Ref:	NR/GN/SIG/CAT005
Issue:	59
Date:	07 December 2024
Compliance date:	N/A

Guidance Note

Index of Network Rail Documents Relating to Signalling and Communications Equipment

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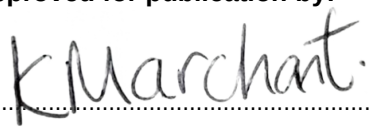

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User information

This Network Rail document contains colour-coding according to the following Red–Amber–Green classification.

Red requirements – *no variations permitted*

- Red requirements are to be complied with and achieved at all times.
- Red requirements are presented in a red box.
- Red requirements are monitored for compliance.
- Non-compliances will be investigated and corrective actions enforced.

Amber requirements – *variations permitted subject to approved risk analysis and mitigation*

- Amber requirements are to be complied with unless an approved variation is in place.
- Amber requirements are presented with an amber sidebar.
- Amber requirements are monitored for compliance.
- Variations can only be approved through the national variations process.
- Non-approved variations will be investigated and corrective actions enforced.

Green guidance – *to be used unless alternative solutions are followed*

- Guidance should be followed unless an alternative solution produces a better result.
- Guidance is presented with a dotted green sidebar.
- Guidance is not monitored for compliance.
- Alternative solutions should be documented to demonstrate effective control.

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Issue record

Issue	Date	Comments
56	Dec 2021	Continuing update to typical circuits
57	June 2022	Continuing update to typical circuits
58	March 2023	Continuing update to typical circuits
59	December 2024	Continuing update to typical circuits

Legislation

No legislation has been identified that is applicable to the content of this standard/control document.

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Contents

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1 Purpose

The purpose of this document is to provide signal engineers a standardised approach to signalling design. This prevents additional costs being incurred when a design solution already exists and assists maintainers when fault finding. The document includes a listing of typical circuits for signalling and level crossing applications.

2 Scope

Typical Circuits are best practice and should be applied to all new works and alterations to existing installations. Typical Circuits are not mandatory and users should check compliance to current Railway Group Standards, Railway Industry Standards and Company standards before implementing the design.

Any deviation from typical circuits should be justified and documented by the relevant signal designer. There is no need to follow the established variation process.

Western Region E10,000 Interlocking Circuits (Original)

(Historical Records - For Information Only)

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
E10,000/INDEX/1	-	Withdrawn 05/09/2009	X	06/04/2002
E10,000/INDEX/2	-	Withdrawn 05/09/2009	X	06/04/2002
E10,000/INDEX/3	-	Withdrawn 05/09/2009	Y	July-2005
E10,000/INDEX/4	-	Withdrawn 05/09/2009	X	06/04/2002
E10,000/INDEX/5	-	Withdrawn 05/09/2009	Y	July-2005
E10,000/INDEX/6	-	Withdrawn 05/09/2009	X	06/04/2002
E10,000/INTRO/1	Introduction (1)	Superseded by E10000/NEWINT/01	-	Oct-92
E10,000/INTRO/2B	Introduction (2)	Superseded by E10000/NEWINT/02	-	Oct-92
E10,000/INTRO/3	Introduction (3)	Superseded by E10000/NEWINT/03	-	Oct-92
E10,000/INTRO/4	Introduction (4)	Superseded by E10000/NEWINT/04	-	Oct-92
E10,000/INTRO/5	Introduction (5)	Superseded by E10000/NEWINT/05	-	Oct-92
E10,000/INTRO/6	Introduction (6)	Superseded by E10000/NEWINT/06	-	Oct-92
E10,000/0/2	General Notes (1)		7	26/07/1990
E10,000/0/2^{A}	General Notes (2)		2	15/11/1990
E10,000/0/2^{B}	General Notes (3)		2	15/11/1990
E10,000/0/2^{C}	General Notes (4)		2	15/11/1990
E10,000/0/2^{D}	General Notes (5)		1	23/04/1990
E10,000/0/2^{E}	General Notes (6)		2	20/12/1990
E10,000/0/2F	Cascade Timing		B	17/02/1994
E10,000/0/3A	Capacitor Time Delay (1)		A	28/10/1992
E10,000/0/3B	Capacitor Time Delay (2)		A	28/10/1992
E10,000/1/1	Signal Control Circuits - Signal Control Relays	Superseded by E10001/05	C	-
E10,000/1/2	Signal Control Circuits - Signal Control Relays	Superseded by E10001/10	B	02/09/1992
E10,000/1/3	Signal Control Circuits - Main & Subsidiary Control Relays	Superseded by E10001/15	C	-
E10,000/1/4	Signal Control Circuits - Main & Subsidiary Control Relays	Superseded by E10001/20	B	-
E10,000/1/5	Signal Control Circuits - Aspect Sequence (1)	Superseded by E10001/11	B	10/10/1980
E10,000/1/6	Signal Control Circuits - Aspect Sequence (2)		B	21/03/1980
E10,000/1/7	Signal Control Circuits - Aspect Sequence (3)		C	15/03/1980
E10,000/1/8	Signal Control Circuits - ULSRs & JULSRs	Superseded by E10001/25	B	Dec-90
E10,000/1/9	Signal Control Circuits - Ground Position Light Signal Circuits	Superseded by E10001/30	B	Dec-81
E10,000/1/10	Signal Control Circuits - G.P.L. Control & Repeat Relays	Superseded by E10001/35	C	-
E10,000/1/11	Signal Control Circuits - Facing Position Light Signals (1)	Superseded by E10001/40	E	Feb-82
E10,000/1/12	Signal Control Circuits - Facing Position Light Signals (2)	Superseded by E10001/45	D	Feb-82
E10,000/1/13	Signal Control Circuits - Aspect Replacement (1)	Superseded by E10001/31	B	Jan-82
E10,000/1/14	Signal Control Circuits - Aspect Replacement (2)	Superseded by E10001/31	B	Jan-82
E10,000/1/15	Signal Control Circuits - Track Circuit Override Button Controls		B	Oct-80
E10,000/1/16	Signal Control Circuits - Emergency Replacement of Auto Signals	Superseded by E10001/50	D	Jul-81

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
E10,000/1/17	Signal Control Circuits - Signal Post Replacement Switches		D	20/03/1980
E10,000/1/18	Signal Control Circuits - Disconnection and Approach Release Links		B	19/03/1980
E10,000/1/19	Signal Control Circuits - Delayed Yellow		A	25/01/1993
E10,000/1/20	Signal Control Circuits - Delayed Yellow Notes		A	25/01/1993
E10,000/1/21	Signal Control Circuits - Delayed Yellow Typical Examples (1)		A	07/03/1980
E10,000/1/22	Signal Control Circuits - Delayed Yellow Typical Examples (2)		A	07/03/1980
E10,000/2/1	Block Circuits - Standard Type and Block Bell GWR		B	10/03/1980
E10,000/2/2	Block Circuits - One Acceptance Type (Welwyn Control)		A	10/03/1980
E10,000/2/3	Block Circuits - Compulsory Train on Line Type		A	10/03/1980
E10,000/2/4	Block Circuits - Emergency Alarm on Physical Lines (In Trad. Signal Box)		D	09/02/1993
E10,000/2/5	Block Circuits - Emergency Alarm SSI (Also Using H.Williams Panel)		D	20/08/1993
E10,000/2/6	Block Circuits - Block Bells Wiring Options		D	25/01/1993
E10,000/2/7	Block Circuits - WR Style Block Bell Units (1)		C	24/06/1993
E10,000/2/8	Block Circuits - WR Style Block Bell Units (2)		C	24/06/1993
E10,000/2/9	Block Circuits - 'BR930' Block Bell Unit PC138		C	24/06/1993
E10,000/3/1	Signal Controls in Semaphore Area - Block Release of Section Signals		A	10/03/1980
E10,000/3/2	Signal Controls in Semaphore Area - Electrical Sequential Locking		C	11/03/1980
E10,000/3/3	Signal Controls in Semaphore Area - Power Operated Points - Detection Arrangements		A	13/05/1993
E10,000/3/4	Signal Controls in Semaphore Area - Electric Locks on FPLs/Points Reciprocal Controls		B	11/03/1980
E10,000/3/5	Signal Controls in Semaphore Area - LZR Circuit for Reverse Lever Locks		D	26/03/1980
E10,000/3/6	Signal Controls in Semaphore Area - 2 Aspect Colour Light Distant Wiring		D	16/11/1979
E10,000/3/7	Signal Controls in Semaphore Area - Combined Starting and Distant Signal Wiring		D	15/11/1979
E10,000/3/8	Signal Controls in Semaphore Area - 'Greenfield' Colour Lights		D	12/09/1991
E10,000/3/9	Signal Controls in Semaphore Area - Ground Position Light in Semaphore		E	Sep-91
E10,000/3/10	Signal Controls in Semaphore Area - Colour Light Distant in BRB Locs Signal & Controls		D	12/09/1991
E10,000/3/11	Signal Controls in Semaphore Area - Colour Light in BRB Locs and Maintenance Free Cells		D	12/09/1991
E10,000/3/12	Signal Controls in Semaphore Area - Colour Light in BRB Locs Layouts		E	12/09/1991
E10,000/3/13	Signal Controls in Semaphore Area - Extra Circuits for 4 Aspect Signal with Junction Indicator etc		E	12/09/1991
E10,000/3/14	Signal Controls in Semaphore Area - Repeating & Controls for 4 Aspect Signal with Junction Indicator etc		C	09/03/1992
E10,000/3/15	Signal Controls in Semaphore Area - Fibre Optic Banner in Mechanical		A	-
E10,000/3/16	Signal Controls in Semaphore Area - Fibre Optic Banner in Mechanical		A	-
E10,000/3/17	Signal Controls in Semaphore Area - Fibre Optic Banner in Mechanical		B	-
E10,000/4/1	Approach Locking - Comprehensive Approach Locking	Superseded by E10004/05	C	Feb-82
E10,000/4/2	Approach Locking - 'When Operated' Approach Locking	Superseded by E10004/10	C	Feb-82

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
E10,000/4/3	Approach Locking - Special Features	Superseded by E10004/15	A	13/05/1993
E10,000/4/4	Approach Locking - Mechanical Signalling Area		D	30/10/1987
E10,000/4/5	Approach Locking - Mechanical Signalling 12 Volt Relays		C	13/05/1993
E10,000/5/1	Semaphore Signals - Repeaters		A	12/03/1980
E10,000/5/2	Semaphore Signals - Repeaters		A	12/03/1980
E10,000/5/3	Semaphore Signals - Electric Lighting (Historical)		A	14/03/1980
E10,000/6/1	Signals - A.C. Operated Head Wiring		E	28/07/1991
E10,000/6/2	Signals - D.C. Operated Head Wiring		A	15/11/1979
E10,000/6/3	Signals - Junction Indicators, Stencil Indicators, LOS & Position Lights		D	15/11/1979
E10,000/6/4	Signals - Signal Head Feeds	Superseded by E10006/10	A	10/12/1990
E10,000/6/5	Signals - G.P.L., LOS and Stencil Feeds		C	02/09/1992
E10,000/6/6	Signals - Junction Indicator, Position Light & Fibre Optic Indicator Feeds		D	Dec-83
E10,000/6/7	Signals - G(M) ESR	Superseded by E10006/05	D	Aug-91
E10,000/6/8	Signals - Electric Lamps for Railway Signalling		D	16/11/1979
E10,000/6/9	Signals - 'Emergency Stop' Indicator with Filament Cold Proving Typical Arrangement		B	25/01/1993
E10,000/7/1	Signal Control Circuits - Non-vital Route Calling UR & ZNPR	Superseded by E10007/05	A	Mar-93
E10,000/7/2	Signal Control Circuits - Non-vital Route Cascade USR	Superseded by E10007/10	B	Jan-93
E10,000/7/3	Signal Control Circuits - Non-vital Miscellaneous Repeat Relays	Superseded by E10007/15	A	Mar-93
E10,000/7/4	Signal Control Circuits - Non-vital Through Circuits from Panel to	Superseded by E10007/20	A	Jan-93
E10,000/7/5	Signal Control Circuits - Main & Subsidiary Signals - Panel Indications	Superseded by E10007/25	C	Jan-93
E10,000/7/6	Signal Control Circuits - LOS & GPL Panel Indications	Superseded by E10007/30	B	Jan-93
E10,000/7/7	Signal Control Circuits - Misc Indications	Superseded by E10007/35	A	Mar-93
E10,000/7/8	Signal Control Circuits - Simple UKE & TKE Circuits and General Notes	Superseded by E10007/40 & 45	A	Jan-93
E10,000/7/9	Signal Control Circuits - UKE & TKE Circuits on Points	Superseded by E10007/45	A	Mar-93
E10,000/7/10	Signal Control Circuits - UKE & TKE Circuits on Switch Diamonds	Superseded by E10007/50	A	Mar-93
E10,000/7/11	Signal Control Circuits - Double Compound Indications WR Ind on HW (WR) Panels Historical	Superseded by E10007/55	A	Mar-93
E10,000/7/12	Signal Control Circuits - Double Compound Indications Revised WR Ind on HW (WR) Panel	Superseded by E10007/60	A	Mar-93
E10,000/7/13	Signal Control Circuits - Push-Push Panel Push Buttons in One Ring		A	Mar-93
E10,000/7/14	Signal Control Circuits - Push-Push Panel Push Buttons in Two Rings		A	Mar-93
E10,000/7/15	Signal Control Circuits - Push-Push Panel Indication Circuits & Reference		A	Mar-93
E10,000/7/16	Signal Control Circuits - Push-Push Panel Indication Circuits and Auto Button Controls		A	Mar-93
E10,000/7/17	Signal Control Circuits - Typical BX24 Power Wiring	Superseded by E10007/65	C	28/03/1994
E10,000/7/18	Signal Control Circuits - TD Feeds	Superseded by E10007/70	A	Mar-93
E10,000/8/1	MES Panels - Panel Face		A	24/06/1993
E10,000/8/2	MES Panels - Circuits (1)		A	24/06/1993
E10,000/8/3	MES Panels - Circuits (2)		A	24/06/1993
E10,000/11/1	Track Circuits - Steady D.C. (Non-Immune)		D	Aug-91

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
E10,000/11/2	Track Circuits - Existing Low Voltage Type Modified for Detecting Lightweight Vehicles (Non-Immune)		C	Aug-91
E10,000/11/3	Track Circuits - Steady D.C. (A.C. Immune)		E	Aug-91
E10,000/11/4	Track Circuits - Misc Types		C	Aug-91
E10,000/11/5	Track Circuits - Overlay Track Circuits General Wiring		A	Apr-82
E10,000/11/6	Track Circuits - Catch Points in Track Circuit		B	May-80
E10,000/11/7	Track Circuits - Repeating Arrangements in M.A.S. Areas		D	15/05/1980
E10,000/11/8	Track Circuits - Relationship of Audio Frequency Track Circuit Equipment to Signals and other Track Types		D	-
E10,000/11/9	Aster Track Circuits - Typical Configurations (1)		B	Apr-82
E10,000/11/10	Aster Track Circuits - Typical Configurations (2)		A	Aug-91
E10,000/11/11	'ML' Type 'TI21' Track Circuits - Configurations All Frequencies		C	Apr-82
E10,000/11/12	Track Circuits - Reed Impulse Etc		B	Apr-91
E10,000/11/13	Track Circuits - DC Style Track Circuits Insulated Rail Joints & Bonding Constraints		C	-
E10,000/11/14	Track Circuits - Multiple Track Relays		A	Apr-93
E10,000/11/15	Track Circuits - Typical Bondings with Multiple Track Relays		B	Apr-93
E10,000/11/16	Track Circuits - General Arrangements for the Preferred Position of Insulated Rail Joints		B	26/06/1992
E10,000/11/17	Track Circuits - Use of Dis Boxes		F	Feb-92
E10,000/11/18	Track Circuits - Position of Dis Boxes eg Feed End, with TFR		A	Apr-93
E10,000/11/19	Track Circuits - Track Circuit Immunisation in Connection with Point Heating or Shore Heating or Overhead Powerlines		D	Mar-92
E10,000/11/20	Track Circuits - Use of Treadles e.g. for Level Crossings		D	27/08/1993
E10,000/11/21	Track Circuits - Treadle Backup in T.C.B. Area 2 Dis. Box Arrangement		A	Sep-94
E10,000/12/1	Axle Counter - A Evaluator Relays & Indications Top System		A	Oct-91
E10,000/12/2	Axle Counter - B Evaluator Relays & Indications Bottom System		A	Oct-91
E10,000/12/3	Axle Counter - Evaluator Strapping		A	Oct-91
E10,000/12/4	Axle Counter - Incoming Cables		A	Oct-91
E10,000/12/5	Axle Counter - Evaluator Rack Layout		A	Oct-91
E10,000/12/6	Axle Counter - Rack Component Strip		A	Oct-91
E10,000/12/7	Axle Counter - Layout for Single Detection Point		C	Oct-91
E10,000/12/8	Axle Counter - Layout for Single Detection Point with Special Dis Box		C	Oct-91
E10,000/12/9	Axle Counter - Single Detection Point Operating Two Axle Counters (Double Utilisation) with Special Dis Box		B	Oct-91
E10,000/12/10	Axle Counter - Single Detection Point Operating Two Axle Counters (Double Utilisation)		B	Oct-91
E10,000/12/11	Axle Counter - Main Power Supply		C	29/04/1993
E10,000/12/12	Axle Counter - Local Power Supply for Feeding One or Two Detection		B	Oct-91
E10,000/14/1	Reed Remote Control Systems - Simplex System Schematic		C	16/11/1979
E10,000/14/2	Reed Remote Control Systems - Details of Equipment		C	06/03/1980

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
E10,000/14/3	Reed Remote Control Systems - Miscellaneous Data		C	06/03/1980
E10,000/14/4	Reed Remote Control Systems - Power Supply		C	06/03/1980
E10,000/14/5	Reed Remote Control Systems - Frequency Range		C	06/03/1980
E10,000/14/6	Reed Remote Control Systems - Minimum Information to Systems Group for Consultancy on Proposed System		A	06/03/1980
E10,000/15/1	Lightning Protection - Equipment and Application		C	May-80
E10,000/15/2	Lightning Protection - TDM Systems eg Multi-Site (1)		A	Feb-94
E10,000/15/3	Lightning Protection - TDM Systems eg Multi-Site (2)		A	Feb-94
E10,000/16/1	Point Machines - Point Control Circuits (Route Relay Interlocking Panels) Clamp Lock Machines	Superseded by E10016/05	F	Oct-90
E10,000/16/2	Point Machines - Point Machine Drive Circuits for New Installations or where Conversion Made from Clamp Lock	Superseded by E10016/10	G	Oct-90
E10,000/16/3	Point Machines - Point Machine Drive Circuits Former Standard		F	Oct-90
E10,000/16/4	Point Machines - Point Control Circuits (Mechanical Lever Frames)		C	Oct-90
E10,000/16/5	Point Machines - Electrical Detection Standard WR Applications (Including Clamp Locks)	Superseded by E10016/15	D	06/01/1997
E10,000/16/6	Point Machines - Schematic Wiring Arrangements Style 63 Point Machine		B	Feb-80
E10,000/16/7	Point Machines - Circuit Diagram Style 63 Point Machine		A	Feb-80
E10,000/16/8	Point Machines - Schematic Wiring Arrangements HW Point Machine		C	Feb-80
E10,000/16/9	Point Machines - Circuit Diagram HW Point Machine		B	Feb-80
E10,000/16/10	Point Machines - Schematic Diagram for Electro-Hydraulic Equipment Clamp Lock Machines		A	Feb-80
E10,000/16/11	Point Machines - Detector Mechanism Clamp Lock Machines		A	Feb-80
E10,000/16/12	Point Machines / Clamp Lock Heaters	Superseded by E10016/20	E	Feb-80
E10,000/16/13	Point Machines - Historical Information for GEC/GRS5A Point Machines Showing Point Drive Only		A	09/03/1993
E10,000/17/1	Point Detection - General		B	05/11/1992
E10,000/17/2	Point Detection - L.H.N.C. Single Lead Clamp Lock Operated		A	05/11/1992
E10,000/17/3	Point Detection - R.H.N.C. Single Lead Clamp Lock Operated		A	05/11/1992
E10,000/17/4	Point Detection - L.H.N.C. 1 or 2 Supplementaries		B	05/11/1992
E10,000/17/5	Point Detection - R.H.N.C. 1 or 2 Supplementaries		B	05/11/1992
E10,000/17/6	Point Detection - L.H.N.C. with Swing Nose (Swing Nose Only)		B	05/11/1992
E10,000/17/7	Point Detection - R.H.N.C. with Swing Nose (Swing Nose Only)		B	05/11/1992
E10,000/17/8	Point Detection - L.H.N.C. Operated by Style 63 Machine as Example		A	05/11/1992
E10,000/17/9	Point Detection - R.H.N.C. Operated by Style 63 Machine as Example		A	05/11/1992
E10,000/17/10	Point Detection - Typical Summation Circuits		A	05/11/1992
E10,000/17/11	Point Detection - Positions of Electrical Equipment for Various Types of Point Switches		A	17/02/1994
E10,000/18/1	Typical Circuits - Points WZR	Superseded by E10018/05	C	Oct-90
E10,000/18/2	Typical Circuits - Points WZR-Self Restored Points	Superseded by E10018/10	D	06/01/1997
E10,000/18/3	Typical Circuits - Points LR	Superseded by E10018/15	A	Oct-90

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
E10,000/18/4	Typical Circuits - Points. Points Relay Repeats Vital Interlocking Circuits	Superseded by E10018/20	B	24/03/1994
E10,000/18/5	Typical Circuits - Points. Route Locking of Points where Point to Point Locking Exists	Superseded by E10018/25	A	Oct-90
E10,000/18/6	Typical Circuits - Points. Delayed Yellow Condition with Double Junction in Full Overlap	Superseded by E10018/30	A	12/12/1990
E10,000/19/1	Electric Point Heating - Panel Areas		E	06/12/1979
E10,000/19/2	Electric Point Heating - Mechanical Signalling Areas		A	24/03/1983
E10,000/20/1	Registration of Signalling Numbers (1)	Superseded by E10000/NEWINT/07	D	06/01/1997
E10,000/20/2	Registration of Signalling Numbers (2)	Superseded by E10000/NEWINT/07	A	-
E10,000/21/1	Shunter's Acceptance Circuitry		A	24/06/1993
E10,000/70/1	Token Instrument - Terminal Instrument		E	Jun-90
E10,000/70/2	Electric Token Working - Terminal & Intermediate Instruments Intermediate/Auxiliary Instruments Internal Wiring		D	13/06/1990
E10,000/70/3	Token Instrument - Wiring Arrangement for 'No Signalman' Modification		D	03/09/1992
E10,000/70/4	Token Instrument - Internal Wiring of Terminal Instrument		A	13/06/1990
E10,000/70/5	'No Signalman' Token with Remote Crossing Loops (N.S.T.R.) Token Instrument Internal Wiring		A	24/01/1986
E10,000/70/6	Token Working - 'No Signalman' Token with Remote Crossing Loops (N.S.T.R.) Token Instruments and Associated Wiring		A	20/01/1986
E10,000/70/7	Token Working - 'No Signalman' Token with Remote Crossing Loops (N.S.T.R.) Reed Transmission and Associated Circuits, Power Supply		A	20/01/1986
E10,000/70/8	Token System - with Remote Release and/or within MAS Area		B	30/07/1992
E10,000/70/9	Token Working - Starting Signal Release Options		C	30/07/1992
E10,000/70/10	Token Working - Interlinking of Signals		A	27/08/1993
E10,000/75/1	Barrow Crossing - (Warning Arrangements) Typical Controls		C	12/03/1980
E10,000/75/2	Barrow Crossing - Warning Arrangements Indicator Circuits		C	Oct-81
E10,000/83/1	A.W.S. Inductors - Connection Diagram for Electro Inductors and operating Values		H	-
E10,000/83/2	A.W.S. Inductors - M.A.S. Areas	Superseded by E10083/05	G	14/03/1980
E10,000/83/3	A.W.S. Inductors - Permissive Working in Platform Areas	Part Superseded by E10083/10	D	06/04/2002
E10,000/83/4	A.W.S. Inductors - Mechanical Signalling Areas Double Line Working		B	14/03/1980
E10,000/83/5	A.W.S. Inductors - Mechanical Signalling Areas Double Line. Inner Distant Control and Calling-On Circuits		A	14/03/1980
E10,000/83/6	A.W.S. Inductors - Mechanical Signalling Areas Tokenless Block Areas (1)		B	14/03/1980
E10,000/83/7	A.W.S. Inductors - Mechanical Signalling Areas Tokenless Block Areas (2)		A	17/03/1980
E10,000/83/8	A.W.S. Inductors - Mechanical Signalling Areas Single Line Fixed Distant		C	17/03/1980
E10,000/83/9	A.W.S. Inductors - Mechanical Signalling Areas		A	17/03/1980
E10,000/83/10	A.W.S. Inductors - Mechanical Signalling Areas when Power Supply (Mains) not Available		C	17/03/1980

