ALLOCATING NEW TRUNK GROUPS/CHANGING SIZE MANUAL TRANSLATION MODIFICATION PROCEDURE NO. 2/2B ELECTRONIC SWITCHING SYSTEM

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1. GENERAL

1.01 This section provides the procedures necessary to change the size of an existing trunk group or add a new trunk group. The manual translation modification (MTM) procedures in this section can be used with the No. 2/2B Electronic Switching System (ESS) having any generic.

1.02 This section is being reissued to incorporate translation changes realized in Issue 3 of the EF-2/2B-EF-2 generic programs and the introduction of the 2BE3 generic program for the No. 2B ESS. Change arrows are used in the text to denote changes in this section.

1.03 The procedures in this section are designed to provide all of the information necessary to add or change the size of a trunk group. This includes defining new tables and pointers for new trunk groups and expanding tables and defining pointers for changed groups. Once the tables and pointers are

defined by using this section, defining additional trunk and service circuits and associated trunk/service circuit features is performed by following MTM procedures outlined in Sections 232-127-314 and 232-327-314. After having defined a new trunk group or changed the size of existing trunk group, the information is implemented and made effective using Change In Program Store (CHIPS) procedures.

1.04 The ability to add and subtract in octal is essential to the successful utilization of the procedure in this section. The size and address of each block of program store will be read out of the No. 2 ESS program store or 2B main store in response to a TTY input message. The standard CHIPS procedure required to change the No. 2 ESS program store cards or 2B ESS main store requires an octal input. All address calculation and indexing is done by octal addition and subtraction. The user must also be able to calculate parity by adding the binary bits that are the contents of the new translator words to be written. See Section 232-127-101 for methods of performing binary and octal calculations. In addition, Section 232-127-101 shows how parity is calculated and also contains binary-to-octal and octal-to-decimal conversion tables.

1.05 Parity will not be computed in this section for words where the parity bit is the most significant bit. In these cases, parity will be calculated when the procedures in Sections 232-127-303 for No. 2 ESS and 232-327-303 for No. 2B ESS, Manual Translation Procedure—Formatting Changes in Program Store, are performed. ⧫ In the 2BE3 and later No. 2B ESS generic programs, parity need not be calculated. ⧫

A. Purpose and Objective

1.06 The procedure developed herein provides for manually changing the office translations necessary to allocate new, or change the size of existing trunk or service circuit groups.

B. Use of Procedure

1.07 ***The use of a manual translation change procedure is not intended to be a part of the day-to-day routine or course of action. A manual translation change procedure should only be used when there is no practical alternative and normal scheduling of office data administration (ODA) update procedures is not feasible.***

1.08 The ODA update procedure can be performed with a greater accuracy due to the inherent error check in the ODA routine. The manual translation modification procedure contains a much greater probability of error due to hand manipulation and recording of the address numbers and memory contents. ***When performing any manual translation change procedure, the process must be performed error free. The parity of the bits on any word that is changed must be even. In the No. 2 ESS, if the parity is not even when the word is addressed by the ESS program, a system initialization will occur.***

C. Memory Requirements

1.09 The ODA program has to assemble spare program store (translations) and call store in new tables located in the master table index (MTI). This will provide a permanent patch area record in the office translation memory. These new tables are then used by the manual translation modification procedure to define a new trunk group.

1.10 The memory requirements for a new or modified trunk group are listed in the following paragraphs.

(a) Program store requirements are as follows:

- 64 words are required for the service circuit group data block (provides for 16 groups).
- 128 words are required for the trunk group data block (provides for 16 trunk groups).
- Maximum of 513 words for LO-1; 257 words for EF-1; and 260 words for EF-2 and later are required for the trunk circuit list.
- In EF-1 and later generics, a carrier group scan point number (SPN) list having a maximum of 256 words may be required. Actual size of this list is equal to the engineered trunk group size minus one.
- In EF-2 and later generics, a trunk make busy (TMB) key SPN list having a maximum of 256 words may be required. Actual size of this list is equal to the engineered trunk group size minus one.

(b) Call store requirements are outlined in the following paragraphs.

(1) In LO-1 generic program, all defined ***outgoing*** trunk groups and service circuit groups (except group 64) require a call store status block having a maximum of 36 words. The actual size of this block equals 4+((N+15)/16) where N is the engineered group size and the remainder in the division is dropped.

(2) In EF-1 and later, all defined trunk and service circuit groups (except groups 64 and 65 and incoming trunk groups for EF-1) require a call store status block. The actual size of this block is determined as follows:

- Incoming and outgoing trunk groups, 6-port and service circuit groups; block size equals 4+((N+15)/16) where N is the engineered group size and the remainder in the division is dropped. ▶With Issue 3 of the EF-2/2B-EF-2 and later generics, outgoing trunk groups for Traffic Service Position System (TSPS) the block size equals 4+2*((N+15)/16). The non-TSPS trunk group block size is calculated as described for incoming trunk groups.◀

- Two-way trunk groups have a block size equal to 5+((N+15)/16) where N is the engineered group size and the remainder in the division is dropped.

1.11 Refer to Fig. 8 for the layout of the trunk group translations. This figure illustrates all of the tables involved in the manual modification procedures.

D. Forms Required

1.12 In preparation to add or change the size of a trunk or service circuit group in an ESS office, the first step is to list the requirements which will influence the size of translation blocks needed for that group. The required reproducible ESS input forms, found in the Translation Guide TG-2H, are ESS 2201 and ESS 2202. These forms should be completely filled out as if an ODA update was planned. In addition ESS 2202-R form (Trunk Group Record) should be examined for current trunk status.

1.13 Special translator change forms have been developed for use as a part of the manual translation modification procedures. At the completion of filling out all of the change forms, the forms should contain the current (old) memory address location and contents and the desired (new) memory contents to provide a new translation configuration. Once the modification procedures are completed, the procedures in Section 232-127-303 must be performed to implement the changes.

1.14 To allocate or change the size of a trunk group in an ESS office requires at least one copy of the following change forms:

- Translation Store Memory Forms TSM-1 and TSM-2 (program store) found in Section 232-127-302

- Call Store Memory Forms CSM-1 and CSM-2 found in Section 232-127-301

- Trunk Group Translation Forms TGRP-1, TGRP-2, and GPMTBL found in this section as Fig. 5, 6, and 7.

Note: Typical examples of these forms (except the TSM and CSM forms) are provided in this section (Fig. 1 through 4) to serve as a guideline to filling out the trunk group forms when manual translation modification procedures are used.

1.15 Any addition or change of a single trunk group initiated by the manual translation modification procedures should be completed before work is started on another trunk group.

2. PROCEDURE FOR ADDING A NEW TRUNK OR SERVICE CIRCUIT GROUP

2.01 Obtain unmarked copies of TG-2H ESS input forms listed in paragraph 1.12 and at least one copy of the forms listed in paragraph 1.14.

2.02 The maintenance TTY in conjunction with the following step procedures is required to obtain the office data needed to complete these forms.

2.03 Select the trunk or service circuit group number to be added. In the No. 2 ESS a decimal 3-digit number, ranging from 001 through 255 for LO-1 generic program and 001 through 511 for EF-1 and later generic programs, is used to designate the trunk or service circuit group number. Group number 000 is not valid in any generic.

