

TRAFFIC REGISTER EQUIPMENT

EQUIPMENT DESIGN REQUIREMENTS

COMMON SYSTEMS

1. GENERAL

SCOPE

1.01 This specification, together with the supplementary information listed herein, covers the equipment design requirements for the framework, equipment, and circuits to be used in the engineering, manufacturing, and installation of traffic register equipment in operating rooms or switchrooms.

1.02 This specification is reissued to add equipment design requirements for J92603M and J92603N per SD-1C451-01. This interface circuit is for use with the data set 405 Type.

1.03 All traffic register information for toll, intertoll, and manual systems is contained herein. The details covering the associated relay circuits for No. 1, 5, and tandem crossbar, No. 4A and 4M toll as well as for step by step are found in separate specifications as indicated under 2. SUPPLEMENTARY INFORMATION.

CAPACITY

1.04 One floor-supported traffic register cabinet will accommodate the following:

300—14-type registers in groups of ten with their associated patch cords (see Note A)

1—Patch jack field consisting of 330 pulse jacks

150—Supply jacks for providing battery to the registers

2—Pairs of frame line talking jacks

1—Pair of recorder talking line jacks

1—Guard lamp for dial tone speed register circuit

24—Switches for controlling relays located on the traffic register relay units

1—Recorder talking line unit.

1.05 One traffic register and relay rack for the terminal room will accommodate the following:

300—14-type registers in groups of ten with their associated patch cords (see Note A)

1—Patch jack field consisting of 330 pulse jacks

150—Supply jacks for providing battery to the registers

2—Pairs of frame line talking jacks

1—Pair of recorder talking line jacks

24—Switches for controlling relays located on the traffic register relay units

1—Recorder talking line unit

29—Plates for relay rack units or miscellaneous relay plates

1—Guard lamp for dial tone speed register circuit.

1.06 One wall-supported or cable turning section traffic register cabinet will accommodate the following:

90—14-type registers in groups of nine with their associated patch cords

1—Patch jack field consisting of 90 pulse jacks

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- 10—Supply jacks for providing battery to the registers
- 1—Pair of recorder talking line jacks
- 1—Answering time recorder switch
- 4—Battery cutoff switches
- 1—Guard lamp for dial tone speed register circuit.

Note

- A. For registration of totals that exceed the capacity of the 14-type registers, five wheel magnetic counter units may be mounted in a portion of the register field on the floor-supported cabinet, the relay rack, and the wall-supported cabinet. When this occurs, the capacity for registers is reduced in proportion to the space occupied by magnetic counter units. The 4-wheel manually resettable magnetic counter units may also be utilized with a corresponding reduction in capacity for registers.

DESCRIPTION

1.07 Traffic registers and/or magnetic counters provide facilities for obtaining delay, group busy, group-busy time, load indicating, overflow, peg count, usage, group cycle count, detector group usage, and other traffic data on various crossbar, step-by-step, toll, DSA, and step-by-step intertoll circuits. The traffic register units, magnetic counter units, and recorder talking line units may be mounted in the traffic register cabinet or on the traffic register and relay rack in the switchroom. The floor-supported cabinet may be located either in the operating room or in the switchroom. The wall cabinet is available for offices in which the ultimate will not exceed 90 registers and is intended to be located in the operating room mounted either on the cable turning section of a switchboard, on a column, or on a wall. Any traffic register relay equipment required in connection with these cabinets is mounted on a relay rack or on the traffic register relay rack in the switchroom.

Floor Cabinet

1.08 As shown in Fig. 1 and 2, the traffic register cabinet itself is 6 feet 6 inches high, 7-3/4 inches deep, and 2 feet 0 inch wide. It is supported

by the floor and either secured to a wall behind it or braced to the ceiling when located independent of the wall. It is an all metal welded structure with a sheet-metal door. The hinges can be located either at the right or left by the installer to arrange the door for right- or left-hand opening. Sheet-metal side panels are secured to the exposed sides of the first and last basic frameworks in a lineup. The side panels are symmetrical and can be mounted on either the right or left side of any basic framework. A sheet-metal rear cover and square tubular steel ceiling supports are secured to the framework when the cabinet is located independent of the wall. The cabinet and door are available as separate items at the option of the telephone companies. (See 1.23.)

1.09 The door, side panels, rear cover, and ceiling supports have a gray baked enamel finish. To make the cabinets as inconspicuous as possible, it is expected that the telephone companies will paint them the same color as the adjoining wall or equipment. This may be done without giving the surface of the cabinet any preparatory treatment other than ascertaining that it is clean. When a cabinet is secured to the wall, a portion of the wall can be seen through the window in the door and it is desirable that the wall behind the cabinet be painted a single color.

1.10 The register units per J92603A shown in Fig. 3, the recorder talking line unit per J92603B, the magnetic counter units per J92603G, the switch panel, the jack field, and the power panel for camera operation are mounted on the basic framework. The registers and magnetic counters are visible through a window in the door and are located at a convenient height for easy reading. The switches are arranged with their handles accessible through a slot in the door. Thus, they can be operated without opening the door. No provision is made for a dial on the recorder talking line when this unit is mounted in the cabinet. It is expected that any required dialing can be done from near-by facilities, such as a switchboard or wall-mounted telephone set. The guard lamp for the dial tone speed register circuit is located on top of the cabinet and is either secured directly to the roof channel or mounted on a bracket extension, where cables are installed across the cabinet top.

