

**801A PBX  
SYSTEM GROWTH AND REARRANGEMENT**

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**NOTICE**

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**1. GENERAL**

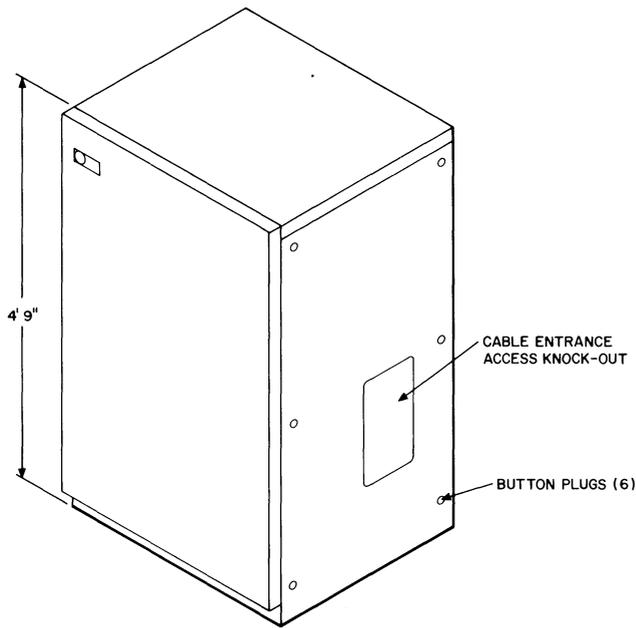
**1.01** This section provides information and procedures required for the orderly growth of an existing 801A PBX System to include all available service features and optional equipment units. Growth is arranged from a single-cabinet installation of the earliest vintage equipment to a full 4-cabinet arrangement incorporating all current equipment, options, and circuits.

**1.02** The reasons for reissuing this section are listed below. Revision arrows are used to emphasize the more significant changes to the text, and shaded areas are used to emphasize changes to tables.

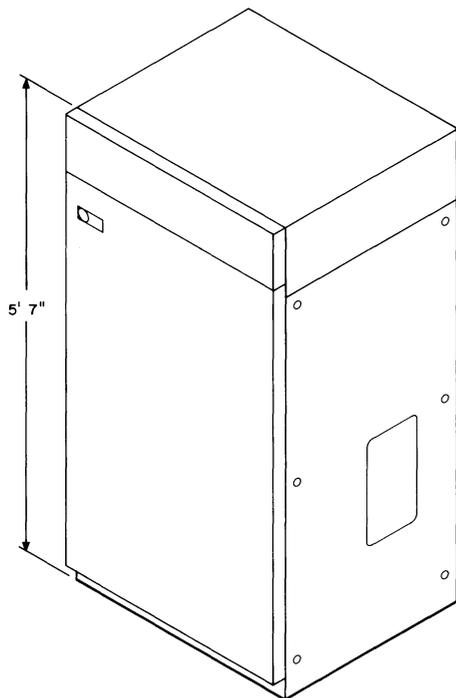
- Update information on power and grounding
- Add information on installing a cabinet in an earthquake-prone area
- Add information on the ED-1E386 frequency generator
- Add information on the Attendant Hold feature (AC14B circuit pack)
- Update information on adding a modification kit per ED-1E334-( ) to eliminate a possible shock hazard
- Add information on TOUCH-A-MATIC repertory dialers.

**1.03** The 801A PBX consists of from one to four switching equipment cabinets (Fig. 1) and, optionally, an auxiliary cabinet. The switching equipment cabinets are designated cabinets A through D and are installed in alphabetical sequence. The auxiliary cabinet is intended for installation to the left of the first cabinet (cabinet A) and, if no other arrangement for auxiliary circuits is provided (eg, relay racks, etc), space should be reserved to the left of the first cabinet for possible future installation of an auxiliary cabinet.

**1.04** Normal height of each equipment cabinet is 4 feet 9 inches; however, cabinet A is available in an expanded trunk capacity version



TYPICAL CABINET A, B, C, OR D



CABINET A WITH EXPANDED TRUNK CAPACITY

Fig. 1—801A PBX Cabinet

providing space for two carrier units in the crown. This version is 5 feet 7 inches high. It is not recommended that cabinets of different heights be installed in a multicabinet system. If growth of

an expanded capacity single-cabinet system necessitates the addition of a second cabinet, the expanded cabinet A could be converted to a standard height cabinet by removing the carriers in the crown and replacing the expanded crown cover with a standard cover. This is especially desirable when the system is installed in general office space.

**Note:** Field modification of an early production standard size cabinet A to an expanded capacity version can be accomplished as outlined in paragraph 6.12.

**1.05** Early production 801A PBX cabinets were manufactured with quick-connect type terminal blocks in the service connection fields at the top of the equipment gates. Current production cabinets use wire-wrap type terminal blocks in the service connection fields. If cabinets equipped with 1-type service connection field (eg, wire-wrap) are to be added to existing cabinets containing the other type service connection field (eg, quick-connect), certain wiring modifications will be necessary to ensure compatibility of the two types of service connection fields. This wiring modification is defined in Part 2. When the added cabinets contain service connection fields of the same type as the existing cabinets, wiring modifications will not be required.

**1.06** Certain early production cabinets were manufactured with 7-pin connectors (KS-16409 List 22) on the F-AAAB and F-AAAC interunit connector cables in cabinet A. These KS connectors are to be mated with similarly designated cables in cabinets B and C when these cabinets are installed. In later production, these 7-pin connectors were replaced by 50-pin connectors (KS-16689 List 3) and the connectors mounted on the equipment gate in cabinet A. If a cabinet (B or C) having a 50-pin plug is to be installed with an existing system equipped with 7-pin connectors on the F-AAAB and F-AAAC cables, it will be necessary to replace the 7-pin connectors as outlined in paragraph 2.18.

**Note:** This modification will also be required in early production cabinet C when a later production cabinet D having a 50-pin plug on the E-ACAD interunit cable is installed.

**1.07** It is recommended that the fill-in tables and work sheets from Section 553-201-100 or 533-201-101 be used when planning the expansion of an existing system and that the added or changed strapping on the service connection field

be fully defined to provide for the new features and circuits.

**1.08** It is recommended that power be removed from the system, by removing the ac power cord (cabinet A) from the customer-provided 110V receptacle, when certain installation and connection procedures are being accomplished. This will prevent possible damage to equipment and eliminate any shock hazard to personnel. This may require that these procedures be accomplished at times when the system may be taken out of service for the duration of the modification.

**1.09** This section is based on the drawings listed in Part 8. If this section is to be used with equipment or apparatus reflecting later issues of the drawings, reference should be made to the SDs and CDs to determine the extent of the changes and the manner in which the section may be affected.

**2. INSTALLING ADDITIONAL CABINETS**

**TOOLS AND TEST EQUIPMENT**

**2.01** In addition to normal PBX installation tools, the tools and test equipment shown in Table A should be available at the time of installation.

**TERMINATION FIELDS**

**2.02** Inspect the main, console, and auxiliary termination fields to ensure that sufficient connecting block terminals are available to allow connection of the circuits, features, and options to be added to the system. If connecting blocks must be added or if termination field(s) must be modified, refer to the termination field layout (from Section 553-201-100 or 553-102-101) and install the connecting blocks and panels as required. Stamp the added connecting blocks as shown in Section 553-201-100.

**2.03** Early production console termination field panels were manufactured with quick-connect type (66M1-50) connecting blocks. Later production used wire-wrap type connecting blocks; current production uses wire-wrap type connecting blocks terminated to provide access for the newer 24B8, 34B5, and 54B8 consoles. Early production wire-wrap type panels can be used in conjunction with the earlier quick-connect type; however, the current production wire-wrap type **cannot** be used with

TABLE A

TOOLS AND TEST EQUIPMENT

Tool (Note 1)	Nail Puller
	Tin Snips
	R-1257 Adjustable Bench Level
	R-2384 30-Inch Pinch Bar
	3/16-Inch Offset Box Wrench
	1/4-Inch Offset Box Wrench
	9/16-Inch Offset Box Wrench
	5/8-Inch Offset Box Wrench
	KS-16363, List 1 Tool (Hand-operated Wire-Wrap Tool)
	Hardwood Shims (Locally Provided)
	B Stencil Kit
	R-1102 Fiber Spudger
(Note 2)	KS-16346, L1 Soldering Iron
	Cheesecloth (3 feet by 5 feet)
	No. 1 Twist Drill
	No. 16 Twist Drill
	No. 25 Twist Drill
	19/64 Twist Drill
	10-32 Tap
	8-32 Tap
Centerpunch	
Test Equip- ment (Note 1)	KS-14510, L1 Volt-Ohm- Milliammeter

*Note 1:* Use tool or test equipment listed or an approved equivalent.

*Note 2:* Used when adding carriers to crown of cabinet A.

either early wire-wrap or quick-connect type because of differences in internal wiring of the panel connectors.

**2.04** Table B shows the console termination field panels intended for use with the 801A PBX and the console arrangement and feature each panel provides.

**2.05** Later production console termination field panels are provided with a decal which details the cross-connections required to provide

2- or 3-digit station numbering and multiple-console operation. These cross-connections are described in paragraph 2.21 and SD-1E330-01, and should be referenced when similar-type panels are added to an existing system. When different-type panels are to be installed on an existing termination field, use the following instructions in conjunction with the SD-1E330-01 information.

(a) To add a direct station selection (DSS) panel having early wire-wrap terminals to an existing single-console system with a quick-connect

TABLE B

J58872 – CONSOLE TERMINATION FIELD PANEL

PANEL CODE	TYPE CONNECTING BLOCKS ON PANEL	USED WITH CONSOLE	CONSOLE ARRANGEMENT	FEATURES
EB( ), L1	Quick-connect and early wire-wrap	24A8/54A8	Single or Multiple*	Key and lamp panel without TGR‡
EB( ), L2	Later wire-wrap			Key and lamp panel with TGR‡
EB( ), L3†	Current wire-wrap	24B8/54B8		Key lamp and DSS panel without TGR‡
EC( ), L2	Quick-connect and early wire-wrap	34A5	Single	Key lamp and DSS panel with TGR‡
EC( ), L2	Later wire-wrap			Key lamp and DSS panel without TGR‡
EC( ), L3	Current wire-wrap	34A5/34B5		Key lamp and DSS panel with TGR‡
ED( ), L1	Quick-connect and Early wire-wrap	54A8	Single	DSS panel
ED( ), L2	Current wire-wrap	54A8/54B8		
EE( ), L1	Quick-connect and Early wire-wrap	54A8	Multiple	DSS panel
EE( ), L2	Current wire-wrap	54A8/54B8		

\* Separate panel required for each console.

† Do not use List 3 panel with List 1 or List 2.

‡ TGR = Attendant Control of Station Dial Access to Trunk Groups feature.

type key and lamp panel, install an ED-2 panel and strap terminal B11 of TS(A) on the added DSS panel to either terminal 2A of TS(A) on the key and lamp panel for 2-digit station numbering, or to terminal 22A of TS(A) on the key and lamp panel for 3-digit station numbering. Also, if module B (cabinets C and D) is not provided, add a strap between terminals B12 and H12 of TS(A) on the DSS panel.

**Note:** If the system is equipped with AC90 Issue 3, Series 3 (or higher) or AC91 Issue 5, Series 3 (or higher) circuit packs and is wired per SD-1E330-01, Issue 10AC, the straps for 2- or 3-digit numbering will not be required.

(b) To add a second console key and lamp panel having early wire-wrap type terminals to an existing single-console system with a quick-connect type key and lamp panel, install an EB-2 panel. If emergency transfer is to be locked after power failure during unattended operation, add a strap from terminal A22 of TS(A) on the added panel to terminal 28A of TS(A) on the existing panel. Add straps between A14 and B19 and between B19 and A23 on TS(A) of the added panel. If emergency transfer is not to be locked after power failure during unattended operation, add a strap between terminals A22 and B19 of TS(A) on the added panel. In either case, add a strap between terminals B23 of TS(A) of the added panel and A23 of TS(A) on the existing panel.

(c) To provide DSS when a second console is added to an existing single-console system, remove the ED( ) List 1 or List 2 panel and replace with an EE( ) List 1 (if quick-connect terminals are desired) or List 2 (if wire-wrap terminals are desired). Strap the new panel as shown on the furnished label or as shown in SD-1E330-01.

## UNCRATING CABINET

**2.06** Uncrate the cabinets as follows.

- (1) Using the nail puller, remove the front cover of the shipping container.
- (2) Remove the three loose wooden holding blocks.

- (3) Remove the nails securing the back and side covers of the shipping container to the base (skid).
- (4) Lift the remaining shipping containers up and move toward the back.
- (5) Inspect the surface of the cabinet for damage. If damage is noted, refer to local instructions for handling.

**DANGER:** Each fully equipped switching cabinet weighs approximately 1000 pounds. Do not attempt to move the cabinet without proper equipment and observe normal safety precautions.

- (6) Place the uncrated cabinet as near its final installed position as possible before removing from the skid.
- (7) Remove the top and front covers of the cabinet (Fig. 2). Place the covers in a suitable storage area until installation is completed.
- (8) Inspect the interior of the cabinet for damaged, loose, or missing components. If damage is found, refer to local instructions for handling.
- (9) Using tin snips or equivalent device, cut and remove the banding strap securing the cabinet to the base (skid). Remove the cabinet from the base, and discard the base and all other packing material.

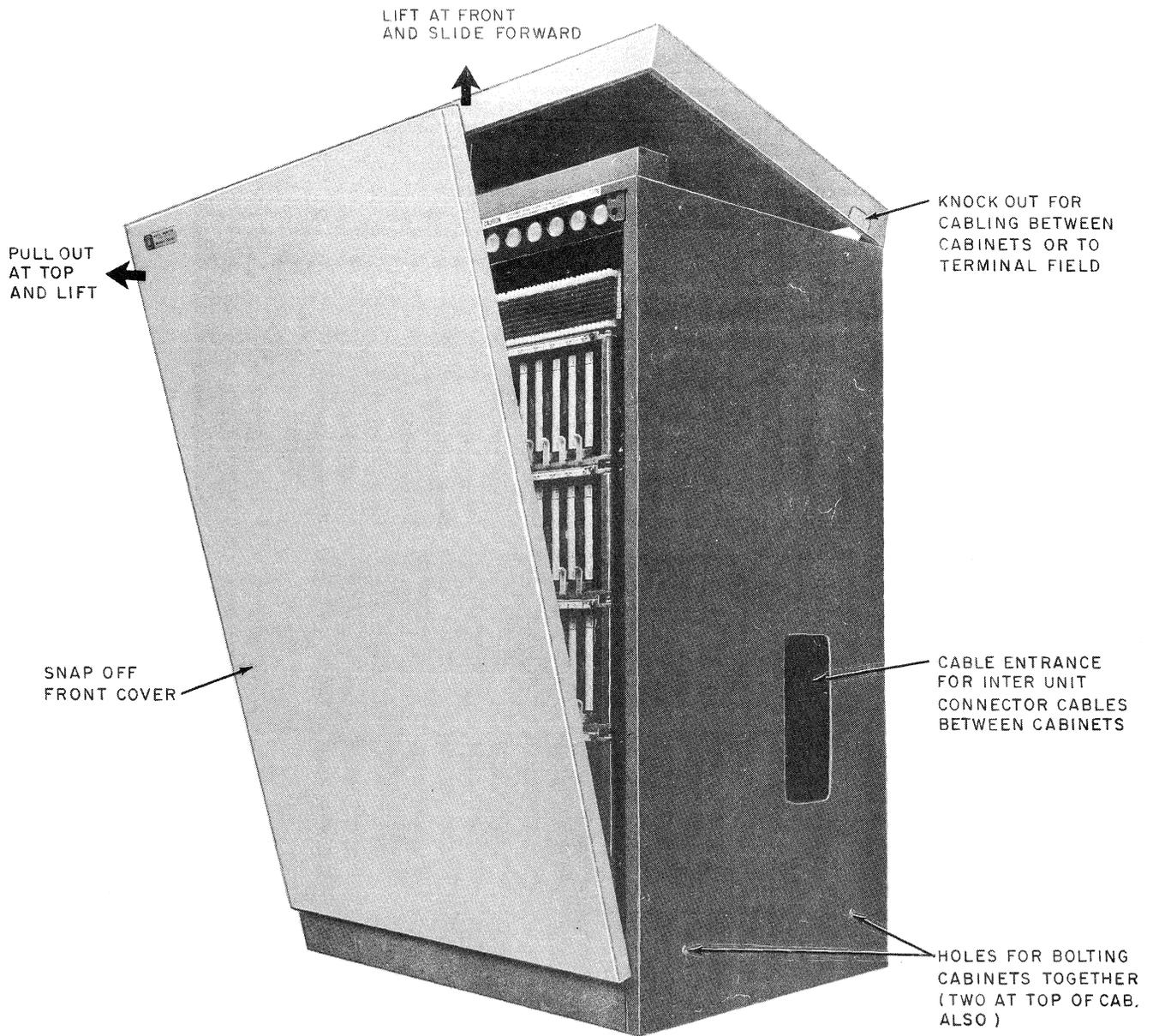
## INSTALLING CABINET IN AREA NOT EARTHQUAKE PRONE

**Note:** The following procedure covers installing a supplementary cabinet in an area not generally susceptible to earthquakes. When installing an 801A PBX in an earthquake-prone area, see paragraph 2.14.4.

**2.07** Interchange the positions of the two screws in each gate latch assembly of the cabinet being added to the system (Fig. 3).

**Note:** Open the gate as necessary when leveling and aligning the cabinet.

**2.08** Remove the top and front covers of the existing cabinet(s). Place the covers in a



**Fig. 2—Removing Top and Front Covers**

suitable storage area. If two or more cabinets are being installed, remove the six button-plugs and the cable entrance cover on the right side of the existing cabinet, on the left and right sides of the second and intermediate cabinets, and on the left side only of the last cabinet of the lineup (Fig. 1 or 2).

**Note:** Do not remove the button-plugs or cable entrance cover from the left side of the existing cabinet (unless an auxiliary cabinet

is to be installed) or the right side of the last cabinet in a multicabinet installation.

**2.09** Position the cabinet in its assigned location.

Using a bench level and locally provided hardwood shims, level and align the cabinet until the holes for bolting the cabinets together are properly aligned.

**2.10** Arrange for the system to be taken out of service while the cabinet is installed.

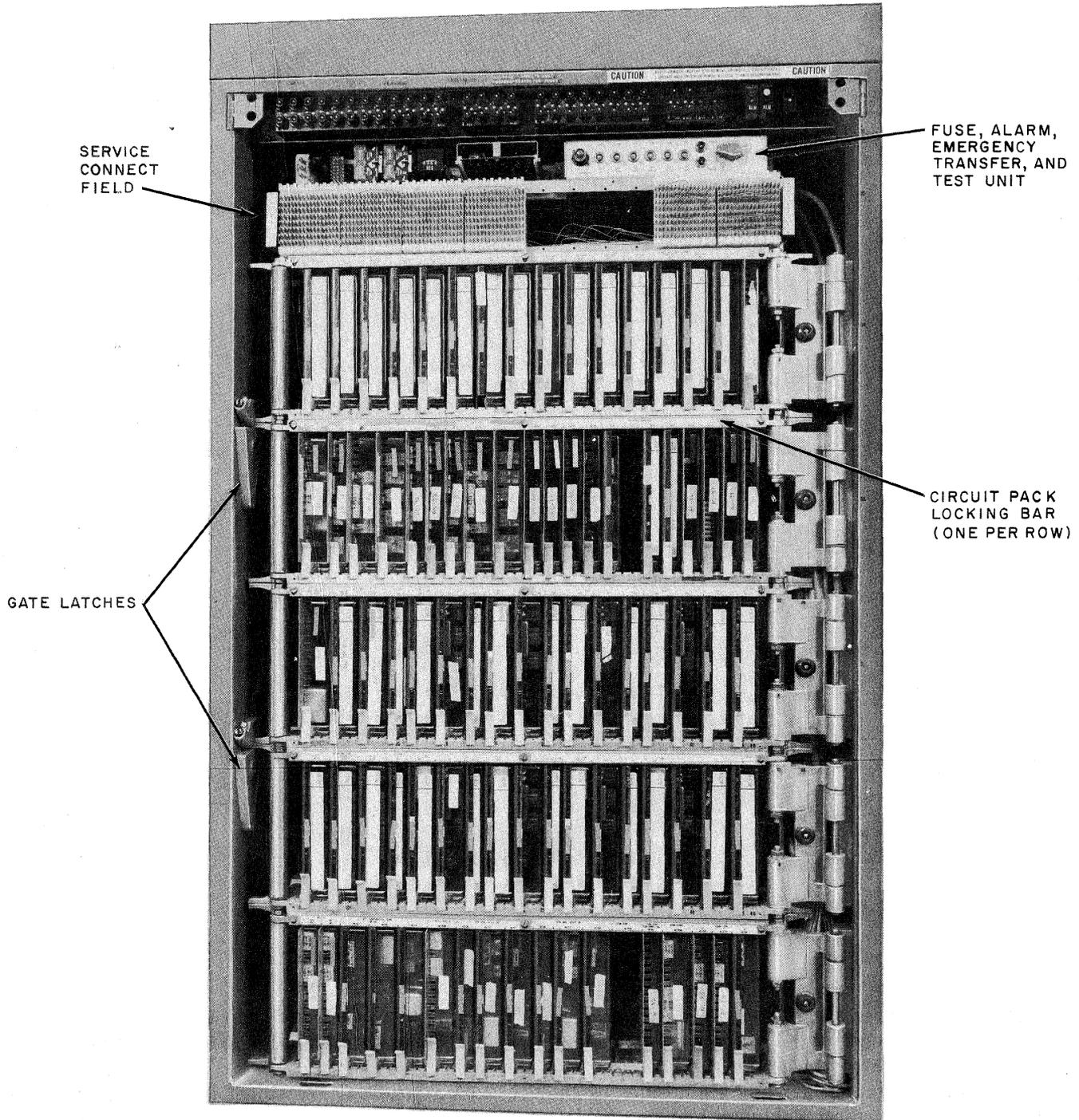


Fig. 3—Typical Gate Assembly

**DANGER:** Power must be removed to eliminate shock hazard and possible damage to equipment while cabinet is being installed.

Remove the power feeder cord from the customer-provided 110-Vac receptacle.

**WARNING:** Do not attempt to pull the cabinets together or to align the cabinets by using the bolts.

**2.11** Obtain four hex head cap screws, eight flat washers, four lockwashers, and four hex nuts from the cloth bag located in the bottom of the added cabinets. Using this hardware, bolt each cabinet to the cabinet on the left side at the two top and two bottom holes from which the button-plugs have been removed. The auxiliary cabinet bolts to cabinet A on its right.

**Note:** Unless required, it is recommended that power be removed until all cabinets are installed.

**2.12** Restore power to the existing cabinet(s), if required, as follows.

- (1) At the fuse alarm and test panel in cabinet A, set the NRCO switch to ON.
- (2) Plug the power feeder cord into the designated power outlet.
- (3) On the fuse alarm and test panel in cabinet A, momentarily depress the PBRA switch. Verify that both major and minor alarm lamps are off.



**If the alarm lamps do not go off, refer to Trouble-Locating Procedures (Section 553-201-301).**

- (4) Set the NRCO switch to OFF.

**2.13** Loosen the three circuit pack locking bar screws at the top of each circuit pack carrier on the gate units of the new cabinet(s) as shown in Fig. 3. Remove and discard the split ring (washer) under each screw. This allows the locking bar to be raised for circuit pack control. The screws should be retightened hand tight only.

## INSTALLING CABINET IN EARTHQUAKE-PRONE AREA

**2.14** When installing a supplementary cabinet in an area which is susceptible to earthquakes, follow the procedures and guidelines in ED-1E355-01.4

**2.15** Locate the ac power cord in the added third cabinet, and route it across the top of the cabinets to the power distribution panel in the crown of cabinet A.

**WARNING:** Power must not be applied to the added cabinet(s) until all connections are completed unless instructed to do so by the installation, connection, or testing procedures.

## GROUNDING CABINET

**2.16** Ground the cabinet(s) as follows.

**Note:** For additional information on general protective grounding requirements for power systems, see Section 802-001-180.

- (1) Inspect cabinets A, B, and C and the auxiliary cabinet for the presence of a factory-placed 10-gauge wire from the frame (FR) ground lug of the power supply to the GRD BUS bar in each cabinet. If any of these wires exist, they must be removed (Fig. 4, Note 5).
- (2) Inspect cabinet A for the presence of a factory-placed ground lead between terminal IN of the GRD BUS bar and the power distribution box. If this lead does not exist, obtain 1 foot of KS-13385 black-stranded wire and one YAV10H25 HYLUG. Connect the HYLUG terminal to the ground wire. Secure the end with HYLUG to the terminal on the GRD BUS bar marked IN and the other end to the bottom terminal of the 32003 TB lug on the power distribution panel (Fig. 4).
- (3) Connect the cabinet B ground wire (coiled on top of cabinet B) to the ground bus bar marked GRD BUS of cabinet A (Fig. 4).
- (4) If cabinets C and/or D are provided, the coiled ground wire from each should be connected to the GRD BUS bar of cabinet A (Fig. 4).

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**Note:** If factory-furnished ground wires in cabinets C and D are not long enough to reach the GRD BUS bar located in cabinet A, remove the factory wires and install 10-gauge wire (stranded, if available) of sufficient length.

**DO NOT SPLICE THESE WIRES.**

- (5) Ground the auxiliary cabinet, if provided, by connecting a 10-gauge ground wire from its ground bus bar to the bar in cabinet A.

**2.17** When measured with a KS-14510 List 1 volt-ohm-milliammeter, or equivalent, set on the RX1 scale, the resistance between the approved building ground and the frame of the cabinet(s) should not exceed 1 ohm.

### CABLING

**Note:** Current production A and C cabinets are factory wired with 50-pin connectors mounted on the equipment gate connector bracket.

**2.18** Examine the equipment gate of existing cabinets A and C for the presence of a 7-pin connector (KS-16409 List 22) on the F-AAAB, F-AAAC, G-AABK, and E-ACAD interunit connector cables. Examine the equipment being installed for the mating plugs. If added equipment units provide 7-pin plug(s), no modification will be required. If the added equipment provides 50-pin plug(s), obtain KS-16689 List 3 connectors and modify the cables in cabinets A and C as follows.

- (1) Loosen cables from the cable ties, as necessary, to gain sufficient slack in the cable to allow access to the connector for replacement.
- (2) Cutting as near the connector body as possible, cut the 7-pin connector(s) from the cable(s).
- (3) Disassemble the KS-16689 List 3 connector(s), as necessary, to gain access to the wiring side of the connector terminal strip.
- (4) Insert the end of the cut cable into the body of the connector. Strip sufficient cable jacket to provide access to the conductors (approximately 3-1/4 inches). Refer to Table C and locate the leads to be terminated on the connector and remove approximately 1/4-inch of insulation from

the end of each lead. Cut back at the butt (or tie back) the remaining cable leads.

- (5) Solder the designated leads to the appropriate terminals of the connector.
- (6) Reassemble the connector. Make certain that the clamp of the connector hood secures approximately 3/4 inch of the insulation behind the butt area. Use strips of discarded insulation or tape to provide a tight fit under the clamp of the hood.
- (7) Using the B stencil kit or appropriate stamping apparatus, stamp the designation of the cable on the hood of the added connector.
- (8) Lace and tie the modified cable(s) to the existing gate wiring in its original position, as necessary.

**2.19** Connect the interunit and network connector cables as follows.



**Network plugging information must be supplied by local PBX engineering personnel and should be available prior to the start of the cabinet additions.**

- (1) Route the network connector cables through the appropriate cable entrance holes, and insert the plugs in the proper network connectors as specified in the switching network plugging information furnished by local engineering personnel.

