

AUXILIARY EQUIPMENT
IDENTIFICATION, INSTALLATION, AND CONNECTIONS
801A PBX

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| | RECORDED TELEPHONE DICTATION TRUNK J58827E | 7 | 1. GENERAL | |
| | INTERFACE TRUNK J58824CD | 8 | 1.01 This section provides information for the following equipment when installed in the 801A PBX: | |
| | TIE TRUNK J58824AT OR L | 8 | (a) Tie trunk unit J58824BC-2, BY, or CF | |
| | LOUDSPEAKER PAGING TRUNK J58829W | 8 | (c) 3A code call unit J58822B | |
| | INTERCONNECTING UNIT J53050F | 8 | (c) Recorded telephone dictation trunk unit J58827E | |

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- (d) Interface trunk unit J58824CD
- (e) Tie trunk unit J58824AT or L
- (f) Loudspeaker paging trunk unit J58829W
- (g) TOUCH-TONE calling receiver, A3, J99289A and B
- (h) TOUCH-TONE calling receiver, Type C, J58844A
- (i) E6 Repeater unit J58824CL
- (j) 24V4 Repeater unit J98615C
- (k) Interconnecting unit J53050F
- (l) Two-way dial repeating tie trunk (electronic) SD-1E321-01

1.02 This section is reissued to include connection information for equipment mounted in the auxiliary cabinet required when the 2-way dial repeating tie trunk (electronic) per SD-1E321-01 is provided.

1.03 The equipment units covered in this section, with the exception of the 2-way dial repeating tie trunk (electronic) per SD-1E321-01, are arranged on relay-rack type mountings and are intended for installation on the 23-inch mounting facilities behind the equipment gates of the 801A PBX cabinets, in a separate auxiliary cabinet, or on an external relay rack mounting arrangement. The 2-way dial repeating tie trunk (electronic) per SD-1E321-01 is contained on plug-in circuit packs intended for installation in the equipment gates of the basic PBX cabinets and requires additional auxiliary equipment only when repeaters are required or when a local TOUCH-TONE® to dial pulse conversion arrangement is installed.

1.04 When tie trunk circuits other than the 2-way dial repeating tie trunk (electronic) per SD-1E321-01 or when loudspeaker paging trunk circuits are installed, connections are required to a PBX 2-way auxiliary trunk circuit. Refer to Section 553-201-200 for installation and service options required for the 2-way auxiliary trunk.

1.05 When a 3A code call or an interface trunk is installed, connections are required to two PBX 2-way auxiliary trunks connected for the same

access code. When voice answer-back or called party answer is provided, two auxiliary line circuits are also required. Refer to Section 553-201-200 for connections and service options of the 2-way auxiliary trunks and auxiliary line circuits.

1.06 When the recorded telephone dictation trunk is installed, connections are required to the PBX one-way auxiliary trunk. Refer to Section 553-201-200 for service options required.

1.07 This issue of the section is based on the drawings listed in Part 7. If this section is to be used with equipment on 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. IDENTIFICATION

2.01 Table A is provided as an equipment summary to assist in the identification of the equipment units, which require 23-inch relay-rack type mounting facilities. The 2-way dial repeating tie trunk (electronic) per SD-1E321-01 is not included in Table A as it is designed for plug-in installation in the basic cabinets; however, the J58847AU is included as it must be used to provide access to TOUCH-TONE conversion equipment.

3. INSTALLATION

AUXILIARY CABINET (Fig. 1)

3.01 Uncrate the cabinet as follows:

- (1) Using nail puller, remove front cover of shipping container.
- (2) Remove three loose wooden shipping details.
- (3) Remove nails securing back and side covers of shipping container to the base (skid).
- (4) Lift remaining shipping container 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.

Note: Due to its size and weight, it is recommended that mechanical means be used when moving auxiliary cabinet.

- (6) Place uncrated cabinet as near its final installed position (left side of cabinet A) as possible before removing from skid.
- (7) Remove top (Fig. 2) and front cover (Fig. 1). Place covers in suitable storage area until installation is completed.
- (8) Inspect interior of cabinet for damaged, loose, or missing components. If damage is found, refer to local instructions for handling.
- (9) Using tin snips, or equivalent device, remove the two banding straps and remove cabinet from skid (Fig. 1).

3.02 Remove the six button-plugs and cable entrance cover on the left side of cabinet A and on the right side of the auxiliary cabinet.

Note: Do not route cables through the entrance hole in the right side of the auxiliary cabinet as this will cause binding of rack 3 when equipment is mounted on this rack.

3.03 Referring to the system floor plan, position the auxiliary cabinet in its assigned location. Using bench level and locally provided hardwood shims, level and position the auxiliary cabinet until holes for bolting cabinets together are properly aligned.

3.04 Use the four hex head cap screws, four flatwashers, four lockwashers, and four hexnuts, from the cloth bag located in the auxiliary cabinet, to bolt the auxiliary cabinet to cabinet A at the top and two bottom holes from which the button-plugs have been removed.



Do not use bolts to pull cabinets together.

3.05 When wiring or installing equipment in the auxiliary cabinet, the rack locking bolt, located at the bottom front of each slide, must be removed (Fig. 2).

Caution: A mechanism is provided at the base of the slides to prevent more than one rack from being extended at a time. Do not attempt to modify this mechanism as this may cause undue strain on the auxiliary cabinet or cause it to tip.

GROUNDING AND POWER (Refer to ED-1E330-01.)

3.06 Ground the auxiliary cabinet as follows:

- (1) Locate the 10-gauge ground wire stored coiled in the crown of the cabinet. One end of the ground wire is connected to the circuit ground distribution block (CGDB) in the cabinet.
- (2) Route the ground wire across the top of cabinet A and make connection to the CGDB in cabinet A.

3.07 When an auxiliary power supply is provided in the auxiliary cabinet, locate the power cord, and route through the cable cover (Fig. 2) attached to rack 1, across the top of the auxiliary cabinet and cabinet A. Place the power plug close to the ac distribution receptacle in cabinet A. **Do not insert plug into ac distribution receptacle at this time.**

3.08 When the auxiliary power supply and fuse panel are shipped loose, mount the auxiliary fuse panel in the first position on rack 1 (Fig. 2). Mount the auxiliary power supply directly beneath the auxiliary fuse panel. Locate two 8-foot, 10-gauge (stranded), black ground wires shipped with the power supply. Connect one wire to TS(2) terminal 2 on the power supply. Connect the other wire to the ground lug on the power supply. Connect the other ends of both ground wires to the CGDB at the top of the auxiliary cabinet. Locate the red battery wire shipped with the auxiliary fuse panel. Connect one end to the power bus terminal on the fuse panel and the other end to TS(2) terminal 1 on the power supply. Locate the black ground wire shipped with the fuse panel. Connect one end to the ground bus terminal on the fuse panel and the other end to TS(2) terminal 2 on the power supply. Route the power cord through the cable cover, across the top of the auxiliary cabinet and cabinet A, and place the power plug in proximity to the ac distribution receptacle in cabinet A. **Do not insert plug into ac distribution receptacle at this time.**

AUXILIARY TERMINATION FIELD

3.09 When the auxiliary termination field is provided on the left side of the auxiliary cabinet (Fig. 2) and it is desired to wall mount the field, remove the auxiliary termination field cover; then, remove the four steel hex nuts attaching the auxiliary termination field panel to the side of the auxiliary cabinet. Wall mount the auxiliary termination field panel on suitable backboard material using appropriate fastening devices.

Warning: *To prevent injury to personnel, replace the auxiliary termination field cover on the auxiliary termination field, remove the kick-plate, and dispose of hardware per local instructions.*

3.10 When the auxiliary termination field is ordered without the auxiliary cabinet, or colored backboards are locally provided, mount them on suitable backboard material using appropriate fastening devices.



The auxiliary termination field shall be located so that the cable length to cabinet A is less than 20 feet.

3.11 When additional backboards are required, hardware is provided with the auxiliary cabinet for mounting on the side of the auxiliary cabinet.

AUXILIARY EQUIPMENT

3.12 Each of three racks in the auxiliary cabinet provides 47 inches of 23-inch mounting space. Refer to Table B to determine which equipment units may be mounted on each rack.

3.13 In preparing to install the miscellaneous equipment, perform the following:

- (a) Unpack the equipment units at the installation site.
- (b) Check that all units are provided as ordered and are free from damage.

Any damage noted should be handled per local instructions.

3.14 Install the miscellaneous equipment in the auxiliary cabinet, in the back of cabinet B or D, or on a relay rack with the hardware provided with each equipment unit. Special consideration should be given to the following equipment units:

(a) When tie trunk J58824BC is provided and requires the J58824BY unit, mount the J58824BY unit directly below the J58824BC unit. Stamp SD-65718-01 on the J58824BY unit as indicated in Fig. 3. When the J58824BC unit is used as a 2-wire trunk, stamp the list numbers for the transformer and equipment provided in the space indicated in Fig. 4. When the J58824CF unit is used as a 2-wire trunk (List 7) or 4-wire trunk (List 8), stamp list numbers of added components as shown in Fig. 4. Stamp the equipment units using a transfer stencil Kit B.

(b) When 3A code call (J58822B-2) is provided and signaling on 2-second cycles is required, install TA and TB relays on the J58822B-2, List 1, 8, 9, or 10 code sending unit and wire unit as shown in Fig. 5.

(c) Install the J58822B-2, List 5 code terminal unit(s) and allow space to mount the J58822B-2, List 1, 8, 9, or 10 code sending unit directly below the terminal unit(s).

(d) When the PBX is equipped with TOUCH-TONE calling, install the J58822B-2, List 14 or 15 TOUCH-TONE converter unit.

(e) When recorded telephone dictation trunk J58827E, List 1 (rotary dial) and List 2 (TOUCH-TONE dial) are provided, mount the List 2 unit beneath the List 1 unit. When the List 3 unit (2-way sleeve repeater) is provided, mount beneath List 1 unit or beneath List 2 unit, if provided.

(f) When the loudspeaker paging trunk J58829W, List 1 is provided and one-way transmission is required, mount the List 3, isolation amplifier and components on the List 1 unit in the positions indicated in Fig. 6 and connect as shown in Fig. 7.

(g) When customer-provided equipment must be connected to the PBX circuits and dial access to the equipment is required, install the J53050F interconnecting unit.

3.15 If TOUCH-TONE calling is provided and the TOUCH-TONE calling receiver unit J99289B is to be installed, attach a locally provided cable (ie, 6-pair D-inside wiring cable) to TS(G) row A on the J99289A, List 1 mounting shelf (Fig. 8). The shelf provides a mounting position for two TOUCH-TONE calling receivers (J99289B). If the receiver shelf is to be equipped with a second receiver, attach a locally provided 6-pair D-inside wiring cable to TS(G) row B (Fig. 8) before mounting the receiver shelf in the auxiliary cabinet. Connect other ends of D-inside wiring cable as indicated by figure references.

UNIGAUGE AND TIE TRUNK REPEATER APPLICATIONS

3.16 To assemble and adjust the E6 repeater J99253A, List 1, refer to Section 332-206-100.

3.17 Up to six E6 repeaters may be mounted in repeater connecting unit J58824CL. This unit also provides for power failure transfer which bypasses the repeater, making a transfer of the cable pair to the central office or distant PBX (2-wire dial repeating tie trunk). P-205725 studs are required for installation or whenever a 2-inch offset is required due to space limitations.

3.18 Individual plug-in components of the 24V4-type repeater should be ordered and installed per local requirements. When central office cable pairs are assigned to emergency transfer stations, under failure conditions, any 24V4-type repeater assigned to that cable pair must be provided with power failure transfer capabilities. The 24V4D repeater shelf J98615BL, List 1 provides this feature.

3.19 The 872A Line Build-Out (LBO) network plugs into a 910A connector. The ED-1C381-30, Group 2 mounting plate provides 20 connectors and requires 2-inches of a 23-inch mounting space. Before mounting, refer to Fig. 9 for connections.

3.20 The 837D LBO network is a can-type, stud-mounted component that mounts on key telephone system mounting bars or on a 4-inch high panel. Adapters or brackets required to mount the 837D LBO network in a 23-inch mounting space must be provided locally.

3.21 Unigauge in the 801A PBX does not provide for repeating 20 Hertz ringing to those stations assigned for night connections or designated as emergency transfer stations. Operation of more

than two ringers in parallel, on night connections, when the central office ringing signal is insufficient must be locally engineered.

CENTRALIZED TOUCH-TONE CONVERSION EQUIPMENT

3.22 When the 801A PBX is equipped for TOUCH-TONE operation and the central office or distant PBX is not so equipped, centralized TOUCH-TONE conversion equipment is required. Refer to Section 534-366-211 for identification, installation, and connection information of centralized TOUCH-TONE conversion equipment J99322.

CABLING

3.23 *Do not route cables through the entrance hole between cabinet A and the auxiliary cabinet.* Cables from the PBX to the auxiliary termination field should be routed across the top of the cabinets.

4. CONNECTIONS

AUXILIARY TERMINATION FIELD

4.01 It may be necessary to provide service options before an equipment unit is connected. Refer to Part 5 to determine the service options required.

4.02 Locate and identify the following interunit connector cables in cabinets A, B, and D, as provided. Connect an A25D (single-ended) connector cable to each, and route the unfinished end of the connector cable to the auxiliary termination field.

| CABINET | CABLE |
|---------------|----------------------------------|
| A* or B | A-BLTF-1 A-BMTF-1 B-BMTF-2 |
| D | A-BLTF-2 A-BMTF-2 A-BMTF-2 |

*In single cabinet system with expanded trunk capacity only.

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4.03 Using Transfer Stenciling Kit B, stamp the connector of each A25D connector cable with the designation of its mating interunit connector cable, as shown in Fig. 10.

4.04 Referring to SD-1E330-01 terminate each A25D connector cable on connecting blocks A, B, or C of the purple backboard in the auxiliary termination field. (See Fig. 11.) ♦ Terminate the cables on terminals in rows A or C of the connecting blocks.♦

4.05 Two red 5-pin connector cables designated A-TFRT and B-TFRT are supplied with the auxiliary cabinet. If a tone source is required for auxiliary equipment, plug the two red 5-pin connector cables to appropriate connectors on the ringing and tone supply and power patch panel in cabinet A. Route the two cables to the auxiliary termination field and terminate on the 66M1-25 connecting block on the yellow backboard as shown in Fig. 12. Stencil the 66M1-25 connecting block (TONE).

4.06 Locate and identify the A-DFTF and B-DFTF connector cables connected to the auxiliary fuse panel. Connect two A25D connector cables, stenciling them as described in 4.03. Route these cables to the yellow backboard of the auxiliary termination field. Terminate these cables on a 66M1-50 connecting block, as shown in Fig. 12. Stencil the connecting block (PWR). Cross-connect the alarm lead from the (PWR) block to the (TONE) block as shown in Fig. 12.

4.07 ♦ Local cabling must be provided from the individual equipment units in the auxiliary cabinet to 66M1-50 connecting block(s) on the yellow backboard of the auxiliary termination field. This cabling should be routed through the cable covers on the rear of the sliding racks, through the cable entrance holes in the top of the cabinet, to the termination field. Sufficient slack should be provided to allow the racks to be fully extended. Use a KS-16363, List 1 tool (hand operated wire-wrap tool), or equivalent, to connect the cables to the terminal strips on the equipment units and a 714B tool for making connections to the quick-connect blocks on the termination field. Stencil the connecting blocks (AUX).

4.08 If the cabling from the distant equipment is terminated on the MISC connecting blocks in the yellow field of the main termination field, local cabling must be provided between the main

termination field (MISC) blocks and the (AUX) block(s) on the yellow backboard of the auxiliary termination field. If the (MISC) blocks are not provided on the main termination field, the distant equipment cabling can be terminated on the (AUX) block(s) of the auxiliary termination field.

4.09 Cross-connections will be required between connecting blocks on the yellow and purple backboards of the auxiliary termination field to provide access to the PBX switching equipment from the auxiliary units and the distant equipment. Use insulated 24- or 26-gauge wire and the quick-connect tool for applying all cross-connections on the termination field.

4.10 The demarcation terminal strip shown in the connection illustrations of this section must be provided locally and installed external to the main and auxiliary termination fields. It is used to provide a termination point at which customer-provided and maintained equipment can be isolated from the PBX equipment during testing and maintenance. Refer to local instructions when selecting location for the demarcation terminal strip.♦

DIAL REPEATING TIE TRUNK J58824BC-2, BY, OR CF

4.11 Fig. 13 through 20 show connection of dial repeating tie trunks requiring the use of an 801A PBX 2-way auxiliary trunk. Various equipment arrangements and locations are covered. The 2-way dial repeating tie trunk (electronic) per SD-1E321-01 does not require connection to an auxiliary trunk. Connection of the electronic tie trunk to associated external equipments is shown in Fig. 51 through 53. Fig. 20, 21, and 22 provide connections from both strip mounted and electronic dial tie trunks to telephone repeaters or 1-type terminating set.♦

4.12 Table C is provided as a permanent record form of cross-connections between the relay-type tie trunk and 801A PBX 2-way auxiliary trunk. ♦ It is recommended that Table C be reproduced locally and filled in for each tie trunk unit provided. The filled in tables should be left with the installation for future reference during maintenance visits.♦



When early production J58824CF tie trunk (SD-65718-02 Issue 7 and prior issue) is connected for a 2-wire trunk, verify that the following factory straps are connected on the equipment side of TS(A): 13 to 22, 23 to 32, 28 to 48, 33 to 38, 38 to 47, 42 to 48, 43 to 58, and 52 to 57. When the J58824CF tie trunk is connected for a 4-wire trunk, verify that the above straps are not connected. Later production units (SD-65718-02 Issue 8 and subsequent) are to be strapped by the installer for 2-wire transmission (option XD) using the same terminals and strapping as above, except straps will be placed on wiring side of TS(A). These straps are not required when 4-wire transmission (option XE) is provided. See Part 5 for other options required for 2-wire and 4-wire transmission.

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4.13 For an 801A PBX not equipped for TOUCH-TONE calling, refer to Fig. 11, 12, 23, and 24 for connections. For an 801A PBX equipped for TOUCH-TONE calling, refer to Fig. 11, 12, 23, 25, and 26 or 27 for connections.

Caution: To prevent false DSS lamp indications when the 3A code call is installed in an 801A PBX, disconnect the BL lead in the console cable at the connecting block(s) on the console cross-connect field(s) associated with the two auxiliary line circuit codes.

4.14 Table D provides a fill-in worksheet for recording the cross-connections required on the auxiliary termination field to connect the 3A code call circuit to the associated 2-way auxiliary trunk(s) and line circuit(s) in the PBX switching cabinets. The table may be reproduced locally, filled-in, and left at the PBX location as a permanent record of connections.

4.15 Table E (34-type console) and Table F (24- or 54-type console) identify the connecting block and terminal locations on the main termination field (and console termination field when DSS is provided) of the auxiliary line circuits required when the called party answer feature is provided with the 3A code call circuit. When the 24-type console is provided (non-DSS installation) the S-lead

from the auxiliary line circuit(s) (normally terminated on the console termination field as the BL-lead when DSS is provided) must be terminated on the auxiliary termination field. Connect a single-ended connector cable (A25B connector cable, or equivalent) to the H-AATF connector in Cabinet A, route the cable to the auxiliary termination field, and connect the following leads to the AUX connecting block on the yellow backboard (see Fig. 24, 25, or 40):

| H-AATF LEAD DESIG | AUX LINE LEAD DESIG | A25B CONN CABLE | |
|-------------------------|------------------------------|-----------------------|-------|
| | | PIN | COLOR |
| BL154 | S (1) | 13 | G-BK |
| BL155 | S (2) | 38 | BK-G |
| BL158 | S (1) | 15 | S-BK |
| BL159 | S (2) | 40 | BK-S |
| BL162 | S (1) | 17 | O-Y |
| BL163 | S (2) | 42 | Y-O |
| BL166 | S (1) | 19 | BR-Y |
| BL167 | S (2) | 44 | Y-BR |

4.16 In installations where two consoles are provided, connection of the S-lead from the 3A code call unit can be made to either console termination field (BL-lead terminal). The BL-leads in the console connector cable(s) associated with the line numbers assigned to the auxiliary line circuits must be disconnected at both console termination fields (see caution in 4.13).

4.17 The designations TOP and BOTTOM, for the terminal strip in Fig. 24 and 25 on the J58822B, Lists 1, 8, 9, 10, and 15 units, refer to the rows of terminals seen with the unit mounted in the cabinet and are for reference only.

4.18 Fig. 28 provides connecting arrangements of the 3A code call signaling units.

RECORDED TELEPHONE DICTATION TRUNK J58827E

4.19 Connect List 1 unit to the PBX by referring to Fig. 29. Interconnect List 2 unit to list

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1 by using Fig. 30. Connect the TOUCH-TONE receiver to the List 2 unit by using Fig. 31. If a 2-way sleeve repeater is required, connect List 3 unit (2-way sleeve repeater) to List 1 unit by using Fig. 32.

INTERFACE TRUNK J58824CD

4.20 Fig. 33 through 39 are block diagrams showing the connections required for various applications of the interface trunk. Circled number(s) in the block diagrams indicate the figure(s) (11, 12, 23, and 40 through 46) in which the connections appear.

4.21 Refer to the block diagram first and then connect the interface trunk for the service required, in accordance with the associated connection figures.

Caution: *To prevent false DSS lamp indications when the interface trunk is installed in an 801A PBX equipped with DSS, disconnect the associated BL lead(s) coming from the console(s) on the console cross-connect field(s).*

4.22 When the 24-type console is provided, refer to 4.15 for connection to the BL leads. When two consoles (34- or 54-type) are provided, connection to the BL leads associated with the auxiliary line circuit selected may be made at either console cross-connect field.

4.23 When 3A code call and/or interface trunk are provided, Table D may be reproduced as a permanent record form for the cross-connections between the interface trunk and the 2-way auxiliary trunk.

TIE TRUNK J58824AT OR L

4.24 To connect tie trunk J58824AT, use Fig. 11, 12, and 47. To connect tie trunk J58824L, use Fig. 11, 12, and 48.

4.25 Table C may be filled in and used as a permanent record form of the cross-connections between the tie trunk and 2-way auxiliary trunk.

LOUDSPEAKER PAGING TRUNK J58829W

4.26 Refer to Fig. 49 for connections of the loudspeaker paging trunk.

4.27 Table G may be used as a permanent record from for the cross-connections between the loudspeaker paging trunk and 2-way auxiliary trunk.

INTERCONNECTING UNIT J53050F

4.28 To connect interconnecting unit J53050F, use Fig. 11, 12 and 50.

DIAL REPEATING TIE TRUNK (ELECTRONIC) SD-1E321-01

4.29 The electronic dial repeating tie trunk is not installed in the auxiliary cabinet; however, connections to the auxiliary termination field (and components which must be installed in the auxiliary cabinet) must be made when the trunk is to be used in 4-wire operation with repeaters or when local "TOUCH-TONE" to dial pulse conversion is required.

4.30 To connect the electronic dial repeating tie trunk for 2-wire transmission with local conversion of "TOUCH-TONE" signals to dial pulsing use Fig. 11, 12, and 51. To connect tie trunk for 4-wire transmission with 24V4 repeater or 4-wire terminating set use Fig. 11, 12, and 52. If local "TOUCH-TONE" signaling to dial pulse conversion is required when the tie trunk is used in 4-wire transmission configuration, add connections shown in Fig. 53.

Note: When 24V4 repeaters are provided, S1 screw on 1B terminating set (component of repeater) must be turned out.◀

UNIGAUGE APPLICATIONS

4.31 Table H is provided to indicate equipment required with various unigauge arrangements and the figure in which connection to the equipment may be found.

5. SERVICE OPTIONS

TIE TRUNKS J58824BC AND CF

5.01 Tables I through M provide options required for the tie trunk units. Connect option straps using Tables I through M, as required for the type of service to be provided.

3A CODE CALL J58822B-2

5.02 No service options are required when this unit is used with the 801A PBX.

RECORDED TELEPHONE DICTATION TRUNK J58827E

5.03 Table N provides the service options required for the recorded telephone dictation trunk units.

INTERFACE TRUNK J58824CD

5.04 Table O provides the options required for the interface trunk. Connect the service option straps as required for the type of service to be provided.

TIE TRUNK J58824AT

5.05 No options are required on the J58824AT tie trunk unit.

TIE TRUNK J58824L, LIST 6 OR 7

5.06 When the trunk conductor loop resistance is less than 235 ohms and the earth potential is from +12 to +20 volts, the J58824L, List 4 equipment is installed in positions indicated in Fig. 56 or 57 and wired as indicated in Fig. 58.

LOUDSPEAKER PAGING TRUNK J58829W

5.07 Refer to Table P for the service options required in the loudspeaker paging trunk.

▶DIAL REPEATING TIE TRUNK (ELECTRONIC) SD-1E321-01▶

5.08 ▶Option strapping for this tie trunk is accomplished in the PBX equipment cabinets. When factory provided strapping is to be changed, refer to SD-1E321-01 for circuit pack and terminal designations.▶

6. OPERATION TESTS

6.01 Table Q lists the sections which provide testing information of auxiliary equipment which may be installed in the 801A PBX. If trouble is encountered when making these tests, refer to Section 553-201-301, Trouble Locating Procedures, 801A PBX.

7. REFERENCES

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

| SECTION | TITLE |
|-------------|--|
| 553-201-100 | Preinstallation Information—801A PBX (Equipped with Quick-Connect Type Service Connect Field) |
| 553-201-101 | Preinstallation Information—801A PBX (Equipped with Wire-Wrap Type Service Connect Field) |
| 553-201-200 | Installation, Connections, Service Options, and Installation Tests—801A PBX |
| 553-201-201 | “TOUCH-TONE®” Calling Equipment—Identification, Installation, and Connections—801A PBX |
| 553-201-300 | Attendant and Station Equipment—Method of Operation—801A PBX |
| 553-201-301 | Trouble Locating Procedures—801A PBX |
| 553-201-501 | Loudspeaker Paging Trunk Circuit SD-65747-01—Operation Tests—800A and 801A PBXs |
| 473-121-520 | 3A Code Call System—Operation Test |
| 473-130-501 | Recorded Telephone Dictation Trunks SD-65728-01 and SD-65788-01—Operation Test |
| 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 |
| 534-364-502 | Tie Trunk Circuits SD-65718-01, SD-65718-02, and SD-66799-01—Pulsing Tests and Requirements |

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| SECTION | TITLE |
|-------------|--|
| | Using 2B-1 Signaling Test Set SD-56134-02 (J64730B) and Associated Pulse Repeating Adapter SD-56134-01 (J64730D)—PBX Systems |
| 981-706-100 | 801A Private Branch Exchange—General Descriptive Information |
| 984-515-100 | Traffic Measurement System No. 1A—General Description |

7.02 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.

| DRAWING | TITLE |
|---------------------|--|
| SD-1E290-01 Iss 2 | PBX System, Emergency Transfer Circuit |
| SD-1E300-01, Iss 3 | Systems Application |
| SD-1E301-01, Iss 5 | Switching Network and Network Control |
| SD-1E302-01, Iss 10 | Common Control |
| SD-1E303-01, Iss 3 | Auxiliary Line Circuit |
| SD-1E304-01, Iss 3 | Line Circuit |
| SD-1E305-01, Iss 7 | Register Circuit |
| SD-1E306-01, Iss 4 | One-Way Outgoing Central Office Trunk Circuit |
| SD-1E307-01, Iss 4 | One-Way Incoming or 2-Way Central Office Trunk Circuit |
| SD-1D308-01, Iss 3 | Attendant Trunk Circuit |
| SD-1E309-01, Iss 4 | Attendant Position Circuit |
| SD-1E310-01, Iss 4 | Busy Tone Trunk Circuit |
| SD-1E311-01, Iss 3 | Intercommunicating Trunk Circuit |

| DRAWING | TITLE |
|---------------------|--|
| SD-1E312-01, Iss 4 | Fuse, Alarm, Emergency Transfer, and Test Circuit |
| SD-1E313-01, Iss 3 | Attendant Controlled Conference Circuit |
| SD-1E314-01, Iss 3 | Attendant Direct Station Selection Circuit |
| SD-1E315-01, Iss 3 | Camp-On Circuit with Indication of Camp-on |
| SD-1D316-01, Iss 5 | Station Dial Transfer Circuit |
| SD-1E317-01, Iss 3 | Dial Conference Circuit |
| SD-1E318-01, Iss 3 | Ringdown Tie Trunk Circuit |
| SD-1E319-01, Iss 4 | Two-Way Auxiliary Trunk Circuit |
| SD-1E320-01, Iss 3 | One-Way Outgoing Auxiliary Trunk Circuit |
| SD-1E321-01, Iss 1 | ◆Dial Repeating Tie Trunk Circuit (Electronic)◆ |
| SD-1E322-01, Iss 3 | Attendant Console Circuit |
| SD-1E323-01, Iss 8 | Position Select Circuit |
| SD-1E324-01, Iss 4 | Ringling and Tone Supply With Ringling Supply Cutoff |
| SD-1E330-01, Iss 14 | System Interconnection Circuit |
| SD-5E072-01, Iss 1 | ◆Tie Trunk Access Circuit (TOUCH-TONE to Dial Pulse Conversion Equipment)◆ |

7.03 The following equipment drawings are associated with the 801A PBX and may be referenced for information on equipment layout, cabling, and cross-connections.

| | |
|--------------------|------------------------------|
| ED-1E253-50, Iss 3 | Auxiliary Cabinet |
| ED-1E330-01, Iss 6 | System Equipment Information |

7.04 The following schematic drawings pertain to the auxiliary circuits associated with the 801A PBX and should be referenced when additional information on circuit operation and option strapping

is desired. This issue of the section is based on the following drawings:

| DRAWING | TITLE | DRAWING | TITLE |
|---------------------|--|---------------------|---|
| SD-1E255-01, Iss 1 | Automatic Trunk Level Interconnecting Unit | SD-65747-01, Iss 10 | Loudspeaker Paging Trunk |
| SD-5E308-01, Iss 6 | Recorded Telephone Dictation Trunk | SD-65755-01, Iss 7 | Tie Trunk |
| SD-5E062-01, Iss 2 | Repeater Connecting Circuit for E6 Telephone Repeaters | SD-66610-01, Iss 30 | 3A Code Call |
| SD-65545-01, Iss 21 | Tie Trunk | SD-66926-01, Iss 10 | Interface Trunk |
| SD-65718-01, Iss 27 | Dial Repeating Tie Trunk | SD-97023-01, Iss 15 | E6 and E7 Telephone Repeaters Battery Supply and Connecting Circuit |
| SD-65718-02, Iss 7 | Dial Repeating Tie Trunk | SD-97047-01, Iss 18 | V4 Telephone Repeater Battery Supply and Connecting Circuit |
| | | SD-99524-01, Iss 2 | Common Systems Unigauge Plant |

TABLE A
EQUIPMENT SUMMARY

| EQUIPMENT CODE | DESCRIPTION AND FUNCTION |
|-----------------------------|---|
| J58824BC List 22 | Framework which provides for one tie trunk unit to be installed in the 801A PBX. Requires 6 inches of 23-inch relay rack mounting space. |
| J58824BC List 23 | A repeat coil (120E) required in addition to List 22 unit for 2-wire operation when the ratio of trunk to CO impedance, at 1000 Hz, is up to 0.8. Mounted on the List 22 unit; does not require additional mounting space. |
| J58824BC List 24 | A repeat coil (120C) required in addition to List 22 unit for 2-wire operation when the ratio of trunk to CO impedance at 1000 Hz is 0.81 to 1.25. Mounted on the List 22 unit; does not require additional mounting space. |
| J58824BC List 25 | A repeat coil (120D) required in addition to List 22 unit for 2-wire operation when the ratio of trunk to CO impedance at 1000 Hz is 1.26 and up. Mounted on the List 22 unit; does not require additional mounting space. |
| J58824BC List 26 | Consists of the following: 440A capacitor, 437A (B) capacitor, and 1BU (A) resistor required in addition to the List 22 unit and List 23, 24, or 25 transformer for 2-wire operation. Mounted on the List 22 unit; does not require additional mounting space. |
| J58824BY List 1 | Provides for one inductor circuit unit. Equipped for three inductor circuits. Requires 2 inches of 23-inch relay rack mounting space. |
| J58824CF List 1 (MD†) | Assembly, wiring, and equipment which provides for one tie trunk unit arranged for 2- or 4-wire operation for use with 801A PBX. Equipped with a 120C transformer with a one-to-one ratio. If another ratio is required, it must be provided locally. (See Part 5.) Requires 8 inches of 23-inch relay rack mounting space. |
| J58824CF List 5 (MD†) | Wiring and equipment which provides in addition to List 1 unit for 4-wire operation. Mounted on List 1 unit; does not require additional mounting space. |
| J58824CF List 3 | A strapping plug required in addition to the List 1 unit when there is no associated switchboard trunk termination; mounted on the List 1 unit and does not require additional mounting space. |
| J58824CF List 6* | Assembly, wiring, and equipment for one tie trunk unit for 4-wire operation without pad control. |
| J58824CF List 7* | Wiring and equipment required in addition to List 6 for 2-wire operation. Equipped with a 120C transformer with a one-to-one ratio. If another ratio is required, it must be provided locally. (See Part 5.) |

* Equipment will be available the first quarter of 1973.

† First quarter of 1973.