1.11 The traffic register cabinet may be maintained and additions may be made to it without

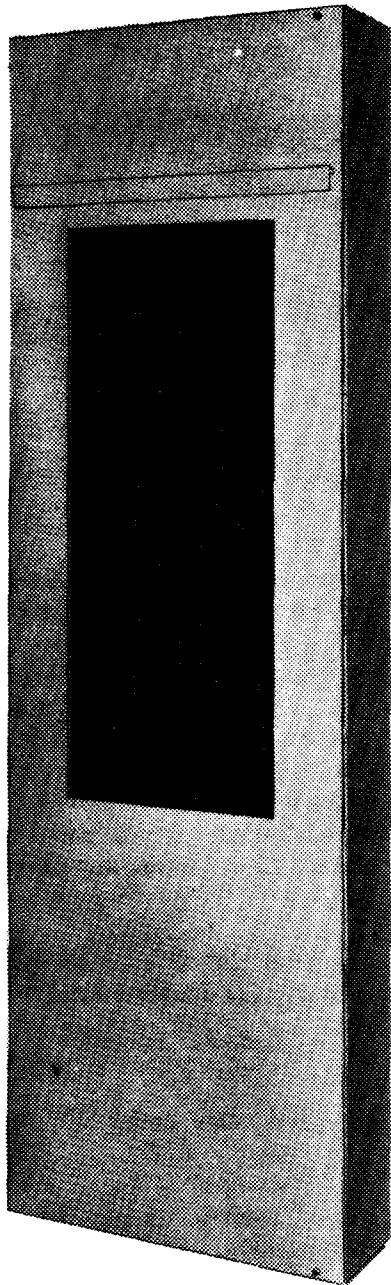


Fig. 1—Floor—Supported Traffic Register Cabinet—Exterior View

access to the rear. Switchboard cables may be brought in from the top, bottom, or back of the cabinet without cutting holes in it. With cable entry from the top, a 1/32-inch fiber dust cover, which is cemented to the framework by the installer, must be cut and fitted around the cables. No provision is made for switchboard cables to enter

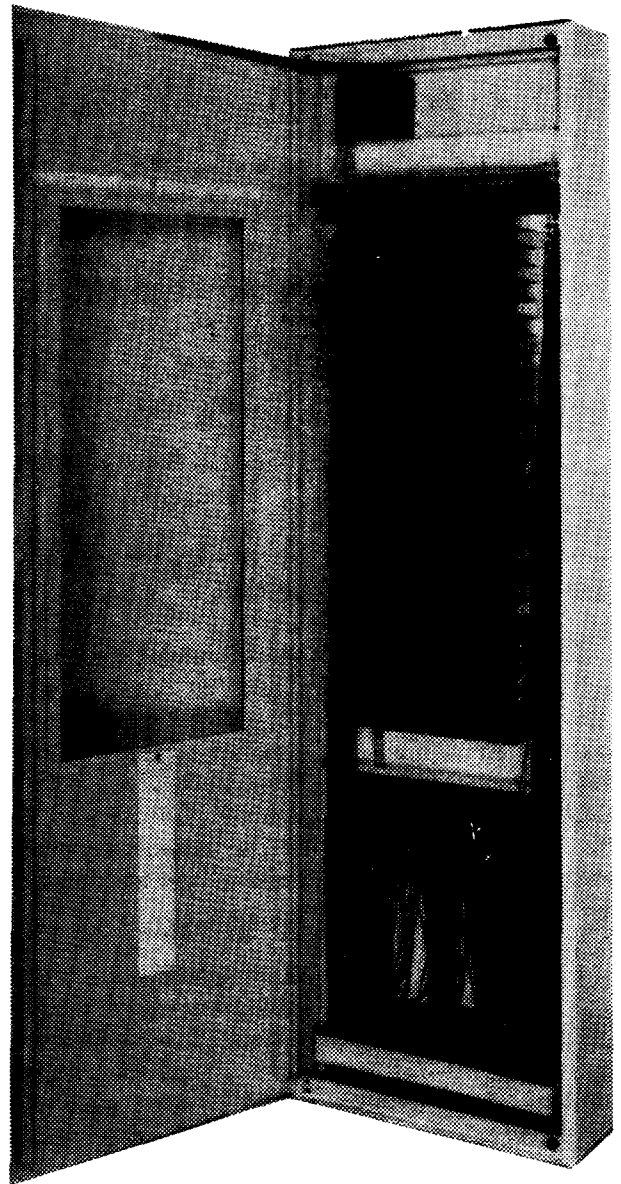


Fig. 2—Floor-Supported Traffic Register Cabinet—Interior View

from the back when the rear cover is used. The cables terminate directly on the switches, on jacks in the patching field, on the frame talking line jacks, and on the terminal strip on the recorder talking line unit.