2.04 Record the trunk group number on ESS 2202-3 form (2202-1 for service circuit groups). Also,

enter the highest member number to be associated with this group and other pertinent data as required per the TG-2H instructions.

2.05 Locate TGRP-1 form and record the GROUP NO. at top of form. Find the TRUNK/SVC CIRCUIT GROUP RANGE column entry of the group being added. Associate a GRPTBL word number in the GRPTBL WORD IN MTI column. Underline the entire row that includes the trunk group being added for future reference.

2.06 Locate Table A and find the appropriate octal address for the applicable generic and the appropriate GRPTBL word found in paragraph 2.05. Enter this address on TGRP-1 form in the OCTAL ADDRESS POINTER column and do a program store read of this address as follows:

(1) For No. 2 ESS offices, at maintenance TTY type in:

UB PS:RP:aaaaaa 0 1!

aaaaaa = the octal address to be read

1 = the number of words to be read

0 = ignore second address field.

(2) For No. 2B ESS offices, at maintenance TTY type in:

DMP:PS aa!

aa = octal address of the word to be dumped.

2.07 Enter the contents of the address read in Step 2.06 on TGRP-1 form as the GROUP DATA INITIAL CONTENTS.

2.08 Read each of the following case descriptions concerning the contents in the GRPTBL pointer in the Master Table Index (MTI). Follow the procedures outlined for each case pertaining to the addition of a trunk or service circuit group.

- ***Case A*** - The initial contents of the GRPTBL pointer in the MTI contain all zeros. In this case, a new 64- or 128-word Group Data Table must be allocated from spare program store.

- ***Case B*** - The initial contents of the GRPTBL pointer in the MTI contain an ***octal address*** which points to either a 64- or 128-word Group Data Block and this block contains 4- or 8-word entries that are ***all zero.***

A. Case A—GRPTBL Pointer All Zero

2.09 If the initial contents were ***all zero,*** then that GRPTBL word pointer in the MTI is not defined, in which case the following steps must be performed to ***allocate*** a new 64-word or 128-word group data table.

(a) For LO-1 and EF-1 generics, follow the procedures outlined in Section 232-127-302, to allocate either a 64-word (100 octal) or a 128-word (200 octal) block of program store. Enter the new address contents found above on TGRP-1 form in CHANGE TO column.

(b) For EF-2 and later generics, use the following input messages:

(1) At maintenance TTY type in:

A RC:PST:sss zz!

sss = decimal word size of program store data block wanted.

For service circuit groups: sss = 064 and for trunk circuit groups: sss = 128.

aa = number of low zeros wanted = 00.

Output message format of above:

tt AR RC PST ssss zz
ADR aaaaaaa bbbbbbb

ADR aaaaaaa bbbbbbb = The first and last address of the spare program store block.

(2) Enter the first octal address obtained in (1) above on TGRP-1 form in CHANGE TO column.

2.10 Obtain an unmarked TGRP-2 form and perform the procedures that follow:

(a) Enter the decimal group number of the group being added at top of TGRP-2 form.

(b) From TGRP-1 form, obtain the address of the group data pointer from the CHANGE TO col-

umn and enter this address as the START octal address on the TGRP-2 form.

(c) From Table B, locate the group number being added and obtain a GROUP DATA BLOCK OCTAL INDEX.

(d) Add octal index from Step (c) to the START octal address on TGRP-2 form. (This address corresponds to word 0 of the 4- or 8-word expansion in the group data block for the group being added.)

(e) Calculate the addresses for the remaining three words (service circuit group) or seven words for trunk circuit groups by adding the octal increment to A on TGRP-2 form.

(f) Enter all zeros for the GROUP DATA BLOCK INITIAL CONTENTS column and then follow the procedures below for allocating the call store status block and the group circuit list block.

Note: Initial contents can be verified for all-zero condition by performing a program store read for each of the addresses calculated.

Allocate Call Store (CS) Group Status Block

2.11 The steps listed below are used to allocate the proper number of words in the CS status block for each trunk or service circuit group. The size of each status block is determined from Table C and is based on the range of members assigned to the group. Groups 64 and 65 (only group 64 in LO-1) do not require the CS status block. Also, in LO-1 and EF-1 generics, incoming trunk groups do not require the CS status block.

(a) For LO-1 and EF-1 generics, follow the procedures outlined in Section 232-127-301 to allocate a block of call store from spare. Determine the size of block needed from Table C. Record the starting octal address of the new block on TGRP-2 form in the CHANGE TO column labeled CS Address of Status Block.

(b) For EF-2 and later generics use the following procedures:

(1) At maintenance TTY type in:

A RC:CST:ssss zz!

ssss = block size of call store wanted (from Table C). For 2-way trunks ssss = block size +1 and zz = 00.

Equipment Response:

AR RC CST ssss 00
ADR aaaaaaa bbbbbbb

ssss = requested block size of call store

aaaaaaa = first address of spare call store

bbbbbbb = last address of spare call store.

(2) For two-way trunk groups, add octal 1 to the starting address obtained in item (1) above and record contents on TGRP-2 form in CHANGE TO column on line labeled as CS Address of Status Block.

(3) For all other group types, record the starting address, obtained in item (1) above, on the TGRP-2 form in the CHANGE TO column on line labeled CS Address of Status Block.

Allocate Program Store Block for Group Circuit List

2.12 The steps listed below are used to allocate the proper number of words in the program store for the Group Circuit List Table. The size of this table is determined by the number of members desired in the group being added plus one. In EF-1, the size equals the number of members plus two. In EF-2 and later, the size equals the number of members plus four. In LO-1 and EF-1, the size of the service circuit table equals the number of members divided by two.

(a) For LO-1 and EF-1 generics, follow the procedures outlined in Section 232-127-302 to allocate a block of program store from spare and obtain a starting address of the new block.

(1) For the LO-1 generic, obtain a blank copy of the GPMTBL form and the same copy of the TGRP-2 form used in Step 2.10.

- On the GPMTBL form, circle NEW at top of the form.
- On GPMTBL form, record the TABLE TITLE as the Circuit List Table.

(2) On the GPMTBL form, record the starting octal address of the new Group Circuit List Table obtained in 2.12(a) as the START address.

Also, record this address on TGRP-2 form in the CHANGE TO column in the slot marked PS ADDRESS OF CIRCUIT LIST.

(3) On the GPMTBL form, increment the START address by adding an octal value indicated in the START column and record the resulting address.

(4) Calculate the remaining required addresses in the Group Circuit List Table by adding the octal value in the START column on GPMTBL form for each entry.

(5) The GPMTBL form is designed so that multiple sheets can be used to address as many members as may be needed for a given group. For instance, in LO-1, up to 512 members may be addressed by using 16 sheets of this form. Each sheet will support up to 32 addresses.

(6) The contents of the last defined address must be all ***ones*** to end the list.

(7) In the INITIAL CONTENTS and the CHANGE TO column, enter all zeros (right justified).

(8) For the last defined address, enter in the CHANGE TO column (17777777).

(9) For the EF-1 generic, obtain a blank copy of the GPMTBL form and the same TGRP-2 form used in Step 2.10.