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
E10,000/83/11	A.W.S. Inductors - Inductors Associated with Signal Reading through Unfitted Route to Fitted Route	Superseded by E10083/15	D	17/03/1980
E10,000/83/12	A.W.S. Inductors - Special Suppression when Opposing Regular Moves are Un-Signalled	Superseded by E10083/20	B	Oct-91
E10,000/83/13	A.W.S. Inductors - Control of Inductors to Rear of Junctions		B	17/03/1980
E10,000/83/14	A.W.S. Inductors - Layouts for Control Table	Superseded by E10161/24	B	18/03/1980
E10,000/83/15	A.W.S. Inductors - Control Table WR Style	Superseded by E10161/25	B	18/03/1980
E10,000/83/16	A.W.S. Inductors - Position of Inductors in Relation to Associated Signal		B	Oct-80
E10,000/84/1	Plug-In Miniature Relays - Relay Types and Plugboard Registration Codes (24 Volt)		A	Feb-92
E10,000/84/2	Plug-In Miniature Relays - Relay Types and Plugboard Registration Codes (50 V & Miscellaneous)		B	Feb-92
E10,000/84/3	Plug-In Miniature Relays - Contact Arrangements		A	Feb-92
E10,000/85[A]	Relay Set Plug In 5P.O. 3000 Type Relays Type A	Superseded by E10085/05	A	Oct-91
E10,000/86[A]	Relay Set Plug In 5P.O. 3000 Type Relays Type B	Superseded by E10085/10	A	Oct-91
E10,000/87[A]	Relay Set Plug In 5P.O. 3000 Type Relays Type C	Superseded by E10085/15	A	Oct-91
E10,000/88	Relay Set Plug In 5P.O. 3000 Type Relays Type D	Superseded by E10085/20	A	Oct-91
E10,000/94/1	Power Supply - Notes		B	03/12/1992
E10,000/94/2	Power Supply - Castle Cary Int 650V & 110V Distribution (1)		B	Jul-84
E10,000/94/3	Power Supply - Castle Cary Int 650V & 110V Distribution (2)		C	Jul-84
E10,000/94/4	Power Supply - Castle Cary Int Power Supply (B/N50)		A	Jul-84
E10,000/94/5	Power Supply - Castle Cary Int Earthing Arrangement		D	03/12/1992
E10,000/94/6	Power Supply - Castle Cary Int Power Supply Layout (External)		A	Jul-84
E10,000/94/7	Power Supply - Castle Cary Int Power Supply Layout (Internal)		A	Jul-84
E10,000/94/8	Power Supply - Castle Cary Int Bus Bar Rack Layout		A	Jul-84
E10,000/94/9	Power Supply - Castle Cary Int Earth Leakage Detector Circuit	Superseded by E10094/05	C	Jun-84
E10,000/94/10	Power Supply - Somerton REB Power Supply (B/NX110)		B	Sep-84
E10,000/94/11	Power Supply - Somerton REB Power Supply (B/N120)		D	Sep-84
E10,000/94/12	Power Supply - Somerton REB Power Supply (B/N50)		A	Oct-84
E10,000/94/13	Power Supply - Somerton REB Cubicle Layout		A	Sep-84
E10,000/94/14	Power Supply - Somerton REB Power Supply Layout		A	Sep-84
E10,000/94/15	Power Supply - Somerton REB Busbar Fuse Allocation Sheet Nos. Typical		B	Oct-84
E10,000/94/16	Power Supply - 240V UPS System Power Cubicle Layout		B	03/12/1992
E10,000/94/17	Power Supply - 240V UPS System Power Cubicle Wiring (1)		B	03/12/1992
E10,000/94/18	Power Supply - 240V UPS System Power Cubicle Wiring (2)		A	03/12/1992
E10,000/94/19	Power Supply - Castle Cary Int Typical Loc Non-Preferred Arrangement		A	17/11/1983
E10,000/94/20	Power Supply - Castle Cary Int Typical Loc ‘Through Power’ Non-Preferred Arrangement		D	17/11/1983
E10,000/94/21	Power Supply - Castle Cary Int Typical Loc ‘End of Spur’ Non-Preferred Arrangement		E	16/11/1983
E10,000/94/22	Power Supply - Castle Cary Int Typical Loc Radial Distribution Preferred Arrangement (1)		B	17/11/1983

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
E10,000/94/23	Power Supply - Castle Cary Int Typical Loc Radial Distribution Preferred Arrangement (2)		D	04/12/1992
E10,000/94/24	Power Supply - Castle Cary Int Typical Loc Ring Main Distribution Preferred Arrangement (1)		B	16/11/1983
E10,000/94/25	Power Supply - Castle Cary Int Typical Loc Ring Main Distribution Preferred Arrangement (2)		D	04/12/1992
E10,000/94/26	Power Supply - Voltmeter		B	03/12/1992
E10,000/94/27	Power Supply - Castle Cary 650V Supply Schematic (1)		A	Nov-84
E10,000/94/28	Power Supply - Castle Cary 650V Supply Schematic (2)		A	Nov-84
E10,000/94/29	Power Supply - Castle Cary 650V Supply Schematic (3)		A	Nov-84
E10,000/94/30	Power Supply - Castle Cary 650V Supply Schematic (4)		A	Nov-84
E10,000/94/31	Power Supply - Power Supply Schematic Paddington No.2 Feeder		A	03/12/1992
E10,000/94/32	Power Supply - Power Supply Schematic Portobello No.2 Feeder		A	03/12/1992
E10,000/94/33	Power Supply - Power Supply Schematic Paddington No.1 Feeder		A	03/12/1992
E10,000/94/34	Power Supply - Power Supply Schematic Acton No.1/No.3 Feeders		A	03/12/1992
E10,000/94/35	Power Supply Indication Circuits	Superseded by E10094/10	D	20/03/1980
E10,000/94/36	Power Supply - Small UPS System e.g. AOCL		D	09/12/1992
E10,000/94/37	Power Supply - Small UPS System (240/110V) 500 or 1000VA - Active Standby with Auto Switching Cabinet		B	24/03/1994
E10,000/96/1	Overrides - Types, Applications, Ancillary Circuits	Superseded by E10096/05	A	Oct-80
E10,000/96/2	Overrides - Through Routes Indications	Superseded by E10096/10	A	Oct-80
E10,000/96/3	Overrides - Through Routes Panel / Interlocking	Superseded by E10096/15	A	Oct-80
E10,000/96/4	Overrides - Through Routes SCSRs	Superseded by E10096/20	A	Oct-80
E10,000/96/5[1]	Overrides - Through Routes Interlocking Overrides (1)	Superseded by E10096/25	A	Oct-80
E10,000/96/5[2]	Overrides - Through Routes Interlocking Overrides (2)	Superseded by E10096/30	A	Oct-80
E10,000/96/6	Overrides - Total Failure Switch and Associated Circuits	Superseded by E10096/35	A	Jun-82
E10,000/96/7	Overrides - Through Routes Geographical JC. Single Route Selective (1)	Superseded by E10096/40	A	Oct-80
E10,000/96/8	Overrides - Through Routes Geographical JC. Single Route Selective (2)		A	Oct-80
E10,000/96/9	Overrides - Through Routes Geographical JC. Single Route Selective (3)	Superseded by E10096/45	A	Oct-80
E10,000/96/10	Overrides - Through Routes Geographical JC. Single Route Selective with Thro' Route Facilities on Selected Routes (1)		A	Oct-80
E10,000/96/11	Overrides - Through Routes Geographical JC. Single Route Selective with Thro' Route Facilities on Selected Routes (2)		A	Oct-80
E10,000/96/12	Overrides - Through Routes Geographical JC. Single Route Selective with Thro' Route Facilities on Selected Routes (3)		A	Oct-80
E10,000/96/13[1]	Overrides - Through Routes Geographical JC. Multi-Route Selective (1)		A	Oct-80
E10,000/96/13[2]	Overrides - Through Routes Geographical JC. Multi-Route Selective (2)		A	Jun-93
E10,000/96/14	Overrides - Through Routes Geographical JC. Multi-Route Selective (3)		A	Oct-80
E10,000/96/15	Overrides - Through Routes Geographical JC. Multi-Route Selective (4)		A	Oct-80
E10,000/96/16	Overrides - Through Routes Geographical JC. Multi-Route Selective with Auto Facility on Selected Routes (1)		A	Oct-80

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
E10,000/96/17	Overrides - Through Routes Geographical JC. Multi-Route Selective with Auto Facility on Selected Routes (2)		A	Oct-80
E10,000/96/18	Overrides - Through Routes Geographical JC. Multi-Route Selective with Auto Facility on Selected Routes (3)		A	Oct-80
E10,000/100/1	Tokenless Block		B	-
E10,000/100/2	Tokenless Block - W.R. Standard Arrangements e.g. Salisbury - Exeter		B	21/05/1980
E10,000/100/3	Tokenless Block - W.R. Standard Arrangements with 'Switching Out'		B	02/05/1980
E10,000/100/4	Tokenless Block - W.R. Standard Arrangements Ground Frame with Shut-In Facilities		B	02/05/1980
E10,000/101/1	Reversible Signalling - One Line (On One Panel) Int 'B' (Former WR Variant)		A	Jan-76
E10,000/101/2	Reversible Signalling - One Line (On One Panel) Through Circuits (Former WR Variant)		A	Jan-76
E10,000/101/3	Reversible Signalling - One Line (On One Panel) Int 'A' (Former WR Variant)		A	Jan-76
E10,000/101/4	Reversible Signalling - One Line (On One Panel) Panel End (Former WR Variant)		A	Jan-76
E10,000/101/5	Reversible Signalling - One Line (Between Two Panels) Int 'B' (Former WR Variant)		A	Jan-76
E10,000/101/6	Reversible Signalling - One Line (Between Two Panels) Through Circuits (Former WR Variant) (1)		A	Jan-76
E10,000/101/7	Reversible Signalling - One Line (Between Two Panels) Through Circuits (Former WR Variant) (2)		A	Jan-76
E10,000/101/8	Reversible Signalling - One Line (Between Two Panels) Int 'A' (Former WR Variant)		A	Jan-76
E10,000/101/9	Reversible Signalling - On One Line (Between Two Panels) Panel Circuits (Former WR Variant)		A	Jan-76
E10,000/101/10	Reversible Signalling - On One Line External Circuits (Former WR Variant)		A	Jan-76
E10,000/123/1	Time Relays - Typical Applications (TJR Control) A.C. Motor Timers QMT 2		B	Oct-81
E10,000/123/2	Time Relays - Use of Thermal Relay to BR Spec 937A		B	20/03/1980
E10,000/123/3	Time Relays - A.C. Motor Relay QMT1		A	21/03/1980
E10,000/129/1	Ground Frame Controls (Mechanically Operated) - Inside Interlocking Areas (Non-Route Setting) NX Panels	Superseded by E10129/05	A	21/03/1980
E10,000/129/2	Ground Frame Controls (Mechanically Operated) - Inside Interlocking Areas (Non-Route Setting)		B	24/03/1980
E10,000/129/3	Ground Frame Controls (Mechanically Operated) - Inside Interlocking Areas (Route Setting) NX Panels	Superseded by E10129/10	A	01/08/1991
E10,000/129/4	Ground Frame Controls (Mechanically Operated) - Inside Interlocking Areas (Route Setting) (1)	Superseded by E10129/15	A	01/08/1991
E10,000/129/5	Ground Frame Controls (Mechanically Operated) - Inside Interlocking Areas (Route Setting) (2)	Superseded by E10129/20	A	01/08/1991
E10,000/129/6	Ground Frame Controls (Mechanically Operated) - Inside Interlocking Areas (Route Setting) Push-Push Panels		A	01/08/1991

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
E10,000/129/7	Ground Frame Controls (Mechanically Operated) - Inside Interlocking Areas Use of Lever Lock I/L/O Key Release Instrument	Superseded by E10129/25	A	06/08/1991
E10,000/130/1	Ground Frame Controls (Power Operated) - Inside Interlocking Areas (Non-Route Setting) (1)		A	Aug-91
E10,000/130/2	Ground Frame Controls (Power Operated) - Inside Interlocking Areas (Non-Route Setting) (2)		A	01/08/1991
E10,000/130/3	Ground Frame Controls (Power Operated) - Inside Interlocking Areas (Route Setting) (1)		A	01/08/1991
E10,000/130/4	Ground Frame Controls (Power Operated) - Inside Interlocking Areas (Route Setting) (2)		A	01/08/1991
E10,000/131/1	Ground Frame - In a non-MAS Area (1)		B	02/10/1963
E10,000/131/2	Ground Frame - In a non-MAS Area (2)		B	02/10/1963
E10,000/132/1	Ground Frame Controls Outside Interlocking Areas - Outside Overlap Protected by Semi-Automatic Signals Layouts & Controls		A	24/03/1980
E10,000/132/2	Ground Frame Controls Outside Interlocking Areas - Outside Overlap Protected by Semi-Automatic Signals Wiring		B	25/03/1980
E10,000/136	Signalling Power Supply - Mechanical Signal Box		A	26/03/1980
E10,000/160/1	Hot Box Detectors - Panel Domino Unit and Notes		A	31/03/1980
E10,000/160/2	Hot Box Detectors - Panel Circuits		A	31/03/1980
E10,000/160/3	Hot Box Detectors - Power and Transmission Circuits at Site		B	31/03/1980
E10,000/160/4	Hot Box Detectors - Layout for One Servo using Compton Building		A	31/03/1980
E10,000/160/5	Hot Box Detectors - Layout for Two Servos using Compton Building		A	31/03/1980
E10,000/160/6	Hot Box Detectors - Layout for Hawker Siddeley using Compton Building		A	31/03/1980
E10,000/161/1	W.R. Control Table - Notes	Superseded by E10161/05	A	Nov-93
E10,000/161/2	W.R. Control Table - See SSP 80 Route and Signal	Superseded by E10161/10	A	Nov-93
E10,000/161/3	W.R. Control Table - Route and Signal (Examples)	Superseded by E10161/15	A	Nov-93
E10,000/161/4	W.R. Control Table - See SSP19 Approach Locking	Superseded by E10161/20	A	Nov-93
E10,000/161/5	W.R. Control Table - A.W.S. Inductors / Suppressors	Superseded by E10161/25	A	Nov-93
E10,000/161/6	W.R. Control Table - See SSP 81 Points	Superseded by E10161/30	A	Nov-93
E10,000/161/7	W.R. Control Table - See SSP 81 Ground Frame Releases	Superseded by E10161/35	A	Nov-93
E10,000/161/8	W.R. Control Table - See SSP 80/81 Ground Frame Points and Functions	Superseded by E10161/40	A	Nov-93
E10,000/161/9	W.R. Control Table - Example of G.F. Controls & Releases	Superseded by E10161/45	A	Nov-93
E10,000/161/10	W.R. Control Table - See SSP 80/81 Counter Conditions	Superseded by E10161/50	A	Nov-93
E10,000/161/11	W.R. Control Table - Route Counter Condition	Superseded by E10161/55	A	Nov-93
E10,000/161/12	W.R. Control Table - Points Counter Condition (1)	Superseded by E10161/60	A	Nov-93
E10,000/161/13	W.R. Control Table - Points Counter Condition (2)	Superseded by E10161/65	A	Nov-93
E10,000/161/14	W.R. Control Table - Track Counter Condition	Superseded by E10161/70	A	Nov-93
E10,000/162	Trackside Warning System (with Fixed Position Audible Devices)		A	Apr-81
E10,000/163/1	Technician’s Fault Monitoring Equipment - Line Arrangements		B	23/03/1983
E10,000/163/2	Technician’s Fault Monitoring Equipment - P.S.B. Arrangements		A	25/08/1982
E10,000/164	Intruder Alarm - Typical Application		C	May-82
E10,000/2000	LC Standard Drawings - Index		C	26/08/1993

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
E10,000/2000/2	LC Standard Drawings - AHB Indication Circuits to Supervisory Point		B	26/08/1993
E10,000/2000/3	LC Standard Drawings - Manned Barriers WR Barrier Packs (LOWER) SR		A	26/08/1993
E10,000/2000/4	LC Standard Drawings - Manned Barriers WR Barrier Packs BARRIER (UP) & (DN) Rs		A	26/08/1993
E10,000/2000/5	LC Standard Drawings - Manned Barriers WR Barrier Packs Motor Relays		A	26/08/1993
E10,000/2000/6	LC Standard Drawings - Manned Barriers WR Barrier Packs Valves		A	26/08/1993
E10,000/2000/7	LC Standard Drawings - A.H.B. Indications via Emergency Tele System (1)		A	17/02/1994
E10,000/2000/8	LC Standard Drawings - A.H.B. Indications via Emergency Tele System (2)		A	17/02/1994
E10,000/2000/9	LC Standard Drawings - ‘Fishguard’ Control Application Notes		A	17/08/1994
E10,000/2000/10	LC Standard Drawings - ‘Fishguard’ Control Track Circuit Controls (Part) Crossing Control Location		A	11/08/1994

Western Region E10000 Interlocking Circuits (Redrawn)

(For Alterations to Existing Interlockings)

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
E10000/NEWINDEX/01	Index (1)	Withdrawn 05/09/2009	3	Sep-2004
E10000/NEWINDEX/02	Index (2)	Withdrawn 05/09/2009	2	Sep-2004
E10000/NEWINDEX/03	Index (3)	Withdrawn 05/09/2009	3	Sep-2004
E10000/NEWINDEX/04	Index (4)	Withdrawn 05/09/2009	2	Sep-2004
E10000/NEWINDEX/05	Index (5)	Withdrawn 05/09/2009	2	Sep-2004
E10000/NEWINT/01	Introduction Notes	Redrawn from E10,000/INTRO/1 & Revised	1	Sep-2004
E10000/NEWINT/02	Introduction Notes	Redrawn from E10,000/INTRO/2B & Revised	1	Sep-2004
E10000/NEWINT/03	Introduction Notes	Redrawn from E10,000/INTRO/3 & Revised	1	Sep-2004
E10000/NEWINT/04	Introduction Notes	Redrawn from E10,000/INTRO/4 & Revised	1	Sep-2004
E10000/NEWINT/05	Introduction Notes	Redrawn from E10,000/INTRO/5 & Revised	1	Sep-2004
E10000/NEWINT/06	Introduction Notes	Redrawn from E10,000/INTRO/6 & Revised	1	Sep-2004
E10000/NEWINT/07	Drawing Number Allocation (i.e. Use of Stroke Numbers)	Redrawn from E10,000/20/1 & 2 &	2	Sep-2004
E10001/05	Signal Control Circuits - Signal Control Relays 1	Redrawn from E10,000/1/1 & Revised	2	Sep-2004
E10001/10	Signal Control Circuits - Signal Control Relays 2	Redrawn from E10,000/1/2 & Revised	2	Sep-2004
E10001/11	Signal Control Circuits - Aspect Sequence (Full Climbing Aspect)	Redrawn from E10,000/1/5 & Revised	1	Sep-2004
E10001/15	Signal Control Circuits - Main & Subsidiary Control Relays	Redrawn from E10,000/1/3 & Revised	2	Sep-2004
E10001/20	Signal Control Circuits - Main & Subsidiary Repeat Relays	Redrawn from E10,000/1/4 & Revised	2	Sep-2004
E10001/25	Signal Control Circuits - ULSRs	Redrawn from E10,000/1/8 & Revised	2	Sep-2004
E10001/26	Signal Control Circuits - JULSRs	Redrawn from E10,000/1/8 & Revised	1	Sep-2004
E10001/30	Signal Control Circuits - Ground Position Light Signal Circuits	Redrawn from E10,000/1/9 & Revised	2	Sep-2004
E10001/31	Signal Control Circuits - Aspect Replacement	Redrawn from E10,000/1/13 & 14 & Revised	1	Sep-2004
E10001/35	Signal Control Circuits - Ground Position Light Control & Repeat Relays	Redrawn from E10,000/1/10 & Revised	2	Sep-2004
E10001/40	Signal Control Circuits - Facing Position Light Signals 1 (Preset Shunts)	Redrawn from E10,000/1/11 & Revised	1	Sep-2004
E10001/45	Signal Control Circuits - Facing Position Light Signals 2 (Preset Shunts)	Redrawn from E10,000/1/12 & Revised	1	Sep-2004
E10001/50	Signal Control Circuits - Replacement of Auto Signals	Redrawn from E10,000/1/16 & Revised	1	Sep-2004
E10001/60	Simple Flank Track Protection (SPAD Detection)		1	Sep-2004
E10001/65	GK/RT0044 Controls 5.3.1, 5.3.2 & 5.3.3.		1	Sep-2004

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
E10004/05	Approach Locking - Comprehensive Approach Locking (BR947 Timer	Redrawn from E10,000/4/1 & Revised	2	Sep-2004
E10004/10	Approach Locking - 'When Operated' Approach Locking (ST16 Timer	Redrawn from E10,000/4/2 & Revised	2	Sep-2004
E10004/15	Approach Locking - Special Features	Redrawn from E10,000/4/3	1	Sep-2004
E10006/05	Signals – Main Filament Monitoring – G(M)ESR	Redrawn from E10,000/6/7	1	Sep-2004
E10006/10	Signals - Signal Head Feeds	Redrawn from E10,000/6/4	1	Sep-2004
E10007/05	Signal Control Circuits - Non-vital Route Calling UR & ZNPR	Redrawn from E10,000/7/1 & Revised	2	Sep-2004
E10007/06	Preferred and Non-Preferred URs using Signalling Relays for Delay		1	Sep-2004
E10007/10	Signal Control Circuits - Non-vital Route Cascade USR	Redrawn from E10,000/7/2 & Revised	1	Sep-2004
E10007/15	Signal Control Circuits - Non-vital Miscellaneous Repeat Relays	Redrawn from E10,000/7/3 & Revised	2	Sep-2004
E10007/20	Signal Control Circuits - Non-vital Through Circuits from Panel to	Redrawn from E10,000/7/4 & Revised	2	Sep-2004
E10007/25	Signal Control Circuits – Non-vital Main & Subsidiary Signals Panel	Redrawn from E10,000/7/5 & Revised	2	Sep-2004
E10007/30	Signal Control Circuits – Non-vital LOS & GPL Panel Indications	Redrawn from E10,000/7/6	1	Sep-2004
E10007/35	Signal Control Circuits – Non-vital Point & Miscellaneous Indications	Redrawn from E10,000/7/7 & Revised	2	Sep-2004
E10007/40	Signal Control Circuits – Non-vital Simple UKE & TKE Circuits and General Notes	Redrawn from E10,000/7/8 & Revised	1	Sep-2004
E10007/45	Signal Control Circuits – Non-vital UKE & TKE Circuits on Points	Redrawn from E10,000/7/8 & 9 & Revised	2	Sep-2004
E10007/50	Signal Control Circuits – Non-vital UKE & TKE Circuits on Switch	Redrawn from E10,000/7/10	1	Sep-2004
E10007/55	Signal Control Circuits – Non-vital Double Slip Indications WR Ind. on HW (WR) Panel	Redrawn from E10,000/7/11	1	Sep-2004
E10007/60	Signal Control Circuits – Non-vital Double Slip Indications Revised WR Ind. on HW (WR) Panel	Redrawn from E10,000/7/12	1	Sep-2004
E10007/65	Signal Control Circuits – Non-vital Typical BX24 Power Wiring	Redrawn from E10,000/7/17	1	Sep-2004
E10007/70	Signal Control Circuits – Non-vital TD Feeds	Redrawn from E10,000/7/18	1	Sep-2004
E10016/05	Point Machines - Point Control Circuits (Route Relay Interlocking Panels) Clamp Lock Machines	Redrawn from E10,000/16/1 & Revised	2	Sep-2004
E10016/10	Point Machines - Drive Circuits for New Installations or where Conversion made from Clamp Lock	Redrawn from E10,000/16/2 & Revised	2	Sep-2004
E10016/15	Point Machines - Electrical Detection Standard WR Applications (Including Clamp Locks)	Redrawn from E10,000/16/5 & Revised	3	Sep-2004
E10016/20	Point Machines / Clamp Lock Heaters	Redrawn from E10,000/16/12	1	Sep-2004
E10018/05	Point Circuits – Points WZR	Redrawn from E10,000/18/1 & Revised	2	Sep-2004
E10018/10	Point Circuits - WZR-Self Restored Points	Redrawn from E10,000/18/2 & Revised	2	Sep-2004
E10018/15	Point Circuits – Points LR	Redrawn from E10,000/18/3 & Revised	2	Sep-2004
E10018/20	Point Circuits - Points Relay Repeats Vital Interlocking Circuits	Redrawn from E10,000/18/4 & Revised	2	Sep-2004
E10018/25	Point Circuits - Route Locking of Points where Point to Point Locking Exists	Redrawn from E10,000/18/5	1	Sep-2004
E10018/30	Point Circuits - Delayed Yellow Condition with Double Junction in Full	Redrawn from E10,000/18/6 & Revised	1	Sep-2004
E10083/05	A.W.S. Inductors - M.A.S. Areas	Redrawn from E10,000/83/2 & Revised	2	Sep-2004
E10083/10	A.W.S. Inductors – Permissive Working in Platform Areas Inc Where There are No Huddersfield Controls		3	04/12/2021

