

**ALTERNATE ROUTE TRAFFIC CONTROL, TRAFFIC CONTROL  
NETWORK CONTROL FRAMES AND AUXILIARY RECORDING  
CONTROL UNITS  
EQUIPMENT DESIGN REQUIREMENTS  
NO 4 TYPE TOLL SWITCHING SYSTEMS**

**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, manufacture, and installation of the alternate route traffic frames, traffic control frames, network control frame, and auxiliary recording control units.

1.02 This specification is reissued to:

- (a) Add J67444FJ,L17
- (b) Rate J67444F,L7, 8, 9, and 10; J67444FM and J67444FN Mfr Disc.

These changes are in accordance with SD-68967-01, Issue 15B.

**CAPACITY**

1.03 The capacities of the alternate route traffic control frame and supplementary alternate route traffic control frame are as follows:

	ARC	SARC
Decoders	12	12
Alternate route relays per decoder (relay to relay)	100	100
*Alternate route relays per decoder (card to relay)	20	20

\* A maximum of 20 routes per decoder may be cross connected into the circuit for control of card-to-relay (CR) traffic. For each

route so arranged, a like-numbered relay-to-relay (RR) route cross-connection is omitted; therefore, control of a maximum of 100 routes is possible. (See paragraph 1.07.)

1.04 One traffic control frame is required for each center.

**DESCRIPTION**

1.05 The alternate route traffic control frame and supplementary alternate route traffic control frame provide centralized facilities for interconnecting the alternate route relays of each decoder in accordance with the alternate routing plan. It also provides facilities to limit outgoing traffic to direct access traffic by denying the use of any route as an alternate. This latter function is under control of the alternate route traffic control keys RT- and CR- located on the traffic supervisory rack in the operating room.

1.06 The interconnection of decoder route relays is made by cross-connections on a cross-connecting terminal strip field, one of which is furnished for each decoder. This field is located on the frame above the route relays. Since the alternate route pattern must be the same for all decoders, the cross-connections for each decoder must be identical. As illustrated in Fig 1, the following terminals appear in each cross-connection field.

- (a) The *CR terminal*, one for each decoder route relay, is the appearance of the decoder CR lead that is used to operate the route relay (directly via a cross-connection to the RR terminal and RR lead or via a CR, CR' cross-connection through contacts of an optional CR relay to an RR', RR cross-connection and RR lead) as an alternate

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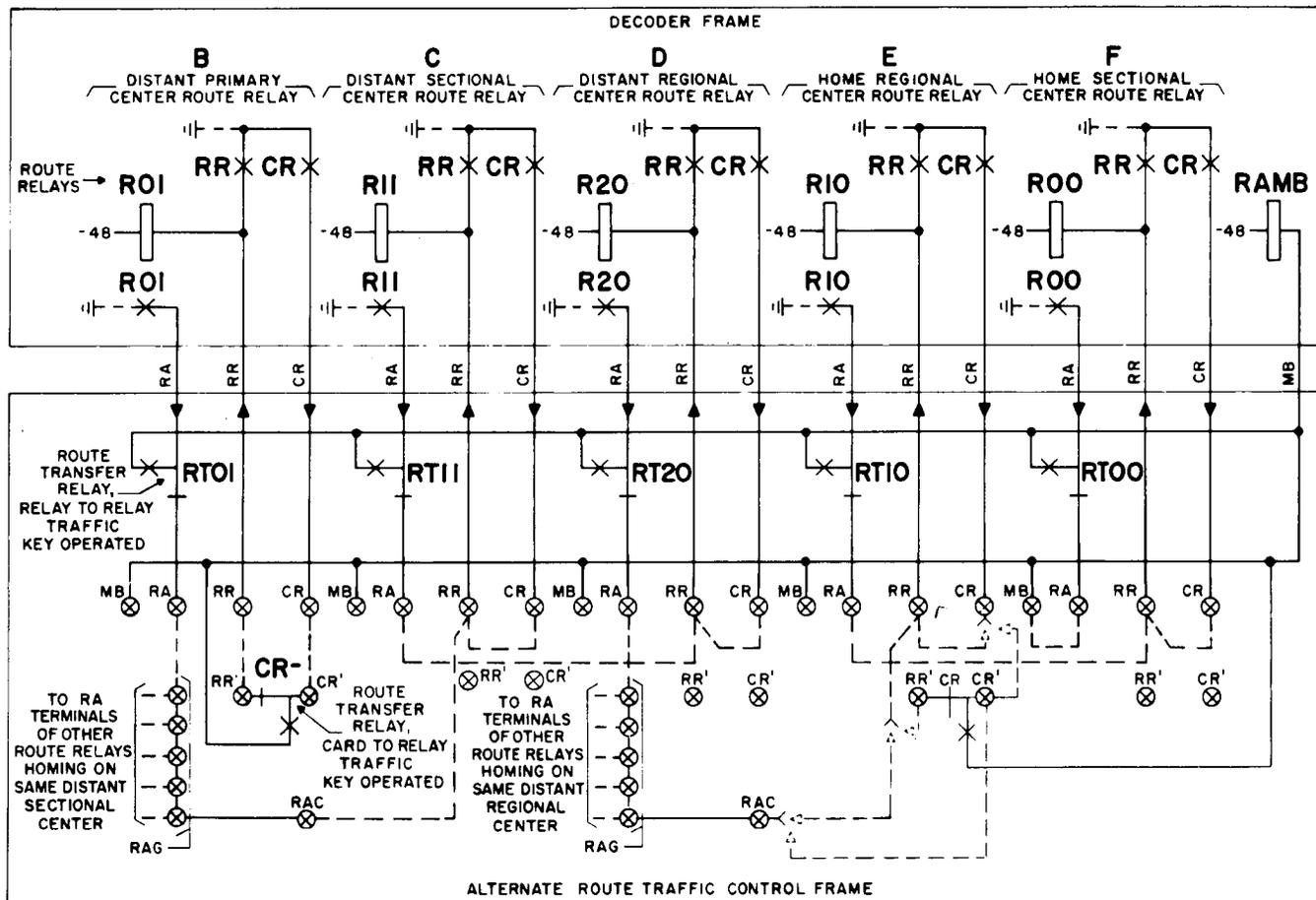


Fig 1—Typical Arrangement of Alternate Route Pattern at a Primary Outlet

route. The route relay is operated from the card-to-relay CR lead only when the route is a first alternate. It may also be operated by the relay-to-relay RA lead from a preceding route relay via a cross-connection to the RR terminal and RR lead when the route is an alternate other than the first. The CR terminal may be cross connected to an RR or CR' terminal. (See paragraph 1.07.)

(b) The *RA terminal*, one for each decoder route relay, is the appearance of each relay-to-relay RA lead from the decoder route relay contact that is used to route advance to a succeeding route relay when the route is an alternate other than the first. It operates the decoder route relay via a cross-connection to the RR terminal indirectly via grouping terminals RAG and RAC or it may be cross connected to a master busy (MB) or reorder (RO) terminal.

(c) The *RAG terminals*, 20 groups of five for each decoder, are grouping terminals to com-

bine three or more RA terminals that require route advance to the same succeeding alternate route relay. The RAG terminal may be cross connected to an RA terminal only.

(d) The *RAC terminal*, one per RAG group, 20 for each decoder, is strapped to an RAG group to facilitate cross connecting to the RR terminal. This terminal may be cross connected to an RR terminal or CR' terminal.

(e) The *MB terminal*, one group of ten for each decoder, is the appearance of the decoder MB lead that is used to operate the master-busy relay in the decoder. The operation of this relay routes the call to master busy. The MB terminal may be cross connected to an RA terminal only.

(f) The *RO terminal*, one group of ten for each decoder, is the appearance of the decoder RO lead that is used to route advance a call to reorder.

The RO terminal may be cross connected to an RA terminal. The RO terminal is not shown on the simplified schematic of Fig 1.

(g) The *RR terminal*, one for each decoder route relay, is the appearance of the decoder RR lead over which the decoder route relay is operated. It may be cross connected to a CR, RA, RAC, or RR' terminal. (See paragraph 1.07.)

(h) The *CR' terminal*, one group of 20 for each decoder, is the appearance of the fixed terminal of transfer contacts of the optional CR relay in the alternate route traffic control frame and is used to control card-to-relay traffic. The CR' terminal may be cross connected to a CR or RAC terminal. (See paragraph 1.07.)

(i) The *RR' terminal*, one group of 20 for each decoder, is the appearance of the break-contact of the optional (CR) relay in the alternate route traffic control frame used to control card-to-relay traffic. The RR- terminal may be cross connected to an RR terminal only. (See paragraph 1.07.)

(j) The *CR' terminal* may be cross connected to the RAC and/or CR terminal to control all traffic on a particular route.

