

Ausgrid

Fitting instruction for

**EZEА28 400A SAIF  
And  
EZEА29 800A SAIF  
Way kits**

April 2012

Document Reference:

EM-MS-06-031-r0.doc



1	Contents	
<b>1.1</b>	<b>Amendment and Authorship Record</b>	<b>3</b>
<b>1.2</b>	<b>Health and Safety</b>	<b>3</b>
<b>1.3</b>	<b>Introduction and Scope</b>	<b>3</b>
<b>2</b>	<b>FITTING 400A WAY KIT EZEZ 28.</b>	<b>4</b>
<b>2.1</b>	<b>Preparing the fuseway</b>	<b>4</b>
<b>2.2</b>	<b>Fitting the fuseway</b>	<b>5</b>
<b>3</b>	<b>FITTING FUSE CARRIERS</b>	<b>11</b>
<b>3.1</b>	<b>Fitting fuses into carriers</b>	<b>11</b>
<b>3.2</b>	<b>Fitting a fuse</b>	<b>11</b>
<b>3.3</b>	<b>Fit the fuse carriers.</b>	<b>12</b>
<b>4</b>	<b>FITTING 800A WAY KIT EZEZ 29.</b>	<b>13</b>
<b>4.1</b>	<b>Preparing the fuseway</b>	<b>13</b>
<b>4.2</b>	<b>Fitting the fuseway</b>	<b>14</b>

### 1.1 Amendment and Authorship Record

Issue	Comment	Date	Author	Approver
1	First issue	April-12	BE	AS

### 1.2 Health and Safety

The Health and Safety at Work Act 1974 places a duty upon employers to provide such information, instruction, training and supervision as is necessary to ensure, as far as is reasonably practicable, the health and safety at work of their employees.

We have ensured that the Schneider Electric equipment has been designed to be safe and without risk to health, providing that statutory health and safety regulations are adhered to and that the equipment is handled and maintained in accordance with the supplier instructions.

Correct maintenance procedures and all necessary safety precautions must be used at all times.

It is important that the personnel, using this document, are aware of both their employers' safety procedures and the specific regulations to be observed when working with equipment and materials covered by this instruction.

### 1.3 Introduction and Scope

This instruction provides information to assist with the installation of SAIF way kits in Ausgrid KL fuseboards supplied by Schneider Electric.

This manual covers two kits;  
EZEZ 28, 400A 3 Phase way kit, and  
EZEZ 29, 800A 3 Phase way kit.

Schneider Electric reserves the right to modify, add or delete any part of this instruction in accordance with product changes or improvement. Every effort has been made to ensure that all information in this instruction is correct, however Schneider Electric cannot be held responsible for errors or omissions. Should alterations be required within the scope of the instruction, the instruction will be reissued as appropriate.

Operatives including mechanical and particularly electrical engineers must be familiar with all relevant site procedures, codes of practice and Health and Safety regulations related to the installation of the kits.

## 2 Fitting 400A way kit EZEA 28.

Make sure that power to the fuse board is switched off. All three disconnectors are off, that is in their open position.

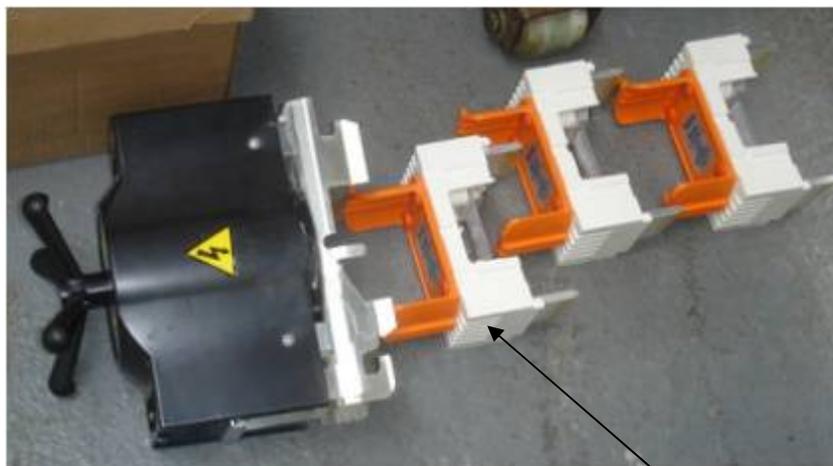
The SAIF way kit is intended to be fitted into location 3, which is partially wired in preparation on some units.

Location 3



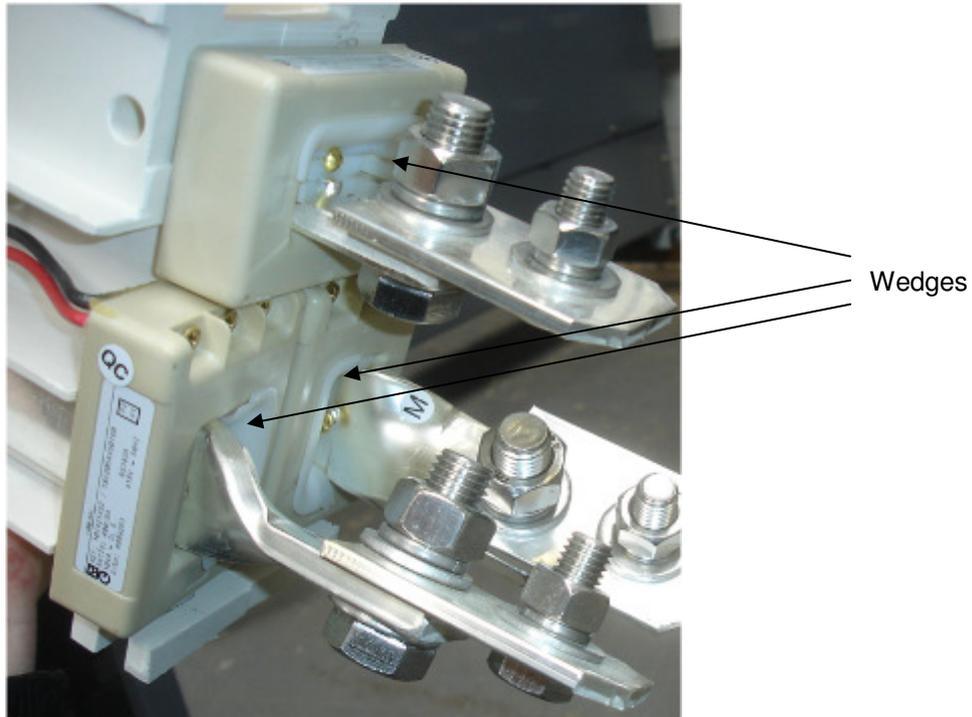
### 2.1 Preparing the fuseway

Ensure that the SAIF fuse carriers are not fitted in the fuse way.