TABLE A (Cont)
EQUIPMENT SUMMARY

| EQUIPMENT CODE | DESCRIPTION AND FUNCTION |
|----------------------|--|
| J58822B-2 List 1 | Provides for one 3A code call unit arranged for 5 cycles of code call, 3-digit dialing, and signals on 1-second cycle. This unit requires 10 inches of 23-inch mounting space. |
| J58822B-2 List 2 | Wiring and equipment required in addition to List 1, 8, 9, or 10, when signals on a 2-second cycle are required. Mounts on the List 1, 8, 9, or 10 unit and does not require additional mounting space. |
| J58822B-2 List 5 | Assembly, wiring, and equipment required in addition to List 1, 8, 9, or 10, for one code call terminal without jack circuit. This unit requires 2 inches of a 23-inch relay rack mounting space. When the second terminal of a code call is to be provided, a second List 5 unit is required. |
| J58822B-2 List 7 | The apparatus required in addition to List 1, 8, 9, or 10, when signals on a half-second cycle are required. This apparatus mounts on the List 1, 8, 9, or 10 unit and does not require additional mounting space. |
| J58822B-2 List 8 | Provides for one 3A code call unit arranged for 5 cycles of code call, 2-digit dialing, and signals on 1-second cycle. This unit requires 10 inches of a 23-inch mounting space. |
| J58822B-2 List 9 | Provides for one 3A code call unit arranged for 3 cycles of code call, 3-digit dialing, and signals on 1-second cycle. This unit requires 10 inches of a 23-inch relay rack mounting space. |
| J58822B-2 List 10 | Provides for one 3A code call unit arranged for 3-cycles of code call, 2-digit dialing, and signals on 1-second cycle. Unit requires 10 inches of 23-inch relay rack mounting space. |
| J58822B-2 List 11 | Wiring and equipment required in addition to List 1, 8, 9, or 10, when rotary dial with dial tone is used. Mounts on the List 1, 8, 9, or 10 unit and does not require additional mounting space. |
| J58822B-2 List 14 | Assembly, wiring, and equipment required in addition to List 1 or 9, when the PBX is equipped for TOUCH-TONE calling, using Type C or A3 TOUCH-TONE receiver. Unit requires 4 inches of a 23-inch relay rack mounting space. (See Note 1.) |
| J58822B-2 List 15 | Assembly, wiring, and equipment required in addition to List 8 or 10, when the PBX is equipped for TOUCH-TONE calling, using Type C or A3 TOUCH-TONE receiver. Unit requires 4 inches of a 23-inch relay rack mounting space. (See Note 1.) |
| J58822B-2 List 16 | Wiring and equipment required in addition to List 14 or 15 when the A3 TOUCH-TONE receiver Type A3 is provided. Mounts on the List 14 or 15 unit and does not require additional mounting space. |

Note 1: When ordering List 1, 8, 9, or 10 and the A3 TOUCH-TONE receiver is required, List 16 must be wired to List 14 or 15 by the factory.

TABLE A (Cont)
EQUIPMENT SUMMARY

| EQUIPMENT CODE | DESCRIPTION AND FUNCTION |
|----------------------|--|
| J58822B-2 List 18 | One ED-1E073-10, Group 4, connector cable required in addition to List 14 or 15 for connecting to a Type C TOUCH-TONE receiver. When List 14 or 15 is ordered with List 18, the cable is shop installed on the unit. |
| J58827E List 1 | Equipment required to provide for one recorded telephone dictation trunk for use with the 801A PBX. |
| J58827E List 2 | Equipment required in addition to List 1 to provide for TOUCH-TONE operation. |
| J58827E List 3 | Equipment required in addition to List 1 to provide for one 2-way sleeve repeater when the dictation trunk unit is not located at the switching equipment. |
| J58824CD List 7 | Basic interface unit for rotary or TOUCH-TONE dialing for 801A PBX. This unit requires 8 inches of a 23-inch relay rack mounting space. |
| J58824CD List 5 | Wiring and equipment required in addition to the List 7 unit when an isolation amplifier is required for transmitting or receiving. This equipment is mounted on the List 7 unit and does not require additional mounting space. |
| J58824CD List 12 | Wiring and equipment for called party access required in addition to List 7 when the interface trunk is used for paging with called party answer. This equipment is mounted on the List 7 unit and does not require additional mounting space. |
| J58824CD List 2 | Appique unit required in addition to the List 7 unit to repeat dialed pulses to CP equipment on a 2-out-of-7 lead basis. This unit requires 2 inches of a 23-inch relay rack mounting space. |
| J58824CD List 9 | Appique unit required in addition to the List 7 unit when TOUCH-TONE signals are converted to dial pulses. External equipment such as the J58847N local TOUCH-TONE converter equipment is required for the TOUCH-TONE to dial pulse conversion. The List 9 requires 2 inches of a 23-inch relay rack mounting space. |
| J58824CD List 10 | Appique unit required in addition to the List 7 unit and J99289, A3 TOUCH-TONE calling receiver unit, to convert TOUCH-TONE signals to dc signals on a 2-out-of-7 lead basis. This unit requires 6 inches of a 23-inch relay rack mounting space. |
| J58824CD List 11 | Appique unit required in addition to the List 7 unit and J58844 TOUCH-TONE calling receiver unit, Type C to convert TOUCH-TONE signals to dc signals on a 2-out-of-7 lead basis. This unit requires 2 inches of a 23-inch relay rack mounting space. |

TABLE A (Cont)
EQUIPMENT SUMMARY

| EQUIPMENT CODE | DESCRIPTION AND FUNCTION |
|---------------------|--|
| J58824AT List 1 | Assembly, wiring, and equipment required to provide for one single-circuit tie trunk for the 801A PBX. The equipment requires 2 inches of a 23-inch relay rack mounting space. |
| J58824L List 6 | Assembly, wiring, and equipment required to provide for one 2-circuit tie trunk unit for the 801A PBX. The equipment requires 6 inches of 23-inch relay rack mounting space. |
| J58824L List 7 | Assembly, wiring, and equipment required to provide for one single-circuit tie trunk for the 801A PBX. The equipment requires 4 inches of 23-inch relay rack mounting space. |
| J58824L List 4 | The wiring and apparatus required in addition to the List 6 and 7 unit for each tie trunk circuit when the trunk conductor loop resistance is less than 235 ohms and the earth potential is from 12 to 20 volts. This wiring and apparatus is mounted on the List 6 or 7 unit and does not require additional mounting space. When the List 4 apparatus is provided at the distant end of the trunk facility, it should not be provided at the near end. (See Fig. 58 and 59.) |
| J58829W List 1 | Equipment required for one loudspeaker paging trunk unit for the 801A PBX. |
| J58829W List 3 | Equipment required in addition to List 1 when one-way transmission is required. |
| J58824CL List 1 | Assembly, wiring, and equipment required for one repeater unit arranged for six E6 repeaters. This unit does not include E6 repeaters which must be ordered separately. |
| J58824CL List 2 | Equipment required in addition to List 1 to provide power failure transfer. |
| J58824CL List 3 | Equipment required in addition to List 1 to provide repeater test jacks and test set power jack. |
| J99253A List 1 | Assembly, wiring, and equipment required to provide for one E6 repeater in central office or tie trunk unigauge applications. When the 801A PBX is located between 16 and 24 kilofeet from the serving central office or is from 2 to 10 kilofeet from the distant PBX each E6 repeater requires one 832A and one 830E LBO network mounted internal to the E6 repeater. |
| 872A LBO Network | The equipment required in central office trunk unigauge applications when the 801A PBX is located between 6 and 16 kilofeet from the serving central office. |
| 837D LBO Network | The equipment required in unigauge applications when the 801A PBX is 5 to 12 kilofeet away from the serving central office (FX and WATS), 2 to 12 kilofeet away from a distant PBX (tie trunk), or 2 to 10 kilofeet away from the PBX for an off-premise station. |

TABLE A (Cont)
EQUIPMENT SUMMARY

| EQUIPMENT CODE | DESCRIPTION AND FUNCTION |
|--------------------------|---|
| ED-1E253-50 Group 1 | One auxiliary cabinet assembly (less slide and rack assemblies). |
| ED-1E253-50 Group 2 | One slide frame assembly required in addition to Group 1 to provide 47 inches of 23-inch mounting space. (Maximum of 3 racks per auxiliary cabinet.) |
| ED-1E253-50 Group 3 | One cross-connect field panel assembly which may be provided in addition to Group 1. |
| KS-19642 Power Supply | A —48 volt, 5-ampere power supply which may be provided to supply power to equipment installed in the auxiliary cabinet. |
| J58835A | One 46 fuse, fuse panel unit required in addition to the KS-19642 power supply. |
| J99289A List 1 | A TOUCH-TONE calling receiver mounting shelf arranged to mount two TOUCH-TONE calling A-Type receiver units (J99289B). |
| J99289B List 1 | An A3 TOUCH-TONE receiver unit consisting of cabinet assembly, band elimination filter, and circuit packs for 7-channel operation. This unit mounts in the J99289A, List 1 mounting shelf and does not require additional mounting space. |
| J58844B List 1 | A Type C TOUCH-TONE calling receiver. |
| J98615BJ List 2 | Assembly, wiring, and equipment required for one 24V4C repeater shelf for 48-volt operation. Provide the 24V4C under the following conditions: When the 801A PBX is 24 to 52 kilofeet away from the serving central office (CO trunk), 12 to 52 kilofeet away from the service central office (FX and WATS), 10 to 52 kilofeet away from the distant PBX (tie trunk), or 10 to 52 kilofeet away from the off-premise station. The 24V4C repeater does not provide power failure transfer. |
| J98615BL List 1 | 24V4D repeater, same as J98615BJ, List 2 with provision for power failure transfer. (One 332A relay.) |
| 1A Terminating Set | Required in addition to J98615BJ or J98615BL and mounts in the 24V4C or D repeater shelf. |
| 359B Equalizer | Required in addition to J98615BJ or BL when the distance from the 801A PBX to the terminating circuit is less than 10 kilofeet. The 359B equalizer plugs into the 24V4C or D repeater shelf. |

◆ TABLE A (Cont) ◆
EQUIPMENT SUMMARY

| EQUIPMENT CODE | DESCRIPTION AND FUNCTION |
|--------------------------------------|---|
| 359-Type Equalizer | Required in addition to J98615BJ or BL when the distance from the 801A PBX to the terminating circuit is from 10 to 52 kilofeet. The 359-type equalizer plugs into the 24V4C or D repeater shelf. |
| 227-Type Amplifier | Required in addition to J98615BJ or BL. The 227-type amplifier plugs into the 24V4C or D repeater shelf. Normally, two amplifiers are required for each 24V4 repeater. |
| J53050F, List 1 Interconnecting Unit | Assembly, wiring, and equipment required to provide one-way outgoing access from the 801A PBX to customer-provided (CP) equipment on a trunk level basis via 2-way auxiliary trunk assigned a dial access code. |
| J58847AU Access Circuit | Assembly, wiring, and equipment required to provide a tie trunk unit to TOUCH-TONE to dial pulse conversion equipment per SD-5E072-01. |

◆ TABLE B ◆
AUXILIARY CABINET EQUIPMENT (NOTE 1)

| EQUIPMENT TITLE | SCHEMATIC DIAGRAM | MOUNT ON RACK | | |
|---|-------------------|---------------|---|---|
| | | 1 | 2 | 3 |
| Tie Trunk | SD-65535-01 | ● | ● | ● |
| Tie Trunk | SD-65755-01 | ● | ● | ● |
| Tie Trunk | SD-65718-01, 02 | ● | ● | ● |
| Loudspeaker Paging Trunk | SD-65747-01 | ● | ● | ● |
| Recorded Telephone Dictation Trunk | SD-5E038-01 | ● | ● | ● |
| Interface Trunk | SD-66926-01 | ● | ● | ● |
| 3A Code Call | SD-66610-01 | ● | ● | ● |
| Auxiliary Fuse Panel (Note 2) | SD-65779-01 | ● | | |
| Auxiliary Power Supply (Note 2) | KS-19642 | ● | | |
| E6 Telephone Repeater | SD-5E062-01 | ● | | ● |
| 24V4-Type Telephone Repeater | SD-97047-01 | ● | ● | ● |
| TOUCH-TONE Calling Receiver C2 | SD-67027-01 | ● | ● | ● |
| TOUCH-TONE Calling Receiver A3 | SD-98148-01 | ● | ● | ● |
| J53050F, List 1 Interconnecting Unit | SD-1E255-01 | ● | ● | ● |
| Access Circuit for 2-way Dial Repeating Tie Trunk (Electronic) to local TOUCH-TONE to Dial Pulsing Conversion Equipment | SD-5E072-01 | ● | ● | ● |

- Notes:**
- The equipment units mounted on each rack will depend on available space and the clearance between racks. Equipment unit location should be locally engineered.
 - The auxiliary fuse panel and power supply may be mounted on rack 1, 2, or 3, but to facilitate cabling to the auxiliary termination field, consideration should be given to mounting them on rack 1.

◆ TABLE C ◆

TIE TRUNK CIRCUITS
 J58824BC, CF, AT, OR L
 CROSS-CONNECTIONS TO 2-WAY AUXILIARY TRUNK
 ON AUXILIARY TERMINATION FIELD

| CABLE FROM 2-WAY AUX TRK | LEAD DESIG | CROSS-CONNECT | | | | | |
|--------------------------|------------|---------------|-------|-------------|-------|-------------|-------|
| | | FROM | | | | TO | |
| | | PURPLE BKBD | | YELLOW BKBD | | YELLOW BKBD | |
| COLOR CODE | | CONN BLK* | TERM. | CONN BLK | TERM. | CONN BLK | TERM. |
| | T | | | | | | |
| | R | | | | | | |
| | T1 | | | | | | |
| | R1 | | | | | | |
| | T2 | | | | | | |
| | R2 | | | | | | |
| | S2 | | | | | | |
| | B | | | | | | |
| | D | | | | | | |
| | -48V | | | PWR | | AUX | |
| | GRD | | | | | | |

*Connecting block A, B, or C.

◆ TABLE D ◆

3A CODE CALL UNIT J58822B OR INTERFACE TRUNK J58824CD CROSS-CONNECTIONS
TO AUXILIARY TRUNK AND AUXILIARY LINE CIRCUITS ON AUXILIARY TERMINATION FIELD

| 2-WAY AUX TRUNK TO 3A CODE CALL UNIT OR INTERFACE TRUNK | | | | | | | | | | |
|---|------------|------------------|-------|---------------------|-------|-----------------|-------|-------------|---------|--------------------------------------|
| CABLE FROM 2-WAY AUX TRK IN PBX CABINET | LEAD DESIG | CROSS-CONNECT | | | | | | | FEATURE | |
| | | FROM | | | | TO | | | | |
| | | PURPLE BKBD | | YELLOW BKBD | | YELLOW BKBD | | | | |
| | | CONN BLK* | TERM. | CONN BLK | TERM. | CONN BLK | TERM. | TERM. DESIG | | |
| | T2 | | | | | | | | T2 | 2-Way Aux Trunk for Term. 1 Access |
| | R2 | | | | | | | | R2 | |
| | S2 | | | | | | | | S2 | |
| | -48V | | | | | | | | -48V | |
| | GRD | | | (PWR) | | | | | GRD | |
| | T2 | | | | | | | | T2 | 2-Way Aux Trunk for Term. 2 Access |
| | R2 | | | | | | | | R2 | |
| | S2 | | | | | | | | S2 | |
| | -48V | | | | | | | | -48V | |
| | GRD | | | (PWR) | | | | | GRD | |
| AUXILIARY LINE TO 3A CODE CALL UNIT OR INTERFACE TRUNK | | | | | | | | | | |
| CABLE FROM AUX LINE IN PBX CABINET | LEAD DESIG | CROSS-CONNECT | | | | | | | FEATURE | |
| | | FROM (NOTE) | | | | TO | | | | |
| | | MAIN TERM. FIELD | | CONSOLE TERM. FIELD | | AUX TERM. FIELD | | | | |
| | | YELLOW BKBD | | | | | | | | |
| COLOR CODE | | CONN BLK | TERM. | TERM STRIP | TERM. | CONN BLK | TERM. | TERM. DESIG | | |
| | T1 | | | | | | | | T1 | Aux Line to Term. 1 Answer Terminals |
| | R1 | | | | | | | | R1 | |
| | BL† | — | — | | | | | | S | |
| | T1 | | | | | | | | T1 | Aux Line to Term. 2 Answer Terminals |
| | R1 | | | | | | | | R1 | |
| | BL† | — | — | | | | | | S | |

* Connecting block A, C, or D.

† See caution, in 4.13.

Note: See Table E or F for connecting block and terminal designations.

◆ TABLE E ◆

CALLED PARTY ANSWER TERMINAL CONNECTIONS TO MAIN AND CONSOLE
TERMINATION FIELDS 34A5 AND 34B5 CONSOLES

| ANS CODE | PBX LEAD DESIG | LEAD DESIG | a | c | | | | | | b | d | | | | | |
|-------------|-------------------|---------------|---------------------|---|-------|----------------|-------|----------------|-------|---------------------|---|-------|----------------|-------|----------------|-------|
| | | | MAIN TERM. FIELD | CONSOLE CROSS-CONNECT FIELD J58872EC - | | | | | | MAIN TERM. FIELD | CONSOLE CROSS-CONNECT FIELD J58872EC - | | | | | |
| | | | CONN BLK C-AATF | EC1, LIST 1 EC2, LIST 1 | | EC2, LIST 2 | | EC2, LIST 3 | | CONN BLK C-AATF | EC1, LIST 1 EC2, LIST 2 | | EC2, LIST 2 | | EC2, LIST 3 | |
| | | | TERM. | TERM. STRIP | TERM. | TERM. STRIP | TERM. | TERM. STRIP | TERM. | TERM. | TERM. STRIP | TERM. | TERM. STRIP | TERM. | TERM. STRIP | TERM. |
| 154 | T R BL | T R S | 154T 154R | (C) | 5C | (A) | L3 | (B) | L3 | 155T 155R | (C) | 6C | (A) | K3 | (B) | K3 |
| 158 | T R BL | T R S | 158T 158R | (C) | 9C | (A) | L5 | (B) | L5 | 159T 159R | (C) | 10C | (A) | K5 | (B) | K5 |
| 162 | T R BL | T R S | 162T 162R | (C) | 13C | (A) | L7 | (B) | L7 | 163T 163R | (C) | 14C | (A) | K7 | (B) | K7 |
| 166 | T R BL | T R S | 166T 166R | (C) | 17C | (A) | L9 | (B) | L9 | 167T 167R | (C) | 18C | (A) | K9 | (B) | K9 |

◆ TABLE F ◆

CALLER PARTY ANSWER TERMINAL CONNECTIONS TO MAIN AND CONSOLE
TERMINATION FIELDS 24A8 OR 24B8 AND 54A8 OR 54B8 CONSOLES

| ANS CODE | PBX LEAD DESIG | LEAD DESIG | a | c (NOTE) | | | | | | | | b | d (NOTE) | | | | | | | |
|----------|----------------|-------------|------------------|---|-------|----------------------------|-------|----------------------------|-------|-------------|-------|------------------|---|-------------|----------------------------|-------------|----------------------------|-------------|-------------|-------------|
| | | | MAIN TERM. FIELD | CONSOLE CROSS-CONNECT FIELD J58872ED – SINGLE CONSOLE J58872EE – MULTIPLE CONSOLE | | | | | | | | MAIN TERM. FIELD | CONSOLE CROSS-CONNECT FIELD J58872ED – SINGLE CONSOLE J58872EE – MULTIPLE CONSOLE | | | | | | | |
| | | | CONN BLK C-AATF | ED1, LIST 1 ED2, LIST 1 | | ED2, LIST 2 ED2, LIST 3 | | EE1, LIST 1 EE2, LIST 1 | | EE2, LIST 2 | | CONN BLK C-AATF | ED1, LIST 1 ED2, LIST 1 | | ED2, LIST 2 ED2, LIST 3 | | EE1, LIST 1 EE2, LIST 1 | | EE2, LIST 2 | |
| | | | TERM. | TERM. STRIP | TERM. | TERM. STRIP | TERM. | TERM. STRIP | TERM. | TERM. STRIP | TERM. | TERM. STRIP | TERM. | TERM. STRIP | TERM. | TERM. STRIP | TERM. | TERM. STRIP | TERM. | TERM. STRIP |
| 154 | T R BL | T R S | 154T 154R | (B) | 5A | (A) | F3 | (C) | 5A | (A) | F3 | 155T 155R | (B) | 6A | (A) | E3 | (A) | 6A | (A) | E3 |
| 158 | T R BL | T R S | 158T 158R | (B) | 9A | (A) | F5 | (C) | 9A | (A) | F5 | 159T 159R | (B) | 10A | (A) | E5 | (A) | 10A | (A) | E5 |
| 162 | T R BL | T R S | 162T 162R | (B) | 13A | (A) | F7 | (C) | 13A | (A) | F7 | 163T 163R | (B) | 14A | (A) | E7 | (A) | 14A | (A) | E7 |
| 166 | T R BL | T R S | 166T 166R | (B) | 17A | (A) | F9 | (C) | 17A | (A) | F9 | 167T 167R | (B) | 17A | (A) | E9 | (A) | 17A | (A) | E9 |
| | | | CONN BLK C-ACTF | | | | | | | | | CONN BLK C-ACTF | | | | | | | | |
| | | | TERM. | | | | | | | | | TERM. | | | | | | | | |
| 284 | T R BL | T R S | 284T 284R | (C) | 35C | (A) | L18 | (F) | 35A | (A) | L18 | 285T 285R | (C) | 36C | (A) | K18 | (F) | 36A | (A) | K18 |
| 288 | T R BL | T R S | 288T 288R | (C) | 39C | (A) | L20 | (F) | 39A | (A) | L20 | 289T 289R | (C) | 40C | (A) | K20 | (F) | 40A | (A) | K20 |
| 292 | T R BL | T R S | 292T 292R | (C) | 43C | (A) | L22 | (F) | 43A | (A) | L22 | 293T 293R | (C) | 44C | (A) | K22 | (F) | 44A | (A) | K22 |
| 296 | T R BL | T R S | 296T 296R | (C) | 47C | (A) | L24 | (F) | 47A | (A) | L24 | 297T 297R | (C) | 48C | (A) | K24 | (F) | 48A | (A) | K24 |

Note: J58872ED – and J58872EE – termination fields are used with 54-type consoles only. See 4.15 for providing S-lead connections for 24-type consoles.

◆TABLE G◆

LOUDSPEAKER PAGING TRUNK J58829W CROSS-CONNECTIONS
TO 2-WAY AUXILIARY TRUNK ON AUXILIARY TERMINATION FIELD

| CABLE FROM 2-WAY AUX TRK | LEAD DESIG | CROSS-CONNECT | | | | | |
|--------------------------|------------|---------------|-------|-------------|-------|-------------|-------|
| | | FROM | | | | TO | |
| | | PURPLE BKBD | | YELLOW BKBD | | YELLOW BKBD | |
| COLOR CODE | | CONN BLK* | TERM. | CONN BLK | TERM. | CONN BLK | TERM. |
| | T2 | | | | | AUX | |
| | R2 | | | | | | |
| | S2 | | | | | | |
| | -48V | | | PWR | | | |
| | GRD | | | | | | |

*Connecting block A, B, or C

◆TABLE H◆

UNIGUAGE APPLICATIONS

| DISTANCE IN KILO- FEET | TYPE CIRCUIT | UNIGAUGE EQUIPMENT | FIGURE |
|------------------------|------------------|----------------------------|----------|
| 6-16 | CO TRK | 872 Net. | 9 |
| 16-24 | | E6 Repeater with 830E Net. | 54 |
| 24-52 | | 24V4A, -C, or -D Repeater | 21 or 22 |
| 5-12 | FX or WATS | 837C or -D Net. | 55 |
| 12-52 | | 24V4A, -C, or -D Repeater | 21 or 22 |
| 2-12 | 2-Wire tie trunk | 837D Net. | 55 |
| 12-52 | 4-Wire tie trunk | 24V4A, -C, or -D Repeater | 21 or 22 |
| 2-10 | OPX | 837D Net. | 55 |
| 10-52 | | 24V4A, -C, or -D Repeater | 21 or 22 |

TABLE I
J58824BC, LIST 22 SERVICE OPTIONS

| DESCRIPTION | OPTION | STRAP | |
|---|--------|------------------------------|-------------|
| | | TS(B) | TS(C) |
| 2-Wire transmission with DX signaling, without E-type repeaters, and with cable loops of less than 38 miles (see Note 1) | WH | 1-4 2-3 28-29 30-32 | |
| | WM | | 1-3 |
| 2-Wire transmission with DX signaling, without E-type repeaters, and with cable loops of 38 miles or more (see Note 1) | WD | | 2-3 9-10 |
| | WH | 1-4 2-3 28-29 30-32 | |
| | WM | | 1-3 |
| 2-Wire transmission with DX signaling, with E-type repeaters, and with cable loops of 15 miles maximum (see Note 2) | WH | 1-4 2-3 28-29 30-32 | |
| | WM | | 1-3 |
| 2-Wire transmission with E & M lead signaling | WM | | 1-3 |
| | WJ | 2-27 3-4 29-31 | 4-9 |
| | UC | | 3-11 |
| 4-Wire transmission with DX signaling, with or without V4 repeater, and with cable loops of less than 15 miles (see Note 2) | WH | 1-4 2-3 28-29 30-32 | |
| | UC | | 3-11 |
| 4-Wire transmission with DX signaling, with or without V4 repeater, and with cable loops of 15 to 60 miles (see Note 2) | WH | 1-4 2-3 28-29 30-32 | |
| | VS | | 1-10 2-3 |
| | UC | | 3-11 |

TABLE I (Cont)
J58824BC, LIST 22 SERVICE OPTIONS

| DESCRIPTION | OPTION | STRAP | |
|--|--------|----------------------------------|-------------|
| | | TS(B) | TS(C) |
| 4-Wire transmission with DX signaling, with or without V4 repeaters, and with cable loops of 60 to 75 miles (see Note 2) | WH | 1-4 2-3 28-29 30-32 | |
| | WD | | 2-3 9-10 |
| | UC* | | 3-11 |
| 4-Wire transmission with E & M lead signaling | WM | | 1-3 |
| | WJ | 2-27 3-4 29-31 | |
| | UC | | 3-11 |
| Pulse repeating requirements not used (see Note 3) | WS | | 12-15 |
| Improved 2-wire trunk transmission required | VK | (See Fig. 25) | |
| Improved 2-wire trunk transmission not required | VJ | 17-20 21-22 23-24 25-26 | |

Notes: 1. For 2-wire operation, refer to Table J. Add 1250 ohms to the trunk conductor loop resistance provided by the Circuit Layout Department. Referring to Table J, select the straps that will provide a resistance within 125 ohms of the above calculation.

Example: Trunk conductor loop resistance equals 1100 ohms. Add 1250 ohms. Total is 2350 ohms. Referring to Table J, 2250 ohms is 100 ohms less, 2500 ohms is 150 ohms greater. Since no more than 125 ohms is allowed in either direction, 2250 ohms is selected and straps 3-5, 6-8 are provided on TS(C).

2. For 4-wire operation, refer to Table J. Add 1250 ohms to one-half the loop resistance of one of the two cable pairs provided by the Circuit Layout Department. Referring to Table J, select the straps that will provide a resistance within 125 ohms of the above calculation (transmitting and receiving cable conductor resistance should not differ by more than 5%).

Example: One cable pair loop resistance equals 1000 ohms. One-half the loop resistance is 500 ohms. Add 1250 ohms. Total is 1750 ohms. Referring to Table J, 1750 ohms is provided by straps 4-6, 7-9 on TS(C).

3. Where pulse repeating requirements are used (eg, for tandem dialing), strap TS(B) 31-41, 41-51, and/or 12-51 as required to meet both current flow and percent break limits at 12 pps.

TABLE J
LOOP RESISTANCE STRAPPING OF TIE TRUNK SD-65718-01

| CALCULATED RESISTANCE (OHMS) | PROVIDE STRAPS ON TS(C) |
|---------------------------------|----------------------------|
| 1250 | 4-5 6-9 |
| 1500 | 5-9 |
| 1750 | 4-6 7-9 |
| 2000 | 3-8 |
| 2250 | 3-5 6-8 |
| 2500 | 3-4 5-8 |
| 2750 | 3-6 8-9 |

| CALCULATED RESISTANCE (OHMS) | PROVIDE STRAPS ON TS(C) |
|---------------------------------|----------------------------|
| 3000 | 4-8 |
| 3250 | 4-5 6-8 |
| 3500 | 5-8 |
| 3750 | 4-6 8-9 |
| 4000 | 3-7 |
| 4250 | 3-5 6-7 |
| 4500 | 3-4 5-7 |
| 4750 | 3-6 |
| 5000 | 4-7 |
| 5250 | 4-5 6-7 |
| 5500 | 5-7 |
| 5750 | 4-6 |
| 6000 | 4-5 |
| 6250 | 5-6 |
| 6500 | — |

TABLE K
J58824CF SERVICE OPTIONS

| DESCRIPTION | OPTION | STRAP | |
|---|--------|-------|-------------------------|
| | | TS(A) | TS(B) |
| 2-Wire transmission with DX signaling, without E-type repeaters, and with cable loops of less than 38 miles (see Note 1) | K | 24-34 | |
| | U | | 11-15 25-35 |
| | W | | 17-54 |
| | ZM | | 26-56 36-46 |
| 2-Wire transmission with DX signaling, without E-type repeaters, and with cable loops of 38 miles or more (see Note 1) | K | 24-34 | |
| | T | | 27-54 37-47 |
| | U | | 11-15 25-35 |
| | W | | 17-54 |
| 2-Wire transmission with DX signaling, with E-type repeaters, and with cable loops of 15 miles maximum (see Note 1) | K | 24-34 | |
| | U | | 11-15 25-35 |
| | W | | 17-54 |
| | ZM | | 26-56 36-46 |
| 2-Wire transmission with E and M lead signaling | K | 24-34 | |
| | V | | 11-25 35-45 47-48 |
| | W | | 17-54 |
| | ZK | | 44-54 |
| | ZL | | 26-36 |
| 4-Wire transmission with DX signaling, with or without V4 repeater, and with cable loops of less than 15 miles (see Note 2) | U | | 11-15 25-35 |
| | ZK | | 44-54 |
| 4-Wire transmission with DX signaling, with or without V4 repeater, and with cable loops of 15 to 60 miles (see Note 2) | S | | 17-37 27-54 |
| | U | | 11-15 25-35 |
| | ZK | | 44-54 |

TABLE K (Cont)
J58824CF SERVICE OPTIONS

| DESCRIPTION | OPTION | STRAP | |
|--|--------|-------|-------------------------|
| | | TS(A) | TS(B) |
| 4-Wire transmission with DX signaling, with or without V4 repeaters, and with cable loops of 60 to 75 miles (see Note 2) | T | | 37-47 27-54 |
| | U | | 11-15 25-35 |
| | ZK | | 44-54 |
| 4-Wire transmission with DX signaling, with V4 repeaters, with 2-wire extension, and with cable loops of less than 75 miles (see Note 2) | U | | 11-15 25-35 |
| | B | | 16-46 |
| | ZK | | 44-54 |
| | W | | 17-54 |
| 4-Wire transmission with E and M lead signaling | T | | 37-47 |
| | V | | 11-25 35-45 47-48 |
| | W | | 17-54 |
| 4-Wire transmission with E and M lead signaling | ZK | | 44-54 |
| | Y | | 12-31 |
| Pulse repeating requirements are not used (see Note 3) | | | |

- Notes:**
- For 2-wire operation, refer to Table L. Add 1250 ohms to the trunk conductor loop resistance provided by the circuit layout department. Referring to Table L, select the straps that will provide a resistance within 125 ohms of the above calculation.
Example: Trunk conductor loop resistance equals 1100 ohms. Add 1250 ohms. Total is 2350 ohms. Referring to Table L, 2250 ohms is 100 ohms less, 2500 ohms is 150 ohms greater. Since no more than 125 ohms is allowed in either direction, 2250 ohms is selected and straps 58-28, 18-57 are provided on TS(A).
 - For 4-wire operation, refer to Table L. Add 1250 ohms to one-half the loop resistance of one of the two cable pairs provided by the Circuit Layout Department. Referring to Table L, select the straps that will provide a resistance within 125 ohms of the above calculation (transmitting and receiving cable conductor resistance should not differ by more than 5%).
Example: One cable pair loop resistance equals 1000 ohms, one-half is 500 ohms. Add 1250 ohms. Total is 1750 ohms. Referring to Table L, 1750 ohms is provided by straps 48-38, 28-47 on TS(A).
 - Where pulse repeating requirements are used (eg, for tandem dialing), strap TS (B) 31-41, 41-51, and/or 12-51 as required to meet both current flow and percent break limits at 12 pps.

TABLE L
 LOOP RESISTANCE STRAPPING OF TIE TRUNK SD-65718-02

| CALCULATED RESISTANCE (OHMS) | PROVIDE STRAPS ON TS(A) |
|------------------------------|-------------------------|
| 1250 | 48-28 18-47 |
| 1500 | 38-47 |
| 1750 | 48-38 28-47 |
| 2000 | 58-57 |
| 2250 | 58-28 18-57 |
| 2500 | 58-48 38-57 |
| 2750 | 58-38 28-57 |
| 3000 | 48-57 |
| 3250 | 48-28 18-57 |
| 3500 | 38-57 |
| 3750 | 48-38 28-57 |
| 4000 | 58-18 |

| CALCULATED RESISTANCE (OHMS) | PROVIDE STRAPS ON TS(A) |
|------------------------------|-------------------------|
| 4250 | 58-28 |
| 4500 | 58-48 38-18 |
| 4750 | 58-38 28-18 |
| 5000 | 48-18 |
| 5250 | 48-28 |
| 5500 | 38-18 |
| 5750 | 48-38 28-18 |
| 6000 | 48-38 |
| 6250 | 28-18 |
| 6500 | — |

TABLE M
 2-WIRE REPEAT COILS

| RATIO OF TRK IMP.* TO OFFICE IMP. AT 1000 Hz | OFFICE IMP. AT 1000 Hz | CODE | OPTION | | IMP. RATIO 2-1, 6-5 to 4-3, 8-7 | WDG RES | |
|--|------------------------|------|--------|-----|------------------------------------|------------|------------|
| | | | -01 | -02 | | 2-1 OR 6-5 | 4-3 OR 8-7 |
| Up to 0.8 | All | 120E | R | ZA | 1:1.5 | 5 | 5.5 |
| 0.81 to 1.25 | All | 120C | P | ZC | 1:1 | 7.8 | 5.5 |
| 1.26 and Up | All | 120D | M | ZE | 1.5:1 | 12.7 | 5.5 |

* The trunk impedance is measured looking away from the 2-5 terminals of the repeat coil A.