**CAUTION: Do not insert more than one circuit into any single trunk port. Trunk-side ports (tertiary switch connectors) are multipled between cabinets A and C and B and D. Similarly designated connectors are equivalent, and the most convenient location may be used for actual connection. Under no circumstances should a connection be made to similarly designated connectors (ports) in both cabinets A and C or B and D.**

- (2) Route the interunit cables through the cable entrance holes between cabinets or through openings in top of the cabinets to the appropriate connector on the hinge side of the equipment gate or to the ringing and tone supply or power

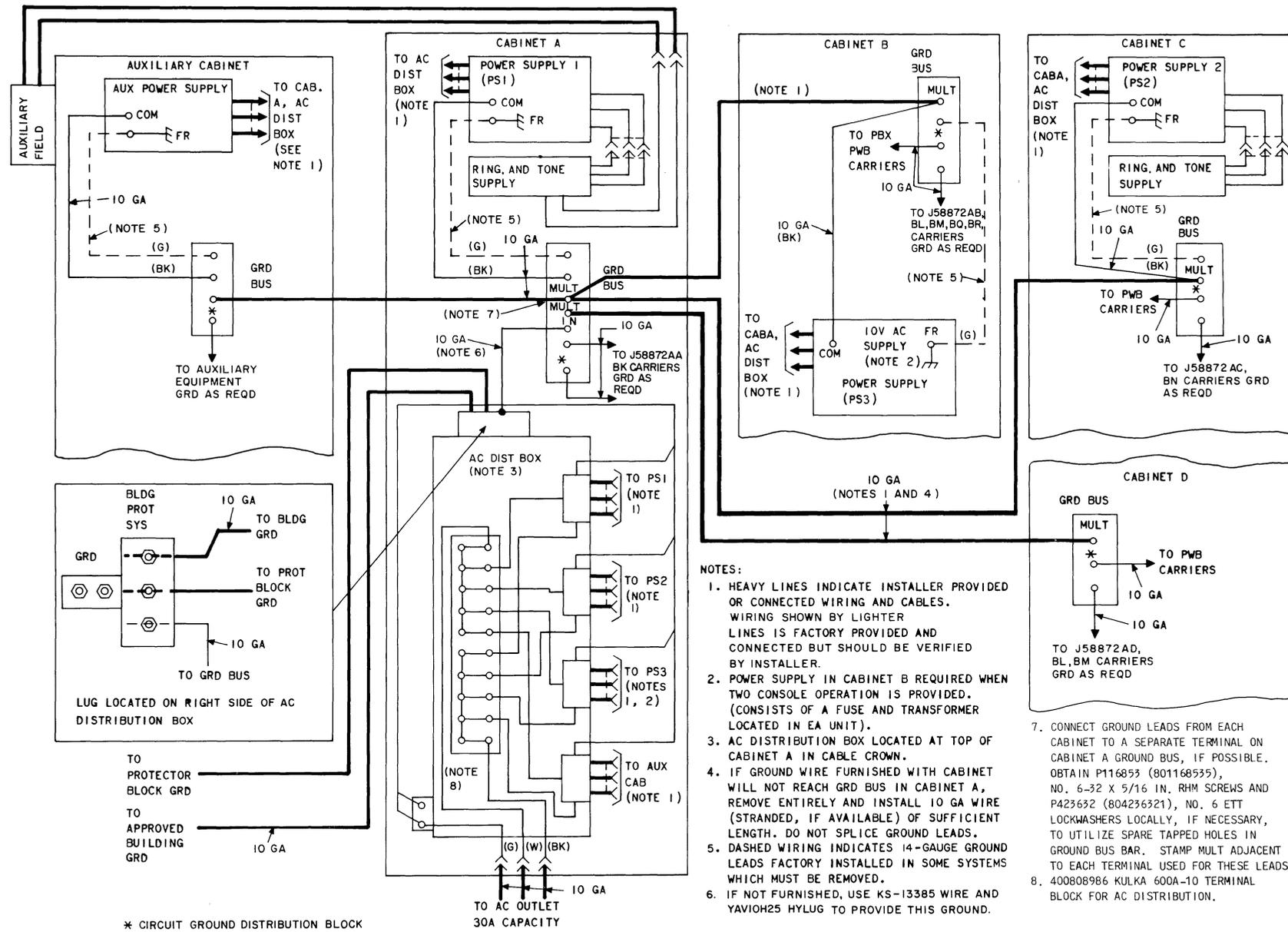


Fig. 4—801A PBX System Grounding Plan

TABLE C

CABLE MODIFICATIONS F-AAAB, F-AAAC, G-AABK, AND E-ACAD  
INTERUNIT CONNECTOR CABLE CONNECTIONS TO 50-PIN CONNECTORS

LEAD COLOR	CONNECT TO						
	F-AAAB AND E-ACAD		F-AAAC		G-AABK		
	TERM.	LEAD DESIG	TERM.	LEAD DESIG	TERM.	LEAD DESIG	
BL-W	1	TC01	1	TC01	1	TC01	
W-BL	26	RC01	26	RC01	26	RC01	
O-W	NC	—	2	TC01A3	2	TC01A3	
W-O	NC	—	27	RC01A	27	RC01A	
G-W	3	LMEN	3	LMEN	NC	—	
W-G	NC		28	TC01A4	28	TC01A4	
BR-W	↑ ↓	—	4	TC01A5	4	TC01A5	
W-BR		—	NC	—	NC	—	
S-W*		—	5	TGRA3	↑ ↓	—	
W-S*			30	TGRA2		—	
BL-R		—	NC	—		—	
R-BL		NC	—	31		TGRA1	—

NC — No connection, cut back to butt.

\* These leads were not provided on original connector but should be connected during modification to facilitate addition of attendant control of station dial access to trunk groups feature at a later date.

panel. Remove the connector retainers, if provided, and insert the cable plug in its mating connector according to the code stamped on both cable and connector. When connectors are fully plugged, replace the connector retainers.

**Note:** The code marked on the cables indicates the equipment units to be connected and the desired cable in a series of two or more cables (eg, a cable designated A-AAAB refers to the A-cable which connects to a

similarly designated connector on the AA gate in cabinet A; a cable designated A-ABTF refers to the A-cable which connects to a similarly designated connector located in the top of the cabinet). This cable will be extended to the termination field by an extender cable, when required.

**2.20** Connect the crown cables to the termination fields as follows.

(1) Locate the following cables in the crown of the added cabinet(s). Plug double-ended extender cables into the connectors of the cables, as required, and route the extender cables to the console termination field. Plug the extender cables into the corresponding connectors on the console field. Detailed diagrams of the connections required for each console arrangement are shown in ED-1E330-01.

#### **SINGLE-CONSOLE ARRANGEMENT**

E-ABTF/EA  
G-ABTF  
H-ABTF

When cabinet C is added:

E-ACTF/EA  
G-ACTF  
H-ACTF

When cabinet D is added:

K-ADTF/EA

#### **MULTICONSOLE ARRANGEMENT**

When cabinet B is added:

E-EATF-1A E-EATF-1B  
E-EATF-2A E-EATF-2B  
E-EATF-3A E-EATF-3B  
K-EATF-A K-EATF-B  
G-ABTF  
H-ABTF

When cabinet C is added:

F-ACTF  
G-ACTF  
H-ACTF

(2) Connect the single-ended extender cables (A25B connector cable or equivalent) to the following plugs in the crown of the added cabinet(s). Route cables across the top of the existing cabinet to the main termination field, and, using the straight cutdown method, terminate the cables to the appropriate block. Stamp the cable designation on each end of the extender cable for ease of identification.

When cabinet B is added:

A-ABTF  
B-ABTF  
C-ABTF  
D-ABTF  
A-ABTR, A-BLTR-1, or A-BRTR

When cabinet C is added:

A-ACTF  
B-ACTF  
C-ACTF  
D-ACTF  
A-ACTR

When cabinet D is added:

A-ADTF  
B-ADTF  
C-ADTF  
D-ADTF  
E-ADTF  
F-ADTF  
A-ADTR or A-BLTR-2

(3) When J58872BL or BR and/or J58872BM or BQ carriers are provided in cabinets B and/or D, connect the single-ended extender cables (A25B connector cable or equivalent) to the following plugs in the crown of cabinets B and/or D, route the cables to the auxiliary termination field, and terminate the cables on the appropriate connecting blocks on the purple backboard.

When cabinet B is added:

A-BLTF-1 or A-BRTF-1  
A-BMTF-1 or A-BQTF-1  
B-BMTF-1

When cabinet D is added:

A-BLTF-2  
A-BMTF-2  
B-BMTF-2

(4) When J58872BL or BR and/or J58872BM or BQ carriers are installed in the crown of predrilled cabinet A to provide expanded auxiliary and tie trunk capacity, connect the single-ended extender cables (A25B connector cable or equivalent) to the A-BLTF-1, A-BMTF-1, B-BMTF-1, A-BRTF-1,

and A-BQTF-1 plugs in the crown of cabinet A. Route the cables to the auxiliary termination field, and terminate the cables on the appropriate connecting blocks. The connectors in the cabinet crown may be loose or fastened to the connection retainer on the hinged side of the carrier.

(5) If cabinet C is added, connect the single-ended extender cable (A25B connector cable or equivalent) to the plug of the B-TFRT cable of the J58849DG ringing and tone supply. Route the cable over the top of the cabinets to the auxiliary termination field, and terminate the cable to the appropriate connecting block on the yellow backboard.

(6) When cabinet B is added and if single-console operation is provided, connect the multiplying M-AA cables from cabinet A and the M-AB, M-BL, or M-BR cables from cabinet B to the bridging adapter designated EXT AA AB located on the crown of cabinet B. The M-BL or M-BR cable will be connected only if the M-AB cable is not furnished. (AB gate is not provided.)

(7) When cabinet C is added and if single-console operation is provided, connect the multiplying M-AC cable to the bridging adapter designated EXT AC AD located on the crown of cabinet C. Connect the PATCH CABLE (furnished with cabinet C) between the bridging adapter of cabinets B and C.

(8) When cabinet D is added and if single-console operation is provided, connect the multiplying M-AD, M-BL, or M-BR cable to the EXT AC AD bridging adapter located on the crown of cabinet C. The M-BL or M-BR cable will be connected only if the M-AD cable is not furnished. (AD gate is not provided.)



***If multiconsole operation is to be provided, multiplying cables and patch cable [paragraph 2.20, steps (6), (7), and (8)] are not to be connected.***

**2.21** If a second console is to be added, connect the console mounting cord plugs to the appropriate connectors on the console termination field. If the console is to be remote from the field, extend the mounting cord by using double-ended connector cables if possible. If the cable must be run through conduit, use single-ended connector cables, terminating the unfinished ends on the

console panel connecting blocks in accordance with the appropriate CAD figure of SD-1E330-01.

**2.22** When a second console is added, add straps between the existing and added console panels on the console termination field as shown in Table D to provide for multiconsole operation and 2- or 3-digit numbering. If the added panel has connecting block terminals different from the existing blocks, refer to paragraphs 2.05 and SD-1E330-01.

#### PREPOWER INSPECTION

**2.23** Visually inspect each added cabinet and the termination field to ensure that:

- (a) All fuses are in place.
- (b) All printed wiring boards (circuit packs) are in the proper location and are properly optioned and fully seated.
- (c) All cables are properly inserted in the appropriate connectors.
- (d) All required network ports are properly plugged.
- (e) The shorting plugs, if required, are in place.
- (f) The console panel cross-connections are in place and correct.

#### ADJUSTMENT OF LATCHES ON EXPANDED CABINET A

**2.24** When a latch adjustment is to be made on an expanded cabinet A top, proceed as follows.

- (1) Remove the cover from the cabinet.
- (2) Loosen two screws (screw A) securing each latch assembly (Fig. 5) to the inside of the cover. Allow the latches to drop to the lowest position on the slots.
- (3) Adjust screw C in the kickplate patches (sketch B, Fig. 5) until the left and right edges of the cover are flush with the sides of the cabinet.

**TABLE D**  
**CONSOLE TERMINATION FIELD STRAPPING**  
**BETWEEN EXISTING AND ADDED CONSOLE PANELS**

ADDED CONSOLE FIELD J58872	TYPE CONSOLE ADDED	FEATURE TO BE PROVIDED	KEY AND LAMP PANEL		DSS PANEL	
			EXISTING (CONSOLE A)	ADDED (CONSOLE B)	EXISTING (CONSOLE A)	ADDED (CONSOLE B)
			TS(A)	TS(A)	TS(A)	TS(A) TS(B)
EB-( ), List 1	24A8 or 54A8	Multiple console operation				
EB-( ), List 2						
EB-( ), List 3	24A/B8 or 54A/B8					
EE-( ), List 1	54A8 or 54B8	2-digit numbering		2A		21C
		3-digit numbering		22A		21C
2-digit numbering*		A1			B11	B11
		3-digit numbering*	A11		B11	B11

\* Systems manufactured before February, 1973.

*Note 1:* Dashed line represents strap which must be removed when second console is added.

*Note 2:* If emergency transfer is not to be locked-in after power failure during unattended operation, add strap.

*Note 3:* If emergency transfer is to be locked-in after power failure during unattended operation, add strap.

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(4) Inspect the two brackets of each latch assembly (sketch A, Fig. 5), and straighten if bent or deformed.

(5) Adjust both angle brackets vertically until the leading edge of the flat bracket just clears the lower edge of the cabinet gusset. Tighten the two screws (screw A) in each bracket.

(6) Loosen the two screws (screw B) in each flat bracket, and adjust each flat bracket horizontally until the roll-point catch engages the rear of the cabinet gusset as shown in sketch A, Fig. 5. The front cover is correctly adjusted when the roll-point catches latch firmly and pressure must be exerted to remove the cover.

### 3. WIRING CHANGES REQUIRED TO ENSURE COMPATIBILITY OF ADDED AND EXISTING CABINETS

#### A. General

**3.01** The wiring changes covered in this part of the section are required to bring existing equipment up to current status and should be accomplished before power is applied to the added cabinets. Other wiring changes will be required when certain features and options are provided and will be covered in Part 6 when the circuits are installed.

**3.02** These changes involve adding and removing wires on the rear of the equipment gates between various printed wiring board carriers, service connection field connecting blocks, and cable connectors. Wiring will be done on the back side (shop-wired side) of the connecting units, and care should be exercised to ensure selection of the proper terminal on the affected unit.

#### B. Terminal Strip, Connector, and Wiring Modifications Index (Referenced to CPCN)

**3.03** Figure 6 illustrates terminal identification for the various terminal strips and connectors used in the 801A PBX. Table E lists the wiring modifications required to ensure compatibility of the various cabinet and carrier additions and is referenced to the paragraphs which outline the changes. Also, listed in part is the customer premises change notice (CPCN) which can be referenced if additional information is desired.

#### C. Precautions to Observe When Making Wiring Changes

**3.04** Certain wiring changes will include connections to terminals in existing cabinet(s) and may require that power be removed from the system. Since this will totally interrupt service, these changes should be made at a time convenient to the customer.

**3.05** As the wiring changes described may have been factory applied to some systems, it is recommended that the cabinets be inspected for the existence of the change before existing wiring is modified. This inspection can be visual in most cases but may also require a point-to-point continuity check using the KS-14510 List 1 volt-ohm-milliammeter.

**3.06** Some changes may require replacement of printed wiring board circuit packs in addition to cabinet wiring modifications. Where circuit pack changes are required, proper circuit packs must be obtained and provided for insertion in the carriers when the wiring modification is completed.

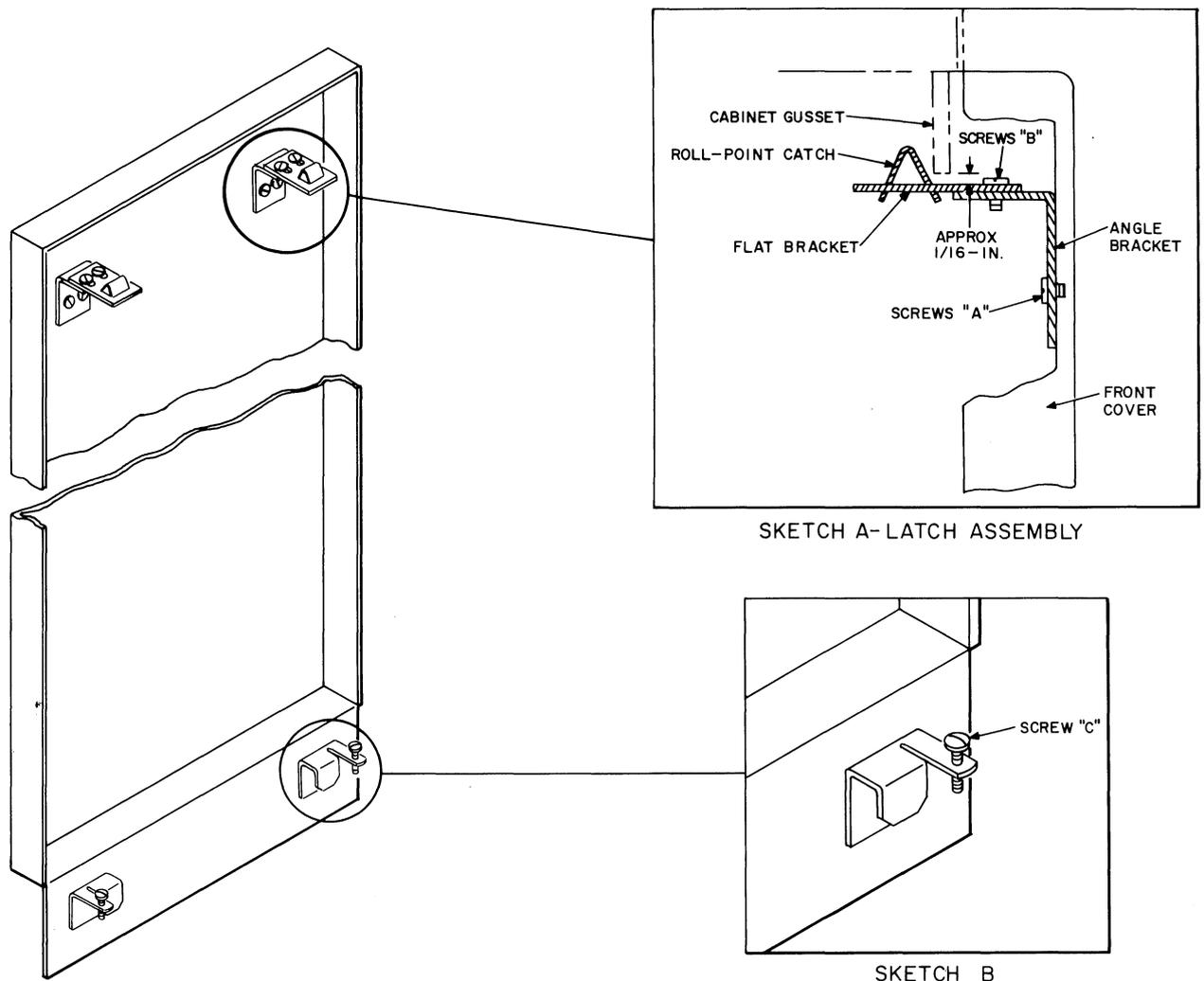
#### D. Wiring Changes to Permit Correct Circuit Operation When 2-Digit Dialing Is Required

**3.07** When 2-digit dialing is required, inspect the J58872AA equipment gate for the presence of a green surface wire between terminal B22 of the 908E connector associated with the AC4 circuit pack (location AA0331) and terminal A28 of the 908E connector associated with the AC90/91 circuit pack (location AA0345). If this wire does not exist, proceed as follows to permit correct circuit operation when 2-digit dialing is required.

(1) Obtain 1 foot of 24BW green wire (814620548), 2 feet of 24BU orange-white wire (814657946), and 2 feet of 24BU white-orange wire (814615415).

(2) Strip approximately 1/2 inch of insulation from each end of the green wire and, using the KS-16363 List 1 wire-wrap tool, connect one end of the wire to terminal B22 of the connector located at AA0331 (AC4 circuit pack). Route the wire along existing wiring, and connect the other end to terminal A28 of the connector located at AA0345 (AC90/91 circuit pack).

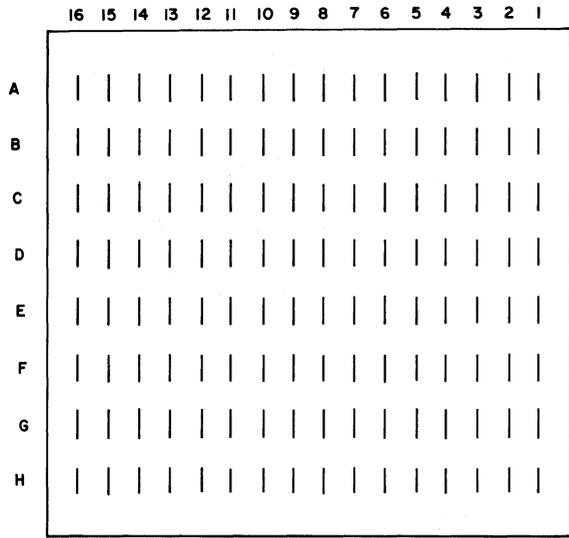
(3) Locate the KS-16409 List 33 plug (stamped PA-AATS) on the mounting bracket behind the service connection field connecting blocks.



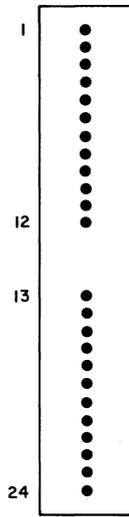
**Fig. 5—Front Cover Adjustment**

Disconnect the plug, and disassemble the plug body to gain access to the soldered connections.

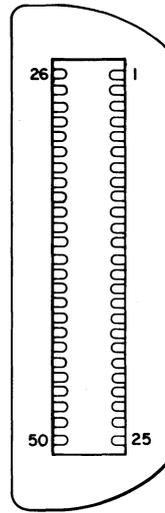
- (4) Unsolder and remove the orange-white lead on pin C and the white-orange lead on pin D. Cut both leads at the cable butt.
- (5) Solder one end of the 2-foot orange-white wire to terminal C of the plug. Solder the 2-foot white-orange wire to pin D of the plug. Reassemble the plug body, and route the free ends of both added wires along the existing wiring to the 908E connector associated with the AC80 circuit pack (location AA0323).
- (6) Connect the free end of the orange-white wire to terminal A40 of the 908E connector and the white-orange wire to terminal A1 of the same connector.
- (7) Connect the PA-AATS plug into its designated connector, and tie the added wires to the existing cabling.
- (8) Using the B stencil kit, stamp the circuit record card on the end of the equipment gate as necessary to show "J58872AA-1 List 1, WA option HA."



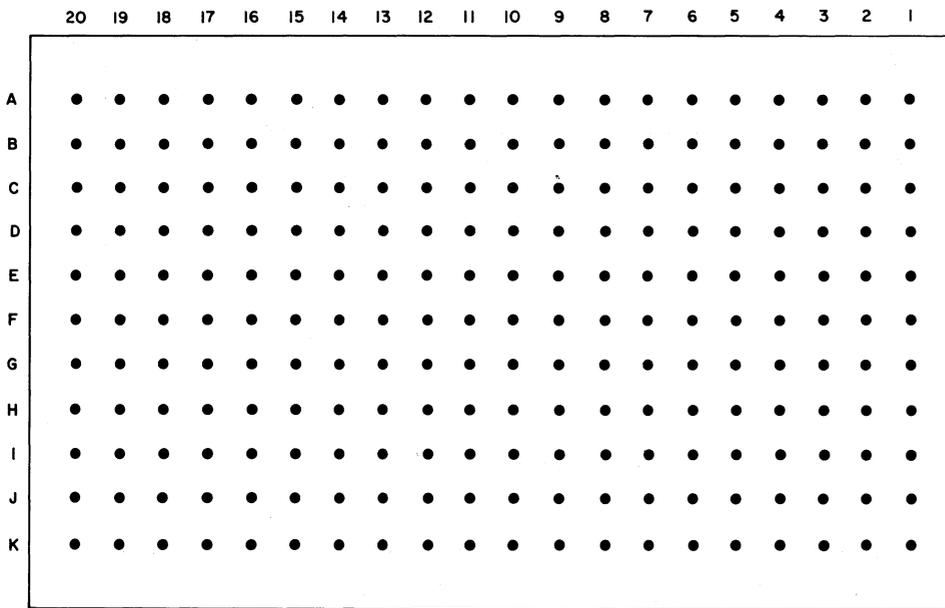
TYPICAL QUICK-CONNECT TYPE SERVICE CONNECT FIELD CONNECTING BLOCK



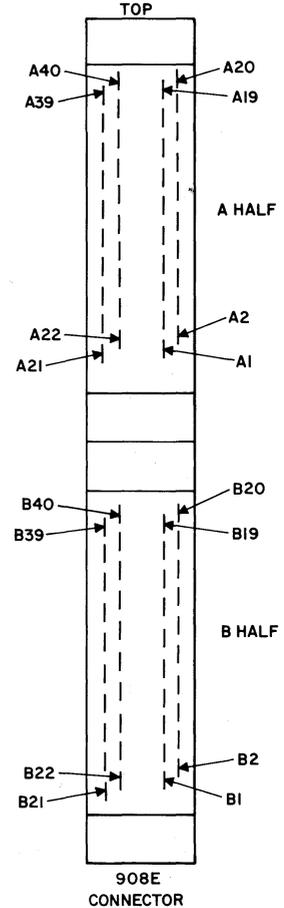
315A TERMINAL STRIP



TYPICAL KS TYPE CABLE CONNECTOR



TYPICAL WIRE-WRAP TYPE SERVICE CONNECT FIELD CONNECTING BLOCK



908E CONNECTOR

NOTE: REAR VIEW (SHOP WIRED SIDE) SHOWN FOR ALL CONNECTORS AND CONNECTING BLOCKS.

Fig. 6—Terminal Identification—Terminal Strips and Connectors

TABLE E

**INDEX OF WIRING MODIFICATIONS REQUIRED  
TO ENSURE COMPATIBILITY OF ADDED CABINETS AND CARRIERS**

PAR.	CPCN REF	REASON FOR CHANGE
3.07	82DR	To ensure proper operation of 2-digit dialing
3.08	88DR	To ensure proper operation of attendant DSS
3.12	91DR	To ensure operation of one-way outgoing auxiliary trunks
3.27	93DR	To ensure operation of Toll Denial feature on outgoing calls
3.13	100DR	To ensure proper operation at second console of Trunk Answer From Any Station feature
3.14	103DR	To change fuse assignment for cabinets B and D
3.15	112DR	To provide 30- and 120-ipm wink indications to ringdown tie trunk circuits
3.16	121DR	To provide Selective Attendant Access feature and to improve multiconsole operation
3.17	125DR	To ensure proper indication of multiple mark condition
3.18	137DR	To prevent connection of PBX dial tone to attendant when a console trunk key is operated
3.20	158DR	To provide ringing for tie trunks located in auxiliary cabinet
3.21	121KY	To eliminate audible coupling between incoming CO trunks camped-on to busy lines
3.22	122KY	To eliminate station dial transfer problems when three or more cabinets are provided
3.07	123KY	To permit 2- or 3-digit dialing without cross-connections on J58872EC-2, ED-2, or EE-2 console termination panels
3.19	124KY	To allow make-busy assignment of trunks in cabinets C and D with wire-wrap type service connection field only
3.26	127KY	To prevent operation of fuses when main power is applied (two or more cabinet systems)
3.24	134KY	To eliminate cause of minor alarm when night service connections are set up
2.16(2)	135KY	To provide ground lead between ground bus block and power distribution panel in cabinet A
3.09	140KY	To eliminate possible shock hazard condition in multiple console system arranged for attendant DSS

TABLE E (Contd)

**INDEX OF WIRING MODIFICATIONS REQUIRED  
TO ENSURE COMPATIBILITY OF ADDED CABINETS AND CARRIERS**

PAR.	CPCN REF	REASON FOR CHANGE
3.25	149KY	To prevent operation of fuse when 34-type console is used with J58872EC-( ), List 3 console termination field
3.28	147KY	To ensure minor alarm indication upon operation of any +24 volt or -48 volt fuse associated with trunk carriers per J58872BL, BM, BQ, or BR when the J58872AB and AD carriers are not equipped.
3.29	542DR	To ensure proper replacement of frequency generators.
6.26 (3),(4),(5)	157KY	To make recall (stutter) dial tone function from Module B registers when not equipped with J58872BN unit.

**E. Wiring Changes When Adding Attendant DSS to Correct PBX Wired in Error to Function With Series 1 AC30B Circuit Pack**

**3.08** When attendant DSS is to be added, inspect the J58872BK-1 carrier circuit record card for the addition of the lettering WA in the carrier identification which should read "J58872BK-1 List 1, WA." If cabinet C is provided, inspect the circuit record card on the J58872AC-1 unit for the same addition which should read "J58872AC-1 List 1, WA." If the WA identification does not appear at cabinets A and/or C, proceed as follows to correct the PBX which is wired in error to function with a Series 1 AC30B circuit pack.

**Note:** Current production carriers per J58872AC-2 and J58872BK-2 and units factory stamped with the WA identification have been modified to include this change.

(1) On the J58872BK-1 unit carrier:

(a) Inspect the 908E connector associated with the AC30B circuit pack (location AA0013) for a brown-red wire on terminal B35. Disconnect this wire, and reconnect it to terminal B36 of the same connector. The other end of the brown-red wire terminates on pin 9 of the B-AABK plug.

(b) Inspect the same connector (location AA0013) for a blue-violet wire on terminal B34. Disconnect this wire, and reconnect it to terminal B35 of the connector. The other end of this blue-violet wire terminates on pin 21 of the BK-PRA plug.

(c) Remove the AC30B circuit pack, and replace with a factory-modified AC30B. The modified circuit pack can be identified by its epoxy board and the stamping "Series 1, 2."

(d) On the circuit record card, change J58872BK-1 List 1 to read "J58872BK-1 List 1, WA."

(2) On the J58872AC-1 unit in cabinet C:

(a) Inspect the 908E connector associated with the AC30B circuit pack (location AC0344) for a brown-yellow wire on terminal B34. Disconnect this wire, and reconnect to terminal B35 of the same connector. The other end of this brown-yellow wire terminates on pin 19 of the AC-PR17 connector.

(b) Inspect terminal B35 of the same connector for a green surface wire from terminal B10 of the 908E connector associated with the AC80 circuit pack in location AC0325. Disconnect the lead from terminal B35, and reconnect to terminal B36.

- (c) Remove the AC30B circuit pack, and replace with a factory modified AC30B having an epoxy mounting board and the stamping "Series 1, 2."
- (d) On the circuit record card, change J58872AC-1 List 1 to read "J58872AC-1 List 1, WA."

**F. Adding Modification Kit per ED-1E334-( ) to Eliminate Possible Shock Hazard**

**3.09** If multiconsole operation with attendant DSS is provided or if DSS is being added to an existing multiconsole system, inspect the J58872EA unit (position select unit) in the rear of cabinet B for the presence of a 410D transformer (T1) on the upper left of the unit (wiring record card stamped Issue 9 or later of SD-1E312-01). If the T1 transformer is not coded 410D (410B transformer is used), proceed as follows to eliminate a possible shock hazard.

- (1) Unpack the modification kit per ED-1E334-( ) and, if a black 10-gauge ground lead is not connected to the board, add the ground lead assembly, furnished with the kit, to terminal 5 of the terminal block on the rear of the panel.
- (2) Remove and discard the fuse cap and fuse from the fuseholder designated AC1 on the upper left of the position select unit chassis.
- (3) Place the tag stamped DO NOT EQUIP THIS RECEPTACLE WITH A FUSE from the modification kit adjacent to, and left of, the fuse holder.
- (4) Locate the ac power distribution box in the crown of cabinet A, and disconnect the P1C power plug from the J1C connector. Coil and store the disconnected power cord (from cabinet C) on top of either cabinet A or C.
- (5) Place the tag stamped CAUTION—NOT TO BE USED from the modification kit on the disconnected cable.
- (6) If the J58872EA-1 List 1 unit is being modified, locate the screws securing the right side of the chassis to the cabinet upright.

Remove and discard the second and third screws from the top.