Removed fuse carriers

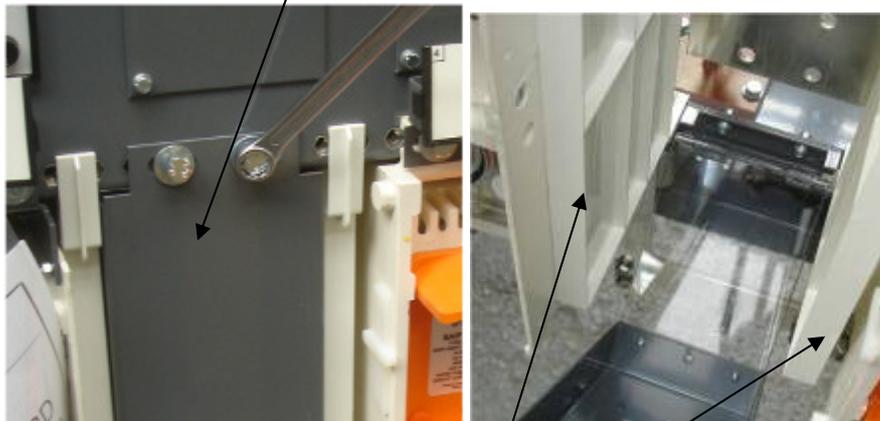
Ensure that the CTs are fitted to the way and that the wedges are in place as shown below.



Ensure that cable connection plates are fitted.

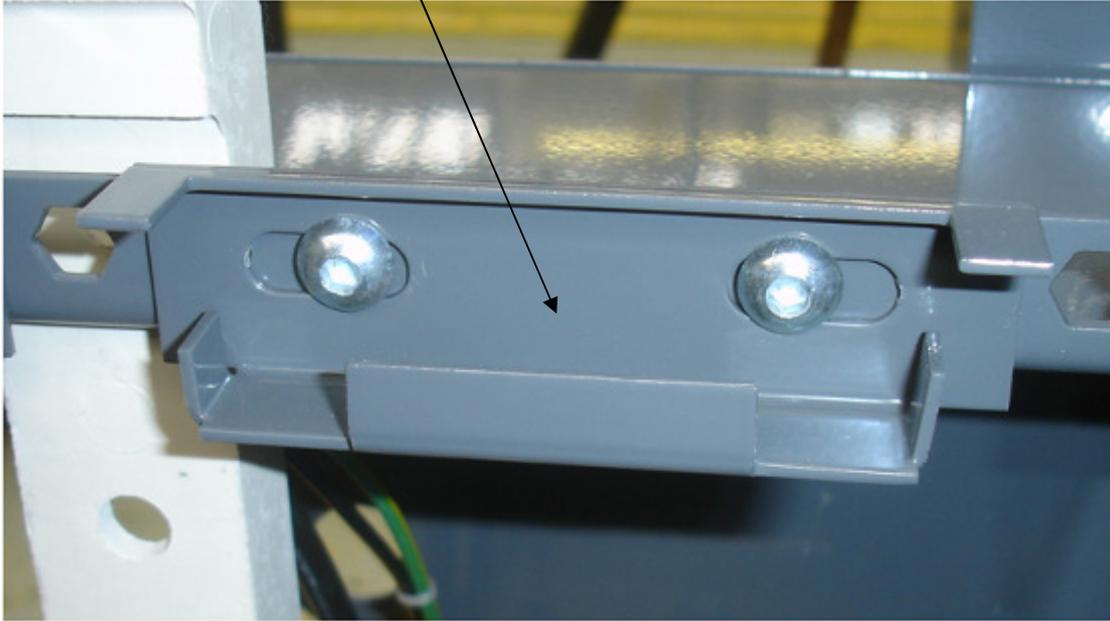
## 2.2 Fitting the fuseway

1, Remove the metal blanking panel from the space where the SAIF way is to be fitted.

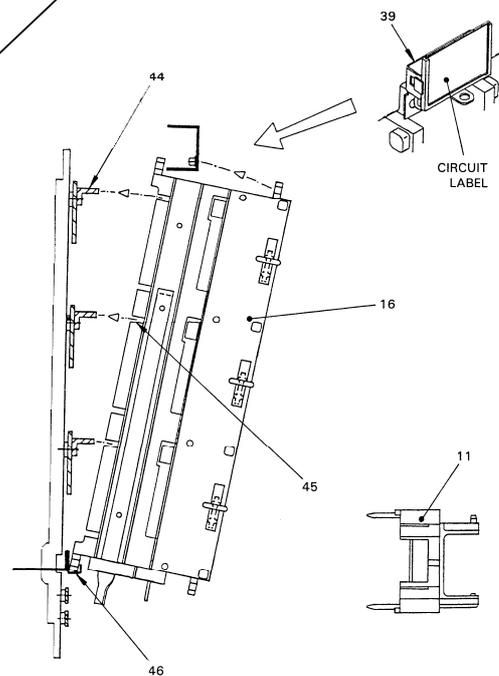
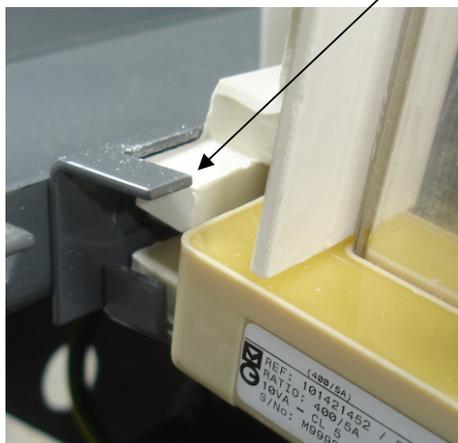


2, for ease of fitting remove the two blanking panels at each side of the space. They clip in at the top where they meet the rear of the front panel.

