ATP Beacon / Loop (GWML)

Includes:	Automatic Train Protection beacons and loops on Great Western Main Line
Excludes:	All other ATP equipment.
Related Test Specifications:	None.
Related Standards:	Automatic Train Protection Installation and Commissioning Manuals: Automatic Train Protection (GWML) Issue 1 - 31/07/97, 'NS ATBNG' Ground Tester User's manual, 'Adtranz' GWML ATP Design Manual. Note: all relevant Technical Instructions and Notice Boards are to be checked for new instructions.
Related Design details:	Scheme plan, Bonding Plan, Location area plan, ATP Plan (if applicable), REB/Location drawings, ATP Parameterisation sheets. Any TSR/ESR arrangement forms and schematics (checked to the WON) and Parameter Plug alteration notices.
Recording of Testing:	Completion of tests shall be by application of the Check Marks and the recording of values on Test Copy diagrams, and Parameterisation sheets. Recording of values on the appropriate record card and by signing the appropriate Test Certification produced for the work.
Pre-requisites:	REB/ Location case and Cable tests complete prior to function testing, Test Records complete for factory testing, QA certification or preparatory verification.

General:

This Test Specification is formed of the following sections, which correlate to the competency levels identified in NR/L2/SIG/30014/B410 for this type of equipment or testing.

1. Inspection.
2. Wire Count and Continuity.
3. Function Tests.
4. Supplementary Tests.
5. Correspondence Tests.

General definitions of terms are given in NR/L2/SIG/30014/E110, however terms specific to this specification are defined in the last section of this specification.

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1. INSPECTION

1.1. *CHECK* for *CORRECT TYPE and CHECK* for *CORRECT LABELLING* of ATP Equipment Housings and cables*:*

1.1.1. *Check* loop cables and Beacon tail cables are the correct type for the installation and specific site, i.e. ZHLS for tunnels and underground classed station area as specified

1.1.2. *Check* that the **ATP cabinet** is of the correct type for the installation.

Application	ACEC Part No.
SB Only	8RD950284 G01 (or G02)
SB + IB	8RD950284 G01
SB + IL	8RD950284 G02
SB + IB + IL	NOT USED ON GWML
SB + AB + IB	8RD950284 G05
SB + AB + IL	8RD950284 G06
SB + AB	8RD950284 G07
SB + MFIB	8RD950284 G09
SB + AB + MFIB	8RD950284 G10
NOTE: Enclosures are specific for an application, but are common to both ATPLIT and SSI encoder Types. Internal jumper cables are part of the cabinet assembly i.e. for Additional Beacons	

1.1.3. *Check* that the **ATP Encoder** is of the correct type for the installation.

Application	ACEC Part No.	
	ATPLIT	SSI
SB	1RD002842 G01	1RD002873 G01
SB + IB	1RD002842 G02	1RD002873 G02
SB + IL	1RD002842 G03	1RD002873 G03
SB + AB	1RD002842 G06	1RD002873 G05
SB + MFIB	1RD002842 G07	1RD002873 G06
SB + extn PCB	1RD002842 G05	1RD002873 G04
NOTE: ATPLIT and SSI Part No's do NOT always have the same 'G' No's.		

Chassis Extension Encoders	
Application	**Acec Part No.**
AB + IB	1RD002846 G01 Ext
AB + IL	1RD002846 G02 Ext
AB + MFIB	1RD002846 G03 Ext

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1.1.4. *Record* all serial numbers, and mod states of equipment fitted.

1.1.5. *Check* that the correct ATPLIT's have been fitted, if required (non SSI)

Acec Part No.	Term Size	Description	Rating	Application
SA 2835	0 BA	Grey body/ Red Wires	Low Pwr	Aspect/PL/ Dummy load
SA 2836	2 BA			
SA 2837	0 BA	Black body/ Yellow Wires	High Pwr	Jcn. Ind./ F/O Route Ind.
SA 2838	2 BA			

1.1.6. *Check* that the Beacon termination boxes are fitted correctly and are secure, with the 4 core cables terminated correctly; 4 Core cable to the ATP Enclosure terminated; Cores 1-4 on Terms 1-4 respectively, with the Beacon cable (pre made off) terminated; White on term 1, Blue on term 2, Red on term 3, Brown on term 4.

NOTE: Old style dis boxes are top nutted, new style has dis links, both dis boxes are mounted in the cess.

1.1.7. *Check* the Loop 'TDA' and 'RDA' termination boxes are fitted correctly and are secure, with 'TDA' Terms 1+2 connected to the cable from the line side enclosure and terms 3+4 to the two loop cables, the other ends are terminated in the 'RDA' box.

Old style box; is mounted in the 4ft with 180 Ohm, 25 watt resistors
New style box; is a 'dis box' mounted in the cess with 180 Ohms, 50 watt resistors.

Note: This arrangements gets Hot

1.1.8. *Check* that each Encoder has its 'Site Specific', 'NO SR' and 'ESR' data plugs available for commissioning. Where a TSR will be imposed on commissioning a 'TSR' data plug shall also be provided on site.

1.1.9. All plugs shall be clearly labelled. The 'ESR' plug shall be blue in colour. 'TSR' and 'ESR' plugs are site specific, the 'No SR' plug is not site specific. The ESR and TSR plugs shall be retained within the Enclosure on chains. Record serial No's number and version on the Test Copies.

1.2 *CHECK* for *NO DAMAGE: Check* all equipment for damage and any water ingress.

1.3 *CHECK* for *CORRECT POSITION*:

1.3.1 *Check* the Beacon and loop installation against the Scheme Plan to verify correct positioning of all associated equipment.

1.3.2 *Check* the maximum distance from the signal to its furthest beacons is no more than 1100yds.

1.3.3 *Check* the Power cable between the signal location case and ATP enclosure are run in a cable trough.

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