- (7) If the J58872EA-2 unit is being modified, locate the screws securing the right side of the chassis to the cabinet upright. Remove and discard the first and second screws from the top.
- (8) Align the mounting holes of the ED-1E334 transformer panel (from the modification kit) with the holes in the EA unit chassis from which the two screws were removed. Secure the panel and chassis to the cabinet upright using two No. 12-24 by 1/2-inch long screws (P-353447 or 803534478) from the modification kit.
- (9) Locate the supplementary alarm and test unit (J58872DE) at the top of the equipment gate of cabinet C. Obtain two 208A terminal strips, two No. 8-32 screws (840058622), two No. 8 lockwashers (P-298496 or 802984963), and two No. 8-32 hex nuts (P-125952 or 801259524) from the modification kit, and mount the strips in the unused relay position adjacent to the DSSLB relay. Orient the terminals of the strips toward the rear (wiring side) of the alarm and test unit panel.
- (10) Using the B stencil kit, or equivalent, stamp "DSSLB(2)" adjacent to the upper terminal strip added in step (9) and "DSSLB(3)" adjacent to the lower strip.
- (11) Disconnect, insulate, and tie back to the cable arm the following leads of the B-ACDE cable terminated at the DSSLB relay:

LEAD COLOR	REMOVE FROM RELAY TERM.	OTHER END REMAINS CONNECTED TO B-ACDE TERM.
O-BK	1F	12
BK-O	2F	37
G-BK	4F	13
BK-G	5F	38

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- (12) Using suitable 22-gauge wire, connect the DSSLB relay terminals 1F and 2F to one terminal of the 208A terminal strip designated DSSLB(2).
- (13) Using 22-gauge wire, connect the DSSLB relay terminals 4F and 5F to one terminal of the 208A terminal strip designated DSSLB(3).
- (14) Locate the basic J58872DB alarm and test unit at the top of the equipment gate in cabinet A. Remove and discard the top mounting screw of the relay designated MJ1 and the bottom mounting screw of the relay designated DSSLA.
- (15) Obtain two 208A terminal strips and two No. 8-32 screws from the modification kit, and secure a terminal strip to each relay mounting hole from which the screws in step (14) were removed.
- (16) Using the B stencil kit, stamp "DSSLA(3)" adjacent to the upper terminal strip (at the MJ1 relay) and "DSSLA(2)" adjacent to the lower strip.
- (17) Disconnect, insulate, and tie back to the cable arm the following leads of the B-AADB and A-DBRT cables terminated at the DSSLA relay:

LEAD COLOR	REMOVE FROM RELAY TERM.	OTHER END REMAINS CONNECTED TO B-AADB TERM.
O-B	1F	23 A-DBRT
B-O	2F	24 A-DBRT
S-Y	4F	20 B-AADB
Y-S	5F	45 B-AADB

- (18) Using suitable 22-gauge wire, connect the DSSLA relay terminals 1F and 2F to one terminal of the added 208A terminal strip designated DSSLA(2).
- \* (19) Using 22-gauge wire, connect the DSSLA relay terminals 4F and 5F to one terminal of the added 208A terminal strip designated DSSLA(3).

- (20) Using suitable 16-gauge wire, strap the unused terminal of the added terminal strip DSSLA(2) to the unused terminal of DSSLA(3).

**WARNING: This lead should be insulated to prevent contact with the relays or panel.**

- (21) Using suitable 16-gauge wire, strap the unused terminal of added terminal strip DSSLB(2) in cabinet C to the unused terminal of DSSLB(3).
- (22) Obtain two 16-gauge plug-ended leads from the modification kit. One lead will be designated A-DBEA and the other A-DEEA. Connect the plug of each to the proper connector on the ED-1E334 transformer panel in cabinet B.
- (23) Route the A-DEEA lead along the cabinet wiring to the 208A terminal strip DSSLB(3) in cabinet C, and connect the unfinished end to the terminal strip. Solder 16-gauge connections to the terminals of DSSLB(3) and DSSLB(2).
- (24) Route the A-DBEA lead along the existing wiring to the 208A terminal strip DSSLA(3) in cabinet A. Connect the unfinished end of the lead to the terminal strip, and solder the 16-gauge connections at the terminals of DSSLA(3) and DSSLA(2).
- (25) Route the 10-gauge (black) ground wire from the ED-1E334 panel to the ground block in the crown of cabinet B, and connect it to a suitable ground terminal.

**Note:** It may be necessary to connect this ground lead to the same screw terminal occupied by the EA unit ground lead on the block.

- (26) Lace and tie the added leads (A-DBEA and A-DEEA) to the existing wiring in cabinets A and C.
- (27) Locate the B-AADB cable spare lead bundle on the rear of carrier 04 in cabinet A. Remove the following leads from the bundle, and route to the service connection field at the top of the equipment gate. Splice the leads as necessary to extend to the required terminals and, using the wire-wrap tool, connect them to

the assigned terminals on the rear of the connecting blocks.

COLOR OF LEAD DESIG 10VACG( )	CONNECT TO TERM. OF CONN BLOCK		OTHER END REMAINS ON CONNECTOR B-AADB TERM.
	M3A*	DC†	
Y-O(1)	15F	G2	42
R-BR(1)	14F	G3	34
V-BL(1)	12F	H2	46
R-S(1)	11F	H3	35
Y-S(2)	9F	I2	45
S-Y(2)	6F	J2	20

\* M3A early production quick-connect terminal block.

† DC current production wire-wrap terminal block.

(28) ◆ Locate the 315A terminal strip AA0227. Remove all wires from terminals 9 and 14 and splice the leads as necessary. Reconnect as follows:◆

COLOR OF LEAD DESIG 10VACG2	CONNECT TO TERM OF CONN BLOCK		OTHER END REMAINS ON	
	M3A	DC	CONN	TERM.
Y-S	9F	I2	B-AADB	45
S-Y	6F	J2	B-AADB	20
S-V	8F	I3	C-AAAC	25
G-Y	5F	J3	C-AAAC	18

(29) Locate the J-AAAA/EA cable spare lead bundle on the rear of carrier 02 in cabinet A. Remove the following leads from the bundle, and route to the service connection field at the top of the equipment gate. Splice the leads as necessary to extend to the required terminals, and connect to the rear of the blocks as follows. See Table F.

COLOR OF LEAD DESIG 10VAC( )	CONNECT TO TERM. OF CONN BLOCK		OTHER END REMAINS ON CONNECTOR J-AAAA/EA
	M3A	DC	
V-O(3/5)	16F	G1	47
O-V(3/6)	13F	H1	22
V-G(3/7)	10F	I1	48
G-V(3/8)	7F	J1	23

(30) Test to verify the connections. Tie wires to the existing wiring on the equipment gate.

(31) Stencil the **front** of the connecting block in the service connection field to identify the terminals used for single/multiple console cross-connections as shown in ED-1E330, pages 16A and 16C, if not already stenciled.

(32) Using strapping wire, strap the M3A or DC block to reflect the console arrangement used as shown in Table F.

(33) Using the B stencil kit, stamp "SD-1E312-01 Issue 9AC option YV" on the circuit record cards of the alarm and test panels in cabinet A (J58872DB) and cabinet C (J58872DE).

(34) Using the stencil kit, stamp "SD-1E312-01 Issue 9AC Fig. 16" on the circuit record card of the position select unit in cabinet B (J58872EA-1, List 1 or J58872EA-2).

(35) Using the KS-14510 volt-ohm-milliammeter, or equivalent, perform a continuity check of the modification kit and all added wiring.

(36) Route the ac power cord (P1C) from the added transformer panel to the ac power distribution box in the crown of cabinet A, and connect it to the J1C jack.

**3.10** The changed J58872DB, DE, and EA units will differ with the new manufacture of these units. Identification between units is as follows:

• **Field Modification**

(a) J58872DB-( )

**TABLE F**  
**SINGLE AND MULTIPLE DSS CONSOLE CROSS-CONNECTION ASSIGNMENT**  
**(SEE NOTES)**

<u>CAD.</u>	<u>TERM.</u>	<u>DESIG.</u>		<u>DESIG.</u>	<u>DESIG.</u>	<u>CAD.</u>	<u>TERM.</u>	
152	47	10VACG3/5	(V-O)	(16F) G1	(Y-O)	10VACG1	108	42
152	22	10VACG3/6	(O-V)	(13F) H1	(R-BR)	10VACG1	108	34
152	48	10VACG3/7	(V-G)	(10F) I1	(V-BL)	10VACG1	108	46
152	23	10VACG3/8	(G-V)	(7F) J1	(R-S)	10VACG1	108	35
				(15F) G2	(Y-S)	10VACG2	108	45
				(12F) H2	(S-V)	10VACG2	127	25
				(9F) I2	(S-Y)	10VACG2	108	20
				(6F) J2	(G-Y)	10VACG2	127	18

Part of CAD 14A TS(DC) connector block

**Notes:**

1. 5F to 16F in ( ) are the terminal designations for M3A connector block. Refer to Fig. 5.
2. To provide power to DSS lamps strap as follows:
  - (a) Single Console System: From G2, H2, I2, and J2 terminals  
 To G1, H1, I1, and J1, respectively
  - (b) Multiple Console System: From G2, H2, I2, and J2 terminals  
 To G3, H3, I3, and J3, respectively
3. Letters in ( ) indicate conductor color in — cable B-AADB for CAD 108, cable C-AAAC for CAD 127, and cable J-AAAA/EA for CAD 152.

SD-1E312-01, Issue 9AC, Option YV

- (b) J58872DE-( )

SD-1E312-01, Issue 9AC, Option YV

- (c) J58872EA-( ) L1 or L2

SD-1E312-01, Issue 9AC, Fig. 16

• **New Manufacture**

- (a) J58872DB-2 L2, WA

SD-1E312-01, Issue 9AC, Option YS

- (b) J58872DE-2 L2

SD-1E312-01, Issue 9AC, Option YS

- (c) J58872EA-( ) L2-A

SD-1E312-01, Issue 9AC, Fig. 15

- (d) J58872AA2 L1, WK (or later)

SD-1E330-01, Issue 19AC, Option XD

**3.11** When field-modified units are returned to merchandise stock or to a service center, they should not be integrated with new manufacture units unless the field modification is first removed and the unit updated to the latest standard issue. Without this updating of field-modified units, an incompatibility will exist between equipment in cabinets A, B, and C.

**G. Wiring Changes for Adding Three Wires to Ensure Correct Operation of One-Way Outgoing Auxiliary Trunks**

**3.12** When J58872BL-1 and/or J58872BM-1 units are being added to cabinet A (crown area), B, or D and **one-way outgoing auxiliary trunks** are to be provided, inspect the circuit record card on the end of the units for existence of stamping WA in the carrier identification code. If the stamping does not exist, proceed as follows to add three wires to ensure correct operation of one-way outgoing auxiliary trunks.

**Note 1:** Current production units having the "WA" code factory stamped have been wired to include this change.

**Note 2:** The modification being described is for cabinet B. The modification of units in cabinets A and D are identical to cabinet B except for connector location designations (AA for cabinet A; AD for cabinet D).

- (1) Obtain a 1-foot length of 24BW green wire (814620548).
- (2) On the J58872BL-1 unit carrier:
  - (a) Locate the 908E connector associated with the AC60 circuit pack of tie/auxiliary trunk 0 (location AB0120) and, using the green wire, connect a strap from terminal B30 of this connector to terminal A11 of the 908E connector located at AB0123.
  - (b) Locate the 908E connectors associated with the AC60 circuit packs of tie/auxiliary trunks 1 (location AB0129) and 2 (location AB1038) and, using the green wire, add a strap between terminal B30 of each connector to terminal A11 of the adjacent connectors (locations AB0132 and AB0141, respectively).
  - (c) On the circuit record card, change J58872BL List 1 to read, "J58872BL List 1, WA."
- (3) On the J58872BM-1 unit carrier:
  - (a) Locate the 908E connectors associated with the AC60 circuit pack of the tie/auxiliary trunks listed below and, using the green wire, add straps as required for one-way outgoing trunk operation:

TIE/AUX TRK	ADD STRAP			
	FROM		TO	
	LOCATION	TERM.	LOCATION	TERM.
3	AB0002	B30	AB0005	A11
4	AB0011	B30	AB0014	A11
5	AB0020	B30	AB0023	A11
6	AB0029	B30	AB0032	A11
7	AB0038	B30	AB0041	A11

- (b) On the circuit record card, add WA stamping to the carrier identification code.

**H. Wiring Changes for Addition of Early Production Cabinet C and Second Console to Ensure Proper Operation of Second Console When Flexible Night Connections Are Made**

**3.13** When early production cabinet C and a second console are to be added, inspect the circuit record card on the equipment gate of existing cabinet A for addition of the letters WC to the carrier identification code which should read, "J58872AA-1 List 1, WB, WC." If the proper code does not appear, proceed as follows to ensure proper operation of the second console when flexible night connections are made.

**Note:** Current production carriers per J58872AA-2 and J58872AC-2 will be factory furnished with corrected wiring.

- (1) On the J58872AA-1 unit carrier:
  - (a) Obtain approximately 2 feet of 24BU white-orange wire (814615415), and solder one end to terminal 27 of the D-AAAC connector located on the connector mounting plate of the equipment gate (location AA04).

**Note:** It may be necessary to disconnect the D-AAAC cable, if connected, and remove the connector from the mounting plate to gain access to the connector terminal.

- (b) Route the free end of the added white-orange wire along existing wiring to the 908E connector associated with the common control AC90/91 circuit pack (location AA0345), and connect it to terminal B30.

**Note:** If removed, remount the connector and reconnect the D-AAAC cable.

- (c) Tie the added wire to existing wiring.
- (d) On the circuit record card on the equipment gate, stamp designation WC to the carrier identification which shall read, "J58872AA-1 List 1, WB, WC."

- (2) On the J58872AC-1 unit carrier (cabinet C):

- (a) Locate the 908E connector associated with the AC15B circuit pack of the attendant position (location AC0300), and disconnect all wires connected to terminal B26 and the green-yellow wire connected to terminal B12 of the connector.

- (b) Using a suitable meter, locate the green surface wire (disconnected from terminal B26) terminated on the 908E connector associated with the AC14 circuit pack of attendant trunk 0B-1B (location AC0203). Connect the free end to terminal B12 of the connector from which it was disconnected (location AC0300).

- (c) Connect the white-orange wire (disconnected from B26) to terminal B12 of the same connector.

- (d) Connect the yellow-green wire (disconnected from B12) to terminal B26 of the same connector.

- (e) Reconnect the remaining wires (disconnected from B26) to terminal B26 of the connector.

- (f) On the circuit record card, add designation WB to the carrier identification code which shall read "J58872AC-1 List 1, WA, WB."

**I. Wiring Changes for Addition of Early Production Cabinet B or D to Correct Fuse Assignments as Prescribed on SD-1E312-01, Fuse, Alarm, Emergency Transfer, and Test Circuit**

**3.14** When early production cabinets B and/or D are added, inspect the circuit record card on the equipment gate for the presence of the lettering WA in the carrier identification codes which should read "J58872AB-1 List 1, WA" and "J58872AD-1 List 1, WA." If the added designation does not appear, proceed as follows to correct the fuse assignments as prescribed on SD-1E312-01, Fuse, Alarm, Emergency Transfer, and Test Circuit.

**Note:** Current production units per J58872AB-2 and J58872AD-2 and early production units bearing the WA identification have been factory wired to include the corrected wiring.

- (1) On the J58872AB-1 carrier unit:
  - (a) Obtain approximately 2 feet of 24BW red wire.
  - (b) Locate the 908E connector associated with the common control AC78 circuit pack (location AB0400), and disconnect the violet-slate wire from terminal A24 and connect to terminal A21. The other end of this wire terminates on pin 50 of the G-ABEA connector.
  - (c) Remove the red surface wire between terminals A24 and A21 of the connector.
  - (d) Using red wire, connect a strap between terminal A24 of this connector (AB0400) and terminal A17 of the 908E connector associated with the line AC17 circuit pack at location AB0423. Tie the added strap to existing wiring as necessary.
  - (e) Using the B stencil kit, change the carrier identification code on the circuit record card to read "J58872AB-1 List 1, WA."
- (2) On the J58872AD-1 carrier unit:
  - (a) Obtain approximately 2 feet of 24BW red wire.
  - (b) Locate the 908E connector associated with the line AC17 circuit pack (location AD0423) and disconnect the slate-yellow wire from terminal A17. Reconnect this wire to terminal A24 of the 908E connector associated with the common control AC78 circuit pack (location AD0400). The other end of this lead terminates on pin 20 of the D-ACAD plug.
  - (c) On the connector at location AD040, disconnect the yellow-green wire from terminal A24 and reconnect to terminal A21 of the same connector.
  - (d) At the same connector (location AD0400), remove the red surface wire between terminals A24 and A21.
  - (e) Using red wire, connect a strap between terminals A24 of this connector (location AD0400) and A17 of the connector at location AD0423. Tie the added strap to existing surface wiring as necessary.

- (f) Using the B stencil kit, change the carrier identification code on the circuit record card to read "J58872AD-1 List 1, WA."

**J. Wiring Changes for Existing J58872BL-1 Units for Providing 30-120 IPM Wink Signals to Ringdown Tie Trunks**

**3.15** When a J58872BL-1 carrier unit is to be added to cabinets A (crown area), B, or D and *ringdown tie trunks* are to be provided, inspect the circuit record card on the end of the unit for the presence of the lettering WB in the carrier identification code. If the lettering does not exist, proceed as follows to provide 30- and 120-ipm wink signals to the ringdown tie trunk appearances on the consoles.

**Note:** Units bearing the WB identification have been factory modified to include this change.

- (1) On the J58872BL-1 carrier unit:
  - (a) Locate the A-BLBM cable, and remove the slate-white wire from the spare lead bundle tied to the cable. Route this wire to the 908E connector associated with the AC41 circuit pack (location AB0141) of tie/auxiliary trunk 2 and connect it to terminal A32. The other end of this wire terminates on pin 5 of the A-BLBM connector.
  - (b) Locate the B-BLBM cable, and remove the blue-white wire from the spare lead bundle tied to the cable. Route this wire to the 908E connector associated with the AC42 circuit pack (location AB0144) of tie/auxiliary trunk 2, and connect to terminal B26. The other end of this wire terminates on pin 1 of the B-BLBM connector.
  - (c) On the circuit record card, add WB to the carrier identification code which shall read "J58872BL-1 List 1, WA, WB" if the wiring modification outlined in paragraph 3.08 has also been incorporated.
- (2) On the J58872BM-1 carrier unit, if provided:
  - (a) Locate the O-BMBM shorting plug, and remove to a suitable work area. Disassemble the plug body as necessary to gain access to

the wiring. Disconnect and remove the wire at terminal 31.

(b) Reassemble the plug body, and insert the shorting plug into the connector from which it was removed.

**K. Wiring Changes for Addition of Second Console in Early Production Systems to Ensure Proper Operation of Both Consoles, Allow Assignment of Attendant Trunks on Each Console, and Provide Selective Attendant Access From Stations Within PBX**

**3.16** When a second console is to be added to early production systems, the wiring modifications listed below should be made or verified to ensure proper operation of both consoles and to allow assignment of the attendant trunks on each console to separate trunk groups to provide for selective attendant access from stations within the PBX.



**Check the J58872DB, DE, and EA units for shock hazard change options per paragraph 3.09, step (31).**

(1) On the J58872AA-1 unit carrier in cabinet A, inspect the circuit record card for the presence of the lettering WD in the carrier identification code. If the lettering does not exist, change the circuit wiring as follows.

**Note:** Units bearing the WD code will include this change in the factory wiring.

(a) Locate the 908E connectors associated with the following circuit packs, and remove the green surface wires between the terminals listed:

From AC7 on Conn Loc AA0337  
Term. A17  
To AC14 on Conn Loc AA0206  
Term. B11

From AC6 on Conn Loc AA0335  
Term. A16  
To AC14 on Conn Loc AA0206  
Term. B22

From AC15B on Conn Loc AA0300  
Term. B37  
To AC90/91 on Conn Loc AA0345  
Term. B34

From AC5 on Conn Loc AA0333  
Term. A28  
To AC15B on Conn Loc AA0300  
Term. A29

(b) Locate and remove the green-violet wire between terminal B18 of the connector associated with the AC90/91 circuit pack (location AA0345) and pin 23 of the A-AABL connector located on the connector mounting plate on the end of the carrier.

**Note:** It may be necessary to remove the connectors from the mounting plate to gain access to the connector wiring.

(c) Locate the 315A terminal strip (TS442) mounted on the rear of the carrier at location AA0442. Connect one end of a length of 24BU violet-brown wire to terminal 11 of the terminal strip. Route the wire along existing carrier wiring to the H-AAEA connector on the connector mounting plate at level 02. Connect the free end to terminal 49 of the H-AAEA connector.

(d) Add the following wires between the 908E connectors associated with the listed circuit packs and the designated connectors on the connector mounting plates on the end of the carriers:

V-O From AC 15B at  
AA0300 Term. B10  
To Conn C-AAAC Term. 47

Y-BR From AC6 at  
AA0335 Term. A16  
To Conn J-AAEA Term. 44

Y-BL From AC90/91 at  
AA0345 Term. B34  
To Conn J-AAEA Term. 41

(e) Add the following wires between the H-AAEA connector and the M1A connecting block located in the service connection field at the top of the equipment gate. Make the termination on the rear of the M1A block.

COLOR	FROM		TO	
	CONN	TERM.	CONN BLK	TERM.
Y-S	H-AAEA	45	M1A	H12
V-O	H-AAEA	47	M1A	H14

(f) Locate the 908E connector associated with the common control AC6 circuit pack (location AA0335). Disconnect the black-slate wire from terminal A16, and connect it to terminal B22 of the connector associated with the AC14 circuit pack (location AA0206) of the attendant trunk. The other end of this wire terminates on pin 40 of the J-AAEA connector.

(g) Locate the 908E connector associated with the AC15B circuit pack (location AA0300) of the attendant position. Disconnect the green-white wire from terminal A29, and connect it to terminal A28 of the connector associated with the common control AC5 circuit pack (location AA0333). The other end of this wire terminates on pin 3 of the B-AADB connector.

(h) Locate the 315A terminal strip mounted to the rear of the carrier at location AA0235, and disconnect the slate-yellow wire at terminal 1. Remove the wire from the cable ties, as necessary, and route to the 908E connector associated with the common control

AC90/91 circuit pack (location AA0345). Connect the wire to terminal B18 of the connector. The other end of this wire terminates on pin 20 of the M-AA plug.

(i) Locate the 315A terminal strip on the rear of the carrier at location AA0230, and disconnect the brown-yellow wire at terminal 21. Remove the wire from the cable ties, as necessary, and route to the 908E connector associated with the common control AC99 circuit pack (location AA0343). Connect the wire to terminal A2 of the connector. The other end of this wire terminates on pin 19 of the C-AAAC connector.

(j) Verify all connections, and tie the added and changed wiring to existing carrier wiring.

(k) Stamp lettering "WD" adjacent to the carrier identification code on the circuit record card.

(2) On the J58872AA-2 unit carrier in cabinet A, inspect the circuit record card for the lettering WD in the carrier identification code. If the lettering does not exist, change the circuit wiring as follows.

(a) Add the following wires between the MA terminal strip in the service connection field located at the top of the equipment gate and the H-AAEA connector on the connector mounting plate:

COLOR	FROM		TO	
	CONN	TERM.	STRIP	TERM.
Y-S	H-AAEA	45	(TS) MA	D14
V-O	H-AAEA	47	(TS) MA	D15

(b) Stamp terminal D14 with "ATND A" and terminal D15 with "ATND B."

(c) Locate the 315A terminal strip on the rear of the carrier at location AA0230, and disconnect the brown-yellow wire from terminal 21. Remove this wire from the cable ties, as necessary, and route it to the 908E

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connector associated with the common control AC99 circuit pack (location AA0343). Connect the wire to terminal A2 of this connector. The other end of this wire terminates on pin 19 of the C-AAAC connector.

(3) On the J58872AC-1 unit carrier in cabinet C, inspect the circuit record card for the presence of lettering WC in the carrier identification code. If the lettering does not exist, change the carrier wiring as follows.

(a) Remove the green-yellow wire between terminal 18 of the J-ACEA connector (on the connector mounting plate) and terminal 12 of the 315A terminal strip mounted on the rear of the carrier at location AC0439.

(b) Locate the violet-orange wire in the unused lead bundle of the C-AAAC cable. Loosen the cable ties as necessary to free a sufficient length of this wire, and route it to the 908E connector associated with the AC15B circuit pack (location AC0300) of attendant position B. Connect the wire to terminal B10 of this connector. The other end of this wire terminates on pin 47 of the C-AAAC connector.

(c) Locate the violet-blue wire in the unused lead bundle of the D-AAAC cable. Loosen the cable ties as necessary to free a sufficient length of this wire, and route it to the 315A terminal strip mounted on the rear of the carrier at location AC0430. Connect the wire to terminal 11 of this terminal strip. The other end of this wire terminates on pin 46 of the D-AAAC plug.

(d) Using 24BU brown-yellow wire, add a strap between terminal 19 of the A-ACBL connector (on the connector mounting plate) and terminal 11 of the 315A terminal strip at location AC0430.

(e) Using 24BW green wire (814620548), connect a strap between terminal A1 of the 908E connector at location AC0300 and terminal 13 of the 315A terminal strip at location AC0238.

(f) Using green wire, connect a strap between terminal A1 of the 908E connector at location AC0300 and terminal B27 of the 908E connector associated with the AC30B circuit pack (location AC0344) of the attendant DSS.

(g) Locate the 315A terminal strip mounted on the rear of the carrier at location AC0439, and disconnect the violet-blue wire at terminal 12. Route this wire to the 908E connector at location AC0445, and connect it to terminal B20. The other end of this wire terminates on pin 46 of the F-ACTF connector.

(h) Locate the 908E connector associated with the AC14 circuit pack (location AC0203) of attendant trunk 0B, 1B, and disconnect the violet-orange wire from terminal B4. Reconnect this wire to terminal A24 of the same connector. The other end of this wire terminates on pin 47 of the F-ACTF connector.

(i) Locate the 908E connector associated with the AC14 circuit pack (location AC0206) of attendant trunk 2B, 3B, and disconnect the orange-violet wire from terminal A22. Reconnect this wire to terminal B4 of the adjacent 908E connector at location AC0203. On the connector at location AC0203, disconnect the violet-green wire at terminal A24 and reconnect it to terminal A24 of the first connector (location AC0206). The other ends of these wires terminate on pins 22 and 48, respectively, of the F-ACTF connector.

(j) Locate the 315A terminal strip mounted on the rear of the carrier at location AC0227. At terminal 14, disconnect the blue-violet wire (from pin 21 of the D-AAAC plug) and the green-yellow wire (from pin 18 of the A-ACBL connector) and route both wires along existing wiring to the 315A terminal strip at location AC0430. Reconnect both wires to terminal 12 of this terminal strip.

**Note:** If sufficient slack cannot be obtained to properly dress and connect these wires to the upper carrier, remove each wire by cutting at each end and, using required lengths of new wires of the correct color code, add the entire length of wire from the connector to the terminal strip. Tie the added wire to the outside of each cable.

(k) Tie the added and changed wiring to the existing carrier wiring and, using the B stencil kit, stamp "WC" adjacent to the carrier identification code on the circuit record card.

(4) On the J58872AD-1 unit carrier in cabinet D, inspect the circuit record card for the lettering WB in the carrier identification code. If the lettering does not appear:

- (a) Locate the 315A terminal strip mounted on the rear of the carrier at location AD0408, and disconnect the orange-violet wire from terminal 24. The other end of this wire terminates on pin 22 of the M-AD connector. Tie the disconnected wire to the spare lead bundle of the M-AD cable.
- (b) From the spare lead bundle of the M-AD cable, locate and remove the green-violet wire (terminates on pin 23 of the M-AD connector) and route the wire to the terminal strip at location AD0408. Connect the wire to terminal 24 of the connector.
- (c) Using the B stencil kit, stamp "WB" adjacent to the carrier identification code on the circuit record card.

(5) On the J58872BL-1 unit carrier in cabinet A, B, or D, if provided, inspect the circuit record card for the presence of lettering WC in the carrier identification code. If the lettering does not appear, remove the following wires from the spare lead bundle of the J-ABEA and M-BL cables and connect to the 315A terminal strip mounted on the rear of the carrier at location—0117. Stamp "WC" adjacent to the carrier identification code on the circuit record card.

CABLE	COLOR	FROM TERM.	CONNECT TO (TS 117 TERM.)
J-ABEA	BK-BL	36	16
M-BL	Y-O	42	16
J-ABEA	BR-W	4	17
M-BL	BK-S	40	17
J-ABEA	BR-Y	19	18
M-BL	Y-BL	41	18

(6) On the J58872EA-1 (MD) unit located behind the equipment gate in cabinet B, inspect the circuit record card for the presence of lettering WA in the identification code. If the

lettering does not appear, change the circuit wiring as follows.

- (a) Disconnect the position select unit cables.
- (b) Remove and retain ten P-353446 screws (803534460) securing the unit to the cabinet frame, and move the position select unit to a suitable work area to gain access to the wiring side of the panel.
- (c) Locate the following wires in the J-ADEA cable, and disconnect the wires at the relay or connector terminals. Dress the wires into the cable spare lead bundle. The TTSAO relay is located in the top row of relays; the second unit is from the right (looking from the rear). The 00 connector is the 908E connector associated with the AC67 or AC67B circuit pack.

WIRE COLOR	FROM J-ADEA PIN	DISCONNECT AT	
		CONN	TERM.
BR-W	4	TTSAO	11M
BK-BL	36	TTSAO	4M
G-Y	18	00	A40

(d) Locate the following wires in the spare lead bundles of the H-AAEA and J-AAEA cables, and connect them to the 908E connector associated with the AC94 (position 08) or AC95 (position 09) circuit pack as required.

WIRE COLOR	FROM		CONNECT TO	
	PLUG	PIN	908E CONN POS	TERM.
O-V	H-AAEA	22	08	B2
Y-BR	J-AAEA	44	09	B21
G-V	J-AAEA	18	09	A33
Y-S	H-AAEA	45	09	B27
V-O	H-AAEA	47	09	B28

(e) Obtain approximately 2 feet of 24BW green wire (814620548), and place straps as follows. The KC19 relay is the first relay on the left in the second row of relays (from the bottom of the panel). The 08 and 09 connectors are 908E connectors associated with the AC94 and AC95 circuit packs, respectively.