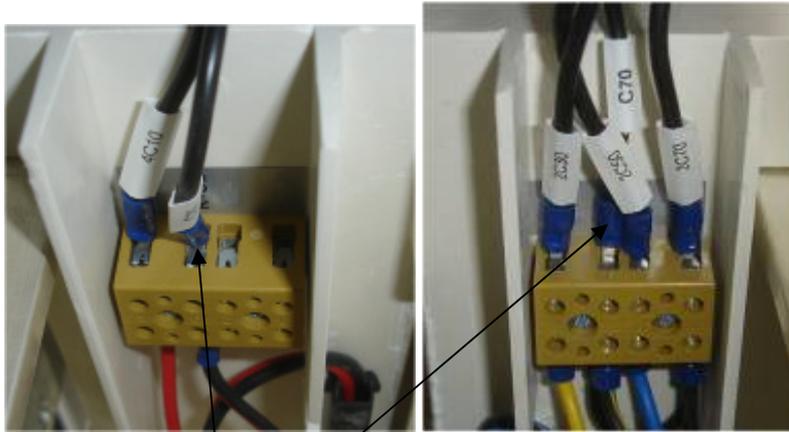
3, if necessary fit the bottom support bracket to the lower cross member.



4, Fit the way into the board. The lower rear edge sits into the bottom support bracket and then the top of the way is pushed back into place.



5, Connect the CT cable loom connections to the top of the way.

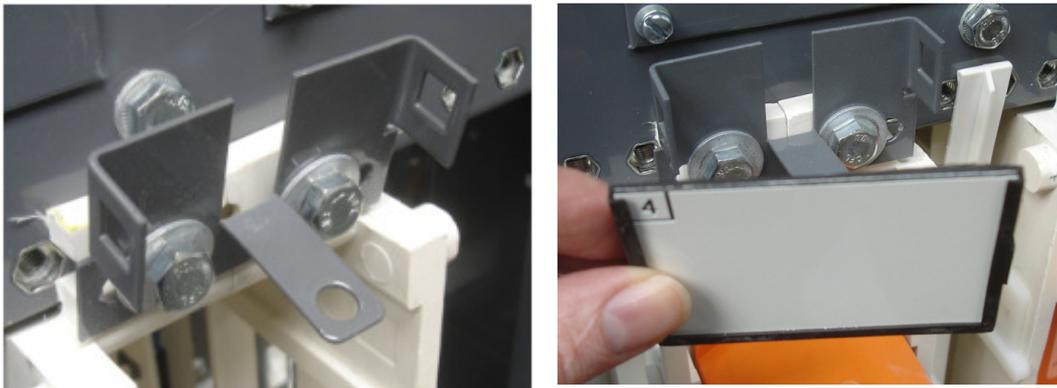


Left side

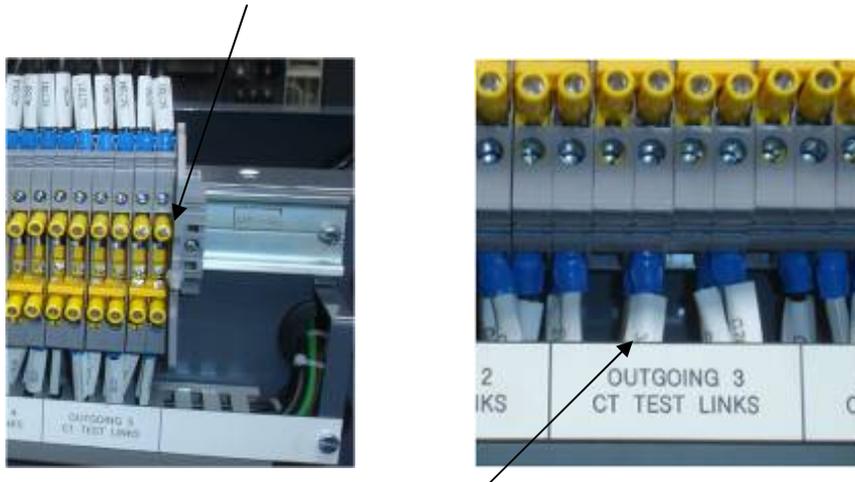
right side

Note cable C70 links left to right sides. Cables are identified on white labels, the first digit of the four digits indicates the way number.

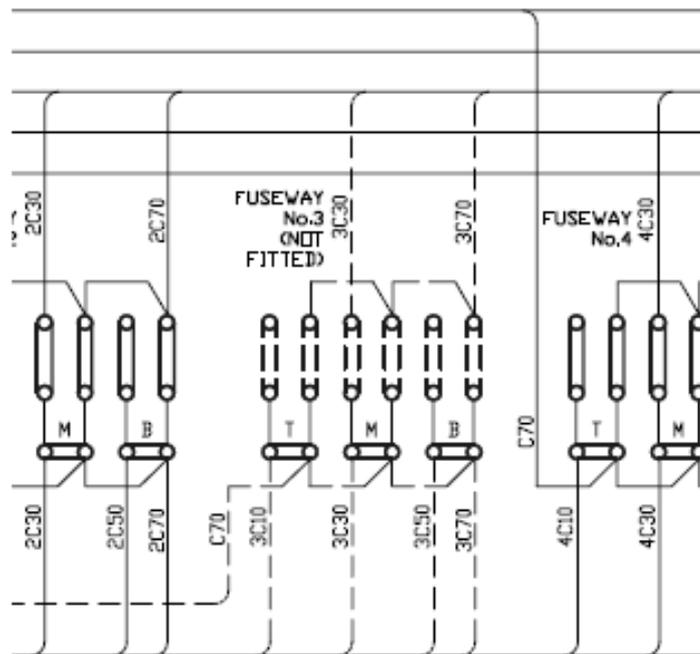
6, retain in vertical state using 2x M8 screws with washers into front of board at top of way (pic) include top bracket. Tighten and refit circuit ID label, label is unlikely to be number 4 as shown, in most cases it will be number.3.