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
E10083/15	A.W.S. Inductors - Inductor Associated with Signal Reading through Unfitted Route to Fitted Route	Redrawn from E10,000/83/11 & Revised	1	Sep-2004
E10083/20	A.W.S. Inductors - Special Suppression when Opposing Regular Moves are Un-Signalled	Redrawn from E10,000/83/12 & Revised	1	Sep-2004
E10085/05	“Post Office 3000 Type” Relay Sets Type A	Redrawn from E10,000/85	1	Sep-2004
E10085/10	“Post Office 3000 Type” Relay Sets Type B	Redrawn from E10,000/86	1	Sep-2004
E10085/15	“Post Office 3000 Type” Relay Sets Type C	Redrawn from E10,000/87	1	Sep-2004
E10085/20	“Post Office 3000 Type” Relay Sets Type D	Redrawn from E10,000/88	1	Sep-2004
E10094/05	Power Supply - Earth Fault Detector Circuit	Redrawn from E10,000/94/9	1	Sep-2004
E10094/10	Power Supply - Indication Circuits	Redrawn from E10,000/94/35 & Revised	1	Sep-2004
E10096/05	Overrides - Types, Applications, Signal Control Circuits	Redrawn from E10,000/96/1 & Revised	1	Sep-2004
E10096/10	Overrides - Through Routes General Indications	Redrawn from E10,000/96/2 & Revised	2	Sep-2004
E10096/15	Overrides - Through Routes Panel / Interlocking	Redrawn from E10,000/96/3	1	Sep-2004
E10096/20	Overrides - Through Routes SCSRs	Redrawn from E10,000/96/4	1	Sep-2004
E10096/25	Overrides - Through Routes Interlocking Overrides (1)	Redrawn from E10,000/96/5[1]	1	Sep-2004
E10096/30	Overrides - Through Routes Interlocking Overrides (2)	Redrawn from E10,000/96/5[2]	1	Sep-2004
E10096/35	Overrides - Total Failure Switch and Associated Circuits (Local Control)	Redrawn from E10,000/96/6 & Revised	2	Sep-2004
E10096/40	Overrides - Through Routes Geographical Jcn. Single Route Selective	Redrawn from E10,000/96/7 & Revised	2	Sep-2004
E10096/45	Overrides - Through Routes Geographical Jcn. Single Route Selective	Redrawn from E10,000/96/9 & Revised	1	Sep-2004
E10129/05	Ground Frame Controls - (Mechanically Operated) - Inside Interlocking Areas (Non-Route Setting) NX Panels	Redrawn from E10,000/129/1	1	Sep-2004
E10129/10	Ground Frame Controls - (Mechanically Operated) - Inside Interlocking Areas (Route Setting) NX Panels	Redrawn from E10,000/129/3	1	Sep-2004
E10129/15	Ground Frame Controls - (Mechanically Operated) - Inside Interlocking Areas (Route Setting) NX Panels	Redrawn from E10,000/129/4	1	Sep-2004
E10129/20	Ground Frame Controls - (Mechanically Operated) - Inside Interlocking Areas (Route Setting) NX Panels	Redrawn from E10,000/129/5	1	Sep-2004
E10129/25	Ground Frame Controls - (Mechanically Operated) - Inside Interlocking Areas Use of Lever Lock I/L/O Key Release Instrument	Redrawn from E10,000/129/7	1	Sep-2004
E10161/05	W.R. Control Table – Notes	Redrawn from E10,000/161/1 & Revised	2	Sep-2004
E10161/10	W.R. Control Table - Route and Signal	Redrawn from E10,000/161/2 & Revised	2	Sep-2004
E10161/15	W.R. Control Table - Route and Signal (Examples)	Redrawn from E10,000/161/3	1	Sep-2004
E10161/20	W.R. Control Table - Approach Locking	Redrawn from E10,000/161/4 & Revised	1	Sep-2004
E10161/24	W.R. Control Table – Example A.W.S. Inductor Layouts	Redrawn from E10,000/83/14 & Revised	1	Sep-2004
E10161/25	W.R. Control Table - A.W.S. Inductors / Suppressor	Redrawn from E10,000/83/15 & 161/5 & Revised	1	Sep-2004
E10161/30	W.R. Control Table - Points	Redrawn from E10,000/161/6 & Revised	2	Sep-2004
E10161/35	W.R. Control Table - Ground Frame Releases	Redrawn from E10,000/161/7 & Revised	1	Sep-2004
E10161/40	W.R. Control Table - Ground Frame Points and Functions	Redrawn from E10,000/161/8	1	Sep-2004
E10161/45	W.R. Control Table - Example of Ground Frame Controls & Releases	Redrawn from E10,000/161/9	1	Sep-2004
E10161/50	W.R. Control Table - Counter Conditions	Redrawn from E10,000/161/10	1	Sep-2004
E10161/55	W.R. Control Table - Route Counter Condition	Redrawn from E10,000/161/11	1	Sep-2004

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
E10161/60	W.R. Control Table - Points Counter Condition (Simple)	Redrawn from E10,000/161/12	1	Sep-2004
E10161/65	W.R. Control Table - Points Counter Condition (Complex)	Redrawn from E10,000/161/13 & Revised	2	Sep-2004
E10161/70	W.R. Control Table - Track Circuit Counter Condition	Redrawn from E10,000/161/14 & Revised	2	Sep-2004
E10161/75	W.R. Control Table - Route and Flank Protection (Examples)		1	Sep-2004
E10161/80	W.R. Control Table - Route and Signal GK/RT0044 Permissive		1	Sep-2004
E10161/85	W.R. Control Table - Special Point Call (Soft Call)		1	Sep-2004
E10161/90	W.R. Control Table - Over-Rides		1	Sep-2004
E10161/95	W.R. Control Table - Track Circuit Summations		1	Sep-2004
E10161/100	W.R. Control Table - Point Summations		1	Sep-2004
Former BRB Standard Wiring Diagrams BRS-SW series				
BRS SW10	BRB Standard Tokenless Block System	Withdrawn 05/06/2021 see B00160	1.4	Mar 2019

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
FREE WIRED INTERLOCKING CIRCUITS				
BRS-SW67- INDEX-	Index (1)	Withdrawn 05/09/2009	2	06/08/2005
BRS-SW67- INDEX-	Index (2)	Withdrawn 05/09/2009	1	04/12/2004
BRS-SW67- INDEX-	Index (3)	Withdrawn 05/09/2009	1	04/12/2004
BRS-SW67- INDEX-	Index (4)	Withdrawn 05/09/2009	1	04/12/2004
BRS-SW67- INDEX-	Index (5)	Withdrawn 05/09/2009	1	04/12/2004
BRS-SW67-3	Panel Indications		7	03/03/2012
BRS-SW67-4	Diagram for Sheets 5, 6 & 16		6	03/03/2012
BRS-SW67-5	Push Button Ring and Associated Circuits		10	03/03/2012
BRS-SW67-6	Route Setting - Route Relays and Route Sticks		8	04/12/2004
BRS-SW67-7	Route Setting - Preferred Routes		7	04/12/2004
BRS-SW67-8	Route Setting - Auto Signal Section with Bi-Directional Working		4	03/03/2012
BRS-SW67-9	Route Setting - Simplified Bi-Directional Signalling		2	04/12/2004
BRS-SW67-9A	Route Setting - Simplified Bi-Directional Signalling with Intermediate Signal to Split Section		2	04/12/2004
BRS-SW67-10	Route Setting - Patrolman’s Lockout Device with One Control Point		2	04/12/2004
BRS-SW67-10A	Route Setting - Patrolman’s Lockout Device with Two Control Points		3	04/12/2004
BRS-SW67-11	Push Buttons in Two PBI Rings - Ring Split at Signal Post		6	04/12/2004
BRS-SW67-12	Push Buttons in Two PBI Rings - Ring Split Through Points		6	04/12/2004
BRS-SW67-13	Point Lock Relays (Direct & Indirect Fed)	Withdrawn 03/03/2012	8	06/08/2005
BRS-SW67-16	Route Cancelling - Route Releasing		10	04/12/2004
BRS-SW67-17	Route Cancelling - Route Releasing on Shunt Signals		8	04/12/2004
BRS-SW67-18	Aspects - Diagram for Sheets 19 to 21		6	04/12/2004
BRS-SW67-19	Aspects - Running Signals GR (Non-Stepping Up)		9	04/12/2004
BRS-SW67-20	Aspects - Stepping Up of Class of Route		8	04/12/2004
BRS-SW67-21	Aspects - Shunt Signals GR		8	04/12/2004
BRS-SW67-29	Shunt Signals - Pre-Set Shunts		8	04/12/2004
BRS-SW67-30	Shunt Signals - Pre-Set Shunts Method of Operation		4	04/12/2004
BRS-SW67-31	Shunt Signals - Track Override & Shunter's Acceptance Circuits		6	04/12/2004
BRS-SW67-32	Flashing Aspects - Controls 1	Withdrawn 05/09/2009	4	04/12/2004
BRS-SW67-32A	Flashing Aspects - Controls 2	Withdrawn 05/09/2009	1	04/12/2004
BRS-SW67-33	Flashing Aspects - Controls 3	Withdrawn 05/09/2009	3	04/12/2004
BRS-SW67-39	Swinging Overlaps - Simple Case		7	04/12/2004
BRS-SW67-40	Swinging Overlaps - Complicated Case: Diagram for Circuits		5	04/12/2004
BRS-SW67-41	Swinging Overlaps - Complicated Case: Route Relays & Overlap		7	04/12/2004
BRS-SW67-42	Swinging Overlaps - Complicated Case: Point Calling		7	04/12/2004
BRS-SW67-42A	Swinging Overlaps - Complicated Case: Point Anti-Pre-Selection Circuits		2	04/12/2004
BRS-SW67-42B	Swinging Overlaps - Complicated Case: Point Anti-Pre-Selection Circuits		2	04/12/2004
BRS-SW67-43	Swinging Overlaps - Complicated Case: Point Lock Relays		7	04/12/2004

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
BRS-SW67-44	Swinging Overlaps - Complicated Case: Route Sticks		7	04/12/2004
BRS-SW67-45	Swinging Overlaps - Complicated Case: Special Aspect Controls. Also Route Lights		8	04/12/2004
BRS-SW67-49	Miscellaneous - Opposing Locking Omitted		4	04/12/2004
BRS-SW67-50	Miscellaneous - Automatic Normalisation of Points		8	04/12/2004
BRS-SW67-52	Single Line One Train Working Control Circuits		3	04/12/2004
BRS-SW67-56	Relay Room Panels - Test Panel		7	04/12/2004
BRS-SW67-57	Relay Room Panels - Technician's Monitor Panel		6	04/12/2004
BRS-SW67- A	Appendix A - Train Operated Route Release (TORR)		3	04/12/2004
BRS-SW67- A1	TORR - Standard Terminal Platform - Platform Starter: First Signal After Auto Signal		6	04/12/2004
BRS-SW67- A2	TORR - When Signal in Rear is Controlled Signal		6	04/12/2004
BRS-SW67- B	Appendix B - Overrides		2	04/12/2004
BRS-SW67- B1	Overrides - Signalbox to Interlocking Link		2	04/12/2004
BRS-SW67- B2	Overrides - Interlocking Circuits		2	04/12/2004
BRS-SW67- B3	Overrides - Alternative Routing (1)		2	04/12/2004
BRS-SW67- B4	Overrides - Alternative Routing (2)		2	04/12/2004
BRS-SW67- B5	Overrides - Alternative Routing with TORR		2	04/12/2004
BRS-SW67- B6	Overrides - Alternative Routing with Preselection of Conflicting Routes		2	04/12/2004
BRS-SW67- B7	Overrides - Remote Control Failure Indications		2	04/12/2004
BRS-SW67- C	Appendix C - Ground Frames		3	04/12/2004
BRS-SW67- C1	Ground Frames - “Traffic” Type Within Controlled Signals Signalbox & Relay Room Circuits		4	04/12/2004
BRS-SW67- C2	Ground Frames - “Traffic” Type Within Controlled Signals Ground Frame Circuits		3	04/12/2004
BRS-SW67- C3	Ground Frames - “Traffic” Type Protected by Semi-Auto Signal(s) Signalbox & Relay Room Circuits		3	04/12/2004
BRS-SW67- C4	Ground Frames - “Traffic” Type Protected by Semi-Auto Signal(s) Ground Frame Circuits (1)		3	04/12/2004
BRS-SW67- C4A	Ground Frames - “Traffic” Type Protected by Semi-Auto Signal(s) Ground Frame Circuits (Variants)		3	04/12/2004
BRS-SW67- C5	Ground Frames - “Traffic” Type Protected by Semi-Auto Signal(s) Ground Frame Circuits (2)		5	04/12/2004
BRS-SW67- C6	Ground Frames - Emergency / Engineer's Type		4	04/12/2004
BRS-SW67- C7	Ground Frames - Power Operated Points: Control Case Layout		3	04/12/2004
BRS-SW67- C8	Ground Frames - Power Operated Points: Circuits		4	04/12/2004
BRS-SW67- F	Appendix F - Train Operated Warning System		2	04/12/2004

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
BRS-SW67- F1	TOWS - Single Line Non-Track Circuit Block Line		2	04/12/2004
BRS-SW67- F2	TOWS - Examples (1)		2	04/12/2004
BRS-SW67- F3	TOWS - Examples (2)		2	04/12/2004
BRS-SW67- F6	TOWS - Table of Time Delays for Circuits		2	04/12/2004
BRS-SW67- F10	TOWS - Layout Diagram for Sheets F11 to F23		2	04/12/2004
BRS-SW67- F11	TOWS - Interlocking A Section I Circuits		4	04/12/2004
BRS-SW67- F12	TOWS - Interlocking A Disengaging Relays (1)		3	04/12/2004
BRS-SW67- F13	TOWS - Interlocking A Disengaging Relays (2) & Feeds to Locations		3	04/12/2004
BRS-SW67- F14	TOWS - Additional Circuits Between Interlockings		2	04/12/2004
BRS-SW67- F15	TOWS - Section II Location		2	04/12/2004
BRS-SW67- F16	TOWS - Section III Location		2	04/12/2004
BRS-SW67- F17	TOWS - Section IV Location		2	04/12/2004
BRS-SW67- F18	TOWS - Section V Location		2	04/12/2004
BRS-SW67- F19	TOWS - Section VI Location		2	04/12/2004
BRS-SW67- F20	TOWS - Interlocking B Feeds to Locations		2	04/12/2004
BRS-SW67- F21	TOWS - Interlocking B Disengaging Relays (1)		3	04/12/2004
BRS-SW67- F22	TOWS - Interlocking B Disengaging Relays (2)		3	04/12/2004
BRS-SW67- F23	TOWS - Interlocking B Section VII Circuits		4	04/12/2004

Route Relay Interlocking Typical Circuits (R Series)

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
GENERAL				
R00010	Index (1)	Withdrawn 05/09/2009	9	04/06/2005
R00011	Index (2)	Withdrawn 05/09/2009	3	05/06/1999
R00020	General Notes (1)		8	04/06/2022
R00021	General Notes (2)		2	04/06/2022
AWS				
R02010	Complex Inhibition Control &Through Circuits – Where Huddersfield Controls Not Provided		3	04/12/2021
R02020	Suppression Control & Through Circuit		4	02/03/2019
R02030	Unfitted to Fitted Lines – Inhibition & Suppression Control & Through Circuits		1	03/03/2012
AXLE COUNTERS				
R03001	Evaluator. Restoration Controls and Indications (1)		3	05/06/1999
R03002	Restoration Controls and Indications (2)		2	05/06/1999
R03004	Restoration Controls and Indications via Non-Vital Link		1	05/06/1999
INDICATORS				
R11280	Train Ready to Start (TRTS): Through Circuits		2	11/09/1997
PLUNGER AND SWITCHES				
R24001	Common De-graded Mode. Master Key Release and Counter		2	05/04/2003
POINTS				
R25000	Layout Diagram for Sheets R25010, R25020, R25021, R25025, R25026 & R25055		1	03/03/2012
R25010	Point Switch Repeater Circuits		1	03/03/2012
R25020	Point Lock Circuit – Single End		1	03/03/2012
R25021	Point Correspondence and Miscellaneous Relay Circuits – Single End		2	05/03/2016
R25025	Panel Indications – Single Ended Points and Plain Line Tracks (1)		1	03/03/2012
R25026	Panel Indications – Single Ended Points and Plain Line Tracks (2)		1	03/03/2012
R25030	Point Lock Circuit – Double End		1	03/03/2012
R25031	Point Correspondence and Miscellaneous Relay Circuits – Double End		2	06/12/2014
R25035	Panel Indications – Double Ended Points (1)		1	03/03/2012
R25036	Panel Indications – Double Ended Points (2)		1	03/03/2012
R25055	Route Stick (USR) with 15 Second Timer		1	03/03/2012
R25100	Clamp Locks - Single End. Control and Detection Through Circuits:		3	06/03/2010
R25101	Power Points: Control and Detection (Clamplock Type Only) Direct Fed From Interlocking	Withdrawn 03/03/2012	3	05/06/1999
R25102	Power Points: Control and Detection (Machine Only) Direct Fed From Interlocking	Withdrawn 03/03/2012	1	05/06/1999
R25110	Clamp Locks - Double End Control & Split Detection Through Circuit, Two Locations		4	06/03/2010
R25111	Power Points: Control and Detection (Clamplock type) where motor cut off timer is situated at the Interlocking: Through circuits: Via Repeater Location	Withdrawn 06/03/2010	1	11/09/1997

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
R25115	Clamp Locks - Double End Control & Split Detection Through Circuit, Two Locations, Non Preferred		1	06/03/2010
R25120	Power Points: Control and Combined Detection Through Circuits: Two Locations	Withdrawn 06/03/2010	2	11/09/1997
R25130	Point Machine - Double End Control & Split Detection Through Circuits, Two Locations		4	06/03/2010
R25135	Point Machine - Double End Control & Detection Through Circuits, Combined Detection, Two Locations, Non Preferred		1	06/03/2010
R25150	Power Points, Control & Detection (All Types) Where Motor Cut Off is situated at the Location. Through Circuits via Repeater Location		1	06/03/2010
R25160	Power Points, Control & Detection (All Types) Where Motor Cut Off is situated at the Interlocking. Through Circuits via Repeater Location		1	06/03/2010
R25505	Power Points: Control and Detection: (Machine Type): Through Circuits where cut off time is situated at the Interlocking	Withdrawn 06/03/2010	2	05/06/1999
R25506	Power Points: Control and Detection: (Clamplock Type): Through Circuits where cut off timer is situated at the interlocking	Withdrawn 06/03/2010	1	11/09/1997

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
SIGNALS & INDICATORS				
R28010	Automatic: Signal Replacement and Proving: Through Circuits, Indirect		1	11/09/1997
R28020	Main: Control and Proving Circuits: Indirect Fed: Through Circuits		1	11/09/1997
R28021	Main: Control and Proving Circuits: Direct Fed.		1	11/09/1997
R28030	Main with Position Light & Route Indications: Control & Proving Through Circuits: Indirect Fed		1	11/09/1997
R28031	Main with Position Light & Route Indications: Control & Proving Through Circuits: Direct Fed.		1	11/09/1997
R28050	Banner Repeater; Fibre Optic Type: Single: Proving: Through Circuits		2	20/06/2009
R28051	Signal in Rear of Banner Repeater Fed From Interlocking		1	20/06/2009
R28054	Banner Repeater: Fibre Optic Type: Splitting: Proving: Through Circuits		2	20/06/2009
R28060	Banner Repeater: Electro-Mechanical Type: Single: Proving: Through		1	11/09/1997
R28090	Colour Light Distant Signal for a controlled Signal: Control and Indication: Through Circuits		1	11/09/1997
R28120	First Filament Lamp Failure Proving Through Circuits		1	11/09/1997
R28130	Position Light Shunting Signal: Control and Proving: Through Circuits		1	11/09/1997
R28132	Position Light Shunting Signal with Route Indications: Control and Proving: Through Circuits		1	11/09/1997
R28140	Limit of shunt: Proving: Through Circuits		1	11/09/1997
R28210	Aspect Sequence: Final Controlled signal Leaving Interlocking Area		1	11/09/1997
R28225	Auto Aspect Sequence: Entering Interlocking: Junction Signal Approach Control From Red		1	11/09/1997
R28295	Restricted stopping area (e.g. Tunnel Signalling): Auto Stop and Distant Signals with Junction Signal at Exit: Through Circuits		3	05/06/1999
R29100	Overrun Detection SPAD Registration & Restoration Circuits		1	03/12/2016
R29105	Overrun Detection System Overview		1	03/12/2016

Lineside and On-Track Equipment Typical Circuits (T Series)

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
GENERAL				
T00010	Index (1)	Withdrawn 05/09/2009	29	27/11/2008
T00011	Index (2)	Withdrawn 05/09/2009	7	06/08/2005
T00012	Index (3)	Withdrawn 05/09/2009	9	27/11/2008
T00013	Index (4)	Withdrawn 05/09/2009	13	02/09/2008
T00014	Index (5)	Withdrawn 05/09/2009	15	01/09/2008
T00015	Index (6)	Withdrawn 05/09/2009	14	02/09/2008
T00016	Index (7)	Withdrawn 05/09/2009	3	07/02/2004
T00017	Index (8)	Withdrawn 05/09/2009	5	01/09/2008
T00020	General Notes (1)		8	04/06/2022
T00021	General Notes (2)		2	04/06/2022
T00025	General Notes – symbols for signalling circuit diagrams not covered by NR/GN/SIG/11205		1	05/03/2011
T00030	Plug Coupler Applications Definitions and Explanatory Notes		1	04/12/2010
T00034	Plug Coupler Applications Examples of Mandatory Cable and Receptacle Labelling		1	04/12/2010
T00035	Plug Coupler Applications Contact to Cable Core Allocation		1	04/12/2010
T00036	Plug Coupler Applications Contact Allocations Signals, AWS and TPWS		1	04/12/2010
T00037	Plug Coupler Applications Contact Allocations Point Drive and Detection		1	04/12/2010
Unit Internal Wiring				
T00050	QXR1 Capacitive Immune Type		1	04/09/2010
AWS				
T02001	Inductor Circuits: Standard (Yellow) Strength Magnets		1	03/03/2012
T02003	Inductor Circuits: Extra (Green) Strength Magnets.		2	01/03/2014
T02005	SSI – Inductor Circuits: Standard (Yellow) & Extra (Green) Strength Magnets.		2	01/03/2014
T02010	Inductor Circuits: Inhibition (Simple & Complex) Control Circuits – Where Huddersfield Controls Not Provided		6	04/12/2021
T02011	Inductor Circuits: SSI	Withdrawn 03/03/2012	3	04/06/2005
T02013	Inductor Circuits (Special Controls)	Withdrawn 03/03/2012	1	04/06/2005
T02015	Inductor Circuits: Where a Banner Signal is Positioned between the Signal and Inductor		1	03/03/2012
T02018	Control & Suppression: Unfitted to Fitted Lines	Withdrawn 03/03/2012	2	04/06/2005
T02020	Suppression Control Circuit		5	03/03/2012
T02021	Suppression Inductor Circuits Standard (Yellow) Strength Magnets.		3	03/03/2012
T02023	Suppression Inductor Circuits Extra (Green) Strengths Magnets		2	01/03/2014
T02025	Suppression Circuits - SSI		2	01/03/2014
T02030	Unfitted to Fitted Lines: Inhibition & Suppression Control Circuits		1	03/03/2012
T02040	“Vortok” Standard (Yellow) Strength Suppressor Magnet	Not for new work	2	05/06/2021
T02050	AWS. "Vortok" Standard Strength (Yellow) Series 2 Inductor Circuits: RRI 110V AC Electro & Suppressor		1	05/06/2021

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
T02051	AWS. “Vortok” Extra Strength (Green) Series 2 Inductor Circuits: RRI 110V AC Electro & Suppressor		1	05/06/2021
T02052	AWS. "Vortok" Standard Strength (Yellow) Series 2 Inductor Circuits: RRI 24V DC Electro		1	05/06/2021
T02053	AWS. "Vortok" Standard Strength (Yellow) Series 2 Inductor Circuits: RRI 24V DC Suppressor		1	05/06/2021
T02060	AWS. "Vortok" Standard Strength (Yellow) Series 2 Inductor Circuits: SSI 110V AC Electro & Suppressor		1	05/06/2021
T02061	AWS. “Vortok” Extra Strength (Green) Series 2 Inductor Circuits: SSI 110V AC Electro & Suppressor		1	05/06/2021
T02062	AWS. "Vortok" Standard Strength (Yellow) Series 2 Inductor Circuits: SSI 24V DC Electro		1	05/06/2021
T02063	AWS. "Vortok" Standard Strength (Yellow) Series 2 Inductor Circuits: SSI 24V DC Suppressor		1	05/06/2021
TRAIN DETECTION				
T04030	Train Detection Interrupters – wired in series with d.c. track circuit		1	05/03/2011
T04035	Train Detection Interrupters – d.c. interrupter circuit NOT for use in d.c. electrified areas or with d.c. track circuits		2	02/06/2018
T04040	Train Detection Interrupters – dual immune T.C. interrupter circuit		1	05/03/2011
T04041	Train Detection Interrupters – dual immune T.C. interrupter circuit for use on wide to gauge trap points		1	05/03/2011
T04300	Track Circuits EBI Track 200 Index		1	01/03/2014
T04302	Track Circuits EBI Track 200 TU Tuned Zones – G.A.		1	01/03/2014
T04304	Track Circuits EBI Track 200 ETU To IRJ – G.A.		1	01/03/2014
T04306	Track Circuits EBI Track 200 LMU-TU To Non-T/C Line – G.A.		1	01/03/2014
T04308	T04308 1.0 Track Circuits EBI Track 200 Centre Feed – G.A.		1	01/03/2014
T04310	Track Circuits EBI Track 200 TCU – G.A.		1	01/03/2014
T04312	Track Circuits EBI Track 200 LMU-ETU-Non Matched T/C – G.A.		1	01/03/2014
T04314	Track Circuits EBI Track 200 Centre Feed – G.A.		1	01/03/2014
T04316	Track Circuits EBI Track 200 Power Supply Unit		1	01/03/2014
T04318	Track Circuits EBI Track 200 Tx/Rx		1	01/03/2014
T04320	Track Circuits EBI Track 200 TU/ETU/SPETU Tx/Rx		1	01/03/2014
T04322	Track Circuits EBI Track 200 Line Matching Unit		1	01/03/2014
T04324	Track Circuits EBI Track 200 TCU Tx/Rx-Single Rail Only		1	01/03/2014
T04326	Track Circuits EBI Track 200 Plug Coupler Analysis		1	01/03/2014
INDICATORS				
T11140	“Brake Test” (BT) Lighting Circuit		2	05/06/1999
T11160	“Close Door” (CD) Lighting Circuit		2	01/12/2007