FROM		TO	
CONN	TERM.	CONN	TERM.
(REL) KC 19	8B	09	A36
08	A35	09	B23
08	A27	09	B22
08	B22	09	A37

(f) At the 908E connector associated with the AC95 circuit pack (position 09), disconnect the green surface wire from terminal A33 and reconnect it to terminal A38. The other end of this wire terminates on terminal A40 of the connector in position 07.

(g) Tie the added and changed wiring to existing wiring, as necessary, and, using the B stencil kit, stamp the lettering "WA" adjacent to the unit identification code on the circuit record card.

(h) Place the modified unit in its mounting location in cabinet B, and secure using the ten No. 12-24 by 3/8-inch screws (P-353446 or 803534460) retained in (b). Reconnect the position select unit cables.

(7) If the J58872EA-1 position select unit is not provided and single-console operation is required, add or remove straps on the shorting plugs in cabinets A and D as follows:

SHORTING PLUG	LOCATED IN GATE	TERMS. SHORTED TOGETHER		
		FROM	TO	ACTION
J-AAAA	J58872AA-1	40	44	Add
H-AAAA	J58872AA-1	48	23	Add
J-ADAD	J58872AD-1	7	33	Remove

**L. Wiring Changes Required for Adding Cabinets C and/or D to Ensure Proper Operation of Multiple Mark Inhibit Circuit and to Correct for Make-Busy Assignments of Trunks**

**3.17** When cabinet D is added, inspect the J58872CB-2 switching network and control unit for the presence of lettering L-WA in the unit identification code on the circuit record card. If the stamping does not appear, proceed as follows to ensure proper operation of the multiple mark inhibit circuit.

**Note:** Units stamped L-WA will be factory provided with this wiring change.

- (1) Remove and retain four screws (P-353446 or 803534460), and slide the relay panel out to gain access to the wiring side of the relays.

**Note:** It may be necessary to disconnect some network cables to provide sufficient space to make changes to wiring. If so, tag each disconnected cable to ensure reconnection at the proper location when the relay panel is remounted.

- (2) Remove the green surface wire between terminal 11 (fixed) of the HS2 relay and terminal 18 (make) of the P21 relay.
- (3) Using BW green wire (814620548), add a surface wire between terminal 18 (make) of the P21 relay and terminal 10 (make) of the HS2 relay.
- (4) Slide the relay panel into its normal installed position, and secure using the four No. 12-24 by 3/8-inch screws (P-353446 or 803534460) retained in step (1).
- (5) Using the B stencil kit, stamp "L-WA" adjacent to the unit identification code on the circuit record card.

**3.18** When cabinets C and/or D are added, the following changes may be required to prevent the inadvertent connection of PBX dial tone to the attendant whenever a trunk key is depressed on the console. This dial tone occurs before the START key is depressed.

- (1) On the J58872AC-2 equipment gate in cabinet C, inspect the circuit record card for the

presence of the lettering WA adjacent to the gate identification code and option ZH recorded adjacent to SD-1E330-01. If the lettering does not appear, make the following wiring changes.

**Note:** Units stamped WA and ZH have been factory provided with this wiring change. J58872AC-1 units will not require this change.

- (a) Locate the 908E connector associated with the common control AC98 circuit pack (location AC0329), and disconnect the blue-violet wire at terminal B3. The other end of this lead terminates on pin 21 of the M-AC cable plug. Dress and lace the disconnected end to the spare lead bundle.
  - (b) Locate the 908E connector associated with the common control AC96 circuit pack (location AC0331), and disconnect the orange-violet wire from terminal B39. Route the disconnected wire to the connector at location AC0329, and connect it to terminal B3. The other end of this wire terminates on pin 22 of the M-AC cable plug.
  - (c) From the spare lead bundle of the M-AC cable, locate the green-violet wire from terminal 23 of the M-AC plug. Route this wire to the 908E connector at location AC0331, and connect it to terminal B39.
  - (d) Using the B stencil kit, stamp "WA" adjacent to the gate identification code and "ZH" in the option column adjacent to SD-1E330-01 on the circuit record card.
- (2) On the J58872AD-2 equipment gate in cabinet D, inspect the circuit record card for the presence of the lettering WA adjacent to the gate identification code and option ZH recorded adjacent to SD-1E330-01. If this lettering does not appear, make the following wiring changes.

**Note:** Units stamped WA and ZH have been factory provided with this wiring change. J58872AC-1 units will not require this change.

- (a) Locate the 315A terminal strip on the rear of the carrier at location AD0408. Disconnect the blue-violet wire from terminal 11 of this terminal strip and dress and tie it to the spare lead bundle of the M-AD cable.

The other end of this wire terminates on pin 21 of the M-AD cable plug.

- (b) From the spare lead bundle of the M-AD cable, locate the orange-violet wire from terminal 22 of the M-AD plug. Route this wire to the 315A terminal strip at location AD0408, and connect it to terminal 11. Tie the wire to existing carrier wiring.
  - (c) Using the B stencil kit, stamp "WA" adjacent to the gate identification code and "ZH" in the option column adjacent to SD-1E330-01 on the circuit record card.
- (3) On the J58872BL-1 unit carrier in cabinets B and/or D, inspect the circuit record card for the lettering WD adjacent to the unit identification code and ZH adjacent to SD-1E330-01. If the lettering does not appear, make the following wiring changes to the J58872BL-1 carrier in both cabinets, if provided.
- (a) Locate the 315A terminal strip on the rear of the carrier at locations AB0114 and/or AD0114. Disconnect the blue-violet wire from terminal 7 of the terminal strip and dress and tie to the spare lead bundle of the M-BL cable. The other end of this wire terminates on pin 21 of the M-BL plug.
  - (b) From the spare bundle of the M-BL cable, locate the orange-violet wire from terminal 22 of the M-BL plug. Route this wire to the 315A terminal strip at locations AB0114 and/or AD0114, and connect it to terminal 7 of the terminal strip. Tie the wire, as necessary, to existing wiring.
  - (c) Using the B stencil kit, stamp "WD" adjacent to the carrier identification code and "ZH" in the option column adjacent to SD-1E330-01 on the circuit record card.

**3.19** When cabinet C equipped with wire-wrap type service connection field (J58872C-2) is added to an existing system, inspect the circuit record card on the J58872AC-2 equipment gate for the lettering ZP in the option column adjacent to SD-1E330-01. If the lettering does not appear, change the gate wiring as outlined below to provide for make-busy assignment of trunks in cabinets C and D of a 3- or 4-cabinet system.

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- (1) Obtain 4 feet of 24BW green wire (814620548), and connect one end to terminal A12 of the 255F terminal strip designated (TS) MC in the service connection field. Make this connection to the back or shop-wired side of the terminal strip.
- (2) Route the free end of this wire along the existing gate wiring to the 908E connector associated with the common control AC89 circuit pack (location AC0329), and connect it to terminal A16 of the connector. Dress and tie the added wire to the existing gate wiring.
- (3) Using the B stencil kit, stamp "ZP" in the option column of the circuit record card adjacent to SD-1E330-01.

**M. Wiring Changes for Addition of Auxiliary Cabinet**

**3.20** When an auxiliary cabinet is to be added to the system, inspect the ringing and tone supply [J58849DG-1 unit (located behind the equipment gate in cabinet A)] for a green strap wire between terminal D of the A-BFDG connector and terminal D of the A-BEDG connector. If the strap does not exist, use 22-gauge BW green wire to add strap.

**Note:** It may be necessary to remove the ringing and tone supply from the cabinet to gain access to the wiring side of the connectors.

**N. Wiring Changes Required to Eliminate Audible Coupling During Camp-On and Ensure Proper Operation of Call Transfer Circuit**

**3.21** If the Camp-On feature is provided (J58872BK-carrier is installed in cabinet A or J58872BN-carrier is installed in cabinet C), verify or change the system wiring as follows to eliminate the possibility of audible coupling between incoming CO trunks camped-on to busy station lines.

- (1) On the J58872AA-1 equipment gate in cabinet A:
  - (a) Locate the 315A terminal strip on the rear of the gate at location AA0227, and disconnect two white-orange wires at terminal 4. Dress and tie the disconnected wires to the spare lead bundle of the cables involved. The other ends of these wires terminate on pin D of the G-AABK and F-AAAC connectors.

- (b) Using the B stencil kit, indicate on the circuit record card in the option column adjacent to SD-1E330-01 that option ZJ has been applied.

(2) On the J58872AA-2 equipment gate in cabinet A:

- (a) Locate the 315A terminal strip on the rear of the gate at location AA0227, and disconnect the red-slate wire and the red-blue wire at terminal 4. Dress and tie the disconnected wires to the spare lead bundle of the associated cables. The red-slate wire terminates on pin 27 of the G-AABK connector, and the red-blue wire terminates on pin 27 of the F-AAAC connector.

- (b) Using the B stencil kit, stamp "ZJ" in the option column adjacent to SD-1E330-01 on the circuit record card.

(3) On the J58872BK-1 unit carrier in cabinet A:

- (a) Locate the 315A terminal strip on the rear of the carrier at location AA0044 (BK0044), and disconnect the following wires. Dress and tie the cable leads to the spare lead bundles of associated cables.

WIRE COLOR	DISCONNECT AT TERM.	OTHER END REMAINS CONNECTED TO	
		CONN	PIN
R-O	23	BK-PRA	32
W-O	23	G-AABK	27
R-BR	21	BK-PRA	34
R-S	19	BK-PRA	35

- (b) Disconnect and remove the following green surface wire between terminals of the 315A terminal strip at location AA0044 (BK0044) and the green surface wire between terminal 19 of this terminal strip and terminal A1 of the 908E connector associated with the common control AC29B circuit pack (location AA0037 or BK0037).

WIRE COLOR	DISCONNECT SURFACE WIRE	
	FROM TERM.	TO TERM.
G	23	21
G	21	19
G	19	A1 (908E Conn)

**Note:** If option XI of SD-1E302-01 has been applied, the surface wire between terminal 19 and the 908E connector may have been previously removed.

- (c) Using the B stencil kit, stamp "ZJ" in the option column adjacent to SD-1E330-01 on the circuit record card.
- (4) On the J58872BK-2 unit carrier in cabinet A:
  - (a) Locate the 315A terminal strip on the rear of the carrier at location AA0044 (BK0044), and disconnect the following wires. Dress and tie the disconnected wiring to the spare lead bundle of the associated cables.

WIRE COLOR	DISCONNECT AT TERM.	OTHER END REMAINS CONNECTED TO	
		CONN	PIN
R-O	23	BK-PRA	32
W-O	23	G-AABK	D
R-BR	21	BK-PRA	34
R-S	19	BK-PRA	35

- (b) Disconnect and remove the green surface wire between terminal 19 of the terminal strip and terminal A1 of the 908E connector associated with the common control AC29B circuit pack (location AA0037 or BK0037). Also, disconnect and remove the following green surface wires:

WIRE COLOR	DISCONNECT SURFACE WIRE	
	FROM TERM.	TO TERM.
G	23	21
G	21	19
G	19	A1 (908E Conn)

**Note:** If option XI of SD-1E302-01 has been applied, the surface wire between terminal 19 and the 908E connector may have been previously removed.

- (c) Using the B stencil kit, stamp "ZJ" in the option column adjacent to SD-1E330-01 on the circuit record card.
- (5) On the J58872AC-1 equipment gate in cabinet C:
  - (a) Locate the 315A terminal strip on the rear of the equipment gate at location AC0241. Disconnect two white-orange wires at terminal 20 of the terminal strip, and dress and tie the wires to the spare lead bundle of the associated cables. The other end of one disconnected wire terminated on pin D of the F-AAAC connector, and the other disconnected wire terminates on pin 0 of the G-ACBN connector.
  - (b) Using the B stencil kit, stamp "ZJ" in the option column adjacent to SD-1E330-01 on the circuit record card.
- (6) On the J58872AC-2 equipment gate in cabinet C:
  - (a) Locate the 315A terminal strip on the rear of the equipment gate at location AC0241. Disconnect two white-orange wires at terminal 20 of this terminal strip, and dress and tie the disconnected wires to the spare lead bundle of the associated cables. The other end of one disconnected wire terminates on pin 27 of the F-AAAC connector, and the other disconnected wire terminates on pin 27 of the G-ACBN connector.
  - (b) Using the B stencil kit, stamp "ZJ" in the option column adjacent to SD-1E330-01 on the circuit record card.

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(7) On the J58872BN-1 or J58872BN-2 unit carrier in cabinet C:

- (a) Locate the 315A terminal strip on the rear of the carrier at location AC0044 (BN0044), and disconnect the following wires. Dress and tie the disconnected wires to the spare lead bundle of the associated cable.

DISCONNECT FROM		OTHER END REMAINS CONNECTED TO	
WIRE COLOR	TERM.	CONN	PIN
W-O	23	G-ACBN	D (J58872BN-1
W-O	23	G-ACBN	27 (J58872BN-2)
R-O	23	BN-PRC	32
R-BR	21	BN-PRC	34
R-S	21	BN-PRC	35

(b) Disconnect and remove the green surface wire between terminals 23 and 21 of the 315A terminal strip at location AC0044 (BN0044).

(c) Using the B stencil kit, stamp "ZJ" in the option column on the circuit record card adjacent to SD-1E330-01.

**3.22** When cabinets C and/or D are added and the Call Transfer—Individual feature is provided, make the following wiring changes on the J58872AA-1 or J58872AA-2 equipment gate in cabinet A. These changes will ensure proper operation of the call transfer circuit.

(1) Locate the 908E connector associated with the common control AC99 circuit pack (location AA0343), and disconnect the yellow-green wire at terminal A4. Connect this wire to terminal A1 of the same connector. The other end of this wire terminates on pin 43 of the C-AAAC connector on the connector mounting plate.

(2) Locate the 908E connector associated with the third position of CO trunk 1 (location AA0222), and disconnect the green surface wire at terminal B4. Connect this wire to terminal B8 of the same connector. The other end of this wire terminates on terminal 19 of the 315A terminal strip located at AA0230.

(3) Using the B stencil kit, stamp "ZL" in the option column of the circuit record card adjacent to SD-1E330-01.

**O. Wiring Changes Required for Adding Console Termination Panels**

**3.23** When J58872EC-2, J58872ED-2, or J58872EE-2 console termination panels are to be added to an existing console termination field, apply the following changes to ensure proper operation of the DSS feature when 2- or 3-digit dialing is provided.

**Note:** If earlier console termination field panels are used in the existing termination field, they should be replaced with Issue 2 panels to ensure compatibility. Note also that option XU per SD-1E302-01, Issue 3B, must be applied to the common control AC90 or AC91 circuit pack (location AA0345) in the existing cabinet and option S per SD-1E322-01, Issue 3B, must be applied to the termination field.

(1) On the J58872AA-1 or J58872AA-2 equipment gate in cabinet A:

(a) Locate the spare violet-blue wire in the spare lead bundle of the local cable from the G-AATF connector, and remove a sufficient length of this wire from the cable ties to reach the 908E connector associated with the common control AC90 or AC91 circuit pack (location AA0345). Connect this wire to terminal A6 of the connector, and tie the lead to existing wiring as necessary. The other end of this wire terminates on pin 46 of the G-AATF connector.

(b) Using the B stencil kit, stamp "ZM" in the option column of the circuit record card adjacent to (SD-1E330-01).

(2) On the J58872AC-1 or J58872AC-2 equipment gate in cabinet C, if provided:

(a) Obtain 6 feet of 24BU violet-blue wire and appropriate tape for use in splicing the cable lead.

(b) Locate the butt end of the local cable from the G-ACTF connector, and cut the cable jacket near the butt to gain access to

unused leads which have been cut dead in the cable. Locate the violet-blue wire, and remove a sufficient length to make a splice. The other end of this lead terminates on pin 46 of the G-ACTF connector.

(c) Using 24BU violet-blue wire, splice this lead and route the free end to the 908E connector associated with the common control AC91 circuit pack at location AC0335. Connect the wire to terminal A6 of the connector.

(d) Tape the spliced leads and the cut cable jacket near the butt end. Tape the spliced lead to the outside of the cable, and tie to existing carrier wiring as necessary.

(e) Using the B stencil kit, stamp "ZM" in the option column of the circuit record card adjacent to SD-1E330-01.

**3.24** When the console termination field panel consists of J58872EB-2 and J58872EC-2 panels stamped as being manufactured per SD-1E330-01, Issue 13, and night service connections are to be provided, make the following wiring modifications to eliminate the possible cause of an unintentional minor alarm condition.

(1) On the J58872AA-2 equipment gate in cabinet A:

(a) Locate the 315A terminal strip on the rear of the carrier at location AA0427, and disconnect the red-blue wire from terminal 4. Dress and tie the disconnected wire to the spare lead bundle of the F-AATF cable. The other end of this wire terminates on pin 31 of the F-AATF plug.

(b) Locate the 908E connector associated with the AC15B circuit pack of attendant position A (location AA0300), and disconnect the black-orange wire at terminal B29. Dress and tie the disconnected wire to the spare lead bundle of the F-AATF cable. The other end of this wire terminates on pin 37 of the F-AATF plug.

(c) At the 315A terminal strip in (a) above (location AA0427), disconnect the violet-green wire at terminal 4 and route it to the 908E connector at location AA0300. Connect this lead to terminal B29 of the connector. The

other end of this wire terminates on pin 48 of the D-AATF plug.

**Note:** It may be necessary to splice sufficient 24BU violet-green wire to this lead to reach the connector at location AA0300.

(d) Dress and tie the added wire to existing gate wiring.

(e) Using the B stencil kit, stamp "YK" in the option column and "Issue 15" on the circuit record card adjacent to SD-1E330-01.

(2) On the J58872AC-2 equipment gate in cabinet C if provided:

(a) Locate the 315A terminal strip on the rear of the carriers at location AC0439, and disconnect the red-blue wire at terminal 13. Dress and tie the disconnected wire to the spare lead bundle of the F-ACTF cable. The other end of this wire terminates on pin 31 of the F-ACTF plug.

(b) Locate the 908E connector associated with the AC15B circuit pack of attendant position B (location AC0300), and disconnect the black-orange wire at terminal B29. Dress and tie the disconnected wire to the spare lead bundle of the F-ACTF cable. The other end of this wire terminates on pin 37 of the F-ACTF plug.

(c) At the 315A terminal strip in (a) above (location AC0439), disconnect the violet-green wire at terminal 13 and route it to the 908E connector at location AC0300. Connect this lead to terminal B29 of the connector. The other end of this wire terminates on pin 48 of the D-ACTF plug.

**Note:** It may be necessary to splice sufficient 24BU violet-green wire to this lead to reach the connector at location AC0300.

(d) Dress and tie the added wire to existing gate wiring.

(e) Using the B stencil kit, stamp "YK" in the option column and "Issue 15" on the circuit record card adjacent to SD-1E330-01.

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**3.25** If a 34-type console is used with the J58872EC List 3 console termination field, examine the termination field table for marking "SD-1E330-01, Issue 22, XO and XQ options." If the panel **does not** bear this marking, make the following changes to factory strapping on terminal strip B to prevent the operation of a fuse.

- (1) Disconnect the insulated strap from terminal E12 (other end remains connected to terminal E10).
- (2) Disconnect the insulated strap from terminal E13 (other end remains connected to terminal E15).
- (3) Remove and discard the bare strap between terminals E12 and E13.
- (4) Reconnect the insulated strap (from E10) to terminal E12.
- (5) Reconnect the insulated strap (from E15) to terminal E11.
- (6) Disconnect the insulated strap from terminal E14, and reconnect to terminal E13. The other end of the strap remains connected to terminal F3 of terminal strip A.
- (7) Using 24-gauge black strap wire, connect a strap between E12 and E14.
- (8) Change the table markings to read "SD-1E330-01, Issue 22, XO and XQ options."

### P. Wiring Changes Required to Prevent Operation of Fuses When Main Power Is Applied to Added Cabinet B

**3.26** When cabinet B is added to an existing system, inspect the circuit record card on the J58872AA- equipment gate in cabinet A for the lettering WM in the option column adjacent to SD-1E302-01. If the lettering does not appear, make the following wiring and circuit pack changes to prevent operation of fuses when the main power is applied to the added cabinet.

- (1) On the J58872AA-1 or J58872AA-2 equipment gate in cabinet A, connect one end of a 2-foot length of 24BW green wire (814620548) to terminal B24 of the 908E connector associated

with the common control AC99 circuit pack (location AA0343).

- (2) Route the free end of this wire along existing wiring to the 908E connector associated with the common control AC5 circuit pack (location AA0333), and connect to terminal A8 of this connector. Dress and tie the added wire to existing gate wiring as necessary.
- (3) Remove the AC99 circuit pack from the carrier, and install a modified AC99, Issue 8 or later. Return the removed circuit pack to the service center for modification per local instructions.
- (4) Using the B stencil kit, stamp "WM" in the option column of the circuit record card adjacent to SD-1E302-01.

### Q. Wiring Changes to Correct Toll Denial Feature Using CO Trunk 9

**3.27** Inspect the circuit record card on the J58872AA-1 equipment gate for the addition of the lettering WB to the carrier identification code J58872AA-1 List 1, WA. If not stamped, proceed as follows to provide for proper operation of the Toll Denial feature on outgoing calls via CO trunk 9 only.

- (1) Locate the 908E connector associated with the AC20B circuit pack (location AA0135) of CO trunk 09, and disconnect the green surface wire at terminal A27. Reconnect this wire to terminal B27 of the same connector. The other end of this wire remains terminated on terminal A37 of the connector at location AA0138.

**Note:** If the disconnected wire is too short to reach terminal B27, replace the entire length with 24BW green wire (814620548).

- (2) On the circuit record card, stamp "WB" to the carrier identification code which shall read "J58872AA-1 List 1, WA, WB."

**R. Wiring Changes to Ensure Minor Alarm Indication Upon Operation of Any +24 or -48 Volt Fuse Associated With Trunk Carriers per J58872BL, BM, BQ, or BR When J58872AB and AD Carriers Are Not Equipped**

**3.28** When cabinet B is not equipped with a J58872AB unit, provide an A-DBDD plug in cabinet A and an A-DB/DEDD connector in cabinet B. When cabinet D is not equipped with a J58872AD unit, provide an A-DEDD plug in cabinet C and an A-DB/DEDD connector in cabinet D. Installation details are as follows.

**J58872DB-1 or DB-2 Carrier (Located in J58872A Cabinet)**

- (1) At AD1 circuit pack connector terminal 6, disconnect the W-BL lead from A-DBRT socket terminal 2. Pull this lead back to the position of TS2 terminal strip, and connect to terminal 10.

**Note:** On J58872DB-1 carriers shipped prior to 11-8-73, this wire was not connected.

- (2) Add 24BW green surface wire between AD1 circuit pack connector terminal 6 and TS2 terminal strip terminal 10.
- (3) Add the 5-foot cable assembly (841564156).  
 ◆Leave the cable assembly OW and GW leads long enough to reach the farthest point on the mounting plate and tape back into the cable form.◆ Terminate the wiring from KS-16785 List 1 plug (part of 841564156) as follows:

FROM		TYPE	TO	
TERM.	COLOR		DESIG	TERM.
1	BL-W	TS	TS2	10
8	W-BL	CP	AD1	2

- (4) Mark or stamp the plug of 841564156 with "A-DBDD".

**J58872DD-1 Carrier (Located in J58872B or J58872D Cabinet)**

- (1) Add the 9-foot cable assembly (841564164). Terminate the wiring from the KS-16786 List 9 connector (part of 841564164) as follows:

FROM		TYPE	TO	
TERM.	COLOR		DESIG	TERM.
1	BL-W	208A Term.	E1	R
8	W-BL	208A Term.	D1	L

- (2) Leave the cable assembly (841564164) O-W, G-W, and W-O leads long enough to reach the farthest point on the mounting plate and tie back into the cable form.
- (3) Mark or stamp the connector of 841564164 with "A-DB/DEDD."

**J58872DE-1 or DE-2 Carrier (Located in J58872C Cabinet)**

- (1) Add the 5-foot cable assembly (841564156). Terminate the wiring from the KS-16785 List 1 plug (part of 841564156) as follows:

FROM		TYPE	TO	
TERM.	COLOR		DESIG	TERM.
1	BL-W	CP	AD1	6
8	W-BL	CP	AD1	2

- (2) Leave the cable assembly (841564156) O-W, G-W, and W-O leads long enough to reach the farthest point on the mounting plate and tie back into the cable form.
- (3) Mark or stamp the plug of 841564156 with "A-DEDD."
- (4) Mark the wiring record card of the J58872DB and DE carrier units and stamp the mounting plate of J58872DD as follows.

J58872DB-2 add List WB.

J58872DB-1 and J58872DB-2 for SD-1E312-01 add reference to YX option.

J58872DD-1 stamp List A.

J58872DE-2 add List WA.

J58872DE-1 and DE-2 for SD-1E312-01 add reference to YX option.

(5) Connect the A-DBDD plug of cabinet A to the A-DB/DEDD connector of cabinet B and the A-DEDD plug of cabinet C to the A-DB/DEDD connector of cabinet D. The connections will be made in the drape of cabinets A and C, respectively.

#### 5. ED-1E386 Frequency Generator

**3.29** if the J58849DG-1 ringing and tone supply is equipped with 112A frequency generator(s) bearing the manufacture date stamp 1KY75 or later, complete loss of ringing voltage can occur due to failure of these 112A frequency generators. This failure results in complete loss of service. This condition is corrected by replacing all 112A frequency generators bearing date stamp 1KY75 or later with ED-1E386-( ), group 5, frequency generator.

**6.10** Any 801A PBX that has had its 112A frequency generator replaced by a 119A or 119A1 generator as covered by ED-1E386-10, group 1, 2, or 3 per CPCN 542DR, will require a further modification using an ED-1E386-10, group 4, transformer kit. When one 112A frequency generator is changed, all units must be changed to the same type. To change a frequency generator, proceed as outlined in CPCN 542DR, Supplement 5.4

#### 4. CIRCUIT PACK REPLACEMENTS REQUIRED TO ENSURE COMPATIBILITY OF ADDED CABINETS AND FEATURES

**4.01** When cabinets and/or optional carriers are added to an existing system, certain circuit pack changes must be made to ensure that the added system components will function properly. These changes consist of replacement of the existing circuit pack with a factory or service center modified circuit pack. The replaced circuit pack should be returned for replacement in accordance with local instructions.

**4.02** Table G lists circuit packs to be replaced in each cabinet. Examine the issue number of the SD stamped on the existing circuit pack(s). If the issue number is lower than shown in Table G, replace the circuit pack with a modified unit.

TABLE G

CIRCUIT PACK REPLACEMENT

CAB.	CIRCUIT OR FEATURE	CKT PACK	SD ISS NO. REQD
A, C	Common Control	AC91	1E302-01 ISS 4
A, B, C, D	Station Dial Transfer	AC37	1E024-02 ISS 2
A* B, D	Two-Way Auxiliary Trunk	AC45	1E319-01 ISS 4
A* B, D	Two-Way Auxiliary Trunk	AC44†	1E027-02 ISS 4
A, B, C	TOUCH-TONE Register	AC75	1E305-01 ISS 5
A, B, C, D	Registers	AC77	1E305-01 ISS 7
B	Position Select Circuit (Note)	AC94	1E323-01 ISS 7

*Note:* Position select circuit is located on rear frame behind equipment gate in cabinet B.

\* Auxiliary trunks may be located in crown area of cabinet A of single cabinet system.

† SD-1E027-02 only; SD-1E027-01 not affected.

**4.03** Table H shows the circuit pack strapping required to provide the various options for new features available with the 801A PBX and is intended for use in verifying or providing the option strapping.

#### 5. SWITCHING NETWORK CHANGES

##### GENERAL

**5.01** The switching network of the 801A PBX consists of 275B and 275D ferreed switch units and printed circuit continuity boards arranged in a pattern which provides line- and trunk-port appearances for the system components required. The initial network arrangement is based on expected traffic and may require modification as traffic increases or optional services are added.

**TABLE H**

**CIRCUIT PACK OPTION STRAPPING TO PROVIDE NEW FEATURES**

CIRCUIT	CIRCUIT PACK	OPTION FEATURE		FURNISHED*		REQUIRED			REMARKS
				OPT	STRAP	OPT	REMOVE STRAP	ADD STRAP	
Register	AC76B	Recall (stutter) dial tone not reqd	Yes	ZF	—				
			No			ZG	—	E1-E2	
Two-Way Dial Repeating Tie Trunk (Electronic) per SD-1E321-01	AC318	DX signaling		Z	E3-E4 E5-E6 E7-E8	Z	—	—	
		E and M signaling				X	E3-E4 E5-E6 E7-E8	E4-E5 E6-E7	
		Delay dial not required		Y	E1-E4 E2-E4	Y	—	—	
		Delay dial required				—	E1-E4 E2-E4	—	
		External loop resistance less than 2000 ohms					W	—	E9-E10

\* By factory.

TABLE H (Contd)

CIRCUIT PACK OPTION STRAPPING TO PROVIDE NEW FEATURES

CIRCUIT	CIRCUIT PACK	OPTION FEATURE		FURNISHED*		REQUIRED			REMARKS
				OPT	STRAP	OPT	REMOVE STRAP	ADD STRAP	
Two-Way Dial Repeating Tie Trunk (Electronic) per SD-1E321-01 (Cont)	AC317	Local TOUCH-TONE to dial pulse conversion not provided		V	E5-E6	V	—	—	
	AC316 or AC325 (Note)	Local TOUCH-TONE to dial pulse conversion not provided		V	E16-E17	V	—	—	
		Local TOUCH-TONE to dial pulse conversion provided	ATND console TOUCH-TONE set			T	E16-E17	E18-E19	
			ATND console rotary dial			V,T	—	E18-E19	
	AC325	DX signaling		Z	E20-E21 E22-E23	Z	—	—	
		E and M signaling				X	E20-E21 E22-E23	E20-E22	

Note: AC316 required for 4-wire transmission; AC325 required for 2-wire transmission.

