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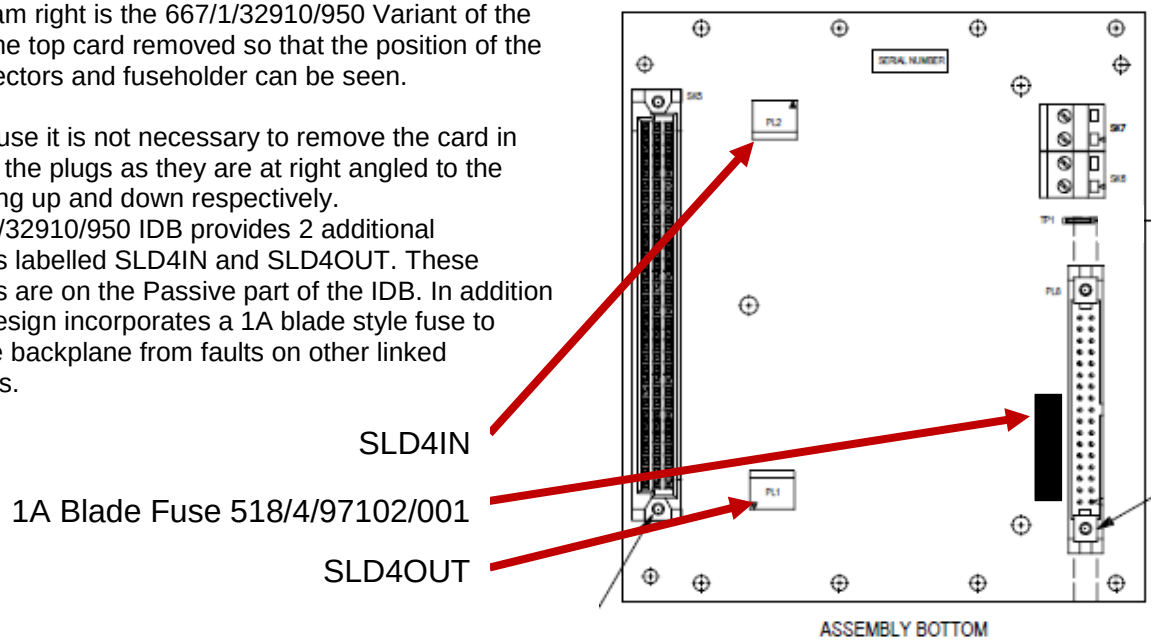
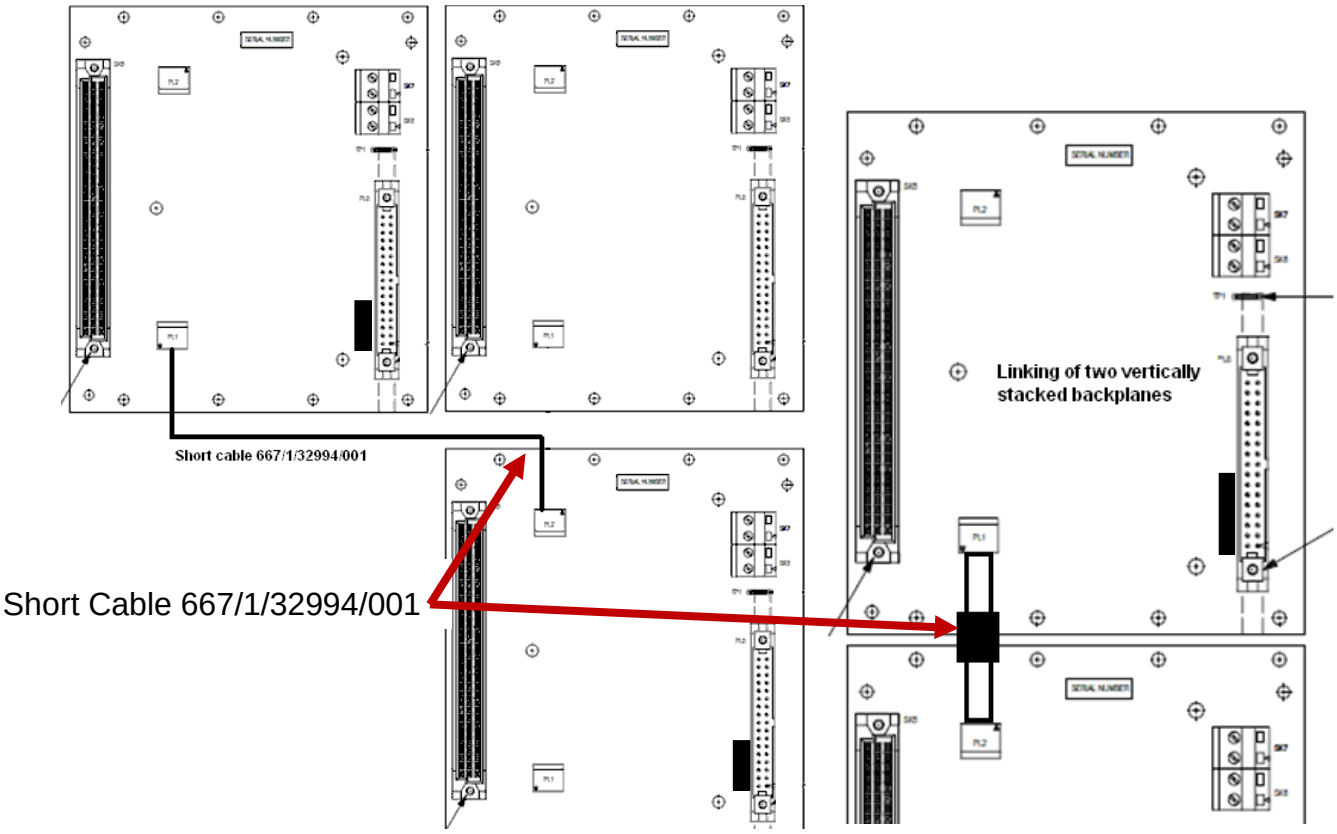
SLD4 Intelligent detector Backplane Linking Quick Start Guide