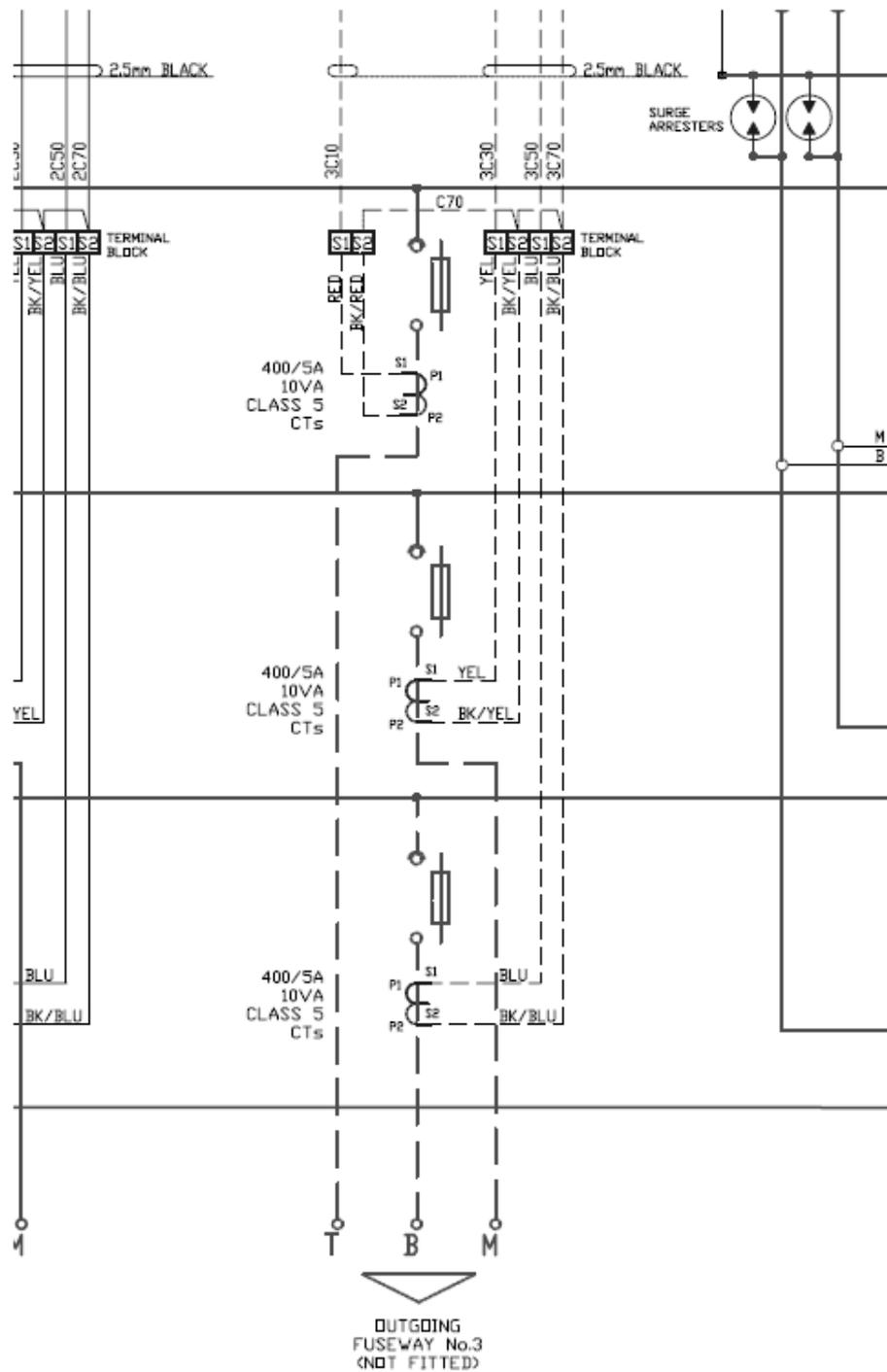
7, Fit the three new terminals to the set on DIN rail if required.  
Fit two shielded screws to each terminal.



Factory fitted cables ready for circuit 3, note not all are present.  
Using the loom provided in the kit make the remaining connections to the way following the wiring diagram EZEА74-wd, as detailed below and on next page.

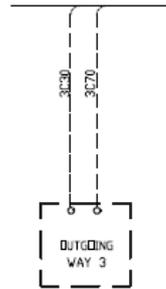


Part of wiring diagram showing the connections made to way No 3.



8, If required fit the alternative scale supplied with MDI if required. See MDI instructions.

9, If required remove cover plate and fit MDI above new way.



See MDI instructions and wiring diagram. Connect wires marked 3C30 and 3C70 to MDI at rear.



11, Make sure all connections for the SAIF way CTs and MDI to terminal set are good.

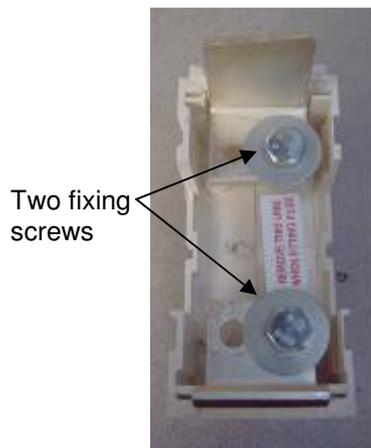
### 3 Fitting fuse carriers

Fuse carriers are supplied with dummy links fitted as standard. To put the unit into service the dummy links will need to be replaced with fuse links

#### 3.1 Fitting fuses into carriers



1. Lay the fuse carrier on a level surface with the contacts upwards.



2. Using a 19mm ring spanner or socket for the 630 BS type unfasten and remove the two fixing screws and their washers



3. Lift out the contacts (with the fuse if fitted) discard the dummy fuse link

Picture showing dummy link in 800A fuse carrier.



