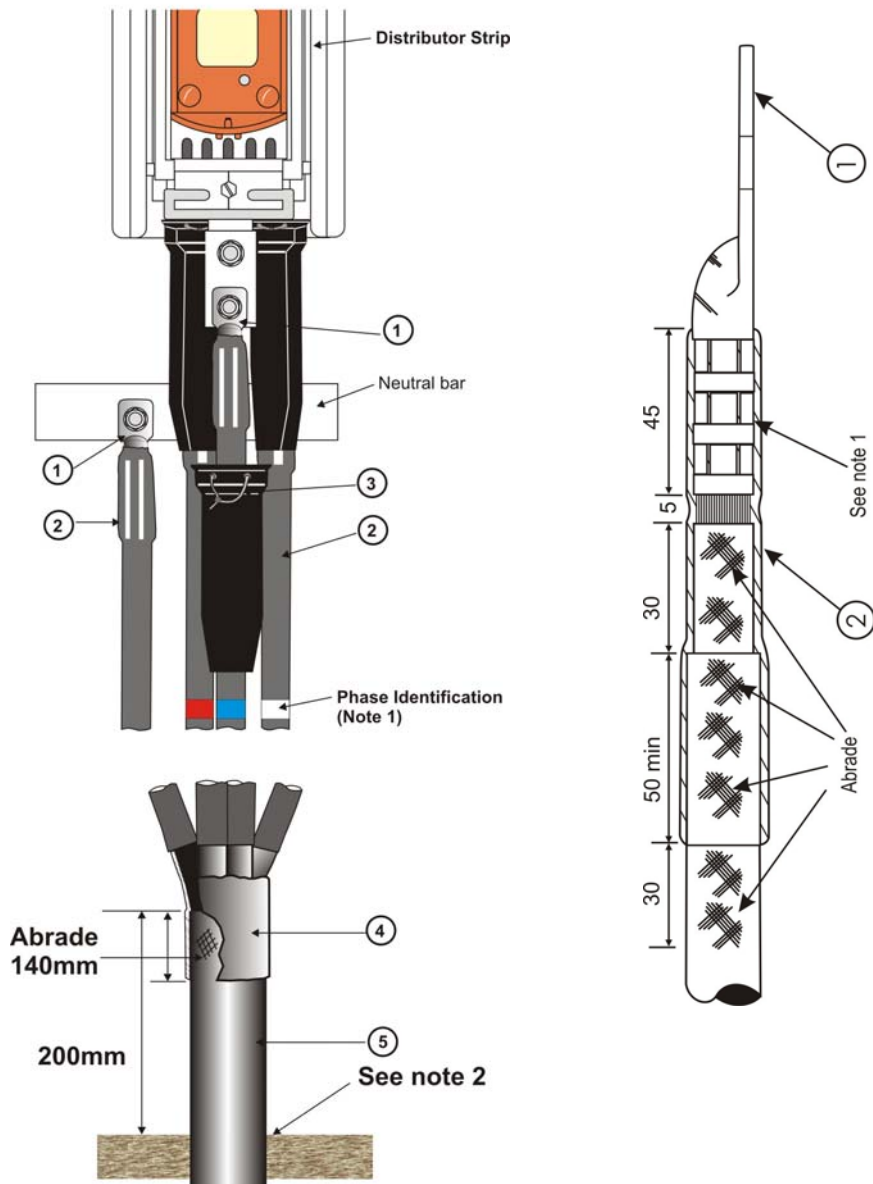
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# 36 SAIF BOARD DISTRIBUTION STRIP TERMINATIONS

## 36.1 Single Circuit 400Amp Distributor Strips

### 36.1.1 General Arrangement and Description



Notes:  
 1. Pre-heat the compression lug before placing the heatshrink sleeve over the cable. Shrink the sleeve starting from the cable end. Apply additional heat to the sleeve and the palm of the lug until a bead of mastic appears around the ends of the sleeve.

**For Four Core Cables**

**For Single Core Cables**

Note: Polycarbonate cover is not shown in the above drawing for clarity.

**Figure 36.1 General Arrangement – Single Circuit 400A**

**Notes:**

1. When the colour of the cable sheath does not correctly identify the cable, coloured heatshrink tubing or coloured PVC tape shall be used to correctly identify the cable. Colour coded for reference only.
2. Cable entry to be partly-filled with sand then covered with a weak sand/cement mix in accordance with requirements indicated in NS117 *Design and Construction Standards for Kiosk Type Substations*.

