# TRAFFIC REGISTER ASSIGNMENTS - REGISTER ORDERS <br> NON-TUR ROUTE RELAYS FOR PEG COUNT and OVERFLOW REGISTER ASSIGNMENTS 

NO. 5 CROSSBAR

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5. GENERAL
1.01 This appendix supplements Section 218-040-022. It provides:

- A description of No. 5 Crossbar route relay and associated equipment component functions.
- A guide for the assignment of peg count and overflow registers and the associated pin (pulse) jacks, for non-Engineering and Data Acquisition System (EADAS) offices.
- A guide for the assignment of peg count and overflow Data Collection Devices (DCDs) for EADAS.
1.02 It is reissued to provide updated information.

Note: Marginal arrows used to denote changes are omitted.
1.03 The route relays are associated with trunk groups requiring these measurements. The description of route relays and associated equipment is intended to provide an understanding of their function and the need for accurate and current
assignment to peg count and overflow registers to provide valid trunking data.

## 2. RESPONSIBILITIES

2.01 Network Administration Center (NAC)/ Network Data Collection Center (NDCC): The NAC is responsible for the assignment of peg count, overflow registers and pin jacks for nonEADAS offices. In an EADAS environment, the NDCC has responsibility for the assignment of peg count, overflow DCDs and providing cross-connect information. Both work groups issue cross-connect assignments to Switching Maintenance.
2.02 The Area Trunk Assignment Bureau/Common Control Order Group (ATAB/CCOG) is responsible for route relay assignments, route relay cross-connects, preroute relays, trunk and sender allotter assignments, Individual Peg Count (IPC) relays, IPC cross-connects and other cross-connects, as required.
2.03 The NAC or the NDCC should reproduce two copies of Form F 829, TUR and Traffic Register Order (non-EADAS) or Form P 4344, EADAS-Peg Count, Overflow and TUR Assignments for cross-connects. These forms should reach Switching Maintenance no later than 10 business days prior to the due date. Western Electric (WE) job orders shall be forwarded to reach Switching Maintenance by the date established by the job committee or the equipment supervisor. Discrepancies noted by Switching Maintenance shall be discussed with the NAC or the NDCC before changes are made. Upon completion, Switching Maintenance will indicate any corrections in red, date and sign the order, and return one copy to ATAB and one copy to the NDCC or NAC. ATAB will reissue the order reflecting any changes.

## APPENDIX 1

## 3. ROUTE RELAY FUNCTIONS

3.01 The operation of a route relay makes it possible to condition the completing or combined marker for the items of information listed below:

- Trunk selection - trunk block (TB) and trunk
group (TG)

Note: The abbreviation TG will mean trunk group throughout this section. It should not be confused with the TG punching on the trunk link frame (see 3.09).

- Sender group selection
- Route advance
- Digit deletion
- Prefixing of digits
- Code conversion
- Called number structure
- Code pattern
- High 5, low 5 indications
3.02 In general, all calls which require identical treatment for all of these items are directed to the same route relay. Where there is a difference in any one of the items, additional route relays are required.
3.03 Route-Advance Traffic: When a TG has both first-route traffic offered to it and traffic which is route-advanced to it from another group, it is necessary to provide a separate route relay for handling the traffic which is route-advanced to the group.
3.04 Ground Supplies: Each route relay is assigned in one of six ground supplies. Route advancing may be from a relay in any ground supply (except six) to a relay in any other ground supply. Within a given route-advance chain, it is not permissible to return to a previously used ground supply. Ground supplies five and six are reserved for final-route or last-end route relays. Outgoing trunk groups are assigned to ground supplies one through four. See Sections 218-060-190 and 218-060-200 for more details on route relays and ground supplies.
3.05 Route-Advance Functions: The No. 5 Crossbar completing marker is provided with a route-advance feature which enables it, when unable to complete a connection to the first route desired, to test up to three alternate routes in attempting to establish a connection to a trunk. The marker will route-advance whenever it finds any of the following conditions; there may be other conditions, however, these are the most common:
- All trunks busy in selected trunk group.
- All senders busy in selected sender group.
- A second failure to match condition.
- A double area code dialed by a customer.
- Called station is busy on an intra-office call.
- Call being processed is a reverting type call.
3.06 Route-Advance Conditions: Normal routeadvance cross-connections usually provide for the following conditions:
- Intra-office overflow and reverting call trunk groups to the route relay for the combination tone trunks.
- Permanent signal holding trunks to the route relay for the common overflow trunks.
- Noncoin combination tone trunks to the route relay for the common overflow trunks.
- Coin combination tone trunks and common overflow trunks, with none of these trunks available (the marker signals the originating register to return an overflow signal; 120 IPM tone).
3.07 Charge Condition: When route-advancing occurs, the charge condition is established by the route series relay to which the first route relay is connected. Therefore, the route relay to which the call is advanced need not discriminate for charge condition.