(10) On GPMTBL form, record the TABLE TITLE as Circuit List Table.

(11) Add one to the starting address obtained in 2.11(a).

(12) On GPMTBL form, enter the result from item (11) as the START address. On TGRP-2 form, enter this address in the CHANGE TO column in the slot marked PS ADDRESS OF CIRCUIT LIST.

(13) Repeat Steps (3) through (8) above until all address and contents are obtained for the Circuit List Table.

(b) For EF-2 and later generics, use the following input message for allocating a block of program store for the circuit list table.

(1) At maintenance TTY type in:

A RC:PST:sss zz!

sss = decimal word size of program store data block wanted.

sss = 4 + number of members being engineered for the new group.

zz = number of low zeros wanted = 00.

Output message format of above:

tt AR RC PST sss zz
ADR aaaaaaa bbbbbbb

aaaaaaa = the first (starting) address of the new block

bbbbbbb = the last address of the new block.

(2) Obtain a blank copy of the GPMTBL form and the same TGRP-2 form used in Step 2.10.

(3) On GPMTBL form, record the TABLE TITLE as Circuit List Table.

(4) Record the first address from Step 2.12(b) item (1) as the START octal address.

(5) Increment the START address by adding the octal value (start with 0), in the START column, up to and including START +3 octal. Record each address in the OCTAL ADDRESS column.

(6) Continue recording the addresses until the last address (bbbbbbb) of the block from Step 2.12(b) is recorded.

(7) Record all zeros in the INITIAL CONTENTS column for all addresses recorded above.

Note: Initial contents can be verified for all-zero condition by performing a program store read for each of the addresses calculated.

(8) In the CHANGE TO column, record (17777777) for the last recorded address [item (6) above]. This indicates the all ones word that ends the circuit list table.

(9) On TGRP-2 form [item (2) above], record the START +3 octal address found in item (5) above as the PS Address of the Circuit List.

Allocate Carrier Group and/or Trunk Make Busy (TMB) Scan Point Number (SPN) Tables (EF-1 and Later)

2.13 The steps listed below are used only when the carrier group and/or TMB key SPN list is associated with the trunk group being added. Service circuit groups are ***not*** associated with these lists. In EF-1, the TMB SPN list does not exist.

(a) Allocate Carrier Group SPN List

(1) For the EF-1 generic, allocate a block of program store from spare by following the procedures outlined in Section 232-127-302. The size of the block equals the engineered number of members minus one.

(2) Obtain the GPMTBL form used in Step 2.12 (a)(9).

(3) Record the starting address of the new block from item (1) above in the CHANGE TO column at the START +1 octal address line. In the Remarks column, label this line as the "Carrier SPN List" pointer.

(4) For the EF-2 generic, allocate a block of program store from spare for the carrier SPN List by following procedures outlined in Step 2.12(b). The size of the new block equals the engineered number of trunk group members.

(5) Obtain the GPMTBL form used in Step 2.12(b)(2).

(6) Record the first address of the block allocated, in item 4 above, in the CHANGE TO column at the START +1 octal address line. In the Remarks column label this line as the "Carrier SPN List" pointer.

(b) Allocate Trunk Make Busy SPN List (EF-2 and later only)

(1) Allocate a block of program store from spare for the TMB SPN List by following procedures outlined in Step 2.12(b). The size of the new block equals the engineered number of trunk group members.

(2) Obtain the GPMTBL form used in Step 2.12(b)(2).

(3) Record the first address of the block allocated, in item (4) above, in the CHANGE TO column at the START +0 octal address line. In the Remarks column, label this line as the "TMB SPN List" pointer.

Change in Program Store (CHIPS) Procedures

2.14 After completion of filling out all of the forms required to add a new trunk or service circuit group and associated memory blocks for Case A, it is recommended that the procedures provided in Section 232-127-314 or 232-327-314 be performed next and then CHIPS procedures provided in Sections 232-127-303 and 232-327-303 be performed last. Sections 232-127-303 and 232-327-303 provide the means of implementing the necessary changes in program store via the CHIPS procedures.

B. Case B—GRPTBL Pointer Nonzero

2.15 The initial contents of the GRPTBL pointer in the MTI contain an octal address which points to either a 64- or 128-word Group Data Block and this block contains 4- or 8-word entries that are ***all zero.*** When this is the case, a trunk or service circuit group can be added to an existing group data translator block by following the procedures outlined below.

(a) On the TGRP-1 form, used in Case A, Step 2.07, record the contents of the GRPTBL address pointer as the group data initial contents.

(b) In the CHANGE TO column of TGRP-1 form, record NA (not applicable) since the initial contents are not being changed.

(c) Obtain a blank copy of the TGRP-2 form and record the group number being added at top of this form.

(d) Record the address of the group data initial contents, from TGRP-1 form, as the START address on TGRP-2 form.

(e) From Table B, obtain the appropriate group data block octal index for the group being added.

(f) Add the octal index, on TGRP-2 form, to the START address.

(g) On TGRP-2 form increment the octal address [from Step (f)] by adding the octal values, indicated in the START column, until all addresses have been defined for that group (0 to 3 for service circuits or 0 to 7 for trunk circuits).

2.16 The remaining procedures for Case B are the ***same*** as those detailed for Case A except the forms used are those of Case B. Execute all of the Case A steps starting with Step 2.10(f) through Step 2.14.

3. PROCEDURE FOR EXPANDING THE SIZE OF EXISTING TRUNK OR SERVICE CIRCUIT GROUP

3.01 The following procedures are used to expand the trunk or service circuit groups highest member number. The highest number of members each group may have is 512 in LO-1 and 256 in EF-1 and later generics.

3.02 The procedure to expand a group is as follows:

(a) Complete all appropriate TG-2H forms defining the group to be expanded as if an ODA run was to be made.

(b) Obtain a blank copy of the TGRP-1 form. At top of the form, record the group number and group size, old and new (present and future).

(c) From TGRP-1 form, determine the GRPTBL WORD IN MTI pointer associated with the group being expanded. Associate the GRPTBL WORD with the MTI octal address in Table A for the appropriate generic program. Record this octal address on TGRP-1 form as the OCTAL ADDRESS pointer for the group being expanded.

(d) Perform a 1-word program store read at the address in (c) above. Record the octal contents as the INITIAL CONTENTS on TGRP-1 form. Record NA (not applicable) in the CHANGE TO column of the same form.

(1) For No. 2 ESS offices type in:

UB PS:RP:aaaaaa 0 1!

aaaaaa=octal address to be read

0 1 = the number of addresses to be read.

(2) For No. 2B ESS offices type in:

DMP:PS aa, LENGTH 0 1!

aa = octal address to be read

0 1 = the number of addresses to be read.

(e) From Table B, determine the octal index of Group Data Block associated with the group being added.

(f) Obtain a blank copy of the TGRP-2 form and record the group number at top of the form.

(g) On TGRP-2 form, record the initial contents of address read in Step (d) as the START octal address. Add the octal index from Step (e) to the START address and record this value. Add octal 0 to the result and record. This is word 0 of the 4- or 8-word expansion in the Group Data Block expansion. Calculate the remaining addresses (0 to 3 for service circuits or 0 to 7 for trunk circuits) by adding the octal increment to the left of OCTAL ADDRESS.