**Table 36.1 Item Details**

Item	Description	Material	Stockcode
1	Crimp Lug: 240Al4 XQ Z/SAC cable 240 Cu4 XQ Z Cable 185 Cu1 XQ Z Cable 300 Cu1 XQ Z Cable	Bi-metal Tinned Copper Tinned Copper Tinned Copper	141770 175533 175532 175534
2	Heatshrink sleeve: Four core cables 185 Single core cables  300 Single core cables	50/16mm medium walled unlined 35/12mm medium walled mastic lined (150mm long 16 in a pack) 50/16mm medium walled mastic lined (Cut to 150mm lengths)	60228 181351 143776
3	Cable tie (black) 293 x 4.8 mm		176497
4	4-way Glove		78527
5	Cables: 185Cu1 XQ Z 185Cu1 XQZ/Com/#Colour 240 AL4 XQ Z/SAC 240 CU4 XQ Z 300Cu1 XQ Z		61432 151183 141739 H108589 14266

**36.1.2 Installation of Cable Termination Boots on Single Circuit 400Amp Distributor Strips**

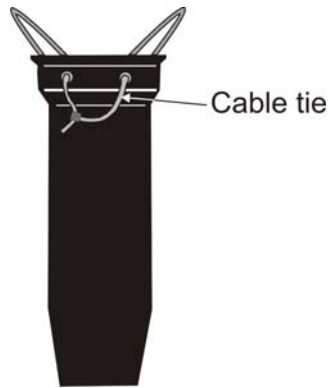
1. Construct the cable termination as per Clause 36.1. Terminate the neutral cable first.
2. Cut the tapered end of the cable termination boots to the dimensions specified in Table 36.1.1 below dependent on cable size.

**Table 36.1.1**

Cable Size	Dimension A
240 AL4 XQ Z/SAC	50 mm
240 CU4 XQ Z	30 mm
185 CU1 XQ Z	30 mm
300 CU1 XQ Z	50 mm



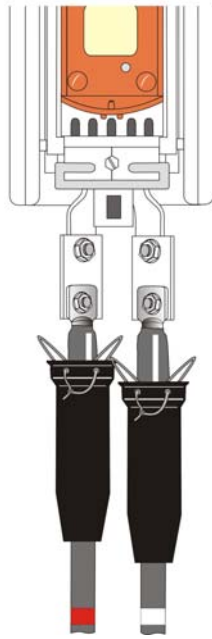
3. Insert the cable tie through the holes in the cable termination boots and make a loose loop. Note: Do not tighten the cable tie at this stage.



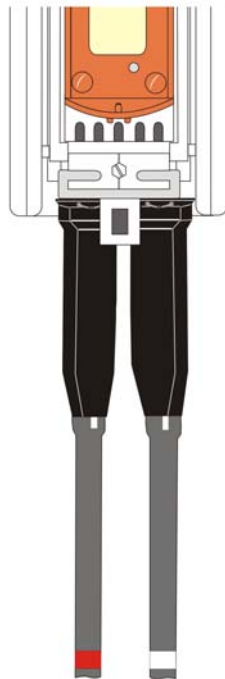
4. Slide the cable termination boot over each cable/core to expose the cable lug.



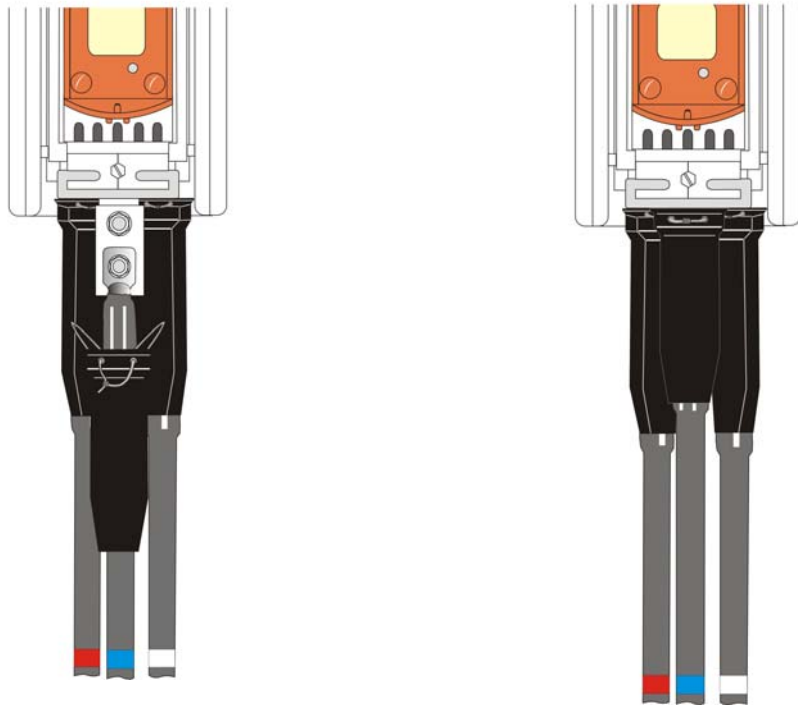
5. Unbolt the front busbar extension. Securely fasten the cable lug to the switchgear palm. Fasten the rear cable lugs first.  
**Note:** Lubricate the thread as detailed in Clause 5.11. Wipe all excess anti-seize off the thread after tightening.