### 3.08 Additional Route Relay Requirement:

When a TG has both first-route traffic offered to it and also traffic which is route-advanced to it from another group, it is necessary to provide a separate route relay for handling the route-advanced traffic.
3.09 Trunk Selection: Cross-connections of the TB and TG punchings furnish leads through the trunk link connector circuit. This causes the selection of a trunk in the desired TG on the trunk link frame. A minimum of one route relay is required for each outgoing TG.
3.10 Sender Group Selection: The outsender group (OSG) cross-connection causes selection of a sender in the sender group associated with the TG selected. The sender and trunk are connected via the outsender link (OSL) frame.
3.11 Allotted Trunk Groups: If any TG is allotted to two different TB relays on the trunk link frame, a statement should be included in the Traffic Equipment Order (TEO). If more than one group of outsenders is to be assigned to a particular route, a statement to that effect should also be included in the TEO.
(a) Wire Spring (WS) and Flat Spring (UY) relay markers are equipped with four allotter circuits so that four TGs may be assigned using the allotter.
(b) The groups must be assigned one group to a pair of route relays in each of ground sup. plies one through four.

Note: UY relay markers normally use route relays 10 through 19 in ground supply four.
(c) Four allotter circuits are provided, and their association with ground supplies should be as follows:

## Allotter Circuit

Ground Supply

| 0 | 1 |
| :--- | :--- |
| 1 | 2 |
| 2 | 3 |
| 3 | 4 |

## Notes:

1. In some offices there may be an option to cross-connect any allotter circuit to any ground supply (one through four).
2. See Sections 218-060-190 and 218-060-200 for further reference on allotted trunk groups.

### 3.12 Trunk Group Ground Supply Assignments:

 These assignments are handled as follows:(a) The intra-office TGs may be assigned to any of the first four ground supplies. They must be in a different ground supply than the TG over which reverting calls are handled.
(b) Stuck coin trunks, permanent signal, noncoin combination tone trunks should be assigned to ground supply five.
(c) Coin combination tone trunks and common overflow trunks should be assigned to ground supply six.
(d) Outgoing routes which include interoffice, intermarker group, groups to tandem, toll switching, intertoll, service routes, etc, are assigned in ground supplies one through four.

### 3.13 Peg Count Register - Provision and Op-

 eration: Peg count (PC) registers are handled as follows:(a) PC registers should always be provided on operator, final and high usage groups, intermarker groups, intra-office, reverting, and miscellaneous groups.
(1) All TGs listed on the trunk forecast need PC, overflow, and usage register assignments. If the three measurements cannot be provided, the following guidelines are furnished to assist the NAC and NDCC in the assignment of peg count, overflow and usage registers (DCDs) for trunking:

- Preferred: Usage, Peg Count, Overflow
- 2nd choice: Usage
- 3rd choice: Peg Count, Overflow
(2) All miscellaneous groups (ie, announcement trunks, tone trunks, centrex data, intercept trunks, etc) to be assigned PC, overflow, and usage registers are listed in Section 218-040-022 with Equipment Measurement Codes (EMCs).
(3) TEO will specify the amount of registers provided for each office. Table A indicates the registers required for various sized TGs.

