CROSS-CONNECTION AND RECORD FORMS

N0.5 CROSSBAR SWITCH OFFICES

CONTENTS PAGE

CONTENTS PAGE

CONTENTS PAGE

CONTENTS PAGE

CONTENTS PAGE

Figures

CONTENTS PAGE

CONTENTS PAGE

CONTENTS PAGE

CONTENTS PAGE

CONTENTS PAGE

1. GENERAL

Note: The forms shown in this practice are intended to be used as illustrations and guides in making up local cross-connections forms.

1.01 This practice describes forms for recording cross-connection assignments and other data such as foreign area translator route description, centrex service options, etc., for No. 5 crossbar offices. Forms for information available from other sources (such as Traffic Department line assignment lists), and normally used directly as presented, are not included in this practice.

1.02 This practice is reissued to:

(1) Add a new form for recording the cross-connections of trunks to the Mini-ROTL (Remote Office Test Line) RTMB (Remote Test Make-Busy) jack.

(2) To incorporate forms listed in Addendum 218-013-301.

Revision arrows have been used to indicate significant changes.

1.03 Unless specified otherwise, all forms will be applicable to both wire-spring and nonwire-spring-relay type circuits.

1.04 Miscellaneous cross-connections not included in the detailed forms may be listed on the form provided in Part 12.

1.05 A general description of the forms is given in Parts 2 through 25. Each of these forms is illustrated in reduced size.

2. AUTOMATIC CONNECTION LINE CIRCUIT CROSS-CONNECTIONS (Fig. 1)

Preset Information

2.01 This form is used to list the preset called directory number, line link location of the originating line preset called number, privilege control digits, preset AMA information, and access code.

2.02 All cross-connections for one preset called directory number will be listed in the column under that number.

2.03 Cross-connections to punchings AG, BG, CG, DG, EG, FG, GG, HG, JG, KG, LG, CDG, CDPG, CUG, CTAG, HGG, FUG, VGG, and CRUG will be on a 2-out-of-5 or a 2-out-of-7 basis and from their associated punchings, FTG, on a 2-out-of-4 basis.

3. CAMA BILLING INDEXER CROSS-CONNECTIONS

A. Originating Code (Fig. 2)

3.01 This form is used to list the cross-connections for originating office code and coil groupings. Individual cross-connections may be indicated by a straight line drawn from the associated punching to the RSG1- column and the coils may be indicated by the check mark (✓).

3.02 The originating code assignments shall be entered in the space opposite the particular originating office.

Note: The following shall be cross-connected to the VOC punching:

(a) All unassigned OABL-, OABH-, and OC- punchings associated with an assigned CC- punching.

(b) All unassigned OAR- punchings associated with an assigned OAC- punching.

(c) All unassigned ORC- punchings associated with an assigned RCC- punching.

Headings

3.03 ***OAB-:*** The numerical equivalent of the originating office 'A' and 'B' digits shall be listed in this column. The 'C' digits 0 through 4 will be designated 'L' and 5 through 9 will be designated 'H.'

Example:

Midwest designated as L64

Midwest designated as H64

3.04 ***ORC-:*** The originating rate class shall be expressed as follows:

Example:

Originating rate class 1 punching 13 designated as 1-13. The RSG-1 designation will be the same as that listed for the ORC-.

Note: The VOCG cross-connection shall be cross-connected through the E4 coil to RSG1.

Terminating Code (Fig. 3)

3.05 This form is used to list the rate treatment cross-connections in terms of the coils to be assigned to derive the billing indices for the combination of 10 originating rate treatments (0 to 9) and 60 terminating rate treatments. The form may also be used for the combination of originating rate treatments 10 to 19, and the 60 terminating rate treatments by entering the tens digit (1) on the form. Connection is made from punchings TRTA0-59, TRTB0-59, TRTC0, and TRTD0-59 to the correspondingly numbered RSG3- punching. The letter A, B, C, or D should be entered after the TRT- and RSG3- as required.

3.06 The entry combination cross-connection shall be listed as 2L or 4L.

Note: The VTCG cross-connection shall be cross-connected through the E4 coil to RSG2.

B. Rate Treatment (Fig. 4)

3.07 This form is used to list the remaining rate treatment cross-connections. The A through F coils shall be listed on a 2-out-of-5 basis.

Note: Connect all unassigned TC punchings to VTC.

Headings

3.08 ***TC and RSG2:*** The numerical equivalent of the listed terminating office code shall be listed in these columns opposite the associated office.

4. CAMA TRANSVERTER CROSS-CONNECTIONS

A. Code Compression, Message Billing Index, and Recorder Group (Fig. 5)

4.01 This form is used to list the compressed code and recorder group cross-connections.

4.02 Cross-connections from TAC- to T4L, T5L, or G may be indicated by a check mark (✓). Cross-connections from FAC- to CC0-9 shall be indicated by the numeral of the associated CC- punching.

4.03 Cross-connections from CA0-9, CB0-9, and CD0-9 to T4LA, T4LB, T4LD, GA, GB, or GD shall be indicated by the letter associated with the T4L- or G- punching.

4.04 Cross-connections for the remaining forms may be expressed by a check mark (✓) or numeral as required.

5. CENTREX (MISCELLANEOUS CIRCUITS) CROSS-CONNECTIONS (Fig. 6)

5.01 This form is used to record the cross-connections for centrex circuits.

5.02 For the transfer line link and marker connectors, space is used to record the vertical file associated with each trunk link frame. All trunks that appear in the same vertical will have the same trunk link frame number.

5.03 For the transfer line identifier and connector, space is used to record the vertical group number for line sleeves associated with six or less vertical groups with dial transfer on line link frames when assigned on a pattern basis. Record the cross-connection for the vertical group on a pattern basis.

5.04 For the position link circuit, space is used to record the cross-connections for customers in a customer group per horizontal group basis.

5.05 For the traffic register translator circuit, space is used to record the customers on a customer group basis for traffic sampling to determine customer group usage.

6. FOUR-WIRE CONFERENCE CONTROLLER CIRCUIT CROSS-CONNECTIONS

A. Assignment to Conference Pattern and Line Unit (Fig. 7)

6.01 Space is used to record the cross-connections for each conferee address to a line unit for each pattern assignment.

B. Address Information to Marker (Fig. 8)

6.02 In Fig. 8 space is used for recording 20 called conferees (A) and their alternates (B) in one conference pattern. The A- through K-digits will be recorded in the column under the called conferee o called alternate conferee address on a 2-out-of-5 basis.

C. Line Link Location (Fig. 9)

6.03 Space is used for recording 17 conferees (A) and their alternates (B) in one conference pattern that may originate a conference call. The cross-connections for the line location of each conferee and their alternate will be shown in the column under the address on a 2-out-of-5 basis.

6.04 Space is used for recording the answer timing feature for each address.

D. Control Digit Information to Marker (Fig. 10)

6.05 Space is used for recording the procedure level assigned to each conferee line unit. CD-punchings are cross-connected to PS- punchings on a 2-out-of-7 basis.

E. Miscellaneous (Fig. 11)

6.06 In Fig. 11 space is used for recording class-of-service, procedure, 101 trunk assignments, line unit assignments to 101 trunks, controller recycle, conferee answer supervision, and miscellaneous cross-connections associated with one conference controller circuit and common to all conferees and line units.

7. FOREIGN AREA TRANSLATOR CROSS-CONNECTIONS

A. Code Point (Fig. 12)

7.01 This form is used to list the code point cross-connections associated with the direct route translation, switched route translation, and code screening for one translator group.

7.02 The number of the area route relay that is used in making translator cross-connection verification tests is also listed on this form.

7.03 Office or vacant codes in different areas in the same translator group with the same code point shall be entered on consecutive lines on this form. The assignment for the individual office or vacant code shall be entered on the line opposite the particular code and area.

Headings

7.04 ***Ref No.:*** A reference number corresponding to each line of each sheet is required to cross reference the information in this form with associated foreign area translator forms. The reference number should be a 4-digit number. The thousands and hundreds digits should be the same as the 2-digit number assigned to the sheet. The tens and units digits will be the particular line number on the sheet.

7.05 ***Code Point:*** The code points should be listed numerically in the C column.

7.06 ***Direct Route:*** The direct route cross-connection assignments shall be placed in the space opposite the particular code and area. The OR-, TAN-, TOL-, and OAT- punchings are associated with and numbered the same as the DIR punching. The DIR punching number opposite an entry in any space in OR-, TAN-, TOL-, and OAT- columns determines the number of the particular OR-, TAN-, TOL-, or OAT- punching.

> ***Note:*** Similar patterns of punching numbering associations are used on other forms throughout this practice.

7.07 ***Code Screening:*** The LC- and AC- punchings are associated with and numbered the same as the associated CS punching. (Refer to Note in paragraph 7.06)

7.08 ***Area Route Indications:*** The information on this portion of the form is used to make foreign area translator cross-connection verification tests. Information is entered as follows:

(a) When code screening is not required, enter the number of the area route in the space opposite the code and area under the proper A or L columns. The 7-digit local codes will have the area route entered in the L columns, and the 10-digit area codes will have the area route entered in the A columns.

(b) When code screening is required, indicate that the code key is required in the code key column. The area routes will be entered as covered in the previous paragraph.

B. Code Grouping Punchings (Fig. 13)

7.09 This form is used to list the code grouping cross-connections for one translator group.

7.10 The code grouping punchings consist of five individual punchings strapped together for connecting related cross-connections. When more than five punchings are used for this purpose, a suitable indication of this shall be made on the form.

7.11 All reference numbers for code point cross-connections associated with the code grouping punchings on Fig. 12 shall be entered in the related space on this form.

C. CAMA, Code Screening, and Direct Route Translator (Fig. 14)

7.12 This form is used to record the assignment of the code screening punchings and direct route translator punchings for one translator group.

7.13 All reference numbers for code point cross-connections associated with code screening punchings and direct route translator punchings on Fig. 12 shall be entered in the related space on this form.

D. Grouping Punchings (Fig. 15)

7.14 This form is used to list the grouping punching cross-connections for one translator group.

7.15 Grouping punchings consist of five individual punchings strapped together for connecting related cross-connections. When more than five punchings are used for this purpose, a suitable indication of this shall be made on the form.

7.16 All reference numbers for code point cross-connections associated with grouping punchings of Fig. 12 shall be entered in the related space on this form.

E. Ring Translator (Fig. 16)

7.17 Translator output cross-connections for switched routes are listed on this form. One form is required for each area.

7.18 All reference numbers for code point cross-connections associated with switched routes on Fig. 12 shall be entered in the related space on this form.

F. Route Description (Fig. 17)

7.19 This form is used to record the area route assignments and the associated information necessary for route assignments in the markers. Each sheet will accommodate 40 area route assignments.

Headings

7.20 ***AR:*** The area route numbers should be listed numerically in this column.

7.21 ***Reference Number:*** All reference numbers for code point cross-connections associated with area route relays on Fig. 12 shall be entered in this column.

G. Switched Route Grouping (Fig. 18)

7.22 This form is used for recording the assignment of all switched route grouping punchings for one translator group.

7.23 All reference numbers for code point cross-connections associated with switched route grouping punchings on Fig. 12 shall be entered in the related space on this form.

8. INCOMING REGISTER CROSS-CONNECTIONS (Fig. 19)

8.01 This form is used to list incoming register cross-connections, wire-spring and nonwire-spring-relay type. The left side of the form shall be used for the tandem and toll number group trunk number translation cross-connection information. The right side of the form is used for listing detailed terminal strip and punching information for the number group trunk number cross-connections and, if space permits, for other cross-connections necessary in the incoming register. If all the cross-connection information cannot be accommodated on this form, the miscellaneous cross-connections form, shown in Part 12, should be used as required.

Headings

8.02 ***Number Group Trunk Numbers:*** In the Cross-Connect Form columns, the HA-, HB-, TA-, TB-, EHA-, EHB-, ETA-, ETB-, ATA-, and ATB-punchings are associated with and numbered the same as the particular LT relay. (Refer to Note in paragraph 7.06.)

9. INCOMING REGISTER LINK CROSS-CONNECTIONS

A. Nonwire-Spring-Relay Type — Trunk Class and Frame (Fig. 20)

9.01 This form is used to list the cross-connections for the class of call and the trunk link frame units number of the incoming trunks assigned to one nonwire-spring-relay type incoming register link frame. Space is used to list trunk data opposite the associated TP relay.

B. Flexible Trunks (Fig. 21)

9.02 This form is used to list the distributing frame cross-connections between flexible incoming trunks and the incoming register link frame. One sheet will accommodate 120 trunk assignments. Space is used to list the trunk equipment relay rack and circuit and the cross-connection to the incoming register link frame switch and vertical (nonwire-spring-relay type) or horizontal group and vertical (wire-spring-relay type).

C. Wire-Spring-Relay Type — Trunk Link Frame and Trunk Class (Fig. 22)

9.03 This form is used to list cross-connections for either direct pulse- or bylink-type trunks. The TPU and TPC punchings are numbered the same as the associated TP relay. When the form is used only for a direct pulsing type of incoming register link, the trunk-type cross-connection is not necessary. When the form is used for a bylink-type of incoming register link, the trunk-type cross-connection will be necessary. On the latter type link, the TPU and TPC punchings 20 through 39 will be unused on the form, and the columns to the right of these punchings will not be required. Space is used for recording CLA-, CLB-, and CLC- cross-connections to the CL- punchings required to give class indication for incoming trunk, transfer, or attendant class, respectively, for phases I and II centrex.

10. LINE LINK CROSS-CONNECTIONS

A. Class-of-Service (Fig. 23)

10.01 This form is used for recording the class-of-service assigned to each vertical file on each line link frame. The association of a CS lead or punching with a particular type or class-of-service is also shown. One sheet will accommodate the assignment for 8 vertical groups and 40 line link frames. When this form is used in conjunction with wire-spring-relay type circuits that have been arranged for 60 classes-of-service, it will be necessary to enter in the Vertical Group column the class group (A or B) indication. The information in the Associated Class-of-Service column should also indicate the type or class-of-service associated with both class groups.

B. Class-of-Service and Rate Treatment (Fig. 24)

10.02 This form is used for recording the class-of-service and rate group assigned to each vertical file on each line link frame. One sheet will accommodate 2 vertical groups and 30 line link frames for offices equipped for 100 classes-of-service and 20 rate groups.

C. Class-of-Service and Rate Treatment on a Hold-Magnet Basis (Fig. 25)

10.03 This form is used for recording line link class-of-service and rate treatment cross-connections on a hold-magnet basis. One sheet will accommodate six vertical groups of a line link frame.

D. Line Sleeve (Fig. 26)

10.04 The line sleeve cross-connection (made at the distributing frame) to the number group or trunk circuit is shown on this form.

Headings

10.05 ***LS Punching:*** All information for each line link frame shall be grouped together and the line link frames entered numerically. The vertical files for each vertical group and the vertical groups shall be arranged numerically for each line link frame.

E. Line Load Control (Fig. 27)

10.06 This form is used to list the cross-connection required for line load control on one line link frame. When the line load control is on a line group basis, cross-connections for a class-of-service will be shown in the line group basis columns for adjacent horizontal groups in one vertical group. When the line load control is on a vertical group basis, cross-connections will be shown in the vertical group basis columns; only one cross-connection is required for each vertical group.

F. Wiring Options (Fig. 28)

10.07 This form is used to list the line equipment locations that require wiring options. One sheet will accommodate 90 line equipment assignments.

10.08 Typical of the information to be entered on this form are telephone numbers of lines or trunks that require terminating service only, line equipments that are to be bypassed by the line insulation test frame, or line equipment of coin lines where options are to be applied locally by the installation or maintenance force.

10.09 A list of tandem or toll trunks by telephone number will facilitate identifying individual trunks from the trouble recorder card information.

11. MARKER CROSS-CONNECTIONS

A. Route Relay Assignment (Fig. 29)

11.01 This form is used to record the route relay assignments for route relays.

Headings

11.02 ***Route Relay:*** The tens and units digits of the route relay number appear in this column. The hundreds digit of the route relay number shall be entered in this column as required.

B. Code Point and Route Assignment (Fig. 30)

11.03 This form is used to list the code point and associated route relay cross-connections. One sheet will accommodate 35 code point assignments. This form may also be used for showing route assignment for foreign area routes, route advance groups, and code groups. The foreign area routes would be designated FAR- and listed numerically in the Code Point column. The route advance group or code groups would be listed as such in the Assignment column. The blank columns shall be used for additional information as determined by local requirements.

Headings

11.04 ***Type of Trunk:*** The type of trunk as designated in AT&T Practice 819-600-150 may be listed in this column.

11.05 ***Cross-Connect from Route Relay Punchings:*** The RC-, R-, RA-, TB-, TG-, OS-, CL-, CP-, CR-, and DL- punchings are associated with and numbered the same as the particular route relay. (Refer to Note in paragraph 7.06.)

11.06 ***TB- to TBC-:*** The majority of TB- punchings will be cross-connected to a TBC- punching. When the TB- punching is cross-connected to other punchings, such as TBG0, the designation of that punching shall be placed in this column.

11.07 ***OS- to OSC-:*** The majority of the OS- punchings will cross-connect to the OSC- punching. When the OS- punching is cross-connected to other punchings, such as NS0, the designation of that punching shall be placed in this column.

C. Nonwire-Spring-Relay Type — Class-of-Service (Fig. 31)

11.08 This form is used to list the cross-connections associated with the service relays. One sheet will accommodate assignments for 36 service commons and 16 service relays.

D. Wire-Spring-Relay Type — Class-of-Service and Rate Treatment (Fig. 32)

11.09 This form is used to list the cross-connections associated with the marker class-of-service and rate treatment leads and to list the cross-connections associated with the service relays. Space is also used for recording the SC and USC multiple cross-connections. One sheet will accommodate assignments for 20 classes-of-service or rate treatments with 24 service commons per class-of-service or rate treatment.

E. Nonwire-Spring-Relay Type — Tandem Code Screening (Fig. 33)

11.10 This form is used for listing the originating, tandem, and toll cross-connections when two or more tandem classes are required.

Headings

11.11 ***Common Connection:*** This column is used for reference purposes. Space is used to list the punching that is cross-connected to the TSC punching. (Refer to Note in paragraph 7.06.)

11.12 ***TS Punchings:*** The individual TS punchings of the OR0- TOL0-, and TAN0- relays are associated with and numbered the same as the TSC punchings. (Refer to Note in paragraph 7.06.)

F. Code Conversion Preroute (Fig. 34)

11.13 The code conversion preroute cross-connections will be entered on this form. One sheet will accommodate the assignments for 80 CV relays.

Headings

11.14 ***Common Connection:*** The CV relays and punchings number 00 through 99. The units digit is in CV column. The tens digit shall be entered as required.

11.15 ***Cross-Connect from CV Relay Punchings:*** The CVB-, ARN-, BRN-, CRN-, CVR- punchings are associated with and numbered the same as the CV punching. (Refer to Note in paragraph 7.06.)

G. Nonwire-Spring-Relay Type — Class of Call and Presort Class (Fig. 35)

11.16 This form is used for listing the cross-connections for originating, tandem, toll, and CAMA class calls and presort class relays.

H. Grouping and Allotted Groups (Fig. 36)

11.17 This form is used for listing the cross-connections associated with route advance grouping, code grouping, service grouping, route convenience grouping or route grouping, code conversion route grouping, CAMA sender group convenience, and allotted groups.

Grouping

11.18 The units digit of the grouping number is listed in the route advance grouping, code grouping, service grouping, and route grouping or route convenience grouping columns. The tens digit shall be entered as required.

Headings

11.19 ***Cross-Connect from Punching:*** These punchings are associated with and numbered the same as the AL relay. (Refer to Note in paragraph 7.06.)

11.20 ***Remove Straps:*** This space is used to list the straps that have to be removed for allotted group operation.

I. Nonwire-Spring-Relay Type — Class-of-Service Leads, Class-of-Service Control, Intercepting, Route Transfer, Denied Route, and Coin Reroute (Fig. 37)

11.21 This form is used for listing the cross-connections for class-of-service leads and control, intercepting, route transfer, denied route, and coin reroute for nonwire-spring-relay type markers.