(h) Perform a program store read of the A+1 and A+2 addresses calculated on TGRP-2 form to determine the initial contents. Record the octal contents as the INITIAL CONTENTS on this form.

(1) For No. 2 ESS offices, type in:

UB PS:RP:aaaaaa 0 2!

aaaaaa = the starting address to be read

2 = the number of addresses to be read.

(2) For No. 2B ESS offices, type in:

DMP:PS aa,LENGTH 0 2!

aa = the starting address to be read

0 2 = the number of addresses to be read.

Determining the Size of Call Store Status Blocks

(i) The following steps are used to determine the size of call store status block. The call store status block is not required for all trunk groups. Refer to TG-2H for limitations.

(1) Determine the size of the present call store status block from Table C. Also determine

the size of the call store status block required for the group being expanded by using Table C. Compare the present size with expanded-to size. If these are equal, proceed to Step 3.02 (j). If the expanded-to size is greater, proceed to Step (2) below to allocate a new call store status block.

(2) For LO-1 and EF-1 generics, allocate the new call store block, whose size equals the expanded-to size found in Step (1) above, using the procedures found in Section 232-127-301.

(3) For EF-2 and later generics, use the following message to allocate the new call store block:

A RC:CST:ssss 00!

sss = the length of the new call store status block. The size of the block ***equals the size*** found in (1) above. For ***2-way trunks***, add one to the size found in (1) above.

(4) Record the starting address of the allocated call store block found in Step (2) above on the TGRP-2 form in the CHANGE TO column of the Status Block. For ***2-way trunks,*** add 1 to the starting address and record this in the CHANGE TO column as the CS Address of the Status Block.

(5) Return the old call store status block to spare store status by using the TTY message that follows. At maintenance TTY type in:

A RC:CST:ssss/
ADR 0 aaaaaa/
END!

ssss = length of the ***old*** call store status block

ADR 0 aaaaaa = beginning address of the ***old*** call store status block.

Determining the Size of the Group Circuit List Table

(j) The following steps are required to determine the size of the group circuit list table. The basic size of this table varies with the applicable generic program. For example: in LO-1, the maximum size equals 513 words for trunks and 257 words for service circuits; in EF-1 the maximum size equals 257 words for trunks and 129 words for service circuits; in EF-2 and later the maximum size equals 260 words for both trunks and service circuits.

(1) Determine the size of the present group circuit list for the groups being expanded from the ESS 2202-R form (from GRP SIZE column) or from the Functional Listing of translations for your office and generic program.

(2) On the 2202-R form, pencil in the ***new*** size of the group in the GRP SIZE column.

(3) If the present size and the new size are equal, no additional procedures are required; otherwise, proceed to Step (4) below for LO-1 and EF-1 or Step (20) below for EF-2 and later generics.

(4) For LO-1 and EF-1 generics, allocate a block of program store from spare using procedures outlined in Section 232-127-302. The block size for trunk groups equals the ***new*** group size plus 1. In EF-1, block size equals group size plus 2. The block size for service circuits equals one-half the group size plus 1.

(5) In LO-1, record the starting address of the new block on TGRP-2 form [used in Step 3.02(f)] in the CHANGE TO column on the A+2 octal line. This is the PS Address of the Circuit List. In EF-1, add 1 to the starting address and record the result as the PS Address.

(6) Obtain an unmarked copy of the GPMTBL form. Circle OLD and label TABLE TITLE as GROUP CIRCUIT LIST at top of the form.

(7) From the TGRP-2 form, obtain the contents of the INITIAL CONTENTS column, line A+2 octal. For ***LO-1,*** record the contents as the START octal address on the GPMTBL form. For ***EF-1,*** subtract 1 from the contents and record the result on GPMTBL form as the START octal address.

(8) Add octal 0 to the START address. Calculate the remaining addresses of the ***old*** Group Circuit List block down to the length of the group size as determined in Step (i)(1) by incrementing the START +0 octal address by the octal values found in the START column.

Add 1 to the last calculated address and record the result. This will be the end of the block. It may be necessary to continue the GPMTBL form onto additional sheets. When this becomes necessary, the first sheet should be numbered at top as FORM 1 OF N where N is the last sheet in the series.

(9) Perform a program store read of the addresses calculated in (8) above to determine the INITIAL CONTENTS using the following messages. Record the octal contents in the INITIAL CONTENTS column of the GPMTBL form.

- For No. 2 ESS offices, type in:

UB PS:RP:aaaaaa bbbbbb c!

aaaaaa = first address to be read (0-777777)

b = second address to be read (1-777777)

c = number of words to be read (1-2).

- For No. 2B ESS offices, type in:

DMP:PS aa,LENGTH nn!

aa = the starting address to be read

LENGTH nn = the decimal number of words to be read.

(10) In the CHANGE TO column, record ***all*** zeros for each address calculated. The INITIAL CONTENTS of the last address read should be (17777777). This indicates end of the block.

(11) Record as the CHIPS ADDRESS RANGE, at top of GPMTBL form, the first octal address and the last octal address. These will be used when the CHIPS procedures are performed.

(12) Obtain an unmarked copy of the GPMTBL form and at top circle NEW and label TABLE TITLE as Group Circuit List Block.

(13) From TGRP-2 form [Step 3.02(i)(3) above], record the contents of the CHANGE TO column at PS Address of Circuit List as the START address on the new GPMTBL form. For EF-1, subtract 1 from the contents and record this as the START octal address.

(14) Add octal 0 to the START address. Calculate the remaining addresses of the ***new*** Group Circuit List block down to the length determined in Step 3.02(i)(1) by incrementing the START +0 octal address by the octal values found in the START column.

(15) In the INITIAL CONTENTS column record ***all zeros***, since this is a new block, for all addresses calculated.

(16) In the CHANGE TO column, record the contents of the INITIAL CONTENTS column of the GPMTBL form used in Step (6) above (old block) starting with START +0 octal address line down to the last address of that form.

(17) The contents of the last address of the ***old*** block must be changed from (17777777) to ***all zeros.***

(18) The contents of the last address of the ***new*** block must be (17777777) and all zero in the CHANGE TO column.

(19) At top of the new GPMTBL form, record the first and last CHIPS ADDRESS. This transfers the contents of the old group circuit list block into the new group circuit list block when the CHIPS procedures are completed. The old block must be zeroed and returned to spare in accordance with Sections 232-127-301 (Call Store) and 232-127-302 (Program Store).

(20) For EF-2 and later generics, use the following message to determine the location of the group data block (word 0) and the location of the corresponding Group Circuit List member entry for the group being expanded. At maintenance TTY type in:

A HP:G/
GRP ggg/
MBR mmm/
END!

Equipment Response:

AR HP G
GRP ggg aaaaaaa

MBR mmm ddddddd
END

GRP = Trunk or service circuit group data block word 0 of the group being expanded.

MBR = Group circuit list (word 0 for member 0) location. This word contains the primary scan point number of the group member selected.

mmm = Group member number.

aaaaaaa = Program store address (blank if GRP is undefined or MBR exceeds circuit list).

ddddddd = Contents of corresponding program store word (blank if undefined).