1.12 Connections between the jack field and the register units or magnetic counter units are made by means of No. 26 cords, which are provided with the units. These flexible cords make it possible to reassign incoming cable leads to different

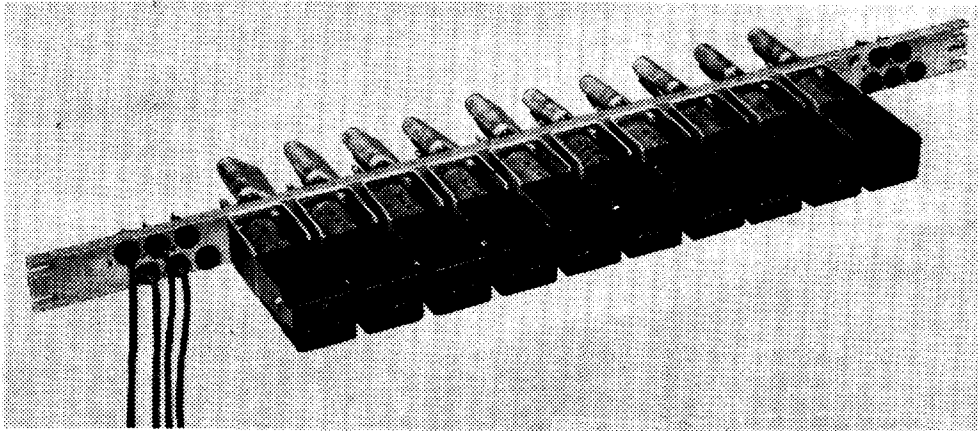


Fig. 3—J92603A Traffic Register Unit

registers as required, and to remove an entire plate of registers for inspection or maintenance.

1.13 Register numbers are assigned in blocks of 300 to match the maximum capacity of the register field on the traffic register relay rack and the floor-supported traffic register cabinet. For example, the first rack or cabinet will be assigned numbers 0 through 299, the second unit 300 through 599, etc, with the numbering within the rack or cabinet progressing upward from the bottom.

1.14 J92603G and J92603K magnetic counter units may be mounted interchangeably with the J92603A traffic register units. The positions on each counter unit will be assigned the register numbers of the mounting plate location which they occupy, starting with the lowest register number and leaving the remaining numbers unused. This will preserve the regular numbering scheme of the register field.

1.15 In the jack field, the pulse jacks are designated "P" and numbered 0 through 329. The supply jacks are designated S, S1, S2, S3, and S4 in groups of five and the groups are numbered 0 through 29. The pulse jacks are black and the supply jacks are red.

1.16 Traffic register cabinets and traffic register relay rack bays are numbered 0 up, or 1 up, to agree with the bay numbering of the associated system.

1.17 On bays arranged for regular traffic data, battery for the operation of high-duty registers is connected to the supply jacks in the patching field through relay contacts on traffic register relay units. These relays are under control of the switches, per Fig. 5 on SD-95531-01, which are located in the cabinet directly above the registers. This procedure permits the high-duty registers to be disconnected during periods when readings are not being taken, thus prolonging the life of these registers.

1.18 On bays arranged exclusively for traffic usage data, the battery cutoff switches are omitted.

Traffic Register and Relay Rack

1.19 For relay rack mounting, adapters permit the same arrangement of registers, jack field, etc, as that located in the cabinet. The jack field assembly is located on the lower part of the relay rack bay with the register field directly above at a convenient height to permit easy reading. Traffic register relay units or miscellaneous plates may be located on the upper part of the relay rack bay. The adapters are arranged for relay racks drilled for 2-inch mounting plates. Cabling conforms to the general standards for relay rack bays. The patching arrangement between registers, supply jacks, and pulse jacks is the same as described for the floor cabinets. The guard lamp for the dial tone speed register circuit is located on the switch and jack panel just above the register field.

Traffic Register Camera

1.20 The KS-14776, List 2 traffic register camera may be used with the traffic register relay rack or the floor-supported traffic register cabinet when it is required that traffic usage data or regular traffic data be photographed. The camera views a field of 150 registers or an equivalent area occupied by registers and magnetic counters. Two cameras are capable of covering the full capacity of the rack or cabinet. Because of camera overhang, the lower of two cameras in a bay is inverted.

1.21 The camera is supported by brackets fastened to the ends of the third and fourth register mounting plates from the top of the camera field. Dummy mounting plates may be required to permit mounting of the camera when the register field is not equipped to full capacity. The forward projection of the camera beyond the face of the 14-type registers is approximately 18 inches. Special consideration is required accordingly when applying the camera to the traffic register relay rack located in the switchroom. When suitable space is available, the aisle obstruction due to the camera may be avoided by using the floor-supported cabinet mounted against a wall in an area where the camera projection is not objectionable. When the camera is mounted on the floor-supported cabinet, the door is removed and stored by the telephone company. The floor-supported cabinet may also be obtained without the door when it is intended for use with traffic register cameras.

1.22 The 115-volt ac power supply outlets for camera operation are located in the base of each bay arranged for cameras. Included on the mounting for the outlets is a 275A relay which serves to control the 115-volt supply to the cameras. This relay is furnished either per camera or per bay as required by the camera control circuit used, provision being made for independent control of traffic register and traffic usage register bays. Bays containing both traffic registers and traffic usage registers are treated as traffic usage register bays.

Traffic Register Wall Cabinet

1.23 As shown in Fig. 4, the traffic register cabinet itself is 23 inches high, 7-5/16 inches deep, and 21-1/2 inches wide and is of metal construction having a hinged door. The cabinet is furnished in either gray or mahogany baked enamel.