**1.07** Shop-installed cross-connections are furnished between the like-numbered 100 CR and 100 RR terminals for each decoder. When control of card-to-relay traffic is desired, these cross-connections, for the particular routes involved, must be removed and cross-connections must be added between the CR, CR' and RR, RR' terminals for these routes. This inserts a transfer contact of the optional CR relays between the CR and RR terminals. Operation of the CR relay, by a CR key located in the traffic supervisory rack, breaks the connection between the CR and RR leads to the winding of the decoder route relay and transfers the CR lead to decoder master busy via the decoder MB lead. This denies alternate routing of card-to-relay traffic for the particular routes so arranged (maximum 20) and thus limits outgoing traffic over these routes to direct traffic.

**1.08** Similarly, for relay-to-relay traffic, operation of the RT relay by an RT key located in the traffic supervisory rack opens the connection between the RA and RR leads to the winding of the decoder route relay and transfers the RA lead to decoder

master busy via the decoder MB lead. This denies alternate routing to relay-to-relay traffic for the particular route represented by the operated RT key and thus limits outgoing traffic over this route to direct traffic. Direct traffic is not affected by operation of the CR or RT keys.

**1.09** A typical example of alternate route traffic control is shown in the simplified schematic of Fig 1 with the alternate route pattern cross connected in accordance with the traffic schematic of Fig 2. In Fig 2 the direct route A and alternate routes B, C, D, E, and F are shown from a primary center to a distant toll center, which homes on a distant primary center. If it becomes necessary to *limit traffic through the distant primary center* to the distant toll center, the CR relay for route B would be operated by the CR key located in the traffic supervisory rack. This would deny first alternate card-to-relay route B as an alternate route for calls to the distant toll center. When a first alternate card-to-relay route is denied, route advance is no longer possible; thus, relay-to-relay alternate routes C, D, E, and F are also denied for calls to the distant toll center. At this point, all calls to the distant toll center from the primary center would be limited to the direct route A. However, calls to the distant primary center would still use route B as a direct route with routes C, D, E, and F as alternates.

Assume now that we wish to *limit traffic through the distant sectional center* rather than the distant primary center. The CR relay, mentioned above, for route B would be restored to normal and routes B, C, D, E, and F would once again be available as alternates. To limit traffic through the distant sectional center to the distant toll center, the RT01 relay would be operated by the RT01 key located in the traffic supervisory rack. This would deny second alternate relay-to-relay route C as an alternate route for calls to the distant toll center. It would also deny alternate routes D, E, and F as well since route advance is no longer possible. The remaining routes for calls from the primary center to the distant toll center would be limited to the direct route A or the first alternate route B. However, calls to the distant sectional center would still use route C as a direct route with routes D, E, and F as alternates. Similarly, if it becomes necessary to limit traffic through the distant or home regional center, the RT11 or RT20 key would have to be operated.

**1.10** The alternate route traffic control frame ARC and supplementary alternate route traffic con-

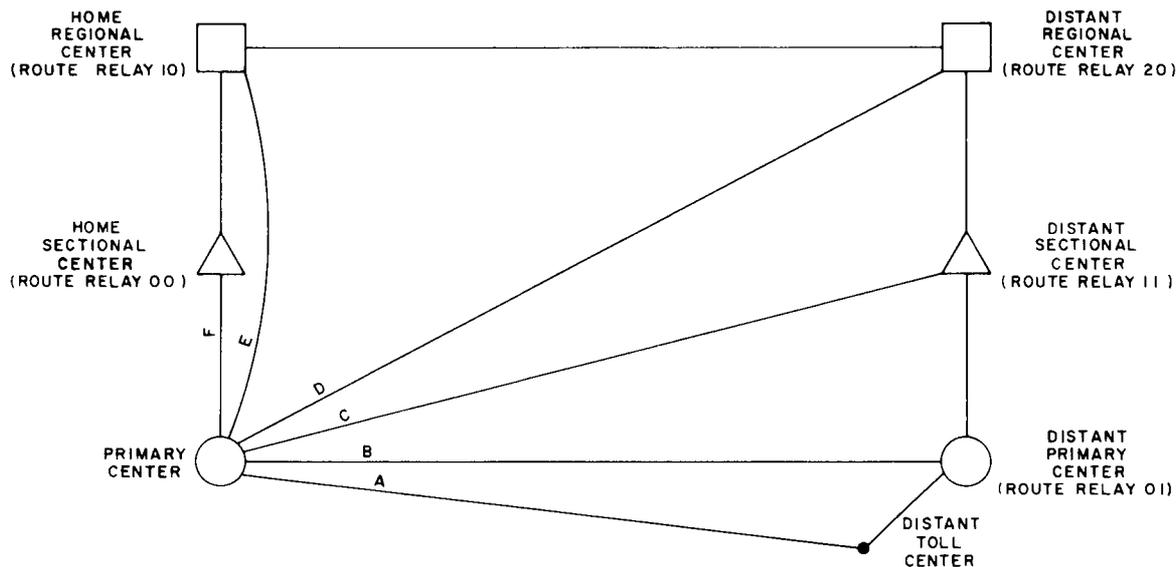


Fig 2—Typical Traffic Schematic

trol frame SARC are each single bay bulb angle frameworks 11 feet 6 inches high by 2 feet 2-5/8 inches wide and accommodate 2- by 25-inch mounting plates. They are furnished in two shop-wired assemblies, as shown in Fig 3.

(a) The ARC and SARC bay framework, equipment, and frame local cable for use with decoders A0 through A11 and B0 through B11 are arranged in bottom-up order as follows:

- (1) One mounting plate of common miscellaneous relays (ARC only).
- (2) Ten mounting plates of alternate route transfer RT- relays for 100 decoder route relays for denying route advance to a maximum of 100 relay-to-relay alternate routes.
- (3) Two mounting plates of alternate route transfer CR- relays for 100 decoder route relays for denying access to a maximum of 20 card-to-relay alternate routes.
- (4) One group of four rows of cross-connecting terminal strips for decoders 0, 1, 2, and 3.
- (5) One support panel equipped with jacks, key, lamp, and test posts for the miscellaneous circuit on the ARC frame, unequipped on the SARC frame.

(6) Two groups of four rows of cross-connecting terminal strips for decoders 4, 5, 6, and 7 and decoders 8, 9, 10, and 11.

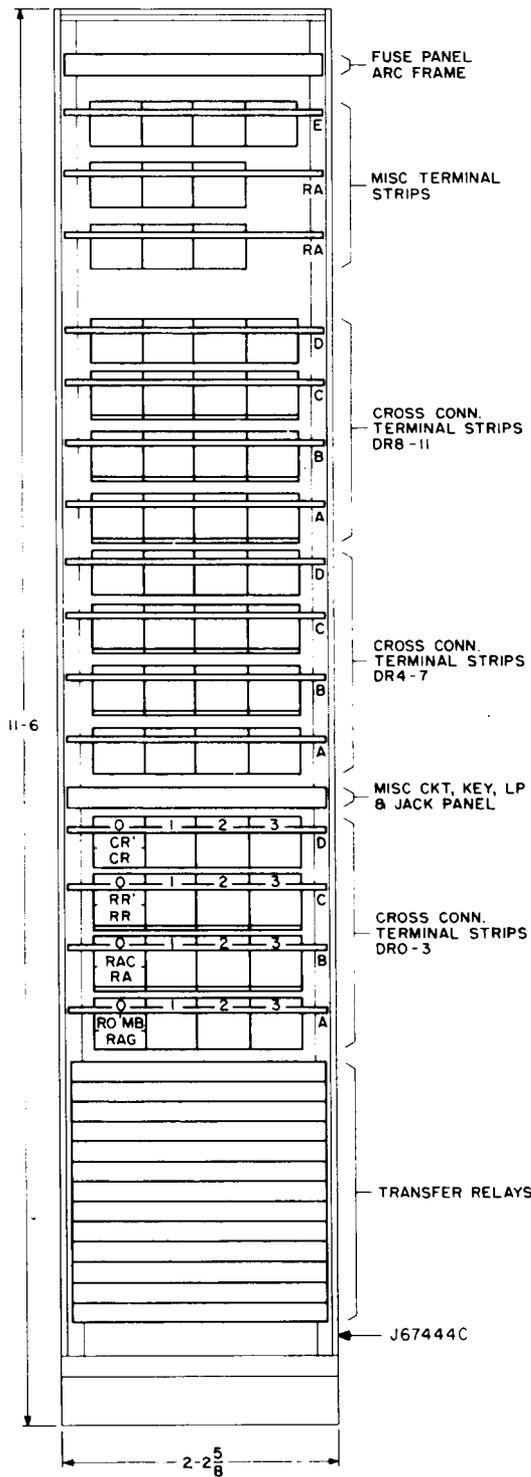
(7) Two rows of terminal strips for terminating RA switchboard cable leads from the decoder.

(8) One row of terminal strips at the top of the frame for terminating the various switchboard cable leads from other frames.

(9) One fuse panel using 22- and 23-type fuse blocks on a 2- by 25-inch mounting plate (ARC only). It accommodates all 48-volt fuses for both the ARC and SARC frames except for one fuse for the miscellaneous circuit located on the miscellaneous fuse board.