TABLE A

| TOTAL TRUNK <br> GROUP SIZE | REGISTERS REQUIRED |
| :--- | :--- |
| $1-60$ | ONE PER TG |
| $61-100$ | TWO PER TG, <br> ONE EACH FOR ODD <br> AND EVEN NUMBERED <br> MARKERS |
| (IPC REQUIRED) | ONE REGISTER PER <br> MARRKER FOR EACH <br> TG |
| MORE THAN 100 |  |
| (IPC REQUIRED) |  |

(b) PC registers are scored by the combined or completing marker circuit over the route relay PC or IPC lead when the marker offers a call to the TG. Hence, in addition to the completed calls, the scorings include attempts where all trunks or junctors are busy, all senders associated with the TG are busy, the called line is busy on an intra-office call, or a reverting call is involved. The latter two conditions score the register associated with the intra-office TG. The marker does not score on marker pulse conversion calls or on connections to originating registers.

### 3.14 Overflow Registers - Provision and Op-

 eration: Overflow registers are handled as follows:(a) One overflow register is provided per TG. These registers are provided on operator, final and high usage groups, intermarker, interoffice, and reverting groups.
(b) The overflow register is scored by the combined or completing marker circuit over the route relay OF lead. This occurs when it finds all trunks in the group busy while trying to set up a connection from a line equipment (customer or trunk) to a trunk.
3.15 Preroute Peg Count Feature: Preroute PCs are used for dynamic overload control, traffic to a specific code (or codes), and special studies (as requested).
(a) Where routes have the same trunk information but different charge patterns, a reduction in route relay requirements can be effected by utilizing the preroute PC circuit modification in the WS marker. A maximum of 40 circuits may
be equipped and requirements must be specified in TEO.
(1) These preroute PC circuits in the WS marker are used to control operation of 40 preroute PC traffic registers which can provide a count by code destination as the outgoing calls are routed over specified trunk groups.
(2) UY marker relays may also be equipped for a maximum of 20 of these circuits with the traffic register function only.
(b) The ATAB/CCOG would assign a preroute relay on a cross-connect order, Form P 3169ATAB.
(c) The NAC assigns the pin jack and registers (DCDs) associated with preroute relays in a non-EADAS office, as shown in Exhibit 9.
(d) In an EADAS environment, the NDCC assigns the DCDs, associated punchings, and EMCs.

## 4. ASSIGNMENT PROCEDURES FOR ROUTE RELAYS TO PEG COUNT AND OVERFLOW REGISTERS

4.01 In order to provide accurate and valid trunk study data, it is important that the relationship of the route relay association with the traffic carried on each TG be understood and PC and overflow registers assigned accordingly. The preceding paragraphs described the use, operation, and assignment of route relays and associated equipment. The remainder of this appendix describes the following:

- Trunk Order (TO) flow
- Source of route relay assignment information
- Wiring lists
- Examples of how to assign the proper route relays
- TB and allotting circuits to PC and overflow registers
4.02 Trunk Orders: The NAC or the NDCC should receive a copy of the TO from the ATAB on all TG activity. Some offices have converted to a mechanized trunk order which replaces the
present manual form. (See Form P 3334-ATAB, Exhibit 12A). Exhibit 19 shows a sample of a mechanized trunk order that the NAC or NDCC may receive. The following actions will require a change in a PC and overflow assignment:
- Change, disconnect, or add a route relay.
- Disconnect a TG.
- Establish a TG.
4.03 Source of Route Relay Assignment: The route relay can be obtained from the Trunk Record (Form P 3337-ATAB, Exhibits 1A, 1B or 1C) or from the cross-connect order (Form P 3141-AATAB, Exhibit 2, which includes a description of form entries). A minimum of one route relay is required for each outgoing trunk group, although there may be several route relays associated with one TG. The ATAB will identify on the Trunk Record those route relays that have initial and last access to the TG.
(a) The initial route relays are those operated from original route traffic (first route relay after the code) or alternate route traffic (routeadvancing from some other TG). These route relays will be associated with PC registers (DCDs).
(b) The last route relays are those having the last access to the TG prior to routeadvancing to another trunk group. These route relays will be associated with overflow registers (DCDs).
(c) The majority of TGs will associate all route relays with $P C$ and overflow registers (DCDs).
(d) Initial access will also include any test codes that are used to access TGs.
4.04 Register Assignments for Trunk Groups Having Less than 61 Trunks: The route relays will be obtained from the Trunk Record. Normally one register (DCD) each will be required for PC, overflow, and usage data. Examples of orders in a non-EADAS office are shown in Exhibit 3, 5 and 7 (Form F 829). Examples of orders for an EADAS office are shown in Exhibits 6 and 8. Exhibit 4 includes instructions for using Form LF 4771.