Headings

11.22 ***Denied Route:*** The NR punchings are numbered the same as the associated denied route relays.

11.23 ***Coin Reroute:*** The RR punchings are numbered the same as the associated coin reroute relays.

J. Wire-Spring-Relay Type — Intercepting (Fig. 38)

11.24 This form is used for listing the various cross-connections associated with various types of intercepting.

K. Wire-Spring-Relay Type — Route Transfer, Diverted Route, and Dial Tone Marker CS- and CST- Leads (Fig. 39)

11.25 This form is used for listing the cross-connections associated with route transfer (normal and transferred routes), diverted route, and dial tone marker CS- and CST- leads.

L. Dial Tone Marker Cross-Connections or Group Assignment, Class-of-Service, and Miscellaneous (Fig. 40)

11.26 This form is used for listing the cross-connections associated with 2-wire originating register group assignment, 4-wire originating group assignment, class-of-service, and miscellaneous features.

M. Control Digits and Class-of-Service Screening (Fig. 41)

11.27 This form is used for listing the assignment of control digits, the cross-connection of control digits for precedence and priority, and the cross-connections for class-of-service screening.

N. Treatment for Four-Wire Privilege Groups (Fig. 42)

11.28 This form is used for listing the cross-connections for 4-wire privilege groups.

O. Tens Block Screening (Fig. 43)

11.29 This form is used for listing the cross-connections for tens block screening.

P. Line Link Pulsing (Fig. 44)

11.30 This form is used for listing cross-connections for line link pulsing.

Headings

11.31 ***Cross-Connect from Line Route Relay Punching:*** The LRW-, LRU-, LRL-, LNST-, LNHB-, LNTB-, LCR-, LCL-, and LDL- punchings are associated with and numbered the same as the particular line route relay. (Refer to Note in paragraph 7.06.)

Q. Multiple Class-of-Service Match (Fig. 45)

11.32 This form is used for listing cross-connections for multiple class-of-service match for offices with centrex.

R. Four-Wire Routing Program (Fig. 46)

11.33 This form is used for listing the cross-connections for the 4-wire routing program.

Headings

11.34 ***Cross-connect from routing relay punchings:*** The RMW-, RMCL-, RMC1-, RMC2-, RMC3-, RMC4-, RMC5-, RMC6-, RMC7-, RMC8-, RMC9-, RMC10-, RMC11-, RMC12-, RM1- or MD-, RM2 or BA-, RM3- or SBA-, RM4- or GA-, RM5- or RS-, RM6- or CDM-, RM7- or CDB-, RM8- or CDS-, RM9- or SGA-, RM10- or FGA- punchings are associated with and numbered the same as the particular routing relay. (Refer to Note in paragraph 7.06.)

11.35 Punchings RM1 through RM10- are used in the ring routing program; 4-wire polygrid routing uses the alternate punchings in the same columns.

S. Four-Wire Privilege Group Screening (Fig. 47)

11.36 This form is used for listing the 4-wire class-of-service, 4-wire special request screening, control digit, and control digit grouping cross-connections for offices equipped for 4-wire switching.

T. Four-Wire Routing Program (Grade Screening) (Fig. 48)

11.37 This form is used for listing grade screening on a grade-relay basis. Cross-connections for two grade relays and associated punchings may be shown on one form.

U. Four-Wire Routing Program (Precedence Level) (Fig. 49)

11.38 This form is used for listing cross-connections associated with precedence level routing assignment. Route group separation, and special grade routing.

V. PBX Allotter (Fig. 50)

11.39 This form is used for listing the cross-connections associated with PBX allotting. The form on the right may be used to list any cross-connections that are not listed in the detailed portion of this form.

W. Special Features (Fig. 51)

11.40 This form is used for listing cross-connections associated with traffic sampling, wideband switching, and SSN (switched services network).

12. MISCELLANEOUS CROSS-CONNECTIONS (Fig. 52)

12.01 This form is used to list cross-connections not included on other forms. One sheet will accommodate 120 cross-connection assignments.

12.02 The name of the circuit(s) should be listed in the title of this form.

12.03 If this form is used to list cross-connections for more than one circuit, the circuit designation shall also be entered in the blank space above each group of cross-connections.

13. NUMBER GROUP CROSS-CONNECTIONS

A. Terminal Hunting (Fig. 53)

13.01 This form is used to list the number group cross-connections to TB- relays, A- relays, SC- relays, etc, associated with terminal hunting numbers.

13.02 When entering information on this form, the cross-connections shall be listed opposite the assigned hunt group. If additional space is required, the cross-connections may be continued on the following line.

13.03 The chart at the bottom of the form is for reference. The association of the A relay to the SC relays will be listed in this chart when the hunting group is extended over more than one tens block.

14. ORIGINATING REGISTER CROSS-CONNECTIONS (Fig. 54)

14.01 This form is used to list cross-connections associated with operation of the originating register circuit.

15. ORIGINATING REGISTER-CALLED ADDRESS TRANSLATED FROM LINE LINK LOCATION CROSS-CONNECTIONS

A. Preset Called Number (Fig. 55)

15.01 This form is used to list the originating line link location, the preset called directory number, the A- through K- digits of the called number on a 2-out-of-5 basis, control digits on a 2-out-of-7 basis, and the area code associated with the HL- relays in numerical sequence as required.

B. Address Relay Selection and Frame Unit Translation (Fig. 56)

15.02 This form is used to list the cross-connections required for selection of an H-address relay. Space is also used for listing cross-connection of frame units into low and high frames.

16. OUTGOING SENDER LINK CROSS-CONNECTIONS (Fig. 57)

16.01 This form is used to list the trunk cross-connections for one outgoing sender link frame.

Headings

16.02 ***TRK:*** The trunk number assigned to each trunk associated with the outgoing sender link shall be listed in this column.

17. PRETRANSLATOR CROSS-CONNECTIONS

A. Home Area Codes, Foreign Area Codes and Miscellaneous (Fig. 58 and 59)

17.01 These forms are used to list the cross-connections associated with the home and foreign area codes and also, the C digit zero codes and miscellaneous pretranslator cross-connections.

17.02 The home and foreign area codes are listed numerically. Space is used under each code to enter the number of digits to be dialed. This information will be used for assigning the R, S, or T punching to the proper P- punching.

17.03 The C digit zero codes are listed numerically. Space is used under each code to enter the number of digits to be dialed. This information will be used for assigning the particular code punching to the proper BS- or CM- punching.

18. ROUTE RELAY TB AND TG RECORD (Fig. 60)

18.01 This form is used to list the route relays associated with each TB- and TG- relay assignment. Each form will accommodate the assignments for one TB relay and TG relays 0 through 19. This information may be used for reference regarding XFT cross-connections.

18.02 If more space is required to list the various routes associated with a particular TB and TG relay, a list may be entered on the back of the form and designated by a letter which may be entered in the proper space.

19. SERVICE OPTIONS (Fig. 61)

19.01 This form is used to list trunk and miscellaneous circuits that have service options and to indicate what options are required for each circuit. One sheet will accommodate 120 circuits.

20. TRAFFIC REGISTER CROSS-CONNECTIONS (Fig. 62)

20.01 This form is used to list the traffic register cross-connections. One sheet will accommodate 80 traffic register assignments. The cross-connections that are made at the distributing frame should be grouped and it should be indicated that the connections will be made at the distributing frame. The cross-connections at the traffic register frame or

relay rack frame should be grouped, and it should be indicated that the connections are made at the particular frame.

Headings

20.02 ***From PCHG:*** The punching number will be the same at the pulse jack number and will be entered in this column.

21. TRANSVERTER CROSS-CONNECTIONS

A. Code Compression and Message Billing Index (Fig. 63)

21.01 This form is used to list the code compression and message billing index cross-connections in the pretranslator.

Code Compression

21.02 Two groups of cross-connections for code compression are listed. They are the X0X and X1X code cross-connections and the FAB relay cross-connections.

21.03 In the column associated with the individual FAB- relays, the assigned X0X and X1X codes will be entered.

22. TRUNK RECORD CARD (Fig. 64)

22.01 This form is used for recording all pertinent information for one trunk. Space is also used for maintaining a trouble record for the trunk. One card will accommodate one incoming or outgoing trunk.

23. TRUNK LINK CROSS-CONNECTIONS

A. Four-Wire (Fig. 65)

23.01 This form is used for recording the cross-connections associated with the individual trunks on one regular or one supplementary trunk link frame.

23.02 The last two digits of the F-, FT-, TKT-, or TRN- punchings are numbered the same as the particular SW and LEV.

B. Two-Wire — A and B Appearance (Fig. 66 and 67)

23.03 These forms are used for recording the cross-connections associated with the individual trunks.

23.04 These forms may be used for trunk frames equipped with or without small crossbar switches.

23.05 The FA-/FB-, FTA-/FTB-, BTA-/BTB-, RCA-/RCB-, RN-/KT-, TKT-, TSC-, and TRN- punchings are numbered the same as the particular SW and LEV.

C. Two-Wire — Miscellaneous (Fig. 68)

23.06 This form is used for recording ringing select switch directions and miscellaneous cross-connections.

24. TRUNK TEST AND MAKE-BUSY CROSS-CONNECTIONS (Fig. 69)

24.01 This form is used to list the test and make-busy jack cross-connections at the main distributing frame. One sheet will accommodate 80 jack assignments.

25. WIDEBAND CROSS-CONNECTIONS

A. Link Circuit (Fig. 70)

25.01 These forms are used for recording the cross-connections associated with line switch verticals 01 to 12.

B. Line Control Circuit (Fig. 71 and 72)

25.02 This form is used for recording the cross-connections associated with individual wideband lines. One sheet will accommodate one line control circuit.

C. Remote Switch and Remote Switch Signal Control Circuit (Fig. 73)

25.03 This form is used to list cross-connections for the remote switch and remote switch signal control circuit. One sheet will accommodate one remote switch and its associated remote switch signal control circuit.

D. Trunk Test Register Circuit (Fig. 74)

25.04 This form is used for recording the cross-connections associated with individual test trunks.

25.05 The last two digits of the FGA-, TFA-, TFB-, FTA-, FTB-, etc, punchings are the same as the test trunk number.

25.06 Cross-connections to punchings TF-, FU-, HG-, HT-, TT- will be on a 2-out-of-5 basis. Cross-connections to FT- punchings will be on a 2-out-of-4 basis. Cross-connections to VG- punchings will be on a 2-out-of-6 basis.

26. ▶TRUNK — MAKE-BUSY JACK — REMOTE TEST MAKE-BUSY CIRCUIT CROSS-CONNECTIONS (Fig. 75)

26.01 This form is used for listing the cross-connections from a trunk to the make-busy jack of that trunk and the cross-connection to the remote test make-busy circuit if equipped. The procedure(s) for entering information on this form is as follows:

(1) From office records, enter trunk information as follows:

(a) Trunk location

(b) MDF (main distributing frame) appearance of B1 & B2 leads

(2) Enter terminal strip, jack, and lead location of make-busy jack for each trunk.

(3) Enter the trunk identification — TB, TF, and TT (trunk block, trunk frame and trunk test), data onto form.

(4) At EOTT/RTMB keyboard, perform trunk group status dump of all make-busy circuits (X59 command).

(5) Enter the make-busy circuit number for each trunk as needed, as assigned by the RTMB unit.

(6) Using office trunk records enter the trunk bay location for where the make-busy circuit is connected to the MDF appearance B1 & B2 leads.◀

AUTOMATIC CONNECTION LINE CIRCUIT
CROSS-CONNECTIONS

ISSUE____ DATE____
MKR GRP____ OFFICE____
CKT NO.____ NO. 5 CROSSBAR SHEET____ OF____

PRESET INFORMATION			PRESET CALLED DIRECTORY NUMBER															
ORIG LINE LOCATION		FT-																
		FU-																
		HG-																
		VG-																
		VF-																
PRESET CALLED NO. CROSS-CONNECT FROM PCHG	AG TO	A-																
		A-																
	BG TO	B-																
		B-																
	CG TO	C-																
		C-																
	DG TO	D-																
		D-																
	EG TO	E-																
		E-																
	FG TO	F-																
		F-																
	GG TO	G-																
		G-																
	HG TO	H-																
		H-																
	JG TO	J-																
		J-																
	KG TO	K-																
		K-																
	LG TO	L-																
		L-																
	MG TO																	
PRIVILEGE CONTROL DIGITS CROSS-CONNECT	CDG TO	CD-																
		CD-																
	CDPG TO	CDP-																
		CDP-																
	PE TO																	
PRESET AMA INFO CROSS-CONNECT	CUG TO	CU-																
		CU-																
	CTAG TO	CTA-																
		CTA-																
	HGB TO	HG-																
		HG-																
	FUG TO	FU-																
		FU-																
	VGB TO	VG-																
		VG-																
	VFG TO	VF-																
		VF-																
	FTG TO	FT-																
	CRUG	CRU-																
		CRU-																
	CGG TO																	
ACCESS CODES 2W OR 4W CROSS-CONNECT	LTG TO																	
	WG TO																	

Fig. 1—Automatic Connection Line Circuit — Cross-Connections Form

CAMA BILLING INDEXER
WIRE-SPRING-RELAY TYPE
ORIGINATING CODE CROSS-CONNECTIONS
NO. 5 CROSSBAR

ISSUE______ DATE______
MKR GRP____ OFFICE______
SHEET______ OF______

ORIGINATING			PUNCHING										A GRP		B GROUP					C GROUP					D GROUP					E GRP			F GRP			RSGI
													RATE TREATMENT																							
													TENS		UNITS					OFFICE INDEX					RECORDER GROUP					AREA TRNSL			ENT COMB			
OFFICE	RATE CLASS	AREA	OAB-	CC-		OC-	OAC-	OAR-	RCC-		ORC-	VOC-	0	1	0	1	2	4	7	0	1	2	4	7	0	1	2	4	7	0	1	2	0	1	2	

Fig. 2—CAMA Billing Indexer — Wire-Spring-Relay Type — Originating Code Cross-Connections Form

CAMA BILLING INDEXER
WIRE-SPRING-RELAY TYPE
TERMINATING CODE CROSS-CONNECTIONS
NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

FROM PUNCHING TRT-			0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
CROSS CONN THRU COILS	ORIGINATING RATE TREATMENT	0 COIL B																														
		1 COIL C																														
		2 COIL D																														
		3 COIL E																														
		4 COIL F																														
TO PUNCHING RSG3-			0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29

FROM PUNCHING TRT-			30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
CROSS CONN THRU COILS	ORIGINATING RATE TREATMENT	0 COIL B																														
		1 COIL C																														
		2 COIL D																														
		3 COIL E																														
		4 COIL F																														
TO PUNCHING RSG3-			30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59

FROM PUNCHING TRT-			0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
CROSS CONN THRU COILS	ORIGINATING RATE TREATMENT	5 COIL B																														
		6 COIL C																														
		7 COIL D																														
		8 COIL E																														
		9 COIL F																														
TO PUNCHING RSG3-			0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29

FROM PUNCHING TRT-			30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
CROSS CONN THRU COILS	ORIGINATING RATE TREATMENT	5 COIL B																														
		6 COIL C																														
		7 COIL D																														
		8 COIL E																														
		9 COIL F																														
TO PUNCHING RSG3-			30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59

ENTRY COMB	MESSAGE BILLING INDEX							
	1	2	3	4	5	6	7	8
0								
1								
2								

FROM		TO	
		BBFC	TS
TAR	0		
	1		
	2		

Fig. 3—CAMA Billing Indexer — Wire-Spring-Relay Type — Terminating Code Cross-Connections Form

CAMA BILLING INDEXER
WIRE-SPRING-RELAY TYPE
RATE TREATMENT CROSS-CONNECTIONS
NO. 5 CROSSBAR

ISSUE______ DATE______
MKR GRP_____ OFFICE______
SHEET______ OF______

TERMINATING OFFICE	TC	TERM. RATE TREATMENT						RSG2	TERMINATING OFFICE	TC	TERM. RATE TREATMENT						RSG2	TERMINATING OFFICE	TC	TERM. RATE TREATMENT						RSG2
		TAR 0		TAR 1		TAR 2					TAR 0		TAR 1		TAR 2					TAR 0		TAR 1		TAR 2		
		TENS	UNITS	TENS	UNITS	TENS	UNITS				TENS	UNITS	TENS	UNITS	TENS	UNITS				TENS	UNITS	TENS	UNITS	TENS	UNITS	
		A	B	C	D	E	F				A	B	C	D	E	F				A	B	C	D	E	F	

Fig. 4—CAMA Billing Indexer — Wire-Spring-Relay Type — Rate Treatment Cross-Connections Form

CAMA TRANSVERTER
WIRE-SPRING-RELAY TYPE
CODE COMPRESSION, MESSAGE BILLING INDEX, AND RECORDER GROUP CROSS-CONNECTIONS
NO. 5 CROSSBAR

ISSUE_____ DATE_____
TRANSL GRP_____ OFFICE_____
SHEET_____ OF_____

CODE COMPRESSION CROSS-CONNECTIONS

FROM	TO T4L	T5L	G	CC-
TAC 20				
TAC 30				
TAC 40				
TAC 50				
TAC 60				
TAC 70				
TAC 80				
TAC 90				
CA0				
CB0				
CD0				
TAC 21				
TAC 31				
TAC 41				
TAC 51				
TAC 61				
TAC 71				
TAC 81				
TAC 91				
CA1				
CB1				
CD1				
TAC 22				
TAC 32				
TAC 42				
TAC 52				
TAC 62				
TAC 72				
TAC 82				
TAC 92				
CA2				
CB2				
CD2				
TAC 23				
TAC 33				
TAC 43				
TAC 53				
TAC 63				
TAC 73				
TAC 83				
TAC 93				
CA3				
CB3				
CD3				

FROM	TO T4L	T5L	G	CC-
TAC 24				
TAC 34				
TAC 44				
TAC 54				
TAC 64				
TAC 74				
TAC 84				
TAC 94				
CA4				
CB4				
CD4				
TAC 25				
TAC 35				
TAC 45				
TAC 55				
TAC 65				
TAC 75				
TAC 85				
TAC 95				
CA5				
CB5				
CD5				
TAC 26				
TAC 36				
TAC 46				
TAC 56				
TAC 66				
TAC 76				
TAC 86				
TAC 96				
CA6				
CB6				
CD6				
TAC 27				
TAC 37				
TAC 47				
TAC 57				
TAC 67				
TAC 77				
TAC 87				
TAC 97				
CA7				
CB7				
CD7				

FROM	TO T4L	T5L	G	CC-
TAC 28				
TAC 38				
TAC 48				
TAC 58				
TAC 68				
TAC 78				
TAC 88				
TAC 98				
CA8				
CB8				
CD8				
TAC 29				
TAC 39				
TAC 49				
TAC 59				
TAC 69				
TAC 79				
TAC 89				
TAC 99				
CA9				
CB9				
CD9				

FROM CT	TO TAR-
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	

FROM	TO TRL	RLI
MBI 1		
MBI 2		
MBI 3		
MBI 4		
MBI 5		
MBI 6		
MBI 7		
MBI 8		

CROSS-CONNECT

FROM	TO CC-	T5L
BC 00		
BC 10		
BC 01		
BC 11		
BC 02		
BC 12		
BC 03		
BC 13		
BC 04		
BC 14		
BC 05		
BC 15		
BC 06		
BC 16		
BC 07		
BC 17		
BC 08		
BC 18		
BC 09		
BC 19		

FROM	CC-
AT 0	
AT 1	
AT 2	

RECORDER GROUP CROSS-CONNECTIONS

FROM RA	TO RG-
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	

FROM RB	TO RG-
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	

FROM RGA	TO OAR-
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	

Fig. 5—CAMA Transverter — Wire-Spring-Relay Type — Code Compression, Message Billing Index, and Recorder Group — Cross-Connections Form