1.11 The traffic control feature is used to cancel follow with second trial — all trunks busy (FST-ATB), short sender timing, and for canceling alternate routing, route skipping, and directional group busy control. The main components of the traffic control feature are as follows:

- (a) Traffic Control Panels—All of the controls for the circuit features are located on traffic control panels. Each feature may be automatically or manually activated. Master control switches provide for restoring to normal circuit operation. The



**Fig 3—Alternate Route Traffic Control Frame**

control panels (8-3/4 by 19 inches) may be mounted in the cabinet provided under separate lists (shown in Fig 6) or mounted on locally supplied cabinets or consoles.

(b) Decoder Queue — A decoder queue circuit is provided to sense when all of the decoders or decoder channels in the office are busy. The output of this queue circuit enables the cancellation of FST-ATB and short sender timing.

(c) Sender Queue — A sender queue indicator circuit monitors the number of ST- relays operated on all incoming and 2-way sender link frames in the office. When a predetermined number of ST- relays are operated, the circuit will trigger an output from this circuit which results in the cancellation of FST-ATB. A second sender queue may be provided to monitor a particular type of traffic (sender type). Sender queue high and low thresholds are used to initiate route transfer (RT) signals to subtending offices as required.

**1.12** The traffic control frame is a single bay bulb-angle framework 11 feet 6 inches high by 2-feet 5/8 inches wide as shown in Fig 4.

**1.13** Network control provides manual traffic control functions in an ETS equipped office such as route cancellation, route skipping, code blocking, and preprogrammed reroutes. The equipment units are the network control panel which houses the control keys and lamps to invoke the various controls, and the network control frame which mounts the associated relay equipment.

**1.14** The network control frame is a single bay bulb-angle framework 11 feet 6 inches high by 2-feet 5/8 inch wide as shown in Fig 5.

**1.15** The auxiliary recording control units are provided, along with a recording device, to record sender reorders, vacant codes, stuck senders, CAMA ANI failures, and sender retrieval attempts. These units are mounted on the network control frame in an ETS office or on a miscellaneous relay rack in a card translator office. The recording device that is separately located can be a specially modified IBM 523 gang summary punch. Other recording devices may be used provided the telephone company furnishes the necessary interface equipment.

**1.16** The cabinet furnished for traffic control, route transfer control, and network control is 14 inches high, 21 inches wide, and 21-5/16 inches deep and is shown in Fig 6.