When the cabinet is located on a cable turning section, it is intended that the mahogany finish should be specified, and when located on a wall or associated with the No. 23 operating room desk, the gray finish should be specified. On the cover, provision is made for answering time recorder, for recorder telephone jacks, and for battery cutoff switches. The cabinet is also provided with a window through which the registers are visible. Knockouts at the top, bottom, and rear of the cabinet are provided for incoming cable. Inside the cabinet is provision for a jack field and ten plates of registers. The registers will, in general, be numbered from 1 up, and the association with a particular circuit will be shown on the designation card. When a register carries a specific designation, such as that for the answering time recorder, this designation may be stamped, if specified. The hinged jack field on which the incoming cable terminates is connected to the registers with patching cords furnished with the register units. The register mounting plates are surface wired and can be removed for maintenance. The guard lamp for the dial tone speed register circuit is located on top of the cabinet and is secured directly to the cabinet. J92603E traffic register units and J92603H magnetic counter units may be mounted interchangeably in the wall-supported cabinet. The five positions on each counter unit will be assigned the register numbers of the mounting plate location which they occupy; starting with the lowest register number and leaving the last four numbers unused. This will preserve the regular numbering scheme of the register field. For use with the 100A traffic service position, J92603J is mounted in the top mounting plate position in place of one J92603E or H. J92603E traffic register units and J92603H and J92603L magnetic counter units may be mounted interchangeably in the wall-supported cabinet. The positions on each counter unit will be assigned the register numbers of the mounting plate location which they occupy; starting with the lowest register number and leaving the remaining numbers unused. This will preserve the regular numbering scheme of the register field.

2. SUPPLEMENTARY INFORMATION

- 801-000-000—Numerical Index—Common Systems
- 800-600-000—Checking List—General Equipment Requirements
- J22650—819-058-150—Traffic Register—No. 5 Crossbar System
- J27059—816-043-150—817-064-150—Traffic Register

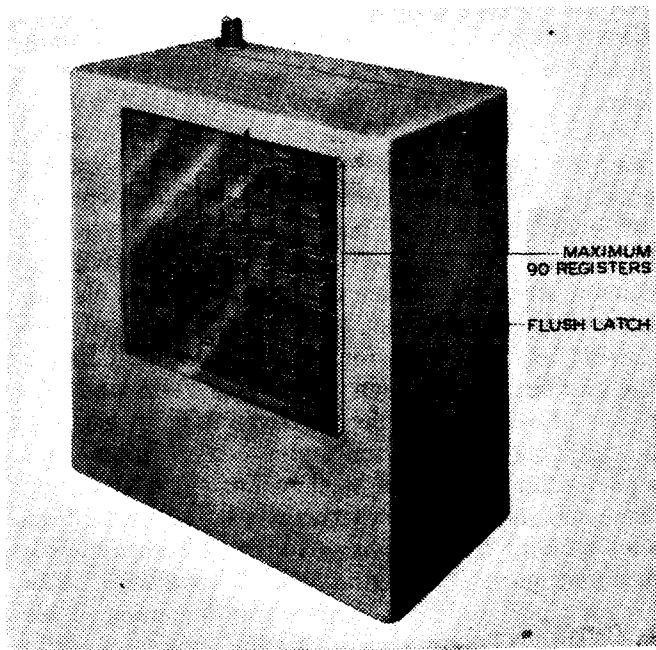


Fig. 4—Wall-Supported Traffic Register Cabinet

Equipment Using 14-Type Registers—No. 1 and Tandem Crossbar Systems
 J33017—814-050-151—Relay Rack Units Step-by-Step Systems No. 1 and No. 350
 J61519—Mfr Disc.—Group-Busy Time Register Equipment—Toll Systems (A&M Only)
 J62603—818-082-151—Traffic Register Equipment No. 4A and No. 4M Toll Switching System—Toll Systems
 J92604—822-105-150—Traffic Usage Recorder Frame—Traffic Usage Recorder Control Panels—Common Systems
 J92605—822-120-150—Traffic Register Camera Control Panel—Traffic Register Camera Control Unit

Floor Plan Data—Section 7.1, Sheet 37, Sheet 38

KS-14776—Camera
 KS-16493—Counter—Magnetic
 KS-19798—Magnetic Counter

3. DRAWINGS

For additional drawings forming a part of this specification, see listings under Subdivisions of Equipment and Detailed Index

Keysheets

SD-25000-01—No. 1 Crossbar System
 SD-25435-01—Crossbar Tandem
 SD-25760-01—No. 5 Crossbar System
 SD-31359-01—No. 1 Step-by-Step System
 SD-31364-01—No. 350 Step-by-Step System
 SD-64800-01—No. 3C and 3CL Toll Switchboards
 SD-68400-01—No. 4A Toll Switching System
 SD-68470-01—No. 4M Toll Switching System
 SD-31780-01—No 355A Step-by-Step System

Circuits

SD-56233-01—No. 3C and 3CL Switchboards—Traffic Register Circuit
 SD-56290-01—Intertoll Dialing Traffic Register Circuit
 SD-95531-01—Traffic Register Cabinet Circuit
 SD-95532-01—Recorder Talking Line Circuit
 SD-96360-01—Answering Time Recorder Switching Circuit
 SD-1C451-01—Interface Circuit for Data Set 405

Equipment

ED-25886-01—Designation Card
 ED-63856-01—Traffic Register Equipment—No. 3C or 3CL Toll Switchboard
 ED-64109-01—Intertoll Dialing Traffic Register Equipment

Installing and Cabling

ED-92275-01—Traffic Register Cabinet and Traffic Register and Relay Rack—Typical Installation and Cabling Arrangements

4. EQUIPMENT

ED-92567-14—Traffic Register and Relay Rack Assembly and Equipment

Notes

- A. Wiring to this equipment is done by the installer and is shown on SD-95531-01, Fig. 3 through 7, and Fig. 15.
- B. Added wiring for the camera power receptacles and associated relays is done by the installer and is shown on SD-95531-01, Fig. 8 through 11.