TABLE N
RECORDED TELEPHONE DICTATION TRUNK J58827E (SD-5E038-01) — SERVICE OPTIONS

| DESCRIPTION | OPTION | STRAP | | |
|---|--------|-------|---|-------|
| | | TS(A) | TS(B) | TS(C) |
| When dictation machine provides ground signal indicating playback in progress, requires dial 3 to extend playback, and dial 1 to terminate playback | A | | 46-56 | 13-14 |
| When dictation machine provides ground signal indicating playback in progress, requires dial 3 to extend playback, and does not require dial 1 to terminate playback | N | | 28-38 46-56 | 13-14 |
| When dictation machine provides ground signal indicating playback in progress, does not require dial playback repeatedly, and requires dial 1 to terminate playback | Q | | 48-58 | |
| When dictation machine does not provide ground signal indicating playback in progress, does not require dial playback repeatedly, and requires dial 1 to terminate playback | R | | 48-58 | 53-54 |
| When dictation machine becomes unavailable to record, the trunk signals the attendant and is made busy to seizure | B | 13-23 | 26-36 | |
| When dictation machine becomes unavailable to record, the trunk circuit is made busy to seizure | ZA | 13-23 | | |
| Dictation machine start/stop controlled by dial 1 and PBX equipped for TOUCH-TONE calling | W | 11-21 | 18-57 37-47 17-27 24-34 33-43 | |
| | ZG | 47-57 | | |
| Dictation machine start/stop controlled by dial 1 and PBX equipped for rotary dial only | W | | 18-57 37-47 17-27 24-34 33-43 | |
| Dictation machine start/stop controlled by voice | V | | 15-54 23-33 24-34 47-57 | |
| | M | 46-56 | | |

TABLE N (Cont)

RECORDED TELEPHONE DICTATION TRUNK J58827E (SD-5E038-01) — SERVICE OPTIONS

| DESCRIPTION | | OPTION | STRAP | | |
|---|---|--------|----------------|----------------------------------|-------|
| | | | TS(A) | TS(B) | TS(C) |
| Playback reduced by dialing 2 | | F | | 35-55 42-52 | |
| Playback not reduced when digit 2 is dialed | | E | 13-23 12-13 | 45-55 | |
| Required with 801A PBX | | S | 35-45 | | |
| | | ZJ | 24-34 | | 17-27 |
| | | ZQ | 23-53 21-51 | | |
| When subscriber loop resistance | Less than 300 ohms | ZL | | | |
| | 300 Ohms or greater | ZM | 14-24 25-55 | | |
| TOUCH-TONE operation | Not required | ZB | 45-55 35-55 | 48-58 28-38 18-57 47-57 | |
| | Required with 4 x 3 TOUCH-TONE receiver | ZC | | 45-55 35-55 | 18-28 |

TABLE O
J58824CD, LIST 7 INTERFACE UNIT – SERVICE OPTIONS

| DESCRIPTION | | OPTION | STRAP | | | | | |
|--|----------------------------------|---------------|----------------------------------|--------|----------------|----------------|----------------------------------|----------------------------------|
| | | | TS(A1) | TS(A2) | TS(A6) | TS(A10) | TS(A13) | TS(A14) |
| Interface trunk circuit provides dial pulsing or TOUCH-TONE signals converted to dc signals on a 2-out-of-7 lead basis | | ZC | | | | | 22-42 12-32 21-41 11-31 | |
| Equipment ready signal not supplied by customer | | R | | 22-32 | | | | |
| Isolation amplifier connected for: | Transmitting | Y | 22-32 12-52 31-41 11-21 | | | | | |
| | Receiving | Z | 12-22 21-31 11-41 32-51 | | | | | |
| | Two-way transmission | ZZ | 21-34 12-32 | | 12-32 21-34 | | | |
| Busy condition | | E | | | | | | 18-57 46-56 45-55 13-52 |
| When TOUCH-TONE is converted to dial pulses using: | Centralized TOUCH-TONE Converter | ZW (A & M) | | | | 32-42 13-52 | | |
| | Localized TOUCH-TONE Converter | ZY (MD) | | | | 32-42 13-52 | | |
| | Both | ZX | | | | 42-52 42-51 | | |

TABLE P
LOUDSPEAKER PAGING TRUNK J58829W (SD-65747-01)

| DESCRIPTION | | OPTION | STRAP TS ON UNIT |
|---|--------------|--------|---------------------|
| Isolation amplifier for one-way transmission | Required | E | (Fig. 7) |
| | Not required | F | None |
| Output from external music source not provided | | J | 22-23 (Fig. 49) |

◆ TABLE Q ◆

| EQUIPMENT UNIT | REFERENCE SECTION |
|---|----------------------------|
| J58872BL or BM One-way Outgoing Auxiliary Trunk | 553-201-200 (Note 1) |
| J58872BL or BM 2-Way Auxiliary Trunk | 553-201-200 |
| J58824BC or CF Tie Trunk | 534-364-501 534-364-502 |
| J58822B 3A Code Call | 473-121-520 |
| J58827E Recorded Telephone Dictation Trunk | 463-332-110 (Note 2) |
| J58824CD Interface Trunk | 463-332-120 |
| J58824AT or L Tie Trunk | 553-201-500 |
| J58824W Loudspeaker Paging Trunk | 553-201-501 |
| J5872BL or BM 2-Way Dial Repeating Tie Trunk (Electronic) SD-1E321-01 | 553-201-200 |

Notes: 1. Do not attempt to seize this trunk incoming.
2. When available.

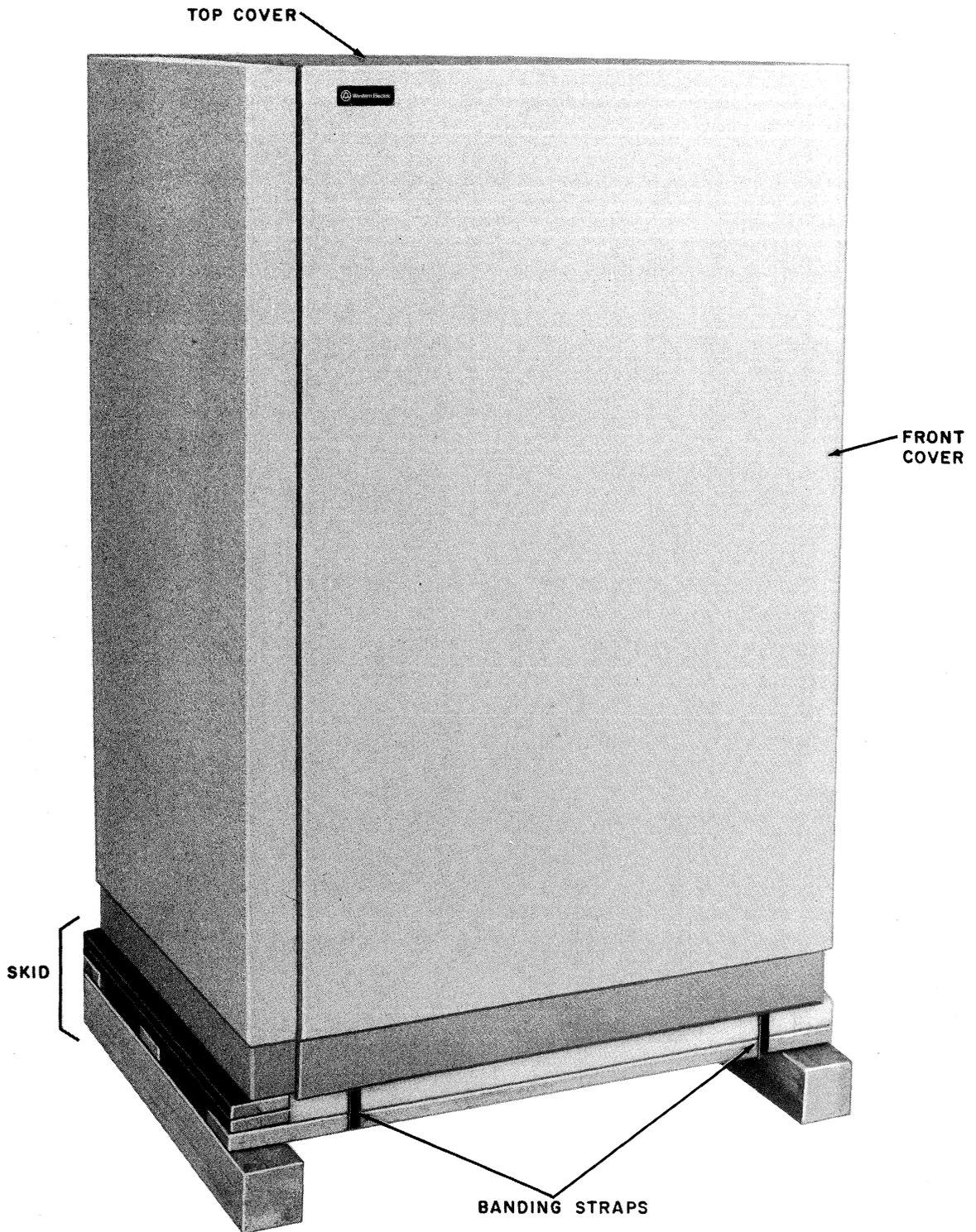


Fig. 1—801A PBX Auxiliary Cabinet

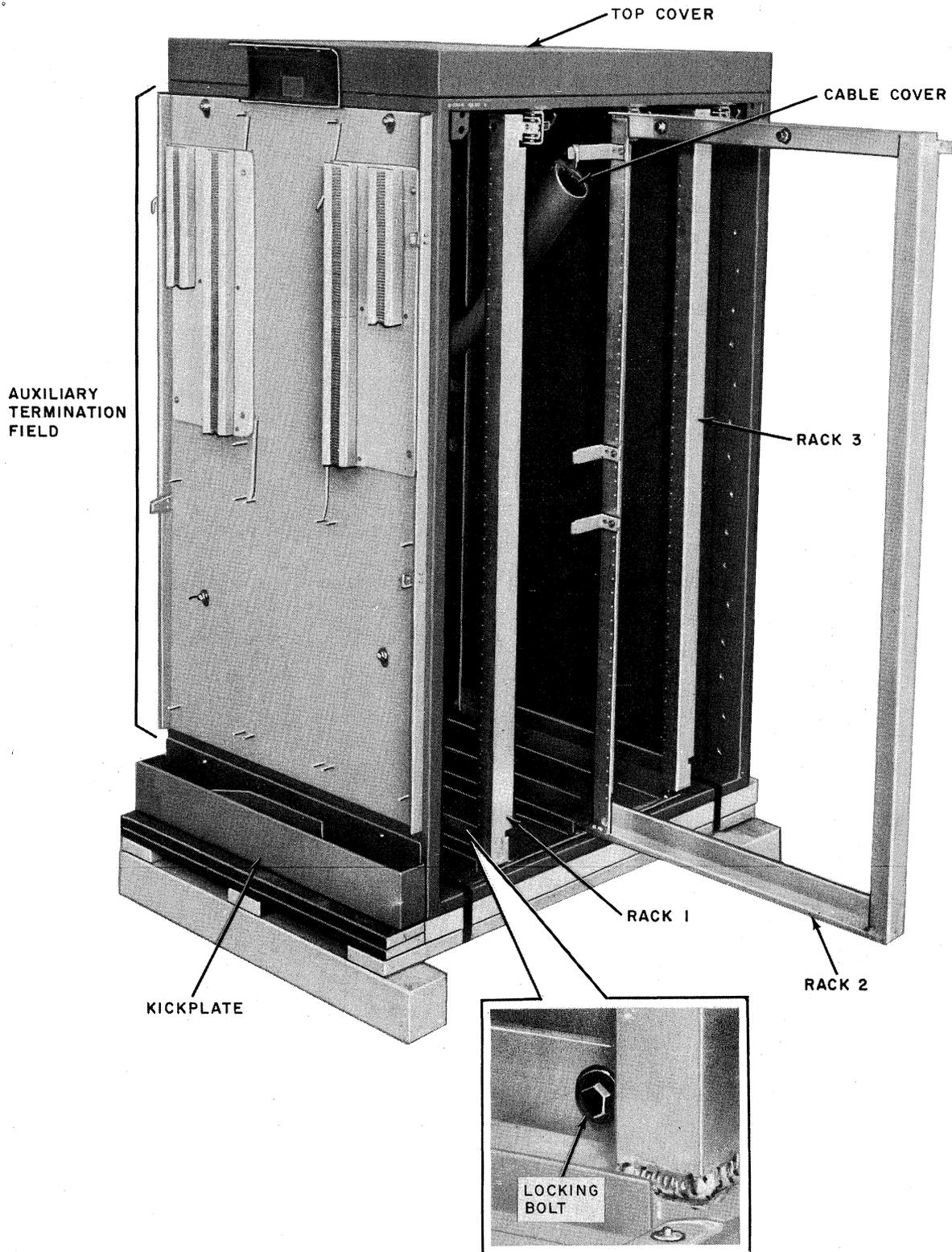


Fig. 2—801A PBX Auxiliary Cabinet—Slide Extended

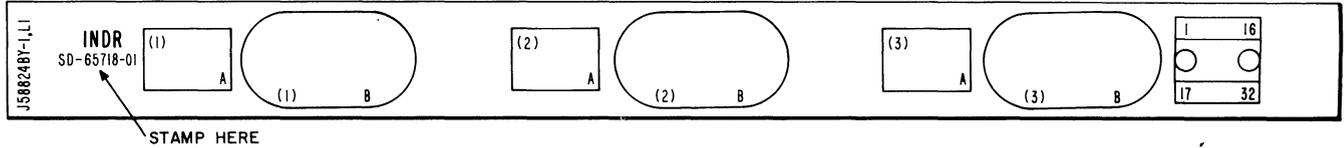


Fig. 3—J58824BY Inductor Unit

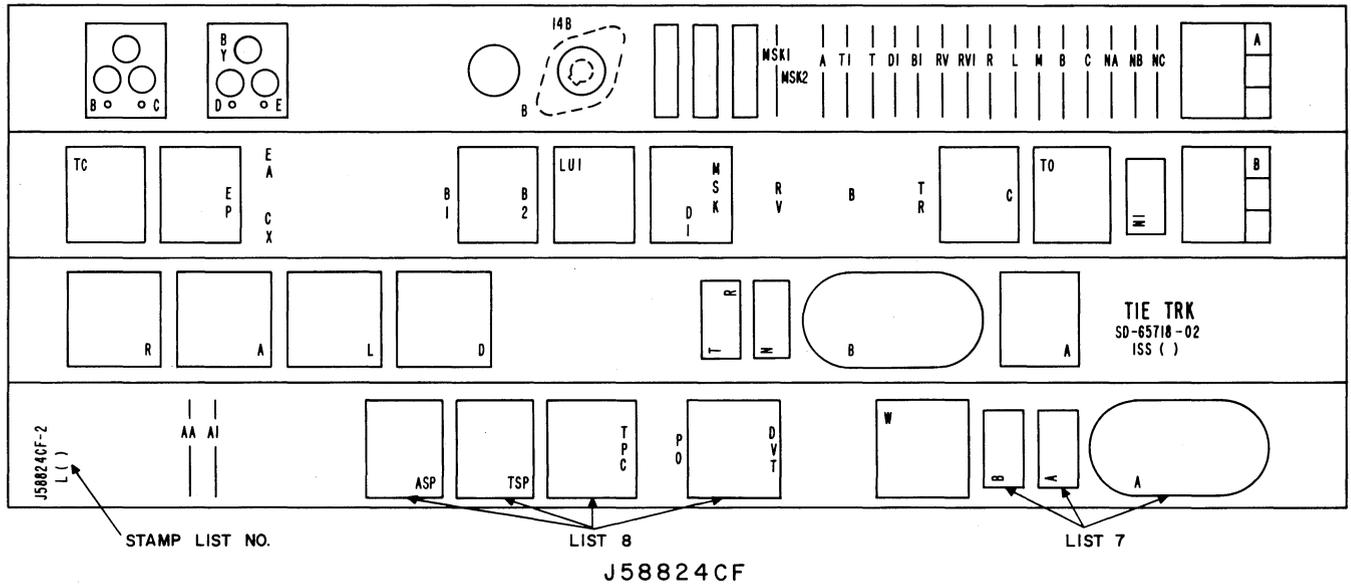
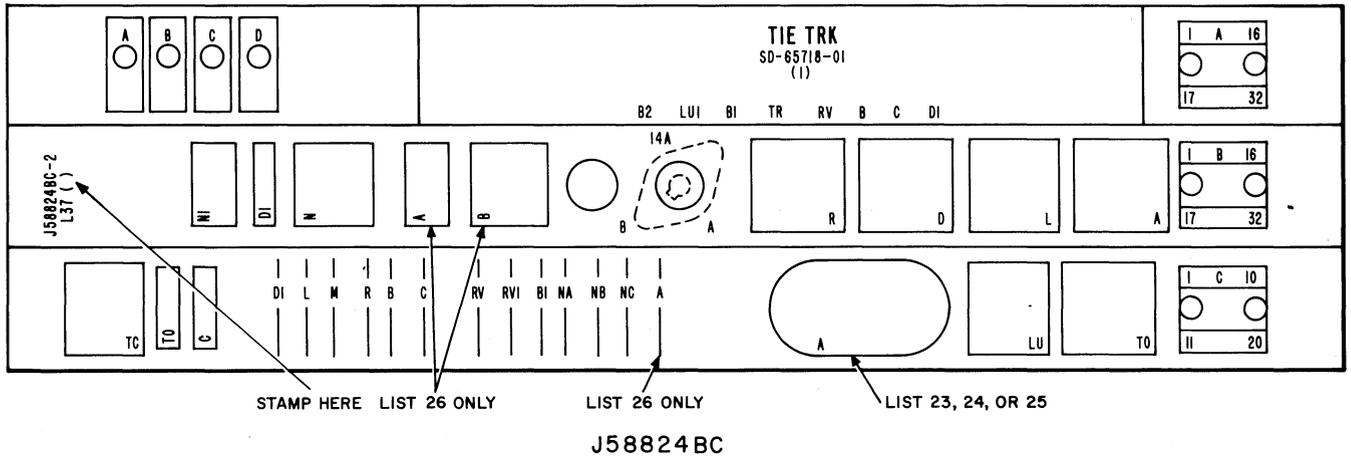


Fig. 4—J58824BC Tie Trunk

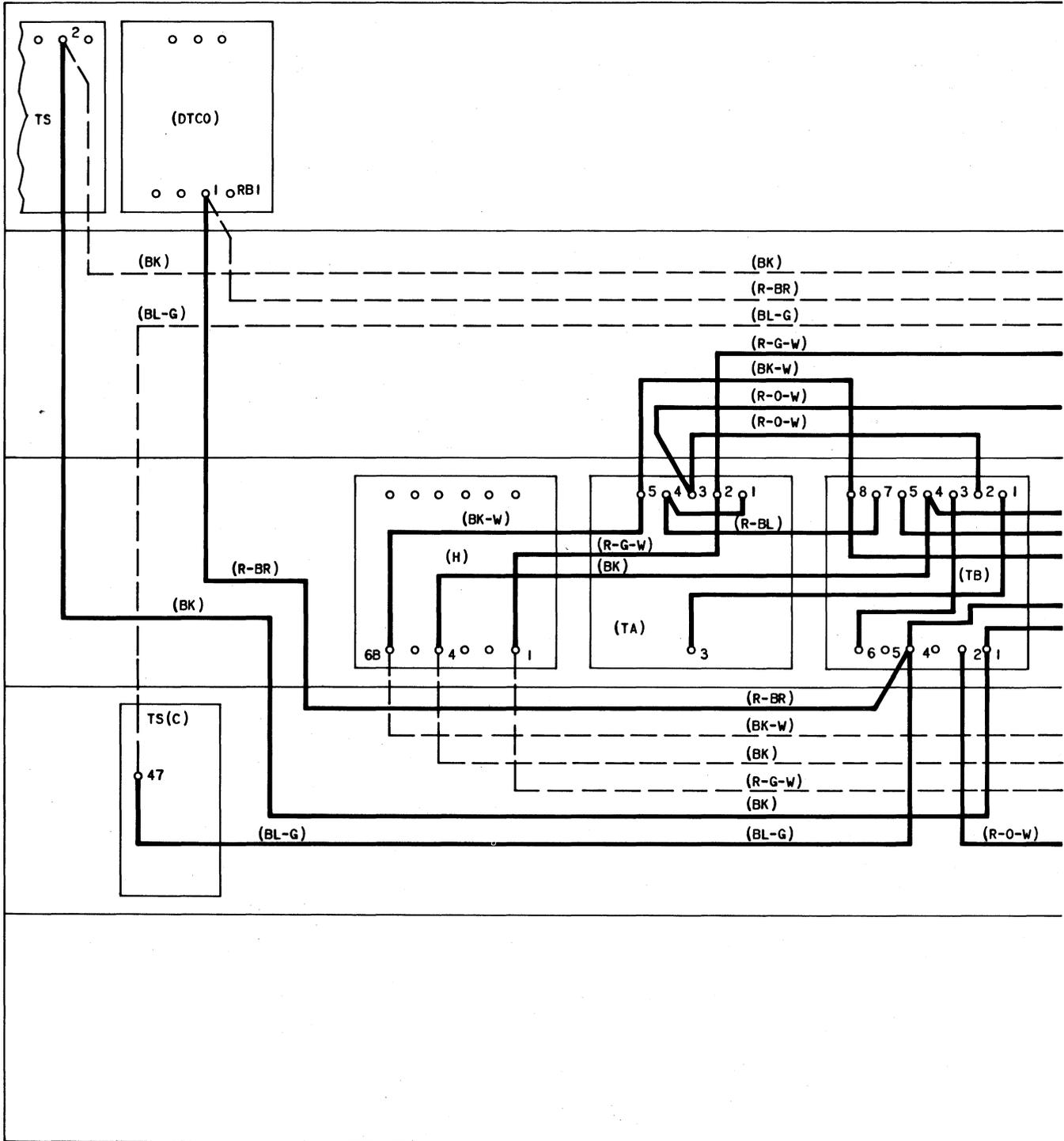
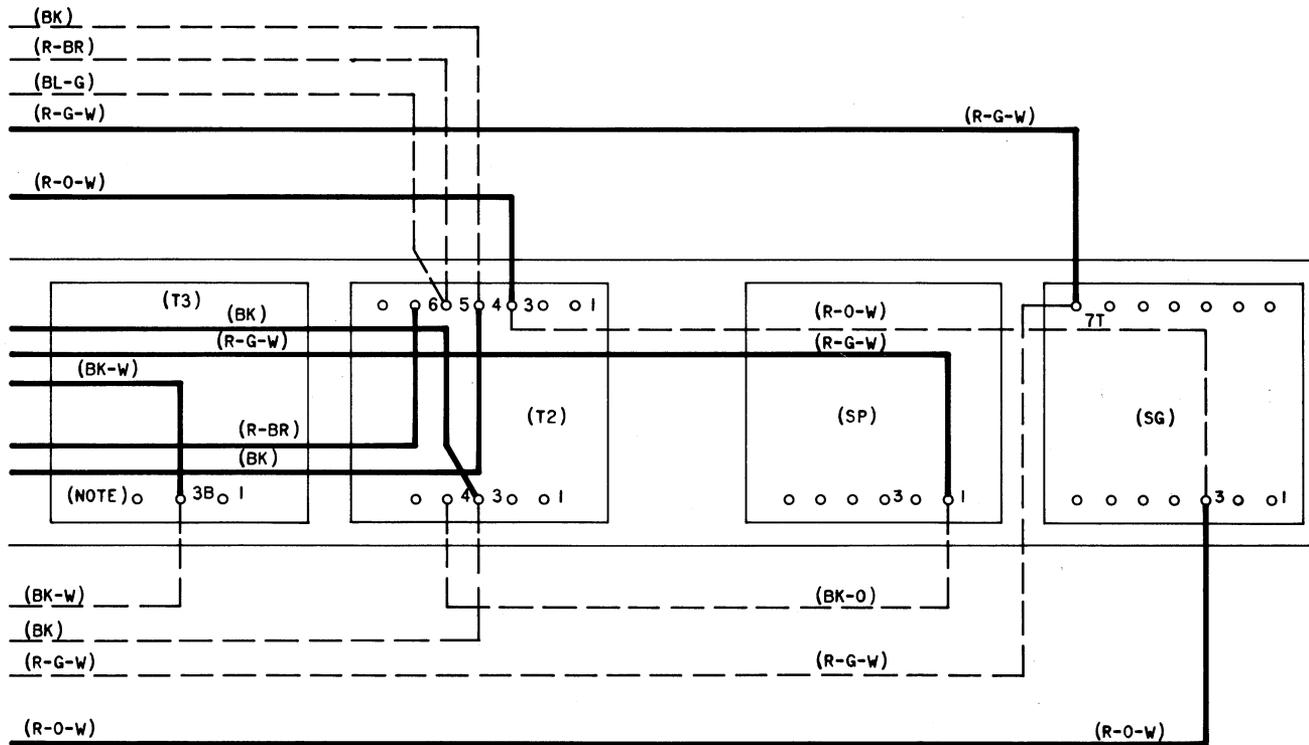


Fig. 5—J58822B-2, List 1, 8, 9, or 10 Code Call Unit—Connections for Adding J58822B-2, List 2 (Sheet 1)



NOTE:
 TERM 3B IS FOR TYPE Y139 RELAY (U OPTION)
 WHEN TYPE Y244 RELAY IS PROVIDED (P OPTION),
 DISCONNECT AND CONNECT WIRING TO TERM. 4B.

LEGEND
 - - - - - WIRING TO BE REMOVED
 ————— WIRING TO BE ADDED.

Fig. 5—J58822B-2, List 1, 8, 9, or 10 Code Call Unit—Connections for Adding J58822B-2, List 2 (Sheet 2)

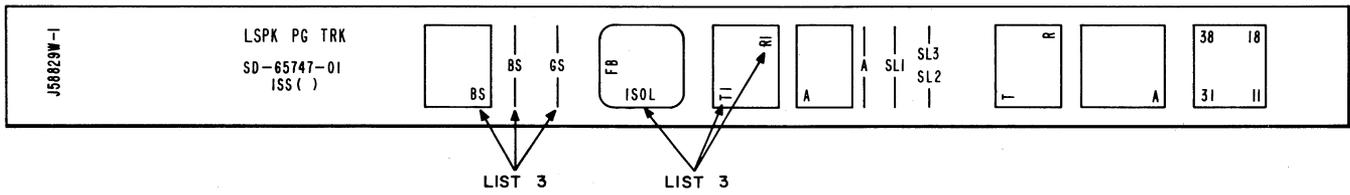


Fig. 6—J58829W, Lists 2 and 3 Loudspeaker Paging Trunk

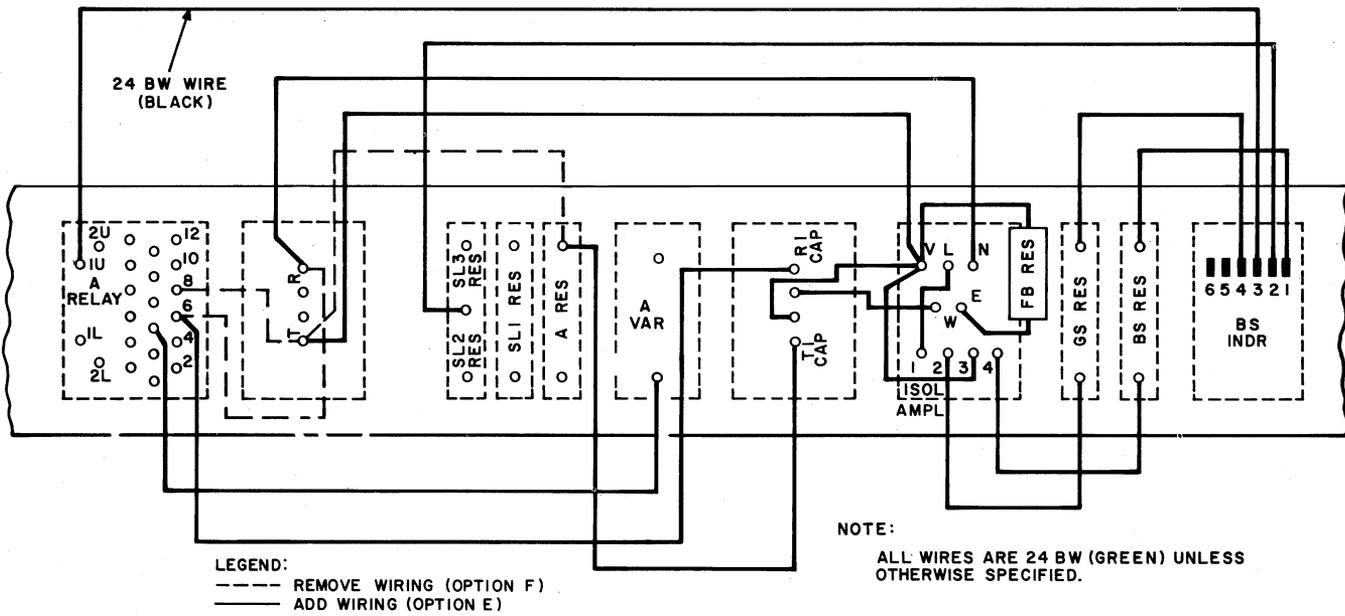


Fig. 7—Wiring for J58829W, List 3 Isolation Amplifier

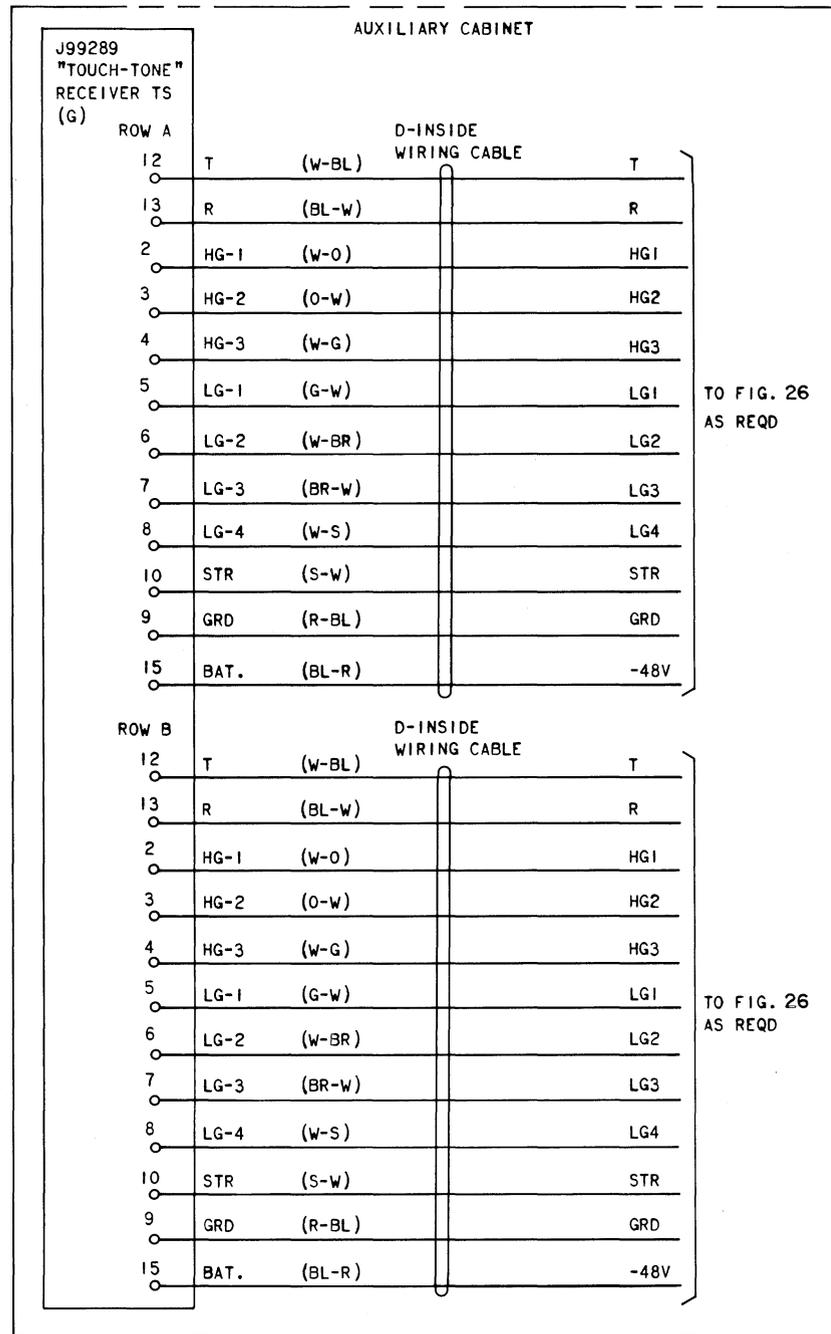
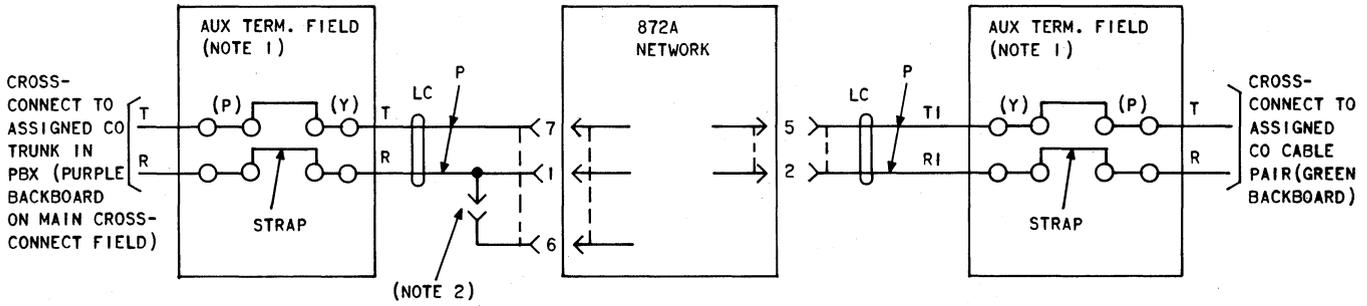


Fig. 8—J99289 TOUCH-TONE Calling Receiver—Connections

SECTION 553-201-202



NOTES:

1. (P) PURPLE BACKBOARD
(Y) YELLOW BACKBOARD
2. FOR 900Ω OPERATION, TERMINAL 6 IS OPEN CIRCUITED.
FOR 600Ω OPERATION, STRAP TERMINALS 1-6 ON 910A CONNECTOR.

