

CHECKING LIST

BSP MP ITEMS COVERING

SEQUENCE CHARTS, OPERATIONAL SKETCHES, AND ASSOCIATED REFERENCE MATERIAL

NO. 4A OR 4M TOLL SWITCHING SYSTEM

1. GENERAL

1.01 This checking list is a record of the sequence charts, operational sketches, and associated reference material (referred to herein as BSP MP items) for the No. 4A or 4M toll switching system.

1.02 This checking list is reissued to add the BSP MP items in List 3 which are marked with an asterisk (*) in the Filing Reference column. The BSP MP items marked with (††) symbol in the Filing Reference column are used in 4A offices only.

1.03 Reference should be made to Section Al28.801 for descriptive information and ordering and filing instructions.

1.04 When new or reissued BSP MP items are released, this checking list will be completely reissued rather than added. The reissued checking list will indicate the changed items.

Important: It is essential to know at all times the status of any set of BSP MP items with reference to the associated checking list. Provision is therefore made on the frontispiece for recording the issue or issues of the checking list and the numbers of the lists (List 3, List 4, etc.,) which cover the material currently in the binder. Only these issues of the checking list should be retained in the binder, all others should be destroyed.

List 1 - Binder for filing one group of BSP MP items.

List 2 - Frontispiece, four tabbed separator sheets (designated Checking List, Sequence Charts, Operational Sketches, and Reference Material), and blank backing sheet for use in binder for filing BSP MP items per BSP Section Al28.819.

List 3 - Basic BSP MP items required for all No. 4A or 4M toll switching system installations or plant training schools.

<u>Filing Reference</u>	<u>BSP Item MP-</u>	<u>Issue</u>	<u>Subject</u>
*BSP Section Al28.819	-	5	Checking List
SC 000-2	10379	1	Master Legend for Sequence Charts
SC 101-1	11640	1	Link Controller - Over-all Operations
SC 102-1	11641	1	Link Controller - Simultaneous Calls
*SC 103-1††	11679	2	DP Incoming Sender - Impulsing and Registration
*SC 104-1††	11680	2	DP Incoming Sender - Loop and Simplex Outpulsing and Release
*SC 105-1††	11731	2	DP Incoming Sender - MF Outpulsing and Release
*SC 106-1††	11732	2	DP Incoming Sender - DC Outpulsing and Release
*SC 107-1††	11739	2	MF Incoming Sender - Impulsing and Registration

*Indicates change from last issue.
††Indicates 4A office use only.

List 3 (Contd)

<u>Filing Reference</u>	<u>BSP Item MP-</u>	<u>Issue</u>	<u>Subject</u>
*SC 108-1††	11733	2	MF Incoming Sender - Loop and Simplex Outpulsing and Release
*SC 109-1††	11734	2	MF Incoming Sender - MF Outpulsing and Release
*SC 110-1††	11735	2	MF Incoming Sender - DC Outpulsing and Release
*SC 111-1	11740	2	Outgoing Sender - Over-all Operations
*SC 112-1	11741	2	Outgoing Sender - Revertive Outpulsing of Registered Number 3707
*SC 113-1	11686	2	Decoder - Over-all Operations for a Call Completed by 3-digit Translation
*SC 114-1	11742	2	Decoder - Over-all Operations - Pretranslation
*SC 115-1	11748	2	Decoder - Over-all Operations for a Call Completed by 6-digit Translation - FOF/FRO/FMB Routing Instruction on a 6D Card
*SC 116-1	11749	2	Decoder - Vacant Code or Principal City Routing
*SC 117-1	11750	2	Decoder - Over-all Operations for a Call Using Card-to-Card Routing Instruction (3D Card in HT or 6D Card in HT/DFAT/FAT)
*SC 118-1	11751	2	Decoder - Over-all Operations for a Call Using Card-to-Relay Routing Instruction
*SC 119-1	11754	2	Decoder - Over-all Operations for a Call Using Relay-to-Relay Routing Instruction
*SC 120-1	11762	2	Guide to Use of Decoder Sequence Charts
*SC 121-1	11755	2	Decoder and Marker - Over-all Operations for a CR Type Call (HLD Routing)
SC 122-1	11709	1	Marker - Establishing Connection
SC 127-1	11683	1	Established Connection - Outward Operator to Step-by-Step Subscriber
SC 128-1	11752	1	Established Connection - Outward Operator to Inward Operator Via Appliqued Ringdown IT trunk
SC 129-1	11756	1	Established Connection - Outward Operator to Inward Operator Via Intermediate A4A Office and Ringdown Intertoll Trunk
SC 130-1	11761	1	Abandoned Calls - MF and DP Senders
OS 000-2	10378	1	Master Legend for Operational Sketches
OS 101-1	11612	1	Sender Link and Connector - Trunk Start and Controller Connector Preference
OS 102-1	11613	1	Sender Link and Connector - Typical Preference Chain
OS 103-1	11614	1	Controller Connector - Seizure and Link Controller Preference