(21) Obtain an unmarked copy of the TGRP-2 form and record the group number of the group being expanded at top of the form.

(22) Record the value of the address (aaaaaaa) Step (20) as the A+2 octal address. Record the value of the contents (ddddddd) as the INITIAL CONTENTS. This is word 0 of PS Address for the group circuit list.

(23) Obtain an unmarked copy of the GPMTBL form. At top of the form, circle OLD and record the TABLE TITLE as GROUP CIRCUIT LIST.

(24) Calculate the START address by ***subtracting*** octal 3 from the program store address (aaaaaaa) found in Step (20). Record the result on GPMTBL form as the START octal address.

(25) Add octal 0 to the START address. Calculate the remaining addresses for the old group size and record in the octal address column. Add 1 to the last address calculated and record the result. This will be the end of the table.

(26) Perform a program store read of the address calculated in Step (25) to determine the initial contents using the following messages. Record the octal contents in the INITIAL CONTENTS column of the GPMTBL form.

- For No. 2 ESS offices, type in:

UB PS:RP:aaaaaaa bbbbbbb c!

aaaaaaa = first address to be read

bbbbbbb = second address to be read

c = number of words to be read (1 or 2).

- For No. 2B ESS offices, type in:

DMP:PS aa,LENGTH nn!

aa = the starting address to be read

LENGTH nn = the decimal number of words to be read.

(27) In the CHANGE TO column, record all zeros for each address calculated. The INITIAL CONTENTS of the last word read should be all ones (17777777) to indicate end of block.

(28) Record as the CHIPS ADDRESS RANGE, at top of the GPMTBL form, the first and last address. These will be used when the CHIPS procedures are performed.

(29) Obtain an unmarked copy of the GPMTBL form and at top circle NEW and label TABLE TITLE as GROUP CIRCUIT LIST BLOCK.

(30) Allocate a new block of program store from spare by using the following message:

A RC:PST:ssss zz!

ssss = block size of program store wanted. The size equals the new group size plus four.

zz = 00.

Equipment Response:

AR RC PST ssss zz
ADR aaaaaaa bbbbbbb

ADR aaaaaaa bbbbbbb = the first and last address of the

spare program store block.

(31) Record the address (aaaaaaa) from Step (30) as the START and START +0 octal addresses on the GPMTBL form.

(32) Calculate the remaining octal addresses of the new group size by adding the octal values beginning with START +0 octal down to the last address. The calculated last address and the last address (bbbbbbb) from Step (30) should match.

(33) Record all zeros in the INITIAL CONTENTS column.

(34) From the ***old*** GPMTBL form [Step (23)], record the contents of the INITIAL CONTENTS column as the contents of the CHANGE TO column on the ***new*** GPMTBL form. The INITIAL CONTENTS of the last word of the OLD GPMTBL form must be all zero in the CHANGE TO column of the NEW GPMTBL form.

(35) The CHANGE TO contents of the last word of the ***new*** GPMTBL form must be all ones (17777777).

(36) At top of the new GPMTBL form, record the first and last CHIPS ADDRESS. When CHIPS procedures are performed, the contents of the old circuit list block is transferred into the new expanded circuit list block. The old block must be returned to spare. Refer to Section 232-127-302 for proper procedures.

Determine and Expand the Size of the Carrier Group SPN List

(k) The following steps are required to determine and expand the size of the Carrier Group SPN List table for the EF-1 and EF-2 and later generics. This table is only required when a trunk group must be associated with a carrier group as specified on the ESS input forms. The size of the carrier group list is equal to the number of trunk group members.

(1) Obtain an unmarked copy of the GPMTBL form. Circle OLD and label TABLE TITLE as CARRIER GROUP SPN LIST at top of the form.

(2) For EF-1 generic, locate the ***old*** GPMTBL form used in Step 3.02(j)(6). Transfer the octal contents of the INITIAL CONTENTS OF THE START +0 octal line onto the GPMTBL form [Step (1) above] as the START octal address and the START +0 octal address.

(3) Calculate and record the remaining octal addresses, down to and including the last member of the old group size, by incrementing the START +0 address by the octal values in the START column.

(4) Perform a program store read of the addresses calculated in Step (3) above to determine the contents using the following messages. Record the octal contents in the INITIAL CONTENTS column of the GPMTBL form.

- For No. 2 ESS offices, type in:

UB PS:RP:aaaaaa bbbbbb c!

aaaaaa bbbbbb = first and second address to be read

c = number of words to be read (1 or 2).

- For No. 2B ESS offices, type in:

DMP:PS aa,LENGTH nn!

aa = the starting address to be read

LENGTH nn = the decimal number of words to be read.

(5) In the CHANGE TO column of GPMTBL form, record all zeros for the addresses calculated.

(6) Allocate a new block of program store from spare, for the Carrier Group SPN List, by using the following message:

A RC:PST:ssss zz!

ssss = block size of program store wanted. The size equals the new Group Size.

zz = 00.

Equipment Response:

AR RC PST ssss zz
ADR aaaaaaa bbbbbbb

ADR aaaaaaa bbbbbbb = the first and last address of the spare program store block.

(7) Obtain an unmarked copy of the GPMTBL form. Circle NEW and label the TABLE TITLE as the CARRIER GROUP SPN LIST.

(8) Record the octal address (aaaaaa) from Step (6) above as the START and START + 0 octal address.

(9) Calculate the remaining octal addresses of the new group size by adding the octal values beginning with START +0 octal down to the last address. The calculated last address and the last address (bbbbbbb) from Step (6) should match.

(10) Record all zeros in the INITIAL CONTENTS column.

(11) From the ***old*** GPMTBL form [Step 3.02(k)(1)], record the contents of the INITIAL CONTENTS column as the contents of the CHANGE TO column on the ***new*** GPMTBL form.

(12) At the top of the new GPMTBL form, record the first and last CHIPS ADDRESS. When CHIPS procedures are performed, the contents of the old Carrier Group SPN List block is transferred into the new expanded Carrier Group SPN List block. The old block must be returned to spare. Refer to Section 232-127-302 for proper procedures.

(13) For EF-2 and later generics, locate the ***old*** GPMTBL form used in Step 3.02(j)(23). Transfer the octal contents of the INITIAL CONTENTS of the START +1 octal line as the START and START +0 octal address on the GPMTBL form (Step 1 above).

(14) Repeat Steps 3.02(k)(3) through (12) above.

Determine Size and Expand Trunk Make Busy (TMB) SPN List

(l) The following steps are required to determine and expand the size of the TMB SPN List table for the EF-2 and later generics. This table is only required when the TMB option is specified on the ESS input form for the trunk group being expanded. The size of the TMB SPN List table equals the number of trunk group members.

(1) Obtain an unmarked copy of the GPMTBL form. Circle OLD and label the TABLE TITLE as TMB SPN LIST at top of the form.

(2) Locate the ***old*** GPMTBL form used in Step 3.02(j)(23). Transfer the octal contents of the INITIAL CONTENTS of the START +0 octal line as the START and START +0 octal address on the GPMTBL form [Step (1) above]

(3) The remaining procedures are the same as procedures outlined in Steps 3.02(k)(3) through 3.02(k)(12) except the titles on the GPMTBL forms are changed to TMB SPN LIST.

