



SCION Railway Signal Power Supply Auto-Reconfiguration System (ARS)

"Patent Applied For"



The Issue:

Failure and theft of railway signalling power supply cables, result in significant train delay minutes. Manually locating the fault or the missing cable, and then resolving the problem, can result in extended periods of delay which is both disruptive and costly.

The Benefits:

Auto Reconfiguration Systems (ARS) detect these cable failures & thefts, auto reconfigure the supply cable to isolate the faulty section of cable, and then restore power to the complete signalling system in just minutes.

SCION Mainline:

SCION Mainline avoids the need for a telemetry system between the ARS units sited in the trackside Functional Supply Points (FSP's). This reduces the installation cost of the ARS system.

SCION Express:

SCION Express uses the same SCION electronic unit as Mainline, but with the addition of telemetry between Principal Supply Points (PSP's) and the FSP's. This increases the speed of restoration of power to the signalling system, for applications where very high delay costs justify the increased installation costs for telemetry.

SCION Precision:

SCION Precision is an add-on feature to both Mainline & Express, and this provides accurate real-time positioning of the cable fault or theft, thus significantly easing and speeding up repair times.

B&F is Link-Up approved
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SCION Products

SCION ARS Master Module:

For installation within new or existing Principal Supply Points (PSP's), this module is the master controller for both the PSP signal feeder protection system, and the ARS Slave Modules.

This also acts as a remote condition monitoring system unit, providing status information both locally and remotely, about the ARS and the PSP as a whole.

SCION ARS Slave Module:

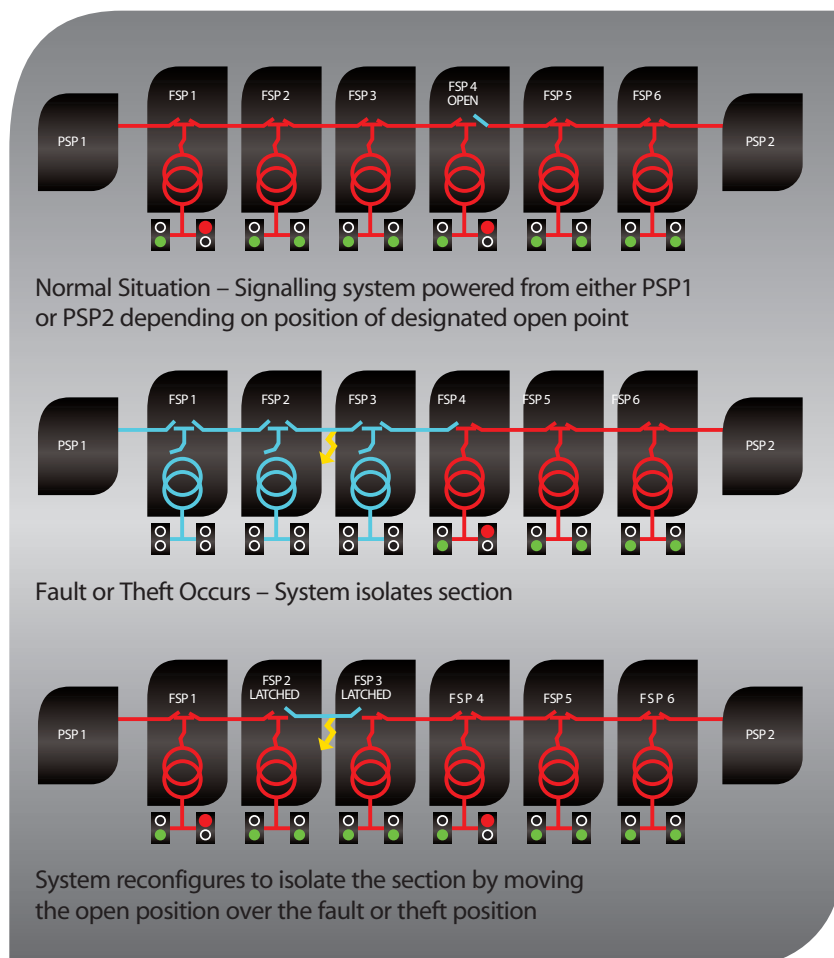
For installation within new or existing Functional Supply Points (FSP's), this module is common to both the SCION Mainline & Express systems.