CENTREX (MISCELLANEOUS CIRCUITS) CROSS-CONNECTIONS

NO. 5 CROSSBAR

ISSUE ___ DATE ___

MKR GRP ___ OFFICE ___

SHEET ___ OF ___

TRANSFER LINE LINK AND CONN								TRANSFER LINE IDENTIFIED AND CONNECTOR CKT									POSITION LINK CKT								
		CROSS-CONNECT							PATTERN A				PATTERN B					CROSS-CONNECT							
									CROSS-CONNECT				CROSS-CONNECT												
FRAME	TS	FROM PCHG TLT-	TO PCHG VFT-	FROM PCHG TLU-	TO PCHG YFU-	FROM PCHG MS-	TO PCHG	ASSIGNMENT	TS	FROM PCHG A-	TS	TO PCHG VG-	TS	FROM PCHG B-	TS	TO PCHG VG-	HOR GRP	FROM PCHG GT-	TO PCHG GB-	FROM PCHG LS-	TO PCHG LS-	FROM PCHG HA-	TO PCHG HA-	FROM PCHG CG-	TO PCHG PA--

TRAFFIC REGISTER TRANSLATOR CKT											
CUSTOMER GRP STUDY											
ASSIGNMENT	FROM PCHG	TO PCHG									
	CG-	CS--	CS--	CS--	CS--	CS--	CS--	CS--	CS--	CS--	CS--
	0										
	1										
	2										
	3										
	4										
	5										
	6										
	7										
	8										
	9										

Fig. 6—Centrex (Miscellaneous Circuits) Cross-Connections Form

FOUR-WIRE CONFERENCE CONTROLLER CIRCUIT CROSS-CONNECTIONS
ASSIGNMENT TO CONFERENCE PATTERN AND LINE UNIT

ISSUE____ DATE____

MKR GRP____ OFFICE____

CONFERENCE CONTROLLER NO._____ NO. 5 CROSSBAR SHEET____ OF____

PATTERN A				PATTERN B				PATTERN C				PATTERN D				PATTERN E			
CROSS-CONNECT				CROSS-CONNECT				CROSS-CONNECT				CROSS-CONNECT				CROSS-CONNECT			
CONFEREE ADDRESS	FROM ADA-	LINE UNIT	TO ADR-	CONFEREE ADDRESS	FROM ADB-	LINE UNIT	TO ADR-	CONFEREE ADDRESS	FROM ADC-	LINE UNIT	TO ADR-	CONFEREE ADDRESS	FROM ADD-	LINE UNIT	TO ADR-	CONFEREE ADDRESS	FROM ADE-	LINE UNIT	TO ADR-
	00				00				00				00				00		
	01				01				01				01				01		
	02				02				02				02				02		
	03				03				03				03				03		
	04				04				04				04				04		
	05				05				05				05				05		
	06				06				06				06				06		
	07				07				07				07				07		
	08				08				08				08				08		
	09				09				09				09				09		
	10				10				10				10				10		
	11				11				11				11				11		
	12				12				12				12				12		
	13				13				13				13				13		
	14				14				14				14				14		
	15				15				15				15				15		
	16				16				16				16				16		

CROSS-CONNECT					CROSS-CONNECT					CROSS-CONNECT					CROSS-CONNECT					CROSS-CONNECT				
CONFEREE ADDRESS	FROM PA-	LINE UNIT	TO CL-	TO AL-	CONFEREE ADDRESS	FROM PB-	LINE UNIT	TO CL-	TO AL-	CONFEREE ADDRESS	FROM PC-	LINE UNIT	TO CL-	TO AL-	CONFEREE ADDRESS	FROM PD-	LINE UNIT	TO CL-	TO AL-	CONFEREE ADDRESS	FROM PE-	LINE UNIT	TO CL-	TO AL-
	00					00					00					00					00			
	01					01					01					01					01			
	02					02					02					02					02			
	03					03					03					03					03			
	04					04					04					04					04			

Fig. 7—Four-Wire Conference Controller Circuit Cross-Connections Assignment to Conference Pattern and Line Unit Form

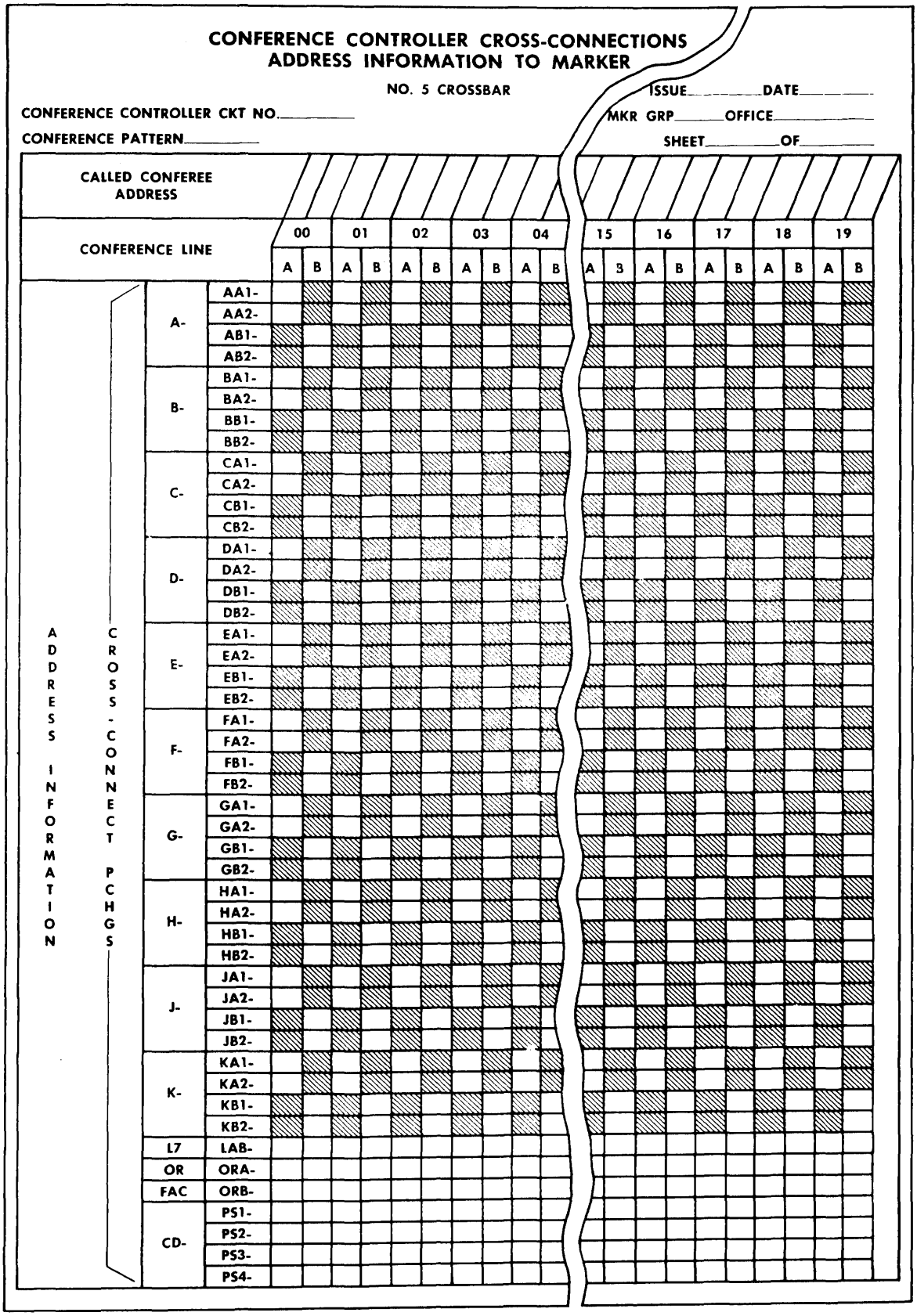


Fig. 8—Conference Controller Cross-Connections Address Information to Marker Form

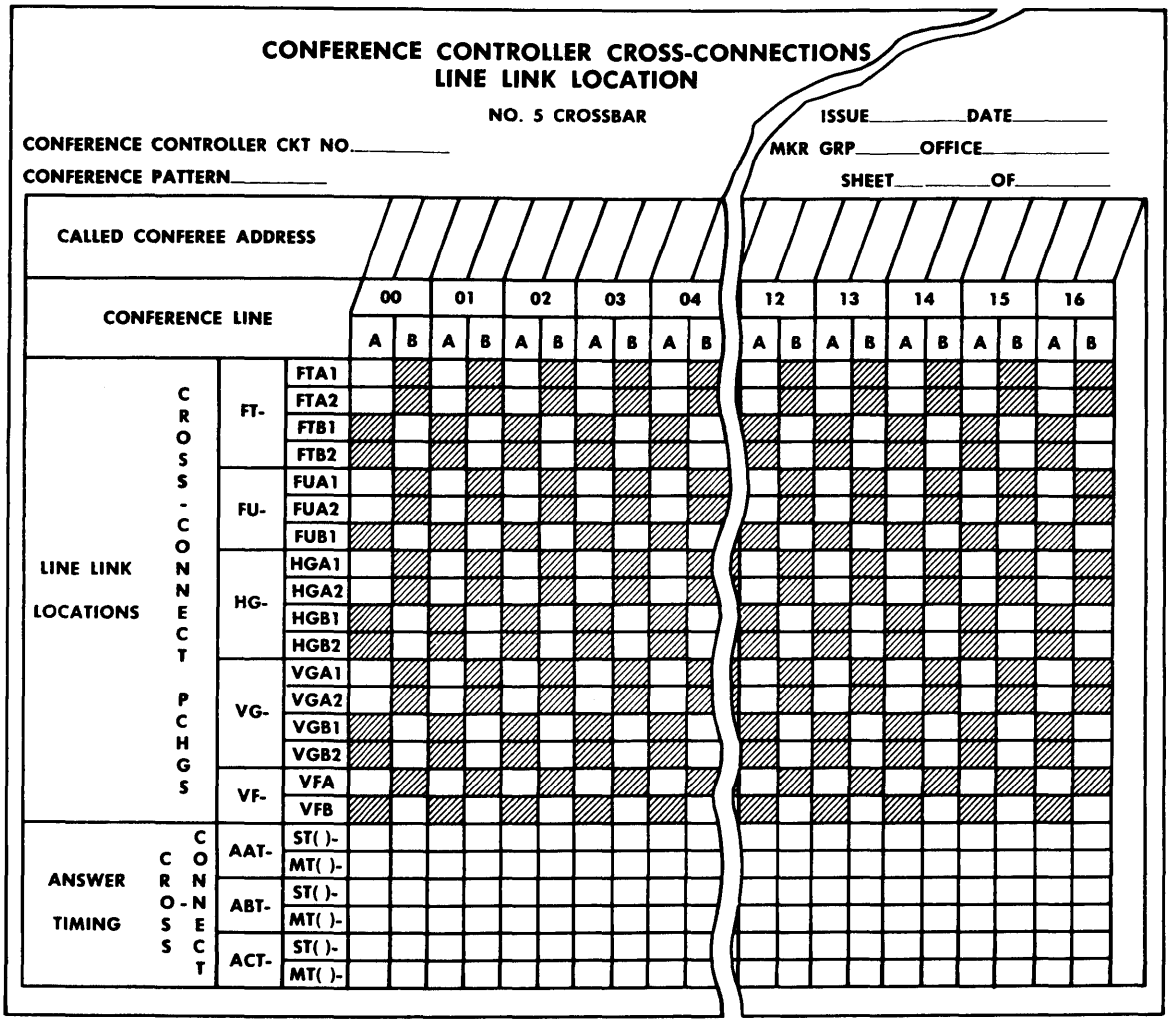


Fig. 9—Conference Controller Cross-Connections — Line Link Location Form

CONFERENCE CONTROLLER CROSS-CONNECTIONS
ADDRESS INFORMATION TO MARKER
NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

CONF LINE		PATTERN A							PATTERN B							PATTERN C							PATTERN D							PATTERN E						
		CROSS-CONNECT PCHGS							CROSS-CONNECT PCHGS							CROSS-CONNECT PCHGS							CROSS-CONNECT PCHGS							CROSS-CONNECT PCHGS						
		FROM ORA-	FROM ORB-	TO PCHG	FROM		TO		FROM ORA-	FROM ORB-	TO PCHG	FROM		TO		FROM ORA-	FROM ORB-	TO PCHG	FROM		TO		FROM ORA-	FROM ORB-	TO PCHG	FROM		TO		FROM ORA-	FROM ORB-	TO PCHG	FROM		TO	
					CD-	CD-	PS-	PS-				CD-	CD-	PS-	PS-				CD-	CD-	PS-	PS-				CD-	CD-	PS-	PS-				CD-	CD-	PS-	PS-
00	A																																			
	B																																			
01	A																																			
	B																																			
02	A																																			
	B																																			
03	A																																			
	B																																			
18	A																																			
	B																																			
19	A																																			
	B																																			

Fig. 10—Conference Controller Cross-Connections — Control Digit Information to Marker Form

CONFERENCE CONTROLLER CIRCUIT CROSS-CONNECTIONS MISCELLANEOUS

NO. 5 CROSSBAR

ISSUE_____ DATE_____

MKR GRP_____ OFFICE_____

CONFERENCE CONTROLLER NO._____

SHEET_____ OF_____

CL/SVC	
CROSS-CONNECT	
FROM PCHG	TO PCHG
CS1	
CS2	
CS3	
CS4	
CS5	
CS6	
CS7	

PRECEDENCE	
CROSS-CONNECT	
FROM PCHG CDP-	TO PCHG
	PS5
	PS6
101 TRK ASGN	
CROSS-CONNECT	
FROM PCHG	TO PCHG
TA1	
TA2	
TB1	
TB2	
TC1	
TC2	
TD1	

CONTROLLER RECYCLE	
CROSS-CONNECT	
FROM PCHG RC-	TO PCHG
	RCLA
	RCLB
	RCLC
	RCLD
	RCLE
ASGN LINE UNITS TO 101 TRKS TEST	
CROSS-CONNECT	
FROM PCHG AL-	TO PCHG
	T0
	T1
	T2
	T3
	T4

CONFEREE ANS SUPV	
CROSS-CONNECT	
FROM PCHG CAS-	TO PCHG
	CASLA
	CASLB
	CASLC
	CASLD
	CASLE

FROM PCHG	TO PCHG AL-
ALLA	
ALLB	
ALLC	
ALLD	
ALLE	

FROM PCHG	TO PCHG

Fig. 11—Conference Controller Circuit Cross-Connections — Miscellaneous Form

FOREIGN AREA TRANSLATOR CROSS-CONNECTIONS
CODE POINT
NO. 5 CROSSBAR

AREA 1_____
AREA 2_____
AREA 3_____

ISSUE_____ DATE_____
TRANSL GRP_____ OFFICE_____
SHEET_____ OF_____

REF NO	OFFICE	AREA	CODE POINT CROSS-CONNECTION		DIRECT ROUTE CROSS-CONNECTION						SWITCHED ROUTE CROSS-CONNECTION					CODE SCREENING CROSS-CONNECTION				AREA ROUTE INDICATIONS											
																				CODE KEY						CMA KEY					
																				L			A			LOCAL CODE			AREA CODE		
			FROM	TO	FROM	TO	FROM PUNCHING				FROM	THROUGH RING			TO	FROM	TO	FROM PCHG													
			C	PCHG	PCHG	DIR	OR-TO	TAN-TO	TOL-TO	OAT-TO	PCHG	OTT	OTU	TOL	SRG	PCHG	CS	LC-TO	AC-TO	OR	TAN	TOL	OR	TAN	TOL	CMF	CMS 0	CMS 1	CMF	CMS 0	CMS 1
00																															
01																															
02																															
03																															
04																															
33																															
34																															
35																															
36																															
37																															
38																															
39																															

Fig. 12—Foreign Area Translator Cross-Connections — Code Point Form

FOREIGN AREA TRANSLATOR CROSS-CONNECTIONS
CODE GROUPING PUNCHINGS
NO. 5 CROSSBAR

ISSUE_____ DATE_____
TRANSL GRP_____ OFFICE_____
SHEET_____ OF_____

CROSS-CONNECT CG	CROSS-CONNECT TO		REFERENCE NUMBER	CROSS-CONNECT CG	CROSS-CONNECT TO		REFERENCE NUMBER	CROSS-CONNECT CG	CROSS-CONNECT TO		REFERENCE NUMBER	CROSS-CONNECT CG	CROSS-CONNECT TO		REFERENCE NUMBER
00				30				60				90			
01				31				61				91			
02				32				62				92			
03				33				63				93			
04								64				94			
25				55				85				115			
26				56				86				116			
27				57				87				117			
28				58				88				118			
29				59				89				119			

Fig. 13—Foreign Area Translator Cross-Connections — Code Grouping Punchings Form

FOREIGN AREA TRANSLATOR CROSS-CONNECTIONS
CAMA, CODE SCREENING, AND DIRECT ROUTE TRANSLATOR
NO. 5 CROSSBAR

ISSUE_____ DATE_____
TRANSL GRP_____ OFFICE_____
SHEET_____ OF_____

CAMA						CODE SCREENING						DIRECT ROUTE TRANSLATOR					
CNC	CROSS-CONNECT FROM CMT	CROSS-CONNECT TO PCHG	CROSS-CONNECT FROM NCT	CROSS-CONNECT TO PCHG	REFERENCE NUMBER	CS	CROSS-CONNECT FROM LC	CROSS-CONNECT TO PCHG	CROSS-CONNECT FROM AC	CROSS-CONNECT TO PCHG	REFERENCE NUMBER	DIR	AREA	REFERENCE NUMBER	DIR	AREA	REFERENCE NUMBER
00						00						00			36		
01						01						01			37		
02						02						02			38		
03						03						03			39		
04						04						04			40		
05						05						05			41		
06						06						06			42		
07						07						07			43		
08						08						08			44		
09						09						09			45		
10						10						10			46		
11						11						11			47		
12						12						12			48		
13						13						13			49		
14						14						14			50		
15						15						15			51		
16						16						16			52		
17						17						17			53		
18						18						18			54		
19						19						19			55		
						20						20			56		
						21						21			57		
						22						22			58		
						23						23			59		
						24						24			60		
						25						25			61		
						26						26			62		
						27						27			63		
						28						28			64		
						29						29			65		
						30						30			66		
						31						31			67		
						32						32			68		
						33						33			69		
						34						34			70		
						35						35			71		

Fig. 14—Foreign Area Translator Cross-Connections — CAMA, Code Screening, and Direct Route Translator Form

FOREIGN AREA TRANSLATOR CROSS-CONNECTIONS
GROUPING PUNCHINGS
NO. 5 CROSSBAR

ISSUE_____ DATE_____
TRANSL GRP_____ OFFICE_____
SHEET_____ OF_____

CROSS-CONNECT GRP	TO		REFERENCE NUMBER	CROSS-CONNECT GRP	TO		REFERENCE NUMBER	CROSS-CONNECT GRP	TO		REFERENCE NUMBER	CROSS-CONNECT GRP	TO		REFERENCE NUMBER
00				40				80				120			
01				41				81				121			
02				42				82				122			
03				43				83				123			
04				44				84				124			
05				45				85				125			
06				46				86				126			
07				47				87				127			
08				48				88				128			
09				49				89				129			
10				50				90				130			
11				51				91				131			
12				52				92				132			
13				53				93				133			
14				54				94				134			
15				55				95				135			
16				56				96				136			
17				57				97				137			
18				58				98				138			
19				59				99				139			
20				60				100				140			
21				61				101				141			
22				62				102				142			
23				63				103				143			
24				64				104				144			
25				65				105				145			
26				66				106				146			
27				67				107				147			
28				68				108				148			
29				69				109				149			
30				70				110				150			
31				71				111				151			
32				72				112				152			
33				73				113				153			
34				74				114				154			
35				75				115				155			
36				76				116				156			
37				77				117				157			
38				78				118				158			
39				79				119				159			