Fig. 9—872A (LBO) Network—Connections

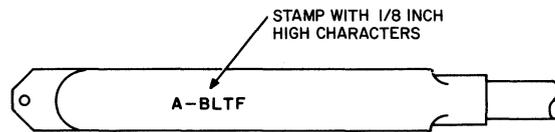
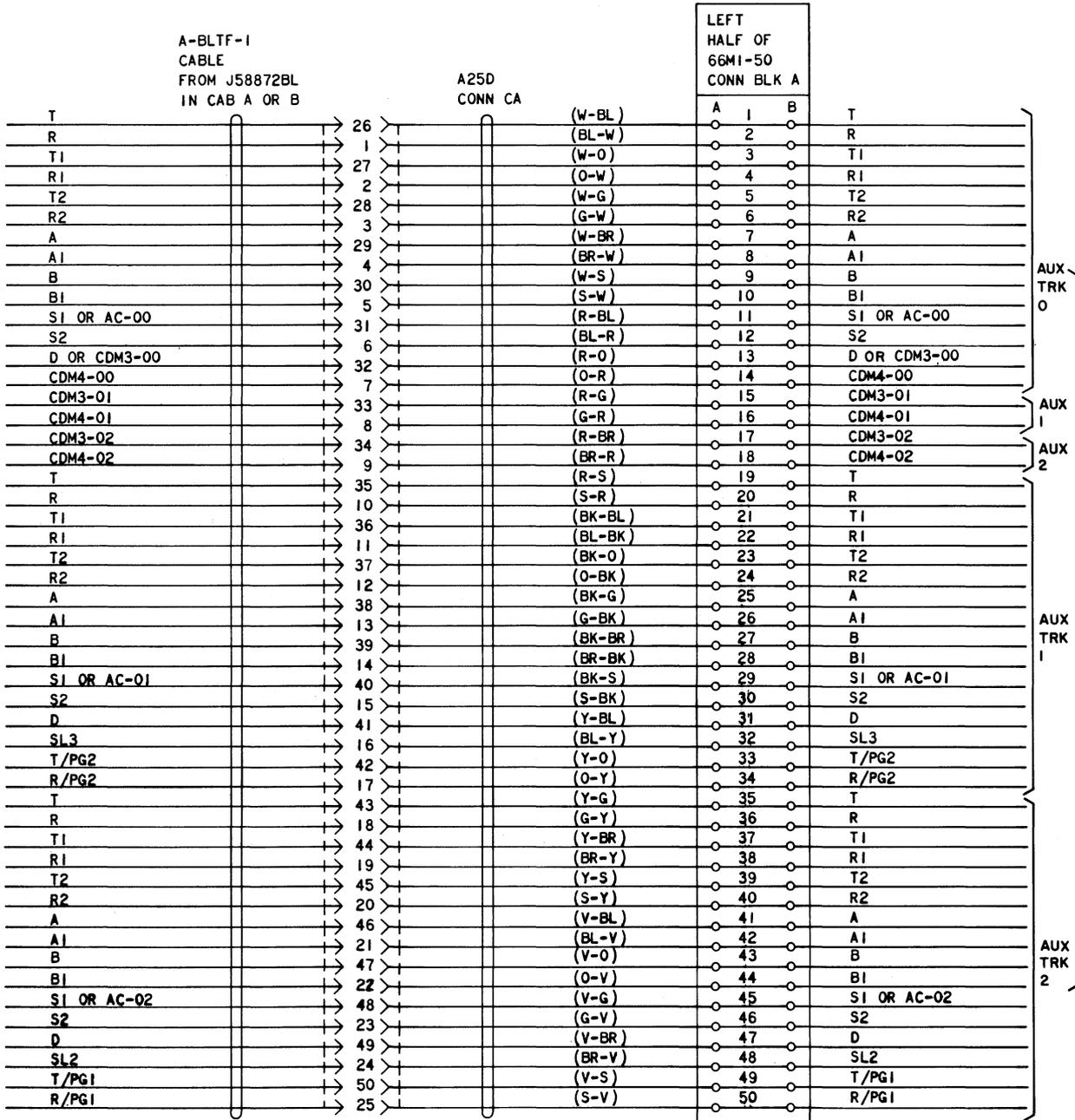
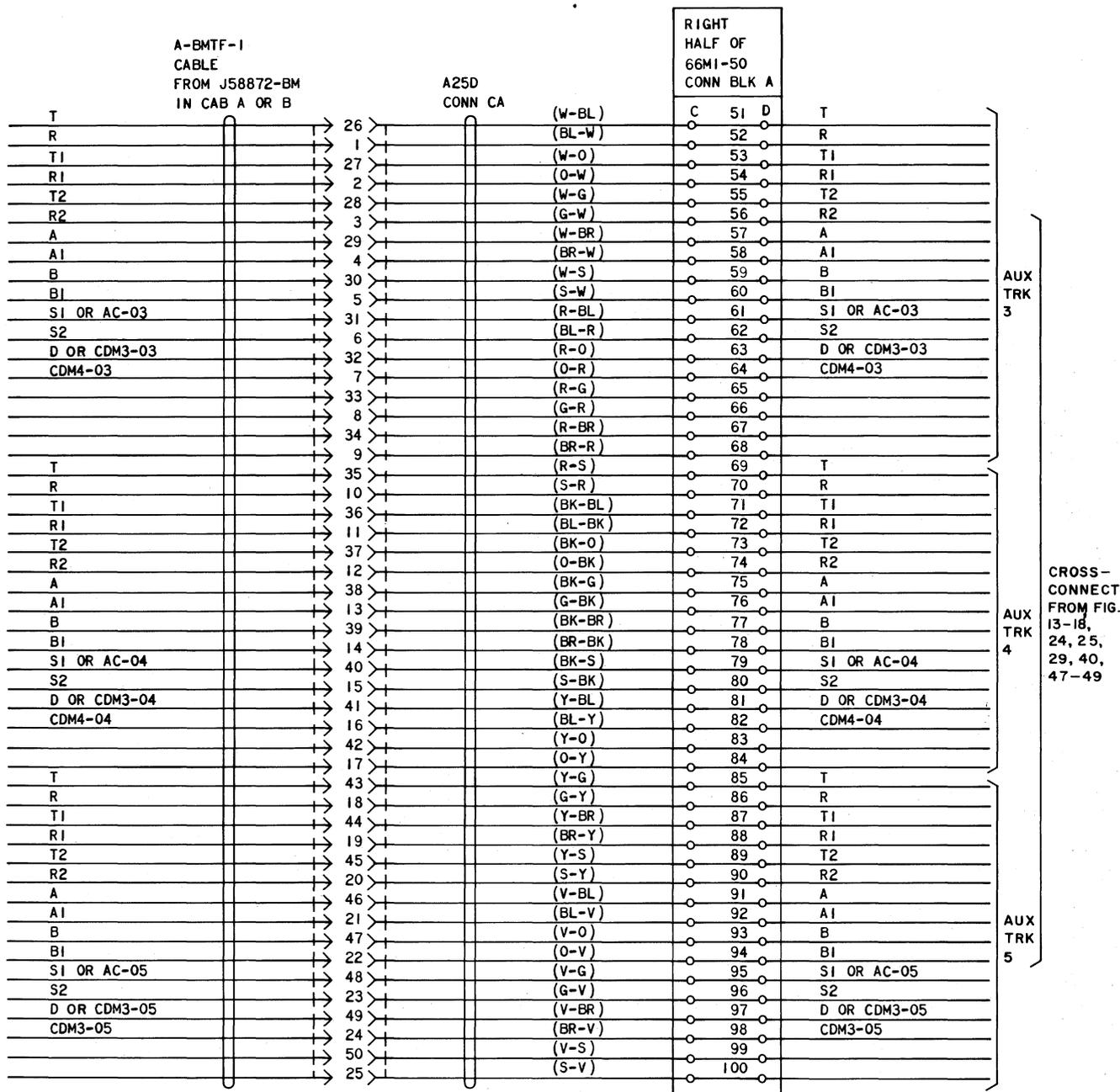


Fig. 10—Connector Stamping

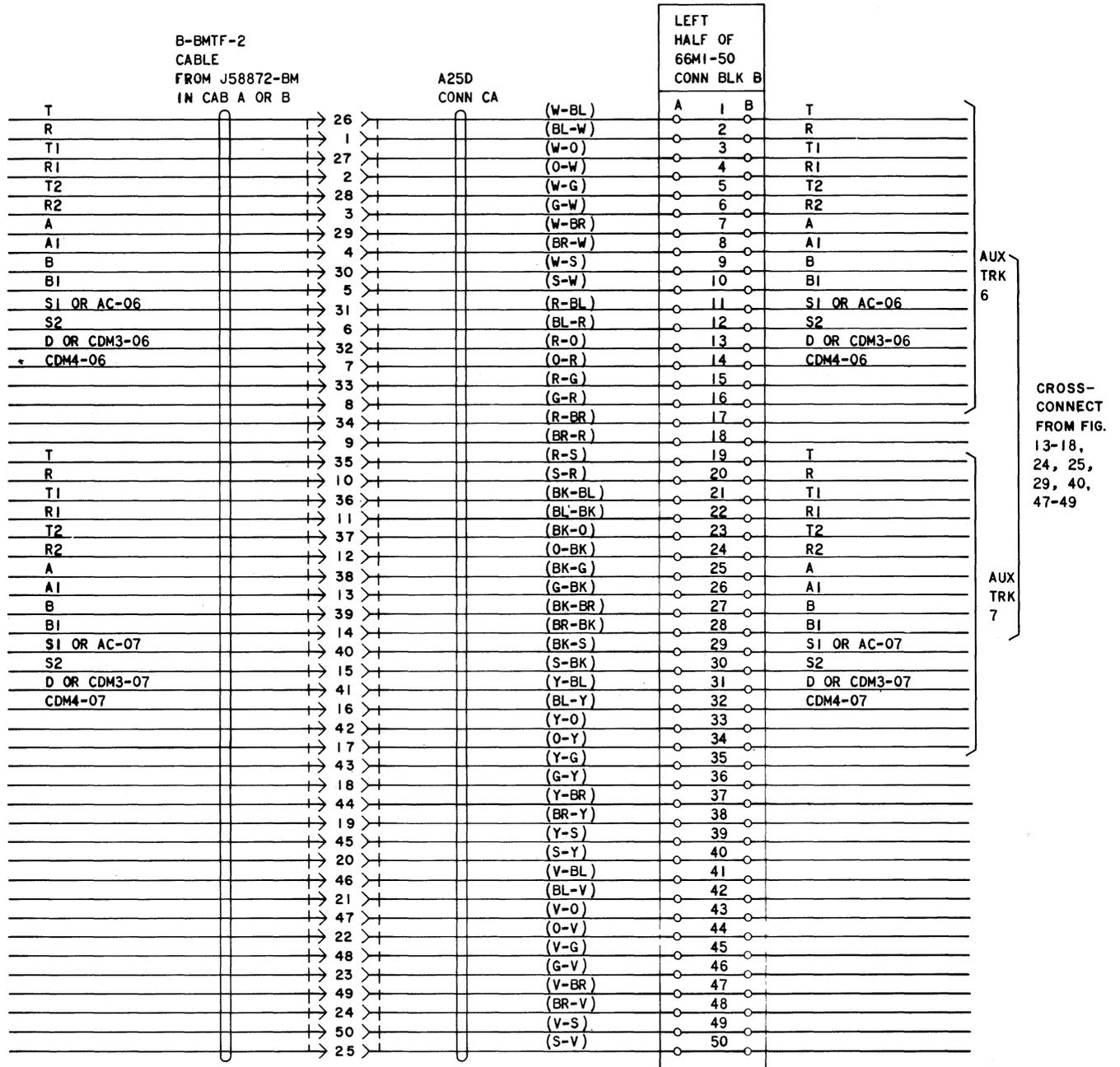


◆ Fig. 11—801A PBX Auxiliary Trunks—Connections (Sheet 1) ◆

SECTION 553-201-202

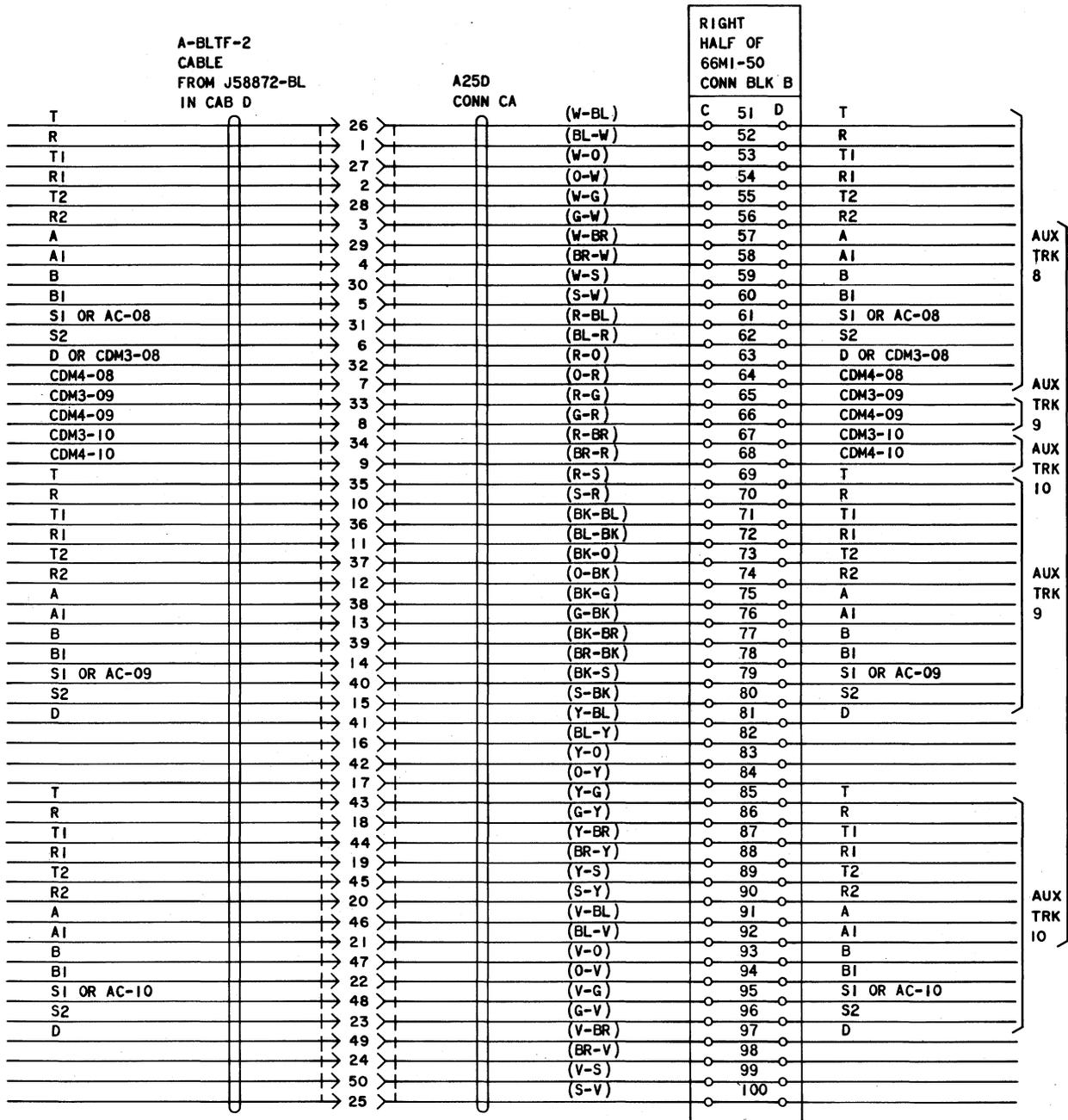


◆ Fig. 11—801A PBX Auxiliary Trunks—Connections (Sheet 2) ◆



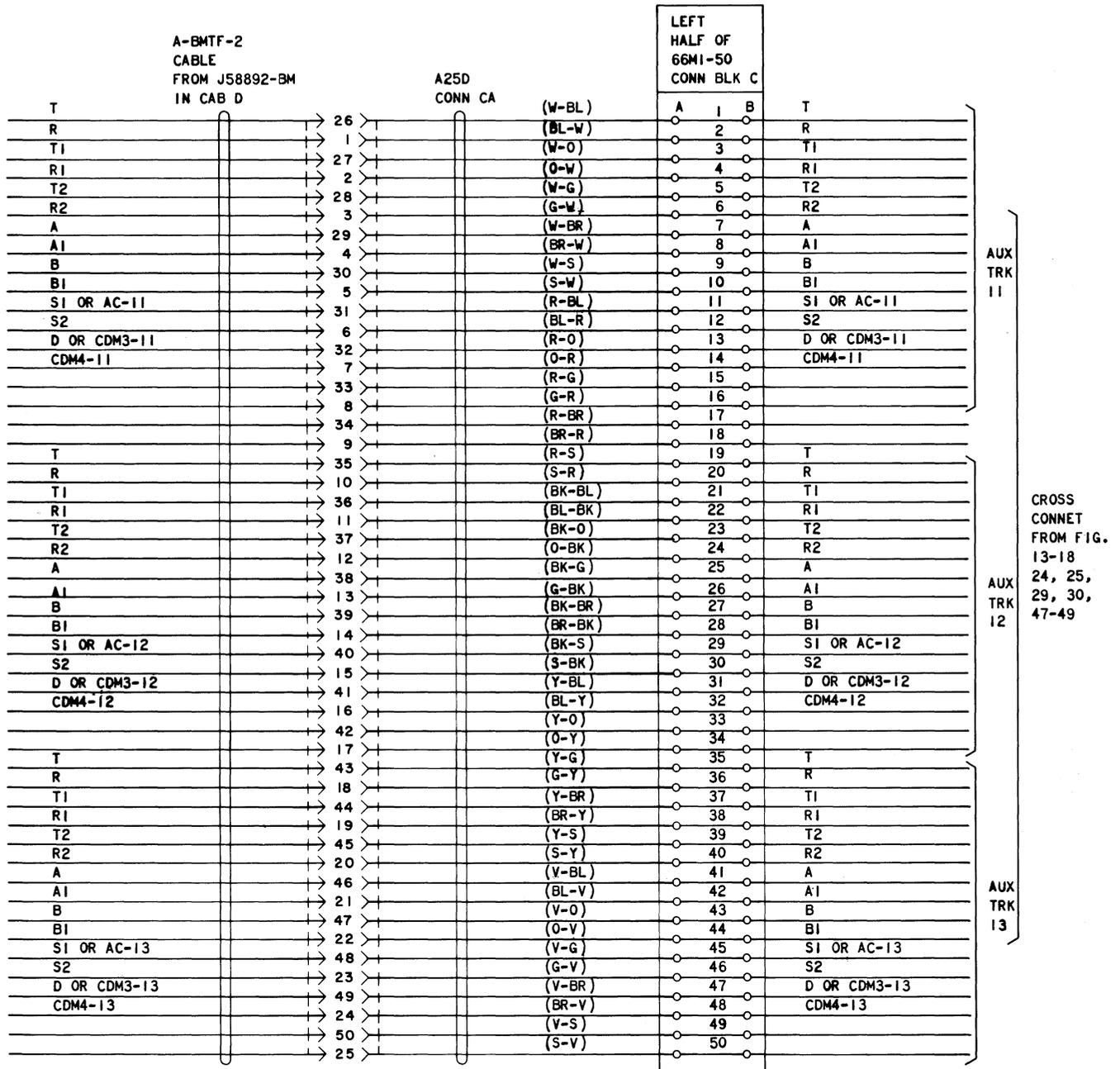
◆ Fig. 11—801A PBX Auxiliary Trunks—Connections (Sheet 3) ◆

SECTION 553-201-202



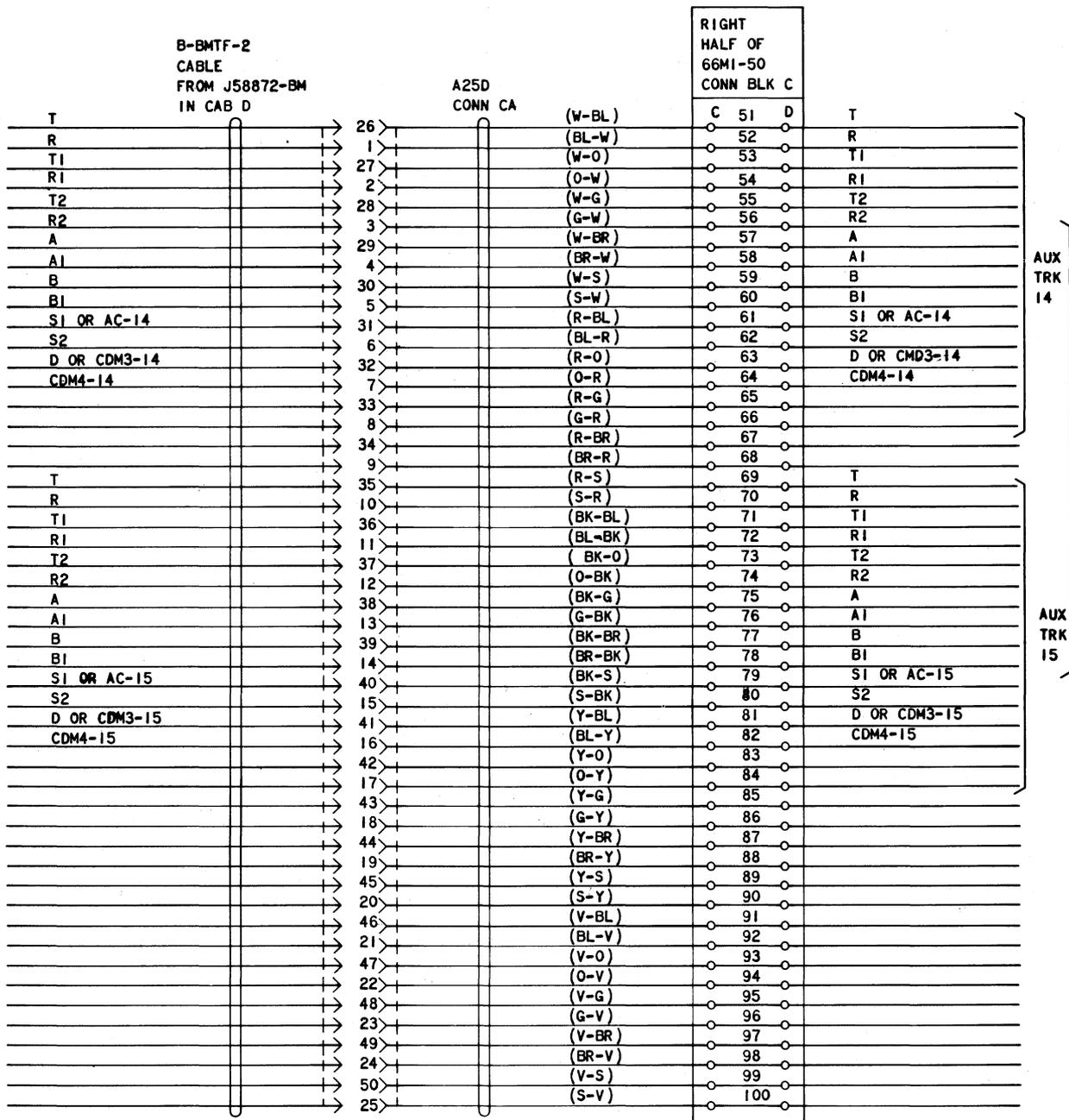
CROSS CONNECT FROM FIG. 13-18, 24, 25, 29, 40, 47-49

Fig. 11—801A PBX Auxiliary Trunks—Connections (Sheet 4)



◆ Fig. 11—801A PBX Auxiliary Trunks—Connections (Sheet 5) ◆

SECTION 553-201-202



CROSS CONNECT FROM FIG. 13-18, 24, 25, 29, 40, 47-49

◆ Fig. 11—801A PBX Auxiliary Trunk—Connections (Sheet 6) ◆

SECTION 553-201-202

AUXILIARY TERMINATION FIELD ED-1E073-50, GRP 3

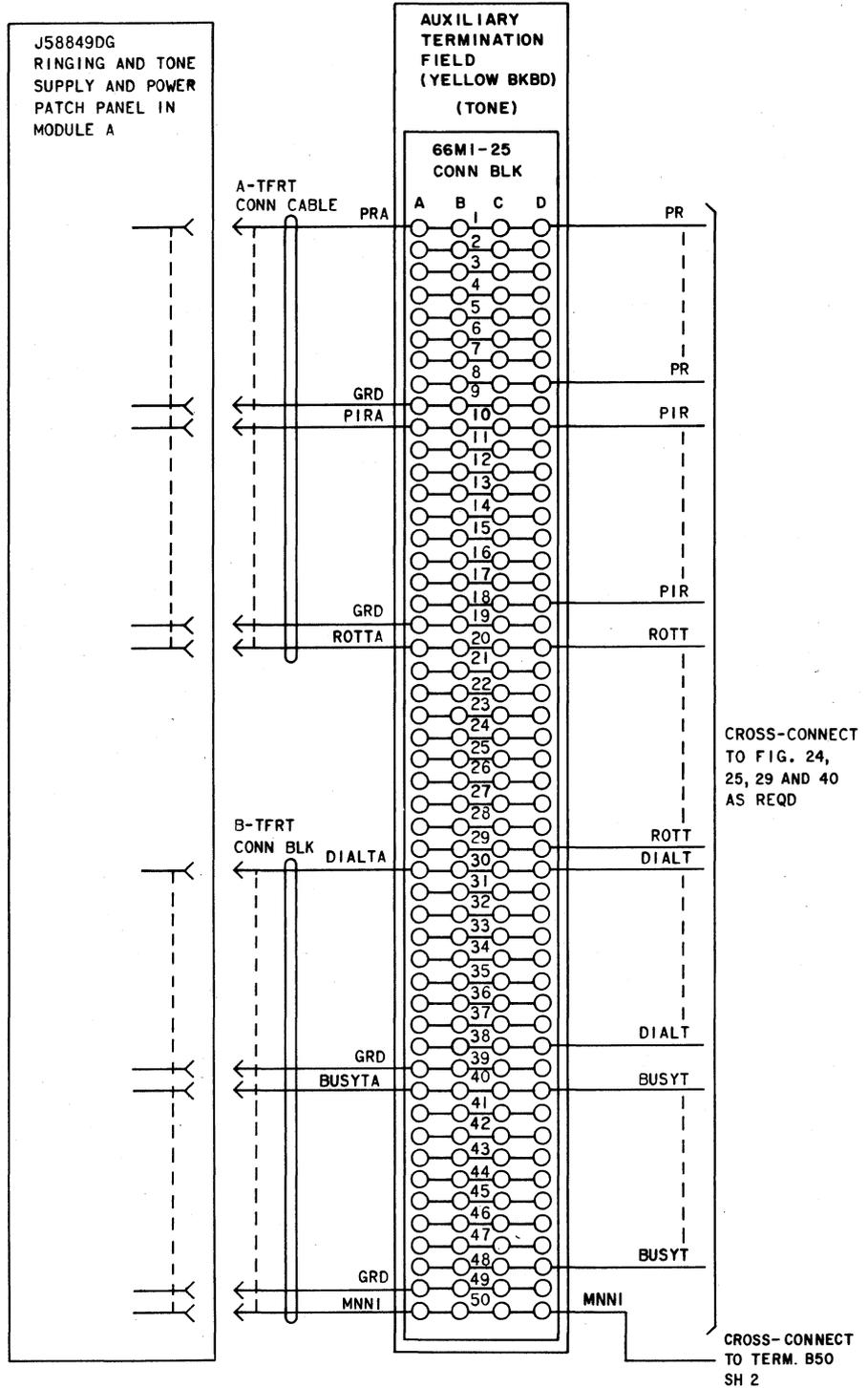


Fig. 12—Power and Tones—Connections (Sheet 1)

AUXILIARY TERMINATION FIELD ED-IE073-50, GRP 3

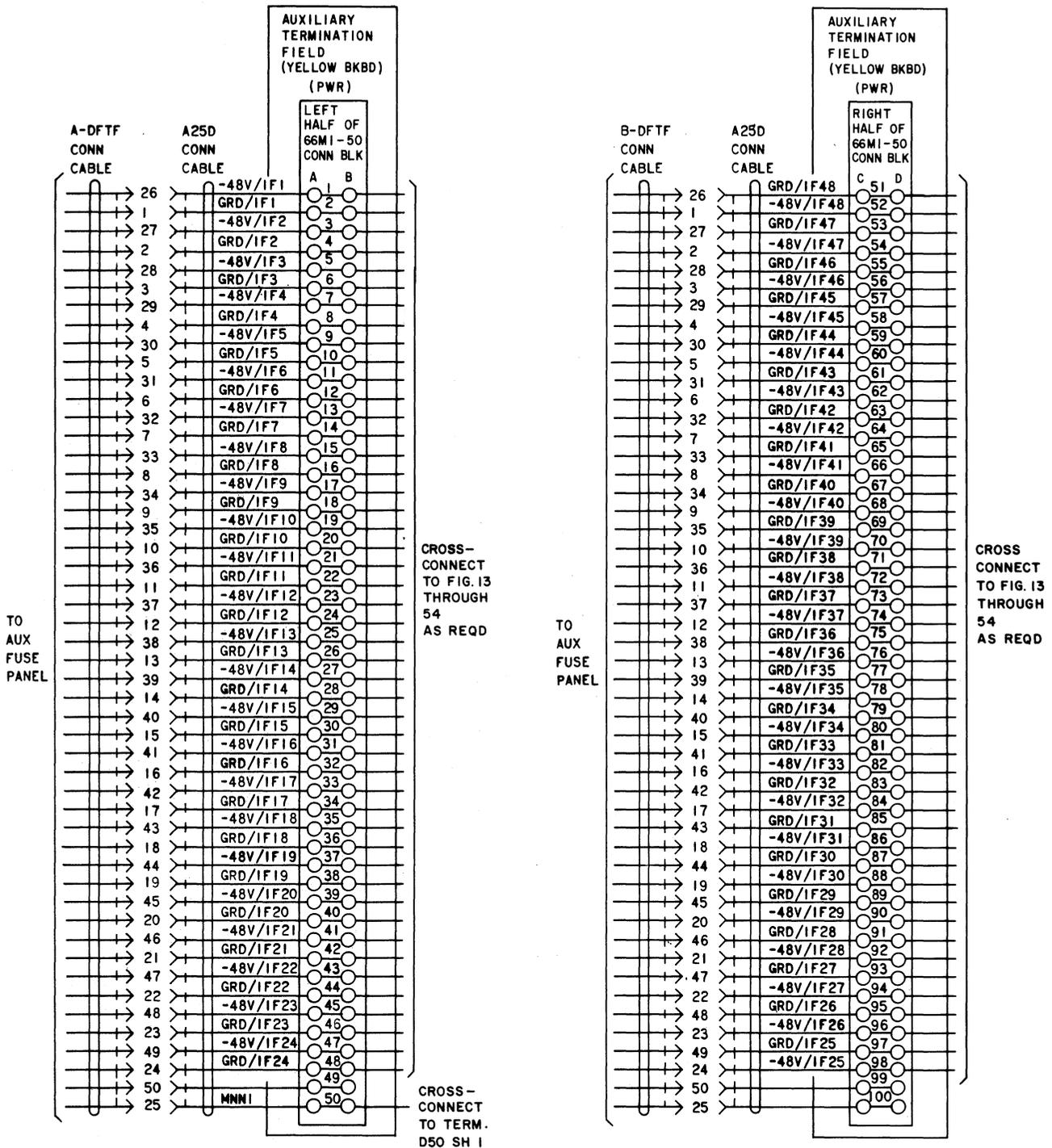
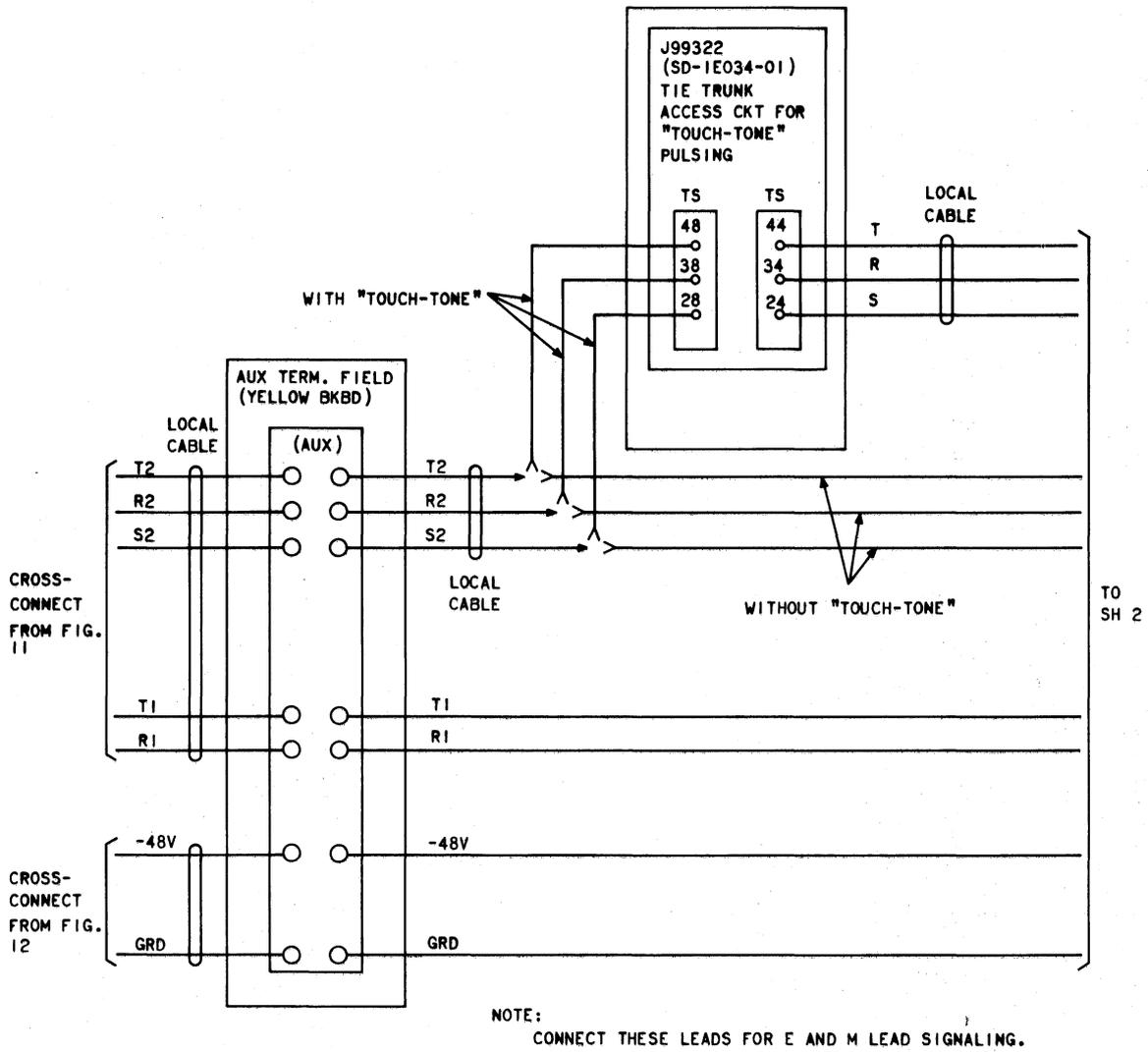