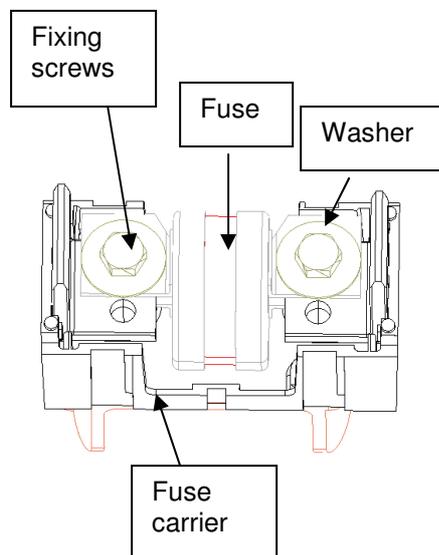
#### 3.2 Fitting a fuse

The 400A BS SAIF fuse carrier accepts 'J' type fuses (82mm centres) to IEC 60269-2-1 or BS 88-5, ratings up to 400A. The 630A and 800A BS SAIF fuse carriers accept 'J' type fuses (92mm centres) to IEC 60269-2-1 or BS 88-5, ratings up to 630A and 800A respectively.

Note: The rating of the fuse carrier is detailed on the label positioned on the front face of the fuse carrier.

Place the contacts between the fuse tags of the fuse to be fitted and place the assembly in the fuse carrier. Note that the contacts fit into the recesses in the top and bottom of the fuse carrier moulding. With the 630 BS type note also that, with the fuse barrel in the centre of the carrier, the fuse tags must lie to the side of the carrier adjacent to the tapped fixing bosses.

Refit the two fixing screws, along with their Belleville washers, and tighten to a torque of 40Nm for the 630 BS type and 24Nm for the 400 BS type or until the Belleville washers are flattened and increased resistance is felt.

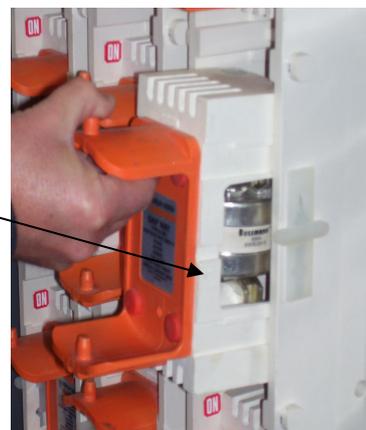


### 3.3 Fit the fuse carriers.

Fit all three fuse carriers into the way.

Lift the carriers into position in the fuseway.

Use the SAIF tool to fire the carriers into position. The KL fuse board can then be powered up following standard procedure.



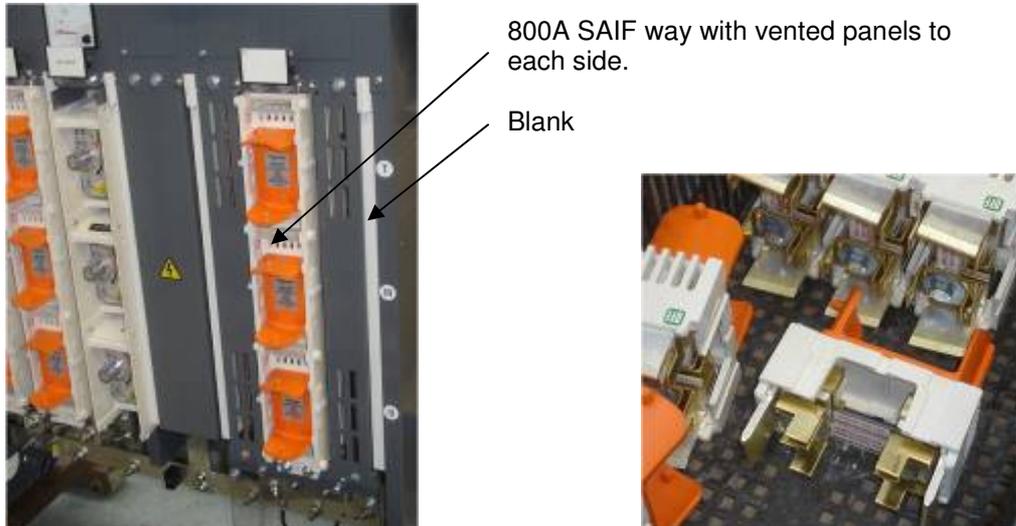
The fuse board should now be ready for standard electrical checks and switching on procedure.

## 4 Fitting 800A way kit EZEA 29.

Make sure that power to the fuse board is switched off. All three disconnectors are off.

The 800A fuseway kit will take up two way spaces in the board it is to be fitted in as seen below. This is due to the additional heat sinks required for heat dissipation.

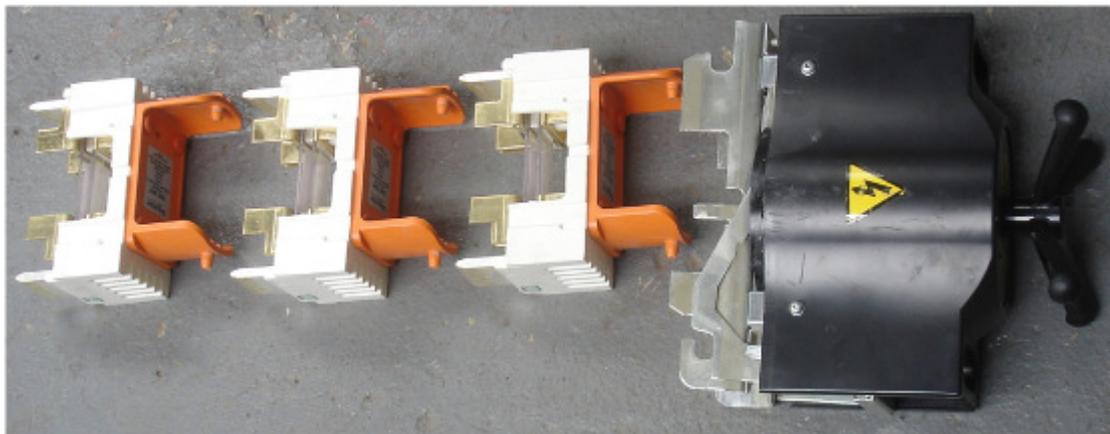
### 4.1 Preparing the fuseway



In order to fit the 800A way it will be necessary to clear 2 spaces in the board. For example remove a blanking panel and a 400A way beside it to clear a gap 300mm wide when white blanks are also removed.