Fig. 15—Foreign Area Translator Cross-Connections — Grouping Punchings Form

FOREIGN AREA TRANSLATOR CROSS-CONNECTIONS
RING TRANSLATOR
NO. 5 CROSSBAR

ISSUE_____ DATE_____
TRANSL GRP_____ OFFICE_____
SHEET_____ OF_____

AREA_____

RING		CROSS-CONNECT		REFERENCE NUMBER	RING		CROSS-CONNECT		REFERENCE NUMBER	RING	CROSS-CONNECT		REFERENCE NUMBER
OTT	OTU	FROM	TO		OTT	OTU	FROM	TO		TOL	FROM	TO	
0	0	ORR00			0	0	TMR00			0	TOLR0		
0	1	ORR01			0	1	TMR01			1	TOLR1		
0	2	ORR02			0	2	TMR02			2	TOLR2		
0	3	ORR03			0	3	TMR03			3	TOLR3		
0	4	ORR04			0	4	TMR04			4	TOLR4		
1	0	ORR05			1	0	TMR05						
1	1	ORR06			1	1	TMR06						
1	2	ORR07			1	2	TMR07						
1	3	ORR08			1	3	TMR08						
1	4	ORR09			1	4	TMR09						
2	0	ORR10			2	0	TMR10						
2	1	ORR11			2	1	TMR11						
2	2	ORR12			2	2	TMR12						
2	3	ORR13			2	3	TMR13						
2	4	ORR14			2	4	TMR14						
3	0	ORR15			3	0	TMR15						
3	1	ORR16			3	1	TMR16						
3	2	ORR17			3	2	TMR17						
3	3	ORR18			3	3	TMR18						
3	4	ORR19			3	4	TMR19						
4	0	ORR20			4	0	TMR20						
4	1	ORR21			4	1	TMR21						
4	2	ORR22			4	2	TMR22						
4	3	ORR23			4	3	TMR23						

Fig. 16—*Foreign Area Translator Cross-Connections — Ring Translator Form*

FOREIGN AREA TRANSLATOR CROSS-CONNECTIONS
ROUTE DESCRIPTION
NO. 5 CROSSBAR

ISSUE____ DATE____
TRANSL GRP ____ OFFICE____
SHEET____ OF____

AR	REFERENCE NUMBER	MARKER GROUP	ROUTE RELAY NUMBER	CODE CONVERSION			TYPE OF PULSING	NO. OF DIGITS		DELETE	REMARKS
				A	B	C		7	10		

Fig. 17—Foreign Area Translator Cross-Connections — Route Description Form

FOREIGN AREA TRANSLATOR CROSS-CONNECTIONS
SWITCHED ROUTE GROUPING
NO. 5 CROSSBAR

ISSUE____ DATE____
TRANSL GRP____ OFFICE____
SHEET____ OF____

SRG 0		SRG 1		SRG 2		SRG 3		SRG 4		SRG 5		SRG 6		SRG 7	
PCHG	REFERENCE NO.	PCHG	REFERENCE NO.	PCHG	REFERENCE NO.	PCHG	REFERENCE NO.	PCHG	REFERENCE NO.	PCHG	REFERENCE NO.	PCHG	REFERENCE NO.	PCHG	REFERENCE NO.
00		00		00		00		00		00		00		00	
01		01		01		01		01		01		01		01	
02		02		02		02		02		02		02		02	
03		03		03		03		03		03		03		03	
04		04		04		04		04		04		04		04	
05		05		05		05		05		05		05		05	
06		06		06		06		06		06		06		06	
07		07		07		07		07		07		07		07	
08		08		08		08		08		08		08		08	
09		09		09		09		09		09		09		09	
39		39		39		39		39		39		39		39	
40		40		40		40		40		40		40		40	
41		41		41		41		41		41		41		41	
42		42		42		42		42		42		42		42	
43		43		43		43		43		43		43		43	
44		44		44		44		44		44		44		44	
45		45		45		45		45		45		45		45	
46		46		46		46		46		46		46		46	
47		47		47		47		47		47		47		47	
48		48		48		48		48		48		48		48	
49		49		49		49		49		49		49		49	

Fig. 18—Foreign Area Translator Cross-Connections — Switched Route Grouping Form

INCOMING REGISTER CROSS-CONNECTIONS

NO. 5 CROSSBAR

TYPE______

ISSUE______ DATE________

MKR GRP______ OFFICE________

SHEET______ OF______

INC REG LINK			NUMBER GROUP TRUNK NUMBERS			CROSS-CONNECT FROM			
FR	HG	TP RELAYS	NUMBER GROUP ASSIGNMENTS	RELAY	LT	HA-TO	HB-TO	TA-TO	TB-TO
	0			REG (LH0)	0	HT	HT	TT	TT
	0				1	HT	HT	TT	TT
	1				2	HT	HT	TT	TT
	1				3	HT	HT	TT	TT
	2				4	HT	HT	TT	TT
	2				5	HT	HT	TT	TT
	3				6	HT	HT	TT	TT
	3				7	HT	HT	TT	TT
	4				8	HT	HT	TT	TT
	4				9	HT	HT	TT	TT
						EHA-TO	EHB-TO	ETA-TO	ETB-TO
	0			SUP (LH1)	0	HT	HT	TT	TT
	0				1	HT	HT	TT	TT
	1				2	HT	HT	TT	TT
	1				3	HT	HT	TT	TT
	2				4	HT	HT	TT	TT
	2				5	HT	HT	TT	TT
	3				6	HT	HT	TT	TT
	3				7	HT	HT	TT	TT
	4				8	HT	HT	TT	TT
	4				9	HT	HT	TT	TT
						ARHA TO	ARHB TO	ATA-TO	ATB-TO
	0			REG 1 (LH2)	0	HT	HT	TT	TT
	0				1			TT	TT
	1				2			TT	TT
	1				3			TT	TT
	2				4			TT	TT
	2				5			TT	TT
	3				6			TT	TT
	3				7			TT	TT
	4				8			TT	TT
	4				9			TT	TT
						ASHA TO	ASHB TO		
	0			SUP 1 (LH3)	0	HT	HT		
	0				1				
	1				2				
	1				3				
	2				4				
	2				5				
	3				6				
	3				7				
	4				8				
	4				9				

CROSS-CONNECT											
FROM			TO			FROM			TO		
LEAD	TS	PCHG	TS	PCHG	LEAD	LEAD	TS	PCHG	TS	PCHG	LEAD

CROSS-CONNECT					
FROM	TO	FROM	TO	FROM	TO
A-		A-		A-	
220		520		820	
230		530		830	
240		540		840	
250		550		850	
260		560		860	
270		570		870	
280		580		880	
290		590		890	
320		620		920	
330		630		930	
340		640		940	
350		650		950	
360		660		960	
370		670		970	
380		680		980	
390		690		990	
420		720			
430		730			
440		740			
450		750			
460		760			
470		770			
480		780			
490		790			

TRUNK CLASS

ASSIGNMENT	CROSS-CONNECT FROM PCHG	CROSS-CONNECT TO PCHG
	CLO	
	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	
	9	
	10	

SKIP DIGIT POSITION

FROM PCHG	TO PCHG	FROM PCHG	TO PCHG
SK1		SK2	
		SK3	

TOL TRUNK CLASS

TOL RELAY	ASSIGNMENT	CROSS-CONNECT TOC-TO	CM-TO	TTM-TO
1				
2				
3				
4				
5				
6				
7				
8				
9				

Fig. 19—Incoming Register Cross-Connections Form

INCOMING REGISTER LINK CROSS-CONNECTIONS
NONWIRE-SPRING-RELAY TYPE — TRUNK CLASS AND FRAME

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
FRAME_____ TYPE_____ NO. 5 CROSSBAR SHEET_____ OF_____

TP RELAY		CROSS-CONNECT FROM TS C1	TO TS C1	TO TS J	FROM TS K	TO TS C1	FROM TS F1	TO TS F1	CLASS LEAD	TRUNK CLASS	LINK FR	EQUIPMENT RR	EQUIPMENT CKT	ORIGINATING OFFICE
0	0	1			1		1							
	1	2			2		2							
	2	3			3		3							
	3	4			4		4							
	4	5			5		5							
	5	6			6		6							
	6	7			7		7							
	7	8			8		8							
	8	9			9		9							
	9	10			10		10							
1	0	11			11		11							
	1	12			12		12							
	2	13			13		13							
	3	14			14		14							
	4	15			15		15							
	5	16			16		16							
	6	17			17		17							
	7	18			18		18							
	8	19			19		19							
	9	20			20		20							
2	0	1			1		1							
	1	2			2		2							
	2	3			3		3							
	3	4			4		4							
	4	5			5		5							
	5	6			6		6							
	6	7			7		7							
	7	8			8		8							
	8	9			9		9							
	9	10			10		10							
3	0	11			11		11							
	1	12			12		12							
	2	13			13		13							
	3	14			14		14							
	4	15			15		15							
	5	16			16		16							
	6	17			17		17							
	7	18			18		18							
	8	19			19		19							
	9	20			20		20							
4	0	1			1		1							
	1	2			2		2							
	2	3			3		3							
	3	4			4		4							
	4	5			5		5							
	5	6			6		6							
	6	7			7		7							
	7	8			8		8							
	8	9			9		9							
	9	10			10		10							

TP RELAY		CROSS-CONNECT FROM TS C1	TO TS C1	TO TS J	FROM TS K	TO TS C1	FROM TS F1	TO TS F1	CLASS LEAD	TRUNK CLASS	LINK FR	EQUIPMENT RR	EQUIPMENT CKT	ORIGINATING OFFICE
5	0	11			11		11							
	1	12			12		12							
	2	13			13		13							
	3	14			14		14							
	4	15			15		15							
	5	16			16		16							
	6	17			17		17							
	7	18			18		18							
	8	19			19		19							
	9	20			20		20							
6	0	1			1		1							
	1	2			2		2							
	2	3			3		3							
	3	4			4		4							
	4	5			5		5							
	5	6			6		6							
	6	7			7		7							
	7	8			8		8							
	8	9			9		9							
	9	10			10		10							
7	0	11			11		11							
	1	12			12		12							
	2	13			13		13							
	3	14			14		14							
	4	15			15		15							
	5	16			16		16							
	6	17			17		17							
	7	18			18		18							
	8	19			19		19							
	9	20			20		20							
8	0	1			1		1							
	1	2			2		2							
	2	3			3		3							
	3	4			4		4							
	4	5			5		5							
	5	6			6		6							
	6	7			7		7							
	7	8			8		8							
	8	9			9		9							
	9	10			10		10							
9	0	11			11		11							
	1	12			12		12							
	2	13			13		13							
	3	14			14		14							
	4	15			15		15							
	5	16			16		16							
	6	17			17		17							
	7	18			18		18							
	8	19			19		19							
	9	20			20		20							

Fig. 20—Incoming Register Link Cross-Connections — Nonwire-Spring-Relay Type — Trunk Class and Frame Form

INCOMING REGISTER LINK CROSS-CONNECTIONS
FLEXIBLE TRUNKS
NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

ASSIGNMENT		CROSS-CONNECT				ASSIGNMENT		CROSS-CONNECT				ASSIGNMENT		CROSS-CONNECT			
		FROM		TO				FROM		TO				FROM		TO	
		INC REG LINK		TRUNK EQUIP.				INC REG LINK		TRUNK EQUIP.				INC REG LINK		TRUNK EQUIP.	
TRK NO.	ORIG. OFFICE	FRAME	HG-V / S-V	RELAY RACK	CKT	TRK NO.	ORIG. OFFICE	FRAME	HG-V / S-V	RELAY RACK	CKT	TRK NO.	ORIG. OFFICE	FRAME	HG-V / S-V	RELAY RACK	CKT

Fig. 21—Incoming Register Link Cross-Connections — Flexible Trunks Form

INCOMING REGISTER LINK CROSS-CONNECTIONS
WIRE-SPRING-RELAY TYPE
TRUNK LINK FRAME AND TRUNK CLASS
NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

TRK LK FR UNITS CROSS-CONNECT FROM TPU	TO TFU	TRUNK CLASS FROM TPC	TO CL	FROM CLA-	TO CL	LEAD
00		00		00		
01		01		01		
02		02		02		
03		03		03		
04		04		04		
05		05		05		
06		06		06		
07		07		07		
08		08		08		
09		09		09		
10		10		10		
11		11		11		
12		12		12		
13		13		13		
HG 14		HG 14		HG 14		
15		15		15		
16		16		16		
17		17		17		
18		18		18		
19		19		19		
20		20		20		
21		21		21		
22		22		22		
23		23		23		
24		24		24		
25		25		25		
26		26		26		
27		27		27		
28		28		28		
29		29		29		
30		30		30		
31		31		31		
32		32		32		
33		33		33		
34		34		34		
35		35		35		
36		36		36		
27		37		37		
38		38		38		
39		39		39		

NUMBER GROUP TRUNK NUMBER X-CONN	LT RELAY	H T U	TRUCK EQUIPMENT RR	CKT	ORIGINATING OFFICE
A		0			
PCHGS		1			
HG___		2			
TO		3			
LH___		4			
*		5			
		6			
		7			
		8			
		9			
		0			
		1			
		2			
		3			
		4			
		5			
		6			
		7			
		8			
		9			
B		0			
PCHGS		1			
HG___		2			
TO		3			
LH___		4			
*		5			
		6			
		7			
		8			
		9			
		0			
		1			
		2			
		3			
		4			
		5			
		6			
		7			
		8			
		9			

CENTREX TRK TRFR CLASS OR 2-WAY OPERATOR OFFICE TRK INCOMING CLASS CROSS-CONNECT
CLB_____ TO CL_____

TRUNK LINK FRAME GROUP(TENS) FG PUNCHINGS CROSS-CONNECT
*HG_____ TO G_____

CENTREX TRK ATT CLASS OR 2-WAY OPERATOR OFFICE TRK NO. TEST CLASS CROSS-CONNECT
CLC_____ TO CL_____

TRUNK TYPE-B PUNCHINGS TO DIRECT PULSE (DP) OR BY-LINK (BL) CROSS-CONNECT
*HG_____ TO_____

*CROSS CONNECTION REQUIRED FOR EACH EQUIPPED REGISTER (REG 0-9)

TRK LK FR UNITS CROSS-CONNECT FROM TPU	TO TFU	TRUNK CLASS FROM TPC	TO CL	FROM CLA-	TO CL	LEAD
00		00		00		
01		01		01		
02		02		02		
03		03		03		
04		04		04		
05		05		05		
06		06		06		
07		07		07		
08		08		08		
09		09		09		
10		10		10		
11		11		11		
12		12		12		
13		13		13		
HG 14		HG 14		HG 14		
15		15		15		
16		16		16		
17		17		17		
18		18		18		
19		19		19		
20		20		20		
21		21		21		
22		22		22		
23		23		23		
24		24		24		
25		25		25		
26		26		26		
27		27		27		
28		28		28		
29		29		29		
30		30		30		
31		31		31		
32		32		32		
33		33		33		
34		34		34		
35		35		35		
36		36		36		
27		37		37		
38		38		38		
39		39		39		

NUMBER GROUP TRUNK NUMBER X-CONN	LT RELAY	H T U	TRUCK EQUIPMENT RR	CKT	ORIGINATING OFFICE
A		0			
PCHGS		1			
HG___		2			
TO		3			
LH___		4			
*		5			
		6			
		7			
		8			
		9			
		0			
		1			
		2			
		3			
		4			
		5			
		6			
		7			
		8			
		9			
B		0			
PCHGS		1			
HG___		2			
TO		3			
LH___		4			
*		5			
		6			
		7			
		8			
		9			
		0			
		1			
		2			
		3			
		4			
		5			
		6			
		7			
		8			
		9			

CENTREX TRK TRFR CLASS OR 2-WAY OPERATOR OFFICE TRK INCOMING CLASS CROSS-CONNECT
CLB_____ TO CL_____

TRUNK LINK FRAME GROUP(TENS) FG PUNCHINGS CROSS-CONNECT
*HG_____ TO G_____

CENTREX TRK ATT CLASS OR 2-WAY OPERATOR OFFICE TRK NO. TEST CLASS CROSS-CONNECT
CLC_____ TO CL_____

TRUNK TYPE-B PUNCHINGS TO DIRECT PULSE (DP) OR BY-LINK (BL) CROSS-CONNECT
*HG_____ TO_____

*CROSS CONNECTION REQUIRED FOR EACH EQUIPPED REGISTER (REG 0-9)

Fig. 22—Incoming Register Link Cross-Connections — Wire-Spring-Relay Type — Trunk Link Frame and Trunk Class Form

LINE LINK CROSS-CONNECTIONS
CLASS OF SERVICE
NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

VERT GRP	VERT FILE OR V PCHG	LINE LINK FRAME — TENS: 0 1 2 3 4 5 6 7 8 9	CS LEAD OR PCHG	ASSOCIATED CLASS OF SERVICE
	0		00	
	1		01	
	2		02	
	3		03	
	4		04	
	0		05	
	1		06	
	2		07	
	3		08	
	4		09	
	0		10	
	1		11	
	2		12	
	3		13	
	4		14	
	0		15	
	1		16	
	2		17	
	3		18	
	4		19	
	0		20	
	1		21	
	2		22	
	3		23	
	4		24	
	0		25	
	1		26	
	2		27	
	3		28	
	4		29	

Fig. 23—Line Link Cross-Connections — Class-of-Service Form

LINE LINK CROSS-CONNECTIONS
CLASS OF SERVICE AND RATE TREATMENT
NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

LINE → LINK FRAME																																	
VERT GRP	FROM	CROSS-CONNECT TO CS-, CA, CB, or GRD																															
	VU0																																
	VT0																																
	VR0																																
	VRG0																																
	VU1																																
	VT1																																
	VR1																																
	VRG1																																
	VU2																																
	VT2																																
	VR2																																
	VRG2																																
	VU3																																
	VT3																																
	VR3																																
	VRG3																																
	VU4																																
	VT4																																
	VR4																																
	VRG4																																
	VC - -																																
	VU0																																
	VT0																																
	VR0																																
	VRG0																																
	VU1																																
	VT1																																
	VR1																																
	VRG1																																
	VU2																																
	VT2																																
	VR2																																
	VRG2																																
	VU3																																
	VT3																																
	VR3																																
	VRG3																																
	VU4																																
	VT4																																
	VR4																																
	VRG4																																
	VC - -																																

Fig. 24—Line Link Cross-Connections — Class-of-Service and Rate Treatment Form

LINE LINK FRAME CROSS-CONNECTIONS
CLASS OF SERVICE AND RATE TREATMENT ON A HOLD-MAGNET BASIS

ISSUE_____ DATE_____

MKR GRP_____ OFFICE_____

LINE LINK FRAME NO._____ NO. 5 CROSSBAR SHEET_____ OF_____

HOR GRP	VERT FILE	VERT GROUP - VU-	VT-	HMC-	HMR-	VRG-	VERT GROUP - VU-	VT-	HMC-	HMR-	VRG-	VERT GROUP - VU-	VT-	HMC-	HMR-	VRG-	VERT GROUP - VU-	VT-	HMC-	HMR-	VRG-	VERT GROUP - VU-	VT-	HMC-	HMR-	VRG-	VERT GROUP - VU-	VT-	HMC-	HMR-	VRG-
0	0																													
	1																													
	2																													
	3																													
	4																													
1	0																													
	1																													
	2																													
	3																													
	4																													
2	0																													
	1																													
	2																													
	3																													
	4																													
3	0																													
	1																													
	2																													
	3																													
	4																													
4	0																													
	1																													
	2																													
	3																													
	4																													
5	0																													
	1																													
	2																													
	3																													
	4																													
6	0																													
	1																													
	2																													
	3																													
	4																													
7	0																													
	1																													
	2																													
	3																													
	4																													
8	0																													
	1																													
	2																													
	3																													
	4																													
9	0																													
	1																													
	2																													
	3																													
	4																													
VC_____ TO C_____							VC_____ TO C_____					VC_____ TO C_____					VC_____ TO C_____					VC_____ TO C_____									