*Indicates change from last issue.

††Indicates 4A office use only.

List 3 (Contd)

<u>Filing Reference</u>	<u>BSP Item MP-</u>	<u>Issue</u>	<u>Subject</u>
OS 104-1	11623	1	Link Controller - Start
OS 105-1	11615	1	Link Controller - Trunk Group Selection
OS 106-1	11616	1	Link Controller - Trunk Identification
OS 107-1	11617	1	Link Controller - Upper and Lower Preference Change - "V" Wiring
OS 107-2	11618	1	Link Controller - Upper and Lower Preference Change - "W" Wiring
OS 108-1	11621	1	Link Controller - Testing for Idle Senders and Idle Links - "V" Wiring
OS 108-2	11622	1	Link Controller - Testing for Idle Senders and Idle Links - "W" Wiring
OS 109-1	11624	1	Link Controller - Sender Preference and Double Test - "V" Wiring
OS 109-2	11625	1	Link Controller - Sender Preference and Double Test - "W" Wiring
OS 110-1	11619	1	Link Controller - Primary Select Magnet Operation
OS 111-1	11620	1	Link Controller - Secondary Select Magnet Operation
OS 112-1	11626	1	Link Controller - Hold Magnet Operation - "V" Wiring
OS 112-2	11627	1	Link Controller - Hold Magnet Operation - "W" Wiring
OS 113-1	11628	1	Link Controller - Over-all Timing and Recycling Tube Timing
OS 114-1	11632	1	Link Controller - Sender Group Busy Register - Make-busy Jacks Grounded Group Busy Lead Lamp
OS 115-1	11635	1	Link Controller - Trouble Release Condition
*OS 121-1††	11644	2	DP Incoming Sender - Seizure
*OS 122-1††	11647	2	DP Incoming Sender - Impulsing - Loop, CX, and SF Signaling
*OS 123-1††	11648	2	DP Incoming Sender - Impulsing - Pulse Count and Registration
*OS 124-1††	11649	2	DP Incoming Sender - Decoder Connector Start
*OS 125-1††	11675	2	DP Incoming Sender - Pulse Generation and Recapture
*OS 126-1††	11676	2	DP Incoming Sender - Outsteering Control
*OS 127-1††	11678	2	DP Incoming Sender - SL Check and SX and Loop Outpulsing
*OS 128-1††	11724	2	DP Incoming Sender - SL Check and MF Outpulsing to 4, A4A, or 4A

*Indicates change from last issue.
††Indicates 4A office use only.

SECTION A128.819

List 3 (Contd)