ED-92569-14—Traffic Register Cabinet Equipment**Notes**

- A. Wiring to this equipment is done by the installer and is shown on SD-95531-01, Fig. 3 through 7, and Fig. 15.
- B. Added wiring for the camera power receptacles and associated relays is done by the installer and is shown on SD-95531-01, Fig. 8 through 11.

ED-92645-30—Traffic Register Cabinet for Mounting on Wall or Cable Turning Section**Notes**

- A. Wiring to this equipment is done by the installer and is shown on SD-95531-01, Fig. 3, 4, and 7, and Fig. 15.
- B. Mounting space is available for the switch associated with answering time recorders per SD-96360-01, Fig. 5.

J92603A—AT&TCo Std—Traffic Unit Equipment

- List 1**—Assembly, wiring, equipment, and 11 patch cords for one unit of ten 14-type traffic registers, ten register pin jacks, and one supply pin jack per SD-95531-01, Fig. 1, 2, and Y apparatus.
- List 2**—Same as list 1 except V apparatus instead of Y apparatus.

Notes

- A. The cords should be packaged with the J92603 units but not plugged into the jacks.
- B. This unit is ordered as required and mounted either in a cabinet or on a relay rack.
- C. The 14M message register (V apparatus) is equivalent to the 14E message register (Y apparatus) with the exception that the plastic is omitted from the window in the cover. V apparatus is used to avoid light spots when registers are photographed.

J92603B—AT&TCo Std—Recorder Talking Line Unit Equipment

- List 1**—Assembly, wiring, and equipment for one recorder talking line per SD-95532-01, Fig. 2 with Z wiring, less S wiring.
- List 2**—Wiring and apparatus required in addition to list 1 for a dial per SD-95532-01, Fig. 2, option T.
- List 3**—Wiring and apparatus required in addition to list 1 for a ringer per SD-95532-01, Fig. 2, option S.

Notes

- A. When this unit is mounted in the traffic register cabinet, list 2 shall not be provided. Any dialing required will be done from nearby facilities such as a switchboard or wall-mounted telephone set.
- B. List 3 is required unless direct talking line units are provided. When list 3 is not provided, W wiring is furnished.

J92603D—AT&TCo Std—Direct Talking Line Unit Equipment

- List 1**—Assembly, wiring, and equipment for one direct talking line unit arranged for four and equipped with one circuit per SD-95532-01, Fig. 3.
- List 2**—Wiring and equipment required in addition to list 1 for one additional direct talking line circuit per SD-95532-01, Fig. 3.

Note

- A. This unit, when used with a J92603B unit, provides a direct tie between the traffic register cabinet or frame and a subset on a recorder desk.

J92603E—AT&TCo Std—Traffic Register Unit Equipment

- List 1**—Assembly, wiring, and common equipment for one unit, arranged for nine 14-type registers and equipped with nine register pin jacks, one supply pin jack, and one supply patch cord per SD-95531-01, Fig. 1 and 2.
- List 2**—Wiring and equipment required in addition

to list 1 for one register and cord per SD-95531-01, Fig. 1.

Note

- A. The cords should be packaged with the J92603 units but not plugged into the jacks.

J92603G—AT&TCo Std—Magnetic Counter Unit Equipment

List 1—Assembly, wiring, and common equipment for one unit arranged for six KS-16493 magnetic counters and equipped with three double networks, six counter pin jacks, one supply pin jack, and one supply patch cord per SD-95531-01, Fig. 1 and 2.

List 2—Wiring and equipment required in addition to list 1 for one magnetic counter and patch cord per SD-95531-01, Fig. 1 and S apparatus.

Note

- A. The cords shall be packaged with the J92603 units but not plugged into the jacks.

J92603H—AT&TCo Std—Magnetic Counter Unit Equipment

List 1—Assembly, wiring, and common equipment for one unit arranged for five KS-16493, L1 magnetic counters and equipped with three double networks, five counter pin jacks, one supply pin jack, and one supply patch cord per SD-95531-01, Fig. 1 and 2.

List 2—Wiring and equipment required in addition to list 1 for one magnetic counter and patch cord per SD-95531-01, Fig. 1 and S apparatus.

Note

- A. The cords shall be packaged with the J92603 units but not plugged into the jacks.

J92603J—AT&TCo Std—Traffic Register Cancel Call Record Key and Lamp Unit for 100A TSP

List 1—Equipment, assembly, and wiring per SD-95913-01, Fig. 46 and 47 or 49 and 50, for cancel call record key and lamp required for the 100A traffic service position.

Note

- A. This equipment is to be mounted in ED-92465-30 traffic register cabinet for 100A TSP application.

J92603K—AT&TCo Std—Magnetic Counter Unit Equipment

List 1—Assembly, wiring, and common equipment for one unit arranged for nine KS-19798, L1 magnetic counters and equipped with nine counter pin jacks, one supply pin jack, and one supply patch cord per SD-95531-01, Fig. 1 and 2.