### 4.05 Register Assignments for Trunk Groups <br> With 61 or More Trunks: A maximum of

 10 IPC relays per completing marker can be provided for TGs with 61 or more total trunks. The number of IPC relays provided will be specified on the TEO.(a) The central office wiring list (ie, T27XX5260 ) will list the IPC relays and other assignment information. See Exhibits 17A through 17 C for examples of wiring lists (drawings).
(b) The ATAB/CCOG will assign the IPC relays and issue a cross-connect order (see Exhibit 18). See Exhibits 10, 11, 13 and 14 for examples of cross-connect orders for trunk groups associated with IPC relays.
(c) Whenever trunk groups are established with 61 to 100 trunks or 100 or more trunks, ATAB/CCOG will assign the IPC relays. Peg count and overflow assignments should be assigned by the NAC or NDCC as indicated in 4.06, Notes.
(d) Where more than 10 IPC relays are required, the NAC and Trunk Engineering will determine which TGs will be associated with IPC relays. In an EADAS environment, the NAC should notify the NDCC, via an Intra-Company Memorandum, regarding any IPC assignment changes. The NDCC will issue the cross-connect assignments to Switching Maintenance.
(e) Once the trunk group is established, there will be no notification from the ATAB on TGs adding or disconnecting trunks for groups over 100 trunks. If fewer or additional registers (DCDs) are required the NAC or the NDCC will be responsible for this assignment based on the guidelines in 4.06, Notes.
(f) Whenever a completing marker is installed at a Central Office in accordance with a WE job, Switching Maintenance should verify that the proper amount of IPC relays are provided and that they are wired properly.

### 4.06 Register Assignment for a $T G$ with Two

 (Split) TBs: When there are more than two subgroups (or split TBs), an IPC relay would be required when the total TG is more than 60 trunks. Registers (DCDs) will be required as follows:- One PC register (see Notes)
- One overflow register
- One usage register


## Notes:

1. For 61 to 100 trunks, one register each for odd and even numbered markers.
2. When more than 100 trunks are in a TG, an IPC relay must be assigned with one register per marker.

Example: TB2-33 Trunks TB3 - 29 Trunks

Route Relays for TB2: $166,167,168,121$, and 122
Route Relays for TB3: 191, 178, 187, 190, and 186
Initial and Last Access Traffic Route Relays -
TB3: 132, 133, 134, and 135
(1) When all 33 trunks in TB2 are busy, the route relays will route-advance to a trunk in TB3 (29 trunks).
(2) Peg count registers will be associated with route relays $166,167,168,121,122,132,133$, 134 , and 135.
(3) An overflow register will be associated with route relays $191,178,187,190,186,132,133$,
134 , and 135 . The overflow must be associated with the trunks in TB3 since that is the final route. If the associated route relays in TB2 were assigned to an overflow register, overflow peg count would be received on every call that routeadvanced to TB3.
(4) The Trunk Order (Form P 3334-ATAB) and Trunk Record (Form P 3337-ATAB) may specify the amount of trunks in each $T B$, as shown in Exhibits 12A and 12B. If information is not available, contact the ATAB/ Trunk Assignment Group (TAG) to get the amount of trunks assigned to each TB.
(5) On the Traffic Usage Recorder (TUR) and Traffic Register Order (Form F 829), show the amount of trunks in each TB as shown in Exhibit 11.
(6) In an EADAS environment, the NDCC assigns the DCDs for peg count and overflow data on Form LF 4771. This form is sent to Switching Maintenance for cross-connecting (see Exhibit 15).