<u>Filing Reference</u>	<u>BSP Item MP-</u>	<u>Issue</u>	<u>Subject</u>
*OS 129-1††	11725	2	DP Incoming Sender - SL Check and Synchroni- zation with Outgoing Sender
*OS 130-1††	11726	2	DP Incoming Sender - MF and DC Outputting
*OS 131-1††	11710	2	DP Incoming Sender - Ringing and Stop Control Flashing Ahead
*OS 132-1††	11759	2	DP Incoming Sender - Interdigital and Over-all Timing - Fig. 4
*OS 132-2††	11796	1	DP Incoming Sender - Interdigital Timing and Intersender Load Control Timing
*OS 133-1††	11799	1	DP Incoming Sender - Over-all Timing, Holding, and Recording of Stock Senders - Fig. 22
*OS 134-1††	11721	2	MF Incoming Sender - Seizure
*OS 135-1††	11722	2	MF Incoming Sender - Registration with Re- ceiving Ckt SD-95087-01
*OS 135-2††	11723	2	MF Incoming Sender - Registration with Re- ceiver - MF Pulsing SD-95536-01
*OS 136-1††	11727	2	MF Incoming Sender - Decoder Connector Start
*OS 137-1††	11728	2	MF Incoming Sender - Pulse Generation and Recapture
*OS 138-1††	11715	2	MF Incoming Sender - Outsteering Control
*OS 139-1††	11729	2	MF Incoming Sender - SL Check and SX and Loop Outputting
*OS 140-1††	11730	2	MF Incoming Sender - SL Check and MF Outputting to 4, A4A, or 4A
*OS 141-1††	11736	2	MF Incoming Sender - SL Check and Synchroni- zation with Outgoing Sender
*OS 142-1††	11737	2	MF Incoming Sender - MF and DC Outputting
*OS 143-1††	11738	2	MF Incoming Sender - Ringing and Stop Control - Flashing Ahead
*OS 144-1††	11763	2	MF Incoming Sender - Over-all Timing and Miscellaneous Trouble Conditions
*OS 144-2††	11797	1	MF Incoming Sender - Over-all Timing, Holding, and Recording of Stuck Senders - Fig. 20
*OS 145-1††	11798	1	MF Incoming Sender - Intersender Load Control Timing
*OS 146-1	11642	2	Outgoing Sender - Seizure
*OS 147-1	11643	2	Outgoing Sender - Registration
*OS 148-1	11645	2	Outgoing Sender - Trunk Test
*OS 149-1	11646	2	Outgoing Sender - Revertive Pulse Counting and Sequence of Selections

*Indicates change from last issue.

††Indicates 4A office use only.

List 3 (Contd)

<u>Filing Reference</u>	<u>BSP Item MP-</u>	<u>Issue</u>	<u>Subject</u>
*OS 150-1	11718	2	Outgoing Sender - PCI Pulse Generation
*OS 151-1	11717	2	Outgoing Sender - PCI Pulsing
*OS 152-1	11716	2	Outgoing Sender - Trunk Closure and Controlled Ringing
*OS 153-1	11720	2	Outgoing Sender - Overflow, Teletale, and Wipeout
*OS 154-1††	11719	2	Outgoing Sender - Over-all Timing with Chain Circuit and Key Method
*OS 154-2	10852	1	Outgoing Sender - Over-all Timing With Common Key Method For Holding Stuck Senders
*OS 155-1	11600	3	Decoder Connector - Seizure, Sender Preference and Decoder Preference, and Sender Peg Count
*OS 156-1	11601	3	Decoder Connector - Traffic Sequence
*OS 157-1	11602	3	Decoder Connector - Timeouts
*OS 158-1	11603	3	Decoder Connector - All Decoders Busy Timing Control Circuit and False Ground Test
*OS 160-1	11605	2	Decoder - Seizure and Integrity Check
*OS 161-1	11669	2	Decoder - Connect to Card Translator
*OS 162-1	11682	2	Decoder - Input Information to Card Translator
*OS 163-1	11604	2	Decoder - Signal to Read Card
*OS 164-1	11606	2	Decoder - Read Card Translator Output
*OS 165-1	11607	2	Decoder - Card Translator Availability Check
*OS 166-1	11608	2	Decoder - Pretranslation and Disconnect
*OS 167-1	11609	2	Decoder - 3- and 6-digit Translation - FOF, FRO, FMB, FST
*OS 168-1	11610	2	Decoder - Marker Selection - Combined and Two-Train
*OS 169-1	11611	2	Decoder - Signal Marker to Read Card
*OS 170-1	11753	2	Decoder - Card-to-Card Operation
*OS 171-1	11631	2	Decoder - Route Relay Selection
*OS 172-1	11758	2	Decoder - Card-to-Relay and Relay-to-Relay Operations
*OS 173-1	11757	2	Decoder - Route Relay Tree and Ground Supplies
*OS 174-1	11630	2	Decoder - Blank Codes or Card Failures - 3-digit Translation or 6-digit Translation with NPCR
*OS 175-1	11634	2	Decoder - Principal City or Vacant Code Routing - 6-digit Translation

*Indicates change from last issue.