List 2—Wiring and equipment required in addition to list 1 for one magnetic counter and patch cord per SD-95531-01, Fig. 1 and R apparatus.

Note

- A. The cords shall be packaged with the J92603 units but not plugged into the jacks.

J92603L—AT&TCo Std—Magnetic Counter Unit Equipment

List 1—Assembly, wiring, and common equipment for one unit arranged for seven KS-19798, L1 magnetic counters and equipped with seven counter pin jacks, one supply pin jack, and one supply patch cord per SD-95531-01, Fig. 1 and 2.

List 2—Wiring and equipment required in addition to list 1 for one magnetic counter and patch cord per SD-95531-01, Fig. 1 and R apparatus.

Note

- A. The cords shall be packaged with the J92603 units but not plugged into the jacks.

J92603M—AT&TCo Std—Interface Unit for Data Set 405 Type

List 1—Assembly, wiring, and equipment per SD-1C451-01, Fig. 1 for one connecting circuit for data set 405 type for remote register operation (receiving end).

List 2—Assembly, wiring, and equipment per SD-1C451-01, Fig. 2 required in addition to list 1 for one connecting circuit for data set 405 type for remote register operation

(transmitting end).

List 3—Apparatus per SD-1C451-01, Fig. 4 required in addition to each list 1 and list 2 for remoting 20 and 32 inputs.

Note

A. Provide X wiring when a minor alarm is required and W wiring when a major alarm is required.

J92603N—AT&TCo Std—Delay Unit for Eight Delay Registers

List 1—Assembly, wiring, and equipment per SD-1C451-01, Fig. 3 for one delay unit equipped for four delay registers. (See Note A.)

List 2—Wiring and equipment per SD-1C451-01, Fig. 3 required in addition to list 1 when an additional four delay registers are required (limit one list 2 per list 1).

Note

A. The J92603N unit is required in addition to the J92603M unit when the D-lead is connected to a message register associated with a dial tone speed register (250-ms delay is required).

5. GENERAL NOTES AND INDEXES

5.01 For operating reasons, all registers of a given type should be grouped together. To retain this grouping when the office grows, it is necessary to provide changeable cross-connections between registers and the leads coming from their associated relay equipments or other equipments requiring traffic registration. Furthermore, because the total number of registers required in different offices varies widely, it is necessary to provide facilities for mounting together either a few registers or a large number of registers both initially and ultimately.

5.02 To satisfy the foregoing requirements, the traffic register floor cabinet is arranged as follows. The registers are furnished in groups of ten on single-plate coded units equipped with 11 pin jacks. The operating terminals of the registers are surface wired to ten of the pin jacks; the remaining register terminals are strapped together and connected to the eleventh or battery supply jack. A common jack field is mounted below the

registers, on which are terminated the incoming switchboard cables to the cabinet and to which the registers are connected by means of patching cords. There are 480 pin jacks in the field, 16 horizontal rows of 30 each. The bottom five rows designated S, S1, S2, S3, and S4 are used to furnish battery to the registers, either direct or through relays under control of cutoff switches located above the registers. The 30 S, S1, S2, etc, jacks correspond to the 30 plates of registers that may be mounted in the cabinet, and provide for connection of one of five sources of battery to each plate of registers as required. (See Supply Jacks.) The 11 rows of pin jacks above the S jacks, called pulse jacks, are used for patching the individual leads of the registers to the associated circuits. Ten rows or 300 of the pulse jacks are assigned for cabling to the distributing frame or directly to circuits requiring registration. The eleventh row is available for extending P leads between cabinets, if required. Patch cords can be run from registers on one frame to incoming leads terminating in jacks on an adjacent frame. If necessary, two cords in series can be used to reach a register by strapping together two spare pulse jacks and plugging cords into each of them.

5.03 The traffic register arrangement described provides wide flexibility in the number of registers that can be used in any office without penalizing either the small or the large office. The register units are ordered as required and mounted adjacent to each other so that they always form a solid block of registers located at the most convenient height for each reading. All wiring, patching, and register maintenance is done from the front of the frame. Western Electric job engineering is kept at minimum because all frames and cabinets are similar, differing only in the number of register units and talking line units ordered by the telephone company. The patch cord connections which vary with the different jobs can be plugged up from information furnished directly by the telephone company. A record of the assignment of circuits cabled to the jacks in the jack field and of the registers patched to the jacks is kept on the designation cards provided with the cabinet or relay rack equipment. The cards may be hung on the inside of the cabinet door, placed in the cord box below the jack field, or made a part of the wire chief's record.

5.04 The patch cord method of connecting registers to incoming leads makes it unnecessary for the telephone company to specify the initial

assignment of registers in order that the most often read registers will be located centrally in the register cabinet.

5.05 The J92603G magnetic counter units are arranged for six counters on single-plate units equipped with seven pin jacks. The operating terminals of the counters are surface wired to six of the pin jacks; the remaining counter terminals are strapped together and connected to the seventh or battery supply jack. The counters are connected to the common jack field by patching cords in the same manner as the register units. The J92603H magnetic counter units are similarly arranged for five counters on single-plate units equipped with six pin jacks. The J92603H, J92603K, and J92603L magnetic counter units are similarly arranged for five, nine, and seven counters on single-plate units equipped with six, ten, and eight pin jacks, respectively.

