

Design Of SSI Schemes

Chapter J: Documentation

Chapter J

1. Purpose

The purpose of this section is to define the documentation required to design, install and maintain a SSI utilising MkII or MkALIII or MkVSIll Interlocking and TT equipment and, where appropriate, to define the standard format to be used.

2. Scheme Specific Documents

2.1 Requirements

The requirements are the same as for a conventional installation i.e. Scheme Plan, Numbering Plans, Control Tables, contract Specification when applicable, etc.

3. Overall Scheme Design

Documents for this shall be as specified in the Signalling Design Handbook for a conventional (i.e. Route Relay Interlocking) scheme, but as amended by the following.

3.1 Location Area Plan

As for a conventional scheme plus Interlocking boundaries to be marked and TFM identities to be added for each location area e.g. 03524.

3.2 Overall Data Link Schematic

To show the extent of TDLs and the routing of long line Data Links for the entire Control Centre area, sub-divided as necessary.

3.3 Lineside Cable Plans

As for a conventional scheme but including local (i.e. baseband) Data Links.

3.4 Trackside Data Link (TDL) Distribution Network

One plan is required for each Interlocking to show the locations where the Network calls in, one line for each cable labelled A & B, all DLMs, all TFMs with input and output table, terminating resistors, connections to LDTs, and the direction of data flow from the Interlocking to the track.

4. Signalling Control and Indication System

4.1 Conventional Panel

Panel faceplate and Panel wiring diagram drawings are required as for a conventional scheme. In addition a PMUX allocation is required with a list of indications and controls with, for each function, card allocation, PMUX plug pin allocations, message byte and bit allocation, together with drawings showing the general PMUX arrangements.

4.2 Integrated Electronic Control Centre (IECC)

See IECC documentation.

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Chapter J: Documentation

5. Data Preparation

5.1 Map Search Plan

This utilises a signalling layout to show the extent and access points of the map with separate drawings for the Up and Down directions. The drawings are used when preparing MAP data and when using the map in other areas of data for approach lock releases and train operated route releases.

Where required a similar Map Search Plan will be produced for train operated staff warning system purposes.

5.2 Sub-Route & Sub-Overlap Plans

This utilises a signalling layout plan to show the extent and identity of each sub-route and sub-overlap required. The plans are used to assist with preparing the data associated with route locking and releasing.

5.3 Trackside Functional Modules (TFMs): Allocation of Inputs & Outputs

The standard format is that produced by the SSI DWS.

5.4 Internal Data Link (IDL): Telegrams & Requests

The standard format is that produced by the SSI DWS.

5.5 Interlocking, Panel Processor, Diagnostic & Simulator Data

The standard formats and typical examples are fully documented in the Data Preparation Guide, SSI 8003.

5.6 Train Describers (TDs)

A list of functions is required with message byte and bit allocations.

5.7 CISR - Central Interlocking Status Record

Data Version control and certification document - standard format produced on the SSI DWS

6. Trackside Equipment

6.1 Location Equipment Layout & Wiring

The standard format is shown in Chapter G Figures G3, G4, G5, G6 and G7.

7. Control Centre

7.1 Equipment Layout and Cable Duct Plan

To show a scale plan view of the layout of equipment and cable ducts in the equipment room.

7.2 Block Diagram

A block diagram is required to show all SSI equipment, peripherals, and power cubicle, at the Control Centre and interconnecting cables.

7.3 Cable Schematic Schedule

Schedule of each cable on the block diagram showing:-

Function; From; Termination; To; Termination; Cable Ordering reference; Cable size; Type; Length.