\* By factory

TABLE H (Contd)

CIRCUIT PACK OPTION STRAPPING TO PROVIDE NEW FEATURES

CIRCUIT	CIRCUIT PACK	OPTION FEATURE		FURNISHED*		REQUIRED			REMARKS
				OPT	STRAP	OPT	REMOVE STRAP	ADD STRAP	
One-Way Incoming or Two-Way CO Trunk With Call Transfer-Outgoing and Attendant Lockout per SD-1E325-01	AC327	Without flex night				R†	—	E1-E2	
		Call transfer (SDT or ATND) on outgoing calls				X	—	E3-E4	
		With lockout				M		E5-E6	
	AC328	Toll denial	Without	N	E5-E6	N‡	—	—	
			With			—	E5-E6	—	
		Without flex night				R,Q		E9-E10	
		Lockout	Without	V	E11-E12	V	—	—	
			With			M	E11-E12	—	
		Central office nominal battery voltage	—40 volts or more negative	K	E1-E2	K	—	—	
	Less neg than —40V				—	E1-E2	—		
	AC329	Flex night	With	S	E11-E12	S	—	—	
			Without			Q	E11-E12		
	AC330	Station dial transfer	With	Z	E9-E10	Z	—	—	
			Without			Y	E9-E10	E7-E8	

\*By factory.

†Use R OPT when AC 330 is used in third position; otherwise, no straps required.

‡ Remove strap E5-E6 if AC 332 is used in third position.

TABLE H (Contd)

## CIRCUIT PACK OPTION STRAPPING TO PROVIDE NEW FEATURES

CIRCUIT	CIRCUIT PACK	OPTION FEATURE		FURNISHED*		REQUIRED			REMARKS
				OPT	STRAP	OPT	REMOVE STRAP	ADD STRAP	
One-Way Incoming or Two-Way CO Trunk With Call Transfer-Outgoing and Attendant Lockout per SD-1E325-01 (Cont)	AC331	Station dial transfer	With	Z	E9-E10	Z	—	—	
			Without			Y	E9-E10	E7-E8	
		Flex night	With	S	E11-E12	S	—	—	
			Without			Q	E11-E12	—	
	AC332	Station dial transfer	With	Z	E9-E10	Z	—	—	
			Without			Y	E9-E10	E7-E8	
					—	—	—	—	
		Without Toll Denial				J	—	E2-E3 E4-E5	
		Flex night	With	S	E11-E12	S	—	—	
			Without			Q	E11-E12		

\* By factory.

**5.02** When existing traffic configurations are modified, system equipment units are added, or optional features are to be provided, it may be necessary to expand or rearrange the switching network to ensure traffic-handling capacity. Complete network units can be added, as additional cabinets are installed, or switch elements can be changed, as traffic patterns warrant modification of the equipment.

**5.03** Switching network component arrangement and network plugging tables will be furnished by local engineering. Reference can also be made to ED-1E330-01, SD-1E301-01, and Traffic Business Services—Facilities Engineering Practices, Division E, Section 3 for additional information on switching network arrangement.

**CAUTION:** *Network changes will require that power be removed from the system. As this will totally interrupt service, these changes should be made at a time convenient to the customer.*

#### ADDING NETWORK UNIT

**5.04** If a complete switching network unit is to be added to an existing cabinet, proceed as follows.

- (1) Remove the front cover of each cabinet (except the auxiliary cabinet, if provided), and place in a suitable storage area.
- (2) Open the equipment gates to gain access to the network mounting area.
- (3) Clear the network mounting area of any wiring or spare equipment.
- (4) Unpack the network unit, and inspect for shipping damage. Place the unit in front of the cabinet with the wiring side of the unit toward the interior of the cabinet.

**Note:** Follow local procedures for handling any network damage found.

- (5) Angle the network as necessary to clear the equipment gate, and slide the network unit into the cabinet. Align the unit with the four mounting holes in the cabinet floor and the four holes in the rear uprights of the cabinet.

- (6) Using four No. 1/4-20 by 5/8-inch machine screws (840598064) furnished with the network unit, secure the unit to the cabinet floor.

- (7) Using four No. 12-24 by 3/8-inch machine screws (P-353446 or 803534460) furnished with the network unit, secure the unit to the rear uprights of the cabinet.

**WARNING:** *Power must be removed from the system before network connections are made.*

- (8) Remove the PBX ac power cord from the outlet.

- (9) Route the network cables through the cable entrance hole(s) in the cabinet to adjacent cabinet(s), as necessary, and connect to similarly designated connectors. Refer to ED-1E330-01, SD-1E330-01, and SD-1E301-01 as necessary for cable plugging details.

**Note:** It may be necessary to remove the shorting plugs from certain connectors when new network components are installed. Other cable connectors or line, trunk, and feature circuit plugs may require rearranging to incorporate added network capacity. See local engineering instructions for new network plugging details.

- (10) Locate the line, trunk, and feature circuit plugs to be connected to the added network unit, route to the line and trunk ports, and plug the network in accordance with local instructions.

- (11) Locate the black ground wire on the left side of the added network unit, and route it to the ground block in the cabinet crown. Remove the top cover of the cabinet, and connect the ground wire to the terminal marked MULT on the ground block. Replace the top cover.

- (12) Dress the cable slack into the cable retainer or along the side of the network unit, and tie to existing cables as necessary.

- (13) Check to ensure that all network circuit boards and switches are fully seated in the appropriate connectors and locked in place.

**Note:** If the BH1 circuit pack equipped in cabinet A or C is marked Issue 9 or later of SD-1E010-01, the other BH1 circuit pack must also be an Issue 9 or later of SD-1E010-01.

- (14) On the fuse alarm and test panel in cabinet A, set the NRCO switch to ON. Plug the PBX power cord into the designated power outlet.
- (15) On the fuse alarm and test panel in cabinet A, momentarily depress the PBRA switch. Verify that both major and minor alarm lamps are off.



**If the alarm lamps do not go off, refer to Trouble-Locating Procedures (Section 553-201-301).**

- (16) Set the NRCO switch to OFF.
- (17) Test the line, trunk, and feature circuits assigned to the line and trunk ports of the added network unit in accordance with Section 553-201-200.
- (18) Close the equipment gates, and replace the front cover on each cabinet.

**CHANGING NETWORK COMPONENTS**

**5.05** If the 275B or 275D ferreed switch units or the printed wiring continuity boards are to be changed in an existing network unit, proceed as follows.

- (1) Remove the front cover of the cabinet(s) containing the network unit to be modified, and place the cover(s) in a safe storage area.
- (2) Open the equipment gate(s) to gain access to the switching network area.

**WARNING: Power must be removed from the system when network components are removed or reinstated to prevent possible damage to switch elements.**

- (3) Remove the PBX power cord from the outlet.
- (4) Release the black locking levers on the switching component to be removed, and withdraw the component from the associated

connector. Place the removed unit in a safe storage area.

- (5) Referring to the locally engineered network layout, install the 275B or 275D ferreed switches and continuity boards in the network as required. Push the units into the appropriate connectors, and engage the locking levers.

**Note:** Units removed in step (4) may be revised as required.

- (6) Referring to the locally engineered network plugging tables, arrange the line, trunk, and feature circuit network plugs as required to connect the line and trunk port appearances of the added ferreed switches.

**Note:** It may be necessary to remove or install shorting plugs in certain connectors or to rearrange the carrier connector when network components are installed. Refer to ED-1E330-01, SD-1E330-01, and SD-1E301-01, if necessary, for additional information on connecting the network components.

- (7) On the fuse alarm and test panel in cabinet A, set the NRCO switch to ON. Plug the PBX power cord into the designated power outlet.
- (8) On the fuse alarm and test panel, momentarily depress the PBRA switch. Verify that the major and minor alarm lamps are off.



**If the alarm lamps do not go off, refer to Trouble-Locating Procedures (Section 553-201-301).**

- (9) Set the NRCO switch to OFF.
- (10) Test the added network components by making test calls as outlined in Section 553-201-200.
- (11) Close the equipment gates, and replace the front cover of each cabinet.
- (12) Follow local procedures for return of any unused network components removed in step (4).

## 6. INCREASING CAPACITY OF SYSTEM OR ADDING OPTIONAL SERVICE FEATURES

### GENERAL

**6.01** This part describes installation and connection procedures necessary to add various available service features to an existing 801A PBX System. Certain of these features may also be factory provided when complete cabinets are ordered. Parts 2 and 3 cover installation and connection of these units.

**6.02** The addition of service features may require removal and replacement of circuits or of entire printed wiring board carriers on the equipment gates of the cabinets. Replaced units should be returned for refurbishing in accordance with local instructions.

**6.03** Table I provides a list of the available service features requiring changes or additions to existing system components. These changes are keyed to paragraphs 6.06 through 6.36 which describe the installation and connections required. Reference to the option of system interconnection circuit drawing SD-1E330-01 is also included where applicable in Table I to provide a cross-reference index between added features and option and feature record in the system drawing.

**6.04** When addition of optional service features require installing printed wiring board carriers, the carriers should be unpacked and inspected prior to installation to verify that no damage exists, all components are included, and circuit packs are properly strapped for required options.

**6.05** When expanded trunk capacity is added to cabinet A (paragraph 6.12), the top cover will be replaced by a new cover assembly. Remove the top and front covers of the equipment cabinet. Place the covers in a suitable storage area until the feature installation is complete. The original top cover should be retained for use when the cabinet is refurbished or the expanded capacity feature is removed.

**6.06** When Series 200 or 300 service features are to be added to an existing Series 100 system, install the J58872BK unit in cabinet A. When 3-digit station line numbers and two camp-on circuits or more than three station dial transfer circuits

are to be added, install the J58872BN unit in cabinet C.

### J58872BK UNIT (SERIES 200 OR 300 SERVICE FEATURES)

(1) When the J58872BK unit is to be installed in cabinet A, refer to the circuit record card on the gate of cabinet A to ensure that the wiring changes required to eliminate audible coupling during camp-on (option ZJ) have been installed. If the wiring changes have not been incorporated, do them as outlined in paragraph 3.21. When the wiring change requirements in paragraph 3.21 have been met, proceed with the installation of the J58872BK unit as follows.

(a) Install the carrier under the last carrier of the J58872AA- equipment gate (level 00), and secure the hinge to the cabinet frame using three No. 1/4-20 by 1-1/4 inch screws (P-210305 or 802103051) furnished with the BK unit as shown in Fig. 7.

(b) Using two P-108511 No. 3/8-16 by 3/4-inch hex head cap screws (801085119) and two P-182907 hex nuts (801829078), secure the added carrier to the gate at the holes designated B in Fig. 7.

(c) Locate the black ground wire on the BK unit ground bar, and route the terminal end to the GRD BUS bar on the carrier unit directly above the added unit. Connect the ground lead to the bus bar with hardware furnished.

(d) Connect the following cables from the BK unit to similarly designated connectors on the J58872AA gate: A-AABK, B-AABK, C-AABK, D-AABK, E-AABK, and F-AABK.

(e) Route the BK-PRA cable to the switching network. Remove the 840382782 connector retainer from the primary plugs (left center part of network), and connect the cable plug to the appropriate primary connector in accordance with local engineering network plugging instructions.

(f) Route the A-BKRT cable to the ringing and tone supply panel located under the power supply on the rear cabinet frame. Connect the cable plug to the similarly

TABLE I

## ADDITION OF OPTIONAL SERVICE FEATURES

PAR.	SD-1E330-01 OPTION	DESCRIPTION OF SERVICE FEATURE ADDITION
6.06		Addition of J58872BK unit to cabinet A to provide series 200 or 300 service.
6.07		Addition of TOUCH-TONE calling.
6.08		Replacing standard power supply.
6.09		Addition of carrier units to crown area of factory predrilled cabinet A to provide expanded trunk capacity to single cabinet system.
6.10	YQ	Addition of J58872BL carrier in cabinet A crown area, cabinet B or D update unit.
6.11	W, ZT, ZU, ZV, ZX, ZY, or ZZ with or without V or YC	Addition of J58872BL, J58872BM, J58872BQ, or J58872BR carrier or any combination of these in cabinet B or D with or without J58872AB or J58872AD equipment gates. The BR and BQ units cannot be equipped in any combination in the D cabinet.
6.12	XA	Single cabinet trunk expansion similar to paragraph 6.10.
6.19		Replacement of J58872DB-1 basic alarm and test unit with J58872DB unit when J58872BR and/or J58872BQ carriers are provided.
6.21	Z	Addition of a second console to a single-console system for multiconsole operation.
6.25	X	Addition of direct station selection (DDS) to non-DDS system.
6.26	ZN	Addition of 1A1 selector console to extend DSS capacity to full 270 lines.
6.27	YM XV	Provides distinctive dial tone indication when Call Transfer— Individual feature is provided; recall (stutter) dial tone.
6.28		Addition of Attendant Hold feature.
6.29	YO	Provides 2-way dial repeating tie trunks (electronic) per SD-1E321-01.
6.30	YD, YR	Provides Attendant Control of Station Dial Access to Trunk Groups (TGR-) feature with 24B, 34B, or 54B console
6.31	YZ	Provides reorder tone to calling party when all links through the switching network are busy or when all trunk circuits of type required are busy.
6.32		Two-way central office trunk with capability of outgoing call transfer and attendant lockout (SD-1E325-01).
6.36	YW, N, B	Provides modification of CO trunks for compatibility with TOUCH-A-MATIC repertory dialers.

designated connector on the ringing and tone supply.

(g) Route the nine trunk port connectors (CA3163-01 cable assembly) to the tertiary network connectors (right center part of network), and plug them into the appropriate connector in accordance with local engineering network plugging instructions.

(h) If TOUCH-TONE calling is provided, route the A-BKTT and B-BKTT cables to the TOUCH-TONE receiver and connect each to the appropriate connector.

(i) Route the G-AABK cable up to similarly designated cable from the 02 level of the J58872AA- equipment gate, and connect the two connectors.

**Note:** If one G-AABK cable is equipped with a 7-pin connector and the other is equipped with a 50-pin plug, replace the 7-pin connector as outlined in paragraph 2.18.

#### **J58872BN UNIT (SERIES 200 OR 300 SERVICE FEATURES)**

(2) When the J58872BN unit is to be installed in cabinet C, refer to the circuit record card of cabinet C to ensure that the wiring changes required to ensure proper operation of the call transfer circuit has been made (option ZL). If necessary, perform the wiring changes outlined in paragraph 3.22.

(3) Before installing the J58872BN unit, refer to the circuit record card on the BN unit to ensure that changes required to accommodate the Recall (Stutter) Dial Tone feature (if required) have been incorporated (option XV). If necessary, update the J58872BN unit as outlined in paragraph 6.27, step (5). Install the J58872BN unit into cabinet C as follows.

(a) Install the carrier under the last carrier of the J58872AC- equipment gate (level 00), and secure the hinge to the cabinet frame using three No. 1/4-20 by 1-1/4 inch screws (P-210305 or 802103051) furnished with the BN unit as shown in Fig. 7.

(b) Using two P-108511 No. 3/8-16 by 3/4-inch hex head cap screws (801085119) and two

P-182907 hex nuts (801829078), secure the added carrier to the gate at the holes designated B in Fig. 7.

(c) Locate the black ground wire on the BN unit ground bar, and route the terminal end to the GRD BUS bar on the carrier unit directly above the added unit. Connect the ground lead to the bus bar with hardware furnished.

(d) Connect the following cables from the BN unit to similarly designated connectors on the J58872AC gate: A-ACBN, C-ACBN, D-ACBN, and F-ACBN.

(e) Route the BN-PRC cable to the switching network. Remove the 840382782 connector retainer from the primary plugs (left center part of network), and connect the cable plug to the appropriate primary connector in accordance with local engineering network plugging instructions.

(f) Route the A-BNRT cable to the ringing and tone supply panel located under the power supply on the rear cabinet frame. Connect the cable plug to the similarly designated connector on the ringing and tone supply.

(g) Route the four trunk port connectors (CA3163-01 cable assembly) to the tertiary network connectors (right center part of the network), and plug them into the appropriate connector in accordance with local engineering network plugging instructions.

(h) Route the G-ACBN cable up to similarly designated cable from the 04 level of the J58872A-C equipment gate, and connect the two connectors.

**Note:** If one G-ACBN cable is equipped with a 7-pin connector and the other is equipped with a 50-pin plug, replace the 7-pin connector as outlined in paragraph 2.18.

#### **"TOUCH-TONE" CALLING**

**6.07** If the TOUCH-TONE Calling feature is to be installed in an existing rotary dialing system, mount the receiver units to the frame mounting space behind the equipment gate of cabinet

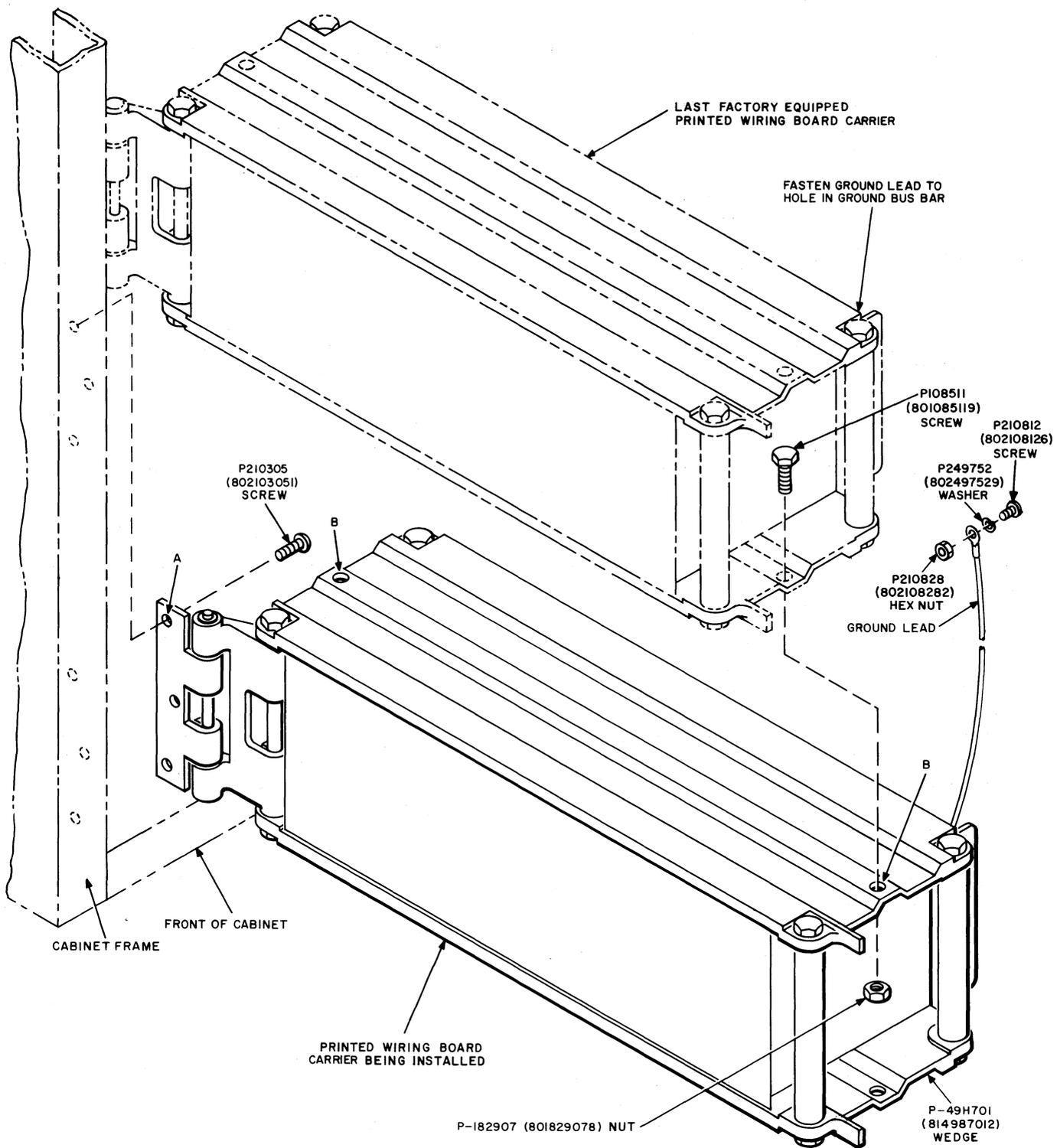


Fig. 7—Installing Optional Printed Wiring Board Rack

A (and other cabinets as required) and connect to system cabling as shown in Section 553-201-201.

**POWER SUPPLIES**

**6.08** Most units are equipped with a standard power supply which will be one of the following:

- J86635A List 1 (MD)
- J86635A Lists 2 and 3.

However, when operation from an emergency ac generating system is required, it is recommended that the standard power supply be replaced by the J86635D List 1 wide frequency tolerant power supply. This unit is a direct replacement, requiring no modification. The power supply should be mounted in essentially the same position as the present one, upper-most on the rear frame. Prior to installing this unit in cabinet A, remove and discard the bumper (840381677).

**ADDING TRUNK CARRIER UNITS**

**6.09** When optional J58872BQ and/or J58872BR trunk carriers are to be added to an existing system, modifications must be made in the cabinet wiring and updated circuit packs installed. Also, see the READ Note in paragraph 6.11, step (5). Obtain and install the following circuit packs:

REMOVE	REPLACE WITH	LOCATION
AC7	AC7B	AA0337
AC90	AC91	AA0345

The circuitry associated with the AC91 and AC7B circuit packs requires the addition of surface wires to the backplane of the J58872AA equipment gate. If the wires do not exist, using suitable cross-connecting wire and a KS-16363 List 1 wire-wrap tool, or equivalent, place straps between the circuit pack connectors as follows:

	LOC	CP	TERM.
(a) FROM	AA0337	AC7B	A19
	AA0337	AC7B	A40
(b) FROM	AA0337	AC7B	A29
	AA0331	AC4	A37
(c) FROM	AA0345	AC91	A19*
	AA0335	AC6	B21
(d) FROM	AA0345	AC91	B2*
	AA0333	AC5	B23

\* In some systems, two 24BW green wires may be connected to this terminal. These wires must be carefully disconnected, spliced together, sleeved, and stored.

A connector must be provided on the J58872AA equipment gate (cabinet A) for the D-AABR or D-AABQ interunit connector cable. Inspect the equipment gate in cabinet A for the presence of a connector designated D-BR/BQAA on the connector bracket at level 02. If the connector does not exist, proceed as follows.

- (1) Obtain an A25B connector cable, or equivalent, of sufficient length to reach from the connector bracket of level 02 to the service connection field at the top of the equipment gate.
- (2) Install the cable connector on the J58872AA equipment gate at the lower connector position of level 02, and secure by using two No. 8-32 by 1/4-inch long round head machine screws (P-205651 or 802056515) or equivalent.
- (3) Inspect the wiring side of the equipment gate for a 315A terminal strip at locations AA0219 and AA0320. If not provided, obtain two 315A terminal strips and, using hardware provided, mount a terminal strip at locations AA0219 and AA0320.

**Note:** If a terminal strip cannot be mounted at the desired locations due to existing wiring placement, install on the end of the equipment gate or at another suitable location on the required carrier level. Stamp or tag the strip with location AA0219 or AA0320.

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- (4) Strip the outer jacket from the added connector cable to gain access to the entire length of the cable leads.
- (5) Using a KS-16363 List 1 tool (hand-operated wire-wrap tool), or equivalent, connect the cable leads as shown in Table J. Route and dress the leads along the existing carrier wiring. Connections are required at the two added terminal strips, at the 908E connectors for circuit packs, and at the dc block in the service connection field. Dress the unused leads (marked NC in the table) into the spare lead bundle and tie to the cable.
- (6) Using the B stencil kit or equivalent, stamp as follows:
  - (a) "D-DR/BQAA" on the connector bracket adjacent to the added connector
  - (b) "AC7B" and "AC91" in place of AC7 and AC90, respectively, at the AA03 circuit carrier locking bar
  - (c) "WU" in the option column and "Issue 10" on the record card for the AA03 carrier adjacent to SD-1E302-01 and "XA" adjacent to SD-1E330-01.

**Note:** Refer to CADs 600 and 601 of SD-1E330-01, Issue 25 or later, for details of connectors to the added terminal strips.
- (7) Using 24BW green wire (814620548), add surface wiring between the 315A terminal strip added at location AA0320 and the terminals

indicated as shown in Table K. Route the wire along existing carrier wiring where possible.

- (8) Using 24BW green wire, add surface wiring between the 315A terminal strip added at location AA0219 and the terminals indicated as shown in Table L. Route the added wire along existing carrier wiring where possible.
- (9) Using a KS-14510 List 1 volt-ohm-milliammeter, perform a continuity check of the added connector and all added wiring.
- (10) Lace the added cable and surface wiring to existing carrier wiring.

**6.10** When an optional J58872BL trunk carrier is to be added to a system, inspect the unit stamping for list WE or WF adjacent to J58872BL and option YQ adjacent to SD-1E330-01. If the carrier is not stamped as indicated, proceed to modify the BL carrier as follows.

- (1) To provide option YQ and remove option YP, move the following leads to allow termination of four conductors:
  - (a) ST0AA\* BL-BK from the H-BLAB/BL/EA connector pin 11 and ST0AA\* BL-V from the M-BL plug pin 21 found on the 315A TS Pos BL0114 Term. 7 to 315A TS Pos BL0108 Term. 1
  - (b) RDAD S-Y from the M-BL plug pin 20 found on 315A TS Pos BL0114 Term. 8 to 315A TS Pos BL0114 Term. 9.

TABLE J

CONNECTIONS REQUIRED TO ADD D-BR/BQAA  
CONNECTOR TO J58872AA EQUIPMENT GATE  
IN CABINET A (CAD 132, SD-1E330-01)

CONN PIN	LEAD COLOR	LEAD DESIG	CONNECT TO	
			TERM.	LOCATION
1	BL-W	MBA01A	7	AA0320
26	W-BL	MBA00A	6	AA0320
2	O-W	MBA03A	9	AA0320
27	W-O	MBA02A	8	AA0320
3	G-W	MBA05A	11	AA0320
28	W-G	MBA04A	10	AA0320
4	BR-W	MBA07A	13	AA0320
29	W-BR	MBA06A	12	AA0320
5	S-W	FICA	10	AA0219
30	W-S	EICA	8	AA0219
6	BL-R	—	NC	—
31	R-BL	GICA	11	AA0219
7	O-R	PICA	A15	AA0343†
32	R-O	—	NC	—
8	G-R	—	NC	—
33	R-G	QICA	A12	AA0343†
9	BR-R	UICA	7	AA0219
34	R-BR	TICA	9	AA0219
10	S-R	JA	16	AA0219
35	R-S	—	NC	—
11	BL-BK	TAEA	B7	AA0238†
36	BK-BL	—	NC	—
12	O-BK	MTWTA	A40	AA0337
37	BK-O	—	NC	—
13	G-BK	LITDOA*	15	AA0219
38	BK-G	MTWTC	J18	DC‡
14	BR-BK	SDTTEA*	20	AA0219
39	BK-BR	—	NC	—
15	S-BK	ECRC	B9	AA0345†
40	BK-S	SDTTEC*	NC	—

TABLE J (Contd)

CONNECTIONS REQUIRED TO ADD D-BR/BQAA  
CONNECTOR TO J58872AA EQUIPMENT GATE  
IN CABINET A (CAD 132, SD-1E330-01)

CONN PIN	LEAD COLOR	LEAD DESIG	CONNECT TO	
			TERM.	LOCATION
16	BL-Y	30W	NC	
41	Y-BL	-24/1C1	12	AA0219
17	O-Y	60F	6	AA0219
42	Y-O	-24/1C2	13	AA0219
18	G-Y	NKA*	1	AA0219
43	Y-G	-24/1C3	14	AA0219
19	BR-Y	NKBA	3	AA0219
44	Y-BR	NKAA	2	AA0219
20	S-Y	SDTARA	19	AA0219
45	Y-S	SDTAA	18	AA0219
21	BL-V	SSBA	A22	AA0323†
46	V-BL	SSAA	A21	AA0323†
22	O-V	ROA	4	AA0219
47	V-O	RACA	B28	AA0345†
23	G-V	BSOC	A20	AA0345†
48	V-G	TCBA	5	AA0219
24	BR-V	—	NC	—
49	V-BR	PG	17	AA0219
25	S-V	—	NC	—
50	V-S	ITAA	21	AA0219

\* Indicates prime or inverted function lead.

† 908E connector associated with circuit pack.

‡ DC block in service-connect field at top of equipment gate.

NC = no connection.

TABLE K

SURFACE WIRING OF 315A TERMINAL  
STRIP ADDED AT LOCATION AA0320

LEAD DESIG	CONNECT FROM TS315A TERM.	CONNECT TO	
		TERM.	CONN
MBA00A	6	26	B-AAADB
MBA01A	7	1	B-AAADB
MBA02A	8	27	B-AAADB
MBA03A	9	2	B-AAADB
MBA04A	10	28	B-AAADB
MBA05A	11	29	B-AAADB
MBA06A	12	31	B-AAADB
MBA07A	13	32	B-AAADB
TAEA	14	A16	MA block*
TAEA	14	B7	AA0238
MC008	15	B18	MA block*
MC008	15	B21	AA0125
MC009	16	B19	MA block*
MC009	16	B21	AA0133
MC010	17	B20	MA block*
MC010	17	B19	AA0141
MC011	18	B21	MA block*
MC011	18	B19	AA0144
MC006	19	A24	MA block*
MC006	19	B19	AA0111
MC007	20	A25	MA block*
MC007	20	B19	AA0119
MC000	21	A18	MA block*
MC000	21	B19	AA0211
MC001	22	A19	MA block*
MC001	22	B19	AA0219
MC002	23	A20	MA block*
MC002	23	B21	AA0225
MC003	24	A21	MA block*
MC003	24	B21	AA0233

\*MA block located in service connect field.