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
T11240	“Right Away” (RA) Control & Lighting Circuits		2	11/09/1997
T11241	“Right Away” (RA) Control & Lighting Circuits: SSI		1	11/09/1997
T11280	“Train Ready to Start” (TRTS) Circuits		2	11/09/1997
T11281	“Train Ready to Start” (TRTS) Circuits: SSI		1	11/09/1997
POINTS				
T25000	Point control/drive & Detection. Overview Sheet (1) – RRI		4	05/06/2021
T25001	Point control/drive & Detection. Overview Sheet (2) - SSI		4	05/06/2021
T25003	Points Technical Specification & Guidance	Replaces TI 038	1	05/03/2016
T25005	DC Detection For Use With Standard, In-Bearer & Hy-Drive Clamp Locks		2	04/09/2010
T25006	DC Detection. For Use With Standard BR998 Detector Units		2	02/06/2012
T25007	DC Detection. For Use With “SO” Back Drive Units.		1	06/03/2010
T25010	POINTS. DC Detection. For use with Point Machines		7	05/06/2021
T25011	POINTS. DC Detection. For use with HPSA Machines		1	05/06/2021
T25015	AC Detection Non Preferred (Alternative Feed & Relay arrangement)		2	05/03/2016
T25020	Reed Detection. Non Preferred (Alternative Feed & Relay arrangement)		4	06/03/2010
T25100	Clamp Locks – Single End. Location Control & Detection Line Circuits		5	06/03/2010
T25101	Power Points: Control and Detection: (Machine Type) One Location	Withdrawn 06/03/2010	2	05/04/2003
T25105	Clamp Locks – Double End. Location Control & Detection Line Circuits, One Location		1	06/03/2010
T25110	Clamp Locks – Double End. Location control & Split Detection Line Circuits. Two Locations – Loc 1		4	06/03/2010
T25111	Clamp Locks – Double End. Location Control & Split Detection Line Circuits. Two Locations – Loc 2.		1	06/03/2010
T25115	Clamp Locks – Double End. Location Control & Combined Detection Line Circuits. Two Locations - Non- Preferred		1	06/03/2010
T25120	Machine – Single End. Location Control & Detection Line Circuits		5	06/03/2010
T25121	Power Points: Control and Combined Detection: (Clamp Lock Type Only) Two Locations: Location 2	Withdrawn 06/03/2010	4	06/08/2005
T25122	Power Points: Control & Combined Detection: (Machine Type) Two Locations: Location 1	Withdrawn 06/03/2010	3	06/08/2005
T25123	Power Points: Control & Combined Detection: (Machine Type) Two Locations: Location 2	Withdrawn 06/03/2010	3	06/08/2005
T25125	Machine – Double End. Location Control & Split Detection Line Circuits. One Location		1	06/03/2010
T25130	Machine – Double End. Location Control & Split Detection Line Circuits, Two Locations – Loc 1		5	06/03/2010
T25131	Machine – Double End. Location Control & Split Detection Line Circuits, Two Locations – Loc 2		5	06/03/2010
T25135	Machine – Double End. Location Control & Combined Detection Line Circuits, Two Locations – Non Preferred.		1	06/03/2010
T25140	Detection and Summation Circuits (1): Hydraulic Operation	Withdrawn 06/03/2010	3	06/08/2005
T25150	All Types Repeater Location Control & Detection Line Circuits		5	06/03/2010
T25200	Standard & In-Bearer Clamp Lock Applications (1)		6	06/03/2010
T25201	Standard & In-Bearer Clamp Lock Applications (2)		3	06/03/2010

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
T25202	Standard & In-Bearer Clamp Lock Applications (3)		1	06/03/2010
T25203	Standard & In-Bearer Clamp Lock Applications (4)		1	03/12/2016
T25210	Clamp Lock – Single End. Location Internal Circuits – WJR in Location		3	06/03/2010
T25211	Clamp Lock – Double End. Location Internal Circuits – WJR in Location		1	06/03/2010
T25212	Clamp Locks – Single End. Location Internal Circuits – WJR in Location. No Supplementary Detection Where DC Traction Immunity is Required		1	04/09/2010
T25213	Clamp Lock – Single End. Location Control Circuits – WJR in Interlocking. (Non Preferred)		1	06/03/2010
T25214	Clamp Lock – Double End. Location Control Circuits – WJR in Interlocking. (Non Preferred)		1	06/03/2010
T25215	Clamp Lock – SSI. SSI Module Output and Input Circuits.		2	01/03/2014
T25220	Clamp Locks. Standard & In-Bearer Clamp Lock Drive Circuit		2	01/03/2014
T25225	Clamp Locks. Standard Power Pack Internal Wiring with and without Condition Monitoring Sensors		2	02/03/2019
T25230	Clamp Lock Mk2 Detection Circuits using Dowmic Switches. NOT FOR NEW WORK.		3	06/03/2010
T25235	Clamp Lock Mk2 Detection Circuits using ITW Micro-switches to NR/SP/SIG/10015 for use with Standard, In-Bearer & Hy-Drive Systems.		3	06/03/2010
T25240	Clamp Lock MK2 Detection Circuits For Use With Standard, In-Bearer and Hy-Drive Systems, Mechanisms Individually Detected (1), L.H.S.N.C. – L.H. Mechanism, where DC Traction Immunity is required	Issue 1 withdrawn 06/03/2010	2	04/09/2010
T25241	Clamp Lock MK2 Detection Circuits For Use With Standard, In-Bearer and Hy-Drive Systems, Mechanisms Individually Detected (2), L.H.S.N.C. – R.H. Mechanism, where DC Traction Immunity is required	Issue 1 withdrawn 06/03/2010	2	04/09/2010
T25243	Clamp Lock MK2 Detection Circuits For Use With Standard, In-Bearer and Hy-Drive Systems, Mechanisms Individually Detected (3), R.H.S.N.C. – L.H. Mechanism, Where DC Traction Immunity is Required		1	04/09/2010
T25244	Clamp Lock MK2 Detection Circuits For Use With Standard, In-Bearer and Hy-Drive Systems, Mechanisms Individually Detected (4), R.H.S.N.C. – R.H. Mechanism, Where DC Traction Immunity is Required		1	04/09/2010
T25250	Clamp Lock Mk2 Detection Circuits using ITW Micro-switches to NR/SP/SIG/10015 for use with Double Slips		1	06/03/2010
T25260	Clamp Lock Mk2 Wide to Gauge Detection Circuit		1	03/01/2016
T25300	Point Machine Applications (1)		6	06/03/2010
T25301	Point Machine Applications (2)		3	06/03/2010
T25310	Point Machine – Single End. Location Internal Circuits. WJR in Location		4	06/03/2010
T25311	Point Machine – Double End. Location Internal Circuits. WJR in Location		2	02/06/2018
T25313	Point Machine – Single End. Location Internal Circuits. WJR in Interlocking (Non-Preferred)		1	06/03/2010
T25314	Point Machine – Double End. Location Internal Circuits, WJR in Interlocking (Non-Preferred)		1	06/03/2010
T25315	Point Machine – SSI. SSI Module Output & Input Circuits.		1	06/03/2010
T25320	Point Machine Drive Circuit		6	01/03/2014

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
T25325	Point Machine Internal Wiring HW1000 Non-AC Immune, Split Field (30v or 120v) Type		1	06/03/2010
T25326	Point Machine Internal Wiring. HW2000 AC Immune, Permanent Magnet (120v Operation) Type		1	06/03/2010
T25330	Point Machine Internal Wiring Westinghouse Style 63, Non-AC Immune, Split Field (30v or 120v) Type		4	06/03/2010
T25331	Point Machine Internal Wiring. Westinghouse Style 63, AC Immune, Permanent Magnet (110v) Type		1	06/03/2010
T25340	Machine, Westinghouse 63, 4 Wire Control & Detection, AC Immune, Permanent Magnet (110V Operation)	Withdrawn 06/03/2010	3	06/08/2005
T25350	Point Machine Operated Double Slips with Spec BR998 Detector		3	06/03/2010
T25360	Machine Applications (1)	Withdrawn 06/03/2010	2	06/08/2005
T25400	1 x Spec 998 Detector Circuit Applications Mechanically Operated Points		2	06/03/2010
T25401	1 x Spec 998 Detector Circuit Applications Clamp Lock Operated Points		2	06/03/2010
T25404	2 x Spec 998 Detector Circuit Applications Miscellaneous (1)		1	06/03/2010
T25405	2 x Spec 998 Detector Circuit Applications Miscellaneous (2)		1	06/03/2010
T25406	2 x Spec 998 Detector Circuit Applications Clamp Lock Operated Points		1	06/03/2010
T25408	3 x Spec 998 Detector Circuit Applications Clamp Lock Operated Points		1	06/03/2010
T25410	1 x Spec BR998 Detector Circuit Left Hand Switch Normally Closed and with Facing Point Lock		2	06/03/2010
T25411	1 x Spec 998 Detector Circuit Right Hand Switch Normally Closed and with Facing Point Lock		3	03/03/2012
T25420	2 x BR998 Detector Circuit Left Hand Switch Normally Closed. Two or more units wired in series		2	06/03/2010
T25421	2 x BR998 Detector Circuit Wired in Series. Right Hand Switch Normally Closed. Two or more units wired in series		2	06/03/2010
T25422	2 x Spec BR998 Detector Circuit. Left Hand Switch Normally Closed. One Way only. Two units wired in series		2	06/03/2010
T25423	2 x Spec BR998 Detector Circuit Left Hand Switch Normally Closed. Swing Nose Crossing. Two units wired in series		2	06/03/2010
T25424	2 x Spec BR998 Detector Circuits Right Hand Switch Normally Closed. Swing Nose Crossing Two units wired in series		2	06/03/2010
T25425	1 x Spec BR998 Detector Circuit. Right and Left Hand Switch Normally Closed. Swing Nose Crossing Supplementary		3	06/03/2010
T25430	2 off Spec.998 Detectors Circuit Application (1)	Withdrawn 06/03/2010	1	07/12/1995
T25431	2 off Spec.998 Detectors Circuit Application (2)	Withdrawn 06/03/2010	1	07/12/1995
T25432	2 off Spec.998 Detectors Circuit Application (3)	Withdrawn 06/03/2010	1	07/12/1995
T25440	3 off Spec.998 Detectors Applications	Withdrawn 06/03/2010	1	07/12/1995
T25500	Hydro-Pneumatic Train Operated Points. (Remote Location)		4	06/03/2010
T25505	Power Points Control and Detection (Machine Type) Circuits where motor cut off timer is at the Interlocking	Withdrawn 06/03/2010	3	06/08/2005
T25506	Power Points Control and Detection (Clamp Lock Type) Circuits where motor cut off timer is at the Interlocking	Withdrawn 06/03/2010	2	06/08/2005
T25510	Power Points Control and Detection (Machine Type), SSI	Withdrawn 06/03/2010	2	06/08/2005

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
T25511	Power Points Control and Detection (Clamp Lock Type), SSI	Withdrawn 06/03/2010	3	06/08/2005
T25512	Power Points Control and Detection (HPSS Type), SSI, LHNC ECU on Left or RHNC ECU on Right	Withdrawn 06/03/2010	1	06/08/2005
T25600	HPSS Machine Applications (1) Turnouts and Crossover Configurations		2	06/03/2010
T25601	HPSS Machine Applications (2) Swing Nose Crossing Configurations		1	06/03/2010
T25605	HPSS Operated Single & Double Ended Point Controls	Withdrawn 06/03/2010	1	05/04/2003
T25610	HPSS Machine – Single End. Location Internal Circuits. WJR in Location		3	06/03/2010
T25611	HPSS Machine – Double End. Location Internal Circuits. WJR in Location		3	06/03/2010
T25615	HPSS – SSI. SSI Module Output & Input Circuits		3	06/03/2010
T25616	HPSS Machine LHNC ECU on Right or RHNC ECU on Left	Withdrawn 06/03/2010	2	06/08/2005
T25620	HPSS Machine Drive Circuit. LHSNC ECU on Left or RHSNC ECU on Right		2	06/03/2010
T25621	HPSS Machine Drive Circuit. LHSNC ECU on Right or RHSNC ECU on Left		2	04/09/2010
T25625	POINTS. HPSS Machine. LHSNC ECU on the Left or RHSNC ECU on the Right		2	05/06/2021
T25626	POINTS. HPSS Machine. LHSNC ECU on the Right or RHSNC ECU on the Left		4	05/06/2021
T25630	POINTS. HPSS Machine Swing Nose Crossing. LHSNC ECU on the Left OR RHSNC ECU on the Right.		2	05/06/2021
T25700	Rail Clamp Point Lock & “SO” Supplementary Back Drive Hydraulic Hy-Flow Applications		3	06/03/2010
T25701	Hy-Drive Points System - Control and Detection Single Ended Route Relay Interlocking	Withdrawn 06/03/2010	2	01/08/2008
T25702	Hy-Drive Points System - Detection and Drive Single Ended Route Relay Inetrlocking	Withdrawn 06/03/2010	1	01/08/2008
T25703	Hy-Drive Points System - Control and Detection Double Ended Route Relay Interlocking	Withdrawn 06/03/2010	1	01/08/2008
T25704	Hy-Drive Points System - Detection and Drive Double Ended Route Relay Inetrlocking	Withdrawn 06/03/2010	1	01/08/2008
T25705	Hy-Drive – Single End. Location Control and Detection Line Circuits		1	06/03/2010
T25706	Hy-Drive – Double End. Location Control and Detection Line Circuits		1	06/03/2010
T25707	Hy-Drive Points System - Hi-Flow Power Pack Used for Hy-Drive Installation Route Relay Interlocking	withdrawn 06/03/2010	2	01/12/2008
T25710	Hy-Drive – Single End. Location Internal Circuits - WJR in Location		4	06/03/2010
T25711	Hy-Drive – Double End. Location Internal Circuits – WJR in Location		4	06/03/2010
T25712	Hy-Drive Points System - Hi-Flow Power Pack Control SSI Direct Drive New Installations - Double Ended (Two Modules)	withdrawn 06/03/2010	3	01/12/2008
T25713	Hy-Drive Points System - Hi-Flow Power Pack Control SSI Direct Drive New Installations - Double Ended (Two Modules)	withdrawn 06/03/2010	2	01/12/2008
T25714	Hy-Drive Points System - Control and Detection SSI Indirect Drive Relay Interface Existing Installations - Single Ended	withdrawn 06/03/2010	1	01/08/2008

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
T25715	Hy-Drive – SSI – Single End. Indirect Drive --Location Interface Circuits. Preferred Option		5	02/06/2018
T25716	Hy-Drive – SSI – Double End. Indirect Drive Location interface and Split Detection Circuits. Preferred Option	withdrawn 04/09/2010	4	06/03/2010
T25717	Hy-Drive – SSI – Double End. Indirect Drive Location interface and Combined Detection Circuits. Non - Preferred Option		2	06/03/2010
T25718	Hy-Drive – SSI – Single End. Location Interface Circuits with 12 second WJR		2	06/03/2010
T25719	Hy-Drive Points System - Detection Circuits 'SO' - Hy-Drive LHSNC	Withdrawn 06/03/2010	1	01/08/2008
T25720	Hy-Drive. Hy-Flow Power Pack Drive Circuit		3	06/03/2010
T25725	Hy-Drive. Electro-Hydraulic Hi-Flow Power Pack Mk1		2	02/03/2019
T25735	Hy-Drive - Detection Circuits “SO” – Hy-Drive LHSNC		3	04/12/2021
T25736	Hy-Drive - Detection Circuits. “SO” – Hy-Drive RHSNC		3	04/12/2021
T25950	Points. Battery Power Supplies		8	04/06/2022
T25960	120V T/J Power Supply Circuits (1)		1	04/09/2010
T25965	120V T/J Power Supply Circuits (2)		1	04/09/2010
SIGNALS & INDICATORS				
T28010	Automatic Signal Replacement and Proving Alternatives		1	11/09/1997
T28020	Main: Control and Proving Circuits: Indirect Fed		1	11/09/1997
T28030	Main with Position Light & Route Indications: Control and Proving: Indirect Fed		1	11/09/1997
T28050	Banner Repeater: Fibre Optic type: Single: Control and Proving: (Locally Direct Fed)		2	20/06/2009
T28051	Banner Repeater: Fibre Optic type: Single: Control and Proving: (Locally Indirect Fed)		2	20/06/2009
T28054	Banner Repeater: Fibre Optic type: Splitting: Control and Proving: (Locally Direct Fed)		2	20/06/2009
T28055	Banner Repeater: Fibre Optic type: Splitting: Control and Proving: (Locally Indirect Fed)		2	20/06/2009
T28060	Banner Repeater: Electro-Mechanical type: Single: Control and Proving: Locally Direct Fed		3	04/02/2006
T28061	Banner Repeater: Electro-Mechanical type: Single: Control and Proving: Locally Indirect Fed		3	04/02/2006
T28070	2-Aspect Banner Repeater : LED Type : Single Control & Proving (Locally Direct Fed)		1	24/05/2008
T28071	2-Aspect Banner Repeater : LED Type : Splitting: Control & Proving (Locally Direct Fed)		1	20/06/2009
T28079	3-Aspect Banner Repeater : LED Type : Splitting; Control & Proving (Locally Direct Fed)		1	20/06/2009
T28080	3-Aspect Banner Repeater : LED Type : Single Control & Proving (Locally Direct Fed)		1	24/05/2008
T28081	Splitting Distant Controls (1) (Left Hand Divergence)		1	10/06/2009
T28082	Splitting Distant Controls (2) (Left Hand Divergence)		1	10/06/2009
T28083	Splitting Distant Controls (3) (Left Hand Divergence)		1	10/06/2009
T28084			1	10/06/2009

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
T28085	Lighting Circuit; Inner Splitting Distant Main Head (Left hand Divergence)		1	10/06/2009
T28086	Lighting Circuit; Inner Splitting Distant Offset Head (Left hand Divergence)		1	10/06/2009
T28087	Splitting Distant Complex Controls (1) (Left Hand Divergence)		1	10/06/2009
T28088	Splitting Distant Complex Controls (2) (Left Hand Divergence)		1	10/06/2009
T28090	Colour Light Distant Signal for a Controlled Signal: Indication Circuits		1	11/09/1997
T28120	First Filament Lamp Failure: Proving: Through Circuits		2	01/12/2007
T28130	Position Light Shunting Signal: Control and Proving		1	11/09/1997
T28132	Position Light Shunting Signal with Route Indication: Control and Proving		1	11/09/1997
T28140	Limit of Shunt: Proving		1	11/09/1997
T28200	Automatic Stop and Distant Signal: Control and Aspect Sequence between Automatic Signals: Through Circuits		3	04/02/2006
T28203	Automatic 3 Aspect Signal: Control and Aspect Sequence between Automatic Signals: Through Circuits		4	04/02/2006
T28205	Automatic 4 Aspect Signal: Control and Aspect Sequence between Automatic Signals: Through Circuits		3	04/02/2006
T28210	Aspect Sequence: Controlled Signal Leaving Interlocking Area		2	10/06/2009
T28215	Aspect Sequence: Controlled Signals: Simple Converging Junction		2	10/06/2009
T28220	Aspect Sequence: Controlled Signals: Simple Diverging Junction		2	10/06/2009
T28222	Aspect Sequence: Controlled Signals: Simple Converging and Diverging Junctions		2	10/06/2009
T28225	Auto Aspect Sequence: Entering Interlocking: Junction Signal Approach Controlled from Red		3	10/06/2009
T28230	Auto Aspect Sequence: Entering Interlocking: Junction Signal Approach Controlled from Yellow		3	10/06/2009
T28241	Flashing Aspects Controls 1		1	24/03/2009
T28242	Flashing Aspects Controls 2		1	24/03/2009
T28243	Flashing Aspects Controls 3		1	24/03/2009
T28265	Aspect Sequence with Banner Repeater: Single		2	20/06/2009
T28267	Aspect Squence with 3 Aspect Banner Repeater LED Type, Single		2	20/06/2009
T28270	Aspect Sequence with Banner Repeater: Splitting		2	20/06/2009
T28272	Aspect Squence with 3 Aspect Banner Repeater LED Type, Splitting		1	20/06/2009
T28280	Aspect Sequence: Transition from 3 to 4 Aspect: Distant Signal Provided		3	04/02/2006
T28285	Aspect Sequence: Transition from 3 to 4 Aspect: Approach Control		3	04/02/2006
T28290	Aspect Sequence: Transition from 4 to 3 Aspect		3	04/02/2006
T28295	Restricted Stopping Area (e.g. Tunnel) Signalling: Auto Stop and Distant signal with Junction Signal at exit		3	05/06/1999
T28296	Restricted Stopping Area (e.g. Tunnel) Signalling: Two Signals within Area		3	05/06/1999
T28300	Colour Light: Lighting Circuit: Single Aspect		1	11/09/1997
T28301	Colour Light: Lighting Circuit: Single Aspect: SSI		1	11/09/1997
T28302	Colour Light: Lighting Circuit: Single Aspect (Dorman LED)		1	01/04/2006
T28303	Colour Light: Lighting Circuit: Single Aspect: SSI (Dorman LED)		1	01/04/2006
T28305	Colour Light: Lighting Circuit: 2 Aspect:		1	11/09/1997
T28307	Colour Light: Lighting Circuit: 2 Aspect (Dorman LED): R/G		2	07/04/2007
T28310	Colour Light: Lighting Circuit: 3 Aspect: R/Y/G		1	11/09/1997

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
T28312	Colour Light: Lighting Circuit: 3 Aspect (Dorman LED): R/Y/G		2	07/04/2007
T28313	Colour Light: Lighting Circuit: 3 Aspect SSI (Dorman LED): R/Y/G		1	01/04/2006
T28315	Colour Light: Lighting Circuit: 3 Aspect: Y/YY/G		1	11/09/1997
T28316	Colour Light: Lighting Circuit: 3 Aspect: Y/YY/G: SSI		1	11/09/1997
T28317	Colour Light: Lighting Circuit: 3 Aspect (Dorman LED): Y/YY/G		2	07/04/2007
T28318	Colour Light: Lighting Circuit: 3 Aspect SSI (Dorman LED): Y/YY/G		1	01/04/2006
T28320	Colour Light: Lighting Circuit: 4 Aspect: R/Y/YY/G		1	11/09/1997
T28321	Colour Light: Lighting Circuit: 4 Aspect Inverted: G/YY/Y/R		1	11/09/1997
T28322	Colour Light: Lighting Circuit: 4 Aspect: R/Y/YY/G : SSI (inc AWS)		1	11/09/1997
T28323	Colour Light: Lighting Circuit: 4 Aspect: R/Y/YY/G + Position Light SSI External Proving Relays		2	08/01/1998
T28325	Colour Light: Lighting Circuit: 4 Aspect (Dorman LED): R/Y/YY/G		3	07/04/2007
T28326	Colour Light: Lighting Circuit: 4 Aspect (Dorman LED): R/Y/YY/G SSI: incl AWS		2	01/04/2006
T28327	Colour Light: Lighting Circuit: 4 Aspect: Co-acting		1	01/04/2006
T28328	Colour Light: Lighting Circuit: 4 Aspect: Co-acting: SSI		1	01/04/2006
T28330	Colour Light: Lighting Circuit: 4 Aspect: Flashing Yellow		1	11/09/1997
T28331	Colour Light: Lighting Circuit: 4 Aspect: Flashing Single Yellow (Dorman		1	01/09/2008
T28332	Colour Light: Lighting Circuit: 4 Aspect: Flashing Double Yellow		1	11/09/1997
T28333	Colour Light: Lighting Circuit: 4 Aspect: Flashing Aspect SSI		2	01/12/2007
T28335	Colour Light: Lighting Circuit: 4 Aspect: Flashing Double Yellow (Dorman LED)		1	01/09/2008
T28336	Colour Light: Lighting Circuit: 4 Aspect: Flashing Aspect SSI (Dorman LED)		2	01/09/2008
T28340	Colour Light: Lighting Circuit: 2 Aspect (Dorman LED): Min Tunnel R/G		1	07/04/2007
T28341	Colour Light: Lighting Circuit: 2 Aspect (Dorman LED): Min Tunnel Y/G		1	07/04/2007
T28342	Colour Light: Lighting Circuit: 3 Aspect (Dorman LED): Min Tunnel R/Y/G		1	07/04/2007
T28348	Position Light Associated with Main Aspect: Lighting Circuit (Dorman LED)		1	01/04/2006
T28349	Position Light Associated with Main Aspect: Lighting Circuit SSI (Dorman		1	01/04/2006
T28350	Position Light Associated with Main Aspect: Lighting Circuit: Fibre Optic: and 110V Lamp Types		2	01/12/2007
T28351	Position Light Associated with Main Aspect: Lighting Circuit: Fibre Optic: and 110V Lamp Types: SSI		2	01/12/2007
T28353	Position Light Shunt Signal: Lighting Circuit: 110v (Dorman LED)		1	01/04/2006
T28354	Position Light Shunt Signal: Lighting Circuit SSI (Dorman LED)		1	01/04/2006
T28355	Position Light Shunting Signal: Lighting Circuit: Fibre Optic Type		2	01/12/2007
T28356	Position Light Shunt Signal: Lighting Circuit: Fibre Optic Type: SSI		2	01/12/2007
T28360	Position Light Shunt Signal: Lighting Circuit: 110v Lamp Type		1	11/09/1997
T28361	Position Light Shunting Signal: Lighting Circuit: 110v Lamp Type: SSI		1	11/09/1997
T28367	Limit of Shunt Signal: Lighting Circuit (Dorman LED)		1	01/04/2006
T28368	Limit of Shunt Signal: Lighting Circuit: SSI: First and Second Lamp Proving without relays (Dorman LED)		1	01/04/2006