††Indicates 4A office use only.

SECTION A128.819

List 3 (Contd)

<u>Filing Reference</u>	<u>BSP Item MP-</u>	<u>Issue</u>	<u>Subject</u>
*OS 176-1	11633	2	Decoder - Code Digit Transfer and Code Matching Check
*OS 177-1	11629	2	Decoder - Regular Release
*OS 178-1	11765	2	Decoder - Trouble Release Conditions
*OS 179-1	11636	2	Decoder - Timing, Trouble Crosses, and Request for Trouble Recorder
*OS 180-1	11637	2	Decoder - Traffic Separation and Through Traffic Peg Count Registers
*OS 181-1	10850	1	Decoder - Overload Announcement Routing, Record Overload Announcement, and Record Sender Reorder
*OS 183-1	11638	2	Translator Connector - Seizure and Decoder Preference
*OS 184-1	11639	2	Translator Connector - Make-busy Arrangements for Translators and Substitution of Emergency Translator
*OS 185-1	11667	2	Card Translator - Index and Channel Detection Circuits
*OS 186-1	11670	2	Card Translator - Alarm and Emergency AC Supply
*OS 188-1	11650	2	Marker Connector - Separate Train Office and Separate Train Office Combined Operation
*OS 188-2	11651	2	Marker Connector - Combined Train Operation
OS 190-1	11668	1	Marker - Seizure and Registration of Miscellaneous Information From Decoder
OS 191-1	11671	1	Marker - Registration Control
OS 192-1	11672	1	Marker - Trunk Group Start and End
OS 193-1	11677	1	Marker - Class Information
OS 194-1	11673	1	Marker - Digit and Variable Spill Control
OS 195-1	11674	1	Marker - Code Conversion
*OS 196-1	11687	2	Decoder - Marker - Trunk Peg Count and Trunk Group Overflow Registration
OS 197-1	11681	1	Marker - Register Check Circuit
OS 198-1	11692	1	Marker - Seizure of Trunk Block Connector
OS 199-1	11693	1	Marker - Trunk Block Relay Operation
OS 200-1	11689	1	Marker - Traffic Lockout in Trunk Block Connector
OS 201-1	11690	1	Marker - Trunk Selection
OS 202-1	11694	1	Marker - Route Switching Relay Operation
OS 203-1	11691	1	Marker - Sleeve Continuity and Guard Test

*Indicates change from last issue.

List 3 (Contd)

<u>Filing Reference</u>	<u>BSP Item MP-</u>	<u>Issue</u>	<u>Subject</u>
OS 204-1	11696	1	Marker - Frame Identification Detection
OS 205-1	11695	1	Marker - Frame Identification Translation
OS 206-1	11697	1	Marker - Frame Identification Failure and Multifrequency Throwover
OS 207-1	11702	1	Marker - Outgoing Frame Seizure Home and Mate Operation
OS 208-1	11703	1	Marker - Incoming Frame Seizure Home and Mate Operation
OS 209-1	11704	1	Marker - Junctor Group Cut-in - Plan TA - 6 Incoming and 6 Outgoing Frames
OS 210-1	11705	1	Marker - Junctor Pattern Control - Plan TA - 6 Incoming and 6 Outgoing Frames
OS 211-1	11706	1	Marker - Junctor Lockout for Paired Outgoing Frames
OS 212-1	11698	1	Marker - Channel Selection
OS 213-1	11699	1	Marker - Channels Busy Junctor Walking Circuit - 6 Incoming and 6 Outgoing Frames
OS 214-1	11707	1	Marker - Select Magnet Lockout Paired Incoming Frames
OS 215-1	11708	1	Marker - Select Magnet Operation
OS 216-1	11701	1	Marker - Hold Magnet and Continuity Test
OS 217-1	11700	1	Marker - Regular Release
OS 218-1	11766	1	Marker - Work Timer and Over-all Timer
OS 219-1	11764	1	Marker - Tube Timers and Trouble Cross
OS 220-1	11760	1	Marker - Trouble Release Conditions
OS 221-1	11688	1	Established Connection - Outward Switchboard to Step-by-Step Subscriber
OS 222-1	11743	1	Established Connection - Outward Operator to Inward Operator Via Intermediate A4A Office and Ringdown Intertoll Trunk
OS 223-1	11744	1	Frame Identification - Frequency Supply
OS 224-1	11745	1	MF Current Supply - Senders and Keysets
OS 226-1	11746	1	No. 5 Switchboard - Overflow Trunk Operation and Delay Quotation
OS 227-1	11747	1	No. 5 Switchboard - Master Busy and 151 Trunk
OS 228-1	11767	1	Trouble Recorder - Seizure and Control For Trouble Recording
OS 229-1	11770	1	Trouble Recorder - Perforating Trouble Record