TABLE L

SURFACE WIRING OF 315A TERMINAL  
STRIP ADDED AT LOCATION AA0219

LEAD DESIG	CONNECT FROM TS315A TERM.	CONNECT TO	
		TERM.	CONN
NKA*	1	B34	AA0214
NKA*	1	B34	AA0222
NKAA	2	A6	AA0214
NKAA	2	A6	AA0222
NKAB	3	A13	AA0214
NKAB	3	A13	AA0222
ROA	4	A31	AA0219
ROA	4	A7	AA0222
COTC/TCBA	5	B5	AA0214
COTC/TCBA	5	B5	AA0222
60F*	6	A28	AA0217
60F*	6	A28	AA0225
UICA	7	A33	AA0343
UICA	7	40	C-AAAB
EICA	8	A40	AA0343
EICA	8	37	C-AAAB
TICA	9	A18	AA0343
TICA	9	15	C-AAAB
FICA	10	A20	AA0343
FICA	10	13	C-AAAB
GICA	11	A16	AA0343
GICA	11	38	C-AAAB
-24/1C1	12	B2	AA0214
-24/1C1	12	A36	AA0241
-24/1C2	13	A36	AA0219
-24/1C2	13	B2	AA0222
-24/1C3	14	A17	AA0415
-24/1C3	14	A39	AA0225
LITDOA	15	B10	AA0219
LITDOA	15	A40	AA0222
JA	16	A26	AA0225
JA	16	A26	AA0217
PG	17	A19	AA0219
PG	17	A19	AA0227
SDTAA	18	A21	AA0222
SDTAA	18	A21	AA0214
SDTARA	19	B18	AA0214
SDTARA	19	B18	AA0222
SDTTEA*	20	B8	AA0222
SDTTEA*	20	B8	AA0214
ITAA	21	B25	AA0345
ITAA	21	46	C-AAAB

\* Indicates prime or inverted function.

(2) To provide additional leads of option YQ, select spare conductors in the plug cabling of the unit as follows:

LEAD - COLOR		PLUG	PIN
STOBA*	O-V	M-BL	22
RDAD	G-V	A-AA/ACBL	23
120F	G-BK	C-BLBM/BQ	13
-241C4	BK-G	C-BLBM/BQ	38
HICA	BK-BR	C-BLBM/BQ	39

and connect them to:

315A T S POS	TERM.	LEAD - COLOR	
BL0114	7	STOBA*	O-V
BL0114	9	RDAD	G-V
<b>908E CONN POS</b>			
BL0114	A33	120F	G-BK
BL0114	A38	-241C4	BK-G
BL0129	A28	H1CA	BK-BR

(3) To complete option YQ using green strapping wire, provide the following straps:

- (a) From 315A TS Pos BL0114 Term. 7 to 315A TS Pos BL0108 Term. 1.
- (b) From 315A TS Pos BL0114 Term. 8 to 315A TS Pos BL0114 Term. 9.
- (c) Using the B stencil kit, stamp "WE" adjacent to J58872BL on the carrier and "YQ" in the option column adjacent to SD-1E330-01 on the circuit record card.

**6.11** When optional J58872BL, J58872BM, J58872BQ, and J58872BR trunk carriers are to be added to an existing cabinet B or D, the carriers should be located in the lower positions in the cabinets. This will allow for addition of J58872AB and J58872AD equipment gates (if not factory installed) at a later time. The J58872BL or J58872BR carriers

should be mounted above the J58872BM or J58872BQ carriers.



*A minor alarm indication will not occur in multiple cabinet systems upon the operation of any +24 or -48 volt fuse associated with the J58872BL, BM, BQ, and BR trunk carrier units. A failure will occur in system module A if the J58872AB unit in cabinet B is not provided and in system module B if the J58872AD unit in cabinet D is not provided. This condition is caused by the placement of the MNN- and MNP- alarm leads in the optional cable runs, A-ABDD for system module A and A-ADDD for system module B. To correct this deficiency, new cables are added, two per system module. The A-ABDD cables have been added for use with system module A, and the A-DEDD cables have been added for use with system module B. For cabling information, see paragraph 3.28.*

**Note:** The J58872BR and J58872BQ carriers are intended for installation in cabinet B only of a multicabinet installation. Do not install in cabinet D.

**J58872BL UNIT (TIE/AUXILIARY TRUNK 00-02 OR 08-10 AND DIAL CONFERENCE)**

- (1) If a J58872BL carrier unit (option ZT, SD-1E330-01) is to be added to cabinet B (tie trunks 00-02 and dial conference) or cabinet D (tie trunks 08-10 and dial conference) equipped **with** the J58872AB or J58872AD equipment gate (option W, SD-1E330-01), install the unit as follows.



**Check the J58872BL unit per paragraph 6.11 before mounting in the cabinet.**

- (a) Mount the BL unit in the next to the lowest position in the cabinet (level 01), and secure by using three No. 1/4-20 by 1-1/4 inch screws (802103051) furnished with the carrier (Fig. 7).

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- (b) Using two P-108511 No. 3/8-16 by 3/4-inch screws (801085119) and two P-182907 hex nuts (801829078), secure the added carrier to gate at holes designated B in Fig. 7.
- (c) Locate the black ground wire on the BL unit, and route the free end to the GRD BUS bar of the carrier immediately above the unit being added. Using hardware furnished, connect the ground wire to the bus bar.
- (d) Connect the A-AA/ACBL and B-AA/ACBL cables to the A-AABL and B-AABL connectors on level 02 of cabinet A (if unit is in cabinet B) or A-ACBL and B-ACBL on level 03 of cabinet C (if the unit is in cabinet D). Use A25-type extender cable if necessary.
- (e) Route the 5-pin TRK D plug cables and 50-pin BL-PRB connector cable to the network, and connect in accordance with local engineering instructions.
- (f) Route the A-BLRT and A-BLTF cables to the J58849DG ringing and tone supply in cabinet A and the termination field, respectively, and connect to the similarly designated connectors. Use A25-type extender cable if necessary.
- (g) Locate the A-BLDD cable from the fuse panel in cabinet B (J58872DD). Route the cable to the added unit, and connect to the connector designated A-BLDD.
- (h) If dual-console operation is provided, locate the L-BL/BREA cable from the J58872EA-position select unit mounted in the rear of cabinet B. Route this cable to the added carrier, and connect to the connector labeled L-BLEA.
  - (i) If single-console operation is provided, install the L-BLBL shorting plug in accordance with local engineering instructions.
  - (j) Provide dust covers for the remaining cables from the added carrier, and store by tying to existing cables as necessary.
  - (k) Provide the required cross-connections on the termination field in accordance with local engineering instructions, and perform installation tests of the added tie/auxiliary trunks as outlined in Section 553-201-200.

(2) If a J58872BL carrier unit (option ZT, SD-1E330-01) is to be added to cabinet B or cabinet D **without** the J58872AB or J58872AD equipment gate (option V, SD-1E330-01), install and connect as outlined in step (1) except as follows.

- (a) Remove the existing black ground wire on the carrier unit, and replace with a single 10-gauge black wire of sufficient length to reach the GRD BUS bar in the cabinet crown. Connect to the MULT terminal of the bus bar.
- (b) Use A25-type extender cable to extend the cable designated M-BL to the bridging adapter labeled EXT AA AB in the crown of cabinet B (BL unit located in cabinet B) or EXT AC AD in the crown of cabinet D (BL unit located in cabinet D) when single-console operation is required.
- (c) Connect the A-DBDD plug in cabinet A to the A-DB/DEDD connector of cabinet B and the A-DEDD plug in cabinet C to the A-DB/DEDD connector in cabinet D.

**Note:** If the two cable assemblies, A-DBDD and A-DB/DEDD, in system module A are not provided, install as outlined in paragraph 3.28. If the two cable assemblies, A-DEDD and A-DB/DEDD, in system module B are not provided, install as outlined in paragraph 3.28.

### J58872BM UNIT (TIE/AUXILIARY TRUNK 03-07 OR 11-15)

(3) If a J58872BM carrier unit is to be added to cabinet B (tie trunks 03-07) or cabinet D (tie trunks 11-15) equipped **with** a J58872AB or J58872AD equipment gate (option W, SD-1E330-01), install the units as follows.

**Note:** Adding the J58872BM unit requires that a J58872BL or J58872BR unit be provided because of common power leads. Circuit packs may or may not be installed in the BL/BR unit; however, if the Dial Conference feature is provided, tie/auxiliary trunk 07 in the J58872BM unit cannot be equipped because of the common line-side appearance on the switching network.

- (a) Mount the J58872BM unit in the lower position in the cabinet (level 00), and secure by using three P-210005 No. 1/4-20 by 1-1/4 inch screws (802103051) furnished with the carrier (Fig. 7).
  - (b) Using two P-108511 No. 3/8-16 by 3/4-inch screws (801085119) and two P-182907 hex nuts (801829078), secure the added carrier to the gate at the holes designated B in Fig. 7.
  - (c) Locate the black ground wire on the BM unit, and route the free end of the GRD BUS bar of the carrier immediately above the unit being added. Using hardware furnished, connect the ground wire to the bus bar.
  - (d) Connect the A-BLBM, B-BLBM, and C-BLBM cables to similarly designated connectors on the J58872BL unit.
  - (e) Route the 5-pin TTK- cables to the switching network, and connect in accordance with local engineering instructions.
  - (f) Route the 5-pin A-BMRT cable to the ringing and tone supply in cabinet A (J58849DG), and connect to the similarly designated connector.
  - (g) Route the A-BMTF and B-BMTF cables to the termination field, and connect in accordance with local engineering instructions. Use A25-type extender cable as required to reach the termination field.
  - (h) If dual-console operation is provided, locate the N-BMEA and O-BMEA cables at the J58872EA position select circuit on the rear of the cabinet. Route the cables to the BM unit, and connect to similarly designated connectors.
  - (i) Provide required cross-connections on the service connection and termination fields in accordance with local engineering instructions, and perform installation tests of added circuits as outlined in Section 553-201-200.
- (4) If a J58872BM carrier unit is to be added to cabinet B or D **without** a J58872AB or J58872AD equipment gate (option V, SD-1E330-01), install and connect the unit as outlined in step (3).

#### J58872BR UNIT (CO TRUNK 00A-02A AND DIAL CONFERENCE)

- (5) If a J58872BR carrier unit is to be added to cabinet B (CO trunk 00A-02A and dial conference) **with** the J58872AB gate provided (option ZV, SD-1E330-01), install the unit as follows.



**Addition of CO trunks 00A-07A to the system will require replacement of the J58872DB-1 fuse alarm and test unit in cabinet A to provide selector switch positions for the added trunks. See paragraph 6.19 for procedures required to replace the DB-1 unit. In addition, a J58872EA- L2-A position select unit must be used if the system is configured with two attendant positions. Also, inspect the circuit record card of the J58872AB-equipment gate in cabinet B for lettering YI in the option column adjacent to SD-1E330-01. If the lettering does not appear, make the wiring change (K) to ensure correct operation of the 2-way CO trunks.**

- (a) Mount the J58872BR unit in the next lowest position (level) 01 of the cabinet, and secure by using three P-210305 No. 1/4-20 by 1-1/4 screws (802103051) furnished with the carrier (Fig. 7).
- (b) Using two P-108511 No. 3/8-16 by 3/4-inch screws (801085119) and two P-182907 hex nuts (801829078), secure the added carrier to the gate at holes designated B in Fig. 7.
- (c) Locate the black ground wire on the BR unit, and route the free end to the GRD BUS bar on the carrier immediately above the added unit. Using hardware furnished, connect the ground wire to the bus bar.
- (d) Connect the A-AABR and B-AABR cables to the A-AABL/BR and B-AABL/BR connectors on level 02 of the J58872AA gate in cabinet A.
- (e) Route the 5-pin CO- and D CONF cables and the 50-pin BR-PRB cable to the

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network, and connect in accordance with local engineering instructions.

- (f) Route the A-BRRT cable to the J58849DG ringing and tone supply in cabinet A, and connect to the similarly designated connector.
  - (g) Route the A-BRTF cable to the termination field, and connect in accordance with local engineering instructions. Use A25-type connector cable to extend the cable as required.
  - (h) Locate the A-BLDD cable from the fuse panel in cabinet B (J58872DD). Route this cable to the added unit, and connect it to the A-BRDD connector.
  - (i) Extend the D-BRBQ/AA connector to the similarly designated connector on the J58872AA gate in cabinet A (level 02) using A25D connector cable.
  - (j) Connect the following cables from the BR unit to similarly designated connectors on the J58872AB equipment gate: E-BRAB, G-BRAB, H-BRAB, and J-BRAB.
  - (k) If single-console operation (option Y, SD-1E330-01) is required, provide the L-BRBR shorting plug at the L-BRBR/EA-1 connector. Also, for early productions only of the J58872AB unit (less option YI of SD-1E330-01), remove the SY cable lead from terminal strip AB0408, terminal 10, and store the lead. The other end of this wire remains terminated on the M-AB plug terminal 20.
  - (l) If dual-console operation (option Z, SD-1E330-01) is required, connect the cable designated L-BREA to the L-BRBR/EA-1 connector on the carrier. Use A25D connector cable if necessary.
  - (m) Provide the required cross-connections on the service connection and main termination fields in accordance with local engineering instructions, and perform installation tests of the added circuits as outlined in Section 553-201-200.
- (6) If a J58872BR carrier unit is to be added to cabinet B **without** the J58872AB equipment gate provided (options ZV, YC; ZY, YC; or ZX,

YC of SD-1E330-01), install and connect the unit as outlined in step (5) except as follows.

- (a) Remove the black ground wire from the carrier unit, and replace it with a single 10-gauge black wire of sufficient length to reach the GRD BUS bar in the cabinet crown. Connect this wire to a MULT terminal on the bus bar.
- (b) Use A25-type connector cable, as required, to connect the M-BR cable to the EXT AA AB bridging adapter in the crown of cabinet B.
- (c) Provide dust covers for the connectors of the E-BRAB, G-BRAB, H-BRAB, and J-BRAB cables, and store the cables by tying to existing cabinet wiring.
- (d) Connect the A-DBDD plug in cabinet A to the A-DB/DEDD connector of cabinet B and the A-DEDD plug in cabinet C to the A-DB/DEDD connector in cabinet D.

**Note:** If the two A-DBDD and A-DB/DEDD cable assemblies in system module A are not provided, install as outlined in paragraph 3.28. If the two A-DEDD to A-DB/DEDD cable assemblies in system module B are not provided, install as outlined in paragraph 3.28.

### J58872BQ UNIT (CO TRUNK 03A-07A)

- (7) If a J58872BQ carrier unit is to be added to cabinet B (CO trunk 03A-07A) **with** the J58872AB equipment gate provided (options ZZ and ZY, SD-1E330-01), install and connect the unit as follows.

**Note:** Adding the J58872BQ unit requires that the J58872BR or J58872BL unit be provided because of common power leads. Circuit packs may or may not be installed in the BL/BR unit. Adding CO trunks 03A-07A to the system will require replacement of the J58872DB-1 fuse alarm and test unit to provide selector switch positions for the added trunks. See paragraph 6.19 for procedures required to replace the DB-1 unit.

- (a) Mount the J58872BQ unit in the lowest position in cabinet B (level 00), and secure using three P-210305 No. 1/4-20 by 1-1/4 inch

screws (802103051) furnished with the carrier (Fig. 7).

(b) Using two P-108511 No. 3/8-16 by 3/4-inch screws (801085119) and two P-182907 hex nuts (801829078), secure the added carrier to the gate at the holes designated B in Fig. 7.

(c) Locate the black ground wire on the BQ unit, and route the free end to the GRD BUS bar on the BR or BL unit. Using hardware furnished, connect the ground wire to the bus bar.

(d) Connect the A-BLBQ, B-BL/BRBQ, C-BL/BRBQ, and D-BRBQ cables to similarly designated connectors on the J58872BR or J58872BL carriers.

(e) Connect the D-AABQ cable to the similarly designated connector on the J58872AA equipment gate (level 03) in cabinet A.

(f) Route the A-BQTF and B-BQTF cables to the main termination field using A25-type connector cables as required. Connect the cables to the connecting blocks in accordance with local engineering instructions.

(g) Route the 5-pin connector cables designated CO- to the switching network, and connect in accordance with local engineering instructions.

(h) Route the 5-pin A-BQRT connector cable to the J58849DG ringing and tone supply in cabinet A, and connect it to the similarly designated connector.

(i) If single-console operation (option Y, SD-1E330-01) is required, provide N-BQBQ and O-BQBQ shorting plugs at the N-BQEA and O-BQEA connectors, respectively.

(j) If dual-console operation (option Z, SD-1E330-01) is required, connect the N-BQEA and O-BQEA cables from the J58872EA position select unit in the rear of the cabinet to similarly designated connectors on the BQ unit. Use A25-type connector cables if necessary.

(k) Provide cross-connections on the service connection and main termination fields in accordance with local engineering instructions,

and perform installation tests on the added trunk circuits as outlined in Section 553-201-200.

(8) If a J58872BQ carrier unit is to be added to cabinet B **without** the J58872AB equipment gate provided (options ZZ, V or ZY, YC of SD-1E330-01), install and connect the unit as outlined in step (7).

#### EXPANDED TRUNK CAPACITY OF SINGLE CABINET

**6.12** If J58872BL, J58872BM, J58872BQ, and J58872BR carrier units are to be installed in the crown area of cabinet A to provide for expanded trunk capacity in a single-cabinet system, obtain an ED-1E277-50 modification kit, J58872DA List 2 fuse panel, J58872DB List 2 alarm test unit, and the carriers to be added.

#### A. Cabinet Preparation

**6.13** Inspect the top of the cabinet to determine if the cabinet is factory predrilled to accept the modification kit (Fig. 7). If the cabinet is drilled, see paragraph 6.14. If not, prepare the cabinet as follows.

**WARNING: Extreme care must be exercised while drilling and tapping holes to prevent metal chips from falling into the interior of the cabinet. Protect relays and the switching network with cheesecloth, and observe all precautions written into the procedures.**

(a) Locate and center punch the position of each hole to be drilled in cabinet top as shown in Fig. 8. Use a scribe to mark each hole location and center punch as near the center of each hole as possible.

**WARNING: Move cables as necessary to clear areas to be drilled. After marking the location of the holes, use piece parts from the modification kit as templates to verify alignment of all holes before drilling.**

(b) Open the equipment gate to gain access to the interior of the cabinet.

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- (c) Use cheesecloth to cover the switching network, and tape securely to prevent drill chips from entering the network components.
- (d) Tape cheesecloth over the components mounted to the rear of the cabinet frame as necessary to protect them.
- (e) Tape cheesecloth approximately 6 inches below the underside of the cabinet top. Tape securely to the sides and rear of the cabinet. Leave the front open for access to the area between the cabinet top and the cheesecloth.
- (f) Use tape to seal spacing between the outer skin of the cabinet and the cabinet frame around the perimeter of the top to prevent drill chips from possibly lodging between the skin and frame.

**Note:** One method of catching metal chips during drilling and tapping operations which has proven effective is to tape a small paper cup below the hole(s) to be drilled and inverting a second cup over the hole, drilling through the cup. The inverted cup can be cut to the desired height to provide access by the drill chuck. The cup taped to the underside of the top will catch any chips falling from the hole when the drill penetrates the metal, and the inverted cup forms a barrier to retain chips which may be thrown from the drill bit.

- (g) Using a No. 16 drill, drill the six holes designated A in Fig. 8.
- (h) Using a No. 1 drill, drill the three holes designated B in Fig. 8.
- (i) Using a No. 19/64-inch diameter drill, drill the six holes designated C in Fig. 8.
- (j) Using a No. 25 drill, drill the hole designated D in Fig. 8.

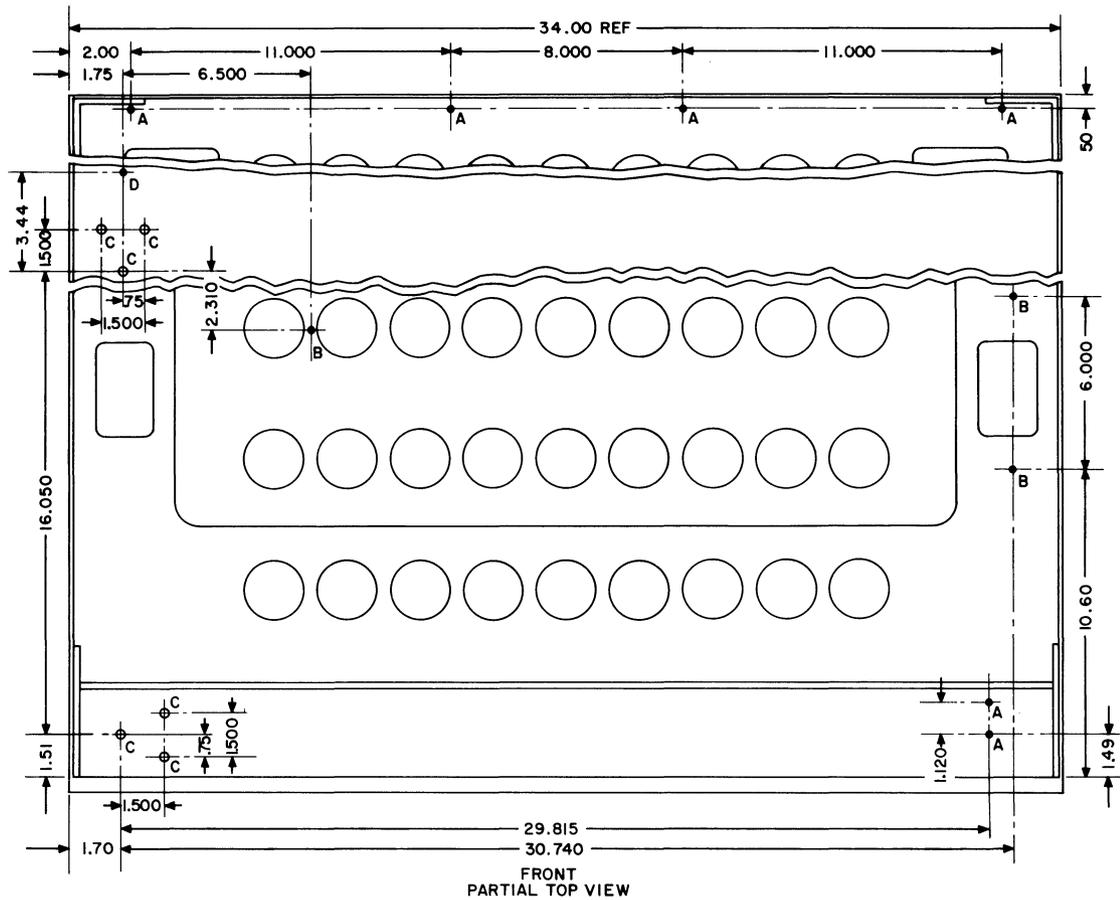
**Note:** Either of two types of screws may be included in the modification kit for mounting the back cover, locking slide, and tying mount to the holes designated A and D. Inspect the hardware provided. If machine screws are furnished, the holes must be tapped as outlined in (k) and (l); if thread-forming screws are furnished, use the screws to form threads as outlined in (m) and (n).

- (k) If machine screws are furnished, use a No. 10-32 tap to tap the six holes designated A in Fig. 8.
- (l) Use a No. 8-32 tap to tap the hole designated D in Fig. 8.
- (m) If thread-forming screws are furnished, run a No. 10-32 screw from the kit into each of the six holes designated A in Fig. 8. Remove and retain the screws.
- (n) Run a No. 8-32 thread-forming screw into the hole designated D in Fig. 8. Remove and retain the screw.
- (o) Remove burrs and chips from all drilled holes. Exercise care to ensure removal of any excess metal which could be loosened during installation of the components.
- (p) Use a vacuum cleaner to clean the entire top of cabinet, especially around the cables, connectors, and ground block.
- (q) Carefully remove the cheesecloth below the cabinet top, folding it into itself to prevent any metal fragments from falling into the cabinet. Remove other protective coverings, and discard to ensure removal of chips from the area.
- (r) Inspect the interior of the cabinet and crown area for any metal particles resulting from the drilling operation.

### B. ED-1E277-50 Modification Kit Installation

**6.14** Install the ED-1E277-50 modification kit as follows.

- (a) Open the equipment gate to gain access to the underside of the cabinet top.
- (b) Move the cables and wiring as necessary to clear the area in which components are to be mounted.
- (c) Place a brace (841561756) on the left of the cabinet top, and secure, at the rear only, using three No. 1/4-20 by 3/4-inch long hex head cap screws (P-125616 or 801256165) and three No. 1/4-20 hex nuts (P-220756 or 802207563) as shown in Fig. 9.



HOLES				DECIMAL EQUIVALENT CHART			
HOLES	DESCRIPTION	NO.	DRILL	DECIMAL	CLOSEST 32ND OF INCH	DECIMAL	CLOSEST 32ND OF INCH
A	.177	6	NO. 16	.05	1/32	.49	16/32
B	.228	3	NO. 1	.12	4/32	.50	16/32
C	.2969	6	19/64	.1495	5/32	.51	16/32
D	.1495	1	NO.25	.177	6/32	.60	19/32
				.228	7/32	.70	22/32
				.2969	10/32	.74	24/32
				.31	10/32	.75	24/32
				.44	14/32	.815	26/32

Fig. 8—Drilling Layout for Adding Carriers to Top of Cabinet A

(d) Position the stiffener (841561822) and one support (841561764) over the mounting holes on the rear of the brace as shown in Fig. 9, and secure using three No. 1/4-20 by 1-1/4 inch hex head cap screws (P-422793 or 804227932) and three No. 1/4-20 hex nuts (P-220756 or 802207563).

**Note:** The flange of the support is placed between the stiffener and the brace. When both supports are installed, the tops should be the same height to ensure alignment of the added carriers.

(e) Use one No. 10-32 by 1/2-inch pan head machine screw (840059851) and one No. 10-32 hex nut (P-81293 or 800812935) to secure the flat portion of the stiffener to the cabinet top.

(f) Position the remaining support (841561764) and stop (841561780) on the front end of the brace and secure the support, stop, and brace to the channel on the top of cabinet using three No. 1/4-20 by 1-1/2 inch long hex head cap screws (P-160125 or 801601253) and three No. 1/4-20 hex nuts (P-220756 or 802207563) as shown in Fig. 9.

(g) Install the ramp-latch assembly (841561913) to the right side of the cabinet top as shown in Fig. 9. Secure the assembly using two No. 10-32 by 7/16-inch long pan head machine screws (840059844) and two No. 10-32 hex nuts (P-81293 or 800812935).

(h) Position the locking slide (841561772) over the two tapped holes on the right of the channel (Fig. 9). Secure the slide to the channel by using two No. 10-32 by 1/2-inch long pan head machine screws (840059851) and two No. 10 flat washers (P-42E186 or 814251864) or two No. 10-32 by 1/2-inch thread-forming screws provided in the kit.

(i) Install the tie mount (400688214) at the tapped hole in the center of the brace (841561756) and the tapped hole to the rear of the brace as shown in Fig. 9 by using one No. 8-32 by 3/8-inch long pan head machine screw (840059067) or one No. 8-32 thread-forming screw in each.

(j) Install the rear cover (841561889) to the back of the cabinet top using four No. 10-32 by 1/4-inch long pan head machine screws (840059802) or four No. 10-32 thread-forming screws as shown in Fig. 10.

**Note:** Place the top cover assembly (841561798) and the front cover assembly (841561848) in a safe storage area until the carrier units are installed and tested.

**C. J58872DA List 2 Fuse Panel Installation**

**6.15** Replace the basic fuse panel with the factory-modified fuse panel as follows to provide proper fusing for trunk circuits to be added in the cabinet crown.

(1) Locate the J58872DA List 1 unit (basic fuse panel) at the top of the cabinet above the equipment gate, and disconnect all cables to and

from the fuse panel. Remove four screws and the fuse panel from the cabinet.

(2) Mount the J58872DA List 2 unit in the same location from which the J58872DA List 1 unit was removed. Secure to the cabinet frame by using four No. 12-24 by 3/8-inch long round head machine screws (P-353446 or 803534460) furnished with the unit.

(3) Connect the cables from the added unit to similarly designated connectors on the appropriate circuits. Route the A-BL/BRDA cable through the access holes in the top of the cabinet, and leave loose until the carriers to be added are installed.

**Note:** Ensure proper termination of battery and ground connections between the added fuse panel, power supply, and the GRD BUS bar.

**D. J58872BL or J58872BR Carrier Unit Installation**



**Check the J58872BL unit per paragraph 6.10 before mounting in the cabinet.**

**6.16** Install the J58872BL or J58872BR carrier unit to the rear support, and secure the hinge to the support by using three No. 1/4-20 by 1-1/4 inch long hex head cap screws (P-422793 or 804227932) furnished with the modification kit. Adjust the screws in the locking slide to hold the carrier securely in the closed position. Connect the rear to the PBX cabling as follows.

(1) Locate the black 10-gauge ground wire on the GRD BUS bar of the carrier, and route it to the ground block on the top of the cabinet. Connect the ground wire to the terminal of the bus bar marked MULT.