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
T28369	Limit of Shunt Signal: Lighting Circuit: SSI: First and Second Lamp Proving using relays (Dorman LED)		1	01/04/2006
T28370	Limit of Shunt Signal: Lighting Circuit: Fibre Optic and 110v Lamp Type		2	01/12/2007
T28371	Limit of Shunt Signal: Lighting Circuit: Fibre Optic type: SSI: Main and Auxiliary Lamp Proving		2	01/12/2007
T28372	Limit of Shunt Signal Lighting Circuit: Fibre Optic and 110v Lamp Type: SSI: with First and Second Lamp Proving Using Relays		1	11/09/1997
T28373	Limit of Shunt Signal: Lighting Circuit: 110v Lamp Type: SSI: First and Second Lamp Proving without relays		1	11/09/1997
T28380	Banner Repeater: Lighting Circuit: Fibre Optic Type: Single		2	10/06/2009
T28382	Banner Repeater: Lighting Circuit: Fibre Optic Type: Single: SSI		2	10/06/2009
T28383	Banner Repeater: Electro-Mechanical Type: Single head wiring: 12v Lamp		1	11/09/1997
T28385	Banner Repeater: Electro-Mechanical Type: Single: Head Wiring: 110v		1	11/09/1997
T28387	Banner Repeater: Lighting Circuit: Fibre Optic Type: Splitting		2	10/06/2009
T28388	Banner Repeater: Lighting Circuit: Fibre Optic Type: Splitting: SSI		2	10/06/2009
T28390	Banner Repeater: Lighting Circuit: 2- Aspect LED Type: Single: Relay Interlocking		1	24/05/2008
T28392	Banner Repeater: Lighting Circuit: 2- Aspect LED Type: Single: SSI		1	24/05/2008
T28393	Banner Repeater: Lighting Circuit: 2- Aspect LED Type: Splitting: Relay Interlocking		1	10/06/2009
T28394	Banner Repeater: Lighting Circuit: 2- Aspect LED Type: Splitting: SSI		1	10/06/2009
T28395	Banner Repeater: Lighting Circuit: 3- Aspect LED Type: Single: Relay Interlocking		1	24/05/2008
T28397	Banner Repeater: Lighting Circuit: 3- Aspect LED Type: Single: SSI		2	13/06/2008
T28398	Banner Repeater: Lighting Circuit: 3- Aspect LED Type: Splitting: Relay Interlocking		1	10/06/2009
T28399	Banner Repeater: Lighting Circuit: 3- Aspect LED Type: Splitting: SSI		1	10/06/2009
T28400	Alphanumeric Route Indicator: Miniature: Fibre Optic Type: Lighting Circuit		2	10/06/2009
T28401	Alphanumeric Route Indicator: Miniature: Fibre Optic Type: Lighting Circuit: SSI		1	11/09/1997
T28405	Alphanumeric Route Indicator: Miniature: Stencil:110v Lamp Type		1	11/09/1997
T28406	Alphanumeric Route Indicator: Miniature: Stencil: 110v Lamp Type: Lighting Circuit: SSI		1	11/09/1997
T28407	Alphanumeric Route Indicator: Miniature: Lighting Circuit (Dorman LED)		1	10/06/2009
T28408	Alphanumeric Route Indicator: Miniature: Lighting Circuit SSI (Dorman LED)		1	10/06/2009
T28410	Alphanumeric Route Indicator: Standard: Fibre Optic type: Lighting Circuit		2	10/06/2009
T28411	Alphanumeric Route Indicator: Standard: Fibre Optic type: Lighting Circuit: SSI		2	10/06/2009
T28412	Alphanumeric Route Indicator: Standard Lighting Circuit (Dorman LED)		1	10/06/2009
T28413	Alphanumeric Route Indicator: Standard Lighting Circuit SSI (Dorman LED)		1	10/06/2009

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
T28420	Alphanumeric Route Indicator: Standard: Multi Lamp type: Lighting Circuit		1	11/09/1997
T28421	Alphanumeric Route Indicator: Standard: Multi Lamp type: Characters		1	11/09/1997
T28430	Junction Indicators: Lighting Circuit		3	04/07/2008
T28431	Junction Indicators: Lighting Circuit: SSI		1	11/09/1997
T28432	Junction Indicators: (Dorman LED)		1	01/04/2006
T28433	Junction Indicators: Lighting Circuits: (Dorman LED)		1	01/04/2006
T28434	Junction Indicators: Lighting Circuits: SSI (Dorman LED)		1	01/04/2006
T28435	“OFF” Indicator: Lighting Circuit		2	05/06/1999
T28436	“OFF” Indicator Control and Lighting Circuit: SSI		3	01/12/2007
SPAD				
T29500	SPAD Mitigation: Control Circuits		5	12/08/2008
T29510	SPAD Mitigation: SPAD Treadle Circuits		3	05/06/1999
T29520	SPAD Mitigation: SPAD Override Plunger		3	04/02/2006
T29540	SPAD Mitigation: SPAD AWS Suppression		4	03/03/2012
T29550	SPAD Mitigation: Lighting Circuit		4	01/12/007

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
TRAIN PROTECTION WARNING SYSTEM (TPWS)				
T34000	Signalling and Bonding Plan Symbols		4	07/06/2003
T34001	Overview Of TPWS Typical Circuits		6	07/02/2004
T34002	Control Tables For TPWS		2	07/12/2002
T34005	Control Circuits for Retro Fitment to Relay Operated Signalling		4	01/12/2001
T34006/1	Control Circuits For Retro-Fitment To Relay Operated Signalling. Diverging Approach 1 – Sheet 1 Of 2		3	07/12/2002
T34006/2	Control Circuits For Retro-Fitment To Relay Operated Signalling. Diverging Approach 1 – Sheet 2 Of 2		3	07/12/2002
T34007/1	Control Circuits For Retro-Fitment To Relay Operated Signalling. Diverging Approach 2 – Sheet 1 Of 2		3	07/12/2002
T34007/2	Control Circuits For Retro-Fitment To Relay Operated Signalling. Diverging Approach 2 – Sheet 2 Of 2		3	07/12/2002
T34008	Control Circuits For Retro-Fitment To Relay Operated Signalling. Converging Approach 1		3	07/12/2002
T34009	Control Circuits For Retro-Fitment To Relay Operated Signalling. Converging Approach 2		3	07/12/2002
T34010	Control Circuits for Retro Fitment to Relay Operated Signalling Where Arrangements for the Avoidance of Self Reversion are Necessary		6	02/02/2002
T34015	Control Circuits for Retro Fitment to Mechanically Operated And Controlled Signalling (1)		4	02/02/2002
T34020	Control Circuits for Retro Fitment to Mechanically Operated And Controlled Signalling (2)		6	02/02/2002
T34022	Control Circuits for SSI Retro-Fitment of TPWS to Diverting Junction PSRs Where OSS Is In Rear of Approach Release Point of Junction Signal		2	07/06/2003
T34023	Control Circuits For SSI Retro-Fitment Of TPWS To Diverging Junction PSRs Where OSS Is In Advance Of Replacement T/C Joint of Junction Signal		5	07/06/2003
T34024	Control Circuits For SSI Retro-Fitment Of TPWS To Diverging Junction PSRs Where OSS Is Within Approach Release Point of Junction Signal		5	07/06/2003
T34025	Control Circuits For Retro Fitment to Buffer Stops And PSRs		6	01/06/2002
T34026	Control Circuits for Relay Retro-Fitment of TPWS to Diverting Junction PSRs Where OSS Is In Rear of Approach Release Point of Junction Signal		1	05/04/2003
T34027	Control Circuits For Retro-Fitment Of TPWS To Diverging Junction PSRs Where OSS Is Near Diverging Points		4	05/04/2003
T34028	Control Circuits For Relay Retro-Fitment Of TPWS To Diverging Junction PSRs Where OSS Is In Advance Of Replacement T/C Joint of Junction Signal		4	05/04/2003
T34029	Control Circuits For Relay Retro-Fitment Of TPWS To Diverging Junction PSRs Where OSS Is Within Approach Release Point Of Junction Signal		3	05/04/2003
T34030	Control Circuits for Fitment to SSI Signalling - Method 1B		9	07/06/2003
T34031	Control Circuits for Fitment to SSI Signalling - Method 1A		6	07/06/2003

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
T34032	Control Circuits for Fitment to SSI Signalling - Method 2		8	07/06/2003
T34034	Control Circuits for Fitment to SSI Signalling - Method 3 - (4 Aspect with		7	07/06/2003
T34035	Control Circuits for Fitment to SSI Signalling - Method 3 - (3 Aspect without Sub)		7	07/06/2003
T34036	Control Circuits for Fitment to SSI Signalling - Method 3 - (2 Aspect with		7	07/06/2003
T34037	Control Circuits for Fitment to SSI Signalling - Methods 1A / 1B / 2 - OSS Complex Control Circuits 1		5	07/06/2003
T34038	Control Circuits for Fitment to SSI Signalling - Methods 1A / 1B / 2 - OSS Complex Control Circuits 2		7	07/06/2003
T34039	Control Circuits for Fitment to SSI Signalling - Method 3 - Where the Avoidance of Self Reversion is Necessary		6	07/06/2003
T34040	Proving And Indication Circuits for Retro Fitment to Relay Operated		2	02/02/2002
T34042	Proving And Indication Circuits for Retro Fitment to Mechanically Operated And Controlled Signalling		4	05/10/2002
T34050	Control Circuits For Fitment To No Signaller Token Remote (NSTR) Operated Signalling		1	05/10/2002
T34052	Indication Circuits For Fitment To No Signaller Token Remote (NSTR) Operated Signalling		1	05/10/2002
T34060	Dedicated Two / Four Function Redifon MEL TPWS Apparatus Case Wiring		6	02/02/2002
T34065	Dedicated One Function TPWS Apparatus Case Wiring - TSS Function		6	02/02/2002
T34066	Dedicated One Function TPWS Apparatus Case Wiring – OSS Function		5	02/02/2002
T34068	Control Circuits for Self Powered OSS for Remote PSRS		3	07/02/2004
T34070	TPWS Base Plate Wiring - TSS Function		9	07/02/2004
T34071	TPWS Base Plate Wiring – OSS Function		7	07/02/2004
T34075	Transmitter Loop Tail Cable Connections - Down Line		4	05/10/2002
T34080	Transmitter Loop Tail Cable Connections - Up Line		4	05/10/2002
T34085	Apparatus Case Layouts 1		5	01/06/2002
T34090	Apparatus Case Layouts 2		5	01/06/2002
T34095	Self Powered OSS Trackside Enclosure		1	07/12/2002
T34100	Control Circuits for Retro-Fitment to Relay Operated Signalling. Direct Connection – Method 1 (4 Aspect)		1	02/06/2001
T34105	Control Circuits for Retro-Fitment to Relay Operated Signalling. Direct Connection – Method 1 (2/3 Aspect)		1	02/06/2001
T34110	Control Circuits For Retro-Fitment To Relay Operated Signalling. Direct Connection – Method 2		1	02/06/2001
T34120	Power Circuits For TPWS – Uninterruptible Power Supply		2	01/12/2001
T34160	TPWS+ Apparatus Case Wiring Circuits		2	07/08/2004
T34170	Control and Indication Circuits for Relay Fitment of TPWS+		1	07/08/2004
T34180	Control and Indication Circuits for Fitment of TPWS+ to SSI Method 3		2	07/08/2004
T34185	Control and Indication Circuits for Fitment of TPWS+ to SSI Method 1A		1	07/08/2004
T34190	Control and Indication Circuits for Fitment of TPWS+ to SSI Method 1B		1	07/08/2004
T34200	RETB - Typical Equipment Layouts and Signalling Plan Symbols		1	07/02/2004

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
T34210	RETB - TRCM & TFM Interface Analysis Showing Optional Datalink Circuit		1	07/02/2004
T34220	RETB - Optional Datalink Circuit for Remote TFM		1	07/02/2004
T34230	RETB - TPWS and Lineside Status Indicator (LSI) Control Circuits		1	07/02/2004
T34240	RETB - Driver Operated Diverging Junction Controls		1	07/02/2004
T34250	RETB - Driver Operated Level Crossing Controls		1	07/02/2004
Bonding & Signalling Typical Circuits				
T40101	Notes/Definitions		1	02/06/2018
T40102	Application Configurations		1	02/06/2018
T40103	Signalling Bonding		1	02/06/2018
T40105	Signalling Power is 650V Class 2 or 110V		1	02/06/2018
T40106	Class 1 Individual Earth		1	02/06/2018
T40107	Class 1 Collective Earth		1	02/06/2018
T40108	Class 1 or Class 2 Power for an AC Electrified Railway EN50122		1	02/06/2018
ANSALDO SIGNAL - ACC INTERLOCKING TYPICAL CIRCUITS				
INDEX				
T60000	ACC: Cover Sheet	Withdrawn 05/09/2009	1	21/012005
T60001	ACC: Index (1)	Withdrawn 05/09/2009	3	13/02/2006
T60002	ACC: Index (2)	Withdrawn 05/09/2009	2	07/10/2005
T60003	ACC: Index (3)	Withdrawn 05/09/2009	3	13/02/2006
T60004	ACC: Index (4)	Withdrawn 05/09/2009	3	13/02/2006
T60005	ACC: Index (5)	Withdrawn 05/09/2009	2	07/10/2005
T60006	ACC: Index (6)	Withdrawn 05/09/2009	2	07/10/2005
T60007	ACC: Index (7)	Withdrawn 05/09/2009	2	07/10/2005
T60008	ACC: Index (8)	Withdrawn 05/09/2009	2	07/10/2005
T60009	ACC: Index (9)	Withdrawn 05/09/2009	2	07/10/2005
T60010	ACC: Index (10)	Withdrawn 05/09/2009	2	07/10/2005
T60011	ACC: Index (11)	Withdrawn 05/09/2009	2	07/10/2005
T60012	ACC: Index (12)	Withdrawn 05/09/2009	2	07/10/2005
T60013	ACC: Index (13)	Withdrawn 05/09/2009	3	13/02/2006
T60014	ACC: Index (14)	Withdrawn 05/09/2009	2	07/10/2005
T60017	ACC: General Notes		2	07/10/2005
SIGNALS & INDICATORS				
T60019	SD 321 Signal (3/4 Aspect). ACC: Electronic Interface (POT/CLAM) Peripheral Location Circuit		2	07/10/2005
T60020	SD 321 Signal (4 Aspect). ACC: Electronic Interface (POT/CLAM) Location Case Circuit		2	07/10/2005
T60021	SD 321 Signal (3 Aspect). ACC: Electronic Interface (POT/CLAM) Location Case Circuit		2	07/10/2005
T60023	SD 321 Signal (3/4 Aspect). ACC: Electronic Interface (POT/LAPS) Peripheral Location Circuit		2	07/10/2005
T60024	SD 321 Signal (3/4 Aspect). ACC: Electronic Interface (POT/LAPS) Signal Circuit		2	07/10/2005

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
T60028	Ground Position Light Signal. ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60029	Ground Position Light Signal. ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60031	Ground Position Light Signal. ACC: Electronic Interface (POT/CLAM) Peripheral Loc - Loc. Case Circuit		2	07/10/2005
T60033	Ground Position Light Signal. ACC: Electronic Interface (POT/LAPS) Peripheral Location Circuit		2	07/10/2005
T60036	Position Light Signal (Associated With Main Aspect). ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60037	Position Light Signal (Associated With Main Aspect). ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60039	Position Light Signal (Associated With Main Aspect). ACC: Electronic Interface (POT/CLAM) Peripheral Loc - Loc Case Circuit		2	07/10/2005
T60041	Position Light Signal (Associated With Main Aspect). ACC: Electronic Interface (POT/LAPS) Peripheral Location Circuit		2	07/10/2005
T60044	Banner Repeater Signal ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60045	Banner Repeater Signal. ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60047	Banner Repeater Signal. ACC: Electronic Interface (POT/CLAM) Peripheral Loc. - Loc. Case Circuit		2	07/10/2005
T60049	Banner Repeater Signal. ACC: Electronic Interface (POT/LAPS) Peripheral Location Circuit		2	07/10/2005
T60054	Spad Indicator. ACC: Relay Interface Peripheral Location Circuit(1)		2	07/10/2005
T60055	Spad Indicator. ACC: Relay Interface Peripheral Location Circuit(2)		2	07/10/2005
T60056	Spad Indicator (Control, Treadle and Suppressor) Circuits. ACC: Relay Interface Location Case Circuit (1)		3	13/02/2006
T60057	Spad Indicator (Lighting Circuit). ACC: Relay Interface Location Case Circuit (2)		2	07/10/2005
T60069	Junction Indicator (1 Position). ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60070	Junction Indicator (1 Position). ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60071	Junction Indicator (2 Positions). ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60072	Junction Indicator (2 Positions). ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60073	Junction Indicator (3 Positions). ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60074	Junction Indicator (3 Positions). ACC: Relay Interface Location Case Circuit		3	13/02/2006
T60076	Junction Indicator (1 Position). ACC: Electronic Interface (POT/CLAM) Peripheral Location Circuit		2	07/10/2005
T60077	Junction Indicator (1 Position). ACC: Electronic Interface (POT/CLAM) Location Case Circuit		2	07/10/2005
T60078	Junction Indicator (2 Positions). ACC: Electronic Interface (POT/CLAM) Peripheral Loc. - Loc. Case Circuit		2	07/10/2005

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
T60079	Junction Indicator (2 Positions). ACC: Electronic Interface (POT/CLAM) Peripheral Loc. - Loc. Case Circuit		2	07/10/2005
T60080	Junction Indicator (3 Positions). ACC: Electronic Interface (POT/CLAM) Peripheral Loc. - Loc. Case Circuit		2	07/10/2005
T60081	Junction Indicator (3 Positions). ACC: Electronic Interface (POT/CLAM) Peripheral Loc. - Loc. Case Circuit		2	07/10/2005
T60082	Junction Indicator (3 Positions). ACC: Electronic Interface (POT/CLAM) Peripheral Loc. - Loc. Case Circuit		2	07/10/2005
T60084	Junction Indicator (1 Position). ACC: Electronic Interface (POT/LAPS) Peripheral Location Circuit		2	07/10/2005
T60085	Junction Indicator (2 Positions). ACC: Electronic Interface (POT/LAPS) Peripheral Location Circuit		2	07/10/2005
T60086	Junction Indicator (3 Positions). ACC: Electronic Interface (POT/LAPS) Peripheral Location Circuit		2	07/10/2005
T60087	Junction Indicator (3 Positions). ACC: Electronic Interface (POT/LAPS) Peripheral Location Circuit		2	07/10/2005
T60093	Miniature Route Indicator (F.O. 1 Indication). ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60094	Miniature Route Indicator (F.O. 1 Indication). ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60095	Miniature Route Indicator (F.O. 2 Indications). ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60096	Miniature Route Indicator (F.O. 2 Indications). ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60097	Miniature Route Indicator (F.O. 3 Indications). ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60098	Miniature Route Indicator (F.O. 3 Indications). ACC: Relay Interface Peripheral Location Case Circuit		2	07/10/2005
T60099	Miniature Route Indicator (F.O. 4 Indications). ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60100	Miniature Route Indicator (F.O. 4 Indications). ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60101	Miniature Route Indicator (F.O. 4 Indications). ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60103	Miniature Route Indicator (F.O.1 Indication). ACC: Electronic Interface (POT/CLAM) Peripheral Loc. - Loc. Case Circuit		2	07/10/2005
T60104	Miniature Route Indicator (F.O.2 Indications). ACC: Electronic Interface (POT/CLAM) Peripheral Loc. - Loc. Case Circuit		2	07/10/2005
T60105	Miniature Route Indicator (F.O. 3 Indications). ACC: Electronic Interface (POT/CLAM) Peripheral Loc. - Loc. Case Circuit		2	07/10/2005
T60106	Miniature Route Indicator (F.O. 4 Indications). ACC: Electronic Interface (POT/CLAM) Peripheral Loc. - Loc. Case Circuit		2	07/10/2005
T60107	Miniature Route Indicator (F.O. 4 Indications). ACC: Electronic Interface (POT/CLAM) Peripheral Loc. - Loc. Case Circuit		2	07/10/2005

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
T60109	Miniature Route Indicator (F.O. 1 Indication). ACC: Electronic Interface (POT/LAPS) Peripheral Location Circuit		2	07/10/2005
T60110	Miniature Route Indicator (F.O. 2 Indications). ACC: Electronic Interface (POT/LAPS) Peripheral Location Circuit		2	07/10/2005
T60111	Miniature Route Indicator (F.O. 3 Indications). ACC: Electronic Interface (POT/LAPS) Peripheral Location Circuit		2	07/10/2005
T60112	Miniature Route Indicator (F.O. 4 Indications). ACC: Electronic Interface (POT/LAPS) Peripheral Location Circuit		2	07/10/2005
T60118	Standard Route Indicator (F.O. 1 Indication). ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60119	Standard Route Indicator (F.O. 1 Indication). ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60120	Standard Route Indicator (F.O. 2 Indications). ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60121	Standard Route Indicator (F.O. 2 Indications). ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60122	Standard Route Indicator (F.O. 3 Indications). ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60123	Standard Route Indicator (F.O. 3 Indications). ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60124	Standard Route Indicator (F.O. 4 Indications). ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60125	Standard Route Indicator (F.O. 4 Indications). ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60126	Standard Route Indicator (F.O. 4 Indications). ACC: Relay Interface Location Case Circuit		2	07/10/2005
T06127	Standard Route Indicator (F.O. 5 Indications). ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T06128	Standard Route Indicator (F.O. 5 Indications). ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60129	Standard Route Indicator (F.O. 5 Indications). ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60131	Standard Route Indicator (F.O. 1 Indication). ACC: Electronic Interface (POT/CLAM) Peripheral Loc. - Loc. Case Circuit		2	07/10/2005
T60132	Standard Route Indicator (F.O. 2 Indications). ACC: Electronic Interface (POT/CLAM) Peripheral Loc. - Loc. Case Circuit		2	07/10/2005
T60133	Standard Route Indicator (F.O. 3 Indications). ACC: Electronic Interface (POT/CLAM) Peripheral Loc. - Loc. Case Circuit		2	07/10/2005
T60134	Standard Route Indicator (F.O. 4 Indications). ACC: Electronic Interface (POT/CLAM) Peripheral Loc. - Loc. Case Circuit		2	07/10/2005
T60135	Standard Route Indicator (F.O. 4 Indications). ACC: Electronic Interface (POT/CLAM) Peripheral Loc. - Loc. Case Circuit		2	07/10/2005
T60137	Standard Route Ind. (F.O. 1 Indication). ACC: Electronic Interface (POT/LAPS) Peripheral Location Circuit		2	07/10/2005

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
T60138	Standard Route Ind. (F.O. 2 Indications). ACC: Electronic Interface (POT/LAPS) Peripheral Location Circuit		2	07/10/2005
T60139	Standard Route Ind. (F.O. 3 Indications). ACC: Electronic Interface (POT/LAPS) Peripheral Location Circuit		2	07/10/2005
T60140	Standard Route Ind. (F.O. 4 Indications). ACC: Electronic Interface (POT/LAPS) Peripheral Location Circuit		2	07/10/2005
T60148	Off Indicator ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60149	Off Indicator ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60151	Off Indicator ACC: Electronic Interface (POT/CLAM) Peripheral Loc. - Loc. Case Circuit		2	07/10/2005
T60153	Off Indicator ACC: Electronic Interface (POT/LAPS) Peripheral Location Circuit.		2	07/10/2005
T60156	Right Away Indicator ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60157	Right Away Indicator ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60159	Right Away Indicator ACC: Electronic Interface (POT/CLAM) Peripheral Loc. - Loc. Case Circuit		2	07/10/2005
T60161	Right Away Indicator ACC: Electronic Interface (POT/LAPS) Peripheral Location Circuit		2	07/10/2005
TRACK CIRCUITS				
T60164	DC Track Circuit ACC: Electronic Interface Peripheral Location Circuit		2	07/10/2005
T60165	DC Track Circuit ACC: Electronic Interface Location Case Circuit		2	07/10/2005
T60166	DC Track Circuit (With Feed End Relay) ACC: Electronic Interface Location Case Circuit		2	07/10/2005
T60167	DC Track Circuit (2 ICDR With Common Power Supply) ACC: Electronic Interface Location Case Circuit		2	07/10/2005
T60168	DC Track Circuit (Relay End, ICDR Fed Locally) ACC: Electronic Interface Location Case Circuit		2	07/10/2005
T60170	Track Circuit Interrupter (Max 4 Units) ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60171	Track Circuit Interrupter ACC: Relay Interface (AC Immune System) Location Case Circuit		2	07/10/2005
T60172	Track Circuit Interrupter ACC: Relay Interface (Dual Immune System) Location Case Circuit		2	07/10/2005
POINT MACHINES				
T60175	T72 Point Machine R.H.S.N.C. (Position 2 Normal) ACC: Electronic Interface (DEV/CDEV) Or (DEP/CDEP) Peripheral Location Circuit		2	07/10/2005
T60176	T72 Point Machine & J.B. Type 1, R.H.S.N.C. (Position 2 Normal) ACC: Electronic Interface (DEV/CDEV) Or (DEP/CDEP) Location Case & WM Circuit		2	07/10/2005
T60177	T72 Point Machine & J.B. Type 1, R.H.S.N.C. (Position 2 Normal) ACC: Electronic Interface (DEV/CDEV) Or (DEP/CDEP) Detection Circuit		1	21/01/2005
T60178	T72 Point Machine & J.B. Type 1, R.H.S.N.C. (Position 2 Normal) ACC: Electronic Interface (DEV/CDEV) Or (DEP/CDEP) Detection Circuit with 1 Supplementary Detector		2	07/10/2005