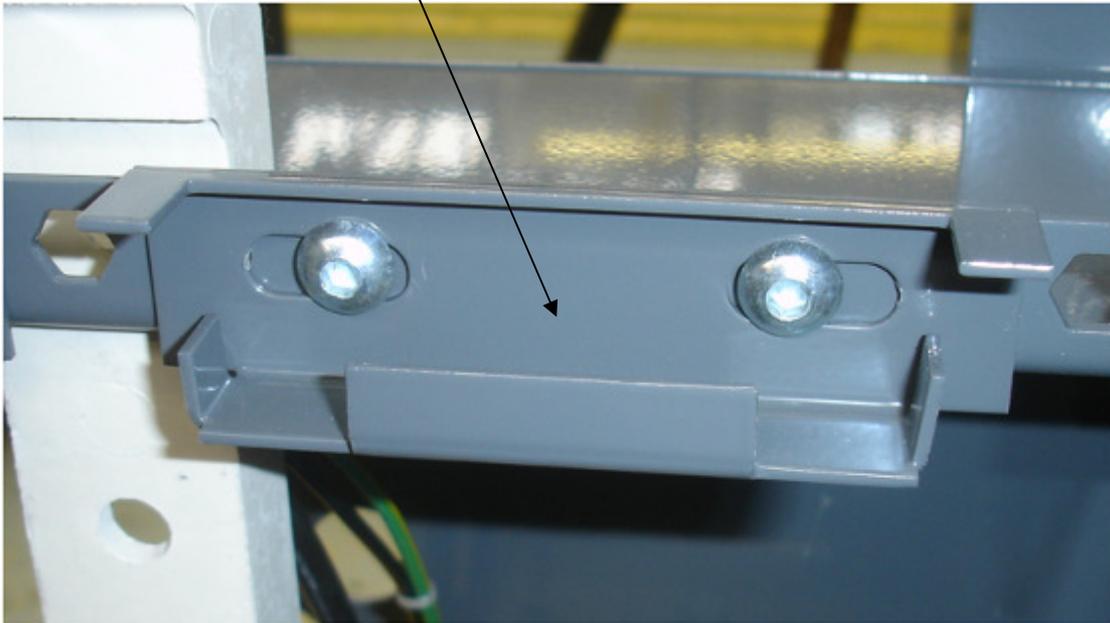
Check CT's and wedges are present, see section 2.1.

Make sure the SAIF fuse carriers are not in the fuse way.

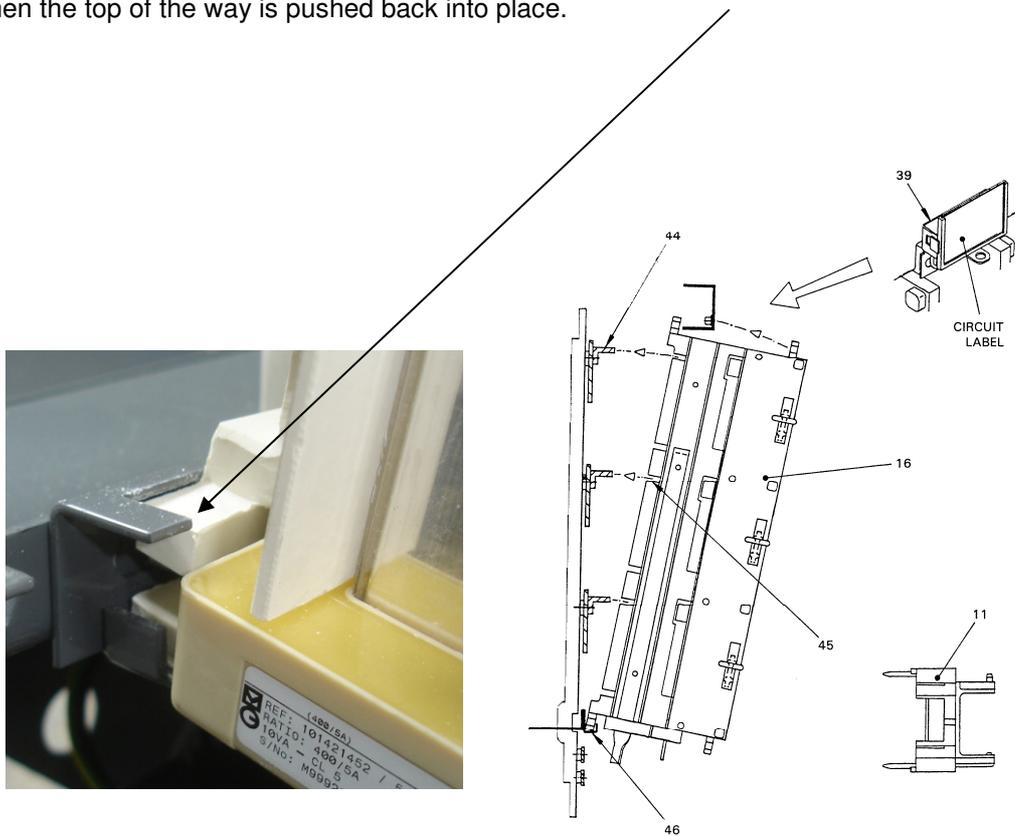


## 4.2 Fitting the fuseway

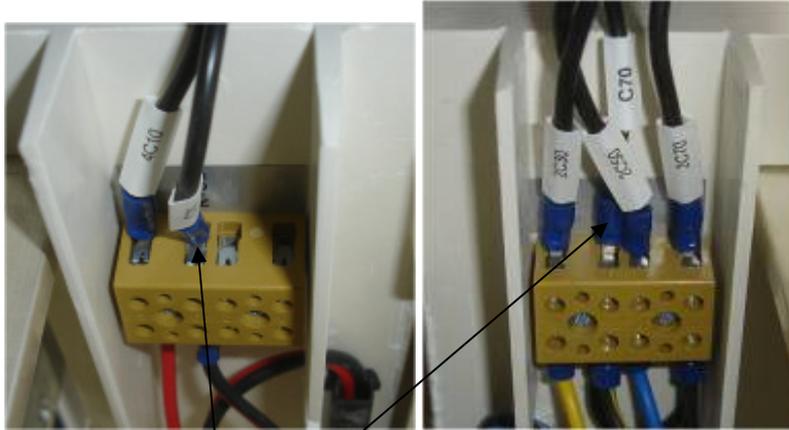
1, If necessary fit the bottom support bracket to the lower cross member.