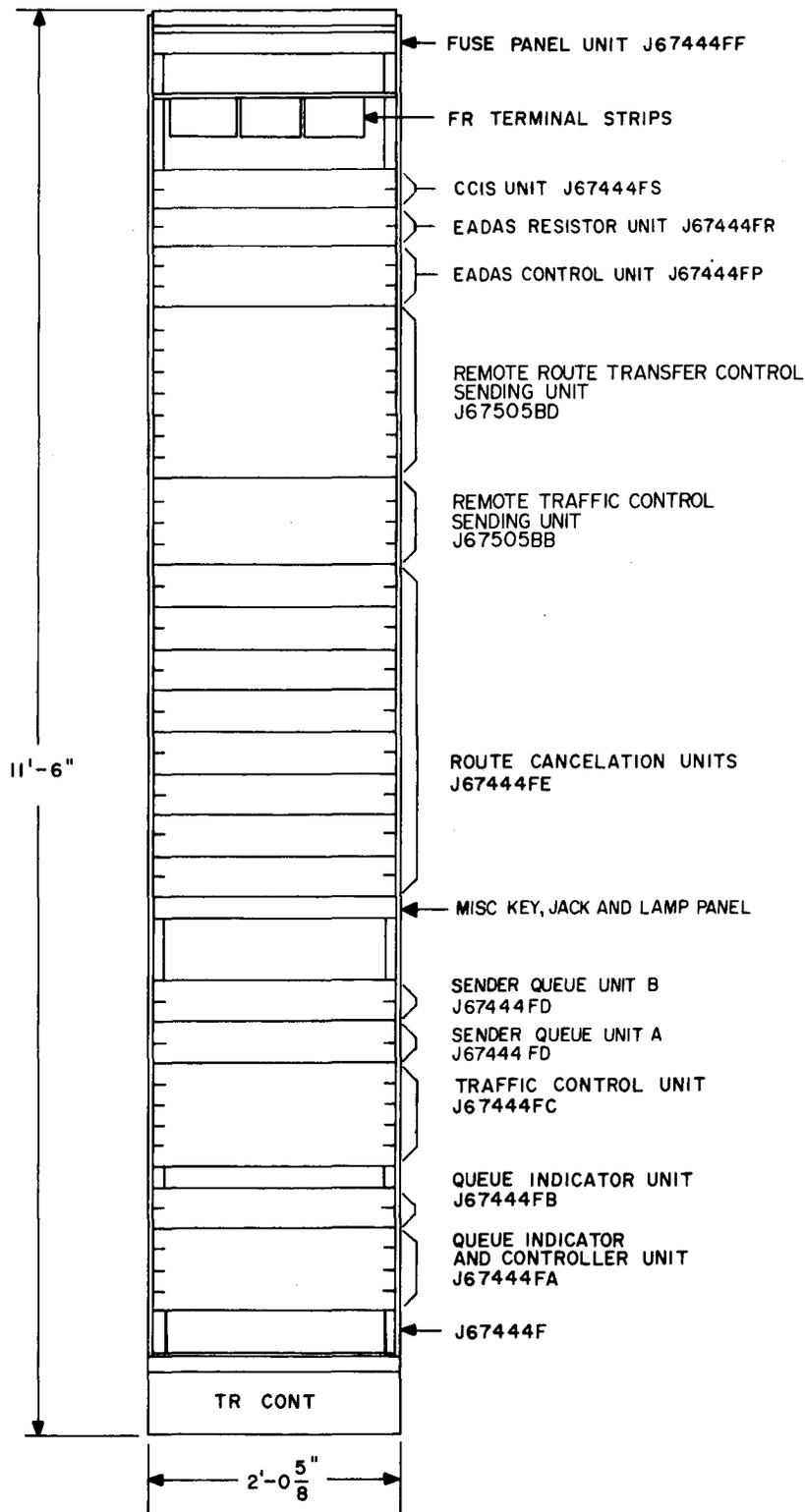


Fig 4—Traffic Control Frame

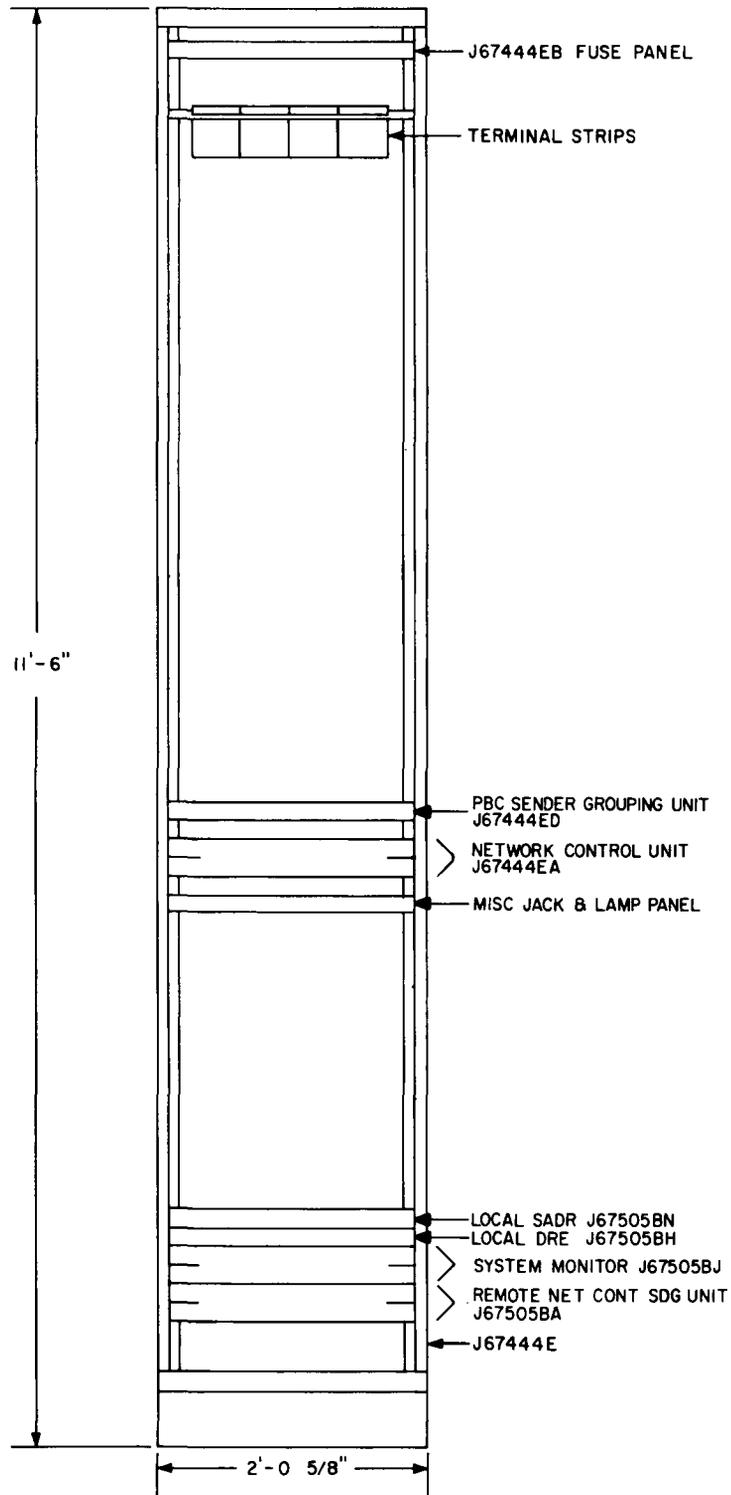
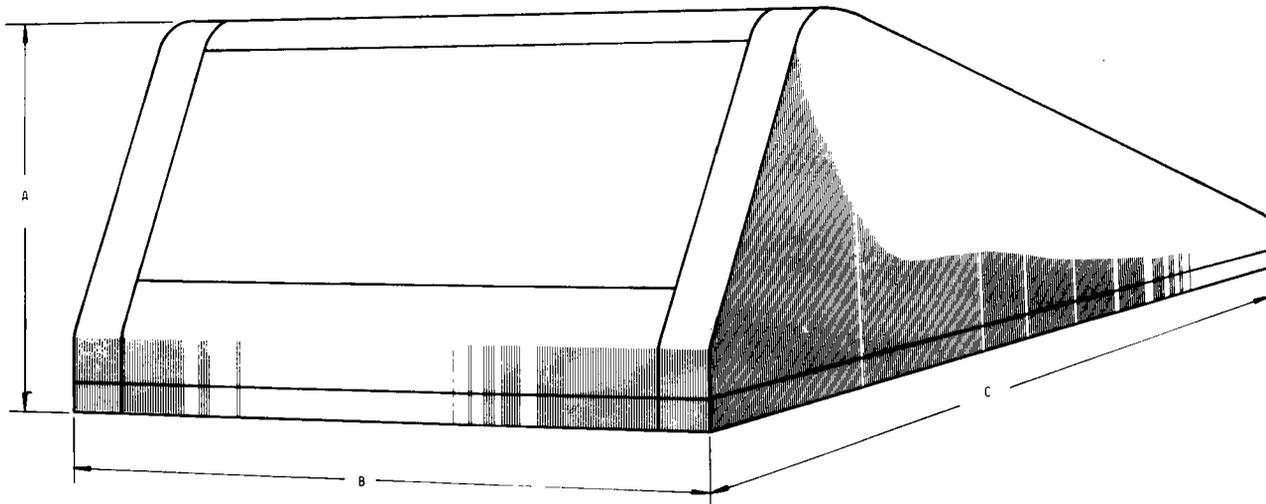


Fig 5—Network Control Frame



ACTUAL DIMENSIONS

A	14.188"
B	21.060"
C	21.312"

Fig 6—Traffic Control Cabinet, Route Transfer Cabinet, or Network Control Console

## FLOOR PLAN ARRANGEMENT

1.17 Arrangements are provided to remote the traffic control and network control consoles to a distant location. The load recorders are not remot-ed.

1.18 The preferred location for the alternate route traffic control frame is near the decoder frames. Wherever possible the supplementary frame, when required, should be located adjacent and to the right of the initial frame. The preferred location for the traffic control frame and the network control frame is near the maintenance center. The preferred location for the IBM 523 gang summary punch is in the maintenance center.

## 2. SUPPLEMENTARY INFORMATION

- 818-000-000—Numerical Index Toll Switching Systems
- 800-600-000—Checking List—General Equipment Requirements
- 800-614-155—Auxiliary Framing
- 818-612-163—Wiring and Cabling
- 818-614-159—Numbering and Lettering
- J25551—818-080-150—End Guards, Aisle Pilot Lamp and DPTS Supports, and Fuse Record Book and Holder

- J62604—818-083-150—Traffic Supervisory Rack
- J69202—818-005-150—No 4A General Toll Switching System
- J95501—802-083-157—Frame Lighting and Appliance Outlets
- KS-16689—Plug
- KS-16690—Connector
- KS-20221—Card-Designations
- Floor Plan Data—Section 10.2, Sheets 17, 25, and 26

## 3. DRAWINGS

For additional drawings forming a part of this specification, see listings under **SUBDIVISIONS OF EQUIPMENT AND DETAILED INDEX.**

### Keysheets

- SD-68400-01—Toll Switching System No 4A
- SD-68470-01—Toll Switching System No 4M

### Circuit

- SD-68090-01—Test Battery

### Wiring and Cabling

- ED-68066-01—Method of Running Dual Power Feeders

- ED-68917-( )—Switchboard Cabling Details
- ED-68951-( )—Traffic Control Frame Cabling Details
- ED-68953-( )—Console Cabling Details
- ED-68960-( )—Switchboard Cabling Details Network Control Frame

**4. EQUIPMENT**

*J67444A—A&M Only—Supplementary Alternate Route Traffic Control Frame (See Note C)*

*List 1—Framework, assembly, wiring, and equipment for one supplementary alternate route traffic control frame arranged for 10 decoders, wired for 100 alternate route transfer relays for decoders 10 through 15.*

	WIRE	EQUIP	NOTES
Alternate Route Traffic Control Circuit, SD-68408-01:			
Route Transfer Relays:			
Fig 12	1	0	
Fig 13	9	0	
Fig 14	1	0	A
Fig 15	9	0	A
Miscellaneous Circuit, SD-68415-01:			
Fig 1, 2, 3, 4, 5, 6, and 7	1	1	5.03

*List 3—Equipment required in addition to list 1 when the frame serves decoders 10 through 15.*

	WIRE	EQUIP	NOTES
Alternate Route Traffic Control Circuit, SD-68408-01:			
Route Transfer Relays:			
Fig 12		1	
Fig 13		2	

*List 5—Equipment per SD-68408-01, Fig 13 required in addition to lists 1 and 3 to provide ten additional alternate route transfer relays (30 through 39, 40 through 49, ... 90 through 99) for decoders 10 through 15. (See Note 5.01.)*

**Note**

A. The local cable for list 1 shall include wiring for the LP, RT, RO, and MB leads of Fig 3, 4, 14,

and 15. The remaining wiring for these figures is provided in the local cables for the supplementary unit per J67444B.

*J67444B—A&M Only—Supplementary Unit for Alternate Route Traffic Control Frame or Supplementary Alternate Route Traffic Control Frame (See Note C)*

*List 1—Framework, assembly, wiring, and equipment for one supplementary unit for the alternate route traffic control frame wired for 100 alternate route transfer relays for use with decoders 6 through 8, or 16 and 17.*

	WIRE	EQUIP	NOTES
Alternate Route Traffic Control Circuit, SD-68408-01:			
Route Transfer Relays:			
Fig 3 or 14	1	0	A
Fig 4 or 15	9	0	A

*List 2—Equipment required in addition to list 1 when the unit serves decoders 6 through 9.*

	WIRE	EQUIP	NOTES
Alternate Route Traffic Control Circuit, SD-68408-01:			
Route Transfer Relays:			
Fig 3		1	
Fig 4		2	

*List 3—Equipment required in addition to list 1 when the unit serves decoders 16 and 17.*

	WIRE	EQUIP	NOTES
Alternate Route Traffic Control Circuit, SD-68408-01:			
Route Transfer Relays:			
Fig 14		1	
Fig 15		2	

*List 4—Equipment per SD-68408-01, Fig 4 required in addition to lists 1 and 2 to provide for ten additional alternate route transfer relays (30 through 39, 40 through 49, ... 90 through 99) for decoders 6 through 9. (See Note 5.01.)*

**List 5**—Equipment per SD-68408-01, Fig 15 required in addition to lists 1 and 3 for ten additional route transfer relays (30 through 39, 40 through 49, ... 90 through 99 for decoders 16 and 17. (See Note 5.01.)

#### Notes

A. The wiring for list 1 consists of two local cables as shown on the local cable drawing. The first (local cable B) shall include only the CR and RR leads for decoders 6 through 9, or 16 and 17. The second (local cable C) shall include only the leads between RAG and RAC terminal strips for decoders 6 through 9, or 16 and 17.

B. In the event this unit is not mounted on J67444A prior to shipment, temporary supporting details shall be furnished as required to support local cable B.

C. The basic frame J67444A serves decoders 0 through 4 and when supplementary unit J67444B is added serves additional decoders 5 through 9. Supplementary frame J67444A serves decoders 6 through 9 and when supplementary unit J67444B is added serves additional decoders 16 and 17. This frame and unit is for adding to older offices using Alternate Route Traffic Control Circuit, SD-68408-01 and is replaced by J67444C for use in newer offices with decoder operation.