### 4.07 Register Assignment for a Trunk Group

 with TB Allotting: When large TGs have split TBs, TB allotting should be used. Trunk groups such as intra-office, inter-marker group, or toll switching groups may require allotting. This information will be obtained from the ATAB/CCOG cross-connect order. Form P 3169-ATAB will provide this information (see Exhibit 18).(a) When TB allotting is assigned, the allotter circuit number and IPC relay number should be the same as shown in Table B. It is recommended to use IPCs 04 through 09 for TGs not using allotter circuits.
(b) Registers for allotted TGs will be assigned using normal procedures as explained in 3.13 and 3.14 (see Exhibits 16 A and 16 B for an example of allotted TG assignment).

TABLE B

| GROUND <br> SUPPLY | ALLOTTER <br> CIRCUIT | IPC NO. |
| :---: | :---: | :---: |
| 1 | 0 | 00 |
| 2 | 1 | 01 |
| 3 | 2 | 02 |
| 4 | 3 | 03 |

4.08 Trunk Order Completion: When a completion notice is received from Switching Maintenance on a Trunk Order or cross-connect order, the NAC or NDCC should enter the completion date on the Order Activity Log (Form F 830) or the Trunk Order Activity Log (Form LF 4708) and on the trunk order itself. At this time, the NAC or NDCC should update the appropriate Total Network Data System (TNDS) data bases to reflect any changes.
4.09 Trunking data should be obtained for a few days to analyze results on that group for the following:
(a) Detector test should agree with number of trunks connected.
(b) Disconnected groups should have zero peg count, overflow, and usage.
(c) New groups should have some peg count and usage as soon as the Trunk Order is completed.
(d) Trunk usage may increase when additional trunks are added, especially an overloaded trunk group.
(e) If TUR data is zero and peg count is greater than zero, the TUR data may be invalid.
(f) If overflow exceeds the PC, one or both sources of data may be invalid.
(g) PC and overflow scorings can be reasonably validated by using assumed holding times when overflow has been reached.
(h) Using PC and assumed holding times, determination can be made whether overflow should occur.
(i) Total calls per hundred seconds (CCS) should be no higher than the number of trunks in the group times 36 CCS.

Note: Any of the above items would indicate a data problem. There may be other conditions that would indicate invalid data, however, the ones listed above are the most common.
4.10 The cross-connect order pages should be interfiled so an up-to-date record is available to the NAC or NDCC. The common control orders will be sent to the NAC in offices without EADAS. In an EADAS office, the NDCC will receive common control orders.
4.11 Trunk Order Check List: The Trunk Order Check List (Table C) may be used by the NAC or NDCC to ensure that all necessary forms are updated when TO s are completed. Forms F 826, F 827, F 829, F 830 and F 831 are to be utilized by the NAC for non-EADAS offices. Forms LF 3486, LF 4708, P 3799, P 4253 and LF 4771 are to be utilized by the NDCC for EADAS offices.

TABLE C
trunk order check list

| FORM NUMBER | DESCRIPTION | DATE COMPLETED | DIAL OFFICE CLERK |
| :---: | :---: | :---: | :---: |
| F 826 | REGISTER LAYOUT |  |  |
| F 827 | TUR SCAN SWITCH |  |  |
| F 829 | TUR \& TRAFFIC REGISTER ORDER |  |  |
| F 830 | ORDER ACTIVITY LOG |  |  |
| F 831 | PIN JACK FIELD |  |  |
| LF 3486 | RELAY RACK TO TUR ASSIGNMENT CHART |  |  |
| LF 4708 | TRUNK ORDER ACTIVITY LOG |  |  |
| P 3799 | EADAS/ICUR CIRCUIT GROUPING UPDATE |  |  |
| P4253 | ETDC INPUT ASSIGNMENT CARD |  |  |
| LF 4771 | EADAS-PEG COUNT, OVERFLOW AND TUR ASSIGNMENTS |  |  |
| - OS RECORD | RECORD OF TRUNKS PER SENDER GROUP |  |  |
| - IR RECORD | RECORD OF TRUNKS PER INC. REG. GROUP. |  |  |
| TUR DET. TEST | TUR DETECTOR TEST |  |  |
| TDAS | SOURCE DOCUMENTS |  |  |