The module package comprises of a SCION Slave Controller (hardware and software), Signal Supply Contactor / Circuit Breaker and Change-Over T-Off supply feeder contactor.

SCION ARS Precision Unit:

This module connects to the ARS Master Module in the PSP to monitor the signal feeder status and thereby provide details regarding the time and precise location of failures and thefts on the feeder system.

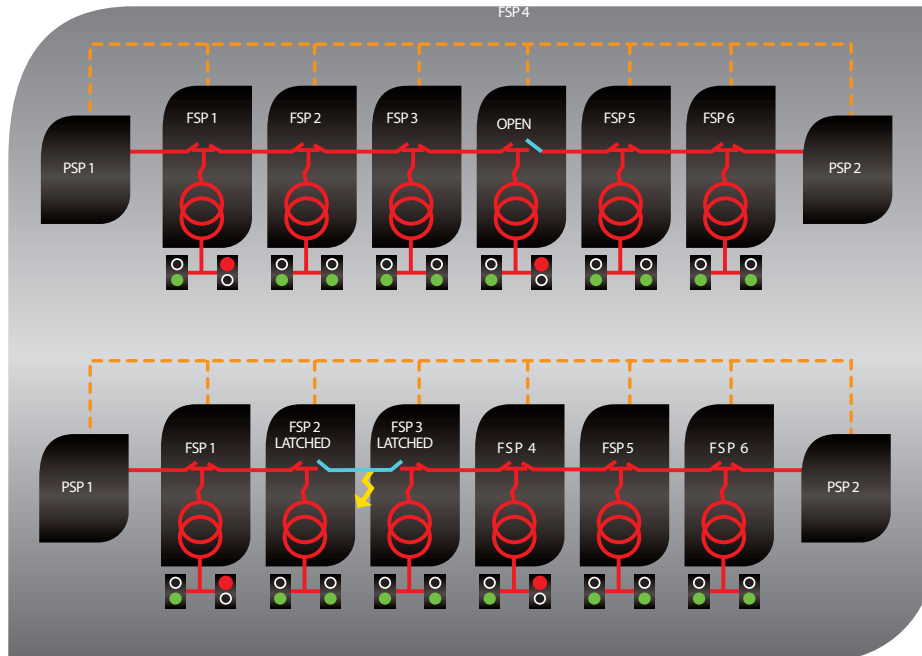
SCION Mainline



Key Features:

- * Recovery from single faults or thefts is automatic, requiring no user intervention
- * Fault or theft position is monitored, and available for remote transmission to a Maintainers PC station
- * 'Test Before Power' avoids flashing 'Black Signals' being seen by the drivers as this is very disruptive
- * Initial power-up to designated open point, and power-up during reconfiguration to move open position over fault or theft is achieved by sequential testing before power-up.

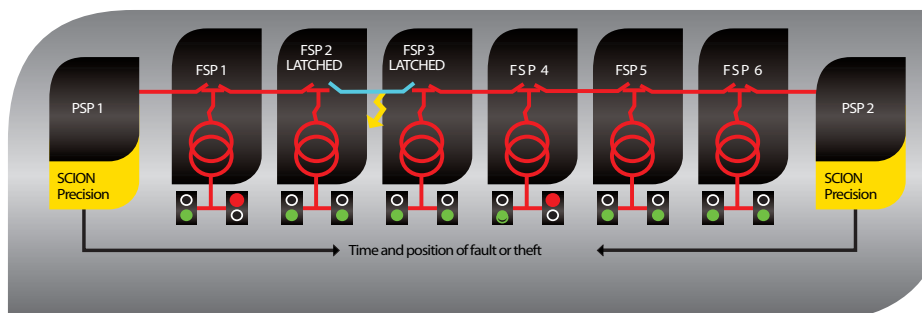
SCION Express



Key Features:

- * All the functionality of SCION Mainline, plus the following:-
- * Increased speed of identification of fault & theft conditions
- * Increased speed of reconfiguration (to overcome fault & theft conditions)
- * Increased speed of reporting to the Maintainer's supervision system.

SCION Precision



Key Features:

- * High resolution of fault & theft position
- * Time stamped reporting of fault & theft to the Maintainer.