Fig. 25—Line Link Frame Cross-Connections — Class-of-Service and Rate Treatment on a Hold-Magnet Basis Form

LINE LINK CROSS-CONNECTIONS
LINE SLEEVE
NO. 5 CROSSBAR

ISSUE______ DATE______
MKR GRP____ OFFICE______
SHEET______ OF______

TELEPHONE NUMBER	CROSS-CONNECT										REMARKS
	FROM				TO						
	LS PUNCHING				NUMBER GROUP			TRUNK CIRCUIT			
	LL	VG	HG	VF	FRAME	NS	HS	S PCHG	RELAY RACK	CKT	
			0								
			1								
			2								
			3								
			4								
			5								
			6								
			7								
			8								
			9								
			0								
			1								
			2								
			3								
			4								
			5								
			6								
			7								
			8								
			9								
			0								
			1								
			2								
			3								
			4								
			5								
			6								
			7								
			8								
			9								
			0								
			1								
			2								
			3								
			4								
			5								
			6								
			7								
			8								
			9								

TELEPHONE NUMBER	CROSS-CONNECT										REMARKS
	FROM				TO						
	LS PUNCHING				NUMBER GROUP			TRUNK CIRCUIT			
	LL	VG	HG	VF	FRAME	NS	HS	S PCHG	RELAY RACK	CKT	
			0								
			1								
			2								
			3								
			4								
			5								
			6								
			7								
			8								
			9								
			0								
			1								
			2								
			3								
			4								
			5								
			6								
			7								
			8								
			9								
			0								
			1								
			2								
			3								
			4								
			5								
			6								
			7								
			8								
			9								
			0								
			1								
			2								
			3								
			4								
			5								
			6								
			7								
			8								
			9								

Fig. 26—Line Link Cross-Connections — Line Sleeve Form

LINE LINK FRAME CROSS-CONNECTIONS
LINE LOAD CONTROL FEATURE

ISSUE_____ DATE_____

MKR GRP_____ OFFICE_____

LINE LINK FRAME NO. 5 CROSSBAR SHEET_____ OF_____

VG	HR GRP	LINE GRP BASIS CROSS-CONNECT		VERT GRP BASIS CROSS-CONNECT		LINE LOAD CONTROL CLASS OF SVC
		FROM PCHG VG--	TO PCHG G--	FROM PCHG VG--	TO PCHG G--	
00						
	0-1					
	2-3					
	4-5					
	6-7					
	8-9					
01						
	0-1					
	2-3					
	4-5					
	6-7					
	8-9					
02						
	0-1					
	2-3					
	4-5					
	6-7					
	8-9					
03						
	0-1					
	2-3					
	4-5					
	6-7					
	8-9					
04						
	0-1					
	2-3					
	4-5					
	6-7					
	8-9					

VG	HR GRP	LINE GRP BASIS CROSS-CONNECT		VERT GRP BASIS CROSS-CONNECT		LINE LOAD CONTROL CLASS OF SVC
		FROM VG--	TO G--	FROM VG--	TO G--	
05						
	0-1					
	2-3					
	4-5					
	6-7					
	8-9					
06						
	0-1					
	2-3					
	4-5					
	6-7					
	8-9					
07						
	0-1					
	2-3					
	4-5					
	6-7					
	8-9					
08						
	0-1					
	2-3					
	4-5					
	6-7					
	8-9					
09						
	0-1					
	2-3					
	4-5					
	6-7					
	8-9					

VG	HR GRP	LINE GRP BASIS CROSS-CONNECT		VERT GRP BASIS CROSS-CONNECT		LINE LOAD CONTROL CLASS OF SVC
		FROM VG--	TO G--	FROM VG--	TO G--	
10						
	0-1					
	2-3					
	4-5					
	6-7					
	8-9					
11						
	0-1					
	2-3					
	4-5					
	6-7					
	8-9					

Fig. 27—Line Link Frame Cross-Connections — Line Load Control Feature Form

LINE LINK CROSS-CONNECTIONS
WIRING OPTIONS
NO. 5 CROSSBAR

ISSUE____ DATE____
MKR GRP____ OFFICE____
SHEET____ OF____

TELEPHONE NUMBER	LINE LINK LOCATION				DESIGNATION	NO.	REMARKS	OPTION	TELEPHONE NUMBER	LINE LINK LOCATION				DESIGNATION	NO.	REMARKS	OPTION
	LL	VG	HG	VF						LL	VG	HG	VF				

Fig. 28—Line Link Cross-Connections — Wiring Options Form

MARKER CROSS-CONNECTIONS
ROUTE RELAY ASSIGNMENT
NO. 5 CROSSBAR

ISSUE____ DATE____
MKR GRP____ OFFICE____
SHEET____ OF____

ROUTE RELAY	GRD SUP.	CODE POINT OR GROUP	ASSIGNMENT	ROUTE RELAY	GRD SUP.	CODE POINT OR GROUP	ASSIGNMENT	ROUTE RELAY	GRD SUP.	CODE POINT OR GROUP	ASSIGNMENT	ROUTE RELAY	GRD SUP.	CODE POINT OR GROUP	ASSIGNMENT
00				50				00				50			
01				51				01				51			
02				52				02				52			
03				53				03				53			
04				54				04				54			
05				55				05				55			
06				56				06				56			
39				89				39				89			
40				90				40				90			
41				91				41				91			
42				92				42				92			
43				93				43				93			
44				94				44				94			
45				95				45				95			
46				96				46				96			
47				97				47				97			
48				98				48				98			
49				99				49				99			

Fig. 29—Marker Cross-Connections — Route Relay Assignment Form

MARKER CROSS-CONNECTIONS
CODE POINT AND ROUTE ASSIGNMENT
NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

ASSIGNMENT	CODE POINT	TYPE OF OFFICE	TYPE OF PULSING	RATE AREA	CHARGE CONDITION	DIRECT ROUTE			ALTERNATE ROUTE		LOOP RES	TYPE OF TRUNK			CODE POINT TO	CROSS-CONNECT FROM ROUTE RELAY PUNCHING									
						RELAY	GS	TYPE	RELAY	GS						RC-TO	R-TO	RA-TO	TB-TO TBC	TG-TO TGC	OS-TO OSC	CL-TO CL	CP-TO CP	CR-TO CR	DL-TO DL

Fig. 30—Marker Cross-Connections — Code Point and Route Assignment Form

MARKER CROSS-CONNECTIONS
NONWIRE-SPRING-RELAY TYPE
CLASS OF SERVICE
NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

SUBSCRIBER CLASS OF SERVICE																				CONNECT SC NUMBER TO	REMARKS
ASSIGNMENT	SVC REL NO.																				
	SC	CROSS-CONNECT																			
		FROM	TO																		
		S0																			
		S10																			
		S11																			
	SVC REL NO.																				
		S0																			
		S1																			
		S10																			
		S11																			

Fig. 31—Marker Cross-Connections — Nonwire-Spring-Relay Type — Class-of-Service Form

MARKER CROSS-CONNECTIONS
WIRE-SPRING-RELAY TYPE
CLASS OF SERVICE AND RATE TREATMENT
NO. 5 CROSSBAR

ISSUE ___ DATE ___
MKR GRP ___ OFFICE ___
SHEET ___ OF ___

CLASS OF SERVICE OR RATE TREATMENT						SORT	SORT	SORT	SORT	SORT	SORT	SORT	SORT	SORT	SORT	SORT	SORT	SORT	SORT	SORT	SORT	SORT	SORT	SORT	SORT
CROSS-CONNECT	FROM PCHG SWC-, TWC-, ETC																								
	TO PCHG SWP-, OR SW-																								
	FROM PCHG SWT- OR SWR-																								
	TO PCHG SW-																								
ASSIGNMENT	X-CONN		LOOSE WIRING		S RELAY NO.																				
	FROM	TO	FROM	TO																					
	TERM	SC	SC	USC																					
				0	00																				
				1	01																				
				2	02																				
				3	03																				
				4	04																				
				5	05																				
				6	06																				
				7	07																				
				8	08																				
				9	09																				
				10	10																				
				11	11																				
CROSS-CONNECT	FROM PCHG SWC-, TWC-, ETC																								
	TO PCHG SWP-, OR SW-																								
	FROM PCHG SWT- OR SWR-																								
	TO PCHG SW-																								
ASSIGNMENT	X-CONN		LOOSE WIRING		S RELAY NO.																				
	FROM	TO	FROM	TO																					
	TERM	SC	SC	USC																					
				0																					
				1																					
				2																					
				3																					
				4																					
				5																					
				6																					
				7																					
				8																					
				9																					
				10																					
				11																					
CROSS-CONNECT	FROM CS-, CST-, TRT-, 2WD_																								
	TO CN, MR, ADC, 2WD, 2WD1-3, DT, MT, 5 DT, OR 5 MT, CGS																								

"S" TERMINAL

Fig. 32—Marker Cross-Connections — Wire-Spring-Relay Type — Class-of-Service and Rate Treatment Form

MARKER CROSS-CONNECTIONS
NONWIRE-SPRING-RELAY TYPE — TANDEM CODE SCREENING
NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

ASSIGNMENT	COMMON CONNECTION		TS PUNCHINGS CROSS-CONNECT FROM						
	FROM	TO	OR0-	TOL0-	TAN0-	TAN1-	TAN2-	TAN3-	TAN4-
	PCHG	TSC	TO	TO	TO	TO	TO	TO	TO
		0							
		1							
		18							
		19							
		20							
		21							
		22							

ASSIGNMENT	COMMON CONNECTION		TS PUNCHINGS CROSS-CONNECT FROM						
	FROM	TO	OR0-	TOL0-	TAN0-	TAN1-	TAN2-	TAN3-	TAN4-
	PCHG	TSC	TO	TO	TO	TO	TO	TO	TO
		23							
		24							
		41							
		42							
		43							
		44							
		45							

Fig. 33—Marker Cross-Connections — Nonwire-Spring-Relay Type — Tandem Code Screening Form

MARKER CROSS-CONNECTIONS
CODE CONVERSION PREROUTE
NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

ASSIGNMENT	GRD SUP	COMMON CONNECTION	CROSS-CONNECT FROM CV RELAY PUNCHINGS					
		FROM PCHG	TO CV	CVB-TO	ARN-TO	BRN-TO	CRN-TO	CVR-TO
			0					
			1					
			2					
			3					
			4					
			2					
			3					
			4					
			5					
			6					
			7					
			8					
			9					

ASSIGNMENT	GRD SUP	COMMON CONNECTION	CROSS-CONNECT FROM CV RELAY PUNCHINGS					
		FROM PCHG	TO CV	CVB-TO	ARN-TO	BRN-TO	CRN-TO	CVR-TO
			0					
			1					
			2					
			3					
			4					
			2					
			3					
			4					
			5					
			6					
			7					
			8					
			9					

Fig. 34—Marker Cross-Connections — Code Conversion Preroute Form

MARKER CROSS-CONNECTIONS
NONWIRE-SPRING-RELAY TYPE
CLASS OF CALL AND PRESORT CLASS
NO. 5 CROSSBAR

ISSUE___ __ DATE_____
MKR GRP___ OFFICE_____
SHEET___ __ OF_____

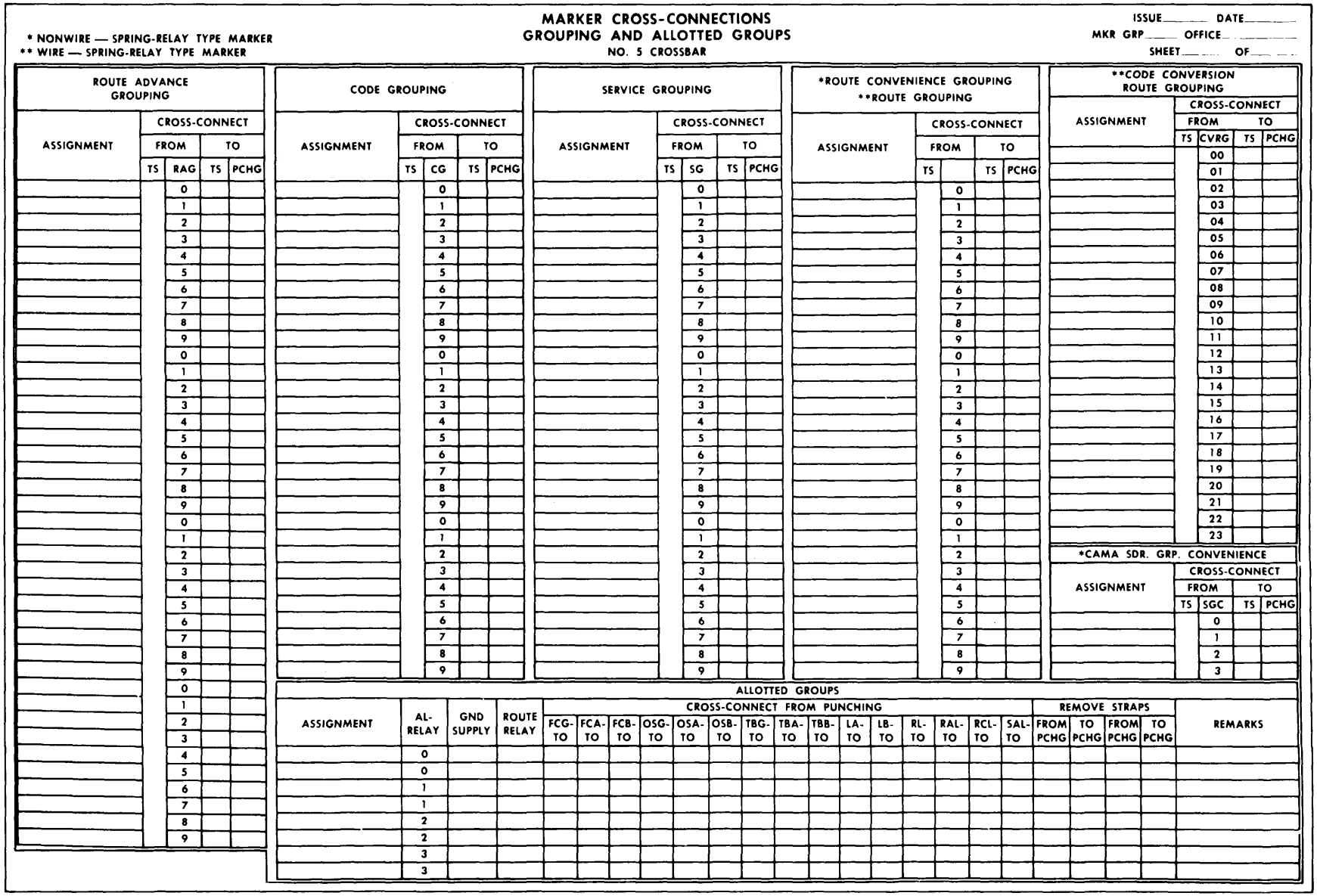
CLASS OF CALL

ASSIGNMENT	COMMON CONNECTION		ORIGINATING				TANDEM						TOLL				CAMA											
	CROSS-CONNECT																											
	FROM PCHG	TO PCHG	FROM TS	FROM PCHG	TO TS	TO PCHG	FROM TS	FROM PCHG	TO TS	TO PCHG	FROM TS	FROM PCHG	TO TS	TO PCHG	FROM TS	FROM PCHG	TO TS	TO PCHG	FROM TS	FROM CFTA	TO TS	TO PCHG	FROM TS	FROM CFTO	TO TS	TO PCHG	FROM TS	FROM CSTA	TO TS	TO PCHG	FROM TS	FROM CSTO	TO TS	TO PCHG
		TLC1		OR1				TAN 1				TNX1				TOL 1				1				1				1				1		
		TLC2		OR2				TAN 2				TNX2				TOL 2				2				2				2				2		
		TLC3		OR3				TAN 3				TNX3				TOL 3				3				3				3				3		
		TLC4		OR4				TAN 4				TNX4				TOL 4				4				4				4				4		
		VCG		VC				TAN								TOL																		
				ZO																														
								SWTA								SWTO																		
																AO																		
																AL																		

PRESORT CLASS

ASSIGNMENT	COMMON CONNECTION		CROSS-CONNECT								ASSIGNMENT	COMMON CONNECTION		CROSS-CONNECT							
	FROM PCHG	TO PSC	FROM TS	FROM PSA0	TO TS	TO PCHG	FROM TS	FROM PSB0	TO TS	TO PCHG		FROM PCHG	TO PSC	FROM TS	FROM PSA1	TO TS	TO PCHG	FROM TS	FROM PSB1	TO TS	TO PCHG
		0		0				0					12		0				0		
		1		1				1					13		1				1		
		2		2				2					14		2				2		
		3		3				3					15		3				3		
		4		4				4					16		4				4		
		5		5				5					17		5				5		
		6		6				6					18		6				6		
		7		7				7					19		7				7		
		8		8				8					20		8				8		
		9		9				9					21		9				9		
		10		10				10					22		10				10		
		11		11				11					23		11				11		

Fig. 35—Marker Cross-Connections — Nonwire-Spring-Relay Type — Class of Call and Presort Class Form



* NONWIRE — SPRING-RELAY TYPE MARKER
** WIRE — SPRING-RELAY TYPE MARKER

MARKER CROSS-CONNECTIONS
GROUPING AND ALLOTTED GROUPS
NO. 5 CROSSBAR

ISSUE______ DATE______
MKR GRP______ OFFICE______
SHEET______ OF______

ROUTE ADVANCE GROUPING

ASSIGNMENT	CROSS-CONNECT			
	FROM		TO	
	TS	RAG	TS	PCHG
		0		
		1		
		2		
		3		
		4		
		5		
		6		
		7		
		8		
		9		
		0		
		1		
		2		
		3		
		4		
		5		
		6		
		7		
		8		
		9		
		0		
		1		
		2		
		3		
		4		
		5		
		6		
		7		
		8		
		9		
		0		
		1		
		2		
		3		
		4		
		5		
		6		
		7		
		8		
		9		

CODE GROUPING

ASSIGNMENT	CROSS-CONNECT			
	FROM		TO	
	TS	CG	TS	PCHG
		0		
		1		
		2		
		3		
		4		
		5		
		6		
		7		
		8		
		9		
		0		
		1		
		2		
		3		
		4		
		5		
		6		
		7		
		8		
		9		
		0		
		1		
		2		
		3		
		4		
		5		
		6		
		7		
		8		
		9		

SERVICE GROUPING

ASSIGNMENT	CROSS-CONNECT			
	FROM		TO	
	TS	SG	TS	PCHG
		0		
		1		
		2		
		3		
		4		
		5		
		6		
		7		
		8		
		9		
		0		
		1		
		2		
		3		
		4		
		5		
		6		
		7		
		8		
		9		
		0		
		1		
		2		
		3		
		4		
		5		
		6		
		7		
		8		
		9		

*ROUTE CONVENIENCE GROUPING
**ROUTE GROUPING

ASSIGNMENT	CROSS-CONNECT			
	FROM		TO	
	TS		TS	PCHG
		0		
		1		
		2		
		3		
		4		
		5		
		6		
		7		
		8		
		9		
		0		
		1		
		2		
		3		
		4		
		5		
		6		
		7		
		8		
		9		
		0		
		1		
		2		
		3		
		4		
		5		
		6		
		7		
		8		
		9		

**CODE CONVERSION ROUTE GROUPING

ASSIGNMENT	CROSS-CONNECT			
	FROM		TO	
	TS	CVRG	TS	PCHG
		00		
		01		
		02		
		03		
		04		
		05		
		06		
		07		
		08		
		09		
		10		
		11		
		12		
		13		
		14		
		15		
		16		
		17		
		18		
		19		
		20		
		21		
		22		
		23		

*CAMA SDR. GRP. CONVENIENCE

ASSIGNMENT	CROSS-CONNECT			
	FROM		TO	
	TS	SGC	TS	PCHG
		0		
		1		
		2		
		3		

ALLOTTED GROUPS

ASSIGNMENT	AL-RELAY	GND SUPPLY	ROUTE RELAY	CROSS-CONNECT FROM PUNCHING															REMOVE STRAPS				REMARKS
				FCG-TO	FCA-TO	FCB-TO	OSG-TO	OSA-TO	OSB-TO	TBG-TO	TBA-TO	TBB-TO	LA-TO	LB-TO	RL-TO	RAL-TO	RCL-TO	SAL-TO	FROM PCHG	TO PCHG	FROM PCHG	TO PCHG	
	0																						
	0																						
	1																						
	1																						
	2																						
	2																						
	3																						
	3																						

Fig. 36—Marker Cross-Connections — Grouping and Allocated Groups Form

MARKER CROSS-CONNECTIONS
NONWIRE-SPRING-RELAY TYPE
CLASS OF SERVICE LEADS, CLASS OF SERVICE CONTROL, INTERCEPTING, ROUTE TRANSFER, DENIED ROUTE, AND COIN REROUTE
NO. 5 CROSSBAR

ISSUE ... DATE ...
MKR GRP ... OFFICE ...
SHEET ... OF ...