Fig. 12—Power and Tones—Connections (Sheet 2)



◆ Fig. 13—Dial Repeating Tie Trunk J58824BC-2—Connections for 2-Wire Trunk and 2-Wire Transmission With or Without TOUCH-TONE Calling (Sheet 1) ◆

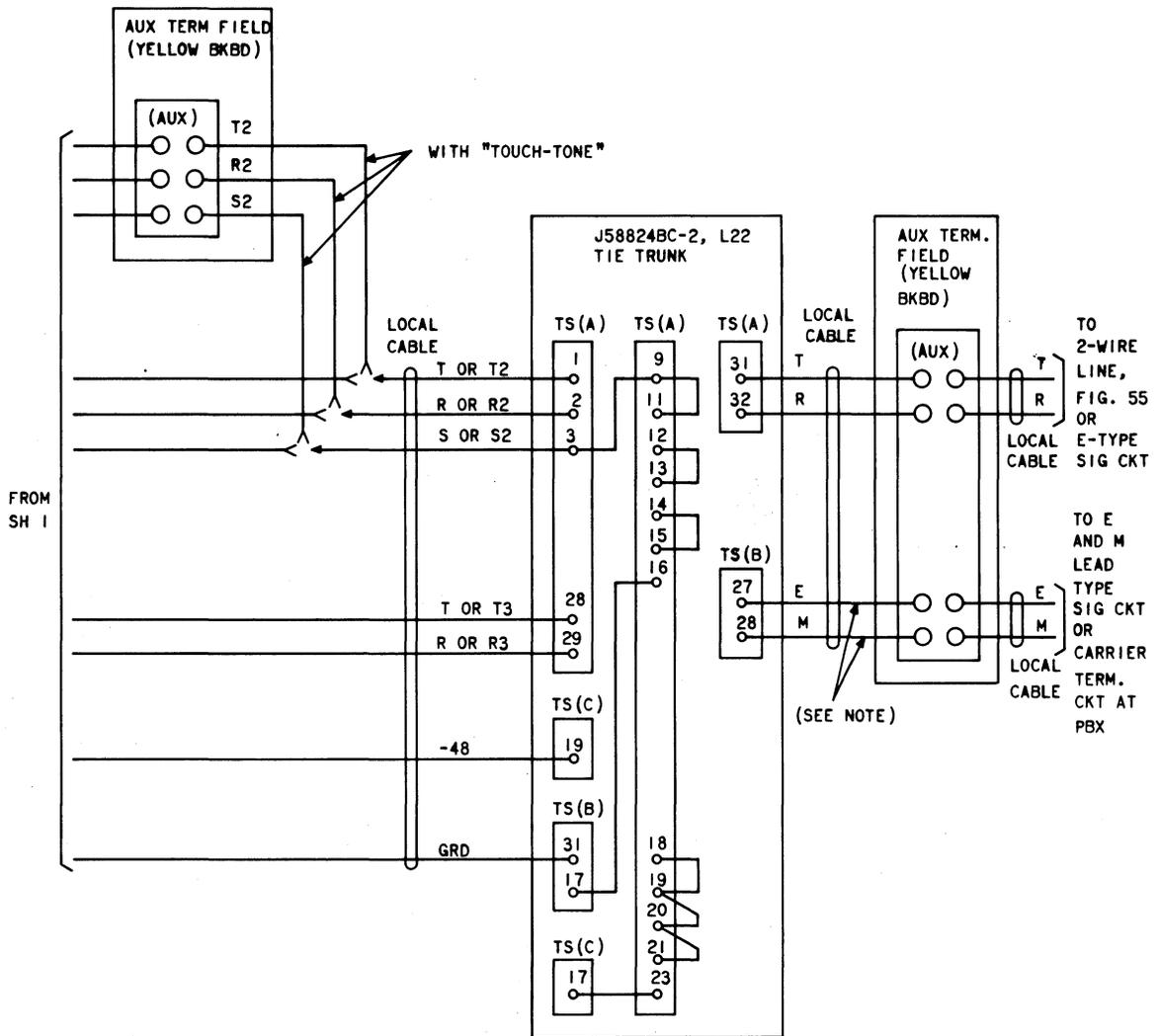
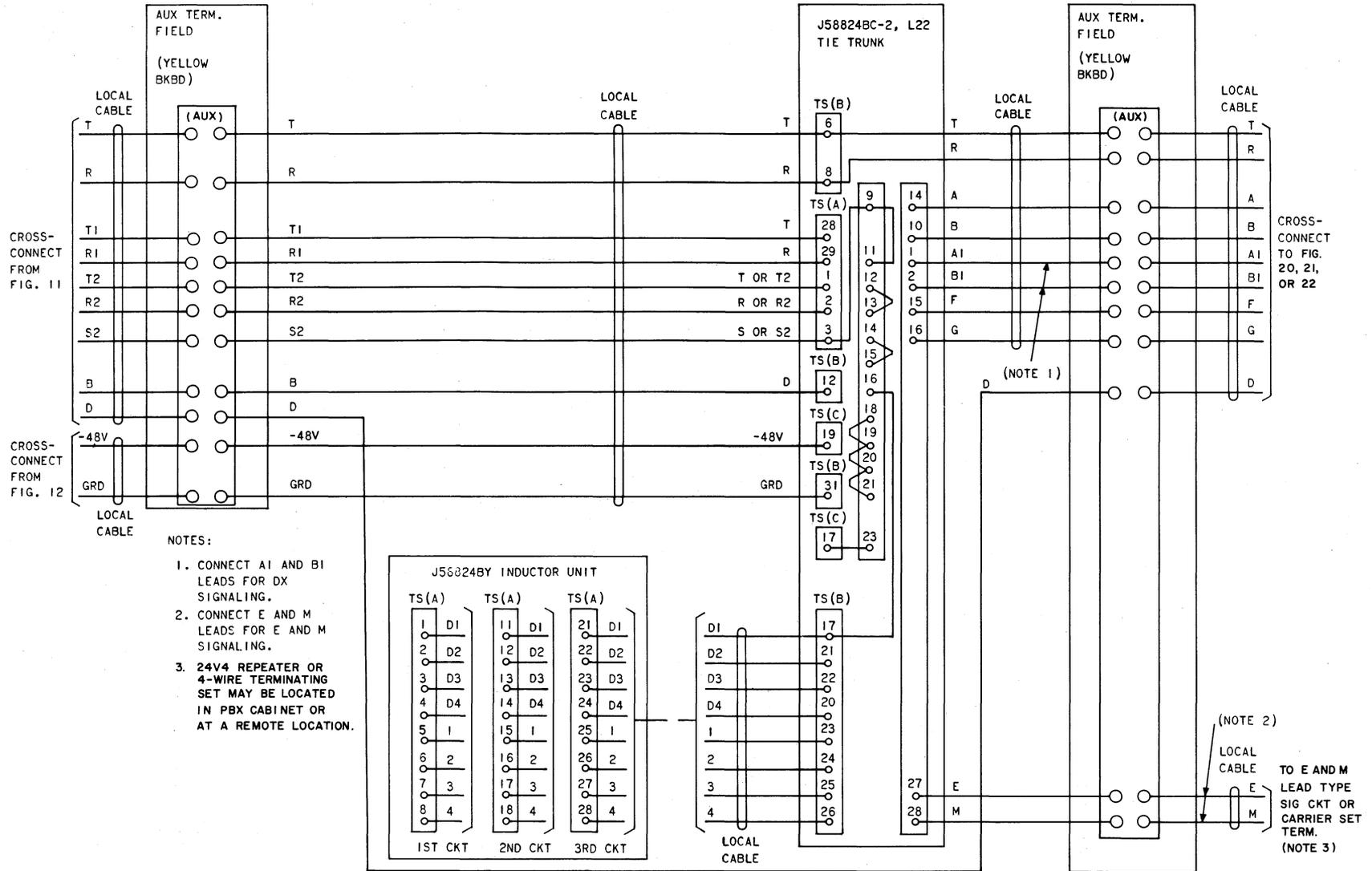
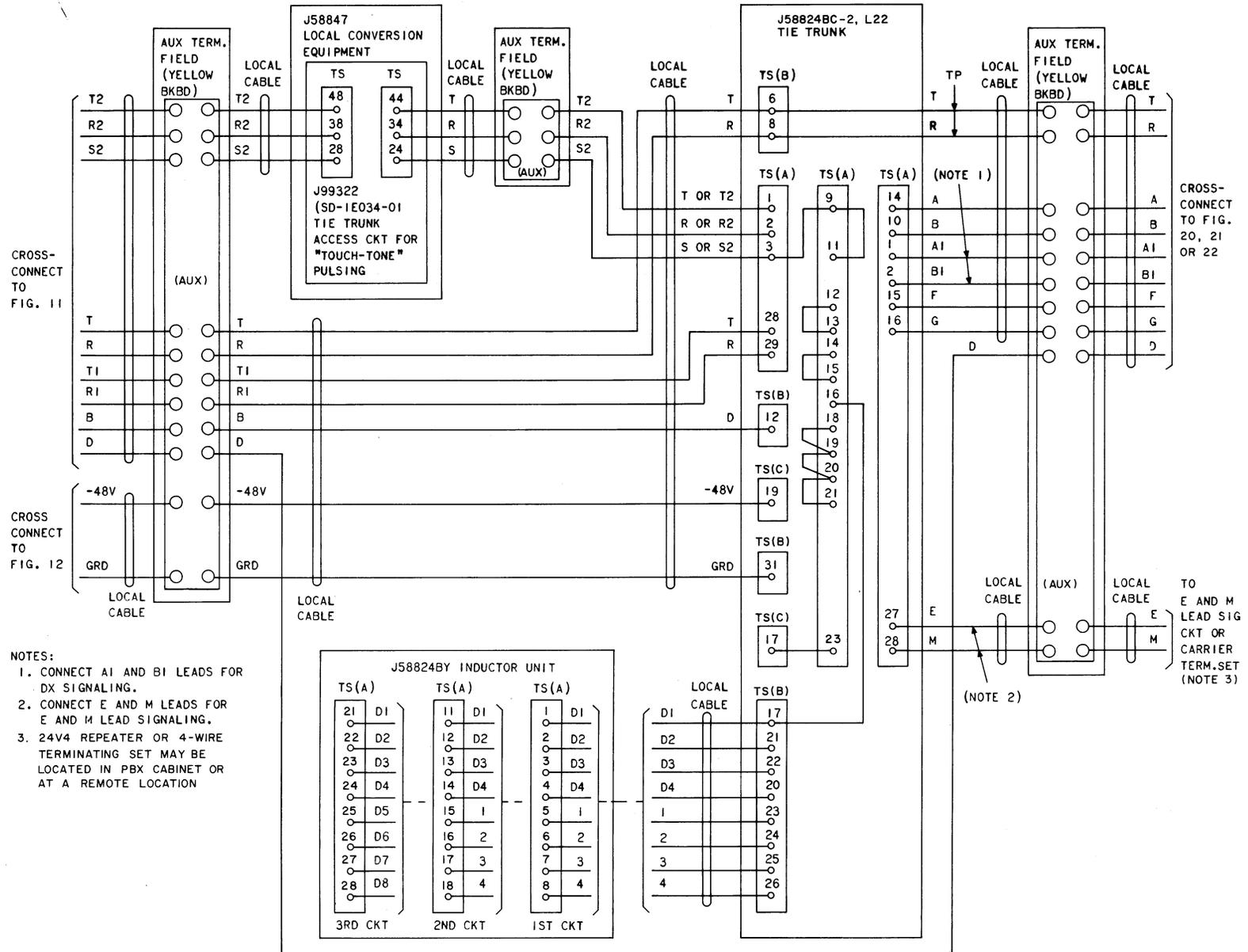


Fig. 13—Dial Repeating Tie Trunk J58824BC-2—Connections for 2-Wire Trunk and 2-Wire Transmission With or Without TOUCH-TONE Calling (Sheet 2)

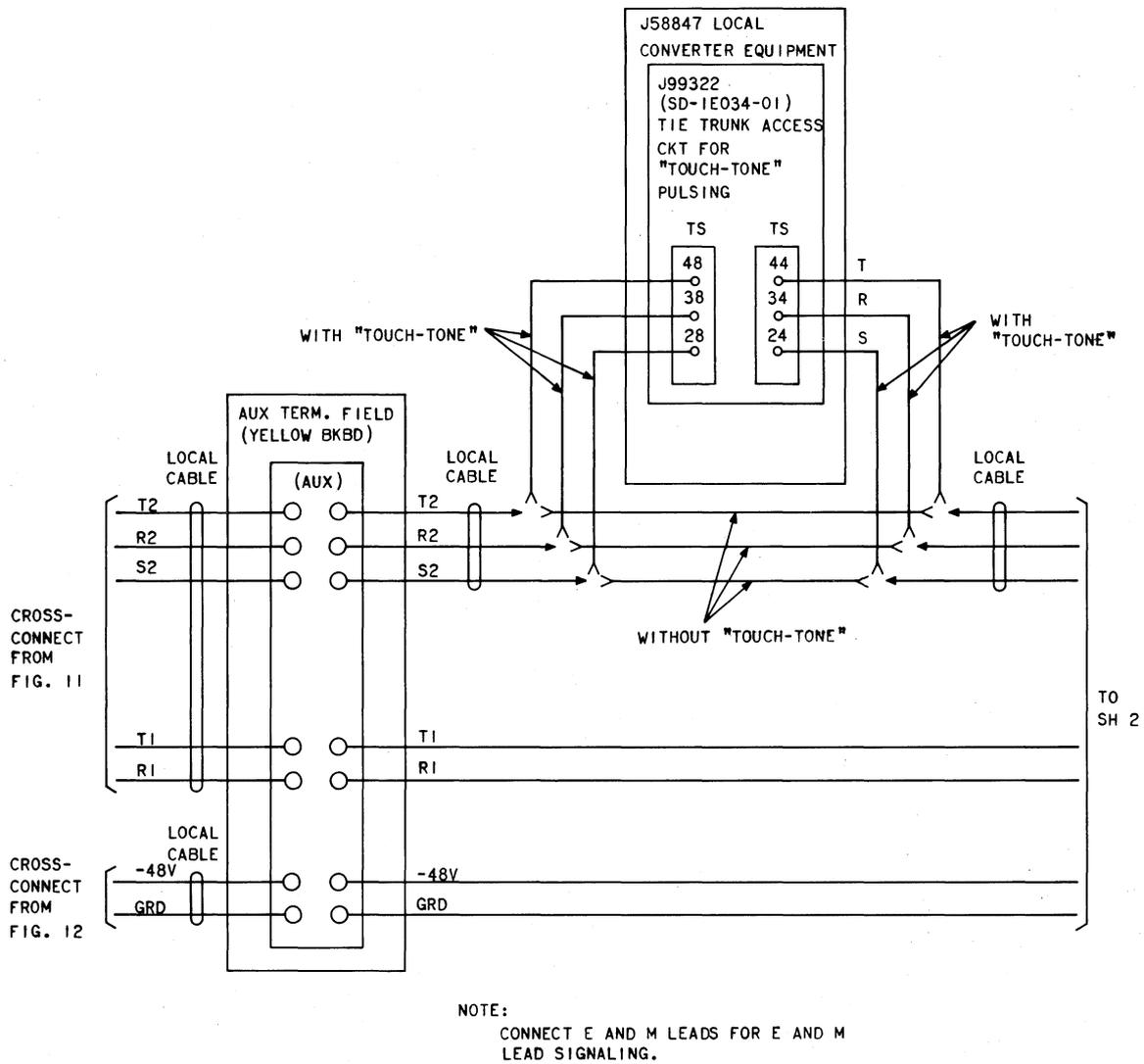


◆ Fig. 14—Dial Repeating Tie Trunk J58824BC-2—Connections for 4-Wire Operation With 24V4 Repeater or 4-Wire Terminating Set ◆

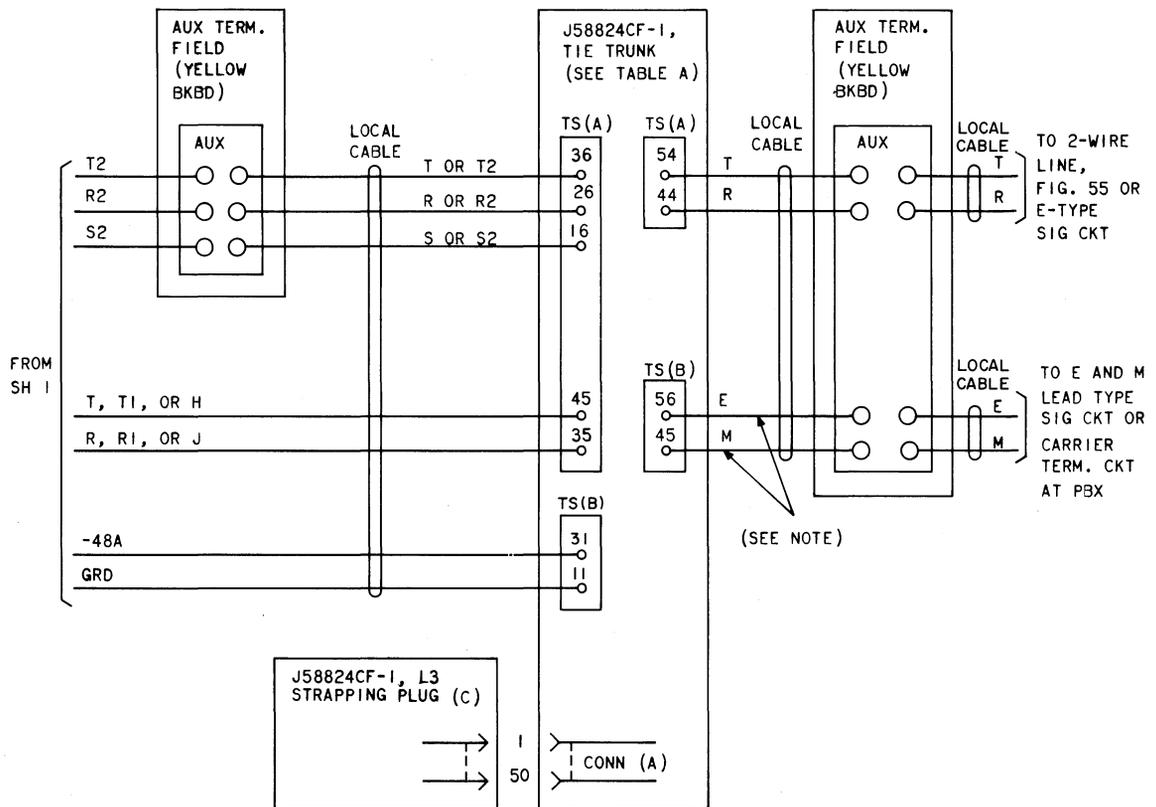


- NOTES:
1. CONNECT AI AND BI LEADS FOR DX SIGNALING.
 2. CONNECT E AND M LEADS FOR E AND M LEAD SIGNALING.
 3. 24V4 REPEATER OR 4-WIRE TERMINATING SET MAY BE LOCATED IN PBX CABINET OR AT A REMOTE LOCATION

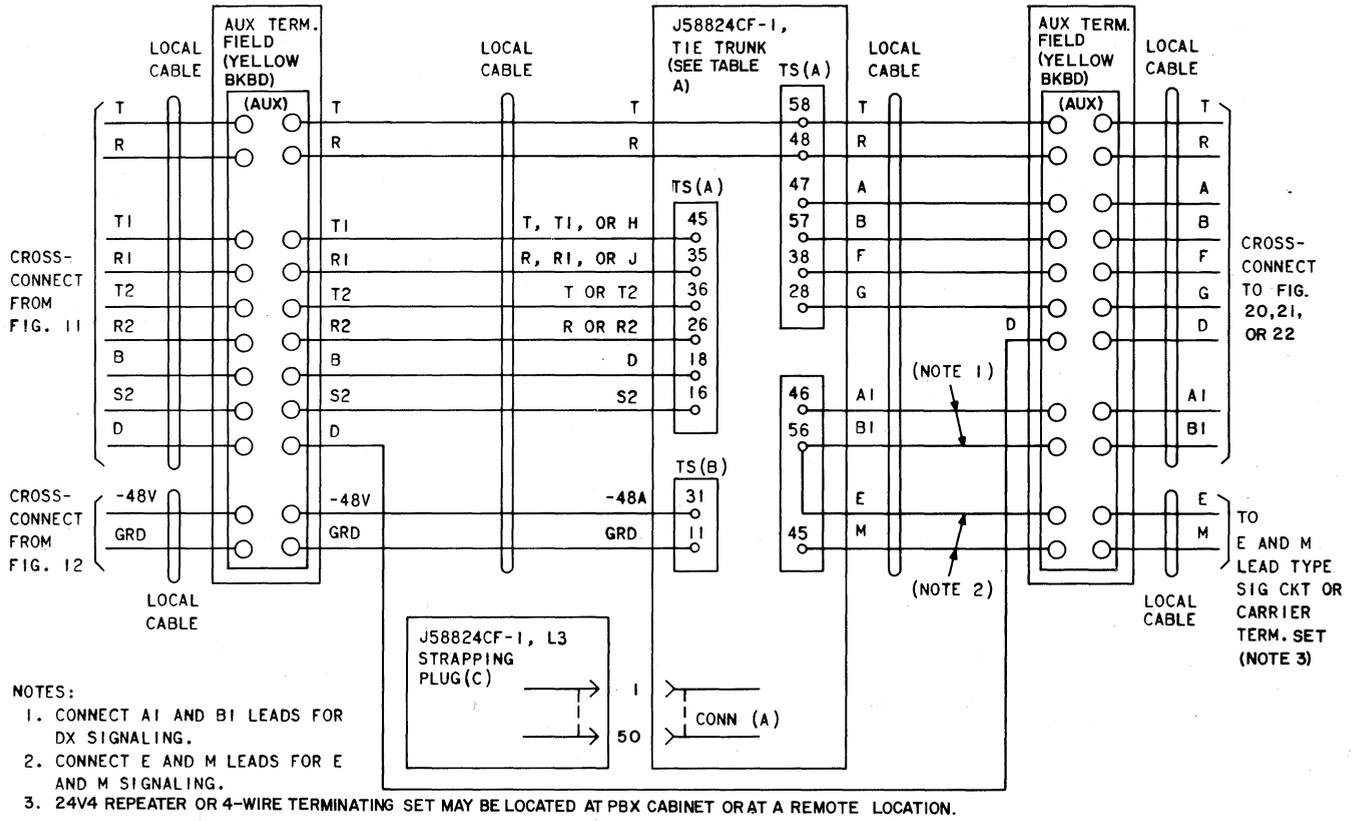
◆ Fig. 15—Dial Repeating Tie Trunk J58824BC-2—Connections for 4-Wire Operation With 24V4 Repeater or 4-Wire Terminating Set and PBX Equipped for TOUCH-TONE Calling ◆



◆ Fig. 16—Dial Repeating Tie Trunk J58824CF—Connections for 2-Wire Trunk and 2-Wire Transmission (Sheet 1) ◆



◆ Fig. 16—Dial Repeating Tie Trunk J58824CF—Connections for 2-Wire Trunk and 2-Wire Transmission (Sheet 2) ◆



◆ Fig. 17—Dial Repeating Tie Trunk J58824CF—Connections for 4-Wire Operation and 24V4 Repeater or 4-Wire Terminating Set ◆

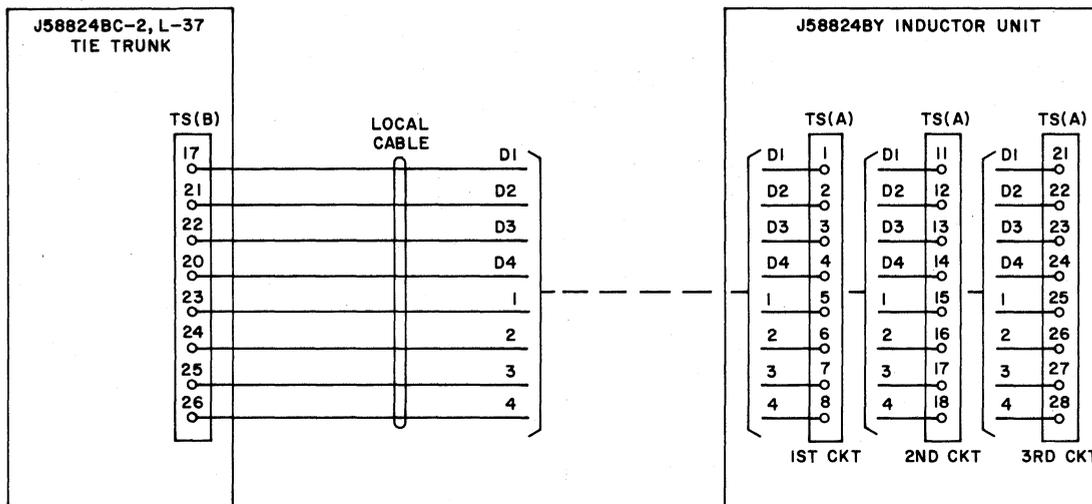


Fig. 19—Dial Repeating Tie Trunk J58824BC-2—Connections for Improved 2-Wire Transmission

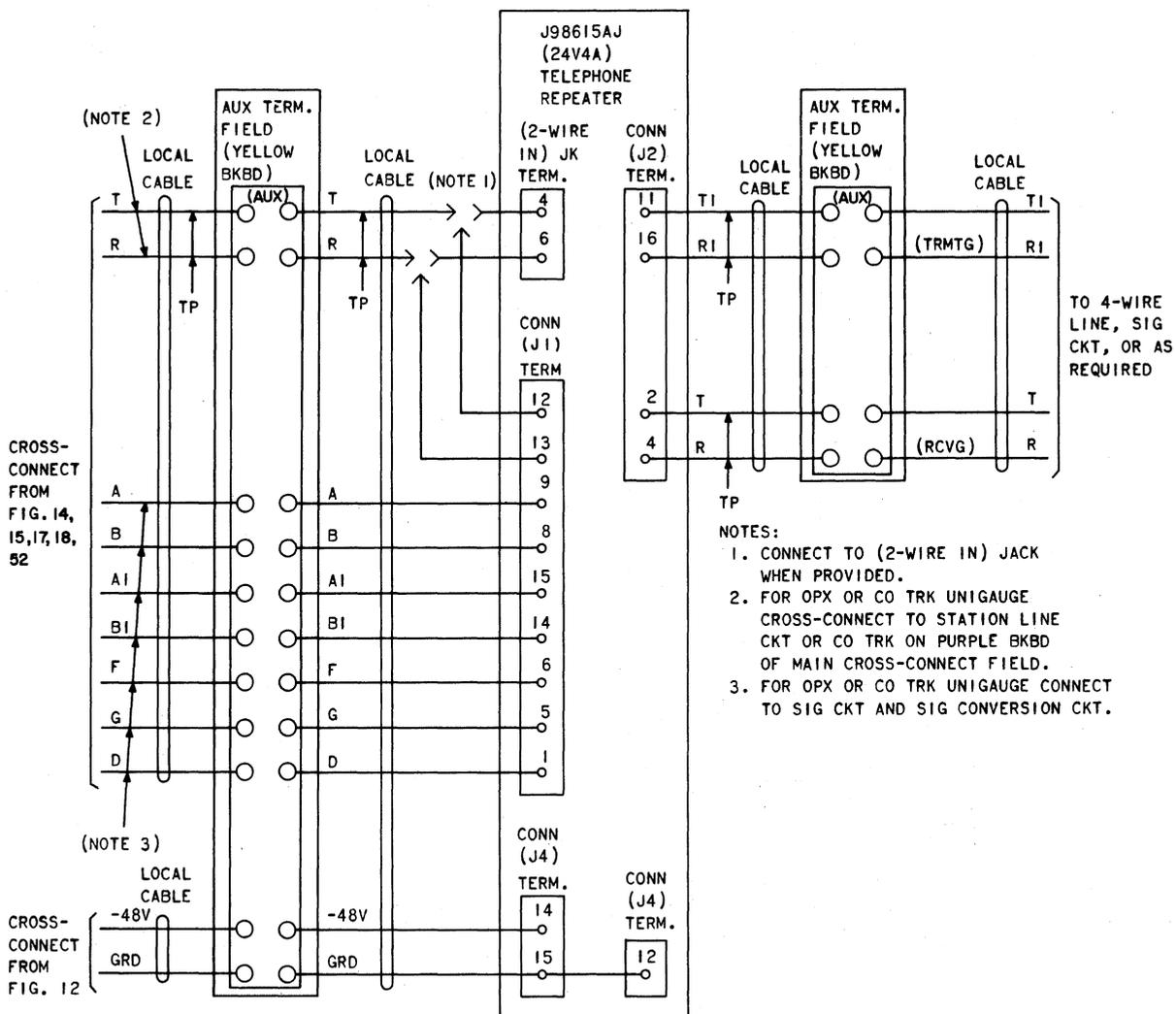
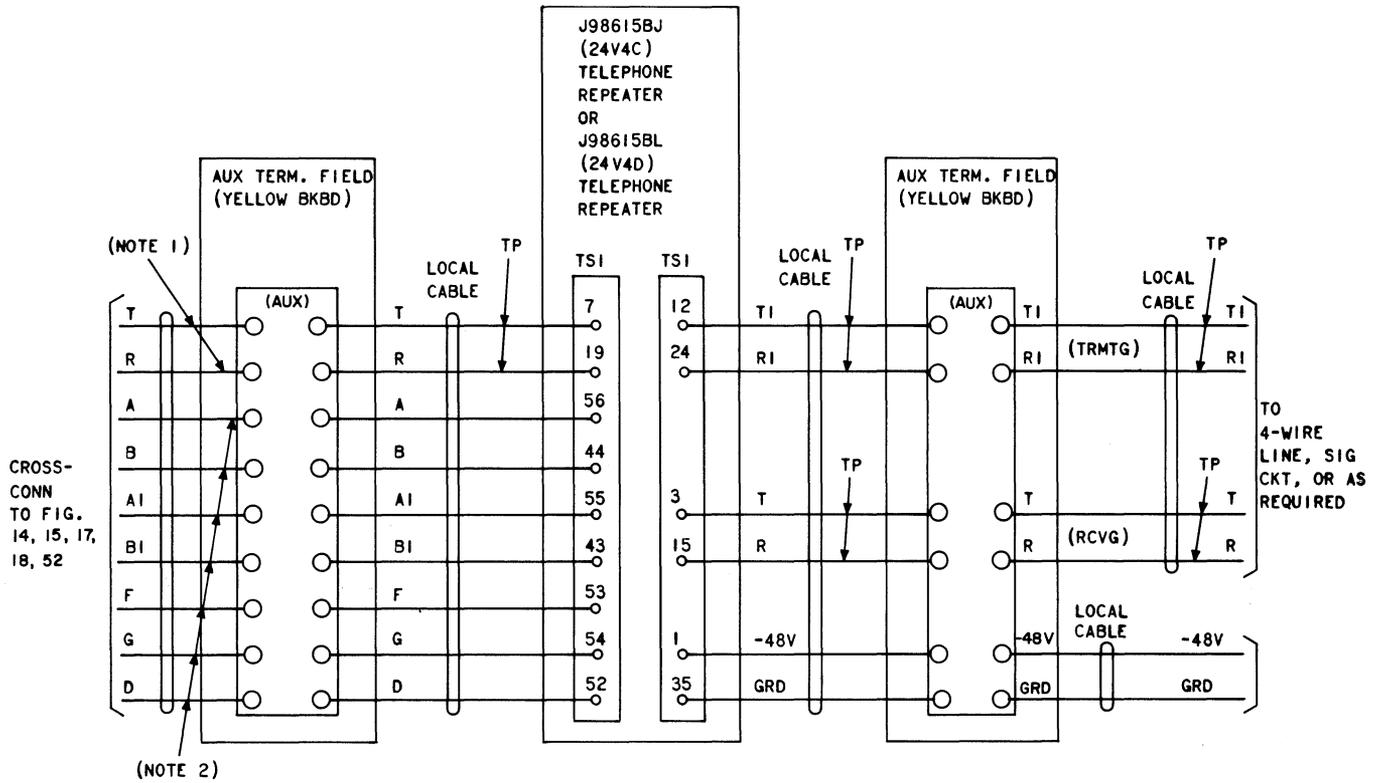


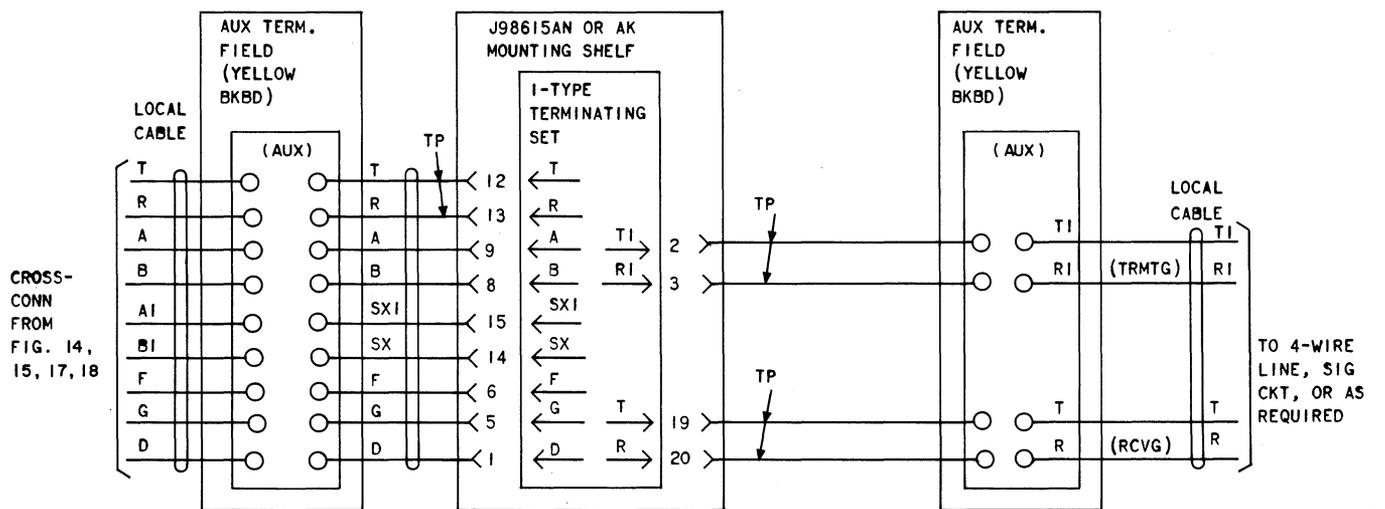
Fig. 20—J98615AJ (24V4A) Telephone Repeater—Connections



NOTES:

1. FOR OPX OR CO TRK UNIGAUGE CROSS-CONN TO STA LINE CKT OR CO TRK ON PURPLE BKBD ON MAIN CROSS-CONN FIELD.
2. FOR OPX OR CO TRK UNIGAUGE CONNECT TO SIG CKT AND SIG CONVERSION CKT.