2, Fit the way into the board. The lower rear edge sits into the bottom support bracket and then the top of the way is pushed back into place.



3, Connect the CT cable loom connections to the top of the way.

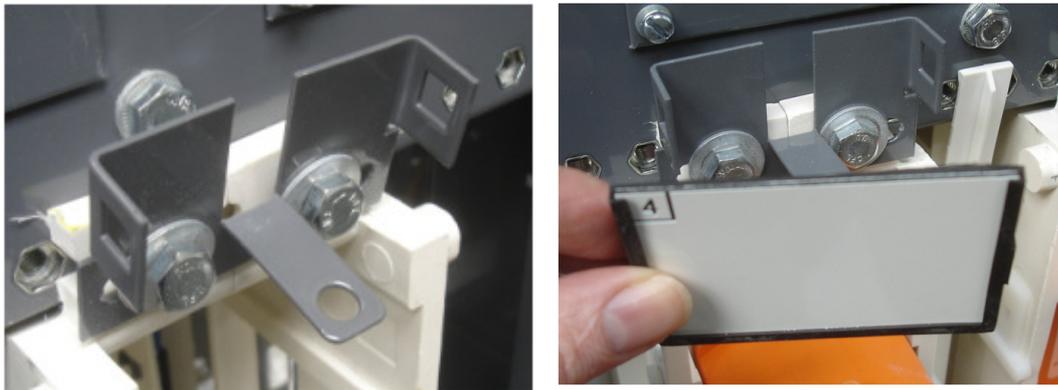


Left side

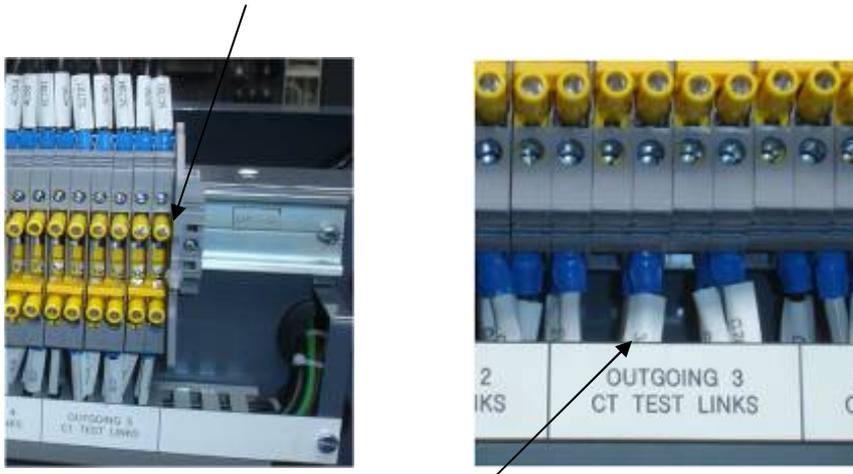
right side

Note cable C70 links left to right sides. Cables are identified on white labels, the first digit of the four digits indicates the way number.

4, retain in vertical state using 2x M8 screws with washers into front of board at top of way (pic) include top bracket. Tighten and refit circuit ID label, label is unlikely to be number 4 as shown, in most cases it will be number.3.

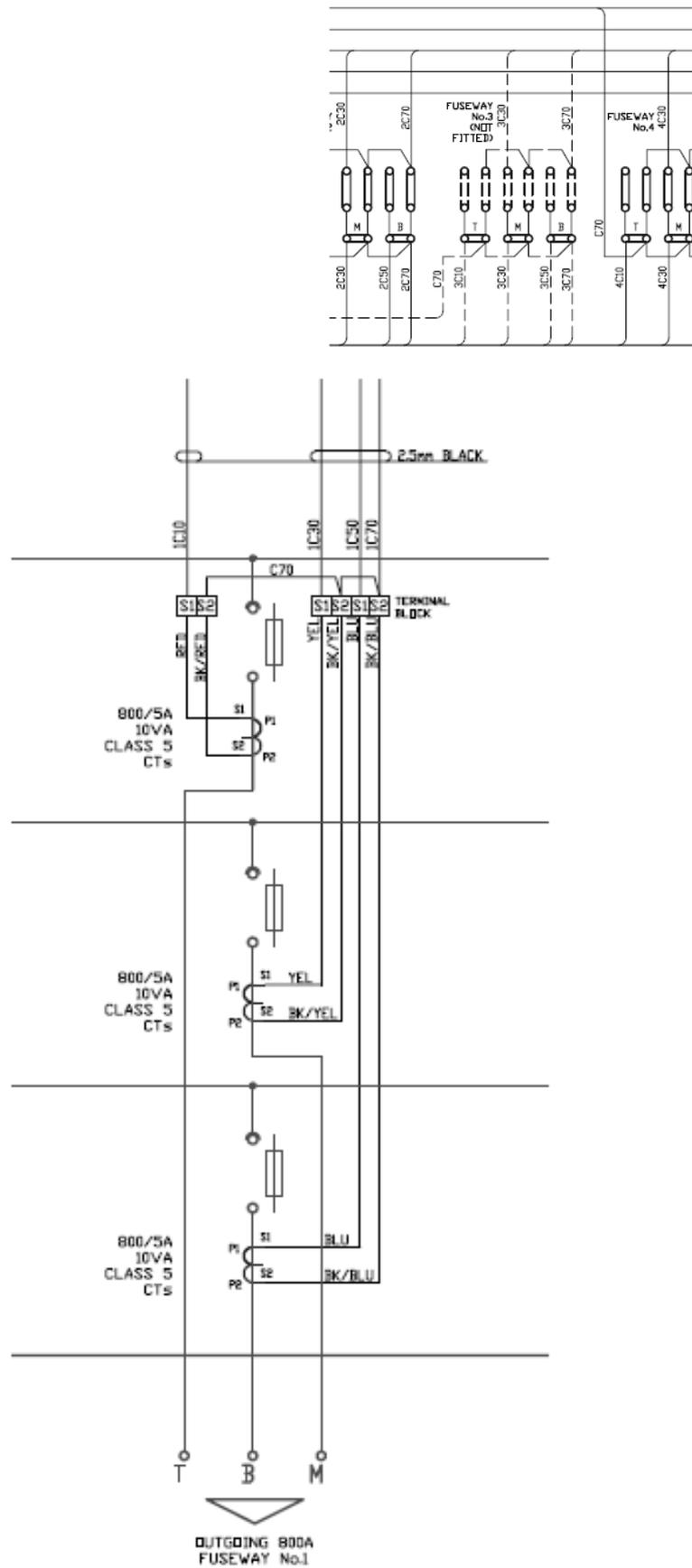


5, Fit the three new terminals to the set on DIN rail if required. Fit two shielded screws to each terminal.