**Note:** The front carrier cannot be installed without the rear carrier.

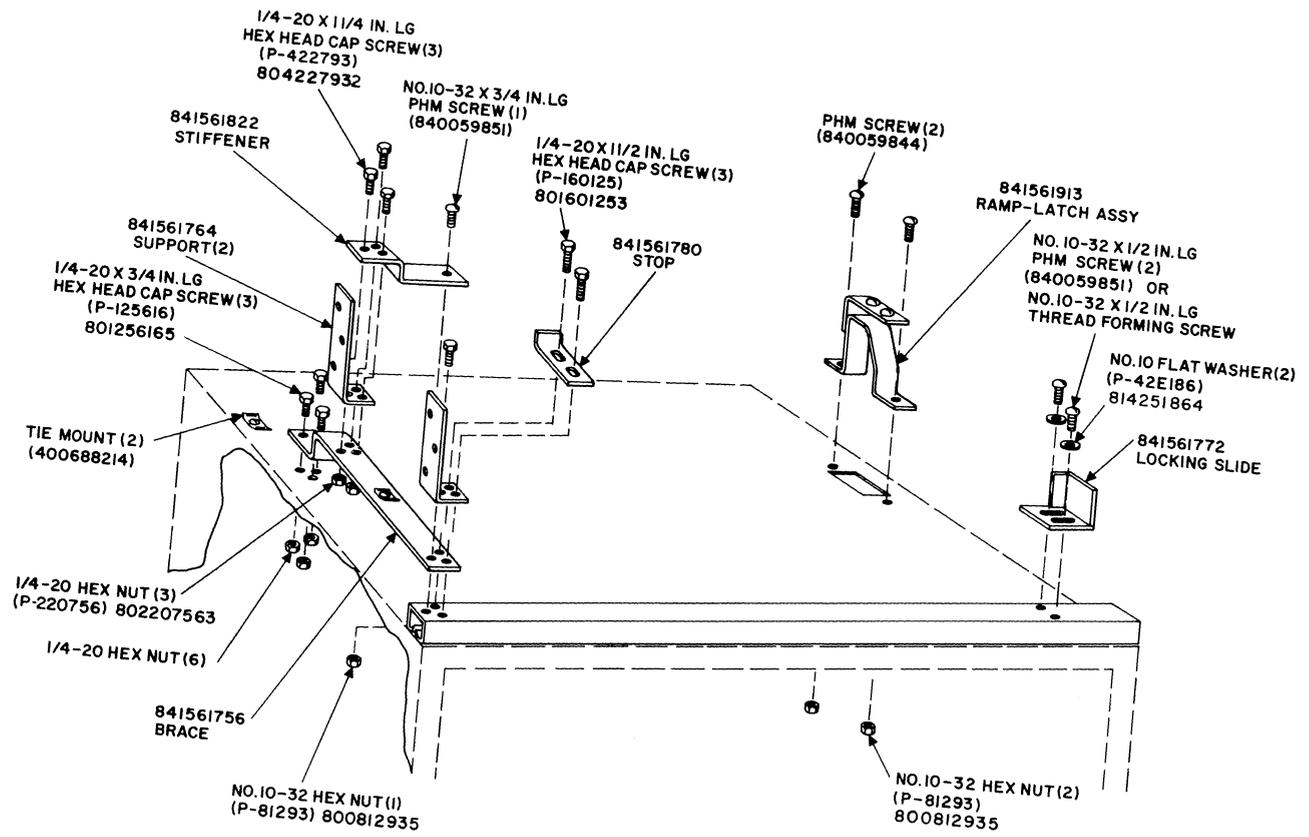


Fig. 9—Installation of Carrier Supports in Crown of Cabinet A

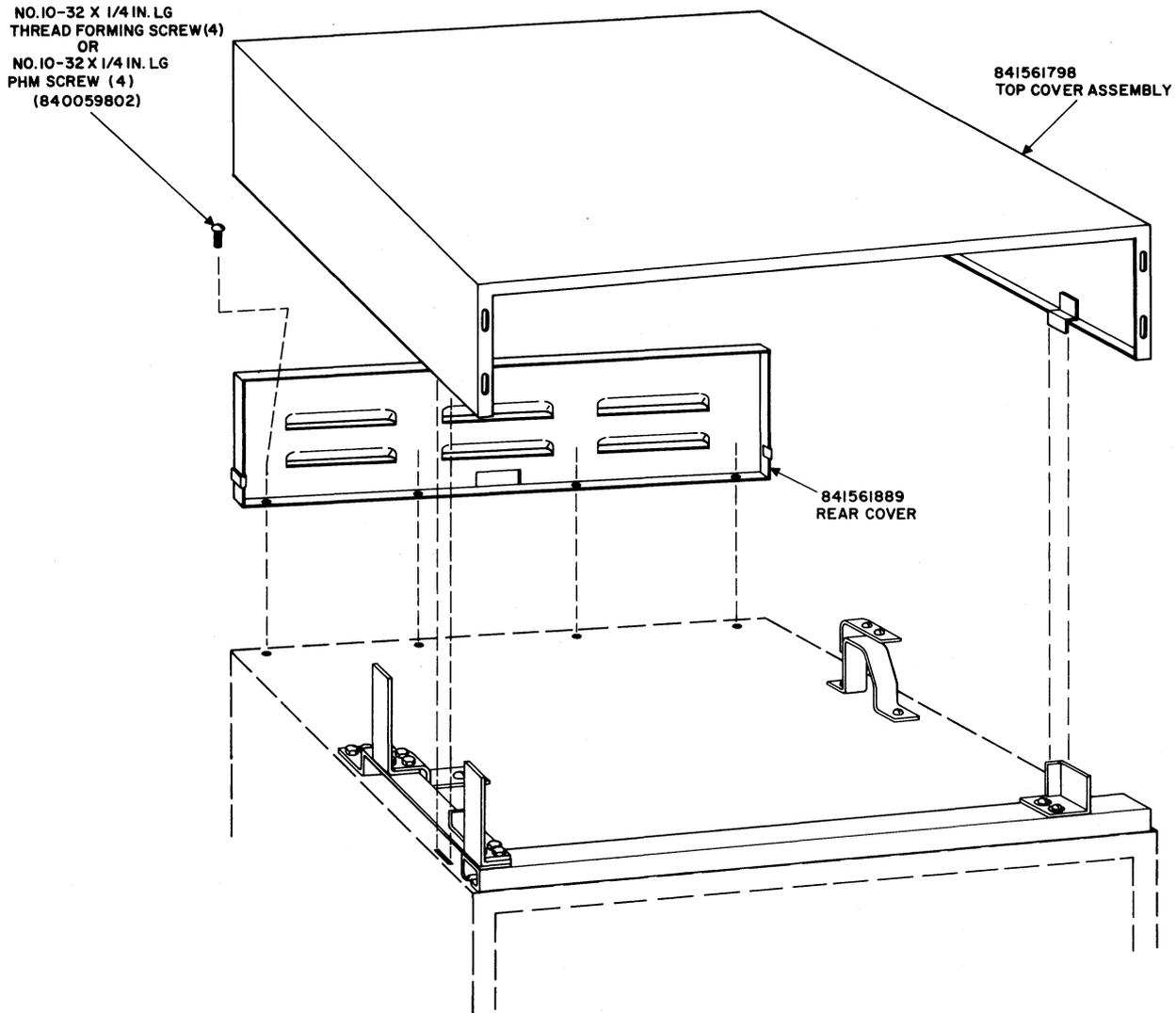


Fig. 10—Installing Back and Top Covers of Expanded Cabinet A

(2) Route the following cables to the appropriate connecting circuits, and connect to similarly designated connectors. Use A25-type connector cables as necessary, and route through the access holes in the cabinet top.

CABLE	FROM UNIT	TO UNIT
A-AABL	J58872BL	J58872AA
B-AABL	J58872BL	J58872AA
A-BLTF-1	J58872BL	Termination Field
A-BLRT-1	J58872BL	J58849DG
A-AABR	J58872BR	J58872AA
B-AABR	J58872BR	J58872AA
A-BRRT	J58872BR	J58849DG
A-BRTF	J58872BR	Termination Field
D-AABR	J58872BR	J58872AA
A-BL/BR DA	J58872BL or J58872BR	J58872DA-2

- (3) Locate the 5-pin cable connectors designated D CONF and CO-, and route through the cable access holes to the switching network. Connect each to the appropriate network port in accordance with local engineering instructions.
- (4) Route the BL-PRB or BR-PRB cable through the access holes to the network, and connect to the appropriate line-side connector in accordance with local engineering instructions.
- (5) Connect the M-BL or M-BR multiplying cable to the M-AA multiple cable from cabinet A, and ensure that the L-BLBL/EA-1, H-BLAB/BL/EA, J-BLAB/BL/EA, and L-BREA-1 shorting plugs, as required, are fully seated in the appropriate connector.
- (6) Dress the unused cables from the unit cabinet top, and tie to existing cabling as necessary.

**E. J58872BM or J58872BQ Carrier Unit Installation**

**6.17** Install the J58872BM or J58872BQ carrier unit to the front support, and secure the hinge to the support using three No. 1/4-20 by 1-1/4 inch long hex head cap screws (P-422793 or 804227932) furnished with the modification kit. Adjust two screws in the ramp-latch assembly to hold the carrier securely when in the closed position. Connect the front unit to the PBX cabling as follows.



*The addition of CO trunks to the system (J58872BQ and J58872BR carrier units) will necessitate replacement of the J58872DB-1 basic alarm and test unit with a factory-modified unit to provide selector switch positions for the added trunks. See paragraph 6.19 for procedures required to replace the DB-1 unit. Refer to paragraph 6.11 for additional procedures required.*

- (1) Locate the black 10-gauge ground wire on the GRD BUS bar of the carrier. Connect the ground wire of the J58872BM or J58872BQ unit carrier on the rear support to the GRD BUS bar of the rear carrier.
- (2) Route the following cables to the appropriate connecting circuits, and connect to similarly designated connectors. Use A25-type extender

cables as necessary, routing cables through access holes in the cabinet top.

CABLE	FROM UNIT	TO UNIT
A-BMTF-1	J58872BM	Termination Field
B-BMTF-1	J58872BM	Termination Field
A-BMRT-1	J58872BM	J58849DG
A-BQTF	J58872BQ	Termination Field
B-BQTF	J58872BQ	Termination Field
A-BQRT	J58872BQ	J58849DG
D-AABQ	J58872BQ	J58872AA

- (3) Route the 5-pin TRKS(C) or TRKS(L) cable connectors through the access holes to the switching network, and connect each in accordance with local engineering instructions.
- (4) Dress the remaining cables on the top of the cabinet under the added carrier. If the J58872BM or J58872BQ carrier has been installed on the front support, route the following cables from the front unit to the rear unit and connect each to the appropriate connector on the connector mounting plate: A-BLBM, B-BLBM, C-BLBM, A-BQBL, B-BQBL/BR, C-BQBL/BR, and D-BQBR.
- (5) Ensure proper placement of the N-BQEA and O-BQEA shorting plugs.

**6.18** Referring to Section 553-201-200, ensure that each added circuit functions properly when connected into the system.

**F. Expanded Alarm and Test Panel Installation**

**6.19** When CO trunks 00A-07A are provided (J58872BR and/or J58872BQ carrier units are added to cabinet A or B), the J58872DB-1 List 1 (MD) alarm and test unit in cabinet A must be removed and a factory-modified J58872DB-2 List 2 unit installed. This will provide selector switch positions for the new CO trunks to allow testing on a make-busy basis. Replace the J58872DB-1 List 1 unit as follows.

- (1) Locate the J58872DB-1 alarm and test unit at the top of the J58872AA equipment gate, and disconnect all wiring to and from the unit. Tag the disconnecting wiring for identification when reconnected later.

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- (2) Remove four screws securing the unit to the equipment gate. Remove the unit from the gate, and follow local procedures with regard to returnable equipment.
- (3) Mount the J58872DB-2 List 2 alarm and test unit on the AA gate and secure using four No. 8-32 by 3/16-inch screws (840059034) furnished with the unit.
- (4) Route the black 10-gauge ground wire (connected to the terminal of the message register on the unit) to the GRD BUS bar in the crown of cabinet A, and connect it to terminal MULT on the bus bar.
- (5) Route the A-AADB and B-AADB cables to the similarly designated connectors on the J58872AA gate (level 04) and connect.
- (6) Route the A-DBRT cable to the ringing and tone supply, and connect to the similarly designated connector.
- (7) Reconnect any remaining leads disconnected in step (1) as required.

### ADDING SECOND ATTENDANT CONSOLE OR REPLACING 1-TYPE CONSOLE WITH ANOTHER

#### A. General

**6.20** The J58872AB gate must be provided and connected (but not necessarily equipped with circuit packs for lines, trunks, etc) to provide extension of power leads to cabinet C when dual-console operation is to be provided.

**CAUTION: J58872EA- units shipped from the factory have all option straps equipped. Restrapping is required per job application.**

**6.21** To add a second attendant console to a single-console system (option Z or ZX, SD-1E330-01) or to replace a single console with a larger capacity single console, proceed as follows.

- (1) Install or replace the console termination field panels (Table B).
- (2) Install the J58872EA position select unit(s) when a second console is required. Check per paragraph 3.10.

- (3) Add the circuit packs to the equipment gates of cabinets A and C.
- (4) Connect and test the console.

**Note:** The 34-type console is designed for single-console operation only. Replace with a 54-type for multiple console per paragraph 6.22, and add the second console per paragraph 6.24. Choose the console termination field panel per Table B, noting that each console requires a key and lamp panel and that DSS requires a different panel for single- or multiple-console arrangement.

#### B. Replacement of 34-Type Console With 54-Type Console

**6.22** To replace an existing 34-type console with a larger capacity 54-type console, perform the following.

- (1) Disconnect the console and PBX cables at the existing console panel. Remove the panel from the console termination field.
- (2) Install the J58872EB-( ) List 2 or J58872EB-List 3 console key and lamp panels and the J58872ED- List 2 (DSS panel for single-console operation) or J58872EE- List 2 (DSS panel for multiconsole operation) panels in the required locations on the console termination field using suitable fastening devices.
- (3) Terminate the console mounting cord(s) at the new panels. If the console is to be located remote from the PBX switching cabinets, use double-ended extender cables if conduit is not required, or single-ended extender cables if cable must be run through conduit or cable-duct.
- (4) Reconnect the PBX cables to the new panels. Connect any added PBX cables to the new panels.
- (5) Provide the cross-connections as outlined in paragraph 2.21.
- (6) Perform operation tests with the new console as outlined in Section 553-201-200.

**C. Addition of 24-Type Console to Existing Single 24-Type Console**

**6.23** To add a 24-type console to an existing single 24-type console system for multiconsole operation:

(1) Install the J58872EB- panel on the console termination field using suitable fastening devices. Locate the added panel beside the existing panel (for ease of cross-connecting) with approximately 1-inch spacing between the panel edges.

(2) Terminate the mounting cord of the new console to the added panel. If the console is located remote from the termination field, use double-ended or single-ended extender cables as required.

(3) Remove the top and front covers of cabinets B and D. Open the equipment gates, and install the J58872EA- unit(s) in the space below the TOUCH-TONE receivers as shown in ED-1E330-01. Secure the unit(s) to the cabinet frame using No. 12-24 by 3/8-inch screws (P-353446 or 803534460) furnished with the unit(s).

**Note:** If the console being added is 24A8, an early production J58872EA- List 1 position select unit may be used which will be installed in cabinet B. If the console is 24B8, a current production position select unit which consists of two units (J58872EA List 2 for installation in cabinet B and J58872EA List 3 for installation in cabinet D) will be required.

(4) Locate the black ground wire on the J58872EA- unit(s), and route to the GRD BUS bar in the cabinet crown. Connect the wire to the MULT terminal of the bus bar.

(5) Locate and remove the following shorting plugs in the switching cabinets:

CAB. A  
G-AAAA  
H-AAAA  
J-AAAA

CAB. B  
G-ABAB  
H-ABAB  
J-ABAB  
L-BLBL-1  
N-BMBM-A  
O-BMBM-A  
L-BRBR  
N-BQBQ  
O-BQBQ

CAB. C  
G-ACAC  
H-ACAC  
J-ACAC

CAB. D  
G-ADAD  
H-ADAD  
J-ADAD  
L-BLBL-2  
N-BMBM-B  
OBMBM-B

(6) Locate the bridging adapters in the crown of cabinets B and D as provided, and disconnect the M-AA, M-AB, M-AC, and M-AD cables. Provide dust covers for the disconnected cables, and store by tying to existing cabinet wiring.

(7) Locate the following cables, if provided, at the console termination field, and disconnect from the key and lamp panel:

E-AATF/EA E-ABTF/EA

E-ACTF/EA K-ADTF/EA

(8) Using A25-type connector cables as necessary, extend the following cables from the switching equipment to the added J58872EA- unit(s) and connect to similarly designated connectors on the EA unit:

CAB. A

E-AATF/EA  
G-AAEA  
H-AAEA  
J-AAEA

CAB. B

E-ABTF/EA  
G-ABEA  
H-ABEA  
J-ABEA  
L-BLEA-A  
N-BMEA-A  
O-BMEA-A  
L-BREA  
N-BQEA  
O-BQEA

CAB. C

E-ACTF/EA  
G-ACEA  
H-ACEA  
J-ACEA

CAB. D

K-ADTF/EA  
G-ADEA  
H-ADEA  
J-ADEA  
L-BLEA-B  
N-BMEA-B  
O-BMEA-B

(9) Using A25-type connector cables as necessary, extend the following cables from the J58872EA-unit(s) to the similarly designated connectors on the termination field panels:

E-EATF-1A E-EATF-1B

E-EATF-2A E-EATF-2B

E-EATF-3A E-EATF-3B

K-EATF-A K-EATF-B

(10) If later production J58872EA List 2 and List 3 units are being installed, route the following cables from the List 2 unit in cabinet B and connect to similarly designated connectors on the List 3 unit in cabinet D:

A-EA2EA3

B-EA2EA3

C-EA2EA3

D-EA2EA3

**CAUTION:** All options of the J58872EA-units are shop wired after the units are factory tested. Provide the required option strapping by verifying

*or removing factory-placed straps on terminal strip A on the J58872EA-unit chassis (SD-1E323-01).*

(11) Install the AC15B or AC15C, AC30B, and AAC89 or AC326 circuit packs in the required locations on the equipment gate of cabinets A and C (ED-1E330-01).

(12) Perform the operation tests outlined in Section 553-201-200 as required to verify proper operation of the added console and position select circuit.

(13) Move the added console to the final customer-approved location, extending the mounting cords as necessary, with A25-, A50-, A75-, or A100-type connector cable. Retest the console to verify proper operation from the final installation location.

(14) When all connections and tests are complete, close the equipment gate of each cabinet and replace the top and front covers.

**D. Addition of 54-Type Console to Existing 54-Type Console**

**6.24** To add a 54-type console to an existing single 54-type console system for multiconsole operation:

(1) Install the J58872EB- panel on the console termination field using suitable fastening devices. Locate the added panel beside the existing panel (for ease of cross-connecting) with approximately 1-inch spacing between panel edges.

(2) Disconnect all cabling and cross-connections from the existing DSS panel (J58872ED-1). Remove the existing DSS panel from the console termination field.

(3) Install one J58872EE- panel on the console field, and secure by using suitable fastening devices. Locate the added panel below the key and lamp panel for ease of cross-connecting, leaving space between the panels for cable runs.

(4) Remove the top and front covers of each cabinet, and open each equipment gate to gain access to the rear cabinet frame and to the connected cables.

(5) Install the J58872EA- unit(s) in the space below the TOUCH-TONE receivers as shown in ED-1E330-01. Secure the units to the cabinet frame by using No. 12-24 by 3/8-inch screws (P-353446 or 803534460) furnished with the EA units.

**Note:** If the console being added is 54A8, an early production J58872EA List 1 position select unit, marked per Issue 25B of SD-1E330-01 (option XR), may be used which will be installed in cabinet B only. If the console being added is 54B8, a current production position select unit which consists of two units (J58872EA List 2 for installation in cabinet B and J58872EA List 3 for installation in cabinet D) will be required.



**Check the J58872EA unit for shock hazard change option per paragraph 3.10.**

- (6) Locate the black ground wire on the J58872EA-unit(s), and route it to the ground block in the crown of the cabinet(s). Connect the wire to the MULT terminal of the ground block.
- (7) Locate and remove the following shorting plugs in the switching cabinets:

<u>CAB. A</u>	<u>CAB. B</u>
G-AAAA	G-ABAB
H-AAAA	H-ABAB
J-AAAA	J-ABAB
	L-BLBL-1
	N-BMBM-A
	O-BMBM-A
	L-BRBR
	N-BQBQ
	O-BQBQ

<u>CAB. C</u>	<u>CAB. D</u>
G-ACAC	G-ADAD
H-ACAC	H-ADAD
J-ACAC	J-ADAD
	L-BLBL-2
	N-BMBM-B
	O-BMBM-B

(8) Locate the bridging adapters in the crown of cabinets B and D as provided, and disconnect the M-AA, M-AB, M-AC, and M-AD cables. Provide dust covers for the disconnected cables, and store by tying to existing cabinet wiring.

(9) Locate the following cables, if provided, at the console termination field, and disconnect from the key and lamp panel:

E-AATF/EA E-ABTF/EA

E-ACTF/EA K-ADTF/EA

(10) Using A25-type connector cables as necessary, extend the following cables from the switching equipment to the added J58872EA- unit(s) and connect to similarly designated connectors on the EA unit:

CAB. A

E-AATF/EA  
G-AAEA  
H-AAEA  
J-AAEA

CAB. B

E-ABTF/EA  
G-ABEA  
H-ABEA  
J-ABEA  
L-BLEA-A  
N-BMEA-A  
O-BMEA-A  
L-BREA  
N-BQEA  
O-BQEA

CAB. C

E-ACTF/EA  
G-ACEA  
H-ACEA  
J-ACEA

CAB. D

K-ADTF/EA  
G-ADEA  
H-ADEA  
J-ADEA  
L-BLEA-B  
N-BMEA-B  
O-BMEA-B

(11) Using A25-type connector cables, as necessary, extend the following cables from the J58872EA- unit(s) to the similarly designated connectors on the termination field panels:

E-EATF-1A E-EATF-1B

E-EATF-2A E-EATF-2B

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E-EATF-3A E-EATF-3B

K-EATF-A K-EATF-B

(12) If later production J58872EA List 2 and List 3 units are being installed, route the following cables from the List 2 unit in cabinet B and connect to similarly designated connectors and the List 3 unit in cabinet D:

A—EA2EA3

B—EA2EA3

C—EA2EA3

D—EA2EA3

**CAUTION:** All options of the J58872EA-units are shop wired after the units are factory tested. Provide the required option strapping by verifying or removing the factory-placed straps on terminal strip A on the J58872EA-unit chassis (SD-1E323-01).

(13) Install the AC15B or AC15C, AC30B, and AC89 or AC326 circuit packs in the required locations on the equipment gate of cabinets A and C (ED-1E330-01).

(14) Strap the M3A or dc connector block (top of J58872AA unit) per Table F, Note 2(b).

(15) Perform operations tests as outlined in Section 553-201-200 as required to verify proper operation of the added console and position select circuit.

(16) Move the added console to the final customer-approved location, extending mounting cords, as necessary, with A25-, A50-, A75-, or A100-type connector cable. Retest the console to verify proper operation from the final installed location.

(17) When all connections and tests are completed, close the equipment gate of each cabinet and replace the top and front covers.

### ADDING DSS

**6.25** To provide DSS in an existing system, add a J588722ED or J58872EE panel(s) to the console termination field and replace the console(s)

with a console equipped with a DSS field. See paragraph 6.24 for cable connections to new or added panels. Install the AC30B circuit pack in cabinet A (location AA0013) and cabinet C (location AC0344), as required, and perform the operations tests outlined in Section 553-201-200.

### EXPANDING DSS TO 270 LINES

**6.26** When a full 4-cabinet, 270-line system is provided and DSS is required for all station lines, a 1A1 selector console can be provided locally for use as an adjunct with the 54-type console. Provide a selector console at each attendant position, and connect its mounting cord to the connectors on the console panel(s). Perform operations test as outlined in Section 553-201-200 using the selector console(s).

### RECALL (STUTTER) DIAL TONE

**6.27** When Call Transfer—Individual feature circuits are provided and the Recall (Stutter) Dial Tone feature (options VA, ZF, and YM, SD-1E302-01, SD-1E305-01, and SD-1E330-01, respectively) has not been incorporated, it can be added into the system as follows.

**WARNING:** Refer to paragraph 3.02 when making wiring connections to the rear of the equipment gates. Use care to ensure the location of the proper terminal. After connections are made, use a meter to verify the terminations before applying power to the system.

(1) Open the equipment gate of each cabinet containing a register circuit to gain access to the carrier wiring.

(2) Using suitable cross-connecting wire and a KS-16363 List 1 wire-wrap tool or equivalent, place straps between the terminals of the AC76 and AC77 circuit pack connectors in each cabinet equipped with a register and stamp units with list and option as shown in Table M.

(3) Inspect the J58872AA gate in cabinet A for stamping bit A adjacent to J58872AA-2, option VR adjacent to SD-1E302-01, option ZL adjacent to SD-1E305-01, and option XV adjacent to SD-1E330-01. If the unit is not stamped as indicated, proceed to modify the AA unit as follows to make the Recall Dial Tone feature

TABLE M

WIRING MODIFICATION REQUIRED TO PROVIDE  
RECALL (STUTTER) DIAL-TONE FEATURE

CAB.	REG	FROM		TO		STAMPING	
		CONN LOC	TERM.	TERM	CONN LOC	J58872	SD
A	0	AA0307	A35	A4	AA0310	AA-2 List A, WA	SD-1E330-01 option YM
		AA0307	A40	B6	AA0310		
		AA0307	A36	11*	AA0241		
	1	AA0317	A35	A4	AA0320		
		AA0317	A40	B6	AA0320		
		AA0317	A36	A36	AA0307		
B	2	AB0212	A35	A4	AB0215	AB-2 List WB	
		AB0212	A40	B6	AB0215		
		AB0212	A36	A21	AB0200		
C	3	AC0307	A35	A4	AC0310	AC-2 List WJ	
		AC0307	A40	B6	AC0310		
		AC0307	A36	16*	AC0442		
	4	AC0317	A35	A4	AC0320		
		AC0317	A40	B6	AC0320		
		AC0317	A36	A36	AC0307		
D	5	AD0315	A35	A4	AD0318	AD-2 List D	
		AD0315	A40	B6	AD0318		
		AD0315	A36	A21	AD0300		

\* Terminal of 24-pin terminal strip adjacent to circuit pack connector.

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function from module B registers when the series feature J58872BN carrier is not equipped. Changes for the AC and BN units are covered in steps (4) and (5).

(a) If the unit is an AA-1 or an AA-2 not equipped with List A, position AA0345 terminal A34 is used to bridge two green surface wires. Remove the wires from the terminal, splice together, insulate, and store appropriately.

(b) Add green strapping wire SDTRQA\* lead:

From AA0317 Term. A36  
To AA0345 Term. A34

(c) Select a spare SDTRQB\* lead (color V-S) from the A-AAAC connector pin 50 from spares along the bottom edge of level 01 carrier. Verify continuity from pin 50 of the connector. Connect the SDTRQB\* lead (V-S) AA0345 terminal A13.

(d) Using the B stencil kit, stamp:

- “VR” in the option column adjacent to SD-1E302-01
- “ZL” in the option column adjacent to SD-1E305-01
- “XV” in the option column adjacent to SD-1E330-01.

(4) If cabinet C (module B) is furnished, inspect the J58872AC gate for stamping option ZL adjacent to SD-1E305-01 and option XV adjacent to SD-1E330-01. If the AC unit is not stamped as indicated, proceed as follows.

**Note:** If adding module B to a system equipped with Recall (Stutter) Dial Tone, Cabinet A must agree with step (3).

(a) Select a spare SDTRQB\* lead (color V-S) from the A-AAAC plug pin 50 from spares along the top edge of the level 03 carrier. Verify continuity from pin 50 of the plug. Connect the SDTRQB\* lead (V-S) to AC0317 terminal A36.

(b) Using the B stencil kit, stamp:

- “ZL” in the option column adjacent to SD-1E302-01
- “ZV” in the option column adjacent to SD-1E303-01.

(5) When a J58872BN unit is furnished with, or added to, cabinet C, inspect the unit for stamping option VR adjacent to SD-1E302-01 and option XV adjacent to SD-1E330-01. If the BN unit is not stamped as indicated, proceed as follows.

(a) Remove green strapping wire SDTRQB\* lead:

From BN0024 Term. A21  
To BN0035 Term. A5

(b) Remove the SDTRQB\* lead (color R-O), C-ACBN plug pin 32:

From BN0035 Term. A5 splice on and reterminate  
To BN0024 Term. A21

(c) Using the B stencil kit, stamp:

- “VR” in the option column adjacent to SD-1E302-01
- “XV” in the option column adjacent to SD-1E330-01.

(6) Verify wiring and lace the added straps and wiring to existing carrier wiring, as required.

(7) Close the equipment gates, refer to Table H for AC76B option strapping only, and replace the AC76 and AC77 circuit packs in each register with an AC76B and AC77B, respectively, to provide stutter dial tone.

(8) Perform operational tests of the added circuits as outlined in Section 553-201-200.

### ◆ ATTENDANT HOLD FEATURE (AC14B CIRCUIT PACK)

**6.28** This feature permits the attendant to place an incoming dial repeating tie trunk call on hold through the use of the AC14B circuit pack.

The AC14B circuit pack is a direct replacement for the AC14 circuit pack.⚡

**ELECTRONIC DIAL TIE TRUNKS**

**6.29** If the 2-way dial repeating tie trunks (electronic per SD-1E321-01) were not factory provided in the J58872BL or BM carrier unit and it is desired to add this feature to the system (option YO, SD-1E330-01), proceed as follows.

- (1) Open each equipment gate, containing a 2-way tie/auxiliary trunk circuit to be changed to an electronic tie trunk, to gain access to the carrier wiring.
- (2) Remove the three circuit packs (AC44, AC43, and AC45) from the carrier location of each 2-way auxiliary trunk (SD-1E319-01) to be replaced by an electronic tie trunk. Install an AC317 circuit pack in the second position (AC43), an AC318 in the third position (AC45), and, if the trunk is to be a 2-wire, an AC325 in the first position (AC44) of each trunk location being modified. If the trunk is to be a 4-wire, install an AC316 circuit pack in the first position (AC44).
- (3) Using suitable cross-connecting wire and a KS-16363 List 1 wire-wrap tool, or equivalent, and, referring to Table N for circuit pack connector locations, place straps between the circuit pack connectors of each changed trunk as follows:

CP	TERM.	TERM.	CP
AC318	B15	B24	AC317
AC318	B17	A39	AC317
AC316/325	B33	A5	AC317

- (4) If local TOUCH-TONE dial conversion equipment is required on outgoing calls, place the following straps between the circuit pack connectors of each changed trunk. Refer to Table N for connector locations.