SECTION A128.819

List 3 (Contd)

<u>Filing Reference</u>	<u>BSP Item MP-</u>	<u>Issue</u>	<u>Subject</u>
RM 1-1	11773	1	Index of Relays, etc., on SDs and OSs SD-12900-01, Issue 19 SD-21115-01, Issue 24 SD-25302-01, Issue 20 SD-30228-01, Issue 25 SD-31681-01, Issue 8 SD-31841-01, Issue 13
RM 1-2	11774	1	Index of Relays, etc., on SDs and OSs SD-55392-01, Issue 13 SD-55393-01, Issue 13 SD-56202-01, Issue 6 SD-62614-01, Issue 31 SD-62632-01, Issue 24 SD-64590-01, Issue 9
*RM 1-3††	11775	2	Index of Relays, etc., on SDs and OSs SD-68018-01, Issue 28
RM 1-4	11776	1	Index of Relays, etc., on SDs and OSs SD-68020-01, Issue 12 SD-68022-01, Issue 13 SD-68027-01, Issue 16
RM 1-5	11777	1	Index of Relays, etc., on SDs and OSs SD-68028-01, Issue 24
RM 1-6	11778	1	Index of Relays, etc., on SDs and OSs SD-68056-01, Issue 6 SD-68060-01, Issue 23 SD-68119-01, Issue 14
*RM 1-7††	11779	2	Index of Relays, etc., on SDs and OSs SD-68221-01, Issue 18
*RM 1-8††	11780	2	Index of Relays, etc., on SDs and OSs SD-68222-01, Issue 18
RM 1-9	11781	1	Index of Relays, etc., on SDs and OSs SD-68231-01, Issue 6 SD-68232-01, Issue 9 SD-68233-01, Issue 11 SD-68234-01, Issue 11 SD-68237-01, Issue 3 SD-68242-01, Issue 7
RM 1-10	11782	1	Index of Relays, etc., on SDs and OSs SD-68285-01, Issue 6 SD-68315-01, Issue 6 SD-68326-01, Issue 7 SD-68334-01, Issue 13 SD-68336-01, Issue 7 SD-68339-01, Issue 6
*RM 1-11	11783	2	Index of Relays, etc., on SDs and OSs SD-68340-01, Issue 8
*RM 1-12	11784	2	Index of Relays, etc., on SDs and OSs SD-68341-01, Issue 6
*RM 1-13	11785	2	Index of Relays, etc., on SDs and OSs SD-68342-01, Issue 7

*Indicates change from last issue.

††Indicates 4A office use only.