5.06 The traffic register units and talking line units may be shipped loose or mounted on a traffic register cabinet framework or mounted on a relay rack for shipment.

5.07 Ground for the control switches, SD-95531-01, Fig. 5 shall be obtained from the nearest available ground supply.

5.08 When cabling to a traffic register cabinet secured to a wall is brought through a floor sleeve, the sleeve is normally located within 1/2 inch of the wall. Where this location will interfere with floor beams, the telephone company may request the alternative arrangement shown on ED-92275-01. However, where the cabinet is equipped with a power panel for camera operation, the alternative arrangement cannot be used and the cabinet must be set out from the wall to avoid the floor beam interference of the wall. Where this location will interfere with floor beams, the telephone company will request the alternative arrangement shown on ED-92275-01.

PULSE JACKS

No. 1 and 5 Crossbar, Tandem, and No. 4A and 4M Toll Systems

5.09 The pulse jacks for these systems are provided as covered in the respective J

specifications listed under 2. SUPPLEMENTARY INFORMATION.

Step-by-Step Systems

5.10 Where this traffic register equipment is provided in these systems, the 300 pulse jacks shall be cabled to a distributing frame for cross connection to equipment requiring registration using three 100-circuit cables.

Toll and Intertoll Systems

5.11 Where this traffic register equipment is provided for toll or intertoll systems, not in combination with any one of the local dial systems, the pulse jacks shall be cabled directly to the equipments requiring registration with the exception of the trunks. The leads from the trunks to traffic registers are multiplied together in groups at a distributing frame such as the MDF or IDF, and one register lead for each trunk group requiring registration is permanently connected to a pulse jack in the jack field.

5.12 Where an operating room is common to toll and local dial systems and the traffic register cabinets are in the same line, all the pulse jacks shall be cabled in accordance with the requirements for the local dial systems.

SUPPLY JACKS

5.13 In the floor-supported cabinet and on the traffic register and relay rack, the jack field is provided with five horizontal rows of 30 jacks each, 0 through 29. The five jacks S through S4 in a vertical row shall hereafter be called a group. The groups of jacks 0 through 29 are directly associated with the plates of registers 0 through 29 in any one cabinet. In general, 30 fuses are provided for each group of 300 or less traffic registers. One lead from each fuse connects directly to the supply jacks S, 0 through 29, so that the lead and jack numbers correspond. Additional leads from each fuse connect through relay contacts to the supply jacks S1, 0 through 29, or S2, 0 through 29, etc. Jack usage and type of battery on each jack is as follows:

JACK	GROUPS	TYPE OF BATTERY	USED WITH
S4	0 through 29	Timed battery under control of switch S4	Toll or Intertoll
S3	0 through 29	Battery under control of switch S3	Toll or Intertoll
S2	0 through 29	Timed battery or battery under control of switch S2	No. 1, 5, or Tandem Crossbar or Intertoll
S1	0 through 29	Battery under control of switch S1	No. 1, 5, or Tandem Crossbar, or Intertoll Step by Step
S	0 through 29	Direct battery	No. 1, 5, or Tandem Crossbar Step by Step, Toll, or Intertoll

In the wall-supported cabinet, the jack field is provided with a group of ten jacks designated S, S1, S2, S3, or S4 as required. The registers most frequently read and registers of relatively few periodic operations are connected to the direct battery jacks. Other types of registers may be read at less frequent intervals; and in order to conserve their life, battery supply to them will be under control of a relay that is operated by a switch, and is operated only when required. A third class of battery is furnished for registers that required timed battery. The timed battery is under the control of a switch. It should be noted that because a common supply jack feeds a plate of registers, it is necessary that all registers on the plate be assigned to operate with the same supply arrangements. In the wall-supported cabinet, the jack field is provided with a group of ten jacks designated S. Direct battery is the only type provided.

5.14 On bays arranged to provide traffic usage data, the manual battery cutoff switches are omitted because operation of the relays is under control of the traffic usage recorder control equipment.

5.15 The J92603G, J92603H, J92603K, and J92603L magnetic counter units also have common

supply jacks and all counters on a plate must be assigned to operate with the same supply arrangements.

No. 5 Crossbar

5.16 The S jacks (direct battery) are connected directly to fuses on a fuse panel on the traffic register relay rack. The S1 and S2 jacks (controlled battery) are connected to a fuse through a relay under control of the S1 and S2 switches in the traffic register cabinet. The S, S1, and S2 jacks in any one group are common to one fuse. When No. 3C or 3CL toll and/or intertoll registers are mounted in the same cabinet, the requirements are covered in 5.22.

No. 1 and Tandem Crossbar

5.17 The S jacks (direct battery) are connected directly to fuses on a miscellaneous fuse bay. The S1 jacks (controlled battery) and S2 jacks (timed battery) are connected to fuses through a relay under control of the S1 and S2 switches in the traffic register cabinet. The S, S1, and S2 jacks in any one group are common to one fuse. When the No. 3C or 3CL toll and/or intertoll registers are mounted in the same cabinet, the requirements are covered in 5.22.

No. 1 and 350 Step-by-Step

5.18 The S jacks (direct battery) are connected directly to fuses on a fuse panel. The S1 jacks (controlled battery) are connected to fuses through a relay under control of the S1 switch. The S2 jacks are not required. The S and S1 jacks in any one group are common to one fuse. When the No. 3C or 3CL toll and/or intertoll registers are mounted in the same cabinet, the requirements are covered in 5.22.