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
T60179	T72 Point Machine & J.B. Type 1, R.H.S.N.C. (Position 2 Normal) ACC: Electronic Interface (DEV/CDEV) Or (DEP/CDEP) Detection Circuit with 2 Supplementary Detectors		2	07/10/2005
T60180	T72 Point Machine & J.B. Type 1, R.H.S.N.C. (Position 2 Normal) ACC: Electronic Interface (DEV/CDEV) Or (DEP/CDEP) Detection Circuit with 3 Supplementary Detectors		2	07/10/2005
T60182	T72 Point Machine L.H.S.N.C. (Position 1 Normal) ACC: Electronic Interface (DEV/CDEV) Or (DEP/CDEP) Peripheral Location Circuit		2	07/10/2005
T60183	T72 Point Machine & J.B. Type 1, L.H.S.N.C. (Position 1 Normal) ACC: Electronic Interface (DEV/CDEV) Or (DEP/CDEP) Location Case & WM Circuit		2	07/10/2005
T60184	T72 Point Machine & J.B. Type 1, L.H.S.N.C. (Position 1 Normal) ACC: Electronic Interface (DEV/CDEV) Or (DEP/CDEP) Detection Circuit		1	21/01/2005
T60185	T72 Point Machine & J.B. Type 1, L.H.S.N.C. (Position 1 Normal) ACC: Electronic Interface (DEV/CDEV) Or (DEP/CDEP) Detection Circuit with 1 Supplementary Detector		2	07/10/2005
T60186	T72 Point Machine & J.B. Type 1, L.H.S.N.C. (Position 1 Normal) ACC: Electronic Interface (DEV/CDEV) Or (DEP/CDEP) Detection Circuit with 2 Supplementary Detectors		2	07/10/2005
T60187	T72 Point Machine & J.B. Type 1, L.H.S.N.C. (Position 1 Normal) ACC: Electronic Interface (DEV/CDEV) Or (DEP/CDEP) Detection Circuit with 3 Supplementary Detectors		2	07/10/2005
T60190	T72 Point Machine & J.B. Type 2, R.H.S.N.C. (Position 2 Normal) ACC: Electronic Interface (DEV/CDEV) Or (DEP/CDEP) Location Case & WM Circuit		2	07/10/2005
T60191	T72 Point Machine & J.B. Type 2, R.H.S.N.C. (Position 2 Normal) ACC: Electronic Interface (DEV/CDEV) Or (DEP/CDEP) Detection Circuit		2	07/10/2005
T60192	T72 Point Machine & J.B. Type 2, R.H.S.N.C. (Position 2 Normal) ACC: Electronic Interface (DEV/CDEV) Or (DEP/CDEP) Detection Circuit with 1 Supplementary Detector		2	07/10/2005
T60193	T72 Point Machine & J.B. Type 2, R.H.S.N.C. (Position 2 Normal) ACC: Electronic Interface (DEV/CDEV) Or (DEP/CDEP) Detection Circuit with 2 Supplementary Detectors		2	07/10/2005
T60194	T72 Point Machine & J.B. Type 2, R.H.S.N.C. (Position 2 Normal) ACC: Electronic Interface (DEV/CDEV) Or (DEP/CDEP) Detection Circuit with 3 Supplementary Detectors		2	07/10/2005
T60196	T72 Point Machine & J.B. Type 2, L.H.S.N.C. (Position 1 Normal) ACC: Electronic Interface (DEV/CDEV) Or (DEP/CDEP) Location Case & WM Circuit		2	07/10/2005
T60197	T72 Point Machine & J.B. Type 2, L.H.S.N.C. (Position 1 Normal) ACC: Electronic Interface (DEV/CDEV) Or (DEP/CDEP) Detection Circuit		2	07/10/2005
T60198	T72 Point Machine & J.B. Type 2, L.H.S.N.C. (Position 1 Normal) ACC: Electronic Interface (DEV/CDEV) Or (DEP/CDEP) Detection Circuit with 1 Supplementary Detector		2	07/10/2005

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
T60199	T72 Point Machine & J.B. Type 2, L.H.S.N.C. (Position 1 Normal) ACC: Electronic Interface (DEV/CDEV) Or (DEP/CDEP) Detection Circuit with 2 Supplementary Detectors		2	07/10/2005
T60200	T72 Point Machine & J.B. Type 2, L.H.S.N.C. (Position 1 Normal) ACC: Electronic Interface (DEV/CDEV) Or (DEP/CDEP) Detection Circuit with 3 Supplementary Detectors		2	07/10/2005
AWS				
T60205	AWS (Inductor and/or Suppressor) Max 3 Objects ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60206	AWS (Inductor and/or Suppressor) Max 3 Objects ACC: Relay Interface Location Case Circuit		2	21/01/2005
TPWS				
T60211	TSS and OSS Function ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60212	TSS and OSS Function Normal Direction (Down). Direction of Travel - Down ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60213	TSS and OSS Function Normal Direction (Down). Direction of Travel - Up ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60214	TSS and OSS Function Normal Direction (Up). Direction of Travel - Up ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60215	TSS and OSS Function Normal Direction (Up). Direction of Travel - Down ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60217	TSS Function ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60218	TSS Function Normal Direction (Down). Direction of Travel - Down ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60219	TSS Function Normal Direction (Down). Direction of Travel - Up ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60220	TSS Function Normal Direction (UP). Direction of Travel - Up ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60221	TSS Function Normal Direction (UP). Direction of Travel - Down ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60224	OSS Function (Complex Approach) ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60225	OSS Function (Complex Approach) Normal Direction (Down). Direction of Travel - Down ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60226	OSS Function (Complex Approach) Normal Direction (Down). Direction of Travel - Up ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60227	OSS Function (Complex Approach) Normal Direction (UP). Direction of Travel - Up ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60228	OSS Function (Complex Approach) Normal Direction (UP). Direction of Travel - Down ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60230	PSR OSS Function ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60231	PSR OSS Function Normal Direction (Down). Direction of Travel - Down ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60232	PSR OSS Function Normal Direction (Down). Direction of Travel - Up ACC: Relay Interface Location Case Circuit		2	07/10/2005

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
T60233	PSR OSS Function Normal Direction (Up). Direction of Travel - Up ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60234	PSR OSS Function Normal Direction (Up). Direction of Travel - Down ACC: Relay Interface Location Case Circuit		2	07/10/2005
LOCKOUT				
T60241	Patrolman Lockout Two Control Units ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60242	Patrolman Lockout Two Control Units ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60248	Staff Lockout Single Control Unit ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60249	Staff Lockout Single Control Unit ACC: Relay Interface Location Case Circuit		3	13/02/2006
TRAIN DISPATCH				
T60252	Right Away Control ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60253	Right Away Control ACC: Relay Interface Location Case Circuit		1	21/01/2005
T60255	Train Ready to Start And Right Away Request ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60256	Train Ready to Start And Right Away Request ACC: Relay Interface Location Case Circuit		2	07/10/2005
T60261	Shunters Acceptance Plunger ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60262	Shunters Acceptance Plunger ACC: Relay Interface Location Case Circuit		2	07/10/2005
FRINGE				
T60270	Input from Fringe Box ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60272	Output to Fringe Box ACC: Relay Interface Peripheral Location Circuit		2	07/10/2005
T60273	Output to Fringe Box ACC: Relay Interface - Interface Equipment Room/Location Case		2	07/10/2005

Circuit Drawings for Free-Wired Automatic Level Crossings

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
AUTOMATIC HALF BARRIER CROSSINGS (AHBC)				
X00001	Index (1)	Withdrawn 05/09/2009	4	01/12/2008
X00002	Index (2)	Withdrawn 05/09/2009	3	01/12/2008
X00003	Index (3)	Withdrawn 05/09/2009	3	01/12/2008
X00004	Index (4)	Withdrawn 05/09/2009	3	01/12/2008
X00005	Index (5)	Withdrawn 05/09/2009	4	01/12/2008
X00006	Index (6)	Withdrawn 05/09/2009	3	01/12/2008
X00007	Index (7)	Withdrawn 05/09/2009	1	01/12/2008
X00010	Configuration Index (1)		3	01/12/2008
X00011	Configuration Index (2)		2	01/12/2008
X00012	Configuration Index (3)		2	01/12/2008
X00024	General Guidelines (1)		2	06/02/1999
X00025	General Guidelines (2)		2	06/02/1999
X00026	General Guidelines (3)		2	06/02/1999
X00027	General Guidelines (4)		2	06/02/1999
X00028	Methods to Overcome Potential Timing Problems (1)		1	06/02/1999
X00029	Methods to Overcome Potential Timing Problems (2)		1	06/02/1999
X00030	Example Treadle Arrangements (1)		2	06/02/1999
X00040	Example Treadle Arrangements (2)		2	06/02/1999
X00050	Example Treadle Arrangements (3)		2	06/02/1999
X00060	Example Treadle Arrangements (4)		2	06/02/1999
X00080	Typical Track Circuit Schematic (1)		1	06/02/1999
X00090	Typical Track Circuit Schematic (2)		1	06/02/1999
X00100	Barrier Detection Circuits		1	06/02/1999
X00110	Motor Circuits		3	07/08/2004
X00120	Barrier Pedestal Wiring		2	06/02/1999
X00130	Road Light Circuits	Withdrawn 01/12/2008	2	06/02/1999
X00135	Road Light Circuits (For Use when an additional flasher is required)	Withdrawn 01/12/2008	1	06/02/1999
X00140	Monitor Circuits (1)		3	01/12/2008
X00150	Monitor Circuits (2)		3	01/12/2008
X00170	Audible Warning Volume Limiter (1)		2	06/02/1999
X00180	Audible Warning Volume Limiter (2)		2	06/02/1999
X00200	Pedestrian Light Circuits		1	06/02/1999
X00210	Relay Rack and H/O Board Layout		4	01/12/2008
X00220	Relay Configuration Details		3	01/12/2008
X00250	Signal Regulation Delay Table	04/03/2023 Endorsed “Historic see NR/L2/SIG/11201 Mod X02 For Current Requirements”	2	06/02/1999
X00400	Single Line - Layout		2	06/02/1999
X00405	Single Line - Circuit Index		3	01/12/2008
X00410	Single Line - Track Control Circuits		2	06/02/1999
X00430	Single Line - Timing Circuits		2	06/02/1999
X00440	Single Line - Control Circuits (1)		2	06/02/1999
X00450	Single Line - Control Circuits (2)		2	07/08/2004

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
X00460	Single Line - Audible Warning Circuits		3	07/08/2004
X00490	Single Line - Indication Circuits		3	07/08/2004
X00600	Single Line with Directional Strike-in Controls - Layout		2	06/02/1999
X00605	Single Line with Directional Strike-in Controls - Circuit Index		3	01/12/2008
X00610	Single Line with Directional Strike-in Controls - Track Control Circuits		2	06/02/1999
X00640	Single Line with Directional Strike-in Controls - Control Circuits (1)		1	06/02/1999
X07100	Single Line Layout GCP3000 Predictor		1	01/12/2008
X07105	Single Line Circuit Index GCP3000 Predictor		1	01/12/2008
X07140	Single Line Control Circuits (1) GCP3000 Predictor		1	01/12/2008
X07150	Single Line Control Circuits (2) GCP3000 Predictor		1	01/12/2008
X07190	Single Line Indication Circuits GCP3000 Predictor		1	01/12/2008
X07400	Double Line Bi-Directional Layout GCP3000 Predictor		1	01/12/2008
X07405	Double Line Circuit Index GCP3000 Predictor		1	01/12/2008
X07440	Double Line Bi-Directional Control Circuits (1) GCP3000 Predictor		1	01/12/2008
X07450	Double Line Bi-Directional Control Circuits (2) GCP3000 Predictor		1	01/12/2008
X07490	Single Line Bi-Directional Indication Circuits GCP3000 Predictor		1	01/12/2008
X01000	Double Line Bi-Directional - Layout		2	06/02/1999
X01005	Double Line Bi-Directional - Circuit Index		3	01/12/2008
X01010	Double Line Bi-Directional - Track Control Circuits		2	06/02/1999
X01020	Double Line Bi-Directional - Timing Circuits		1	06/02/1999
X01030	Double Line Bi-Directional - Control Circuits (1)		2	06/02/1999
X01040	Double Line Bi-Directional - Control Circuits (2)		2	06/02/1999
X01050	Double Line Bi-Directional - Control Circuits (3)		3	07/08/2004
X01060	Double Line Bi-Directional - Audible Warning Circuits		3	07/08/2004
X01090	Double Line Bi-Directional - Indication Circuits		3	07/08/2004
X01200	Double Line Bi-Directional with Directional Strike-In Controls - Layout		2	06/02/1999
X01205	Double Line Bi-Directional with Directional Strike-In Controls - Circuit Index		3	01/12/2008
X01210	Double Line Bi-Directional with Directional Strike-In Controls - Track Control Circuits		2	06/02/1999
X01230	Double Line Bi-Directional with Directional Strike-In Controls - Control Circuits (1)		2	06/02/1999
X01400	Double Line Bi-Directional with Separate ATC Strike-In - Layout		2	06/02/1999
X01405	Double Line Bi-Directional with Separate ATC Strike-In - Circuit Index		3	01/12/2008
X01410	Double Line Bi-Directional with Separate ATC Strike-In - Track Control Circuits		2	06/02/1999
X01420	Double Line Bi-Directional with Separate ATC Strike-In - Timing Circuits		1	06/02/1999
X01430	Double Line Bi-Directional with Separate ATC Strike-In - Control Circuits		2	06/02/1999
X01440	Double Line Bi-Directional with Separate ATC Strike-In - Control Circuits		2	06/02/1999
X01450	Double Line Bi-Directional with Separate ATC Strike-In - Control Circuits		3	07/08/2004
X01600	Double Line Bi-Directional where Trains May Stand on the Exit Track Circuit - Layout		2	06/02/1999
X01605	Double Line Bi-Directional where Trains May Stand on the Exit Track Circuit - Circuit Index		3	01/12/2008

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
X01610	Double Line Bi-Directional where Trains May Stand on the Exit Track Circuit - Track Control Circuits		2	06/02/1999
X01620	Double Line Bi-Directional where Trains May Stand on the Exit Track Circuit - Timing Circuits		1	06/02/1999
X01630	Double Line Bi-Directional where Trains May Stand on the Exit Track Circuit - Control Circuits (1)		2	06/02/1999
X01650	Double Line Bi-Directional where Trains May Stand on the Exit Track Circuit - Control Circuits (3)		2	07/08/2004
X01690	Double Line Bi-Directional where Trains May Stand on the Exit Track Circuit - Indication Circuits		2	06/02/1999
X03200	Double Line Bi-Directional with Signal Regulation and Over-Run Call by Treadle and Track Circuit - Layout		2	06/02/1999
X03205	Double Line Bi-Directional with Signal Regulation and Over-Run Call by Treadle and Track Circuit - Circuit Index		3	01/12/2008
X03210	Double Line Bi-Directional with Signal Regulation and Over-Run Call by Treadle and Track Circuit - Track Control Circuits		2	06/02/1999
X03220	Double Line Bi-Directional with Signal Regulation and Over-Run Call by Treadle and Track Circuit - Signal Control Circuits		2	06/02/1999
X03230	Double Line Bi-Directional with Signal Regulation and Over-Run Call by Treadle and Track Circuit - Timing Circuits		2	06/02/1999
X03240	Double Line Bi-Directional with Signal Regulation and Over-Run Call by Treadle and Track Circuit - Control Circuits (1)		2	06/02/1999
X03250	Double Line Bi-Directional with Signal Regulation and Over-Run Call by Treadle and Track Circuit - Control Circuits (2)		2	06/02/1999
X03260	Double Line Bi-Directional with Signal Regulation and Over-Run Call by Treadle and Track Circuit - Control Circuits (3)		2	07/08/2004
X03290	Double Line Bi-Directional with Signal Regulation and Over-Run Call by Treadle and Track Circuit - Indication Circuits		2	06/02/1999
X03400	Double Line Bi-Directional with Signal Regulation and Over-Run Call by Track Circuit - Layout		2	06/02/1999
X03405	Double Line Bi-Directional with Signal Regulation and Over-Run Call by Track Circuit - Circuit Index		3	01/12/2008
X03410	Double Line Bi-Directional with Signal Regulation and Over-Run Call by Track Circuit - Track Control Circuits		2	06/02/1999
X03420	Double Line Bi-Directional with Signal Regulation and Over-Run Call by Track Circuit - Signal Control Circuits		2	06/02/1999
X03440	Double Line Bi-Directional with Signal Regulation and Over-Run Call by Track Circuit - Control Circuits (1)		1	06/02/1999
X03460	Double Line Bi-Directional with Signal Regulation and Over-Run Call by Track Circuit - Control Circuits (3)		2	07/08/2004
X03600	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls, Track and Treadle Over-Run for Common Signal Overlap and Crossing Track - Layout		2	06/02/1999

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
X03605	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls, Track and Treadle Over-Run for Common Signal Overlap and Crossing Track - Circuit Index		3	01/12/2008
X03610	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls, Track and Treadle Over-Run for Common Signal Overlap and Crossing Track - Track Control Circuits		2	06/02/1999
X03620	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls, Track and Treadle Over-Run for Common Signal Overlap and Crossing Track - Signal Control Circuits		1	06/021999
X03640	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls, Track and Treadle Over-Run for Common Signal Overlap and Crossing Track - Control Circuits (1)		1	06/02/1999
X03650	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls, Track and Treadle Over-Run for Common Signal Overlap and Crossing Track - Control Circuits (2)		2	06/02/1999
X03660	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls, Track and Treadle Over-Run for Common Signal Overlap and Crossing Track - Control Circuits (3)		2	07/08/2004
X03690	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls, Track and Treadle Over-Run for Common Signal Overlap and Crossing Track - Indication Circuits		1	06/02/1999
X03800	Double Line Bi-Directional with Signal Regulation, Separate ATC and Over-Run Call by Track Circuit - Layout		2	06/02/1999
X03805	Double Line Bi-Directional with Signal Regulation, Separate ATC and Over-Run Call by Track Circuit - Circuit Index		3	01/12/2008
X03810	Double Line Bi-Directional with Signal Regulation, Separate ATC and Over-Run Call by Track Circuit - Track Control Circuits		2	06/02/1999
X03820	Double Line Bi-Directional with Signal Regulation, Separate ATC and Over-Run Call by Track Circuit - Signal Control Circuits		2	06/02/1999
X03830	Double Line Bi-Directional with Signal Regulation, Separate ATC and Over-Run Call by Track Circuit - Timing Circuits		2	06/02/1999
X03840	Double Line Bi-Directional with Signal Regulation, Separate ATC and Over-Run Call by Track Circuit - Control Circuits (1)		2	06/02/1999
X03850	Double Line Bi-Directional with Signal Regulation, Separate ATC and Over-Run Call by Track Circuit - Control Circuits (2)		2	06/02/1999
X03860	Double Line Bi-Directional with Signal Regulation, Separate ATC and Over-Run Call by Track Circuit - Control Circuits (3)		2	07/08/2004
X03890	Double Line Bi-Directional with Signal Regulation, Separate ATC and Over-Run Call by Track Circuit - Indication Circuits		1	06/02/1999
X04200	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Treadle and Track Circuit - Layout		2	06/02/1999

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
X04205	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Treadle and Track Circuit - Circuit Index		3	01/12/2008
X04210	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Treadle and Track Circuit - Track Control Circuits		2	06/02/1999
X04220	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Treadle and Track Circuit - Signal Control Circuits		2	06/02/1999
X04400	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Treadle and Track Circuit - Layout		2	06/02/1999
X04405	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Track Circuit - Circuit Index		3	01/12/2008
X04410	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Track Circuit - Track Control Circuits		2	06/02/1999
X04420	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Track Circuit - Signal Control Circuits		2	06/02/1999
X04450	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Track Circuit - Control Circuits (2)		1	06/02/1999
X04500	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Track Circuit Where Strike-in allows M.R.O.T. - Layout		2	06/02/1999
X04505	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Track Circuit Where Strike-in allows M.R.O.T. - Circuit Index		3	01/12/2008
X04510	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Track Circuit Where Strike-in allows M.R.O.T. - Track Control Circuits		2	06/02/1999
X04520	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Track Circuit Where Strike-in allows M.R.O.T. - Signal Control Circuits		2	06/02/1999
X04550	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Track Circuit Where Strike-in allows M.R.O.T. - Control Circuits (2)		2	06/02/1999
X04560	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Track Circuit Where Strike-in allows M.R.O.T. - Control Circuits (3)		2	07/08/2004
X04600	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Track Circuit Where Strike-in Does Not Give M.R.O.T. - Layout		2	06/02/1999
X04605	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Track Circuit Where Strike-in Does Not Give M.R.O.T. - Circuit Index		3	01/12/2008

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
X04610	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Track Circuit Where Strike-in Does Not Give M.R.O.T. - Track Control Circuits		3	07/04/2001
X04620	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Track Circuit Where Strike-in Does Not Give M.R.O.T. - Signal Control Circuits		3	07/04/2001
X04650	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Track Circuit Where Strike-in Does Not Give M.R.O.T. - Control Circuits (2)		2	06/02/1999
X04660	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Track Circuit Where Strike-in Does Not Give M.R.O.T. - Control Circuits (3)		2	07/08/2004
X04700	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Track Circuit With Stopping Train Strike-in - Layout		2	06/02/1999
X04705	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Track Circuit With Stopping Train Strike-in - Circuit Index		3	01/12/2008
X04710	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Track Circuit With Stopping Train Strike-in - Track Control		2	06/02/1999
X04720	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Track Circuit With Stopping Train Strike-in - Signal Control		2	06/02/1999
X04750	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Track Circuit With Stopping Train Strike-in - Control Circuits (2)		2	06/02/1999
X04760	Double Line Bi-Directional with Signal Regulation, Stop / Non-Stop Controls and Over-Run Call by Track Circuit With Stopping Train Strike-in - Control Circuits (3)		2	07/08/2004
X07100	Single Line Layout GCP3000 Predictor		1	01/12/2008
X07105	Single Line Circuit Index GCP3000 Predictor		1	01/12/2008
X07140	Single Line Control Circuits (1) GCP3000 Predictor		1	01/12/2008
X07150	Single Line Control Circuits (2) GCP3000 Predictor		1	01/12/2008
X07190	Single Line Indication Circuits GCP3000 Predictor		1	01/12/2008
X07400	Double Line Bi-Directional Layout GCP3000 Predictor		1	01/12/2008
X07405	Double Line Circuit Index GCP3000 Predictor		1	01/12/2008
X07440	Double Line Bi-Directional Control Circuits (1) GCP3000 Predictor		1	01/12/2008
X07450	Double Line Bi-Directional Control Circuits (2) GCP3000 Predictor		1	01/12/2008
X07490	Single Line Bi-Directional Indication Circuits GCP3000 Predictor		1	01/12/2008
X08100	Block Shelf Indicator Unit, Faceplate Detail		2	06/02/1999