#### J67444C—A&M Only—Alternate Route Traffic Control Frame of Supplementary Alternate Route Traffic Control Frame

**List 1**—Framework, assembly, equipment, and wiring for one alternate route traffic control frame or one supplementary alternate route traffic control frame wired to serve 12 decoders and 100 routes, equipped to serve 12 decoders and 30 routes. (See Note A.)

	WIRE	EQUIP	NOTES
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Alternate Route Traffic Control Circuit, SD-68563-01:			
Fig 1 or 3	1	1	B
Fig 2 or 4	7	0	B
Fig 5 or 6	2	0	B

**List 2**—Equipment required in addition to list 1 to provide route transfer relays for ten additional alternate routes.

	WIRE	EQUIP	NOTES
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Alternate Route Traffic Control Circuit, SD-68563-01:			
Fig 2 or 4	0	1	C

**List 3**—Equipment required in addition to lists 1 or 2 to provide transfer relays for control of card-to-relay traffic for ten routes.

	WIRE	EQUIP	NOTES
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Alternate Route Traffic Control Circuit, SD-68563-01:			
Fig 5 or 6	0	1	D

**List 4**—Equipment and wiring required in addition to list 1 for ARC frame only.

	WIRE	EQUIP	NOTES
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Alternate Route Traffic Control Circuit, SD-68583-01:			
Fig 7	1	1	
Fig 8	1	0	
Frame Fuse Panel J67444CA	0	1	

**List 5**—Wiring and equipment per SD-68563-01, Fig 9 required in addition to list 1 to permit cancellation of trouble recording (ARC frame only).

**List 6**—Wiring and equipment per SD-68563-01, Fig 10 required in addition to lists 3 and 5 to permit cancellation of alternate routed traffic or route skipping from a distant office. One per distantly controlled route, maximum five (ARC frame only).

**List 7**—Wiring and equipment per SD-68563-01, Fig 11 required in addition to list 1 to provide route transfer failure alarm (maximum one, ARC frame only).

#### Notes

A. The ARC frame serves decoders A0 through A11. The SARC frame serves decoders B0 through B11.

B. Fig 1 and 3, 2 and 4, 5 and 6 are identical except for designations.



	WIRE	EQUIP	NOTES
Common Control Unit J67444GA-( ),L6	0	1	
<i>List 8</i> —Assembly, wiring, and equipment per J67444EA,L1 and J67444ED,L1 required in addition to list 1 for electronic translator equipped office.			
<i>List 9</i> —Wiring and equipment per J67444EA,L2 required in addition to list 8 for manual traffic overload routing control for regional centers.			
<i>List 10</i> —A&M Only—Wiring and equipment per J67444ED,L2 required in addition to list 8 when any MF or DP senders are arranged for nonsimplified sender grouping.			
<i>List 11</i> —Wiring and equipment per J67505BJ,L1 required in addition to list 1 to allow network management facilities to be moved to a distant location.			
<i>List 12</i> —Wiring and equipment per J67505BA,L1 required in addition to list 11 when network control console is to be remotely located.			
<i>List 13</i> —Wiring and equipment per J67505BH,L1 required in addition to list 11 when directional reservation (DRE) control is to be remotely located (first control).			
<i>List 14</i> —Wiring and equipment per J67505BH,L2 required in addition to list 13 when a second DRE control is to be remotely located.			
<i>List 15</i> —Wiring and equipment per J67505BN,L1 required in addition to list 11 when sender attachment delay recorder (SADR) control is to be remotely located (provides for two SADR controls).			
<i>List 16</i> —A&M Only—Wiring and equipment per J67505BN,L2 required in addition to list 15 when the 4A office is not equipped with a peripheral bus computer (PBC).			

**Notes**

- A. Frame Fig GB shall be furnished when list 2 is required.
- B. Provide option Z wiring for regional centers.
- C. The IBM 523 gang summary punch is equipped for independent operation with a 40 Vdc power supply. When ordering installation of this machine from IBM, specify IBM 523 Model 1 gang summary punch equipped with:

- (a) 115V 60-Hz 1-phase power supply.
- (b) Feature No 9881—115V nonlocking plug.
- (c) Feature No 9081—self-contacting control panel.
- (d) RPQ M43410—toll switching modification.

D. Ordering of the specially equipped IBM 523 summary gang punch will be placed by the Western Electric line engineer; rental machines through Western Electric service centers and purchased machines through Western Electric regional centers.

E. Provide console J67444EC to work with this frame.

**J67444EA—AT&T Co Std—Network Control Unit**

*List 1*—Assembly, surface wiring, and equipment per one network control unit per SD-68604-01, Fig 1.

**J67444EB—AT&T Co Std—Network Control Fuse Panel**

*List 1*—Assembly, wiring, and equipment for one network control fuse panel per SD-68604-01, Fig 6.

**J67444EC—AT&T Co Std—Network Control Console Panel**

*List 1*—Framework, assembly, wiring and equipment for one network control console per SD-68604-01, Fig 2. (See Notes A, C, D, and E.)

*List 2*—Wiring and equipment required in addition to list 1 for manual traffic overload routing for regional centers per SD-68604-02, Fig 3.

*List 3*—Console, assembly, and equipment required in addition to list 1 to provide a turret type console per SD-68604-01, Fig 5. (See Notes A, B, and E.)

**Notes**

- A. Connectorized local cable forms are provided for the control panel for list 1 to provide wiring for Fig 2 and 3. These cables are terminated with KS-16689 L3 plugs on the panel end, mating with KS-16690 L1 connectors.

1. When the control panel per list 1 is mounted in the console provided per list 3, mating forms of fixed dimensions are provided.
  2. When the control panel per list 1 is not mounted in the console provided per list 3, mating connectorized local cable forms, length specified per job requirements should be specified.
- B. Connecting blocks, jack mounting, and ground connections shall be loose wired.
- C. Standard key and lamp color is gray (-2). light beige (-1), light green (-3), and white (-4) are also available to match existing panels or equipment.
- D. Standard mask finish is stone gray textured vinyl (784A). Light beige (699A), light gray (711A), pale green (729A), and black (753A) textured vinyls and other standard and nonstandard Bell System finishes may be furnished to match existing panels or equipment.
- E. List 3 was formerly part of list 1.

**J67444F—AT&T Co Std—Traffic Control Frame**

**List 1**—Framework, assembly, wiring, and common equipment for one traffic control frame.

	WIRE	EQUIP	NOTES
Traffic Control Ckt, SD-68967-01:			
Fig 8, 15, 16, 23	1	0	A,C,D
Fig 4	2	0	
Fig 21	8	0	
Traffic Control Unit J67444FC,L1	0	1	
Sender Queue Unit J67444FD,L1	0	1	
Fuse Panel J67444FF	0	1	
Queue Indicator Unit, SD-68969-01:			
Fig 1,2	2	0	
Fig 3,4	1	0	

**List 2**—A&M Only — Apparatus per J67444FC,L2 required in addition to list 1 for offices with two decoder groups.

**List 3**—Apparatus per J67444FA,L1; J67444FB,L1; and J67444FD,L1 required in addition to list 1 for a second sender queue.

**List 4**—Four units per J67444FE,L1 required in addition to list 1 for route transfer feature. (See Note B.) (For routes 0 through 39 or 40 through 79) (maximum two per frame).

**List 5**—A&M Only — Apparatus per J67444FC,L3 required in addition to list 1 for nonregional card translator offices.

**List 6**—Apparatus per J67444FD,L2 required in addition to list 1 for sender queue trigger delay adjustment.

**List 11**—Equipment per J67444FP,L1 required in addition to list 1 when EADAS network management controls are provided.

**List 12**—Equipment per J67444FP,L2 required in addition to list 3 for a second sender queue when EADAS network management controls are provided.

**List 13**—A&M Only — Equipment per J67444FP,L4 required in addition to list 2 for a second decoder group when EADAS network management controls are added.

**List 14**—A&M Only — Equipment per J67444FR,L1 and J67444FE,L2 required in addition to list 4 for route transfer feature when EADAS network management controls are provided.

**List 15**—Wiring and equipment per J67444FR,L4, required when EADAS network management controls are added. (One per sender queue.)

**List 16**—A&M Only—Wiring and equipment per J67444FC,L4, required in addition to list 1 when office is not arranged for electronic translation.

**List 17**—Equipment per J67444FS,L1 and J67444FD,L3 required in offices equipped with CCIS.

**List 18**—Equipment per J67444FD,L3, required in addition to list 3 and 17 in offices with a second sender queue and CCIS.