- information may be obtained from atab in some AREAS.
4.12 Bell System Practice (BSP) References:

Section 218-020-040 Section 218-060-150
Section 218-040-020 Section 218-060-190
Section 218-040-022 Section 218-060-200
Section 218-060-140 Section 252-122-105
Section 780-400-355



## OESCRIPTION OF EMTRIES FOR FORM P 3141－AATAE

（i）To＂RC＂：Every installed route reliy in numerical requence．The TEO chowe amount of route relays installed．

8 GRD．SUP：Ground supply next to each route relay．TEO bows around aupply arrange ment
（3）Marker Type：Wire Spring or Plat Spring．
（4）TB：Trunk block relay number to which trunkt are asiened
5 TG：Trunk group relay number to which truake are asaiged．
（6）Trunk Grp No．：Trunk group ID number．
3 Trunk Group Name：Common language trunk group name
－Trk Group Clas：Type of trunk equipment amigned to a TLF（trunk line frame）．
（9）Trt Group Uasge：Type of trunk group（PH，IH，CF，FG，etc）
10 Alt Rte：Route relay number to which this route relay will route advance．
（1）Sender Group and Puking Type：Type of sender and sender group number the trunka are usigned
（1）Digits Out：Quantity of digits to be actually outpulsed．
13 Order No．：Lat completed common control order number amociated with the route relay．
（8）Due Date：Completion date of common control order．


Exhibit 2


Non-EADAS Office - PH Trunk Group

## DESCRIPTION OF ENTRIES FOR FORM LF 4771

(1)

OFFICE NAME: Enter the office name.ISSUED BY; Name of the dial office clerk preparing the amignmenta.TEL NO: Telephone number of the dial office clerk preparing the asignments.DATE ISSUED: Date cros-connect asignmenta are isued to Switching Maintenance.
5 TRUNK GROUP: Enter the trunk group name.
(8) TGID: Enter the trunk group identification number an ahown on the trunk order.
(1) CGSN: Enter the circuit group serial number an shown on the trunk order.
(8)

ORDER NO: Einter the order number of the trunk order.
9 DUE DATE: Enter the date that the cros-connect order is due to complete.
(11) COMPLETED BY: The name of the Switching Maintenance personnel completing the work.
(13) TEL NO: The telephone number of the Switching Maintenance personnel completing the work.
(1) COMP. DATE: Enter the date the work is completed.
(13) PAGE OF : Enter the individual page and total page numbers.
(1.) RETURN TO: Enter the addrese of the Dial Office Clerk preparing the amignments.
(1) ITEM: Enter the item number in eequential order.
(13) ACTION: Enter ON or OFF. Lower portion of each apace should contain the OFF action and ACTION: Enter ON or OFF. Lower port
the upper portion ahould contain the ON.
(1) MEAS. TYPE/PCHG: Enter the type of data meanurement - PC - Peg Count

- OVF $=$ Overflow
$\cdot$ USG $=$ Unage
(18) CARD \#: Enter the ETDC card number that containa the DCD.
(19) POS \#: Enter the position number of the DCD on the ETDC card.

(20) DCD: Enter the asaigned DCD number.
(21) FTC (RR): Enter the route relays as indicated on the Trunk Rocord. Initial access route relaya are used for peg count. Last access route relays are used for overflow.
(2) DIST. FRAME: Enter the TUR distributing frame location assignment.
(2) AISLE, FRAME, CKT: Enter the aisle, frame and circuit TUR asaignment.
2.) TUR: Enter the TUR frame, switch, contact, horizontal and vertical assignment.
(25) REMARKS: Self-explanatory.