Change in Program Store (CHIPS) Procedure

3.03 Once all of the necessary forms and worksheets have been completed as outlined for each case in this section and procedures outlined in Section 232-127-314 or 232-327-314, the translations are changed per the instructions given in Section 232-127-303 or 232-327-303. Extreme care must be exercised during the implementation of the CHIPS procedures. All differences that may arise from the procedures outlined in this Section must be resolved before CHIPS procedures are performed.

TABLE A

NO. 2/2B ESS OCTAL ADDRESSES OF MTI GRPTBL TRUNK GROUP POINTERS

GRPTBL WORD	TRUNK/SVC CIRCUIT GROUP RANGE*	LO-1 GENERIC OCTAL ADDRESS	EF-1 GENERIC OCTAL ADDRESS	EF-2 GENERIC OCTAL ADDRESS	2B-EF-1 GENERIC OCTAL ADDRESS	2B-EF-2, 2BE3 GENERIC OCTAL ADDRESS
00	0-15	240343	341145	441145	641145	†1145
01	16-31	240344	341146	441146	641146	†1146
02	32-47	240345	341147	441147	641147	†1147
03	48-63	240346	341150	441150	641150	†1150
04	64-79	240347	341151	441151	641151	†1151
05	80-95	240350	331152	441152	641152	†1152
06	96-111	240351	341153	441153	641153	†1153
07	112-127	240352	341154	441154	641154	†1154
08	128-143	240353	341155	441155	641155	†1155
09	144-159	240354	341156	441156	641156	†1156
10	160-175	240355	341157	441157	641157	†1157
11	176-191	240356	341160	441160	641160	†1160
12	192-207	240357	341161	441161	641161	†1161
13	208-223	240360	341162	441162	641162	†1162
14	224-239	240361	341163	441163	641163	†1163
15	240-255	240362	341164	441164	641164	†1164
16	256-271	NA	341165	441165	641165	†1165
17	272-287	NA	341166	441166	641166	†1166
18	288-303	NA	341167	441167	641167	†1167
19	304-319	NA	341170	441170	641170	†1170
20	320-335	NA	341171	441171	641171	†1171
21	336-351	NA	341172	441172	641172	†1172
22	352-367	NA	341173	441173	641173	†1173
23	368-383	NA	341174	441174	641174	†1174
24	384-399	NA	341175	441175	641175	†1175
25	400-415	NA	341176	441176	641176	†1176
26	416-431	NA	341177	441177	641177	†1177
27	432-447	NA	341200	441200	641200	†1200
28	448-463	NA	341201	441201	641201	†1201
29	464-479	NA	341202	441202	641202	†1202
30	480-495	NA	341203	441203	641203	†1203
31	496-511	NA	341204	441204	641204	†1204

NA - Not Applicable

* - Group 000 is not valid

† - 074 2B-EF-2
- 124 2BE3

TABLE B

TRUNK OR SERVICE CIRCUIT GROUP DATA BLOCK INDEX TABLE

GROUP DATA BLOCK OCTAL INDEX		TRUNK OR SERVICE CIRCUIT GROUP NUMBERS (DECIMAL) *																															
SERVICE CIRCUITS	TRUNK CIRCUITS																																
0	0		16	32	48	64	80	96	112	128	144	160	176	192	208	224	240	256	272	288	304	320	336	352	368	384	400	416	432	448	464	480	496
4	10	1	17	33	49	65	81	97	113	129	145	161	177	193	209	225	241	257	273	289	305	321	337	353	369	385	401	417	433	449	465	481	497
10	20	2	18	34	50	66	82	98	114	130	146	162	178	194	210	226	242	258	274	290	306	322	338	354	370	386	402	418	434	450	466	482	498
14	30	3	19	35	51	67	83	99	115	131	147	163	179	195	211	227	243	259	275	291	307	323	339	355	371	387	403	419	435	451	467	483	499
20	40	4	20	36	52	68	84	100	116	132	148	164	180	196	212	228	244	260	276	292	308	324	340	356	372	388	404	420	436	452	468	484	500
24	50	5	21	37	53	69	85	101	117	133	149	165	181	197	213	229	245	261	277	293	309	325	341	357	373	389	405	421	437	453	469	485	501
30	60	6	22	38	54	70	86	102	118	134	150	166	182	198	214	230	246	262	278	294	310	326	342	358	374	390	406	422	438	454	470	486	502
34	70	7	23	39	55	71	87	103	119	135	151	167	183	199	215	231	247	263	279	295	311	327	343	359	375	391	407	423	439	455	471	487	503
40	100	8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248	264	280	296	312	328	344	360	376	392	408	424	440	456	472	488	504
44	110	9	25	41	57	73	89	105	121	137	153	169	185	201	217	233	249	265	281	297	313	329	345	361	377	393	409	425	441	457	473	489	505
50	120	10	26	42	58	74	90	106	122	138	154	170	186	202	218	234	250	266	282	298	314	330	346	362	378	394	410	426	442	458	474	490	506
54	130	11	27	43	59	75	91	107	123	139	155	171	187	203	219	235	251	267	283	299	315	331	347	363	379	395	411	427	443	459	475	491	507
60	140	12	28	44	60	76	92	108	124	140	156	172	188	204	220	236	252	268	284	300	316	332	348	364	380	396	412	428	444	460	476	492	508
64	150	13	29	45	61	77	93	109	125	141	157	173	189	205	221	237	253	269	285	301	317	333	349	365	381	397	413	429	445	461	477	493	509
70	160	14	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254	270	286	302	318	334	350	366	382	398	414	430	446	462	478	494	510
74	170	15	31	47	63	79	95	111	127	143	159	175	191	207	223	239	255	271	287	303	319	335	351	367	383	399	415	431	447	463	479	495	511

LO-1 (group numbers 1–239)

EF-1 AND LATER (group numbers 1–511)

* Group 000 is not valid.

TABLE C

TRUNK OR SERVICE CIRCUIT GROUP CALL STORE STATUS BLOCK SIZE INDEX TABLE

INDEX FOR NUMBER OF CS STATUS BLOCK WORDS		RANGE OF MEMBERS DEFINED
OCTAL	DECIMAL	
5	5	1-16
6	6	17-32
7	7	33-48
10	8	49-64
11	9	65-80
12	10	81-96
13	11	97-112
14	12	113-128
15	13	129-144
16	14	145-160
17	15	161-170
20	16	171-192
21	17	193-208
22	18	209-224
23	19	225-240
24	20	241-256
25	21	257-272
26	22	273-288
27	23	289-304
30	24	305-320
31	25	321-336
32	26	337-352
33	27	353-368
34	28	269-384
35	29	385-400
36	30	401-416
37	31	417-432
40	32	433-448
41	33	449-464
42	34	465-480
43	35	481-496
44	36	497-512

ESS 2202-3 (11) TG-2H

TRUNK GROUP TABLE

NO. 2 ESS

DATE 10 14 80

BASE & CONTROL 000000

FORM CODE 22

ESS UNIT WINSTON (2B-EF-2)