**List 19**—Equipment per J67444FS,L2, required in addition to list 1 and 17 when EADAS/NM controls are provided.

**List 20**—Equipment per J67444FS,L3 required in addition to list 1 when enhanced INWATS feature is required.

**Notes**

A. Frame local cable shall contain all interunit and interunit optional wiring not surface wired on J-coded units.

- B. Provide one control panel per J67444FK,L1 for operation with list 4 (maximum two per office).
- C. Provide control panel per J67444FJ for operation with this frame.
- D. Keys and lamps per SD-68967-01, Fig 23 mount on frame jack panel.

**J67444FA—AT&TCo Std—Queue Indicator and Control Unit**

- List 1**—Framework, assembly, wiring, and equipment per SD-68969-01, Fig 1, 2, 3, and 4, and Fig 3, option Q for one queue indicator and control unit.

**J67444FB—AT&TCo Std—Queue Indicator Unit**

- List 1**—Assembly, wiring, and equipment per SD-68969-01, Fig 1 and 2, and Fig 3, N apparatus required for a second sender queue unit. (See Notes A and B.)

**Notes**

- A. One mounting plate must be left above this unit.
- B. Control panel per J67444FJ should be provided with this unit.

**J67444FC—AT&TCo Std—Traffic Control Unit**

- List 1**—Framework, assembly, wiring, and equipment per SD-68967-01, Fig 3, 5, 6, 19, 23, and option Q less options D and Z for one traffic control unit arranged for one decoder or decoder channel group.
- List 2**—A&M Only—Apparatus per SD-68967-01, Fig 3, option Z and Fig 6, option D required in addition to list 1 for offices arranged for two decoder groups.
- List 3**—A&M Only—Apparatus per SD-68967-01, Fig 8 required in addition to list 1 in nonregional card translator offices.
- List 4**—A&M Only—Wiring and equipment per SD-68967-01, Fig 3, option YA less option ZW for card translator offices.

**J67444FD—AT&TCo Std—Sender Queue Unit**

- List 1**—Framework, assembly, wiring, and equipment per SD-68967-01, Fig 4 less option X for one sender queue unit.

- List 2**—Apparatus per SD-68967-01, Fig 4, option X, required in addition to list 1 for sender queue trigger delay adjustment.

- List 3**—Wiring and equipment per SD-68967-01, Fig 33, required in offices equipped with CCIS.

**J67444FE—AT&TCo Std—Route Transfer Unit**

- List 1**—Framework, assembly, wiring, and equipment per SD-68967-01, Fig 21 for one route transfer unit for ten routes.

- List 2**—Wiring and equipment per SD-68967-01, Fig 21, option ZP required in addition to list 1 when EADAS network management controls are provided.

**J67444FF—AT&TCo Std—Fuse Panel Unit**

- List 1**—Fuse panel unit per SD-68967-01, Fig 15.

**J67444FG—AT&TCo Std—Loop Extension Unit**

- List 1**—Assembly, wiring, and equipment per SD-68967-01, Fig 22, option ZB for one loop extension unit. (See Note A.)

- List 2**—Apparatus per SD-68967-01, Fig 22, option ZB less Fig 29 required in addition to list 1 for interrupted cancellation signal.

- List 3**—Apparatus per SD-68967-01, Fig 29 required in addition to five list 2 for contact protection. (Provide on first of each five units.)

**Note**

- A. This unit occupies one 23-inch mounting plate and is located on a miscellaneous relay rack. This unit is required when the loop resistance of 1000 ohms for 43 AITLG (62.5 mA) or 700-ohm loop for 48 volts is exceeded.

**J67444FH—A&M Only—Auxiliary Control Unit**

- List 1**—Framework, assembly, wiring, and equipment per SD-68967-01, Fig 23 for one auxiliary control unit. (See Note A.)

- List 2**—Wiring and equipment per SD-68967-01, Fig 6, option D required in addition to list 1 for a second decoder group.

**Note**

- A. Control panel per J67444FJ should be provided with this unit. This unit is for updating existing traffic control units and is located with or near existing equipment.

**J67444FJ—AT&TCo Std—Traffic Control Panel**

**List 1**—Framework, assembly, surface wiring, and equipment for one traffic control panel. (See Notes A, B, C, D, and E.)

	WIRE	EQUIP	NOTES
Traffic Control Console			
Ckt, SD-68967-01:			
Fig 1	1	1	
Fig 17, 20, Option ZG	1	1	
Fig 13 and 18	0	1	

**List 2**—Equipment and surface wiring required in addition to list 1 to provide a second sender queue per SD-68967-01, Fig 17.

**List 3**—Equipment and surface wiring required in addition to list 1 to provide for CAMA features per SD-68967-01, Fig 25 (one per transverter group).

**List 4**—A&M Only—Equipment and surface wiring required in addition to list 1 for decoder card translator operation per SD-68967-01, Fig 1, option W.

**List 5**—A&M Only—Equipment and surface wiring required in addition to list 4 for two decoder groups per SD-68967-01, Fig 27 and Fig 1, option D, and a second Fig 20.

**List 6**—Equipment and surface wiring required in addition to list 1 or 2 to provide for sender queue trigger delay adjustment per SD-68967-01 Fig 17, option X (one list 6 per sender queue).

**List 7**—A&M Only—Equipment and surface wiring required in addition to list 4 when control panel is used in a nonregional center per SD-68967-01, Fig 1, option W.

**List 8**—Equipment and surface wiring required in addition to list 1 or 2 provide for a load recorder and cords per SD-68967-01, Fig 14 (one list 8 per sender queue).

**List 9**—Cabinet, assembly, and equipment required in addition to list 1 to provide a turret-type console. (See Notes A and B.)

**List 10**—A&M Only—Equipment and surface wiring required in addition to list 4 when Alternate Route Control Circuit, SD-68408-01, is provided, per SD-68967-01, Fig 1, option ZD.

**List 11**—A&M Only—Equipment and surface wiring required in addition to list 4 when Alternate Route Control Circuit, SD-68563-01 is provided per SD-68967-01, Fig 1, option ZC.

**List 12**—Wiring and equipment per SD-68967-01, Fig 31 less ZS apparatus required in addition to

list 1 when EADAS network management controls are provided.

**List 13**—A&M Only—Wiring and equipment per SD-68967-01, Fig 31, ZS apparatus required in addition to list 11 for a second sender queue when EADAS network management controls are provided.

**List 14**—Wiring and equipment per SD-68967-01, Fig 1, ZY apparatus required in addition to list 1 for the outputer overload lamp in offices with the thirteenth controller group.

**List 15**—Wiring and equipment per SD-68967-01, Fig 34, required in addition to list 1 in offices equipped with CCIS.

**List 16**—Wiring and equipment per SD-68067-01, Fig 34, option YJ, required in addition to list 15 when the enhanced INWATS feature is required.

**List 17**—Wiring and equipment per SD-68967-01, Fig 34, YL apparatus required in addition to list 1 and 15 for SADAR controls.

**Notes**

A. Connectorized local cable forms are provided for the control panel for list 7, providing wiring for one Fig 1 and 20, two Fig 17, option X and two Fig 24 and 25. These cables are terminated with KS-16689 L3 plugs on the control panel end, mating with KS-16690 L1 connectors. When list 4 is specified, an additional connectorized local cable form provides SD-68967-01, Fig 1, options D, N, W, ZC, and ZD.

When the control panel per list is mounted in the cabinet provided per list 9, mating forms of fixed dimensions are provided. When the control panel per list 1 is not mounted in the cabinet provided per list 9, mating connectorized local cable forms, length specified in accordance with job requirements should be specified.

B. Connecting blocks, jack mounting, and ground connections shall be loose wired.

C. Provide a mask and a key or lamp socket—lamp cap combination for the first list and a lamp cap combination for the second list. Provide apparatus blanks for unused holes in the mask.

D. Standard key and lamp color is gray (−2). Light beige (−1), light gray (−3), and white (−4) are also available to match existing panels or equipment.

E. Standard mask finish is stone gray textured vinyl (784A). Light beige (699A), light gray (711A), pale green (729A), and black (753A) textured vinyls and other standard or nonstandard Bell System finishes may be specified to match existing panels or equipment.

**J67444FK—AT&T Co Std—Route Transfer Control Panel**

**List 1**—Framework, assembly, surface wiring, and equipment for one route transfer control panel for 40 routes (maximum two list 1 per office). (See Notes A, B, C, D, and E.)

	WIRE	EQUIP	NOTES
Traffic Control Ckt, SD-68967-01: Fig 13 and 18	0	1	A,B
Fig 26 Less Option J	4	4	

**List 2**—Equipment and surface wiring required in addition to list 1 when two sender queues are provided per SD-68967-01, Fig 26, option J.

**List 3**—Cabinet, assembly, and equipment required in addition to list 1 to provide a turret type of console.

**List 4**—Wiring and equipment per SD-68967-01, Fig 26 required in addition to list 1 when EADAS network management controls are provided.