CLASS OF SERVICE LEADS

FROM TS	FROM PCHG	TO TS	TO PCHG	CL OF SVC DESIGNATION
	0			
	1			
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9			
	10			
	11			
	12			
	13			
	14			
	15			
	16			
	17			
	18			
	19			
	20			
	21			
	22			
	23			
	24			
	25			
	26			
	27			
	28			
	29			

CLASS OF SERVICE CONTROL

FROM SWC TS	FROM SWC PCHG	TO SW TS	TO SW PCHG	TO SWP- SWR- SWT- MP-
	0			
	1			
	2			
	3			
	4			
	5			
	6			
	7			
	8			
	9			
	10			
	11			
	12			
	13			
	14			
	15			
	16			
	17			
	18			
	19			
	20			
	21			
	22			
	23			
	24			
	25			
	26			
	27			
	28			
	29			

INTERCEPTING

ROUTE

ASSIGNMENT	CROSS-CONNECT FROM TS	FROM PCHG	TO TS	TO PCHG
		BTI		
		BTL		
		BTT		
		GI		
		GL		
		GT		
		NI		
		NL		
		NT		
		NMI		
		NML		
		NMT		
		TI		
		TNI		
		TNL		
		TNT		
		TPI		

NUMBERS

ASSIGNMENT	CROSS-CONNECT FROM TS	FROM PCHG	TO TS	TO PCHG
BLANK NUMBER		STBN		
		HBBN		
		TBBN		
		UBN		
REGULAR INTERCEPT		STRI		
		HBRI		
		TBRI		
		URI		
TROUBLE INTERCEPT		STTBI		
		HBTBI		
		TBTBI		
		UTBI		
VACANT CODE		STVC		
		HBVC		
		TBVC		
		UVC		
BLANK NUMBER THOUSANDS		BNTH		

ROUTE TRANSFER

ASSIGNMENT NORMAL ROUTE	CROSS-CONNECT FROM TS	FROM RTA	TO TS	TO PCHG
		0		
		1		
		2		
		3		
		4		
		5		
		6		
		7		
		8		
		9		

ASSIGNMENT TRANSFERRED ROUTE	CROSS-CONNECT FROM TS	FROM RTB	TO TS	TO PCHG
		0		
		1		
		2		
		3		
		4		
		5		
		6		
		7		
		8		
		9		

DENIED ROUTE

ASSIGNMENT	CROSS-CONNECT FROM TS	FROM NR	TO TS	TO PCHG
		0		
		1		
		2		
		3		
		4		
		5		

COIN REROUTE

ASSIGNMENT	CROSS-CONNECT FROM TS	FROM RR	TO TS	TO PCHG
		0		
		1		
		2		

Fig. 37—Marker Cross-Connections — Nonwire-Spring-Relay Type — Class-of-Service Leads, Class-of-Service Control, Intercepting, Route Transfer, Denied Route, and Reroute Form

MARKER CROSS-CONNECTIONS
WIRE-SPRING-RELAY TYPE — INTERCEPTING
NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

INTERCEPTING — ROUTE

ASSIGNMENT	CROSS-CONNECT FROM TS	FROM PCHG	TO TS	TO PCHG
		BTI		
		BTL		
		BTT		
		DIR		
		GI		
		GL		
		GT		
		NI		
		NL		
		NT		
		NMI		
		NML		
		NMT		
		RIB		
		TBIB		
		TI		
		TLI		
		TNI		
		TNL		
		TNT		
		TTI		

INTERCEPTING — GROUPING TERMINALS

ASSIGNMENT	CROSS-CONNECT FROM TS	FROM PCHG	TO TS	TO PCHG
		CP		
		R-		
		RA-		
		RC-		
		CP		
		S-		
		G-		
		RC-		

INTERCEPTING — LINE INTERCEPT TRUNK GROUP SCREENING

ASSIGNMENT	CROSS-CONNECT FROM TS	FROM PCHG	TO TS	TO PCHG
		INS		
		PGB-		
		TAS		
		SWC-		
		TOS		
		TSA0-9		
		TSB0-9		
		NAI-6		

INTERCEPTING — VACANT CODE SCREENING

ASSIGNMENT	CROSS-CONNECT FROM TS	FROM PCHG	TO TS	TO PCHG
		CP		
		INV		
		TAV		
		TOV		
		CFV		
		CSV		
		VTC		
		VC		
		FOVC		

INTERCEPTING — 4-WIRE DIRECTORY NUMBER

ASSIGNMENT	CROSS-CONNECT FROM TS	FROM PCHG	TO TS	TO PCHG
		DNI		
		DN		
		ICPT		
		OHS		
		RI		

INTERCEPTING — NUMBERS

ASSIGNMENT	CROSS-CONNECT FROM TS	FROM PCHG	TO TS	TO PCHG
TRUNK GROUP "A" INTERCEPT		INA-ST		
		INA-HB		
		INA-TB		
		INA-U		
TRUNK GROUP "B" INTERCEPT		INB-ST		
		INB-HB		
		INB-TB		
		INB-U		
BLANK NUMBER INTERCEPT		BN-ST		
		BN-HB		
		BN-TB		
		BN-U		
DENIED CODE INTERCEPT		DC-ST		
		DC-HB		
		DC-TB		
		DC-U		
REGULAR INTERCEPT		RI-ST		
		RI-HB		
		RI-TB		
		RI-U		
PBX AND RESTRICTED TRUNKS INTERCEPT		RIP-ST		
		RIP-HB		
		RIP-TB		
		RIP-U		
TROUBLE INTERCEPT		TBI-ST		
		TBI-HB		
		TBI-TB		
		TBI-U		
VACANT CODE INTERCEPT		VC-ST		
		VC-HB		
		VC-TB		
		VC-U		
BLANK NUMBER THOUSAND INTERCEPT		BNTH		
		BNTH		
		BNTH		
		BNTH		
4-WIRE PREEMPTABLE LINE BUSY INTERCEPT		PLB-ST		
		PLB-HB		
		PLB-TB		
		PLB-U		

Fig. 38—Marker Cross-Connections — Wire-Spring-Relay Type — Intercepting Form

MARKER CROSS-CONNECTIONS
WIRE-SPRING-RELAY TYPE — ROUTE TRANSFER, DIVERTED ROUTE, AND DIAL TONE MARKER CS- AND CST- LEADS

NO. 5 CROSSBAR

ISSUE_____ DATE_____

MKR GRP_____ OFFICE_____

SHEET_____ OF_____

ROUTE TRANSFER

NORMAL ROUTE

ASSIGNMENT	CROSS-CONNECT FROM TS	FROM RTA	TO TS	TO PCHG
		0		
		1		
		2		
		3		
		4		
		5		
		6		
		7		
		8		
		9		

TRANSFERRED ROUTE

ASSIGNMENT	CROSS-CONNECT FROM TS	FROM RTB	TO TS	TO PCHG
		0		
		1		
		2		
		3		
		4		
		5		
		6		
		7		
		8		
		9		

DIVERTED ROUTE

ASSIGNMENT	CROSS-CONNECT FROM TS	FROM DR	TO TS	TO PCHG
ASSIGNMENT	TS	RR	TS	PCHG
ASSIGNMENT	TS	2RS	TS	PCHG
ASSIGNMENT	TS	2RT	TS	PCHG
ASSIGNMENT	TS	DRG	TS	PCHG

DIAL TONE MARKER CS- AND CST- LEADS

FROM TS	FROM CS-	TO TS	TO PCHG	FROM TS	FROM CS-	TO TS	TO PCHG	FROM TS	FROM CS-	TO TS	TO PCHG	FROM TS	FROM CS-	TO TS	TO PCHG
	00				30				60				90		
	01				31				61				91		
	02				32				62				92		
	03				33				63				93		
	04				34				64				94		
	05				35				65				95		
	06				36				66				96		
	07				37				67				97		
	08				38				68				98		
	09				39				69				99		
	10				40				70						
	11				41				71						
	12				42				72						
	13				43				73				FROM	TO	
	14				44				74				TS CST	TS	PCHG
	15				45				75				03		
	16				46				76				04		
	17				47				77				05		
	18				48				78				06		
	19				49				79				07		
	20				50				80				08		
	21				51				81				09		
	22				52				82						
	23				53				83						
	24				54				84						
	25				55				85						
	26				56				86						
	27				57				87						
	28				58				88						
	29				59				89						

Fig. 39—Marker Cross-Connections — Wire-Spring-Relay Type — Route Transfer, Diverted Route, and Dial Tone Marker CS- and CST- Leads Form

DIAL TONE MARKER CROSS-CONNECTIONS OR GROUP ASSIGNMENT, CLASS OF SERVICE, AND MISCELLANEOUS

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

TONE MARKER NO._____ NO. 5 CROSSBAR

2-WIRE OR GROUP ASSIGNMENT

CROSS-CONNECT

FROM PCHG 2 LF	TO PCHG	FROM PCHG 2 LF	TO PCHG
00		30	
01		31	
02		32	
03		33	
04		34	
05		35	
06		36	
07		37	
08		38	
09		39	
10		40	
11		41	
12		42	
13		43	
14		44	
15		45	
16		46	
17		47	
18		48	
19		49	
20		50	
21		51	
22		52	
23		53	
24		54	
25		55	
26		56	
27		57	
28		58	
29		59	

4-WIRE OR GRP ASSIGNMENT

CROSS-CONNECT

FROM PCHG 4 LF	TO PCHG
00	
01	
02	
03	
04	
05	
06	
07	
08	
09	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	

TYPE OF CUSTOMER GROUP SERVICE LINE

CROSS-CONNECT

FROM PCHG CSR-	TO PCHG	FROM PCHG CSR-	TO PCHG
00		30	
01		31	
02		32	
03		33	
04		34	
05		35	
06		36	
07		37	
08		38	
09		39	
10		40	
11		41	
12		42	
13		43	
14		44	
15		45	
16		46	
17		47	
18		48	
19		49	
20		50	
21		51	
22		52	
23		53	
24		54	
25		55	
26		56	
27		57	
28		58	
29		59	

4-WIRE OR TRANSFER ASGN

CROSS-CONNECT

FROM PCHG TLF-	TO PCHG

MISCELLANEOUS

CROSS-CONNECT

FROM PCHG RDP	TO PCHG
R0	
R1	
R2	
R3	

LLF VERT GRP CONTROL

CROSS-CONNECT

FROM PCHG VGT-	TO PCHG
00	
01	
02	
03	
04	
05	
06	
07	
08	
09	
10	
11	

LLF VERT GRP CONTROL

CROSS-CONNECT

FROM PCHG VGP-	TO PCHG

CROSS-CONNECT

FROM PCHG VGR-	TO PCHG

Fig. 40—Dial Tone Marker Cross-Connections — or Group Assignment, Class-of-Service, and Miscellaneous Form

MARKER CROSS-CONNECTIONS
CONTROL DIGITS AND CLASS-OF-SERVICE SCREENING
NO. 5 CROSSBAR

ISSUE________DATE________
MKR GRP______OFFICE__________
SHEET________OF________

CONTROL DIGITS

ASSIGNMENT	CROSS-CONNECT CD-	CROSS-CONNECT TO PCHG
	00	
	01	
	02	
	03	
	04	
	05	
	06	
	07	
	08	
	09	
	10	
	11	
	12	
	13	
	14	
	15	
	16	

CONTROL DIGITS

ASSIGNMENT	CROSS-CONNECT CDP-	CROSS-CONNECT TO PCHG
	00	
	01	
	02	
	03	
	04	
	05	
	06	
	07	
	08	
	09	
	10	
	11	
	12	
	13	
	14	
	15	
	16	

CLASS OF SERVICE SCREENING

CROSS-CONNECT FROM PCHG CDC-	TO PCHG	FROM PCHG CDD-	TO PCHG	FROM PCHG CSW-	TO PCHG
00		00		00	
01		01		01	
02		02		02	
03		03		03	
04		04		04	
05		05		05	
06		06		06	
07		07		07	
08		08		08	
09		09		09	
10		10		10	
11		11		11	
12		12		12	
13		13		13	
14		14		14	
15		15		15	
16		16		16	
17		17		17	
18		18		18	
19		19		19	
20		20		20	
21		21		21	
22		22		22	
23		23		23	
24		24		24	
25		25		25	
26		26		26	
27		27		27	
28		28		28	
29		29		29	
30		30		30	
31		31		31	
32		32		32	
33		33		33	
34		34		34	
35		35		35	
36		36		36	
37		37		37	
38		38		38	
39		39		39	

CONTROL DIGIT GROUPING

ASSIGNMENT	CROSS-CONNECT FROM PCHG CDG-	CROSS-CONNECT TO TS	CROSS-CONNECT TO PCHG
	0		
	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		

CROSS-CONNECT

FROM PCHG	TO PCHG	FROM PCHG	TO PCHG

Fig. 41—Marker Cross-Connections — Control Digits and Class-of-Service Screening Form

MARKER CROSS-CONNECTIONS
TREATMENT FOR FOUR-WIRE PRIVILEGE GROUPS
NO. 5 CROSSBAR

ISSUE_____ DATE_____

MKR GRP_____ OFFICE_____

SHEET_____ OF_____

PRIVILEGE GROUP

GROUP	CROSS-CONNECT FROM PCHG	CROSS-CONNECT TO PCHG	GROUP	CROSS-CONNECT FROM PCHG	CROSS-CONNECT TO PCHG	GROUP	CROSS-CONNECT FROM PCHG	CROSS-CONNECT TO PCHG	GROUP	CROSS-CONNECT FROM PCHG	CROSS-CONNECT TO PCHG	CROSS-CONNECT FROM PCHG PRA-	CROSS-CONNECT TO PCHG
0	PGA		4	PGA		8	PGA		12	PGA		00	
	PGB			PGB			PGB			PGB		01	
	PGC			PGC			PGC			PGC		02	
	PGD			PGD			PGD			PGD		03	
	PGE			PGE			PGE			PGE		04	
	PGF			PGF			PGF			PGF		CROSS-CONNECT	
	PGG			PGG			PGG			PGG		FROM PCHG PRB-	TO PCHG
	PGH			PGH			PGH			PGH			
	PGJ			PGJ			PGJ			PGJ			
	PGK			PGK			PGK			PGK		00	
	PGL			PGL			PGL			PGL		01	
	PGM			PGM			PGM			PGM		02	
1	PGA		5	PGA		9	PGA		13	PGA		03	
	PGB			PGB			PGB			PGB		04	
	PGC			PGC			PGC			PGC		CROSS-CONNECT	
	PGD			PGD			PGD			PGD		FROM PCHG PRC-	TO PCHG
	PGE			PGE			PGE			PGE			
	PGF			PGF			PGF			PGF			
	PGG			PGG			PGG			PGG		00	
	PGH			PGH			PGH			PGH		01	
	PGJ			PGJ			PGJ			PGJ		02	
	PGK			PGK			PGK			PGK		03	
	PGL			PGL			PGL			PGL		04	
	PGM			PGM			PGM			PGM		CROSS-CONNECT	
2	PGA		6	PGA		10	PGA		14	PGA		FROM PCHG	TO PCHG
	PGB			PGB			PGB			PGB			
	PGC			PGC			PGC			PGC			
	PGD			PGD			PGD			PGD			
	PGE			PGE			PGE			PGE			
	PGF			PGF			PGF			PGF			
	PGG			PGG			PGG			PGG			
	PGH			PGH			PGH			PGH			
	PGJ			PGJ			PGJ			PGJ			
	PGK			PGK			PGK			PGK			
	PGL			PGL			PGL			PGL			
	PGM			PGM			PGM			PGM			
3	PGA		7	PGA		11	PGA		CROSS-CONNECT				
	PGB			PGB			PGB		FROM PCHG		TO PCHG		
	PGC			PGC			PGC						
	PGD			PGD			PGD		CC				
	PGE			PGE			PGE		PR1				
	PGF			PGF			PGF		PREC				
	PGG			PGG			PGG						
	PGH			PGH			PGH						
	PGJ			PGJ			PGJ						
	PGK			PGK			PGK						
	PGL			PGL			PGL						
	PGM			PGM			PGM						

Fig. 42—Marker Cross-Connections — Treatment For Four-Wire Privilege Groups Form

MARKER CROSS-CONNECTIONS
TENS BLOCK SCREENING

NO. 5 CROSSBAR

ISSUE_____ DATE_____

MKR GRP_____ OFFICE_____

TBS_____ SHEET_____ OF_____

TENS BLOCK SCREENING

ASSIGNMENT	FROM		TO	
	TS	S-	TS	SG-

ASSIGNMENT	FROM		TO	
	TS	SG-	TS	PCHG

ASSIGNMENT	FROM		TO	
	TS	I-	TS	PCHG

ASSIGNMENT	FROM		TO	
	TS	IRS-	TS	PCHG

ASSIGNMENT	FROM		TO	
	TS	AR-	TS	PCHG

ASSIGNMENT	FROM		TO	
	TS	RNA-	TS	PCHG

ASSIGNMENT	FROM		TO	
	TS	RNB-	TS	PCHG

DUAL NUMBER				SCREENING THOUSANDS DIGITS	
CROSS-CONNECT				CROSS-CONNECT	
FROM PCHG	TO PCHG	FROM PCHG	TO PCHG	FROM PCHG	TO PCHG
DNGA		DNGB		NGS	
DNG0		DNG0		NG0	
1		1		1	
2		2		2	
3		3		3	
4		4		4	
5		5		5	
6		6		6	
7		7		7	
8		8		8	
9		9		9	
		DNGC			

Fig. 43—Marker Cross-Connections — Tens Block Screening Form

MARKER CROSS-CONNECTIONS
LINE LINK PULSING
NO. 5 CROSSBAR

ISSUE______ DATE______
MKR GRP_____ OFFICE______
SHEET______ OF______

ASSIGNMENT	LR RELAY NUMBER	CROSS-CONNECT FROM LINE ROUTE RELAY PUNCHING								
		LRW- TO	LRU- TO	LRL- TO	LNST- TO	LNHB- TO	LNTB- TO	LCR- TO	LCL- TO	LDL- TO

CROSS-CONNECT	
FROM PCHG LRST-	TO PCHG
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	

Fig. 44—Marker Cross-Connections — Line Link Pulsing Form

MARKER CROSS-CONNECTIONS
MULTIPLE CLASS-OF-SERVICE MATCH
NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

MULTIPLE CLASS-OF-SERVICE MATCH

ASSIGNMENT	FROM TS	FROM S-	TO TS	TO PCHG		FROM TS	FROM PCHG	TO TS	TO PCHG
					MP1		OU 0		
							1		
							2		
							3		
							4		
							5		
							6		
							7		
							8		
							9		
					MP2		OU 0		
							1		
							2		
							3		
							4		
							5		
							6		
							7		
							8		
							9		
					ASSIGNMENT	FROM TS	FROM PCHG	TO TS	TO PCHG
							CTUK		SC-