◆ Fig. 21—J98615BJ or BK (24V4C or D) Telephone Repeater—Connections ◆



◆ Fig. 22—J98615AN or AK Mounting Shelf (I-Type Terminating Set)—Connections ◆

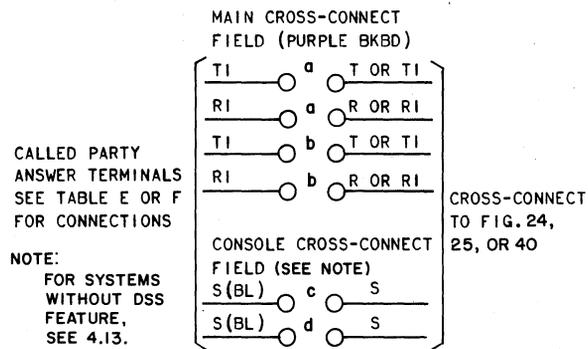


Fig. 23—Called Party Answer—Connections

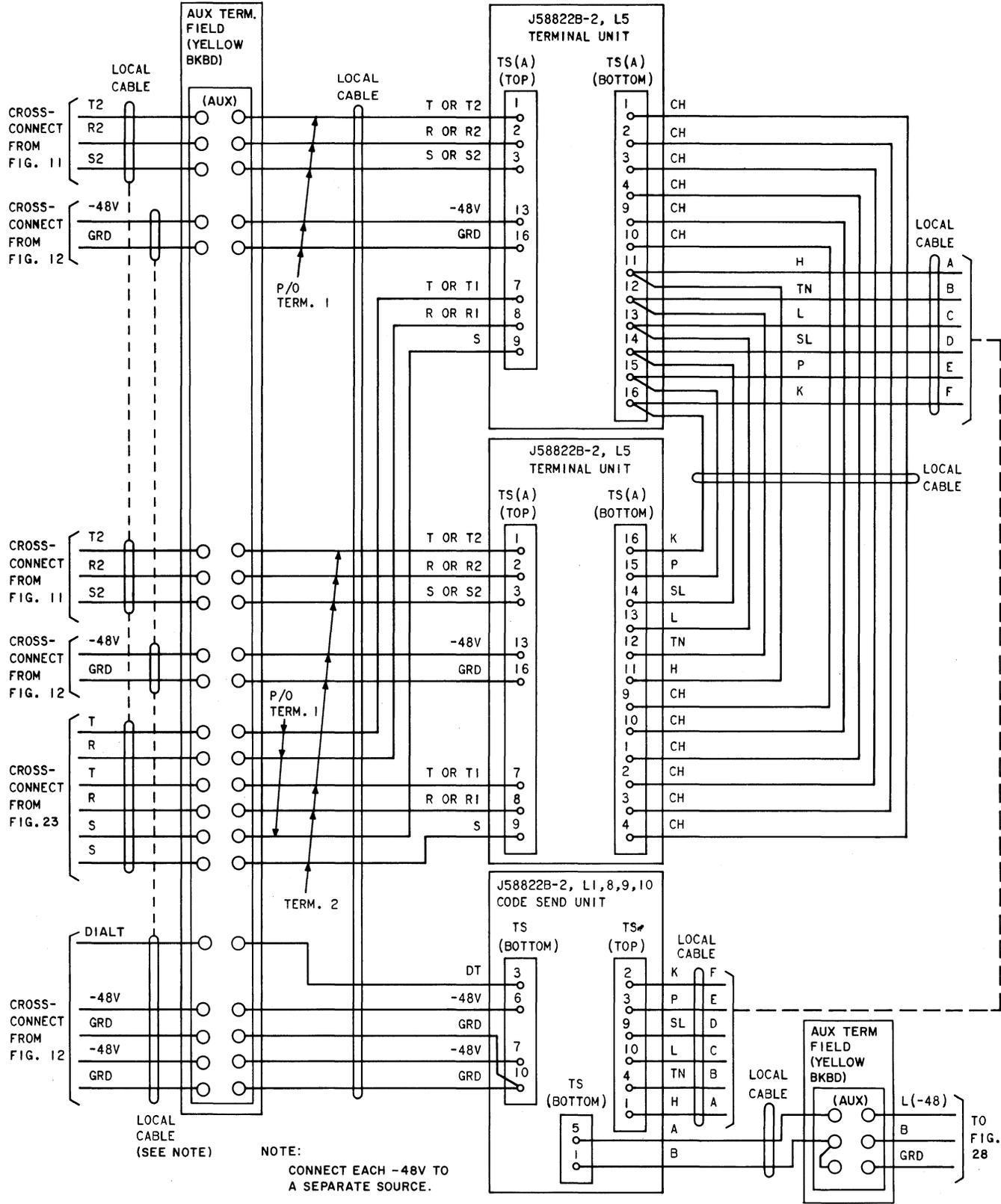
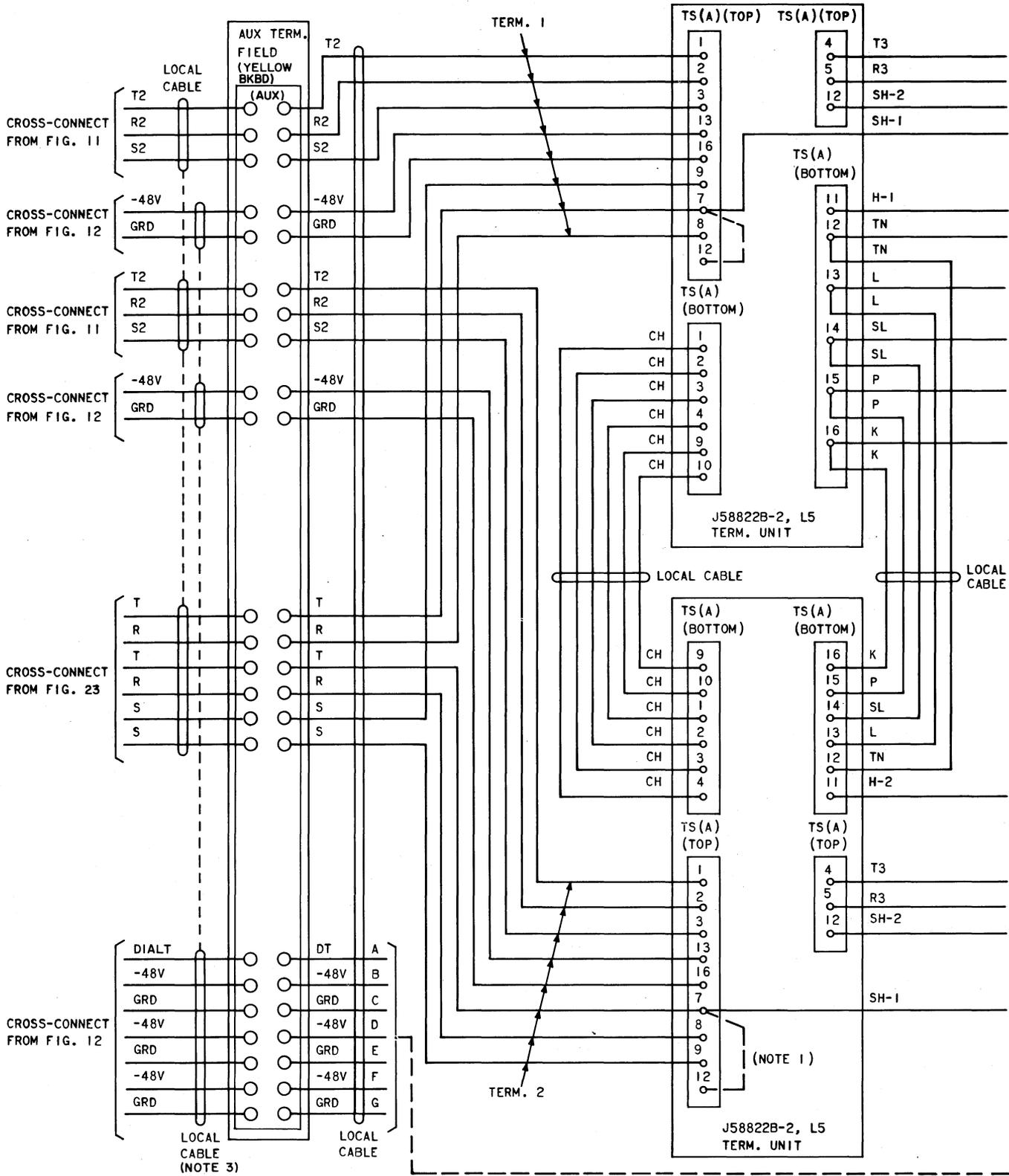
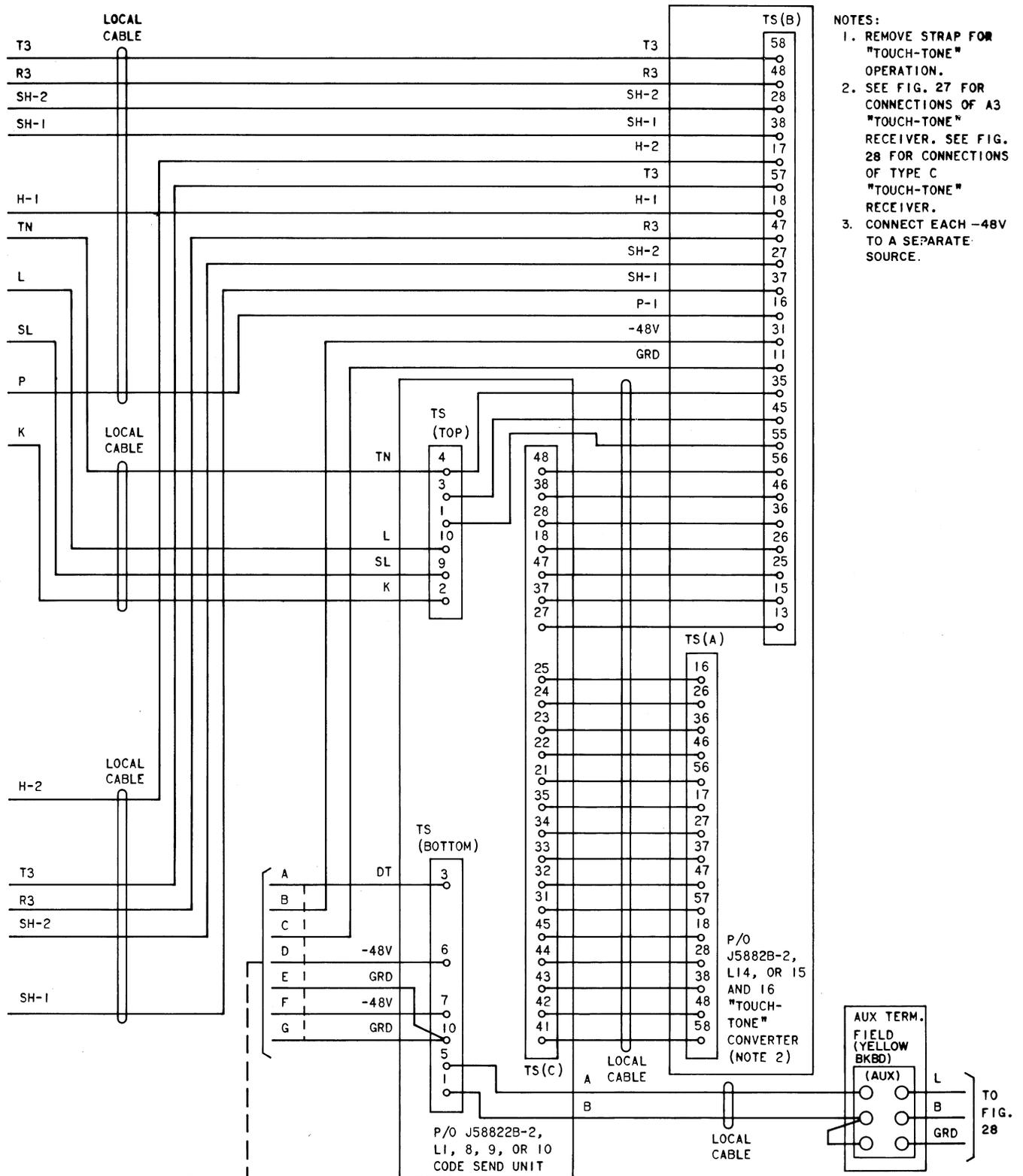


Fig. 24—Code Call—Connections for PBX Not Equipped for TOUCH-TONE Calling

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◆ Fig. 25—3A Code Call—Connections for PBX Equipped for TOUCH-TONE Calling (Sheet 1) ◆



◆ Fig. 25—3A Code Call—Connections for PBX Equipped for TOUCH-TONE Calling (Sheet 2) ◆

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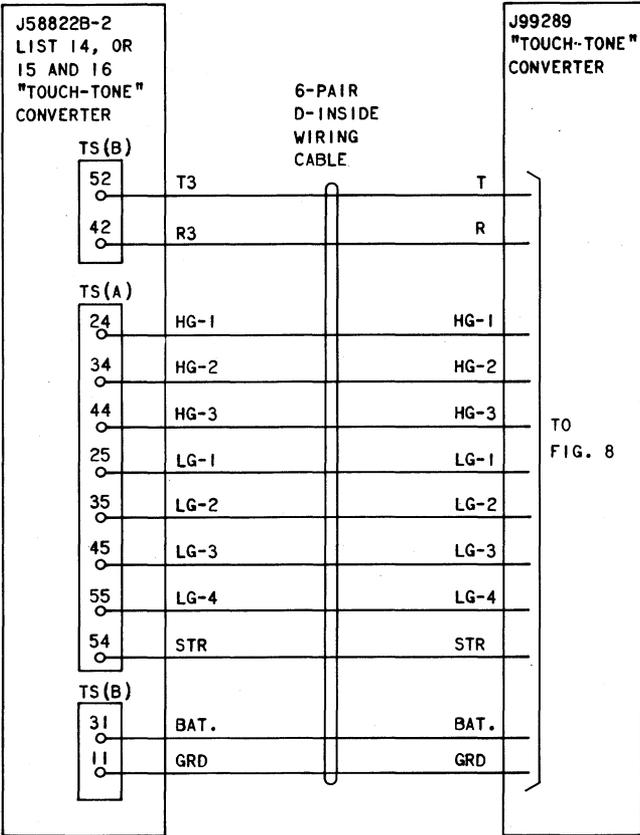


Fig. 26—J58822B-2 TOUCH-TONE Converter—Connections to A3 TOUCH-TONE Calling Receiver

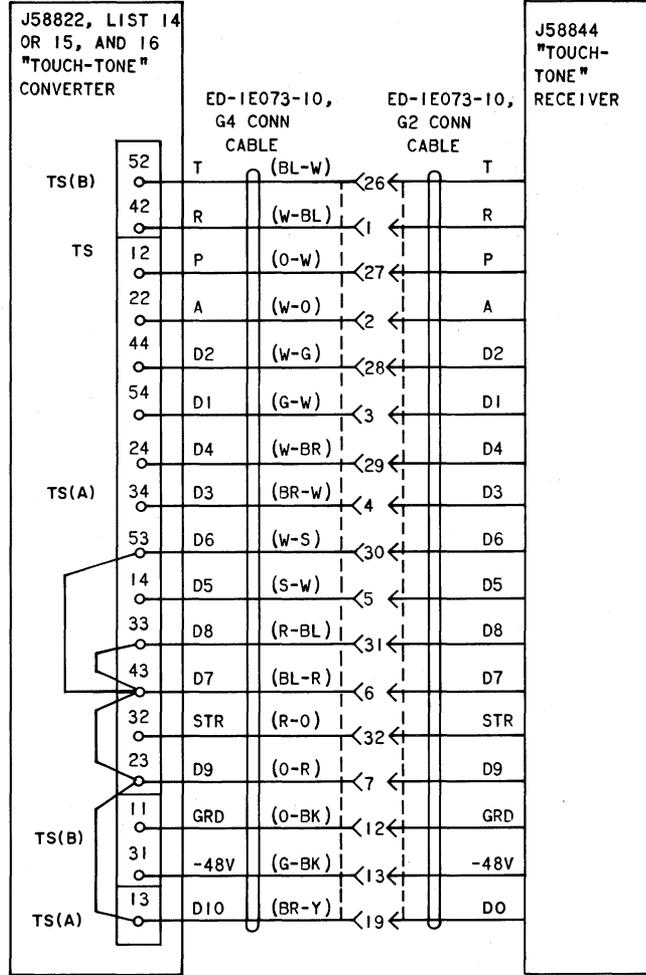
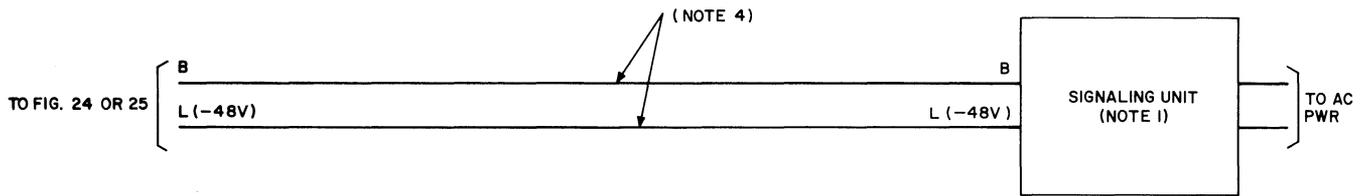
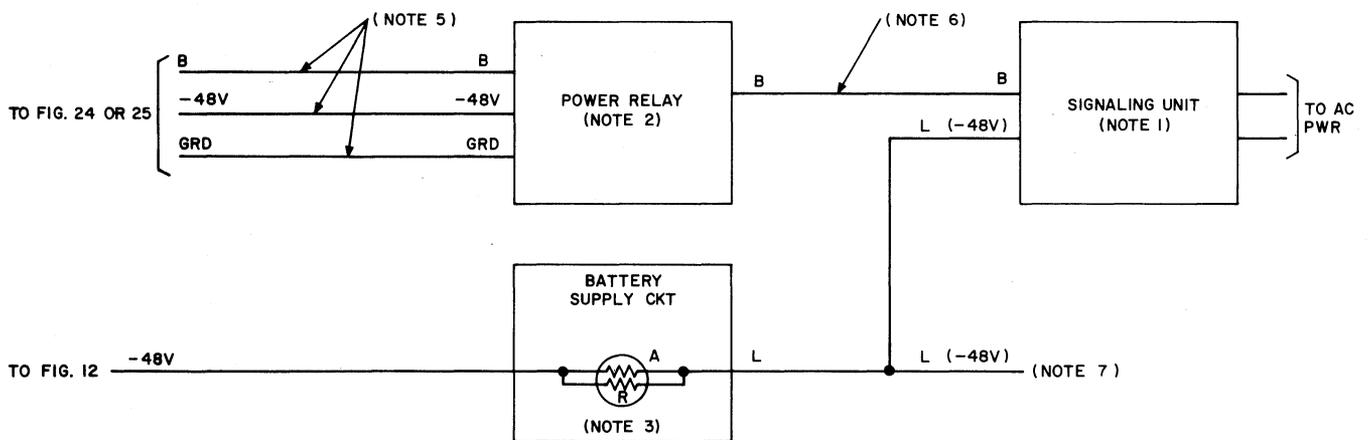


Fig. 27—J58822B-2 TOUCH-TONE Converter—Connections to Type C TOUCH-TONE Calling Receiver



A. CONNECTIONS WHEN 15 OR LESS SIGNALING UNITS ARE REQUIRED

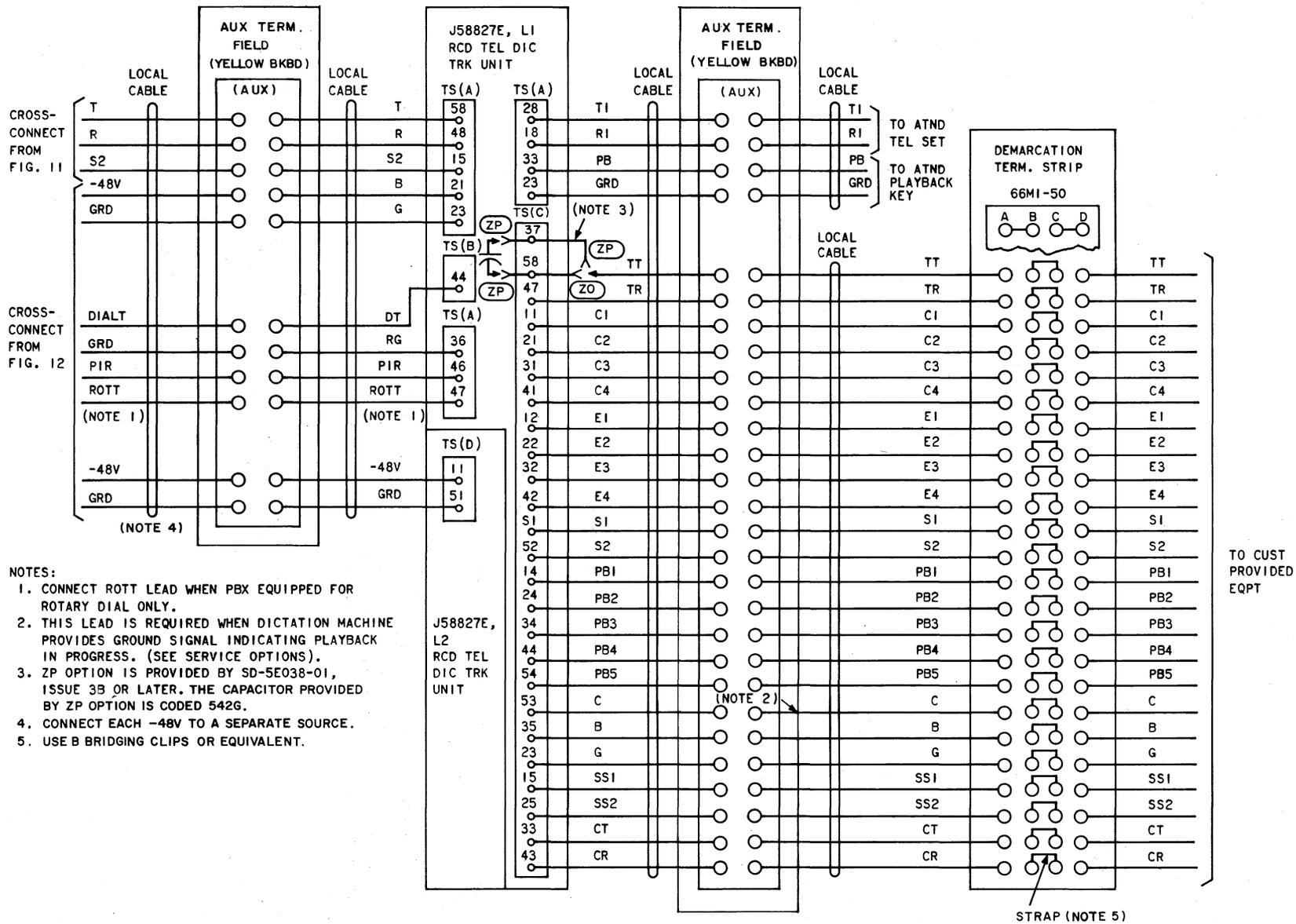


B. CONNECTIONS WHEN MORE THAN 15 SIGNALING UNITS ARE REQUIRED

NOTES:

1. THE SIGNALING UNIT IS A KS-1630I SIGNAL, KS-822B SIGNAL HORN, KS-8227 SIGNAL BELL, KS-8229 CHIME SIGNAL, OR CUSTOMER PROVIDED SIGNAL.
2. THE POWER RELAY IS A KS-8232, L3 OR L4 (1000 OHM) RELAY, OR A KS-16626, L5 (1130 OHM) RELAY.
3. WHEN ADDITIONAL BATTERY SUPPLY CIRCUITS ARE REQUIRED, MOUNT THE RESISTANCE LAMPS (SD-66610-01, FIG. 7) ON A 189A MOUNTING PLATE AND LOCATE WITH THE CODE CALL UNIT.
4. THE CODE CALL UNIT CAN SUPPLY POWER FOR UP TO 15 SIGNALING UNITS.
5. THE CODE CALL UNIT CAN SUPPLY POWER FOR UP TO 6 POWER RELAYS.
6. THE POWER RELAY CAN SUPPLY CONTROL FOR UP TO 75 SIGNALING UNITS.
7. THE BATTERY SUPPLY CIRCUIT CAN SUPPLY POWER FOR UP TO 15 SIGNALING UNITS.

Fig. 28—3A Code Call Signaling Unit —Connections



◆ Fig. 29—J58827E Recorded Telephone Dictation Trunk—Connections ◆

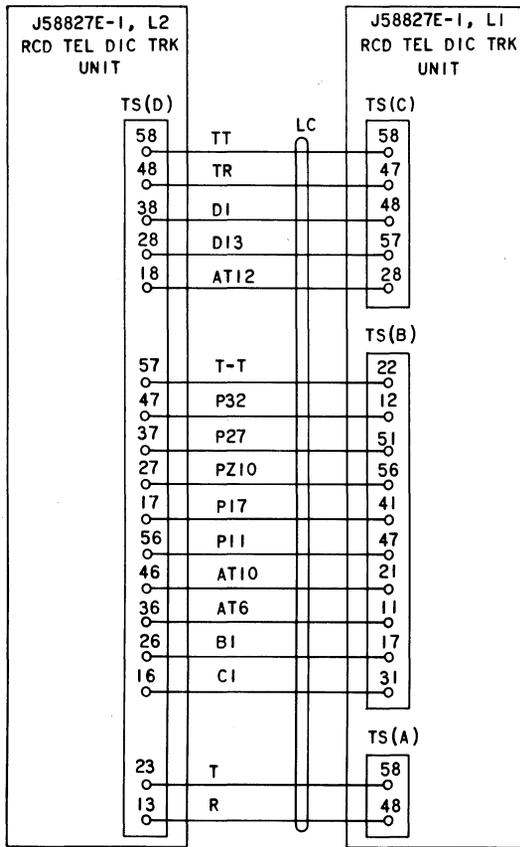


Fig. 30—J58827E, List 1 Recorded Telephone Dictation Trunk—Interconnections for TOUCH-TONE Calling

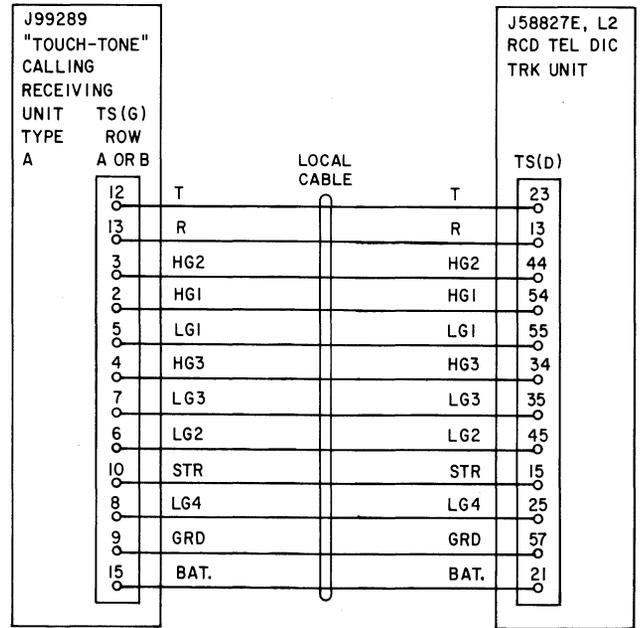


Fig. 31—J58827E, List 2 Recorded Telephone Dictation Trunk—Connection for TOUCH-TONE Calling Receiver J99289

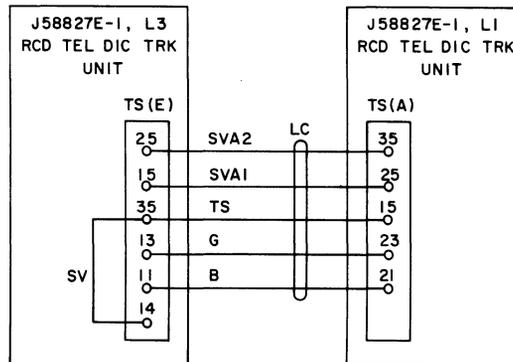


Fig. 32—J58827E, List 1 Recorded Telephone Dictation Trunk—Interconnections for 2-Way Sleeve Repeater

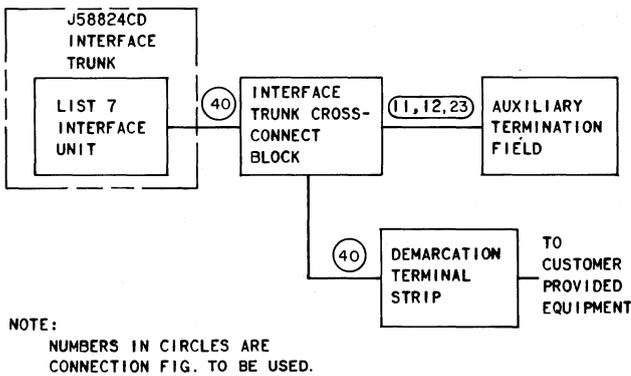


Fig. 33—Interface Trunk Block Diagram—Basic Trunk Unit

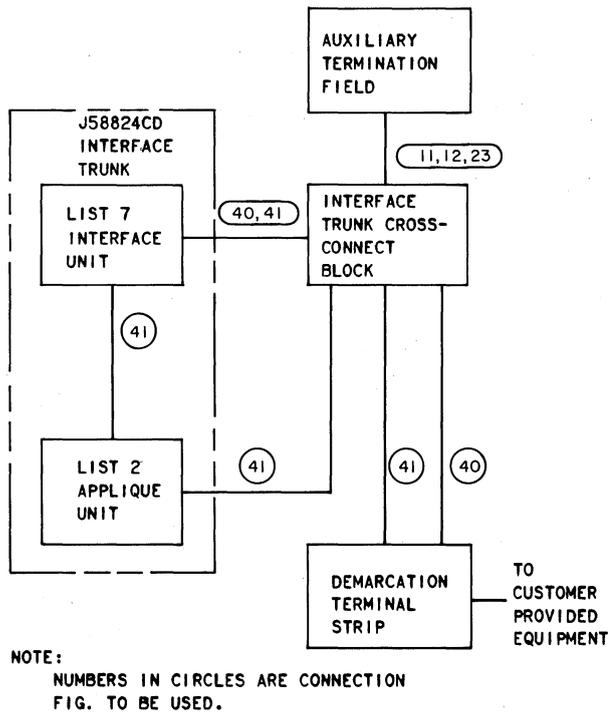


Fig. 34—Interface Trunk Block Diagram—Dial Pulse Signals to dc Signals on a 2-out-of-7 Lead Basis