**Notes**

A. Connectorized local cable forms are provided for the control panel providing wiring per SD-68967-01, four Fig 26 and option J. When the control panel per list 1 is mounted in the cabinet per list 3, mating connectorized local cable forms of fixed dimensions are provided. These cables are terminated with KS-16689 L3 plugs on the console end mating with KS-16690 L1 connectors. When the control panel per list 1 is not mounted in the console cabinet per list 3, mating connectorized local cable forms, length specified in accordance with job requirements should be specified.

B. Connecting blocks, jack mountings, and console ground and terminal strip to lamp and battery leads shall be loose wired.

C. Standard lamp cap color is gray (−2). Light beige (−1), light green (−3), and white (−4) are also available and may be specified to match existing panels or equipment.

D. Standard mask finish is stone gray textured vinyl (784A). Light beige (699A), light gray (711A), pale green (729A), and black (753A) textured vinyls and other standard and nonstandard Bell System finishes may be furnished to match existing panels or equipment.

E. For each list 1 without list 2 provide one mask without (SQT) switches. For each list 1 with list 2 provide one mask with (SQT) switches.

**J67444FL—AT&T Co Std—E and M Signaling Unit**

**List 1**—Assembly, surface wiring, and equipment per SD-68967-01, Fig 28, less option ZF for one E and M signaling unit. (See Notes A and B.)

**List 2**—Wiring and equipment per SD-68967-01, option ZF required in addition to list 1 for interrupted cancellation signal.

**List 3**—Wiring and equipment per SD-68967-01, Fig 29 required for each five list 2 for contact protection (provide on first of each five units).

**Notes**

A. This unit mounts on a miscellaneous relay rack and occupies two 23-inch mounting plates. This unit is required when conversion from loop to E and M signaling is necessary.

B. Test battery of +130 volts per SD-68090-01, Fig 12 must be provided on frames where this unit is located.

**J67444FP—AT&T Co Std—EADAS Control Unit**

**List 1**—Framework, wiring, and assembly per SD-68967-01, Fig 30 for one EADAS control unit required when EADAS network management controls are provided. (This unit occupies the space of three 23-inch mounting plates and mounts on the traffic control frame.)

**List 2**—Wiring and equipment per SD-68967-01, Fig 30, option ZS required in addition to list 1 for a second sender queue.

**List 3**—A&M Only—Wiring and equipment per SD-68967-01, Fig 30, option ZU, required in addition to list 1, when used in a decoder office not equipped with increased capacity.

**List 4**—A&M Only—Wiring and equipment per SD-68967-01, Fig 30, option ZR, required in addition to list 1 in a card translator office equipped with a second decoder group.

**J67444FR—AT&T Co Std—EADAS Resistor Unit**

**List 1**—Assembly, wiring, and equipment per SD-68967-01, Fig 32 for one EADAS resistor unit for 40 routes. (This unit occupies one 23-inch mounting plate and mounts on the traffic control frame.)

**J67444FS—AT&T Co Std—Common Channel Interoffice Signaling Unit**

**List 1**—Wiring and equipment per SD-68967-01, Fig 35, for one CCIS unit. (Occupies the space of two 2-inch mounting plates on the J67444F frame.)

**List 2**—Wiring and equipment per SD-68967-01, option YE, required in addition to list 1 when EADAS/NM controls are provided.

**List 3**—Wiring and equipment per SD-68967-01, Fig 35, option YJ, required in addition to list 1 when the enhanced INWATS feature is required.

**J67444G—A&M Only—Auxiliary Recording Control Unit**

**List 1**—Framework, assembly, local cable, and equipment for one auxiliary recording control unit for use in a decoder card translator equipped office. This unit requires fourteen 23-inch mounting plates. (See paragraph 1.15.)

	WIRE	EQUIP	NOTES
AuxRC Ckt, SD-68590-01: Fig 1, 4 With Option Z, 5 With Option W, 16, 18, 19, and 20	1	0	
Common Control Unit J67444GA-( ),L1	0	1	
Control Unit J67444GC-( ),L1	0	1	

**List 2**—Equipment required in addition to list 1 when a machine other than the IBM 523 is used.

	WIRE	EQUIP	NOTES
Common Control Unit J67444GA-( ),L3		1	

**List 3**—Equipment required in addition to list 1 when an office is arranged for CAMA.

	WIRE	EQUIP	NOTES
Control Unit J67444GC-( ),L2		1	

**List 4**—Equipment and wiring per SD-68590-01, Fig 17 required in addition to list 1 in offices converting from decoder card translator operation to ETS operations.

	WIRE	EQUIP	NOTES
Control Unit J67444GC-( ),L3	1	1	

**List 5**—Equipment required in addition to list 1 when an office is arranged for sender retrieval.

	WIRE	EQUIP	NOTES
AuxRC Ckt, SD-68590-01: Fig 20	0	1	
Common Control Unit J67444GA-( ),L4	0	1	
Control Unit J67444GC-( ),L4	0	1	

**List 6**—Equipment required in addition to list 5 when incoming senders are arranged for simplified sender grouping.

	WIRE	EQUIP	NOTES
Common Control Unit J67444GA-( ),L5	0	1	

**List 7**—Equipment required in addition to list 5 when any MP or DP incoming senders are arranged for nonsimplified sender grouping.

	WIRE	EQUIP	NOTES
Common Control Unit J67444GA-( ),L6	0	1	

**J67444GA—A&M Only—Common Control Unit**

**List 1**—Framework, assembly, wiring, and equipment for one common control unit. (Used on J67444G or J67444GJ.)

	WIRE	EQUIP	NOTES
AuxRC Ckt, SD-68590-01: Fig 1 less Options V & W	1	1	A
Fig 18	1	0	
Fig 19	1	0	B
Time Delay Control Ckt, SD-94820-01: Fig 2	1	1	

*List 2*—Equipment per SD-68590-01, Fig 3 required in addition to list 1 when an office is arranged for ETS operation.

*List 3*—Equipment per SD-68590-01, Fig 16 required in addition to list 1 when a machine other than the IBM 523 is used.

*List 4*—Equipment per SD-68590-01, Fig 1, V or W apparatus only required in addition to list 1 when an office is arranged for sender retrieval. (See Note A.)

*List 5*—Equipment per SD-68590-01, Fig 18 required in addition to list 4 when incoming senders are arranged for simplified sender grouping.

*List 6*—Equipment per SD-68590-01, Fig 19 required in addition to list 4 when any MF or DP incoming senders are arranged for nonsimplified sender grouping.

#### Notes

A. Provide option X wiring when sender retrieval is not provided.

B. Wiring for Fig 19 is provided on an A&M Only basis.

#### J67444GB—A&M Only—Time of Day Unit

*List 1*—Framework, assembly, wiring, and equipment per one time of day unit. (Used on J67444GJ.)

	WIRE	EQUIP	NOTES
AuxRC Ckt, SD-68590-01: Fig 2 & 10	1	1	

#### J67444GC—A&M Only—Control Unit

*List 1*—Framework, assembly, wiring, and equipment per one control unit. (Used on J67444G and J67444GJ.)

	WIRE	EQUIP	NOTES
AuxRC Ckt, SD-68590-01: Fig 4 Less Option W	1	1	
Time Delay Control Ckt, SD-94820-01: Fig 2	1	1	

*List 2*—Equipment per SD-68590-01, Fig 5 required in addition to list 1 when an office is arranged for CAMA.

*List 3*—Equipment for SD-68590-01, Fig 17 required in addition to list 1 in offices connecting from decoder card translator operation to ETS operation.

*List 4*—Equipment per SD-68590-01, Fig 4, W apparatus only required in addition to list 1 when an office is arranged for sender retrieval.

#### J67444GD—A&M Only—Connector Unit

*List 1*—Framework, assembly, wiring, and equipment for one connector unit. (Used on J67444GJ.)

	WIRE	EQUIP	NOTES
AuxRC Ckt, SD-68590-01: Fig 12 & 13	1	1	

#### J67444GE—AT&T Co Std—Translator Unit

*List 1*—Framework, assembly, wiring, and equipment per one translator unit. (Used on J67444GJ.)

	WIRE	EQUIP	NOTES
AuxRC Ckt, SD-68590-01: Fig 14	1	1	

#### J67444GF—A&M Only—Code Digit Translator Unit

*List 1*—Framework, assembly, wiring, and equipment per one code digit translator unit. (Used on J67444GJ.)

	WIRE	EQUIP	NOTES
AuxRC Ckt, SD-68590-01: Fig 15	1	1	

**J67444GG—A&M Only—ETS Translator Unit**

List 1—Framework, assembly, wiring, and equipment for one ETS translator unit. (This unit mounts on a J67444E frame.)

	WIRE	EQUIP	NOTES
AuxRC Ckt, SD-68590-01: Fig 9	1	1	

**J67444GH—A&M Only—Fuse Panel**

List 1—Assembly, wiring, and equipment for one fuse panel. (This unit mounts on a J67444E frame.)

	WIRE	EQUIP	NOTES
Auxiliary Recording Control Ckt, SD-68590-01: Fig 8	1	1	

**J67444GJ—A&M Only—IBM Control Unit**

List 1—Equipment and local cable required in addition to J67444G-( ),L1 when using IBM 523 gang summary punch. (See paragraph 1.15.)