ASSIGNMENT	FROM TS	FROM OT-	TO TS	TO PCHG	ASSIGNMENT	FROM TS	FROM MMU-	TO TS	TO PCHG

PBX NO.	CLASS OF SERVICE NO.	CLASS OF SERVICE ASSIGNED TO	ORIGINATING PBX CAN COMPLETE TO

Fig. 45—Marker Cross-Connections — Multiple Class-of-Service Match Form

MARKER CROSS-CONNECTIONS
FOUR-WIRE ROUTING PROGRAM
NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

ASSIGNMENT	CROSS-CONNECT FROM ROUTING RELAY PUNCHINGS																							
	RM RELAY NUMBER	RMW-TO	RMCL-TO	RMC1-TO	RMC2-TO	RMC3-TO	RMC4-TO	RMC5-TO	RMC6-TO	RMC7-TO	RMC8-TO	RMC9-TO	RMC10-TO	RMC11-TO	RMC12-TO	RM1-OR MD-TO	RM2-OR BA-TO	RM3-OR SBA-TO	RM4-OR GA-TO	RM5-OR RS-TO	RM6-OR CDM-TO	RM7-OR CDB-TO	RM8-OR CDS-TO	RM9-OR SGA-TO	RM10-OR FGA-TO

Fig. 46—Marker Cross-Connections — Four-Wire Routing Program Using Routing Relay Punchings Form

MARKER CROSS-CONNECTIONS
4-WIRE PRIVILEGE GROUP SCREENING
NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

MULTILEVEL PREEMPTION, PRECEDENCE, NETWORK, AND CONTROL DIGITS																					
CROSS-CONNECT SRA-, SRB-, ETC																					
FROM PCHG SR—	TO PCHG	FROM PCHG SR—	TO PCHG	FROM PCHG SR—	TO PCHG	FROM PCHG SR—	TO PCHG	FROM PCHG SR—	TO PCHG	FROM PCHG SR—	TO PCHG	FROM PCHG SR—	TO PCHG	FROM PCHG SR—	TO PCHG	FROM PCHG SR—	TO PCHG	FROM PCHG SR—	TO PCHG	FROM PCHG SR—	TO PCHG

Fig. 47—Marker Cross-Connections — Four-Wire Privilege Group Screening Form

MARKER CROSS-CONNECTIONS
4-WIRE ROUTING PROGRAM
NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

GRADE SCREENING — ROUTING CONTROL									
ASSIGNMENT	GR RELAY NO.	G OR GC PCHG	G PCHG TO PCHG	GC PCHG TO PCHG	ASSIGNMENT	GR RELAY NO.	G OR GC PCHG	G PCHG TO PCHG	GC PCHG TO PCHG
		00					00		
		01					01		
		02					02		
		03					03		
		04					04		
		52					52		
		53					53		
		54					54		

Fig. 48—Marker Cross-Connections — Four-Wire Routing Program (Grade Screening) Form

MARKER CROSS-CONNECTIONS
4-WIRE ROUTING PROGRAM
NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

PRECEDENCE LEVEL ROUTING ASSIGNMENT							
CROSS-CONNECT							
PRECEDENCE LEVEL	P1 PCHG TO PCHG	P2 PCHG TO PCHG	P3 PCHG TO PCHG	P4 PCHG TO PCHG	P5 PCHG TO PCHG	P6 PCHG TO PCHG	P7 PCHG TO PCHG
P(0)							
P(1)							
P(2)							
P(3)							
P(4)							

CROSS-CONNECT			
FROM PCHG	TO PCHG	FROM PCHG	TO PCHG

ROUTE GRP SELECTION	
CROSS-CONNECT	
FROM PCHG RTG-	TO PCHG
1	
2	
3	
4	
5	
6	

SPECIAL GRADE ROUTING	
CROSS-CONNECT	
FROM PCHG SGTR	TO PCHG

CROSS-CONNECT	
FROM PCHG	TO PCHG

Fig. 49—Marker Cross-Connections — Four-Wire Routing Program (Precedence Level) Form

MARKER CROSS-CONNECTIONS
PBX ALLOTTER
NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

LISTED NUMBERS	HUNTING GROUP	TS PUNCHINGS CROSS-CONNECT FROM											
		ATH-TO	AHB-TO	ATB-TO	ANA-TO	NGA-TO	NGB-TO	NGC-TO	NGD-TO	NGE-TO	NGF-TO	NGG-TO	NGH-TO
	0												
	1												
	2												
	3												
	4												
	5												
	6												
	7												
	8												
	9												
		0 TO	1 TO	2 TO	3 TO	4 TO	5 TO	6 TO	7 TO	8 TO	9 TO		
	B												
	C												
	D												
	TH E												
	F												
	G												
	H												
	B												
	C												
	D												
	HB E												
	F												
	G												
	H												
	B												
	C												
	D												
	TN E												
	F												
	G												
	H												

CROSS-CONNECT FROM TS	CROSS-CONNECT FROM PCHG	CROSS-CONNECT TO TS	CROSS-CONNECT TO PCHG	REMARKS

Fig. 50—Marker Cross-Connections — PBX Allotter Form

MARKER CROSS-CONNECTIONS
SPECIAL FEATURES
NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP____ OFFICE_____
SHEET_____ OF_____

CCSA ACCESS GROUP CONTROL

ORIGINATING ASSIGNMENT	CROSS-CONNECT TS	FROM PCHG	TS	TO PCHG
		OAT0		
		1		
		2		
		3		
		4		
		OAC0		
		1		
		2		
		3		
		4		
		LT3		
		4LT		
		FAT-		
		AL		
		OAB		

TERM ASSIGNMENT	CROSS-CONNECT TS	FROM PCHG	TS	TO PCHG
		TAC0		
		1		
		2		
		3		
		4		
		TAR0		
		1		
		2		
		3		
		4		
		TAB		

TRAFFIC SAMPLING

ASSIGNMENT	CROSS-CONNECT TS	FROM PCHG	TS	TO PCHG
		TA0		
		1		
		2		
		3		
		4		
		TS0		
		1		
		2		
		3		
		4		
		CP-		
		S-		

WIDE BAND SCREENING

ASSIGNMENT	CROSS-CONNECT TS	FROM PCHG	TS	TO PCHG
		WS		
		RC		
		WBS		
		CS-		

Fig. 51—Marker Cross-Connections — Special Features Form

______________ MISCELLANEOUS CROSS-CONNECTIONS

NO. 5 CROSSBAR

ISSUE______ DATE______

MKR GRP______ OFFICE______

SHEET______ OF______

FROM		TO		REMARKS	FROM		TO		REMARKS	FROM		TO		REMARKS
TS	PCHG	TS	PCHG		TS	PCHG	TS	PCHG		TS	PCHG	TS	PCHG	

Fig. 52—Miscellaneous Cross-Connections Form

NG FRAME_________

NUMBER GROUP CROSS-CONNECTIONS
TERMINAL HUNTING
NO. 5 CROSSBAR

ISSUE______ DATE______
MKR GRP____ OFFICE______
SHEET______ OF______

ASSIGNED HUNT GROUP	A REL	SC REL	FROM		TO		FROM		TO		FROM		TO		FROM		TO		FROM		TO		FROM		TO		FROM		TO		FROM		TO	
			TS	PCHG	TS	PCHG	TS	PCHG	TS	PCHG	TS	PCHG	TS	PCHG	TS	PCHG	TS	PCHG	TS	PCHG	TS	PCHG	TS	PCHG	TS	PCHG	TS	PCHG	TS	PCHG	TS	PCHG	TS	PCHG

A REL ASSIGN	FROM SC	TO SC	A REL ASSIGN	FROM SC	TO SC	A REL ASSIGN	FROM SC	TO SC	A REL ASSIGN	FROM SC	TO SC	A REL ASSIGN	FROM SC	TO SC	A REL ASSIGN	FROM SC	TO SC	A REL ASSIGN	FROM SC	TO SC

Fig. 53—Number Group Cross-Connections — Terminal Hunting Form

ORIGINATING REGISTER CROSS-CONNECTIONS

ISSUE________ DATE________
MKR GRP______ OFFICE________
TYPE________ NO. 5 CROSSBAR SHEET______ OF______

CROSS-CONNECT							
FROM PCHG AA-	TO PCHG	FROM PCHG AD-	TO PCHG	FROM PCHG BC-	TO PCHG	FROM PCHG BF-	TO PCHG

CROSS-CONNECT					
FROM PCHG AB-	TO PCHG	FROM PCHG BA-	TO PCHG	FROM PCHG BD-	TO PCHG

CROSS-CONNECT					
FROM PCHG AC-	TO PCHG	FROM PCHG BB-	TO PCHG	FROM PCHG BE-	TO PCHG

CROSS-CONNECT			
TS	FROM PCHG	TS	TO PCHG

CROSS-CONNECT			
TS	FROM PCHG	TS	TO PCHG

Fig. 54—Originating Register Cross-Connections Form

ORIGINATING REGISTER — CALLED ADDRESS TRANSLATED FROM LINE LINK LOCATION CROSS-CONNECTIONS PRESET CALLED NUMBER
NO. 5 CROSSBAR

ISSUE DATE
MKR GRP OFFICE
SHEET OF

HL-RELAY NO.	ORIG LINE LOCATION			PRESET CALLED NUMBER																				CONTROL DIGITS					AREA CODE	
					CROSS-CONNECT PCHGS																			CROSS-CONNECT PCHGS					CROSS-CONNECT	
	FU	HG	VF	PRESET DIRECTORY NO.	FROM A-TO		FROM B-TO		FROM C-TO		FROM D-TO		FROM E-TO		FROM F-TO		FROM G-TO		FROM H-TO		FROM J-TO		FROM K-TO		FROM L-TO PCHG	FROM PE TO PCHG	FROM CD-TO		FROM CDP-TO		FROM PCHG ORA TO PCHG	FROM PCHG LTA TO PCHG
					AA	AB	BA	BB	CA	CB	DA	DB	EA	EB	FA	FB	GA	GB	HA	HB	JA	JB	KA	KB			CDA	CDB	CDPA	CDPB		
0																																
1																																
2																																
3																																
4																																
5																																
6																																
7																																
93																																
94																																
95																																
96																																
97																																

Fig. 55—Originating Register — Called Address Translated From Line Link Location Cross-Connections — Preset Called Number Form

ORIGINATING REGISTER — CALLED ADDRESS TRANSFER FROM LINE LINK LOCATION CROSS-CONNECTIONS ADDRESS RELAY SELECTION AND FRAME UNIT TRANSLATION

NO. 5 CROSSBAR

ISSUE DATE

MKR GRP OFFICE

SHEET OF

ADDRESS RELAY SELECTION						FRAME UNIT TRANSLATION	
CROSS-CONNECT						CROSS-CONNECT	
FROM PCHG H–	TO PCHG HL–	FROM PCHG H–	TO PCHG HL–	FROM PCHG H–	TO PCHG HL–	FROM PCHG FU-	TO PCHG
00		40		80		0	
01		41		81		1	
02		42		82		2	
03		43		83		3	
04		44		84		4	
05		45		85		5	
06		46		86		6	
07		47		87		7	
08		48		88		8	
09		49		89		9	
10		50		90			
39		79		97			

Fig. 56—Originating Register — Called Address Transfer From Line Link Location Cross-Connections — Address Relay Selection and Frame Unit Translation Form

OUTGOING SENDER LINK CROSS-CONNECTIONS

NO. 5 CROSSBAR

ISSUE_____ DATE_____

MKR GRP_____ OFFICE_____

FRAME_____ SHEET_____ OF_____

LEFT							LEFT							RIGHT							RIGHT						
X-CONN			TRUNK TO	TRK NO.	TRK LINK	TYPE SDR	X-CONN			TRUNK TO	TRK NO.	TRK LINK	TYPE SDR	X-CONN			TRUNK TO	TRK NO.	TRK LINK	TYPE SDR	X-CONN			TRUNK TO	TRK NO.	TRK LINK	TYPE SDR
FROM		TO					FROM		TO					FROM		TO					FROM		TO				
SW	V	TRK					SW	V	TRK					SW	V	TRK					SW	V	TRK				
4	9						9	9						4	9						9	9					
	8							8							8							8					
	7							7							7							7					
	6							6							6							6					
	5							5							5							5					
	4							4							4							4					
	3							3							3							3					
	2							2							2							2					
	1							1							1							1					
	0							0							0							0					
3	9						8	9						3	9						8	9					
	8							8							8							8					
	7							7							7							7					
	6							6							6							6					
	5							5							5							5					
	4							4							4							4					
	3							3							3							3					
	2							2							2							2					
	1							1							1							1					
	0							0							0							0					
2	9						7	9						2	9						7	9					
	8							8							8							8					
	7							7							7							7					
	6							6							6							6					
	5							5							5							5					
	4							4							4							4					
	3							3							3							3					
	2							2							2							2					
	1							1							1							1					
	0							0							0							0					
1	9						6	9						1	9						6	9					
	8							8							8							8					
	7							7							7							7					
	6							6							6							6					
	5							5							5							5					
	4							4							4							4					
	3							3							3							3					
	2							2							2							2					
	1							1							1							1					
	0							0							0							0					
0	9						5	9						0	9						5	9					
	8							8							8							8					
	7							7							7							7					
	6							6							6							6					
	5							5							5							5					
	4							4							4							4					
	3							3							3							3					
	2							2							2							2					
	1							1							1							1					
	0							0							0							0					

Fig. 57—Outgoing Sender Link Cross-Connections Form

PRETRANSLATOR CROSS-CONNECTIONS
HOME AREA CODES
NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

CODES AND DIGITS	X-CONN FROM	X-CONN TO	X-CONN P	CODES AND DIGITS	X-CONN FROM	X-CONN TO	X-CONN P	CODES AND DIGITS	X-CONN FROM	X-CONN TO	X-CONN P	CODES AND DIGITS	X-CONN FROM	X-CONN TO	X-CONN P	CODES AND DIGITS	X-CONN FROM	X-CONN TO	X-CONN P	CODES AND DIGITS	X-CONN FROM	X-CONN TO	X-CONN P	CODES AND DIGITS	X-CONN PCHG	X-CONN P
	PCHG				PCHG				PCHG				PCHG				PCHG				PCHG				FROM	TO
221 222 223	22R			321 322 323	32R			421 422 423	42R			521 522 523	52R			621 622 623	62R			721 722 723	72R			821 822 823	82R			921 922 923	92R	
224 225 226	22S			324 325 326	32S			424 425 426	42S			524 525 526	52S			624 625 626	62S			724 725 726	72S			824 825 826	82S			924 925 926	92S	
227 228 229	22T			327 328 329	32T			427 428 429	42T			527 528 529	52T			627 628 629	62T			727 728 729	72T			827 828 829	82T			927 928 929	92T	
231 232 233	23R			331 332 333	33R			431 432 433	43R			531 532 533	53A			631 632 633	63R			731 732 733	73R			831 832 833	83R			931 932 933	93R	
234 235 236	23S			334 335 336	33S			434 435 436	43S			534 535 536	53S			634 635 636	63S			734 735 736	73S			834 835 836	83S			934 935 936	93S	
237 238 239	23T			337 338 339	33T			437 438 439	43T			537 538 539	53T			637 638 639	63T			737 738 739	73T			837 838 839	83T			937 938 939	93T	
241 242 243	24R			341 342 343	34R			441 442 443	44R			541 542 543	54R			641 642 643	64R			741 742 743	74R			841 842 843	84R			941 942 943	94R	
244 245 246	24S			344 345 346	34S			444 445 446	44S			544 545 546	54S			644 645 646	64S			744 745 746	74S			844 845 846	84S			944 945 946	94S	
247 248 249	24T			347 348 349	34T			447 448 449	44T			547 548 549	54T			647 648 649	64T			747 748 749	74T			847 848 849	84T			947 948 949	94T	
251 252 253	25R			351 352 353	35R			451 452 453	45R			551 552 553	55R			651 652 653	65R			751 752 753	75R			851 852 853	85R			951 952 953	95R	
254 255 256	25S			354 355 356	35S			454 455 456	45S			554 555 556	55S			654 655 656	65S			754 755 756	75S			854 855 856	85S			954 955 956	95S	
257 258 259	25T			357 358 359	35T			457 458 459	45T			557 558 559	55T			657 658 659	65T			757 758 759	75T			857 858 859	85T			957 958 959	95T	
261 262 263	26R			361 362 363	36R			461 462 463	46R			561 562 563	56R			661 662 663	66R			761 762 763	76R			861 862 863	86R			961 962 963	96R	
264 265 266	26S			364 365 366	36S			464 465 466	46S			564 565 566	56S			664 665 666	66S			764 765 766	76S			864 865 866	86S			964 965 966	96S	
267 268 269	26T			367 368 369	36T			467 468 469	46T			567 568 569	56T			667 668 669	66T			767 768 769	76T			867 868 869	86T			967 968 969	96T	
271 272 273	27R			371 372 373	37R			471 472 473	47R			571 572 573	57R			671 672 673	67R			771 772 773	77R			871 872 873	87R			971 972 973	97R	
274 275 276	27S			374 375 376	37S			474 475 476	47S			574 575 576	57S			674 675 676	67S			774 775 776	77S			874 875 876	87S			974 975 976	97S	
277 278 279	27T			377 378 379	37T			477 478 479	47T			577 578 579	57T			677 678 679	67T			777 778 779	77R			877 878 879	87T			977 978 979	97T	
281 282 283	28R			381 382 383	38R			481 482 483	48R			581 582 583	58R			681 682 683	68R			781 782 783	78R			881 882 883	88R			981 982 983	98R	
284 285 286	28S			384 385 386	38S			484 485 486	48S			584 585 586	58S			684 685 686	68S			784 785 786	78S			884 885 886	88S			984 985 986	98S	
287 288 289	28T			387 388 389	38T			487 488 489	48T			587 588 589	58T			687 688 689	68T			787 788 789	78T			887 888 889	88T			987 988 989	98T	
291 292 293	29R			391 392 393	39R			491 492 493	49R			591 592 593	59R			691 692 693	69R			791 792 793	79R			891 892 893	89R			991 992 993	99R	
294 295 296	29S			394 395 396	39S			494 495 496	49S			594 595 596	59S			694 695 696	69S			794 795 796	79S			894 895 896	89S			994 995 996	99S	
297 298 299	29T			397 398 399	39T			497 498 499	49T			597 598 599	59T			697 698 699	69T			797 798 799	79T			897 898 899	89T			997 998 999	99T	

Fig. 58—Pretranslator Cross-Connections — Home Area Codes

PRETRANSLATOR CROSS-CONNECTIONS
FOREIGN AREA CODES AND MISCELLANEOUS
NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

CODES AND DIGITS	X-CONN FROM PCHG	X-CONN TO P	CODES AND DIGITS	X-CONN FROM PCHG	X-CONN TO P	CODES AND DIGITS	X-CONN FROM PCHG	X-CONN TO P	CODES AND DIGITS	X-CONN FROM PCHG	X-CONN TO P	CODES AND DIGITS	X-CONN FROM PCHG	X-CONN TO P	CODES AND DIGITS	X-CONN FROM PCHG	X-CONN TO P	CODES AND DIGITS	X-CONN FROM PCHG	X-CONN TO P	CODES AND DIGITS	X-CONN FROM PCHG	X-CONN TO P
201 202 203	20R		301 302 303	30R		401 402 403	40R		501 502 503	50R		601 602 603	60R		701 702 703	70R		801 802 803	80R		901 902 903	90R	
204 205 206	20S		304 305 306	30S		404 405 406	40S		504 505 506	50S		604 605 606	60S		704 705 706	70S		804 805 806	80S		904 905 906	90S	
207 208 209	20T		307 308 309	30T		407 408 409	40T		507 508 509	50T		607 608 609	60T		707 708 709	70T		807 808 809	80T		907 908 909	90T	
211 212 213	21R		311 312 313	31R		411 412 413	41R		511 512 513	51R		611 612 613	61R		711 712 713	71R		811 812 813	81R		911 912 913	91R	
214 215 216	21S		314 315 316	31S		414 415 416	41S		514 515 516	51S		614 615 616	61S		714 715 716	71S		814 815 816	81S		914 915 916	91S	
217 218 219	21T		317 318 319	31T		417 418 419	41T		517 518 519	51T		617 618 619	61T		717 718 719	71T		817 818 819	81T		917 918 919	91T	