PAGE 1 OF 1

ITEM	TRUNK GROUP NUMBER	TRAFFIC SCHEDULE C	TRAFFIC SCHEDULE H	HIGHEST MEMBER NUMBER	TOTANI INDEX	TRUNK FEATURE TABLE INDEX	TRANSLATOR INC TRK TABLE NUMBER	TRANSLATOR 3 DIGIT RATE AREA	TRANSLATOR 3 DIGIT TRUNK CLASS CODE	TRANSLATOR 4 DIGIT OFFICE CODE	TRANSLATOR 4 DIGIT DIGIT EXP	TRANSLATOR 4 DIGIT PREFIX	TRUNK ORDER CODE	OPTION	CTX / PPM	9II / ROTL	CGA / TMB	FWO	1 / 2 / 4	REMARKS	REVISE
22 23	25 27	28	29	30 32	33 34	35 37	38 39	40	41 43	44 46	47	48	49 53	54	55	56	57	58	59	79	80
00																					
01																					
02																					
03																					
04																					
05	305			005	10	011							00100							OGT TO 377 (Stanleyville)	
06																					
07																					
08																					
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Fig. 1 — Trunk Group Sample Form for Adding a New Trunk Group

TGRP-1 FORM

OFFICE: WINSTON (2B-EF-2)
DATE: 10-14-80

GROUP NO. 305 CHIPS RANGE (_ _ _ _ _ _) (_ _ _ _ _ _)
GROUP SIZE ____ (OLD) 005 (NEW)

TRUNK/SVC CIRCUIT GROUP RANGE *	GRPTBL WORD IN MTI	OCTAL ADDRESS POINTER	GROUP INITIAL CONTENTS	CHANGE TO
0-15	00	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
16-31	01	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
32-47	02	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
48-63	03	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
64-79	04	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
80-95	05	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
96-111	06	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
112-127	07	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
128-143	08	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
144-159	09	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
160-175	10	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
176-191	11	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
192-207	12	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
208-223	13	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
224-239	14	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
240-255	15	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
256-271	16	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
272-287	17	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
288-303	18	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
304-319	19	(_ 7 4 1 5 4)	(0 1 0 6 0 2 2 4)	(_ _ NA _ _)
320-335	20	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
336-351	21	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
352-367	22	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
368-383	23	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
384-399	24	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
400-415	25	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
416-431	26	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
432-447	27	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
448-463	28	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
464-479	29	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
480-495	30	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
496-511	31	(_ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)

* Group 000 is not valid

Fig. 2 — Sample Work Form of Group Data Contents in MTI for Adding a New Trunk Group TGRP-1 Form

TGRP-2 FORM

OFFICE: WINSTON (2B-EF-2) TRUNK/SERVICE CIRCUIT GROUP DATA BLOCK EXPANSION FORM

DATE: 10-14-80 GROUP NO. 305 FORM CHIPS ADDRESS RANGE (1060224) (1060253)

GROUP SIZE ____ (OLD) 005 (NEW)

	OCTAL ADDRESS	GROUP DATA BLOCK 4- OR 8-WORD INITIAL CONTENTS	CHANGE TO	REMARKS
START ——————→ A = START + OCTAL INDEX→ (TABLE B)	1060224 + 20 1060244			
A + 0 OCTAL	1060244	(0000000)	(00000000)	←ALTER BY RECENT CHANGE
A + 1 OCTAL	1060245	(0000000)	(00116665)	←CS ADDRESS OF STATUS BLOCK
A + 2 OCTAL	1060246	(0000000)	(_116302 1)	←PS ADDRESS OF CIRCUIT LIST
A + 3 OCTAL	1060247	(0000000)	(_ _ _ _ _ _ _ _)	
A + 4 OCTAL	1060250	(0000000)	(_ _ _ _ _ _ _ _)	
A + 5 OCTAL	1060251	(0000000)	(_ _ _ _ _ _ _ _)	
A + 6 OCTAL	1060252	(0000000)	(_ _ _ _ _ _ _ _)	
A + 7 OCTAL	1060253	(0000000)	(_ _ _ _ _ _ _ _)	

Note: For service circuits use only words 0 to 3.

Fig. 3— Sample Work Form of Group Data Block for Adding a New Trunk Group TGRP-2 Form

OFFICE: WINSTON (2B-EF-2)

DATE 10-14-80

GENERAL PURPOSE MEMORY TABLE WORKSHEET

GPMTBL FORM 1 OF 1

GROUP NO. 305

CIRCLE: (NEW) OR OLD

TABLE TITLE CKT LIST

FORM CHIPS ADDRESS RANGE (1163016) (1163027)

	OCTAL ADDRESS	INITIAL CONTENTS	CHANGE TO	REMARKS
START →	0116 3016			
START + ___ 0 OCTAL	0116 3016	(0000000)	(_______)	PS Address of TMB SPN List
+ ___ 1 OCTAL	0116 3017	(0000000)	(0116 3030)	PS Address of Carrier SPN List
+ ___ 2 OCTAL	0116 3020	(0000000)	(_______)	Working Member Count
+ ___ 3 OCTAL	0116 3021	(0000000)	(_______)	Word 0 - SPN of Member 0
+ ___ 4 OCTAL	0116 3022	(0000000)	(_______)	
+ ___ 5 OCTAL	0116 3023	(0000000)	(_______)	
+ ___ 6 OCTAL	0116 3024	(0000000)	(_______)	
+ ___ 7 OCTAL	0116 3025	(0000000)	(_______)	
+ __ 10 OCTAL	0116 3026	(0000000)	(_______)	
+ __ 11 OCTAL	0116 3027	(0000000)	(1777777)	Last Address of Ckt List
+ ___ 2 OCTAL		(_______)	(_______)	
+ ___ 3 OCTAL		(_______)	(_______)	
+ ___ 4 OCTAL		(_______)	(_______)	
+ ___ 5 OCTAL		(_______)	(_______)	
+ ___ 6 OCTAL		(_______)	(_______)	
+ ___ 7 OCTAL		(_______)	(_______)	

Fig. 4 — Sample General Purpose Memory Table Worksheet for Adding a New Trunk Group GPMTBL Form

TGRP-1 FORM

OFFICE: _____
DATE:_____

GROUP NO._____ CHIPS RANGE (_ _ _ _ _ _ _) (_ _ _ _ _ _ _)
GROUP SIZE_____(OLD)_____(NEW)

TRUNK/SVC CIRCUIT GROUP RANGE *	GRPTBL WORD IN MTI	OCTAL ADDRESS POINTER	GROUP INITIAL CONTENTS	CHANGE TO
0-15	00	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
16-31	01	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
32-47	02	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
48-63	03	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
64-79	04	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
80-95	05	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
96-111	06	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
112-127	07	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
128-143	08	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
144-159	09	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
160-175	10	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
176-191	11	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
192-207	12	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
208-223	13	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
224-239	14	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
240-255	15	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
256-271	16	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
272-287	17	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
288-303	18	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
304-319	19	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
320-335	20	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
336-351	21	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
352-367	22	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
368-383	23	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
384-399	24	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
400-415	25	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
416-431	26	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
432-447	27	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
448-463	28	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
464-479	29	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
480-495	30	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)
496-511	31	(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)	(_ _ _ _ _ _ _ _)