Exhibit 4


Non-EADAS Office - IH Trunk Group
Exhibit 5

EADAS－Peg Count，Overilow And TUR Assignments


## $829 \quad 13.891$



EADAS－Peg Count，Overflow And TUR Assignments



EADAS - Peg Count, Overflow And TUR Assignments


EADAS Office - IPC Assignments (More Than 100 Trunks)


Non-EADAS Office - IPC Assignments (More Than 100 Trunks)
Exhibit 11


Assigning Split TBs Exhibit 12A


EADAS－Peg Count，Overflow And TUR Assignments


EADAS Office－IPC Assignment（61 to 100 Trunks）

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SECTION 218-040-022PT APPENDIX 1
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F $829{ }^{13.091}$


EADAS－Peg Count，Overilow And TUR Assignments

| Office：SHOK CAOI 78 H |  |  |  |  |  | Trunk Group：SHOK CAOI $20 T$ |  |  |  |  |  | Due Date：9－7－82 |  |  |  |  |  | Ps | 1 | O |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Issued By：D．O．CLERK |  |  |  |  |  | TGID： 149468165 |  |  |  |  |  | Completed BY ： |  |  |  |  |  | Retu | 14 | 9 | NO |
| Tel．No．：786－0143 |  |  |  |  |  | cgsn：ABO5／470 |  |  |  |  |  | Tel．Na．： |  |  |  |  |  |  | Rr | 2 |  |
| Date lssued：7－7－82 |  |  |  |  |  | Order No．SH3M－6706 5／A |  |  |  |  |  | Comp．Date： |  |  |  |  |  |  | $\checkmark$ | $N$ |  |
| Itern | Act | Meas． <br> Type／ <br> Pchg． | $\begin{aligned} & \text { Card } \\ & \text { No. } \end{aligned}$ | Pos.No. | OCO | $\begin{aligned} & \text { FTC } \\ & \text { (RR) } \end{aligned}$ | Dist．Frame |  |  |  | TUR Assignments |  |  |  |  |  |  | Remarks |  |  |  |
|  |  |  |  |  |  |  | Vert | Blk | Row | Pchg． | Aisle，Frame．Ckt． |  | TUR |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | FR | s | c | H | $v$ |  |  |  |  |
| 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | ON | PC | 2 | 16 |  | 131 | 13 | $\bar{D}$ | 14 | 1 |  |  |  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  | － |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $\sqrt{2}$ | $\pm$ | $\pm$ |  | 136 | 5 | $\downarrow$ | 14 | 2 |  |  |  |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $\downarrow$ | OVF | 1 | 12 |  | 132 | 16 | B | 26 | 1 |  |  |  |  |  |  |  |  |  |  |  |
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Assigning Allotter
Exhibit 16A