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
X08110	Block Shelf Indicator Unit, Wiring Detail (Polar Input)		3	01/12/2008
X08200	Multi Crossing Indicator Unit, Faceplate Detail		3	01/12/2008
X08210	Multi Crossing Indicator Unit, Indicator Unit, Internal Wiring		3	01/12/2008
X08250	Panel Faceplate Detail		1	01/12/2008
X08300	Indication Control Unit, Construction (1) - Front View		2	06/02/1999
X08310	Indication Control Unit, Construction (2) - Rear View		2	06/02/1999
X08320	Indication Control Unit, Wiring Detail showing connection to Panel (Polar Input)		2	06/02/1999
X08400	Indications, (PETS Unit)		3	01/12/2008
X08410	Block Shelf Indicator Unit, Wiring Detail (PETS Unit)		3	01/12/2008
X08420	Indication Control Unit, Wiring Detail showing connection to Panel (PETS Unit)		3	01/12/2008
X08500	Power Supply Circuits		3	07/08/2004
X08510	Flasher Circuits (for use when an additional Flasher is required)	Withdrawn 01/12/2008	1	06/02/1999
X08600	Signal Regulation Circuits For Approach Released Signals where S.I.P. = Approach Release Point		2	06/02/1999
X08700	Control and Indication Circuits to Provide Additional HER Contacts for Auxiliary Road Lights		2	06/02/1999
X08800	Call By Plunger		2	06/02/1999
X08900	Absent Controls		1	06/02/1999
X08910	Stopping / Non-Stopping Controls and Indications		1	01/12/2008
MANUALLY CONTROLLED BARRIERS WITH OBSTACLE DETECTOR (MCB-OD)				
X10025	General Guidelines (3) Changes for IDS LXOD	New sheet	1	07/12/2024
X11137	Obstacle Detection System Outgoing Indications IDS LXOD	New sheet	1	07/12/2024
X11911	Scan Timer and Technicians Controls IDS LXOD	New sheet	1	07/12/2024
X12140	Control Circuits IDS LXOD	New sheet	1	07/12/2024
X43140	IDS LXOD Overview and System Diagram	New sheet	1	07/12/2024
X43145	IDS LXOD Equipment Photos	New sheet	1	07/12/2024
X43150	IDS LXOD Control Unit (CU) Input Interface	New sheet	1	07/12/2024
X43155	IDS LXOD Control Unit (CU) Outputs, Power & Network	New sheet	1	07/12/2024
X43165	IDS LXOD RADAR Scanner (RS)	New sheet	1	07/12/2024
X43166	IDS LXOD Port Allocations	New sheet	1	07/12/2024
X43170	IDS LXOD Diagnostic Unit (DU)	New sheet	1	07/12/2024
X43175	IDS LXOD Surveillance Cameras	New sheet	1	07/12/2024
X43180	IDS LXOD Cable Screens and Connections to Earth	New sheet	1	07/12/2024
X43195	IDS LXOD Power Circuits Duvine PRD-0848	New sheet	1	07/12/2024
X43196	IDS LXOD Duvine PRD-0848 Equipment Photos	New sheet	1	07/12/2024
X10010	General Guidelines	Withdrawn 05/09/2015	3	03/12/2011
X10030	Relay Specifications and Data Logging Information	Withdrawn 05/09/2015	3	03/12/2011
X10050	Layout	Withdrawn 05/09/2015	3	03/12/2011
X11100	Control & Indication Layouts	Withdrawn 05/09/2015	2	03/12/2011
X11110	Incoming Control Circuits	Withdrawn 05/09/2015	2	03/09/2011
X11130	Outgoing Indication CCTS	Withdrawn 05/09/2015	3	03/12/2011
X11140	Control Centre Indication Circuits	Withdrawn 05/09/2015	2	03/09/2011
X11150	Control Centre Audible Indication Circuits	Withdrawn 05/09/2015	2	03/09/2011

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
X11300	Auto Lower Strike-In Controls (1) Auto Section Lookback	Withdrawn 05/09/2015	2	03/09/2011
X11310	Auto Lower Strike-In Controls (2) Controlled Area Lookback	Withdrawn 05/09/2015	2	03/09/2011
X11415	Interlocking Interface Circuits (1)	Withdrawn 05/09/2015	2	03/09/2011
X11420	Interlocking Interface Circuits (2)	Withdrawn 05/09/2015	3	03/12/2011
X11425	Mode Selection Circuits	Withdrawn 05/09/2015	3	03/12/2011
X11430	Crossing Control Circuits (1)	Withdrawn 05/09/2015	3	03/12/2011
X11435	Crossing Control Circuits (2)	Withdrawn 05/09/2015	3	03/12/2011
X11440	Barrier Control Circuits	Withdrawn 05/09/2015	3	03/12/2011
X11450	Barrier Sequencing Circuits	Withdrawn 05/09/2015	2	03/09/2011
X11460	Valve Control Circuits 4 Barrier Crossings	Withdrawn 05/09/2015	3	03/12/2011
X11461	Valve Control Circuits 2 Barrier Crossings	Withdrawn 05/09/2015	1	03/12/2011
X11470	Barrier Failure Detection Circuits	Withdrawn 05/09/2015	3	03/12/2011
X11473	Automatic Barrier Management Circuits 4 Barrier Crossing	Withdrawn 05/09/2015	2	03/12/2011
X11474	Automatic Barrier Management Circuits 2 Barrier Crossing	Withdrawn 05/09/2015	1	03/12/2011
X11475	Crossing Failure Detection Circuits	Withdrawn 05/09/2015	3	03/12/2011
X11480	Road Light Failure Circuits	Withdrawn 05/09/2015	1	03/09/2011
X11490	LCU Circuits	Withdrawn 05/09/2015	3	03/12/2011
X11492	LCU General Arrangement	Withdrawn 05/09/2015	2	03/12/2011
X11495	Crossing Clear Unit Circuits	Withdrawn 05/09/2015	2	03/12/2011
X11497	XCU General Arrangement	Withdrawn 05/09/2015	1	03/09/2011
X11520	Audible Warning Circuits	Withdrawn 05/09/2015	1	03/09/2011
X11560	Barrier Detection Circuits (1) 4 Barrier Crossings	Withdrawn 05/09/2015	2	03/09/2011
X11570	Barrier Detection Circuits (2) 4 Barrier Crossings	Withdrawn 05/09/2015	2	03/09/2011
X11571	Barrier Detection Circuits 2 Barrier Crossings	Withdrawn 05/09/2015	1	03/12/2011
X11580	Barrier Motor Contactor Circuits	Withdrawn 05/09/2015	2	03/12/2011
X11590	Outgoing YN/ZN Barrier Circuits for BR843/BR985 Electro-Hydraulic Unit	Withdrawn 05/09/2015	2	03/12/2011
X11595	Outgoing YO/ZO Barrier Circuits for BR843/BR985 Electro-Hydraulic Unit	Withdrawn 05/09/2015	2	03/12/2011
X11710	Signal Control Circuits Single Route Signal (101)	Withdrawn 05/09/2015	2	03/09/2011
X11715	Signal Control Circuits Multiple Route Signal (102) With Approach Release	Withdrawn 05/09/2015	2	03/09/2011
X11720	Signal Control Circuits Multiple Route Signal (4) No Approach Release	Withdrawn 05/09/2015	2	03/09/2011
X11725	Signal Control Circuits Multiple Route Signal (6) Not All Routes Over LC	Withdrawn 05/09/2015	2	03/09/2011
X11730	Signal Control Circuits Single Route Signal (223)	Withdrawn 05/09/2015	2	03/09/2011
X11750	Route Away Control Circuits	Withdrawn 05/09/2015	2	03/09/2011
X11910	Crossing Clear Circuits Honeywell YD 136 C2 POD & Redwall RLS-3060 COD	Withdrawn 05/09/2015	3	03/12/2011
X12110	Control Circuits (1) Honeywell YD 136 C2	Withdrawn 05/09/2015	3	03/12/2011
X12115	Control Circuits (2) Honeywell YD 136 C2	Withdrawn 05/09/2015	3	03/12/2011
X13110	POD Connections (1) Honeywell YD 136 C2 Inputs and Output	Withdrawn 05/09/2015	2	03/09/2011
X13120	POD Connections (2) Honeywell YD 136 C2 Power Supplies	Withdrawn 05/09/2015	2	03/09/2011
X13130	POD Connections (3) Honeywell YD 136 C2 POD Communications	Withdrawn 05/09/2015	2	03/09/2011
X13140	Output Monitoring Circuits (1) Honeywell YD 136 C2	Withdrawn 05/09/2015	2	03/09/2011
X13150	Output Monitoring Circuits (2) Honeywell YD 136 C2	Withdrawn 05/09/2015	3	03/12/2011
X14110	COD Connections (1) Redwall RLS-3060	Withdrawn 05/09/2015	3	03/12/2011
X14120	COD Connections (2) Redwall RLS-3060	Withdrawn 05/09/2015	3	03/12/2011

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
X15010	Monitoring & Diagnostic Connections	Withdrawn 05/09/2015	2	03/12/2011

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
AUTOMATIC HALF BARRIER CROSSINGS LOCALLY MONITORED (ABCL)				
X20001	Index (1)	Withdrawn 05/09/2009	2	07/08/2004
X20002	Index (2)	Withdrawn 05/09/2009	2	07/08/2004
X20003	Index (3)	Withdrawn 05/09/2009	2	07/08/2004
X20010	Configuration Index (1)	Supersedes GK-X20010	2	05/02/2000
X20011	Configuration Index (2)		2	07/08/2004
X20015	General Guidelines (1)	Supersedes GK-X20015	2	05/02/2000
X20016	General Guidelines (2)	Supersedes GK-X20016	2	05/02/2000
X20017	General Guidelines (3)	Supersedes GK-X20017	2	05/02/2000
X20018	Methods to Overcome Potential Timing Problems (1)		1	05/02/2000
X20019	Methods to Overcome Potential Timing Problems (2)		1	05/02/2000
X20020	Method for Calculating the Stike-in Point	Supersedes GK-X20020 04/03/2023 Endorsed “Historic see NR/L2/SIG/11201 Mod X11 For Current Requirements”	2	05/02/2000
X20030	Example Treadle Arrangements (1)	Supersedes GK-X20030	3	07/08/2004
X20040	Example Treadle Arrangements (2)		1	05/02/2000
X20050	Example Treadle Arrangements (3)		2	07/08/2004
X20060	Typical Track Circuit Schematic (1)		1	05/02/2000
X20070	Typical Track Circuit Schematic (2)		2	07/08/2004
X20110	Motor & Valve Circuits	Supersedes GK-X21160	2	07/08/2004
X20120	Barrier Pedestal Wiring		1	05/02/2000
X20130	Road Light Circuits	Supersedes GK-X21120 04/03/2023 Endorsed “Historic see X41200 For Current Requirements”	1	05//02/2000
X20140	Pedestrian Light Circuits		1	05/02/2000
X20150	Drivers Plunger Unit		1	05/02/2000
X20170	Audible Warning Volume Limiter (1)	Supersedes GK-X20170	2	05/02/2000
X20180	Audible Warning Volume Limiter (2)		1	05/02/2000
X20210	Typical Equipment Room Layout	Supersedes GK-X20210	2	05/02/2000
X20220	Relay / Fuse Rack Details	Supersedes GK-X20220	2	05/02/2000
X20230	Power / Termination Rack Details	Supersedes GK-X20230	3	07/08/2004
X20240	Relay Rack and H / O Board Layout		2	07/08/2004
X20250	Relay Configuration Details		1	05/02/2000
X20280	Power Supply Circuits		2	07/08/2004
X21010	Single Line - Layout	Supersedes GK-X21010	2	05/02/2000
X21040	Single Line - Track Control Circuits	Supersedes GK-X21040	2	05/02/2000
X21050	Single Line - Directional Control Circuits	Supersedes GK-X21050	2	05/02/2000
X21060	Single Line - Control Circuits (1)	Supersedes GK-X21060	3	07/08/2004
X21065	Single Line - Control Circuits (2)		1	05/02/2000
X21070	Single Line - Control Circuits (3)	Supersedes GK-X21070	2	05/02/2000
X21090	Single Line - Crossing Cycling Circuits	Supersedes GK-X21090	3	07/08/2004
X21100	Single Line - Rail Signal Control Circuits	Supersedes GK-X21100	2	05/02/2000
X21130	Single Line - Audible Warning Circuits	Supersedes GK-X21030	3	07/08/2004
X21140	Single Line - A / B Rail Signal Circuits		1	05/02/2000

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
X21170	Single Line - Barrier Detection Circuits	Supersedes GK-X21170	2	05/02/2000
X21180	Single Line - Monitor Circuits (1)	Supersedes GK-X21180	3	07/08/2004
X21190	Single Line - Monitor Circuits (2)		2	07/08/2004
X21210	Single Line With Short or Predictable Station Stop in the Down Direction - Layout		1	05/02/2000
X21270	Single Line With Short or Predictable Station Stop in the Down Direction - Control Circuits (2)		1	05/02/2000
X21300	Single Line With Short or Predictable Station Stop in the Down Direction - Rail Signal Control Circuits		1	05/02/2000
X21340	Single Line With Short or Predictable Station Stop in the Down Direction - A /B Rail Signal Circuits		1	05/02/2000
X21410	Single Line With Long or Unpredictable Station Stop in the Down Direction - Layout		1	05/02/2000
X21440	Single Line With Long or Unpredictable Station Stop in the Down Direction - Track Control Circuits		1	05/02/2000
X21500	Single Line With Long or Unpredictable Station Stop in the Down Direction - Rail Signal Control Circuits		1	05/02/2000
X22010	Double Line Bi-Directional - Layout	Supersedes GK-X22010	2	05/02/2000
X22040	Double Line Bi-Directional - Track Control Circuits	Supersedes GK-X22040	2	05/02/2000
X22050	Double Line Bi-Directional - Directional Control Circuits	Supersedes GK-X22050	2	05/02/2000
X22060	Double Line Bi-Directional - Control Circuits (1)	Supersedes GK-X22060	2	05/02/2000
X22065	Double Line Bi-Directional - Control Circuits (2)		2	07/08/2004
X22070	Double Line Bi-Directional - Control Circuits (3)	Supersedes GK-X22070	2	05/02/2000
X22080	Double Line Bi-Directional - Control Circuits (4)	Supersedes GK-X22080	2	05/02/2000
X22090	Double Line Bi-Directional - Crossing Cycling Circuits	Supersedes GK-X22090	3	07/08/2004
X22100	Double Line Bi-Directional - Rail Signal Control Circuits	Supersedes GK-X22100	2	05/02/2000
X22130	Double Line Bi-Directional - Audible Warning Circuits	Supersedes GK-X22130	3	07/08/2004
X22140	Double Line Bi-Directional - A / B Rail Signal Circuits	Supersedes GK-X22140	2	05/02/2000
X22150	Double Line Bi-Directional - C / D Rail Signal Circuits	Supersedes GK-X22150	2	05/02/2000
X22170	Double Line Bi-Directional - Barrier Detection Circuits	Supersedes GK-X22170	2	05/02/2000
X22180	Double Line Bi-Directional - Monitor Circuits (1)		2	07/08/2004
X22190	Double Line Bi-Directional - Monitor Circuits (2)		2	07/08/2004
X22200	Double Line Bi-Directional - Monitor Circuits (3)		1	07/08/2004

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
AUTOMATIC OPEN CROSSINGS LOCALLY MONITORED (AOCL)				
X30001	Index (1)	Withdrawn 05/09/2009	3	07/08/2004
X30002	Index (2)	Withdrawn 05/09/2009	3	07/08/2004
X30010	Configuration Index (1)	Supersedes GK-X30010	2	05/02/2000
X30011	Configuration Index (2)		2	07/08/2004
X30015	General Guidelines (1)	Supersedes GK-X30015	2	05/02/2000
X30016	General Guidelines (2)	Supersedes GK-X30016	2	05/02/2000
X30017	General Guidelines (3)	Supersedes GK-X30017	3	02/08/2003
X30018	Methods to Overcome Potential Timing Problems (1)		1	05/02/2000
X30019	Methods to Overcome Potential Timing Problems (2)		1	05/02/2000
X30020	Method for Calculating the Strike-in Point	Supersedes GK-X30020 04/03/2023 Endorsed “Historic see NR/L2/SIG/11201 Mod X11 For Current Requirements”	2	05/02/2000
X30030	Example Treadle Arrangements (1)	Supersedes GK-X30030	3	07/08/2004
X30040	Example Treadle Arrangements (2)	Supersedes GK-X30040	2	05/02/2000
X30050	Example Treadle Arrangements (3)	Supersedes GK-X30050	3	07/08/2004
X30060	Typical Track Circuit Schematic (1)		2	07/08/2004
X30070	Typical Track Circuit Schematic (2)		2	07/08/2004
X30140	Pedestrian Light Circuits		1	05/02/2000
X30150	Drivers Plunger Unit		1	05/02/2000
X30170	Audible Warning Volume Limiter (1)		1	05/02/2000
X30180	Audible Warning Volume Limiter (2)		1	05/02/2000
X30210	Typical Equipment Room Layout		1	05/02/2000
X30220	Relay / Fuse Rack Details		1	05/02/2000
X30230	Power / Termination Rack Details		2	07/08/2004
X30240	Relay Track and H / O Board Layout		3	07/08/2004
X30250	Relay Configuration Details		2	02/08/2003
X30280	Power Supply Circuits		2	07/08/2004
X31010	Single Line - Layout	Supersedes GK-X31010	2	05/02/2000
X31040	Single Line - Track Control Circuits	Supersedes GK-X31040	2	05/02/2000
X31050	Single Line - Directional Control Circuits	Supersedes GK-X31050	2	05/02/2000
X31060	Single Line - Control Circuits (1)	Supersedes GK-X31060	4	07/08/2004
X31065	Single Line - Control Circuits (2)		1	05/02/2000
X31070	Single Line - Control Circuits (3)	Supersedes GK-X31070	4	07/08/2004
X31100	Single Line - Rail Signal Control Circuits	Supersedes GK-X31100	3	02/08/2003
X31120	Single Line - Road Light Circuits	04/03/2023 Endorsed “Historic see X41200 For Current Requirements”	1	05/02/2000
X31130	Single Line - Audible Warning Circuits		2	07/08/2004
X31140	Single Line - A / B Rail Signal Circuits		1	05/02/2000
X31180	Single Line - Monitor Circuits (1)		2	07/08/2004
X31190	Single Line - Monitor Circuits (2)		3	07/08/2004
X31210	Single Line With Short or Predictable Station Stop in the Down Direction - Layout		1	05/02/2000

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
X31270	Single Line With Short or Predictable Station Stop in the Down Direction - Control Circuits (3)		3	07/08/2004
X31300	Single Line With Short or Predictable Station Stop in the Down Direction - Rail Signal Control Circuits		2	02/08/2003
X31340	Single Line With Short or Predictable Station Stop in the Down Direction - A /B Rail Signal Circuits		1	05/02/2000
X31410	Single Line With Long or Unpredictable Station Stop in the Down Direction - Layout		1	05/02/2000
X31440	Single Line With Long or Unpredictable Station Stop in the Down Direction - Track Control Circuits		1	05/02/2000
X31500	Single Line With Long or Unpredictable Station Stop in the Down Direction - Rail Signal Control Circuits		2	02/08/2003
X32010	Double Line Bi-Directional - Layout		1	05/02/2000
X32040	Double Line Bi-Directional - Track Control Circuits		1	05/02/2000
X32050	Double Line Bi-Directional -Directional Control Circuits	Supersedes GK-X32050	2	05/02/2000
X32060	Double Line Bi-Directional - Control Circuits (1)		1	05/02/2000
X32065	Double Line Bi-Directional - Control Circuits (2)		3	07/08/2004
X32070	Double Line Bi-Directional - Control Circuits (3)	Supersedes GK-X32070	2	05/02/2000
X32080	Double Line Bi-Directional - Control Circuits (4)		3	07/08/2004
X32100	Double Line Bi-Directional - Rail Signal Control Circuits	Supersedes GK-X32100	3	02/08/2003
X32120	Double Line Bi-Directional - Road Light Circuits		1	05/02/2000
X32130	Double Line Bi-Directional - Audible Warning Circuits		2	07/08/2004
X32140	Double Line Bi-Directional - A / B Rail Signal Circuits		1	05/02/2000
X32150	Double Line Bi-Directional - C / D Rail Signal Circuits		1	05/02/2000
X32180	Double Line Bi-Directional - Monitor Circuits (1)		2	07/08/2004
X32190	Double Line Bi-Directional - Monitor Circuits (2)		3	07/08/2004
AUTOMATIC OPEN CROSSINGS LOCALLY MONITORED+B (AOCL+B)				
X39901	BARRIER LOCATION – LOCATION LAYOUT		2	07/03/2015
X39902	BARRIER LOCATION – LOCATION LAYOUT DESCRIPTION		2	07/03/2015
X39903	BARRIER LOCATION – POWER SUPPLIES & EARTHING		2	07/03/2015
X39904	BARRIER LOCATION – FUSE & TERMINAL ANALYSIS & H/O BOARD LAYOUT		2	07/03/2015
X39905	BARRIER LOCATION – B24 & N24 LOOPING		2	07/03/2015
X39906	BARRIER LOCATION – BARRIER CONTROL CIRCUITS		2	07/03/2015
X39907	BARRIER LOCATION – BARRIER MOTOR & VALVE CIRCUITS		2	07/03/2015
X39908	BARRIER LOCATION – BARRIER DETECTION CIRCUITS		2	07/03/2015
X39909	BARRIER LOCATION – BARRIER BOOM LIGHTS		2	07/03/2015
X39910	BARRIER LOCATION – DCI CIRCUITS		2	07/03/2015
X39911	BARRIER LOCATION – LINK ANALYSIS		2	07/03/2015
X39912	BARRIER LOCATION – CONTACT ANALYSIS		2	07/03/2015
X39913	BARRIER LOCATION – DATALOGGER CIRCUITS		2	07/03/2015

CIRCUIT DRAWINGS FOR FREE-WIRED MISCELLANEOUS LEVEL CROSSINGS

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
MISCELLANEOUS LEVEL CROSSINGS TYPICAL CIRCUITS				
X40001	Miscellaneous Level Crossing - Index	Withdrawn 05/09/2009	1	01/06/2008
X40010	Miscellaneous Level Crossing - General Guidelines (1)		1	01/06/2008
X40011	Miscellaneous Level Crossing - General Guidelines (2)		1	01/06/2008
X41000	LED Light Unit - Front Sheet		1	01/06/2008
X41050	LED Light Unit - Road Traffic Light Guidelines		1	01/06/2008
X41100	LED Light Unit - Road Traffic Light Flasher Unit Circuits		1	01/06/2008
X41200	LED Light Unit - Road Traffic Light Circuits		2	03/03/2012
X41500	LED Light Unit - MSL Circuits (Retrospective Fitment)		2	05/09/2009
X42000	Wicket Gate Magnetic Lock - Front Sheet		1	01/06/2008
X42100	Wicket Gate Magnetic Lock - Power Supply Circuits		1	01/06/2008
X42110	Wicket Gate Magnetic Lock - Lock and Detection Circuits		1	01/06/2008
X42120	Wicket Gate Magnetic Lock - Control Circuits		1	01/06/2008
X42200	Wicket Gate Magnetic Lock - Non Interlocked Control Circuits		1	01/06/2008
X42210	Wicket Gate Magnetic Lock - Non Interlocked Indication Circuits		2	05/09/2009
X42250	Wicket Gate Magnetic Lock - Interlocked Control Circuits		1	01/06/2008
X42260	Wicket Gate Magnetic Lock - Interlocked Indication Circuits		3	04/06/2011
X42300	Wicket Gate Magnetic Lock - Data Logger Circuits		1	01/06/2008
X42310	Wicket Gate Magnetic Lock - Relay Types		1	01/06/2008
X42320	Wicket Gate Magnetic Lock - Crossing Operators Indication Unit Wiring and Faceplate Detail		2	05/09/2009
X49999	Level Crossing Typical Circuits Known Issues		2	04/03/2023
MINIATURE WARNING LIGHT (MWL) CROSSINGS (NOT FOR NEW WORK)				
GK-X50010	Index	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X50015	General Guidelines (1)	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X50016	General Guidelines (2)	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X50017	General Guidelines (3)	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X50100	Relay Configuration Details	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X50400	Layout: Single Line	Obsolete: NOT To Be Used For New Work		31/01/1995

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
GK-X50410	Track Control Circuits: Single Line	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X50430	JR, JPR & SR Circuits: Single Line	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X50440	Control & Indication Circuits: Single Line	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X50450	Audible Warning Circuits	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X50460	Miniature Stop Lights	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X50600	Layout: Single Line with Crossing Track	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X50610	Track Control Circuits: Single Line with Crossing Track	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X50630	JR, JPR & SR Circuits: Single Line with Crossing Track	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X51000	Layout: Double Line Bi-Directional	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X51010	Track Control Circuits: Double Line Bi-Directional	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X51030	JR, JPR & SR Circuits: Double Line Bi-Directional	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X51040	Control & Indication Circuits: Double Line Bi-Directional	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X51200	Layout: Double Line Bi-Directional with Crossing Track	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X51210	Track Control Circuits: Double Line Bi-Directional with Crossing Track	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X51230	JR, JPR & SR Circuits: Double Line Bi-Directional with Crossing Track	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X55000	Layout: Double Line Uni-Directional with Track & Treadle Reset	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X55010	Track Control & JR Circuits: Double Line Uni-Directional with Track & Treadle Reset	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X55040	Control & Indication Circuits: Double Line Uni-Directional with Track & Treadle Reset	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X55200	Layout: Double Line Uni-Directional with Treadle Only Reset	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X55210	Track Control & JR Circuits: Double Line Uni-Directional with Treadle Only Reset	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X55400	Layout: Double Line Uni-Directional with Crossing Track	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X55410	Track Control & JR Circuits: Double Line Uni-Directional with Crossing Track	Obsolete: NOT To Be Used For New Work		31/01/1995

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
GK-X55600	Layout: Double Line Uni-Directional with Crossing Track & Treadle Reset	Obsolete: NOT To Be Used For New Work		31/01/1995
GK-X55610	Track Control & JR Circuits: Double Line Uni-Directional with Crossing Track & Treadle Reset	Obsolete: NOT To Be Used For New Work		31/01/1995