List 3 (Contd)

<u>Filing Reference</u>	<u>BSP Item MP-</u>	<u>Issue</u>	<u>Subject</u>
*RM 1-14	11786	2	Index of Relays, etc., on SDs and OSs SD-68386-01, Issue 5
RM 1-15	11787	1	Index of Relays, etc., on SDs and OSs SD-68388-01, Issue 2
RM 1-16	11788	1	Index of Relays, etc., on SDs and OSs SD-68389-01, Issue 2
RM 1-17	11789	1	Index of Relays, etc., on SDs and OSs SD-68392-01, Issue 2
RM 1-18	11790	1	Index of Relays, etc., on SDs and OSs SD-68393-01, Issue 5 SD-68394-01, Issue 4 SD-68395-01, Issue 6 SD-68407-01, Issue 5 SD-68408-01, Issue 2 SD-68412-01, Issue 4
RM 1-19	11791	1	Index of Relays, etc., on SDs and OSs SD-68416-01, Issue 3 SD-68420-01, Issue 6 SD-68429-01, Issue 3 SD-95048-01, Issue 12 SD-95087-01, Issue 27 SD-95391-01, Issue 12
RM 1-20	11792	1	Index of Relays, etc., on SDs and OSs SD-95536-01, Issue 9 SD-96131-01, Issue 13 SD-96164-01, Issue 10 SD-96232-01, Issue 5
*RM 2-1	11652	2	Functional Designations SD-68018-01, Issue 28
RM 2-2	11653	1	Functional Designations SD-68020-01, Issue 12, SD-68022-01, Issue 13, SD-68027-01, Issue 14
RM 2-3	11654	1	Functional Designations SD-68028-01, Issue 24
RM 2-4	11655	1	Functional Designations SD-68056-01, Issue 6, SD-68135-01, Issue 13, SD-68162-01, Issue 11
*RM 2-5††	11656	2	Functional Designations SD-68221-01, Issue 18
*RM 2-6††	11657	2	Functional Designations SD-68222-01, Issue 18
RM 2-7	11658	1	Functional Designations SD-68230-01, Issue 4, SD-68232-01, Issue 9, SD-68233-01, Issue 11, SD-68334-01, Issue 11, SD-68336-01, Issue 5
*RM 2-8	11659	3	Functional Designations SD-68339-01, Issue 6
*RM 2-9	11660	2	Functional Designations SD-68340-01, Issue 8
*RM 2-10	11661	2	Functional Designations SD-68341-01, Issue 6, SD-68342-01, Issue 7
RM 2-11	11662	1	Functional Designations SD-68388-01, Issue 2
RM 2-12	11663	1	Functional Designations SD-68389-01, Issue 2

*Indicates change from last issue.

††Indicates 4A office use only.

SECTION A128.819

List 3 (Contd)

<u>Filing Reference</u>	<u>BSP Item MP-</u>	<u>Issue</u>	<u>Subject</u>
RM 2-13	11664	1	Functional Designations SD-68393-01, Issue 4, SD-68394-01, Issue 3, SD-68395-01, Issue 6, SD-68420-01, Issue 6
RM 2-14	11665	1	Functional Designations SD-95087-01, Issue 22, SD-95536-01, Issue 9
RM 3-1	12057	1	Color Codes for Resistors and Capacitors
RM 3-2	12058	1	Data for Cold-cathode Tubes
*RM 3-3	11684	2	Incoming Sender - Outpulsing
*RM 3-4	11712	2	Translator Card Coding - Input Information
*RM 3-5	11713	2	Translator Card Coding - Output Information
*RM 3-6	11685	2	Sketch of Card Translator Operation
*RM 3-7	11714	2	Translator Card Coding - Reading and Using Information
*RM 3-8	11666	2	Association of Route Relays and Ground Supply Circuits, and Typical Cross Connections Between Route Relays According to Different Orders of CSPs
RM 3-9	11769	1	Alarm Data
RM 3-10	11768	1	Trouble Analysis Data - Charts
*RM 3-11	11771	2	Trouble Analysis Data - Index of Decoder and Marker Punches
RM 3-12	11772	1	Trouble Analysis Data - Index of Controller Punches
RM 3-13	11794	1	List of Abbreviations for Major Circuits as Used on Sequence Charts and Operational Sketches
RM 3-14	11793	1	Trunk Designations
RM 3-15	11711	1	Abbreviations for Class 1 Offices
*RM 3-16	11795	1	Typical Equipment Layout - Two Train - Office With Intertoll and Toll Completing Trains

*Indicates change from last issue.

Note: No other Lists are required for the No. 4A or 4M Toll Switching System.

Bell Telephone Laboratories, Inc.