The SLD4 auto configuration facility utilises an infra-red dedicated communication link between SLD4 detectors cards. Some configurations of detector backplanes such as that utilised on the ST950ELV don't allow all the detectors to communicate.
A new Intelligent detector backplane allows this IR link to be extended between racks with a wired connection.
The diagram right is the 667/1/32910/950 Variant of the IDB with the top card removed so that the position of the new connectors and fuseholder can be seen.

In normal use it is not necessary to remove the card in order to fit the plugs as they are at right angled to the board facing up and down respectively.
The 667/1/32910/950 IDB provides 2 additional connectors labelled SLD4IN and SLD4OUT. These connectors are on the Passive part of the IDB. In addition the new design incorporates a 1A blade style fuse to protect the backplane from faults on other linked backplanes.





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From the diagrams above the normal configurations can be seen. It is not necessary to wire link adjacent backplanes on the horizontal plane if there is no physical barrier between them and they have a no gap between them.

Where more than one backplane exists in a row, then the left-hand backplane of the top row should be linked to the right-hand or lower backplane of the following row. There are available two cables for this purpose, 667/1/32994/001 (190mm long) and 667/1/32994/002 (590mm long).

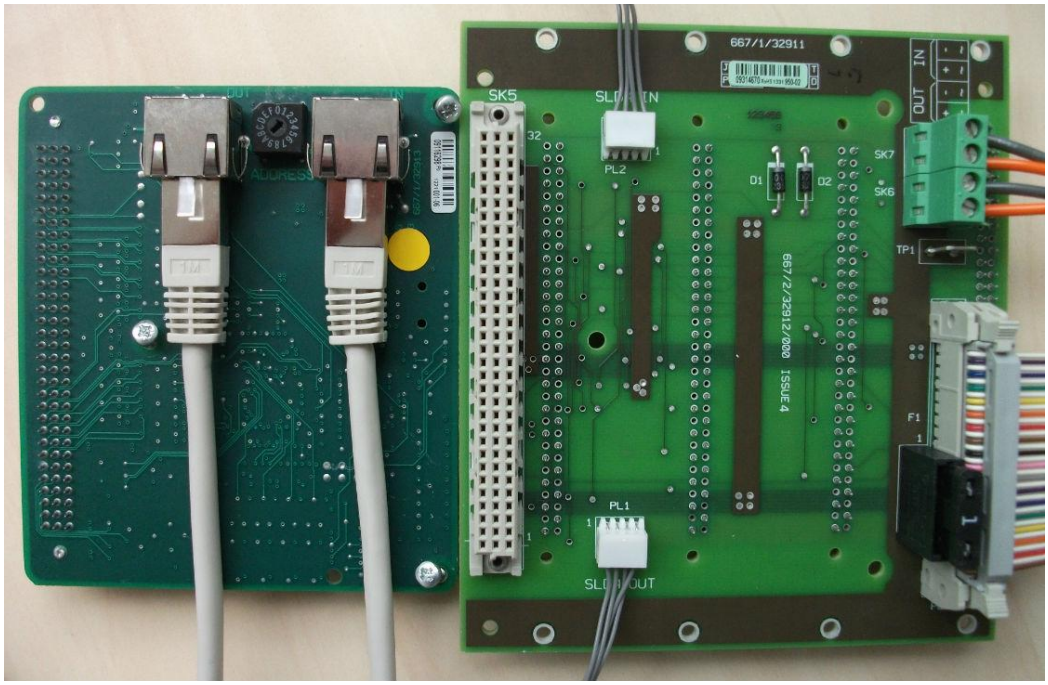
Only the 667/1/32994/002 variant will be will be carried as a maintenance spare.

Where adjacent backplanes are to be linked because of a physical barrier between them, then the SLD4OUT of the left-hand backplane is linked to the SLD4IN (top connector) of the following backplane.

Fault finding

The fuse 518/4/97102/001 is to protect the detectors and backplanes where a power connection has failed to a backplane. Under these conditions the detector linking cable could then provide a power return path via a single detector card, damaging that card. This is a particular problem when the high current devices such as the Wimag detector replacement cards are fitted.

Failure of the fuse will not prevent the detectors from operating but the operation of the linking will be prevented. The fuse should be checked before any linking cables are replaced.
The fuse is a field replaceable but the cause of any blown fuse must be investigated before replacement.
It is recommended that SLD4 cards and WiMag detector replacement cards are not fitted into the same backplane. Under fault conditions it can cause damage to the SLD4 detector cards and the problem can be difficult to trace since the Wimag detector replacement cards will appear to be functional.



667/1/32910/950 – "New" Intelligent Detector Backplane (Top card removed)

Associated Documents

667/HQ/45200/000	SLD4 Loop Detector Quick Start Guide
667/HB/45200/000	General Handbook for the SLD4 Series Loop Detector
667/HE/20663/000	Loop Detector and Cable Terminations - Installation and Commissioning