* Group 000 is not valid

Fig. 5 —Reproducible TGRP-1 Form

TGRP-2 FORM

OFFICE: _____ TRUNK/SERVICE CIRCUIT GROUP DATA BLOCK EXPANSION FORM

DATE:_____ GROUP NO._____ FORM CHIPS ADDRESS RANGE (_ _ _ _ _ _) (_ _ _ _ _ _)

GROUP SIZE_____(OLD)_____(NEW)

	OCTAL ADDRESS	GROUP DATA BLOCK 4- OR 8-WORD INITIAL CONTENTS	CHANGE TO	REMARKS
START ——————→ A = START + OCTAL INDEX→ (TABLE B)				
A + 0 OCTAL		(_ _ _ _ _ _)	(_ _ _ _ _ _)	←ALTER BY RECENT CHANGE
A + 1 OCTAL		(_ _ _ _ _ _)	(_ _ _ _ _ _)	←CS ADDRESS OF STATUS BLOCK
A + 2 OCTAL		(_ _ _ _ _ _)	(_ _ _ _ _ _)	←PS ADDRESS OF CIRCUIT LIST
A + 3 OCTAL		(_ _ _ _ _ _)	(_ _ _ _ _ _)	
A + 4 OCTAL		(_ _ _ _ _ _)	(_ _ _ _ _ _)	
A + 5 OCTAL		(_ _ _ _ _ _)	(_ _ _ _ _ _)	
A + 6 OCTAL		(_ _ _ _ _ _)	(_ _ _ _ _ _)	
A + 7 OCTAL		(_ _ _ _ _ _)	(_ _ _ _ _ _)	

Note: For service circuits use only words 0 to 3.

Fig. 6 —Reproducible TGRP-2 Form

OFFICE:_____

DATE_____ GENERAL PURPOSE MEMORY TABLE WORKSHEET GPMTBL FORM___ OF___

GROUP NO._____

CIRCLE: NEW OR OLD TABLE TITLE_____ FORM CHIPS ADDRESS RANGE (_ _ _ _ _ _ _) (_ _ _ _ _ _ _)

	OCTAL ADDRESS	INITIAL CONTENTS	CHANGE TO	REMARKS
START →				
START + _ _ _ 0 OCTAL		(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _)	
+ _ _ _ 1 OCTAL		(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _)	
+ _ _ _ 2 OCTAL		(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _)	
+ _ _ _ 3 OCTAL		(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _)	
+ _ _ _ 4 OCTAL		(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _)	
+ _ _ _ 5 OCTAL		(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _)	
+ _ _ _ 6 OCTAL		(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _)	
+ _ _ _ 7 OCTAL		(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _)	
+ _ _ _ 0 OCTAL		(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _)	
+ _ _ _ 1 OCTAL		(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _)	
+ _ _ _ 2 OCTAL		(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _)	
+ _ _ _ 3 OCTAL		(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _)	
+ _ _ _ 4 OCTAL		(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _)	
+ _ _ _ 5 OCTAL		(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _)	
+ _ _ _ 6 OCTAL		(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _)	
+ _ _ _ 7 OCTAL		(_ _ _ _ _ _ _)	(_ _ _ _ _ _ _)	

Fig. 7—Reproducible GPMTBL Form

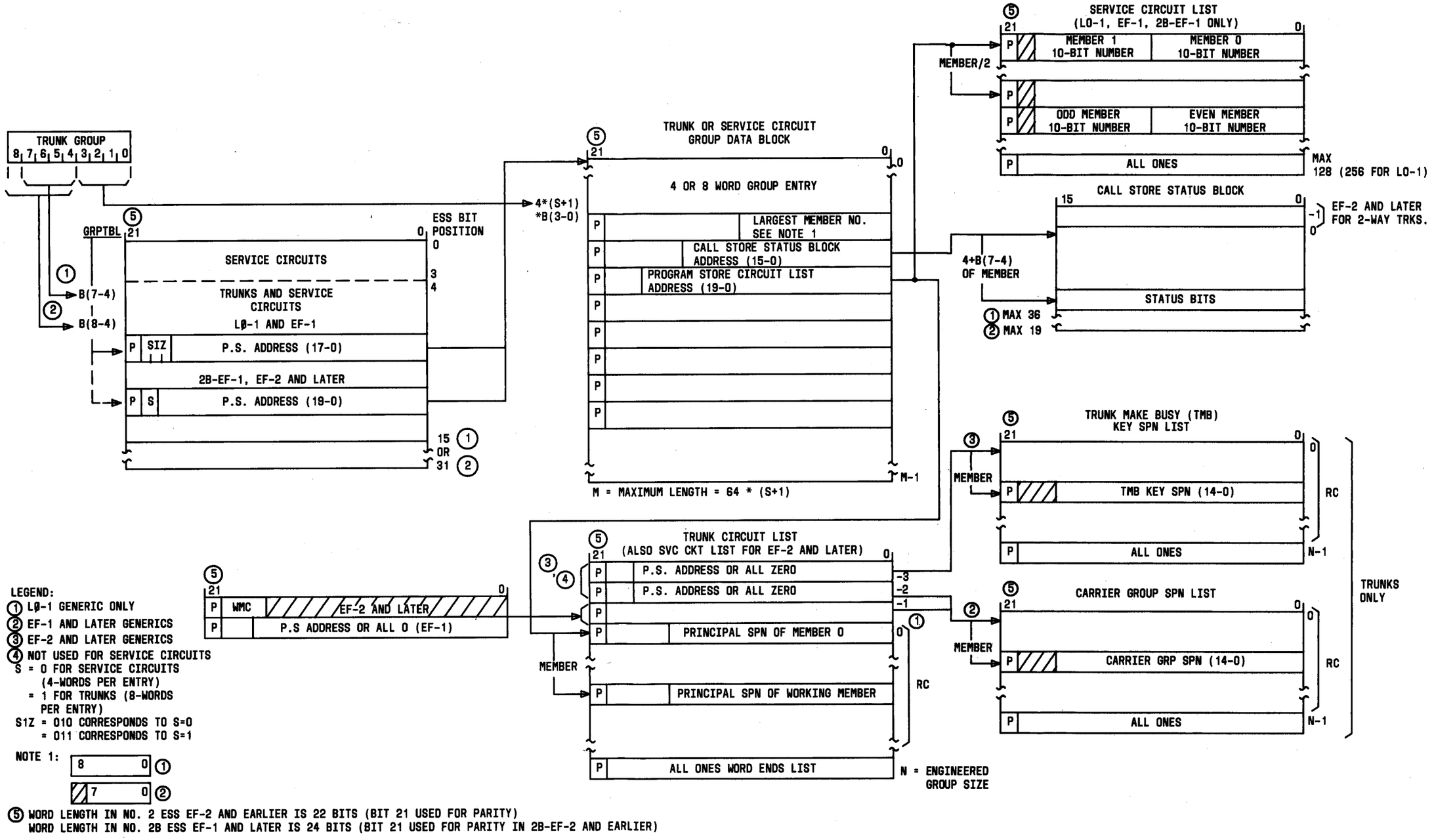

Fig. 8 — Trunk and Service Circuit Group Translations Lay-out