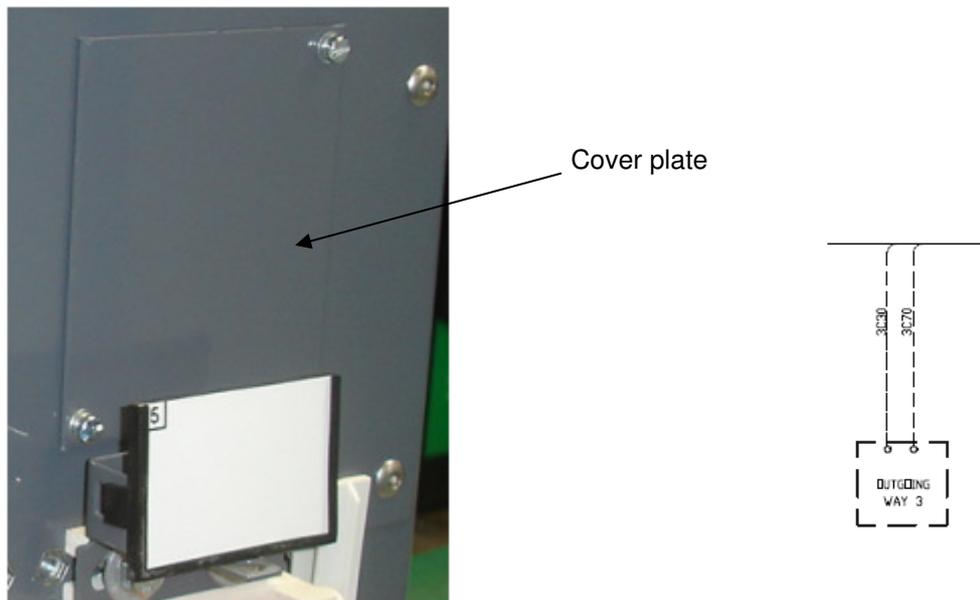
Factory fitted cables ready for circuit 3, note not all are present.

6, Using the loom provided in the kit make the remaining connections to the way following the wiring diagram EZEZ74-wd, as detailed below.



7, If required fit the alternative scale supplied with MDI if required. See MDI instructions.

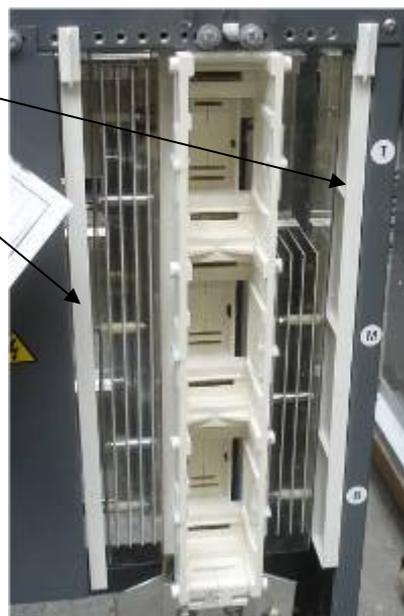
8, If required remove cover plate and fit MDI above new way.



See MDI instructions and wiring diagram. Connect wires marked 3C30 and 3C70 to MDI at rear.

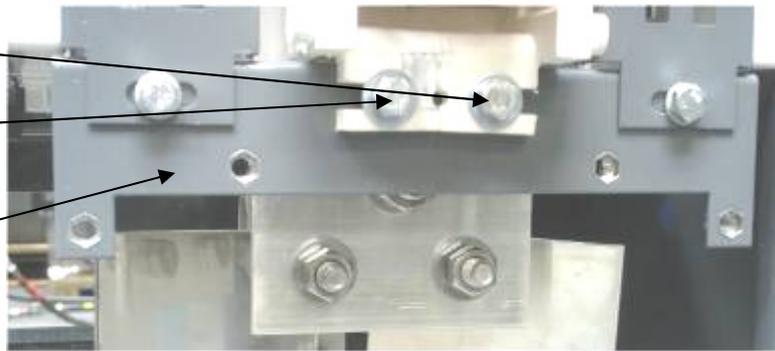


9, Refit a 20mm wide spacer to each side of the way

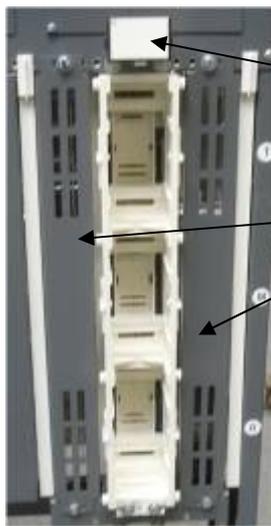


10, Fit the lower front way bracket to the way  
Using 2x M8 fixings with washers through the way.

Bracket



11, Fit a metal panel with venting to each side of SAIF way.



Way ID label

Vented panels

12, Cable up the way following standard procedure. Fit the clear screen (not in kit) to cover the connections below the way.

Clear screen, cables not shown on picture.



13, Fit way ID label holder as indicated in picture above.

14, Fuse carriers provided in kit do not have fuses fitted. Fit appropriately rates 'J' type fuses (92mm centres) to IEC 60269-2-1 or BS 88-5 into the ways, see section 3.2.

15, Fit carriers with fuses into way, see section 3.3.