6. Slide the cable termination boots of the rear terminations over each one of the terminations. Ensure that the top of the cable termination boot is touching the bottom of the distributor strips and that there is no exposed metal showing. Secure the cable ties and cut off the excess tie ends.

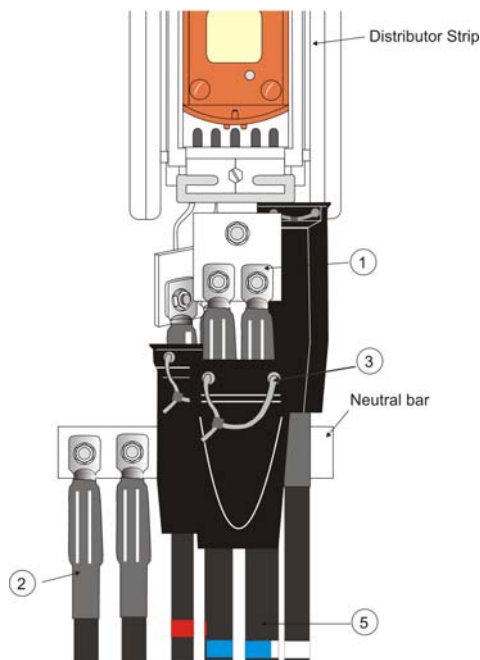


7. Fix the front extension busbar back in position. Securely fasten the cable lug to the switchgear palm. Slide the cable termination boot. Secure the cable tie and cut off the excess tie end.



## 36.2 Double Circuit 800Amp Distributor Strips

### 36.2.1 General Arrangement and Description



**Note:** Polycarbonate cover is not shown for clarity.

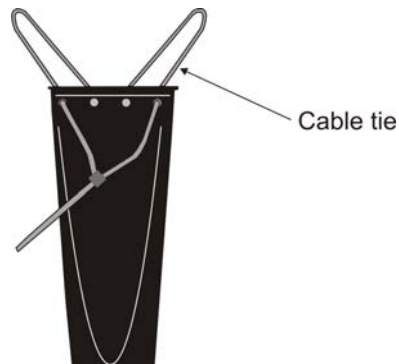
**Figure 36.2 General Arrangement – Double Circuit 800A**

Items for 'Double Circuit 800Amp Distributor Strips' are the same as 'Single Circuit 400Amp Distributor Strips'. Refer to Table 36.1 above for item descriptions.

### 36.2.2 Installation of Cable Termination Boots on Double Circuit 800Amp Distributor Strips

1. Construct the cable termination as per Clause 36.2.
2. Insert the cable tie through the outside holes in the cable termination boot and make a loose loop.

**Note:** Do not tighten the cable tie at this stage.

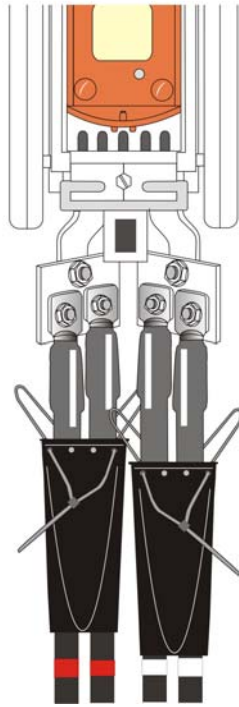


3. Slide the cable termination boot over the two cables/cores of the same phase to expose the cable lugs. Repeat for the remaining two phases.

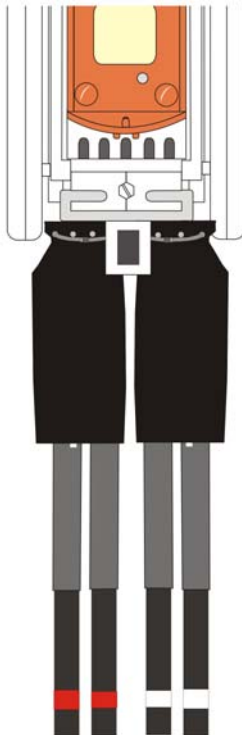


4. Unbolt the front busbar extension from the distributor strip.
5. Securely fasten each pair of cable lugs to their respective rear busbar extensions on the distributor strip.

**Note:** Lubricate the threads as detailed in Clause 5.11. Wipe all excess anti-seize off the threads after tightening.



6. Slide the cable termination boot over each of the two rear cable terminations. Ensure that the top of the cable termination boots are touching the bottom of the distributor strip and that there is no exposed metal showing.
7. Secure the cable ties and cut off the excess tie ends.



8. Secure the front busbar extension to the distributor strip palm using the M16 set screw, torque to 80Nm.
9. Securely fasten the cable lugs to the busbar extension.

**Note:** Lubricate the threads as detailed in Clause 5.11. Wipe all excess anti-seize off the threads after tightening.

10. Slide the cable termination boot over the cable termination. Ensure that the top of the cable termination boot is touching the bottom of the distributor strip and that there is no exposed metal showing.
11. Secure the cable tie and cut off the excess tie end.
12. Install the polycarbonate cover.