	WIRE	EQUIP	NOTES
AuxRC Ckt, SD-68590-01: Fig 2,10,12 thru 15	1	0	
Fig 6,7,11	1	1	
Time of Day Unit per J67444GB-( ),L1	0	1	
Connector Unit per J67444GD-( ),L1	0	1	
Translator Unit per J67444GE-( ),L1	0	1	
Code Digit Translation Unit per J67444GF-( )	0	1	

**5. GENERAL NOTES AND INDEXES**

**Equipment**

5.01 The alternate route traffic control frame and supplementary alternate route traffic control frame shall be equipped with route transfer relays corresponding to the route relays in the decoder. The

RT- keys and associated lamps for control of these relays are furnished as part of the traffic supervisory rack circuit.

5.02 The optional CR- transfer relays shall be furnished as required for control of card-to-relay traffic. A maximum of 20 routes may be controlled. Shop-installed cross-connections between the CR- and RR- terminals shall be removed and cross-connections shall be added between the CR, CR', and RR, RR' terminals of the cross-connecting terminal strip field for each route so arranged. The CR- keys for control of these relays and associated lamps are furnished as part of the traffic supervisory rack circuit.

5.03 Each office is arranged for two frame line talking circuits, one appearing in even lines of frames and the other in odd lines of frames. The associated jacks in the alternate route traffic control frame shall be designated TEL-E if the frame is located in an even line or TEL-O if in an odd line.

**Wiring**

5.04 Number 24 gauge type BU wire shall be used for all local cable leads except on the traffic control frame. On the traffic control frame the leads furnishing SQ battery from the SQ terminals to the B relay shall be No 20 gauge.

5.05 The telephone company shall specify the cross-connections required on the ARC and SARC frame cross-connecting terminal strip field in accordance with the alternate routing plan at the time of installation.

5.06 Requirements for cross-connections including type and color of wire are specified on the equipment drawing.

5.07 The B1, B2, B3, B4, G1, and G2 leads to the traffic control shall not exceed 5 ohms. The E-0-7 leads to the route transfer console shall not exceed 10 ohms.

5.08 Codes J67444H through J67444BY; J67444CB through J67444DM; J67444DP through J67444DY; J67444ED through J67444EY; J67444FP through J67444FY; and J67444GK through J67444GY are unassigned.

## List of A&amp;M Only and Mfr Disc Equipment

The following 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.

EQUIPMENT	RATING	DETAILS LAST SHOWN IN ISSUE	REPLACING EQUIPMENT	EQUIPMENT	RATING	DETAILS LAST SHOWN IN ISSUE	REPLACING EQUIPMENT
J67444A	Mfr Disc	3	J67444C	J67444G,L4, L7	A&M Only	7	—
J67444A	A&M Only	5	—	J67444CA	A&M Only	7	—
J67444A,L2	Mfr Disc.	4	—	J67444DA	Mfr Disc	6	—
J67444A,L4	Mfr Disc	4	—	J67444DB	Mfr Disc	6	—
J67444B	Mfr Disc	3	—	J67444DC	Mfr Disc	6	—
J67444B	A&M Only	5	—	J67444DD	Mfr Disc	6	—
J67444C	A&M Only	7	—	J67444DE	Mfr Disc	6	—
J67444D	Mfr Disc	6	J67444F	J67444DF	Mfr Disc	6	—
J67444E,L2, L3, L4				J67444DG	Mfr Disc	6	—
L5, L6, L7, L10, and L16	A&M Only	8	—	J67444DH	Mfr Disc	6	—
L17	Mfr Disc	8	—	J67444DJ	Mfr Disc	6	—
J67444F,L2, L5	A&M Only	7	—	J67444DK	Mfr Disc	6	—
L7, L8, L9, L10	Mfr Disc	10	—	J67444DL	Mfr Disc	6	—
J67444F,L9 L10	A&M Only	8	—	J67444DM	Mfr Disc	6	—
J67444FM	Mfr Disc	10	—	J67444DN	A&M Only	7	—
J67444FN	Mfr Disc	10	—	J67444F,L13, L14, L16	A&M Only	9	—
				J67444FC,L3, L4	A&M Only	9	—
				J67444FH	A&M Only	7	—
				J67444FJ,L4, L5, L7, L10, and L11	A&M Only	7	—
				J67444FM,L3, L4	A&M Only	8	—
				L5	Mfr Disc	8	—
				J67444FP,L3, L4	A&M Only	9	—
				J67444GA,L6	A&M Only	7	—
				J67444GC,L3	A&M Only	7	—

## 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
J67444A	A&M Only	Supplementary Alternate Route Traffic Control Frame	J67444A-( )	SD-68408-01 SD-68415-01
J67444B	A&M Only	Supplementary Unit for Alternate Route Traffic Control Frame or Supplementary Alternate Route Traffic Control Frame	J67444B-( )	SD-68408-01
J67444C	A&M Only	Alternate Route Traffic Control Frame of Supplementary Alternate Route Traffic Control Frame	J67444C-( )	SD-68563-01
J67444CA	A&M Only	Fuse Panel Unit	J67444CA-( )	SD-68563-01
J67444DN	A&M Only	Sender Queue Trigger Delay Unit	J67444DN-( )	SD-68967-01
J67444E	Std	Network Control Frame	J67444E-( )	SD-68604-01 SD-68590-01
J67444EA	Std	Network Control Unit	J67444EA-( )	SD-68604-01
J67444EB	Std	Network Control Fuse Panel	J67444EB-( )	SD-68604-01
J67444EC	Std	Network Control Console Panel	J67444EC-( )	SD-68604-01 SD-68604-02
J67444F	Std	Traffic Control Frame	J67444F-( )	SD-68599-01 SD-68967-01 SD-68969-01
J67444FA	Std	Queue Indicator and Control Unit	J67444FA-( )	SD-68969-01
J67444FB	Std	Queue Indicator Unit	J67444FB-( )	SD-68969-01
J67444FC	Std	Traffic Control Unit	J67444FC-( )	SD-68967-01
J67444FD	Std	Sender Queue Unit	J67444FD-( )	SD-68967-01
J67444FE	Std	Route Transfer Unit	J67444FE-( )	SD-68967-01
J67444FF	Std	Fuse Panel Unit	J67444FF-( )	SD-68967-01
J67444FG	Std	Loop Extension Unit	J67444FG-( )	SD-68967-01
J67444FH	A&M Only	Auxiliary Control Unit	J67444FH-( )	SD-68967-01

EQUIPMENT CODE	AT&T RATING OF UNIT	TITLE	EQUIPMENT DRAWING	CIRCUIT DRAWING
J67444FJ	Std	Traffic Control Panel	J67444FJ-( )	SD-68408-01 SD-68563-01 SD-68967-01
J67444FK	Std	Route Transfer Control Panel	J67444FK-( )	SD-68967-01
J67444FL	Std	E and M Signaling Unit	J67444FL-( )	SD-68967-01
J67444FP	Std	EADAS Control Unit	J67444FP-( )	SD-68967-01
J67444FR	Std	EADAS Resistor Unit	J67444FR-( )	SD-68967-01
J67444FS	Std	Common Channel Interoffice Signaling Unit	J67444FS-( )	SD-68967-01
J67444G	A&M Only	Auxiliary Recording Control Unit	J67444G-( )	SD-68590-01
J67444GA	A&M Only	Common Control Unit	J67444GA-( )	SD-68590-01 SD-94820-01
J67444GB	A&M Only	Time of Day Unit	J67444GB-( )	SD-68590-01
J67444GC	A&M Only	Control Unit	J67444GC-( )	SD-68590-01 SD-94820-01
J67444GD	A&M Only	Connector Unit	J67444GD-( )	SD-68590-01
J67444GE	Std	Translator Unit	J67444GE-( )	SD-68590-01
J67444GF	A&M Only	Code Digit Translator Unit	J67444GF-( )	SD-68590-01
J67444GG	A&M Only	ETS Translator Unit	J67444GG-( )	SD-68590-01
J67444GH	A&M Only	Fuse Panel	J67444GH-( )	SD-68590-01
J67444GJ	A&M Only	IBM Control Unit	J67444GJ-( )	SD-68590-01

## Circuit Schematic Index

CIRCUIT DRAWING	J67444 EQUIP CODE	CIRCUIT DRAWING	J67444 EQUIP CODE
SD-68408-01	A,B,FJ	SD-94820-01	GA,GC
SD-68415-01	A	SD-68690-01	G,GA,GB,GC,GD,GE,GF,GH,GJ
SD-68563-01	C,CA,FJ	SD-68967-01	F,FC,FD,FE,FF,FG,FH,FJ,FK
SD-68599-01	F		FL,FP,FR,FS
SD-68604-01	E,EA,EB,EC	SD-68969-01	F,FA,FB
SD-68604-02	EC		

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