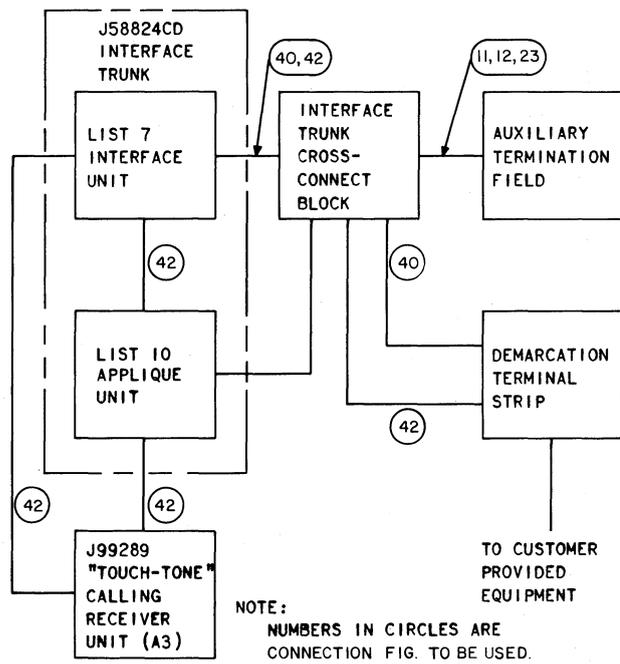


Fig. 35—Interface Trunk Block Diagram—TOUCH-TONE Signals Converted to dc Signals on a 2-out-of-7 Lead Basis Using A3 TOUCH-TONE Calling Receiver

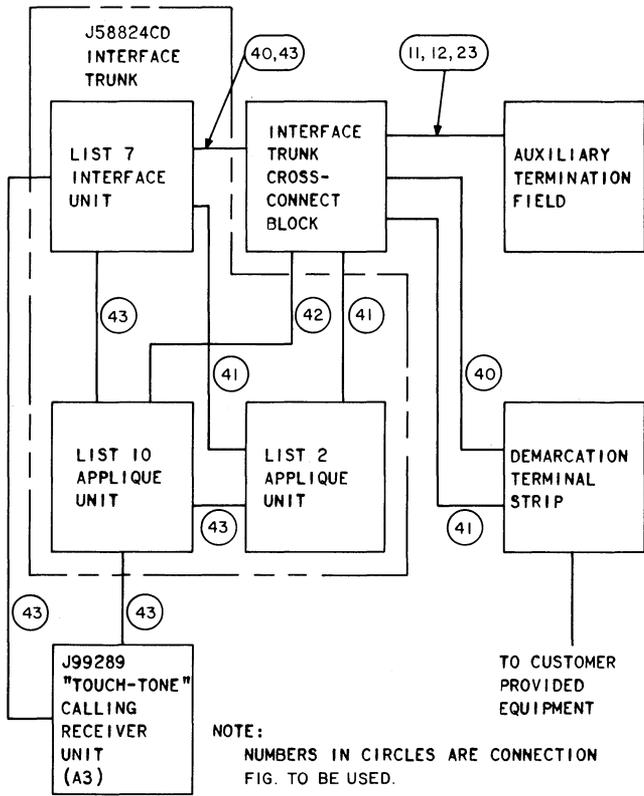


Fig. 36—Interface Trunk Block Diagram—Dial Pulse or TOUCH-TONE Signals Converted to dc Signals on a 2-out-of-7 Lead Basis Using A3 TOUCH-TONE Calling Receiver

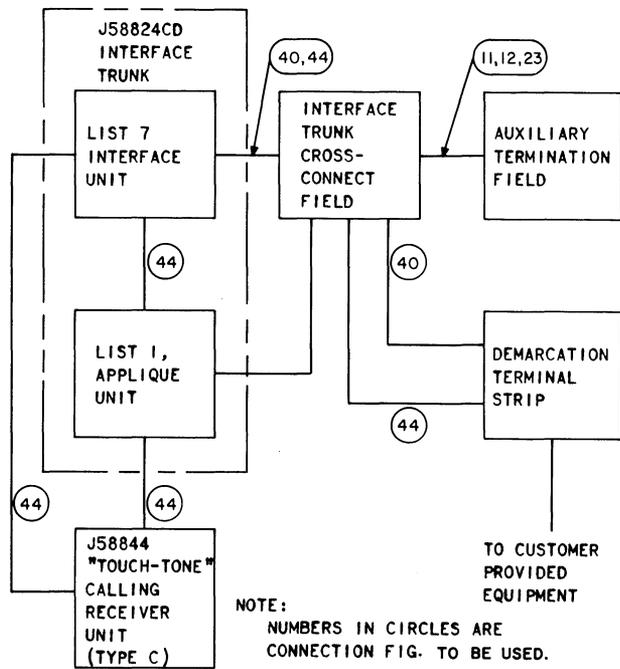


Fig. 37—Interface Trunk Block Diagram—TOUCH-TONE Signals Converted to dc Signals on a 2-out-of-7 Lead Basis Using Type C TOUCH-TONE Calling Receiver

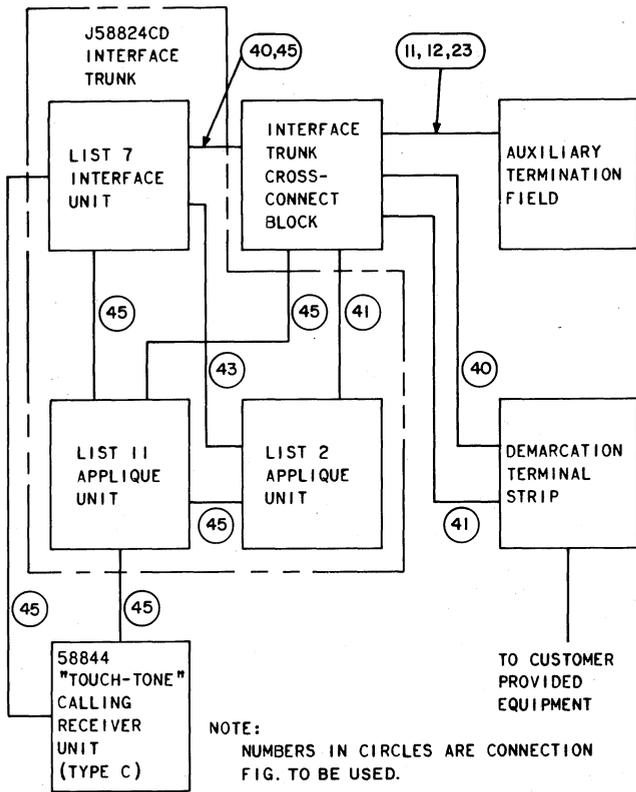


Fig. 38—Interface Trunk Block Diagram—Dial Pulse or TOUCH-TONE Signals Converted to dc Signals on a 2-out-of-7 Lead Basis Using Type C TOUCH-TONE Calling Receiver

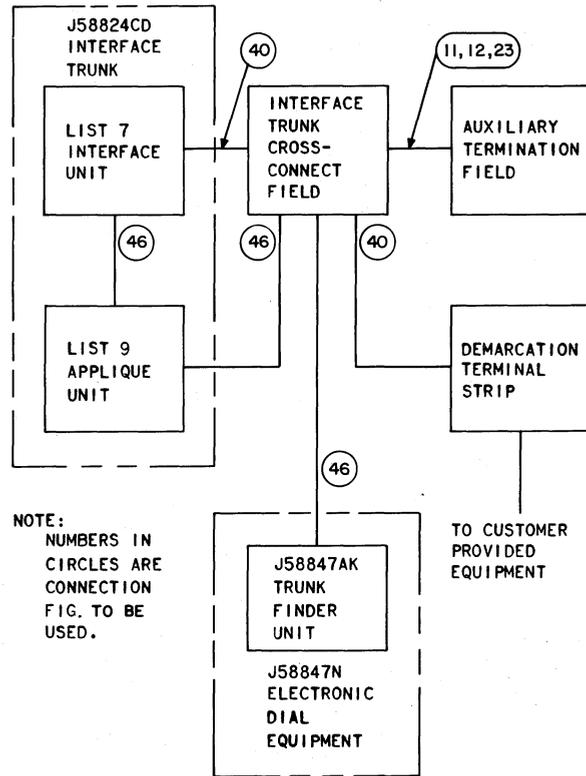
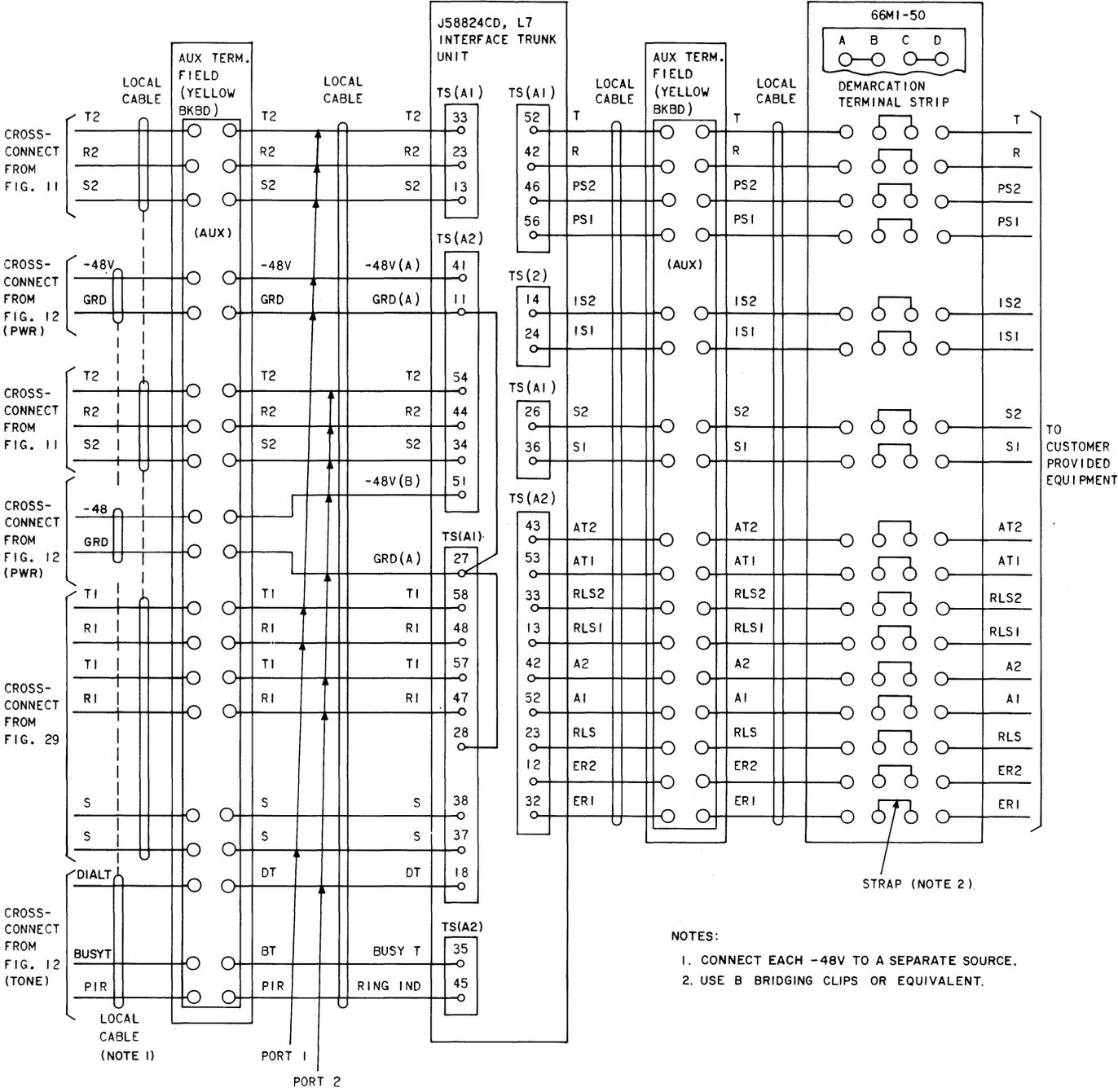


Fig. 39—Interface Trunk Block Diagram—TOUCH-TONE Signals Converted to Dial Pulses



◆ Fig. 40—J58824CD Interface Trunk—Connection of Basic Unit ◆

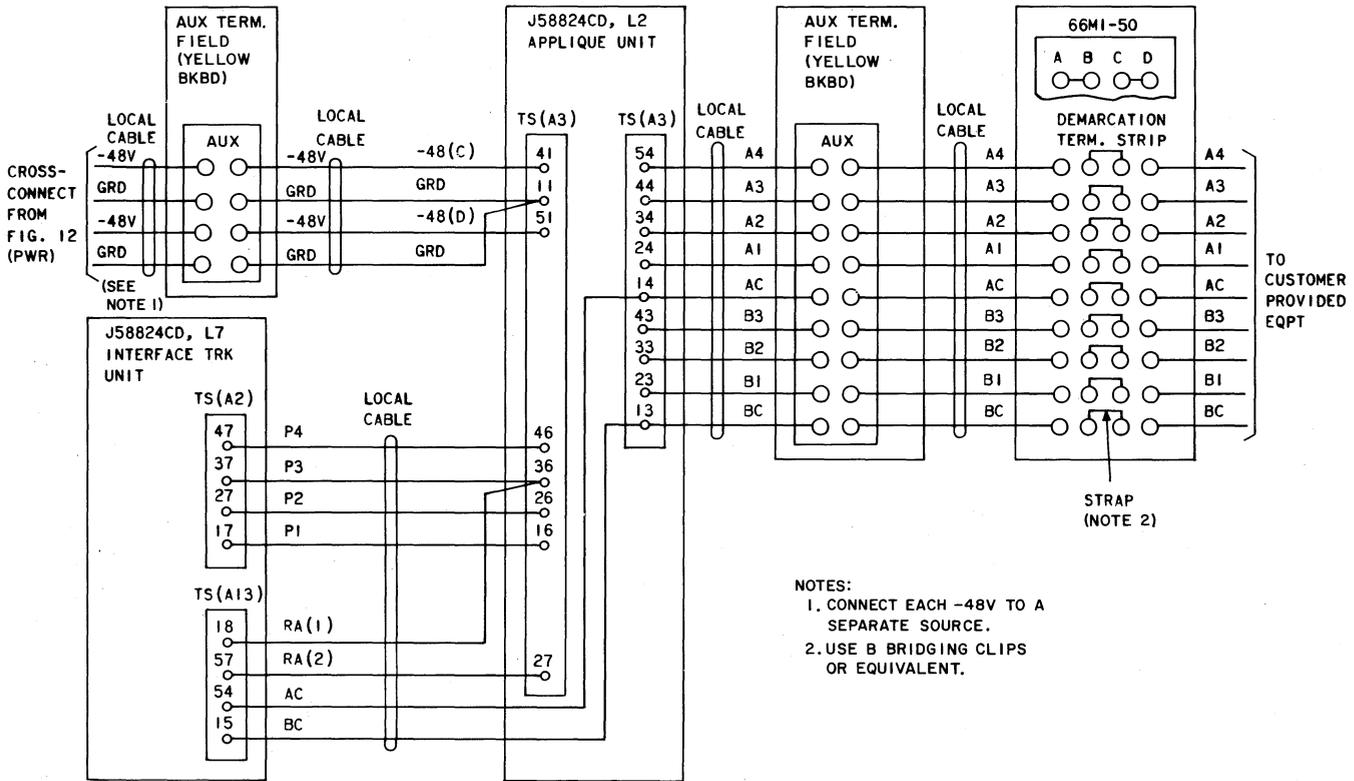
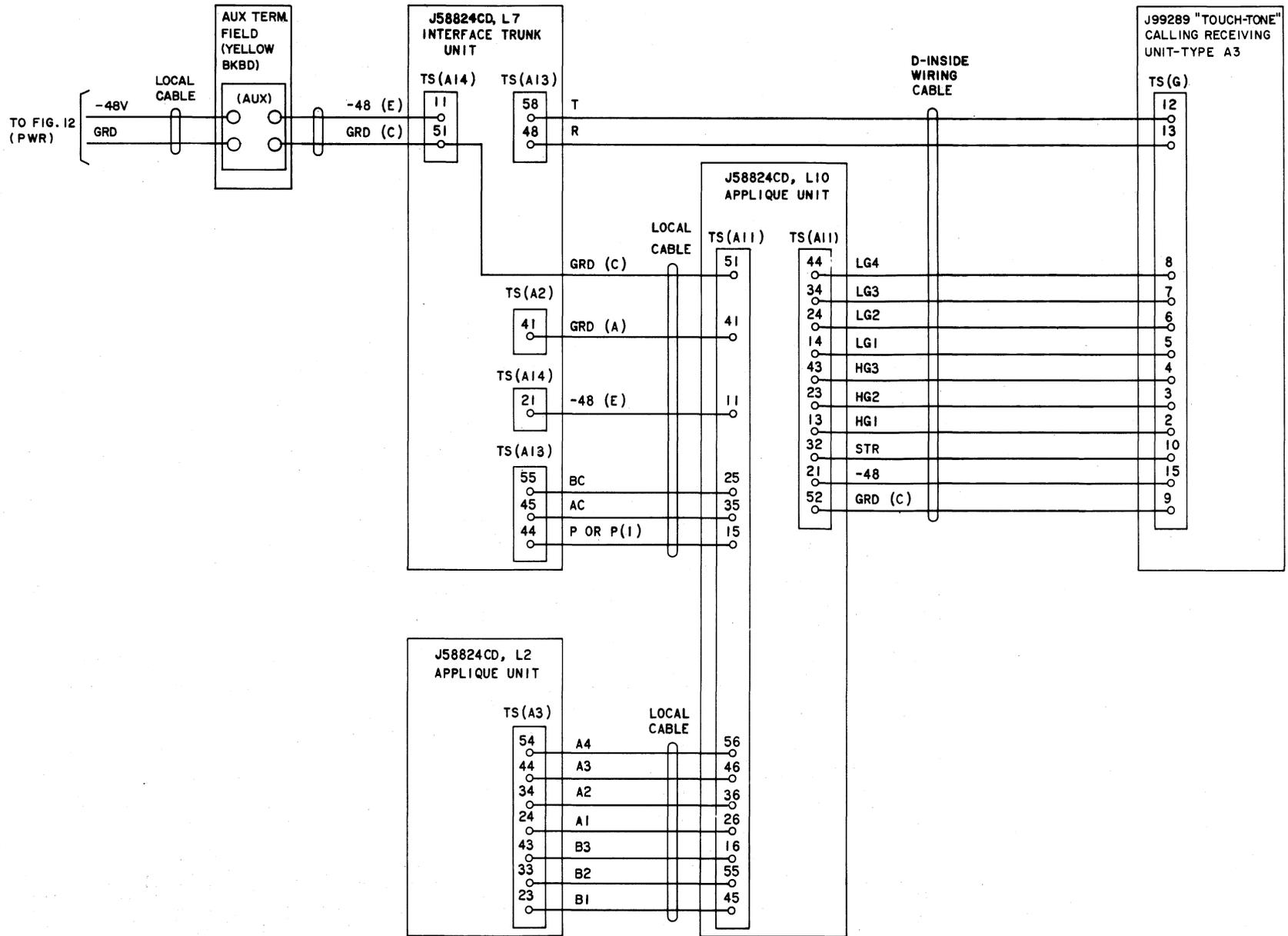
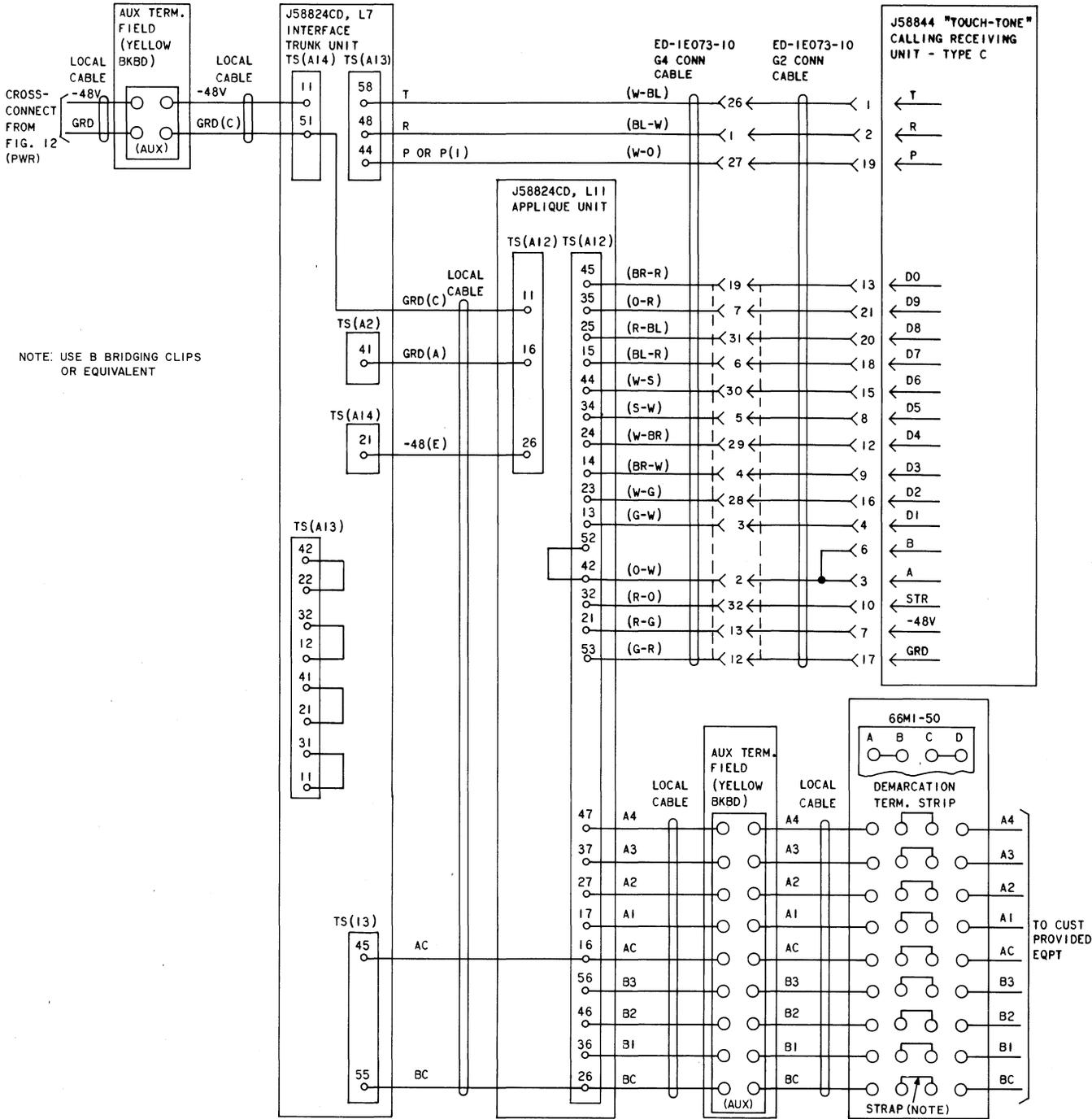


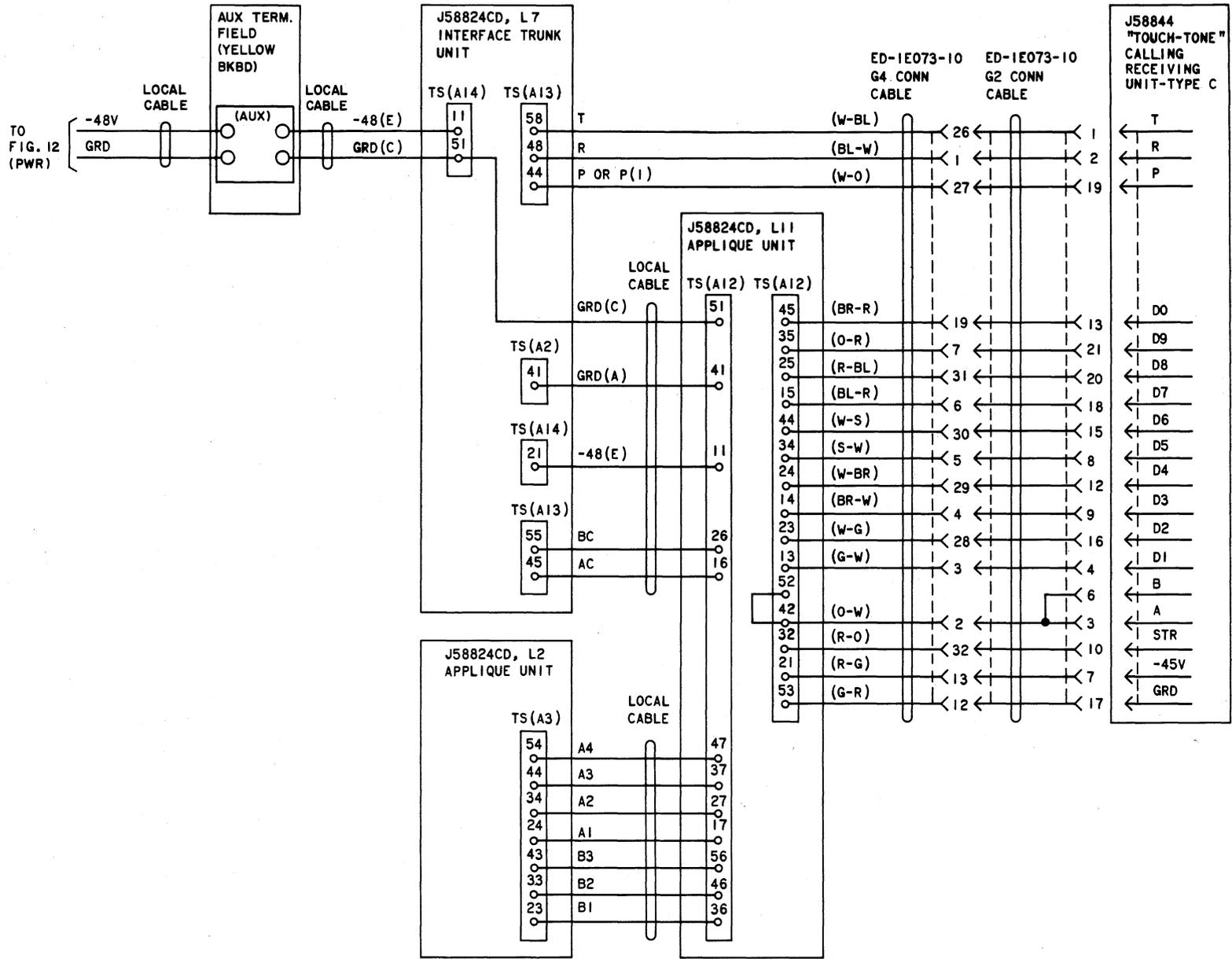
Fig. 41—J58824CD Interface Trunk—Connections for Dial Pulse Signals Converted to dc Signals on a 2-out-of-7 Lead Basis



◆ Fig. 43—J58824CD Interface Trunk—Connections for Dial Pulse or TOUCH-TONE Signals Converted to dc Signals on a 2-out-of-7 Lead Basis Using A3 TOUCH-TONE Calling Receiver ◆

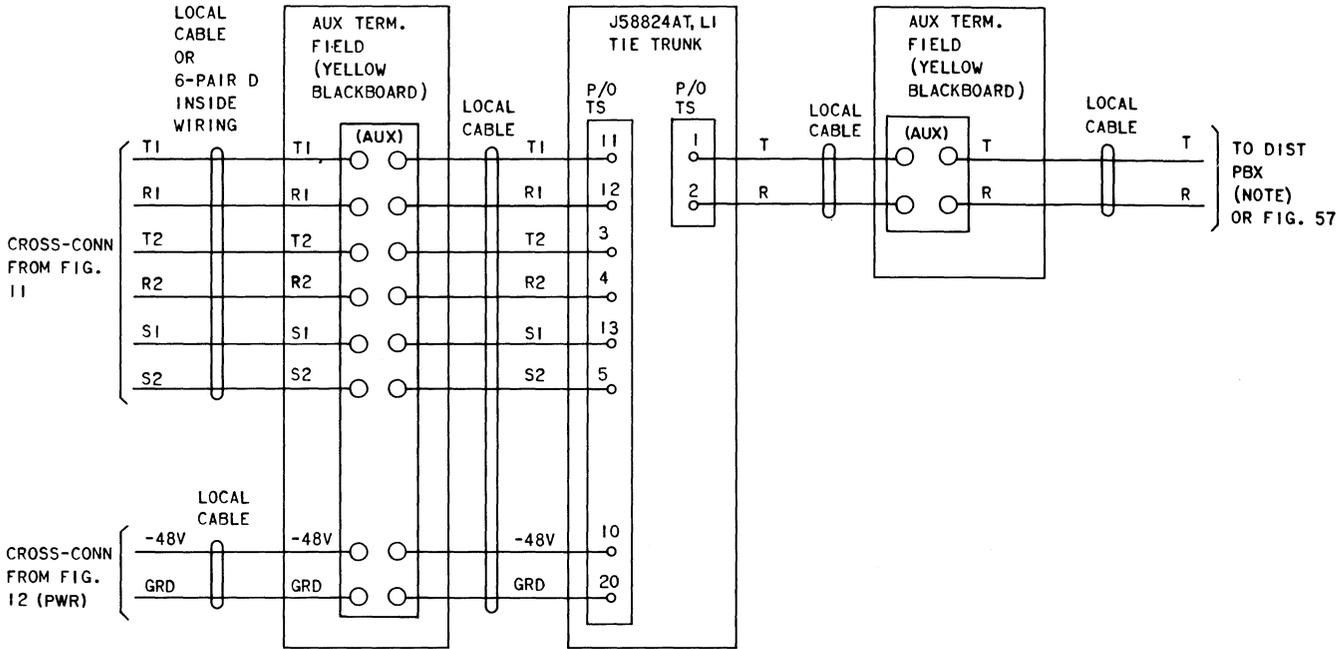


◆ Fig. 44—J58824CD Interface Trunk—Connections for TOUCH-TONE Signals Converted to dc Signals on a 2-out-of-7 Lead Basis Using Type C TOUCH-TONE Calling Receiver ◆



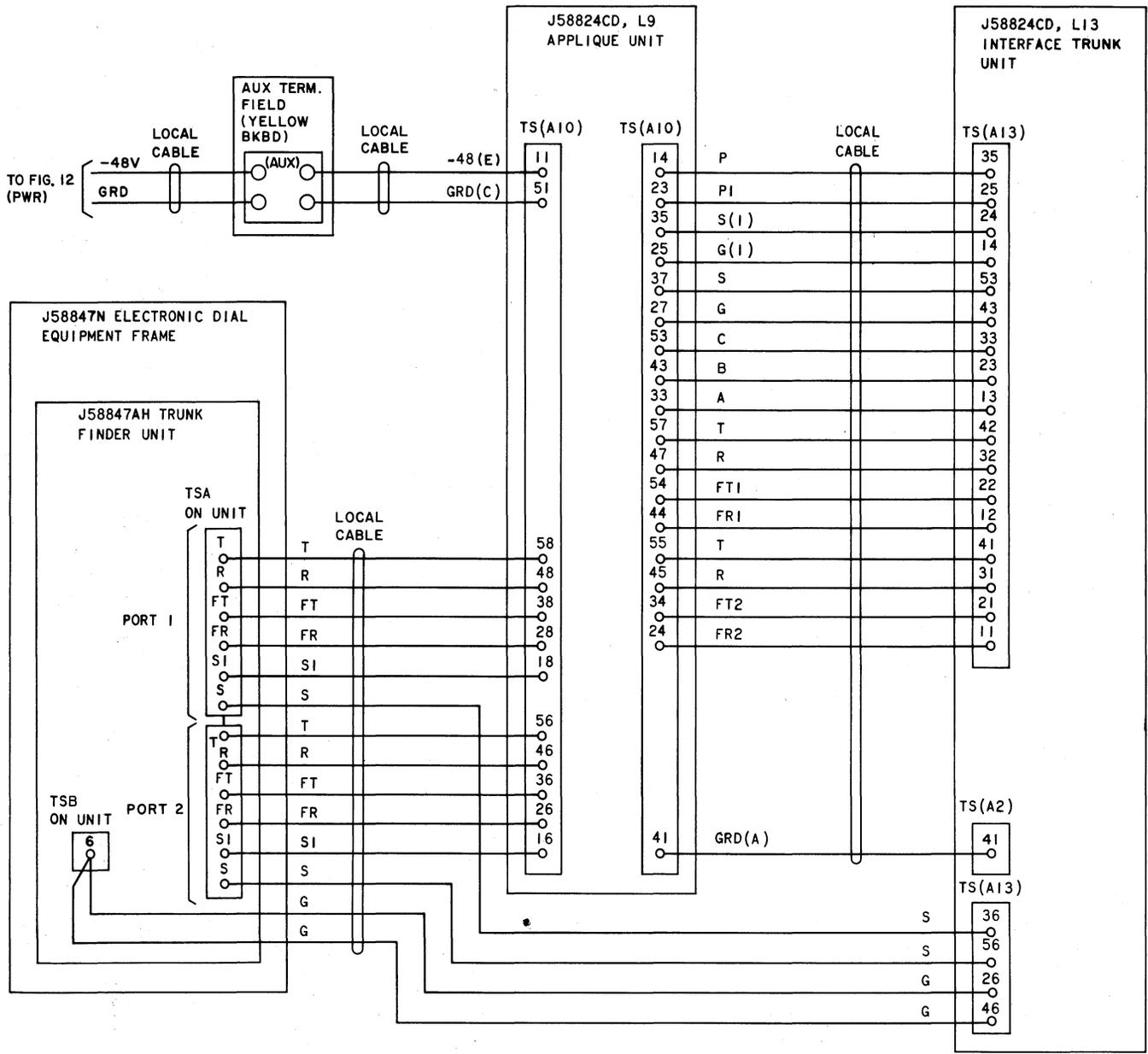
◆ Fig. 45—J58824CD Interface Trunk—Connections for Dial Pulses or TOUCH-TONE Signals Converted to dc Signals on a 2-out-of-7 Lead Basis Using Type C TOUCH-TONE Calling Receiver ◆

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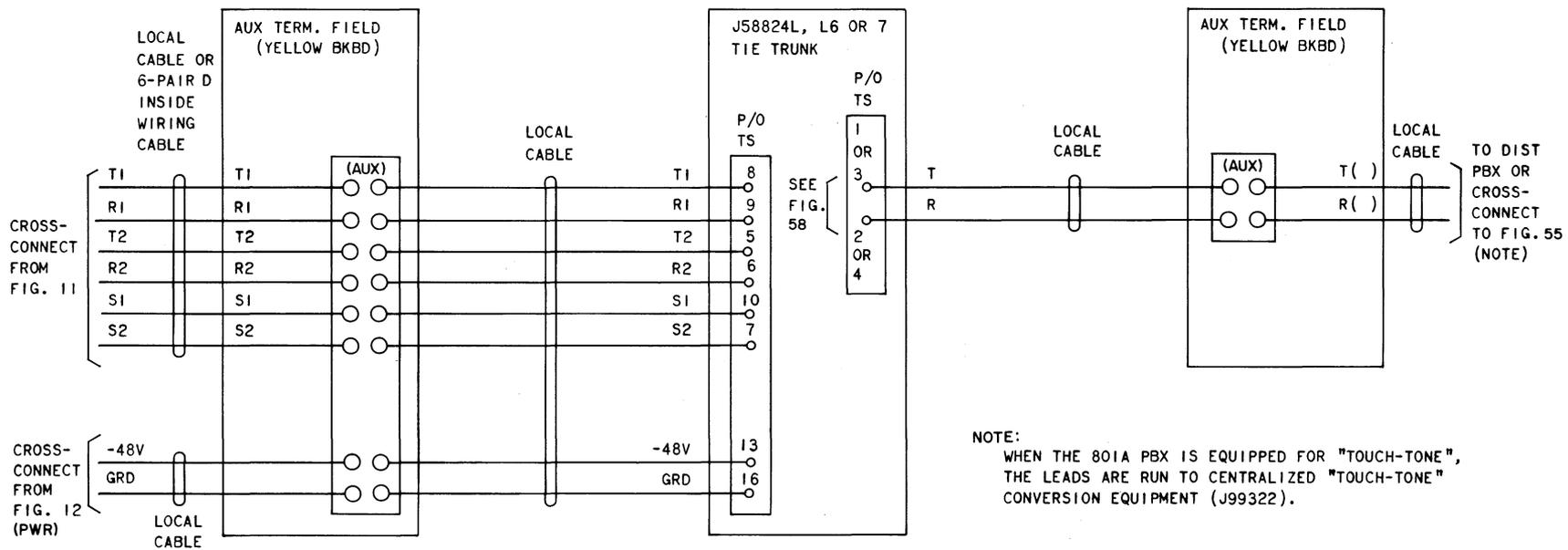


NOTE:
 WHEN THE 801A PBX IS EQUIPPED FOR
 "TOUCH-TONE", THE LEADS ARE RUN TO
 CENTRALIZED "TOUCH-TONE" CONVERSION
 EQUIPMENT (J99322). SEE SECTION 534-366-211.