"C" DIGIT ZERO CODES
CROSS-CONNECT

FROM	TO	FROM	TO	FROM	TO	FROM	TO	FROM	TO	FROM	TO	FROM	TO	FROM	TO
200		300		400		500		600		700		800		900	
210		310		410		510		610		710		810		910	
220		320		420		520		620		720		820		920	
230		330		430		530		630		730		830		930	
240		340		440		540		640		740		840		940	
250		350		450		550		650		750		850		950	
260		360		460		560		660		760		860		960	
270		370		470		570		670		770		870		970	
280		380		480		580		680		780		880		980	
290		390		490		590		690		790		890		990	

MISCELLANEOUS
CROSS-CONNECT

FROM	TO	FROM	TO	FROM	TO
W1		WB			
W2					
W3					
W4					
W5					
W6					
W7					
X11					
X1					
VCR					
11X0					
11X2					
11X3					
11X4					
11X5					
11X6					
11X7					
11X8					
11X9					
WA					

Fig. 59—Pretranslator Cross-Connections — Foreign Area Codes and Miscellaneous Form

ROUTE RELAY TB & TG RECORD

NO. 5 CROSSBAR

ISSUE_____ DATE_____

MKR GRP_____ OFFICE_____

SHEET_____ OF_____

TB_____

TG	TRUNK LINE FRAME																											
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
0																														
1																														
2																														
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														
13																														
14																														
15																														
16																														
17																														
18																														
19																														

Fig. 60—Route Relay TB & TG Record Form

SERVICE OPTIONS

NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

ASSIGNMENT	SCHEMATIC DRAWING	EQUIPMENT		OPTION	ASSIGNMENT	SCHEMATIC DRAWING	EQUIPMENT		OPTION	ASSIGNMENT	SCHEMATIC DRAWING	EQUIPMENT		OPTION
		RR	CKT				RR	CKT				RR	CKT	

Fig. 61—Service Options Form

TRAFFIC REGISTER CROSS-CONNECTIONS

NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

ASSIGNMENT	REG	FR	CROSS-CONNECT						REMARKS	ASSIGNMENT	REG	FR	CROSS-CONNECT						REMARKS
			FROM		TO								FROM		TO				
			TS	PCHG	TS	RR	CKT	PCHG					TS	PCHG	TS	RR	CKT	PCHG	

Fig. 62—Traffic Register Cross-Connections Form

TRANSVERTER CROSS-CONNECTIONS
CODE COMPRESSION AND MESSAGE BILLING INDEX

NO. 5 CROSSBAR

ISSUE ___ ___ DATE ___ ___ ___
MKR GRP ___ OFFICE ___ ___ ___
SHEET ___ ___ OF ___ ___

CROSS-CONNECT					
FROM				TO	
CODE	TS	LEAD	PCHG	TS	LEAD PCHG
20X	FA	20	1	FA	
21X		21	2		
30X		30	3		
31X		31	4		
40X		40	5		
41X		41	6		
50X		50	7		
51X		51	8		
60X		60	9		
61X		61	10		
70X		70	11		
71X		71	12		
80X		80	13		
81X		81	14		
90X		90	15		
91X		91	16		

MESSAGE BILLING INDEX				
CROSS-CONNECT		*	CROSS-CONNECT	
FROM	TO	ASSIGNMENT	FROM	TO
TS M1 PCHG	TS M1 PCHG		TS 4W PCHG	TS 4W PCHG
M10			389	
M11			380	
M12			381	
M13			382	
M14			383	
M15			384	
M16			385	
M17			386	
M18			387	

COMPRESSED AREA CODE ASSIGNMENT		
FOREIGN AREA CODE	FAC RELAY	COMPRESSED CODE
	0	
	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	

* AT MISCELLANEOUS RELAY RACK

CROSS-CONNECT						
FROM				TO		REMARKS
CODE	TS	LEAD	PCHG	TS	LEAD PCHG	
	FAB0	0	1			
		1	2			
		2	3			
		3	4			
		4	5			
		5	17			
		6	18			
		7	19			
		8	20			
		9	21			
	FAB1	0	6			
		1	7			
		2	8			
		3	9			
		4	10			
		5	22			
		6	23			
		7	24			
		8	25			
		9	26			
	FAB2	0	11			
		1	12			
		2	13			
		3	14			
		4	15			
		5	27			
		6	28			
		7	29			
		8	30			
		9	31			
	FAB3	0	1			
		1	2			
		2	3			
		3	4			
		4	5			
		5	17			
		6	18			
		7	19			
		8	20			
		9	21			
	FAB4	0	6			
		1	7			
		2	8			
		3	9			
		4	10			

CROSS-CONNECT						
FROM				TO		REMARKS
CODE	TS	LEAD	PCHG	TS	LEAD PCHG	
	FAB4	5	22			
		6	23			
		7	24			
		8	25			
		9	26			
	FAB5	0	11			
		1	12			
		2	13			
		3	14			
		4	15			
		5	27			
		6	28			
		7	29			
		8	30			
		9	31			
	FAB6	0	1			
		1	2			
		2	3			
		3	4			
		4	5			
		5	17			
		6	18			
		7	19			
		8	20			
		9	21			
	FAB7	0	6			
		1	7			
		2	8			
		3	9			
		4	10			
		5	22			
		6	23			
		7	24			
		8	25			
		9	26			
	FAB8	0	11			
		1	12			
		2	13			
		3	14			
		4	15			
		5	27			
		6	28			
		7	29			
		8	30			
		9	31			

Fig. 63—Transverter Cross-Connections — Code Compression and Message Billing Index Form

TRUNK RECORD CARD

NO. 5 CROSSBAR

(Front)

TRK NO.	OFFICE	TYPE

TRUNK EQUIPMENT

SD	R. R. NO.	CKT NO.	WRG

TRUNK LINK

FR	APP	TB	BT	TG	FTC	CL

LINE LINK / **NUMBER GROUP**

FR	VG	HG	VF	RC	FR	NO

RINGING SELECTION	FR	SW	VERT		TIMER	FR	NO
INC REG LINK		TRK TEN		CL	INTERRUPTER	NO	TYPE
COIN SUPV LINK					TMB JACK	NO	
OUT SDR LINK		TRK T.S.	SW	VERT	PEG REGISTER		
RECORDER FR		ID	TENS GR	UNITS	ATB REGISTER		
MISC			TUR				

DISTANT OFFICE

FR UNIT — APP BAY SHELF — SW SEL — LEVEL GROUP

CKT NO — SD — REG — AUX — SUP

PAN — JACK — CABLE RES

TRUNK ORDER NO. — DATE COMPLETED

FROM	TO	CABLE	PAIR	GA	LOAD

TROUBLE AND REPEATER RECORD

DATE	TIME	TROUBLE REPORTED	TROUBLE FOUND	OK	NAME

(Back)

TROUBLE AND REPEATER RECORD

DATE	TIME	TROUBLE REPORTED	TROUBLE FOUND	OK	NAME

Fig. 64—Trunk Record Card Form

TRUNK LINK CROSS-CONNECTIONS
FOUR-WIRE

NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____
FRAME_____

ASSIGNMENT	CROSS-CONNECT						ASSIGNMENT	CROSS-CONNECT						ASSIGNMENT	CROSS-CONNECT						ASSIGNMENT	CROSS-CONNECT					
	SW & LEV	F- TO TG-	FT- TO FTC-	TKT- TO PCHG-	TRN- TO PCHG-	F(-)- TO TGA-		SW & LEV	F- TO TG-	FT- TO FTC-	TKT- TO PCHG-	TRN- TO PCHG-	F(-)- TO TGA-		SW & LEV	F- TO TG-	FT- TO FTC-	TKT- TO PCHG-	TRN- TO PCHG-	F(-)- TO TGA-		SW & LEV	F- TO TG-	FT- TO FTC-	TKT- TO PCHG-	TRN- TO PCHG-	F(-)- TO TGA-
	00							52							05							57					
	10							62							15							67					
	20							72							25							77					
	30							82							35							87					
	40							92							45							97					
	50							03							55							08					
	60							13							65							18					
	70							23							75							28					
	80							33							85							38					
	90							43							95							48					
	01							53							06							58					
	11							63							16							68					
	21							73							26							78					
	31							83							36							88					
	41							93							46							98					
	51							04							56							09					
	61							14							66							19					
	71							24							76							29					
	81							34							86							39					
	91							44							96							49					
	02							54							07							59					
	12							64							17							69					
	22							74							27							79					
	32							84							37							89					
	42							94							47							99					

Fig. 65—Trunk Link Cross-Connections — Four-Wire Form

TRUNK LINK CROSS-CONNECTIONS
TWO-WIRE
A APPEARANCE

NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
FRAME_____ SHEET_____ OF_____

ASSIGNMENT	CROSS CONNECT									ASSIGNMENT	CROSS CONNECT								
	SW & LEV	FA_ TO TG	FTA_ TO FTC	BTA_ TO BT	RCA TO RC	RN_ TO	TKT_ TO	TSC TO	TRN_ TO		SW & LEV	FA_ TO TG	FTA_ TO FTC	BTA_ TO BT	RCA TO RC	RN_ TO	TKT_ TO	TSC TO	TRN_ TO
	00										05								
	10										15								
	20										26								
	30										36								
	40										46								
	50										56								
	60										66								
	70										76								
	80										86								
	90										96								
	01										07								
	11										17								
	21										27								
	04																		
	14										19								
	24										29								
	34										39								
	44										49								
	54										59								
	64										69								
	74										79								
	84										89								
	94										99								

Fig. 66—Trunk Link Cross-Connections — Two-Wire — A Appearance Form

TRUNK LINK CROSS-CONNECTIONS
TWO-WIRE
B APPEARANCE

NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
FRAME_____ SHEET_____ OF_____

ASSIGNMENT	CROSS CONNECT									ASSIGNMENT	CROSS CONNECT								
	SW & LEV	FB_ TO TG	FTB_ TO FTC	BTB_ TO BT	RCB TO RC	KT_ TO	TKT_ TO	TSC TO	TRN_ TO		SW & LEV	FB_ TO TG	FTB_ TO FTC	BTB_ TO BT	RCB TO RC	KT_ TO	TKT_ TO	TSC TO	TRN_ TO
	00										05								
	10										15								
	20										25								
	30										35								
	40										45								
	50										55								
	60										65								
	70										75								
	80										85								
	90										95								
	01										06								
	11										16								
	21										26								
	31										36								
	14										19								
	24										29								
	34										39								
	44										49								
	54										59								
	64										69								
	74										79								
	84										89								
	94										99								

Fig. 67—Trunk Link Cross-Connections — Two-Wire — B Appearance Form

TRUNK LINK CROSS-CONNECTIONS
TWO-WIRE
MISC

TLF_____

ISSUE_____DATE_____
MKR GRP_____OFFICE_____
SHEET_____OF_____

NO. 5 CROSSBAR

CROSS CONNECT										CROSS CONNECT	
FROM		TO	FROM		TO	FROM		TO		FROM	TO
LEV_	RS_	(RSD/ RSS) RS_	LEV_	RS_	(RSD/ RSS) RS_	(LEV) RSK_		(RSD/ RSS) RSK_			
0	0		5	0		0					
	1			1		1					
	2			2		2					
	3			3		3					
	4			4		4					
	5			5		5					
	6			6		6					
	7			7		7					
	8			8		8					
	9			9		9					
1	0		6	0							
	1			1							
	2			2		RL_		RD_			
	3			3		0					
	4			4		1					
	5			5		2					
	6			6		3					
	7			7		4					
4	1		9	1							
	2			2							
	3			3							
	4			4							
	5			5							
	6			6							
	7			7							
	8			8							
	9			9							

Fig. 68—Trunk Link Cross-Connections — Two-Wire — Miscellaneous Form

TRUNK TEST AND MAKE-BUSY CROSS-CONNECTIONS

NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

ASSIGNMENT	CROSS-CONNECT							ASSIGNMENT	CROSS-CONNECT						
	FROM				TO				FROM				TO		
	TRUNK EQUIPMENT				TEST AND MAKE BUSY				TRUNK EQUIPMENT				TEST AND MAKE BUSY		
	TS	RR	CKT	PCHGS	TS	JACK	PCHGS		TS	RR	CKT	PCHGS	TS	JACK	PCHGS

Fig. 69—Trunk Test and Make-Busy Cross-Connections Form

WIDEBAND CROSS-CONNECTIONS
LINK CIRCUIT

NO. 5 CROSSBAR

WBLL GRP_____

ISSUE_____DATE_____
MKR GRP_____OFFICE_____
SHEET_____OF_____

CROSS CONNECT										
FROM	TO R__/L__									
H__	WBLL_									
	0	1	2	3	4	5	6	7	8	9
01										
02										
03										
04										
05										
06										
07										
08										
09										
10										
11										
12										

CROSS CONNECT										
FROM	TO WT_/S__									
HON__	WBLL_									
	0	1	2	3	4	5	6	7	8	9
01										
02										
03										
04										
05										
06										
07										
08										
09										
10										
11										
12										

CROSS CONNECT										
FROM	TO WU_/VD__									
HN__	WBLL_									
	0	1	2	3	4	5	6	7	8	9
01										
02										
03										
04										
05										
06										
07										
08										
09										
10										
11										
12										

Fig. 70—Wideband Cross-Connections — Link Circuit Form

WIDEBAND CROSS-CONNECTIONS
LINE CONTROL CIRCUIT
NO. 5 CROSSBAR

LLF_____ WBLL_____

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

CROSS CONNECT

FROM LS __	TO S	FROM LS __	TO S
00		40	
01		41	
02		42	
03		43	
04		44	
05		45	
06		46	
07		47	
08		48	
09		49	
10		50	
11		51	
12		52	
13		53	
14		54	
15		55	
16		56	
17		57	
18		58	
19		59	
20		60	
21		61	
22		62	
23		63	
24		64	
25		65	
26		66	
27		67	
28		68	
29		69	
30		70	
31		71	
32		72	
33		73	
34		74	
35		75	
36		76	
37		77	
38		78	
39		79	

CROSS CONNECT

FROM FC ___ VG	FROM VF	TO WC__/ NWC
00	0	
	1	
	2	
	3	
	4	
01	0	
	1	
	2	
	3	
	4	
02	0	
	1	
	2	
	3	
	4	
03	0	
	1	
	2	
	3	
	4	
04	0	
	1	
	2	
	3	
	4	
05	0	
	1	
	2	
	3	
	4	
06	0	
	1	
	2	
	3	
	4	
07	0	
	1	
	2	
	3	
	4	

FROM FC ___ VG	FROM VF	TO WC__/ NWC
08	0	
	1	
	2	
	3	
	4	
09	0	
	1	
	2	
	3	
	4	
10	0	
	1	
	2	
	3	
	4	
11	0	
	1	
	2	
	3	
	4	

CROSS CONNECT

FROM VG __	TO WVG __/ NWC
00	
01	
02	
03	
04	
05	
06	
07	
08	
09	
10	
11	

FROM WVA_	TO RLN__/ LLN
0	
1	
2	
3	
4	

FROM WVB_	TO LOC
0	
1	
2	
3	
4	

Fig. 71—Wideband Cross-Connections — Line Control Circuit Form (Example 1)

WIDEBAND CROSS-CONNECTIONS

NO. 5 CROSSBAR

WRS CKT NO._____
WRS LOC. _____

ISSUE_____DATE_____
MKR GRP_____OFFICE_____
SHEET_____OF_____

REMOTE SWITCH SIGNAL CONTROL

CROSS CONNECT			
FROM	TO	FROM	TO
AS_	RLS_/FA_ _	R_	RL _ _/G
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	

FROM	TO	FROM	TO
BS_	RLS_/FB _ _	RS_	S_
0		0	
1		1	
2		2	
3		3	
4		4	
5		5	
6		6	
7		7	
8		8	
9		9	

REMOTE SWITCH

CROSS CONNECT	
FROM	TO
SA_	LS_/TSA_
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	

FROM	TO
SB_	LS_/TSB_
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	

Fig. 72—Wideband Cross-Connections — Line Control Circuit Form (Example 2)

LLF_____
WBLL_____

WIDEBAND CROSS-CONNECTIONS
LINE CONTROL CIRCUIT
NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

CROSS CONNECT				CROSS CONNECT				CROSS CONNECT				CROSS CONNECT				CROSS CONNECT			
FROM			TO	FROM			TO	FROM			TO	FROM			TO	FROM			TO
L_____			LL-/RLA-/ RLB-/RLC-/ NWL	L_____			LL-/RLA-/ RLB-/RLC-/ NWL	L_____			LL-/RLA-/ RLB-/RLC-/ NWL	L_____			LL-/RLA-/ RLB-/RLC-/ NWL	L_____			LL-/RLA-/ RLB-/RLC-/ NWL
VG	VF	HG		VG	VF	HG		VG	VF	HG		VG	VF	HG		VG	VF	HG	
00	0			01	0			02	0			10	0			11	0		
	1				1				1				1				1		
	2	0			2	0			2	0			2	0			2	0	
	3				3				3				3				3		
	4				4				4				4				4		
	0				0				0				0				0		
	1				1				1				1				1		
	2	1			2	1			2	1			2	1			2	1	
	3				3				3				3				3		
	4				4				4				4				4		
	0				0				0				0				0		
	1				1				1				1				1		
	2	2			2	2			2	2			2	2			2	2	
	3				3				3				3				3		
	4				4				4				4				4		
	0				0				0				0				0		
	1				1				1				1				1		
	2	3			2	3			2	3			2	3			2	3	
	0				0				0				0				0		
	1				1				1				1				1		
	2	8			2	8			2	8			2	8			2	8	
	3				3				3				3				3		
	4				4				4				4				4		
	0				0				0				0				0		
	1				1				1				1				1		
	2	9			2	9			2	9			2	9			2	9	
	3				3				3				3				3		
	4				4				4				4				4		

Fig. 73—Wideband Cross-Connections — Remote Switch Signal Control and Remote Switch Circuit Form

WIDEBAND CROSS-CONNECTIONS
TRUNK TEST REGISTER CKT

NO. 5 CROSSBAR

ISSUE_____ DATE_____
MKR GRP_____ OFFICE_____
SHEET_____ OF_____

ASSIGNMENT	TRK	FGA_ TO FG_	TFA_ TO TF_	TFB_ TO TF_	FTA_ TO FT_	FTB_ TO FT_	FUA_ TO FU_	FUB_ TO FU_	HGA_ TO HG_	HGB_ TO HG_	VGA_ TO VG_	VGB_ TO VG_	VFA_ TO VF_	THTA_ TO THT_	HTA_ TO HT_	HTB_ TO HT_	TTA_ TO TT_	TTB_ TO TT_	UTA_ TO UT_	UTB_ TO UT_	TK_ TO LTD/UL
	00																				
	01																				
	02																				
	03																				
	04																				
	05																				
	06																				
	07																				
	08																				
	09																				
	10																				
	11																				
	41																				
	42																				
	43																				
	44																				
	45																				
	46																				
	47																				
	48																				
	49																				

Fig. 74—Wideband Cross-Connections — Trunk Test Register Circuit Form

TRUNK – MAKE-BUSY JACK – EOTT/RTMB CIRCUIT CROSS-CONNECTIONS

NO. 5 CROSSBAR

TRUNK SD ASSIGNMENT	FROM TRUNK EQUIPMENT					TO MAKE-BUSY JACK			TO ENANCED OPTERATIONAL TRUNK TEST/REMOTE TEST MAKE-BUSY UNIT					
	TRUNK LOCATION		MDF APP B1,B2 LEADS											
	RR	CKT	TS	CKT	PCHGS	TS	JACK	PCHGS	TB	TF	TT	CKT#	TS	PCHGS

Fig. 75—Trunk — Make-Busy Jack — Remote Test Make-Busy Circuit Cross-Connections Form