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
MINIATURE STOP LIGHT (MSL) CROSSINGS				
GK-X60000	Index of typical Circuits and Layouts	Withdrawn 05/09/2009	1	26/06/1998
GK-X60010	General Notes		1	26/06/1998
GK-X60020	General Guidelines (1)		1	26/06/1998
GK-X60030	General Guidelines (2)		1	26/06/1998
GK-X60040	General Guidelines (3)		1	26/06/1998
GK-X60100	Example Treadle Arrangements Sheet 1		1	26/06/1998
GK-X60110	Example Treadle Arrangements Sheet 2		1	26/06/1998
GK-X60120	Example Treadle Arrangements Sheet 3		1	26/06/1998
GK-X60130	Example Treadle Arrangements Sheet 4		1	26/06/1998
GK-X60200	Miniature Stop Light		1	26/06/1998
GK-X60300	Audible Warning Volume Limiter		1	26/06/1998
GK-X60310	Audible Warning Volume Limiter		1	26/06/1998
GK-X60600	Layout - Single Line		1	26/06/1998
GK-X60610	Track Control Circuits - Single Line		1	26/06/1998
GK-X60620	Timing Circuits - Single Line		1	26/06/1998
GK-X60630	Controls (1) - Single Line		1	26/06/1998
GK-X60640	Indication Circuits - Single Line		1	26/06/1998
GK-X60650	Audible Warning Circuits - Single Line		1	26/06/1998
GK-X60700	Layout - Double Line		1	26/06/1998
GK-X60710	Track Control Circuits - Double Line		1	26/06/1998
GK-X60720	Timing Circuits - Double Line		1	26/06/1998
GK-X60730	Controls (1) - Double Line		1	26/06/1998
GK-X60740	Controls (2) - Double Line		1	26/06/1998
GK-X60750	Indication Circuits - Double Line		1	26/06/1998
GK-X60760	Audible Warning Circuits - Double Line		1	26/06/1998

Overlay Miniature Stop Lights Typical Circuits

INTERFACED OVERLAY MINIATURE STOP LIGHTS (IOMSL)				
X62000	Front Sheet	New sheet	1	07/12/2024
X62005	Scheme Sketch and Controls Two Track, One Signal	New sheet	1	07/12/2024
X62010	Crossing Control Circuits SSI Interlocking	New sheet	1	07/12/2024
X62015	SSI Interface 4 Aspect LED Signal Circuits	New sheet	1	07/12/2024
X62020	Crossing Control Circuits RRI Interlocking	New sheet	1	07/12/2024
X62025	RRI Interface 3/4 Aspect Signal Circuits	New sheet	1	07/12/2024
X62030	Crossing Control Interface Event Monitoring Circuit	New sheet	1	07/12/2024
X62040	Contact Analysis	New sheet	1	07/12/2024

Circuit Drawings for Free-Wired Manually Controlled Level Crossings

MANUALLY CONTROLLED BARRIER (MCB) CROSSINGS, INCLUDING CCTV OPTIONS

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
X70001	Index (1)	Withdrawn 05/09/2009	4	07/04/2007
X70002	Index (2)	Withdrawn 05/09/2009	4	07/04/2007
X70003	Index (3)	Withdrawn 05/09/2009	2	07/04/2007
X70004	Index (4)	Withdrawn 05/09/2009	2	07/04/2007
X70005	Configuration Index 1		2	07/04/2007
X70006	Configuration Index 2		4	03/03/2012
X70015	General Guidelines (1)		4	07/04/2007
X70016	General Guidelines (2)		4	07/04/2007
X70017	General Guidelines (3)		4	07/04/2007
X70020	(Non CCTV) Control & Indication Circuits		4	07/04/2007
X70021	(CCTV Only) Control Circuits		2	05/12/2009
X70022	(CCTV Only) Barrier Indication And Video Control Circuits		3	05/12/2009
X70023	Auto Lower L.C. Annunciator		2	07/04/2007
X70030	Barrier Control Circuits (1), For Level Crossings located within an Interlocked Area		4	07/04/2007
X70040	Barrier Control Circuits (2)		4	07/04/2007
X70045	Barrier Control Circuits (3)		1	07/04/2007
X70050	Barrier Control Circuits (4)		4	07/04/2007
X70051	Barrier Control Circuits (5)		2	07/04/2007
X70055	Absent Circuits		4	07/04/2007
X70060	Signal Control Circuits For Level Crossings located within an Interlocked Area (1)		4	07/04/2007
X70065	Signal Control Circuits For Level Crossings located within an Interlocked Area (2) (Automatic Raising Only)		1	07/04/2007
X70070	Signal/Barrier Interlocking Circuits for Double Line		4	07/04/2007
X70075	Signal/Barrier Interlocking Circuits for Single Line/Single Track Section		4	07/04/2007
X70080	Barrier Control Circuits (1) where Signals would otherwise be Plated		4	07/04/2007
X70100	Signal Control Circuits where Signals would otherwise be Plated Automatic		4	07/04/2007
X70130	Barrier Controls for Mechanical Signalling (1)		4	07/04/2007
X70135	Barrier Controls for Mechanical Signalling (2)		1	07/04/2007
X70150	Signal/Barrier Interlocking Circuits and Signal Control Circuits for Single Lines/Multiple Track Sections		4	07/04/2007
X70155	Barrier Control Circuits (2) for Single Line/Multiple Track Sections		4	07/04/2007
X70160	Approach Control of Signals in Rear of Protecting Signals	Withdrawn 05/12/2009	3	02/04/2005
X70170	Road Light Circuits (1) (Tungsten Halogen Lamps)		4	07/04/2007
X70171	Road Light Circuits (1) (LED Lamp Modules)	Withdrawn 07/03/2020	1	07/04/2007
X70175	Road Light Circuits (2)		3	02/04/2005
X70180	Audible Warning Circuits		4	07/04/2007

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
X70181	Audible Warning Volume Limiter (1)		3	02/04/2005
X70182	Audible Warning Volume Limiter (2)		3	02/04/2005
X70190	4 Barrier Detection Circuits (1)		4	07/04/2007
X70200	4 Barrier Detection Circuits (2)		4	07/04/2007
X70210	2 Barrier Detection Circuits		4	07/04/2007
X70220	Barrier Contactor Circuits		3	02/04/2005
X70230	Motor & Valve Circuits		4	07/04/2007
X70240	Barrier Pedestal Wiring		3	02/04/2005
X70250	24v Power Supply Arrangements		3	02/04/2005
X70270	Relay Types		4	07/04/2007
X70500	Data Logger Circuits (1)		2	07/04/2007
X70510	Data Logger Circuits (2)		2	07/04/2007
X70520	Data Logger Circuits (3)		2	07/04/2007
X71200	(Non CCTV) Manned Barrier Control Unit, Layout & Ordering Details		3	02/04/2005
X71210	(Non CCTV) Manned Barrier Control Unit, Wiring Details		3	02/04/2005
X71250	CCTV Block Shelf Mounted Control Unit. Layout & Ordering Details		2	05/12/2009
X71260	CCTV Block Shelf Mounted Control Unit. Wiring Details (1)		1	02/04/2005
X71270	CCTV Block Shelf Mounted Control Unit. Wiring Details (2)		1	02/04/2005
X71280	(CCTV Only) Control and Indication Layout where monitor incorporated in Panel		1	05/12/2009
X71310	Auto Lower Barrier Control Circuits		4	07/04/2007
X71320	Auto Lower Signal Control Circuits for Level Crossings located within an Interlocked Area		4	07/04/2007
X71330	Auto Lower Signal Control Circuits where Signals would otherwise be Plated Automatic		4	07/04/2007
X71340	Auto Lower Signal/Barrier Interlocking Circuits		4	07/04/2007
X71350	Auto Lower Signal/Barrier Interlocking Circuits for Single Line		4	07/04/2007
X71360	Auto Lower Strike In Circuits		3	02/04/2005
X71370	Auto Lower Circuits		4	07/04/2007
X71490	General Notes		2	03/03/2012
X71500	(CCTV Only) Picture/Monitor/Video Control Circuits		3	05/12/2009
X71510	Camera Control Circuits (1) (Where CCTV Cubicle Provided)		3	03/03/2012
X71520	(CCTV Only) Camera Control Circuits (2) (Where CCTV Cubicle Provided)		2	05/12/2009
X71530	Camera Control Circuits (1) (Where CCTV Cubicle NOT Provided)		3	03/03/2012
X71540	Camera Control Circuits (2) (Where CCTV Cubicle NOT Provided)		3	03/03/2012
X71550	(CCTV Only) Dennard Camera Housing Details		3	05/12/2009
X71600	(CCTV Only CCTV Camera Earthing Typical		3	05/12/2009
X71610	(CCTV) Transmission Schematic		3	05/12/2009
X72010	CCTV Transmitter Cubicle Profile		4	03/03/2012
X72013	(CCTV Only) CCTV Transmitter Cubicle Power & Earthing Details		1	05/12/2009

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
X72015	(CCTV Only) CCTV Transmitter Cubicle Monitor and Video Recorder Circuits		1	05/12/2009
X72020	(CCTV Only) Baseband CCTV Fuse & Link Detail (Relay Rack Mounted)	Withdrawn 05/12/2009	2	02/04/2005
X72030	(CCTV Only) CCTV Transmitter Cubicle Mechanical Details	Withdrawn 05/12/2009	2	02/04/2005
X72040	(CCTV Only) CCTV Transmitter Cubicle, Baseband Transmission - Internal Wiring	Withdrawn 05/12/2009	2	02/04/2005
X72041	(CCTV Only) CCTV Transmitter Cubicle Internal Wiring		3	05/12/2009
X72050	(CCTV Only) CCTV Transmitter Power and Earthing Details		3	05/12/2009
X72070	(CCTV Only) Mounting Plate for Video Relay & Test Unit		4	04/09/2010
X72080	(CCTV Only) Video Relay & Test Unit Construction		3	05/12/2009
X72090	(CCTV Only) Video Relay & Test Unit Internal Wiring		3	05/12/2009
X72100	(CCTV Only) Mounting Bracket for Type 'A' Cable	Withdrawn 05/12/2009	2	02/04/2005
X72110	(CCTV Only) CCTV Fuse and Link Detail (Relay Rack Layout)		3	05/12/2009
X72120	(CCTV Only) CCTV Baseband Surge Protection Unit	Withdrawn 05/12/2009	2	02/04/2005
X72180	CCTV Receiver Cubicle Profile		4	03/03/2012
X72190	(CCTV Only) CCTV Receiver Cubicle Mechanical Details	Withdrawn 05/12/2009	2	02/04/2005
X72200	(CCTV Only) CCTV Receiver Cubicle Power & Earthing Details		3	05/12/2009
X72210	CCTV Receiver Cubicle Monitor & Video Recorder Circuits		2	03/03/2012
X72240	(CCTV Only) Camera Housing Wiring Details. Grundig Camera in Dennard Housing & Shawley Housing	Withdrawn 05/12/2009	2	02/04/2005
X72250	(CCTV Only) Baseband Transmission Schematic	Withdrawn 05/12/2009	2	02/04/2005
X72251	(CCTV Only) Fibre Optic Transmission Schematic	Withdrawn 05/12/2009	2	02/04/2005
X72260	(CCTV Only) Baseband Transmission CCTV Monitor Connections (Multi-site with Spare)	Withdrawn 05/12/2009	2	02/04/2005
X72261	(CCTV Only) Fibre Optic Transmission CCTV Monitor Connections (Multi-site with Spare)	Withdrawn 05/12/2009	2	02/04/2005
X72270	(CCTV Only) Baseband Transmission CCTV Monitor Connections (Single Site with Spare)	Withdrawn 05/12/2009	2	02/04/2005
X72271	CODEC or Fibre Optic Transmission CCTV Monitor Connections		5	03/03/2012
X72275	(CCTV Only) Monitor Switching Unit Construction		1	05/12/2009
X72280	(CCTV Only) Baseband Transmission CCTV Monitor Connections (Dual Monitors)	Withdrawn 05/12/2009	2	02/04/2005
X72281	(CCTV Only) Fibre Optic Transmission CCTV Monitor Connections (Dual Monitors)	Withdrawn 05/12/2009	2	02/04/2005
X72285	(CCTV Only) Monitor Switching Unit Internal Wiring		1	05/12/2009
X72290	(CCTV Only) Wall Mounted Cubicle	Withdrawn 05/12/2009	2	02/04/2005
X72390	(CCTV Only) Mounting Plate for Grundig Camera in a Shawley Anthony Housing	Withdrawn 05/12/2009	2	02/04/2005
X72391	(CCTV Only) Mounting Plate for Grundig/Plettac Camera in a Dennard Housing		3	05/12/2009
X72420	(CCTV Only) Fibre Optic TX Profile & Parts	Withdrawn 05/12/2009	2	02/04/2005
X72430	(CCTV Only) Fibre Optic TX Layout & Wiring	Withdrawn 05/12/2009	2	02/04/2005
X72600	(CCTV Only) CCTV Camera Earthing Typical	Withdrawn 05/12/2009	2	02/04/2005
84-YS-1003/30	(CCTV Only) CCTV Monitored LC - Standard SB Control Unit - Index		H	02/04/2005

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
84-YS-1003/31	(CCTV Only) CCTV Monitored LC - Standard SB Control Unit - General Arrangement		H	02/04/2005
84-YS-1003/32	(CCTV Only) CCTV Monitored LC - Standard SB Control Unit - Parts List		H	02/04/2005
84-YS-1003/34	(CCTV Only) CCTV Monitored LC - Standard SB Control Unit - Front Plate		G	06/04/1992
84-YS-1003/35	(CCTV Only) CCTV Monitored LC - Standard SB Control Unit - Internal Construction		G	06/04/1992
84-YS-1003/36	(CCTV Only) CCTV Monitored LC - Standard SB Control Unit - Case Sub Assembly, End Elevation		G	06/04/1992
84-YS-1003/37	(CCTV Only) CCTV Monitored LC - Standard SB Control Unit - Engraving Details		H	02/04/2005
84-YS-1003/38	(CCTV Only) CCTV Monitored LC - Standard SB Control Unit - Cover Panel for Rear of CCTV Monitors mounted on Control Unit		G	06/04/1992
MANUALLY CONTROLLED BARRIER (MCB) CROSSINGS, ON-CALL (OC)				
X74000	CONFIGURATION INDEX		1	03/03/2012
X74020	GENERAL GUIDELINES		1	03/03/2012
X74060	RELAY SPECIFICATIONS & DATA LOGGING INFORMATION		1	03/03/2012
X74100	INCOMING CONTROL & INDICATION CIRCUITS		1	03/03/2012
X74120	OUTGOING CONTROL & INDICATION CIRCUITS		1	03/03/2012
X74140	CONTROL POINT INDICATION CIRCUITS		1	03/03/2012
X74160	CONTROL POINT AUDIBLE INDICATION CIRCUITS		1	03/03/2012
X74200	CONTROL & INDICATION LAYOUT WHERE MONITOR INCORPORATED IN PANEL		1	03/03/2012
X74220	CCTV BLOCK SHELF MOUNTED CONTROL UNIT LAYOUT & ORDERING DETAILS		1	03/03/2012
X74240	CCTV BLOCK SHELF MOUNTED CONTROL UNIT INTERNAL WIRING (1)		1	03/03/2012
X74260	CCTV BLOCK SHELF MOUNTED CONTROL UNIT INTERNAL WIRING (2)		1	03/03/2012
X74300	ON-CALL UNIT CONTROL CIRCUIT		1	03/03/2012
X74320	ON-CALL UNIT INDICATION CIRCUITS		1	03/03/2012

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
X74340	ON-CALL UNIT GENERAL ARRANGEMENT		1	03/03/2012
X74360	RAISE CONTROL CIRCUIT		1	03/03/2012
X74380	AUTO RAISE & USER RAISE CONTROL CIRCUITS		1	03/03/2012
X74390	USER RAISE TAZR CIRCUITS		1	03/03/2012
X74400	LOWERING & STOP CIRCUITS		1	03/03/2012
X74420	CONTROL & SEQUENCING CIRCUITS		1	03/03/2012
X74440	VALVE & MOTOR CONTROL CIRCUITS		1	03/03/2012
X74460	RED ROAD LIGHT PROVING CIRCUITS		1	03/03/2012
X74480	CROSSING CLOSED, CROSSING CLEAR & ABSENT CIRCUITS		1	03/03/2012
X74500	LOCAL CONTROL UNIT CIRCUITS		1	03/03/2012
X74520	LOCAL CONTROL UNIT GENERAL ARRANGEMENTS		1	03/03/2012
X74540	FAULT DETECTION CIRCUITS		1	03/03/2012
X74560	AUDIBLE WARNING CIRCUITS		1	03/03/2012
X74580	2 BARRIER DETECTION CIRCUITS		1	03/03/2012
X74600	BARRIER CONTACTOR CIRCUITS		1	03/03/2012
X74620	MOTOR & VALVE CIRCUITS		1	03/03/2012
X74640	BARRIER PEDESTAL WIRING		1	03/03/2012
X74700	SIGNAL / BARRIER INTERLOCKING CIRCUIT (INTERLOCKING AREA)		1	03/03/2012
X74720	SIGNAL CONTROL CIRCUITS (1) (INTERLOCKING AREA)		1	03/03/2012
X74740	SIGNAL CONTROL CIRCUITS (2) AUTO RAISE ONLY (INTERLOCKING AREA)		1	03/03/2012

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
X74760	SIGNAL / BARRIER CONTROL & INTERLOCKING CIRCUITS (SINGLE LINE/SINGLE TRACK)		1	03/03/2012
X74780	SIGNAL / BARRIER CONTROL & INTERLOCKING CIRCUITS (SINGLE LINE/MULTI. TRACKS)		1	03/03/2012
X74800	SIGNAL / BARRIER INTERLOCKING CIRCUIT (OTHERWISE PLATED AUTO)		1	03/03/2012
X74820	SIGNAL CONTROL CIRCUITS (OTHERWISE PLATED AUTO)		1	03/03/2012
X74840	SIGNAL / BARRIER INTERLOCKING CIRCUITS (1) (ABSOLUTE BLOCK SIGNALLING)		1	03/03/2012
X74860	SIGNAL / BARRIER INTERLOCKING CIRCUITS (2) (ABSOLUTE BLOCK SIGNALLING)		1	03/03/2012
X74880	SIGNAL CONTROL CIRCUITS (1) (ABSOLUTE BLOCK SIGNALLING)		1	03/03/2012
X74920	SIGNAL CONTROL CIRCUITS (2) (ABSOLUTE BLOCK SIGNALLING)		1	03/03/2012
MANUALLY CONTROLLED BARRIER (MCB) CROSSINGS, ON-CALL (OC)				
X74940	SIGNAL CONTROL CIRCUITS (3) (ABSOLUTE BLOCK SIGNALLING)		1	03/03/2012
X74960	PICTURE & MONITOR CONTROL CIRCUITS		1	03/03/2012
Single and Double Line Block Typical Circuits (B Series)				
Common Equipment				
B00011	8/12mA Current Regulator ex BR LMR Manchester Division		1	07/03/2020
Electric Token Working				
B00101	Typical Circuit Configuration and Generic Notes		3	04/06/2022
B00102	Intermediate Token Instruments Internal Wiring		2	04/06/2022
B00103	No Signaller Remote Operator (NST No Signaller Token)		1	04/06/2022
B00104/1	Terminal Token Instrument (Western) Internal Wiring		1	05/06/2021
B00104/2	Terminal Token Instrument (Tyers) Internal Wiring		1	05/06/2021
B00105	No Signaller Token with Remote Xing Loops N.S.T.R. Token Inst Internal Wiring		1	05/06/2021
B00106	No Signaller Token with Remote Crossing Loops-NSTR Token Instrument Wiring		1	04/06/2022
B00107	NSTR Transmission Related Circuits and Power Supply Indications		1	04/06/2022
B00108	With Remote Release and/or Within MAS Area		1	04/06/2022
B00109	Starting Signal Release Options		1	04/06/2022
B00111	Terminal Instrument with Operational Indicator		2	05/06/2021
B00160	BRB Standard Tokenless Block	Supersedes SW10 (1.4)	2	05/06/2021
Functionally Equivalent Design Typical Circuits (F Series)				
F28382	Banner Repeater – Avoidance of Aspect Reversion with LED Banner Signal Heads	Sheet to replace withdrawn NB162	1	05/06/2021

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
F34034	TPWS Method 3 – Avoidance of Aspect Reversion with LED Signal Heads	Sheet to replace withdrawn NB162	1	05/06/2021

Signalling Power Typical Circuits (P Series)

Off-Grid Power Supply System

P01011	Index		1	04/12/2021
P01012	Case A Profile & Analysis		1	04/12/2021
P01013	Case A Location Wiring		1	04/12/2021
P01014	Case A Battery Detail		1	04/12/2021
P01015	Case A Load Output and RCM		1	04/12/2021
P01016	Case A Wind Connections		1	04/12/2021
P01017	Case A Solar Connections		1	04/12/2021
P01018	Case B Profile & Analysis		1	04/12/2021
P01019	Case B Location Wiring		1	04/12/2021

Drawing No.	Title	Discrepancies/Remarks	Issue	Date
key				
IMP	Indicates that the drawing is in imperial dimensions . These have generally been retained for interchangeability and this may cause problems in supply due to the difficulty in obtaining imperial material sizes or threads.			
MET	Indicates that the drawing has been converted to metric.			
CAD	Indicates that cadmium plating is quoted on the drawing.			
FORGING	Indicates that the forging tools are becoming worn and we have been approached to supply a fabricated alternative.			
WORKPLACE REGS	Indicates that the drawings do not comply with the Workplace Health Safety and Welfare Regulations 1992.			

Standard and control document briefing note

Ref: NR/GN/SIG/CAT005	**Issue:** 59
Title: Index of Network Rail Documents Relating to Signalling and Communications Equipment	
Publication date: 07 December 2024	**Compliance Date:** N/a
Standard/Control Document Owner: Network Technical Head Signalling	
Standard change lead/contact for briefings: Mick Turner, Principal Signalling and Innovations Engineer	**Tel:** 07515 621728

Purpose:
The purpose of this document is to provide signal engineers a standardised approach to signalling design. This prevents additional costs being incurred when a design solution already exists and assists maintainers when fault finding. The document includes a listing of typical circuits for signalling and level crossing applications.

Scope:
Typical Circuits are best practice and should be applied to all new works and alterations to existing installations. Typical Circuits are not mandatory and users should check compliance to current Railway Group Standards, Railway Industry Standards and Company standards before implementing the design. Any deviation from typical circuits should be justified and documented by the relevant signal designer. There is no need to follow the established variation process.

What's new, what's changed and why:
This is the on-going update to provide typical circuits to support existing/new products and support signalling principles.

X10000 series typical circuits for MCB-OD have not previously been published as part of NR/GN/SIG/CAT005. Level crossing asset policy in NR/L1/XNG/100/02 is to move away from relay control logic for level crossings, therefore the logic requirements have been expanded in written documents and the typical circuits for control logic are no longer maintained. However, to aid understanding for designs transitioning to the use of the IDS LXOD, new sheets have been provided specifically for this system, see X10025 for full details.

X62000 series typical circuits for Interfaced Overlay Miniature Stop Lights (IOMSL) are new to cover signal regulation applied to the Schweizer FLEX system in RRI and SSI areas.

Affected documents

Reference	Issue	Impact	Document type
NR/GN/SIG/CAT005	58	Superseded	Standard
X10025	1	New	Module
X11137	1	New	Module
X11911	1	New	Module
X12140	1	New	Module
X43140	1	New	Module
X43145	1	New	Module
X43150	1	New	Module
X43155	1	New	Module
X43165	1	New	Module
X43166	1	New	Module
X43170	1	New	Module
X43175	1	New	Module
X43180	1	New	Module
X43195	1	New	Module
X43196	1	New	Module
X62000	1	New	Module
X62005	1	New	Module
X62010	1	New	Module
X62015	1	New	Module
X62020	1	New	Module
X62025	1	New	Module
X62030	1	New	Module
X62040	1	New	Module

Briefing requirements:
Briefings are given to those who have specific responsibilities within, or are directly affected by, this standard/control document.
A copy of briefings may be available from the Standards & Controls intranet site or IHS.
Requirements to cascade briefings are described within any implementation plans.

Briefing *(O-Overview/ D-Detailed)*	Post	Function	Responsible for cascade briefing? Y/N

O	Regional Engineer [Signalling & Telecoms]	Regions (Eastern)	Y
O	Regional Asset Manager [Signalling]	Regions (Scotland)	Y
O	Regional Engineer [Signalling & Telecoms]	Regions (NW & C)	Y
O	Regional Head of Engineering & Asset Management [Sig, Ct & Tel]	Regions (Western & Wales)	Y
O	Regional Head of Engineering [Signalling & Telecoms]	Regions (Southern)	Y
O	Works Delivery Manager [Signalling]	Regions	Y
O	Engineering Expert [Control, Command & Signalling]	Technical Authority	Y
O	Programme Engineering Manager [Test & Commissioning]	Route Services	Y
O	Principal Innovations Engineer [Signalling]	Route Services	Y
Briefing *(O-Overview/ D-Detailed)*	**Role**	**Function**	**Responsible for cascade briefing? Y/N**
O	Works Delivery Supervisor (Signalling)	Regions (Works Delivery)	N
O	Project Engineer (Signals)	Regions (Works Delivery)	N
O	Programme Engineering Manager	Regions (Capital Delivery)	N
O	Principal Engineer Signalling (NRDD)	Regions (Capital Delivery)	N
O	Project Engineer (Signalling)	Regions (Capital Delivery)	N
O	Designer (Signalling)	Regions	N
O	Innovation Engineer	Route Services	N

NOTE: *Contractors are responsible for arranging and undertaking their own Detailed and Overview Briefings in accordance with their own processes and procedures.*