No. 355A Step-by-Step

5.19 The S jacks (battery cutoff) are connected to fuses through a relay under control of switch S. The S jacks in any one group are common to one fuse. When the No. 3C or 3CL toll and/or intertoll registers are mounted in the same cabinet, the requirements are covered in 5.22.

No. 3C or 3CL Toll

5.20 The S jacks (directory battery) are connected to fuses on a fuse panel. The S3 jacks

(controlled battery) and S4 jacks (timed battery) are connected to fuses through relays under control of switches S3 and S4. The S, S3, and S4 jacks in any one group are common to one fuse. The above are the requirements for mounting only the registers in a cabinet in a toll office. The requirements for mounting the No. 3C or 3CL toll system registers in a cabinet with any one of the local dial systems and/or intertoll registers are covered in 5.22 and 5.23.

Intertoll

5.21 The S jacks (direct battery) are connected to fuses on a fuse panel. The S1 jacks are connected to fuses through relays under the control of switches S1 and S2. The S, S1, and S2 jacks in any one group are common to one fuse. The above are the requirements for mounting only the registers in the toll office. The requirements for mounting the intertoll registers in a cabinet with any one of the local dial systems and/or the No. 3C or 3CL toll system registers are covered in 5.22 and 5.23.

5.22 When the No. 3C or 3CL toll on intertoll registers are mounted in the same cabinet with one of the local dial systems, the S jacks are common and wired in accordance with the local dial circuit. The controlled battery and timed battery, for toll or intertoll, are connected to the S3 and S4 jacks, respectively, in the cabinet and fused from a miscellaneous toll fuse bay. The S3 and S4 jacks in any one group are common to one fuse. When toll and intertoll are in the cabinet, the S3 and S4 jacks shall be assigned on a job basis as directed by the telephone company. With the toll portion being the jacks on the left, for example, groups 0 through 9 and intertoll on the right, for example, groups 16 through 20.

5.23 When intertoll registers are mounted in the same cabinet with the No. 3C or 3CL toll registers, the direct battery leads to the S jacks shall be cabled in accordance with the toll circuit. The controlled battery and timed battery, for intertoll, are connected to the S1 and S2 jacks, respectively, and fused from a miscellaneous toll fuse board. The S, S3, and S4 jacks of the toll circuit and the S1 and S2 jacks of the intertoll circuit in any one group are then common to one fuse.

No. 4A and 4M Toll

5.24 The supply jacks and switches for these systems are provided as covered in the respectively J specifications listed under 2. SUPPLEMENTARY INFORMATION.

List of A & M Only and Mfr Disc. Equipment

EQUIPMENT	RATING	DETAILS	
		LAST SHOWN IN ISSUE	REPLACING EQUIPMENT
ED-92274-01	Mfr Disc.	2	ED-92569-01
ED-92566-01	Mfr Disc.	3	ED-92567-01
J92603C	Mfr Disc.	1	J92603B & J92603D
J92603F	Mfr Disc.	5	J92603G

The above equipment has been replaced as indicated. Where A&M Only items appear, the issue numbers shown are those of the issue in which the rating was first applied.

SUBDIVISIONS OF EQUIPMENT AND DETAILED INDEX

WE J drawings should be ordered by referring to the prefix and base number and requesting the current dash (—) number.

EQUIPMENT CODE	AT&T RATING OF UNIT	TITLE	EQUIPMENT DRAWING	CIRCUIT DRAWING
ED-92567-14	Std	Traffic Register and Relay Rack Assembly and Equipment	ED-92567-14	SD-95531-01
ED-92569-14	Std	Traffic Register Cabinet Equipment	ED-92569-14	SD-95531-01
ED-92645-30	Std	Traffic Register Cabinet for Mounting on Wall or Cable Turning Section	ED-92645-30	SD-95531-01 SD-96360-01
J92603A	Std	Traffic Unit Equipment	J92603A-()	SD-95531-01
J92603B	Std	Recorder Talking Line Unit Equipment	J92603B-()	SD-95532-01
J92603D	Std	Direct Talking Line Unit Equipment	J92603D-()	SD-95532-01
J92603E	Std	Traffic Register Unit Equipment	J92603E-()	SD-95531-01
J92603G	Std	Magnetic Counter Unit Equipment	J92603G-()	SD-95531-01
J92603H	Std	Magnetic Counter Unit Equipment	J92603H-()	SD-95531-01
J92603J	Std	Traffic Register Cancel Call Record Key and Lamp Unit for 100A TSP	J92603J-()	SD-95913-01
J92603K	Std	Magnetic Counter Unit Equipment	J92603K-()	SD-95531-01
J92603L	Std	Magnetic Counter Unit Equipment	J92603L-()	SD-95531-01
J92603M	Std	Interface Unit for Data Set 405 Type	J92603M-()	SD-1C451-01
J92603N	Std	Delay Unit for Eight Delay Registers	J92603N-()	SD-1C451-01

Circuit Schematic Index

CIRCUIT DRAWING	J92603 EQPT CODE
SD-1C451-01	M, N
SD-95531-01	ED-92567-14, ED-92569-14, ED-92645-30, A, E, G, H, K, L
SD-95532-01	B, D
SD-95913-01	J
SD-96360-01	ED-92645-30

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