CP	TERM.	TERM.	CP
AC316/325	B39	A17	AC317
AC316/325	B9	A18	AC317
AC316/325	A26	A12	AC317
AC316/325	A27	A13	AC317
AC316/325	B30	A11	AC317
AC317	B15	B39	AC317

- (5) If local TOUCH-TONE dial conversion equipment is required and the attendant console is equipped with a TOUCH-TONE dialing unit, locate the spare cable leads in the spare lead bundle of the designated cable and connect to the circuit pack connector terminal as shown in Table O.
- (6) Close the equipment gates, and refer to Table H for option strapping of the electronic tie trunk circuit packs.
- (7) If used in 4-wire operation, provide a 24V4 repeater, ordered separately, as shown in Section 553-201-202.

**Note:** The S1 screw on the 1-type terminating set must always be turned out when the 24V4 repeater is used with this tie trunk.

**ATTENDANT CONTROL OF STATION DIAL ACCESS TO TRUNK GROUPS**

**6.30** If Attendant Control of Station Dial Access to Trunk Groups feature (options YD and YR, SD-1E330-01) is to be provided, 24B8, 34B5, or 54B8 consoles and List 3 versions of the console termination field panels (J58872EB- List 3 and J58872EC- List 3) must be installed and cross-connections applied to the console panels. If not factory provided (SD-1E330-01, Issue 16 or later), the following wiring modification will be required to incorporate this feature into existing systems.

**Note:** This wiring modification provides for the use of three separate attendant control of station dial access to trunk group (TGR) keys as included in the 24B8 and 54B8 consoles. If fewer than three keys are required or if fewer than three cabinets are provided in the system, the cross-connections made on the console panel will determine the number

**TABLE N**  
**TWO-WAY DIAL REPEATING TIE TRUNK (ELECTRONIC)**  
**CIRCUIT PACK CONNECTOR LOCATIONS**

CAB.	TIE/AUX TRUNK	AC316/AC325	AC317	AC318
A* or B	0	BL0120	BL0123	BL0126
	1	BL0129	BL0132	BL0135
	2	BL0138	BL0141	BL0144
	3	BM0002	BM0005	BM0008
	4	BM0011	BM0014	BM0017
	5	BM0020	BM0023	BM0026
	6	BM0029	BM0032	BM0035
	7	BM0038	BM0041	BM0044
D	8	BL0120	BL0123	BL0126
	9	BL0129	BL0132	BL0135
	10	BL0138	BL0141	BL0144
	11	BM0002	BM0005	BM0008
	12	BM0011	BM0014	BM0017
	13	BM0020	BM0023	BM0026
	14	BM0029	BM0032	BM0035
	15	BM0038	BM0041	BM0044

\* Tie trunks may be located in crown of cabinet A if expanded trunk capacity is provided.

of TGR keys provided. The 34B5 console provides for only two TGR keys.



**When a 24B, 34B, or 54B console is provided, ensure that the factory-installed strap between D1 and D11 of terminal strip A on the J58872EB-List 3 or terminal strip B on the J58872EC-List 3 console panel is in place. This strap is to be removed only if multiple page key**

**operation is required and replaced if multiple paging is removed (option XO, SD-1E330-01).**

- (1) On the rear of terminal block TS(MA) in the service connection field of cabinet A, use bare wire to strap the following terminals: E11 to F11 to G11 to H11; E12 to F12 to G12 to H12; and E13 to F13 to G13 to H13 as shown in Fig. 11.

TABLE O

**CONNECTION OF SPARE CABLE LEADS TO PROVIDE LOCAL  
TOUCH-TONE TO DIAL PULSE CONVERSION WHEN  
TOUCH-TONE ATTENDANT CONSOLE IS REQUIRED**

CAB.	CABLE	CONN TERM.	COLOR	CONNECT TO	
				CONN LOC	TERM.
B	A-BLTF-1	7	(O-R)	BL0123	B35
		33	(R-G)	BL0132	B30
		8	(G-R)	BL0132	B35
		34	(R-BR)	BL0141	B30
		9	(BR-R)	BL0141	B35
	A-BMTF-1	7	(O-R)	BM0005	B35
		16	(BL-Y)	BM0014	B35
		24	(BR-V)	BM0023	B35
	B-BMTF-1	7	(O-R)	BM0032	B35
16		(BL-Y)	BM0041	B35	
D	A-BLTF-2	7	(O-R)	BL0123	B35
		33	(R-G)	BL0132	B33
		8	(G-R)	BL0132	B8
		34	(R-BR)	BL0141	B30
		9	(BR-R)	BL0141	B35
	A-BMTF-2	7	(O-R)	BM0005	B35
		16	(BL-Y)	BM0014	B35
		24	(BR-V)	BM0023	B35
	B-BMTF-2	7	(O-R)	BM0032	B35
		16	(BL-Y)	BM0041	B35

*Note:* If lead does not exist in spare lead bundle of designated cable, add a separate wire from circuit pack connector terminal to cable connector terminal.

(2) On front of terminal block TS(MA), stamp "TGR-1" adjacent to terminals E11-G11, "TGR-2" adjacent to terminals E12-G12, and "TGR-3" adjacent to terminals E13-G13.

(3) If cabinet C is provided, repeat steps (1) and (2) at terminal strip MC in the service connection field of cabinet C.

(4) Locate the carrier wiring (local wiring cable) associated with the equipment gate connectors and cables shown in Table P. Route the indicated

leads along existing carrier wiring, and connect each lead to the designated terminal.

*Note:* Leads may be found tied back into the cable spare lead bundle or cut back at the cable butt. In either event, splice out the leads as necessary to provide sufficient lead length.

(5) Using 24BW green wire (814620548), strap terminal E11 of (TS)MA in cabinet A to terminal B8 of the 908E connector associated

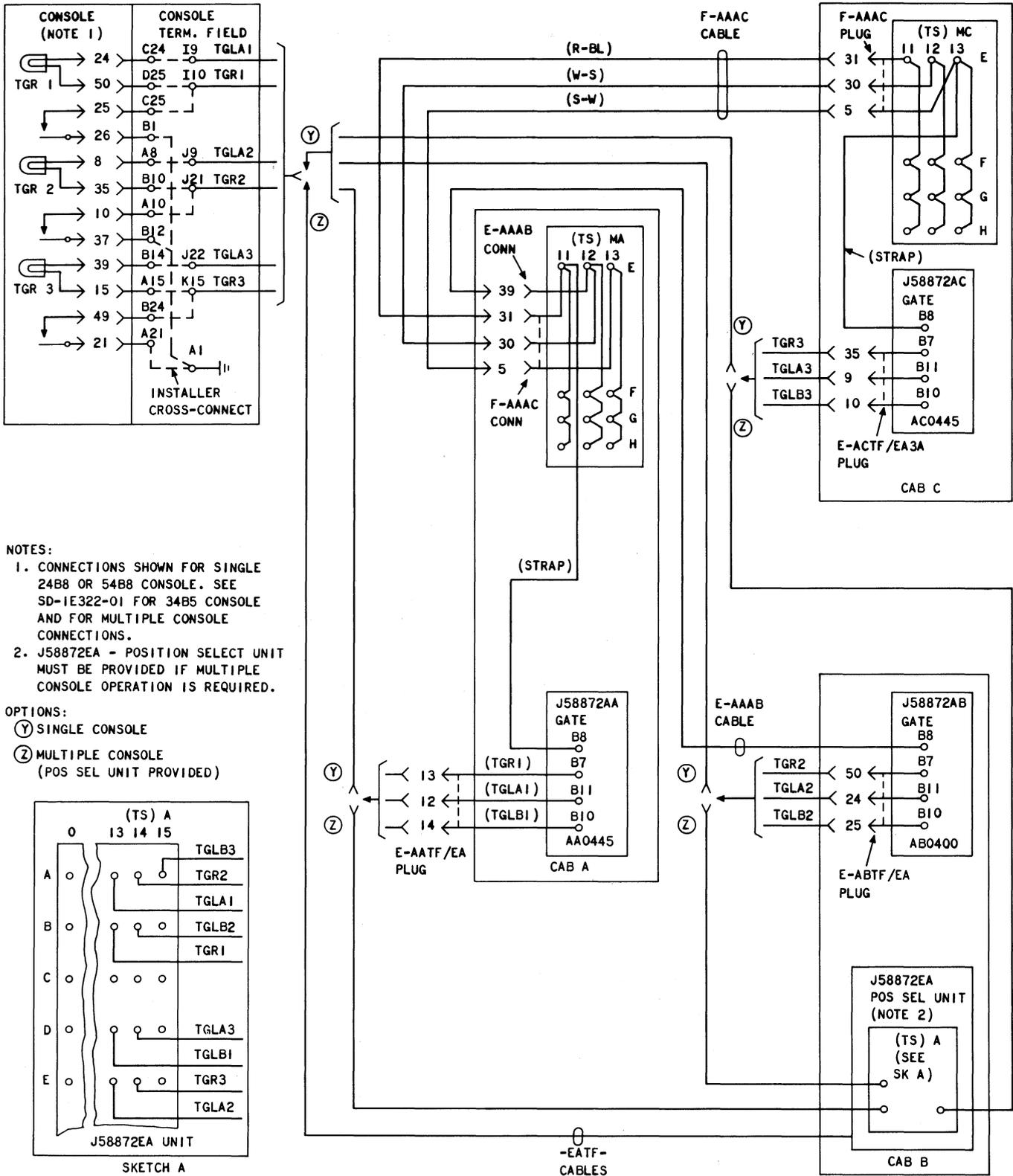


Fig. 11—Wiring Modification to Provide Attendant Control of Station Dial Access to Trunk Groups Feature

with the AC78 circuit pack in carrier location AA0445 as shown in Fig. 11.

(6) Verify that the BK-BR lead from pin 39 of the E-AAAB cable is terminated on terminal B8 of the 908E connector at location AB0400 in cabinet B. If the connection is not present, terminate this lead. See Table P and Fig. 11.

(7) Using 24BW green wire (814620548), strap terminal E13 of (TS)MC in cabinet C to terminal B8 of the 908E connector at carrier location AC0445 as shown in Fig. 11.

(8) At (TS)MC in cabinet A and (TS)MC in cabinet C, apply cross-connections required to strap the trunk group to the TGR- terminals in accordance with local engineering instructions. See Section 553-201-101 for information on applying service connection field straps.

(9) At the console termination field panel (key and lamp panel), apply cross-connections required to connect trunk groups to console key(s) as shown in Table Q.

(10) Verify all straps and wiring and lace the added wiring to existing wiring as necessary. Replace the AC78 circuit pack at locations AA0445, AB0400, AC0445, and AD0400 with an AC78B circuit pack.

(11) Designate the TGR- keys on the console, and perform operational test as outlined in Section 553-201-200.

**REORDER TONE**

**6.31** When the Reorder Tone feature (option YZ, SD-1E330-01) is to be provided, modifications must be made in existing cabinet wiring and updated circuit packs installed in the equipment carriers. To install this feature, proceed as follows.

(1) Obtain and install the following circuit packs:

REMOVE	REPLACE WITH	LOCATION
AC15B	AC15C	AA0300, AC0300
AC77	AC77B	Each Register
AC89	AC326	AA0200, AC0200
AC4	AC4, Iss 11	AA0331
AC7B	AC7B, Iss 11	AA0337
AC36	AC36, Iss 7	Each Station Dial Transfer Circuit
AC35B	AC35B, Iss 11	BK0032

TABLE P

**WIRING MODIFICATION TO PROVIDE ATTENDANT CONTROL  
OF STATION DIAL ACCESS TO TRUNK GROUPS FEATURE**

CAB.	LOCAL WIRING CABLE	LEAD COLOR	CONNECT				CONN LOCATION	LEAD AND TERM. DESIG
			FROM		TO			
			CONN/PLUG	PIN	CONN	TERM.		
A	F-AAAC	R-BL W-S S-W	Conn	31 30 5	(TS)MA	E11 E12 E13	AA05—	TGRA1 TGRA2 TGRA3
	E-AAAB	BK-BR	Conn	30	(TS)MA	E12	AA05—	TGRA2
	E-AATF/EA	G-BK O-BK BR-BK	Plug	13 12 14	908E	B7 B11 B10	AA0445	TGR1 TGLA1 TGLB1
B	E-ABTF/EA	V-S S-V BR-V	Plug	50 25 24	908E	B7 B10 B11	AB0400	TGR2 TGLB2 TGLA2
C	F-AAAC	R-BL W-S S-W	Plug	31 30 5	(TS)MC	E11 E12 E13	AC05—	TGRA1 TGRA2 TGRA3
	E-ACTF/EA	R-S BR-R S-R	Plug	35 9 10	908E	B7 B11 B10	AC0445	TGR3 TGLA3 TGLB3
B	E-AAEA	O-BK G-BK BR-BK	Plug	12 13 14	(TS)A	A13 B13 D13	*	TGLA1 TGR1 TGLB1
	E-ABEA	BR-V V-S S-V	Plug	24 50 25	(TS)A	E13 A14 B14	*	TGLA2 TGR2 TGLB2
	E-ACEA	BR-R R-S S-R	Plug	9 35 10	(TS)A	D14 E14 A15	*	TGLA3 TGR3 TGLB3

\* Position select unit mounted on rear frame of cabinet B in multiple console system.

**TABLE Q****STRAPPING ADDITIONS TO PROVIDE  
REORDER TONE FEATURE**

CAB.	PLACE STRAP			
	FROM		TO	
	LOCATION	TERM.	LOCATION	TERM.
A	AA0335	B10	AA0320	A13
	AA0320	A13	AA0310	A13
	AA0310	A13	AA0200	A36
	AA0331	A6	AA0200	A35
	AA0200	B39	AA0200	B37
	AA0335	B24	AA0200	A14
	AA0200	A33	AA0200	B28
	AA0200	B38	AA0335	B2
	AA0335	B27	AA0200	A30
	AA0200	A16	AA0333	A14
	AA0331	B11	AA0200	A40
	AA0331	B10	AA0200	A37
	AA0310	B13	AA0200	A17
	AA0331	B14	AA0200	A18
	AA0331	B34	AA0200	A13
	AA0320	B31	AA0200	A12
	AA0200	A12	AA0310	B31
	AA0214	A3	AA0200	A34
	AA0200	A34	AA0114	A3
	AA0211	A31	AA0320	A33
	AA0320	A33	AA0310	A33
	AA0310	A33	AA0200	B16
	AA0200	B16	AA0111	A31
	AA0200	A10	AA0300	B31
AA0300	A7	AA0200	A32	
B	AB0227	A31	AB0215	A33
C	AC0320	A13	AC0310	A13
	AC0211	A31	AC0320	A33
	AC0320	A33	AC0310	A33
	AC0310	A33	AC0200	B16
	AC0200	B16	AC0111	A31
	AC0200	A10	AC0300	B31
	AC0300	A7	AC0200	A32
D	AD0318	A33	AD0211	A31

- (2) Remove straps between the 908E connector terminals as shown in Table R.

**TABLE R****WIRING DELETIONS REQUIRED TO PROVIDE  
FOR INSTALLING REORDER TONE FEATURE**

CAB.	REMOVE THE FOLLOWING STRAPS			
	FROM		TO	
	CONN	TERM.	CONN	TERM.
A	AA0331	A6	AA0335	B10
	AA0335	B24	AA0200	B37
	AA0335	B2	AA0200	B28
	AA0331	B11	AA0333	A14
	AA0320	B31	AA0310	B31
	AA0214	A3	AA0114	A3
	AA0211	A31	AA0111	A31
	C	AC0211	A31	AC0111

- (3) Using 24BU wire of the required color, add the following leads from the carrier interunit cable connector designated to the 908E connectors on the carrier. Route the added wire along the existing carrier wiring, and connect to the terminal indicated.

In CAB. A Carrier AA  
 Add a BK-BL Wire  
 From Conn B-AAAB, Pin 36  
 To Conn AA0335 Term. B10  
  
 Add a V-O Wire  
 From Conn A-AAAC, Pin 47  
 To Conn AA0200 Term. A36

In CAB. B Carrier AB  
 Add a BK-BL Wire  
 From Conn B-AAAB, Pin 36  
 To Conn AB0215 Term. A13

In CAB. C Carrier AC  
 Add a V-O Wire  
 From Conn A-AAAC, Pin 47  
 To Conn AC0320 Term. A13  
  
 Add a BL-V Wire  
 From Conn C-ACAD, Pin 21  
 To Conn AC0310 Term. A13

In CAB. D Carrier AD  
 Add a BL-V Wire  
 From Conn C-ACAD, Pin 21  
 To Conn AC0318 Term. A13

See Note.

**Note:** These leads may be factory provided in the cable and dead-ended (tied back) at one or both ends of the cable. If available in the cable, terminate both ends, splicing the leads as necessary to obtain sufficient lead length. If not available in the cable, run a separate lead.

(4) Locate the following connector cable leads in cabinet A, and disconnect from the 908E connector on the carrier. Route the lead to the new location, splice out if necessary, and reconnect to the terminal indicated. Dress the black-slate lead from location AA0333, terminal A36 into the spare lead bundle, and tie to the existing cable leads.

Move V-G Lead of  
 C-AAAB, Pin 48  
 From Conn Loc AA0310  
 Term. B13  
 To Conn Loc AA0200  
 Term. A17

Move VG Lead of  
 B-AAAC, Pin 48  
 From Conn Loc AA0335  
 Term. B2  
 To Conn Loc AA0200  
 Term. A33

Move BK-O Lead of  
 D-AAAC, Pin 37  
 From Conn Loc AA0331  
 Term. B14  
 To Conn Loc AA0200  
 Term. A18

Move W-S Lead of  
 DAABK, Pin 30  
 From Conn Loc AA0335  
 Term. B27  
 To Conn Loc AA0200  
 Term. B40

Move O-BK Lead of  
 B-AABL, Pin 12  
 From Conn Loc AA0335  
 Term. B24  
 To Conn Loc AA0200  
 Term. B39

Move BR-BK Lead of  
 B-AABL, Pin 14  
 From Conn Loc AA0331  
 Term. B34  
 To Conn Loc AA0200  
 Term. A13

Disconnect BK-S Lead of  
 H-AAEA, Pin 40  
 From Conn Loc AA0333  
 Term. A36

Move V-BL Lead of  
 J-AAEA, Pin 46  
 From Conn Loc AA0333  
 Term. A28  
 To Conn Loc AA0200  
 Term. A15

(5) Using 24BW green wire (814620548), apply surface wiring straps as shown in Table S. Route the straps along the existing carrier wiring when wiring between connectors is on different carrier levels.

(6) Verify all wiring and strapping and lace the added wiring to existing cabinet wiring, as necessary. Refer to ED-1E330-01, and apply the required option strapping to the added circuit packs in each cabinet.

(7) Perform operation tests outlined in Section 553-201-200 to verify functioning of the Reorder Tone feature.

**TWO-WAY CO TRUNK FOR PROVIDING OUTGOING CALL TRANSFER, ATTENDANT LOCKOUT AND STANDARD FLASH, AND DISCONNECT TIMING**

**6.32** When the Outgoing Call Transfer feature and/or attendant lockout is required, 2-way CO trunks per SD-1E325-01 must be provided which require replacement of circuit packs in the equipment gates, as well as wiring changes on the carriers. If the feature is required, proceed as follows.

**TABLE S**

**STRAPPING ADDITIONS TO PROVIDE REORDER TONE FEATURE**

CAB.	PLACE STRAP				
	FROM		TO		
	LOCATION	TERM.	LOCATION	TERM.	
A	AA0335	B10	AA0320	A13	
	AA0320	A13	AA0310	A13	
	AA0310	A13	AA0200	A36	
	AA0331	A6	AA0200	A35	
	AA0200	B39	AA0200	B37	
	AA0335	B24	AA0200	A14	
	AA0200	A33	AA0200	B28	
	AA0200	B38	AA0335	B2	
	AA0335	B27	AA0200	A30	
	AA0200	A16	AA0333	A14	
	AA0331	B11	AA0200	A40	
	AA0331	B10	AA0200	A37	
	AA0310	B13	AA0200	A17	
	AA0331	B14	AA0200	A18	
	AA0331	B34	AA0200	A13	
	AA0320	B31	AA0200	A12	
	AA0200	A12	AA0310	B31	
	AA0214	A3	AA0200	A34	
	AA0200	A34	AA0114	A3	
	AA0211	A31	AA0320	A33	
	AA0320	A33	AA0310	A33	
	AA0310	A33	AA0200	B16	
	AA0200	B16	AA0111	A31	
	AA0200	A10	AA0300	B31	
	AA0300	A7	AA0200	A31	
	B	AB0227	A31	AB0215	A33
	C	AC0320	A13	AC0310	A13
AC0211		A31	AC0320	A33	
AC0320		A33	AC0310	A33	
AC0310		A33	AC0200	B16	
AC0200		B16	AC0111	A31	
AC0200		A10	AC0300	B31	
	AC0300	A7	AC0200	A32	
D	AD0318	A33	AD0211	A31	

(1) Remove the one-way outgoing CO trunk (SD-1E306-01) circuit packs from the following locations in the cabinets, if provided:

CAB.	LOCATION	CAB.	LOCATION
A	AA0241	C	AC0241
	AA0244		AC0244
	AA0141		AC0141
	AA0144		AC0144
B	AB0341	D	AD0241
	AB0344		AD0244
	AB0241		
	AB0244		

(4) Using 24BW green wire (814620548), apply surface wiring straps between the 908E connectors of each changed CO trunk position as shown in Table T.

**TABLE T**  
**STRAPPING ADDITIONS REQUIRED AT EACH TWO-WAY CO TRUNK LOCATION TO PROVIDE OUTGOING DIAL TRANSFER FEATURE PER SD-1E325-01**

CONNECTOR POS 1	CONNECTOR POS 2	CONNECTOR POS 3
A32 ○	A33 ○	B9 ○
	A12 ○	B37 ○
		B36 ○
B31 ○	A4 ○	A25 ○
	A27 ○	A17 ○
	A30 ○	B39 ○
		B38 ○
B32 ○	B11 ○	
B33 ○		B19 ○
B34 ○		A2 ○
	A2 ○	A23 ○



*When the Outgoing Dial Transfer feature is provided (SD-1E325-01), one-way outgoing only CO trunks (SD-1E306-01) cannot be provided.*

(2) Obtain one each of AC327, AC328, and AC329, AC330, AC331, or AC332 circuit packs for each 2-way CO trunk per SD-1E325-01 to be provided in the system and, referring to Table H strap each circuit pack for the required options.

(3) At each existing 2-way CO trunk location in the cabinets which are to be replaced by a 2-way CO trunk with the Outgoing Dial Transfer feature, remove the circuit pack from all three CO TRK slots. Replace with an AC327 circuit pack in the first position, an AC328 circuit pack in the second position, and one of the following circuit packs in the third position of each CO TRK locations:

TO PROVIDE SERVICE FEATURE			
SERVICE SERIES	WITH FLEX NIGHT W/O TOLL DENIED	WITH OR WITHOUT FLEX NIGHT, WITH TOLL DENIED	W/O FLEX NIGHT, W/O TOLL DENIED
100	AC329	AC332	AC330
200	AC329	AC332	AC330
300	AC331	AC332	AC330

(5) Provide trunk grouping and dial code assignment strapping on the service option field in accordance with local engineering instructions. If all 2-way CO trunks in the system are not changed, separate trunk groups and access codes will be required for each type CO trunk.

(6) Verify all connections and option strapping, and perform operational tests of each changed trunk in accordance with Section 553-201-200.

**6.33** Using the B stencil kit, change the SD numbers and option record on the option

record cards of each equipment gate as necessary to reflect current equipment issues and strapping.

**6.34** Obtain the top and front covers from the storage area, and install on each cabinet. If cabinet A was modified for expanded trunk capacity, install the top cover assembly (841561798) as shown in Fig. 10 and snap the cover assembly (841561848) into place. Check the front cover of each cabinet to ensure that it is properly aligned and firmly latched on the cabinet. If alignment is required or latches do not engage securely (cover feels loose or can be pulled off with minimum effort), adjust the cover per the latch adjustment described in Part 2.

#### ONE-WAY INCOMING OR 2-WAY CO TRUNK

**6.35** The following notes are associated with the use of CO trunk circuits per SD-1E015-01/02 and SD-1E325-01. These notes should be referenced when additional information on CO trunk operation is required.

- (1) For connections to an ESS- or SXS-type central office where toll denial capability is required, provide either of the following:
  - (a) An AC63B circuit pack per SD-1E015-02
  - (b) An AC63 circuit pack per SD-1E015-01, Issue 17 or later
  - (c) A CO trunk circuit per SD-1E325-01.
- (2) For connections to an ESS central office where through-dial capability is required, provide an AC63B circuit pack equipped with option ZY or equip the CO trunk circuits per SD-1E325-01.



***If the PBX is to be served incoming by a No. 1 ESS CO which is equipped with custom-calling features, a line applique (SD-1A297-01) must be used at the CO in each PBX-CO trunk facility. The line applique circuit is not required when the 801A PBX is equipped entirely with CO trunk circuits per SD-1E325-01.***

#### ♦MODIFICATION OF CO TRUNKS FOR COMPATIBILITY WITH "TOUCH-A-MATIC" REPERTORY DIALERS

**6.36** The following notes are associated with the modification of CO trunks modified for compatibility with TOUCH-A-MATIC repertory dialers.

- (a) For one-way incoming or 2-way CO trunk circuit, see SD-1E307-01.
- (b) For one-way incoming or 2-way CO trunk circuit with outgoing transfer, see SD-1E325-01.
- (c) For one-way outgoing CO trunk circuit, see SD-1E306-01.♦

#### 7. AVAILABLE TEST INSTRUMENTS

**7.01** The following test instruments are available (through local purchase order) to support a maintenance program which includes installation, repair, and testing of the 801A PBX.

- Ferreed Switch Test Set by Zia Associates, Inc
- Central Office Trunk Simulator by Zia Associates, Inc
- Pulse Link Test Set by Zia Associates, Inc
- 226A Extender Board by WECO.

#### 8. REFERENCES

**8.01** The following sections are associated with the 801A PBX and should be referenced when additional information or testing procedures are required:

SECTION	TITLE
981-706-100	801A Private Branch Exchange—General Descriptive Information
553-010-301	System Status Indicator Application 800A and 801A PBXs
553-010-310	Tie Trunk SD-1E076-01 and SD-1E321-01 Pulsing Tests and Requirements Using Pulse Signaling Test Set TTS-26B for 800A and 801A Electronic Type PBXs

**SECTION 553-201-205**

553-201-100	Preinstallation Information—801A PBX (Equipped with Quick-Connect Type Service Connect Field)	984-515-100	Traffic Measurement System No. 1A—General Description
553-201-101	Preinstallation Information—801A PBX (Equipped with Wire-Wrap Type Service Connect Field)	999-200-136	Attendant Operating Instructions—24-Type Console—801A PBX
553-201-201	TOUCH-TONE Calling Equipment—Identification, Installation, and Connections—801A PBX	999-200-137	Attendant Operating Instructions—34- and 35-Type Consoles—801A PBX
553-201-202	Auxiliary Equipment—Identification, Installation, and Connections	<b>8.02</b> The following schematic drawings are associated with the 801A PBX and are included in Information Binder H601-008, Groups 1 and 2. They should be referenced when additional information on circuit operation and option strapping is desired.	
553-201-300	Attendant and Station Equipment—Method of Operation—801A PBX		
553-201-301	Trouble-Locating Procedures—801A PBX	<b>SD-1E</b>	<b>TITLE</b>
553-201-501	◆Loudspeaker Paging Trunk Circuit SD-65747-01—Operation Tests◆	◆300-01, Iss 5	System Application
473-121-520	3A Code Call System—Operation Test	301-01, Iss 8	Switching Network and Network
473-130-501	Recorded Telephone Dictation Trunk	302-01, Iss 24	Common Control
463-332-110	◆Recorded Telephone Dictation Trunk Circuit DCT PBX and Key Telephone Applications	303-01, Iss 4	Auxiliary Line Circuit
463-332-120	Interface Circuit—DCW◆	304-01, Iss 4	Line Circuit
534-364-501	Tie Trunk Circuits SD-65718-01, SD-65718-02, and SD-66799-01—Pulsing Tests and Requirements Using Pulse Repeating Test Set SD-31667-01 (J34720A) and Pulse Test Set SD-31481-01 (J34717A) PBX Systems	305-01, Iss 15	Register Circuit
534-364-502	Tie Trunk Circuits SD-65718-01—SD-65718-02, and SD-66799-01—Pulsing Tests and Requirements Using 2B-1 Signaling Test Set SD-56134-02 (J64730B) and Associated Pulse Repeating Adapter SD-56134-01 (J64730D)—PBX Systems	306-01, Iss 6	One-Way Outgoing Central Office Trunk
		307-01, Iss 10	One-Way Incoming or Two-Way Outgoing Central Office Trunk
		308-01, Iss 5	Attendant Trunk
		309-01, Iss 6	Attendant Position
		310-01, Iss 5	Busy Tone Trunk
		311-01, Iss 4	Intercommunicating Trunk
		312-01, Iss 12	Fuse, Alarm, Emergency Transfer, and Test Circuit
		313-01, Iss 4	Attendant Controlled Conference
		314-01, Iss 4	Attendant Direct Station Selection
		315-01, Iss 4	Camp-On

316-01, Iss 10 Station Dial Transfer  
 317-01, Iss 5 Dial Conference  
 318-01, Iss 5 Ringdown Tie Trunk  
 319-01, Iss 7 Two-Way Auxiliary Trunk  
 320-01, Iss 5 One-Way Outgoing Auxiliary Trunk  
 321-01, Iss 4 Dial Repeating Tie Trunk  
 322-01, Iss 8 Attendant Console  
 323-01, Iss 13 Position Select  
 324-01, Iss 9 Ringing and Tone Supply  
 325-01, Iss 6 One-Way Incoming or Two-Way Central Office Trunk Circuit With Call Transfer

330-01, Iss 26 System Interconnection  
 290-01, Iss 4 Emergency Transfer Circuit

SD-	TITLE
81743-01, Iss 17	Power Supply Circuit
82116-01, Iss 5	Power Supply Circuit

**8.03** The following equipment drawing is associated with the 801A PBX and may be referenced for information on equipment layout, cabling, and cross-connections.

ED-1E	TITLE
330-01, Iss 8	System Equipment Information