◆ Fig. 47—J58824AT Tie Trunk—Connections ◆



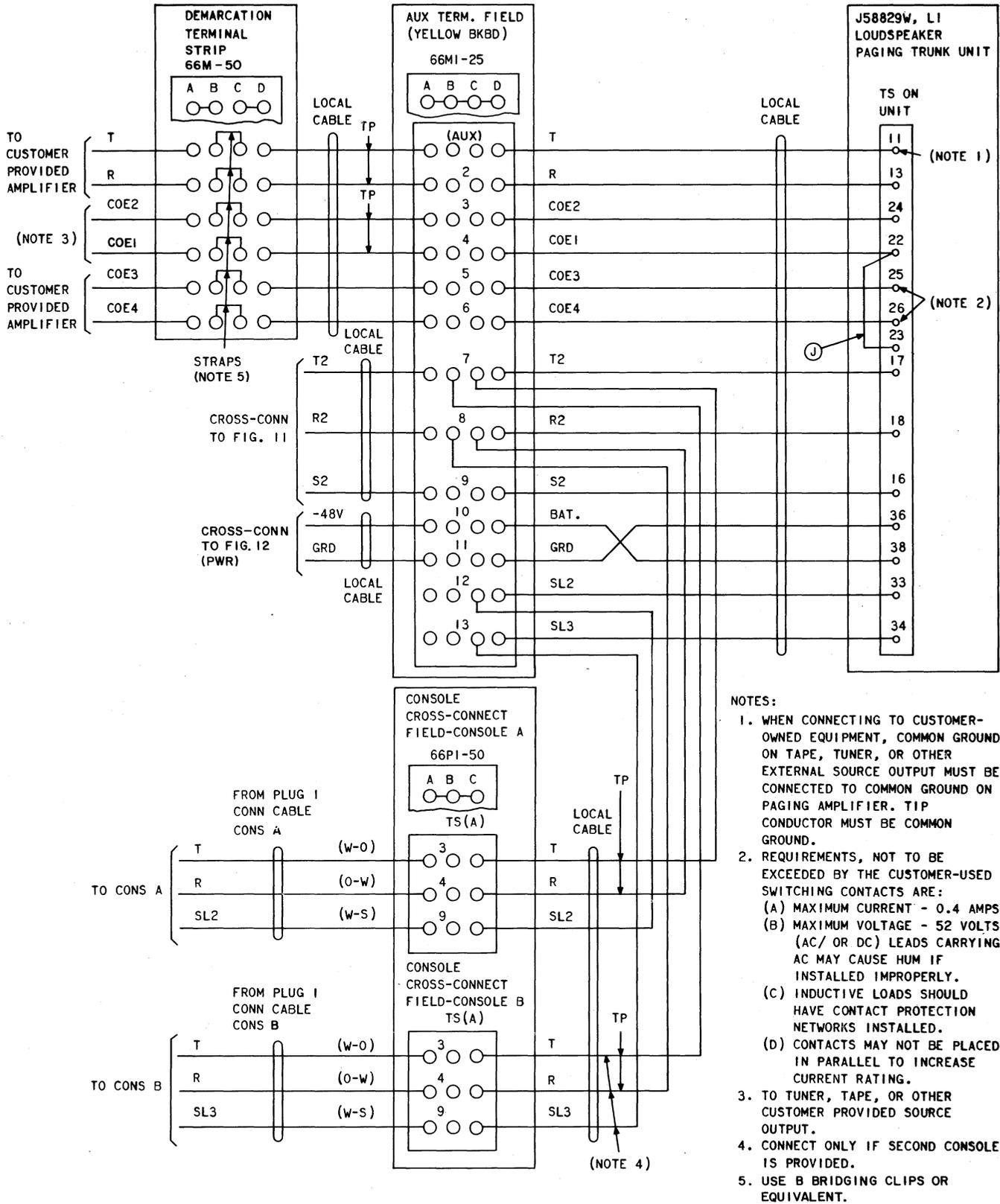
◆ Fig. 46—J58824CD Interface Trunk—Connections for TOUCH-TONE SIGNALS Converted to Dial Pulses ◆



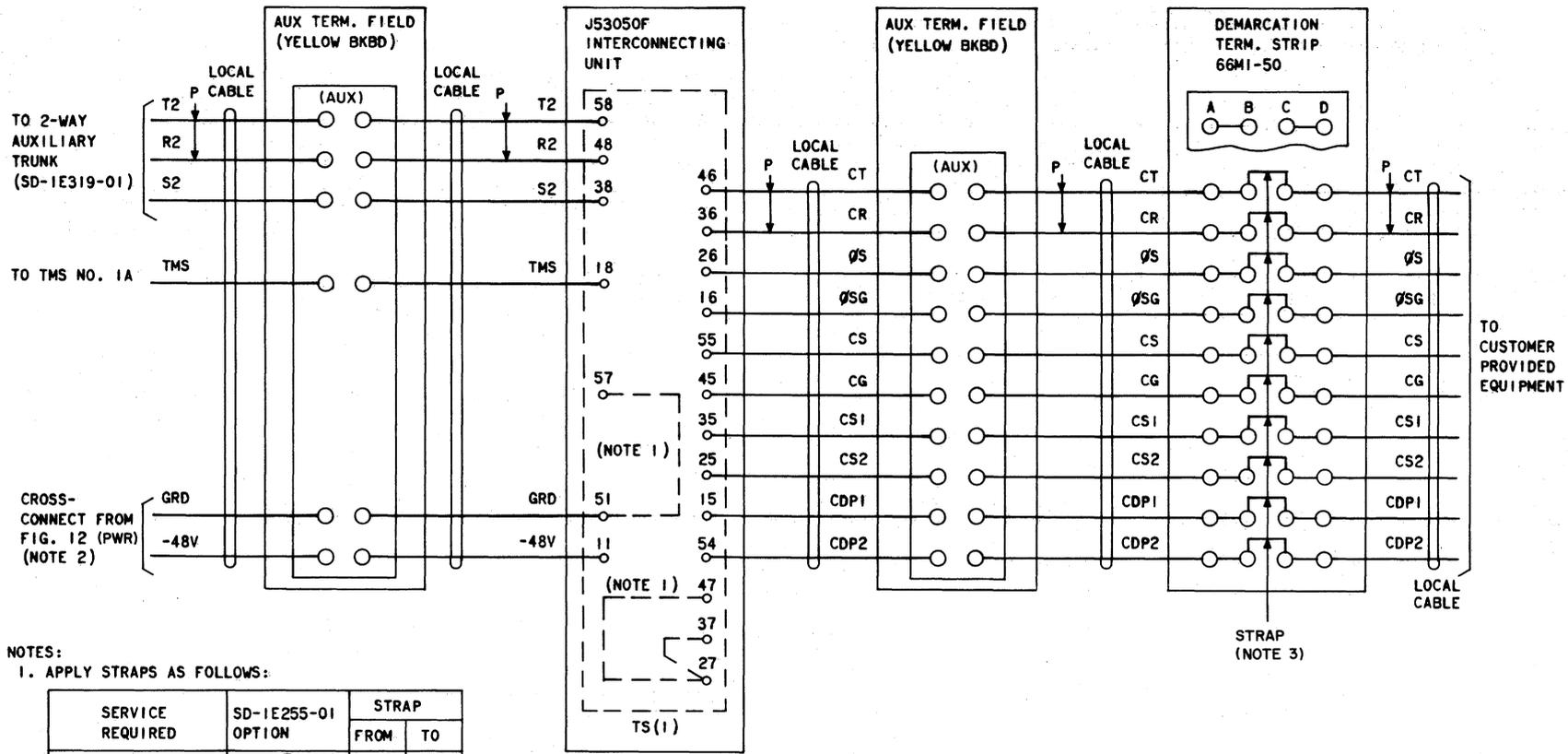
NOTE:
 WHEN THE 801A PBX IS EQUIPPED FOR "TOUCH-TONE",
 THE LEADS ARE RUN TO CENTRALIZED "TOUCH-TONE"
 CONVERSION EQUIPMENT (J99322).

▶ Fig. 48—J58824L Tie Trunk—Connections ◀

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◆ Fig. 49—J58829W Loudspeaker Paging Trunk—Connections ◆



NOTES:

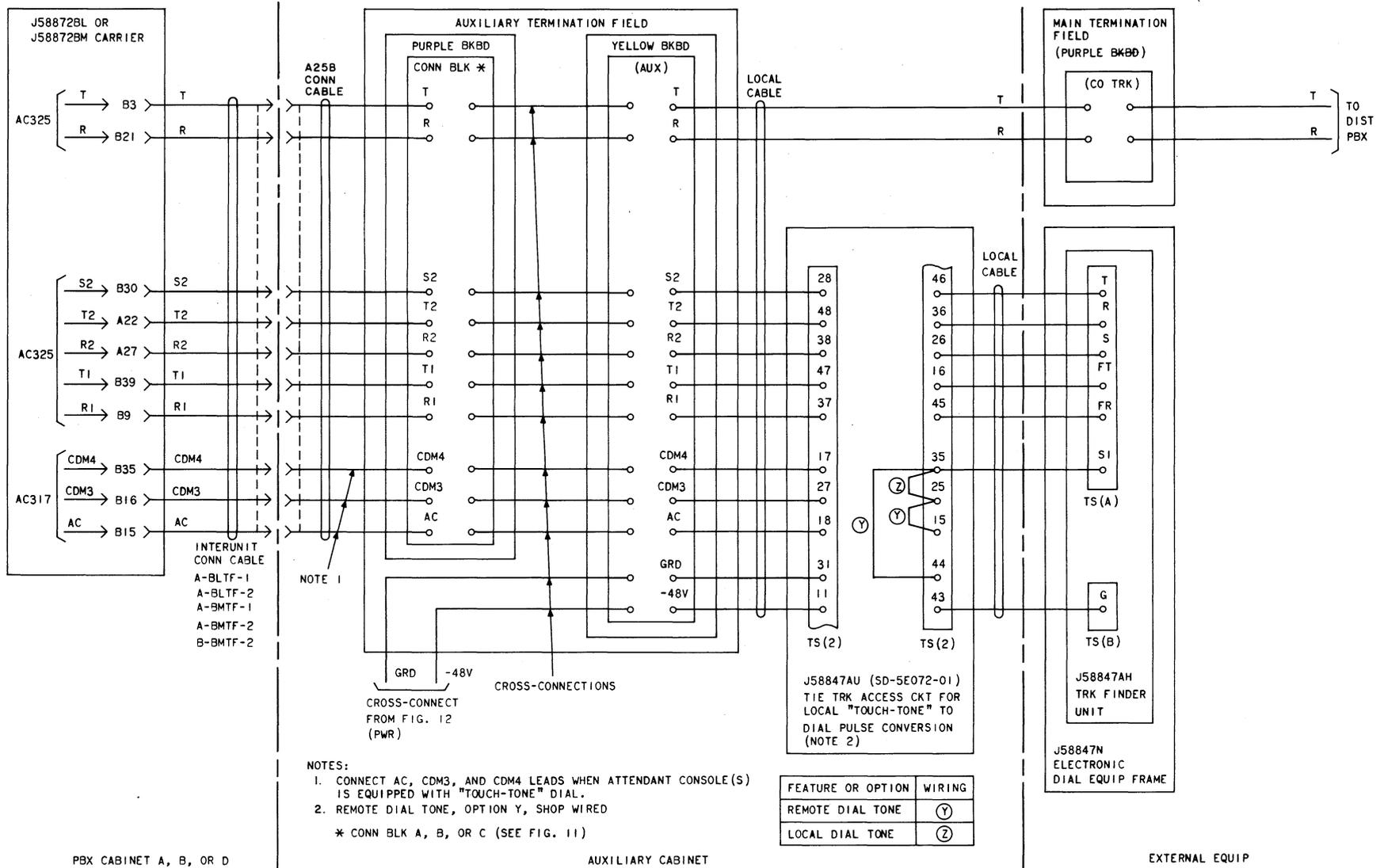
1. APPLY STRAPS AS FOLLOWS:

| SERVICE REQUIRED | SD-1E255-01 OPTION | STRAP | | |
|----------------------------------|--------------------|-------|----|----|
| | | FROM | TO | |
| 801A PBX ACCESS | Ⓜ | 51 | 57 | |
| TRANSMISSION REQD DURING DIALING | YES | Ⓨ | 27 | 37 |
| | NO | ⓧ | 27 | 47 |

2. CONNECT EACH -48V TO A SEPARATE SOURCE.

3. USE B BRIDGING CLIPS OR EQUIVALENT

◆ Fig. 50—J53050F Automatic Trunk Level Interconnecting Unit—Connections ◆

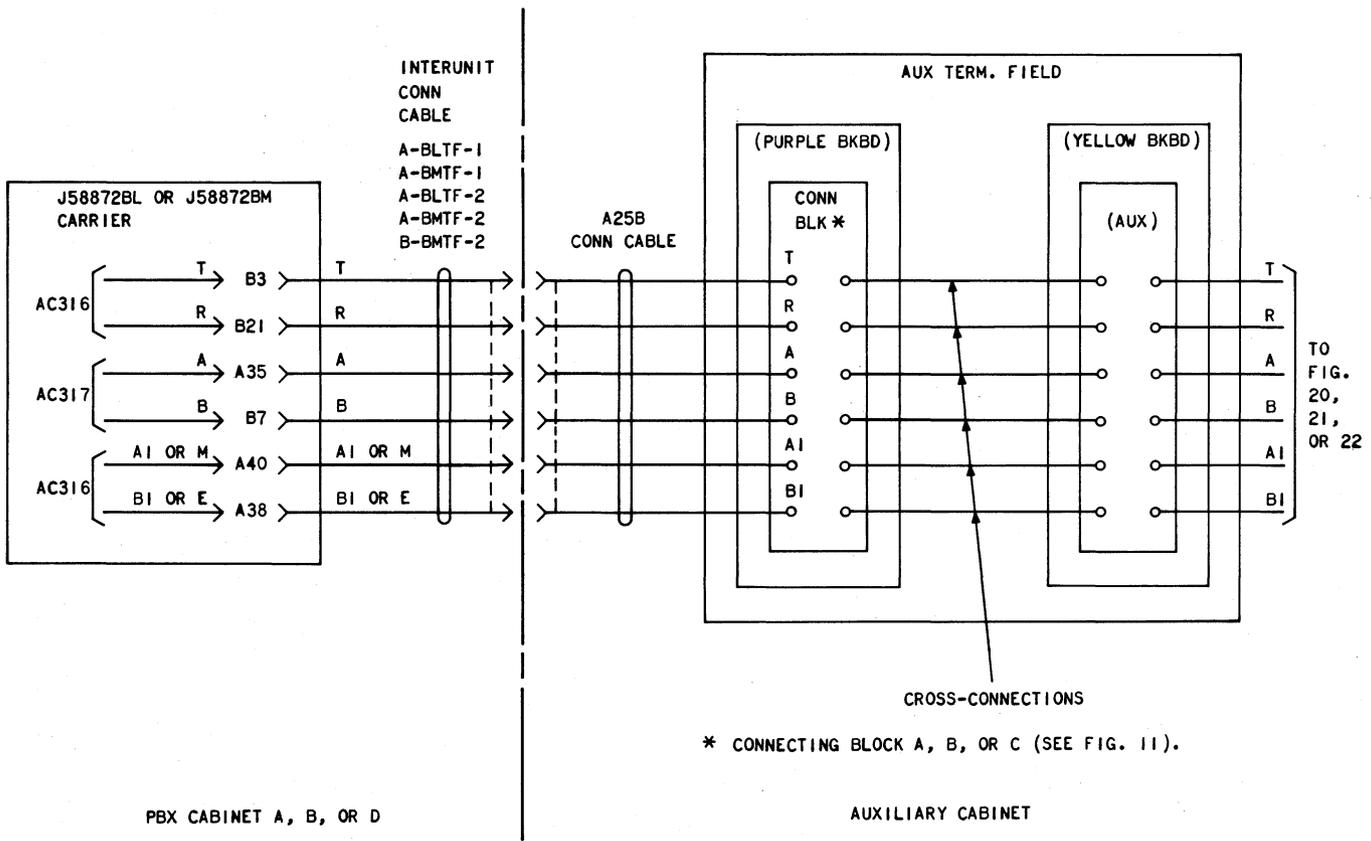


PBX CABINET A, B, OR D

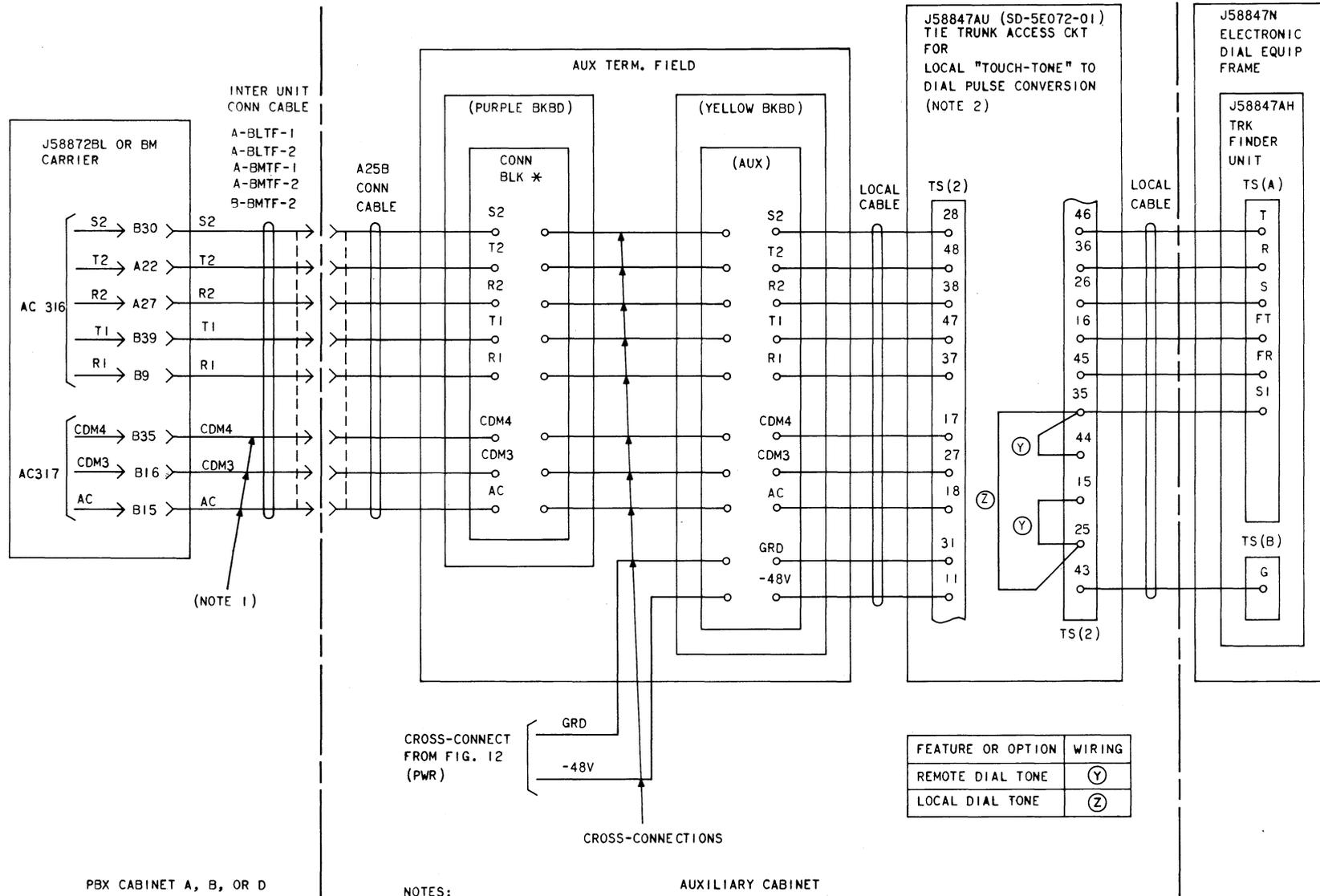
AUXILIARY CABINET

EXTERNAL EQUIP

◆ Fig. 51—Dial Repeating Tie Trunk (Electronic) SD-1E321-01—Connections for 2-Wire Transmission With PBX Equipped for TOUCH-TONE Calling ◆



◆ Fig. 52—Dial Repeating Tie Trunk (Electronic) SD-1E321-01 Connections for 4-Wire Transmission With 24V4 Repeater or 4-Wire Terminating Set ◆



PBX CABINET A, B, OR D

AUXILIARY CABINET

- NOTES:
1. CONNECT AC, CDM3, AND CDM4 LEADS WHEN ATTENDANT CONSOLE(S) IS "TOUCH-TONE" EQUIPPED.
 2. REMOTE DIAL TONE, OPTION Y, SHOP WIRED.
- * CONNECTING BLOCK A, B, OR C (SEE FIG. 11)

◆ Fig. 53—Dial Repeating Tie Trunk (Electronic) SD-1E321-01—Connections for TOUCH-TONE Signals Converted to Dial Pulses When Trunk Connected for 4-Wire Transmission ◆

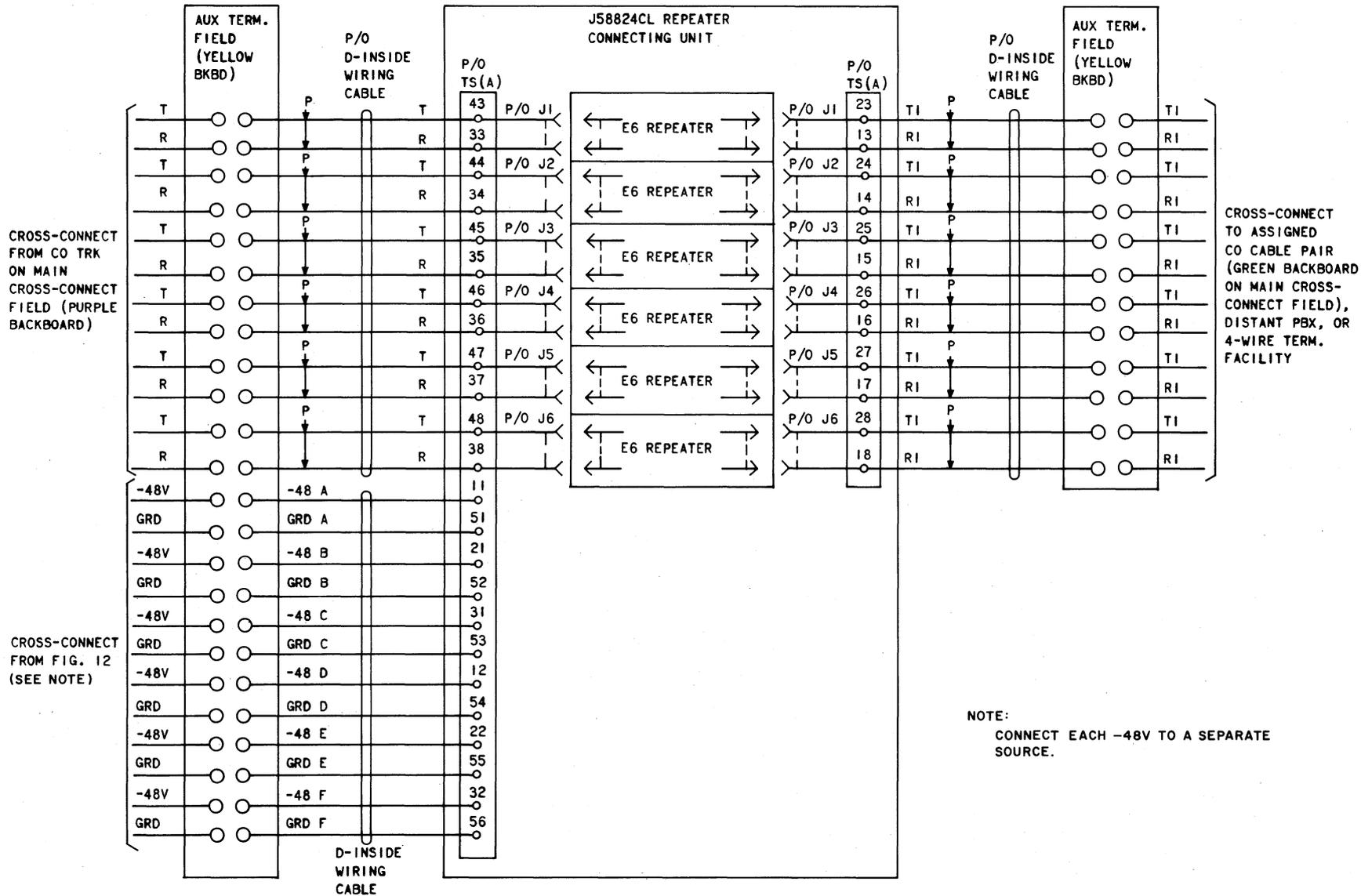


Fig. 54—E6 Repeater—Connections

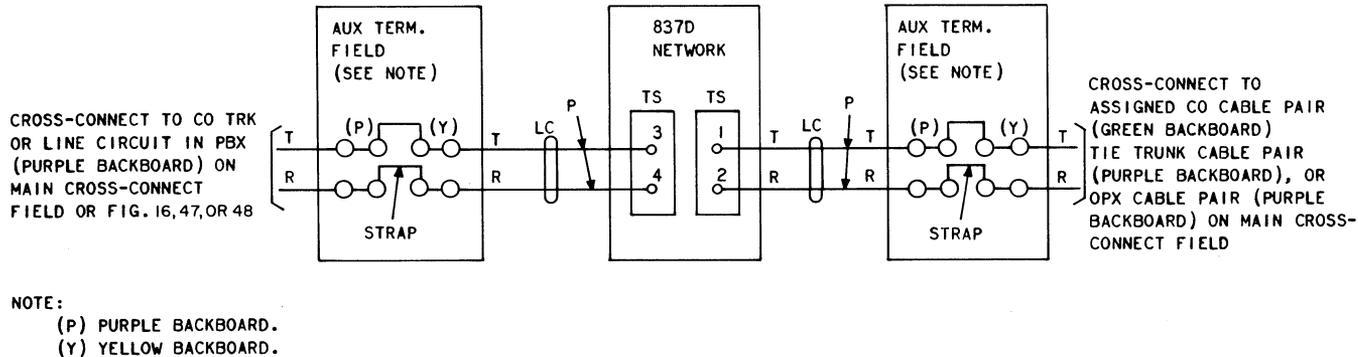


Fig. 55—837D (LBO) Network—Connections

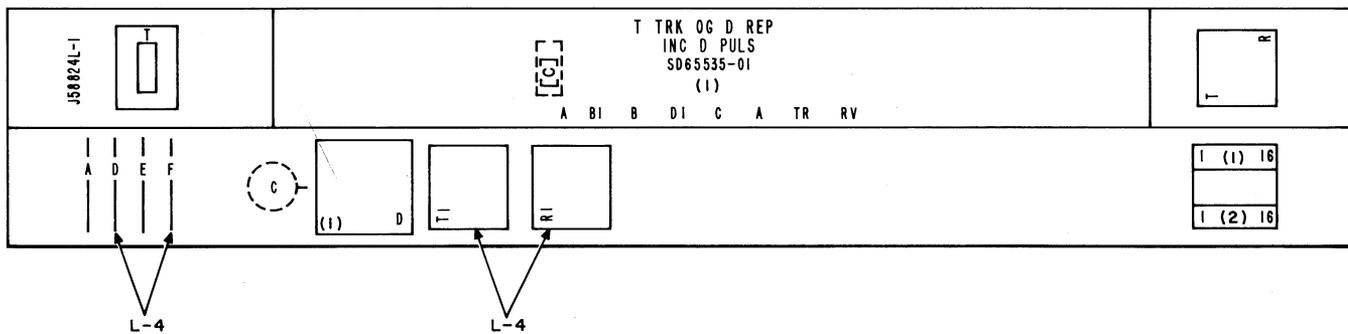


Fig. 56—J58824L, List 7 Tie Trunk—Location of List 4 Apparatus

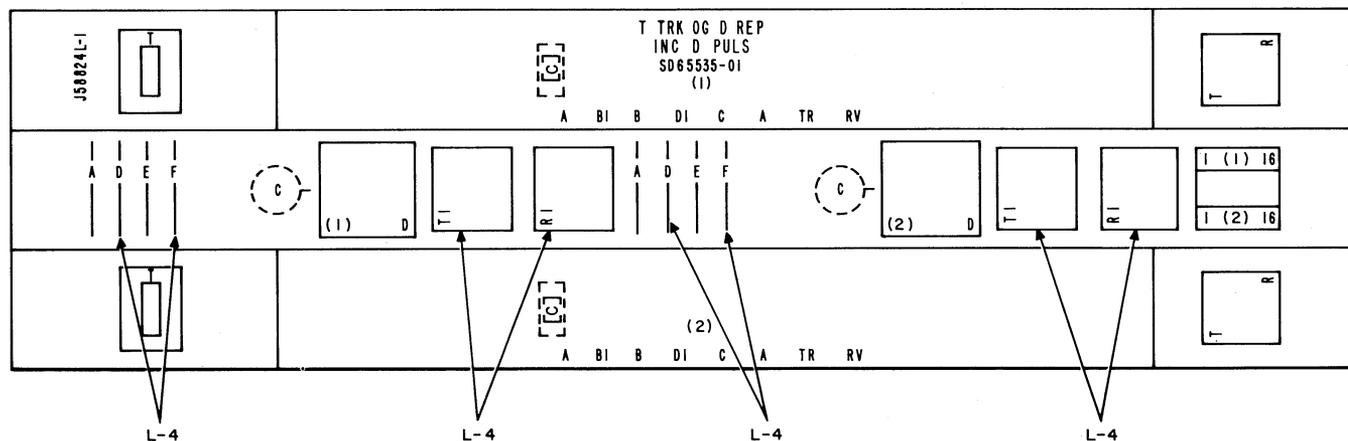
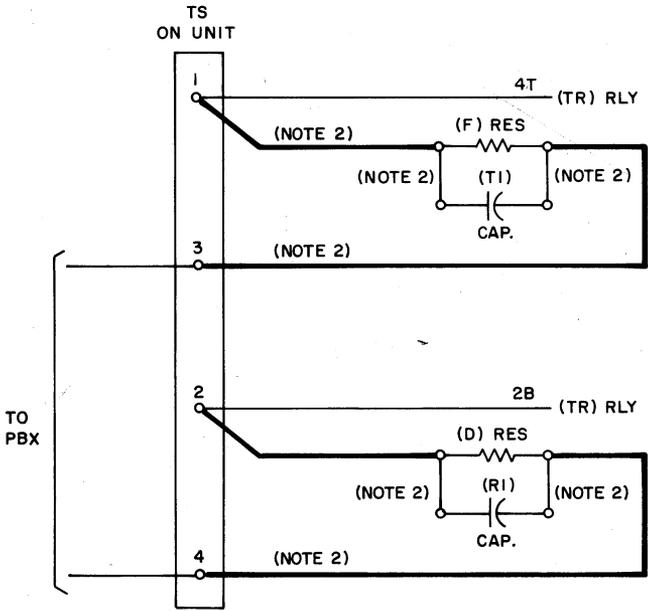


Fig. 57—J58824L, List 6 Tie Trunk—Location of List 4 Apparatus



LEGEND:
— EXISTING WIRING
— ADDED WIRING

NOTES:
1. SEE FIG. 56 OR 57 FOR MOUNTING EQUIPMENT.
2. P-381252 24BG GREEN WIRE.

Fig. 58—Connections for Adding J58824L, List 4 Wiring and Equipment to J58824L, List 6 or 7