Central Office Drawing - Office With TUR-DF
Exhibit 17B


Central Office Drawing - Office With TRDF
Exhibit 17C

ISS B, SECTION 218-040-022PT APPENDIX 1

CROSSBAR SYSTEM NO. 5
CROSS-CONNECTIONS
PREROUTE RELAY AND ALLOTTERS

| office SNJS CA 14 26K |  |  |  |  | 4-29-82 issue 3 |  |  |  |  | MKR Group 100 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C 392907 |  |  |  | Effective Date 4 |  |  |  |  |  |  | Date | 4-13-82 |  |  |
| Pre- <br> Route <br> Relay <br> No. | Cross-Connect |  |  |  |  | PreRoute Relay No. | Cross-Connect |  |  |  |  | Reference |  |  |
|  | $\begin{gathered} \text { RP } \\ \text { Pchg. } \\ \text { To } \end{gathered}$ | PR Pchg. To | PC Pchg. To |  |  |  | $\begin{gathered} \text { RP } \\ \text { Peng } \\ \text { To } \end{gathered}$ |  |  |  |  |  |  |  |
| 00 | 129931 | RC46 | Sc27 | MMUCNCR CAOIOOT |  | 28 |  |  |  |  |  |  |  |  |
| 01 | 337899 | RCH6 | 6. S0 28 | TOL-CNCR CAOIOOT |  | 29 |  |  |  |  |  |  |  |  |
| 02 |  |  |  |  |  | 30 |  |  |  |  |  |  |  |  |
| 03 |  |  |  |  |  | 31 |  |  |  |  |  |  |  |  |
| 04 |  |  |  |  |  | 32 |  |  |  |  |  |  |  |  |
| 05 |  |  |  |  |  | 33 |  |  |  |  |  |  |  |  |
| 06 |  |  |  |  |  | 34 |  |  |  |  |  |  |  |  |
| 07 |  |  |  |  |  | 35 |  |  |  |  |  |  |  |  |
| 08 |  |  |  |  |  | 36 |  |  |  |  |  |  |  |  |
| 09 |  |  |  |  |  | 37 |  |  |  |  |  |  |  |  |
| 10 |  |  |  |  |  | 38 |  |  |  |  |  |  |  |  |
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| 14 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15 |  |  |  |  |  |  |  | Trk. 2 | \& Sdr | All | otting R | Relays |  |  |
| 16 |  |  |  |  |  | AL-0 |  | AL. |  |  |  | AL. 2 |  |  |
| 17 |  |  |  |  | Gen. | Supply |  | Gen. Su | upply |  | Gen. | . Supply | Gen. | upply |
| 18 |  |  |  |  | AL.15 | AL. 2 |  | AL-16 |  | . 27 | AL. 17 | AL-28 | AL-18 | AL. |
| 19 |  |  |  |  | AL-11 | AL. 22 |  | AL-12 |  | 23 | AL-13 | A AL. 24 | AL. 14 | AL. |
| 20 |  |  |  |  | ACL-0 | 265 |  | RCL-1 | RG | -05 | RCL-2 | RGG-06 | RCL-3 |  |
| 21 |  |  |  |  | RL-O | RG-04 |  | RL-1 | RGOS |  | RL-2 | RGO6 | RL-3 |  |
| 22 |  |  |  |  | LACO | $R C \cdot 71$ |  | LA. 1 | RC |  | LA-2 | $8 C 64$ | LA. 3 |  |
| 23 |  |  |  |  | LB-O | RC-70 |  | LB-1 | RC | 53 | LB-2 | PC-25 | LB-3 |  |
| 24 |  |  |  |  | RAL-0 | Reg-19 |  | RAL-1 | RAG | -39 | RAL-2 | 2 RAG-22 | BAL-3 |  |
| 25 |  |  |  |  | SAL-0 | 2SG |  | SAL-1 | 25 |  | SAL-2 | 256 | SAL-3 |  |
| 26 |  |  |  |  | $\left\{\begin{array}{l} \text { Locate } \\ \text { in } T R \end{array}\right.$ | ated on t R Bay. | trk. 9 | grp. allot |  | m. |  |  |  |  |
|  |  |  |  | Individual Peg Co | unt Relay | ays IP \& | IR | Cross-Con | nnec |  |  |  |  |  |
| IPC.No | 1P.T. |  | IR.To | Reference |  | IPCNo |  | IP.To |  | IR-T |  |  | eference |  |
| 00 | SEESC | C24 | RC 71 | IAO FLAT |  | 05 |  | SC-30 |  | RC |  | MLPS CA | CA /I |  |
| 01 | 1 SC | C25 | RC51 | LMG FLAT |  | 06 |  | S SC: 26 |  | RC |  | SNJS C | CA 13 | $2 C$ |
| 02 | 1 SC | 25 | RC 64 | IMG MSG |  | 07 |  |  |  |  |  |  |  |  |
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| 04 |  |  |  |  |  | 09 |  |  |  |  |  |  |  |  |

## SECTION 218-040-022PT

## APPENDIX 1

## MECHANIZED TRUNK ORDER

DATE 10-01-81

INTRA REGIONAL


CW-NOTE: REARR TRK GRP OFF T34, TG05, SDR 0 ONTB 1 , TG10, SDR2 TO PROV SP EOPT
W/W XLDA-982037


